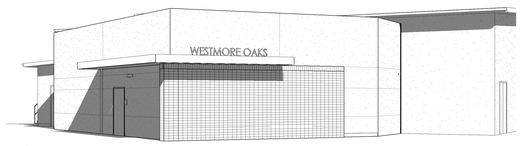
WESTMORE OAKS SCHOOL

NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691
WASHINGTON UNIFIED SCHOOL DISTRICT

DSA File No. 57-31
App. No. 02-117622
PTN. 72694-115

NEW BUILDINGS F & G



BUILDING M ADDTION

DSA REQUIREMENTS

1. ALL WORK SHALL CONFORM TO THE 2016 EDITION OF THE TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
2. AS A FACILITY WHICH COMES UNDER THE APPROVAL AND AUTHORITY OF THE DIVISION OF THE STATE ARCHITECT (DSA), THIS PROJECT IS SUBJECT TO DRAWING AND JOB SITE REVIEW BY A REPRESENTATIVE OF DSA.
3. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR A CHANGE ORDER APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR
4. A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES CCR
5. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
6. A COPY OF PARTS 1 TO PART 5 OF TITLE 24 SHALL BE KEPT AND AVAILABLE IN THE FIELD DURING CONSTRUCTION.
7. DSA SHALL BE NOTIFIED OF THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24, CCR
8. THE DIVISION OF THE STATE ARCHITECT IS EXEMPT FROM ARBITRATION OR MEDIATION PROCEDURES.
9. SUPERVISION BY THE DIVISION OF THE STATE ARCHITECT IS PER SECTION 4-334, PART 1, TITLE 24, CCR
10. ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, CCR:
    - VERIFIED REPORTS PER SECT 4-336; PART 1, TITLE 24 CCR
    - DUTIES OF ARCHITECT PER SECT 4-331, 4-341; PART 1, TITLE 24 CCR
    - DUTIES OF CONTRACTOR PER SECT. 4-343; PART 1, TITLE 24
11. TESTING AND INSPECTION:
    - INSPECTION APPROVED BY DSA AS PER SECT. 4-333(D); PART 1, TITLE 24, CCR
    - TESTS AND TESTING LABORATORIES PER SECT 4-335
    - SPECIAL INSPECTION PER SECT. 4-333(C)
12. CHANGES IN LEVEL FOR FLOOR FINISHES SHALL CONFORM WITH CBC SECTION 1124B.2 AND 1124B.3.
13. ALL TESTS TO CONFORM TO REQUIREMENTS OF SECTION 4-335; PART 1, TITLE 24, CCR
14. TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335; PAT 1, TITLE 24, CCR AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OR RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR.
15. INSPECTOR SHALL BE APPROVED BY DSA. INSPECTION SHALL BE IN ACCORDANCE WITH SECTION 4-333(B).
16. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE SCHOOL BUILDING IN ACCORDANCE WITH TITLE 24, CCR SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, WHEREIN THE FINISH WORK WILL NOT COMPLY WITH SAID TITLE 24, CCR, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
17. INSPECTOR OF RECORD REQUIREMENTS:
    A. ONE OR MORE INSPECTORS EMPLOYED BY THE OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS WILL BE ASSIGNED TO THE WORK. THE INSPECTOR'S DUTIES ARE SPECIFICALLY DEFINED IN SECTION 4-342 OF SAID TITLE 24; PART 1 AND IN ADDITION, SHALL BE STIPULATED IN INTERPRETATION OF REGULATION DOCUMENT IR A-8.
    B. INSPECTOR SHALL BE CERTIFIED AS A CLASS 2 INSPECTOR THROUGH THE DIVISION OF THE STATE ARCHITECT INSPECTOR EXAMINATION PROGRAM. INSPECTOR SHALL ALSO BE SPECIFICALLY APPROVED BY THE DIVISION OF THE STATE ARCHITECT FOR THIS PROJECT AT LEAST 10 DAYS PRIOR TO THE START OF ANY WORK FOR THIS PROJECT.

DEFERRED APPROVALS

1. NONE

ALTERNATES

1. NONE

CODES AND REGULATIONS

APPLICABLE STATE CODES AND REGULATIONS WITH LATEST AMENDMENTS AND SUPPLEMENTS:

1. 2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 CBSC
2. 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CBSC (2015 IBC & CALIFORNIA AMENDMENTS)
3. 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CBSC (2014 NATIONAL ELECTRICAL CODE & CALIFORNIA AMENDMENTS)
4. 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CBSC (2015 UNIFORM MECHANICAL CODE & CALIFORNIA AMENDMENTS)
5. 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CBSC (2015 UNIFORM PLUMBING CODE & CALIFORNIA AMENDMENTS)
6. 2016 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CBSC
7. 2016 CALIFORNIA HISTORICAL BUILDING CODE, PART 8, TITLE 24 CBSC
8. 2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CBSC (2015 INTERNATIONAL FIRE CODE & CALIFORNIA AMENDMENTS)
9. 2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 CBSC
10. TITLE 8 CCR, CH. 4, SUB-CH. 6 - ELEVATOR SAFETY ORDERS
11. TITLE 19 CCR, PUBLIC SAFETY, SFM REGULATIONS
12. 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE PART 11, TITLE 24.

APPLICABLE FEDERAL CODES AND STANDARDS:

13. AMERICANS WITH DISABILITIES ACT (ADA), TITLE 11
14. UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) or ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)

APPLICABLE REFERENCED STANDARDS:

15. NFPA 24, PRIVATE FIRE MAINS (CA AMENDED), 2016 EDITION
16. NFPA 72, NATIONAL FIRE ALARM CODE (CA AMENDED), 2016 EDITION
17. NFPA 80, FIRE DOOR AND OTHER OPENING PROTECTIVES, 2016 EDITION
18. NFPA 2001, CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2015 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS - 2016 CBC (SFM) CHAPTER 80. SEE CHAPTER 80 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

PROJECT DESCRIPTION

THE PROJECT INCLUDES TWO NEW CLASSROOM BUILDINGS, AN ADDITION TO BUILDING M (KITCHEN) AND ASSOCIATED SITE WORK.

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

Application No. 02-117622

File No. 57-31

[X] The drawings or sheets listed on the cover or index sheet (all M, E and FA drawings)
[ ] This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1. design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2. coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. (Title 24, Part 1, Section 4-317 [b])

I find that:
[X] All drawings or sheets listed on the cover or index sheet
[ ] This drawing or page

[X] is/are in general conformance with the project design and
[X] has/have been coordinated with the project plans and specifications

Signature **Date**

Architect or Engineer designated to be in general responsible charge.

Brian P. Whitmore
Print Name

C 30345 09-30-2019
License Number **Expiration Date**

STATEMENT OF GENERAL CONFORMANCE AND SIGNATURE BLOCK PER IR A-18

DRAWING INDEX

TOTAL SHEET COUNT: 202

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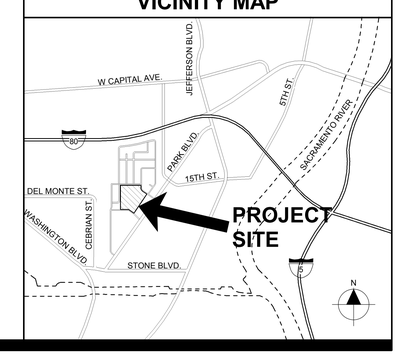
VICINITY MAP



DSA STAMP

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GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
3. These plans and prints thereof, as instruments of service, are owned by the architect and are for use on this project only. Reproduction and/or distribution without the prior written consent of the architect is forbidden.
4. Copyright Bunton Clifford Associates, 2015.

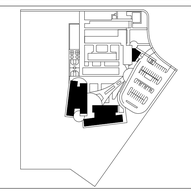
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

COVER SHEET

Date 05/20/2019	Project Number 19003
Scale 1" = 100'-0"	Drawing Number A0.1
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 1:10:30 PM
FILE PATH: P:\2019\19003 WUSD Westmore Oaks ES\Design\REVIT\19003-Westmore-A17-CENTRAL.NEW.rvt

DRAWING DISCIPLINE PREFIX

A. ARCHITECTURAL
C. CIVIL
D. INTERIOR DESIGN / FURNITURE
E. ELECTRICAL
FA. FIRE ALARM
FP. FIRE SPRINKLER
FS. DIETARY / FOOD SERVICE
G. GRAPHICS
H. HAZARDOUS MATERIALS
L. LANDSCAPING
M. MECHANICAL
P. PLUMBING
S. STRUCTURAL
T. TELECOMMUNICATION

DRAWING INDEX CODE

DETAIL DRAWING CODE

THE DIVISION PREFIX NUMBERS ARE THOSE IDENTIFIED BY THE 48 DIVISION GROUPING SYSTEM OF MASTERFORMAT AS PUBLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI) AND SHALL NOT BE SOLELY REPRESENTATIVE OF REQUIREMENTS FOR ANY ONE DIVISION. THOSE DIVISIONS NOTED AS BEING OMITTED ARE NOT APPLICABLE OR ARE INCLUDED UNDER DISCIPLINE DRAWINGS.

IN CASE OF DISCREPANCY BETWEEN THE INDEX AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

DIVISION NUMBER CODE

MASTERFORMAT NUMBERS AND TITLES AS PUBLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI).

DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS
DIVISION 01 GENERAL REQUIREMENTS
DIVISION 02 EXISTING CONDITIONS
DIVISION 03 CONCRETE
DIVISION 04 MASONRY
DIVISION 05 METALS
DIVISION 06 WOODS, PLASTICS, AND COMPOSITES
DIVISION 07 THERMAL AND MOISTURE PROTECTION
DIVISION 08 OPENINGS
DIVISION 09 FINISHES
DIVISION 10 SPECIALTIES
DIVISION 11 EQUIPMENT
DIVISION 12 FURNISHINGS
DIVISION 13 SPECIAL CONSTRUCTION
DIVISION 14 CONVEYING EQUIPMENT
DIVISION 21 FIRE SUPPRESSION
DIVISION 22 PLUMBING
DIVISION 23 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
DIVISION 25 INTEGRATED AUTOMATION
DIVISION 26 ELECTRICAL
DIVISION 27 COMMUNICATIONS
DIVISION 28 ELECTRONIC SAFETY AND SECURITY
DIVISION 31 EARTHWORK
DIVISION 32 EXTERIOR IMPROVEMENTS
DIVISION 33 UTILITIES
DIVISION 34 TRANSPORTATION
DIVISION 35 WATERWAY AND MARINE CONSTRUCTION
DIVISION 40 PROCESS INTERCONNECTIONS
DIVISION 41 MATERIAL PROCESSING AND HANDLING EQUIPMENT
DIVISION 42 PROCESS HEATING, COOLING, AND DRYING EQUIPMENT
DIVISION 43 PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT
DIVISION 44 POLLUTION AND WASTE CONTROL EQUIPMENT
DIVISION 45 INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT
DIVISION 46 WATER AND WASTEWATER EQUIPMENT
DIVISION 48 ELECTRICAL POWER GENERATION

GENERAL NOTES

1. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE CONSTRUCTION DRAWINGS AND SPECIFICATIONS AND SHALL HAVE VISITED THE CONSTRUCTION SITE. HE SHALL BE FAMILIAR WITH THE CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. THE GENERAL CONTRACTOR SHALL NOT DISPUTE, COMPLAIN OR ASSERT THAT THERE IS ANY MISUNDERSTANDING IN REGARDS TO LOCATION, EXTENT, NATURE OR AMOUNT OF WORK TO BE PERFORMED UNDER THIS CONTRACT DUE TO THE CONTRACTOR'S FAILURE TO INSPECT THE SITE. BIDDERS SHALL NOTIFY THE ARCHITECT OF ANY CONDITIONS, REQUIRING WORK, WHICH ARE NOT COVERED IN THE CONTRACT DOCUMENTS.
2. THERE WILL BE NO SUBSTITUTION FOR SPECIFIED ITEMS WITHOUT PRIOR APPROVAL UNLESS OTHERWISE NOTED. REQUESTS FOR SUBSTITUTIONS SHALL BE MADE IN ACCORDANCE WITH GENERAL CONDITIONS & DIVISION 1
3. THE GENERAL BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED BY GOVERNING AGENCIES IN ORDER TO PERFORM THE WORK.
4. THE FINAL LOCATION OF ALL ELECTRICAL AND SIGNAL EQUIPMENT, PANEL BOARDS, FIXTURES, ETC., SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION.
5. DEFINITIONS
   A. "TYPICAL" MEANS IDENTICAL FOR ALL CONDITIONS, UNLESS OTHERWISE NOTED.
   B. "SIMILAR" MEANS COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATIONS.
   C. "PROVIDE" MEANS TO FURNISH AND INSTALL.
   D. "FURNISH" MEANS TO FURNISH AND OTHERS WILL INSTALL.
6. DIMENSIONING RULES:
   A. ALL HORIZONTAL DIMENSIONS SHALL BE TO CENTERLINE OF STUD OR COLUMN GRID LINE, U.O.N
   B. DIMENSIONS NOTED "CLEAR", "CLR", OR "MINIMUM" MUST BE PRECISELY MAINTAINED.
   C. DIMENSIONS CAN NOT BE MODIFIED WITHOUT APPROVAL OF THE ARCHITECT UNLESS OTHERWISE NOTED.
   D. VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB UNLESS OTHERWISE NOTED.
   E. DO NOT SCALE DRAWINGS. IF ANY ITEM OF WORK CANNOT BE LOCATED, DO NOT PROCEED WITH THE WORK WITHOUT THE ARCHITECT'S APPROVAL.
   F. DIMENSIONS MARKED "V.I.F." OR "VERIFY" SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
   G. VERIFY ALL ROUGH OPENING DIMENSIONS FOR FABRICATED ITEMS WITH THE MANUFACTURER PRIOR TO PROCEEDING WITH CONSTRUCTION.
   H. DOOR AND WINDOW OPENINGS SHALL BE LOCATED ADJACENT TO PERPENDICULAR WALL UNLESS DIMENSIONED OTHERWISE.
7. PROVIDE REQUIRED BACKING, BLOCKING, AND BRACING FOR ALL WALL - MOUNTED FIXTURES, ACCESSORIES AND EQUIPMENT.
8. VERIFY AND COORDINATE WALLS THAT MAY REQUIRE NON-TYPICAL THICKNESS OR FRAMING DUE TO ELECTRICAL, MECHANICAL, PLUMBING, STRUCTURAL AND/OR EQUIPMENT REQUIREMENTS.
9. ALL GLAZING SHALL CONFORM TO FEDERAL GLAZING REGULATIONS AND CHAPTER 24, CBC.
10. ALL CONTRACTORS SHALL REMOVE TRASH AND DEBRIS STEMMING FROM THEIR WORK ON A DAILY BASIS. PROJECT SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL LEFT-OVER MATERIALS, DEBRIS, TOOLS AND EQUIPMENT RESULTED IN HIS OPERATIONS AT THE CONCLUSION OF THE INSTALLATION. HE SHALL LEAVE ALL AREAS CLEAN AND FREE FROM DUST.
12. HAZARDOUS MATERIALS: THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL, DISPOSAL OF OR EXPOSURE OF PERSONS TO ASBESTOS OR HAZARDOUS OR TOXIC SUBSTANCES IN ANY FORM AT THE PROJECT SITE. PROFESSIONAL SERVICES RELATED OR IN ANY WAY CONNECTED WITH THE INVESTIGATION, DETECTION, ABATEMENT, REPLACEMENT, USE, SPECIFICATION, OR DISPOSAL OF PRODUCTS, MATERIALS, OR PROCESSES CONTAINING ASBESTOS OR HAZARDOUS OR TOXIC MATERIALS ARE BEYOND THE SCOPE OF THIS AGREEMENT. THE GENERAL CONTRACTORS ARE RESPONSIBLE FOR LOCATING & VERIFYING ALL EXISTING UNDERGROUND UTILITIES IN ALL AREAS OF NEW WORK PRIOR TO COMMENCEMENT OF EXCAVATION. EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ROUTING LOCATION AS BEST DETERMINED FROM EXISTING DRAWINGS AND THE SCHOOL DISTRICT, BUT SHOULD NOT BE CONSTRUED TO REPRESENT ALL THE EXISTING UNDERGROUND UTILITIES.
13. ALL TEMPORARY WORK SHALL BE CONSIDERED A PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OF MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.
14. ALL WALL PENETRATIONS TO EXTERIOR WALLS SHALL BE SEALED AIR/WATER TIGHT. ALL INTERIOR PENETRATIONS SHALL BE SEALED TO PROVIDE A PROFESSIONAL AND FINISHED APPEARANCE.
15. THE DRAWINGS AND SPECIFICATIONS DO NOT UNDERTAKE TO SHOW OR LIST EVERY ITEM TO BE PROVIDED, BUT RATHER TO DEFINE THE REQUIREMENTS FOR A FULL AND WORKING SYSTEM FROM THE STANDPOINT OF THE END USER. FOR THIS REASON, WHEN AN ITEM NOT SHOWN OR LISTED IS CLEARLY NECESSARY FOR PROPER USE CONTROL/ OPERATION OF EQUIPMENT WHICH IS SHOWN OR LISTED, PROVIDE ALL ITEMS WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY AT NO INCREASE IN CONTRACT PRICE ON TIME.
16. THE DRAWINGS AND SPECIFICATIONS DO NOT UNDERTAKE TO SHOW OR LIST EVERY ITEM TO BE PROVIDED, BUT RATHER TO DEFINE THE REQUIREMENTS FOR A FULL AND WORKING SYSTEM FROM THE STANDPOINT OF THE END USER. FOR THIS REASON, WHEN AN ITEM NOT SHOWN OR LISTED IS CLEARLY NECESSARY FOR PROPER USE CONTROL/ OPERATION OF EQUIPMENT WHICH IS SHOWN OR LISTED, PROVIDE ALL ITEMS WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY AT NO INCREASE IN CONTRACT PRICE ON TIME.
17. THE DETAILS REFLECT THE DESIGN INTENT FOR TYPICAL CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SHALL INCLUDE, IN HIS SCOPE. THE COST FOR COMPLETE FINISHED INSTALLATIONS, INCLUDING ANOMALIES, OF ALL TRADES.
18. ALL WORK SHALL CONFORM TO CALIFORNIA CODES, TRADE STANDARDS WHICH GOVERN EACH PHASE OF THE PROJECT, AND ALL APPLICABLE LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.
19. THIS DRAWING SET SHALL BE USED IN CONJUNCTION WITH THE CSI FORMAT PROJECT MANUAL PUBLISHED IN BOOK FORM, COMBINED, THEY ARE THE "CONTRACT DOCUMENTS".
20. NO WORK SHALL COMMENCE WITH UNAPPROVED MATERIALS. ANY WORK DONE WITH UNAPPROVED MATERIALS AND EQUIPMENT IS AT THE CONTRACTOR'S RISK. SEE SPECIFICATIONS FOR SUBMITTAL AND SUBSTITUTION REQUIREMENTS.
21. CONSTRUCTION MATERIAL STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE OR DETERIORATION. FAILURE IN THIS REGARD MAY BE CAUSE FOR REJECTION OF MATERIAL AND/OR WORK. SECURITY OF MATERIALS ARE THE SOLE RESPONSIBILITY OF CONTRACTOR.
22. ALL EQUIPMENT/CABINETS SHALL BE FABRICATED FROM FIELD VERIFIED DIMENSIONS AND APPROVED SHOP DRAWINGS. COORDINATE MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT WITH THIS WORK.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE AND COSTS ATTRIBUTED TO RAIN WATER DAMAGE DURING THE DURATION OF THIS PROJECT.
24. PROTECT AREAS FROM DAMAGE WHICH MAY OCCUR DUE TO TEMPERATURES, WIND, DUST, WATER, ETC. PROVIDE AND MAINTAIN TEMPORARY BARRICADES, CLOSURE WALLS, ETC., AS REQUIRED DURING CONSTRUCTION.
25. MAINTAIN EXISTING PEDESTRIAN ACCESS ALONG EXISTING ADJACENT STREETS.
26. ALL PUBLIC IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST ADOPTED CITY/COUNTY STANDARDS.
27. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
28. NOTIFY THE ARCHITECT IN WRITING AND SEEK CLARIFICATION IF ANY DISCREPANCIES OR OMISSIONS ARE FOUND. CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIAL WORK IF RELATED WORK IS CONTINUED AFTER A DISCREPANCY IS IDENTIFIED.
29. NEW FINISHES AND CONSTRUCTION SHALL BE PROTECTED BY THE CONTRACTOR FROM POTENTIAL DAMAGE CAUSED BY CONSTRUCTION ACTIVITY. DAMAGE TO FINISHES OR CONSTRUCTION SHALL BE REPAIRED OR REPLACED (OWNER'S DECISION) BY THE CONTRACTOR WITH IDENTICAL MATERIAL AND/OR FINISHES. CONTRACTOR SHALL MAKE AND MAINTAIN A PHOTOGRAPHIC RECORD NOTEBOOK WITH DATED/INDEXED PHOTOGRAPHS.
30. SEE ELECTRICAL DRAWINGS FOR INFORMATION RELATED TO TELECOMMUNICATION EQUIPMENT, POWER, AND LIGHTING FIXTURES AND EQUIPMENT. SEE ARCHITECTURAL PLANS, REFLECTED CEILING PLAN AND INTERIOR ELEVATIONS FOR COORDINATED EQUIPMENT LOCATIONS. IF NOT SHOWN, CONTACT ARCHITECT FOR REVIEW AND DECISION. PROVIDE ACCESS DOORS REQUIRED FOR ACCESS TO CONCEALED MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT.
31. ALL NOTED WORK IS UNDERSTOOD TO BE NEW, UNLESS LABELED AS "(E)" OR "EXISTING"
32.

SUPPLEMENTAL GENERAL NOTES

1. THESE DRAWINGS DO NOT CONTAIN THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
2. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THIS WORK.
3. THESE DOCUMENTS AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF BCA ARCHITECTS, AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF BCA ARCHITECTS.
4. EACH BIDDER SHALL POSSESS AT THE TIME OF BID, A CLASS B OR THE APPROPRIATE CLASS C CONTRACTOR'S LICENSE PURSUANT TO PUBLIC CONTRACT CODE SECTION 3300 AND BUSINESS AND PROFESSIONS CODE SECTION 7028.15. THE SUCCESSFUL BIDDER MUST MAINTAIN THE LICENSE THROUGHOUT THE DURATION OF THIS CONTRACT.
5. FIRE SAFETY DURING CONSTRUCTION:
   A. GENERAL: FIRE SAFETY DURING CONSTRUCTION SHALL COMPLY WITH 2016 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24 CCR
   B. ACCESS ROADS: FIRE DEPARTMENT ACCESS ROADS SHALL BE ESTABLISHED AND MAINTAINED IN ACCORDANCE WITH SECTION 902.
   C. WATER SUPPLY: WATER MAINS AND HYDRANTS SHALL BE OPERATIONAL IN ACCORDANCE WITH SECTION 903.
   D. BUILDING ACCESS: ACCESS TO BUILDINGS FOR THE PURPOSE OF FIREFIGHTING SHALL BE PROVIDED. CONSTRUCTION MATERIAL SHALL NOT BLOCK ACCESS TO BUILDINGS, HYDRANTS OR FIRE APPLIANCES.
   E. ALTERATIONS OF BUILDINGS: SHALL COMPLY WITH APPLICABLE PROVISIONS OF SECTIONS 8704 AND 8705.
   F. DEMOLITION OF BUILDINGS: SHALL COMPLY WITH SECTION 8706 AND APPLICABLE PROVISIONS OF SECTIONS 8704 AND 8705
   G. FIRE WATCH: MAINTAIN FIRE WATCH WHEN REQUIRED BY THE BUILDING OFFICIAL AND WHEN EXISTING FIRE PROTECTION SYSTEMS ARE SHUT DOWN FOR ALTERATIONS. FIRE WATCH SHALL REMAIN IN EFFECT UNTIL EXISTING FIRE PROTECTION SYSTEMS ARE RETURNED TO SERVICE OR AS ALLOWED BY THE BUILDING OFFICIAL.
6. PENETRATIONS IN FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.
7. NONRESIDENTIAL ENERGY STANDARDS COMPLIANCE STATEMENT (TITLE 24, PART 6):
   A. THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE ENERGY CONSERVATION STANDARDS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THE PROPOSED BUILDINGS WILL BE IN COMPLIANCE WITH THE ENERGY CONSERVATION STANDARDS PROVIDED THEY ARE BUILT ACCORDING TO THESE DRAWINGS AND SPECIFICATIONS AND PROVIDED ANY FUTURE IMPROVEMENTS ARE COMPLETED ACCORDING TO THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO INCLUDE ALL SIGNIFICANT ENERGY CONSERVATION FEATURES REQUIRED FOR COMPLIANCE WITH THE STANDARDS. BUILDING AREAS THAT ARE UNCONDITIONED AND/OR NOT SUBJECT TO THE STANDARDS ARE INDICATED ON THE DRAWINGS.
   B. ENVELOPE MANDATORY MEASURES:
      A. INSTALLED INSULATING MATERIALS SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.
      B. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF TITLE 24, PART 2, CALIFORNIA CODE OF REGULATIONS, SECTIONS 719
      C. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED.
      D. SITE CONSTRUCTED DOORS, WINDOWS, AND SKYLIGHTS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS).
      E. MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS, SECTION 116(a)1.
      F. MANUFACTURED FENESTRATION PRODUCTS IN THE ENVELOPE OF THE BUILDING, INCLUDING, BUT NOT LIMITED TO, WINDOWS, SLIDING GLASS DOORS, FRENCH DOORS, SKYLIGHTS, CURTAIN WALLS, AND GARDEN WINDOWS MUST BE LABELED FOR U-VALUE IN ACCORDANCE WITH THE (NFRC) NATIONAL FENESTRATION RATING COUNCIL'S INTERIM U-VALUE RATING PROCEDURE.
      G. DEMISING WALL INSULATION SHALL BE INSTALLED IN ALL OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS).
8. PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS:
   A. ANCHOR DIAMETER REFERS TO THE THREAD SIZE FOR THE WEDGE CATEGORY AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY.
   B. APPLY PROOF TEST LOADS TO WEDGE & SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.
   C. FOR SLEEVE INTERNALLY THREADED CATEGORIES, VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING BY A BASEPLATE OR OTHER FIXTURES. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.
   D. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
   E. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
   F. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
      1. HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. DROP-IN ANCHORS ARE ONLY TO BE TESTED WITH THIS METHOD.
      2. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE OR SLEEVE TYPE: ONE-HALF (1/2) TURN OF THE NUT. ONE-QUARTER (1/4) TURN OF THE NUT FOR THE 3/8 IN. SLEEVE ANCHOR ONLY.
   G. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.
   H. ALL ANCHOR BOLTS OF THE EXPANSION TYPE (LOADED IN EITHER PULLOUT OR SHEAR) SHALL HAVE 50 PERCENT OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT ALLOWED BY THE TYPE OF SUBSTRATE AND DIAMETER OF BOLT LISTED BELOW UNDER TEST VALUES TABLE) PROOF TESTED IN TENSION TO TWICE THE ALLOWABLE TENSION LOAD. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 1916A.8.
   I. ALL BOLTS MUST HAVE ICC APPROVAL.
   J. ALL ANCHOR BOLTS OF THE EXPANSION TYPE SHALL BE ONE OF THE FOLLOWING:
      1. HILTI KB-TZ ANCHOR ICC NO. ESR 1917
      2. ITW RAMSET/REDHEAD-WEDGE ANCHOR-ICC NO. ESR 2427

MINIMUM TEST VALUES
NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE

ANCHOR	WEDGE		SLEEVE	
DIA. (IN)	TENSION LOAD (LBS)	TORQUE (FT-LBS)	TENSION LOAD (LBS)	TORQUE (FT-LBS)
1/4	1050	5	540	4
3/8	1740	15	1680	35
1/2	1860	30	2410	60
5/8	3290	75	2590	100
3/4	5490	150	2900	120

9. POWDER-DRIVEN CONCRETE FASTENERS:
   A. GENERAL: USE POWDER DRIVEN CONCRETE FASTENERS FOR TENSION LOADS IS LIMITED TO SUPPORT OF MINOR LOADS LIKE ACOUSTICAL CEILINGS, DUCT WORK, CONDUIT.
   B. ALLOWABLE LOADS: IN GENERAL, LOADS SHOULD BE LIMITED TO LESS THAN 100 POUNDS. HOWEVER GREATER LOADS MAY BE PERMITTED FOR SPECIAL CASES WHEN APPROVED BY THE CHECKING SUPERVISOR OR FIELD ENGINEER.
   C. TESTING: THE OPERATOR, TOOL, AND FASTENER SHALL BE PREQUALIFIED BY PROJECT INSPECTOR. HE SHALL OBSERVE THE TESTING OF THE FIRST 10 FASTENER INSTALLATIONS. A TEST "PULL-OUT" LOAD OF NOT LESS THAN TWICE THE DESIGN LOAD, OR 200 POUNDS, WHICHEVER IS GREATER, SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE SURROUNDING THE PIN. THEREAFTER, RANDOM TESTS UNDER THE PROJECT INSPECTOR'S SUPERVISION SHALL BE MADE OF APPROXIMATELY 1 IN 10 PINS, EXCEPT THAT WHEN THE DESIGN LOAD EXCEEDS 100 POUNDS, ONE HALF OF THE PINS SHALL BE TESTED. SHOULD FAILURE OCCUR ON AWAY PIN TESTED, ALL INSTALLATIONS MUST BE TESTED AND UNFAIR PINS REPLACED.
   D. ALL POWDER DRIVEN CONCRETE FASTENERS SHALL BE ONE OF THE FOLLOWING: HILTI, INC.
      1. DN PINS - WOOD PLATE - ICC NO. ESR 2379
         DN PINS - STEEL TRACK - ICC NO. ESR 2269
      2. ITW RAMSET/REDHEAD DRIVE PIN - WOOD PLATE - ICC NO. ESR 2690
         DRIVE PIN - STEEL TRACK - ICC NO. ESR 1955
10. SPECIFICATIONS FOR AUTOMATIC END WELDED STUDS
   A. MATERIAL: AUTOMATIC END WELDED STUDS SHALL BE NELSON GRANULAR FLUX-FILLED SHEAR CONNECTOR OR ANCHOR STUDS (OR APPROVED EQUAL). STUDS SHALL BE MANUFACTURED OF G-1015 COLD ROLLED STEEL WHICH CONFORMS TO ASTM A108.
   B. INSTALLATION: THE STUDS SHALL BE AUTOMATICALLY END WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN SUCH A MANNER AS TO PROVIDE COMPLETE FUSION BETWEEN THE END OF THE STUD AND THE PLATE. THERE SHOULD BE NO POROSITY OR EVIDENCE OF LACK OF FUSION BETWEEN THE WELDED END OF THE STUD AND THE PLATE. THE STUD SHALL DECREASE IN LENGTH DURING WELDING APPROXIMATELY 1/8" FOR 5/8" AND UNDER, AND 3/16" FOR OVER 5/8" DIAMETER. WELDING SHALL BE DONE ONLY BY QUALIFIED WELDERS APPROVED BY THE WELDING INSPECTOR.
   C. INSPECTION AND TESTS: INSPECTION, IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 2212A.3 AND 1704A.3.1 OF ALL THE SHOP AND FIELD WELDING OPERATIONS FOR THE AUTOMATIC END WELDED STUDS SHALL BE MADE BY A QUALIFIED WELDING INSPECTOR (APPROVED BY THE DIVISION OF THE STATE ARCHITECT). THE TYPE AND CAPACITY OF THE WELDING EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE CHECKED AND APPROVED BY A WELDING INSPECTOR.
   D. AT THE BEGINNING OF EACH DAY'S WORK, A MINIMUM OF TWO TEST STUD WELDS SHALL BE MADE WITH THE EQUIPMENT TO BE USED TO METAL WHICH IS THE SAME AS THE ACTUAL WORK PIECE. THE TEST STUDS SHALL BE BEND TEST BY STRIKING THEM WITH A SUBJECTED TO A 900 HEAVY HAMMER. AFTER THE ABOVE TEST, THE WELD SECTION SHALL NOT EXHIBIT ANY TEARING OUT OR CRACKING.

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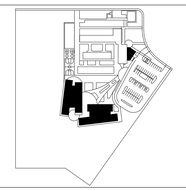
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

GENERAL NOTES

Date 05/20/2019
Project Number 19003
Scale 12" = 1'-0"
Drawing Number A0.2
Drawn AA
Checked AM

PRINT DATE: 5/17/2019 10:24:05 AM
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ARCHITECTURAL DRAWING ABBREVIATIONS

#	POUND OR NUMBER
&	AND
*	ITEMS IDENTIFIED AS "NIC" ARE NOT PART OF THIS DSA APPROVAL
@	AT
⊥	PERPENDICULAR
A	
A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ACC	ACCESS(IBLE)
ACP	ALUMINUM COMPOSITE PANEL
ACST	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADDM	ADDENDUM
ADH	ADHESIVE
ADJ	ADJUSTABLE
ADJC	ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
ALS	ASSISTED LISTENING SYSTEM
ALT	ALTERNATE
ALUM./AL.	ALUMINUM
ANC	ANCHOR, ANCHORAGE
APLD	APPLIED
APPRX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASF	ABOVE STAGE FINISH
ASPH	ASPHALT
ASSY	ASSEMBLY
ASYM	ASYMMETRICAL
AUTO	AUTOMATIC
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
B	
B	BOLT
BC	BACK OF CURB
BD	BOARD
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLW	BELOW
BLW CLG	BELOW CEILING
BLW FFLR	BELOW FINISH FLOOR
BM	BENCH MARK
BN	BOUNDARY NAILING
BO	BOTTOM OF
BOT	BOTTOM
BRCG	BRACING
BRDG	BRIDGING
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BRS	BRASS
BRZ	BRONZE
BS	BOTH SIDES
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
BW	BOTH WAYS
C	
C&G	CURB AND GUTTER
CAB	CABINET
CAD	CADMIUM
CB	CATCH BASIN
CBB	CEMENTITIOUS BACKER BOARD
CBC	CALIFORNIA BUILDING CODE
CEM	CEMENT
CER	CERAMIC
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFLG	COUNTERFLASHING
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CG	CORNER GUARD
CHBD	CHALKBOARD
CHFR	CHAMFER
CI	CAST IRON
CIP	CAST IN PLACE
CIR	CIRCLE
CIRC	CIRCULAR, CIRCUMFERENCE
CJ	CONSTRUCTION JOINT
CL	CHAIN LINK OR CENTER LINE
CLG	CEILING
CLJ	CONTROL JOINT
CLKG	CAULKING
CLL	CONTRACT LIMIT LINE
CLOS	CLOSURE
CLR	CLEAR(ANCE)
CLRM	CLASSROOM
CMP	CORRUGATED METAL PANEL
CMPST	COMPOSITION
CMU	CONCRETE MASONARY UNIT
CNCL	CONCEALED
CNR	CORNER
CNTR	COUNTER
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMP	COMPOSITE
COMPT	COMPARTMENT
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTRACT(OR)
COORD	COORDINATE
CORR	CORRIDOR
CPR	COPPER
CPRS	COMPRESS(ED), (ION), (IBLE)
CPT	CARPET
CRS	COLD ROLLED STEEL
CS	CAST STONE
CSG	CASING
CSK	COUNTERSUNK
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTG	COATING
CTR	CENTER
CUFT	CUBIC FOOT
CUIN	CUBIC INCH
CUST	CUSTODIAN
CUYD	CUBIC YARD
CW	CURTAIN WALL
D	
D	DRAIN
d.	PENNYWEIGHT (NAILS)
DA	DOUBLE ACTING
DBL	DOUBLE
DEG	DEGREES
DEMO	DEMOLISH, DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DG	DECOMPOSED GRANITE
DH	DOUBLE HUNG
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DMPF	DAMPPROOFING
DMT	DEMOUNTABLE
DN	DOWN
DR	DOOR
DRB	DRAINBOARD
DRLV	DOOR LOUVER
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAIN TILE
DVTL	DOVETAIL
DW	DISHWASHER
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
E	
(E)	EXISTING
E	EAST
EA	EACH
EAR	EXHAUST AIR REGISTER
EB	EXPANSION BOLT
EE	EACH END
EF	EACH FACE
EFS	EXTERIOR FINISH SYSTEM
EHD	ELECTRIC HAND DRYER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EM	EXPANDED METAL
EMER	EMERGENCY
EN	EDGE NAILING
ENCL	ENCLOSE(URE)
ENGR	ENGINEER
ENTR	ENTRANCE
EP	ELECTRICAL PANELBOARD
EQ	EQUAL
EQUIP	EQUIPMENT
ESC	ESCUTCHEON
ESCL	ESCALATOR
ESMT	EASEMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EXC	EXCAVATE
EXH	EXHAUST
EXP	EXPOSED
EXPN	EXPANSION
EXS	EXTRA STRONG
EXT	EXTERIOR
F	
(F)	FUTURE
F/F	FACE TO FACE
FA	FIRE ALARM
FAB	FABRIC
FBD	FIBERBOARD
FBRK	FIRE BRICK
FCBRK	FACE BRICK
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FFEL	FINISHED FLOOR ELEVATION
FFL	FINISHED FLOOR LINE
FGL	FIBERGLASS
FHC	FIRE HOUSE CABINET
FHMB	FLAT HEAD MACHINE BOLT
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FIN	FINISH(ED)
FJT	FLUSH JOINT
FLASH	FLASHING
FLDG	FOLDING
FLG	FLOORING
FLR	FLOOR
FLUOR	FLUORESCENT
FN	FIELD NAILING
FOB	FACE OF BLOCK
FOC	FACE OF CONCRETE/CURB
FOF	FACE OF FINISH
FOG	FACE OF GRID
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FPL	FIREPLACE
FPRF	FIREPROOF(ING)
FR	FRAME(D), (ING)
FRG	FIBERGLASS REINFORCED GYPSUM
FRP	FIBERGLASS REINFORCED PLASTIC
FRTW	FIRE RETARDANT TREATED WOOD
FRZ	FREEZER
FS	FIRE SPRINKLER
FS	FAR SIDE
FSTN	FASTEN, FASTENER
FT	FOOT/FEET
FTG	FOOTING
FURG	FURRED, (ING)
FWC	FABRIC WALL COVERING
G	
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GFRC	GLASS FIBER REINFORCED CONCRETE
GI	GALVANIZED IRON
GL	GLASS
GLULAM	GLUE LAMINATED
GLZ	GLAZING
GLZCMU	GLAZED CONRETE MASONRY UNIT
GND	GROUND
GPC	GYPSUM PLASTER CEILING
GR	GRADE
GRBM	GRADE BEAM
GRLN	GRADE LINE
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSS	GALVANIZED STEEL SHEET
GST	GLAZED STRUCTURAL TILE
GT	GROUT
GVL	GRAVEL
GYP	GYPSUM
GYP BD	GYPSUM BOARD
H	
HB	HOSE BIB
HC	HOLLOW CORE
HD	HEAVY DUTY
HDAS	HEADED ANCHOR STUD
HDJT	HEAD JOINT
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEX	HEXAGONAL
HGR	HANGER
HLDN	HOLD DOWN
HM	HOLLOW METAL
HMD	HOLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HT	HEIGHT
HTG	HEATING
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HWH	HOT WATER HEATER
I	
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDE(D), (ING)
INFO	INFORMATION
INSTL	INSTALL
INSUL	INSULATE(D), (ION)
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
J	
JAN	JANITOR
JST	JOIST
JT	JOINT
K	
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAV	LAVATORY
LB(S)	POUND(S)
LBL	LABEL
LBR	LUMBER
LDR	LEADER
LF	LINEAL FOOT
LG	LENGTH, LONG
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LKNT	LOCKNUT
LKR	LOCKER
LKWASH	LOCKWASHER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMST	LIMSTONE
LNSCP	LANDSCAPE(D)
LNTL	LINTEL
LP	LIGHTPROOF
LPT	LOW POINT
LT	LIGHT
LTWT	LIGHTWEIGHT
LV	LOUVER VENT
LVL	LEVEL(ER)
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
M	
MAINT	MAINTAIN(ANCE)
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MC	MEDICINE CABINET
MCB	METAL CORNER BEAD
MDO	MEDIUM DENSITY OVERLAID
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFD	METAL FLOOR DECKING
MFR	MANUFACTUR(ER)
MH	MANHOLE
MIN	MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
ML	METAL LATH
MLDG	MOLDING
MLWK	MILLWORK
MO	MASONRY OPENING
MOD	MODULE(AR)
MR	MOISTURE RESISTANT
MRB	MARBLE
MRD	METAL ROOF DECKING
MS	MACHINE SCREW
MTD	MOUNTED
MTL	METAL
MTR	MORTAR
MULL	MULLION
N	
(N)	NEW
N	NORTH
NAT	NATURAL
NCOMBL	NONCOMBUSTIBLE
NE	NOT EXCEEDING
NF	NEAR FACE
NIC	NOT IN CONTRACT
NLB	NON-LOAD BEARING
NM	NONMETALLIC
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTOR'S ASSOCIATION
NS	NEAR SIDE
NTS	NOT TO SCALE
O	
O/	OVER
O/O	OUT TO OUT
OA	OVERALL
OBS	OBSCURE
OC	ON CENTER
OCC	OCCUPANTS OR OCCUPANCY
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFF	OFFICE
OFF	OFFICE
OFOI	OWNER FURNISHED OWNER INSTALLED
OFS	OUTSIDE FACE OF STUD
OHMS	OVALHEAD MACHINE SCREW
OHWS	OVALHEAD WOOD SCREW
OI	OWNER INSTALLED
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPQ	OPAQUE
OPR	OPERABLE
ORD	OVERFLOW ROOF DRAIN
OSB	ORIENTED STRAND BOARD
OVFL	OVERFLOW
OVHD	OVERHEAD
P	
P	PAINT
PA	PUBLICADDRESS
PAR	PARALLEL
PAT	PATTERN
PB	PANIC BAR
PBD	PARTICLE BOARD
PC	PORTLAND CEMENT
PCC	PRECAST CONCRETE
PCP	PORTLAND CEMENT PLASTER
PED	PEDESTAL
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PGBD	PEGBOARD
PH	PHASE
PHS	PHILLIPS HEAD SCREW
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PM	PRESSED METAL
PMF	PRESSED METAL FRAME
PNEU	PNEUMATIC
PNL	PANEL
PNT	PAINT(ED)
POL	POLISHED
POLY	POLYETHYLENE
PORC	PORCELAIN
PORT	PORTABLE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PREFMD	PREFORMED
PRKG	PARKING
PRML	PREMOLDED
PROJ	POJECT
PROP	PROPERTY
PSCONC	PRESTRESSED CONCRETE
PT	POINT
PTD	PAPER TOWEL DISPENSER
PTDF	PRESSURE TREATED DOUGLAS FIR
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
PVC	POLYVINYL CHLORIDE
PVG	PAVE(D), (ING)
PVMT	PAVEMENT
Q	
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTR	QUARTER
QTY	QUANTITY
R	
R	RISER
RA	RETURN AIR
RAB	RABBET
RAD	RADIUS
RB	RESILIENT BASE
RBR	RUBBER
RCP	REINFORCED CONCRETE PIPE
RCVR	RECEIVER
RD	ROOF DRAIN
RDGINS	RIGID INSULATION
RDWY	ROADWAY
REBAR	REINFORCING STEEL BARS
REC	RECESSED
RECT	RECTANGULAR
RECYL	RECYCLING
REF	REFERENCE
REFL	REFLECT(ED), (IVE), (OR)
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED
REM	REMOVE(ABLE)
REP	REPAIR
REPL	REPLACE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
REV	REVISION(S), REVISED
RF	RESILIENT FLOORING
RFG	ROOFING
RFH	ROOF HATCH
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHR	RIGHT HAND REVERSE
RHWS	ROUND HEAD WOOD SCREW
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RESTROOM
RS	ROUGH SAWN
RTF	RUBBER TILE FLOORING
RTU	ROOF TOP UNIT
RV	ROOF VENT
RVL	REVEAL
RVS	REVERSE (SIDE)
RVT	RIVET(ED)
RWD	REDWOOD
RWL	RAIN WATER LEADER
S	
S	SOUTH
S2S	SURFACED TWO SIDES
S4S	SURFACED FOUR SIDES
SA	SUPPLY AIR
SALV	SALVAGE
SAM	SELF-ADHERED MEMBRANE
SAT	SUSPENDED ACOUSTICAL TILE
SB	SPLASH BLOCK
SBSTR	SUBSTRATE
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE
SCP	SCUPPER
SCRN	SCREEN
SD	STORM DRAIN
SDBL	SANDBLAST
SEC	SECONDS
SECT	SECTION
SEP	SEPERATE OR SEPERATION
SF	SQUARE FEET, STOREFRONT
SGL	SINGLE
SHR	SHOWER
SHT.	SHEET(ING)
SHTG	SHEATHING
SHV	SHELVES(ING)
SIM	SIMILAR
SK	SINK
SKLT	SKYLIGHT
SLD	SEALED
SLDG	SLIDE(ING)
SLDR	SOLDER
SLNT	SEALANT
SLV	SLEEVE
SM	SHEET METAL
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
SMLS	SEAMLESS
SMS	SHEET METAL SCREW
SND	SANITARY NAPKIN DISPENSER
SNDINS	SOUND INSULATION
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SNT	SEALANT
SP	SPACES
SPC	SUSPENDED PLASTER CEILING
SPD	SOAP DISPENSER
SPEC	SPECIFICATION
SPEC	SPECIFICATION(S)
SPRT	SUPPORT
SQ	SQUARE
SSK	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STG	SEATING
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRAIGHT
STRUC	STRUCTURAL
STU	STRUCT
SUSP	SUSPENDED
SV	SHEET VINYL
SYMM	SYMMETRICAL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	
T	TEMPERED, TOILET, TREAD
T24	TITLE 24
T&B	TOP AND BOTTOM
T&G	TONGUE & GROOVE
TB	THRU BOLT
TBE	THREADED BOTH ENDS
TD	TOWEL DISPENSER
TDR	TOWEL DISPENSER/RECEPTACLE
TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
THD	THREAD(ED)
THERM	THERMAL
THK	THICK
THRES	THRESHOLD
THRU	THROUGH
TKBD	TACKBOARD
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CURB OR TOP OF CONCRETE
TOF	TOP OF FOOTING
TOFF	TOP OF FINISH FLOOR
TOJ	TOP OF JOIST
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOPV	TOP OF PAVEMENT
TOS	TOP OF SHEATHING
TOSL	TOP OF SLAB
TOST	TOP OF STEEL
TOW	TOP OF WALL OR TOP OF WALK
TPD	TOILET PAPER DISPENSER
TPTN	TOILET PARTITION
TRANS	TRANSITION
TS	TUBE STEEL
TV	TELEVISION
TWLB	TOWEL BAR
TYP	TYPICAL
U	
UC	UNDERCUT
UGND	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
UR	URINAL
URM	UNREINFORCED MASONRY
UTIL	UTILITY
V	
VAR	VARIES
VB	VINYL BASE
VCT	VINYL COMPOSITION TITLE
VER	VERIFY
VERT	VERTICAL
VEST	VESTIBULE
VF	VINYL FABRIC
VFAT	VINYL FACED ACOUSTIC TILE
VIF	VERIFY IN FIELD
VJ	V-JOINT(ED)
VNR	VENEER
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	
W	WEST
W.H.	WATER HEATER
W.O.	WHERE OCCURS
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL
WBL	WOOD BLOCKING
WC	WATER CLOSET
WD	WOOD
WDP	WOOD PANELING
WDW	WINDOW
WF	WIDE FLANGE
WFS	WOOD FURRING STRIP
WGL	WIRED GLASS
WH	WALL HUNG
WI	WROUGHT IRON
WID	WIDTH, WIDE
WLD	WELD(ED)
WM	WIRE MESH
WP	WATERPROOF(ING)
WPT	WORKING POINT
WR	WIRE ROPE
WS	WOOD SCREW
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X	
XBRACE	CROSS BRACE
XFMR	TRANSFORMER
XSECT	CROSS SECTION
Y	
YCO	YARD CLEANOUT
YD	YARD

SYMBOLS LEGEND

N = PLAN NORTH ARROW
ADDITIONAL ARROW INDICATES TRUE NORTH

X = BUILDING SECTION NUMBER
AX.X = SHEET NUMBER

X = WALL SECTION NUMBER
AX.X = SHEET NUMBER

X = EXTERIOR ELEVATION NUMBER
AX.X = SHEET NUMBER

X = INTERIOR ELEVATION NUMBER
AX.X = SHEET NUMBER
N,S,E,W = INDICATES CARDINAL DIRECTION

GRID LINE, FACE OF STRUCTURE

GRID LINE, CENTER OF STRUCTURE

ELEVATION OR DATUM POINT

WP — WORK POINT

REFERENCE DETAIL
X = DETAIL DRAWING NUMBER
AX.X = SHEET NUMBER

20 / AX.X — MATCH LINE AND AREA DESIGNATOR
SHADED PORTION IS THE SIDE CONSIDERED

ROOM NAME
A119 — ROOM NAME
AREA IDENTIFICATION:
A = BUILDING OR AREA DESIGNATION
1 = FLOOR NUMBER
19 = ROOM NUMBER

A — WINDOW, STOREFRONT, OR CURTAINWALL
SEE WINDOW SCHEDULE

A101A — DOOR NUMBER, SEE DOOR SCHEDULE

08 211 — KEYNOTE
08 = SPECIFICATION DIVISIONAL PREFIX
2 = SPECIFICATION SUBSECTION PREFIX
11 = NOTE NUMBER

1 — REVISION

1B — WALL TYPE

S1 — SIGNAGE TAG

102 — CASEWORK TAG
102 = ARCHITECTURAL WOODWORK
STANDARD (AWS) NUMBER

41 — PATH OF EGRESS
41 = OCCUPANT LOAD
STARTING POINT OF PATH OF TRAVEL TO EXIT
MARKED BY DOT AT THE BEGINNING OF EGRESS LINE

MATERIALS LEGEND

- EARTH
- POROUS FILL (STONE, GRAVEL, ETC.)
- CONCRETE
- GROUT
- STEEL
- FINISHED WOOD
- TERRAZZO
- WOOD BLOCKING
- WOOD FRAMING
- BATT INSULATION
- RIGID INSULATION
- GYPSUM BOARD
- PLYWOOD
- METAL LATH AND PLASTER

DSA STAMP

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ARCHITECT	ENGINEER

LICENSED ARCHITECT
BRIAN P. WHITMORE
No. C 30345
Ren.: 9/30/19
STATE OF CALIFORNIA

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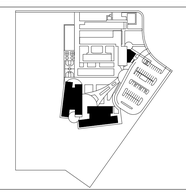
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ARCHITECTURAL SYMBOLS AND ABBREVIATIONS

Date 05/20/2019
Project Number 19003
Scale As indicated
Drawing Number A0.3
Drawn AA
Checked AM

PRINT DATE: 5/17/2019 10:24:07 AM
FILE PATH: C:\Users\adoraner\Desktop\Local Revit Files\19003-Westmore-s17-amoaner.rvt

BICYCLE STORAGE CALCS

BASED ON 2016 CAL GREEN BUILDING STANDARDS CODE SECTION 5.106.4 "BICYCLE PARKING [DSA-SS]"

5.106.4.2.1 STUDENT BICYCLE PARKING
REQUIRED: (4) 2-BIKE CAPACITY RACKS PER NEW BUILDING

2 NEW BUILDINGS x 8 BIKES STORED = 16 STUDENT BIKES STORED

(2) 8-BIKE CAPACITY RACKS PROVIDED. SEE SITE PLAN.

5.106.4.2.2 STAFF BICYCLE PARKING
REQUIRED: 2 BIKES STORED PER NEW BUILDING

2 NEW BUILDINGS x 2 BIKES STORED = 4 STAFF BIKES STORED

PROVIDED: (4) PERMANENTLY ANCHORED BIKE RACKS IN STORAGE ROOM OF BUILDING G. SEE SITE PLAN

ACCESSIBLE PARKING

BASED ON CBC TABLE 11B-208.2 "PARKING SPACES"

TOTAL NUMBER OF PARKING SPACES PROVIDED IN PARKING FACILITY	MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
1 TO 25	1
26 TO 50	2
51 TO 75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
501-1000	2 PERCENT OF TOTAL
1001 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000

STANDARD PARKING PROVIDED: 47 STALLS
ACCESSIBLE PARKING PROVIDED: 2 STALLS
TOTAL PARKING PROVIDED: 49 STALLS

KEY NOTES

NUMBER	NOTE
32 240	BICYCLE RACKS (SEE DETAIL 18/A10.2.1)
32 242	VERTICAL BICYCLE RACKS (SEE DETAIL 9/A10.10.3)

GENERAL NOTES

1. ALL (E) STRUCTURES AND ITEMS ON SITE ARE APPROXIMATE BASED ON DRAWINGS FROM OWNER.
2. ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLANS IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX. SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. AND AT LEAST 48" WIDE. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED.
3. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80". SEE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT ON THIS SHEET FOR ADDITIONAL POT REQUIREMENTS.
4. ALL SIDEWALKS ALONG THE ACCESSIBLE ROUTE TO BE A MINIMUM OF 4'-0" WIDE, AND THERE SHALL BE NO DROP-OFFS OVER 4" AT EDGE OF WALK OR LANDING. WHERE A 4" DROP-OFF DOES OCCUR, PROVIDING A 6" HIGH WARNING CURB OR GUARD OR HANDRAIL. (SEE CBC SECTION 11B-303.5)
5. GATES ALONG ACCESSIBLE ROUTE SHALL MEET DOOR REQUIREMENTS PER CBC SECTION 11B-404 INCLUDING PANIC HARDWARE AND 10" MIN. SMOOTH BOTTOM OR KICK PLATE. SEE DOOR SCHEDULE FOR MORE INFORMATION.
6. FOR GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM IN THE DIRECTION OF TRAFFIC FLOW.
7. 36" WIDE CONTINUOUS DETECTABLE WARNING SHALL BE USED WHERE THE PEDESTRIAN PATH CROSSES OR ADJOINS A VEHICULAR WAY (SUCH AS A DRIVEWAY) TO WARN OF POTENTIAL HAZARDS AS PER CBC 11B-705.
8. ALL EXTERIOR OUTWARD SWINGING DOORS TO HAVE A MINIMUM 5'-0" LEVEL LANDING.
9. ALL BUILDING ENTRANCES AND EXTERIOR GROUND LEVEL EXITS SHALL BE ACCESSIBLE.

LOCAL FIRE AUTHORITY REVIEW

DSA **810**

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1–3 below is to be provided for all project types indicated above. Information associated with items 4–7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 and 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION

School District/Owner: Washington Unified School District
Project Name/School: Westmore Oaks Elementary School
Project Address: 1504 Fallbrook St., West Sacramento, Ca. 95691

FIRE & LIFE SAFETY INFORMATION

1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☒	No ☐
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☒	No ☐
3.	Is the project located within a designated fire hazard severity zone as established by Cal-Fire? *(If yes, indicate fire hazard zone classification below)*	Yes ☐	No ☒
	Refer to the following for fire hazard zone locations: www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WFA ☐

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED			
		Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.			X	
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.			X	
5a.	**Acceptable Alternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.				
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.			X	
6a.	**Acceptable Alternate**: The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			X	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and standpipe system is acceptable for providing fire suppression and protection of life and property				

DSA 810 (rev 10-22-18) — Page 1 of 4
DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — STATE OF CALIFORNIA

DSA 810
FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

School District Acceptance of Acceptable Design Alternates

By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: _____ Title: _____

Signature: _____ Date: _____

LOCAL FIRE AUTHORITY (LFA) INFORMATION

LFA Agency Name: West Sacramento Fire
LFA Review Official: Bryan Jonson
Title: Fire Marshal — Work Phone: 916.617-4600
Work E-mail: bryanj@cityofwestsacramento.org

LFA Reviewer's Signature: _____ Date: 03/15/19

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

(BASED ON DSA PROCEDURE PR 15-01)

THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NONCOMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

GROSS BUILDING AREA

NAME	TOTAL AREA (S.F.)
BUILDING F AREA	11,477 SF
BUILDING F OVERHANGS	2,398 SF
TOTAL AREA	13,875 SF
BUILDING G AREA	11,248 SF
BUILDING G OVERHANGS	1,686 SF
TOTAL AREA	12,934 SF
BUILDING M EXISTING	3,452 SF
BUILDING M NEW	1,500 SF
BUILDING M OVERHANGS EXISTING	526 SF
BUILDING M OVERHANGS NEW	174 SF
TOTAL AREA	5,651 SF

CODE ANALYSIS

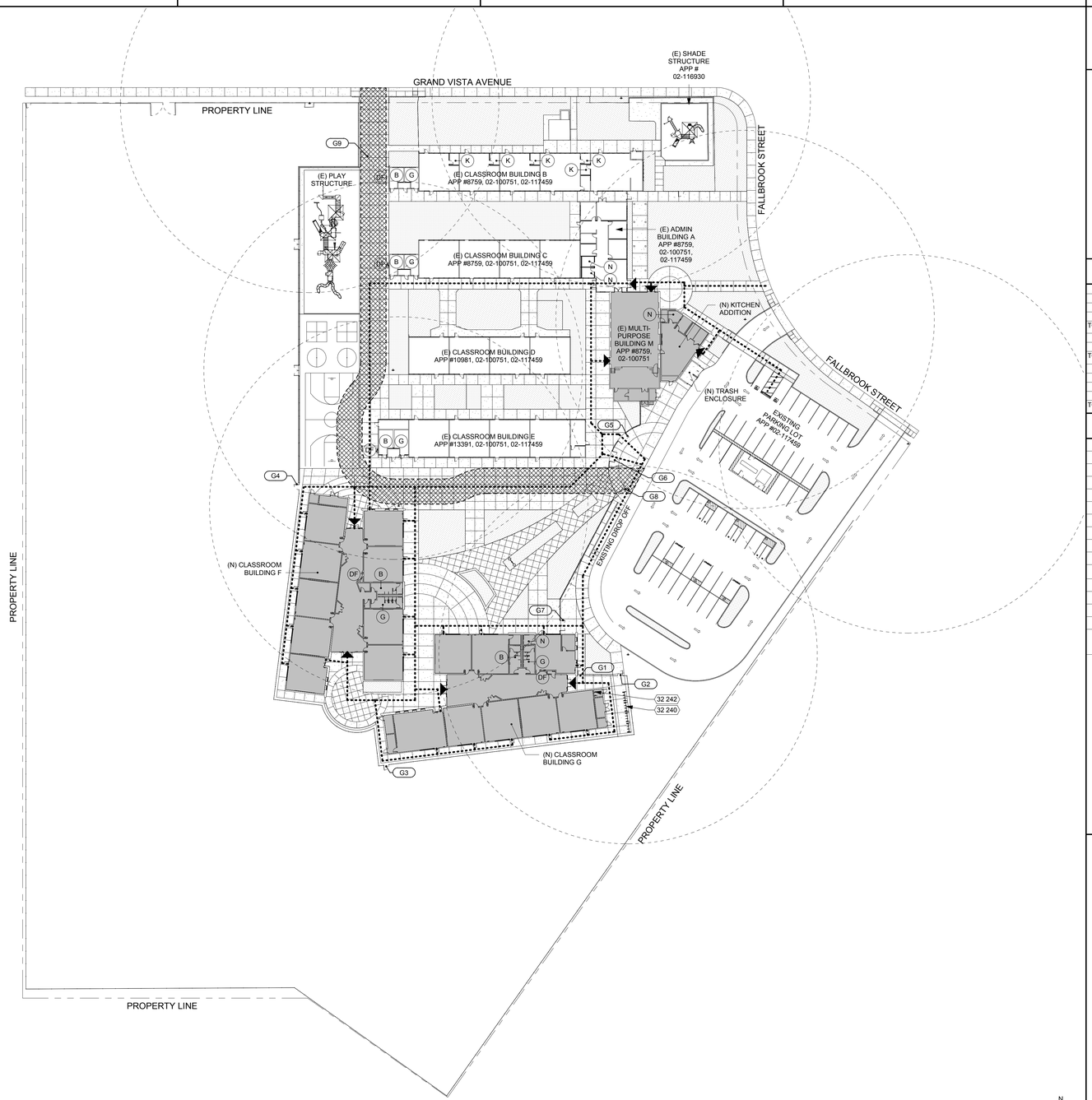
BUILDING NAME	BUILDING F	BUILDING G	BUILDING M
BUILDING CONDITION	NEW	NEW	EXISTING WITH NEW ADDITION
OCCUPANCY (CBC TABLE 504.3)	A-2, E	A-2, B, E	A-2 (ADDITION) & A-3 (EXISTING)
BUILDING HEIGHT	21'-10"	21'-10"	23'-1"
NUMBER OF STORIES	1	1	1
TYPE OF CONSTRUCTION	V-B	V-B	V-B
SPRINKLERS	YES	YES	AT NEW ADDITION ONLY
ALTERNATIVE PROTECTION (CBC 903.1.1)	NOT USED	NOT USED	NOT USED
SEPARATED? (CBC TABLE 508.4)	NOT REQUIRED	NO, SEE CALC. BELOW	YES PER CBC 903.2.1.2 (4)
ALLOWABLE AREA DETERMINATION (CBC 506.2)	N/A	N/A	N/A
A_t = TABULAR ALLOWABLE AREA (CBC TABLE 506.2)	38,000 SF	38,000 SF	38,000 SF
NS = TABULAR ALLOWABLE AREA FACTOR	N/A	N/A	N/A
I_f = FRONTAGE INCREASE (CBC 506.3)	N/A	N/A	N/A
ALLOWABLE BUILDING HEIGHT (CBC TABLE 504.3)	60'	60'	60'
ALLOWABLE NUMBER OF STORIES (CBC TABLE 504.4)	2	2	2
ACTUAL AREA / ALLOWABLE AREA	11,477 SF / 38,000 SF = .30 < 1 **= OK**	11,248 SF / 38,000 SF = .30 < 1 **= OK**	4,952 SF / 38,000 SF = .13 < 1 **= OK**

BUILDING G ACCESSORY OCCUPANCY

E IS MAIN OCCUPANCY (NO SEPARATION REQUIRED BETWEEN A-2 AND E)
B OCCUPANCY IS ACCESSORY PER CBC 508.2

B OCCUPANCY AREA = 926 SF
TOTAL AREA = 10,468 SF

B/TOTAL = .09 (LESS THAN 10% PER 508.2.3)



REF: 7 / AF5.1

LEGEND

- (E) BUILDING, NOT UNDER SCOPE OF WORK
- BUILDING UNDER SCOPE OF WORK
- 20'-0" MIN. TYP. — 20'-0" CLEAR FIRE ACCESS LANE
- (X) — ACCESSIBLE BATHROOM FACILITIES:
  - (W) WOMENS
  - (M) MENS
  - (G) GIRLS, AGES 5-12
  - (B) BOYS, AGES 5-12
  - (N) GENDER NEUTRAL
  - (DF) DRINKING FOUNTAIN
  - (K) AGES 3-4
- ACCESSIBLE PATH OF TRAVEL
- PROPERTY LINE
- FIRE HYDRANT AND 150' RADIUS CIRCLE
- LOCATION OF ACCESSIBLE EXTERIOR EXIT DOORS, ENTRANCES, AND EGRESS

N

CODE ANALYSIS SITE PLAN 1" = 40'-0" 15

PRINT DATE: 5/17/2019 10:24:10 AM
FILE PATH: C:\Users\aklaman\Desktop\Local Files\19003-Westmore-A17-amcuser.rvt

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ARCHITECT | ENGINEER

LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA

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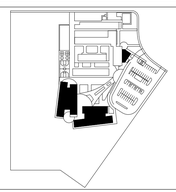
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE
- ● DSA PLAN CHECK 05/20/2019
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN



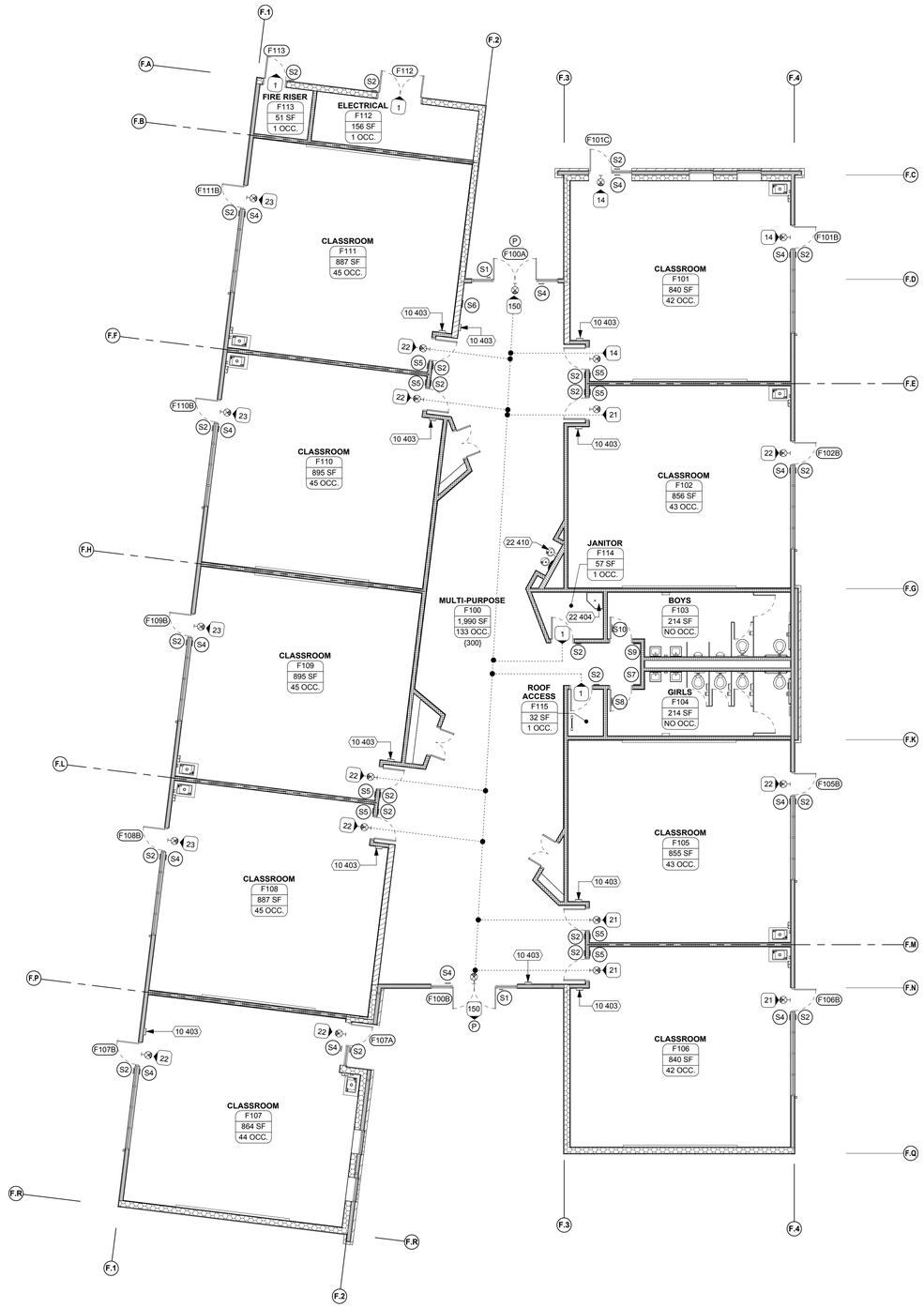
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

CODE ANALYSIS - SITE PLAN

Date	Project Number
05/20/2019	19003
Scale: 1" = 40'-0"	Drawing Number: A0.4
Drawn: AA	Checked: AM



REF: 7 / AF5.1

N

BUILDING F CODE ANALYSIS PLAN | 1/8" = 1'-0" | 15

OCCUPANT LOAD CHART

ROOM NUMBER	ROOM NAME	FUNCTION OF SPACE (CBC TABLE 1004.1.2)	SQ. FT. (NET)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
F100	MULTI-PURPOSE	Assembly Unconcentrated (tables and chairs)	1,990 SF	15	133
F101	CLASSROOM	Educational Classroom area	840 SF	20	42
F102	CLASSROOM	Educational Classroom area	856 SF	20	43
F103	BOYS	(none)	214 SF		
F104	GIRLS	(none)	214 SF		
F105	CLASSROOM	Educational Classroom area	855 SF	20	43
F106	CLASSROOM	Educational Classroom area	840 SF	20	42
F107	CLASSROOM	Educational Classroom area	864 SF	20	44
F108	CLASSROOM	Educational Classroom area	887 SF	20	45
F109	CLASSROOM	Educational Classroom area	895 SF	20	45
F110	CLASSROOM	Educational Classroom area	895 SF	20	45
F111	CLASSROOM	Educational Classroom area	887 SF	20	45
F112	ELECTRICAL	Accessory Storage Areas, Mechanical Equipment Room	156 SF	300	1
F113	FIRE RISER	Accessory Storage Areas, Mechanical Equipment Room	51 SF	300	1
F114	JANITOR	Accessory Storage Areas, Mechanical Equipment Room	57 SF	300	1
F115	ROOF ACCESS	Accessory Storage Areas, Mechanical Equipment Room	32 SF	300	1
			10,533 SF		531

EXIT WIDTH CALCULATIONS

MARK	DOOR WIDTH	EXITING OCCUPANTS	MINIMUM EXIT WIDTH REQUIRED (EXITING OCCUPANTS *.2)	EXIT WIDTH PROVIDED
F100A	6'-0"	150	30"	68"
F100B	6'-0"	150	30"	68"
F101B	3'-0"	14	3"	32"
F101C	3'-0"	15	3"	32"
F102B	3'-0"	22	4"	32"
F105B	3'-0"	22	4"	32"
F106B	3'-0"	22	4"	32"
F107A	3'-0"	22	4"	32"
F107B	3'-0"	23	5"	32"
F108B	3'-0"	23	5"	32"
F109B	3'-0"	23	5"	32"
F110B	3'-0"	23	5"	32"
F111B	3'-0"	23	5"	32"
F112	6'-0"	1	1"	68"
F113	3'-0"	1	1"	32"

EXITING DISTRIBUTION CALCS

DISTRIBUTION OF MINIMUM WIDTH AND REQUIRED CAPACITY (CBC SECTION 1005.5)
WHERE MORE THAN ONE EXIT, OR ACCESS TO MORE THAN ONE EXIT, IS REQUIRED, THE MEANS OF EGRESS SHALL BE CONFIGURED SUCH THAT THE LOSS OF ANY ONE EXIT, OR ACCESS TO ONE EXIT, SHALL NOT REDUCE THE AVAILABLE CAPACITY OR WIDTH TO LESS THAN 50 PERCENT OF THE REQUIRED CAPACITY OR WIDTH.

MULTI-PURPOSE
LARGEST EXIT = 5'-8"
TOTAL PROVIDED = 11'-4"
50% OF REQUIRED CAPACITY = 2'-6" x 0.50 = 1'-3"
AVAILABLE CAPACITY = 11'-4" (-) 5'-8" = 5'-8" > 1'-3" » OK

EXIT ACCESS DOORWAY DISTANCE (SPRINKLERED) (CBC 1007.1.1)
EXITS REQUIRED: 2
MULTI-PURPOSE DIAGONAL: 100'-10"
DISTANCE BETWEEN EXITS: 95'-5"
100'-10" / 3 = 33'-6"
95'-5" > 33'-6" » OK

KEY NOTES

NUMBER	NOTE
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)

GENERAL NOTES

1. WHERE OCCUPANT LOAD SIGN IS REQUIRED, THE SIGN SHALL BE POSTED NEAR THE MAIN EXIT FROM THE ROOM.
2. REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED DURING CONSTRUCTION AND DEMOLITION, CFC 1411.2.
3. EXIT ILLUMINATION SHALL BE MAINTAINED PER CFC 1027.3.
4. NUMBER OF EXITS SHOWN COMPLY WITH THE MINIMUM REQUIREMENTS SET FORTH IN CBC SECTION 1006.2. WHEN THERE ARE MORE THAN ONE REQUIRED EXIT, THE EXITS SHALL BE LOCATED PER SECTION 1007.1.1, EXCEPTION 2.
5. NO EXIT DOOR SHALL BE LESS THAN 32" CLEAR WIDTH.

SIGNAGE LEGEND

- (S1) ACCESSIBLE ENTRANCE SIGN, SEE DETAIL 7 / A10.10.1
- (S2) ROOM IDENTIFICATION SIGN, SEE DETAIL 8 / A10.10.1
- (S3) ABOVE DOOR SIGN, SEE DETAIL 5 / A10.10.1
- (S4) EXIT SIGN, SEE DETAIL 9 / A10.10.1
- (S5) EXIT ROUTE SIGN, SEE DETAIL 10 / A10.10.1
- (S6) MAXIMUM OCCUPANCY SIGN, SEE DETAIL 11 / A10.10.1
- (S7) WOMEN WALL MOUNTED SIGN, SEE DETAIL 12 / A10.10.1
- (S8) WOMEN DOOR SIGN, SEE DETAIL 13 / A10.10.1
- (S9) MEN WALL MOUNTED SIGN, SEE DETAIL 14 / A10.10.1
- (S10) MEN DOOR SIGN, SEE DETAIL 15 / A10.10.1
- (S11) GENDER NEUTRAL WALL MOUNTED SIGN, SEE DETAIL 16 / A10.10.1
- (S12) GENDER NEUTRAL DOOR SIGN, SEE DETAIL 17 / A10.10.1
- (S12) NOT AN EXIT SIGN, SEE DETAIL 18 / A10.10.1

PLUMBING ANALYSIS

PLUMBING OCCUPANCY (CPC CH. 4 TABLE A) - BLDG F

OCCUPANT LOAD	AREA	OCC. LOAD FACTOR	TOTAL PERSONS
GROUP E - SCHOOLS FOR DAY CARE, ELEMENTARY, SECONDARY	7,819 SF	50	157
NON-OCCUPIED	2,713 SF	0	0
	10,533 SF		157

MINIMUM PLUMBING FACILITIES (CPC TABLE 422.1)
158 OCCUPANTS = 79 MEN AND 79 WOMEN

FIXTURE TYPE	REQUIRED	PROVIDED
WATER CLOSETS	2 MALE 3 FEMALE	2 MALE 4 FEMALE
URINALS	1 MALE	2 MALE
LAVATORIES	2 MALE 2 FEMALE	2 MALE 2 FEMALE
WATER FOUNTAINS	2	2
SERVICE SINK OR LAUNDRY TRAY	1	1

LEGEND

- (S) L — ILLUMINATED EXIT SIGN, SEE ELECTRICAL DRAWINGS. EXIT SIGNAGE TO ACCOMPANY ALL ILLUMIATED EXIT SIGNS. L = LOW LEVEL ILLUMINATED EXIT SIGN (WHERE OCCURS)
- LOBBY / A119 / 21,500 SF / 122 OCC. / {134} — AREA IDENTITY/ CODE ANALYSIS
  - LOBBY = ROOM NAME
  - A119 = ROOM NUMBER
  - 21,000 SF = FLOOR AREA
  - 122 = OCCUPANT LOAD
  - {134} = OCCUPANT LOAD PLUS ANCILLARY SPACE WHERE OCCURS
- 41 — PATH OF EGRESS
  - 41 = OCCUPANT LOAD
  - STARTING POINT OF PATH OF TRAVEL TO EXIT MARKED BY DOT AT THE BEGINNING OF EGRESS LINE
- (P) — PANIC HARDWARE DEVICE - REFERENCE DOOR SCHEDULE AND HARDWARE GROUP

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LICENSED ARCHITECT BRIANA P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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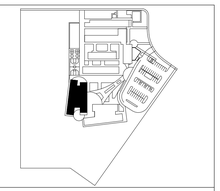
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
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DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

CODE ANALYSIS - BUILDING F FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	A0.5
Drawn / Checked	
AA / AM	

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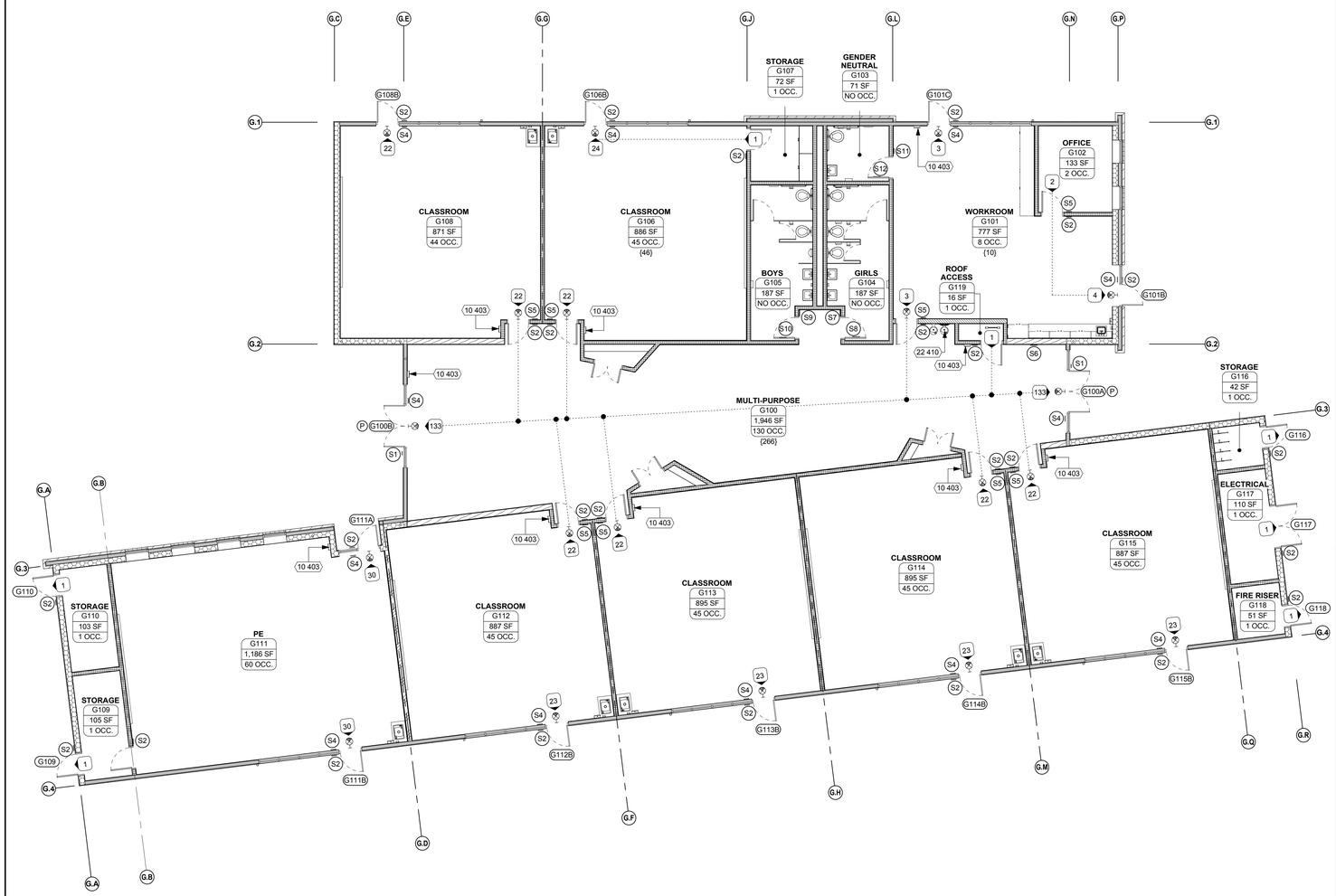

REF: 7 / AF5.1

N

BUILDING G CODE ANALYSIS PLAN 1/8" = 1'-0" 15

OCCUPANT LOAD CHART

ROOM NUMBER	ROOM NAME	FUNCTION OF SPACE (CBC TABLE 1004.1.2)	SQ. FT. (NET)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
G100	MULTI-PURPOSE	Assembly Unconcentrated (tables and chairs)	1,946 SF	15	130
G101	WORKROOM	Business Areas	777 SF	100	8
G102	OFFICE	Business Areas	133 SF	100	2
G103	GENDER NEUTRAL	(none)	71 SF		
G104	GIRLS	(none)	187 SF		
G105	BOYS	(none)	187 SF		
G106	CLASSROOM	Educational Classroom area	886 SF	20	45
G107	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	72 SF	300	1
G108	CLASSROOM	Educational Classroom area	871 SF	20	44
G109	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	105 SF	300	1
G110	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	103 SF	300	1
G111	PE	Educational Classroom area	1,186 SF	20	60
G112	CLASSROOM	Educational Classroom area	887 SF	20	45
G113	CLASSROOM	Educational Classroom area	895 SF	20	45
G114	CLASSROOM	Educational Classroom area	895 SF	20	45
G115	CLASSROOM	Educational Classroom area	887 SF	20	45
G116	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	42 SF	300	1
G117	ELECTRICAL	Accessory Storage Areas, Mechanical Equipment Room	110 SF	300	1
G118	FIRE RISER	Accessory Storage Areas, Mechanical Equipment Room	51 SF	300	1
G119	ROOF ACCESS	Accessory Storage Areas, Mechanical Equipment Room	16 SF	300	1
			10,305 SF		474

EXIT WIDTH CALCULATIONS

MARK	DOOR WIDTH	EXITING OCCUPANTS	MINIMUM EXIT WIDTH REQUIRED (EXITING OCCUPANTS * .2)	EXIT WIDTH PROVIDED
G100A	6'-0"	133	27"	68"
G100B	6'-0"	133	27"	68"
G101B	3'-0"	4	1"	32"
G101C	3'-0"	3	1"	32"
G106B	3'-0"	24	5"	32"
G108B	3'-0"	23	5"	32"
G109	3'-0"	1	1"	32"
G110	3'-0"	1	1"	32"
G111A	3'-0"	31	6"	32"
G111B	3'-0"	30	6"	32"
G112B	3'-0"	23	5"	32"
G113B	3'-0"	23	5"	32"
G114B	3'-0"	23	5"	32"
G115B	3'-0"	23	5"	32"
G116	3'-0"	1	1"	32"
G117	6'-0"	1	1"	68"
G118	3'-0"	1	1"	32"

EXITING DISTRIBUTION CALCS

DISTRIBUTION OF MINIMUM WIDTH AND REQUIRED CAPACITY (CBC SECTION 1005.5)
WHERE MORE THAN ONE EXIT, OR ACCESS TO MORE THAN ONE EXIT, IS REQUIRED, THE MEANS OF EGRESS SHALL BE CONFIGURED SUCH THAT THE LOSS OF ANY ONE EXIT, OR ACCESS TO ONE EXIT, SHALL NOT REDUCE THE AVAILABLE CAPACITY OR WIDTH TO LESS THAN 50 PERCENT OF THE REQUIRED CAPACITY OR WIDTH.

MULTI-PURPOSE
LARGEST EXIT = 5'-8"
TOTAL PROVIDED = 11'-4"
50% OF REQUIRED CAPACITY = 2'-3" x 0.50 = 1'-2"
AVAILABLE CAPACITY = 11'-4" (-) 5'-8" = 5'-8" > 1'-2" » OK

EXIT ACCESS DOORWAY DISTANCE (SPRINKLERED) (CBC 1007.1.1)
EXITS REQUIRED: 2
MULTI-PURPOSE DIAGONAL: 98'-3"
DISTANCE BETWEEN EXITS: 95'-9"
98'-3" / 3 = 32'-9"
95'-9" > 23'-9" » OK

KEY NOTES

NUMBER	NOTE
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)

GENERAL NOTES

1. WHERE OCCUPANT LOAD SIGN IS REQUIRED, THE SIGN SHALL BE POSTED NEAR THE MAIN EXIT FROM THE ROOM. REFER TO SIGNAGE SCHEDULE FOR DETAILS.
2. REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED DURING CONSTRUCTION AND DEMOLITION, CFC 1411.2.
3. EXIT ILLUMINATION SHALL BE MAINTAINED PER CFC 1027.3.
4. NUMBER OF EXITS SHOWN COMPLY WITH THE MINIMUM REQUIREMENTS SET FORTH IN CBC SECTION 1006.2. WHEN THERE ARE MORE THAN ONE REQUIRED EXIT, THE EXITS SHALL BE LOCATED PER SECTION 1007.1.1, EXCEPTION 2.
5. NO EXIT DOOR SHALL BE LESS THAN 32" CLEAR WIDTH.

SIGNAGE LEGEND

- (S1) ACCESSIBLE ENTRANCE SIGN, SEE DETAIL 7 / A10.10.1
- (S2) ROOM IDENTIFICATION SIGN, SEE DETAIL 8 / A10.10.1
- (S3) ABOVE DOOR SIGN, SEE DETAIL 5 / A10.10.1
- (S4) EXIT SIGN, SEE DETAIL 9 / A10.10.1
- (S5) EXIT ROUTE SIGN, SEE DETAIL 10 / A10.10.1
- (S6) MAXIMUM OCCUPANCY SIGN, SEE DETAIL 11 / A10.10.1
- (S7) WOMEN WALL MOUNTED SIGN, SEE DETAIL 12 / A10.10.1
- (S8) WOMEN DOOR SIGN, SEE DETAIL 13 / A10.10.1
- (S9) MEN WALL MOUNTED SIGN, SEE DETAIL 14 / A10.10.1
- (S10) MEN DOOR SIGN, SEE DETAIL 15 / A10.10.1
- (S11) GENDER NEUTRAL WALL MOUNTED SIGN, SEE DETAIL 16 / A10.10.1
- (S12) GENDER NEUTRAL DOOR SIGN, SEE DETAIL 17 / A10.10.1
- NOT AN EXIT SIGN, SEE DETAIL 18 / A10.10.1

PLUMBING ANALYSIS

PLUMBING OCCUPANCY (CPC CH. 4 TABLE A) - BLDG G

OCCUPANT LOAD	AREA	OCC. LOAD FACTOR	TOTAL PERSONS
GROUP B - OFFICE OR PUBLIC BUILDINGS	910 SF	200	5
GROUP E - SCHOOLS FOR DAY CARE, ELEMENTARY, SECONDARY	6,506 SF	50	131
NON-OCCUPIED	2,888 SF	0	0
	10,305 SF		136

MINIMUM PLUMBING FACILITIES (CPC TABLE 422.1)
137 OCCUPANTS = 69 MEN AND 69 WOMEN

FIXTURE TYPE	REQUIRED	PROVIDED
WATER CLOSETS	2 MALE 3 FEMALE	2 MALE 3 FEMALE 1 UNISEX
URINALS	1 MALE	1 MALE
LAVATORIES	2 MALE 2 FEMALE	2 MALE 2 FEMALE 1 UNISEX
WATER FOUNTAINS	2	2
SERVICE SINK OR LAUNDRY TRAY	1	1

LEGEND

- (S6 / L) ILLUMINATED EXIT SIGN, SEE ELECTRICAL DRAWINGS.
  EXIT SIGNAGE TO ACCOMPANY ALL ILLUMIATED EXIT SIGNS.
  L = LOW LEVEL ILLUMINATED EXIT SIGN (WHERE OCCURS)
- LOBBY / A119 / 21,500 SF / 122 OCC. / {134}
  AREA IDENTITY/ CODE ANALYSIS
  LOBBY = ROOM NAME
  A119 = ROOM NUMBER
  21,000 SF = FLOOR AREA
  122 = OCCUPANT LOAD
  {134} = OCCUPANT LOAD PLUS ANCILLARY SPACE WHERE OCCURS
- (41) PATH OF EGRESS
  41 = OCCUPANT LOAD
  STARTING POINT OF PATH OF TRAVEL TO EXIT MARKED BY DOT AT THE BEGINNING OF EGRESS LINE
- (P) PANIC HARDWARE DEVICE - REFERENCE DOOR SCHEDULE AND HARDWARE GROUP

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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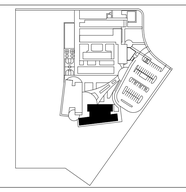
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
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DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

CODE ANALYSIS - BUILDING G FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	A0.6
Drawn / Checked	
AA / AM	

PRINT DATE: 5/17/2019 10:24:19 AM
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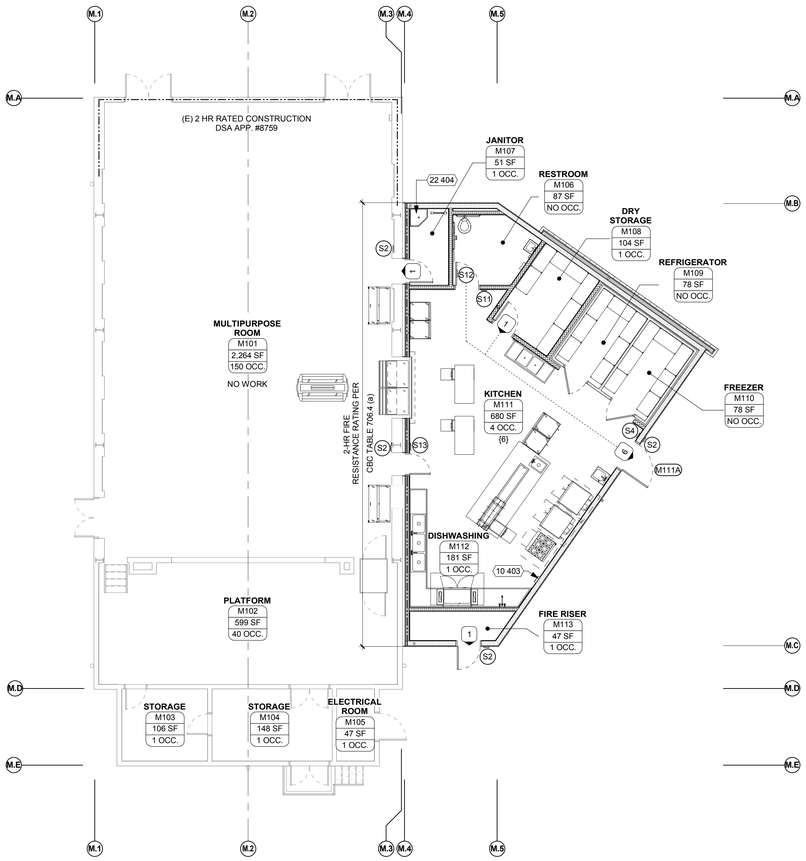

REF: 7 / AF5.1

N

BUILDING M CODE ANALYSIS PLAN 1/8" = 1'-0" 15

OCCUPANT LOAD CHART

ROOM NUMBER	ROOM NAME	FUNCTION OF SPACE (CBC TABLE 1004.1.2)	SQ. FT. (NET)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
M101	MULTIPURPOSE ROOM	Assembly Unconcentrated (tables and chairs)	2,264 SF	15	151
M102	PLATFORM	Stages and Performances	599 SF	15	40
M103	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	106 SF	300	1
M104	STORAGE	Accessory Storage Areas, Mechanical Equipment Room	148 SF	300	1
M105	ELECTRICAL ROOM	Accessory Storage Areas, Mechanical Equipment Room	47 SF	300	1
M106	RESTROOM	(none)	87 SF		
M107	JANITOR	Accessory Storage Areas, Mechanical Equipment Room	51 SF	300	1
M108	DRY STORAGE	Kitchens, Commercial	104 SF	200	1
M109	REFRIGERATOR	(none)	78 SF		
M110	FREEZER	(none)	78 SF		
M111	KITCHEN	Kitchens, Commercial	680 SF	200	4
M112	DISHWASHING	Kitchens, Commercial	181 SF	200	1
M113	FIRE RISER	Accessory Storage Areas, Mechanical Equipment Room	47 SF	300	1
			4,470 SF		202

EXIT WIDTH CALCULATIONS

MARK	DOOR WIDTH	EXITING OCCUPANTS	MINIMUM EXIT WIDTH REQUIRED (EXITING OCCUPANTS *.2)	EXIT WIDTH PROVIDED
M101F	3'-0"			32"
M111A	4'-0"	7	1"	44"
M111C	8'-0"			92"
M113	3'-0"	1	1"	32"

KEY NOTES

NUMBER	NOTE
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)

GENERAL NOTES

1. WHERE OCCUPANT LOAD SIGN IS REQUIRED, THE SIGN SHALL BE POSTED NEAR THE MAIN EXIT FROM THE ROOM. REFER TO SIGNAGE SCHEDULE FOR DETAILS.
2. REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED DURING CONSTRUCTION AND DEMOLITION, CFC 1411.2.
3. EXIT ILLUMINATION SHALL BE MAINTAINED PER CFC 1027.3.
4. NUMBER OF EXITS SHOWN COMPLY WITH THE MINIMUM REQUIREMENTS SET FORTH IN CBC SECTION 1006.2. WHEN THERE ARE MORE THAN ONE REQUIRED EXIT, THE EXITS SHALL BE LOCATED PER SECTION 1007.1.1, EXCEPTION 2.
5. NO EXIT DOOR SHALL BE LESS THAN 32" CLEAR WIDTH.

SIGNAGE LEGEND

- S1 ACCESSIBLE ENTRANCE SIGN, SEE DETAIL 7 / A10.10.1
- S2 ROOM IDENTIFICATION SIGN, SEE DETAIL 8 / A10.10.1
- S3 ABOVE DOOR SIGN, SEE DETAIL 5 / A10.10.1
- S4 EXIT SIGN, SEE DETAIL 9 / A10.10.1
- S5 EXIT ROUTE SIGN, SEE DETAIL 10 / A10.10.1
- S6 MAXIMUM OCCUPANCY SIGN, SEE DETAIL 11 / A10.10.1
- S7 WOMEN WALL MOUNTED SIGN, SEE DETAIL 12 / A10.10.1
- S8 WOMEN DOOR SIGN, SEE DETAIL 13 / A10.10.1
- S9 MEN WALL MOUNTED SIGN, SEE DETAIL 14 / A10.10.1
- S10 MEN DOOR SIGN, SEE DETAIL 15 / A10.10.1
- S11 GENDER NEUTRAL WALL MOUNTED SIGN, SEE DETAIL 16 / A10.10.1
- S12 GENDER NEUTRAL DOOR SIGN, SEE DETAIL 17 / A10.10.1
- S12 NOT AN EXIT SIGN, SEE DETAIL 18 / A10.10.1

PLUMBING ANALYSIS

PLUMBING OCCUPANCY (CPC CH. 4 TABLE A) - BLDG M

OCCUPANT LOAD	AREA	OCC LOAD FACTOR	TOTAL PERSONS
EXISTING	3,164 SF	0	0
GROUP B - OFFICE OR PUBLIC BUILDINGS	861 SF	200	4
GROUP S - WAREHOUSE	202 SF	5000	3
NON-OCCUPIED	243 SF	0	0
	4,470 SF		7

MINIMUM PLUMBING FACILITIES FOR NEW ADDITION (CPC TABLE 422.1)
8 OCCUPANTS

FIXTURE TYPE	REQUIRED	PROVIDED
WATER CLOSETS	ONE FACILITY PROVIDED PER CPC 422.2 EXCEPTION (2)	
URINALS		
LAVATORIES		
WATER FOUNTAINS	1	
SERVICE SINK OR LAUNDRY TRAY	1	1

LEGEND

- ILLUMINATED EXIT SIGN, SEE ELECTRICAL DRAWINGS. EXIT SIGNAGE TO ACCOMPANY ALL ILLUMIATED EXIT SIGNS. L = LOW LEVEL ILLUMINATED EXIT SIGN (WHERE OCCURS)
- AREA IDENTITY/ CODE ANALYSIS
  LOBBY = ROOM NAME
  A119 = ROOM NUMBER
  21,000 SF = FLOOR AREA
  122 = OCCUPANT LOAD
  {134} = OCCUPANT LOAD PLUS ANCILLARY SPACE WHERE OCCURS
- PATH OF EGRESS
  41 = OCCUPANT LOAD
  STARTING POINT OF PATH OF TRAVEL TO EXIT MARKED BY DOT AT THE BEGINNING OF EGRESS LINE
- P PANIC HARDWARE DEVICE - REFERENCE DOOR SCHEDULE AND HARDWARE GROUP

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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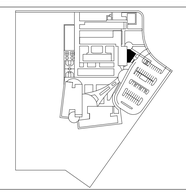
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

CODE ANALYSIS - BUILDING M FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	A0.7
Drawn / Checked	
AA / AM	

PRINT DATE: 5/17/2019 10:24:19 AM
FILE PATH: C:\Users\ktarnam\Desktop\Local Files\19003-Westmore-A17-amouser.rvt

EXISTING TOPOGRAPHY

— - - — - - — = PROPERTY LINE
— - — - — = CENTERLINE
— — — — = EASEMENT
⊕ = PROPERTY CORNER FOUND AS NOTED
○ = PROPERTY CORNER NOTHING FOUND OR SET
△123 = TEMPORARY BENCHMARK (SEE TBM LIST FOR INFO)
← · · · ← = SWALE OR DRAINAGE FLOW
← = DRAINAGE FLOW
x—x—x— = FENCE (TYPE NOTED)
✿ = TREE (SIZE/TYPE INDICATED)
Y Y = *SLOPE*
— 100 — = CONTOUR
▨ = CONCRETE SURFACE
//////// = EDGE OF ASPHALT
\\ \\ \\ \\ = EDGE OF BUILDING
⊢ = *SIGN*
• = POST OR BOLLARD
99.9 = GROUND ELEVATION
99.99 = HARD SURFACE ELEVATION

EXISTING UTILITIES

12"SD = STORM DRAIN LINE (SIZE & DIRECTION OF FLOW)
— — 12"SD — — = STORM DRAIN LINE (RECORD INFORMATION)
— 12"SD — = STORM DRAIN LINE (UNDERGROUND LOCATING)
Ⓢ SD = STORM DRAIN MANHOLE
○ = STORM DRAIN CLEANOUT
▤ = *drop inlet*
⬢ = AREA DRAIN
○ RWL = RAIN WATER LEADER
○ DS = *downspout*
12"SS = SANITARY SEWER LINE (SIZE & DIRECTION OF FLOW)
— — 12"SS — = SANITARY SEWER LINE (RECORD INFORMATION)
— 12"SS — = SANITARY SEWER LINE (UNDERGROUND LOCATING)
SS = SANITARY SEWER MANHOLE
◎ = SANITARY SEWER CLEANOUT
—W— = WATER LINE (SIZE INDICATED)
- - -W— — = WATER LINE (RECORD INFORMATION)
— —W— — = WATER LINE (UNDERGROUND LOCATING)
Ⓦ = WATER MANHOLE
◬ = *water valve*
WM = WATER METER
W = *water box*
⊘ = IRRIGATION CONTROL VALVE
☌ = FIRE HYDRANT
⧄ = BACKFLOW PREVENTER
◑ = *SPRINKLER*
♀ = *hose bibb*
—OH-E— = OVERHEAD ELECTRIC LINE
—E— = UNDERGROUND ELECTRIC LINE
- - -E- - - = UNDERGROUND ELECTRIC LINE (RECORD INFORMATION)
— —E— — = UNDERGROUND ELECTRIC LINE (UNDERGROUND LOCATING)
Ⓔ = ELECTRIC MANHOLE
-○- = UTILITY POLE (WITH GUY WIRE)
EM = ELECTRIC METER
E = ELECTRIC BOX
SLB = STREET LIGHTING BOX
□——¤ OR ⌧ = LIGHT STANDARD
□——□□□ = SIGNAL LIGHT
⋐ = FLOOD LIGHT
⊜ = ELECTRICAL OUTLET
—G— = GAS LINE (SIZE INDICATED)
- - -G- - - = GAS LINE (RECORD INFORMATION)
— —G— — = GAS LINE (UNDERGROUND LOCATING)
Ⓖ = GAS MANHOLE
Ⓖ = *GAS VALVE*
GM = *GAS METER*
—T— = TELEPHONE LINE
- - -T- - - = TELEPHONE LINE (RECORD INFORMATION)
— —T— — = TELEPHONE LINE (UNDERGROUND LOCATING)
SD = STORM DRAIN BOX
TS = TRAFFIC SIGNAL BOX

A.P.N. 058-220-043

BENCHMARK NO. C17-01 ELEV. 13.32

FOUND A $3\frac{1}{4}$" BRASS DISK SET IN A STANDARD MONUMENT BOX STAMPED: CITY OF WEST SACRAMENTO VERTICAL AND HORIZONTAL CONTROL POINT C17-01, RCE 30639, 1993. LOCATED ALONG THE APPROX. C/L OF MOSSWOOD CIR., 204' SOUTHERLY OF THE C/L OF LAKEWOOD DR.

TOPGRAPHIC SURVEY ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AC	ASPHALTIC CONCRETE
ACC	ACCESSIBLE
ACR	ASPHALTIC CONCRETE RAMP
ACU	AIR CONDITIONING UNIT
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
APP	APPARATUS
ARV	AIR RELEASE VALVE
BBALL	BASKETBALL POLE
BCM	BRASS CAP MONUMENT
BFP	BACK FLOW PREVENTER
BL.	BLOCK
BLDG	BUILDING
BOL	BOLLARD
BOV	BLOW-OFF VALVE
BR.	BRICK
BWF	BARBED WIRE FENCE
C	COMMUNICATION
CAB	CABINET
CATV	CABLE TELEVISION
CB	COMMUNICATIONS BOX
CIP	CAPPED IRON PIPE
C/L	CENTERLINE
C.L.F.	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COL	COLUMN
CONC.	CONCRETE
COND.	CONDENSATE
CPF	CONTROL POINT FOUND
CPS	CONTROL POINT SET
CS	CONCRETE SURFACE
D	DEPTH
DDC	DOUBLE DETECTOR CHECK VALVE
DF	DRINKING FOUNTAIN
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DRWY	DRIVEWAY
DS	DOWNSPOUT
DWG	DRAWING
E	ELECTRIC
EB	ELECTRICAL BOX
ESMT	EASEMENT
EX	EXISTING
F	FIRE LINE
FA	FIRE ALARM
FB	FIRE BOX
FDC	FIRE DEPARTMENT CONNECTION
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FLOWLINE
FO	FIBER OPTIC
FP	FLAGPOLE
FS	FIRE SERVICE
G	GAS
GB	GRADE BREAK
GR	GRATE
GRB	GROUND ROD BOX
GRD	GRADE ELEVATION
GROD	GROUND ROD
GV	GAS VALVE
H	HYDRONICS
HB	HOSE BIBB
HBB	HOSE BIBB BOX
HBD	HEADER BOARD
HR	HANDRAIL
ICP	IRRIGATION CONTROL PANEL
ICV	IRRIGATION CONTROL VALVE
INV	PIPE INVERT ELEVATION
IRR	IRRIGATION
JP	JOINT UTILITY POLE
JT	JOINT TRENCH
LF	LINEAL FEET
LNDG	LANDING
LVE	LOW VOLTAGE ELECTRIC
M.	METAL
MH	MANHOLE
MR	METAL RAMP
MS	MOW STRIP
MSC	METAL STORAGE CONTAINER
NTS	NOT TO SCALE
OH	OVERHEAD
OHANG	OVERHANG
OIP	OPEN IRON PIPE
OSPH	OLD STEEL POST HOLE
P/L	PROPERTY LINE
PA	PLANTER AREA
PD	PLANTER DRAIN
PH	POSTHOLE
PIV	POST INDICATOR VALVE
PP	POWER POLE
PRKG	PARKING
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
R	RUBBER
RIM	MANHOLE RIM ELEVATION
ROW	RIGHT OF WAY
RR	RUBBER RAMP
RW	RETAINING WALL
RWD	REDWOOD
RWL	RAIN WATER LEADER
SB	SIGNAL BOX
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SIG	SIGNAL
SL	STREET LIGHT
SLB	STREET LIGHT BOX
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
STL.	STEEL
T	TELEPHONE
TBALL	TETHER BALL POLE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
UG	UNDERGROUND
UNK	UNKNOWN
UON	UNLESS OTHERWISE NOTED
VBALL	VOLLEYBALL
W	WATER
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.I.F.	WROUGHT IRON FENCE
XF	TRANSFORMER
XWALK	CROSSWALK

TBM LIST

NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CPS PK+SHINER	9667.87	10893.61	17.20
2	CPS CHISELED "+"	9672.72	10629.41	18.03
3	CPS PK+SHINER	9583.82	10708.33	16.49
4	CPS CHISELED "+"	9441.37	10837.35	16.36
5	CPS CHISELED "+"	9738.83	11058.00	17.50
6	CPS CHISELED "+"	9895.71	10971.56	17.54
7	CPS CHISELED "+"	9824.71	10811.81	19.22
8	CPF PK NAIL	9670.95	10865.64	17.76
9	CPF PK NAIL	9738.98	10855.76	18.78
10	CPF CHISELED "+"	9739.27	10844.09	18.83
11	CPS PICKER	9795.69	11002.65	17.52
12	CPF CHISELED "+"	9965.64	10967.96	17.32
13	CPS MAG NAIL	9646.55	10843.59	17.88
14	CPF PICKER	9824.48	10987.34	17.50
17	CPS MAG NAIL	9810.79	10850.70	19.18
19	CPF NAIL+SHINER	10000.32	11017.51	17.62
25	CPS PICKER	9546.93	10517.18	15.80
26	CPS PK+WASHER	9830.19	10636.25	17.77
27	CPS CHISELED "+"	9897.41	10684.03	19.30
28	CPS CHISELED "+"	9856.38	11017.89	17.72
31	CPS CHISELED "+"	10816.02	10217.15	13.78
32	CPS CHISELED "+"	10032.93	10267.00	15.68
33	CPS CHISELED "+"	11254.66	10213.01	14.93
34	CPF NAIL CL INT	11247.27	10235.91	15.09
35	CPS CHISELED "+"	11073.40	10209.28	14.93
36	CPS CHISELED "+"	10954.63	10209.26	14.45
37	CPF CL INTERSEC	10816.63	10235.72	14.46
38	CPS CHISELED "+"	10739.74	10257.00	14.23
39	CPS CHISELED "+"	10560.90	10256.82	14.59
40	CPS CHISELED "+"	10435.71	10256.77	14.77
41	CPS CHISELED "+"	10272.50	10256.64	15.14
42	CPS CHISELED "+"	10161.65	10256.54	15.20
43	CPF CL INTERSEC	10000.13	10235.31	15.92
44	CPF NAIL CL INT	9999.89	9999.98	15.91
45	CPS CHISELED "+"	9975.17	10043.44	15.67
46	CPS CHISELED "+"	9970.40	11011.13	17.44
47	CPF PK AT FLIGHTX	9982.51	10594.70	16.62

GENERAL NOTES:

811 Know what's **below.** **Call** before you dig.

1. THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF UNDERGROUND SERVICE ALERT (USA) TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING TOLL FREE 1-800-227-2600, OR 811.
2. WARREN CONSULTING ENGINEERS, INC. (WCE) ASSUMES NO RESPONSIBILITY FOR ERRORS IN PHYSICAL LOCATION OF IMPROVEMENTS, HORIZONTAL OR VERTICAL, IF STAKED BY OTHERS. IN ADDITION, ANY SUCH ERRORS IN PHYSICAL LOCATION MAY AFFECT THE INTENDED DESIGN OF SUCH IMPROVEMENTS AND WCE CANNOT BE HELD RESPONSIBLE FOR SUCH CONDITIONS WHICH ARE A RESULT OF ERRORS IN SURVEYING, OR IMPROPER CONSTRUCTION.
3. IF SUBSURFACE CULTURAL RESOURCES, REMAINS, AND/OR ARTIFACTS ARE UNCOVERED DURING PROJECT CONSTRUCTION, ALL WORK IN THE VICINITY SHALL BE STOPPED UNTIL SUCH ITEMS CAN BE ASSESSED BY AN APPROPRIATE MEMBER OF THE COUNTY ENVIRONMENTAL IMPACT SECTION STAFF.
4. CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS: AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
5. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY FOR ALL EXCAVATIONS OF 5 FEET OR MORE IN DEPTH.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL NECESSARY PRE-BID AND PRE-CONSTRUCTION SITE INSPECTION, AND/OR OBSERVATIONS ON THE SITE TO PRE-DETERMINE ALL HIS/HER MEANS AND METHODS NECESSARY TO COMPLETE THE IMPROVEMENTS SHOWN ON THESE PLANS AND PER THE PROJECT SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE, AND INCLUDE IN HIS/HER CONTRACT, ALL MEANS AND METHODS NECESSARY TO PERFORM A COMPLETE AND ACCEPTABLE JOB.
7. WHERE IMPROVEMENTS LIE WITHIN AN EXISTING DEVELOPED AREA, CONTRACTOR SHALL USE CAUTION WHEN ACCESSING THE SITE THROUGH THESE EXISTING IMPROVEMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ANY SUCH EXISTING IMPROVEMENTS OUTSIDE THE PROJECT BOUNDARY, OR EXISTING IMPROVEMENTS WITHIN THE BOUNDARY WHICH ARE TO REMAIN. PROPER PRECAUTIONS SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP DETAILED RECORDS OF MINOR CHANGES OR ADJUSTMENTS MADE DURING CONSTRUCTION (WHICH WERE NOT FORMALLY ISSUED). UPON PROJECT COMPLETION, THESE RECORDS AND/OR INFORMATION SHALL BE PROVIDED TO THE OWNER AND WARREN CONSULTING ENGINEERS, INC. UNLESS AN OFFICIAL "AS-BUILT" SET OF PLANS IS A REQUIREMENT OF THE CONTRACT. IF AS-BUILT PLANS ARE A REQUIREMENT OF THE CONTRACT, REFER TO SPECIFICATIONS FOR AS-BUILT DELIVERABLE REQUIREMENTS.
9. IN VEHICULAR PATHWAYS, EXISTING ASPHALTIC AND/OR CONCRETE SURFACES SHALL BE CUT TO A NEAT AND STRAIGHT LINE, PARALLEL OR PERPENDICULAR TO THE VEHICULAR TRAVELED PATH. THIS IS TYPICALLY THE ROADWAY CENTERLINE, BUT MAY VARY. THAT SAWCUT EDGE SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION SO A CLEAN EDGE REMAINS FOR PATCH BACK.. IF EDGE IS DAMAGED, A NEW SAW CUT WILL BE REQUIRED. THE EXPOSED EDGE SHALL BE "TACKED" WITH EMULSION PRIOR TO PAVING.
10. NO BURNING OR BLASTING SHALL BE ALLOWED ONSITE UNLESS SPECIFICALLY ADDRESSED ON PLANS, OR SPECIFICALLY APPROVED AND COORDINATED WITH THE ARCHITECT, ENGINEER, AND LOCAL AGENCY OR OTHER ADMINISTRATIVE AUTHORITY.
11. SUBGRADE AND RESULTING FINISHED GRADE SHALL BE CONSTRUCTED SMOOTH AND UNIFORM BETWEEN SPOT ELEVATIONS, CONTOURS OR OTHER STRUCTURE ELEVATIONS SHOWN ON GRADING OR OTHER PLANS. NO MOUNDS, RUTS, DEPRESSIONS OR OTHER GRADING DEFICIENCIES WILL BE ALLOWED UNLESS SPECIFICALLY SHOWN ON PLANS.
12. ON NEW WATER SYSTEMS, SERVICE LATERALS SHALL BE MADE USING APPROPRIATE "TEE" AND "WYE" FITTINGS. SADDLE TAPS WILL ONLY BE ALLOWED WHEN MAKING CONNECTIONS TO EXISTING WATER MAINS.
13. CURING COMPOUND SHALL BE APPLIED IN A CONTINUOUS SOLID WET FLOWING COAT. ANY "SPOTTY" APPLICATIONS SHALL BE RECOATED IMMEDIATELY. APPLICATION SHALL BE INSPECTED BY PROJECT INSPECTOR DURING APPLICATION.
14. EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE ADDITIONAL SCORE OR EXPANSION JOINTS TO PREVENT UNCONTROLLED CRACKING. THOSE ADDITIONAL JOINTS MAY OR MAY NOT BE SPECIFICALLY SHOWN ON PLANS BUT SHALL BE PROVIDED BY THE CONTRACTOR.
15. EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE A MINOR ADJUSTMENT OF REBAR WITHIN CONCRETE TO ALLOW FOR SUCH STRUCTURE. THAT REBAR ADJUSTMENT MAY NOT BE SPECIFICALLY SHOWN ON PLANS.
16. NO MORE THAN 1 GALLON OF WATER PER YARD OF CONCRETE CAN BE ADDED TO THE TRUCK AFTER ARRIVAL TO PROJECT SITE. THE ADDITION OF WATER CAN ONLY BE ADDED UNDER THE SUPERVISION OF THE CONCRETE INSPECTOR OR LABORATORY TECHNICIAN.
17. WHEN PUMPING CONCRETE FOR PLACEMENT, ABSOLUTELY NO WATER IS TO BE ADDED TO PUMP HOPPER. ANY WATER ADDED TO HOPPER WILL BE REASON FOR CONCRETE REJECTION AT THE CONTRACTORS EXPENSE.
18. ALL CONTRACTION/CONSTRUCTION JOINTS "CJ" SHALL BE 1/4 THE SLAB THICKNESS DEEP, BUT NO LESS THAN 1" FOR CONTROLLING OF CRACKING. CONTRACTOR SHALL EXERCISE CAUTION WHEN FINAL TROWELING OF CONCRETE SO AS NOT TO FILL IN THESE JOINTS WITH CONCRETE CREAM. ANY CRACKS OUTSIDE OF JOINTS WHICH WERE CONSTRUCTED LESS THAN 1" DEEP, SHALL BE CAUSE FOR CONCRETE SLAB(S) TO BE REMOVED AND REPLACE AT CONTRACTORS EXPENSE.
19. ANY SCREED BOARDS SET WITHIN CONCRETE SLABS SHALL BE AN "OVERHEAD SCREED" SO THERE IS NO INTERFERENCE WITH THE PLACEMENT AND ALIGNMENT OF SLAB REINFORCING.
20. 3-1/2" FELT JOINTS WILL NOT BE ACCEPTED. PROVIDE A FULL 4" FELT JOINT FOR 4" SLAB CONSTRUCTION, AND A 6" FELT JOINT FOR A 6" SLAB SLAB CONSTRUCTION.
21. SHOULD ANY SHRINKAGE CRACKS OCCUR OUTSIDE OF EITHER THE EXPANSION JOINTS OR CRACK CONTROL JOINTS, THEN THE CONCRETE SLAB SHALL BE SAWCUT AT THE NEAREST JOINTS ON EACH SIDE OF THE CRACK AND THE CONCRETE SECTION SHALL BE, REMOVED AND REPLACED. NEW CONCRETE SHALL BE DOWELED INTO EXISTING CONCRETE PER DRAWING DETAIL.
22. ALL AREAS DISTURBED BY GRADING OPERATIONS WHETHER SHOWN ON THE DRAWINGS OR NOT SHALL BE HYDRO SEEDED UNLESS OTHERWISE NOTED. HYDRO SEEDING SHALL CONFORM TO LOCAL CITY/COUNTY STANDARDS.
23. REPAIR OR PATCHING OF GALVANIZED METALS, SUCH AS AFTER WELDING GALVANIZED COMPONENTS, SHALL BE MADE USING A ZINC COMPOSITION "HOT STICK" APPLICATION PER ASTM A 780-01. GALVANIZING PAINTS WILL NOT BE ALLOWED.

GENERAL PAVING SURFACE NOTES:

1. PROVIDE EQUIVALENT OF MEDIUM BROOM FINISH AT SLOPES UP TO 5.99%, TYPICAL. PROVIDE EQUIVALENT OF HEAVY BROOM FINISH AT SLOPES 6% AND GREATER. REFER TO SPECIFICATIONS.
2. ALL NEW PEDESTRIAN WALKWAYS (NON-RAMP) SHALL BE SLOPED NO GREATER THAN 2.0%, AND NO LESS THAN 0.75% IN ANY DIRECTION, UNLESS SPECIFICALLY LABELED OTHERWISE. ALL CONCRETE SHALL MEET THE FOLLOWING SLOPE REQUIREMENTS:
   - NO GREATER THAN 5% SLOPE IN THE DIRECTION OF TRAVEL.
   - NO GREATER THAN 2% SLOPE CROSSING THE DIRECTION OF TRAVEL.
   - NO GREATER THAN 2% SLOPE IN ANY DIRECTION IN COURTYARD OR PLAZA AREAS.

CIVIL ABBREVIATIONS AND LEGEND

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
ASB	AGGREGATE SUB-BASE
BO	BLOW-OFF VALVE
BV	BUTTERFLY VALVE
BW	BACK OF WALK
C/L	CENTERLINE
CB	CATCH BASIN
CL	CLASS
CMP	CORRUGATED METAL PIPE
CATV	CABLE TELEVISION
CO	CLEANOUT
COMM	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCT
CR	CURB RETURN
CS	CONCRETE SURFACE
DC	DOUBLE CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DS	DOWNSPOUT
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FS	FIRE SERVICE LINE
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOWLINE
FM	SANITARY SEWER FORCE MAIN
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GAS
GR	GRATE ELEVATION
GRD	GRADE ELEVATION
GV	GATE VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INV	PIPE INVERT ELEVATION
JP	JOINT UTILITY POLE
LF	LINEAL FEET
LIP	LIP OF GUTTER
LT	LEFT
MS	MOWSTRIP
NTS	NOT TO SCALE
OH	OVERHEAD
PCC	PORTLAND CEMENT CONCRETE
PD	PLANTER DRAIN
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R	RADIUS
RIM	MANHOLE RIM ELEVATION (SOLID COVER)
RP	REDUCED PRESSURE BACKFLOW PREVENTER
RW	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SG	SUBGRADE ELEVATION
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TD	TRENCH DRAIN
TDCB	TRENCH DRAIN CATCH BASIN
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
TSW	TOP OF SEAT WALL
TW	TOP OF WALK ELEVATION
U	UTILITY
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
W/O	WITHOUT
WV	WATER VALVE

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.

PROPOSED GRADING & DRAINAGE SYMBOLS:

—8" SD—	STORM DRAIN LINE (SIZE AND FLOW SHOWN)
—●—	STORM DRAIN MANHOLE (SDMH)
—▪—	CATCH BASIN (CB)
—■—	DROP INLET (DI)
—⬢—	AREA DRAIN (AD)
—•—	PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
—○ CO	STORM DRAIN CLEANOUT
99.99	ELEVATION
FF=100.00	FINISHED FLOOR ELEVATION
PAD=99.33	BUILDING PAD ELEVATION
▨	CONCRETE SIDEWALK
→	GRADED DIRECTION FOR DRAINAGE FLOW
→- - -→	SWALE
Y Y Y	SLOPE
⊗	TREE TO BE REMOVED
▬▭▬▭	RETAINING WALL

PROPOSED SANITARY SEWER SYMBOLS:

—6" SS—	SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
●	SANITARY SEWER MANHOLE (SSMH)
—○ CO	SEWER CLEANOUT FLUSHER BRANCH

PROPOSED WATER SYMBOLS:

—8" W—	WATER LINE & SIZE
—8" FS—	FIRE LINE & SIZE
—8" DW—	DOMESTIC WATER LINE & SIZE
—8" RW—	RECLAIMED WATER LINE & SIZE
—8" IRR—	IRRIGATION SERVICE LINE & SIZE
—8" NP—	NON POTABLE WATER LINE & SIZE
—8" SP—	FIRE SPRINKLER SERVICE LINE & SIZE
—⋈—	GATE VALVE
—M—	WATER METER
—⋈—● FH	FIRE HYDRANT ASSEMBLY
Y FDC	FIRE DEPARTMENT CONNECTION
DC	DETECTOR CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
RP	REDUCED PRESSURE BACKFLOW PREVENTER
—⋈—	BUTTERFLY VALVE
—◀ 1"	AIR RELEASE VALVE + SIZE
—• 1"	BLOW-OFF VALVE + SIZE
PIV —⋈—	POST INDICATOR VALVE

DEMOLITION GENERAL NOTES

1. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
2. NO BURNING OR BLASTING SHALL BE PERMITTED.
3. ADDITIONAL DEMOLITION INFORMATION MAY BE SHOWN ON THE GRADING, DRAINAGE, AND UTILITY PLANS, AND THOSE PLANS PREPARED BY OTHER DISCIPLINES FOR THIS PROJECT.
4. ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF OFFSITE AT A SUITABLE, LEGAL, DUMP SITE OR OTHER FACILITY.
5. ALL DISPOSED OF MATERIALS SHALL BE RECYCLED IF POSSIBLE.
6. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN IN THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED UTILITY CONNECTION POINTS.
7. THE SCHOOL DISTRICT SHALL HAVE SALVAGE RIGHTS TO ANY DEMOLISHED ITEMS SHOWN HEREON. THE CONTRACTOR SHALL GIVE THE DISTRICT NOTICE 7 DAYS PRIOR TO THE START OF DEMOLITION. THE DISTRICT SHALL MOVE ANY RETAINED ITEMS OUT OF THE CONTRACTORS WORK AREA, UNLESS ANOTHER ARRANGEMENT IS MADE WITH THE CONTRACTOR. ANY REMAINING ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. ANY ITEMS NOT SHOWN FOR REMOVAL SHALL REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION TO A REASONABLE EXTEND.
8. EXISTING UTILITY STRUCTURES IN AREAS OF NEW PAVING SHALL BE REMOVED AND REPLACED WITH NEW BOX/COVER AT NEW GRADE UNLESS SPECIFICALLY NOTED OTHERWISE.
9. ITEMS OUTSIDE THE LIMITS OF DEMOLITION SHALL REMAIN AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
10. EXISTING UTILITY STRUCTURES AND PIPING NOT SHOWN ON DEMOLITION PLAN TO BE REMOVED SHALL REMAIN AND BE PROTECTED.

CONCRETE SAWCUT NOTE

SAWCUTS AND SUBSEQUENT PATCH BACK OF CONCRETE WALKS, SHALL BE TO THE EXISTING CONCRETE JOINT BEYOND THE NEAREST LOCATION OF DEMOLITION AS SHOWN. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE, SHOW AND COORDINATE WITH EXISTING JOINTS, HOWEVER IF FIELD CONDITIONS ARE OTHERWISE, IT IS UNDERSTOOD TO REMOVE AND PATCH BACK TO THE NEAREST JOINTS BEYOND DEMOLITION.

UTILITY VERIFICATION NOTE

PRIOR TO THE START OF CONSTRUCTION, LOCATE AND POTHOLE ALL UTILITY POINTS OF CONNECTION FOR LOCATION, DEPTH, AND SIZE. IF CONFLICT IS FOUND, CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION.

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BRIAN P WHITMORE No. C 30345 Ren.: 9/30/19	ANTHONY J. TASSANO NO. C74696 CIVIL

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NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

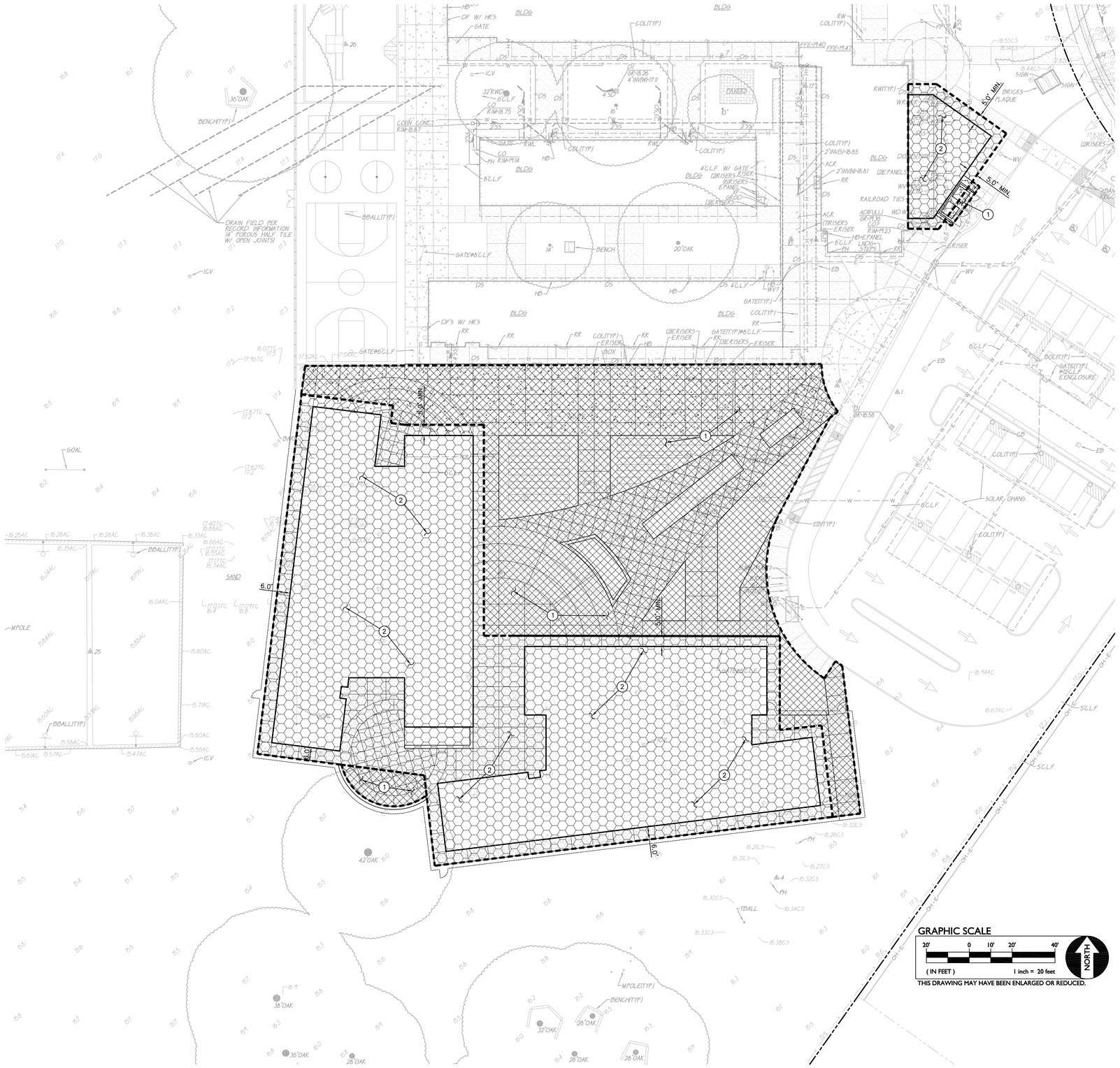
WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

CIVIL GENERAL NOTES AND ABBREVIATIONS

Date 03/29/19
Project Number 19003
Scale AS NOTED
Drawn AT
CHECKED AT

C0.1

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C01.DWG



ENGINEERED FILL NOTES

ASPHALT AND CONCRETE SUBGRADE PREPARATION

1. FOLLOWING SITE CLEARING, STRIPPING AND DEMOLITION ACTIVITIES:

   FOR AREAS TO BE CUT TO ACHIEVE SUBGRADE, EXCAVATE DOWN TO ROUGH SUBGRADE ELEVATION, SCARIFY THE EXISTING SOILS TO A MINIMUM DEPTH OF 12 INCHES AND UNIFORMLY MOISTURE CONDITION TO AT LEAST OPTIMUM MOISTURE CONTENT AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. THE UPPER 6 INCHES OF PROPOSED SUBGRADE SUPPORTING ASPHALT PAVING SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

   FOR AREAS TO BE FILLED TO ACHIEVE SUBGRADE, SCARIFY EXPOSED SOILS TO A MINIMUM DEPTH OF 12 INCHES AND UNIFORMLY MOISTURE CONDITION TO AT LEAST OPTIMUM MOISTURE CONTENT AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. FILL MATERIAL SHALL BE UNIFORMLY MOISTURE CONDITIONED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND PLACED IN MAXIMUM 8 INCH THICK, LOOSE LIFTS (LAYERS) PRIOR TO COMPACTING. FILL SHALL BE COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557. THE UPPER 6 INCHES OF FILL IN PAVED AREAS SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

   IMPORTED FILL MATERIAL SHALL BE PREDOMINANTLY GRANULAR, NON-EXPANSIVE, AND FREE OF DELETERIOUS OR ORGANIC MATERIAL. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL IMPORT MATERIAL REQUIREMENTS.

BUILDING PAD SUBGRADE PREPARATION

2. FOLLOWING SITE CLEARING, STRIPPING AND DEMOLITION ACTIVITIES:

   OVER-EXCAVATE EXISTING SOILS TO A DEPTH OF AT LEAST 5 FEET BELOW EXISTING GRADE. THE OVER-EXCAVATION SHALL EXTEND AT LEAST 5 FEET BEYOND THE EDGE OF EXTERIOR FOUNDATIONS OF THE BUILDING FOOTPRINT. FOLLOWING OVER-EXCAVATION OPERATIONS, THE EXPOSED SUBGRADE SHALL BE STATICALLY ROLLED TO SMOOTH OUT THE BOTTOM OF THE EXCAVATION.

   FOLLOWING ROLLING OPERATIONS, A LAYER OF GEOGRID REINFORCEMENT (TENSAR BX1100, TENSAR TX140, MIRAFI 5XT OR APPROVED EQUAL) SHALL BE PLACED DIRECTLY ON THE EXPOSED SUBGRADE. OVERLAP OF THE GEOGRID SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GEOGRID SHALL BE COVERED WITH AT LEAST A 6 INCH LIFT OF CLASS 2 AGGREGATE BASE COMPACTED TO 90 PERCENT RELATIVE COMPACTION AT NO LESS THAN THE OPTIMUM MOISTURE CONTENT.

   THE RESULTING OVER-EXCAVATIONS SHALL BE RESTORED WITH ENGINEERED FILL TO THE PROPOSED SUBGRADE ELEVATION. ON-SITE SOILS ARE CONSIDERED SUITABLE FOR USE IN ENGINEERED FILL CONSTRUCTION, IF THEY DO NOT CONTAIN SIGNIFICANT CONCENTRATIONS OF ORGANIC MATERIALS, DEBRIS OR PARTICLES GREATER THAN 3 INCHES IN MAXIMUM DIMENSION. ENGINEERED FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN COMPACTED THICKNESS WITH EACH LIFT BEING UNIFORMLY MOISTURE CONDITIONED TO AT LEAST THE OPTIMUM MOISTURE CONTENT AND COMPACTED TO NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY PER ASTM D1557.

   IMPORTED FILL MATERIAL SHALL BE PREDOMINANTLY GRANULAR, NON-EXPANSIVE, AND FREE OF DELETERIOUS OR ORGANIC MATERIAL. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL IMPORT MATERIAL REQUIREMENTS.

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

NORTH

ENGINEERED FILL GENERAL NOTES

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS PROJECT:

   PREPARED BY: WALLACE KUHL AND ASSOCIATES PROJECT NO.: 12277.01P

   TITLED: GEOTECHNICAL INVESTIGATION

   WESTMORE OAKS MODERNIZATION DATED: APRIL 2, 2019

2. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.

3. NO BURNING OR BLASTING SHALL BE PERMITTED, UNLESS APPROVED BY THE ARCHITECT AND CITY/COUNTY ENGINEER, AND GEOTECHNICAL ENGINEER OF RECORD.

4. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED UTILITY CONNECTION POINTS.

5. ALL FILL MATERIAL, EXISTING ONSITE MATERIAL OR IMPORTED, SHALL BE REVIEWED AND APPROVED BY THE SITE GEOTECHNICAL ENGINEER BEFORE USED AS ENGINEERED FILL.

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NO.	REMARKS	DATE

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DSA BACK CHECK
BIDDING
CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

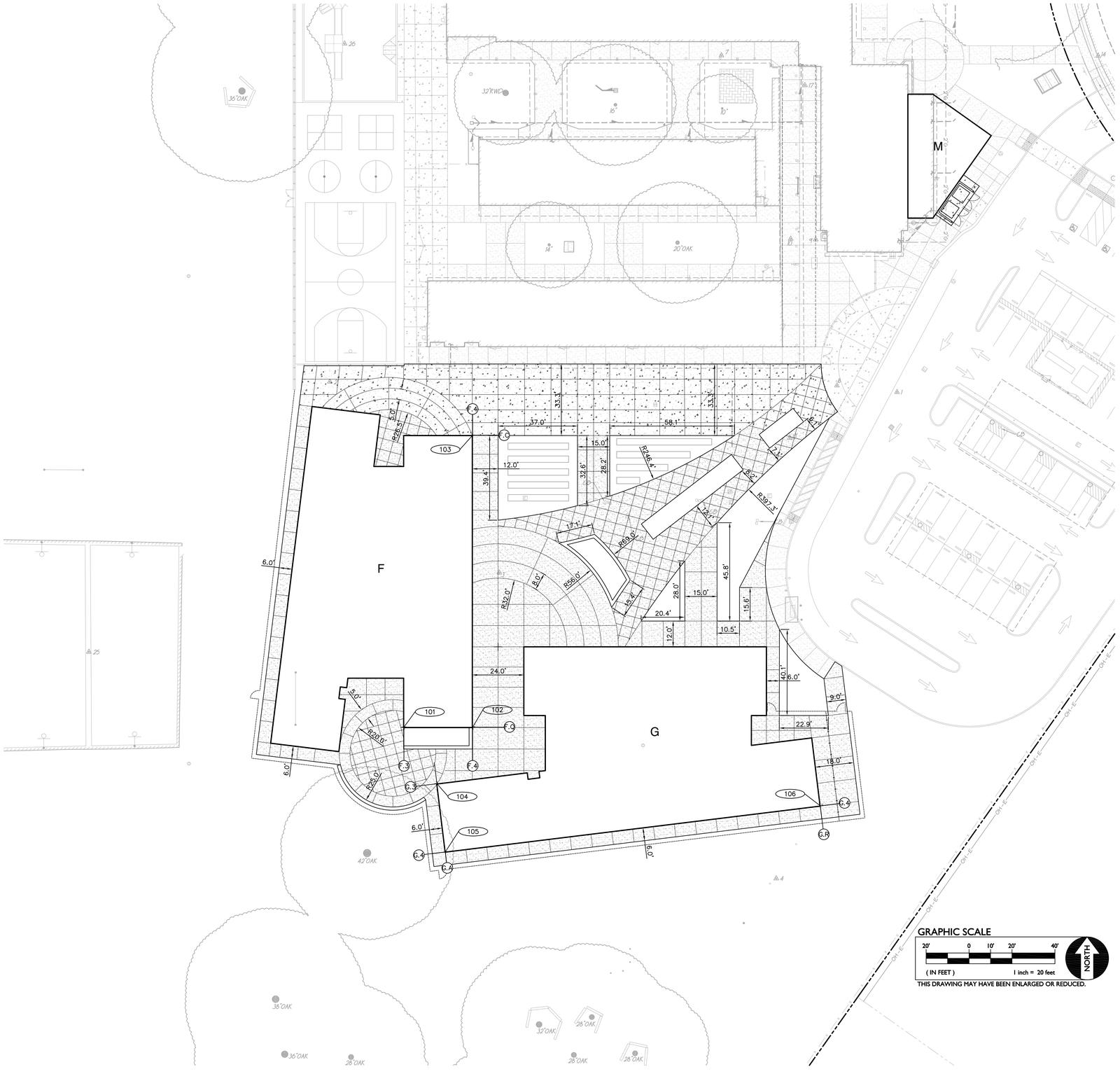
ENGINEERED FILL PLAN

Date 03/29/19
Scale AS NOTED
Drawn AT
CHECKED AT

Project Number 19003

C1.1

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C11.DWG



GENERAL COORDINATE NOTES

1. COORDINATE POINTS SHOWN FOR BUILDING GRID INTERSECTIONS ON THIS PLAN ARE INTENDED AS AID IN LOCATING THE BUILDING ON SITE. THEY SHALL BE USED IN CONJUNCTION WITH THE BUILDING FOUNDATION PLAN AND ARCHITECTURAL FLOOR PLAN TO LAYOUT THE BUILDING SLAB AND FOOTINGS, ETC. IF A CONFLICT IS FOUND, CONTACT THE ARCHITECT FOR DIRECTION.
2. THE LIST OF COORDINATES SHOWN ON THIS SHEET IS CURRENT AS OF THE DATE SHOWN. IF THIS DATE IS OLDER THAN THE PLAN OR REVISION DATE, THE COORDINATES MAY NOT BE CURRENT AND NEW COORDINATES SHOULD BE REQUESTED BY THE CONTRACTOR.
3. LIST CURRENT AS OF: 04-03-19

COORDINATE LIST

BUILDING GRID LINE POINTS

POINT	NORTHING	EASTING	DESCRIPTION
101	9511.83	10663.92	BLDG. F GRID LINE F.3-F.Q
102	9511.83	10695.92	BLDG. F GRID LINE F.4-F.Q
103	9647.83	10695.92	BLDG. F GRID LINE F.4-F.C
104	9485.50	10679.29	BLDG. G GRID LINE G.3-G.A
105	9453.73	10683.19	BLDG. G GRID LINE G.4-G.A
106	9475.18	10857.88	BLDG. G GRID LINE G.4-G.R

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

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ENGINEER

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO No. 074696 OF CALIFORNIA

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NO.	REMARKS	DATE

DATE

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- DSA BACK CHECK
- BIDDING
- CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

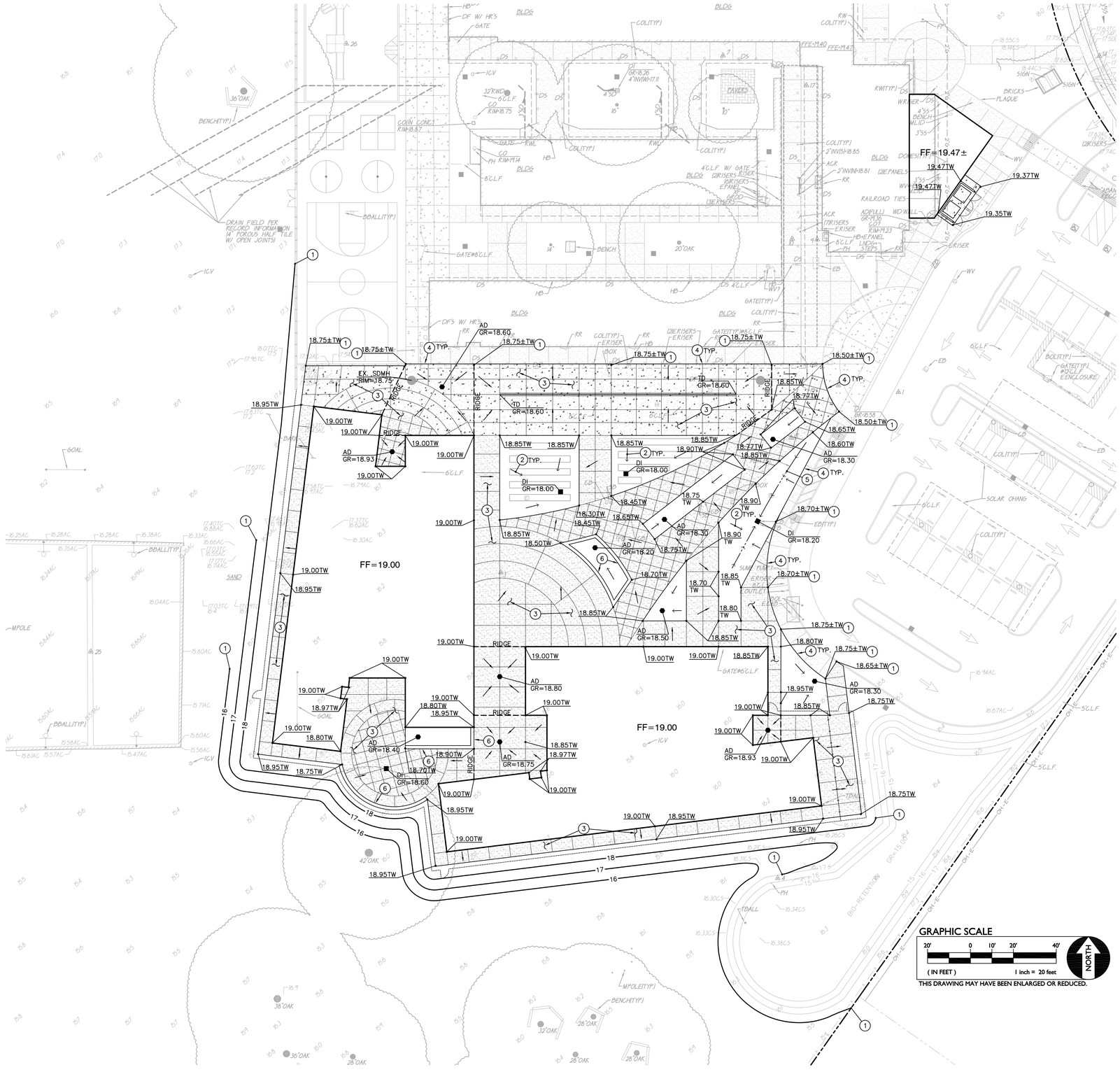
HORIZONTAL CONTROL PLAN

Date 03/29/19
Scale AS NOTED
Drawn AT
CHECKED AT

Project Number 19003

C1.2

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C12.DWG



GRADING NOTES

1. MATCH EXISTING GRADE/ELEVATION.
2. GRADE UNIFORMLY TO INLET AND/OR SWALE.
3. CONSTRUCT CONCRETE SIDEWALK PER (1 / C7.1)
4. DOWEL INTO EXISTING CONCRETE SIDEWALK PER (1 / C7.1)
5. CONSTRUCT SWALE.
6. CONSTRUCT SEAT WALL. SEE ARCHITECTURAL PLANS FOR DETAIL.

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NO.	REMARKS	DATE

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○ CONSTRUCTION	

KEY PLAN

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SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

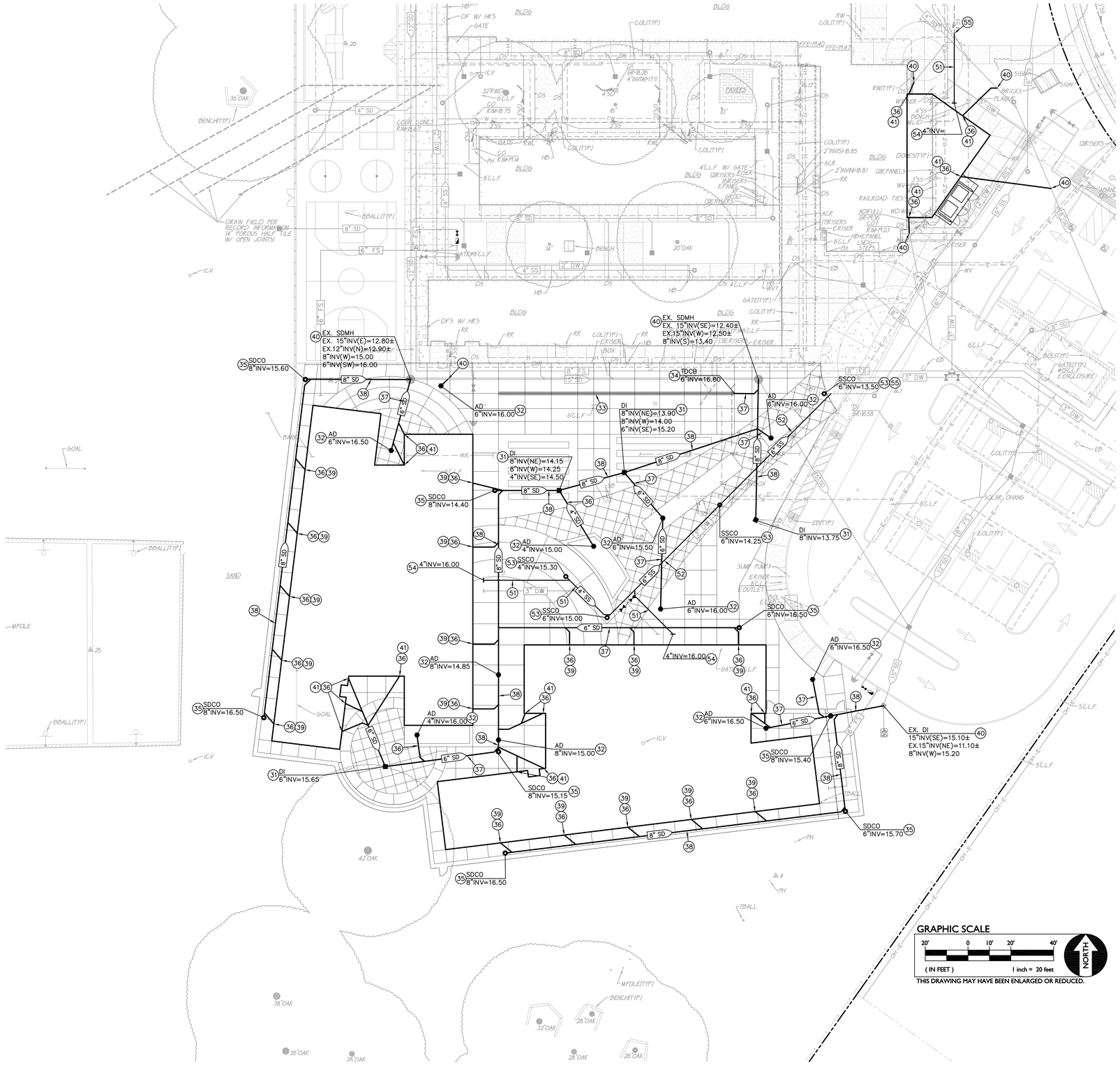
WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

GRADING PLAN

Date 03/29/19
Scale AS NOTED
Drawn AT
CHECKED AT
Project Number 19003

C2.1

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C21.DWG



DRAINAGE NOTES

31. CONSTRUCT DROP INLET PER (2/C7.1) (3/C7.1)
32. CONSTRUCT AREA DRAIN PER (2/C7.1) (3/C7.1)
33. CONSTRUCT TRENCH DRAIN PER (5/C7.1)
34. CONSTRUCT TRENCH DRAIN CATCH BASIN PER (4/C7.1)
35. CONSTRUCT STORM DRAIN CLEANOUT PER (4/C7.1)
36. PLACE 4" STORM DRAIN PER (6/C7.1)
37. PLACE 6" STORM DRAIN PER (6/C7.1)
38. PLACE 8" STORM DRAIN PER (6/C7.1)
39. PROVIDE DOWNSPOUT CONNECTION PER (7/C7.1)
40. CONNECT TO EXISTING STORM DRAIN. FIELD VERIFY EXACT DEPTH, LOCATION AND CONDITION PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
41. CONNECT TO BUILDING ROOF DRAIN. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.

SEWER NOTES

51. PLACE 4" SEWER PER (6/C7.1)
52. PLACE 6" SEWER PER (6/C7.1)
53. CONSTRUCT SEWER CLEANOUT PER (4/C7.1)
54. CONNECT TO BUILDING SEWER SERVICE. REFER TO PLUMBING PLANS FOR EXACT DEPTH AND LOCATION. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
55. CONNECT TO EXISTING SEWER PIPE. FIELD VERIFY EXACT DEPTH, LOCATION AND CONDITION PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.

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KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
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WEST SACRAMENTO, CA 95691

DRAINAGE AND SEWER PLAN

Date 03/29/19
Project Number 19003
Scale AS NOTED
Drawn AT
CHECKED AT

C3.1

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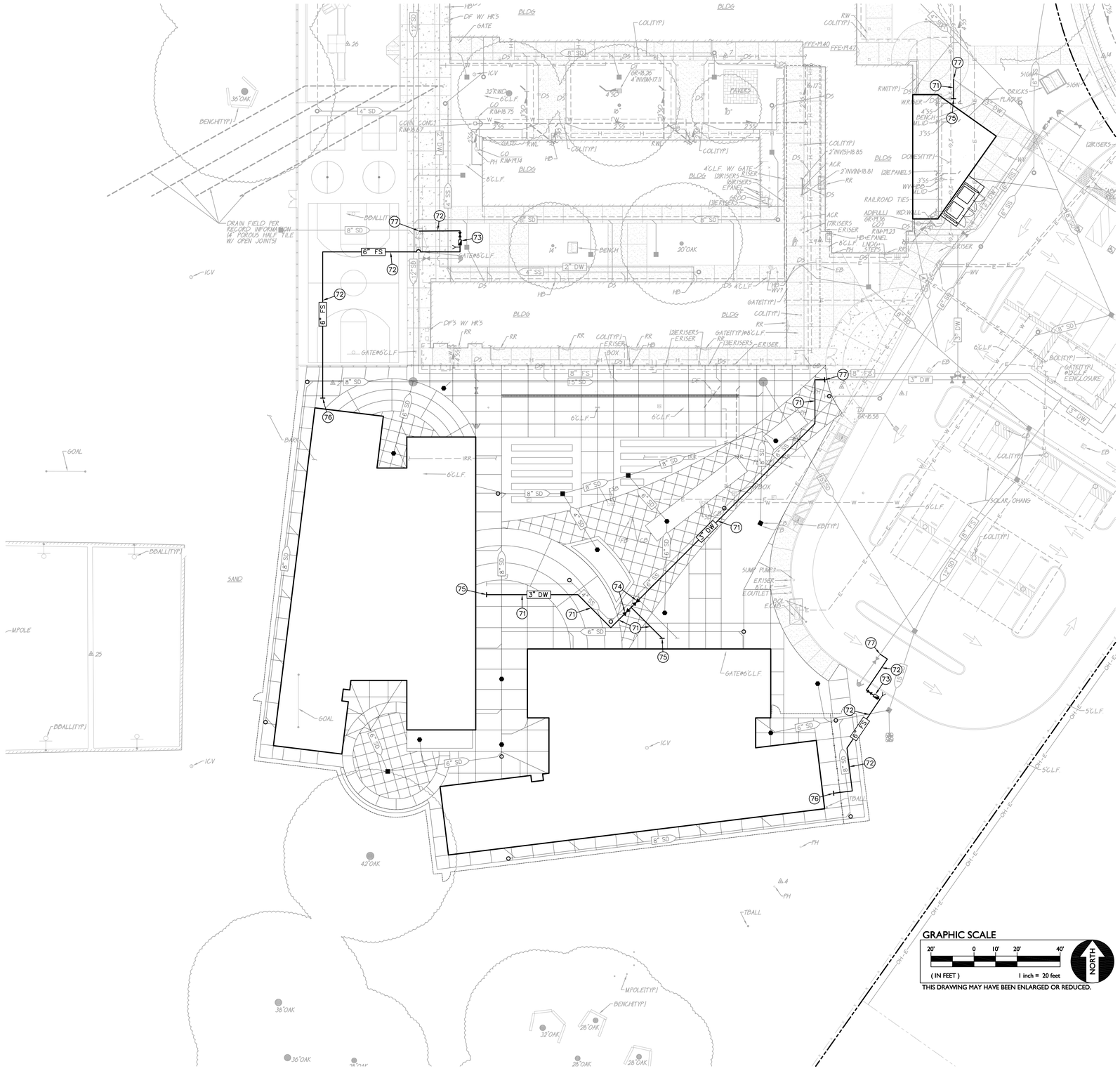

GENERAL THRUST BLOCK NOTE

1. ALL JUNCTION AND BENDS ON WATER MAIN PIPES 4" OR LARGER IN DIAMETER, VERTICAL AND HORIZONTAL SHALL BE PROTECTED WITH THRUST BLOCKS PER DETAIL (9 / C7.1)

WATER NOTES

71. PLACE 3" WATER PER (8 / C7.1)
72. PLACE 6" WATER PER (8 / C7.1)
73. CONSTRUCT FIRE DEPARTMENT CONNECTION, POST INDICATOR VALVE WITH TAMPER SWITCH AND CHECK VALVE. COORDINATE TAMPER SWITCH CONNECTION TO FIRE ALARM WITH ELECTRICAL PLANS. (7 / C7.1)
74. PLACE GATE VALVE AND VALVE BOX. SIZE TO MATCH LINE SIZE. (11 / C7.1)
75. CONNECT TO BUILDING DOMESTIC WATER SERVICE. REFER TO PLUMBING PLANS FOR EXACT DEPTH AND LOCATION, PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
76. CONNECT TO BUILDING FIRE SPRINKLER SERVICE. REFER TO FIRE PROTECTION PLANS FOR EXACT DEPTH AND LOCATION, PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
77. CONNECT TO EXISTING WATER LINE. FIELD VERIFY EXACT DEPTH, LOCATION AND CONDITION PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO No. 074696 STATE OF CALIFORNIA

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NO.	REMARKS	DATE

DATE

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- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

DOMESTIC WATER AND FIRE PROTECTION PLAN

Date 03/29/19
Project Number 19003
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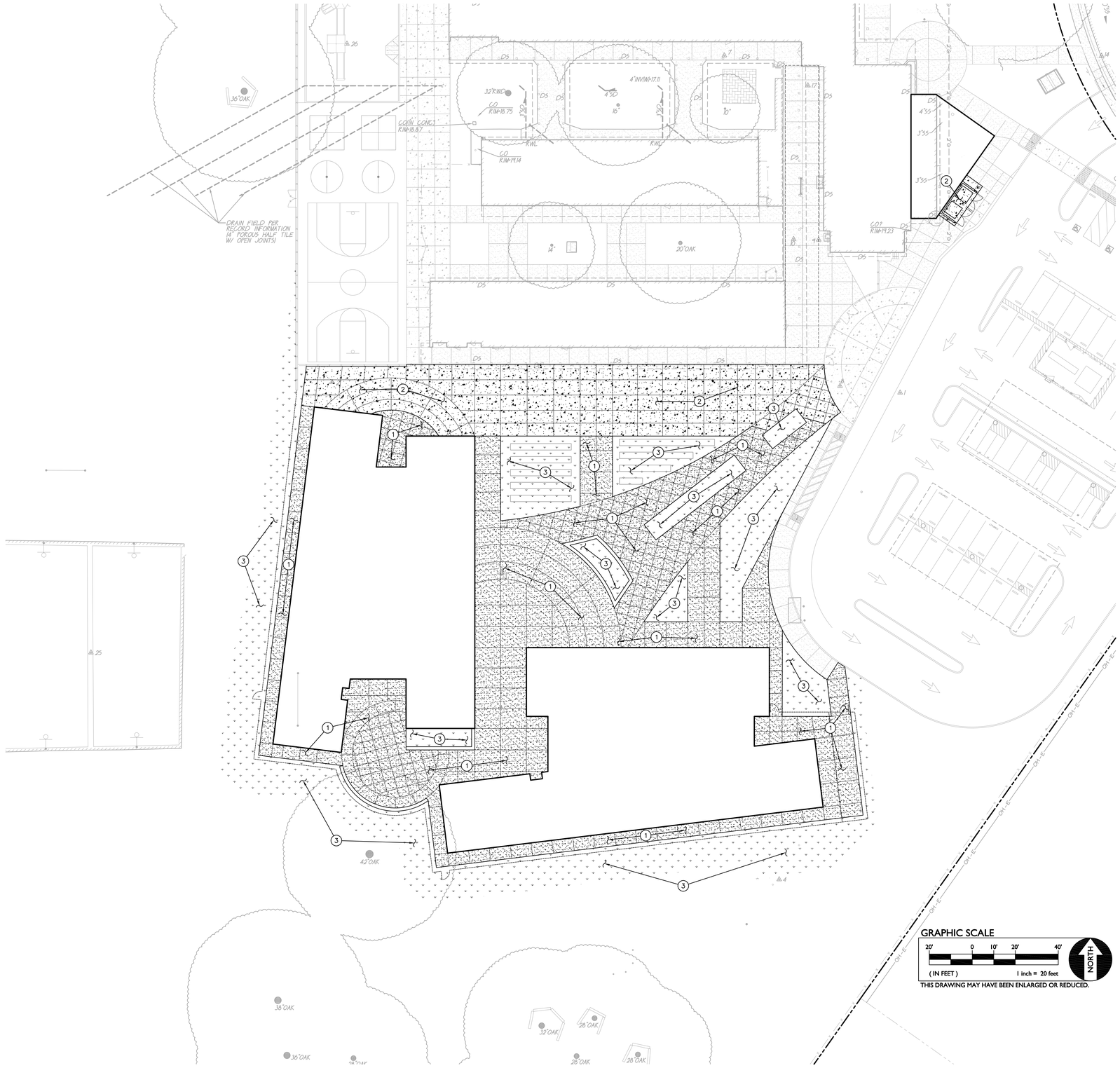

PAVING GENERAL NOTES:

1. ASPHALT MIX SHALL MEET CALTRANS SPECIFICATIONS FOR TYPE B ASPHALTIC CONCRETE. REFERENCE CALTRANS S AND PROJECT SPECIFICATIONS.
2. AGGREGATE BASE SHALL MEET CALTRANS SPECIFICATIONS FOR CLASS II AGGREGATE BASE.
3. ALL AGGREGATE BASE SHALL BE MOISTURE CONDITIONED TO, OR SLIGHTLY ABOVE, OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% RELATIVE COMPACTION.
4. RECYCLED ASPHALT MAY BE USED AS CONCRETE AND ASPHALT BASE MATERIAL PROVIDED IT MEETS CITY OF SACRAMENTO SPECIFICATIONS FOR CLASS II AB.
5. PAVEMENT SUBGRADE PREPARATION, I.E. SCARIFICATION, MOISTURE CONDITIONING, AND COMPACTION SHALL BE PERFORMED AFTER;
   A. POT HOLING ALL EXISTING UTILITIES.
   B. THE INSTALLATION OF UNDERGROUND UTILITIES AND TRENCHES BACKFILLED IN ACCORDANCE WITH THESE PLANS.
6. ALL AREAS DISTURBED BY GRADING, DEMOLITION, OR CONSTRUCTION ACCESS, WHICH ARE NOT SURFACED BY THIS SET OF PLANS, OR LANDSCAPE PLANS, SHALL BE RESTORED.
7. REFER TO GRADING PLANS FOR CURBS, CURB GUTTERS, VALLEY GUTTERS, AND OTHER CONCRETE STRUCTURES AND PAVING FEATURES NOT SPECIFICALLY NOTED ON THIS PLAN.
8. ADJUST TO FINISH GRADE ALL BOXES, FRAMES, COVERS SLEEVES, POST HOLES, GRATES, ETC. FOUND IN NEW ASPHALT OR CONCRETE PAVING AREAS, WHICH ARE NOT NOTED FOR REMOVAL. CLEAN/OR REPLACE AS NECESSARY TO ENSURE PROPER SEATING.

PAVING LEGEND

(1) TYPE 1 PAVING
PLACE 5" PCC WITH #4 REBAR @ 18" O.C.E.W. OVER 4" CLASS II AB ON SUBGRADE COMPACTED PER SPECIFICATIONS.

(2) TYPE 2 PAVING
PLACE 6" PCC WITH #4 REBAR @ 18" O.C.E.W. OVER 6" CLASS II AB ON SUBGRADE COMPACTED PER SPECIFICATIONS.

(3) TYPE 3
PLACE 12" NATIVE TOPSOIL, TO ACHIEVE FINISH GRADES AS SHOWN ON GRADING PLAN FOR ALL AREAS TO RECEIVE PLANTING. SUBGRADE TO BE GRADED TO PROVIDE SLOPE AND SMOOTH LINES CONSISTENT WITH FINISH GRADES TO ALLOW FOR UNIFORM THICKNESS OF TOP SOIL.

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LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER ANTHONY J. TASSANO No. 074696 OF CALIFORNIA

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NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

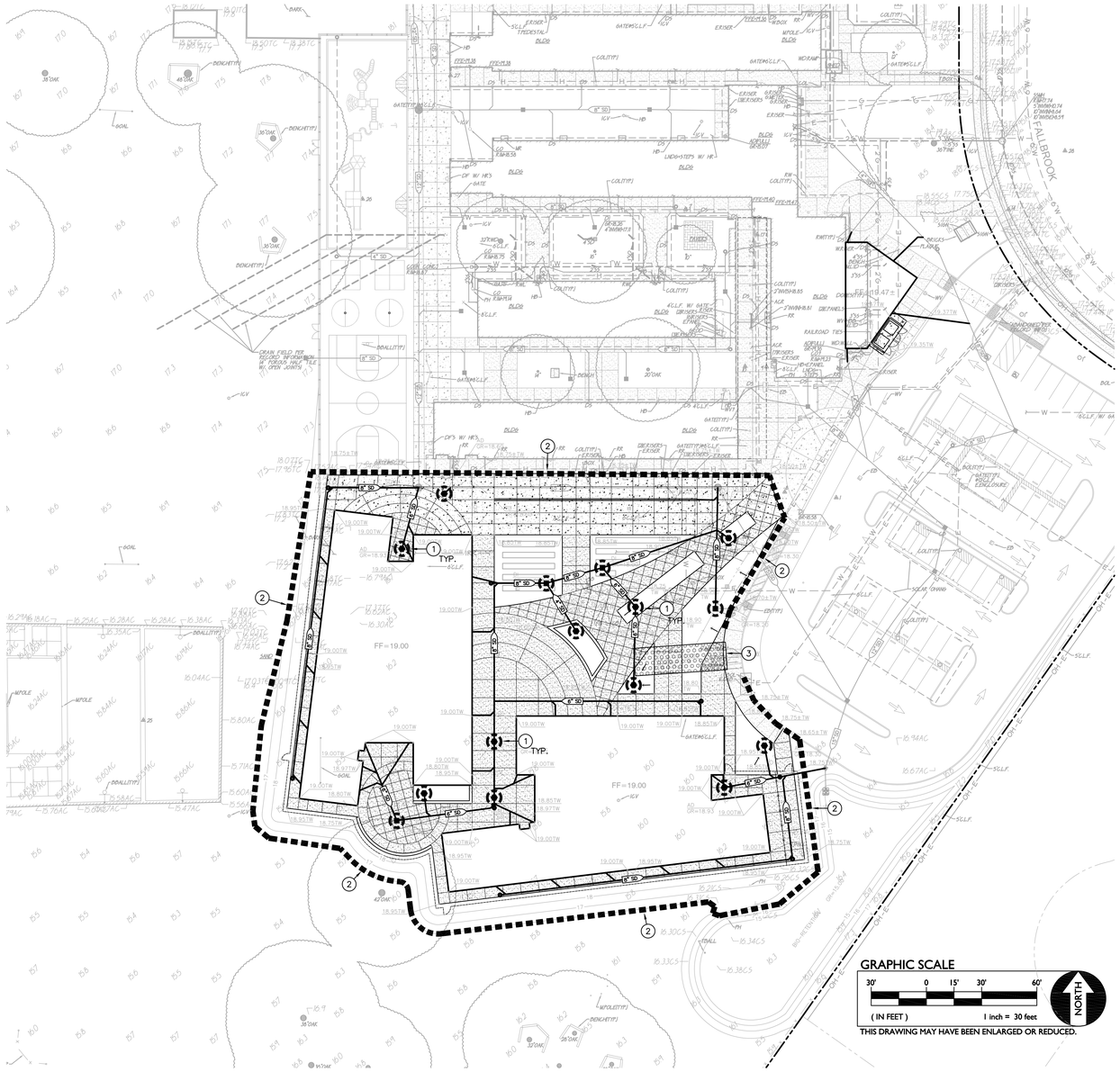
DSA SUBMITTAL

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

PAVING PLAN

Date	Project Number
03/29/19	19003
Scale: AS NOTED	**C5.1**
Drawn: AT	CHECKED: AT

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C51.DWG



ADD TO MAP AS LOCATED IN THE FIELD

- ☒ CONSTRUCTION TRAILER.
- ▩ VEHICLE/EQUIPMENT MAINTENANCE AND FUELING AREA.
- ⊞ COVERED WASTE STORAGE (DUMPSTERS).
- STAGE STAGING AREA
- ▥ MATERIAL STORAGE
- SP SOIL STOCKPILES.
- CWO CONCRETE WASHOUT.

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. IF CERTAIN SOIL TYPES (E.G. COLLOIDAL SOILS) ARE DETECTED, THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL TREATMENT MEASURES PRIOR TO DISCHARGE.
2. CONTRACTOR IS RESPONSIBLE FOR THE DEWATERING AND REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES JUST PRIOR TO THE COMMENCING OF THE FINAL GRADING AND PAVING OPERATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THE SITE TO MINIMIZE DUST CREATED DURING CONSTRUCTION.
4. PRIOR TO PLACEMENT OF HYDRO SEEDING, REMOVE TEMPORARY EROSION CONTROL MEASURES (STRAW WATTLE FENCE AND TRACKED LOOSE STRAW).
5. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPLIANCE WITH STATE WATER RESOURCES CONTROL BOARD REQUIREMENTS.
6. ALL MATERIALS STORED ON-SITE SHALL HAVE PROPER ENCLOSURES AND/OR COVERINGS.
7. CONTRACTOR SHALL MAINTAIN ALL WATTLE OR SILT FENCES AND OTHER STORM WATER POLLUTION PREVENTION DEVICES THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES WEEKLY AS WELL AS BEFORE, DURING, AND AFTER A STORM EVENT. CONTRACTOR SHALL REMOVE ALL EROSION CONTROL AND POLLUTION PREVENTION DEVICES AT THE END OF CONSTRUCTION AS REQUIRED. REFER TO SPECIFICATIONS AND ADDITIONAL REQUIREMENTS.
8. CONTRACTOR SHALL PROVIDE AND MAINTAIN CONSTRUCTION FENCING THROUGHOUT THE PROJECT. THIS FENCING SHALL DETER PEDESTRIANS AND NON-CONSTRUCTION RELATED PERSONNEL FROM ENTERING THE CONSTRUCTION SITE AREA TO THE GREATEST POSSIBLE EXTEND, THE CONTRACTOR SHALL COORDINATE THIS FENCING LAYOUT WITH SCHOOL DISTRICT PERSONNEL PRIOR TO ANY FENCING PLACEMENT SO AS TO NOT SIGNIFICANTLY INTERFERE WITH SCHOOL OPERATION.
9. CONTRACTOR SHALL ADEQUATELY PREVENT EXCESSIVE AMOUNTS OF MUD, SAND, DIRT, AND OTHER DEBRIS FROM BEING TRACKED ONTO THE STREET FROM CONSTRUCTION VEHICLE MOVEMENT. PROVIDE WASHING FACILITIES AT CONSTRUCTION ENTRANCE IF NECESSARY.
10. CONTRACTOR SHALL ADEQUATELY PREVENT EXCESSIVE AMOUNTS OF MUD, SAND, DIRT, AND OTHER DEBRIS FROM BEING TRACKED ONTO THE STREET FROM CONSTRUCTION VEHICLE MOVEMENT. PROVIDE WASHING FACILITIES AT CONSTRUCTION ENTRANCE IF NECESSARY.

NOTE: STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3–1/2" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

1/C6.1 STRAW WATTLE INLET FILTER

NO SCALE

NOTE:
STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"–5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

2/C6.1 STRAW ROLLS

NO SCALE

NOTES:
1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3"–6" ANGULAR ROCK MATERIAL CONFORMING TO SECTION 26 OF STATE SPECIFICATIONS PLACED OVER GEOTEXTILE MATERIAL. ROCK SHALL BE PLACED TO A MINIMUM THICKNESS OF SIX INCHES. THE METHOD OF PLACING, SPREADING AND COMPACTING ROCK SHALL CONFORM TO SECTION 26 OF THE STATE SPECIFICATIONS.
2. LENGTH OF SITE ACCESS SHALL BE A MINIMUM LENGTH OF FIFTY FEET. WIDTH SHALL BE A MINIMUM WIDTH OF TWELVE FEET OR AS NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS.
3. THE SITE ACCESS SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING.

3/C6.1 STABILIZED CONSTRUCTION SITE ACCESS

NO SCALE

PHASE OF CONSTRUCTION	EROSION AND SEDIMENT CONTROL MEASURES																
	WET SEASON					WET & DRY SEASON											
	HYDRO-SEEDING	STRAW MULCHING TACTIFIER	SOIL BINDERS	PRESERVATION OF EXISTING VEGITATION	BLANKETS MATS & GEOTEXTILES	FIBER ROLLS	DUST CONTROL	OUTLET PROTECTION	SILT FENCING	SAND/GRAVEL BAG BARRIERS	STORM DRAIN INLET PROTECTION	SEDIMENT BASIN	SEDIMENT TRAP	DEWATERING	STABILIZED CONSTRUCTION ENTRANCE	MATERIAL & WASTE DISPOSAL LOCATION	CONCRETE WASHOUT
PRE-GRADING	X	X		X			X		N/A			N/A	N/A				
CUT-FILL ACTIVITIES	X	X	X	X	X	X	X			X	X		X	X	X	X	
UNDERGROUND WORK	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X
STORM IMPROVEMENTS	X		X	X	X	X	X	X		X	X		X	X	X	X	X
CURB AND GUTTER	N/A		X	X	X	X	X	X		X	X			X	X	X	X
STREET IMPROVEMENTS			X	X	X	X	X	X		X	X			X	X	X	X
PAVE OUT				X	X		X	X		X	X			X		X	X
POST CONSTRUCTION			X	X	X												
MAINTENANCE SCHEDULE																	
DAILY*																	
WEEKLY*		X	X		X	X		X		X	X				X	X	X
MONTHLY*																	
BEFORE RAIN		X	X		X	X		X		X	X						
DURING RAIN		X	X		X	X		X		X	X						
AFTER RAIN		X	X		X	X		X		X	X						
AS NEEDED	↓			X			X		↓			↓	↓	X			

* = WHEN RAIN EVENT INSPECTIONS OCCURS, THEY MAY QUALIFY AS A DAILY, WEEKLY, OR MONTHLY INSPECTION AS APPLIES.

ANY CHANGES MADE TO THE SWPPP IN THE FIELD MUST BE SHOWN ON THE MAP. UPDATE MAP TO REFLECT CHANGES.

MAINTENANCE/REPAIRS OF BMP FAILURE SHALL BEGIN WITHIN 72 HOURS OF IDENTIFICATION AND CHANGES SHALL BE COMPLETED PRIOR TO THE NEXT RAIN EVENT.

STORM DRAINAGE OUTFALL BMP'S
REFER TO PROTECT CONSTRUCTION PLAN DETAILS FOR SPECIFIC POST CONSTRUCTION BMP MEASURES AT OUTFALL STRUCTURES.

SEDIMENT AND EROSION CONTROL MEASURES ON SWPPP MAP ARE MINIMUM BMP'S RECOMMENDED FOR COMPLIANCE. CONSTRUCTION SITE MUST BE MONITORED AND BMP'S SHALL BE MODIFIED DEPENDING ON CONSTRUCTION SCHEDULE AND RAIN EVENTS.

LEGEND

EROSION CONTROL NOTES

NOTE: EXACT LOCATION WILL BE COORDINATED BY CONTRACTOR AND PROJECT QSP.

LEGEND	#	EROSION CONTROL NOTES
◉ ◙	1.	CONTRACTOR SHALL PROVIDE STRAW WATTLE BARRIER AT ALL INLETS (NEW AND/OR EXIST.) IN AREAS OF ON-SITE WORK PER 1/C6.1 THE DETAIL PROVIDED. IN ADDITION TO WATTLE, PROVIDE FILTER BAG AT EACH INLET. STRAW WATTLES NOT REQUIRED AT INLETS IN PAVED AREAS, ONLY FILTER BAG.
▬ ▬ ▬	2.	CONTRACTOR SHALL PROVIDE STRAW WATTLES AT 2/C6.1 PERIMETER OF SITE PER DETAIL
▒	3.	CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION SITE ACCESS 3/C6.1 PER DETAIL
STAGE	4.	CONTRACTOR SHALL CONSTRUCT AND UTILIZE A STAGING AREA IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS IN SECTION 4 OF THE CALIFORNIA STORMWATER QUALITY ASSOCIATION BMP HANDBOOK. SIZE AS NEEDED. AFTER CONSTRUCTION COMPLETE, RETURN AREA TO NATURAL CONDITION.

MONITORING SCHEDULE

1. WITHIN 2 BUSINESS DAYS (48 HOURS) PRIOR TO EACH QUALIFYING RAIN EVENT.
2. EVERY 24 HOURS DURING A QUALIFYING RAIN EVENT.
3. WITHIN 2 BUSINESS DAYS (48 HOURS) AFTER EACH QUALIFYING RAIN EVENT RESULTING IN 0.50 INCHES OF RAIN OR MORE.
4. RECORD THE TIME, DATE AND RAIN GAUGE READING OF ALL QUALIFYING RAIN EVENTS.
5. QUARTERLY NON-STORM WATER DISCHARGE INSPECTIONS.
6. WEEKLY INSPECTIONS.

RISK LEVEL 2

PROJECT INFORMATION

PARCEL AREA	– ACRES
TOTAL DISTURBED AREA	– ACRES
S.W.P.P.P. REQUIRED?	YES

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DSA SUBMITTAL

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
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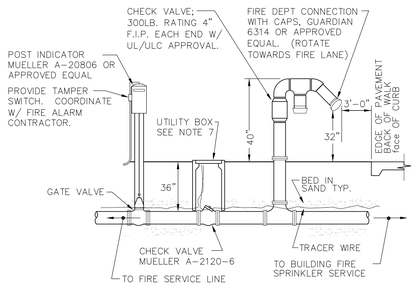
WEST SACRAMENTO, CA 95691

EROSION CONTROL PLAN

Date 03/29/19
Project Number 19003
Scale AS NOTED
Drawn AT
CHECKED AT

C6.1

FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C61.DWG

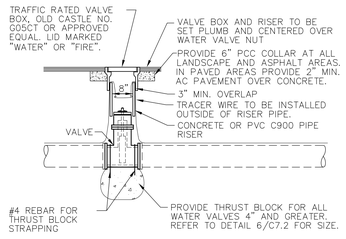


FIRE DEPARTMENT NOTES

1. THE INSTALLATION OF ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL BE IN ACCORDANCE WITH N.F.P.A. 24 AND FIRE DEPARTMENT STANDARDS.
2. ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF N.F.P.A. 24 AND SHALL BE WITNESSED BY THE FIRE DEPARTMENT. UNDERGROUND PIPING SHALL BE FLUSHED PER NFPA13 AND RISER STUB-UP IMMEDIATELY CAPPED.
3. THE INSTALLING CONTRACTOR, OR SUBCONTRACTOR, FOR ALL ON-SITE FIRE PROTECTION SYSTEMS SHALL NOTIFY THE FIRE DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF REQUESTING A DATE AND TIME FOR INSPECTIONS.
4. IF PLASTIC PIPE IS INSTALLED FOR FIRE PROTECTION SYSTEMS, THE PIPE SHALL BE C-900 CLASS 200.
5. AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES, EXCEPT THRUST BLOCKS, USED ON ON-SITE FIRE PROTECTION SYSTEMS SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL.
6. ALL PIPES AND FITTINGS SHALL BE WRAPPED PER N.F.P.A. 24 AND BEDDED IN SAND.
7. PROVIDE UTILITY BOX. FOR 4" - 6" VALVE CHRISTY N48, FOR 8"+ CHRISTY N52 OR APPROVED EQUAL. PROVIDE 12" MIN CHAIN WELDED TO LIDS AND BOLTED TO INSIDE OF BOX. LID SHALL BE TRAFFIC RATED IF WITHIN A TRAFFIC AREA.

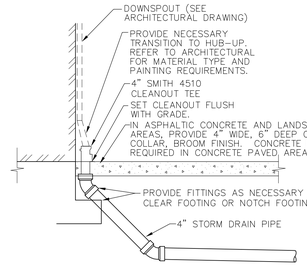
10 / C7.1 FIRE DEPARTMENT CONNECTION ASSEMBLY — NO SCALE

WATER VALVE 1/2"-3" — NO SCALE

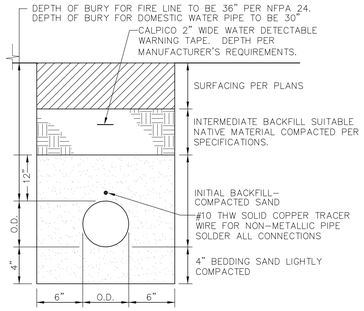


WATER VALVE 4" OR GREATER — NO SCALE

11 / C7.1 WATER VALVE — NO SCALE



7 / C7.1 DOWNSPOUT CONNECTION — NO SCALE



8 / C7.1 WATER TRENCH — NO SCALE

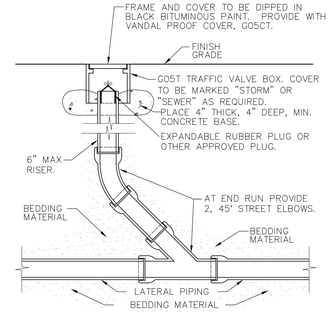
REQUIRED BEARING AREAS IN SQ. FT.

INSTALLATION	FITTING TYPE	PIPE SIZES 4"	6"	8"	10"	12"
	90° ELL	5	11	19	28	39
	45° ELL	3	6	10	15	21
	22.5° ELL	2	3	5	8	11
	11.25° ELL	1	2	3	4	6
	TEE	4	8	13	20	28
	DEAD END	4	8	13	20	28
GATE VALVE 4" OR LARGER						
#4 BARS TRENCH KEY 6" MIN.		4	8	13	20	28

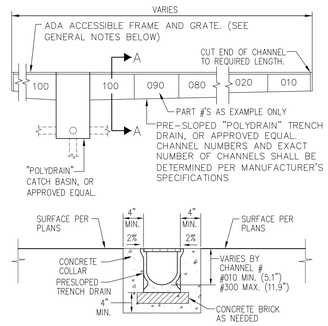
NOTES

1. THRUST BLOCKS ARE TO BE CONSTRUCTED OF 2500 PSI CONCRETE MIN.
2. AREAS IN TABLE HAVE BEEN DERIVED USING A WATER PRESSURE OF 200 POUNDS PER SQUARE INCH (13.8 BARS) AND SOIL RESISTANCE OF 1500 POUNDS PER SQUARE FOOT (137.9 BARS).
3. BLOCKING TO BE POURED AGAINST UNDISTURBED SOIL, 12 INCH THICK MINIMUM.
4. THRUST BLOCKS ARE TO BE FREE, SEPARATE AND INDEPENDENT OF ADJACENT OR NEARBY THRUST BLOCKS.
5. WRAP ALL FITTINGS BEFORE PLACING CONCRETE.

9 / C7.1 THRUST BLOCKS — NO SCALE



4 / C7.1 CLEANOUT — NO SCALE

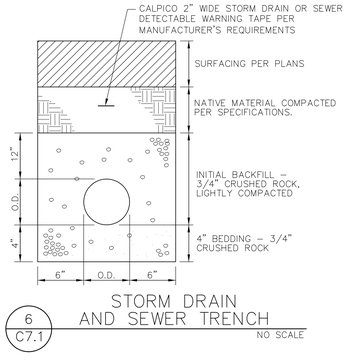


SECTION A-A

GENERAL NOTES:

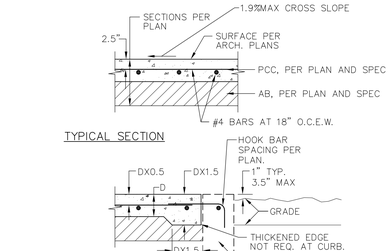
1. GRATE SHALL ADA ACCESSIBLE, POLYDRAIN MODEL 2412 OR APPROVED EQUAL. IF PLACED IN FIRE LANE OR AREA DESIGNATED FOR VEHICLE TRAFFIC PROVIDE POLYDRAIN MODEL 2506.
2. IF TRENCH DRAIN IS PLACED IN FIRE LANE OR AREA DESIGNATED FOR VEHICLE TRAFFIC PROVIDE GALVANIZED STEEL "OVERLAY RAILS" AS SUPPLIED BY POLYDRAIN, OR APPROVED EQUAL.
3. CONTRACTOR SHALL FURNISH AND INSTALL A MODEL 2811B LOCKING DEVICE, OR APPROVED EQUAL, FOR ALL TRENCH DRAIN GRATES.
4. CONTRACTOR SHALL FURNISH AND INSTALL A TRASH BUCKET, MODEL 2900, IN ALL TRENCH DRAIN CATCH BASINS.
5. CONTRACTOR SHALL PURCHASE AND FURNISH THE MAINTINENCE/OPERATIONS DEPARTMENT OF THE SCHOOL WITH 2 MODEL 2231 TRENCH DRAIN SHOVEL HEADS, WITH STANDARD WOOD, OR COMPOSITE HANDLES.
6. ALL MITERED JOINTS SHALL BE SEALED WITH POLYDRAIN "POLYSEAL" CAULKING OR APPROVED EQUAL.

5 / C7.1 TRENCH DRAIN DETAIL — NO SCALE

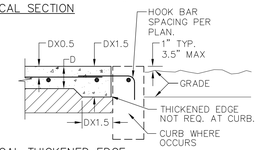


STORM DRAIN AND SEWER TRENCH

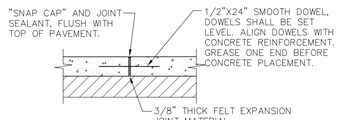
6 / C7.1 — NO SCALE

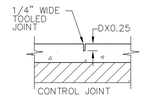


TYPICAL SECTION

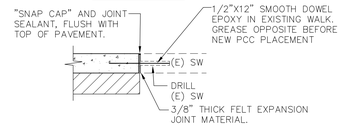


TYPICAL THICKENED EDGE





TYPICAL JOINTS

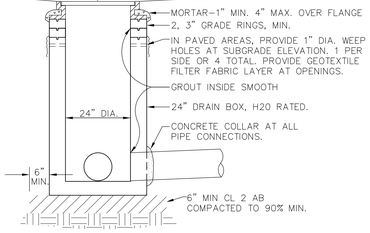


CONNECTION TO (E) CONCRETE

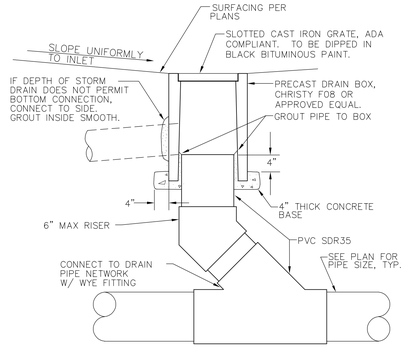
NOTE:

PROVIDE EXPANSION JOINTS AT 20 FEET O.C. MAX
PROVIDE CONTROL JOINTS AT 10 FEET O.C. MAX

1 / C7.1 CONCRETE SIDEWALK — NO SCALE



2 / C7.1 DROP INLET — NO SCALE



3 / C7.1 AREA DRAIN — NO SCALE

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DSA SUBMITTAL

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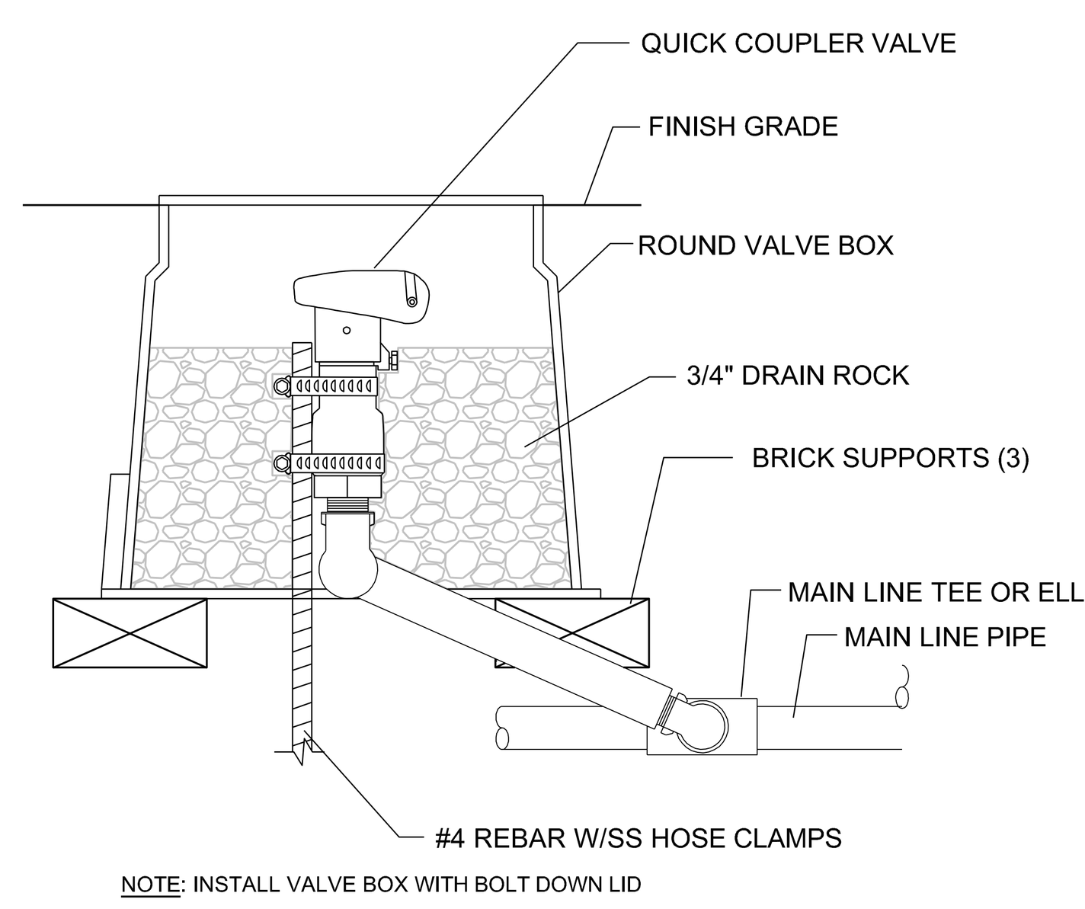
DETAILS AND SECTIONS

Date	Project Number
03/29/19	19003
Scale: AS NOTED	C7.1
Drawn: AT	CHECKED: AT

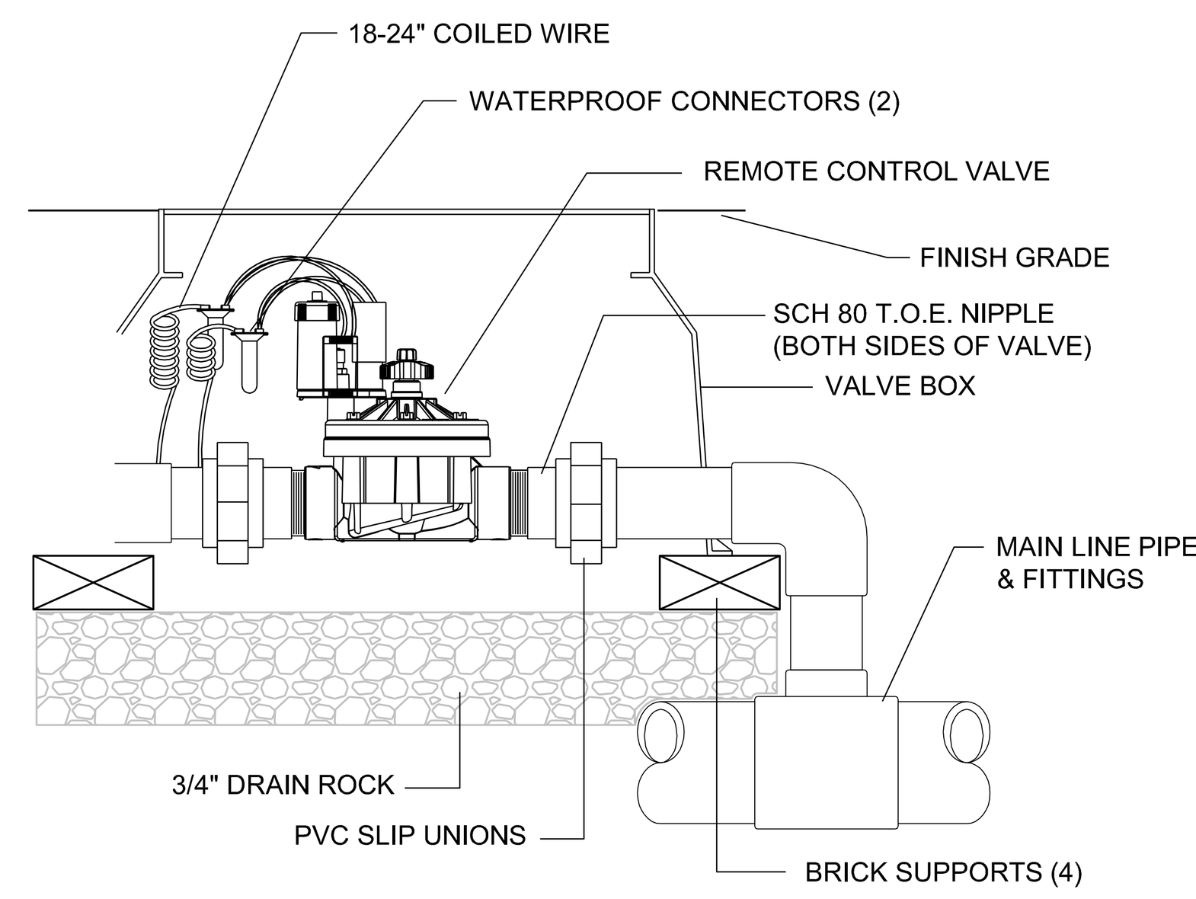
FILENAME: I:\19-022\CIVIL\DWG\NEW CONSTRUCTION\19-022-C7.DWG

LANDSCAPE GENERAL NOTES

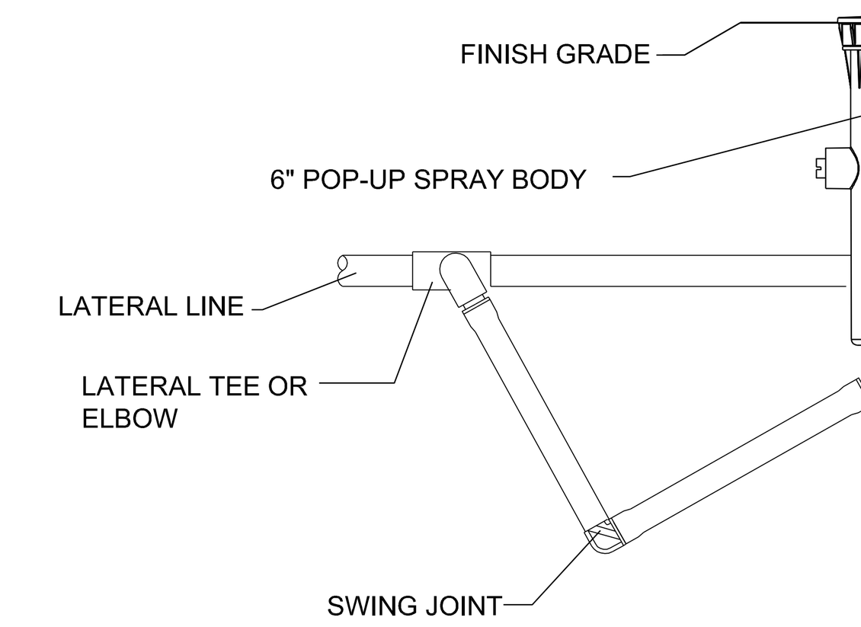
1. CONSTRUCTION DOCUMENTS ARE PART OF THE CONTRACT DOCUMENTS. BY SUBMITTING A BID OR STARTING WORK, THE CONTRACTOR SIGNIFIES UNDERSTANDING AND ACCEPTANCE OF ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS PROVIDED BY THE OWNER/DEVELOPER, INCLUDING BUT NOT LIMITED TO THE GENERAL CONDITIONS, SPECIAL CONDITIONS, PROJECT SPECIFICATIONS, CONSTRUCTION DOCUMENTS AND ANY ADDENDA.
2. THE CONTRACTOR SHALL EXAMINE THE SITE, COMPARE IT WITH THE PLANS, CAREFULLY EXAMINE ALL THE CONTRACT DOCUMENTS AND BECOME SATISFIED AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED BEFORE ENTERING INTO THIS CONTRACT. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE ON BEHALF OF THE CONTRACTOR ON ACCOUNT OF THAT CONTRACTOR'S ERROR, NEGLIGENCE OR FAILURE TO BECOME ACQUAINTED WITH THE CONDITIONS OF THE SITE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO VISUALLY INSPECT THE SITE PRIOR TO STARTING THE WORK AND FOR DOCUMENTING DAMAGE TO ANY EXISTING FEATURES. ANY DAMAGE TO THE EXISTING STREETS, SIDEWALKS, ADJACENT PROPERTIES OR ANY EXISTING FEATURES THAT ARE TO REMAIN (INCLUDING BUT NOT LIMITED TO EXISTING PLANT MATERIAL AND UTILITIES) DURING THE CONSTRUCTION OF THIS PROJECT SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. COMPACTION OF BACKFILL BY JETTING IS NOT PERMITTED UNLESS SPECIFIC REPORTS ARE SUBMITTED BY THE GEOTECHNICAL ENGINEER TO THE ENGINEERING DIVISION STATING THAT COMPACTION OF BACKFILL BY JETTING IS AN ACCEPTABLE METHOD OF COMPACTION FOR THE SOILS ENCOUNTERED.
5. THE CONTRACTOR SHALL PERFORM ALL CLEARING, DEMOLITION, REMOVAL AND SITE PREPARATION NECESSARY FOR THE PROPER EXECUTION OF ALL WORK DESCRIBED WITHIN THIS PLAN SET. ANY ITEMS REQUIRED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF OFF SITE.
6. ALL EXISTING FEATURES AND STRUCTURES NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE RETAINED AND PROTECTED IN PLACE. ANY EXISTING FEATURES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE AND THE CERTIFICATE OF COMPLETION (REQUIREMENTS ABOVE) UPON COMPLETION OF THE LANDSCAPE IMPROVEMENTS. FAILURE TO SUBMIT THE REQUIRED CERTIFICATES MAY DELAY THE FINAL APPROVAL OF THE LANDSCAPE IMPROVEMENTS AND PROJECT CERTIFICATE OF OCCUPANCY.
8. LANDSCAPE SUBMITTALS (MANUFACTURERS PRODUCT SHEETS) SHALL BE PROVIDED PRIOR TO THE START OF THE WORK. LANDSCAPE SUBMITTALS SHALL INCLUDE SOIL AMENDMENT ANALYSIS REPORT (PER PLANTING NOTES).
9. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST DURING THE CONSTRUCTION PERIOD (OR WHENEVER SOIL IS LEFT EXPOSED). ALL DUST CONTROL MEASURES MUST BE IMPLEMENTED AS NECESSARY, INCLUDING DAYS WHEN CONSTRUCTION ACTIVITIES ARE NOT OCCURRING (I.E. WEEKENDS OR HOLIDAYS).
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A MINIMUM 30-DAY MAINTENANCE PERIOD FOR ALL PLANTING AREAS UPON FINAL ACCEPTANCE OF THE LANDSCAPE IMPROVEMENTS BY THE OWNER AND LOCAL AGENCY.
11. CONTRACTOR SHALL PROVIDE SOIL AMENDMENTS AS SHOWN ON SHEET L3 AND PER THE NOTES REQUIRING A SOILS TEST.
12. CONTRACTOR SHALL CONNECT TO EXISTING IRRIGATION CONTROLLER THAT WAS INSTALLED FROM THE PHASE 1 IMPROVEMENTS. COORDINATE WITH DISTRICT ON LOCATION AND REQUIREMENTS.
13. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE AND PAY FOR LABOR, MATERIALS, EQUIPMENT, TOOLS, MACHINERY, UTILITIES, TRANSPORTATION AND OTHER FACILITIES AND SERVICES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK, WHETHER TEMPORARY OR PERMANENT, AND WHETHER INCORPORATED OR NOT INCORPORATED IN THE WORK.
14. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK, INCLUDING COORDINATION OF TRADES. ALL WORK SHALL BE ACCOMPLISHED BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. THE CONTRACTOR SHALL EMPLOY A SUPERINTENDENT TO SUPERVISE THE WORK ON SITE WHO SHALL BE THE CONTRACTORS REPRESENTATIVE.
15. CONFORM TO ALL APPLICABLE CODES AND ORDINANCES, INCLUDING AIR QUALITY, NOISE AND WORK HOUR REQUIREMENTS.
16. IF ANY HAZARDOUS MATERIALS, BURIAL MARKERS, ARCHEOLOGICAL MATERIALS OR WETLANDS ARE FOUND, CONTRACTOR SHALL SUSPEND WORK IMMEDIATELY AND NOTIFY THE OWNER IN WRITING. WORK SHALL BE SUSPENDED UNTIL THE SIGNIFICANCE OF THE DISCOVERY IS ASSESSED BY A QUALIFIED PROFESSIONAL AND MITIGATION MEASURES ARE APPROVED.
17. DURING PROGRESSION OF THE WORK, THE CONTRACTOR SHALL MAINTAIN A COPY OF THE DRAWINGS ON SITE IN A NEAT AND ORDERLY MANNER, INCLUDING ALL ADDENDA, REQUESTS FOR INFORMATION, SUPPLEMENTAL INFORMATION, APPROVED SUBSTITUTIONS, APPROVED SHOP DRAWINGS, AND OTHER DOCUMENTS AND MARK THIS COPY TO INDICATE FIELD CHANGES AND AND BUILT CONDITIONS THROUGHOUT THE PROGRESSION OF THE WORK.
18. UNTIL PROJECT ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROJECT AND MAINTAIN THE JOB SITE, INCLUDING ERECTING TEMPORARY FENCING, REMOVING TRASH, SWEEPING AND CLEANING. THE JOB SITE SHALL BE KEPT IN A NEAT AND CLEAN CONDITION AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS ON THE JOB SITE AND SHALL REPLACE ANY MATERIALS DAMAGED OR LOST THROUGH THEFT OR OTHER REASONS AT NO ADDITIONAL COST TO THE OWNER.



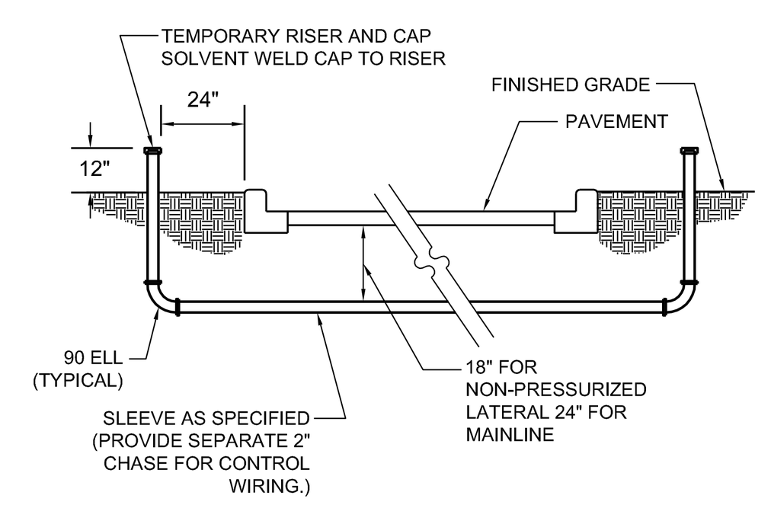
A- QUICK COUPLER
NTS



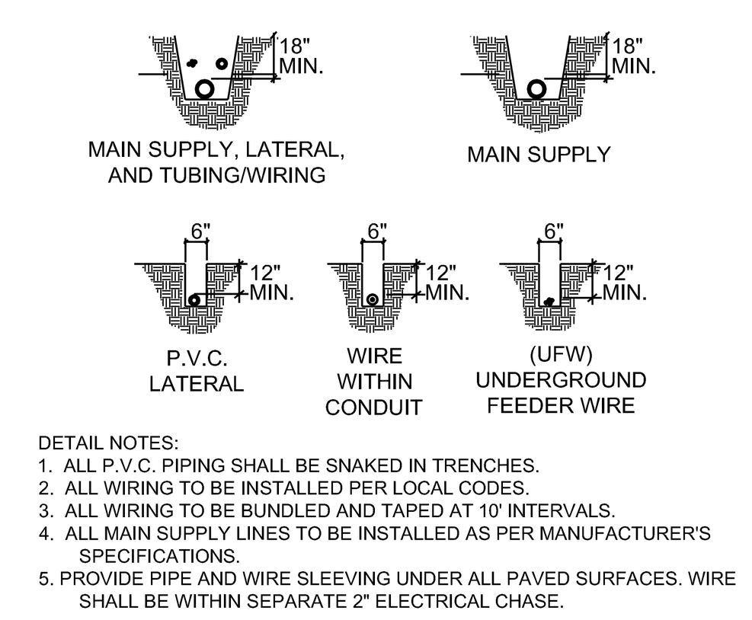
B- REMOTE CONTROL VALVE (SPRAY)
NTS



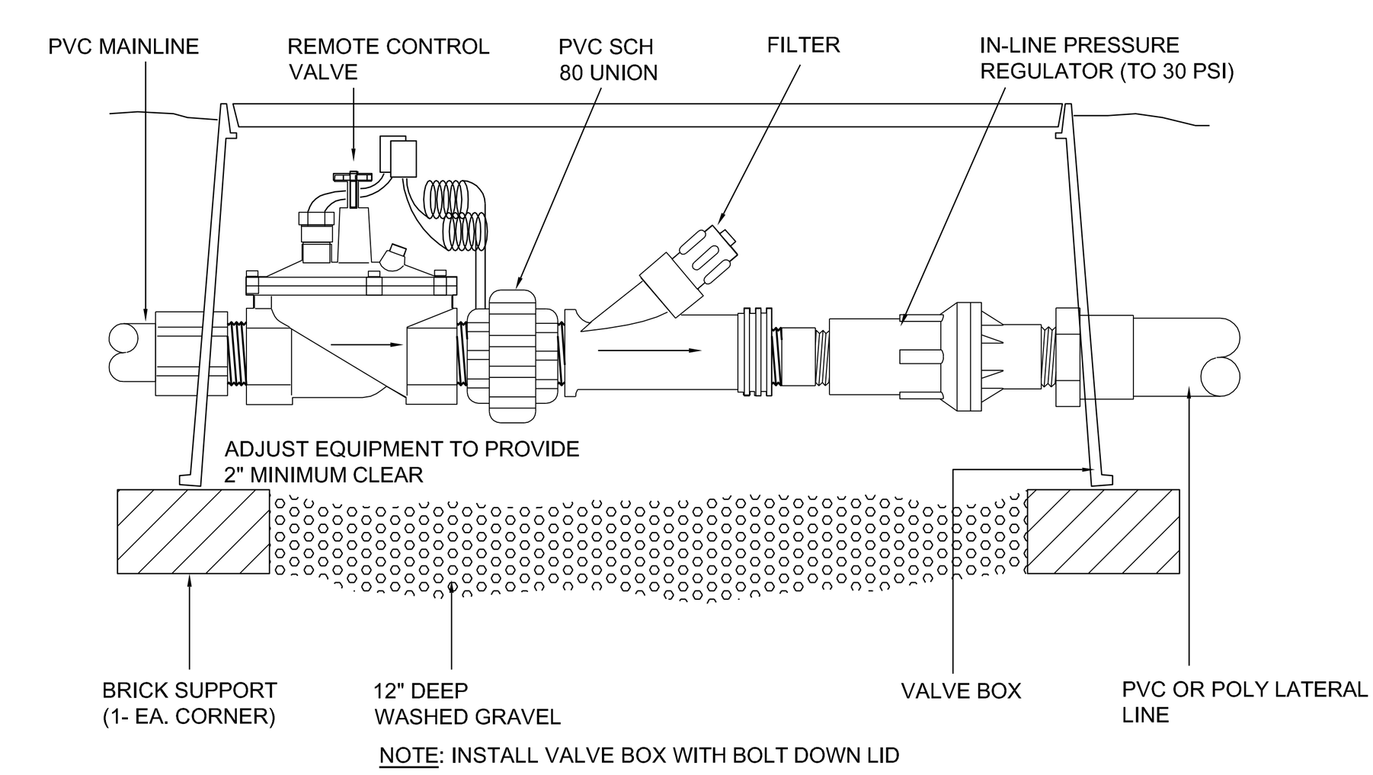
C- 6" POP-UP SPRAY HEAD
NTS



D- SLEEVE INSTALLATION
NTS



E- TRENCHING
NTS



F- REMOTE CONTROL VALVE (DRIP)
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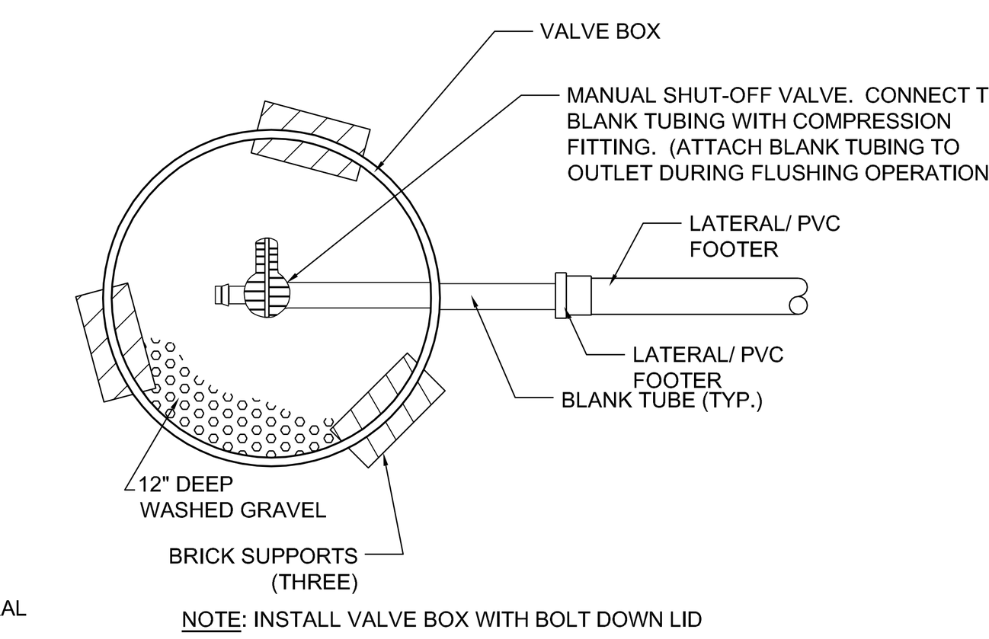
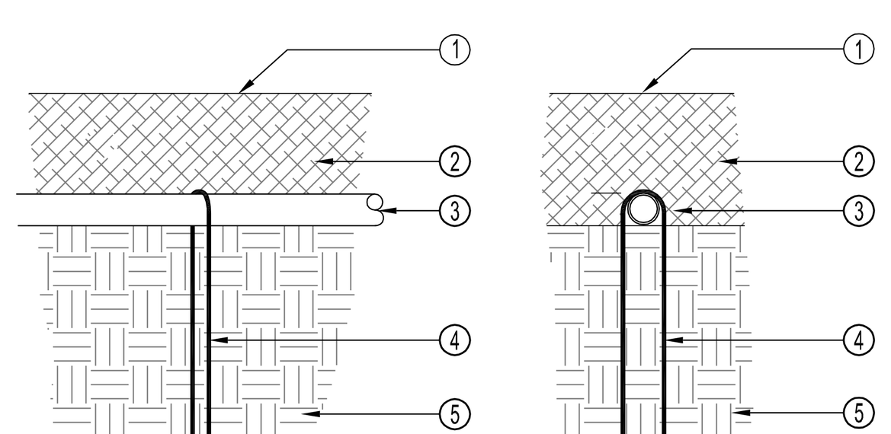


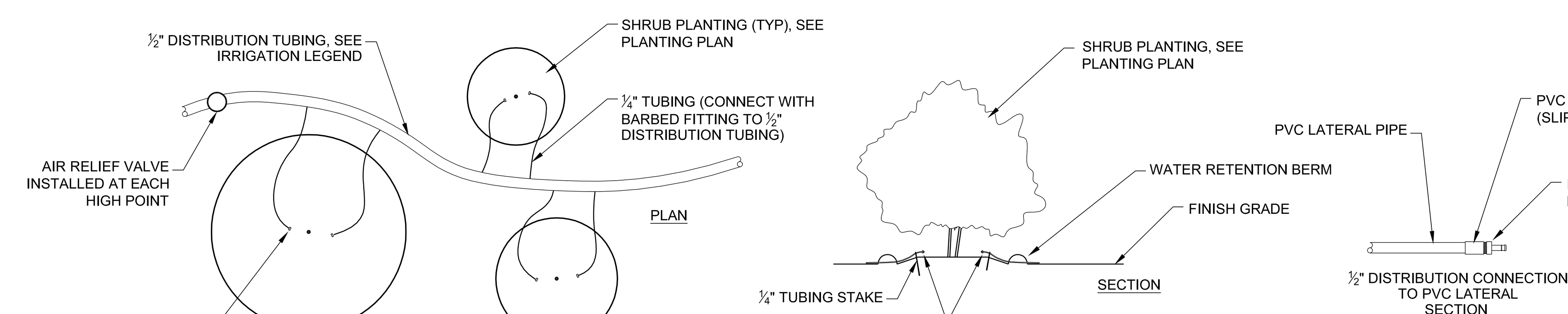
G- LINE FLUSH VALVE
NTS



1. BARK FINISH GRADE.
2. BARK DEPTH PER PLANTING PLANS.
3. DRIPLINE.
4. STEEL DRIPLINE STAPLE
5. COMPACTED SUBGRADE.

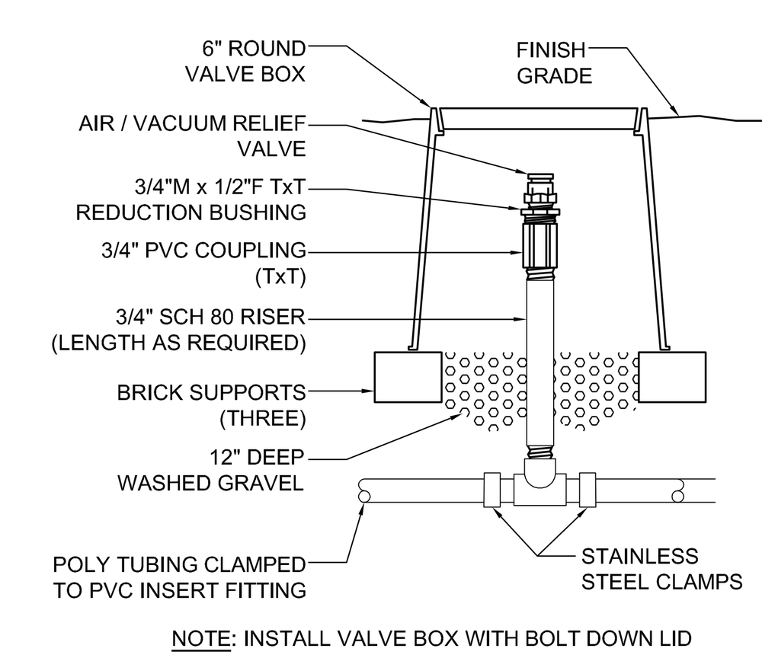
NOTE: LOCATE STAPLES ALONG TUBING AT 36" ON EMITTERS AND AT ALL FITTINGS (TEES, ELLS, ETC.)

H-DRIPTUBE STAPLE
NTS

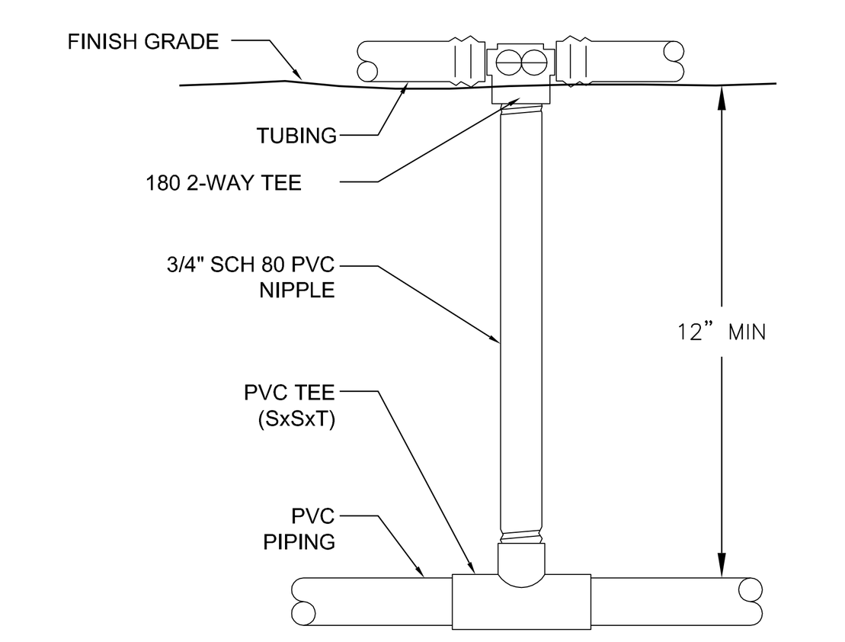


NOTES:
1. MAXIMUM LENGTH OF ¼" TUBING NOT TO EXCEED 24".
2. INSTALL TWO (2) 1.0 GPH EMITTERS PER 1 GALLON SHRUB AND TWO (2) 2.0 GPH EMITTERS PER 5 GALLON SHRUB.
3. CONNECT ½" DISTRIBUTION LINE TO PVC LATERAL PER SECTION ABOVE.
4. INSTALL SOIL STAPLES 36" ON CENTER ALONG THE DISTRIBUTION TUBE AND AT EVERY FITTING.

I- POINT SOURCE DRIP TUBE LAYOUT
NTS



J- AIR/VACCUM RELIEF
NTS



K- STARTER CONNECTION
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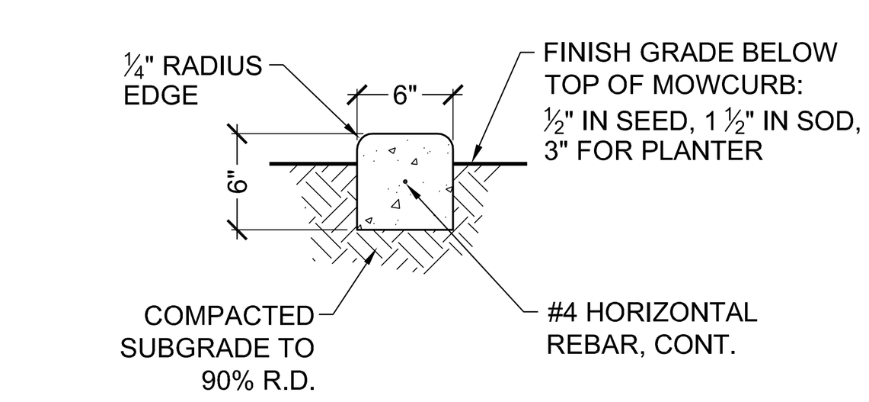
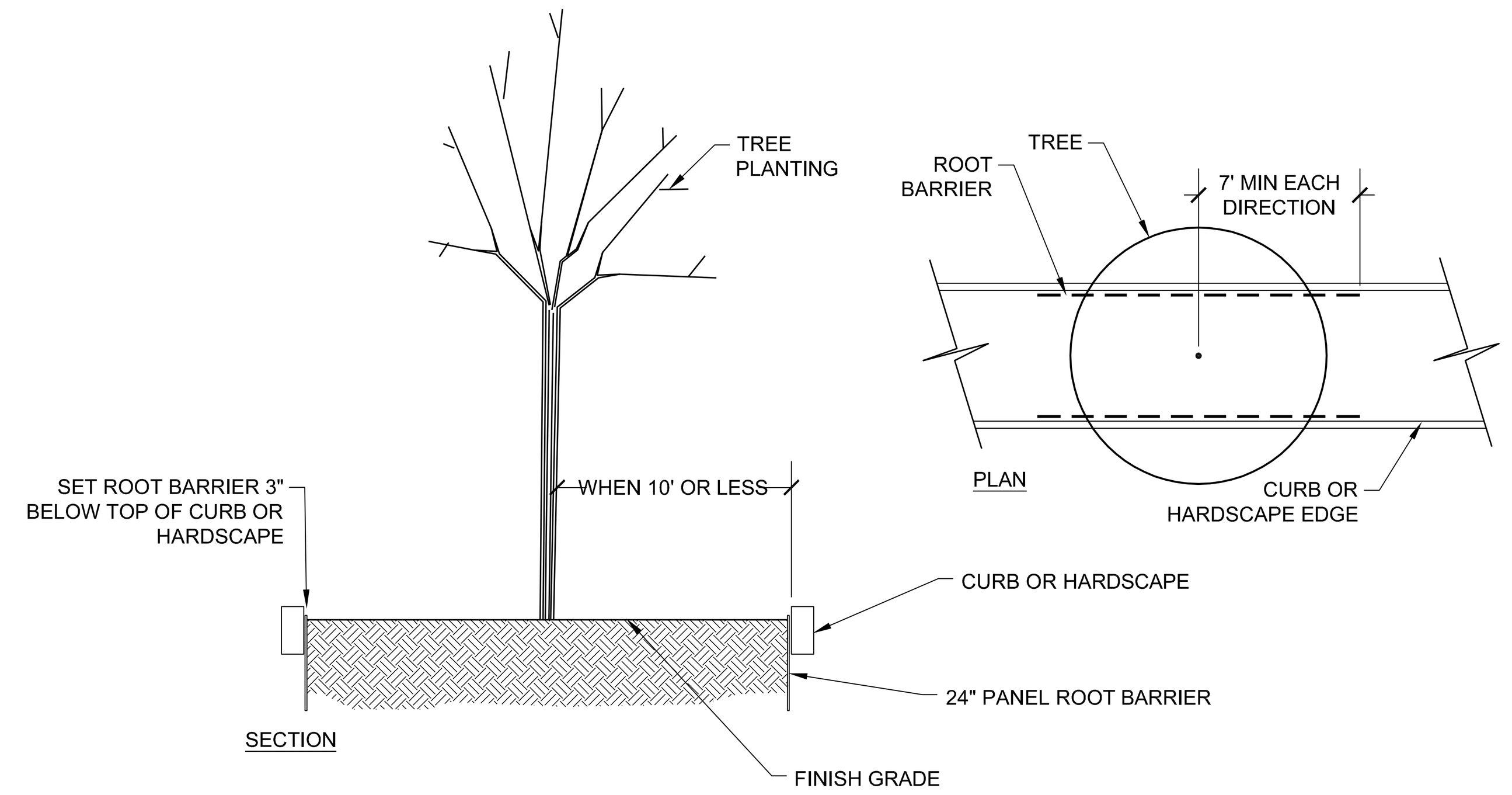


NOTES:
1. MOWSTRIP SHALL BE FINISHED WITH A MEDIUM BROOM FINISH.
2. INSTALL FIBAR EXPANSION JOINTS AT 20' O.C. SPACING AND ADJACENT TO HARDSCAPE PAVING. SCORE JOINTS SHALL BE PLACED AT 10' O.C.
3. DO NOT INSTALL EXTRUDED CURBING

L- CONCRETE MOWCURB
NTS



M- ROOT BARRIER DETAIL
NTS

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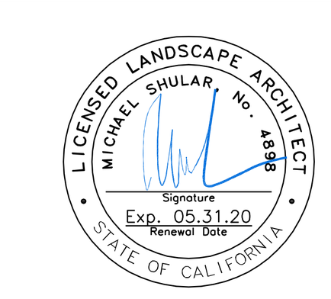
LANDSCAPE ARCHITECT

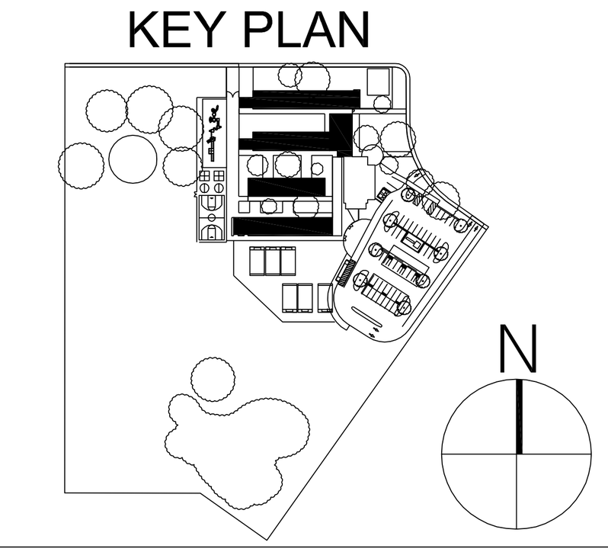


Date: 5/16/2019

NO.	REMARKS	DATE

	DATE
○ DSA PLAN CHECK	3/18/2019
● DSA SUBMITTAL	5/20/2019
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

LANDSCAPE DETAILS

Date 05/20/19	Drawing Number
Scale AS NOTED	L1
Project Number 19003.1	

IRRIGATION NOTES

1. THESE PLANS ARE DIAGRAMMATIC. ALL EQUIPMENT SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND SHALL BE INSTALLED IN PLANTING AREAS.
2. IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES FOR MAXIMUM SYSTEM PERFORMANCE.
3. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE PART OF THESE PLANS AND SHALL BE CONSULTED BY THE IRRIGATION CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE WORK AS SPECIFIED IN THE SPECIFICATIONS AND AS SHOWN ON THE PLANS.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK.
5. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN THE PLANS AND/OR SPECIFICATIONS PRIOR TO BEGINNING WORK.
6. SUBSTITUTIONS, DELETIONS OR CHANGES TO THE PLANS OR SPECIFICATIONS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF LANDSCAPE ARCHITECT.
7. ALL CONSTRUCTION SHALL CONFORM TO LOCAL CODES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO THE START OF WORK.
8. THE IRRIGATION PLAN IS SCHEMATIC IN NATURE. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY BASED ON ACTUAL FIELD CONDITIONS TO GARUNTEE ADEQUATE IRRIGATION COVERAGE TO ALL PLANT MATERIAL.
9. EXISTING TREES AND SHRUBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE. TRENCHING WITHIN DRIPLINES OF TREES AND SHRUBS TO REMAIN SHALL BE DONE BY HAND. DAMAGE TO EXISTING TREE AND/OR PLANT MATERIAL TO REMAIN SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
10. CONNECT TO EXISTING IRRIGATION CONTROLLER INSTALLED AS PART OF THE PHASE ONE IMPROVEMENTS.
11. COORDINATE CONNECTION WITH DISTRICT MAINTENANCE OFFICIALS.
12. ALL MATERIAL SHALL BE NEW UNLESS OTHERWISE SPECIFIED.
13. SCHEDULE 40 PVC PIPE SLEEVING (2X THE PIPE TO BE SLEEVED) IS REQUIRED FOR ALL IRRIGATION LINES THAT RUN UNDER HARDSCAPE. IRRIGATION CONTRACTOR IS RESPONSIBLE TO COORDINAT PLACEMENT OF SLEEVING PRIOR TO PAVING OPERATIONS.
14. MAINTAIN AN ACCURATE ACCOUNT OF AS-BUILT CONDITIONS. CONTRACTOR SHALL SUPPLY AS BUILT DRAWINGS OF AS-BUILT CONDITIONS AT THE COMPLETION OF THE LANDSCAPE INSTALLATION. AS-BUILT DRAWINGS SHALL BE PROVIDED ON MYLAR FILM HARD COPIES WITH PERMANENT COLOR MARKERS NOTING AS-BUILT CONDITIONS AS WELL AS ELECTRONIC FORMAT (PDF SCAN FILES).
15. PROVIDE A COLOR CODED IRRIGATION CONTROLLER CHART AT THE COMPLETION OF THE PROJECT. CHARTS SHALL BE LAMINATED 11"X17" SIZE SHOWING LOCATIONS OF HYDROZONES.

IRRIGATION LEGEND

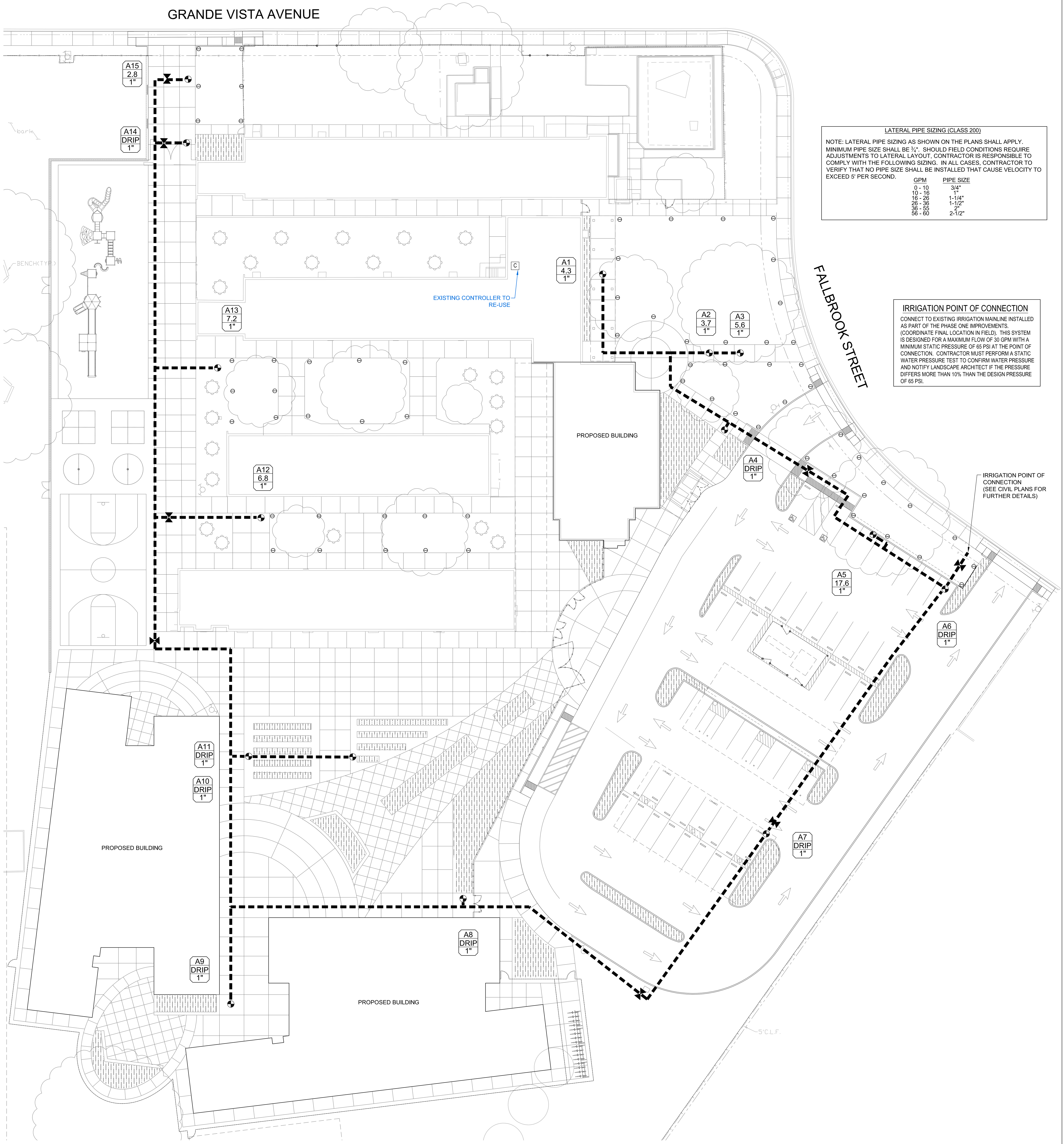
SYMBOL	MANUFACTURER	REMARKS
⊕	AUTOMATIC IRRIGATION CONTROL VALVES: HUNTER ICV VALVE (SPRAY) HUNTER DRIP ZONE KITS (DRIP)	INSTALL PER MANUFACTURERS SPECIFICATIONS. SIZE PER PLAN. ADJUST/TUNE VALVES AS REGUIRED TO ENSURE PROPER WATER DISTRIBUTION TO ALL PLANTER AREAS.
⧓	NIBCO T-113 GATE VALVE	LINE SIZE
C	EXISTING CONTROLLER NOTE: THE EXISTING IRRIGATION CONTROLLER IS CONNECTED TO EXISTING VALVES ON SITE. CONTRACTOR RESPONSIBLE TO VERIFY EXISTING VALVES THAT ARE CURRENTLY CONNECTED TO THE CONTROLLER FOR CONTINUED FUNCTION. COORDINATE WITH DISTRICT MAINTENANCE SUPERVISOR.	CONVERT TO FOR IQ CENTRAL USE. CONNECT TO SITE ETHERNET PORT PROVIDED BY ELECTRICAL.
———	SLEEVING LOCATIONS FOR IRRIGATION LINE CROSSINGS.	COORDINATE WITH SITE DEVELOPMENT PLANS
———	CLASS 200 PVC LATERAL LINES (NON-PRESSURE)	INSTALL PER IRRIGATION DETAILS. SIZE PER PLAN.
- - - -	2" SCHEDULE CLASS 315 PVC IRRIGATION MAINLINE	IRRIGATION MAINLINE SHOWN UNDER PAVED AREAS FOR PLAN CLARITY ONLY. ACTUAL LOCATION SHALL BE LOCATED WITHIN PLANTER AREAS.

SPRINKLERS-

SYMBOL/ PATTERN*	MFG	MODEL NUMBER	RADIUS/ PATTERN	GPM	PRESSURE
⊖	RAINBIRD	1806-SAM-PRS 6" POP-UP SPRINKLER WITH R-VAN SERIES ROTARY NOZZLES	8'-24'	.28-2.35	30 PSI
¦¦¦	POINT SOURCE DRIP TUBING. INSTALL HUNTER PLD BLANK DRIPLINE TUBING WITH EMITTERS IN PLANTER AREA PER DETAIL, SHEET L1.		INSTALL DRIP EMITTERS PER DETAILS.		

VALVE CALL-OUT KEY

A7 — CONTROLLER STATION
21.3 — GALLONS PER MINUTE
1.5" — VALVE SIZE



LATERAL PIPE SIZING (CLASS 200)

NOTE: LATERAL PIPE SIZING AS SHOWN ON THE PLANS SHALL APPLY. MINIMUM PIPE SIZE SHALL BE ¾". SHOULD FIELD CONDITIONS REQUIRE ADJUSTMENTS TO LATERAL LAYOUT, CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE FOLLOWING SIZING. IN ALL CASES, CONTRACTOR TO VERIFY THAT NO PIPE SIZE SHALL BE INSTALLED THAT CAUSE VELOCITY TO EXCEED 5' PER SECOND.

GPM	PIPE SIZE
0 - 10	3/4"
10 - 16	1"
16 - 26	1-1/4"
26 - 36	1-1/2"
36 - 55	2"
56 - 60	2-1/2"

IRRIGATION POINT OF CONNECTION

CONNECT TO EXISTING IRRIGATION MAINLINE INSTALLED AS PART OF THE PHASE ONE IMPROVEMENTS. (COORDINATE FINAL LOCATION IN FIELD). THIS SYSTEM IS DESIGNED FOR A MAXIMUM FLOW OF 30 GPM WITH A MINIMUM STATIC PRESSURE OF 65 PSI AT THE POINT OF CONNECTION. CONTRACTOR MUST PERFORM A STATIC WATER PRESSURE TEST TO CONFIRM WATER PRESSURE AND NOTIFY LANDSCAPE ARCHITECT IF THE PRESSURE DIFFERS MORE THAN 10% THAN THE DESIGN PRESSURE OF 65 PSI.

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LANDSCAPE ARCHITECT

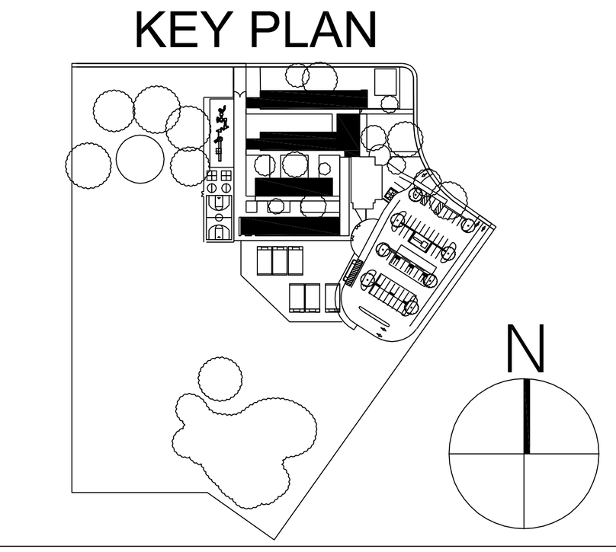
LICENSED LANDSCAPE ARCHITECT MICHAEL SHULAR No. 4898 Signature Exp. 05.31.20 Renewal Date STATE OF CALIFORNIA

Date: 5/16/2019

NO.	REMARKS	DATE

	DATE
○ DSA PLAN CHECK	3/18/2019
● DSA SUBMITTAL	5/20/2019
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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IRRIGATION PLAN

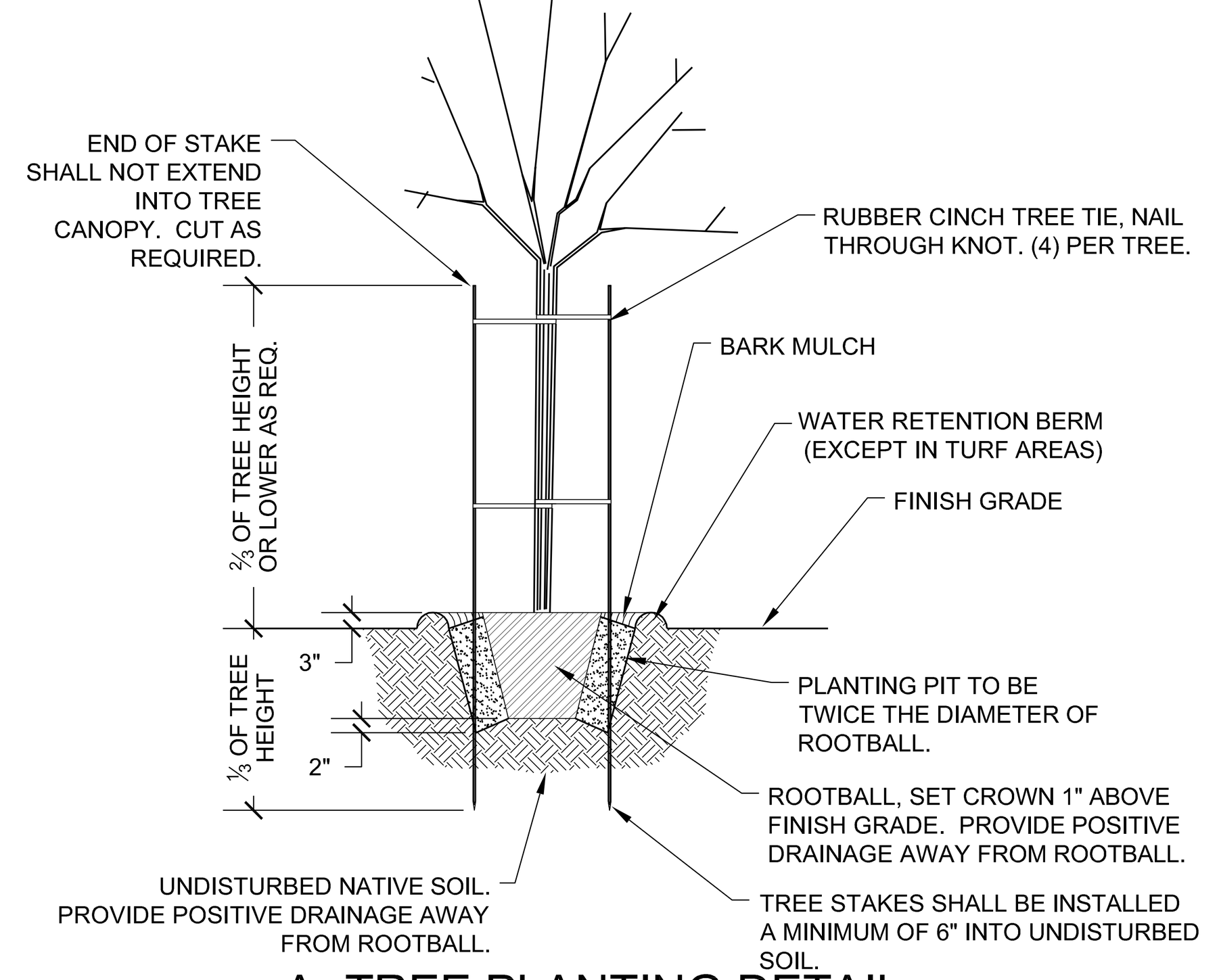
Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number L2

PLANTING NOTES

1. PLANTING SHALL CONFORM TO CITY REQUIREMENTS FOR LANDSCAPE SITE DEVELOPMENT.
2. PROVIDE MINIMUM SLOPE OF 1 ½% FOR POSITIVE DRAINAGE AWAY FROM CENTER IN ALL PLANTED AREAS.
3. THE PLANT QUANTITES SHOWN ON THE DRAWINGS ARE INFORMATIONAL ONLY. THE CONTRACTOR IS RESPONSIBLE FOR FINAL QUANTITIES REQUIRED TO COMPLETE THE WORK. IN CASE OF DESCREPANCY, THE PLAN SHALL GOVERN.
4. ALL TREES SHALL BE PLANTED A MINIMUM OF 5' FROM UNDERGROUND UTILITIES.
5. ALL EXISTING TREES SHALL BE PROTECTED FROM DAMAGE OR INJURY. NO PARKING OR STACKING OF CONSTRUCTION MATERIAL IS ALLOWED WITHIN THE DRIPLINE OF AN EXISTING TREE.
6. IMMEDIATELY AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF SPECIFIED PLANT MATERIAL IS AVAILABLE FROM COMMERCIAL NURSERIES. IN THE EVENT THAT A PLANT IS NOT AVAILABLE, THE LANDSCAPE ARCHITECT WILL PROVIDE ALTERNATE PLANT MATERIAL SELECTIONS. SUCH CHANGES WILL NOT ALTER THE CONTRACTOR'S ORIGINAL BID PRICE UNLESS A CREDIT IS DUE TO THE OWNER.
7. THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED PLANT PITS HAVE POSITIVE DRAINAGE. PLANT PITS SHALL BE FULLY FILLED WITH WATER AND SHALL DRAIN WITHIN ONE (1) HOUR OF FILLING. THE CONTRACTOR SHALL EXCAVATE THROUGH ANY IMPERVIOUS LAYER IF ENCOUNTERED.
8. ALL PLANT MATERIAL SHALL COMPLY WITH ANSI Z601 'STANDARD FOR NURSERY STOCK'.
9. 24" PANEL ROOT BARRIERS SHALL BE PROVIDED FOR ALL TREES WITHIN 10' OF ANY CURB AND/OR HARDSCAPE PAVEMENT. INSTALL PER DETAIL ON SHEET L1.
10. ALL NON-TURF AND NON-BIOSWALE PLANTER AREAS SHALL RECEIVE A 3" LAYER OF BARK MULCH.
11. THE CONTRACTOR SHALL PROVIDE A SOILS REPORT PREPARED BY A QUALIFIED SOILS SPECIALIST AND SUBMIT TO THE OWNER FOR FINAL APPROVAL. SOILS SAMPLES SHALL BE COLLECTED AFTER AFTER PLACEMENT OF SOIL WITHIN PLANTER AREAS AFTER ROUGH GRADING OPERATIONS AND PRIOR TO THE INSTALLATION OF PLANT MATERIAL. SOIL SAMPLES SHALL BE SUFFICIENTLY NUMEROUS TO ACCOUNT FOR ANY SOIL VARIATIONS THAT MAY BE PRESENT ON THE SITE. THE FOLLOWING MINIMUM ITEMS SHALL BE INCLUDED IN THE ANALYSIS:
    A. INFILTRATION RATE.
    B. SOIL TEXTURE.
    C. CATION EXCHANGE CAPACITY.
    D. SOIL FERTILITY INCLUDING TESTS FOR NITROGEN, POTASSIUM, PHOSPHOROUS, PH, ORGANIC MATTER AND SPECIFIC CONDUCTANCE (E.C.).
12. PRIOR TO PLANTING, SOIL AMENDMENTS SHALL BE ADDED PER RECOMMENDATIONS OF THE SOILS REPORT. SOIL AMENDMENTS SHOWN ON THE PLANS ARE TO BE USED FOR BIDDING PURPOSES ONLY. THE RESULTS OF THE SOILS TESTS THE CONTRACTOR PERFORMS SHALL DETERMINE ACTUAL AMENDMENTS.
13. THE CONTRACTOR SHALL PROVIDE THE OWNER A STATEMENT IN WRITING STATING THAT THE SOIL WAS AMENDED PER THE APPROVED SOIL ANALYSIS PRIOR TO PLANTING. ANY PLANTING INSTALLED PRIOR TO SOIL AMENDMENTS WILL BE REQUIRED TO BE REMOVED AND REPLACED AT NO COST TO THE OWNER.
14. THE CONTRACTOR SHALL SUBMIT NAME OF SOIL TESTING LABORATORY AND A SUMMARY OF THE TEST TO BE PERFORMED TO OWNER FOR APPROVAL PRIOR TO COLLECTING SAMPLE.
15. REMOVE ALL DELETERIOUS MATERIALS, CONSTRUCTION DEBRIS, TRASH ETC FROM PLANTER AREAS PRIOR TO INSTALLATION OF PLANT MATERIAL. THE TOP SIX INCHES (6") OF THE SOIL SHALL BE FREE OF DEBRIS AND ROCKS THAT ARE GREATER THAN ONE INCH (1") IN DIAMETER.

PLANT LEGEND

SYM	BOTANICAL/ COMMON NAME	SIZE	QTY	REMARKS
	TREES			
	LAGERSTROEMIA INDICA 'DYNAMITE'/CRAPE MYRTLE	15 GAL	6	
	PYRUS CALLERYANA 'ARISTOCRAT'/ ORNAMENTAL PEAR	15 GAL	7	
	SHRUBS			
	DIANELLA LITTLE REV / FLAX LILY	1 GAL	199	
	LANTANA MONTEVIDENSIS 'PURPLE'/ TRAILING LANTANA	1 GAL	69	
	NANDINA 'FIREPOWER' / DWARF HEAVENLY BAMBOO	5 GAL	153	
	PITTOSPORUM TENUIFOLIUM 'ELFIN' / COMPACT PITTOSPORUM	5 GAL	69	
	TULBAGHIA VIOLACEA / SOCIETY GARLIC	1 GAL	306	
	LAWN			
	REMOVE EXISTING LAWN AND INSTALL NEW SOD LAWN. NOTE: ANY LAWN NOT BOUND BY HARDSCAPE SHALL BE INSTALLED WITH A 6" CONCRETE MOW CURB.	SOD		



A- TREE PLANTING DETAIL
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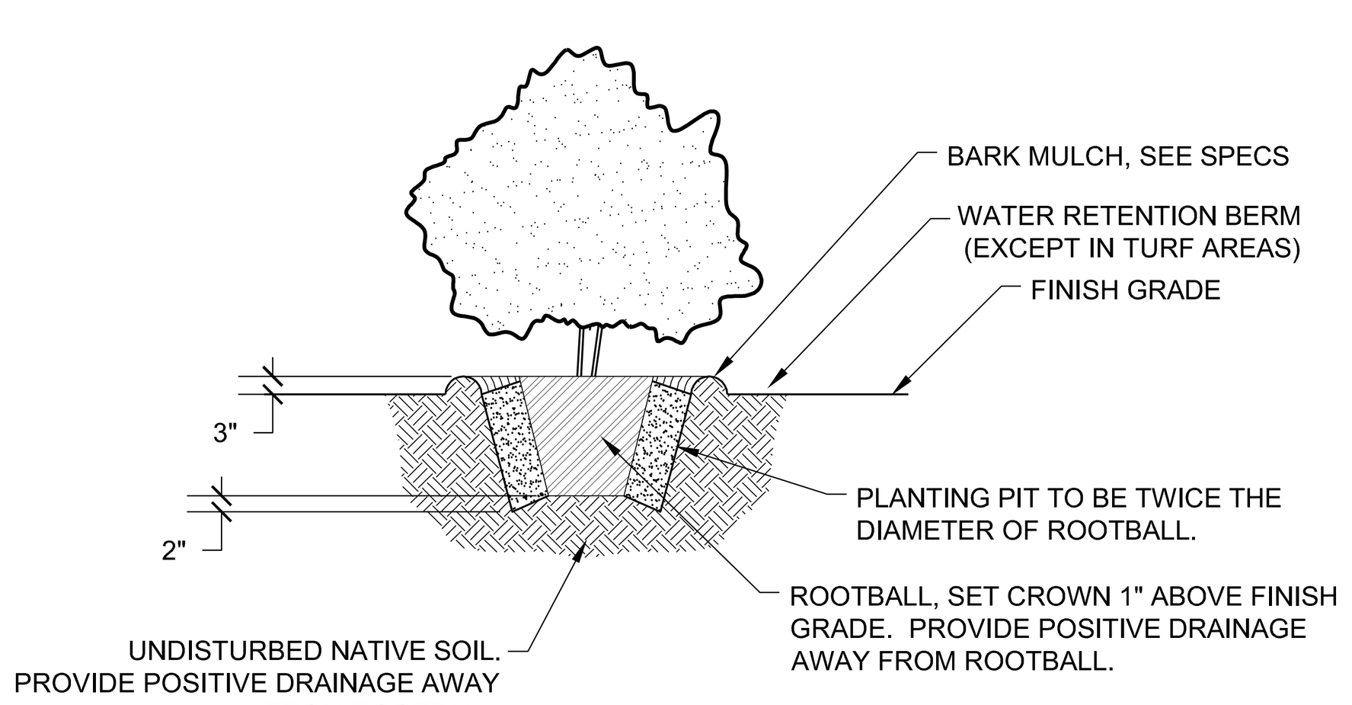
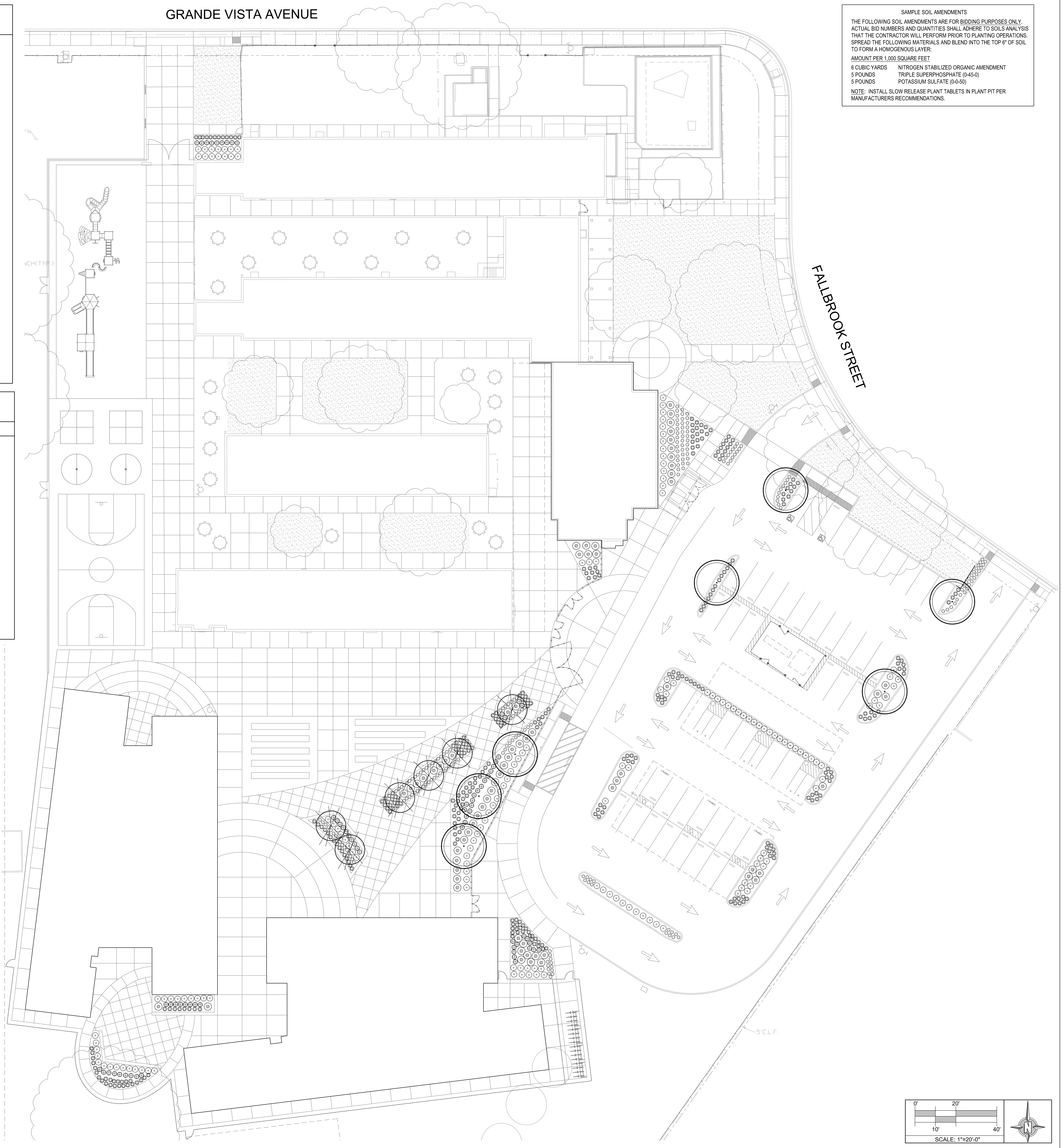


B- SHRUB PLANTING DETAIL
NTS



SAMPLE SOIL AMENDMENTS

THE FOLLOWING SOIL AMENDMENTS ARE FOR BIDDING PURPOSES ONLY. ACTUAL BID NUMBERS AND QUANTITIES SHALL ADHERE TO SOILS ANALYSIS THAT THE CONTRACTOR WILL PERFORM PRIOR TO PLANTING OPERATIONS. SPREAD THE FOLLOWING MATERIALS AND BLEND INTO THE TOP 6" OF SOIL TO FORM A HOMOGENOUS LAYER:

AMOUNT PER 1,000 SQUARE FEET

6 CUBIC YARDS	NITROGEN STABILIZED ORGANIC AMENDMENT
5 POUNDS	TRIPLE SUPERPHOSPHATE (0-45-0)
5 POUNDS	POTASSIUM SULFATE (0-0-50)

NOTE: INSTALL SLOW RELEASE PLANT TABLETS IN PLANT PIT PER MANUFACTURERS RECOMMENDATIONS.

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ph/fax 916.989.3372 www.msladesign.com

LANDSCAPE ARCHITECT

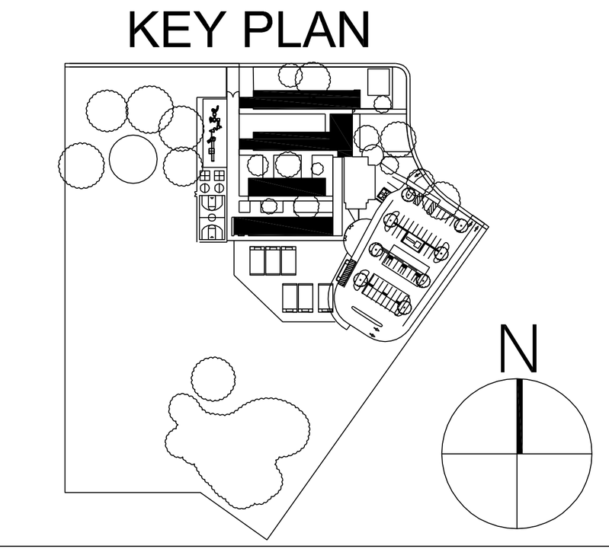
LICENSED LANDSCAPE ARCHITECT MICHAEL SHULAR No. 4898 Signature Exp. 05.31.20 Renewal Date STATE OF CALIFORNIA

Date: 5/16/2019

NO.	REMARKS	DATE

	DATE
○ DSA PLAN CHECK	3/18/2019
● DSA SUBMITTAL	5/20/2019
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



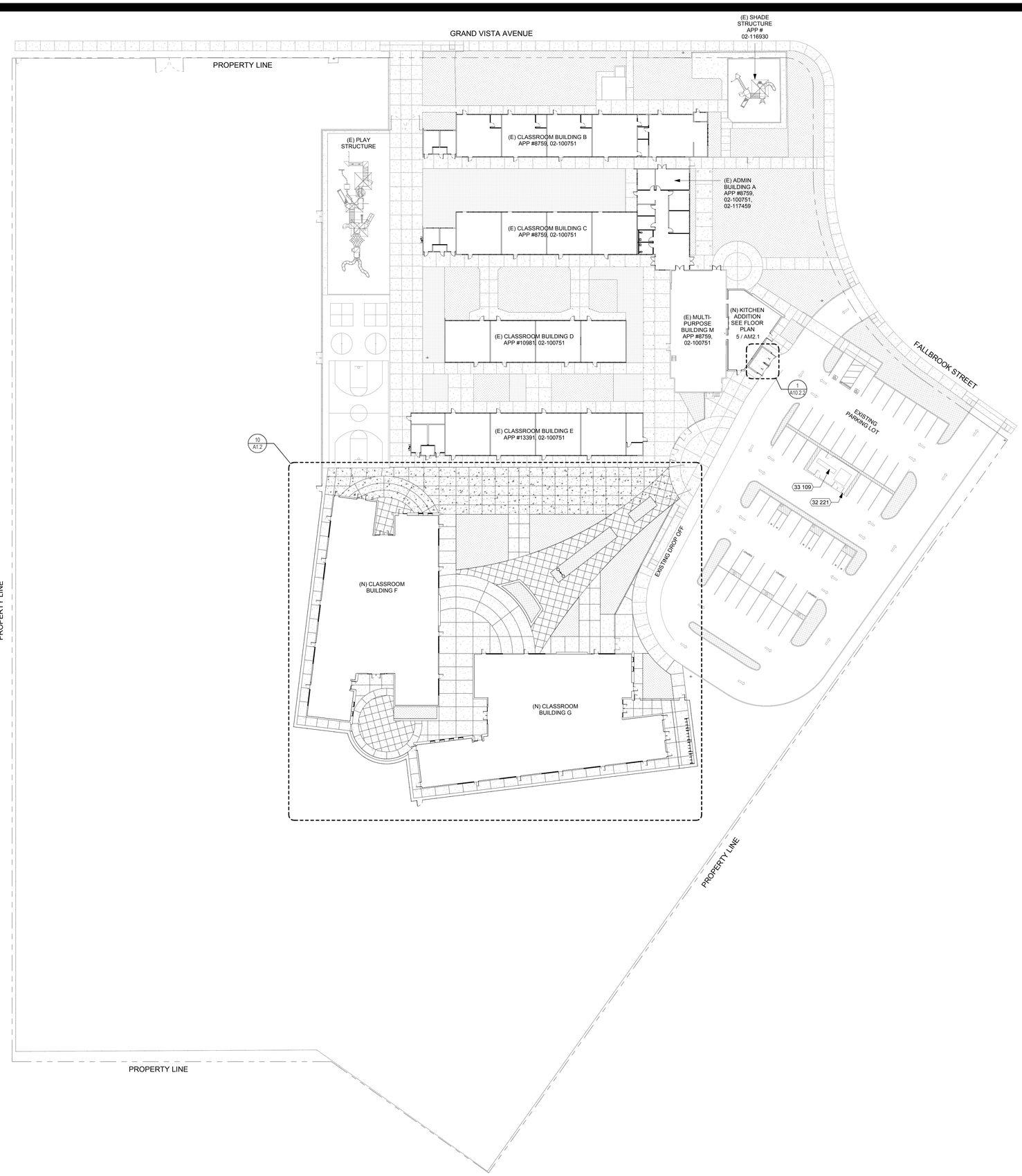
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

PLANTING PLAN

Date 05/20/19	Drawing Number
Scale AS NOTED	L3
Project Number 19003.1	



REF: 7 / AF5.1

SITE PLAN 1" = 30'-0" 10

KEY NOTES

NUMBER	NOTE
32 221	(E) FENCING
33 109	(E) OUTDOOR MAIN SERVICE SWITCHBOARD (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR 6'-0" HIGH TEMPORARY CONSTRUCTION BARRIER WITH VISION SCREEN AT STAGING, STORAGE AND CONSTRUCTION AREA WITH SIGNAGE EVERY 20'-0" TO WARN OF CONSTRUCTION AREA.
2. CONTRACTOR TO BRING IN OFFICE TRAILER TO CONSTRUCTION AREA.
3. CONTRACTOR SHALL ACCESS THE SITE FROM _____. ANY DAMAGE TO FIRE LANE WILL BE AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR TO REPAIR BACK TO EXISTING CONDITIONS ALL LAYDOWN AREAS AT THE END OF CONSTRUCTION. THIS INCLUDES LANDSCAPE AREAS AND ANY BROKEN SPRINKLERS, VALVE BOXES, CONCRETE, ASPHALT, ETC.
5. CONTRACTOR SHALL REPLACE, RECONSTRUCT AND REPAIR ALL EXISTING WORK THAT IS IMPACTED, DAMAGED, OR DESTROYED AS A RESULT OF ANY CONTRACTOR WORK INCLUDING, BUT NOT LIMITED TO, HARDSCAPING, SIDEWALKS, IRRIGATION SYSTEMS, LANDSCAPING, LAWNS, STRUCTURES AND UTILITIES - ALL TO THE SATISFACTION OF THE DISTRICT.
6. WHERE ASPHALT OR CONCRETE IS BEING REPATCHED, CONTRACTOR SHALL PROVIDE EVEN AND STRAIGHT LINE CUTS WITH 2-FOOT STRAIGHT SLURRY SEAL SURFACE PATCH ON BOTH SIDES OF CUT.
7. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON SITE TO AVOID EXISTING DUCTS, PIPING OR CONDUITS, ETC., AND TO PREVENT HAZARDS TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHERE OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTRACTS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE THE NECESSARY ELEMENTS FOR CONSTRUCTION SAFETY.
8. GATES IN PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS WITH PROPER LEVER HARDWARE AND KICK PLATES.

LEGEND

- 6" CONCRETE OVER 6" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS
- 5" CONCRETE OVER 4" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS
- 5" CONCRETE OVER 4" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS. SCORING TO BE DIAGONAL AT 5' O.C. EACH WAY
- LANDSCAPING, SEE LANDSCAPE DRAWINGS
- PROPERTY LINE
- LIMIT OF WORK
- LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED
- FIRE HYDRANT

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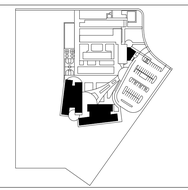
NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
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SITE PLAN OVERALL

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1" = 30'-0"	A1.1
Drawn / Checked	
AA / AM	

PRINT DATE: 5/17/2019 10:24:22 AM
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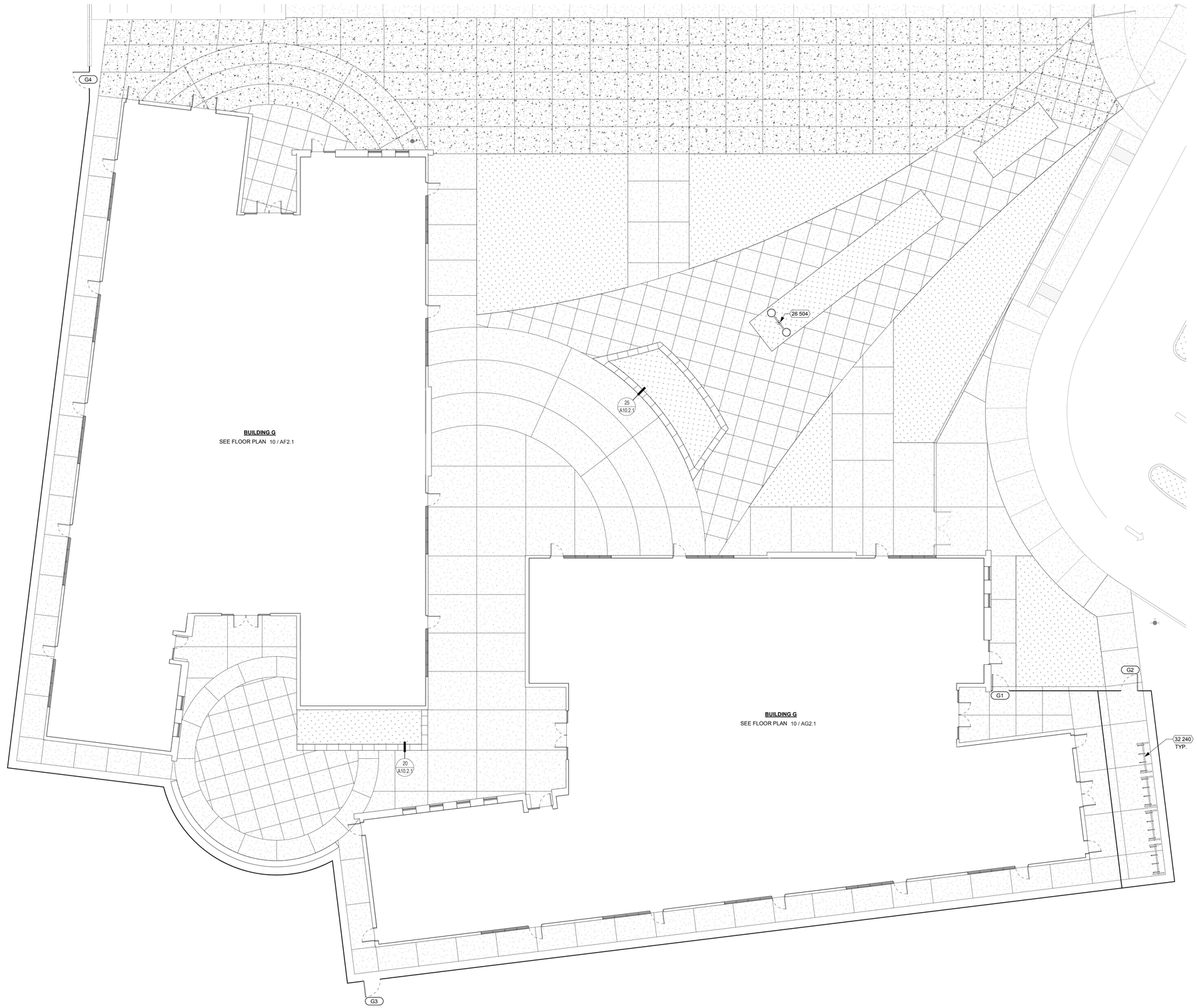

REF: 10 / A1.1

ENLARGED SITE PLAN AT BUILDINGS F AND G | 1" = 10'-0" | 10

KEY NOTES

NUMBER	NOTE
26 504	EXTERIOR LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS.
32 240	BICYCLE RACKS (SEE DETAIL 18/A10.2.1)

GENERAL NOTES

1. FOR HORIZONTAL CONTROL PLAN, SEE CIVIL DRAWINGS
2. FOR GATE INFORMATION, REFER TO DOOR SCHEDULE

LEGEND

- 6" CONCRETE OVER 6" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS
- 5" CONCRETE OVER 4" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS
- 5" CONCRETE OVER 4" CLASS II AGGREGATE BASE PER CIVIL DRAWINGS. SCORING TO BE DIAGONAL AT 5' O.C. EACH WAY
- LANDSCAPING, SEE LANDSCAPE DRAWINGS

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	DATE
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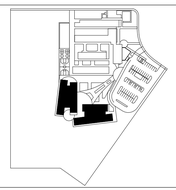
○ CONSTRUCTION	

KEY PLAN



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ENLARGED SITE PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A1.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:24:25 AM
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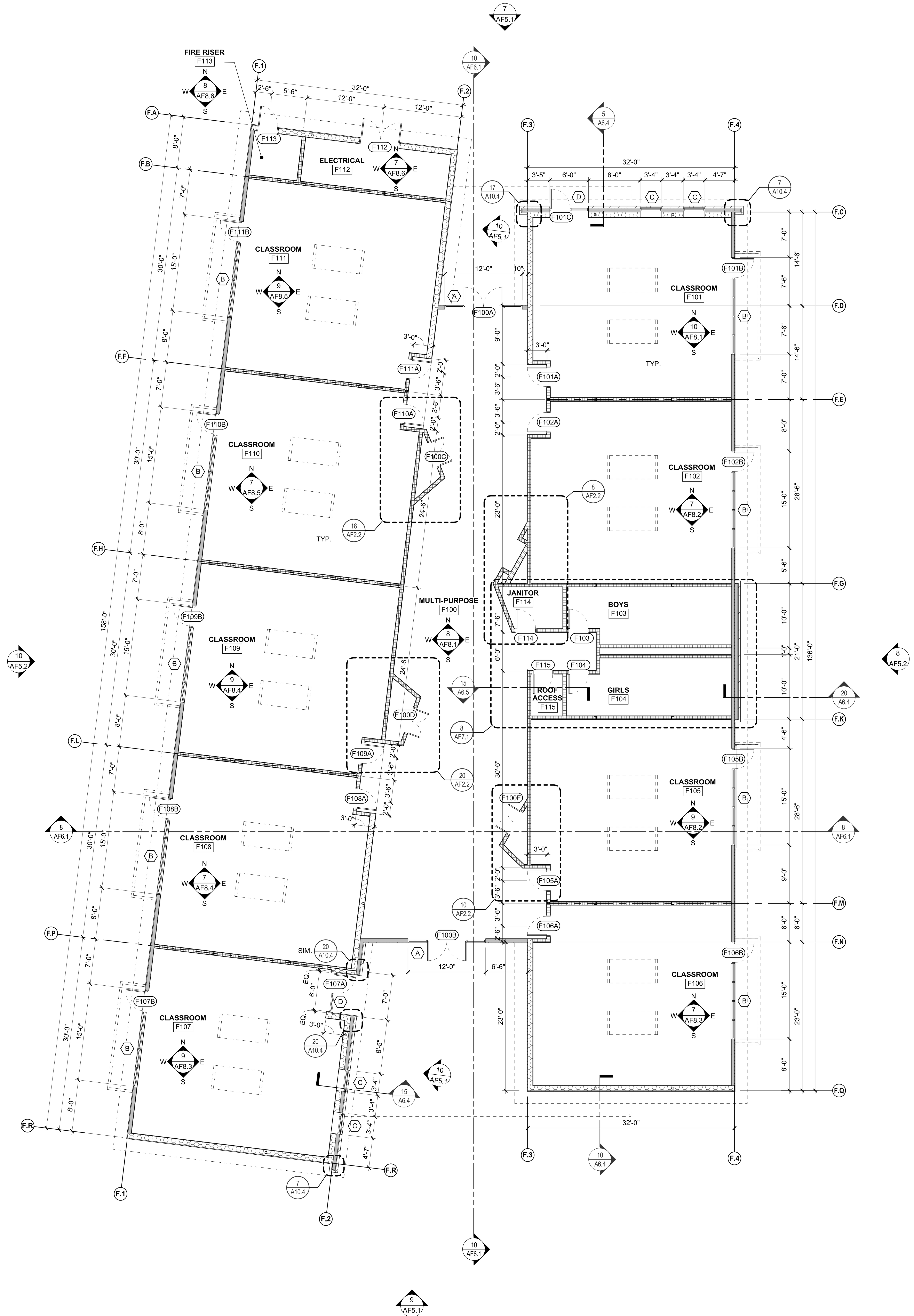

REF: 7 / AF5.1

BUILDING F - FLOOR PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE

GENERAL NOTES

1. PROVIDE ROOM NAME AND NUMBER WITH 1" HIGH TEXT AND GRADE #2 BRAILLE THROUGHOUT, SEE CODE ANALYSIS PLAN.
2. ALL WALLS SHALL HAVE R-19 BATT INSULATION, FULL HEIGHT.
3. SOUND INSULATION TO BE INSTALLED AT INTERIOR FULL HEIGHT WALLS.
4. REFER TO STRUCTURAL DRAWINGS FOR HEADER SCHEDULE AND FRAMING DETAILS FOR OPENINGS IN INTERIOR AND EXTERIOR WALLS
5. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE AND SPACING.
6. SEE STRUCTURAL DRAWINGS FOR COLUMN LOCATIONS AND SIZING.
7. REFER TO ROOM FINISH SCHEDULE FOR INTERIOR WALL FINISHES.
8. DIMENSIONS OF STUDS ARE FROM FACE OF STUD.
9. PAINT ALL INTERIOR WALLS.

LEGEND

- LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED
- EXISTING CONSTRUCTION TO REMAIN (BUILDING M ONLY)
- FULL BRICK VENEER EXTERIOR WALL, SEE DETAIL 2 / A10.1
- EXTERIOR PLASTER 6" STUD WALL, SEE DETAIL 3 / A10.1
- EXTERIOR PLASTER 8" STUD WALL, SEE DETAIL 4 / A10.1
- EXTERIOR PLASTER 10" STUD WALL, SEE DETAIL 5 / A10.1
- INTERIOR 6" STUD WALL, SEE DETAIL 11 / A10.1
- INTERIOR 2-HOUR RATED WALL (BUILDING M ONLY), SEE DETAIL 10 / A10.1
- INTERIOR 6" STUD WALL WITH ACOUSTIC SEPARATION (BUILDING G ONLY), SEE DETAIL 8 / A10.1
- INTERIOR 8" STUD WALL, SEE DETAIL 16 / A10.1
- INTERIOR 10" STUD WALL, SEE DETAIL 12 / A10.1

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GENERAL NOTES

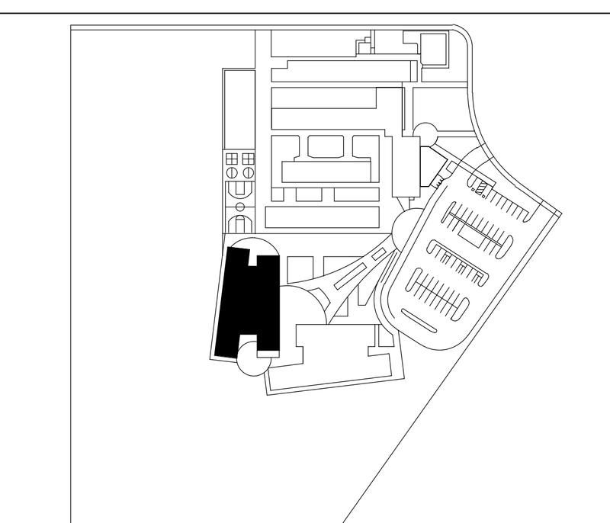
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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BUILDING F FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number
Drawn AA / Checked AM	AF2.1

PRINT DATE: 5/17/2019 10:24:55 AM
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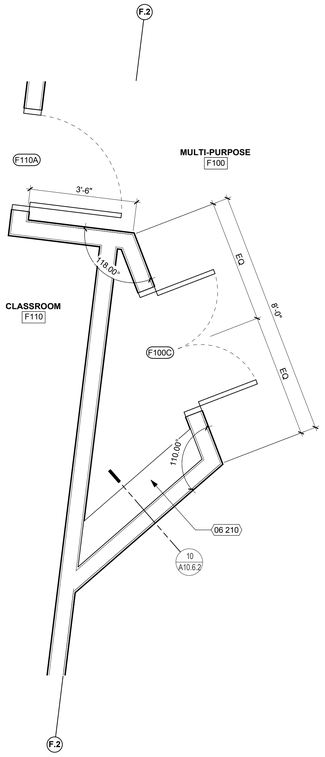
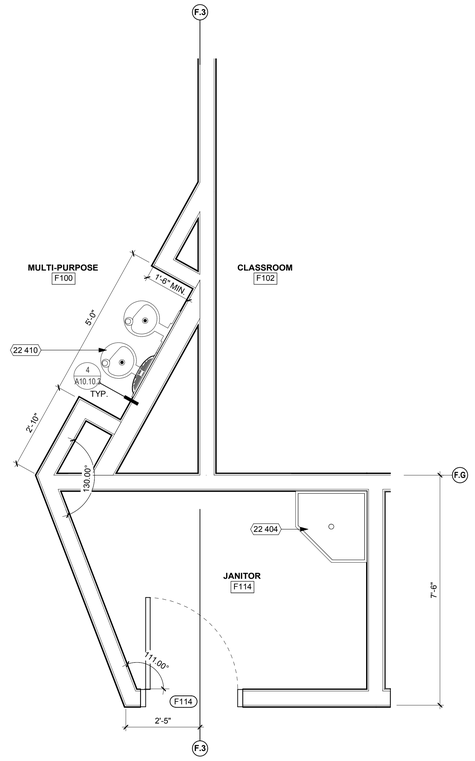


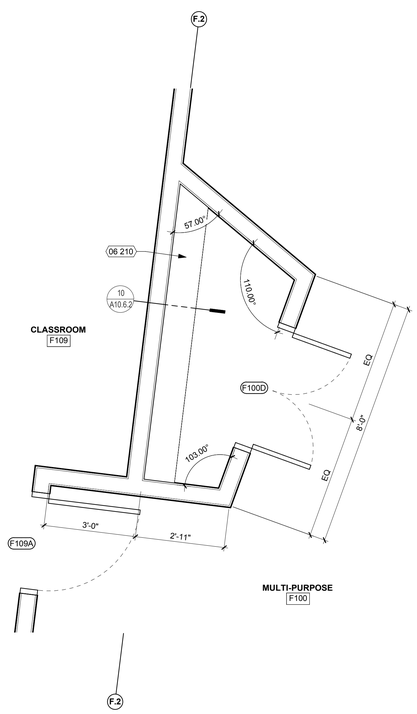
REF: 10 / AF2.1

BUILDING F - ENLARGED PLAN 1/2" = 1'-0" 18



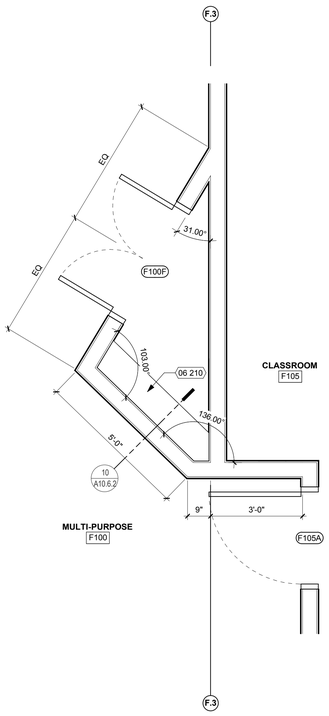
REF: 10 / AF2.1

BUILDING F - ENLARGED PLAN 1/2" = 1'-0" 8



REF: 10 / AF2.1

BUILDING F - ENLARGED PLAN 1/2" = 1'-0" 20



REF: 10 / AF2.1

BUILDING F - ENLARGED PLAN 1/2" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
06 210	FIXED SHELVES, 12" WIDE
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)

GENERAL NOTES

1. FOR WALL TYPES, REFER TO FLOOR PLAN
2. ALL DIMENSIONS ARE TO FACE OF STUD

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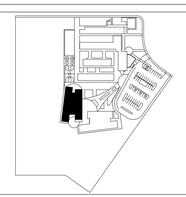
	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WEST SACRAMENTO, CA 95691

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BUILDING F ENLARGED PLANS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF2.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:24:58 AM
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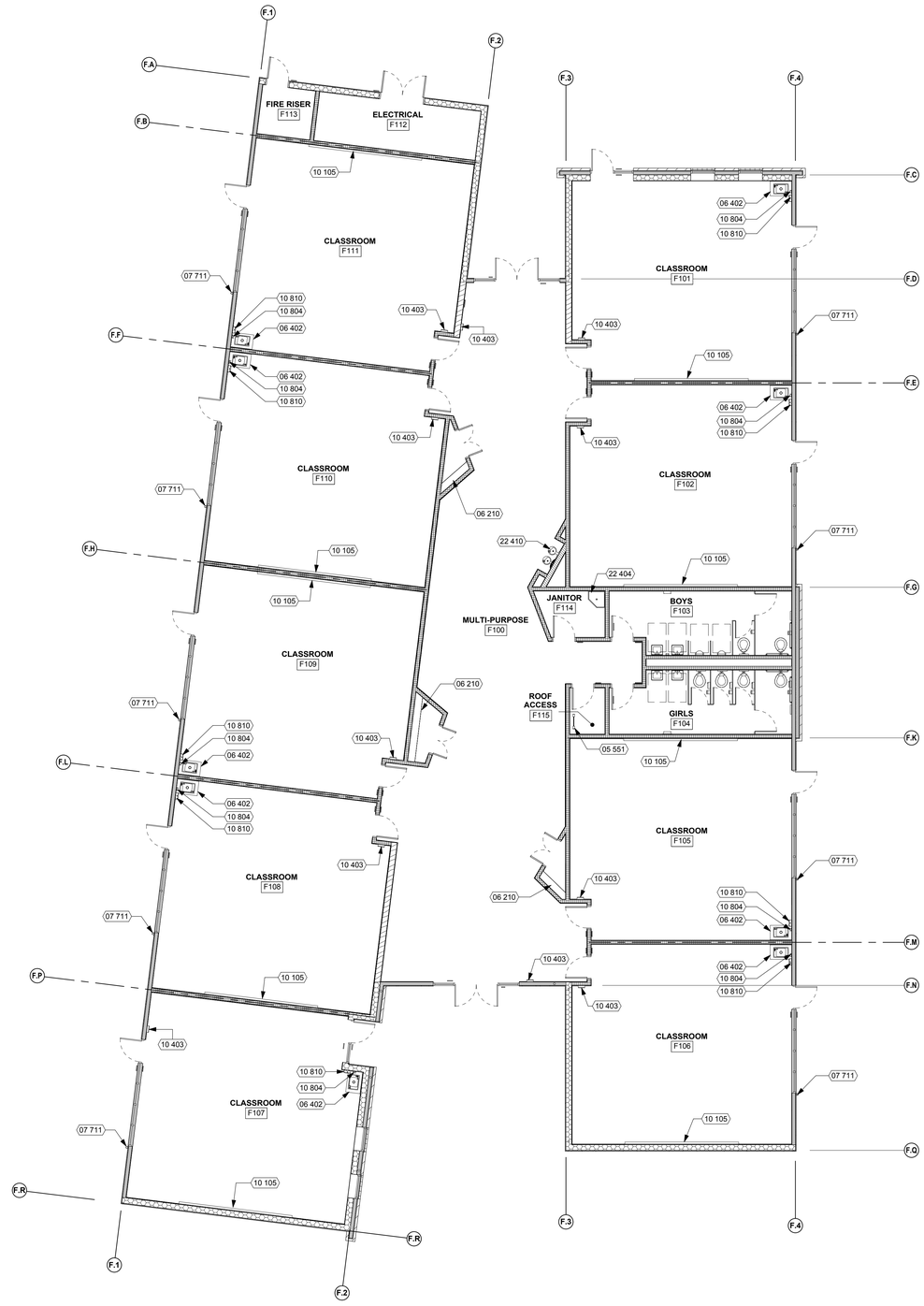

REF: 7 / AF5.1

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BUILDING F - EQUIPMENT PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)
06 210	FIXED SHELVES, 12" WIDE
06 402	ACCESSIBLE BASE CABINET W/ SINK (SEE DETAIL 8/A10.6.2)
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)

GENERAL NOTES

1. FOR SIGNAGE REFER TO CODE ANALYSIS PLAN.
2. FOR CASEWORK DIMENSIONS REFER TO INTERIOR ELEVATIONS.
3. FOR TACK BOARD LOCATIONS REFER TO INTERIOR ELEVATIONS.
4. FOR RESTROOM FIXTURES, PARTITIONS, AND SPECIALTIES, REFER TO ENLARGED RESTROOM PLANS.

LEGEND

30" x 48" ACCESSIBLE CLEAR SPACE

60" DIAMETER ACCESSIBLE CLEAR SPACE

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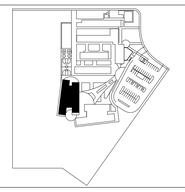
KEY PLAN



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BUILDING F EQUIPMENT PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AF2.3
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:24:59 AM
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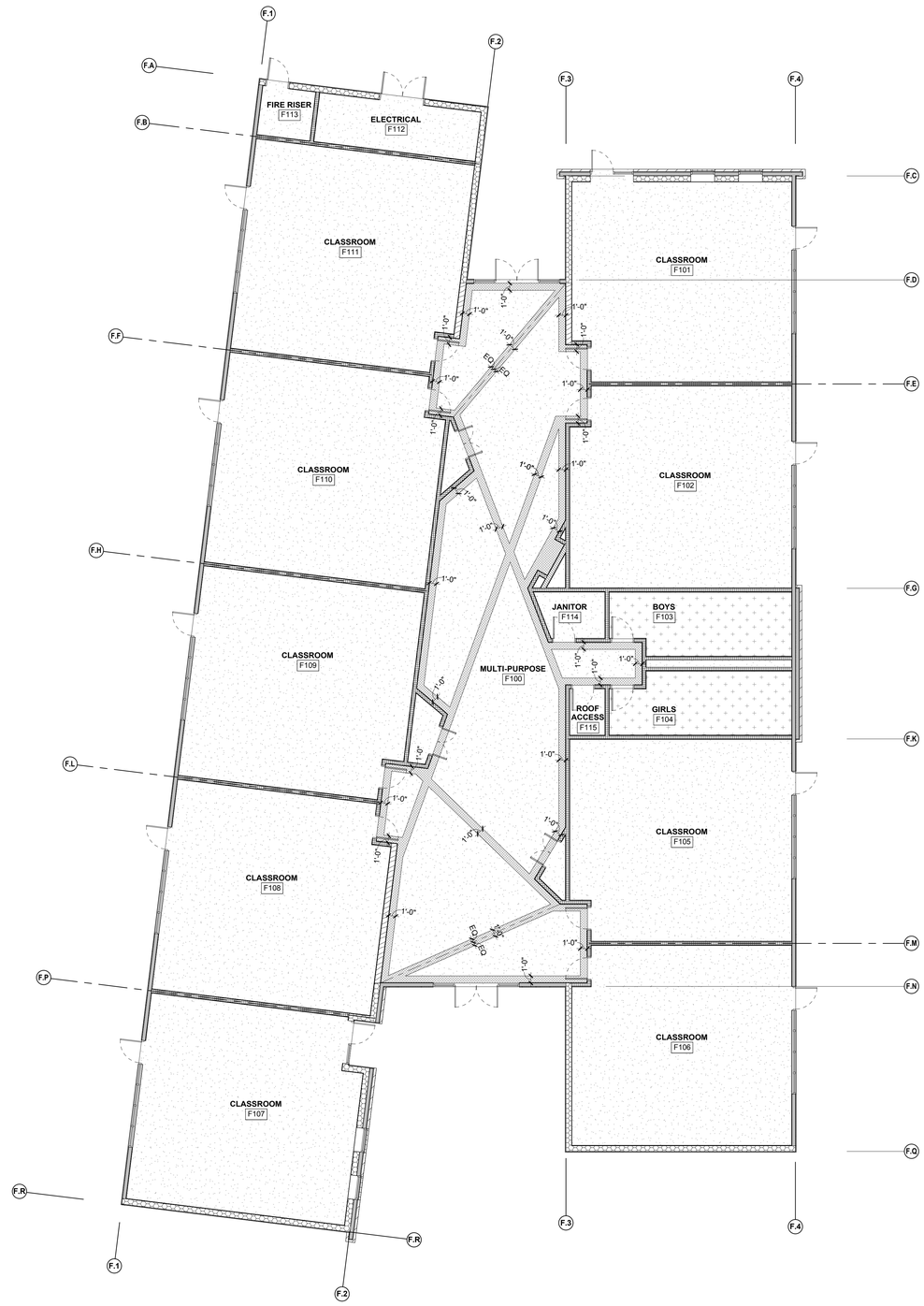

REF: 7 / AF5.1

N

BUILDING F - FLOOR PATTERN PLAN 1/8" = 1'-0" 10

FINISH PLAN LEGEND

- EPX
- EC
- SC - 12" WIDE DECORATIVE PATTERN
- CPT (BUILDING G ONLY)
- DEPRESSED CONCRETE SLAB, PER STRUCTURAL DRAWINGS (BUILDING M ONLY)

NOTE:

SEE FINISH LEGEND SCHEDULE FOR MATERIAL ABBREVIATION LEGENDS.

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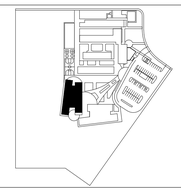
○ CONSTRUCTION	

KEY PLAN



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BUILDING F FLOOR PATTERN PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AF2.5
Drawn AA / Checked AM	

PRINT DATE: 5/17/2019 10:25:01 AM
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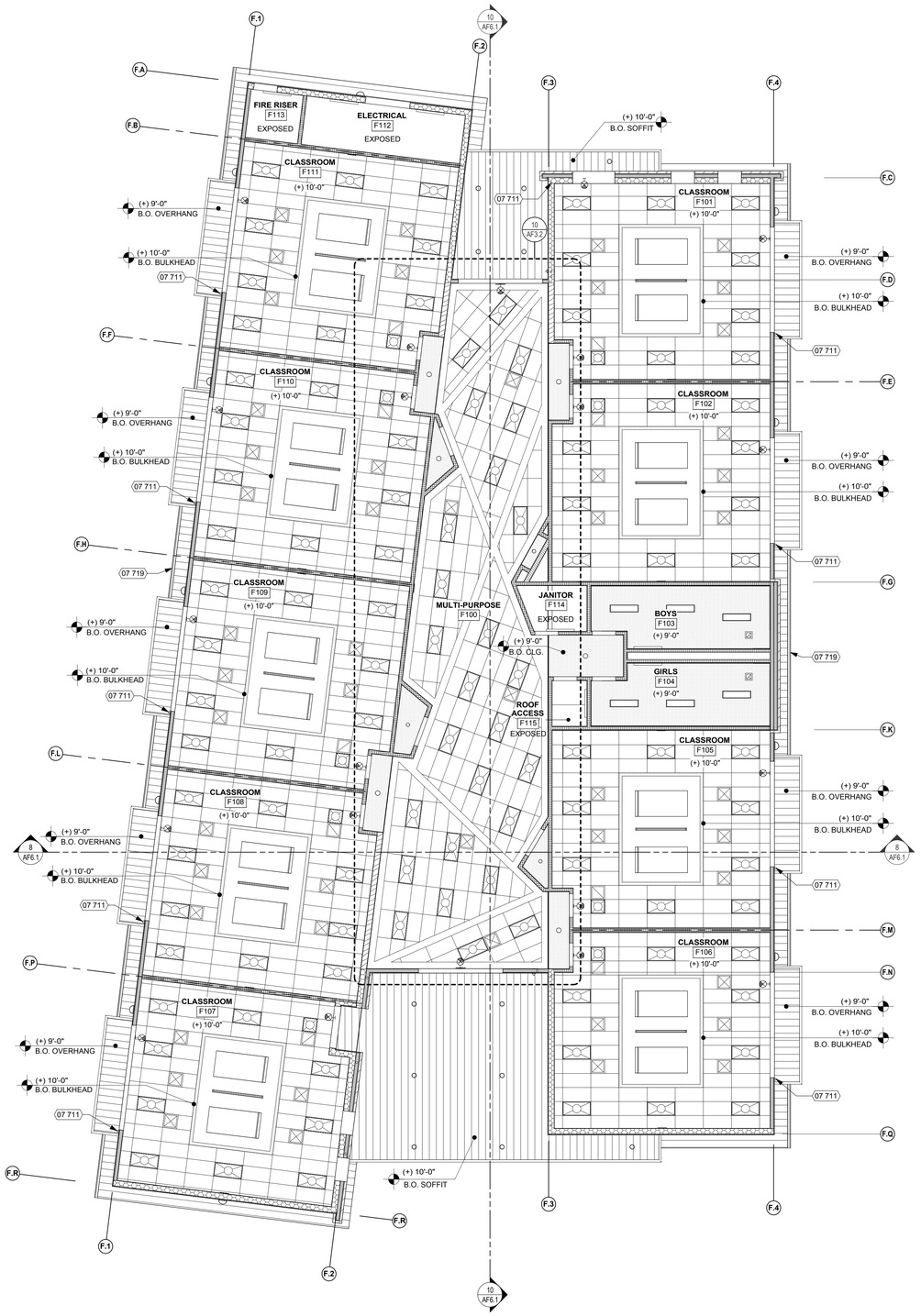

REF: 7 / AF5.1

BUILDING F - REFLECTED CEILING PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 719	GUTTER, PAINTED P5

GENERAL NOTES

GENERAL
1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATIONS = 0'-0"
2. ACCESS DOORS TO BE INSTALLED TO SERVICE EQUIPMENT SHOWN IN CONTRACT DOCUMENTS. EXACT NUMBER AND LOCATION OF ACCESS PANELS IS NOT SHOWN. SEE DETAIL 4 / A10.9.3
3. PROVIDE ACCESS PANELS TO ENCLOSED AREAS ABOVE GYPSUM BOARD CEILINGS, CENTER AND ALIGN TO LIGHT FIXTURES, AND OTHER CEILING FIXTURES PER PLAN.
4. CEILING SYSTEM SHOULD BE CENTERED WITHIN EACH ROOM AS WELL AS ALIGNED WITH THE STRUCTURAL GRID, U.O.N.
5. CEILING SYSTEM SHALL BE COORDINATED WITH THE LIGHTING & ELECTRICAL PLANS.
6. SKYLIGHT WELL ON THE CEILING PLAN SHOULD BE VERTICALLY ALIGNED WITH THE CORRESPONDING SKYLIGHT ON THE ROOF WHERE OCCURS.
7. PAINT GYP. BD. CEILINGS AND SOFFITS P-1 U.O.N. (PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS.) REFER TO ROOM FINISH SCHEDULE FOR COLOR SELECTIONS
8. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT PER FINISH SCHEDULE.
9. NO EXPOSED NAILS OR SCREWS ARE ALLOWED.

EQUIPMENT
1. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SUPPORTS & BRACING. ELECTRICAL DEVICES ARE SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION SEE ELECTRICAL DRAWINGS.
2. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DIFFUSERS AND PIPE CHASES.
3. SEE FIRE PROTECTION DETAILS FOR PENETRATIONS THROUGH RATED WALLS, WHERE OCCURS.
4. SINGLE LIGHT FIXTURES IN GYP. BD. CEILINGS SHALL BE CENTERED IN ROOM.
5. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.O.N.
6. CENTER AND ALIGN SMOKE DETECTOR, DIFFUSERS, GRILLS, AND SIMILAR ITEMS IN CEILING TILE GRID AND ALIGN WITH LIGHT FIXTURES, SEE DETAIL 3 / A10.9.3
7. SEE ELECTRICAL DRAWINGS FOR LOW LEVEL EXIT SIGN LOCATIONS.

LEGEND

- 2x4 SUSPENDED ACOUSTICAL CEILING PANEL SYSTEM. SEE SHEET A10.9.1 AND A10.9.2 FOR ATTACHMENT TO STRUCTURE
- GYPSUM WALLBOARD CEILING, PAINT SURFACE, SEE DETAIL 2 / A10.9.3
- METAL PANEL SOFFIT, 12" FLAT PANEL
- SKYLIGHT
- LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
- CEILING ACCESS PANEL
- ROOM NAME / A119 / (+) 8'-0" — ROOM TAG (+) 8'-0" = CEILING HEIGHT OF ROOM, U.O.N.
- ROOM NAME / A119 / EXPOSED — ROOM TAG EXPOSED = OPEN TO STRUCTURE
- EMERGENCY EXIT LIGHT

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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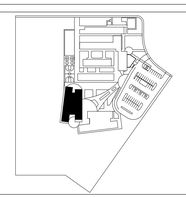
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WEST SACRAMENTO, CA 95691

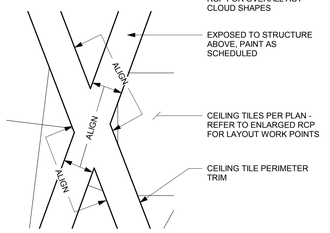
DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

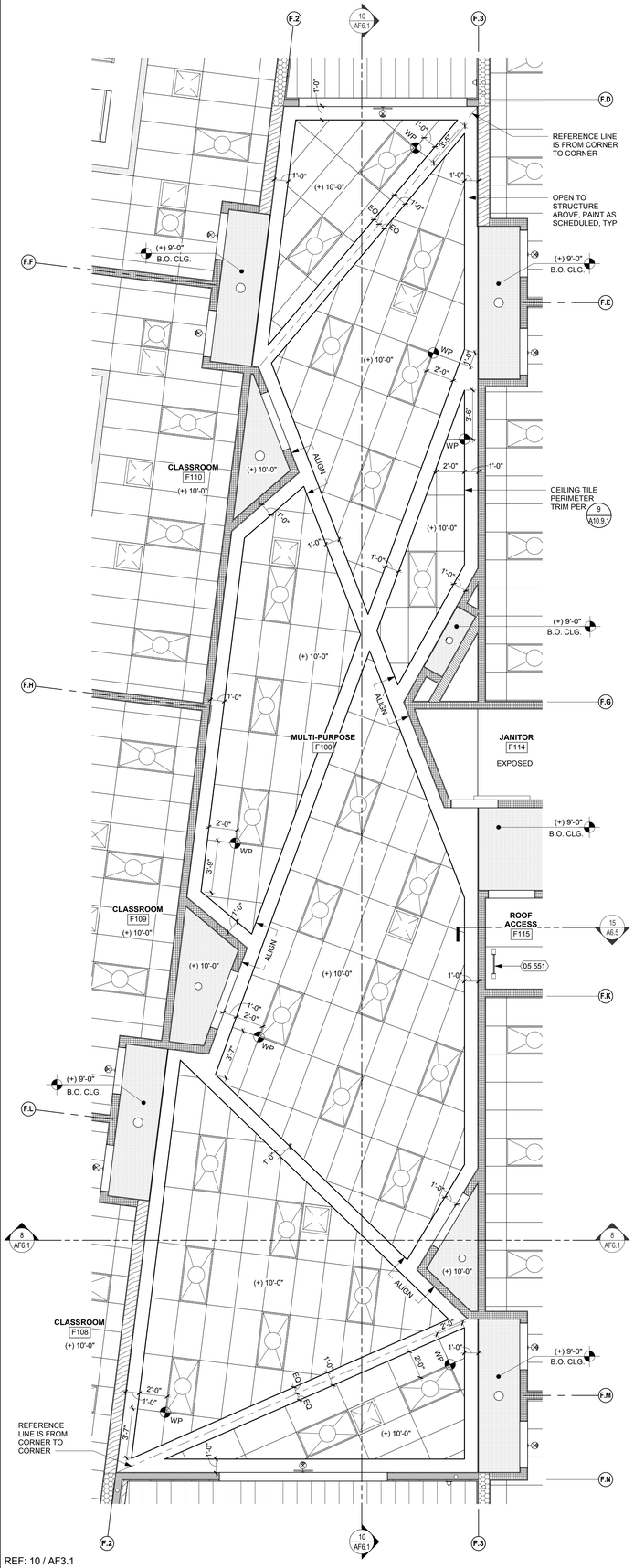
BUILDING F REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AF3.1
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:25:03 AM
FILE PATH: C:\Users\adriana\Desktop\Local Revit Files\19003-Westmore-A17-amrouser.rvt



BUILDING F - CLOUD ALIGNMENT 1/2" = 1'-0" 16



BUILDING F - ENLARGED REFLECTED CEILING PLAN 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)

GENERAL NOTES

GENERAL
1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATIONS = 0'-0"
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3. PROVIDE ACCESS PANELS TO ENCLOSED AREAS ABOVE GYPSUM BOARD. CEILINGS, CENTER AND ALIGN TO LIGHT FIXTURES, AND OTHER CEILING FIXTURES PER PLAN.
4. CEILING SYSTEM SHOULD BE CENTERED WITHIN EACH ROOM AS WELL AS ALIGNED WITH THE STRUCTURAL GRID, U.O.N.
5. CEILING SYSTEM SHALL BE COORDINATED WITH THE LIGHTING & ELECTRICAL PLANS.
6. SKYLIGHT WELL ON THE CEILING PLAN SHOULD BE VERTICALLY ALIGNED WITH THE CORRESPONDING SKYLIGHT ON THE ROOF WHERE OCCURS.
7. PAINT GYP. BD. CEILINGS AND SOFFITS P-1 U.O.N. (PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS.) REFER TO ROOM FINISH SCHEDULE FOR COLOR SELECTIONS
8. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT PER FINISH SCHEDULE.
9. NO EXPOSED NAILS OR SCREWS ARE ALLOWED.

EQUIPMENT
1. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SUPPORTS & BRACING. ELECTRICAL DEVICES ARE SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION SEE ELECTRICAL DRAWINGS.
2. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DIFFUSERS AND PIPE CHASES.
3. SEE FIRE PROTECTION DETAILS FOR PENETRATIONS THROUGH RATED WALLS, WHERE OCCURS.
4. SINGLE LIGHT FIXTURES IN GYP. BD. CEILINGS SHALL BE CENTERED IN ROOM.
5. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.O.N.
6. CENTER AND ALIGN SMOKE DETECTOR, DIFFUSERS, GRILLS, AND SIMILAR ITEMS IN CEILING TILE GRID AND ALIGN WITH LIGHT FIXTURES, SEE DETAIL 3 / A10.9.3
7. SEE ELECTRICAL DRAWINGS FOR LOW LEVEL EXIT SIGN LOCATIONS.

LEGEND

- 2x4 SUSPENDED ACOUSTICAL CEILING PANEL SYSTEM. SEE SHEET A10.9.1 AND A10.9.2 FOR ATTACHMENT TO STRUCTURE
- GYPSUM WALLBOARD CEILING, PAINT SURFACE, SEE DETAIL 2 A10.9.3
- METAL PANEL SOFFIT, 12" FLAT PANEL
- SKYLIGHT
- LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
- CEILING ACCESS PANEL
- ROOM NAME A119 (+) 8'-0" — ROOM TAG (+) 8'-0" = CEILING HEIGHT OF ROOM, U.O.N.
- ROOM NAME A119 EXPOSED — ROOM TAG EXPOSED = OPEN TO STRUCTURE
- L — EMERGENCY EXIT LIGHT

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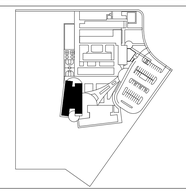
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WEST SACRAMENTO, CA 95691

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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
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BUILDING F ENLARGED REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF3.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:05 AM
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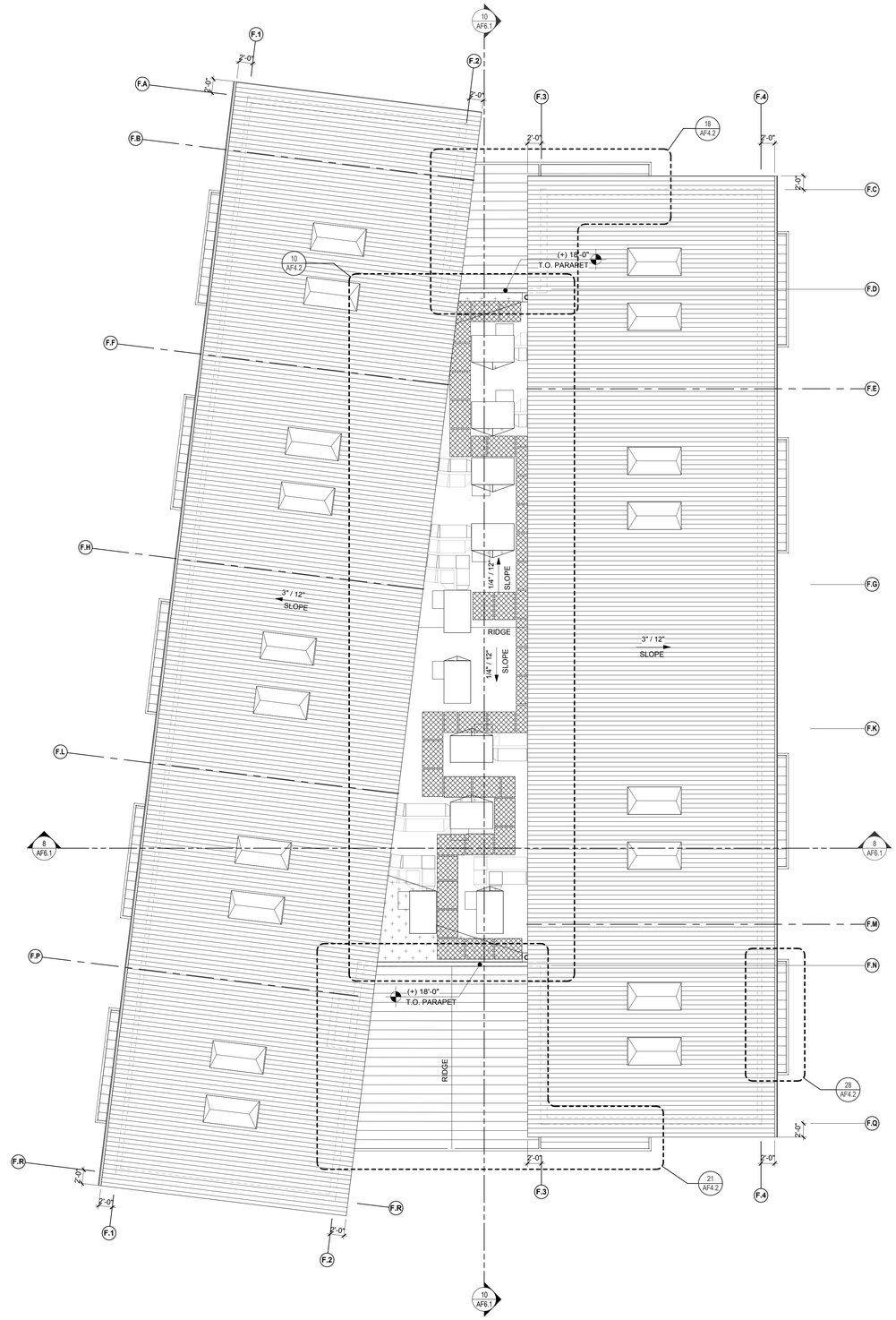

REF: 10 / AF6.1

BUILDING F - ROOF PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE

GENERAL NOTES

GENERAL
1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
2. ALL ROOF MATERIALS TO BE CLASS A RATED.
3. MINIMUM ROOF INSULATION R-30 ALL LOCATIONS OF THE ROOF.
4. MINIMUM THICKNESS OF ROOF INSULATION TO BE 6" AT LOW POINT OF ROOF DRAIN SUMP.
5. FLASHING TERMINATIONS SHALL HAVE WATER-TIGHT SHEET METAL CLOSURES WITH WATERPROOF SELF-ADHERED MEMBRANE UNDERLAYMENT.
6. NAILER THICKNESS SHALL MATCH ADJACENT INSULATION THICKNESS WITHIN 1/4" TOLERANCE.

SLOPES AND DRAINAGE
1. SECONDARY SLOPE (CRICKETS, SADDLES, SUMPS, ETC.) SHALL BE 1/4" / FT. SLOPE MINIMUM AS INDICATED AT ALL ROOF AREAS, INCLUDING VALLEYS, AND STEEPER AS REQUIRED TO MEET VALLEY SLOPE CRITERIA.
2. BACK SLOPES SHALL BE 2X THE PRIMARY SLOPE.
3. MINIMUM ROOF SLOPE IN VALLEYS IS 1/4" / FT. ADJUST SLOPE OF CRICKETS TO PROVIDE MINIMUM SLOPE AT ALL LOCATIONS OF ROOF. TO PREVENT PONDING, DIRECT ALL ROOF WATER TO DRAINS.
4. TAPER INSULATION UP FROM DRAIN IN SUMPS MINIMUM OF 1/4" / FT. BUT NOT TO EXCEED 1" /FT. PROVIDE TAPERED FILL TO CONFORM THE SUMP INSULATION TO THE THICKNESS OF INSULATION IN THE FIELD OF THE ROOF.
5. PROVIDE TAPERED CRICKET ON THE HIGH SIDE OF PENETRATIONS WIDER THAN 24".
6. MINIMUM SLOPE 1/4" /FT. TO DRAIN AT ALL LOCATIONS.

EQUIPMENT
1. REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND OTHER FACILITY SERVICES DRAWINGS FOR EQUIPMENT, DUCTWORK, PENETRATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.
2. PENETRATIONS, CURBS AND TERMINATIONS, INCLUDING THOSE FOR MECHANICAL, ELECTRICAL, PLUMBING AND OTHER FACILITY SERVICES SHALL PROVIDE MINIMUM 8" VERTICAL BASE FLASHING ELEVATION ABOVE THE TOP OF THE ADJACENT ROOF SURFACE (NOT STRUCTURAL DECK).
3. EQUIPMENT SUPPORT PENETRATIONS SHALL BE ROUND SHAPES UNLESS SPECIFICALLY DETAILED OTHERWISE.
4. FOR CONDUIT THROUGH ROOF DETAIL, SEE ELECTRICAL DRAWINGS
5. FOR TYPICAL PENETRATION CLEARANCES, SEE DETAIL 18 / A10.7.1
6. FOR DUCT THRU WALL PENETRATION, SEE DETAIL 21 / A10.7.1

LEGEND

- ROOF DRAIN AND OVERFLOW, SEE DETAIL 10 / A10.7.1
- ROOF WALKWAY PADS 13 / A10.7.1
- MODIFIED BITUMEN ROOFING
- ROOF CRICKET, TAPERED RIGID INSULATION, SLOPED TO DRAIN PER DETAIL 25 / A10.7.1
- SKYLIGHT, SEE DETAIL (BUILDINGS F & G ONLY) 2 / A10.7.3
- STANDING SEAM METAL ROOFING, 16" PLANK & PENCIL RIBS PANEL, OVER COVER BOARD AND INSULATION (BUILDINGS F & G ONLY)
- STANDING SEAM METAL ROOFING, 16" FLAT PANEL

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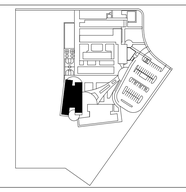
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F ROOF PLAN

Date 05/20/2019	Project Number 19003
Scale 1/8" = 1'-0"	Drawing Number AF4.1
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:25:09 AM
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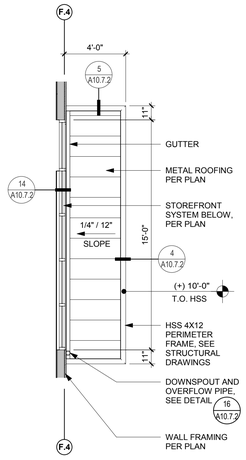

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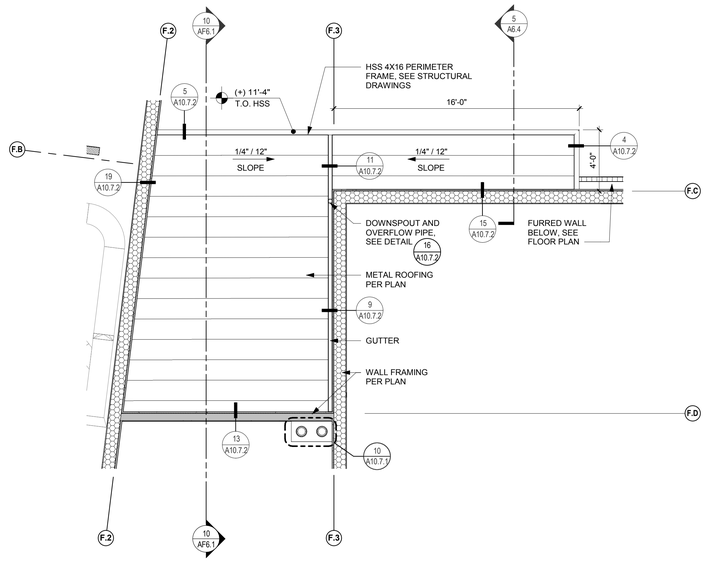
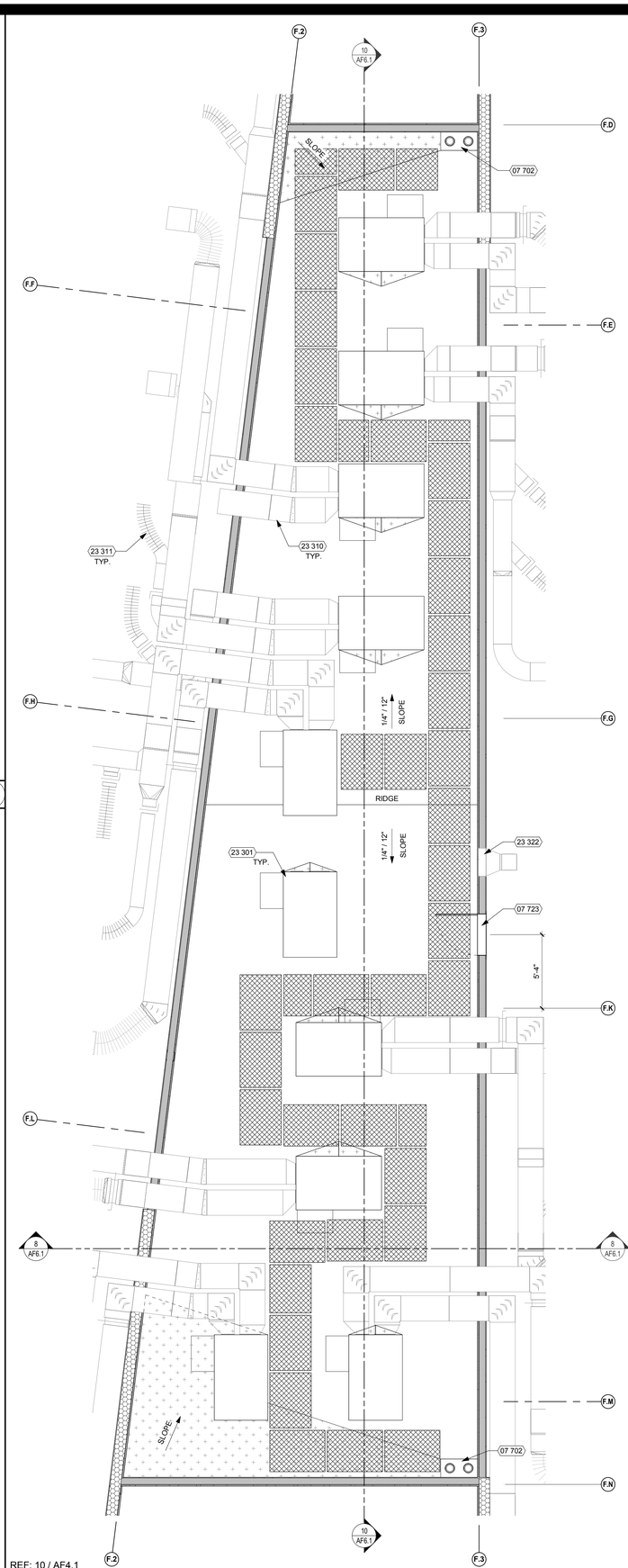
BUILDING F - TYPICAL CLASSROOM CANOPY 1/4" = 1'-0" 28

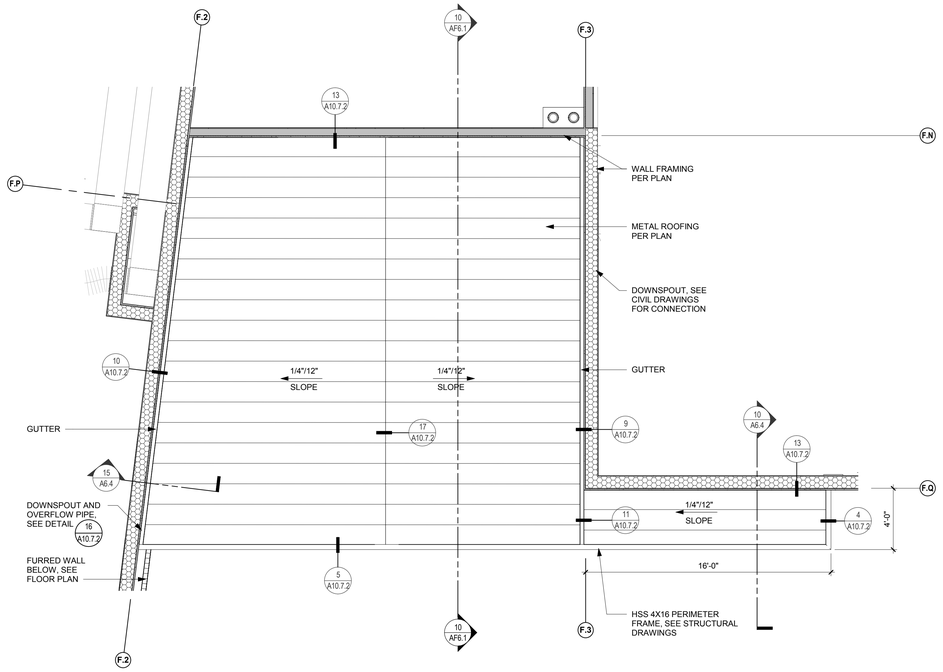


BUILDING F - ENLARGED ROOF PLAN AT NORTH CANOPY 1/4" = 1'-0" 18



REF: 10 / AF4.1

BUILDING F - ENLARGED ROOF PLAN 1/4" = 1'-0" 10



BUILDING F - ENLARGED ROOF PLAN AT SOUTH CANOPY 1/4" = 1'-0" 21

KEY NOTES

NUMBER	NOTE
07 702	ROOF DRAIN
07 723	ROOF ACCESS DOOR, 36"x36"
23 301	ROOFTOP MECHANICAL UNIT (SEE MECHANICAL DWGS.)
23 310	EXPOSED DUCTWORK (SEE MECHANICAL DWGS.)
23 311	DUCTWORK (SEE MECHANICAL DWGS.)
23 322	MECHANICAL WALL LOUVER (SEE MECHANICAL DWGS.)

GENERAL NOTES

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5. FLASHING TERMINATIONS SHALL HAVE WATER-TIGHT SHEET METAL CLOSURES WITH WATERPROOF SELF-ADHERED MEMBRANE UNDERLAYMENT.
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5. PROVIDE TAPERED CRICKET ON THE HIGH SIDE OF PENETRATIONS WIDER THAN 24".
6. MINIMUM SLOPE 1/4" /FT. TO DRAIN AT ALL LOCATIONS.

EQUIPMENT
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3. EQUIPMENT SUPPORT PENETRATIONS SHALL BE ROUND SHAPES UNLESS SPECIFICALLY DETAILED OTHERWISE.
4. FOR CONDUIT THROUGH ROOF DETAIL, SEE ELECTRICAL DRAWINGS
5. FOR TYPICAL PENETRATION CLEARANCES, SEE DETAIL 18 / A10.7.1
6. FOR DUCT THRU WALL PENETRATION, SEE DETAIL 21 / A10.7.1

LEGEND

- ROOF DRAIN AND OVERFLOW, SEE DETAIL 10 / A10.7.1
- ROOF WALKWAY PADS 13 / A10.7.1
- MODIFIED BITUMEN ROOFING
- ROOF CRICKET, TAPERED RIGID INSULATION, SLOPED TO DRAIN PER DETAIL 25 / A10.7.1
- SKYLIGHT, SEE DETAIL (BUILDINGS F & G ONLY) 2 / A10.7.2
- STANDING SEAM METAL ROOFING, 16" PLANK & PENCIL RIBS PANEL, OVER COVER BOARD AND INSULATION (BUILDINGS F & G ONLY)
- STANDING SEAM METAL ROOFING, 16" FLAT PANEL

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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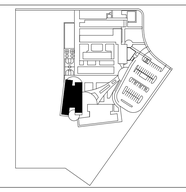
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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BUILDING F ENLARGED ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF4.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:14 AM
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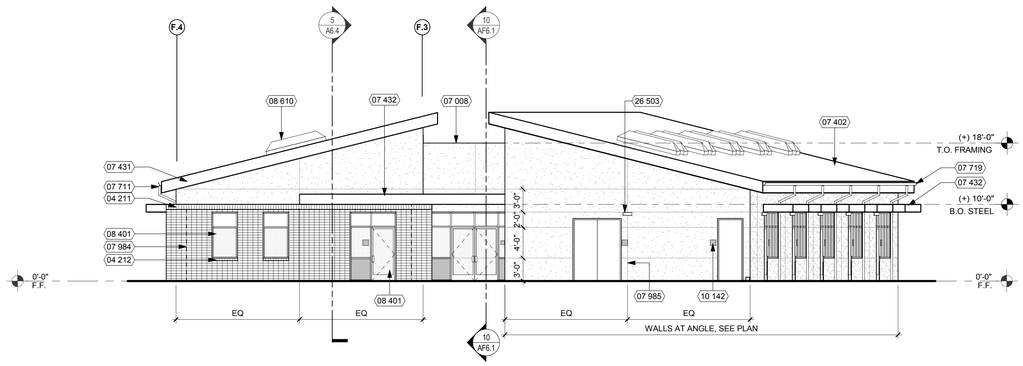
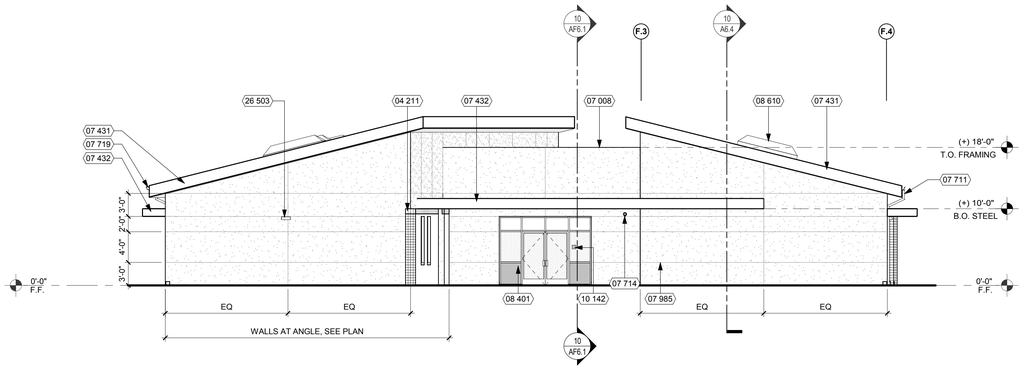
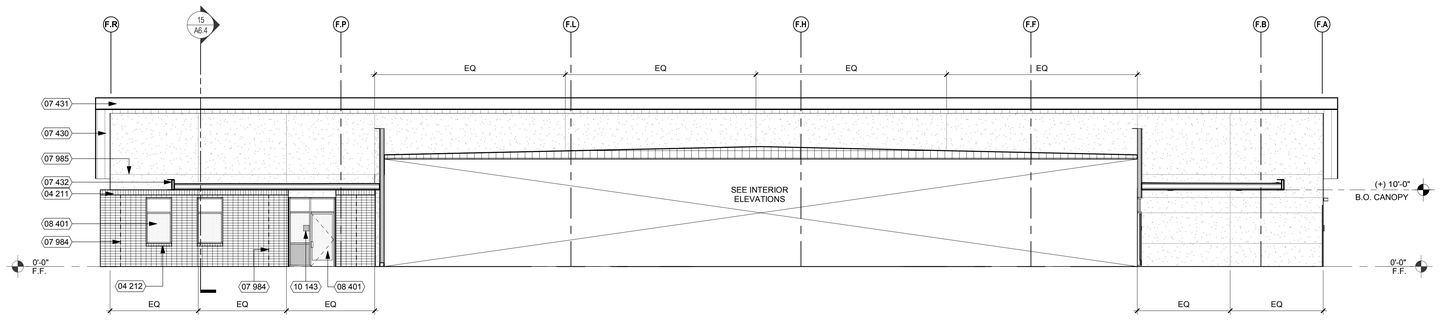


BUILDING F - NORTH ELEVATION 1/8" = 1'-0" 7



BUILDING F - SOUTH ELEVATION 1/8" = 1'-0" 9



BUILDING F - PARTIAL EAST ELEVATION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 211	BRICK SAILOR COURSE
04 212	BRICK WINDOW SILL
07 008	PARAPET CAP, PAINT TO MATCH ADJACENT WALL
07 402	METAL ROOFING
07 430	METAL SOFFIT
07 431	FASCIA, PAINTED P5
07 432	HSS CANOPY FASCIA, PAINTED P5
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 714	DOWNSPOUT NOZZLE (SEE DETAIL 24/A10.7.1)
07 719	GUTTER, PAINTED P5
07 984	EXPANSION JOINT. BRICK EXPANSION JOINTS ARE REQUIRED 3'-0" MAX. FROM CORNERS AND @ 30'-0" O.C. MAX.
07 985	PLASTER CONTROL JOINT
08 401	STOREFRONT SYSTEM, PER WINDOW SCHEDULE
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 143	EXTERIOR BUILDING SIGNAGE (SEE DETAIL 19/A10.10.1)
26 503	EXTERIOR WALL MOUNTED LIGHT FIXTURE (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. GRAFFITI-RESISTANT COATINGS TO BE APPLIED ONLY TO MASONRY BRICK AND CONCRETE, NOT PLASTER - SEE SPECIFICATIONS

LEGEND

EXTERIOR CEMENT PLASTER, PAINTED P4 PER FINISH SCHEDULE

FOR TYPICAL DETAILS SEE:
REVEAL DETAIL: 3 / A10.6.1
CONTROL JOINT DETAIL: 4 / A10.6.1
INSIDE CORNER: 5 / A10.6.1
OUTSIDE CORNER: 10 / A10.6.1

FULL BRICK, STACK BOND, SEE TYPICAL ASSEMBLY DETAIL 2 / A10.1

BRICK EXPANSION JOINT

STANDING SEAM METAL ROOFING, SEE TYPICAL ASSEMBLY DETAIL (BUILDINGS F & G ONLY) 7 / A10.7.2

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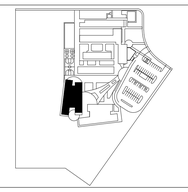
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F EXTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AF5.1
Drawn / Checked	
AA / AM	

PRINT DATE: 5/17/2019 10:25:18 AM
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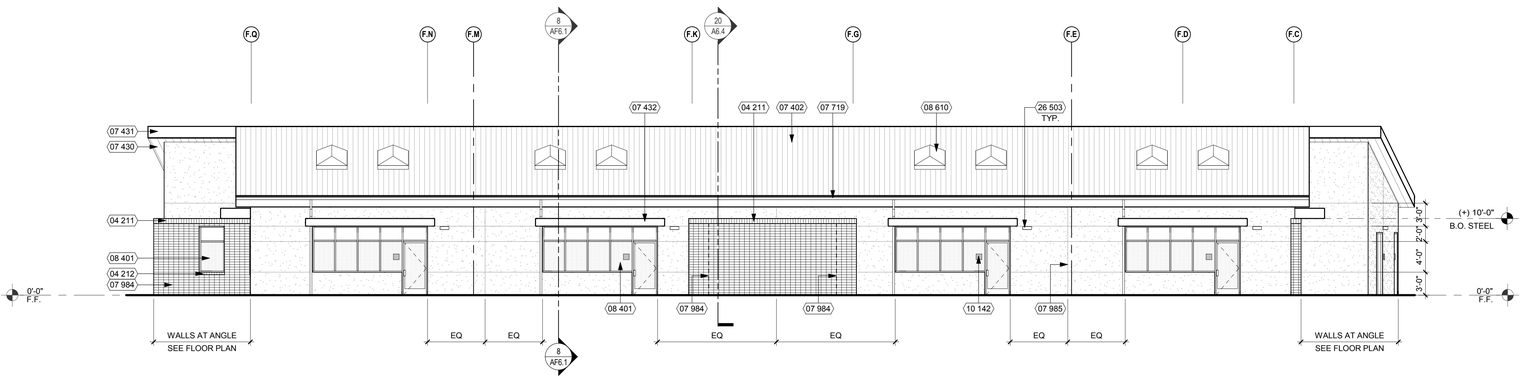
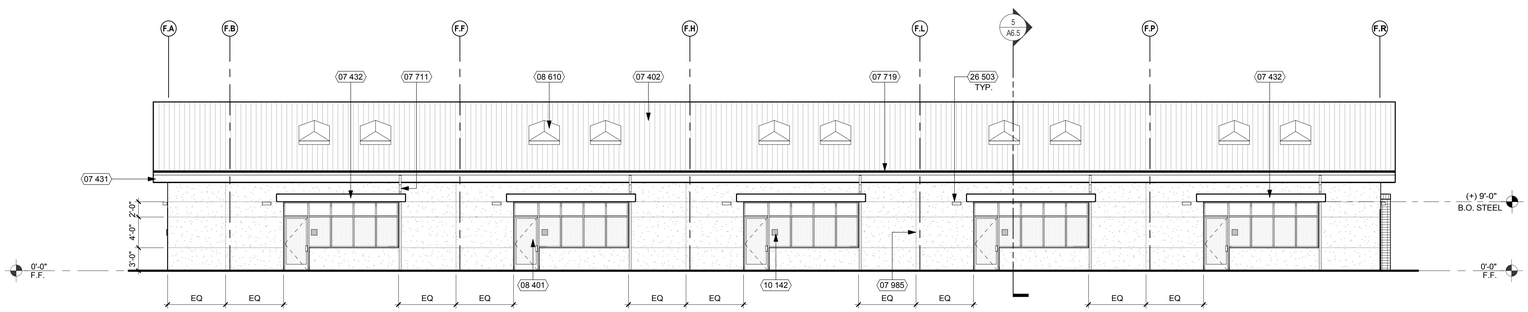


BUILDING F - EAST ELEVATION 1/8" = 1'-0" 8



BUILDING F - WEST ELEVATION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 211	BRICK SAILOR COURSE
04 212	BRICK WINDOW SILL
07 402	METAL ROOFING
07 430	METAL SOFFIT
07 431	FASCIA, PAINTED P5
07 432	HSS CANOPY FASCIA, PAINTED P5
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 719	GUTTER, PAINTED P5
07 984	EXPANSION JOINT. BRICK EXPANSION JOINTS ARE REQUIRED 3'-0" MAX. FROM CORNERS AND @ 30'-0" O.C. MAX.
07 985	PLASTER CONTROL JOINT
08 401	STOREFRONT SYSTEM, PER WINDOW SCHEDULE
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
26 503	EXTERIOR WALL MOUNTED LIGHT FIXTURE (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. GRAFFITI-RESISTANT COATINGS TO BE APPLIED ONLY TO MASONRY BRICK AND CONCRETE, NOT PLASTER - SEE SPECIFICATIONS

LEGEND

EXTERIOR CEMENT PLASTER, PAINTED P4 PER FINISH SCHEDULE

FOR TYPICAL DETAILS SEE:
REVEAL DETAIL: 3 / A10.6.1
CONTROL JOINT DETAIL: 4 / A10.6.1
INSIDE CORNER: 5 / A10.6.1
OUTSIDE CORNER: 10 / A10.6.1

FULL BRICK, STACK BOND, SEE TYPICAL ASSEMBLY DETAIL 2 / A10.1

BRICK EXPANSION JOINT

STANDING SEAM METAL ROOFING, SEE TYPICAL ASSEMBLY DETAIL (BUILDINGS F & G ONLY) 7 / A10.7.2

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NO.	REMARKS	DATE

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	DATE
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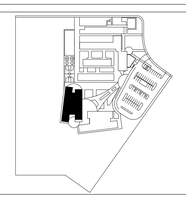
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F EXTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number AF5.2
Drawn AA / Checked AM	

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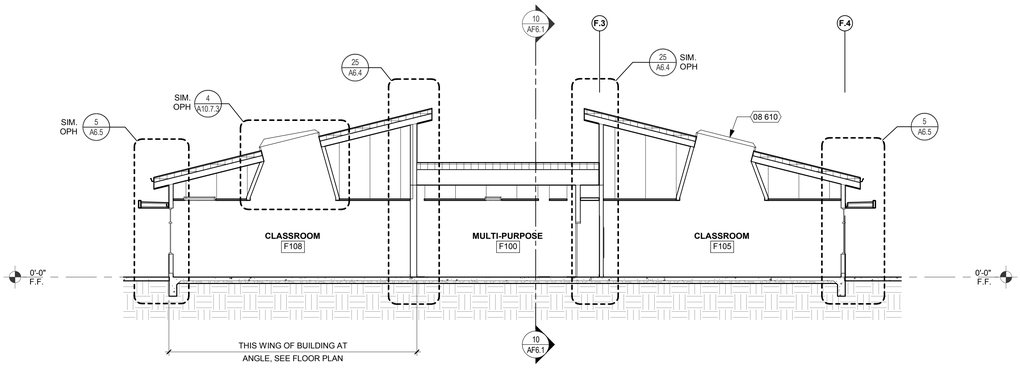
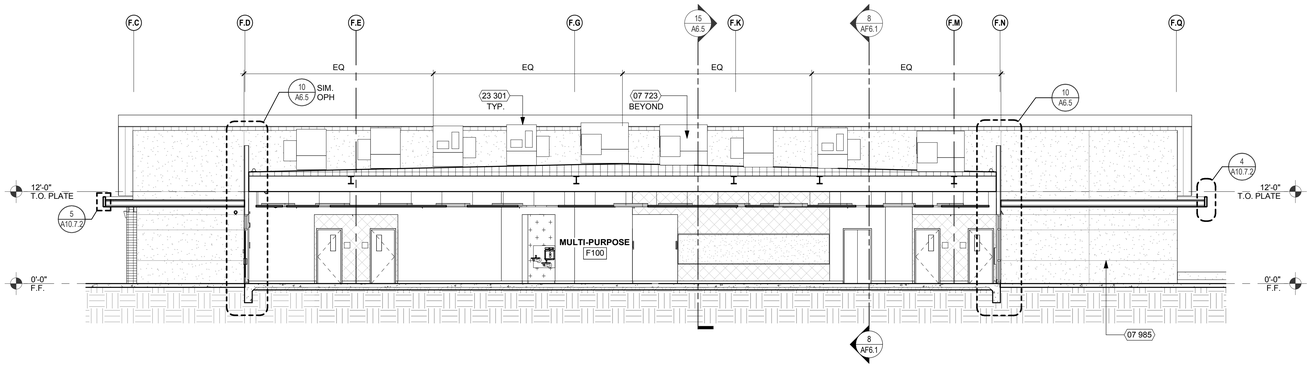


REF: 10 / AF2.1

BUILDING F - EAST/WEST BUILDING SECTION 1/8" = 1'-0" 8



REF: 10 / AF2.1

BUILDING F - NORTH/SOUTH BUILDING SECTION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
07 723	ROOF ACCESS DOOR, 36"x36"
07 985	PLASTER CONTROL JOINT
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
23 301	ROOFTOP MECHANICAL UNIT (SEE MECHANICAL DWGS.)

GENERAL NOTES

1. FOR FINISH INFORMATION, REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE.
2. SEE REFLECTED CEILING PLANS FOR CEILING INFORMATION.
3. SEE FLOOR PLANS FOR WALL TYPES.

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○ BIDDING	
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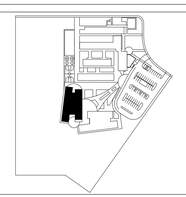
KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
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BUILDING F BUILDING SECTIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF6.1
Drawn: AA	Checked: AM

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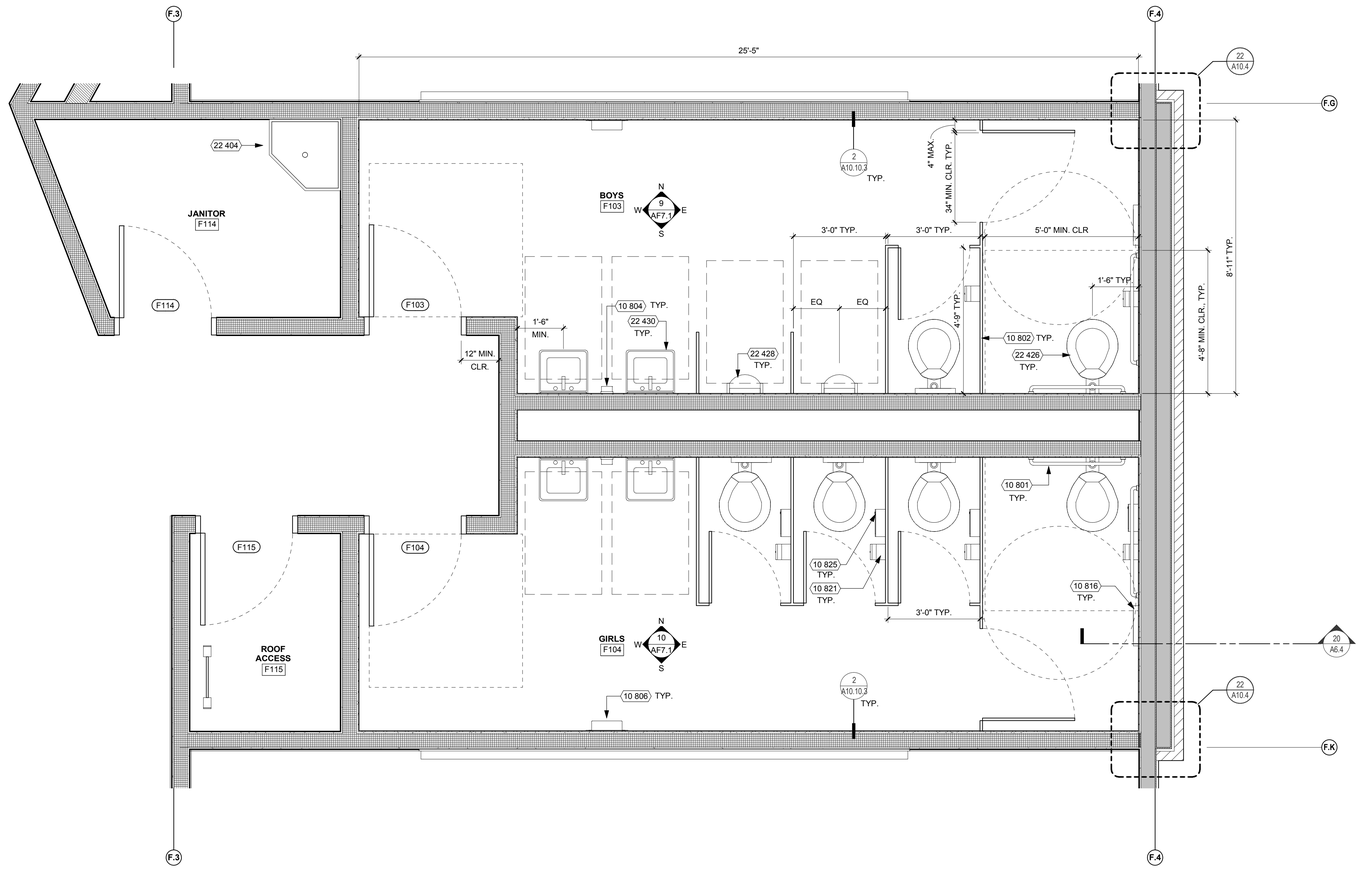

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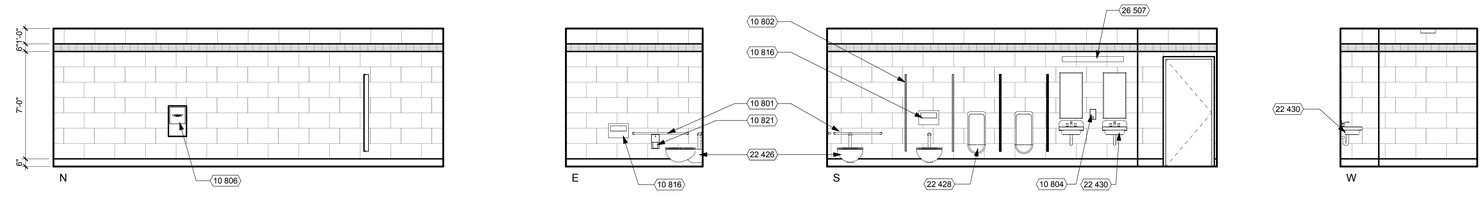
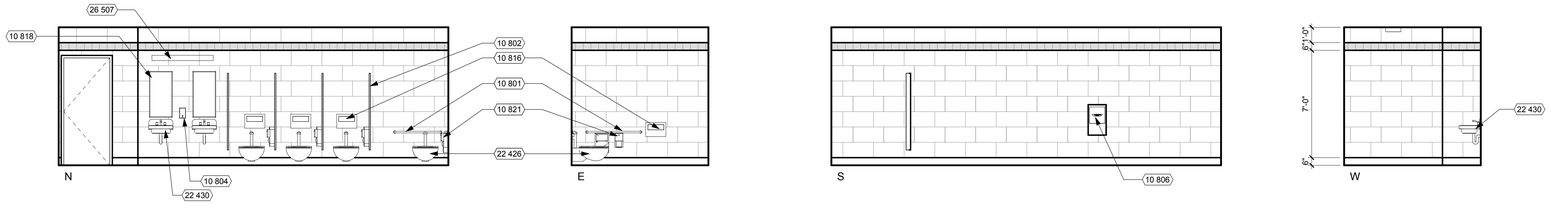
BUILDING F - ENLARGED RESTROOMS FLOOR PLAN 1/2" = 1'-0" 8



F103-BOYS 1/4" = 1'-0" 9



F104-GIRLS 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
10 801	ACCESSIBLE GRAB BAR (SEE DETAIL 11/A10.10.2)
10 802	TOILET PARTITION (SEE DETAIL 19/A10.10.2)
10 804	SOAP DISPENSER
10 806	ELECTRIC HAND DRYER
10 816	TOILET SEAT COVER DISPENSER
10 818	MIRROR
10 821	TOILET PAPER DISPENSER
10 825	SANITARY NAPKIN DISPOSAL
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
22 426	ACCESSIBLE WATER CLOSET
22 428	ACCESSIBLE URINAL
22 430	LAVATORY
26 507	WALL MOUNT LIGHT FIXTURE

GENERAL NOTES

GENERAL
1. DIMENSIONS
   A. ALL MINIMUM CLEARANCE DIMENSIONS FOR PLUMBING FIXTURES ARE FROM FACE OF WALL FINISH TO CENTER OF FIXTURE, U.O.N. ALL DIMENSIONS MARKED "MIN. CLR" OR "CLR." ARE TO/ FROM FACE OF WALL FINISH (F.O.F.)
   B.
2. SEE FINISH PLAN FOR INTERIOR FINISHES.
3. PROVIDE GLASSMAT BACKER BOARD AT ALL TILED WALLS AND WALLS WITHIN 48" OF ANY PLUMBING FIXTURE
4. ALL DRINKING FOUNTAIN ALCOVES TO BE FINISHED WITH WATER RESISTANT WALL MATERIAL, SEE FINISH SCHEDULE AND INTERIOR ELEVATIONS.
5. ALL FLOOR SLOPES IN RESTROOMS ARE NOT TO EXCEED 1:48 IN ANY DIRECTION.
6. FOR FLOOR DRAIN, SEE DETAIL 1 / A10.10.3

ACCESSORIES
1. ALL RESTROOM FIXTURES AND ACCESSORIES MOUNTING HEIGHTS AND LOCATIONS TO USE ADULT DIMENSIONS
2. FOR TYPICAL RESTROOM ACCESSORY MOUNTING HEIGHTS, ACCESSIBLE DIMENSIONS, SEE SHEET A10.10.2
3. TOILET ACCESSORIES LOCATED ON OR WITHIN WALLS SHALL BE INSTALLED AND SEALED TO PROTECT STRUCTURAL ELEMENTS FROM MOISTURE (CBC SECTION 1210.2.2)
4. PLUMBING FIXTURES TO HAVE SOLID BLOCKING AS REQUIRED BY CODE, SEE DETAIL 29 / A10.10.1
5. FOR MOP SINK WITH BROOM RACK, SEE DETAIL 6 / A10.10.3

STALLS AND PARTITIONS
1. REGARDLESS OF STALL CONFIGURATION, A 48" LONG MINIMUM CLEARANCE FLOOR SPACE SHALL BE PROVIDED IN FRONT OF THE ACCESSIBLE WATER CLOSET.
2. ALL ACCESSIBLE TOILET PARTITION DOORS TO BE 34" WIDE MINIMUM AND ALL NON-ACCESSIBLE TOILET PARTITION DOORS SHALL NOT BE LESS THAN 2'-2".
3. PARTITION STILE WIDTHS SHALL NOT EXCEED 4".
4. FOR PARTITION DETAILS, SEE DETAIL 19 / A10.10.2
5. INSTALL (1) COAT HOOK CENTERED ON THE BACK OF EVERY STALL DOOR, 40" A.F.F. AT ACCESSIBLE STALLS AND 72" A.F.F. AT NON-ACCESSIBLE STALLS.
6. FLUSH VALVE TO BE LOCATED AT WIDE SIDE OF STALL/ SPACE.

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NO.	REMARKS	DATE

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● DSA PLAN CHECK	05/20/2019
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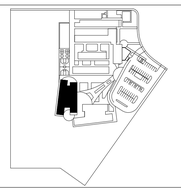
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F TOILET ROOM PLANS AND ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF7.1
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:32 AM
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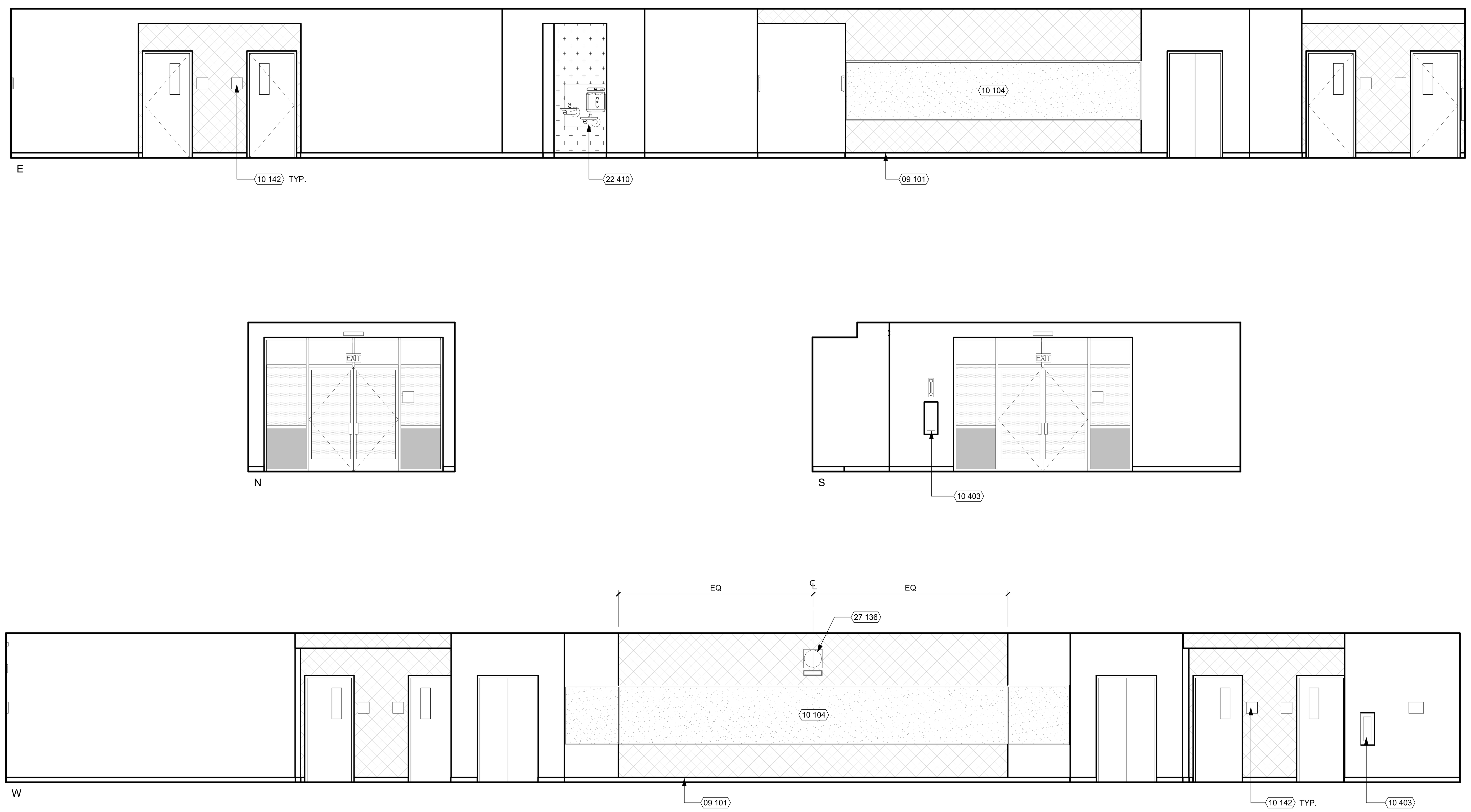
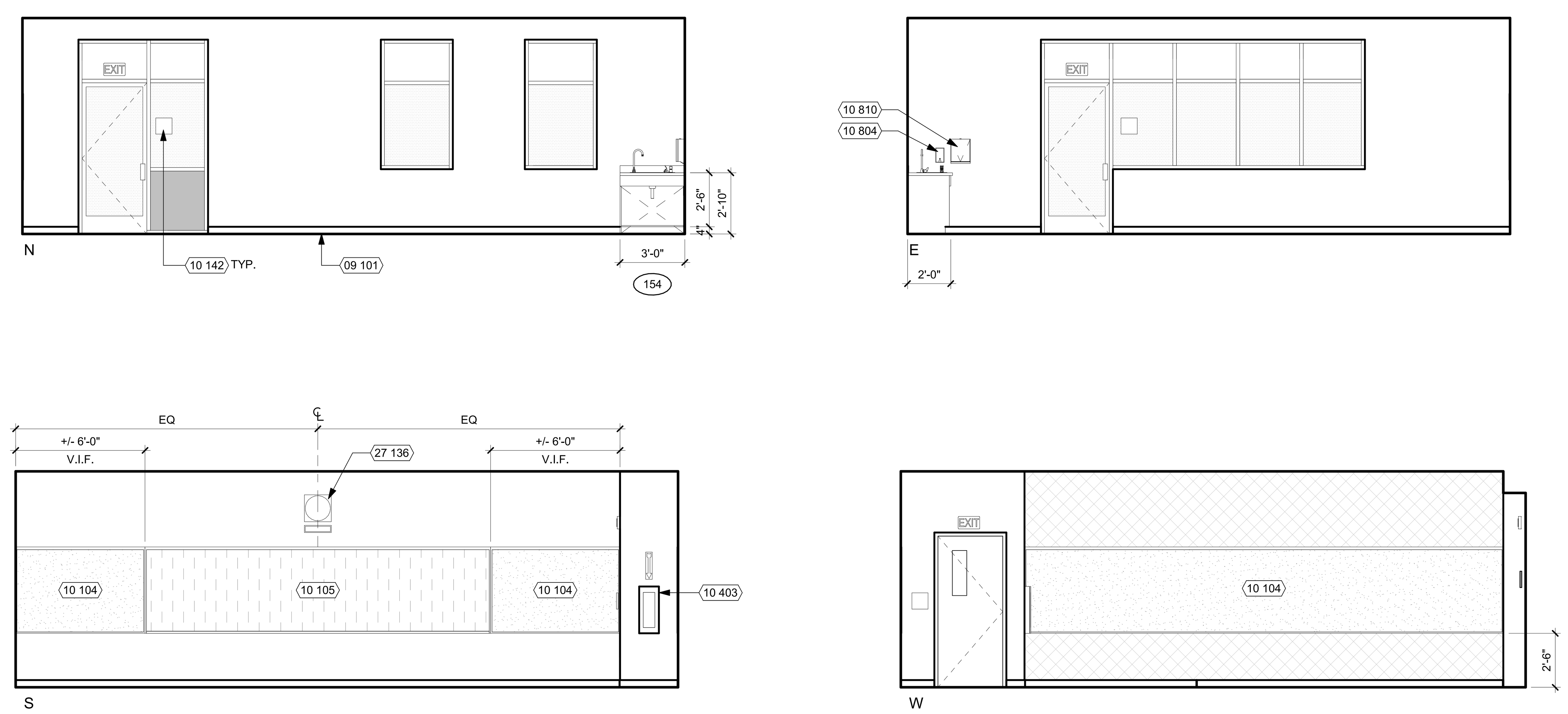


F100-MULTIPURPOSE 1/4" = 1'-0" (8)



F101-CLASSROOM 1/4" = 1'-0" (10)

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 104	TACKBOARD (SEE DETAIL 27/A10.10.2)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
7. PROVIDE BACKING PLATES OR BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT SUCH AS SHELVING, MARKER BOARDS, AND DOOR STOPS. SEE DETAIL 29 / A10.10.1
8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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NO.	REMARKS	DATE

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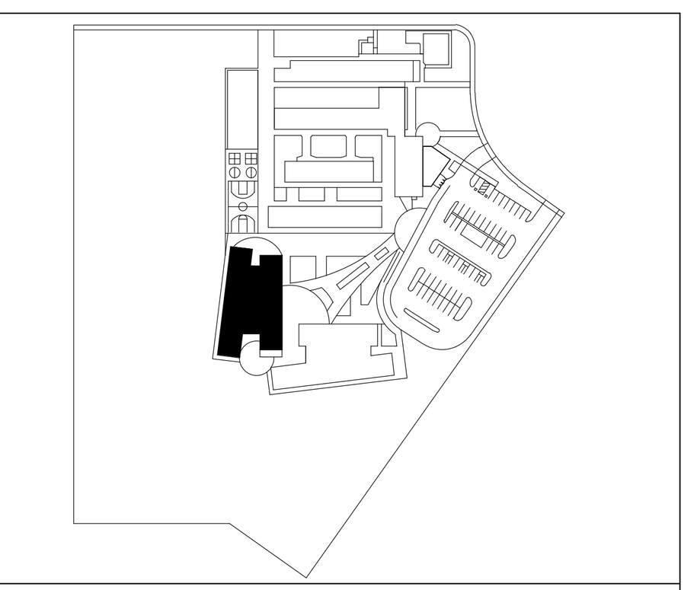
	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WEST SACRAMENTO, CA 95691

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WEST SACRAMENTO, CA 95691

BULIDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	AF8.1
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:25:38 AM
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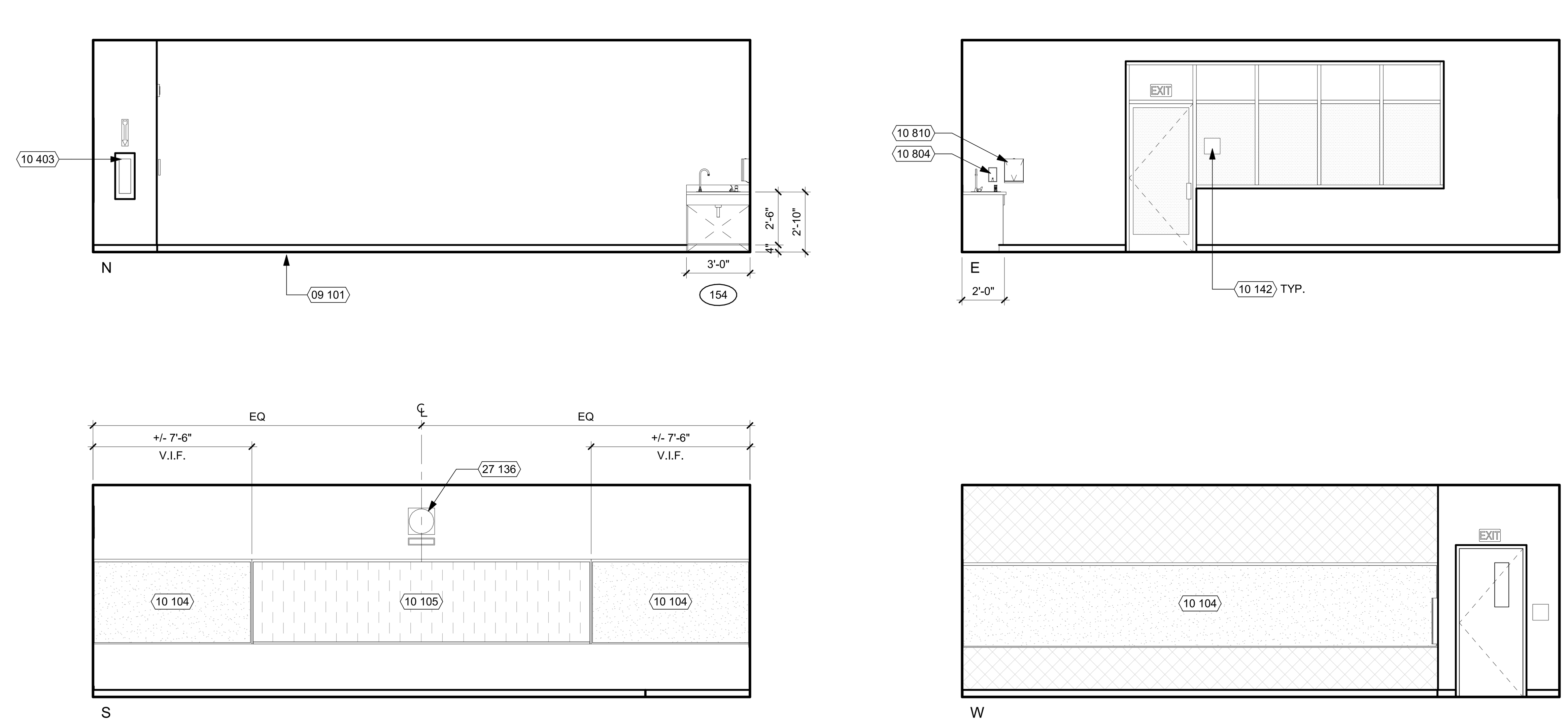
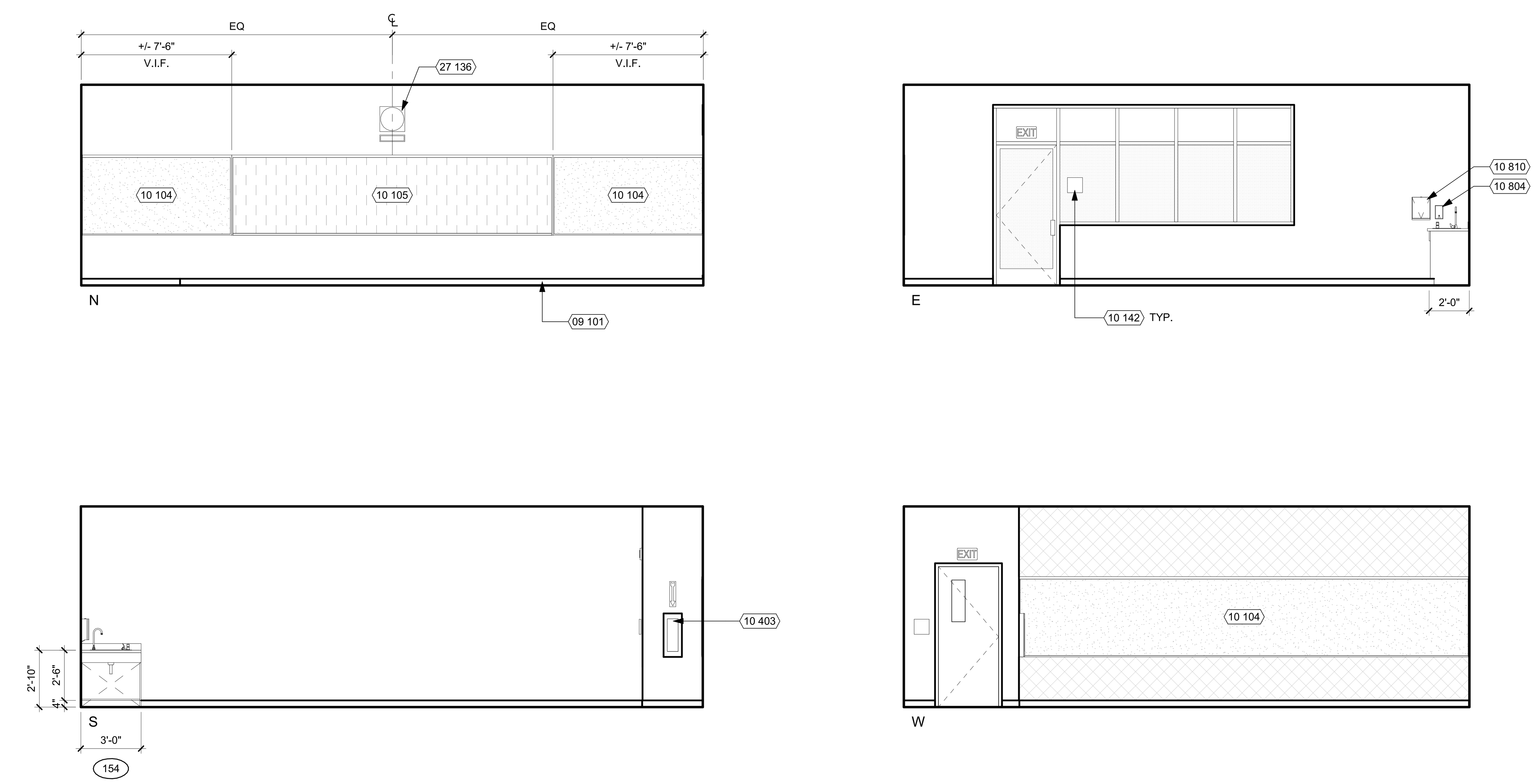


F102-CLASSROOM 1/4" = 1'-0" 7



F105-CLASSROOM 1/4" = 1'-0" 9

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 104	TACKBOARD (SEE DETAIL 27/A10.10.2)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
7. PROVIDE BACKING PLATES OR BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT SUCH AS SHELVING, MARKER BOARDS, AND DOOR STOPS. SEE DETAIL 29 / A10.10.1
8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

TACK BOARD

MARKER BOARD

FRP2, PER FINISH SCHEDULE

P2, PER FINISH SCHEDULE

ETCHED GLAZING, PER WINDOW SCHEDULE

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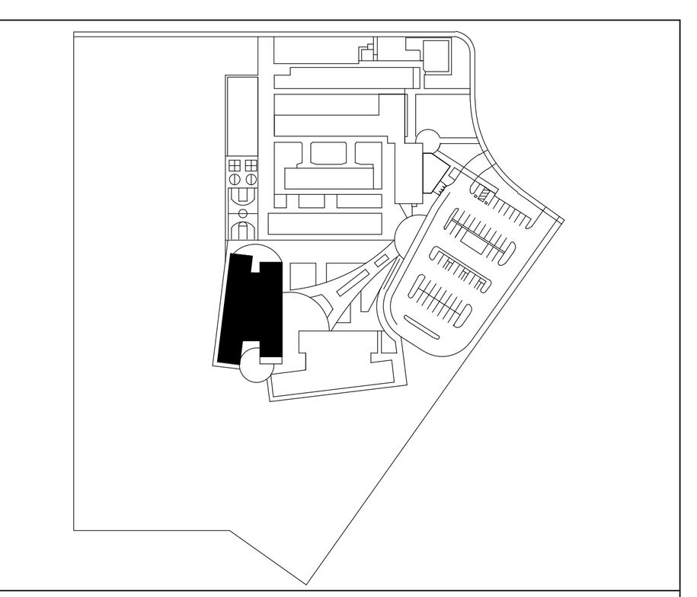
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
DSA PLAN CHECK	05/20/2019
DSA BACK CHECK	
BIDDING	
CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	AF8.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:44 AM
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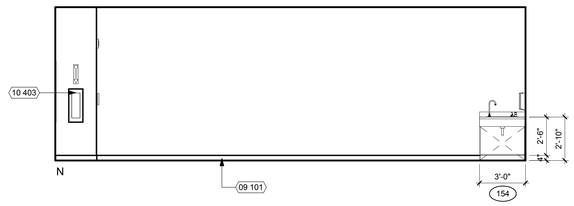
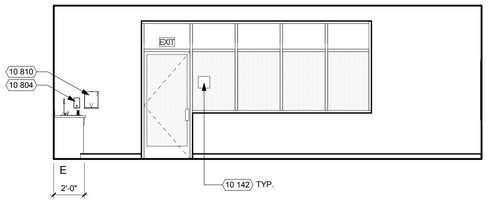
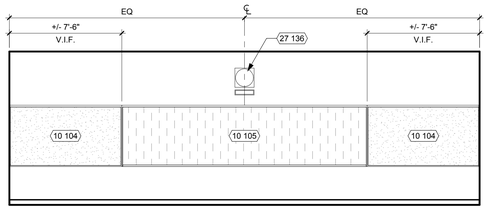
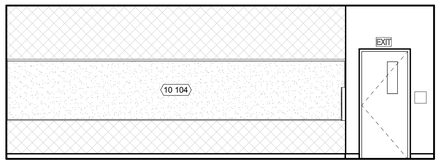
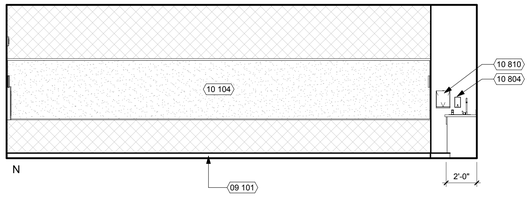


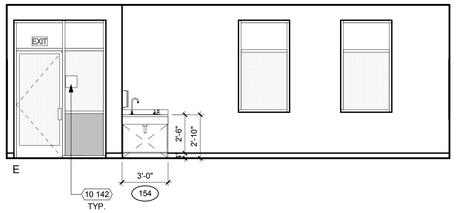


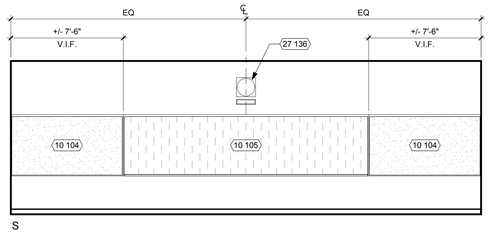


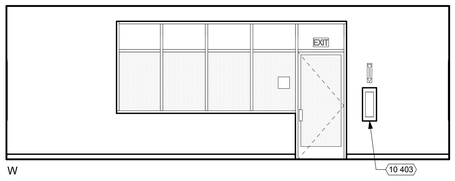


F106-CLASSROOM 1/4" = 1'-0" 7









F107-CLASSROOM 1/4" = 1'-0" 9

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 104	TACKBOARD (SEE DETAIL 27/A10.10.2)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

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3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
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LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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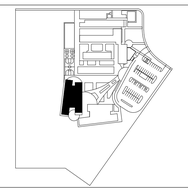
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF8.3
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:49 AM
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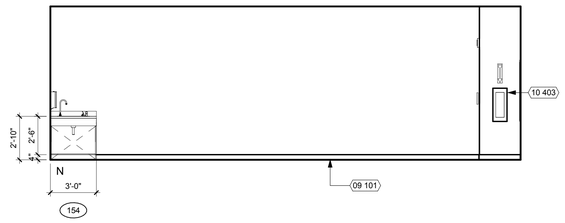
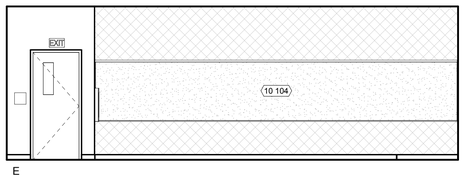
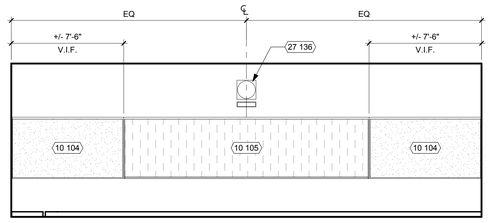
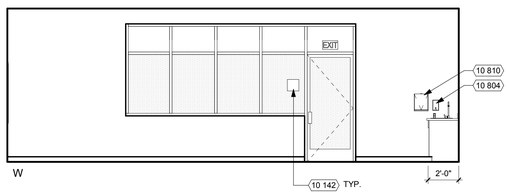
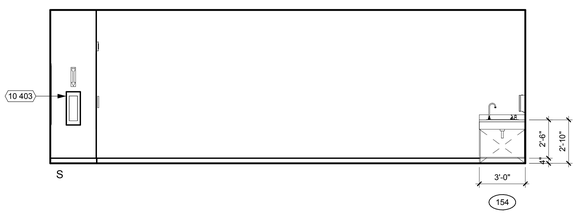


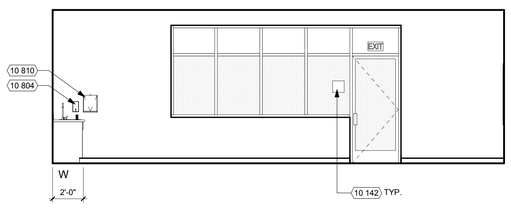






F108-CLASSROOM 1/4" = 1'-0" 7





F109-CLASSROOM 1/4" = 1'-0" 9

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 104	TACKBOARD (SEE DETAIL 27/A10.10.2)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

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LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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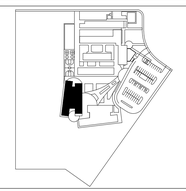
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF8.4
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:25:55 AM
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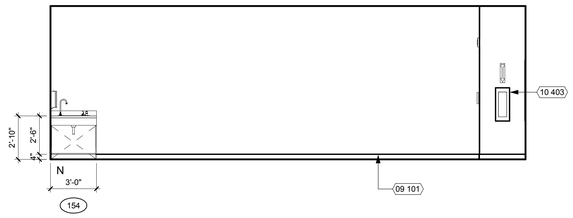
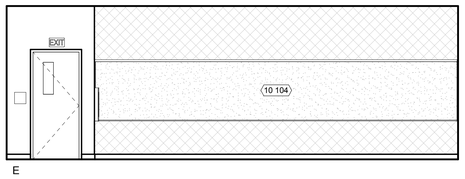
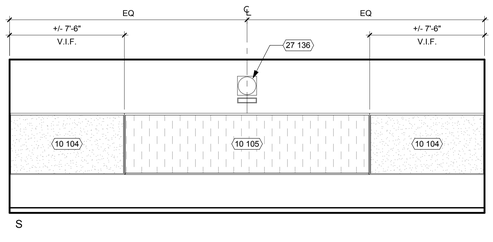
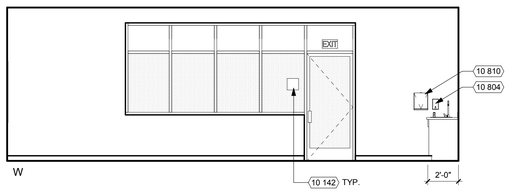
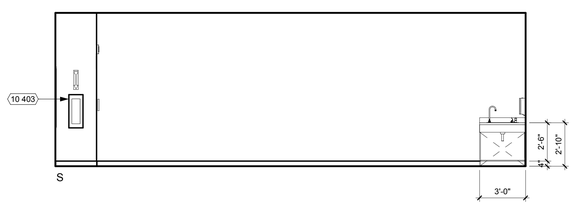


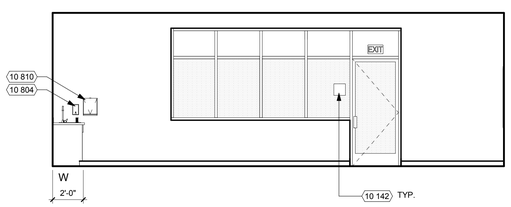






F110-CLASSROOM 1/4" = 1'-0" 7





F111-CLASSROOM 1/4" = 1'-0" 9

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 104	TACKBOARD (SEE DETAIL 27/A10.10.2)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

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LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
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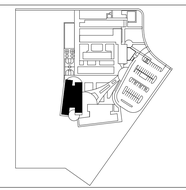
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
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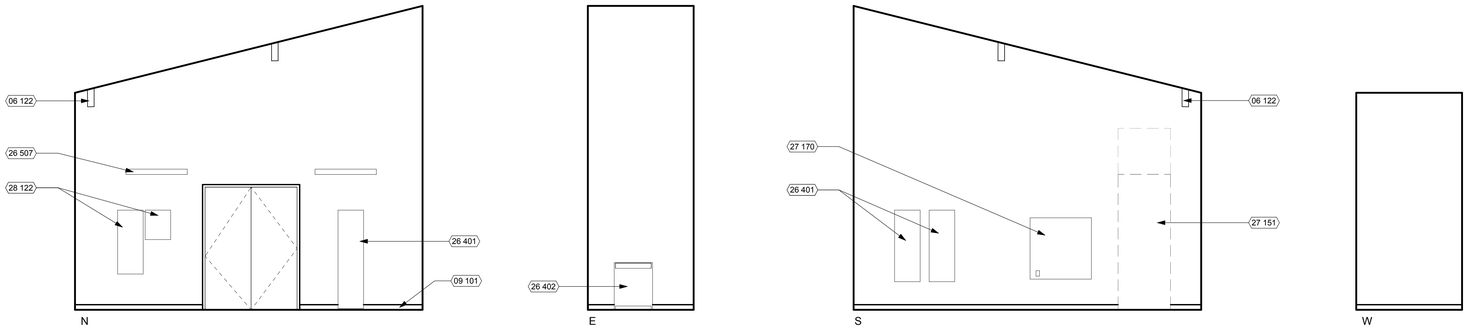
WEST SACRAMENTO, CA 95691

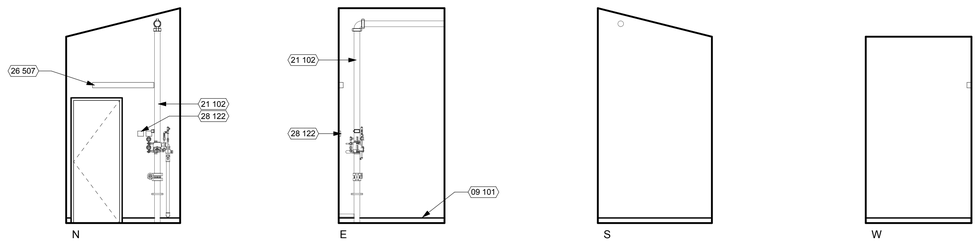
BUILDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF8.5
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:26:00 AM
FILE PATH: C:\Users\adriana\Desktop\Local Revit Files\19003-Westmore-A17-amosser.rvt



F112-ELECTRICAL 1/4" = 1'-0" 7



F113-FIRE RISER 1/4" = 1'-0" 8

KEY NOTES

NUMBER	NOTE
06 122	GLU-LAM BEAM (SEE STRUCTURAL DWGS.)
09 101	WALL BASE (SEE FINISH SCHEDULE)
21 102	FIRE RISER (SEE FIRE PROTECTION DWGS)
26 401	ELECTRICAL PANEL (SEE ELECTRICAL DWGS.)
26 402	TRANSFORMER (SEE ELECTRICAL DWGS.)
26 507	WALL MOUNT LIGHT FIXTURE
27 151	IDF RACK (SEE ELECTRICAL DWGS)
27 170	TELEPHONE TERMINAL BOARD (SEE ELECTRICAL DRAWINGS)
28 122	FIRE ALARM MONITOR MODULE (SEE FIRE PROTECTION DWGS)
28 123	FIRE ALARM PANEL (SEE FIRE PROTECTION DWGS)

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LEGEND

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- MARKER BOARD
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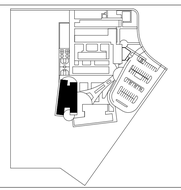
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

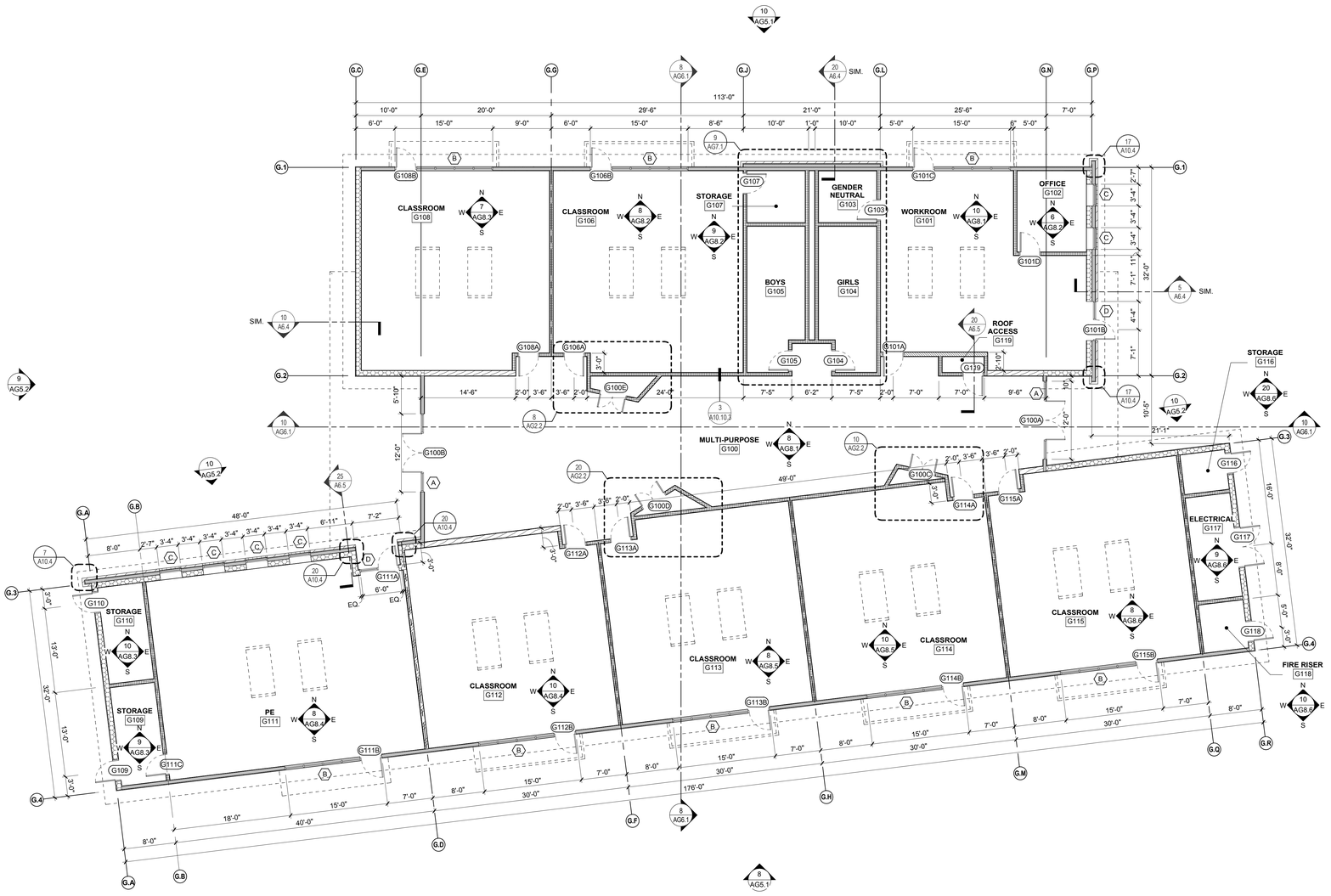
DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AF8.6
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:26:07 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt



REF: 7 / AF5.1

BUILDING G - FLOOR PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE

GENERAL NOTES

1. PROVIDE ROOM NAME AND NUMBER WITH 1" HIGH TEXT AND GRADE #2 BRAILLE THROUGHOUT, SEE CODE ANALYSIS PLAN.
2. ALL WALLS SHALL HAVE R-19 BATT INSULATION, FULL HEIGHT.
3. SOUND INSULATION TO BE INSTALLED AT INTERIOR FULL HEIGHT WALLS.
4. REFER TO STRUCTURAL DRAWINGS FOR HEADER SCHEDULE AND FRAMING DETAILS FOR OPENINGS IN INTERIOR AND EXTERIOR WALLS
5. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE AND SPACING.
6. SEE STRUCTURAL DRAWINGS FOR COLUMN LOCATIONS AND SIZING.
7. REFER TO ROOM FINISH SCHEDULE FOR INTERIOR WALL FINISHES.
8. DIMENSIONS OF STUDS ARE FROM FACE OF STUD.
9. PAINT ALL INTERIOR WALLS.

LEGEND

- LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED
- EXISTING CONSTRUCTION TO REMAIN (BUILDING M ONLY)
- FULL BRICK VENEER EXTERIOR WALL, SEE DETAIL 2 / A10.1
- EXTERIOR PLASTER 6" STUD WALL, SEE DETAIL 3 / A10.1
- EXTERIOR PLASTER 8" STUD WALL, SEE DETAIL 4 / A10.1
- EXTERIOR PLASTER 10" STUD WALL, SEE DETAIL 5 / A10.1
- INTERIOR 6" STUD WALL, SEE DETAIL 11 / A10.1
- INTERIOR 2-HOUR RATED WALL (BUILDING M ONLY), SEE DETAIL 10 / A10.1
- INTERIOR 6" STUD WALL WITH ACOUSTIC SEPARATION (BUILDING G ONLY), SEE DETAIL 8 / A10.1
- INTERIOR 8" STUD WALL, SEE DETAIL 16 / A10.1
- INTERIOR 10" STUD WALL, SEE DETAIL 12 / A10.1

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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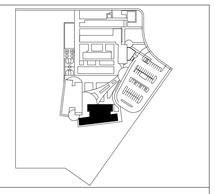
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number AG2.1
Drawn AA / Checked AM	

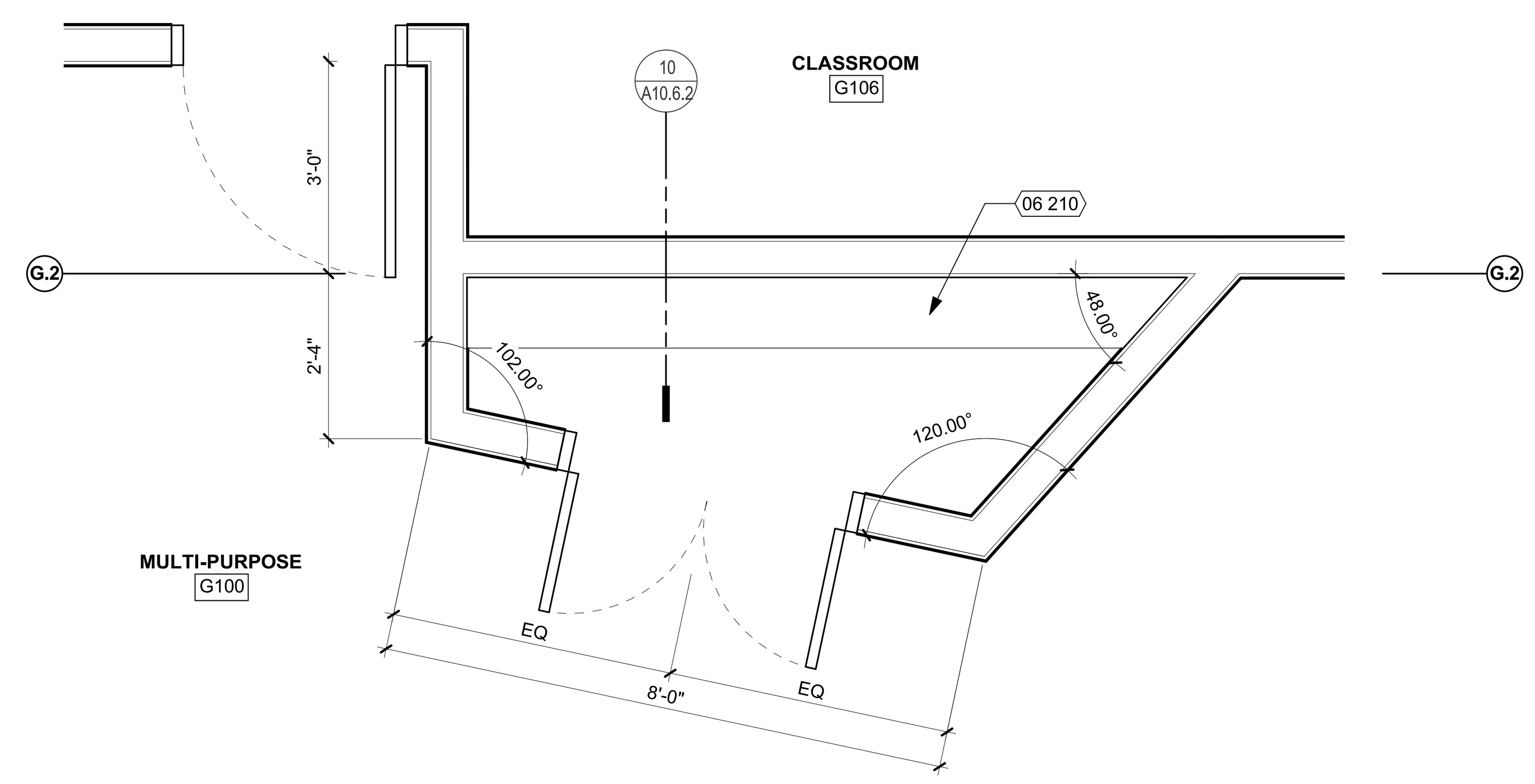
PRINT DATE: 5/17/2019 10:26:12 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amoaser.rvt

KEY NOTES

NUMBER	NOTE
06 210	FIXED SHELVES, 12" WIDE

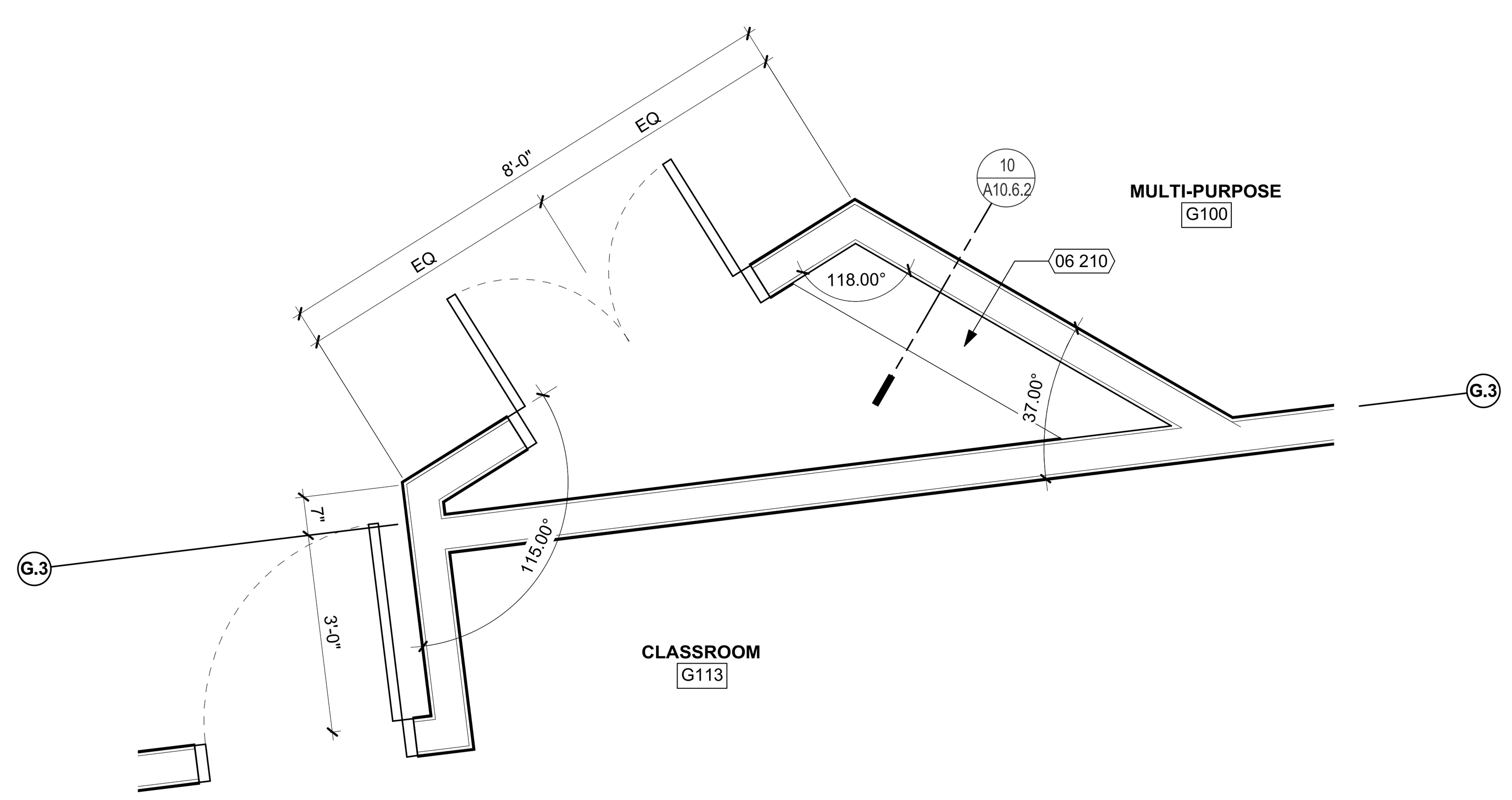
GENERAL NOTES

1. FOR WALL TYPES, REFER TO FLOOR PLAN
2. ALL DIMENSIONS ARE TO FACE OF STUD



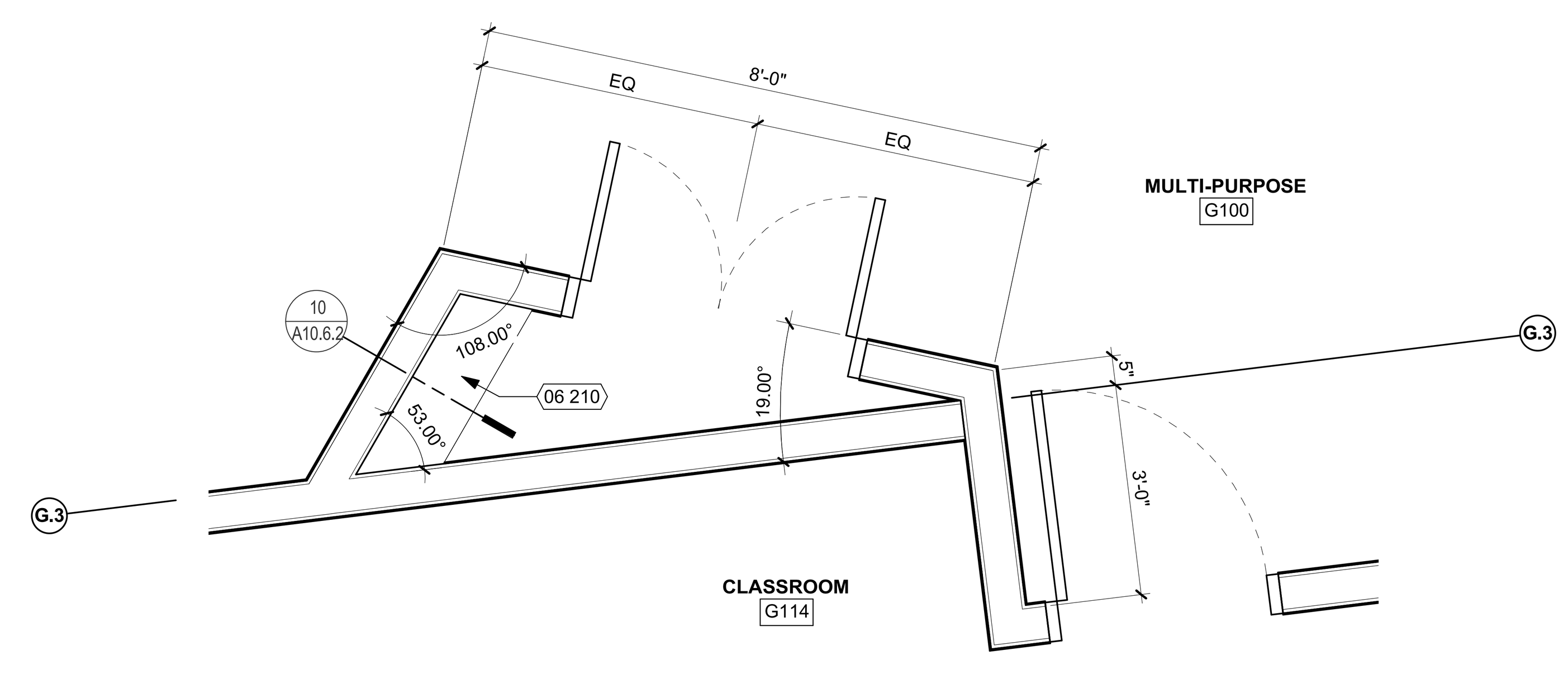
REF: 10 / AG2.1

BUILDING G - ENLARGED PLAN 1/2" = 1'-0" 8



REF: 10 / AG2.1

BUILDING G - ENLARGED PLAN 1/2" = 1'-0" 20



REF: 10 / AG2.1

BUILDING G - ENLARGED PLAN 1/2" = 1'-0" 10

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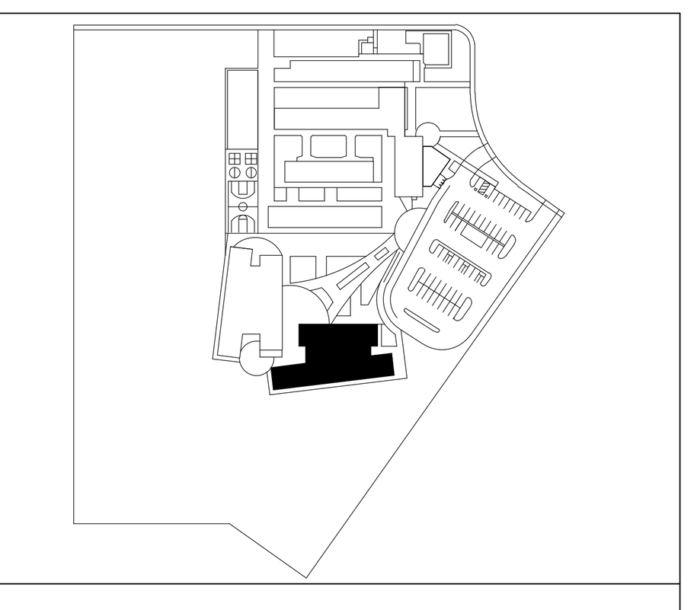
NO.	REMARKS	DATE

DRAWING STATUS

	DATE
DSA PLAN CHECK	05/20/2019
DSA BACK CHECK	
BIDDING	
CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

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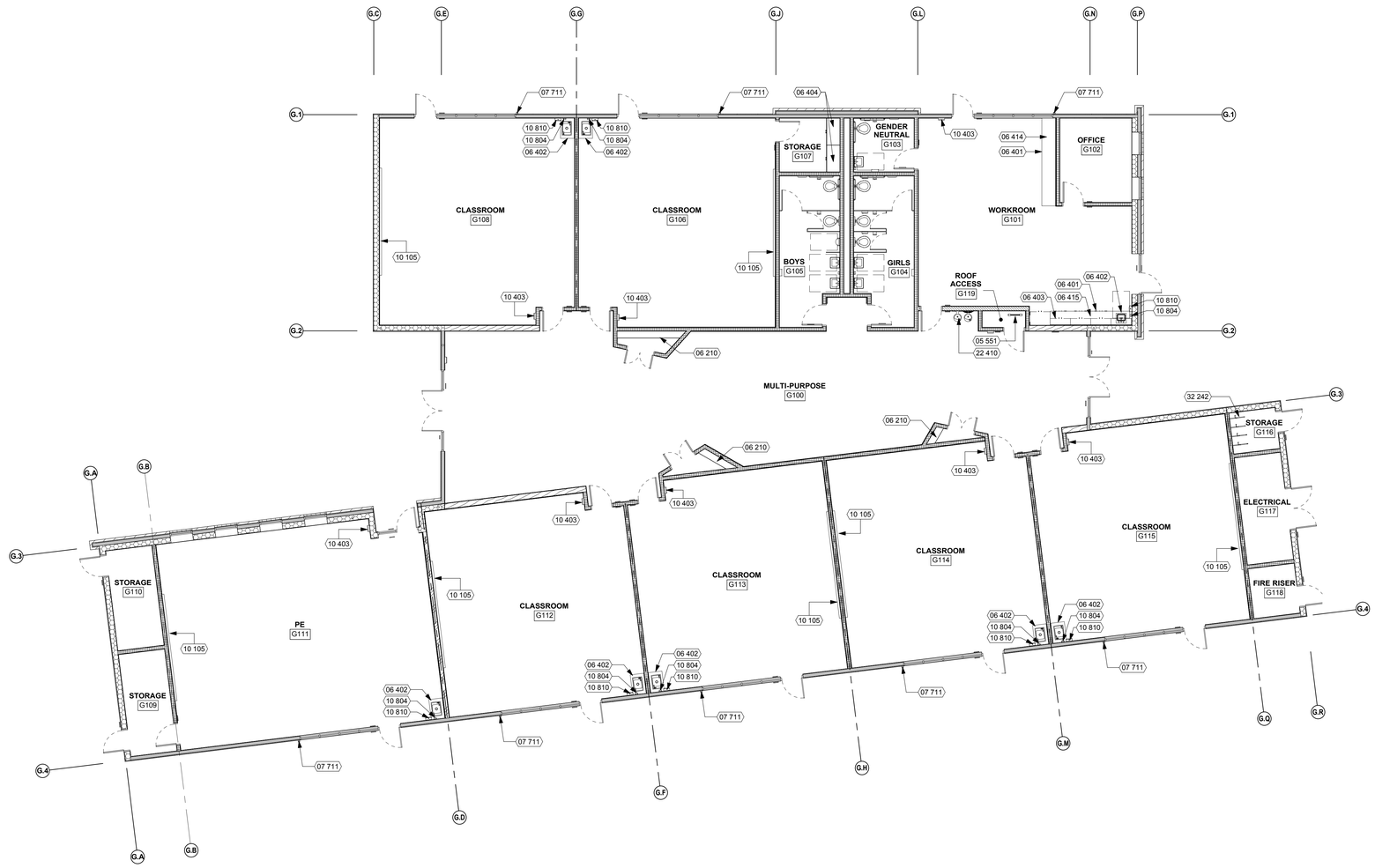
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ENLARGED PLANS

Date 05/20/2019	Project Number 19003
Scale As indicated	Drawing Number
Drawn AA / Checked AM	AG2.2

PRINT DATE: 5/17/2019 10:26:15 AM
FILE PATH: C:\Users\ahanam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt



REF: 7 / AF5.1

BUILDING G - EQUIPMENT PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)
06 210	FIXED SHELVES, 12" WIDE
06 401	BASE CABINET BELOW, TYP. U.O.N. (SEE DETAIL 7/A10.6.2)
06 402	ACCESSIBLE BASE CABINET W/ SINK (SEE DETAIL 8/A10.6.2)
06 403	UPPER CABINET, TYP. (SEE DETAIL 7/A10.6.2)
06 404	FULL-HEIGHT CABINET (SEE DETAIL 12/A10.6.2)
06 414	ACCESSIBLE COUNTER
06 415	ACCESSIBLE COUNTER W/SINK
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)
32 242	VERTICAL BICYCLE RACKS (SEE DETAIL 9/A10.10.3)

GENERAL NOTES

1. FOR SIGNAGE REFER TO CODE ANALYSIS PLAN.
2. FOR CASEWORK DIMENSIONS REFER TO INTERIOR ELEVATIONS.
3. FOR TACK BOARD LOCATIONS REFER TO INTERIOR ELEVATIONS.
4. FOR RESTROOM FIXTURES, PARTITIONS, AND SPECIALTIES, REFER TO ENLARGED RESTROOM PLANS.

LEGEND

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	DATE
● DSA PLAN CHECK	05/20/2019
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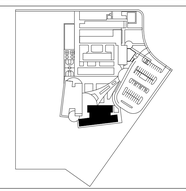
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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BUILDING G EQUIPMENT PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AG2.3
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:26:18 AM
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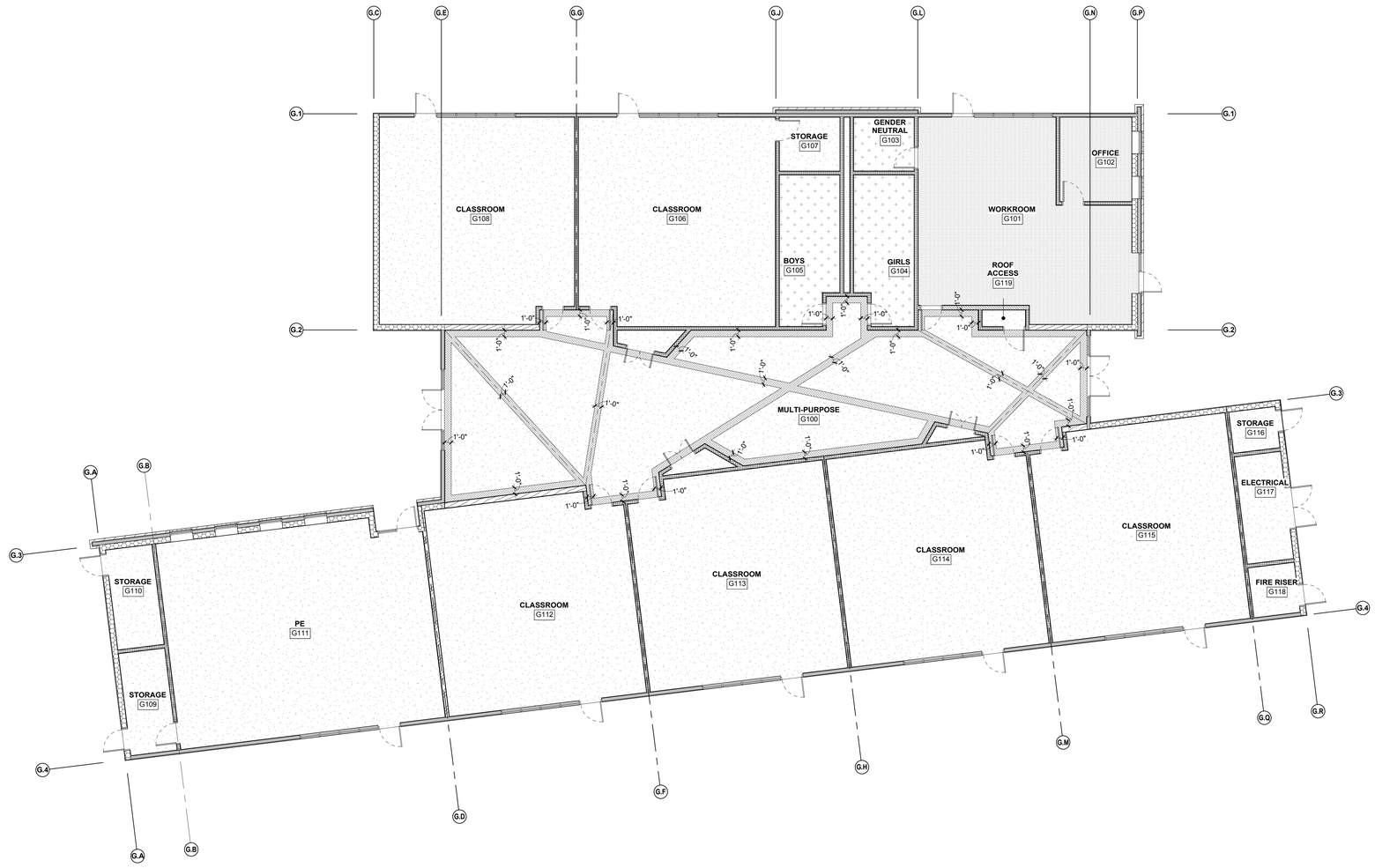

REF: 7 / AF5.1

N

BUILDING G - FLOOR PATTERN PLAN 1/8" = 1'-0" 10

FINISH PLAN LEGEND

- EPX
- EC
- SC - 12" WIDE DECORATIVE PATTERN
- CPT (BUILDING G ONLY)
- DEPRESSED CONCRETE SLAB, PER STRUCTURAL DRAWINGS (BUILDING M ONLY)

NOTE:

SEE FINISH LEGEND SCHEDULE FOR MATERIAL ABBREVIATION LEGENDS.

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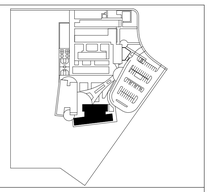
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G FLOOR PATTERN PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AG2.5
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:26:21 AM
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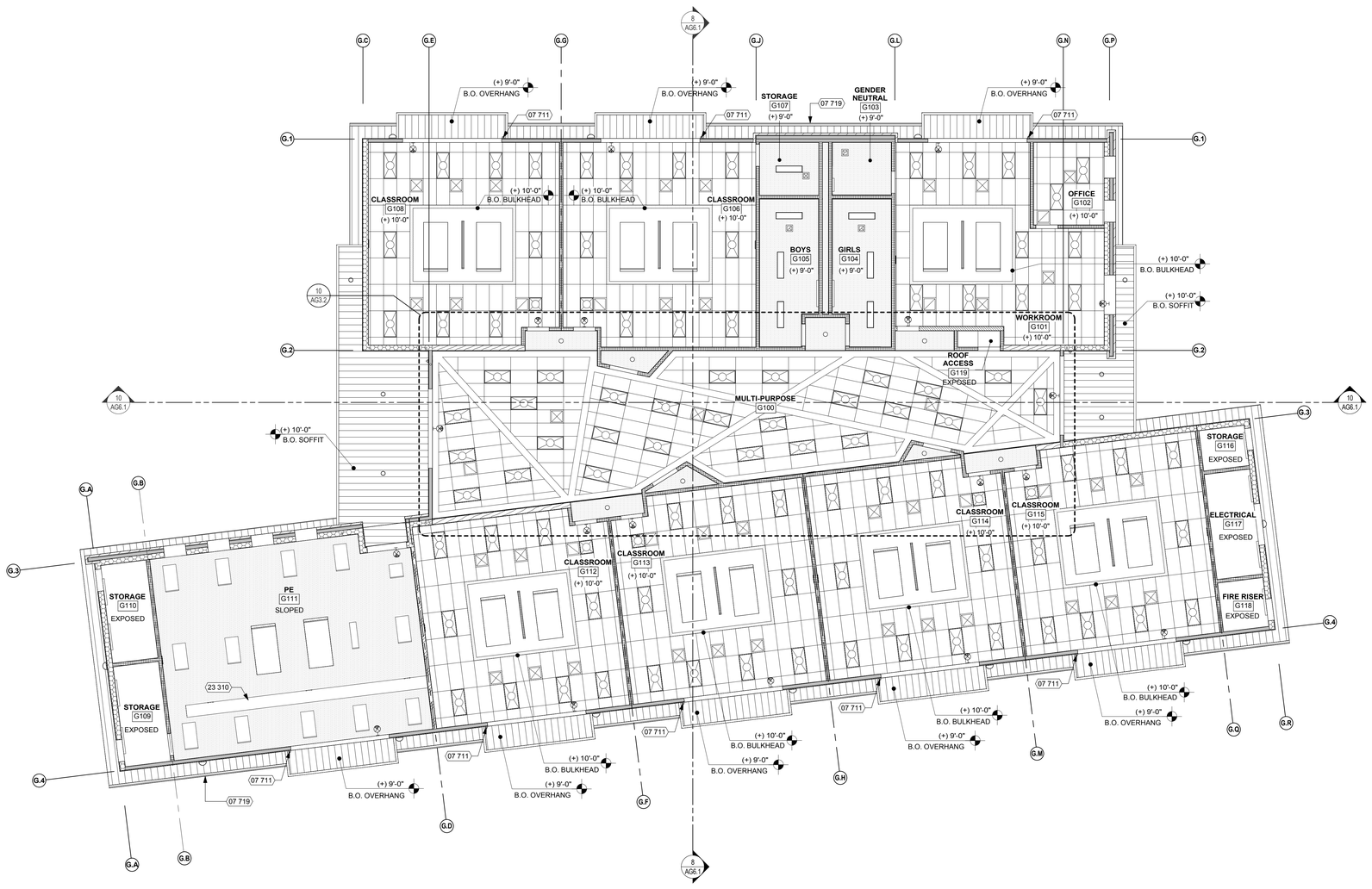

REF: 7 / AF5.1

BUILDING G - REFLECTED CEILING PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 719	GUTTER, PAINTED P5
23 310	EXPOSED DUCTWORK (SEE MECHANICAL DWGS.)

GENERAL NOTES

GENERAL
1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATIONS = 0'-0"
2. ACCESS DOORS TO BE INSTALLED TO SERVICE EQUIPMENT SHOWN IN CONTRACT DOCUMENTS. EXACT NUMBER AND LOCATION OF ACCESS PANELS IS NOT SHOWN. SEE DETAIL 4 / A10.9.3
3. PROVIDE ACCESS PANELS TO ENCLOSED AREAS ABOVE GYPSUM BOARD. CEILINGS, CENTER AND ALIGN TO LIGHT FIXTURES, AND OTHER CEILING FIXTURES PER PLAN.
4. CEILING SYSTEM SHOULD BE CENTERED WITHIN EACH ROOM AS WELL AS ALIGNED WITH THE STRUCTURAL GRID, U.O.N.
5. CEILING SYSTEM SHALL BE COORDINATED WITH THE LIGHTING & ELECTRICAL PLANS.
6. SKYLIGHT WELL ON THE CEILING PLAN SHOULD BE VERTICALLY ALIGNED WITH THE CORRESPONDING SKYLIGHT ON THE ROOF WHERE OCCURS.
7. PAINT GYP. BD. CEILINGS AND SOFFITS P-1 U.O.N. (PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS.) REFER TO ROOM FINISH SCHEDULE FOR COLOR SELECTIONS
8. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT PER FINISH SCHEDULE.
9. NO EXPOSED NAILS OR SCREWS ARE ALLOWED.

EQUIPMENT
1. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SUPPORTS & BRACING. ELECTRICAL DEVICES ARE SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION SEE ELECTRICAL DRAWINGS.
2. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DIFFUSERS AND PIPE CHASES.
3. SEE FIRE PROTECTION DETAILS FOR PENETRATIONS THROUGH RATED WALLS, WHERE OCCURS.
4. SINGLE LIGHT FIXTURES IN GYP. BD. CEILINGS SHALL BE CENTERED IN ROOM.
5. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.O.N.
6. CENTER AND ALIGN SMOKE DETECTOR, DIFFUSERS, GRILLS, AND SIMILAR ITEMS IN CEILING TILE GRID AND ALIGN WITH LIGHT FIXTURES, SEE DETAIL 3 / A10.9.3
7. SEE ELECTRICAL DRAWINGS FOR LOW LEVEL EXIT SIGN LOCATIONS.

LEGEND

- 2x4 SUSPENDED ACOUSTICAL CEILING PANEL SYSTEM. SEE SHEET A10.9.1 AND A10.9.2 FOR ATTACHMENT TO STRUCTURE
- GYPSUM WALLBOARD CEILING, PAINT SURFACE, SEE DETAIL 2 / A10.9.3
- METAL PANEL SOFFIT, 12" FLAT PANEL
- SKYLIGHT
- LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
- CEILING ACCESS PANEL
- ROOM NAME / A119 / (+) 8'-0" — ROOM TAG (+) 8'-0" = CEILING HEIGHT OF ROOM, U.O.N.
- ROOM NAME / A119 / EXPOSED — ROOM TAG EXPOSED = OPEN TO STRUCTURE
- EMERGENCY EXIT LIGHT

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number AG3.1
Drawn AA / Checked AM	

PRINT DATE: 5/17/2019 10:26:26 AM
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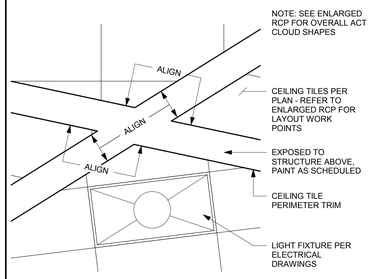

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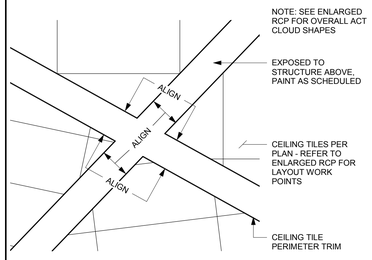
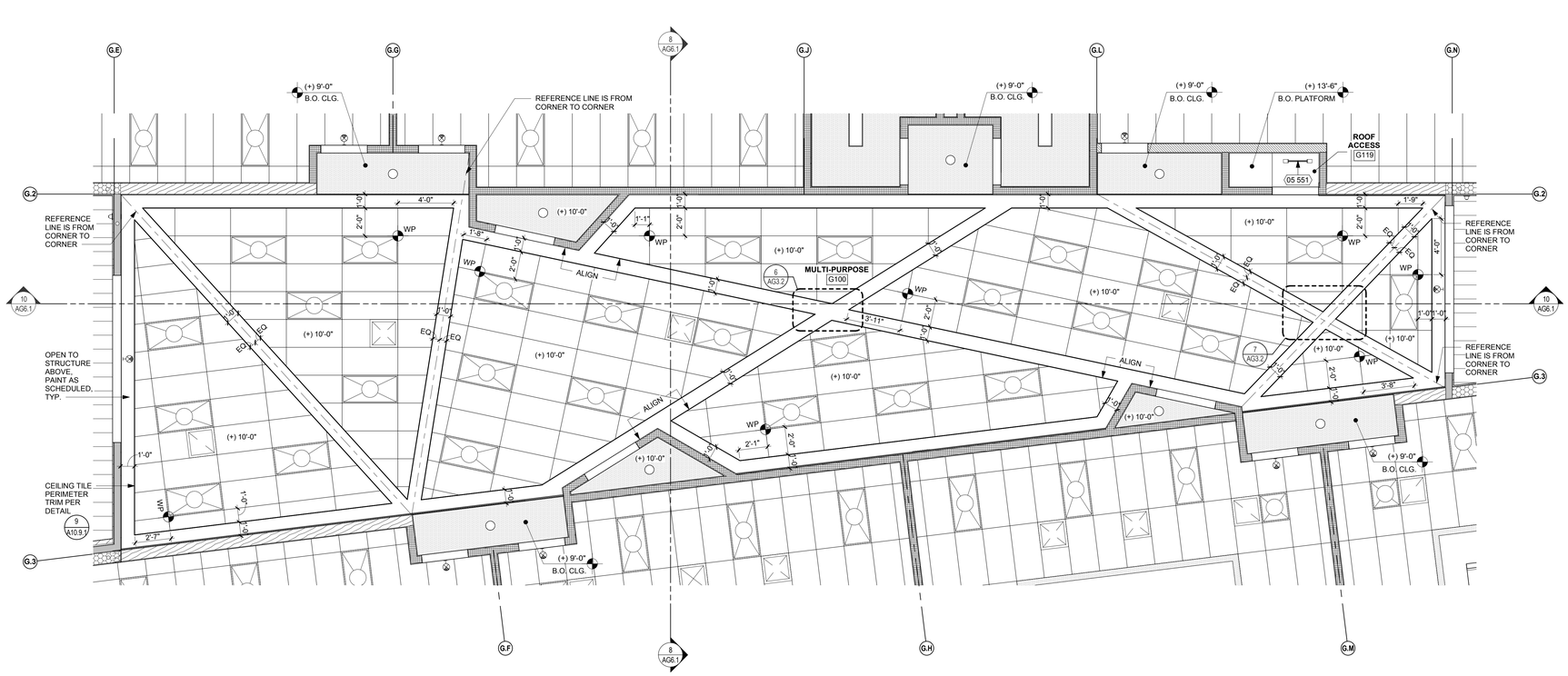
BUILDING G - CLOUD ALIGNMENT 1/2" = 1'-0" 6



REF: 10 / AG3.2

BUILDING G - CLOUD ALIGNMENT 1/2" = 1'-0" 7



REF: 10 / AG3.1

BUILDING G - ENLARGED REFLECTED CEILING PLAN 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)

GENERAL NOTES

GENERAL
1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATIONS = 0'-0"
2. ACCESS DOORS TO BE INSTALLED TO SERVICE EQUIPMENT SHOWN IN CONTRACT DOCUMENTS. EXACT NUMBER AND LOCATION OF ACCESS PANELS IS NOT SHOWN. SEE DETAIL 4 / A10.9.3
3. PROVIDE ACCESS PANELS TO ENCLOSED AREAS ABOVE GYPSUM BOARD CEILINGS, CENTER AND ALIGN TO LIGHT FIXTURES, AND OTHER CEILING FIXTURES PER PLAN.
4. CEILING SYSTEM SHOULD BE CENTERED WITHIN EACH ROOM AS WELL AS ALIGNED WITH THE STRUCTURAL GRID, U.O.N.
5. CEILING SYSTEM SHALL BE COORDINATED WITH THE LIGHTING & ELECTRICAL PLANS.
6. SKYLIGHT WELL ON THE CEILING PLAN SHOULD BE VERTICALLY ALIGNED WITH THE CORRESPONDING SKYLIGHT ON THE ROOF WHERE OCCURS.
7. PAINT GYP. BD. CEILINGS AND SOFFITS P-1 U.O.N. (PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS.) REFER TO ROOM FINISH SCHEDULE FOR COLOR SELECTIONS
8. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT PER FINISH SCHEDULE.
9. NO EXPOSED NAILS OR SCREWS ARE ALLOWED.

EQUIPMENT
1. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SUPPORTS & BRACING. ELECTRICAL DEVICES ARE SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION SEE ELECTRICAL DRAWINGS.
2. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DIFFUSERS AND PIPE CHASES.
3. SEE FIRE PROTECTION DETAILS FOR PENETRATIONS THROUGH RATED WALLS, WHERE OCCURS.
4. SINGLE LIGHT FIXTURES IN GYP. BD. CEILINGS SHALL BE CENTERED IN ROOM.
5. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.O.N.
6. CENTER AND ALIGN SMOKE DETECTOR, DIFFUSERS, GRILLS, AND SIMILAR ITEMS IN CEILING TILE GRID AND ALIGN WITH LIGHT FIXTURES, SEE DETAIL 3 / A10.9.3
7. SEE ELECTRICAL DRAWINGS FOR LOW LEVEL EXIT SIGN LOCATIONS.

LEGEND

- 2x4 SUSPENDED ACOUSTICAL CEILING PANEL SYSTEM. SEE SHEET A10.9.1 AND A10.9.2 FOR ATTACHMENT TO STRUCTURE
- GYPSUM WALLBOARD CEILING, PAINT SURFACE, SEE DETAIL 2 / A10.9.3
- METAL PANEL SOFFIT, 12" FLAT PANEL
- SKYLIGHT
- LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
- CEILING ACCESS PANEL
- ROOM NAME / A119 / (+) 8'-0" — ROOM TAG (+) 8'-0" = CEILING HEIGHT OF ROOM, U.O.N.
- ROOM NAME / A119 / EXPOSED — ROOM TAG EXPOSED = OPEN TO STRUCTURE
- L — EMERGENCY EXIT LIGHT

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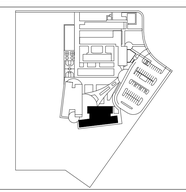
NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ENLARGED REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG3.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:26:31 AM
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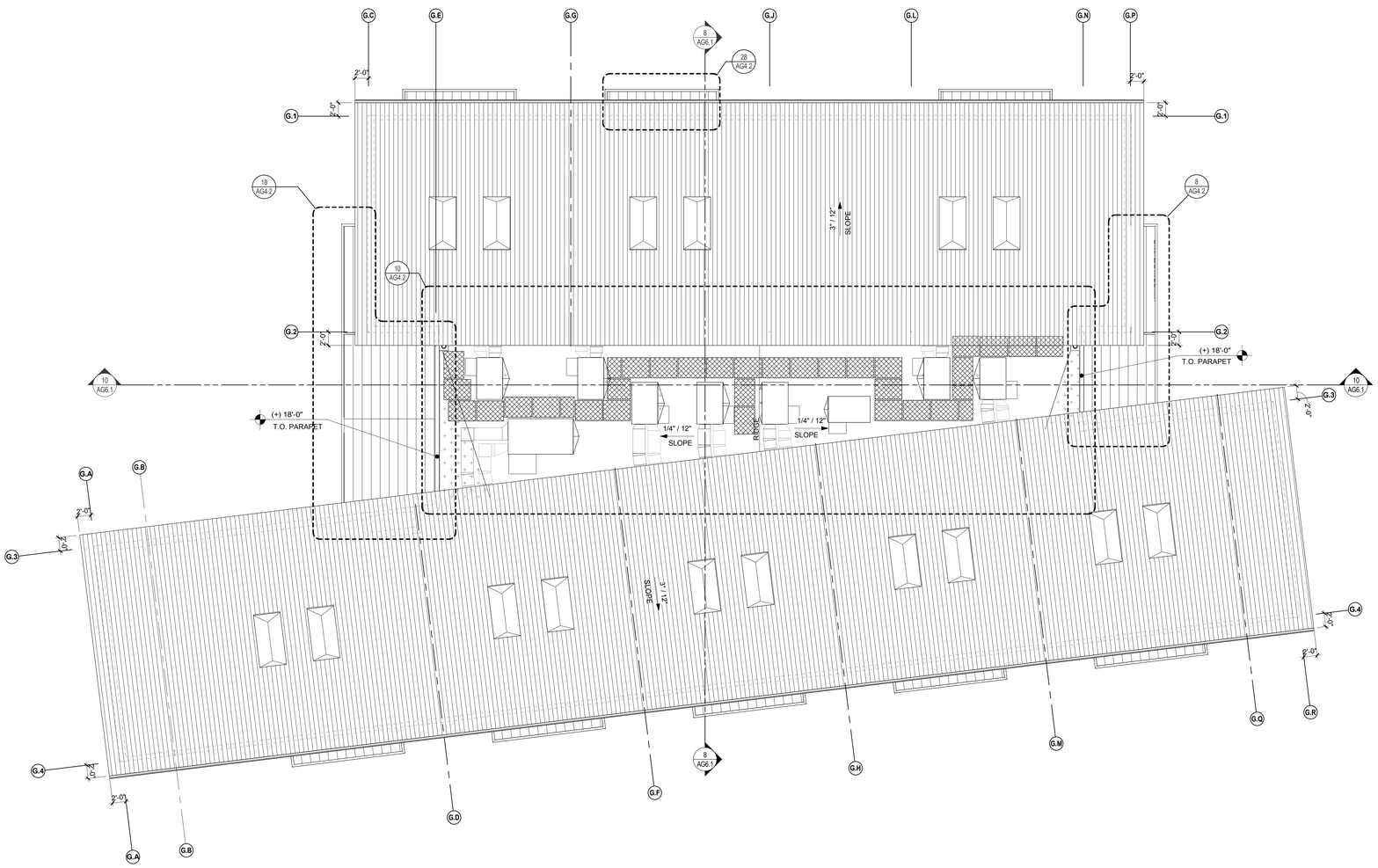

REF: 10 / AF6.1

N

BUILDING G - ROOF PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE

GENERAL NOTES

GENERAL
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2. ALL ROOF MATERIALS TO BE CLASS A RATED.
3. MINIMUM ROOF INSULATION R-30 ALL LOCATIONS OF THE ROOF.
4. MINIMUM THICKNESS OF ROOF INSULATION TO BE 6" AT LOW POINT OF ROOF DRAIN SUMP.
5. FLASHING TERMINATIONS SHALL HAVE WATER-TIGHT SHEET METAL CLOSURES WITH WATERPROOF SELF-ADHERED MEMBRANE UNDERLAYMENT.
6. NAILER THICKNESS SHALL MATCH ADJACENT INSULATION THICKNESS WITHIN 1/4" TOLERANCE.

SLOPES AND DRAINAGE
1. SECONDARY SLOPE (CRICKETS, SADDLES, SUMPS, ETC.) SHALL BE 1/4" / FT. SLOPE MINIMUM AS INDICATED AT ALL ROOF AREAS, INCLUDING VALLEYS, AND STEEPER AS REQUIRED TO MEET VALLEY SLOPE CRITERIA.
2. BACK SLOPES SHALL BE 2X THE PRIMARY SLOPE.
3. MINIMUM ROOF SLOPE IN VALLEYS IS 1/4" / FT. ADJUST SLOPE OF CRICKETS TO PROVIDE MINIMUM SLOPE AT ALL LOCATIONS OF ROOF. TO PREVENT PONDING, DIRECT ALL ROOF WATER TO DRAINS.
4. TAPER INSULATION UP FROM DRAIN IN SUMPS MINIMUM OF 1/4" / FT. BUT NOT TO EXCEED 1" /FT. PROVIDE TAPERED FILL TO CONFORM THE SUMP INSULATION TO THE THICKNESS OF INSULATION IN THE FIELD OF THE ROOF.
5. PROVIDE TAPERED CRICKET ON THE HIGH SIDE OF PENETRATIONS WIDER THAN 24".
6. MINIMUM SLOPE 1/4" /FT. TO DRAIN AT ALL LOCATIONS.

EQUIPMENT
1. REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND OTHER FACILITY SERVICES DRAWINGS FOR EQUIPMENT, DUCTWORK, PENETRATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.
2. PENETRATIONS, CURBS AND TERMINATIONS, INCLUDING THOSE FOR MECHANICAL, ELECTRICAL, PLUMBING AND OTHER FACILITY SERVICES SHALL PROVIDE MINIMUM 8" VERTICAL BASE FLASHING ELEVATION ABOVE THE TOP OF THE ADJACENT ROOF SURFACE (NOT STRUCTURAL DECK).
3. EQUIPMENT SUPPORT PENETRATIONS SHALL BE ROUND SHAPES UNLESS SPECIFICALLY DETAILED OTHERWISE.
4. FOR CONDUIT THROUGH ROOF DETAIL, SEE ELECTRICAL DRAWINGS
5. FOR TYPICAL PENETRATION CLEARANCES, SEE DETAIL 18 / A10.7.1
6. FOR DUCT THRU WALL PENETRATION, SEE DETAIL 21 / A10.7.1

LEGEND

- ROOF DRAIN AND OVERFLOW, SEE DETAIL 10 / A10.7.1
- ROOF WALKWAY PADS 13 / A10.7.1
- MODIFIED BITUMEN ROOFING
- ROOF CRICKET, TAPERED RIGID INSULATION, SLOPED TO DRAIN PER DETAIL 25 / A10.7.1
- SKYLIGHT, SEE DETAIL (BUILDINGS F & G ONLY) 2 / A10.7.1
- STANDING SEAM METAL ROOFING, 16" PLANK & PENCIL RIBS PANEL, OVER COVER BOARD AND INSULATION (BUILDINGS F & G ONLY)
- STANDING SEAM METAL ROOFING, 16" FLAT PANEL

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DRAWING STATUS

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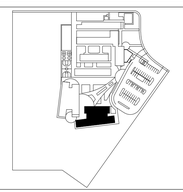
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
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1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AG4.1
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:26:35 AM
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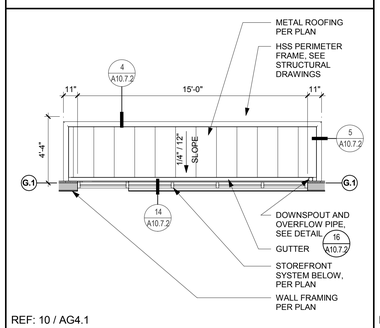

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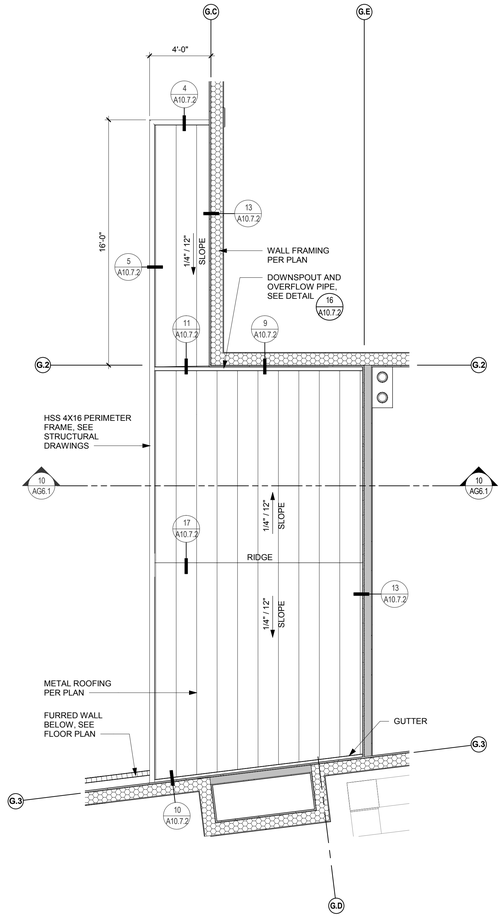
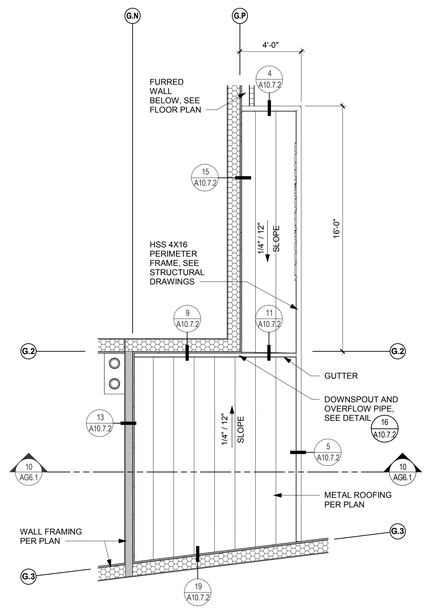
BUILDING G - TYPICAL CLASSROOM CANOPY 1/4" = 1'-0" 28



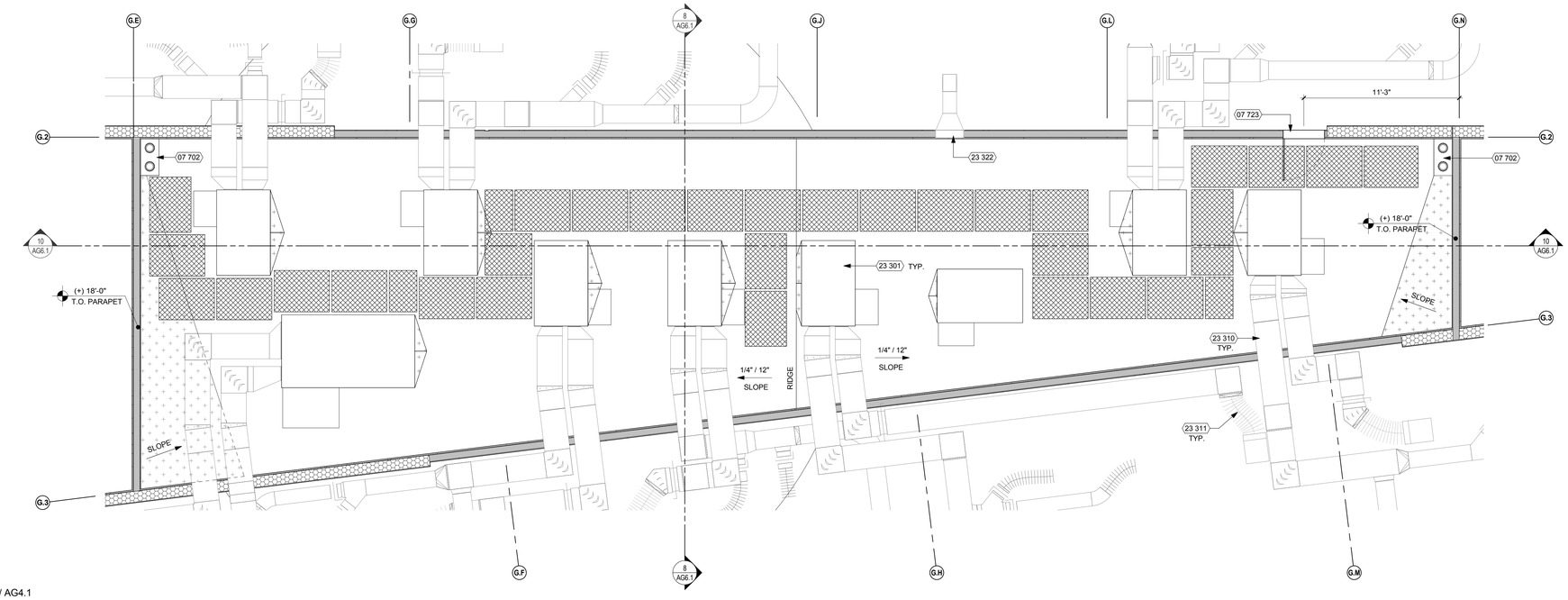
REF: 10 / AG4.1

BUILDING G - ENLARGED ROOF PLAN AT WEST CANOPY 1/4" = 1'-0" 18



REF: 10 / AG4.1

BUILDING G - ENLARGED ROOF PLAN AT EAST CANOPY 1/4" = 1'-0" 8



REF: 10 / AG4.1

BUILDING G - ENLARGED ROOF PLAN 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
07 702	ROOF DRAIN
07 723	ROOF ACCESS DOOR, 36"x36"
23 301	ROOFTOP MECHANICAL UNIT (SEE MECHANICAL DWGS.)
23 310	EXPOSED DUCTWORK (SEE MECHANICAL DWGS.)
23 311	DUCTWORK (SEE MECHANICAL DWGS.)
23 322	MECHANICAL WALL LOUVER (SEE MECHANICAL DWGS.)

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6. FOR DUCT THRU WALL PENETRATION, SEE DETAIL 21 / A10.7.1

LEGEND

- ROOF DRAIN AND OVERFLOW, SEE DETAIL 10 A10.7.1
- ROOF WALKWAY PADS 13 A10.7.1
- MODIFIED BITUMEN ROOFING
- ROOF CRICKET, TAPERED RIGID INSULATION, SLOPED TO DRAIN PER DETAIL 25 A10.7.1
- SKYLIGHT, SEE DETAIL (BUILDINGS F & G ONLY) 2 A10.7.1
- STANDING SEAM METAL ROOFING, 16" PLANK & PENCIL RIBS PANEL, OVER COVER BOARD AND INSULATION (BUILDINGS F & G ONLY)
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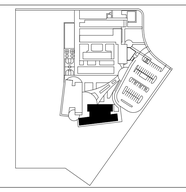
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
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BUILDING G ENLARGED ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG4.2
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:26:40 AM
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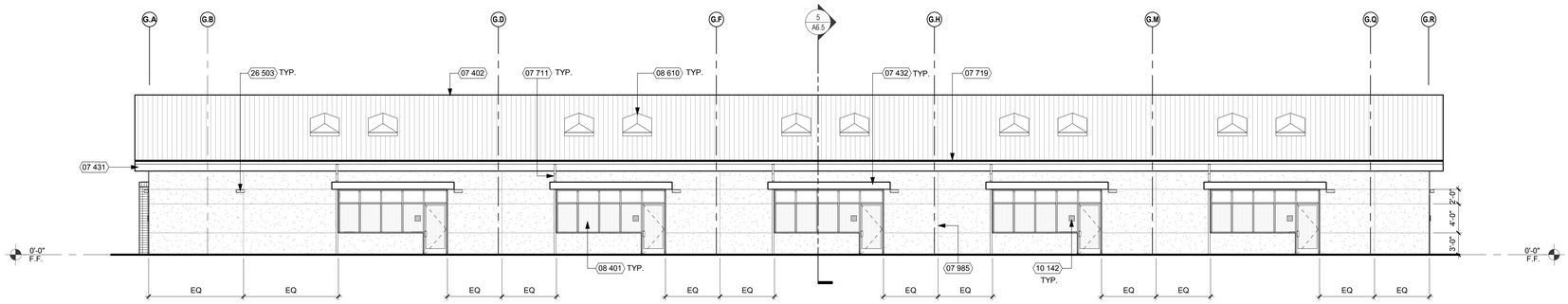
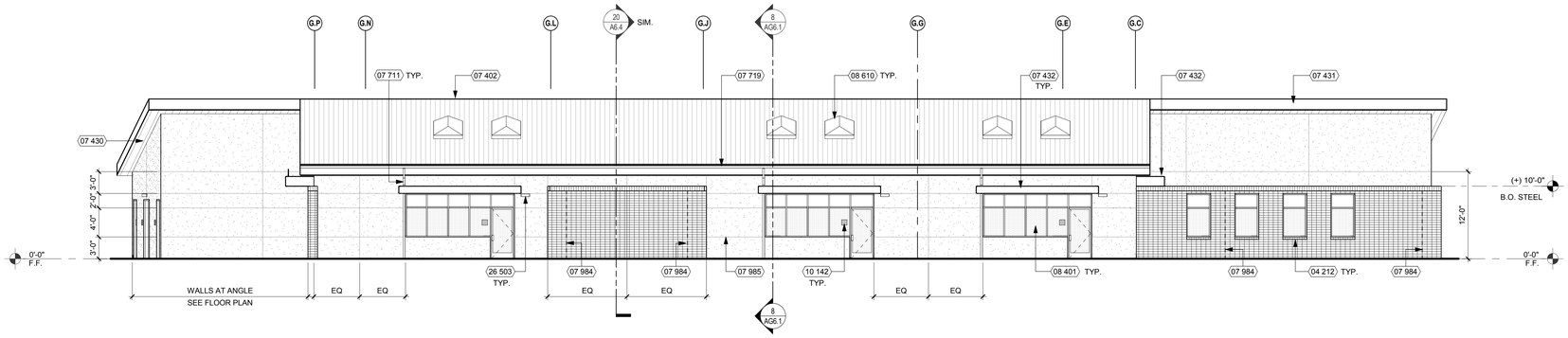


BUILDING G - SOUTH ELEVATION 1/8" = 1'-0" 8



BUILDING G - NORTH ELEVATION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 212	BRICK WINDOW SILL
07 402	METAL ROOFING
07 430	METAL SOFFIT
07 431	FASCIA, PAINTED P5
07 432	HSS CANOPY FASCIA, PAINTED P5
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 719	GUTTER, PAINTED P5
07 984	EXPANSION JOINT. BRICK EXPANSION JOINTS ARE REQUIRED 3'-0" MAX. FROM CORNERS AND @ 30'-0" O.C. MAX.
07 985	PLASTER CONTROL JOINT
08 401	STOREFRONT SYSTEM, PER WINDOW SCHEDULE
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
26 503	EXTERIOR WALL MOUNTED LIGHT FIXTURE (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. GRAFFITI-RESISTANT COATINGS TO BE APPLIED ONLY TO MASONRY BRICK AND CONCRETE, NOT PLASTER - SEE SPECIFICATIONS

LEGEND

EXTERIOR CEMENT PLASTER, PAINTED P4 PER FINISH SCHEDULE

FOR TYPICAL DETAILS SEE:
REVEAL DETAIL: 3 / A10.6.1
CONTROL JOINT DETAIL: 4 / A10.6.1
INSIDE CORNER: 5 / A10.6.1
OUTSIDE CORNER: 10 / A10.6.1

FULL BRICK, STACK BOND, SEE TYPICAL ASSEMBLY DETAIL 2/A10.1

BRICK EXPANSION JOINT

STANDING SEAM METAL ROOFING, SEE TYPICAL ASSEMBLY DETAIL 7/A10.7.2 (BUILDINGS F & G ONLY)

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● DSA PLAN CHECK	05/20/2019
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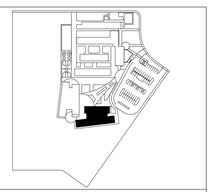
KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G EXTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AG5.1
Drawn AA / Checked AM	

PRINT DATE: 5/17/2019 10:26:45 AM
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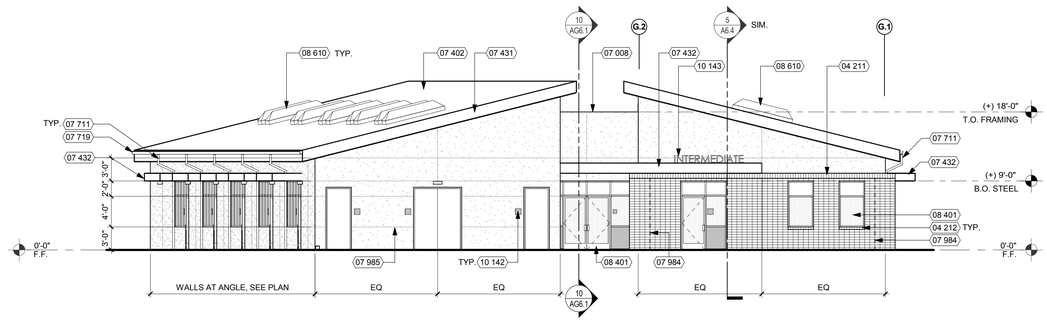
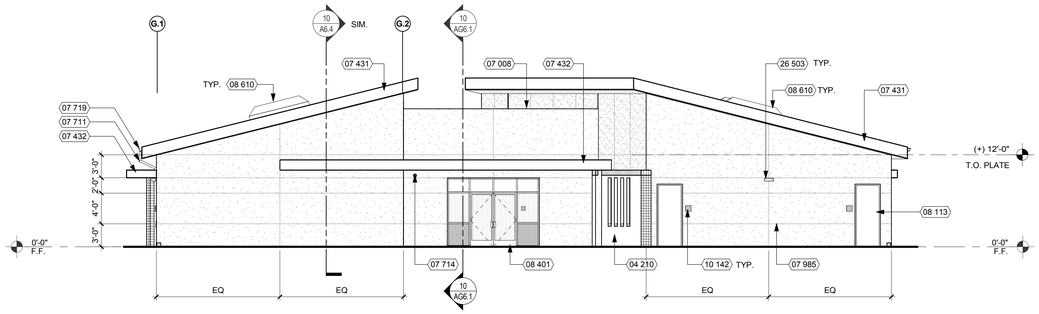
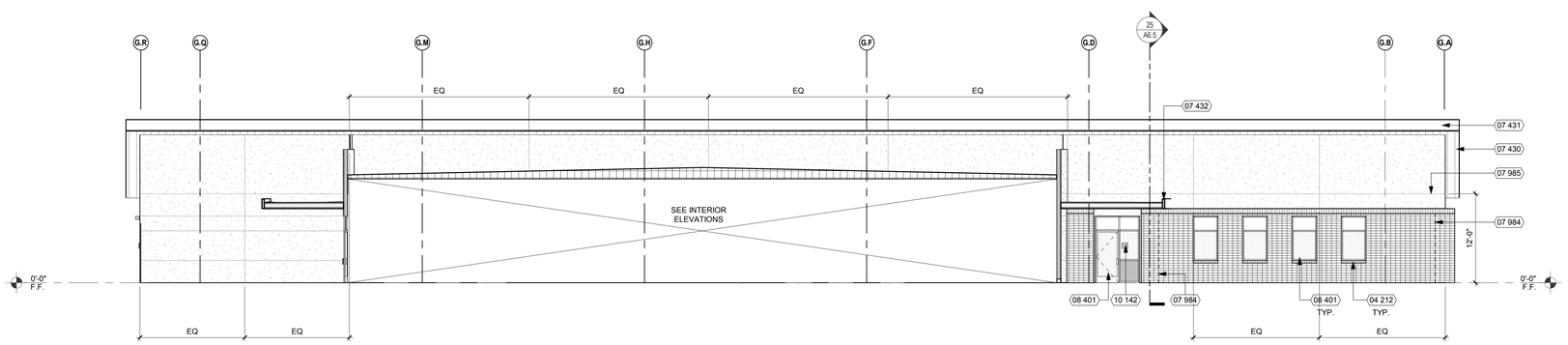


BUILDING G - EAST ELEVATION 1/8" = 1'-0" 7



BUILDING G - WEST ELEVATION 1/8" = 1'-0" 9



BUILDING G - PARTIAL NORTH ELEVATION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 210	FULL BRICK VENEER WALL, STACK BOND (SEE DETAIL 2/A10.1)
04 211	BRICK SAILOR COURSE
04 212	BRICK WINDOW SILL
07 008	PARAPET CAP, PAINT TO MATCH ADJACENT WALL
07 402	METAL ROOFING
07 430	METAL SOFFIT
07 431	FASCIA, PAINTED P5
07 432	HSS CANOPY FASCIA, PAINTED P5
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 714	DOWNSPOUT NOZZLE (SEE DETAIL 24/A10.7.1)
07 719	GUTTER, PAINTED P5
07 984	EXPANSION JOINT. BRICK EXPANSION JOINTS ARE REQUIRED 3'-0" MAX. FROM CORNERS AND @ 30'-0" O.C. MAX.
07 985	PLASTER CONTROL JOINT
08 113	HOLLOW-METAL FRAMED DOOR
08 401	STOREFRONT SYSTEM, PER WINDOW SCHEDULE
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 143	EXTERIOR BUILDING SIGNAGE (SEE DETAIL 19/A10.10.1)
26 503	EXTERIOR WALL MOUNTED LIGHT FIXTURE (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. GRAFFITI-RESISTANT COATINGS TO BE APPLIED ONLY TO MASONRY BRICK AND CONCRETE, NOT PLASTER - SEE SPECIFICATIONS

LEGEND

EXTERIOR CEMENT PLASTER, PAINTED P4 PER FINISH SCHEDULE

FOR TYPICAL DETAILS SEE:
REVEAL DETAIL: 3 / A10.6.1
CONTROL JOINT DETAIL: 4 / A10.6.1
INSIDE CORNER: 5 / A10.6.1
OUTSIDE CORNER: 10 / A10.6.1

FULL BRICK, STACK BOND, SEE TYPICAL ASSEMBLY DETAIL 2 / A10.1

BRICK EXPANSION JOINT

STANDING SEAM METAL ROOFING, SEE TYPICAL ASSEMBLY DETAIL (BUILDINGS F & G ONLY) 7 / A10.7.2

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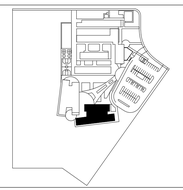

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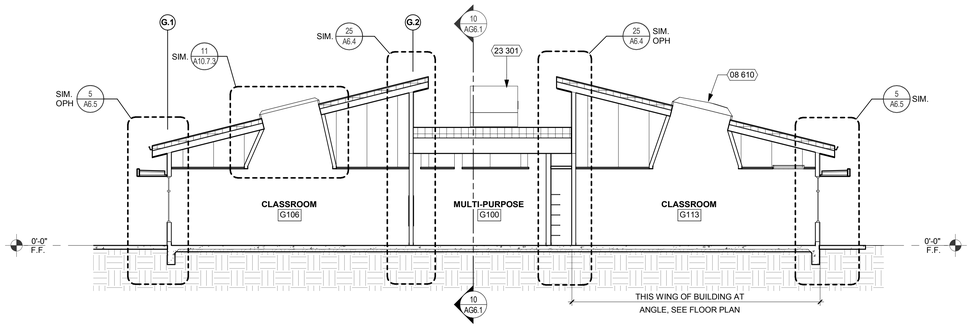
BUILDING G EXTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AG5.2
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:26:59 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore A17-amrouser.rvt



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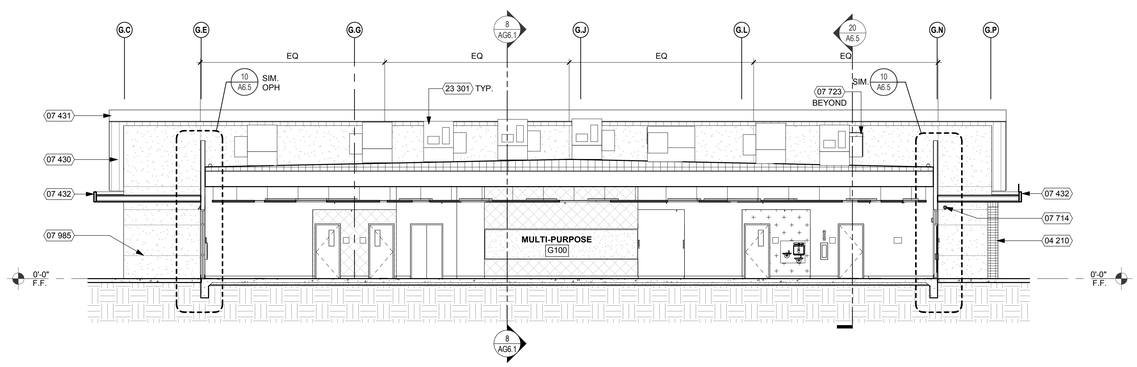
BUILDING G - NORTH/SOUTH BUILDING SECTION 1/8" = 1'-0" 8



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BUILDING G - EAST/WEST BUILDING SECTION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 210	FULL BRICK VENEER WALL, STACK BOND (SEE DETAIL 2/A10.1)
07 430	METAL SOFFIT
07 431	FASCIA, PAINTED P5
07 432	HSS CANOPY FASCIA, PAINTED P5
07 714	DOWNSPOUT NOZZLE (SEE DETAIL 24/A10.7.1)
07 723	ROOF ACCESS DOOR, 36"x36"
07 985	PLASTER CONTROL JOINT
08 610	SKYLIGHT (SEE DETAIL 2/A10.7.3)
23 301	ROOFTOP MECHANICAL UNIT (SEE MECHANICAL DWGS.)

GENERAL NOTES

1. FOR FINISH INFORMATION, REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE.
2. SEE REFLECTED CEILING PLANS FOR CEILING INFORMATION.
3. SEE FLOOR PLANS FOR WALL TYPES.

LEGEND

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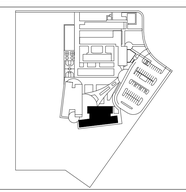
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G BUILDING SECTIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG6.1
Drawn: AA	Checked: AM

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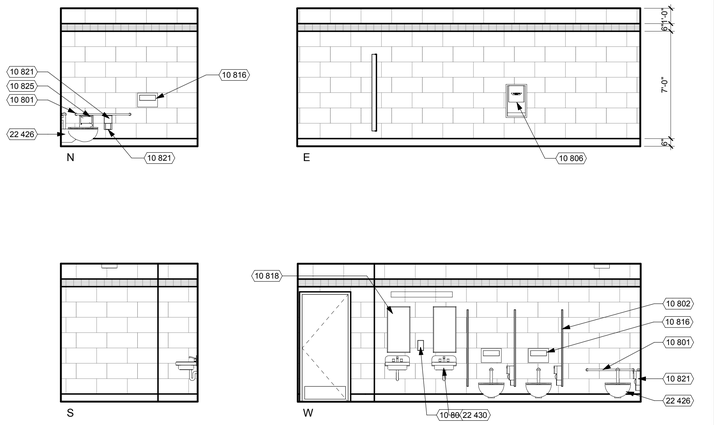
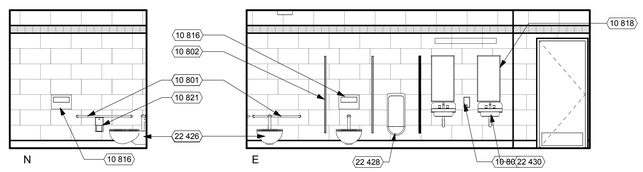
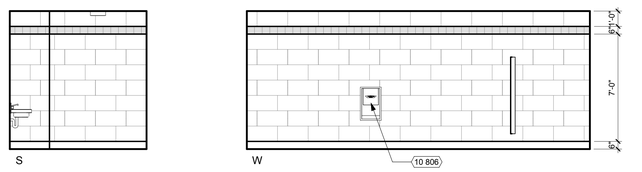
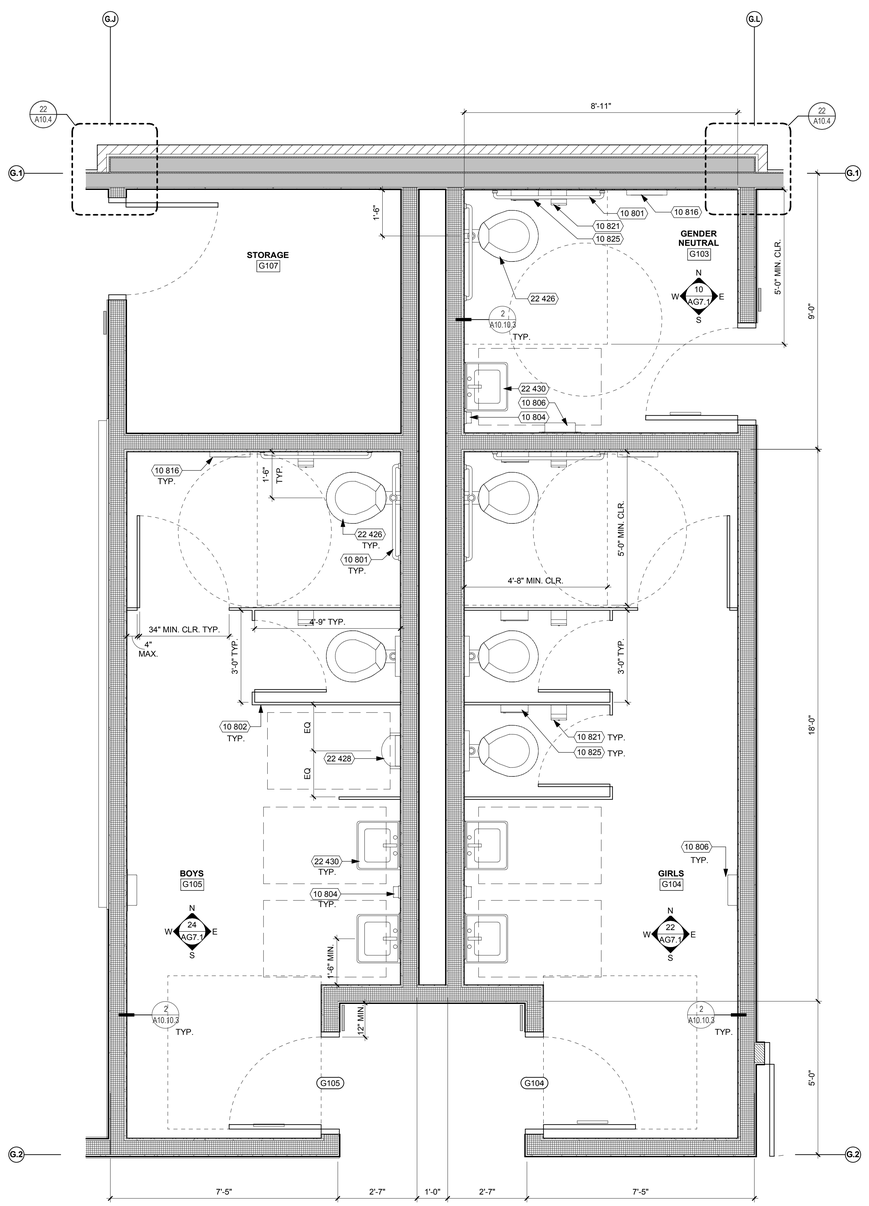


G104-GIRLS | 1/4" = 1'-0" | 22



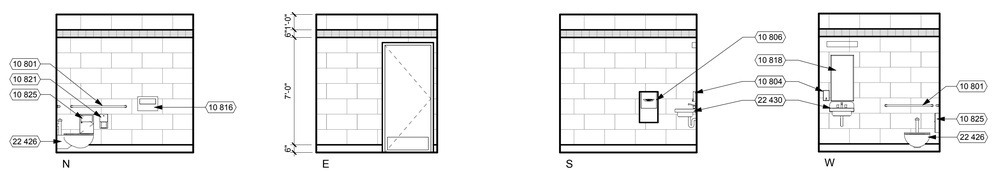


G105-BOYS | 1/4" = 1'-0" | 24



REF: 10 / AG2.1

BUILDING G - ENLARGED RESTROOMS FLOOR PLANS | 1/2" = 1'-0" | 9



G103-UNISEX | 1/4" = 1'-0" | 10

KEY NOTES

NUMBER	NOTE
10 801	ACCESSIBLE GRAB BAR (SEE DETAIL 11/A10.10.2)
10 802	TOILET PARTITION (SEE DETAIL 19/A10.10.2)
10 804	SOAP DISPENSER
10 806	ELECTRIC HAND DRYER
10 816	TOILET SEAT COVER DISPENSER
10 818	MIRROR
10 821	TOILET PAPER DISPENSER
10 825	SANITARY NAPKIN DISPOSAL
22 426	ACCESSIBLE WATER CLOSET
22 428	ACCESSIBLE URINAL
22 430	LAVATORY

GENERAL NOTES

GENERAL
1. DIMENSIONS
   - A. ALL MINIMUM CLEARANCE DIMENSIONS FOR PLUMBING FIXTURES ARE FROM FACE OF WALL FINISH TO CENTER OF FIXTURE, U.O.N.
   - B. ALL DIMENSIONS MARKED "MIN. CLR" OR "CLR." ARE TO/ FROM FACE OF WALL FINISH (F.O.F.)
2. SEE FINISH PLAN FOR INTERIOR FINISHES.
3. PROVIDE GLASSMAT BACKER BOARD AT ALL TILED WALLS AND WALLS WITHIN 48" OF ANY PLUMBING FIXTURE
4. ALL DRINKING FOUNTAIN ALCOVES TO BE FINISHED WITH WATER RESISTANT WALL MATERIAL. SEE FINISH SCHEDULE AND INTERIOR ELEVATIONS.
5. ALL FLOOR SLOPES IN RESTROOMS ARE NOT TO EXCEED 1:48 IN ANY DIRECTION.
6. FOR FLOOR DRAIN, SEE DETAIL 1 / A10.10.3

ACCESSORIES
1. ALL RESTROOM FIXTURES AND ACCESSORIES MOUNTING HEIGHTS AND LOCATIONS TO USE ADULT DIMENSIONS
2. FOR TYPICAL RESTROOM ACCESSORY MOUNTING HEIGHTS, ACCESSIBLE DIMENSIONS, SEE SHEET A10.10.2
3. TOILET ACCESSORIES LOCATED ON OR WITHIN WALLS SHALL BE INSTALLED AND SEALED TO PROTECT STRUCTURAL ELEMENTS FROM MOISTURE (CBC SECTION 1210.2.2)
4. PLUMBING FIXTURES TO HAVE SOLID BLOCKING AS REQUIRED BY CODE, SEE DETAIL 29 / A10.10.1
5. FOR MOP SINK WITH BROOM RACK, SEE DETAIL 6 / A10.10.3

STALLS AND PARTITIONS
1. REGARDLESS OF STALL CONFIGURATION, A 48" LONG MINIMUM CLEARANCE FLOOR SPACE SHALL BE PROVIDED IN FRONT OF THE ACCESSIBLE WATER CLOSET.
2. ALL ACCESSIBLE TOILET PARTITION DOORS TO BE 34" WIDE MINIMUM AND ALL NON-ACCESSIBLE TOILET PARTITION DOORS SHALL NOT BE LESS THAN 2'-2".
3. PARTITION STILE WIDTHS SHALL NOT EXCEED 4".
4. FOR PARTITION DETAILS, SEE DETAIL 19 / A10.10.2
5. INSTALL (1) COAT HOOK CENTERED ON THE BACK OF EVERY STALL DOOR, 40" A.F.F. AT ACCESSIBLE STALLS AND 72" A.F.F. AT NON-ACCESSIBLE STALLS.
6. FLUSH VALVE TO BE LOCATED AT WIDE SIDE OF STALL/ SPACE.

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REVISION HISTORY

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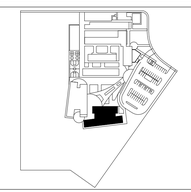
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G TOILET ROOM PLANS AND ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG7.1
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:27:02 AM
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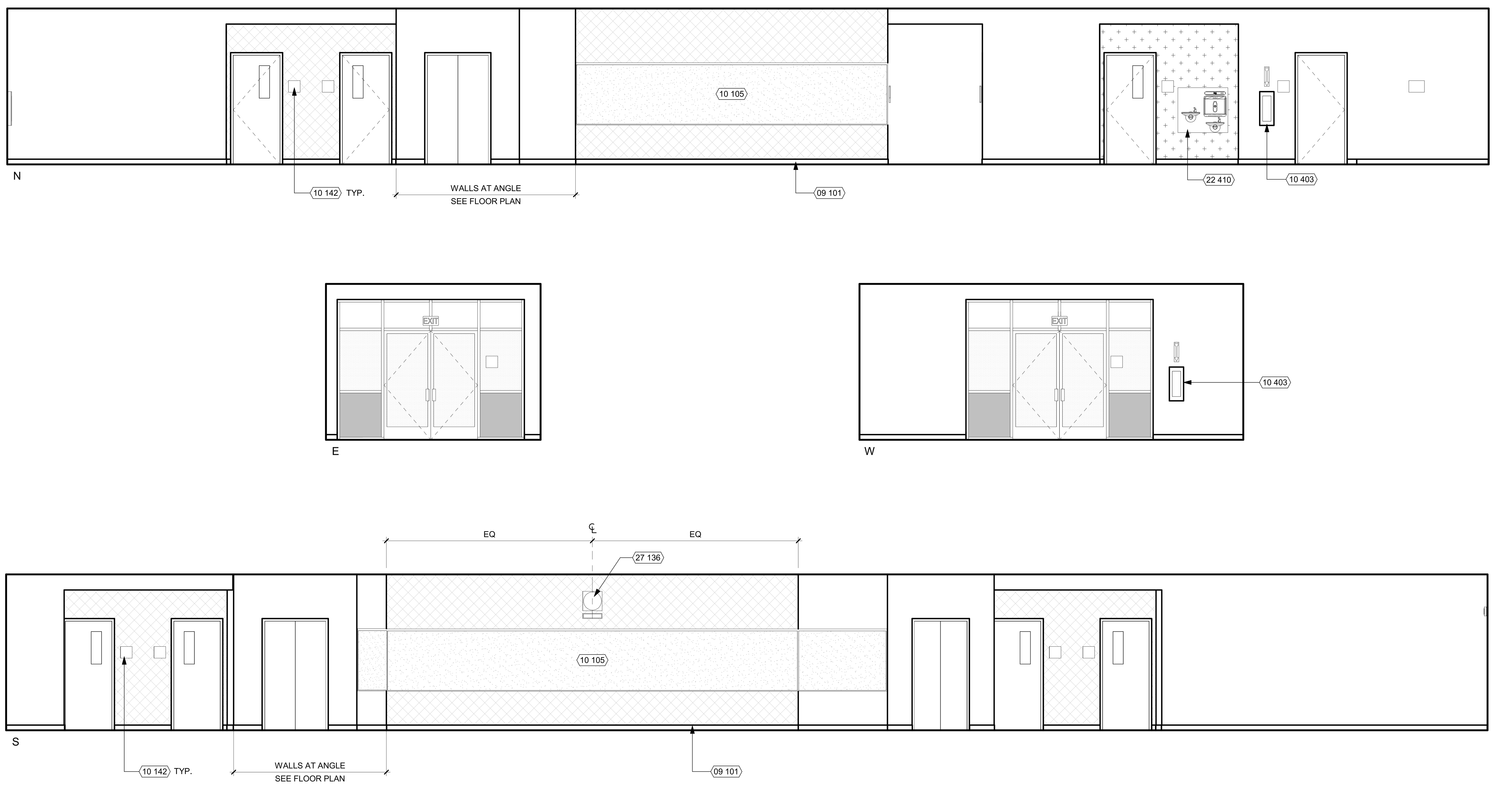
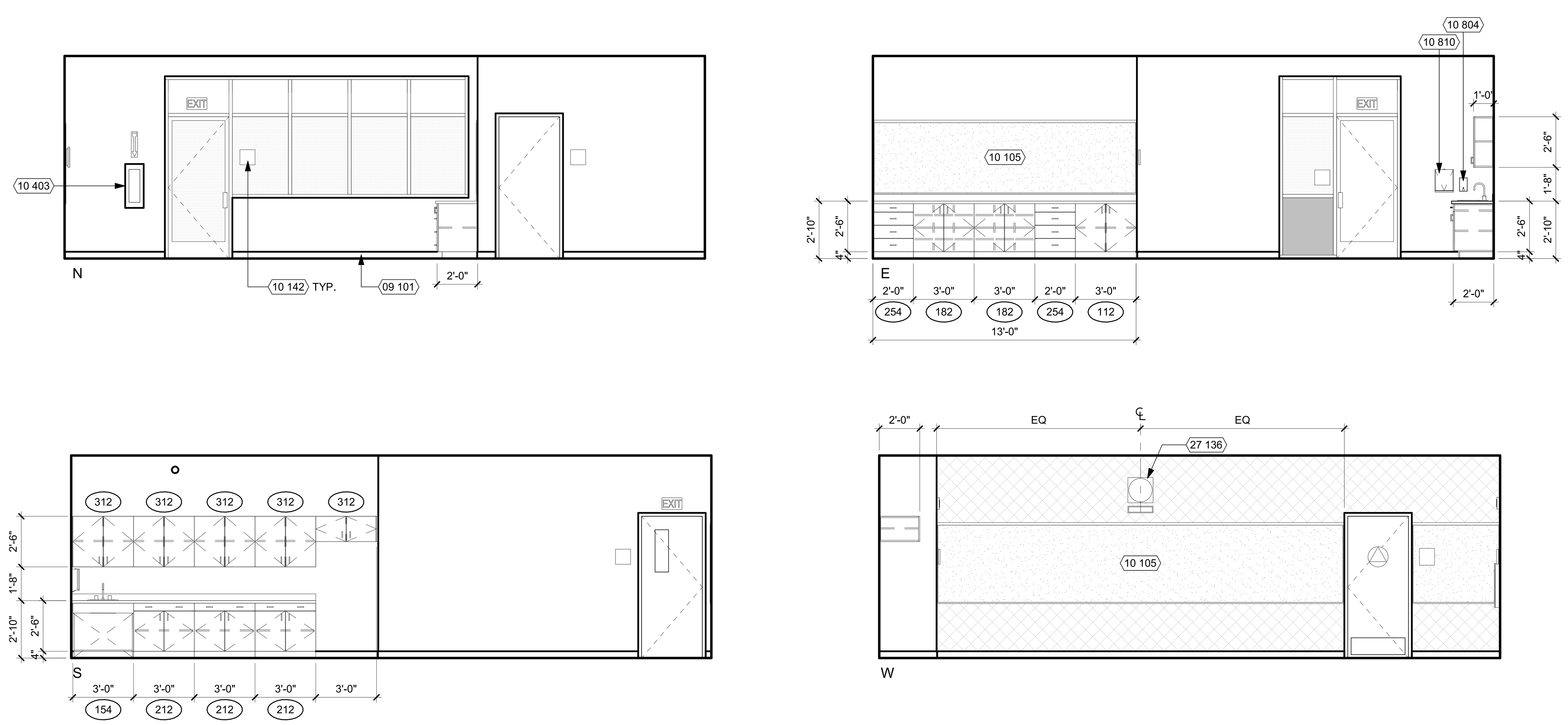


G100-MULTIPURPOSE 1/4" = 1'-0" (8)



G101-WORKROOM 1/4" = 1'-0" (10)

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
22 410	HI-LO DRINKING FOUNTAIN WITH BOTTLE FILLER (SEE DETAIL 23/A10.10.2)
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
7. PROVIDE BACKING PLATES OR BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT SUCH AS SHELVING, MARKER BOARDS, AND DOOR STOPS. SEE DETAIL 29 / A10.10.1
8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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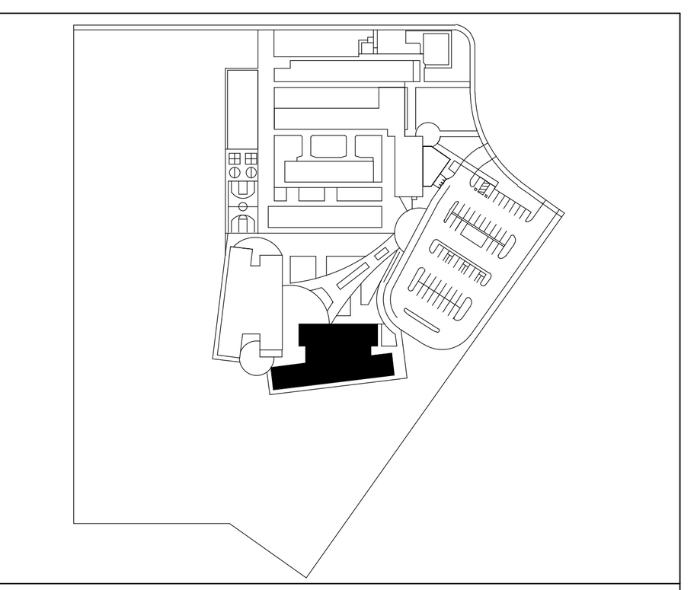
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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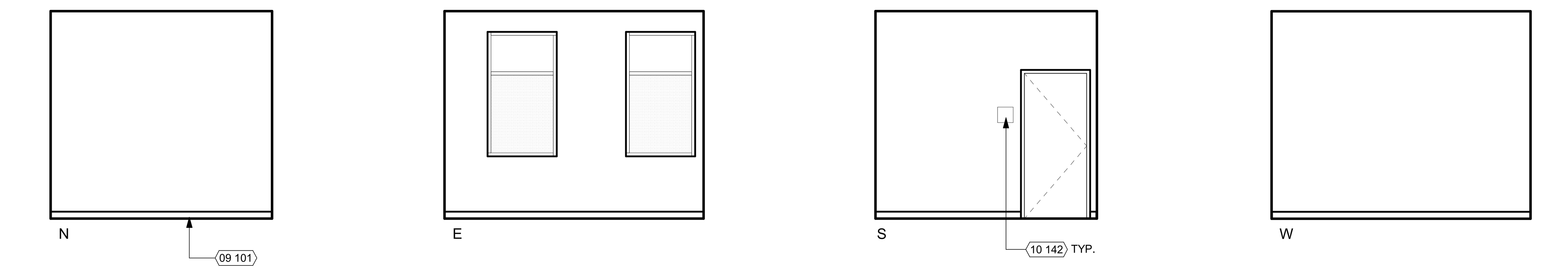
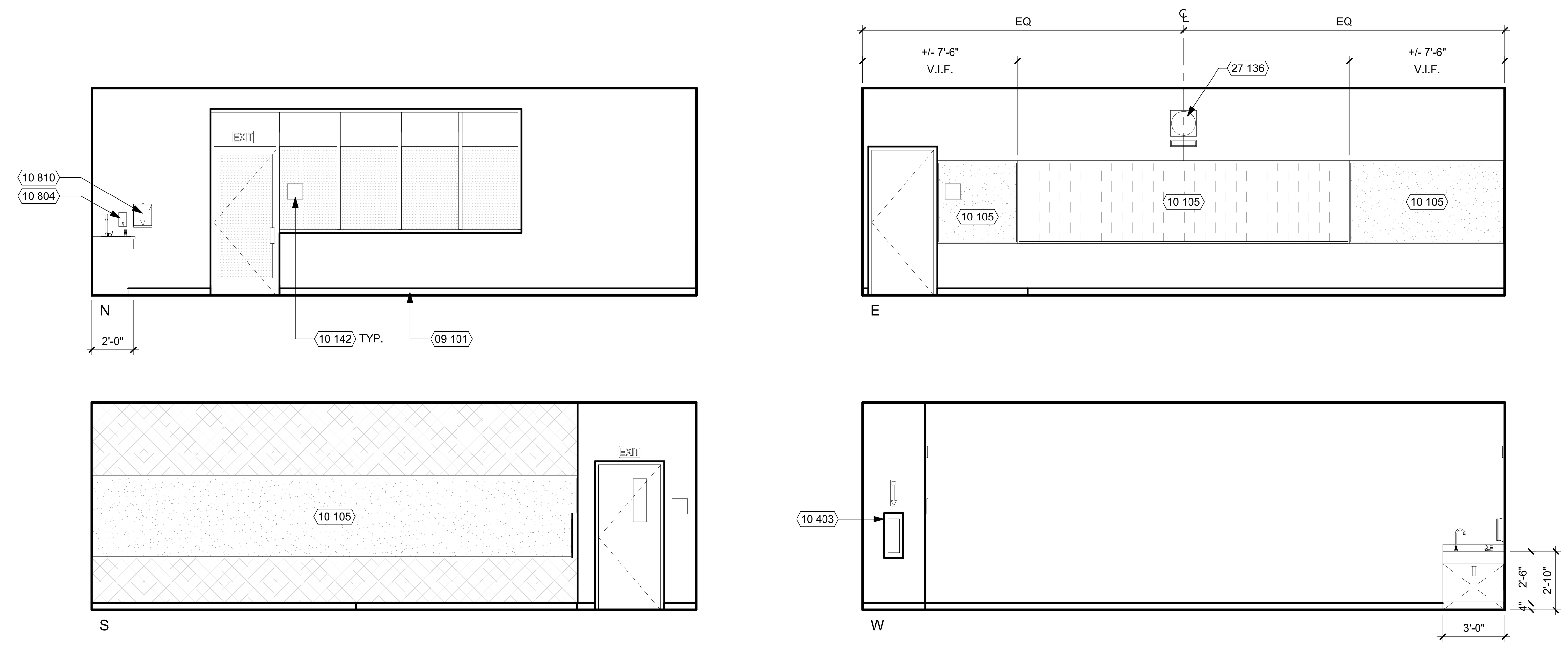
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G INTERIOR ELEVATIONS

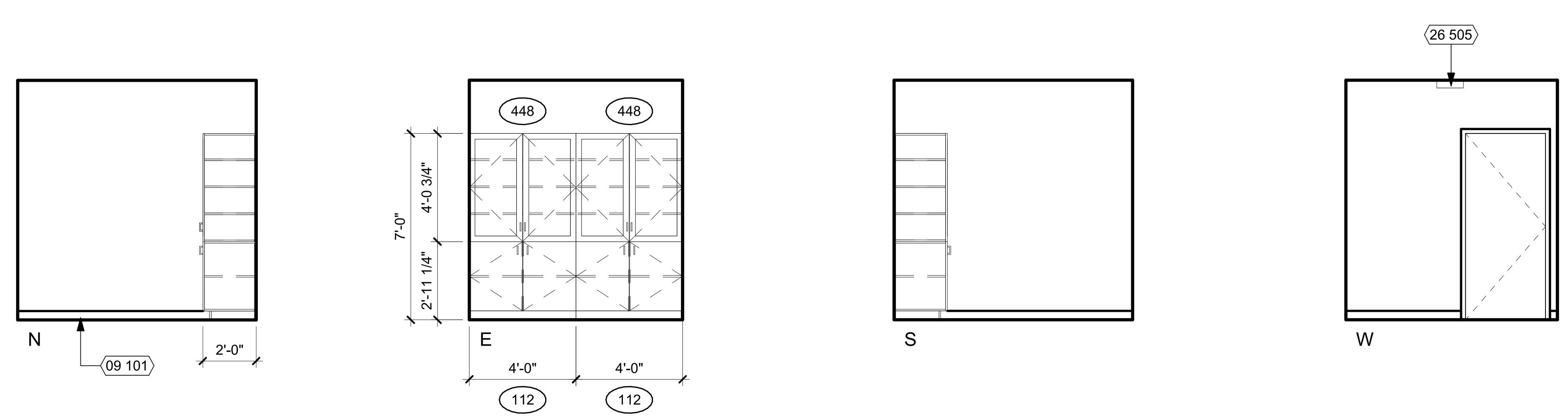
Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	AG8.1
Drawn: AA	Checked: AM



G102-OFFICE 1/4" = 1'-0" 6



G106-CLASSROOM 1/4" = 1'-0" 8



G107-STORAGE 1/4" = 1'-0" 9

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
26 505	LIGHT FIXTURE
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

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4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
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LEGEND

TACK BOARD

MARKER BOARD

FRP2, PER FINISH SCHEDULE

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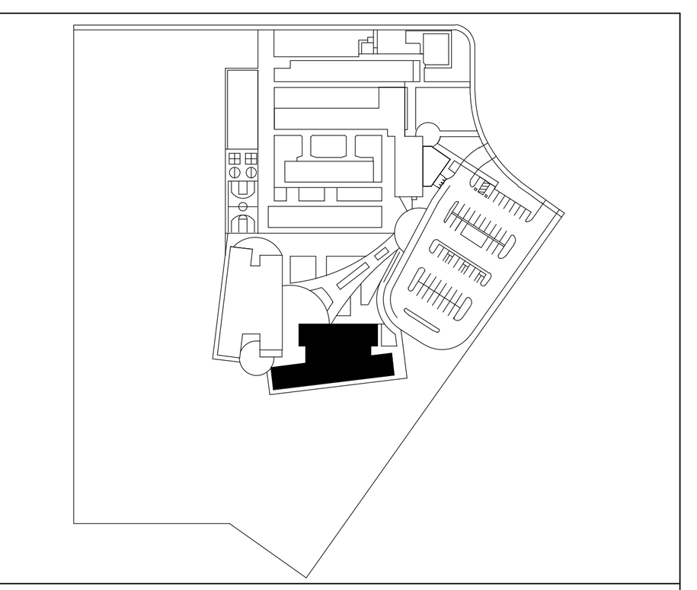

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WESTMORE OAKS SCHOOL
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BUILDING G INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	AG8.2
Drawn AA	Checked AM

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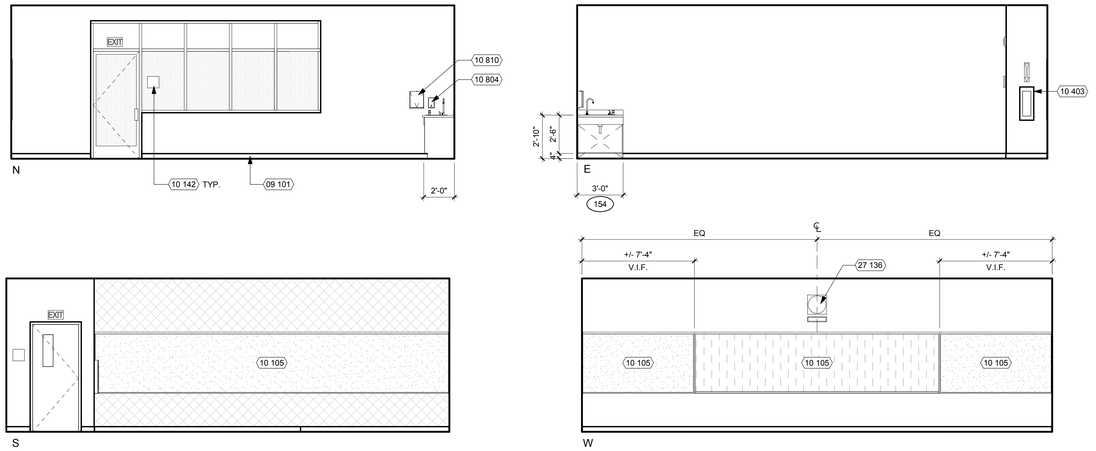
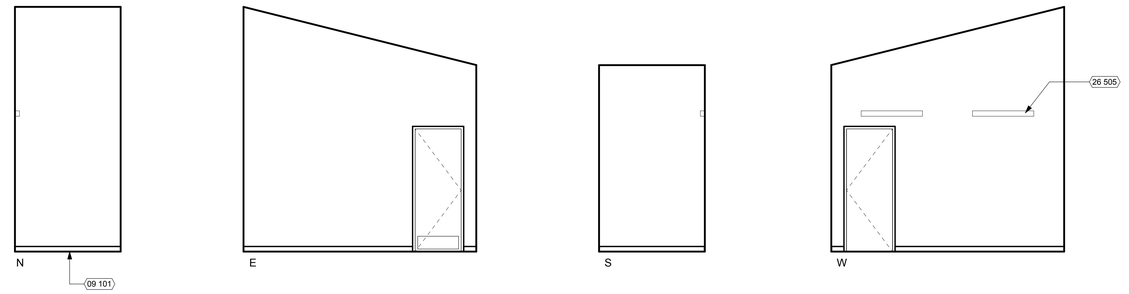
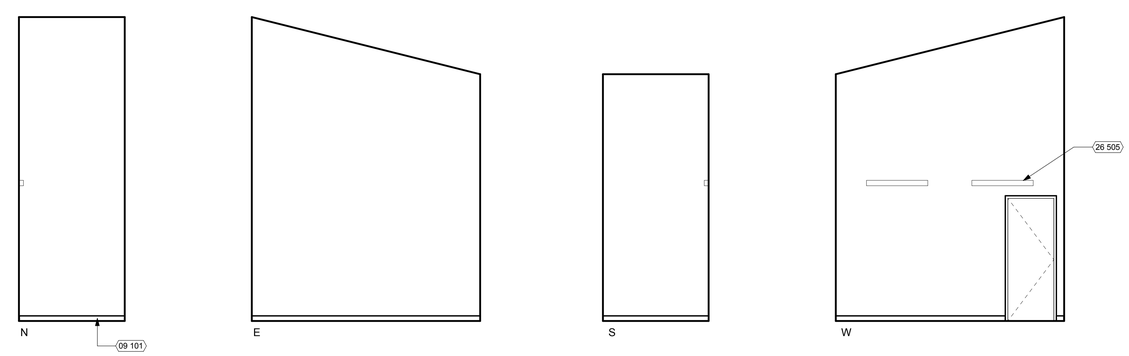


G108-CLASSROOM 1/4" = 1'-0" 7



G109-STORAGE 1/4" = 1'-0" 9



G110-STORAGE 1/4" = 1'-0" 10

KEY NOTES

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10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
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LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
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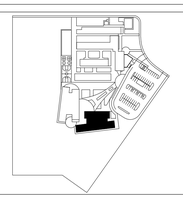
○ CONSTRUCTION	

KEY PLAN



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BUILDING G INTERIOR ELEVATIONS

Date	Project Number
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Scale: As indicated	Drawing Number: AG8.3
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PRINT DATE: 5/17/2019 10:27:22 AM
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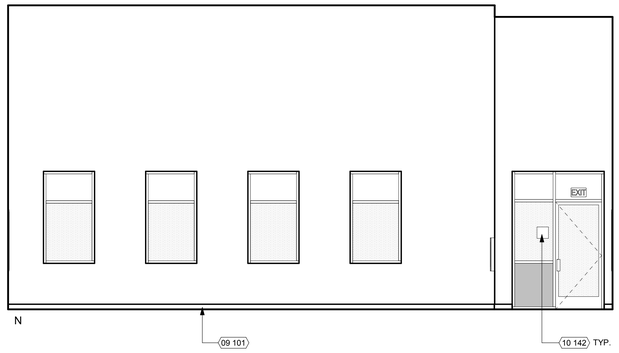

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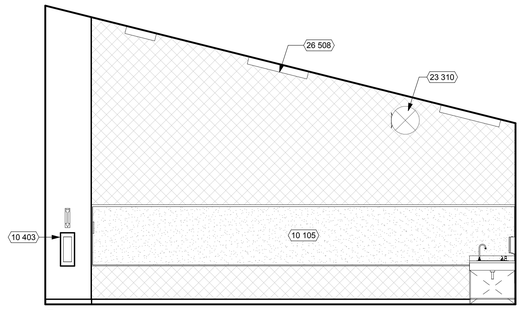

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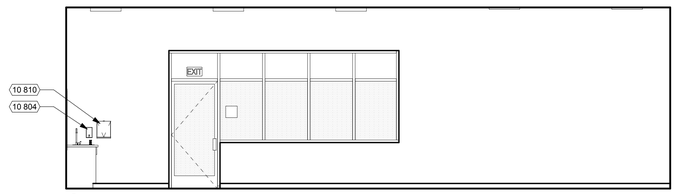

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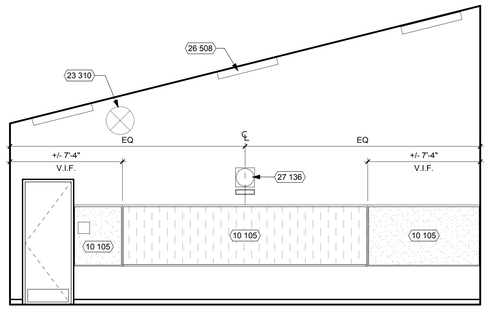
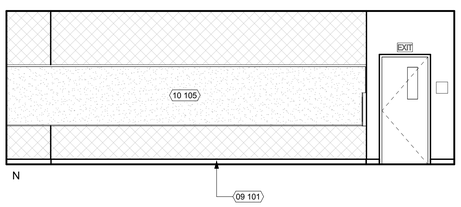


W

G111-PE 1/4" = 1'-0" 8



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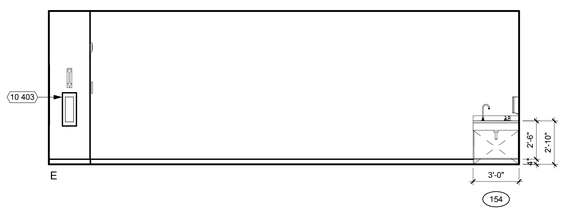

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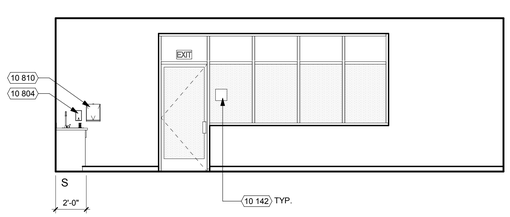

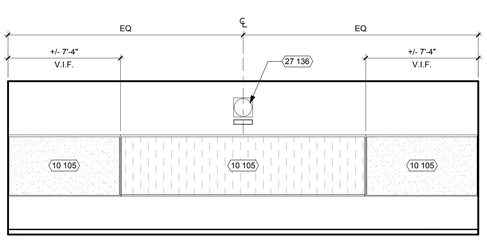

W

G112-CLASSROOM 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
23 310	EXPOSED DUCTWORK (SEE MECHANICAL DWGS.)
26 508	SURFACE MOUNT LIGHT FIXTURE
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
7. PROVIDE BACKING PLATES OR BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT SUCH AS SHELVING, MARKER BOARDS, AND DOOR STOPS. SEE DETAIL 29 / A10.10.1
8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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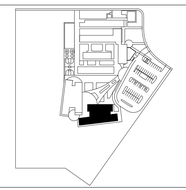
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG8.4
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:27:28 AM
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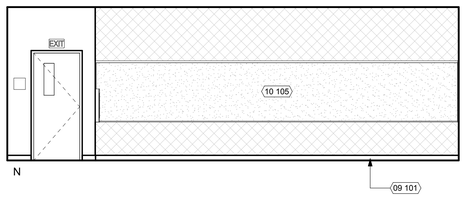
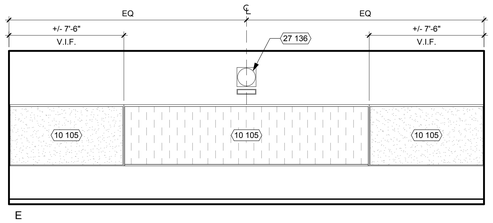
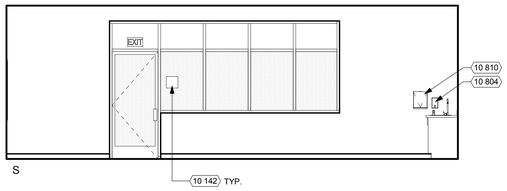
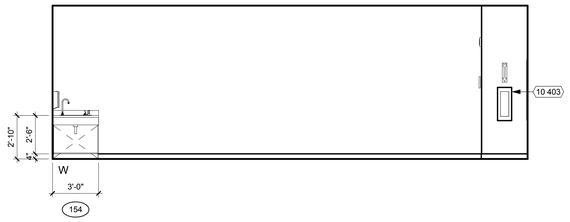
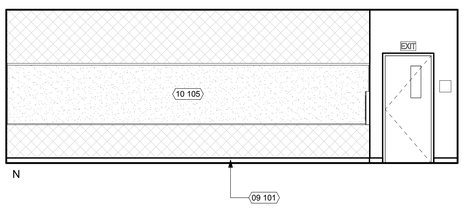


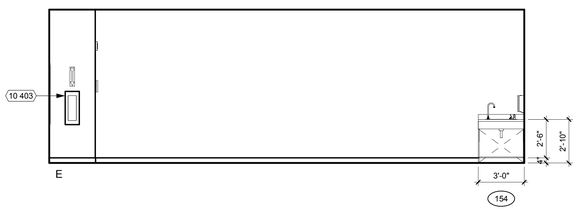


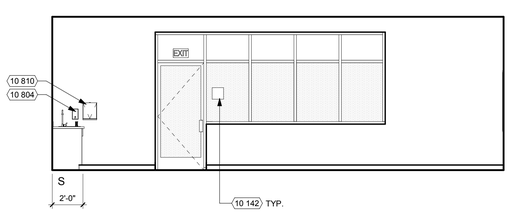


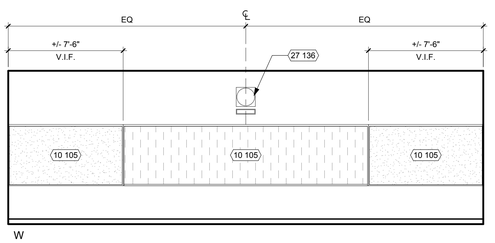


G113-CLASSROOM 1/4" = 1'-0" 8









G114-CLASSROOM 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
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8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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LICENSED ARCHITECT BRIANA P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG8.5
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:27:34 AM
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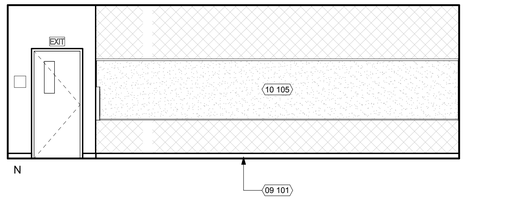
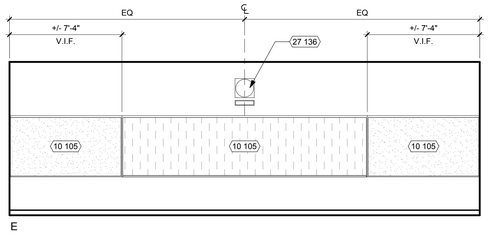
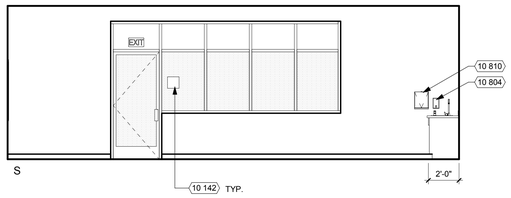
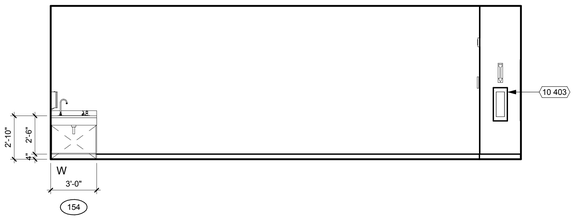
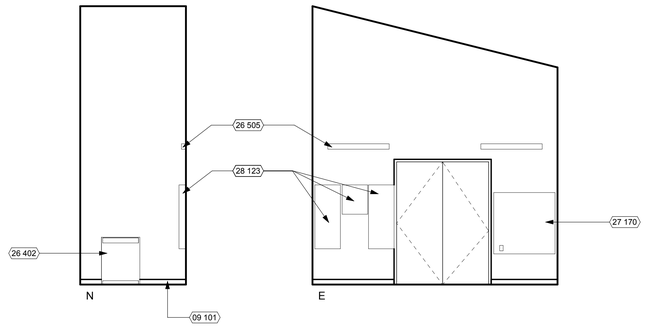




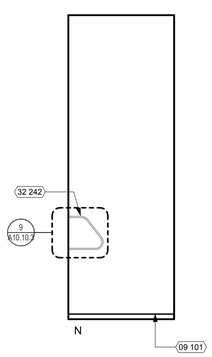


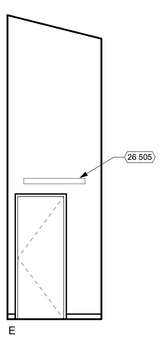


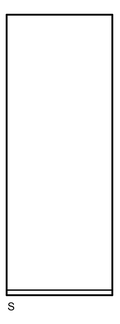
G115-CLASSROOM 1/4" = 1'-0" 8

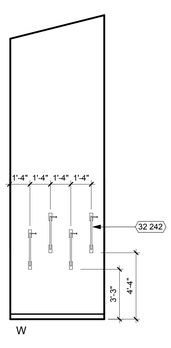


G117-ELECTRICAL 1/4" = 1'-0" 9

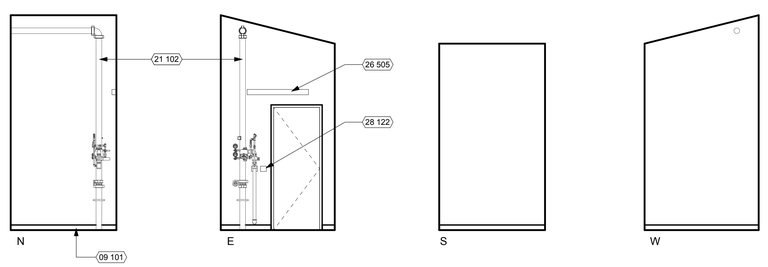








G116-STORAGE-N 1/4" = 1'-0" 20



G118-FIRE RISER 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 105	16'-0" MARKER BOARD W/ TRAY (SEE DETAIL 22/A10.10.2)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
10 804	SOAP DISPENSER
10 810	PAPER TOWEL DISPENSER
21 102	FIRE RISER (SEE FIRE PROTECTION DWGS)
26 401	ELECTRICAL PANEL (SEE ELECTRICAL DWGS.)
26 402	TRANSFORMER (SEE ELECTRICAL DWGS.)
26 505	LIGHT FIXTURE
27 136	O.F.O.I. CLOCK AND SPEAKER PAGING SYSTEM
27 151	IDF RACK (SEE ELECTRICAL DWGS)
27 170	TELEPHONE TERMINAL BOARD (SEE ELECTRICAL DRAWINGS)
28 122	FIRE ALARM MONITOR MODULE (SEE FIRE PROTECTION DWGS)
28 123	FIRE ALARM PANEL (SEE FIRE PROTECTION DWGS)
32 242	VERTICAL BICYCLE RACKS (SEE DETAIL 9/A10.10.3)

GENERAL NOTES

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2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS.
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
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LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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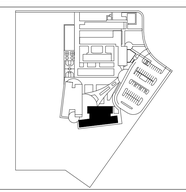
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G INTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AG8.6
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:27:43 AM
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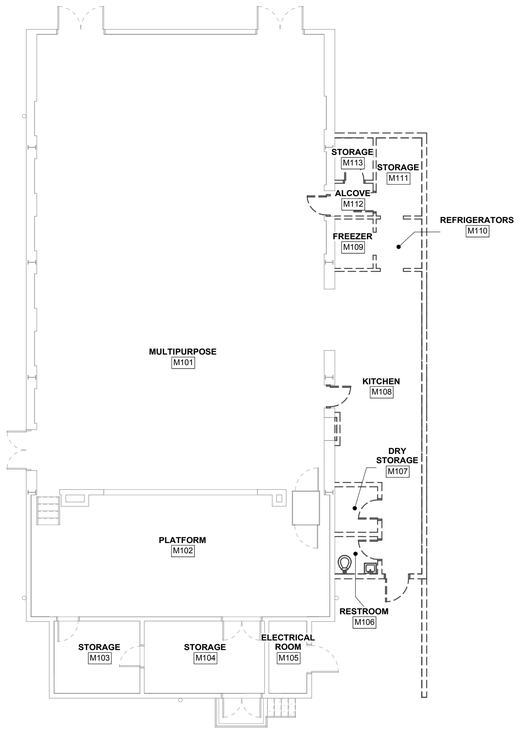
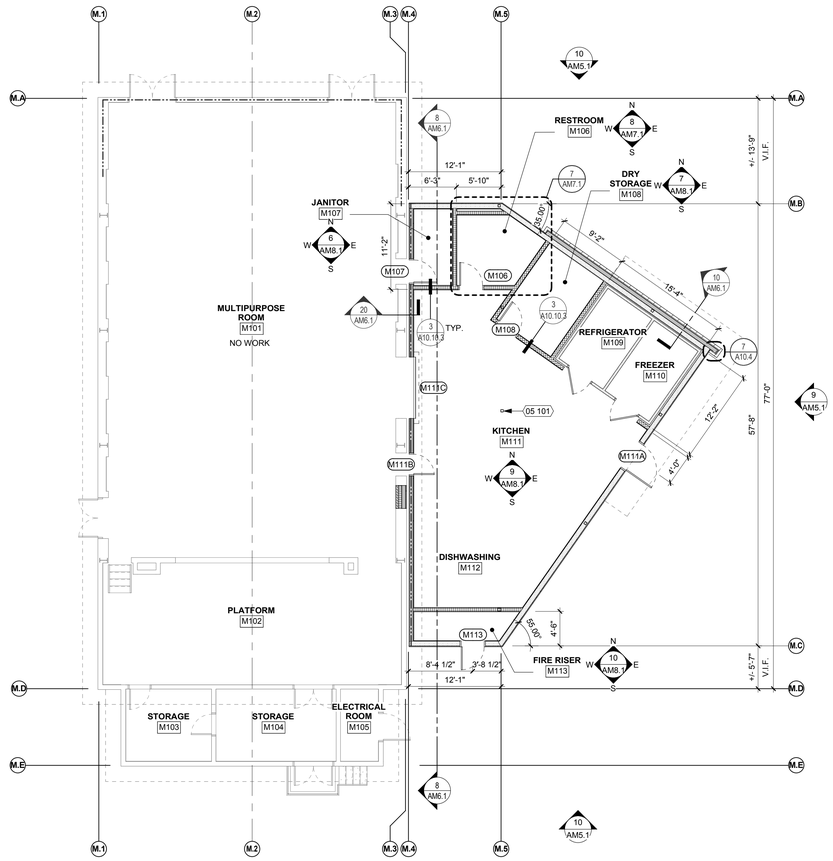


BUILDING M - DEMO FLOOR PLAN 1/8" = 1'-0" 20



BUILDING M - FLOOR PLAN 1/8" = 1'-0" 5

KEY NOTES

NUMBER	NOTE
05 101	

GENERAL NOTES

1. PROVIDE ROOM NAME AND NUMBER WITH 1" HIGH TEXT AND GRADE #2 BRAILLE THROUGHOUT. SEE CODE ANALYSIS PLAN.
2. ALL WALLS SHALL HAVE R-19 BATT INSULATION, FULL HEIGHT.
3. SOUND INSULATION TO BE INSTALLED AT INTERIOR FULL HEIGHT WALLS.
4. REFER TO STRUCTURAL DRAWINGS FOR HEADER SCHEDULE AND FRAMING DETAILS FOR OPENINGS IN INTERIOR AND EXTERIOR WALLS
5. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE AND SPACING.
6. SEE STRUCTURAL DRAWINGS FOR COLUMN LOCATIONS AND SIZING.
7. REFER TO ROOM FINISH SCHEDULE FOR INTERIOR WALL FINISHES.
8. DIMENSIONS OF STUDS ARE FROM FACE OF STUD.
9. PAINT ALL INTERIOR WALLS.

LEGEND

- LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED
- EXISTING CONSTRUCTION TO REMAIN (BUILDING M ONLY)
- FULL BRICK VENEER EXTERIOR WALL, SEE DETAIL 2 / A10.1
- EXTERIOR PLASTER 6" STUD WALL, SEE DETAIL 3 / A10.1
- EXTERIOR PLASTER 8" STUD WALL, SEE DETAIL 4 / A10.1
- EXTERIOR PLASTER 10" STUD WALL, SEE DETAIL 5 / A10.1
- INTERIOR 6" STUD WALL, SEE DETAIL 11 / A10.1
- INTERIOR 2-HOUR RATED WALL (BUILDING M ONLY), SEE DETAIL 10 / A10.1
- INTERIOR 6" STUD WALL WITH ACOUSTIC SEPARATION (BUILDING G ONLY), SEE DETAIL 8 / A10.1
- INTERIOR 8" STUD WALL, SEE DETAIL 16 / A10.1
- INTERIOR 10" STUD WALL, SEE DETAIL 12 / A10.1

DEMO LEGEND

- (E) TO BE DEMOLISHED, REMOVED, AND/OR RELOCATED - PER PLANS
- (E) TO REMAIN

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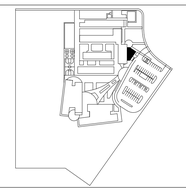
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M FLOOR PLANS - DEMO AND NEW

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number AM2.1
Drawn AA / Checked AM	

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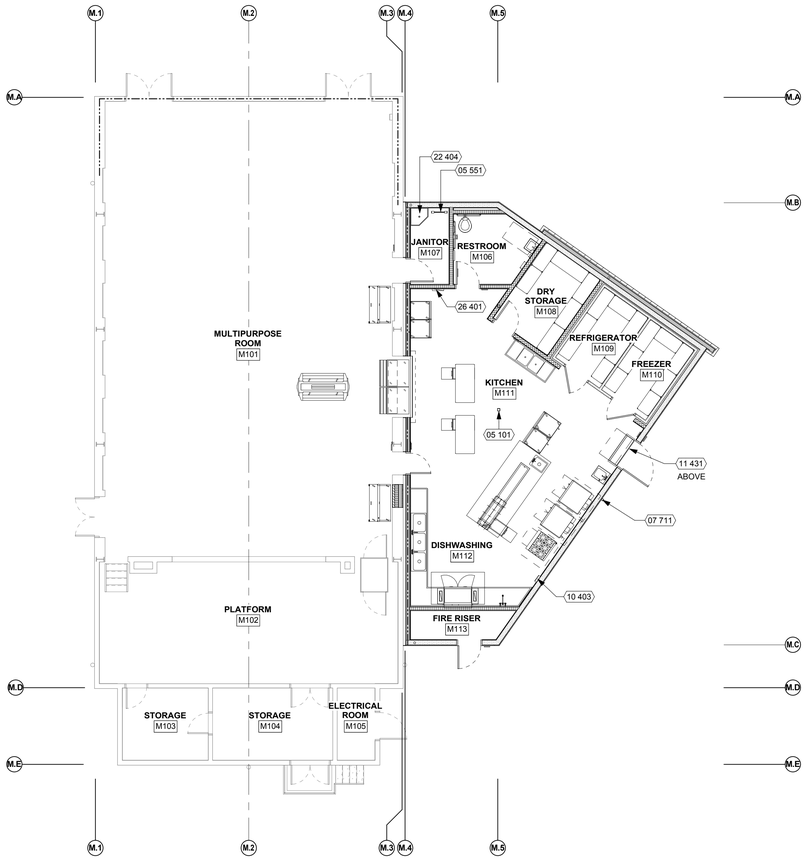
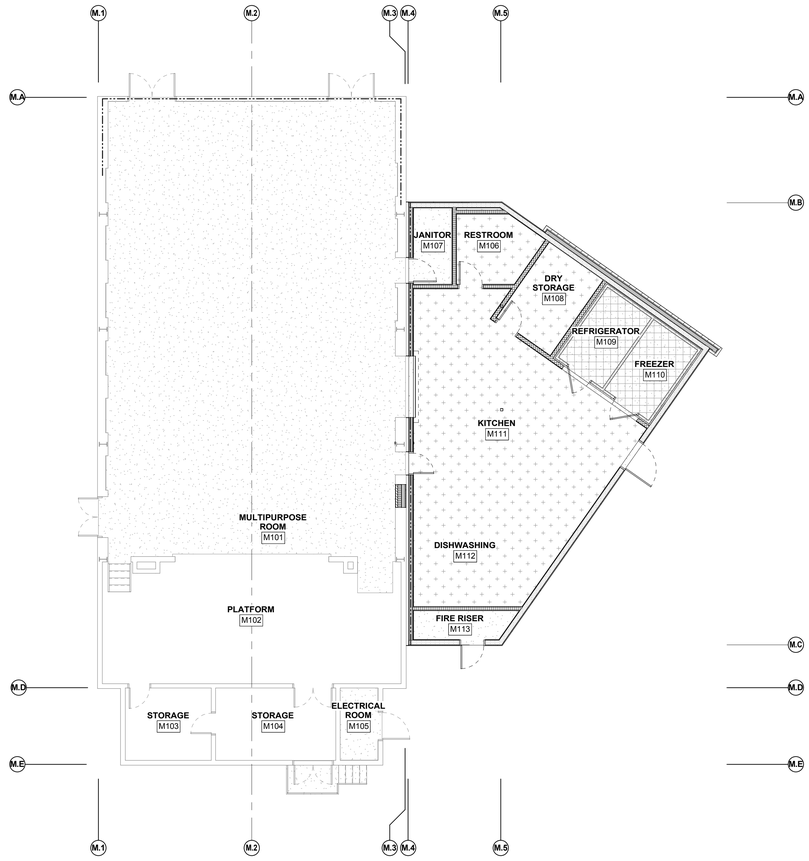


BUILDING M - EQUIPMENT PLAN 1/8" = 1'-0" 20



BUILDING M - FLOOR PATTERN PLAN 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 101	COLUMNS (SEE STRUCTURAL DWGS.)
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
11 431	AIR CURTAIN (SEE FOOD SERVICE DWGS.)
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
26 401	ELECTRICAL PANEL (SEE ELECTRICAL DWGS.)

GENERAL NOTES

1. FOR KITCHEN EQUIPEMENT REFER TO FOOD SERVICE DRAWINGS.

FINISH PLAN LEGEND

- EPX
- EC
- SC - 12" WIDE DECORATIVE PATTERN
- CPT (BUILDING G ONLY)
- DEPRESSED CONCRETE SLAB, PER STRUCTURAL DRAWINGS (BUILDING M ONLY)

NOTE:

SEE FINISH LEGEND SCHEDULE FOR MATERIAL ABBREVIATION LEGENDS.

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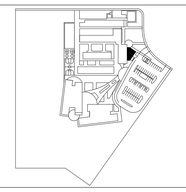
KEY PLAN



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BUILDING M EQUIPMENT AND FLOOR PATTERN PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AM2.3
Drawn AA / Checked AM	

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RCP LEGEND

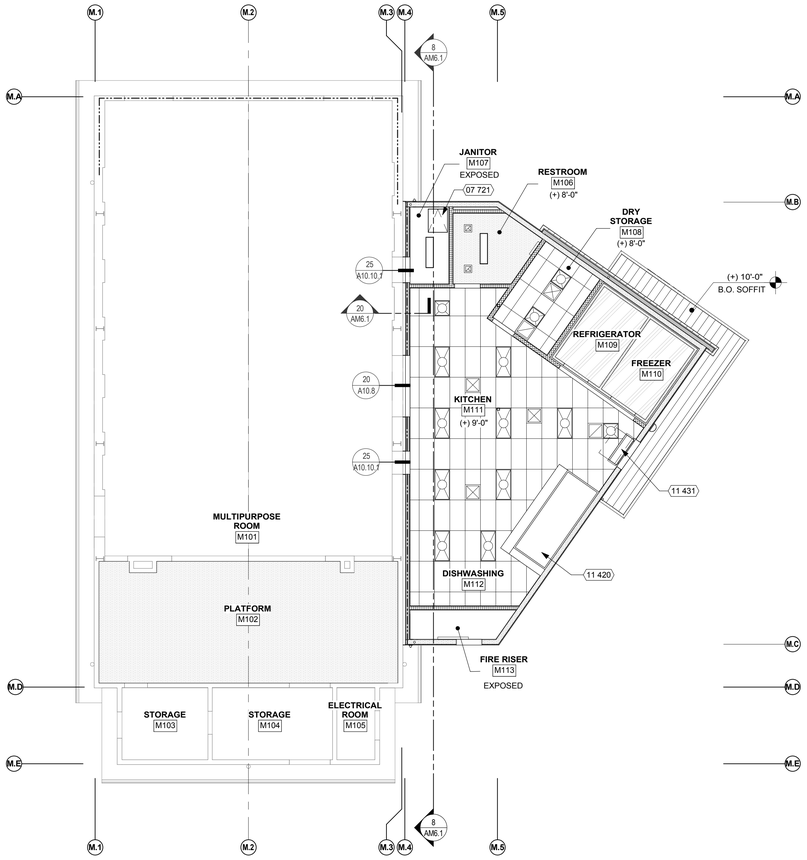
- 2x4 SUSPENDED ACOUSTICAL CEILING PANEL SYSTEM
- GYPSUM WALLBOARD CEILING, PAINT SURFACE, SEE DETAIL 2 / A10.9.3
- METAL PANEL SOFFIT
- COOLER BOX CEILING, BY MANUFACTURER. OPEN TO STRUCTURE ABOVE
- LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
- CEILING ACCESS PANEL
- ROOM NAME / A119 / (+) 8'-0" — ROOM TAG (+) 8'-0" = CEILING HEIGHT OF ROOM, U.O.N.
- ROOM NAME / A119 / EXPOSED — ROOM TAG EXPOSED = OPEN TO STRUCTURE

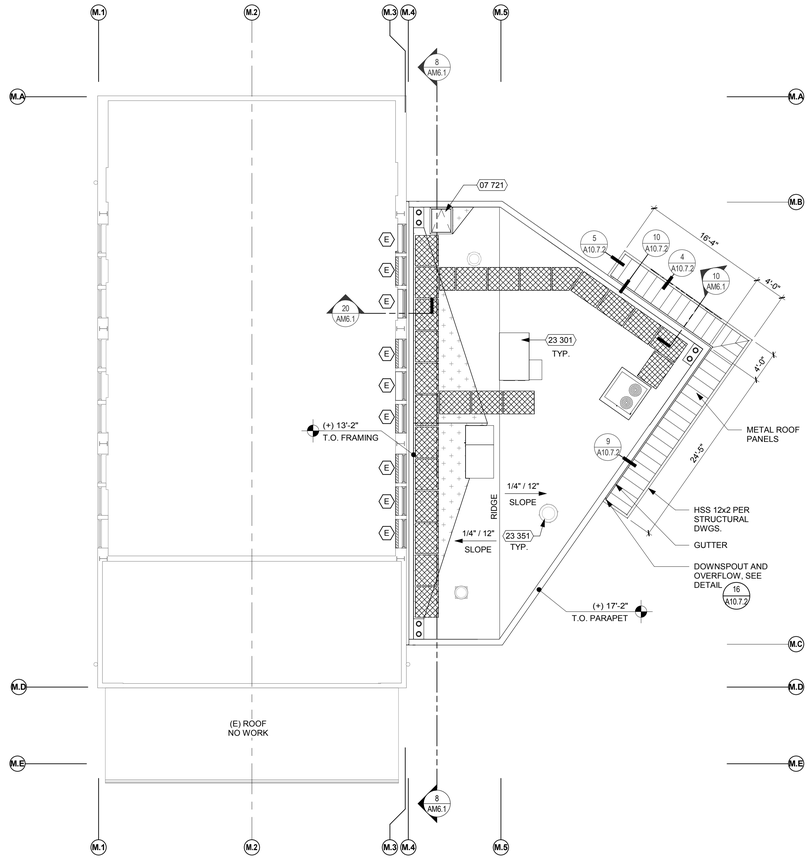
ROOF PLAN LEGEND

- ROOF DRAIN AND OVERFLOW, SEE DETAIL 10 / A10.7.1
- ROOF WALKWAY PADS 13 / A10.7.1
- MODIFIED BITUMEN ROOFING
- ROOF CRICKET, TAPERED RIGID INSULATION, SLOPED TO DRAIN PER DETAIL 28 / A10.7.1
- SKYLIGHT, SEE DETAIL 2 / A10.7.3 (BUILDINGS F & G ONLY)
- STANDING SEAM METAL ROOFING, 16" PLANK & PENCIL RIBS PANEL, OVER COVER BOARD AND INSULATION (BUILDINGS F & G ONLY)
- STANDING SEAM METAL ROOFING, 16" FLAT PANEL

KEY NOTES

NUMBER	NOTE
07 721	ROOF ACCESS HATCH W/ LADDER (SEE DETAIL 2/A10.7.1)
11 420	EXHAUST HOOD (SEE FOOD SERVICE DWGS.)
11 431	AIR CURTAIN (SEE FOOD SERVICE DWGS.)
23 301	ROOFTOP MECHANICAL UNIT (SEE MECHANICAL DWGS.)
23 351	ROOFTOP VENTILATOR (SEE MECHANICAL DWGS.)





RCP GENERAL NOTES

GENERAL
1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATIONS = 0'-0"
2. ACCESS DOORS TO BE INSTALLED TO SERVICE EQUIPMENT SHOWN IN CONTRACT DOCUMENTS. EXACT NUMBER AND LOCATION OF ACCESS PANELS IS NOT SHOWN. SEE DETAIL 4 / A10.9.3
3. PROVIDE ACCESS PANELS TO ENCLOSED AREAS ABOVE GYPSUM BOARD. CEILINGS, CENTER AND ALIGN TO LIGHT FIXTURES, AND OTHER CEILING FIXTURES PER PLAN.
4. CEILING SYSTEM SHOULD BE CENTERED WITHIN EACH ROOM AS WELL AS ALIGNED WITH THE STRUCTURAL GRID, U.O.N.
5. CEILING SYSTEM SHALL BE COORDINATED WITH THE LIGHTING & ELECTRICAL PLANS.
6. SKYLIGHT WELL ON THE CEILING PLAN SHOULD BE VERTICALLY ALIGNED WITH THE CORRESPONDING SKYLIGHT ON THE ROOF WHERE OCCURS.
7. PAINT GYP. BD. CEILINGS AND SOFFITS P-1 U.O.N. (PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS.) REFER TO ROOM FINISH SCHEDULE FOR COLOR SELECTIONS
8. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT PER FINISH SCHEDULE.
9. NO EXPOSED NAILS OR SCREWS ARE ALLOWED.

EQUIPMENT
1. SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SUPPORTS & BRACING. ELECTRICAL DEVICES ARE SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION SEE ELECTRICAL DRAWINGS.
2. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DIFFUSERS AND PIPE CHASES.
3. SEE FIRE PROTECTION DETAILS FOR PENETRATIONS THROUGH RATED WALLS, WHERE OCCURS.
4. SINGLE LIGHT FIXTURES IN GYP. BD. CEILINGS SHALL BE CENTERED IN ROOM.
5. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.O.N.
6. CENTER AND ALIGN SMOKE DETECTOR, DIFFUSERS, GRILLS, AND SIMILAR ITEMS IN CEILING TILE GRID AND ALIGN WITH LIGHT FIXTURES, SEE DETAIL 3 / A10.9.3
7. SEE ELECTRICAL DRAWINGS FOR LOW LEVEL EXIT SIGN LOCATIONS.

ROOF PLAN GENERAL NOTES

GENERAL
1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
2. ALL ROOF MATERIALS TO BE CLASS A RATED.
3. MINIMUM ROOF INSULATION R-30 ALL LOCATIONS OF THE ROOF.
4. MINIMUM THICKNESS OF ROOF INSULATION TO BE 6" AT LOW POINT OF ROOF DRAIN SUMP.
5. FLASHING TERMINATIONS SHALL HAVE WATER-TIGHT SHEET METAL CLOSURES WITH WATERPROOF SELF-ADHERED MEMBRANE UNDERLAYMENT.
6. NAILER THICKNESS SHALL MATCH ADJACENT INSULATION THICKNESS WITHIN 1/4" TOLERANCE.

SLOPES AND DRAINAGE
1. SECONDARY SLOPE (CRICKETS, SADDLES, SUMPS, ETC.) SHALL BE 1/4" / FT. SLOPE MINIMUM AS INDICATED AT ALL ROOF AREAS, INCLUDING VALLEYS, AND STEEPER AS REQUIRED TO MEET VALLEY SLOPE CRITERIA.
2. BACK SLOPES SHALL BE 2X THE PRIMARY SLOPE.
3. MINIMUM ROOF SLOPE IN VALLEYS IS 1/4" / FT. ADJUST SLOPE OF CRICKETS TO PROVIDE MINIMUM SLOPE AT ALL LOCATIONS OF ROOF. TO PREVENT PONDING, DIRECT ALL ROOF WATER TO DRAINS.
4. TAPER INSULATION UP FROM DRAIN IN SUMPS MINIMUM OF 1/4" / FT. BUT NOT TO EXCEED 1" /FT. PROVIDE TAPERED FILL TO CONFORM THE SUMP INSULATION TO THE THICKNESS OF INSULATION IN THE FIELD OF THE ROOF.
5. PROVIDE TAPERED CRICKET ON THE HIGH SIDE OF PENETRATIONS WIDER THAN 24".
6. MINIMUM SLOPE 1/4" /FT. TO DRAIN AT ALL LOCATIONS.

EQUIPMENT
1. REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND OTHER FACILITY SERVICES DRAWINGS FOR EQUIPMENT, DUCTWORK, PENETRATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.
2. PENETRATIONS, CURBS AND TERMINATIONS, INCLUDING THOSE FOR MECHANICAL, ELECTRICAL, PLUMBING AND OTHER FACILITY SERVICES SHALL PROVIDE MINIMUM 8" VERTICAL BASE FLASHING ELEVATION ABOVE THE TOP OF THE ADJACENT ROOF SURFACE (NOT STRUCTURAL DECK).
3. EQUIPMENT SUPPORT PENETRATIONS SHALL BE ROUND SHAPES UNLESS SPECIFICALLY DETAILED OTHERWISE.
4. FOR CONDUIT THROUGH ROOF DETAIL, SEE ELECTRICAL DRAWINGS
5. FOR TYPICAL PENETRATION CLEARANCES, SEE DETAIL 18 / A10.7.1
6. FOR DUCT THRU WALL PENETRATION, SEE DETAIL 21 / A10.7.1

BUILDING M - REFLECTED CEILING PLAN 1/8" = 1'-0" 20

BUILDING M - LOWER ROOF PLAN 1/8" = 1'-0" 10

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NO.	REMARKS	DATE

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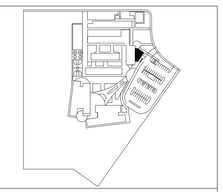

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BUILDING M REFLECTED CEILING PLAN AND ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AM3.1
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AA / AM	

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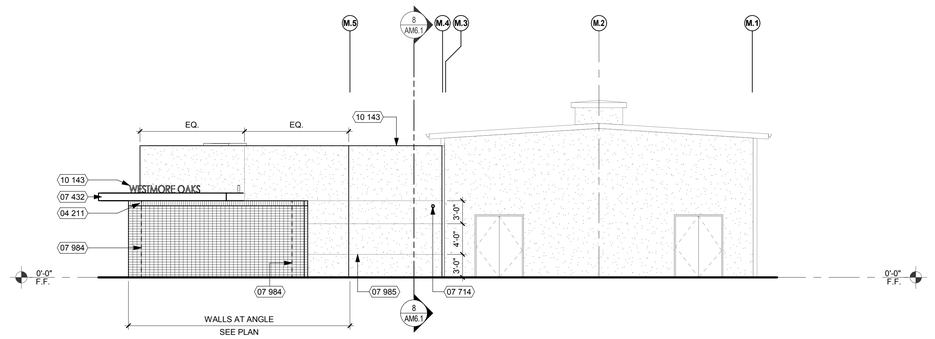
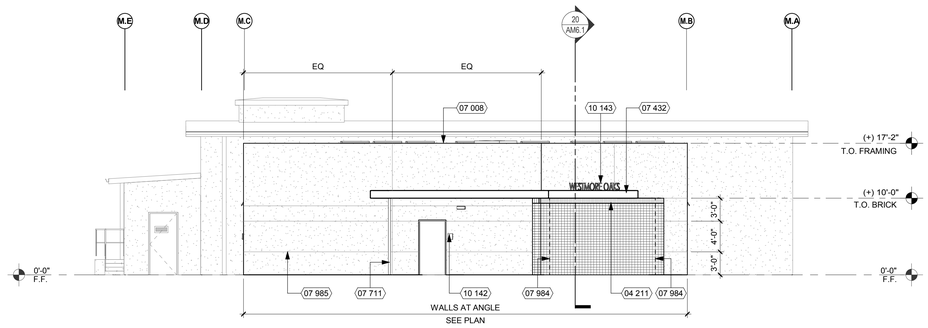
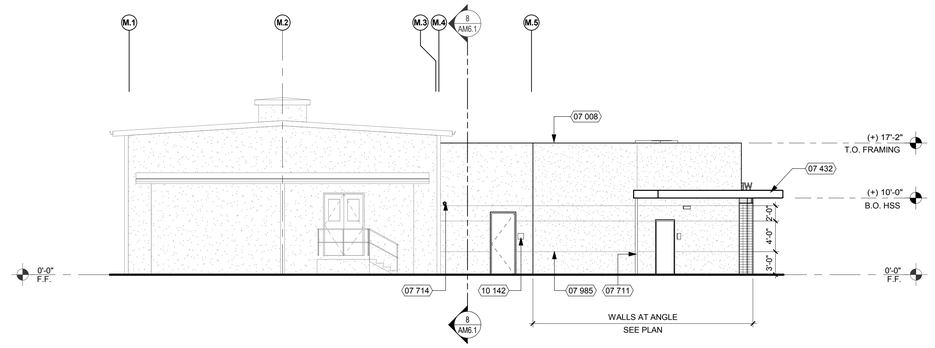


BUILDING M - NORTH ELEVATION 1/8" = 1'-0" 7



BUILDING M - EAST ELEVATION 1/8" = 1'-0" 9



BUILDING M - SOUTH ELEVATION 1/8" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
04 211	BRICK SAILOR COURSE
07 008	PARAPET CAP, PAINT TO MATCH ADJACENT WALL
07 432	HSS CANOPY FASCIA, PAINTED P5
07 711	DOWNSPOUT, PAINT TO MATCH ADJACENT WALL
07 714	DOWNSPOUT NOZZLE (SEE DETAIL 24/A10.7.1)
07 984	EXPANSION JOINT, BRICK EXPANSION JOINTS ARE REQUIRED 3'-0" MAX. FROM CORNERS AND @ 30'-0" O.C. MAX.
07 985	PLASTER CONTROL JOINT
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 143	EXTERIOR BUILDING SIGNAGE (SEE DETAIL 19/A10.10.1)

GENERAL NOTES

1. GRAFFITI-RESISTANT COATINGS TO BE APPLIED ONLY TO MASONRY BRICK AND CONCRETE, NOT PLASTER - SEE SPECIFICATIONS

LEGEND

- EXTERIOR CEMENT PLASTER, PAINTED P4 PER FINISH SCHEDULE
  FOR TYPICAL DETAILS SEE:
  REVEAL DETAIL: 3 / A10.6.1
  CONTROL JOINT DETAIL: 4 / A10.6.1
  INSIDE CORNER: 5 / A10.6.1
  OUTSIDE CORNER: 10 / A10.6.1
- FULL BRICK, STACK BOND, SEE TYPICAL ASSEMBLY DETAIL 2/A10.1
- BRICK EXPANSION JOINT
- STANDING SEAM METAL ROOFING, SEE TYPICAL ASSEMBLY DETAIL (BUILDINGS F & G ONLY) 7/A10.7.2

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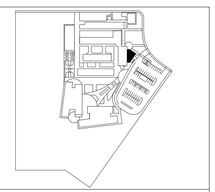

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BUILDING M EXTERIOR ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	AM5.1
Drawn: AA	Checked: AM

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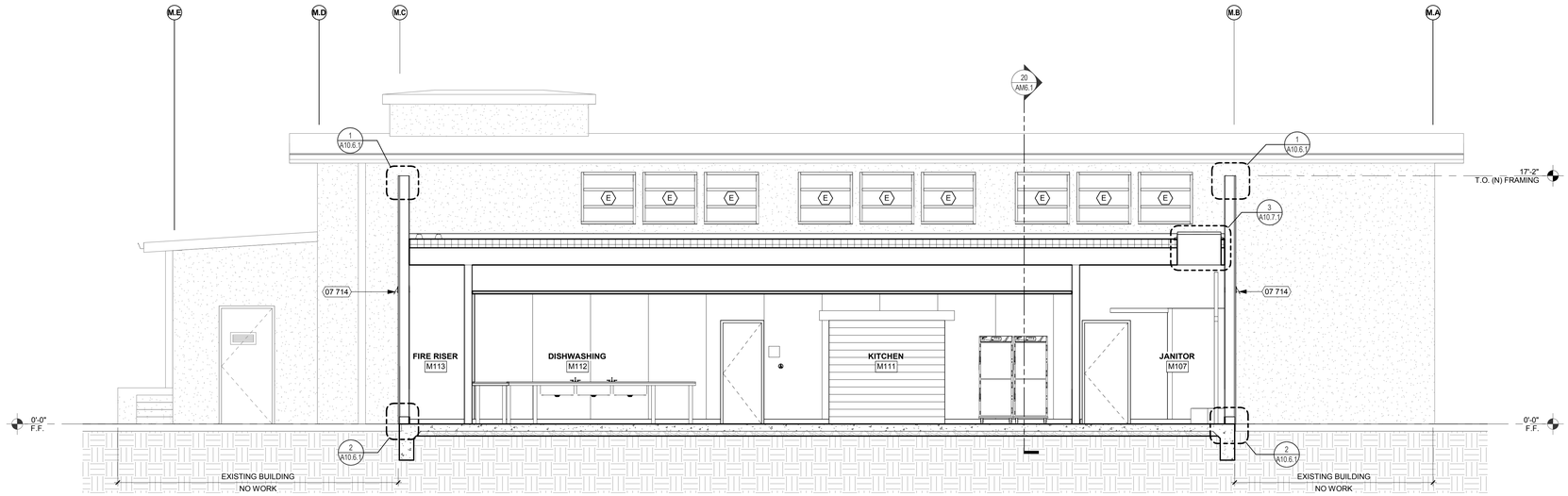
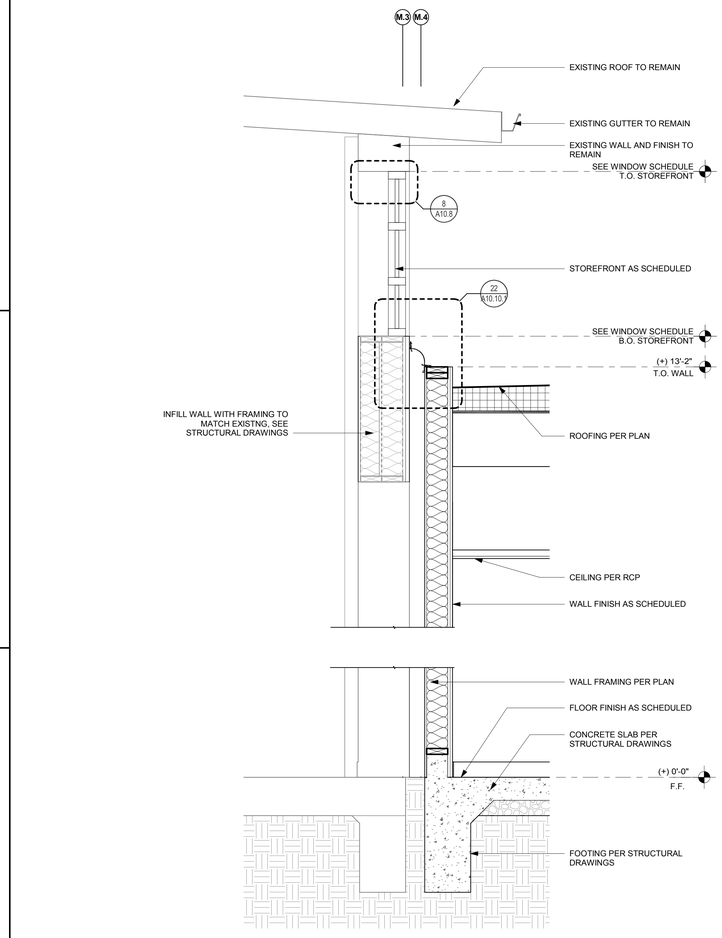


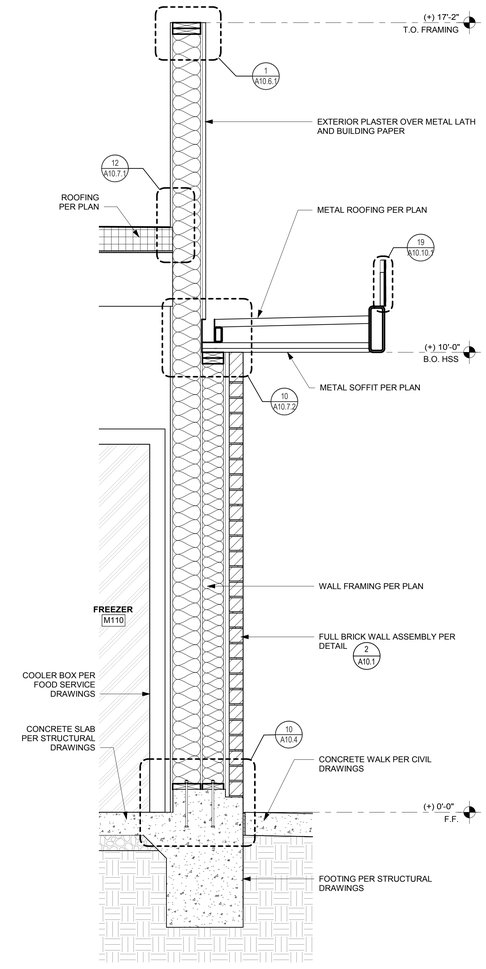
REF: 5 / AM2.1

BUILDING M - BUILDING SECTION 1/4" = 1'-0" 8



REF: 5 / AM2.1

BUILDING M - WALL SECTION AT EXISTING WALL 3/4" = 1'-0" 20



REF: 5 / AM2.1

BUILDING M - WALL SECTION AT CANOPY 3/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
07 714	DOWNSPOUT NOZZLE (SEE DETAIL 24/A10.7.1)

GENERAL NOTES

1. FOR FINISH INFORMATION, REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE.
2. SEE REFLECTED CEILING PLANS FOR CEILING INFORMATION.
3. SEE FLOOR PLANS FOR WALL TYPES.

LEGEND

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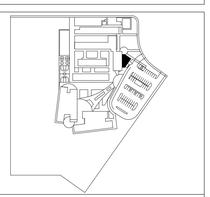

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BUILDING M BUILDING AND WALL SECTIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AM6.1
Drawn: AA	Checked: AM

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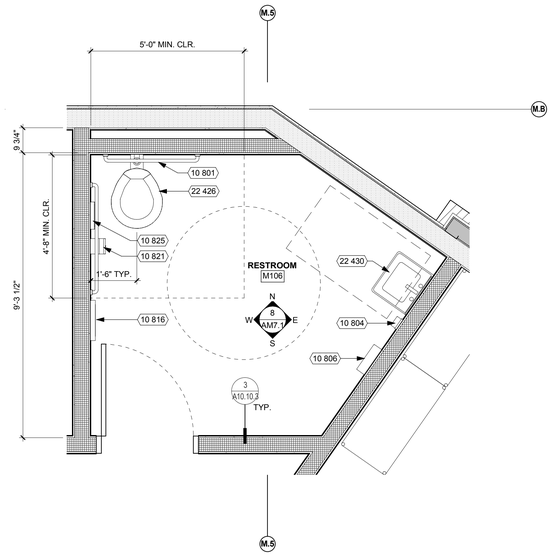

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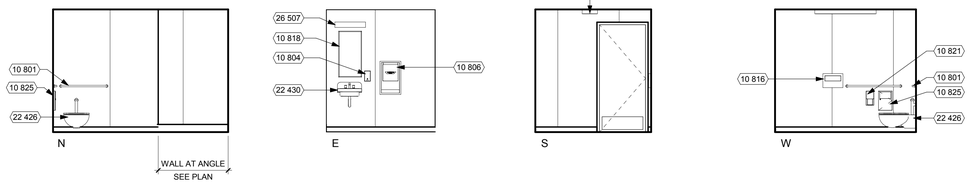
BUILDING M - ENLARGED RESTROOM FLOOR PLAN 1/2" = 1'-0" 7



M106-RESTROOM 1/4" = 1'-0" 8

KEY NOTES

NUMBER	NOTE
10 801	ACCESSIBLE GRAB BAR (SEE DETAIL 11/A10.10.2)
10 804	SOAP DISPENSER
10 806	ELECTRIC HAND DRYER
10 816	TOILET SEAT COVER DISPENSER
10 818	MIRROR
10 821	TOILET PAPER DISPENSER
10 825	SANITARY NAPKIN DISPOSAL
22 426	ACCESSIBLE WATER CLOSET
22 430	LAVATORY
26 507	WALL MOUNT LIGHT FIXTURE
26 508	SURFACE MOUNT LIGHT FIXTURE

GENERAL NOTES

GENERAL
1. DIMENSIONS
   A. ALL MINIMUM CLEARANCE DIMENSIONS FOR PLUMBING FIXTURES ARE FROM FACE OF WALL FINISH TO CENTER OF FIXTURE, U.O.N.
   B. ALL DIMENSIONS MARKED "MIN. CLR" OR "CLR." ARE TO/ FROM FACE OF WALL FINISH (F.O.F.)
2. SEE FINISH PLAN FOR INTERIOR FINISHES.
3. PROVIDE GLASSMAT BACKER BOARD AT ALL TILED WALLS AND WALLS WITHIN 48" OF ANY PLUMBING FIXTURE.
4. ALL DRINKING FOUNTAIN ALCOVES TO BE FINISHED WITH WATER RESISTANT WALL MATERIAL. SEE FINISH SCHEDULE AND INTERIOR ELEVATIONS.
5. ALL FLOOR SLOPES IN RESTROOMS ARE NOT TO EXCEED 1:48 IN ANY DIRECTION.
6. FOR FLOOR DRAIN, SEE DETAIL 1 / A10.10.3

ACCESSORIES
1. ALL RESTROOM FIXTURES AND ACCESSORIES MOUNTING HEIGHTS AND LOCATIONS TO USE ADULT DIMENSIONS
2. FOR TYPICAL RESTROOM ACCESSORY MOUNTING HEIGHTS, ACCESSIBLE DIMENSIONS, SEE SHEET A10.10.2
3. TOILET ACCESSORIES LOCATED ON OR WITHIN WALLS SHALL BE INSTALLED AND SEALED TO PROTECT STRUCTURAL ELEMENTS FROM MOISTURE (CBC SECTION 1210.2.2)
4. PLUMBING FIXTURES TO HAVE SOLID BLOCKING AS REQUIRED BY CODE, SEE DETAIL 29 / A10.10.1
5. FOR MOP SINK WITH BROOM RACK, SEE DETAIL 6 / A10.10.3

STALLS AND PARTITIONS
1. REGARDLESS OF STALL CONFIGURATION, A 48" LONG MINIMUM CLEARANCE FLOOR SPACE SHALL BE PROVIDED IN FRONT OF THE ACCESSIBLE WATER CLOSET.
2. ALL ACCESSIBLE TOILET PARTITION DOORS TO BE 34" WIDE MINIMUM AND ALL NON-ACCESSIBLE TOILET PARTITION DOORS SHALL NOT BE LESS THAN 2'-2".
3. PARTITION STILE WIDTHS SHALL NOT EXCEED 4".
4. FOR PARTITION DETAILS, SEE DETAIL 19 / A10.10.2
5. INSTALL (1) COAT HOOK CENTERED ON THE BACK OF EVERY STALL DOOR, 40" A.F.F. AT ACCESSIBLE STALLS AND 72" A.F.F. AT NON-ACCESSIBLE STALLS.
6. FLUSH VALVE TO BE LOCATED AT WIDE SIDE OF STALL/ SPACE.

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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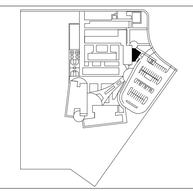
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WEST SACRAMENTO, CA 95691

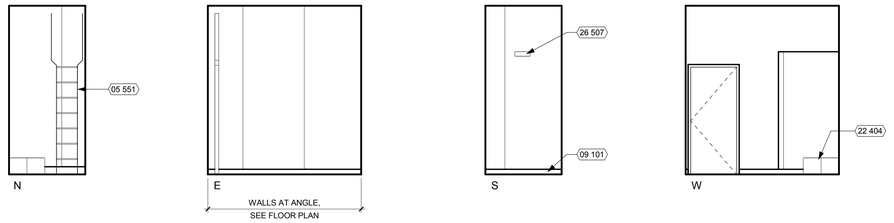
DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

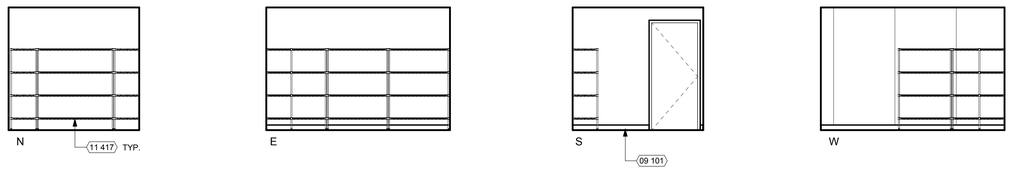
BUILDING M TOILET ROOM PLANS AND ELEVATIONS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AM7.1
Drawn: AA	Checked: AM

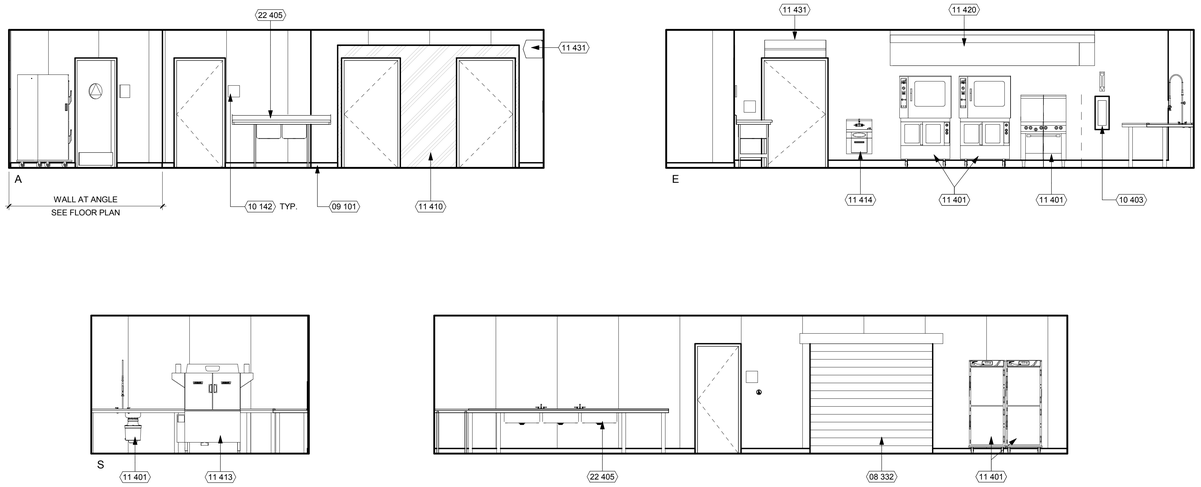
PRINT DATE: 5/17/2019 10:28:12 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt



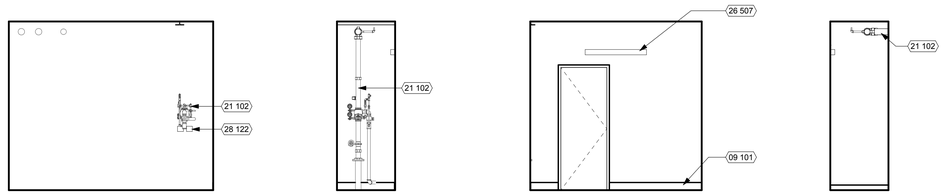
M107-JANITOR 1/4" = 1'-0" 6



M108-DRY STORAGE 1/4" = 1'-0" 7



M111-KITCHEN 1/4" = 1'-0" 9



M113-FIRE RISER 1/4" = 1'-0" 10

KEY NOTES

NUMBER	NOTE
05 551	LADDER TO ROOF HATCH (SEE DETAIL 2/A10.7.1)
08 332	MOTORIZED OPERATED ROLL UP DOOR
09 101	WALL BASE (SEE FINISH SCHEDULE)
10 142	SIGNAGE PER CODE ANALYSIS PLAN
10 403	FIRE EXTINGUISHER (2A-10B:C) IN SEMI-RECESSED CABINET (SEE DETAIL 25/A10.10.2)
11 401	FOOD SERVICE EQUIPMENT (SEE FOOD SERVICE DWGS.)
11 410	WALK-IN COOLER / FREEZER (SEE FOOD SERVICE DWGS.)
11 413	DISHWASHER
11 414	HANDWASH SINK
11 417	SHELVING UNIT
11 420	EXHAUST HOOD (SEE FOOD SERVICE DWGS.)
11 431	AIR CURTAIN (SEE FOOD SERVICE DWGS.)
21 102	FIRE RISER (SEE FIRE PROTECTION DWGS)
22 404	MOP SINK (SEE DETAIL 6/A10.10.3)
22 405	SINK
26 507	WALL MOUNT LIGHT FIXTURE
28 122	FIRE ALARM MONITOR MODULE (SEE FIRE PROTECTION DWGS)

GENERAL NOTES

1. SEE ROOM FINISH SCHEDULE FOR FINISH INFORMATION AND LEGEND.
2. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P-1, UNLESS NOTED OTHERWISE.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS AND FINISHES.
4. SEE FLOOR PLAN FOR WALL TYPES AND DOOR NUMBERS.
5. ALL EXPOSED STRUCTURAL ROOF FRAMING TO BE PAINTED.
6. ALL ACCENT WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNER AND/ OR REVEALS.
7. PROVIDE BACKING PLATES OR BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT SUCH AS SHELVING, MARKER BOARDS, AND DOOR STOPS. SEE DETAIL 29 / A10.10.1
8. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET (WHERE OCCURS), BUT AFTER PAINT WORK. MILLWORK SHALL BE MOUNTED TO SUB-FLOOR.
9. PROVIDE FILLER PANEL BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
10. FOR SIGNAGE TYPES, SEE CODE ANALYSIS FLOOR PLAN.

LEGEND

- TACK BOARD
- MARKER BOARD
- FRP2, PER FINISH SCHEDULE
- P2, PER FINISH SCHEDULE
- ETCHED GLAZING, PER WINDOW SCHEDULE

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Ren.: 9/30/19
STATE OF CALIFORNIA

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REVISION HISTORY

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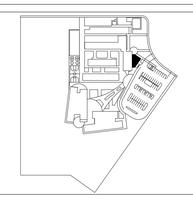
KEY PLAN



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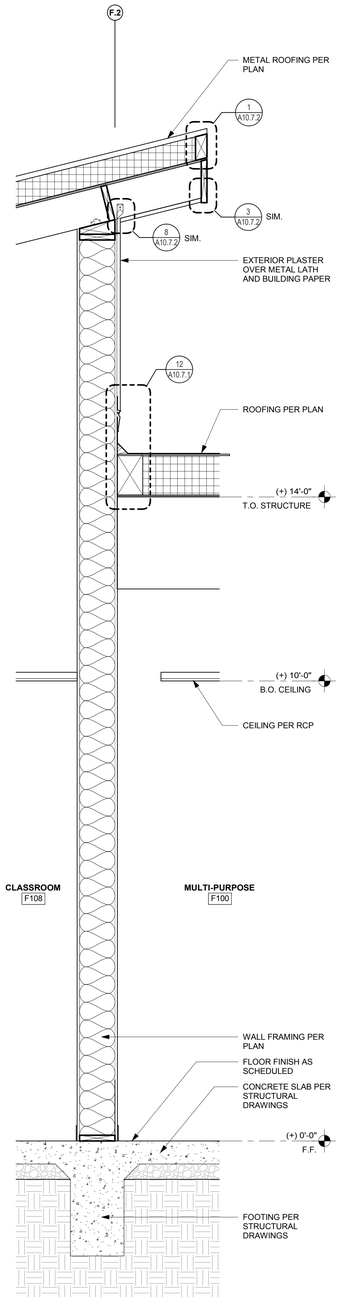
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M INTERIOR ELEVATIONS

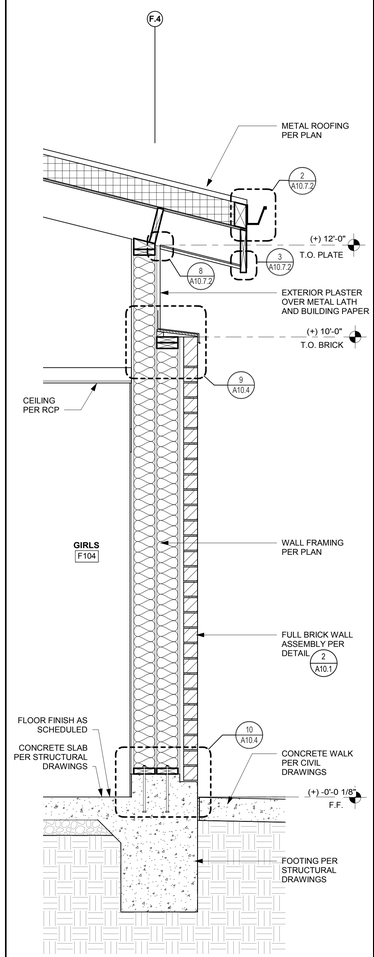
Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: AM8.1
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:28:33 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt



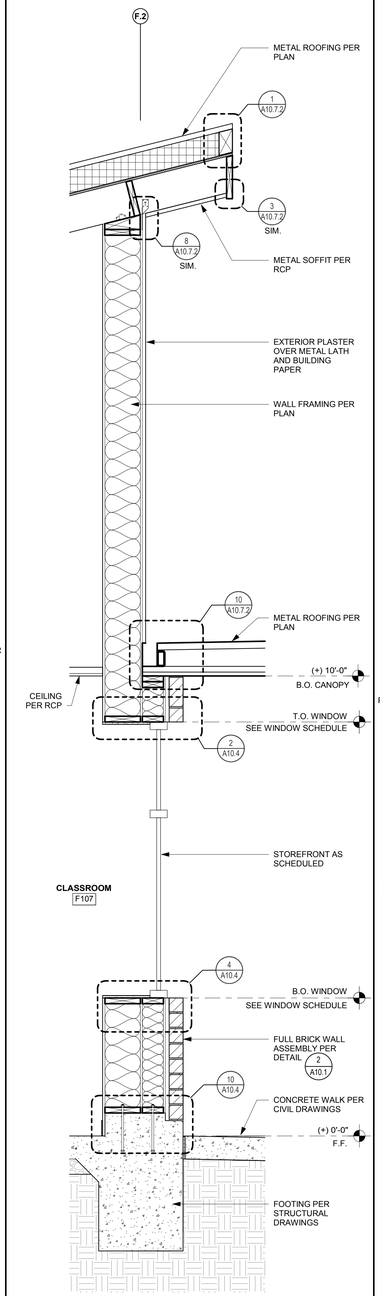
REF: 8 / AF6.1

BUILDING F - WALL SECTION AT ROOF WELL 3/4" = 1'-0" 25



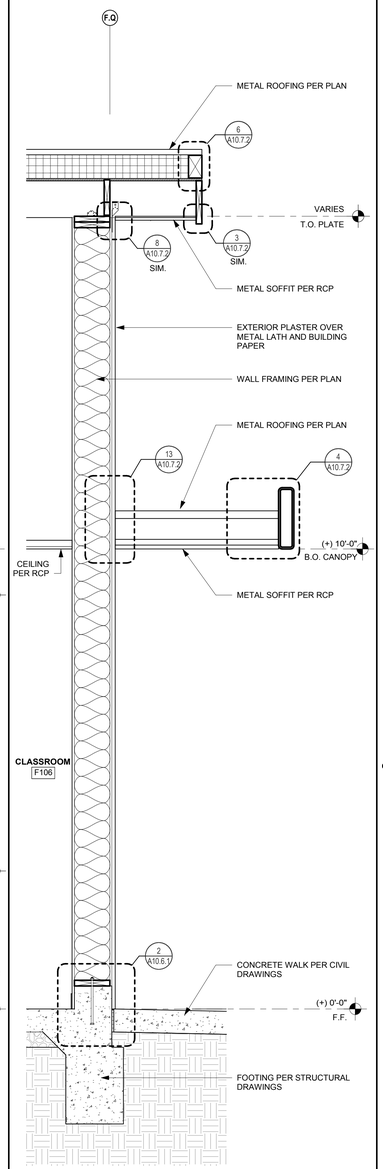
REF: 10 / AF2.1

BUILDING F - WALL SECTION AT RESTROOMS 3/4" = 1'-0" 20



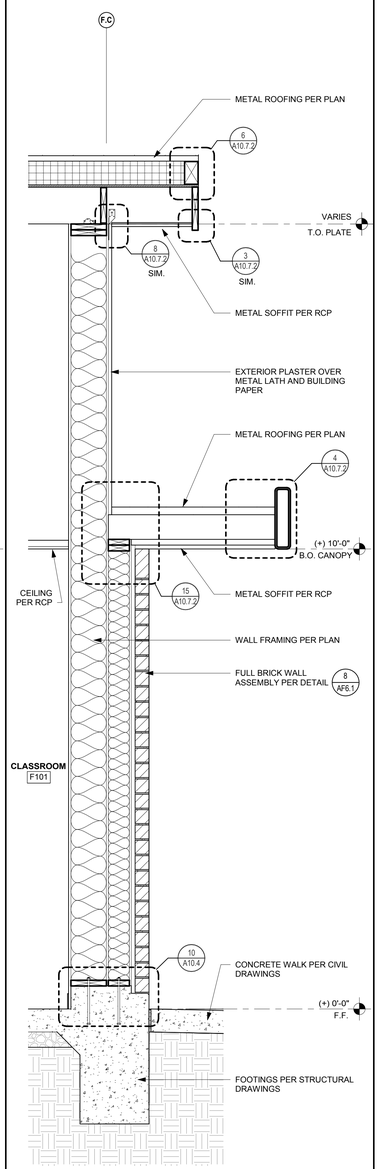
REF: 10 / AF2.1

BUILDING F - WALL SECTION AT ENTRY CANOPY GUTTER 3/4" = 1'-0" 15



REF: 10 / AF2.1

BUILDING F - WALL SECTION AT ENTRY CANOPY 3/4" = 1'-0" 10



REF: 10 / AF2.1

BUILDING F - WALL SECTION AT ENTRY CANOPY WITH BRICK 3/4" = 1'-0" 5

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○ BIDDING	
○ CONSTRUCTION	

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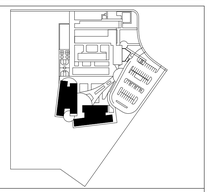

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WESTMORE OAKS SCHOOL
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BUILDINGS F & G WALL SECTIONS

Date	Project Number
05/20/2019	19003
Scale 3/4" = 1'-0"	Drawing Number A6.4
Drawn AA	Checked AM

PRINT DATE: 5/17/2019 10:24:27 AM
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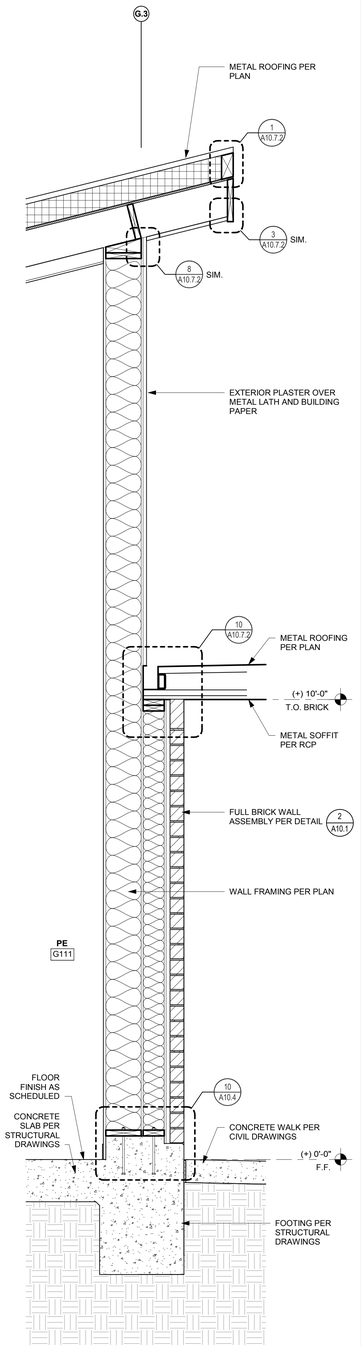
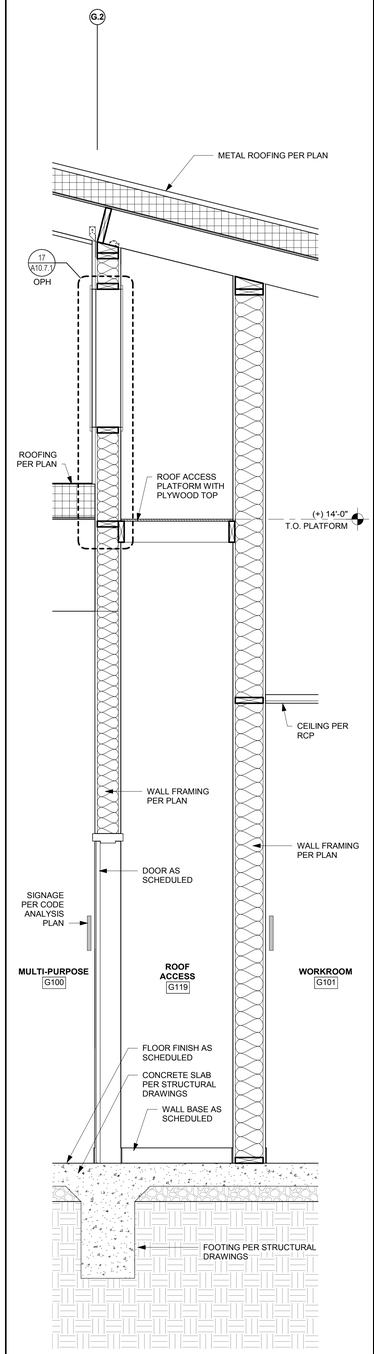


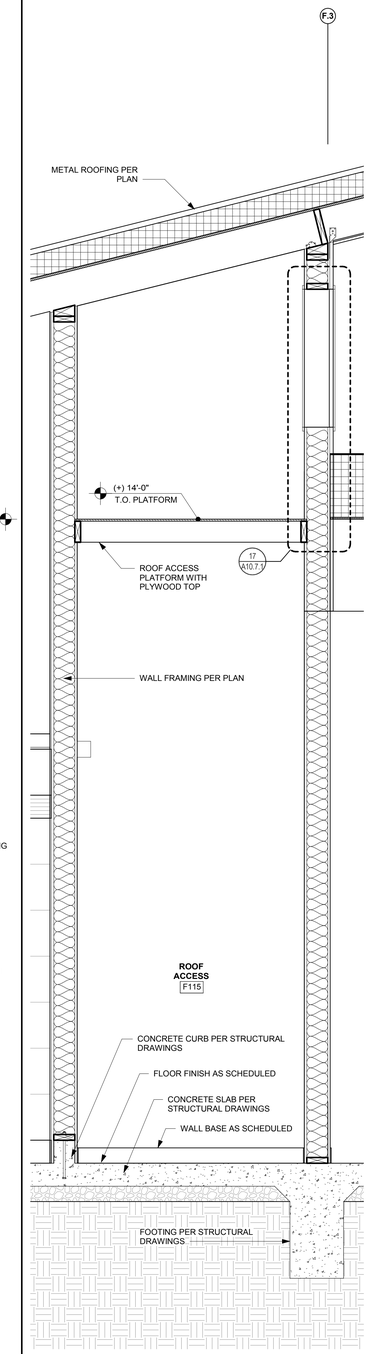
REF: 10 / AG2.1

BUILDING G - WALL SECTION AT ENTRY CANOPY GUTTER 3/4" = 1'-0" 25



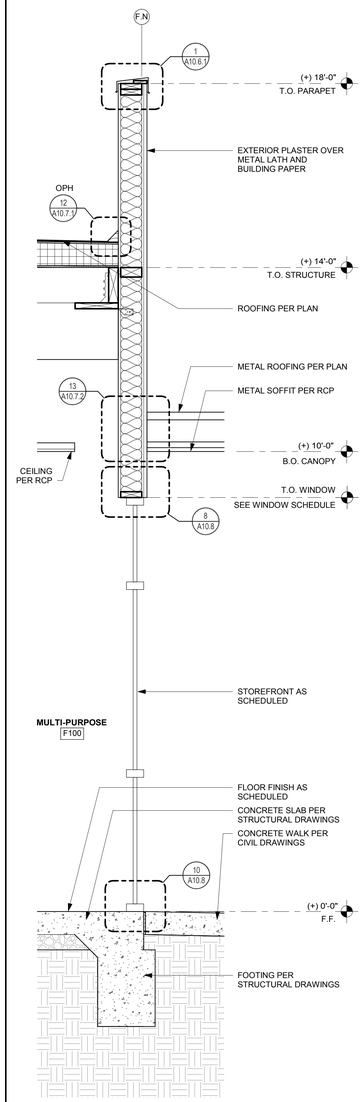
REF: 10 / AG2.1

BUILDING G - WALL SECTION AT ROOF ACCESS PLATFORM 3/4" = 1'-0" 20



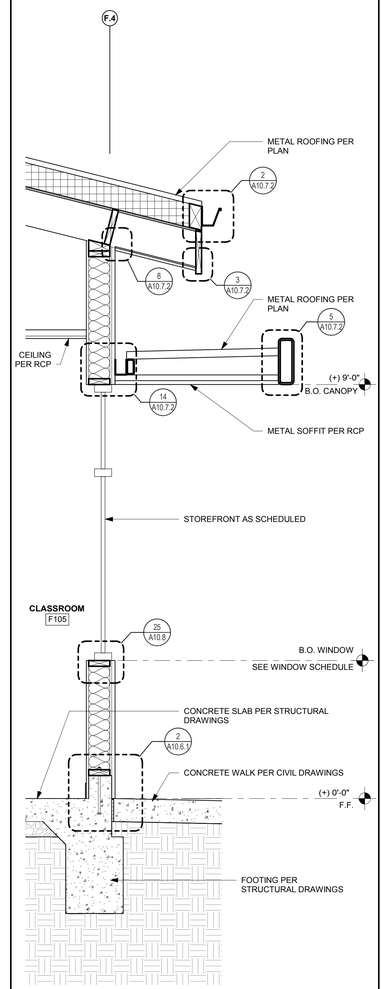
REF: 10 / AF2.1

BUILDING F - WALL SECTION AT ROOF ACCESS PLATFORM 3/4" = 1'-0" 15



REF: 10 / AF6.1

BUILDING F - WALL SECTION AT PARAPET 3/4" = 1'-0" 10



REF: 10 / AF5.2

BUILDING F - WALL SECTION AT CLASSROOM CANOPY 3/4" = 1'-0" 5

PRINT DATE: 5/17/2019 10:24:30 AM
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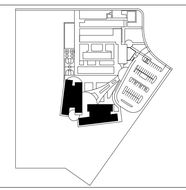

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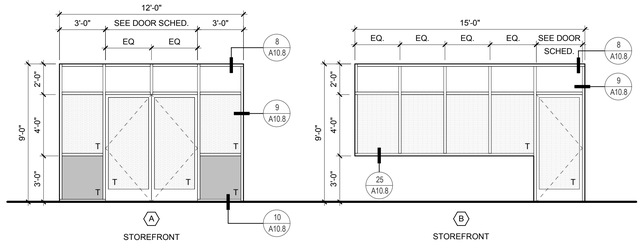
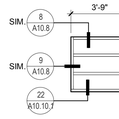
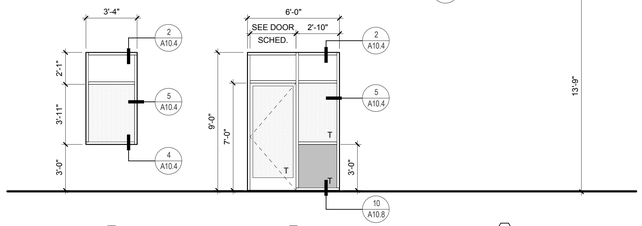
BUILDINGS F & G WALL SECTIONS

Date	Project Number
05/20/2019	19003
Scale 3/4" = 1'-0"	Drawing Number A6.5
Drawn AA / Checked AM	

WINDOW TYPES







WINDOW SCHEDULE

MARK	FRAME	GLASS	RATING	COMMENTS
A	FF	DG/EG	-	
A: 4				
B	FF	DG/EG	-	
B: 17				
C	FF	DG/EG	-	
C: 10				
D	FF	DG/EG	-	
D: 4				
E	FF	DG/EG	-	
E: 9				

WINDOW GENERAL NOTES

1. REFERENCE OF WINDOWS ARE MADE ON THE FLOOR PLANS, TYP.
2. ALL WINDOWS ARE BASED ON NOMINAL 2" WINDOW PROFILE.
3. ALL OVERALL DIMENSIONS CORRESPOND TO WINDOW ROUGH OPENINGS UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL BE SOLEY RESPONSIBLE TO COORDINATE ROUGH OPENING SIZE WITH REQUIRED SHIM SPACERS AND FINISH FRAME DIMENSION.
5. ALL ROUGH OPENING DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO WINDOW FABRICATION.
6. ALL WINDOWS SHALL BE RATED STC 35 MINIMUM.
7. ALL WINDOWS SHALL BE 20 MINUTE FIRE RATED UNLESS OTHERWISE NOTED.
8. SAFETY GLAZING IS REQUIRED WHEN BOTTOM OF EXPOSED EDGE OF GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.
9. SAFETY GLAZING SHALL COMPLY WITH CBC SECTION 2406.
10. FOR TYPICAL MULLION DETAILS SEE 12 / A10.8 & 13 / A10.8
11. ANY WINDOW SCHEDULE WHOSE NEAREST VERTICAL EDGE IS WITHIN 24" FROM A DOOR IN CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE TEMPERED. ALSO, ANY WINDOW SECTION WHERE THE LOWEST EDGE OF THE GLAZING MATERIAL IS LESS THAN 18" ABOVE THE FLOOR AND WHOSE TOP EDGE IS GRATER THAN 36" ABOVE THE FLOOR AND WHERE THE SECTION IS GREATER THAN 9 SF AND IS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE SHALL BE TEMPERED.

DOOR SCHEDULE

MARK	DOOR SIZE PAIR	DOOR SIZE PANEL WIDTH	DOOR SIZE HT	DOOR SIZE THK	DOOR TYPE	DOOR MAT.	DOOR FINISH	DOOR CORE	DOOR GLASS	DOOR RATING	DOOR LOUVER HT	DOOR LOUVER WD	HDW GROUP	HDW PANIC	HDW CLOSER	FRAME TYPE	FRAME MTL	FRAME FINISH	FRAME GLASS	FRAME DETAILS HEAD	FRAME DETAILS JAMB	FRAME DETAILS THRESHOLD	FRAME DETAILS OTHER	COMMENTS
F100A	PR	3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			05	P	Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F100B	PR	3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			05	P	Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F100C	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-	-						A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F100D	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-	-						A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F100F	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-	-						A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F101A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F101B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F101C		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F102A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F102B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F103		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-	1'-0"	2'-0"	07		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F104		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-	1'-0"	2'-0"	07		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F105A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F105B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F106A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F106B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F107A		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F107B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F108A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F108B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F109A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F109B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F110A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F110B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F111A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F111B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
F112	PR	3'-0"	8'-0"	1 3/4"	BB	HM	P	HM	-	-			06		Y	A	HM	P		3/A10.8	4/A10.8	5/A10.8		
F113		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P		3/A10.8	4/A10.8	5/A10.8		
F114		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			11		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
F115		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			11		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G100A	PR	3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			05	P	Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G100B	PR	3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			05	P	Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G100C	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-							A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G100D	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-							A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G100E	PR	2'-0"	7'-0"	1 3/4"	BB	HM	P	HM	-							A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G101A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G101B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G101C		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G101D		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			09			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G103		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			08		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		UNDERCUT DOOR 1"
G104		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-	1'-0"	2'-0"	07		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G105		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-	1'-0"	2'-0"	07		Y	A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G106A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G106B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G107		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			09			A	HM	P		22/A10.8	22/A10.8	7/A10.8		UNDERCUT DOOR 1"
G108A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G108B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G109		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P		3/A10.8	4/A10.8	5/A10.8		
G110		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P		3/A10.8	4/A10.8	5/A10.8		
G111A		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G111B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G111C		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			11			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G112A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G112B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G113A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G113B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G114A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G114B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G115A		3'-0"	7'-0"	1 3/4"	C	HM/GL	P	HM/GL	SP/T	-			10			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
G115B		3'-0"	7'-0"	1"	A	AL	FF	GL	DG/T	-			02		Y	-	AL	FF		23/A10.8	14/A10.8	15/A10.8		
G116		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P		3/A10.8	4/A10.8	5/A10.8		
G117	PR	3'-0"	8'-0"	1 3/4"	BB	HM	P	HM	-	-			06		Y	A	HM	P		3/A10.8	4/A10.8	5/A10.8		
G118		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P		3/A10.8	4/A10.8	5/A10.8		
G119		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			11			A	HM	P		22/A10.8	22/A10.8	7/A10.8		
M106		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			08		Y	A	HM	P	-	22/A10.8	22/A10.8	7/A10.8		
M107		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			11		Y	A	HM	P	-	22/A10.8	22/A10.8	7/A10.8		
M108		3'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			12		Y	A	HM	P	-	22/A10.8	22/A10.8	7/A10.8		
M111A		4'-0"	7'-0"	1 3/4"	B	HM	P	HM	-	-			04		Y	A	HM	P	-	3/A10.8	4/A10.8	5/A10.8		
M111B		2'-8"	7'-0"	1 3/4"	B	HM	P	HM	-	45 MIN.			09			A	HM	P	-	22/A10.8	22/A10.8	7/A10.8		POWER-ASSISTED DOOR, SEE ELECTRICAL DWGS.
M111C		8'-0"	7'-2"	3"	D	STL	FF	SS	-	90 MIN.						-	STL	FF	-	17/A10.8	17/A10.8	17/A10.8		PROVIDE FUSIBLE LINK, FLAME BAFFLE, LOCK, AND ELECTRIC MOTOR
M113		3'-0"	8'-0"	1 3/4"	B	HM	P	HM	-	-			03			A	HM	P	-	3/A10.8	4/A10.8	5/A10.8		
G1		4'-0"	6'-8"	2"	-	STL/CL	P	-	-	-			01	P	-	-	STL	P	-	13/A10.2.1	13/A10.2.1	13/A10.2.1	15/A10.2.1	
G2		4'-0"	6'-8"	2"	-	STL/CL	P	-	-	-			01	P	-	-	STL	P	-	13/A10.2.1	13/A10.2.1	13/A10.2.1	-	
G3		4'-0"	6'-8"	2"	-	STL/CL	P	-	-	-			01	P	-	-	STL	P	-	13/A10.2.1	13/A10.2.1	13/A10.2.1	15/A10.2.1	
G4		4'-0"	6'-8"	2"	-	STL/CL	P	-	-	-			01	P	-	-	STL	P	-	13/A10.2.1	13/A10.2.1	13/A10.2.1	15/A10.2.1	
G5	PR	4'-0"	6'-8"	2"	-	-	-	-	-	-				P	-	-	-	-	-	-	-	-	-	EXISTING (APP #02-117459)
G6	PR	4'-0"	6'-8"	2"	-	-	-	-	-	-				P	-	-	-	-	-	-	-	-	-	EXISTING (APP #02-117459)
G7	PR	4'-0"	6'-8"	2"	-	-	-	-	-	-				P	-	-	-	-	-	-	-	-	-	EXISTING (APP #02-117459)
G8	PR	10'-4"	6'-0"	2"	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-	-	EXISTING FIRE ACCESS GATE (APP #02-117459)
G9	PR	10'-0"	6'-0"	2"	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-	-	EXISTING FIRE ACCESS GATE (APP #02-117459)

DOOR GENERAL NOTES

MATERIALS AND FINISHES
1. MATERIALS, FINISHES AND INSTALLATION OF PRODUCTS REFERENCED IN THE DOOR SCHEDULE SHALL BE IN ACCORDANCE WITH REQUIREMENTS SPECIFIED IN THE RESPECTIVE PRODUCT SECTIONS IN THE PROJECT MANUAL.
2. REFER TO WALL PARTITION TYPES AS INDICATED ON DRAWINGS TO DETERMINE FRAME DEPTH.
3. VERIFY ALL MASONRY OR STUD OPENINGS PRIOR TO FABRICATION OF FRAME, EXACT SIZES AND CONFIGURATIONS OF ALL DOOR AND WINDOW SECTIONS SHALL BE VERIFIED ON THE SITE PRIOR TO FABRICATION.
4. TYPICAL DOOR BEVEL TO BE 1/8" IN 2" U.N.O. BY HARDWARE TEMPLATE REQUIREMENTS.
5. THE BOTTOM 10" OF ALL DOORS, EXCEPT AUTOMATIC AND SLIDING SHALL HAVE SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST.
6. ADJUST DOOR FRAME OPENING SIZES AS NECESSARY TO REFLECT VARIATIONS IN THE STRUCTURAL SLAB AND VARYING THICKNESS OF THE FLOOR FINISHES.
7. ALL ALUMINUM FRAMES, ALUMINUM STOREFRONT, ALUMINUM DOORS TO BE PAINTED WITH FLUOROPOLYMER PAINT FINISH, COLOR AS SPECIFIED.
8. ALL INTERIOR DOOR AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR, U.O.N. FOR DOORS AT WALLS WITH DIFFERENT COLORS ON OPPOSITE SIDES, VERIFY COLOR WITH ARCHITECT.
9. WEATHERSTRIP ALL EXTERIOR DOORS.
10. FRAMES FOR EXTERIOR DOORS AND WINDOWS SHALL BE SET IN SEALANT.

GLAZING
1. GLASS TYPES REFERENCED IN DOOR SCHEDULE ARE SPECIFIED IN SECTION 'GLAZING'. ALL GLAZING TO BE TEMPERED. SAFETY GLAZING TO COMPLY WITH CBC SECTION 2406.

FIRE RATED DOORS
1. AT RATED DOORS, PROVIDE ASSEMBLY PER CBC 716.5 WITH GLAZING PER 2016 CBC 716.5.8 COMPLYING WITH NFPA 80 AND WITH MAX. TESTING SIZE PER NFPA 252.
2. DOORS IN CORRIDORS (WHERE OCCURS) SHALL HAVE SMOKE AND DRAFT GASKETS AT HEAD, JAMBS AND DOOR SILE/ASTRAGAL WHERE DOOR MEETS THE STOP PER 2016 CBC 715.4.3.
3. ALL FIRE DOORS SHALL BE EQUIPPED WITH AUTOMATIC LATCHES.
4. ALL FIRE DOORS SHALL BE EQUIPPED WITH AUTOMATIC OR SELF CLOSING FIRE ASSEMBLIES PER 2016 CBC 716.5.9.
5. IF THE OPENING CONTAINS A DOOR AND NO SIDELIGHT, THE RATING OF THE FRAME SHALL MATCH THE RATING OF THE DOOR. IF THE OPENING CONTAINS A DOOR AND A SIDELIGHT, OR IF THE OPENING CONTAINS A WINDOW, THE RATING OF THE FRAME SHALL MATCH THE RATING OF THE GLAZING.
6. THE AREA OF GLAZING IN FIRE DOORS IS LIMITED TO 100 SQUARE INCHES WITHOUT DIMENSION EXCEEDING 10 INCHES PER 2016 CBC 715.4.6
7. FIRE-RATED DOOR FRAMES SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. MANUFACTURER'S PRINTED INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTION AUTHORITY. 2016 CBC 716.5.7 AND 716.5.7.1
8. WHERE RATED OPENINGS OCCUR, PROVIDE ASSEMBLIES THAT HAVE BEEN TESTED BY A NATIONALLY RECOGNIZED TESTING AGENCY. INCLUDES ASSEMBLY COMPONENTS SUCH AS GLAZING, DOORS AND HARDWARE.
9. IDENTIFICATION OF FIRE DOORS, FIRE WINDOWS AND FIRE DAMPERS SHALL HAVE AN APPROVAL LABEL OR LISTING MARK INDICATING THE FIRE-PROTECTION RATING, WHICH IS PERMANENTLY AFFIXED AT THE FACTORY WHERE FABRICATION AND ASSEMBLY ARE DONE. PERIODIC INSPECTIONS SHALL BE MADE BY AN APPROVED INSPECTION AGENCY DURING FABRICATION AND ASSEMBLY 2016 CBC 716
10. PROVIDE MARKINGS AT ALL RATED GLAZING AND FRAMES PER 2016 CBC 716.3
11. RATED DOORS SHALL HAVE AN UNDERCUT NOT EXCEEDING MAX. ALLOWABLE PER NFPA 80, SECTION 4.8.4.1 (3/4" MAX.)

EXITING AND PATH OF TRAVEL
1. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
2. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR BOTH INTERIOR AND EXTERIOR DOORS OR 15 LBS. FOR RATED DOORS.
3. ALL REQUIRED EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT THE USE OF ANY SPECIAL KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
4. ALL REQUIRED EXIT DOORS SHALL BE SIZED NOT LESS THAN 3'-0" WIDE AND 6'-8" HIGH AND BE CAPABLE OF OPENING 90 DEG. AND MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT WAY IS 32" MIN., U.O.N.
5. ALL REQUIRED EXIT DOORS SHALL SWING IN THE DIRECTION OF TRAVEL.
6. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN EXIT DOOR SHALL BE LEVEL (>2% MAX. SLOPE) AND CLEAR AT LEAST 60 INCHES IN THE DIRECTION OF THE DOOR SWING (PULL SIDE) AND 48 INCHES ON THE PUSH SIDE. WHEN MEASURED AT RIGHT ANGLES FROM DOOR IN CLOSED POSITION. THE CLEAR WIDTH SHALL EXTEND 24 INCHES BEYOND THE STRIKE ON THE PULL SIDE OF ALL EXTERIOR EXIT DOORS AND 18 INCHES FOR INTERIOR EXIT DOORS. THE CLEAR WIDTH SHALL EXTEND 12 INCHES BEYOND THE STRIKE EDGE OF THE PUSH SIDE OF ALL EXIT DOORS. DOORS SHALL BE EQUIPPED WITH BOTH A LATCH AND CLOSER. SEE DETAIL 1 / A10.8
7. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN THE PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVEL-TYPE HARDWARE. PANIC BARS, PUSH-PULL ACTIVATED BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.

HARDWARE
1. HAND ACTIVATED HARDWARE BETWEEN 34" AND 44" A.F.F. (DSA PREFERENCE 36" A.F.F.). COORDINATE MOUNTING HEIGHT, NOT TO OBSTRUCT DOOR VISION LIGHT WHERE OCCURS.
2. PANIC HARDWARE SHALL BE PROVIDED ON EXIT DOORS SERVING AN OCCUPANT LOAD OF 50 OR MORE. PROVIDE WALL OR FLOOR MOUNTED DOOR STOPS FOR ALL DOORS. LOCATE FLOOR MOUNTED DOOR STOP WITHIN 4" MAX OF WALL. PROVIDE BACKING AT ALL WALL MOUNTED DOOR STOPS.
3. PROVIDE NON-REMOVABLE PINS ON ALL HINGES ACCESSIBLE FROM THE EXTERIOR.
4. PROVIDE CYLINDER GUARDS ON ALL MORTISED OR RIM TYPE CYLINDER LOCKS WHICH PROJECT BEYOND THE FACE OF THE DOOR.
5. DOOR CLOSERS SHALL CONFORM WITH 2016 CBC 11B-404.2.8.1
6. DOORS TO INCLUDE FACTORY INSTALLED MAGNETIC CONTACTS, 3/8" RECESSED PRESS FIT, COLOR TO MATCH WINDOW FRAME, AT ALL CLASSROOM DOORS, SEE MECHANICAL
7. ELECTRIFIED HARDWARE: COORDINATE ALL ELECTRICAL REQUIREMENTS WITH DIVISIONS 26 AND 27
8. NEW BUILDINGS SERVING K-12, CONSTRUCTED WITH STATE FUNDS, ON NEW OR EXISTING CAMPUSES WITH INDIVIDUAL ROOMS WITH AN OCCUPANT LOAD OF 5 OR MORE AND BUILDING ENTRANCES SHALL BE EQUIPPED WITH INTERIOR LOCKING DOOR HARDWARE PER AB-211 (EXCEPT PUPIL RESTROOMS). THIS REQUIREMENT APPLIES REGARDLESS OF OCCUPANCY CLASSIFICATION (ADMIN., PRESS BOXES, ETC.), AND IS APPLICABLE TO "LEASE-BACK" PROJECTS. PROVIDE A COPY OF THE MANUFACTURER'S CUT SHEETS AND HARDWARE LISTING FOR REVIEW. (REF: 17075.50 (a) (b), CAL. ED. CODE).

GLAZING LEGEND

CLEAR GLASS

TRUE FADE GLASS ETCHING BY WALKER TEXTURES, FOR PATTERN SEE DETAIL 24 / A10.8

"SATIN 1 FACE" ETCHING BY WALKER TEXTURES

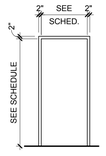
WINDOW ABBREVIATIONS

FRAME FINISH:
P PAINTED
FF FACTORY FINISH

REMARKS:
T TEMPERED, CATEGORY II
(CATEGORY I AND II CLASSIFACTIONS PER CBC SECTION 2406)

GLAZING TYPE (SEE SPECIFICATION SECTION 08 80 00):
DG DUAL GLAZING, 1" THICK INSULATED UNIT
(2) 1/4" GLAZING PANES WITH AIR GAP
SP SINGLE PANE GLAZING
(1) 1/4" THICK GLAZING PANE
EG ETCHED GLAZING, SEE GLAZING LEGEND FOR TYPES

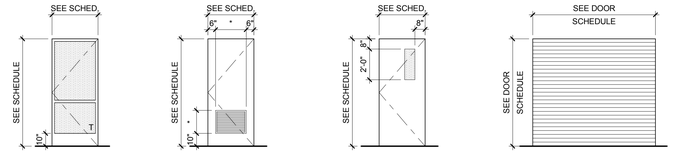
DOOR FRAME TYPES



TYPE A

DOOR TYPES

NOTES:
1. DOOR TYPES WITH TWO LETTER DESIGNATIONS INDICATES A PAIR OF THE SINGLE DOOR TYPE DESIGNATION.



TYPE A STOREFRONT

TYPE B FLUSH LOUVER AS SCHEDULED

TYPE C VISION

TYPE D ROLL UP

DOOR ABBREVIATIONS

CORE:
GL GLASS
INSUL INSULATED

DOOR PANEL FINISH:
FF FACTORY FINISH
P PAINTED

DOOR FRAME FINISH:
FF FACTORY FINISH
P PAINTED

DOOR PANEL / FRAME MATERIAL:
HM HOLLOW METAL
AL ALUMINUM
STL STEEL
CL CHAINLINK

HARDWARE:
P PANIC

REMARKS:
T TEMPERED, CATEGORY II
(CATEGORY I AND II CLASSIFACTIONS PER CBC SECTION 2406)

GLAZING TYPE (SEE SPECIFICATION SECTION 08 80 00):
DG DUAL GLAZING, 1" THICK INSULATED UNIT
(2) 1/4" GLAZING PANES WITH AIR GAP
SP SINGLE PANE GLAZING
(1) 1/4" THICK GLAZING PANE

FOR SPECIFIC FINISHES REFER TO MATERIAL LEGEND ON ROOM FINISH SCHEDULE SHEET.

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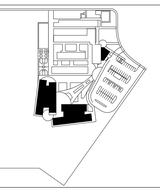
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

DOOR AND WINDOW SCHEDULE

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	A9.1
Drawn / Checked	
AA / AM	

PRINT DATE: 5/17/2019 10:24:40 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt

ROOM FINISH SCHEDULE

ROOM		FLOOR		WALLS					CASEWORK			CEILING	COMMENTS
NO.	NAME	MATERIAL	BASE	NORTH (N)	EAST (E)	SOUTH (S)	WEST (W)	WAINSCOT	BASE	UPPER	COUNTER		
F100	MULTI-PURPOSE	EC/SC	RB	P1	P1/P2/FRP2	P1	P1/P2/TB	-	-	-	-	AC1/NC (P3)	
F101	CLASSROOM	EC	RB	P1	P1	P1	P2/TB	-	PL	-	SS	AC1	
F102	CLASSROOM	EC	RB	P1	P1	P1	P2/TB	-	PL	-	SS	AC1/P1	
F103	BOYS	EPX	EPX	T1/T2	T1/T2	T1/T2	T1/T2	-	-	-	-	P1	
F104	GIRLS	EPX	EPX	T1/T2	T1/T2	T1/T2	T1/T2	-	-	-	-	P1	
F105	CLASSROOM	EC	RB	P1	P1	P1	P2/TB	-	PL	-	SS	AC1/P1	
F106	CLASSROOM	EC	RB	P1	P1	P1	P2/TB	-	PL	-	SS	AC1/P1	
F107	CLASSROOM	EC	RB	P2/TB	P1	P1	P1	-	PL	-	SS	AC1/P1	
F108	CLASSROOM	EC	RB	P1	P2/TB	P1	P1	-	PL	-	SS	AC1/P1	
F109	CLASSROOM	EC	RB	P1	P2/TB	P1	P1	-	PL	-	SS	AC1/P1	
F110	CLASSROOM	EC	RB	P1	P2/TB	P1	P1	-	PL	-	SS	AC1/P1	
F111	CLASSROOM	EC	RB	GB2	P2/TB	P1	P1	-	PL	-	SS	AC1/P1	
F112	ELECTRICAL	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
F113	FIRE RISER	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
F114	JANITOR	EC	RB	P1/FRP	P1/FRP	P1	P1	-	-	-	-	P1	
F115	ROOF ACCESS	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G100	MULTI-PURPOSE	EC/SC	RB	P1/P2/FRP2	P1	P1/P2/TB	P1	-	-	-	-	AC1/NC-P3	
G101	WORKROOM	CPT	RB	P1	P1	P1	P1	-	PL	PL	SS	AC1/P1	
G102	OFFICE	CPT	RB	P1	P1	P1	P1	-	-	-	-	AC1	
G103	GENDER NEUTRAL	EPX	EPX	T1/T2	T1/T2	T1/T2	T1/T2	-	-	-	-	P1	
G104	GIRLS	EPX	EPX	T1/T2	T1/T2	T1/T2	T1/T2	-	-	-	-	P1	
G105	BOYS	EPX	EPX	T1/T2	T1/T2	T1/T2	T1/T2	-	-	-	-	P1	
G106	CLASSROOM	EC	RB	P1	P1	P2/TB	P1	-	PL	-	SS	AC1/P1	
G107	STORAGE	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	PL	-	-	AC1	
G108	CLASSROOM	EC	RB	P1	P1	P2/TB	P1	-	PL	-	SS	AC1/P1	
G109	STORAGE	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G110	STORAGE	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G111	PE	EC	RB	P1	P1	P1	P1	-	-	-	-	NC	
G112	CLASSROOM	EC	RB	P2/TB	P1	P1	P1	-	PL	-	SS	AC1/P1	
G113	CLASSROOM	EC	RB	P2/TB	P1	P1	P1	-	PL	-	SS	AC1/P1	
G114	CLASSROOM	EC	RB	P2/TB	P1	P1	P1	-	PL	-	SS	AC1/P1	
G115	CLASSROOM	EC	RB	P2/TB	P1	P1	P1	-	PL	-	SS	AC1/P1	
G116	STORAGE	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G117	ELECTRICAL	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G118	FIRE RISER	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
G119	ROOF ACCESS	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	
M101	MULTIPURPOSE ROOM	-	-	-	-	-	-	-	-	-	-	-	
M102	PLATFORM	-	-	-	-	-	-	-	-	-	-	-	
M103	STORAGE	-	-	-	-	-	-	-	-	-	-	-	
M104	STORAGE	-	-	-	-	-	-	-	-	-	-	-	
M105	ELECTRICAL ROOM	-	-	-	-	-	-	-	-	-	-	-	
M106	RESTROOM	EPX	EPX	FRP1	FRP1	FRP1	FRP1	-	-	-	-	P1	
M107	JANITOR	EPX	EPX	FRP1	FRP1	FRP1	FRP1	-	-	-	-	NC	
M108	DRY STORAGE	EPX	EPX	FRP1	FRP1	FRP1	FRP1	-	-	-	-	AC2	
M109	REFRIGERATOR	EC	-	-	-	-	-	-	-	-	-	-	
M110	FREEZER	EC	-	-	-	-	-	-	-	-	-	-	
M111	KITCHEN	EPX	EPX	FRP1	FRP1	FRP1	FRP1	-	-	-	-	AC2	
M112	DISHWASHING	EPX	EPX	FRP1	FRP1	FRP1	FRP1	-	-	-	-	AC2	
M113	FIRE RISER	EC	RB	PLY (P1)	PLY (P1)	PLY (P1)	PLY (P1)	-	-	-	-	NC	

NOTES:
1. ALL FINISHES SHALL COMPLY WITH CBC CHAPTERS 3-8 &10 AND TITLE 19 C.C.R.
2. PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL RESTROOMS, MOP SINK AREAS AND WALLS ADJACENT TO ANY SINK OR DRINKING FOUNTAIN WHERE GYPSUM BOARD IS SCHEDULED.
3. DO NOT INSTALL MOISTURE RESISTANT GYPSUM BOARD AT CEILING PLANES.
4. THINSET CERAMIC WALL TILE OVER STUD FRAMING TO BE OVER 5/8" MOISTURE RESISTANT GYPSUM BOARD.
5. ALL INTERIOR CORNERS TO HAVE CORNER GUARDS INSTALLED PER DETAIL 28 / A10.10.2

BASE MATERIAL LEGEND

SYMBOL	MATERIAL	BASIS OF DESIGN MANUFACTURER	STYLE/COLOR
EPX	6" EPOXY COVED BASE	DEX-O-TEX	TERRACOLOR, GREEN 211
RB	4" RUBBER BASE	BURKE	BLACKBROWN 523

FLOOR MATERIAL LEGEND

SYMBOL	MATERIAL	BASIS OF DESIGN MANUFACTURER	STYLE/COLOR
CPT	CARPET TILE	MILLIKEN	COLOR FIELD PATINA, GABBRO
EC	EXPOSED AND SEALED CONCRETE	SEE SPECS	
EPX	EPOXY	DEX-O-TEX	TERRACOLOR, GREEN 211
SC	STAINED AND SEALED CONCRETE	SCOFIELD	FORMULA ONE LIQUID DYE, SLASH PINE 4915

CASEWORK MATERIAL LEGEND

SYMBOL	MATERIAL	BASIS OF DESIGN MANUFACTURER	STYLE/COLOR
PL	PLASTIC LAMINATE	PIONITE	OLD FRIEND
SS	SOLID SURFACE COUNTERTOP	CORIAN	DEEP MINK

WALL MATERIAL LEGEND

SYMBOL	MATERIAL	BASIS OF DESIGN MANUFACTURER	STYLE/COLOR
FRP1	FIBERGLASS REINFORCED PANELS WITH ALUMINUM TRIM	CRANE COMPOSITES	GLASBORD SMOOTH, WHITE
FRP2	FIBERGLASS REINFORCED PANELS WITH MATCHING TRIM	CRANE COMPOSITES	DESIGNS, SMOOTH FINISH, CHROME CANVAS 011C
P1	SEMI-GLOSS PAINT	KELLY MOORE	TEXAN ANGEL KM4597
P2	SEMI-GLOSS PAINT	KELLY MOORE	BANYAN SERENITY KM5112-3
P3	SEMI-GLOSS PAINT	KELLY MOORE	PLATINUM GRANITE KM4910
P4	EXTERIOR PAINT	KELLY MOORE	WISE OWL 42
P5	EXTERIOR PAINT	KELLY MOORE	DISTRICT STANDARD GREEN
P6	EXTERIOR PAINT	KELLY MOORE	VINTAGE COPPER KM4407
PLY	5/8" PLYWOOD, PAINTED	KELLY MOORE	TEXAN ANGEL KM4597
T1	PORCELAIN TILE	DAL-TILE	LINDEN POINT, 12"x24" GRIGIO
T2	CERAMIC TILE ACCENT	DAL-TILE	COLORWAVE GLASS TILE, 1x6 STRAIGHT, GREEN PARADE CW15
TB	TACKBOARD	KOROSEAL	QUARRY 82

CEILING MATERIAL LEGEND

SYMBOL	MATERIAL	BASIS OF DESIGN MANUFACTURER	STYLE/COLOR
AC1	2 X 4 SUSPENDED ACOUSTICAL CEILING PANELS	ARMSTRONG	SEE SPECS WHITE
AC2	2 X 4 SUSPENDED ACOUSTICAL CEILING PANELS (SMOOTH FINISH)	ARMSTRONG	SEE SPECS WHITE
MS	METAL SOFFIT	TREMCO	12" FLAT PANEL, CHAMPAGNE METALLIC
NC	NO CEILING, PAINTED WHERE NOTED		
P1	SEMI-GLOSS PAINT	KELLY MOORE	TEXAN ANGEL KM4597

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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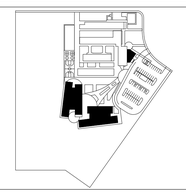
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ROOM FINISH SCHEDULE

Date 05/20/2019
Project Number 19003
Scale 12" = 1'-0"
Drawing Number A9.3
Drawn AA
Checked AM

PRINT DATE: 5/17/2019 10:24:43 AM
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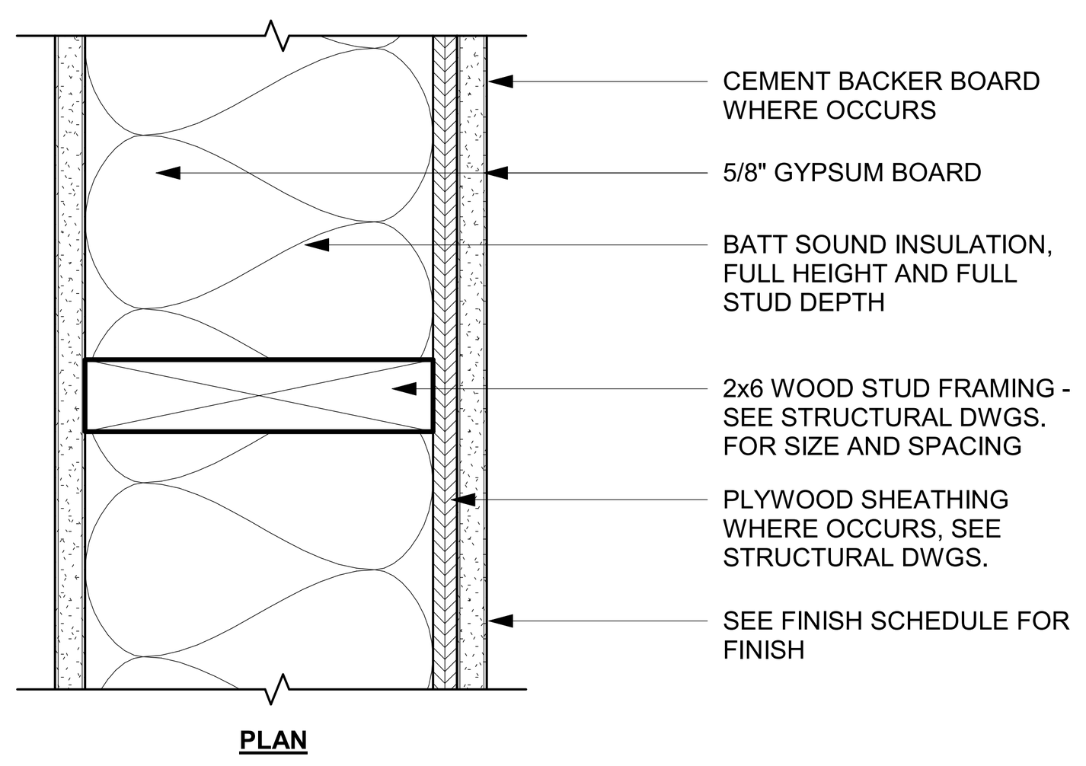
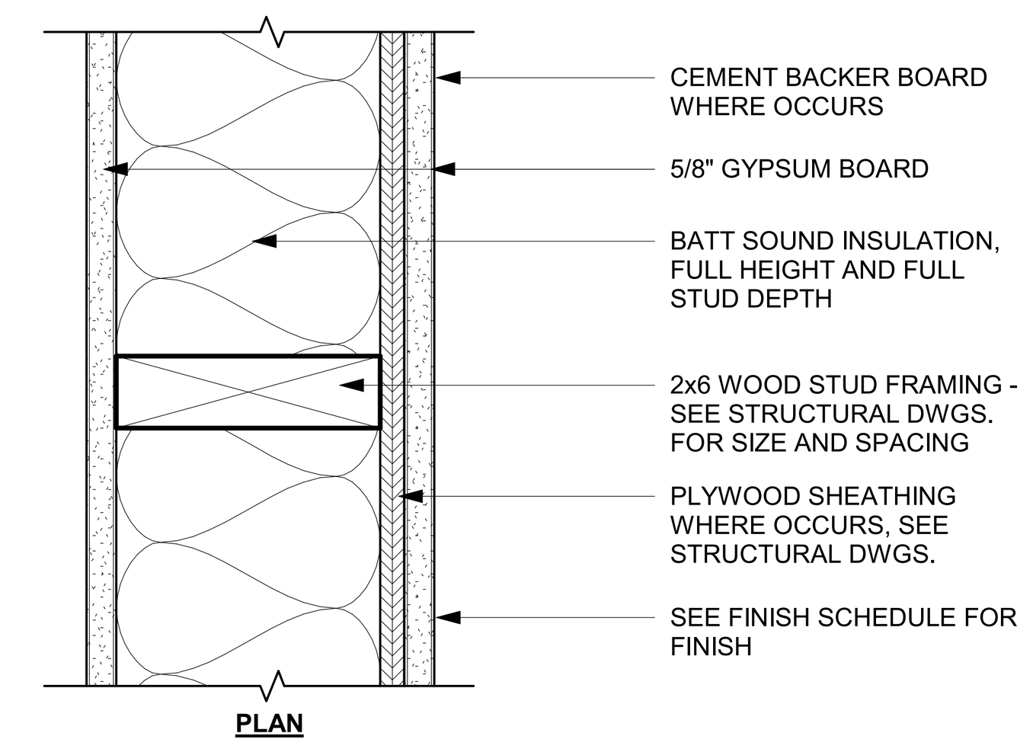


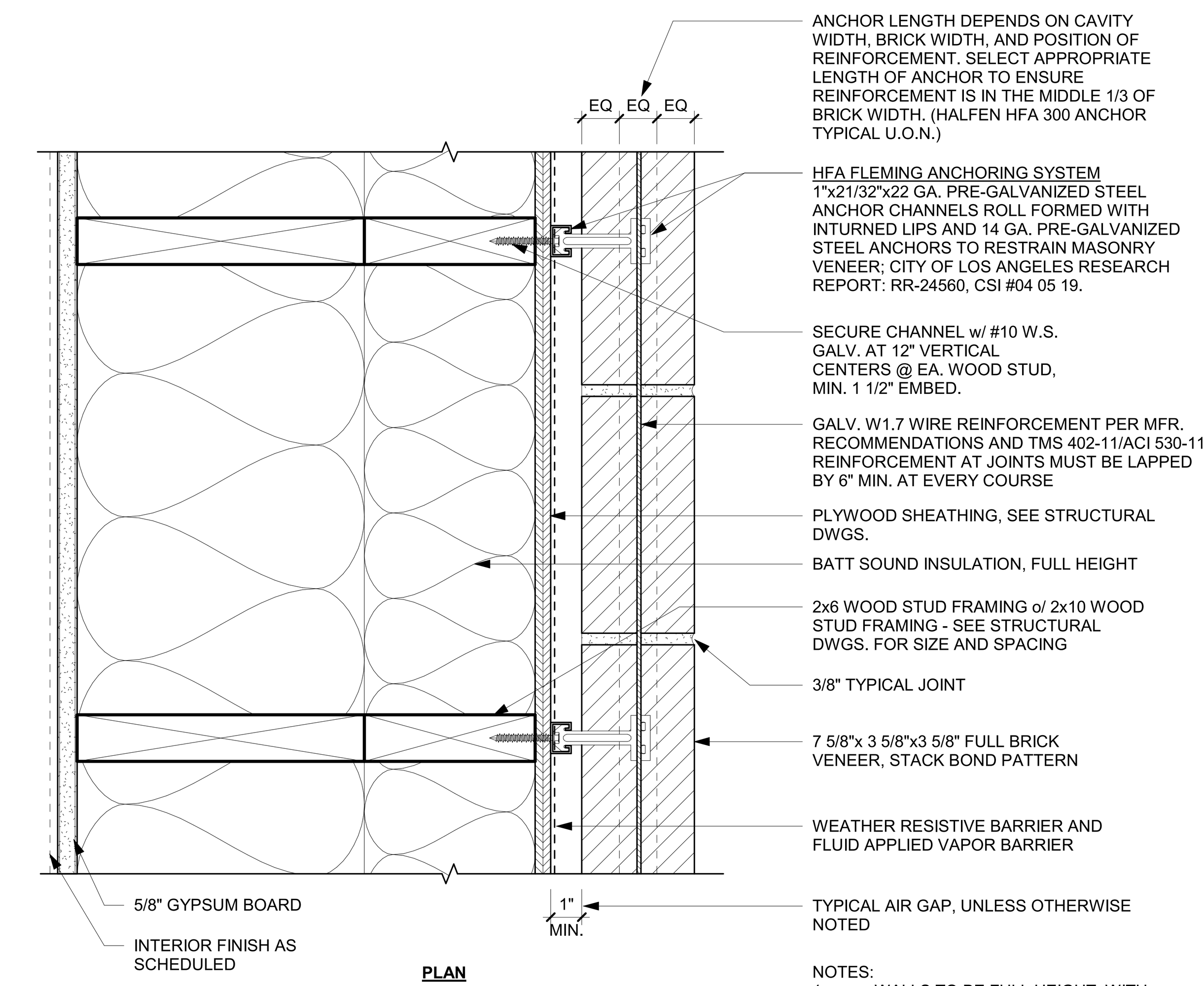
NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. GYPSUM BOARD AT ONE SIDE ONLY AT FULLY ENCLOSED SHAFTS OR CAVITY WALLS.

INTERIOR WALL ASSEMBLY - 8 INCH STUD — 3" = 1'-0" — 16



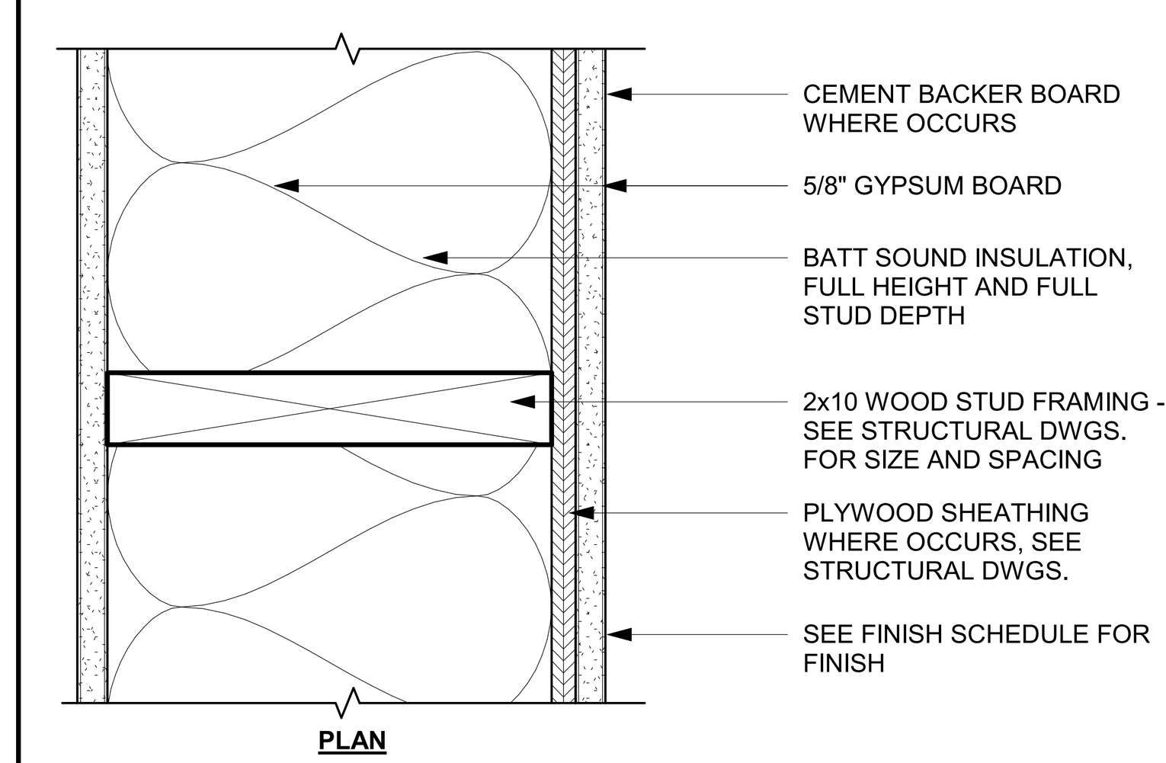
NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. GYPSUM BOARD AT ONE SIDE ONLY AT FULLY ENCLOSED SHAFTS OR CAVITY WALLS.

INTERIOR WALL ASSEMBLY - 6 INCH STUD — 3" = 1'-0" — 11



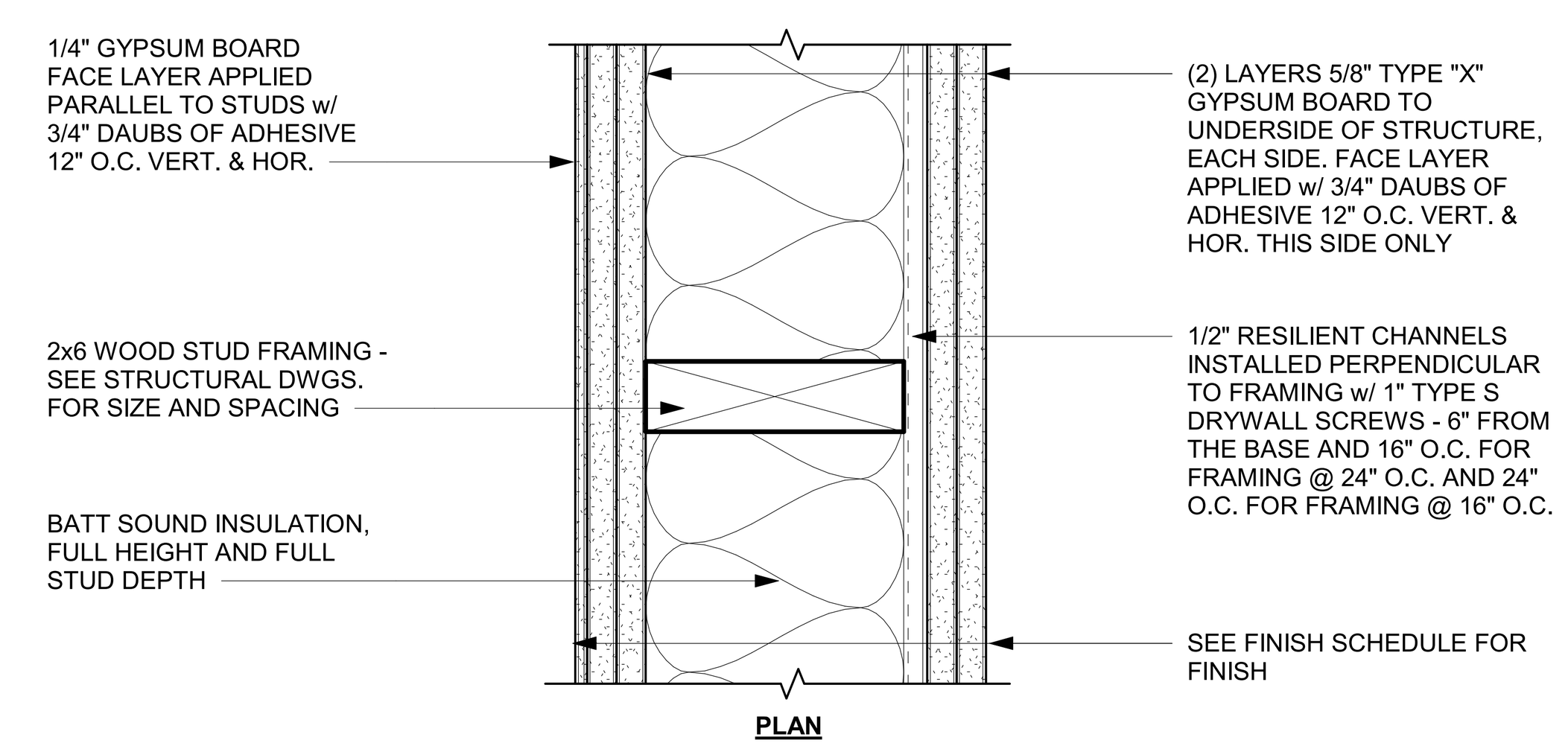
NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. SEE FINISH SCHEDULE FOR INDIVIDUAL INTERIOR ROOM FINISHES.

FULL BRICK VENEER WALL ASSEMBLY — 3" = 1'-0" — 2



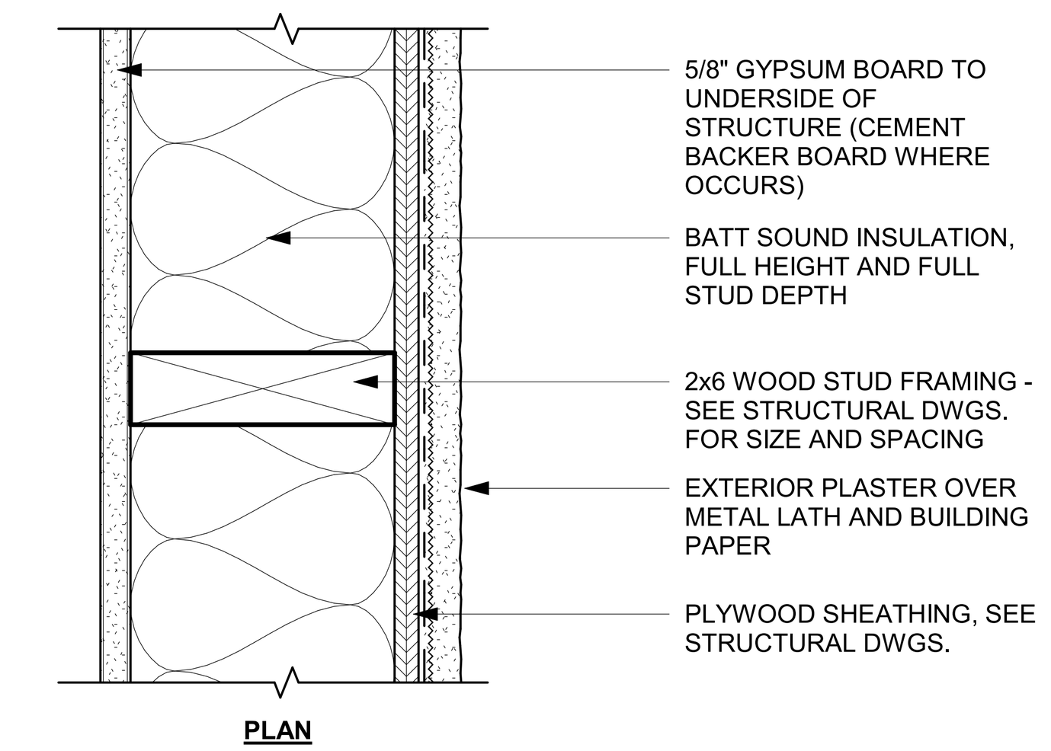
NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. GYPSUM BOARD AT ONE SIDE ONLY AT FULLY ENCLOSED SHAFTS OR CAVITY WALLS.

INTERIOR WALL ASSEMBLY - 10 INCH STUD — 3" = 1'-0" — 12



NOTES:
1. WALL ASSEMBLY BASED ON MINIMUM SIZE REQUIREMENTS OF GA FILE NO. WP 3110, GENERIC, 55-59 STC SOUND.
2. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD, RESILIENT CHANNELS AND INSULATION FULL HEIGHT.
3. SEAL ALL PENETRATIONS AND PERIMETER OF WALL WITH BACKER ROD AND FLEXIBLE ACOUSTIC SEALANT.

INTERIOR WALL ASSEMBLY - ACOUSTIC SEPARATION — 3" = 1'-0" — 8



NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. PLASTER AT EXTERIOR WALLS ONLY. SEE FINISH SCHEDULE FOR INDIVIDUAL INTERIOR ROOM FINISHES.

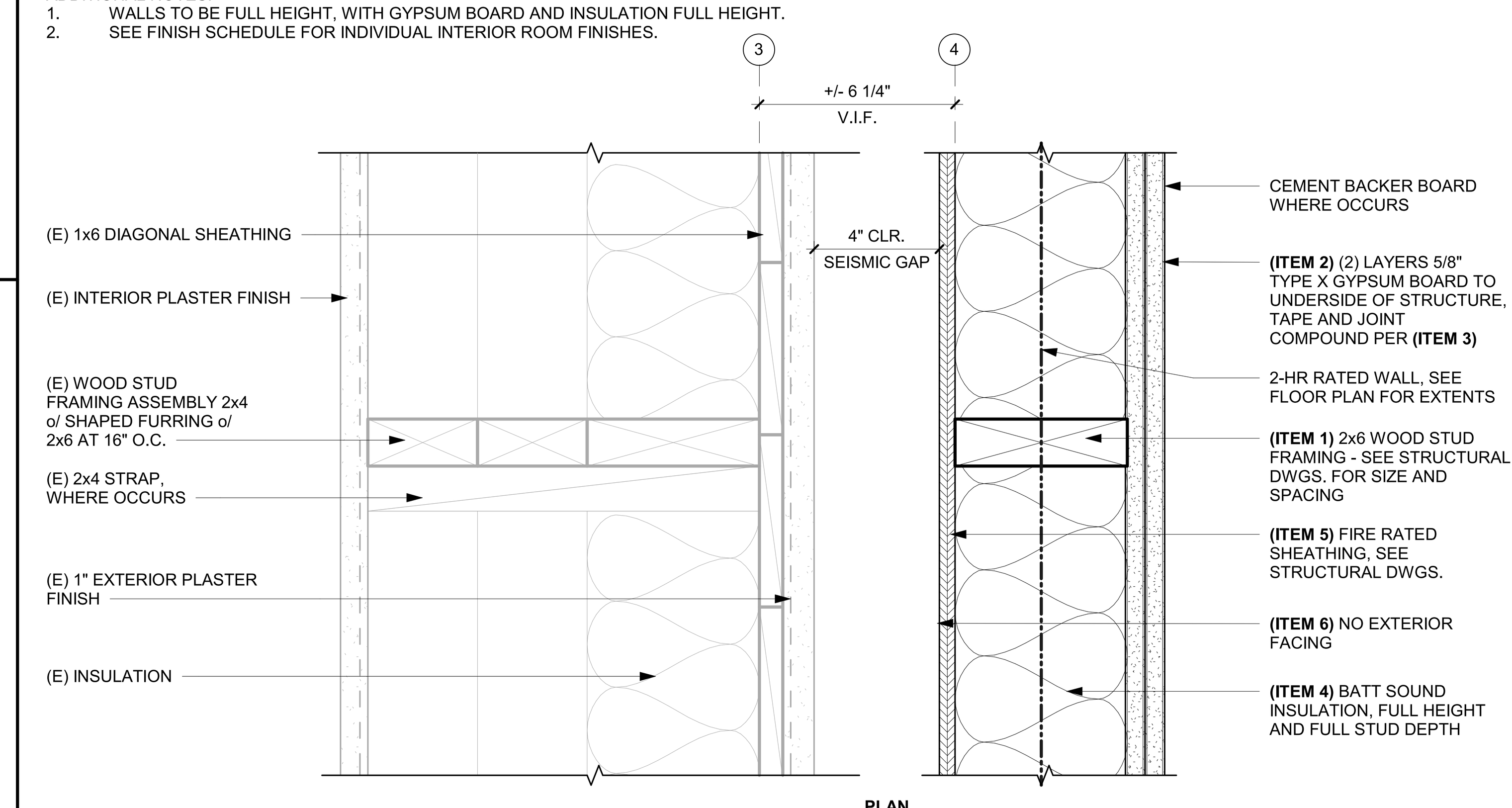
EXTERIOR PLASTER WALL ASSEMBLY - 6 INCH STUD — 3" = 1'-0" — 3

WALL ASSEMBLY BASED ON MINIMUM SIZE REQUIREMENTS OF UL DESIGN NO. U349, 2-HR BEARING WALL RATING AS OUTLINED BELOW:

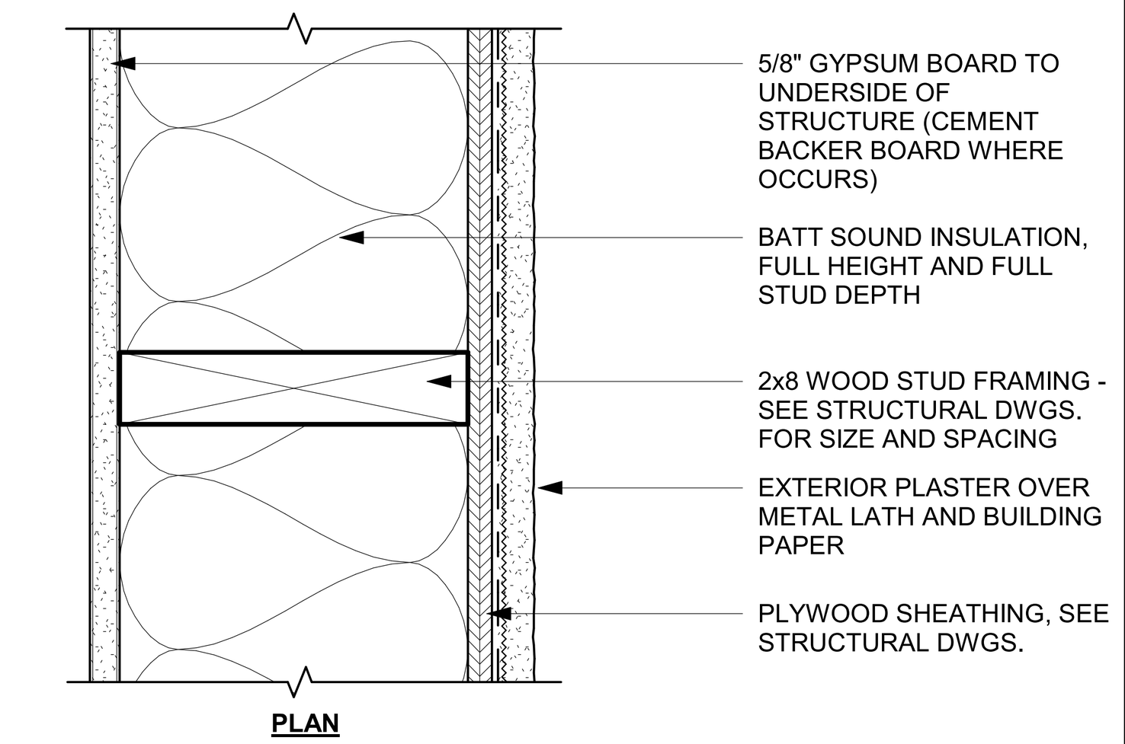
1. **WOOD STUDS** - NOM. 2x4", SPACED 16" O.C. WITH (2) 2x4 TOP AND ONE 2x4 BOTTOM PLATES. AS AN OPTION, NOM. 2x6", SPACED 24" O.C. WITH (2) 2x6 TOP AND (1) 2x6 BOTTOM PLATES MAY BE USED IN LIEU OF 2x4 STUDS AND PLATES. STUDS EFFECTIVELY FIRE STOPPED.
2. **GYPSUM BOARD** - ANY 5/8" THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN DESIGN NOS. L501, G512 OR U305. NOM. 5/8" THICK, 4 FT. WIDE, (2) LAYERS APPLIED VERTICALLY. BASE LAYER NAILED TO WOOD STUDS AND BEARING PLATES 6" OC. WITH 6d CEMENT COATED NAILS, 1-7/8" LONG, 0.0915" SHANK DIA. AND 1/4" DIA. HEAD. THE FACE LAYER, WITH JOINTS STAGGERED FROM BASE LAYER, NAILED TO THE STUDS AND BEARING PLATES OVER THE BASE LAYER, 8" O.C. WITH 8d CEMENT COATED NAILS, 2-3/8" LONG, 0.113" SHANK DIA. 9/32" DIA. HEAD.
3. **JOINTS AND NAILHEADS** - GYPSUM BOARD JOINTS COVERED WITH TAPE AND JOINT COMPOUND. NAIL HEADS COVERED WITH JOINT COMPOUND.
4. **BATTS AND BLANKETS** - FACED OR UNFACED MINERAL FIBER INSULATION, 3-1/2" THICK, NOM. 3.0 PCF, PRESSURE FIT IN THE WALL CAVITY BETWEEN STUD, PLATES, AND CROSS BRACING. IF 2x6" STUDS (ITEM 1) ARE USED, MIN. 5-1/2" OF UNFACED MINERAL FIBER INSULATION, NOM. 3.0 PCF, PRESSURE FIT IN THE WALL CAIVTY BETWEEN STUD, PLATES, AND CROSS BRACING. INSULATION MAY BE APPLIED IN MULTIPLE LAYERS TO ACHIEVE FINAL THICKNESS.
5. **BUILDING UNITS** - BUILDING UNITS NAILED TO THE WOOD FRAMING WITH 1-7/8" LONG, 6d NAILS*, SPACED 6" O.C. ON THE PERIMETER AND 12" O.C. IN THE FIELD. WHEN STEEL STUDS ARE USED MIN. 1-7/8" LONG STEEL SCREWS INSTALLED 6" O.C. ON THE PERIMETER AND 12" O.C. IN THE FIELD.
6. **EXTERIOR FACINGS** - ANY EXTERIOR FACING APPROVED BY THE AUTHORITY HAVING JURISDICTION INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLTION INSTRUCTIONS.

*VERIFY WITH STRUCTURAL DRAWINGS.

ADDITIONAL NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. SEE FINISH SCHEDULE FOR INDIVIDUAL INTERIOR ROOM FINISHES.

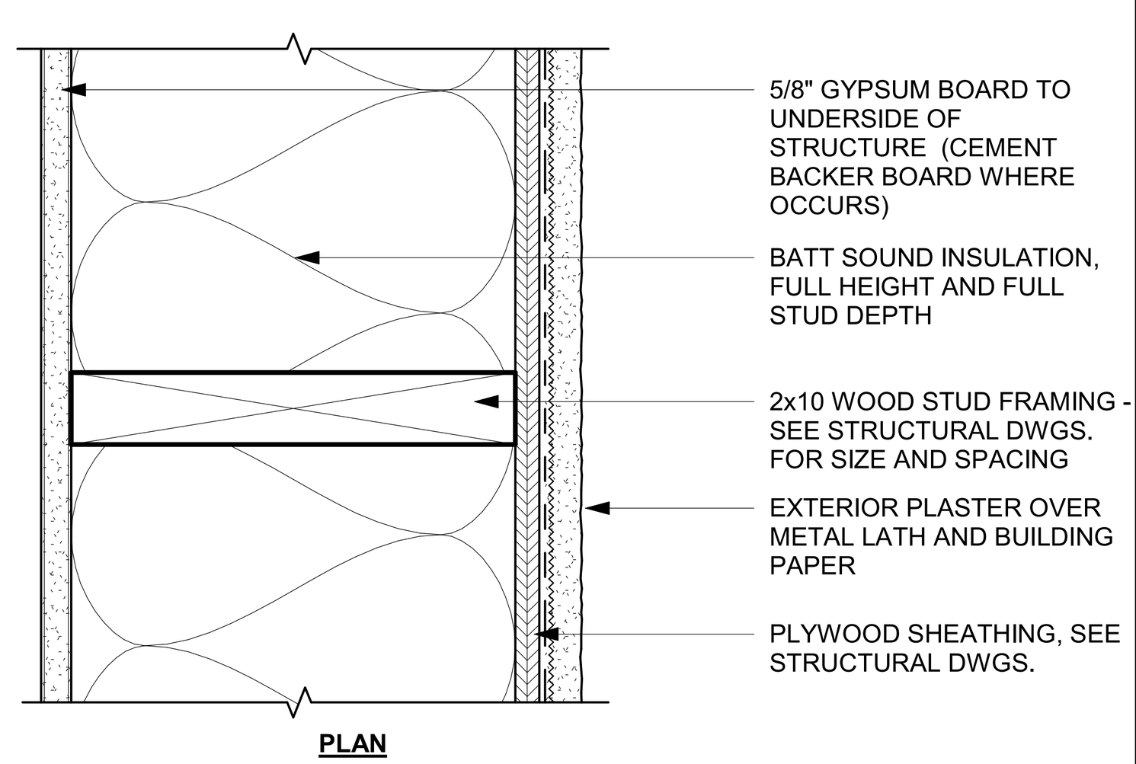


INTERIOR 2-HR RATED WALL ASSEMBLY WITH SEISMIC SEPARATION — 3" = 1'-0" — 10



NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. PLASTER AT EXTERIOR WALLS ONLY. SEE FINISH SCHEDULE FOR INDIVIDUAL INTERIOR ROOM FINISHES.

EXTERIOR PLASTER WALL ASSEMBLY - 8 INCH STUD — 3" = 1'-0" — 4



NOTES:
1. WALLS TO BE FULL HEIGHT, WITH GYPSUM BOARD AND INSULATION FULL HEIGHT.
2. PLASTER AT EXTERIOR WALLS ONLY. SEE FINISH SCHEDULE FOR INDIVIDUAL INTERIOR ROOM FINISHES.

EXTERIOR PLASTER WALL ASSEMBLY - 10 INCH STUD — 3" = 1'-0" — 5

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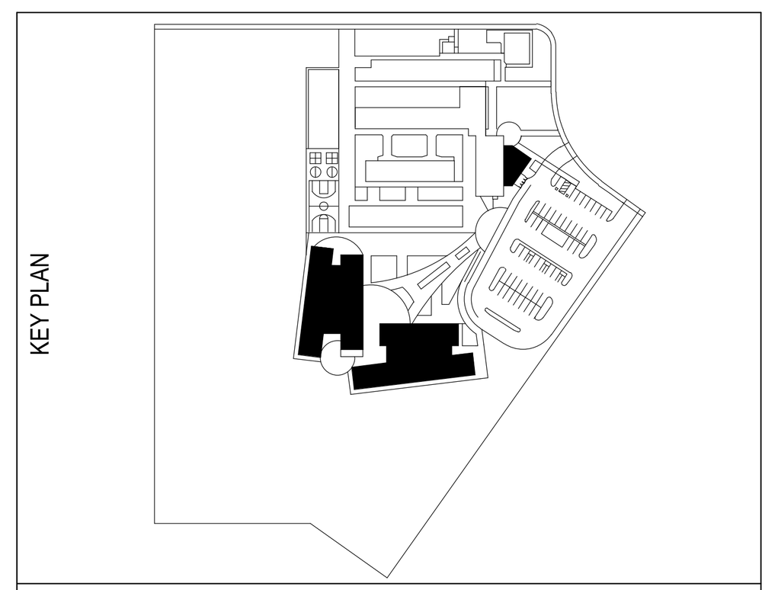
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

WALL TYPES

Date	Project Number
05/20/2019	19003
Scale 3" = 1'-0"	Drawing Number
Drawn AA/AM — Checked AM	A10.1

PRINT DATE: 5/17/2019 10:24:44 AM
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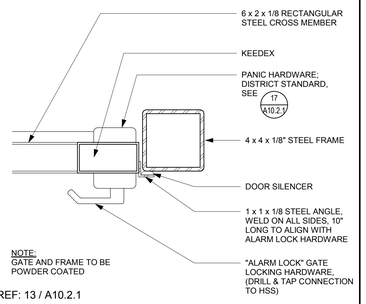
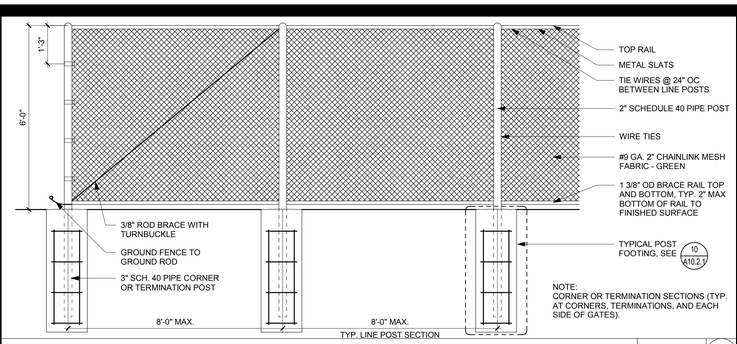
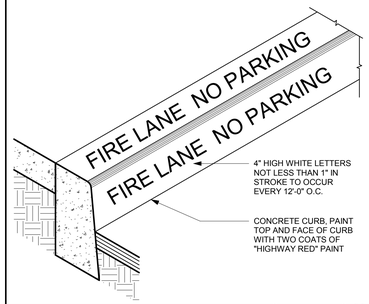


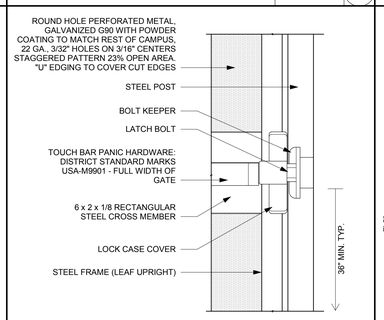
GATE LATCH 3" = 1'-0" 16



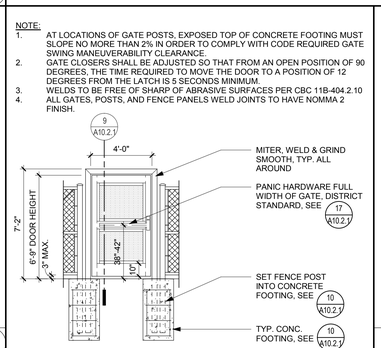
CHAIN LINK FENCE 1/2" = 1'-0" 6

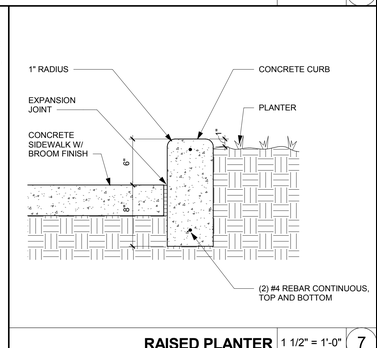


FIRE LANE MARKING 1 1/2" = 1'-0" 1

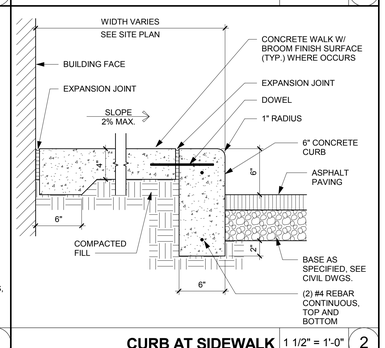


PANIC HARDWARE 1/2" = 1'-0" 17

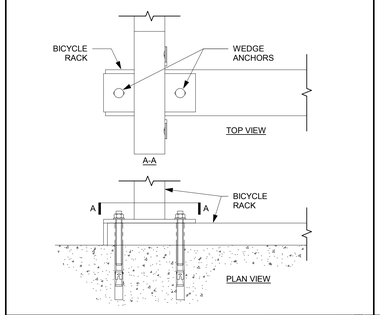




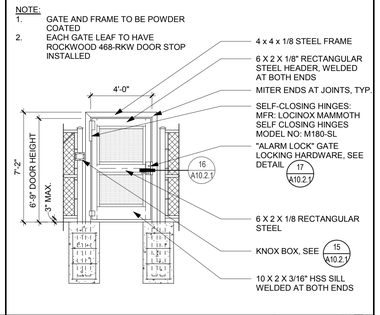
RAISED PLANTER 1 1/2" = 1'-0" 7



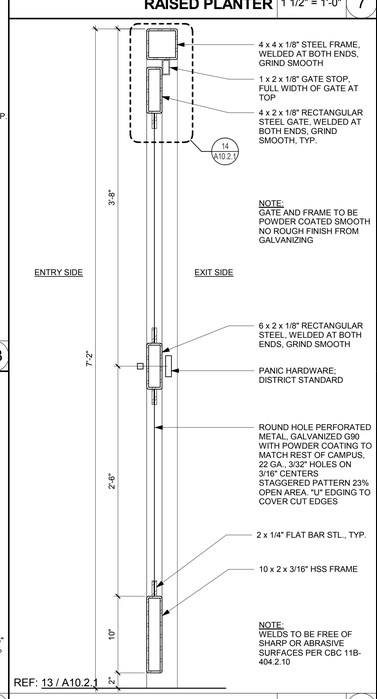
CURB AT SIDEWALK 1 1/2" = 1'-0" 2



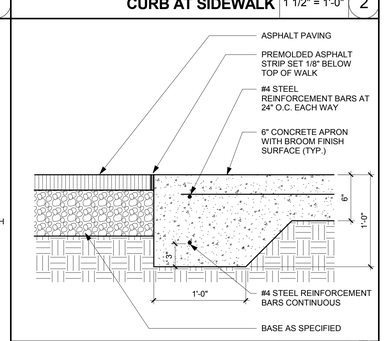
CAMPUS BIKE RACK MOUNTING 3" = 1'-0" 18



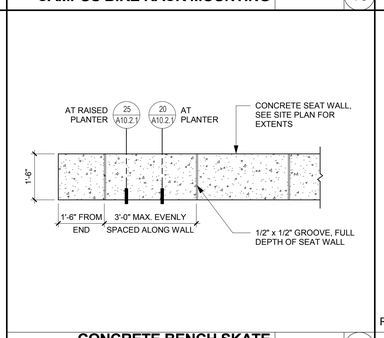
CHAIN LINK GATE 1/4" = 1'-0" 13



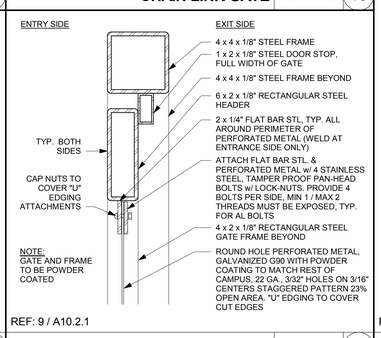
GATE SECTION 1 1/2" = 1'-0" 9



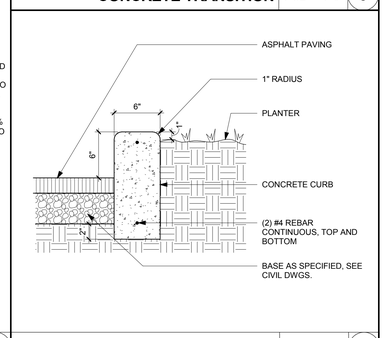
CONCRETE TRANSITION 1 1/2" = 1'-0" 3



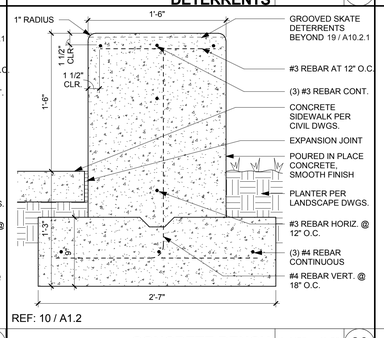
CONCRETE BENCH SKATE DETERRENTS 1/2" = 1'-0" 19



GATE HEAD 3" = 1'-0" 14

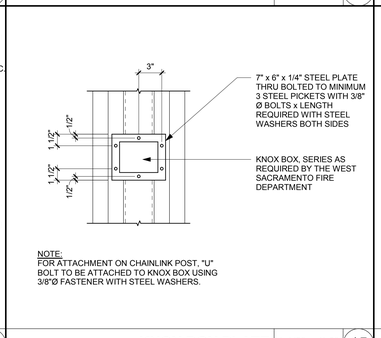


CURB AT PLANTER 1 1/2" = 1'-0" 4

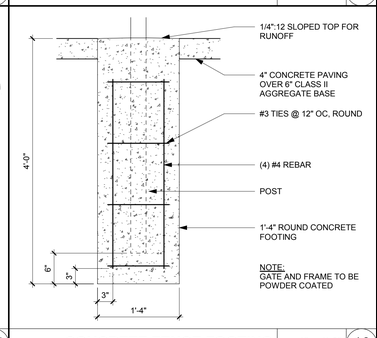


CONCRETE BENCH AT RAISED PLANTER 1 1/2" = 1'-0" 25

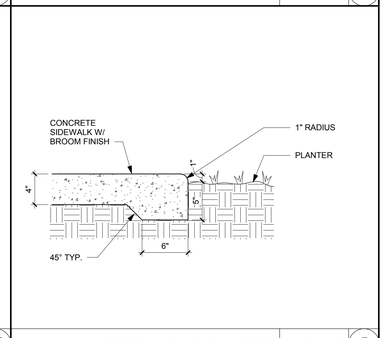
CONCRETE BENCH 1 1/2" = 1'-0" 20



KNOX BOX PLATE 1 1/2" = 1'-0" 15



CONCRETE FENCE FOOTING 1" = 1'-0" 10



SIDEWALK AT PLANTER 1 1/2" = 1'-0" 5

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

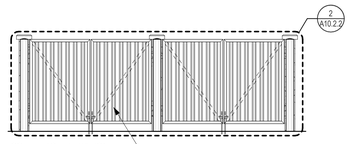
DSA SUBMITTAL

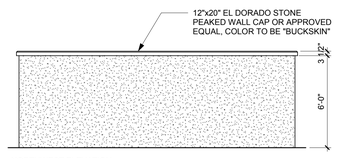
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

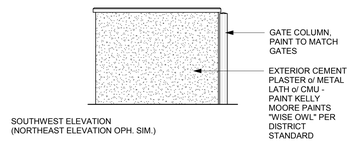
SITE DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.2.1
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:24:44 AM
FILE PATH: C:\Users\ahansen\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt





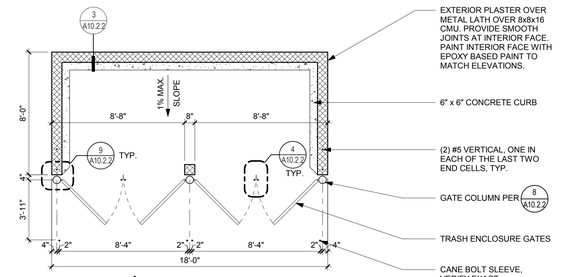


TRASH ENCLOSURE ELEVATIONS 1/4" = 1'-0" 12

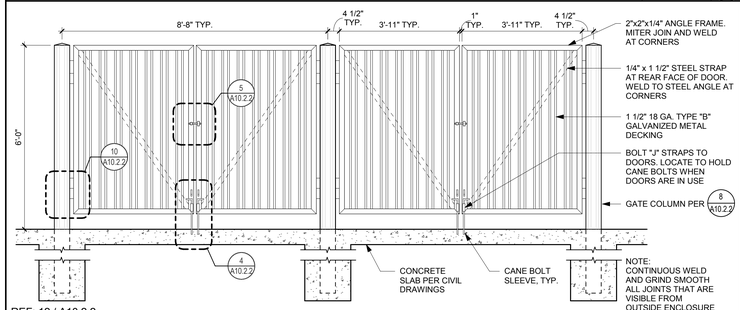
NOTES:

1. ALL CONCRETE BLOCK MORTAR JOINTS SHALL BE FLUSH AND SMOOTH AT INSIDE FACE.
2. SEE SITE PLAN FOR LOCATION OF TRASH ENCLOSURE.
3. THE TRASH ENCLOSURE PAD SHALL BE SEALED WITH A 'NON-PIGMENTED' CLEAR CONCRETE SEALER.
4. REFER TO CIVIL DRAWINGS FOR CONCRETE STRENGTH AND REINFORCING STEEL REQUIREMENTS.
5. CMU SHALL CONFORM TO ASTM C-90 GRADE N-1 UNITS.
6. FULLY GROUT ALL CMU WALLS.

REF: 10 / A1.1

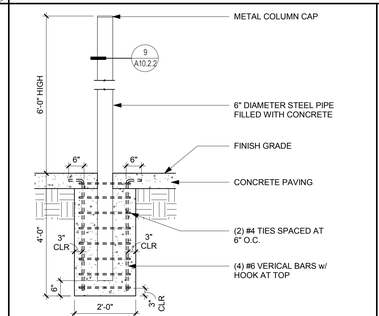


TRASH ENCLOSURE PLAN 1/4" = 1'-0" 1

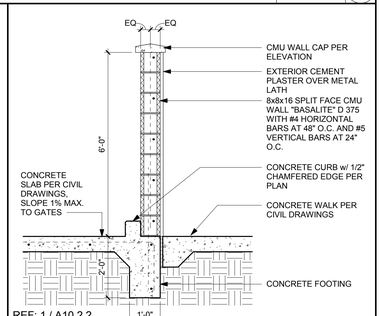


REF: 12 / A10.2.2

GATE ELEVATION 1/2" = 1'-0" 2

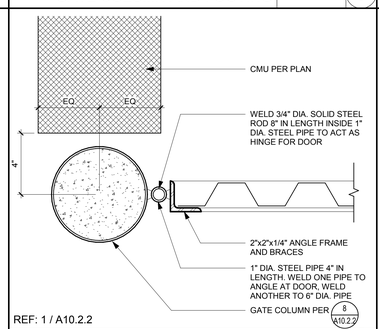


GATE COLUMN AND FOOTING 1/2" = 1'-0" 8



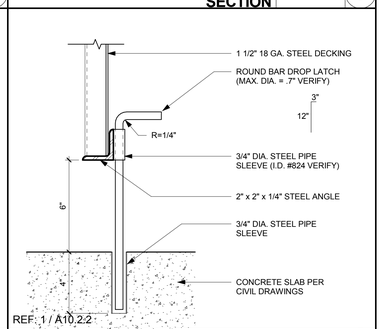
REF: 1 / A10.2.2

TRASH ENCLOSURE WALL SECTION 1/2" = 1'-0" 3



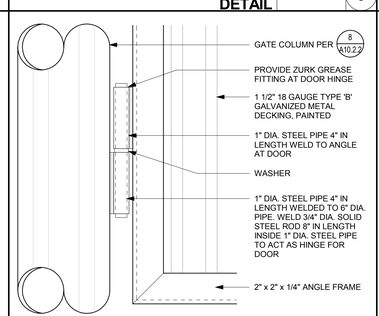
REF: 1 / A10.2.2

TRASH ENCLOSURE HINGE PLAN DETAIL 3" = 1'-0" 9



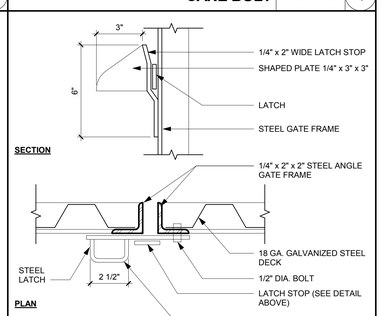
REF: 1 / A10.2.2

CANE BOLT 3" = 1'-0" 4



REF: 2 / A10.2.2

TRASH ENCLOSURE HINGE 3" = 1'-0" 10



REF: 2 / A10.2.2

TRASH ENCLOSURE LATCH 3" = 1'-0" 5

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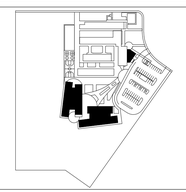
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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DSA SUBMITTAL

WESTMORE OAKS SCHOOL
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1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

SITE DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.2.2
Drawn: AA/AM	Checked: AM

PRINT DATE: 5/17/2019 10:24:45 AM
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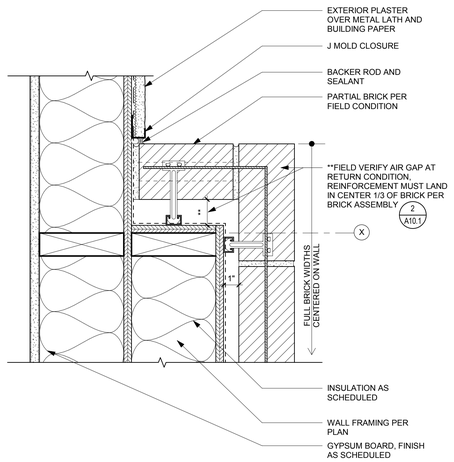
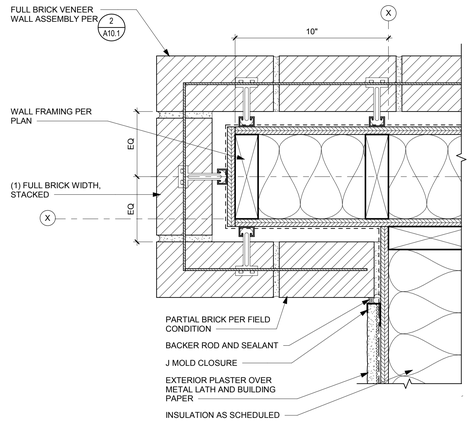
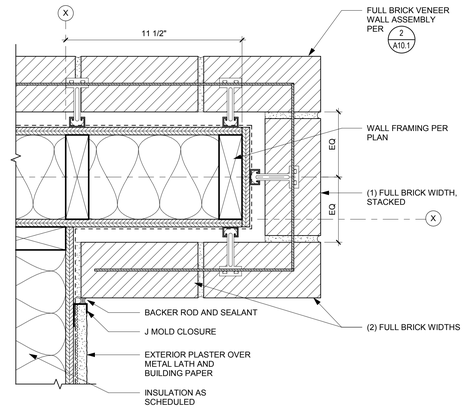


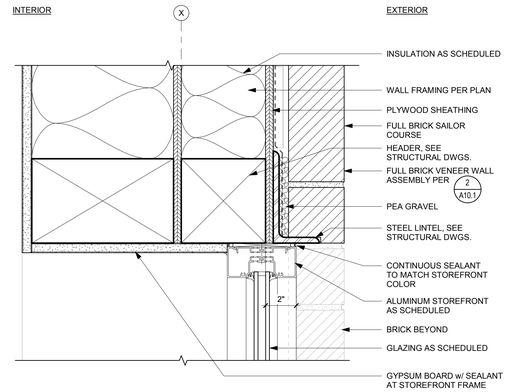
BRICK LAYOUT AT DOUBLE WALL 3" = 1'-0" 22



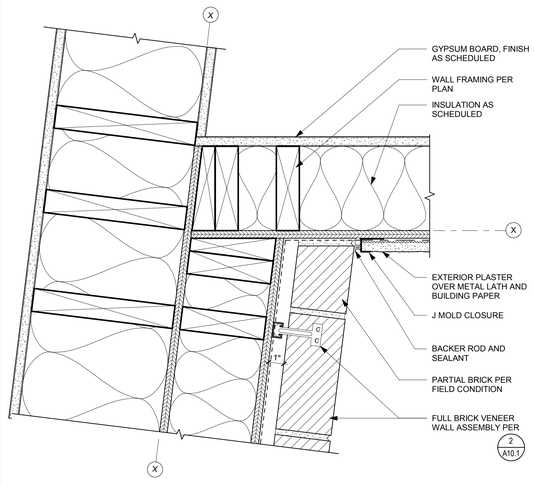
BRICK LAYOUT AT CORNER 3" = 1'-0" 17



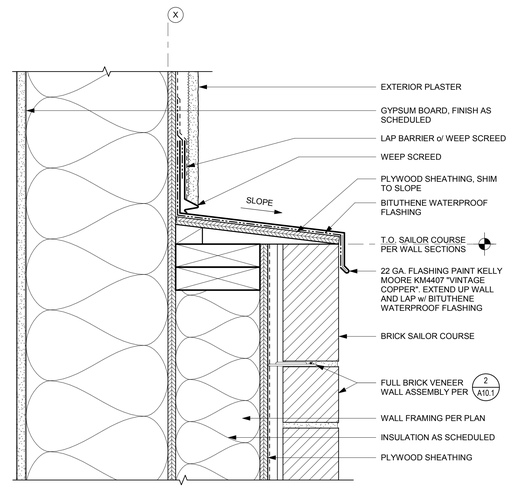
BRICK LAYOUT AT CORNER 3" = 1'-0" 7



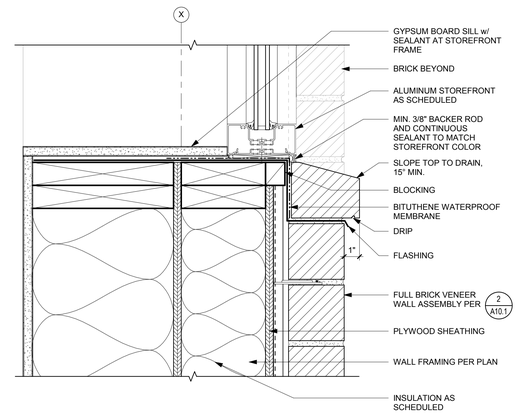
BRICK AT STOREFRONT HEAD 3" = 1'-0" 2



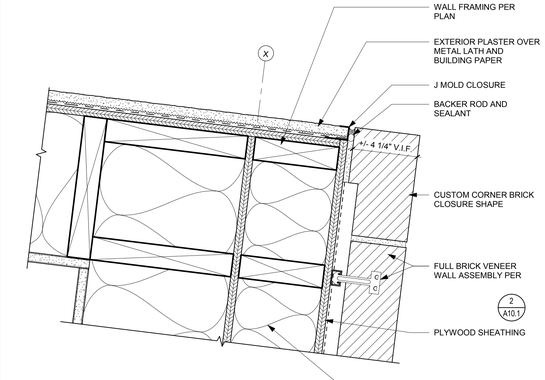
BRICK AT PLASTER INSIDE CORNER 3" = 1'-0" 19



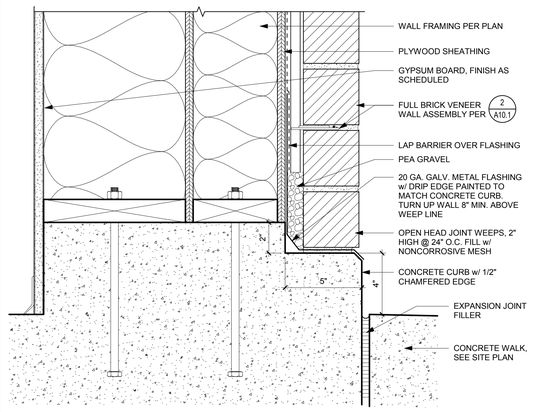
BRICK AT SAILOR COURSE 3" = 1'-0" 9



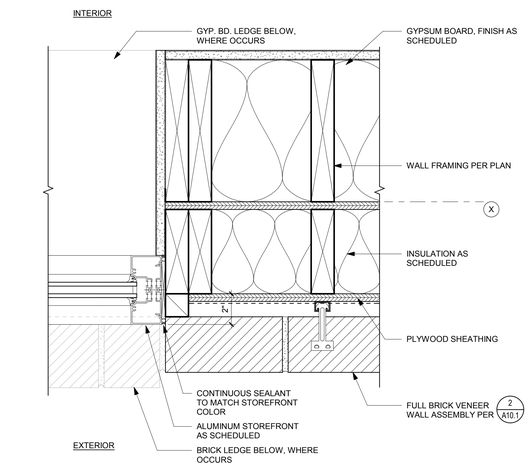
BRICK LEDGE AT STOREFRONT SILL 3" = 1'-0" 4



BRICK AT PLASTER OUTSIDE CORNER 3" = 1'-0" 20



BRICK AT SILL 3" = 1'-0" 10



BRICK AT STOREFRONT JAMB 3" = 1'-0" 5

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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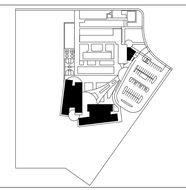
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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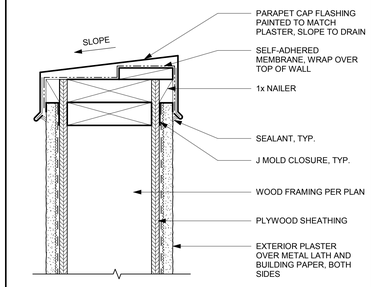
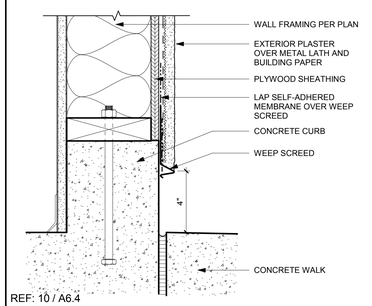
MASONRY DETAILS

Date	Project Number
05/20/2019	19003
Scale: 3" = 1'-0"	Drawing Number: A10.4
Drawn: AA/AM	Checked: AM



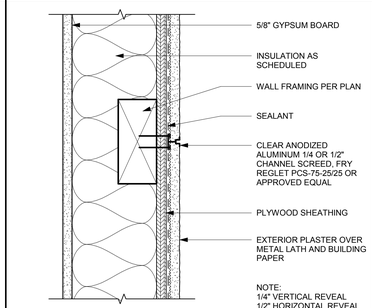
REF: 10 / A6.5

EXTERIOR PLASTER AT PARAPET 3" = 1'-0" 1

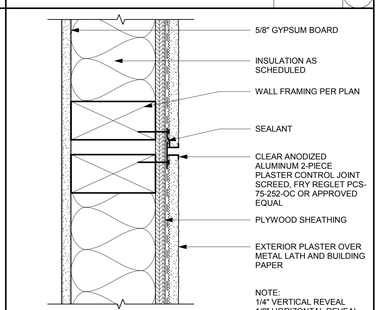


REF: 10 / A6.4

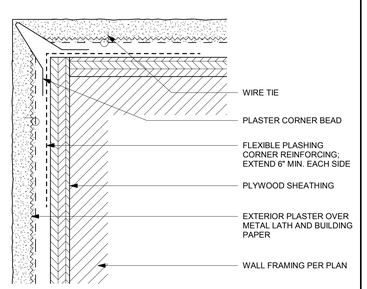
EXTERIOR STUCCO AT BASE 3" = 1'-0" 2



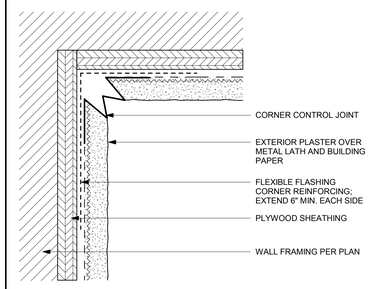
EXTERIOR PLASTER REVEAL 3" = 1'-0" 3



EXTERIOR PLASTER CONTROL JOINT 3" = 1'-0" 4



EXTERIOR PLASTER OUTSIDE CORNER PLAN DETAIL 6" = 1'-0" 10



EXTERIOR PLASTER INSIDE CORNER PLAN DETAIL 6" = 1'-0" 5

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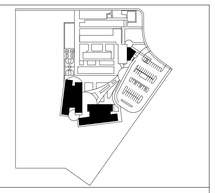
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
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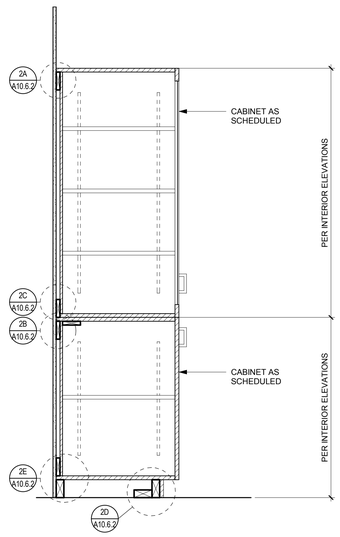
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

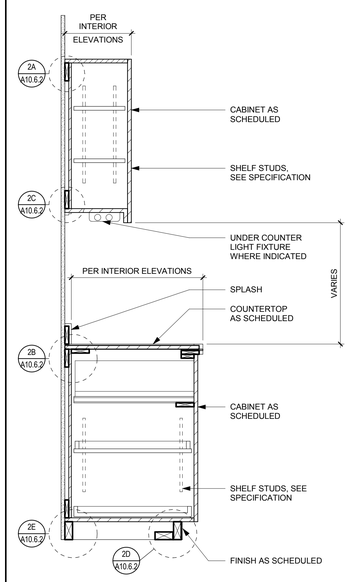
WOOD DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.6.1
Drawn: AA	Checked: AM

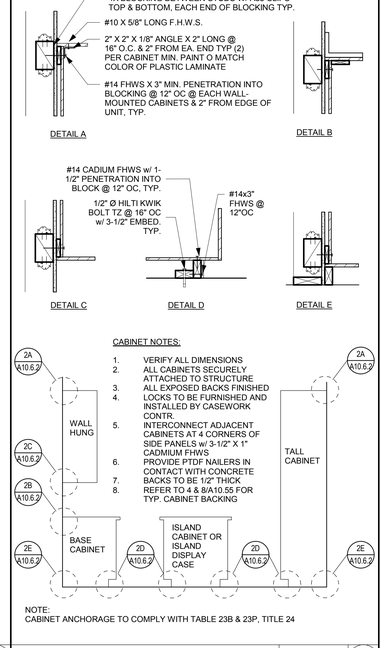
PRINT DATE: 5/17/2019 10:24:48 AM
FILE PATH: C:\Users\adrianm\Desktop\Local Revit Files\19003-Westmore-A17-amrauer.rvt



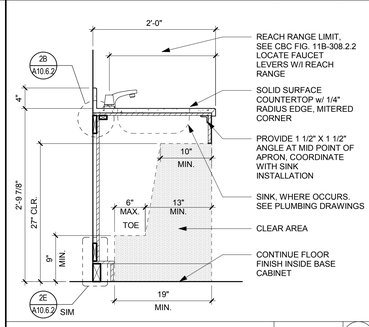
TALL CABINET 1" = 1'-0" 12



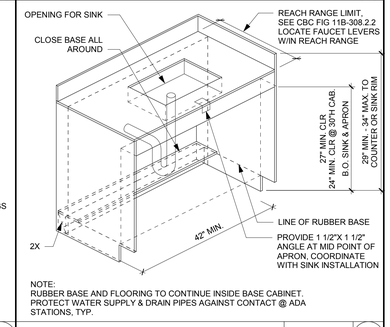
CASEWORK DETAIL 1" = 1'-0" 7



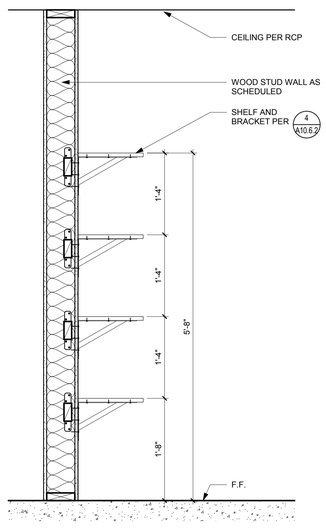
CASEWORK ANCHORAGE 1/2" = 1'-0" 2



ACCESSIBLE BASE CABINET 1" = 1'-0" 8

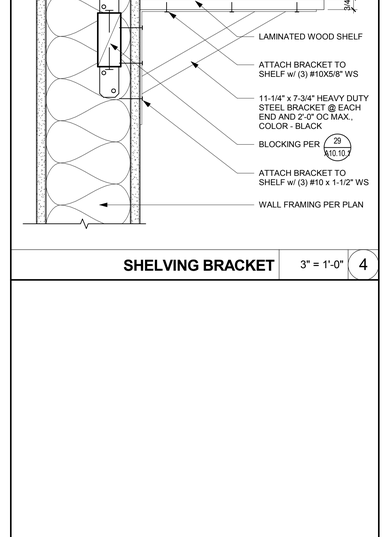


ADA ACCESSIBLE SINK 3/4" = 1'-0" 3



REF: 10 / AF2.2

SHELVING LAYOUT 1" = 1'-0" 10



SHELVING BRACKET 3" = 1'-0" 4

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REVISION HISTORY

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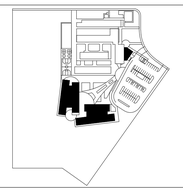
DRAWING STATUS

DATE 05/20/2019

- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN



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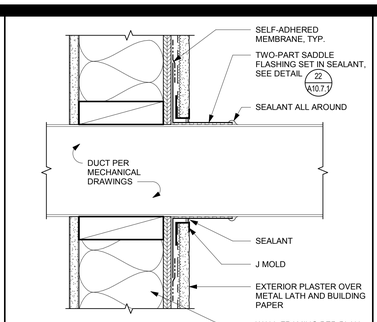
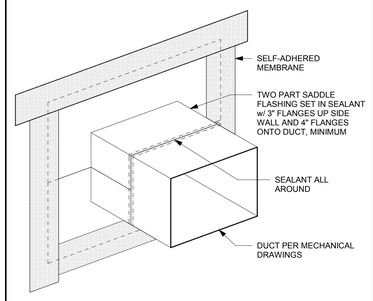
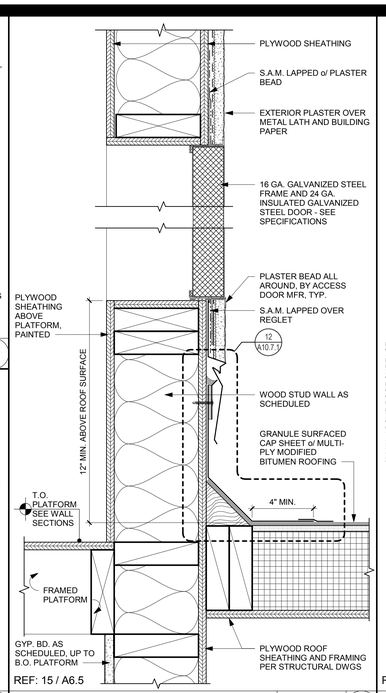


DUCT PENETRATION AT EXTERIOR PLASTER — 3" = 1'-0" — 21

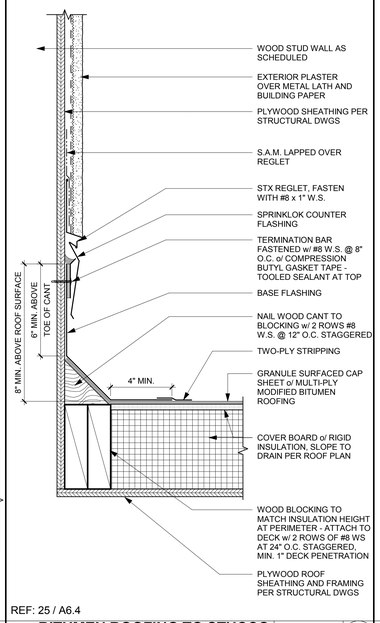


SADDLE FLASHING AT DUCT PENETRATION — 3" = 1'-0" — 22



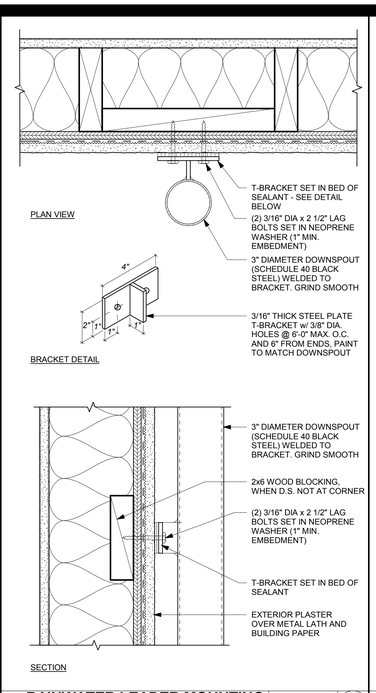
REF: 15 / A6.5

ROOF ACCESS DOOR — 3" = 1'-0" — 17

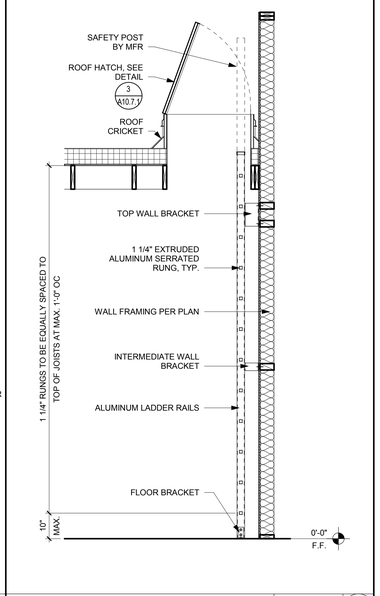


REF: 25 / A6.4

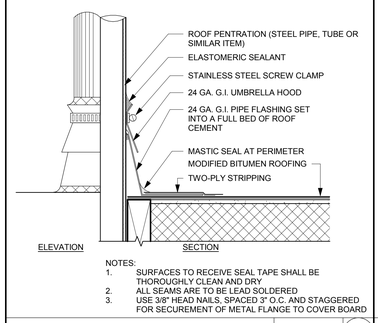
BITUMEN ROOFING TO STUCCO TRANSITION — 3" = 1'-0" — 12



RAINWATER LEADER MOUNTING BRACKET — 3" = 1'-0" — 7

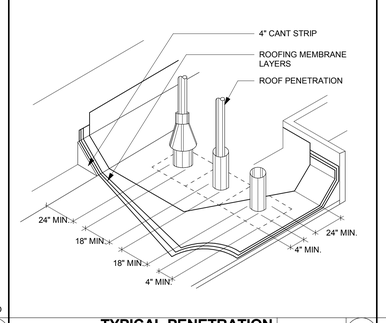


ROOF LADDER HATCH — 1/2" = 1'-0" — 2

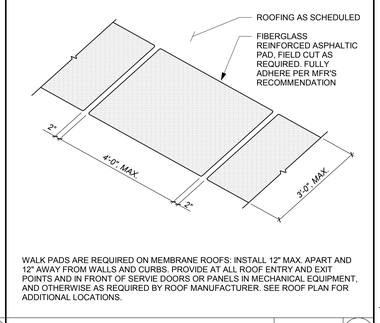


NOTES:
1. SURFACES TO RECEIVE SEAL TAPE SHALL BE THOROUGHLY CLEAN AND DRY
2. ALL SEAMS ARE TO BE LEAD SOLDERED.
3. USE 3/8" HEAD NAILS, SPACED 3" O.C. AND STAGGERED FOR SECUREMENT OF METAL FLANGE TO COVER BOARD

VENT PIPE AT B.U.R. — 3" = 1'-0" — 23

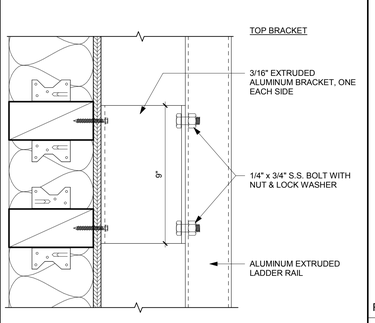


TYPICAL PENETRATION CLEARANCES AT ROOF — 1" = 1'-0" — 18

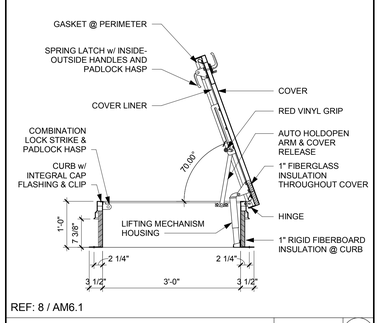


WALK PADS ARE REQUIRED ON MEMBRANE ROOFS; INSTALL 12" MAX. APART AND 12" AWAY FROM WALLS AND CURBS. PROVIDE AT ALL ROOF ENTRY AND EXIT POINTS AND IN FRONT OF SERVIE DOORS OR PANELS IN MECHANICAL EQUIPMENT, AND OTHERWISE AS REQUIRED BY ROOF MANUFACTURER. SEE ROOF PLAN FOR ADDITIONAL LOCATIONS.

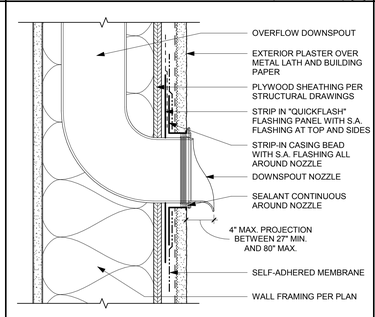
ROOF WALKWAY PADS — 1/2" = 1'-0" — 13



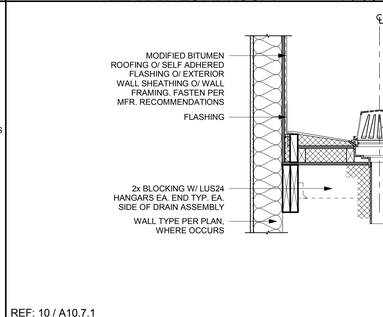
ROOF HATCH DETAIL — 3/4" = 1'-0" — 3



REF: 8 / AM6.1

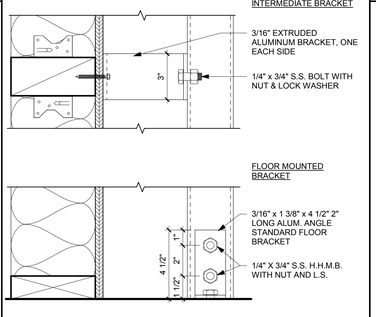


OVERFLOW NOZZLE — 3" = 1'-0" — 24

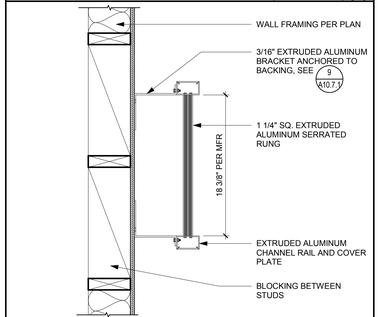


REF: 10 / A10.7.1

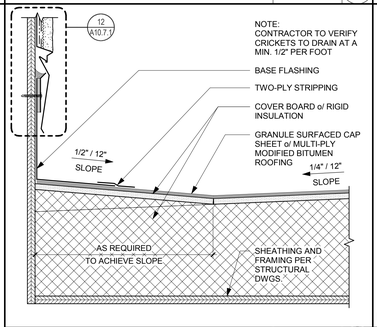
ROOF AND OVERFLOW DRAIN - CROSS SECTION — 1" = 1'-0" — 14



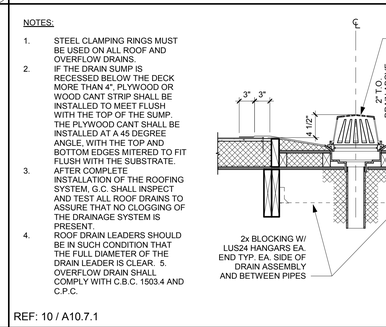
LADDER MOUNTING — 3" = 1'-0" — 9



LADDER DETAIL PLAN — 1 1/2" = 1'-0" — 4



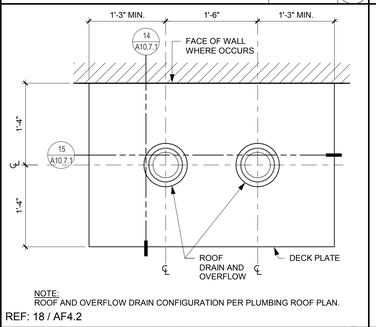
CRICKET — 3" = 1'-0" — 25



NOTES:
1. STEEL CLAMPING RINGS MUST BE USED ON ALL ROOF AND OVERFLOW DRAINS.
2. IF THE DRAIN SUMP IS RECESSED BELOW THE DECK MORE THAN 4", PLYWOOD OR WOOD CANT STRIP SHALL BE INSTALLED TO MEET FLUSH WITH THE TOP OF THE SUMP. THE PLYWOOD CANT SHALL BE INSTALLED AT A 45 DEGREE ANGLE, WITH THE TOP AND BOTTOM EDGES MITERED TO FIT FLUSH WITH THE SUBSTRATE.
3. AFTER COMPLETE INSTALLATION OF THE ROOFING SYSTEM, G.C. SHALL INSPECT AND TEST ALL ROOF DRAINS TO ASSURE THAT NO CLOGGING OF THE DRAINAGE SYSTEM IS PRESENT.
4. ROOF DRAIN LEADERS SHOULD BE IN SUCH CONDITION THAT THE FULL DIAMETER OF THE DRAIN LEADER IS CLEAR. 5. OVERFLOW DRAIN SHALL COMPLY WITH C.B.C. 1503.4 AND C.P.C.

REF: 10 / A10.7.1

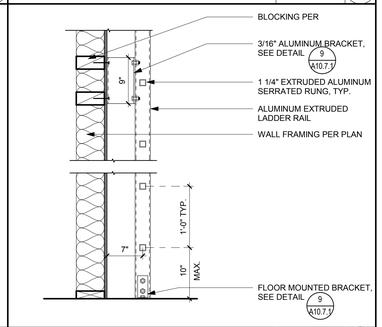
ROOF AND OVERFLOW DRAIN - LONG. SECTION — 1" = 1'-0" — 15



NOTE:
ROOF AND OVERFLOW DRAIN CONFIGURATION PER PLUMBING ROOF PLAN.

REF: 18 / AF4.2

ROOF AND OVERFLOW DRAIN PLAN — 1" = 1'-0" — 10



LADDER DETAIL SECTION — 1" = 1'-0" — 5

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DRAWING STATUS
- DSA PLAN CHECK — 05/20/2019
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KEY PLAN

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930 WEST ACRE ROAD
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DSA SUBMITTAL

WESTMORE OAKS SCHOOL
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ROOF DETAILS

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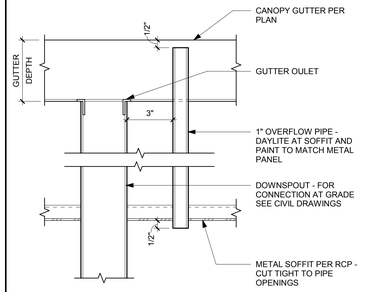
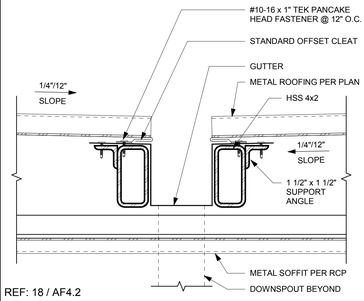
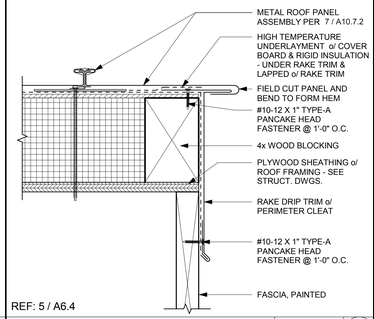


CANOPY GUTTER OVERFLOW PIPE 3" = 1'-0" 16



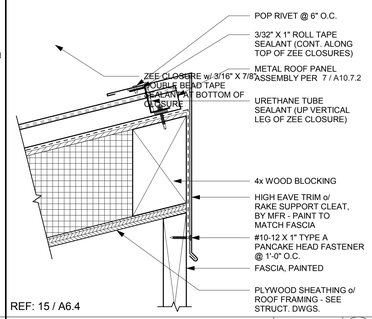
REF: 18 / AF4.2

METAL ROOF GUTTER VALLEY 3" = 1'-0" 11



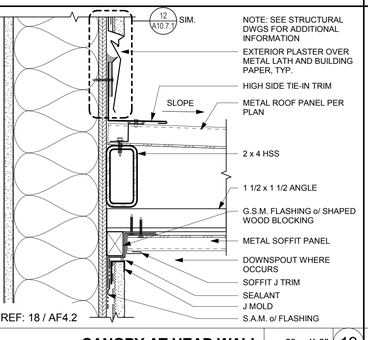
REF: 5 / A6.4

METAL ROOF RAKE 3" = 1'-0" 6



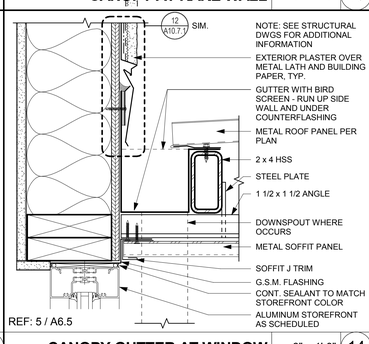
REF: 15 / A6.4

METAL ROOF HIGH EAVE 3" = 1'-0" 1

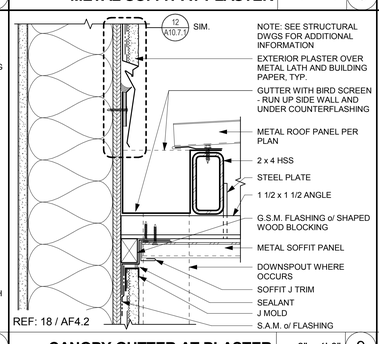


REF: 21 / AF4.2

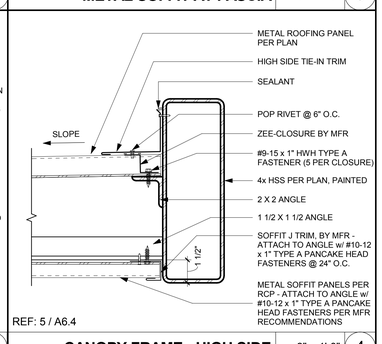
METAL ROOF RIDGE 3" = 1'-0" 17



VENT PIPE AT METAL ROOF 3" = 1'-0" 12



TYPICAL METAL ROOF ASSEMBLY 3" = 1'-0" 7



REF: 20 / A6.4

METAL ROOF AT GUTTER 3" = 1'-0" 2

REF: 10 / A6.4

CANOPY AT RAKE WALL 3" = 1'-0" 13

REF: 5 / A6.4

METAL SOFFIT AT PLASTER 6" = 1'-0" 8

REF: 5 / A6.4

METAL SOFFIT AT FASCIA 6" = 1'-0" 3

REF: 18 / AF4.2

CANOPY AT HEAD WALL 3" = 1'-0" 19

REF: 5 / A6.5

CANOPY GUTTER AT WINDOW 3" = 1'-0" 14

REF: 18 / AF4.2

CANOPY GUTTER AT PLASTER 3" = 1'-0" 9

REF: 5 / A6.4

CANOPY FRAME - HIGH SIDE 3" = 1'-0" 4

CANOPY RAKE AT FURRED WALL 3" = 1'-0" 15

CANOPY GUTTER AT FURRED WALL 3" = 1'-0" 10

REF: 5 / A6.5

CANOPY FRAME - RAKE 3" = 1'-0" 5

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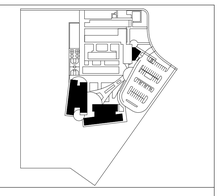

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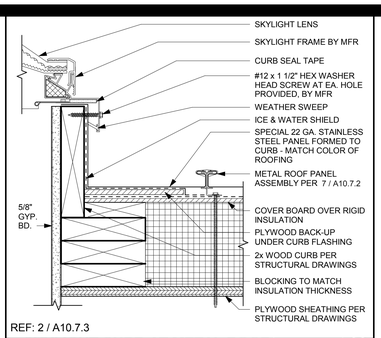
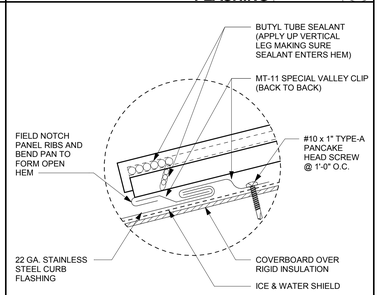


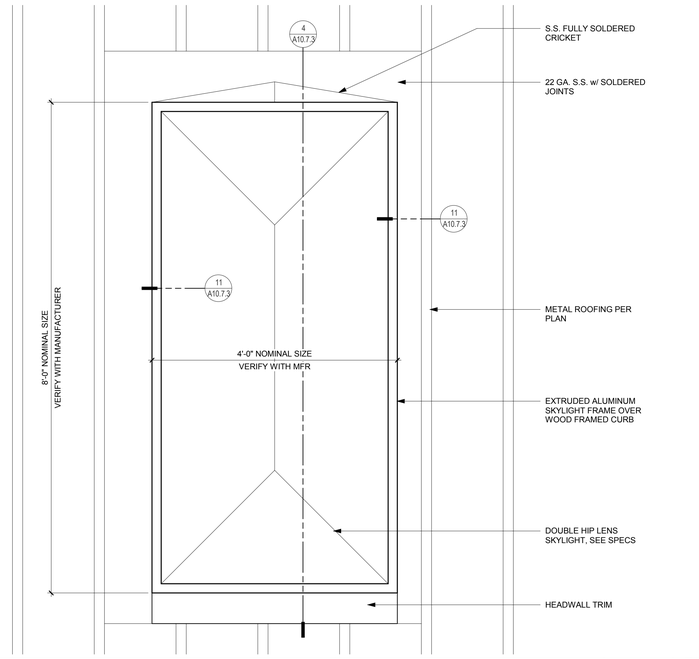
REF: 2 / A10.7.3

SKYLIGHT CURB AT METAL ROOF FLASHING 3" = 1'-0" 11

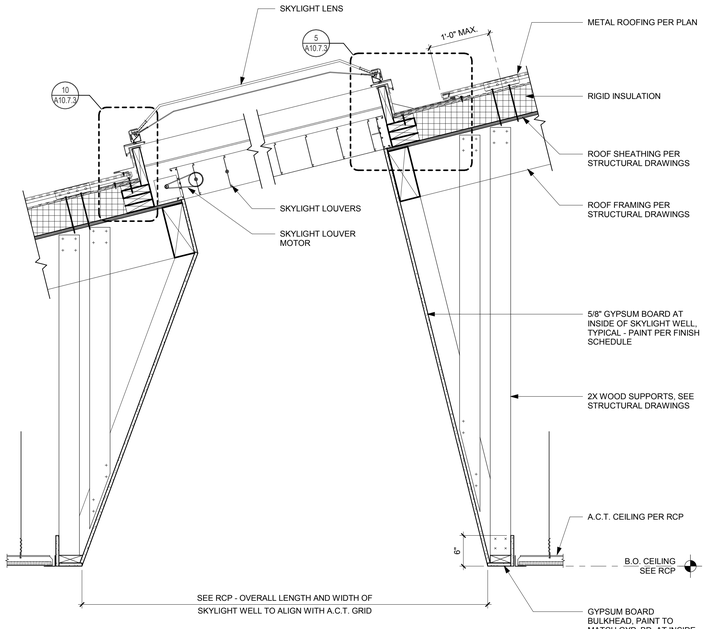


REF: 5 / A10.7.3

METAL ROOF AT CRICKET 3" = 1'-0" 12

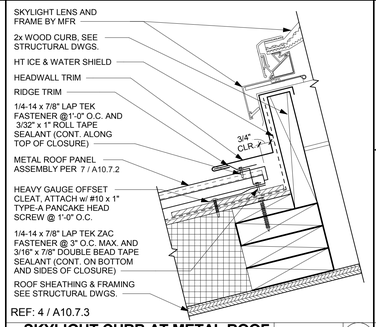


SKYLIGHT PLAN VIEW 1" = 1'-0" 2



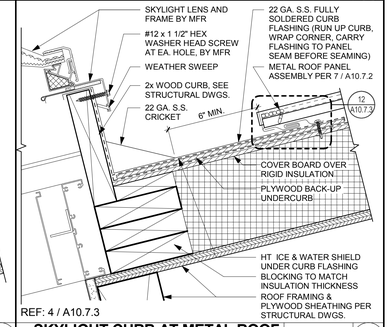
REF: 2 / A10.7.3

SKYLIGHT WELL - TYPICAL SECTION 1" = 1'-0" 4



REF: 4 / A10.7.3

SKYLIGHT CURB AT METAL ROOF HEADWALL 3" = 1'-0" 10



REF: 4 / A10.7.3

SKYLIGHT CURB AT METAL ROOF CRICKET 3" = 1'-0" 5

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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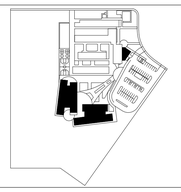
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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NEW BLDGS F & G AND BLDG M ADDITION
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ROOF DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.7.3
Drawn: JP/AM	Checked: AM

PRINT DATE: 5/17/2019 10:24:48 AM
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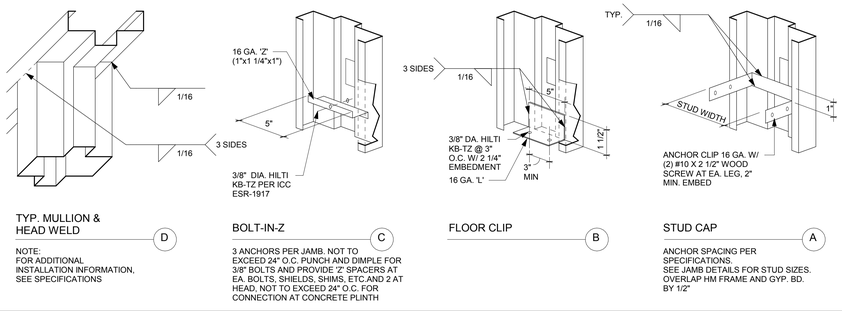


TYP. MULLION & HEAD WELD — D

NOTE:
FOR ADDITIONAL INSTALLATION INFORMATION, SEE SPECIFICATIONS

BOLT-IN-Z — C

3 ANCHORS PER JAMB. NOT TO EXCEED 24" O.C. PUNCH AND DIMPLE FOR 3/8" BOLTS AND PROVIDE 'Z' SPACERS AT EA. BOLTS, SHIELDS, SHIMS, ETC.AND 2 AT HEAD, NOT TO EXCEED 24" O.C. FOR CONNECTION AT CONCRETE PLINTH

FLOOR CLIP — B

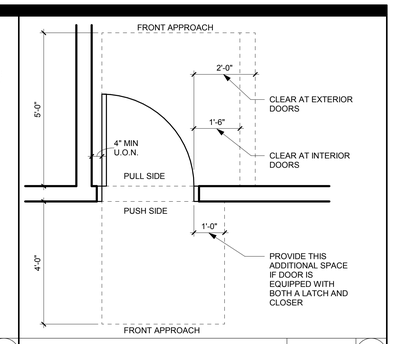
STUD CAP — A

ANCHOR SPACING PER SPECIFICATIONS.
SEE JAMB DETAILS FOR STUD SIZES.
OVERLAP HM FRAME AND GYP. BD. BY 1/2"

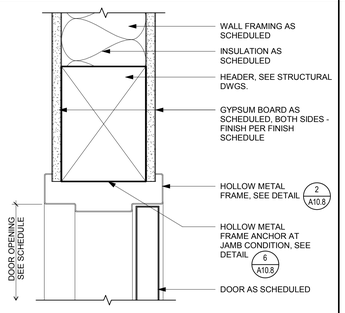
NOTES:

1. REFER TO PROFILES.
2. ALL HOLLOW METAL FRAME/JAMBS SHALL BE CUT FOR STANDARD UNIT LOCK STRIKES 3/4" HIGH.
3. FRAME DIMENSIONS ARE FROM FINISH PAVING. FRAME DIMENSIONS MAY VARY DUE TO FINISH MATERIALS.
4. SEE 'RATING' ON DOOR SCHEDULE FOR REQUIRED RATED DOORS.
5. VERIFY ALL DOOR AND FRAME OPENING SIZES AND WALL AND DOOR FRAME WIDTHS ON SITE.
6. PER CBC 715.4, APPROVED FIRE DOOR HARDWARE AND FIRE DOOR FRAMES INCLUDING THE ANCHORAGE THEREOF SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTING.
7. ADHERE TO UBC STANDARD 7-2 FOR INSTALLATION OF DOOR FRAMES.
8. UNDERCUT ALL DOORS TO CLEAR FLOOR FINISH BY 1/4" EXCEPT AT RATED DOORS

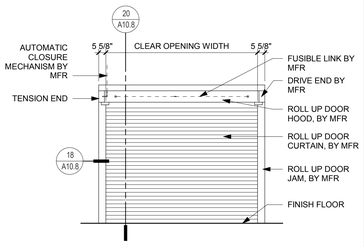
TYPICAL HM DOOR AND FRAME DETAILS — 12" = 1'-0" — 6



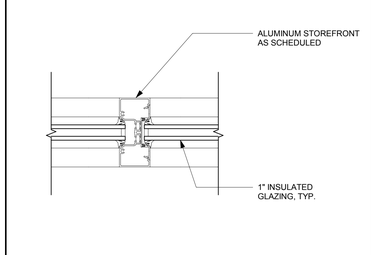
TYPICAL DOOR CLEARANCES — 1/2" = 1'-0" — 1



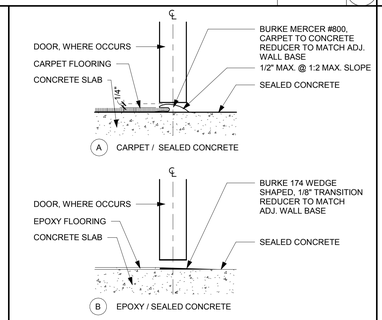
HEAD/JAMB AT INTERIOR DOOR — 3" = 1'-0" — 22



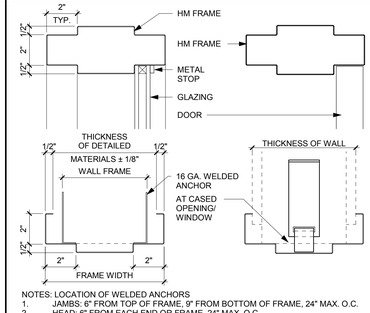
ROLL UP DOOR ELEVATION — 1/4" = 1'-0" — 17



VERTICAL MULLION — 3" = 1'-0" — 12

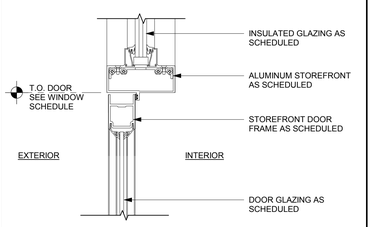


INTERIOR FLOOR TRANSITIONS — 3" = 1'-0" — 7

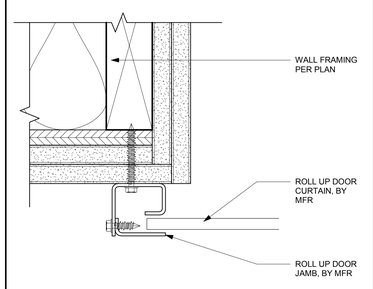


NOTES: LOCATION OF WELDED ANCHORS
1. JAMBS: 6" FROM TOP OF FRAME, 9" FROM BOTTOM OF FRAME, 24" MAX. O.C.
2. HEAD: 6" FROM EACH END OR FRAME, 24" MAX. O.C.

TYPICAL HM FRAMES — 3" = 1'-0" — 2

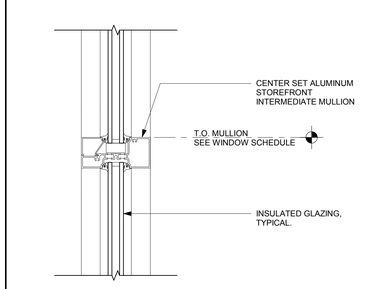


DOOR HEAD AT STOREFRONT — 3" = 1'-0" — 23

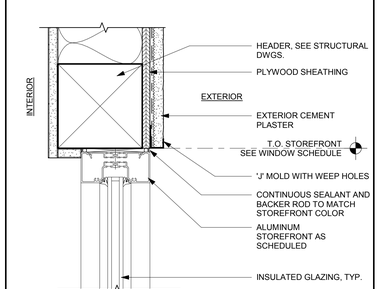


REF: 17 / A10.8

ROLL UP DOOR JAMB DETAIL — 6" = 1'-0" — 18

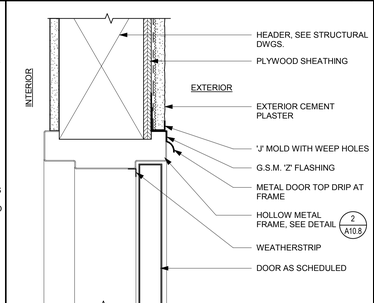


HORIZONTAL MULLION — 3" = 1'-0" — 13

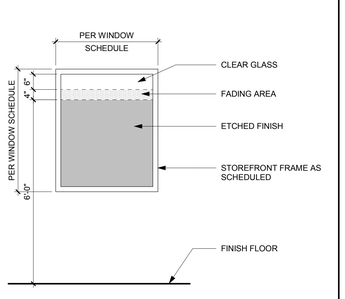


REF: 10 / A6.5

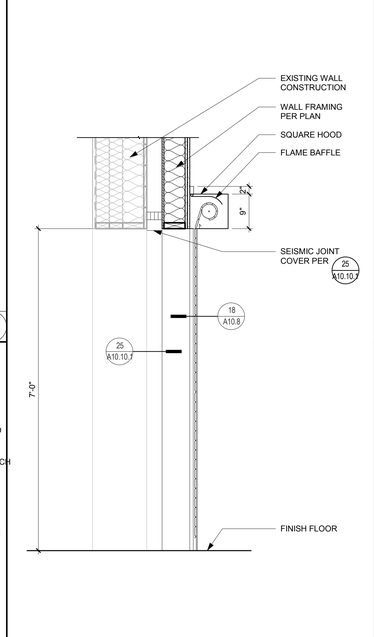
HEAD AT STOREFRONT — 3" = 1'-0" — 8



HEAD AT EXTERIOR DOOR — 3" = 1'-0" — 3

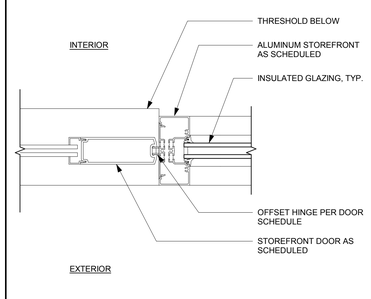


GLASS ETCH PATTERN — 1/2" = 1'-0" — 24

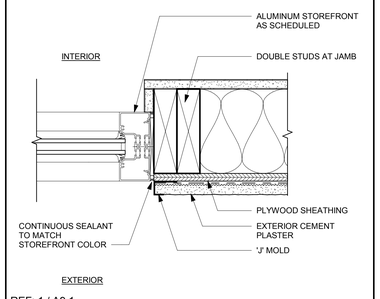


REF: 17 / A10.8

ROLL UP DOOR SECTION AT COUNTER — 3/4" = 1'-0" — 20

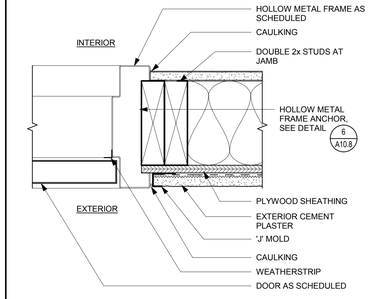


DOOR JAMB AT STOREFRONT — 3" = 1'-0" — 14

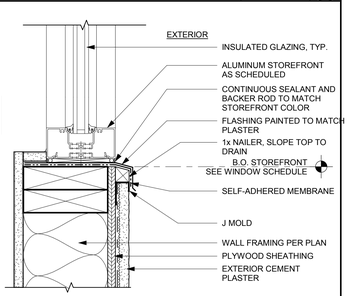


REF: 1 / A9.1

JAMB AT STOREFRONT — 3" = 1'-0" — 9

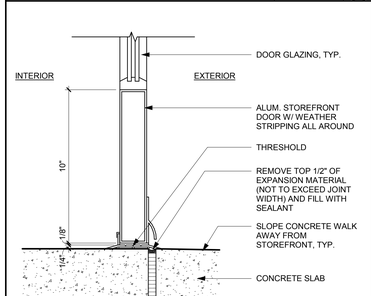


JAMB AT EXTERIOR DOOR — 3" = 1'-0" — 4

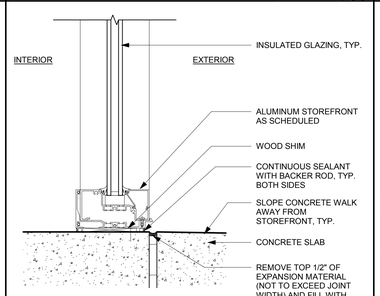


REF: 5 / A6.5

RAISED SILL AT STOREFRONT — 3" = 1'-0" — 25

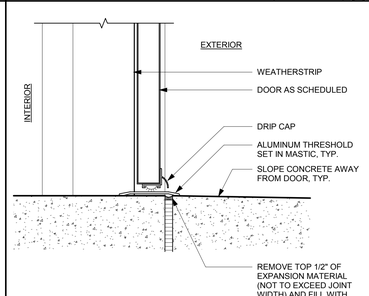


STOREFRONT DOOR SILL — 3" = 1'-0" — 15



REF: 10 / A6.5

SILL AT STOREFRONT — 3" = 1'-0" — 10



SILL AT EXTERIOR DOOR — 3" = 1'-0" — 5

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LICENSED ARCHITECT — BRIAN P. WHITMORE — No. C 30345 Ren.: 9/30/19 — STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

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	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

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930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
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WEST SACRAMENTO, CA 95691

DOOR AND WINDOW DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.8
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:24:49 AM
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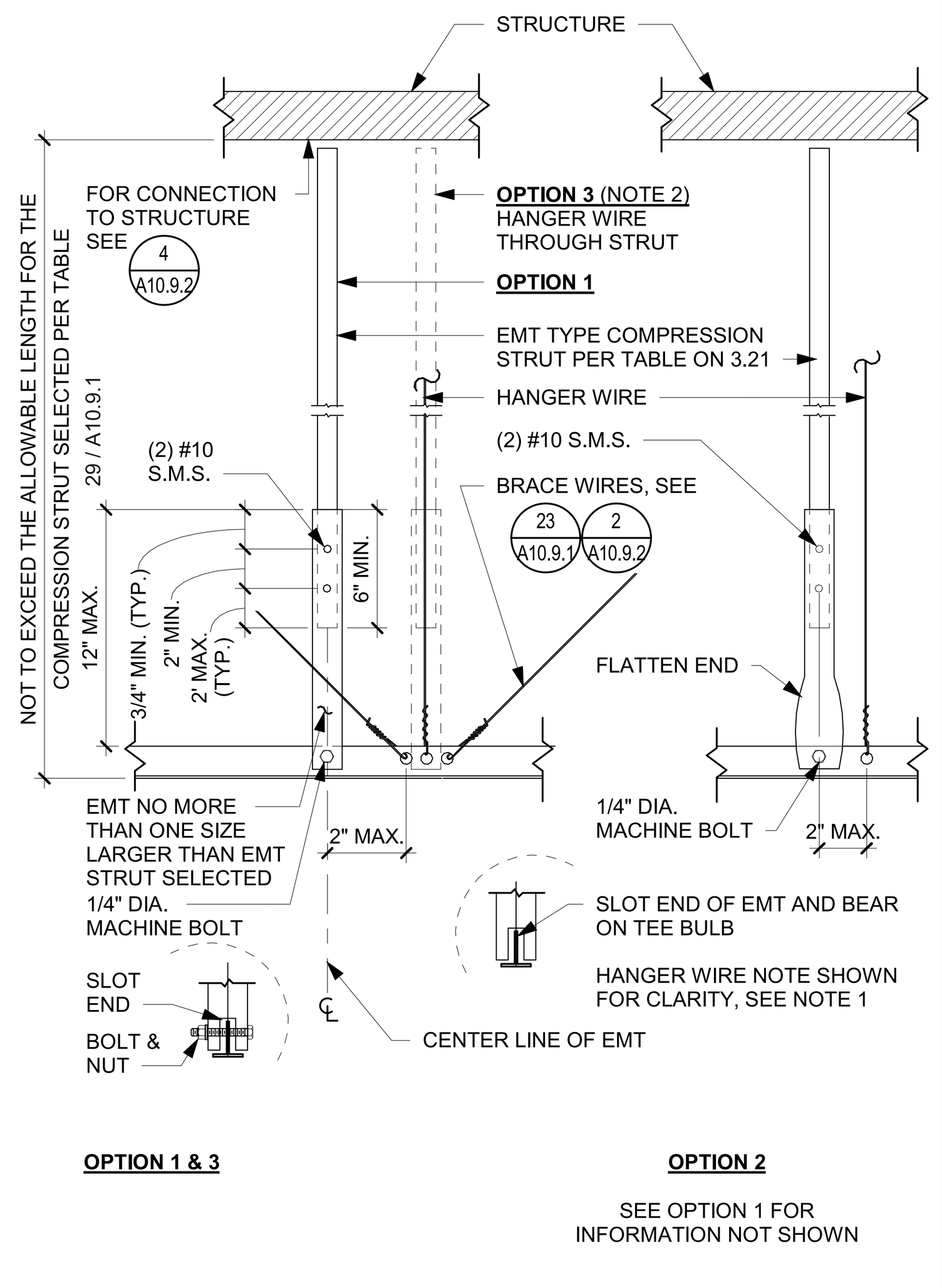
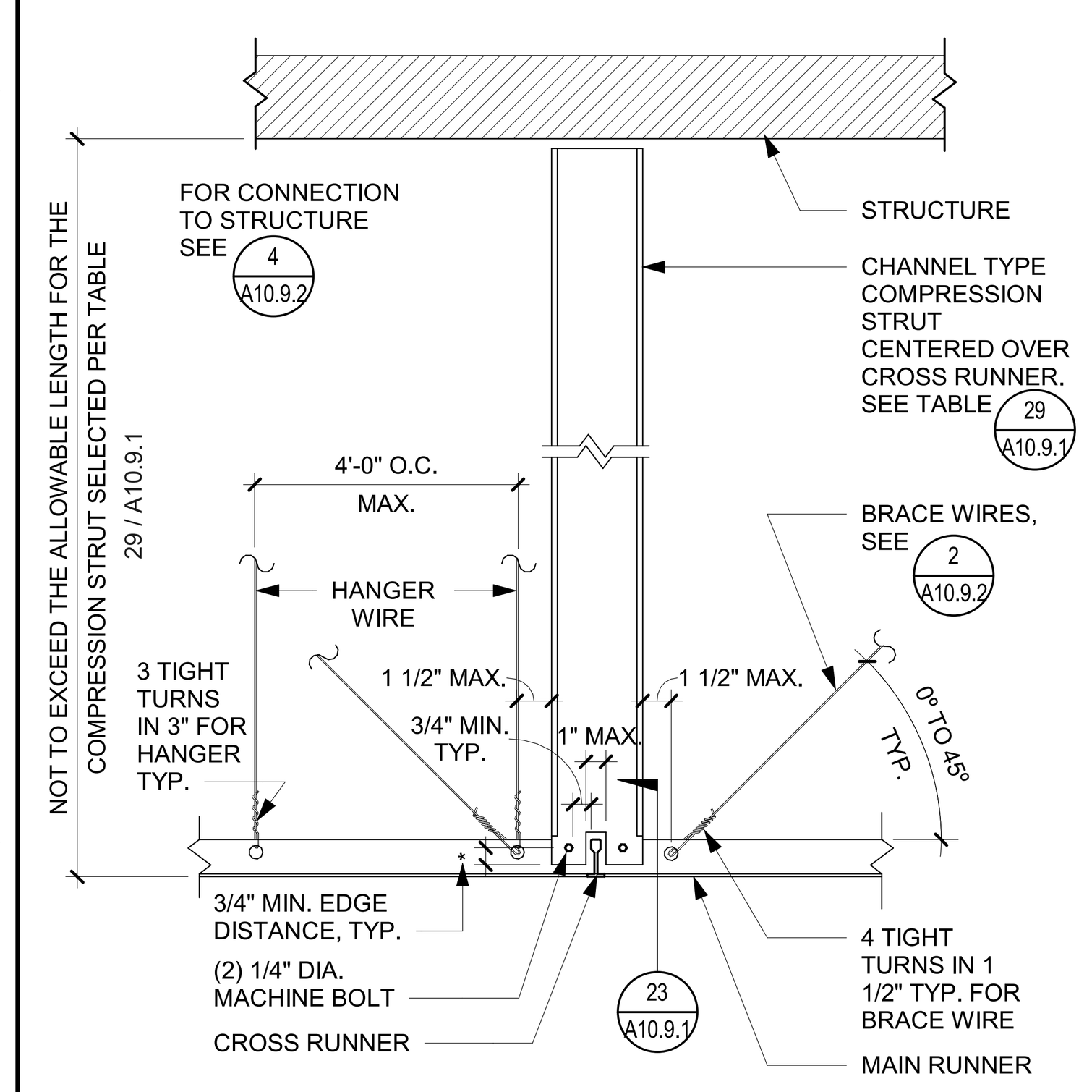


NOTES:
1. MACHINE BOLT IS NOT REQUIRED ON OPTION 3.
2. APPLICABLE TO SAWN TIMBER WITHOUT GYPSUM BOARD ONLY.

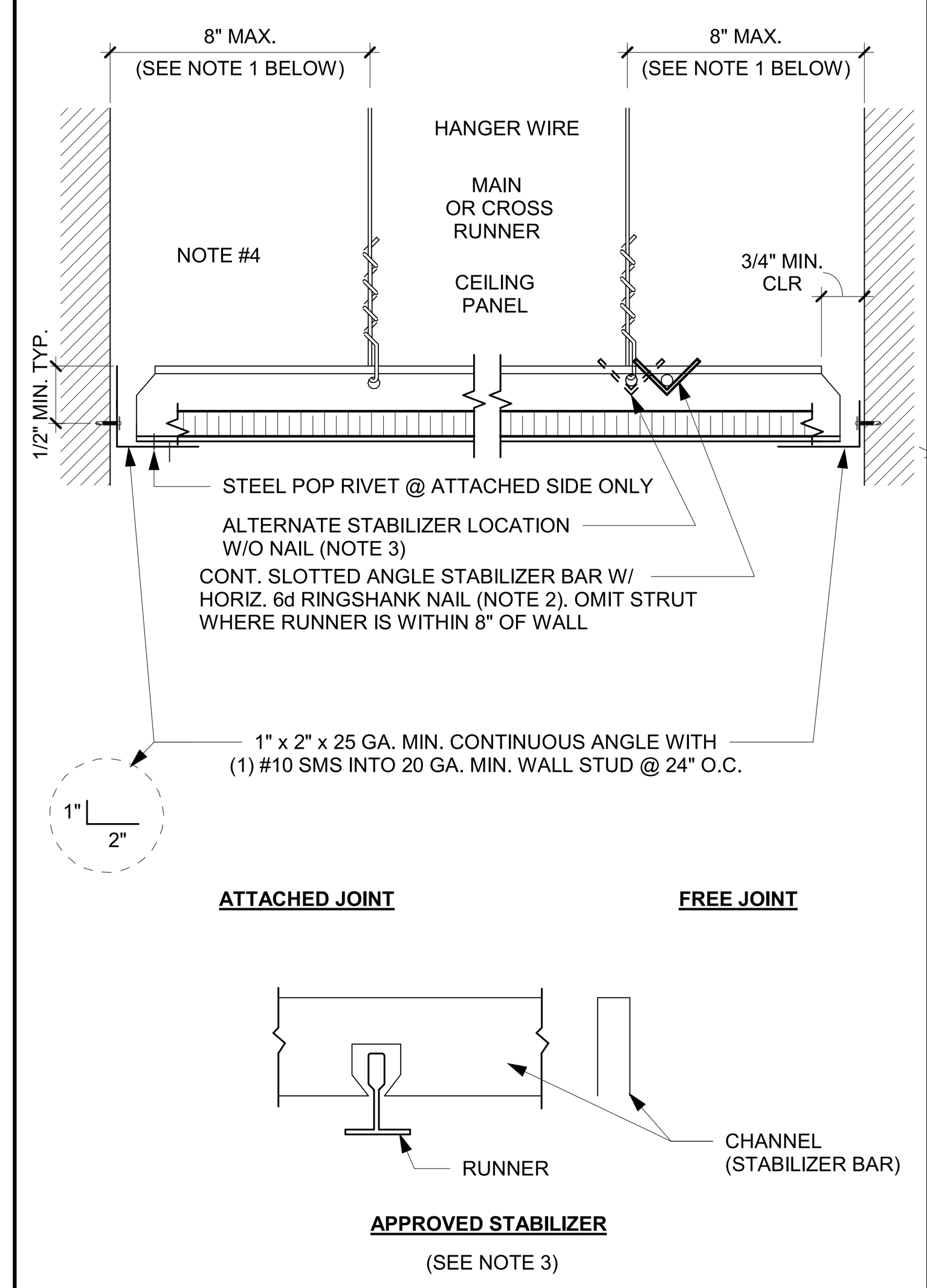
DSA IR 25-2.13 #3.20

EMT TYPE STRUT 1 1/2" = 1'-0" 27



DSA-IR 25 2.13 #3.10

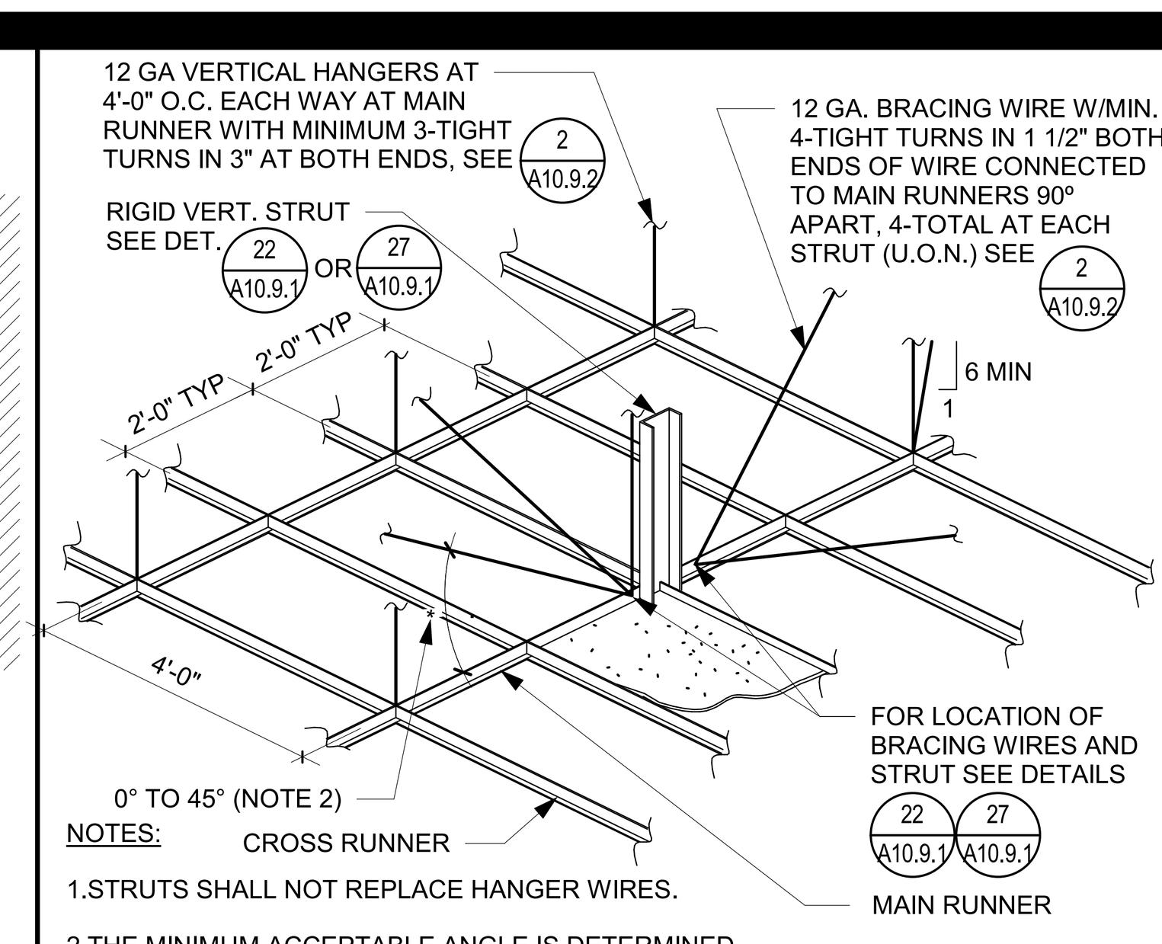
CHANNEL TYPE STRUT 1 1/2" = 1'-0" 22



NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STABILIZERS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. STABILIZER BAR MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. (1) #10 SMS TO 20 GA. MIN. WALL STUD @ 24" O.C.

DSA-IR 25-2.13 #2.60

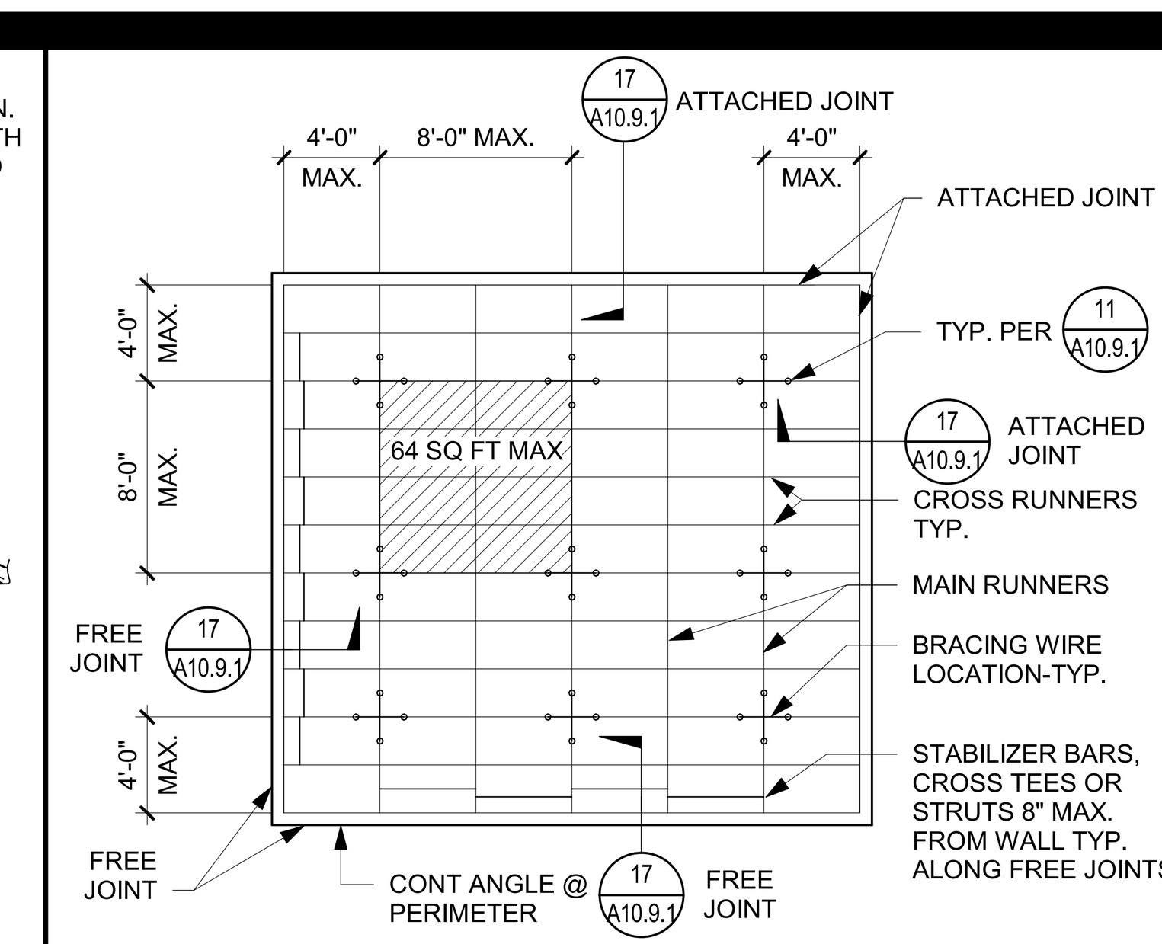
CEILING PERIMETER 3" = 1'-0" 17



NOTES:
1.STRUTS SHALL NOT REPLACE HANGER WIRES.
2.THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED.

DSA IR 25-2.13 #2.35

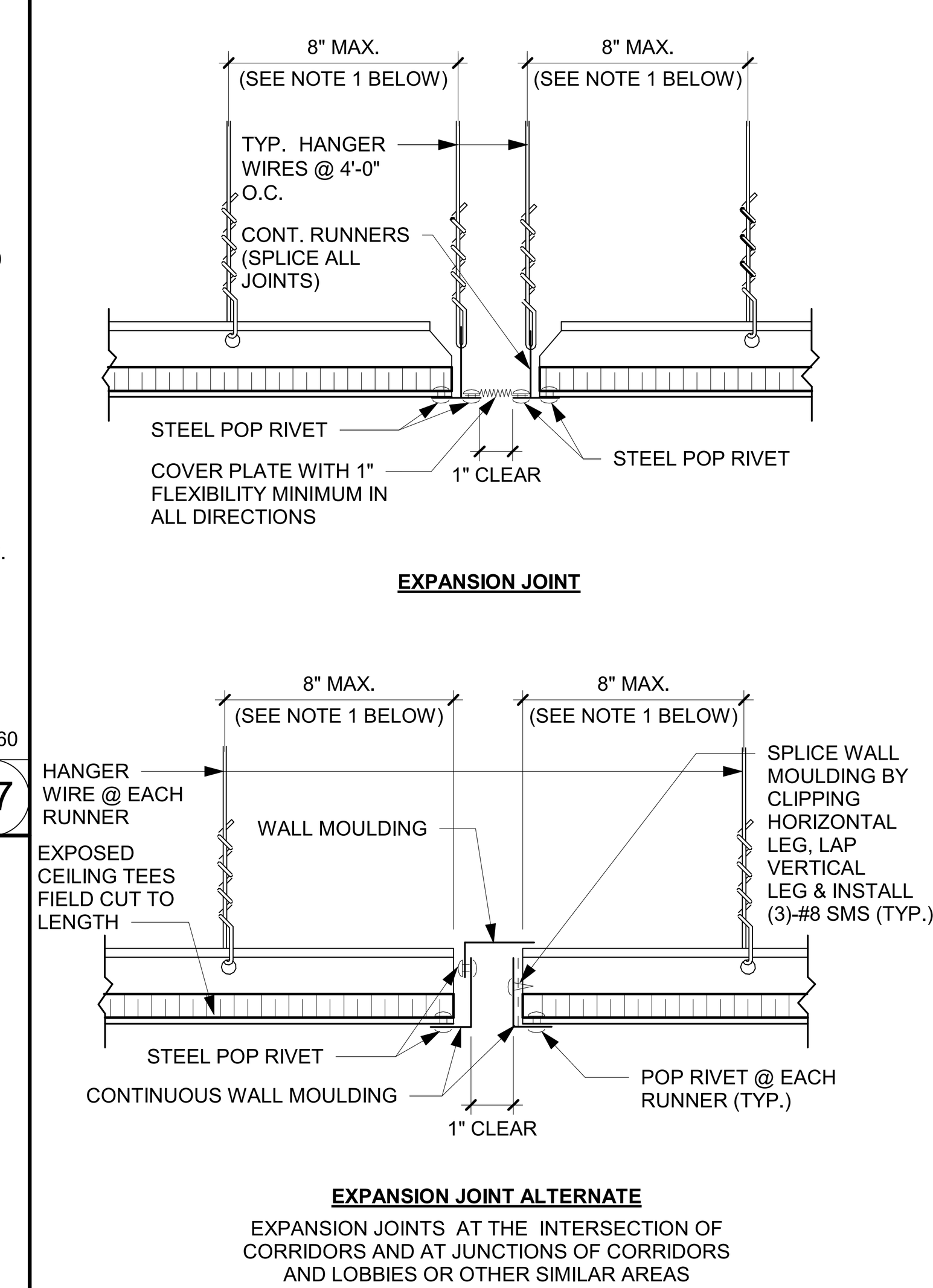
SUSPENSION AND BRACING ASSEMBLY 3" = 1'-0" 11



NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 64 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

DSA IR 25-2.13 #2.10

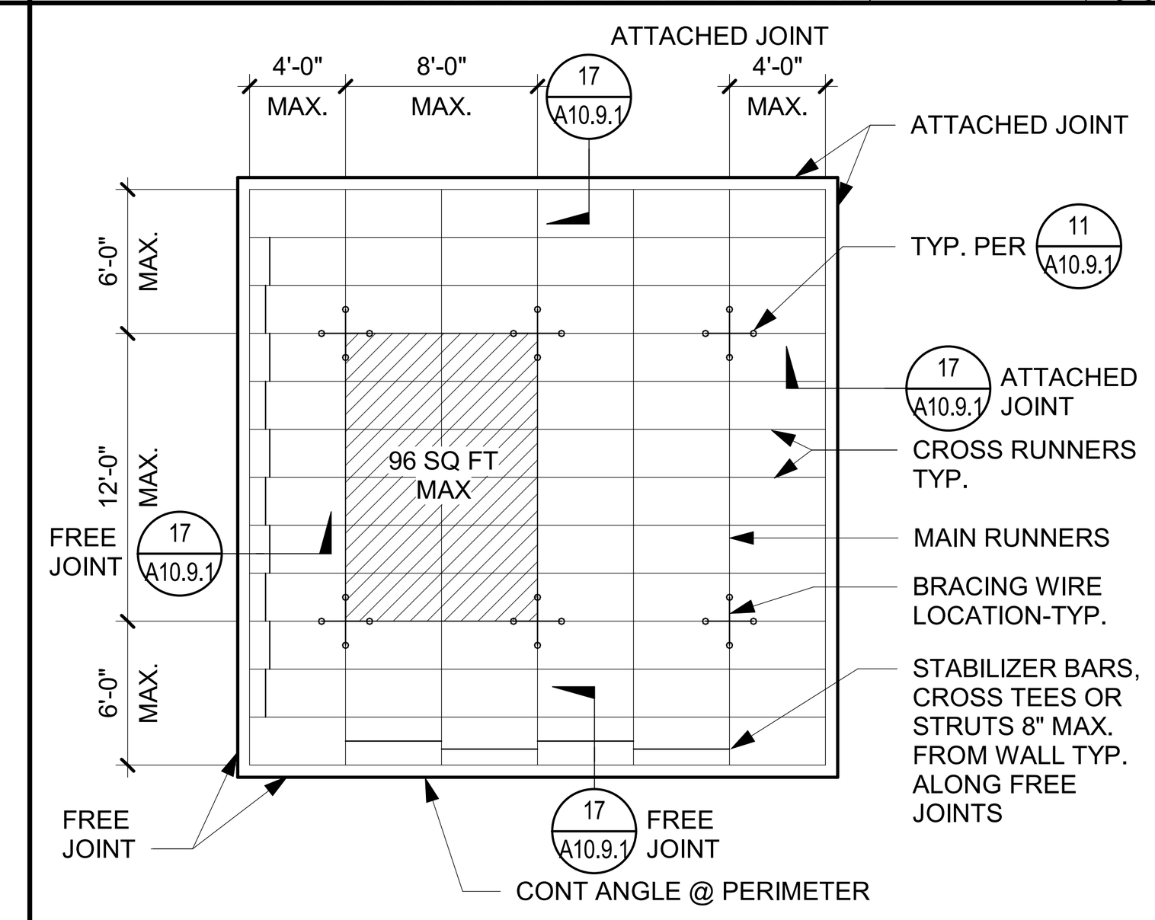
TYP. CEILING PLAN - 8'x8' BRACE ASSEMBLY SPACING 1/8" = 1'-0" 6



NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

DSA IR 25-2.13 #2.40

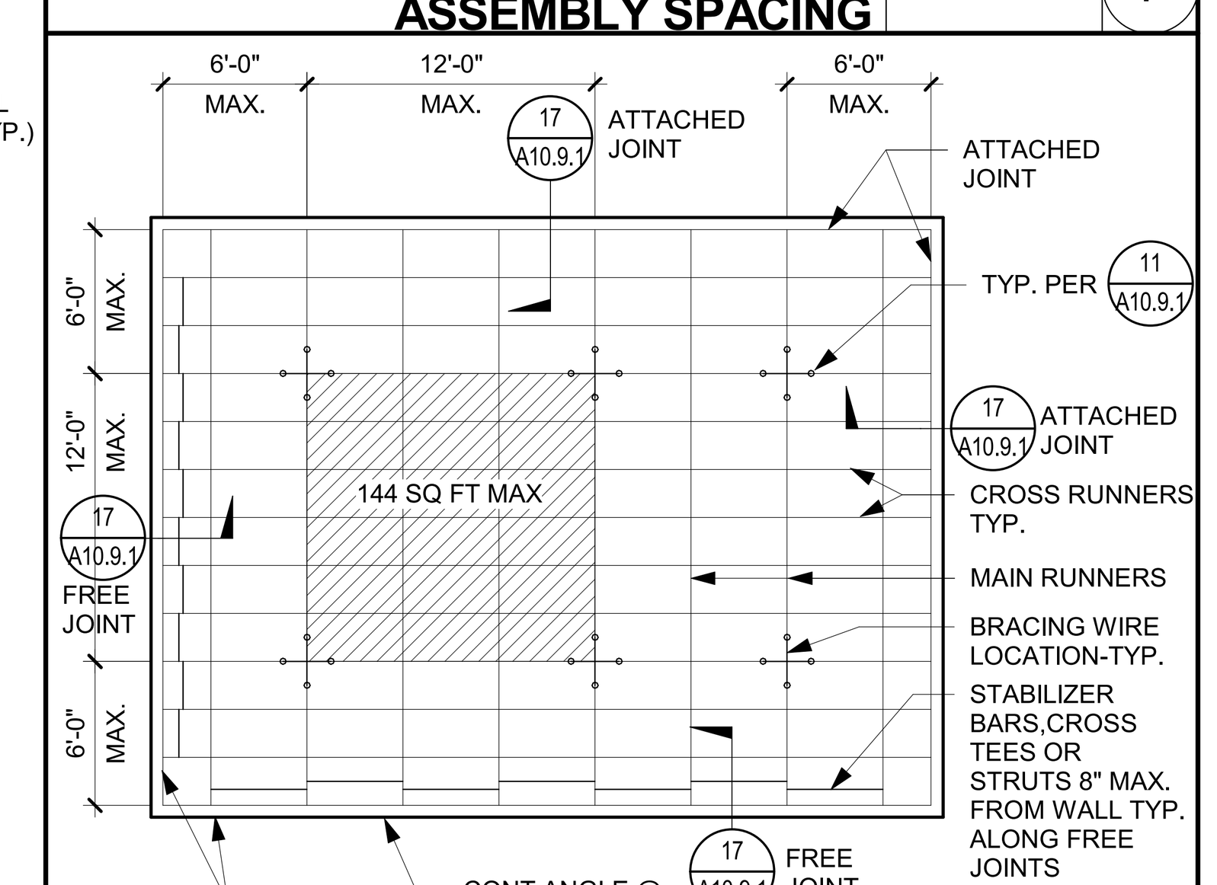
EXPANSION JOINT AT INTERSECTIONS 3" = 1'-0" 13



NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 96 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

DSA IR 25-2.13 #2.11

TYP. CEILING PLAN - 8'x12' BRACE ASSEMBLY SPACING 1/8" = 1'-0" 7



NOTE:
BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.

DSA-IR 25 2.13 #2.12

TYP. CEILING PLAN - 12'x12' BRACE ASSEMBLY SPACING 1/8" = 1'-0" 8

ACOUSTICAL CEILING NOTES

DSA IR-25-2.13 - APPENDIX A (rev 11/09/17)

1. CEILING SYSTEM GENERAL NOTES:

1.01 Ceiling system components shall comply with ASTM C635-07 and Section 5.1 of ASTM E580-10a.
1.02 The ceiling grid system must be rated heavy duty as defined by ASTM C635-08.
1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project: See specification section 09 51 13 for information regarding manufacturer's name, product evaluation report type and number, manufacturer's main runner model number and cross runner catalog number, and seismic wall clip.
1.05 Ceiling panels shall not support any light fixtures, air terminals or devices.
1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide ¾" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide ¾" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:

2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641-09a. Wire shall be #12 gage (0.106" diameter) with soft temper and minimum tensile strength = 70 ksi.
2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653-11, or other equivalent sheet steel listed in Section A2.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members 2007, including supplement 2 dated 2010 (AISI S100-07/S2-10).
Material 43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi.
Material 54 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.
2.03 Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (F_y) of 30 ksi and minimum ultimate strength (F_u) of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES:

3.01 Separate all ceiling hanger and bracing wires at least six (6) inches from all un-braced ducts, pipes, conduit, etc.
3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to: piping, ductwork, conduit and equipment.
3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.
3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.
3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire. (e.g. bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.)

4. FASTENERS AND WELDING:

4.01 Sheet metal screws shall comply with ASTM C1513-10, ASME B18.6.4-89 (R2005). Penetration of screws through joined material shall not be less than three exposed threads.
4.02 Expansion anchors shall be: [RDP to indicate manufacturer, product, evaluation report number and load for each size specified per CBC 1913A.7.2.]
4.03 Power-Actuated Fasteners shall be: [RDP to indicate manufacturer, product, evaluation report number]
4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.
4.05 Power-actuated fasteners in concrete are not permitted for bracing wires.
4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.
4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING:All field testing must be performed in the presence of the project inspector.

5.01 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for 200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.
5.02 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

6. LIGHT FIXTURES:

6.01 All light fixtures shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the fixture. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.
6.02 Surface-mounted light fixtures shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14 gage. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.
6.03 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
6.04 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
6.05 Light fixtures weighing greater than 10 lb. but less than or equal to 56 lbs. may be supported directly on the ceiling runners, but they shall have a minimum of two (2) #12 gage slack safety wires connected from the fixture housing at diagonal corners to the structure above. Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.
6.06 All Light fixtures weighing greater than 56 lb. shall be independently supported by not less than four (4) taut #12 gage hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four (4) taut #12 gage wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:

7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.
7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 lb. shall have one (1) #12 gage slack safety wire attached from the terminal or service to the structure above.
7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 lb. but less than or equal to 56 lb. shall have two (2) #12 gage slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.
7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 lb. shall be supported directly from the structure above by not less than four (4) taut #12 gage hanger wires attached from the terminal or service to the structure above or other approved hangers.

8. OTHER DEVICES WITHIN THE CEILING:

8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 lbs. shall have a #12 gage slack safety wire anchored to the structure above. Devices weighing more than 20 lb. shall be supported independently from the structure above.

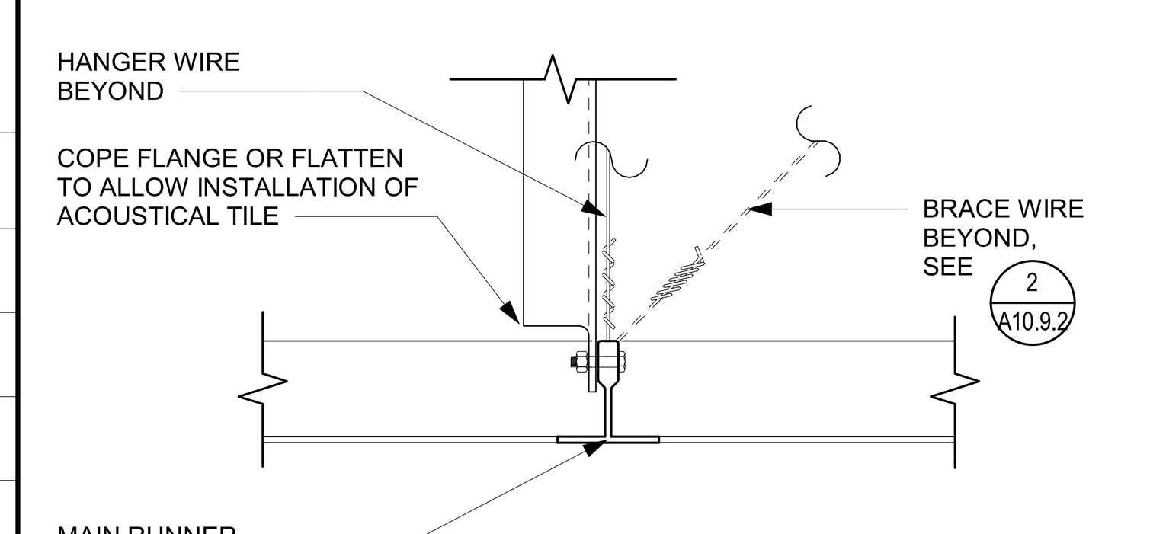
COMPRESSION STRUT TABLE

EMT COMPRESSION STRUT	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	4'-7"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	7'-5"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9'-9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12'-9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14'-9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18'-10"

CHANNEL COMPRESSION STRUT	MAXIMUM LENGTH
250S125-33	5'-0"
250S137-33	6'-10"
362S137-33	8'-0"
250S137-43	8'-10"
400S137-43	10'-10"

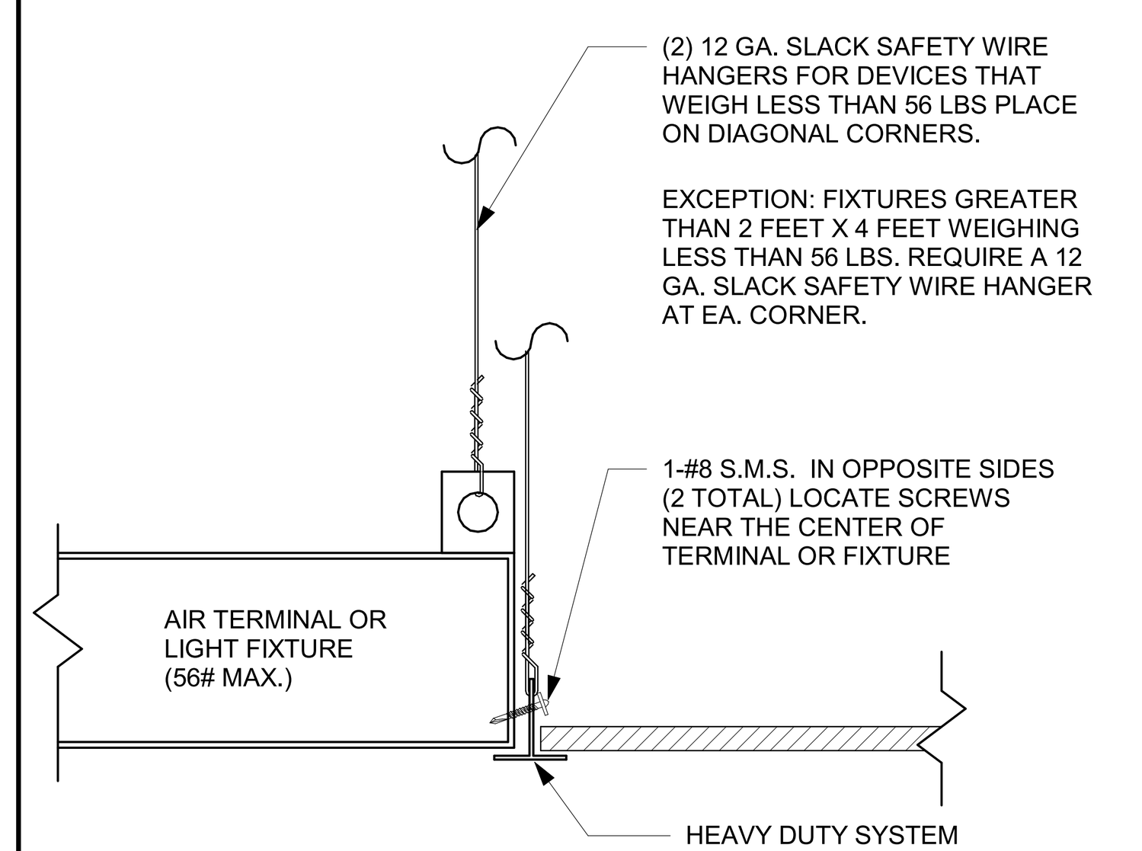
DSA IR 25-2.13 #3.21

COMPRESSION STRUT TABLE 3" = 1'-0" 29



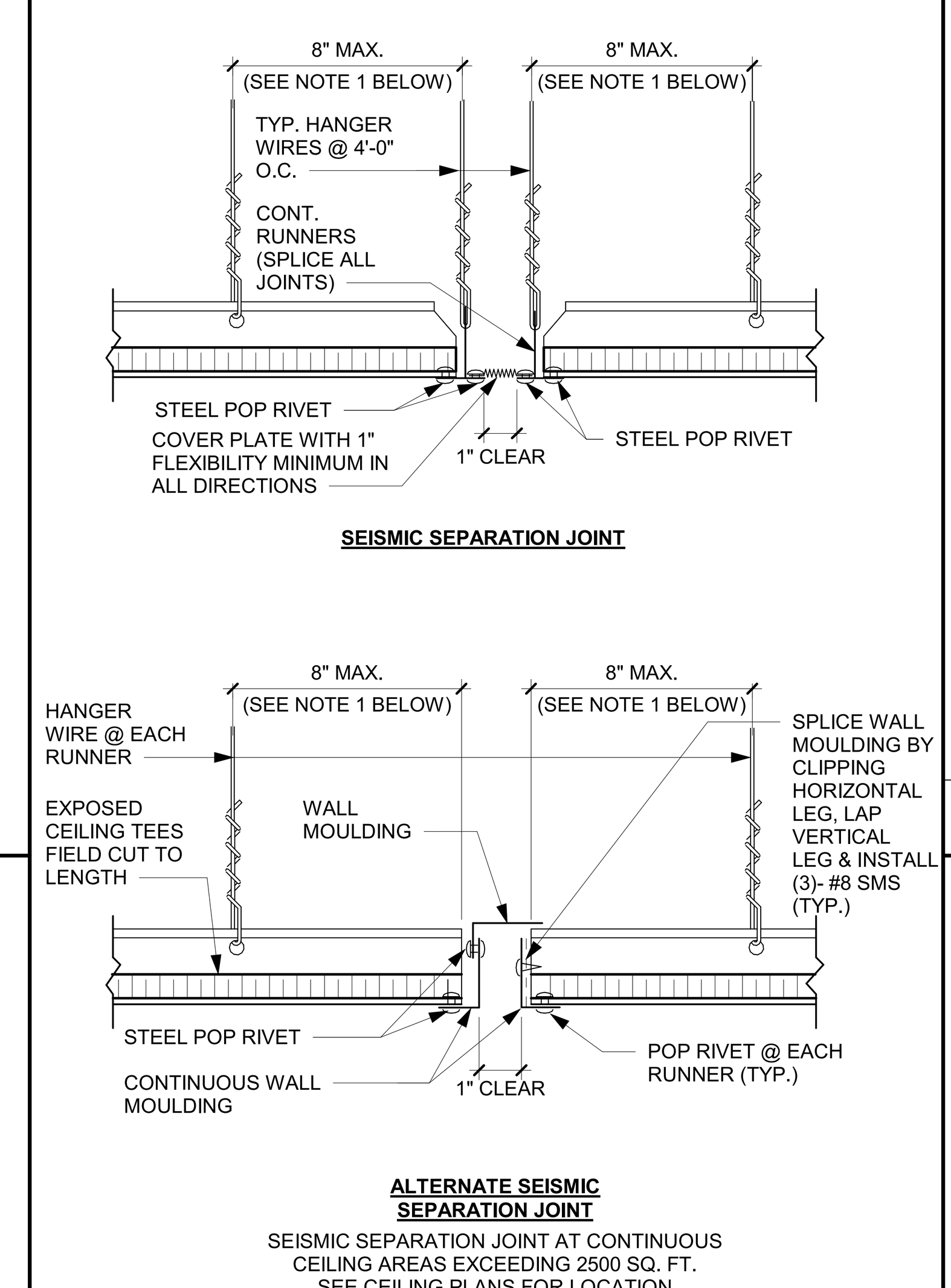
DSA-IR 25 2.13 #3.10A

CHANNEL TYPE STRUT 3" = 1'-0" 23



DSA IR 25-2.13 #2.80

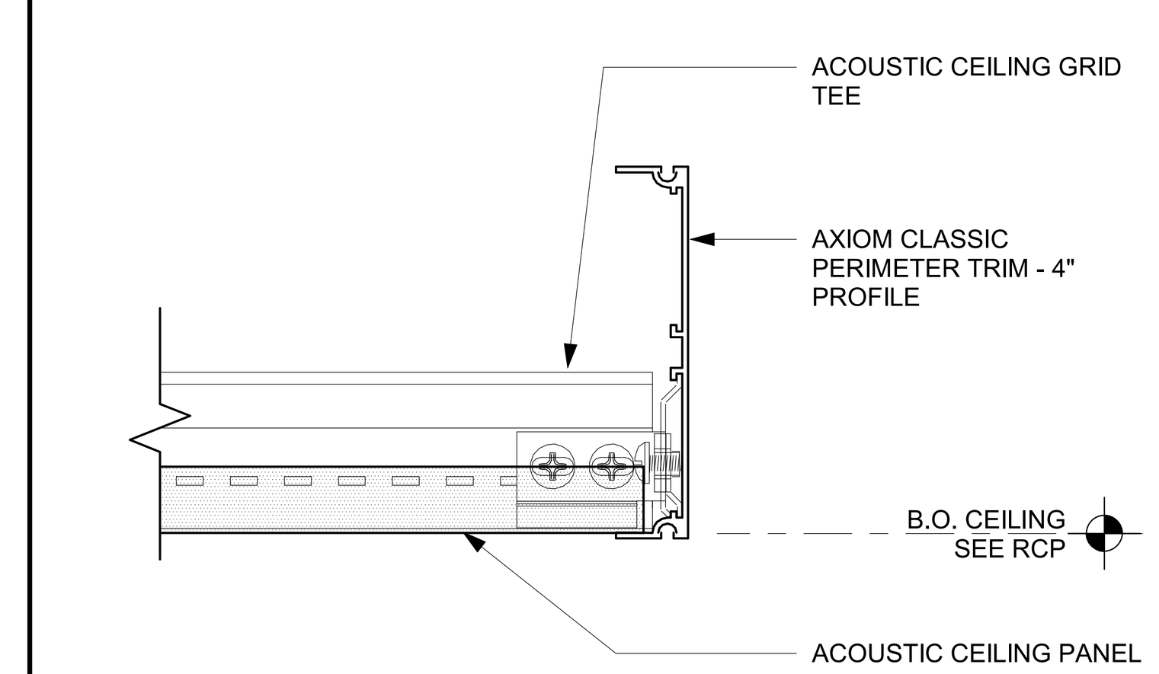
LIGHT FIXTURES / AIR TERMINAL SUPPORT 3" = 1'-0" 18



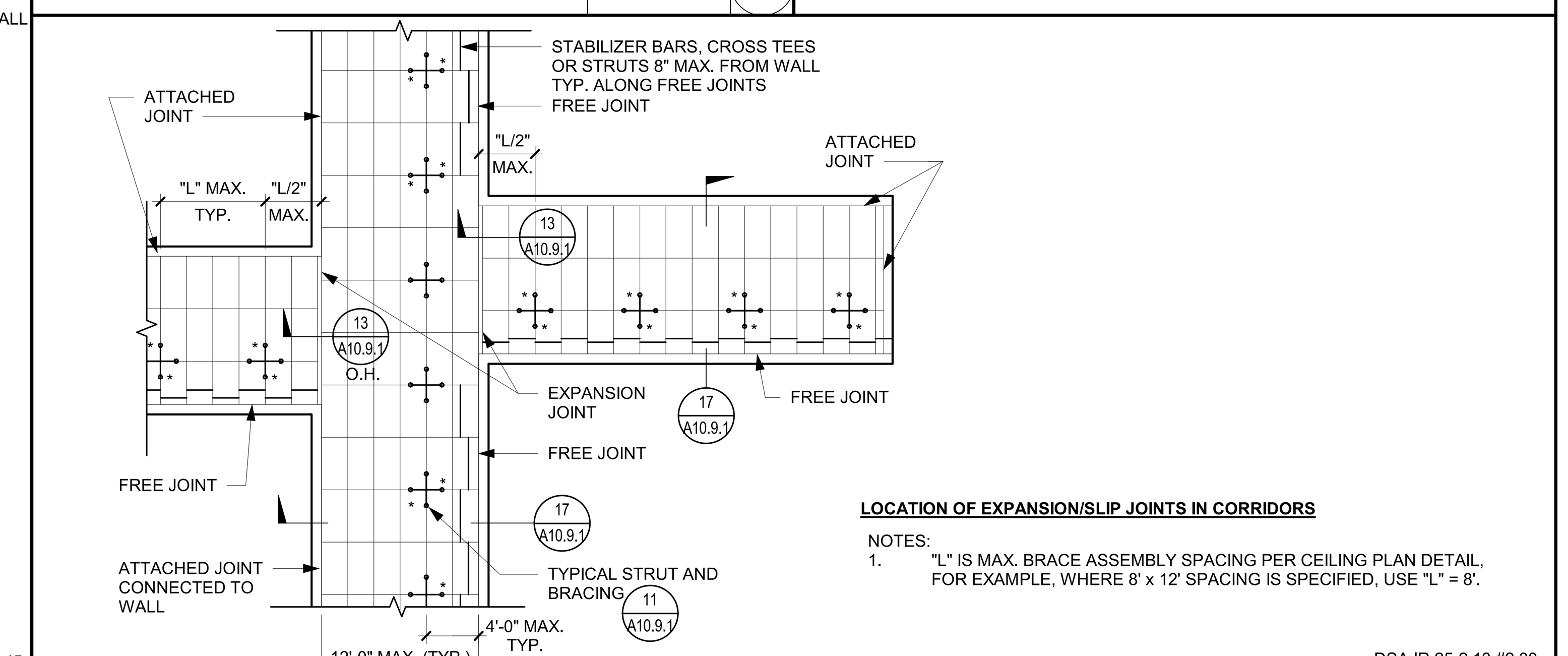
NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

DSA IR 25-2.13 #2.45

SEISMIC SEPARATION JOINT 3" = 1'-0" 15



AXIOM TRIM 6" = 1'-0" 9



LOCATION OF EXPANSION/SLIP JOINTS IN CORRIDORS

NOTES:
1. "L" IS MAX. BRACE ASSEMBLY SPACING PER CEILING PLAN DETAIL, FOR EXAMPLE, WHERE 8' x 12' SPACING IS SPECIFIED, USE "L" = 8'.

DSA IR 25-2.13 #2.30

CORRIDOR CEILING PLAN (SCHOOLS) NTS 5

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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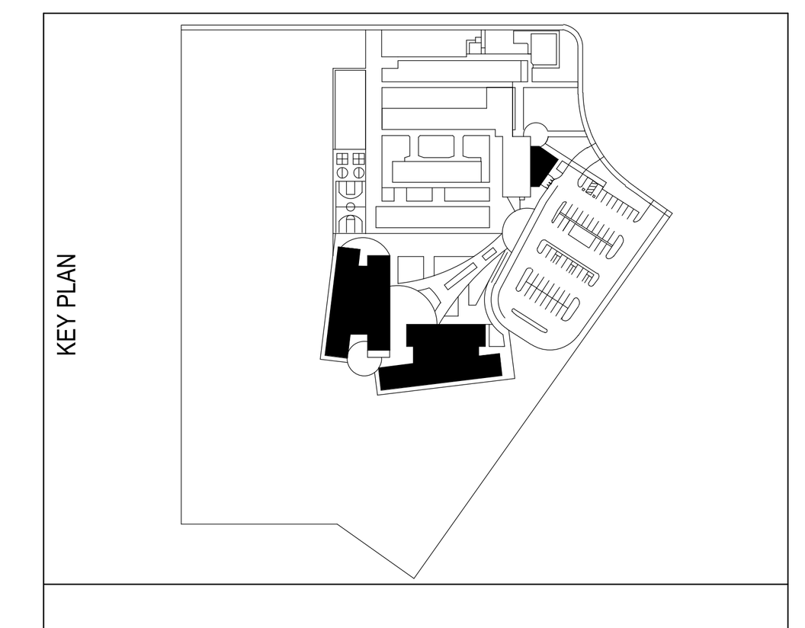
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TYPICAL SUSPENDED ACOUSTICAL CEILING DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	A10.9.1
Drawn / Checked	
AA / AM	

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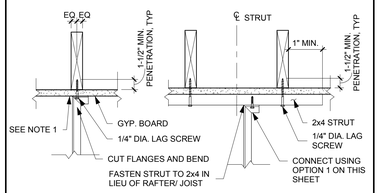
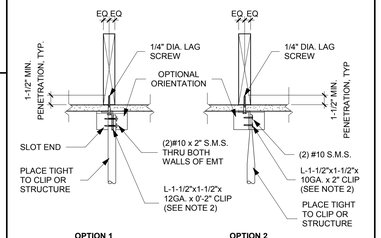


OPTION 1 **OPTION 2**

CHANNEL STRUT



OPTION 1 **OPTION 2**

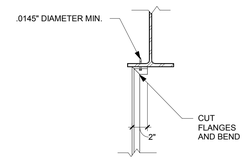
TUBE STRUT

NOTES:

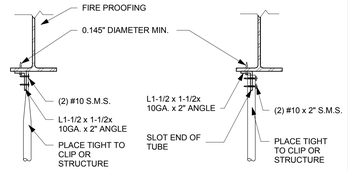
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF THE WOOD MEMBER.
2. FOR ANGLE ORIENTED IN THE STANDARD POSITION, VERTICAL LEG TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER

DSA IR 25-2.13 #5.50

STRUT CONNECTION TO SAWN TIMBER WITH GYPSUM BOARD — 1 1/2" = 1'-0" — 22



CHANNEL STRUT



OPTION 1 **OPTION 2**

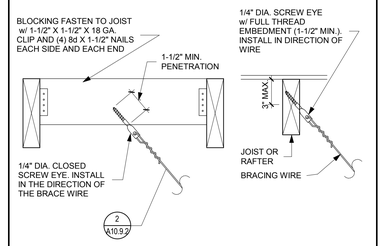
TUBE STRUT

NOTES:

1. STRUCTURAL STEEL MEMBER SHALL NOT BE LESS THAN 3/16".
2. RDP IN RESPONSIBLE CHARGE, I.O.R. AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANSI/AISC 341-10.
3. REFER TO 5.20 AND 5.30 FOR ADDITIONAL INFORMATION.

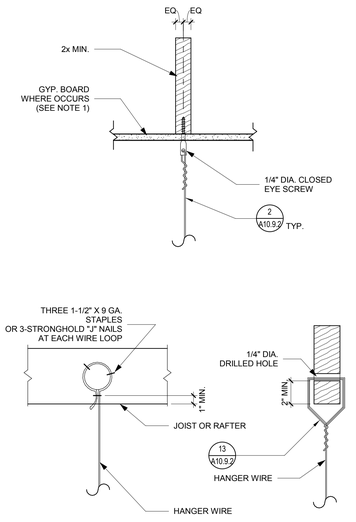
DSA IR 25-2.13 #5.40

STRUT CONNECTION TO STRUCTURAL STEEL — 1 1/2" = 1'-0" — 17



DSA IR 25-2.13 #4.35

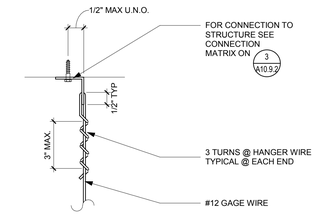
BRACING WIRE CONNECTION TO SAWN TIMBER — 1 1/2" = 1'-0" — 12



NOTE:
1. WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

DSA IR 25-2.13 #4.25

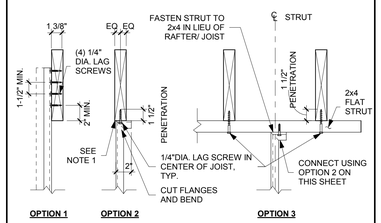
HANGER WIRE CONNECTION TO SAWN TIMBER — 1 1/2" = 1'-0" — 7



HANGER WIRE

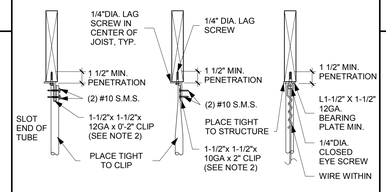
DSA IR 25-2.13 #4.10

HANGER AND BRACING WIRE TYPICAL WIRE TURNS — 3" = 1'-0" — 2



OPTION 1 **OPTION 2** **OPTION 3**

CHANNEL STRUT



OPTION 1 **OPTION 2** **OPTION 3**

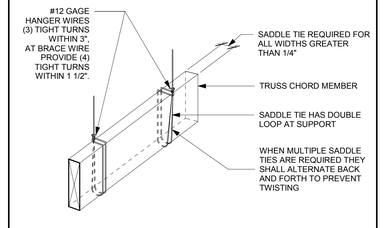
TUBE STRUT

NOTES:

1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. SEE PAGE 5.50 FOR ADDITIONAL INFORMATION.

DSA IR 25-2.13 #5.60

STRUT CONNECTION TO SAWN TIMBER WITHOUT GYPSUM BOARD — 1 1/2" = 1'-0" — 24

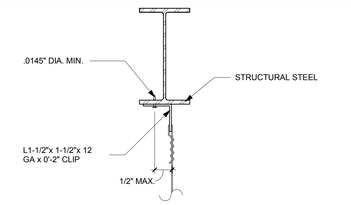


TYPICAL SADDLE TIE DETAIL

HANGER WIRE CONDITION SHOWN. BRACE WIRE CONDITION SIMILAR

DSA IR 25-2.13 #4.29

TYPICAL SADDLE TIE DETAIL — NTS — 13



HANGER WIRE

NOTES:

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16"
2. RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE ANSI/AISC 341-10
3. REFER TO 4.10 FOR ADDITIONAL DETAILS

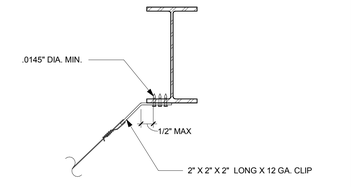
DSA IR 25-2.13 #4.23

HANGER WIRE CONNECTION TO STRUCTURAL STEEL — 1 1/2" = 1'-0" — 8

STRUCTURAL CONDITION OF FLOOR/ROOF ABOVE SUSPENDED CEILING	APPLICABLE HANGER WIRE DETAIL	APPLICABLE BRACING WIRE DETAIL
SAWN TIMBER	4.25 & 4.29 7 / A10.9.2 & 13 / A10.9.2	4.35 12 / A10.9.2
STRUCTURAL STEEL	4.23 8 / A10.9.2	4.33 9 / A10.9.2

DSA IR 25-2.13 #4.11

HANGER AND BRACING WIRE CONNECTION MATRIX — NTS — 3



BRACING WIRE

NOTES:

1. BEAM FLANGE THICKNESS SHALL NOT BE LESS THAN 3/16"
2. RDP IN RESPONSIBLE CHARGE, OR, AND CONTRACTOR SHALL VERIFY THAT NO PAF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER. SEE ANSI/AISC 341-10
3. REFER TO 4.10 FOR ADDITIONAL DETAILS

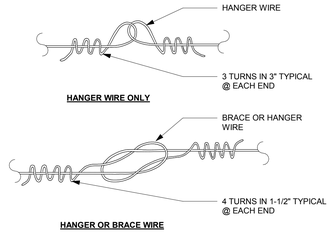
DSA_IR_25-2.13 #4.33

BRACING WIRE CONNECTION TO STRUCTURAL STEEL — 1 1/2" = 1'-0" — 9

STRUCTURAL CONDITION OF FLOOR/ROOF ABOVE COMPRESSION STRUT	DETAIL
SAWN TIMBER WITH GYPSUM BOARD	5.50 22 / A10.9.2
SAWN TIMBER WITHOUT GYPSUM BOARD	5.60 24 / A10.9.2
STRUCTURAL STEEL	5.40 17 / A10.9.2

DSA IR 25-2.13 #5.10

COMPRESSION STRUT CONNECTION TO STRUCTURE — NTS — 4



HANGER WIRE ONLY

HANGER OR BRACE WIRE

NOTES:

WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTION.

DSA IR 25-2.13 #6.10

CEILING WIRE SPLICES — 3" = 1'-0" — 5

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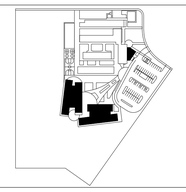
	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

SUSPENDED ACOUSTICAL CEILING DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	A10.9.2
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PRINT DATE: 5/17/2019 10:24:50 AM
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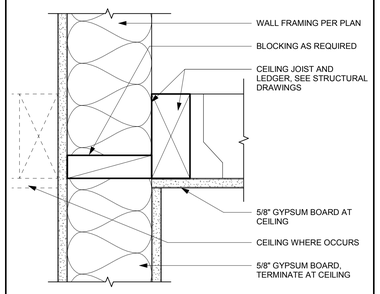
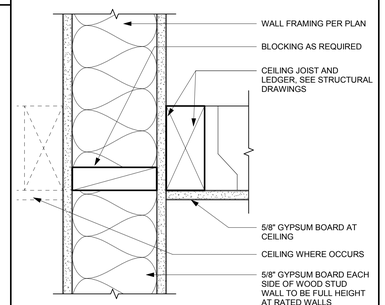
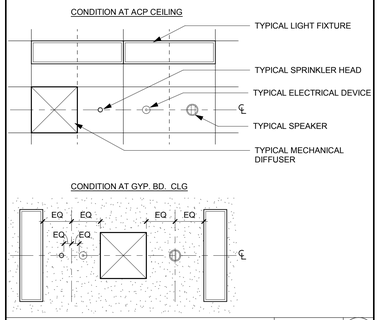
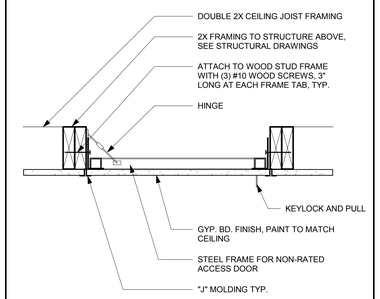




GYPSUM BOARD CEILING 3" = 1'-0" (2)



TYPICAL DEVICE LAYOUT 3/8" = 1'-0" (3)



NON-RATED CEILING ACCESS PANEL 1 1/2" = 1'-0" (4)

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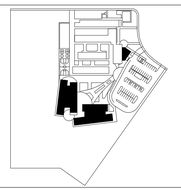
KEY PLAN



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05/20/2019	19003
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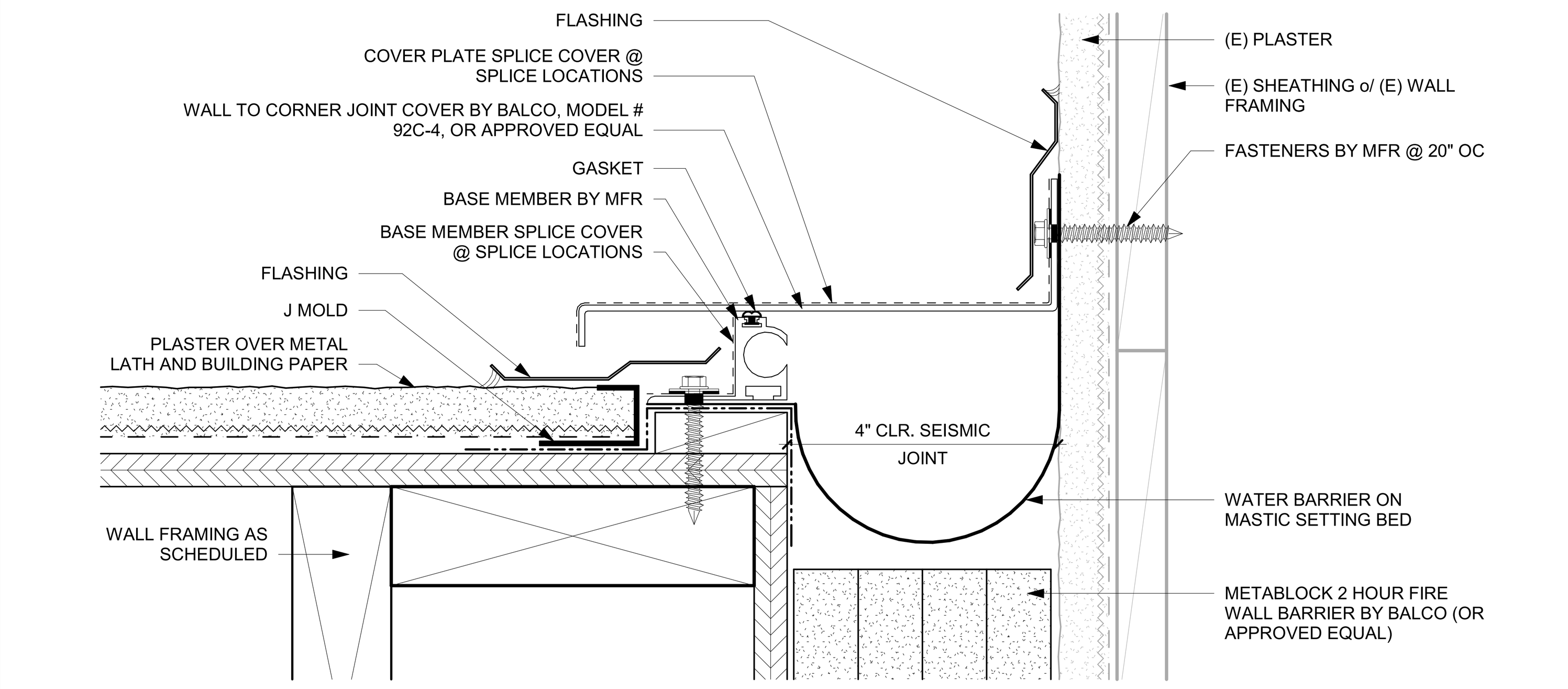
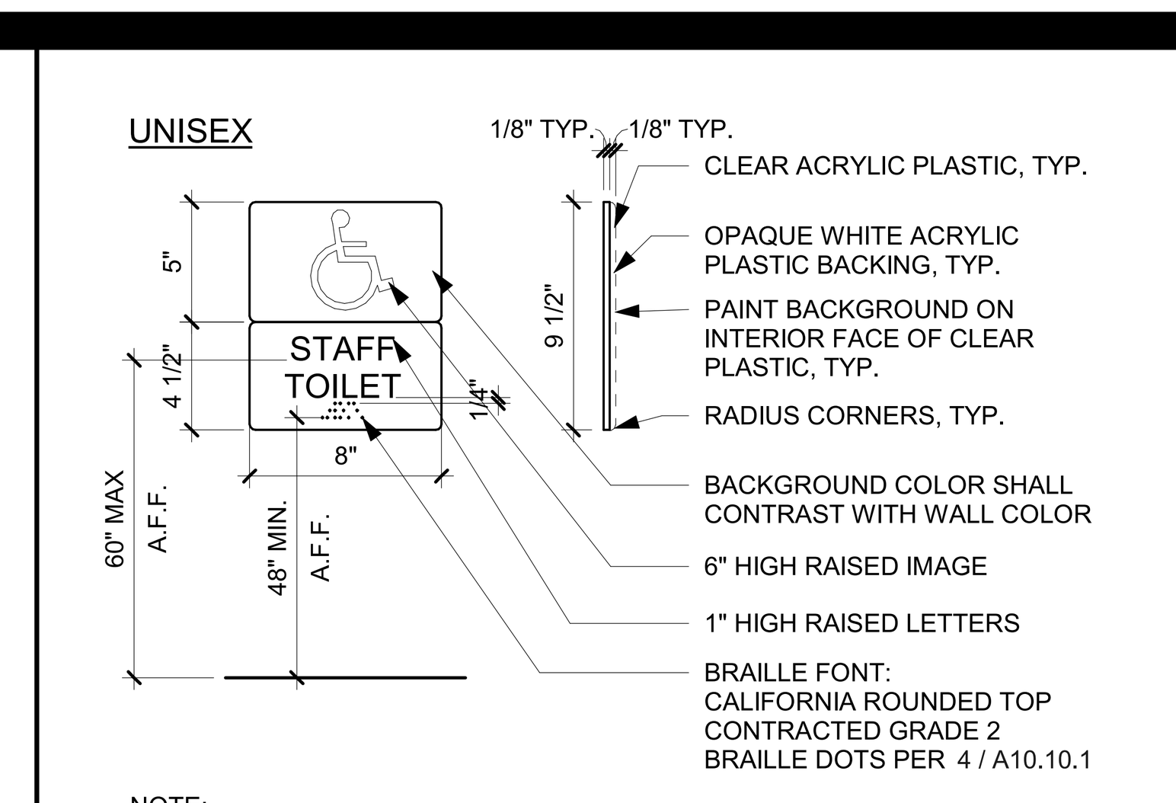
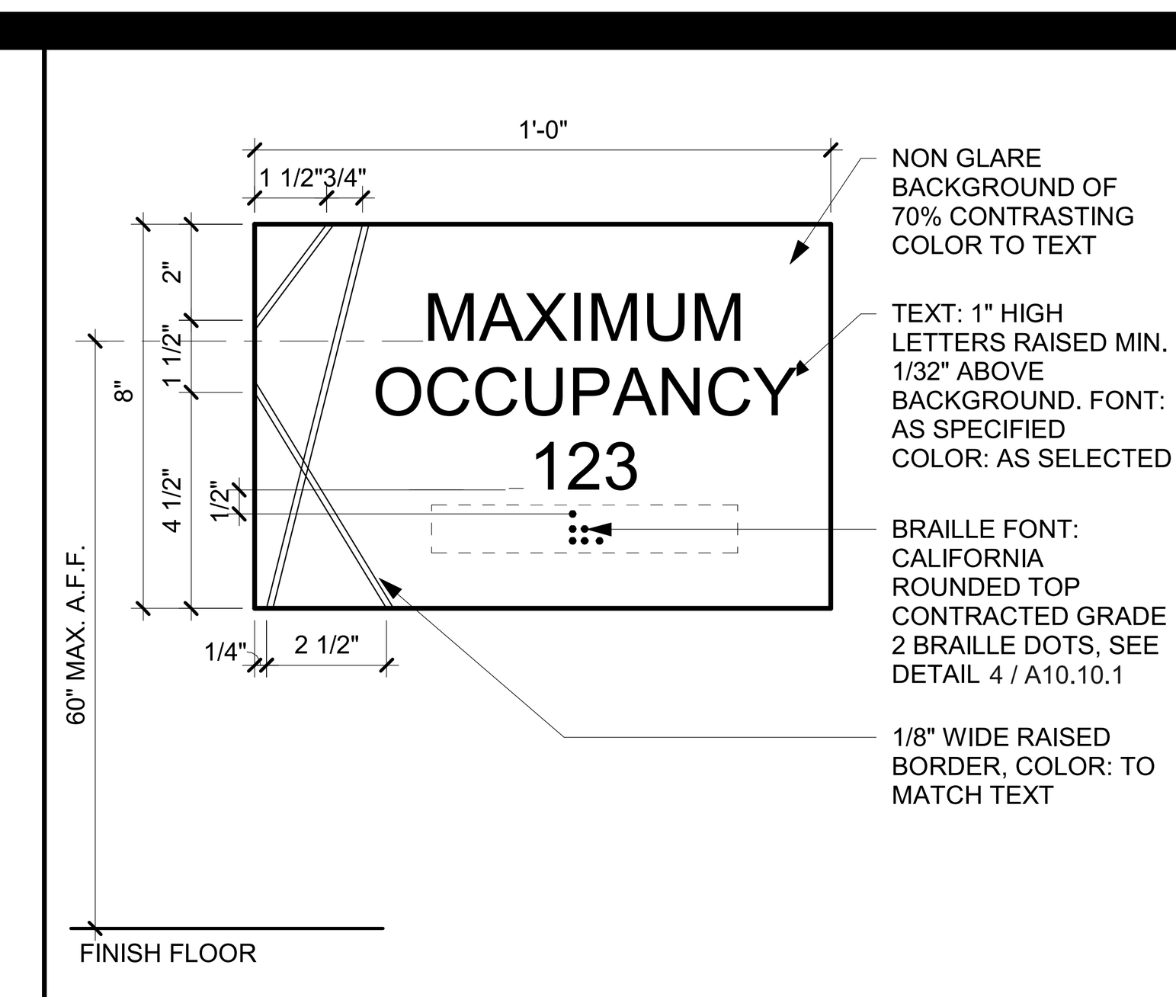


EXPANSION JOINT COVER AT EXTERIOR WALL (PLAN) 6" = 1'-0" 21

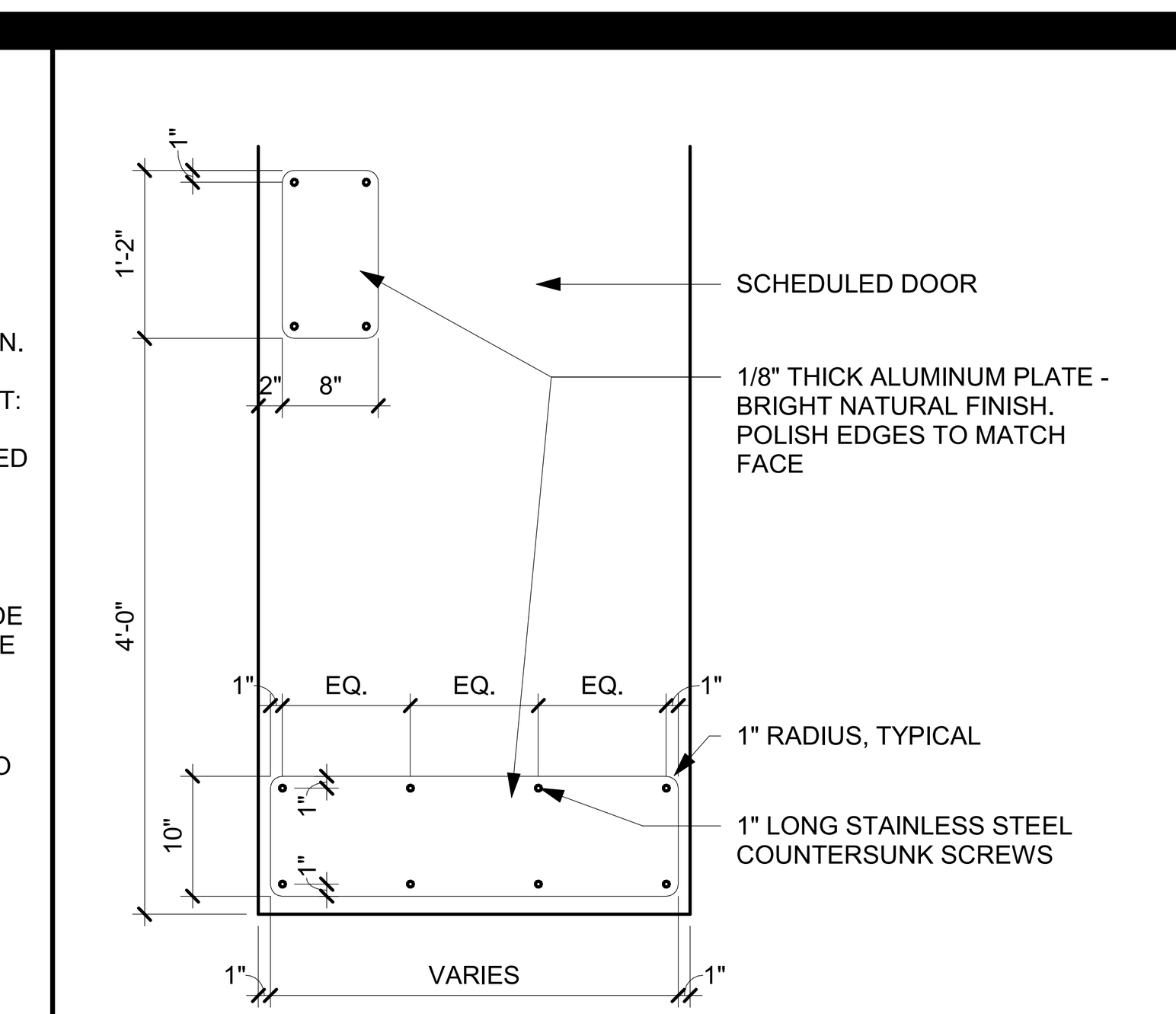


NOTE:
1. ATTACH SIGNAGE AS PER MANUFACTURER'S INSTRUCTIONS. SIGNS SHALL BE MOUNTED 60" MAXIMUM ABOVE FINISH FLOOR TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS, ON THE LATCH SIDE OF DOOR TO ROOM, SEE 1 / A10.10.1
2. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

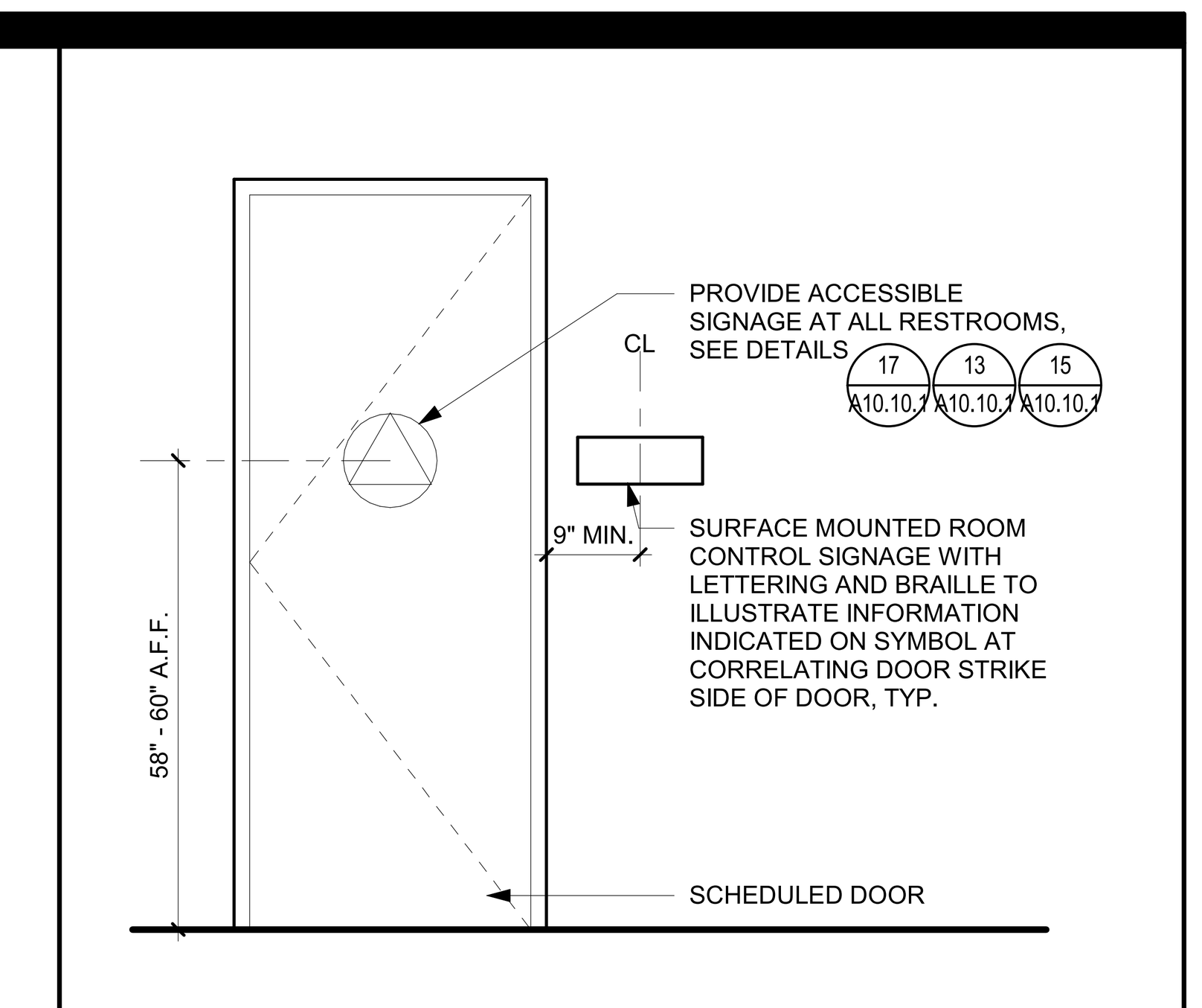
UNISEX WALL MOUNTED SIGNAGE 1 1/2" = 1'-0" 16



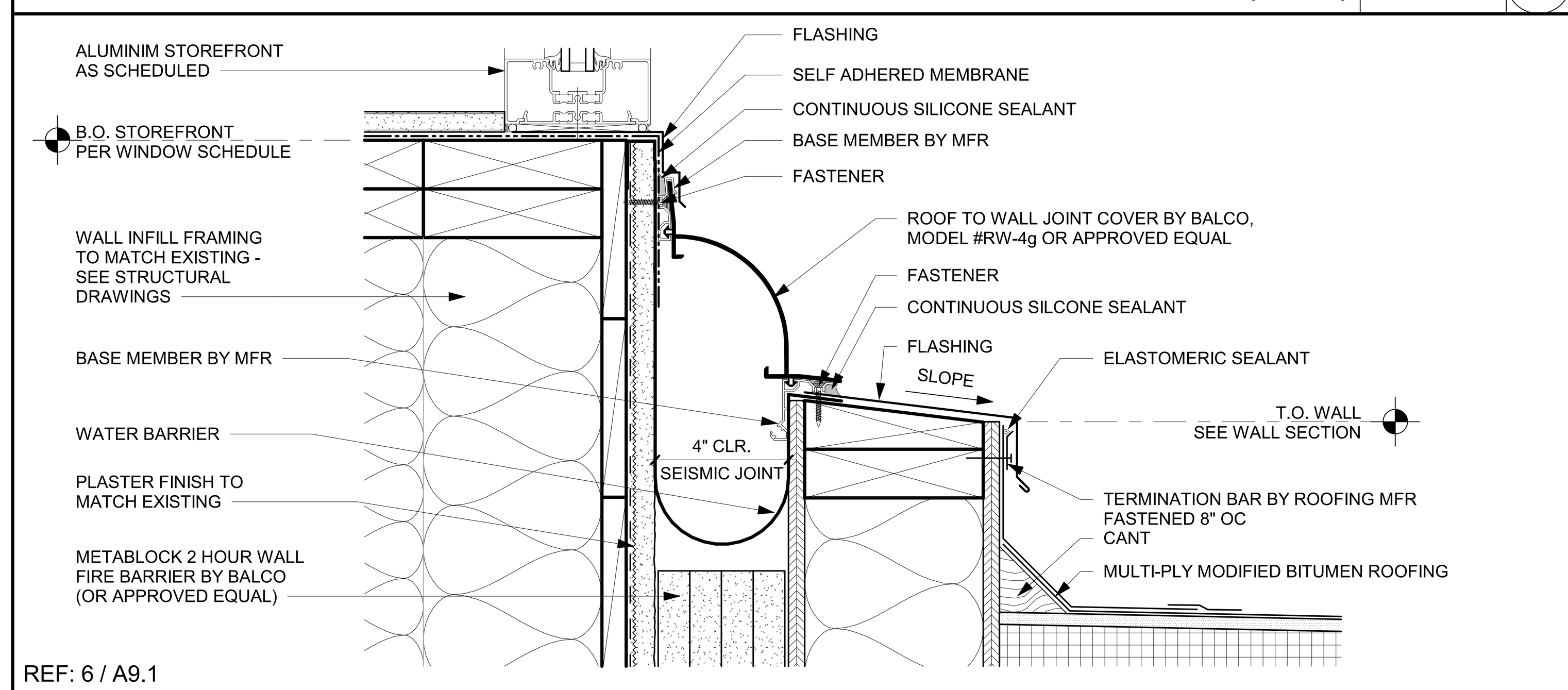
MAXIMUM OCCUPANCY SIGNAGE 3" = 1'-0" 11



ALUM. KICK & PUSH PLATES 3/4" = 1'-0" 6

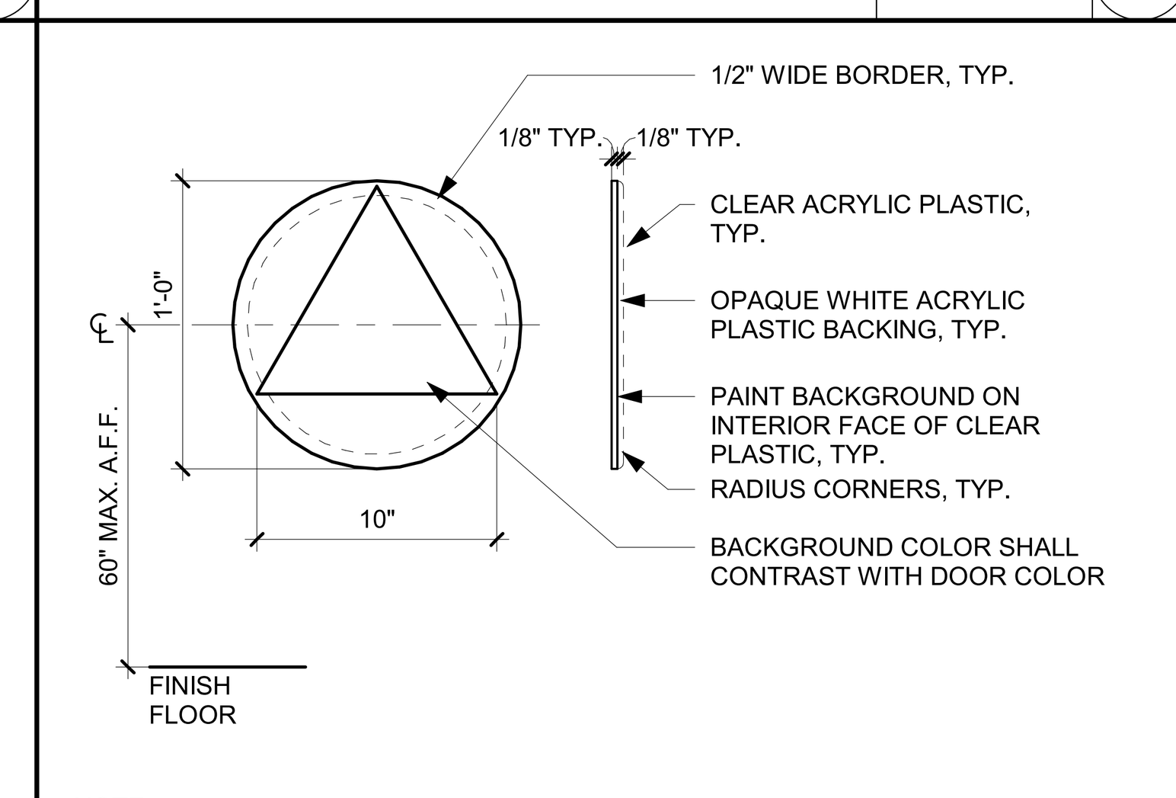


ROOM CONTROL SIGNAGE 1/2" = 1'-0" 1



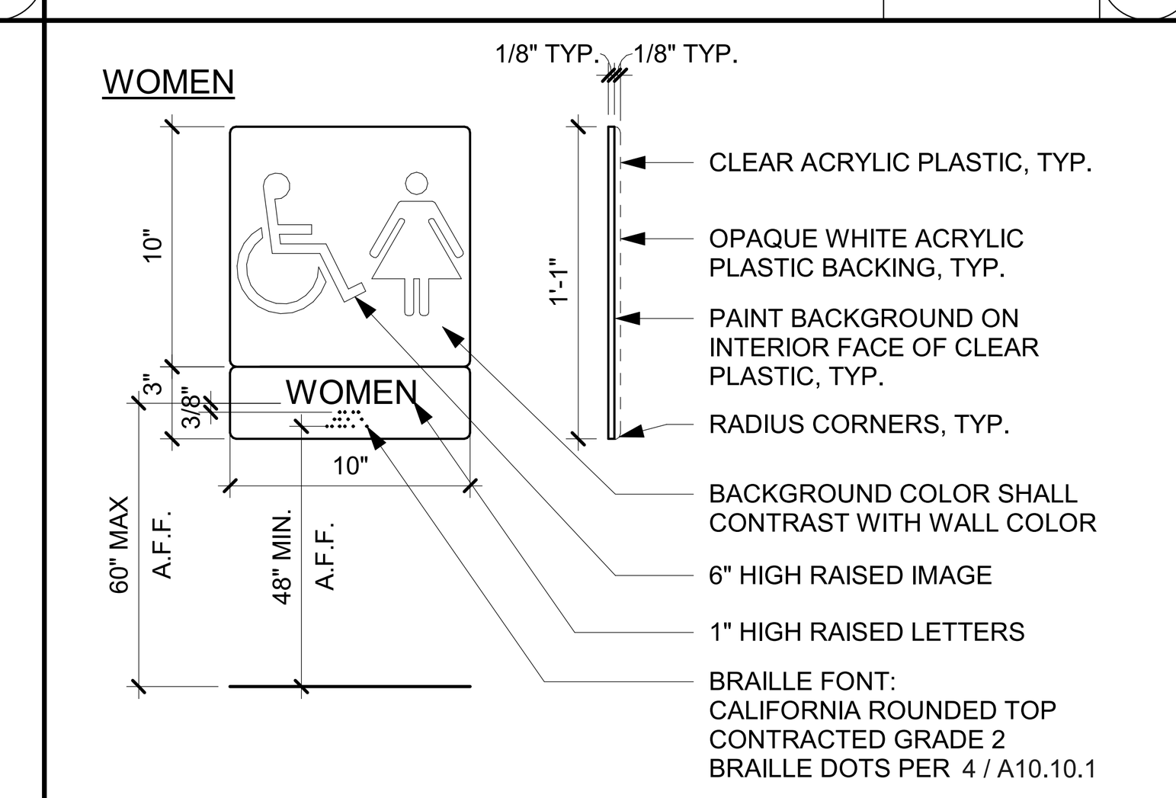
REF: 6 / A9.1

EXPANSION JOINT COVER AT WINDOW 3" = 1'-0" 22



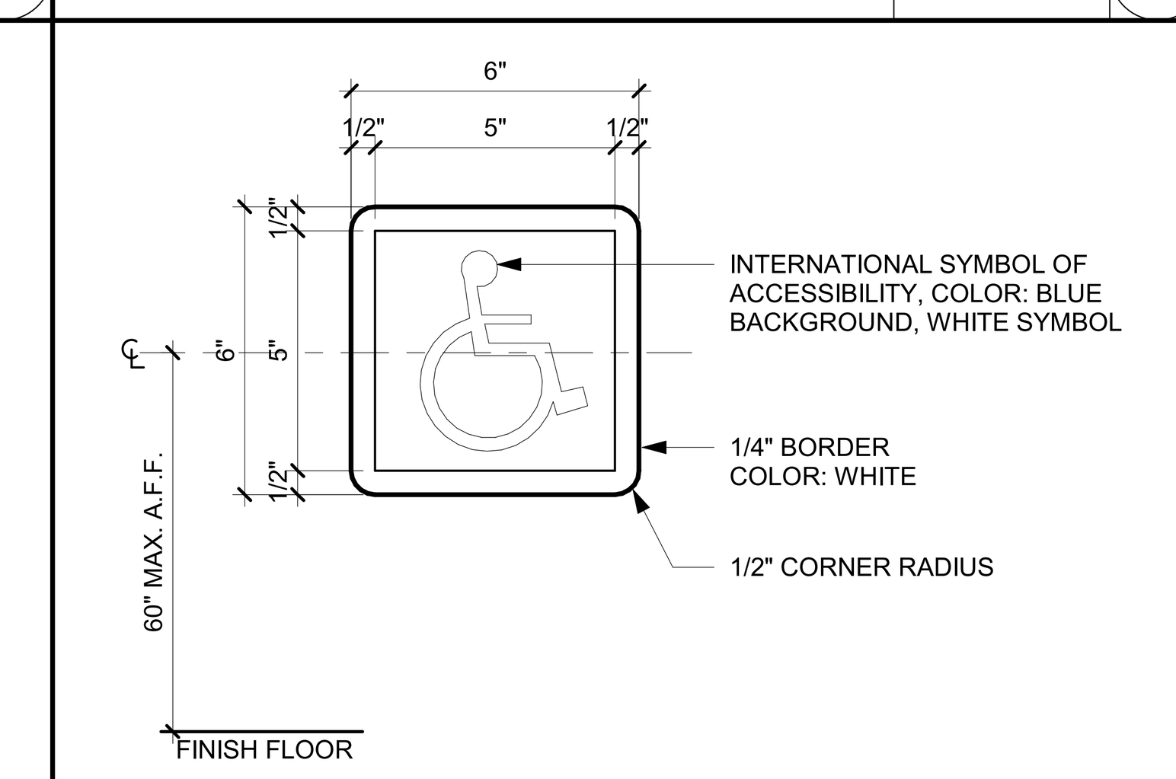
NOTE:
1. ATTACH SIGNAGE USING (3) THREE FLATHEAD WOOD SCREWS, COUNTERSUNK AND ADHESIVE.
2. SIGNS SHALL BE CENTERED ON DOOR AND MOUNTED 60" MAX. A.F.F., SEE 1 / A10.10.1
3. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

UNISEX DOOR SIGNAGE 1 1/2" = 1'-0" 17



NOTE:
1. ATTACH SIGNAGE AS PER MANUFACTURER'S INSTRUCTIONS. SIGNS SHALL BE MOUNTED 60" MAXIMUM ABOVE FINISH FLOOR TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS, ON THE LATCH SIDE OF DOOR TO ROOM, SEE 1 / A10.10.1
2. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

WOMEN WALL MOUNTED SIGNAGE 1 1/2" = 1'-0" 12



NOTE: PROVIDE MECHANICAL MOUNTING W/ VANDAL RESISTANT FASTENERS. PROVIDE ADHESIVE MOUNTING SYSTEM WHEN ATTACHED TO GLAZING

ACCESSIBILITY SIGNAGE 3" = 1'-0" 7

TABLE 11B-703.3.1
BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059" (1.5MM) TO 0.063" (1.6MM)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL *	0.100" (2.5MM)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS *	0.300" (7.6MM)
DOT HEIGHT RANGE	0.025" (0.6MM) TO 0.037 (0.9MM)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW *	0.395" (10MM) TO 0.400" (10.2MM)
* MEASURED CENTER TO CENTER	

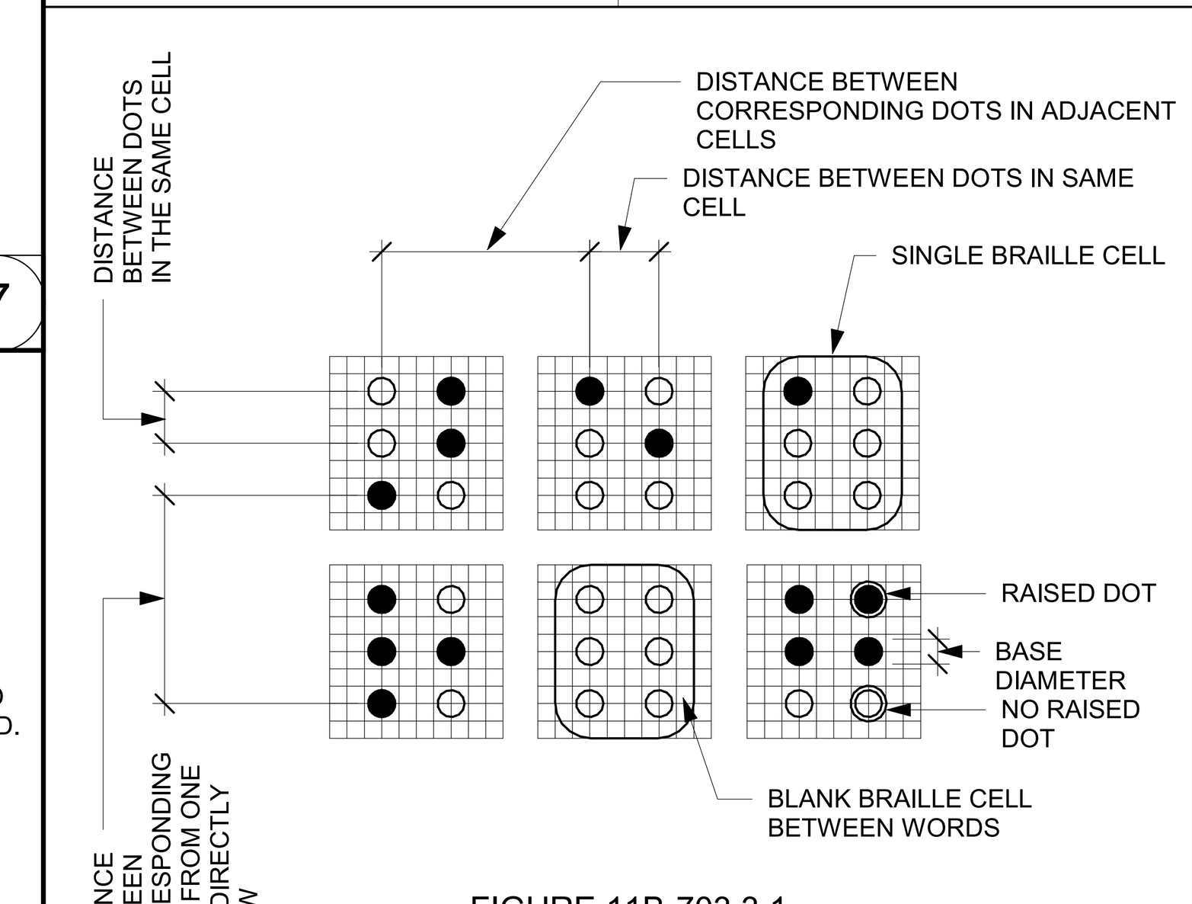
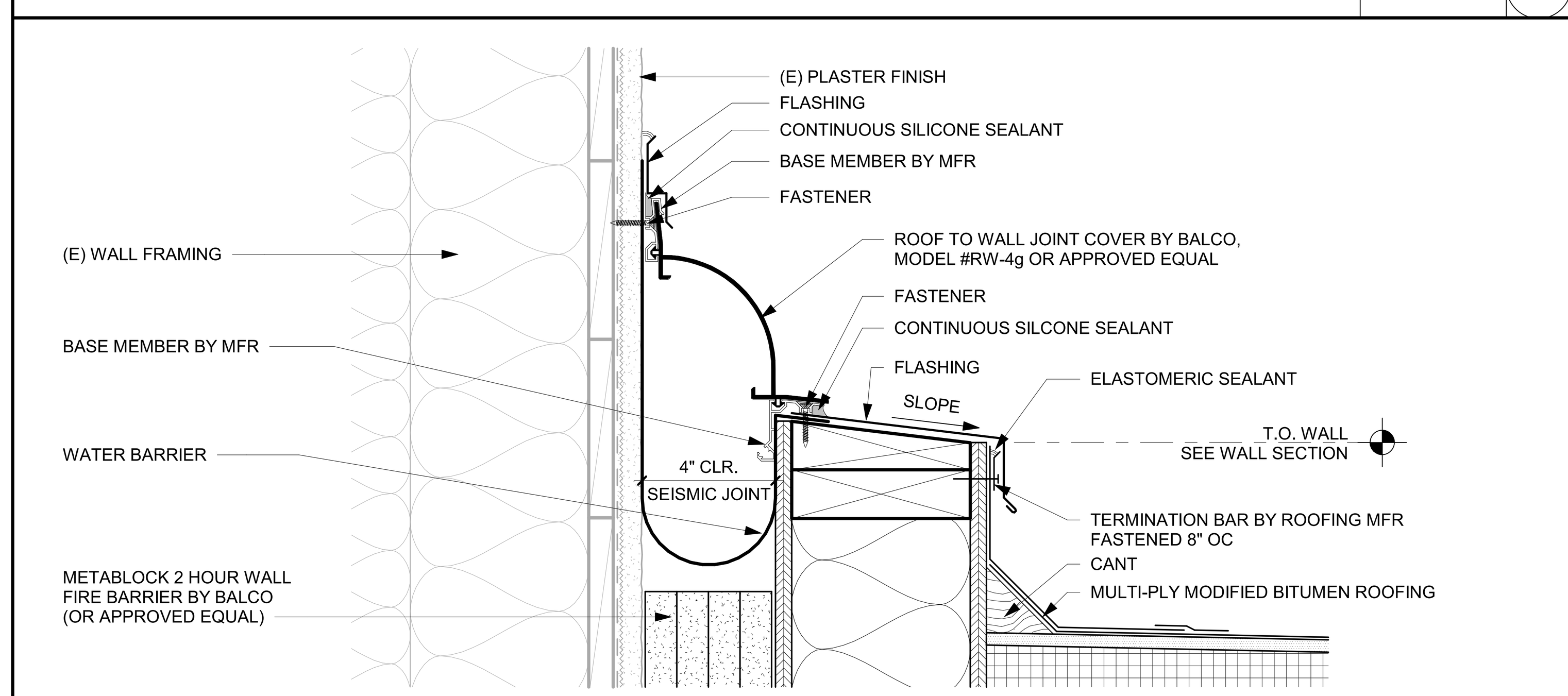
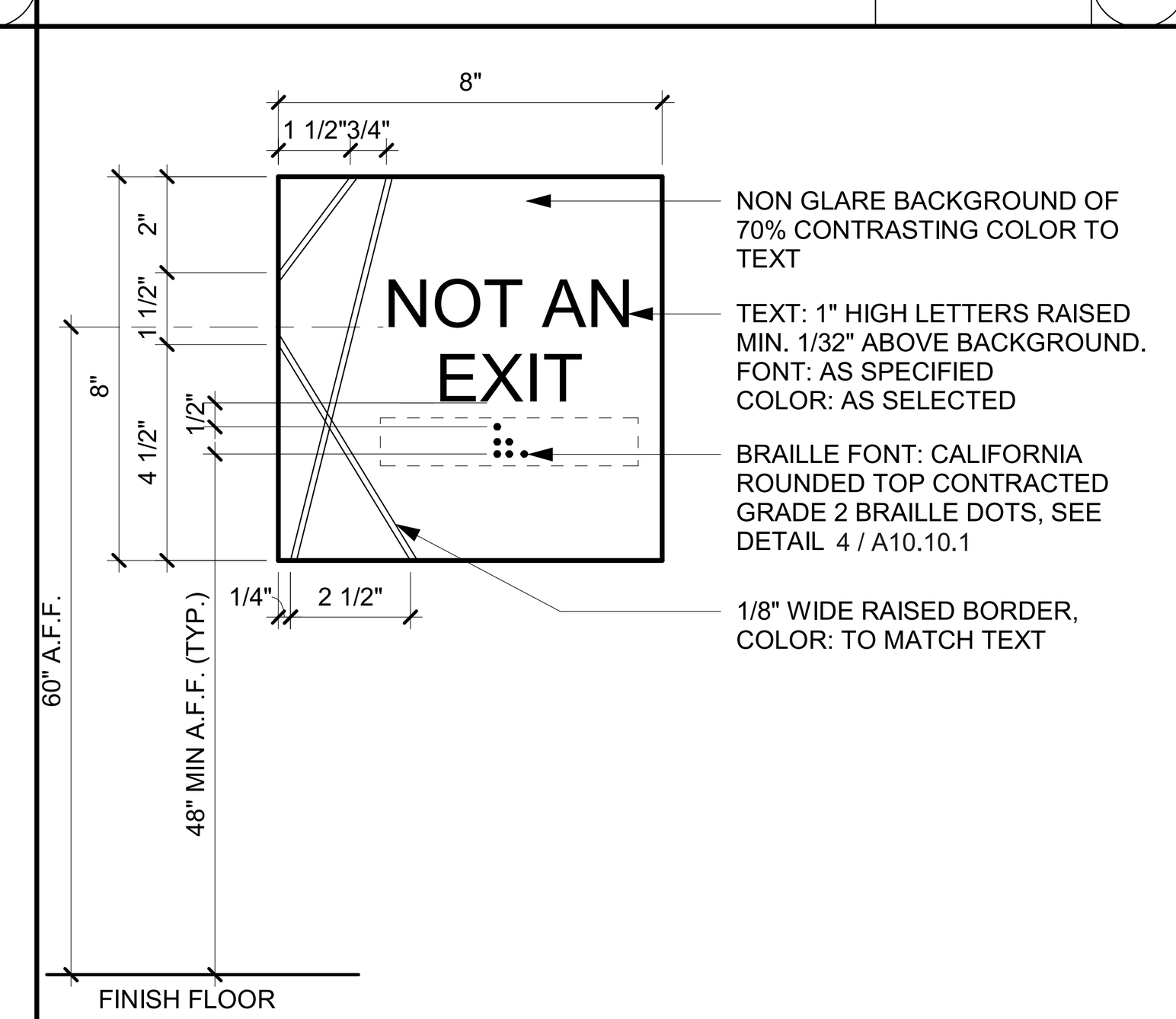


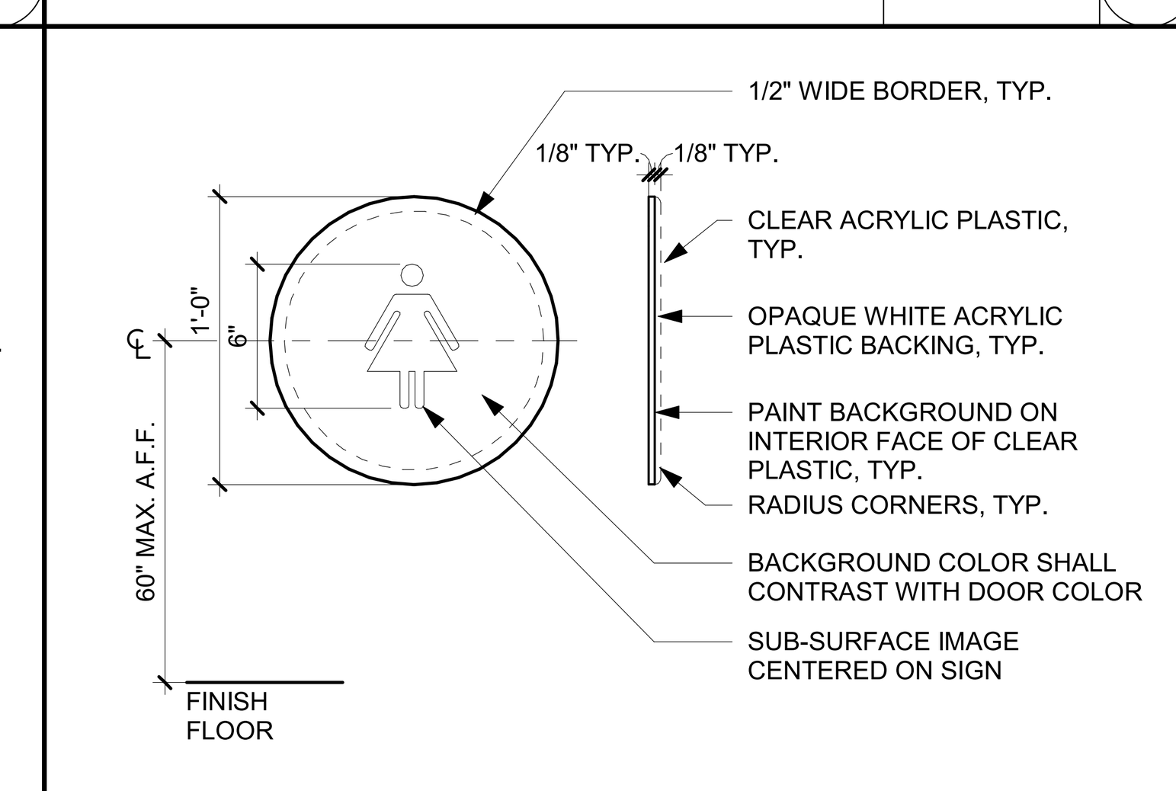
FIGURE 11B-703.3.1
BRAILLE MEASUREMENT



EXPANSION JOINT COVER AT (E) WALL 3" = 1'-0" 23

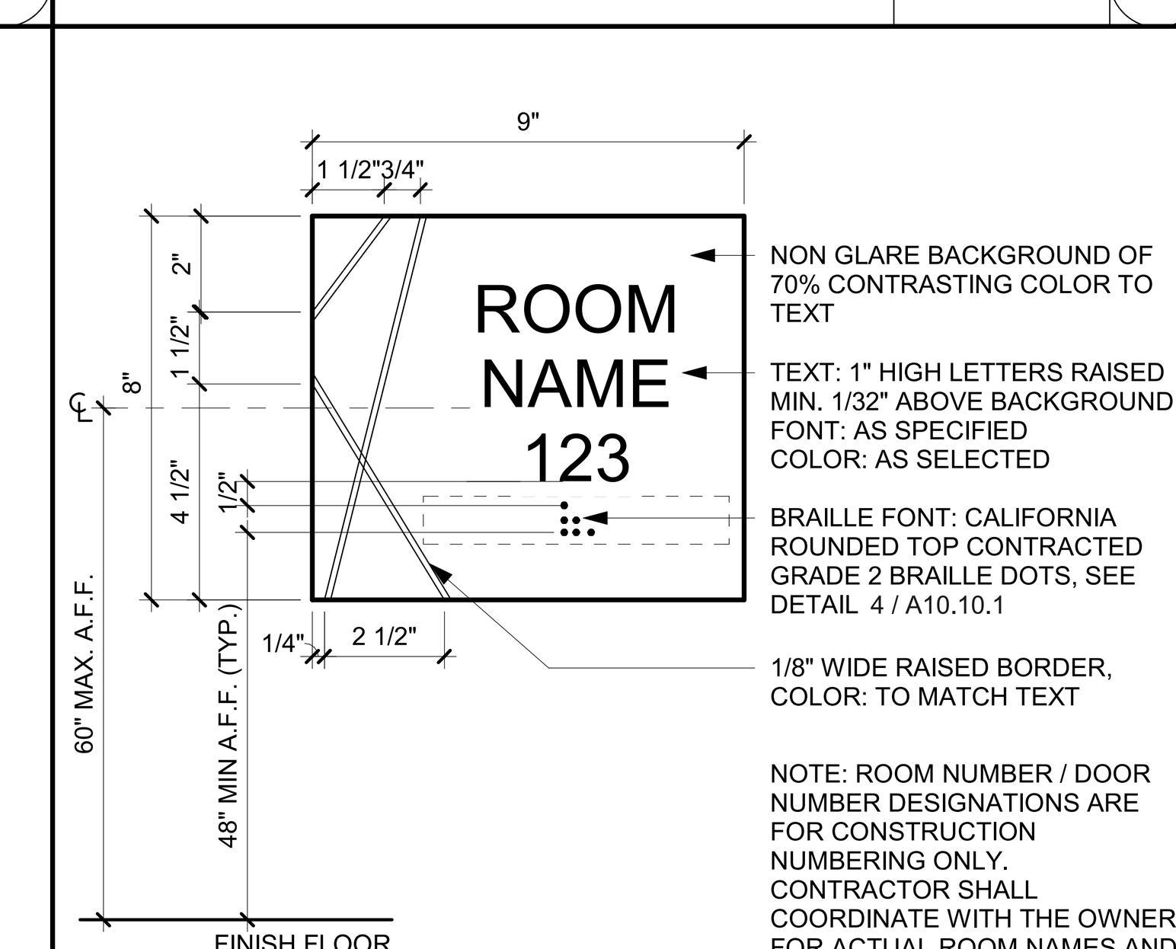


NOT AN EXIT SIGNAGE 3" = 1'-0" 18



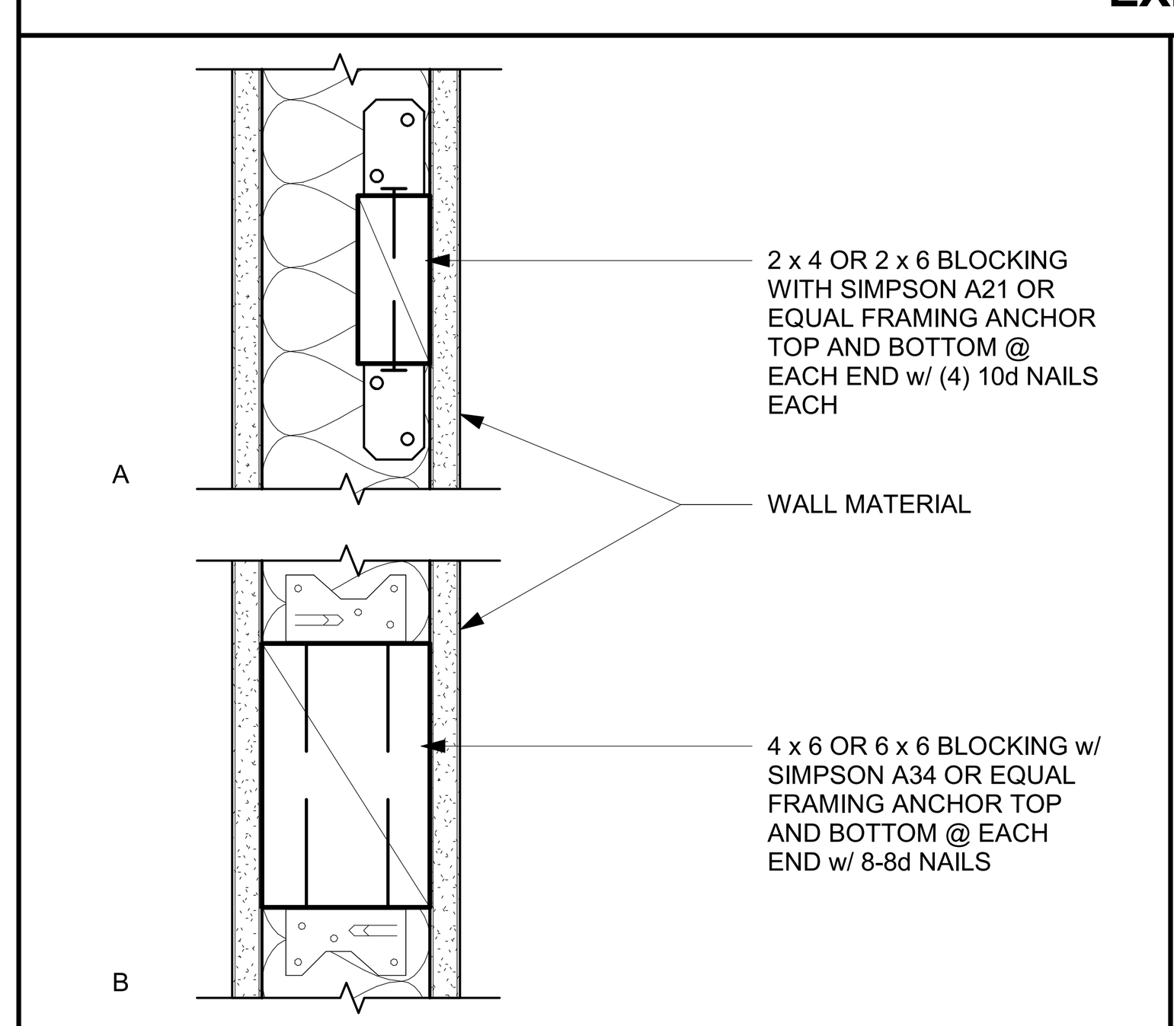
NOTE:
1. ATTACH SIGNAGE USING (3) THREE FLATHEAD WOOD SCREWS, COUNTERSUNK AND ADHESIVE.
2. SIGNS SHALL BE CENTERED ON DOOR AND MOUNTED 60" MAX. A.F.F., SEE 1 / A10.10.1
3. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

WOMEN DOOR SIGNAGE 1 1/2" = 1'-0" 13

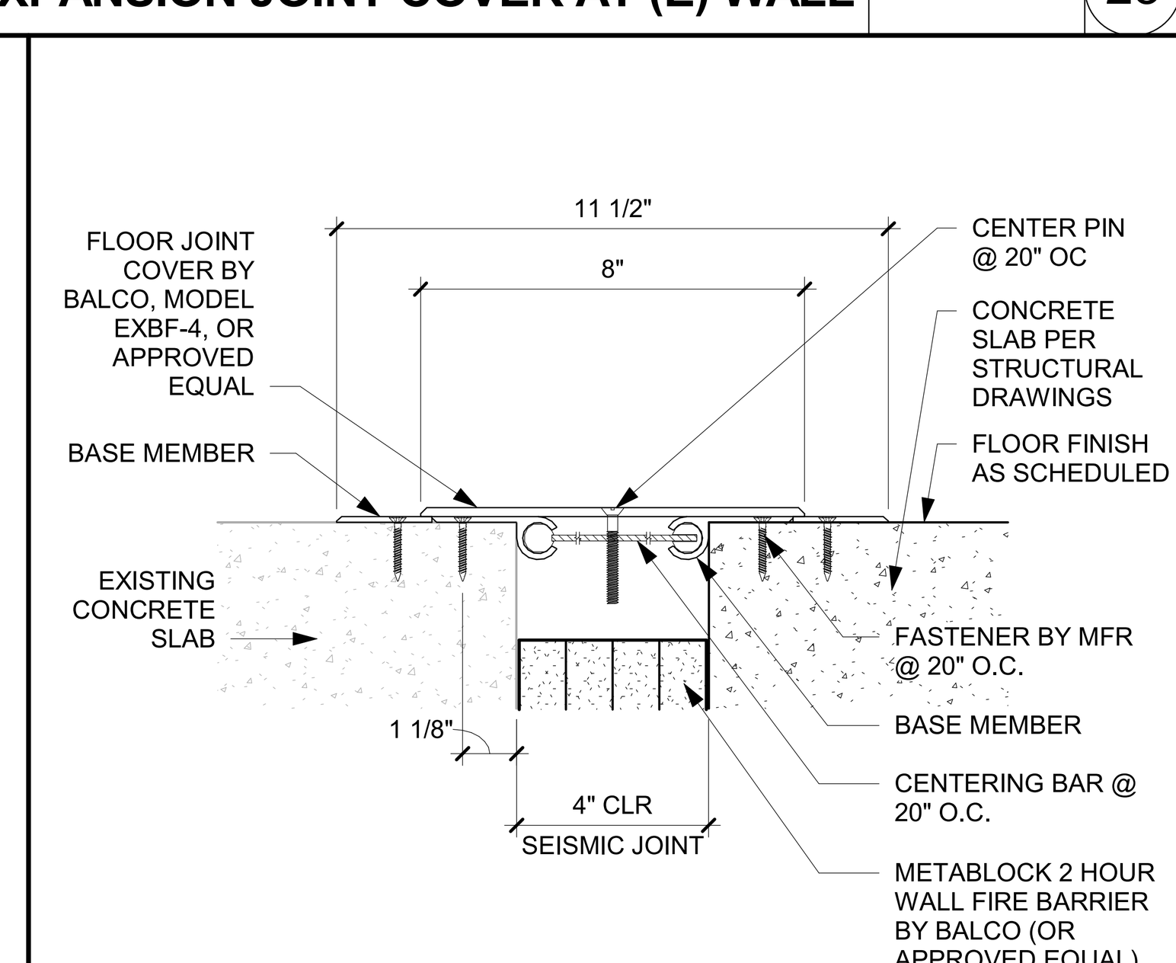


NOTE: ROOM NUMBER / DOOR NUMBER DESIGNATIONS ARE FOR CONSTRUCTION NUMBERING ONLY. CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ACTUAL ROOM NAMES AND ROOM NUMBER PRIOR TO SUBMITTAL OF SIGNAGE.

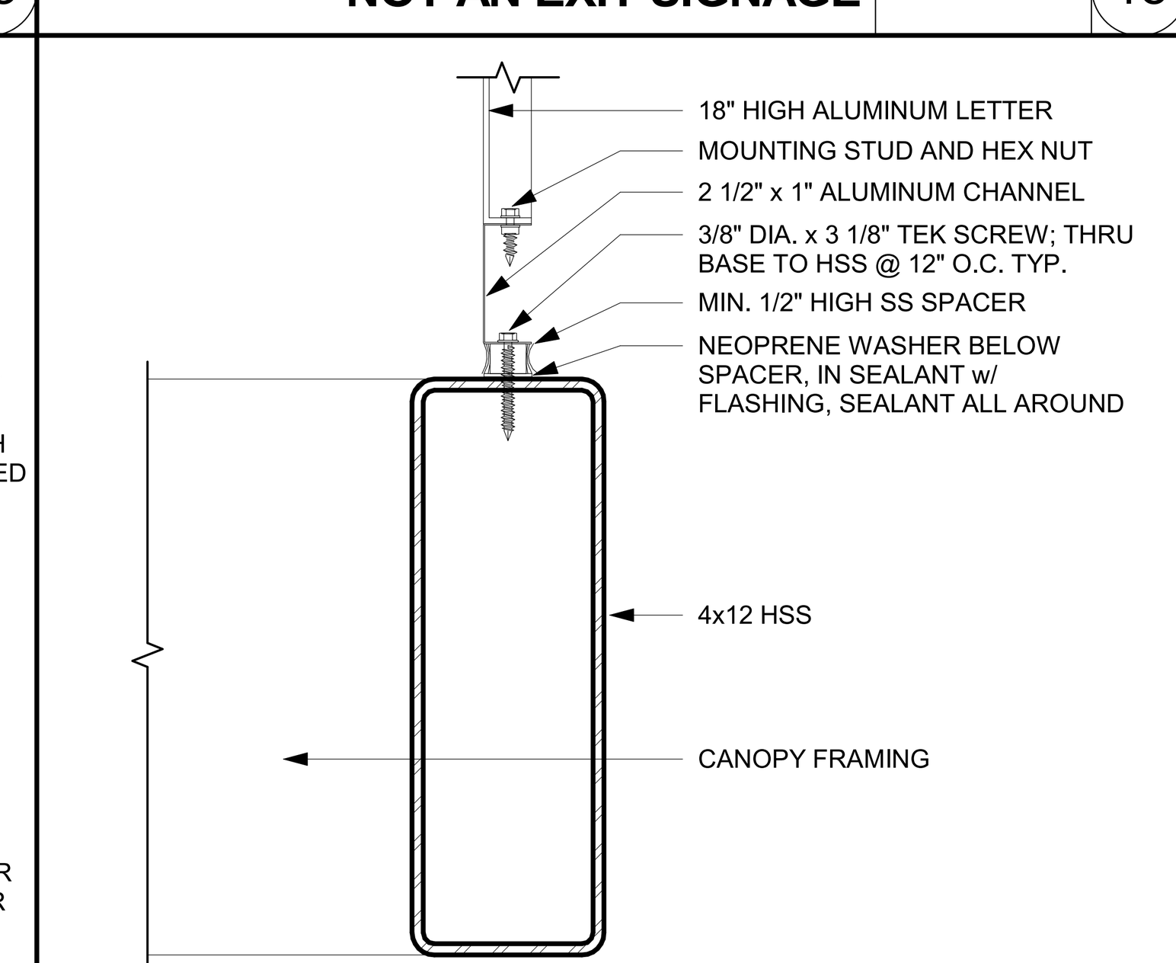
ROOM ID SIGNAGE 3" = 1'-0" 8



WALL BLOCKING 3" = 1'-0" 29

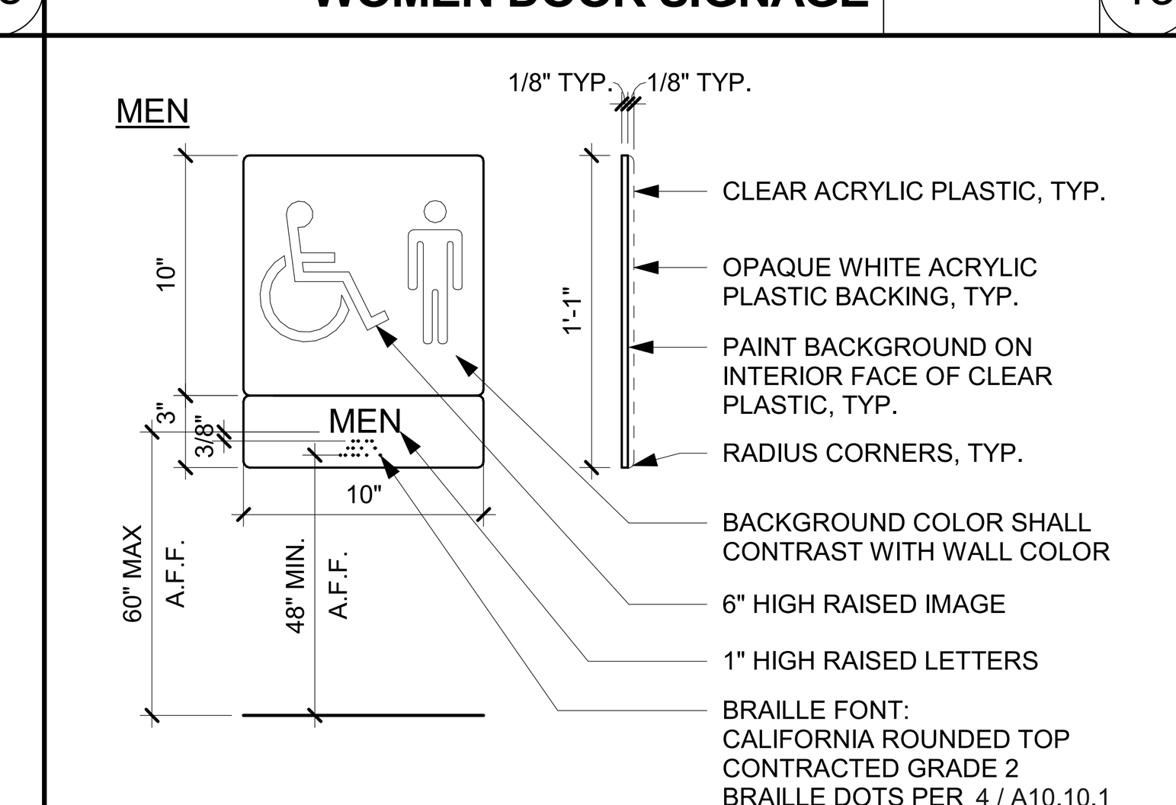


EXPANSION JOINT COVER AT FLOOR 3" = 1'-0" 24



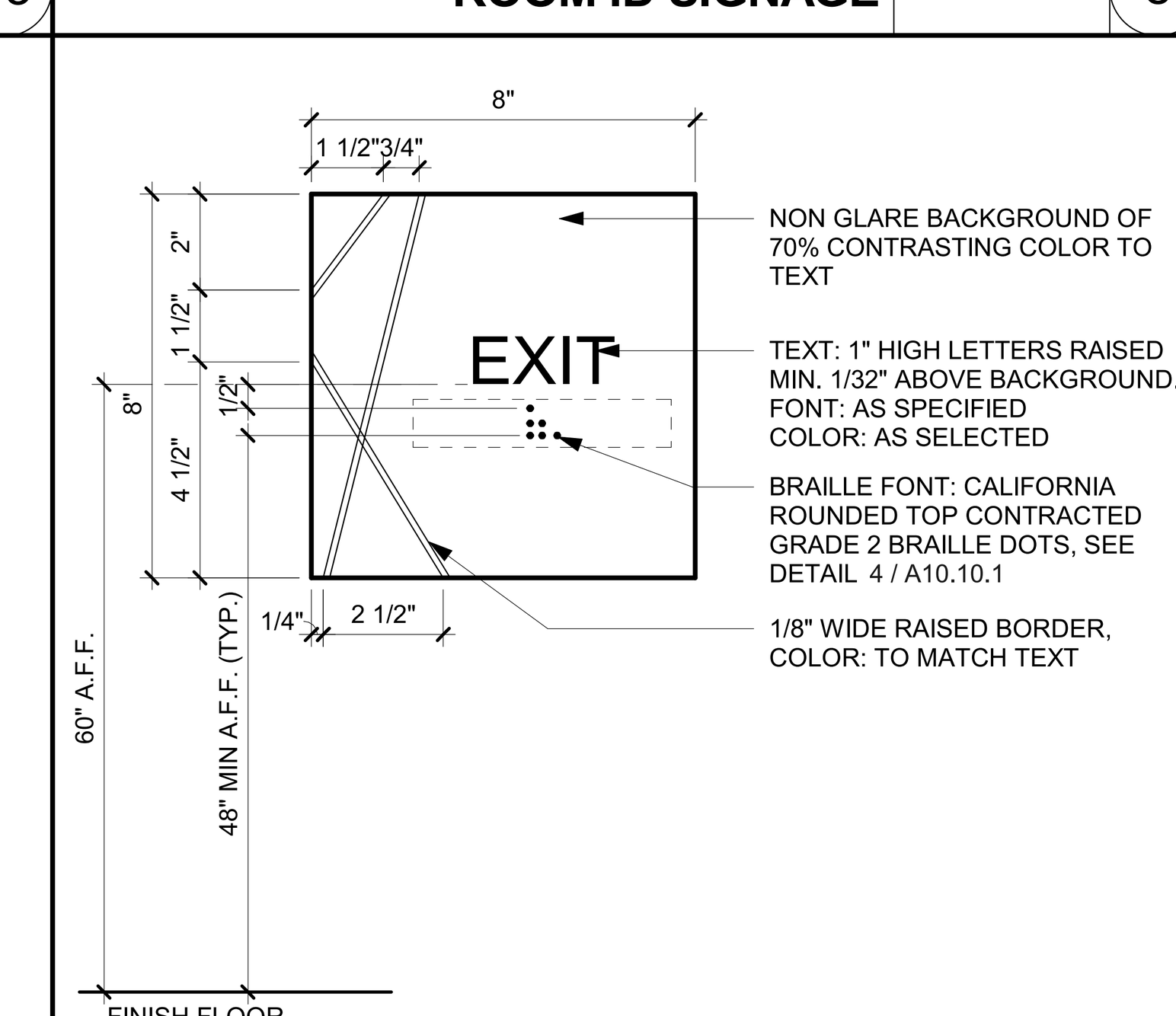
REF: 10 / AM6.1

EXTERIOR BUILDING SIGNAGE 3" = 1'-0" 19



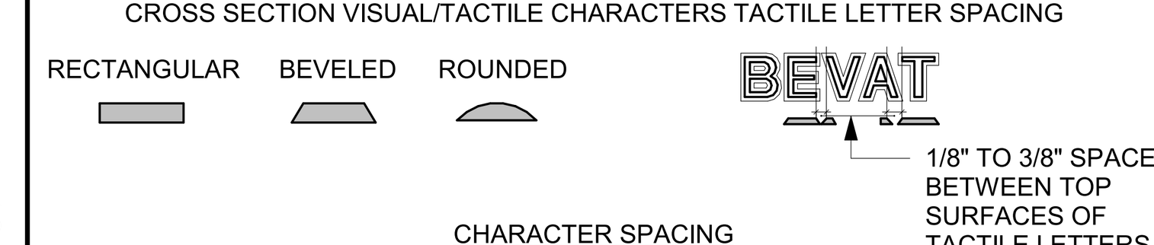
NOTE:
1. ATTACH SIGNAGE AS PER MANUFACTURER'S INSTRUCTIONS. SIGNS SHALL BE MOUNTED 60" MAXIMUM ABOVE FINISH FLOOR TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS, ON THE LATCH SIDE OF DOOR TO ROOM, SEE 1 / A10.10.1
2. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

MEN WALL MOUNTED SIGNAGE 1 1/2" = 1'-0" 14



EXIT SIGNAGE 3" = 1'-0" 9

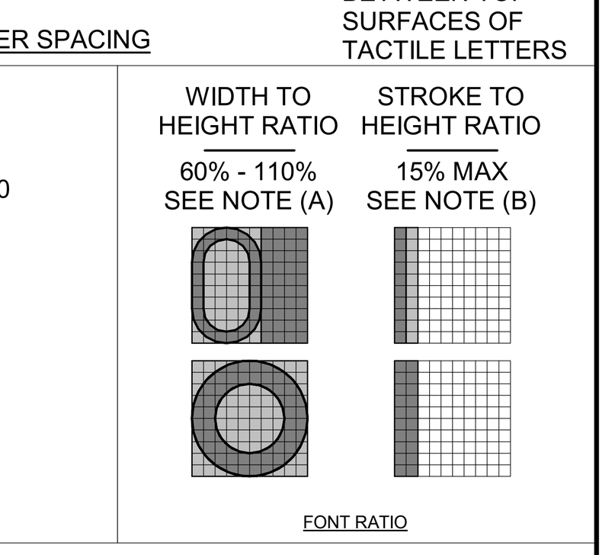
CROSS SECTION VISUAL/TACTILE CHARACTERS TACTILE LETTER SPACING

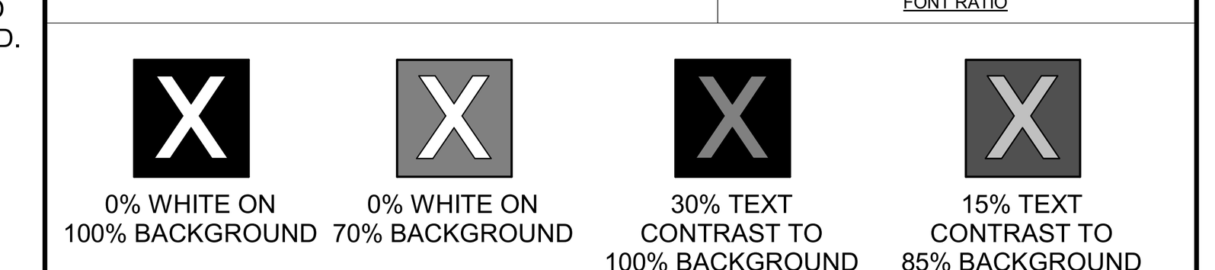


NOTE:

(A) "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE "I"

(B) STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER

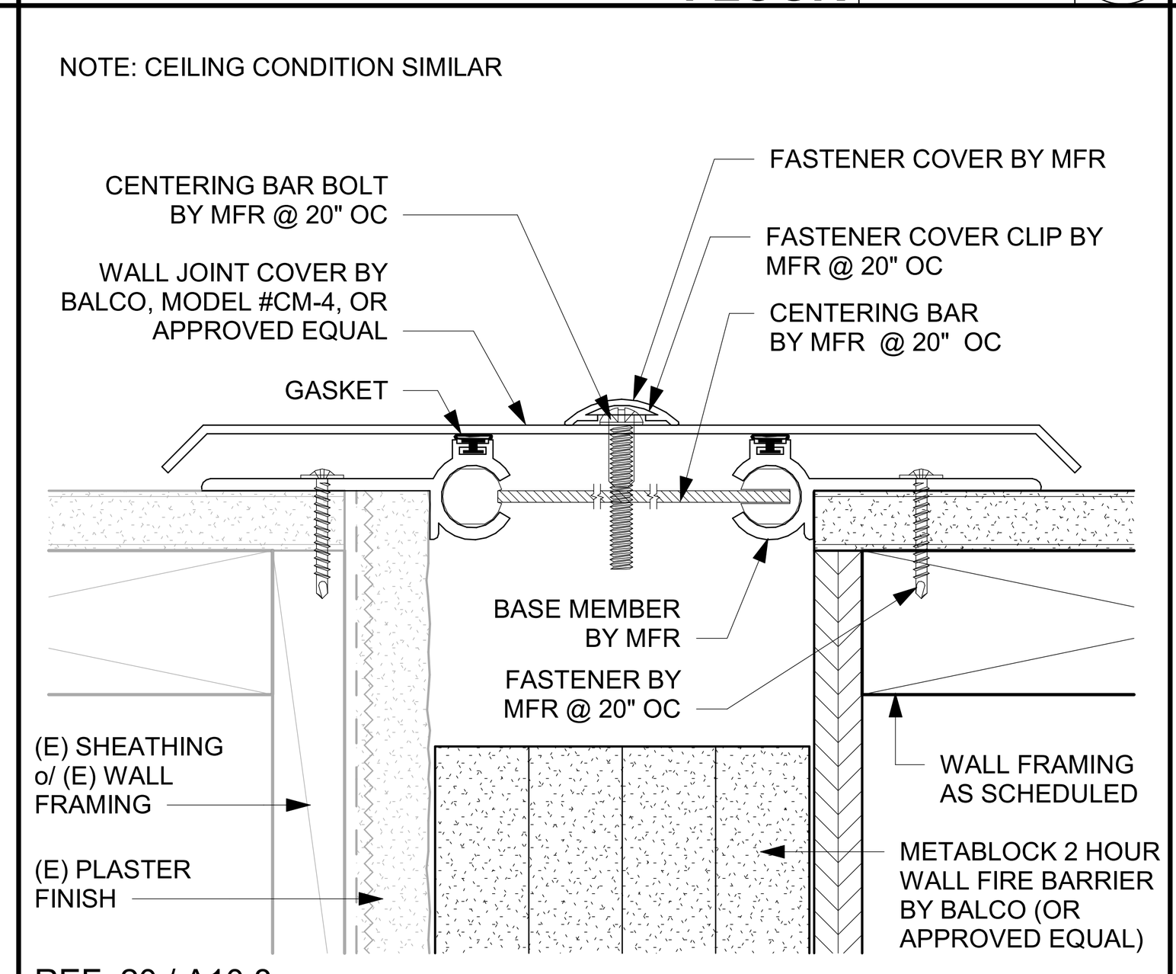




MINIMUM 70% CONTRAST DIFFERENCE BETWEEN CHARACTERS/GRAPHICS AND BACKGROUND

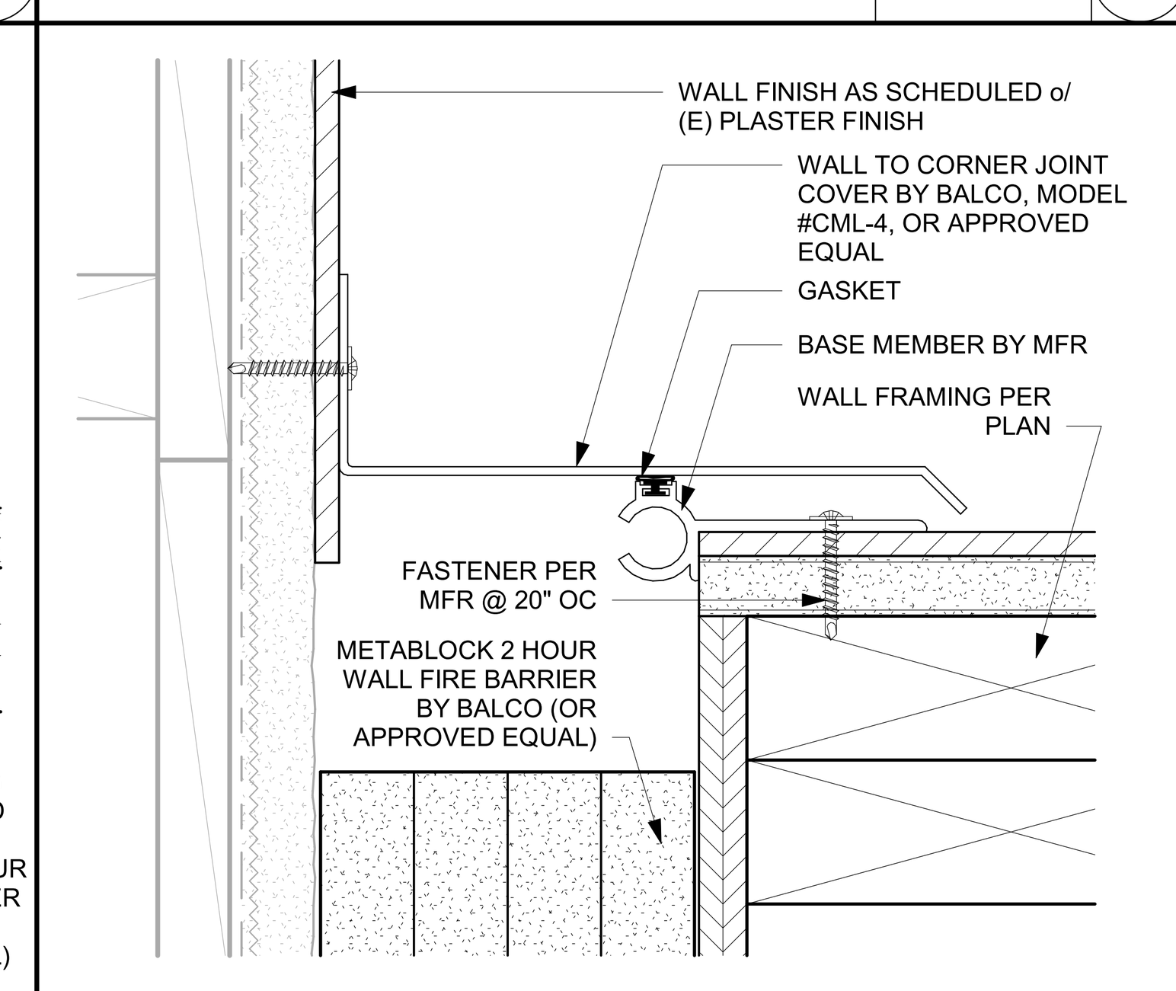
CONTRAST

SIGNAGE DESIGN REQUIREMENTS 1 1/2" = 1'-0" 4

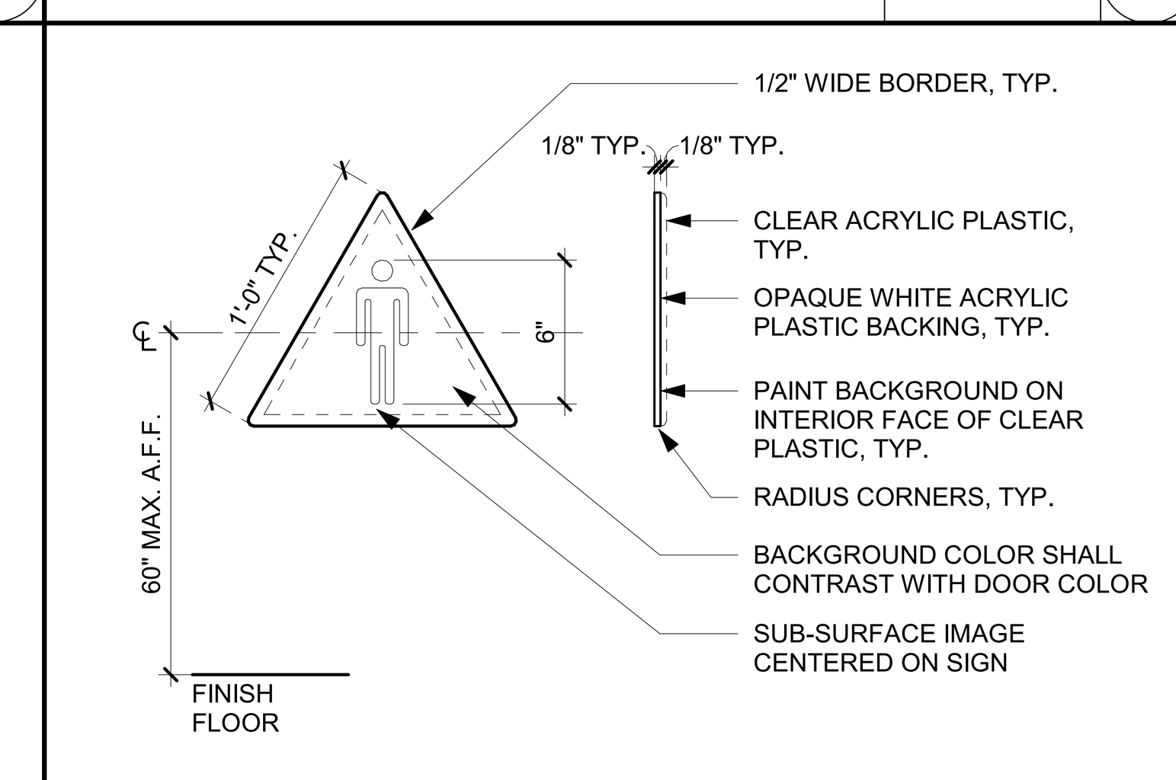


REF: 20 / A10.8

EXPANSION JOINT COVER AT WALL TO WALL CONDITION 6" = 1'-0" 25



EXPANSION JOINT COVER AT WALL TO CORNER CONDITION 6" = 1'-0" 20



NOTE:
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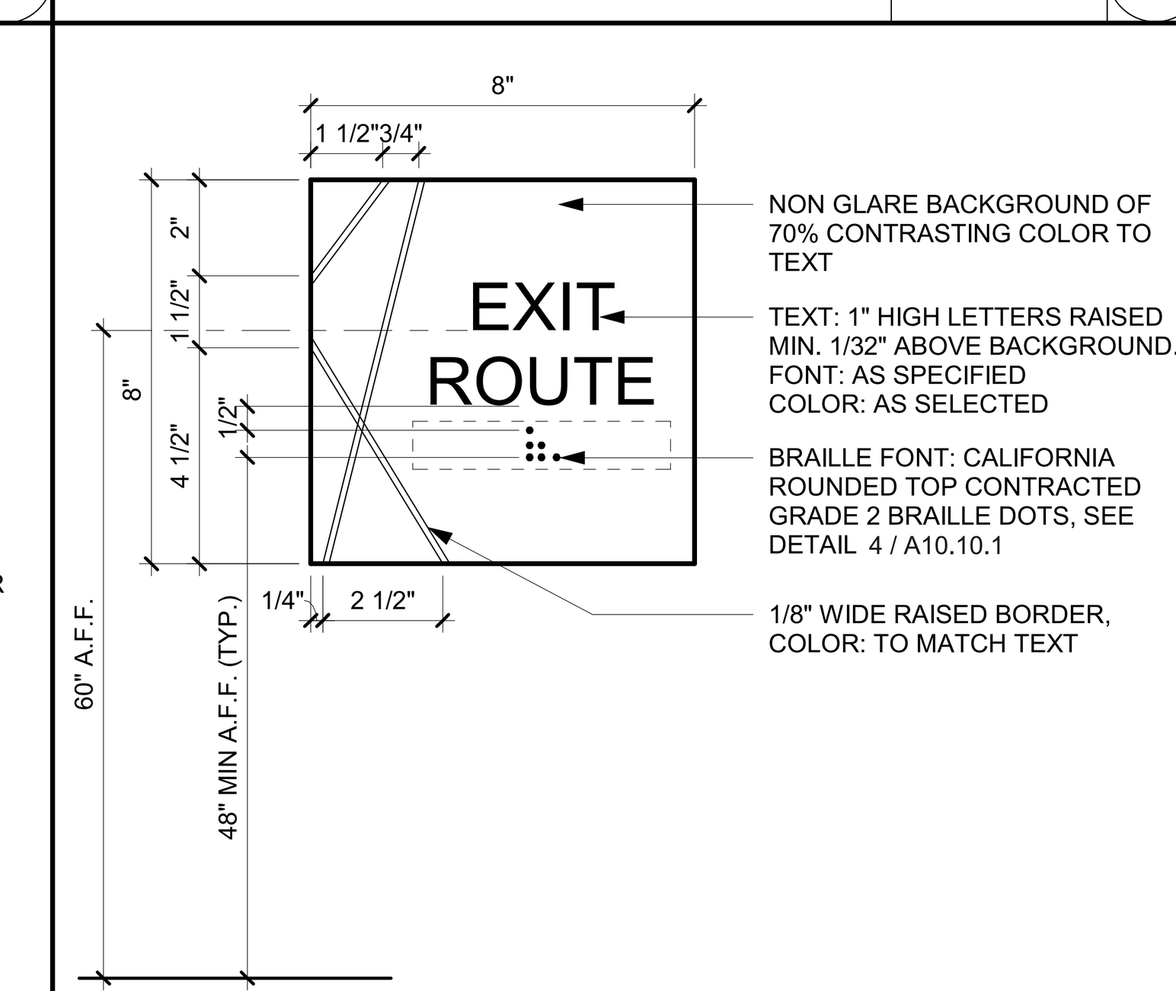
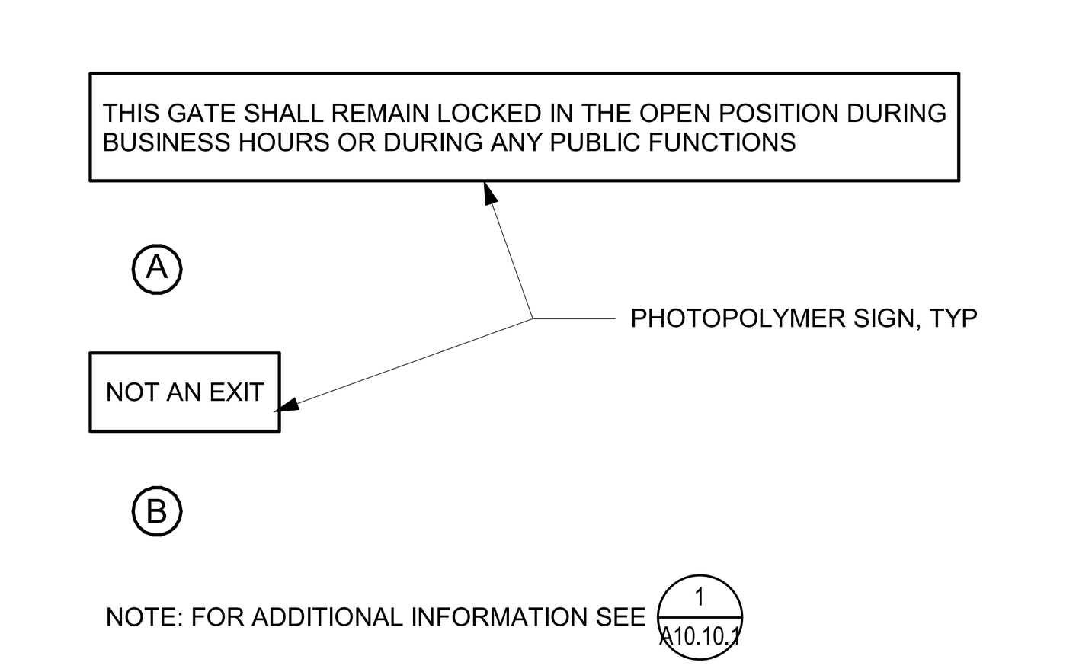
2. SIGNS SHALL BE CENTERED ON DOOR AND MOUNTED 60" MAX. A.F.F., SEE 1 / A10.10.1
3. 70% CONTRAST BETWEEN CHARACTERS AND BACKGROUND PER ADAAG A4.30.5

MEN DOOR SIGNAGE 1 1/2" = 1'-0" 15



EXIT ROUTE SIGNAGE 3" = 1'-0" 10



NOTE: FOR ADDITIONAL INFORMATION SEE 1 / A10.10.1

ABOVE DOOR SIGNAGE 12" = 1'-0" 5

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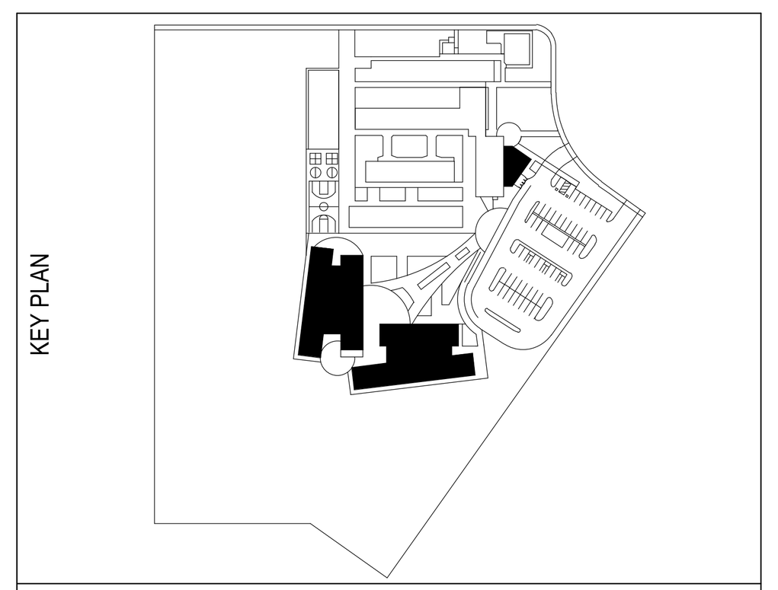
REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DSA SUBMITTAL

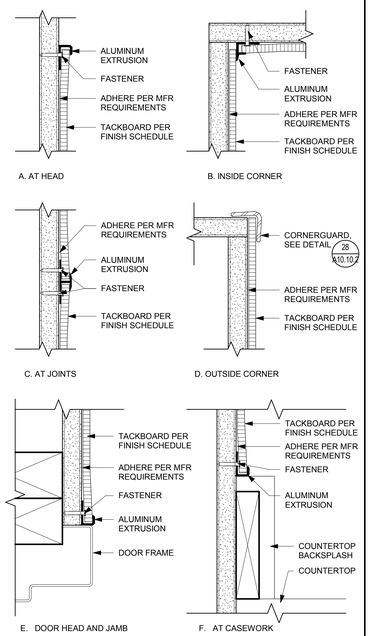
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

SPECIALTIES

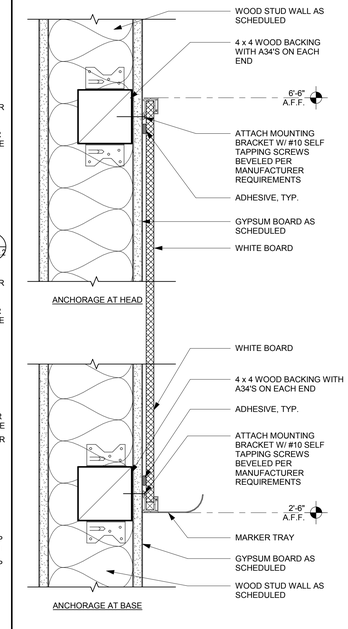
Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	A10.10.1
Drawn	Checked
AA	AM

PRINT DATE: 5/17/2019 10:24:51 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amouser.rvt

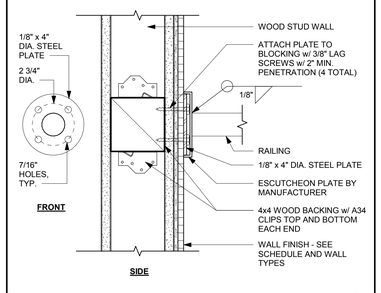
NOTES:
1. GYPSUM BOARD BEHIND TACKBOARD SHALL BE PREPPED PER MFR REQUIREMENTS



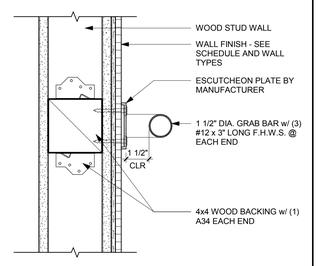
TACKBOARD ATTACHMENT 6" = 1'-0" 27



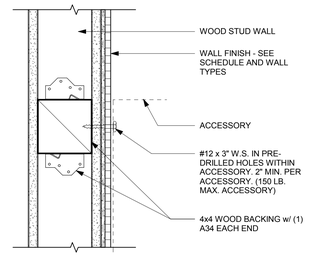
WHITEBOARD ANCHORAGE 3" = 1'-0" 22



RAILING AT WALL 3" = 1'-0" 16



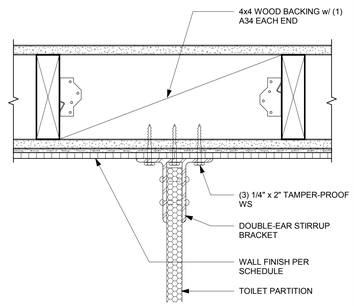
GRAB BAR ANCHORAGE 3" = 1'-0" 11



TYPICAL ACCESSORY MOUNTING 3" = 1'-0" 6

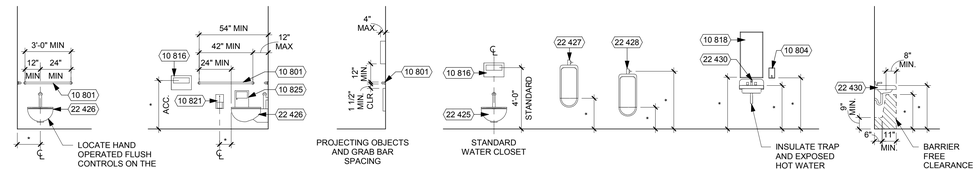
KEY NOTES

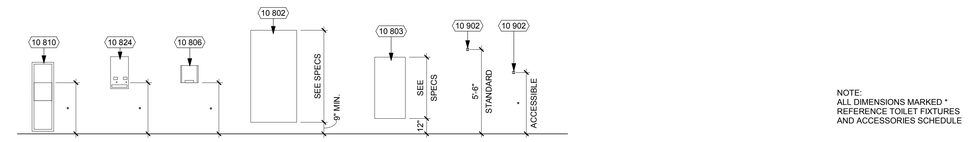
NUMBER	NOTE
10 801	ACCESSIBLE GRAB BAR (SEE DETAIL 11/A10.10.2)
10 802	TOILET PARTITION (SEE DETAIL 19/A10.10.2)
10 803	URINAL SCREEN
10 804	SOAP DISPENSER
10 806	ELECTRIC HAND DRYER
10 810	PAPER TOWEL DISPENSER
10 816	TOILET SEAT COVER DISPENSER
10 818	MIRROR
10 821	TOILET PAPER DISPENSER
10 824	SANITARY NAPKIN DISPENSER
10 825	SANITARY NAPKIN DISPOSAL
10 902	COAT HOOK
22 425	WATER CLOSET
22 426	ACCESSIBLE WATER CLOSET
22 427	URINAL
22 428	ACCESSIBLE URINAL
22 430	LAVATORY



TOILET PARTITION AT WALL 3" = 1'-0" 17

TYPICAL FIXTURE AND ACCESSORY DIMENSIONS



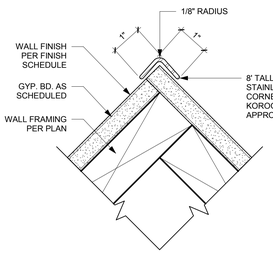


NOTE:
ALL DIMENSIONS MARKED * REFERENCE TOILET FIXTURES AND ACCESSORIES SCHEDULE

TOILET FIXTURES AND ACCESSORIES SCHEDULE

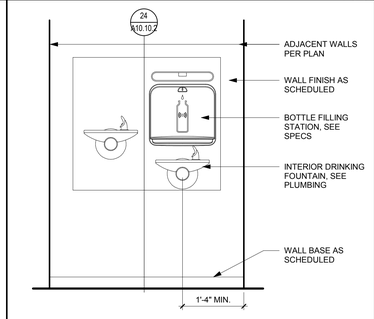
KEY	FIXTURE	DIMENSION REFERENCE	ADULT DIMENSION	PER TABLE 11B-609.4 (2016 CBC) SUGGESTED DIMENSION FOR CHILDREN			2016 CBC REFERENCES: T: TABLE S: SECTION F: FIGURE	RECOMMENDED TOILET ACCESSORIES MANUFACTURER (BASIS OF DESIGN)
				AGES 3-4	AGES 5-8	AGES 9-12		
10 801	GRAB BAR	TOP OF GRIPPING SURFACE	33" - 36"	18" - 20"	20" - 25"	25" - 27"	T: 11B-604.9	BOBRICK 5806 (STRAIGHT GRAB BARS)
10 802	TOILET PARTITION	TOE CLEARANCE	9" MIN.	12" MIN.				
10 803	URINAL SCREEN							
10 804	SOAP DISPENSER	ABOVE FINISH FLOOR	40" MAX. TO CENTERLINE OF OPERABLE PART				S: 11B-603.5	BOBRICK B-2111 SOAP DISPENSER SURFACE MOUNTED
10 806	ELECTRIC HAND DRYER	ABOVE FINISH FLOOR	40" MAX. TO CENTERLINE OF OPERABLE PART				S: 11B-603.5	EXCEL DRYER CO. XLERATOR XL w/ HEATED AIR AND ADA RECESS KIT
10 810	PAPER TOWEL DISPENSER	ABOVE FINISH FLOOR	40" MAX. TO CENTERLINE OF OPERABLE PART				S: 11B-603.5	BOBRICK B-4262 PAPER TOWEL DISP. w/ TOWELMATE SURFACE MOUNTED
10 816	SEAT COVER DISPENSER	ABOVE FINISH FLOOR	40" MAX. TO CENTERLINE OF OPERABLE PART				S: 11B-603.5	BOBRICK B-221 SEAT COVER DISPENSER SURFACE MOUNTED
10 818	MIRROR	BOTTOM EDGE OF REFLECTING SURFACE	40" MAX. ABOVE LAVATORY OR COUNTERTOP 35" MAX. NOT ABOVE LAVATORY OR COUNTERTOP				S: 11B-603.3	BOBRICK B-290 MIRROR 24" X 30"
		BOTTOM EDGE OF REFLECTING SURFACE	20" MAX. IN DRESSING, FITTING, & LOCKER ROOMS				S: 11B-803.6	
10 821	TOILET PAPER DISPENSER	OUTLET HEIGHT	19" MIN.	14"	14" - 17"	17" - 19"	T: 11B-604.9 S: 11B-604.7	BOBRICK B-2888 TOILET TISSUE DISPENSER SURFACE MOUNTED
		FURTHEST IN FRONT OF WATER CLOSET	7" MIN. - 9" MAX. TO CENTERLINE OF DISPENSER					
10 824	SANITARY NAPKIN DISPENSER	ABOVE FINISH FLOOR	40" MAX. TO CENTERLINE OF OPERABLE PART				S: 11B-603.5	
10 825	SANITARY NAPKIN DISPOSAL	FURTHEST IN FRONT OF WATER CLOSET	12" MAX.	N/A				BOBRICK B-270 SANITARY NAPKIN DISPOSAL SURFACE MOUNTED
10 902	COAT HOOK	ABOVE FINISH FLOOR	40" - 48"				S: 11B-604.8.3	BOBRICK B-7671 ROBE HOOK
22 410	HI-LO DRINKING FOUNTAIN	HIGH SPOUT HEIGHT	38" MIN. - 43" MAX.				S: 11B-602.7	
		LOW SPOUT APPROACH, HEIGHT, AND LOCATION FROM FRONT EDGE OF THE UNIT INCLUDING BUMPERS	FRONT APPROACH PER 11B-306, 36" MAX. A.F.F., AND 5" MAX. FROM FRONT EDGE OF UNIT.	PARALLEL APPROACH IS PERMITTED IF SPOUT IS 30" MAX. A.F.F. & 3 1/2" MAX. FROM FRONT EDGE OF UNIT.			S: 11B-602.2 - EXCEPTION S: 11B-602.4 S: 11B-602.5	
		OPERABLE PARTS	6" MAX. FROM FRONT EDGE OF UNIT				S: 11B-602.3	
		PROJECTION	18" - 19"				S: 11B-602.9	
22 425	STANDARD WATER CLOSET							
22 426	ACCESSIBLE WATER CLOSET	CENTERLINE FROM WALL (TOILET OFFSET)	17" - 18" WHEEL CHAIR 17" - 19" AMBULATORY	12"	12" - 15"	15" - 18"	T: 11B-604.9	
		SEAT HEIGHT (TOP OF SEAT)	17" - 19"	11" - 12"	12" - 15"	15" - 17"	T: 11B-604.9	
22 427	STANDARD URINAL	RIM HEIGHT	24"					
22 428	ACCESSIBLE URINAL	RIM HEIGHT	17" MAX.				S: 11B-605.2	
		PROJECTION	13 1/2" MIN.				S: 11B-605.2	
		FLUSH CONTROL HEIGHT	44" MAX.				S: 11B-605.4	
22 430	LAVATORY (W/ INSULATED DRAIN)	SINK RIM HEIGHT	34" MAX.	31" MAX.			S: 11B-606.2 S: 11B-606.3	
		SINK KNEE CLEARANCE	27" MIN. (29" AT APRON FOR LAVATORY)	PARALLEL APPROACH PERMITTED	AGE 5: PARALLEL APPROACH PERMITTED AGES 6-8: 24" MIN.	24" MIN.	S: 11B-606.2 F: 11B-306.3	

NOTES:
1. ALL FIXTURES AND ACCESSORIES ARE ACCESSIBLE UNLESS OTHERWISE NOTED OR DIMENSIONED.
2. SEE ENLARGED TOILET PLAN DRAWINGS FOR TOILET ACCESSORY LOCATIONS.
3. ALL ACCESSORIES ARE TO BE ACCESSIBLE WITH A MAXIMUM REACH HEIGHT OF 3'-4" FROM FLOOR TO CENTER OF FUNCTIONAL POINT.
4. ALL HEIGHT DIMENSIONS ARE A.F.F. (OR A.F.G. FOR EXTERIOR). ALL HORIZONTAL DIMENSIONS ARE TO FACE OF FINISH.
5. FOR TYPICAL ACCESSORY MOUNTING, SEE DETAIL 6 / A10.10.2

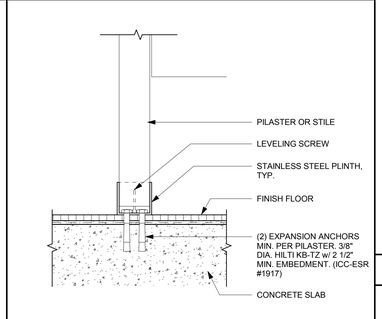


NOTE:
CORNER GUARDS ATTACHED BY MASTIC CONSTRUCTION ADHESIVE.

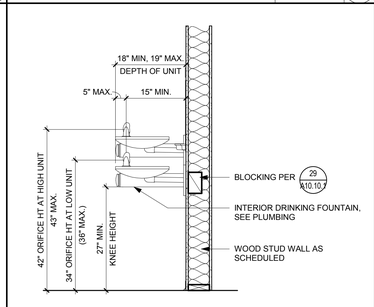
STAINLESS STEEL CORNER GUARD 6" = 1'-0" 28



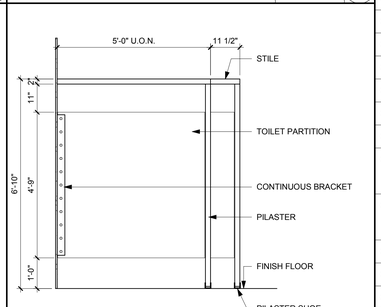
HI LO DRINKING FOUNTAIN 3/4" = 1'-0" 23



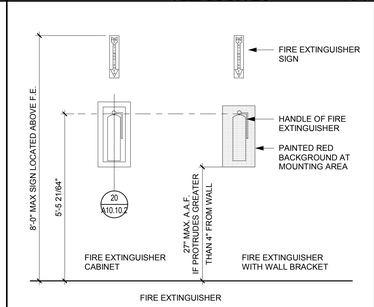
TOILET PARTITION AT FLOOR 3" = 1'-0" 18



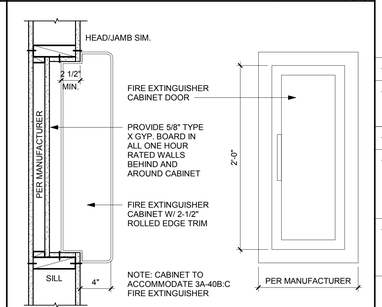
HI-LOW DRINKING FOUNTAIN CLEARANCES 3/4" = 1'-0" 24



TYPICAL TOILET PARTITION 1/2" = 1'-0" 19



FIRE EXTINGUISHER MOUNTING HEIGHT 1/2" = 1'-0" 25



FIRE EXTINGUISHER CABINET 1 1/2" = 1'-0" 20

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ARCHITECT	ENGINEER

LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

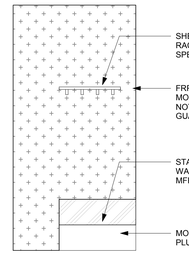
DSA SUBMITTAL

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

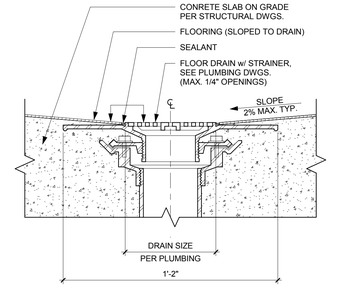
SPECIALTIES

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.10.2
Drawn: AA	Checked: AM

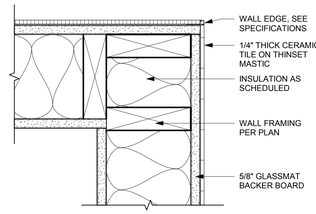
PRINT DATE: 5/17/2019 10:24:53 AM
FILE PATH: C:\Users\adrianm\Desktop\Local Revit Files\19003-Westmore A17-amrauer.rvt



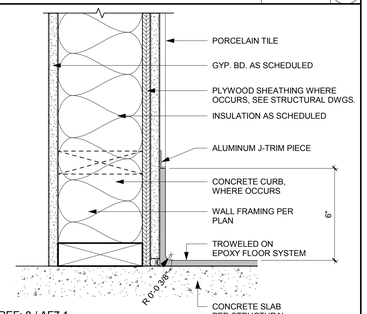
MOP SINK 1/2" = 1'-0" 6



FLOOR DRAIN AT EPOXY FLOOR 3" = 1'-0" 1



OUTSIDE CORNER



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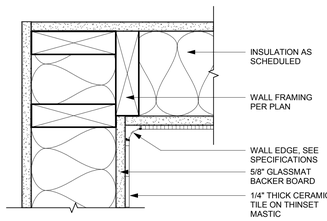
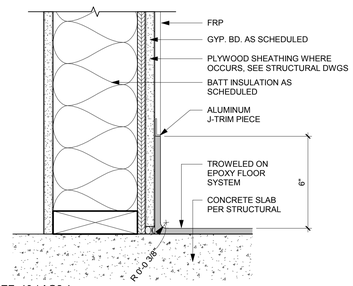
COVED EPOXY AT TILE 3" = 1'-0" 2



INSIDE CORNER

TILE CORNERS 3" = 1'-0" 8



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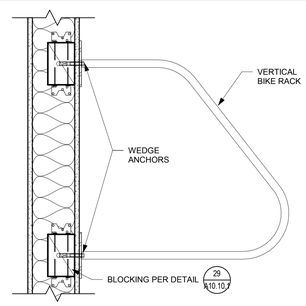

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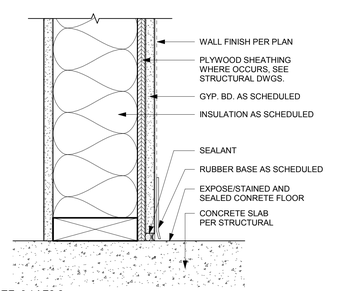
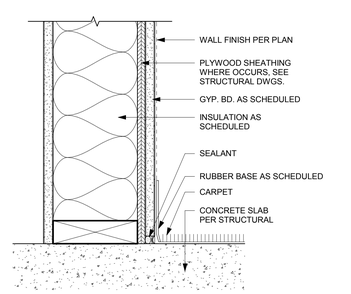
VERTICAL BIKE RACK MOUNTING 1 1/2" = 1'-0" 9



REF: 8 / AF2.2

WALL BASE AT CONCRETE FLOOR 3" = 1'-0" 4



WALL BASE AT CARPET 3" = 1'-0" 5

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	

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DRAWING STATUS

	DATE
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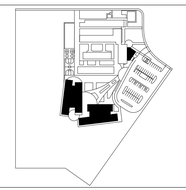
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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SPECIALTIES

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: A10.10.3
Drawn: AA	Checked: AM

PRINT DATE: 5/17/2019 10:24:53 AM
FILE PATH: C:\Users\adrianam\Desktop\Local Revit Files\19003-Westmore-A17-amruser.rvt

General Notes

1. Construction shall conform to all applicable codes and regulations.
2. Shop Drawing Note:
   A) Shop drawings shall be submitted in the form of three prints of each sheet, unless submittal to the Division of the State Architect (DSA) requires additional sets.
   B) The purpose of shop drawings submittals by the Contractor is to demonstrate to the Structural Engineer that he understands the design concept by indicating which materials he intends to furnish and install, and by detailing the fabrication and installation methods he intends to use.
   C) Prior to fabrication, shop drawings shall be submitted for review to the Structural Engineer. Shop drawings submittals shall include, but are not necessarily limited to reinforcing steel, structural steel, and glued laminated beams.
3. Safety Note:
   A) It is the Contractor's responsibility to comply with the pertinent sections, as they apply to this project, of the "Construction Safety Orders" issued by the State of California latest edition, and all OSHA requirements.
   B) The owner and the Structural Engineer do not accept any responsibility for the Contractor's failure to comply with these requirements.
   C) The Contractor shall be responsible for adequate design and construction of all forms and shoring required.
4. The Contractor shall notify the Architect and Structural Engineer where a conflict or a discrepancy occurs between the structural drawings and any other portion of the contract documents or existing field conditions. Such notification shall be given in due time so as not to affect the construction schedule. In case of a conflict between structural drawings and specifications, the more restrictive condition shall take precedence unless written approval has been given for the least restrictive. Contractor shall verify all dimensions with architectural and structural drawings prior to commencing any work.
5. Where no specific detail is shown, the construction shall be identical or similar to that indicated for like cases of construction on this project. Should there be any question, contact the Architect and Structural Engineer prior to proceeding.
6. These drawings are not complete until reviewed and approved by Division of the State Architect (DSA) and signed by the Structural Engineer.
7. All drawings and written material appearing herein constitutes the original and unpublished work of the Structural Engineer and the same may not be duplicated, used or disclosed without written consent of the Structural Engineer and compensation.
8. The structure shown on these drawings is structurally sound only in its completed form. The stability of this structure depends on the diaphragm and the bracing members shown. The Contractor is to provide for the design and construction of shoring for all earth, forms, concrete, steel, wood, and masonry to resist gravity, earth, wind, seismic, and construction loads. Shoring shall remain in place until all diaphragm and lateral resisting elements are in place in their entirety.

Abbreviations

addl ..... Additional
alt ..... Alternate
AISC ..... American Institute of Steel Construction
APA ..... American Plywood Association
ASTM ..... American Society for Testing and Materials
AWS ..... American Welding Society
AB ..... Anchor bolt
& ..... And
arch ..... Architect/Architectural
@ ..... At
bm ..... Beam
btwn ..... Between
blkg ..... Blocking
B.S. ..... Both sides
bott ..... Bottom
BN ..... Boundary nail
clg ..... Ceiling
cc ..... Center to center
℄ ..... Center line
clr ..... Clear
col ..... Column
CP ..... Complete Penetration
conc ..... Concrete
CMU ..... Concrete masonry unit
conn ..... Connection
CJ ..... Construction Joint
cont ..... Continuous
csk ..... Countersink
CTJ ..... Control Joint
DL ..... Dead Load
diag ..... Diagonal
dia ..... Diameter
do ..... Ditto
D.F. ..... Douglas Fir
dbl ..... Double
dwg ..... Drawings
ea ..... Each
E.F. ..... Each Face
embed ..... Embedment
EN ..... Edge Nail
E.W. ..... Each Way
elev, el ..... Elevation
eq ..... Equal
equip ..... Equipment
(e) ..... Existing
E.J ..... Expansion Joint
FC ..... Face of concrete
FB ..... Face of block
FM ..... Face of masonry
FS ..... Face of Stud
F.F. ..... Finish floor
F.G. ..... Finish grade
flr ..... Floor
ftg ..... Footing
fnd ..... Foundation
frmg ..... Framing
galv ..... Galvanized
ga ..... Gauge
GLB ..... Glued-laminated beam
hgr ..... Hanger
hdr ..... Header
ht ..... Height
HSB ..... High strength bolt
HSS ..... Hollow structural section
horiz ..... Horizontal
Int ..... Interior
Jst ..... Joist
Jh ..... Joist hanger
lt. wt. ..... Light weight
LL ..... Live Load
LLH ..... Long leg horizontal
LLV ..... Long leg vertical
LVL ..... Laminated veneer lumber
MB ..... Machine bolt
mfr ..... Manufacturer
max ..... Maximum
mech ..... Mechanical
min ..... Minimum
misc ..... Miscellaneous
mtl. ..... Metal
(n) ..... New
nts ..... Not to scale
..... Number or pounds
oc ..... On center
OWG ..... Open web girder
OWJ ..... Open web joist
O.H. ..... Opposite Hand
o.d. ..... Outside diameter
PP ..... Partial penetration
℗ ..... Plate
pcf ..... Pounds per cubic foot
psf ..... Pounds per square foot
psi ..... Pounds per square inch
PAF ..... Powder actuated fasteners
PSL ..... Parallel strand lumber
PTDF ..... Pressure treated douglas fir
r, rad ..... Radius
RDWD ..... Redwood
reinf ..... Reinforcing
req'd ..... Required
R.O. ..... Rough opening
Φ ..... Round or diameter
sched ..... Schedule
SDSTS ..... Self drilling self tapping screw
shtg ..... Sheathing
SMS ..... Sheet metal screw
sim ..... Similar
□ ..... square
staggs ..... Staggered
std ..... Standard
st! ..... Steel
stfnr ..... Stiffener
struct ..... Structural
symm ..... Symmetrical
TN ..... Toe nail
t&b ..... Top & bottom
t.o.c. ..... Top of concrete
t.o.f. ..... Top of framing
t.o.℘ ..... Top of plate
t.o.s. ..... Top of Steel
t.o.w. ..... Top of Wall
t&g ..... Tongue & Groove
TS ..... Tube Steel
typ ..... Typical
u.n.o. ..... Unless noted otherwise
vert ..... Vertical
w/ ..... With
w/in ..... Within
w/o ..... Without
WS ..... Wood screw
W.P. ..... Working point
WWF ..... Welded wire fabric
WCLIB ..... West Coast Lumber Inspection Bureau

Design Criteria

1. Codes and Standards:
   a) 2016 California Building Code (CBC)
   b) Building Code Requirements for Structural Concrete - ACI 318-14
   c) Building Code Requirements for Masonry Structures - TMS 402-13/ACI 530-13/ASCE 5-13
   d) Specification for Masonry Structures - TMS 602-13/ACI 530.1-13/ASCE 6-13
   e) Specification for Structural Steel Buildings - AISC 360-10
2. Vertical Loads:
   Roof Live Load = 20 psf (reducible)
3. Soils Values:
   Allowable soil bearing pressures:
   a) DL+LL = 3000 psf
   b) DL+LL+wind/seismic = 3490 psf
4. Wind Load Design Criteria:
   a) Ult. Design Wind Speed, V_{ult} = 110 mph
   b) Nom. Design Wind Speed, V_{asd} = 85 mph
   c) Risk Category - II
   d) Wind Exposure - C
   e) Internal Pressure Coefficient, GC_{pi} = -0.18, +0.18
5. Seismic Load Design Criteria:
   a) Risk Category - II
   b) Seismic Importance Factor, I_e = 1.0
   c) Site Class = C
   d) S_s = 0.715g S_1 = 0.303g
   e) S_{DS} = 0.585g S_{D1} = 0.363g
   f) Seismic Design Category, SDC = D
   g) Seismic Force-Resisting System/s: Wood-sheathed Shearwalls
   h) Response Modification Coef., R = 6.5
   i) Analysis Procedure = Static

Foundations

1. All foundation work shall be done in accordance with the requirements of the Soils Report No. 122710IP by Wallace-Kuhl & Associates dated April 2, 2019
2. All foundations shall bear on engineered fill.
3. Building pad construction shall conform to the requirements of the Soils Report. The extent and depth of overexcavation and placement of engineered fill shall be as required by the Soils Report. Final depth and extent of excavation and fill shall be determined at time of construction by a representative of the Soils Engineer.
4. Bottoms of all foundations shall be level. Changes in bottom of foundation elevation shall be constructed only as detailed on the drawings.
5. Foundations may be cast in neat excavations provided the footing excavations are stable and able to maintain a cut edge without sloughing. In such case, provide minimum formwork as detailed on the drawings to insure clean excavations immediately prior to and during concrete placement. Starter walls are required for all masonry and concrete walls. See "Mandatory Minimum Formwork" detail on the typical details sheets.
6. Notify the Structural Engineer 48 hours before casting foundations.

Concrete

General: All concrete construction shall conform to the California Building Code (CBC), and Building Code Requirements for Structural Concrete (ACI 318).

1. Structural concrete shall attain 28 day compressive strength as required in note #20.
2. Selection of concrete proportions shall be per ACI 318 Section 26.4.3. Mix designs shall be submitted to the laboratory responsible for the Special Inspections for review and approval prior to concrete placement.
3. Concrete evaluation and acceptance shall be per ACI 318, Section 26.12.
4. Concrete shall be mixed, placed, and cured in accordance with ACI 318, latest edition, and project specifications.
5. Cement shall conform to ASTM C-150 type I or II.
6. Concrete aggregates shall conform to ASTM C-33. Aggregates for lightweight concrete shall conform to ASTM C-330.
7. Construction joints shall be made rough and all loose materials removed from the surface. The entire surface of the joint shall be roughened by chipping, sand blasting or raking the surface to produce ¼" deep deformations.
8. Remove all debris and loose materials from forms and excavations before casting any concrete.
9. Reinforcing, dowels, bolts, anchors, sleeves, etc., to be embedded in concrete shall be tied securely in position before placing concrete.
10. Concrete shall not be dropped through reinforcing steel (as in walls) so as to cause segregation of aggregates. In such cases, hoppers and vertical chutes or trunks shall be used such that the free unconfined fall of concrete does not exceed six feet.
11. Consolidate concrete placed in forms by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with the recommended practices of ACI 309 to suit the type of concrete and project conditions.
12. No wood spreaders allowed. No wood stakes allowed in areas to be concreted.
13. All saw cutting of construction joints shall be done after initial set has occurred to avoid tearing or damage by the saw blade, but before initial shrinkage has occurred.
14. Additional reinforcing in precast or tilt-up panels required for lifting stresses shall be supplied by the Contractor at no additional cost to the Owner.
15. Provide 2-#4x4'-0" diagonal reinforcing at mid-depth of slab at all reentrant corners typical.
16. See Architectural Drawings for wall openings, wall offsets, chamfers, kerfs, drips, etc.
17. Casting concrete during cold weather shall be in accordance with all provisions of ACI 306 (latest edition), Standard Specification for Cold Weather Concreting.
18. Casting concrete during hot weather shall be in accordance with all provisions of ACI 305 (latest edition), Specification for Hot Weather Concreting.
19. Special provisions for floor slabs on ground:
   a) The parameters for the mix design listed below for floor slabs on ground are intended to provide a low shrinkage concrete mixture.
   b) Joints in the floor slabs shall be constructed and spaced per 4 / 31.3
   c) Floor slabs shall be cast directly on a vapor barrier as specified on the drawings or in the specifications.
   d) Floor slabs shall be moist cured for a minimum of 7 days unless otherwise noted in the specification.
   e) Floor slabs shall not be loaded until they have reached their specified design strength.

20. Concrete types:

Class	Item	f'c @ 28 days	Max Aggregate Size	Weight	Max W/C Ratio
A.	Conc. @ footings	4000 psi	1½"	145	0.60
*B.	Floor Slabs on Grand	4000 psi	1"	145	0.45
C.	All Exterior Conc. Slabs, Curbs, Pads, Piers, Walls, Etc.	3000 psi	1"	145	0.50

* A shrinkage reducing admixture conforming to ASTM C-494 Type S, shall be included in this mix. Minimum dosage for shrinkage reducing admixture shall be 48 fluid ounces per cubic yard of concrete, or as recommended by the admixture manufacturer for general shrinkage reduction. Additionally, this mix shall contain an integral water-proofing admixture such as Moxie, or similar.

Notes:
   a) Concrete shall have a maximum slump of 4".
   b) A water-reducing admixture should be added where increased workability is needed or desired.
   c) The parameters for the concrete mixes, where applicable, were governed by the durability requirements of ACI 318-14, Section 19.3.

Reinforcing Steel

1. Reinforcing steel shall conform to ASTM A615- grade 60 for #4 and larger, and ASTM A615-grade 60 for #3 and smaller, except reinforcing steel to be welded shall conform to ASTM A706.
2. All preheating and welding of reinforcing bars shall be done in accordance with AWS D1.4 latest edition and shall be continuously inspected by a qualified laboratory. Contractor shall furnish to the laboratory, rebar mill certificates.
3. Reinforcing steel shall be fabricated in accordance with the ACI "Manual of Standard Practice for Reinforced Concrete Construction", latest edition.
4. Wire fabric shall conform to ASTM A-185 and shall be lapped 12" minimum at splices.
5. Reinforcing steel shall be kept clean and free of rust.
6. Shop drawings for reinforcing steel shall be submitted for review prior to fabrication and delivery of reinforcing steel.
7. Provide all accessories necessary to support and secure reinforcing steel in the positions shown on the plans. All reinforcing steel shall be tied securely in position prior to placing concrete.
8. The following minimum concrete cover shall be provided for reinforcing steel:
   a) For concrete cast against earth.....3"
   b) For concrete exposed to earth or weather:
      #5 and smaller bars.....1½"
      #6 and larger bars.....2"
      #8 and smaller bars in tilt-up panels.....1"
   c) For concrete not exposed to earth or weather.....1½"
9. Splices in reinforcing steel shall be Class B unless noted otherwise and shall conform to the following schedule:

Lap Splice Length Schedule

Splice Class	Reinforcing Location	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	Top Bars	17"	23"	41"	46"	74"	93"	113"	137"	162"
B	Other Bars	16"	17"	32"	35"	57"	72"	87"	106"	125"

Notes:
   a) Schedule applies to uncoated, Grade 60 reinforcing steel, and normal weight, 3000 psi & 4500 psi concrete.
   b) Top bars are located such that 12" or more of fresh concrete is cast below the splice.
   c) For light weight concrete, multiply lap lengths by 1.30.
   d) Schedule applies to bars with a clear spacing of not less than 2 inches plus one bar diameter, and, to bars with concrete cover of at least 1 inch.

Structural Steel

General: All design, fabrication and erection of structural steel for buildings and structures shall be in accordance with the California Building Code (CBC), and, the Specification for Structural Steel Buildings (AISC 360).

1. Structural steel W and WT shapes shall conform with ASTM A992 steel. Structural steel angles, channels, miscellaneous channels, and plates shall conform with ASTM A36 steel unless noted otherwise.
2. Steel pipe shall conform to ASTM A-53, Types E or S, grade B.
3. Structural steel tubing shall conform to ASTM A-500, grade B.
4. Welding shall be done by the electric arc process in accordance with American Welding Society standards, using only certified welders. All groove welds shall have complete penetration unless noted otherwise. All exposed welds shall be ground. All welding to be using E70xx electrodes, in addition welding of ASTM A572 grade 50 steel and ASTM A992 steel shall be done with low hydrogen E70xx electrodes.
5. All structural steel shall be erected plumb and true to line. Temporary bracing shall be installed and shall be left in place until other means are provided to adequately brace the structure.
6. Place non-shrink grout under all base plates before adding vertical load.
7. Bolted connections shall consist of unfinished bolts conforming to ASTM A-307 unless noted otherwise. Where high strength bolts are indicated, bolts conforming to ASTM A325-N shall be provided (provide A325-SC bolts where indicated.)
8. Holes for unfinished bolts shall be of the same nominal diameter of the bolt plus 1/16". Use standard AISC gage and pitch for bolts except as noted otherwise.
9. Holes for anchor bolts embedded in concrete shall be of the same nominal bolt diameter plus 3/16" unless noted otherwise.
10. Provide ½" diameter stitch bolts and ring fills, spaced at not more than 24"cc for all double angle members.
11. At wood to steel parallel contact, bolt with ½" diameter bolts at maximum 24"cc.
12. All structural steel shall receive minimum of one shop coat of red primer paint. Do not paint areas to be field welded, to receive friction type high strength bolts, or to be embedded in concrete. Provide additional painting as noted in the specifications.
13. All Structural steel below grade shall have 3" minimum of concrete cover.

Wood

1. Sawn lumber shall conform to the following minimum specifications unless noted otherwise:

Member	Species	Grade
2x joists, rafters, and sub-purlins	Douglas Fir-Larch	No. 1
2x and 3x studs, plates, and blocking	Douglas Fir-Larch	No. 2
4x and 6x posts	Douglas Fir-Larch	No. 1
4x and 6x beams, purlins, and headers	Douglas Fir-Larch	No. 1

2. Glued Laminated Beams shall be manufactured and identified as required in ANSI/AITC A 190.1 and ASTM D 3737. Glued laminated beams shall be combination 24F-V4 for simple span members and 24F-V8 for cantilevered members. All glued laminated beams shall be manufactured with a 2000 ft. radius camber (except cantilevers shall have no camber) unless noted otherwise. Each glued-laminated beam shall be fabricated with exterior glue and shall be assumed to be for exterior use. Each glued-laminated beam shall be sealed and wrapped per AITC 111. Glulams designated as "AAA" shall be Architectural Appearance Grade.
3. Preservative-treated wood shall conform to the requirements of the applicable AWPA Standard U1 and M4 for the species, product, preservative, and end use. Preservatives shall be listed in Section 4 of AWPA U1. Preservative treated wood shall bear a quality mark stamp or label per CBC 2303.1.8.1. Field cuts and bolt holes in preservative-treated wood shall be protected in accordance with AWPA Standard M4.
4. Wood Structural Panel Sheathing shall conform to DOC PS 1 or PS 2 with exterior glue.
5. All wood in direct contact with concrete or masonry shall be preservative-treated.
6. Bearing and shear walls shall have double top plates, lapped at wall and partition intersection with 3-16d nails. Splice double top plates as noted or detailed on the drawings.
7. Provide solid blocking between joists and rafters at all supports.
8. Provide blocking at all ceiling levels.
9. Joists under and parallel to partitions shall be doubled and nailed together.
10. Holes for bolts in wood shall be bored with a bit equal in size to the diameter of the bolt plus 1/16 inch.
11. Holes for lag screws shall be bored as follows:
   a) The clearance hole for the shank shall have the same diameter as the shank, and the same depth of penetration as the length of unthreaded shank.
   b) The lead hole for the threaded portion shall have a diameter equal to 60% to 75% of the shank diameter and a length equal to at least the length of the threaded portion.
   c) Lag screws and wood screws shall be screwed and not driven into place. Soap may be used to lubricate the screws.
12. All bolts and lag screws shall be provided with metal washers under heads and nuts which bear on wood. Applies also to inserted expanding fasteners, Red Head, etc.
13. All bolts and lag screws shall be tightened on installation and retightened before closing in or at completion of job.
14. Lag all structural sheathing panels on roofs and floors with face grain perpendicular to supports unless noted otherwise.
15. Use plicplips at midspan of all unsupported roof sheathing edges.
16. Connector hardware model number are those of Simpson Strong-Tie Company. Equivalent connectors with ICC Evaluation Report may be substituted. All joist hangers shall be Simpson U series unless noted otherwise.
17. Nails shall have the following minimum dimensions (measured before application of any protective coatings).

Nail	Diameter	Length
16d common	0.162"	3½"
10d common	0.148"	3"
8d common	0.131"	2½"
16d sinker	0.148"	3¼"
10d box	0.128"	3"
8d box	0.113"	2½"

18. Anchor bolts for foundation sill plates shall be ⅝" diameter with a 12" minimum length, & 7" minimum embedment into concrete. Anchor bolts shall conform to ASTM A307 with a standard hex head at the embedded end or, shall conform to ASTM A36 with a fully engaged hex nut on the embedded end. Anchor bolts shall be spaced at 48"cc unless noted otherwise. Provide at least two anchor bolts per each piece of foundation sill plate and provide an anchor bolt not more than 12" nor less than 4" from the ends of each piece of foundation sill plate. Provide hot-dipped galvanized washers at all anchor bolts as follows:
   non-shearwalls - cut washers.
   shearwalls - plate washers, per 14 / 3x3
19. Per CBC 2304.9.5, fasteners for (installed in) preservative-treated and fire-retardant-treated wood shall be of hot-dipped galvanized steel or stainless steel. The coating weights for zinc-coated fasteners shall be in accordance with ASTM A-153.
   Exception: Fasteners other than nails, wood screws and lag screws may be of mechanically deposited zinc coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum.
20. No upset threaded bolts allowed; use only cut-thread bolts with full diameter bodies. See table below for dimensional requirements for cut-thread bolts with full diameter bodies:

Nominal Bolt Size (inches)	Body or Shank Diameter (inches)	
	Max.	Min.
½" (0.500)	0.515	0.482
⅝" (0.625)	0.642	0.605
¾" (0.750)	0.768	0.729
⅞" (0.875)	0.895	0.852
1" (1.000)	1.022	0.976

Note: The body, or shank, of the bolt is the smooth part between the head and the threads.

21. Lumber moisture content shall not exceed 19%.
22. All nails used shall be commons unless specifically noted otherwise.

Nailing Schedule

Connection	Nailing
1. Joist to sill or girder	3-8d common, toenail 3-3"x0.131" nails, toenail
2. Sole plate to joist or blocking	3-16d common @ 16"cc 4-3"x0.131" nails @ 16"cc
3. Stud to Top plate	3-16d common, toenail 4-3"x0.131" nails, toenail
4. Stud to sole plate	3-16d common, toenail 4-3"x0.131" nails, toenail
5. Double top plates btwn lap splices	16d common @ 12"cc 3-3"x0.131" nails @ 8"cc
6. Double top plates at lap splices	12-16d common, evenly spaced 18-3"x0.131" nails, evenly spaced
7. Built-up girders, beams, or multiple studs, joists and rafters (made up of multiple 2x members)	2 rows of 16d common @ 24"cc 2 rows of 3"x0.131" nails @ 16"cc
8. Blocking btwn joists or rafters	2-10d common, toenail each end to joist or rafter
9. Blocking btwn joists or rafters to top plate or beam	3-10d common, toenail 3-3"x0.131" nails, toenail
10. Rim joist to top plate	10d common toenail @ 6"cc 3"x0.131" nails, toenail @ 6"cc
11. Top plate intersections	2-16d common 3-3"x0.131" nails
12. Ceiling joists to top plate	3-10d common, toenail 5-3"x0.131" nails, toenail
13. Ceiling joist laps over partitions	3-16d common, minimum 4-3"x0.131" nails, minimum Also see CBC Table 2308.10.4.1
14. Ceiling joist to parallel rafters	3-16d common, minimum 4-3"x0.131" nails, minimum Also see CBC Table 2308.10.4.1
15. Rafter to top plate	3-10d common, toenail 4-3"x0.131" nails, toenail
16. Built-up corner studs	16d common @ 16"cc 3"x0.131" nails @ 12"cc
17. Collar tie to rafter	3-10d common
18. Jack rafter to hip	3-10d common, toenail 4-3"x0.131" nails, toenail
19. Rafter to 2x ridge	3-16d common, toenail 5-3"x0.131" nails, toenail
20. Wood structural panel wall or floor sheathing	8d common @ 6"cc at edges and 8d common @ 12"cc in field

Notes:
1. This nailing schedule shall govern unless other connections are specifically detailed or noted otherwise.
2. Connections are "face nail" unless noted as toenail.
3. Holes shall be pre-drilled where necessary to prevent splitting.
4. Nailing not noted on plans or in this nailing schedule shall be a minimum of two nails at each contact, with 8d nails being used for 1" nominal material and 10d nails being used for 2" nominal material.

Powder Actuated Fasteners (PAF)

1. These notes govern all conditions called out on the plans as "PAF" unless specifically noted otherwise.
2. All PAF shall be as manufactured by Hilti Incorporated. Reference shall be made to the Hilti 'Product Technical Guide' for additional information.
3. PAF driven into steel base material shall be X-CR type with P8 washers unless noted otherwise in the drawings. Length of fastener shaft shall be as required to penetrate through the steel base material. Minimum edge distance to any connected part shall be ½" and minimum fastener spacing shall be 2".
4. PAF driven into concrete base material shall be X-C type with P8 washers unless noted otherwise in the drawings. Length of fastener shaft shall be as required to penetrate 1½" into the concrete base material. Minimum edge distance to any concrete material shall be 3" and minimum fastener spacing shall be 4".
5. PAF driven into concrete base material through metal deck shall be X-C type with P8 washers. Length of fastener shaft shall be as required to penetrate 1" into the concrete through the low flute. Fastener shall be centered in the low flute and minimum fastener spacing shall be 4".
6. Installation of fasteners shall be in accordance with manufacturer's recommendations and the ICC-ES Report ESR-1663, latest edition.

Structural Composite Lumber

2. Laminated Veneer Lumber, I.E Microllam LVL (PA 045)
   a) Laminated Veneer Lumber specified on these drawings is manufactured by Weyerhaeuser, ICC Report ESR-1387. Laminated products with current ICC Reports may be used provided their allowable design stresses meet or exceed those specified below.
   b) I.E Microllam LVL allowable design stresses (for loads of normal duration):

Shear modulus of elasticity	G = 118,750 psi
Modulus of elasticity	E = 1.4 x 10^6 psi
Flexural Stress	F_b = 2600 psi
Compression perdendicular to grain	$Fc_\perp$ = 750 psi
Compression parallel to grain	$Fc_\parallel$ = 2510 psi
Horizontal shear	Fv = 285 psi

Simpson SET-3G Adhesive Anchors in Concrete

1. Use Simpson SET-3G Adhesive Anchors as manufactured by Simpson Strong Tie Company, Inc., ICC Report No. ESR-4057, latest issue.
2. Installation of anchors shall be in accordance with the manufacturer's recommendations, ICC report and these notes.
3. Holes for installation of the threaded rod or reinforcement bar must be cleaned of dust and debris, using a nylon brush and oil-free compressed air as required to remove particulate debris and to achieve a relatively dust-free surface.
4. Special Inspection is required for anchor installations.
5. When installing anchors do not cut or damage existing reinforcing bars.
6. Threaded anchor rods to ASTM A307 Grade C, ASTM A193 Grade B7, or ASTM A193 Grades B6 or B8.
7. Deformed reinforcing bars (rebar) to conform to ASTM A615.
8. Concrete shall be normal weight with a minimum compressive strength of 2500 psi.
9. All anchors through pressure treated lumber shall be stainless steel.
10. Testing Requirements:
   a) When anchors are listed for sill plate bolting applications, 10 percent of the anchors shall be tension tested
   b) When anchors are used for other structural applications, all such anchors shall be tension tested
   c) When anchors are used for nonstructural applications such as equipment anchorage, 50 percent or alternate bolts in a group, including at least one-half the anchors in each group, shall be tension tested
   d) The tension testing of the anchors shall be done in the presence of the special inspector and a report of the test results shall be submitted to the enforcement agency. If any anchors fail the tension-testing requirements, the additional testing requirements shall be acceptable to the enforcement agency.

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KEY PLAN

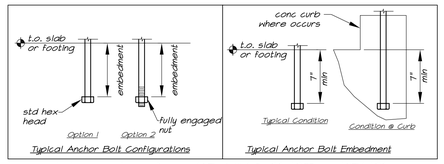
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Typical Notes

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number S1.1



Typical Anchor Bolt Configurations | Typical Anchor Bolt Embedment

Notes:
1. Anchor bolts shall conform to ASTM F1554 Gr. 36, A307, or ASTM A36. Upset threaded bolts/rods shall not be used; use only cut-thread bolts/rods with full diameter bodies. See "Wood" notes #20 on the Typical Notes sheet.
2. Per CBC Section 2304.9.5.1, anchor bolts shall be hot dipped zinc-coated galvanized steel or mechanically deposited zinc-coated steel with coating weights per ASTM B 695, Class 55 minimum.
3. Anchor bolts depicted in this detail are for foundation sill plate anchorage subjected to shear loading only and not for use as holdown anchor bolts.
4. Anchor bolts shall be spaced not more than 48" on center. There shall be at least two bolts per piece of sill plate, and there shall be an anchor bolt located not more than 12" nor less than 4" from each end of each piece of sill plate.
5. Holdown bolts shall not be considered to act as, or replace, foundation sill plate anchor bolts.
6. All anchor bolts shall be cast in place. However, in the event that a sill plate anchor bolt is misplaced or missing, provide an $\frac{5}{8}$"ø A36 all-threaded rod set in Hilti HIT HY-150 MAX-SD adhesive with 7" minimum embedment (see detail above for examples of embedment). This note only applies to sill plate anchor bolts and is not to be used for holdown bolts. Tension test adhesive anchors to 2400 lbs.

13 / S1.2 Typical Anchor Bolt Detail 3"=1'-0"

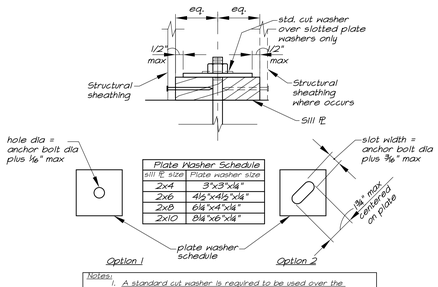
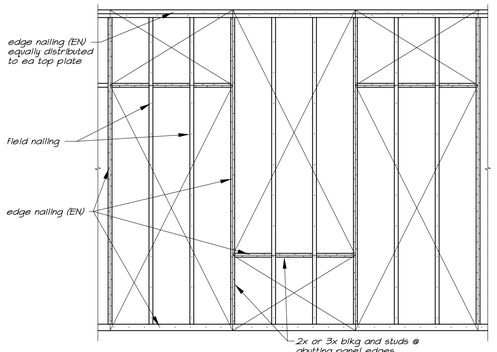


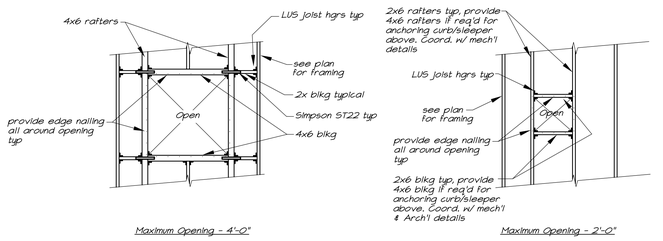
Plate Washer Schedule	
sill PT size	Plate washer size
2x4	3"x3"x1/4"
2x6	4½"x4½"x1/4"
2x8	6¼"x4"x1/4"
2x10	8¼"x6"x1/4"

Notes:
1. A standard cut washer is required to be used over the plate washer if Option 2 is employed.
2. This detail applies where noted in the shearwall schedule.
3. Per the CBC/AHC SDPWS, the plate washer shall extend to within ½" of the edge of the bottom plate on the side(s) with sheathing. See the detail above.
4. If the ½" plate washer edge distance is exceeded, provide larger plate washers as required to achieve the plate washer placement shown in detail above.

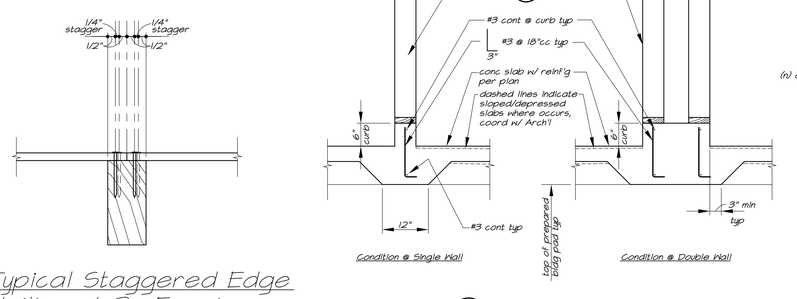
14 / S1.2 Shearwall Anchor Bolt Plate Washers 3"=1'-0"



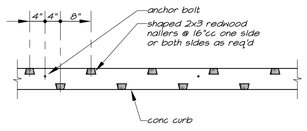
15 / S1.2 Typical Shearwall Nailing ½"=1'-0"



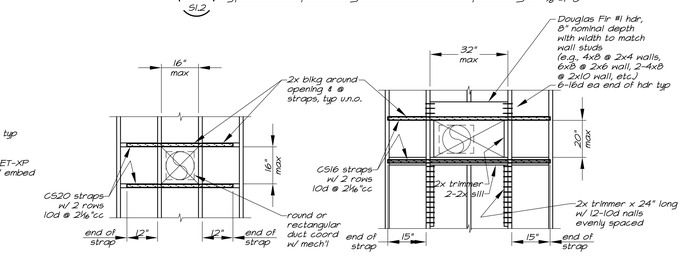
16 / S1.2 Typical Opening in Roof Diaphragm ⅜"=1'-0"



10 / S1.2 Typical Staggered Edge Nailing at 3x Framing 3"=1'-0"

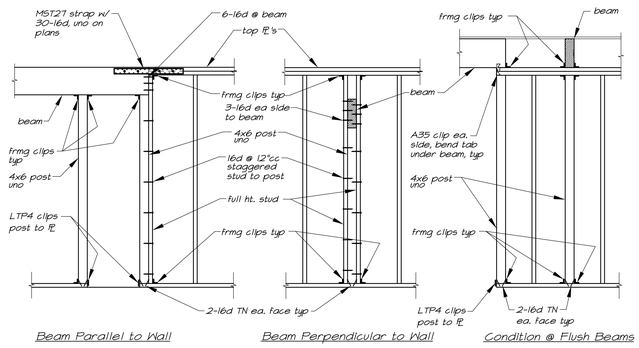


9 / S1.2 Nailers in Conc Curb ¾"=1'-0"



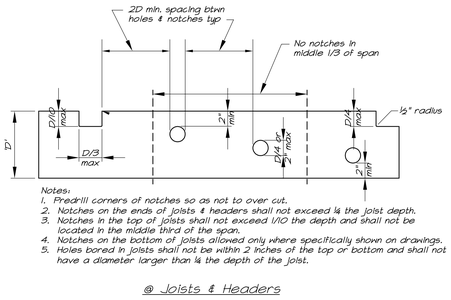
Notes:
1. Straps are to be installed over structural wall sheathing.
2. Duct penetration thru shearwalls are to occur only where specified on the plans. Where shearwalls are sheathed on both sides, the specified straps are to be installed on both sides of the wall.
3. Provide sheathing edge nailing all around duct penetration typ.

12 / S1.2 Typical Duct Penetration Thru Shearwalls ½"=1'-0"



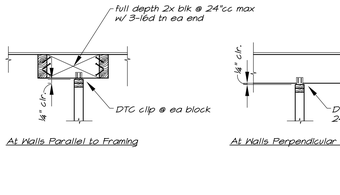
Note: Framing clips to be A34 @ 2x4 walls and A35 @ 2x6 walls, typical uno.

5 / S1.2 Post & Beam Connections ½"=1'-0"

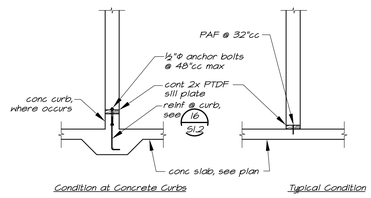


Note: In no case shall the edge of the bored hole be nearer than ⅜" to the edge of the stud.

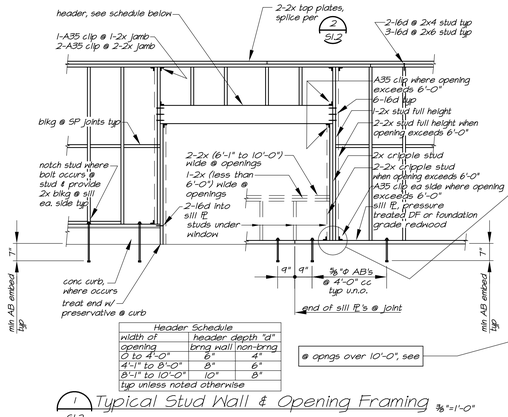
6 / S1.2 Notches & Holes in Joists, Headers, & Studs ⅜"=1'-0"



7 / S1.2 Typical Non-Bearing Wall Conn. ½"=1'-0"



8 / S1.2 Typical Non-Bearing Wall Conn. ½"=1'-0"

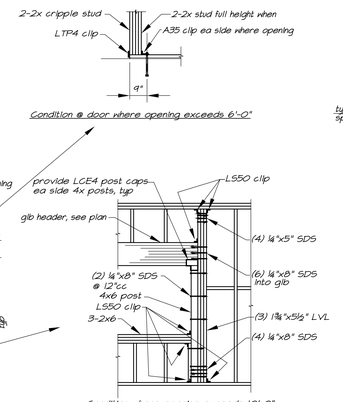


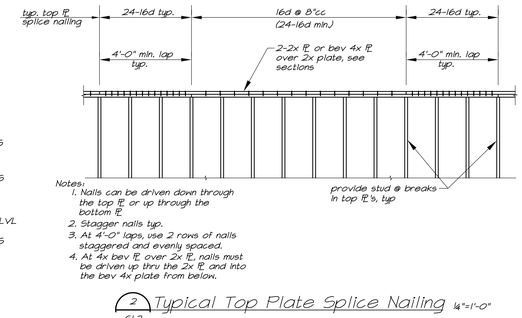
Header Schedule		
width of opening	header depth "d"	
	brng wall	non-brng
0 to 4'-0"	6"	4"
4'-1" to 8'-0"	8"	6"
8'-1" to 10'-0"	10"	8"

typ unless noted otherwise

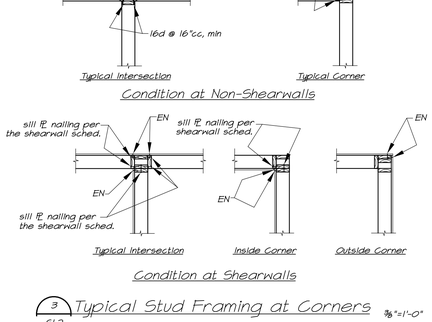
@ opngs over 10'-0", see

1 / S1.2 Typical Stud Wall & Opening Framing ⅜"=1'-0"

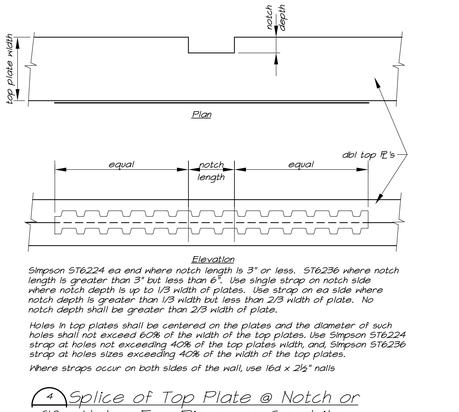




2 / S1.2 Typical Top Plate Splice Nailing ¼"=1'-0"



3 / S1.2 Typical Stud Framing at Corners ⅜"=1'-0"



Simpson ST6224 ea end where notch length is 3" or less. ST6236 where notch length is greater than 3" but less than 6". Use single strap on notch side where notch depth is up to 1/3 width of plates. Use strap on ea side where notch depth is greater than 1/3 width but less than 2/3 width of plate. No notch depth shall be greater than 2/3 width of plate.

Holes in top plates shall be centered on the plates and the diameter of such holes shall not exceed 60% of the width of the top plates. Use Simpson ST6224 strap at holes not exceeding 40% of the top plates width, and, Simpson ST6236 strap at holes sizes exceeding 40% of the width of the top plates.

Where straps occur on both sides of the wall, use 16d x 2½" nails

4 / S1.2 Splice of Top Plate @ Notch or Holes For Pipes or Conduits ⅜"=1'-0"

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	DATE
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○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

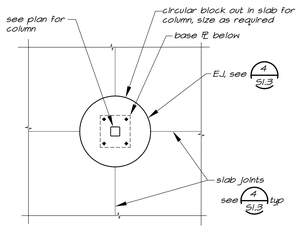
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

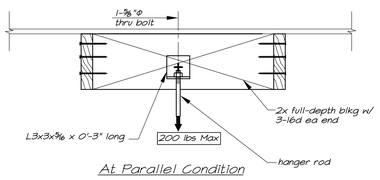
WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA
95691

Typical Details

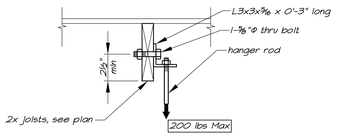
Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number S1.2



15/S1.3 Typical Slab Block-out 3/8"=1'-0"

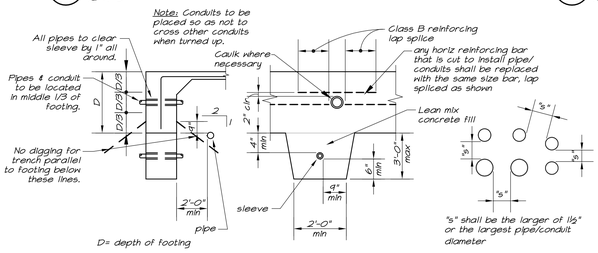


At Parallel Condition



At Perpendicular Condition

10/S1.3 Typical Hanger Rod Connection 1½"=1'-0"



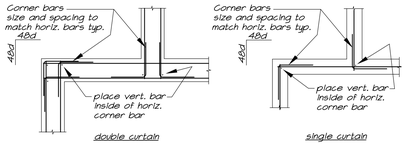
Section View Thru Footing | Elevation View of Footing | Typical Spacing Requirements for Groups of Pipes/Conduits

Condition with Pipes/Conduits thru Lower 1/3 of Footing

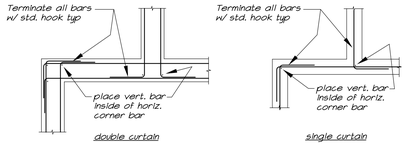
Notes:

1. Lean mix concrete fill to be placed before footing is cast. Make same width as footing and full width of pipe trench. Step footing if pipe is more than 2'-6" below bottom of footing.
2. No pipes shall be placed below spread footing, typ.
3. If pipe is in place prior to casting concrete, wrap pipe w/ compressible foam pipe wrap (1" min all around) in lieu of sleeve.

6/S1.3 Pipes & Conduits at Footings 3/8"=1'-0"



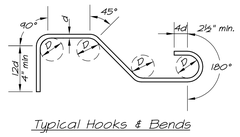
Option A: Corner Bars



Option B: Std. Hooks

1/S1.3 Typical Corner Reinforcing 3/8"=1'-0"

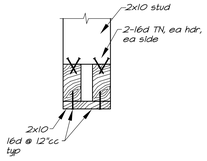
2/S1.3 Rebar Hooks & Bends 3/8"=1'-0"



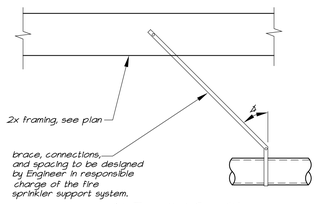
Typical Hooks & Bends

Ties & Stirrups

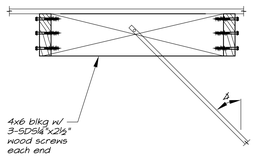
11/S1.3 Fire Sprinkler Brace Connection 1½"=1'-0"



16/S1.3 Typical Double Header Detail 1"=1'-0"



At Parallel Condition



At Perpendicular Condition

Allowable Horizontal Seismic Forces (lbs)		
Angle to Vertical (Δ)		
30°	45°	60°
85	70	50

1. The loads in the table are based on the controlling connection to the joist.
2. The capacity of the brace fastener to the wood member may limit the capacity of the detail.
3. The forces include a 1.33 duration factor adjustment.

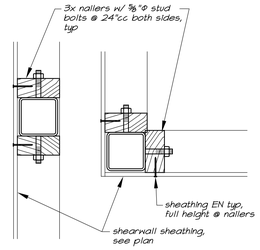
Allowable Horizontal Seismic Forces (lbs)		
Angle to Vertical (Δ)		
30°	45°	60°
85	70	50

1. The loads in the table are based on the controlling connection to the joist.
2. The capacity of the brace fastener to the wood member may limit the capacity of the detail.
3. The forces include a 1.33 duration factor adjustment.

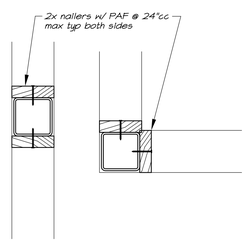
Note: 1. This detail is provided as a general guideline for bracing fire sprinkler pipes. The Fire Sprinkler Contractor shall provide calculations and details, signed by a Structural Engineer licensed in the State of California, for the actual fire sprinkler support system to be installed. Calculations shall utilize an importance Factor, I_p =1.5 as required by the California Building Code, CBC.

2. This detail is intended for bracing of branch lines only. Main sprinkler lines shall be braced by other means. Bracing design including connections shall be by the Engineer in responsible charge of the fire sprinkler support system.

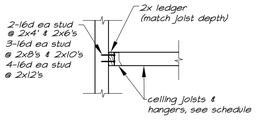
17/S1.3 Typical Nailers at HSS Columns in Walls 1½"=1'-0"



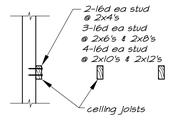
Condition at Shearwalls



Condition at Non-Shearwalls



Condition @ Perpendicular Walls



Condition @ Parallel Walls

Ceiling Joist Schedule

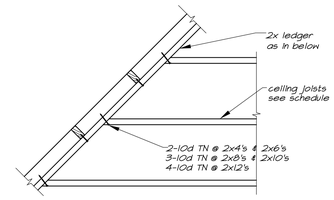
Span	Joist	Hangers
7'-6" max	2x4 DF #1 @ 24"cc	LUS24
11'-0" max	2x6 DF #1 @ 24"cc	LUS26
14'-0" max	2x8 DF #1 @ 24"cc	LUS28
17'-0" max	2x10 DF #1 @ 24"cc	LUS28
19'-6" max	2x12 DF #1 @ 24"cc	LUS210

Schedule Notes:

1. Ceiling joist sizes in this schedule shall govern unless joists are called out elsewhere on the structural drawings.
2. This schedule is intended to be used only where ceiling joists can span across a room and be supported by a wall (which is supported by the floor) on each end. In rooms too large to use this schedule, refer to plans, sections and details for construction.
3. This schedule is intended for ceilings supporting one single layer of ⅝" gyp board. The design loads used to produce this schedule are as follows:

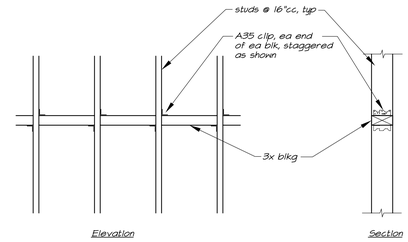
Dead Load = 15 psf Live Load = 10 psf

13/S1.3 Typical Ceiling Joists ¾"=1'-0"

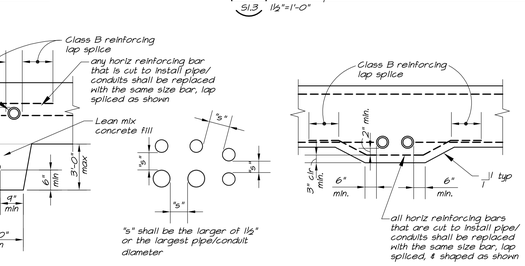


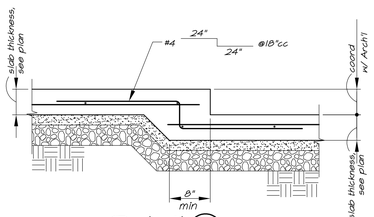
Condition @ Skewed Walls

14/S1.3 Typical 3x Blkg to Stud Connection ¾"=1'-0"



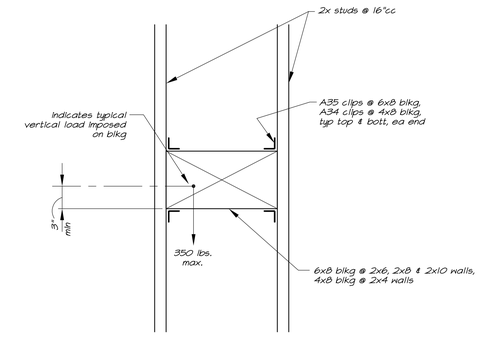
Elevation | Section



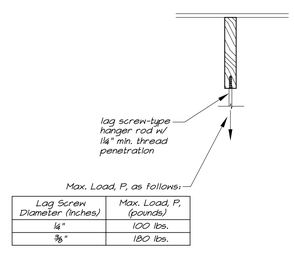


Detail 7/S1.3 1"=1'-0"

typical depressed slab

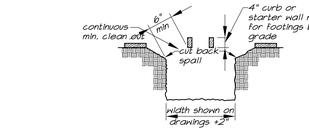


8/S1.3 Typical Blocking for Wall-Mounted Equipment 1½"=1'-0"



Lag Screw Diameter (Inches)	Max. Load, P, (pounds)
¼"	100 lbs.
⅜"	180 lbs.

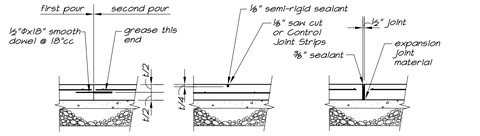
9/S1.3 Typical Hanging Loads to 2x Framing Connection 1½"=1'-0"



Notes:

1. Foundation concrete may be placed directly into neat excavations provided the foundation trench walls are stable as determined by the Architect (Structural Engineer) subject to the approval of the Division of the State Architect. In such case the minimum formwork shown above is mandatory to insure clean excavations.
2. Stakes not permitted within footing section.

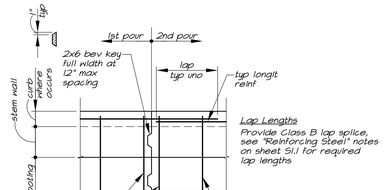
3/S1.3 Mandatory Minimum Formwork (unless fully formed)



Construction Joint (C.J.) | Control Joint (C.T.J.) | Expansion Joint (E.J.) (use only where shown on drawings)

Note:
Construction joints & control joints are recommended to be spaced not more than 24 times the slab thickness without reentrant corners & with length to width ratios not exceeding 1½:1.

4/S1.3 Slab-On-Grade Joints 3/8"=1'-0"



Detail 5/S1.3 1½"=1'-0"

Typical Foundation Construction Joint

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NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	12/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

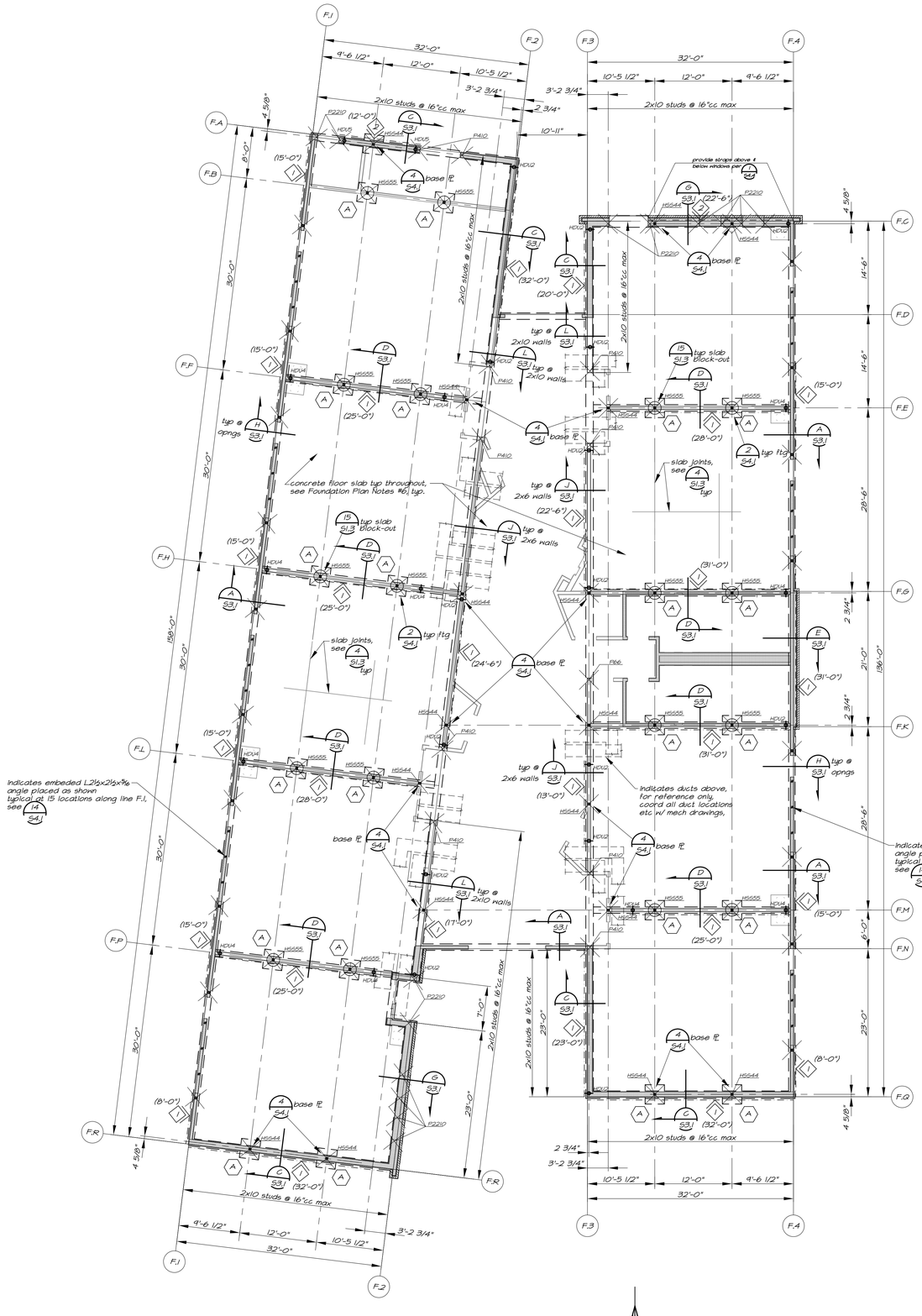
Typical Details

Date 05/20/2019

Scale AS NOTED

Project Number 19003.2

Drawing Number S1.3



Foundation Plan 1/8"=1'-0"

Shearwall Schedule (1 / SF2.1)

MK	Sheathing Material	Sheathing Edge Nailing (common or galvanized box)	Shear Transfer Nailing 16d commons @	Shear Transfer Connection A35 clips @	Studs and Blocking at Abutting Panel Edges	5/8"ø Anchor Bolts	Capacity (plf) Seismic	Capacity (plf) Wind	Anchor Bolt Plate washer Detail
1	⅜" Struct I	10d @ 6"cc	4"cc	24"cc	2x	3'-4"cc	340	475	14 / S1.3
2	⅜" Struct I	10d @ 4"cc	3"cc	16"cc	3x or 2-2x	2'-3"cc	510	715	14 / S1.3
3	⅜" Struct I	10d @ 3"cc	2½"cc	12"cc	3x	1'-9"cc	665	930	14 / S1.3
4	⅜" Struct I	10d @ 2"cc	2 rows of nails @ 3½"cc staggered	9"cc	3x	1'-4"cc	870	1218	14 / S1.3

Notes:

1. Field nailing (nailing to intermediate framing members) to be 10d common or galvanized box nails spaced as follows:
   a) 6"cc where framing members are spaced at 24"cc
   b) 12"cc where framing members are spaced at 16"cc
2. Holdown bolts shall not be considered to replace (or act as) anchor bolts.
3. For anchor bolt details see 13 / S1.3
4. All anchor bolts at shearwalls shall have plate washers per the details specified in the shearwall schedule above. Anchor bolts at non-sherawalls shall have standard cut washers between the wood sill plate and the nut.
5. If not indicated otherwise, nail sheathing at walls per 1
6. Nailing at abutting panel edges at 3x members (and 2-2x members, as permitted by the shearwall schedule) shall be staggered. Nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
7. All sill plate nailing shall be staggered and nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
8. Nails shall have the following minimum dimensions (measured before application of any protective coatings):

Nail	Diameter	Length
10d common	0.148"	3"
10d box	0.128"	3"

   Galvanized nails shall be hot dipped or tumbled
9. Where permitted by the shearwall schedule above, 2-2x studs and blocking used at abutting panel edges shall be nailed together with " Shear Transfer Nailing" as specified in the schedule above.
10. Where the extent of shear wall does not coincide with the entire extent of adjacent wall faces, provide sheetrock or wood furring such that the substrate for the finishes is flush.

Footing Schedule (2 / SF2.1)

MK	Size	Thickness (Depth)	Reinforcing
A	3'-0" square	24"	4-#5 ea way bottom

Foundation Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Posts and columns:
   A.) Indicates wood posts typical uno. See plan for sizes.
   B.) Indicates steel HSS or pipe columns. See plan for sizes.
   C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5½"x beams on 6x6 posts
   D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   E.) Wood Post ℄ Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x¼"
HSS55	HSS5x5x¼"

4. All anchor bolts, holdown bolts, straps and other hardware embedded in concrete must be securely tied in place prior to foundation inspection.
5. Dimensions shown are to face-of-stud (FS) unless noted otherwise. Dimensions to face-of-concrete (FC) for formwork purposes shall be coordinated with the structural sections and the architectural drawings.
6. Construction of concrete floor slabs shall conform to the following:
   A.) Subgrade soils shall be prepared in strict accordance with the Geotechnical Report.
   B.) Floor slabs shall be cast directly onto a 10 mil. vapor barrier. The vapor barrier should be properly lapped and sealed as well as sealed around all plumbing lines, conduits, and other openings.
   C.) The vapor barrier shall be placed directly over a 4" thick capillary break consisting of free-draining washed, crushed, compacted rock. The crushed rock shall be graded such that 100% passes a ¾" sieve and less than 5% passes the No. 4 sieve. Compact the crushed rock with at least two passes of a vibratory type compactor.
   D.) All concrete floor slabs shall be 5 inches thick and shall be reinforced with #4 bars at 18 inches on center each direction placed at mid-depth of the slab.
   E.) Provide joints in the concrete floor slabs per 4 / S1.3
   A slab joint plan shall be submitted to the Architect for approval prior to casting the slabs.
7. (X'-X") Indicates shearwall type and minimum shearwall length, see Shearwall Schedule on this sheet.
8. ♦ Indicates Simpson holdowns as follows:

Mark	Holdown	Mark	Holdown
HDU2	HDU2-SDS2.5		
HDU4	HDU4-SDS2.5		
HDU5	HDU5-SDS2.5		

   see 12 / S4.1 & 13 / S4.1
9. For typical pipe/conduit penetrations through footings, see 6 / S1.3
10. Unless otherwise designated as shearwalls, all exterior wood walls shall be sheathed with 15/32" CDX sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical. See the plan for those walls designated as shearwalls.
11. All interior non-bearing partition walls are to be built full-height to the bottom of the roof framing and connected per detail 6 / S1.3
12. Indicates raised concrete curbs, see sections for details of construction. Coordinate/verify locations and extents w/ Arch'l drawings.
13. (A) Indicates concrete footings, see Footing Schedule on this sheet.
14. Exterior walls shall be 2x6 at 16"cc, typical unless noted or shown otherwise.
15. All HSS columns in walls shall be provided with nailers per 17 / S1.3
16. All HSS columns in shearwalls, and at the ends of shearwalls, shall be provided with nailers per note #15 above. Further, the shearwall sheathing shall be edge-nailed full-ht to the nailer.

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KEY PLAN

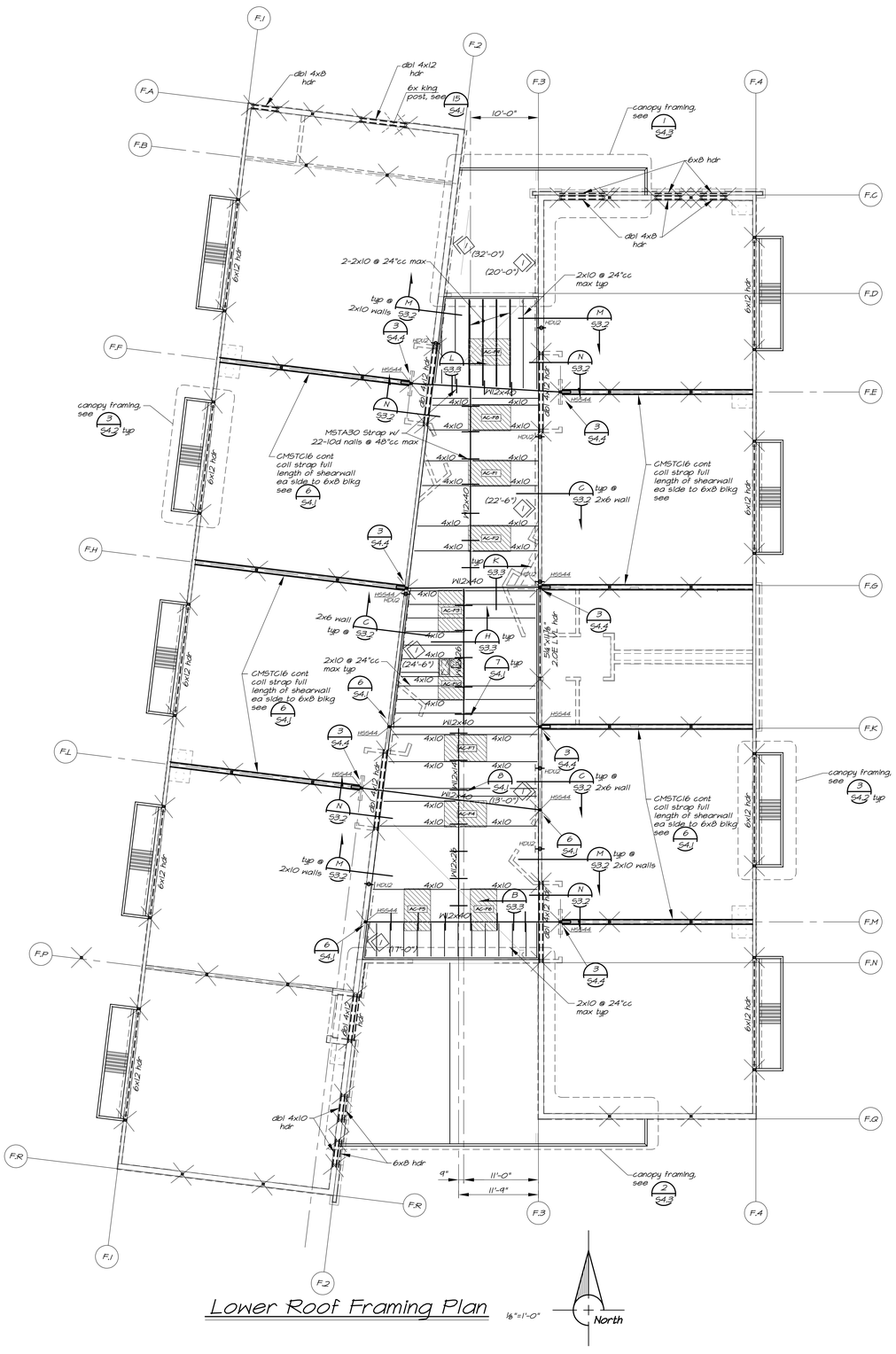
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Building F-
Foundation Plan

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number SF2.1



Roof Framing Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Typical roof sheathing shall be 7/16" Structural I APA-rated sheathing (span rating=32/16), nailed with 10d nails @ 6"cc at supported edges and 12"cc at field. Stagger panels typical as shown. All panels shall have a minimum width of 24".
4. For post and beam connections in walls see 5/S1.2, otherwise provide all posts with PC/EPC post caps.
5. Posts and columns:
   - A.) ⨯ Indicates wood posts typical uno. See plan for sizes.
   - B.) ⨯ Indicates steel HSS or pipe columns, as occurs. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5 1/8"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x1/4"
HSS55	HSS5x5x1/4"

6. Unless otherwise noted, where hangers are required, use hangers as follows:

Member	Hanger Series (no slope)	Sloped Hanger Series
4x10	LUS410	HUS10
2x, 2-2x	LUS	U
Other 4x & 6x	HU	HU

7. For typical stud connections, see "Nailing Schedule" on sheet S1.1.
8. All exterior wood walls to be sheathed with 15/32" Struct I sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical, unless noted otherwise in the shearwall schedule.
9. Provide 2x10 at bottom of double headers per 16/S1.3
10. ▨ Indicates mechanical units. Coordinate/verify locations with mechanical drawings typ.

Unit/s	Weight
AC-F1 thru AC-F10	1200 lbs.

11. ◇ (X'-X") Indicates shearwall type and minimum shearwall length, see Shearwall Schedule 1/S2.3
12. ⧫ Indicates Simpson holdowns as follows:

Mark	Holdown	Mark	Holdown
HDU2	HDU2-SDS2.5		

see 2/S4.1

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1504 FALLBROOK ST.
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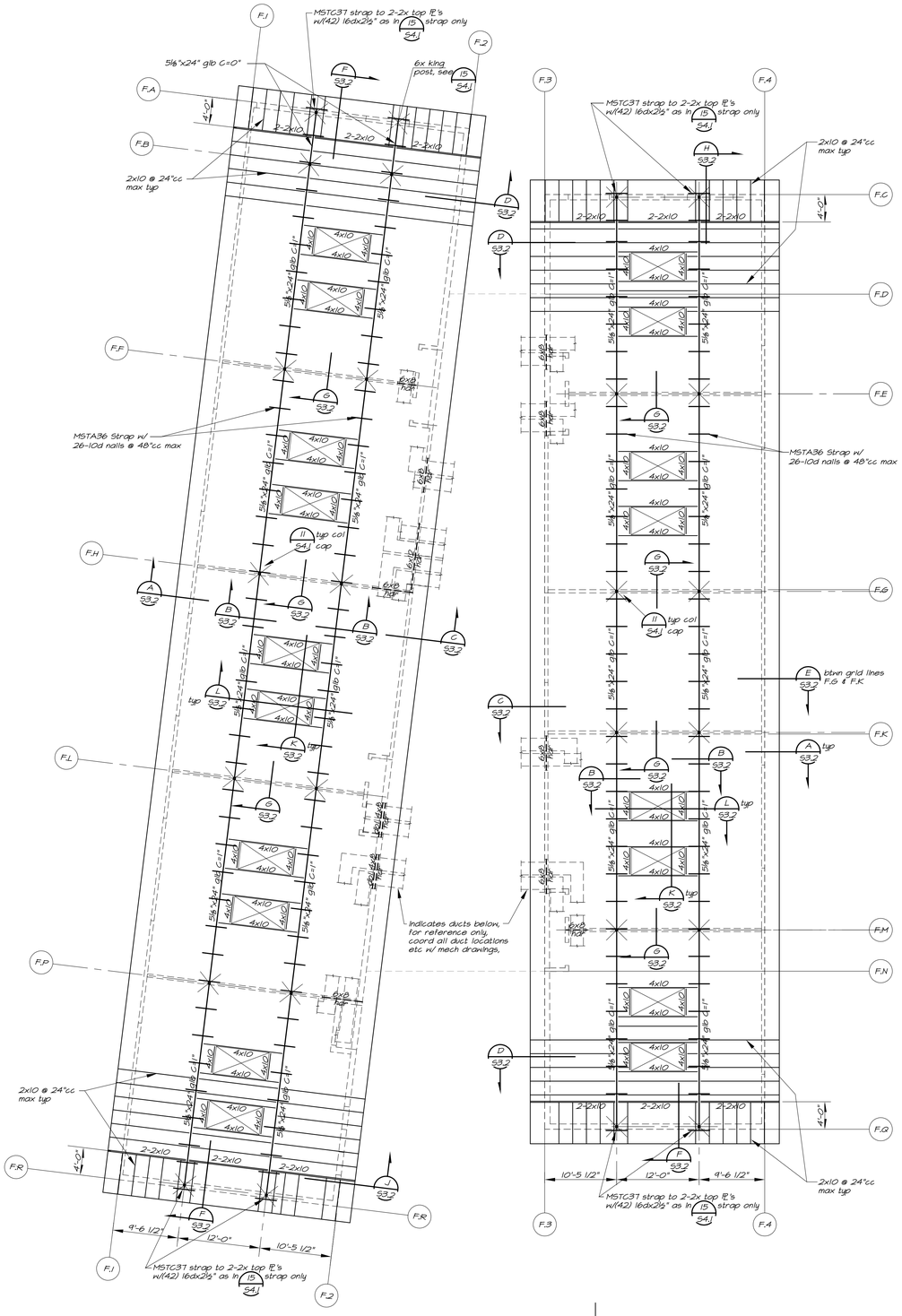
Building F-
Roof Framing Plans

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number SF2.2



Roof Framing Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Typical roof sheathing shall be ⅜" Structural I APA-rated sheathing (span rating=32/16), nailed with 10d nails @ 6"cc at supported edges and 12"cc at field. Stagger panels typical as shown. All panels shall have a minimum width of 24".
4. For post and beam connections in walls see 5/S1.3, otherwise provide all posts with PC/EPC post caps.
5. Posts and columns:
   - A.) Indicates wood posts typical uno. See plan for sizes.
   - B.) Indicates steel HSS or pipe columns, as occurs. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5⅛"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSSAx4x¼"
HSS55	HSS5x5x¼"

6. Unless otherwise noted, where hangers are required, use hangers as follows:

Member	Hanger Series (no slope)	Sloped Hanger Series
4x10	LUS410	HU410
2x, 2-2x	LUS	U
Other 4x & 6x	HU	HU

7. For typical stud connections, see "Nailing Schedule" on sheet S1.1.
8. All exterior wood walls to be sheathed with 15/32" Struct I sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical, unless noted otherwise in the shearwall schedule.
9. Provide 2x10 at bottom of double headers per 16/S1.3

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ARCHITECT: LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

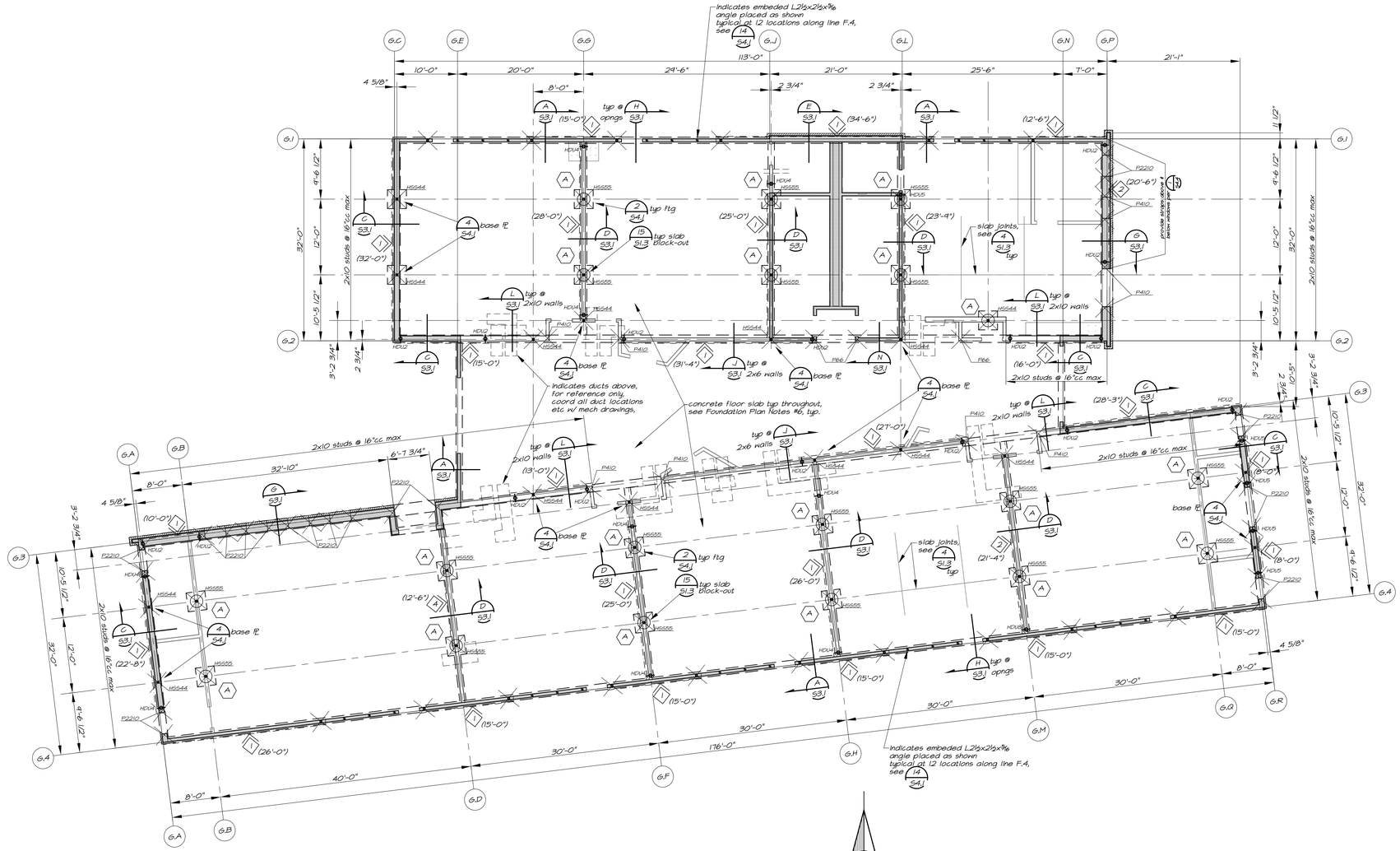
Building F-
Roof Framing Plans

Date
05/20/2019

Scale
AS NOTED

Project Number
19003.2

Drawing Number
SF2.3



Foundation Plan

1/8"=1'-0"

North

Shearwall Schedule (1/S2.1)

MK	Sheathing Material	Sheathing Edge Nailing (common or galvanized box)	Shear Transfer Nailing 16d commons @	Shear Transfer Connection A35 clips @	Studs and Blocking at Abutting Panel Edges	5/8"ø Anchor Bolts	Capacity (plf) Seismic	Capacity (plf) Wind	Anchor Bolt Plate washer Detail
1	7/16" Struct 1	10d @ 6"cc	4"cc	24"cc	2x	3'-4"cc	340	475	14/S1.3
2	7/16" Struct 1	10d @ 4"cc	3"cc	16"cc	3x or 2-2x	2'-3"cc	510	715	14/S1.3
3	7/16" Struct 1	10d @ 3"cc	2½"cc	12"cc	3x	1'-9"cc	665	930	14/S1.3
4	7/16" Struct 1	10d @ 2"cc	2 rows at nails @ 3½"cc staggered	9"cc	3x	1'-4"cc	870	1218	14/S1.3

Notes:

1. Field nailing (nailing to intermediate framing members) to be 10d common or galvanized box nails spaced as follows:
   a) 6"cc where framing members are spaced at 24"cc
   b) 12"cc where framing members are spaced at 16"cc.
2. Holdown bolts shall not be considered to replace (or act as) anchor bolts.
3. For anchor bolt details see 13/S1.3
4. All anchor bolts at shearwalls shall have plate washers per the details specified in the shearwall schedule above. Anchor bolts at non-sheravalls shall have standard cut washers between the wood sill plate and the nut.
5. If not indicated otherwise, nail sheathing at walls per 1
6. Nailing at abutting panel edges at 3x members (and 2-2x members, as permitted by the shearwall schedule) shall be staggered. Nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
7. All sill plate nailing shall be staggered and nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
8. Nails shall have the following minimum dimensions (measured before application of any protective coatings):

Nail	Diameter	Length
10d common	0.148"	3"
10d box	0.128"	3"

   Galvanized nails shall be hot dipped or tumbled
9. Where permitted by the shearwall schedule above, 2-2x studs and blocking used at abutting panel edges shall be nailed together with " Shear Transfer Nailing" as specified in the schedule above.
10. Where the extent of shear wall does not coincide with the entire extent of adjacent wall faces, provide sheetrock or wood furring such that the substrate for the finishes is flush.

Footing Schedule (2/S2.1)

MK	Size	Thickness (Depth)	Reinforcing
A	3'-0" square	24"	4-#5 eq way bottom

Foundation Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Posts and columns:
   A.) Indicates wood posts typical uno. See plan for sizes.
   B.) Indicates steel HSS or pipe columns. See plan for sizes.
   C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5½"x beams on 6x6 posts
   D.) Posts shall be of timber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x¼"
HSS55	HSS5x5x¼"

4. All anchor bolts, holdown bolts, straps and other hardware embedded in concrete must be securely tied in place prior to foundation inspection.
5. Dimensions shown are to face-of-stud (FS) unless noted otherwise. Dimensions to face-of-concrete (FC) for formwork purposes shall be coordinated with the structural sections and the architectural drawings.
6. Construction of concrete floor slabs shall conform to the following:
   A.) Subgrade soils shall be prepared in strict accordance with the Geotechnical Report.
   B.) Floor slabs shall be cast directly onto a 10 mil. vapor barrier. The vapor barrier should be properly lapped and sealed as well as sealed around all plumbing lines, conduits, and other openings.
   C.) The vapor barrier shall be placed directly over a 4" thick capillary break consisting of free-draining washed, crushed, compacted rock. The crushed rock shall be graded such that 100% passes a ¾" sieve and less than 5% passes the No. 4 sieve. Compact the crushed rock with at least two passes of a vibratory type compactor.
   D.) All concrete floor slabs shall be 5 inches thick and shall be reinforced with #4 bars at 18 inches on center each direction placed at mid-depth of the slab.
   E.) Provide joints in the concrete floor slabs per 4/S1.3. A slab joint plan shall be submitted to the Architect for approval prior to casting the slabs.
7. 1 (X'-X") — Indicates shearwall type and minimum shearwall length, see Shearwall Schedule on this sheet.
8. ⧫ Indicates Simpson holdowns as follows:

Mark	Holdown	Mark	Holdown
HDU2	HDU2-SDS2.5		
HDU4	HDU4-SDS2.5		
HDU5	HDU5-SDS2.5		

   see 12/S4.1 13/S4.1
9. For typical pipe/conduit penetrations through footings, see 6/S1.3
10. Unless otherwise designated as shearwalls, all exterior wood walls shall be sheathed with 15/32" CDX sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical. See the plan for those walls designated as shearwalls.
11. All interior non-bearing partition walls are to be built full-height to the bottom of the roof framing and connected per detail 8/S1.3
12. Indicates raised concrete curbs, see sections for details of construction. Coordinate/verify locations and extents w/ Arch't drawings.
13. A Indicates concrete footings, see Footing Schedule on this sheet.
14. Exterior walls shall be 2x6 at 16"cc, typical unless noted or shown otherwise.
15. All HSS columns in walls shall be provided with nailers per 17/S1.3
16. All HSS columns in shearwalls, and at the ends of shearwalls, shall be provided with nailers per note #15 above. Further, the shearwall sheathing shall be edge-nailed full-ht to the nailer.

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ENGINEER: REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

NO.	REMARKS	DATE

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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

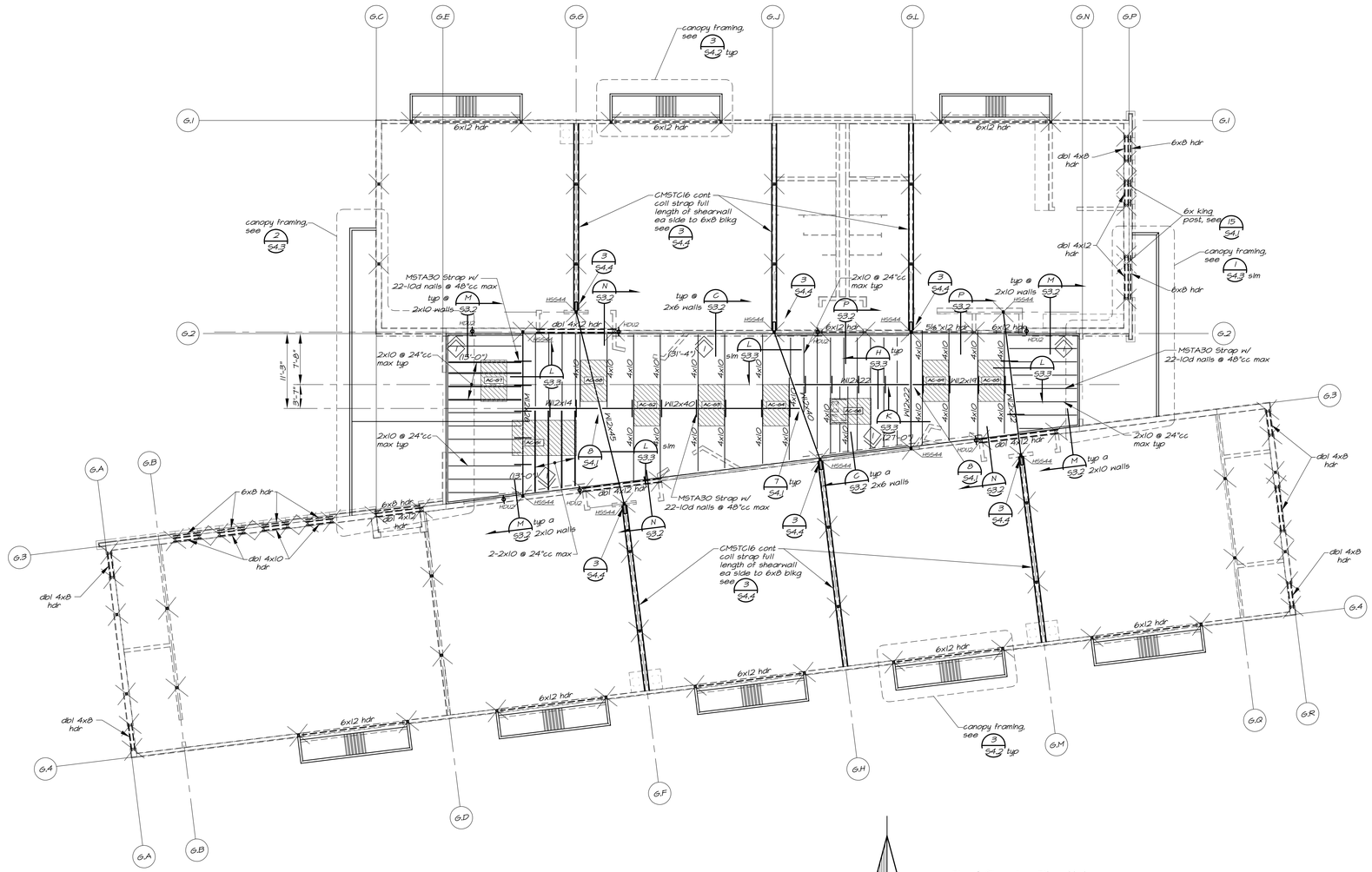
CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Building G-
Foundation Plan

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2

Drawing Number SG2.1



Lower Roof Framing Plan

1/8"=1'-0"

North

Roof Framing Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Typical roof sheathing shall be ⅞" Structural I APA-rated sheathing (span rating=32/16), nailed with 10d nails @ 6"cc at supported edges and 12"cc at field. Stagger panels typical as shown. All panels shall have a minimum width of 24".
4. For post and beam connections in walls see 5 S1.3, otherwise provide all posts with PC/EPC post caps.
5. Posts and columns:
   - A.) Indicates wood posts typical uno. See plan for sizes.
   - B.) Indicates steel HSS or pipe columns, as occurs. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5⅛"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x¼"
HSS55	HSS5x5x¼"

6. Unless otherwise noted, where hangers are required, use hangers as follows:

Member	Hanger Series (no slope)	Sloped Hanger Series
4x10	LUS410	HU410
2x, 2-2x	LUS	U
Other 4x & 6x	HU	HU

7. For typical stud connections, see "Nailing Schedule" on sheet S1.1.
8. All exterior wood walls to be sheathed with 15/32" Struct I sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical, unless noted otherwise in the shearwall schedule.
9. Provide 2x10 at bottom of double headers per 16 S1.3
10. Indicates mechanical units. Coordinate/verify locations with mechanical drawings typ.

Unit/s	Weight
AC-61	2250 lbs.
AC-62 thru AC-69	1200 lbs.

11. 1 (X'-X") Indicates shearwall type and minimum shearwall length, see Shearwall Schedule 1 SF2.1
12. Indicates Simpson holdowns as follows:

Mark	Holdown	Mark	Holdown
HDU2	HDU2-SDS2.5		

see 2 S4.1

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

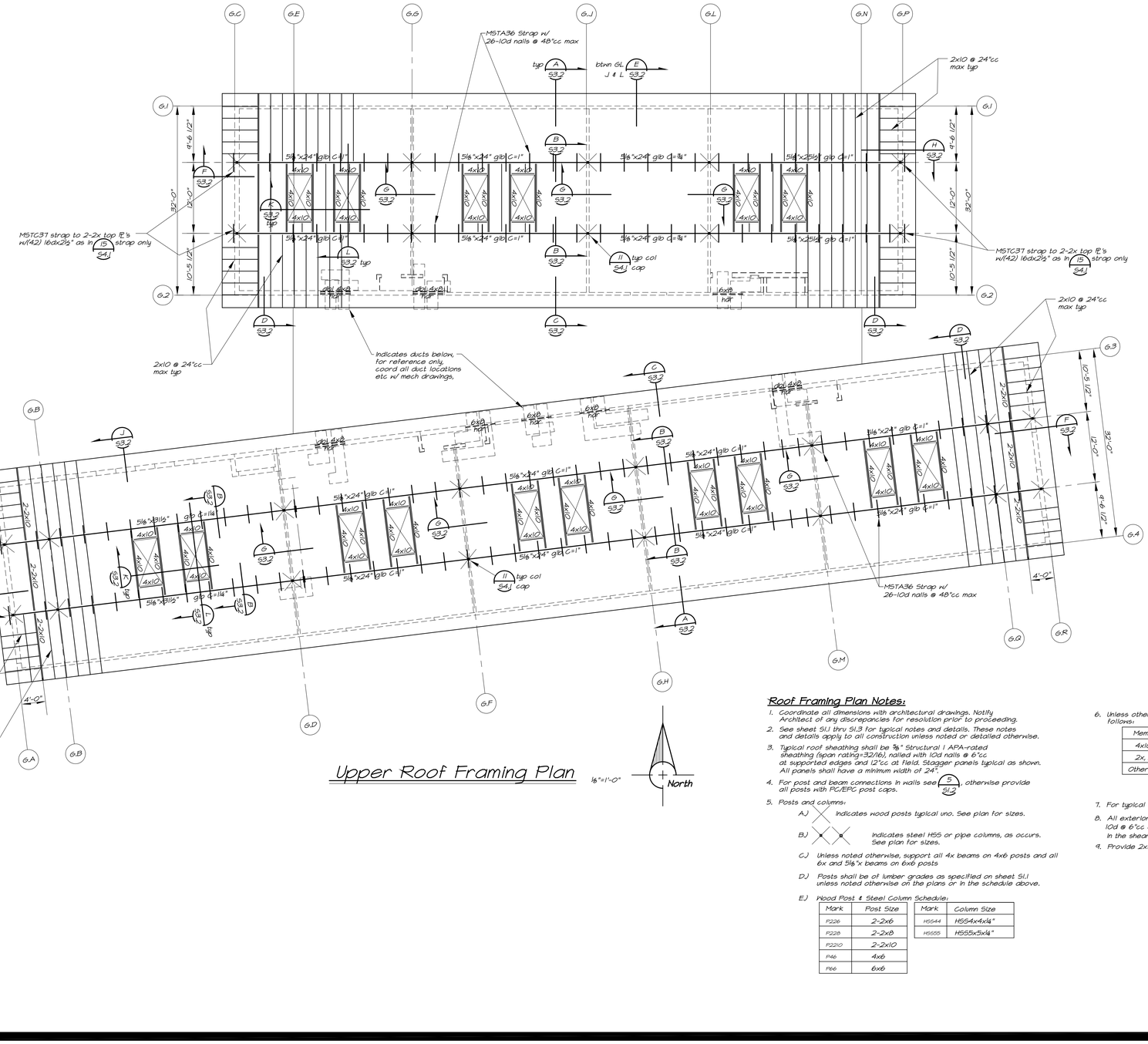
Building G-
Lower Roof Framing Plan

Date
05/20/2019

Scale
AS NOTED

Project Number
19003.2

Drawing Number
SG2.2



Upper Roof Framing Plan

1/8"=1'-0"

North

Roof Framing Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Typical roof sheathing shall be ⅜" Structural I APA-rated sheathing (span rating=32/16), nailed with 10d nails @ 6"cc at supported edges and 12"cc at field. Stagger panels typical as shown. All panels shall have a minimum width of 24".
4. For post and beam connections in walls see 5 S1.2, otherwise provide all posts with PC/EPC post caps.
5. Posts and columns:
   - A.) Indicates wood posts typical uno. See plan for sizes.
   - B.) Indicates steel HSS or pipe columns, as occurs. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5⅛"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x¼"
HSS55	HSS5x5x¼"

6. Unless otherwise noted, where hangers are required, use hangers as follows:

Member	Hanger Series (no slope)	Sloped Hanger Series
4x10	LUS410	HUS10
2x, 2-2x	LUS	U
Other 4x & 6x	HU	HU

7. For typical stud connections, see "Nailing Schedule" on sheet S1.1.
8. All exterior wood walls to be sheathed with 15/32" Struct I sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical, unless noted otherwise in the shearwall schedule.
9. Provide 2x10 at bottom of double headers per 16 S1.3

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KEY PLAN

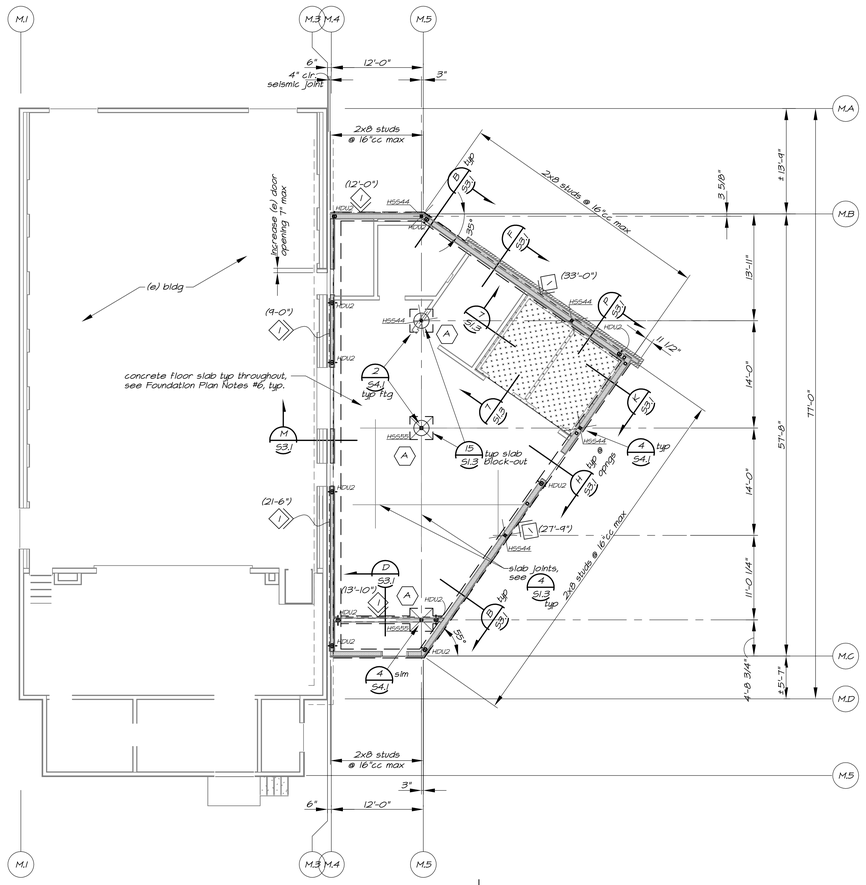
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

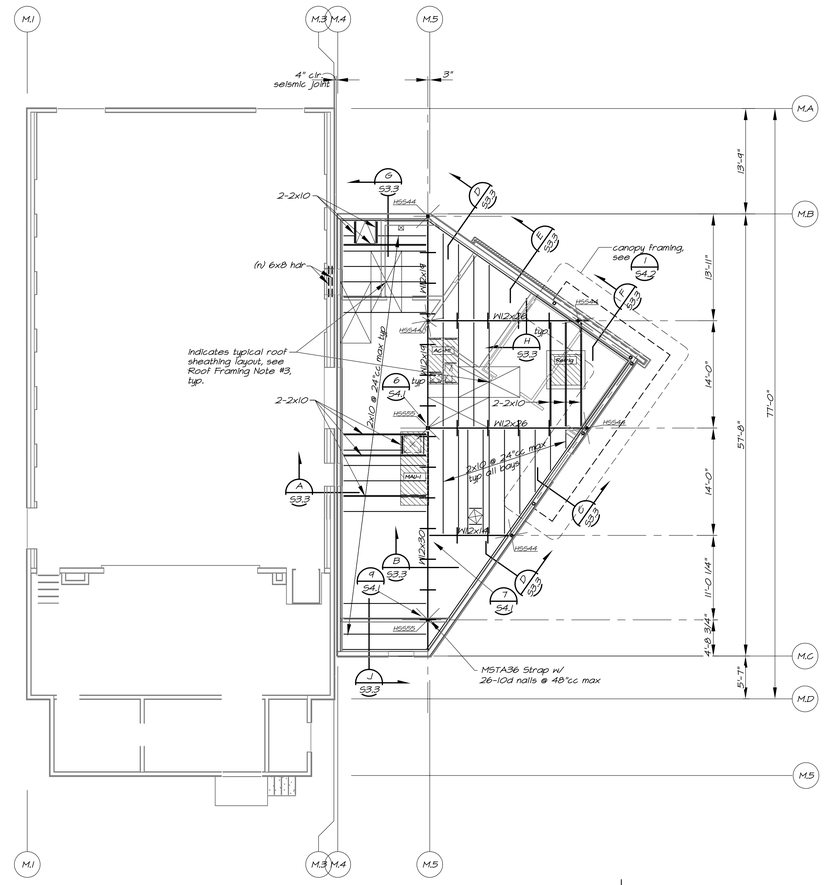
Building G-
Upper Roof Framing Plan

Date: 05/20/2019
Scale: AS NOTED
Project Number: 19003.2
Drawing Number: SG2.3



Foundation Plan

1/8"=1'-0"



Roof Framing Plan

1/8"=1'-0"

Foundation Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Posts and columns:
   - A.) Indicates wood posts typical uno. See plan for sizes.
   - B.) Indicates steel HSS or pipe columns. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5⅛"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x1/4"
HSS55	HSS5x5x1/4"

4. All anchor bolts, holdown bolts, straps and other hardware embedded in concrete must be securely tied in place prior to foundation inspection.
5. Dimensions shown are to face-of-stud (FS) unless noted otherwise. Dimensions to face-of-concrete (FC) for formwork purposes shall be coordinated with the structural sections and the architectural drawings.
6. Construction of concrete floor slabs shall conform to the following:
   - A.) Subgrade soils shall be prepared in strict accordance with the Geotechnical Report.
   - B.) Floor slabs shall be cast directly onto a 10 mil. vapor barrier. The vapor barrier should be properly lapped and sealed as well as sealed around all plumbing lines, conduits, and other openings.
   - C.) The vapor barrier shall be placed directly over a 4" thick capillary break consisting of free-draining washed, crushed, compacted rock. The crushed rock shall be graded such that 100% passes a ¾" sieve and less than 5% passes the No. 4 sieve. Compact the crushed rock with at least two passes of a vibratory type compactor.
   - D.) All concrete floor slabs shall be 5 inches thick and shall be reinforced with #4 bars at 18 inches on center each direction placed at mid-depth of the slab.
   - E.) Provide joints in the concrete floor slabs per 4/S1.3. A slab joint plan shall be submitted to the Architect for approval prior to casting the slabs.
7. 1 (X'-X") — Indicates shearwall type and minimum shearwall length, see Shearwall Schedule on this sheet.
8. Indicates Simpson holdowns as follows:

Mark	Holdown	Mark	Holdown
HDU2	HDU2-SDS2.5		
HDU4	HDU4-SDS2.5		
HDU5	HDU5-SDS2.5		

see 12/S4.1 & 13/S4.1

9. For typical pipe/conduit penetrations through footings, see 6/S1.3
10. Unless otherwise designated as shearwalls, all exterior wood walls shall be sheathed with 15/32" CDX sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical. See the plan for those walls designated as shearwalls.
11. All interior non-bearing partition walls are to be built full-height to the bottom of the roof framing and connected per detail 8/S1.3
12. Indicates raised concrete curbs, see sections for details of construction. Coordinate/verify locations and extents w/ Arch'l drawings.
13. A Indicates concrete footings, see Footing Schedule on this sheet.
14. Exterior walls shall be 2x6 at 16"cc, typical unless noted or shown otherwise.
15. All HSS columns in walls shall be provided with nailers per 11/S1.3
16. All HSS columns in shearwalls and at the ends of shearwalls shall be provided with nailers per detail 11/S1.3 as noted above. Further, the shearwall sheathing shall be edge-nailed full-ht to the nailer.

MK	Size	Thickness (Depth)	Reinforcing
A	2'-6" square	24"	3-#4 ea way bottom

Shearwall Schedule

1/SM2.1

MK	Sheathing Material	Sheathing Edge Nailing (common or galvanized box)	Shear Transfer Nailing 16d commons @	Shear Transfer Connection A35 clips @	Studs and Blocking at Abutting Panel Edges	5/8"ø Anchor Bolts	Capacity (plf) Seismic	Capacity (plf) Wind	Anchor Bolt Plate washer Detail
1	15/32" Struct 1	10d @ 6"cc	4"cc	24"cc	2x	3'-4"cc	340	475	14/S1.3
2	15/32" Struct 1	10d @ 4"cc	3"cc	16"cc	3x or 2-2x	2'-3"cc	510	715	14/S1.3
3	15/32" Struct 1	10d @ 3"cc	2½"cc	12"cc	3x	1'-9"cc	665	930	14/S1.3
4	15/32" Struct 1	10d @ 2"cc	2 rows of nails @ 3½"cc staggered	9"cc	3x	1'-4"cc	870	1218	14/S1.3

Notes:
1. Field nailing (nailing to intermediate framing members) to be 10d common or galvanized box nails spaced as follows:
   a) 6"cc where framing members are spaced at 24"cc
   b) 12"cc where framing members are spaced at 16"cc
2. Holdown bolts shall not be considered to replace (or act as) anchor bolts.
3. For anchor bolt details see 13/S1.3
4. All anchor bolts at shearwalls shall have plate washers per the details specified in the shearwall schedule above. Anchor bolts at non-sheravalls shall have standard cut washers between the wood sill plate and the nut.
5. If not indicated otherwise, nail sheathing at nailing per 1
6. Nailing at abutting panel edges at 3x members (and 2-2x members, as permitted by the shearwall schedule) shall be staggered. Nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
7. All sill plate nailing shall be staggered and nails shall be located at least ⅜" from panel edges and ⅜" from the framing member edges.
8. Nails shall have the following minimum dimensions (measured before application of any protective coatings):

Nail	Diameter	Length
10d common	0.148"	3"
10d box	0.128"	3"

Galvanized nails shall be hot dipped or tumbled

9. Where permitted by the shearwall schedule above, 2-2x studs and blocking used at abutting panel edges shall be nailed together with " Shear Transfer Nailing" as specified in the schedule above.
10. Where the extent of shear wall does not coincide with the entire extent of adjacent wall faces, provide sheetrock or wood furring such that the substrate for the finishes is flush.

Roof Framing Plan Notes:

1. Coordinate all dimensions with architectural drawings. Notify Architect of any discrepancies for resolution prior to proceeding.
2. See sheet S1.1 thru S1.3 for typical notes and details. These notes and details apply to all construction unless noted or detailed otherwise.
3. Typical roof sheathing shall be ⅜" Structural 1 APA-rated sheathing (span rating=32/16), nailed with 10d nails @ 6"cc at supported edges and 12"cc at field. Stagger panels typical as shown. All panels shall have a minimum width of 24".
4. For post and beam connections in walls see 5/S1.3, otherwise provide all posts with FC/EPC post caps.
5. Posts and columns:
   - A.) Indicates wood posts typical uno. See plan for sizes.
   - B.) Indicates steel HSS or pipe columns, as occurs. See plan for sizes.
   - C.) Unless noted otherwise, support all 4x beams on 4x6 posts and all 6x and 5⅛"x beams on 6x6 posts
   - D.) Posts shall be of lumber grades as specified on sheet S1.1 unless noted otherwise on the plans or in the schedule above.
   - E.) Wood Post & Steel Column Schedule:

Mark	Post Size
P226	2-2x6
P228	2-2x8
P2210	2-2x10
P46	4x6
P66	6x6

Mark	Column Size
HSS44	HSS4x4x1/4"
HSS55	HSS5x5x1/4"

6. Unless otherwise noted, where hangers are required, use hangers as follows:

Member	Hanger Series (no slope)	Sloped Hanger Series
4x10	LUS410	HUS410
2x, 2-2x	LUS	U
Other 4x & 6x	HU	HU

7. For typical stud connections, see "Nailing Schedule" on sheet S1.1.
8. All exterior wood walls to be sheathed with 15/32" Struct 1 sheathing nailed with 10d @ 6"cc at edges and 10d @ 12" cc at field, typical, unless noted otherwise in the shearwall schedule.
9. Provide 2x10 at bottom of double headers per 16/S1.3
10. Indicates mechanical units. Coordinate/verify locations with mechanical drawings typ.

Unit/s	Weight
AC-M1	1200 lbs.
MAU-1C	1300 lbs.
Refrig.	900 lbs.

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	12/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

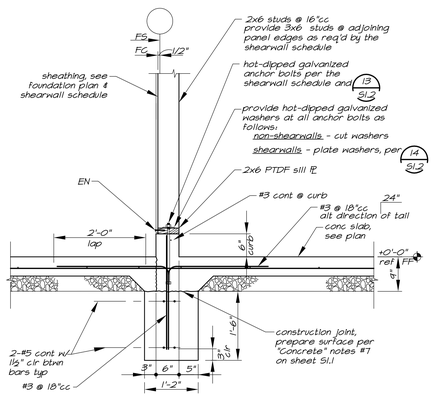
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Building M-
Foundation Plan, and
Roof Framing Plan

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number SM2.1



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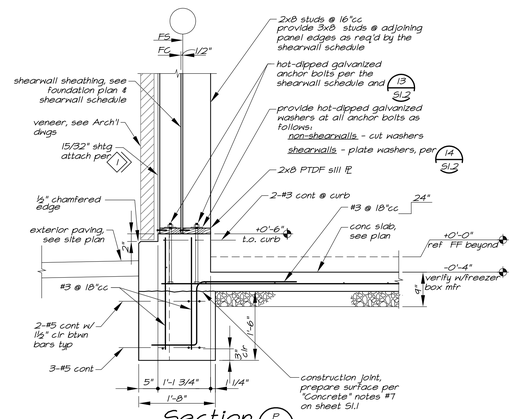

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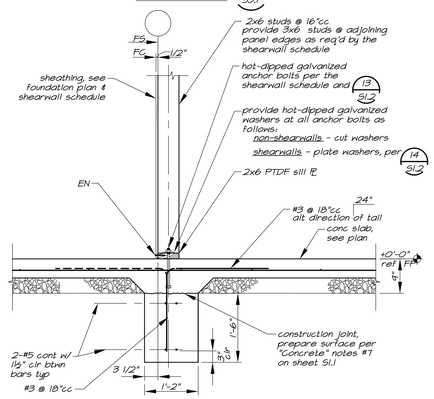

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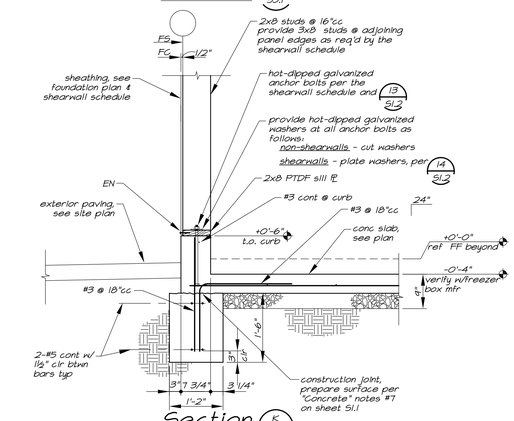

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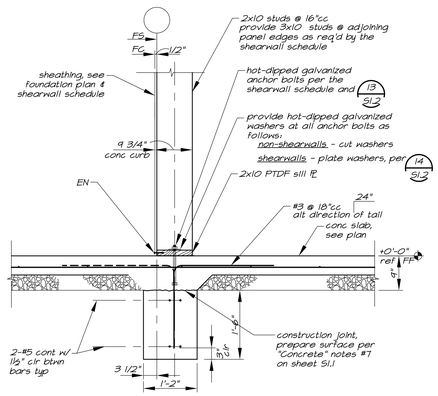

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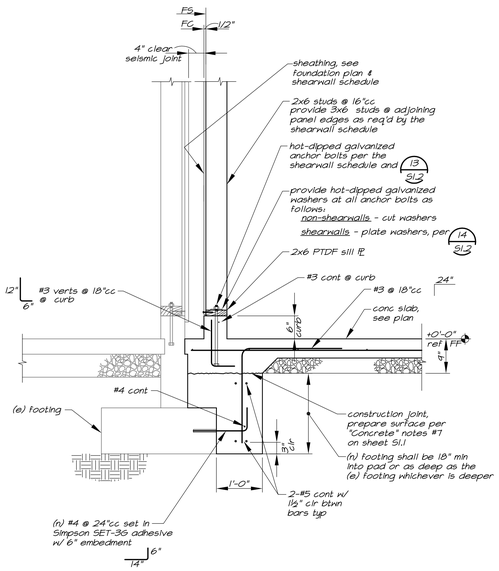

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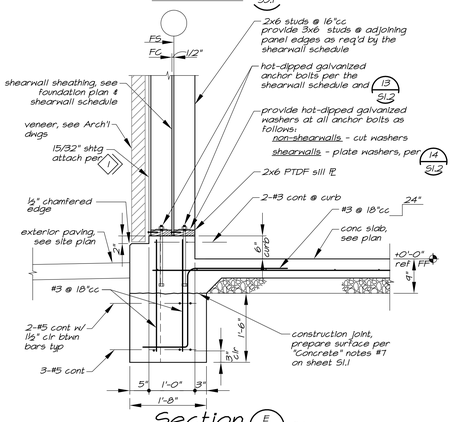

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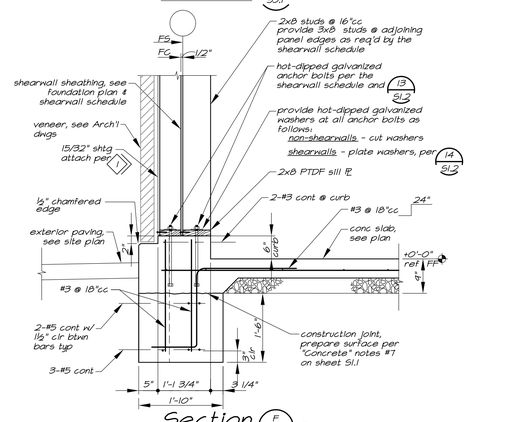

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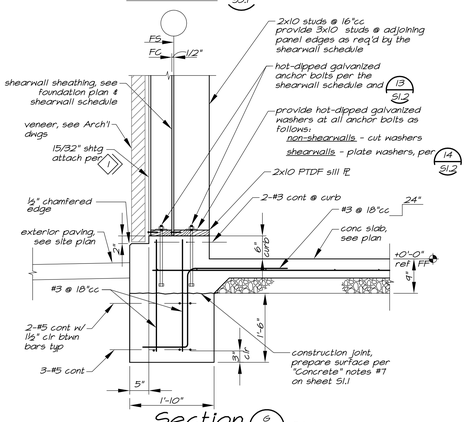

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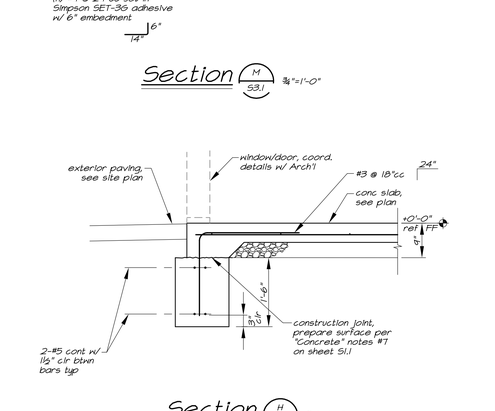

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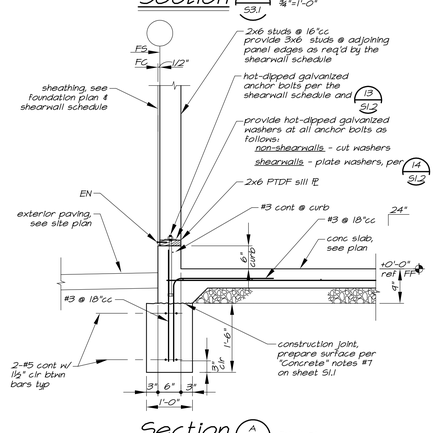

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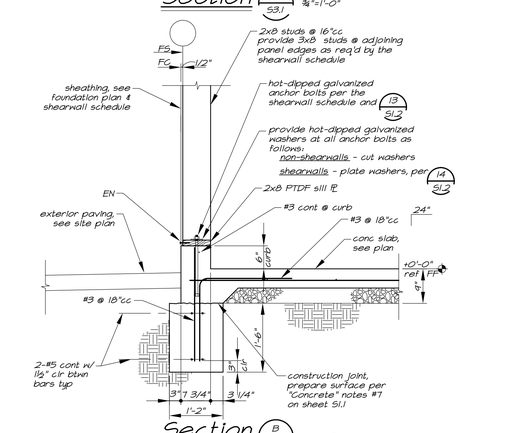

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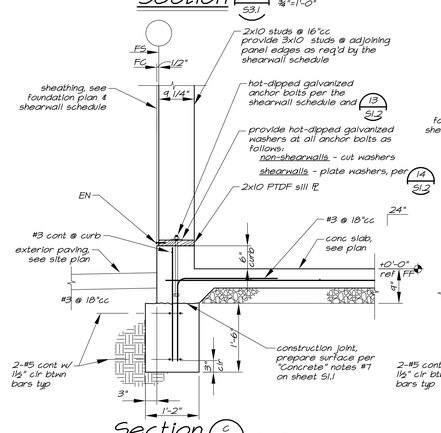

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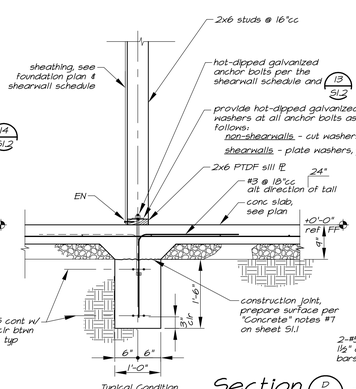

Typical Condition

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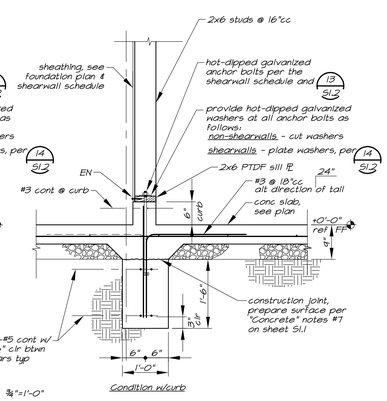

Condition w/curb

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ARCHITECT: LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

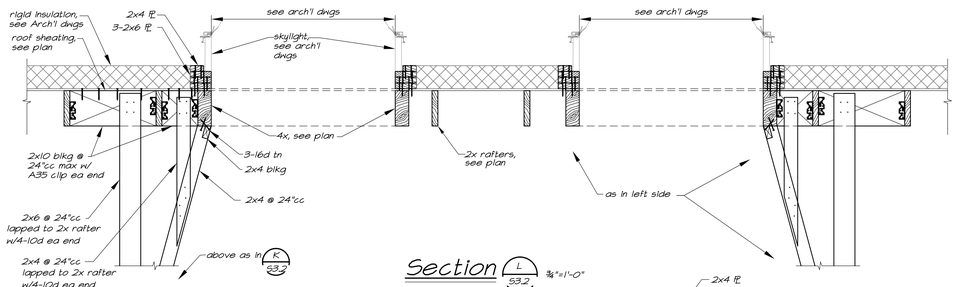
CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

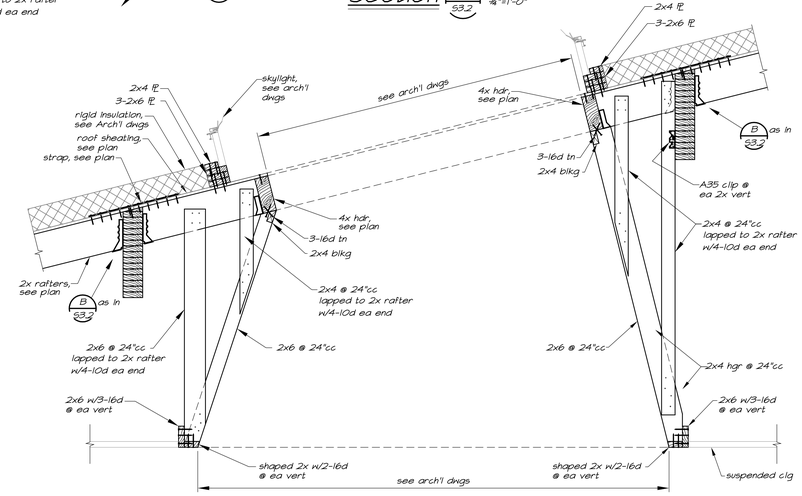
Sections

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2

Drawing Number S3.1



Section L S3.2 3/4"=1'-0"



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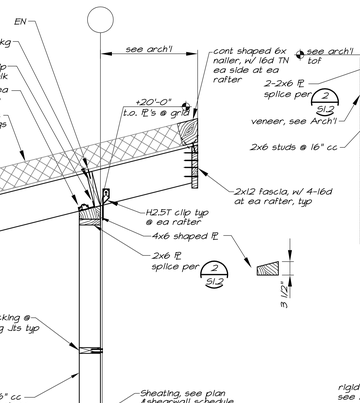
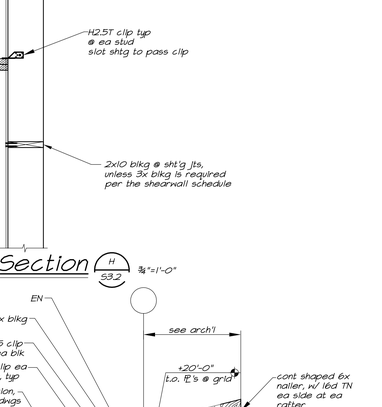
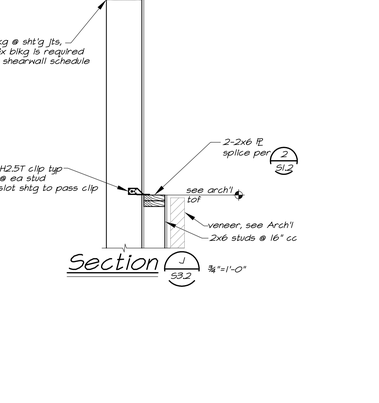
Section F S3.2 3/4"=1'-0"

Section G S3.2 3/4"=1'-0"



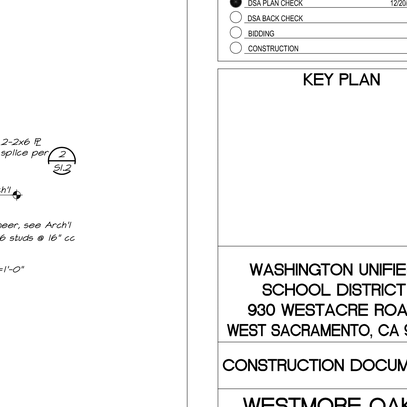




Section M S3.2 3/4"=1'-0"

Section N S3.2 3/4"=1'-0"

Section P S3.2 3/4"=1'-0"



Section A S3.2 3/4"=1'-0"

Section B S3.2 3/4"=1'-0"

Section C S3.2 3/4"=1'-0"

Section H S3.2 3/4"=1'-0"

Section E S3.2 3/4"=1'-0"

Section J S3.2 3/4"=1'-0"

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ENGINEER: REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

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KEY PLAN

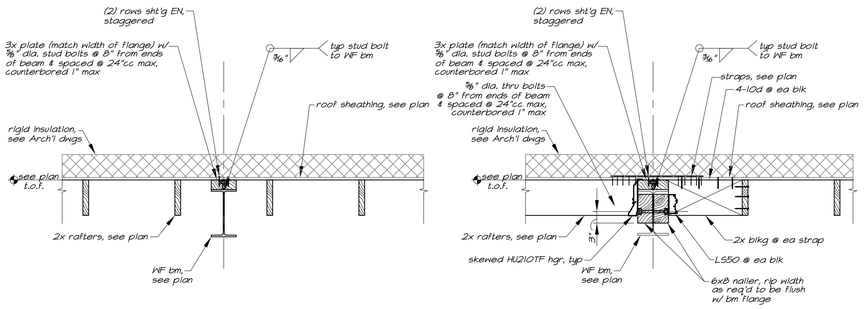
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

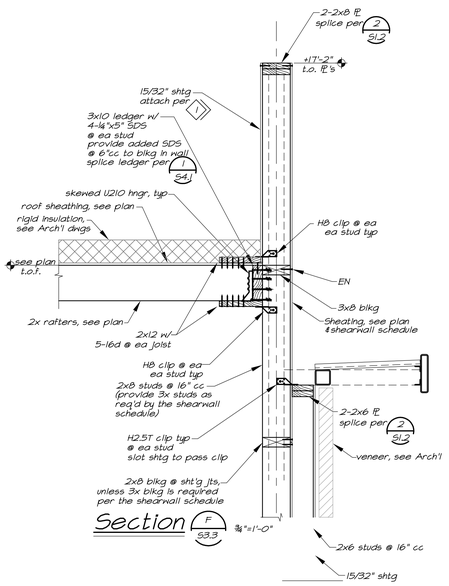
WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Sections

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number S3.2

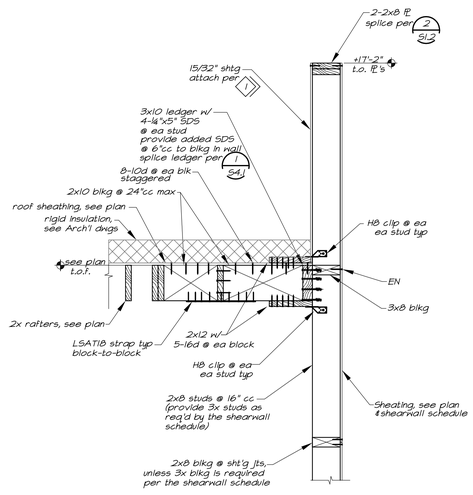


Section K/53.3 3/4"=1'-0"

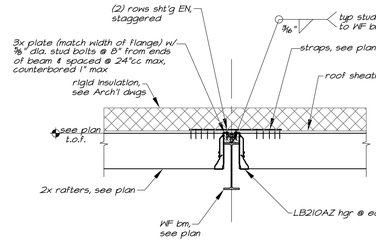


Section F/53.3 3/4"=1'-0"

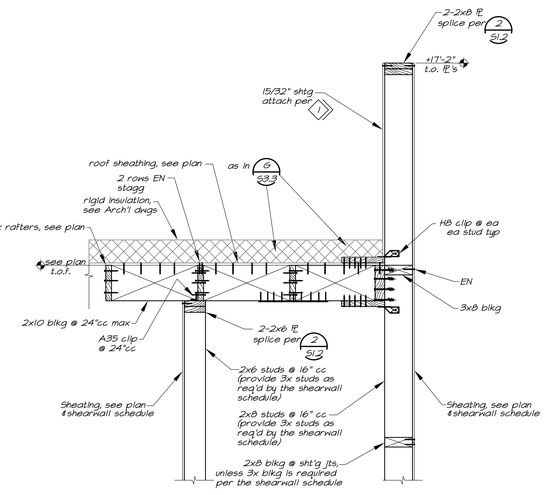
Section L/53.3 3/4"=1'-0"



Section G/53.3 3/4"=1'-0"



Section H/53.3 3/4"=1'-0"



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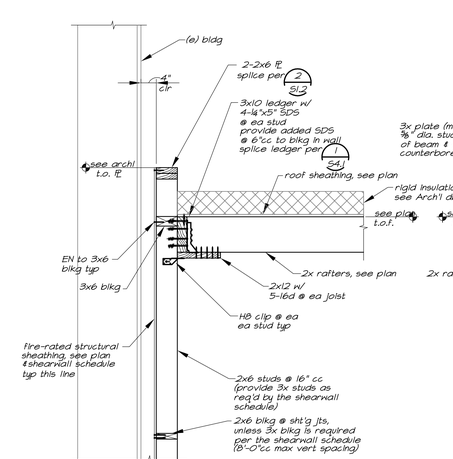
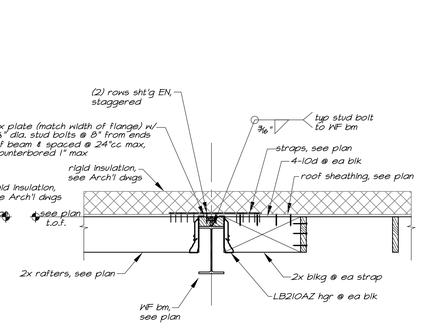


Section A/53.3 3/4"=1'-0"



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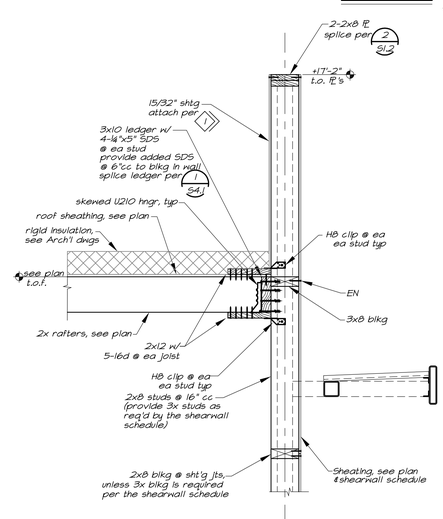

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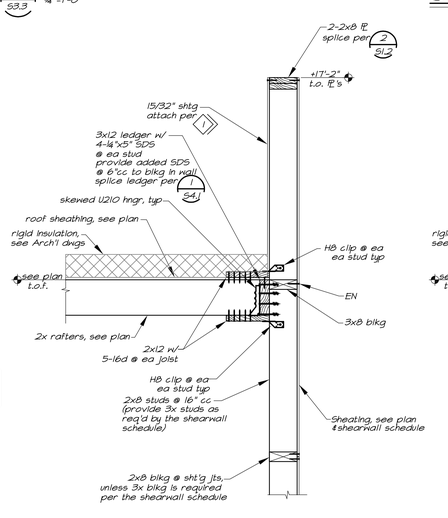

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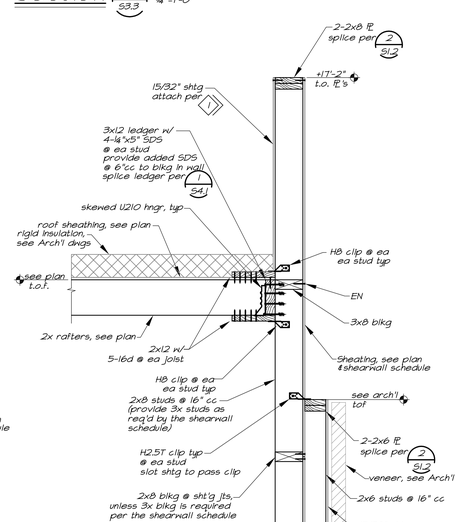

Section E/53.3 3/4"=1'-0"

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

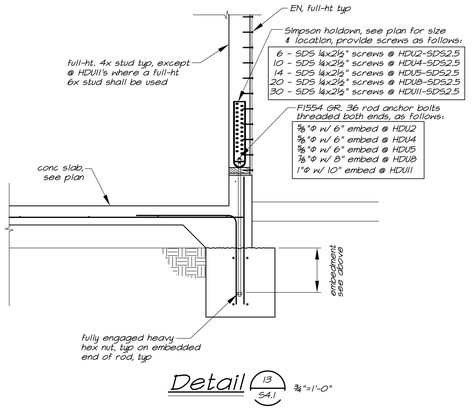
CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

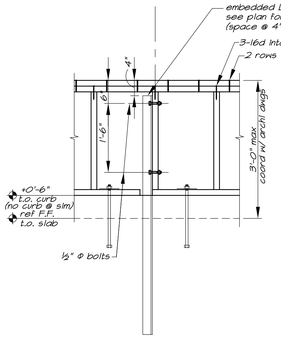
Sections

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2

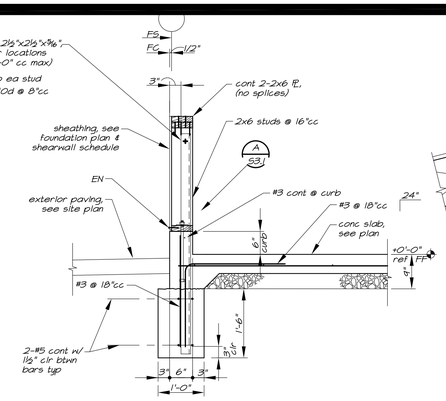
Drawing Number
S3.3



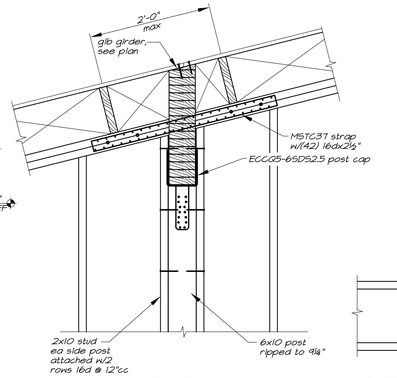
Detail (13 / 54.1) ¾"=1'-0"



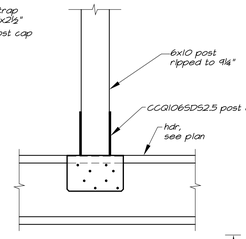
Detail @ Embedded Angle



Detail (14 / 54.1) ¾"=1'-0"

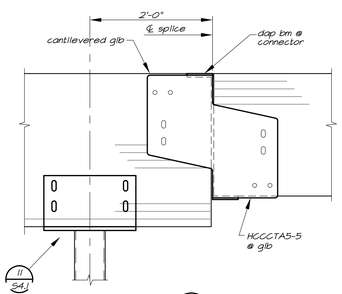


glb Connection @ Wall

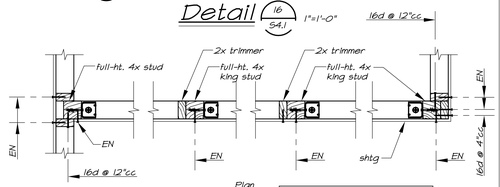


Condition @ header supporting post

Detail (15 / 54.1) 1"=1'-0"

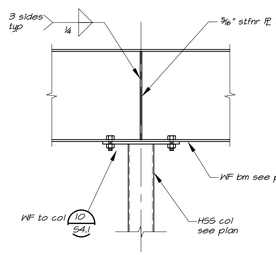


Detail (16 / 54.1) 1"=1'-0"



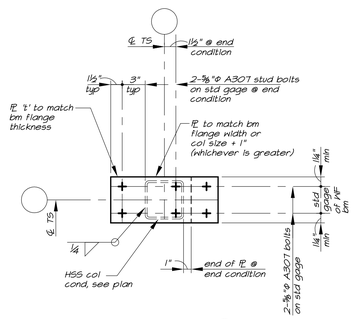
Plan

Note: 6x posts req'd at HDU11's.

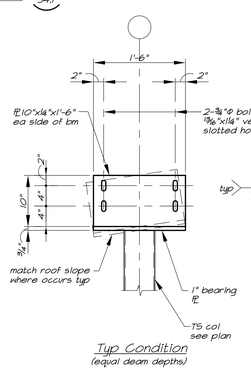


Detail (9 / 54.1) 1"=1'-0"

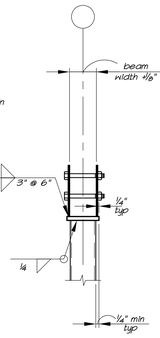
Note: Condition sim @ sloped bms

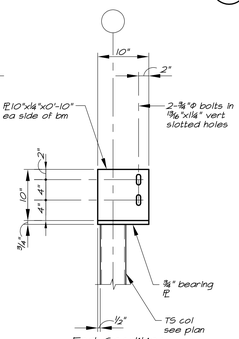


Plan Detail (10 / 54.1) 1½"=1'-0"

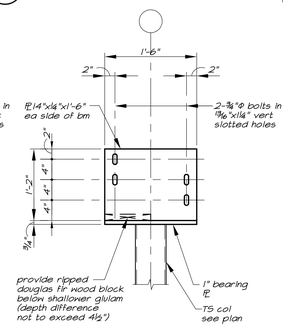


Typ Condition (equal deam depths)

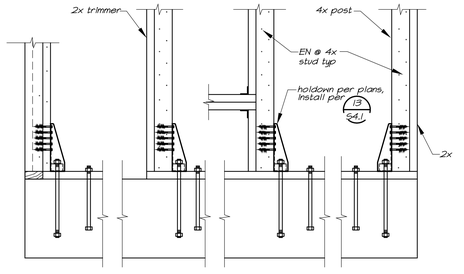




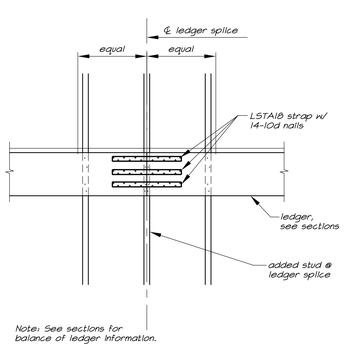
Detail (11 / 54.1) 1"=1'-0"



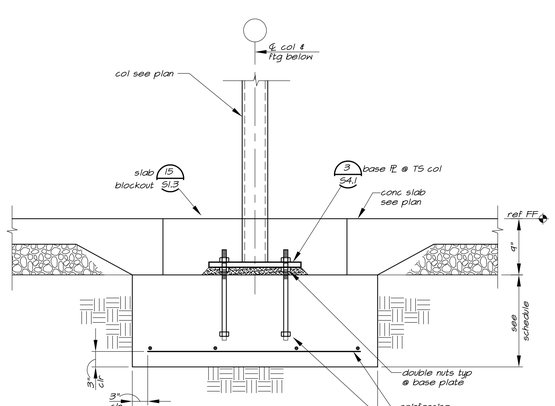
Condition @ differing beam depths (depth difference not to exceed 4½")



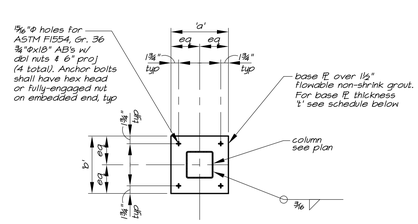
Detail (12 / 54.1) Single Holdown 1"=1'-0"



Detail (1 / 54.1) ¾"=1'-0"

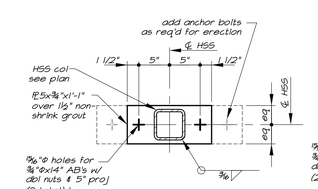


Detail (2 / 54.1) 1"=1'-0"

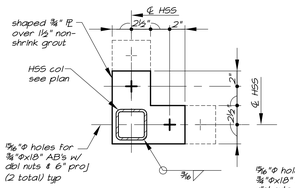


Base Plate Schedule			
column size	base ℄ size		
	'a'	'b'	't'
HSS4x4	11"	11"	¾"
HSS5x5	12"	12"	¾"

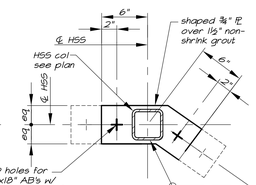
Detail (3 / 54.1) ¾"=1'-0"



Plan @ Typical Condition



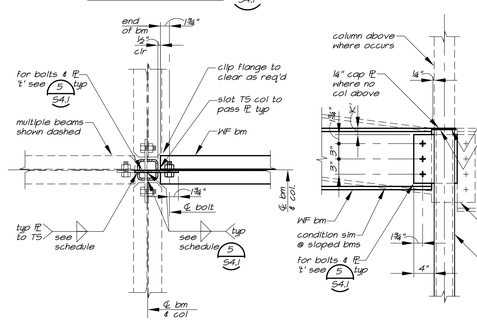
Plan @ Corner Condition



Plan @ Skewed Corner Condition

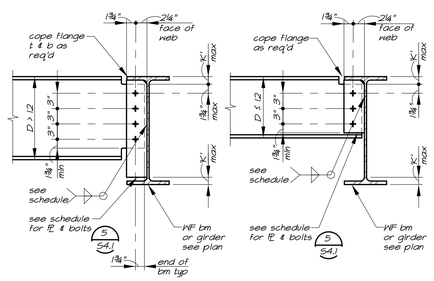
Detail (4 / 54.1) 1½"=1'-0"

5 / 54.1 Connection Schedule			
bm size	No. & Dia. A325-N Bolts	shr ℄ 't'	W
C8 & C10	2 - ⅞"Φ	¼"	¼"
MC8 or MC10	2 - ⅞"Φ	¼"	¼"
W8 & W10	2 - ⅞"Φ	¼"	¼"
W12 & W14	3 - ⅞"Φ	⅜"	¼"

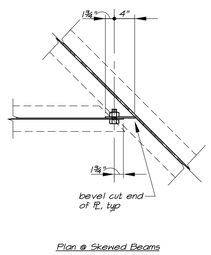


Beam One or Multiple Sides

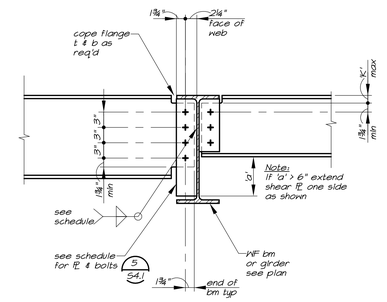
Detail (6 / 54.1) 1"=1'-0"



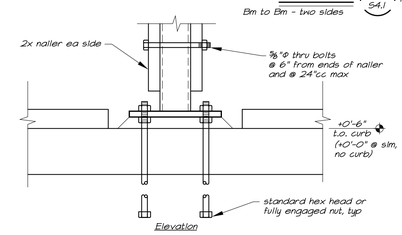
Detail (7 / 54.1) Bm to Bm - one side 1"=1'-0"



Plan @ Skewed Beams



Detail (8 / 54.1) Bm to Bm - two sides 1"=1'-0"



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ARCHITECT: LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA
ENGINEER: REGISTERED PROFESSIONAL ENGINEER JOHN M. MANDSAGER No.3824 Exp.09/30/20 STRUCTURAL STATE OF CALIFORNIA

NO.	REMARKS	DATE

DATE
● DSA PLAN CHECK 12/20/2019
○ DSA BACK CHECK
○ BIDDING
○ CONSTRUCTION

KEY PLAN

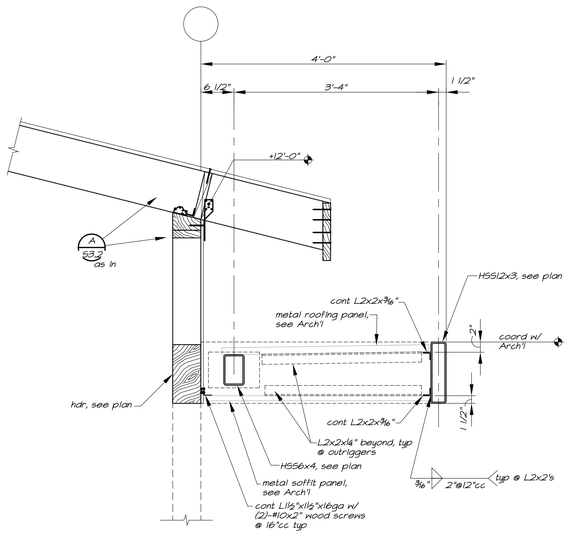
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

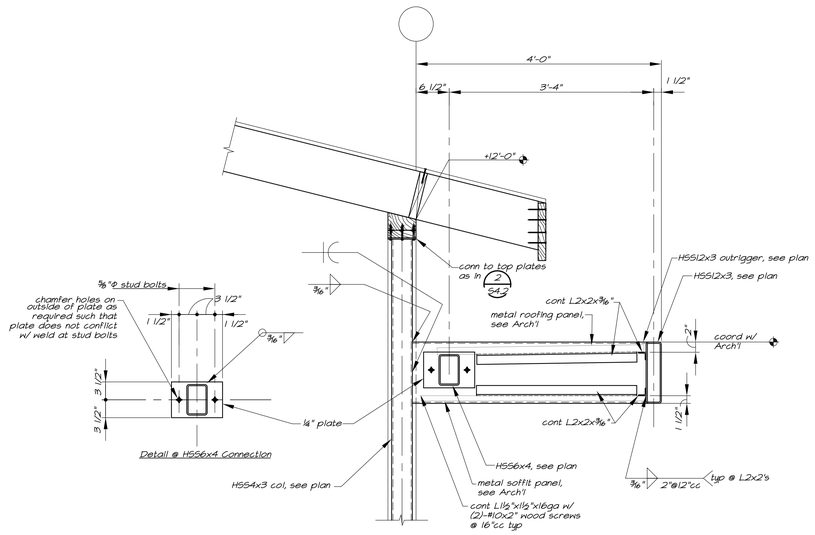
WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

Details

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number S4.1

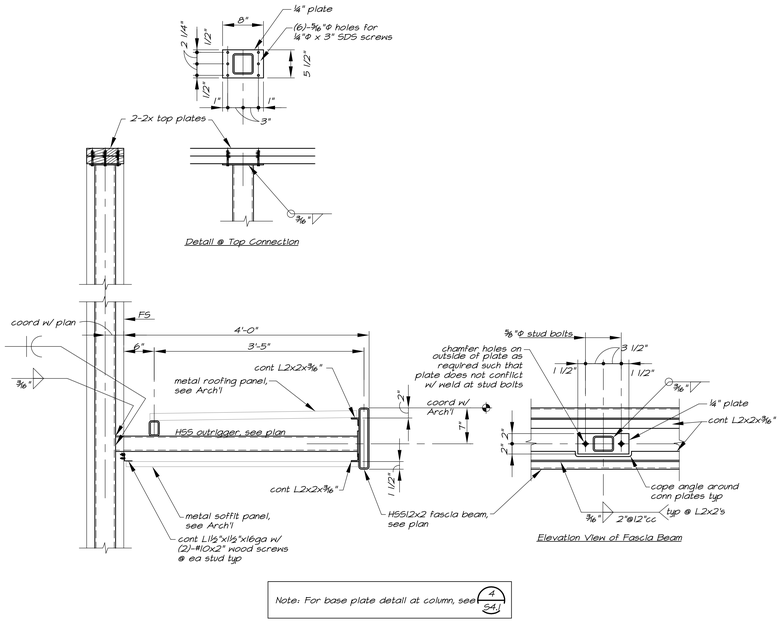


Section A S4.2 1"=1'-0"



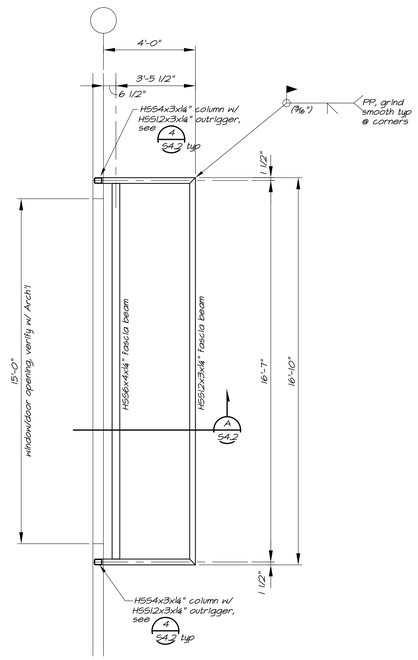
Detail 4 S4.2 1"=1'-0"

Canopy Framing Plan - Building M 1 S4.2 3/16"=1'-0"



Note: For base plate detail at column, see 4 S4.1

Detail 2 S4.2 1"=1'-0"



Canopy Framing Plan - Buildings F & G 3 S4.2 3/16"=1'-0"

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KEY PLAN

WASHINGTON UNIFIED
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930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

WESTMORE OAKS ELEMENTARY SCHOOL

1504 FALLBROOK ST.
WEST SACRAMENTO, CA
95691

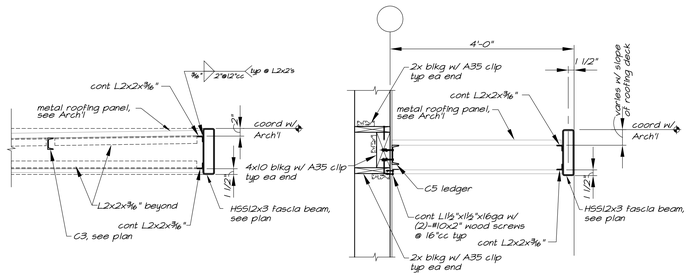
Details

Date
05/20/2019

Scale
AS NOTED

Project Number
19003.2

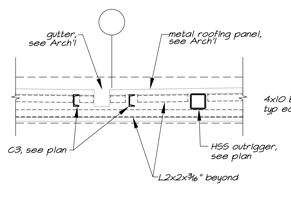
Drawing Number
S4.2



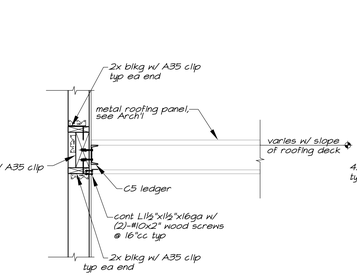
Section A S4.3 3/4"=1'-0"

Note: A35 clips shall be staggered ea side of studs typ.

Section B S4.3 3/4"=1'-0"

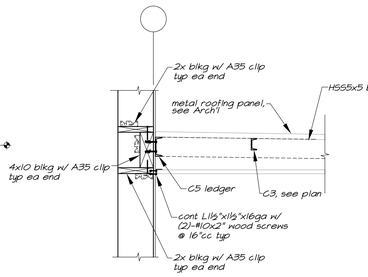


Section G S4.3 3/4"=1'-0"



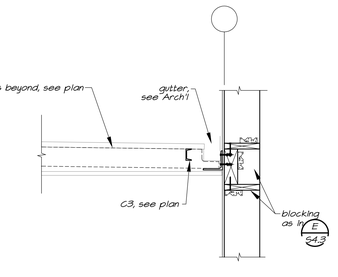
Note: A35 clips shall be staggered ea side of studs typ.

Section D S4.3 3/4"=1'-0"

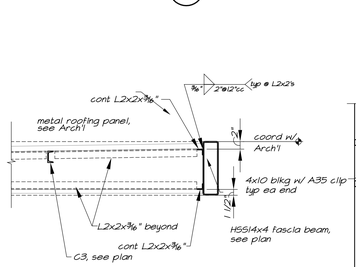


Note: A35 clips shall be staggered ea side of studs typ.

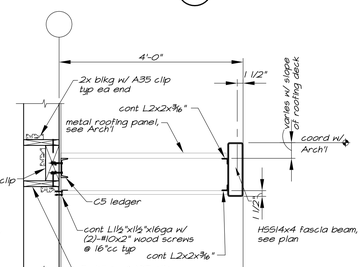
Section E S4.3 3/4"=1'-0"



Section F S4.3 3/4"=1'-0"

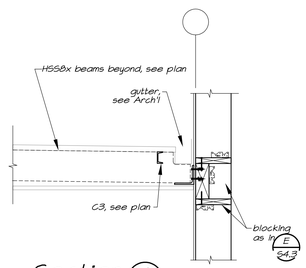


Section G S4.3 3/4"=1'-0"

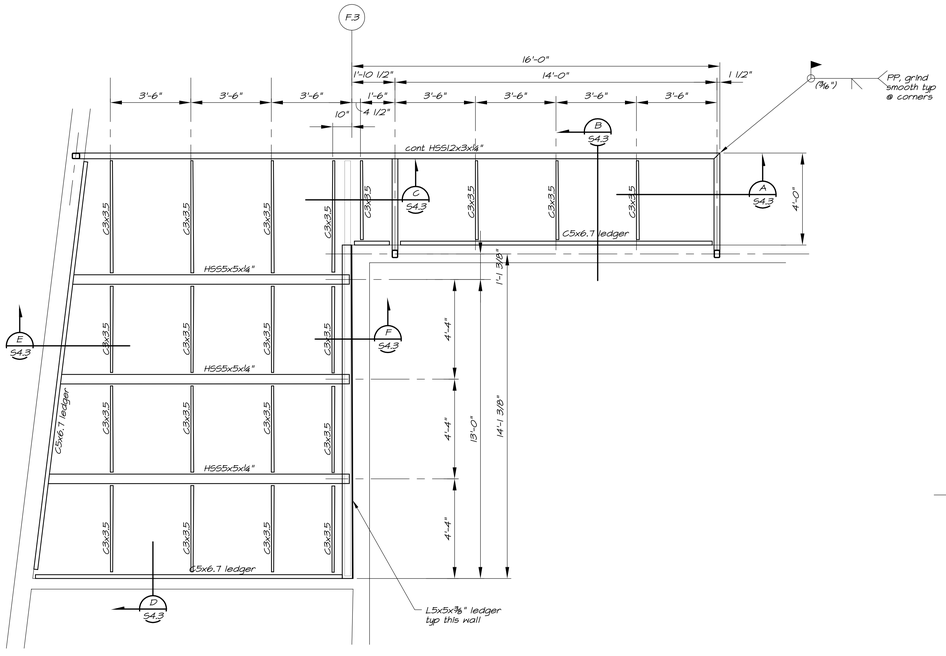


Note: A35 clips shall be staggered ea side of studs typ.

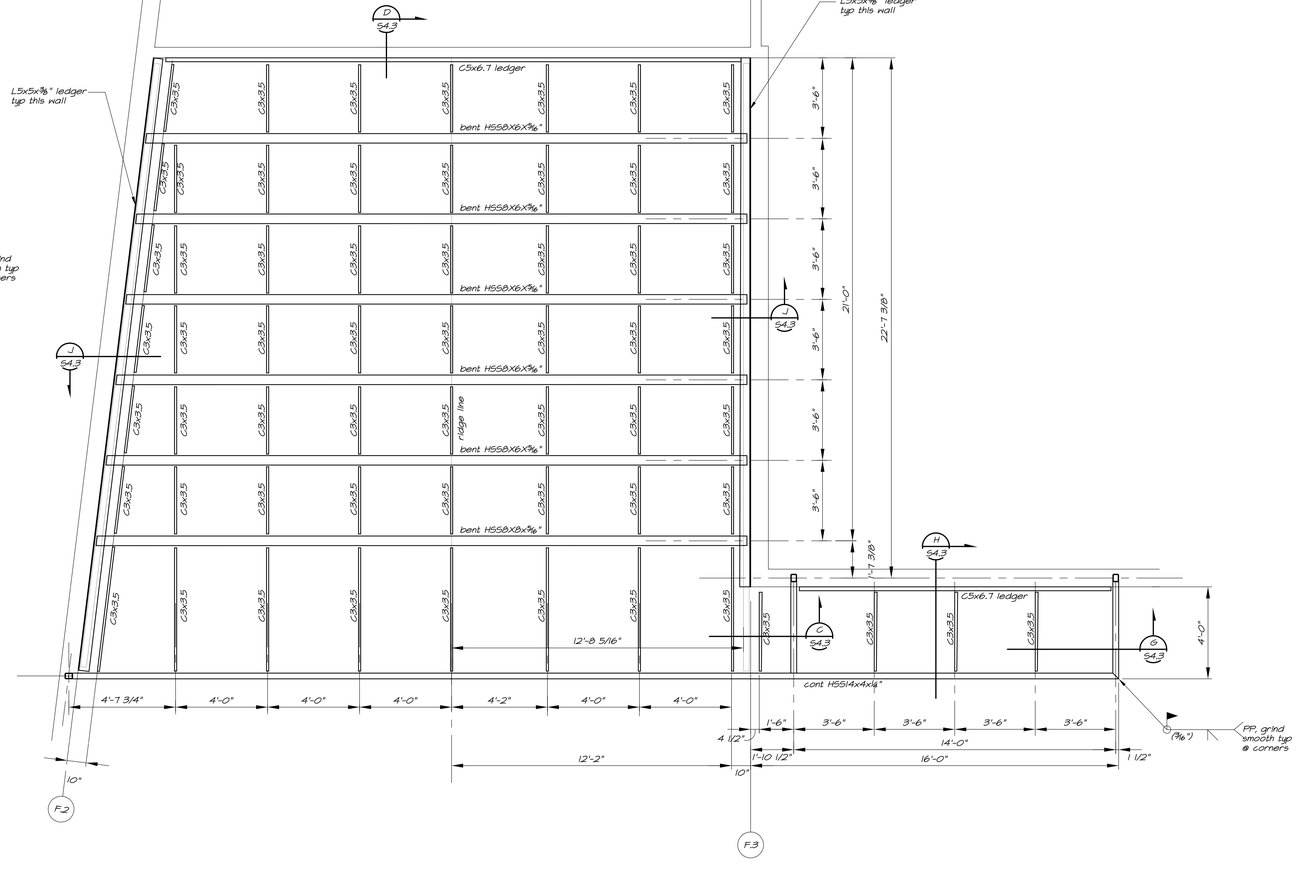
Section H S4.3 3/4"=1'-0"



Section J S4.3 3/4"=1'-0"



Canopy Framing Plan - Building F 1 S4.3 3/8"=1'-0"



Canopy Framing Plan - Building F 2 S4.3 3/8"=1'-0"

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KEY PLAN

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WEST SACRAMENTO, CA 95691

CONSTRUCTION DOCUMENTS

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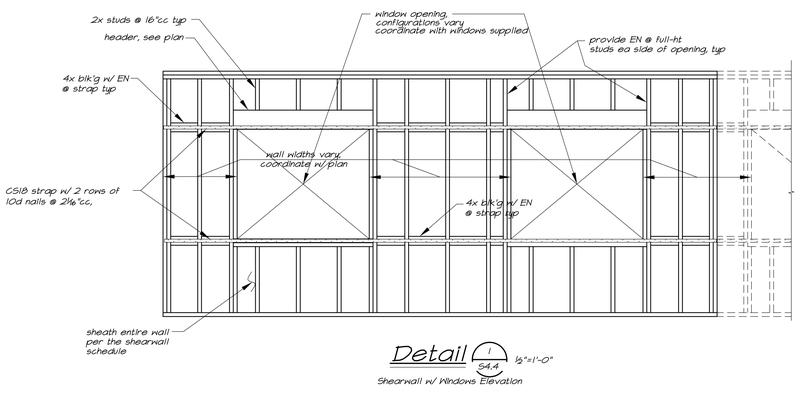
WEST SACRAMENTO, CA 95691

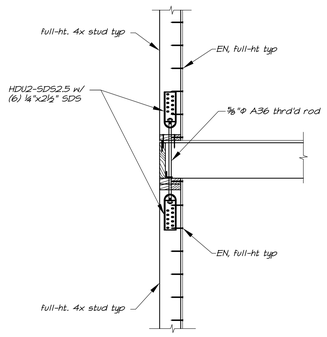
Details

Date 05/20/2019
Scale AS NOTED
Project Number 19003.2
Drawing Number S4.3

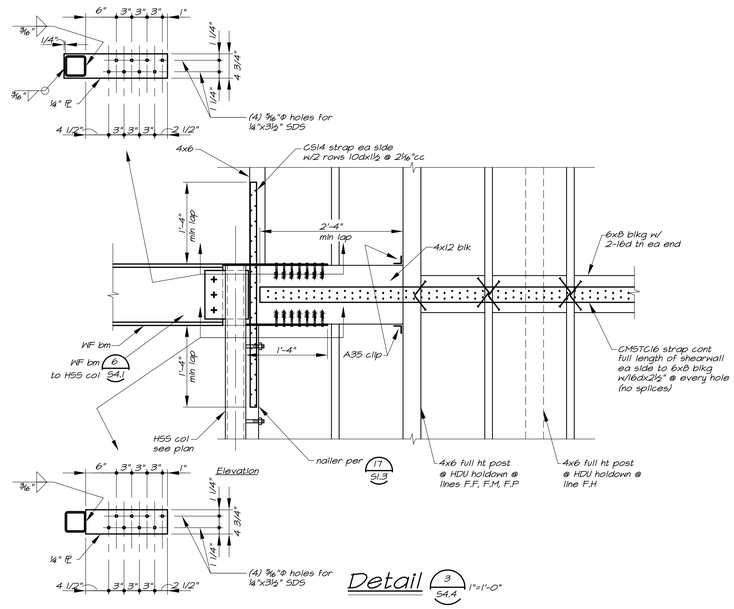


Detail 1/S4.4 ½"=1'-0"

Shearwall w/ Windows Elevation



Detail 2/S4.4 ¾"=1'-0"



Detail 3/S4.4 1"=1'-0"

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Details

Date
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Scale
AS NOTED

Project Number
19003.2

Drawing Number
S4.4

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	DESCRIPTION
A	CEILING SUPPLY	STEEL LOUVERED FACE DIFFUSER WITH FRAME FOR LAY-IN T-BAR MOUNTING. TITUS MODEL MCD. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
B	CEILING RETURN	EGGCRATE GRILLE WITH 1/2"x1/2"x1/2" GRID, FRAME FOR LAY-IN T-BAR MOUNTING. TITUS MODEL 50R. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
C	CEILING SUPPLY	STEEL LOUVERED FACE DIFFUSER WITH FRAME FOR SURFACE MOUNTING. TITUS MODEL MCD. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
E	CEILING EXHAUST	EGGCRATE GRILLE WITH 1/2"x1/2"x1/2" GRID, FRAME FOR SURFACE MOUNTING. TITUS MODEL 50R. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
H	SIDEWALL SUPPLY	DOUBLE DEFLECTION, ADJUSTABLE FRONT HORIZONTAL BLADE REGISTER WITH 3/4" BLADE SPACING, TITUS MODEL 300RL. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
I	SIDEWALL RETURN	EGGCRATE GRILLE WITH 1/2"x1/2"x1/2" GRID, FRAME FOR SURFACE MOUNTING. TITUS MODEL 50R. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
J	SIDEWALL EXHAUST	EGGCRATE GRILLE WITH 1/2"x1/2"x1/2" GRID, FRAME FOR SURFACE MOUNTING. TITUS MODEL 50R. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
L	WALL LOUVER	DRAINABLE STATIONARY EXTRUDED ALUMINUM LOUVER, WITH INTEGRAL FLANGE, 54%FREE AREA, BIRD SCREEN, WELDED CONSTRUCTION. FINISH BY ARCHITECT, RUSKIN MODEL #ELF375DXH. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).
N	DUCT MOUNTED SUPPLY	DOUBLE DEFLECTION, INDIVIDUALLY ADJUSTABLE BLADES WITH 3/4" SPACING FOR DUCT MOUNTING. AIR SCOOP DAMPER EXTRACTOR, TITUS MODEL S300FL. REFER TO THE MECHANICAL PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN, AND FIRE DAMPER (IF REQUIRED).

OUTDOOR UNIT SCHEDULE

TYPE	MARK	ODU TYPE	MOUNTING	ELECTRICAL				SEER/ EER	COOLING CAPACITY	SERVICE	OPERATING WEIGHT	MANUFACTURER	MODEL	NOTES
				VOLTAGE	PHASE	MCA	MOCP							
ODU	F-1	AIR COOLED	ROOFTOP	208 V	1	19 A	26 A	21.4 / 12.2	24,000 Btu/h	IDU-F1	165	MITSUBISHI	PUY-A24NHA7	ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH. MAXIMUM PIPING LENGTH: 225 FT
ODU	G1	AIR COOLED	ROOFTOP	208 V	1	19 A	26 A	21.4 / 12.2	24,000 Btu/h	IDU-G1	165	MITSUBISHI	PUY-A24NHA7	ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH. MAXIMUM PIPING LENGTH: 225 FT

INDOOR UNIT SCHEDULE

TYPE	MARK	MOUNTING TYPE	ELECTRICAL		DRIVE	CFM	COOLING CAPACITY	SERVICE	OPERATING WEIGHT	MANUFACTURER	MODEL	NOTES
			VOLTAGE	PHASE								
IDU	F-1	WALL	208 V	1	DIRECT	650	24,000 Btu/h	ODU-F1	50	MITSUBISHI	PKA-A24KA7	PROVIDE LITTLE GIANT #VCMA-20UL CONDENSATE PUMP, 1/30 HP, 115v/1ø, 1.5 AMPS, 93 WATTS. INDOOR UNIT POWERED FROM OUTDOOR UNIT. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH. PROVIDE MITSUBISHI WALL MOUNT PROGRAMMABLE THERMOSTAT #MHK1.
IDU	G-1	WALL	208 V	1	DIRECT	650	24,000 Btu/h	ODU-G1	50	MITSUBISHI	PKA-A24KA7	PROVIDE LITTLE GIANT #VCMA-20UL CONDENSATE PUMP, 1/30 HP, 115v/1ø, 1.5 AMPS, 93 WATTS. INDOOR UNIT POWERED FROM OUTDOOR UNIT. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH. PROVIDE MITSUBISHI WALL MOUNT PROGRAMMABLE THERMOSTAT #MHK1.

EXHAUST FAN SCHEDULE

TYPE	MARK	FAN TYPE	MOUNTING	ELECTRICAL				CFM	E.S.P. (IN. WC.)	DRIVE	FAN RPM	SONES / TIP SPD. (FPM)	SERVICE	CONTROL	OPERATING WEIGHT	MANUFACTURER	MODEL	NOTES
				HP	WATTS	VOLTAGE	PHASE											
IEF	F-1	CENTRIFUGAL	SUSPENDED	0.25		115 V	1	700	0.25	DIRECT	1063	4.1 / 3115	SEE PLAN	EMS CONTROLS	50 lb	GREENHECK	SQ-100-VG	PROVIDE BACKDRAFT DAMPER. PROVIDE MOUNTING KIT. PROVIDE FACTORY PREWIRED DISCONNECT SWITCH. PROVIDE WITH EC MOTOR FOR VARIABLE SPEED CONTROL, VARI-GREEN OR EQUAL.
IEF	G-1	CENTRIFUGAL	SUSPENDED	0.25		115 V	1	750	0.25	DIRECT	1108	4.5 / 3245	SEE PLAN	EMS CONTROLS	50 lb	GREENHECK	SQ-100-VG	PROVIDE BACKDRAFT DAMPER. PROVIDE MOUNTING KIT. PROVIDE FACTORY PREWIRED DISCONNECT SWITCH. PROVIDE WITH EC MOTOR FOR VARIABLE SPEED CONTROL, VARI-GREEN OR EQUAL.
KEF	M-1	CENTRIFUGAL	ROOF	2.00		208 V	1	2960	1.0	DIRECT	1359	17.8	SEE PLAN	KITCHEN HOOD	125 lb	GREENHECK	CUE-161-VG	PROVIDE BACKDRAFT DAMPER, VENTED FACTORY ROOF CURB, FACTORY PREWIRED DISCONNECT SWITCH, GREASE CUP, UL705 & UL762
KEF	M-2	CENTRIFUGAL	ROOF	0.10		115 V	1	500	0.7	DIRECT	1725	8.9	SEE PLAN	INTERLOCK W/ AC-M-1	75 lb	GREENHECK	CUE-090-VG	PROVIDE BACKDRAFT DAMPER, VENTED FACTORY ROOF CURB, FACTORY PREWIRED DISCONNECT SWITCH, GREASE CUP, UL705 & UL762
REF	M-1	CENTRIFUGAL	ROOF	0.10		115 V	1	240	0.4	DIRECT	1435	6.6 / 4,086	SEE PLAN	EMS CONTROLS	50 lb	GREENHECK	G-080-VG	PROVIDE BACKDRAFT DAMPER, FACTORY ROOF CURB, FACTORY PREWIRED DISCONNECT SWITCH.

MAU SCHEDULE

TYPE	MARK	UNIT TYPE	MOUNTING	ELECTRICAL			CFM	E.S.P. (IN. WC.)	EVAP COOLER E.A. DB (°F)	EVAP COOLER E.A. WB (°F)	HEATING			DRIVE	SERVICE	CONTROL	OPERATING WEIGHT	MANUFACTURER	MODEL	NOTES
				VOLTAGE	PHASE	HP					HEATING INPUT	HEATING OUTPUT	HEATING FUEL TYPE							
MAU	1	DIRECT EVAPORATIVE	ROOFTOP	208 V	3	1.50	2,960	1	105 °F	73 °F	200,000 Btu/h	160,000 Btu/h	NATURAL GAS	BELT	SEE PLAN	INTERLOCK W/ KITCHEN HOOD	1250 lb	GREENHECK	IGX-112-H22-G	SEE FOOD SERVICE PLANS FOR ADDITIONAL REQUIREMENTS. PROVIDE ISOLATION CURB WITH 2" DEFLECTION. PROVIDE A DUCT SMOKE DETECTOR IN THE SUPPLY AIR PLENUM TO SHUT-OFF UNIT UPON DETECTION OF SMOKE. INSTALL IN STRICT ACCORDANCE WITH THE 2016 CALIFORNIA MECHANICAL CODE, SECTION 608. COORDINATE WITH ELECTRICAL AND/OR FIRE ALARM SYSTEM CONTRACTOR

EQUIPMENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENT TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP [X] MD [X] PP ☐ E ☐ — OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ — OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM#) #0043-13.

MP ☐ MD ☐ PP ☐ — OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSPHD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL ____ AND CONNECTION LEVEL ____ FOR THE PROJECT AND CONDITIONS.

MECHANICAL SPECIFICATIONS

1. THIS CONTRACTOR SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT AT THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
   A. 2016 CALIFORNIA BUILDING CODE
   B. 2016 CALIFORNIA MECHANICAL CODE
   C. 2016 CALIFORNIA PLUMBING CODE
   D. 2016 CALIFORNIA ELECTRICAL CODE
   E. 2016 CALIFORNIA GREEN BUILDING STANDARDS
   F. 2016 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - TITLE 24
   G. NATIONAL FIRE PROTECTION ASSOCIATION
   H. CALIFORNIA STATE FIRE MARSHAL
2. THE INSTALLATION OF DUCT SMOKE DETECTORS FOR AUTOMATIC SHUTDOWN OF AIR MOVING SYSTEMS AS REQUIRED BY CMC SECTION 608 OR AS REQUIRED FOR THE OPERATION OF FIRE SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT'S STANDARD "FIRE PROTECTION DESIGN GUIDELINES FOR SMOKE CONTROL WITHIN BUILDINGS". WHERE AIR DUCT SMOKE DETECTORS SERVING AIR MOVING SYSTEMS ARE INSTALLED WITHIN CONDCEALED SPACES, AND/OR DROP CEILING AREAS, THE DETECOR SHALL BE PROVIDED WITH THE UNIT SERVED. SAID REMOTE ALARM LED DEVICE SHALL BE LABELED TO CLEARLY IDENTIFY THE UNIT SERVED (AC-1, ETC.). WHERE AIR DUCT SMOKE DETECTORS SERVING AIR-MOVING SYSTEMS ARE INSTALLED IN CONCEALED SPACES, AND/OR DROP CEILING AREAS MORE THAN 10 FEET ABOVE THE FINISHED FLOOR, THE DETECTOR SHALL BE PROVIDED WITH A REMOTE TEST AND RESET SWITCH, SAID REMOTE TEST AND RESET SWITCH SHALL BE ATTACHED TO AN ADJACENT WALL OR STRUCTURAL COLUMN AT A MAXIMUM HEIGHT OF 6 FEET ABOVE FINISHED FLOOR. PRIOR TO MECHANICAL PERMIT FINAL, A SMOKE DETECTOR SHUT-OFF TEST WILL BE REQUIRED.

MECHANICAL LEGEND

SYMBOL	ITEM	ABBR.
	SUPPLY AIR	SA
	RETURN AIR	RA
	EXHAUST AIR	EA
	OUTSIDE AIR	OSA
	TRANSFER AIR	TA
1 / M-2	DETAIL DESIGNATION / DETAIL NUMBER / SHEET NO. WHERE SHOWN	
AC / 1	EQUIPMENT DESIGNATION / UNIT ABBREVIATION / NUMBER	
A 10x10 1200 FD	GRILLE DESIGNATION / NECK SIZE / FIRE DAMPER WHERE REQ'D / CFM	
	ACOUSTIC LINED DUCT	L
	TURNING VANES	TV
	DUCT FLEXIBLE CONNCTION	
	DUCT RISER	
	DUCT DROP	
	RECTANGULAR TO ROUND FITTING	
	VOLUME CONTROL DAMPER	VD
FD	FIRE DAMPER W/ ACCESS	FD
FSD	FIRE SMOKE DAMPER W/ ACCESS	FSD
CRD	CEILING RADIATION DAMPER	CRD
	OPPOSED BLADE DAMPER	OBD
	BACKDRAFT DAMPER	BDD
M	MOTORIZED DAMPER	
T	THERMOSTAT @ +48" AFF (MAX.)	T-STAT
S	SENSOR @ +48" AFF	
SP	STATIC PRESSURE SENSOR @ +48" AFF	
CO	CARBON MONOXIDE SENSOR @ +48" AFF	
CO2	CARBON DIOXIDE SENSOR @ +48" AFF	
TC	TIMECLOCK @ +48" AFF	
TCP	TEMPERATURE CONTROL PANEL	TCP
SD	DUCT SMOKE DETECTOR	SD
	PIPE RISER / DROP	(R) / (D)
	FROM ABOVE	(FA)
	FROM BELOW	(FB)
	TO ABOVE	(TA)
	TO BELOW	(TB)
	ABOVE FINISHED FLOOR	AFF
	UNLESS OTHERWISE NOTED	UON
	TYPICAL	(TYP)
	BOTTOM OF DUCT	BOD
	UNDERCUT DOOR 3/4"	UCD
	NEW	(N)
	EXISTING	(E)
	POINT OF DIS/CONNECTION	POD/POC

MECHANICAL SHEET INDEX

DSA STAMP

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ARCHITECT — LICENSED ARCHITECT — BRIAN P. WHITMORE — No. C 30345 — Ren.: 9/30/19 — STATE OF CALIFORNIA

ENGINEER — REGISTERED PROFESSIONAL ENGINEER — JASON DEDORA — M 24681 — REN: 12-31-19 — MECHANICAL — STATE OF CALIFORNIA

GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

MECHANICAL LEGENDS, NOTES & SCHEDULES

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	M0.1
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:02:37 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_dallamodl.rvt

PACKAGED ROOFTOP UNIT SCHEDULE

TYPE	MARK	NOMINAL TONS	ELECTRICAL					BLOWER						COOLING							HEATING					POWER EXHAUST								FILTER TYPE	FILTER SIZE	SERVICE	OPERATING WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
			VOLTAGE	PHASE	FLA	MCA	MOCP	MAX CONTINUOUS BHP	DESIGN BHP	CFM	E.S.P. (IN. W.C.)	MIN. OSA CFM	DRIVE	TYPE	TOTAL CAPACITY (BTU)	SENSIBLE CAPACITY (BTU)	E.A. DB (°F)	E.A. WB (°F)	AMBIENT TEMP (°F)	SEER / EER	TYPE	INPUT (BTU)	OUTPUT (BTU)	FUEL	AFUE %	VOLTAGE	HP	FLA	MCA	MOCP	STATIC PRESSURE	MANUFACTURER	MODEL							
AC	F-1	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-2	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-3	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-4	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-5	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-6	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-7	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-8	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-9	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	F-10	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	375	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-1	7.5	460 V	3	21.65 A	23 A	25 A	2.4 hp	1.14 hp	3000	0.70 in-wg	455	BELT	DX	79,350 Btu/h	76,840 Btu/h	83 °F	65 °F	105 °F	- / 12.8	GAS	150,000 Btu/h	120,000 Btu/h	NATURAL GAS	80	460 V	1.5 hp	3.2 A	4 A	7 A	MEDIUM	CANFAB	1178-MHPE015	MERV 8	6 / 18x24x2	SEE PLAN	2,450 lbf	CARRIER	48LCDM008A2A6	DUEL COMPRESSOR. Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON RSC 3" DEFLECTION ISOLATION CURB OSHPD OPA-0207. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH. PROVIDE A DUCT SMOKE DETECTOR IN THE SUPPLY AIR PLENUM OF AC UNIT TO SHUT-OFF UNIT UPON DETECTION OF SMOKE. INSTALL IN STRICT ACCORDANCE WITH THE 2016 CALIFORNIA MECHANICAL CODE, SECTION 608. COORDINATE WITH ELECTRICAL AND/OR FIRE ALARM SYSTEM CONTRACTOR.
AC	G-2	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	335	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-3	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-4	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-5	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	340	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-6	4	460 V	3	8.95 A	11 A	15 A	1.1 hp	0.6 hp	1600	0.70 in-wg	350	DIRECT	DX	43,030 Btu/h	40,390 Btu/h	83 °F	65 °F	105 °F	16 / 9.84	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	0.8 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHP007	MERV 8	2 / 16x25x2	SEE PLAN	1,100 lbf	CARRIER	48GCDM05A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-7	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	330	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-8	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	345	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	G-9	5	460 V	3	10.55 A	13 A	15 A	1.4 hp	0.76 hp	2000	0.70 in-wg	150	DIRECT	DX	54,950 Btu/h	53,380 Btu/h	83 °F	65 °F	105 °F	16 / 9.95	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	1 hp	2.4 A	3 A	5 A	MEDIUM	CANFAB	1118-MHPE010	MERV 8	4 / 16x16x2	SEE PLAN	1,200 lbf	CARRIER	48GCDM06A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.
AC	M-1	3	208 V	3	18.08 A	21 A	30 A	0.7 hp	0.43 hp	1200	0.70 in-wg	175	DIRECT	DX	29,820 Btu/h	26,970 Btu/h	83 °F	65 °F	105 °F	16 / 9.03	GAS	67,000 Btu/h	54,000 Btu/h	NATURAL GAS	81	460 V	0.5 hp	1.4 A	2 A	3 A	MEDIUM	CANFAB	1118-MPE005	MERV 8	2 / 16x25x2	SEE PLAN	1,100 lbf	CARRIER	48GCDM04A2A6	Provide BACNET COMMUNICATION compatible with EMS system. COORDINATE REQUIREMENTS WITH POWERED EXHAUST MODULE. PROVIDE TITLE 24 COMPLIANT MICROMETL MODULATING CENTRIFUGAL POWER EXHAUST AND ULTRA LOW LEAK ECONOMIZER. POWERED EXHAUST TO BE POWERED SEPARATELY FROM ROOFTOP UNIT. PROVIDE HINGED ACCESS PANELS. PROVIDE CONDENSER COIL GUARD AND FLUE EXTENSION. PROVIDE MASON ISC 2" DEFLECTION ISOLATION CURB OSHPD OPA-0468. SEE ELECTRICAL DRAWINGS FOR DISCONNECT SWITCH.

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 34661 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

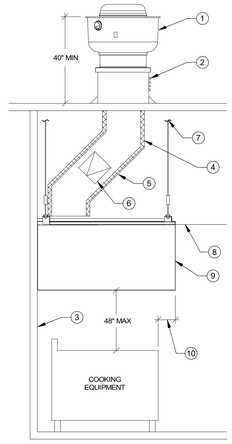
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

MECHANICAL SCHEDULES

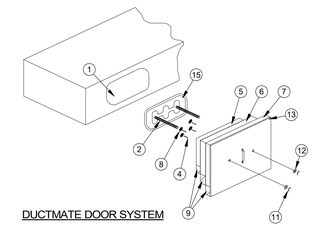
Date	Project Number
05/20/2019	19003
Scale	Drawing Number
Drawn: Author	Checked: Checker

M0.2

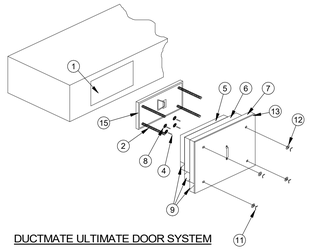
1. KITCHEN EXHAUST FAN. TERMINATE MIN. 10'-0" FROM ADJACENT BUILDING, PROPERTY LINE, AIR INTAKES AND 10'-0" ABOVE ADJOINING GRADE.
2. VENTED CURB EXTENSION.
3. 18 GA. STAINLESS STEEL BACKSPLASH BEHIND COOKING APPLIANCES.
4. 18 GA. ALL WELDED TYPE 304 S.S. GREASE DUCT UP TO EXHAUST FAN. SLOPE MIN. 1/4" PER LINEAR FOOT TO HOOD.
5. 2-LAYERS OF GREASE DUCT FIREWRAP. U.L AND CSFM LISTED FOR GREASE DUCT ENCLOSURES. INSTALL PER MFGR'S RECOMMENDATIONS.
6. CLEANOUT DOOR IN DUCT SHALL BE SLIDING OR HINGED.
7. REFER TO FOOD SERVICE/STRUCTURAL FOR ATTACHMENT.
8. CEILING, SEE ARCHITECTURAL PLANS.
9. STAINLESS STEEL TYPE 1 HOOD, MAINTAIN MIN. 18" CLEARANCE FROM COMBUSTIBLES, MIN. 3" CLEARANCE FROM 1-HR FIRE PROTECTED COMBUSTIBLES.
10. HOOD SHALL OVERHANG COOKING SURFACE MIN. 6" ON ALL OPEN SIDES.



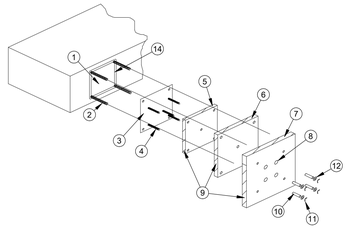
KITCHEN HOOD DETAIL — NTS — 12



DUCTMATE DOOR SYSTEM



DUCTMATE ULTIMATE DOOR SYSTEM



FIELD FABRICATED DOOR SYSTEM

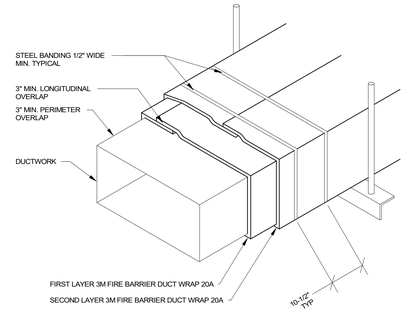
1. ACCESS DOOR OPENING.
2. ALL THREAD RODS
3. ACCESS DOOR COVER PANEL 16 GAUGE (FIELD FAB. ONLY).
4. INSULATION PINS - WELDED TO COVER.
5. FIRST LAYER FIREWRAP.
6. SECOND LAYER FIREWRAP, 1" OVERLAP.
7. THIRD LAYER FIREWRAP, 1" OVERLAP.
8. SPEED CLIPS/WASHERS.
9. CUT EDGES SEALED WITH ALUMINUM FOIL TAPE.
10. SPOOL PIECES FOR THREAED RODS (OPTIONAL FIELD FAB. ONLY).
11. WING NUTS.
12. WASHERS.
13. INSULATION PLATE.
14. CERAMIC FIBER GASKET, 1/2" THICK.
15. PRE-FABRICATED ACCESS DOOR.

GREASE DUCT ACCESS DOOR DETAIL — NTS — 9

DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAGE (ALL FOUR SIDES)	TRANSVERSE REINFORCING (1)				
		MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	AT JOINTS			
			MIN. HT. IN.	DRIVE SLIP / PLAIN S SLIP	HEMMED S SLIP	ALTERNAT BAR SLIP	REINFORCED BAR SLIP
				RECOMMENDED GAGE	RECOMMENDED GAGE	RECOMMENDED GAGE	RECOMMENDED GAGE
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 - 18	24	NONE REQUIRED	1	24	24	24	24
19 - 30	24	1" x 1" x 1/8" @ 60 IN.	1		24	24	24
31 - 42	22	1" x 1" x 1/8" @ 60 IN.	1			22	22

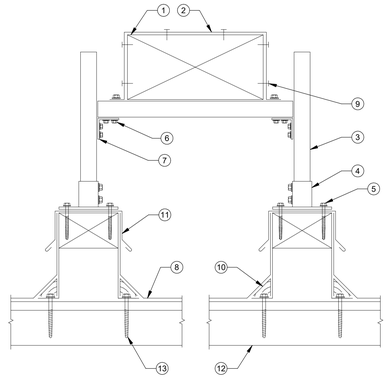
(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

DUCT CONSTRUCTION STANDARDS — NTS — 5



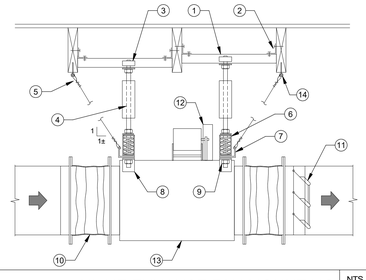
DUCT FIRE WRAP DETAIL — NTS — 6

1. RECTANGULAR OR ROUND DUCT. SEE PLAN FOR SIZE. (TYP).
2. 2" WIDE x 18 GA. SHEET METAL STRAP. FOLD OVER ENDS, SECURE TO CHANNEL W/ 3/8"ø BOLT AND CHANNEL NUT AT EACH END.
3. (B-LINE) B22 CHANNEL. (TYP)
4. (B-LINE) B280FL CHANNEL POST BASE. (TYP).
5. 3/8"ø BOLT WITH NEOPRENE WASHER, MIN. 2" INTO NAILER, (2) BOLTS PER POST AT OPPOSITE CORNERS, SILICONE SEAL PENETRATIONS WATERTIGHT
6. (4) 3/8"ø BOLT AND CHANNEL NUT PER ANGLE. (TYP)
7. (B-LINE) B115 FOUR HOLE ANGLE FITTING. (TYP)
8. ROOFING UP AND UNDER FLASHING.
9. #12 SM SCREW AT 8" O.C., MIN. 2 PER SIDE.
10. CANT STRIP. TYP.
11. PREFAB. GALV. SHEET METAL EQUIP. CURB, 8" HEIGHT x 12" LONG WITH WOOD NAILER AND COUNTERFLASHING
12. 4X BLOCKING BETWEEN (E) JOISTS W U44 HANGERS AT EA. END
13. 3/8"ø LAG SCREW WITH MIN. 1-1/2" INTO BLOCKING, (2) PER LONG SIDE, TYP.



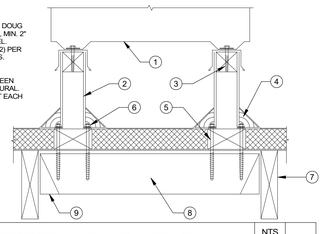
DUCT SUPPORT ON ROOF — NTS — 7

1. 1-5/8" UNISTRUT CHANNEL BETWEEN OISTS.
2. UNISTRUT P1026 ANGLE, SECURE TO JOISTS W/ 3/8"Ø X 1-1/2" LAG SCREW, SECURE TO CHANNEL W/ 3/8"Ø BOLT AND CHANNEL NUT, TYP EACH END.
3. CHANNEL NUT, TYP.
4. 3/8"Ø THREADED ROD WITH UNISTRUT P1000T CHANNEL STIFFENER, TYP 4 AT EACH CORNER. PROVIDE CHANNEL WITH 3/8"Ø BOLTS AT 10" MAX O.C.
5. 12 GA SLACK WIRE, TYP 4, (4) TIGHT TURNS WITH 1-1/2", TYP AT EACH END.
6. MIN. 1" STATIC DEFLECTION VIBRATION ISOLATOR.
7. 3"x2"x2" WIDE 16 GA. ANGLE, TYP.
8. HANGER BRACKET PROVIDED BY FAN MANUFACTURER.
9. LOCKNUT, TYP.
10. FLEXIBLE DUCT CONNECTOR, TYP.
11. BACKDRAFT DAMPER PROVIDED BY FAN MANUFACTURER.
12. FACTORY BELT GUARD.
13. INLINE EXHAUST FAN, SEE SCHEDULE.
14. 1/4"ø CLOSED EYE SCREW W/ 1-1/2" MIN PENETRATION.



INLINE EXHAUST FAN MOUNTING — NTS — 10

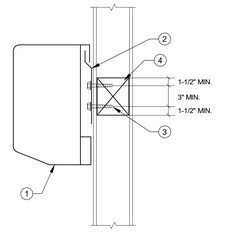
1. OUTDOOR CONDENSING UNIT, SEE SCHEDULE.
2. PREFAB GALV. SHEET METAL CURB, 8" HIGH x 24" LONG WITH WOOD NAILER AND COUNTERFLASHING, TYP. 2.
3. 3/8"Ø LAG SCREW INTO WOOD NAILER. SILICONE SEAL PENETRATION WATERTIGHT.
4. CANT STRIP. TYP.
5. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH. TOP FLAT/LEVEL.
6. 3/8"Ø LAG SCREWS, (2) PER LONG SIDE OF CURBS.
7. ROOF FRAMING, SEE STRUCTURAL.
8. 4X6 BLOCKING BETWEEN JOISTS, SEE STRUCTURAL.
9. SIMPSON HANGER AT EACH END (TYP).



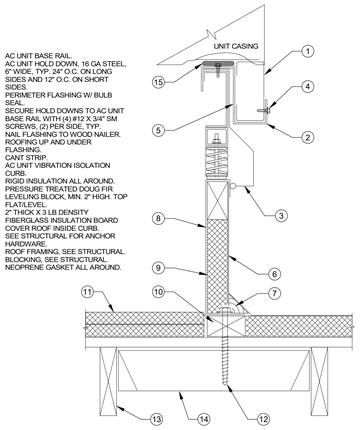
OUTDOOR UNIT MOUNTING (Wood) — NTS — 11

1. INDOOR UNIT, SEE SCHEDULE.
2. MOUNTING BRACKET SUPPLIED WITH INDOOR UNIT.
3. 3/8"x3" LAG SCREW, (TYP) (4 TOTAL).
4. 6x6 BLOCKING, SECURE TO WALL FRAMING WITH A34 HANGER AT TOP & BOTTOM OF EACH END.

NOTE:
1. INSTALL INDOOR UNIT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ADDITIONAL BLOCKING AND HARDWARE WHERE REQUIRED BY MANUFACTURER.



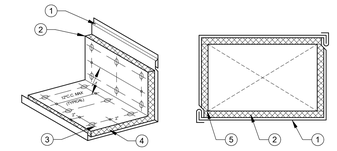
INDOOR UNIT WALL MOUNTING — NTS — 8



1. AC UNIT BASE RAIL.
2. AC UNIT HOLD DOWN, 16 GA STEEL, 6" WIDE, TYP. 24" O.C. ON LONG SIDES AND 12" O.C. ON SHORT SIDES.
3. PERIMETER FLASHING W/ BULB SEAL.
4. SECURE HOLD DOWNS TO AC UNIT BASE RAIL WITH (4) #12 X 3/4" SM SCREWS, (2) PER SIDE, TYP.
5. NAIL FLASHING TO WOOD NAILER.
6. ROOFING UP AND UNDER FLASHING.
7. CANT STRIP.
8. AC UNIT VIBRATION ISOLATION CURB.
9. RIGID INSULATION ALL AROUND.
10. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH. TOP FLAT/LEVEL.
11. 2" THICK X 3 LB DENSITY FIBERGLASS INSULATION BOARD COVER ROOF INSIDE CURB.
12. SEE STRUCTURAL FOR ANCHOR HARDWARE.
13. ROOF FRAMING, SEE STRUCTURAL.
14. BLOCKING, SEE STRUCTURAL.
15. NEOPRENE GASKET ALL AROUND.

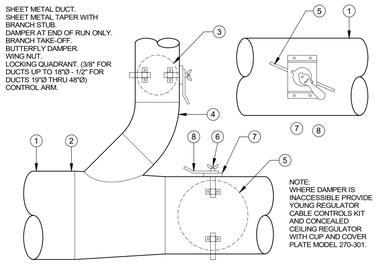
AC UNIT MOUNTING (ISOLATION CURB) — NTS — 1

1. GALVANIZED SHEET METAL DUCT.
2. 1" THICK ACOUSTIC DUCT LINER, LINER TO BE ADHERED TO DUCT. w/ 100% ADHESIVE (MIRACLE PF96)
3. NOT MORE THAN 2" FROM LEDGE OF DUCT LINER.
4. ALL ENDS OF LINER TO BE COATED WITH ADHESIVE. (MIRACLE PF96). ENDS OF LINER SHALL BE BUTTED FIRMLY TOGETHER.
5. TOP AND BOTTOM SECTIONS OF LINER SHALL OVERLAP THE SIDES.



METAL FASTENERS:
OMARK INSUL-PINS. DURA DYNE FASTENERS OR GRIP NAILS, GRIP NAILS SHALL BE INSULATED BY " GRIP NAIL AIR-HAMMER" OR BY AUTOMATIC FASTENER EQUIPMENT.

ACOUSTIC LINED DUCTS — NTS — 2

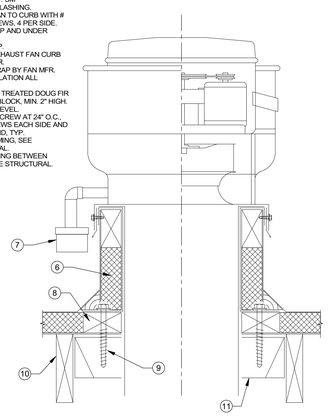


1. SHEET METAL DUCT.
2. SHEET METAL TAPER WITH BRANCH STUB.
3. DAMPER AT END OF RUN ONLY.
4. BRANCH TAKE-OFF.
5. BUTTERFLY DAMPER.
6. WING NUT.
7. LOCKING QUADRANT. (3/8" FOR DUCTS UP TO 18"Ø - 1/2" FOR DUCTS 19"Ø THRU 48"Ø)
8. CONTROL ARM.

NOTE:
WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR CABLE CONTROLS KIT AND CONCEALED CEILING REGULATOR WITH CLIP AND COVER PLATE MODEL 270-301.

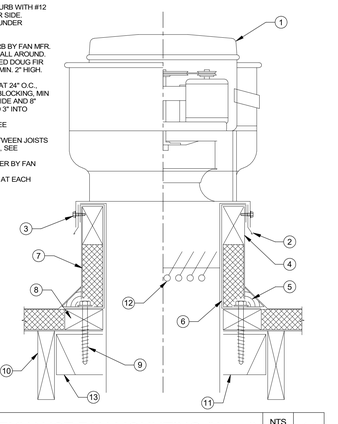
BRANCH DUCT DAMPER — NTS — 3

1. ROOF MOUNTED EXHAUST FAN.
2. 26 GA GALV. SM COUNTERFLASHING.
3. SECURE FAN TO CURB WITH # 12 SM SCREWS, 4 PER SIDE.
4. ROOFING UP AND UNDER FLASHING.
5. CANT STRIP.
6. VENTED EXHAUST FAN CURB BY FAN MFR.
7. GREASE TRAP BY FAN MFR.
8. RIGID INSULATION ALL AROUND.
9. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH. TOP FLAT/LEVEL.
10. 1/2"ø LAG SCREW AT 24" O.C., MIN 2 SCREWS EACH SIDE AND 8" FROM END, TYP.
11. ROOF FRAMING, SEE STRUCTURAL.
12. 4X6 BLOCKING BETWEEN JOISTS, SEE STRUCTURAL.



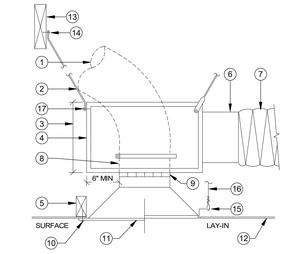
KITCHEN ROOF EXHAUST FAN — NTS — 13

1. ROOF MOUNTED EXHAUST FAN.
2. 26 GA GALV. SM COUNTER FLASHING.
3. SECURE FAN TO CURB WITH #12 SM SCREWS, 4 PER SIDE.
4. ROOFING UP AND UNDER FLASHING.
5. CANT STRIP.
6. EXHAUST FAN CURB BY FAN MFR.
7. RIGID INSULATION ALL AROUND.
8. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH. TOP FLAT/LEVEL.
9. 1/2"Ø LAG SCREW AT 24" O.C., CENTERED OVER BLOCKING, MIN 2 SCREWS EACH SIDE AND 8" FROM END. EMBED 3" INTO BLOCKING, TYP.
10. ROOF FRAMING, SEE STRUCTURAL.
11. 6X6 BLOCKING BETWEEN JOISTS W/ HU66 HANGERS, SEE STRUCTURAL.
12. BACKDRAFT DAMPER BY FAN MFR.
13. SIMPSON HANGER AT EACH END(TYP).



ROOF EXHAUST FAN MOUNTING (Wood) — NTS — 14

1. C OF ELBOW RADIUS MINIMUM 150% OF DUCT DIAMETER.
2. SUPPORT W(4) 1-1/2 x 24 GA SHEET METAL STRAPS. SECURE STRAPS TO PLENUM & STRUCTURE ABOVE.
3. (BRANCH SIZE + 2") X (NECK SIZE +2")
4. CUSHIONHEAD BOX WITH MINIMUM 1" ACOUSTIC LINING.
5. 2x WOOD BLOCKING OR NAILER.
6. METAL SLEEVE OR SPIN-IN FITTING.
7. INSULATED FLEXIBLE AIR DUCT, SEE MECHANICAL PLAN FOR SIZE.
8. TRANSITION (AS REQUIRED).
9. AIR CONTROL GRID SET AT 90° TO AIR STREAM OR PLANE OF ELBOW. (WHERE APPLICABLE)
10. REGISTER SCREW, SECURE PER DIFFUSER MNFG. REQUIREMENTS.
11. TYPICAL SQUARE NECK SUPPLY, RETURN OR EXHAUST AIR DIFFUSER.
12. FINISHED CEILING, SEE ARCH. DRAWINGS.
13. WOOD BEAM, SEE STRUCT.
14. 1/4"ø x1-1/4" LAG BOLT, TYP. 2 EACH END.
15. 90° ANGLE BRACKET WITH (2) HOLES, ATTACH TO LAY-IN DIFFUSER/GRILLE WITH #12x3/4" SM SCREW.
16. (1) 12 GA. WIRE PER IR 25-2.13 SECTION 2.6.2, ATTACHED TO STRUCTURE , SEE DETAIL X/XXX .
17. #12x3/4" SM SCREW (TYP).



NOTES:
1. WHERE FULL 150% C RADIUS IS NOT POSSIBLE, THE CUSHIONHEAD IS REQD.
2. VERIFY CEILING TYPE, PROVIDE APPROPRIATE DIFFUSER FRAME & INSTALLATION.

DIFFUSER / GRILLE MOUNTING — NTS — 4

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

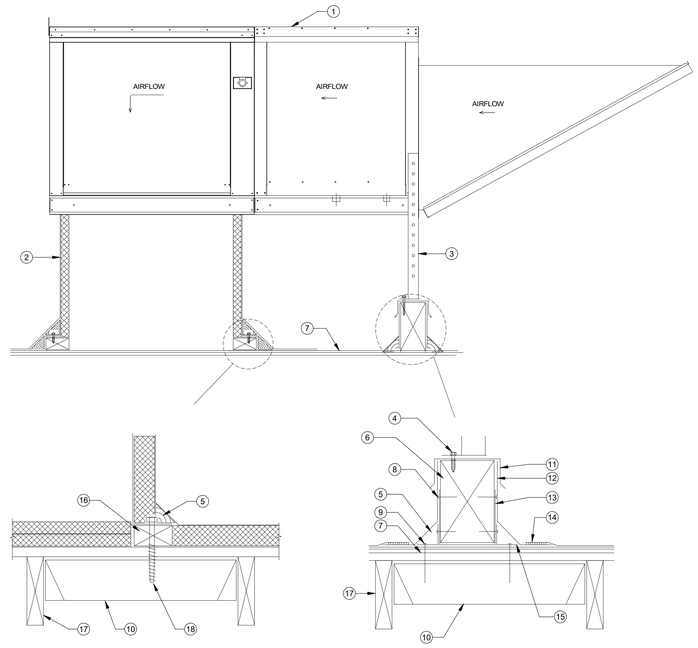
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

MECHANICAL DETAILS

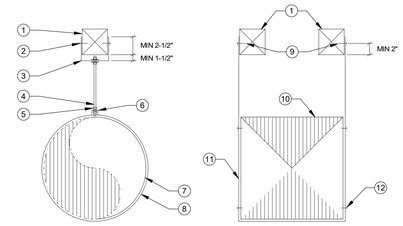
Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: M0.3
Drawn / Checked	
Author / Checker	

1. MAKE-UP AIR UNIT
2. 20" MANUFACTURER'S CURB.
3. MANUFACTURER'S ADJUSTABLE LEG
4. 3/8"ø LAG BOLT w/NEOPRENE WASHER THRU ADJUSTABLE LEGS TO BLOCK PER MANUFACTURER'S RECOMMENDATIONS.
5. CANT STRIP
6. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN 1-1/2" HIGH.
7. ROOF.
8. ATTACH WITH GALV. NAILS AT 12" O.C. (3 MIN.), TYP. EA. SIDEATTACH WITH GALV. NAILS AT 12" O.C. (3 MIN.), TYP. EA. SIDE
9. 3/8"ø x 2" LAG SCREW. (2) EACH SIDE.
10. 4X BLOCKING W/ SIMPSON #LUS40 HANGER AT EACH END.
11. 22 GA. GI METAL CAP FLASHING
12. PVC COATED METAL FLASHING (4) SIDES, LAP & WELD JOINTS
13. POLYESTER PROTECTION MAT WRAP BLOCKING.
14. 2" MIN. CONTINUOUS WELD FLASHING TO SINGLE-PLY ROOFING MEMBRANE
15. (2) SIMPSON A-35 CLIPS PER EA. LONG SIDE, ATTACH TO SUBSTRATE W/ #8 WOOD SCREWS x2"
16. PRESSURE TREATED DOUG FIR LEVELING BLOCK, MIN. 2" HIGH. TOP FLATILEVEL.
17. ROOF FRAMING, SEE STRUCTURAL.
18. 1/2"Ø LAG SCREWS AT 24" O.C., MIN 2 SCREWS EACH SIDE AND 8" FROM END, TYP.



MAKE-UP AIR UNIT MOUNTING — NTS — 1

1. 4x4 BLOCKING BETWEEN JOISTS WITH HU44 HANGERS AT EACH END, TYP. PROVIDE WEB STFNR EA SIDE OF JOIST @ HANGERS PER DETAIL 1/S1.4.
2. #12x1-1/2" WOOD SCREWS, 2 PER SIDE.
3. 3" WIDE x 16 GA BENT PLATE.
4. 3/8"Ø THREADED ROD @ 8' O.C. MAX.
5. 3/8" NUT & 2" WASHER, TYP. TOP AND BOTTOM OF FLANGE.
6. 2-1/2" WIDE X 20 GA STRAP WITH MIN. 3"x2" HIGH FLANGE, TYP.
7. ROUND DUCT.
8. 2-1/2" x 20 GA STRAP.
9. 1/4"Ø x 1-1/4" LAG BOLT, TYP. 2 EACH END.
10. RECTANGULAR DUCT.
11. 1-1/2" x 20 GA STRAP AROUND DUCT.
12. #12x3/4" SM SCREW, TYP. 2 EACH SIDE.



NOTE:
1. BLOCKING CONDITION IS SHOWN, 2x JOIST CONDITION IS SIMILAR WITH STRAPS AND LAG BOLTS ATTACHING DIRECTLY TO 2x ROOF JOISTS.
2. PROVIDE SEISMIC DUCT SUPPORTS WHERE DUCTWORK IS LARGER THAN 6 SF (33"ø) AND/OR SUSPENDED MORE THAN 12" FROM TOP OF DUCT TO BOTTOM OF ATTACHMENT TO STRUCTURE PER SMACNA GUIDELINES.

TYPICAL DUCT SUPPORT — NTS — 2

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

MECHANICAL DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	M0.4
Drawn / Author	Checked / Checker

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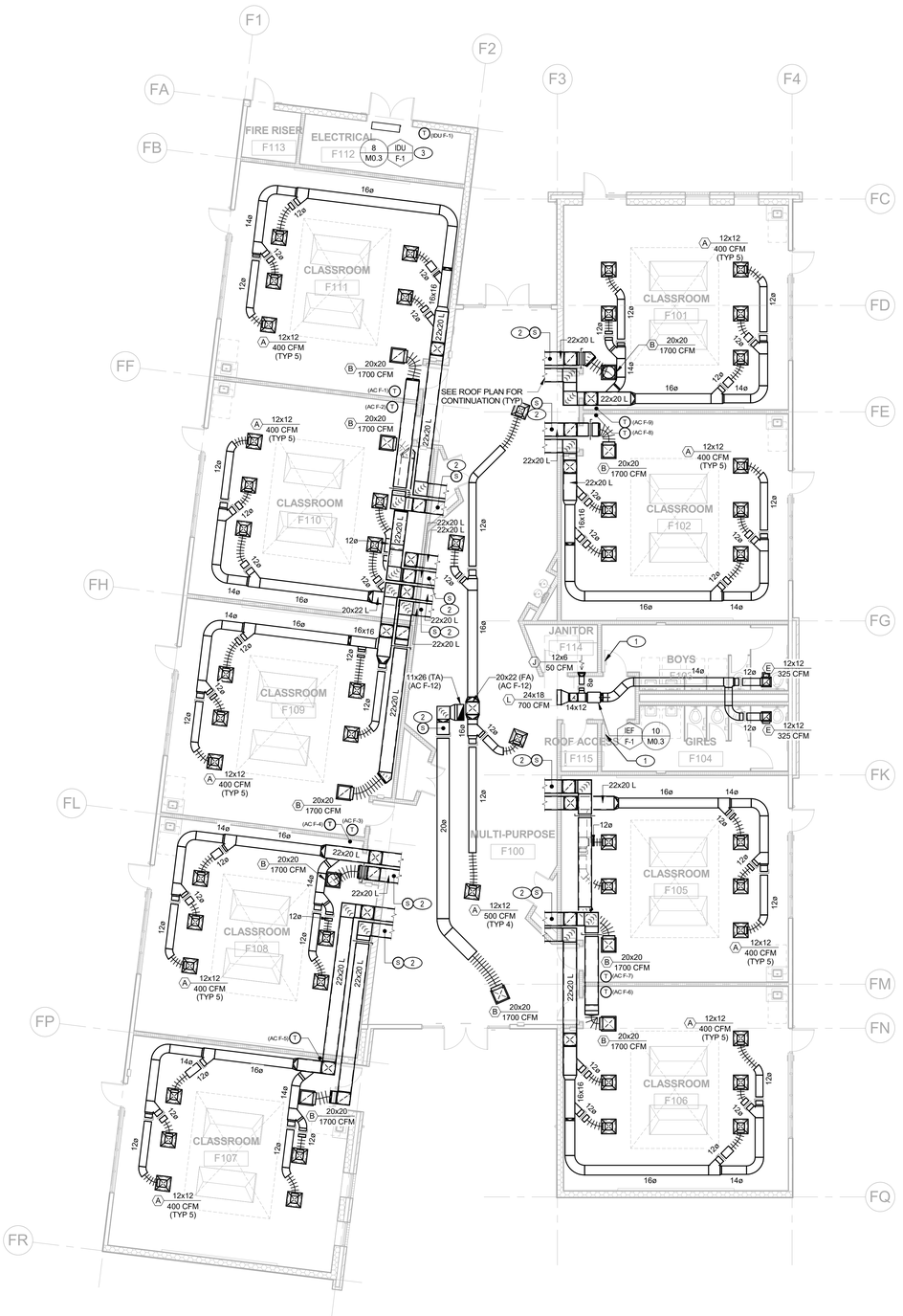
KEY NOTES

1 24X12 DOOR LOUVER. SEE ARCHITECTURAL DOOR SCHEDULE.
2 RETURN AIR SENSOR.
3 FAN COIL TO BE MOUNTED ABOVE DOOR.



1 BLDG F - MECHANICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

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DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
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BUILDING F MECHANICAL FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: MF2.1
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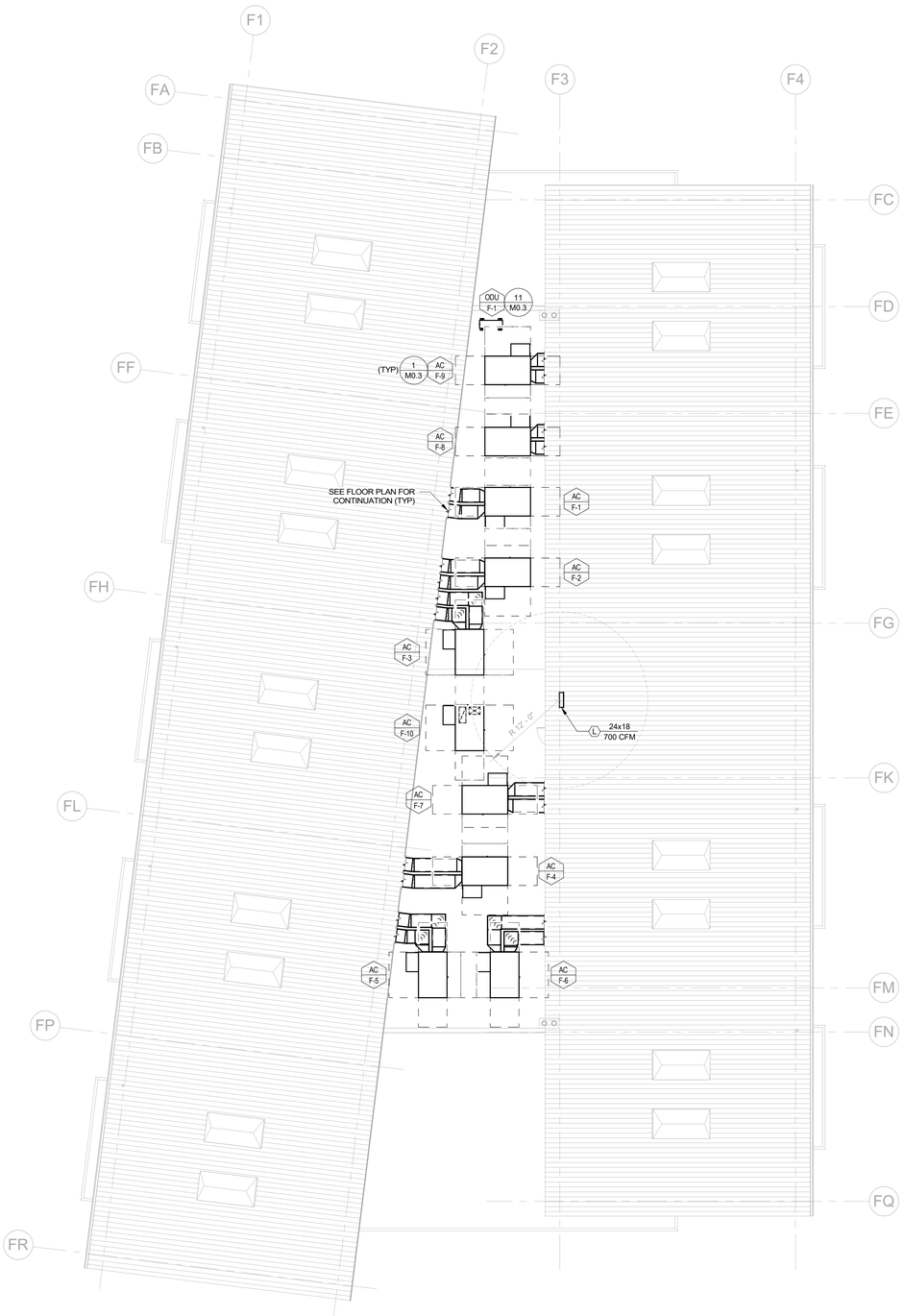

1 BLDG F - MECHANICAL ROOF PLAN
SCALE: 1/8" = 1'-0"

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BUILDING F MECHANICAL ROOF PLAN

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05/20/2019	19003
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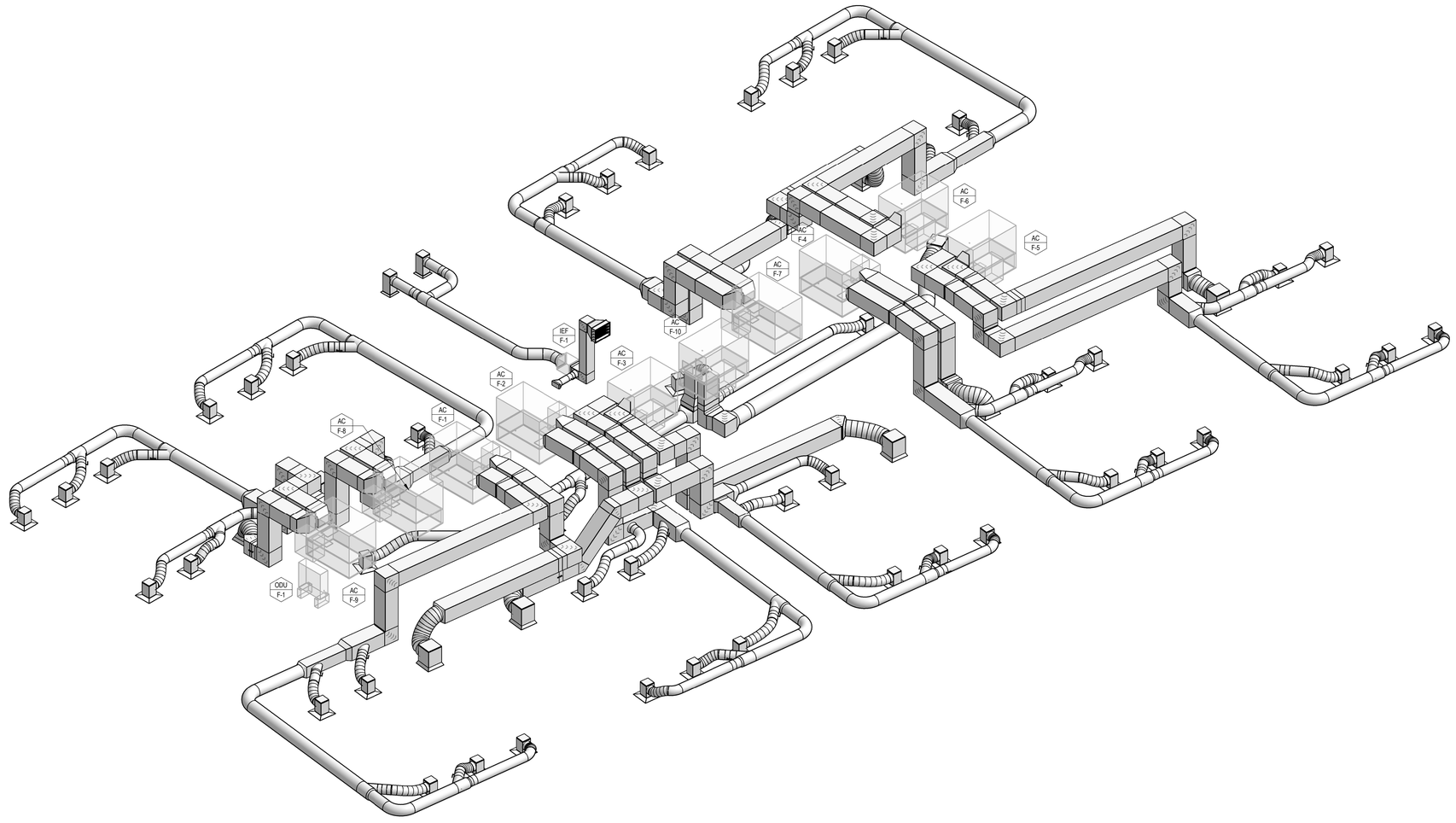

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DESIGN DEVELOPMENT

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BLDG F - MECHANICAL ISOMETRIC

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	MF5.1
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KEY NOTES

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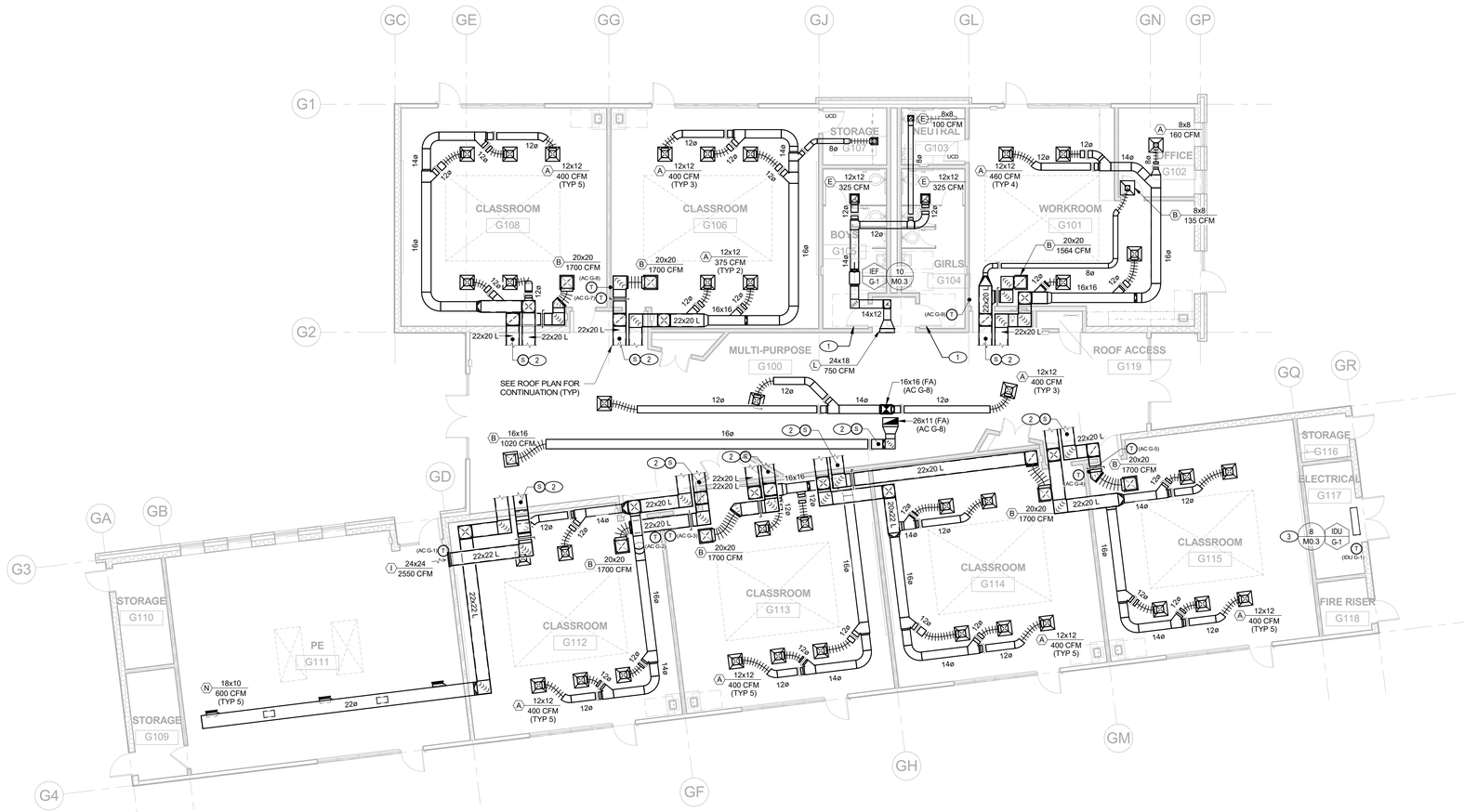
2 RETURN AIR SENSOR.
3 FAN COIL TO BE MOUNTED ABOVE DOOR.



1 BLDG G - MECHANICAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

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BUILDING G MECHANICAL FLOOR PLAN

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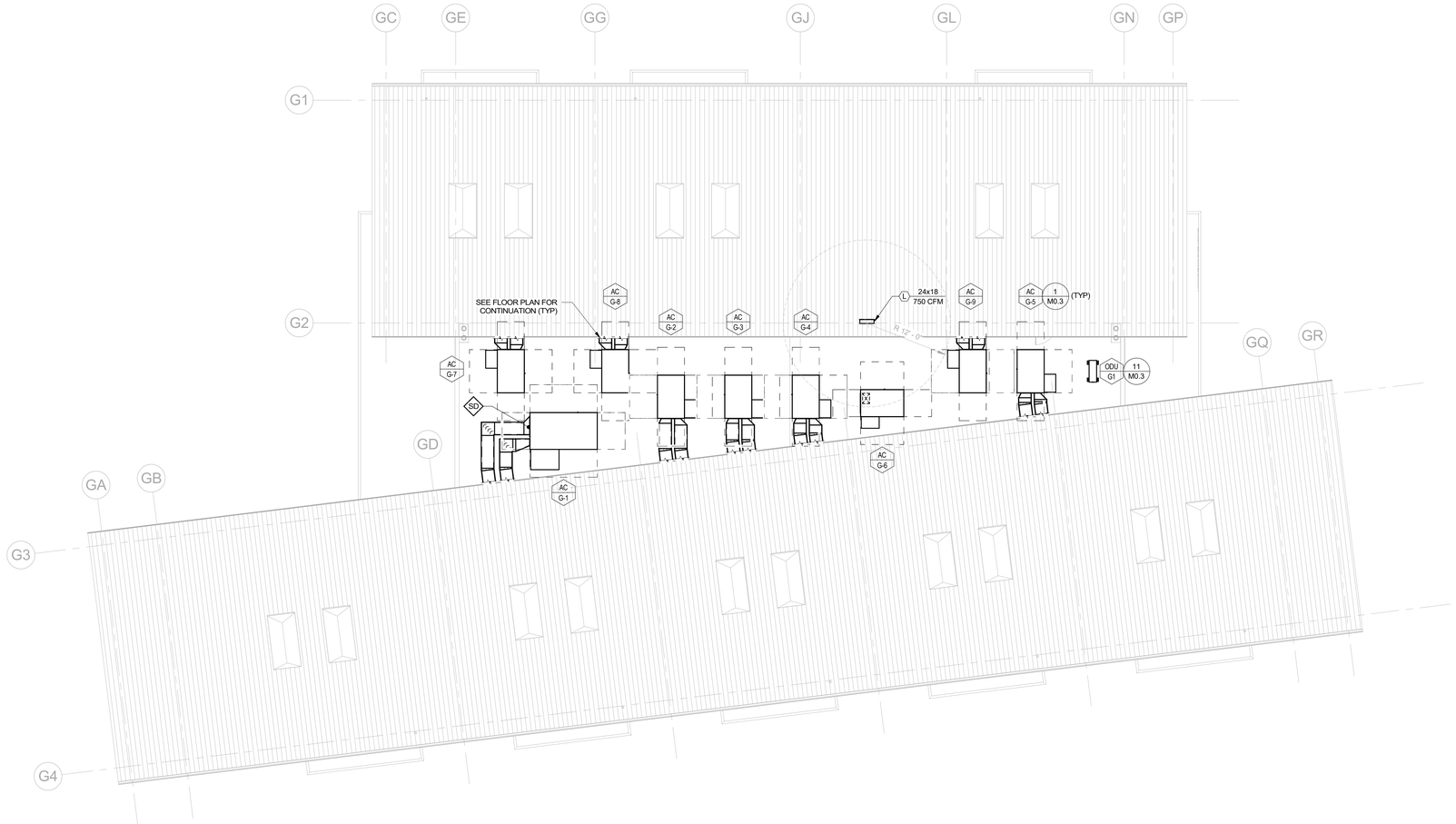

1 **BLDG G - MECHANICAL ROOF PLAN**
SCALE: 1/8" = 1'-0"

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRYAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEGORA M 34681 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G MECHANICAL ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	MG4.1
Drawn / Author	Checked / Checker

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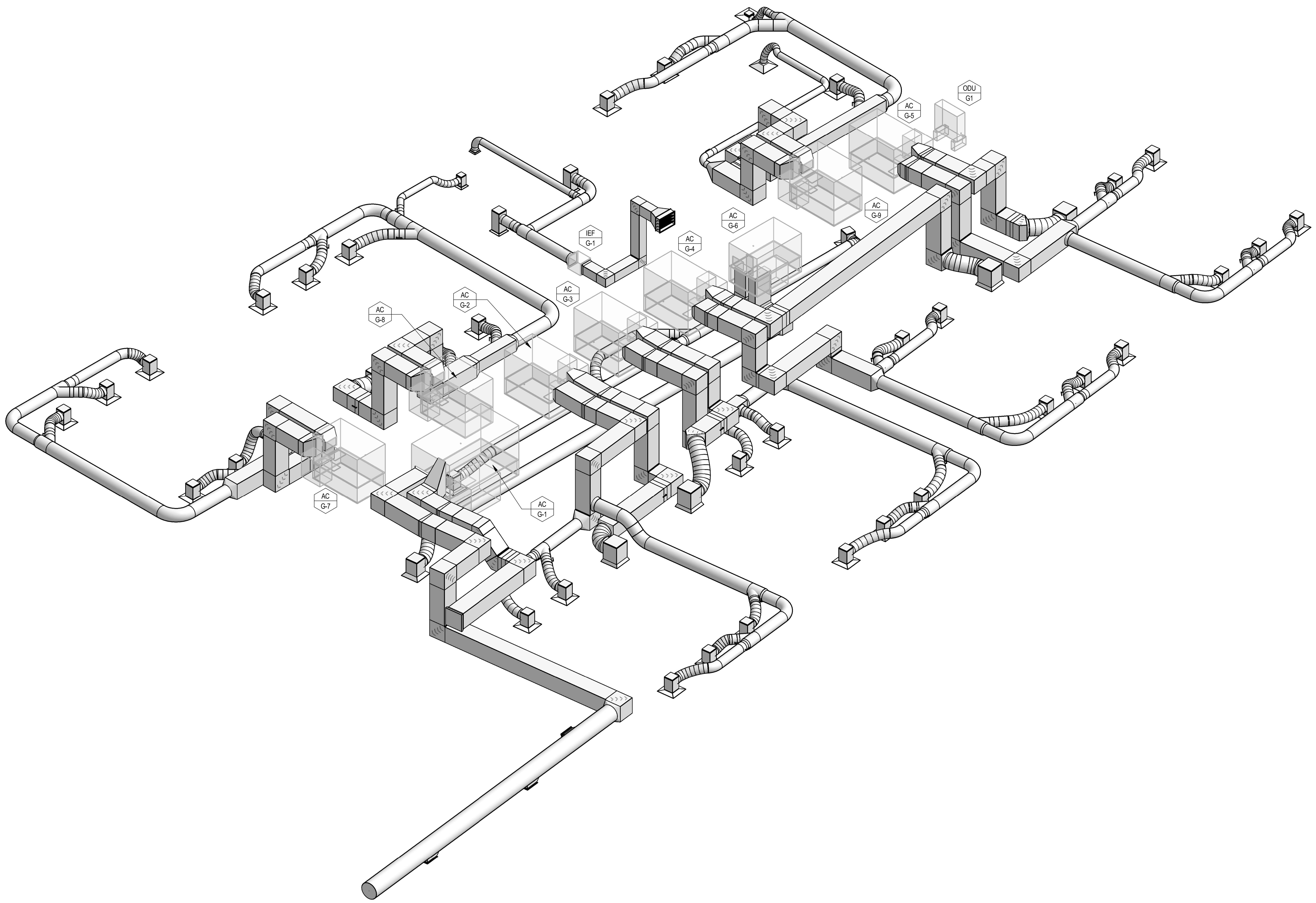

1 **BLDG G - MECHANICAL ISOMETRIC**

SCALE:

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT, BRIAN P WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER, JASON DEDORA, M 34661, REN. 12-31-19, MECHANICAL, STATE OF CALIFORNIA

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930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

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BLDG G - MECHANICAL ISOMETRIC

Date	Project Number
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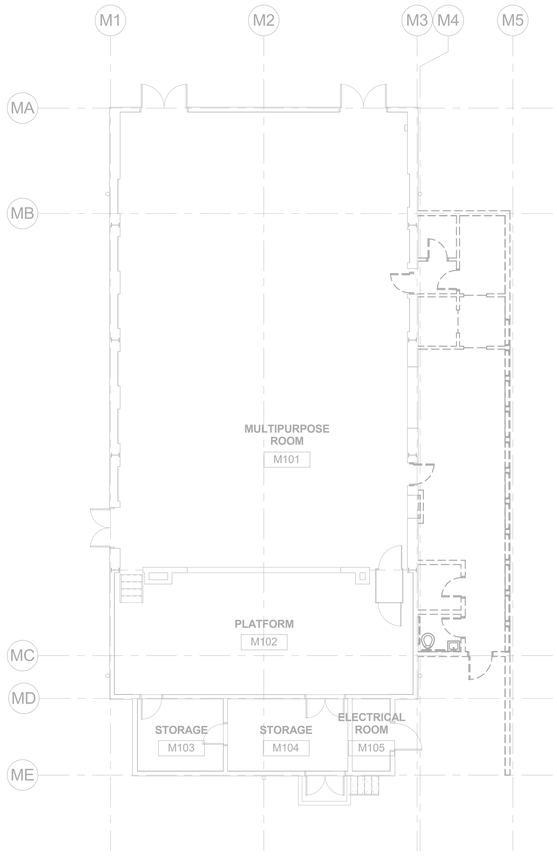
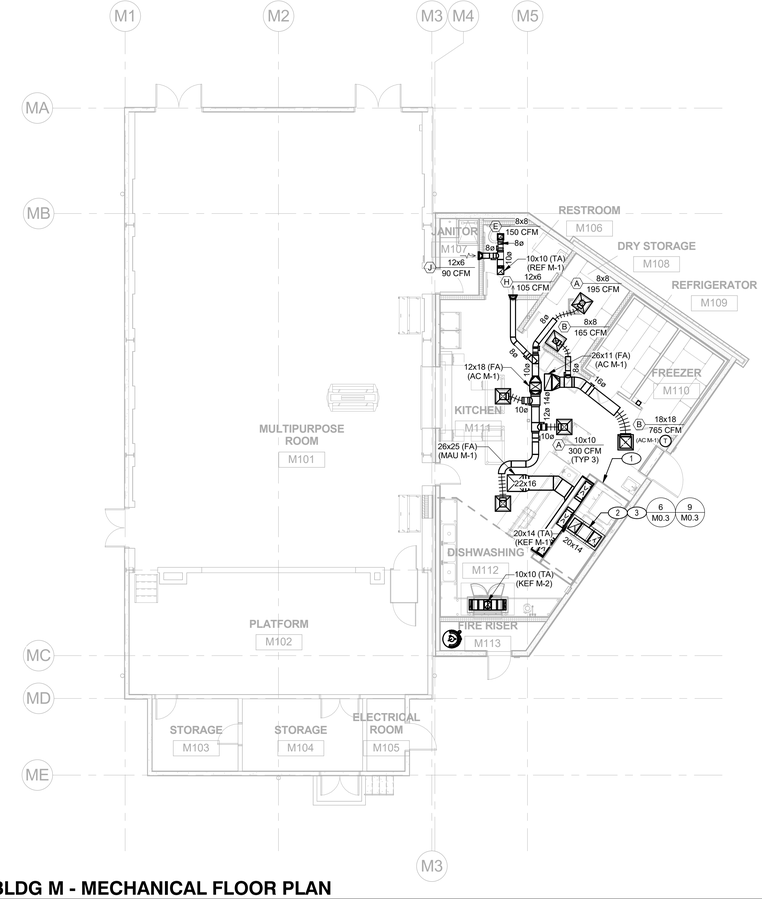
KEY NOTES

1 KITCHEN HOOD, SEE FOOD SERVICE DRAWINGS.
2 MECHANICAL CONTRACTOR TO PROVIDE DUCT ACCESS OPENINGS AT THE SIDES OF THE DUCT AT CHANGES OF DIRECTION. OPENINGS SHALL BE PROTECTED BY APPROVED ACCESS PANELS THAT ARE IN ACCORDANCE WITH CMC SECTION 510.3.
3 GREASE DUCT TO BE FIRE WRAPPED.



1 **BLDG M - MECHANICAL DEMO FLOOR PLAN**
SCALE: 1/8" = 1'-0"



2 **BLDG M - MECHANICAL FLOOR PLAN**
SCALE: 1/8" = 1'-0"

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA
ENGINEER: REGISTERED PROFESSIONAL ENGINEER JASON DEOGRA M 24681 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

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930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M MECHANICAL FLOOR PLAN

Date	Project Number
05/20/2019	19003
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1/8" = 1'-0"	MM2.1
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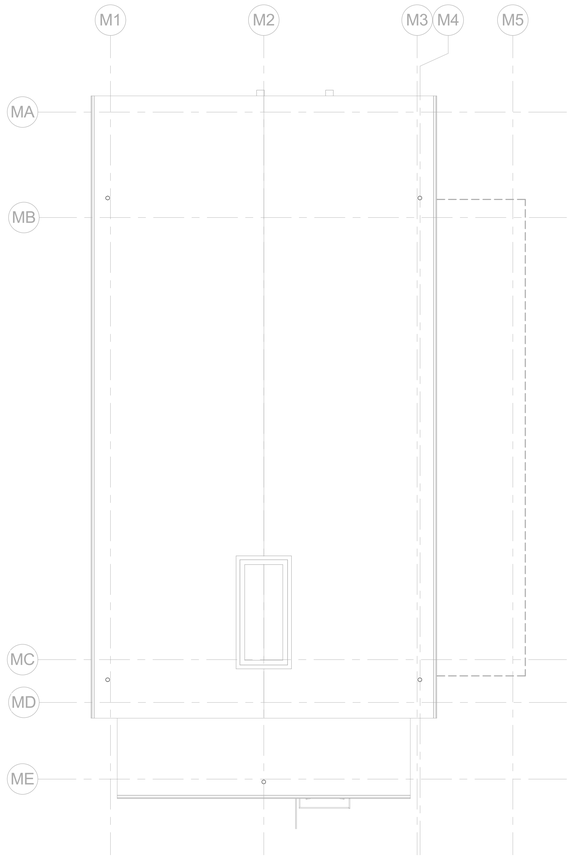
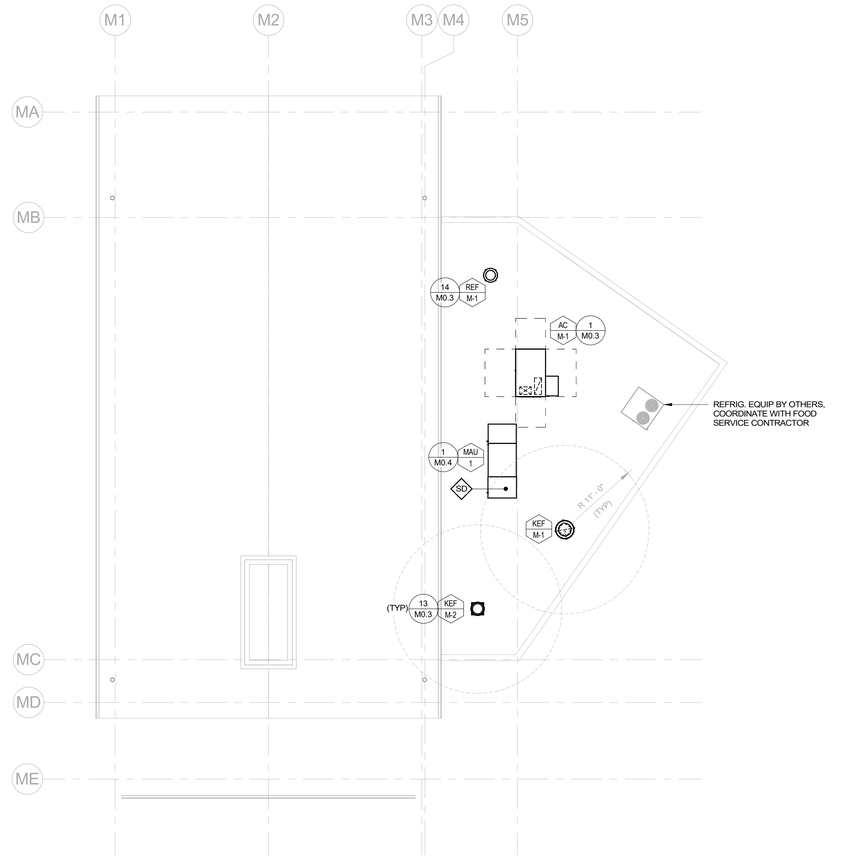
KEY NOTES



1 **BLDG M - MECHANICAL DEMO ROOF PLAN**
SCALE: 1/8" = 1'-0"



2 **BLDG M - MECHANICAL ROOF PLAN**
SCALE: 1/8" = 1'-0"

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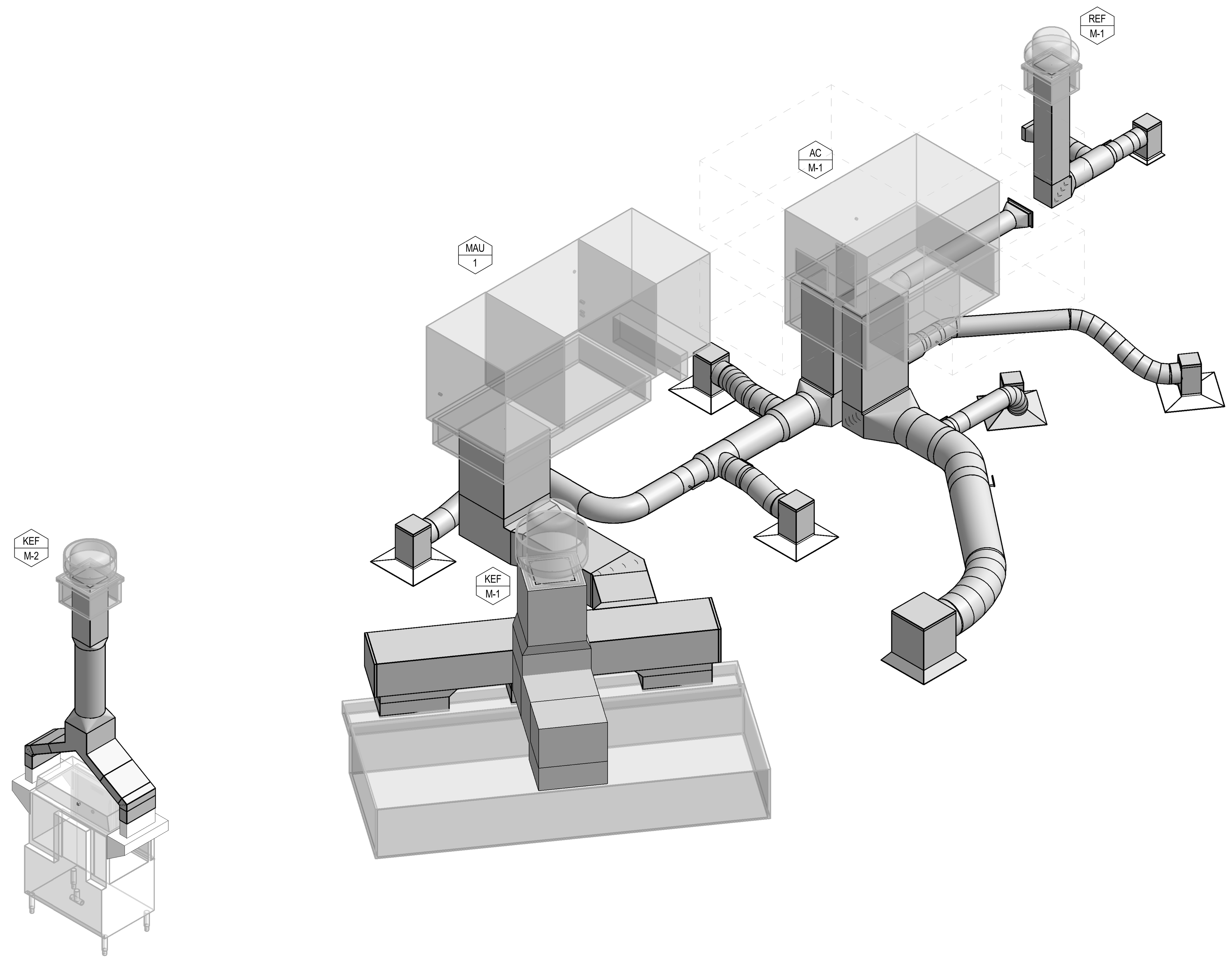

1 BLDG M - MECHANICAL ISOMETRIC

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RAINWATER PIPE SIZING

PROJECT LOCATION	WEST SACRAMENTO, CA
MAXIMUM RAINFALL RATE	3"/HR

ROOF DRAIN SIZE (IN INCHES)	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREA FOR ROOF DRAIN, LEADERS & VERTICAL RAINWATER PIPING	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREA FOR HORIZONTAL RAINWATER (SLOPE: 1/4" = 1'-0")	MAXIMUM ALLOWABLE HORIZONTAL PROJECTED ROOF AREA FOR HORIZONTAL RAINWATER (SLOPE: 1/8" = 1'-0")
2"	725 SQ FT	N/A	N/A
3"	2,147 SQ FT	1,546 SQ FT	1,096 SQ FT
4"	4,613 SQ FT	3,533 SQ FT	2,506 SQ FT
6"	13,600 SQ FT	10,066 SQ FT	7,133 SQ FT
8"	29,333 SQ FT	21,733 SQ FT	15,330 SQ FT

* AS PER 2016 CALIFORNIA PLUMBING CODE TABLE 1101.8 & 1101.12

GAS PRESSURE REGULATOR SCHEDULE

MARK	V	DESCRIPTION
GPR-B1	1"	MAXITROL #325-5L, GAS PRESSURE REGULATOR WITH 1/2" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 500 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR.
GPR-C1	1"	MAXITROL #325-5L, GAS PRESSURE REGULATOR WITH 1/2" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 500 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR.
GPR-D1	1"	MAXITROL #325-5L, GAS PRESSURE REGULATOR WITH 1/2" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 500 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR.
GPR-E1	1"	MAXITROL #325-5L, GAS PRESSURE REGULATOR WITH 1/2" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 500 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR.
GPR-F1	1"	MAXITROL #325-7AL, GAS PRESSURE REGULATOR WITH 1-1/4" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 1250 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR
GPR-G1	1"	MAXITROL #325-7AL, GAS PRESSURE REGULATOR WITH 1-1/4" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 1250 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR
GPR-M1	1"	MAXITROL #325-9L, GAS PRESSURE REGULATOR WITH 1-1/2" GAS OUTLET, INLET PRESSURE OF 2 PSIG, OUTLET PRESSURE OF 7" W.C., MAXIMUM CAPACITY OF 2250 SCFH. ANSI Z21.80 CERTIFIED GAS APPLIANCE PRESSURE REGULATOR.

EARTHQUAKE VALVE SCHEDULE

EV 1	FIREFIGHTER GAS VALVE PRODUCTS EARTHQUAKE VALVE, MODEL AGV-300, 3" PIPE SIZE, 10 PSI MAX PRESSURE, DSA APPROVED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

PIPE HANGER SCHEDULE

PER 2016 CPC TABLE 313.3, 313.6			HORIZONTAL	VERTICAL
PIPING MATERIAL	PIPE SIZE	ROD SIZE	MAXIMUM INTERVAL	MAXIMUM INTERVAL
COPPER TUBE & PIPE; SOLDERED, BRAZED OR WELDED	LESS THAN 1-1/2" 2"-4" 5"-8" 10"-12"	3/8"ø 3/8"ø 1/2"ø 5/8"ø	6' 10' 10' 10'	EVERY FLOOR, NOT TO EXCEED 10'
GAS PIPING; STEEL OR BRASS; THREADED OR WELDED	1/2" 3/4"-1" 1-1/4"-4" 5"-8" 10"-12"	3/8"ø 3/8"ø 3/8"ø 1/2"ø 5/8"ø	6' 8' 10' 10' 10'	6' 8' EVERY FLOOR, NOT TO EXCEED 15' (TYP)
CAST IRON; HUBLESS	LESS THAN 1-1/2" 2"-4" 5"-8" 10"-12"	3/8"ø 3/8"ø 1/2"ø 5/8"ø	EVERY OTHER JOINT, UNLESS OVER 4' IN THIS CASE, SUPPORT PER NOTES 1-4.	AT BASE AND AT EVERY FLOOR, NOT TO EXCEED 15'.

1. SUPPORT ADJACENT TO JOINT, NOT TO EXCEED 18".
2. BRACE AT NOT MORE THAN 40' INTERVALS TO PREVENT HORIZONTAL MOVEMENT.
3. SUPPORT AT EACH HORIZONTAL BRANCH.
4. HANGERS SHALL NOT BE PLACED ON PIPE COUPLINGS.
5. VERTICAL WATER LINES MAY BE SUPPORTED IN ACCORDANCE WITH RECOGNIZED ENGINEERING PRINCIPLES WITH REGARD TO EXPANSION AND CONTRACTION, WHEN FIRST APPROVED BY THE ADMINISTRATIVE AUTHORITY.

PIPING MATERIAL SCHEDULE

SYSTEM	LOCATION	MATERIAL		JOINING METHOD	
		MATERIAL	TEST METHOD	MATERIAL	TEST METHOD
WASTE & VENT	ABOVE & BELOW SLAB	STANDARD WEIGHT COATED CAST IRON PIPE	CISPI 301, ASTM A888	PLAIN END NO-HUB WITH NEOPRENE GASKET & STAINLESS STEEL COUPLING	ASTM A74, ASTM C564
WASTE & VENT	ABOVE & BELOW SLAB	ABS-DWV PIPE, SCHEDULE 40 THICKNESS	ASTM D2661	SOLVENT WELD	ASTM D2235
STORM DRAIN	ABOVE & BELOW SLAB	SAME AS WASTE & VENT PIPING			
GREASE WASTE	ABOVE & BELOW SLAB	SAME AS WASTE & VENT PIPING			
ACID WASTE	ABOVE & BELOW SLAB	POLYPROPYLENE PIPE, SCHEDULE 40 THICKNESS	ASTM D635, UL 94	THERMALLY FUSED JOINTS USING ELECTRIC RESISTANCE COILS (FLAME RETARDANT)	ASTM D635, UL 94
DOMESTIC CW & HW	ABOVE & BELOW SLAB	TYPE 'L' HARD TEMPER SEAMLESS COPPER	ASTM B88	WROUGHT COPPER FITTINGS WITH 95/5 TIN-SILVER SOLDERED JOINTS	ANSI B16.22
CONDENSATE DRAIN	ABOVE SLAB	TYPE 'M' HARD TEMPER SEAMLESS COPPER	ASTM B88	WROUGHT COPPER FITTINGS WITH 95/5 TIN-SILVER SOLDERED JOINTS	ANSI B16.22
NATURAL GAS	ABOVE & BELOW SLAB	SCHEDULE 40 BLACK STEEL PIPE	ASTM A120	150 PSI BLACK MALLEABLE IRON SCREWED FITTINGS	ANSI B16.3, ANSI B16.8

NOTES:
1. PRIME AND PAINT ALL GAS PIPING.
2. ALL CAST IRON PIPE SHALL BE AMERICAN MADE AND TESTED, NO IMPORTED PIPE IS ACCEPTABLE. TYLER PIPE, AB&I FOUNDRY OR CHARLOTTE PIPE.

EQUIPMENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE
3. BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENT TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☒ E ☐ — OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ — OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM#) #0043-13.

MP ☐ MD ☐ PP ☐ — OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSPHD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL ____ AND CONNECTION LEVEL ____ FOR THE PROJECT AND CONDITIONS.

PLUMBING LEGEND

SYMBOL	ITEM	ABBR.
S / 1	FIXTURE DESIGNATION UNIT ABBREVIATION NUMBER	
1 / P-1	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN	
	DOMESTIC COLD WATER	CW
	DOMESTIC HOT WATER	HW
	DOMESTIC HOT WATER RETURN	HWR
---V---	VENT	V
—G—	GAS	G
—MG—	MEDIUM PRESSURE GAS	MG
—LPG—	LIQUID PROPANE GAS	LPG
—S—	SEWER	S
—GW—	GREASE WASTE	GW
---AV---	ACID VENT	AV
—AW—	ACID WASTE	AW
—SD—	STORM DRAIN	SD
—RD—	ROOF DRAIN	RD
—OD—	OVERFLOW DRAIN	OD
—C—	CONDENSATE DRAIN	C
—D—	SECONDARY DRAIN	D
—T&P—	TEMPERATURE & PRESSURE RELIEF	T&P
—FS—	FIRE SPRINKLER	FS
	PIPE CAP	
	PIPE RISER / DROP	(R)/(D)
	SHUT-OFF VALVE IN BOX	SOV
FCO	FLOOR CLEANOUT	FCO
COTG	CLEANOUT TO GRADE	COTG
	WALL CLEANOUT	WCO
	CLEANOUT	CO
	HOSE BIBB	
	OVERFLOW DRAIN OUTLET	
	BALL VALVE	
	GATE VALVE	
	CHECK VALVE	
	MIXING VALVE	
	SHUT-OFF COCK	
	CIRCULATION PUMP	
	BALANCING VALVE	
	TRAP PRIMER	TP
	PRESSURE REDUCING VALVE	PRV
	GAS PRESSURE REGULATOR	GRP
	TYPICAL	(TYP)
	VENT THRU ROOF	VTR
	UNDERGROUND	UG
	UNDER FLOOR	UF
	ABOVE CEILING	AB.C.
	TO ABOVE / BELOW	TA / TB
	FROM ABOVE / BELOW	FA / FB
	CONTINUATION	
	NEW	(N)
	EXISTING	POD / POC
	POINT OF DIS/CONNECTION	

PLUMBING EQUIPMENT SCHEDULE

TYPE	MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
CP	M1	CIRCULATION PUMP	---	---	---	3/4"	BELL & GOSSETT MODEL NBF-25, IN-LINE WET ROTOR CIRCULATION PUMP WITH LEAD-FREE BRONZE BODY, UNION CONNECTION, 5.0 GPM FLOW AT 8 FT TDH, 125 WATT, 1.1 FLA, 115V/1ø ELECTRICAL SERVICE. PUMP CONTROLLED BY BELL & GOSSETT MODEL #AQS-3/4 AQUASTAT WITH 115/120 VAC, 1PH ELECTRICAL CONNECTION. AQUASTAT TO TURN ON AT 115°F AND TURN OFF AT 125°F. B&G AUTOMATIC TIMER KIT #TC-1.
ET	F1	EXPANSION TANK	---	---	3/4"	---	BELL & GOSSETT MODEL PT-5, STEEL SHELL, BUTYL DIAPHRAGM TYPE EXPANSION TANK PRE-CHARGED TO 40 PSI WITH 2.0 GALLON TANK CAPACITY, 0.9 GALLON ACCEPTANCE CAPACITY.
ET	M1	EXPANSION TANK	---	---	3/4"	---	BELL & GOSSETT MODEL PT-12, STEEL SHELL, BUTYL DIAPHRAGM TYPE EXPANSION TANK PRE-CHARGED TO 40 PSI WITH 4.4 GALLON TANK CAPACITY, 3.2 GALLON ACCEPTANCE CAPACITY.
GI	1	GREASE INTERCEPTOR	4"	2"	---	---	JENSEN MODEL JP750EPE-G, 750 GAL. GREASE INTERCEPTOR WITH (3) 24"ø H-20 TRAFFIC RATED GAS TIGHT MANHOLE COVERS BROUGHT TO GRADE. PROVIDE JENSEN PRECAST MODEL 2432Z 32"ø SAMPLE BOX WITH MANHOLE COVER BROUGHT TO GRADE. PROVIDE GRADE EXTENSION RINGS AS REQUIRED. EMPTY WEIGHT: 10,520 LBS., FULL WEIGHT: 16,775 LBS.
HT	M1	HEAT TRACE COOLER BOX	---	---	---	---	RAYCHEM XL-TRACE 5XL1-CR HEAT TRACE WITH PENTAIR "DIGITRACE" RAYSTAT-EX-03-A LINE SENSING ELECTRONIC THERMOSTAT MOUNTED ON WALL IN FREEZER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE 15 AMP, 120 VAC.
IWH	G1	INSTANTANEOUS WATER HEATER	---	---	1/2"	1/2"	CHRONOMITE #SR-40/208 TANKLESS WATER HEATER, 208V/1ø, 40 AMP ELECTRICAL SERVICE, 8320w, 0.65 GPM ACTIVATION, 57 F RISE @ 1.0 GPM. PROVIDE OPTIONAL STAINLESS STEEL HOUSING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS
IWH	G2	INSTANTANEOUS WATER HEATER	---	---	1/2"	1/2"	CHRONOMITE #SR-40/208 TANKLESS WATER HEATER, 208V/1ø, 40 AMP ELECTRICAL SERVICE, 8320w, 0.65 GPM ACTIVATION, 57 F RISE @ 1.0 GPM. PROVIDE OPTIONAL STAINLESS STEEL HOUSING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS
IWH	G3	INSTANTANEOUS WATER HEATER	---	---	1/2"	1/2"	CHRONOMITE #SR-20L/208 TANKLESS WATER HEATER, 208V/1ø, 20 AMP ELECTRICAL SERVICE, 4160w, 0.35 GPM ACTIVATION, 71 F RISE @ 0.4 GPM. PROVIDE OPTIONAL STAINLESS STEEL HOUSING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
WH	F1	ELECTRIC WATER HEATER	---	---	3/4"	3/4"	A.O. SMITH MODEL DEL-15, STORAGE TANK TYPE, 15 GALLON CAPACITY, 20 GPH RECOVERY AT 80°F RISE. (2) 4 KW NON-SIMULTANEOUS ELEMENT OPERATION, 4 KW MAXIMUM. 208v/3ø, 19.2 FLA ELECTRICAL SERVICE. UL LISTED. OPERATING WEIGHT 330 LBS.
WH	M-1	GAS WATER HEATER	---	---	1-1/2"	1-1/2"	A.O. SMITH MODEL BTH-250 Mxi, STORAGE TANK TYPE, 100 GALLON CAPACITY. 323 GPH RECOVERY AT 90°F RISE, 250,000 BTUH INPUT. 96% THERMAL EFFICIENCY. MEETS OR EXCEEDS U.S. DOE, ASHRAE 90.1 AND SCAQMD RULE 1146.2 REQUIREMENTS. PROVIDE OPTIONAL POWER-DIRECT VENT AND CONCENTRIC VENT KIT TERMINATION. 120VAC/60HZ ELECTRICAL SERVICE, 2.2 F.L. AMPS BLOWER, 4.0 AMPS IGNITER. UL LISTED. PROVIDE CONDENSATE NEUTRALIZATION KIT. 1,400 lb OPERATING WEIGHT.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
DF-1	DRINKING FOUNTAIN (CBC ACCESS)	2"	1-1/2"	3/4"	---	ELKAY #LZWS-EDFPBM117K, TWO-LEVEL DRINKING FOUNTAIN WITH EZH2O BOTTLE FILLING STATION, WALL HUNG DRINKING FOUNTAIN, 18 GA. 300 SERIES STAINLESS STEEL BASIN, FRONT PUSH BUTTON CONTROL, SENSOR ACTIVATED BOTTLE FILLER STATION 115V/1ø 2.5 AMP ELECTRICAL POWER. WATTS #CA-431-1-Q, DOUBLE CARRIER. PROVIDE MOUNTING FRAME. PROVIDE UPPER AND LOWER ACCESS PANELS. INSTALL PER CBC ACCESSABLITY REQUIREMENTS.
FD-1	FLOOR DRAIN	2"	1-1/2"	TP	---	WATTS #FD-100-A, 5" DIAMETER NICKEL BRONZE TOP WITH 2" PIPE, FLANGE AND SEEPAGE PAN. PROVIDE TRAP PRIMER CONNECTION.
FS-1	FLOOR SINK	2"	1-1/2"	TP	---	WATTS #FS-740, COATED CAST IRON, ACID RESISTANT PAINTED INTERIOR, 12" SQUARE TOP WITH 1/2 GRATE, 8" DEEP SUMP, DOUBLE DRAINAGE FLANGE BOTTOM CAULK OUTLET, & DOME STRAINER. PROVIDE TRAP PRIMER CONNECTION.
FS-2	FLOOR SINK	3"	2"	TP	---	WATTS #FS-740, COATED CAST IRON, ACID RESISTANT PAINTED INTERIOR, 12" SQUARE TOP WITH 1/2 GRATE, 8" DEEP SUMP, DOUBLE DRAINAGE FLANGE BOTTOM CAULK OUTLET, & DOME STRAINER. PROVIDE TRAP PRIMER CONNECTION.
HB-1	HOSE BIBB	---	---	3/4"	---	"WOODFORD" #75, WALL HYDRANT, VACUUM BREAKER, TEE-KEY HANDLE, ROUGH BRASS. MOUNT AT 12" AFG/AFF.
HB-2	HOSE BIBB	---	---	3/4"	---	"WOODFORD" #B75, WALL HYDRANT BOX WITH DOOR, VACUUM BREAKER, TEE-KEY HANDLE, ROUGH BRASS. MOUNT AT 12" AFG/AFF.
HB-3	ROOF HYDRANT	---	---	1"	---	"WOODFORD" #SHR-MS, FREEZELESS ROOF HYDRANT WITH MOUNTING SYSTEM, VACUUM BREAKER, NO DRAIN REQUIRED.
JS-1	JANITOR'S SINK	3"	2"	3/4"	3/4"	FIAT #TSB3000 24" X 24" TERRAZZO MOP BASIN WITH STAINLESS STEEL CAPS ON ALL CURBS, FLAT STAINLESS STEEL STRAINER, FIAT MODEL 830AA FAUCET WITH VACUUM BREAKER. PROVIDE 832AA MOP, HOSE AND BRACKET, (2) STAINLESS STEEL WALL GUARDS, AND STAINLESS STEEL THRESHOLD CAP.
L-1	LAVATORY (ELEMENTARY CBC ACCESS)	2"	1-1/2"	1/2"	1/2"	KOHLER #K-2005, KINGSTON BASIN, WHITE FINISH VITREOUS CHINA, WALL HUNG. CHICAGO FAUCET #857-E12-665PSHABCP, MANUAL METERED FAUCET. MCGUIRE #155WC OFFSET OPEN GRID DRAIN. WATTS #WCA-411 CARRIER. LEAD-FREE 1/4 TURN ANGLE STOPS. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT. ALL WATER SUPPLY TUBING, FIXTURES AND APPURTENANCES TO BE CA AB-1953 COMPLIANT.
L-2	LAVATORY (CBC ACCESS)	2"	1-1/2"	1/2"	1/2"	KOHLER #K-2005, KINGSTON BASIN, WHITE FINISH VITREOUS CHINA, WALL HUNG. SLOAN #EBF-650-BAT-BDM-CP-0.5GPM, ELECTRONIC FAUCET, BATTERY POWERED (0.50 GPM), BELOW DECK THERMOSTATIC MIXING VALVE. MCGUIRE #155WC OFFSET OPEN GRID DRAIN. MCGUIRE 'PROWRAP' #PW2000WC SANITARY COVERING. WATTS #WCA-411, BASIN CARRIER. LEAD-FREE 1/4 TURN ANGLE STOPS. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT. ALL WATER SUPPLY TUBING, FIXTURES AND APPURTENANCES TO BE CA AB-1953 COMPLIANT.
OD-1	OVERFLOW DRAIN	3"	---	---	---	J.R. SMITH #1070Y, 11" DIA. CAST IRON BODY WITH 2" INTERNAL STANDPIPE. PROVIDE ALUMINUM DOME, SECONDARY FLASHING CLAMP, UNDERDECK CLAMP.
OD-2	OVERFLOW DRAIN	4"	---	---	---	J.R. SMITH #1070Y, 11" DIA. CAST IRON BODY WITH 2" INTERNAL STANDPIPE. PROVIDE ALUMINUM DOME, SECONDARY FLASHING CLAMP, UNDERDECK CLAMP.
RD-1	ROOF DRAIN	3"	---	---	---	J.R. SMITH #1010Y, 11" DIA. CAST IRON BODY. PROVIDE ALUMINUM DOME, SECONDARY FLASHING CLAMP, UNDERDECK CLAMP.
RD-2	ROOF DRAIN	4"	---	---	---	J.R. SMITH #1010Y, 11" DIA. CAST IRON BODY. PROVIDE ALUMINUM DOME, SECONDARY FLASHING CLAMP, UNDERDECK CLAMP.
RR-1	ROOF RECEPTOR	2"	2"	---	---	WATTS DRAINAGE #RD-400 EPOXY COATED CAST IRON DECK RECEPTOR DRAIN WITH 2" HIGH RECEPTOR FLANGE, INTERNAL DOME STRAINER AND NO-HUB OUTLET.
S-1	SINK (CBC ACCESS)	2"	1-1/2"	1/2"	---	ELKAY #CDKAD251755C , COUNTERTOP MOUNT SINK, 25"x17"x5-1/2", 304 STAINLESS STEEL, SINGLE BOWL, WITH ELKAY #LKD208513LC FAUCET, #LK35 DRAIN KIT AND #LK1141A BUBBLER. LEAD-FREE 1/4 TURN ANGLE STOPS. INSTALL PER CBC ACCESSIBILITY REQUIREMENTS. ALL WATER SUPPLY TUBING, FIXTURES AND APPURTENANCES TO BE CA AB-1953 COMPLIANT.
S-2	SINK (CBC ACCESS)	2"	1-1/2"	1/2"	1/2"	ELKAY #LRAD191865PD, COUNTERTOP MOUNT SINK, 19"x18"x6-1/2", 304 STAINLESS STEEL. CHICAGO FAUCET #201-G8AE26-5-317AB, SWING GOOSENECK SPOUT, WRISTBLADE HANDLE FAUCET, 8" CENTERS, 1.0 GPM. LEAD-FREE 1/4 TURN ANGLE STOPS. INSTALL PER CBC ACCESSIBILITY REQUIREMENTS. ALL WATER SUPPLY TUBING, FIXTURES AND APPURTENANCES TO BE CA AB-1953 COMPLIANT.
TP-1	TRAP PRIMER	---	---	1/2"	---	PRECISION PLUMBING PRODUCTS, INC. #PR-500 PRIME-RITE. PROVIDE PPP MODEL D-1212PC WALL ACCESS PANEL, PAINT ACCESS DOOR, COLOR BY ARCHITECT.
U-1	URINAL (ELEMENTARY CBC ACCESS)	2"	1-1/2"	3/4"	---	KOHLER MODEL K-4991-ETSS, ADA COMPLIANT WALL MOUNTED VITREOUS CHINA BOWL. SLOAN MODEL ROYAL 8186-0.125 HIGH EFFICIENCY BATTERY POWERED SENSOR FLUSH VALVE (0.125 GPF). PROVIDE WATTS CA-321 WALL CARRIER SYSTEM. WATTS #CO-380-RD URINAL WALL ACCESS CLEANOUT. INSTALL PER CBC ACCESS REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.
WC-1	WATER CLOSET (CBC ACCESS)	4"	2"	1-1/4"	---	KOHLER #K-4325, ELONGATED TOILET, VITREOUS CHINA, WALL MOUNT. CENTOCO #500STSCC.001, HEAVY DUTY TOILET SEAT, SOLID PLASTIC, OPEN FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE. SLOAN G2 8111-1.28, BATTERY POWERED SENSOR FLUSH VALVE, 1.28 GPF, POLISHED CHROME FINISH. PROVIDE WATTS ADJUSTABLE WATER CLOSET CARRIER. INSTALL PER CBC ACCESS REQUIREMENTS.
WC-2	WATER CLOSET	4"	2"	1-1/4"	---	KOHLER #K-4325, ELONGATED TOILET, VITREOUS CHINA, WALL MOUNT. CENTOCO #500STSCC.001, HEAVY DUTY TOILET SEAT, SOLID PLASTIC, OPEN FRONT LESS COVER, SELF-SUSTAINING CHECK HINGE. SLOAN G2 8111-1.28, BATTERY POWERED SENSOR FLUSH VALVE, 1.28 GPF, POLISHED CHROME FINISH. PROVIDE WATTS ADJUSTABLE WATER CLOSET CARRIER.

PLUMBING SHEET INDEX

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ARCHITECT	ENGINEER
LICENSED ARCHITECT — BRIAN P WHITMORE — No. C 30345 — Ren.: 9/30/19 — STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER — JASON DEDORA — M 34661 — REN. 12-31-19 — MECHANICAL — STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

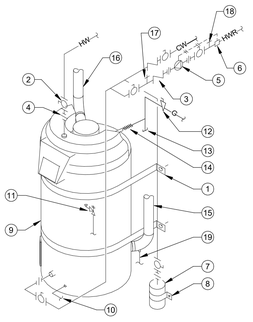
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

PLUMBING LEGENDS, NOTES & SCHEDULES

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	P0.1
Drawn: Author	Checked: Checker

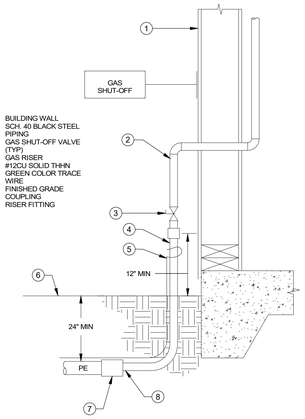
PRINT DATE: 5/16/2019 5:25:53 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atafarrodi.rvt

1. 2" WIDE 24 GA STEEL STRAP AROUND WATER HEATER. SECURE TO WALL STUDS OR BLOCKING WITH 3/8"ø LAG SCREWS WITH MIN. 2" PENETRATION (2 PER STRAP) (2 STRAPS PER WATER HEATER).
2. BALL VALVE, TYP.
3. CHECK VALVE, TYP.
4. UNION, TYP.
5. CIRCULATION PUMP, SEE PLUMBING FIXTURE SCHEDULE.
6. CIRCULATION PUMP BUILT IN TEMPERATURE SENSOR.
7. EXPANSION TANK, SEE PLUMBING FIXTURE SCHEDULE.
8. 2" WIDE 24 GA STEEL STRAP AROUND EXPANSION TANK. SECURE TO STUDS OR BLOCKING WITH 3/8"ø LAG BOLTS WITH MIN. 2" PENETRATION.
9. WATER HEATER, SEE PLUMBING FIXTURE SCHEDULE.
10. DRAIN COCK, ROUTE FULL SIZE DRAIN TO FLOOR SINK WITH 1" AIR GAP, MIN. (TYP).
11. FULL SIZE TEMP. & PRESSURE RELIEF VALVE. ROUTE FULL SIZE DRAIN TO FLOOR SINK WITH 1" AIR GAP, MIN. (TYP).
12. GAS COCK (TYP).
13. 6" MINIMUM DIRT LEG (TYP).
14. S.S. FLEX CONNECTION (TYP).
15. 3" PVC FLUE THROUGH ROOF PER MANUFACTURER'S REQUIREMENTS (TYP).
16. 3" PVC AIR INTAKE THROUGH ROOF PER MANUFACTURER'S REQUIREMENTS (TYP).
17. HOSE BIBB FOR SYSTEM PRIMING.
18. MANUAL AIR VENT.
19. 3/4" PVC CONDENSATE TO FLOOR SINK WITH 1" AIR GAP.



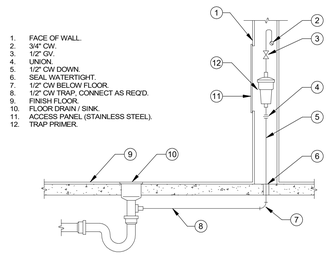
NOTE:
1. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS TO WATER HEATER.
2. BLOCKING SHALL BE MINIMUM 4x4 WITH SIMPSON HUA4 HANGERS AT EACH END.
3. INSTALL STRAPS AT TOP 1/3 AND BOTTOM 1/3 OF WATER HEATER.
4. SEE PLANS FOR PIPE SIZES.

GAS WATER HEATER DETAIL — NTS — 16



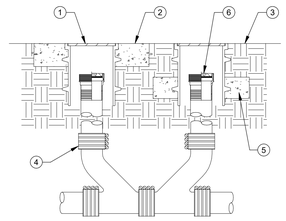
1. BUILDING WALL.
2. SCH. 40 BLACK STEEL PIPING.
3. GAS SHUT-OFF VALVE (TYP)
4. GAS RISER.
5. #12CU SOLID THHN GREEN COLOR TRACE WIRE
6. FINISHED GRADE
7. COUPLING.
8. RISER FITTING

GAS RISER DETAIL — NTS — 17



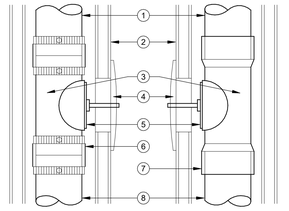
1. FACE OF WALL.
2. 3/4" CW.
3. 1/2" GV.
4. UNION.
5. 1/2" CW DOWN.
6. SEAL WATERTIGHT.
7. 1/2" CW BELOW FLOOR.
8. 1/2" CW TRAP, CONNECT AS REQ'D.
9. FINISH FLOOR.
10. FLOOR DRAIN / SINK.
11. ACCESS PANEL (STAINLESS STEEL).
12. TRAP PRIMER.

TRAP PRIMER PIPING DETAIL — NTS — 11



1. CAST IRON CLEANOUT IN DOUBLE FLANGED HOUSING WITH HEAVY DUTY CAST IRON COVER (TYP 2).
2. CONCRETE SURFACE, MIN. 4" THICK.
3. FINISHED GRADE.
4. NO-HUB COUPLING.
5. MIN. 18"X18"X4" THICK CONCRETE COLLAR (OMIT WHERE SURFACE CONCRETE OCCURS).
6. CLEAN-OUT PLUG (TYP 2).

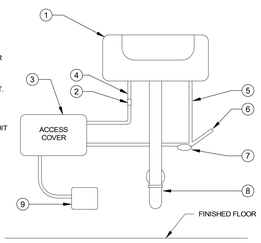
TWO-WAY CLEANOUT (COTG) — NTS — 12



1. VENT STACK.
2. FACE OF WALL.
3. SANITARY TEE.
4. CHROME PLATED COVER & SCREW.
5. THREADED PLUG.
6. NO-HUB COUPLING STAINLESS STEEL COVER.
7. ABS FLANGED FITTING.
8. DRAIN LINE.

NOTE: SEE PIPING MATERIAL SCHEDULE

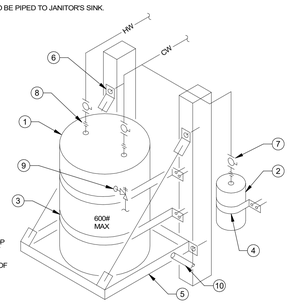
WALL CLEANOUT (WCO) — NTS — 13



1. SINK.
2. FLOW CONTROL.
3. INSTANT WATER HEATER MTD. ON WALL BELOW SINK.
4. TO HOT WATER OUTLET.
5. TO COLD WATER OUTLET.
6. COLD WATER SUPPLY.
7. DUAL OUTLET ANGLE VALVE.
8. TRAP.
9. ELEC. J-BOX AND CONDUIT (SEE ELECTRICAL).

INSTANTANEOUS WATER HEATER — NTS — 14

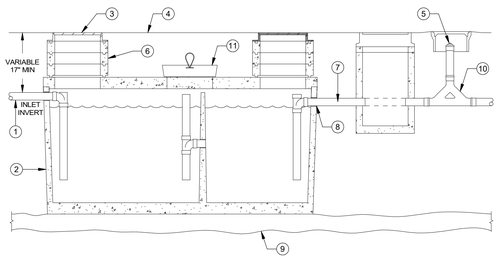
1. WATER HEATER, SEE PLUMBING FIXTURE SCHEDULE
2. EXPANSION TANK, SEE PLUMBING FIXTURE SCHEDULE
3. 2" WIDE 24 GA STEEL STRAP AROUND WATER HEATER. SECURE TO WALL STUDS OR BACKING TRACK WITH (2) 1/4" LAG SCREW WITH MIN. 3" EMBED, EACH END, TYP.
4. 2" WIDE 24 GA STEEL STRAP AROUND EXPANSION TANK. SECURE TO STUDS OR BACKING TRACK WITH (2) 1/4" LAG SCREW WITH MIN. 3" EMBED, EACH END, TYP.
5. HOLDRITE MODEL 50-SWHP-W, WALL MOUNT PLATFORM WITH INTEGRAL DRAIN PAN, ROUTE DRAIN PER PLANS
6. PROVIDE FULL-HEIGHT DOUBLE STUDS AT WALL SUPPORT CONNECTIONS, CONNECT PLATFORM TO STUDS WITH (4) 3/8" X 3" SCREWS
7. BALL VALVE, TYP.
8. UNION, TYP.
9. FULL SIZE TEMP. & PRESSURE RELIEF, ROUTE FULL SIZE DRAIN TO APPROVED RECEPTOR WITH 1" AIRGAP.
10. DRAIN PAN TO BE PIPED TO JANITOR'S SINK.



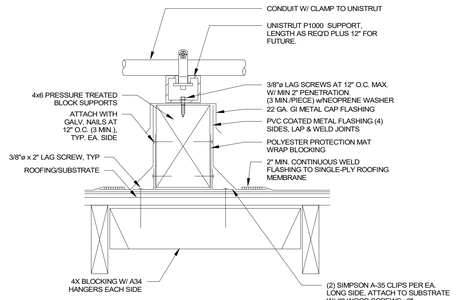
NOTE:
1. INSTALL STRAPS AT TOP 1/3 AND BOTTOM 1/3 OF WATER HEATER.
2. MOUNT WITH BOTTOM OF SHELF AT +6'-0" AFF.
3. SEE ARCHITECTURAL DRAWINGS FOR WALL FRAMING.

ELECTRIC WATER HEATER MOUNT ON PLATFORM — NTS — 15

1. 4" GREASE WASTE INLET FROM BUILDING. SEE PLANS FOR CONTINUATION.
2. PROVIDE TRAFFIC-RATED REINFORCED, PRECAST CONCRETE INTERCEPTOR.
3. PROVIDE TRAFFIC-RATED 24"ø CASE IRON, GAS-TIGHT MANHOLE COVERS.
4. PAVEMENT OR GRADE.
5. PROVIDE 4" CLEAN OUT (TYPICAL)
6. PROVIDE CONCRETE ADJUSTMENT RINGS TO SUITE DEPTH OF THE INTERCEPTOR.
7. 2" VENT. SEE PLANS FOR CONTINUATION.
8. SEAL GREASE INTERCEPTOR PENETRATIONS WATERTIGHT.
9. INSTALL INTERCEPTOR ON A BED OF UNDISTURBED EARTH OR 4"-6" OF COMPACTED SAND BACKFILL.
10. TWO WAY COMBINATION
11. PLUG



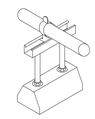
GREASE INTERCEPTOR DETAIL — NTS — 6



NOTES:
1. ANCHORED SUPPORTS AT 40'-0" O.C. MAX. AND WITHIN 2'-0" FROM ENDS, FOR INTERMEDIATE PIPE SUPPORT SEE DETAIL x/Px.xx.

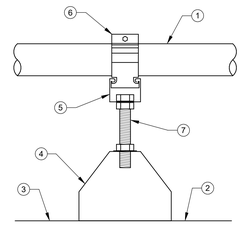
PIPE SUPPORT ON ROOF — NTS — 7

1. PIPING ON ROOF.
2. PVC SINGLE PLY PROTECTION MATERIAL.
3. ROOFING MATERIAL.
4. 'B-LINE' 'DURA-BLOK' ROOTOP PIPE SUPPORT OR EQUAL. WOOD BLOCKING NOT ACCEPTABLE.
5. 'B-LINE' 14 GA. GALVANIZED SLOTTED 1" CHANNEL.
6. 'B-LINE' B2000 SERIES PIPE CLASP WITH THRU-BOLT.
7. PROVIDE (2) 'B-LINE' 1/2" ADJUSTABLE THREADED ROD RISERS WITH NUTS.



ISOMETRIC VIEW

NOTE:
1. PROVIDE PIPE SUPPORT AT MAXIMUM SPACING OF 8 FT.

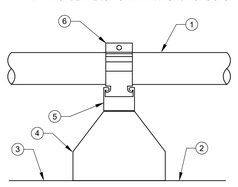


CONDENSATE PIPE SUPPORT ON ROOF — NTS — 8

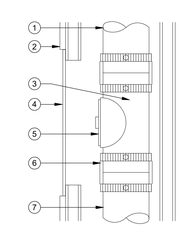
1. PIPING ON ROOF.
2. PVC SINGLE PLY PROTECTION MATERIAL.
3. ROOFING MATERIAL.
4. 'B-LINE' 'DURA-BLOK' ROOTOP PIPE SUPPORT OR EQUAL. WOOD BLOCKING NOT ACCEPTABLE.
5. 'B-LINE' 14 GA. GALVANIZED SLOTTED 1" CHANNEL.
6. 'B-LINE' B2000 SERIES PIPE CLASP WITH THRU-BOLT.

ISOMETRIC VIEW

NOTE:
1. PROVIDE PIPE SUPPORT AT MAXIMUM SPACING OF 8 FT.

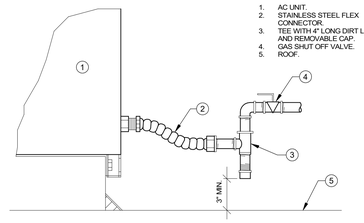


GAS PIPE SUPPORT ON ROOF — NTS — 9



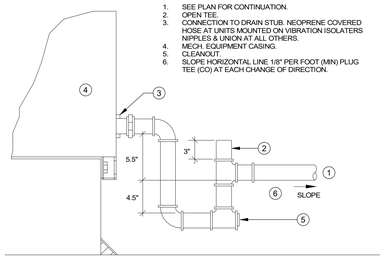
1. STORM DRAIN PIPING UP TO ROOF DRAIN.
2. FACE OF EXTERIOR WALL.
3. SANITARY TEE.
4. KAIBP MODEL DSC-214M FLUSH 12"X12" ACCESS DOOR. PAINT, COLOR BY ARCHITECTS. MOUNT BOTTOM OF PANEL AT +12" AFG.
5. THREADED PLUG.
6. NO-HUB COUPLING STAINLESS STEEL COVER
7. STORM DRAIN LINE TO OUTSIDE.

STORM DRAIN WALL CLEANOUT — NTS — 10



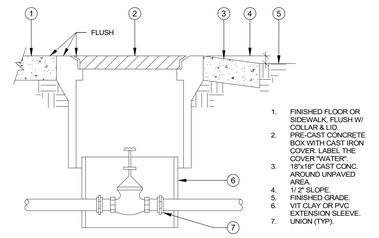
1. AC UNIT.
2. STAINLESS STEEL FLEX CONNECTOR.
3. TEE WITH 4" LONG DIRT LEG AND REMOVABLE CAP.
4. GAS SHUT OFF VALVE.
5. ROOF.

AC UNIT GAS CONNECTION — NTS — 1



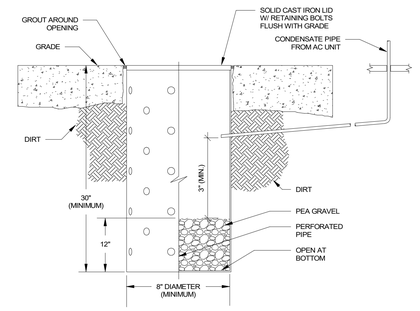
1. SEE PLAN FOR CONTINUATION.
2. OPEN TEE.
3. CONNECTION TO DRAIN STUB. NEOPRENE COVERED HOSE AT UNITS MOUNTED ON VIBRATION ISOLATERS NIPPLES & UNION AT ALL OTHERS.
4. MECH. EQUIPMENT CASING.
5. CLEANOUT.
6. SLOPE HORIZONTAL LINE 1/8" PER FOOT (MIN) PLUG TEE (CO) AT EACH CHANGE OF DIRECTION.

CONDENSATE DRAIN CONNECTION — NTS — 2

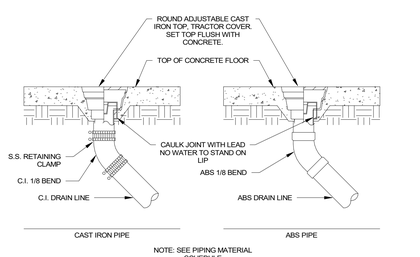


1. FINISHED FLOOR OR SIDEWALK. FLUSH W/ COLLAR & LID.
2. PRE-CAST CONCRETE BOX WITH CAST IRON COVER. LABEL THE COVER "WATER".
3. 18"x18" CAST CONC. AROUND UNPAVED AREA.
4. 1/ 2" SLOPE.
5. FINISHED GRADE.
6. VIT CLAY OR PVC EXTENSION SLEEVE.
7. UNION (TYP).

CW SHUT-OFF VALVE — NTS — 3



DRYWELL DETAIL — NTS — 4



NOTE: SEE PIPING MATERIAL SCHEDULE

FLOOR CLEANOUT (FCO) — NTS — 5

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 24881 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

PLUMBING DETAILS

Date	Project Number
05/20/2019	19003
Scale: 1/4" = 1'-0"	Drawing Number: P0.2
Drawn: Author	Checked: Checker

PRINT DATE: 5/16/2019 5:25:55 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_dallamodl.rvt

WATER PIPE SIZING CHART

PIPE SIZES CALCULATED BASED ON UPC/CPC APPENDIX A

SIZE: TYPE L COPPER		COLD WATER				HOT WATER		
NOMINAL DIAMETER	INTERNAL DIAMETER	GPM	FIXTURE UNITS FPS	TANK	VALVE	GPM	FPS	FIXTURE UNITS
1/2"	0.545	1.2	1.6	**1**	**0**	1.2	1.6	**1**
3/4"	0.785	3.1	2.0	**3**	**0**	3.1	2.0	**3**
1"	1.025	6.2	2.4	**7**	**0**	6.2	2.4	**7**
1-1/4"	1.265	10.7	2.7	**15**	**0**	10.7	2.7	**15**
1-1/2"	1.505	16.9	3.1	**24**	**0**	16.9	3.1	**24**
2"	1.985	35.1	3.6	**66**	**20**	35.1	3.6	**66**
2-1/2"	2.465	62.0	4.2	**185**	**82**	62.0	4.2	**185**
3"	2.945	99.0	4.7	**375**	**240**	99.0	4.7	**375**

WATER AND WASTE MAINS CALCULATIONS

JOB NAME: Westmore ES DATE 03/12/19

USE	FIXTURE TYPE	NO.	WASTE FU	WASTE TOTAL	WATER BOTH FU	WATER CW FU	WATER HW FU	WATER TOTAL
U	BAR SINK	1	1	1	2	1.5	1.5	2
U	DRINKING FOUNTAIN	5	0.5	2.5	0.5	0.5		2.5
	HOSE BIBB (FIRST)	1	0	0	2.5	2.5		2.5
	HOSE BIBB (ADDITIONAL)	12	0	0	1	1.0		12
	LAVATORY (SINGLE)	23	1	23	1	0.8	0.8	23
U	SERVICE SINK	5	3	15	3	2.3	2.3	15
	FLOOR DRAIN	18	2	36	0			0
	FLOOR SINK RECEPTOR	4	3	12	0			0
U	SINK, 1-1/2" TRAP	1	3	3	2	1.5	1.5	2
U	SINK, 2" TRAP	34	4	136	2	1.5	1.5	68
U	URINAL	7	2	14	4	4.0		28
U	WATER CLOSET, FLUSH VALVE	30	4	120	5	5.0		150
	FUTURE 3-COMPARTMENT SINK	1	4	4	2	1.5	1.5	2
	TOTAL FIXTURE UNITS			366.5			84.0	307.0

EQUIVALENT COLD WATER FLOW RATE (GPM):	111
ADDITIONAL WATER DEMAND LOAD (GPM)	
AVAILABLE STATIC PRESSURE IN WATER MAIN (PSI)	55
MINIMUM REQUIRED FIXTURE PRESSURE (PSI):	25
ELEVATION RISE (FT):	5
METER LOSS (PSI):	4.0
BACKFLOW PREVENTER LOSS (PSI):	11.0
ADDITIONAL LOSSES (PSI):	0
EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT):	900
FRICTION LOSS PRESSURE AVAILABLE (PSI):	12.83
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):	1.43
WATER FLOW VELOCITY (FPS):	2.98
CALCULATED FRICTION HEAD LOSS (PSI/100 FT):	0.45
MINIMUM REQUIRED 'WATER' PIPE SIZE (INCHES):	4
MINIMUM REQUIRED 'WASTE' PIPE SIZE (INCHES):	6
(CALCULATIONS PER THE UPC/CPC)	

NATURAL GAS SIZING TABLE (GPR B-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 403

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	115
TOTAL	403

NATURAL GAS SIZING TABLE (GPR C-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 360

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	72
TOTAL	360

NATURAL GAS SIZING TABLE (GPR D-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 288

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	72
TOTAL	288

NATURAL GAS SIZING TABLE (GPR E-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 328

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	72
(E) AC	40
TOTAL	328

NATURAL GAS SIZING TABLE (GPR F-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 670

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
AC F-1	67
AC F-2	67
AC F-3	67
AC F-4	67
AC F-5	67
AC F-6	67
AC F-7	67
AC F-8	67
AC F-9	67
AC F-10	67
TOTAL	670

NATURAL GAS SIZING TABLE (GPR G-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 120
MAXIMUM LOAD (MBH)= 686

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	45
3/4	0.824	94
1	1.049	177
1-1/4	1.38	365
1-1/2	1.61	547
2	2.067	1055
2-1/2	2.469	1683
3	3.068	2976
4	4.026	6073

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
AC G-1	150
AC G-2	67
AC G-3	67
AC G-4	67
AC G-5	67
AC G-6	67
AC G-7	67
AC G-8	67
AC G-9	67
TOTAL	686

NATURAL GAS SIZING TABLE (GPR M-1)

BASED ON 2016 CPC EQUATION 1216.3(1) LOW PRESSURE (SCHEDULE 40 METALLIC)
PIPE LENGTH (FT)= 50
MAXIMUM LOAD (MBH)= 1399

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	72
3/4	0.824	151
1	1.049	285
1-1/4	1.38	586
1-1/2	1.61	879
2	2.067	1694
2-1/2	2.469	2701
3	3.068	4778
4	4.026	9750

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
WH M-1	250
MAU M-1	200
AC M-1	67
OVEN	120
OVEN	120
RANGE	194
(E) AC	224
(E) AC	224
TOTAL	1399

NATURAL GAS SIZING TABLE

BASED ON 2016 CPC EQUATION 1216.3(2) HIGH PRESSURE (SCHEDULE 40 METALLIC)
INLET PRESS (PSIA)= 2
PRESSURE DROP (PSIA)= 1
PIPE LENGTH (FT)= 815
MAXIMUM LOAD (MBH)= 4,134

PIPE SIZE	PIPE ID	MAX. MBH
1/2	0.622	147
3/4	0.824	309
1	1.049	582
1-1/4	1.38	1,197
1-1/2	1.61	1,793
2	2.067	3,456
2-1/2	2.469	5,510
3	3.068	9,745
4	4.026	19,886

GAS EQUIPMENT CAPACITIES

EQUIPMENT	GAS LOAD (MBH)
GPR B-1	403
GPR C-1	360
GPR D-1	288
GPR E-1	328
GPR F-1	670
GPR G-1	686
GPR M-1	1,399
TOTAL	4,134

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT, BRIAN P. WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER, JASON DEDORA, M 34681, REN. 12-31-19, MECHANICAL, STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

PLUMBING CALCULATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	P0.3
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:25:56 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atellamodl.rvt

KEY NOTES

1 EXISTING GAS METER. NEW TOTAL CAMPUS GAS LOAD: 4,134 MBH. COORDINATE NEW LOAD AND ELEVATED 2 PSI DELIVERY PRESSURE WITH PG&E.

2 EARTHQUAKE AUTOMATIC GAS SHUT-OFF (EV-1) TO BE ENCLOSED IN METAL SECURITY CAGE.

1 **Plumbing Site Plan**
SCALE: 1" = 20'-0"

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M34561 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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WEST SACRAMENTO, CA 95691

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WEST SACRAMENTO, CA 95691

PLUMBING SITE PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1" = 20'-0"	P1.0
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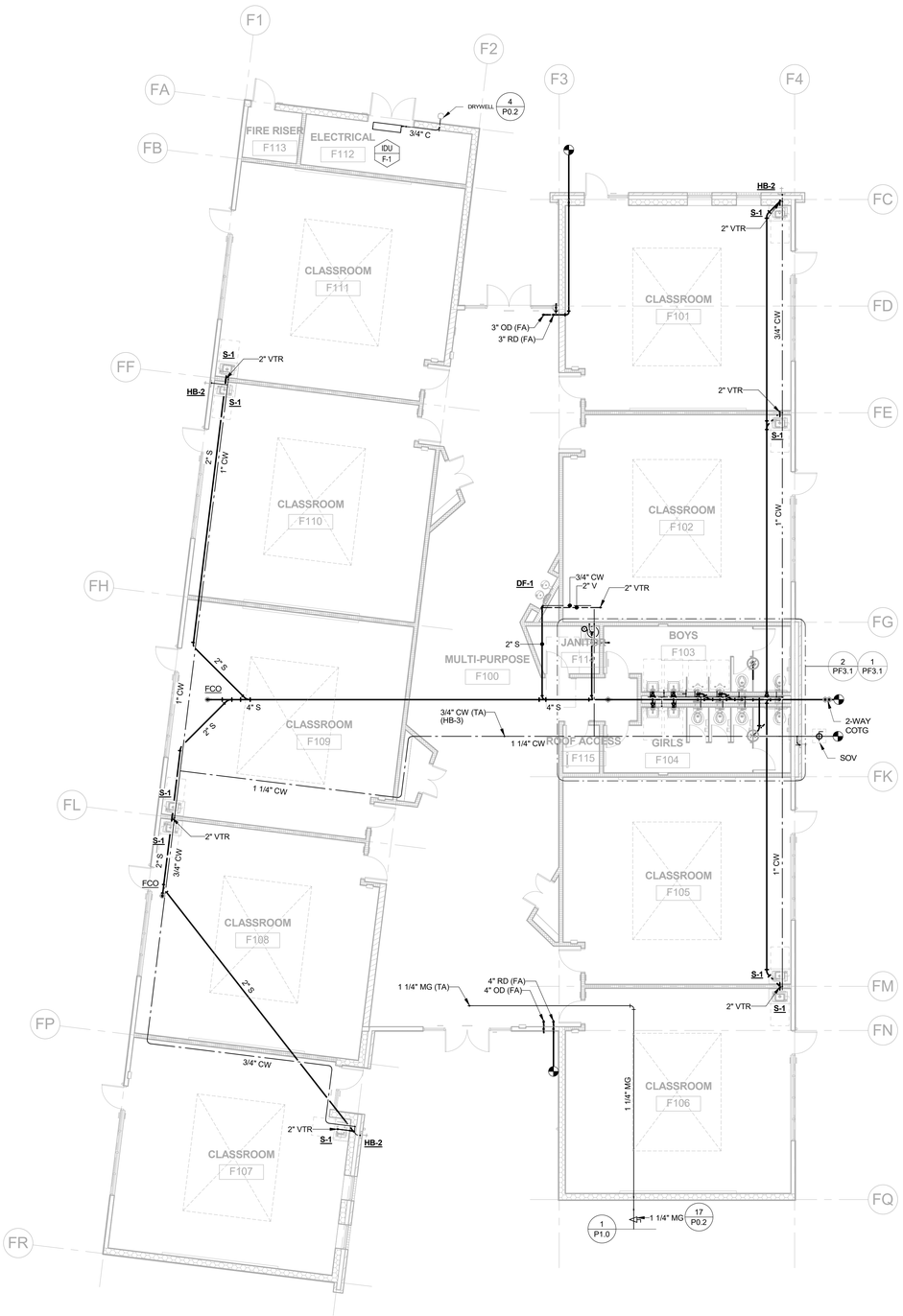
KEY NOTES



1 BLDG F - PLUMBING FLOOR PLAN

SCALE: 1/8" = 1'-0"

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WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
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WEST SACRAMENTO, CA 95691

BUILDING F PLUMBING FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	PF2.1
Drawn / Author	Checked / Checker

PRINT DATE: 5/15/2019 5:26:07 PM
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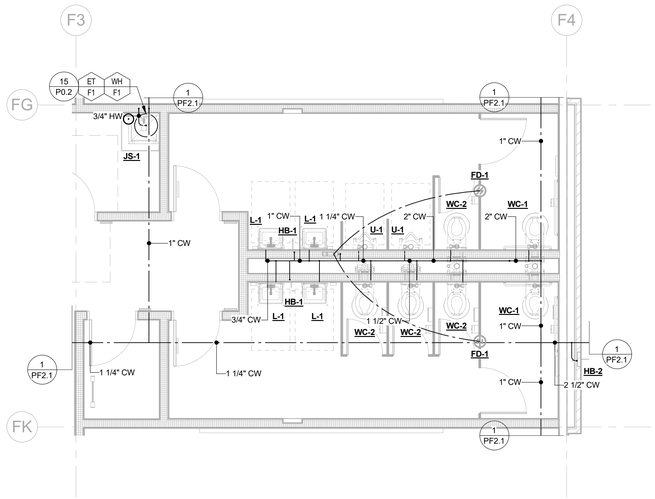
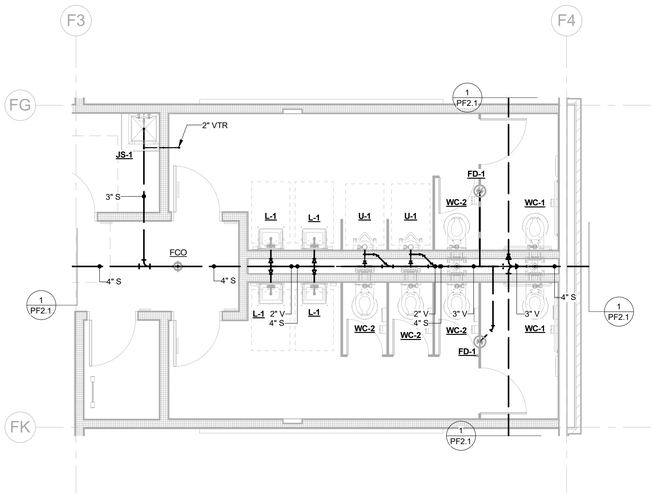


1 BLDG F - ENLARGED WATER PLAN

SCALE: 1/4" = 1'-0"



2 BLDG F - ENLARGED WASTE & VENT PLAN

SCALE: 1/4" = 1'-0"

PRINT DATE: 5/16/2019 5:26:12 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_ddAshton.rvt

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 34681 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

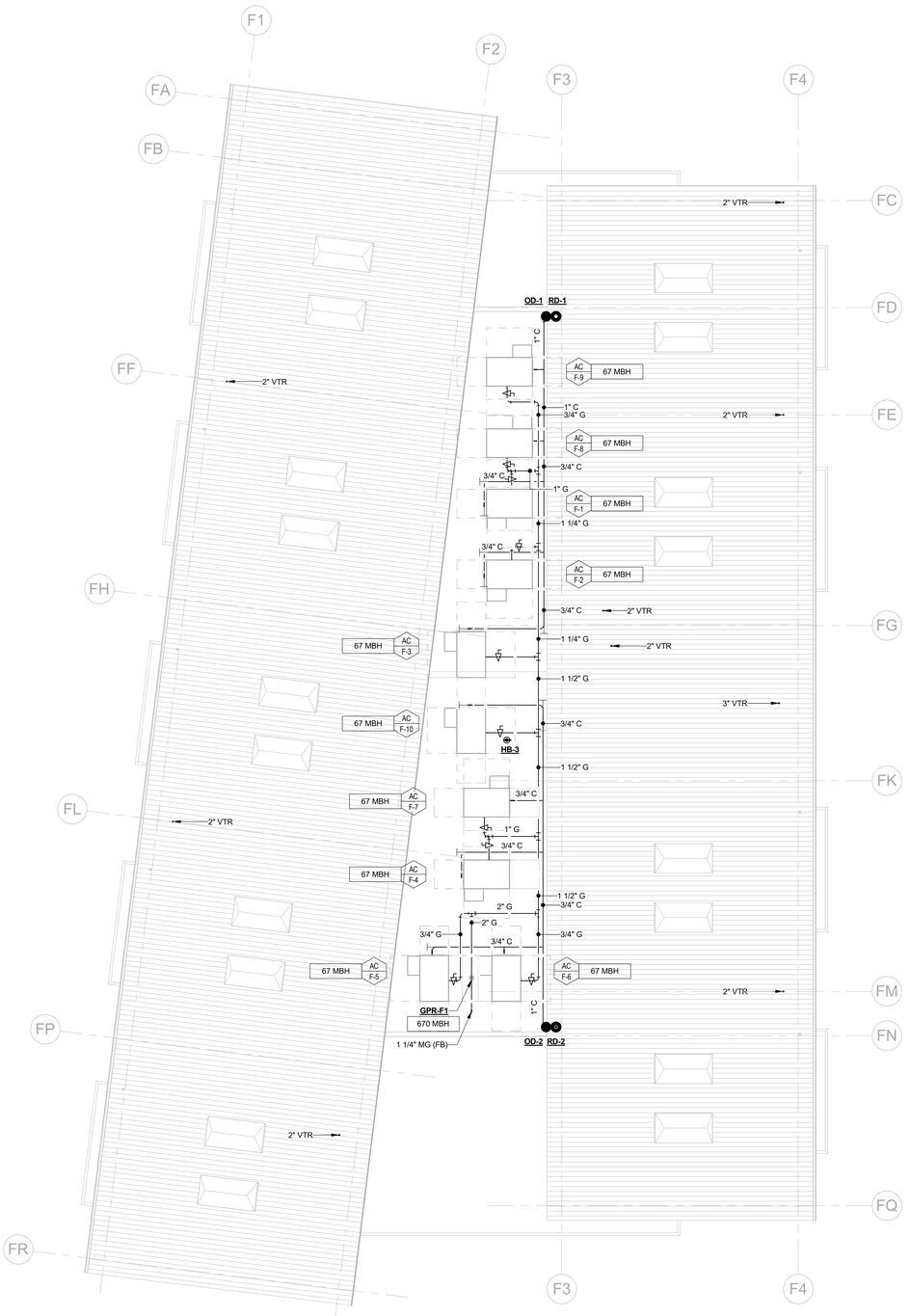
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

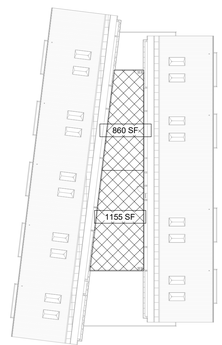
BUILDING F ENLARGED PLUMBING PLANS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	PF3.1
Drawn: Author	Checked: Checker

KEY NOTES



1 **BLDG F - PLUMBING ROOF PLAN**
SCALE: 1/8" = 1'-0"



2 **BLDG F - ROOF DRAINAGE AREA**
SCALE: 1" = 30'-0"

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F PLUMBING ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: PF4.1
Drawn: Author	Checked: Checker

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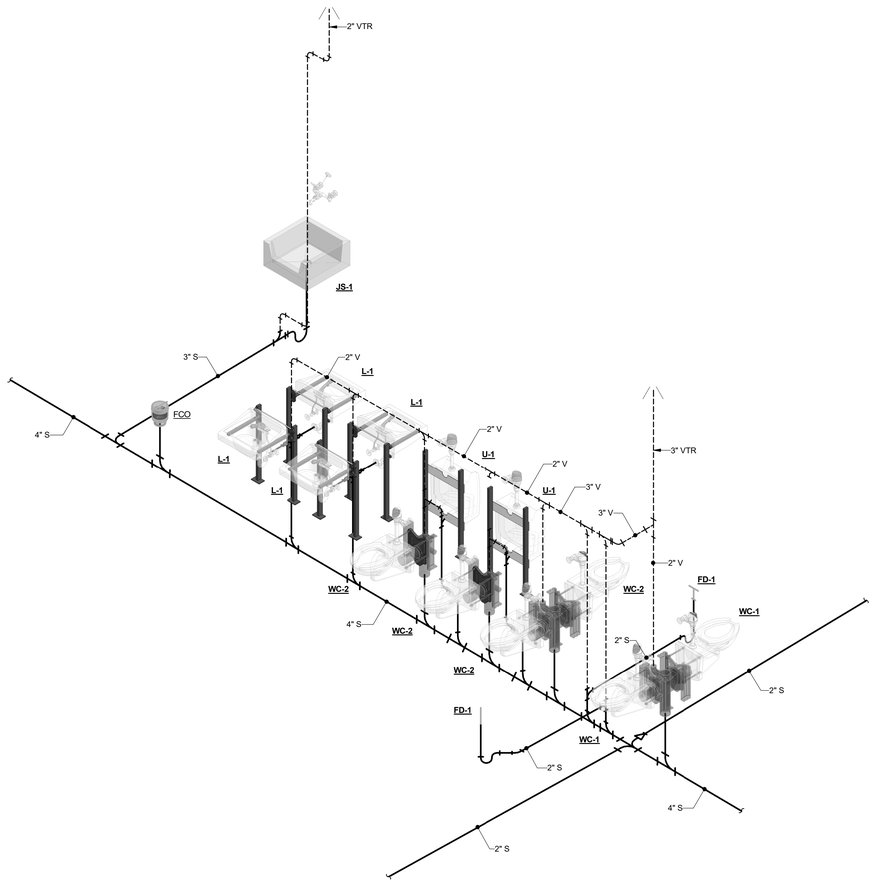
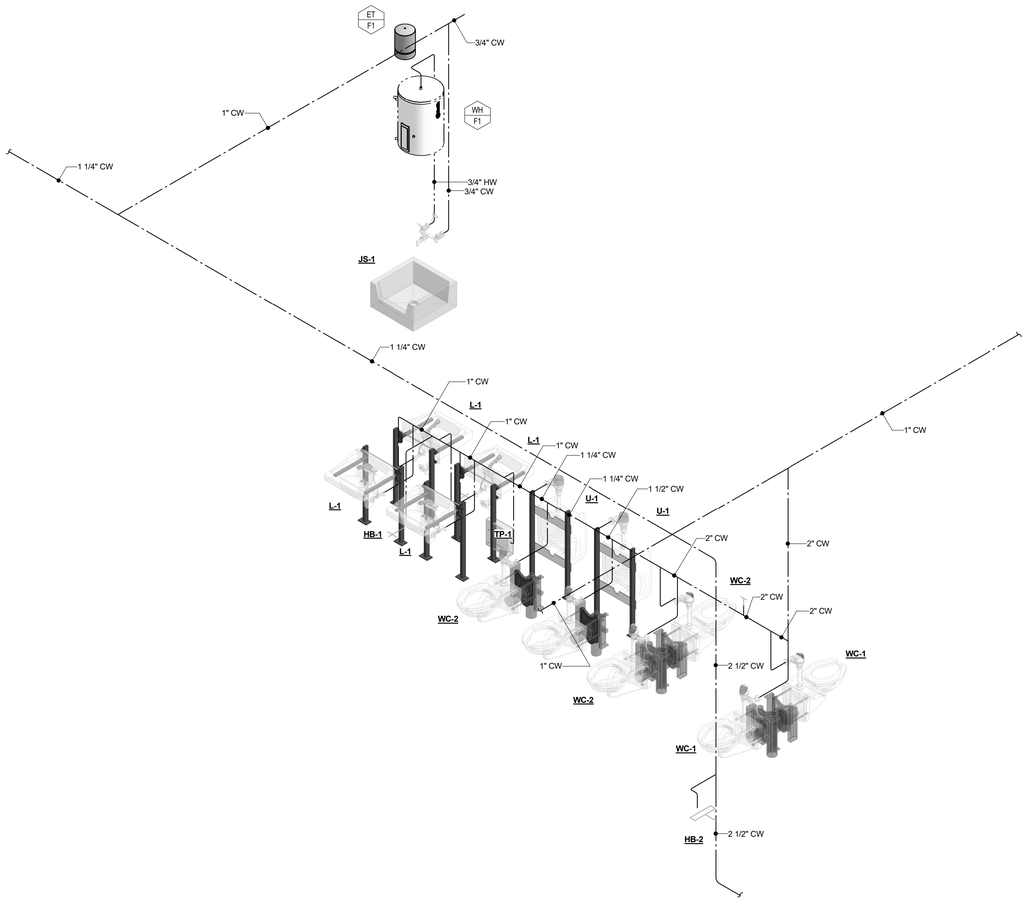


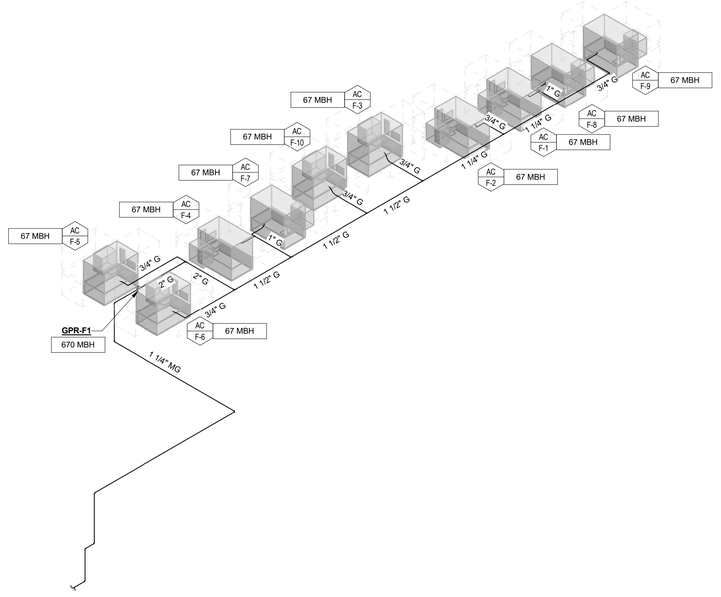
2 BLDG F - WASTE & VENT ISOMETRIC

SCALE:



1 Bldg F Water Iso

SCALE:



3 BLDG F - GAS ISOMETRIC

SCALE:

PRINT DATE: 5/16/2019 5:26:19 PM
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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

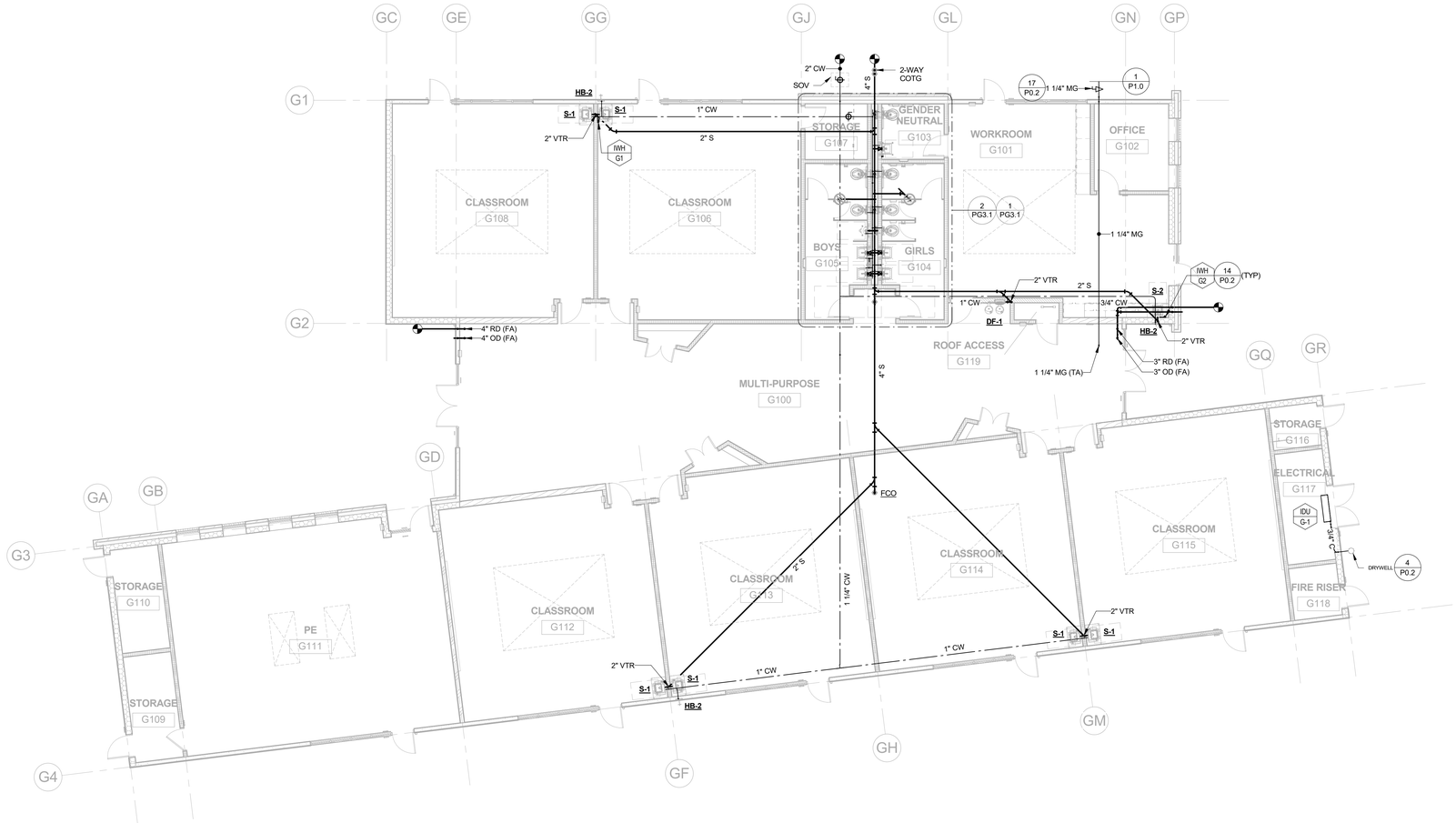
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F PLUMBING ISOMETRICS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	PF5.1
Drawn / Author	Checked / Checker

KEY NOTES



1 BLDG G - PLUMBING FLOOR PLAN

SCALE: 1/8" = 1'-0"

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G PLUMBING FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: PG2.1
Drawn / Author	Checked / Checker

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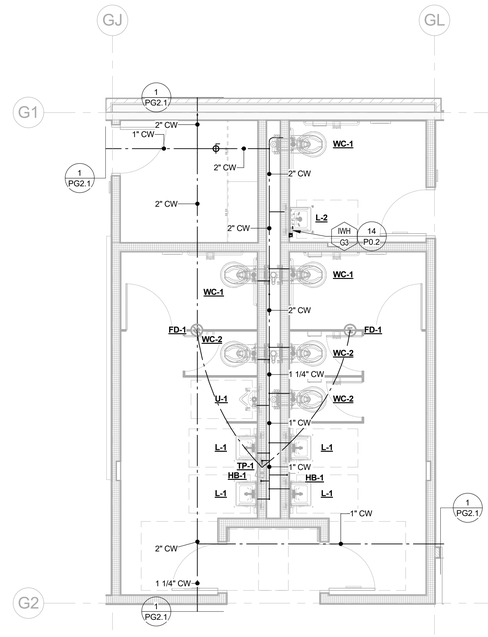
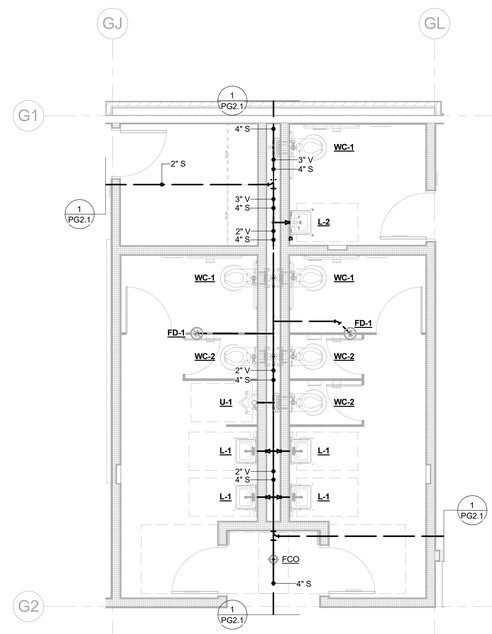


1 BLDG G - ENGLARGED WATER PLAN

SCALE: 1/4" = 1'-0"



2 BLDG G - ENLARGED WASTE & VENT PLAN

SCALE: 1/4" = 1'-0"

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ENLARGED PLUMBING PLANS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	PG3.1
Drawn: Author	Checked: Checker

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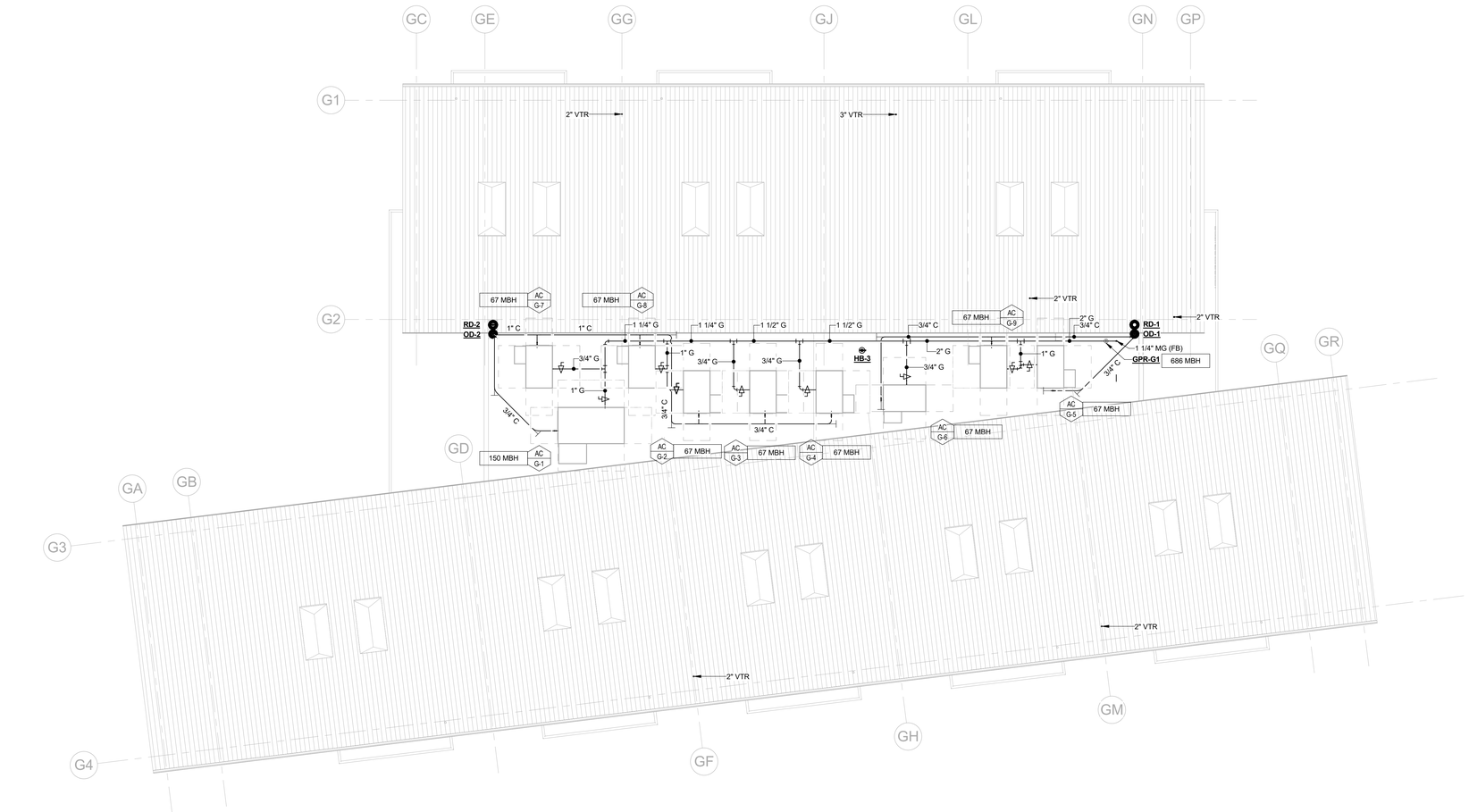
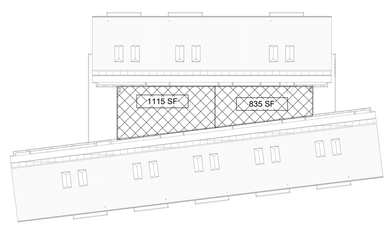
KEY NOTES



1 BLDG G - PLUMBING ROOF PLAN

SCALE: 1/8" = 1'-0"



2 BLDG G - ROOF DRAINAGE AREA

SCALE: 1" = 30'-0"

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

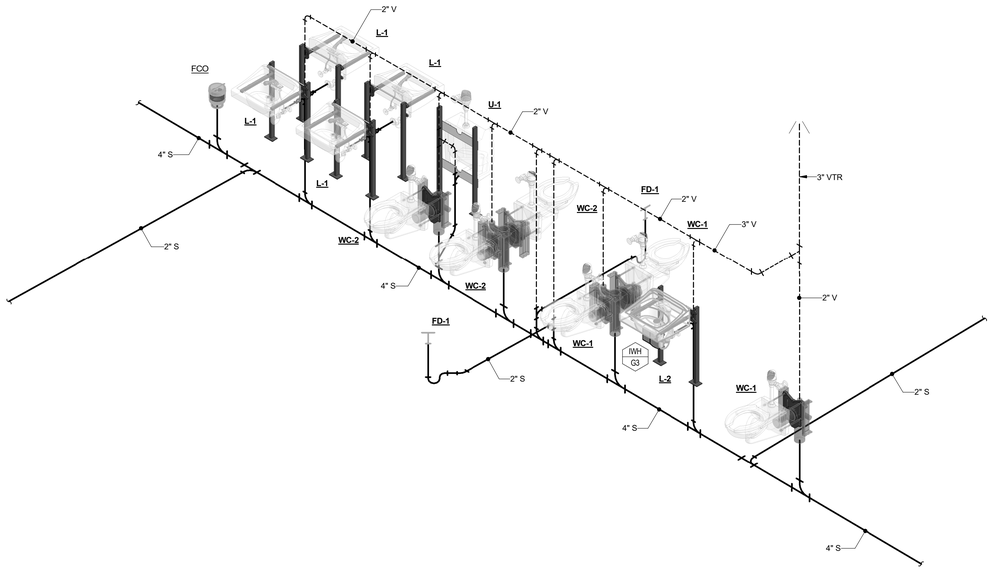
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

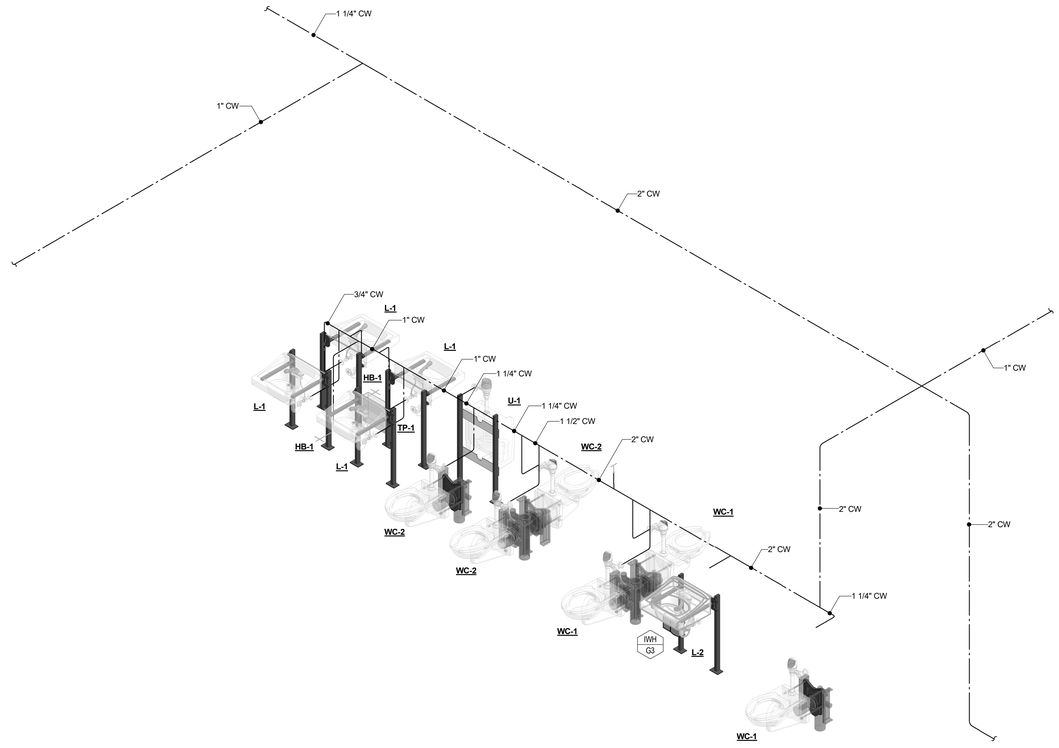
BUILDING G PLUMBING ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: PG4.1
Drawn: Author	Checked: Checker



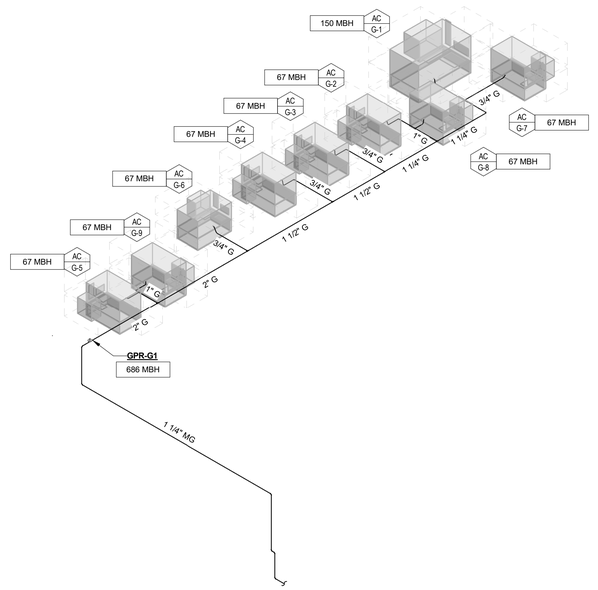
2 BLDG G - WASTE & VENT ISOMETRIC

SCALE:



1 BLDG G - WATER ISOMETRIC

SCALE:



3 BLDG G - GAS ISOMETRIC

SCALE:

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

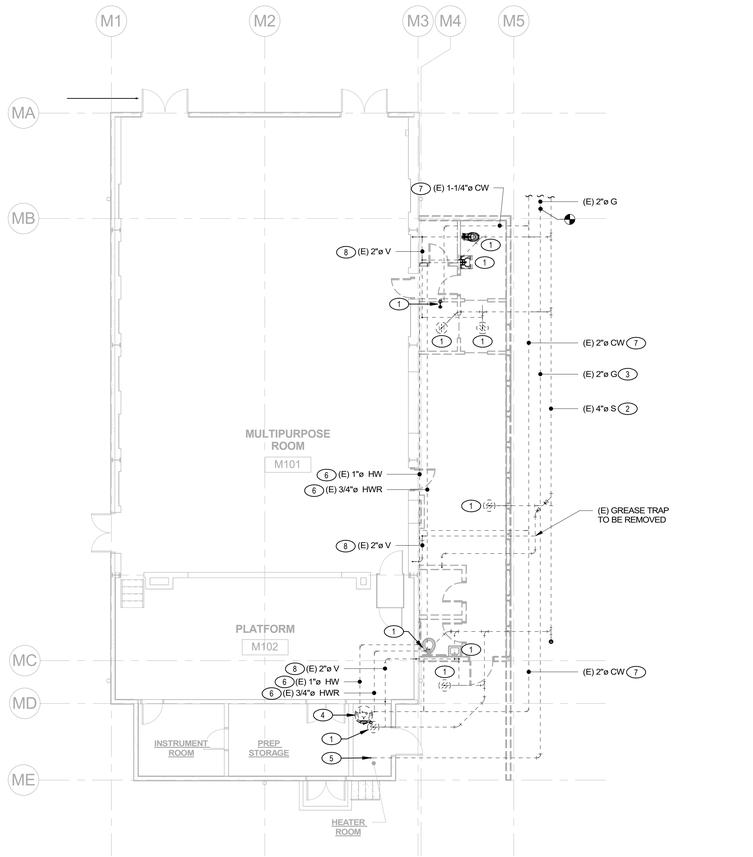
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G PLUMBING ISOMETRICS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	PG5.1
Drawn / Checked	
Author / Checker	

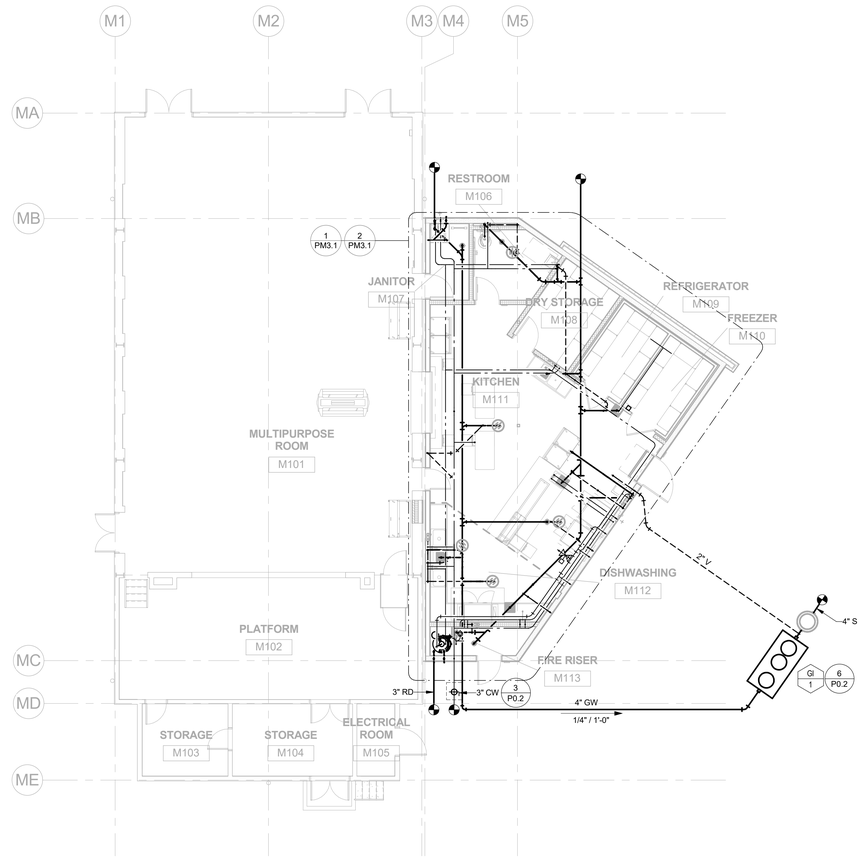
KEY NOTES

1 EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED PLUMBING PIPING TO BE REMOVED AND DISCARDED.
2 EXISTING WASTE PIPING TO BE REMOVED AND DISCARDED.
3 EXISTING GAS PIPING TO BE REMOVED AND DISCARDED.
4 EXISTING WATER HEATER, CIRCULATION PUMP, ALL ASSOCIATED PLUMBING PIPING, AND VENT PIPING TO BE REMOVED AND DISCARDED.
5 EXISTING GAS STUB PIPING TO BE REMOVED AND DISCARDED.
6 EXISTING HW AND HWR PIPING TO BE REMOVED AND DISCARDED.
7 EXISTING CW PIPING TO BE REMOVED AND DISCARDED.
8 EXISTING VENT PIPING TO BE REMOVED AND DISCARDED.



1 BLDG M - PLUMBING DEMO FLOOR PLAN

SCALE: 1/8" = 1'-0"



2 BLDG M - PLUMBING FLOOR PLAN

SCALE: 1/8" = 1'-0"

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M PLUMBING FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: PM2.1
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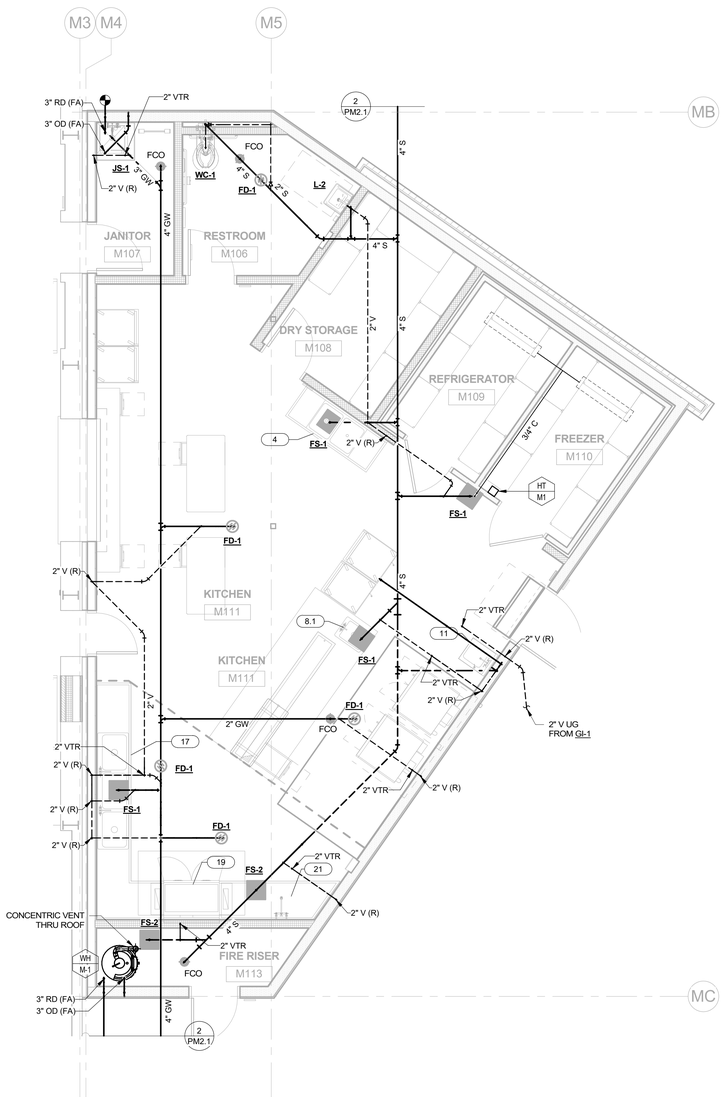
PRINT DATE: 5/16/2019 5:26:45 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_abtlamod.rvt

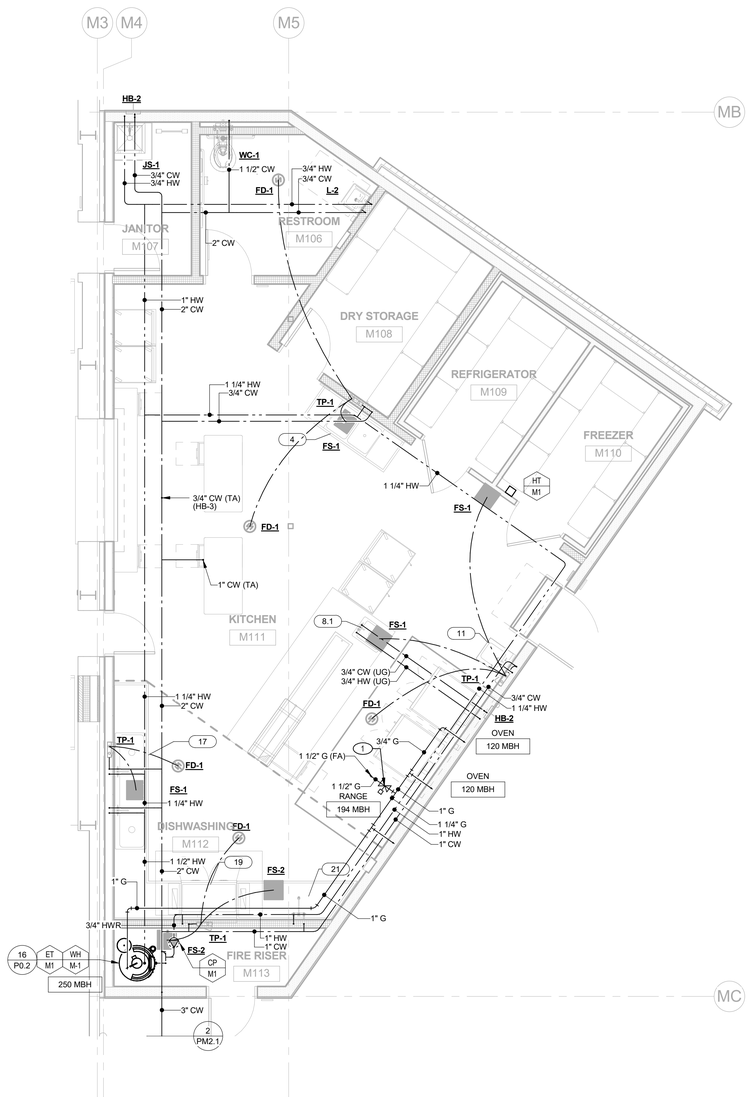
KEY NOTES

1 AUTOMATIC GAS SOV ACTIVATED BY HOOD FIRE SUPPRESSION SYSTEM. PROVIDE SIGN ON CEILING BELOW VALVE LABELED "GAS SHUT-OFF VALVE".



2 BLDM M - ENLARGED WATE & VENT PLAN

SCALE: 1/4" = 1'-0"



1 BLDG M - ENLARGED WATER & GAS PLAN

SCALE: 1/4" = 1'-0"

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 24681 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M ENLARGED PLUMBING FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	PM3.1
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:26:48 PM
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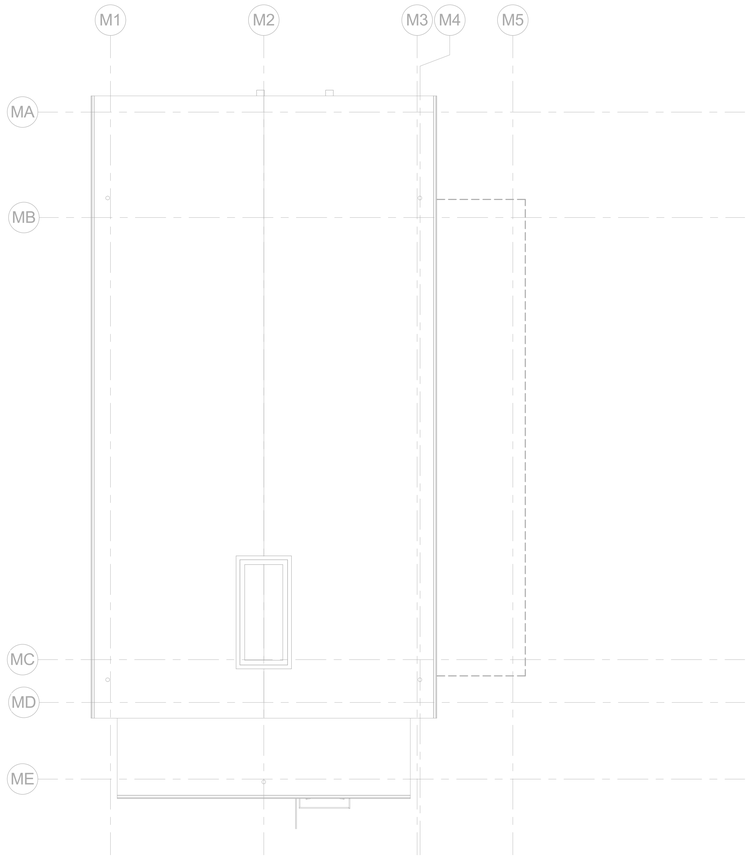
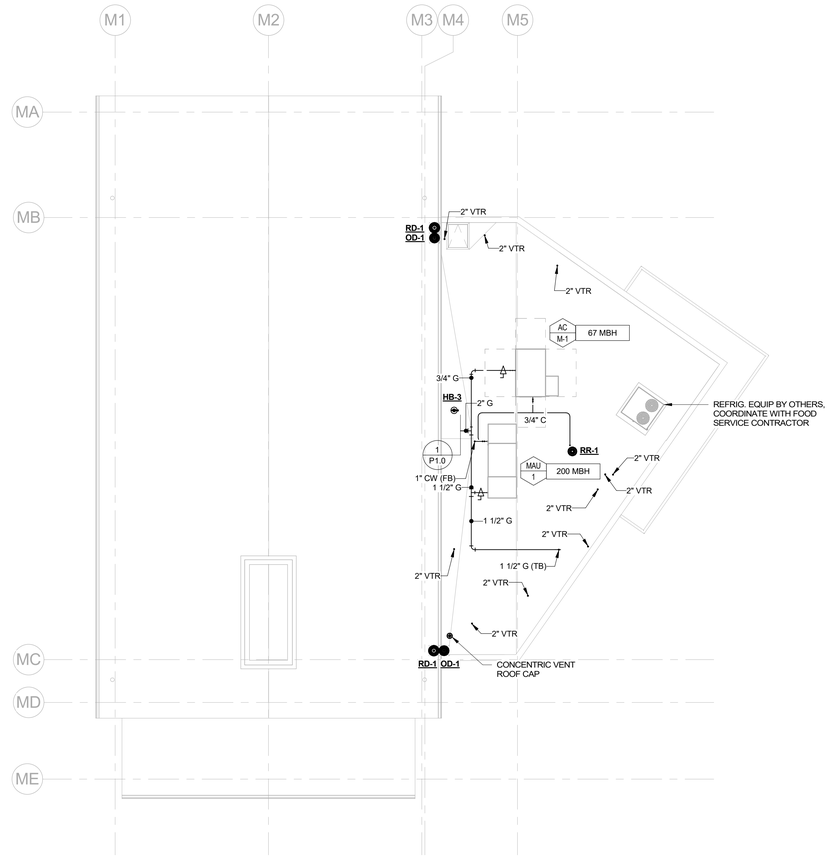
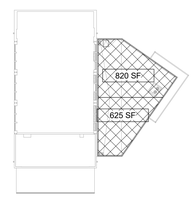
KEY NOTES



1 BLDG M - PLUMBING DEMO ROOF PLAN
SCALE: 1/8" = 1'-0"



2 BLDG M - PLUMBING ROOF PLAN
SCALE: 1/8" = 1'-0"



3 BLDG M - ROOF DRAINAGE AREA
SCALE: 1" = 30'-0"

PRINT DATE: 5/16/2019 5:26:53 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atdfarndt.rvt

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KEY PLAN

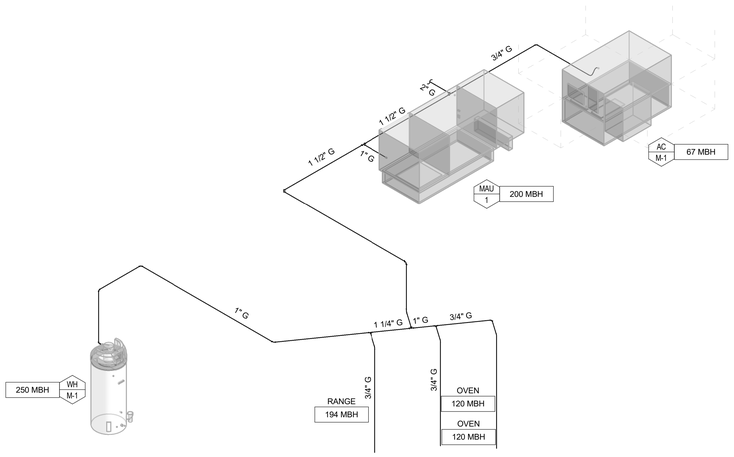
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

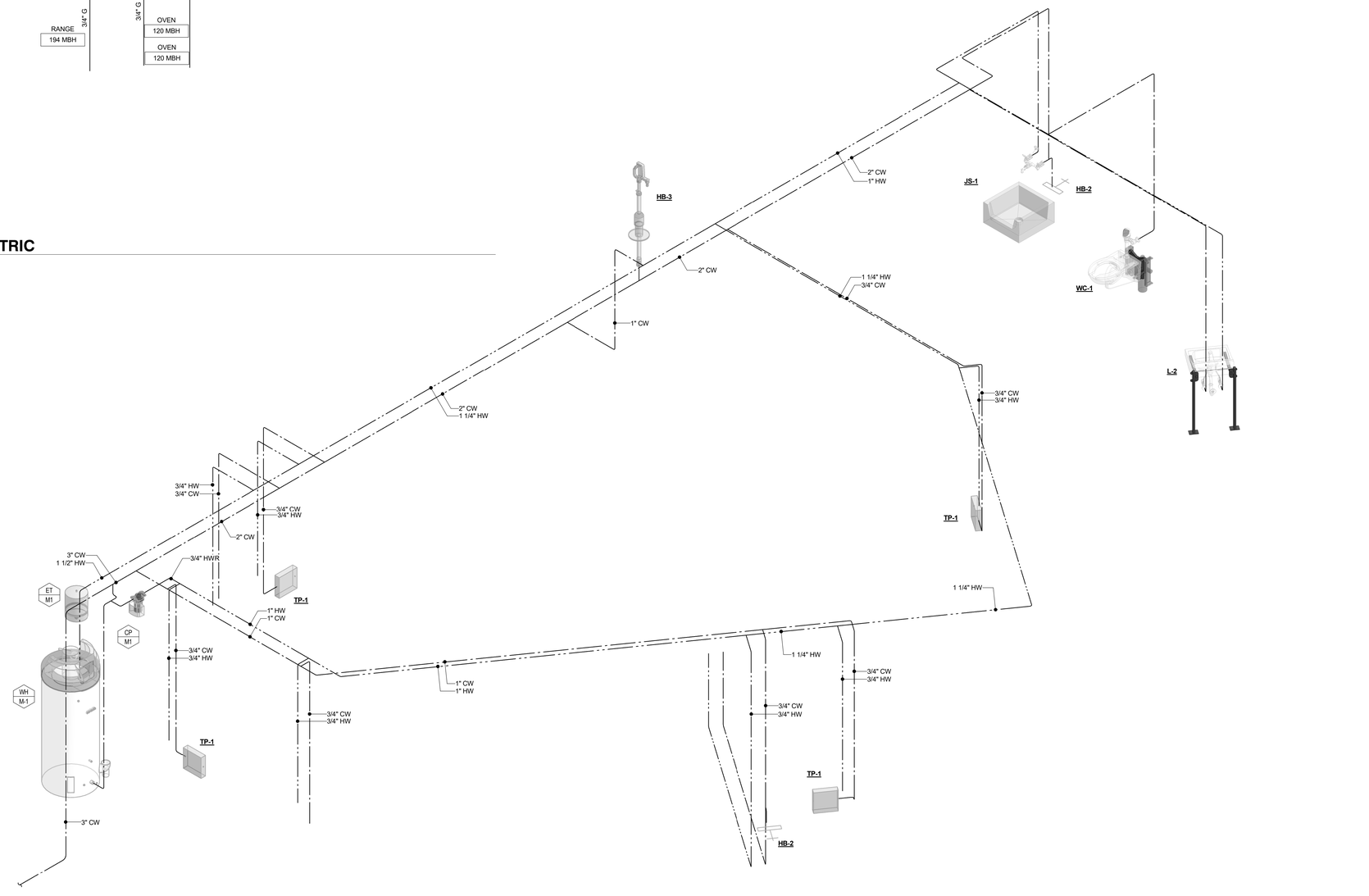
BUILDING M PLUMBING ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: PM4.1
Drawn: Author	Checked: Checker



2 BLDG M - GAS ISOMETRIC

SCALE:



1 BLDG M - WATER ISOMETRIC

SCALE:

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Job #: 19-2007

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LICENSED ARCHITECT BRYAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M-24884 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M PLUMBING ISOMETRICS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	PM5.1
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:26:56 PM
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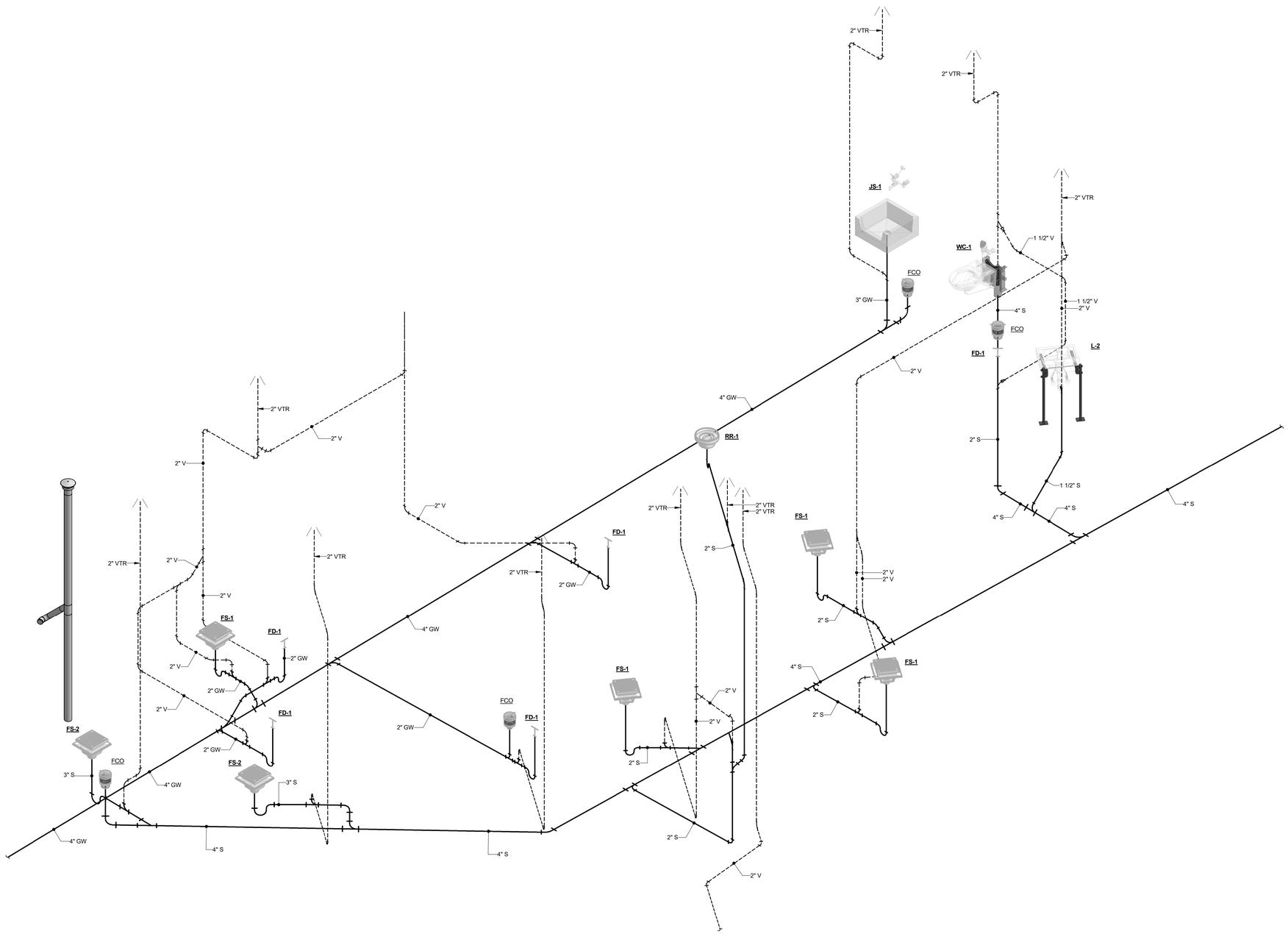

1 BLDG M - WASTE & VENT ISOMETRIC

SCALE:

PRINT DATE: 5/16/2019 5:27:01 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atafarrodi.rvt

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE
● DSA PLAN CHECK 05/20/2019
○ DSA BACK CHECK
○ BIDDING
○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M PLUMBING
ISOMETRICS

Date
05/20/2019

Project Number
19003

Scale

Drawing Number
PM5.2

Drawn
Author

Checked
Checker

GENERAL NOTES

ALL GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.

1. THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR IN THE EXECUTION OF THE ELECTRICAL WORK AND TO BE INCLUDED IN CONJUNCTION WITH THE CONTRACT DOCUMENT DRAWINGS AND SPECIFICATION REQUIREMENTS. SOME OF THE GENERAL NOTES ARE EXCERPTS FROM THE SPECIFICATION.
2. PROCURE PERMITS AND LICENSES REQUIRED. PAY ALL NECESSARY FEES AND ARRANGE FOR INSPECTIONS REQUIRED BY LOCAL CODES AND ORDINANCES AND UTILITY COMPANIES.
3. COORDINATE ALL ELECTRICAL SERVICES WITH THE RESPECTIVE UTILITY COMPANIES AND PROVIDE ALL TRENCHING, CONDUITS, WIRING, METER FACILITIES AND OUTLETS REQUIRED BY THEM.
4. WORKMANSHIP SHALL BE OF THE HIGHEST GRADE. DEFECTIVE EQUIPMENT OR EQUIPMENT DAMAGED IN THE COURSE OF INSTALLATION OR TEST SHALL BE REPLACED OR REPAIRED IN A MANNER MEETING WITH THE ACCEPTANCE OF THE ARCHITECT.
5. INSTALL ALL EQUIPMENT, CONDUITS, OUTLETS, AND FIXTURES IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF ALL APPLICABLE CODES (CEC, STATE, COUNTY AND CITY).
6. DO NOT SCALE PLANS FOR FIXTURES, DEVICES, OR APPLIANCE LOCATIONS. USE FIGURED DIMENSIONS IF GIVEN OR CHECK MECHANICAL AND ARCHITECTURAL PLANS. ALSO REFER TO ACTUAL ON-SITE CONDITIONS.
7. ALL MATERIAL AND EQUIPMENT IS TO BE LISTED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND CEC 110.3.
8. ALL ELECTRICAL DEVICES AND EQUIPMENT, FIXTURES, CONDUITS AND WIRING SHOWN ON THESE PLANS ARE NEW, UNLESS OTHERWISE NOTED.
9. OUTLET BOXES INSTALLED IN FIRE WALLS SHALL BE ONE-PIECE STEEL AND INSTALLED IN SEPARATE (STAGGERED) STUD PENETRATIONS, MINIMUM 24 INCHES HORIZONTAL SEPARATION. FIRE WALLS SHALL BE MADE IN ACCORDANCE WITH CBC AND ELECTRICAL CODES.
10. THE FINAL LOCATION OF ALL OUTLETS SHALL BE VERIFIED WITH THE ARCHITECT AND/OR OWNER AT TIME OF CONSTRUCTION.
11. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE WEATHER-PROTECTED.
12. CONTRACTOR SHALL VERIFY THAT ALL LIGHTING FIXTURES, CEILING TRIMS, AND FRAMES ARE COMPATIBLE WITH CEILING SYSTEM INSTALLED.
13. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATIONS AND INSTALLATIONS WITH THE MECHANICAL CONTRACTOR. MAINTAIN REQUIRED CLEARANCES (MINIMUM 3 INCHES) BETWEEN THE LIGHT FIXTURES AND MECHANICAL DUCTS OR EQUIPMENT FOR PROPER OPERATION, INSTALLATION AND/OR REMOVAL OF FIXTURES.
14. BEFORE SUBMITTING FOR ARCHITECT'S REVIEW AND PLACING ORDER FOR THE LIGHT FIXTURES. THE CONTRACTOR SHALL VERIFY THE VOLTAGE OF ALL THE LIGHTING FIXTURES TO MATCH THE VOLTAGE OF THE SERVICE PANEL, WHETHER THE VOLTAGE FOR THE LIGHT FIXTURES ARE SHOWN ON THE PLAN OR NOT.
15. PLACEMENT AND CIRCUITING OF EXIT SIGNS AND EGRESS LIGHTING COMPLY WITH CBC REQUIREMENTS.
16. ALL CONDUIT SHALL BE ROUTED CONCEALED UNLESS NOTED ON PLAN OR ACCEPTED BY THE ARCHITECT.
17. PROVIDE ALL NECESSARY SLEEVES AND INSERTS FOR ALL WORK PASSING THROUGH OR ATTACHING TO WALLS, FLOORS, OR CEILINGS.
18. ALL WIRING SHALL BE INSTALLED IN RIGID METALLIC CONDUIT, UNLESS OTHERWISE NOTED. CONDUITS INSTALLED CONCEALED IN WALL AND CEILING MAY BE EMT WITH STEEL COMPRESSION TYPE FITTINGS. PVC WHERE INSTALLED UNDERGROUND AND/OR UNDER SLAB. ALL EXPOSED CONDUITS SHALL BE RIGID STEEL CONDUITS WITH THREADED TYPE FITTINGS. INSTALL ALL CONDUITS IN ACCORDANCE WITH CECA STANDARDS OF INSTALLATION.
19. ELECTRICAL NON-METALLIC TUBING (ENT) AND MC CABLE ARE NOT PERMITTED TO BE USED FOR THIS PROJECT, NO EXCEPTIONS.
20. WHERE EXISTING CONDUITS, CONCEALED OR EXPOSED, AND (WIREMOLD) SURFACE RACEWAY IS NOT IN PLACE AS SHOWN ON PLANS, PROVIDE NEW CONDUITS AND (WIREMOLD) SURFACE RACEWAY FOR THE NEW WORK. VERIFY EXISTING CONDITION ON SITE AND PROVIDE ALL NECESSARY NEW MATERIAL, APPARATUS, AND WORK THAT ARE REQUIRED TO BE INCLUDED IN THE BID PACKAGE.
21. CONDUCTORS, #8 AND LARGER, SHALL BE STRANDED COPPER WITH THNN/THWN INSULATION, UNLESS OTHERWISE NOTED.
22. PROVIDE WORKING CLEARANCE PER CEC 110.26 FOR SERVICE PANEL, SUBPANELS, MOTOR DISCONNECT SWITCHES, CONTROL SECTIONS. HVAC EQUIPMENT, APPLIANCES, ETC.
23. PROVIDE A WARNING LABEL (SIGN) CLEARLY VISIBLE TO QUALIFIED PERSONS TO COMPLY WITH NEC AND CEC 116.16 OF POTENTIAL ELECTRIC ARC FLASH HAZARDS AT SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT PER CEC SECTION 110.24(A).
24. BUILDING SERVICE AND SUBPANELS TO COMPLY WITH CEC 110.9 AND 110.10 INTERRUPTING RATING AND BRACING. PROVIDE A.I.C. CALCULATIONS FOR SUBPANELS IF INTERRUPTING RATING TO BE USED IS LOWER THAN MAIN SERVICE RATING.
25. ALL APPLIANCES SHALL COMPLY WITH CEC ARTICLE 422. APPLIANCE CONTROL AND PROTECTION PER CEC 422-III; BRANCH CIRCUITS PER 422-II.
26. BUILDING EXPANSION JOINTS MAY OR MAY NOT BE INDICATED ON THE ELECTRICAL DRAWINGS. VERIFY THE LOCATIONS OF ALL APPLICABLE BUILDING EXPANSION JOINTS WITH THE ARCHITECTURAL DRAWINGS. WIRING METHODS ACROSS EXPANSIONS JOINTS SHALL INCLUDE USE OF FLEXIBLE FITTINGS OR OTHER DEVICES AS APPROPRIATE TO EACH APPLICATION. IN NO CASE SHALL CONDUIT CROSS SUCH A JOINT IN BUILDING CONSTRUCTION WITHOUT USE OF THE APPROPRIATE WIRING METHODS.
27. CONTRACTOR SHALL SIZE ALL THE INTERIOR AND EXTERIOR BUILDING PULL BOXES AND UNDERGROUND PULL BOXES PER CEC 314.16 AND COMPLY WITH CEC 314.28 FOR INSTALLATION OF RACEWAYS AND WIRING AS REQUIRED BY CODE, UNLESS OTHERWISE NOTED.
28. WHERE ACCESSIBILITY IS NOT AVAILABLE TO ELECTRICAL OUTLETS, DEVICES AND/OR EQUIPMENT, COORDINATE WITH THE ARCHITECT FOR PROVISIONS TO PROVIDE ACCESSIBILITY TO THEM.
29. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE MECHANICAL DRAWINGS AND PROVIDES ALL CONDUITS AND CONTROL WIRING AND POWER WIRING SHOWN ON THE MECHANICAL DRAWINGS THAT IS NOT SHOWN ON THE ELECTRICAL PLANS.
30. CONTRACTOR SHALL REFER TO THE MECHANICAL DRAWINGS AND COORDINATE FOR THE EQUIPMENT LOCATIONS. COORDINATE ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR FOR MECHANICAL CONNECTIONS. ENTER ROOF MOUNTED UNITS THROUGH EQUIPMENT MOUNTING CURES WHERE POSSIBLE. VERIFY ON-SITE.
31. PROVIDE CONVENIENCE OUTLET WITHIN 25 FEET OF MECHANICAL EQUIPMENT PER U.M.C. WHERE LOCATED OUTSIDE, PROVIDE WEATHERPROOF AND GFCI CONVENIENCE OUTLET. SECURE ROOF MOUNTED OUTLET TO THE MECHANICAL EQUIPMENT. VERIFY LOCATION IN FIELD WITH THE MECHANICAL CONTRACTOR.
32. VERIFY SINGLE-POINT CONNECTIONS TO ROOF MOUNTED HVAC UNITS WITH MECHANICAL CONTRACTOR ON-SITE PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE DUAL DISCONNECTS IF TWO-POINT CONNECTIONS IS REQUIRED, WHETHER SHOWN ON PLANS OR NOT.
33. VERIFY SINGLE-POINT CONNECTIONS TO ROOF MOUNTED HVAC UNITS WITH MECHANICAL CONTRACTOR ON-SITE PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE DUAL DISCONNECTS IF TWO-POINT CONNECTIONS IS REQUIRED, WHETHER SHOWN ON PLANS OR NOT.
34. COORDINATE THE HVAC EQUIPMENT FOR FUSES REQUIRE. WHERE FUSES ARE REQUIRED, VERIFY FUSE SIZE ON-SITE AND PROVIDE FOR HVAC EQUIPMENT PER UNIT NAMEPLATE SPECIFICATIONS.
35. MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-IX AND 440.11.
36. MOTOR STARTERS FOR HVAC EQUIPMENT ARE PROVIDED BY MECHANICAL CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
37. ALL CONNECTIONS FROM THE DISCONNECT SWITCHES TO HVAC UNITS SHALL BE COPPER CONDUCTORS. MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-VII, 430-VIII, AND 440-II.
38. VERIFY LOCATION AND HEIGHT OF ALL MECHANICAL OR FIXTURE EQUIPMENT OUTLETS WITH SUPPLIER PRIOR TO ANY ROUGH-IN WORK. PROVIDE ALL RUNS AND CONNECTIONS TO EQUIPMENT.
39. ALL TERMINATION PROVISIONS OF EQUIPMENT, INCLUDING CIRCUITS RATED 100 AMPERES OR LESS SHALL BE RATED AT 60 DEGREE, CENTIGRADE PER CEC 110.14(c).
40. ALL LIGHT FIXTURES INSTALLED OVER FOOD HANDLING OR FOOD PREPARATION AREAS, OPEN FOOD STORAGE, AND UTENSIL WASHING AREAS SHALL BE OF SHATTERPROOF CONSTRUCTION OR SHALL BE PROTECTED WITH SHATTERPROOF SHIELDS AND SHALL BE READILY CLEANABLE.

OCCUPANCY AND DAYLIGHT SENSOR NOTES

1. OCCUPANCY SENSORS AND DAYLIGHTING SENSORS SYSTEMS OPERATION:

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND AIM SENSORS IN THE CORRECT LOCATION REQUIRED FOR COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE(S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOMS SHALL HAVE NINETY (90) TO ONE HUNDRED (100) PERCENT COVERAGE TO COMPLETELY COVER THE CONTROLLED AREA TO ACCOMMODATE ALL OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS AT ANY LOCATION WITHIN THE ROOM(S). THE LOCATIONS AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS THAT ARE TO BE PROVIDED WITH SENSORS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A PRE-INSTALLATION MEETING WITH MANUFACTURER'S FACTORY AUTHORIZED REPRESENTATIVE, AT THE OWNER'S FACILITY, TO VERIFY PLACEMENT OF SENSORS AND INSTALLATION CRITERIA.

C. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL PROPER ADJUSTMENTS TO ASSURE OWNER'S SATISFACTION WITH THE OCCUPANCY SYSTEM. IF THE CONTRACTOR IS INCAPABLE TO MAKE ALL PROPER ADJUSTMENTS, THE CONTRACTOR SHALL PROVIDE THE FACTORY STARTUP IN THAT IT WILL BE THE MANUFACTURER'S RESPONSIBILITY TO VERIFY ALL PROPER ADJUSTMENTS AND TRAIN OWNER'S PERSONNEL TO ENSURE OWNER'S SATISFACTION WITH THE OCCUPANCY SYSTEM.

D. PROPER JUDGMENT MUST BE EXERCISED IN EXECUTING THE INSTALLATION SO AS TO ENSURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURAL COMPONENTS. THE CONTRACTOR SHALL ALSO PROVIDE, AT THE OWNER'S FACILITY, THE TRAINING NECESSARY TO FAMILIARIZE THE OWNER'S PERSONNEL WITH THE OPERATION, USE, ADJUSTMENT, AND PROBLEM SOLVING DIAGNOSIS OF THE OCCUPANCY SENSING DEVICES AND SYSTEMS.

2. OCCUPANCY SENSORS AND DAYLIGHITNG SENSORS COMMISSIONING:

A. UPON COMPLETION OF THE INSTALLATION, CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE OCCUPANCY-BASED LIGHTING CONTROL SYSTEM.

B. UPON COMPLETION OF THE SYSTEM FINE TUNING, THE CONTRACTOR SHALL ARRANGE FOR THE FACTORY AUTHORIZED TECHNICIAN TO PROVIDE THE PROPER TRAINING TO THE OWNER'S PERSONNEL IN THE ADJUSTMENT AND MAINTENANCE OF THE SENSORS.

DSA REQUIRED ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTE:

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FFROM A WALL.

FOR THOSE ELEMENTS THAT DO NO: REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENT TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP	MD	PP	E	
☐	☐	☐	☒	OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
☐	☐	☐	☒	OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM#) #0043-13.
☐	☐	☐		OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

UNDERGROUND TRENCHING NOTES

1. CONTRACTOR SHALL PROTECT ANY APPLICABLE EXISTING STREET LIHTING, UTILITY POLES, OVERHEAD LINES, UNDERGROUND WIRING, AND UTILITY PULLBOXES DURING CONSTRUCTION.
2. UNDERGROUND TRENCHING:

A. USE EXTREME CAUTION WHEN DIGGING TO AVOID BURIED ELECTRICAL CABLES. CALL UNDERGROUND SERVICE ALERT (U.S.A.) 800-277-2600, 48 HOURS BEFORE DIGGING.

B. BEFORE START OF ANY UNDERGROUND TRENCHING FOR CONDUIT RUNS, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH ALL PLANS OF OTHER TRADES (ARCHITECTURAL, CIVIL, LANDSCAPE), AND SITE CONDITIONS TO AVOID CONFLICT.

C. TRENCHING AND BACKFILLING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COORDINATE WITH CIVIL, LANDSCAPE AND ARCHITECTURAL SITE PLAN PRIOR TO THE TRENCHING, ETC. AND THE INSTALLATION OF THE ELECTRICAL SYSTEM.

D. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC, UL LISTED FOR DIRECT BURIAL, AND TERMINATED WITH FACTORY END BELL FITTINGS. ALL ELBOWS, BENDS AND TURNS TRANSITIONING TO GRADE SHALL BE INSTALLED USING PER MANUFACTURED 40-MIL PVC COATED GALVANIZED STEEL ELBOWS AND OFFSETS.

E. ALL UNDERGROUND SERVICE CONDUITS SHALL BE SEALED TO COMPLY WITH CEC 230.8.

F. PROVIDE 24" MINIMUM COVERAGE FOR UNDERGROUND CONDUITS, UNLESS OTHERWISE NOTED. THE EXCEPTION IS FOR PG&E SERVICE CONDUITS WHICH SHALL HAVE A 36" MINIMUM SEPARATION BETWEEN THE POWER AND LOW VOLTAGE SYSTEM UNDERGROUND CONDUITS. TRENCHES SHALL ALL BE INSTALLED WITH A RED POLYETHYLENE WARNING RIBBON LABELED "ELECTRICAL", LOCATED 8" BELOW GRADE IN THE TRENCH.

G. PROVIDE UNDERGROUND TRACER WHERE NON-METAL CONDUITS ARE INSTALLED.

H. PROVIDE PARTEX IDENTIFICATION TAGS TO IDENTIFY UNDERGROUND CIRCUITS.

I. ALL UNDERGROUND SPLICES SHALL BE MADE WATERPROOF BY PROVIDING WITH "SPLICE-KOTE" SPLICE KITS OR OTHER ACCEPTED METHODS. ALL FUSEHOLDERS SHALL BE WATERTIGHT.

J. ALL UNDERGROUND RACEWAYS SHALL BE PROVIDED WITH A #8 AWG MINIMUM SIZE COPPER EQUIPMENT GROUNDING CONDUCTOR, WHETHER SHOWN ON PLAN OR NOT, UNLESS OTHERWISE NOTED.

K. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT TO REPAIR AND REPLACE ANY AND ALL DAMAGES TO EXISTING PCC WALKS, AC PAVING, UTILITIES, TREES, TURF, PLANTED AREAS AND OTHER FACILITIES RESULTING FROM THIS PROJECT. WHEN CUTTING OR TRENCHING THROUGH EXISTING CONCRETE SIDEWALKS, DRIVEWAYS, AND WALKWAYS, THE CONTRACTOR SHALL BE REQUIRED TO COMPLETELY REPLACE ENTIRE SECTIONS OF CONCRETE PANELS FROM SCOREMARK TO SCOREMARK AFFECTED BY THE CONSTRUCTION WORK. ALL SIDEWALKS, DRIVEWAYS, AND WALKWAYS SHALL BE REPLACED TO MATCH ADJACENT CONDITION AND AS DIRECTED BY THE ARCHITECT.

DEMOLITION GENERAL NOTES

ALL DEMOLITION GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
2. EXISTING ELECTRICAL MAIN SERVICE IS BEING REPLACED WITH NEW THAT IS TO BE INCLUDED IN THE SCOPE OF WORK. CONTRACTOR SHALL VERIFY AND COORDINATE. THE SEQUENCE OF WORK WITH THE LOCAL UTILITY COMPANY. THE OWNER/DISTRICT'S REPRESENTATIVE AND OTHER TRADES AT THE EARLIEST START OF CONSTRUCTION FOR ALL REQUIREMENT AND SCHEDULE THE REQUIRED WORK FOR A SMOOTH AND TIMELY TRANSFORMATION FROM THE EXISTING SERVICE TO THE NEW SERVICE TO ENSURE THAT ALL WORK PROCEED WITH A MINIMUM OF INTERFERENCE AND DELAY. LIMIT THE ELECTRICAL SHUTDOWN TO A MINIMAL SO IT WILL NOT AFFECT THE EXISTING FACILITY'S NORMAL DAILY FUNCTIONS AND OPERATION.
3. CAUSE AS LITTLE INTERFERENCE OR INTERRUPTION OF EXISTING UTIILITIES AND/OR OTHER EXISTING FACILITY'S SYSTEMS AND SERVICES AS POSSIBLE. CONTRACTOR SHALL NOTIFY THE OWNER/DISTRICT'S REPRESENTATIVE AT LEAST 72 HOURS TO SCHEDULE ALL NECESSARY SHUTDOWN. SHUTDOWN WORK SHALL BE PERFORMED AFTER THE NORMAL OPERATION HOURS OF THE FACILITY, IF SO DIRECTED BY THE OWNER/DISTRICT'S REPRESENTATIVE.
4. ALL REMOVED AND/OR DEMOLISHED ELECTRICAL MATERIALS AND EQUIPMENT TO BE ACCOMPLISHED UNDER THIS CONTRACT, WHICH IN THE OPINION OF THE OWNER/DISTRICT'S REPRESENTATIVE ARE DEEM SALVAGEABLE, SHALL REMAIN THE PROPERTY OF THE OWNER/DISTRICT. ALL ELECTRICAL MATERIAL AND EQUIPMENT CONSIDERED NOT SALVAGEABLE SHALL BE REMOVED FROM THE SITE AND DISPOSED BY THE CONTRACTOR ACCORDINGLY.
5. WHERE REMOVAL OF AN EXISTING SYSTEM'S DEVICE WILL RESULT IN LOSS OF CIRCUIT CONTINUITY, THE ISOLATED PORTIONS OF THE CIRCUIT SHALL BE RECONNECTED TO PROVIDE SERVICE TO ALL REMAINING DEVICES. IF SITE CONDITIONS MAKE RECONNECTION IMPOSSIBLE, CONNECTION SHALL BE MADE FROM AN ADJACENT AVAILABLE DEVICE AS NOTED AND/OR AS DIRECTED BY THE ARCHITECT AND/OR THE OWNER/DISTRICT'S REPRESENTATIVE.
6. WHERE EXISTING CONCEALED CONDUITS, WHETHER SHOWN OR NOT, OR SPECIFIED TO BE REUSED, WHICH BECAME EXPOSED DUE TO CONSTRUCTION CHANGES. IT SHALL BE REROUTED TO THE NEAREST AVAILABLE REUSED OUTLET.
7. ALL EXISTING EXPOSED CONDUITS AND/OR WIRING THAT ARE DETERMINED BY THE DISTRICT AND ARCHITECT TO BE MAINTAINED FOR EXISTING SYSTEM FUNCTION AND CONTINUITY, WHETHER SHOWN ON PLAN OR NOT, ARE TO BE REROUTED, CONCEALED IN WALL AND/OR CEILING FOR A CLEAN FINISHED SURFACE WITH NO EXPOSED CONDUITS AND/OR WIRING WITHIN THE REMODELED AREA.
8. REMOVE ALL EXISTING EXPOSED CONDUITS, WIRING, ELECTRICAL OUTLETS, DEVICES AND EQUIPMENT THAT ARE DETERMINED BY THE DISTRICT AND ARCHITECT TO BE NON FUNCTIONAL AND/OR NOT BEING USED FROM WITHIN THE REMODELED ARE FOR A CLEAN FINISHED SURFACE.
9. WHERE EXISTING WIRING OR EQUIPMENT IS ABANDONED AS A RESULT OF THIS CONTRACT, IT SHALL BE REMOVED INSOFAR AS POSSIBLE, THIS INCLUDES BUT IS NOT LIMITED TO:
    - A. REMOVE ALL WIRE AND CABLE.
    - B. REMOVE ALL DEVICES AND EQUIPMENT.
    - C. REMOVE ALL EXPOSED CONDUIT AND CONDUIT IN ACCESSIBLE CONCEALED AREA, AS FAR AS POSSIBLE.
    - D. CUT OFF AND CAP ALL ABANDONED CONDUIT. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR AND/OR FINISHED WALLS AND CEILINGS.
10. WHEREVER EXISTING ELECTRICAL DEVICES, PANELS, CONDUITS, CABLES, ETC., CONFLICT WITH REMODEL WORK, WHETHER SHOWN OR NOT, RELOCATE THESE ITEMS AS DIRECTED BY THE ARCHITECT AND/OR OWNER/DISTRICT'S REPRESENTATIVE.
11. WHERE SHOWN ON PLAN FOR REMOVAL OF EXISTING CONDUITS. REMOVE ALL PORTIONS OF CONDUITS WHERE IT IS ACCESSIBLE AND ABANDON PORTIONS OF CONDUITS WHERE IT IS INACCESSIBLE. CUT AND/OR FINISHED WALLS AND CEILINGS.
12. CONTRACTOR SHALL UPDATE WITH NEW TYPED WRITTEN PANEL DIRECTORIES TO EXISTING PANELS INVOLVED IN THIS RENOVATION WORK THAT SHALL REFLECT ALL CHANGES TO THE CIRCUIT DESIGNATIONS.
13. PROVIDE AND INSTALL PROTECTIVE COVERING OVER EXISTING EQUIPMENT IN AREA WHEN INSTALLING ANY NEW WORK.
14. COORDINATE WITH OTHER TRADES AND PROMPTLY TRANSMIT ALL INFORMATION REQUIRED BY THEM. COORDINATE THE SEQUENCE OF DEMOLITION WITH OTHER TRADES TO ENSURE THAT ALL WORK PROCEEDS WITH A MINIMUM OF INTERFERENCE AND DELAY.
15. REFER TO MECHANICAL AND PLUMBING DRAWING FOR HEATERS, EXHAUST FANS, WATER HEATERS, PUMPS, AND ETC., WHICH REQUIRE TO BE DISCONNECTED BY THE ELECTRICAL CONTRACTOR FOR REMOVAL OR ABANDONMENT BY THE MECHANICAL AND/OR PLUMBING CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SEQUENCE FOR WORK WITH THE MECHANICAL AND/OR PLUMBING FOR REMOVAL OF ALL APPLICABLE STARTERS. DISCONNECT SWITCHES AND ASSOCIATED CONDUIT AND WIRING.
16. ALL LIGHT FIXTURES INDICATED AS RELOCATED SHALL BE CLEANED AND RE-LAMPED PRIOR TO THE RE-INSTALLATION.

ELECTRICAL ABBREVIATIONS

SYMBOL	DESCRIPTION
A/AMP	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFC	ABOVE FINISHED CEILING
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)
C	CONDUIT
CCT	CIRCUIT
CKT	CIRCUIT
DC	DIRECT CURRENT
(E)	EXISTING TO REMAIN
EC	EMPTY CONDUIT
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE METALLIC CONDUIT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND/G	GROUND
HP	HORSEPOWER
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
KVA	KILOVOLT-AMPS
KW	KILOWATTS
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
(N)	NEW
N	NEUTRAL CONDUCTOR (GROUNDED CIRCUIT CONDUCTOR)
N.I.E.S.	NOT IN ELECTRICAL SCOPE OR SPECIFICATIONS
NL	NIGHT LIGHT
PH/P	PHASE OR POLE
PNL	PANELBOARD
PVC	POLYVINYL CHLORIDE CONDUIT (SCHEDULE 40)
(R)	RELOCATE/RELOCATED
RECEP	RECEPTACLE
RGSC	RIGID GALVANIZED STEEL CONDUIT
U	UNSWITCHED
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE OR VOLTS
W	WATTS
WP	WEATHERPROOF
WPU	WEATHERPROOF WHILE IN USE
(X)	REMOVE
XFMR	TRANSFORMER

ELECTRICAL SHEET INDEX

SHEET NUMBER	SHEET NAME
E0.1	ELECTRICAL NOTES, ABBREVIATIONS, AND SHEET INDEX
E0.2	ELECTRICAL SYMBOL LEGEND
E1.1	ELECTRICAL SITE PLAN
E1.2	SITE PHOTOMETRIC PLAN
E2.1	BUILDING F LIGHTING PLAN
E2.2	BUILDING F ELECTRICAL FLOOR PLAN
E2.3	BUILDING F LOW VOLTAGE SYSTEMS PLAN
E2.4	BUILDING F ELECTRICAL ROOF PLAN
E3.1	BUILDING G LIGHTING PLAN
E3.2	BUILDING G ELECTRICAL FLOOR PLAN
E3.3	BUILDING G LOW VOLTAGE SYSTEMS PLAN
E3.4	BUILDING G ELECTRICAL ROOF PLAN
E4.1	BUILDING M ELECTRICAL DEMO PLANS
E4.2	BUILDING M LIGHTING PLAN
E4.3	BUILDING M ELECTRICAL FLOOR PLAN
E4.4	BUILDING M LOW VOLTAGE SYSTEMS PLAN
E4.5	BUILDING M ELECTRICAL ROOF PLAN
E5.1	ELECTRICAL ONE LINE DIAGRAM
E6.1	ELECTRICAL SCHEDULES
E6.2	ELECTRICAL SCHEDULES
E6.3	ELECTRICAL SCHEDULES
E7.1	ELECTRICAL DETAILS
E7.2	ELECTRICAL DETAILS
E7.3	LOW VOLTAGE SYSTEMS DIAGRAMS

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

		DATE
●	DSA PLAN CHECK	05/20/2019
○	DSA BACK CHECK	
○	BIDDING	
○	CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED
SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS
SCHOOL
NEW BLDGS F & G AND BLDG M
ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL NOTES,
ABBREVIATIONS, AND
SHEET INDEX

Date: 05/20/2019
Project Number: 19003
Scale: 1/4" = 1'-0"
Drawing Number: E0.1
Drawn: Author
Checked: Checker

PRINT DATE: 5/16/2019 4:02:12 PM
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ELECTRICAL SYMBOL LEGEND

ALL SYMBOLS SHOWN IN THIS LEGEND ARE NOT NECESSARY USED ON PLANS IF NOT REQUIRED

SYMBOL	DESCRIPTION
	LIGHTING
	FLUORESCENT / LED LUMINAIRE - T-BAR LAY-IN
	FLUORESCENT / LED LUMINAIRE - RECESSED IN GYPBOARD
	FLUORESCENT / LED LUMINAIRE - SURFACE
	FLUORESCENT / LED LUMINAIRE - SUSPENDED
	FLUORESCENT / LED DIRECT/INDIRECT LUMINAIRE - T-BAR LAY-IN
	FLUORESCENT / LED DIRECT/INDIRECT LUMINAIRE - RECESSED IN GYPBOARD
	FLUORESCENT / LED STRIP LIGHT - SURFACE OR SUSPENDED
	DOWNLIGHT LUMINAIRE - RECESSED
	WALLWASH LUMINAIRE - RECESSED
	LUMINAIRE - SURFACE
H	LUMINAIRE - WALL
	LUMINAIRE - PENDANT
J	TRACK LIGHT - SUSPENDED OR SURFACE MOUNTED
	CONTINUOUS LINEAR LED TAPE OR LED COVE LIGHT
EM EM EM	HATCHED LUMINAIRE WITH "EM" ABBREVIATION INDICATES AN EMERGENCY LUMINAIRE WITH EMERGENCY POWER CONNECTION (UNSWITCHED).
	SINGLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION. DIRECTIONAL ARROW AS INDICATED ON PLANS. (CEILING OR WALL)
	DOUBLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION. DIRECTIONAL ARROW AS INDICATED ON PLANS. (CEILING OR WALL)
	COMBINATION EMERGENCY EXIT SIGN WITH DUAL HEAD LIGHTS WITH EMERGENCY BATTERY BACK-UP.
	BATTERY POWERED EMERGENCY EGRESS LUMINAIRE - SURFACE MOUNTED
	SPOT/FLOOD LUMINAIRE - CEILING
	SPOT/FLOOD LUMINAIRE - ABOVE GROUND
	EXTERIOR POLE FIXTURE - SINGLE HEAD
	EXTERIOR POLE FIXTURE - TWIN HEAD
	EXTERIOR PATHWAY POLE FIXTURE
	BOLLARD FIXTURE
	STEP LUMINAIRE
	LIGHTING CONTROLS
$	SINGLE POLE TOGGLE SWITCH, 20A, 120-277V @ +46" TO TOP OF BOX, UNO.
$3	THREE WAY TOGGLE SWITCH, 20A, 120-277V @ +46" TO TOP OF BOX, UNO.
$abc	SUBSCRIPTS "a b c" DESIGNATE THE QUANTITY OF SWITCHES AT EACH LOCATION (TYPICAL FOR ALL SWITCH TYPES).
$T	THERMAL OVERLOAD SWITCH
$M	MOTOR RATED SWITCH
$K	SINGLE POLE KEYED TOGGLE SWITCH 20A, 120-277V @ +46" TO TOP OF BOX, UNO.
	PUSH BUTTON
D	WALL MOUNTED ROCKER SWITCH
D	WALL MOUNTED DIMMER SWITCH
DM	WALL MOUNTED DIGITAL DIMMER SWITCH
OS	WALL SWITCH OCCUPANCY SENSOR
PM	PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR
DW	DUAL TECH WALL OCCUPANCY SENSOR
DVR	DIGITAL WALL CONTROL (OVERRIDE SWITCH). RUN CABLING BACK TO LIGHTING CONTROL PANEL.
M	CORNER MOUNT MOTION SENSOR. DUAL TECHNOLOGY, PASSIVE INFRARED, OR ULTRASONIC
M	CEILING MOTION SENSOR. DUAL TECHNOLOGY, PASSIVE INFRARED, OR ULTRASONIC
P	PASSIVE INFRARED DIGITAL CORNER SENSOR.
D	DUAL TECH DIGITAL CORNER SENSOR.
U	ULTRASONIC DIGITAL CEILING SENSOR.
PC	PHOTO SENSOR
DS	SKYLIGHT PHOTOCONTROL SENSOR
OC	OPEN LOOP PHOTOCONTROL SENSOR
CC	CLOSED LOOP PHOTOCONTROL SENSOR
	CEILING EXHAUST FAN
	POWER
	MAIN SWITCHBOARD OR DISTRIBUTION PANEL,AS NOTED
	RECESSED MOUNTED LIGHTING OR DISTRIBUTION PANEL
	SURFACE MOUNTED LIGHTING OR DISTRIBUTION PANEL
	RECESSED TERMINAL CABINET w/ 3/4"C PLYWOOD BACKBOARD, DUPLEX RECEPTACLE & #6 CU GND, UNO.
	SURFACE MOUNTED TERMINAL CABINET w/ 3/4"C PLYWOOD BACKBOARD, DUPLEX RECEPTACLE & #6 CU GND, UNO.
T	DISTRIBUTION TRANSFORMER, MOUNTING AND SIZE AS NOTED
	NON-FUSED DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER DISCONNECT SWITCH
F	FUSED DISCONNECT SWITCH; SIZE DISCONNECT AND FUSES PER UNIT LABEL
	NON-FUSED / FUSED DISCONNECT; SEE DISCONNECT SWITCH SCHEDULE
	MOTOR STARTER/CONTROLLER
	COMBINATION CIRCUIT BREAKER DISCONNECT/MOTOR STARTER.
	COMBINATION FUSIBLE DISCONNECT/MOTOR CONTROLLER; PROVIDE FUSES PER MANUFACTURER'S REQUIREMENTS. N.F. INDICATES NON-FUSED.
	MOTOR
	POWER CONNECTION
	DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP. +44" TO TOP FOR FORWARD REACH, AND +46" TO TOP FOR SIDE REACH, PER CBC 11B-308.
	ISOLATED GROUND DUPLEX RECEPTACLE, 20A, 120V @ +16" TO BOTTOM OF BOX, UNO.
	DEDICATED DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	GFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	GFCI DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH. +44" TO TOP FOR FORWARD REACH, AND +46" TO TOP FOR SIDE REACH, PER CBC 11B-308.
	ISOLATED GROUND GFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	DEDICATED GFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO
	FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	ISOLATED GROUNDED FOURPLEX RECEPTACLE 20A, 120V @ +16" TO BOTTOM OF BOX, UNO.
	DEDICATED FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.

SYMBOL	DESCRIPTION
	GFCI FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	GFCI FOURPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER TOP AND/OR SINK BACKSPLASH
	ISOLATED GROUND GFCI FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	DEDICATED GFCI FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.
	CONTROLLED/UNCONTROLLED FOURPLEX RECEPTACLE.
	SPECIAL RECEPTACLE OUTLET, SIZE AND NEMA CONFIGURATION AS NOTED, MOUNTED @ +16" TO BOTTOM OF BOX, UNO.
	FLOOR MOUNTED DUPLEX RECEPTACLE, 20A, 125V FLUSH IN FINISHED FLOOR
	FLOOR MOUNTED FOURPLEX RECEPTACLE, 20A, 125V FLUSH IN FINISHED FLOOR
	CEILING MOUNTED DUPLEX RECEPTACLE, 20A, 125V
	CEILING MOUNTED FOURPLEX RECEPTACLE, 20A, 125V
	JUNCTION BOX - SIZE AS REQUIRED BY CODE. (WALL MOUNTED AND REGULAR)
J	JUNCTION BOX (FLOOR MOUNTED) - SIZE AS REQUIRED BY CODE.
	PLUGMOLD
	POWER POLE
	POWER AND TELEPHONE POKE THROUGH FOR PARTITION FURNITURE
	FLOOR MOUNTED COMBO DUPLEX RECEPTACLE / TELEPHONE/DATA
	FLOOR MOUNTED COMBO FOURPLEX RECEPTACLE / TELEPHONE/DATA
	TELECOM
	TELEPHONE OUTLET, 4-11/16" SQ. x 2-1/8" DEEP BOX w/ SINGLE DEVICE RING & PLATE @ +16" TO BOTTOM OF BOX & 3/4" CONDUIT STUB UP TO ACCESSIBLE CEILING SPACE, UNO.
	DATA OUTLET, 4-11/16" SQ. x 2-1/8" DEEP BOX w/ SINGLE DEVICE RING & PLATE @ +16" TO BOTTOM OF BOX & 3/4" CONDUIT STUB UP TO ACCESSIBLE CEILING SPACE, UNO.
	TELE/DATA OUTLET, 4-11/16" SQ. x 2-1/8" DEEP BOX w/ SINGLE DEVICE RING & PLATE @ +16" TO BOTTOM OF BOX & (2) 3/4" CONDUIT STUB UP TO ACCESSIBLE CEILING SPACE, UNO.
A	TELE/DATA OUTLET, 4-11/16" SQ. x 2-1/8" DEEP BOX w/ SINGLE DEVICE RING & PLATE ABOVE COUNTER AND (2) 3/4" CONDUIT STUB UP TO ACCESSIBLE CEILING SPACE, UNO.
	FLOOR MOUNTED DATA OUTLET, FLUSH IN FINISHED FLOOR - SIZE PER PLAN
	FLOOR MOUNTED TELEPHONE OUTLET, FLUSH IN FINISHED FLOOR - SIZE PER PLAN
	FLOOR MOUNTED TELEPHONE/DATA OUTLET, FLUSH IN FINISHED FLOOR - SIZE PER PLAN
	CEILING MOUNTED DATA OUTLET, 4" SQ. BOX WITH SINGLE DEVICE RING & PLATE
WAP	WIRELESS ACCESS POINT
	TELEPHONE TERMINAL BACKBOARD
TV	COAXIAL CABLE OUTLET
	CLOCK
	INTERCOM SPEAKER AND CLOCK COMBINATION
S	CEILING MOUNTED SPEAKER
S	WALL MOUNTED SPEAKER
	SURVEILLANCE CAMERAS
	360 DEGREES CAMERA
	FIXED POSITION CAMERA
WP	WEATHERPROOF FIXED POSITION CAMERA
	ACCESS CONTROL
CR	CARD READER
EL	ELECTRONIC LOCK
	INTRUSION ALARM
KP	KEYPAD
	WALL/CEILING MOUNTED FIXED POSITION INTRUSION SENSOR
	CEILING MOUNTED 360 DEGREES INTRUSION SENSOR
	DOOR CONTACT
GB	GLASS BREAK
P	POPPIT
	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAPS	FIRE ALARM POWER SUPPLY
ANNC	FIRE ALARM ANNUNCIATOR
B	FIRE ALARM BELL
	HEAT DETECTOR
A	ABOVE CEILING HEAT DETECTOR
	SMOKE DETECTOR
	DUCT SMOKE DETECTOR
P	MANUAL PULL STATION
	END OF LINE RESISTOR
TS	TAMPER SWITCH
FS	WATERFLOW SWITCH
MM	MONITOR MODULE
CM	CONTROL MODULE
PIV	POST INDICATOR VALVE
FSD	FIRE SMOKE DAMPNER
	HORN SPEAKER
X1-1 XXXcd	WALL MOUNTED SPEAKER STROBE (15cd, 30cd, 75cd, 110cd) "cd" IS CANDELA. X1-1 RESEMBLES THE NAC CIRCUIT AND QUANTITY ON THAT CIRCUIT.
X1-1 XXXcd C	CEILING MOUNTED SPEAKER STROBE (15cd, 30cd, 75cd, 110cd) "cd" IS CANDELA. X1-1 RESEMBLES THE NAC CIRCUIT AND QUANTITY ON THAT CIRCUIT.
X1-1 XXXcd	WALL MOUNTED STROBE (15cd, 30cd, 75cd, 110cd) "cd" IS CANDELA. X1-1 RESEMBLES THE NAC CIRCUIT AND QUANTITY ON THAT CIRCUIT.
X1-1 XXXcd C	CEILING MOUNTED STROBE (15cd, 30cd, 75cd, 110cd) "cd" IS CANDELA. X1-1 RESEMBLES THE NAC CIRCUIT AND QUANTITY ON THAT CIRCUIT.

SYMBOL	DESCRIPTION
	CIRCUITS
	ARROW
	STUB
	STUB AND ARROW
~	CONTINUATION
	CONDUIT RISER - UP
	CONDUIT DROP - DOWN
	CONDUIT CONCEALED IN CEILING OR WALL.
	CONDUIT CONCEALED IN FLOOR OR UNDERGROUND
	EXISTING CONDUIT TO REMAIN.
	CONDUIT & CONDUCTORS FOR LOW VOLTAGE MOTION SENSORS
	EXISTING CONDUIT AND/OR CONDUCTORS TO BE REMOVED. UNDERGROUND CONDUIT MAY BE ABANDONED IN PLACE.
	HOMERUN TO PANELBOARD OR TERMINAL CABINET w/ CONDUCTORS AS NOTED
#	CIRCUIT CONDUTORS: LONG DASH INDICATES NEUTRAL CONDUCTOR; SHORT DASHES INDICATE PHASE CONDUCTORS; CURVED DASH INDICATES EQUIPMENT GROUNDING CONDUCTOR. NUMBER BY DASHES INDICATE WIRE GAUGE OTHER THAN 12 AWG CU. NO DASHES INDICATE 2#12 CU, 1#12 CU GND, IN 1/2" CONDUIT. OTHERS AS NOTED ON PLAN.
	FLEXIBLE CONDUIT, 6'-0" LONG MAX. w/ #12 CU GROUND UON.
	TAGS AND LEADERS
	BRACKET
	LEADERS
X	KEY NOTE SHOWN ON SAME SHEET
X	LIGHT FIXTURE TAG
X	FEEDER DESIGNATION TAG
X	KITCHEN EQUIPMENT DESIGNATION TAG
x Ex.1	DETAIL DESIGNATION: TOP LETTER INDICATES DETAIL, BOTTOM LETTER / NUMBER INDICATES SHEET
REF x	MECHANICAL EQUIPMENT I.D. TAG - MP&S
	ONE LINE DIAGRAM
(N) PANEL "A" 100A	PANEL IDENTIFICATION
100A 3P	CIRCUIT BREAKER
100A 3P	FUSED SWITCH
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
	GROUND
	UNDERGROUND TERMINATION SERVICE LUG
M	UTILITY METER
M	UTILITY METER WITH C.T. COMPARTMENT METER SOCKET
	TRANSFORMER WITH GROUND
	UFER GROUND
	BOND TO COLD WATER PIPE, GAS PIPE, BUILDING STEEL
	AUTOMATIC TRANSFER SWITCH
	NEUTRAL LINK
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITTAKER No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY No. 11766 Exp. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL SYMBOL LEGEND

Date 05/20/2019	Project Number 19003
Scale 1/4" = 1'-0"	Drawing Number E0.2
Drawn Author	Checked Checker

PRINT DATE: 5/16/2019 4:02:13 PM
FILE PATH: C:\Users\rdfall\Documents\19-3007_Westmore Oaks ES_MEP_r17_rdfall.rvt

KEY NOTES

1. (E) OUTDOOR MAIN SERVICE SWITCHBOARD. SEE ONE LINE DIAGRAM FOR MORE INFORMATION.
2. (E) UNDERGROUND CONDUITS. SEE ONE LINE DIAGRAM FOR THE SIZE AND QUANTITIES. CLEAN THE EXISTING CONDUITS BEFORE PULLING NEW CABLES.
3. (N) UNDERGROUND CONDUITS AND CABLES. SEE ONE LINE DIAGRAM FOR THE SIZE AND QUANTITIES.
4. INTERCEPT (E) CONDUIT(S) AND EXTEND TO THE ELECTRICAL PANEL LOCATION, INSIDE THE BUILDING, AS SHOWN.
5. INSTALL (2) 3" UNDERGROUND CONDUITS BETWEEN THE BUILDINGS FOR DATA AND SIGNAL SYSTEM. INSTALL CONDUCTORS AND CABLES AS SHOWN IN LOW VOLTAGE SYSTEM RISER DIAGRAMS.

ELECTRICAL SITE PLAN 1" = 20'-0" 1

N

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ARCHITECT	ENGINEER
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DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL SITE PLAN

Date	05/20/2019
Scale	1" = 20'-0"
Drawn	Checked
Author	Checker
Project Number	19003
Drawing Number	E1.1

PRINT DATE: 5/16/2019 4:02:19 PM
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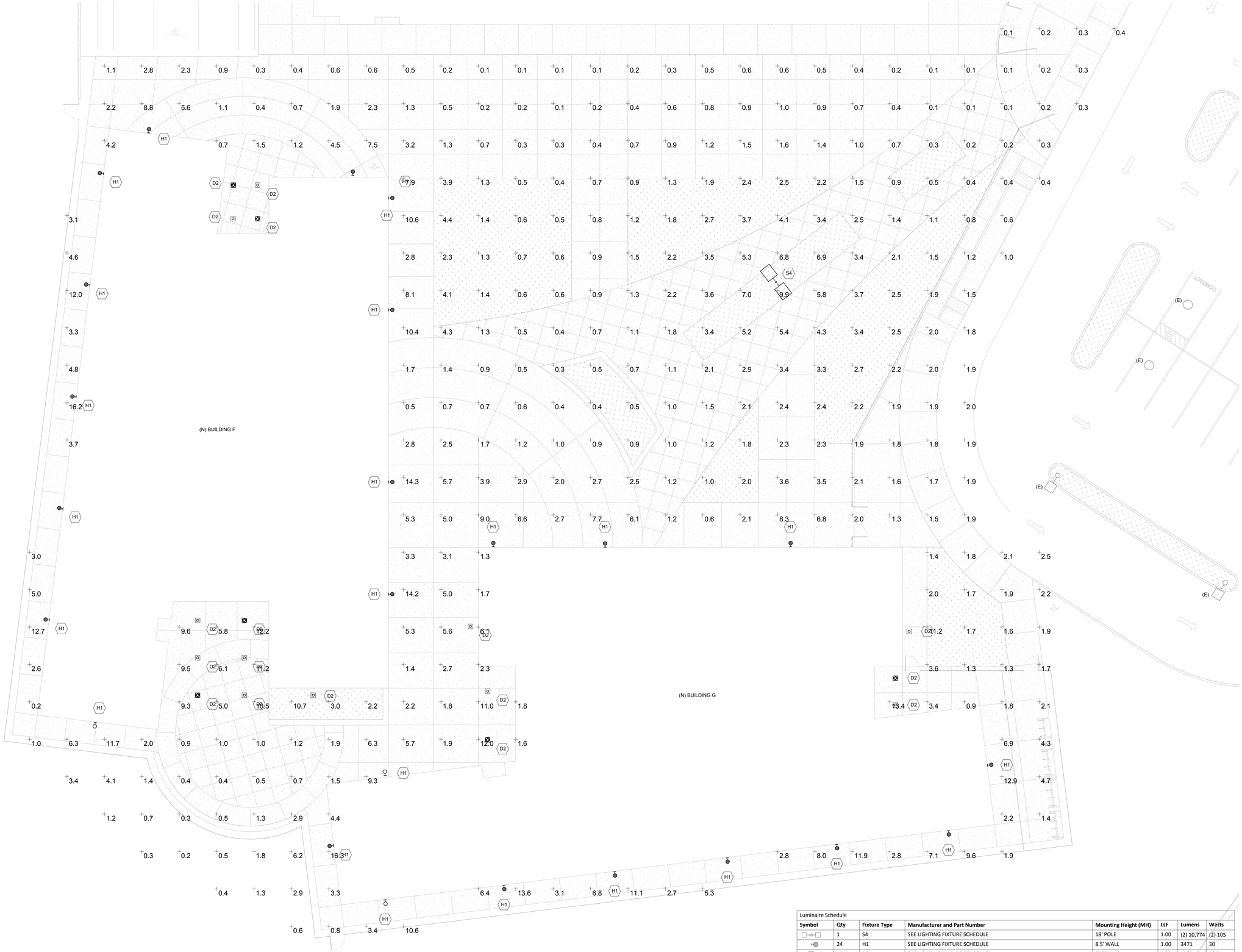

Luminaire Schedule							
Symbol	**Qty**	**Fixture Type**	**Manufacturer and Part Number**	**Mounting Height (MH)**	**LLF**	**Lumens**	**Watts**
□-○-□	1	S4	SEE LIGHTING FIXTURE SCHEDULE	18' POLE	1.00	(2) 10,774	(2) 105
⊢●	24	H1	SEE LIGHTING FIXTURE SCHEDULE	8.5' WALL	1.00	3471	30
▣	17	D2	SEE LIGHTING FIXTURE SCHEDULE	9' CEILING	1.00	1562	19.5
○-□	5	S1	(E) LIGHTS FROM PROJECT 1	25' POLE	1.00	15400	160
○	8	S3	(E) LIGHTS FROM PROJECT 1	CEILING SURFACE	1.00	6000	69

Illuminance Calculation Summary						
Calculation Grid Description	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
PATHWAYS	Fc	2.6	13.4	0.1	26.0:1	134.0:1

ELECTRICAL SITE PHOTOMETRIC 1" = 10'-0" 1

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NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

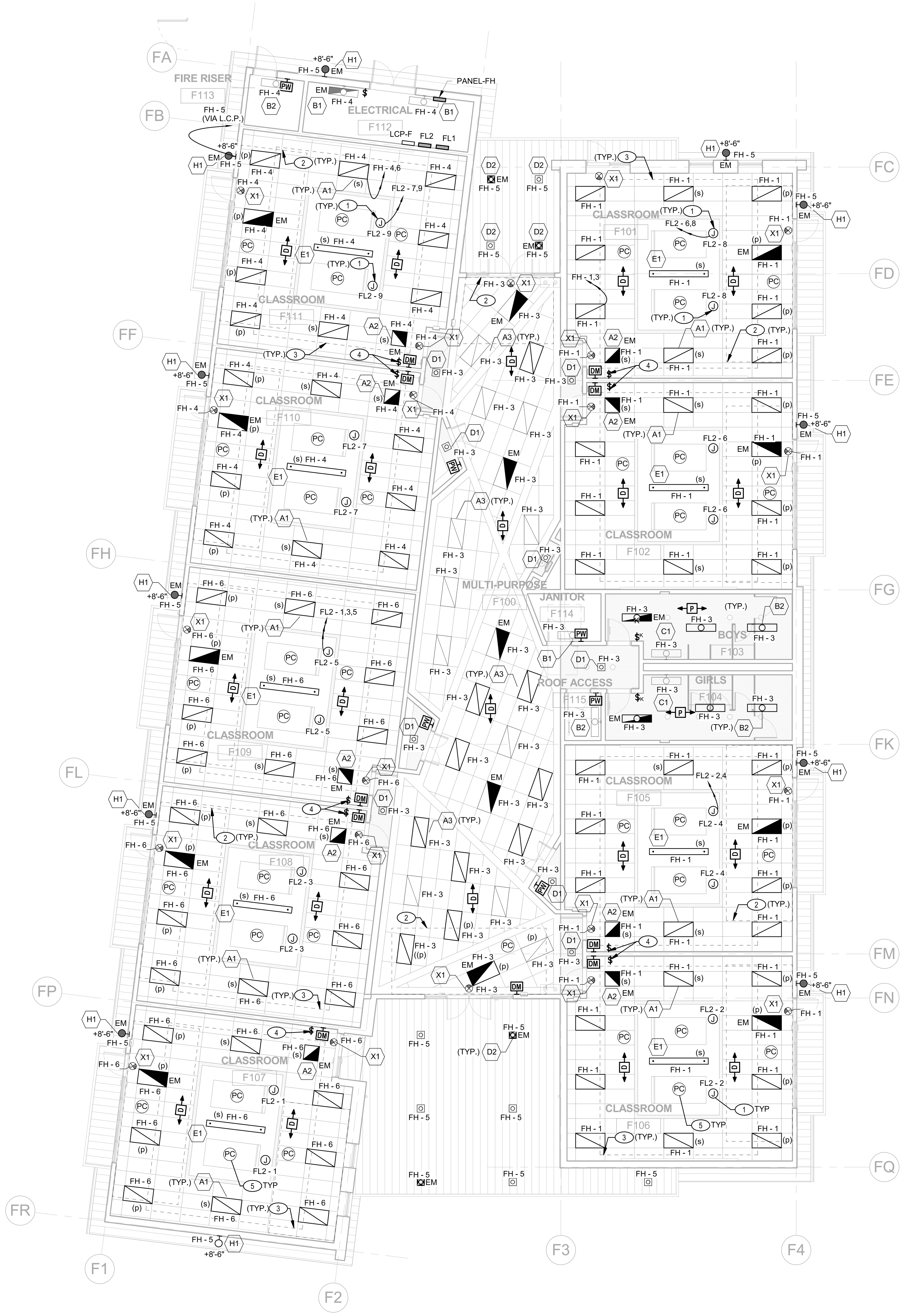
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

SITE PHOTOMETRIC PLAN

Date 05/20/2019
Scale As indicated
Drawn Checked
Author Checker

Project Number 19003
Drawing Number **E1.2**



REF: 3 / FA3.1

Bldg F Lighting Plan 1/8" = 1'-0" 1

KEY NOTES

1. PROVIDE 120V POWER AND CONTROLS CONNECTIONS TO SKY LIGHT LOUVER. PROVIDE ALL REQUIRED COMPONENTS, ACCESSORIES AND INTERCONNECTION WIRING FOR A COMPLETE AND OPERATIONAL SYSTEM. TO BE CONTROLLED VIA PHOTOCELL AND MANUAL CONTROLS.
2. PRIMARY SIDELIT DAYLIT ZONE. LIGHT FIXTURES WITH "(P)" IN SWITCHING DESIGNATION SHALL BE CONTROLLED BY PRIMARY SIDELIT DAYLIT ZONE PHOTOCONTROL SENSOR, INDEPENDENTLY FROM OTHER FIXTURES.
3. PRIMARY SKYLIT DAYLIT ZONE. LIGHT FIXTURES WITH "(S)" IN SWITCHING DESIGNATION SHALL BE CONTROLLED BY PRIMARY SKYLIT DAYLIT ZONE PHOTO CONTROL SENSOR, INDEPENDENTLY FROM OTHER FIXTURES.
4. MANUAL CONTROL SWITCH FOR MOTORIZED SKYLIGHT. PROVIDE 3/4" CONDUIT TO THE SKYLIGHT FOR INTERCONNECTION. COORDINATE WITH SKYLIGHT. INSTALLER FOR EXACT LOCATION AND REQUIREMENT.
5. PHOTOCELL SENSOR FOR MOTORIZED SKYLIGHT CONTROL.

GENERAL NOTES

1. SEE LIGHTING FIXTURE SCHEDULE FOR LIGHTING FIXTURES INFORMATION.
2. SEE LIGHTING CONTROL SEQUENCE OF OPERATION FOR LIGHTING CONTROL REQUIREMENTS. PROVIDE ALL REQUIRED COMPONENTS, ACCESSORIES AND INTERCONNECTION FOR A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR SHALL PROVIDE SHOP DRAWING WITH ALL CONTROL COMPONENTS, LOCATIONS AND CONNECTION DIAGRAMS.

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NO.	REMARKS	DATE

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● DSA PLAN CHECK	05/20/2019
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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F LIGHTING PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	E2.1
Drawn: Author	Checked: Checker

PRINT DATE: 5/16/2019 4:02:30 PM
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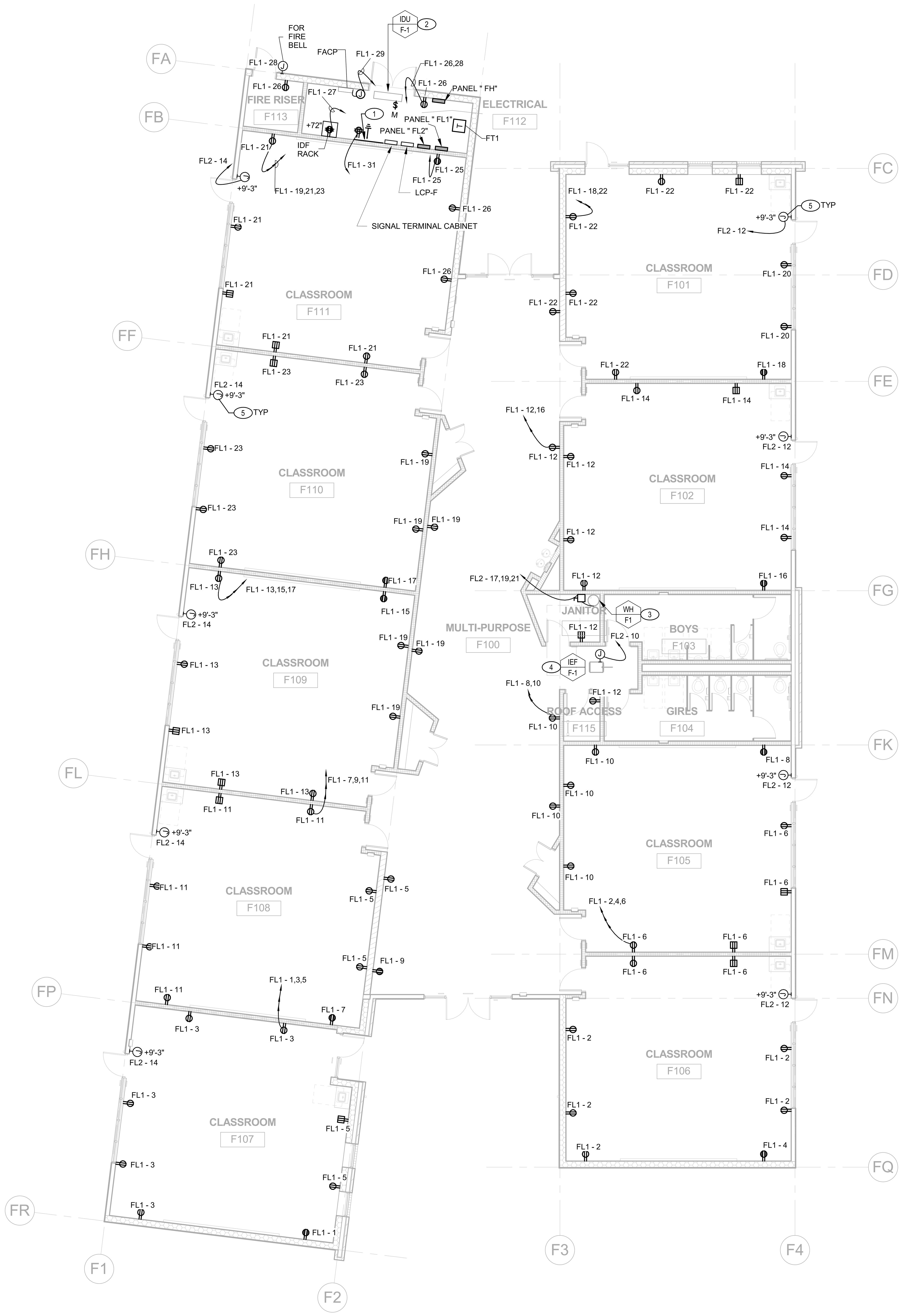

REF: 3 / FA2.1

BUILDING F ELECTRICAL FLOOR PLAN 1/8" = 1'-0" 1

KEY NOTES

1. (N) TELEPHONE/SIGNAL BACKBOARD.
2. IDU; 208V 1PHASE, 93W POWERED FROM OUTDOOR UNIT, PROVIDE 20A/2P HEAVY DUTY MOTOR RATED SWITCH AS DISCONNECT MEAN.
3. ELECTRICAL WATER HEATER; 208V, 1 PHASE, 4000W. PROVIDE 30A/3PH DISCONNECT SWITCH AND 3/4" C.-3# 10 CU + 1 # 10 CU GND.
4. IEF F1; 20V, 1 PHASE, 0.25HP. PROVIDE POWER CONNECTION.
5. DOOR ACCESS POWER SUPPLY; PROVIDE 120V POWER CONNECTION. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL INSTALLER.

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F ELECTRICAL FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale 1/8" = 1'-0"	Drawing Number
Drawn: Author / Checked: Checker	E2.2

PRINT DATE: 5/16/2019 4:02:35 PM
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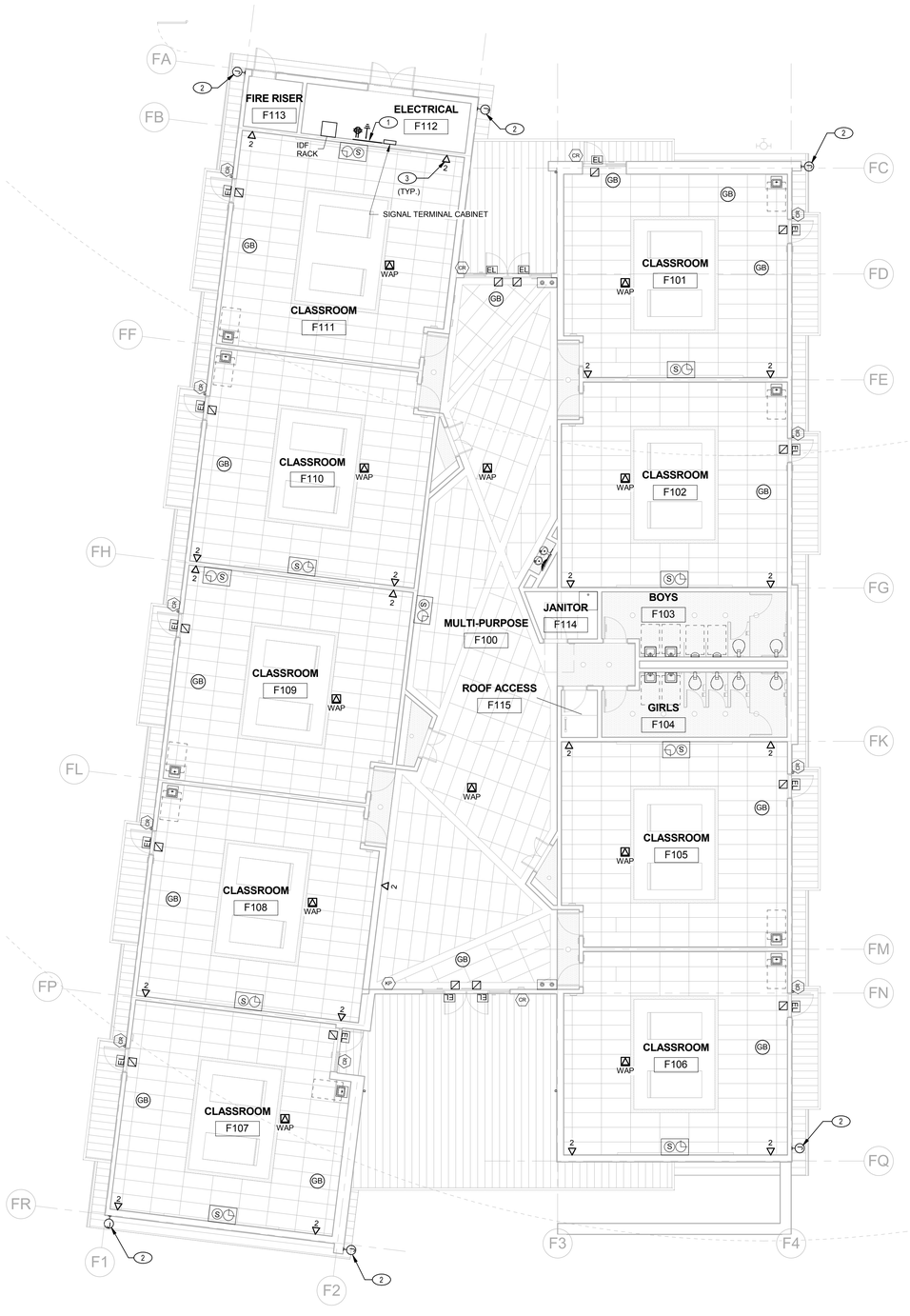

REF: 3 / FA3.1

BUILDING F LOW VOLTAGE PLAN 1/8" = 1'-0" (1)

KEY NOTES

(#)

1 (N) TELEPHONE/SIGNAL BACKBOARD.

2 PROVIDE WEATHERPROOF JUNCTION BOX AT 11' A.F.G. (UNO) FOR DISTRICT PROVIDED SECURITY CAMERA. ELECTRICAL CONTRACTOR SHALL INSTALL THE CAMERA AND WIRING. COORDINATE WITH DISTRICT FOR EXACT LOCATION, AND INSTALLATION HEIGHT PRIOR TO ANY WORK.

3 DATA AND DATA/TEL. OUTLETS, TYPICAL. INSTALL (2) CAT-6 WIRE TO THE DATA RACK.

GENERAL NOTES

1. SEE LOW VOLTAGE SYSTEMS DIAGRAMS FOR MORE INFORMATION.

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● DSA PLAN CHECK	05/20/2019
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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F LOW VOLTAGE SYSTEMS PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E2.3
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 4:02:40 PM
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REF: 3 / FA2.1

BUILDING F ELECTRICAL ROOF PLAN 1/8" = 1'-0" (1)

N

KEY NOTES

(#)

1 AC UNIT, 460V/ 3PH, 10.65A FLA, 13A MCA, 15A MOCP. PROVIDE 15AF/3PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 12 CU + 1 # 12 CU GND.

2 ODU, 208V/ 1PH, 19A MCA, 25A MOCP. PROVIDE 25AF/1PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 10 CU + 1 # 10 CU GND.

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY No. 17758 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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DRAWING STATUS

	DATE
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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F ELECTRICAL ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: E2.4
Drawn: Author	Checked: Checker

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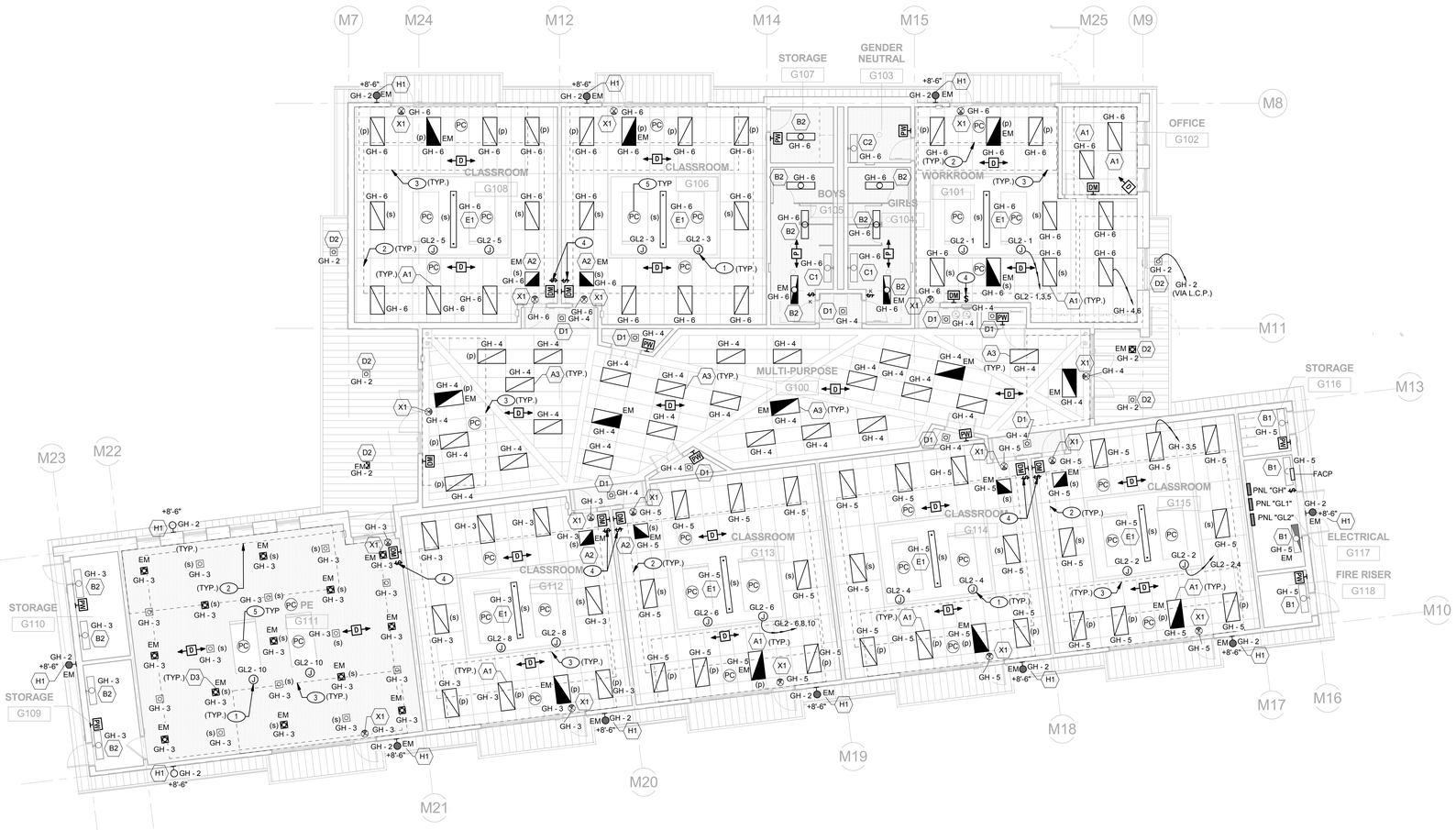

REF: 3 / FA3.1

Bldg G Lighting Plan 1/8" = 1'-0" (1)

KEY NOTES

#	
1	PROVIDE 120V POWER AND CONTROLS CONNECTIONS TO SKY LIGHT LOUVER. PROVIDE ALL REQUIRED COMPONENTS, ACCESSORIES AND INTERCONNECTION WIRING FOR A COMPLETE AND OPERATIONAL SYSTEM. TO BE CONTROLLED VIA PHOTOCELL AND MANUAL CONTROLS.
2	PRIMARY SKYLIT DAYLIT ZONE. LIGHT FIXTURES WITH "(S)" IN SWITCHING DESIGNATION SHALL BE CONTROLLED BY PRIMARY SKYLIT DAYLIT ZONE PHOTO CONTROL SENSOR, INDEPENDENTLY FROM OTHER FIXTURES.
3	PRIMARY SIDELIT DAYLIT ZONE. LIGHT FIXTURES WITH "(P)" IN SWITCHING DESIGNATION SHALL BE CONTROLLED BY PRIMARY SIDELIT DAYLIT ZONE PHOTOCONTROL SENSOR, INDEPENDENTLY FROM OTHER FIXTURES.
4	MANUAL CONTROL SWITCH FOR MOTORIZED SKYLIGHT. PROVIDE 3/4" CONDUIT TO THE SKYLIGHT FOR INTERCONNECTION. COORDINATE WITH SKYLIGHT INSTALLER FOR EXACT LOCATION AND REQUIREMENT.
5	PHOTOCELL SENSOR FOR MOTORIZED SKYLIGHT CONTROL.

GENERAL NOTES

1. SEE LIGHTING FIXTURE SCHEDULE FOR LIGHTING FIXTURES INFORMATION.
2. SEE LIGHTING CONTROL SEQUENCE OF OPERATION FOR LIGHTING CONTROL REQUIREMENTS. PROVIDE ALL REQUIRED COMPONENTS, ACCESSORIES AND INTERCONNECTION FOR A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR SHALL PROVIDE SHOP DRAWING WITH ALL CONTROL COMPONENTS, LOCATIONS AND CONNECTION DIAGRAMS.

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ARCHITECT	ENGINEER
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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G LIGHTING PLAN

Date 05/20/2019	Project Number 19003
Scale As indicated	Drawing Number E3.1
Drawn Author	Checked Checker

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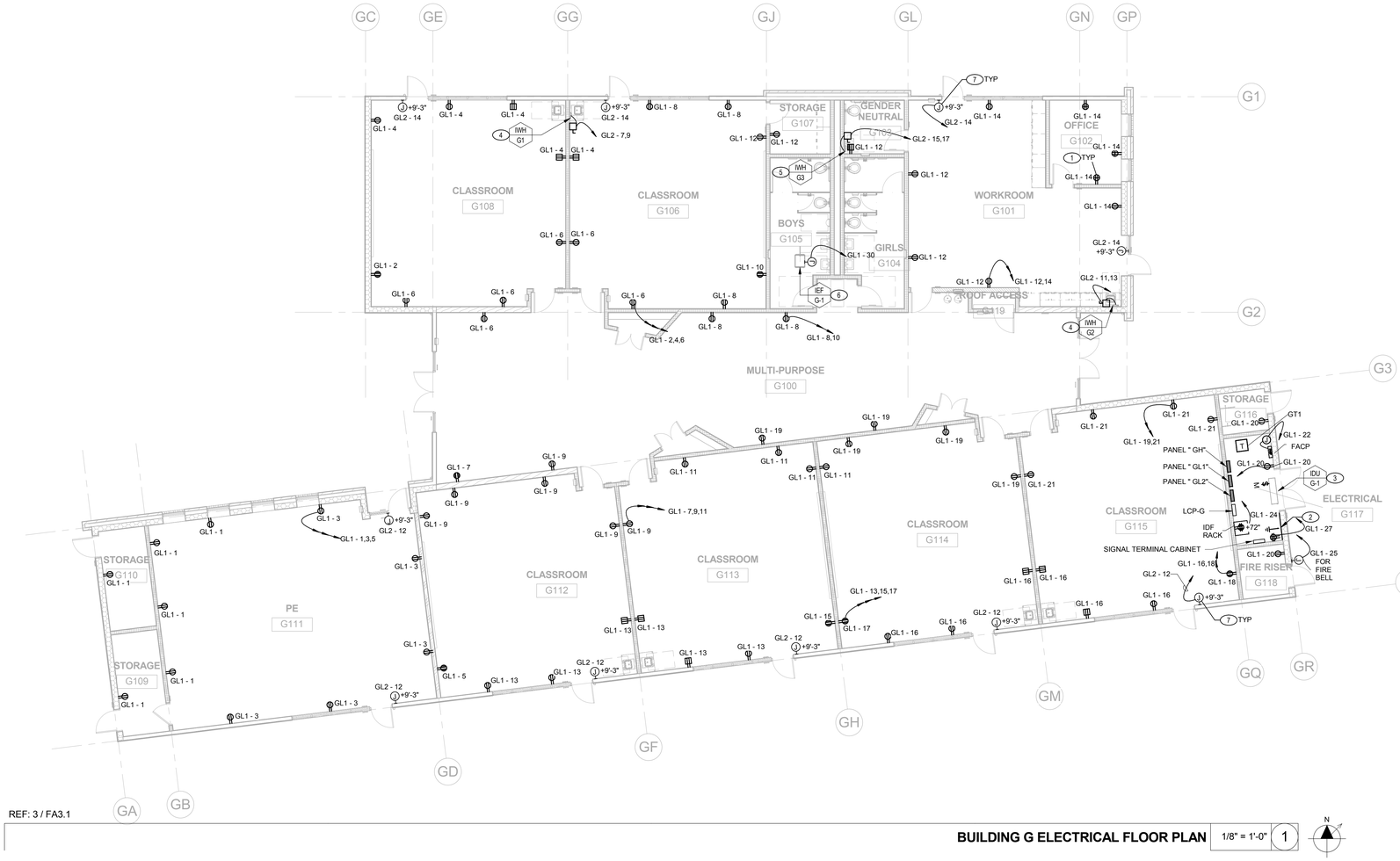

REF: 3 / FA3.1

BUILDING G ELECTRICAL FLOOR PLAN 1/8" = 1'-0" 1

KEY NOTES

(#)

1. CONTROLLED/UNCONTROLLED RECEPTACLES. BASIS OF DESIGN FOR CONTROLLED RECEPTACLES IS LEVITON CR020-2PW. CONTROLLED RECEPTACLE SHALL BE MARKED PROPERLY FOR IDENTIFICATION, PER CEC 406.3(E).
2. (N) TELEPHONE/SIGNAL BACKBOARD.
3. IDU; 208V 1PHASE, 93W POWERED FROM OUTDOOR UNIT, PROVIDE 20A/2P HEAVY DUTY MOTOR RATED SWITCH AS DISCONNECT MEAN.
4. ELECTRICAL WATER HEATER; 208V, 1 PHASE, 8320W. PROVIDE 60A/1PH DISCONNECT SWITCH AND 3/4" C.-2 # 8 CU + 1 # 10 CU GND.
5. ELECTRICAL WATER HEATER; 208V, 1 PHASE, 4160W. PROVIDE 30A/1PH DISCONNECT SWITCH AND 3/4" C.-2 # 12 CU + 1 # 12 CU GND.
6. IEF F1; 20V, 1 PHASE, 0.25HP. PROVIDE POWER CONNECTION.
7. DOOR ACCESS POWER SUPPLY; PROVIDE 120V POWER CONNECTION. COORDINATE EXACT LOCATION WITH DOOR ACCESS CONTROL INSTALLER.

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	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ELECTRICAL FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E3.2
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 4:02:56 PM
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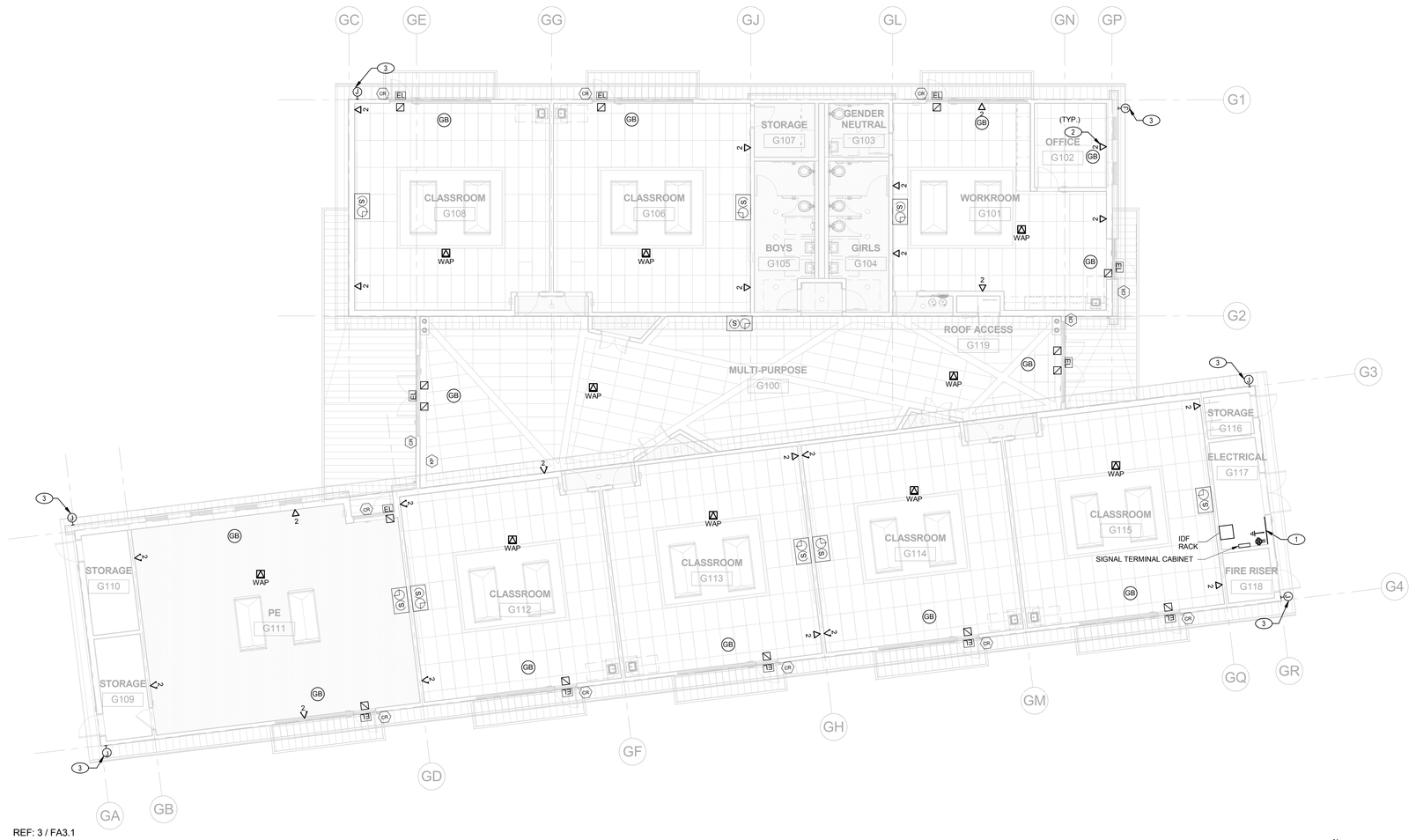

BUILDING G LOW VOLTAGE PLAN 1/8" = 1'-0" (1)

KEY NOTES

1. (N) TELEPHONE/SIGNAL BACKBOARD.
2. DATA AND DATA/TEL. OUTLETS, TYPICAL. INSTALL (2) CAT-6 WIRE TO THE DATA RACK.
3. PROVIDE WEATHERPROOF JUNCTION BOX AT 11' A.F.G. (UNO) FOR DISTRICT PROVIDED SECURITY CAMERA. ELECTRICAL CONTRACTOR SHALL INSTALL THE CAMERA AND WIRING. COORDINATE WITH DISTRICT FOR EXACT LOCATION, AND INSTALLATION HEIGHT PRIOR TO ANY WORK.

GENERAL NOTES

1. SEE LOW VOLTAGE SYSTEMS DIAGRAMS FOR MORE INFORMATION.

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G LOW VOLTAGE SYSTEMS PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E3.3
Drawn / Author	Checked / Checker

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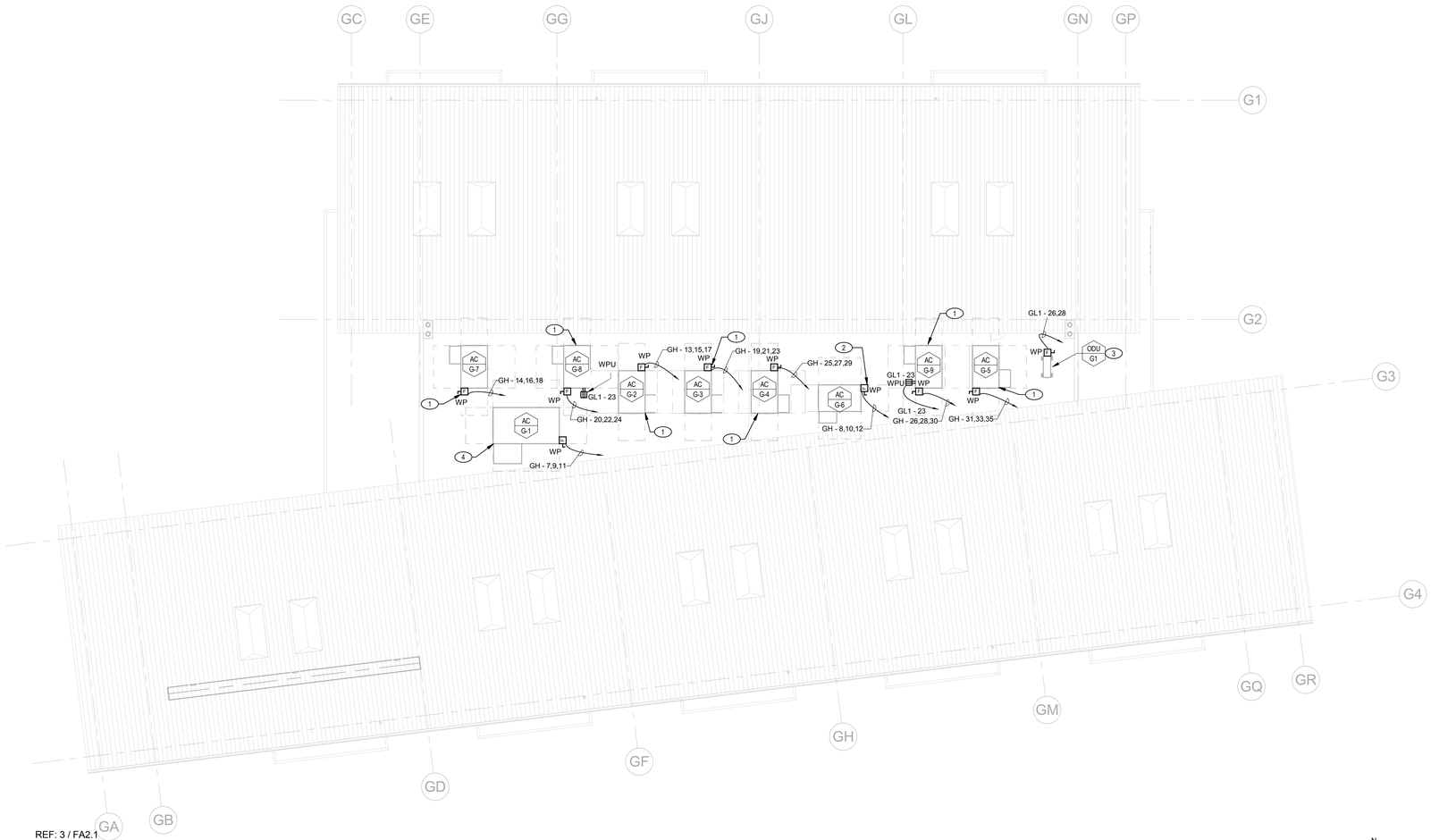

REF: 3 / FA2.1

BUILDING G ELECTRICAL ROOF PLAN 1/8" = 1'-0" (1)

N

KEY NOTES

(#)

1 AC UNIT, 460V/ 3PH, 10.65A FLA, 13A MCA, 15A MOCP. PROVIDE 15AF/3PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 12 CU + 1 # 12 CU GND.

2 AC UNIT, 460V/ 3PH, 8.95A FLA, 11A MCA, 15A MOCP. PROVIDE 15AF/3PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 12 CU + 1 # 12 CU GND.

3 ODU, 208V/ 1PH, 19A MCA, 25A MOCP. PROVIDE 25AF/1PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 10 CU + 1 # 10 CU GND.

4 AC UNIT, 460V/ 3PH, 21.65A FLA, 23A MCA, 25A MOCP. PROVIDE 25AF/3PH/30A WEATHERPROOF DISCONNECT, W/ 3/4" C.-3 # 10 CU + 1 # 10 CU GND.

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G ELECTRICAL ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E3.4
Drawn / Author	Checked / Checker

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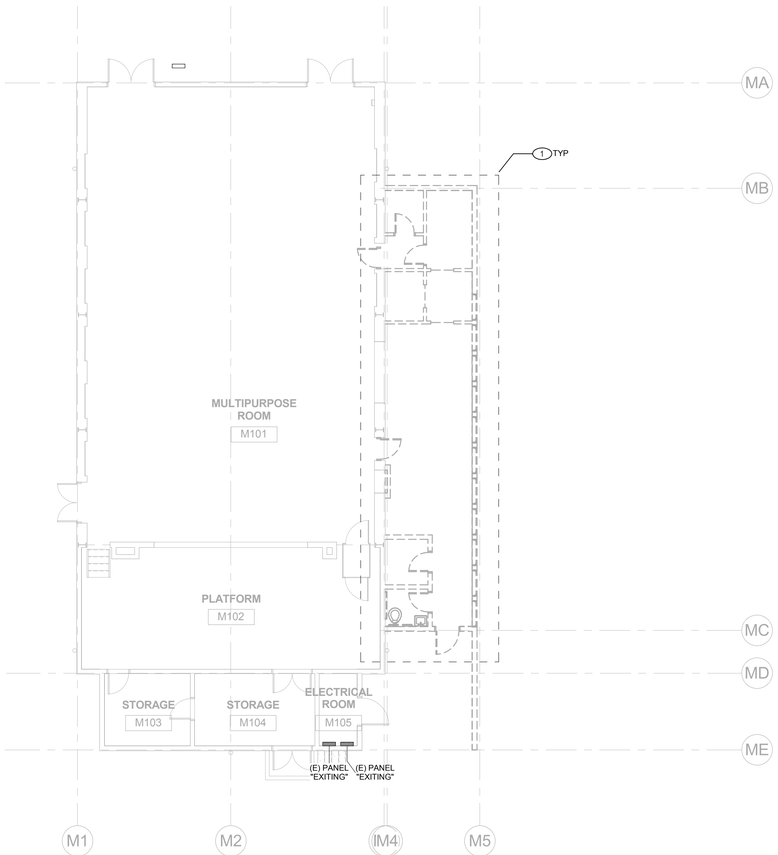
KEY NOTES

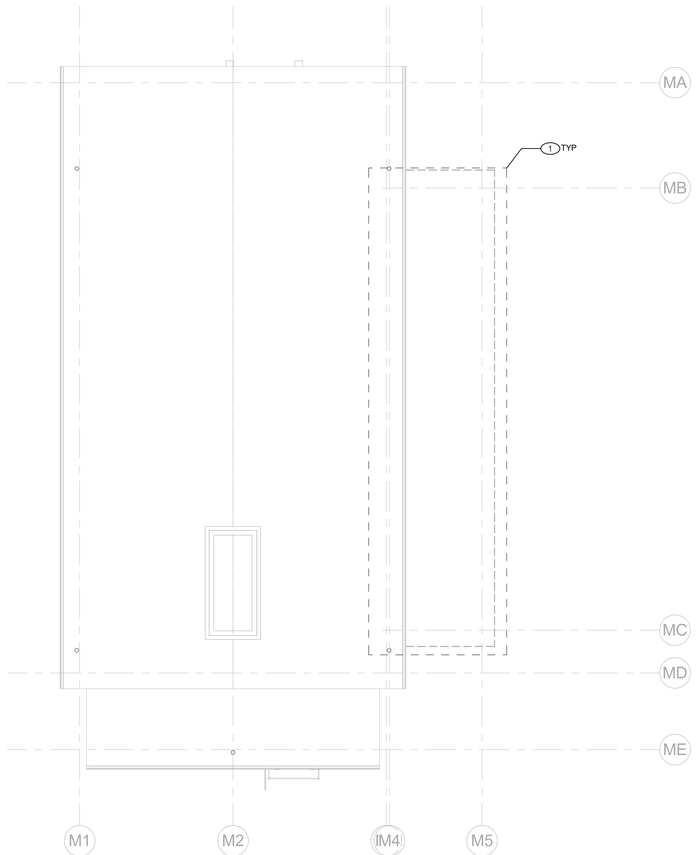
(#)

1 DEMOLISH AND REMOVE ALL EXISTING FIXTURES, CONTROL DEVICES, AND POWER DEVICES IN THE REMODEL AREA. REMOVE THE WIRES TO THE UPSTREAM BOXES OR PANEL AS APPLICABLE. REMOVE ACCESSIBLE CONDUITS, AS POSSIBLE.



REF: 3 / FA4.1

BUILDING M ELECTRICAL DEMO FLOOR PLAN 1/8" = 1'-0" (1)



REF: 3 / FA4.1

BUILDING M ELECTRICAL DEMO ROOF PLAN 1/8" = 1'-0" (2)

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M ELECTRICAL DEMO PLANS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E4.1
Drawn / Author	Checked / Checker

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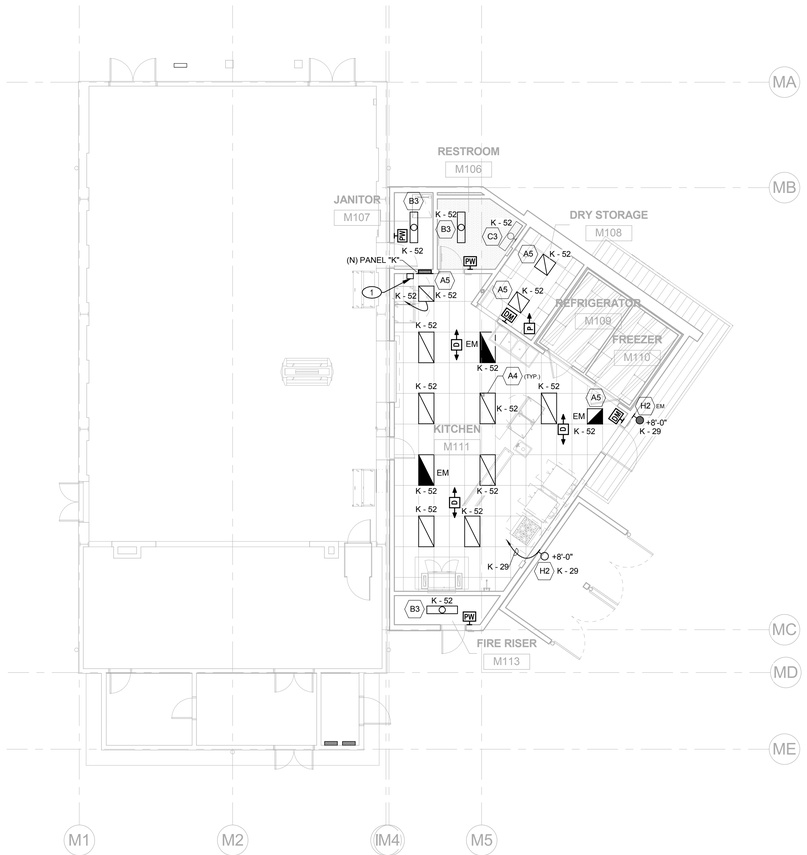

REF: 3 / FA3.1

Bldg M Lighting Plan 1/8" = 1'-0" 1

KEY NOTES

1 365/7 DAY OUTDOOR LIGHTING ASTRONOMIC TIME SWITCH WITH HOLIDAY AND EVENT SCHEDULING. BASIS OF DESIGN IS "INERRATIC ET2815C".

GENERAL NOTES

1. SEE LIGHTING FIXTURE SCHEDULE FOR LIGHTING FIXTURES INFORMATION.
2. SEE LIGHTING CONTROL SEQUENCE OF OPERATION FOR LIGHTING CONTROL REQUIREMENTS. PROVIDE ALL REQUIRED COMPONENTS, ACCESSORIES AND INTERCONNECTION FOR A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR SHALL PROVIDE SHOP DRAWING WITH ALL CONTROL COMPONENTS, LOCATIONS AND CONNECTION DIAGRAMS.

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ENGINEER: REGISTERED PROFESSIONAL ENGINEER, KENNETH R. RUBY, No. 11766, EXP. 9/30/20, ELECTRICAL, STATE OF CALIFORNIA

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M LIGHTING PLAN

Date 05/20/2019
Project Number 19003
Scale As indicated
Drawing Number E4.2
Drawn Author
Checked Checker

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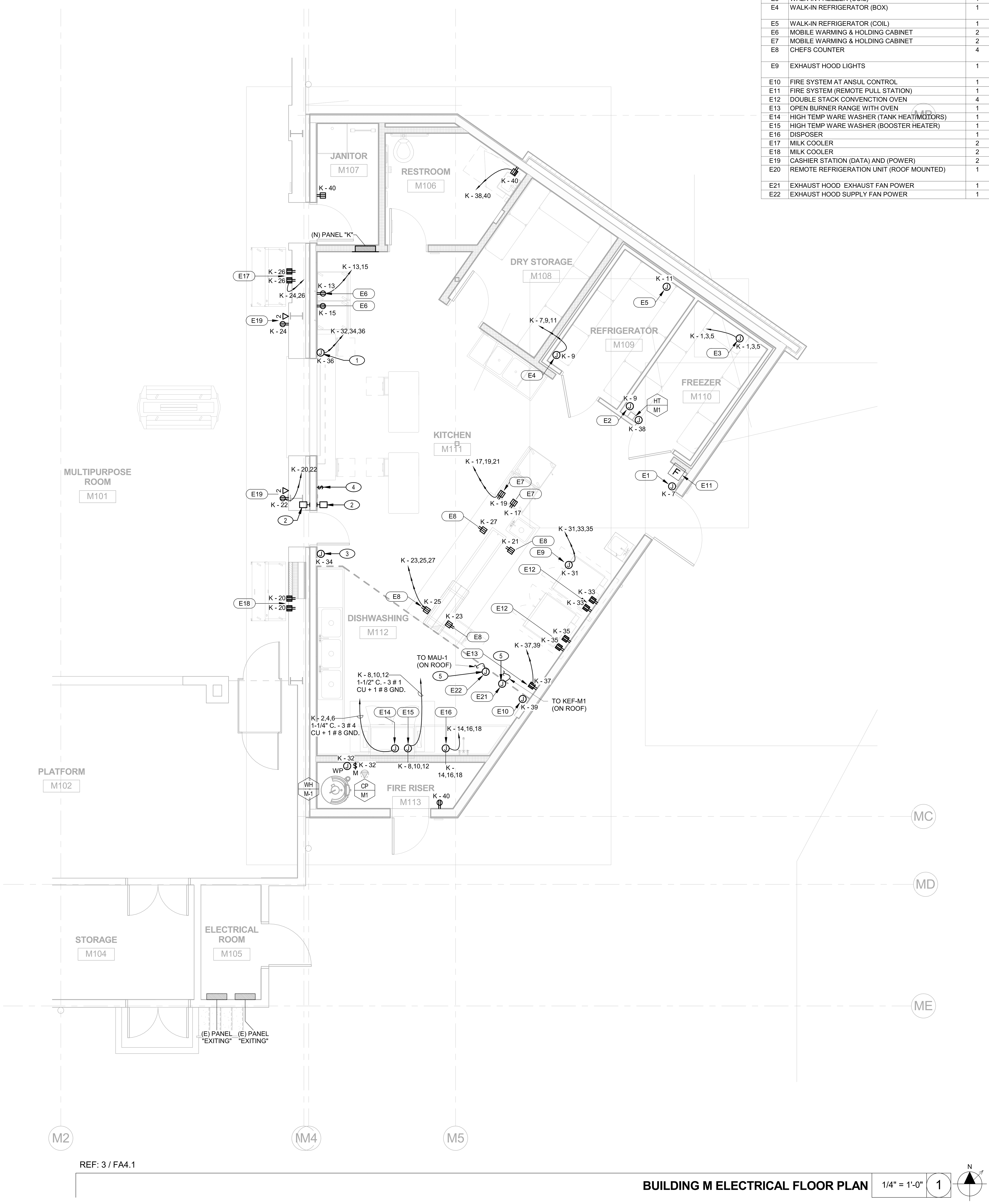
KITCHEN EQUIPMENT ELECTRICAL SCHEDULE

EQUIP. NO.	DESCRIPTION	QTY	AMPS	KW	HP	VOLTS	PHASE	DIRECT	PLUG	RECEPT. NEMA	ELECT. AFF (IN)	ELECTRICAL REMARKS
E1	AIR CURTAIN	1	9 A	0 W	0.5 hp	120 V	1	X	---		+86"	PROVIDE J-BOX IN WALL INSTALL. DOOR LIMIT SWITCH FOR INSTANT ON/OFF SWITCH BY F.S.E.C.
E2	WALK-IN FREEZER (BOX)	1	5 A	0 W	0 hp	120 V	1	X	---		+88"	PROVIDE ALL INTERCONNECTIONS FOR (2) 39W LED CLG. MT'D. LIGHT FIXTURES (1) 11.5W LED LIGHT FIXTURE AT DOOR. 250W DOOR HEATER, 20W P.R.P, 100W WINDOW HEATER EC.
E3	WALK-IN FREEZER (COIL)	1	13 A	0 W	0 hp	208 V	3	X	---		+74"	CONNECT TO UNIT ELECTRICAL CONNECTION AT COIL INSIDE WALK-IN FREEZER.
E4	WALK-IN REFRIGERATOR (BOX)	1	2 A	0 W	0 hp	120 V	1	X	---		+88"	CONTRACTOR TO PROVIDE ALL INTERCONNECTIONS. (2) 39W LED CLG. MT'D. LIGHT FIXTURES (1) 11.5W LED LIGHT FIXTURE AT DOOR.
E5	WALK-IN REFRIGERATOR (COIL)	1	2 A	0 W	0 hp	120 V	1	X	---		+74"	CONNECT TO UNIT ELECTRICAL CONNECTION AT COIL INSIDE WALK-IN REFRIGERATOR.
E6	MOBILE WARMING & HOLDING CABINET	2	12 A	0 W	0 hp	120 V	1	---	X		+48"	PROVIDE DUPLEX RECEPTACLE IN WALL. UNITS PROVIDED WITH CORD AND PLUG SET
E7	MOBILE WARMING & HOLDING CABINET	2	12 A	0 W	0 hp	120 V	1	---	X		+48"	UNITS PROVIDED WITH CORD AND PLUG SET
E8	CHEFS COUNTER	4	15 A	0 W	0 hp	120 V	1	X	---		+34"	PROVIDE DOUBLE FACED PEDISTAL DUPLEX RECEPTACLE MT'D. ON COUNTER TOP (COMPONENT HARDWARE NO. R58-1020) (R71-0721) (TOTAL OF 4 DCO OUTLETS).
E9	EXHAUST HOOD LIGHTS	1	0 A	400 W	0 hp	120 V	1	X	---		+104"	PROVIDE J-BOX ABOVE EXHAUST HOOD CONNECT TO J-BOX FOR FACTORY WIRED LIGHTS. PROVIDE CONNECTION BETWEEN HOOD SECTIONS.
E10	FIRE SYSTEM AT ANSUL CONTROL	1	20 A	0 W	0 hp	120 V	1	X	---		+104"	120V/1-20AMP @ ANSUL CONTROL.
E11	FIRE SYSTEM (REMOTE PULL STATION)	1	0 A	0 W	0 hp	0 V	1	X	---		+48"	EMPTY FLUSH MT'D. OCTAGONAL BOX (REMOTE PULL). PROVIDE INTERCONNECTION WIRING.
E12	DOUBLE STACK CONVENCTION OVEN	4	6 A	0 W	0 hp	120 V	1	---	X		+20"/+51"	PROVIDE DUPLEX RECEPTACLE IN WALL FLUSH FACE WITH S/S WALL LINING UNIT PROVIDED WITH CORD AND PLUG SET.
E13	OPEN BURNER RANGE WITH OVEN	1	0 A	0 W	0 hp	120 V	1	---	X		+20"	PROVIDE DUPLEX RECEPTACLE IN WALL FLUSH FACE WITH S/S WALL LINING UNIT PROVIDED WITH CORD AND PLUG SET.
E14	HIGH TEMP WARE WASHER (TANK HEAT/MOTORS)	1	55 A	0 W	0 hp	208 V	3	X	---		+63"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION.
E15	HIGH TEMP WARE WASHER (BOOSTER HEATER)	1	83 A	0 W	0 hp	208 V	3	X	---		+63"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION.
E16	DISPOSER	1	6 A	0 W	0 hp	208 V	3	X	---		+24"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION.
E17	MILK COOLER	2	8 A	0 W	0 hp	120 V	1	---	X		+18"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET
E18	MILK COOLER	2	8 A	0 W	0 hp	120 V	1	---	X		+18"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET
E19	CASHIER STATION (DATA) AND (POWER)	2	20 A	0 W	0 hp	120 V	1	---	X		+4"	PROVIDE DATA OUTLETS AND ELECTRICAL PLUGS.
E20	REMOTE REFRIGERATION UNIT (ROOF MOUNTED)	1	23 A	0 W	0 hp	208 V	3	X	---		+18"	PROVIDE J-BOX CONNECT TO UNIT ELECTRICAL CONNECTION. UNIT TO BE LOCATED ON ROOF. SEE SHEET E4.5 FOR MORE INFORMATION
E21	EXHAUST HOOD EXHAUST FAN POWER	1	0 A	0 W	0 hp	0 V	1	---	---		+88"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION. SEE MAU-M1 ON SHEET E4.5.
E22	EXHAUST HOOD SUPPLY FAN POWER	1	0 A	0 W	0 hp	0 V	3	---	---		+88"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION. SEE KEF M-1 ON SHEET E4.5.



REF: 3 / FA4.1

BUILDING M ELECTRICAL FLOOR PLAN 1/4" = 1'-0" 1

KEY NOTES

1. PROVIDE POWER CONNECTION FOR FIRE DOOR. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL INTERCONNECTIONS FIELD WIRING PER MANUFACTURER REQUIREMENTS.
2. AUTOMATIC DOOR WALL PUSH PAD. PROVIDE ALL REQUIRED INTERCONNECTION WIRING FOR A COMPLETE AND OPERABLE SYSTEM.
3. PROVIDE POWER CONNECTION FOR AUTOMATIC DOOR.
4. CONTROL SWITCH FOR FIRE DOOR.
5. PROVIDE ALL INTERCONNECTION/INTERLOCK BETWEEN KITCHEN CONTROLS, HOOD EXHAUST AND SUPPLY FAN AS REQUIRED BY FOOD SERVICE AND/OR MECHANICAL DRAWINGS. PROVIDE ALL COMPONENTS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.

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NO.	REMARKS	DATE

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

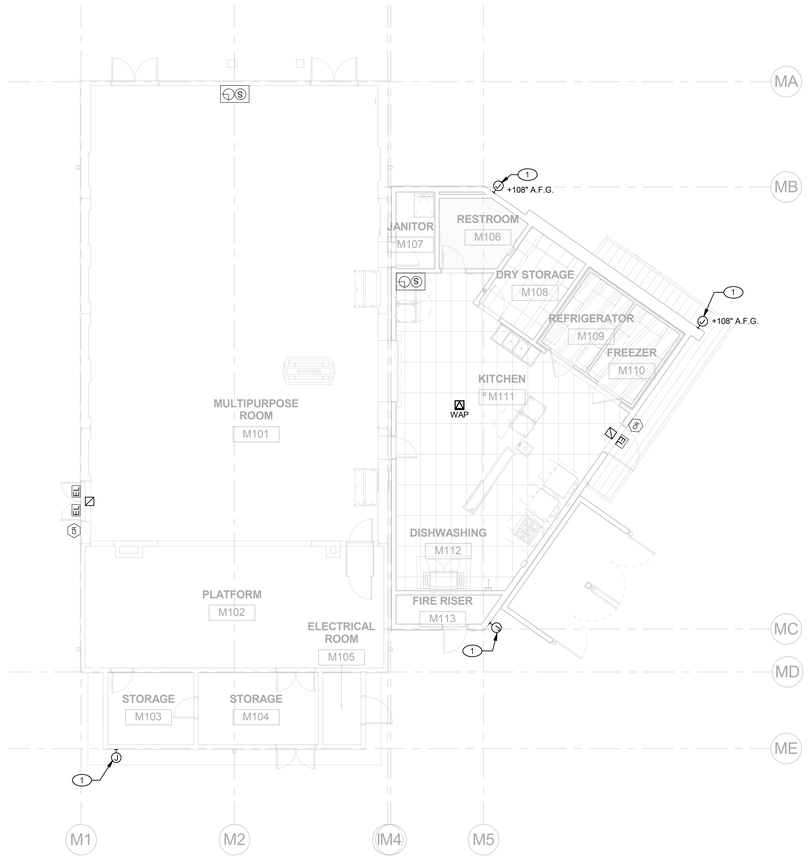
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M ELECTRICAL FLOOR PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	E4.3
Drawn: Author	Checked: Checker

PRINT DATE: 5/16/2019 4:03:21 PM



REF: 3 / FA3.1

BUILDING M LOW VOLTAGE PLAN 1/8" = 1'-0" 1

KEY NOTES

1 PROVIDE WEATHERPROOF JUNCTION BOX AT 11' A.F.G. (UNO) FOR DISTRICT PROVIDED SECURITY CAMERA. ELECTRICAL CONTRACTOR SHALL INSTALL THE CAMERA AND WIRING. COORDINATE WITH DISTRICT FOR EXACT LOCATION, AND INSTALLATION HEIGHT PRIOR TO ANY WORK.

GENERAL NOTES

1. SEE LOW VOLTAGE SYSTEMS DIAGRAMS FOR MORE INFORMATION.

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M LOW VOLTAGE SYSTEMS PLAN

Date 05/20/2019	Project Number 19003
Scale 1/8" = 1'-0"	Drawing Number E4.4
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 4:03:25 PM
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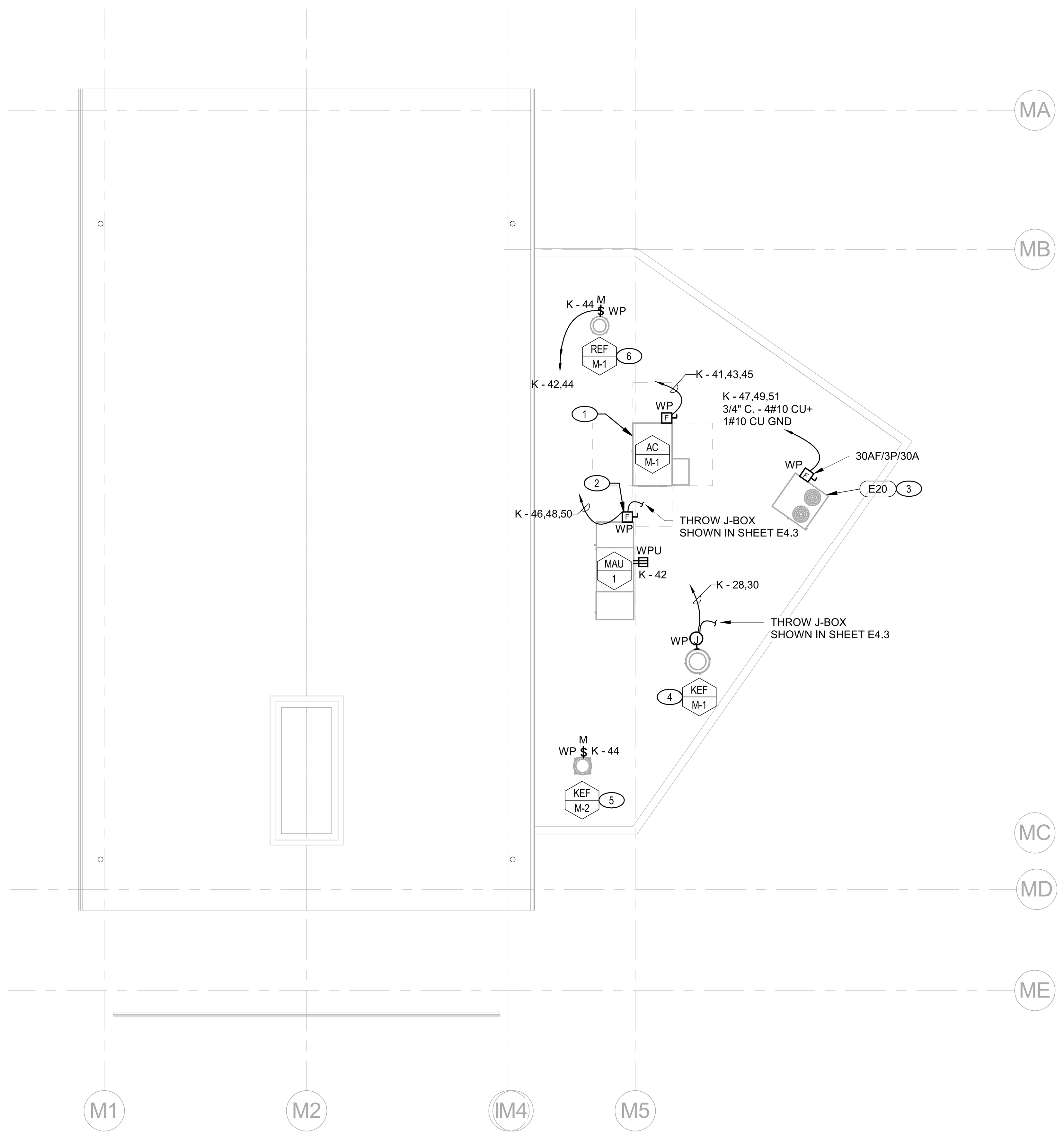

REF: 3 / FA4.1

BUILDING M ELECTRICAL ROOF PLAN | 1/8" = 1'-0" | 1

KEY NOTES

1. AC UNIT, 208V/ 3PH, 18A FLA, 21A MCA, 30A MOCP. PROVIDE 30AF/3PH/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 10 CU + 1 # 10 CU GND.
2. MAU-1, 208V/ 3PH, 1.5H. PROVIDE 20AF/3P/30A WEATHERPROOF DISCONNECT SWITCH, W/ 3/4" C.-3 # 12 CU + 1 # 12 CU GND. PROVIDE INTERCONNECTION/INTERLOCK WITH KITCHEN HOOD AS REQUIRED BY MECHANICAL DRAWINGS. PROVIDE ALL COMPONENTS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.
3. PLEASE SEE SHEET E4.3 FOR KITCHEN EQUIPMENT SCHEDULE.
4. KEF M-1; 2 HP, 208V, 1PHASE; PROVIDE 208V POWER CONNECTION. PROVIDE INTERCONNECTION/INTERLOCK WITH KITCHEN HOOD AS REQUIRED BY MECHANICAL DRAWINGS. PROVIDE ALL COMPONENTS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.
5. KEF M-2, 0.1 HP, 120V, 1PHASE; PROVIDE 120V POWER CONNECTION AND INTERCONNECTION/INTERLOCK WITH (AC-M-1) AS REQUIRED BY MECHANICAL DRAWINGS. PROVIDE ALL COMPONENTS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM.
6. REF M-1, 0.1 HP, 120V, 1 PHASE; PROVIDE 120V POWER CONNECTION.

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBITSKY No. 11798 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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4.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

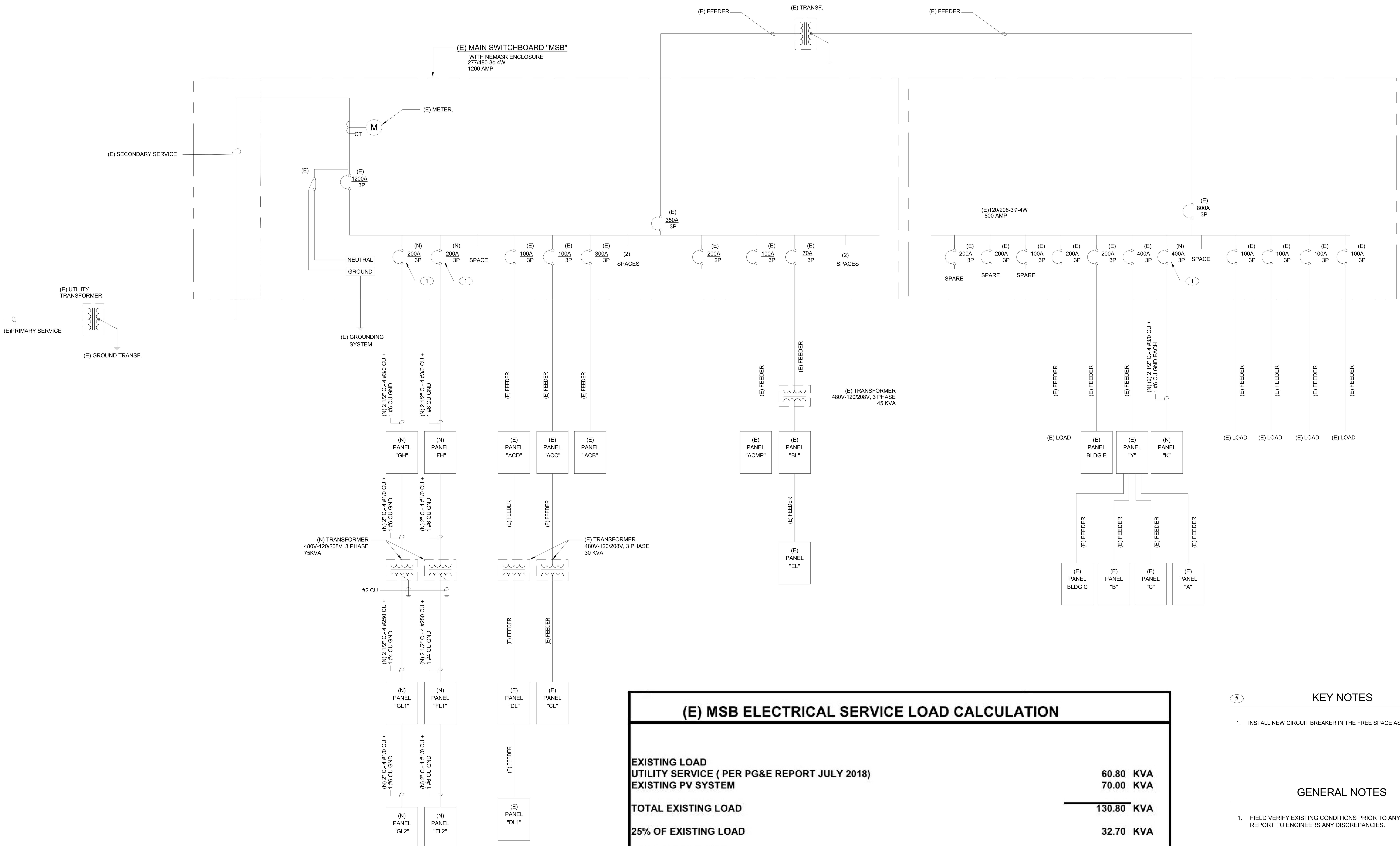
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M ELECTRICAL ROOF PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	E4.5
Drawn: Author	Checked: Checker

PRINT DATE: 5/16/2019 4:03:30 PM
FILE PATH: C:\Users\rtraill\Documents\19-2007_Westmore Oaks E3_MEP_r17_rtdtail.rvt



(E) MSB ELECTRICAL SERVICE LOAD CALCULATION

EXISTING LOAD		
UTILITY SERVICE (PER PG&E REPORT JULY 2018)	**60.80**	**KVA**
EXISTING PV SYSTEM	**70.00**	**KVA**
TOTAL EXISTING LOAD	**130.80**	**KVA**
25% OF EXISTING LOAD	**32.70**	**KVA**
ADDED NEW LOADS		
BUILDING F	**134.50**	**KVA**
BUILDING G	**147.00**	**KVA**
BUILDING M	**100.00**	**KVA**
TOTAL SERVICE LOAD	**= 545.00**	**KVA**

545.0 KVA @ 277/480 VOLT , 3 PHASE = 656 AMPERES

EXISTING 1200 AMP, 277/480 VOLT, 3 PHASE, 4 WIRE SERVICE IS SUFFICIENT FOR ADDED LOADS.

KEY NOTES

1. INSTALL NEW CIRCUIT BREAKER IN THE FREE SPACE AS SHOWN.

GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO ANY WORK. REPORT TO ENGINEERS ANY DISCREPANCIES.

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Job #: 19-2007

ARCHITECT | ENGINEER

LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY No. 11798 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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NO.	REMARKS	DATE

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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL ONE LINE DIAGRAM

Date 05/20/2019
Project Number 19003
Scale 12" = 1'-0"
Drawing Number
Drawn Author
Checked Checker

E5.1

PRINT DATE: 5/16/2019 4:49:53 PM
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Branch Panel: FL1

Location: ELECTRICAL F112 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22 KA
Supply From: FT1 | **Phases:** 3 | **Mains Type:** MCB
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 250 A

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	DEDICATED RECEPT. CLASS RM F107	20 A	1	180			900			1	20 A	RECEPT. CLASS RM F106	2
3	RECEPT. CLASS RM F107	20 A	1		900			180		1	20 A	DEDICATED RECEPT. CLASS RM F106	4
5	RECEPT. CLASS RM F107, F108, MP F100	20 A	1			900			1,080	1	20 A	RECEPT. CLASS RM F106, F105	6
7	DEDICATED RECEPT. CLASS RM F108	20 A	1	180			180			1	20 A	DEDICATED RECEPT. CLASS RM F105	8
9	DEDICATED RECEPT. MULTI-PURPOSE F100	20 A	1		180			900		1	20 A	RECEPT. CLASS RM F105, MULTI-PURPOSE...	10
11	RECEPT. CLASS RM F108	20 A	1			900			1,080	1	20 A	RECEPT. CLASS RM F102, ROOF ACCES,...	12
13	RECEPT. CLASS RM F109	20 A	1	900			720			1	20 A	RECEPT. CLASS RM F102	14
15	DEDICATED RECEPT. CLASS RM F109	20 A	1		180			180		1	20 A	DEDICATED RECEPT. CLASS RM F102	16
17	DEDICATED RECEPT. CLASS RM F110	20 A	1			180			180	1	20 A	DEDICATED RECEPT. CLASS RM F101	18
19	RECEPT. CLASS RM F109, F110 MULTI-P. F100	20 A	1	1,080			360			1	20 A	RECEPT. CLASS RM F101	20
21	RECEPT. CLASS RM F111	20 A	1		900			1,080		1	20 A	RECEPT. CLASS RM F101, MULTI-PURPOSE...	22
23	RECEPT. CLASS RM F110	20 A	1			900			360	1	20 A	RECEPT. ON ROOF	24
25	DEDICATED RECEPT. CLASS RM F111	20 A	1	180			720			1	20 A	RECEPT. CLASS RM F111, ELECT.RM, FIRE R...	26
27	RECEPTACLE-IDF	20 A	1		360			200		1	20 A	FIRE BELL	28
29	FIRE ALARM CONTROL PANEL "FACP"	20 A	1			200			0	1	20 A	SPARE	30
31	RECEPTACLE-TBB	20 A	1	360			0			1	20 A	SPARE	32
33	SPARE	20 A	1		0			0		1	20 A	SPARE	34
35	SPARE	20 A	1			0			0	1	20 A	SPARE	36
37	SPARE	20 A	1	0			9,603			3	150 A	PANEL-FL2	38
39	SPARE	20 A	1		0			8,149		--	--	--	40
41	SPARE	20 A	1			0			5,007	--	--	--	42
			Total Load:		15,363 VA			13,209 VA		10,787 VA			
			Total Amps:		131 A			113 A		90 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12960 VA	101.39%	13140 VA		
Other	360 VA	100.00%	360 VA	**Total Conn. Load:**	39,358 VA
Power	9452 VA	100.00%	9452 VA	**Total Est. Demand:**	39,518 VA
RECEPT	16386 VA	100.00%	16386 VA	**Total Conn. Current:**	109 A
GENERAL LOADS	200 VA	90.00%	180 VA	**Total Est. Demand Current:**	110 A

Notes:

Branch Panel: FH

Location: ELECTRICAL F112 | **Volts:** 480/277 Wye | **A.I.C. Rating:** 65 KA
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:** 200 A

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	INTERIOR LTG	20 A	1	2,653			200			1	20 A	LIGHTING CONTROL PANEL "LCP"	2
3	INTERIOR LTG	20 A	1		1,694			1,416		1	20 A	INTERIOR LTG	4
5	EXTERIOR LTG	20 A	1			568			1,987	1	20 A	INTERIOR LTG	6
7	ROOFTOP AC UNIT #F1	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #F6	8
9	--	--	--		2,828			2,828		--	--	--	10
11	--	--	--			2,828			2,828	--	--	--	12
13	ROOFTOP AC UNIT #F2	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #F7	14
15	--	--	--		2,828			2,828		--	--	--	16
17	--	--	--			2,828			2,828	--	--	--	18
19	ROOFTOP AC UNIT #F3	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #F8	20
21	--	--	--		2,828			2,828		--	--	--	22
23	--	--	--			2,828			2,828	--	--	--	24
25	ROOFTOP AC UNIT #F4	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #F9	26
27	--	--	--		2,828			2,828		--	--	--	28
29	--	--	--			2,828			2,828	--	--	--	30
31	ROOFTOP AC UNIT #F5	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #F10	32
33	--	--	--		2,828			2,828		--	--	--	34
35	--	--	--			2,828			2,828	--	--	--	36
37	SPARE	20 A	1	0			15,363			3	125 A	FT1, 277 V/480 V, Three Phase, 4 Wires, Wye	38
39	SPARE	20 A	1		0			13,209		--	--	--	40
41	SPARE	20 A	1			0			10,787	--	--	--	42
			Total Load:		46,376 VA			44,478 VA		41,529 VA			
			Total Amps:		169 A			162 A		150 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12960 VA	101.39%	13140 VA		
Other	560 VA	100.00%	560 VA	**Total Conn. Load:**	132,383 VA
Power	94302 VA	100.00%	94302 VA	**Total Est. Demand:**	134,506 VA
Lighting - Dwelling Unit	156 VA	100.00%	156 VA	**Total Conn. Current:**	159 A
RECEPT	16386 VA	100.00%	16386 VA	**Total Est. Demand Current:**	162 A
GENERAL LOADS	200 VA	90.00%	180 VA		
LTG	8152 VA	125.00%	10190 VA		

Notes:

Branch Panel: GH

Location: ELECTRICAL G117 | **Volts:** 480/277 Wye | **A.I.C. Rating:** 65 KA
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:** 200 A

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	SITE PATHWAYS LIGHT	20 A	1	105			473			1	20 A	EXTERIOR LTG	2
3	INTERIOR LTG	20 A	1		1,819			1,479		1	20 A	INTERIOR LTG	4
5	INTERIOR LTG	20 A	1			2,120			2,325	1	20 A	INTERIOR LTG	6
7	ROOFTOP AC UNIT #G1	30 A	3	5,742			2,377			3	20 A	ROOFTOP AC UNIT #G6	8
9	--	--	--		5,742			2,377		--	--	--	10
11	--	--	--			5,742			2,377	--	--	--	12
13	ROOFTOP AC UNIT #G2	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #G7	14
15	--	--	--		2,828			2,828		--	--	--	16
17	--	--	--			2,828			2,828	--	--	--	18
19	ROOFTOP AC UNIT #G3	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #G8	20
21	--	--	--		2,828			2,828		--	--	--	22
23	--	--	--			2,828			2,828	--	--	--	24
25	ROOFTOP AC UNIT #G4	20 A	3	2,828			2,828			3	20 A	ROOFTOP AC UNIT #G9	26
27	--	--	--		2,828			2,828		--	--	--	28
29	--	--	--			2,828			2,828	--	--	--	30
31	ROOFTOP AC UNIT #G15	20 A	3	2,828			0			1	20 A	SPARE	32
33	--	--	--		2,828			0		1	20 A	SPARE	34
35	--	--	--			2,828			0	1	20 A	SPARE	36
37	LIGHTING CONTROL PANEL "LCP"	20 A	1	200			20,736			3	125 A	GT1, 277 V/480 V, Three Phase, 4 Wires, Wye	38
39	SPARE	20 A	1		0			18,136		--	--	--	40
41	SPARE	20 A	1			0			14,046	--	--	--	42
			Total Load:		49,418 VA			49,207 VA		46,231 VA			
			Total Amps:		180 A			179 A		167 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	105 VA	125.00%	131 VA		
Motor	11520 VA	101.56%	11700 VA	**Total Conn. Load:**	144,847 VA
Other	560 VA	100.00%	560 VA	**Total Est. Demand:**	146,964 VA
Power	108702 VA	100.00%	108702 VA	**Total Conn. Current:**	174 A
Lighting - Dwelling Unit	182 VA	100.00%	182 VA	**Total Est. Demand Current:**	177 A
RECEPT	15886 VA	100.00%	15886 VA		
GENERAL LOADS	200 VA	90.00%	180 VA		
LTG	8022 VA	125.00%	10028 VA		

Notes:

Branch Panel: FL2

Location: ELECTRICAL F112 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 22 KA
Supply From: FL1 | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:**

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	SKYLITS- MOTOR LOUVER CLASSRM F107	20 A	1	1,440			1,440			1	20 A	SKYLITS- MOTOR LOUVER CLASSRM F106	2
3	SKYLITS- MOTOR LOUVER CLASSRM F108	20 A	1		1,440			1,440		1	20 A	SKYLITS- MOTOR LOUVER CLASSRM F105	4
5	SKYLITS- MOTOR LOUVER CLASSRM F109	20 A	1			1,440			1,440	1	20 A	SKYLITS- MOTOR LOUVER CLASSRM F102	6
7	SKYLITS- MOTOR LOUVER CLASSRM F110	20 A	1	1,440			1,440			1	20 A	SKYLITS- MOTOR LOUVER CLASSRM F101	8
9	SKYLITS- MOTOR LOUVER CLASSRM F111	20 A	1		1,440			186		1	20 A	IEF-F1	10
11	POWER	20 A	1			300			160	1	20 A	DOOR ACCESS CONTROL POWER SUPPLY	12
13	OUTDOOR UNIT F1	25 A	2	1,976			200			1	20 A	DOOR ACCESS CONTROL POWER SUPPLY	14
15	--	--	--		1,976			0		1	20 A	SPARE	16
17	ELECTRICAL WATER HEATER	25 A	3			1,667			0	1	20 A	SPARE	18
19	--	--	--	1,667			0			1	20 A	SPARE	20
21	--	--	--		1,667			0		1	20 A	SPARE	22
23	SPARE	20 A	1			0			0	1	20 A	SPARE	24
25	SPARE	20 A	1	0			0			1	20 A	SPARE	26
27	SPARE	20 A	1		0			0		1	20 A	SPARE	28
29	SPACE	--	--			0			0	--	--	SPACE	30
31	SPACE	--	--	0			0			--	--	SPACE	32
33	SPACE	--	--		0			0		--	--	SPACE	34
35	SPACE	--	--			0			0	--	--	SPACE	36
37	SPACE	--	--	0			0			--	--	SPACE	38
39	SPACE	--	--		0			0		--	--	SPACE	40
41	SPACE	--	--			0			0	--	--	SPACE	42
			Total Load:		9,603 VA			8,149 VA		5,007 VA			
			Total Amps:		84 A			72 A		42 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	12960 VA	101.39%	13140 VA		
Power	9252 VA	100.00%	9252 VA	**Total Conn. Load:**	22,758 VA
RECEPT	546 VA	100.00%	546 VA	**Total Est. Demand:**	22,938 VA
				Total Conn. Current:	63 A
				Total Est. Demand Current:	64 A

Notes:

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STATE OF CALIFORNIA

ENGINEER

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EXP. 9/30/20
ELECTRICAL
STATE OF CALIFORNIA

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NO.	REMARKS	DATE

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	DATE
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○ DSA BACK CHECK	
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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL SCHEDULES

Date: 05/20/2019 | Project Number: 19003
Scale | Drawing Number: E6.1
Drawn | Checked
Author | Checker

PRINT DATE: 5/16/2019 4:03:36 PM
FILE PATH: C:\Users\rafzal\Documents\19-2007_Westmore Oaks ES_MEP_r17_rafzali.rvt

Branch Panel: K

Location: KITCHEN M111
Supply From:
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65 KA
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	FREEZER COIL	20 A	3	1,561			6,605			3	70 A	WARE WASHER (TANK HEAT/MORORS)	2
3	--	--	--		1,561			6,605		--	--	--	4
5	--	--	--			1,561			6,605	--	--	--	6
7	AIR CURTAIN	20 A	1	720			9,967			3	100 A	WARE WASHER (BOOSTER HEATER)	8
9	FREEZER/REFRIGERATOR BOX	20 A	1		840			9,967		--	--	--	10
11	REFRIGERATOR COIL	20 A	1			240			9,967	--	--	--	12
13	RECEPT-MOBILE WARMING CABINET	20 A	1	1,440			720			3	20 A	DISPOSER	14
15	RECEPT-MOBILE WARMING CABINET	20 A	1		1,440			720		--	--	--	16
17	RECEPT-MOBILE WARMING CABINET	20 A	1			1,440			720	--	--	--	18
19	RECEPT-MOBILE WARMING CABINET	20 A	1	1,440			1,920			1	20 A	RECEPT-MILK COOLER	20
21	RECEPT-CHEFS COUNTER	20 A	1		1,800			2,400		1	20 A	RECEPT-CASHIER STATION	22
23	RECEPT-CHEFS COUNTER	20 A	1			1,800			2,400	1	20 A	RECEPT-CASHIER STATION	24
25	RECEPT-CHEFS COUNTER	20 A	1	1,800			1,920			1	20 A	RECEPT-MILK COOLER	26
27	RECEPT-CHEFS COUNTER	20 A	1		1,800			1,000		2	20 A	ROOF KEF-M1	28
29	EXTERIOR LIGHTS	20 A	1			58			1,000	--	--	--	30
31	EXHAUST HOOD LIGHTS	20 A	1	0			700			1	20 A	POWER WH-M1, CP-M1	32
33	RECEPT- CONVENCTION OVEN	20 A	1		1,440			200		1	20 A	ENTRANCE AUTOMATIC DOOR POWER	34
35	RECEPT- CONVENCTION OVEN	20 A	1			1,440			746	1	20 A	FIRE DOOR POWER	36
37	RECEPT-BURNER RABGE WITH OVEN	20 A	1	12			1,800			1	20 A	HEAT TRACE COOLER	38
39	FIRE SYSTEM AT ANSUL CONTROL	20 A	1		2,400			540		1	20 A	RECEPT. RESTRM, JANITOR, FIRE RISER	40
41	ROOF AC UNIT M-1	30 A	3			2,161			180	1	20 A	ROOF RECEPT	42
43	--	--	--	2,161			200			1	20 A	ROOF KEF-M2, REF-M1	44
45	--	--	--		2,161			500		3	20 A	ROOF MAU-1	46
47	ROOF-REMOTE REFRIGERATION UNIT	30 A	3			2,762			500	--	--	--	48
49	--	--	--	2,762			500			--	--	--	50
51	--	--	--		2,762			807		1	20 A	INTERIOR LIGHTS	52
53	SPARE	20 A	1			0			0	1	20 A	SPARE	54
55	SPARE	20 A	1	0			0			1	20 A	SPARE	56
57	SPARE	20 A	1		0			0		1	20 A	SPARE	58
59	SPARE	20 A	1			0			0	1	20 A	SPARE	60
			Total Load:	36,228 VA			38,907 VA		33,580 VA				
			Total Amps:	305 A			328 A		280 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	2000 VA	125.00%	2500 VA		
Other	300 VA	100.00%	300 VA	**Total Conn. Load:**	108,714 VA
Power	77467 VA	100.00%	77467 VA	**Total Est. Demand:**	99,625 VA
Lighting - Dwelling Unit	78 VA	100.00%	78 VA	**Total Conn. Current:**	302 A
RECEPT	180 VA	100.00%	180 VA	**Total Est. Demand Current:**	277 A
LTG	785 VA	125.00%	981 VA		

Notes:

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	LAMP	LUMENS	COLOR TEMPERATURE	VOLTS	WATTS	MOUNTING	DESCRIPTION
A1	H.E. WILLIAMS, INC.	AT1-24-L55/835-D-EM/10W-DIM-UNV	LED	5500 lm	3500 K	277 V	59.0 W	RECESSED T-BAR	2X4 LED LAY-IN TROFFER SAFETY TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
A2	H.E. WILLIAMS, INC.	AT1-22-L50/835-D-EM/10W-DIM-UNV	LED	5000 lm	3500 K	277 V	50.0 W	RECESSED T-BAR	2X2 LED LAY-IN TROFFER SAFETY TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
A3	H.E. WILLIAMS, INC.	50-S-24-L59/835-S-EM/10W-DIM-UNV	LED	5900 lm	3500 K	277 V	48.0 W	RECESSED T-BAR	2X4 LED LAY-IN TROFFER SAFETY TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
A4	LITHONIA LIGHTING	2WRTL-G-L48-7000LM-OAW-AFL-MUOLT-EZ1-30K-80CRI-E10WLCP-F PA-NPS80EZ-WH	LED	7000 lm	3000 K	120 V	58.0 W	RECESSED T-BAR	2X4 LED LAY-IN TROFFER SAFETY TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
A5	LITHONIA LIGHTING	2WRTL-G-L24-5000LM-OAW-AFL-MUOLT-EZ1-30K-80CRI-E10WLCP-F PA-NPS80EZ-WH	LED	5000 lm	3000 K	120 V	42.0 W	RECESSED T-BAR	2X2 LED LAY-IN TROFFER SAFETY TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
B1	H.E. WILLIAMS, INC.	SLF-4-L35/835-DRV-UNV	LED	3500 lm	3500 K	277 V	35.0 W	WALL/CEILING	LED CEILING/WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
B2	H.E. WILLIAMS, INC.	SLF-4-L26/835-DRV-UNV	LED	2600 lm	3500 K	277 V	26.0 W	WALL/CEILING	LED CEILING/WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
B3	H.E. WILLIAMS, INC.	SLF-4-L26/835-DRV-UNV	LED	2600 lm	3500 K	120 V	26.0 W	WALL/CEILING	LED CEILING/WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
C1	H.E. WILLIAMS, INC.	WMA-4-L25/835-DRV-UNV	LED	2500 lm	3500 K	277 V	26.0 W	WALL	LED WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
C2	H.E. WILLIAMS, INC.	WMA-4-L32/835-DRV-UNV	LED	3200 lm	3500 K	277 V	41.0 W	WALL	LED WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
C3	H.E. WILLIAMS, INC.	WMA-4-L32/835-DRV-UNV\	LED	3200 lm	3500 K	120 V	41.0 W	WALL	LED WALL MOUNTED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER, EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY.
D1	H.E. WILLIAMS, INC.	6DR-L20-8-35-SCA-DIM-UNV-L-W-OF-CS-N-F1	LED	2000 lm	3500 K	277 V	19.5 W	RECESSED	6" LED ROUND DOWNLIGHT.W/ 0-10V DIMMING DRIVER, EQUIP W/ EM/10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
D2	H.E. WILLIAMS, INC.	6DR-L20-8-35-SCA-DIM-UNV-L-W-OF-CS-WET/CC-N-F1	LED	2000 lm	3500 K	277 V	19.5 W	RECESSED	6" LED ROUND DOWNLIGHT.W/ 0-10V DIMMING DRIVER, EQUIP W/ EM/10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
D3	H.E. WILLIAMS, INC.	6DR-L40-8-35-EM/10W-DIM-UNV-L-W-OF-CS-N	LED	4000 lm	3500 K	277 V	42.0 W	RECESSED	6" LED ADJUSTABLE ROUND DOWNLIGHT.W/ 0-10V DIMMING DRIVER, EQUIP W/ EM/10W EMERGENCY BATTERY BACKUP WHERE MARKED AS EMERGENCY.
E1	EATON	CTA-F-2575-40L/835-1-D-UNV-STD-W-AC-48"-UM-8	LED	8000 lm	3500 K	277 V	74.0 W	PENDANT	8FT LED SUSPENDED LINEAR TYPE FIXTURE, WITH 0-10V DIMMING DRIVER.
H1	LEOTEK	ES1-24H-MV-NW-FT-350	LED	3471 lm	4000 K	277 V	30.0 W	WALL	EXTERIOR EGRESS LIGHTING. EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY. COORDINATE LIGHT FINISHING COLOR WITH ARCHITECTURE DRAWINGS.
H2	LEOTEK	ES1-24H-MV-NW-W-350	LED	3301 lm	4000 K	120 V	29.0 W	WALL	EXTERIOR GRESS LIGHTING. EQUIP W/ E10W EMERGENCY LED BATTERY BACKUP WHERE MARKED AS EMERGENCY. COORDINATE LIGHT FINISHING COLOR WITH ARCHITECTURE DRAWINGS.
S4	GARDCO BY SIGNIFY	GL18-DIM-2-4-105LA-NW-UNV	LED	10774 lm	4000 K	277 V	105.0 W	POLE LIGHT	PATHWAYS LED LIGHT; MOUNTED @18' A.F.G.
X1	H.E. WILLIAMS, INC.	EXIT/CA-G-WF-WHT-EM-SDT-D	LED	0 lm		277 V	3.8 W	WALL/CEILING	SINGLE/DOUBLE FACE LED EXIT SIGN WITH BATTERY BACK-UP FOR 90 MINUTES. W/ TEST SWITCH AND LED INDICATOR LIGHT.

Branch Panel: GL1

Location: ELECTRICAL G117
Supply From: GT1
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22 KA
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 250 A

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	RECEPT. CLASS RM G111, STORAGE...	20 A	1	1,080			180			1	20 A	DEDICATED RECEPT. CLASS RM G108	2
3	RECEPT. CLASS RM G111	20 A	1		900			900		1	20 A	RECEPT. CLASS RM G108, G106	4
5	DEDICATED RECEPT. CLASS RM G112	20 A	1			180			1,080	1	20 A	RECEPT. CLASS RM G108, G106, G100	6
7	DEDICATED RECEPT. MULTI-PURPOSE G100	20 A	1	180			900			1	20 A	RECEPT. CLASS RM G106, MMULTI-PURP....	8
9	RECEPT. CLASS RM G112 ,MULTI-PURPOSE...	20 A	1		1,080			180		1	20 A	DEDICATED RECEPT. CLASS RM G106	10
11	RECEPT. CLASS RM G113, G114	20 A	1			720			1,080	1	20 A	RECEPT. CLASS RM G106, G107, WORKRM...	12
13	RECEPT. CLASS RM G112, G113	20 A	1	1,080			900			1	20 A	RECEPT. OFFICE G102, WORKRM G101	14
15	DEDICATED RECEPT. CLASS RM G113	20 A	1		180			1,080		1	20 A	RECEPT. CLASS RM G114, G115	16
17	DEDICATED RECEPT. CLASS RM G114	20 A	1			180			180	1	20 A	DEDICATED RECEPT. CLASS RM G115	18
19	RECEPT. CLASS RM G114, MULTI-PURPOSE...	20 A	1	900			540			1	20 A	RECEPT. ELECT., STORAGE, RIRE R.	20
21	RECEPT. CLASS RM G115	20 A	1		720			200		1	20 A	FIRE ALARM CONTROL PANEL "FACP"	22
23	ROOF RECEPT	20 A	1			360			360	1	20 A	DEDICATED RECEPT. -IDF	24
25	FIRE BELL	20 A	1	200			1,976			2	25 A	OUTDOOR UNIT G1	26
27	RECEPTACLE-TBB	20 A	1		360			1,976		--	--	--	28
29	RECEPT	20 A	1			360			186	1	20 A	IEF-G1	30
31	SPARE	20 A	1	0			0			1	20 A	SPARE	32
33	SPARE	20 A	1		0			0		1	20 A	SPARE	34
35	SPARE	20 A	1			0			0	1	20 A	SPARE	36
37	SPARE	20 A	1	0			12,800			3	150 A	PANEL GL2	38
39	SPARE	20 A	1		0			10,560		--	--	--	40
41	SPARE	20 A	1			0			9,360	--	--	--	42
			Total Load:	20,736 VA			18,136 VA		14,046 VA				
			Total Amps:	178 A			156 A		117 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	11520 VA	101.56%	11700 VA		
Other	360 VA	100.00%	360 VA	**Total Conn. Load:**	52,918 VA
Power	24952 VA	100.00%	24952 VA	**Total Est. Demand:**	53,078 VA
RECEPT	15886 VA	100.00%	15886 VA	**Total Conn. Current:**	147 A
GENERAL LOADS	200 VA	90.00%	180 VA	**Total Est. Demand Current:**	147 A

Notes:

Branch Panel: GL2

Location: ELECTRICAL G117
Supply From: GL1
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22 KA
Mains Type: MLO
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Load Name	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Load Name	CKT
1	SKYLITS- MOTOR LOUVER CLASSRM G101	20 A	1	1,440			1,440			1	20 A	SKYLITS- MOTOR LOUVER CLASSRM G115	2
3	SKYLITS- MOTOR LOUVER CLASSRM G106	20 A	1		1,440			1,440		1	20 A	SKYLITS- MOTOR LOUVER CLASSRM G114	4
5	SKYLITS- MOTOR LOUVER CLASSRM G108	20 A	1			1,440			1,440	1	20 A	SKYLITS- MOTOR LOUVER CLASSRM G113	6
7	WATER HEATER G1	40 A	2	4,160			1,440			1	20 A	SKYLITS- MOTOR LOUVER CLASSRM G112	8
9	--	--	--		4,160			1,440		1	20 A	SKYLITS- MOTOR LOUVER CLASSRM G111	10
11	WATER HEATER G2	40 A	2			4,160			240	1	20 A	DOOR ACCESS CONTROL POWER SUPPLY	12
13	--	--	--	4,160			160			1	20 A	DOOR ACCESS CONTROL POWER SUPPLY	14
15	WATER HEATER G3	20 A	2		2,080			0		1	20 A	SPARE	16
17	--	--	--			2,080			0	1	20 A	SPARE	18
19	SPARE	20 A	1	0			0			1	20 A	SPARE	20
21	SPARE	20 A	1		0			0		1	20 A	SPARE	22
23	SPARE	20 A	1			0			0	1	20 A	SPARE	24
25	SPARE	20 A	1	0			0			1	20 A	SPARE	26
27	SPARE	20 A	1		0			0		--	--	SPACE	28
29	SPACE	--	--			0			0	--	--	SPACE	30
31	SPACE	--	--	0			0			--	--	SPACE	32
33	SPACE	--	--		0			0		--	--	SPACE	34
35	SPACE	--	--			0			0	--	--	SPACE	36
37	SPACE	--	--	0			0			--	--	SPACE	38
39	SPACE	--	--		0			0		--	--	SPACE	40
41	SPACE	--	--			0			0	--	--	SPACE	42
			Total Load:	12,800 VA			10,560 VA		9,360 VA				
			Total Amps:	108 A			90 A		78 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	11520 VA	101.56%	11700 VA		
Power	20800 VA	100.00%	20800 VA	**Total Conn. Load:**	32,720 VA
RECEPT	400 VA	100.00%	400 VA	**Total Est. Demand:**	32,900 VA
				Total Conn. Current:	91 A
				Total Est. Demand Current:	91 A

Notes:

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STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL SCHEDULES

Date 05/20/2019
Project Number 19003
Scale
Drawing Number E6.2
Drawn Author
Checked Checker

PRINT DATE: 5/16/2019 4:03:41 PM
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Building G- Indoor Lighting Controls Sequence of Operation

ROOM TYPE	ROOM NUMBER	WALL SWITCH: ON / OFF ONLY	WALL SWITCH: DIMMER SWITCH	WALL SWITCH: KEY SWITCH	WALL SWITCH: SCENE SWITCH	WALL SWITCH: GRAPHICAL WALL STATION	DIMMING: CONTINUOUS	DIMMING: STEP	DIMMING: MULTI ZONE	OCCUPANCY SENSING: VACANCY MODE (MANUAL ON / AUTO OFF)	OCCUPANCY SENSING: OCCUPANCY MODE (AUTO ON / AUTO OFF)	OCCUPANCY SENSING: PARTIAL AUTO ON (WHEN OCCUPIED)	OCCUPANCY SENSING: PARTIAL AUTO OFF (WHEN VACANT)	OCCUPANCY SENSING: AUTO OFF TIME OUT (IN MINUTES)	TIME CLOCK: AUTO OFF AFTER HOURS	TIME CLOCK: SCHEDULED ON AT	TIME CLOCK: SCHEDULED OFF AT	TIME CLOCK: OVERRIDE SWITCH (2 HOUR)	DAYLIGHT CONTROL: ON / OFF ONLY	DAYLIGHT CONTROL: DIMMING	DAYLIGHT CONTROL: LIGHT LEVEL MAINTAINED AT (IN FOOTCANDLES @2'-6" A.F.F.)	SYSTEM: AUTO-CONTROLLED RECEPTACLE	SYSTEM: NETWORK	SYSTEM: DEMAND RESPONSE	NOTES
MULTI-PURPOSE ROOM	G100		X				X				X	50%		20						X	30		X	X	
WORKROOM	G101		X				X				X	50%		20						X	30		X	X	
OFFICE	G102		X				X				X	50%		20					X	X	30	X	X	X	
GENDER NEUTRAL	G103	X								X				20											
RESTROOM (GIRLS)	G104	X									X			20											
RESTROOM (BOYS)	G105	X									X			20											
CLASSROOM	G106		X				X				X	50%		20						X	30		X	X	
STORAGE	G107	X								X				20											
CLASSROOM	G108		X				X				X	50%		20						X	30		X	X	
STORAGE	G109	X								X				20											
STORAGE	G110	X								X				20											
CLASSROOM	G111		X				X				X	50%		20						X	30		X	X	
CLASSROOM	G112		X				X				X	50%		20						X	30		X	X	
CLASSROOM	G113		X				X				X	50%		20						X	30		X	X	
CLASSROOM	G114		X				X				X	50%		20						X	30		X	X	
CLASSROOM	G115		X				X				X	50%		20						X	30		X	X	
STORAGE	G116	X								X				20											
ELECTRICAL ROOM	G117	X																							
FIRE RISER ROOM	G118	X								X				20											

LIGHTING CONTROLS NOTES:

1- MANUAL CONTROLS NOT ACCESSIBLE TO UNAUTHORIZED PERSONNEL.

Building F- Indoor Lighting Controls Sequence of Operation

ROOM TYPE	ROOM NUMBER	WALL SWITCH: ON / OFF ONLY	WALL SWITCH: DIMMER SWITCH	WALL SWITCH: KEY SWITCH	WALL SWITCH: SCENE SWITCH	WALL SWITCH: GRAPHICAL WALL STATION	DIMMING: CONTINUOUS	DIMMING: STEP	DIMMING: MULTI ZONE	OCCUPANCY SENSING: VACANCY MODE (MANUAL ON / AUTO OFF)	OCCUPANCY SENSING: OCCUPANCY MODE (AUTO ON / AUTO OFF)	OCCUPANCY SENSING: PARTIAL AUTO ON (WHEN OCCUPIED)	OCCUPANCY SENSING: PARTIAL AUTO OFF (WHEN VACANT)	OCCUPANCY SENSING: AUTO OFF TIME OUT (IN MINUTES)	TIME CLOCK: AUTO OFF AFTER HOURS	TIME CLOCK: SCHEDULED ON AT	TIME CLOCK: SCHEDULED OFF AT	TIME CLOCK: OVERRIDE SWITCH (2 HOUR)	DAYLIGHT CONTROL: ON / OFF ONLY	DAYLIGHT CONTROL: DIMMING	DAYLIGHT CONTROL: LIGHT LEVEL MAINTAINED AT (IN FOOTCANDLES @2'-6" A.F.F.)	SYSTEM: AUTO-CONTROLLED RECEPTACLE	SYSTEM: NETWORK	SYSTEM: DEMAND RESPONSE	NOTES
MULTI-PURPOSE ROOM	F100		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F101		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F102		X				X				X	50%		20						X	30		X	X	
RESTROOM (BOYS)	F103	X									X			20											
RESTROOM (GIRLS)	F104	X									X			20											
CLASSROOM	F105		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F106		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F107		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F108		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F109		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F110		X				X				X	50%		20						X	30		X	X	
CLASSROOM	F111		X				X				X	50%		20						X	30		X	X	
ELECTRICAL ROOM	F112	X																							
FIRE RISER ROOM	F113	X								X				20											
JANITOR	F114	X								X				20											
ROOF ACCESS	F115	X								X				20											

LIGHTING CONTROLS NOTES:

1- MANUAL CONTROLS NOT ACCESSIBLE TO UNAUTHORIZED PERSONNEL.

Building M- Indoor Lighting Controls Sequence of Operation

ROOM TYPE	ROOM NUMBER	WALL SWITCH: ON / OFF ONLY	WALL SWITCH: DIMMER SWITCH	WALL SWITCH: KEY SWITCH	WALL SWITCH: SCENE SWITCH	WALL SWITCH: GRAPHICAL WALL STATION	DIMMING: CONTINUOUS	DIMMING: STEP	DIMMING: MULTI ZONE	OCCUPANCY SENSING: VACANCY MODE (MANUAL ON / AUTO OFF)	OCCUPANCY SENSING: OCCUPANCY MODE (AUTO ON / AUTO OFF)	OCCUPANCY SENSING: PARTIAL AUTO ON (WHEN OCCUPIED)	OCCUPANCY SENSING: PARTIAL AUTO OFF (WHEN VACANT)	OCCUPANCY SENSING: AUTO OFF TIME OUT (IN MINUTES)	TIME CLOCK: AUTO OFF AFTER HOURS	TIME CLOCK: SCHEDULED ON AT	TIME CLOCK: SCHEDULED OFF AT	TIME CLOCK: OVERRIDE SWITCH (2 HOUR)	DAYLIGHT CONTROL: ON / OFF ONLY	DAYLIGHT CONTROL: DIMMING	DAYLIGHT CONTROL: LIGHT LEVEL MAINTAINED AT (IN FOOTCANDLES @2'-6" A.F.F.)	SYSTEM: AUTO-CONTROLLED RECEPTACLE	SYSTEM: NETWORK	SYSTEM: DEMAND RESPONSE	NOTES
KITCHEN	M111		X				X				X	50%		20											
JANITOR	M107	X								X				20											
RESTROOM	M106	X								X				20											
DRY STORAGE	M108		X				X				X	50%		20											
FIRE RISER ROOM	M113	X								X				20											

LIGHTING CONTROLS NOTES:

1- MANUAL CONTROLS NOT ACCESSIBLE TO UNAUTHORIZED PERSONNEL.

LIGHTING CONTROL PANEL SCHEDULE

Panel Designation: LCP-F			Control Circuit: "FH"-1 (277V)
Location: ELECTRICAL ROOM			Mounting: SURFACE
Relay #	Circuit #	Scenario	Voltage	Description / Zone
1	"FH"-5	3	277	BUILDING EXTERIOR LIGHTING
2				SPARE
3				SPARE
4				SPARE

Scenario Listings:
- (1) Scheduled ON / OFF
- (2) Astronomic ON / OFF
- (3) Astronomic ON / Scheduled OFF

LIGHTING CONTROL PANEL SCHEDULE

Panel Designation: LCP-G			Control Circuit: "GH"-37 (277V)
Location: ELECTRICAL ROOM			Mounting: SURFACE
Relay #	Circuit #	Scenario	Voltage	Description / Zone
1	"GH"-1	3	277	SITE LIGHTS
2	"GH"-2	3	277	BUILDING EXTERIOR LIGHTS
3				SPARE
4				SPARE

Scenario Listings:
- (1) Scheduled ON / OFF
- (2) Astronomic ON / OFF
- (3) Astronomic ON / Scheduled OFF

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT, BRIAN P. WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER, KENNETH R. RUBY, No. 11788, Exp. 9/30/20, ELECTRICAL, STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL SCHEDULES

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	E6.3
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 4:03:44 PM
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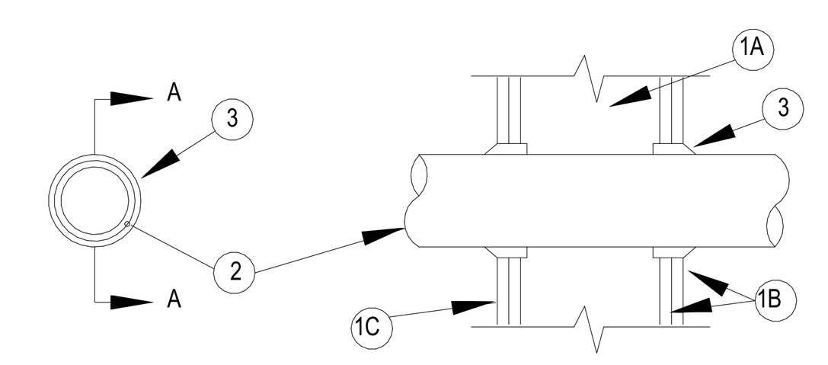
THROUGH-PENETRATION FIRESTOP SYSTEMS (GYPSUM)

SYSTEM NO. W-L-1001

F RATINGS - 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS - 0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ. FT.
L RATING AT 400 F - LESS THAN CFM/SQ. FT.



SECTION A-A

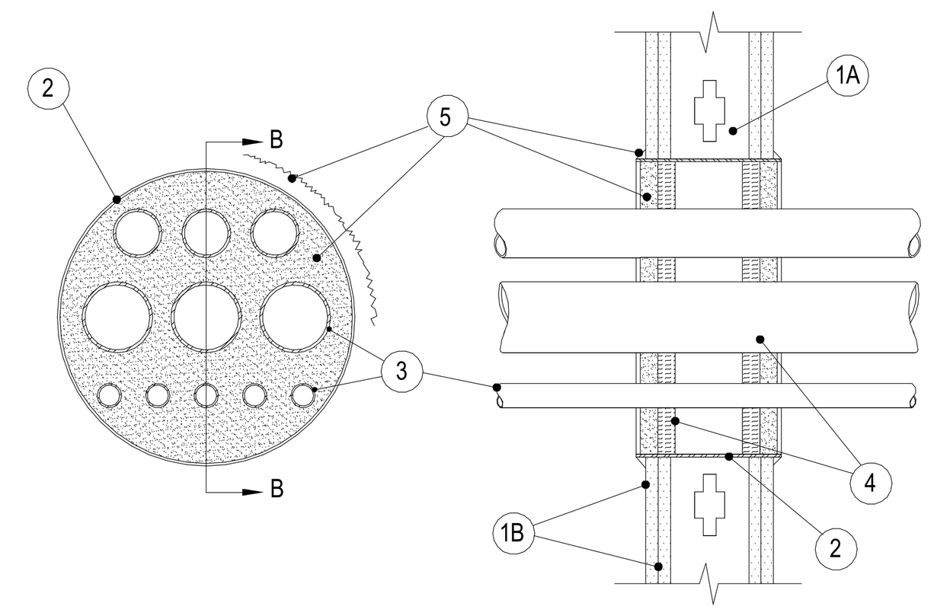
1. WALL ASSEMBLY- THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOMINAL 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MINIMUM 3-5/8 IN. WIDE BY 1-3/8 IN DEEP CHANNELS SPACED MAX. 24 IN. OC.
   B. WALLBOARD, GYPSUM*- NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM. OF OPENING IS 13-1/2 IN.
2. PIPE OR CONDUIT - NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 6 IN. DIAMETER (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR TYPE L (OR HEAVIER) COPPER TUBING OR NOM 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPES OR FLEXIBLE STEEL CONDUIT IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM 3) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM 4 IN. DIAM MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
3. FILL, VOID OR CAVITY MATERIAL* - CAULK- CAULK FILL MATERIAL TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW: F MAX PIPE T

Max Pipe or Conduit Dia In.	Annular Space In.	F Rating Hr	T Rating Hr
1	0 to 3/16	1 or 2	0+,1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1-1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.
3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT.
*BEARING THE UL CLASSIFICATION MARKING

SYSTEM NO. W-L-1016

(FORMERLY SYSTEM NO. 322)
F RATING– 2 HR
T RATINGS–1, 1-1/2 AND 2 HR (SEE ITEM 3)
L RATING AT AMBIENT–2 CFM/sq ft
L RATING AT 400° F–LESS THAN 1 CFM/sq ft



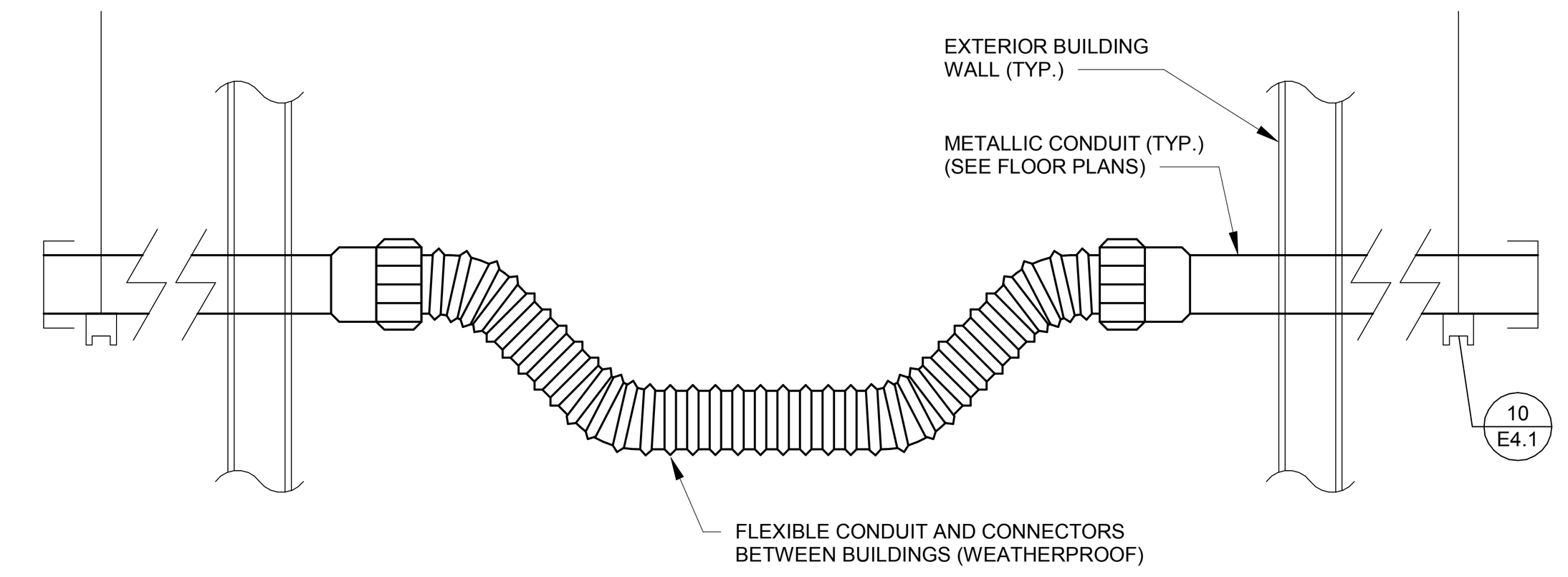
SECTION B-B

1. WALL ASSEMBLY - THE FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN DEEP CHANNELS SPACED MAX 24 IN. OC.
   B. GYPSUM BOARD* - TWO LAYERS OF NOM 5/8 IN. THICK GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. MAX DIAM OF THROUGH OPENINGS CUT IN WALLBOARD LAYERS IS 12 IN. MAX DIMENSIONS FOR RECTANGULAR OPENING IS 12 IN. BY 9 IN.
   C. FASTENERS - WHEN WOOD STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL U300-SERIES DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL U400-SERIES DESIGN.
2. STEEL SLEEVE - NO. 28 GAUGE GALV SHEET STEEL FORMED INTO MAX 12 IN. DIAM OR MAX 12 IN. BY 9 IN. SLEEVE WITH NOM 2 IN. OVERLAP AT SEAM. LENGTH OF SLEEVE TO BE APPROX 1 IN. GREATER THAN OVERALL THICKNESS OF WALL ASSEMBLY, SUCH THAT, WHEN INSTALLED, THE ENDS OF THE SLEEVE WILL PROJECT APPROX 1/2 IN. BEYOND THE SURFACE OF THE WALL ON BOTH SIDES OF THE WALL ASSEMBLY. MAX DIAM OF CIRCULAR THROUGH OPENINGS IN GYPSUM WALLBOARD LAYERS ON EACH SIDE OF WALL ASSEMBLY TO BE 12 IN. MAX DIMENSIONS FOR RECTANGULAR OPENING IS 12 IN. BY 9 IN. SLEEVE INSTALLED BY COILING THE SHEET STEEL TO A DIAM SMALLER THAN THE THROUGH OPENING, INSERTING THE COIL THROUGH THE OPENINGS AND RELEASING THE COIL TO LET IT UNCOIL AGAINST THE CIRCULAR CUTOUTS IN THE GYPSUM WALLBOARD LAYERS.
3. STEEL PIPE OR CONDUIT - NOM 3 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, STEEL CONDUIT OR STEEL ELECTRICAL METALLIC TUBING. MULTIPLE PIPES AND/OR CONDUIT PERMITTED IN SLEEVED OPENING PROVIDED A MIN SEPARATION OF 1/4 IN. IS MAINTAINED BETWEEN PIPES OR CONDUITS. PIPES AND/OR CONDUITS TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE MAX DIAM OF THE PIPES OR CONDUITS, AS TABULATED BELOW:
4. PACKING MATERIAL - MIN 1 IN. THICKNESS OF RIGID GLASS FIBER INSULATION OR MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO STEEL SLEEVE ON BOTH SIDES OF WALL ASSEMBLY AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED MIN 5/8 IN. FROM SURFACE OF WALL ON BOTH SIDES OF WALL ASSEMBLY.
5. FILL,VOID OR CAVITY MATERIALS* - CAULK - APPLIED TO FILL THE STEEL SLEEVE TO A MIN DEPTH OF 1 IN. ON BOTH SIDES OF WALL ASSEMBLY. A NOM 1/4 IN. DIAM CONTINUOUS BEAD OF CAULK SHALL BE APPLIED AROUND THE CIRCUMFERENCE OF THE STEEL SLEEVE AT ITS EGRESS FROM THE GYPSUM WALLBOARD LAYERS ON BOTH SIDES OF THE WALL ASSEMBLY.
   3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT.
   *BEARING THE UL CLASSIFICATION MARKING

Max Pipe or Conduit Diam In.	T Rating Hr
3	1
1	1-1/2
3/4	2

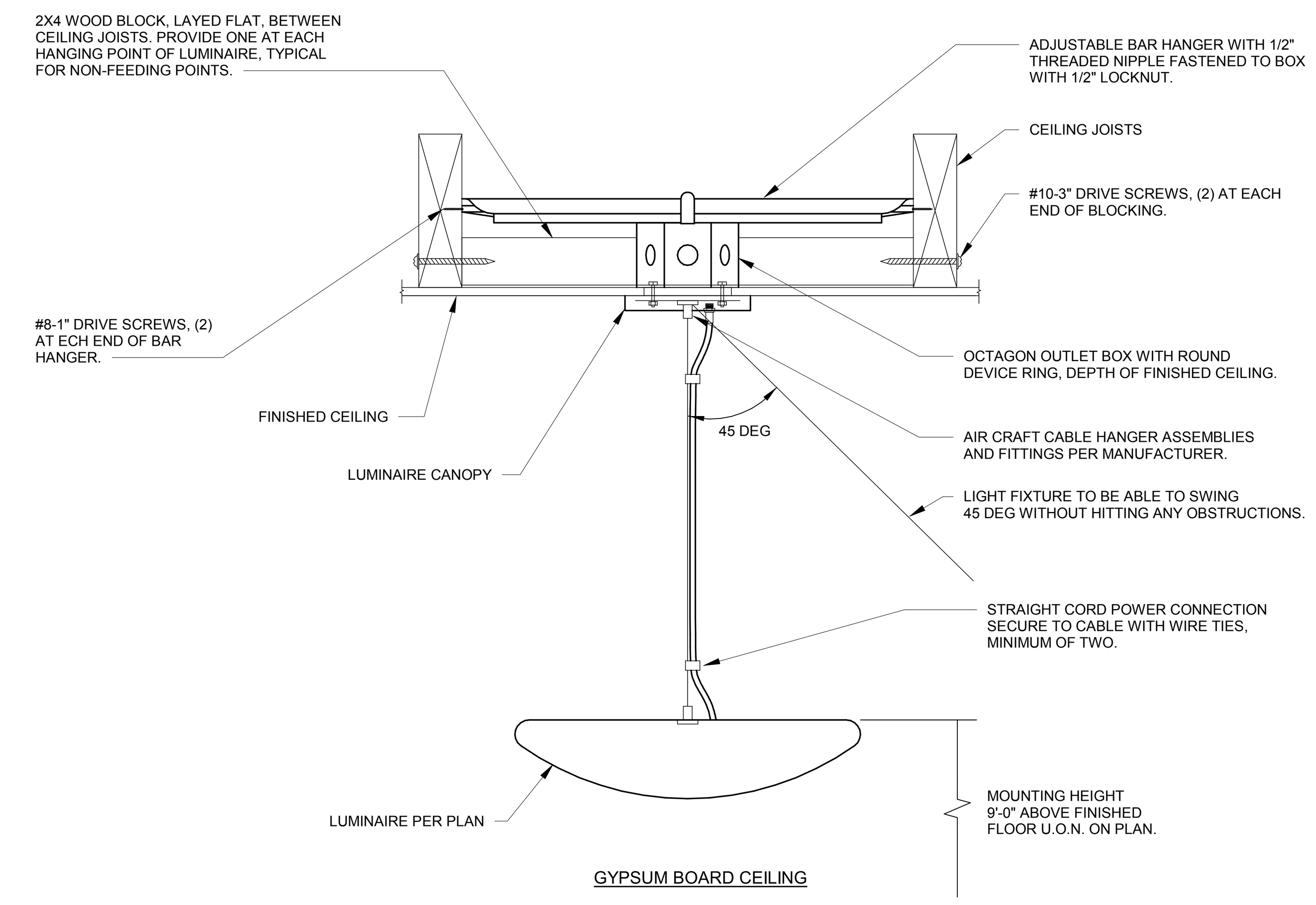
3 FIRE RATED WALL PENETRATION DETAILS (GYPSUM)

SCALE: 1/4" = 1'-0"



2 SEISMIC JOINT CONDUIT DETAIL

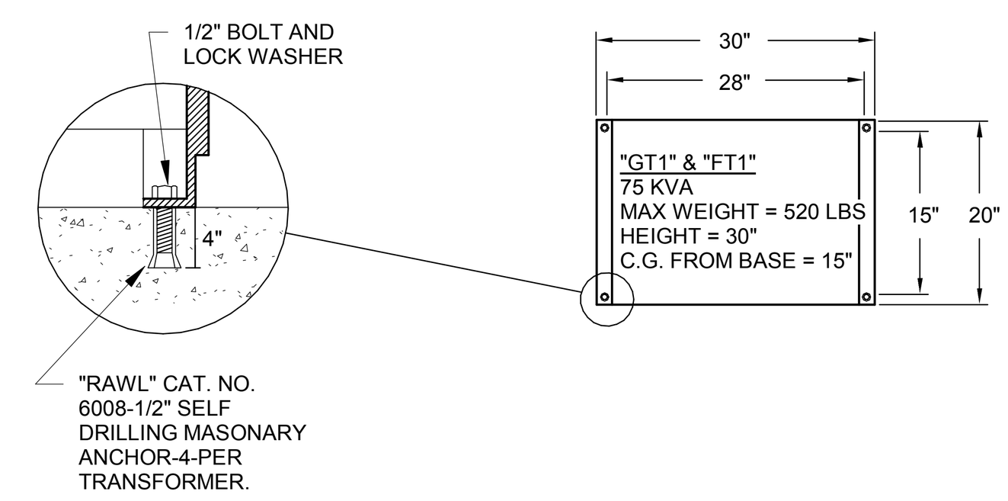
SCALE: 1/4" = 1'-0"



1 CABLE SUSPENDED LUMINAIRE WOOD FRAMING

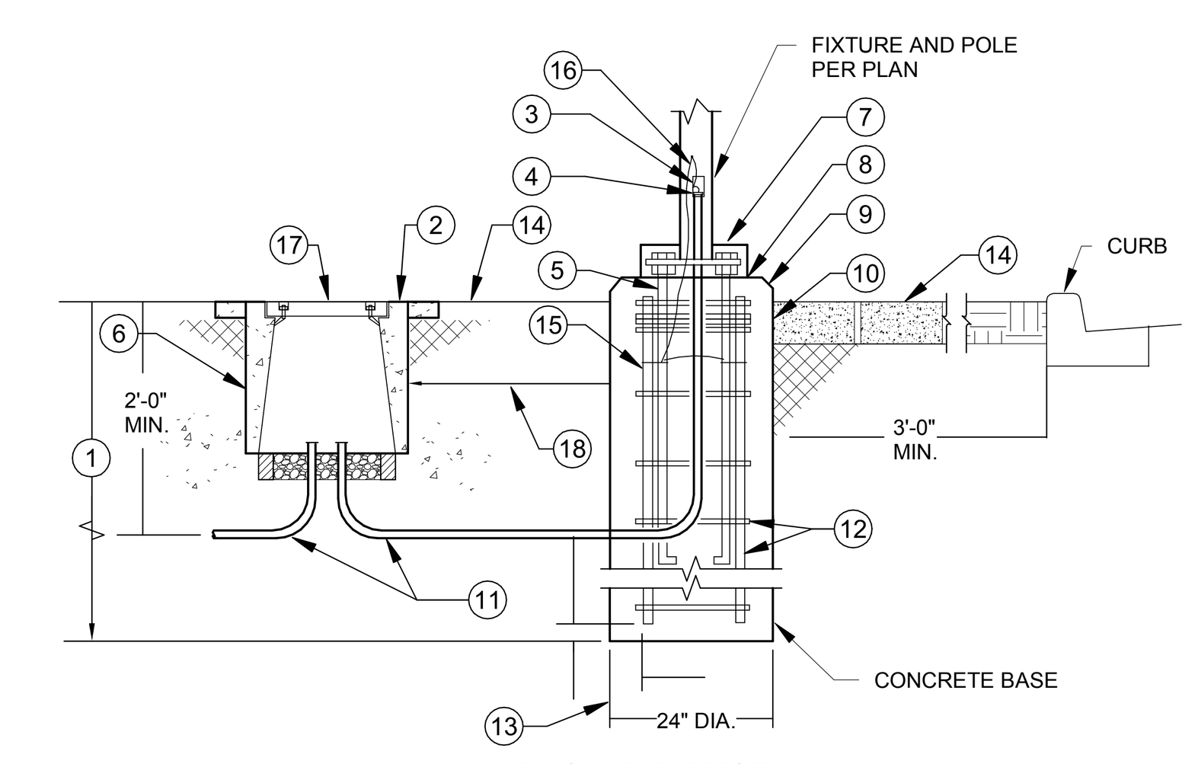
SCALE: 1/4" = 1'-0"

1. PROVIDE 48" MINIMUM FOR LIGHT POLE UP TO 25 FEET, AND 60" MINIMUM FOR LIGHT POLE UP TO 35 FEET. COORDINATE CONCRETE BASE SIZE WITH STRUCTURAL ENGINEER.
2. UNDERGROUND PULL BOX REQUIRED ADJACENT TO POLE BASE. SET TOP OF PULLBOX FLUSH WITH FINISHED GRADE.
3. GASKETED HANDHOLE COVER WITH TWO STAINLESS STEEL TAMPER PROOF SCREWS.
4. CONNECT GROUND WIRE TO GROUNDING LUG OF POLE AT HANDHOLE.
5. FOUR ANCHOR BOLTS, SIZE PER MANUFACTURER'S STANDARDS.
6. PROVIDE PULL BOX ONLY WHERE SHOWN ON PLAN.
7. BASECOVER, SECURE TO POLE AND/OR BASE.
8. PROVIDE 1-1/2" MINIMUM GROUT AROUND THE BASE AFTER PLUMB. SLOPE TO GRADE FOR DRAINAGE.
9. PROVIDE CONCRETE BASE WITH 1/2" CHAMFER. CONCRETE FILL AND SACK FINISH ALL CONCRETE SURFACE IMPERFECTIONS, CAVITIES AND VOIDS ABOVE FINISHED GRADE.
10. PROVIDE (3) #3 REBAR TIES, REINFORCE STEEL HOOPS 2" ON CENTERED WITHIN TOP 5" AREA.
11. CONDUIT PER PLAN.
12. PROVIDE (6) #4 REINFORCE STEEL RODS AND #3 REINFORCED STEEL HOOPS 9" ON CENTER. SIZE PER MANUFACTURER'S STANDARDS.
13. PROVIDE 3" CLEAR IF CAST AGAINST EARTH, TYPICAL.
14. FINISHED GRADE OF PAVING PER ARCHITECTURAL DRAWINGS.
15. UL LISTED GROUND CLAMP SUITABLE FOR CONCRETE ENCASEMENT OR DIRECT BURIAL. INSTALL CLAMPS ON ALL ANCHOR BOLTS, TYPICAL.
16. SPLICE GROUND WIRE AND EXTEND TO GROUND CLAMP AT ANCHOR BOLT.
17. PROVIDE TRAFFIC BOLT-DOWN COVER.
18. LOCATE PULL BOX ADJACENT TO THE POLE CONCRETE BASE.



5 FLOOR MOUNTED TRANSFORMER DETAILS

SCALE: 1/4" = 1'-0"

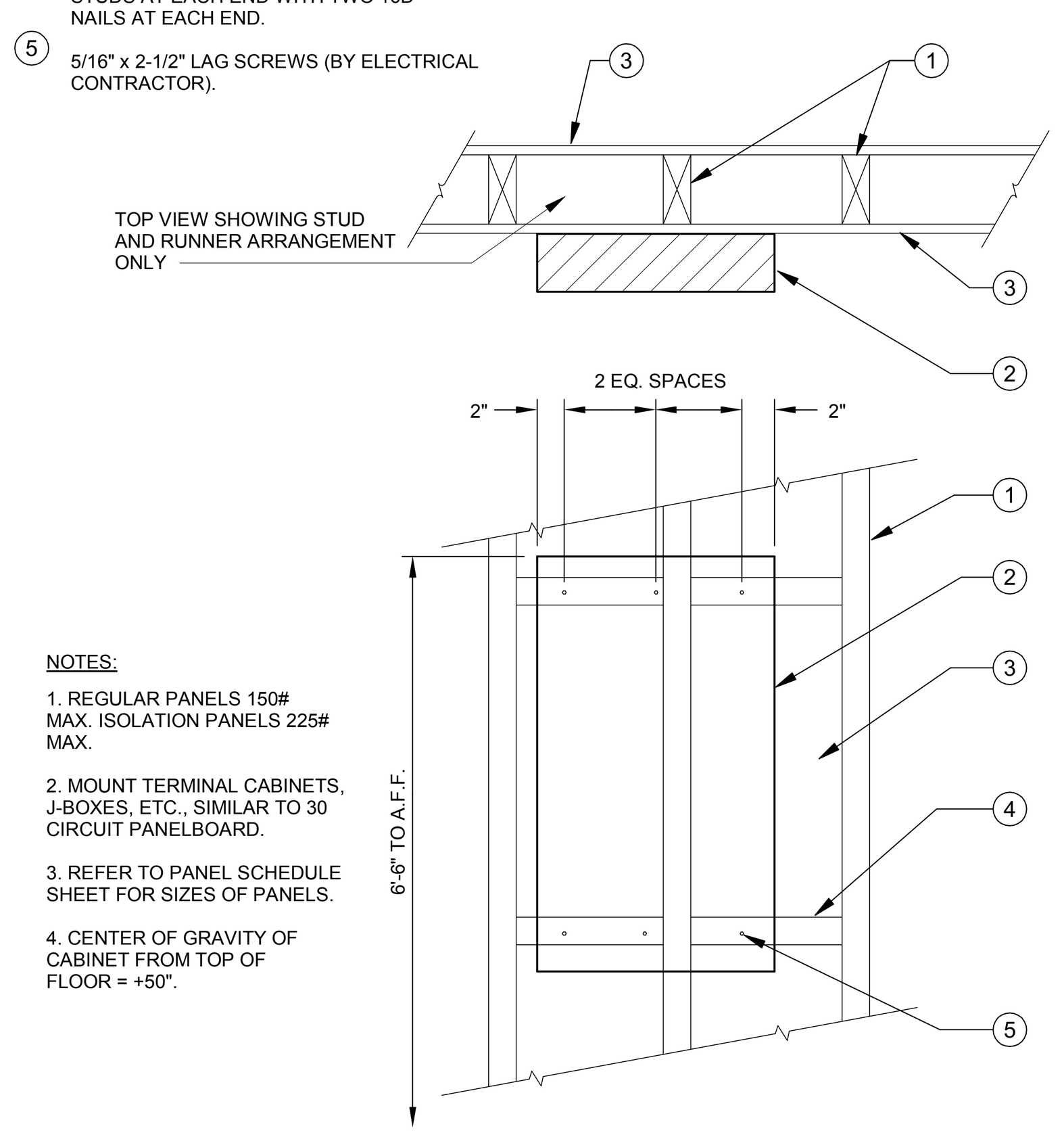


4 FIXTURE POLE BASE MOUNTING DETAIL

SCALE: 1/4" = 1'-0"

KEY NOTES:

1. WOOD STUD.
2. SURFACE MOUNTED PANEL CABINET.
3. SHEET ROCK OR OTHER WALL SURFACE MATERIAL (SEE ARCH. DRAWINGS).
4. WOOD STUDS FASTENED TO VERTICAL STUDS AT EACH END WITH TWO 16D NAILS AT EACH END.
5. 5/16" x 2-1/2" LAG SCREWS (BY ELECTRICAL CONTRACTOR).



NOTES:

1. REGULAR PANELS 150# MAX. ISOLATION PANELS 225# MAX.
2. MOUNT TERMINAL CABINETS, J-BOXES, ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.
3. REFER TO PANEL SCHEDULE SHEET FOR SIZES OF PANELS.
4. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = +50".

7 SURFACE PANELBOARD/CABINET WOOD FRAMING MOUNTING DETAIL

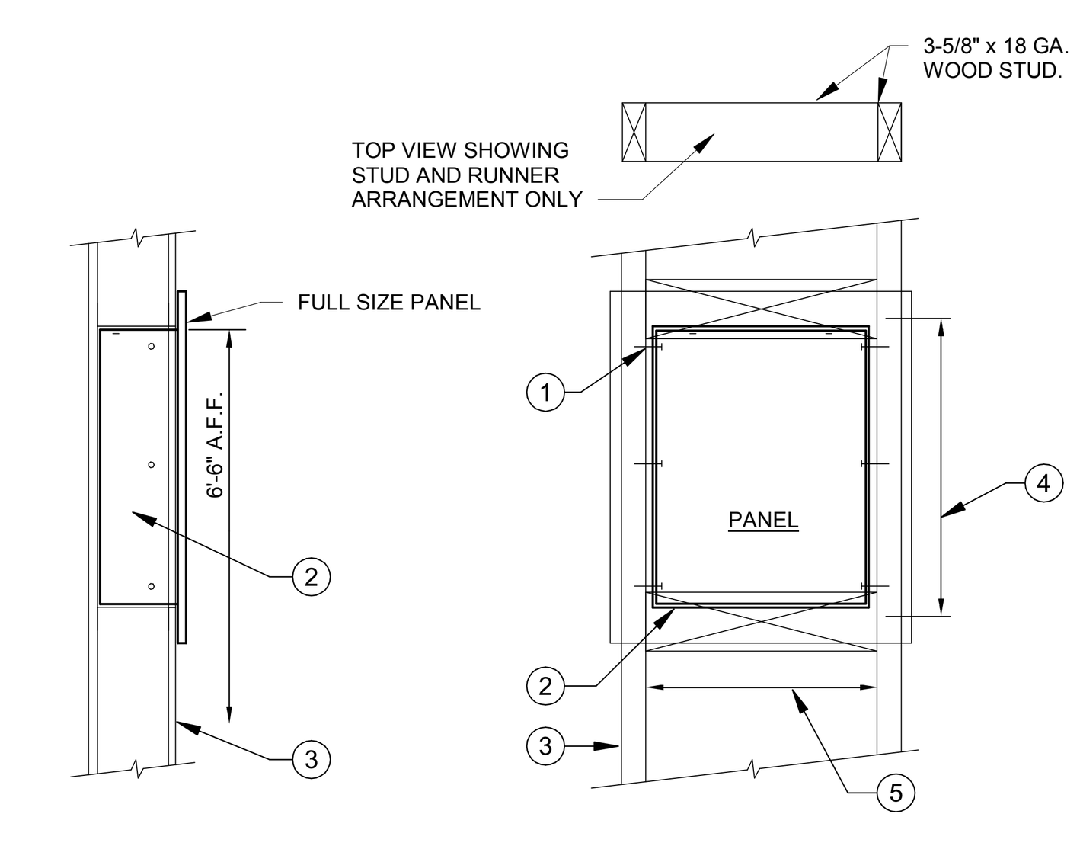
SCALE: 1/4" = 1'-0"

KEY NOTES:

1. 1/4" DIA. THRU BOLTS, TYPICAL AT 3 EACH SIDE AND 2 EACH AT TOP AND BOTTOM OF THE PANEL. (BY ELECTRICAL CONTRACTOR).
2. 5/8" GYPBOARD AROUND PANEL TYPICAL FOR PANELS IN CORRIDOR WALLS, AREA SEPARATION WALLS, OCCUPANCY SEPARATION WALLS, AND FIRE TREATED WALLS.
3. WOOD STUD PER ARCHITECTURAL DRAWINGS AND REQUIREMENTS.
4. ADD 1-1/8" TO PANEL HEIGHT INSIDE DIM. OF FRAME VERIFY EQUIPMENT SIZE IN FIELD.
5. ADD 1-1/8" TO PANEL WIDTH INSIDE DIM. OF FRAME. VERIFY EQUIPMENT SIZE IN FIELD.

NOTES:

1. USE FENDER WASHER ON ALL BOLTS.
2. REGULAR PANELS 150# MAX. ISOLATION PANELS 225# MAX.
3. MOUNT TERMINAL CABINETS, AND ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.
4. REFER TO PANEL SCHEDULE SHEET FOR SIZES OF PANELS.
5. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = +50"



6 FLUSH PANELBOARD/CABINET MOUNTING DETAIL WOOD FRAMING1

SCALE: 1/4" = 1'-0"

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBITSKY No. 11798 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	E7.1
Drawn: Author	Checked: Checker

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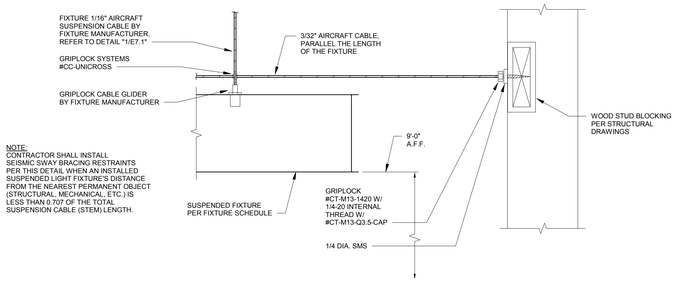
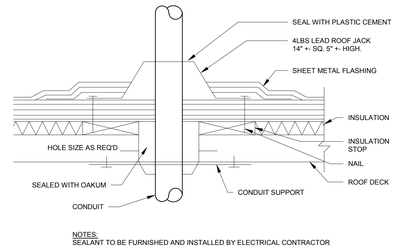


3 SEISMIC SWAY BRACING FOR CABLE SUSPENDED LT FIXT WOOD FRAMING

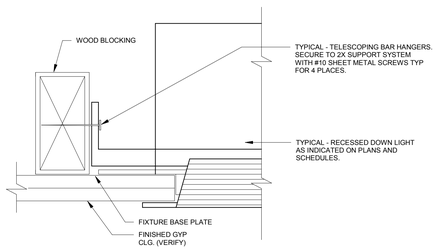
SCALE: 1/4" = 1'-0"



NOTES:
SEALANT TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR

2 ROOF CONDUIT PENETRATION DETAIL

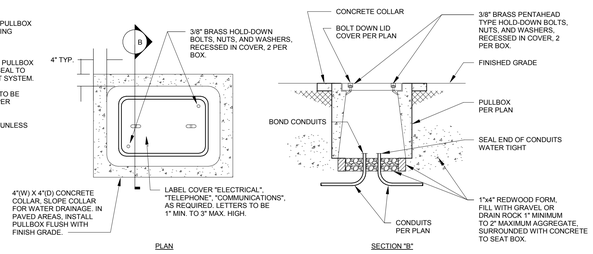
SCALE: 1/4" = 1'-0"



1 RECESSED LIGHT FIXTURE WOOD FRAMING

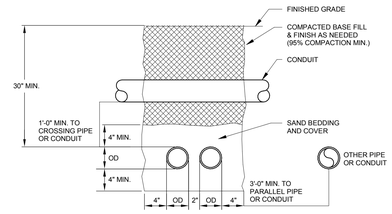
SCALE: 1/4" = 1'-0"

NOTES:
1. ALL SPLICES WITHIN THE CONCRETE PULLBOX ARE TO BE SEALED WITH AN INSULATING AND ENCAPSULATING RESIN PACK, SCOTCHCAST 4 OR EQUAL.
2. ALL CONDUIT WITHIN THE CONCRETE PULLBOX ARE TO BE SEALED WITH RTV DUCT SEAL TO PREVENT WATER ENTERING CONDUIT SYSTEM.
3. ALL CONDUCTORS AND CABLES ARE TO BE GROUPED AND WIRE TIED EVERY 6" PER CONDUIT FILL.
4. PROVIDE TWO 12" EXTENSION RINGS UNLESS NOTED OTHERWISE.



6 UNDERGROUND CONCRETE PULLBOX DETAIL

SCALE: 1/4" = 1'-0"



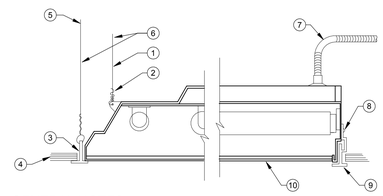
NOTE:
TRENCHING LOCATED IN PAVED AREAS - ALL EARTHWORK AND REPAIR SHALL BE IN ACCORDANCE WITH AGENCY THAT HAS JURISDICTION.

5 TYPICAL TRENCH DETAIL

SCALE: 1/4" = 1'-0"

KEYED NOTES:

1. LIGHT FIXTURE SUPPORT WIRE, #12 GALVANIZED IRON STEEL WIRE. SEE NOTE #2. SECURE TO STRUCTURAL MEMBERS SIMILAR TO CEILING SUPPORT WIRES. SEE NOTE #1.
2. TYPICAL - 4 TIGHT TURNS MINIMUM, WITHIN 1-1/2".
3. CROSS "T" BAR.
4. TYPICAL - ACOUSTICAL TILE.
5. CEILING SUPPORT WIRES PER ARCHITECTURAL PLAN.
6. SEE STRUCTURAL DRAWINGS FOR UPPER ATTACHEMENT TO BUILDING STRUCTURE.
7. TYPICAL FLEX CONDUIT W/ ALL NECESSARY FITTINGS TO JUNCTION BOX. PROVIDE #12 'E' GROUND WIRE AND BOND TO LIGHT FIXTURE.
8. "T" BAR CLIP AT LIGHT FIXTURE (OR ROWS) SHALL HAVE 2 CLIPS AT EACH END. SEE SPECS.
9. MAIN "T" RUNNER.
10. TYPICAL RECESSED FIXTURE. SEE SCHEDULES.



GENERAL NOTES:

1. INSTALL LIGHT SUPPORTS IN ACCORDANCE WITH THE REQUIREMENTS, INTERPRETATION OF REGULATIONS IR-M-3, TITLE 24, PARTS 1 AND 2, CALIFORNIA CODE OF REGULATIONS.
2. SUPPORT T-BAR CEILING LAY-IN LIGHT FIXTURES IN ACCORDANCE WITH THE FOLLOWING TABLE:

TYPE OF CEILING	LIGHT FIXTURE SIZE	FIXTURE WEIGHT	WIRE HANGERS
HEAVY DUTY	2' X 4' OR LESS	< 56 LBS.	2 #12 GA. (SLACK)
HEAVY DUTY	4' X 4'	< 56 LBS.	4#12 GA. (SLACK)
INTERMEDIATE	ALL	ALL	4#12 GA. (TAUT)
ALL	ALL	> 56 LBS.	4 #12 GA. (TAUT)

4 T-BAR LAY-IN LIGHT FIXTURE

SCALE: 1/4" = 1'-0"

7 WALL-CLG MTD LT FIXT WOOD FRAMING

SCALE: 1/4" = 1'-0"

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Job #: 19-2007

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

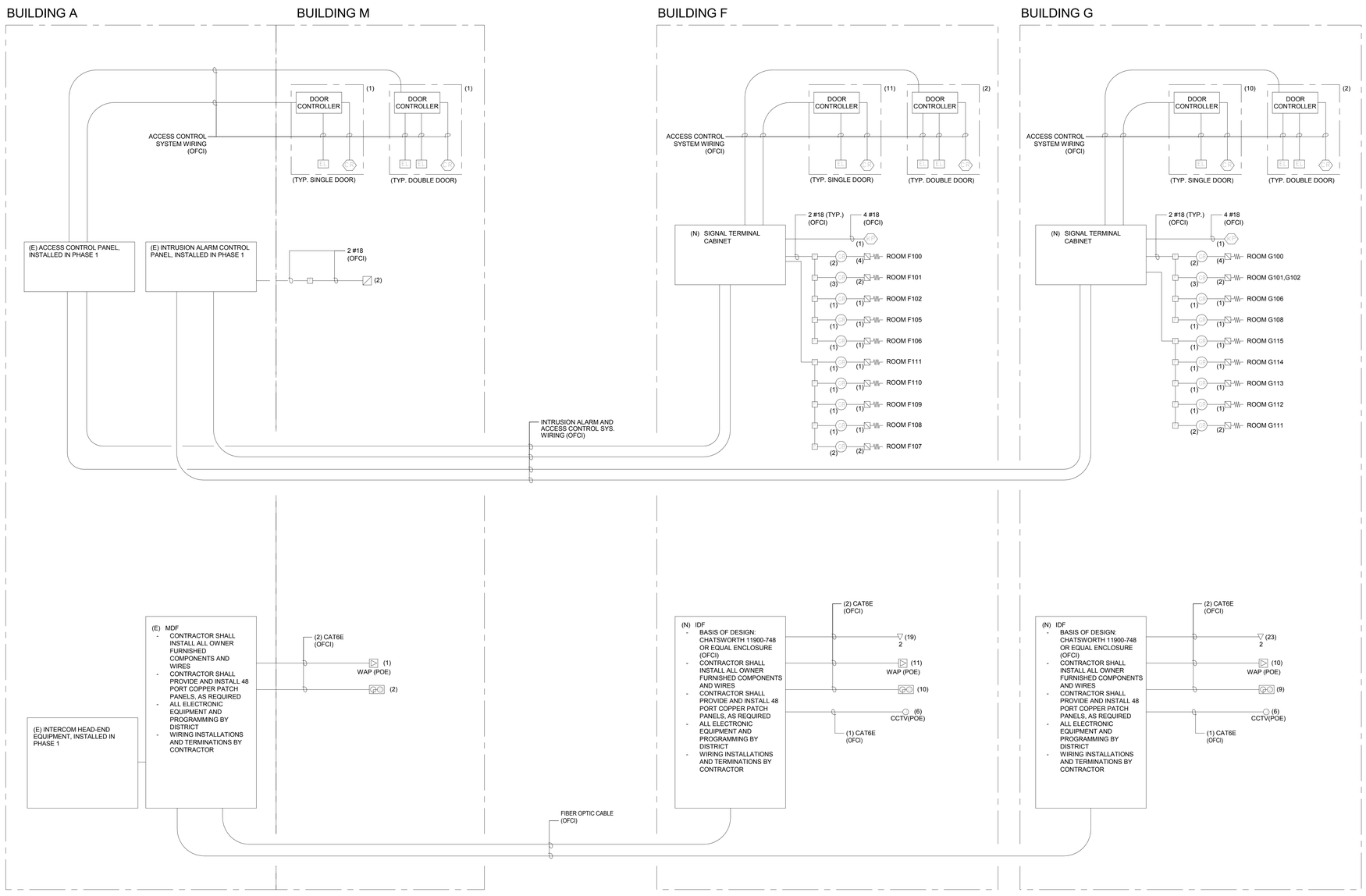
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

ELECTRICAL DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	E7.2
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 4:03:51 PM
FILE PATH: C:\Users\rdfall\Documents\19-2007_Westmore Oaks ES_MEP_r17_rdfall.rvt



LOW VOLTAGE SYSTEMS NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO ANY WORK. REPORT TO ENGINEERS ANY DISCREPANCIES.
2. LOW VOLTAGE SYSTEMS ARE FURNISHED BY OWNER/DISTRCT, AND INSTALLED BY CONTRACTOR, PER THE DISTRICT STANDARD (OFCI), MATCHING EXISTING SYSTEMS INSTALLED UNDER PHASE 1 MODERNIZATION PROJECT.
3. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR MASTER CLOCK, INTERCOM, INTRUSION AND ACCESS CONTROL SYSTEMS, BASED ON DISTRICT STANDARDS, INCLUDING DEVICES/COMPONENTS LOCATIONS AND CONNECTION DIAGRAMS, FOR REVIEW AND APPROVAL.
4. CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, CABINETS AND PATHWAYS, AND INSTALL ALL OWNER FURNISHED DEVICES, EQUIPMENT AND WIRES. CONTRACTOR SHALL MAKE THE FINIAL WIRING TERMINATIONS.

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Job #: 19-2007

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY No. 11756 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL

NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

LOW VOLTAGE SYSTEMS DIAGRAMS

Date	Project Number
05/20/2019	19003
Scale: 12" = 1'-0"	Drawing Number: E7.3
Drawn: Author	Checked: Checker

PRINT DATE: 5/16/2019 4:03:54 PM
FILE PATH: C:\Users\rfitzall\Documents\19-2007_Westmore Oaks ES_MEP_r17_rlfzall.rvt

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 1 of 23
Project Address:	1504 Fallbrook St West Sacramento 95691	Calculation Date/Time:	08:30, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	West Sacramento	8.	Standards Version	Compliance2016
2.	CA Zip Code	95691	9.	Compliance Software (version)	EnergyPro 7.2
3.	Climate Zone	12	10.	Weather File	SACRAMENTO-EXECUTIVE_724830_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	10,528 ft²	11.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	207 ft²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ²-yr) — **§ 140.1**

BUILDING COMPLIES

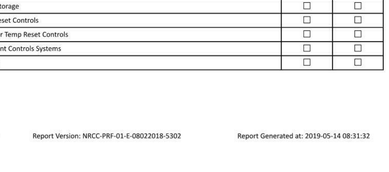
1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	23.88	20.95	2.93	12.3%
Space Cooling	81.75	86.96	-5.21	-6.4%
Indoor Fans	18.05	23.32	-5.27	-29.2%
Heat Rejection	--	--	--	--
Pumps & Misc.	1.02	--	1.02	--
Domestic Hot Water	7.94	7.94	--	0.0%
Indoor Lighting	51.71	35.21	16.50	31.9%
COMPLIANCE TOTAL	**184.35**	**174.38**	**9.97**	**5.4%**
Receptacle	52.05	52.05	0.0	0.0%
Process	--	--	--	--
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	**236.40**	**226.43**	**10.0**	**4.2%**

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 2 of 23
Project Address:	1504 Fallbrook St West Sacramento 95691	Calculation Date/Time:	08:30, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Lighting: Check lighting
2nd	Space Heating: Check envelope and mechanical
3rd	Pumps & Misc.: Check mechanical
4th	Heat Rejection: Check envelope and mechanical
5th	Domestic Hot Water: Check mechanical
6th	Space Cooling: Check envelope and mechanical
7th	Indoor Fans: Check envelope and mechanical

Compliance Margin By Energy Component (from Table B column 4)



D. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 3 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path		Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒	Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐	NA		
Mechanical	☒	Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐	NA		
Domestic Hot Water	☐	Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☒	Prescriptive	NRCC-PLB-01-E	
	☐	NA		
Lighting (Indoor Conditioned)	☒	Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐	NA		
Covered Process: Commercial Kitchens	☐	Performance	S2 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 03-E	
	☒	NA		
Covered Process: Computer Rooms	☐	Performance	S3 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 04-E	
	☒	NA		
Covered Process: Laboratory Exhaust	☐	Performance	S4 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 09-E	
	☒	NA		

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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.				*The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.*			
Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☒	☐	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☐ ☐	☒ ☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	☐ ☐ ☐ ☐ ☐	☒ ☒ ☒ ☒ ☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 5 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☒ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☒ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

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See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Plumbing	☐ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☒ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 7 of 23
Project Address:	1504 Fallbrook St West Sacramento 95691	Calculation Date/Time:	08:30, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

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Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed Pass	Confirmed Fail
1.	Total Conditioned Floor Area	10,528 ft²	5.	Number of Floors Above Grade	1		
2.	Total Unconditioned Floor Area	207 ft²	6.	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Pass	Fail
North Wall	463 ft²	155 ft²	33.5%	☐	☐
East Wall	1,905 ft²	394 ft²	20.7%	☐	☐
South Wall	905 ft²	85 ft²	09.4%	☐	☐
West Wall	1,880 ft²	405 ft²	21.5%	☐	☐
Total	**5,153 ft²**	**1,039 ft²**	**20.2%**	☐	☐
Roof	10,528 ft²	576 ft²	05.5%	☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 8 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

J. FENESTRATION ASSEMBLY SUMMARY — **§ 110.6** — **Confirmed**

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Pass	Fail
Double Non Metal Tinted	VerticalFenestration FixedWindow NonMetalFraming	Default Performance	SiteBuilt	1039	0.55	0.55	0.77	N	☐	☐
Double Non Metal Tinted Skylight	Skylight FixedWindow N/A	NFRC Rated	SiteBuilt	576	0.50	0.50	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

[2] Status: N - New, A – Altered, E – Existing

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information) — No

K. OPAQUE SURFACE ASSEMBLY SUMMARY — **§ 120.7/ § 140.3** — **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]	Pass	Fail
Slab On Grade7	UndergroundFloor	10735	NA	0	NA	F-Factor: 0.730	N	☐	☐
R-19 Wall9	ExteriorWall	5537	Wood	19	NA	U-Factor: 0.072	N	☐	☐
R-30 Roof Attic13	Roof	10735	Wood	30	NA	U-Factor: 0.038	N	☐	☐

[1] Status: N - New, A – Altered, E – Existing

L. ROOFING PRODUCT SUMMARY — **§ 140.3** — **Confirmed**

1. Product Type	2. Product Density (lb/ft²)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description	Pass	Fail
R-30 Roof Attic13	5.895	0.08	0.75	NA	No	NA	☐	☐

TITLE 24 COMPLIANCE SHEET INDEX

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 34863 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

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DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date 05/20/2019
Project Number 19003
Scale
Drawing Number **T24.1**
Drawn Checked
Author Checker

PRINT DATE: 5/16/2019 5:10:01 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_abtlarnd.rvt

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 11 of 23
Project Address:	1504 Fallbrook St West Sacramento 95691	Calculation Date/Time:	08:30, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

O. EQUIPMENT CONTROLS			§ 120.2	Confirmed	
1.	2.	3.		Pass	Fail
Equip Name	Equip Type	Controls			
AC F-2	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-3	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-4	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-5	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-6	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-7	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 10 of 23
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Discrepancy between modeled and designed equipment sizing? (if "Yes", see Table F. "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1]												§ 140.4	Confirmed	
1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
AC F-1	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-2	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-3	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-4	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-5	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-6	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-7	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-8	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-9	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC F-10	371	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐

[1] *Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section*

O. EQUIPMENT CONTROLS			§ 120.2	Confirmed	
1.	2.	3.		Pass	Fail
Equip Name	Equip Type	Controls			
AC F-1	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 9 of 23
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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information)											§ 110.1 / § 110.2	
Dry System Equipment [1] (Fan & Economizer info included below in Table N)											Confirmed	
1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.	
Equip Name	Equip Type	System Type (Simple [2] or Complex [3])	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Total Cooling Output (kBtu/h)	Efficiency		Acceptance Testing Required? (Y/N) [4]	Status[5]	Pass / Fail
								Cooling	Heating			
AC F-1	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-2	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-3	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-4	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-5	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-6	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-7	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-8	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-9	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐
AC F-10	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.95	AFUE-81.0	Yes	N	☐ ☐

[1] Dry System Equipment includes furnaces, air handling units, heat pumps, etc.
[2] Simple Systems must complete NRCC-CXR-03-E commissioning design review form
[3] Complex Systems must complete NRCC-CXR-04-E commissioning design review form
[4] A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS
[5] Status: N - New, A – Altered, E – Existing

Wet System Equipment Section Does Not Apply

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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1]						§ 130.0	
Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices)		Installed Watts (Conditioned)				Confirmed	
Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F3278, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass / Fail
A1	2x4 Recessed LED Troffer A1	59	Yes	No	81	4,779	☐ ☐
A2	2x2 Recessed LED Troffer A2	50	Yes	No	9	450	☐ ☐
A3	2x4 Recessed LED Troffer A3	48	Yes	No	26	1,248	☐ ☐
B1	4' Wall Mtd LED Fixture B1	35	Yes	No	1	35	☐ ☐
B2	1x4 Surface Mtd LED Linear Fixture B2	26	Yes	No	7	182	☐ ☐
C1	Wall Mtd 4' LED Fixture C1	26	Yes	No	2	52	☐ ☐
D1	LED Downlight Recessed Can D1	20	No	Yes	9	180	☐ ☐
E1	8' Susp LED Linear Fixture E1	74	Yes	No	9	666	☐ ☐

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES	§ 140.9
This Section Does Not Apply	

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS	§ 140.9
This Section Does Not Apply	

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS	§ 140.9
This Section Does Not Apply	

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS	§ 140.9
This Section Does Not Apply	

T. UNMET LOAD HOURS
This Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 13 of 23
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P. SYSTEM DISTRIBUTION SUMMARY						§ 120.4/ § 140.4(l)		
		Dry System Distribution					Confirmed	
1.	2.	3.	4.	5.		6.	Pass	Fail
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts: Insulation R-Value	Ducts: Location	Status[1]		
AC F-8	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-9	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-10	SZAC	No	No	8	Unconditioned	N	☐	☐

[1] *Status: N - New, E – Existing*

Does the Project Include Zonal Systems? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project Include a Solar Hot Water System? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (if "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3]						§ 140.6	
						Confirmed	
1.	2.	3.	4.	5.		Pass	Fail
Occupancy Type [1]	Conditioned Floor Area [2] (ft²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance: Area Category Footnotes (Watts)	Additional (Custom) Allowance: Tailored Method (Watts)		
Classrooms, Lecture, Training, Vocational Areas	8,055	5,895	0	0	0	☐	☐
Corridors, Restrooms, Stairs, and Support Areas	2,473	1,697	0	0	0	☐	☐
Building Totals:	**10,528**	**7,592**	**0**	**0**	**0**		

[1] *See Table 140.6-C*
[2] *See NRCC-LTI-01-E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in the table*

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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

O. EQUIPMENT CONTROLS			§ 120.2	Confirmed	
1.	2.	3.		Pass	Fail
Equip Name	Equip Type	Controls			
AC F-8	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-9	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐
AC F-10	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery		☐	☐

P. SYSTEM DISTRIBUTION SUMMARY						§ 120.4/ § 140.4(l)		
		Dry System Distribution					Confirmed	
1.	2.	3.	4.	5.		6.	Pass	Fail
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts: Insulation R-Value	Ducts: Location	Status[1]		
AC F-1	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-2	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-3	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-4	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-5	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-6	SZAC	No	No	8	Unconditioned	N	☐	☐
AC F-7	SZAC	No	No	8	Unconditioned	N	☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 17 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS				Confirmed	
1.	2.	3.	4.	Pass	Fail
Surface Name	Surface Type	Description of Assembly Layers	Notes		
Slab On Grade7	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0		☐	☐
R-19 Wall9	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in.		☐	☐
R-30 Roof Attic13	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)
This Section Does Not Apply

C. OPAQUE DOOR SUMMARY
This Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 16 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	§ 10-103
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Jason DeDora	Signature:
Company: LP Consulting Engineers, Inc.	
Address: LP Consulting Engineers Inc.	Signature Date: 5/15/2019
City/State/Zip: 1209 Pleasant Grove Blvd Roseville CA	CEA Identification (If applicable): M34661
Phone: 916.771.0778	

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name:	Signature:	
Company: BCA Architecture		
Address: 980 9th St. Suite 2050	Date Signed:	
City/State/Zip: Sacramento CA 95814	Declaration Statement Type:	
Phone: 916.254.5600	Title:	License #:
Responsible Lighting Designer Name: Ken Rubitsky	Signature:	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: E11798
Responsible Mechanical Designer Name: Jason DeDora	Signature:	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: M34661

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 15 of 23
Project Address:	1504 Fallbrook St West Sacramento 95691	Calculation Date/Time:	08:30, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

U. ENERGY USE SUMMARY						
Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.0	--	--	151.4	130.5	20.9
Space Cooling	19.1	14.4	4.7	--	--	--
Indoor Fans	7.0	10.2	-3.2	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	0.6	--	--	--	--	--
Domestic Hot Water	--	--	--	58.5	58.5	0.0
Indoor Lighting	22.8	15.5	7.3	--	--	--
COMPLIANCE TOTAL	**49.5**	**40.1**	**9.4**	**209.9**	**189.0**	**20.9**
Receptacle	22.6	22.6	0.0	--	--	--
Process	--	--	--	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	**72.1**	**62.7**	**9.4**	**209.9**	**189.0**	**20.9**

DSA STAMP

B C A
architecture
planning
interiors

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Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT, BRIAN P. WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA
ENGINEER: REGISTERED PROFESSIONAL ENGINEER, JASON DEDORA, M 34661, Ren: 12-31-19, MECHANICAL, STATE OF CALIFORNIA

GENERAL NOTES
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2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- ● DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date 05/20/2019
Project Number 19003
Scale
Drawing Number T24.2
Drawn Author
Checked Checker

PRINT DATE: 5/16/2019 5:10:03 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atallamodl.rvt

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B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
9-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	9-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
10-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	10-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
11-Corridor/Restroom/Support-Trm	Uncontrolled	1	NA	NA	NA	11-Corridor/Restroom/Support	2000	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)*

This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

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A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

CONDITIONED ZONE NAME	1. DESIGN AIR FLOWS							2. VENTILATION (§ 120.1)										Confirmed	
	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
TOTAL									10,528			213.79		3,395	3,395	NA			☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4

1.	2.	3.	4.		5.	6.	7.			8.			Confirmed	
System ID	System Type	Qty	Rated Capacity (kBtuh)		Economizer	Zone Name	Airflow (cfm)			Fan			Pass	Fail
			Heating	Cooling			Design	Min.	Min. Ratio	BHP	Cycles	ECM Motor		
1-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	1-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
3-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	3-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
4-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	4-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
5-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	5-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
6-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	6-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
7-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	7-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
8-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	8-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐

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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

CONDITIONED ZONE NAME	1. DESIGN AIR FLOWS							2. VENTILATION (§ 120.1)										Confirmed	
	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
1-Classroom Lecture Train	AC F-1	2,000	NA	NA	NA	NA	N	AC F-1	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
3-Classroom Lecture Train	AC F-2	2,000	NA	NA	NA	NA	N	AC F-2	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
4-Classroom Lecture Train	AC F-3	2,000	NA	NA	NA	NA	N	AC F-3	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
5-Classroom Lecture Train	AC F-4	2,000	NA	NA	NA	NA	N	AC F-4	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
6-Classroom Lecture Train	AC F-5	2,000	NA	NA	NA	NA	N	AC F-5	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
7-Classroom Lecture Train	AC F-6	2,000	NA	NA	NA	NA	N	AC F-6	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
8-Classroom Lecture Train	AC F-7	2,000	NA	NA	NA	NA	N	AC F-7	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
9-Classroom Lecture Train	AC F-8	2,000	NA	NA	NA	NA	N	AC F-8	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
10-Classroom Lecture Train	AC F-9	2,000	NA	NA	NA	NA	N	AC F-9	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
11-Corridor/Restroom /Support	AC F-10	2,000	NA	NA	NA	NA	N	AC F-10	2,473	NA	12.37	30.00	371	371	NA	N	NA	☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 23 of 23
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg F T24.cibd16x

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1.	2.	3.	4.	Allowed Watts	Confirmed	
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise		Pass	Fail
0	0	0	0	**0**	☐	☐

5. Wall Display

This Section Does Not Apply

6. Floor Display and Task Lighting

This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

8. Very Valuable Merchandise

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A		
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	Pass	Fail
Occupant Sensors	0	☒	☐	☐	☐	☐	☐
Automatic Time Switch	0	☒	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☒	☐	☐	☐	☐
Demand Responsive	1	☐	☐	☒	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

Project Name:	Westmore Oaks ES - Bldg F	NRCC-PRF-01-E	Page 22 of 23
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B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) — § 130.1

This Section Does Not Apply

§130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) — § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) — § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) — § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed	
							Pass	Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces							
Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Confirmed	
						Pass	Fail
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces

This Section Does Not Apply

Note: All applicable spaces are listed under the Non-Rectangular Spaces table

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G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* — § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Variable	Air Dists. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve Leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for UX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
AC F-1	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-2	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-3	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-4	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-5	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-6	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-7	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-8	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-9	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC F-10	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6

This Section Does Not Apply

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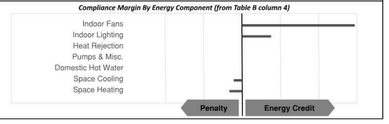
C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Fans: Check envelope and mechanical
2nd	Indoor Lighting: Check lighting
3rd	Heat Rejection: Check envelope and mechanical
4th	Pumps & Misc.: Check mechanical
5th	Domestic Hot Water: Check mechanical
6th	Space Cooling: Check envelope and mechanical
7th	Space Heating: Check envelope and mechanical

Compliance Margin By Energy Component (from Table B column 4)



D. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

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A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	West Sacramento	8.	Standards Version	Compliance2016
2.	CA Zip Code	95691	9.	Compliance Software (version)	EnergyPro 7.2
3.	Climate Zone	12	10.	Weather File	SACRAMENTO-EXECUTIVE_724830_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	9,912 ft²	11.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	161 ft²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ²-yr) — § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	12.74	17.89	-5.15	-40.4%
Space Cooling	80.52	83.83	-3.31	-4.1%
Indoor Fans	70.29	22.76	47.53	67.6%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	7.17	7.17	--	0.0%
Indoor Lighting	49.46	37.40	12.06	24.4%
COMPLIANCE TOTAL	**220.18**	**169.05**	**51.13**	**23.2%**
Receptacle	54.28	54.28	0.0	0.0%
Process	--	--	--	--
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	**274.46**	**223.33**	**51.1**	**18.6%**

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name	Date
Westmore Oaks ES - Bldg F	*5/15/2019*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel pancls and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-**. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

DSA STAMP

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT BRIAN P. WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER, JASON DEDORA, M.84863, REN: 12-31-19, MECHANICAL, STATE OF CALIFORNIA

GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
3. These plans and prints thereof, as instruments of service, are owned by the architect and are for use on this project only. Reproduction and/or distribution without the prior written consent of the architect is forbidden.
4. Copyright Bunton Clifford Associates, 2015.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019

- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	T24.3
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:10:55 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_dalfarrod.rvt

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Confirmed

Building Component	Compliance Forms *(required for submittal)*	Pass	Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☒ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☒ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.

The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.

Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☒	☐	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☐ ☐	☒ ☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	☐ ☐ ☐ ☐ ☐ ☐	☒ ☒ ☒ ☒ ☒ ☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Mechanical	☒ Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ NA		
Domestic Hot Water	☐ Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☒ Prescriptive	NRCC-PLB-01-E	
	☐ NA		
Lighting (Indoor Conditioned)	☒ Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ NA		
Covered Process: Commercial Kitchens	☐ Performance	S2 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 03-E	
	☒ NA		
Covered Process: Computer Rooms	☐ Performance	S3 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 04-E	
	☒ NA		
Covered Process: Laboratory Exhaust	☐ Performance	S4 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 09-E	
	☒ NA		

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J. FENESTRATION ASSEMBLY SUMMARY — § 110.6 — **Confirmed**

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Pass	Fail
Double Non Metal Tinted	VerticalFenestration FixedWindow NonMetalFraming	Default Performance	SiteBuilt	993	0.55	0.55	0.77	N	☐	☐
Double Non Metal Tinted Skylight	Skylight FixedWindow N/A	NFRC Rated	SiteBuilt	512	0.50	0.50	0.50	N	☐	☐

[1] *Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*

[2] *Status: N - New, A – Altered, E – Existing*

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)	No

K. OPAQUE SURFACE ASSEMBLY SUMMARY — § 120.7/ § 140.3 — **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]	Pass	Fail
Slab On Grade6	UndergroundFloor	10073	NA	0	NA	F-Factor: 0.730	N	☐	☐
R-19 Wall8	ExteriorWall	5281	Wood	19	NA	U-Factor: 0.072	N	☐	☐
R-30 Roof Attic13	Roof	10073	Wood	30	NA	U-Factor: 0.038	N	☐	☐
R-19 Wall81	InteriorWall	48	Wood	19	NA	U-Factor: 0.069	N	☐	☐

[1] *Status: N - New, A – Altered, E – Existing*

L. ROOFING PRODUCT SUMMARY — § 140.3 — **Confirmed**

1. Product Type	2. Product Density (lb/ft²)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description	Pass	Fail
R-30 Roof Attic13	5.895	0.08	0.75	NA	No	NA	☐	☐

Project Name:	Westmore Oaks ES - Bldg G	NRCC-PRF-01-E	Page 7 of 24
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg G T24.cibd16x

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Confirmed

Building Component	Compliance Forms *(required for submittal)*	Pass	Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

				Confirmed	
1.	Total Conditioned Floor Area: 9,912 ft²	5.	Number of Floors Above Grade: 1	Pass	Fail
2.	Total Unconditioned Floor Area: 161 ft²	6.	Number of Floors Below Grade: 0		
3.	Addition Conditioned Floor Area: 0 ft²				
4.	Addition Unconditioned Floor Area: 0 ft²				

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Pass	Fail
North Wall	1,325 ft²	243 ft²	18.3%	☐	☐
East Wall	2,145 ft²	565 ft²	26.3%	☐	☐
South Wall	175 ft²	0 ft²	00.0%	☐	☐
West Wall	1,380 ft²	185 ft²	13.4%	☐	☐
Total	**5,025 ft²**	**993 ft²**	**19.8%**	☐	☐
Roof	9,912 ft²	512 ft²	05.2%	☐	☐

Project Name:	Westmore Oaks ES - Bldg G	NRCC-PRF-01-E	Page 6 of 24
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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Confirmed

Building Component	Compliance Forms *(required for submittal)*	Pass	Fail
Plumbing	☐ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

Project Name:	Westmore Oaks ES - Bldg G	NRCC-PRF-01-E	Page 11 of 24
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O. EQUIPMENT CONTROLS — § 120.2 — **Confirmed**

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
AC G-3	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-4	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-5	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-6	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-7	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-8	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

Project Name:	Westmore Oaks ES - Bldg G	NRCC-PRF-01-E	Page 10 of 24
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg G T24.cibd16x

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] — § 140.4 — **Confirmed**

1. Equip Name	2. Outside Air	3. Supply Fan					4. Return Fan					5. Economizer Type (if present)	Pass	Fail
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
AC G-1	455	3000	0.350	0.350	0.44	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-2	333	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-3	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-4	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-5	336	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-6	348	1600	0.200	0.200	0.40	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-7	327	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-8	343	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐
AC G-9	147	2000	0.250	0.250	0.48	ConstantVolume	NA	NA	NA	NA	NA	FixedDryBulb	☐	☐

[1] *Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section*

O. EQUIPMENT CONTROLS — § 120.2 — **Confirmed**

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
AC G-1	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐
AC G-2	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

Project Name:	Westmore Oaks ES - Bldg G	NRCC-PRF-01-E	Page 9 of 24
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg G T24.cibd16x

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) — § 110.1 / § 110.2

Dry System Equipment [1] (Fan & Economizer info included below in Table N) — **Confirmed**

1. Equip Name	2. Equip Type	3. System Type (Simple [2] or Complex [3])	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (Y/N)	7. Supp Heat Output (kBtuh)	8. Total Cooling Output (kBtu/h)	9. Efficiency: Cooling	9. Efficiency: Heating	10. Acceptance Testing Required? (Y/N) [4]	11. Status[5]	Pass	Fail
AC G-1	SZAC (Packaged3Phase)	Simple	1	120	No	0	76	EER-12.8	AFUE-80.0	Yes	N	☐	☐
AC G-2	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-3	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-4	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-5	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-6	SZAC (Packaged3Phase)	Simple	1	54	No	0	41	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-7	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-8	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐
AC G-9	SZAC (Packaged3Phase)	Simple	1	54	No	0	53	SEER-16.00 / EER-9.90	AFUE-81.0	Yes	N	☐	☐

[1] *Dry System Equipment includes furnaces, air handling units, heat pumps, etc.*
[2] *Simple Systems must complete NRCC-CXR-03-E commissioning design review form*
[3] *Complex Systems must complete NRCC-CXR-04-E commissioning design review form*
[4] *A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS*
[5] *Status: N - New, A – Altered, E – Existing*

Wet System Equipment Section Does Not Apply	
Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table F. "Additional Remarks" for an explanation)	No

DSA STAMP

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT — BRIAN P. WHITMORE — No. C 30345 Ren.: 9/30/19 — STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER — JASON DEDORA — M 24863 REN: 12-31-19 — MECHANICAL — STATE OF CALIFORNIA

GENERAL NOTES

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019

- ● DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date 05/20/2019 — Project Number 19003
Scale — Drawing Number **T24.4**
Drawn — Checked
Author — Checker

PRINT DATE: 5/16/2019 5:10:08 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_staffarnodi.rvt

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — **§ 130.0**

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices) — Installed Watts (Conditioned) — Confirmed

Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
B2	4' Wall Mtd LED Fixture B2	26	Yes	No	11	286	☐	☐
C1	4' Wall Mtd LED Linear Fixture C1	26	No	Yes	2	52	☐	☐
C2	4' Wall Mtd LED Linear Fixture C2	41	Yes	No	1	41	☐	☐
D1	LED Downlight Recessed Can D1	20	Yes	No	9	180	☐	☐
D3	LED Downlight Recessed Can D3	42	Yes	No	25	1,050	☐	☐
E1	8' Susp LED Linear Fixture E1	74	Yes	No	7	518	☐	☐

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES — **§ 140.9**

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS — **§ 140.9**

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS — **§ 140.9**

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS — **§ 140.9**

This Section Does Not Apply

T. UNMET LOAD HOURS

Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
12-Office <= 250 sqft	150	332	150	653.25

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3] — **§ 140.6**

Confirmed

1. Occupancy Type [1]	2. Conditioned Floor Area [2] (ft²)	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Custom) Allowance: Area Category Footnotes (Watts)	5. Additional (Custom) Allowance: Tailored Method (Watts)	Pass	Fail
Classrooms, Lecture, Training, Vocational Areas	6,542	5,119	0	0	0	☐	☐
Corridors, Restrooms, Stairs, and Support Areas	2,391	1,725	0	0	0	☐	☐
Commercial and Industrial Storage Areas (conditioned or unconditioned)	72	26	0	0	0	☐	☐
Office (Greater than 250 square feet in floor area)	774	605	0	0	0	☐	☐
Office (250 square feet in floor area or less)	133	118	0	0	0	☐	☐
Building Totals:	**9,912**	**7,593**	**0**	**0**	**0**		

[1] *See Table 140.6-C*
[2] *See NRCC-LTI-01-E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in the table*

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — **§ 130.0**

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices) — Installed Watts (Conditioned) — Confirmed

Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
A1	2x4 Recessed LED Troffer A1	59	Yes	No	65	3,835	☐	☐
A2	2x2 Recessed LED Troffer A2	50	Yes	No	6	300	☐	☐
A3	2x4 Recessed LED Troffer A3	48	Yes	No	27	1,296	☐	☐
B1	4' Wall Mtd LED Linear Fixture B1	35	Yes	No	1	35	☐	☐

O. EQUIPMENT CONTROLS — **§ 120.2** — Confirmed

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
AC G-9	SZAC	No DCV Controls Fixed Drybulb Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY — **§ 120.4/ § 140.4(l)**

Dry System Distribution — Confirmed

1. Equip Name	2. Equip Type	3. Duct Leakage and Sealing Required per 140.4(l)	4. Duct Leakage will be verified per NA1 and NA2	5. Ducts: Insulation R-Value	5. Ducts: Location	6. Status[1]	Pass	Fail
AC G-1	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-2	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-3	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-4	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-5	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-6	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-7	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-8	SZAC	No	No	8	Unconditioned	N	☐	☐
AC G-9	SZAC	No	No	8	Unconditioned	N	☐	☐

[1] *Status: N – New, E – Existing*

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Pass	Fail
Slab On Grade6	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0		☐	☐
R-19 Wall8	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in.		☐	☐
R-30 Roof Attic13	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.		☐	☐
R-19 Wall81	InteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

This Section Does Not Apply

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — **§ 10-103**

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jason DeDora	Signature:
Company: LP Consulting Engineers, Inc.	
Address: LP Consulting Engineers Inc.	Signature Date: 5/15/2019
City/State/Zip: 1209 Pleasant Grove Blvd Roseville CA	CEA Identification (if applicable): M34661
Phone: 916.771.0778	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name:	**Signature:**	
Company: BCA Architecture		
Address: 980 9th St. Suite 2050	Date Signed:	
City/State/Zip: Sacramento CA 95814	Declaration Statement Type:	
Phone: 916.254.5600	Title:	License #:
Responsible Lighting Designer Name: Ken Rubitsky	**Signature:**	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: E11798
Responsible Mechanical Designer Name: Jason DeDora	**Signature:**	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: M34661

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	--	--	74.5	104.6	-30.1
Space Cooling	17.2	13.6	3.6	--	--	--
Indoor Fans	28.5	9.4	19.1	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	49.7	49.7	0.0
Indoor Lighting	20.5	15.5	5.0	--	--	--
COMPLIANCE TOTAL	**66.2**	**38.5**	**27.7**	**124.2**	**154.3**	**-30.1**
Receptacle	22.2	22.2	0.0	--	--	--
Process	--	--	--	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	**88.4**	**60.7**	**27.7**	**124.2**	**154.3**	**-30.1**

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — **§ 140.4** — Confirmed

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh): Heating	4. Rated Capacity (kBtuh): Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm): Design	7. Airflow (cfm): Min.	7. Airflow (cfm): Min. Ratio	8. Fan: BHP	8. Fan: Cycles	8. Fan: ECM Motor	Pass	Fail
5-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	5-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
7-Corridor/Restroom/Support-Trm	Uncontrolled	1	NA	NA	NA	7-Corridor/Restroom/Support	1600	NA	NA	NA	NA	☐	☐	☐
8-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	8-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
10-Commercial Industrial St-Trm	Uncontrolled	1	NA	NA	NA	10-Commercial Industrial St	150	NA	NA	NA	NA	☐	☐	☐
9-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	9-Classroom Lecture Train	1850	NA	NA	NA	NA	☐	☐	☐
13-Corridor/Restroom/Support-Trm	Uncontrolled	1	NA	NA	NA	13-Corridor/Restroom/Support	145	NA	NA	NA	NA	☐	☐	☐
12-Office <= 250 sqft-Trm	Uncontrolled	1	NA	NA	NA	12-Office <= 250 sqft	272	NA	NA	NA	NA	☐	☐	☐
11-Office > 250 sqft-Trm	Uncontrolled	1	NA	NA	NA	11-Office > 250 sqft	1583	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)*

This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

1. DESIGN AIR FLOWS / 2. VENTILATION (§ 120.1)

CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW FRACTION	MINIMUM PRIMARY AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	DOC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
12-Office <= 250 sqft	AC G-9	272	NA	NA	NA	NA	N	AC G-9	133	NA	0.67	30.00	20	20	NA	N	NA	☐	☐
13-Corridor/Restroom /Support	AC G-9	145	NA	NA	NA	NA	N	AC G-9	71	NA	0.35	30.00	11	11	NA	N	NA	☐	☐
								TOTAL	9,912		180.12		2,961	2,961	NA			☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — **§ 140.4** — Confirmed

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh): Heating	4. Rated Capacity (kBtuh): Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm): Design	7. Airflow (cfm): Min.	7. Airflow (cfm): Min. Ratio	8. Fan: BHP	8. Fan: Cycles	8. Fan: ECM Motor	Pass	Fail
1-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	1-Classroom Lecture Train	3000	NA	NA	NA	NA	☐	☐	☐
2-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	2-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
3-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	3-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐
4-Classroom Lecture Train-Trm	Uncontrolled	1	NA	NA	NA	4-Classroom Lecture Train	2000	NA	NA	NA	NA	☐	☐	☐

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed

1. DESIGN AIR FLOWS / 2. VENTILATION (§ 120.1)

CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW FRACTION	MINIMUM PRIMARY AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	DOC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Pass	Fail
1-Classroom Lecture Train	AC G-1	3,000	NA	NA	NA	NA	N	AC G-1	1,212	NA	30.30	15.00	455	455	NA	N	NA	☐	☐
2-Classroom Lecture Train	AC G-2	2,000	NA	NA	NA	NA	N	AC G-2	888	NA	22.20	15.00	333	333	NA	N	NA	☐	☐
3-Classroom Lecture Train	AC G-3	2,000	NA	NA	NA	NA	N	AC G-3	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
4-Classroom Lecture Train	AC G-4	2,000	NA	NA	NA	NA	N	AC G-4	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
5-Classroom Lecture Train	AC G-5	2,000	NA	NA	NA	NA	N	AC G-5	895	NA	22.38	15.00	336	336	NA	N	NA	☐	☐
7-Corridor/Restroom /Support	AC G-6	1,600	NA	NA	NA	NA	N	AC G-6	2,320	NA	11.60	30.00	348	348	NA	N	NA	☐	☐
8-Classroom Lecture Train	AC G-7	2,000	NA	NA	NA	NA	N	AC G-7	871	NA	21.77	15.00	327	327	NA	N	NA	☐	☐
9-Classroom Lecture Train	AC G-8	1,850	NA	NA	NA	NA	N	AC G-8	886	NA	22.15	15.00	332	332	NA	N	NA	☐	☐
10-Commercial Industrial St	AC G-8	150	NA	NA	NA	NA	N	AC G-8	72	NA	0.07	150.00	11	11	NA	N	NA	☐	☐
11-Office > 250 sqft	AC G-9	1,583	NA	NA	NA	NA	N	AC G-9	774	NA	3.87	30.00	116	116	NA	N	NA	☐	☐

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M34661 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE 05/20/2019

- ● DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date 05/20/2019
Scale
Drawn Author
Checked Checker
Project Number 19003
Drawing Number **T24.5**

PRINT DATE: 5/16/2019 5:10:11 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_ataflamodi.rvt

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Note: All applicable spaces are listed under the Non-Rectangular Spaces table

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1.	2.	3.	4.	Allowed Watts	Confirmed	
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise		Pass	Fail
0	0	0	0	**0**	☐	☐

5. Wall Display

This Section Does Not Apply

6. Floor Display and Task Lighting

This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

8. Very Valuable Merchandise

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A	Pass	Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors	0	☒	☐	☐	☐	☐	☐
Automatic Time Switch	0	☒	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☒	☐	☐	☐	☐
Demand Responsive	0	☐	☐	☐	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

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NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6

This Section Does Not Apply

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) § 130.1

This Section Does Not Apply

§130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E)	§ 140.6
General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed	
							Pass	Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces

Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Confirmed	
						Pass	Fail
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces

This Section Does Not Apply

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F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	**Pass**	**Fail**
AC G-1	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-2	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-3	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-4	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-5	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-6	1	X	X	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
AC G-7	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-8	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐
AC G-9	1	X	X	--	X	--	--	--	--	--	--	X	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

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A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	West Sacramento	8.	Standards Version	Compliance2016
2.	CA Zip Code	95691	9.	Compliance Software (version)	EnergyPro 7.2
3.	Climate Zone	12	10.	Weather File	SACRAMENTO-EXECUTIVE_724830_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	1,144 ft²	11.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	47 ft²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ²-yr) § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	1.66	5.95	-4.29	-258.4%
Space Cooling	69.12	56.04	13.08	18.9%
Indoor Fans	68.97	24.18	44.79	64.9%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	0.73	0.73	--	0.0%
Indoor Lighting	117.01	74.74	42.27	36.1%
COMPLIANCE TOTAL	**257.49**	**161.64**	**95.85**	**37.2%**
Receptacle	141.68	141.68	0.0	0.0%
Process	143.38	143.38	0.0	0.0%
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	**542.55**	**446.70**	**95.9**	**17.7%**

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name: *Westmore Oaks ES - Bldg G* Date: *5/15/2019*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-**. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.				*The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.*			
Yes	**NA**	**Prescriptive Requirement**	**Compliance Forms**	**Yes**	**NA**	**Mandatory Requirement**	**Compliance Forms**
☒	☐	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	 ☐ ☐	 ☒ ☒	Commissioning: §120.8 Simple Systems Complex Systems	 NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	 ☐ ☐ ☐ ☐ ☐	 ☒ ☒ ☒ ☒ ☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path		Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒	Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐	NA		
Mechanical	☒	Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐	NA		
Domestic Hot Water	☐	Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☒	Prescriptive	NRCC-PLB-01-E	
	☐	NA		
Lighting (Indoor Conditioned)	☒	Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐	NA		
Covered Process: Commercial Kitchens	☐	Performance	S2 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 03-E	
	☒	NA		
Covered Process: Computer Rooms	☐	Performance	S3 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 04-E	
	☒	NA		
Covered Process: Laboratory Exhaust	☐	Performance	S4 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 09-E	
	☒	NA		

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 2 of 19
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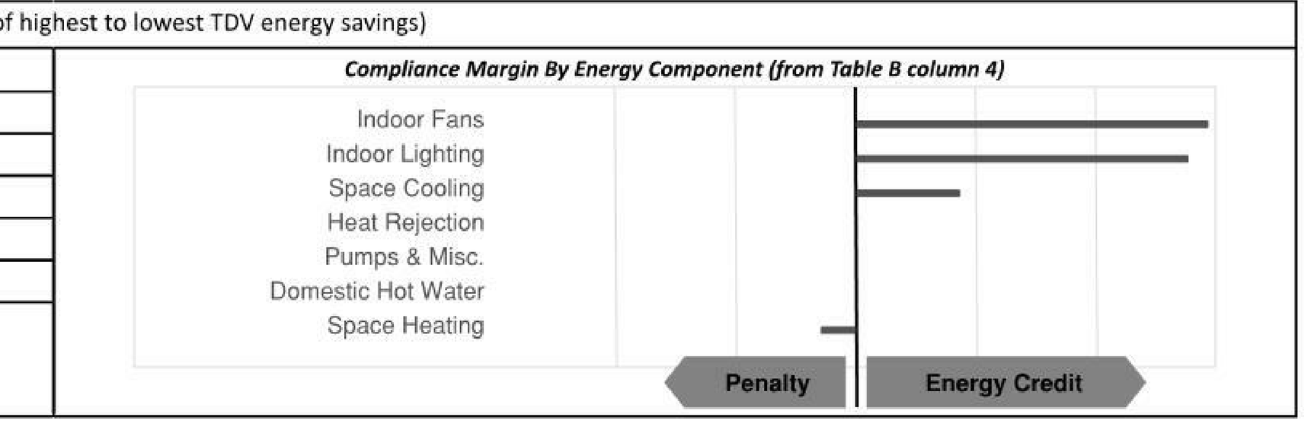
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Fans: Check envelope and mechanical
2nd	Indoor Lighting: Check lighting
3rd	Space Cooling: Check envelope and mechanical
4th	Heat Rejection: Check envelope and mechanical
5th	Pumps & Misc.: Check mechanical
6th	Domestic Hot Water: Check mechanical
7th	Space Heating: Check envelope and mechanical

Compliance Margin By Energy Component (from Table B column 4)



D. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

DSA STAMP

BCA architecture planning interiors

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980 9th St. Suite 2050
Sacramento, California 95814
[T] 916.254.5600
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LP CONSULTING ENGINEERS
MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M34661 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
3. These plans and prints thereof, as instruments of service, are owned by the architect and are for use on this project only. Reproduction and/or distribution without the prior written consent of the architect is forbidden.
4.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

		DATE
●	DSA PLAN CHECK	05/20/2019
○	DSA BACK CHECK	
○	BIDDING	
○	CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date 05/20/2019	Project Number 19003
Scale	Drawing Number
Drawn Author / Checked Checker	T24.6

PRINT DATE: 5/16/2019 5:10:13 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_ashton.rvt

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 7 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) – Confirmed

Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Pass	Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed	
1.	Total Conditioned Floor Area	1,144 ft²	5.	Number of Floors Above Grade	1	Pass	Fail
2.	Total Unconditioned Floor Area	47 ft²	6.	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio		
North Wall	288 ft²	0 ft²	00.0%	☐	☐
East Wall	261 ft²	0 ft²	00.0%	☐	☐
South Wall	0 ft²	0 ft²	00.0%	☐	☐
West Wall	0 ft²	0 ft²	00.0%	☐	☐
Total	**549 ft²**	**0 ft²**	**00.0%**	☐	☐
Roof	1,144 ft²	0 ft²	00.0%	☐	☐

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Plumbing	☐ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

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See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Pass	Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

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Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3] – § 140.6

1.	2.	3.	4.	5.		Confirmed	
Occupancy Type [1]	Conditioned Floor Area [2] (ft²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance		Pass	Fail
				Area Category Footnotes (Watts)	Tailored Method (Watts)		
Corridors, Restrooms, Stairs, and Support Areas	143	93	0	0	0	☐	☐
Commercial and Industrial Storage Areas (conditioned or unconditioned)	102	84	0	0	0	☐	☐
Kitchen, Commercial Food Preparation	899	606	0	0	0	☐	☐
Building Totals:	**1,144**	**783**	**0**	**0**	**0**		

[1] *See Table 140.6-C*
[2] *See NRCC-LTI-01-E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in the table*

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] – § 130.0

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices) — Installed Watts (Conditioned) — Confirmed

Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
A4	2x4 Recessed LED Troffer A4	58	Yes	No	9	522	☐	☐
A5	2x2 Recessed LED Troffer A5	42	Yes	No	4	168	☐	☐
B2	1x4 Surface Mtd LED Linear Fixture B2	26	Yes	No	2	52	☐	☐
C2	4' Wall Mtd LED Linear Fixture C2	41	Yes	No	1	41	☐	☐

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES – § 140.9

This Section Does Not Apply

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Discrepancy between modeled and designed equipment sizing? (if "Yes", see Table F. "Additional Remarks" for an explanation) — No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] – § 140.4 — Confirmed

1.	2.	3.					4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan					Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control			
AC M-1	172	1200	0.200	0.200	0.53	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

[1] *Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section*

O. EQUIPMENT CONTROLS – § 120.2 — Confirmed

1.	2.	3.	Pass	Fail
Equip Name	Equip Type	Controls		
AC M-1	SZAC	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY – § 120.4/ § 140.4(i)

		Dry System Distribution					Confirmed	
1.	2.	3.	4.	5.		6.	Pass	Fail
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Ducts: Insulation R-Value	Ducts: Location	Status[1]		
AC M-1	SZAC	No	No	8	Unconditioned	N	☐	☐

[1] *Status: N - New, E – Existing*

Does the Project Include Zonal Systems? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project include a Solar Hot Water System? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (if "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

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J. FENESTRATION SUMMARY – § 110.6

This Section Does Not Apply

K. OPAQUE SURFACE ASSEMBLY SUMMARY – § 120.7/ § 140.3 — Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	Pass	Fail
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status[1]		
Slab On Grade7	UndergroundFloor	1191	NA	0	NA	F-Factor: 0.730	N	☐	☐
R-19 Wall9	ExteriorWall	685	Wood	19	NA	U-Factor: 0.072	N	☐	☐
R-30 Roof Attic11	Roof	1191	Wood	30	NA	U-Factor: 0.038	N	☐	☐

[1] *Status: N – New, A – Altered, E – Existing*

L. ROOFING PRODUCT SUMMARY – § 140.3 — Confirmed

1.	2.	3.	4.	5.	6.	7.	Pass	Fail
Product Type	Product Density (lb/ft²)	Aged Solar Reflectance	Thermal Emittance	SRI	Cool Roof Credit	Roofing Product Description		
R-30 Roof Attic11	5.895	0.08	0.75	NA	No	NA	☐	☐

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) – § 110.1 / § 110.2

Dry System Equipment [1] (Fan & Economizer info included below in Table N) — Confirmed

1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.	Pass	Fail
Equip Name	Equip Type	System Type (Simple [2] or Complex [3])	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtuh)	Total Cooling Output (kBtu/h)	Efficiency: Cooling	Efficiency: Heating	Acceptance Testing Required? (Y/N) [4]	Status[5]		
AC M-1	SZAC (Packaged3Phase)	Simple	1	54	No	0	29	SEER-16.00 / EER-9.05	AFUE-81.0	Yes	N	☐	☐

[1] *Dry System Equipment includes furnaces, air handling units, heat pumps, etc.*
[2] *Simple Systems must complete NRCC-CXR-03-E commissioning design review form*
[3] *Complex Systems must complete NRCC-CXR-04-E commissioning design review form*
[4] *A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS*
[5] *Status: N - New, A – Altered, E – Existing*

Wet System Equipment Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 13 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT – § 10-103

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jason DeDora	Signature:
Company: LP Consulting Engineers, Inc.	
Address: LP Consulting Engineers Inc.	Signature Date: 5/15/2019
City/State/Zip: 1209 Pleasant Grove Blvd Roseville CA	CEA Identification (If applicable): M34661
Phone: 916.771.0778	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name:	Signature:	
Company: BCA Architecture		
Address: 980 9th St. Suite 2050	Date Signed:	
City/State/Zip: Sacramento CA 95814	Declaration Statement Type:	
Phone: 916.254.5600	Title:	License #:
Responsible Lighting Designer Name: Ken Rubitsky	Signature:	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: E11798
Responsible Mechanical Designer Name: Jason DeDora	Signature:	
Company: LP Consulting Engineers		
Address: 1209 Pleasant Grove Blvd	Date Signed: 5/15/2019	
City/State/Zip: Roseville CA 95678	Declaration Statement Type:	
Phone: 916.771.0778	Title:	License #: M34661

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 12 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
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U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Receptacle	7.1	7.1	0.0	--	--	--
Process	7.9	7.9	0.0	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	**26.8**	**21.1**	**5.7**	**1.7**	**4.6**	**-2.9**

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 11 of 19
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS – § 140.9

Space Name	Exhaust Hood Style	Exhaust Hood Duty	Exhaust Length (ft)	Exhaust Flow Rate (cfm)	Confirmed: Pass	Confirmed: Fail
S-3-Kitchen Food Preparation		Light			☐	☐
		Light			☐	☐
		Light			☐	☐
		Light			☐	☐
		Light			☐	☐

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS – § 140.9

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS – § 140.9

This Section Does Not Apply

T. UNMET LOAD HOURS

Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
3-Kitchen Food Preparation	150	4465.25	150	0

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	--	--	1.1	4.0	-2.9
Space Cooling	2.3	1.1	1.2	--	--	--
Indoor Fans	3.7	1.3	2.4	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	0.6	0.6	0.0
Indoor Lighting	5.8	3.7	2.1	--	--	--
COMPLIANCE TOTAL	**11.8**	**6.1**	**5.7**	**1.7**	**4.6**	**-2.9**

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITNEY No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M34661 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

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○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

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DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
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Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	T24.7
Drawn / Author	Checked / Checker

PRINT DATE: 5/16/2019 5:10:16 PM
FILE PATH: C:\Users\Admin\Documents\19-2007 - Westmore Oaks ES_MEP_ r17_ataflamc6.rvt

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 14 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Confirmed: Pass	Confirmed: Fail
Slab On Grade7	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0		☐	☐
R-19 Wall9	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in.		☐	☐
R-30 Roof Attic11	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

This Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 15 of 19
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Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)*

1. DESIGN AIR FLOWS: columns from HEATING/COOLING SYSTEM ID to DDC CONTROL (Y/N). 2. VENTILATION (§ 120.1): columns from VENT SYSTEM ID to Operable Window Interlock § 140.4(n) (Y/N).

CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(n) (Y/N)	Confirmed: Pass	Confirmed: Fail
1-Corridor/Restroom/Support	AC M-1	150	NA	NA	NA	NA	N	AC M-1	143	NA	0.71	30.00	21	21	NA	N	NA	☐	☐
2-Commercial Industrial St	AC M-1	107	NA	NA	NA	NA	N	AC M-1	102	NA	0.10	150.00	15	15	NA	N	NA	☐	☐
3-Kitchen Food Preparation	AC M-1	943	NA	NA	NA	NA	N	AC M-1	899	NA	2.25	60.00	135	135	NA	N	NA	☐	☐
								TOTAL	1,144		3.06		171	171	NA			☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh): Heating	4. Rated Capacity (kBtuh): Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm): Design	7. Airflow (cfm): Min.	7. Airflow (cfm): Min. Ratio	8. Fan: BHP	8. Fan: Cycles	8. Fan: ECM Motor	Confirmed: Pass	Confirmed: Fail
3-Kitchen Food Preparation-Trm	Uncontrolled	1	NA	NA	NA	3-Kitchen Food Preparation	943	NA	NA	NA	NA	☐	☐	☐
2-Commercial Industrial St-Trm	Uncontrolled	1	NA	NA	NA	2-Commercial Industrial St	107	NA	NA	NA	NA	☐	☐	☐

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 16 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh): Heating	4. Rated Capacity (kBtuh): Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm): Design	7. Airflow (cfm): Min.	7. Airflow (cfm): Min. Ratio	8. Fan: BHP	8. Fan: Cycles	8. Fan: ECM Motor	Confirmed: Pass	Confirmed: Fail
1-Corridor/Restroom/Support-Trm	Uncontrolled	1	NA	NA	NA	1-Corridor/Restroom/Support	150	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)*

This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 17 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Equipment Requiring Testing or Verification	# of units	MCH-02A Outdoor Air	MCH-03A Single Zone Unitary	MCH-04A Air Dist. Ducts	MCH-05A Economizer Controls	MCH-06A DCV	MCH-07A Supply Fan VAV	MCH-08A Valve leakage	MCH-09A Supply Water Temp. Reset	MCH-10A Hyd. Variable Flow Control	MCH-11A Auto Demand Shed Control	MCH-12A FDD for DX Units	MCH-13A Auto FDD for Air & Zone	MCH-14A Dist. Energy Storage DX AC	MCH-15A TES Systems	MCH-16A Supply Air Temp. Reset	MCH-17A Condenser Water Reset Controls	MCH-18A ECMS	Confirmed: Pass	Confirmed: Fail
AC M-1	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6

This Section Does Not Apply

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) § 130.1

This Section Does Not Apply

§130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 18 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
Compliance Scope:	NewComplete	Input File Name:	Westmore Bldg M T24.cibd16x

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft^2)	Allowed Watts	Confirmed: Pass	Confirmed: Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces

Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Confirmed: Pass	Confirmed: Fail
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces

This Section Does Not Apply

Note: All applicable spaces are listed under the Non-Rectangular Spaces table

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Special Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed: Pass	Confirmed: Fail
0	0	0	0	**0**	☐	☐

5. Wall Display

This Section Does Not Apply

6. Floor Display and Task Lighting

This Section Does Not Apply

Project Name:	Westmore Oaks ES - Bldg M	NRCC-PRF-01-E	Page 19 of 19
Project Address:	1504 Fallbrook Street West Sacramento 95691	Calculation Date/Time:	10:10, Tue, May 14, 2019
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7. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

8. Very Valuable Merchandise

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Equipment Requiring Testing or Verification	# of units	Indoor: NRCA-LTI-02-A Occ Sensors / Auto Time Switch	Indoor: NRCA-LTI-03-A Auto Daylight	Indoor: NRCA-LTI-04-A Demand Responsive	Outdoor: NRCA-LTO-02-A Outdoor Controls	Confirmed: Pass	Confirmed: Fail
Occupant Sensors	0	☒	☐	☐	☐	☐	☐
Automatic Time Switch	0	☒	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☒	☐	☐	☐	☐
Demand Responsive	0	☐	☐	☐	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

STATE OF CALIFORNIA

Electrical Power Distribution

CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page of
Project Name: Westmore Oaks ES	Date Prepared: 5/15/2019

C. Voltage Drop

Check all boxes below if he electrical power distribution system is in compliance with Section 130.5(c).

	Enforcement Agency Check that the system complies
☑ The electrical power distribution system meets the voltage drop requirement of Section 130.5(c). The maximum combined voltage drop on feeder conductors and branch circuit conductors to the farthest connected load or outlet, do not exceed 5%.	☐
☑ Voltage drop calculation documents showing compliance to Section 130.5(c) are submitted as part of the compliance document submittal.	☐

D. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles

Check one or more boxes below for applicable requirements of Section 130.5(d) for the electrical power distribution system.

	Field Inspector Check that the system complies
☑ The control is capable of automatically shutting OFF the controlled receptacles when the space is typically unoccupied, either at the receptacle or circuit level. For the automatic time switch control, it incorporates an override control that allows the controlled receptacle to remain ON for no more than 2 hours when an override is initiated and an automatic holiday "shut-OFF" feature that turns OFF all loads for at least 24 hours and then resumes the normally scheduled operation. Countdown timer switches are not be used to comply	☐
☑ There is at least one controlled receptacle within 6 ft from each uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each	☐
☑ There are installed split wired receptacles with at least one controlled and one uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is	☐
☑ Permanent and durable marking for controlled receptacles or circuits to differentiate them from uncontrolled receptacles or circuits is provided. The markings meet the requirement of Section 130.5(d)3.	☐
☐ For hotel and motel guest rooms, there are controlled receptacles for at least one-half of the 120-volt receptacles in each guest room. Electric circuits serving controlled receptacles in guestrooms are installed to have captive key controls, occupancy sensing controls, or automatic controls so the power is switched off no longer than 30 minutes after the guest room has been vacated. The receptacles meet the requirement of	☐
☐ Receptacles that are only for the following purposes are excepted from Section 130.5(d): - Receptacles specifically for refrigerators and water dispensers in kitchen areas. - Receptacles located a minimum of six ft above the floor that are specifically for clocks. - Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms. - Receptacles on circuits rated more than 20 amperes. - Receptacles connected to an uninterruptible power supply (UPS) that are intended to be in continuous use, 24 hours per day/365 days per year, and are marked to differentiate them from other uncontrolled receptacles or circuits.	☐

STATE OF CALIFORNIA

Electrical Power Distribution

CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page of
Project Name: Westmore Oaks ES	Date Prepared: 5/15/2019

B. Separation of Electrical Circuits for Electrical Energy Monitoring

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(b).

☑ The electrical power distribution system meets the separation of electrical circuits for electrical energy monitoring requirement of Section 130.5(b). The electrical power distribution systems is designed so that measurement devices can monitor the electrical energy usage of load types according to TABLE 130.5-B.

☑ Describe the electrical power distribution system installed and the compliance method chosen in meeting the requirement of Section 130.5(b). Use the space below to include the information. Examples of compliance methods are detailed in Nonresidential Compliance Manual Chapter 8.

Fill out Column 1 thru 3 with the compliance information.

General Information	Electrical Power Distribution System information and Method of compliance	Electrical Service Rating	Enforcement Agency
01	02	03	04
Electrical Service Designation/Location/Description	Describe the electrical power distribution system installed and the compliance method used	kVA	Check that the system complies
Panel "GH"	Ltg & HVAC Panel	187	☐
Panel "FH"	Ltg & HVAC Panel	187	
Panel "GL1"	Power Panel	81	
Panel "FL1"	Power Panel	81	
Panel "GL2"	Power Panel	81	
Panel "FL2"	Power Panel	81	
Panel "K"	Kitchen Equipment/Power Panel	81	

Field Inspector Notes:

STATE OF CALIFORNIA

Electrical Power Distribution

CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page of
Project Name: Westmore Oaks ES	Date Prepared: 5/15/2019

General Information

Project Address: 1504 Fallbrook Street, West Sacramento, CA 95691		Climate Zone: 12	Conditioned Floor Area : 21584 Unconditioned Floor Area : 415
Building Type:	☑ Nonresidential	☐ High-Rise Residential	☐ Hotel/Motel
☑ Schools	☐ Relocatable Public Schools	☑ Conditioned Spaces	☑ Unconditioned Spaces
Phase of Construction:	☑ New Construction	☐ Addition	☐ Alteration

In the table below identify all applicable construction documents that specify the requirements for the scope of responsibility reported by this certificate. Use additional pages as needed to list

Document Number	Document Title/Descriptions (include description information for Table or Schedule if it contains compliance information)	Document Sheet # or Page #	Indicate which subsection of Section 130.5 is related to the document (e.g. 130.5(a) for service electrical metering)
1	Location of Panels	E2.2 & E3.2	1
2	One Line Diagram	E5.1	1
3	Panel Schedules	E6.1 & E6.2	

Add Row Remove Last

A. Service Electrical Metering

Check one of the three boxes below if the electrical power distribution system is in compliance with Section 130.5(a).

☐ For newly installed electrical service in newly constructed buildings, Service Electrical Metering is required according to Section 130.5(a). *Fill out Column 1 through 6 of table below.*

☐ For new or replacement electrical service equipment in existing buildings, Service Electrical Metering is required according to Section 141.0(b)2Pi. *Fill out Column 1 through 6 of table below.*

☐ EXCEPTION to Electrical Service Metering: Service or feeder for which the utility company provides a metering system that indicates instantaneous kW demand and kWh for a utility-defined period. *Fill out Column 1, 2 and 6 of table below with the compliance information.*

Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical Service Rating	Metering Capabilities (check all that are present)				Exception to 130.5 (a)	Field Inspector
01	02	03	04	05	06	07	08
Electrical Service Designation/ Location/Description	kVA	Instantaneous (at the time) kW	Historical peak (kW)	Tracking kWh for a user-definable period	kWh per rate period	Utility metering system	Check that the metering complies
(E)		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL	ENV-MM
Project Name: *Westmore Oaks ES - Bldg M*	Date: *5/15/2019*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-**. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

DSA STAMP

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ARCHITECT | ENGINEER

LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren. 9/30/19 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER JASON DEDORA [illegible] MECHANICAL STATE OF CALIFORNIA

GENERAL NOTES

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2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
Drawn: Author	Checked: Checker

T24.8

PRINT DATE: 5/16/2019 5:10:19 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_[illegible].rvt

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 2 of 3)
Project Name: Westmore Oaks ES Bldg F	Date Prepared: 5/15/2019

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☑ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Lighting Control Schedule			Standards Complying With [1] (✓ all that apply, or leave empty if Exempted)							PAF Credit Calculation [2]			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/ Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc…)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(d)2	§140.6(d)					Pass	Fail
All Bldg F Classrooms	(1) DM, (2) Ceiling D, (2) PC per rm	45	★	★	★	★						0	☐	○	○
All Bldg F Restrooms	(1) DW & (1) Ceiling D per rm	4	★	★	★							0	☐	○	○
F100 - Multi-Purpose	(4) Ceiling D, (1) PC, (1) DM, (3) PW	9	★	★	★	★						0	☐	○	○
F114 - Janitor	(1) Passive Infrared Switch	1	★	★	★							0	☐	○	○
F113 - Fire Riser	(1) Passive Infrared Switch	1	★	★	★							0	☐	○	○
												0	☐	○	○
												0	☐	○	○
Control Credit PAGE TOTAL (Sum of Column 13):												0			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):															
See electrical symbol legend for lighting control symbol descriptions.													Enter Control Credit total into NRCC-LTI-01-E; Page 1.		

1. §130.1(a) = Manual area controls; §130.1(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Automatic Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
2. Check Table 140.6-A for correct PAF. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 1 of 3)
Project Name: Westmore Oaks Bldg F	Date Prepared: 5/15/2019

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
◉	○	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
◉	○	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
◉	○	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
◉	○	All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).
◉	○	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.
◉	○	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
◉	○	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
◉	○	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
◉	○	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
◉	○	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 07/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page of
Project Name: Westmore Oaks ES	Date Prepared: 5/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Tony Zamarripa	Documentation Author Signature:
Company: LP Consulting Engineers, Inc.	Signature Date: 5/15/2019
Address: 1209 Pleasant Grove Blvd.	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Kenneth R. Rubitsky	Responsible Designer Signature:
Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2019
Address: 1209 Pleasant Grove Blvd.	License: E 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 2 of 3)
Project Name: Westmore Oaks ES Bldg G	Date Prepared: 5/15/2019

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☑ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Lighting Control Schedule			Standards Complying With [1] (✓ all that apply, or leave empty if Exempted)							PAF Credit Calculation [2]			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/ Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc…)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(d)2	§140.6(d)					Pass	Fail
All Bldg G Storage Rooms	(1) PW per room	4	★	★	★							0	☐	○	○
G111 - PE	(3) PC & (2) Ceiling D	5	★	★	★							0	☐	○	○
All Bldg G Classrooms & G101	(1) DM, (2) Ceiling D, (2) PC per rm	35	★	★	★	★						0	☐	○	○
Rms G103 & G118	(1) PW per room	2	★	★	★							0	☐	○	○
Restrooms G104 & G105	(2) PW & (2) Ceiling D per rm	4	★	★	★							0	☐	○	○
G102 - Office	(1) DM & (1) Corner D	2	★	★	★							0	☐	○	○
G100 - Multi-Purpose	(1) DM, (4) PW, (4) Ceiling D, (1) PC	10	★	★	★	★						0	☐	○	○
Control Credit PAGE TOTAL (Sum of Column 13):												0			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):															
See electrical symbol legend for lighting control symbol descriptions.													Enter Control Credit total into NRCC-LTI-01-E; Page 1.		

1. §130.1(a) = Manual area controls; §130.1(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Automatic Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
2. Check Table 140.6-A for correct PAF. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 1 of 3)
Project Name: Westmore Oaks Bldg G	Date Prepared: 5/15/2019

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
◉	○	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
◉	○	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
◉	○	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
◉	○	All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).
◉	○	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.
◉	○	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
◉	○	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
◉	○	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
◉	○	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
◉	○	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 3 of 3)
Project Name: Westmore Oaks Bldg F	Date Prepared: 5/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Zamarripa	Documentation Author Signature:
Company: LP Consulting Engineers, Inc.	Signature Date: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	CEA Certification Identification (if applicable):
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Kenneth R. Rubitsky	Responsible Designer Signature:
Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	License: 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 2 of 3)
Project Name: Westmore Oaks ES Bldg M	Date Prepared: 5/15/2019

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☑ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Lighting Control Schedule			Standards Complying With [1] (✓ all that apply, or leave empty if Exempted)							PAF Credit Calculation [2]			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/ Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc…)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(d)2	§140.6(d)					Pass	Fail
Rms M106,M107,M108,M113	(1) PW per room	4	★	★	★							0	☐	○	○
M111 - Kitchen	(3) Ceiling D	3	★	★	★							0	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
Control Credit PAGE TOTAL (Sum of Column 13):												0			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):															
See electrical symbol legend for lighting control symbol descriptions.													Enter Control Credit total into NRCC-LTI-01-E; Page 1.		

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2. Check Table 140.6-A for correct PAF. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 1 of 3)
Project Name: Westmore Oaks Bldg M	Date Prepared: 5/15/2019

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
◉	○	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
◉	○	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
◉	○	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
◉	○	All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).
◉	○	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.
◉	○	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
◉	○	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
◉	○	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
○	◉	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
◉	○	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 3 of 3)
Project Name: Westmore Oaks Bldg G	Date Prepared: 5/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Zamarripa	Documentation Author Signature:
Company: LP Consulting Engineers, Inc.	Signature Date: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	CEA Certification Identification (if applicable):
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT
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1. The information provided on this Certificate of Compliance is true and correct.
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4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Kenneth R. Rubitsky	Responsible Designer Signature:
Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	License: 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

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MEP & FS / Sustainability / CxA
1209 Pleasant Grove Blvd.
Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 34883 REN: 12-31-19 MECHANICAL STATE OF CALIFORNIA

GENERAL NOTES
1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
3. These plans and prints thereof, as instruments of service, are owned by the architect and are for use on this project only. Reproduction and/or distribution without the prior written consent of the architect is forbidden.
4. Copyright Bunton Clifford Associates, 2015.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- ● DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	T24.9
Drawn / Checked	
Author / Checker	

PRINT DATE: 5/16/2019 5:10:21 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atdfaro6.rvt

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 2 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 1 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

A. General Information

Project Address: 1504 Fallbrook St., Sacramento, CA 95691	Total Illuminated Hardscape Area: 11691

Phase of Construction: ☐ New Construction ☐ Addition ☑ Alteration

Outdoor Lighting Zone (LZ) ☐ LZ-1 ☐ LZ-2 ☑ LZ-3 ☐ LZ-4

I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114

B. Lighting Compliance Documents (check box for each document included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.

☑	NRCC-LTO-01-E	Certificate of Compliance
☑	NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
☑	NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
☐	NRCC-LTO-04-E	Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power

		Watts
01	**Sum Total ALLOWED** Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1 Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.	1708
	Complies ONLY if **Installed** (Box 02) ≤ **Allowed** (Box 01)	
02	**Sum Total INSTALLED** Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3.	1195

D. Declaration of Required Installation Certificates

Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCI-LTO-01-E - Must be submitted for all buildings	☐ Field Inspector
☑ NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector

E. Declaration of Required Certificates of Acceptance

Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.	☐ Field Inspector

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 3 of 3)
Project Name: Westmore Oaks ES Bldg M	Date Prepared: 5/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Zamarripa	Documentation Author Signature: Anthony Zamarripa
Company: LP Consulting Engineers, Inc.	Signature Date: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	CEA Certification Identification (if applicable):
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
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Responsible Designer Name: Kenneth R. Rubitsky	Responsible Designer Signature: Kenneth R. Rubitsky
Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2018
Address: 1209 Pleasant Grove Blvd.	License: 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 4 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2019
Address: 1209 Pleasant Grove Blvd.	License: 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 3 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector	
01	02	03	04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined: CEC Default from NA8	How wattage was determined: According to §130.0(c)	Number of Luminaires	Total Installed Watts in this area (03 x 05)	Primary Function area in which these luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
S4	LED Pole Light Fixture	105	☑	☐	1	105	Pedestrian Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	○	○
			☐	☐				UH: UL: FVH: BVH: FH: BH:	○	○
			☐	☐				UH: UL: FVH: BVH: FH: BH:	○	○
	INSTALLED WATTS PAGE TOTAL:					105	Enter sum total of all pages (**Sum Total INSTALLED** Outdoor lighting wattage) into NRCC-LTO-01-E; Page 1		1195	

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 3 of 4)
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D2	LED Downlight Recessed Can	20	☑	☐	17	340	Non Sales Canopy	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	○	○
H1	LED Wall Sconce	30	☑	☐	24	720	Pedestrian Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	○	○
H2	LED Wall Sconce	30	☑	☐	1	30	Pedestrian Hardscape	UH: n/a UL: n/a FVH: n/a BVH: n/a FH: n/a BH: n/a	○	○
	INSTALLED WATTS PAGE TOTAL:					1090	Enter sum total of all pages (**Sum Total INSTALLED** Outdoor lighting wattage) into NRCC-LTO-01-E; Page 1		1195	

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 3 of 3)
Project Name: Westmore Oaks Elementary School	Date Prepared: 5/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Zamarripa	Documentation Author Signature: Anthony Zamarripa
Company: LP Consulting Engineers, Inc.	Signature Date: 5/15/2019
Address: 1209 Pleasant Grove Blvd.	CEA Certification Identification (if applicable):
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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Company: LP Consulting Engineers, Inc.	Date Signed: 5/15/2019
Address: 1209 Pleasant Grove Blvd.	License: 11798
City/State/Zip: Roseville, CA 95678	Phone: 916-771-0778

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 2 of 3)
Project Name: Westmore Oaks Elementary School	Date Prepared: 5/15/2019

B. Mandatory Outdoor Lighting Control Schedule and Field Inspection Checklist

Outdoor Lighting Control Schedule			Standards Complying With (✓ all that apply, or leave empty if Exempted)						Type of Acceptance Test Required	Field Inspector	
01	02	03	04	05	06	07	08	09	10	11	
Location and Application of Luminaires Being Controlled	Type/ Description of Lighting Control (i.e. outdoor motion sensor, outdoor photocontrol, outdoor astronomical time-switch control, automatic scheduling control, part-night outdoor lighting control)	# of Units	§130.2(a)	§130.2(c)1	§130.2(c)2	§130.2(c)3	§130.2(c)4	§130.2(c)5		Pass	Fail
Exterior Bldg F Mtd Ltg & Courtyard Ltg	Outdoor Astronomical Time Switch in LCP-F	1	◆	◆	◆				☑	○	○
Exterior Bldg G Mtd Ltg	Outdoor Astronomical Time Switch in LCP-G	1	◆	◆	◆				☑	○	○
									☐	○	○
									☐	○	○
									☐	○	○
									☐	○	○
									☐	○	○
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STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 1 of 3)
Project Name: Westmore Oaks Elementary School	Date Prepared: 5/15/2019

A. Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:
- ☑ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with §110.9(a).
- ☑ Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).
- ☑ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.0(d).
- ☐ Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.
- ☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.
- ☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with Uplight and Glare requirements in accordance with Section 130.2(b)
- ☑ All installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control, or other control capable of automatically switching OFF in accordance with Section 130.2(c)1.
- ☑ All installed outdoor lighting shall be circuited and independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2.
- ☐ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3.
- ☐ For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.
- ☐ For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5
- ☑ Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting controls, shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4.(a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8.

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Roseville, CA 95678
p 916-771-0778
www.lpengineers.com
Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER JASON DEDORA M 34883 REN. 12-31-19 MECHANICAL STATE OF CALIFORNIA

GENERAL NOTES
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4. Copyright Bunton Clifford Associates, 2015.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- ● DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

TITLE 24 COMPLIANCE FORMS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
Drawn / Checked	T24.10
Author / Checker	

PRINT DATE: 5/16/2019 5:10:24 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES, MEP_r17_ataformodi.rvt

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 01/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	(Page 4 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Anthony Zamarripa	Documentation Author Signature:
Company: LP Consulting Engineers, Inc.	Signature Date: 05/15/2019
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OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 01/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	(Page 3 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

C-3. WATTAGE ALLOWANCE PER SQUARE FOOT OF HARDSCAPE AREA (Ornamental Lighting) – Table 140.7-B

- Allowance for the total site illuminated hardscape area. Luminaires qualifying for this allowance shall be rated for 100 watts or less as determined in accordance with Section 130.0(c), and shall be post-top luminaires, lanterns, pendant luminaires, or chandeliers.
- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of area for which ornamental allowance is claimed	Square Feet of Hardscape	Wattage Allowance per Square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
			0					0	
			0					0	
			0					0	
			0					0	
Sum total allowance for ornamental lighting on the site:.									0

C-4. WATTAGE ALLOWANCE PER SQUARE FOOT OF SPECIFIC AREA - Table 140.7-B

- Allowances for Building Facades; Outdoor Sales Lots; Vehicle Service Station Hardscape; Vehicle Service Station Canopies; Sales Canopies; Non-sales Canopies; Tunnels; Guard Stations; Student Pick-up/Drop-off zone: Outdoor Dining; Special Security Lighting for Retail Parking and Pedestrian Hardscape.
- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of Location for Which Allowance is Claimed	Illuminated Area of Application	Wattage Allowance per Square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
Non Sales Canopy	1616	0.408	659.328	D2	LED Downlight Recessed Can	17	20	340	340
			0					0	
			0					0	
			0					0	
Sum total allowance for specific area on the site:									340

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 01/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	(Page 1 of 4)
Project Name: Westmore Oaks Elementary School	Date Prepared: 05/15/2019

A. OUTDOOR LIGHTING POWER ALLOWANCE SUMMARY

1. General Hardscape Lighting Power Allowance (Site Total from Section B of NRCC-LTO-03-E)	1. 1367.85

2. Additional Specific "use it or lose it" Lighting Power Allowances listed in each of these cells shall be identical to total allowed watts determined in Section C-1 to C-4 of NRCC-LTO-03-E.

PER APPLICATION from Section C-1		PER UNIT LENGTH (SALES FRONTAGE) from Section C-2		PER HARDSCAPE AREA (ORNAMENTAL LIGHTING) from Section C-3		PER SPECIFIC AREA from Section C-4.		
0	+	0	+	0	+	340	=	2. 340

3. **Sum Total ALLOWED** Outdoor Lighting Wattage (add rows 1 and 2)	3. 1707.85

B. GENERAL HARDSCAPE LIGHTING POWER ALLOWANCE FROM TABLE 140.7-A

Area Wattage Allowance (AWA)				Linear Wattage Allowance (LWA)			Initial Wattage Allowance (IWA)	Total General Hardscape Lighting Allowance
01	02	03	04	05	06	07	08	09
Name of Area	Illuminated Hardscape Area	AWA Per Square Foot	AWA (B02 x B03)	Perimeter Length of General Hardscape	LPA per Linear Foot	LWA (B05 x B06)	IWA (Watts)	B04 + B07 + B08
Pedestrian Hardscape	10075	0.04	403	1271	0.35	444.85	520	1367.85
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
			0			0		0
							TOTAL	1367.85

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	DATE
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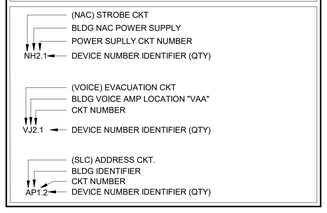
TITLE 24 COMPLIANCE
FORMS

Date 05/20/2019	Project Number 19003
Scale	Drawing Number
Drawn Author / Checked Checker	T24.11

PRINT DATE: 5/16/2019 5:10:26 PM
FILE PATH: C:\Users\Ashton\Documents\19-2007_Westmore Oaks ES_MEP_r17_atafarrodi.rvt



FIRE ALARM ABBREVIATIONS

SYMBOL	DESCRIPTIONS
A/AMP	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFC	ABOVE FINISHED CEILING
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)
C	CONDUIT
CCT	CIRCUIT
CKT	CIRCUIT
DC	DIRECT CURRENT
(E)	EXISTING TO REMAIN
EC	EMPTY CONDUIT
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
FACP	FIRE ALARM CONTROL PANEL
FAPS	FIRE ALARM POWER SUPPLY
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE METALLIC CONDUIT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND/G	GROUND
HP	HORSEPOWER
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
KVA	KILOVOLT-AMPS
KW	KILOWATTS
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
(N)	NEW
N	NEUTRAL CONDUCTOR (GROUNDED CIRCUIT CONDUCTOR)
N.I.E.S.	NOT IN ELECTRICAL SCOPE OR SPECIFICATIONS
NL	NIGHT LIGHT
PH/P/Ø	PHASE OR POLE
PNL	PANELBOARD
PB	UNDERGROUND PULL BOX
PVC	POLYVINYL CHLORIDE CONDUIT (SCHEDULE 40)
(R)	RELOCATE/RELOCATED
RECEP	RECEPTACLE
RGSC	RIGID GALVANIZED STEEL CONDUIT
STC	SIGNAL TERMINAL CABINET
U	UNSWITCHED
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE OR VOLTS
W	WATTS
WG	WIREGUARD
WP	WEATHERPROOF
WPU	WEATHERPROOF WHILE IN USE
(X)	REPLACE
XFMR	TRANSFORMER

FIRE ALARM CIRCUIT IDENTIFIERS

(NAC) STROBE CKT
BLDG NAC POWER SUPPLY
POWER SUPLLY CKT NUMBER
NH2.1 ← DEVICE NUMBER IDENTIFIER (QTY)

(VOICE) EVACUATION CKT
BLDG VOICE AMP LOCATION "VAA"
CKT NUMBER
VJ2.1 ← DEVICE NUMBER IDENTIFIER (QTY)

(SLC) ADDRESS CKT.
BLDG IDENTIFIER
CKT NUMBER
AP1.2 ← DEVICE NUMBER IDENTIFIER (QTY)

DSA REQUIRED ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTE:

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NO: REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATIONSHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY ARTICLE 91. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY DISTRICT.

FIRE ALARM SPEAKER/STROBE NOTES

1. PROVIDE FIRE ALARM EMERGENCY COMMUNICATION SYSTEM AUDIBLE NOTIFICATION IN ALL COMMON AREAS. AUDIBLE LEVELS SHALL MEET APPLICABLE STANDARDS IN NFPA 72 CHAPTER 24.4 ONE-WAY EMERGENCY COMMUNICATION SYSTEM. TESTING AND REPORTS REQUIREMENTS FOR INTELLIGIBILITY SHALL BE PROVIDED PRIOR TO ACCEPTANCE FOR FINAL TESTING WITH AUTHORITY HAVING JUSRISDICTION.
2. A FLASHING VISUAL WARNING DEVICE HAVING A FREQUENCY OF NOT MORE THAN TWO (2) FLASHES OR LESS THAN ONE (1) FLASH PER SECOND BE INSTALLED TO WARN THE HEARING IMPAIRED AS SHOWN ON THE DRAWINGS. (SEC. 2-7204)
3. SNCHRONIZED PER NFPA 72, 18.5.4.

FIRE ALARM CARBON MONOXIDE NOTES

1. PROGRAM CARBON MONOXIDE ALARM SIGNAL TO TAKE PRIORTIY OVER SUPERVISORY AND TROUBLE SIGNALS PER NFPA 720, 7.2.1.
2. FACP MUST BE CAPABLE OF GENERATING BOTH A 3-PULSE (FIRE ALARM) AND 4-PULSE (CARBON MONOXIDE ALARM) TEMPORAL PATTERN PER NFPA 720, 5.8.6.5.1.

FIRE ALARM DEMOLITION GENERAL NOTES

1. ALL EXISTING FIRE ALARM EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEY AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
2. EXISTING FIRE ALARM SYSTEM SHALL REMAIN ACTIVE UNTIL CONSTRUCTION IS COMPLETED. CAUSE AS LITTLE INTERFERENCE OR INTERRUPTION OF EXISTING FIRE ALARM SYSTEMS AND/OR OTHER EXISTING FACILITY'S SYSTEMS AND SERVICES AS POSSIBLE. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST 72 HOURS TO SCHEDULE ALL NECESSARY SHUTDOWNS. SHUTDOWN WORK SHALL BE PERFORMED AFTER THE NORMAL OPERATION HOURS OF THE FACILITY, IF SO DIRECTED BY THE OWNER'S REPRESENTATIVE.
3. ALL REMOVED AND/OR DEMOLISHED ELECTRICAL MATERIALS AND EQUIPMENT TO BE ACCOMPLISHED UNDER THIS CONTRACT, WHICH IN THE OPINION OF THE OWNER'S REPRESENTATIVE ARE DEEM SALVAGEABLE, SHALL REMAIN THE PROPERTY OF THE OWNER. ALL ELECTRICAL MATERIAL AND EQUIPMENT CONSIDERED NOT SALVAGEABLE SHALL BE REMOVED FROM THE SITE AND DISPOSED BY THE CONTRACTOR ACCORDINGLY.
4. WHERE REMOVAL OF AN EXISTING SYSTEM'S DEVICE WILL RESULT IN LOSS OF CIRCUIT CONTINUITY, THE ISOLATED PORTIONS OF THE CIRCUIT SHALL BE RECONNECTED TO PROVIDE SERVICE TO ALL REMAINING DEVICES. IF SITE CONDITIONS MAKE RECONNECTION IMPOSSIBLE, CONNECTION SHALL BE MADE FROM AN ADJACENT AVAILABLE DEVICE AS NOTED AND/OR AS DIRECTED BY THE ARCHITECT AND/OR THE OWNER'S REPRESENTATIVE.
5. WHEREVER EXISTING ELECTRICAL DEVICES, PANELS, CONDUITS, CABLES, ETC., CONFLICT WITH REMODEL WORK, WHETHER SHOWN OR NOT, RELOCATE THESE ITEMS AS DIRECTED BY THE ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
6. COORDINATE WITH OTHER TRADES AND PROMPTLY TRANSMIT ALL INFORMATION REQUIRED BY THEM. COORDINATE THE SEQUENCE OF DEMOLITION WITH OTHER TRADES TO ENSURE THAT ALL WORK PROCEEDS WITH A MINIMUM OF INTERFERENCE AND DELAY.
7. WHERE EXISTING WIRING OR EQUIPMENT IS ABANDONED AS A RESULT OF THIS CONTRACT, IT SHALL BE REMOVED INSOFAR AS POSSIBLE. THIS INCLUDES BUT IS NOT LIMITED TO:
   A. REMOVE ALL WIRE AND CABLE.
   B. REMOVE ALL DEVICES AND EQUIPMENT.
   C. REMOVE ALL EXPOSED CONDUIT AND CONDUIT IN ACCESSIBLE CONCEALED AREA, AS FAR AS POSSIBLE.
   D. CUT OFF AND CAP ALL ABANDONED CONDUIT. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR AND/OR FINISHED WALLS AND CEILINGS.

FIRE ALARM GENERAL NOTES

1. THE INTENT OF THE FIRE ALARM WORK SHOWN IS TO INSTALL NEW FIRE ALARM SYSTEM COMPONENTS TO MEET THE REQUIREMENTS OF NFPA 72 AND 2010 CALIFORNIAN FIRE CODE AND APPLICABLE DSA REGULATIONS AND REQUIREMENTS. THE DRAWINGS AND/OR SPECIFICATIONS DESCRIBE A COMPLET, FUNCTIONING FIRE ALARM SYSTEM WITH DEVICES, WIRING AND FIRE ALARM CONTROL PANEL.
2. PROVIDE AN AUTOMATIC VOICE EVACUATION FIRE ALARM DETECTION AND NOTIFICATION SYSTEM, PER SB575 REQUIREMENT. LOCATIONS OF EXISTING EQUIPMENT AND DEVICES SHOWN ON PLAN ARE BASED ON AVAILABLE AS BUILT PLANS AND INFORMATION. CONTRACTOR SHALL THOROUGHLY INSPECT THE EXISTING SYSTEM AND SITE CONDITIONS BEFORE BID. ADVISE THE DISTRICT'S REPRESENTATIVE OF ALL CONDITIONS REQUIRING IMMEDIATE ATTENTION OR MIGHT CAUSE DIFFICULTIES THAT ARE NOT ADDRESSED, OR INFERRED TO, IN THE CONTRACT DRAWINGS AND SPECIFICATIONS PRIOR TO NEW CONSTRUCTION AND THE COMMENCEMENT OF THE GUARANTEE PERIOD.
3. FIRE WATCH IN CONFORMANCE WITH THE CALIFORNIA FIRE CODE SHALL BE PROVIDED AT THE DIRECTION OF THE CONTRACTOR FOR EVERY OFF-LINE BUILDING. THE SCHOOL DISTRICT SHALL ASSIST WITH FIRE WATCH ACTIVITIES DURING SCHOOL HOURS AND WHENEVER THE CAMPUS IS OCCUPIED BY STUDENTS, TEACHERS AND STAFF. THE CONTRACTOR SHALL PROVIDE ALL FIRE WATCH ACTIVITIES AFTER SCHOOL HOURS AND WHENEVER THE CAMPUS IS NOT OCCUPIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND MAINTAINING ALL FIRE WATCH LOGS.
4. THE FIRE ALARM SYSTEM SHALL CONFORM TO THE CALIFORNIA FIRE CODE, ARTICLE 10, CBC 305.9 AND CALIFORNIA ELECTRICAL CODE, ARTICLE 760.
5. FIRE ALARM SYSTEM SHALL TRANSMIT ALARM, SUPERVISORY AND TROUBLE SIGNAL TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72 AND CBC 907.6.5.3.
6. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
7. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
8. INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY THE CALIFORNIA STATE FIRE MARSHAL, DSA AND THE LOCAL FIRE MARSHAL.
9. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY AND DSA INSPECTOR OF RECORD (IOR). THE SCHOOL SHALL NOT BE IN OPERATION UNTIL THE IOR AND THE LOCAL FIRE MARSHAL HAS VERIFIED AND/OR SIGNED OFF ON OPERATIONAL CAPACITY OF THE FIRE ALARM SYSTEM.
10. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
11. CONTRACTOR SHALL SUBMIT THE DSA INSPECTOR OF RECORD (IOR) NFPA CERTIFICATE OF COMPLIANCE FORM TO THE SCHOOL DISTRICT REPRESENTATIVE FOR SUBMISSION TO THE DSA OFFICE.
12. CONTRACTOR SHALL PROVIDE INTELLIGIBILITY TESTING USING INTELLIGIBILITY METERS APPROVED FOR SUCH USE. REFERENCE NFPA 72 CHAPTER 24. AN STI SCORE OF 7.0 IS A MINIMUM REQUIREMENT. CONTRACTOR SHALL IDENTIFY ALL ACOUSTICALLY DISTINGUISHABLE SPACES (ADS) ON CONTRACTOR SHOP DRAWINGS.
13. BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION, THE SYSTEM INSTALLING CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT TO THE INSPECTOR OF RECORD TO THE EFFECT THAT THE SYSTEM HAS BEEN INSTALLED AND COMPLETELY TESTED IN ACCORDANCE WITH THE 1999 NFPA 72, SECTION 1-6.1.2 AND 7-1.6.2.
14. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
15. CONTRACTOR SHALL SUBMIT ANY ALTERATIONS OF THE APPROVED CONSTRUCTION DOCUMENTS TO THE IOR/DSA FOR NEW APPROVALS. START INSTALLATION OF THE SYSTEM AFTER DETAILED PLANS, SPECIFICATIONS, NEW SHOP DRAWINGS AND SUBMITTALS HAS BEEN APPROVED BY DSA, CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY DELAY.
16. PROVIDE FIRE ALARM AUDIBLE SOUND LEVEL AT LEAST 15 dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL IN ALL OCCUPIED AREA, BUT NOT LESS THAN 75 dBA AT 10 FEET OR MORE THAN 120 dBA IN TOTAL, THROUGHOUT. SYNCHRONIZED TEMPORAL CODE 3 SOUND. (NFPA 72, SEC. 6-3.1.2)
17. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80” MINIMUM AND 96” MAXIMUM FROM FINISHED FLOOR.
18. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90” MINIMUM AND 100” MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6” TO A HORIZONTAL STRUCTURE.
19. A FLASHING VISUAL WARNING DEVICE HAVING A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE [TWO (2) FLASHES OR LESS THAN ONE (1) FLASH PER SECOND] SHALL BE INSTALLED TO WARN THE HEARING IMPAIRED AS SHOWN ON THE DRAWINGS. (SEC. 2-7204) VISIBLE DEVICES WITHIN 55’ FROM EACH OTHER SHALL BE SYNCHRONIZED.
20. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1’ FROM FIRE SPRINKLERS OR 3’ FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
21. LOCATE SMOKE AND HEAT DETECTORS AT LEAST ONE FOOT AWAY FROM FLUORESCENT LIGHT FIXTURES.
22. THE CONTRACTOR SHALL PROVIDE AS-BUILT SHOP DRAWINGS INDICATING CIRCUITING OF ALL DETECTORS AND OTHER DEVICES IN ALL THE BUILDINGS OF THIS PROJECT.
23. WHERE ACCESSIBILITY NOT AVAILABLE TO THE NEW FIRE ALARM DEVICES LOCATED ABOVE THE CEILING/ATTIC SPACES, PROVIDE ACCESS PANELS TO THESE DEVICES.
24. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
25. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
26. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
27. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
28. NO SPLICES SHALL BE ALLOWED FOR FIRE ALARM SYSTEM UNDERGROUND CABLES.
29. NEW FIRE ALARM WIRING SHALL NOT BE INSTALLED IN ANY RACEWAY WITH WIRING IN EXCESS OF 24 VOLT.
30. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
31. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE “ON” POSITION. THE CIRCUIT BREAKER SHALL BE LABELED “FIRE ALARM CIRCUIT CONTROL.” CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
32. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
33. CONTRACTOR SHALL PROVIDE A COMPLETE AND FUNCTIONAL CODE COMPLIANT SYSTEM WITH ALL REQUIRED HARDWARE. DEVICES AND PROGRAMMING AND POINT/DEVICE DESCRIPTION SCHEDULES.
34. CONTRACTOR SHOP DRAWINGS SHALL BE COMPLETE SHOWING ALL CIRCUITING, POINT TO POINT WIRING DIAGRAM, DIMENSIONED PANEL LAYOUTS, DEVICE LABELING AND POINT/DEVICE DESCRIPTION SCHEDULES.
35. INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY THE CALIFORNIA STATE FIRE MARSHAL AND THE LOCAL FIRE MARSHAL.
36. WHERE ACCESSIBILITY IS NOT AVAILABLE TO THE NEW FIRE ALARM DEVICES LOCATED ABOVE THE CEILING/ATTIC SPACES, PROVIDE ACCESS PANELS TO THESE DEVICES, COORDINATE IN THE FIELD.
37. THE CONTRACTOR SHALL PROVIDE AS-BUILT SHOP DRAWINGS INDICATING CIRCUITING OF ALL DETECTOR AS AND OTHER DEVICES IN ALL THE BUILDINGS OF THIS PROJECT. AS-BUILT DRAWINGS SHALL BE STORED IN FIRE ALARM DOCUMENT CABINET INSTALLED ADJACENT TO FIRE ALARM CONTROL PANEL OR LOCATION APPROVED BY AUTHORITY HAVING JURISDICTION.
38. PROVIDE DOCUMENTATION CABINET TO BE INSTALLED PROXIMAL TO FACP (NFPA 72, 7.7.2.1). ALL RECORD DOCUMENTATION SHALL BE STORED IN THE DOCUMENTATION CABINET (NFPA 72 7.7.2.2). THE DOCUMENTATION CABINET TO BE PROMINENTLY LABELED "SYSTEM RECORD DOCUMENTS" (NFPA 72 7.7.2.4).
39. CONTRACTOR SHALL AFFIX TO EACH FIELD DEVICE A DEVICE LABEL. DEVICE LABEL SHALL BE ARRANGED IFOLLOWING DETAIL "FIRE ALARM CIRCUIT IDENTIFIERS". INITIATION DEVICES CONNECTED TO EQUIPMENT BY OTERHS SHALL HAVE A LABEL INDICATING THE EQUIPMENT CONNECTED.

FIRE ALARM EQUIPMENT SCHEDULE

SYM	MODEL #	MFG	DESCRIPTION	CSFM
FACP	EST3	EDWARDS	FIRE ALARM CONTROL PANEL	7165-1657:0186
AMP	ANS-50-XG	EDWARDS	FIRE ALARM VOICE AMPLIFIER	6912-1657:0237
BPS	BPS6A	EDWARDS	FIRE ALARM POWER SUPPLY	7300-1657:0229
FARA	E-RLCD-C	EDWARDS	FIRE ALARM REMOTE ANNUNCIATOR PANEL	7120-1657:0254
MM	SIGA-MM1	EDWARDS	MONITOR MODULE	7300-0559:0121
CM	SIGA-CR/MCR	EDWARDS	CONTROL RELAY MODULE	7300-1567:0121
	SIGA-PS	EDWARDS	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR	7272-1657:0126
	SIGA-SD	EDWARDS	ADDRESSABLE PHOTOELECTRIC SMOKE DUCT DETECTOR WITH REMOTE TEST STATIONS	3242-1657:0223
CO	SIGA-PCD	EDWARDS	ADDRESSABLE CARBON MONOXIDE AND SMOKE DETECTOR	7275-1657:0334
	SIGA-AB4G-LF	EDWARDS	ADDRESSABLE AUDIBLE SOUNDER BASE (TEMPORAL 3 AND 4 PATTERNS)	7300-1657:0332
	SIGA-PHD	EDWARDS	ADDRESSABLE MULTISENSOR SMOKE AND HEAT DETECTOR	7272-1567:0330
	SIGA-HFD	EDWARDS	ADDRESSABLE HEAT DETECTOR (FIXED/RATE OF RISE)	7270-1657:0330
P	SIGA-278	EDWARDS	ADDRESSABLE PULL STATION	7150-1657:0129
⊠	EG4RF-S2VM	GENESIS SERIES	STROBE (15cd, 30cd, 75cd, 110cd)	7320-1657:0211
⊠	EG4RF-S2VM	GENESIS SERIES	SPEAKER STROBE (15cd, 30cd, 75cd, 110cd)	7320-1657:0211
S	EG4RF-S2	GENESIS SERIES	SPEAKER (EXTERIOR/INTERIOR)	7320-1657:0211

NOTES:
1. "C" ADJACENT TO NOTIFICATION DEVICES INDICATES MOUNTED ON CEILING.
2. "WP" INDICATES DEVICE IS WEATHERPROOF.

GOVERNING CODES & APPLICABLE STANDARDS

TITLE 24 CODES:

1. 2016 CALIFORNIA BUILDING STANDARD ADMINISTRATIVE CODE (CAC), (PART 1, TITLE 24, CCR).
2. 2016 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR).
3. 2016 CALIFORNIA ELECTRICAL CODE, (PART 3, TITLE 24, CCR).
4. 2016 CALIFORNIA MECHANICAL CODE (CMC), (PART 4, TITLE 24, CCR).
5. 2016 CALIFORNIA PLUMBING CODE (CPC), (PART 5, TITLE 24, CCR).
6. 2016 CALIFORNIA ENERGY CODE, (PART 6, TITLE 24. CCR).
7. 2016 CALIFORNIA FIRE CODE (CFC), (PART 9, TITLE 24, CCR).
8. 2016 CALIFORNIA REFERENCE CODE, (PART 12, TITLE 24. CCR).

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

1. 2016 CBC, CHAPTER 35.
2. 2016 CFC, CHAPTER 45.
3. 2016 CFC, CHAPTER 80.
4. 2016 NFPA 72.
5. 2106 NFPA 720, AS AMENDED.

FIRE ALARM CABLE SCHEDULE

TYPE	DESCRIPTION	USE
CABLES INSTALLED IN CONDUIT (MINIMUM 1/2" C.)		
A	WEST PENN D990 (2#16 SOL, UTP, FPL)	SLC (ADDRESSABLE LOOP) INTERIOR
AE	WEST PENN AQ225 (2#16 STR, UTP, FPL)	SLC (ADDRESSABLE LOOP) EXTERIOR
M	ESSEX 2#14 THHN/THWN SOL	IDC (INITIATING DEVICE CIRCUIT) - INTERIOR/EXTERIOR
R	WEST PENN D975 (2#18 SOL, STP, FPL) ESSEX 2#14 THHN/THWN SOL	ANNUNCIATOR INTERIOR
B	SUPERIOR ESSEX 2#12 THHN/THWN	NAC (NOTIFICATION APPLIANCE CIRCUIT) INTERIOR
C	WEST PENN 975 (2#18 SOL, STP)	AUDIO SPEAKER CABLE - INTERIOR
CE	WEST PENN AQ294 (2#16 STR, STP, FPL)	AUDIO SPEAKER CABLE - EXTERIOR
DE	WEST PENN AQ225 (2#16 SOL, UTP, FPL)	NETWORK COMMUNICATION CABLE - EXTERIOR

CABLE DESCRIPTION ABBREVIATIONS

ABBREV.	DEFINITION	ABBREV.	
FPL	FIRE ALARM POWER-LIMITED	STR	STRANDED CONDUCTOR
FPLP	FIRE ALARM POWER-LIMITED, PLENUM	STP	SHIELDED TWISTED PAIR
FPLR	FIRE ALARM POWER-LIMITED, RISER	US	UNSHIELDED CABLE
OS	OVERALL SHIELDED CABLE	UTP	UNSHIELDED TWISTED PAIR
SOL	SOLID CONDUCTOR		

FIRE ALARM SCOPE OF WORK

INCORPORATE (2) NEW BUILDINGS (BLDGS. F & G) AND RECONFIGURE (1) EXISTING BUILDING (BLDG. M) INTO AN EXISTING EST EDWARDS AUTOMATIC FIRE ALARM SYSTEM WITH VOICE EVACUATION SYSTEM. WORK IS TO INCLUDE BUT NOT LIMITED TO THE DEMOLITION OF FIRE ALARM DEVICES (BACKBOXES, CONDUIT AND WIRING), ADDITION OF NEW DEVICES, CONDUIT AND WIRING, RE-PROGRAMMING AND TESTING OF COMPLETED SYSTEM.

EXISTING BUILDING M (NEW ADDITION)

OCCUPANCY TYPE:	A-2
BUILDING HIEGHT:	23'-1"
# OF STORIES:	1
TYPE OF CONSTRUCTION:	V-B
SPRINKLERS:	PARTIAL-NEW ADDITION ONLYB (SEE FP PLANS)
ALTERNATIVE PROTECTION:	NOT USED
FIRE ALARM SYSTEM TYPE:	CLASS B
INITIATION DEVICE CIRCUIT (ICD):	CLASS B
SIGNAL LINE CIRCUIT (SLC):	CLASS B
NOTIFICATION DEVICE CIRCUIT (NAC):	CLASS B

NEW BUILDING F

OCCUPANCY TYPE:	A-2,E
BUILDING HIEGHT:	21'-10"
# OF STORIES:	1
TYPE OF CONSTRUCTION:	V-B
SPRINKLERS:	YES (SEE FP PLANS)
ALTERNATIVE PROTECTION:	NOT USED
FIRE ALARM SYSTEM TYPE:	CLASS B
INITIATION DEVICE CIRCUIT (ICD):	CLASS B
SIGNAL LINE CIRCUIT (SLC):	CLASS B
NOTIFICATION DEVICE CIRCUIT (NAC):	CLASS B

NEW BUILDING G

OCCUPANCY TYPE:	A-2,B,E
BUILDING HIEGHT:	21'-10"
# OF STORIES:	1
TYPE OF CONSTRUCTION:	V-B
SPRINKLERS:	YES (SEE FP PLANS)
ALTERNATIVE PROTECTION:	NOT USED
FIRE ALARM SYSTEM TYPE:	CLASS B
INITIATION DEVICE CIRCUIT (ICD):	CLASS B
SIGNAL LINE CIRCUIT (SLC):	CLASS B
NOTIFICATION DEVICE CIRCUIT (NAC):	CLASS B

FIRE ALARM SHEET INDEX

SHEET NUMBER	SHEET NAME
FA0.1	FIRE ALARM NOTES, SCHEDULES AND SHEET INDEX
FA0.2	FIRE ALARM DETAILS
FA0.3	FIRE ALARM DETAILS
FA1.1	FIRE ALARM SITE PLAN
FA2.1	BUILDING F FIRE ALARM
FA3.1	BUILDING G FIRE ALARM
FA4.1	BUILDING M FIRE ALARM PLAN
FA5.1	FIRE ALARM RISER
FA5.2	FIRE ALARM CALCULATIONS

Control Unit Annunciation | tificat | Required Fire Safety Control | Supplementary

A: Actuate common alarm signal indicator
B: Actuate audible alarm signal
C: Actuate common supervisory signal indicator
D: Actuate audible supervisory signal
E: Actuate common trouble signal indicator
F: Actuate audible common trouble signal
G: Actuate Zone 1 alarm indicator
H: Actuate Zone 2 alarm indicator
I: Actuate Zone 3 alarm indicator
J: Actuate evacuation signals
M: Actuate Sounder Base evacuation signals
N: Display/Print change of status
O: Transmit fire alarm signal to supervising station
P: Transmit supervisory signal to supervising station
Q: Transmit trouble signal to supervising station
U: Close smoke/fire dampers in rated walls
Y: Unlock exits
AA: Initiate suppression system releasing sequence
CC: Actuate graphics system - display floor map
EE: Shutdown process #1
HH: Actuate exterior strobe at f.d. response point

	System Inputs	A	B	C	D	E	F	G	H	I	J	M	N	O	P	Q	U	Y	AA	CC	EE	HH	
1	Manual fire alarm boxes - 1st Floor	●	●					●			●		●	●				●		●	●	●	1
4	Smoke detectors - 1st floor	●	●					●			●		●	●				●		●		●	4
5	Carbon Monoxide detectors	●	●						●				●	●				●		●		●	5
10	In-duct smoke detector	●	●					●					●	●				●		●		●	10
15	Heat Detectors	●	●					●					●	●				●		●		●	15
18	Waterflow - 1st floor	●	●					●					●	●			●	●		●	●	●	18
20	Ansul System Discharge	●	●							●			●	●			●	●		●		●	20
21	Sprinkler control valve - 1st floor			●	●								●		●					●			21
26	Fire alarm AC power failure					●	●									●							26
27	Fire Alarm system low battery					●	●									●							27
28	Open Circuit					●	●									●							28
29	Ground Fault					●	●									●							29
30	Notification appliance circuit short					●	●									●							30
		A	B	C	D	E	F	G	H	I	J	L	M	N	O	P	T	X	Z	BB	DD	GG	

FIRE ALARM MATIRX NTS 13

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REVISION HISTORY

NO.	REMARKS	DATE
	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

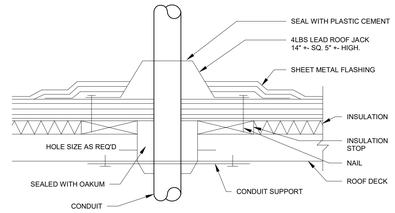
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE ALARM NOTES, SCHEDULES AND SHEET INDEX

Date: 05/20/2019
Project Number: 19003
Scale: As indicated
Drawing Number: FA0.1
Drawn: BLB
Checked: JL



NOTES:
SEALANT TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR

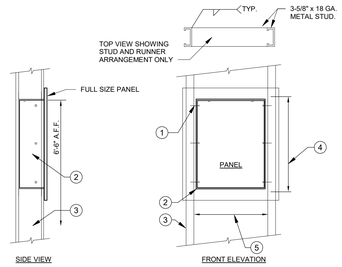
ROOF CONDUIT PENETRATION DETAIL — NTS — 6

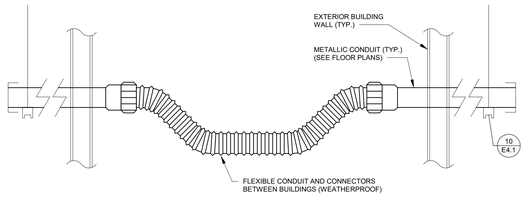
KEY NOTES:

1. 1/4" x 1-1/2" MACHINE BOLTS, TYPICAL AT 3 EACH SIDE AND 2 EACH AT TOP AND BOTTOM OF THE PANEL. (BY ELECTRICAL CONTRACTOR).
2. 5/8" GYPBOARD AROUND PANEL TYPICAL FOR PANELS IN CORRIDOR WALLS, AREA SEPARATION WALLS, OCCUPANCY SEPARATION WALLS, AND FIRE RATED TREATED WALLS.
3. METAL STUD PER ARCHITECTURAL DRAWINGS AND REQUIREMENTS.
4. ADD 1-1/8" TO PANEL HEIGHT INSIDE DIM. OF FRAME. VERIFY EQUIPMENT SIZE IN FIELD.
5. ADD 1-1/8" TO PANEL WIDTH INSIDE DIM. OF FRAME. VERIFY EQUIPMENT SIZE IN FIELD.

NOTES:

1. USE FENDER WASHER ON ALL BOLTS.
2. REGULAR PANELS 150# MAX. ISOLATION PANELS 225# MAX.
3. MOUNT TERMINAL CABINETS, AND ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.
4. REFER TO PANEL SCHEDULE SHEET FOR SIZES OF PANELS.
5. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = +50".



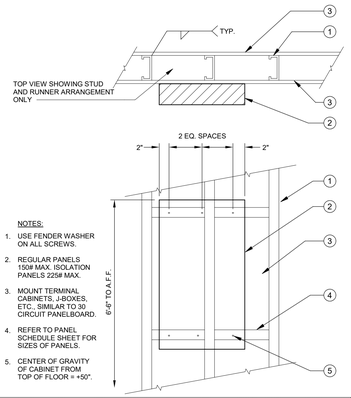


SEISMIC JOINT CONDUIT DETAIL — NTS — 5

Fire alarm Detail-Recessed Panel/Cabinet-Metal Frame — NTS — 3

KEY NOTES:

1. 3-5/8" x 18 GA METAL STUD.
2. SURFACE MOUNTED PANEL CABINET.
3. SHEET ROCK OR OTHER WALL SURFACE MATERIAL (SEE ARCH. DRAWINGS).
4. 3-5/8" x 18 GA. METAL STUDS FILLET WELDED TO VERTICAL STUDS AT EACH END.
5. 1/4" x 1-1/2" TEK SCREWS (BY ELECTRICAL CONTRACTOR).



NOTES:

1. USE FENDER WASHER ON ALL SCREWS.
2. REGULAR PANELS 150# MAX. ISOLATION PANELS 225# MAX.
3. MOUNT TERMINAL CABINETS, J-BOXES, ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.
4. REFER TO PANEL SCHEDULE SHEET FOR SIZES OF PANELS.
5. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = +50".

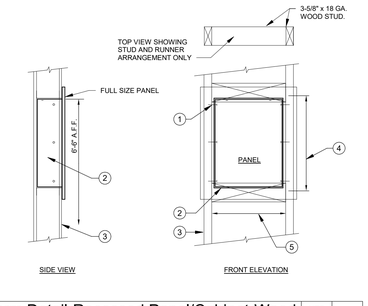
Fire alarm Detail-Surface Panel/Cabinet-Metal Frame — NTS — 4

KEY NOTES:

1. 1/4" DIA. THRU BOLTS, TYPICAL AT 3 EACH SIDE AND 2 EACH AT TOP AND BOTTOM OF THE PANEL. (BY ELECTRICAL CONTRACTOR).
2. 5/8" GYPBOARD AROUND PANEL TYPICAL FOR PANELS IN CORRIDOR WALLS, AREA SEPARATION WALLS, OCCUPANCY SEPARATION WALLS, AND FIRE TREATED WALLS.
3. WOOD STUD PER ARCHITECTURAL DRAWINGS AND REQUIREMENTS.
4. ADD 1-1/8" TO PANEL HEIGHT INSIDE DIM. OF FRAME VERIFY EQUIPMENT SIZE IN FIELD.
5. ADD 1-1/8" TO PANEL WIDTH INSIDE DIM. OF FRAME. VERIFY EQUIPMENT SIZE IN FIELD.

NOTES:

1. USE FENDER WASHER ON ALL BOLTS.
2. REGULAR PANELS 150# MAX. ISOLATION PANELS 225# MAX.
3. MOUNT TERMINAL CABINETS, AND ETC., SIMILAR TO 30 CIRCUIT PANELBOARD.
4. REFER TO PANEL SCHEDULE SHEET FOR SIZES OF PANELS.
5. CENTER OF GRAVITY OF CABINET FROM TOP OF FLOOR = +50"

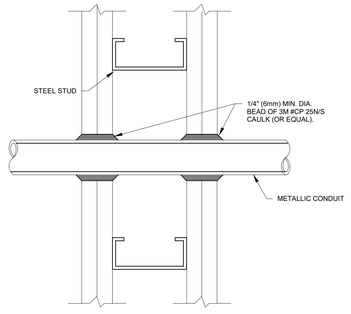


Fire alarm Detail-Recessed Panel/Cabinet-Wood Frame — NTS — 2

KEY NOTES:

1. 1/4" x 1-1/2" MACHINE BOLTS, TYPICAL AT 3 EACH SIDE AND 2 EACH AT TOP AND BOTTOM OF THE PANEL. (BY ELECTRICAL CONTRACTOR).
2. RACEWAY AS NOTED ON DRAWINGS.
3. ROOFTOP SUPPORT BASE, B-LINE C6 SERIES WITH HOT-DIPPED GALVANIZED B12 CHANNEL. SECURE TO ROOF WITH A FULL BED OF NON-HARDENING ADHESIVE TYPE MASTIC.

Fire Alarm Detail-Roof Conduit Support — NTS — 10



NOTE:

INSTALL SUPPORT BLOCK 8'-0" O.C. MAX. WITHIN 36" OF A BOX CONNECTION, AND AT EACH CHANGE OF DIRECTION.

NOTES:
1. THE CAULK IS TO BE FORCED INTO THE ANNULAR SPACE TO THE MAXIMUM EXTENT POSSIBLE FLUSH WITH THE EXTERIOR OF THE PENETRATION SURFACE.

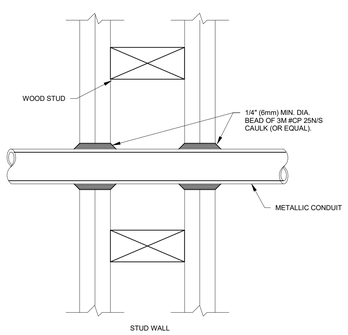
2. FINISH CAULKING WITH A 1/4" (6mm) MINIMUM BEAD OF CP 25N/S CAULK APPLIED TO THE PERIMETER OF THE CONDUIT/PIPE AT ITS EGRESS FROM THE WALL.

3. THE MAXIMUM ANNULAR SPACE IS NOT TO EXCEED 3/16" (5mm).

4. INSTALL 3M FIRESTOP ON BOTH SIDES OF THE WALL.

5. THESE RECOMMENDATIONS ARE BASED ON PRODUCT PERFORMANCE PER ASTM E-B14 (UL 1479) FIRE TEST AND UL THROUGH-PENETRATION FIRESTOP SYSTEM #WL1DD1.

Fire Alarm Detail-Conduit Penetration Firestop-Steel Studs — NTS — 8



NOTES:
1. THE CAULK IS TO BE FORCED INTO THE ANNULAR SPACE TO THE MAXIMUM EXTENT POSSIBLE FLUSH WITH THE EXTERIOR OF THE PENETRATION SURFACE.

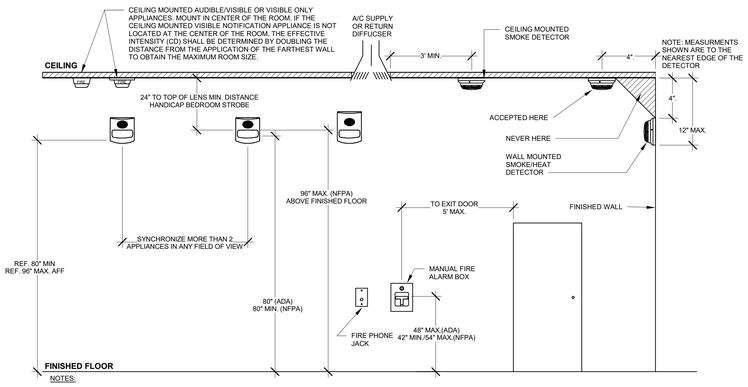
2. FINISH CAULKING WITH A 1/4" (6mm) MINIMUM BEAD OF CP 25N/S CAULK APPLIED TO THE PERIMETER OF THE CONDUIT/PIPE AT ITS EGRESS FROM THE WALL.

3. THE MAXIMUM ANNULAR SPACE IS NOT TO EXCEED 3/16" (5mm).

4. INSTALL 3M FIRESTOP ON BOTH SIDES OF THE WALL.

5. THESE RECOMMENDATIONS ARE BASED ON PRODUCT PERFORMANCE PER ASTM E-B14 (UL 1479) FIRE TEST AND UL THROUGH-PENETRATION FIRESTOP SYSTEM #WL1DD1.

Fire Alarm Detail-Conduit Penetration Firestop — NTS — 7

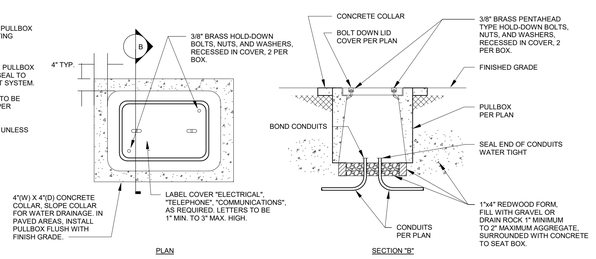


NOTES:

1. ALL DEVICES SHOWN MAY NOT BE USED ON THIS PROJECT.
2. NFPA 72 2016 EDITION, 18.4.8 LOCATION OF AUDIBLE NOTIFICATION APPLIANCES.
3. NFPA 72 2016 EDITION, 18.4.8.1 IF CEILING HEIGHTS ALLOW WALL- MOUNTED APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 2.30m (90in.) AND BELOW THE FINISHED CEILINGS AT DISTANCES OF NOT LESS THAN 150mm (6in.).
4. NFPA 72 2016 EDITION, 18.4.8.3 IF COMBINATION AUDIBLE/VISIBLE APPLIANCES ARE INSTALLED, THE LOCATION OF THE INSTALLED APPLIANCE SHALL BE DETERMINED BY THE REQUIREMENTS OF 18.5.5.
5. NFPA 72 2016 EDITION, 18.5.5 WALL-MOUNTED APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 2.0m (80 in.) AND NOT GREATER THAN 2.4m (96in.) ABOVE THE FINISHED FLOOR.
6. INSTALL MIN 42", MAC 48" TO TOP OF ACTIVATING HANDLE OR LEVER.
7. INSTALL FIRE ALARM PANEL/CABINETS 72", TO TOP OF PANEL/CABINET.

Fire Alarm Detail-Eqpt Mntg Hgts — NTS — 1

NOTES:
1. ALL SPLICES WITHIN THE CONCRETE PULLBOX ARE TO BE SEALED WITH AN INSULATING AND ENCAPSULATING RESIN PACK, SCOTCHCAST 4 OR EQUAL.
2. ALL CONDUIT WITHIN THE CONCRETE PULLBOX ARE TO BE SEALED WITH RTV DUCT SEAL TO PREVENT WATER ENTERING CONDUIT SYSTEM.
3. ALL CONDUCTORS AND CABLES ARE TO BE GROUPED AND WIRE TIED EVERY 6" PER CONDUIT FILL.
4. PROVIDE TWO 12" EXTENSION RINGS UNLESS NOTED OTHERWISE.



Fire Alarm Detail-Concrete U.G. Pull Box — NTS — 9

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE
	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

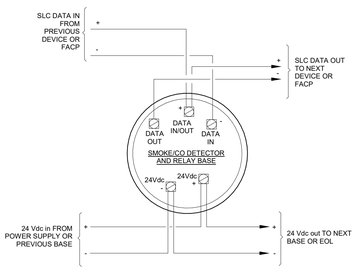
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

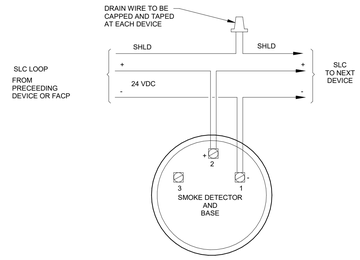
WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE ALARM DETAILS

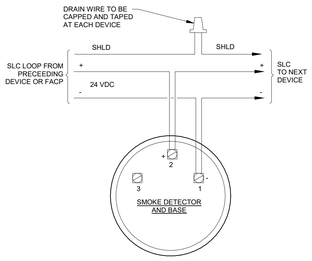
Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FA0.2
Drawn: BLB	Checked: JL



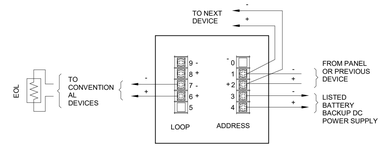
SMOKE/CO DETECTOR POINT-TO-POINT DIAGRAM — NTS — 7



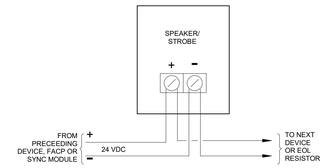
HEAT DETECTOR POINT-TO-POINT DIAGRAM — NTS — 4



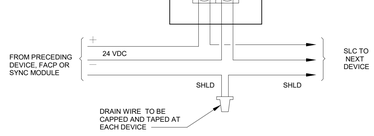
SMOKE DETECTOR POINT-TO-POINT DIAGRAM — NTS — 6



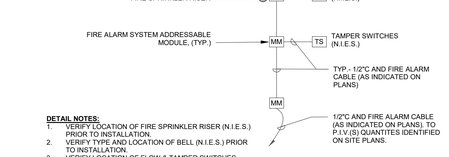
ADDRESSIBLE MODULE WIRING DIAGRAM — NTS — 3



SPEAKER-STROBE POINT-TO-POINT DIAGRAM — NTS — 10

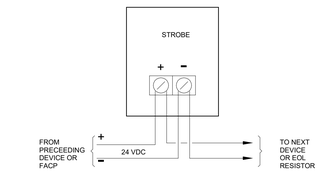


MANUAL PULL STATION POINT-TO-POINT DIAGRAM — NTS — 5

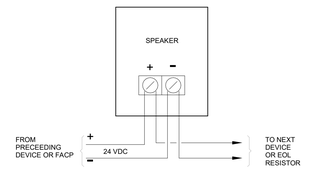


DETAIL NOTES:
1. VERIFY LOCATION OF FIRE SPRINKLER RISER (N.I.E.S.) PRIOR TO INSTALLATION.
2. VERIFY TYPE AND LOCATION OF BELL (N.I.E.S.) PRIOR TO INSTALLATION.
3. VERIFY LOCATION OF FLOW & TAMPER SWITCHES (N.I.E.S.) PRIOR TO INSTALLATION.
4. VERIFY P.I.V.(S) (N.I.E.S.) LOCATION AND QUANTITIES PRIOR TO INSTALLATION.

FIRE PROTECTION MONITORING WIRING DIAGRAM — NTS — 2

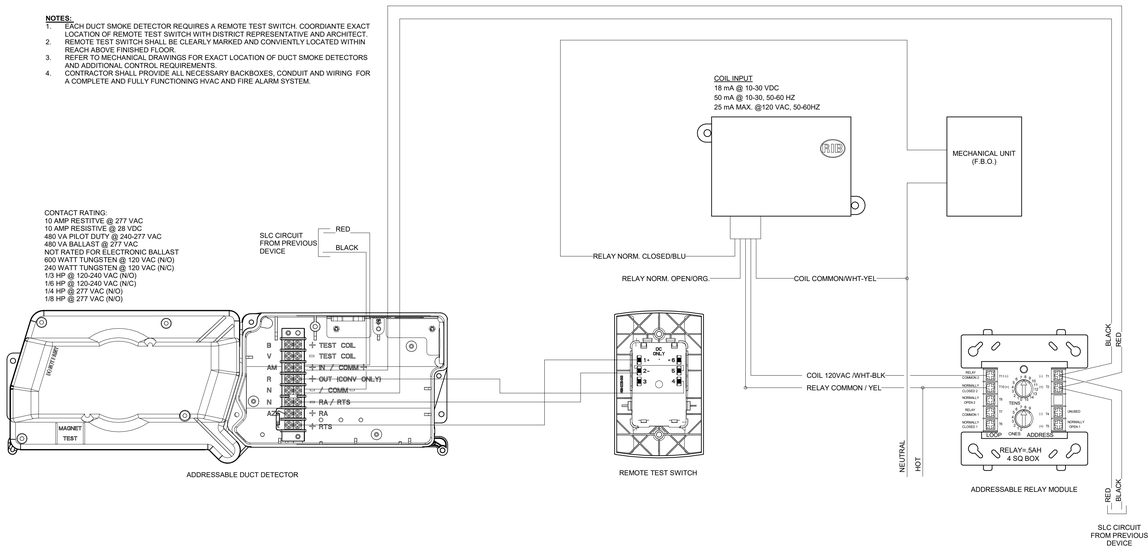


STROBE POINT-TO-POINT DIAGRAM — NTS — 9



SPEAKER POINT-TO-POINT DIAGRAM — NTS — 8

NOTES:
1. EACH DUCT SMOKE DETECTOR REQUIRES A REMOTE TEST SWITCH. COORDIANTE EXACT LOCATION OF REMOTE TEST SWITCH WITH DISTRICT REPRESENTATIVE AND ARCHITECT.
2. REMOTE TEST SWITCH SHALL BE CLEARLY MARKED AND CONVIENTLY LOCATED WITHIN REACH ABOVE FINISHED FLOOR.
3. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF DUCT SMOKE DETECTORS AND ADDITIONAL CONTROL REQUIREMENTS.
4. CONTRACTOR SHALL PROVIDE ALL NECESSARY BACKBOXES, CONDUIT AND WIRING FOR A COMPLETE AND FULLY FUNCTIONING HVAC AND FIRE ALARM SYSTEM.



MECHNAICAL UNIT SHUTDOWN WIRING DIAGRAM — NTS — 1

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Job #: 19-2007

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LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBY No. 17172 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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KEY PLAN

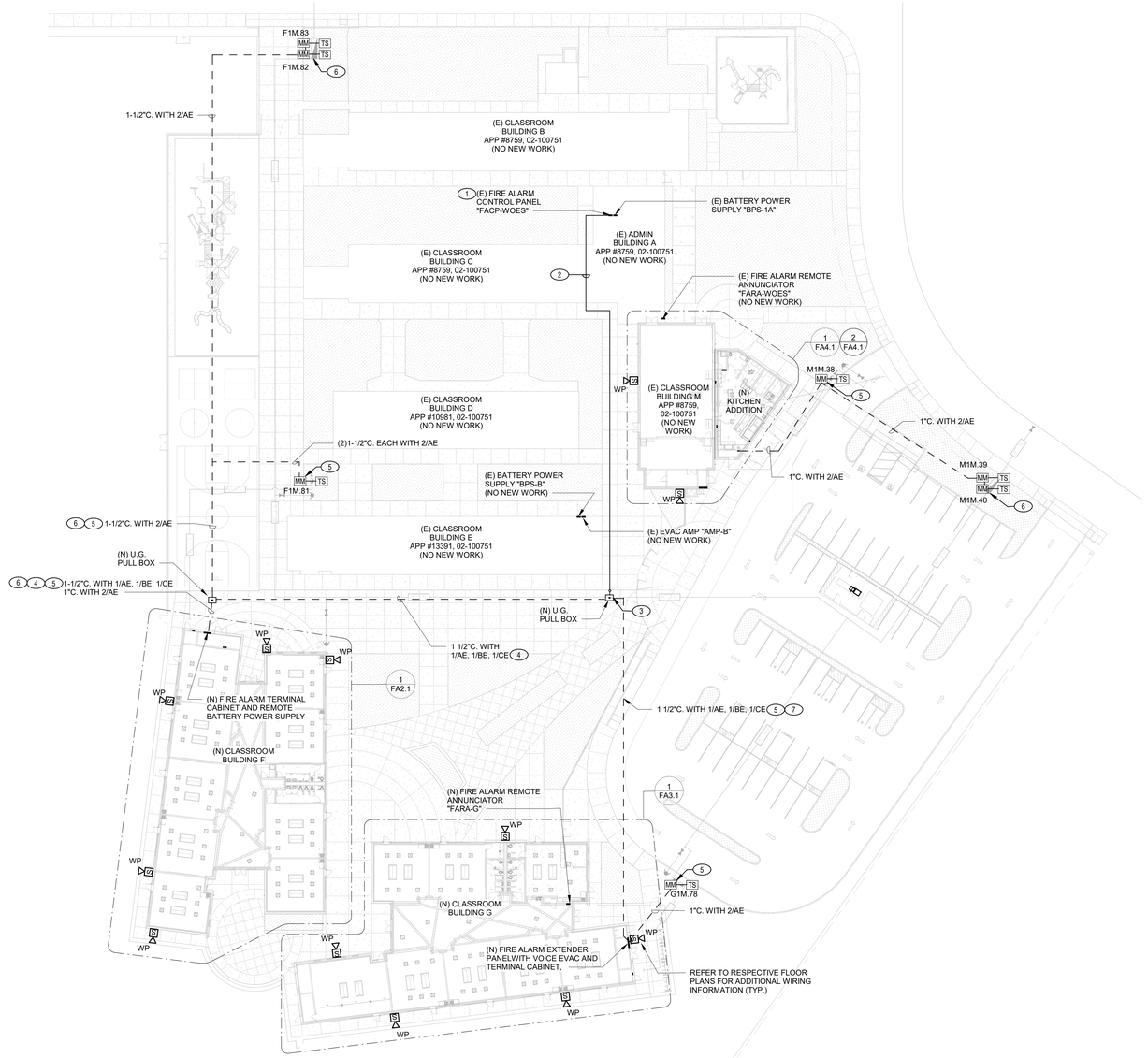
WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE ALARM DETAILS

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FA0.3
Drawn: BLB	Checked: JL



REF: 3 / FA2.1

FIRE ALARM SITE PLAN 1" = 30'-0" 1

SHEET NOTES

1. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UNDERGROUND PULL BOXES AND CONDUIT ROUTING WITH LANDSCAPE, CIVIL AND UTILITIES PLANS PRIOR TO TRENCHING. MAINTAIN 5 FEET CLEARANCE BETWEEN UNDERGROUND PULL BOXES/CONDUITS AND TREE TRUNKS.
2. ALL ELECTRICAL EQUIPMENT AND DEVICES LOCATED OUTDOORS SHALL BE WEATHERPROOF/NEMA 3R RATED.
3. ALL UNDERGROUND PULLBOXES SHALL HAVE GPS COORDINATES NOTED ON THE FINAL AS-BUILTS / CLOSEOUT DOCUMENTATION, PER DISTRICT STANDARDS.
4. ALL UNDERGROUND PULLBOXES SHALL BE CLEAR DRAINS AND SEWER LINES.
5. UNDERGROUND CONDUITS SHALL NOT RUN UNDER FIRE HYDRANT, FDG, ETC.
6. ALL INTERIOR VOICE EVACUTATION SPEAKERS ARE TO BE TAPPED AT 1/4 WATT UNLESS OTHERWISE NOTED ON THESE PLANS.
7. ALL EXTERIOR VOICE EVACUTATION SPEAKERS ARE TO BE TAPPED AT 2 WATT UNLESS OTHERWISE NOTED ON THESE PLANS.

KEY NOTES

(#)

1 (E) FACP TO REMAIN. INSTALL MODULES FOR EXPANSION OF SYSTEM AND CONNECT TO FIRE ALARM EXPANDER PANEL LOCATED IN BUILDING 'G'. (FAEP-G). PROVIDE AND INSTALL ALL NECESSARY HARDWARE AND PROGRAMMING FOR A COMPLETE AND FUNCTIONING SYSTEM.

2 PENETRATE ROOF WITH NEW CONDUIT PER DETAIL X/FA0.2. ROUTE CONDUIT AND CONDUCTORS ON (E) CANOPY STRUCTURE PER DETAIL X/FA0.2 TO NEW PULL BOX AS INDICATED ON THESE PLANS.

3 ROUTE CONDUIT AND CONDUCTORS DOWN (E) CANOPY SUPPORT COLUMN AND EXTEND TO NEW PULL BOX INDICATED ON THESE PLANS, REFER TO DETAIL X/FA0.2.

4 ROUTE CONDUIT AND CONDUCTORS TO 'BPS-F' VIA 'FATC-F' AND CONNECT AS REQUIRED. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

5 ROUTE CONDUIT AND CONDUCTORS TO P.I.V. TAMPER SWITCHES (N.I.E.S.) COORDINATE EXACT LOCATION WITH CIVIL ON-SITE PRIOR TO THE EXECUTION OF WORK. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

6 ROUTE CONDUIT AND CONDUCTORS TO DOUBLE CHECK VALVE TAMPER SWITCHES (N.I.E.S.) COORDINATE EXACT LOCATION WITH CIVIL ON-SITE PRIOR TO THE EXECUTION OF WORK. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

7 ROUTE CONDUIT AND CONDUCTORS TO NEW FIRE ALARM EXTENDER PANEL 'FAEP-G' LOCATED IN BUILDING 'G' ELECTRICAL ROOM AND CONNECT AS REQUIRED FOR A FULLY FUNCTIONING SYSTEM.

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930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
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WEST SACRAMENTO, CA 95691

FIRE ALARM SITE PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FA1.1
Drawn: BLB	Checked: JL

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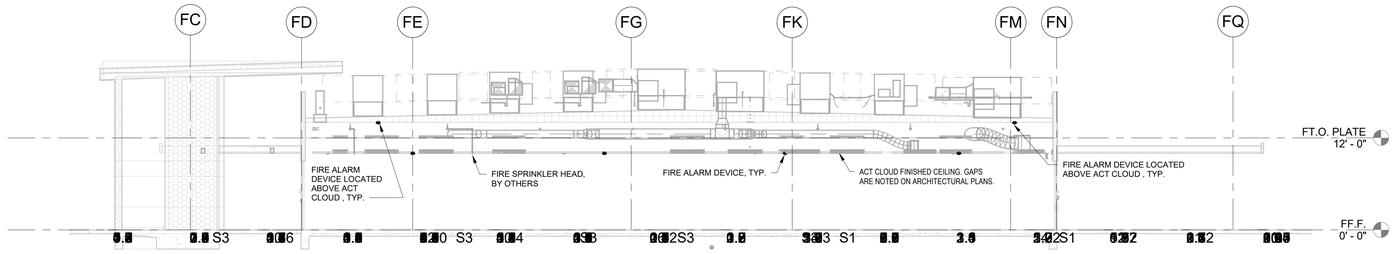
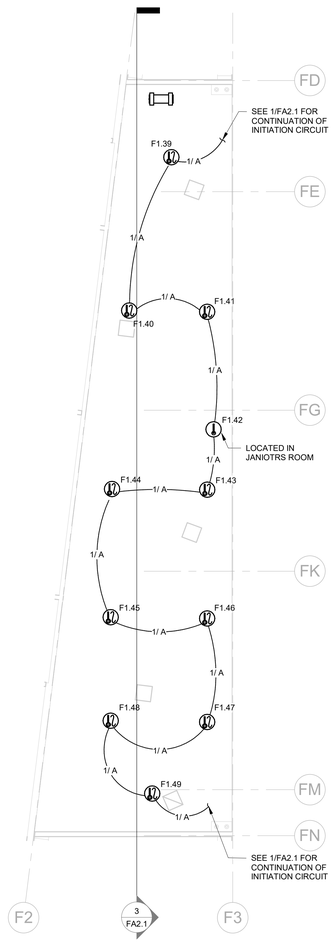


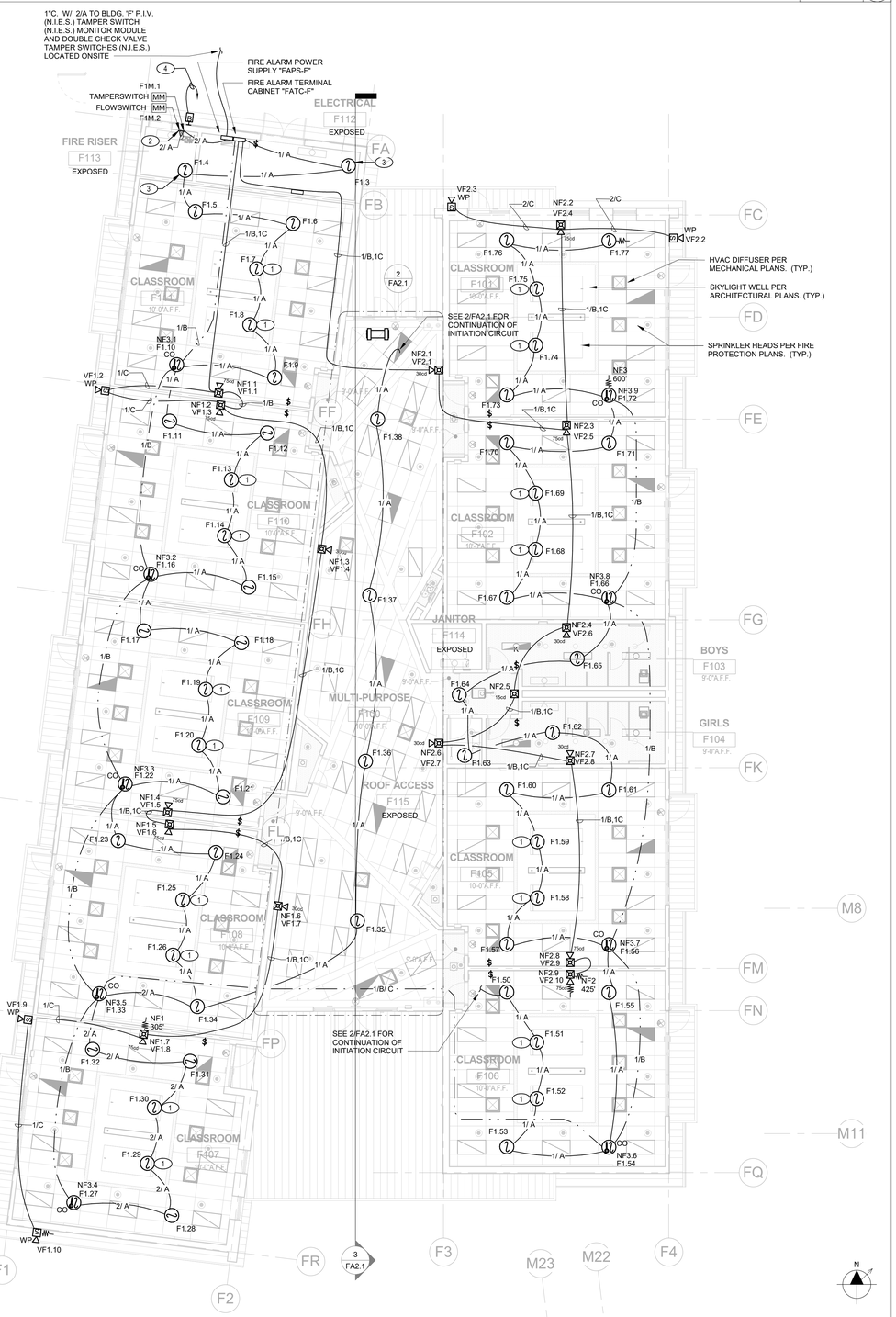
REF: 1 / FA2.1

Bldg F Fire Alarm Section 1/8" = 1'-0" 3



REF: 1 / FA2.1

Bldg F Fire Alarm Section - Multi-Purpose Above ACT Ceiling 1/8" = 1'-0" 2



REF: 1 / FA1.1

Bldg F Fire Alarm Plan 1/8" = 1'-0" 1

SHEET NOTES

1. WHERE DEVICE ARE SHOWN TO BE DEMOLISHED PER THESE PLANS THE CONTRACTOR SHALL REMOVE EXISTING FIRE ALARM EQUIPMENT, DEVICES, OUTLET BOX, CONDUIT AND WIRING. CAP ENDS OF ABANDONED CONDUITS AND LABEL AS ABANDONED.
2. WHERE FIRE ALARM INITIATION DEVICES AND NOTIFICATION DEVICES ARE SHOWN AS NEW (N) THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY HARDWARE (DEVICES, BACKBOX, 3/4" CONDUIT U.N.O., JUNCTION BOXES AND CONDUCTORS AS INDICATED) TO EXTEND THE EXISTING PATHWAYS.
3. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
4. ALL (N) CONDUIT IS 3/4"C. UNLESS OTHERWISE NOTED (U.N.O.).
5. FIRE ALARM POWER SOURCE CIRCUITS SHALL BE DEDICATED AND INSTALLED PER NFPA 72, 10.6.5.2. USING RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY. COORDINATE WITH ELECTRICAL.
6. ALL INTERIOR SPEAKERS SHALL BE SET AT 1/4WATT UNLESS OTHERWISE NOTED ON THESE PLANS.
7. ALL EXTERIOR SPEAKERS SHALL BE SET AT 2 WATT UNLESS OTHERWISE NOTED ON THESE PLANS.

KEY NOTES

(#)

1 INSTALL DETECTOR IN HIGHEST EDGE OF SKYLIGHT WELL. COORDINATE EXACT LOCATION WITH SKYLIGHT WELL DETAILS PER ARCHITECTURAL PLANS.

2 FIRE SPRINKLER RISER (BY OTHERS). COORDINATE EXACT LOCATION OF FLOW AND TAMPER SWITCHES (BY OTHERS) WITH FIRE PROTECTION PLANS AND CONNECT TO MONITOR MODULES. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM. SEE DETAIL 2/FA0.3 FOR ADDITIONAL REQUIREMENTS.

3 CEILINGS IN THIS SPACE ARE EXPOSE TO ROOF STRUCTURE. INSTALL DETECTOR WITHIN 3'-0" OF PEAK PER NFPA 17.6.3.4.2.1.

4 120,1P DEDICATED BRANCH CIRCUIT FOR FIRE SPRINKLER RISER BELL (N.I.E.S.) REFER TO ELECTRICAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION IN THE FIELD WITH SPRINKLER INSTALLER. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

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REVISION HISTORY

NO.	REMARKS	DATE
	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING F FIRE ALARM

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FA2.1
Drawn: BLB	Checked: JL

PRINT DATE: 5/16/2019 3:10:40 PM
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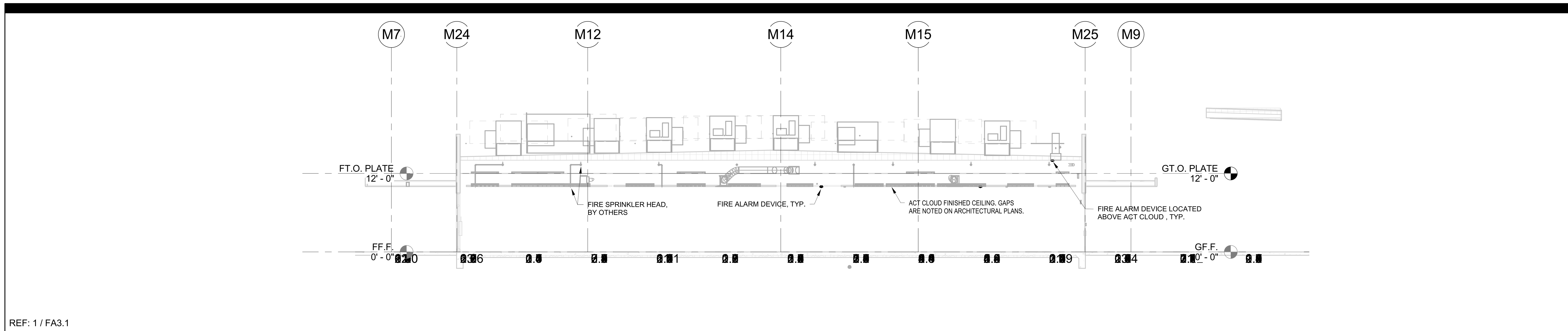
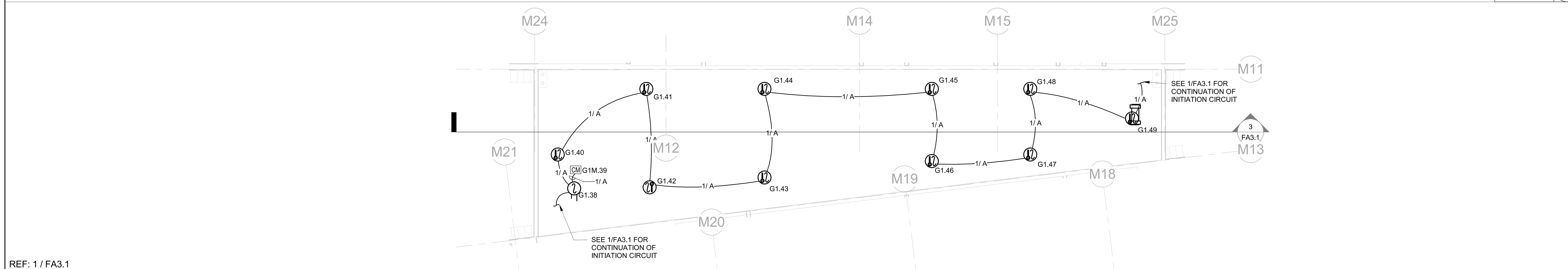
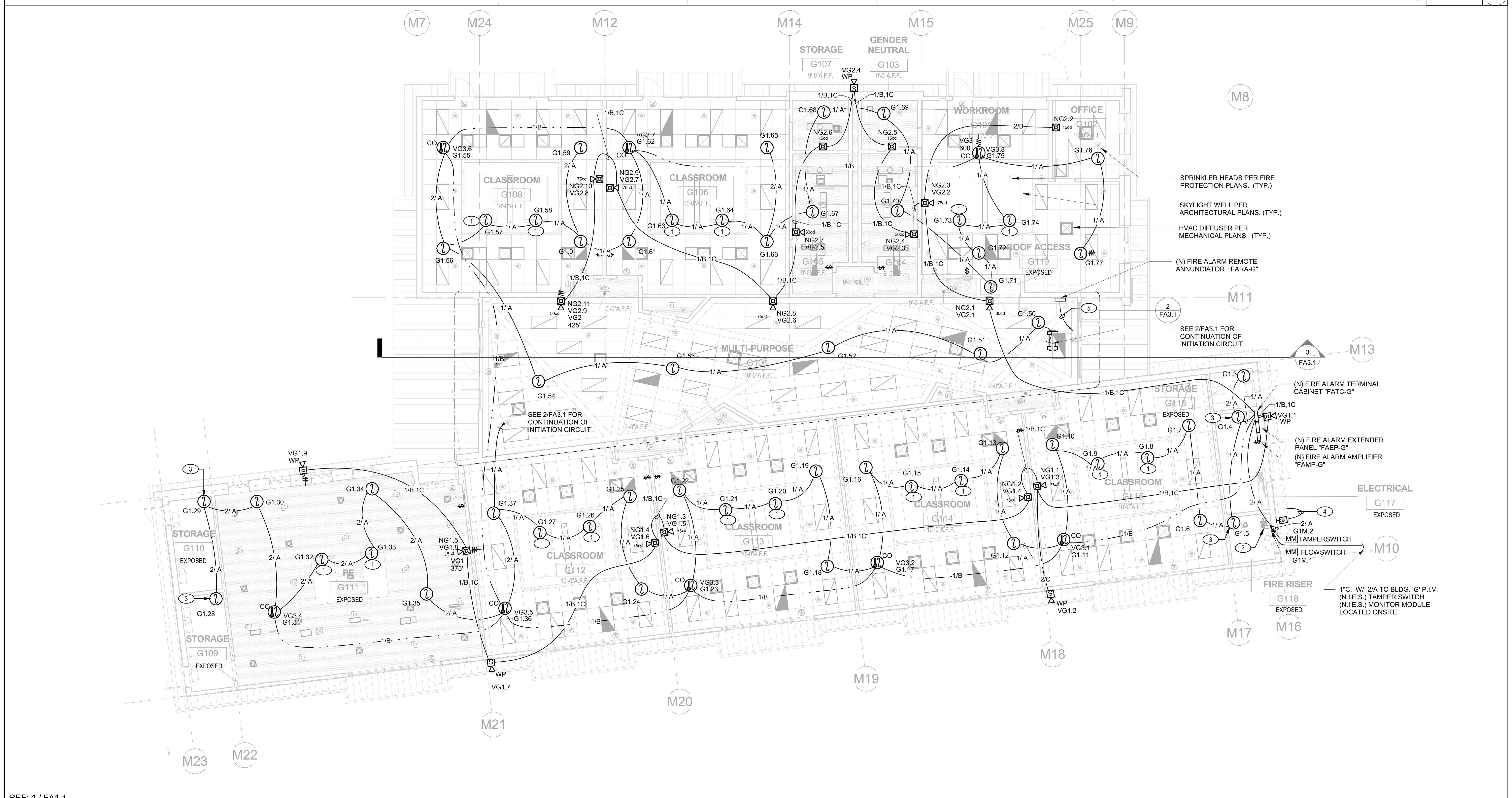


Bldg G Fire Alarm Section 1/8" = 1'-0" 3



Bldg G Fire Alarm Plan - Multi-Purpose Above ACT Ceiling 1/8" = 1'-0" 2



Bldg G Fire Alarm Plan 1/8" = 1'-0" 1

SHEET NOTES

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2. WHERE FIRE ALARM INITIATION DEVICES AND NOTIFICATION DEVICES ARE SHOWN AS NEW (N) THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY HARDWARE (DEVICES, BACKBOX, 3/4" CONDUIT U.N.O., JUNCTION BOXES AND CONDUCTORS AS INDICATED) TO EXTEND THE EXISTING PATHWAYS.
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4. ALL (N) CONDUIT IS 3/4"C. UNLESS OTHERWISE NOTED (U.N.O.).
5. FIRE ALARM POWER SOURCE CIRCUITS SHALL BE DEDICATED AND INSTALLED PER NFPA 72, 10.6.5.2. USING RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY. COORDINATE WITH ELECTRICAL.
6. ALL INTERIOR SPEAKERS SHALL BE SET AT 1/4WATT UNLESS OTHERWISE NOTED ON THESE PLANS.
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(#) KEY NOTES

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2 FIRE SPRINKLER RISER (BY OTHERS). COORDINATE EXACT LOCATION OF FLOW AND TAMPER SWITCHES (BY OTHERS) WITH FIRE PROTECTION PLANS AND CONNECT TO MONITOR MODULES. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM. SEE DETAIL 2/FA0.3 FOR ADDITIONAL REQUIREMENTS.

3 CEILINGS IN THIS SPACE ARE EXPOSE TO ROOF STRUCTURE. INSTALL DETECTOR WITHIN 3'-0" OF PEAK PER NFPA 17.6.3.4.2.1.

4 120,1P DEDICATED BRANCH CIRCUIT FOR FIRE SPRINKLER RISER BELL (N.I.E.S.) REFER TO ELECTRICAL PLANS FOR LOCATION. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

5 ROUTE 1/2"C WITH 1/R CABLE ABOVE CEILING TO "FAEP-G" AND CONNECT AS REQUIRED TO ANNUNCIATE ENTIRE FIRE ALARM SYSTEM. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

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Job #: 19-2007

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4.

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NO.	REMARKS	DATE
	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

		DATE
●	DSA PLAN CHECK	05/20/2019
○	DSA BACK CHECK	
○	BIDDING	
○	CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING G FIRE ALARM

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
As indicated	FA3.1
Drawn BLB	Checked JL

PRINT DATE: 5/16/2019 3:10:46 PM
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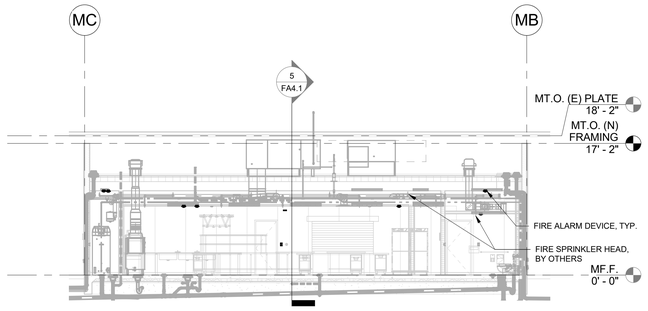
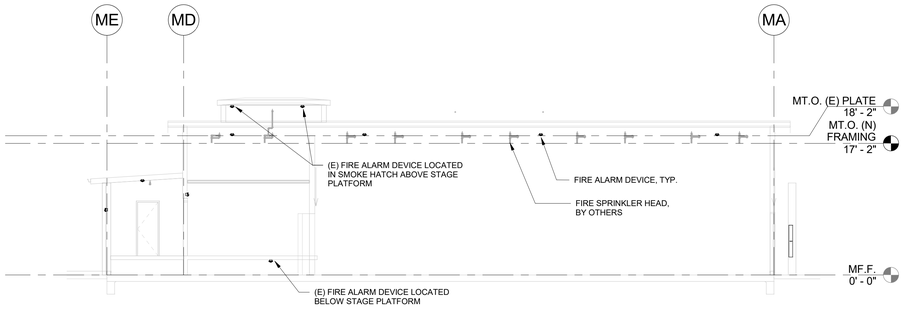


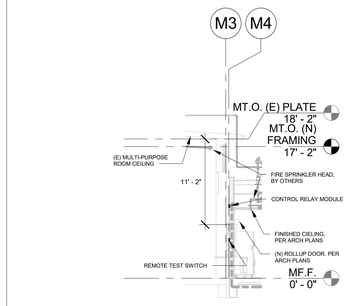
REF: 2 / FA4.1

Bldg M New Kitchen Section 1/8" = 1'-0" 4



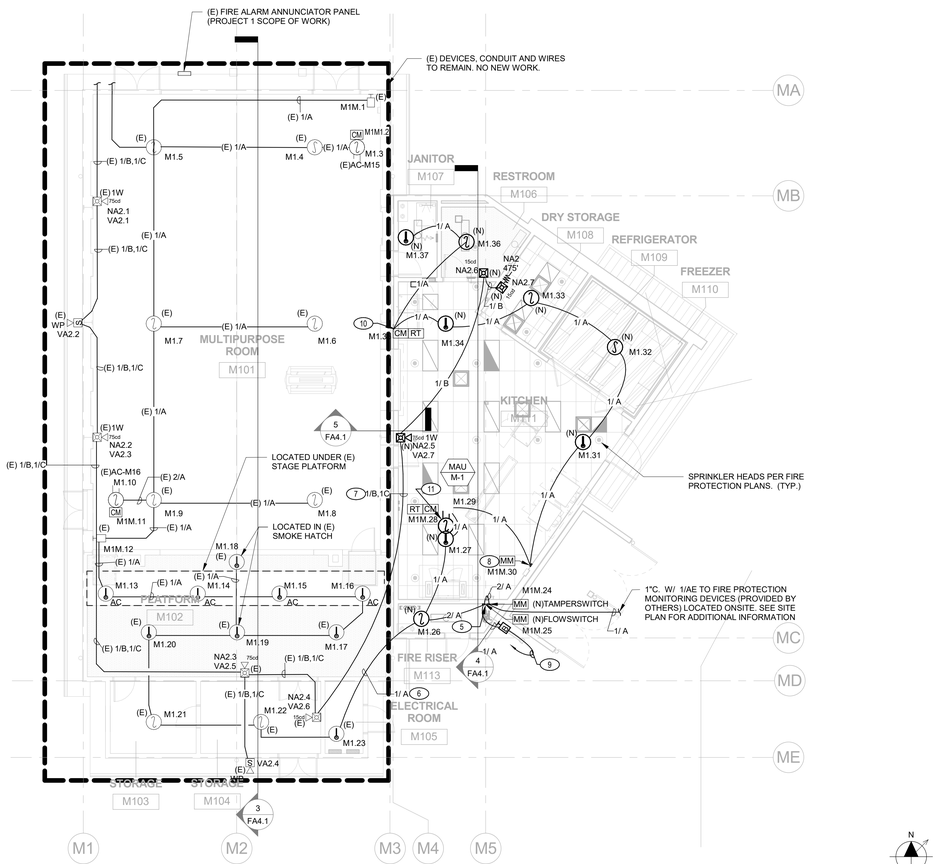
REF: 2 / FA4.1

Bldg G Exisitng Multi-Pupose Section 1/8" = 1'-0" 3



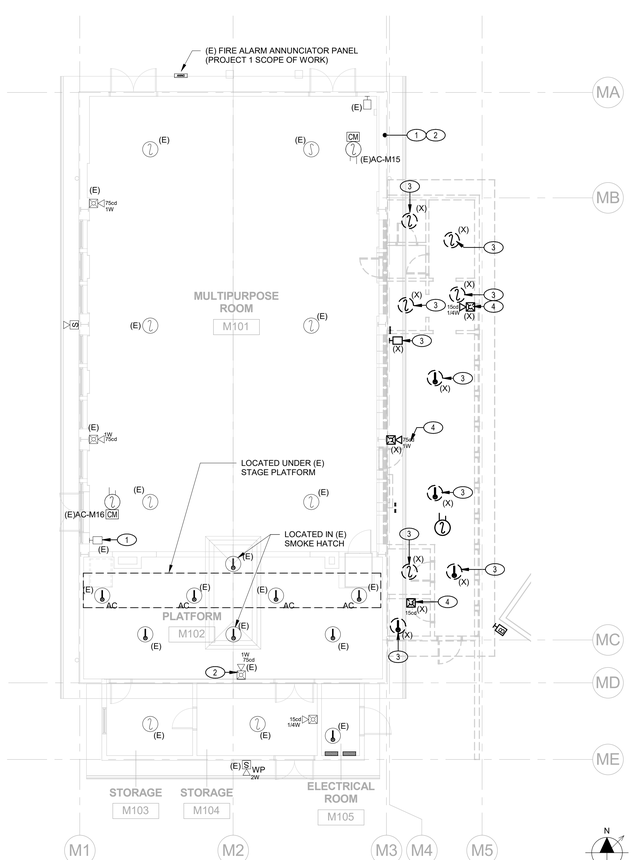
REF: 2 / FA4.1

Bldg M New Kitchen Section 1/8" = 1'-0" 5



REF: 3 / FA3.1

Bldg M Fire Alarm Plan 1/8" = 1'-0" 2



REF: 1 / FA1.1

Bldg M Fire Alarm Demo Plan 1/8" = 1'-0" 1

SHEET NOTES

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
2. CONTRACTOR SHALL PROTECT THOSE FIRE ALARM DEVICES THAT ARE EXISTING TO REMAIN DURING CONSTRUCTION PER NFPA 72, 17.7.1.11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF DEVICES WHICH BECOME DAMAGED DURING CONSTRUCTION.
3. CONTRACTOR SHALL REAPAIR ALL BUILDING SURFACES TO MATCH ADJACENT FINISHED SURFACE (WALL, CEILING OR FLOOR). THIS INCLUDES BUT IS NOT LIMITED PATCH AND PAINT.
4. WHERE DEVICE ARE SHOWN TO BE DEMOLISHED PER THESE PLANS THE CONTRACTOR SHALL REMOVE EXISTING FIRE ALARM EQUIPMENT, DEVICES, OUTLET BOX, CONDUIT AND WIRING. CAP ENDS OF ABANDONED CONDUITS AND LABEL AS ABANDONED.
5. WHERE DEVICE ARE SHOWN TO BE DEMOLISHED PER THESE PLANS THE CONTRACTOR SHALL REMOVE EXISTING FIRE ALARM EQUIPMENT, DEVICES, OUTLET BOX, CONDUIT AND WIRING. CAP ENDS OF ABANDONED CONDUITS AND LABEL AS ABANDONED.
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7. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED.
8. ALL (N) CONDUIT IS 3/4"C. UNLESS OTHERWISE NOTED (U.N.O.).
9. FIRE ALARM POWER SOURCE CIRCUITS SHALL BE DEDICATED AND INSTALLED PER NFPA 72, 10.6.5.2. USING RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY. COORDINATE WITH ELECTRICAL.
10. ALL INTERIOR SPEAKERS SHALL BE SET AT 1/4WATT UNLESS OTHERWISE NOTED ON THESE PLANS.
11. ALL EXTERIOR SPEAKERS SHALL BE SET AT 2 WATT UNLESS OTHERWISE NOTED ON THESE PLANS.

KEY NOTES

(#)

1 (E) DEVICES SHALL REMAIN. MAINTAIN CIRCUIT CONTINUITY OF REMAINING FIRE ALARM INITIATION DEVICE CIRCUIT (IDC).

2 (E) DEVICES SHALL REMAIN. MAINTAIN CIRCUIT CONTINUITY OF REMAINING FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT (NAC).

3 DISCONNECT AND REMOVE (E) DEVICES (INCLUDING BACKBOX, CONDUIT & CONDUCTORS) BACK TO LAST REMAINING DEVICE IN THIS BUILDING. MAINTAIN CIRCUIT CONTINUITY OF REMAINING FIRE ALARM INITIATION DEVICE CIRCUIT (IDC).

4 DISCONNECT AND REMOVE (E) DEVICES (INCLUDING BACKBOX, CONDUIT & CONDUCTORS) BACK TO LAST REMAINING DEVICE IN THIS BUILDING. MAINTAIN CIRCUIT CONTINUITY OF REMAINING FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT (NAC).

5 FIRE SPRINKLER RISER (BY OTHERS). COORDINATE EXACT LOCATION OF FLOW AND TAMPER SWITCHES (BY OTHERS) WITH FIRE PROTECTION PLANS AND CONNECT TO MONITOR MODULES. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM. SEE DETAIL 2/FA0.3 FOR ADDITIONAL REQUIREMENTS.

6 INTERCEPT AND EXTEND (E) IDC AND CONNECT AS REQUIRED. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

7 INTERCEPT AND EXTEND (E) NAC AND CONNECT AS REQUIRED. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

8 CONTRACTOR SHALL CONNECT MONITOR MODULE TO ANSUL SYSTEM (PROVIDED BY OTHERS) FOR FIRE ALARM SYSTEM INITIATION UPON ANSUL SYSTEM INITIATION. REFER TO FOOD SERVICE PLANS FOR ADDITIONAL INFORMATION. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

9 120,1P DEDICATED BRANCH CIRCUIT FOR FIRE SPRINKLER RISER BELL (N.I.E.S.) REFER TO ELECTRICAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION IN THE FIELD WITH SPRINKLER INSTALLER. PROVIDE AND INSTALL ALL NECESSARY COMPONENTS FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

10 ROLL DOWN DOOR AT THIS LOCATION, FRAMING PER ARCH PLANS. CONNECT CONTROL MODULE TO FIRE DOOR OUTPUT CONTROL BOARD (PROVIDED BY DOOR MANUFACTURER) FOR CLOSURE UPON AREA DETECTION. COORDINATE EXACT LOCATION OF REMOTE TEST SWITCH WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE EXACT LOCATION OF DOOR COMPONENTS AND ANY ADDITIONAL REQUIREMENTS WITH DOOR SUPPLIER. PROVIDE ALL NECESSARY COMPONENTS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM.

11 DUCT SMOKE DETECTOR PER MECHANICAL PLANS. CONNECT CONTROL MODULE AND REMOTE TEST SWITCH AS REQUIRED TO RESPECTIVE MECHANICAL UNIT FOR POWER SHUTDOWN. REFER TO WIRING DIAGRAM DETAIL 1/FA-002. SEE FOOD SERVICE PLANS, MECHANICAL SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING FOR A FULLY FUNCTIONING SYSTEM.

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LICENSED ARCHITECT BRIAN P. WHITTAKER No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER KENNETH R. RUBIO 11 EXP. 9/30/20 ELECTRICAL STATE OF CALIFORNIA

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	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

	DATE
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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

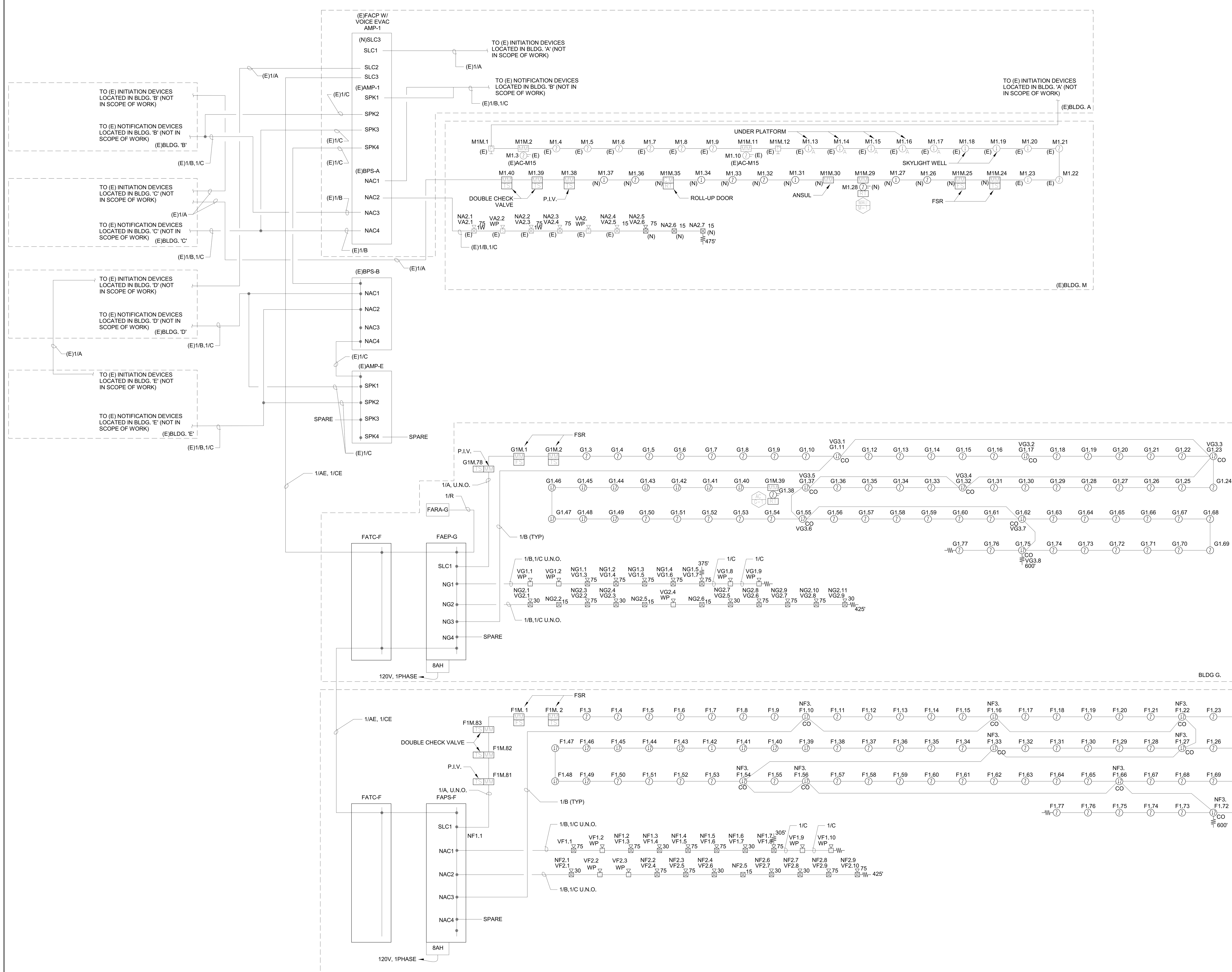
DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

BUILDING M FIRE ALARM PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FA4.1
Drawn: BLB	Checked: JL

PRINT DATE: 5/16/2019 3:10:53 PM
FILE PATH: C:\Users\bbaker\Documents\19-2007_Westmore Oaks ES_MEP_r17_bbaker2AXMX.rvt



FIRE ALARM RISER DIAGRAM 12" = 1'-0" 1

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ARCHITECT	ENGINEER

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CONSTRUCTION	

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930 WEST ACRE ROAD
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DESIGN DEVELOPMENT

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NEW BLDGS F & G AND BLDG M ADDITION
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FIRE ALARM RISER

Date	Project Number
05/20/2019	19003
Scale 12" = 1'-0"	Drawing Number
Drawn BLB / Checked JL	FA5.1

PRINT DATE: 5/16/2019 3:10:55 PM
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(E) REMOTE AMPLIFICATION PANEL (AMP-1) BATTERY CALCULATION

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
50W AMP	1	0.01	0.01		0
SPEAKER	5		0	0.041	0.205
EXISTING SPEAKERS		0	0		1.1025
TOTAL			0.01		1.3075
TOTAL 24 HR STANDBY			0.24		
TOTAL 15 MIN ALARM					0.326875
TOTAL REQUIRED AH	0.566875				
+20%SPARE	0.68025				
BOOSTER AH	7				

(E) SPEAKER AMP-1 CALCULATION

TOTAL WATTAGE USED	30
TOTAL WATTAGE AVAILABLE	50
PERCENTAGE REMAINING	40.00%

DEVICE	QTY	Wattage Used	Wattage Available
EXISTING SPEAKERS		25	25
1/4 WATT SPKR		0	25
1/2 WATT SPKR		0	25
3/4 WATT SPKR		0	25
1 WATT SPKR	5	5	20
2 WATT SPKR		0	20

FIRE ALARM CONTROL PANEL (FACP) BATTERY CALCULATIONS

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
(E) FACP (ADDRESSIBLE)	1	0.275	0.275	0.44	0.44
HEAT DETECTOR	10	0.0003	0.003	0.0065	0.065
SMOKE DETECTOR	36	0.0003	0.0108	0.0065	0.234
CO DETECTOR	0	0.0003	0	0.008	0
MONITOR MODULE	0	0.004	0	0.008	0
CONTROL MODULE	0	0.004	0	0.008	0
POWER BOOSTER	0	0.075	0	0.205	0
AMP-1	1		0.01		1.3075
AMP-2	1		0.01		1.211
15CD HORN/STROBE	0		0	0.088	0
30CD HORN/STROBE	0		0	0.12	0
60CD HORN/STROBE	0		0	0.174	0
110CD HORN/STROBE	0		0	0.224	0
15CD STROBE	0		0	0.047	0
30CD STROBE	0		0	0.081	0
60CD STROBE	0		0	0.128	0
110CD STROBE	0		0	0.166	0
HORN	0		0	0.041	0
TOTAL			0.3088		3.2575
TOTAL 24 HR STANDBY			7.4112		
TOTAL 15 MIN ALARM					0.27363
TOTAL REQUIRED AH	7.68483				
+20%SPARE	9.221796				

VOLTAGE DROP CALCULATIONS (E) BPS-1A

CIRCUIT NO.	BLDG	PANEL	INTERIOR SPEAKER 96dBA @ 0.075 A	EXTERIOR SPEAKER 99dBA @ 0.075 A	SPEAKER STROBE 15cd @ 0.041 A	SPEAKER STROBE 30cd @ 0.063 A	SPEAKER STROBE 75cd @ 0.111 A	SPEAKER STROBE 110cd @ 0.158 A	STROBE ONLY 15cd @ 0.041 A	STROBE ONLY 30cd @ 0.063 A	WIRE SIZE (AWG)	RESISTANCE (IN OHMS/ 1000FT)	LENGTH (IN FEET)	TOTAL CURRENT (IN AMPS)	VOLTAGE DROP	% OF VOLTAGE DROP
(E) N1	A	BPS-1A					5				12	1.98	312	0.555	0.69	2.86%
N2	M			2	1		4		2		12	1.98	475	0.717	1.35	5.62%
(E) N3	B						4		1	1	12	1.98	360	0.548	0.78	3.26%
(E) N4	C						5		7		12	1.98	625	0.842	2.08	8.68%

POWER BOOSTER PANEL '(E) BPS-1A' BATTERY CALCULATIONS

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
BOOSTER (ADDRESSIBLE)	1	0.056	0.056	0.056	0.056
15CD SPKR/STROBE	1		0	0.041	0.041
30CD SPKR/STROBE	0		0	0.063	0
75CD SPKR/STROBE	18		0	0.111	1.998
110CD SPKR/STROBE	0		0	0.158	0
15CD STROBE	10		0	0.041	0.41
30CD STROBE	1		0	0.063	0.063
TOTAL			0.056		2.568
TOTAL 24 HR STANDBY			1.344		
TOTAL 15 MIN ALARM					0.642
TOTAL REQUIRED AH	1.986				
+20%SPARE	2.3832				
BOOSTER AH	7				

(E) BATTERY SUPPLY: (2) 12VOLT @ 10 AMP HOUR EACH = 24VOLTS, 10 AMP HOURS

REMOTE AMPLIFICATION PANEL (AMP-G) BATTERY CALCULATION

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
50W AMP	1	0.01	0.01		0
SPEAKER	37		0	0.041	1.517
TOTAL			0.01		1.517
TOTAL 24 HR STANDBY			0.24		
TOTAL 15 MIN ALARM					0.37925
TOTAL REQUIRED AH	0.61925				
+20%SPARE	0.7431				
BOOSTER AH	7				

SPEAKER AMP-G CALCULATION

TOTAL WATTAGE USED	37
TOTAL WATTAGE AVAILABLE	50
PERCENTAGE REMAINING	26.00%

DEVICE	QTY	Wattage Used	Wattage Available
1/4 WATT SPKR		28	22
1/2 WATT SPKR		0	22
3/4 WATT SPKR		0	22
1 WATT SPKR		0	22
2 WATT SPKR		9	13

POWER BOOSTER PANEL 'FAPS-F' BATTERY CALCULATIONS

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
BOOSTER (ADDRESSIBLE)	1	0.056	0.056	0.056	0.056
15CD SPKR/STROBE	0		0	0.041	0
30CD SPKR/STROBE	6		0	0.063	0.378
75CD SPKR/STROBE	9		0	0.111	0.999
110CD SPKR/STROBE	0		0	0.158	0
15CD STROBE	1		0	0.041	0.041
30CD STROBE	0		0	0.063	0
TOTAL			0.056		1.474
TOTAL 24 HR STANDBY			1.344		
TOTAL 15 MIN ALARM					0.3685
TOTAL REQUIRED AH	1.7125				
+20%SPARE	2.055				
BOOSTER AH	8				

(E) BATTERY SUPPLY: (2) 12VOLT @ 10 AMP HOUR EACH = 24VOLTS, 10 AMP HOURS

VOLTAGE DROP CALCULATIONS BPS-F

CIRCUIT NO.	FLOOR	PANEL	CO SOUNDER 87dBA @ 0.070	INTERIOR SPEAKER 96dBA @ 0.075 A	EXTERIOR SPEAKER 99dBA @ 0.075 A	SPEAKER STROBE 15cd @ 0.041 A	SPEAKER STROBE 30cd @ 0.063 A	SPEAKER STROBE 75cd @ 0.111 A	SPEAKER STROBE 110cd @ 0.158 A	STROBE ONLY 15cd @ 0.041 A	STROBE ONLY 30cd @ 0.063 A	WIRE SIZE (AWG)	RESISTANCE (IN OHMS/ 1000FT)	LENGTH (IN FEET)	TOTAL CURRENT (IN AMPS)	VOLTAGE DROP	% OF VOLTAGE DROP
NF1	1ST	BPS-F			3		2	5				12	1.98	305	0.906	1.09	4.56%
NF2	1ST				2		4	4		1		12	1.98	325	0.887	1.14	4.76%
NF3	1ST		9									12	1.98	600	0.630	1.50	6.24%
SPARE	1ST											12	1.98				

VOLTAGE DROP CALCULATIONS FAEP-G

CIRCUIT NO.	FLOOR BLDG	PANEL	CO SOUNDER 87dBA 0.070	INTERIOR SPEAKER 96dBA @ 0.075 A	EXTERIOR SPEAKER 99dBA @ 0.075 A	SPEAKER STROBE 15cd @ 0.041 A	SPEAKER STROBE 30cd @ 0.063 A	SPEAKER STROBE 75cd @ 0.111 A	SPEAKER STROBE 110cd @ 0.158 A	STROBE ONLY 15cd @ 0.041 A	STROBE ONLY 30cd @ 0.063 A	WIRE SIZE (AWG)	RESISTANCE (IN OHMS/ 1000FT)	LENGTH (IN FEET)	TOTAL CURRENT (IN AMPS)	VOLTAGE DROP	% OF VOLTAGE DROP
NG1	1ST	FAEP-G			3			5				12	1.98	375	0.780	1.16	4.83%
NG2	1ST				1		4	4		3		12	1.98	425	0.894	1.50	6.27%
NG3	1ST		8									12	1.98	600	0.560	1.33	5.54%
NG4	1ST											12	1.98				

FIRE ALARM EXTENDER PANEL 'FAEP-G' BATTERY CALCULATIONS

		STANDBY CURRENT		ALARM CURRENT	
DEVICE	QUANTITY	AMPS	TOTAL	AMPS	TOTAL
FACP (ADDRESSIBLE)	1	0.275	0.275	0.44	0.44
HEAT DETECTOR	1	0.0003	0.0003	0.0065	0.0065
SMOKE DETECTOR	110	0.0003	0.033	0.0065	0.715
SMOKE/HEAT DETECTOR	20	0.0003	0.006	0.0065	0.13
DUCT SMOKE DETECTOR	1	0.0003	0.0003	0.0065	0.0065
CO/SMOKE DETECTOR	17	0.0003	0.0051	0.0065	0.1105
MONITOR MODULE	14	0.004	0.056	0.008	0.112
CONTROL MODULE	1	0.004	0.004	0.008	0.008
15CD HORN/STROBE	0		0	0.088	0
30CD HORN/STROBE	4		0	0.12	0.48
75CD HORN/STROBE	9		0	0.174	1.566
110CD HORN/STROBE	0		0	0.224	0
15CD STROBE	3		0	0.047	0.141
30CD STROBE	0		0	0.081	0
75CD STROBE	0		0	0.128	0
110CD STROBE	0		0	0.166	0
EXTERIOR SPEAKER	4		0	0.041	0.164
TOTAL			0.3797		3.8795
TOTAL 24 HR STANDBY			9.1128		
TOTAL 15 MIN ALARM					0.0969875
TOTAL REQUIRED AH	9.2097875				
+20%SPARE	11.051745				
FACP BATTERY AH	18				

BATTERY SUPPLY: (2) 12VOLT @ 10 AMP HOUR EACH = 24VOLTS, 10 AMP HOURS

DSA STAMP

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GENERAL NOTES

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2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
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REVISION HISTORY

NO.	REMARKS	DATE
	DSA SUBMITTAL	05/20/2019

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE ALARM CALCULATIONS

Date 05/20/2019
Project Number 19003
Scale
Drawing Number FA5.2
Drawn BLB
Checked JL

PRINT DATE: 5/16/2019 3:10:56 PM
FILE PATH: C:\Users\blabler\Documents\19-2007_Westmore Oaks ES_MEP_r17_blabler2AXMX.rvt

FIRE SPRINKLER MATERIAL SCHEDULE

SPEC SECTION	DESCRIPTION	MODEL NO.	CSFM LISTING	MFR.
210500				
2.2	BURIED PIPE			
	IN-BUILDING RISER	SERIES IBR	N/A	AMES
2.3	ABOVE GROUND PIPING			
	PIPE			
	2-1/2"-6" SCHED. 10	N/A	N/A	ALLIED
	1" - 2" SCHED. 40	N/A	N/A	ALLIED
	FITTINGS			
	CAST IRON THREADED	N/A	N/A	ANVIL
	GROOVED	VGS	N/A	VIKING
2.4	PIPE HANGERS AND SUPPORTS			
	---	---	---	AFCON
2.6	GLOBE OR ANGLE VALVES			
	GLOBE VALVE	125SUL	N/A	UNITED BRASS
	ANGLE VALVE	125SUL	N/A	UNITED BRASS
2.8	BUTTERFLY VALVE			
	GROOVED BUTTERFLY VALVES WITH SUPERVISORY TAMPER SWITCH	G300	7770-1440:0101	KENNEDY
2.9	CHECK VALVES			
	4" GROOVED CHECK VALVE	M-2	N/A	VIKING
211300				
1.5	STRUCTURAL DESIGN AND SEISMIC REQUIREMENTS			
	---	---	---	---
2.2				
	SPRINKLERS			
	MICROFAST QR SSU	VK300	N/A	VIKING
	MICROFAST QR SSP	VK302	N/A	VIKING
2.3	PIPING SPECIALTIES			
	10" ELECTRIC BELL	PBA-AC	7315-0328:-0119	POTTER
	FLOWSWITCH		7770-0328:0001	POTTER
	CONTROL VALVE SUPERVISORY SWITCH		7770-0328:0010	POTTER
	SPECIALTY VALVES			

Water Flow Test Summary Sheet

Date: 2/15/2019
Location: 1504 Fallbrook Street
Hydrant # C16-10

Hydrant #	Outlet Size (in)	Pressure (psi)	Discharge (gpm)	Correction Factors C1	Correction Factors C2
1	4.5	19	1,948	0.90	0.83
2	2.5		0	0.90	1.00
3	2.5		0	0.90	1.00

Pressure (psi)	
Static	55
Residual	51
Pitot	19

Total Discharge During Test (gpm)	Available Flow at 20 psi (gpm)
1,948	6,705

Thank You,

DANIEL ANDERSON
Secretary

CITY OF WEST SACRAMENTO

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FIRE PROTECTION NOTES

1. ALL WORKS AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS AMENDED AND ADOPTED BY THE INSPECTION AUTHORITY. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT.
   A. CALIFORNIA FIRE CODE, 2016
   B. NFPA-13, 2016
   C. NFPA-24, 2016
   D. WEST SACRAMENTO FIRE DEPARTMENT
   E. CALIFORNIA BUILDING CODE - 2016
   F. CALIFORNIA MECHANICAL CODE- 2016
   G. CALIFORNIA PLUMBING CODE - 2016
   H. CALIFORNIA ELECTRICAL CODE - 2016
   I. STATE OF CALIFORNIA ENERGY CONSERVATION REGULATIONS, TITLE 24 - 2016
   J. NATIONAL FIRE PROTECTION ASSOCIATION
   K. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
2. SEISMIC RESTRAINT: ALL HUNG PIPING SHALL CONFORM TO THE FOLLOWING CONDITIONS AND, THEREFORE, SEISMIC RESTRAINTS MAY BE OMITTED ACCORDING TO NFPA 13, 2016 ED. SECTION 9.3.5.5.10:
   A. ALL OTHER PIPING 2 - 1/2: AND LARGER MUST BE SUSPENDED BY INDIVIDUAL HANGERS 6" OR LESS IN LENGTH FROM THE TOP OF PIPE TO THE POINT OF THE ATTACHMENT TO STRUCTURE.
   B. NO TRAPEZE ASSEMBLIES SHALL BE USED TO SUPPORT PIPES OR DUCTS.
   C. WHERE LATERAL RESTRAINTS ARE OMITTED, PIPING SHALL BE INSTALLED SUCH THAT LATERAL MOTION OF THE PIPING WILL NOT CAUSE DAMAGING IMPACT WITH OTHER SYSTEMS OR STRUCTURAL MEMBERS, OR LOSS OF VERTICAL SUPPORT. IF AT THE CONTRACTOR'S OPTION, PIPING IS NOT INSTALLED IN CONFORMANCE WITH THESE CONDITIONS, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (1/4"=1'-0" SCALE) OF SEISMIC BRACING SYSTEM IN ACCORDANCE WITH "MASON INDUSTRIES" SEISMIC RESTRAINTS GUIDELINES FOR SUSPENDING PIPING DUCTWORK (OR APPROVED EQUAL) TO THE ARCHITECT FOR APPROVAL.
3. THE CONTRACTOR SHALL SURVEY EXISTING FIELD CONDITIONS PRIOR TO BIDDING.
4. ANY DAMAGE TO NEW BUILDING ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS THAT OCCURS DURING THE WORK SHALL BE RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IF LANDSCAPED AREAS INCLUDING NATURAL SPACES MUST BE USED FOR BUILDING ACCESS, THE LANDSCAPING SHALL BE RETURNED TO ITS ORIGINAL CONDITION. THE CONTRACTOR SHALL INCLUDE COSTS IN THE BID FOR THIS WORK IF THIS APPROACH IS USED. THE OWNER WILL NOT PAY ANY ADDITIONAL COSTS TO COVER DAMAGE TO THE BUILDING SYSTEMS, LANDSCAPING OR DRIVE AREAS.
5. COORDINATE THE FOLLOWING WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND ELEMENTS AS INSTALLED INCLUDING EXISTING BUILDING SYSTEMS:
   A. EXACT LOCATION OF ALL EQUIPMENT.
   B. ALL PENETRATIONS THRU ROOF, WALLS AND FLOORS.
   C. EXACT SIZE AND ROUTING OF PIPING.
6. DRAWINGS INDICATE DIAGRAMMATICALLY THE ARRANGEMENT OF PRINCIPAL APPARATUS, PIPING, AND OTHER MATERIAL FOLLOWING DRAWING AS CLOSELY AS POSSIBLE, IN ORDER TO ACHIEVE A NEAT ARRANGEMENT OF PIPING AND EQUIPMENT WHILE STILL OVERCOMING OBSTRUCTIONS.
7. INSTALLATION OF THE SPRINKLER SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE PLANS AND SPECIFICATION, INCLUDING WATER SUPPLY INFORMATION, HAVE BEEN APPROVED BY LP CONSULTING ENGINEERS. AT VARIOUS STAGES AND UPON COMPLETION, THE SYSTEM MUST BE TESTED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION (AHJ).
8. ALL EXISTING FIRE PROTECTION SYSTEMS SHALL REMAIN IN OPERATION DURING ALL PHASES OF CONSTRUCTION. NO SYSTEMS ARE TO BE SHUTDOWN WITHOUT AUTHORIZATION FROM THE OWNER AND LOCAL FIRE DISTRICT.

FIRE SPRINKLER LEGEND

1 / FP1 — DETAIL DESIGNATION, DETAIL NUMBER, SHEET NO. WHERE SHOWN	
	HYDRAULIC CALCULATION REFERENCE NODE
	EARTHQUAKE BRACE
	FOUR WAY BRACE
	FIRE SPRINKLER RISER
	GROOVED COUPLING
	BRANCH LINE HANGER DESIGNATION
	MAIN HANGER DESIGNATION
	HANGER WITH SURGE RESTRAINT PER 1/FP5.0 DESIGNATION
	CHANGE IN ELEVATION
	CAP
	PLUG
	VALVE
	MECHANICAL TEE
	END OF LINE RESTRAINT
	(E) FIRE SPRINKLER LINE
	(N) FIRE SPRINKLER LINE
	FIRE SPRINKLER PENDENT HEAD
	FIRE SPRINKLER UPRIGHT HEAD
	FIRE SPRINKLER SIDEWALL
BOR	BASE OF RISER
TOR	TOP OF RISER

9. THE LOCATION OF THE FIRE SPRINKLER HEADS SHALL BE COORDINATED WITH THE NEW CEILING LAYOUTS AND ALL OTHER TRADES FOR COMPLETE FIRE PROTECTION COVERAGE OF ALL AREAS. PROVIDE DETAILED PLANS FOR APPROVAL PRIOR TO INSTALLATION.
10. HEADS SHALL BE SYMMETRICALLY LOCATED IN CENTER OF CEILING PANALS. COORDINATE LAYOUT WITH CEILING OR SOFFIT LIGHT FIXTURES, AND HVAC DIFFUSERS, RETURNS, ETC. PROVIDE PENDENT AND/OR UPRIGHT TYPE SPRINKLER HEAD WHERE REQUIRED.
11. WORKSMANSHIP:
    ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO THE BEST TRADE PRACTICE BY THOSE SKILLED IN THE PARTICULAR TRADE. PIPES, EQUIPMENT, ETC., TO BE INSTALLED LEVEL, SQUARE OR CENTERED, ETC., TO GIVE A NEAT AND PLEASING APPEARANCE. ALL EQUIPMENT IS TO BE INSTALLED STRICTLY PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE ALL WORK WITH OTHER TRADES.
12. THE ANNULAR SPACE BETWEEN PIPE SLEEVES AND THE PIPE THROUGH ALL RATED WALLS AND FLOORS SHALL BE FIRESTOPPED. FIRESTOPPING ALL PIPE PENETRATIONS SHALL COMPLY WITH U.L REQUIREMENTS. MANUFACTURER PREAPPROVED UL PENETRATION FOR PROSET, OR APPROVED EQUAL. SUBMIT SHOP DRAWINGS.
13. BY OTHERS:
    A. ELECTRICAL CONTRACTOR: ALL POWER AND ALARM WIRING, CONDUITS, DISCONNECTS, AND FINAL CONNECTIONS. NO FIELD SUPPLIED ELECTRICAL DEVICE SHALL BE MOUNTED ON PIPING AND NO RIGID ELECTRICAL CONNECTIONS SHALL BE MADE
    B. GENERAL CONTRACTOR: CUTTING, FRAMING, PATCHING, FURRING, AND PAINTING.
14. ELECTRICAL VOLTAGE:
    AIR CONDITIONING CONTRACTOR SHALL CONFIRM ALL SYSTEM VOLTAGES BEFORE BIDDING AND ORDERING EQUIPMENT
15. WARRANTY:
    ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL FIRE PROTECTION, ELECTRICAL, AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE PREMISES CAUSED BY LEAKS AND/OR BREAKS IN PIPES AND FIXTURES INSTALLED UNDER THIS CONTRACT.
16. IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS TO COVER ALL THINGS REQUIRED TO PROVIDE COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC., REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING, WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER SPECIFICALLY SHOWN OR MENTIONED. THE ENGINEER WILL GIVE ANY INTERPRETATIONS NECESSARY FOR THE CONTRACTOR TO PROPERLY ESTIMATE THE JOB.
17. FIRE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR FABRICATION AND INSTALLATION DRAWINGS. AUTOCAD DRAWINGS WILL NOT BE PROVIDED.

GENERAL NOTES

1. THE SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 13, 2016 EDITION AND DSA REQUIREMENTS.
2. EXISTING SYSTEM DESIGN IS FOR: LIGHT HAZARD
3. ALL THREADED PIPE 2" AND SMALLER SHALL BE SCHEDULE 40, BLACK TEEL ANSI/ASTM A135.
4. CITY WATER SUPPLY INFORMATION:
   STATIC: 55 PSI RESIDUAL: 51 PSI FLOW: 1948 GPM
5. ALL GROOVED AND WELDED PIPE 2 1/2" - 6" SHALL BE SCHEDULE 10, BLACK STEEL ANSI/ASTM A795.
6. THREADED FITTINGS SHALL BE CLASS 125 THREADED CAST IRON ANSI B16.4.
7. ALL THREADED PIPE AND FITTINGS SHALL HAVE THREADS CUT TO ANSI/ASME STANDARD B1.20.1.
8. ALL PIPE WELDING SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS AWS D10.9 (STANDARD FOR BUILDING SERVICE PIPING), LEVEL AR-3
9. ALL PIPE SHALL BE EARTHQUAKE BRACED AS OUTLINED IN NFPA 13, 2016 EDITION, SECTION 9.3.
10. ALL HANGER COMPONENTS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 13, 2016 EDITION, SECTION 9.1 AND 9.2.
11. ELECTRICAL WIRING AND ANY PAINTING OF THE PIPE THAT MAY BE REQUIRED SHALL BE BY OTHERS.
12. ALL NEW PIPING IS TO BE HYDROSTATICALLY TESTED TO CODE FOR A PERIOD NOT LESS THAN TWO HOURS.
13. FLOW AND TAMPER SWITCHES ARE TO BE CONNECTED TO FIRE ALARM PANEL.
14. ALL ELECTRICAL WIRING TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
15. FIRE SPRINKLER SUPPLY AND STUB OUT SHALL BE INSTALLED AND TESTED PER NFPA 24.
16. MAIN FIRE PANEL, VALVE MONITORING, WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.
17. 2X4 REGULAR TILE, PENDENT SPRINKLERS ARE TO BE CENTERED IN 2'X2' SPACE. (TYPICAL)

FIRE SPRINKLER SHEET INDEX

SCOPE OF WORK

PROJECT DESCRIPTION: NEW FIRE SPRINKLER SYSTEM TO ACCOMMODATE NEW BUILDING CONSTRUCTION

OWNER: WASHINGTON UNIFIED SCHOOL DISTRICT

CODE ANALYSIS:

TOTAL BUILDING AREA: 26500 SF ±

BUILDING HEIGHT: 20 FT

CONSTRUCTION TYPE: II-A

OCCUPANCY TYPE: MIXED, NON SEPARATED (A-2, E)

VICINITY MAP

OVERHEAD FIRE SPRINKLER SYSTEM NOTES

1. NFPA 13 (2016) SEC. 10.10.2.1 UNDERGROUND MAINS AND LEAD-IN CONNECTIONS TO SYSTEM RISERS SHALL BE COMPLETELY FLUSHED BEFORE CONNECTIONS IS MADE TO THE OVERHEAD FIRE SPRINKLER PIPING SYSTEM. (WITNESSED BY THE INSPECTOR OF RECORD)
2. NFPA 13 (2016) SEC. 9.3.4.2 CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS AND FOUNDATIONS INCLUDING DRAINS SUCH THAT THE DIAMETER OF THE HOLES IS 2 INCHES LARGER THAN THE PIPE FOR PIPE 4 INCH NOMINAL AND LARGER.
3. NFPA 13 (2016) SEC. 25.2.1 ALL INTERIOR PIPING AND APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. (WITNESSED BY IOR)
4. NFPA 13 (2016) SEC. 6.2.9.5 VERIFY THAT THE SPARE SPRINKLER HEAD CABINET INCLUDES,WRENCH, AND NO FEWER THAN A TOTAL OF 6 SPARE SPRINKLER HEADS MATCHING THE TYPES AND TEMPERATURE RATINGS IN EACH PROTECTED BUILDING FOR SYSTEMS WITH LESS THAN 300 SPRINKLERS AND 12 SPARE SPRINKLERS FOR SYSTEMS WITH 300-1000 SPRINKLERS.
5. NFPA 13 (2016) SEC. 9.3.6 PROVIDE RESTRAINT OF BRANCH LINES BY USING ONE OF THE FOLLOWING:
   A. A LISTED SWAY BRACE ASSEMBLY
   B. A WRAPAROUND U-HOOK SATISFYING THE REQUIREMENTS OF 9.3.5.5.11
   C. NO. 12, 440-LB WIRE INSTALLED AT LEAST 45 DEGREES FROM THE VERTICAL PLANE AND ANCHORED ON BOTH SIDES OF THE PIPE.
   D. A HANGER NO LESS THAN 45 DEGREES FROM VERTICAL INSTALLED WITHIN 6 INCHES OF THE VERTICAL HANGER ARRANGED FOR RESTRAINT AGAINST UPWARD MOVEMENT, PROVIDED IT IS UTILIZED SUCH THAT L/R DOES NOT EXCEED 400, WHERE THE ROD SHALL EXTEND TO THE PIPE OR HAVE A SURGE CLIP INSTALLED.
6. NFPA 72 (2016) SEC. 17.12.2 SPRINKLER FLOW SWITCHES SHALL BE TESTED BY IOR TO CONFIRM THAT WHEN THE INSPECTORS' TEST VALVE IS ACTIVATED AND ALARM WILL SOUND IN NO LESS THAN 20 SECONDS AND NOT MORE THAT 90 SECONDS.
7. CBC (2016) SEC. 903.4.1 MAIN FIRE ALARM PANEL MONITORING AND WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.
8. NFPA 13 (2016) SEC. 6.8.2.1 THE ALARM APPARATUS FOR A WET PIPE SYSTEM SHALL CONSIST OF A LISTED ALARM CHECK VALVE OR OTHER LISTED WATERLFLOW DETECTION ALARM DEVICE WITH THE NECESSARY ATTACHMENTS REQUIRED TO GIVE AN ALARM.
9. NFPA 13 (2016) SEC. 25.5 HYDRAULIC CALCULATION DESIGN DATA PLACARD IS TO BE ATTACHED TO THE FIRE SPRINKLER SYSTEM RISER.
10. NFPA 13 (2016) SEC. 25.1 THE FIRE SPRINKLER CONTRACTOR (C-16) SHALL COMPLETE AND SIGN THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE OVERHEAD FIRE SPRINKLER SYSTEM USING THE FORM IN FIGURE 25.1. THIS FORM SHALL BE GIVEN TO THE DSA PROJECT INSPECTOR WHO WILL TURN IT IN FOR DSA RECORDS.
11. NFPA 13 (2016) SEC. 25.2.3.4 THE MAIN DRAIN VALVE SHALL BE OPENED AND REMAIN OPEN UNTIL THE SYSTEM PRESSURE STABILIZES. THE STATIC AND RESIDUAL PRESSURES SHALL BE RECORDED ON THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE. THE TEST IS TO BE WITNESSED BY THE INSPECTOR OF RECORD - IOR.
12. NFPA 13 (2016) SEC. 9.2.3.7 SPRIGS 4 FT OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT TO PREVENT DAMAGE TO PIPING.
13. TITLE 19. ARTICLE 906(A) A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.
14. GENERAL INFORMATION PLACARD SHALL BE ATTACHED TO EACH RISER PER NFPA 13 SEC. 25.6.
15. THE TESTING AND MAINTENANCE OF THE SYSTEM CORROSION INHIBITOR IS TO BE BY THE OWNERS' SERVICE CONTRACTOR. WORK UNDER THIS CONTRACT IS NOT TO INCLUDE CORROSION INHIBITOR.

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER SEAN POURYAZDI M 32311 REN. 6-30-19 MECHANICAL STATE OF CALIFORNIA

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NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER LEGENDS, NOTES & SCHEDULES

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: FP0.1
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:22:46 PM
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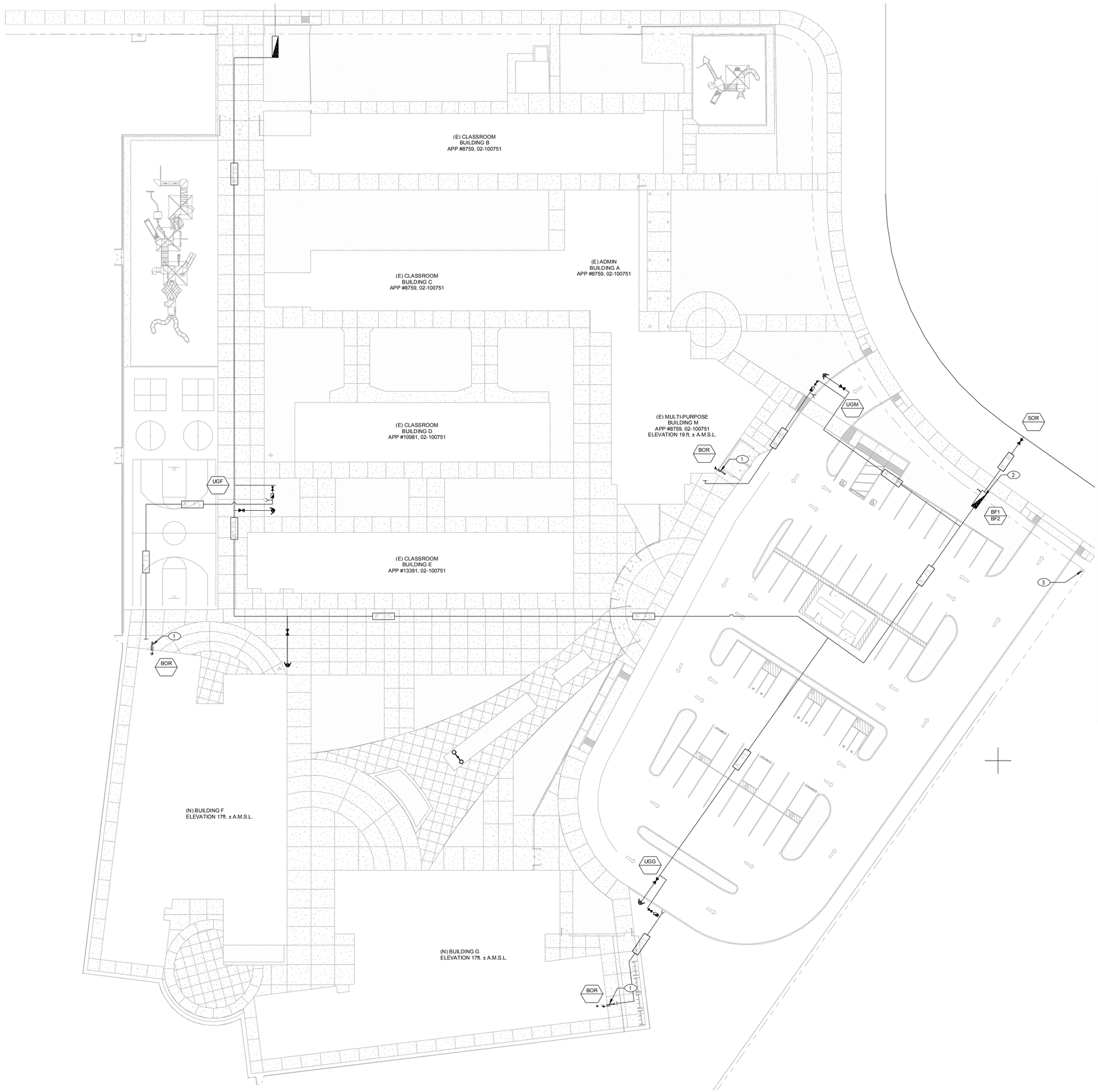

KEY NOTES

1 AMES IN-BUILDING RISER
2 AMES 4000SS BACKFLOW
3 FLOW TEST DATED 2-15-2019 LOOPED HYDRANT NUMBER C16-10 ELEVATION 18 FT. ± A.M.S.L.

REQUIRED BEARING AREA - TOTAL SQUARE FEET

TYPE OF FITTING		90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
TYPICAL INSTALLATION					
SIZE OF PIPE	3"	2.6	1.4	0.7	0.4
	4"	3.8	2.1	1.0	0.5
	6"	7.9	4.3	2.	1.
	8"	13.6	7.4	3.8	1.9
	10"	20.5	11.1	5.7	2.8
	12"	29.0	15.7	8.0	4.0
	14"	39.0	21.1	10.8	5.4
	16"	50.4	27.3	13.9	7.0
	18"	63.3	34.2	17.5	8.8
	20"	77.7	42.0	21.4	10.8
	24"	110.9	60.0	30.6	15.4
	30"	170.6	92.3	47.1	23.7
	36"	244.4	132.2	67.5	34.0
	42"	329.9	178.5	91.1	45.9
	48"	430.0	232.6	118.7	59.8

THRUST BLOCK NOTES:

1. VALUES LISTED ARE BASED ON A 90 DEGREE HORIZONTAL BEND, AN INTERNAL PRESSURE OF 100 PSI, A SOIL HORIZONTAL BEARING STRENGTH OF 1000 LB/FT², A SAFETY FACTOR OF 1.5, AND DUCTILE-IRON PIPE OUTSIDE DIAMETERS.
2. FOR OTHER HORIZONTAL BENDS, MULTIPLY BY THE FOLLOWING COEFFICIENTS: FOR 45 DEGREE: 0.541; FOR 22 1/4 DEGREE: 0.276; FOR 11 1/4 DEGREE: 0.139.
3. FOR OTHER INTERNAL PRESSURES, MULTIPLY BY THE RATIO 100 PSI.
4. FOR OTHER SOIL BEARING STRENGTHS, DIVIDE BY RATIO TO 1,000 LB/FT².

FOR EXAMPLE:

$$\text{AREA} = \frac{7.9\text{FT}^2 \ (0.541) \ \frac{150}{100}}{\frac{3000}{1000}} = 2.1\ \text{FT}^2$$

HORIZONTAL BEARING STRENGTH

	BEARING STRENGTH, S	
SOIL	LB/FT²	kN/M²
MUCK	0	0
SOFT CLAY	1000	47.9
SILT	1500	71.8
SANDY SILT	3000	143.6
SAND	4000	191.5
SANDY CLAY	6000	287.3
HARD CLAY	9000	430.9

1 Fire Sprinkler Site Plan
SCALE: 1" = 20'-0"

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- DSA PLAN CHECK — DATE 05/20/2019
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- CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER SITE PLAN

Date 05/20/2019
Project Number 19003
Scale As indicated
Drawing Number FP1.0
Drawn KT
Checked DS

PRINT DATE: 5/16/2019 5:22:49 PM
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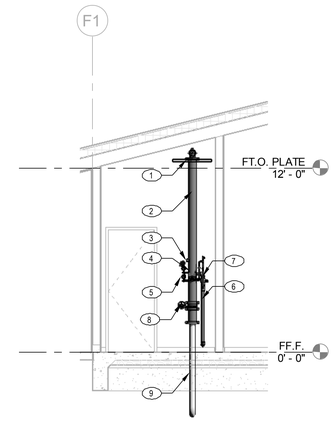
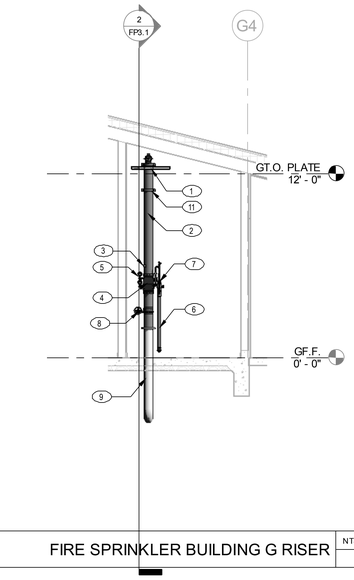


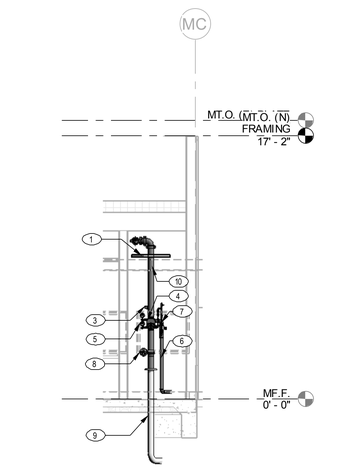
KEY NOTES

1 4-WAY BRACE
2 6" FIRE SPRINKLER RISER
3 FLOW SWITCH
4 ALARM CHECK VALVE
5 RISER GAUGES
6 2" DRAIN PIPE
7 2" MAIN TEST & DRAIN
8 BUTTERFLY VALVE
9 AMES IN-BUILDING RISER
10 PROVIDE POWER CONNECTION FOR FIRE DOOR. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL INTERCONNECTIONS FIELD WIRING PER MANUFACTURER REQUIREMENTS.
11 FLEXIBLE COUPLING

FIRE SPRINKLER BUILDING F RISER | NTS | 2



FIRE SPRINKLER BUILDING G RISER | NTS | 1



FIRE SPRINKLER BUILDING M RISER | NTS | 3

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1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER SECTIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	FP3.0
Drawn KT	Checked DS

PRINT DATE: 5/16/2019 5:22:52 PM
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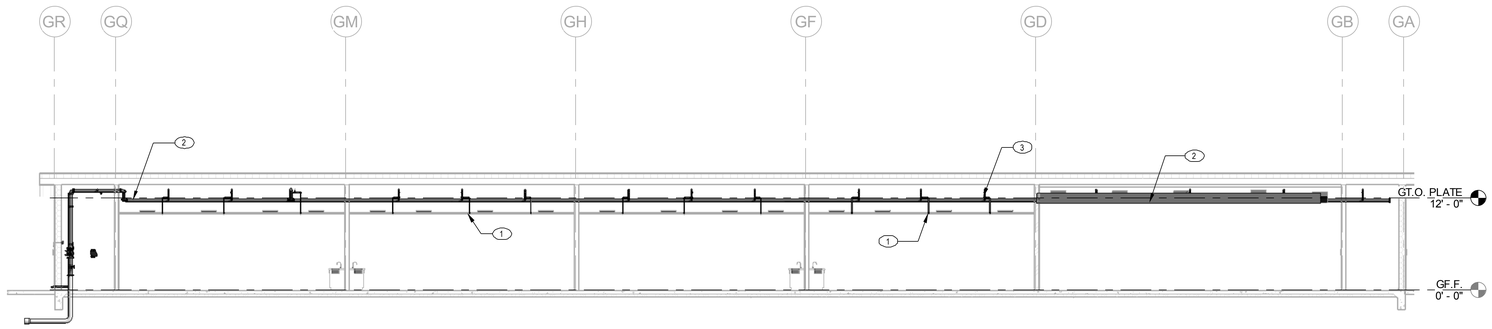
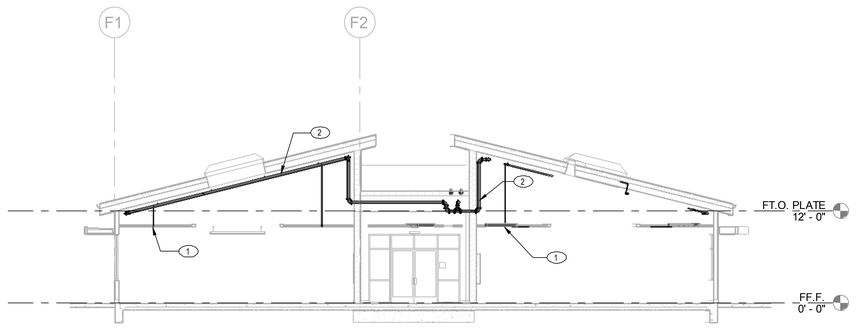
KEY NOTES

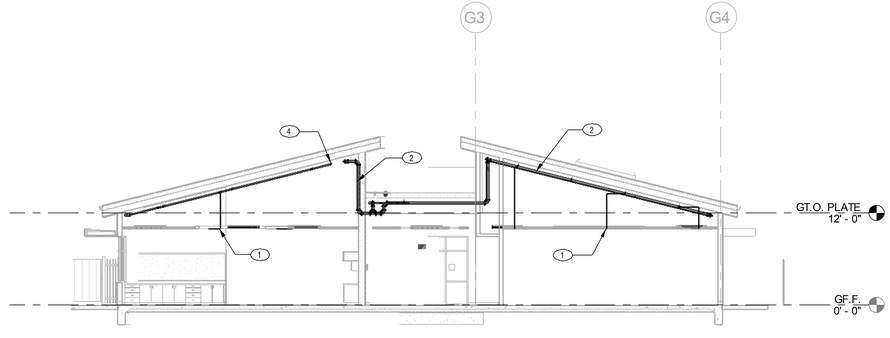
1 STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER
2 4" SCH.10 BLK STEEL BULK PIPE
3 2" SCH.40 BRANCH LINE PIPE
4 STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER



2 FIRE SPRINKLER BUILDING G SECTION 1
SCALE: 1/8" = 1'-0"



3 FIRE SPRINKLER BUILDING F SECTION 2
SCALE: 1/8" = 1'-0"



4 FIRE SPRINKLER BUILDING G SECTION 2
SCALE: 1/8" = 1'-0"

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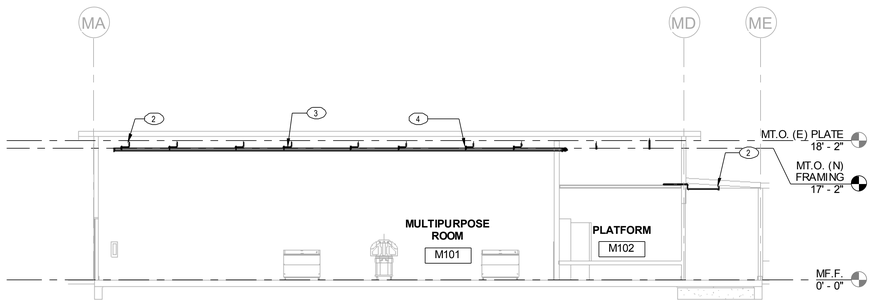
FIRE SPRINKLER SECTIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	FP3.1
Drawn KT	Checked DS

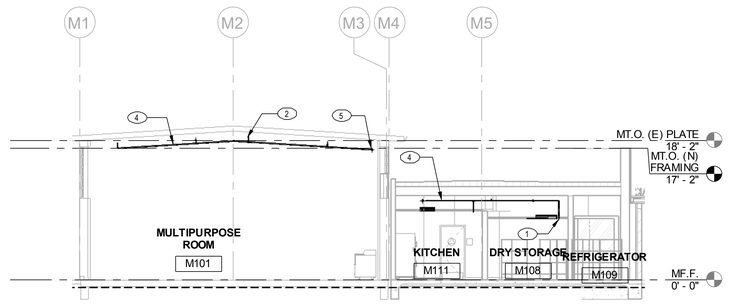
PRINT DATE: 5/16/2019 5:22:56 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP-_r17_kthomas.rvt

KEY NOTES

1 STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER
2 STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
3 1" SCH.40 ARMOVER PIPE
4 1 1/4" SCH.40 BRANCH LINE PIPE
5 4" SCH.10 BLK STEEL BULK PIPE



1 **FIRE SPRINKLER BUILDING M SECTION 1**
SCALE: 1/8" = 1'-0"



2 **FIRE SPRINKLER BUILDING M SECTION 2**
SCALE: 1/8" = 1'-0"

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	DATE
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○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
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WEST SACRAMENTO, CA 95691

FIRE SPRINKLER SECTIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	FP3.2
Drawn KT	Checked DS

PRINT DATE: 5/16/2019 5:22:59 PM
FILE PATH: C:\Users\kthomas\Documents\15-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

TOLBrace™ Seismic Calculations

Westmore Oaks ES — Job # 19-2007

1504 Fallbrook Street

Brace Identification	SB1
Brace Type (Per NFPA#13)	NFPA Type I
Braced Pipe (ft)	4" Sch.10 Steel Pipe
Spacing of Brace	80' 0" (24.38 m)
Orientation of Brace	Longitudinal
Bracing Material	1" Sch.40
Maximum Brace Length	7' 0" (2.13 m)
Slenderness Ratio used for Load Calculation	200
True Angle of Brace for Calculation	60°
Type of Fastener	5/8 x 5-1/2 (16 x 140 mm) Through-Bolt
Length of Fastener	5-1/2in. (140 mm)

Summary of Pipe within Zone of Influence

4" Sch.10 Steel Pipe (101.6 mm)	80 ft (24.4 m)

G-Factor Used 0.423

Allowance for Heads and Fittings	15%
Conclusions	
Total Adjusted Load of Pipe in Zone of Influence	458 lbs (208 kg)
Material Capacity	1604 lbs (728 kg)
Fastener Capacity	1180 lbs (535 kg)
Fig. 4LA Clamp	1190 lbs (540 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)
Structural Member	Wood framing

Calculations prepared by David Soto

* The description of the Structural Member is for informational purposes only.
TOLBrace™ software calculates the brace assembly only, not the structure it is attached to.
Calculated with TOLBrace™ 8
Visit us at www.tolco.com

TOLBrace™ Seismic Bracing Calculations

Project Address: Westmore Oaks ES, 1504 Fallbrook Street, West Sacramento, CA, Job # 19-2007

Contractor: LP Consulting Engineers
Address: 1209 Pleasant Grove, Roseville, CA, 95678
Phone:
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1" Sch.40
Type of Brace	Sch. 10
Angle of Brace	60° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1604 lbs (728 kg)
Other Requirements - FM Approved Loads	

Fastener Information

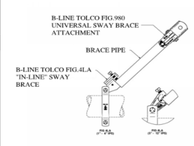
Orientation to Connecting Surface	NFPA Type I
Fastener	
Type	Through-Bolt
Diameter	5/8in. (16 mm)
Length	5-1/2in. (140 mm)
Maximum Load	1180 lbs (535 kg)
Prying Factor	N/A

TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 4LA Clamp	1190 lbs (540 kg)	1190 lbs (540 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)	2310 lbs (1048 kg)
See Fastener Information		

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Brace Identification on Plans SB1
Brace Type Lateral [ ] Longitudinal [X] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.423

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	80 ft (24.4 m)	80 ft (24.4 m)	11.78 lb/ft (17.53 kg/m)	942 lbs (427 kg)

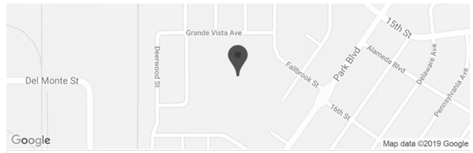
Subtotal Weight	942 lbs (427 kg)
Wp (incl. 15%)	1083 lbs (491 kg)
Total (Fpw)	458 lbs (208 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	N/A

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	80

2/14/2019 — U.S. Seismic Design Maps — OSHPD

1504 Fallbrook St, West Sacramento, CA 95691, USA

Latitude, Longitude: 38.5699119, -121.53426480000002



Date	2/14/2019, 4:29:27 PM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.715	MCE_R ground motion, (for 0.2 second period)
S_1	0.303	MCE_R ground motion, (for 1.0s period)
S_{MS}	0.878	Site-modified spectral acceleration value
S_{M1}	0.544	Site-modified spectral acceleration value
S_{DS}	0.585	Numeric seismic design value at 0.2 second SA
S_{D1}	0.363	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1.228	Site amplification factor at 0.2 second
F_v	1.794	Site amplification factor at 1.0 second
PGA	0.245	MCE_G peak ground acceleration
F_{PGA}	1.309	Site amplification factor at PGA
PGA_M	0.321	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	0.715	Probabilistic risk-targeted ground motion, (0.2 second)
SsUH	0.65	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value, (0.2 second)
S1RT	0.303	Probabilistic risk-targeted ground motion, (1.0 second)
S1UH	0.271	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration,
S1D	0.6	Factored deterministic acceleration value, (1.0 second)
PGAd	0.5	Factored deterministic acceleration value, (Peak Ground Acceleration)
C_{RS}	1.1	Mapped value of the risk coefficient at short periods
C_{R1}	1.12	Mapped value of the risk coefficient at a period of 1 s

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT, BRIAN P. WHITMORE, No. C 30345, Ren.: 9/30/19, STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER, SEAN POURIAYI, M 32311, REN. 6-30-19, MECHANICAL, STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER SEISMIC CALCULATIONS

Date: 05/20/2019	Project Number: 19003
Scale:	Drawing Number: FP3.3
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:23:00 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

TOLBrace™ Seismic Calculations

Westmore Oaks ES — Job # 19-2007
1504 Fallbrook Street

Brace Identification	SB4
Brace Type (Per NFPA#13)	NFPA Type F
Braced Pipe (ft)	4" Sch.10 Steel Pipe
Spacing of Brace	40' 0" (12.19 m)
Orientation of Brace	Lateral
Bracing Material	1" Sch.40
Maximum Brace Length	7' 0" (2.13 m)
Slenderness Ratio used for Load Calculation	200
True Angle of Brace for Calculation	60°
Type of Fastener	5/8 x 5-1/2 (16 x 140 mm) Through-Bolt
Length of Fastener	5-1/2in. (140 mm)

Summary of Pipe within Zone of Influence

4" Sch.10 Steel Pipe (101.6 mm)	40 ft (12.2 m)
1.25" Sch.40 Steel Pipe (31.75 mm)	204 ft (62.2 m)
1" Sch.40 Steel Pipe (25.4 mm)	12 ft (3.7 m)

G-Factor Used 0.423

Allowance for Heads and Fittings	15%
Conclusions	
Total Adjusted Load of Pipe in Zone of Influence	532 lbs (241 kg)
Material Capacity	1604 lbs (728 kg)
Fastener Capacity	1552 lbs (704 kg)
Fig. 1001 Clamp	1470 lbs (667 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)
Structural Member	Wood Framing

Calculations prepared by David Soto

* The description of the Structural Member is for informational purposes only.
TOLBrace™ software calculates the brace assembly only, not the structure it is attached to.
Calculated with TOLBrace™ 8
Visit us at www.tolco.com

TOLBrace™ Seismic Bracing Calculations

Project Address: Westmore Oaks ES; 1504 Fallbrook Street; West Sacramento, CA; Job # 19-2007

Contractor: LP Consulting Engineers Inc.
Address: 1209 Pleasant Grove Blvd, Roseville, CA, 95678
Phone: 916-771-0778
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1" Sch.40
Type of Brace	Sch. 10
Angle of Brace	60° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1604 lbs (728 kg)

Other Requirements - FM Approved Loads

Fastener Information

Orientation to Connecting Surface	NFPA Type F
Fastener	
Type	Through-Bolt
Diameter	5/8in. (16 mm)
Length	5-1/2in. (140 mm)
Maximum Load	1552 lbs (704 kg)
Prying Factor	N/A

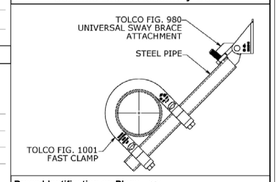
TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	1470 lbs (667 kg)	1470 lbs (667 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)	2310 lbs (1048 kg)

See Fastener Information

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Brace Identification on Plans SB4
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.423

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	11.78 lb/ft (17.53 kg/m)	471 lbs (214 kg)
1.25" (32 mm)	Sch. 40	204 ft (62.2 m)	204 ft (62.2 m)	2.93 lb/ft (4.36 kg/m)	598 lbs (271 kg)
1" (25 mm)	Sch. 40	12 ft (3.7 m)	12 ft (3.7 m)	2.05 lb/ft (3.05 kg/m)	25 lbs (11 kg)

Subtotal Weight	1094 lbs (496 kg)
Wp (incl. 15%)	1258 lbs (571 kg)
Total (Fpw)	532 lbs (241 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	769 lb (348 kg)

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	40

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TOLBrace™ Seismic Calculations

Westmore Oaks ES — Job # 19-2007
1504 Fallbrook Street

Brace Identification	SB2
Brace Type (Per NFPA#13)	NFPA Type F
Braced Pipe (ft)	4" Sch.10 Steel Pipe
Spacing of Brace	40' 0" (12.19 m)
Orientation of Brace	Lateral
Bracing Material	1" Sch.40
Maximum Brace Length	7' 0" (2.13 m)
Slenderness Ratio used for Load Calculation	200
True Angle of Brace for Calculation	60°
Type of Fastener	5/8 x 5-1/2 (16 x 140 mm) Through-Bolt
Length of Fastener	5-1/2in. (140 mm)

Summary of Pipe within Zone of Influence

4" Sch.10 Steel Pipe (101.6 mm)	40 ft (12.2 m)
2" Sch.40 Steel Pipe (50.8 mm)	83 ft (25.3 m)
1" Sch.40 Steel Pipe (25.4 mm)	55 ft (16.8 m)

G-Factor Used 0.423

Allowance for Heads and Fittings	15%
Conclusions	
Total Adjusted Load of Pipe in Zone of Influence	491 lbs (223 kg)
Material Capacity	1604 lbs (728 kg)
Fastener Capacity	1552 lbs (704 kg)
Fig. 1001 Clamp	1470 lbs (667 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)
Structural Member	Wood Framing

Calculations prepared by David Soto

* The description of the Structural Member is for informational purposes only.
TOLBrace™ software calculates the brace assembly only, not the structure it is attached to.
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TOLBrace™ Seismic Bracing Calculations

Project Address: Westmore Oaks ES; 1504 Fallbrook Street; West Sacramento, CA; Job # 19-2007

Contractor: LP Consulting Engineers Inc.
Address: 1209 Pleasant Grove Blvd, Roseville, CA, 95678
Phone: 916-771-0778
License:

Calculations based on 2016 NFPA Pamphlet #13

Brace Information

Maximum Brace Length	7' 0" (2.134 m)
Diameter of Brace	1" Sch.40
Type of Brace	Sch. 10
Angle of Brace	60° Min.
Least Rad. of Gyration	0.42" (11 mm)
L/R Value	200
Max Horizontal Load	1604 lbs (728 kg)

Other Requirements - FM Approved Loads

Fastener Information

Orientation to Connecting Surface	NFPA Type F
Fastener	
Type	Through-Bolt
Diameter	5/8in. (16 mm)
Length	5-1/2in. (140 mm)
Maximum Load	1552 lbs (704 kg)
Prying Factor	N/A

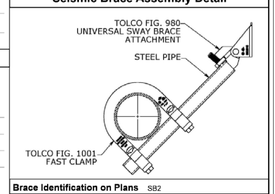
TOLCO™ Brace Components

TOLCO™ Component	Listed Load	Adjusted Load
Fig. 1001 Clamp	1470 lbs (667 kg)	1470 lbs (667 kg)
Fig.980 Universal Swivel	2310 lbs (1048 kg)	2310 lbs (1048 kg)

See Fastener Information

*Calculation Based on CONCENTRIC Loading
*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.

Seismic Brace Assembly Detail



Brace Identification on Plans SB2
Brace Type Lateral [X] Longitudinal [ ] 4-Way [ ]

Sprinkler System Load Calculation (Fpw = CpWp)

Cp = 0.423

Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	11.78 lb/ft (17.53 kg/m)	471 lbs (214 kg)
2" (50 mm)	Sch. 40	83 ft (25.3 m)	83 ft (25.3 m)	5.13 lb/ft (7.63 kg/m)	426 lbs (193 kg)
1" (25 mm)	Sch. 40	55 ft (16.8 m)	55 ft (16.8 m)	2.05 lb/ft (3.05 kg/m)	113 lbs (51 kg)

Subtotal Weight	1010 lbs (458 kg)
Wp (incl. 15%)	1162 lbs (527 kg)
Total (Fpw)	491 lbs (223 kg)
Maximum Fpw per 9.3.5.5.2 (if applicable)	769 lb (348 kg)

Main Size	Type/Sch.	Spacing (ft)
4"	Sch. 10	40

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT — BRIAN P. WHITMORE — No. C 30345 Ren.: 9/30/19 — STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER — SEAN POURIAYI — M 32311 REN. 6-30-19 — MECHANICAL — STATE OF CALIFORNIA

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NO.	REMARKS	DATE

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	DATE
● DSA PLAN CHECK	05/20/2019
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○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER SEISMIC CALCULATIONS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
	FP3.4
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:20:01 PM
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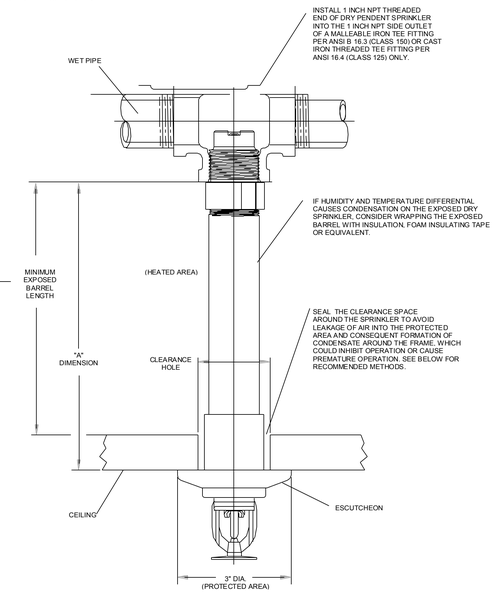
EXPOSED MINIMUM BARREL LENGTH BASED ON AMBIENT TEMPERATURE IN THE PROTECTED AREA
(STANDARD DRY PENDENT SPRINKLER SHOWN)

AMBIENT TEMPERATURE OF PROTECTED AREA AT THE DISCHARGE END OF THE SPRINKLER	EXPOSED BARREL AMBIENT TEMPERATURE		
	40°F/ 4°C	40°F/ 4°C	40°F/ 4°C
	EXPOSED MINIMUM BARREL LENGTH** (FACE OF TEE TO TOP OF CEILING)		
	IN. (MM)	IN. (MM)	IN. (MM)
40°F (4°C)	0	0	0
30°F (-1°C)	0	0	0
20°F (-7°C)	4 (101)	0	0
10°F (-12°C)	8 (203)	1 (25.1)	0
0°F (-18°C)	12 (305)	3 (75)	0
-10°F (-23°C)	14 (356)	4 (101)	1 (25.1)
-20°F (-29°C)	14(356)	6 (152)	3 (75)
-30°F (-34°C)	16 (406)	8 (203)	4 (101)
-40°F (-40°C)	18 (457)	8 (203)	4 (101)
-50°F (-46°C)	20 (508)	10 (254)	6 (152)
-60°F (-51°C)	20 (508)	10 (254)	6 (152)

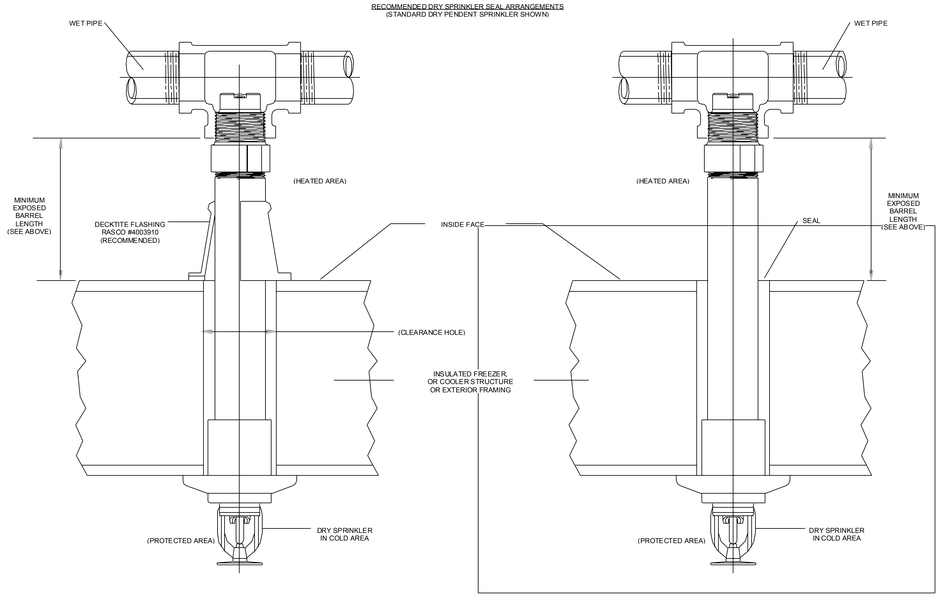
* THE PROTECTED AREA REFERS TO THE AREA BELOW THE CEILING. THE AMBIENT TEMPERATURE IS THE TEMPERATURE AT THE DISCHARGE END OF THE SPRINKLER. FOR PROTECTED AREA TEMPERATURES THAT OCCUR BETWEEN THE VALUES LISTED, USE THE NEXT COOLER TEMPERATURE.

** THE MIN. REQUIRED BARREL LENGTH IS NOT THE SAME AS THE 'A' DIMENSION. NOTE: EXPOSED MINIMUM BARREL LENGTHS ARE INCLUSIVE UP TO 30 MPH WIND VELOCITIES IN THE PROTECTED AREA.



* RECOMMENDED EXPOSED MINMUM BARREL LENGTHS ALSO APPLY TO HORIZONTAL SIDEWALL DRY SPRINKLERS

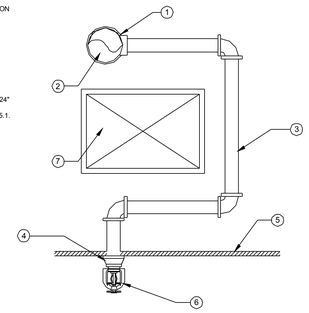
RECOMMENDED DRY SPRINKLER SEAL ARRANGEMENTS
(STANDARD DRY PENDENT SPRINKLER SHOWN)



IN-FREEZER DRY SPRINKLER ASSEMBLY DETAIL — NTS — 8

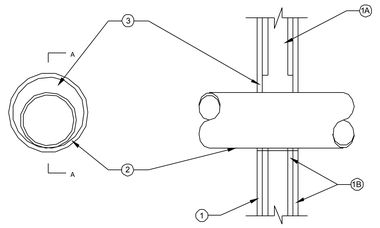
1. BRANCH LINE CONNECTION
2. OVERHEAD PIPING
3. 1" SCH. 40 (TYP.)
4. D.I 1 X 1/2" REDUCER
5. CEILING
6. 1/2" 155 5.6K PENDENT
7. MECHANICAL DUCT

NOTE: ALL ARMOVERS OVER 24" IN LENGTH SHALL BE BRACED PER NFPA 13 (2016) SEC. 9.2.3.5.1.



FIRE SPRINKLER MECHANICAL TEE COORDINATION — NTS — 5

SYSTEM NO. W-L-1054
F RATINGS - 1 AND 2 HR (SEE ITEMS 1 AND 3)
T RATING - 0 HR
L RATING AT 400F -4CFM/Sq Ft



SECTION A-A

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE: MIN 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC. WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY. THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. WIDER AND 4 TO 6 IN. HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
B. GYPSUM BOARD* — 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 32-1/4 IN. FOR STEEL STUD WALLS. MAX DIAM OF OPENING IS 14-1/2 IN. FOR WOOD STUD WALLS. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY.

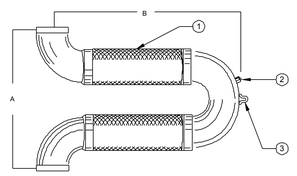
2. THROUGH-PENETRANTS — ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 0 IN. TO MAX 2-1/4 IN. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PIPE, CONDUIT OR TUBING MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45 DEGREES FROM PERPENDICULAR. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
A. STEEL PIPE — NOM 30 IN DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
B. IRON PIPE — NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
C. CONDUIT — NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. DIAM STEEL CONDUIT.
D. COPPER TUBING — NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
E. COPPER PIPE — NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL A MIN 1/2 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE SEALANT
*BEARING THE UL CLASSIFICATION MARK

FIRE STOP FOR RATED WALLS DETAIL — NTS — 6

1. HOSE AND BRAID
2. AIR RELEASE OR DRAIN PLUG
3. SUPPORT BRACKET

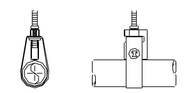


NOTE: METRALOOPS 2" AND LARGER INSTALLED IN ANY ORIENTATION OTHER THAN HANGING DOWN MUST HAVE THE 180° RETURN SUPPORTED. (SEE INSTALLATION INSTRUCTIONS)

METRAFLEX SCHED. 40 CARBON STEEL HOSE AND BRAID-SERIES 300 STAINLESS STEEL						
PIPE SIZE	MODEL #	MOVEMENT	A	B	PSI	WEIGHT (LBS)
0.5" (12.5 mm)	MLUTFM80050	±4	13"	15"	300	5.5
0.75" (20 mm)	MLUTFM80075	±4	13.25"	18"	300	5.5
1" (25 mm)	MLUTFM80100	±4	15"	20"	300	8
1.25" (32 mm)	MLUTFM80125	±4	15.75"	21"	300	10
1.5" (40 mm)	MLUTFM80150	±4	17.5"	23"	300	14.5
2" (50 mm)	MLUTFM80200	±4	20"	25"	300	18
2.5" (65 mm)	MLUTFM80250	±4	21.5"	28"	300	29
3" (80 mm)	MLUTFM80300	±4	24"	30"	300	43
4" (100 mm)	MLUTFM80400	±4	30"	35"	175	55

FIRELOOP SEISMIC EXPANSION JOINT DETAIL — NTS — 7

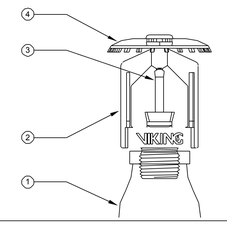
TOLCO FIG. 25 SURGE RESTRAINER



UNDERWRITERS' LABORATORIES LISTED ONLY WHEN USED WITH TOLCO BAND HANGERS FIG. 2, 2NFPA AND 200

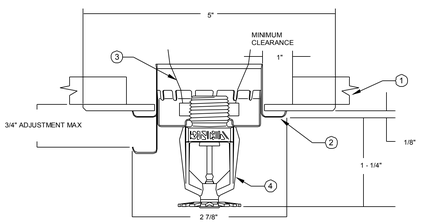
SURGE RESTRAINER FOR STEEL OR CPVC PLASTIC PIPE DETAIL — NTS — 1

1. 1" x 1/2" REDUCER
2. FRAME
3. BULB
4. DEFLECTOR



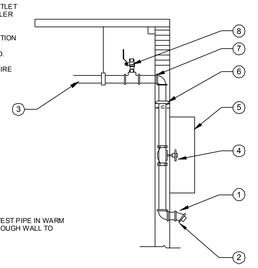
UPRIGHT SPRINKLER DETAIL — NTS — 2

1. T-BAR CEILING.
2. EXPANSION PLATE.
3. 1"x1/2" REDUCER.
4. WHITE RECESSED HEAD AND WHITE ESCUTCHEON.



PENDENT SPRINKLER THROUGH CEILING T-BAR DETAIL — NTS — 3

1. SMOOTH BORE CORROSION RESISTANT OUTLET GIVING FLOW EQUIVALENT TO ONE SPRINKLER
2. 45° GALVANIZED ELBOW
3. FROM END OF BRANCH LINE
4. TEST VALVE IN READILY ACCESSIBLE LOCATION
5. VALVE BOX
6. TOLCO STANDARD RISER CLAMP MODEL NO. B3373 ON 2x WOOD BLOCK
7. 1" CLEARANCE FOR SEISMIC MOVEMENT. FIRE STOP AS NEEDED.
8. MANUAL AIR VENTING VALVE



NOTE: NOT LESS THAN 4FT. (1.2M) OF EXPOSED TEST PIPE IN WARM ROOM BEYOND VALVE WHEN PIPE EXTENDS THROUGH WALL TO OUTSIDE

INSPECTORS' TEST CONNECTION DETAIL — NTS — 4

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Job #: 19-2007

ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER SEAN POURYAZ T. M 32311 REN. 6-30-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

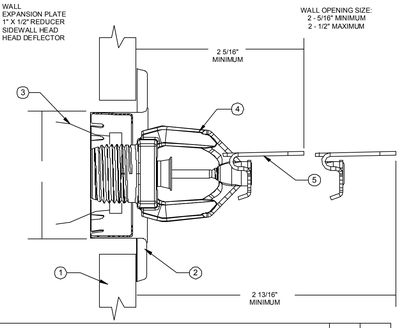
FIRE SPRINKLER DETAILS

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/4" = 1'-0"	FP5.0
Drawn KT	Checked DS

PRINT DATE: 5/16/2019 5:23:04 PM
FILE PATH: C:\Users\ktomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_ktomas.rvt

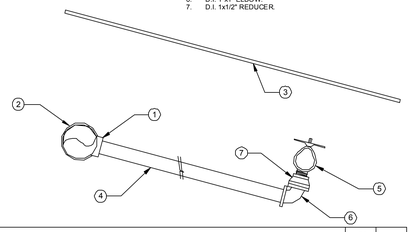
1. WALL
2. EXPANSION PLATE
3. 1" X 1/2" REDUCER
4. SIDEWALL HEAD
5. HEAD DEFLECTOR

WALL OPENING SIZE:
2 - 5/16" MINIMUM
2 - 1/2" MAXIMUM

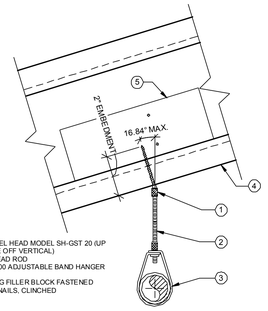


SIDEWALL SPRINKLER DETAIL — NTS — 11

1. BRANCH LINE CONNECTION.
2. OVERHEAD MAIN PIPING.
3. ROOF DECK.
4. 1 1/2" SCHLD. 40 (typ.). UNSUPPORTED LENGTH NOT TO EXCEED 24" PER NFPA 13 (2016) SEC. 9.2.3.5.1
5. 1/2" 200° 5.6K BRASS UPRIGHT.
6. D.I. 1"x1" ELBOW.
7. D.I. 1x1/2" REDUCER.



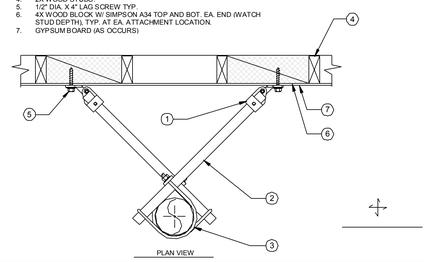
SPRINKLER ASSEMBLY (SLOPED) — NTS — 8



1. SAMMY SWIVEL HEAD MODEL SH-GST 20 (UP TO 17° ANGLE OFF VERTICAL)
2. 3/8" ALL THREAD ROD
3. TOLCO FIG. 200 ADJUSTABLE BAND HANGER
4. I-JOIST
5. 2x6 x 18" LONG FILLER BLOCK FASTENED WITH (2) 10d NAILS, CLINCHED

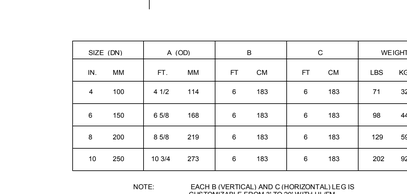
SAMMY SWIVEL HEAD FOR WOOD I JOIST (SLOPED) — NTS — 4

1. TOLCO FIG. 980 UNIVERSAL SWAY BRACE ATTACHMENT.
2. BRACE PIPE - 1" SCH. 40 - 7'-0" MAX.
3. TOLCO FIG. 1001 BRACE CLAMP
4. 2X WOOD STUDS.
5. 1/2" DIA. X 4" LAG SCREW TYP.
6. 4X WOOD BLOCK W/ SIMPSON A34 TOP AND BOT. EA. END (WATCH STUD DEPTH), TYP. AT EA. ATTACHMENT LOCATION.
7. GYPSUM BOARD (AS OCCURS)

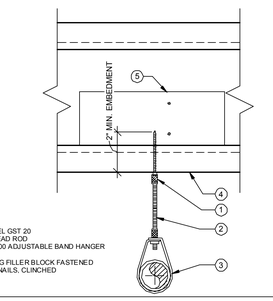


4-WAY NON-THREADED BRACE PIPE DETAIL — NTS — 1

1. 1 1/2" BRANCH LINE CONNECTION.
2. 4" OVERHEAD MAIN PIPING.
3. ROOF DECK.
4. 1 1/2" SCHLD. 40 (typ.). UNSUPPORTED LENGTH NOT TO EXCEED 24" PER NFPA 13 (2016) SEC. 9.2.3.5.1
5. 1/2" 200° 5.6K BRASS UPRIGHT.
6. D.I. 1"x1" ELBOW.
7. D.I. 1x1/2" REDUCER.



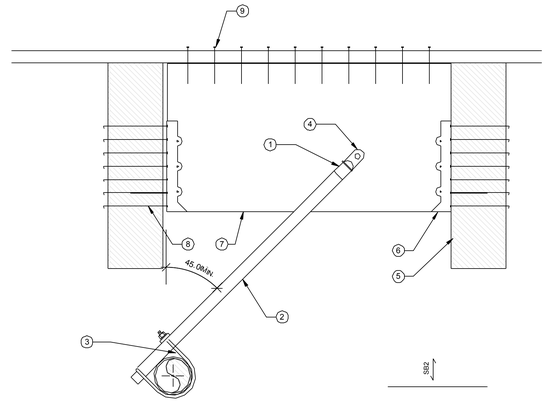
SPRINKLER ASSEMBLY DETAIL — NTS — 9



1. SAMMY MODEL GST 20
2. 3/8" ALL THREAD ROD
3. TOLCO FIG. 200 ADJUSTABLE BAND HANGER
4. I-JOIST
5. 2x6 x 18" LONG FILLER BLOCK FASTENED WITH (2) 10d NAILS, CLINCHED

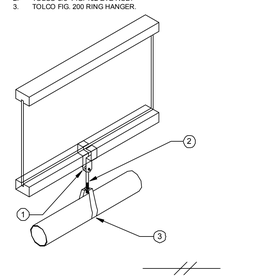
SAMMY SWIVEL HEAD FOR WOOD I JOIST — NTS — 5

1. TOLCO FIG. 980 UNIVERSAL SWAY ATTACHMENT
2. BRACE PIPE - 1" SCH. 40 - 7'-0" MAX.
3. TOLCO FIG. 1001 PIPE CLAMP
4. 5/8"x 5 1/2" THROUGH BOLT
5. 2"x WOOD JOIST
6. SIMPSON STRONG TIE U410, OR EQUIV.
7. 4" x 12" HANGER BLOCK
8. NAIL THROUGH HANGER AND JOIST WITH TEN 10d NAILS AND CLINCH
9. EDGE NAILING AT BLKG. TYP.



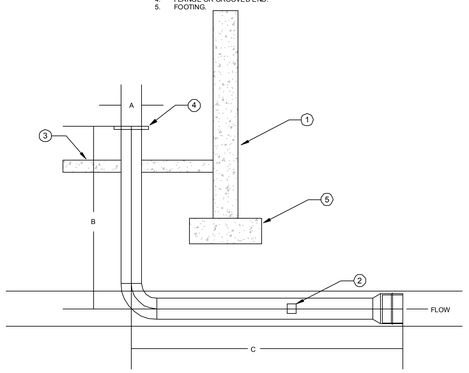
LATERAL BRACE I JOIST DETAIL — NTS — 2

1. TOLCO FIG. 130 BEAM CLAMP W/ BOLT AND NUT.
2. TOLCO 3/8" FIG. 102 EYE ROD.
3. TOLCO FIG. 200 RING HANGER.



BEAM CLAMP DETAIL — NTS — 6

1. BUILDING PERIMETER WALL.
2. TIE-ROD BRACKET.
3. BUILDING FLOOR.
4. FLANGE OR GROOVED END.
5. FOOTING.



SIZE (DN)		A (OD)		B		C		WEIGHT	
IN.	MM	FT.	MM	FT	CM	FT	CM	LBS	KG
4	100	4 1/2	114	6	183	6	183	71	32
6	150	6 5/8	168	6	183	6	183	98	44
8	200	8 5/8	219	6	183	6	183	129	59
10	250	10 3/4	273	6	183	6	183	202	92

NOTE: EACH B (VERTICAL) AND C (HORIZONTAL) LEG IS CUSTOMIZABLE FROM 3' TO 20' WITH UL/FM APPROVALS.

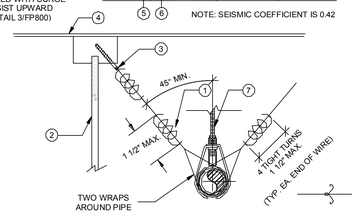
AMES IN BUILDING RISER DETAIL — NTS — 10

1. #12 SPLAYED SEISMIC RESTRAINT WIRE (4 TIGHT TURNS MIN)
2. I-JOIST
3. 1/4" DIAMETER SCREW EYE WITH FULL THREAD EMBEDMENT (1 1/4" MIN)
4. WOOD STRUCTURE
5. SPACING USED FOR BRANCH LINE RESTRAINTS AT BUILDING M
6. SPACING USED FOR BRANCH LINE RESTRAINTS AT BUILDINGS F AND G
7. HANGER (BEYOND) WITHIN 2 FT OF RESTRAINT (INSTALLED WITH SURGE RESTRAINER TO RESIST UPWARD MOVEMENT -SEE DETAIL 3/FP800)

TABLE 9.3.6.4 (a) MAXIMUM SPACING (ft) OF STEEL BRANCH LINE RESTRAINTS

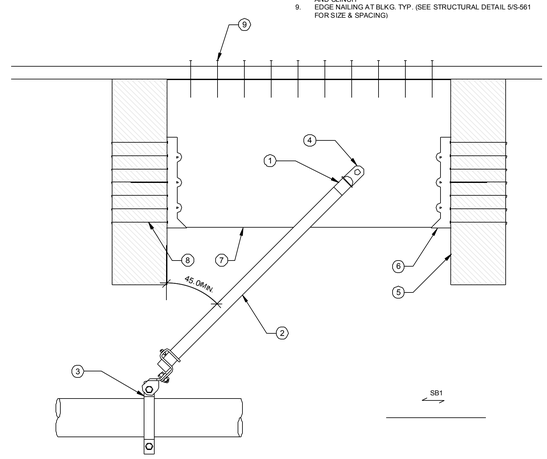
	SEISMIC COEFFICIENT (Cp)		
PIPE (IN.)	Cp ≤ 0.50	0.5 < Cp ≤ 0.71	Cp > 0.71
1	43	36	26
1 1/4	46	39	27
1 1/2	49	42	29
2	53	45	31

(5) (6) NOTE: SEISMIC COEFFICIENT IS 0.42



TWO WIRE RESTRAINT I JOIST — NTS — 7

1. TOLCO FIG. 980 UNIVERSAL SWAY ATTACHMENT
2. BRACE PIPE - 1" SCH. 40 - 7'-0" MAX.
3. TOLCO FIG. 4LA PIPE CLAMP
4. 5/8"x 5 1/2" THROUGH BOLT
5. 2x WOOD JOIST
6. SIMPSON STRONG TIE U410, OR EQUIV.
7. 4" x 12" HANGER BLOCK
8. NAIL THROUGH HANGER, BLOCK AND I JOIST WITH TEN 10d NAILS AND CLINCH
9. EDGE NAILING AT BLKG. TYP. (SEE STRUCTURAL DETAIL S/S-561 FOR SIZE & SPACING)



LONGITUDINAL BRACE I JOIST DETAIL — NTS — 3

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Job #: 19-2007

ARCHITECT: LICENSED ARCHITECT — BRIAN P. WHITMORE — No. C 30345 Ren.: 9/30/19 — STATE OF CALIFORNIA

ENGINEER: REGISTERED PROFESSIONAL ENGINEER — SEAN POURIAXI — M 32311 REN. 6-30-19 — MECHANICAL — STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS
- DSA PLAN CHECK — 05/20/2019
- DSA BACK CHECK
- BIDDING
- CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER DETAILS

Date 05/20/2019
Scale 1/4" = 1'-0"
Drawn KT
Checked DS
Project Number 19003
Drawing Number FP5.1

PRINT DATE: 5/16/2019 5:23:06 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	VK 300 QR SSU SPRINKLER	200	1/2"	5.6	BRASS	146
◉	VK 302 QR SSP SPRINKLER	155	1/2"	5.6	CHROME	100
▹	VK 305 QR SSP SPRINKLER	155	1/2"	5.6	BRASS	18

KEY NOTES

1 STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER

2 STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER

3 STANDARD SPRAY QUICK-RESPONSE SIDE WALL FIRE SPRINKLER FIRE PROTECTION

1 Bldg F Fire Sprinkler Reflected Ceiling Plan
SCALE: 1/8" = 1'-0"

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WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

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NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

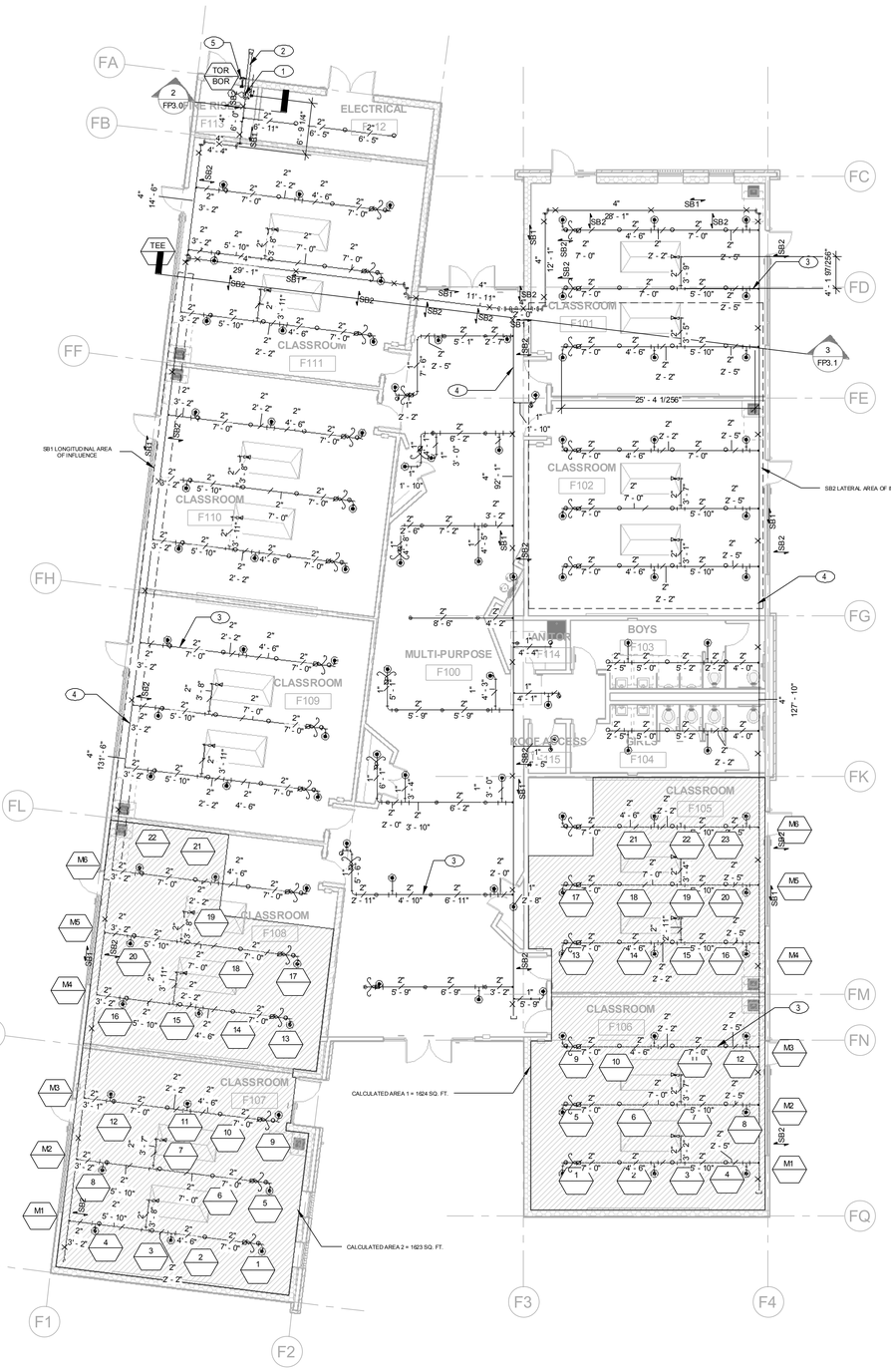
FIRE SPRINKLER BUILDING F REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: FPF2.1
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:22:09 PM
FILE PATH: C:\Users\thomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_bthomas.rvt

KEY NOTES

1 6" FIRE SPRINKLER RISER
2 AMES IN-BUILDING RISER
3 2" SCH.40 BRANCH LINE PIPE
4 4" SCH.10 BLK STEEL BULK PIPE
5 10" ALARM BELL



1 Bldg F Fire Sprinkler Piping Plan

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

N

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1170 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	1950
CEILING HEIGHT	20ft
PERCENT REDUCTION	25%
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1575
ACTUAL AREA OF OPERATION	1624

WATER SUPPLY

STATIC (PSI)	55
RESIDUAL (PSI)	51
FLOW (GPM)	1948
FIRE PUMP (GPM @ PSI)	N/A

SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	47.16
FLOW REQUIRED (PSI)	476.32
PRESSURE AVAILABLE (PSI)	54.70
SAFETY MARGIN (%)	13.78%

HOSE STREAM ALLOWANCE (GPM)
INSIDE 100 OUTSIDE N/A

SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	32.93
FLOW REQUIRED (GPM)	476.32

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	2
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1574 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	1950
CEILING HEIGHT	20 ft
PERCENT REDUCTION	25%
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1575
ACTUAL AREA OF OPERATION	1623

WATER SUPPLY

STATIC (PSI)	55
RESIDUAL (PSI)	51
FLOW (GPM)	1948
FIRE PUMP (GPM @ PSI)	N/A

SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	39.13
FLOW REQUIRED (PSI)	460.95
PRESSURE AVAILABLE (PSI)	54.72
SAFETY MARGIN (%)	28.48%

HOSE STREAM ALLOWANCE (GPM)
INSIDE 100 OUTSIDE N/A

SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	25.03
FLOW REQUIRED (GPM)	460.95

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FIRE SPRINKLER BUILDING F PIPING PLAN

Date 05/20/2019	Project Number 19003
Scale As indicated	Drawing Number FPF4.1
Drawn KT	Checked DS

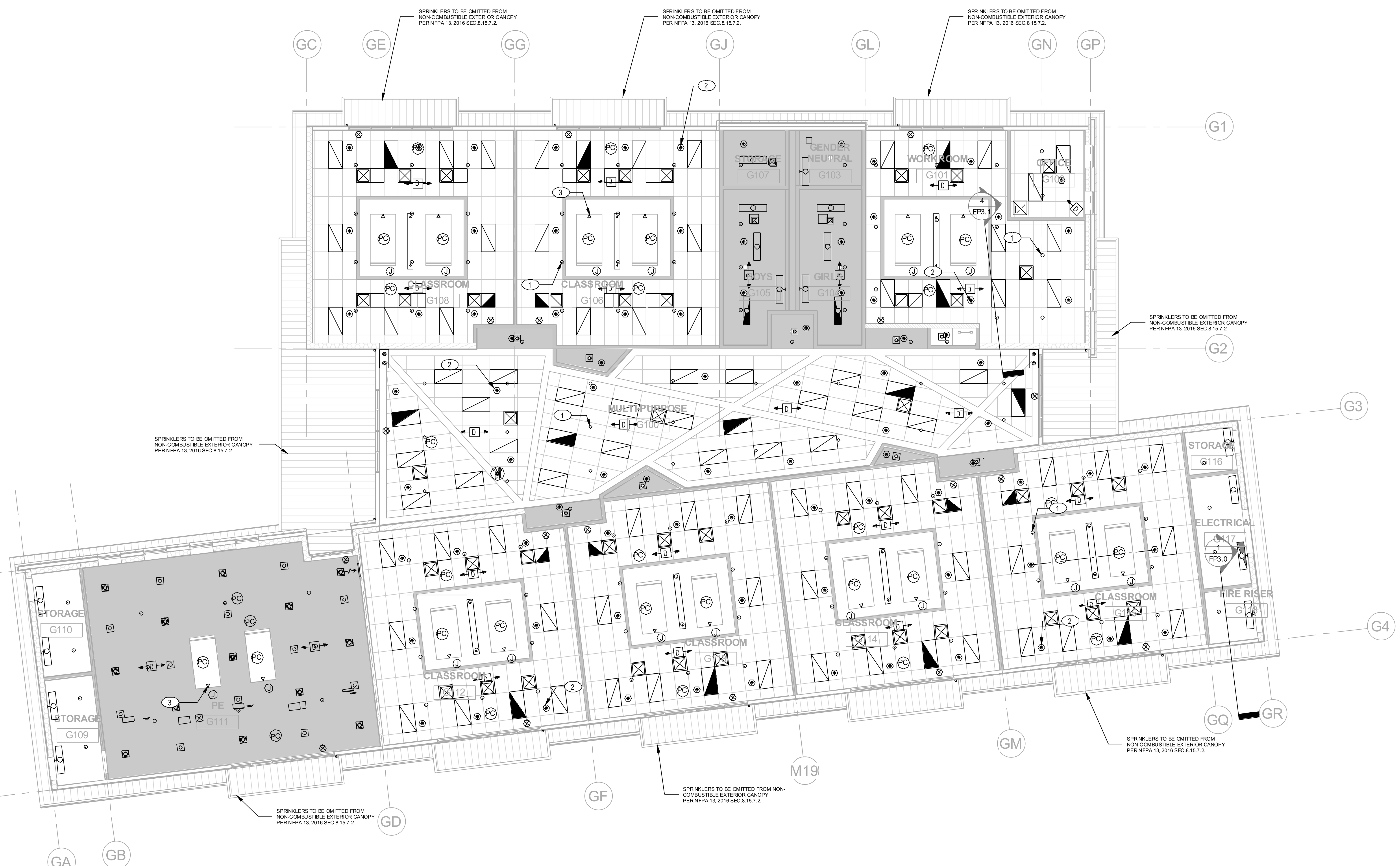
PRINT DATE: 5/16/2019 5:23:13 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_-17_kthomas.rvt

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	VK 300 QR SSU SPRINKLER	200	1/2"	5.6	BRASS	136
◉	VK 302 QR SSP SPRINKLER	155	1/2"	5.6	CHROME	86
▹	VK 305 QR SSP SPRINKLER	155	1/2"	5.6	BRASS	16

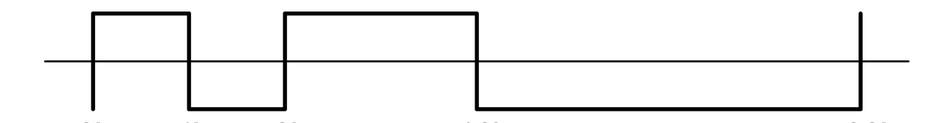
KEY NOTES

1. STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
2. STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER
3. STANDARD SPRAY QUICK-RESPONSE SIDE WALL FIRE SPRINKLER FIRE PROTECTION



1 Bldg G Fire Sprinkler Reflected Ceiling Plan

SCALE: 1/8" = 1'-0"



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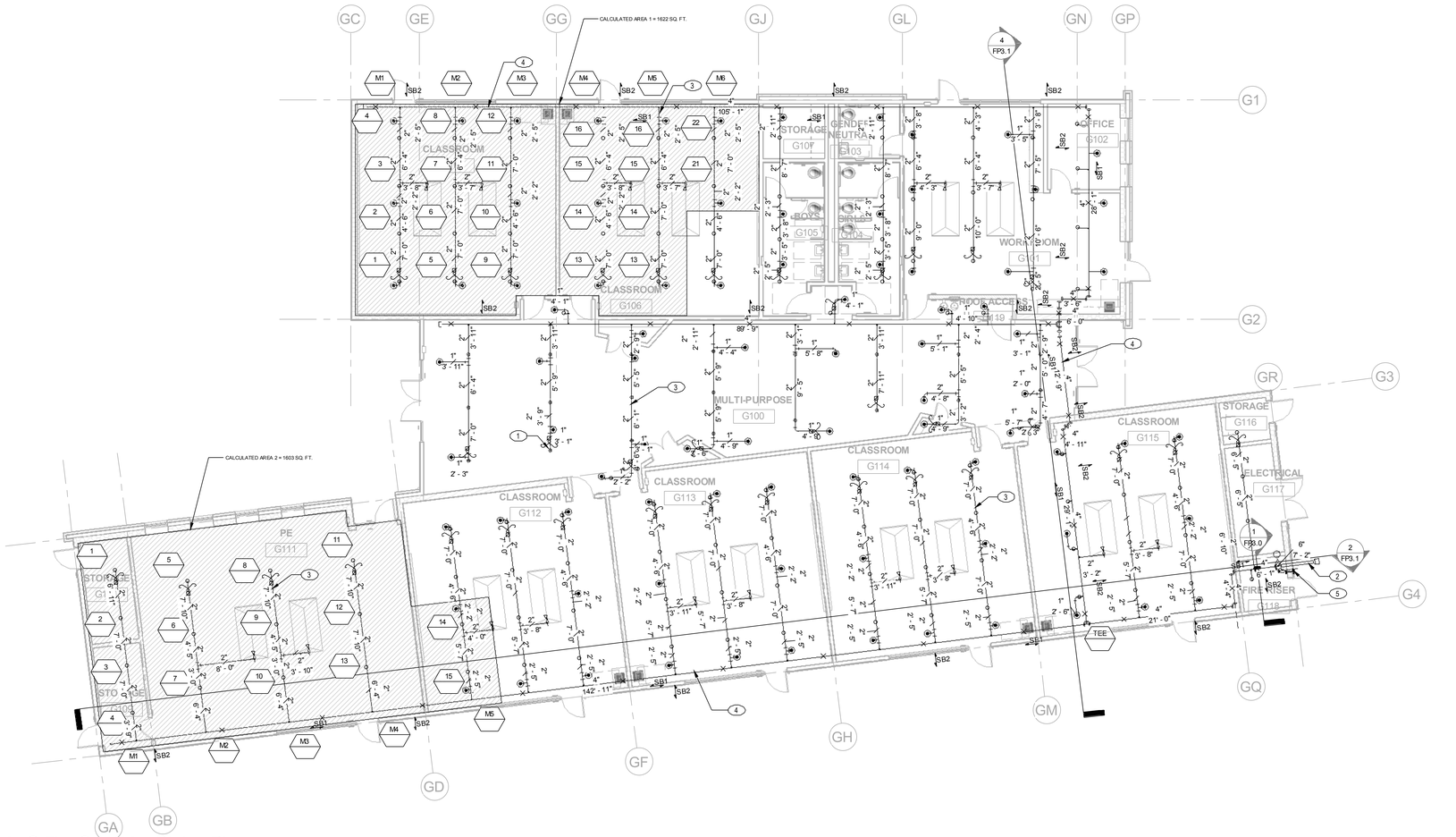
FIRE SPRINKLER BUILDING G REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale	Drawing Number
1/8" = 1'-0"	FPG2.1
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:23:17 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

KEY NOTES

1 STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
2 AMES IN-BUILDING RISER
3 2" SCH.40 BRANCH LINE PIPE
4 4" SCH.10 BLK STEEL BULK PIPE
5 10" ALARM BELL



1 Bldg G Fire Sprinkler Piping Plan
SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

N

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET,DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1208 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	1950
CEILING HEIGHT	20 ft
PERCENT REDUCTION	25%
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1575
ACTUAL AREA OF OPERATION	1622

WATER SUPPLY

STATIC (PSI)	55
RESIDUAL (PSI)	51
FLOW (GPM)	1948
FIRE PUMP (GPM @ PSI)	N/A

SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	47.79
FLOW REQUIRED (PSI)	471.63
PRESSURE AVAILABLE (PSI)	54.71
SAFETY MARGIN (%)	12.64%

HOSE STREAM ALLOWANCE (GPM)
INSIDE 100 OUTSIDE N/A

SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	31.69
FLOW REQUIRED (GPM)	471.63

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	2
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET,DRY)	WET
HAZARD CLASSIFICATION	LIGHT OH1@ STORAGE
DENSITY (GPM/S.F.)	.10/.15 @ STORAGE
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1555 (LARGEST OPEN AREA)

AREA OF OPERATION ADJUSTMENTS:

DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	1950
CEILING HEIGHT	20 ft
PERCENT REDUCTION	25%
CEILING REDUCTION (S.F.)	375
ADJUSTED AREA OF OPERATION	1575
ACTUAL AREA OF OPERATION	1603

WATER SUPPLY

STATIC (PSI)	55
RESIDUAL (PSI)	51
FLOW (GPM)	1948
FIRE PUMP (GPM @ PSI)	N/A

SYSTEM DEMAND @ SOURCE

PRESSURE REQUIRED (PSI)	48.70
FLOW REQUIRED (PSI)	598.96
PRESSURE AVAILABLE (PSI)	54.54
SAFETY MARGIN (%)	10.71%

HOSE STREAM ALLOWANCE (GPM)
INSIDE 250 OUTSIDE N/A

SYSTEM DEMAND AT BASE OF RISER

PRESSURE REQUIRED (PSI)	31.74
FLOW REQUIRED (GPM)	598.96

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P. WHITMORE No. C 30345 Ren.: 9/30/19 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER SEAN POURIAYI M 32311 REN. 6-30-19 MECHANICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER BUILDING G PIPING PLAN

Date	Project Number
05/20/2019	19003
Scale: As indicated	Drawing Number: FPG4.1
Drawn: KT	Checked: DS

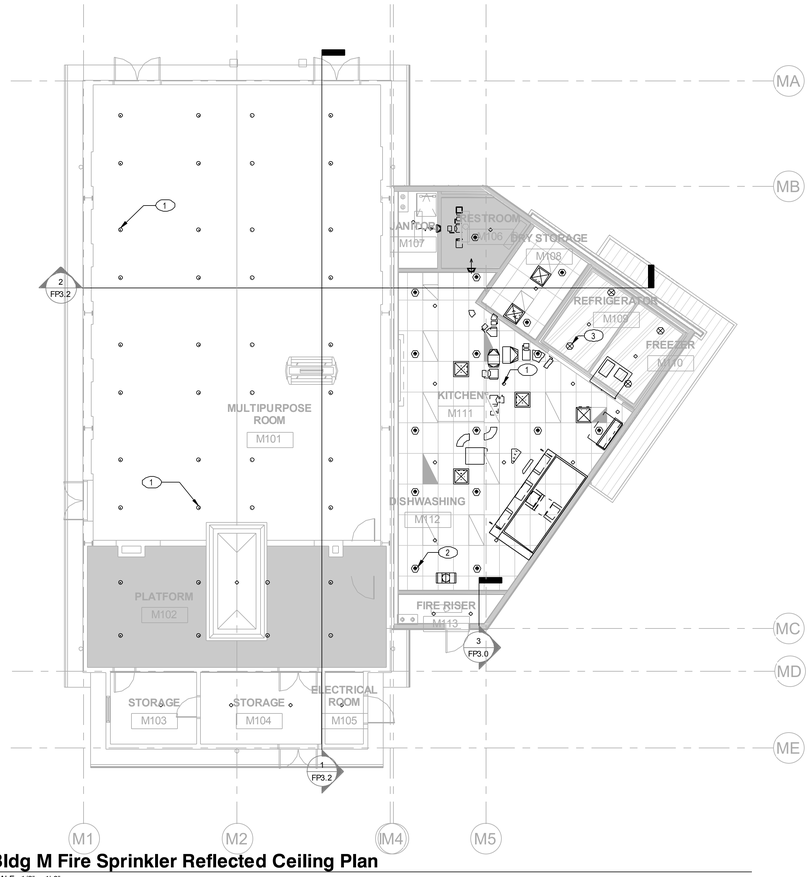
PRINT DATE: 5/16/2019 5:23:21 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

FIRE SPRINKLER HEAD SCHEDULE

SYMBOL	TYPE	TEMP	ORF	K	FINISH	QUANTITY
○	VK 300 QR SSU SPRINKLER	200	1/2"	5.6	BRASS	63
◉	VK 302 QR SSP SPRINKLER	200	1/2"	5.6	CHROME	16
⊗	VK 176 QR DRY SPRINKLER	155	1/2"	5.6	CHROME	4

KEY NOTES

1 STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
2 STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER
3 STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED DRY PENDENT FIRE SPRINKLER



1 Bldg M Fire Sprinkler Reflected Ceiling Plan
SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

N

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE 05/20/2019
- (●) DSA PLAN CHECK
- ( ) DSA BACK CHECK
- ( ) BIDDING
- ( ) CONSTRUCTION

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER BUILDING M REFLECTED CEILING PLAN

Date	Project Number
05/20/2019	19003
Scale: 1/8" = 1'-0"	Drawing Number: FPM2.1
Drawn: KT	Checked: DS

PRINT DATE: 5/16/2019 5:23:23 PM
FILE PATH: C:\Users\kthomas\Documents\19-2007_Westmore Oaks ES_MEP_r17_kthomas.rvt

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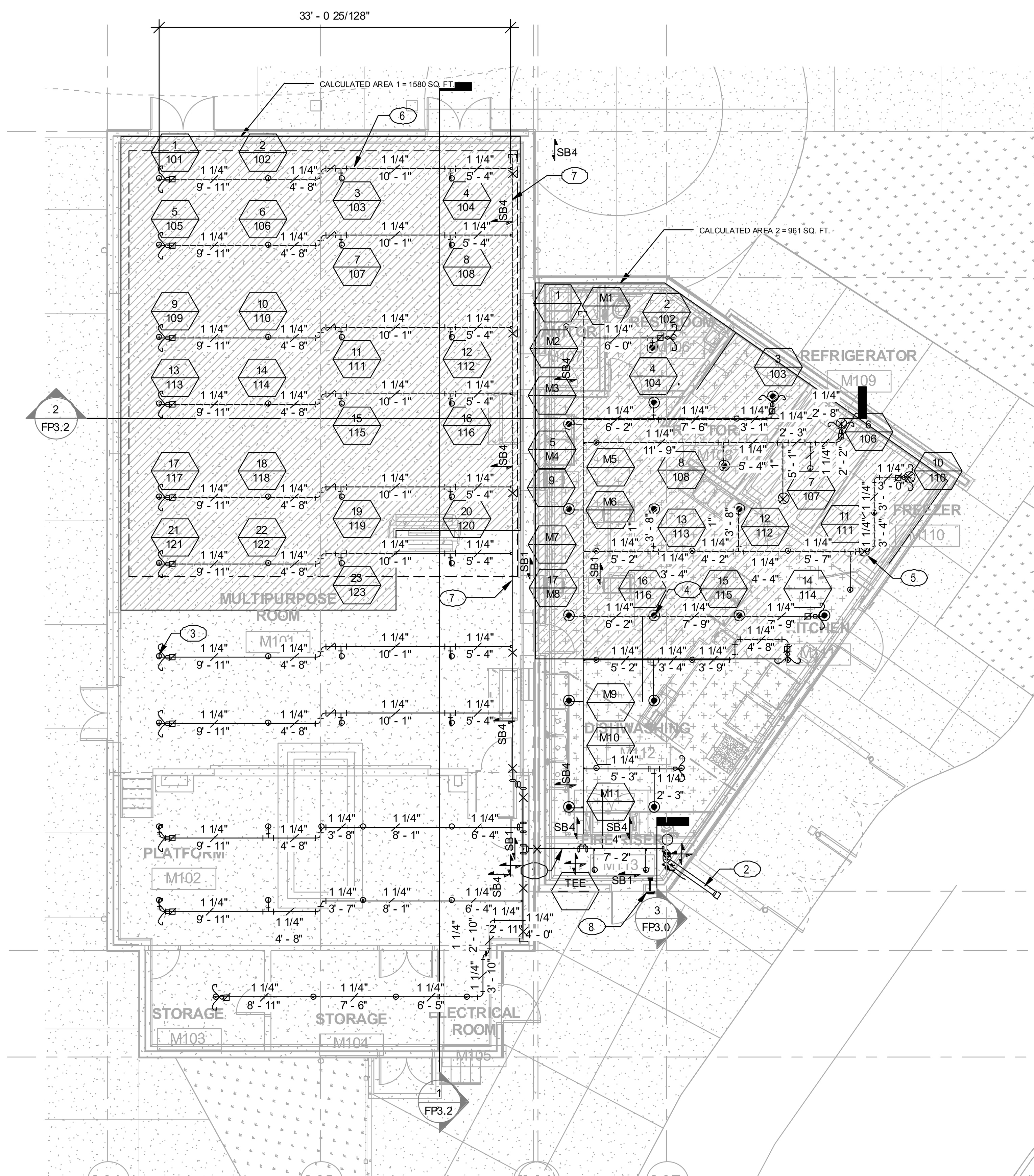
KEY NOTES

1. METRAFLEX SEISMIC SEPARATION ASSEMBLY PER DETAIL 7/FP5.0
2. AMES IN-BUILDING RISER
3. STANDARD SPRAY QUICK-RESPONSE UPRIGHT FIRE SPRINKLER
4. STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED PENDENT FIRE SPRINKLER
5. STANDARD SPRAY QUICK-RESPONSE SEMI-RECESSED DRY PENDENT FIRE SPRINKLER
6. 1 1/4" SCH.40 BRANCH LINE PIPE
7. 4" SCH.10 BLK STEEL BULK PIPE
8. 10" ALARM BELL



1 **Bldg M Fire Sprinkler Piping Plan**

SCALE: 1/8" = 1'-0"

0' 4' 8' 16' 32'

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSU
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	LIGHT
DENSITY (GPM/S.F.)	.10
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1500 (LARGEST OPEN AREA)
AREA OF OPERATION ADJUSTMENTS:	
DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	N/A
CEILING HEIGHT	N/A
PERCENT REDUCTION	N/A
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	1500
ACTUAL AREA OF OPERATION	1580
WATER SUPPLY	
	55
STATIC (PSI)	51
RESIDUAL (PSI)	1948
FLOW (GPM)	N/A
FIRE PUMP (GPM @ PSI)	
SYSTEM DEMAND @ SOURCE	
PRESSURE REQUIRED (PSI)	45.49
FLOW REQUIRED (PSI)	468.36
PRESSURE AVAILABLE (PSI)	54.71
SAFETY MARGIN (%)	16.84%
HOSE STREAM ALLOWANCE (GPM)	
INSIDE 100 OUTSIDE N/A	
SYSTEM DEMAND AT BASE OF RISER	
PRESSURE REQUIRED (PSI)	31.89
FLOW REQUIRED (GPM)	468.36

HYDRAULIC CALCULATION

DESIGN INFORMATION

CALCULATION AREA#	2
SPRINKLER HEAD TYPE	SSP
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	OH1
DENSITY (GPM/S.F.)	.15
AREA PER HEAD	130 MAX
AREA OF OPERATION (S.F.)	1500 (LARGEST OPEN AREA)
AREA OF OPERATION ADJUSTMENTS:	
DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	N/A
CEILING HEIGHT	11 ft.
PERCENT REDUCTION	38.5%
CEILING REDUCTION (S.F.)	577
ADJUSTED AREA OF OPERATION	923
ACTUAL AREA OF OPERATION	961
WATER SUPPLY	
	55
STATIC (PSI)	51
RESIDUAL (PSI)	1948
FLOW (GPM)	N/A
FIRE PUMP (GPM @ PSI)	
SYSTEM DEMAND @ SOURCE	
PRESSURE REQUIRED (PSI)	36.22
FLOW REQUIRED (PSI)	527.27
PRESSURE AVAILABLE (PSI)	54.64
SAFETY MARGIN (%)	33.70%
HOSE STREAM ALLOWANCE (GPM)	
INSIDE 250 OUTSIDE N/A	
SYSTEM DEMAND AT BASE OF RISER	
PRESSURE REQUIRED (PSI)	22.44
FLOW REQUIRED (GPM)	527.27

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

	DATE
● DSA PLAN CHECK	05/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

WASHINGTON UNIFIED SCHOOL DISTRICT
930 WEST ACRE ROAD
WEST SACRAMENTO, CA 95691

DESIGN DEVELOPMENT

WESTMORE OAKS SCHOOL
NEW BLDGS F & G AND BLDG M ADDITION
1504 FALLBROOK STREET
WEST SACRAMENTO, CA 95691

FIRE SPRINKLER BUILDING M PIPING PLAN

Date 05/20/2019	Project Number 19003
Scale As indicated	Drawing Number
Drawn KT / Checked DS	FPM4.1

PRINT DATE: 5/16/2019 5:23:24 PM
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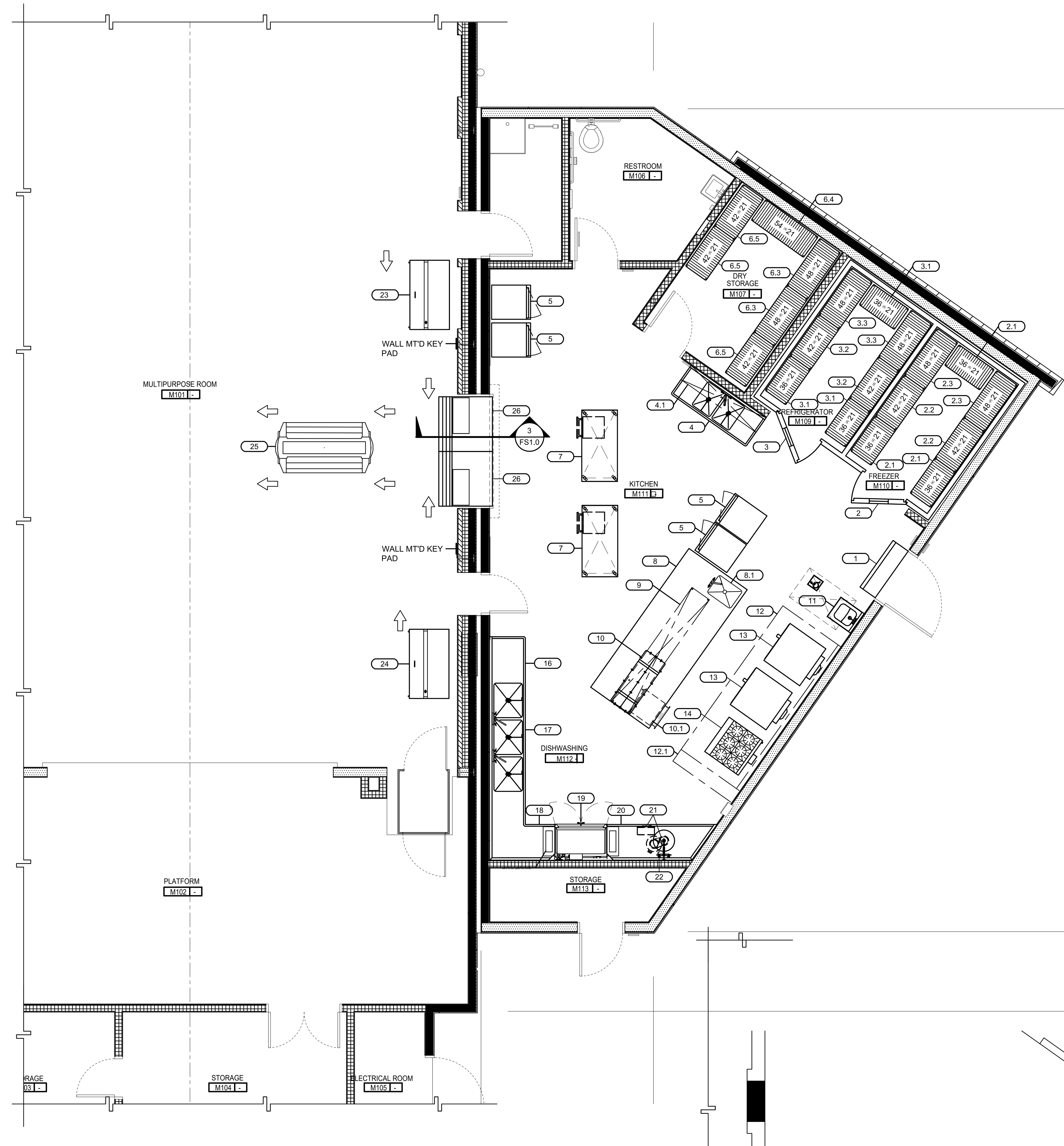
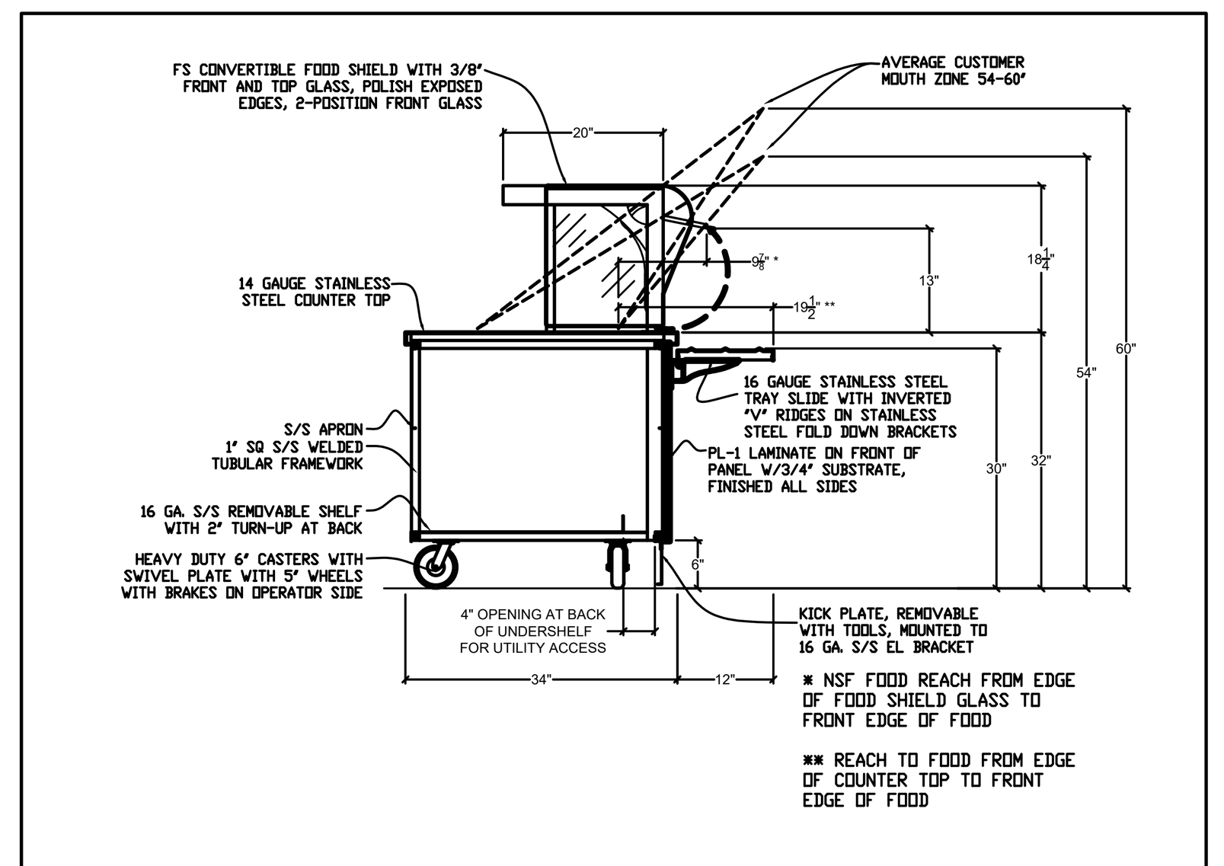


FOODSERVICE FLOOR PLAN

1 / FS1.0

SCALE : 1/4" = 1'-0"

EQUIPMENT SCHEDULE						
ITEM NO	QTY	LBS	EQUIPMENT CATEGORY	MANUFACTURER	MODEL NUMBER	EQUIPMENT REMARKS
1	1	125	AIR CURTAIN, UNHEATED	MARS AIR SYSTEMS	HV248-1U*	DETAIL K/FS8.1
2	1	SEE REMARK	WALK-IN FREEZER	DURACOLD	FABRICATED ITEM	8.5 LBS/SQ.FT OF PANEL
2.1	3	66 EA.	COLD STORGE SHELVING	METRO	A2136NK3	DETAIL E/FS8.2
2.2	2	74 EA.	COLD STORAGE SHELVING	METRO	A2142NK3	DETAIL E/FS8.2
2.3	2	78 EA.	COLD STORAGE SHELVING	METRO	A2148NK3	DETAIL E/FS8.2
3	1	SEE REMARK	WALK-IN REFRIGERATOR	DURACOLD	FABRICATED ITEM	8.5 LBS/SQ.FT OF PANEL
3.1	3	66 EA.	COLD STORGE SHELVING	METRO	A2136NK3	DETAIL E/FS8.2
3.2	2	74 EA.	COLD STORAGE SHELVING	METRO	A2142NK3	DETAIL E/FS8.2
3.3	2	78 EA.	COLD STORAGE SHELVING	METRO	A2148NK3	DETAIL E/FS8.2
4	1	300	PREP SINK	CUSTOM	FABRICATED ITEM	
4.1	1	15	WALL SHELF	CUSTOM	FABRICATED ITEM	DETAIL B/FS8.1
5	4	326 EA	HOLDING & PROOFING CABINET	CRES COR	H-138-S-1834D	DETAIL 4/FS4.0
6.3	2	78 EA.	DRY STORAGE SHELVING	METRO	A2148NC	DETAIL D/FS8.2
6.4	1	85 EA.	DRY STORAGE SHELVING	METRO	A2154NC	DETAIL D/FS8.2
6.5	3	74 EA.	DRY STORAGE SHELVING	METRO	A2142NC	DETAIL D/FS8.2
7	2		MOBILE WORKTABLE WITH UTENSIL DRAWER	CUSTOM	FABRICATED ITEM	LOCKING CASTERS
8	1	825 EA.	CHEFS COUNTER	CUSTOM	FABRICATED ITEM	DETAIL E/FS8.1
8.1	1		CHEFS SINK	CUSTOM	FABRICATED ITEM	
9	1	125 EA.	DOUBLE TABLE MOUNTED OVERSHELF	CUSTOM	FABRICATED ITEM	DETAIL F/FS8.1-6
10	1	64 EA.	TABLE MOUNTED POT RACK	EAGLE GROUP/METAL MASTERS	TM60PR	
10.1	3	160	THREE STACK UTENSIL DRAWER UNIT	CUSTOM	FABRICATED ITEM	DETAIL B/FS8.2-C
11	1	43	HAND SINK, WALL MOUNT	ADVANCE TABCO	7-PS-46	DETAIL C/FS8.2
12	1	707	EXHAUST HOOD AND S/S WALL LINING	CAPTIVE AIRE	6024 ND-2-PSP-F	DETAIL K/FS8.2
12.1	1		FIRE SYSTEM	ANSUL	R-102	
13	2	1130	OVEN, CONVECTION, GAS	BLODGETT	DFG200 DOUBLE	DETAIL B/FS8.2-C
14	1	430	RANGE, RESTAURANT, GAS	GARLAND	GFE36-6R	DETAIL B/FS8.2-C
15			SPARE			
16	1		SOILED DISHTABLE	CUSTOM	FABRICATED ITEM	DETAIL C/FS8.1
17	1	825	THREE COMP. SINK	CUSTOM	FABRICATED ITEM	DETAIL A/FS8.1
18	1		CLEAN DISHTABLE	CUSTOM	FABRICATED ITEM	
19	1	723	WAREWASHER, RACK CONVEYOR	HOBART US FOODSERVICE	CL44EN-ADV2	DETAIL B/FS8.2-C
20	1	190	SOILED DISHTABLE	CUSTOM	FABRICATED ITEM	DETAIL C/FS8.1
21	1	90	DISPOSER, GARBAGE	SALVAJOR	200-CA-ARSS-2-LD	
22	1		PRE-RINSE FAUCET, WALL MOUNT	FISHER	2210-1WB	
23	1	389	MILK COOLER (EXISTING)	TRUE MANUFACTURING CO., INC.	TMC-58	LOCKING CASTERS
24	1	389	MILK COOLER	TRUE MANUFACTURING CO., INC.	TMC-58	LOCKING CASTERS
25	1	60	BUFFET/CAFETERIA, FOOD BARS (EXISTING)	CAMBRO	VBR6158	(EXISTING) OFCI
26	2	250	SERVING COUNTER	MULTITERIA	ULS42	DETAIL B/FS8.2-C
27	1	1100	REMOTE REFRIGERATION UNIT	COOLTEC REFRIGERATION	CRS-4	DETAIL A/FS7.1



SERVING COUNTER - SECTION

3 / FS1.0

SCALE : 1" = 1'-0"

NOTES:

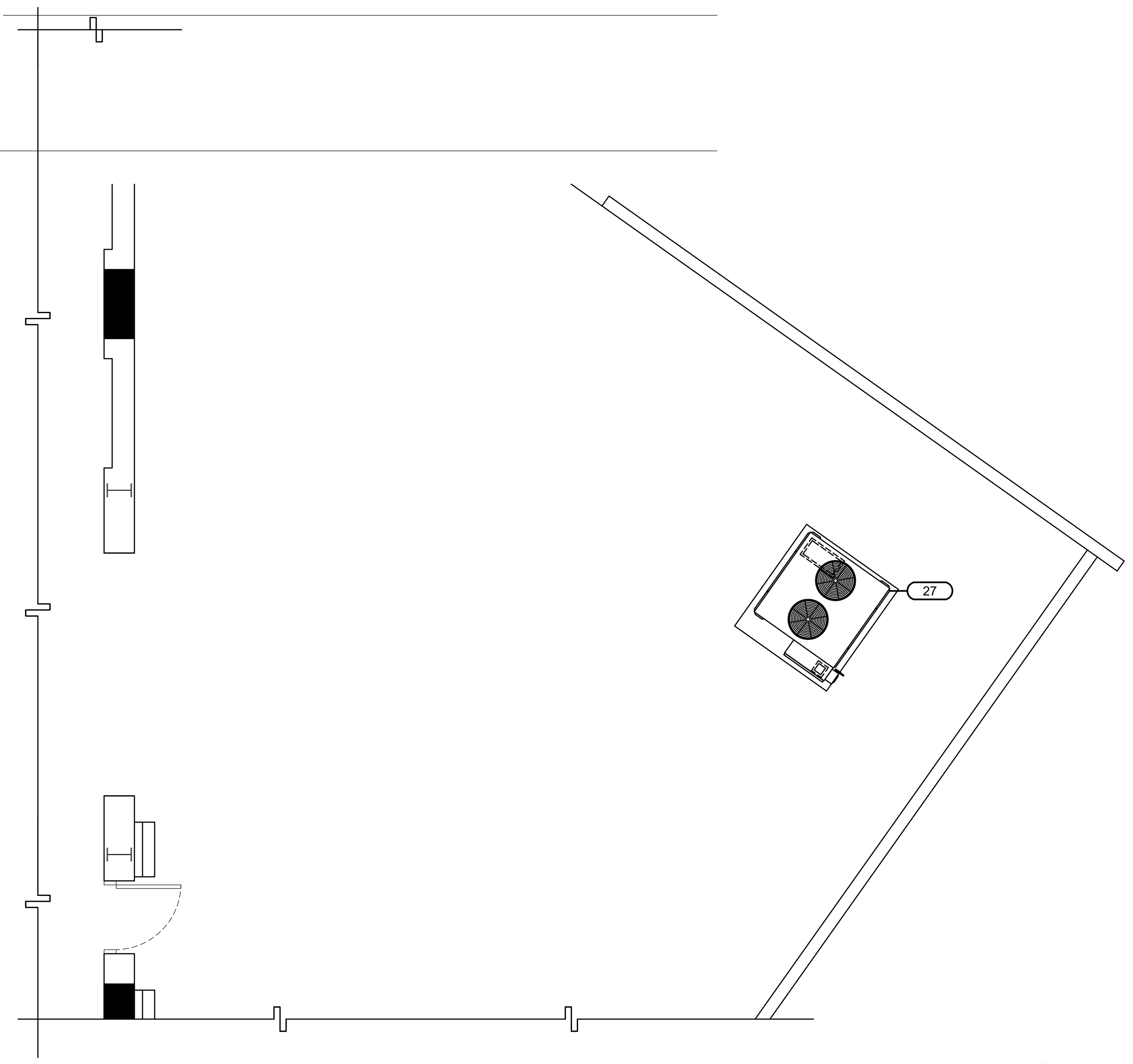
1. REFER TO ARCH. DRAWINGS FOR FIRE EXTINGUISHER LOCATIONS
2. "All work shall conform to the California Building Code, California Electrical Code, California Mechanical and Plumbing Codes, California Health and Safety Code. ALL FOOD SERVICES EQUIPMENT SHALL MEET AND BE INSTALLED PER THE REQUIREMENTS OF THE CALIFORNIA HEALTH AND SAFETY CODE DIVISION 22 AND ALL LOCAL CODES AND ORDINANCES."

NOTES:

1 THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM SHALL CONFORM TO THE REQUIREMENTS OF THE 2016 EDITION OF THE NFPA 17A. (UL 300 SYSTEM)
2 INSTALLATION OF THE FIRE SUPPRESSION SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED BY DEPT. OF STATE ARCHITECT.
3 UPON COMPLETION OF THE SYSTEM IT SHALL BE TESTED IN THE PRESENCE OF THE STATE FIRE MARSHAL.

FOODSERVICE DRAWING SHEET LIST

FS1.0 - FOODSERVICE FLOOR PLAN
FS2.0 - FOODSERVICE PLUMBING FLOOR PLAN
FS3.0 - FOODSERVICE ELECTRICAL FLOOR PLAN
FS4.0 - FOODSERVICE EQUIPMENT MECHANICAL FLOOR PLAN
FS5.1 - FOODSERVICE EQUIPMENT EXHAUST HOOD DETAILS
FS5.2 - FOODSERVICE EQUIPMENT EXHAUST HOOD DETAILS
FS5.3 - FOODSERVICE EQUIPMENT FIRE SYSTEM
FS6.0 - FOODSERVICE EQUIPMENT WALK-IN REFRIGERATOR /FREEZER DETAILS
FS7.0 - FOODSERVICE EQUIPMENT REMOTE REFRIGERATION DETAILS
FS7.1 - FOODSERVICE EQUIPMENT REMOTE REFRIGERATION DETAILS
FS8.1 - FOODSERVICE EQUIPMENT ANCHORAGE DETAILS
FS8.2 - FOODSERVICE EQUIPMENT ANCHORAGE DETAILS



FOODSERVICE ELECTRICAL PARTIAL ROOF PLAN

2 / FS1.0

SCALE : 1/4" = 1'-0"

HEALTH DEPARTMENT NOTES:

1. PROVIDE THERMOMETER IN ALL REFRIGERATION UNITS CONTAINING PERISHABLE FOODS.
2. PROVIDE PROBE THERMOMETER FOR CHECKING HOT AND COLD FOODS.
3. FOOD STORAGE SHELVES SHALL BE MINIMUM SIZE (6) INCHES ABOVE FLOOR.
4. ALL EQUIPMENT SHALL MEET OR BE EQUIVALENT TO "NSF" STANDARDS.
5. PROVIDE GARMENT STORAGE AREA: LOCKER, CABINET OR HANGERS FOR EMPLOYEE GARMENTS.
6. RODENT AND INSECT-PROOF ALL EXTERIOR DOORS AND WINDOWS. PROVIDE HEAVY-DUTY SELF-CLOSERS ON ALL EXTERIOR DOORS AND RESTROOM DOORS. SEAL ALL HOLES OR GAPS AROUND PIPES ENTERING BUILDING.
7. EXTERIOR DOORS SHALL BE RODENT PROOF WITH NO OPENINGS GREATER THAN 1/4 INCH.
8. PROVIDE HARDWOOD, METAL, FORMICA OR OTHER APPROVED MATERIALS, SMOOTH WITH SEALER ON ALL TABLE, COUNTERS, SHELVES, AND OTHER FOOD CONTACT SURFACES.
9. PROVIDE HAZARDOUS SUBSTANCE LOCATION: SEPARATE CABINET, ROOM OR DESIGNATED AREA FOR STORAGE OF PESTICIDE AND CLEANING COMPOUNDS.
10. INSTALL EQUIPMENT TO FACILITATE CLEANING. PLACE FLOOR MOUNTED UNITS ON CASTERS, MINIMUM SIX (6) INCHES HIGH ROUND, METAL LEGS, OR SEAL IN POSITION ON MINIMUM FOUR (4) INCH CURB.
11. UNPACKAGED PROCESSED FOODS ON DISPLAY SHALL BE EFFECTIVELY SHIELDED OR COVERED.
12. PROVIDE SOAP AND TOWEL DISPENSERS AT ALL HAND WASHING SINKS.
13. FLOOR SINKS SHALL BE INSTALLED FLUSH WITH FLOOR AND READILY ACCESSIBLE FOR CLEANING.
14. GREASE INTERCEPTORS SHALL BE INSTALLED READILY ACCESSIBLE FOR CLEANING.
15. PROVIDE PROTECTIVE COVERS ON ALL LIGHTS IN FOOD PREPARATION, OPENED FOOD STORAGE ROOM(S), UTENSIL WASH AREAS, OR USE SHATTERPROOF BULBS.
16. LIGHTING REQUIREMENTS:
    - -MINIMUM 50FT. CANDLES REQUIRED IN FOOD PREP AREA
    - -MINIMUM 20FT. CANDLES REQUIRED IN RESTROOMS AND BARS
    - -MINIMUM 10FT. CANDLES REQUIRED IN REFRIGERATORS
    - -MINIMUM 10FT. CANDLES REQUIRED IN STORAGE AREAS
    - -LIGHTING SHALL BE SHATTERPROOF OR SHIELDED
17. EXISTING FIXTURES, FINISHES, AND EQUIPMENT SHALL BE IN OPERABLE CONDITION AND SUBJECT TO FIELD APPROVAL.
18. WALLS & CEILING IN THE RESTROOMS, PREPARATION, STORAGE, AND JANITORIAL AREAS SHALL BE CONSTRUCTED OF APPROVED MATERIALS SO AS TO BE SMOOTH, WASHABLE, AND EASY TO CLEAN.

FLOOR LEGEND

SYMBOL/ABBREVIATION	DESCRIPTION	SYMBOL	DESCRIPTION
OFCI	OWNER FURNISH / CONTRACTOR INSTALLED	30" CLR. / 48" CLR.	ACCESSIBLE CLEARANCES AND SYMBOL 30"x48" MIN CLEARANCE
OFOI	OWNER FURNISH / OWNER INSTALLED		OUTLINE OF FOODSERVICE EQUIPMENT
FSEC	FOODSERVICE EQUIPMENT CONTRACTOR		FOODSERVICE EQUIPMENT BELOW EQUIPMENT TOP
VFVI	VENDER FURNISH / VENDER INSTALLED		FOODSERVICE EQUIPMENT ABOVE EQUIPMENT TOP
(E), EXIST	EXISTING FOODSERVICE EQUIPMENT		MOBILE FOODSERVICE EQUIPMENT
(F)	FUTURE FOODSERVICE EQUIPMENT	F.E."K"	F.E.C. (PROVIDE TYPE "K" AND 2A:10BC (MINIMUM)) FIRE EXTINGUISHER & CABINET REFER TO ARCH. DRAWINGS FOR FIRE EXTINGUISHER LOCATIONS
	BUILDING WALLS (SEE ARCH. DWGS.)	P	EMPTY OCTAGONAL BOX W/ CONDUIT TO +2" ABOVE CEILING BY E.C
	WALK-IN COOLER/ FREEZER INSULATED WALLS	FS.01	SHEET NUMBER
1 / 1	KEY / SHEET NOTE	W.H.	WATER HEATER (SEE PLUMBING ENG. DWG.)
1	ITEM NUMBER SYMBOL (SEE EQUIPMENT SCHEDULE FOR DESCRIPTION)	A FS0.1 B	ELEVATION INDICATOR SYMBOL
KITCHEN 1	ROOM/ AREA NAME AND ROOM NUMBER		
C	COLUMN GRIDS WITH COLUMN INDICATORS		
48(#)18	STORAGE SHELVING SIZES (Width x Length)		

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NO.	REMARKS	DATE

	DATE
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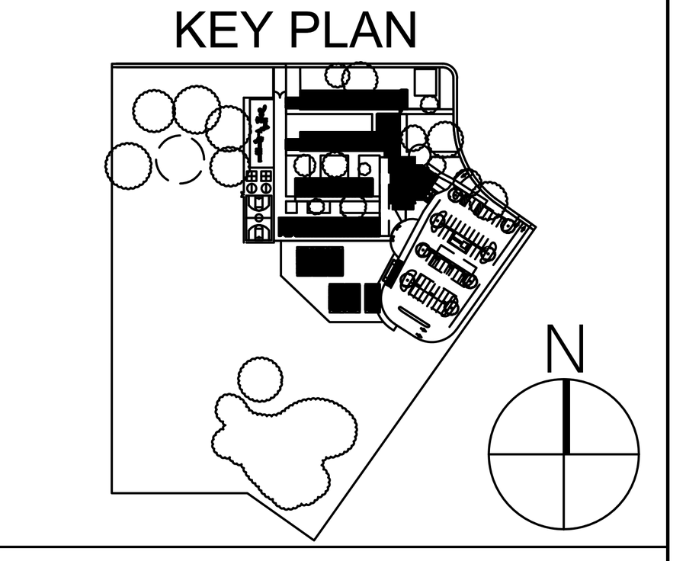
KEY PLAN



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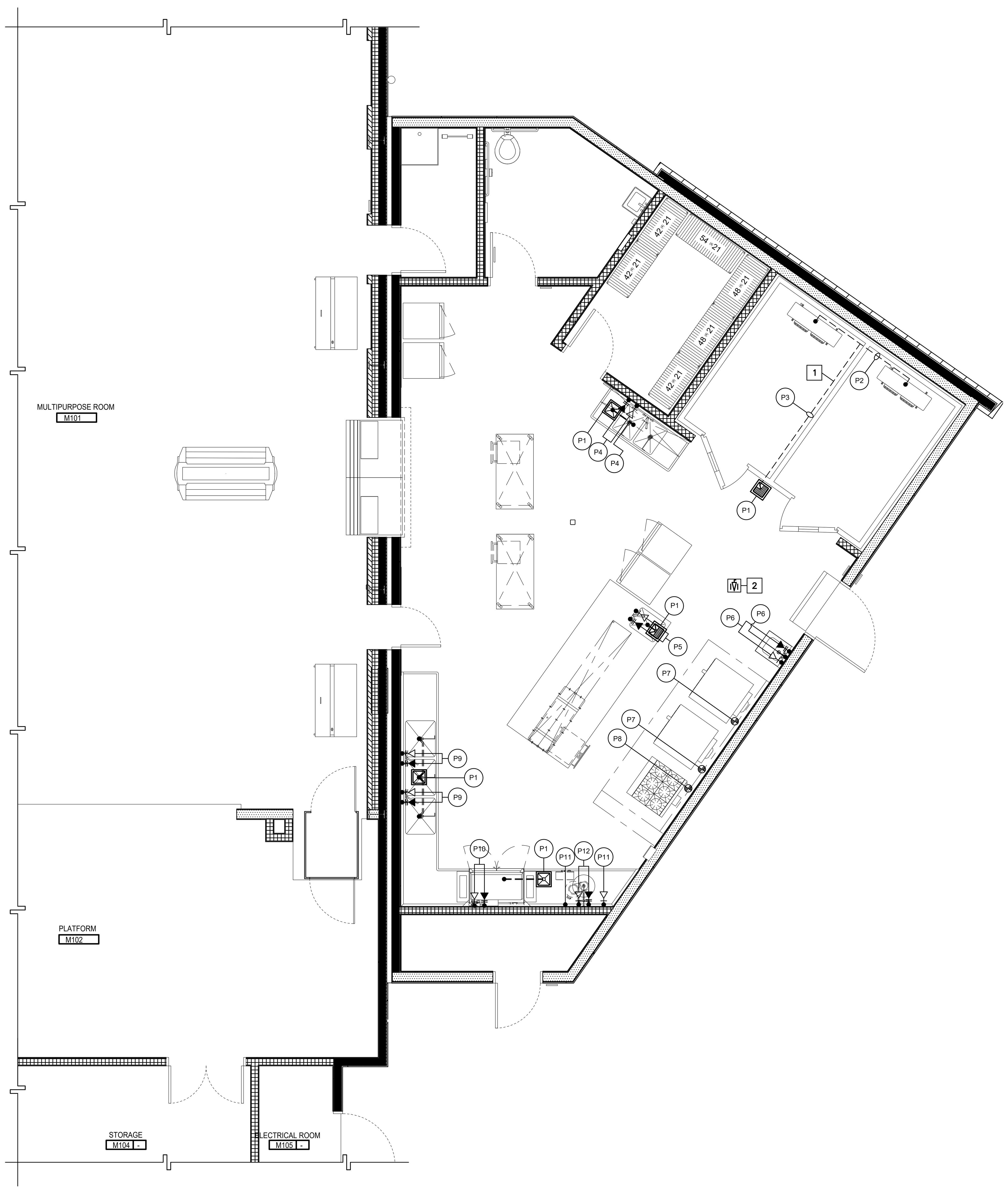
FOODSERVICE FLOOR PLAN

Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number FS1.0



FOODSERVICE EQUIPMENT PLUMBING FLOOR PLAN

SCALE : 1/4" = 1'-0"

1 / FS2.0

PLUMBING SCHEDULE

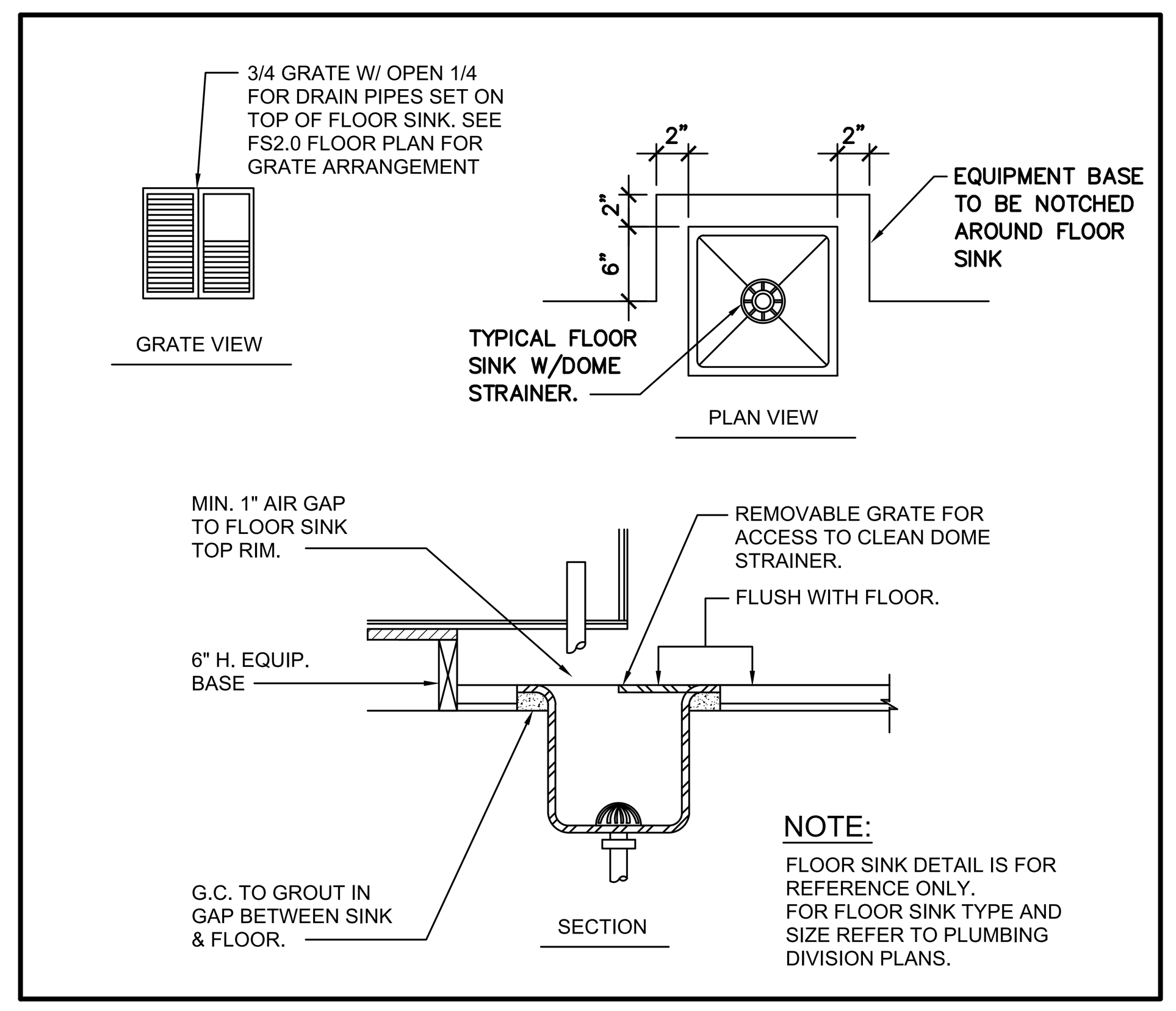
PLUM. NO.	ITEM. NO.	DESCRIPTION	QTY.	WATER CONN. SIZE C.W.	WATER CONN. SIZE H.W.	WATER HGT.@ WALL	WASTE CONN. SIZE DIR.	WASTE CONN. SIZE INDIR.	WASTE HGT.@ WALL	GAS BTU/HR (x1,000)	GAS CONN. SIZE	GAS HGT. @ WALL	REMARKS	NOTE(S)
P1	-	FLOOR SINK	6EA.	-	-	-	-	-	+0"	-	-	-	INSTALL FLUSH WITH FINISH FLOOR, PROVIDE GRATE COVER & DOME STRAINER, SIZE 12" X 12" X 8" (REFER TO 2&3/FS2.0)	
P2	2	WALK-IN FREEZER CONN. DRAIN FROM COIL CONN. + 70"	1EA.	-	-	-	-	1"	-	-	-	-	1" INDIRECT DRAIN TO F.S. P1. SLOPE 1/2" PER FOOT. PROVIDE 1" MIN AIR GAP AT F.S. WITH 'P' TRAP.	
P3	3	WALK-IN REFRIGERATOR CONN. DRAIN FROM COIL CONN. + 70"	1EA.	-	-	-	-	1"	-	-	-	-	1" INDIRECT DRAIN TO F.S. P1. SLOPE 1/2" PER FOOT. PROVIDE 1" MIN AIR GAP AT F.S. WITH 'P' TRAP.	
P4	4	PREP SINK FAUCET W/ 1/2" INLET 8" CENTER	1EA.	1/2"	1/2"	16"	-	2"	-	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. PROVIDE 2" INDIRECT DRAIN TO F.S. P1. (CHROME OR PAINT SILVER)	
P5	8.1	CHEFS SINK FAUCET W/ 1/2" INLET 8" CENTER	1EA.	1/2"	1/2"	16"	-	2"	-	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. PROVIDE 2" INDIRECT DRAIN TO F.S. P1.	
P6	11	WALL MOUNTED HAND SINK FAUCET W/ 1/2" INLET 4" CENTER	2EA.	1/2"	1/2"	18"	1 1/2"	-	24"	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. RUN DIRECT WASTE WITH P-TRAP.	
P7	13	DOUBLE STACK CONVECTION OVEN	2EA.	-	-	-	-	-	-	120	3/4"	12"	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. OVEN TO BE FURNISHED WITH MANIFOLD TOP DECK TO BOTTOM DECK	
P8	14	OPEN BURNER RANGE W/ OVEN	1EA.	-	-	-	-	-	-	194	3/4"	+29"	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. NATURAL GAS PRESSURE REGULATOR PROVIDED BY MFG.	
P9	17	POTWASH SINK FAUCET W/ 3/4" INLET 8" CENTER	2EA.	3/4"	3/4"	16"	-	2"	-	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. PROVIDE 2" INDIRECT DRAIN TO F.S. P1. (CHROME OR PAINT SILVER)	
P10	19	HIGH TEMP WAREWASHER BUILT-IN BOOSTER	1EA.	1/2"	1/2"	12"	-	2"	-	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION. PROVIDE 1 1/2" INDIRECT DRAIN TO F.S. P1.	1 2 3
P11	21	DISPOSER	1EA.	1/2"	-	16"	2"	-	10"	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.	
P12	21	PRE-RINSE FAUCET, SPLASH MOUNT FAUCET W/ 1/2" INLET 8" CENTER	1EA.	1/2"	1/2"	16"	-	-	-	-	-	-	PROVIDE S.O.V., RUN PIPING TO UNIT CONNECTION.	
P13														
P14														
P15														
P16														
P17														

PLUMBING KEY NOTE(S):

1. 110 DEGREE (F) MIN. WATER INLET HOT WATER SANITIZING 126 GPH.
2. WATER HAMMER ARRESTOR (MEETING ASSE-1010 STANDARD) BY PLUMBER IN SUPPLY LINE.
3. WATER PRESSURE 15-25 PSI- IF HIGHER, FURNISH PRESSURE REGULATOR VALVE WITH INTERNAL THERMAL EXPANSION BYPASS BY PLUMBER.
4. OVEN TO BE FURNISHED WITH THE UPPER AND LOWER OVEN WITH A GAS MANIFOLD
5. VERIFY REQUIREMENTS WITH EXISTING EQUIPMENT

FIRE SYSTEM NOTE:

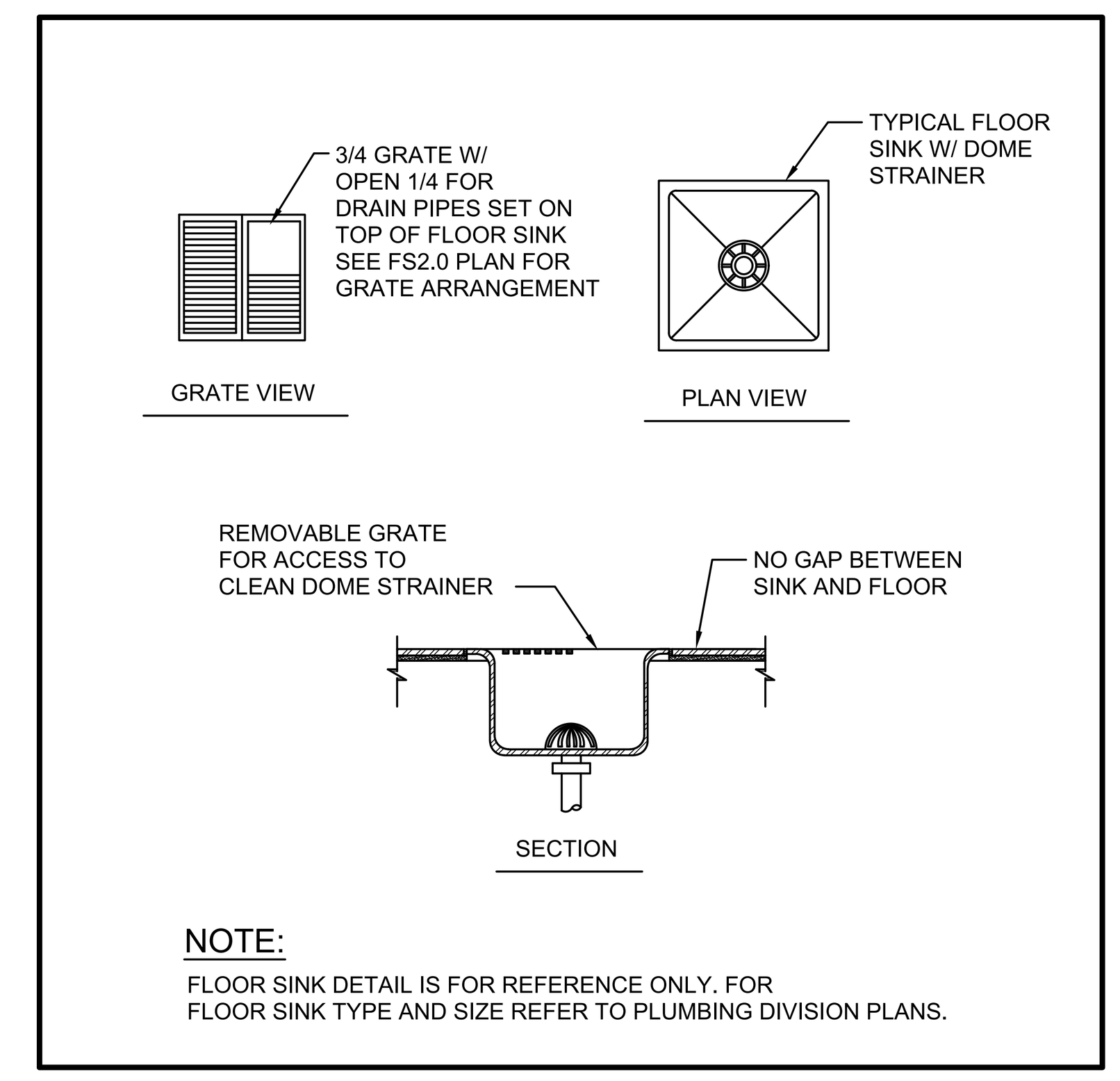
1. FURNISH AUTOMATIC GAS SHUT-OFF VALVE INCLUDING ANY NECESSARY ACCESS PANEL. CONTRACTOR SHALL INSTALL THE AUTOMATIC SHUT-OFF VALVE IN AN ACCESSIBLE LOCATION. REFER TO PLUMBING DRAWINGS FOR GAS VALVE LOCATION.



FLUSH FLOOR SINK DETAIL

SCALE : NONE LOCATED UNDER WORK CABINETS

3 / FS2.0



FLUSH FLOOR SINK DETAIL

SCALE : NONE

2 / FS2.0

PLUMBING NOTES

(MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE)

1. – PLUMBING CONTRACTOR TO VERIFY ALL INCOMING SERVICE AND MAKE FINAL HOOK–UPS TO ALL APPLICABLE EQUIPMENT AND TO PROVIDE ALL PIPING, TEES, ELLS, TRAPS, FILTERS, REGULATORS, FAUCETS, ETC., UNLESS SPECIFICALLY STATED OTHERWISE.
2. – ALL HORIZONTAL DIMENSIONS SHOWN ON PLAN ARE FROM FINISHED FACE OF WALL TO CENTERLINE OF STUB–OUT OR FROM CENTERLINE OF STUB–OUT TO CENTERLINE OF STUB–OUT, UNLESS NOTED OTHERWISE ON PLAN OR DETAILS. (VERIFY ALL DIMENSIONS)
3. – SYMBOLS NOTED +24", +48", ETC., INDICATES TO STUB–OUT OF WALL AT HEIGHT INDICATED. HEIGHT IS GIVEN FROM FINISHED FLOOR (NOT FINISHED CURB) TO CENTERLINE OF STUB–OUT. SYMBOLS INDICATED "STUB–UP" AND "STUB–DOWN" ARE TO EXTEND ABOVE FINISHED FLOOR AND/OR BELOW FINISHED CEILING AT LOCATION SHOWN.
4. – PLUMBING STUBS AND CONNECTIONS SHOWN ON PLANS ARE FOR EQUIPMENT FURNISHED BY THE FOOD SERVICE EQUIPMENT CONTRACTOR.
5. – FLOOR SINKS SHOWN ARE TO BE SET FLUSHED WITH TOP OF FINISHED FLOOR. FLOOR SINKS INDICATED HALF–IN AND HALF–OUT OF EQUIPMENT TO BE SET FLUSHED WITH TOP OF FINISHED FLOOR. FLOOR SINKS LOCATED COMPLETELY WITHIN EQUIPMENT AREA TO BE SET FLUSHED WITH TOP OF FINISHED FLOOR.
6. – PLUMBING CONTRACTOR TO PROVIDE AND INSTALL REMOVABLE COVERS OR GRATES FOR ALL FULLY OR PARTIALLY EXPOSED FLOOR SINKS. GRATES TO HAVE 1/2" MAX OPEN'GS WHERE DRAIN IS EXPOSED TO P.O.T OR TO PEDESTRIAN WAYS TYP.
7. – PLUMBING CONTRACTOR SHALL SEAL ALL PLUMBING PENETRATIONS THROUGH WALLS, FLOORS, AND CEILINGS. WATERTIGHT AND VERMIN–PROOF.
8. – PLUMBING CONTRACTOR TO PROVIDE AND INSTALL SHUT–OFF VALVES ON ALL WATER AND GAS LINES, INCLUDING VALVES IN FIXTURES, LOCATED IN SUCH A WAY AS TO BE ACCESSIBLE WITHOUT USE OF TOOLS.
9. – PLUMBING CONTRACTOR TO PROVIDE AND INSTALL FOR ALL APPLICABLE EQUIPMENT, A TRAPPED FLOOR SINK WITH A LEGAL AIR GAP DRAIN LINE (INDIRECT WASTE) TO FLOOR SINK. INSULATE ALL DRAIN LINES FROM ICE BINS, ICE MACHINES, REFRIG. EQUIP., ETC..

PLUMBING LEGEND

ABREVIATION	DESCRIPTION	SYMBOL	DESCRIPTION
C.W.	COLD WATER	P1	PLUMBING SCHEDULE REFERENCE, REFER TO FS2.0 FOR SCHEDULE
H.W.	HOT WATER	1 1	KEY/SHEET NOTE
DIR.	WASTE (DIRECT CONNECTION)		COLD WATER INLET
INDIR.	INDIRECT WASTE (AIR GAP)		HOT WATER INLET
LAV.	LAVATORY		SHUT OFF VALVE (S.O.V.)
W.C.	WATER CLOSET		COLD WATER SHUT OFF VALVE
F.S.	FLOOR SINK		GAS SHUT-OFF VALVE
P.C.	PLUMBING CONTRACTOR		FLOOR SINK
G.C.	GENERAL CONTRACTOR		FLOOR DRAIN
F.S.E.C.	KITCHEN EQUIPMENT CONTRACTOR		WASTE DOWN
S.O.V.	SHUT OFF VALVE		GAS INLET
GPH	GALLONS PER HOUR		WALK-IN DRAIN LINE
PSI	POUNDS PER SQUARE INCH		I.D. DRAIN LINE
(F)	DEGREES FAHRENHEIT		
CONN.	CONNECT		
LOC.	LOCATE		

PLUMBING SHEET NOTES

1. CONDENSATE DRAINS FROM COILS TO BE FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR F.S.E.C PROVIDE HEAT TRACE W/ INSULATION FROM COIL TO DRAIN (FREEZER) REFER E/FS7.1
2. GAS SHUT-OFF VALVE FOR ANSUL SYSTEM WITH ACCESS DOOR.

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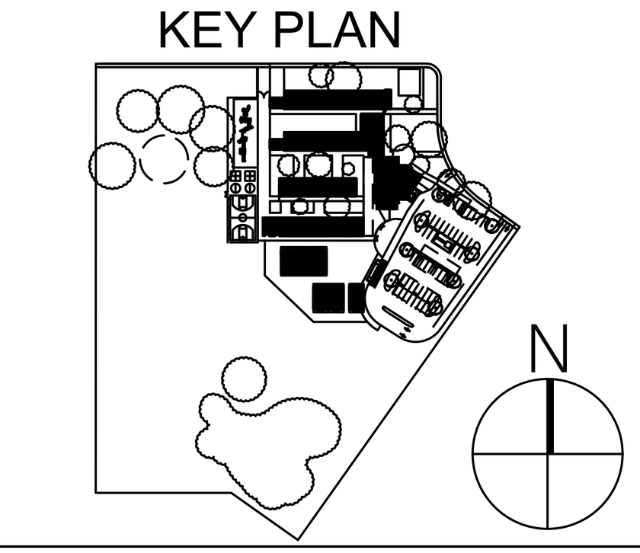

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FOODSERVICE PLUMBING FLOOR PLAN

Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number FS2.0

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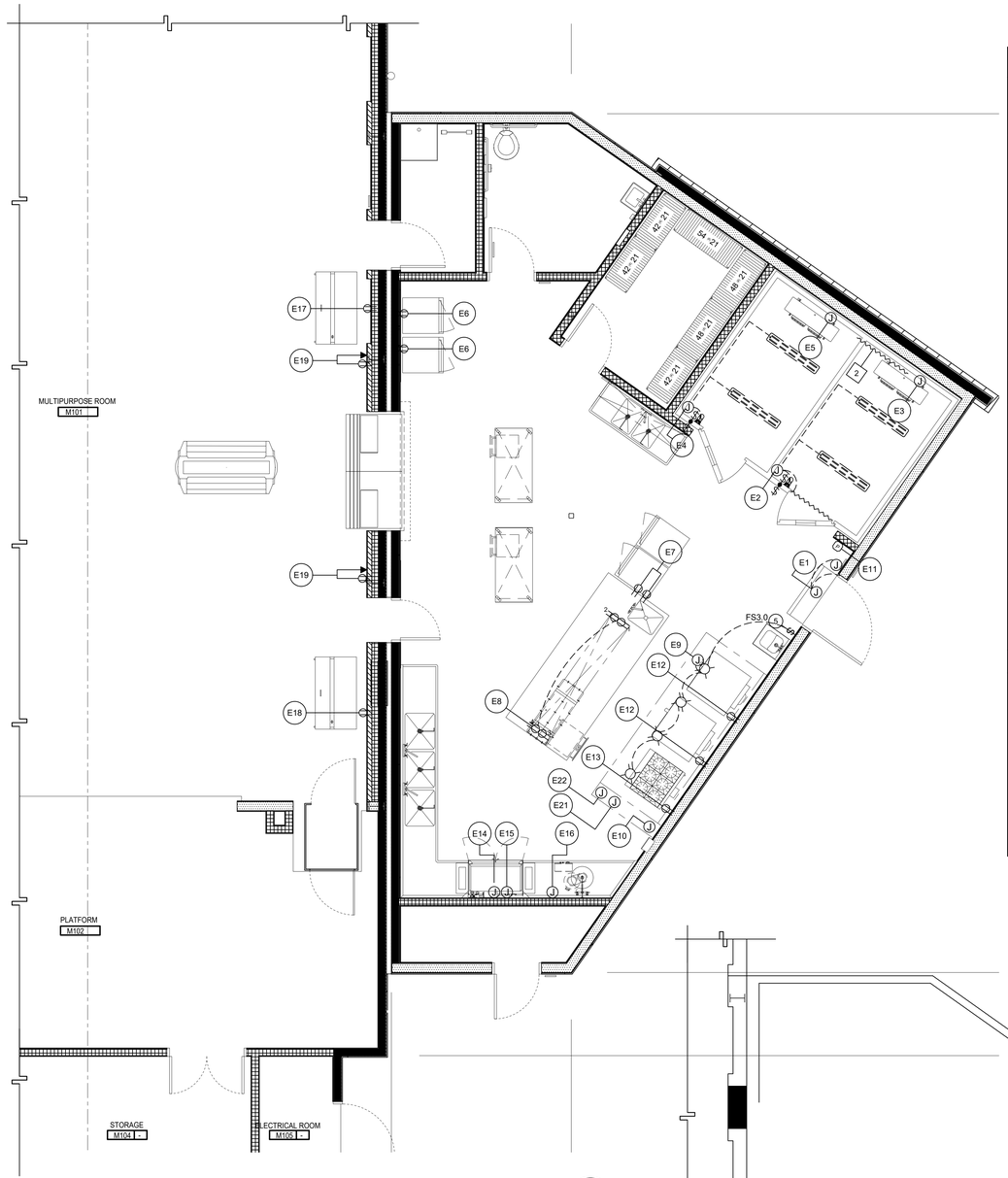
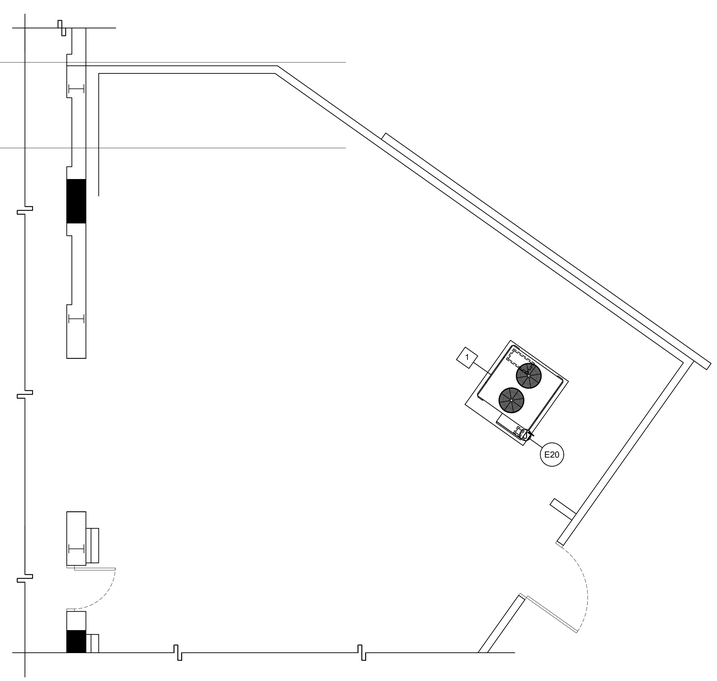


FOODSERVICE EQUIPMENT ELECTRICAL FLOOR PLAN

1 / FS3.0

SCALE : 1/4" = 1'-0"



FOODSERVICE ELECTRICAL PARTIAL ROOF PLAN

2 / FS3.0

SCALE : 1/4" = 1'-0"

ELECTRICAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ROUGH-INS, FINAL CONNECTIONS AND INTER- CONNECTIONS TO THE FOOD SERVICE EQUIPMENT
2. CONNECTIONS SHOWN ARE FOR THE FOOD SERVICE EQUIPMENT ONLY. REFER TO ELECTRICAL DRAWINGS FOR CONVENIENCE OUTLETS AND ADDITIONAL REQUIREMENTS.
3. RECEPTACLES SHALL BE MOUNTED VERTICALLY.
4. RECEPTACLES, JUNCTION/HANDY BOXES INDICATED AT WALLS SHALL BE CONCEALED IN THE WALL AT THE HEIGHT INDICATED.
5. VERTICAL DIMENSIONS ARE GIVEN FROM FINISHED FLOOR TO CENTER LINE OF ROUGH-IN LOCATION.
6. UTILITIES WHEREVER POSSIBLE SHALL BE BROUGHT IN FROM ABOVE,
7. VERIFY THE UTILITY REQUIREMENTS OF OWNER FURNISHED AND/OR EXISTING EQUIPMENT.
8. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND/OR INSTALL ALL JUNCTION/HANDY BOXES, EXTENSION RINGS, DISCONNECT SWITCHES AS SHOWN, CONVENIENCE OUTLETS WITH STAINLESS STEEL COVERS, SWITCHES, CONNECTORS, CONTROLS AND OTHER ACCESSORIES THAT ARE NOT AN INTEGRAL PART OF THE FOOD SERVICE EQUIPMENT AS REQUIRED TO MAKE FINAL CONNECTIONS TO THE EQUIPMENT FOR A COMPLETE AND OPERABLE OPERATION MEETING ALL APPLICABLE CODES AND ORDINANCES.
9. JUNCTION/HANDY BOXES, CONVENIENCE OUTLETS AND SPECIAL PURPOSE OUTLETS SHOWN IN FABRICATED WORK TABLES AND COUNTERS SHALL BE FURNISHED BY FABRICATOR. ELECTRICAL CONTRACTOR TO PROVIDE ALL WIRING & RECEPTACLES.

ELECTRICAL SCHEDULE

ELEC. NO.	ITEM NO.	DESCRIPTION	QTY.	VOLT.	PH	DIRECT	PLUG	NEMA	LOAD WATT	LOAD AMPS DRAW	LOAD HP	OUTLET HEIGHT	REMARKS	NOTE(S)
E1	1	AIR CURTAIN	1EA.	120	1	X	-	-	-	9.0	1/2	+86	PROVIDE J-BOX IN WALL INSTALL DOOR LIMIT SWITCH FOR INSTANT ON/OFF SWITCH BY F.S.E.C SEE DETAIL K/FS8.0	
E2	2	WALK-IN FREEZER (BOX)	1EA.	120	1	X	-	-	-	5.0	-	+88"	(2) 39W LED CLG. MT'D. LIGHT FIXTURES (1) 11.5W LED LIGHT FIXTURE AT DOOR. 250W DOOR HEATER, 20W P.R.P, 100W WINDOW HEATER EC. TO PROVIDE ALL INTERCONNECTIONS.	(6)
E3	2	WALK-IN FREEZER (COIL)	1EA.	208	1	X	-	-	-	12.8	-	+74"	CONNECT TO UNIT ELECTRICAL CONNECTION AT COIL INSIDE WALK-IN FREEZER. SEE DETAIL I/F7.0	(1)
E4	3	WALK-IN REFRIGERATOR (BOX)	1EA.	120	1	X	-	-	-	2.0	-	+88"	(2) 39W LED CLG. MT'D. LIGHT FIXTURES (1) 11.5W LED LIGHT FIXTURE AT DOOR. CONTRACTOR TO PROVIDE ALL INTERCONNECTIONS.	(6)
E5	3	WALK-IN REFRIGERATOR (COIL)	1EA.	120	1	X	-	-	-	1.8	-	+74"	CONNECT TO UNIT ELECTRICAL CONNECTION AT COIL INSIDE WALK-IN REFRIGERATOR. SEE DETAIL I/F7.0	
E6	5	MOBILE WARMING & HOLDING CABINET	2EA.	120	1	-	X	5-15P	-	12.0	-	+48"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET	
E7	5	MOBILE WARMING & HOLDING CABINET	2EA.	120	1	-	X	5-15P	-	12.0	-	+48"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET	
E8	8	CHEFS COUNTER	4EA.	120	1	X	-	-	-	15EA.	-	+34"	PROVIDE DOUBLE FACED PEDISTAL DUPLEX RECEPTACLE MT'D. ON COUNTER TOP (COMPONENT HARDWARE NO. RS8-1020)(R71-07Z1) (TOTAL OF 4 DCO OUTLETS)	
E9	12	EXHAUST HOOD AND S/S WALL LINING (HOOD LIGHTS)	1EA.	120	1	X	-	-	400	-	-	+104"	PROVIDE J-BOX ABOVE EXHAUST HOOD CONNECT TO J-BOX FOR FACTORY WIRED LIGHTS. PROVIDE CONNECTION BETWEEN HOOD SECTIONS	(2) (4) (5)
E10	12.1	FIRE SYSTEM AT ANSUL CONTROL AUTOMAN PANEL	1EA.	120	1	X	-	-	-	20	-	+104"	120V/1-20AMP @ ANSUL CONTROL	(4) (3)
E11	12.1	FIRE SYSTEM (REMOTE PULL STATION)	1EA.	-	-	X	-	-	-	-	-	+48"	EMPTY FLUSH MT'D. OCTAGONAL BOX (REMOTE PULL) SEE DETAIL 2&3/F5.3	
E12	13	DOUBLE STACK CONVECTION OVEN	4EA.	120	1	-	X	5-15P	-	6.0	-	+20" / +51"	PROVIDE DUPLEX RECEPTACLE IN WALL FLUSH FACE WITH S/S WALL LINING UNIT PROVIDED WITH CORD AND PLUG SET	(4)
E13	14	OPEN BURNER RANGE WITH OVEN	1EA.	120	1	-	X	5-15P	-	0.1	-	+20"	PROVIDE DUPLEX RECEPTACLE IN WALL FLUSH FACE WITH S/S WALL LINING UNIT PROVIDED WITH CORD AND PLUG SET	(4)
E14	19	HIGH TEMP WAREWASHER (TANK HEAT/MOTORS)	1EA.	208	3	X	-	-	-	55.0	-	+63"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION	
E15	19	HIGH TEMP WAREWASHER (30 KW BOOSTER HEATER)	1EA.	208	3	X	-	-	-	83.9	-	63"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION	
E16	21	DISPOSER	1EA.	208	3	X	-	-	-	6.6	-	+24"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION	
E17	23	MILK COOLER	2EA.	120	1	-	X	5-15P	-	8.2	-	+18"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET	
E18	24	MILK COOLER	2EA.	120	1	-	X	5-15P	-	8.2	-	+18"	PROVIDE DUPLEX RECEPTACLE IN WALL UNIT PROVIDED WITH CORD AND PLUG SET	
E19		CASHIER STATION (DATA) AND (POWER) VERIFY W/ DISTRICT FURNISHED POS UNIT	2EA.	120	1	-	X	-	-	20	-	+4"	PROVIDE (2) DATA PLUGS AND (2) ELECTRICAL OUTLETS (VERIFY W/ DISTRICT POS REQ.)	
E20	27	REMOTE REFRIGERATION UNIT (ROOF MOUNTED)	1EA.	208	3	X	-	-	-	23.9	-	+18"	PROVIDE J-BOX CONNECT TO UNIT ELECTRICAL CONNECTION REFER FS7.0 UNIT TO BE LOCATED ON ROOF.	
E21	12	EXHAUST HOOD DVC-1111 EXHAUST FAN POWER	1EA.	208	3	X	-	-	-	10.2	-	+88"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION SEE DETAIL 1/F5.2	
E22	12	EXHAUST HOOD DVC-1111 SUPPLY FAN POWER	1EA.	208	3	X	-	-	-	6.1	-	+88"	PROVIDE J-BOX IN WALL CONNECT TO UNIT ELECTRICAL CONNECTION SEE DETAIL 1/F5.2	

WALK-IN REFRIGERATION ELECTRICAL (MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE)

1. - THE ELECTRICAL CONTRACTOR SHALL INSTALL AND INTER WIRE LIGHT SWITCHES AND FIXTURES REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND MAKE FINAL CONNECTIONS.
2. - THE FOOD SERVICE EQUIPMENT CONTRACTOR SHALL INSTALL THE PRESSURE RELIEF PORT, DOOR HEATERS, DRAIN LINE HEATERS AND TEMPERATURE ALARM SYSTEM. INTER WIRING AND FINAL CONNECTIONS BY THE ELECTRICAL CONTRACTOR.
3. - THE ELECTRICAL CONTRACTOR SHALL INTER WIRE THE TIME CLOCK ON THE CONDENSING UNIT TO THE DEFROST RELAY ON THE UNIT EVAPORATOR LOCATED IN THE FREEZER COMPARTMENT.
4. - THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUIT AND WIRING NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM WITH ALL CONDUIT IN SO FAR AS POSSIBLE MOUNTED ON THE EXTERIOR CEILING OF THE WALK-IN ASSEMBLY. PENETRATIONS AND ESCUTCHEON PLATES SHALL BE FURNISHED AND INSTALLED BY THE FOOD SERVICE CONTRACTOR. FOOD SERVICE EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR SEALING THE INSIDE OF CONDUITS WHICH PENETRATE THE CEILING OR WALL.

ELECTRICAL KEYNOTES:

1. DRAIN LINE HEATER CONNECTED TO COIL. F.S.E.C TO PROVIDE AND CONNECT TO COIL
2. 120V/1 PHASE FOR LIGHTS TO ONE PRE-WIRED CONN. POINT ON HOOD FOR LIGHTS PRE-WIRED BY FACTORY. WALL SWITCH AND WIRING TO HOOD BY E.C.
3. ELECTRICAL CONTRACTOR TO PROVIDE EMPTY FLUSH MT'D. OCTAGONAL BOX @ +48" AFF. W/ EMPTY CONDUIT TO +2" ABOVE CEILING.
4. ELECTRICAL CONTRACTOR TO PROVIDE INTERLOCK WIRING FROM FIRE PROTECTION SYSTEMS TO ELEC. SHUNT TRIP BREAKERS.
5. E.C TO PROVIDE WALL SWITCH AND POWER TO EXHAUST FAN. M.C. TO PROVIDE INTERCONNECTION TO ALL FANS FOR HOODS.
6. INTERCONNECT TEMP ALARM WITH MECHANICAL ALARM SYSTEM REFER TO MECHANICAL (VERIFY WITH DISTRICT)

ELECTRICAL PLAN LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	(J)	JUNCTION BOX
CLG.	CEILING	▲	DATA OUTLET
CONN.	CONNECT	(P)	EMPTY OCTAGONAL BOX W/ CONDUIT TO +2" ABOVE CEILING BY E.C
E.C.	ELECTRICAL CONTRACTOR		VAPOR-PROOF LIGHT FIXTURE AT EXHAUST HOOD (PROVIDED BY F.S.E.C. INSTALLED BY E.C.)
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR	(J)	STUBBED-UP JUNCTION BOX
G.C.	GENERAL CONTRACTOR		STUBBED-UP CONVENIENCE OUTLET
P.R.P.	PRESSURE RELIEF PORT		STUBBED-UP SIMPLEX OUTLET
S.F.	STAINLESS STEEL FABRICATOR	▲	STUBBED-UP DATA OUTLET
M.C.	MECHANICAL CONTRACTOR	$	WALL MOUNTED SWITCH BY E.C
LOC.	LOCATE		VAPOR-PROOF FLUORESCENT FIXTURE PROVIDED BY F.S.E.C. INSTALLED BY E.C.)
E1	ELECTRICAL SCHEDULE REFERENCE, REFER TO FS3.0 FOR SCHEDULE		VAPOR-PROOF LIGHT FIXTURE AT WALK-IN PROVIDED BY F.S.E.C. INSTALLED BY E.C.)
1 1	SHEET AND/OR KEY NOTE		
	DUPLEX CONVENIENCE OUTLET 115V/1Ø UNLESS OTHERWISE NOTED		
	SIMPLEX OUTLET SEE SCHEDULE FOR VOLTAGE		
	CEILING MOUNTED, VAPOR-PROOF LIGHT FIXTURE W/ JUNCTION BOX, 115V/1Ø UNLESS OTHERWISE NOTED (WALK-IN REFRIGERATOR)		

ELECTRICAL SHEET NOTES

1. REMOTE REFRIGERATION RACK SYSTEM ITEM NO. 27 REFER TO FS7.0 FOR DETAILS LOCATED ON BUILDING ROOF
2. ELECTRIC HEAT TRACE SPIRALED TAPED AND INSULATED CONNECTED AT COIL BY F.S.E.C REFER D/FS7.1

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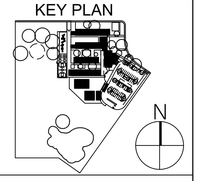
( ) CONSTRUCTION	

KEY PLAN



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FOODSERVICE ELECTRICAL FLOOR PLAN

Date 05/20/19

Scale AS NOTED

Project Number 19003.1

Drawing Number FS3.0

QC	
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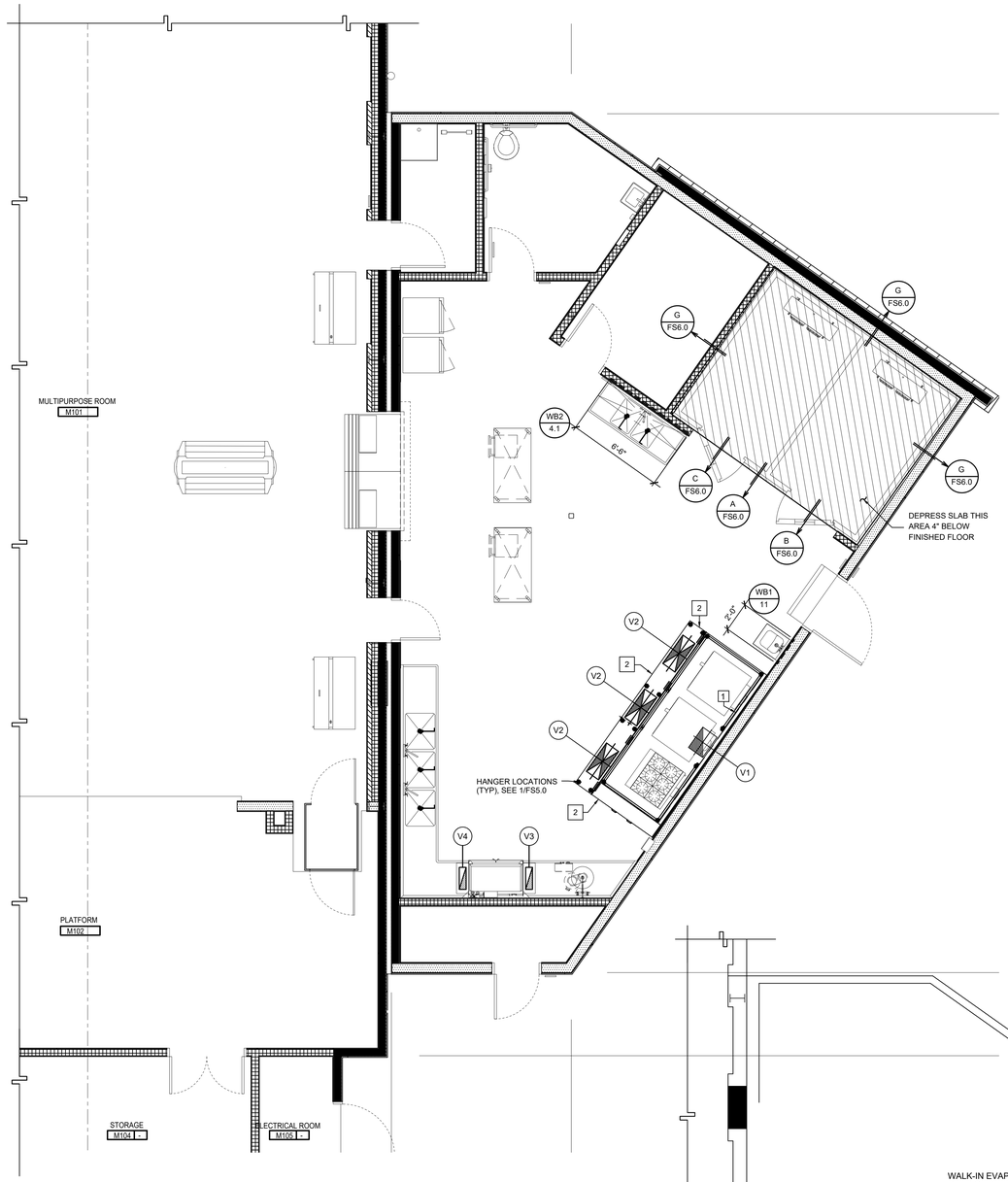
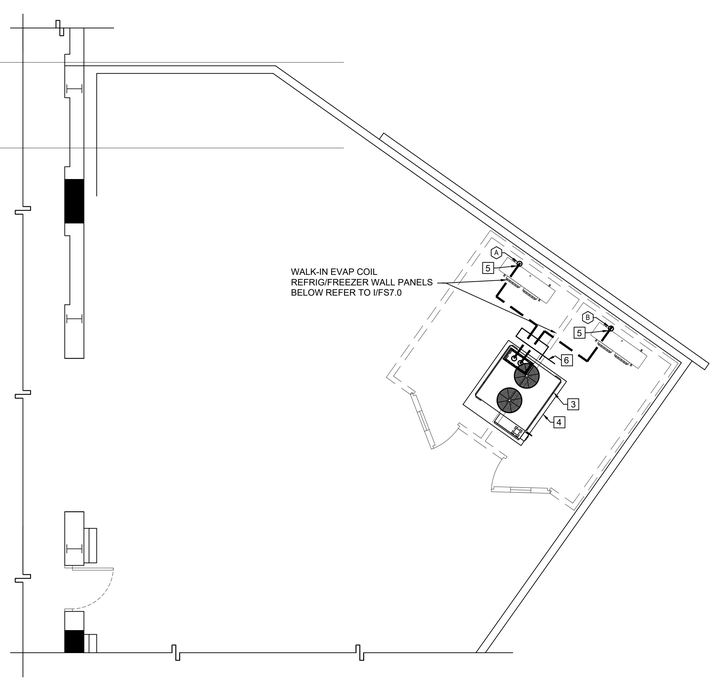


FOODSERVICE EQUIPMENT MECHANICAL FLOOR PLAN

SCALE : 1/4" = 1'-0"

1 FS4.0



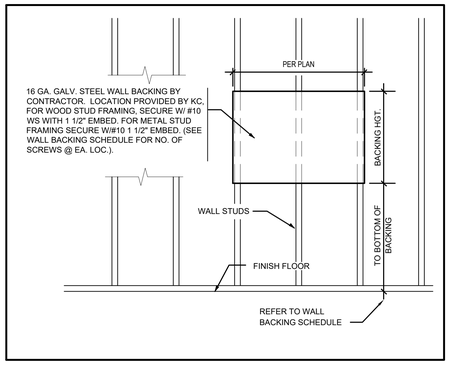
FOODSERVICE REFRIGERATION FLOOR PLAN

SCALE : 1/4" = 1'-0"

2 FS4.0

VENTILATING REQUIREMENTS

VENT. NO.	ITEM NO.	DESCRIPTION	ITEM QTY.	RISER SIZE ROUND	RISER SIZE WIDTH	RISER SIZE LENG.	CFM	S.P.-WC"	OUTLET HEIGHT	REMARKS
V1	12	EXHAUST DUCT DUCT CONN. PER MECHANICAL DIVISION	1EA.	-	14"	20"	2960	-0.821"	+108"	CONTRACTOR TO MAKE DUCT CONNECTION AT HOOD COLLAR REFER TO 1/FS5.0 FOR EXHAUST HOOD DETAILS
V2	12	SUPPLY DUCT EXHAUST HOOD (ITEM 12)	3EA.	-	12"	28"	819	0.249"	+108"	
					12"	28"	819	0.249"	+108"	
					12"	28"	819	0.249"	+108"	
V3	19	WAREWASHER LOAD END MIN CFM	1EA.	-	4"	16"	200	-	+68"	
V4	19	WAREWASHER UNLOAD END MIN CFM	1EA.	-	4"	16"	400	-	+68"	



WALL BACKING DETAIL

SCALE : NONE

3 FS4.0

WALL BACKING NOTES

1. - WALL BACKING TO BE 16 GAUGE GALV. STEEL IN LENGTH AND HEIGHT AS SHOWN ON DRAWINGS.
2. - ALL WALL BACKING TO BE IN FURNISHED AND INSTALLED BY CONTRACTOR
3. - FOOD SERVICE EQUIPMENT CONTRACTOR IS TO FURNISH CONTRACTOR WITH DETAILED DRAWINGS SHOWING ALL WALL BACKING LOCATION AND SIZE.
4. - WALL BACKING AS SHOWN IS MINIMUM, EXTEND BACKING TO NEXT STUD EACH DIRECTION AS NECESSARY

WALL BACKING SCHEDULE

	APPLICATION	BOTTOM OF BACKING	BACKING HGT.	FASTENERS PER STUD	ANCHORAGE DETAIL
WB1 ITEM	HAND SINK	+12" AFF	24" HIGH	4	C/FS8.2
WB2 ITEM	WALL SHELF	+48" AFF	12" HIGH	4	G/FS8.1
WB3 ITEM	DRY STO. SHELVING	+57"AFF	12" HIGH	2	D/FS8.2
WB4 ITEM	COLD STO. SHELVING	+16"AFF / +57"AFF	12" HIGH	2 PER POST BRACKET	E/FS8.2

NOTES:

1. BACKING TO BE 16 GA. G.I. or C.R.S.
2. REFER TO 1/FS4.0 FOR WALL BACKING LOCATIONS
3. DRY STO. SHELVING, FASTEN SHELVING TO BACKING WITH #14 SMS.
4. COLD STO. SHELVING, 18GA G.I. STRAP FOAMED IN WALL BY MANUFACTURER. FASTEN SHELVING TO STRAP WITH #14 SMS.

MECHANICAL & REFRIGERATION LEGEND

ABREV/SYMBOL	DESCRIPTION
F.S.E.C	FOODSERVICE EQUIPMENT CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
S.F.	STAINLESS STEEL FABRICATOR
G.C.	GENERAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
CFM	CUBIC FEET PER MINUTE
SP	STATIC PRESSURE
	EXHAUST DUCT CONNECTION
	SUPPLY DUCT CONNECTION
	CONDUIT FOR REFRIGERATION LINES (RUN UNDER FLOOR)
	REMOTE COMPRESSOR (ON REFRIGERATION RACK)
A	REFRIGERATION SYSTEM (SEE SCHEDULE ON SHEET FS7.0)
	REFRIGERATION LINE (RUN FROM REFRIGERATION RACK)
	REMOTE REFRIGERATED BASE AND/OR EQUIPMENT

SYMBOL	DESCRIPTION
V#	VENTILATING SCHEDULE REFERENCE REFER TO FS4.0 FOR SCHEDULE
	VENT TO ROOF
	ROUND DUCT CONNECTION
	CONCRETE CURB
	CONCRETE DEPRESSION
WB# / ITEM	WALL BACKING NO. / EQUIPMENT ITEM NO.
	WALL BACKING
	FOAMED-IN WALL BACKING BY WALK-IN MANUFACTURER
	PVC CONDUIT TO STUB-UP AT HEIGHT INDICATED
1	SHEET NOTE SYMBOL (SEE SHEET NOTES FS4.0)
	INSULATED S/S WALL LINING (1/FS4.0 FOR LOC. & SHEET NOTE #1)

MECHANICAL & REFRIGERATION SHEET NOTES

1. 18 GA. STAINLESS STEEL WALL LINING PANELS (MINIMUM WIDTH TO BE 36") WITH 1" MINERAL WOOL BLANKET AND WIRE MESH BACKING OR CERAMIC FIBER BLANKET AND WIRE MESH BACKING SPACES OUT 1" ON NON-COMBUSTIBLE SPACERS WALL LINING TO MEET THE REQUIREMENTS OF NFPA-96 AND LOCAL CODES. WALL LINING SHALL BE FABRICATED WITH VERTICAL FLUTES EVERY 6" AS SHOWN, AND THE WIDTH OF THE EXHAUST HOOD INCLUDING FIRE SYSTEM CABINET REFER I/FS8.1
2. PROVIDE CLOSURE SKIRTING REFER 5/FS5.1
3. REMOTE REFRIGERATION SYSTEM REFER TO FS7.0 EQUIPMENT LOCATED ON BUILDING ROOF
4. REMOTE REFRIGERATION EQUIPMENT PLATFORM REFER TO A/FS7.0.
5. REFRIGERATION LINES STUB-DOWN FROM ABOVE, PENETRATE CEILING OF WALK-IN TO EVAP COIL SEE DETAIL H/FS7.0
6. REFRIGERATION LINES RUN ABOVE CEILING LINE (UNISTRUT TRAPEZE, REFER TO L/FS8.1) EXTEND FROM REFRIGERATION RACK TO DROP-DOWN POINT ABOVE WALK-IN REFRIGERATOR / FREEZER COIL (REFRIG. LINE RUN ROUTES SHOWN ARE SCHEMATIC ONLY) REFRIGERATION LINE ROUTES WILL BE FIELD VERIFIED WITH STRUCTURE

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	DATE
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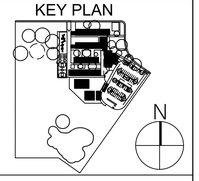

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FOODSERVICE MECHANICAL FLOOR PLAN

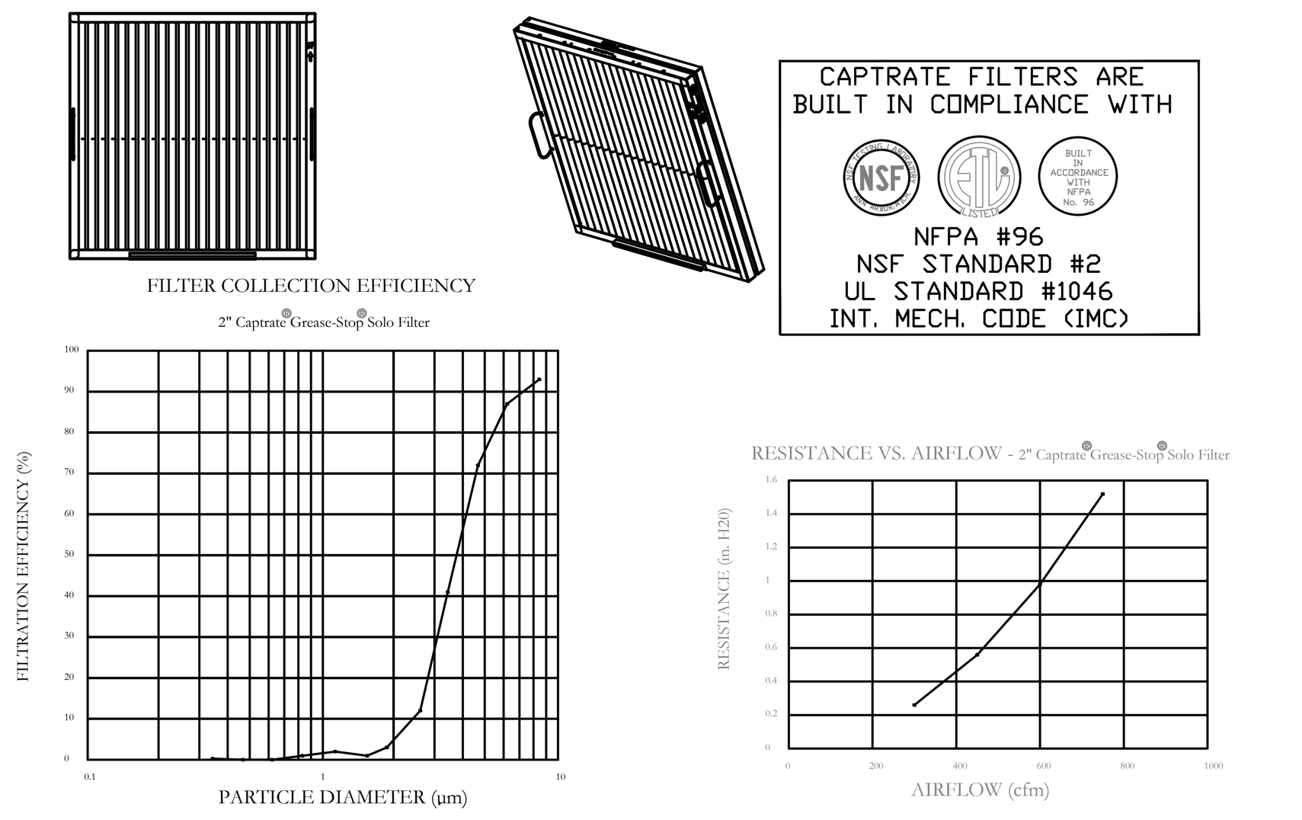
Date 05/20/19

Scale AS NOTED

Project Number 19003.1

Drawing Number FS4.0

CAPTRATE SOLO FILTERS



SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS CONSTRUCTED OF 430 STAINLESS STEEL, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

***GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 90% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

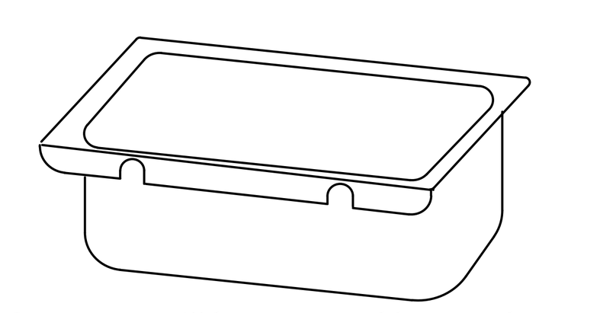
FILTER INFORMATION – CAPTRATE® GREASE-STOP® SOLO

NOMINAL SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (POUNDS)	VELOCITY (FEET PER MINUTE)	STATIC PRESSURE (WATER GAUGE)
20 x 20	19-5/8" x 19-5/8" x 1-7/8"	2.28	11	100	0.25
20 x 16	19-5/8" x 15-5/8" x 1-7/8"	1.78	8.9	125	0.35
16 x 20	15-5/8" x 19-5/8" x 1-7/8"	1.78	9.1	150	0.45
16 x 16	15-5/8" x 15-5/8" x 1-7/8"	1.39	7.4	175	0.75
12 x 20	11-5/8" x 19-5/8" x 1-7/8"	1.23	6.8	200	0.90
12 x 16	11-5/8" x 15-5/8" x 1-7/8"	0.96	5.6	225	1.00
10 x 20	9-5/8" x 19-5/8" x 1-7/8"	1.00	5.6	250	1.30
10 x 16	9-5/8" x 15-5/8" x 1-7/8"	0.78	4.6	275	1.50

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

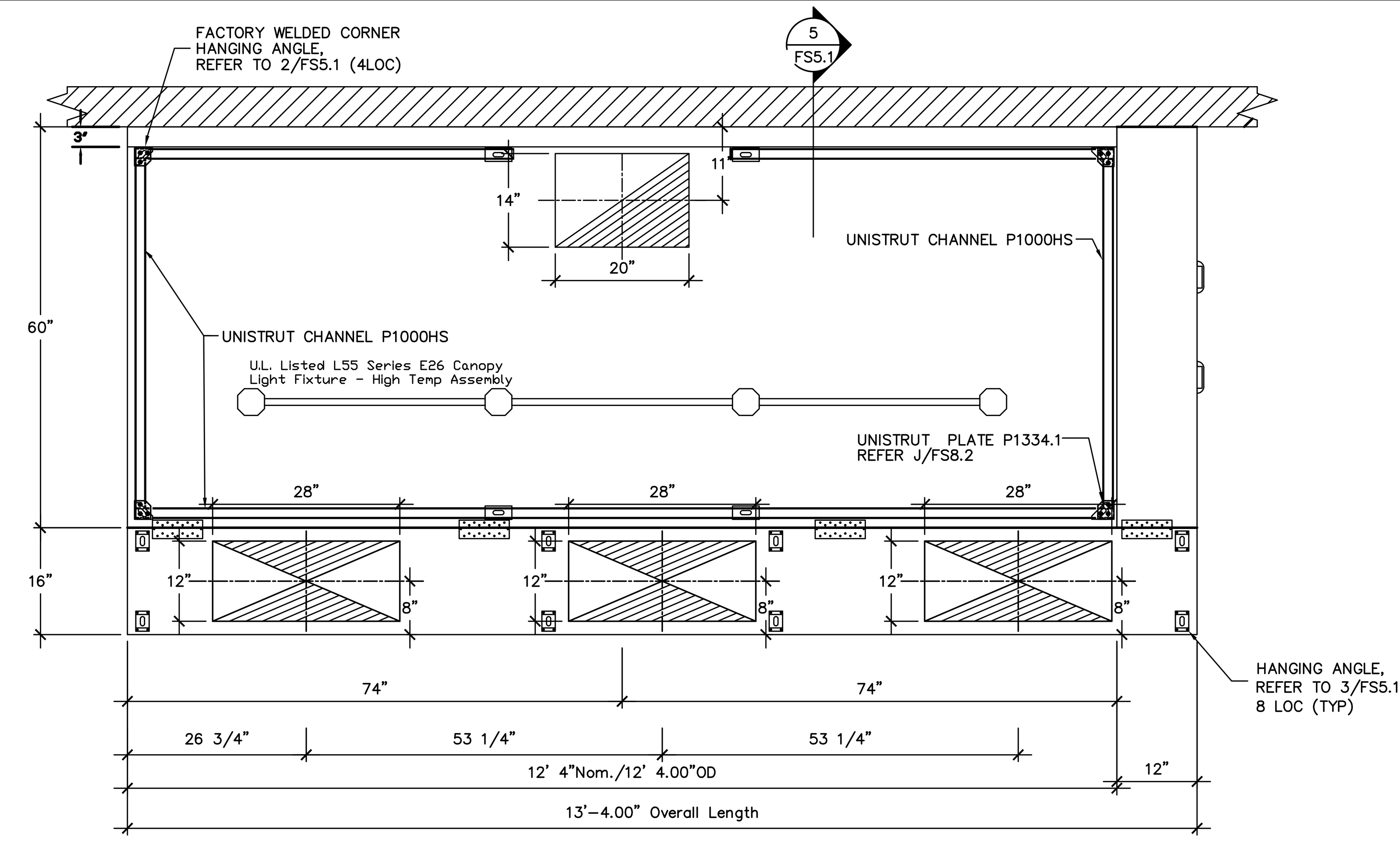
- NFPA #96
- NSF
- ETL Listed
- CALIFORNIA MECHANICAL CODE
- INTERNATIONAL MECHANICAL CODE

BUILDING CODES



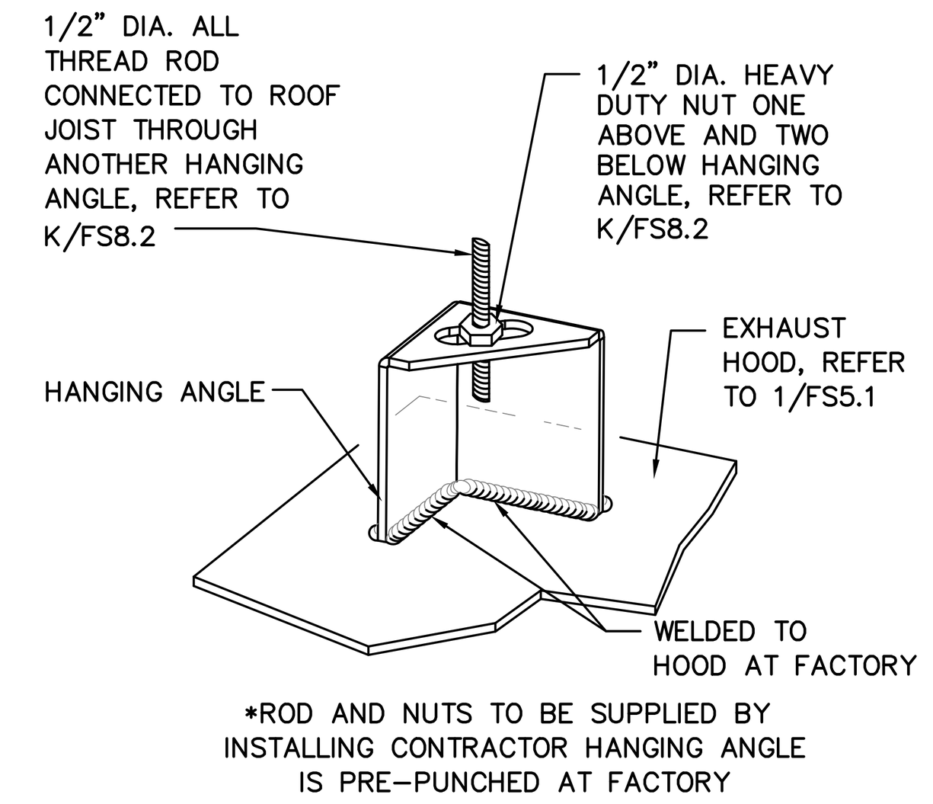
Grease cup will be supported by 2 studs on the inside wall of the hood. The grease will drain through a concealed grease trough and into this removeable cup.

1/2 Pint Grease Cup Detail



PLAN VIEW – Hood #1 (12)
12' 4.00" LONG 6024ND-2-PSP-F
NOTE: Additional hanging angles provided for hoods 12' and longer.

EXHAUST HOOD No.12 - PLAN VIEW
SCALE : 3/4" = 1'-0"
1
FS5.1



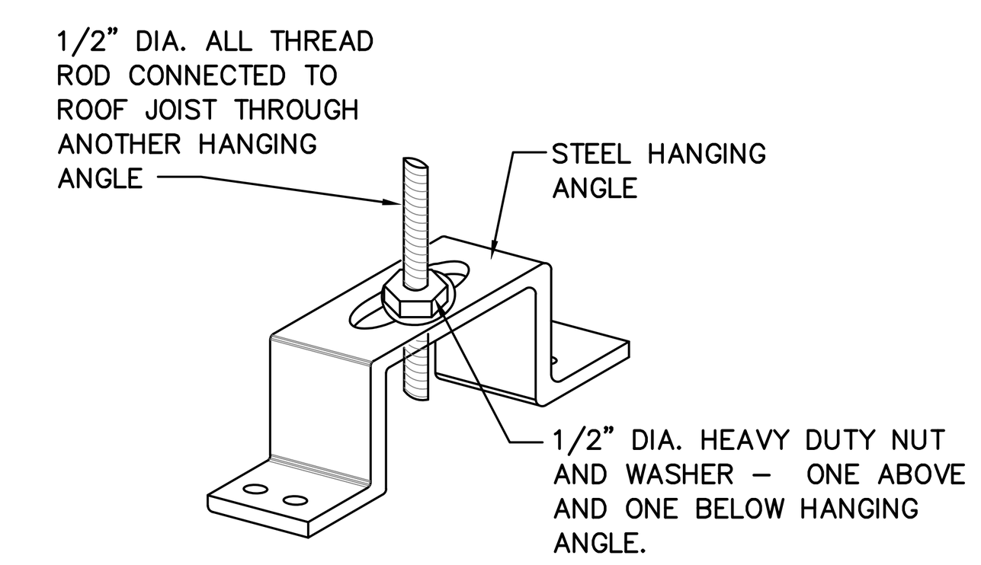
HANGING ANGLES WILL BE LOCATED IN THE FOLLOWING LOCATIONS FOR WALL CANOPIES

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24" High Hood)	DIM FROM SIDES (24" High Hood)
ND-2 (-WI) Exhaust only	4.125"	2.25"	2.25"
VHB (-B)	2.25"	2.25"	2.25"

ALL OTHER HOOD MODELS CONTACT CAPTIVE AIRE FOR HANGING ANGLE LOCATIONS

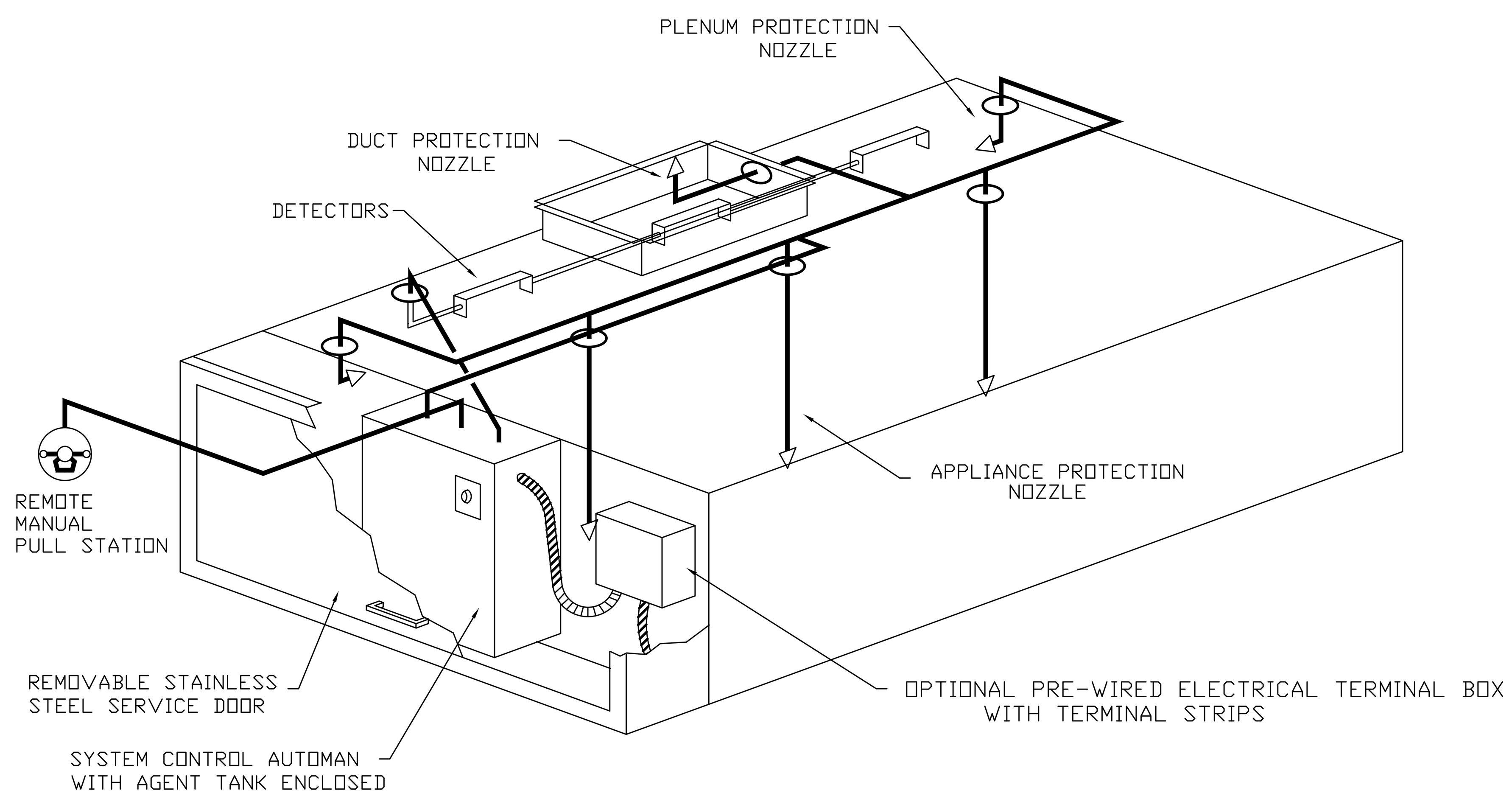
HANGING ANGLE LOCATIONS

ND-2 HANGING ANGLE DETAIL
2
FS5.1

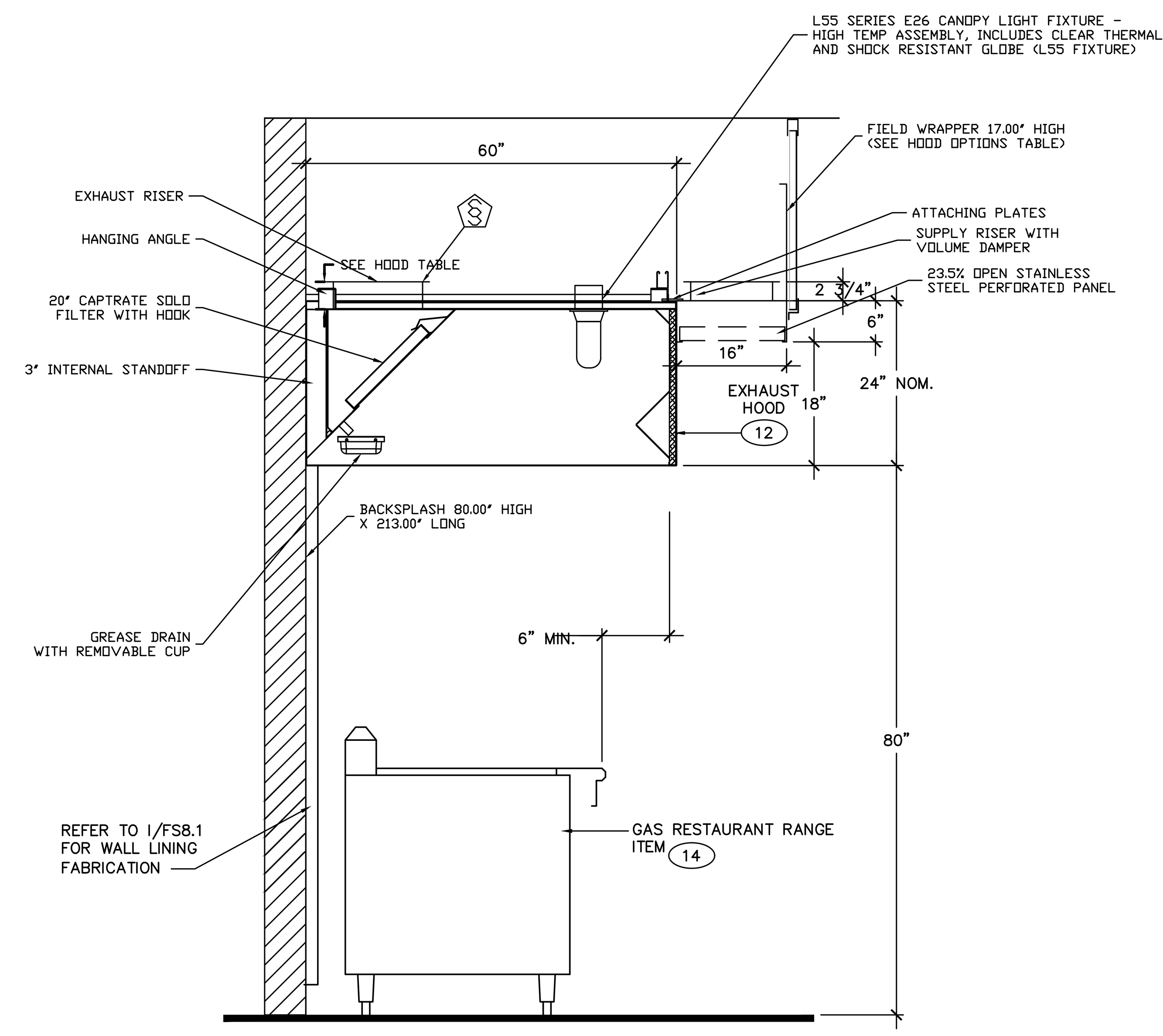


NOTE: ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR. HANGING ANGLE IS PRE-PUNCHED AT FACTORY

HANGING ANGLE
REFERNCE ONLY – NOT TO SCALE
3
FS5.1



TYPICAL ANSUL SCHEMATIC DRAWING
REFERNCE ONLY – NOT TO SCALE
4
FS5.1



SECTION VIEW – MODEL 6024ND-2-PSP-F
HOOD – #1 (12)

EXHAUST HOOD No.12 - SECTION
SCALE : 3/4" = 1'-0"
5
FS5.1

HOOD INFORMATION – Job#3740639

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM: TOTAL EXH. CFM	RISER(S): WIDTH	RISER(S): LENG.	RISER(S): HEIGHT	RISER(S): DIA.	RISER(S): CFM	RISER(S): VEL.	RISER(S): S.P.	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.: END TO END	HOOD CONFIG.: ROW
1	12	6024 ND-2-PSP-F	12' 4"	600 Deg.	2960	14"	20"	4"		2960	1522	-0.821"	2457	430 SS Where Exposed	ALONE	ALONE

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S): WIDTH	RISER(S): LENG.	RISER(S): DIA.	RISER(S): CFM	RISER(S): S.P.
1	12	Front	160"	16"	6"	MUA	12"	28"		819	0.249"
						MUA	12"	28"		819	0.249"
						MUA	12"	28"		819	0.249"

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S): TYPE	FILTER(S): QTY.	FILTER(S): HEIGHT	FILTER(S): LENGTH	FILTER(S): EFFICIENCY @ 7 MICRONS	LIGHT(S): QTY.	LIGHT(S): TYPE	LIGHT(S): WIRE GUARD	UTILITY CABINET(S): LOCATION	UTILITY CABINET(S): SIZE	FIRE SYSTEM: TYPE	FIRE SYSTEM: SIZE	ELECTRICAL: MODEL #	SWITCHES: QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1	12	Captrate Solo Filter	9	20"	16"	85% See Filter Spec.	4	L55 Series E26	NO	Right	12"x60"x24"	Ansul R102	3.0	DCV-1111	1 Light 1 Fan	YES	810 LBS

These products and others are available for demonstration at the Northern CA display center
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Phone: (925)962-1999, Fax (925)566-8565
Email reg92@captiveaire.com

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NO.	REMARKS	DATE

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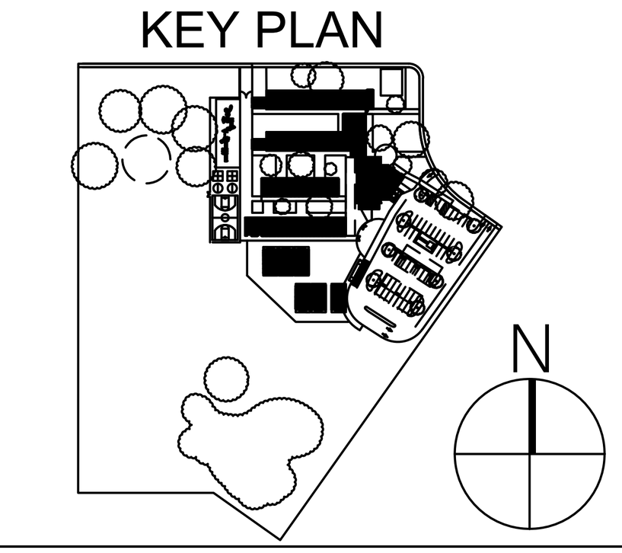
○ CONSTRUCTION	

KEY PLAN



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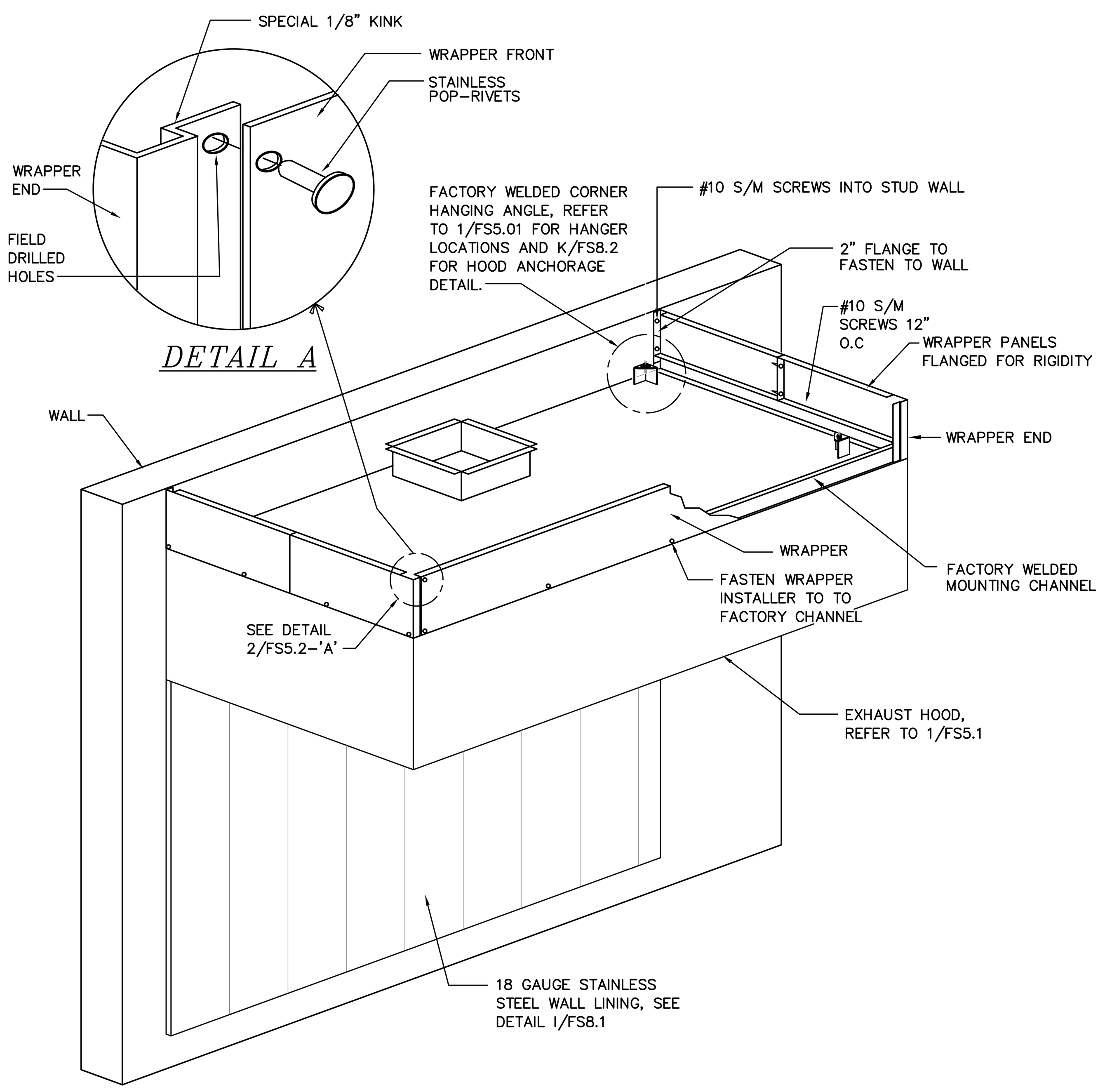
FOODSERVICE EQUIPMENT EXHAUST HOOD PLAN

Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number **FS5.1**



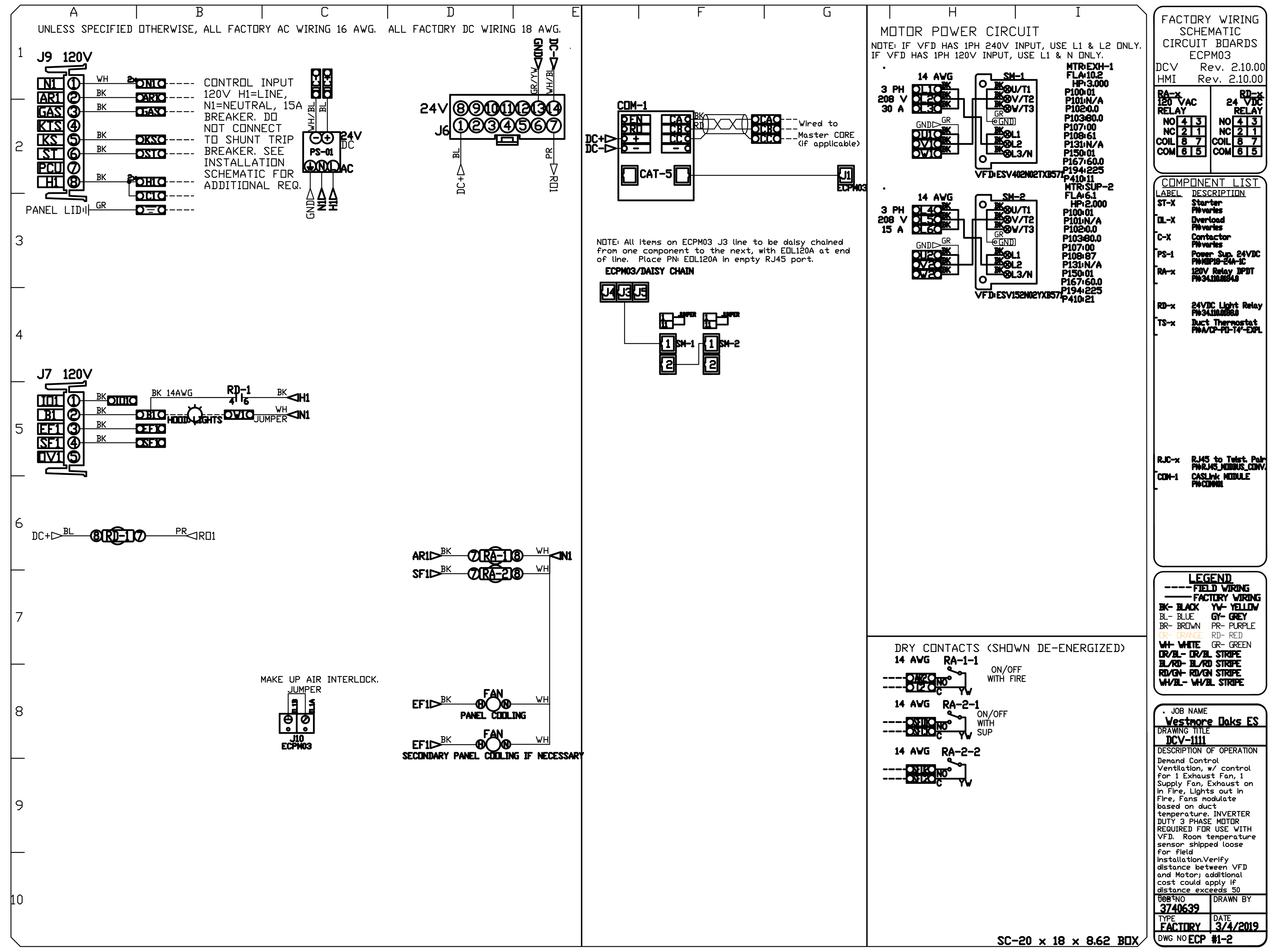
WALL LINING & FIELD WRAPPER DETAIL

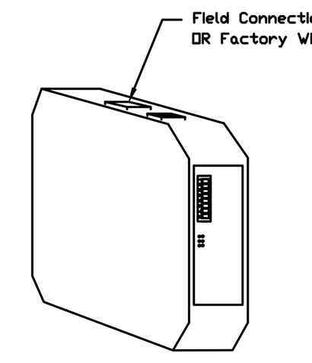
2
FS5.2

SCALE : NONE

NOTES

1. PROVIDE 22 GA. S/S WRAPPER AT ALL OPEN SIDES
2. S/S WRAPPER TO BE INSTALLED FROM TOP OF VAPOR HOOD TO FINISHED CEILING AT ALL OPEN SIDES
3. SEAL ALL GAP WITH SILVER OR GRAY SEALANT





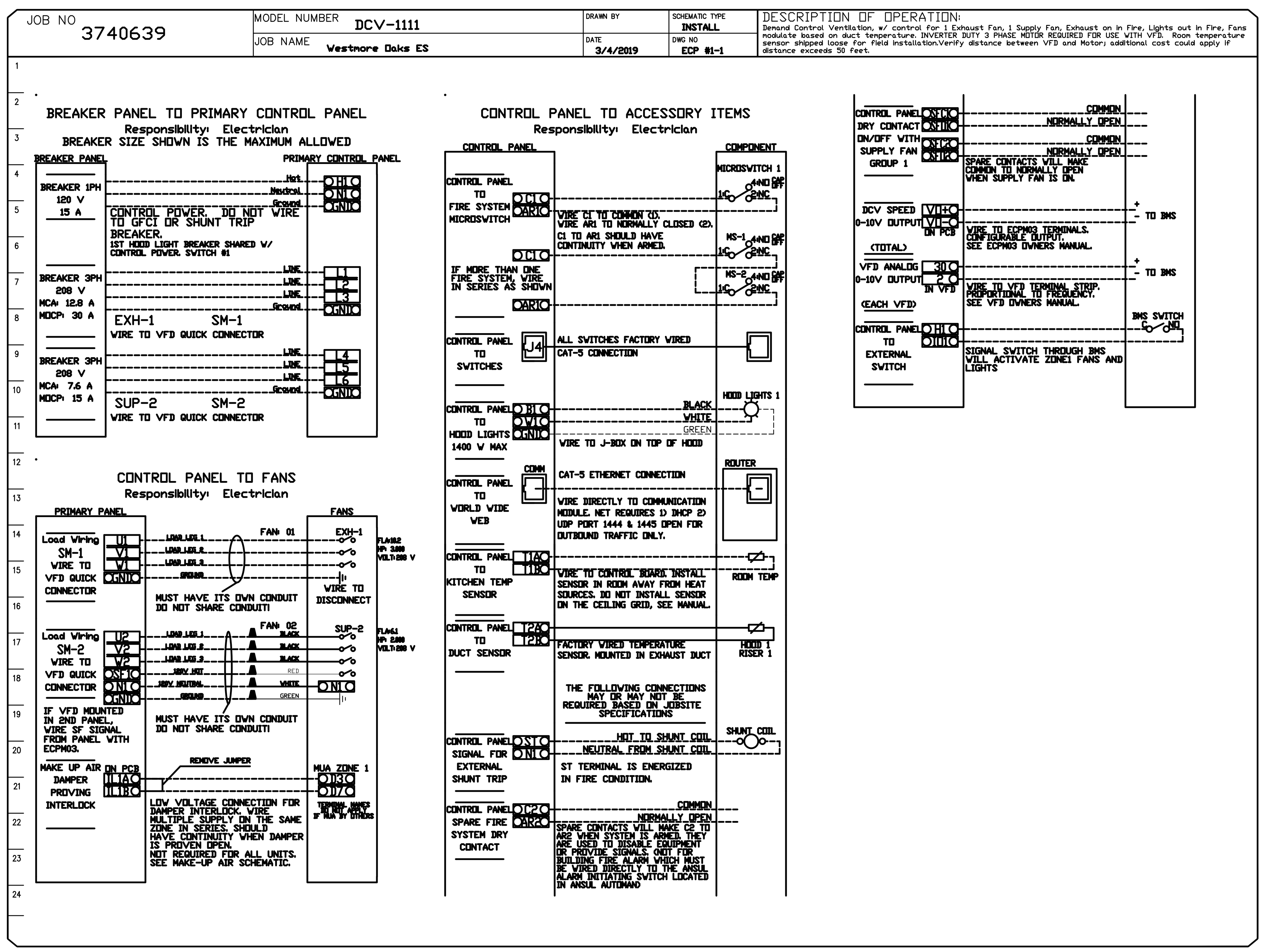
CASlink Monitor and Control

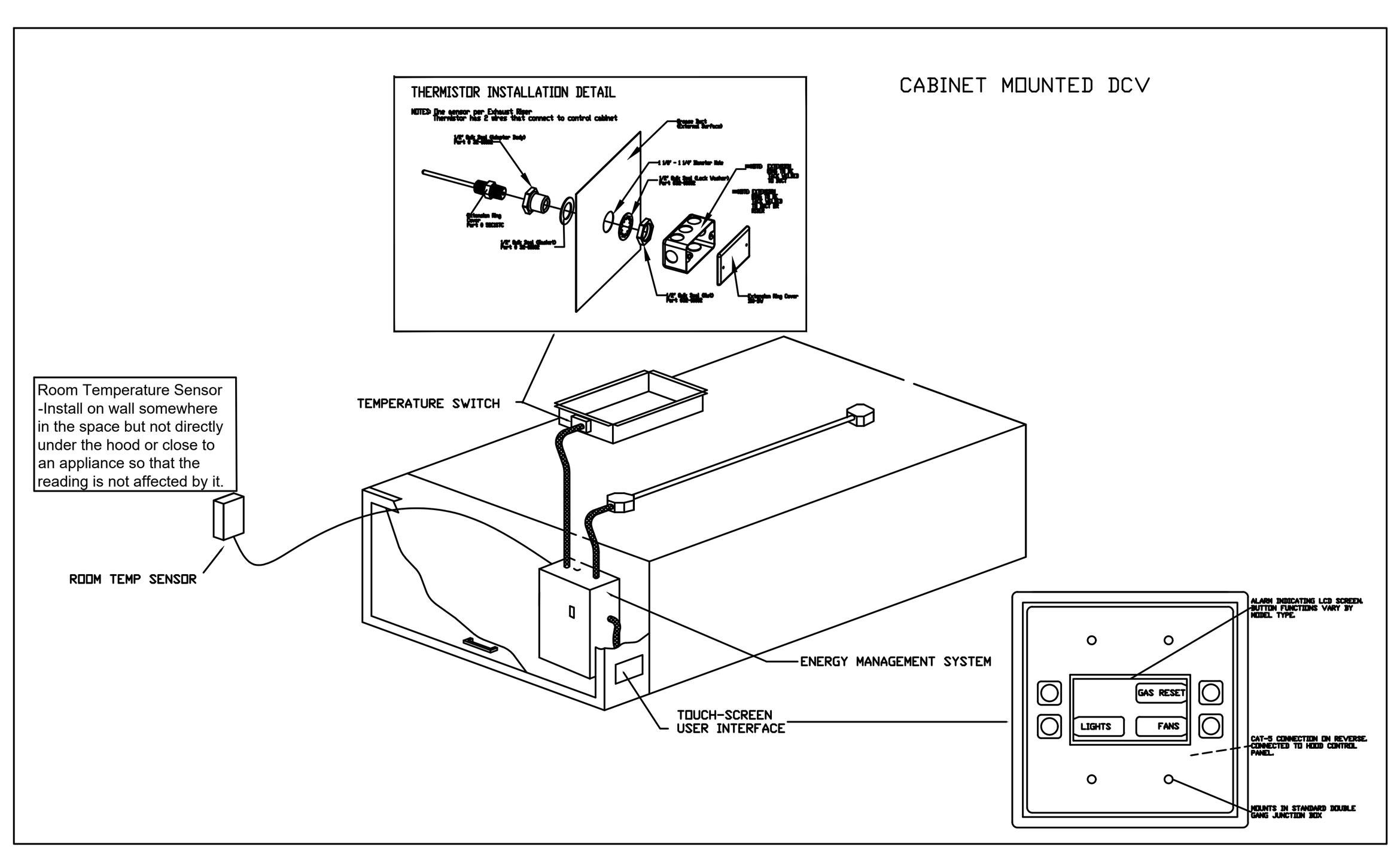
- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood control panel to allow remote changes to system setting such as: VFD Frequencies, ECM speeds, temperature set points, fan and wash schedules, etc.

MONITORING AND CONTROL POINTS LIST

DCV Packages	Function
Room Temperature	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR
Fan Amperage	MONITOR
Fan Power	MONITOR
VFD Faults	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Prep Time Button	MONITOR & CONTROL
Fans Button	MONITOR & CONTROL
Lights Button	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

SC Packages	Function
Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL





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Email reg92@captiveaire.com

TYPICAL ENERGY MANAGEMENT SYSTEM

1
FS5.2

SCALE : NONE

ELECTRICAL PACKAGE – Job#3740639

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Φ	H.P.	VOLT	FLA
1		DCV-1111	Utility Cabinet Right	04 - Utility Cabinet Right	1 Light	Smart Controls DCV	Exhaust	3	3.000	208	10.2
				Hood # 1	1 Fan		Supply	3	2.000	208	6.1

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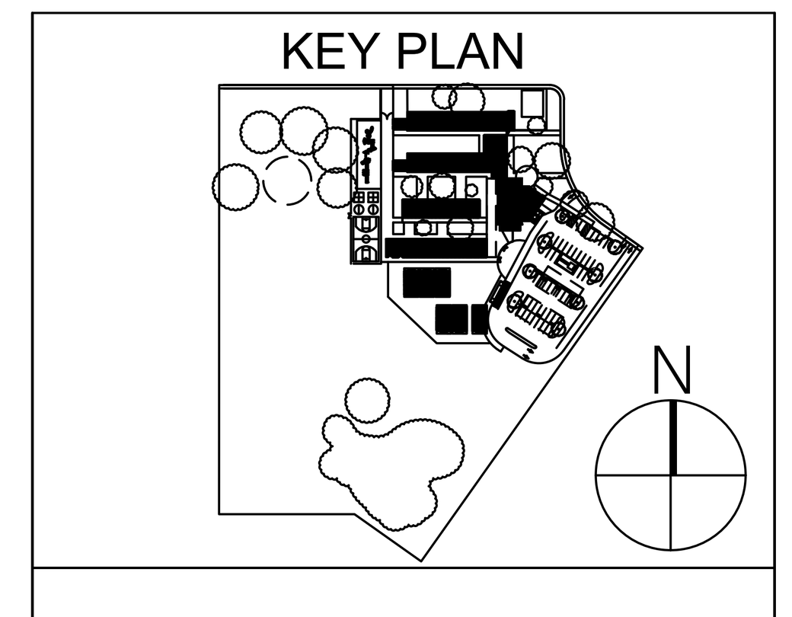

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FOODSERVICE EQUIPMENT EXHAUST HOOD DETAILS

Date 05/20/19
Drawing Number FS5.2
Scale AS NOTED
Project Number 19003.1

Fire System Information – Job#3740639

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		Ansul R102	3.0	7	Fire Cabinet Right	Right

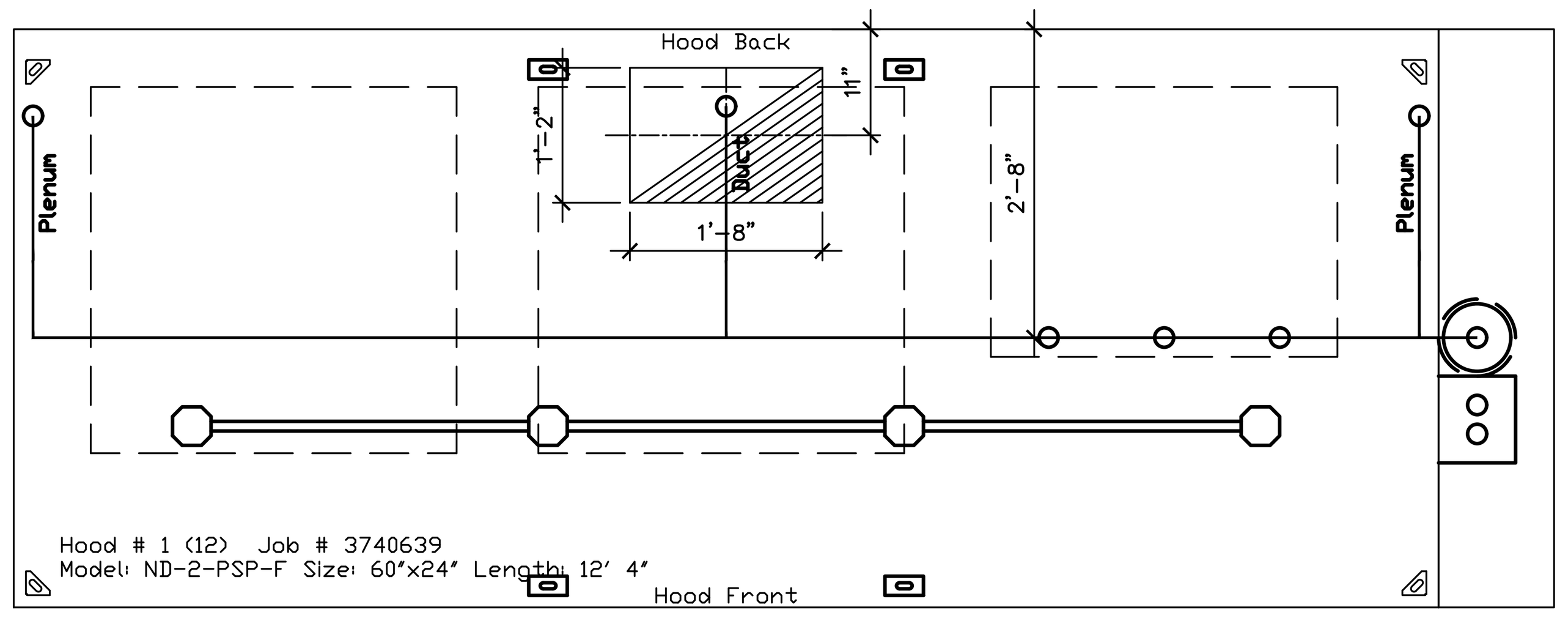
Fire System Parts List Key

FIRE SYSTEM NO.	TAG	KEY NUMBER – PART DESCRIPTION	QTY. BY FACTORY	QTY. BY DIST.
1		0 – 0 – Tank Strap Tank Strap – used for ANSUL Tanks	1	0
		0 – 0 – UCTANKBRACKET Tank Bracket for fire system tank installation in utility cabinets	1	0
		1 – 1 – AT – 3.0 TANK(#1B) – 3.0 Gallon SS Tank (for use with Automan Release, Actuator, or SS Enclosure (UL/ULC)) Macola # 01-429862	1	0
		3 – 3 – ANS-OEM REGULATED RELEASE – Ansul Regulated Mechanical Release/Bracket Assembly, OEM, R-102, Cartridge Detection Included, Ansul Part # 79493	1	0
		5 – 5 – LIQ-3.0 AGENT – Ansulex Low PH Wet Chemical Agent, 3 Gallon (UL) 79372	0	1
		7 – 7 – 101-20 CARTRIDGE – Carbon Dioxide 101-20, 3 Gallon Cartridge (R-102)	0	1
		10 – 10 – TLINK LINK – Test Link (1 test link) Ansul Part # 24916, Macola # 20-24916	0	1
		11 – 11 – MICRO-SDA MICROSWITCH KIT- Includes 2 switches and Mounting Hardware. Single Dual Electric Switch, One Standard Switch, One Alarm Duty Switch Ansul Part # 437155, Macola # 08-437155	1	0
		27 – 27 – QPSA-1/2 PULLEY SEAL – 1/2" Hood Seal (UL) Ansul Part # 423253, Macola # 32-79768	1	0
		34 – 34 – RPS-A REMOTE PULL STATION – Red composite (without wire rope) 434618 (Old Macola #06-4835)	1	0
		35 – 35 – PE-LT PULLEY ELBOW – Low Temp. Pulley Elbow, Set Screw Type Ansul Part # 415670, Macola # 11-415671	2	0
		36 – 36 – PE-HT PULLEY ELBOW – High Temp Pulley Elbow, Compression Type, Ansul Part # 423251, Macola # 10-45771	1	0

NOTES
- FIELD PIPE DROPS AS SHOWN SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

Job #: 3740639
Job Name: Westmore Oaks ES

System Size: ANSUL-3.0 Total FP required: 7
Hood # 1 12' 4.00" Long x 60" Wide x 24" High
Riser # 1 Size: 14" x 20"
Hood # 1 Metal Blow-Off Caps included.



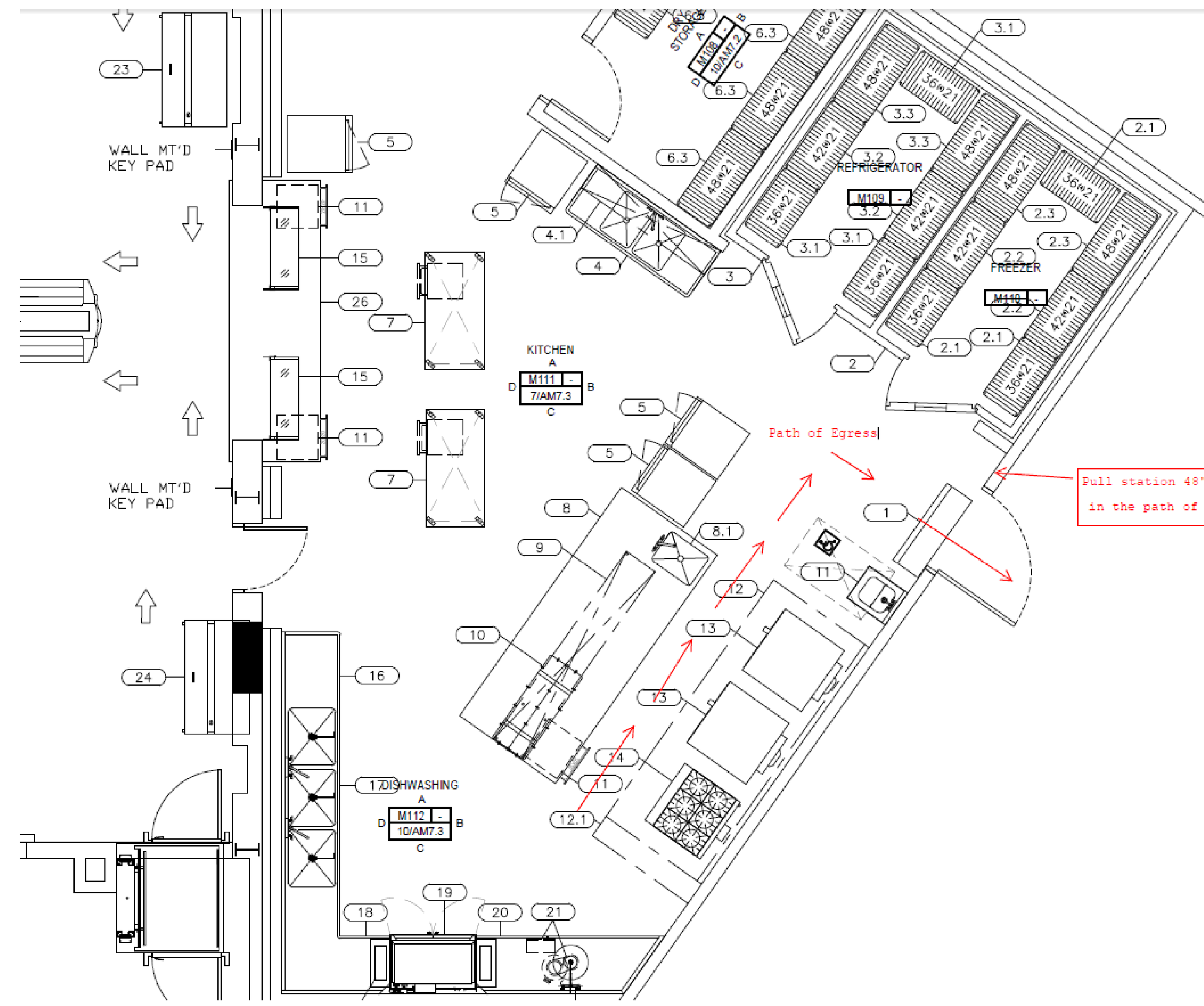
FIRE SYSTEM No.21.1 - PLAN VIEW

SCALE : 3/4" = 1'-0"

1 FS5.3

LEGEND – FIRE CABINET ANSUL SYSTEM

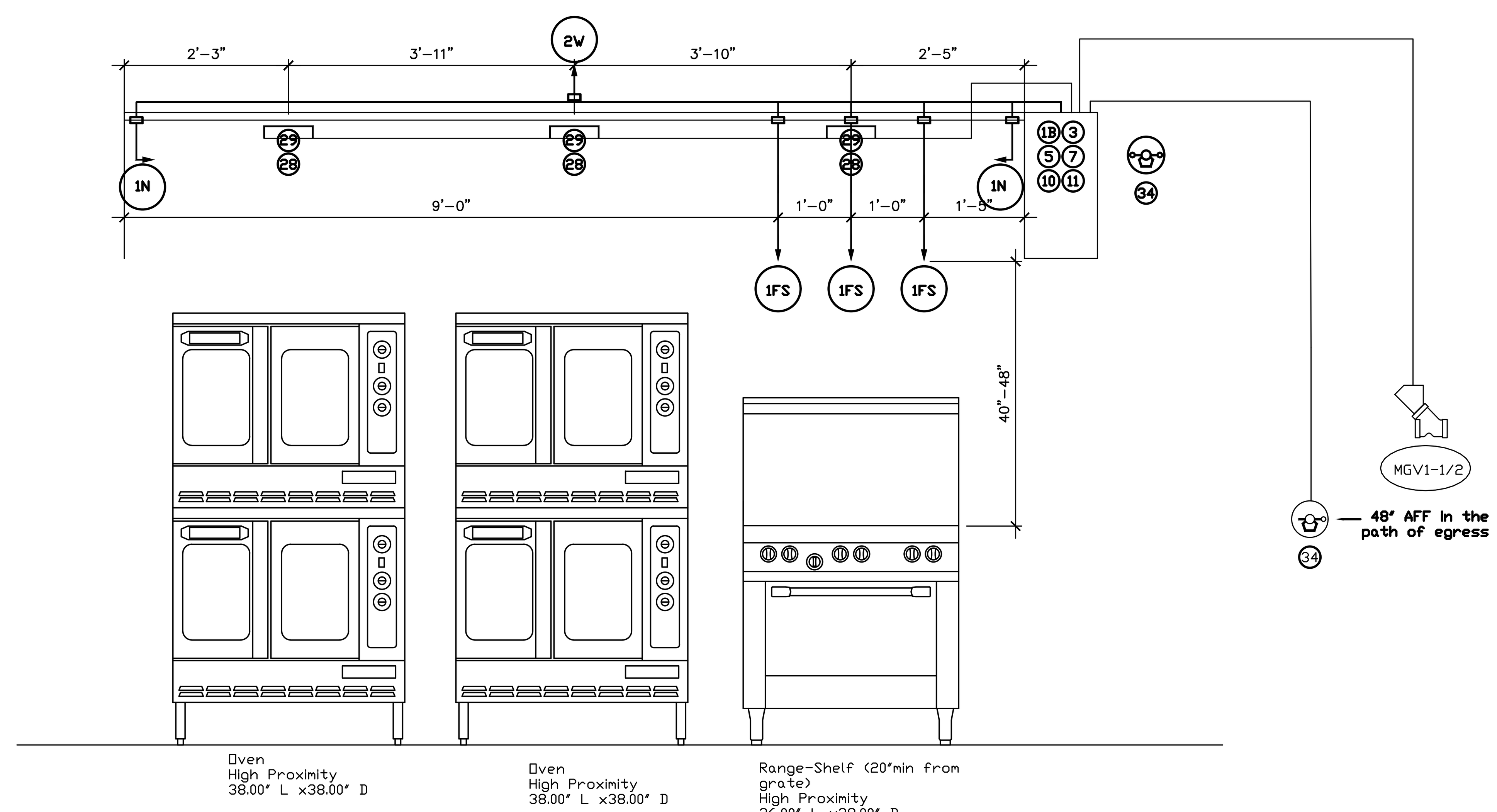
1A	1.5 GALLON TANK
1B	3 GALLON TANK
2	OEM AUTOMAN RELEASE
3	OEM REGULATED RELEASE
4	OEM REGULATED ACTUATOR
5	ANSULEX LIQUID AGENT (3 GAL.)
6	ANSULEX LIQUID AGENT (1.5 GAL.)
7	CARTRIDGE (101-20)
8	CARTRIDGE (101-10)
9	CARTRIDGE (101-30)
9A	CARTRIDGE (LT-A-101-30)
9B	DOUBLE TANK CARTRIDGE
10	TEST LINK
11	DOUBLE MICROSWITCH
12	HOSE ASSEMBLY
1100	DUCT NOZZLE (430913)
2W	DUCT NOZZLE (419337)
1W	NOZZLE ASSEMBLY (419336)
1F	NOZZLE ASSEMBLY (419333)
1N	NOZZLE ASSEMBLY (419335)
1/2N	NOZZLE ASSEMBLY (419334)
3N	NOZZLE ASSEMBLY (419338)
245	NOZZLE ASSEMBLY (419340)
230	NOZZLE ASSEMBLY (419339)
2120	NOZZLE ASSEMBLY (419343)
290	NOZZLE ASSEMBLY (419342)
260	NOZZLE ASSEMBLY (419341)
28	DETECTOR BRACKET
29	LOW TEMP FUSIBLE LINK
30	HIGH TEMP FUSIBLE LINK
MGV	MECHANICAL GAS VALVE
EGV	ELECTRICAL GAS VALVE
34	REMOTE MANUAL PULL STATION
S	SWIVEL ADAPTOR



PATH OF EGRESS

SCALE : 3/4" = 1'-0"

3 FS5.3



FIRE SYSTEM No.12.1 - ELEVATION VIEW

SCALE : 3/4" = 1'-0"

2 FS5.3

FIRE SYSTEM NOTES

GENERAL

CUSTOMER RESPONSIBLE FOR ADDITIONAL LABOR AND PARTS CHANGES AS A RESULT OF COOKING EQUIPMENT LAYOUT CHANGES OR MISINFORMATION AFTER RELEASE OF ORDER.

CUSTOMER RESPONSIBLE FOR ADDITIONAL TRIPS BY FIRE SYSTEM DISTRIBUTOR DUE TO JOB SITE DELAYS.

UNION LABOR CHARGES, IF REQUIRED, ARE EXTRA.

GAS VALVE

MECHANICAL OR ELECTRICAL GAS VALVE IS TO BE INSTALLED BY PLUMBING CONTRACTOR. PLUMBING PERMIT REQUIRED FOR GAS VALVE INSTALLATION.

ELECTRIC SHUT OFF

ELECTRICAL COOKING EQUIPMENT MUST BE SHUT OFF WHEN FIRE SYSTEM IS ACTIVATED. ELECTRICAL CONTRACTOR IS TO PROVIDE SHUT OFF CONTACTS OR SHUNT TRIP BREAKERS. THE DESIGN OF THE FIRE SYSTEM SHALL COMPLY WITH S.M.A.C.N.A. GUIDELINES FOR SEISMIC RESTAINTS OF MECHANICAL SYSTEMS. O.S.H.P.D. APPROVED ANCHORAGE R-0010 SUPPORTS AND BRACING OF PIPE & CONDUIT.

IF APPLICABLE TO LOCAL CODE

EXISTING FIRE ALARM SYSTEM MUST BE INTERCONNECTED TO THE ANSUL SYSTEM.

FIRE SUPPRESSION SYSTEM TEST

THE TEST WILL BE CONDUCTED IN FRONT OF A SYSTEM INSPECTOR WITH A NITROGEN CARTRIDGE WITH BALLOONS COVERING THE SYSTEM NOZZLES. THE TEST WILL BE CONDUCTED SIMULATING THE REMOTE AND AUTOMATIC ACTUATION.

REMOTE PULL STATION

4-0 BOX WITH 1/2" KO'S POSITIONED AS SHOWN WITH TABS IN THE UPPER RIGHT AND LOWER LEFT OF BOX. TO BE 48" ABOVE FINISHED FLOOR 1/2" EMT. TO BE 12" ABOVE FINISHED DROP CEILING LINE WITHOUT BENDS OR OFFSETS. ONE 4-0 BOX TO BE PROVIDED FOR EACH REMOTE PULL STATION WHEN TWO REMOTE PULLS ARE MOUNTED SIDE BY SIDE. THE DISTANCE BETWEEN CENTERS SHALL BE NO LESS THAN 7".

INSTALLATION/PIPING NOTES

REGULATED RELEASE ASSEMBLY, REGULATED ACTUATOR ASSEMBLY, AND TANK ENCLOSURE MUST BE LOCATED IN AREAS WHERE AIR TEMPERATURE WILL NOT FALL BELOW 32 DEGREES F OR EXCEED 130 DEGREES F.

1. MOUNT THE REGULATED RELEASE ASSEMBLE AND EACH REGULATED ACTUATOR ASSEMBLY REQUIRED BY COMPLETING THE FOLLOWING STEPS:

A. SELECT A RIGID SURFACE FOR MOUNTING THE ENCLOSURE. THE MOUNTING LOCATIONS MUST ALLOW THE REGULATED RELEASE ASSEMBLY AND THE REGULATED ACTUATOR ASSEMBLY TO BE WITHIN THE LIMITATION OF THE ACTUATION AND EXPELLANT GAS LINE LENGTHS AND MUST BE ABLE TO SUPPORT THE WEIGHT OF THE ASSEMBLY. NOTE: WALL MOUNTED SYSTEMS ONLY.

B. DETACH THE COVER FROM THE ENCLOSURE. REMOVE AGENT TANK FROM ENCLOSURE AND THE EXPELLANT GAS LINE HOSE FROM THE TANK/ADAPTOR ASSEMBLY.

C. SECURE ENCLOSURE BOX TO SELECTED MOUNTING LOCATION USING THE FOUR MOUNTING HOLES. USE APPROPRIATE TYPE OF FASTENERS DEPENDING ON THE MOUNTING SURFACE. WALL MOUNTED SYSTEMS.

SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY C.A.S. OR FIRE DISTRIBUTOR.

ALL PIPE FOR 1.5/2.4 GALLON SYSTEM IS 1/4".

ALL PIPE FOR 3.0/3.5 GALLON SYSTEM IS 3/8".

ALL PIPE SHALL BE BLACK IRON SCHEDULE-40.

ALL EXPOSED PIPE SHALL BE CHROME SLEEVED.

NOZZLES SHALL BE A MAXIMUM OF 50" ABOVE SURFACE OF COOKING EQUIPMENT.

7 Flowpoint used on an 11FP UL300 3 gallon Ansul R102 system

Flowpoint Chart

Nozzle	FP	QTY	TTL FP
2W	2	1	2
1N	1	2	2
1FS	1	3	3
Total			7FP

General Notes:

1: All Installation procedures are in compliance with manufacturer's specifications and in accordance with NFPA17A (2016) and NFPA96 (2016) standards.

2: Remote pull station is mounted no higher than 48" from finished floor and in path of egress

3: The hood extinguishing system must be interconnected to the building alarm system

4: Automatic fuel shut down device(s) shall shut down all sources of fuel under the hood.

5: All electrical under the hood shall shut down upon activation

6: Exhaust fan is to stay on and make up air must shut down upon system activation

7: A K Class rated fire extinguisher accessible within 30 foot unobstructed path from cooking equipment is required

8: System to be test fired and witnessed by local fire authorities upon completion.

System Designed by
Matt Eidson
Ansul Certified Designer
Certificate valid until 10/2019

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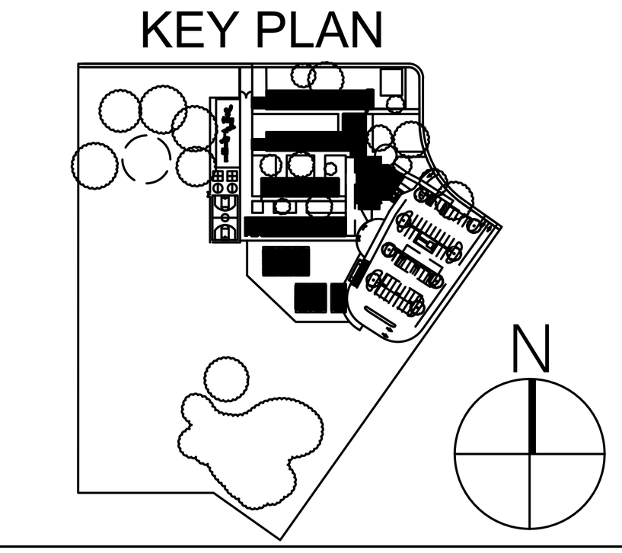
ARCHITECT	ENGINEER

NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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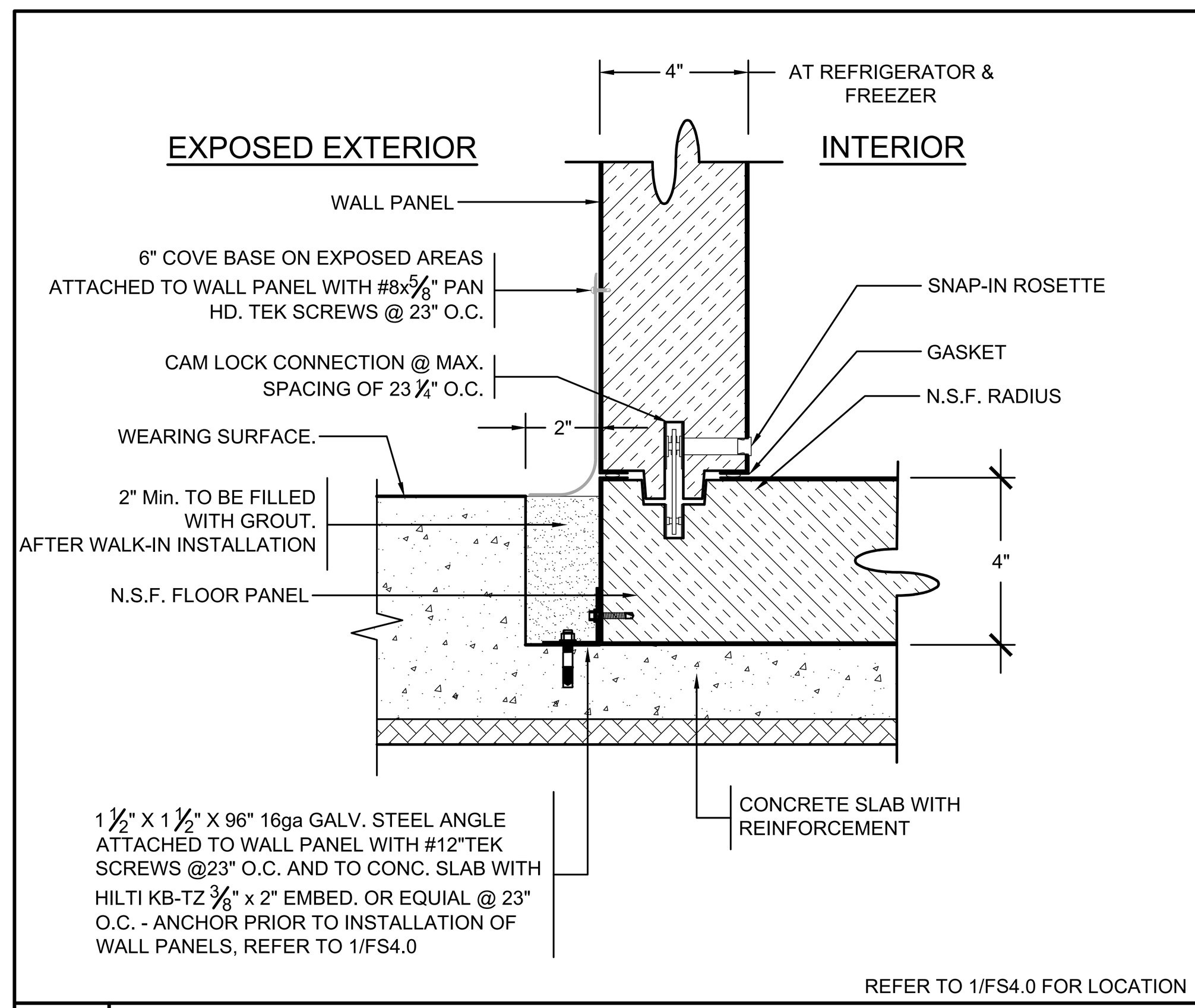
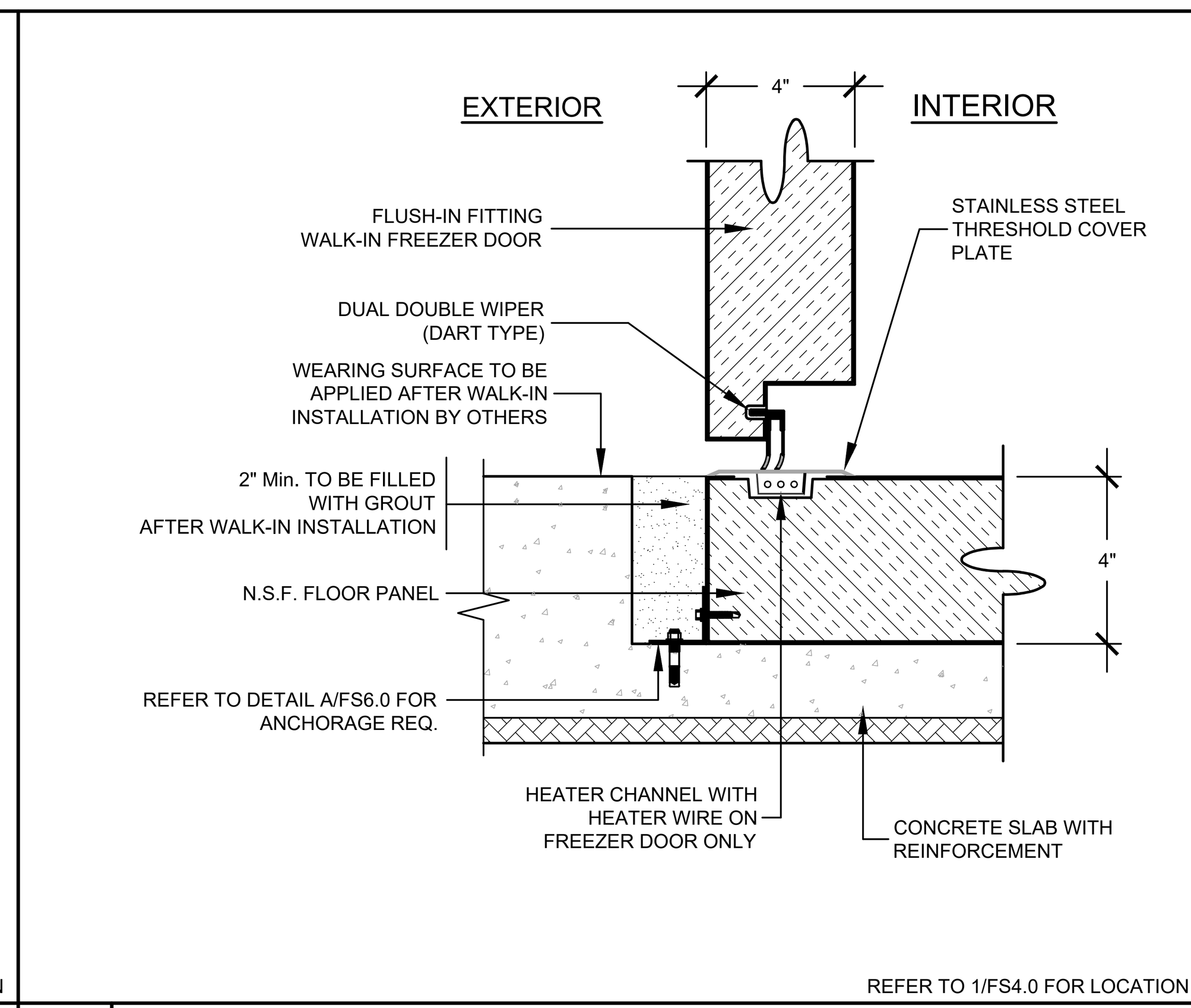
FOODSERVICE EQUIPMENT EXHAUST HOOD FIRE SYSTEM

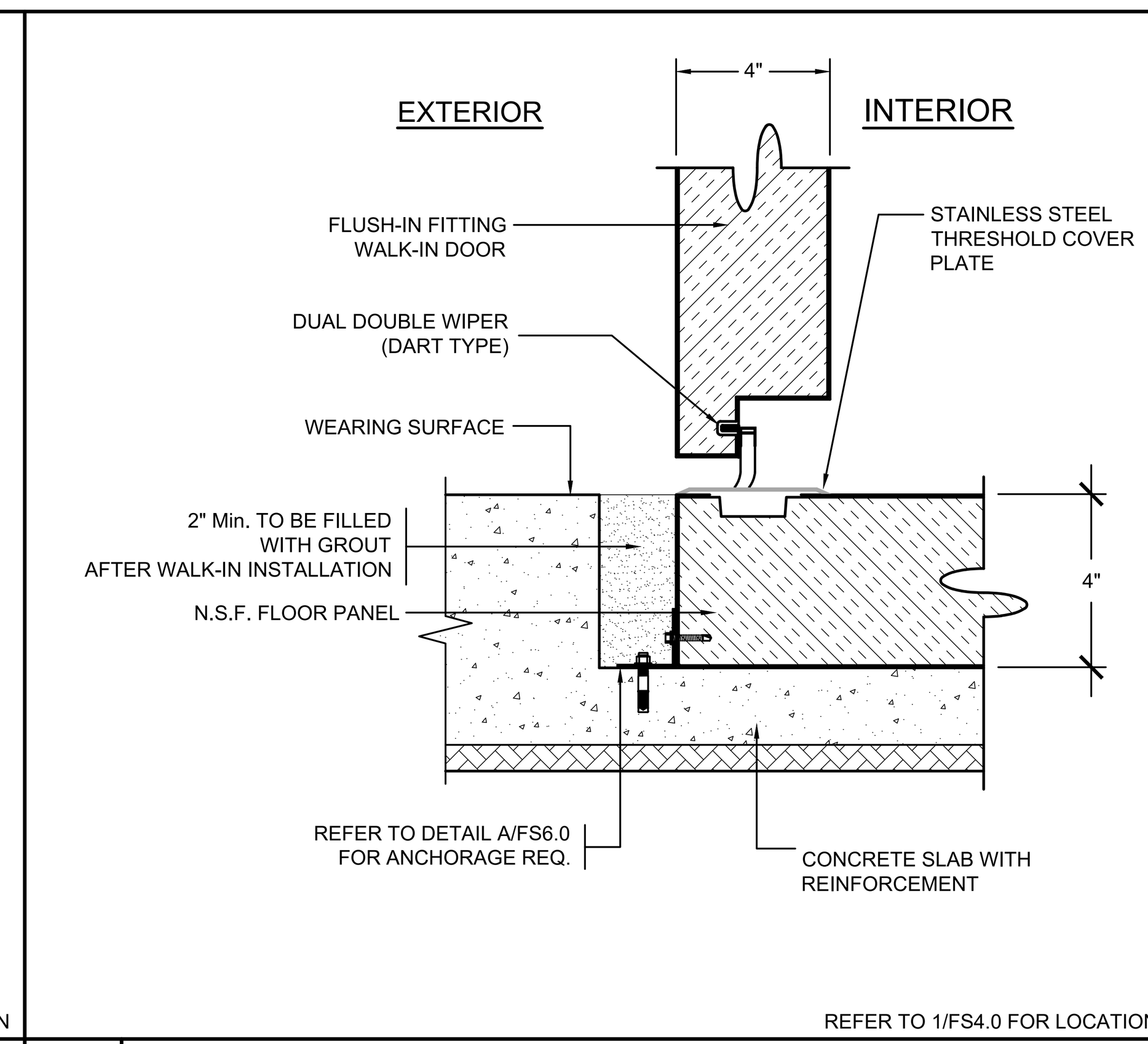
Date	05/20/19
Scale	AS NOTED
Project Number	19003.1
Drawing Number	FS5.3



A WALL PANEL TO RECESSED PRE-FAB FLOOR



B THRESHOLD DETAIL FOR FREEZER DOOR



C THRESHOLD DETAIL FOR REFRIGERATOR DOOR

WALK-IN COOLER/FREEZER ANCHORAGE NOTE:

WALK-IN FREEZER SHALL HAVE SUPPLEMENTAL LATERAL BRACING ON THE DOOR SIDE, SEE E/FS6.1

WALK-IN COOLER/FREEZER TYPICAL NOTES:

APPLICATION - WALK-IN COOLER/FREEZER COMBO

4" HARD NOSE TONGUE & GROOVE HIGH DENSITY URETHANE PERIMETER (CFC FREE) W/ SHT. MTL. FACING FLANGED 1/2" TO 3/4" PERIMETER OF EACH SHEET. CORNERS & T-PANELS ONE-PIECE CONSTRUCTION W/ 1/2" RADIUS AT ALL INSIDE VERTICAL CORNERS, JOINTS SEALED W/ PVC GASKET AT INT. & EXT. PERIMETER OF PANELS. PANELS RIGID CONNECTION W/ CAM-LOCK FASTENERS (WALL TO WALL: 48" O.C MAX: WALL TO CEILING: 24" O.C. MAX: WALL TO FLOOR: 24" O.C. MAX., IF APPLY)

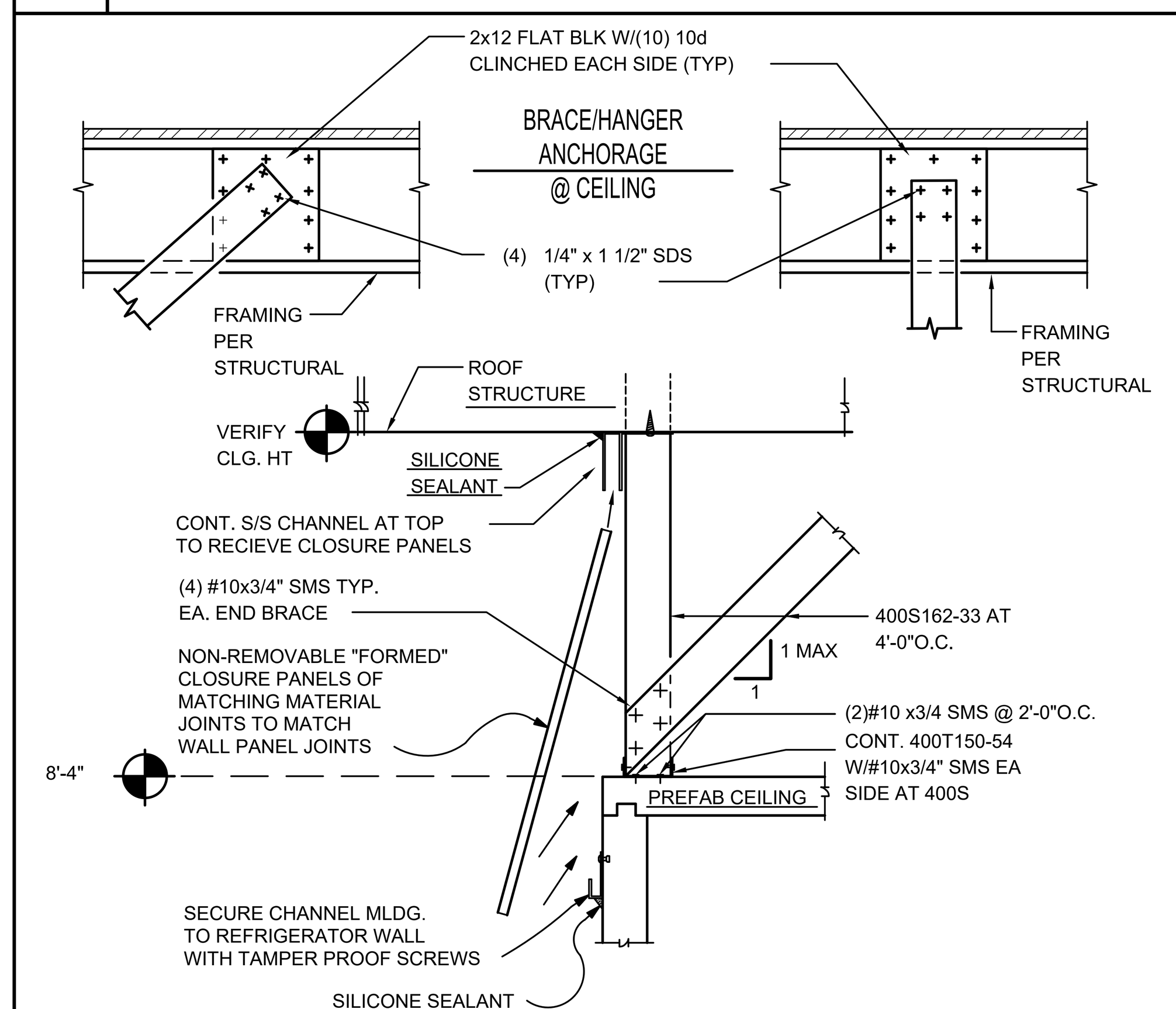
INSULATION - 4" THICK FOAMED IN PLACE HIGH DENSITY URETHANE (CFC FREE) FILLED, OVER 90 PERCENT CLOSED CELL CONTENT. LESS THAN 25 FLAME SPREAD IN ACCORD W/ UBC STD. 42-1 (BASED ON UL 723 WHICH IS SIMILAR TO ASTM E84 THE STEINER TUNNEL TEST) AND CLASS 'A' INTERIOR FINISH IN ACCORDANCE W/ NFPA 101, SECTION 6-2, AND NFPA 255. K-FACTOR NOT TO EXCEED 0.14 BTU/HOUR/SQ. FT./°F PER INCH THICKNESS IN ACCORDANCE W/ ASTM C177 AT 75 F MEAN TEMPERATURE. UL REPORT (BLBT.R13780) FOR: SURFACE BURNING CHARACTERISTICS

FLOOR - 4" THICK FOAMED IN PLACE HIGH DENSITY URETHANE (CFC FREE) FILLED, OVER 90 PERCENT CLOSED CELL CONTENT. LESS THAN 25 FLAME SPREAD IN ACCORD W/ UBC STD. 42-1 (BASED ON UL 723 WHICH IS INTERIOR FINISH IN ACCORDANCE W/ NFPA 101, 0.14 BTU/HOUR/SQ. FT./ F PER INCH THICKNESS IN ACCORDANCE W/ ASTM C177 AT 75 F MEAN TEMPERATURE, RESULTS: FLAME SPREAD INDEX 25, SMOKE DEVELOPED INDEX: 400. FLOOR TO BE HEAVY DUTY FOR CARTS AND PALLET JACKS..

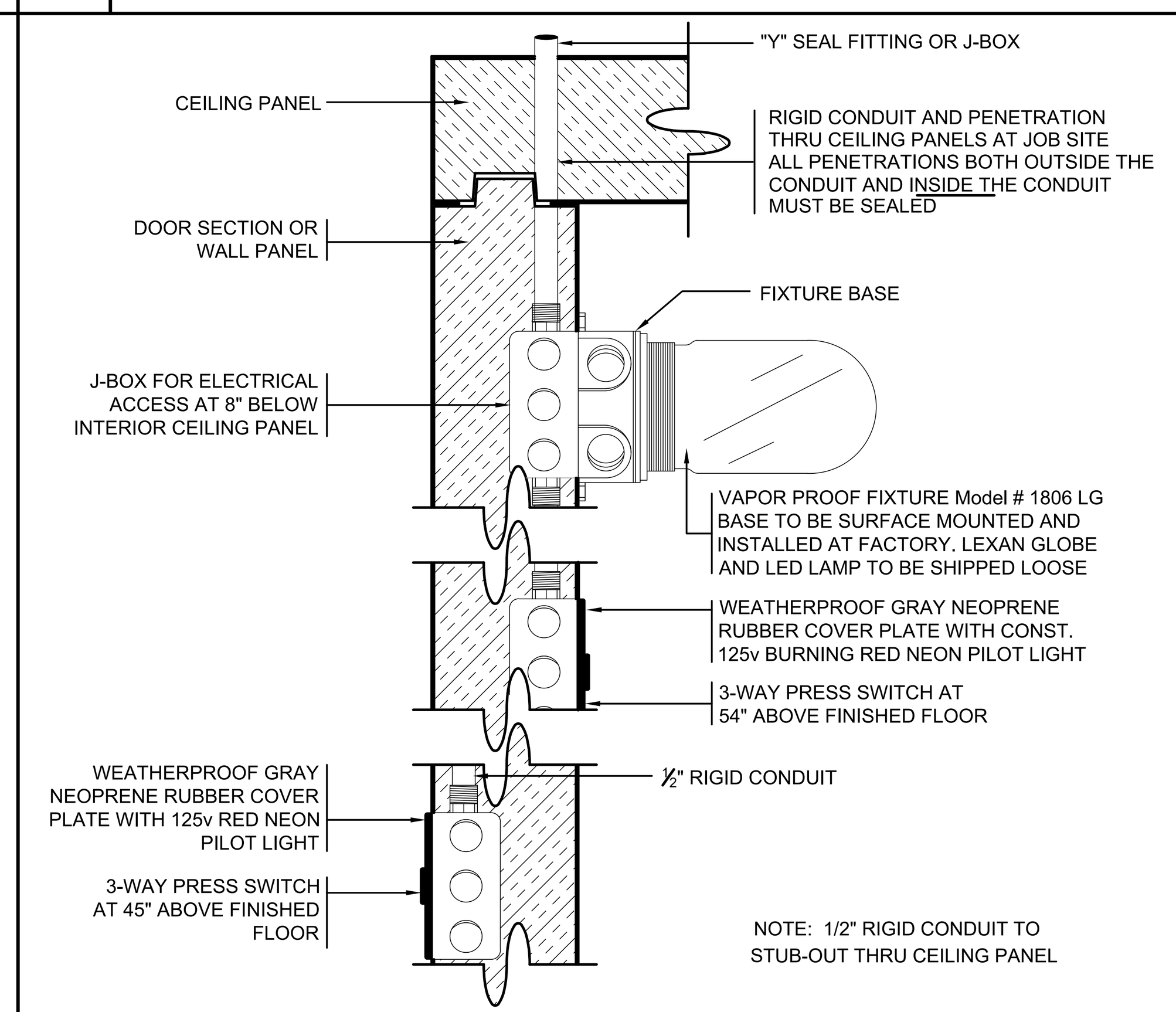
FINISH -	WALL INTERIOR -		.040 STUCCO EMBOSSED ALUMINUM WHITE FINISH
	WALL EXTERIOR (EXPOSED TO KITCHEN)		- 22GA. STAINLESS STEEL - TYPE 304, #4 FINISH
	WALL EXTERIOR (UNEXPOSED) -		26GA. STUCCO EMBOSSED GALVANIZED STEEL
	CEILING INTERIOR -		.040 STUCCO EMBOSSED ALUMINUM WHITE FINISH
	FLOOR INTERIOR -		WEARING SURFACE TO BE .1875 ALUM. TREAD PLATE W/ MIN. 1/2" RADIUS COVED UP ALL INTERIOR WALLS TO A HT. OF 6"
DOOR(S) -	1EA.	42" X 80"	COOLER, FLUSH IN-FITTING DOOR W/ MAGNETIC GASKET
		INTERIOR -	22GA. STAINLESS STEEL - TYPE 304, #4 FINISH
		EXTERIOR -	22GA. STAINLESS STEEL - TYPE 304, #4 FINISH
		DEAD BOLT -	NONE
		HANDLE -	K27 W/ INSIDE SAFETY RELEASE & DEAD BOLT LATCH
		HINGES -	(2) K1245 (1) K1248 -SPRING LOADED
		CLOSER -	RACK & PINION
		HEATER CABLE -	NONE
		VISION PANEL -	14" x 24" (NON-HEATED)
		INT KICKPLATES -	42" HIGH, DIAMOND TREAD PLATE ALUMINUM
		EXT KICKPLATES -	42" HIGH, DIAMOND TREAD PLATE ALUMINUM
		JAMB GUARDS -	INT., 48" HIGH, DIAMOND TREAD PLATE ALUMINUM
	1EA.	42" x 80"	FREEZER, FLUSH IN-FITTING DOOR W/ MAGNETIC GASKET
		INTERIOR -	22GA. STAINLESS STEEL - TYPE 304, #4 FINISH
		EXTERIOR -	22GA. STAINLESS STEEL - TYPE 304, #4 FINISH
		DEAD BOLT -	NONE
		HANDLE -	K27 W/ INSIDE SAFETY RELEASE & DEAD BOLT LATCH
		HINGES -	(2) K1245 (1) K1248 -SPRING LOADED
		CLOSER -	RACK & PINION
		HEATER CABLE -	(4) SIDES OF DOOR OPENING
		VISION PANEL -	14" x 24" (HEATED)
		INT KICKPLATES -	42" HIGH, DIAMOND TREAD PLATE ALUMINUM
		EXT KICKPLATES -	42" HIGH, DIAMOND TREAD PLATE ALUMINUM
		JAMB GUARDS -	INT., 48" HIGH, DIAMOND TREAD PLATE ALUMINUM
		THRESHOLD -	THRESHOLD COVER OVER HEATER WIRE
ACCESSORIES -	4 EA.		INT, EXT 3-WAY PRESS SWITCH MOTION SENSOR LIGHT SWITCH, WITH EXT. INDICATING RED LIGHT-FLUSH MTD
	2 EA.		MULTI-MONITOR & AUTOMATIC MODULARM #75LC HI/LO DIGITAL TEMP ALARM W/BATTERY LIGHT CONTROL BACK-UP, REMOTE NOTIFICATION DRY CONTACTS, AUTO LIGHT CONTROL INCLUDING INSIDE ILLUMINATED SWITCH W/PANIC ALARM FEATURE & SENOR LINE (12OV, 30MA) ON WALL FACING KITCHEN, PROVIDE SIGN AT EACH FOR COOLER AND FREEZER
	2 EA.		VAPOR PROOF LIGHT FIXTURE KASON #1806 - SHIPPED LOOSE
	4 EA.		LED LIGHT FIXTURE KASON #1810L 48" LONG VAPORPROOF LED FIXTURE WITH TWO 5000K COLOR TEMP. 18W LED LAMPS (120V, 36W)
	1 EA.		HEATED AIR VENT (FREEZER ONLY) - KASON #1832 HI-FLOW 2-WAY HEATED VALVE (120VAC)
	2 EA.		VINYL STRIP CURTAINS SHALL BE OF THE NSF APPROVED KASON EASY-MOUNT SYSTEM SERIES #401SA606 #401SA606 WITH SINGLE PIECE EXTRUSION CHANNEL.
	1 EA.		ROW OF ALUMINUM HAT STYLE BUMPER RAILS ON EXPOSED EXTERIOR (SHIPPED LOOSE)
CLOSURES -	1 LOT		INT. COVED BASE - (TO MATCH INT. WALL PANEL FINISH)
	1 LOT		EXPOSED EXT. COVED BASE - (TO MATCH EXT. WALL PANEL FINISH)
	1 LOT		WALL CLOSURES - (TO MATCH EXT. WALL PANEL FINISH)
	1 LOT		CEILING ENCLOSURES - (TO MATCH EXT. WALL PANEL FINISH)

WALK-IN REFRIG/FREEZER WT=8.5LBS PER SQ.FT. FOR 4" PANELS OVERALL DIMENSIONS, REFER TO FS1.1A

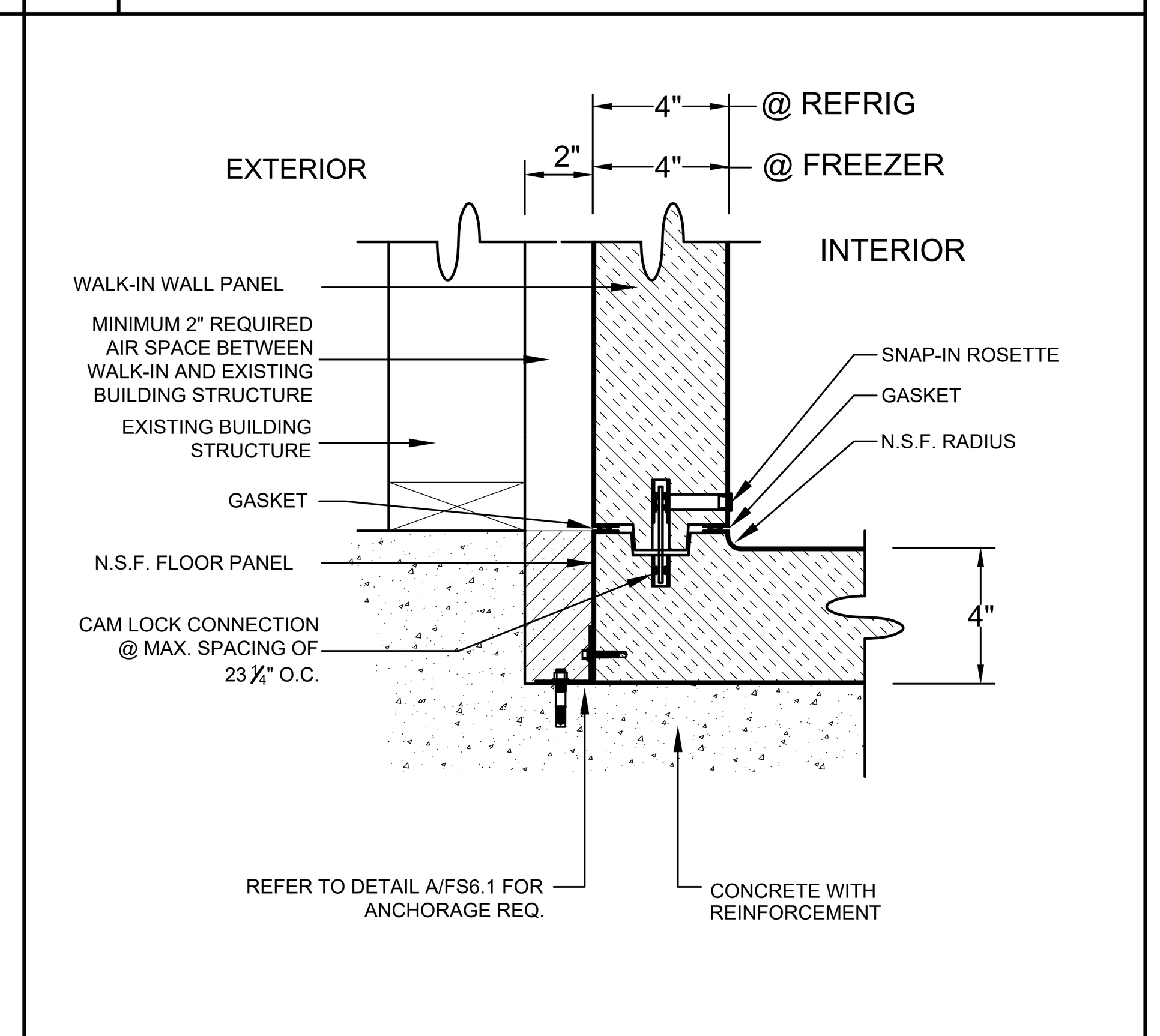
D TYPICAL SPECIFICATIONS



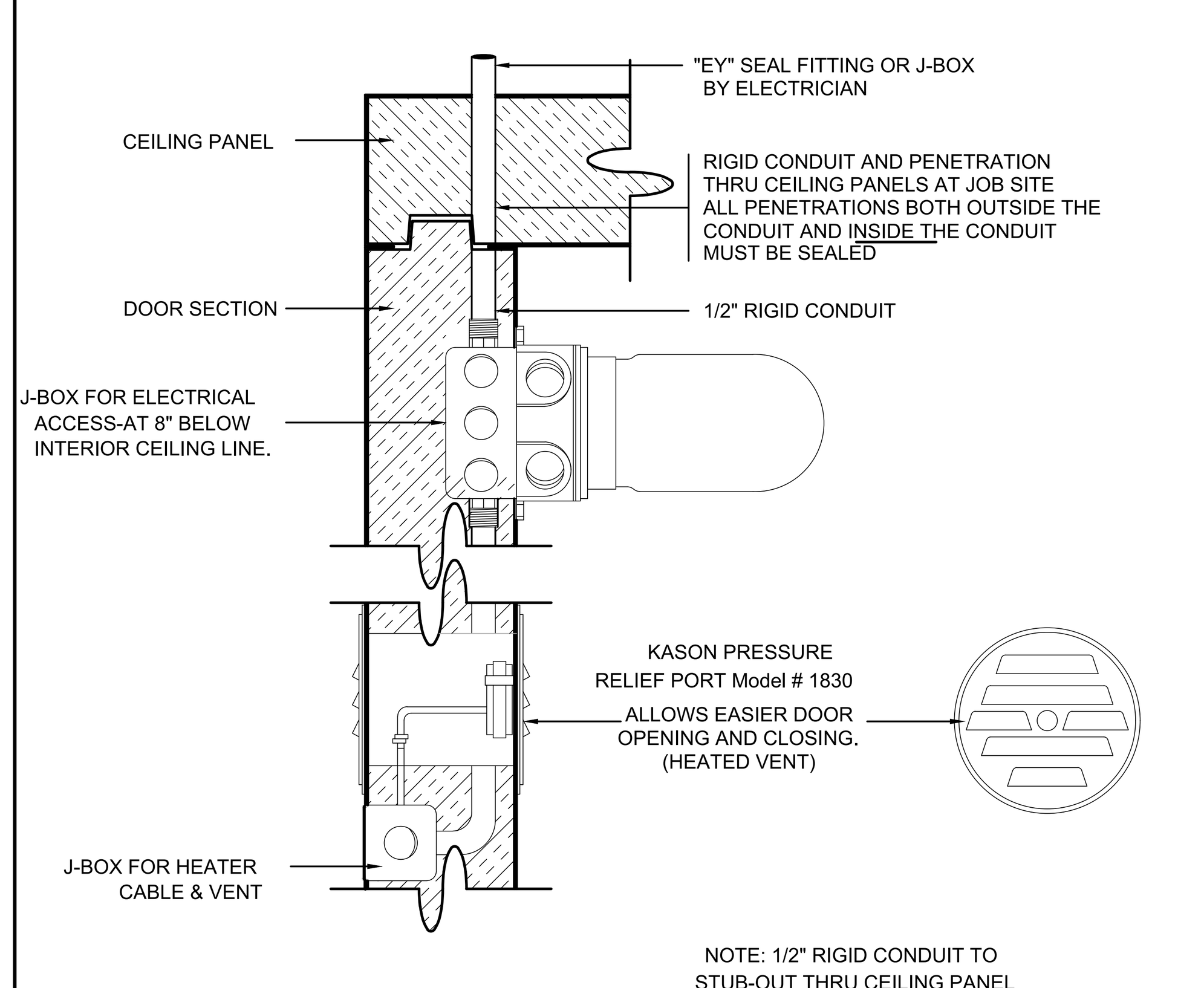
E SUPPLEMENTAL LATERAL BRACING TO CEILING PANEL



F 3 -WAY INTERIOR & EXTERIOR PRESS SWITCH

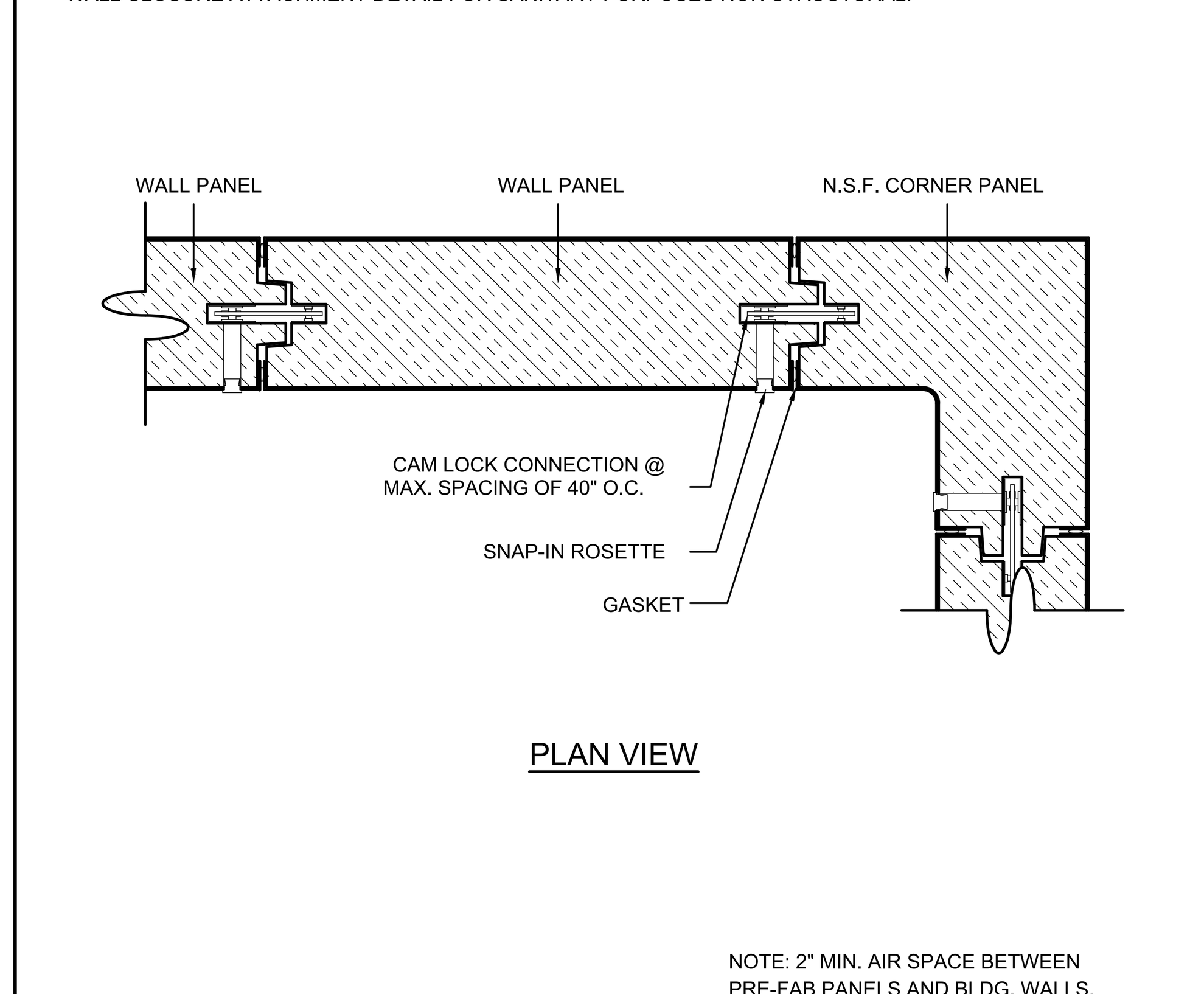


G WALL PANEL AT BUILDING WALL

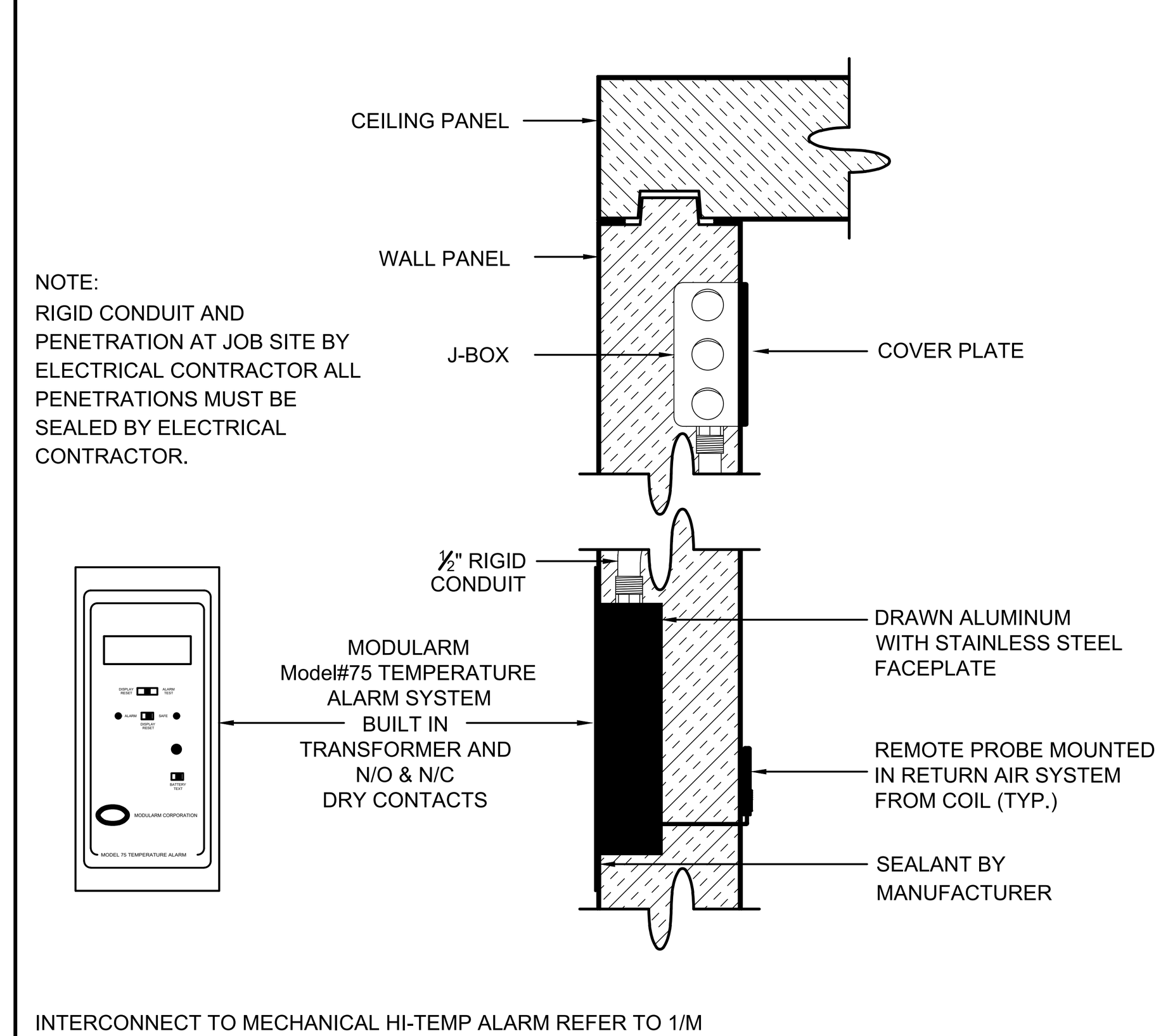


H PRESSURE RELIEF PORT MODEL # 1830 DETAIL

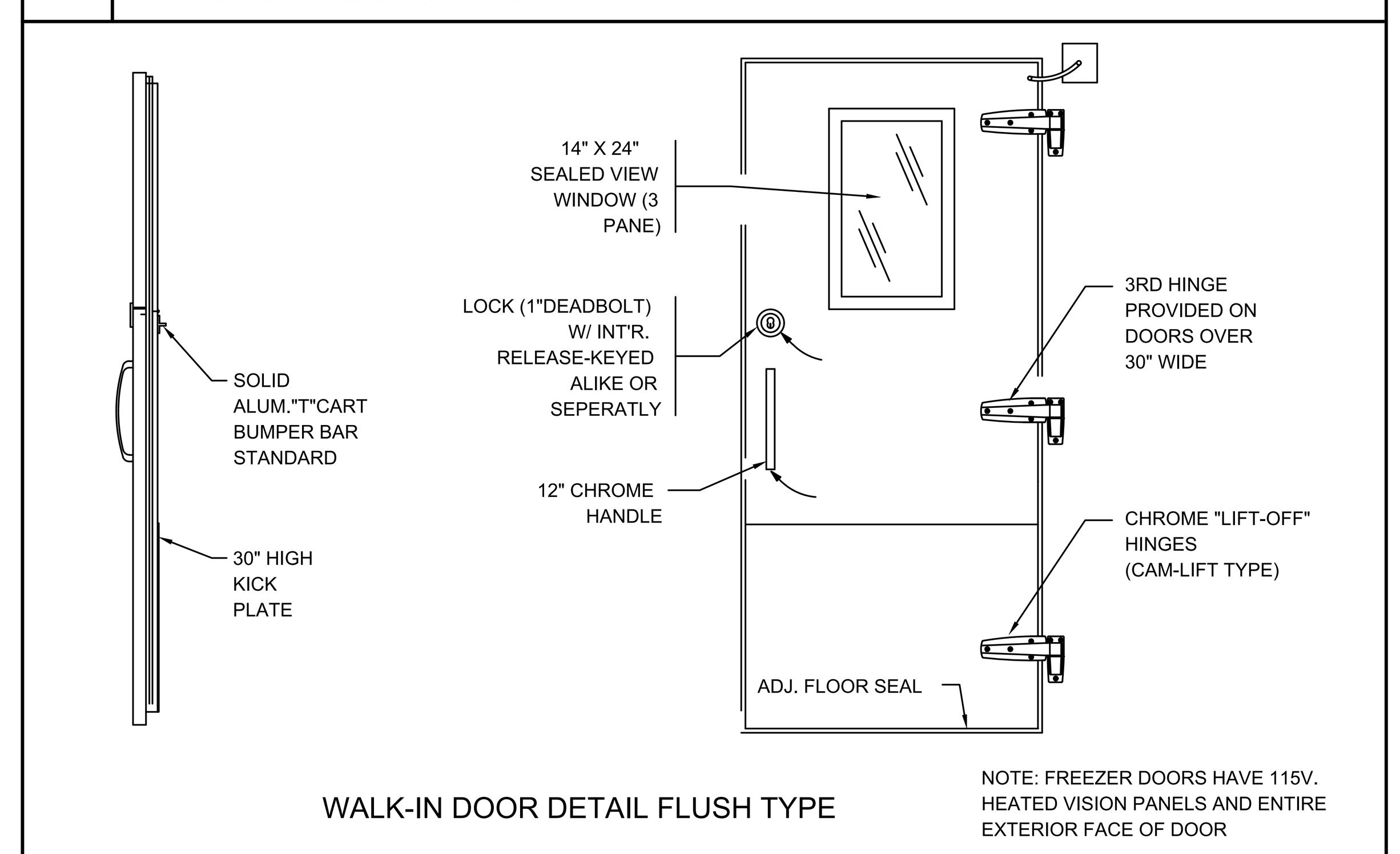
WALL CLOSURE ATTACHMENT DETAIL FOR SANITARY PURPOSES NON STRUCTURAL.



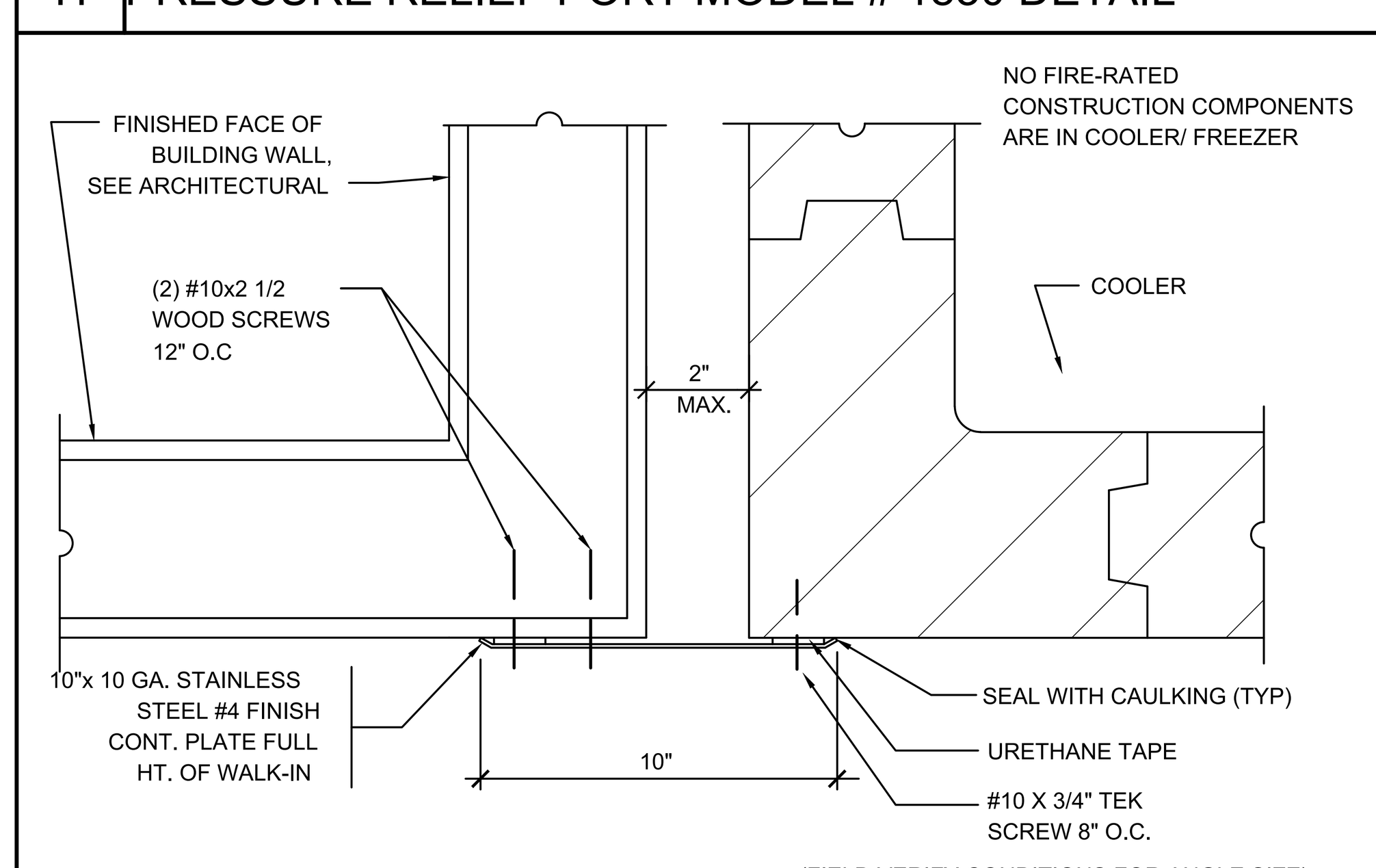
H.1 TYPICAL CAM LOCK CONNECTION DETAIL



J MODULARM CORP. MODEL 75 LC DETAIL

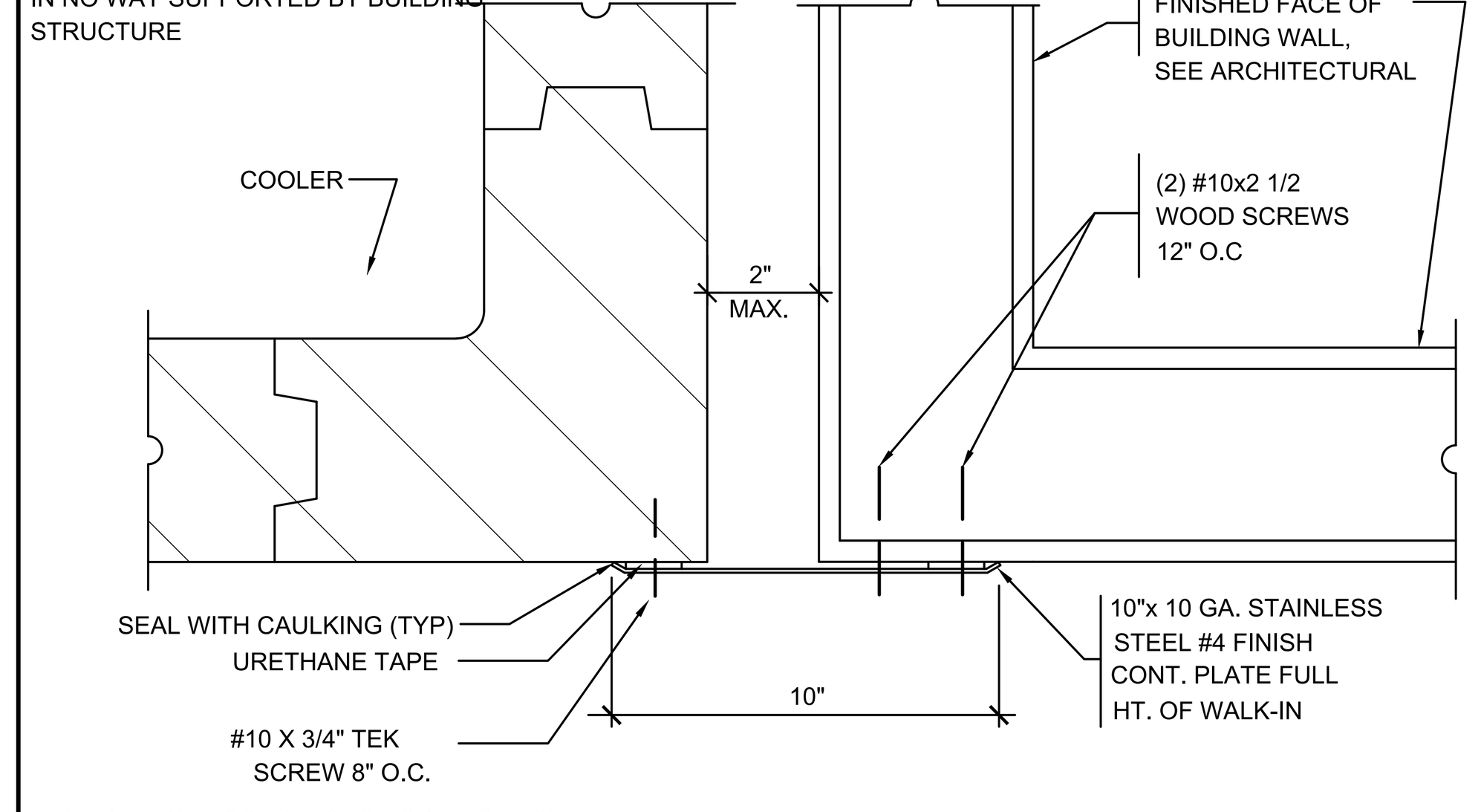


K DOOR DETAIL

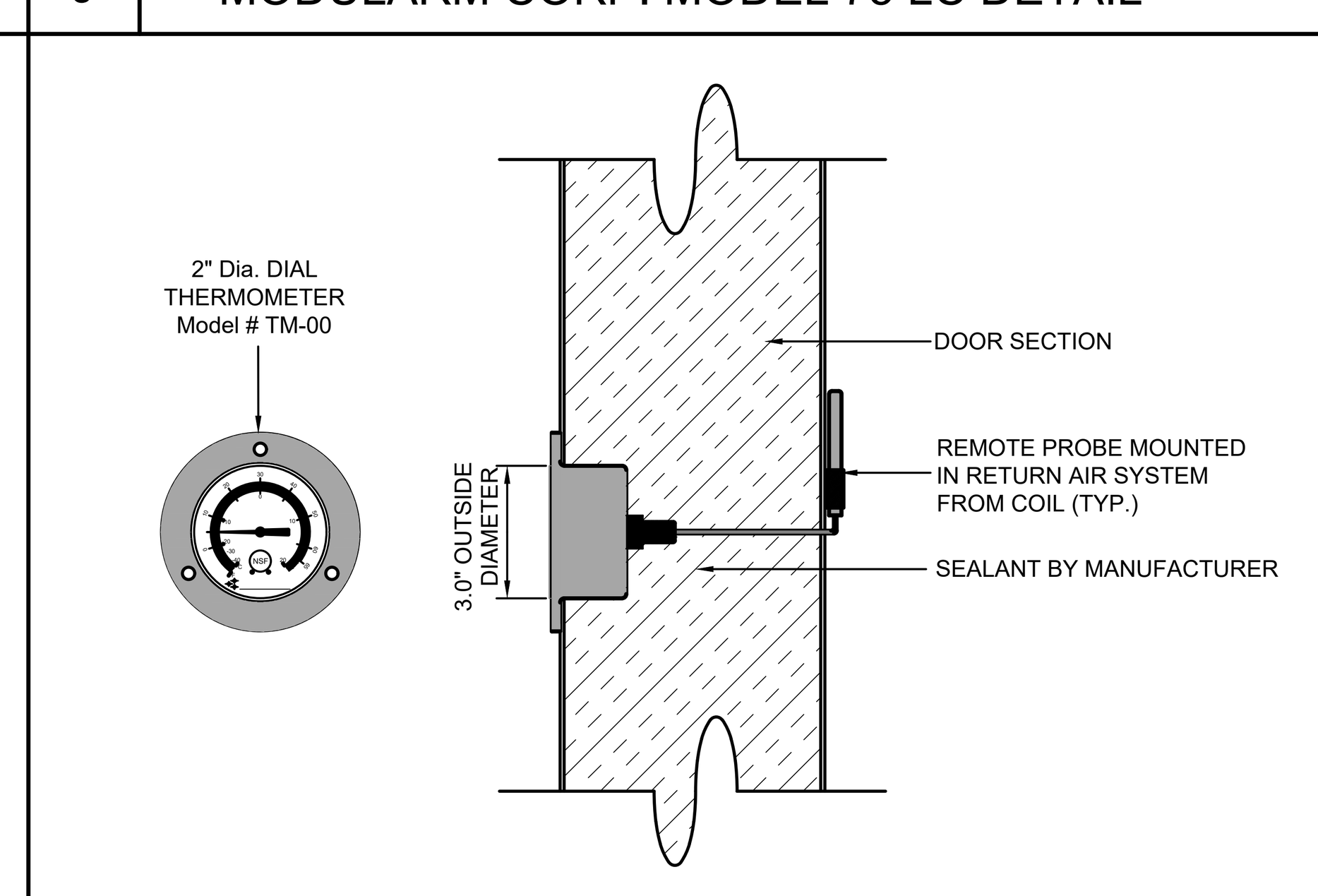


L VERT. OVERTURN BRACE REFER 1/FS4.0 FOR LOCATION

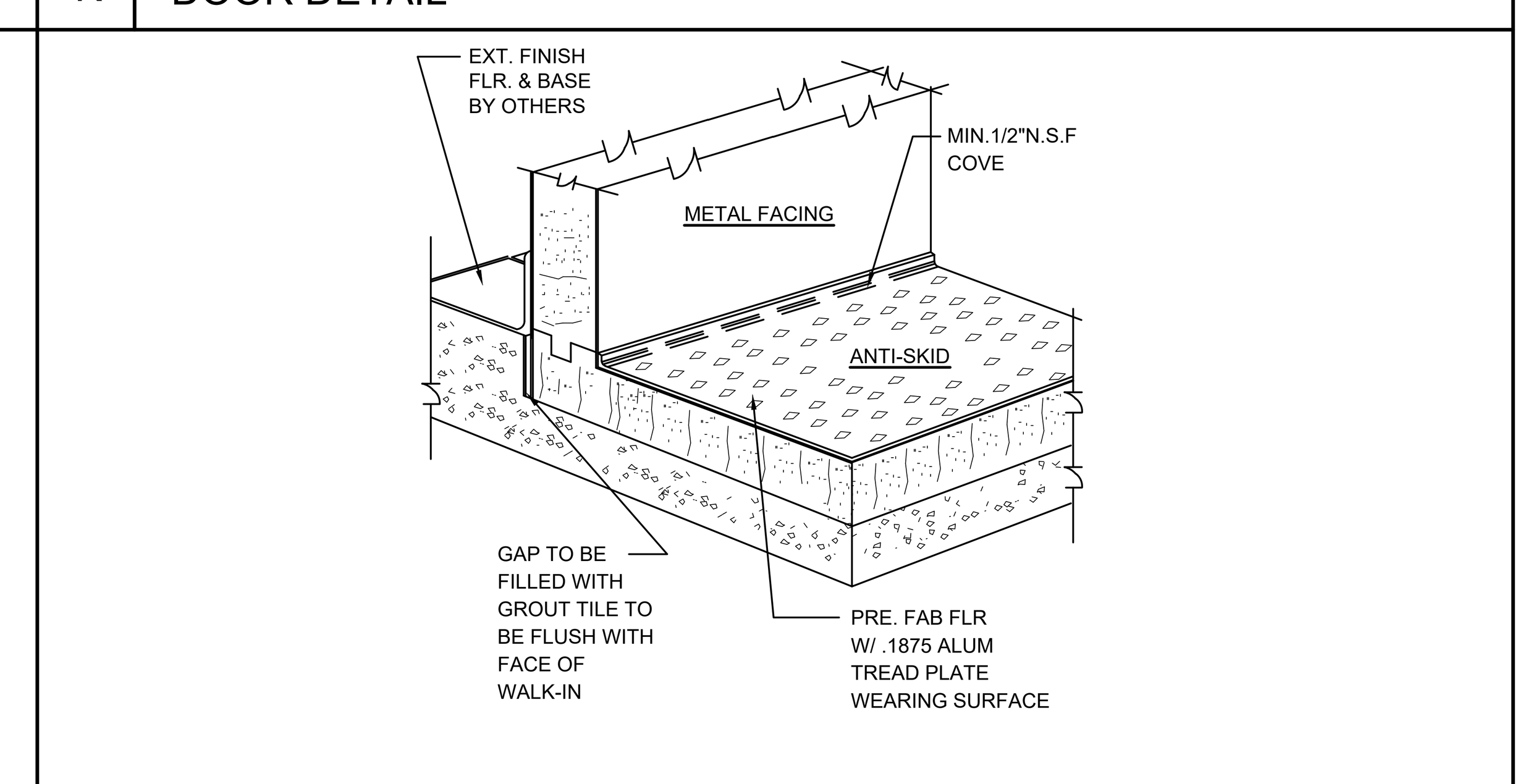
THIS WALK-IN REFRIGERATOR/ FREEZER IS SELF SUPPORTING AND IN NO WAY SUPPORTED BY BUILDING STRUCTURE



M VERT. OVERTURN BRACE REFER 1/FS4.0 FOR LOCATION



N 2" DIA. DIAL THERMOMETER



O FLOOR SECTION AT EXT. AND INT. OF REF/FREEZER

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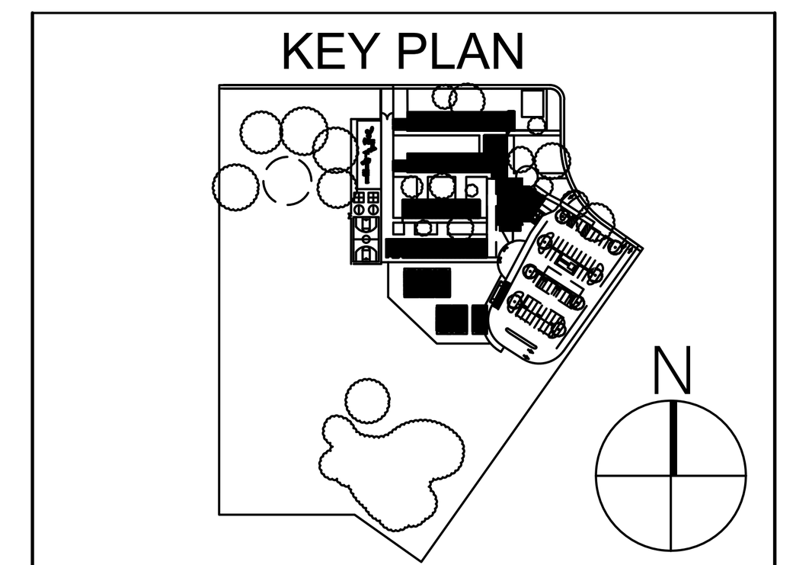
ARCHITECT	ENGINEER

NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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DSA SUBMITTAL

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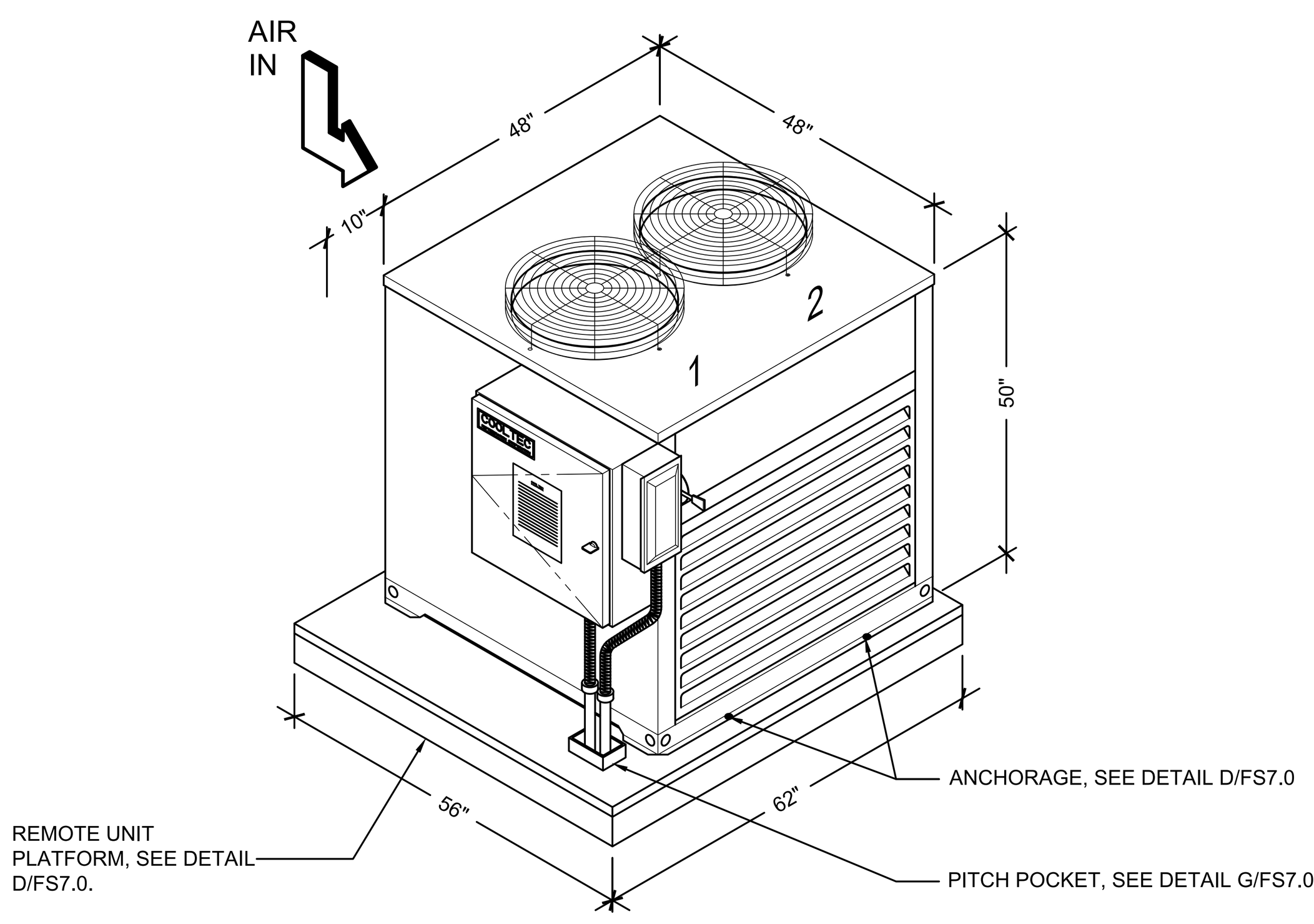
FOODSERVICE EQUIPMENT WALK-IN REFRIG/FREEZER DETAILS

Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number FS6.0

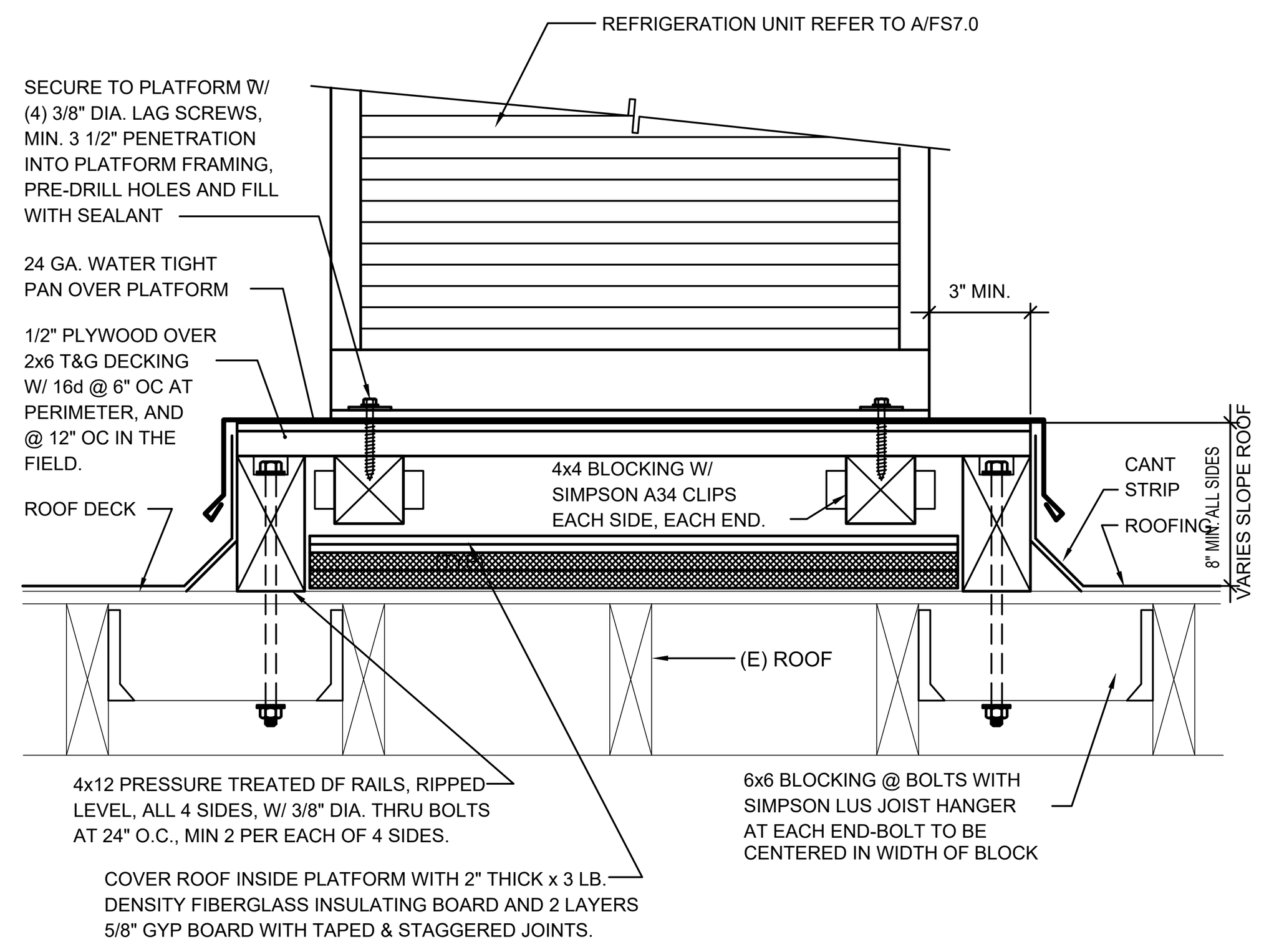
REFRIG-O-PAK SYSTEM

ALLOW 36" CLEAR AROUND UNIT

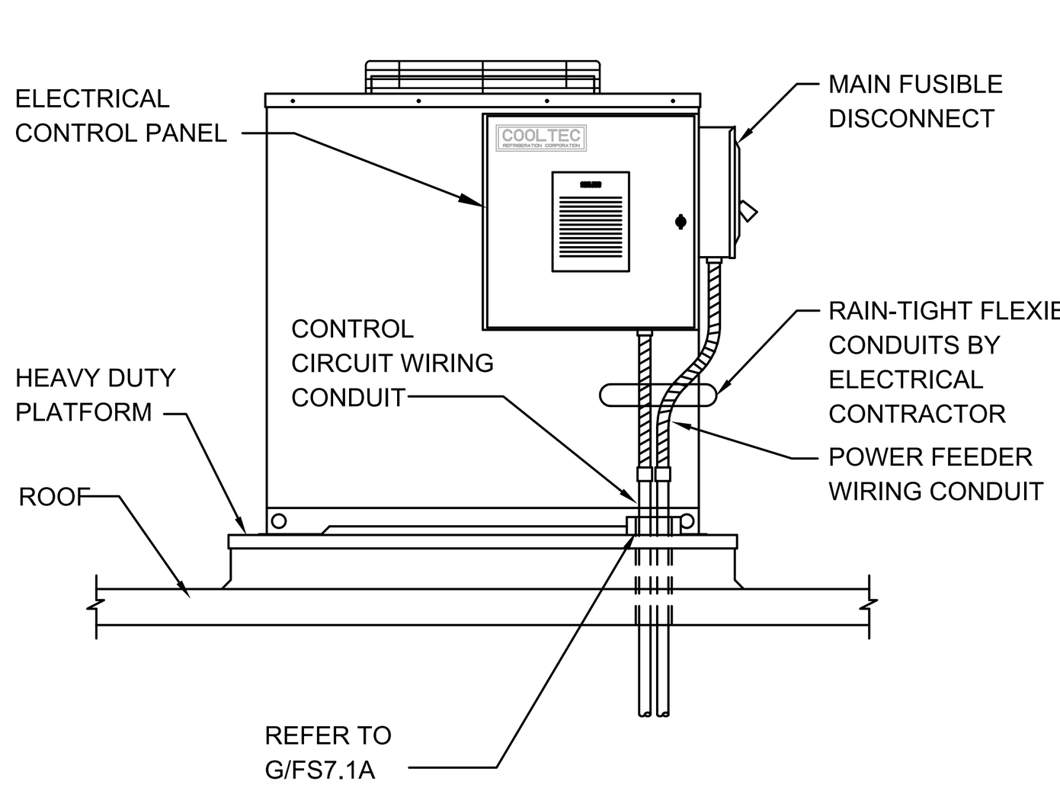


ESTIMATED WEIGHT (LBS.) 900#

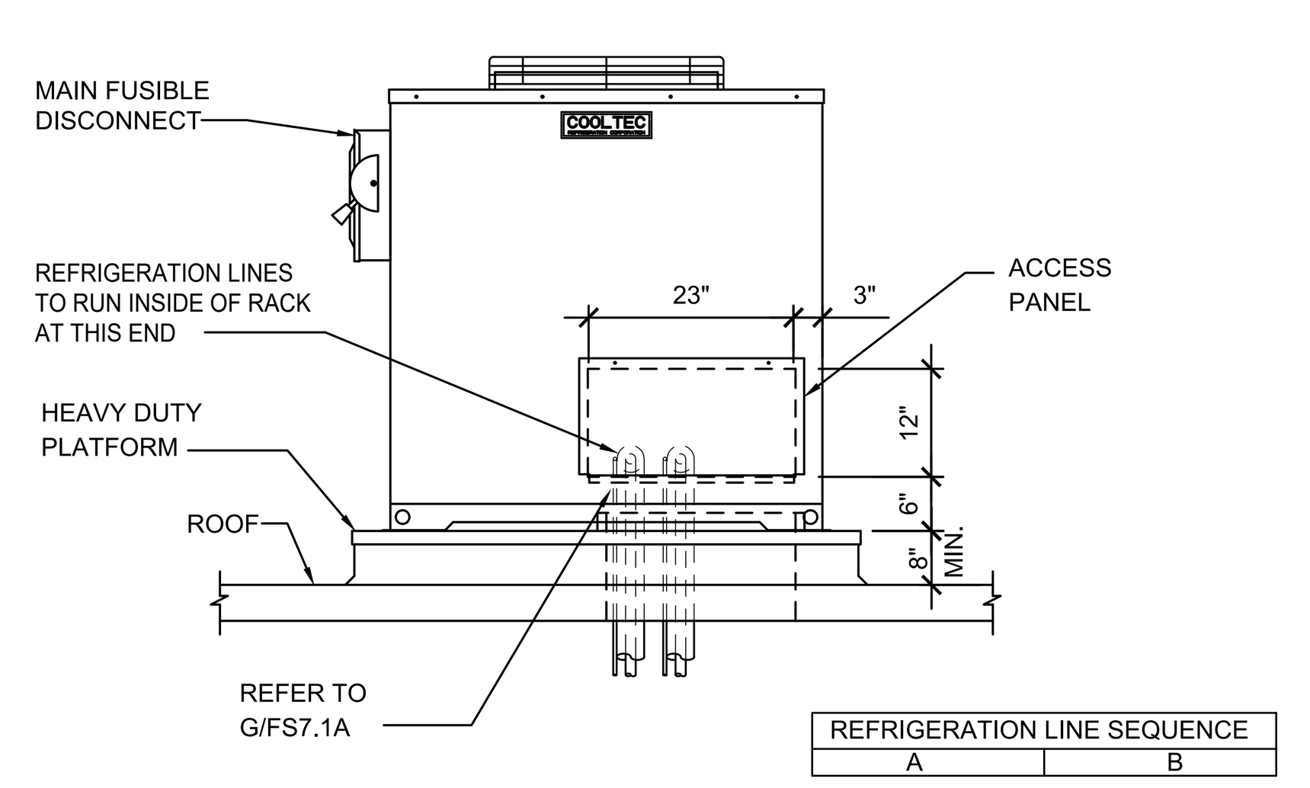
A / FS7.0 "REFRIG-O-PAK" SYSTEM # CRS-4



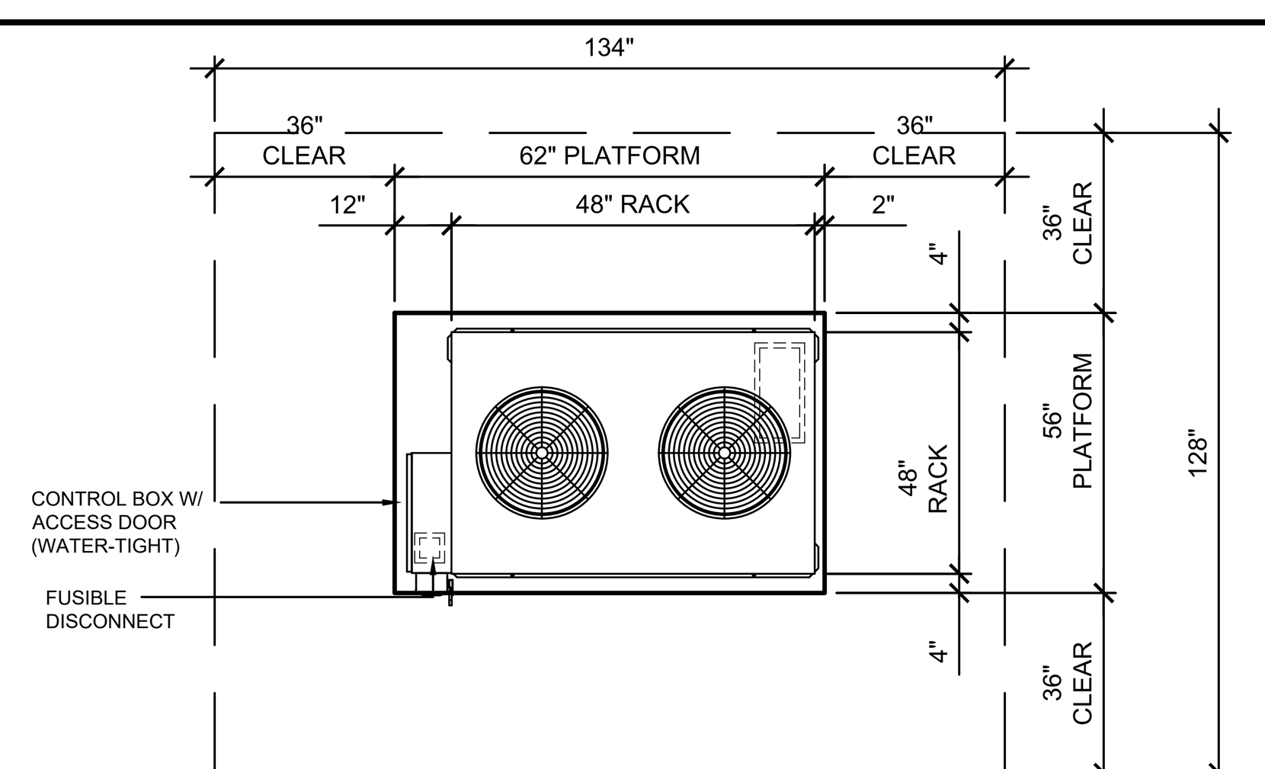
D / FS6.01 PLATFORM DETAIL



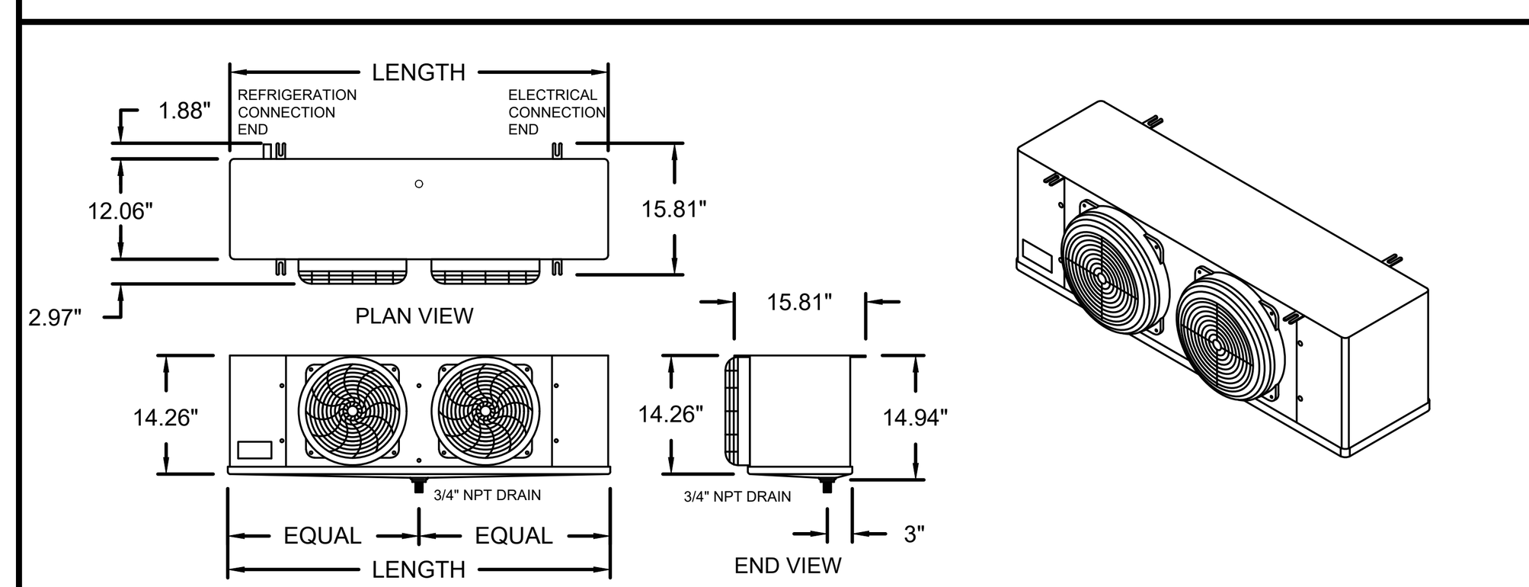
B / FS7.0 ELECTRICAL CONTROL PANEL



E / FS7.0 REFRIGERATION PIPING CONNECTION SEQUENCE



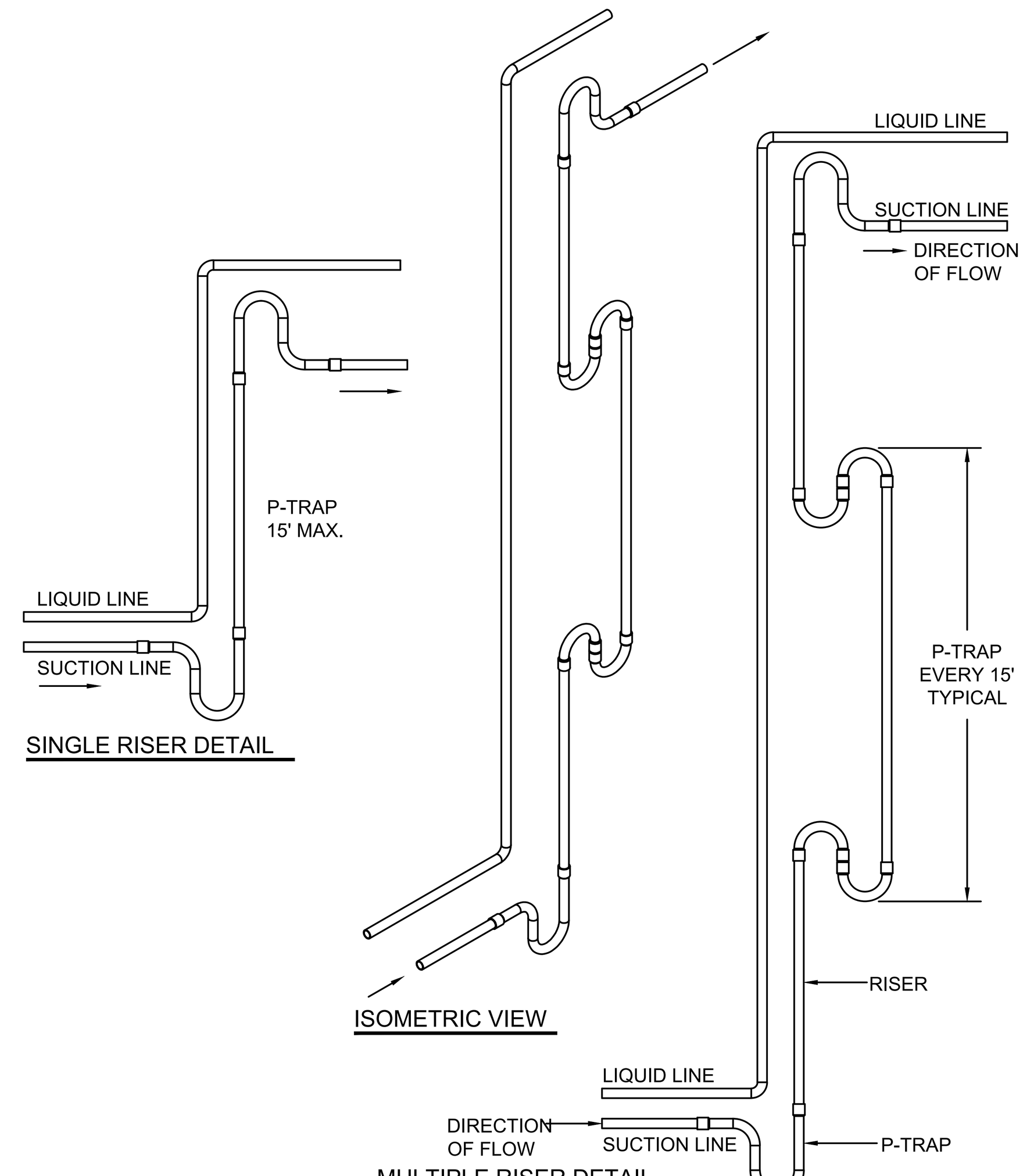
C / FS7.0 CLEARANCE REQUIREMENT AROUND RACK'S PLATFORM



MODELS: ADT / LET

SYSTEM	UNIT MODEL No.	CAPACITY BTU	LENGTH	FANS QTY.	FANS CFM	FANS EC MOTOR 115/1/60	FANS EC MOTOR 208/1/60	ELEC DEFROST 208-1-60	CONNECTIONS (In.) COIL INLET OD	CONNECTIONS (In.) SUCTION ID	CONNECTIONS (In.) DRAIN MPT	APPROX. SHIP WT. (Lbs.)
A	ADT104AEK	10400	45-1/2"	2	1400	1.8	--	--	1/2"	7/8"	3/4"	49
B	LET090BEK	9000	45-1/2"	2	1300	--	1.0	7.8	1/2"	5/8"	3/4"	48

I / FS7.0 PLAN VIEW AT WALK-IN'S



NOTES:

- INSULATE SUCTION LINES WITH ARMAFLEX: 3/4" FOR COMMERCIAL TEMPERATURE AND 1" FOR LOW TEMP.
- ALL JOINTS BRAZED WITH 35% SILVER CONTENT BRAZING ROD
- INSTALL "P" TRAP ON SUCTION LINE EVERY 15' OF EVERY VERTICAL RISE
- INSTALL INVERTED TRAP ON TOP OF THE RISE TO PREVENT OIL FROM SEEPING DOWN •NOT TO EXCEED 45' VERTICALLY OVER ALL

F / FS7.0 TYPICAL P-TRAP DETAILS AND SUCTION LINE RISER DETAILS

COOLTEC ENGINEERING SUMMARY

AMBIENT TEMPERATURE 95°F

POWER SUPPLY: 208V/3PH/60HZ — FUSE SIZE: 30 AMP

CONNECTED LOAD= 23.9 AMP — MINIMUM AMPACITY= 26.08 AMP

SYSTEM	ITEM #	FIXTURES DESCRIPTION	TEMP (F) FIXT.	TEMP (F) SST.	REFRIGERANT R-	REFRIGERANT LBS IN SYSTEM	COMPRESSORS MODEL	H.P.	RATING @ 60 Hz RLA	V	PH	MBH. (95°F)	DEFROST	UNIT COOLER ITEM #	QUANTITY	MODEL	1 Ø FAN RLA	V	HEATER FLA	V	PH	SYSTEM TOTAL POWER 208V, 60 Hz AMPS	PH	ROUTE	SUCTION	LIQUID	LINE RUN LENGTH (FEET)	DISCH.	DRAIN	HEAD PRESSURE CONTROL	CRANK CASE HEATER	FAN CYCLE SWITCH	SUCTION ACCUMULATOR	THERMOSTAT	SOLENOID VALVE	THERMOSTATIC EXPANSION VALVE	TIME CLOCK
CRS-4		CONDENSER FAN MOTORS 2																																			
A	3	WALK-IN COOLER	35	25	448A	16	ZS09KAE-TF5	1.0	7.2	208	3	11.37	D	3	1	ADT104AEK	1.8	115				7.2	3	S	7/8	3/8	100			F	F	F		M	M	M	KE2MED
								1/2	4.0	208	1											4.0	1														
B	2	WALK-IN FREEZER	-10	-20	448A	16	ZF09K4E-TF5	3.0	8.7	208	3	9.87	D	2	1	LET090BEK	1.0	208	7.8	208	1	8.7	3	S	1 1/8	3/8	100			F	F	F	F	M	M	M	KE2LOW
								1/2	4.0	208	1											4.0	1														

c UL US LISTED

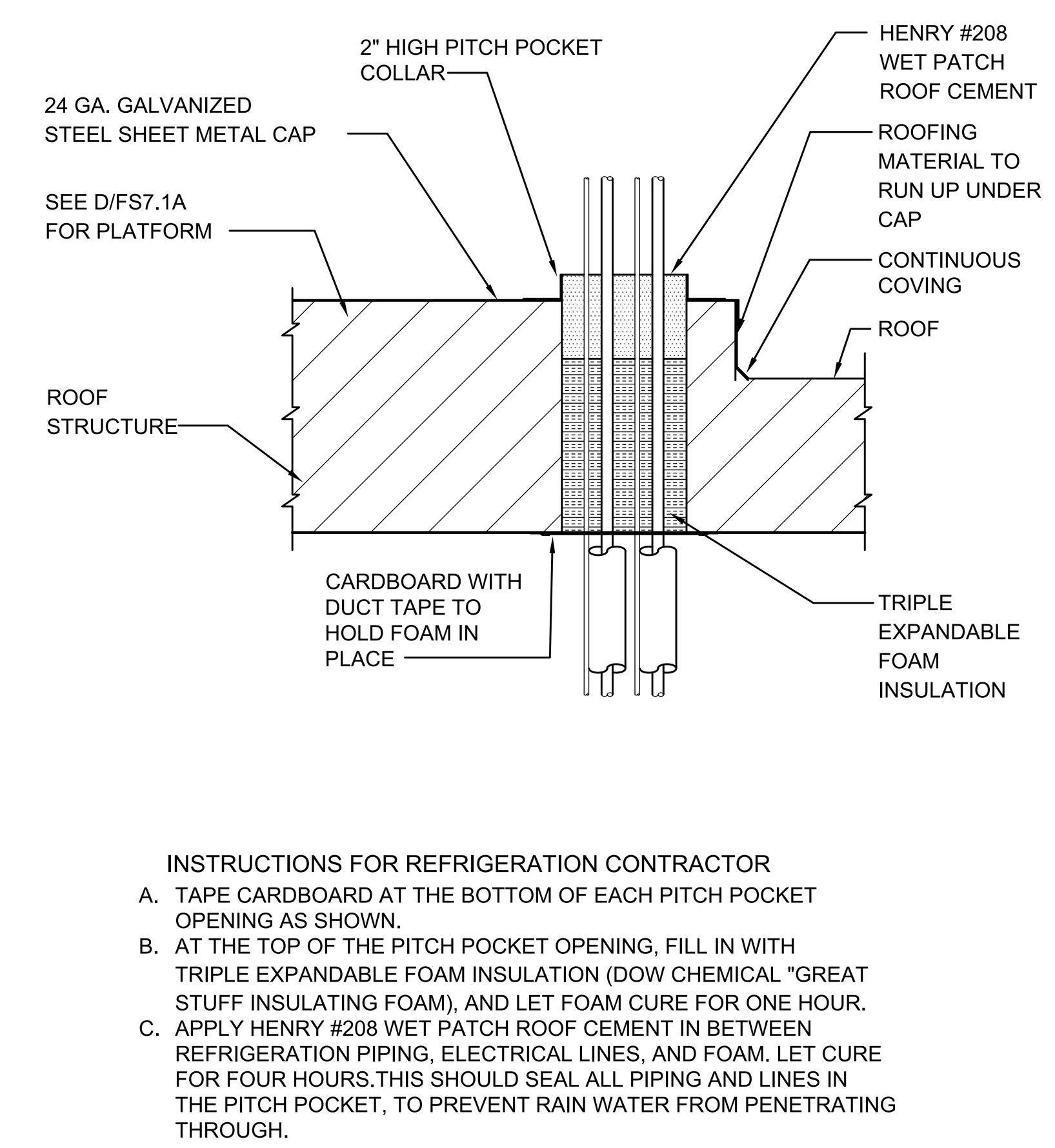
CONDENSING UNIT
33SZ FILE SA32027

E ELECTRIC (TIMED)
G GRAVITY (TIMED)
H HOT GAS (TIMED)
O OFF CYCLE (TEMP.)
D DEMAND DEFROST (KE2)

B BRANCH
M MAIN
S SINGLE

* SUPPLY CODES:
F - FACTORY INSTALLED
L - LOOSE (FIELD INSTALLED)
M - MANUFACTURER EQUIPPED
R - REFRIGERATION CONTRACTOR

NOTE:
- ALL SYSTEMS ENGINEERED WITH R-448A REFRIGERANT. ANY BASES/COILS NOT SUPPLIED BY COOLTEC MUST BE EQUIPPED WITH R-448A EXPANSION VALVES.
- REFRIGERATION PIPE SIZES ARE BASED ON A MAXIMUM LINE RUN UP TO 100 EQUIVALENT FEET FOR LIQUID AND SUCTION LINES. VERIFY LINE LENGTHS WITH JOB SITE CONDITIONS AND LINE ROUTING AT INDIVIDUAL INSTALLATIONS. IF LINE RUNS ARE GREATER THAN 100 FEET, PLEASE CONTACT COOLTEC FACTORY.
- "COMPRESSOR MOTOR PROTECTED UNDER PRIMARY SINGLE PHASE PROTECTION"
- EFFECTIVE JANUARY 1. 2009, ALL WALK-IN COOLER AND FREEZER EVAPORATIVE COILS INSTALLED IN THE U.S.A. SHALL BE SUPPLIED WITH ENERGY EFFICIENT (EC) MOTORS BASED ON THE FEDERAL ENERGY INDEPENDENCE AND SECURITY ACT (HR-6).
- ELECTRO-FIN COATED CONDENSERS AGAINST SALT AIR CONTAMINATION AND CORROSION.
- POWER REQUIRED FOR MEDIUM AND LOW TEMPERATURE EVAPORATOR COILS. POWER FROM BUILDING; SUPPLIED BY ELECTRICAL CONTRACTOR



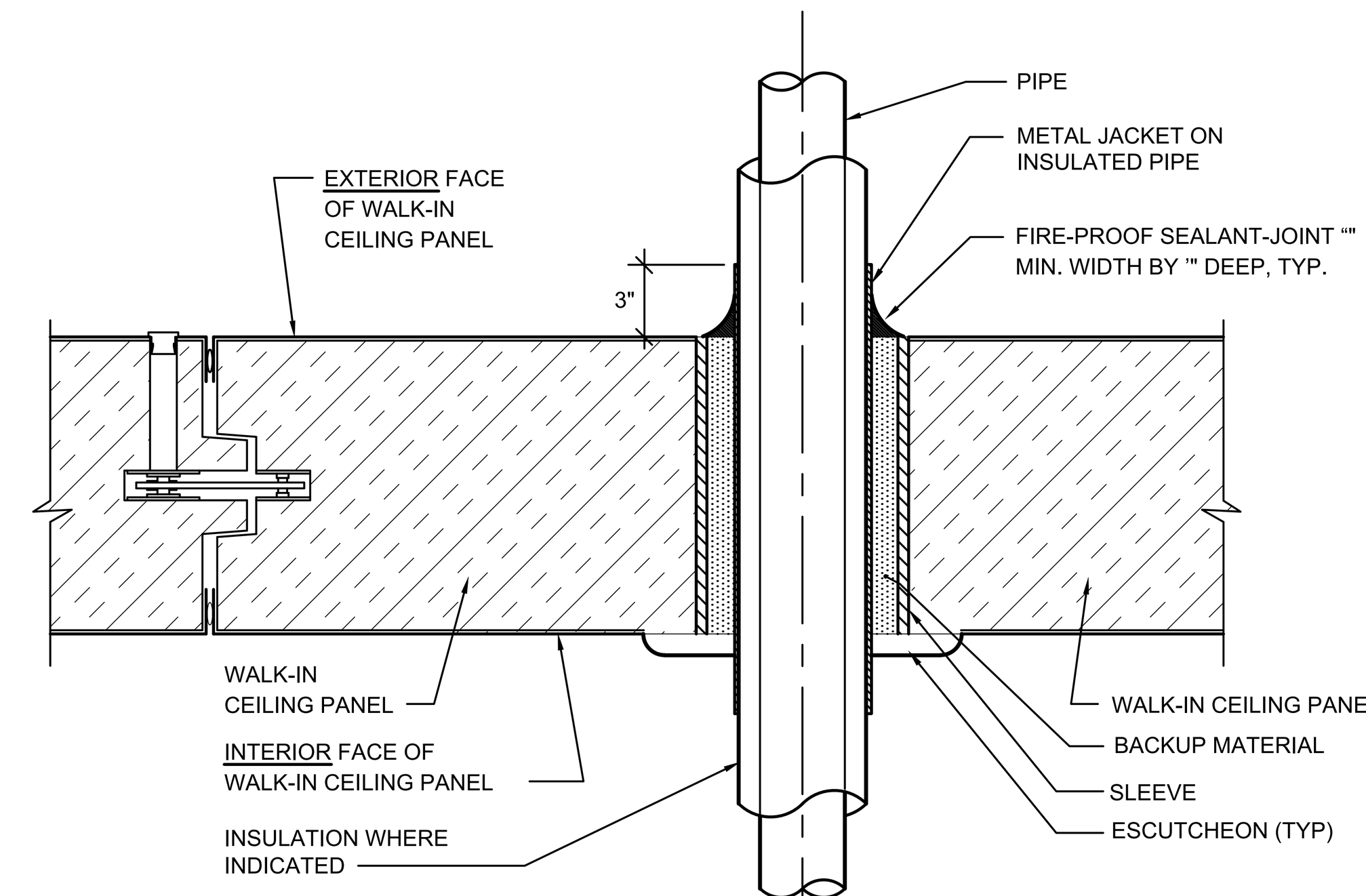
INSTRUCTIONS FOR REFRIGERATION CONTRACTOR
A. TAPE CARDBOARD AT THE BOTTOM OF EACH PITCH POCKET OPENING AS SHOWN.
B. AT THE TOP OF THE PITCH POCKET OPENING, FILL IN WITH TRIPLE EXPANDABLE FOAM INSULATION (DOW CHEMICAL "GREAT STUFF INSULATING FOAM), AND LET FOAM CURE FOR ONE HOUR.
C. APPLY HENRY #208 WET PATCH ROOF CEMENT IN BETWEEN REFRIGERATION PIPING, ELECTRICAL LINES, AND FOAM. LET CURE FOR FOUR HOURS.THIS SHOULD SEAL ALL PIPING AND LINES IN THE PITCH POCKET, TO PREVENT RAIN WATER FROM PENETRATING THROUGH.

G / FS7.0 RAIN TIGHT PITCH POCKET

POWER REQUIRED FOR LOW TEMPERATURE EVAPORATOR COILS.
POWER FROM BUILDING; SUPPLIED BY ELECTRICAL CONTRACTOR

SYSTEM	DEFROST	UNIT COOLER ITEM #	DESCRIPTION	QUANTITY	MODEL	POWER FROM BUILDING BY ELECTRICAL CONTRACTOR EVAP COIL RLA	EVAP COIL VOLTAGE	DRAIN HEATER RLA	DRAIN HEATER VOLTAGE	TOTAL LOAD RLA	TOTAL LOAD VOLTAGE
A	D	3	WALK-IN COOLER	1	ADT104AEK	1.8	115/1	---	------	1.8	115/1
B	D	2	WALK-IN FREEZER	1	LET090BEK	7.8	208/1	5.0	208/1	12.8	208/1

NOTE: PROVIDE SEPARATE POWER SOURCE FOR EACH EVAPORATOR POWER FROM BUILDING.



H / FS7.0 PIPE THRU WALK-IN CEILING PANEL

SPECIFICATION

ITEM NO. 27 REMOTE REFRIGERATION PACKAGE

THE REFRIGERATION PACKAGE SHALL BE PRE-ENGINEERED AND FACTORY ASSEMBLED UNIT, TRADE NAME "REFRIG-O-PAK", AS MANUFACTURED BY COOLTEC REFRIGERATION CORP., 1250 E. FRANKLIN AVE., POMONA, CA 91766. PHONE: (909) 865-2229, FAX: (909) 868-0777.
E-MAIL ADDRESS: sales@cooltecrefrigeration.com

CONTRACTOR SHALL FURNISH AND INSTALL, WHERE SHOWN ON PLANS, (1) COOLTEC U.L. APPROVED "REFRIG-O-PAK" AIR COOLED REMOTE REFRIGERATION PACKAGE, MODEL CRS-4, WITH CONTROL PANEL, 208 VOLTS, 3 PHASE REFRIGERATION SYSTEM SHALL BE HOUSED IN A WEATHER PROTECTED ENCLOSURE. THE FRAME, ENCLOSURE, AND PANELS SHALL BE FABRICATED OF GALVANIZED STEEL.
THE ENTIRE FRAME SHALL BE PRE-ASSEMBLED, WELDED, CLEANED, AND PRIMED AND POWDER COATED EPOXY ENAMEL AND BAKED.
CONDENSER FAN MOTORS SHALL BE MOUNTED ON THE TOP OF THE ENCLOSURE FOR BETTER HEAT DISCHARGE.

1. REFRIGERATION UNITS
   - A. AIR-COOLED CONDENSING UNITS SHALL BE HERMATIC/GLACIER SCROLL TYPE (COPELAND). EACH UNIT SHALL BE EQUIPPED WITH HIGH-LOW PRESSURE CONTROL, LIQUID LINE DRIER, SIGHT GLASS, HEAD PRESSURE CONTROL, TIME CLOCKS AND PUMP DOWN SOLENOIDS.
   - B. ALL COMPRESSOR UNITS SHALL BE NEW FACTORY ASSEMBLED TO OPERATE WITH THE REFRIGERANT SPECIFIED IN THE ENGINEERING SUMMARY SHEET. REFRIGERANT R-404A SHALL BE USED ON ALL COMMERCIAL TEMPERATURE UNITS AND LOW TEMPERATURE UNITS.
   - C. THE CONDENSER SHALL BE SECTIONAL, REMOVABLE, WITH RIFLED TUBE SLOTTED FINNED, AND SHALL BE DESIGNED FOR 20°FTD. THE CONDENSER SHALL BE ELECTRO-FIN COATED AGAINST SALT AIR CONTAMINATION AND CORROSION.
2. PRE-PIPING
   - A. ALL REFRIGERANT LINES SHALL BE EXTENDED TO ONE SIDE OF THE PACKAGE IN A NEAT AND ORDERLY MANNER. SUCTION LINES MUST BE INSULATED WITH ARMAFLEX (1" THICK FOR LOW TEMP, 3/4" THICK FOR MEDIUM TEMP).
   - B. ALL TUBING SHALL BE SECURELY SUPPORTED AND ANCHORED WITH CLAMPS.
   - C. SILVER SOLDER AND/OR SIL-FOS SHALL BE USED FOR ALL REFRIGERANT PIPING. SOFT SOLDER IS NOT ACCEPTABLE.
   - D. ALL PIPING TO BE PRESSURE TESTED WITH NITROGEN AT 300 PSI. AFTER THE CONDENSING UNIT AND COIL HAVE BEEN CONNECTED, THE BALANCE OF THE SYSTEM SHALL BE LEAKED TESTED WITH ALL VALVES OPENED.
3. CONTROL PANEL
   - A. THE PACKAGE SHALL HAVE A FACTORY MOUNTED AND PRE-WIRED CONTROL PANEL COMPLETE WITH MAIN FUSED DISCONNECT. COMPRESSOR CIRCUIT BREAKERS, FUSES, CONTACTORS AND THE TIME CLOCKS WIRED FOR SINGLE POINT CONNECTION.
   - B. ELECTRICAL CONTRACTOR SHAL PROVIDE AND INSTALL MAIN POWER LINES TO PANEL AND PROVIDE WIRE HARNESS WIRING FOR CONTROL AND DEFROST HEATER BETWEEN AND THE DEFROST CLOCK AND THE REFRIGERATION FIXTURES, ALL IN ACCORDANCE WITH THE WIRING DIAGRAM AND PER LOCAL CODES.
4. SAFETY CAUTION
   - A. EACH SYSTEM AND EVAPORATOR IS SHIPPED UNDER NITROGEN PRESSURE. USE CAUTION AND EXERCISE SAFETY AT ALL TIMES WHEN PREPARING FOR FINAL HOOK-UP.
5. EVAPORATIVE COIL
   - A. EVAPORATIVE COILS SHALL BE DIRECT EXPANSION TYPE, FABRICATED OF COPPER TUBES WITH ALUMINUM FINS. ALL EVAPORATIVE COILS SHALL BE PROVIDED WITH SOLENOID VALVE, THERMOSTATIC EXPANSION VALVE, AND ELECTRONIC THERMOSTAT, PIPED AND WIRED TO THE JUNCTION BOX FOR POSITIVE PUMP DOWN.
   - B. EVAPORATIVE COILS SHALL BE EQUIPPED WITH ENERGY SAVING "EC" MOTORS.

COOLTEC
REFRIGERATION CORP.
1250 E. FRANKLIN AVENUE, POMONA, CA 91766
PHONE: (909) 865-2229 FAX: (909) 868-0777
E-MAIL: gshare@cooltecrefrigeration.com

CONSTRUCTION NOTES FOR TRADES

1. GENERAL CONTRACTOR
   - A. CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND COORDINATE WITH OTHER TRADES.
   - B. GENERAL CONTRACTOR TO VERIFY AND CO-ORDINATE LOCATION OF REFRIGERATION RACK WITH REFRIGERATION CONTRACTOR TO SATISFY LOCAL CODE REQUIREMENTS AND MAINTENANCE OF THE RACK.
   - C. GENERAL CONTRACTOR TO VERIFY REFRIGERATION LINE RUNS THRU TO ROOF OR MULTI-STORY BUILDING PRIOR TO CONSTRUCTION WITH REFRIGERATION CONTRACTOR FOR ACCESSIBILITY.
   - D. GENERAL CONTRACTOR TO VERIFY ACCESS OF CRANE OR MECHANICAL LIFT WITH REFRIGERATION CONTRACTOR PRIOR TO CONSTRUCTION (IF REQUIRED).
   - E. GENERAL CONTRACTOR SHALL PREPARE AND WEATHER PROOF THE PLATFORM AND CURBED OPENINGS FOR REFRIGERATION PIPING AND ELECTRICAL CONDUIT. ROOF PAD TO BE CONSTRUCTED OF HEAVY DUTY STEEL FRAMING, AND THE FINISHED HEIGHT DICTATED PER LOCAL CODES.
   - F. PROVIDE SHEET METAL CAP WITH 2" HIGH PITCH POCKET COLLAR AND WATER TIGHT SOLDERED JOINTS.
   - G. GENERAL CONTRACTOR TO ALLOW 3'-0" (36") OF CLEAR SPACE AROUND ROOF PAD FOR MAINTENANCE.
   - H. ALL CORE DRILLING REQUIRED FOR REMOTE REFRIGERATION PIPING WORK BY THE REFRIGERATION CONTRACTOR, IS IN THE GENERAL CONTRACTOR'S SCOOP OF WORK. COORDINATE EXACT LOCATION AND NUMBER OF PENETRATIONS WITH THE REFRIGERATION CONTRACTOR AND COMPLY WITH ALL LANDLORD REQUIREMENTS FOR X-RAY OF SLAB PRIOR TO WORK.
   - I. ANY ATTACHMENT TO BUILDING STRUCTURE FOR LOAD BEARING WEIGHT TO BE PROVIDED AND CO-ORDINATED BY GENERAL CONTRACTOR.
   - J. GENERAL CONTRACTOR TO BACKFILL ALL PITCH POCKETS TO TOP WITH TAR OR PITCH AFTER REFRIGERATION AND ELECTRICAL LINES HAVE BEEN RUN.
2. REFRIGERATION CONTRACTOR
   - A. REFRIGERATION CONTRACTOR SHALL RUN ALL REFRIGERATION LINES WHICH EXTEND DOWN THRU WALL(S) BEFORE WALL(S) ARE CLOSED UP WHEN CONDUIT IS NOT PROVIDED.
   - B. REFRIGERATION CONTRACTOR TO SEAL BOTH ENDS OF CONDUIT WITH FOMOFIL AFTER ALL LINES HAVE BEEN RUN. IF PULL BOX(ES) ARE SPECIFIED, THEY MUST BE A MINIMUM 12"x 12".
   - C. REFRIGERATION CONTRACTOR SHALL INSULATE ALL REFRIGERATION SUCTION LINES.
   - D. REFRIGERATION CONTRACTOR SHALL VERIFY LOCATION OF BLOWER COIL(S) AND COMPRESSOR(S) FOR ALL REFRIGERATED AREAS.
   - E. REFRIGERATION CONTRACTOR SHALL VERIFY LOCATION OF PITCH POCKET(S) FOR REFRIGERATION LINE PENETRATION THRU ROOF WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR TO INSTALL ALL PITCH POCKETS.
   - F. CONTRACTOR SHALL USE ONLY CLEAN DEHYDRATED, SEALED REFRIGERATION GRADE A.C.R. COPPER TUBING. USE ONLY LONG RADIUS ELBOWS TO REDUCE FLOW RESISTANCE AND LINE BREAKAGE.
   - G. SILVER SOLDER AND/OR SIL-FOS SHALL BE USED ON ALL REFRIGERANT PIPING. SOFT SOLDER IS NOT ACCEPTABLE. USE MINIMUM 35% SILVER SOLDER FOR DISSIMILAR METALS.
   - H. ALL PIPING MUST BE SUPPORTED WITH HANGERS THAT CAN WITHSTAND THE COMBINED WEIGHT OF TUBING, INSULATION, VALVES, AND FLUID IN THE TUBING.
   - I. USE NITROGEN IN THE COPPER TUBING DURING BRAZING TO PREVENT FORMATION OF COPPER OXIDES. LIQUID AND SUCTION LINES MUST BE FREE TO EXPAND INDEPENDENTLY OF EACH OTHER. DO NOT EXCEED 100 FEET WITHOUT A CHANGE IN DIRECTION OR AN OFFSET. PLAN PROPER PITCHING, EXPANSION ALLOWANCE, AND P-TRAPS AT THE BASE OF ALL SUCTION RISERS AND AT EVERY 15 FEET OF EVERY VERTICAL RISE. INSTALL SERVICE VALVES AT SEVERAL LOCATIONS FOR EASE OF MAINTENANCE. THESE VALVES MUST BE APPROVED FOR 450 PSI WORKING PRESSURE.
   - J. ALL PIPING TO BE PRESSURE TESTED WITH NITROGEN AT 300 PSI WITH ALL VALVES OPEN AND HELD FOR 12 HOURS. ELECTRONIC LEAK DETECTORS SHALL BE USED TO LOCATE ALL LEAKS.
   - K. COMPLETE SYSTEM SHALL BE EVACUATED TO 500 MICRONS WITH VACUUM PUMP BEFORE CHARGING THE SYSTEM.
   - L. ONCE SYSTEM IS CHARGED AND RUNNING, ADJUST ALL CONTROLS _____ INCLUDING PRESSURE CONTROLS, EXPANSION VALVES, THERMOSTATS, AND TIME CLOCKS. RETURN AFTER 24 HOURS TO VERIFY PROPER OPERATION OF SYSTEMS.
   - M. REFRIGERATION CONTRACTOR TO PROVIDE AND INSTALL DRAIN LINE HEATER WITH INSULATION IN FREEZER TO BE CONNECTED BY ELECTRICAL CONTRACTOR.
   - N. REFRIGERANT SUCTION LINES OUTSIDE OF REFRIGERATED COMPARTMENTS, NOT RUN IN CONDUIT, SHALL BE INSULATED BACK TO COMPRESSOR WITH ARMSTRONG ARMA-FLEX AP-25/50 FOAMED PLASTIC INSULATION OR EQUAL IN ACCORD WITH DIRECTION OF THE MANUFACTURER. MINIMUM THICKNESS SHALL BE 3/4 INCH FOR COMMERCIAL TEMPERATURE AND 1.0 INCH FOR LOW TEMPERATURE.
   - O. FILL ROOF REFRIGERATION AND ELECTRICAL PITCH POCKETS WITH FOAM AND SEALANT.
   - P. REFRIGERATION CONTRACTOR TO SEAL ALL REFRIGERATION LINE PENETRATIONS MADE THRU WALK-IN COOLERS/FREEZERS, AND REFRIGERATED BASE SECTIONS OF COUNTERS.
3. ELECTRICAL CONTRACTOR
   - A. ELECTRICAL CONTRACTOR TO PROVIDE MAIN POWER FOR THE REFRIGERATION PACKAGE AND CONNECT CONTROL AND DEFROST SYSTEMS.
   - B. ELECTRICAL CONTRACTOR TO PROVIDE 5-WIRE COLOR-CODED SERVICE FROM THE TIME CLOCK AT THE REFRIGERATION SYSTEM (FREEZER ONLY).
   - C. ELECTRICAL CONTRACTOR TO CONNECT DRAIN-LINE HEATER IN THE FREEZER.
   - D. ALL ELECTRICAL WIRING AND INSTALLATION SHALL BE ACCORDANCE WITH THE WIRING DIAGRAM AND PER LOCAL CODES.
   - E. IF CONTRACTED, ELECTRICAL CONTRACTOR TO INSTALL ALL CONDUITS FOR REFRIGERATION LINES IN WALLS, PRIOR TO WALLS ARE CLOSED UP. ALL PULL BOXES MUST BE A MINIMUM OF 12"x 12".
4. PLUMBING CONTRACTOR
   - A. PLUMBING CONTRACTOR TO PROVIDE TYPE "M" COPPER DRAIN LINES FOR WALK-IN REFRIGERATOR AND FREEZER, PITCHED 1/2 INCH PER FOOT OF RUN. IN FREEZER, HEATED DRAIN LINE MUST BE INSULATED TO PREVENT FREEZING. TRAP DRAIN LINES OUTSIDE OF REFRIGERATED SPACE TO AVOID ENTRANCE OF WARM AND MOIST AIR.
   - B. CONTRACTOR TO PROVIDE INDIVIDUAL DRAIN LINE FOR EACH EVAPORATOR UNLESS OTHERWISE CALLED FOR IN THE PLANS.
   - C. ALL PLUMBING INSTALLATION SHALL BE IN ACCORDANCE WITH LOCAL CODES.

DSA STAMP

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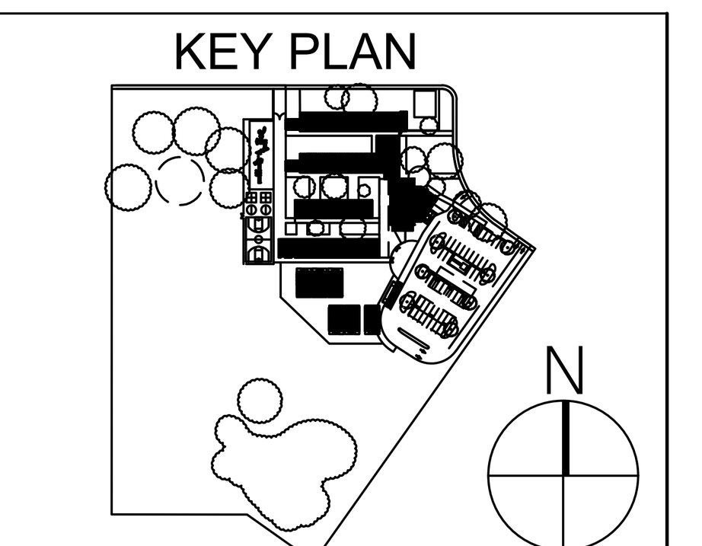
ARCHITECT	ENGINEER

NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



WASHINGTON UNIFIED SCHOOL DISTRICT
930 WESTACRE ROAD
WEST SACRAMENTO, CA 95691

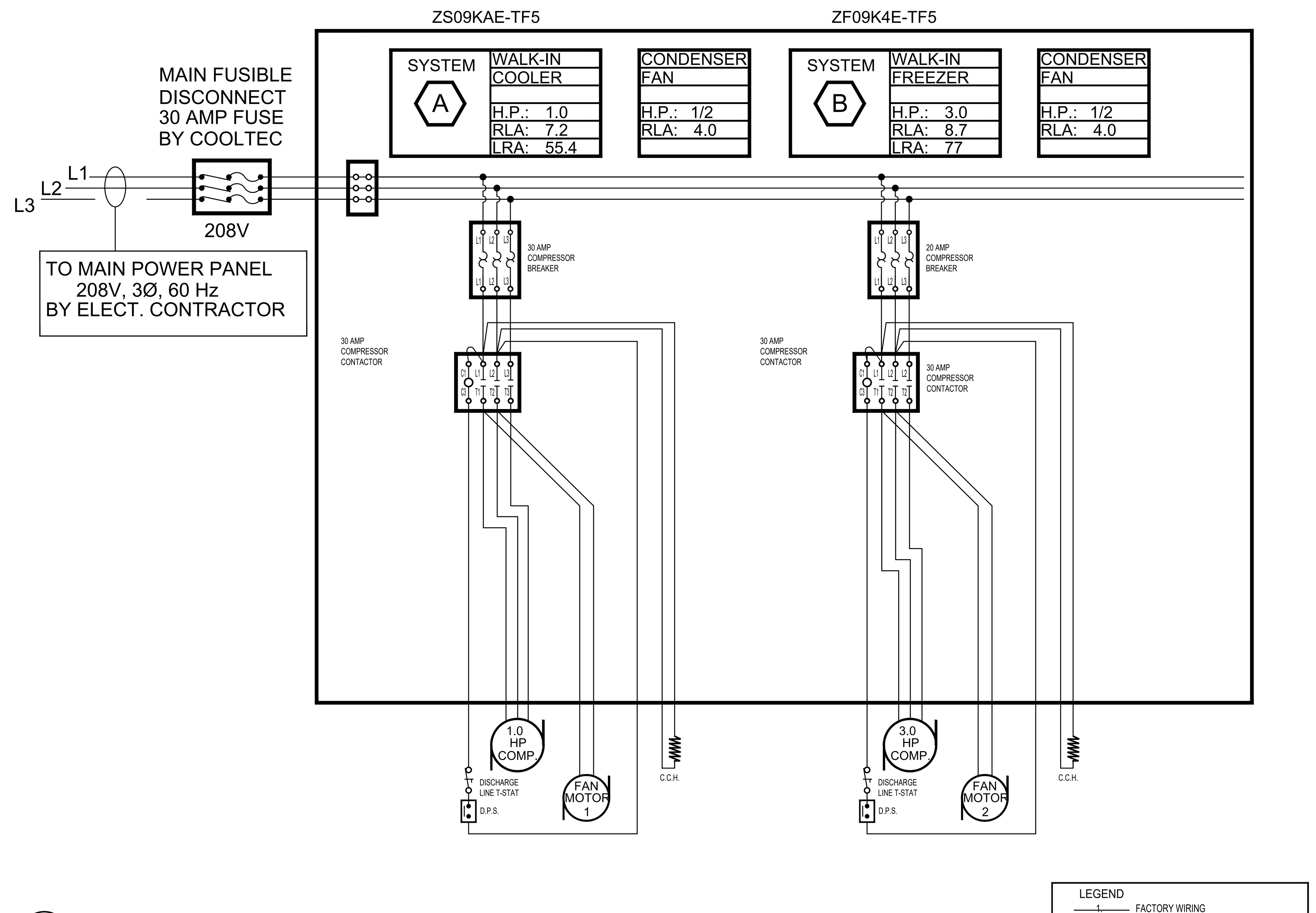
DSA SUBMITTAL

WESTMORE OAKS ELEMENTARY SCHOOL
1504 FALLBROOK ST.
WEST SACRAMENTO, CA 95691

FOODSERVICE EQUIPMENT REMOTE REFRIGERAION DETAIL

Date 05/20/19
Scale AS NOTED
Project Number 19003.1
Drawing Number FS7.0

QC
INI | %



A FS7.1 WIRING DIAGRAM

POWER REQUIRED FOR LOW TEMPERATURE EVAPORATOR COILS.
POWER FROM BUILDING; SUPPLIED BY ELECTRICAL CONTRACTOR

SYSTEM	DEFROST	UNIT COOLER									
		ITEM #	DESCRIPTION	QUANTITY	MODEL	POWER FROM BUILDING BY ELECTRICAL CONTRACTOR				TOTAL LOAD	
						EVAP COIL		DRAIN HEATER			
						RLA	VOLTAGE	RLA	VOLTAGE	RLA	VOLTAGE
B	D	2	WALK-IN FREEZER	1	LET090BEK	7.8	208/1	5.0	208/1	12.8	208/1

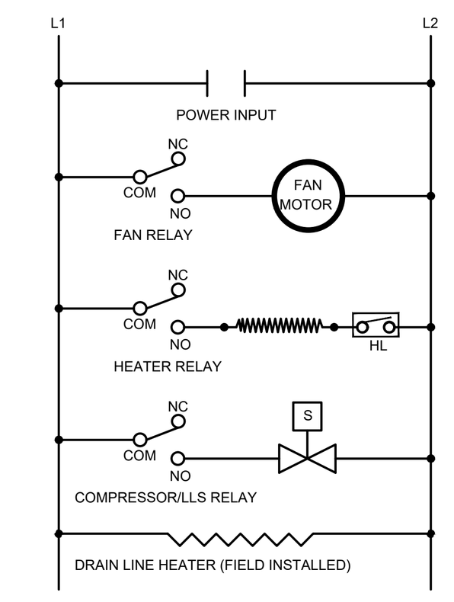
INSTALLING THE SENSORS (BY REFRIGERATION CONTRACTOR):

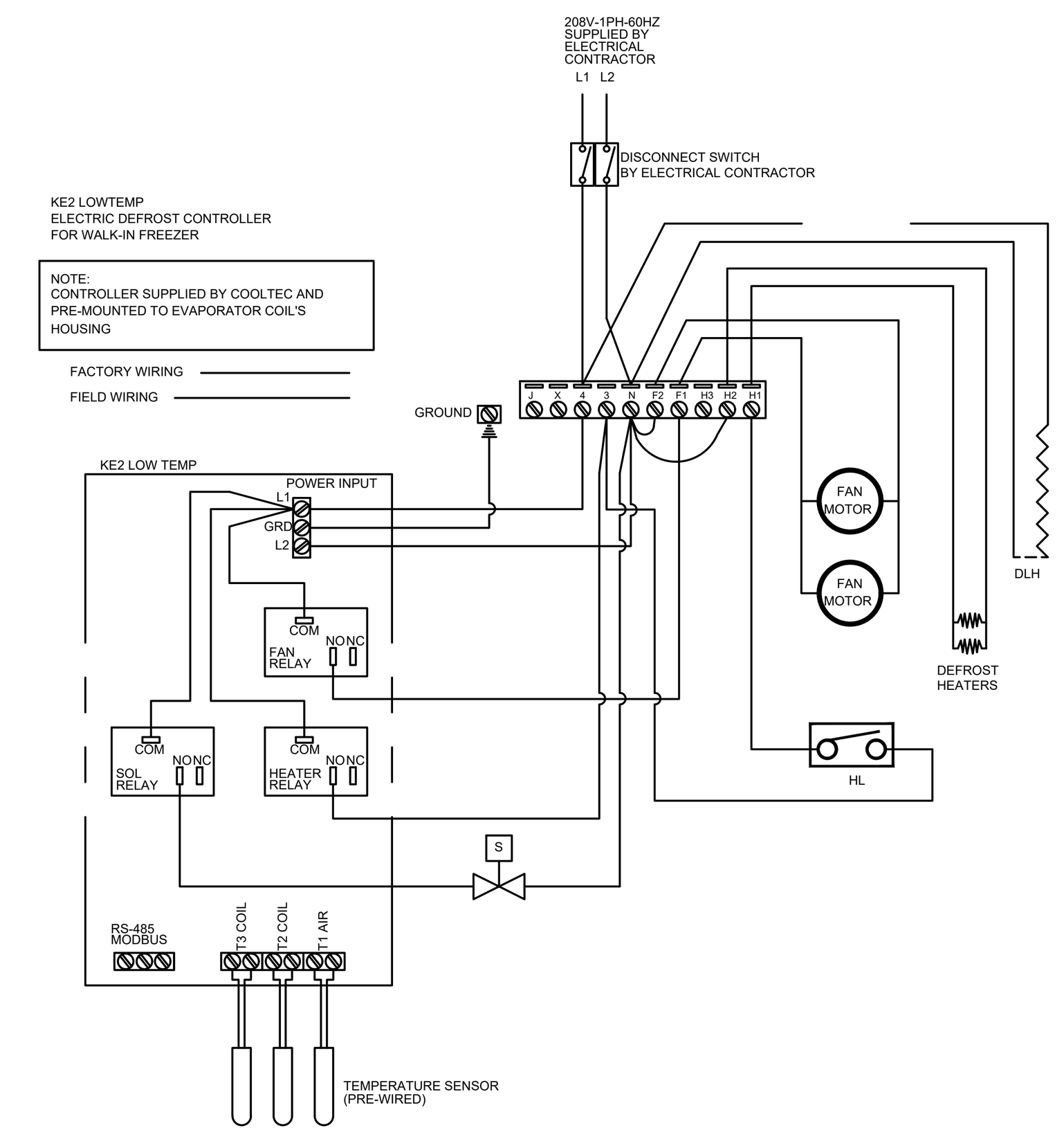
AIR SENSOR (T1)

A. USE THE STAINLESS STEEL BRACKET AND SELF-PIERCING SCREW FROM THE ACCESSORY KIT.
B. THE SINGLE LOOP'S END IS DESIGNED TO BE MOUNTED WITH THE SCREW INCLUDED.
C. THE END WITH MULTIPLE LOOPS IS DESIGNED TO HOLD THE SENSOR.
D. LOCATE THE BEST PLACE TO INSTALL THE SENSOR.
E. THE SENSOR SHOULD BE LOCATED BETWEEN 6 AND 12 INCHES AWAY FROM THE FACE OF THE EVAPORATOR, THE DISTANCE PREVENTS THE SENSOR FROM THE SENSING HEAT FROM THE HEATING ELEMENTS DURING THE DEFROST CYCLE, BUT CLOSE ENOUGH TO ACCURATELY SENSE THE RETURN AIR TEMPERATURE.
F. THE SENSOR BRACKET MAY BE BENT AS NECESSARY TO LOCATE THE SENSOR IN THE PROPER POSITION.

COIL SENSOR (T2)

A. LOCATION OF THIS SENSOR IS AT THE FACE SIDE OF THE COIL'S CONDENSER, 1 TO 1-1/2 INCHES FROM THE RIGHT OR LEFT ENDS OF THE ACTIVE COIL SURFACE, AND IN THE 1/3 BOTTOM SECTION OF THE CONDENSER.
THE SENSOR NEEDS TO BE AS FAR AWAY FROM THE DEFROST HEAT SOURCES AS POSSIBLE.
NOTE: INSERT PLUG (ITEM G FROM THE PARTS LIST) INTO THE COIL HOUSING WHEN MOUNTING THE SENSOR WIRE TO PREVENT DAMAGE TO THE SENSOR FROM SHARP EDGES. THE PLUG IS PROVIDED SHOULD BE INSERTED INTO THE INNER HOUSING TO ACCESS THE COIL. INSTALLER MUST PUNCTURE PLUG TO INSERT SENSOR

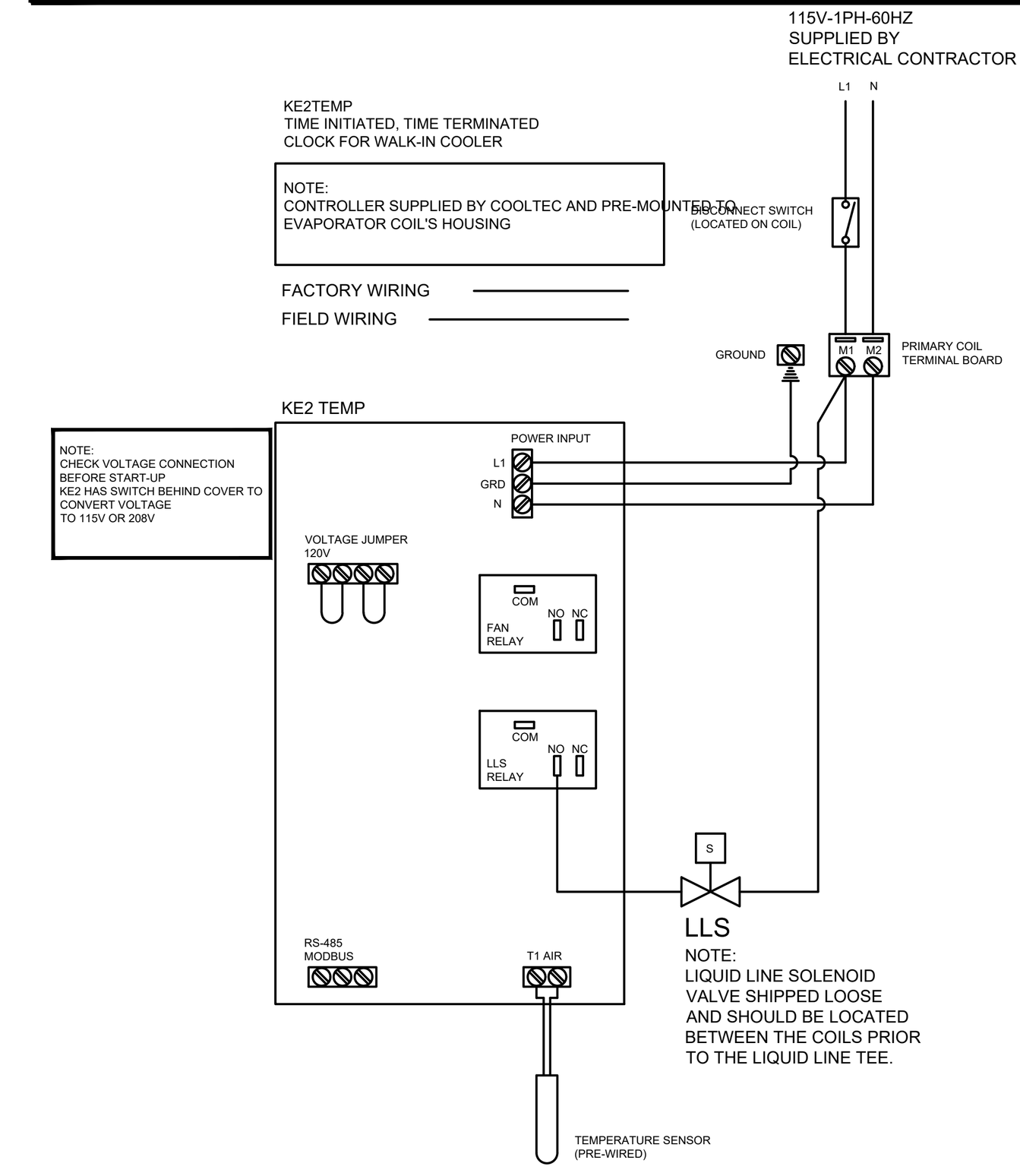




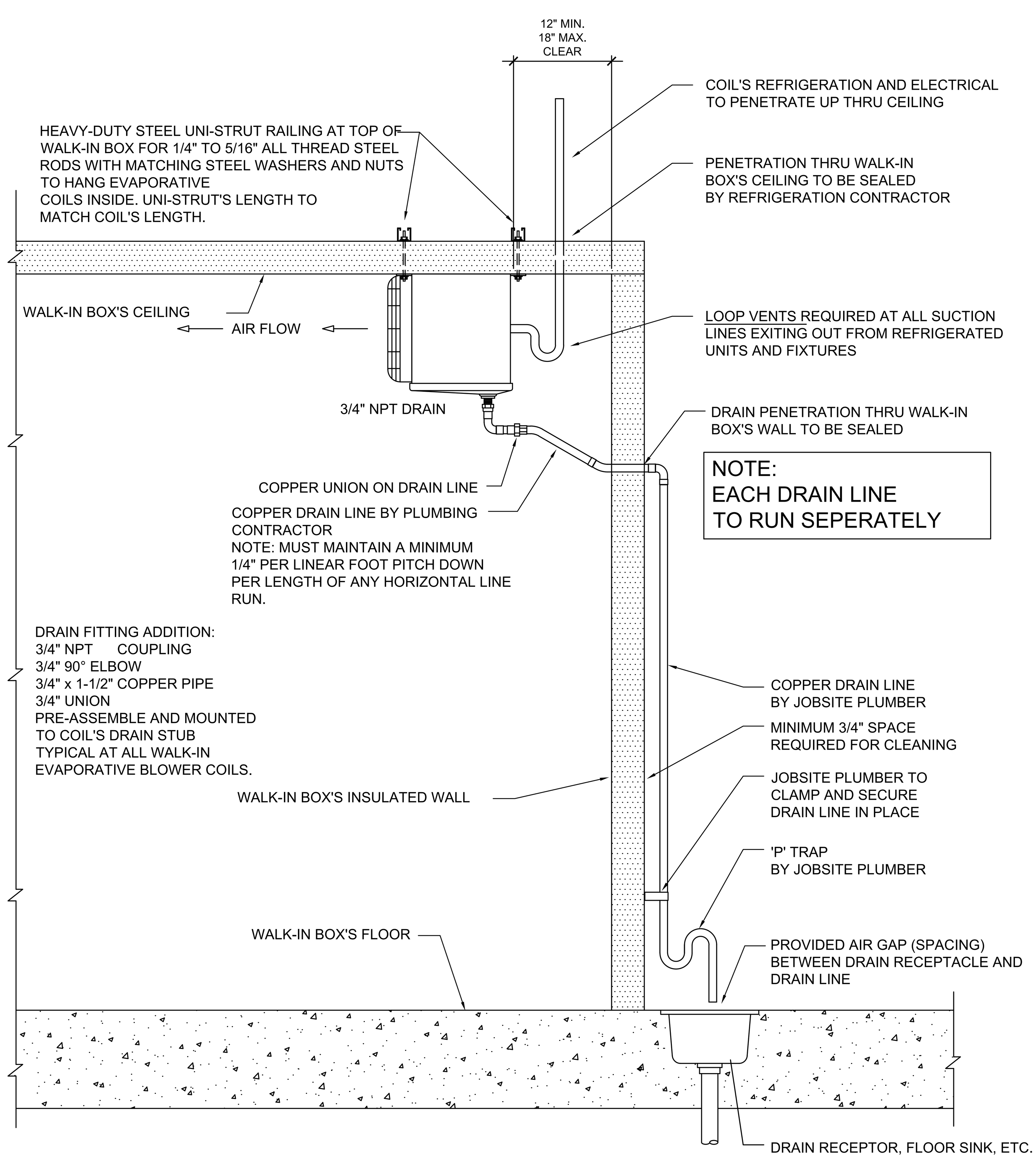
B FS7.1 DEMAND DEFROST- KE2 LOW TEMP
WIRING DIAGRAM FOR FREEZER COIL

POWER REQUIRED FOR MEDIUM TEMPERATURE EVAPORATOR COILS.
POWER FROM BUILDING; SUPPLIED BY ELECTRICAL CONTRACTOR

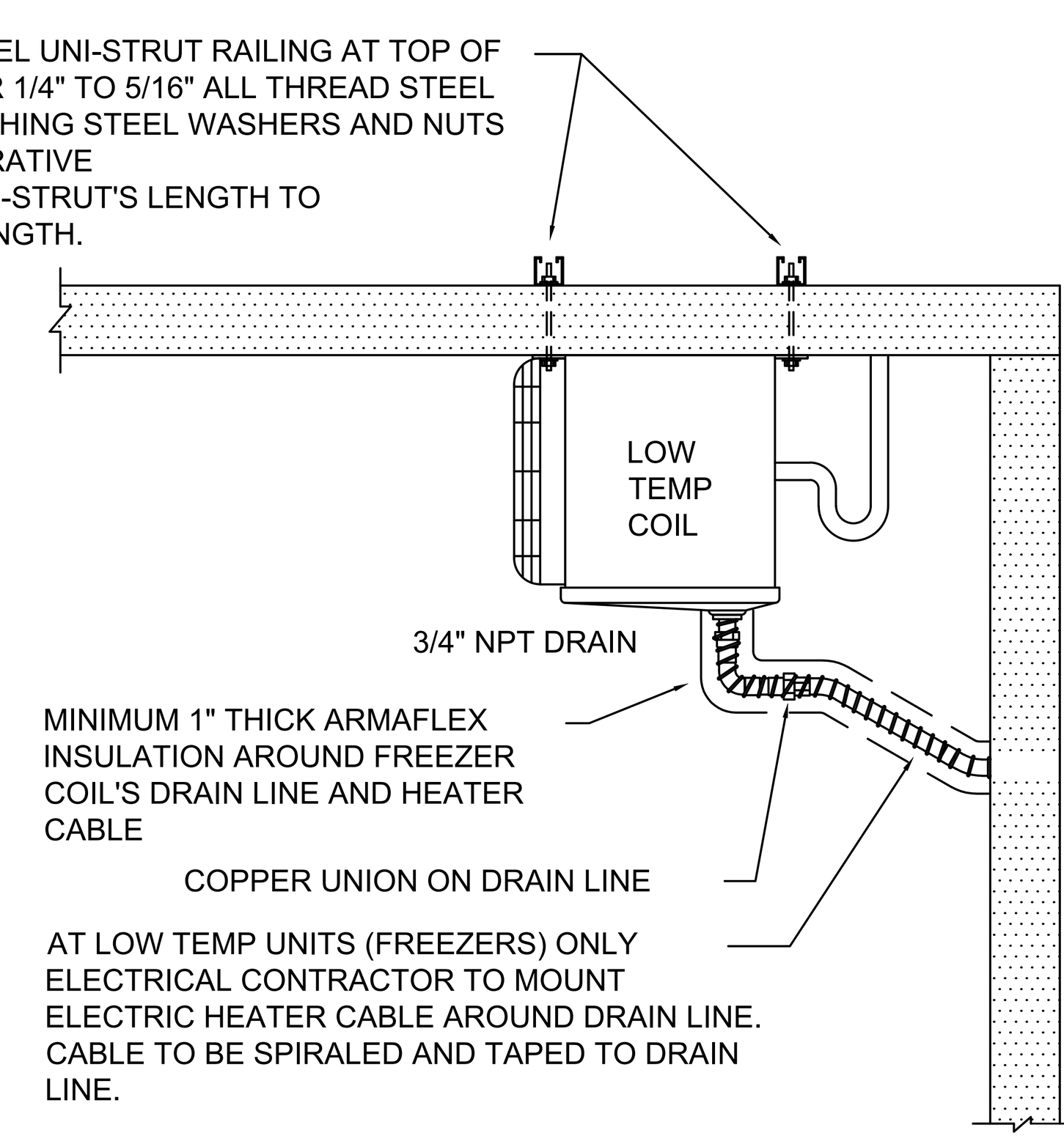
SYSTEM	DEFROST	UNIT COOLER							
		ITEM #	DESCRIPTION	QUANTITY	MODEL	POWER FROM BUILDING BY ELEC. CONTRACTOR		TOTAL LOAD	
						RLA	VOLTAGE	RLA	VOLTAGE
A	D	3	WALK-IN COOLER	1	ADT104AEK	1.8	115/1	1.8	115/1



C FS7.1 DEMAND DEFROST- KE2 MED TEMP
WIRING DIAGRAM FOR COOLER COIL



D FS7.1 WALK-IN'S COIL MOUNT AND
CONDENSATE DRAIN LINE



E FS7.1 WALK-IN'S FREEZER
CONDENSATE DRAIN LINE

COOLTEC
REFRIGERATION CORP.

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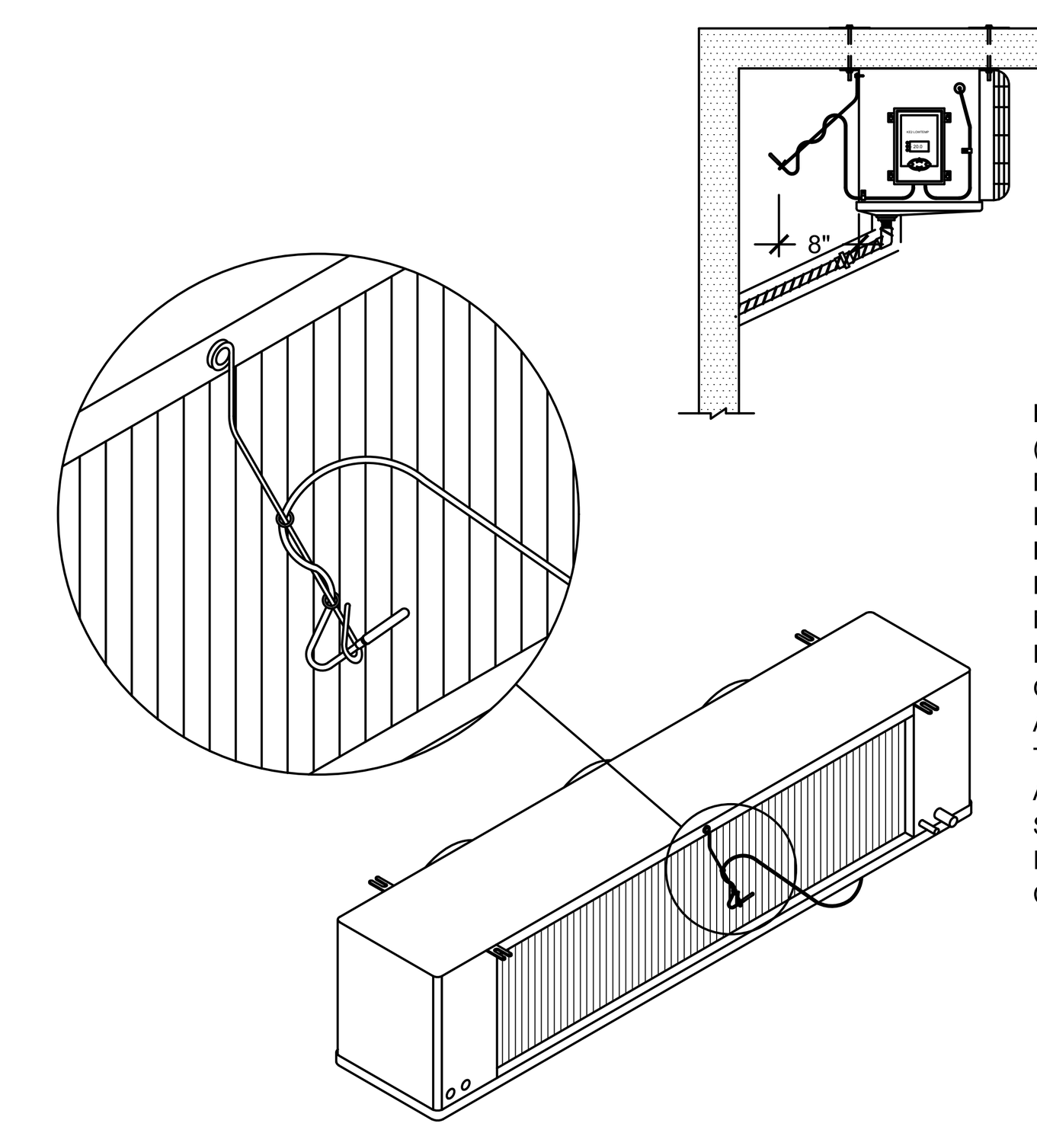

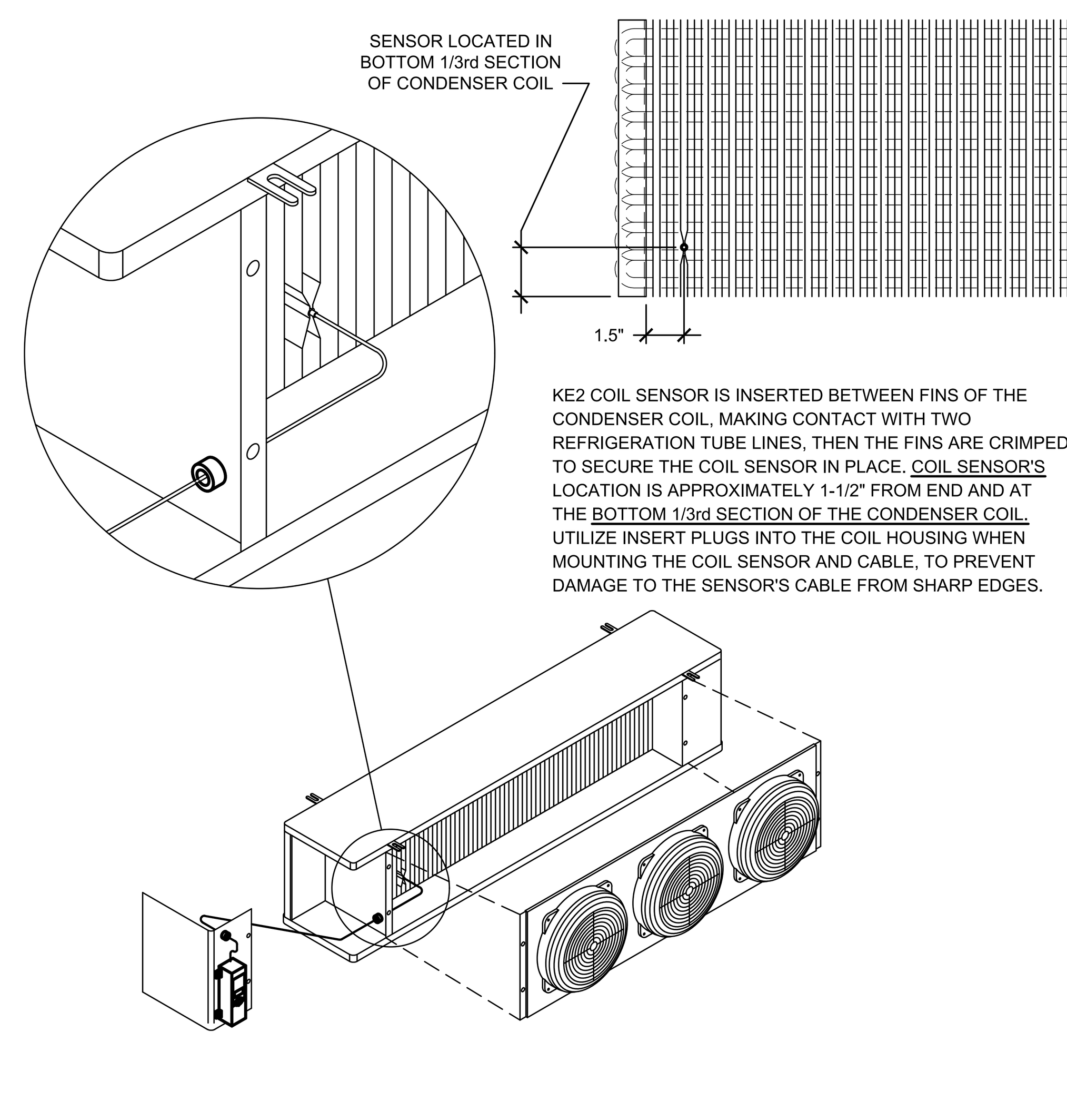

F FS7.1 DEMAND DEFROST SENSOR MOUNT DETAIL

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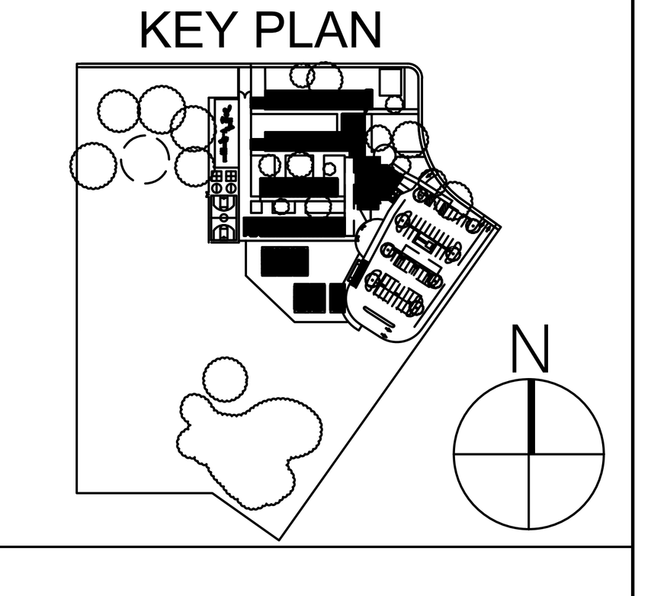
ARCHITECT	ENGINEER

NO.	REMARKS	DATE

	DATE
● DSA PLAN CHECK	5/20/2019
○ DSA BACK CHECK	
○ BIDDING	
○ CONSTRUCTION	

KEY PLAN



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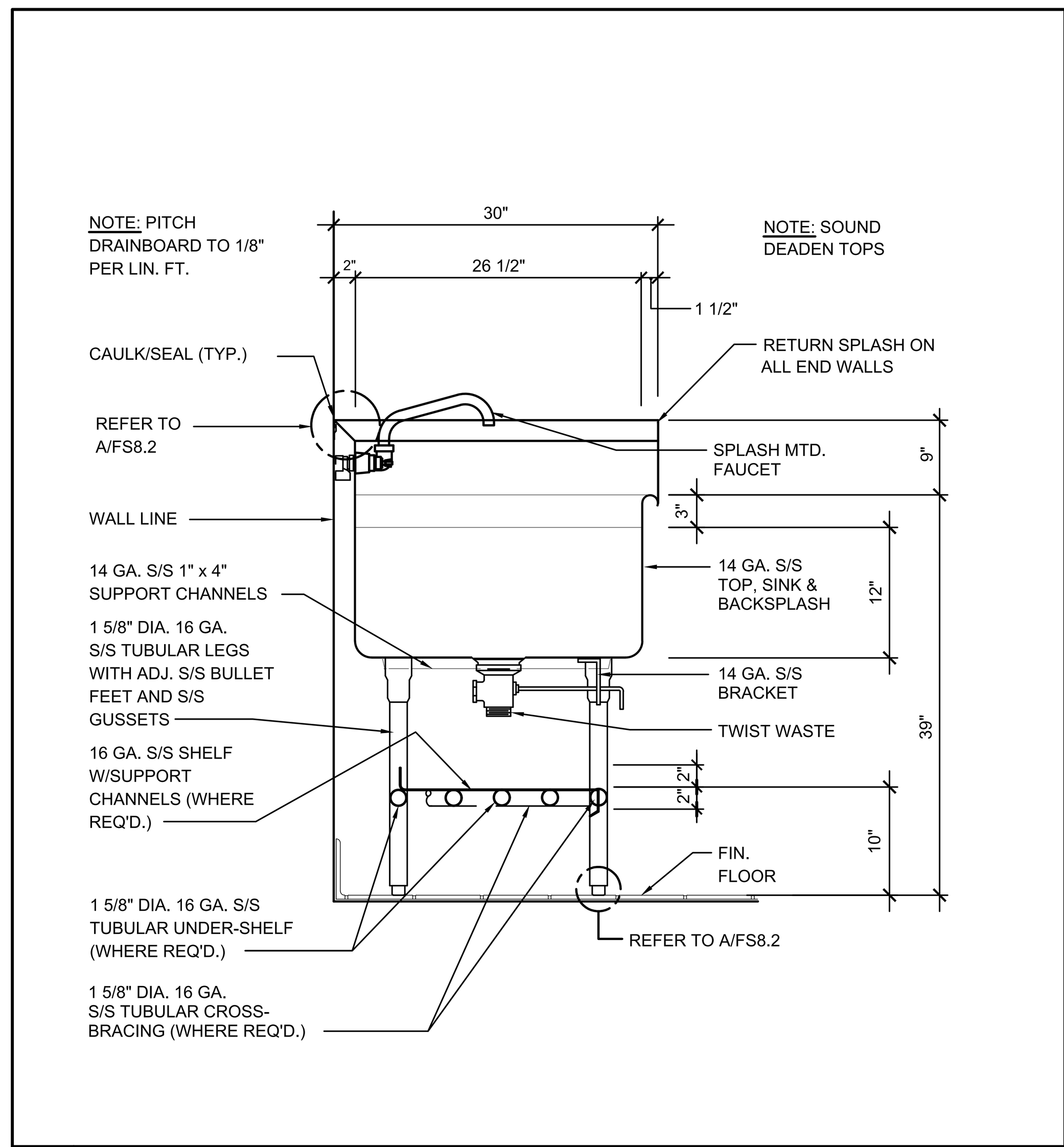
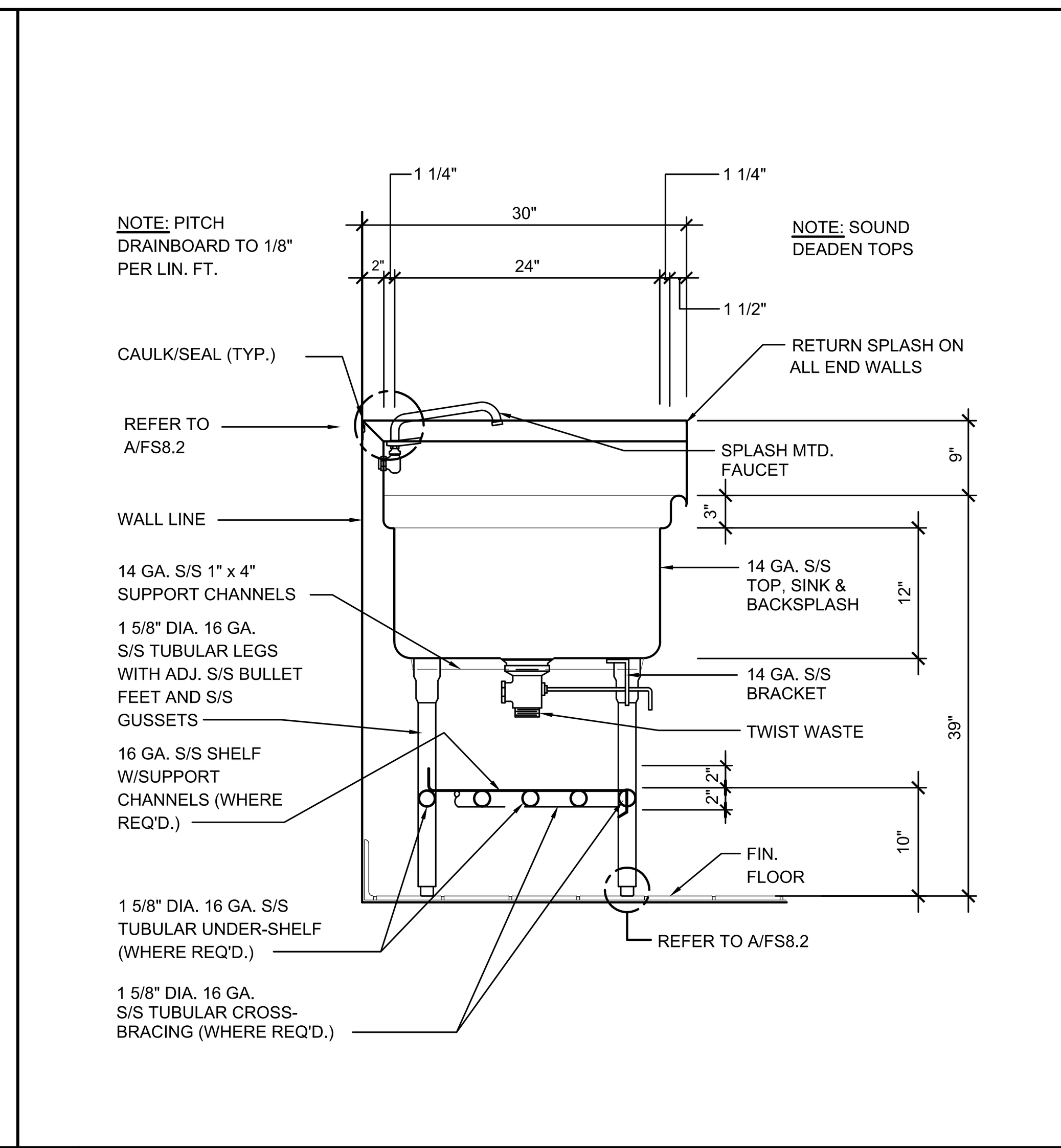
WEST SACRAMENTO, CA 95691

FOODSERVICE EQUIPMENT REMOTE REFRIGERAION DETAIL

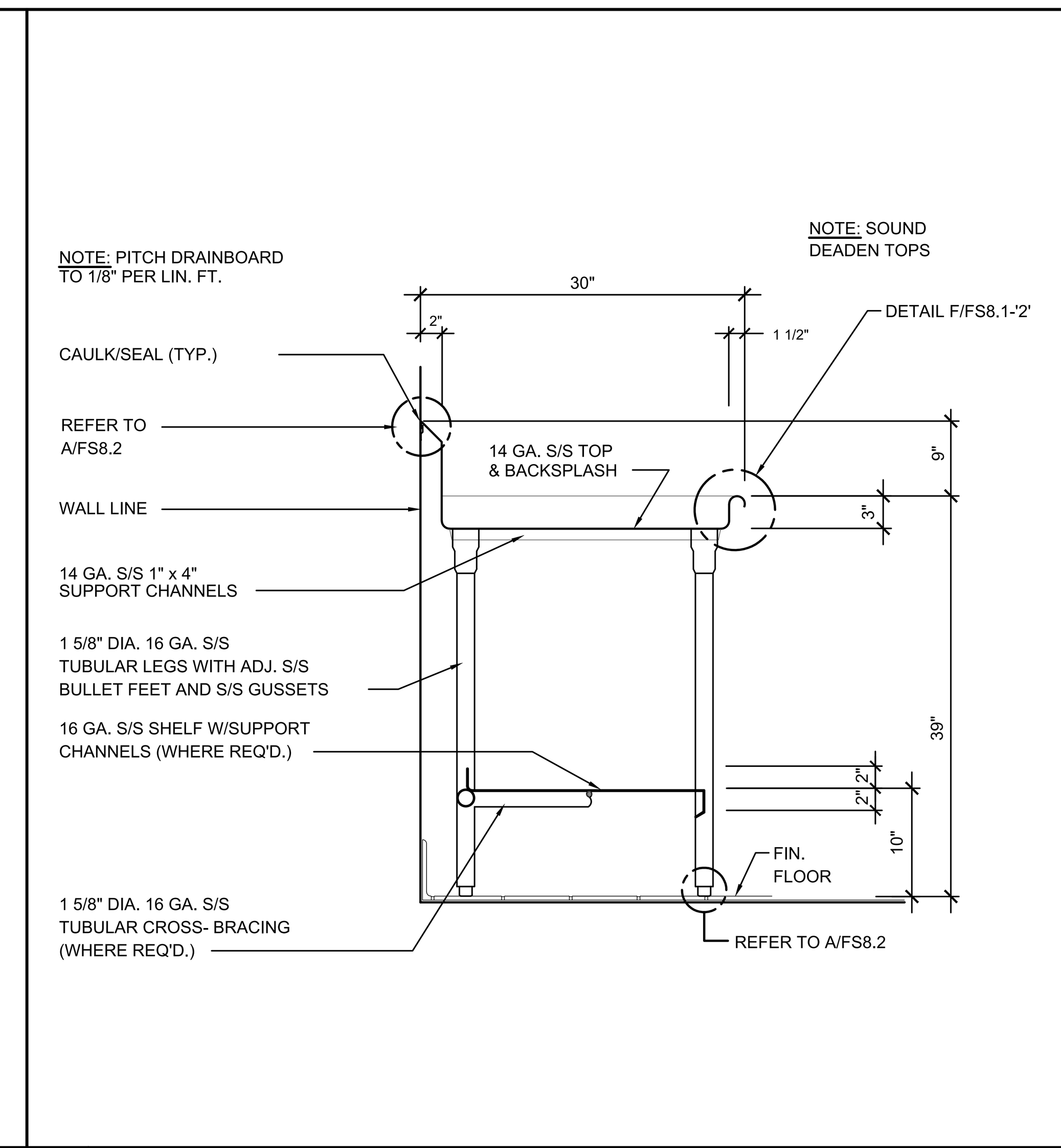
Date 05/20/19
Drawing Number FS7.1
Scale AS NOTED
Project Number 19003.1



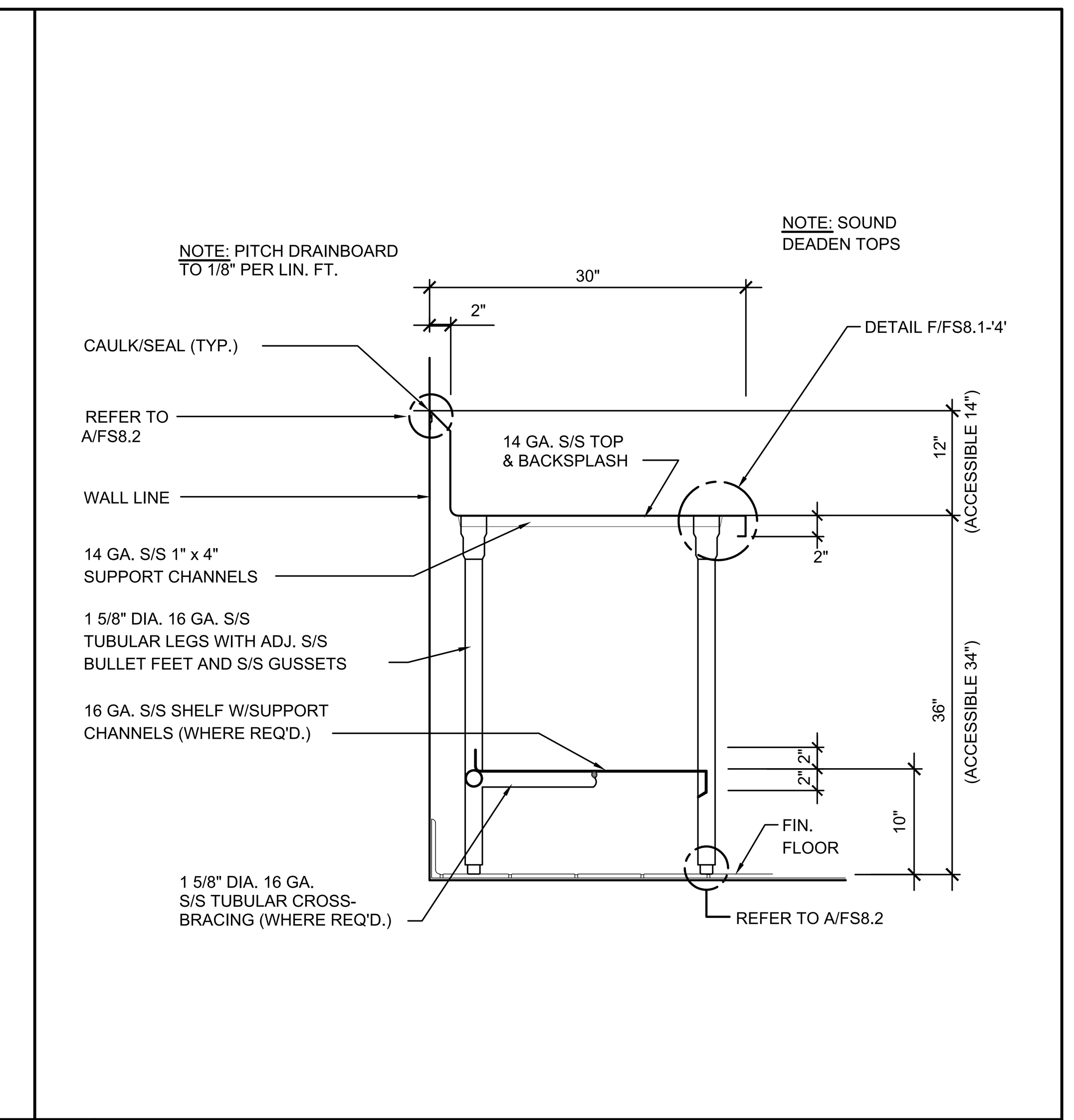
A SECTION AT POT SINK (INTEGRAL) NTS



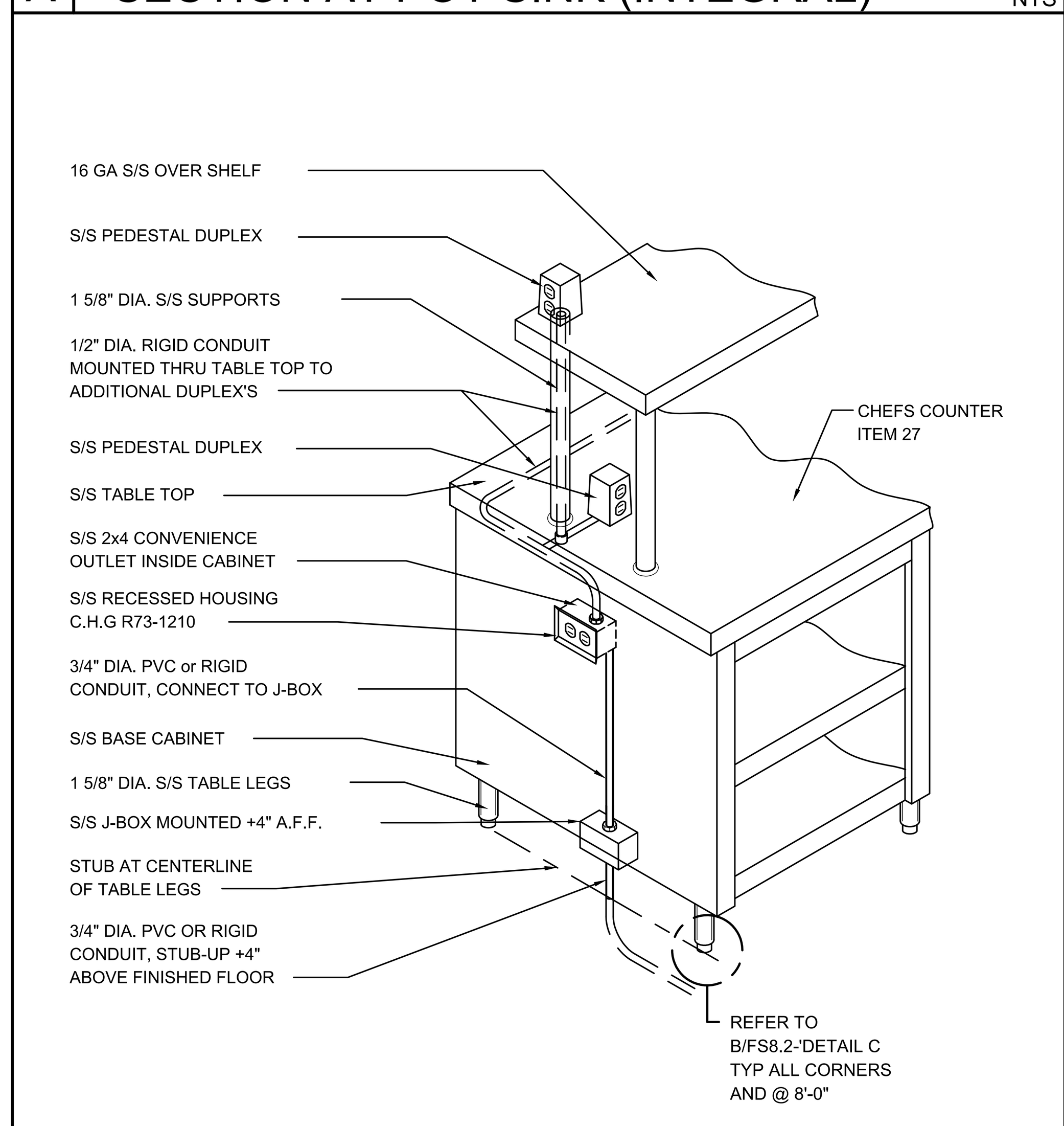
B SECTION AT PREP SINK NTS



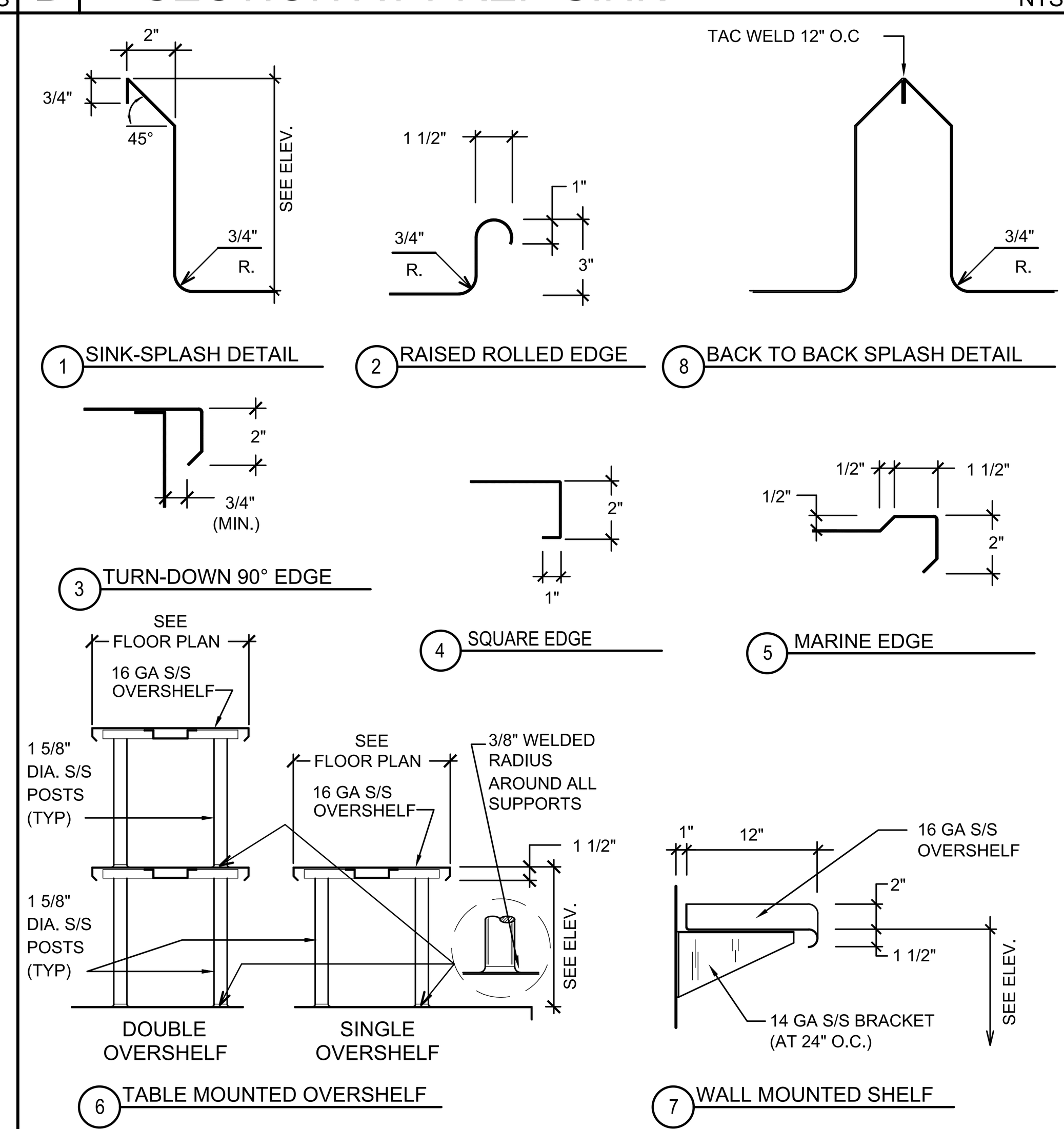
C SECTION AT DISHTABLE NTS



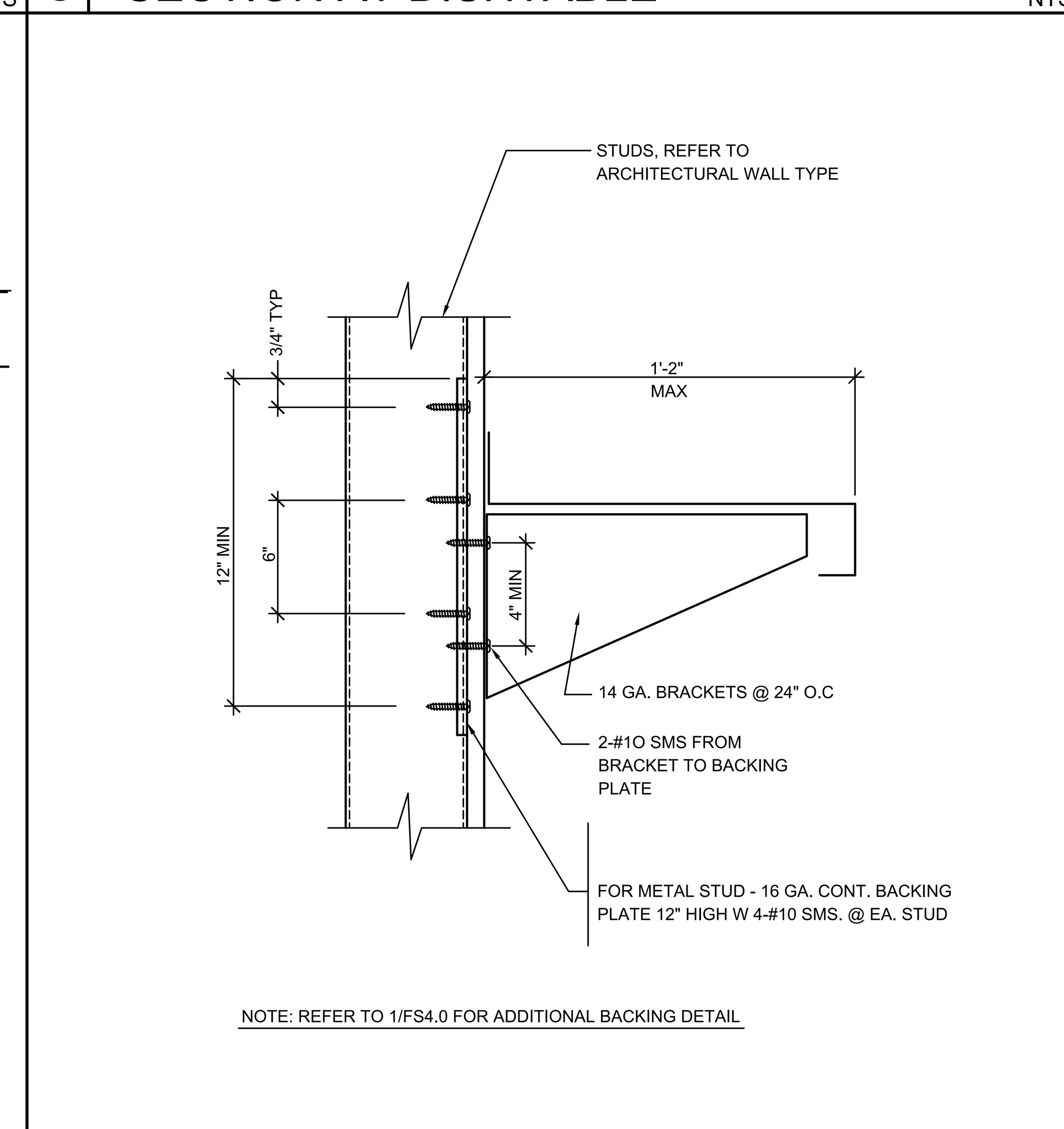
D SECTION AT WORKCOUNTER NTS



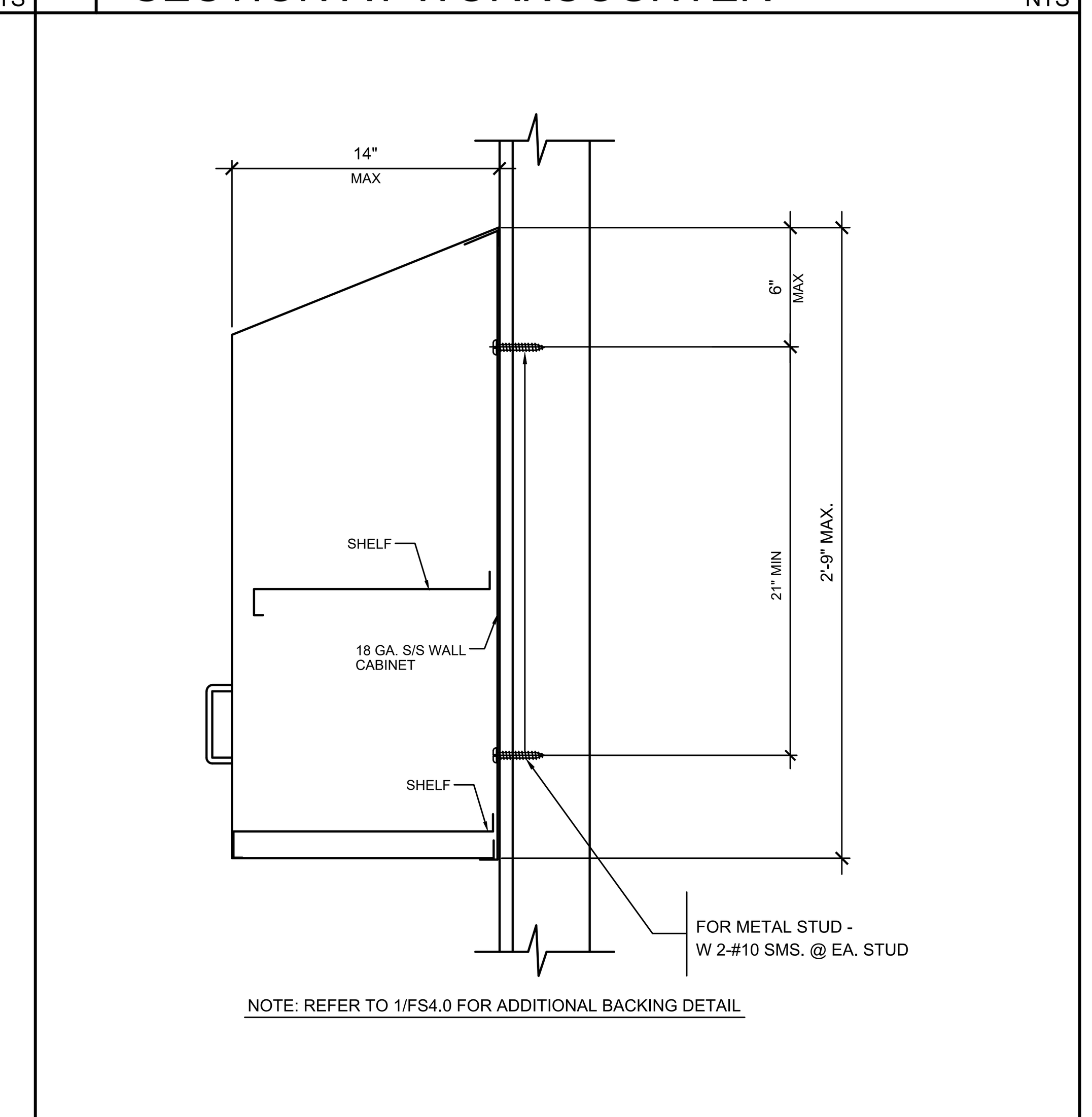
E CHEFS COUNTER & ELEC. DETAIL NTS



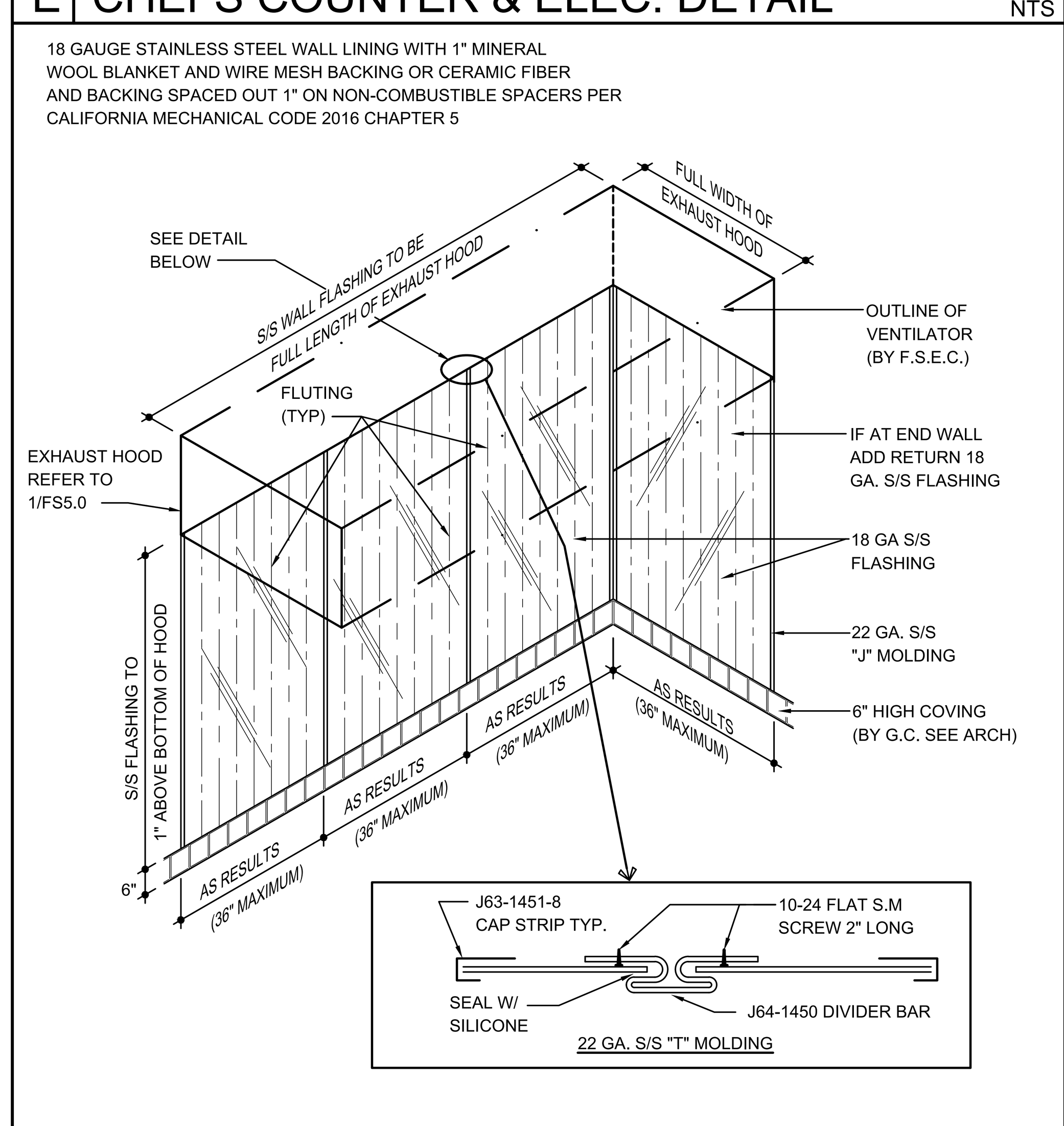
F EDGE/SPLASH/SHELF DETAILS NTS



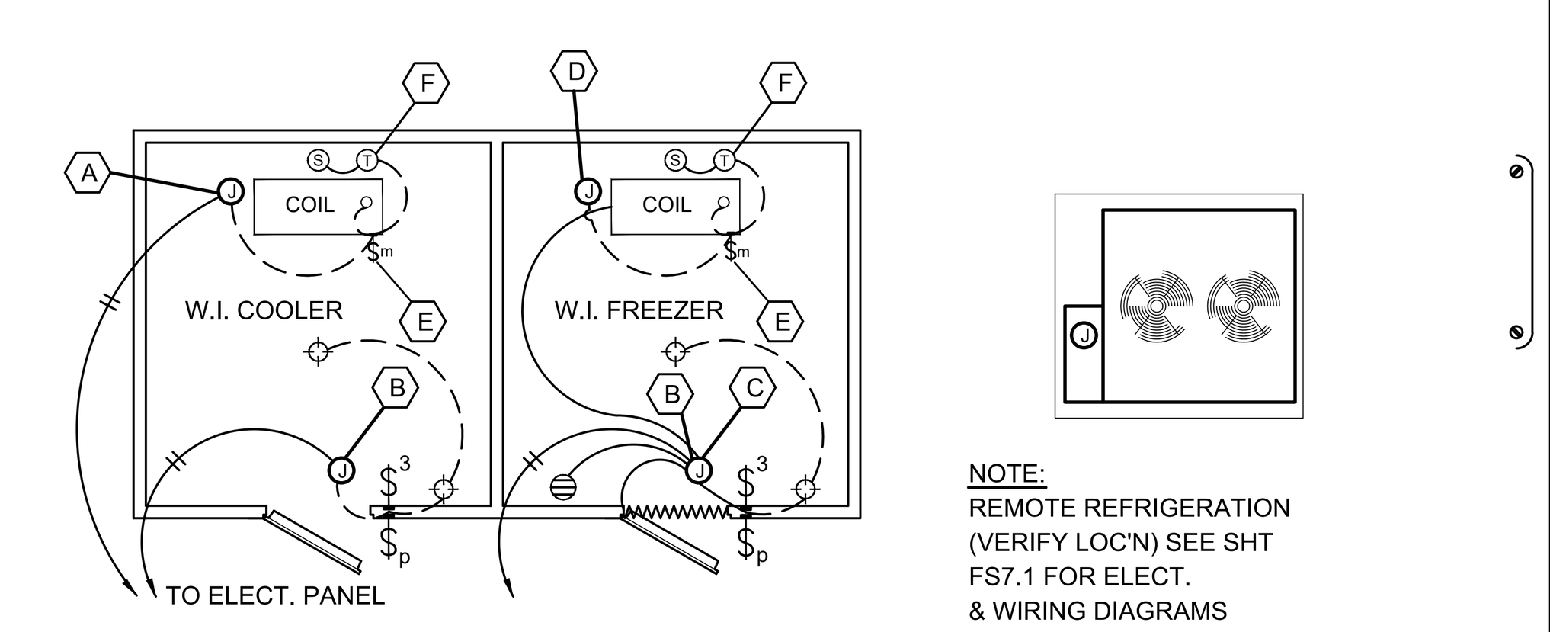
G WALL MOUNTED SHELF NTS



H WALL MOUNTED CABINET NTS



I S/S WALL FLASHING DETAIL NTS



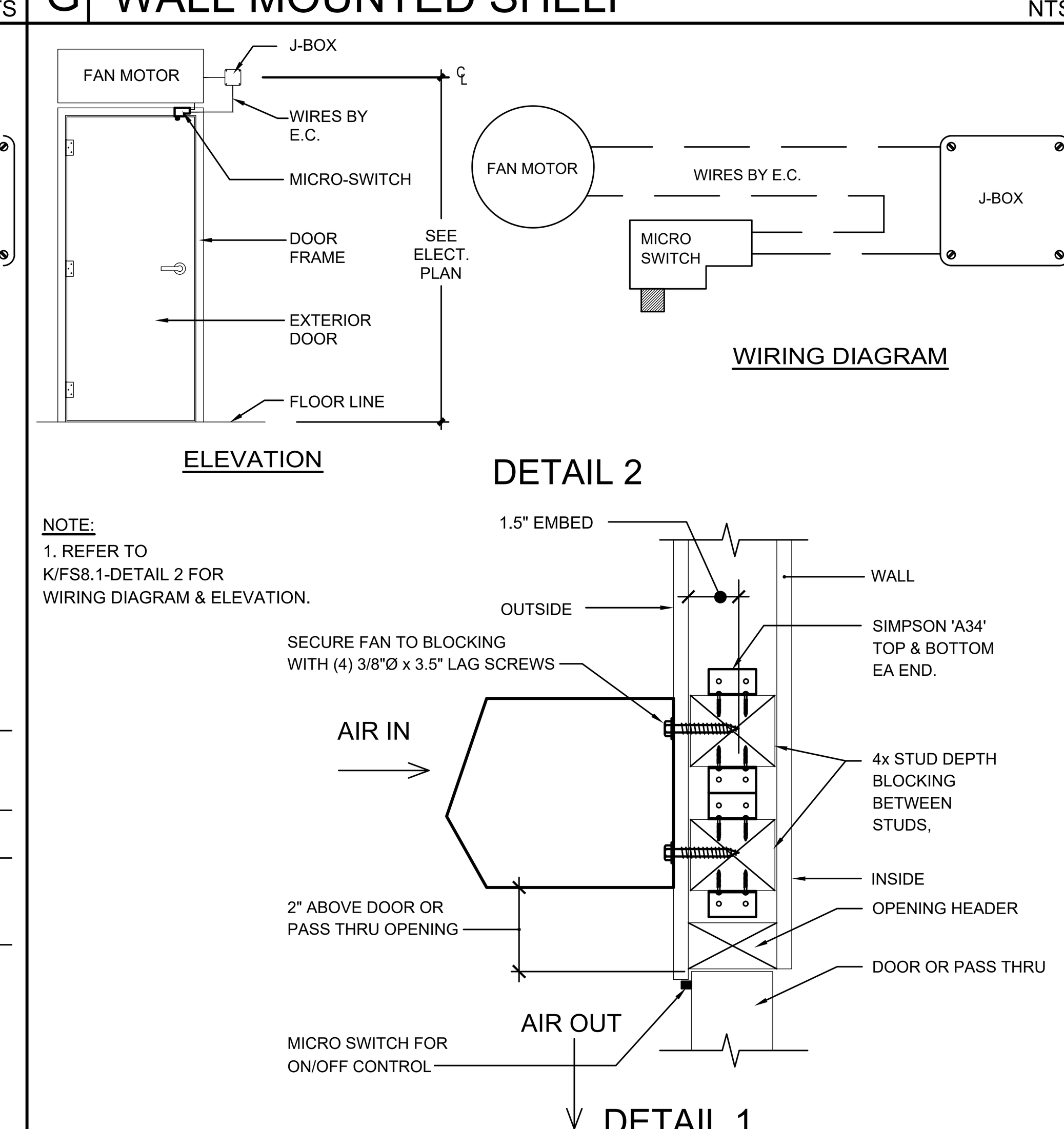
NOTE: WIRE FROM ROUGH-IN POINTS A, B, C, D, E & F TO ALL COMPONENTS OF WALK-IN ASSEMBLIES, INCLUDING COMPRESSORS, TO MAKE A COMPLETE & OPERABLE REFRIGERATION SYSTEM. E.C. TO MAKE PENETRATIONS FROM ROUGH-IN LOCATIONS TO INTERIOR WALK-IN BOX AND PROVIDE PROPER SEALING OF SAME PENETRATIONS (VERIFY SPECIFIC REQUIREMENTS WITH GENERAL CONTRACTOR). SEAL CONDUIT AFTER ALL WIRES ARE PULLED.

- (A) 120 VOLT/1 PHASE FOR COIL, SOLENOID AND THERMOSTAT.
- (B) 120 VOLT/1 PHASE FOR LIGHTS THRU SWITCHES - MOUNT LIGHTS IF SHIPPED LOOSE.
- (C) 120 VOLT/1 PHASE FOR FREEZER DOOR HEATER, CONDENSATE LINE HEAT TRACE AND HEATED VACUUM VENT.
- (D) 208 VOLT/1 PH (or 3 PH - SEE PLAN) FOR COIL, COIL HEATER, SOLENOID, AND THERMOSTAT. ALSO, 5-WIRE TO DEFROST TIMER AT REMOTE COMPRESSOR.
- (E) MOTOR RATED DISCONNECT BY E.C. (AS REQUIRED BY LOCAL CODES).
- (F) PROVIDE INTERCONNECTION FOR SOLENOID AND THERMOSTAT.

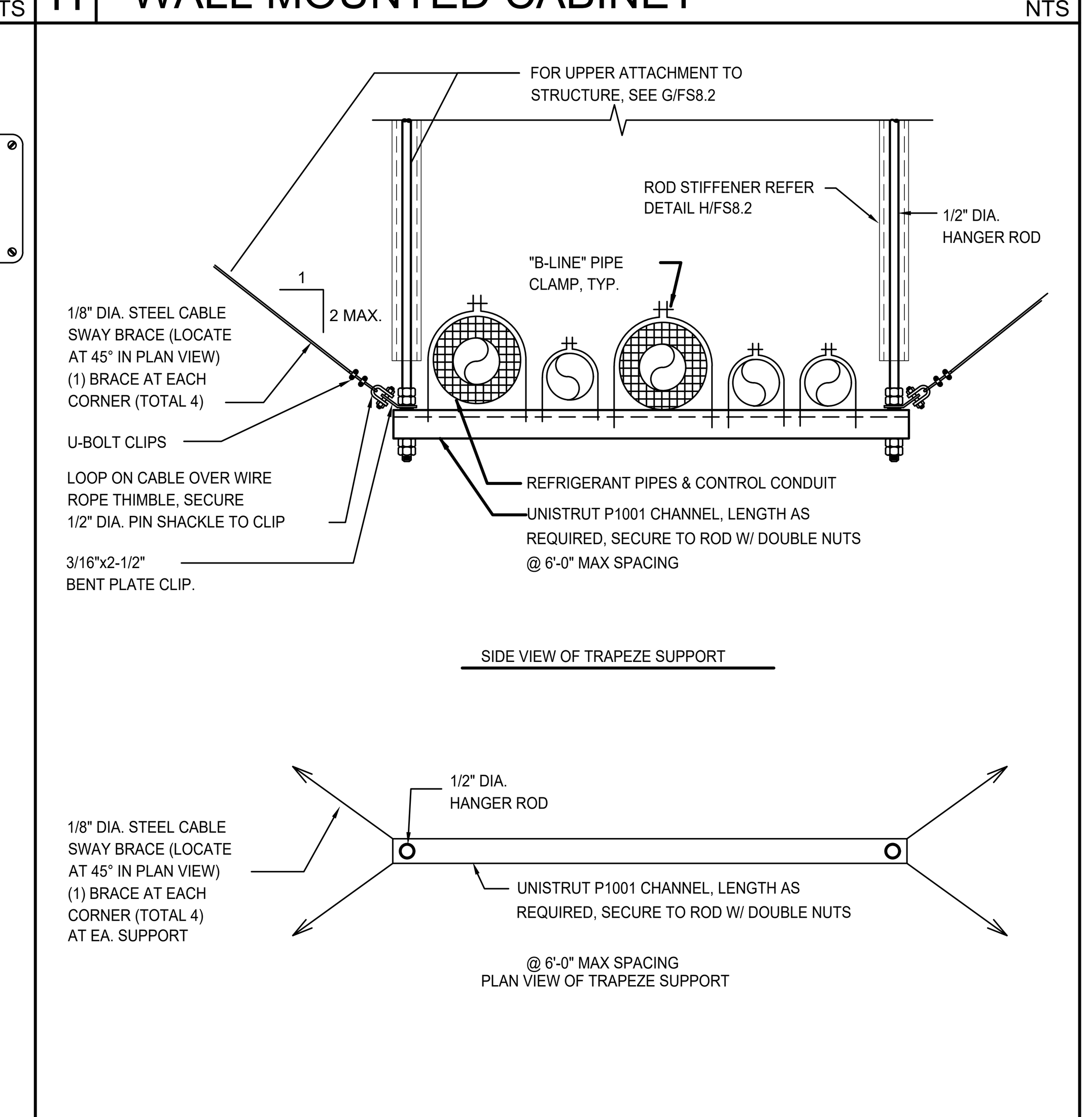
NOTE: NO EXPOSED ELECTRICAL CONDUIT RUNS INSIDE WALK-IN BOX.

NOTE: WIRE THRU TO ALL THREE AND FOUR WAY SWITCHES

J TYPICAL WALK-IN WIRING DETAIL NTS



K AIR CURTAIN MOUNTING DETAIL NTS



L TYPICAL TRAPEZE SUPPORT NTS

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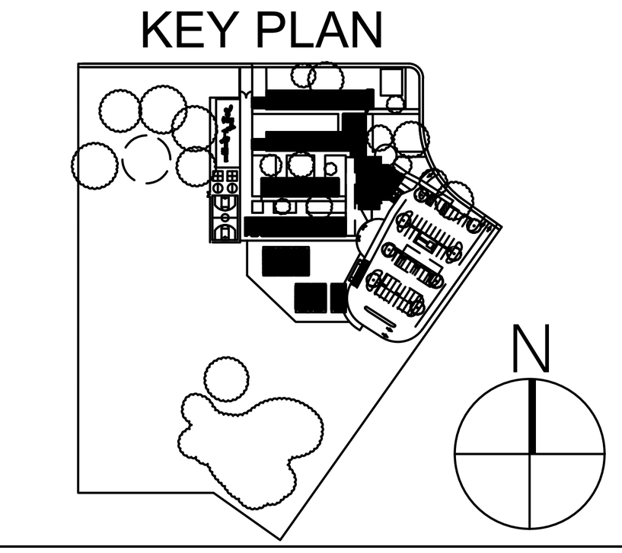

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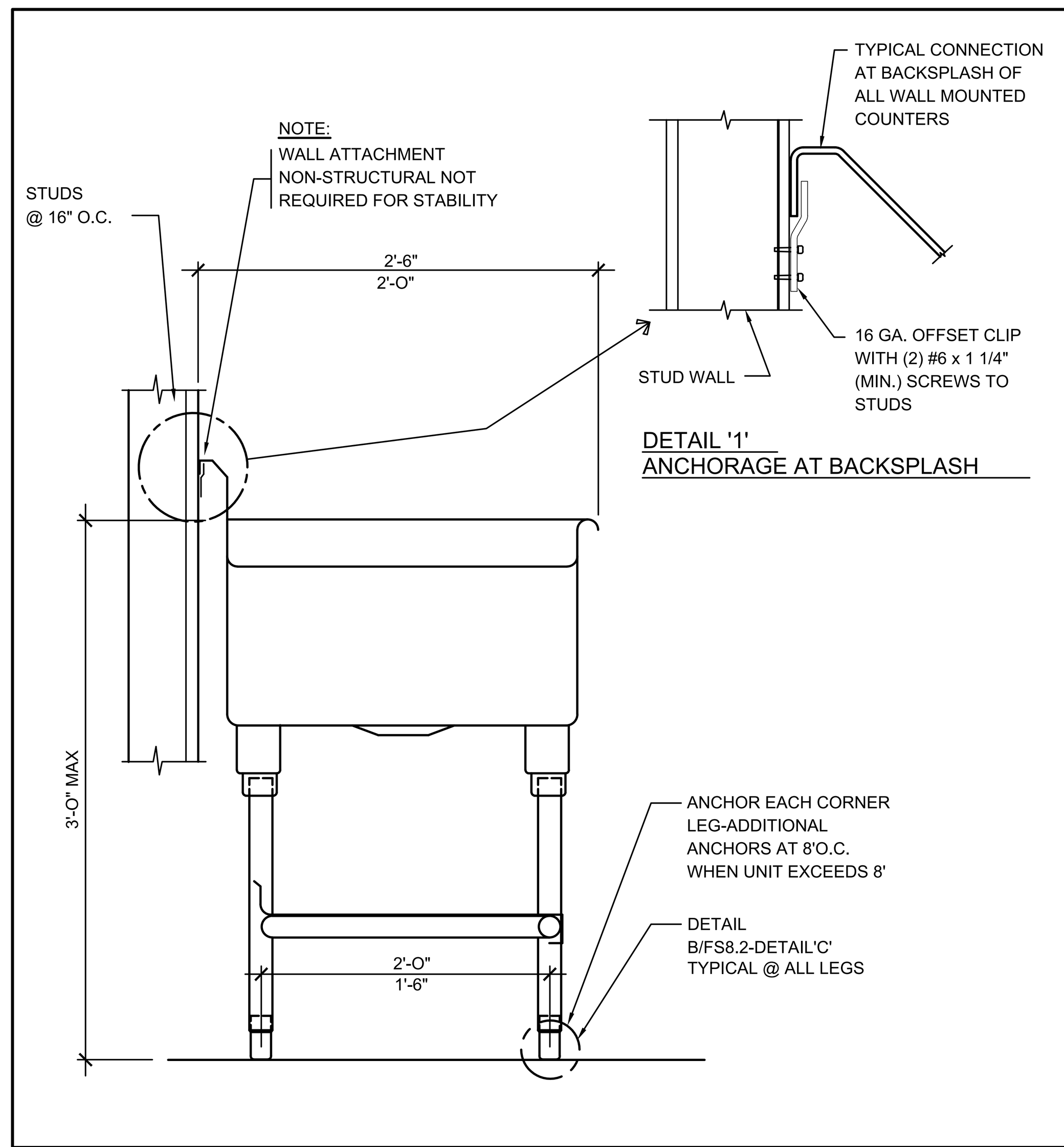
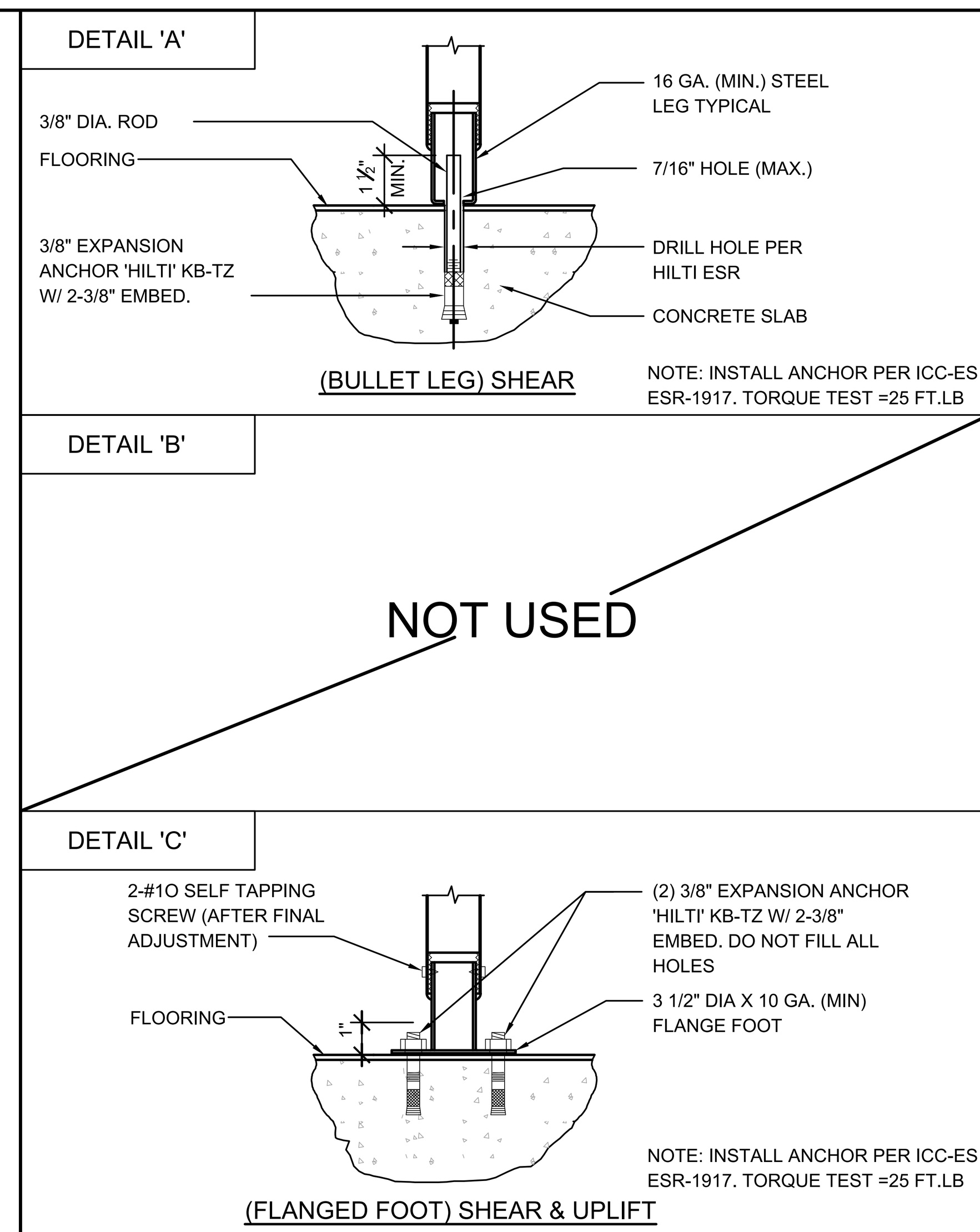
FOODSERVICE EQUIPMENT ANCHORAGE DETAILS

Date 05/20/19	Drawing Number
Scale AS NOTED	FS8.1
Project Number 19003.1	



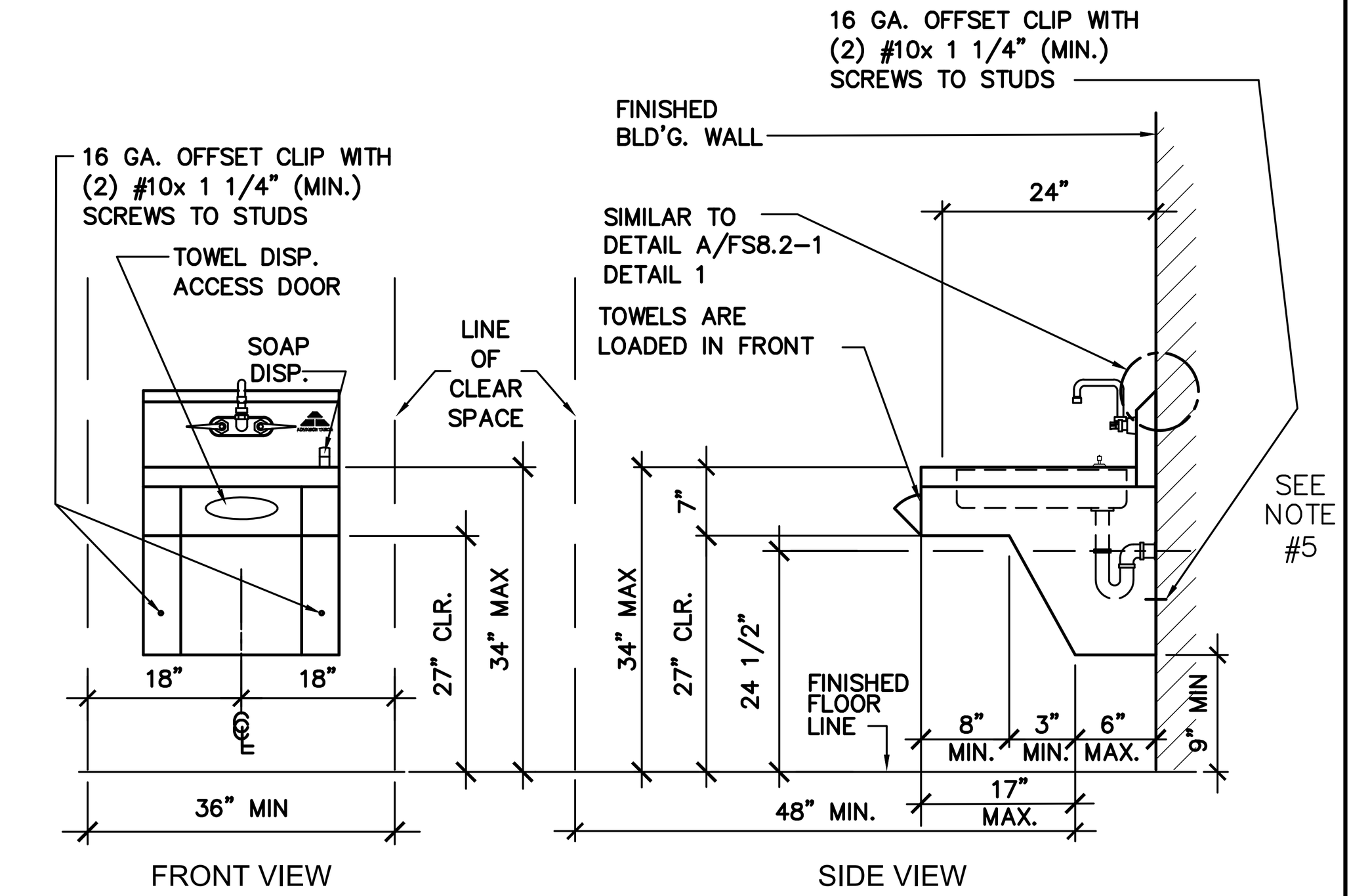
A FLOOR MOUNTED SINK @ WALL NTS



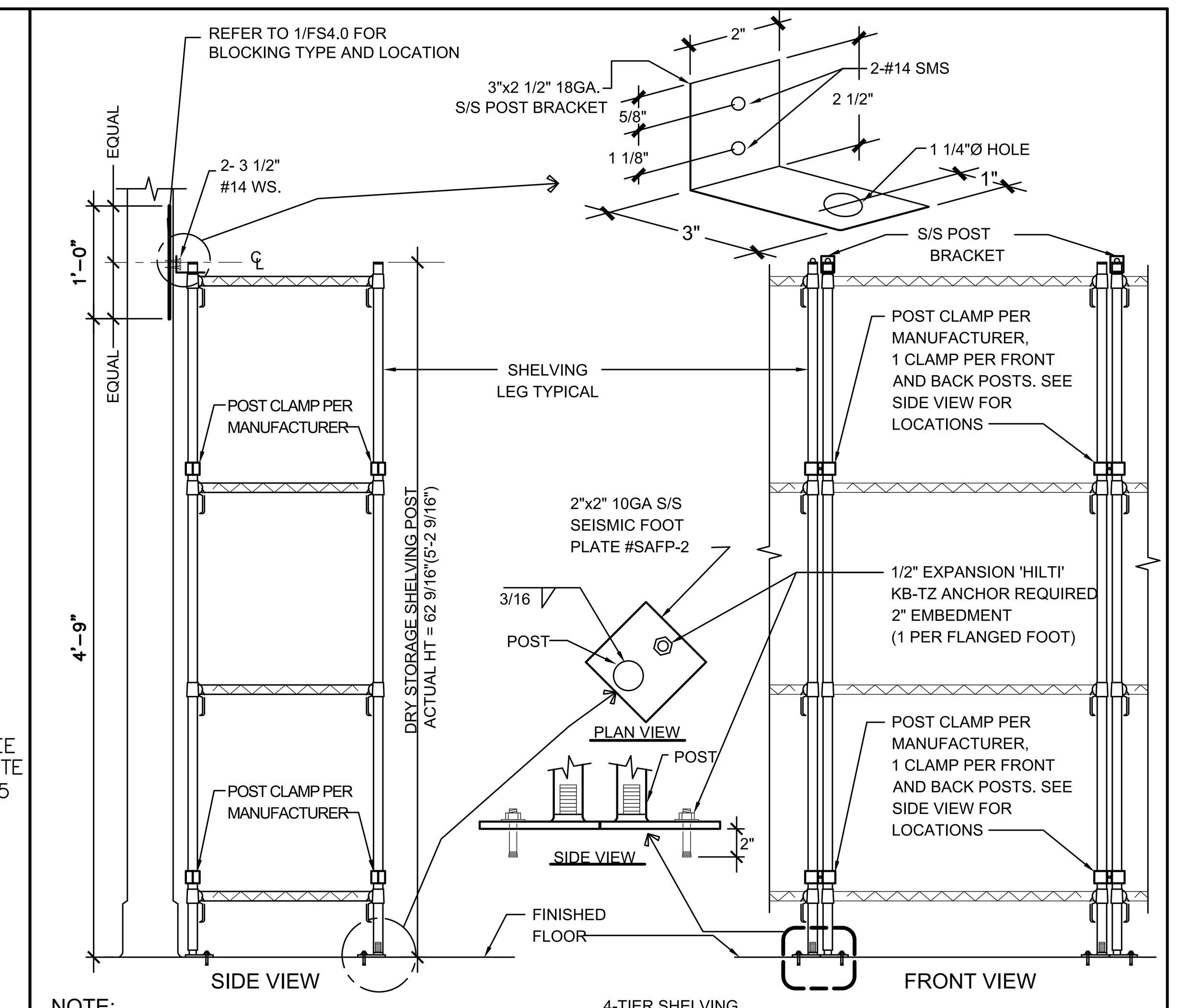
B FOOT ANCHORAGE DETAIL NTS

ACCESSIBLE HAND SINK REQUIREMENT NOTES

1. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE HAND SINKS SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER HAND SINKS.
2. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF. LEVER-OPERATED, PUSH-TYPE AND MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS.
3. WHERE TOWEL, SANITARY NAPKINS, WASTE RECEPTACLES, SOAP DISPENSER AND OTHER SIMILAR DISPENSING AND DISPOSAL FIXTURES ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE LOCATED WITH ALL OPERABLE PARTS WITHIN 40 INCHES FROM THE FINISHED FLOOR.
4. ALL DIMENSIONS SHOWN ARE MINIMUM CLEARANCES, UNLESS NOTED.
5. AREA BELOW HAND SINKS SHALL BE ACCESSIBLE AND CLEAR.



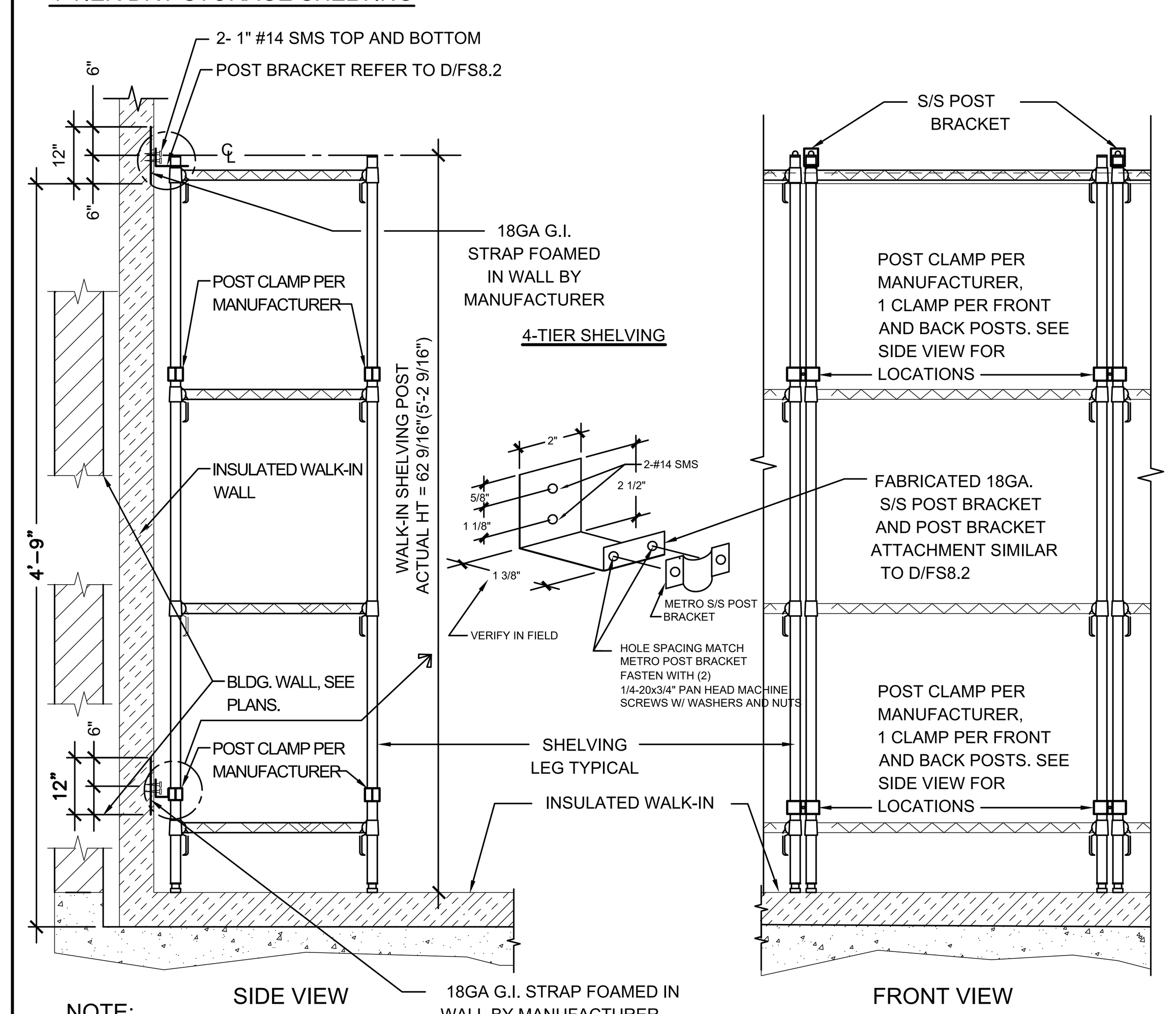
C ACCESSIBLE HAND SINK DETAILS NTS



NOTE:
1. S/S POST BRACKET TO BE LOCATED ON TOP SHELF AT REAR POST AS SHOWN.
2. FOR SIZE AND LOCATION OF DRY STORAGE SHELVING, SEE 1/FS1.0

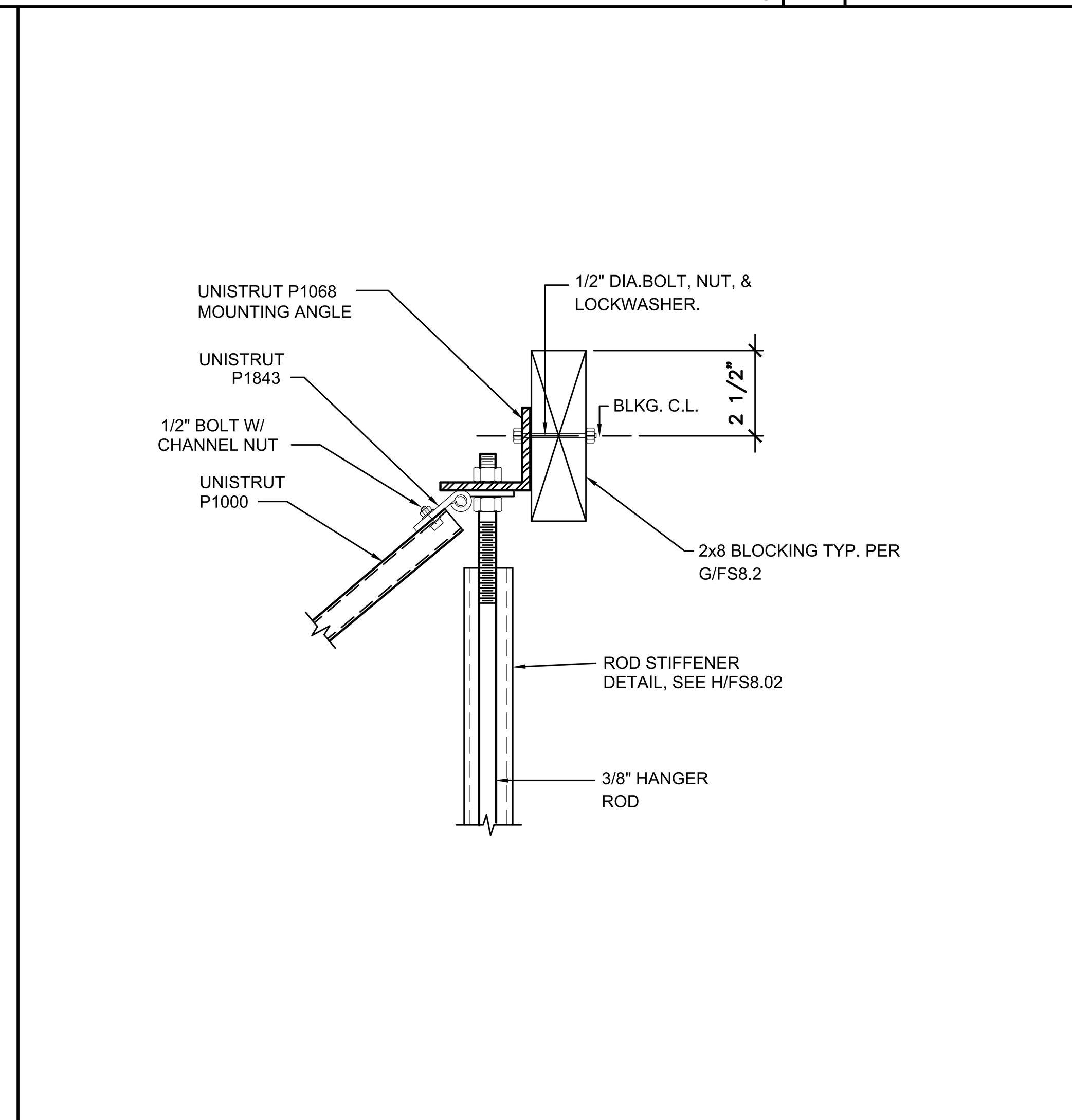
D DRY STORAGE SHELVING ATTACHMENT NTS

4-TIER DRY STORAGE SHELVING

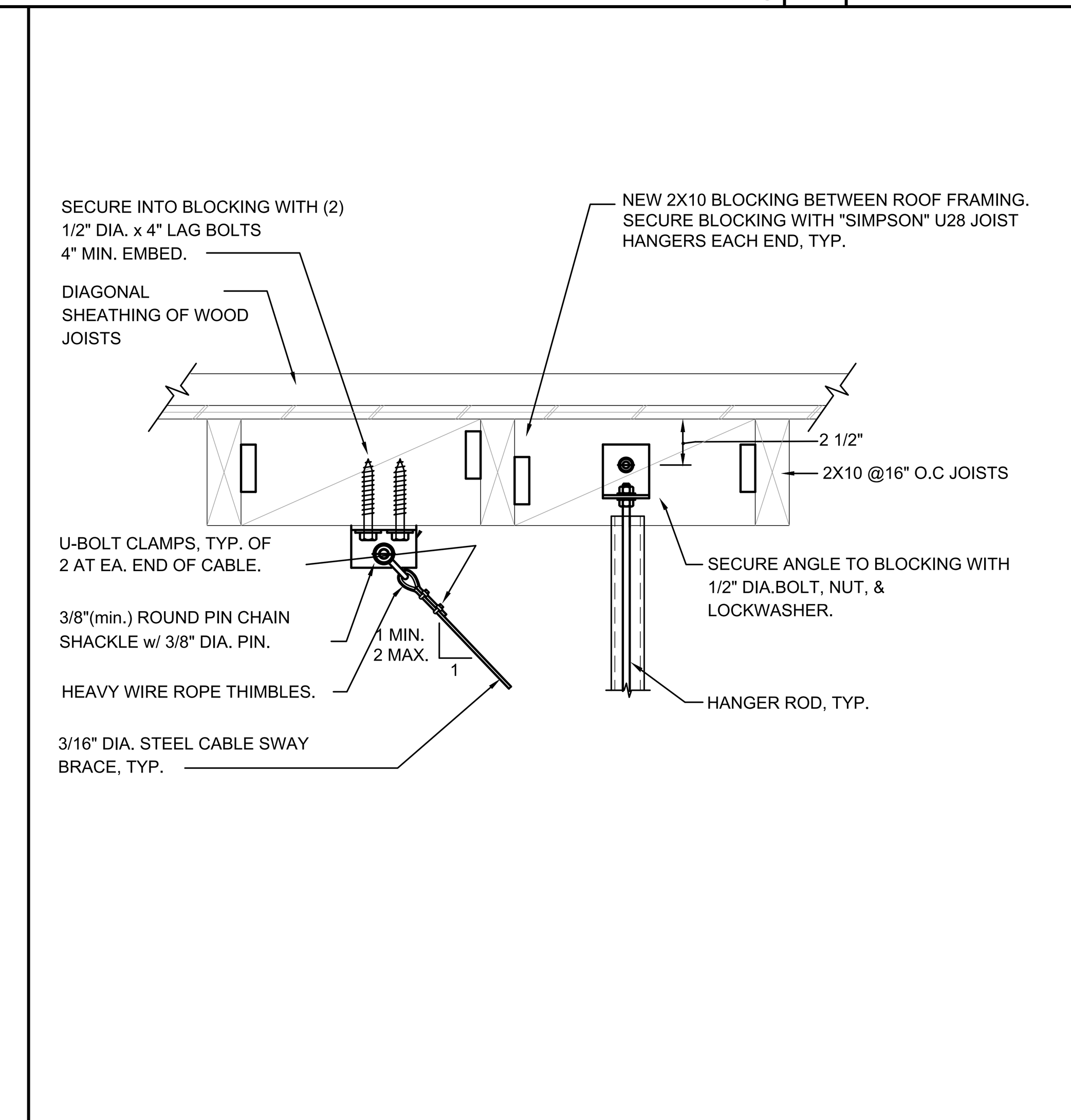


NOTE:
1. S/S POST BRACKET TO BE LOCATED ON TOP SHELF AT REAR POST AS SHOWN.
2. FOR SIZE AND LOCATION OF WALK-IN COOLER/FREEZER SHELVING, SEE 1/FS1.0

E WALK-IN SHELVING ATTACHMENT NTS

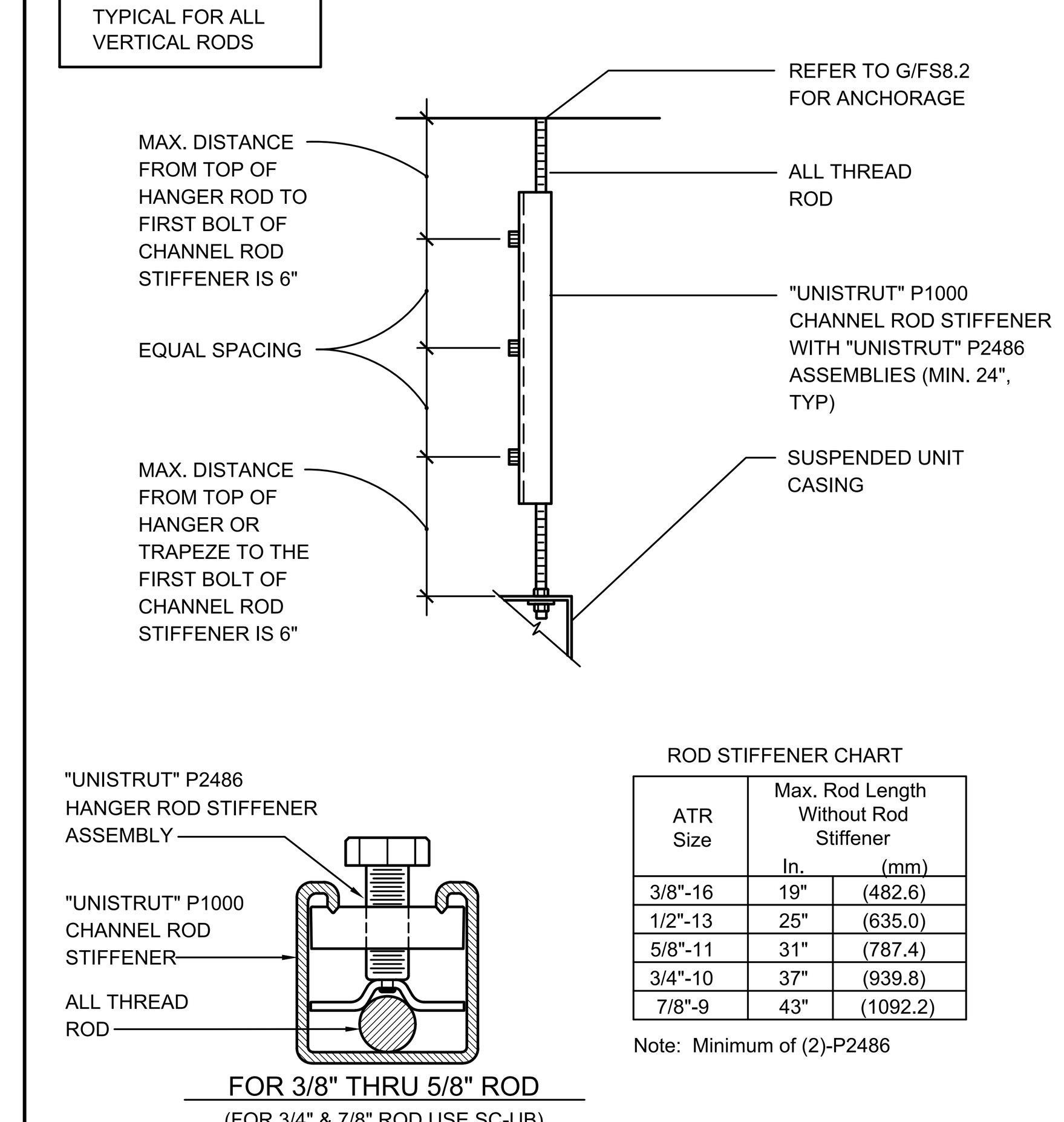


F TYPICAL UPPER ATTACHMENT NTS



G TYPICAL UPPER ATTACHMENT NTS

NOTE: TYPICAL FOR ALL VERTICAL RODS



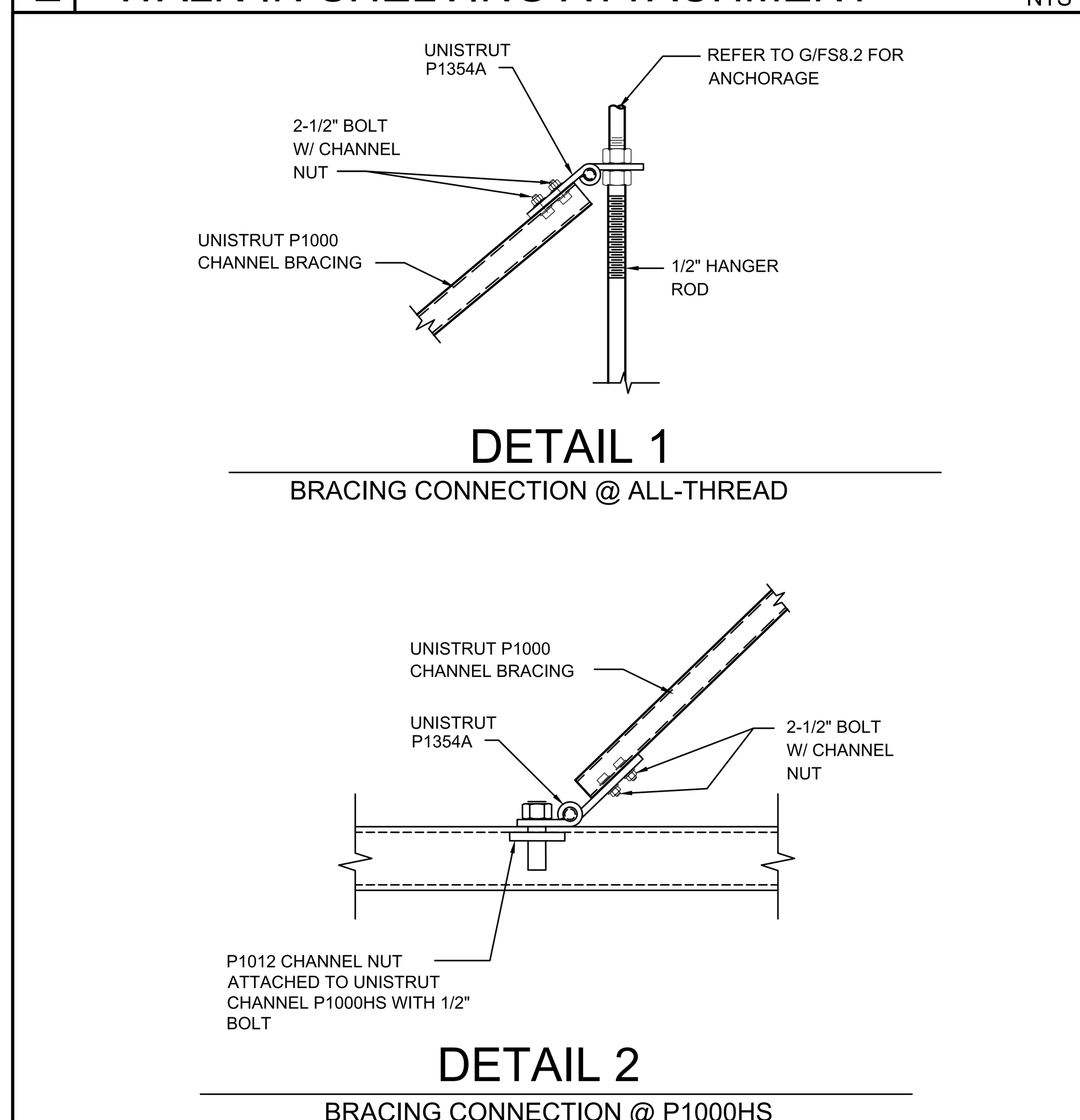
FOR 3/8" THRU 5/8" ROD
(FOR 3/4" & 7/8" ROD USE SC-UB)

ROD STIFFENER CHART

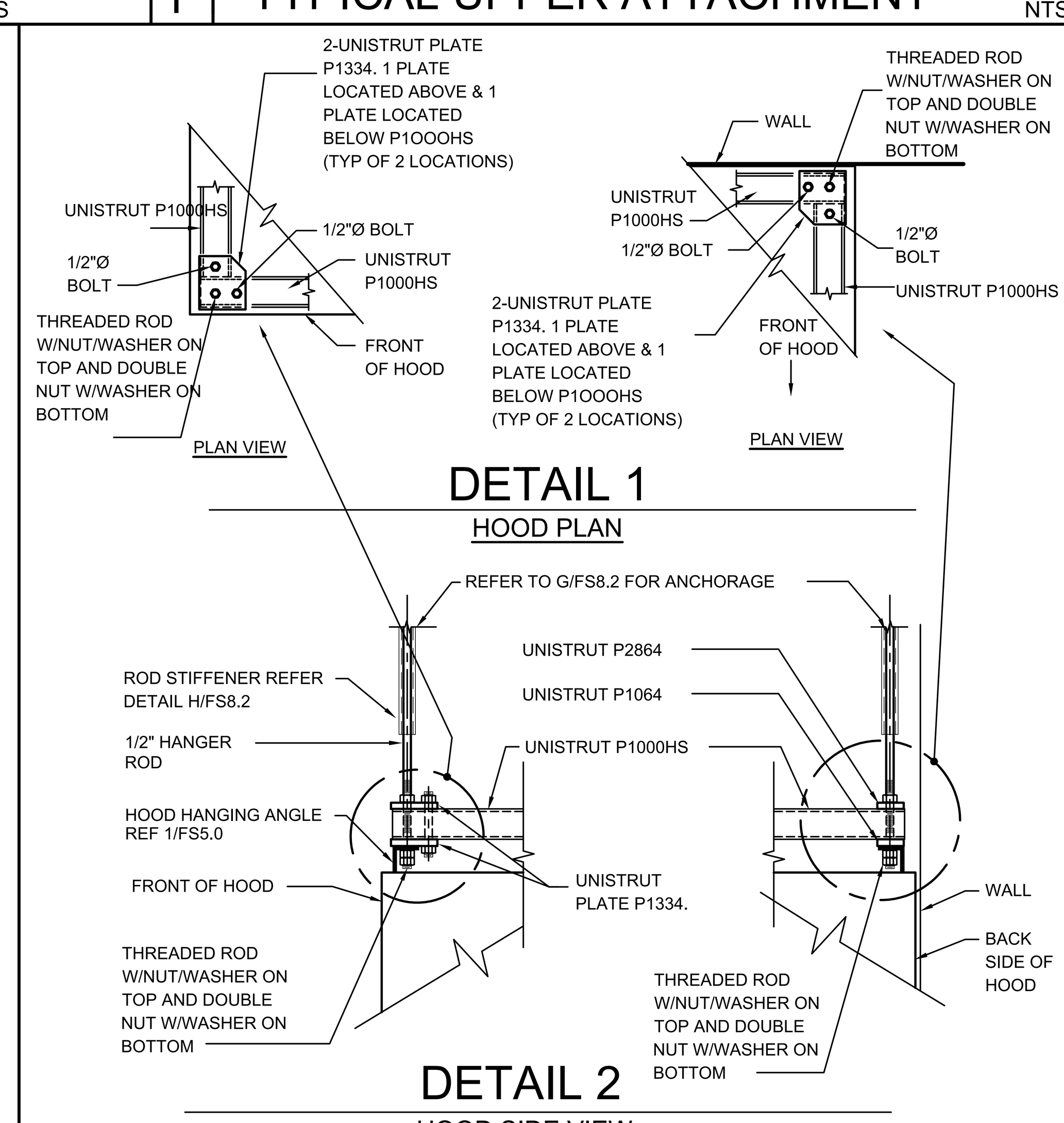
ATR Size	Max. Rod Length Without Rod Stiffener In.	(mm)
3/8"-16	19"	(482.6)
1/2"-13	25"	(635.0)
5/8"-11	31"	(787.4)
3/4"-10	37"	(939.8)
7/8"-9	43"	(1092.2)

Note: Minimum of (2)-P2486

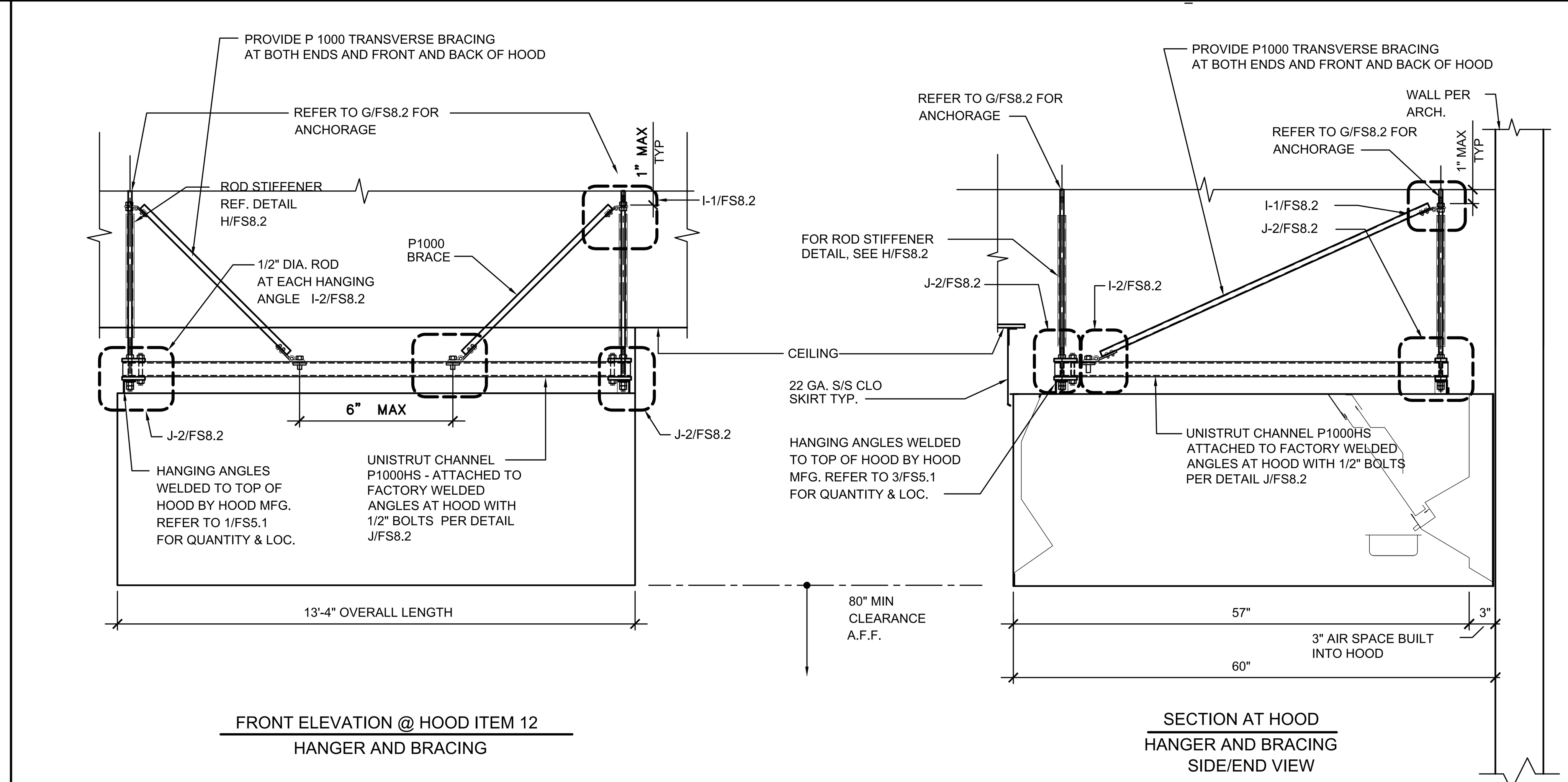
H ROD STIFFENER DETAIL NTS



I DIAGONAL HOOD BRACING NTS



J HOOD HANGING SUPPORT NTS



K EXHAUST HOOD ATTACHMENT DETAIL NTS

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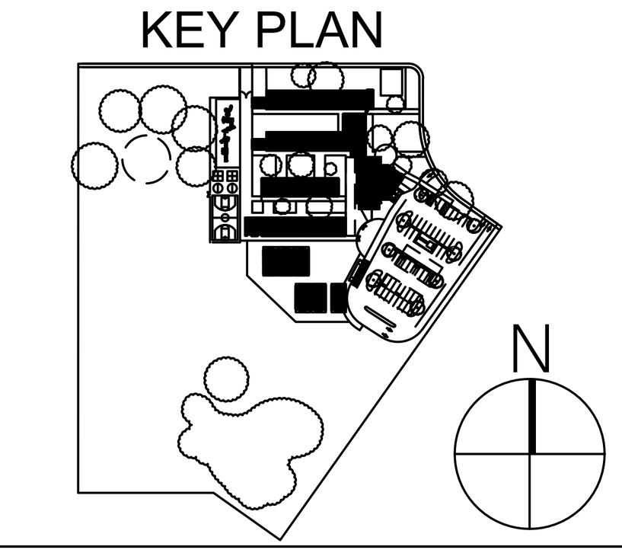

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