

GENERAL PLAN

Volume II

Implementing Standards, Guidelines and Plans

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Implementing Standards, Guidelines and Plans

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1 City of Sutter Creek Glossary

City of Sutter Creek Glossary

Abandoned / Abandoned use: A building or structure that becomes vacant and is unused or unoccupied for a continuous period of two years, or the cessation of the use of the property by the owner without intent to transfer the property to another or resume the use of the property.

Accessory Building: A detached subordinate building, the use of which is customarily incidental and complementary to that of the main building or to the main use of the land and which is located on the same lot with the main building or use.

Accessory Use: A use naturally and normally incidental to, subordinate to and devoted exclusively to the main use of the premises.

Acre: a unit of land area equal to 43,560 square feet.

Acre-foot: A volume equal to one acre covered with water to a depth of one foot. One acre-foot is 43,560 cubic feet, or approximately 325,829 gallons. Acre-foot is usually used to describe the volume of detention basins and reservoirs.

Affordability Covenant: A property title agreement that places resale or rental restrictions on a housing unit.

Affordable Housing: Under State and federal statutes, housing which costs no more than 30 percent of gross household income. Housing costs include rent or mortgage payments, utilities, taxes, insurance, homeowner association fees, and other related costs.

Affordable Units: Units for which households do not pay more than 30 percent of income for payment of rent (including monthly allowance for utilities) or monthly mortgage and related expenses. Since above moderate-income households do not generally have problems in locating affordable units, affordable units are often defined as those that low- to moderate-income households can afford.

Alley: A public way permanently maintained as a secondary means of access.

Annexation: The incorporation of land area into the jurisdiction of an existing city with a resulting change in the corporate boundaries of that city.

Apartment Hotel: A building, or portion thereof designed for or containing both individual guest rooms or suites of rooms and dwelling units.

Apartment House: A building, or portion thereof, designed for or occupied by five or more families living independently of each other.

Appropriate: When a stated action or design choice is defined as being “appropriate” in the text, that particular design approach will be in compliance with the standard. However, in other cases, there may be another approach that is not expressly mentioned in the text, which also may be deemed “appropriate.”

Area Requirements: The minimum net square footage of any lot excluding street rights-of-way.

Assisted Housing: Housing that has been subsidized by federal, state, or local housing programs.

Assisted Housing Developments: Multifamily rental housing that receives governmental assistance under federal programs listed in subdivision (a) of §65863.10, state and local multifamily revenue bond programs, local redevelopment programs, the federal Community Development Block Grant Program, or local in-lieu fees. The term also includes multi-family rental units that were developed pursuant to a local inclusionary housing program or used to a quality for a density bonus pursuant to §65915.

At-risk Housing or Units: Multi-family rental housing that is at risk of losing its status as housing affordable for low- and moderate-income tenants due to the expiration of federal, state or local agreements.

Automobile Service Station: An establishment for the primary purpose of gasoline or vehicle fuel retail sales. This may also include sales of automotive accessories, vehicular operating fluids, and convenience goods or groceries, as well as the provision of minor vehicle maintenance, such as vehicle washing facilities, excluding automotive repair.

Bed and Breakfast Inn: An owner-occupied residence that provides temporary sleeping accommodations and a morning meal for paying guests for periods of 30 consecutive days or fewer.

Below-market-rate (BMR): Any housing unit specifically priced to be sold or rented to low- or moderate-income households for an amount less than the fair-market value of the unit. Both the State of California and the U.S. Department of Housing and Urban Development set standards for determining which households qualify as “low-income” or “moderate-income.”

Best Management Practices (BMP): A program, technology, process, siting criteria, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

Boarding and Rooming House: A building or portion thereof which is used to accommodate, for compensation, five or more boarders or roomers not including members of the occupant’s immediate family who might be occupying such building. “Compensation” includes compensation in money, services or other things of value.

Building: See “Structure.”

Building Footprint: The ground area of a building or group of buildings.

Building Height: The vertical distance from the average finished grade of a building footprint to the highest point of the structure. See also “Grade.”

Building Setback: The minimum distance allowed between a lot line and the nearest building, column, wall, or fence requiring a building permit.

Bungalow Court: A group of two or more detached one-family or two-family dwellings as rental units located upon a single lot, together with all open spaces as required by this title.

California Department of Housing and Community Development (HCD): The State Department responsible for administering State-sponsored housing programs and for reviewing housing elements to determine compliance with State housing law.

California Environmental Quality Act (CEQA): A State law requiring State and local agencies to consider the environmental consequences of their actions before approving plans and policies or committing to a course of action on a project.

California Housing Finance Agency (CHFA): A State agency, established by the Housing and Home Finance Act of 1975, which is authorized to sell revenue bonds and generate funds for the development, rehabilitation, and conservation of low- and moderate-income housing.

Carport: A permanent roofed structure with not more than two enclosed sides used or intended to be used for automobile shelter or storage.

Census: The official United States decennial enumeration of the population conducted by the federal government.

City: City with a capital “C” generally refers to City of Sutter Creek City Council or its designee. City with a lower case “c” generally refers to the geographical area of the city, both incorporated and unincorporated territory (e.g., the city road system).

Club: An association of persons, whether incorporated or unincorporated, for some common purpose but not including groups organized primarily to render a service carried on as a business.

Common Area: An area held, designed, and designated for common or cooperative use.

Community Development Block Grant (CDBG): A grant program administered by the U.S. Department of Housing and Urban Development (HUD) on a formula basis for entitlement communities, and by the State Department of Housing and Community Development (HCD) for non-entitled jurisdictions. This grant allots money to cities and counties for housing rehabilitation and community development, including public facilities and economic development.

Community Noise Equivalent Level (CNEL): CNEL is a 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for the greater sensitivity to noise during these hours.

Community Park: A community park comprising fifteen (15) acres or more of useable park area and including facilities for organized and individual sports such as ball fields, tennis, basketball and/or volleyball courts as well as area for picnics and community or family functions.

Community Reinvestment Act (CRA): The CRA, enacted by Congress in 1977, is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate, including low and moderate income neighborhoods, consistent with sound banking operations.

Compatible: Relates to the characteristics of different uses or activities that permit them to be located near each other in harmony and without conflict. Some elements affecting compatibility include intensity of occupancy as measured by dwelling units per acre; pedestrian or vehicular traffic generated; volume of goods handled; and environmental effects like noise, vibration, glare, or air pollution.

Conditional Use Permit: A permit for a special use, which is not allowed as a matter of right within a zoning district, by the establishment of conditions of approval.

Condominium: A building or group of buildings in which the interior spaces of units are owned individually, but the structure, common areas, and facilities are owned by the owners on a proportional, undivided basis.

Consider: When the term “consider” is used, a design suggestion is offered to the applicant as an example of one method whereby the design standard could be met. Applicants may elect to follow the suggestion, but may also consider alternative means of complying.

Consistent: Free from variation or contradiction. Programs in the General Plan are to be consistent, not contradictory or preferential. State law requires consistency between a general plan and implementation measures such as the zoning ordinance.

Context: In many cases, the applicant is instructed to relate to the context of the project area. The “context” relates to those properties, uses, and structures adjacent to, and within the same block, neighborhood or area, as the proposed project.

Contract Rent: The monthly rent agreed to or contracted for, regardless of any furnishings, utilities, or services that may be included.

Convenience Store: A retail business with primary emphasis placed on providing the public a convenient location at which to purchase from a wide array of consumable products, predominantly food or food and gasoline services.

Decibel (dBA): A unit used to express the relative intensity of a sound as heard by the human ear.

Dedication, In Lieu of: Cash payments that may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in lieu fees or in lieu contributions.

Density: The number of dwelling units per unit of land. Density usually is expressed “per acre,” e.g., a development with 100 units located on 20 acres has density of 5.0 units per acre.

Density Bonus: The allocation of development rights that allows a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned. Under Government Code Section 65915, a housing development that provides 20 percent of its units for lower income households, or ten percent of its units for very low-income households, or 50 percent of its units for seniors, is entitled to a density bonus and other concessions.

Design Clearance: Written concurrence by the City that a project is deemed to be in conformance with the Design Standards. Design Clearance is required before a project may be processed for permitting or entitlements or in the case of repair, maintenance and/or painting within the Main Street Historic District, before said repair, maintenance and/or painting may commence.

Design Review Committee (DRC): A committee appointed by the City Council to review applications and make recommendations to City staff and/or the Planning Commission regarding an application’s conformance with the City’s Design Standards.

Design Standards: The standards adopted by the City of Sutter Creek to facilitate implementation of architectural regulations mandated by the City’s Municipal Code.

Detention: The temporary storage of storm runoff to ease peak runoff and to provide water quality treatment benefits.

Detriment: Loss, damage, disadvantage, or injury. A cause of loss or damage.

Developable Land: Land that is suitable as a location for structures and that can be developed free of hazards to, and without disruption of or significant impact on, natural resource areas.

Development Impact Fees: A fee or charge imposed on developers to pay for a jurisdiction’s costs of providing services to new development.

Development Right: The right granted to a land owner or other authorized party to improve a property. Such right is usually expressed in terms of a use and intensity allowed under existing zoning regulation. For example, a development right may specify the maximum number of residential dwelling units permitted per acre of land.

Dwelling: A building or portion thereof designed for or occupied for residential purposes, including one-family, two-family, and multiple dwellings, but not including hotels, boarding and lodging houses, trailers and mobile homes.

Dwelling, Duplex: A single building consisting of two dwelling units designed for or occupied exclusively by two families living independently of each other.

Dwelling, Fourplex: A single building consisting of four dwelling units.

Dwelling Group: A combination or arrangement of dwellings on one building site.

Dwelling, Halfplex: One-half of a duplex dwelling which is located on a separate lot from the other half of the duplex. Also referred to as a zero lot line unit.

Dwelling, Multi-family: A building containing two or more dwelling units for the use of individual households; an apartment or condominium building is an example of this dwelling unit type.

Dwelling, One-family: See “Dwelling, Single-family Detached”.

Dwelling, Single-family Attached: A one-family dwelling attached to one or more other one-family dwellings by a common vertical wall. Row houses and town homes are examples of this dwelling unit type.

Dwelling, Single-family Detached: A dwelling, not attached to any other dwelling, which is designed for and occupied by not more than one family and surrounded by open space or yards.

Dwelling, Triplex: A single building consisting of three dwelling units.

Dwelling, Two-family: See “Dwelling, duplex.”

Dwelling Unit: A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen), that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Easement: A limited right to make use of a property owned by another, for example, a right to drive across the property.

Educational Animal Project: An animal husbandry activity which is under the supervision of an educationally-oriented youth program or organization that is connected with a school or nonprofit organization.

Educational Institution: A college or university giving general academic instruction equivalent to the standards prescribed by the State Board of Education.

Effluent: Treated wastewater that is discharged from a wastewater treatment facility.

Elderly Household: As defined by HUD, elderly households are one- or two-member (family or non-family) households in which the head or spouse is age 62 or older.

Element: A division or chapter of the General Plan.

Emergency Shelter: An emergency shelter is a facility that provides shelter to homeless families and/or homeless individuals on a limited short-term basis.

Emergency Shelter Grants (ESG): A grant program administered by the U.S. Department of Housing and Urban Development (HUD) provided on a formula basis to large entitlement jurisdictions.

Encourage: In some cases, a particular design approach is “encouraged.” In such cases, that method should be utilized unless an alternative would also meet the intent of the standard. For example, a standard addressing the design of new buildings states, “new interpretations of traditional building styles are encouraged.” In such a case, a new building need not directly imitate a historic style. However, a specific condition may arise in which an imitation, accurately executed, could be determined to be appropriate. Reconstruction of a building that once stood on a site that conveys a particularly significant part of the community’s history is an example.

Enhance: To improve existing conditions by increasing the quantity or quality of beneficial uses or features.

Environmental Impact Report (EIR): In accordance with CEQA, an EIR is a document prepared by the jurisdiction or agency considering a project, or action, that includes the following: identification of potential impacts to the environment by the proposed project; the determination of the level of significance of the impact, and the identification of measures that would mitigate the impact. The EIR is required to discuss alternatives to the proposed project as well as identify the environmentally superior alternative. Decision makers use the EIR in their deliberations on whether to approve the project or action.

Extremely Low Income: Households earning up to 30% of the area median income (County median income) adjusted for family size, or households at the Federal Poverty Level.

Fair Market Rent: The rent, including utility allowances, determined by the United States Department of Housing and Urban Development for purposes of administering the Section 8 Existing Housing Program.

Family: (1) Two or more persons related by birth, marriage, or adoption [U.S. Bureau of the Census]. (2) An individual or a group of persons living together who constitute a bona fide single-family housekeeping unit in a dwelling unit, not including a fraternity, sorority, club, or other group of persons occupying a hotel, lodging house or institution of any kind [California].

Family Food Production: The non-commercial raising or keeping of animals by a family on the same lot as the primary family residence, solely for the purposes of personal use and consumption.

Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

First-time Home Buyer: Defined by HUD as an individual or family who has not owned a home during the three-year period preceding the HUD-assisted purchase of a home. Jurisdictions may adopt local definitions for first-time home buyer programs which differ from non-federally funded programs.

Floor Area: The sum of the gross floor area for each story of a building measured from the exterior faces of the exterior walls. Floor area includes all enclosed spaces.

Floor Area Ratio: The total floor area of the building or buildings on a lot, divided by the lot area. For example, on a lot with 10,000 square feet of lot area, a FAR of 1.00 will allow 10,000 square feet of gross square feet of building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor). On the same lot, a FAR of 0.50 would allow 5,000 square feet of floor area and a FAR of 0.25 would allow 2,500 square feet.

Garage: A building or portion of a building in which motor vehicles used by the occupants or tenants of the main building or buildings on the premises are stored or kept.

Garage, Public: A garage, other than a private garage.

General Plan: The General Plan is a legal document, adopted by the legislative body of a City or County, setting forth policies regarding long-term development. California law requires the preparation of seven elements or chapters in the General Plan: Land Use, Housing, Circulation, Conservation, Open Space, Noise, and Safety. Additional elements are permitted, such as Economic Development, Urban Design and others addressing similar local issues or concerns.

Goal: The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.

Gold Rush Ranch Project (GRR-Project): Development that occurs within the Gold Rush Ranch Specific Plan boundaries, including but not limited to the Gold Rush Ranch Specific Plan, Vesting Large Lot Tentative Subdivision Map, General Plan Amendments, Zoning Ordinance Amendments, annexation, subsequent lot subdivision map(s), golf course, small lot subdivision maps, grading permits, parcel and lot line adjustments, and transfers of ownership and/or control (sale, lease, or rental of structures).

Grade: The average of the finished ground level at the center of all walls of a building.

Gross Acreage: The total number of acres of a site or within an area of land, such as a parcel or parcels. See also “Net Acreage.”

Group Dwelling or Group Home: A combination or arrangement of dwellings on one building site in which a small number of unrelated people in need of care, support, or supervision can live together in one home.

Growth Management: A tool used by local governments to prevent urban sprawl and preserve natural resources and agriculture.

Historic District and Main Street Historic District: The Historic Districts are geographic areas of the City that are dominated by historically significant residential and commercial structures and architectural features. The Design Standards include specific provisions for projects located within the Historic Districts.

Historic Property or Structure: A historic property or structure is any individual building, structure, object or site that is significant in or to the history, architecture, archeology and/or culture of the City of Sutter Creek, the County of Amador, or the State of California.

Home Mortgage Disclosure Act (HMDA): The Home Mortgage Disclosure Act requires larger lending institutions making home mortgage loans to publicly disclose the location and disposition of home purchase, refinance and improvement loans. Institutions subject to HMDA must also disclose the gender, race, and income of loan applicants.

Home Occupation: An occupational activity or business use conducted within a dwelling unit and/or an accessory structure by a resident of the property, and that is secondary to the residential use of a property. Also includes individuals who conduct “telecommuting” in conjunction with regular employment.

HOME Program: The HOME Investment Partnership Act, Title II of the National Affordable Housing Act of 1990. HOME is a Federal program administered by HUD which provides formula grants to States and localities to fund activities that build, buy, and/or rehabilitate affordable housing for rent or home ownership or provide direct rental assistance to low-income people.

Homeless: Unsheltered homeless are families and individuals whose primary nighttime residence is a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings (e.g., the street, sidewalks, cars, vacant and abandoned buildings). Sheltered homeless are families and persons whose primary nighttime residence is a supervised publicly or privately operated shelter (e.g.,

emergency, transitional, battered women, and homeless youth shelters, and commercial hotels used to house the homeless).

Hospital: Any building or portion thereof used for the accommodation and medical care of sick, injured or infirm persons and including sanitariums.

Hotel: A building that provides accommodations for temporary lodging and services for travelers and tourists, in which there are five or more guest rooms, and in which no provision is made for cooking in any individual room or suite.

Household: All those persons—related or unrelated—who occupy a single housing unit.

Household Income: The total income of all the persons living in a household.

Households, Number of: The count of all year-round housing units occupied by one or more persons.

Household Pets: Domestic animals ordinarily permitted in the house and kept for company or pleasure, such as dogs, cats, birds and the like.

Housing and Community Development, Department of (HCD): The State agency that has principal responsibility for assessing, planning for, and assisting communities to meet the needs of low- and moderate-income households.

Housing and Urban Development, U.S. Department of (HUD): A cabinet-level department of the federal government that administers housing and community development programs.

Housing Authority, Local (LHA): Local housing agency established in State law, subject to local activation and operation. Originally intended to manage certain federal subsidies, but vested with broad powers to develop and manage other forms of affordable housing.

Housing Cost: Monthly owner costs including mortgages, deed of trust, contracts to purchase or similar debts on the property and taxes, insurance of the property, and utilities or the gross rent including the contract rent plus the estimated average monthly cost of utilities.

Housing Problems: Defined by HUD as a household which: (1) occupies a unit with physical defects (lacks complete kitchen or bathroom); (2) meets the definition of overcrowded; or (3) spends more than 30% of income on housing cost (overpayment).

Housing Subsidy: Housing subsidies refer to government assistance aimed at reducing housing sales or rent prices to more affordable levels. Two general types of housing subsidy exist. Where a housing subsidy is linked to a particular house or apartment, housing subsidy is “project” or “unit” based. In Section 8 rental assistance programs the subsidy is linked to the family and assistance provided to any number of families accepted by willing private landlords. This type of subsidy is said to be “tenant based.”

Housing Unit: A house, an apartment, a mobile home or trailer, a group of rooms, or a single room that is occupied, or if vacant, is intended for occupancy as separate living quarters (U.S. Census definition). See “Dwelling Unit.”

Impact Fee: A fee, also called a development fee, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce.

Impervious Surface: Impervious surfaces are mainly constructed surfaces - rooftops, sidewalks, roads, and parking lots - covered by impervious or nearly impervious surfaces such as asphalt, concrete, brick, and stone. Such surfaces repel most water and effectively prevent precipitation from infiltrating soils.

Implementation Program: An action, procedures, program, or technique that carries out a general plan policy. Implementation programs also specify primary responsibility for carrying out the action and a time frame for its accomplishment.

Inappropriate: Something not appropriate, not proper, or is not suitable. When the term “inappropriate” is used, the relevant design approach should not be allowed. For example, a standard states, “a new addition that creates an appearance inconsistent with the historic character of the building is inappropriate.” In this case, the design would not be approved.

Income Category: Four categories are used to classify a household according to income based on the median income for the county. Under state housing statutes, these categories are defined as follows: Extremely Low (up to 30% of the County median); Very Low (31-50% of County median); Low (51-80% of County median); Moderate (81-120% of County median); and Upper (over 120% of County median).

Infill Development: Development of vacant land (usually individual lots or left-over properties) within areas that are already largely developed.

Jobs/Housing Balance; Jobs/Housing Ratio: The availability of affordable housing for employees. The jobs/housing ratio divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 indicates a balance. A ratio greater than 1.0 indicates a net in-commute; less than 1.0 indicates a net out-commute.

Large Household: A household with five (5) or more members.

Large Retail Establishment: A large retail establishment is defined as a retail commercial use comprising a total gross ground-floor area of 20,000 square feet or greater.

L_{eq}: A type of sound measurement used to describe the “equivalent continuous noise level” and is a preferred method to describe sound levels that fluctuate or substantially vary over time. The L_{eq} calculates a single decibel value that averages the total sound energy over a period of time.

L_{dn}: A day/night average sound level or the average equivalent sound level over a 24 hour period, with a penalty added for noise during the nighttime hours of 10:00 p.m. to 7:00 a.m. where 10 decibels are added to reflect the actual impact of the noise.

Leap-frog Development: The development of lands that requires the extension of public facilities from an existing terminal point through intervening undeveloped areas that ~~are~~ may or may not be scheduled for development at a later time.

Lease: A contractual agreement by which an owner of real property (the lessor) gives the right of possession to another (a lessee) for a specified period of time (term) and for a specified consideration (rent).

Liquefaction, Soil: Soil liquefaction is the liquefying of wet, unconsolidated sediments that can occur during an earthquake. Soil liquefaction can cause flooding and major structural damage to buildings and other structures.

Live-work Unit: A building or space within a building that is used jointly for residential and office/business uses that are allowed in the applicable zoning district.

Lot: See “Parcel.”

Lot Area: The total horizontal area (i.e. map area) within the lot lines of a lot.

Lot, Corner: A lot situated at the intersection of two or more streets having an angle of intersection of not more than one hundred thirty-five degrees.

Lot Coverage: The ratio of the total footprint area of all structures on a lot relative to the parcel. The sum of the footprints of all primary and accessory structures, including garages, carports, covered patios, and roofed porches is used to calculate lot coverage, typically as a percentage of the parcel.

Lot Depth: The lesser of the horizontal distances separating the front and rear lot lines measured at the side lot lines.

Lot, Interior: A lot other than a corner lot.

Lot Line, Front: The boundary line of a lot that separates the property from the street or right-of-way. On a corner lot, only the line separating the street on which the proposed or existing structure will face is considered as a front lot line.

Lot Line, Rear: The line opposite the front lot line.

Lot Line, Side: Any lot lines other than a front lot line or a rear lot line.

Lot Width: The lesser of the horizontal distances separating side lot lines measured at the front and rear lot lines.

Low-impact Development (LID): An approach to land development that works with nature to manage stormwater as close to the source as possible. LID employs principles such as preserving and recreating natural landscape features, and minimizing impervious surfaces to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product.

Low Income: Households earning 51-80% of the area median income (County median income).

Low-income Housing Tax Credits: Tax reductions provided by the federal and State governments for investors in housing for low-income households.

Manufactured Housing: Housing that is constructed of manufactured components, assembled partly at the site rather than totally at the site. Also referred to as modular housing.

Market-rate Housing: Housing which is available on the open market without any subsidy.

Mean: The arithmetic average of a range of numbers.

Median: The mid-point in a range of numbers.

Median Income: The annual income for each household size within a region that is defined annually by HUD. Half of the households in the region have incomes above the median and half have incomes below the median.

Mitigate: To ameliorate, alleviate, or avoid to the extent reasonably feasible.

Mixed-use: Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A “single site” may include contiguous properties.

Mobile Home: A structure, transportable in one or more sections, built on a permanent chassis and designed for use as a single-family dwelling unit and which (1) has a minimum of 400 square feet of living space; (2) has a minimum width in excess of 102 inches; (3) is connected to permanent utilities; and (4) is tied down to a permanent foundation or is set on piers, with wheels removed and skirted, in a mobile home park or on a lot owned, rented, or leased by the homeowner.

Moderate Income: Households earning 81-120% of the area median income (County median income).

Mortgage Revenue Bond (MRB): A state, county or city program providing financing for the development of housing through the sale of tax-exempt bonds.

Mother Lode Style: The Mother Lode Style of architecture incorporates and embodies the recognized architectural styles, forms and elements employed within Sutter Creek prior to about 1940. The characteristics of the Mother Lode Style are described in the City's Design Standards.

Multi-family Dwelling Unit: A building or portion thereof designed for or occupied by two or more families living independently of each other, including duplexes, triplexes, fourplexes, apartments, and condominiums.

Must: See "Shall."

Negative Declaration: In accordance with CEQA, a Negative Declaration is a finding made by the Lead Agency that a proposed project or action would not have a significant impact on the environment.

New Subdivision: A project that creates or proposes to create five (5) or more new, single-family residential parcels or two (2) or more new parcels of any other zoning or land use designation.

Net Acreage: The portion of a site exclusive of existing or planned public or private road rights-of-way. See also "Gross Acreage."

Nonconforming Building: "A building or structure or portion thereof conflicting with the provisions of this title applicable to the zone in which it is situated.

Nonconforming Use: A use that conflicts with the provisions of this General Plan, and may include use of a conflicting structure, a conflicting use within a conforming building, a conflicting use within a conflicting structure, or a conflicting use of land.

Non-essential: Structures which, while dating from the period of significance (i.e. prior to about 1940), have been altered so radically that the historic information is no longer interpretable and they no longer merit preservation or restoration. In many such buildings, nearly all of the structure's historic fabric has been replaced with new materials. Other non-essential structures include those that may lie outside the boundaries of the Historic District or those that have been constructed outside of the period of significance.

Nuisance: Anything that is injurious to the health, safety or public welfare, or is an obstruction to the free use and enjoyment of property in the affected area.

Oak Woodlands: Oak woodlands are defined in the Oak Woodlands Conservation Act as "an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover" (California Fish and Game Code 1361(h)).

Occupancy, Change of: A discontinuance of an existing use and substitution therefore of a use of a different kind or class.

Occupied: The active use of a property, structure, or dwelling.

Open Space: A parcel, area, or waterway that is essentially unimproved and devoted to the preservation of natural resources, managed production of resources, outdoor recreation, or public health and safety.

Overcrowding: Households or occupied housing units with 1.01 or more persons per room.

Parcel: A lot in single ownership or under single control, usually considered a unit for purposes of development.

Passive Recreation Park: A park that contains natural open space and supports passive, low-intensity uses with minimal development.

Peak Flow: The volume of water that is carried in a waterbody over a certain period of time, usually expressed in cubic feet per second (cfs). Peak flows are commonly described in terms of rainfall event frequencies. For example, the “100-year peak flow” has a 1% chance of occurring in a given year.

Person: Any individual, firm, partnership, joint venture, association, club, fraternal organization, corporation, estate trust, receiver, organization, syndicate, city, county, municipality, district or other political subdivision, or any other group or combination acting as a unit.

Physical Defects: A housing unit lacking complete kitchen or bathroom facilities (U.S. Census definition).

Plan Line: a process that specifically defines the location of center lines, alignments, rights-of-way, cross-sections, and intersections for future or proposed roadways and non-motorized transportation rights-of-ways. The purpose of a Plan Line is to provide adequate right-of-way for future growth needs and to protect the right-of-way from encroachment.

Potable Water: Water of sufficiently high quality to be consumed or utilized without risk of immediate or long-term harm.

Poverty Level: As used by the U.S. Census, families and unrelated individuals are classified as being above or below the poverty level based on a poverty index that provides a range of income cutoffs or “poverty thresholds” varying by size of family, number of children, and age of householder. The income cutoffs are updated each year to reflect the change in the Consumer Price Index.

Preferred: In some cases, an applicant is instructed that a certain design approach is “preferred.” In such a case, that approach should be utilized unless an alternative can be demonstrated to meet the intent of the standard. For example, a standard addressing design characteristics for a new building states that “a new design that draws upon the fundamental similarities among historic buildings in the community (without copying them) is preferred.” In such a case, a design that imitates a historic style generally is inappropriate. However, a specific condition may arise in which an imitation, accurately executed, could be determined to be appropriate. Reconstruction of a building that once stood on a site and which conveys a particularly significant part of the City’s history is an example.

Primary Treatment: The settling and removal of suspended solids in wastewater.

Project-based Rental Assistance: Rental assistance provided for a project, not for a specific tenant. A tenant receiving project-based rental assistance gives up the right to that assistance upon moving from the project.

Prominent Public Access Points: Prominent public access points are the following spaces within the City of Sutter Creek boundary: City parks, Church Street, Gopher Flat, Main Street/Hanford Street (Old Highway 49), Highway 49 and Highway 104.

Public Housing: A project-based low-rent housing program operated by independent local public housing authorities.

Quantified Objective: The maximum number of housing units that can be constructed, rehabilitated, and conserved by income level within a five- year time frame, based on the needs, resources, and constraints identified in the housing element (California Government Code §65583 (b)).

Raw Water: Water that is drawn directly from ground water or surface water (e.g. stream, lake, or reservoir) supplies and is not treated or otherwise purified to meet drinking water standards.

Reasonable: Appropriate for a particular situation or set of circumstances. What is reasonable in one situation may be unreasonable in another. “Reasonable” is usually determined on a case-by-case basis after review of a project’s specific circumstances.

Recovery Home: A recovery home or recovery residence is a group home for persons recovering from alcohol or drug addiction, or mental illness. The National Alliance for Recovery Residences defines recovery homes as “sober, safe, and healthy group home living environments that promotes recovery from alcohol and other drug use and associated problems.”

Recycled Water: Recycled water, sometimes called reclaimed water, is former wastewater that has been treated to remove solids and certain impurities (secondary or tertiary). Recycled water is typically only used for non-potable uses, such as irrigation, dust control, and fire suppression.

Redevelop: Building new construction on a site that has pre-existing uses or renovate existing uses on a site.

Regional Housing Needs Assessment Plan: The Regional Housing Needs Assessment is based on State of California projections of population growth and housing unit demand and assigns a share of the region’s future housing need to each jurisdiction. These housing need numbers serve as the basis for the update of the Housing Element in each California city and county.

Regional Housing Needs Allocation (RHNA): A quantification by a council of governments (COG) or by the California Department of Housing and Community Development (HCD) of existing and projected housing need, by household income group, for all localities within a region.

Rehabilitation: The repair, preservation, and/or improvement of substandard housing.

Residential, Multiple Family: See “Dwelling, Multi-family.”

Residential, Single-family: See “Dwelling, Single-family Detached” and “Dwelling, Single-family Attached.”

Residential Care Facility: A non-medical care facility that provides room, board, housekeeping, supervisions, and personal care assistance with basic activities such as personal hygiene, dressing, eating, and walking for persons who are unable to live independently due to age, physical, mental, or emotional disorders.

Residential Park: A park of approximately one acre but not less than half an acre in size located in residential neighborhoods that contain a large lawn area and may have playground facilities and picnic benches.

Rezoning: An amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.

Riparian Habitat: Riparian lands are comprised of the vegetative and wildlife areas adjacent to perennial and intermittent streams. Riparian areas are distinguished by the existence of plant species normally found near freshwater.

Sanitary Sewer: A subterranean system of pipes, pump stations, manholes, and other facilities that convey untreated wastewater (refuse liquids and waste matter) from different sources to a facility where the wastewater is treated. Sanitary sewers are not storm drainage systems that carry surface runoff or septic tanks or leach fields that hold refuse liquids and waste matter on-site.

Scenic Ridgeline: A ridgeline that exhibits a prominent skyline when viewed from different prominent public access points.

School: A public or private elementary, junior high, or high school which offers instruction in the several branches of learning and study required to be taught by the Education Code of the State of California.

Second Unit: Also called an “Accessory Dwelling Unit”, a self-contained attached or detached living unit in addition to the primary residential unit on a single lot. A “Granny Flat” is one type of second unit intended for the elderly. Effective January 1, 2018, state law allows these units to be built concurrently with a single-family home, opens areas where they can be built to include all zoning districts that allow single-family uses, modifies fees from utilities for these units, and reduces the parking requirements (SB 229 and AB 494).

Secondary Treatment: Treatment of wastewater that typically follows primary treatment and involves biological processes and settling tanks to remove organic material.

Section 8 Rental Assistance Program: A federal (HUD) rent-subsidy program that is one of the main sources of federal housing assistance for low-income households.

Seniors: Persons age 65 and older.

Sensitive Natural Community: A biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, State, or Federal agencies.

Service and Convenience Station: See “Automobile Service Station” and “Convenience Store.”

Service Area: The area for which a purveyor is responsible for distributing water, natural gas, electricity, or other utilities.

Service Needs: The particular services required by special populations, typically including needs such as transportation, personal care, housekeeping, counseling, meals, case management, personal emergency response, and other services preventing premature institutionalization and assisting individuals to continue living independently.

Shall: What is required or mandatory. Same as “will have to” or “must.”

Short-term Rental Units: A residential dwelling unit or accessory building rented for periods of 30 consecutive days or fewer. Also known as a vacation rental.

Should: Meaning what is expected or obligatory, except where there may exist valid reasons, in particular circumstances, to not implement an item or action after carefully weighing and understanding the implications.

Site: See “Parcel.”

Small Household: Pursuant to HUD definition, a small household consists of two to four non-elderly persons.

Special Needs Groups: Those segments of the population which have a more difficult time finding decent affordable housing due to special circumstances. Under California Housing Element statutes, these special needs groups consist of the elderly, handicapped, large families, female-headed households, farmworkers and the homeless.

Special-status Species: Plants and animals that, because of their recognized rarity or vulnerability to habitat loss or population decline, are recognized by Federal, State, or other agencies.

Standard: A design requirement that must be met when appropriate for and applicable to a project. On a case-by-case basis a standard may be subordinated by the City in order to facilitate compliance with another standard that has been deemed more important, without compromising the overall objectives of the governing document.

Storage: The placement or keeping of an object, vehicle, or materials in a stationary location on private property for a period of time exceeding 72-hours.

Story: That portion of a building included between the surface of any floor and the surface of the floor next above it, or if there is no floor above it, then the space between such floor and the ceiling next above it.

Story, Half: A story with at least two of its opposite sides situated in a sloping roof, the floor area of which does not exceed two-thirds of the floor area immediately below it.

Street: A thoroughfare that affords the principal means of access to abutting property.

Strip Commercial Development: A form of commercial land use in which each establishment is afforded direct access to a major thoroughfare; generally associated with intensive use of signs to attract passersby.

Structure: Anything constructed or erected, the use of which requires being attached to the ground or attached to something located on the ground. For the purposes of this document, the term “structure” includes “buildings.”

Subdivision: The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed.

Subdivision Map Act: Section 66410 et seq. of the California Government Code, this act vests in local legislative bodies the regulation and control of the design and improvement of subdivisions, including the requirement for tentative and final maps.

Subsidize: To assist by payment of a sum of money or by the granting of terms or favors that reduce the need for monetary expenditures. Housing subsidies may take the forms of mortgage interest deductions or tax credits from federal and/or state income taxes, sale or lease at less than market value of land to be used for the construction of housing, payments to supplement a minimum affordable rent, and the like.

Substandard Housing: Residential dwellings that, because of their physical condition, do not provide safe and sanitary housing.

Substandard, Suitable for Rehabilitation: Substandard units that are structurally sound and where the cost of rehabilitation is economically warranted.

Substandard, Needs Replacement: Substandard units that are structurally unsound and for which the cost of rehabilitation is considered infeasible, such as instances where the majority of a unit has been damaged by fire.

Supportive Housing: Housing with a supporting environment, such as group homes or Single Room Occupancy (SRO) housing and other housing that includes a supportive service component.

Supportive Services: Services provided to residents of supportive housing for the purpose of facilitating the independence of residents. Some examples are case management, medical or psychological counseling and supervision, child care, transportation, and job training.

Swale: A natural, low-lying area that slows or captures surface water runoff and increases infiltration of rainwater. Swales differ from a stream channel by not having a defined bed or bank or other fluvial geomorphic feature. The short or ephemeral time of water ponding (hours to days after a precipitation event) distinguishes swales from ponds or vernal pools. Swales may or may not support distinct vegetation compared to surrounding upland habitats.

Tenant-based Rental Assistance: A form of rental assistance in which the assisted tenant may move from a dwelling unit with a right to continued assistance. The assistance is provided for the tenant, not for the project.

Tertiary Treatment: The advanced treatment process following secondary treatment of wastewater that produces high-quality water in accordance with Central Valley Regional Water Quality Control Board requirements. Tertiary treatment may include removal of nutrients such as phosphorus and nitrogen and suspended and organic matter from wastewater, for example.

Threatened, Endangered, Rare Species: Special-status species that are granted specific protections under the Federal Endangered Species Act or California Endangered Species Act.

Time Share Unit: A condominium or similar unit that can be purchased for a specified annual term of use (typically one to two weeks).

Townhouse: A townhouse is a type of attached, privately owned single-family dwelling unit that is a part of, and adjacent to, other similarly owned single-family dwelling units, with each having at least two stories, sharing at least one common wall with other units, and having its own front and rear or side access to the outside.

Transient Occupancy Buildings: Buildings that have an occupancy of 30 consecutive days or fewer, such as boarding houses, vacation rental units, hospices, hostels, and emergency shelters. See also “Short-term rental units”.

Transitional Housing: Temporary (often six months to two years) housing for a homeless individual or family who is transitioning to permanent housing. Transitional housing often includes a supportive services component (e.g. job skills training, rehabilitation counseling, etc.) to allow individuals to gain necessary life skills in support of independent living.

Upper Income: Households earning above 120% of the area median income (County median income).

U.S. Department of Housing and Urban Development (HUD): The cabinet level department of the federal government responsible for housing, housing assistance, and urban development at the national level. Housing programs administered through HUD include Community Development Block Grant (CDBG), HOME and Section 8, among others.

Use: The purpose for which a lot or structure is or may be leased, occupied maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the general plan land use designations and City zoning ordinance.

Vacant: See “Abandoned / Abandoned use.” Lands or buildings that are not currently actively used for any purpose.

Variance, Zoning: Zoning variance is a requested deviation from the zoning ordinance.

Very Low Income: Households earning 31-50% of the area median income (County median income).

Visually Sensitive Area (VSA): An area that is presently natural and undeveloped and that has been designated in the General Plan Land Use Element as an area that must be retained in its present natural and undeveloped state in order for the City to maintain its attractive and valuable small town atmosphere over time as designated and delineated on the City’s General Plan Land Use Overlay Map (Volume I, Figure 4-2).

Wastewater: Sewage (either treated or untreated) from residential, commercial, industrial, and institutional sources.

Waters of the United States: Waters regulated by the Clean Water Act (CWA), such as territorial seas, navigable waters, interstate waters and wetlands, impoundments of waters, tributaries to territorial seas, navigable waters and interstate waters, and adjacent waters, such as wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

Watershed: An area of land that drains water, sediment and dissolved material to a common outlet.

Wetlands: Section 404 of the federal Clean Water Act defines wetlands as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and do support, under normal circumstances) a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b] and 40 CFR 230.3).

Yard: An open space on a lot unoccupied and unobstructed from the ground upward.

Yard, Front: A yard extending across the full width of the lot, the depth of which is the minimum horizontal distance between the front lot line and the building setback line.

Yard, Rear: A yard extending across the full width of the lot between the building setback line and the rear lot line. The depth of the required rear yard is measured horizontally from the nearest part of a main building toward the nearest point of the rear lot line.

Yard, Side: A yard between the main building and the side lot line extending from the building setback line of the required front yard to the rear yard the width of which side yard shall be measured horizontally from, and at right angles to, the nearest point of a side lot line towards the nearest part of a main building.

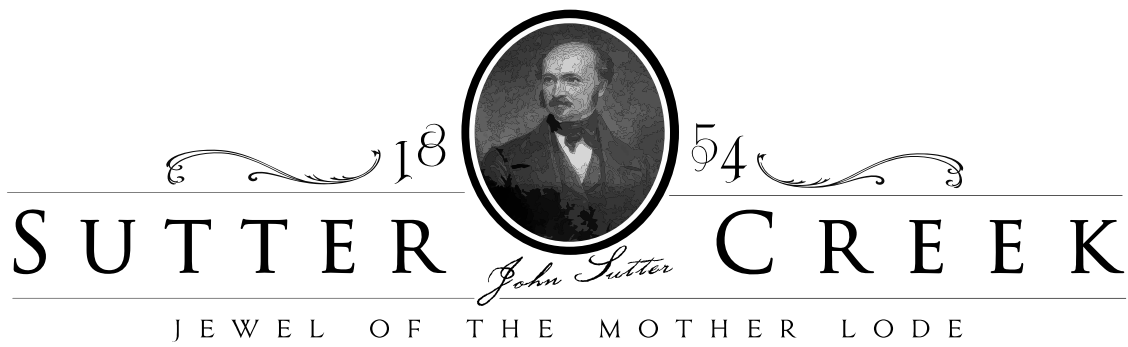
Zoning: The division of a city or county by legislative regulations into areas, districts, or zones, which specify allowable uses for real property, size, density, bulk, placement, restrictions for buildings, and other structural or use restrictions within these areas; a program that implements policies of the General Plan.

Zoning Variance: A requested deviation from the zoning ordinance.

2 Gold Rush Ranch Specific Plan, January 2010

The Gold Rush Ranch Specific Plan (January 2010) is available at the City Office and will be available on the City's website, cityofsuttercreek.org.

3 City of Sutter Creek Improvement Standards, May 2018



IMPROVEMENT STANDARDS

May 2018

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1.00 PURPOSE

1.01 General

It is the purpose of these Improvement Standards to provide minimum standards to be applied to improvements and private development projects to be dedicated to the public and accepted by the City for maintenance or operation, as well as improvements to be installed within existing rights of way and easements. These standards provide for coordinated development of required facilities to be used by and for the protection of the public. These standards shall apply to and regulate the design and preparation of plans for construction of streets, highways, drainage, sewerage, street lighting, water system facilities and related public improvements.

Water system design criteria has been established by the water purveyor for Sutter Creek. For specific requirements or specifications contact:

Amador Water Agency (AWA)
12800 Ridge Rd
Sutter Creek, CA 95685
(209) 223-3018

Water lines shall be sized to meet the fire flow requirements of the Sutter Creek Fire Protection District. For specific fire requirements or specifications contact:

Sutter Creek Fire Protection District
350 Hanford St.
Sutter Creek, CA 95685
(209) 267-0285

1.02 Exceptions

It is not possible to anticipate all situations that arise or to prescribe standards applicable to every development. The intent of these Standards is to assist developers, engineers, and contractors toward completion of improvements that will comply with City requirements and be accepted by City for maintenance and operation. The Planning Commission or City Council may impose project specific requirements which may supercede the requirements and standards set forth herein. Any items or situation not included in these Improvement Standards shall be designed in accordance with accepted engineering practice, the applicable Standard Plans and Standard Specifications of the State of California Department of Transportation, and shall be subject to the approval of the City Engineer.

2.00 DEFINITIONS

2.01 General

In these Improvement Standards, the intent and meaning of the terms that are used shall be as defined in State Standard Specifications and as herein specifically noted.

CITY - Shall mean City of Sutter Creek including any special districts administered by the City Council.

CITY ENGINEER - Shall mean the Engineer authorized by the City Council to represent City or their authorized representatives including City Building Official and inspectors under direction of the City Engineer.

CONTRACTOR - Shall mean any person or persons, firm, partnership, corporation, or combination thereof, licensed to perform the type of work involved, who has entered into a contract with any person, corporation, company, special district of the City of Sutter Creek, or his or their legal representative, for the construction of any improvement or portions of any improvement within the City.

DETENTION BASIN - A facility which stores storm water for a relatively short time designed with some type of metered outlet.

DEVELOPER - Shall mean any person or persons, firm, partnership, corporation, or combination thereof, financially responsible for the work involved.

DEVELOPMENT - Shall mean single properties as well as subdivision improvement.

INFILTRATION BASIN - A facility which stores storm water for a relatively short time and is designed to direct storm water to groundwater through permeable soils or ground cover.

LABORATORY - Shall mean any testing agency or testing firm which has been approved by the City Engineer.

SITE IMPROVEMENTS - Shall mean required improvements for projects other than subdivisions.

STATE - As used in the State Standard Specifications or State Standard Drawings, shall mean City of Sutter Creek.

STATE STANDARD DRAWINGS - Shall mean the most recent Standard Drawings and Plans of the State of California Department of Transportation.

STATE STANDARD PLANS - Shall mean the most recent volume of the State of California Standard Plans as issued by the State of California Department of Transportation.

STATE STANDARD SPECIFICATIONS - Shall mean the most recent volume of the State of California Standard Specifications as issued by the State of California Department of Transportation.

ZONING CLASSIFICATIONS - Shall mean those zones established by and as listed in the Sutter Creek Development Code.

3.00 GENERAL REQUIREMENTS

3.01 Plans and Specifications Required

Complete plans and specifications shall be prepared by an engineer for all proposed streets, drainage facilities, sewerage, street lighting, and water distribution system improvements. All plans and specifications for improvements to be accepted for maintenance by the City shall be prepared by an Engineer of the appropriate branch of engineering covering the work submitted. All dedications and easements necessary to accommodate all improvements shall be submitted to the City Engineer for approval and offered for dedication to the City. Possession of a complete set of City approved plans and a valid encroachment permit shall constitute the necessary permits for a Contractor to perform work in the City right of ways or easements. Engineer or his representative shall order the Contractor to cease work on any project if said Contractor does not have properly approved plans in his possession. Contractor shall be duly licensed by the State of California and shall be bonded as required to meet the requirements of the City.

3.02 Phased Improvements

Where the buildout of a development project is divided into phases, land dedications and infrastructure development will be required on a pro rata basis as each phase is developed unless the applicant negotiates an alternative phasing schedule with the City. Each phase of a phased development project shall be designed to minimize the number of instances where streets, water, sewer, storm drain and other utilities will need to be extended for future phases. It is the intent of these standards to create standalone complete phases if possible in all phased development projects.

3.03 Standard Specifications

The Standard Specifications shall be made a part of contract documents by note or reference which shall appear in the Special Provisions and in the General Notes on the plans. The note or reference shall be as follows:

"The Standard Specifications are part of the contract documents of this project and all materials and construction shall be in strict conformance with said Standard Specifications or as authorized by these plans."

3.04 Plan Submittal

Two sets of plans for subdivisions and two sets of plans for site improvements, complete and in accordance with these Improvement Standards and the Standard Specifications, shall be submitted along with any required specifications, computations, test data, and other material required by the City for approval. When the plans are initially submitted to the City, a plan check fee will be required as a deposit to initiate checking of the plans by the City.

Any portion of the required deposit over and above the accumulated costs expended by the City on the development will be refunded to the Developer. Should there be required alterations or revisions to the plans as submitted, one copy will be returned with the required corrections marked or indicated thereon. Plans not prepared in accordance with these Improvement Standards and the Standard Specifications or plans not prepared consistent with the standards of the profession, may be returned unmarked and unapproved.

No plans will be approved nor construction authorized until such times as all appropriate City Official(s) signify approval on the plans. All changes, corrections, or additions required shall be resubmitted to the City for approval as prescribed. At such times when the plans meet the requirements of the City and the plan check and inspection fees have been paid, the plans will be signed and stamped "Approved for Construction." The Engineer shall deliver not less than three complete sets of plans to the City Engineer. Two sets will be retained by the City.

Excepted from approval are any features of the plans that are contrary to or in conflict with any California State Law, City ordinance or resolution, generally accepted sound engineering practice, or standards of the profession; even though such errors, omissions or conflict may have been overlooked in City review of the plans.

3.05 Change in Plans During Construction

Should changes become necessary during construction, the Engineer shall resubmit "red lined" plan sheet prints for approval by the City. Necessary changes shall be clearly shown and dated on the plans. Minor changes, which do not affect the basic design or contract, may be made upon the authorization of the City Engineer. All changes shall be shown on "as-built" plans when the work is completed.

3.06 Contractor and Developer Responsibility

Contractor and Developer are directed to the Construction Safety Orders of the Division of Industrial Safety. Contractor and Developer shall conduct all work in accordance with these standards. Contractor and Developer shall be responsible for all damage arising from any failure to comply with such orders regardless of any action taken by the City or its authorized agents.

Contractor and Developer are directed to the regulatory provisions of the State Standard Specifications. City will assume no costs or liability for complying with these provisions.

3.07 Maintenance Guarantee

Developer or Contractor shall guarantee the entire work required by City to be free of defects in materials and workmanship for a period of one (1) year following the date of acceptance of work by the City. Developer or Contractor shall make, at their expense, any repairs or replacements made necessary by defects in materials and workmanship which become evident within guarantee period. The Developer or Contractor shall indemnify and save harmless the City and officers, agents, and employees of the City against and from all claims and liability arising from damage and injury due to said defects. The Developer shall cause all repairs and replacements to be made promptly upon receipt of written order from the City. Should Developer fail to have

repairs and replacements made promptly, City shall cause the work to be done, and the surety provided therefore shall be claimed for the cost of all such work.

Maintenance guarantee shall be a surety bond or other approved security which shall be delivered to City prior to recording of a final map or other approval requested of City. Said security shall be in an approved form and executed by a surety company or companies satisfactory to City in the amount of ten percent (10%) of approved engineer's estimate of construction costs. Security shall remain in force for the duration of the guarantee period specified. In lieu of providing security as prescribed above, the Developer may provide for the Faithful Performance Bond under agreement to remain in force until the expiration of guarantee periods.

Specific guarantees for periods longer than one (1) year may be specified due to special conditions of materials or workmanship.

4.00 CONSTRUCTION STAKING

4.01 Scope

It is the intent of this section to define the responsibilities of the Contractor regarding the use, maintenance, and replacement of construction stakes. The Developer's Engineer or Contractor shall furnish the stakes and reference points for the improvements relative to the work and shall provide restaking as required by the City as set forth in Section 3.03.

4.02 Control Stakes

Control and reference stakes for all construction work shall be conspicuously flagged. Contractor shall be responsible for the preservation and perpetuation of these points, marks, and stakes. When removal of a control point, mark, or stake is required by construction operations, Contractor shall notify the Developer's Engineer at least two (2) working days in advance of such operations. Developer's Engineer shall perpetuate such control points subject to approval of City Engineer.

4.03 Required Staking

The Developer's Engineer shall provide the stakes and reference marks sufficient to control the work. Staking requirements shall be not less than:

A. Street Grading

One set of slope stakes will be set at fifty (50) foot intervals and twenty-five (25) foot intervals along vertical curves. Reference stakes will be set at an appropriate offset from the top of cut or toe of fill. The top of cut or toe of fill need not be staked. The reference stake will indicate the offset to the top of cut or toe of fill and indicate the cut or fill from the reference point to the top of cut or toe of fill. The reference stakes will indicate the cuts or fills and distances from the top of cut or toe of fill to the subgrade hinge point and centerline subgrade elevation.

At street intersections, the radius points for pavement rounding will be staked. The elevation of the top of the stake will be established and marked on witness lath.

B. Clearing

When slope stakes are not required, clearing stakes will be set on streets and roads. Lath marked "CLEAR" will be set at fifty (50) foot intervals at the clearing limits. Lath will be oriented so the marking faces the centerline of the street or the improvement.

C. Sewer

Sewer trunk lines will be staked on an appropriate offset from centerline at fifty (50) foot intervals on tangents and twenty-five (25) foot intervals on horizontal and vertical curves. All manholes and curve points will be staked on an appropriate offset from the sewer centerline. Stakes will indicate offset to pipe centerline and the cut to the flow line of the sewer pipe. When a flow-line grade is indicated on the plans for a sewer service, a cut to the flow line at the end of the service will be marked on the offset stake or witness lath thereto.

D. Curb and Gutter

Stakes for curb and gutter will be set no more than five (5) feet from the proposed work and at twenty-five (25) foot intervals. Subgrade and **forms shall be checked and approved by the City prior to placing curb and gutter.**

E. Cross Culverts

The ends of all cross culverts will be staked by an offset stake set on the prolongation of the centerline of the culvert. Offset stakes will be marked with a cut or fill to the flow line at the ends of the culverts. The final length of cross culverts shall be determined in the field at the time of staking.

F. Underground Storm Drains

Underground storm drains will be staked in the same general manner as sewer trunk lines.

G. Drain Channels

The centerline of drainage channels will be marked with lath at fifty (50) foot intervals for horizontal alignment only. When vertical alignment is noted on the plans, offset grade stakes will be set at fifty (50) foot intervals and slope stakes will be at twenty-five (25) foot intervals along vertical curves.

H. Finish Subgrade

One set of finish subgrade stakes will be set on centerline at finished subgrade at fifty (50) foot intervals on tangent and twenty-five (25) foot intervals on vertical curve by the Developer's Engineer. An additional set of stakes will be set on hinge points at finished subgrade at fifty (50) foot intervals on tangents and twenty-five (25) feet on vertical curves by Contractor and checked by Developer's Engineer. Any realignment or adjustments of stakes on hinge points will be reset and rechecked as necessary. Developer will be responsible for staking base rock

grade from the finished subgrade once the subgrade has been accepted by the City Engineer. The method of staking shall be approved by the City Engineer.

I. Additional Stakes

Any additional stakes required by the City will be set at the Developer's expense.

4.04 Construction Stake Checking

Should occasion arise where the validity of a stake is questionable, either as to its location, offset, cut or fill marked thereon, Contractor shall notify the City Engineer and Developer's Engineer, who will check the stake or stakes in question. **It shall be the Contractor's responsibility to examine the stakes before commencing operations.** Any stakes found to be in error shall be reset. The Developer shall be responsible for any error in the finished work resulting from questionable or erroneous stakes.

4.05 Construction Staking

When the Developer has a registered civil engineer or licensed land surveyor, other than the engineer who prepared the plans, provide construction staking, he shall provide the City Engineer, in writing, with the name of the individual or firm one week prior to staking of the project for construction. Developer shall be responsible for providing professional engineering services for any plan change which may be required during the construction phase, and for the preparation of revised plans, and preparation of "as-built" plans upon completion of the improvements.

4.06 Lines and Grades

At all points along any grade line shown on the drawings, between the points along any grade line shown on the drawings, and between the points at which the grade elevations are given, the grades shall conform to a straight line except that grading through a vertical curve shall conform to a smooth curvilinear alignment. In any case where grade variation exists, it shall be reported to the Developer and City Engineer.

Contractor shall preserve all stakes and points set for lines, grades, or measurements of the work in their proper place until authorized to remove them by the Developer and City Engineer. All expenses incurred in replacing stakes that have been removed without proper authority shall be paid by the Contractor.

4.07 Utilities

All utilities shall be shown on the plans. The Engineer shall contact utilities early in the planning stage. Prints with the utilities approval shall be submitted to the City. All utilities must be contacted so they can properly plan their relocation work and construction of additional facilities. Engineer shall notify the City Engineer, by letter, when all utility companies have been so notified. Utility company approved plans for underground work in city streets shall be submitted to the City Engineer for review and approval prior to start of work. Utilities shall be clearly identified as existing or proposed.

5.00 PLAN DETAILS

5.01 General

All plans submitted to the City shall be prepared in a manner that will produce legible prints. All line work must be clear, sharp and heavy. Letters and numerals shall be 1/8 inch minimum height, well formed, and sharp. Numerals showing profile elevations shall not be bisected by station grid lines. Computer drafting shall be by clear and legible lettering acceptable to City.

5.02 Plan Content Requirements

The following requirements shall apply to all plans submitted for approval. Engineer shall prepare plans neat, accurate, and comprehensive in keeping with the standards of the profession. Engineers are directed to Caltrans Standard Plans.

A. Title Sheet

On subdivision or improvement plans, exceeding three sheets in the set, a title sheet shall be prepared showing the entire subdivision or project complete with subdivision or assessment district limits, city limits, street names, section lines, corners, and the location within the City. (Minimum scale 1"=500'.) The title sheet shall also include an index of the sheets; Engineer's name, license number, and signature; the date and scale of the drawing; north arrow; and the block for the necessary approval of the City Engineer and other officials. A sample of the City approval block may be obtained from the City Engineer. All sheets shall be 24" x 36".

B. Layout Sheet

The layout sheet (Sheet 2) shall contain thereon the entire subdivision unit on one sheet in skeleton form showing drainage features and sewer and water lines. Drainage pipe, sewer pipe, water lines, and other underground utilities shall each be identifiable from other underground conduits. Appurtenances such as manholes, valves, and drop inlets shall be shown in their proper location. The scale of the project shall be 1" = 100' or 1" = 200'. An index of the plan and profiles sheets shall be shown on the layout sheet.

C. Title Blocks

Each sheet within the set of drawings shall show the sheet title, sheet number, date, scale, and the Engineer's name, signature, and license number.

D. Right of Way

Right-of-way lines, the boundaries of lots fronting on the street, drainage easements, utility easements, planting easements, section lines and corners, land

grant lines, and temporary construction easements both existing and proposed shall be shown on the plans. All right-of-way and easement lines shall be properly dimensioned.

E. Topography

All pertinent topographic features shall be shown such as street lines, curbs, sidewalks, shoulders, location and size of storm and sanitary sewer lines, high water and frequent inundation levels, water lines, gas lines, telephone conduits, other underground utilities, existing structures, houses, trees (6" and larger) and other foliage, traffic signals, street lights, pull boxes, underground electrical conduits, drainage ditches, utility poles, fire hydrants, retaining walls, masonry structures, and all other features in the area which may affect the design requirements for the area. Any tree (6" and larger) which falls within the existing or proposed right of way or easement shall be shown on the cross section when requested by the City Engineer. Permission to remove any tree (not required to be removed by construction) in the City rights of way or easements shall be obtained from the City Engineer prior to removal.

F. Contours, Elevations, and Drainage Plan

Existing contours or supporting elevation data shall be shown on all plans. The Drainage Plan, if required, shall contain contours of the subdivision unit and the immediate vicinity sufficient to indicate the perimeter of areas to be drained by each structure. Calculations supporting the design of drainage facilities shall be submitted with the drainage plan. Scale of plan shall be of sufficient size to clearly show the drainage features and the location of major structures. FEMA established 100 year floodplains shall be identified when applicable.

G. Profiles

Plans shall show the profile of all existing roadway centerlines, existing edges of pavement, existing curb and gutter flow lines, drainage ditches, storm and sanitary sewers. All profiles of proposed improvement shall state centerline elevations at fifty (50) foot intervals and rate of grades, vertical curves and other vertical alignment data. Elevations of any warped surfaces and vertical curves shall be set at twenty-five (25) foot intervals. When required by the City Engineer, the Engineer shall provide centerline profiles and cross section information beyond the limits of the proposed development to facilitate setting proper vertical alignment within the proposed improvement limits.

H. Stationing and Orientation

The stationing on plan and profiles sheets shall read from left to right. Plans shall be so arranged that the north arrow points toward the top or upper 180 degrees of the sheet, insofar as practical.

I. Bench Marks

The bench marks and datum shall be clearly noted on the plans both as to location, description, and elevations. The datum shall be U.S.G.S., NGVD29, NAVD88 or as otherwise approved by the City Engineer.

J. Typical Sections

A typical section, setting out the structural features for each type of facility within the improvement, shall be set forth on the plans.

K. Cross Sections

Cross sections, when required, shall be included with the plans. When, in limited areas, unusual topographic features or special conditions occur that would affect the work, individual cross sections or typical sections may be shown on the pertinent plan sheet.

L. Special Notes

Special notes shall be clearly indicated and it shall be conspicuously noted on the plans that all construction work and installation shall conform to the State Standard Specifications, the City of Sutter Creek Improvement Standards, and that all work is subject to the approval of the City Engineer.

5.03 Plan Format Requirements

All improvement plans shall be prepared on plan and profile sheets, 24" x 36". Scales: Horizontal 1" = 20', 40', or 50'; Vertical 1" = 2', 5', or 10'. Design cross sections plotted on 1" = 5' scale, taken on maximum 50' intervals shall be submitted with preliminary improvement plans or cut and fill slopes shall be shown on the plans. Cross sections shall be plotted with background grid with reference to identifiable base line or centerline.

5.04 Additional Improvements to Be Shown

Storm drainage improvements shall be shown on the street plans. Sanitary sewer and water improvements may be shown on the street plans or separately as indicated above. Street lighting shall be shown separately. Street lighting plans shall be drawn to a scale of 1" = 100' with individual lot dimensions and street dimensions shown. Location of all utilities shall be shown on the "as-built" plans.

5.05 Sign and Striping Plan

Sign and striping plan shall be set forth on a separate plan sheet or detail sheet. Signage and striping shall be consistent with State Standard Drawings, and plan sheets shall contain references thereto.

5.06 Compliance

Plans shall be checked for compliance with these standards and all conditions of approval by the City Engineer. Plan checking deposit shall be as set forth in Section 6.05 of these standards.

6.00 INSPECTION DURING CONSTRUCTION

6.01 General

Any improvement which is intended for future City maintenance responsibility or required by City as a condition of approval shall be constructed to City requirements and inspected during construction by the City Engineer. Each phase of construction shall be inspected and approved prior to proceeding to subsequent phases.

Inspection includes field inspection during the course of construction and materials testing of those improvements over which no other public agency or utility exercises inspection responsibility.

6.02 Notification

The Engineer shall notify the City Engineer when the Contractor first calls for grades or staking. Any improvements constructed without inspection as provided above or any construction contrary to the orders or instructions of the City Engineer shall be deemed not in compliance with City requirements and will not be accepted by City.

6.03 Compliance and Responsibility

The City will inspect the work for ultimate compliance with the specifications but will not be responsible for the conduct of the work itself or the manner in which it is performed. Requirements of State or Federal agencies shall be verified by appropriate agency representatives.

6.04 Inspection Fees

The applicant shall deposit an estimated fee to cover the City's actual cost of plan checking and inspection of the project. This fee may be deposited in two installments. The first installment shall be paid when plans are submitted for checking. The balance of the inspection fee shall be deposited prior to approval of the plans. All other public agency or utility fees shall be paid separately by the developer. The inspection fee deposit shall be determined in accordance with the Fee Resolution adopted by the City Council in effect at the time application is made.

6.05 Inspection Deposit

Inspection deposits shall be placed in a plan check fund and all charges for inspection, as deemed necessary by the City shall be charged against that fund. No inspection work or construction work shall be undertaken when the cost of such inspection or work exceeds the funds remaining in the account for the project.

Whenever the inspection fee deposit is exhausted, the developer shall deposit additional funds for further inspection work. When the total inspection charges are less than the deposit, the balance will be returned to the applicant after the improvements have been certified as complete by the City Engineer and all conditions of approval complied with.

7.00 FINAL INSPECTION

7.01 Clean Up

Upon completion of any improvements which are constructed under and in conformance with these Improvement Standards and prior to requesting a final inspection, the work area shall be thoroughly cleaned of all rubbish, excess material, and all portions of the work shall be left in a neat and orderly condition.

7.02 City Engineer Inspection

Within five (5) working days after receiving a request for final inspection, the City Engineer shall inspect the work. Contractor, Engineer, and Developer will be notified in writing as to any particular defects or deficiencies to be remedied. Contractor shall proceed to correct all defects or deficiencies at the earliest possible date. At such time as the work has been completed, an inspection shall be made by the City Engineer to determine if all defects have been repaired, altered, and completed in accordance with these Improvement Standards. At such time as the City Engineer finds the work acceptable, the City Clerk will be notified and the matter scheduled for City Council approval. The Contractor, Engineer, and Developer will be notified in writing as to the date of final approval and acceptance by the City Council.

8.00 "AS-BUILT" PLAN

8.01 "As-Built" Plan Requirements

One complete set of "as-built" reproducible plans, as prescribed by the City Engineer, shall be submitted to the City Engineer prior to acceptance of the improvements.

Developer's Engineer shall keep an accurate record of all approved deviations from the plans. These are to be utilized with the Inspector's plans for preparing a complete and accurate set of "as-built" drawings for the permanent records of the City. "As-built" plans shall be prepared by the Engineer responsible for the work. Preparation of as-built plans, complete and in accordance with these standards, shall be the responsibility of the Developer.

9.00 IMPROVEMENT AGREEMENTS AND SECURITY

9.01 Improvement Agreement

When project improvements are not completed at the time the Final or Parcel Map is ready for approval by the City Council, the applicant shall enter into an Improvement Agreement with the City. The agreement shall require the applicant to complete all conditions of approval and improvements as shown on the approved improvement plans within the time frame set forth therein.

9.02 Improvement Agreement Security

Applicant's performance under any such agreement shall be secured by a good and sufficient instrument of surety in an amount fixed by the estimated costs of the improvement in accordance with Table II. The estimate of construction costs shall be submitted to the City Engineer for review and approval. Security for City maintained street improvements shall provide that ten percent of the secured amount be withheld by the City for a period of one year after the completion of improvements. The ten percent retention may be used by the City to correct any defects in material or workmanship which become evident in the one year period following completion.

TABLE II			
AMOUNT OF AGREEMENT SECURITY			
TYPE OF SECURITY	PERFORMANCE	LABOR/ MATERIALS	TOTAL
Bonds	100%	100%	200%
Letter of Credit	100%	50%	150%
Bank Deposit (1)	100%	50%	150%
Deposit with City (2)	100%	50%	150%
(1) Savings account assigned to City.			
(2) Deposit in a trust account or a negotiable certificate of deposit with principal payable to the City upon demand.			

9.03 Termination

Termination date of any security shall extend beyond the termination date of the agreement or any extension thereof. Termination date shall be subject to the requirements of the City Council.

9.04 Deposits and Certificates

Bank deposits and certificates of deposit shall be purchased or an account opened so that the principal and interest are payable to the City of Sutter Creek.

When the account or certificate is made jointly payable to the developer and the City, the developer shall submit a negotiable order of withdrawal with the bank book or an endorsed certificate.

9.05 Letter of Credit

The letter of credit shall be extended prior to its expiration date for any extension of time requested.

9.06 Performance and Labor/Materials Bond

Performance and Labor/Materials bonds shall be for the amount set forth in Table II. Performance and Labor/Materials bonds shall be provided by an "admitted California surety."

9.07 Security Release

Security will be released upon request of the project proponent in accordance with the terms of these standards, the Sutter Creek City Code Chapter 17.26, "Improvement Security," and the Improvement Agreement.

9.08 Time Extension

Upon written request by the developer, no less than thirty days prior to the expiration of the agreement, an extension of time may be requested from the City. To receive approval, the developer shall have made a good faith effort to complete improvement requirements, or conditions or circumstances beyond their control such as weather conditions or litigation shall have prevented completion of the improvements. An extension of time of up to one year may be approved, provided the improvement security is adjusted where required.

10.00 DESIGN STANDARDS - STREETS

10.01 General

The Design Standards provide the minimum standards for the design, construction and alterations for all streets, roadways, drainage, utility placement, and all appurtenances thereto. The Design Standards shall consist of the applicable provisions in the Highway Design Manual, the State Standard Plans, and this Chapter.

The City Engineer, at his discretion, may approve or require modifications to the minimum standards for a particular development whenever it appears necessary, reasonable, and proper. Exceptions to these standards will not be allowed unless the request is accompanied by written justification and certification by a licensed engineer that traffic safety is not compromised.

The City Engineer shall be the final authority on all questions which may arise as to the interpretation of the Design Standards. The City Engineer's decision shall be final and he shall have authority to enforce and make effective such decisions. Appeals of the City Engineer's decisions shall be in writing to the City Clerk pursuant to Sutter Creek City Code Chapter 17.31, "Appeal."

10.02 Street Classifications

Streets shall be classified as arterial, collector, local or private streets. Street classification shall be as follows:

- Arterial:** A through street collecting traffic from minor and collector streets and classified in the Circulation Element of the City as an "arterial" street.
- Collector:** A primary street that collects traffic from local streets and is classified in the Circulation Element of the City as a "collector" street.
- Local:** A local street that collects traffic along its frontage.
- Private:** A local street not accepted for maintenance by the City.

10.03 Grades, Cross Slope, and Intersections

The criteria for road grades and cross slopes shall be as follows:

- A. Minimum grade on new streets shall be 1.00 percent.
- B. Minimum grade of gutter section constructed on existing street shall be 0.50 percent with approval of City Engineer.
- C. Standard cross slope on new streets shall be 2.0 percent.
- D. Minimum cross slope on widening shall be 1.5 percent.

- E. Maximum cross slope of the traveled way shall be 3.0 percent.
- F. The roadway minimum vertical curve length allowable at the intersection of two grades shall be fifty (50) feet. Vertical curves may be omitted at intersections where the algebraic difference in grades does not exceed 2.0 percent.
- G. Streets shall have a desirable maximum grade of 15 percent. Steeper grades may be authorized where justified and approved by the City Engineer. Decision of the City Engineer concerning grades in excess of 15 percent shall be based upon local conditions.
- H. When two streets intersect, the minor street shall not have a grade greater than 7.0 percent for a minimum distance of forty (40) feet measured from the curb line of the intersecting street, except in unusually rough terrain, as determined by the City Engineer. The centerline of the lesser intersecting street shall meet the crown slope at the projected lip of gutter. Crown slope of the major street may be reduced to 1.0 percent within the intersection when approved by the City Engineer.

10.04 Design Speed

Streets shall be based upon design speeds as follows:

Classification	Design Speed
Arterial	45 MPH
Collector	35 MPH
Local and Private	25 MPH

Cul-de-sac streets, less than 300' in length, may be designed for 15 miles per hour.

Streets with grades in excess of 5 percent intersecting highways or arterial roads shall have a minimum of thirty (30) feet "storage" area from the edge of pavement of the primary road to the beginning of vertical curves (BVC).

10.05 Geometric and Structural Sections

Geometric and structural sections for proposed improvements shall comply with the following:

- A. Cross gutters will be allowed only with the specific approval of the City Engineer. Cross gutters shall be concrete with rebar reinforcement.
- B. The curve data for all centerline curves shall be computed and shown on the plans. Where unusual alignment problems exist, less than minimum curve radii may be allowed when approved by the City Engineer. Property lines radius at curb returns for intersecting streets shall be not less than twenty (20) feet.

- C. The property line radius for cul-de-sacs shall be fifty (50) feet unless otherwise specified by the City Engineer. A curve of twenty (20) foot radius shall connect the tangent and the fifty (50) foot radius curve. (See Section 18.00, Standard Details.)
- D. Cut and fill slopes: Fill slopes shall be 2:1 or flatter and cut slopes shall be 2:1 or flatter depending upon the material encountered. Desired slopes are 3:1 where compatible with other project design criteria. This condition may be modified when engineering studies indicate the need for flatter slopes or when stable slopes can be maintained on steeper grades and are approved by the City Engineer. Slope rounding shall be provided where the height of cuts or fills exceeds six (6) feet.
- E. Clearing Right of Way: All trees and all brush shall be removed from the road right of way when within a distance of seven (7) feet from the edge of the paved surface of the roadway regardless of the width of the paved section. The right of way shall be cleared to a minimum of three (3) feet beyond any cut or fill slope. At intersections, clearing may be required to the property line for a distance of 100 feet from the centerline of the intersection when deemed necessary to provide safe sight distance for approaching traffic.

Tree removal shall be consistent with Sutter Creek City Code Chapter 13.24, "Trees and Landscaping," and may be restricted by project specific conditions. The clearing limits of this section may be modified to comply therewith.
- F. Driveways: In areas where sidehill cuts and fills exceed three (3) feet or where damage may occur to public right of way during future driveway construction, driveways shall be graded into each lot at the time of grading for the roadway. All material from driveway construction shall be disposed of consistent with the grading plan or applicable chapter of the California Building Code.
- G. Access Roads: All roads to be accepted for dedication and maintenance by the City shall be paved to the boundary of the subdivision. Private road approaches that encroach into a City maintained street shall be constructed in accordance with these standards.
- H. Minimum allowable roadbed structural section shall be in accordance with Standard Detail ST-1.
- I. Pavement thickness and total structural section shall be designed on the basis of resistance factor "R" determined in accordance with State of California, Department of Transportation, California R-value determination or other approved method.

- J. The thickness of various structural components shall be determined by the tables, charts, formulas, and procedures contained in Chapter 600 of the State Highway Design Manual with a factor of safety of 1.2, and shall be approved by the City Engineer.
- K. The minimum traffic index used for structural section design shall be as follows:

<u>Street Type</u>	<u>Traffic Index</u>
Arterial	8
Collector	6
Local	5
Cul-De-Sac	4.5

- L. Where new paving meets existing paving, all low areas shall be paved as directed by City to maintain a uniform cross slope and provide required drainage improvements.

10.06 Testing of Materials

Testing of materials for compliance with these Standards shall be performed in accordance with the methods set forth in the State Standard Specifications. Signed copies of all test results required shall be submitted to the City Engineer. Test results shall show clearly the name of the individual and the firm performing the tests, as well as the name of the project, the date of sampling, and the date of testing.

The tests indicated in the State Standard Specifications will be required at locations and frequencies determined by the City Engineer.

10.07 Right of Way

Minimum right-of-way widths, to be dedicated in fee title to the City for all newly constructed streets, shall be as set forth in these Standards for the type of street under consideration. (See Section 18.00, Standard Details.) In no instance, without specific approval of the City Council, shall a street have a right-of-way width which is less than fifty (50) feet. Right-of-way requirements for widening at intersections shall be as approved by the City Engineer.

All proposed utilities (including but not limited to water, sewer, and storm drain) shall be contained within said dedicated right of way. If utilities are proposed to be installed outside of the right of way, developer shall submit sufficient documentation why the facilities must be installed in their proposed location for City approval.

10.08 Signing and Barricades

Street name signs shall be furnished and erected at all intersections. Street name signs shall conform to requirements of these Standards. Street names shall appear on plans submitted for approval.

Where phased improvement covers a portion of the ultimate improvement and where an improved street is proposed to be extended in the future, the improvements shall include a permanent-type barricade at the end of such a street to extend completely across the right of way to serve as a warning to the public. The barricade shall be constructed, painted, and signed in accordance with the Standard Specifications and Standard Plans. Gates may be required where streets stub into areas where ingress and egress is required.

11.00 DESIGN STANDARDS - STORM DRAINAGE

11.01 General

These standards shall serve as a guideline for drainage system design and indicate minimum design standards acceptable to the City.

Improvement projects shall be protected from inundation, flood hazard, sheet overflow, and ponding of storm water, springs, and other surface waters. The design of improvements shall be such that water accumulating within the project will be carried away from the project without injury to adjacent improvements, residential sites, or residences to be constructed on sites within the project, or to adjoining areas. Water accumulating within the project shall be carried to storm drainage facilities or to a natural water course by closed conduit or open channel, shall not exceed pre-development flows, and shall meet the design standards herein set forth.

Drainage systems within the project shall accommodate anticipated future development (consistent with the General Plan) within the drainage basin. Off-site drainage facilities shall be adequate for ultimate development of the drainage basin. Diversion of natural drainage will be allowed only within the limits of the proposed improvement. All natural drainage must enter and leave the improvement area at its original horizontal and vertical alignment unless an agreement, approved by the City, has been executed with the adjoining property owners. All concentrated drainage leaving the boundaries of an improvement area shall be connected to existing drainage ways approved by the City Engineer.

Where a subdivision is subject to flood hazard, the developer shall provide flood control works, drainage facilities, or other improvements sufficient to provide all structures or building sites, both existing and proposed, with 100-year flood protection and compliance with the Sutter Creek City Code Chapter 15.20, "Flood Plain Management."

Street improvements shall include adequate provisions for storm drainage. Adequate storm drainage shall consist of a system of underground piping, generating self-scouring velocities and leading to a disposal point which is workable under conditions of heavy rainfall and runoff.

Special design problems involving pump stations, infiltration basins, on-site retention, or other unusual features not covered herein, will require individual study and approval. Pump stations will not be allowed except where special circumstances warrant consideration.

11.02 Classification of Storm Drains

Cross Culverts - Drainage culverts transporting runoff across roadways into open ditches or natural drainage courses.

Driveway Culverts - Drainage culverts transporting runoff across driveways.

Onsite Drainage Facilities - All surface drains and underground drainage pipe within the development.

Offsite Drainage Facilities - Facilities required to carry storm water from the proposed project to a natural drainage course or existing conduit.

Modification of storm drain classifications may be required by special conditions. Any modification of classifications will be resolved on an individual basis by the City Engineer.

11.03 Alignment

The location of storm drainage pipelines in new streets shall be under or adjacent to the curb and gutter parallel to roadway centerline. Pipes placed under curb and gutter shall have minimum clearance of 0.5 feet between the bottom of gutter section and top of pipe.

11.04 Lines

Lines shall be as near parallel with the centerline of streets as possible. Angular changes shall not exceed 90 degrees. Open ditches, lined channels, swales, and flood plain areas shall be maintained as nearly as possible in their existing alignment. When an open ditch, other than a roadside ditch, is to be constructed parallel to an existing roadway, the ditch shall be constructed outside the proposed right of way of the ultimate street development.

11.05 Easements

Drainage conduits and channels, when not located in a public street, road or alley, or within an existing public drainage easement, shall be located in a recorded or dedicated public utility / public facility easement (PUE/PFE).

Dedications necessary for construction on private property shall be completed prior to acceptance of improvements by the City. Where a minor improvement of a drainage channel falls on adjacent property, a right of entry shall be obtained from the property owners, and a copy of the right of entry shall be submitted to the City prior to approval of the improvement plans.

Easements for closed conduits shall have a minimum width of fifteen (15) feet. The centerline of the pipe shall be not less than five (5) feet from the easement limit. Pipe may reverse sides of the easement at angle points.

Easements shall provide sufficient widths for vehicle access and working space.

For pipes exceeding 24" in diameter or trenches exceeding five (5) feet in depth, the easement shall have additional width to provide working space as required by the City Engineer.

Easements shall be provided for all ditches, culverts, and conduit systems whether constructed as newly built improvements or as rebuilt improvements and shall adequately meet the minimum width specified herein.

11.06 Natural Drainage Courses

All natural drainage courses within the boundaries of an area to be improved shall be provided with drainage easements extending the full length of the drainage courses within the improved

area. The width of such easement shall be determined from the limit of the 100-year flood plain. A natural drainage course is defined as an existing drainage way having specific sides and bottom, but may not have year-round flow.

11.07 Drainage Study

A drainage study consisting of calculations and a drainage map shall be submitted with all improvement plans requiring storm drain improvements. The following information shall be included in the drainage study:

- A. A drainage map that depicts onsite facilities, offsite drainage adjacent to the project, and all natural water courses within the project limits.
- B. All existing drainage structures shall be checked to see that sufficient capacity exists to safely pass the increased runoff.
- C. Calculations as set forth in Section 11.09.

11.08 Drainage Map

A drainage map shall be submitted with each set of improvement plans and shall reflect the following criteria:

- A. Must be of adequate scale and accurately and clearly show contour lines and reference to the datum.
- B. All individual watershed areas shall be clearly delineated on the plan.
- C. Concentrated storm flow patterns shall be delineated on the plan.
- D. The quantity of water arriving at each structure, pipe or ditch from a 10-year and a 100-year frequency storm shall be calculated and shown on the plan.
- E. The size, type, and location of conduit proposed.
- F. Channel dimensions and water surface profile computations for 100-year storm when required.
- G. Detention facility details, size, location, and discharge structure location.

11.09 Calculations

One set of drainage calculations shall be submitted with each set of improvement plans. The calculations shall be submitted by a California registered civil engineer and shall conform to standard engineering practice.

Drainage calculations shall be checked and approved by the City Engineer. Drainage calculations may be from any accepted engineering method. The City will check flow determinations by the rational method.

Storm drains shall be designed to pass a 10-year storm with no head. The 100-year storm must be carried within drainage facility or roadways with no potential for property damage. All major structures shall be designed to pass the 100-year storm.

Runoff factors for the rational method shall be not less than the following:

<u>Land Use</u>	<u>Runoff Factor "C"</u>
Rural Residential	0.50
Single Family Residential	0.50 – 0.60
Multi-Family Residential	0.60 – 0.75
Commercial and Industrial	0.75 – 0.95

Time of concentration (t_c) shall be determined by accepted methods. A 10 minute minimum may be used for unsurfaced basins.

Rainfall intensities shall be in accordance with the "Rainfall Intensity Chart," (See Standard Detail SD-6) and shall be not less than:

t_c	i_{10} (in/hr)	i_{100} (in/hr)
10 minutes	2.5	3.4

11.10 Closed Storm Drain Systems

Closed conduits shall be of cast-in-place concrete pipe, precast reinforced concrete pipe, non-reinforced concrete pipe, or smooth wall PVC pipe as set forth in the Standard Specifications. The specific type of pipe or alternate pipes to be used in the development shall be shown on the plans and be subject to approval of the City Engineer.

The minimum pipe diameter allowable on any storm drain trunk line shall be 15 inches for onsite development. The minimum pipe diameter allowable on any drop inlet laterals shall be 12 inches and laterals shall connect directly to a manhole or other drop inlet.

The minimum velocity in closed conduits shall be 2 f.p.s. when flowing at a depth of 0.8 D, (D = pipe diameter).

Minimum cover requirements are shown on Standard Drawings. At locations where the minimum cover requirements cannot feasibly be obtained, conduit shall be backfilled with cement slurry backfill or other method of pipe protection approved by the City Engineer.

11.11 Open Channels

Open channels shall consist of concrete-lined channels, rock slope protection lined channels, or earth channels with approved fabric liners. Open channels shall be designed to the following criteria:

Minimum Velocity - 2 f.p.s.

Maximum Velocity

1. Unlined channels - 6 f.p.s.
2. Lined channels - 10 f.p.s.
3. Paved invert channels – 8 f.p.s.

All channels with earth sides shall have freeboard of not less than 1.5 feet at design capacity for a 10-year storm. All lined channels shall have freeboard of not less than 0.5 feet at design capacity for a 100-year storm.

In existing channels, all abrupt changes in alignment or profile and all underbrush and debris, which restricts flow, shall be removed, trimmed, or otherwise improved.

All open channels shall pass the 100-year storm without the potential for property damage.

11.12 Drainage Structures

Drainage structures shall comply with the following specifications:

Manholes - Manholes shall be standard precast concrete. Cast-in-place type manholes may be used where required. Where special manholes or junction boxes are required, the design shall be approved by the City Engineer. In no case will junction boxes be allowed which are less than twenty-four (24) inches (inside dimensions). Manholes shall have a forty-eight (48) inch inside diameter.

Manholes shall be located at junction points and changes in conduit size. Manholes shall be placed at the BC and EC of all curves and on 300-foot maximum intervals along the curve.

Manholes, junction boxes or inlets shall be placed at intervals not to exceed 400 feet. All manholes and junction boxes other than inlets shall have standard manhole covers, as shown in Standard Detail SD-2. Manholes will not be allowed in gutter flow lines.

Drop Inlets (DI) - Drop inlets shall be open curb-face types as shown in the Standard Drawings or other approved inlets.

Drop inlets shall be spaced so that the length of flow in the gutter does not exceed 600 feet. The depth of the flow in the gutter shall not exceed 0.35 feet for a 10-year storm. Outfall pipes shall accommodate the design runoff taking into consideration bypass flow from upstream inlets.

Junction Boxes - Junction boxes shall be constructed of reinforced concrete or precast concrete. Minimum wall thickness for reinforced concrete junction boxes shall be 6 inches.

The inside dimension of junction boxes shall be sufficient to provide a minimum of three inches clearance on the outside diameter of the largest pipe in each face. All junction boxes shall be rectangular in shape unless otherwise approved by the City Engineer. Junction boxes deeper than four feet shall have a minimum inside dimension of 48 inches.

Headwalls, Wingwalls, Endwalls, Trash Racks, and Railings - All headwalls, wing-walls, and endwalls shall be considered individually and shall be, in general, designed in accordance with the Standards and Specifications of the California Department of Transportation and the requirements of the City.

Trash racks shall be provided where, in the opinion of the City Engineer, they are necessary to prevent clogging of culverts and storm drains or eliminate hazards. Trash racks shall conform to the requirements of the City Engineer. Temporary trash racks will be allowed where pipe will be extended in the near future.

On cross culvert drains, flared-end sections shall be used where required by the City Engineer.

Guardrails may be required by the City Engineer at culverts, headwalls, and box culverts and on steep side slopes. When so required, the railing shall be installed in accordance with the requirements of the current edition of the California Building Code or State of California, Department of Transportation.

Pipe used as cross culverts to open ditches may be corrugated steel.

Detention Basins - Storm water detention basins shall be provided with any proposed development which would increase offsite flows in order to limit said flows to pre-development levels. Basins may be considered a permanent means for handling peak storm runoff flows. A plan outlining the proper maintenance and/or abandonment of the basin in the future shall be provided for approval.

Basins shall be constructed such that the collection system drains into the basin by gravity. Design criteria shall be as follows:

Design Storm: 100 year, 24 hour

Basin volume shall be calculated by $V = (CAR)/12$ where:

V = Basin Volume in Acre Feet

C = Runoff Coefficient (Section 11.09)

A = Contributing Area in Acres

R = Total Rainfall in Inches for the Design Storm (100 Year, 24 hour event in inches)

Freeboard = 2 ft minimum

The volume shall account for a constant outflow not to exceed the pre-development peak runoff rate.

Alternate methods for volume calculations are subject to approval of the City Engineer.

12.00 DESIGN STANDARDS – SEWER SYSTEMS

12.01 Introduction

These design criteria shall govern the engineering design of sanitary sewer systems which will be dedicated to the public and accepted by the City of Sutter Creek (COSC) for maintenance and operation and those systems designed for COSC by its consultants.

It is the intent of these criteria to provide a sewerage system that will dependably and safely convey the peak sewage flows by gravity, where possible, to a point of existing effluent disposal all with minimum maintenance and operational costs to COSC.

Developer shall furnish, without cost to COSC, all intrinsic and auxiliary components for maintenance and operation as necessary to provide said complete system.

12.02 Regulatory Standards

Pertinent requirements of the following agency standards, including all changes thereto, shall be considered and complied with, except that in the event of conflict, the stricter design criteria shall govern.

1. Laws and standards of the State of California Department of Public Health.
2. The Porter-Cologne Water Quality Control Act and the California Regional Water Quality Control Board, Central Valley Region.
3. Ordinances of the City of Sutter Creek
4. Others as appropriate.

12.03 Design Procedure

A design for each project proposed to be constructed under COSC Agreement shall be submitted to and approved by, the City Sanitary Sewer Engineer. In addition the following requirements are applicable.

1. An engineering report on the development of the site shall include, but not be limited to, soils survey, geology, ground and surface water hydrology, water supply, liquid waste disposal, probably population densities, effects of construction and other development activities on the existing environment and conformance with the master regional or City plans.
2. A Master Plan relating to the disposal of wastes anticipated from the ultimate development, shall conform to the regional or City Master Plan for sewage disposal. Stage development may be acceptable for some components of the system if such stage development can be proved financially feasible and if approved by COSC.
3. If treatment plant expansion is required to accommodate new development flows, a report shall be filed on the proposed waste discharge in COSC's name by the Owner,

accompanied by the appropriate filing fee and pursuant to Section 13260 of the State Water Code to the Regional Water Quality Control Board, Central Valley Region.

COSC will provide one CD containing Standard Details to the Design Engineer for development of the Design drawings.

Preliminary Design. A preliminary design shall be submitted for “Planning Approval” and shall be submitted in the form of a map and table relative to the sewerage system.

The Map shall show the following:

1. Location of project.
2. Tributary areas outside project.
3. Adjacent areas.
4. Contours over complete map (ten (10) foot minimum).
5. Line layout and preliminary pipe size, manholes.
6. Predicted average and peak flows at major junction points, including flow coming from outside the project area.
7. Direction of flow.
8. Zoning used to predict flows.
9. Special areas such as hospitals, schools, large office buildings, etc.
10. Boundaries of areas within the project which are tributary to points of major flow.
11. Location and sizing of major system components, including sewage pumping facilities if included in the project.
12. Electrical & telemetry details.

The Table shall include the following in Tabular Form:

1. Areas tributary to points of major flow.
2. Zoning within each area.
3. Predicted flow from each area.
4. Infiltration flow.
5. Peaking factors.
6. Cumulative flow.
7. Pipe size and slope.
8. Equations used and references.
9. Sludge disposal recommendations.

Final Design. The final design shall be an expansion of the “Planning Review” preliminary design in such detail as to verify all preliminary sizing of facilities and to size those facilities not included in the preliminary design. All such final design calculations shall accompany the construction plans and specifications for the review leading to the plans being “Released for Construction.”

12.04 Benefiting Areas Included Within Project Boundaries

A parcel or area which benefits **and participates** in a project, but is not included within the project boundaries shall have a note to this effect placed on the overall project map and on the plan and profile sheet if the parcel appears thereon. Parcels not so noted which make use of a project's facilities after the project's completion will be required to pay an "expansion fee" prior to such use.

12.05 Calculations

Gravity Pipeline Flow. The Manning formula shall be used in the hydraulic study of the system, using an "n" value of 0.013 or the value recommended by the pipe manufacturer, whichever is higher.

Pressure Pipeline (Force Main) Flow. The Hazen-Williams formula shall be used in the hydraulic study of the system, using a "C" value of 140 or the value recommended by the pipe manufacturer, whichever is lower. Design shall provide for adequate aeration and odor control. The minimum velocity at design flow shall be not less than three and one-half feet per second (3.5 fps).

12.06 Average Flow Determination

Zoning. Flow determination shall be based upon the most recent or proposed zoning. The minimum population density in areas of potential development shall be equivalent to that of single family zoning. The area shall be examined for trends toward population concentration and, if found, an estimate shall be made of the probable extent of such concentration. This estimate shall be used as the basis for determining flow. All calculations shall assume ultimate development, except where a stage concept has been specifically approved by COSC.

Residential Living Units.

1. Design population per living unit:
 - Developments of 100 living units and less -3.5
 - Developments of greater than 100 living units -3.0
2. Average flow: Residential living units – 75 gals. per person per day.

Commercial, Industrial Development. Every attempt should be made to base flow requirements on specific development plans in consultation with the City Sanitary Sewer Engineer.

Schools. The flow shall be determined by the following method:

Flow shall be based on ultimate design student population plus administration, teaching and operation personnel.

Average Daily Flow (ADF). Average Daily Flow shall be determined for tributary areas by multiplying the sum of the area(s) design population by the per capita daily flow requirements, as determined above, plus any commercial, industrial, school, etc., contribution(s).

12.07 Design Flow (Peak Flow, or PF)

Average Daily Flow (ADF), as determined above, multiplied by peaking factors of 4.0 for laterals and 4.0 for outfall sewers. The recommended Infiltration Design Rate is 200 gallons per inch diameter per 5,000 feet per day or 40 gallons per inch per 1,000 feet per day or as approved by the City Sanitary Sewer Engineer.

12.08 Pumping Station Design

All phases of pumping station design shall be closely coordinated with COSC. In general, such facilities shall include all necessary components and amenities as required by COSC to ensure a complete, automated, operating facility which will lend itself to minimum maintenance and operational costs.

Auxiliary power shall be provided as required to prevent pump station overflow and operate pumping stations during power outages and shall automatically activate when a power outage occurs.

Pumping Unit. Shall approximately “pace” the expected flow pattern and shall be capable of providing the maximum design flow with the largest pumping unit out of service. All telemetry and electrical shall be compatible with existing COSC equipment.

Access. All weather, asphalt paved access with twelve (12) foot minimum width shall be provided to all pump stations. All pump stations shall be fenced with 6 foot high chain link fencing with 3 strand barbed wire at top. A ten (10) foot wide rolling, locking gate shall be provided in fence.

Structures. Shall provide protection against weather and vandalism, shall be designed to blend architecturally with the character of the Development and shall provide maximum efficiency and minimum operational and maintenance costs to COSC. Access to lower or higher structure levels shall be by inside stairways. Structures shall be multi-purpose wherever practicable. Toilet and sink facilities will be provided where required by the COSC.

Metering, Recording and Monitoring Equipment. Metering, recording and monitoring equipment shall be provided at all pumping stations. Auto-dialer and alarm equipment shall be required at all pumping stations and will be purchased and installed from COSC vendor.

Generally, but not necessarily limited to, requirements are as follows:

Pumping Stations

1. Flow meter and recorder.
2. Auto-dialer and alarm equipment.

Design Flow Rate. Pumping stations shall be designed utilizing peak flow rate.

Odor Control. Pump stations shall be provided with odor control systems. The preferred system is an active air blower and odor bed absorption system.

12.09 Collection System

Design Flow Rate. Pipe capacity shall be adequate to carry the design flow rate from the entire tributary area (even though said area is not within the project boundary), at the design velocity and, unless the line is designated as a force main, without surcharge on the pipelines.

Pipeline Velocity. Minimum velocity shall be two (2) feet per second (fps) when the pipe is half full or full, unless the City Sanitary Sewer Engineer has approved a specific exemption.

Following is a table of slope vs. diameter when the velocity is two (2) fps with the pipe half full or full.

<u>Diameter, inches</u>	<u>Slope, foot per foot</u>
6	0.0050
8	0.0035
10	0.0025
12	0.0020
15	0.0015
18	0.0012

Minimum Size Sewer Lines. Minimum size of collection lines which serve single family or duplex development shall be six (6) inches in diameter. Schools, commercial, industrial and multiple residential shall be served by lines eight (8) inches in diameter, minimum.

Exceptions: COSC approved Innovative and Alternative projects.

Sewer Line Location and Alignment.

1. **Location.** All sewer lines shall be designed to be installed within the paved portion of the roadway, normally six (6) feet from the right-of-way center line and parallel with the center line whenever possible, or in a public easement. All locations within existing road right-of-way shall be approved by the City Director of Public Works. If it is necessary to install a sewer line within a private road, the easement shall be the width of the paving plus one (1) foot on each side or fifteen (15) feet, whichever is larger.

2. **Horizontal Alignment.** Alignment shall be parallel to the street centerline wherever possible. Minimum radius for sanitary sewers six (6) inches through ten (10) inches in diameter shall be 200 feet unless a larger diameter is required by the proposed pipe material and/or pipe joint. A larger radius shall be used whenever practical. Pipe length/joint deflection

shall not exceed manufactures' recommendations. A manhole shall be placed at any abrupt change in alignment.

3. **Vertical Alignment.** Maximum deflection for vertical curves shall be $\frac{1}{4}$ inch per foot. A manhole shall be placed at any abrupt change in grade. Elevation shall be shown on the plans at twenty-five (25) foot intervals throughout the length of vertical curve.

4. **Typical Cross Section.** COSC Standard Details show typical pipe locations within roadways and minimum clearance between pipe lines.

12.10 Trench Loading

Deflection Equation. The Marston formula shall be used in determining pipe loading.

Deflection Limit. Design deflection of flexible pipelines shall be limited to five (5) percent.

Bedding Types. Bedding types shall be as per COSC Standard Details. Bedding type shall be as necessitated by height of cover over the pipe, trench width, pipe strength and other factors used to determine safe piping loading. Concrete bedding shall require specific approval of the City Sanitary Sewer Engineer before use. These bedding types are intended primarily for emergency field use and their use shall normally not be specified on the plans.

12.11 Sewer Structures

Manholes. Manholes shall be precast conforming to current ASTM Spec. No. C-478 with ASTM C-923 Resilient Connectors (See Standard Details). Manholes shall be placed at all intersections of sewer lines, other than sewer service connections and at the ends of all permanent lines 150 feet or more in length. Maximum spacing of manholes shall be 300 feet. All manholes, from which future sewer line extensions are anticipated, shall have a pipe stub planned and installed at the grade and direction of the anticipated sewer extension. Between manholes, the following combinations of vertical and horizontal curves will be allowed; two (2) horizontal and one (1) vertical curve or two (2) vertical curves and one (1) horizontal curve.

The average hydraulic grade line of any pipe which flows into a manhole shall be one-tenth (0.10) foot minimum above the average hydraulic grade line of the exit pipe. When the major conduit, based on flow, passes through a manhole with less than twenty (20) degrees deflection, the one-tenth (0.10) foot differential between hydraulic grade lines will not be required for the major conduit. The average hydraulic grade lines shall be derived from design flows based upon one hundred (100) percent development of the tributary areas. The crown of the exit pipe, when larger than twelve (12) inches, shall never be higher than the crown of pipes entering the manhole.

A manhole shall be required at the terminus of any collection line terminating within a cul-de-sac.

The minimum inside diameter for manholes shall be:

<u>HEIGHT IN FEET</u>	<u>INSIDE DIAMETER IN FEET</u>
≤8	4
>8 and ≤12	5
>12	6

Drop Connection. In general, the use of drop connections **will** be approved by the City Sanitary Sewer Engineer only. Free drops from an incoming collection line or service to the bottom of the manhole **will not** be permitted and shall be eliminated by use of a drop connection, vertical curve or increased slope of the incoming lateral.

Flushing Branches. A flushing branch (cleanout) may be used in-lieu of a manhole at the end of any line less than 150 feet long.

12.12 Sewer Services The sewer services shall extend from the collection line to the edge of public right-of-way or edge of easement. Sewer services shall extend one (1) foot beyond the edge of pavement of any private road. Easements of adequate width to accommodate the services shall be provided. A plan and profile of any sewer service shall be supplied to the City Sanitary Sewer Engineer upon request.

Minimum Size. Normal service sewer size to each lot is four (4) inches. Schools and other developments expected to contribute high sewage flows shall be served by six (6) inch or larger service sewers. In addition, sewer services shall be sized according to requirements of the Uniform Plumbing Code. A six (6) inch service sewer and larger services shall be connected to the collection line by use of a manhole.

Tapping Existing Lines. The Owner shall make all service sewer taps into existing collection lines upon application for permit and payment of required fees. COSC shall inspect all taps. A note of this effect shall be placed on all plan sheets which require such tapping.

Connection to Trunk Lines. Service sewers shall **not** connect to trunk sewers twelve (12) inches diameter and larger without the written approval of COSC.

Service Location and Depths. Unless specifically requested otherwise by the property owner, service sewers shall be placed on the low side of any typical subdivision lot. Consideration shall be given to trees, improvements, etc., so as to minimize interference when service sewer is extended to the proposed building.

The Consulting Engineer shall verify the adequacy of the normal service sewer depth at the edge of easement or right-of-way, to service the intended parcel at the point of anticipated structure location. The Consulting Engineer shall designate the invert elevation of the service sewer at the edge of the right-of-way or easement on the construction plans, whenever the required depth is greater than three (3) feet.

Clean Out. A four (4) inch clean out will be placed at the property line on all sewer service laterals.

Backflow Device. A sewer backflow device shall be installed on all sewer services and shall be located at or near the property line.

Grease Traps. Grease traps will be installed at all service connections (commercial and industrial) as required and sized by the Uniform Plumbing Code. See City of Sutter Creek F.O.G. Ordinance for additional requirements (SCMC 14.04.070).

Pumped Service. Pumped services will be permitted only on a very limited, individual basis.

Providing Service Sewers. When sanitary sewers are part of new subdivision construction, a service sewer shall be constructed to each parcel.

In developed areas, a sewer service shall be provided to each parcel which contains a source of sewage. A property owner's request for service shall be honored whenever practical. Parcels which have two or more sources of sewage must have an independent service sewer provided for each sewage source which can be separated from the rest of the parcel and sold. A service sewer shall be provided to each subdivision lot or lot similar as to size and possible development. At an early stage of design, the Consulting Engineer shall send every property owner affected by the proposed work a questionnaire requesting, in writing, the owner's preferred service sewer location. In absence of a response to this questionnaire, the Consulting Engineer shall provide a house service as required by this Section. In addition, when the service sewers are staked immediately prior to construction, each property owner shall be given notice that he should look at the staked location of his service sewer and, if not satisfactory, immediately notify the Consulting Engineer. The date of notification by the property owner, method of notification, nature of change and other pertinent information shall be furnished to COSC.

12.13 Creek Crossings

Crossing details of pipe, pier, anchorage, transition couplings, etc., shall be shown upon a detail sheet of the plans in large scales.

Ductile iron pipe shall be used under the full creek width plus ten (10) feet on each side. All soft or organic material shall be replaced with select imported backfill. Special care shall be used to provide a firm base for the pipe bedding. Full concrete encasement is required.

Any proposed crossing above the creek bed must be approved by the city Sanitary Sewer Engineer.

Calculations shall be submitted which clearly indicate the design of the pipe and supports regarding impact, horizontal and vertical forces, overturning, pier and anchorage reactions, etc.

12.14 Force Mains

Design shall be closely coordinated with COSC. Design criteria generally shall be as contained in Section 12.05, with due regard for the characteristics of the sewage to be conveyed.

12.15 Regulations Relating to Sanitary Hazards

All construction shall conform to applicable regulations relative to safeguarding the public health, particularly the regulations relative to cross-connections as established by the California Administrative Code, Title 17.

In designing the collection system, it is intended that twelve (12) feet be the minimum horizontal distance between parallel water and sanitary sewer lines and that the water main be at least twelve (12) inches higher. When crossing a sanitary sewer force main, the water main shall be a minimum of twelve (12) inches above the sewer line.

Construction of sewers across areas that are frequently saturated or have springs or which are within 25 feet of the 100-year high water line of a lake, reservoir or stream, or within 25 feet of an irrigation canal, should be avoided whenever possible. Construction in these areas may be required to meet the standards of Section 12.13, Creek Crossings, or other special requirements may be required to protect the water quality.

12.16 Locator Wire

All runs of non-metallic pipe shall have a No. 10 AWG solid, soft drawn copper wire with Type UF insulation. Locator wire shall be grounded with a ground rod at the end of a pipe run.

13.00 CONSTRUCTION STANDARDS - STREETS

13.01 Lines and Grades

Attention is directed to Section 4.00, "Construction Staking," of these Improvement Standards. Construction staking to be supplied by the Engineer shall consist of horizontal and vertical location of curb, gutters, valley gutters, and storm drains as determined by the Engineer. Flow line, and grate and rim elevations of drop inlets and junction boxes shall be staked with offsets. All supplemental construction staking required by the Contractor shall be supplied by the Contractor. Engineer may revise curb and gutter alignment in the field to avoid tree root structure or conform to existing improvements.

13.02 Order of Work

Contractor shall provide City with a schedule of work, and Contractor shall perform all work in accordance therewith. Should circumstances cause Contractor to anticipate falling out of compliance with said schedule, Contractor shall notify City in advance and provide revised schedule for review and approval by the City.

13.03 Maintaining Traffic

Attention is directed to Sections 7-1.03, "Public Convenience," 7-1.04, "Public Safety," and Section 12, "Temporary Traffic Control," of the State Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as relieving the Contractor from his responsibility as provided in said Section 7-1.04.

Lane closures shall conform to the provisions of Section 13.05, "Traffic Control System for Lane Closure" of these Improvement Standards.

The Contractor shall notify local authorities of his intent to begin work at least 5 days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the work area and shall make his own arrangements to keep the working area clear of parked vehicles.

Whenever construction vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with fluorescent traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. A minimum of 9 cones or portable delineators shall be used for the taper. A C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags. The flag tree shall be placed where directed by the Engineer.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the scope of the work may be permitted upon the written request of the Contractor if in the opinion of the City Engineer public traffic will be better served and the work expedited. Such deviations shall not be adopted until the City Engineer has indicated his written approval.

13.04 Construction Area Signs

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the State Standard Specifications.

Type IV reflective sheeting for sign panels for portable construction area signs shall conform to the requirements specified as "Pre-qualified and Tested Signing and Delineation Materials" by Caltrans.

13.05 Traffic Control System for Lane Closure

A traffic control system shall consist of closing traffic lanes in accordance with the provisions of Section 12, "Construction Area Traffic Control Devices," of the State Standard Specifications and the provisions under "Maintaining Traffic" elsewhere in these Improvement Standards.

The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety," of the State Standard Specifications.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. When the Contractor so elects, said components may be stored at selected central locations approved by the Engineer, within the limits of the right of way.

Work areas adjacent to city streets shall be open to two-way traffic by 4:00 p.m. each work day. One lane shall remain open to traffic during construction unless otherwise approved by the City.

Contractor shall submit a Traffic Control Plan for review and approval by the City Engineer and Police Chief prior to commencing work affecting city streets.

13.06 Obstructions

Attention is directed to Section 15, "Existing Facilities," of the State Standard Specifications.

The Contractor shall notify the City and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

NOTIFICATION CENTER	TELEPHONE NUMBER
City of Sutter Creek	(209) 267-5647
Underground Service Alert Northern California (USA)	811

13.07 Adjust Utilities to Grade

Contractor shall adjust all valve boxes, manhole frames, and meter boxes to grade in accordance with the approved plans and these Improvement Standards. (See Section 18.00, Standard Details)

13.08 Clearing and Grubbing

Clearing and grubbing shall conform to the provisions in Section 17-2, "Clearing and Grubbing," of the State Standard Specifications.

Contractor shall protect existing trees from damage caused by his operations. All work in drip line of trees shall be as directed by City Engineer. Pervious backfill shall be placed around all root structures exposed by Contractor's operations. Attention is directed to Sutter Creek City Code Chapter 13.24, "Trees and Landscaping," and specific project conditions of approval.

13.09 Asphalt Concrete

Asphalt concrete and pavement reinforcing fabric shall conform to the provisions in Section 39, "Asphalt Concrete," of the State Standard Specifications and shall be 1/2" or 3/4" maximum, medium grade, Type B aggregate as directed by the City Engineer.

13.10 Pavement Reinforcing Fabric

Pavement reinforcing fabric shall conform to the provisions of Section 96, "Geosynthetics" of the State Standard Specifications. Reinforcing fabric shall be placed at location specified on the plans or in accordance with limits marked in the field.

13.11 Fog Seal Coat

Fog seal coat shall conform to the provisions in Section 37, "Bituminous Seals," of the State Standard Specifications. Fog seal shall be 60 percent asphalt emulsion and 40 percent water and shall be applied at the rate of 0.10 to 0.12 gallons per square yard. Contractor shall provide City Engineer verification of asphalt emulsion used.

13.12 Striping and Pavement Markings

Roadway striping shall conform to Section 84, "Markings," of the State Standard Specifications, Manual on Uniform Traffic Control Devices, the approved plans and these Improvement Standards.

13.13 Subsurface Drain

Contractor shall construct subsurface drain where required in accordance with Section 68, "Subsurface Drains," of the State Standard Specifications, the approved plans and these Improvement Standards.

13.14 Locate and Protect Existing Utilities

This item of work shall cover the location and protection of ALL existing underground utilities as required under Section 4215 of the Government Code as amended and Section 13.06, "Obstructions," of these Improvement Standards.

Contractor shall locate existing utilities and pothole designated areas for location and protection of existing underground facilities within the project limits prior to start of work and as necessary to coordinate and schedule his work.

14.00 CONSTRUCTION STANDARDS - STREET LIGHTING

General

Street lighting improvements associated with new development shall be constructed in conformance with Section 86, Signals, Lighting and Electrical Systems, of the State Standard Specifications and the requirements of the National Electric Code (NEC) except as modified by these improvement standards. The work shall consist of furnishing and installing luminaires with LED lamps, photoelectric cells; electrolier standards, electrolier arms and foundations, solar powered lights where feasible, conduit and conductor wiring and all other materials and appurtenances in accordance with the project plans and these standards.

14.01 Materials and Construction

All materials and construction shall be in compliance with this section of these Improvement Standards.

- A. All materials delivered to the job shall be new and best quality of their respective grades in accordance with the following specifications and packed in their original sealed containers. All materials to be installed shall bear the Underwriters Laboratories, Inc. (U.L.) label.
- B. The Contractor shall use materials mentioned in these Improvement Standards as standard, and in no case will a substitute be allowed without written approval of the City Engineer.
- C. All work and material shall be protected at all times. Conduit openings shall be closed with protective caps during installation and all materials shall be covered and protected against dirt, water, and mechanical or other injury. All materials damaged during course of construction shall be replaced or repaired to original condition by the Contractor prior to acceptance of work.
- D. The Contractor shall not allow or cause any of his work to be covered up or enclosed until it has been inspected and approved by the City Inspector. Should any of the work be enclosed or covered up before such inspection, the Contractor shall uncover the work at his own expense and after it has been inspected and approved make all repairs with such material as may be necessary to restore all work to its original and proper condition.
- E. The Contractor shall furnish and install the street lighting equipment in accordance with these Improvement Standards.

14.02 Foundations

Foundations shall be cast-in-place and in conformance with Section 86-2.01 "Excavating and Backfilling," and Section 86-2.03, "Foundations," of the State Standard Specifications except as amended herein and on the Standard Details.

14.03 Electrolier Standards

Electrolier standards shall be defined for the purpose of these Improvement Standards to include the pole, base, and base cover. Electrolier Standards shall conform to the Standard Details and the following requirements:

- A. Each standard shall have an identification Street Light number sticker as assigned by PG&E.
- B. The hand hole shall be oriented on the pole so that a technician facing oncoming traffic while facing the hand hole.
- C. All electrolier standards shall be furnished with a grounding lug or nut installed opposite the hand hole/removable access door and inside the standard.
- D. Electrolier standards shall conform to the Standard Details and the following criteria:
 - 1. The pole shall consist of galvanized steel material with a minimum thickness of 11 gauge.
 - 2. The poles shall be single-arm poles unless the Project Plans specify otherwise.

14.04 Electrolier Arm

Electrolier Arms shall conform to City Standard Details.

14.05 Conduit

Conduit shall be furnished and installed, conforming to the Standard Details, the requirements of Underwriters Laboratories Publication UL 543, and the following:

- A. Conduit shall be 1½" PVC, Schedule 40 conduit.
- B. Cutting and machining of conduit shall be in accordance with the manufacturer's recommendations. Pre-assembly of sections of conduit shall not be permitted except where jacking is required.
- C. Pulling bells shall be installed on the ends of conduit terminating in pull boxes and electrolier standards.
- D. The installation of conduit shall conform to the following:
 - 1. Excavation and Backfill for conduit installation shall conform to Section 15.04 "Trenches & Backfill," of the City Improvement Standards except as amended by this Section 14, "Street Lighting," of the City Improvement Standards and the Standard Details.

2. The conduit shall be laid over two inches of uniformly spread sand, and shall be covered by a minimum of 6 inches of sand.

14.06 Pull Boxes

Pull boxes shall conform to the provisions of Section 86-2.06, "Pull Boxes," of the State Standard Specifications as amended herein by this Section 14, "Street Lighting," of the City Improvement Standards and Standard Details.

- A. Pull boxes shall be precast reinforced concrete, Caltrans #3 1/2 Box with brass hold down bolts.
- B. The cover shall be marked "Street Lighting."
- C. Grout shall not be placed in the bottom of the pull box.

14.07 Conductors and Wiring

Conductors and wiring shall conform to the provisions of Section 86-2.08, "Conductors," and Section 86-2.09, "Wiring," of the State Standard Specifications as amended herein by this Section 14, "Street Lighting," of the City Improvement Standards and Standard Details.

- A. Conductors shall be AWG and THHN copper stranded conductor Underwriters Laboratory Approved.
- B. The size of the conductors shall be as designated on the Project Plans.
- C. Any NEC approved splice excluding wire nuts connections may be used for splice connections.
- D. Splices shall be insulated in accordance with Section 86-2.09E, "Splice Insulation," type "B" method of the State Standard Specifications.
- E. A fused disconnect splice connector shall be installed in each conductor between the line and ballast and shall be located and readily accessible within the hand hole of the electrolier standard. The fused disconnect splice shall consist of a Class CC (NEC) midget fuse holder with a 5 amp 250 volt non time delay midget fuse.

14.08 Luminaires

Luminaires shall conform to the Standard Details and the following requirements:

- A. Luminaires shall consist of a housing, a reflector, a photoelectric control, and integral regular type ballast unless otherwise approved by the City Engineer. Luminaires, complete with LED lamps, shall be installed in the proper orientation to produce the desired light pattern and shall be completely assembled and connected to the conductor. The operating voltage shall be 120 volts unless otherwise specified.

The following shall be provided for City approval:

1. Maximum power in watts.
2. Maximum designed junction temperature.
3. Heat sink area in square inches.
4. Designed junction-to-ambient thermal resistance calculation with thermal resistance components clearly defined.
5. L70 in hours when extrapolated for the average nighttime operating temperature.
6. Life expectancy based on the junction temperature.
7. Manufacturer's data sheet for the power supply, including the rated life.

Submit the manufacturer's QC test data for LED luminaires as an informational submittal.

14.09 Lamps

Unless otherwise specified, LED lamps shall be installed in the luminaires. The wattage of the lamps shall be specified on the Project Plans.

14.10 Photoelectric Control

Photoelectric control shall be multi voltage photoelectric relay on a twist lock receptacle. A photoelectric cell shall be installed on each street light located on the top of the luminaire fixture.

14.11 Service Connection (Non-Solar Powered Lights)

Service connections for street lights served by underground electrical systems will be made at the Service Point Location designated on the Project Plans which is normally a PG&E secondary box. Service Connections shall conform to the following requirements:

- A. The Contractor shall provide conduit and wire from the PG&E secondary box to and throughout the new street light system.
- B. Wires shall be tagged at secondary box in accordance with the latest and applicable PG&E detail.
- C. Service connections for electroliers served by the overhead electrical systems will be made at a junction box located at the base of the service riser pole. The Contractor shall provide the junction box, conduit and wire from the junction box to the pull box adjacent to the nearest street light.
- D. All service connections will be made by PG&E. The Contractor/Developer shall bear all costs by PG&E for service connection(s).

15.00 CONSTRUCTION STANDARDS - STORM DRAIN

15.01 Storm Drain Pipe

Storm drain pipe shall conform to the provisions in Section 64, "Plastic Pipe" of the State Standard Specifications. Storm drain pipe shall be SDR 35. All piping shall be backfilled in accordance with Section 15.04 of these Improvement Standards.

Backfill material shall conform to Section 18.00, Standard Details.

15.02 Installation

Pipe shall be laid in strict conformity with the prescribed alignment and grade specified in the plans and these Improvement Standards, or as directed by the City Engineer. Before any length of pipe is laid, it shall be carefully inspected for defects. No pipe or other material that shows defect shall be placed. Pipe laying shall proceed upgrade with the bell ends of the pipe placed upstream. Each section of pipe shall be laid in such a manner as to form a water tight concentric joint with the adjoining pipe. The interior of the pipe shall be kept clear of all dirt and debris during construction.

All pipe laying and joining, including the maximum deflection of joints in curved alignment shall be in accordance with the pipe manufacturer's specifications and as directed by the City Engineer.

Small diameter storm drain connections to 36" diameter storm drain shall be in accordance with 36" diameter pipe manufacturer's recommendations and shall be water tight. No protrusion into large diameter pipe will be allowed.

Deflection for PVC pipe after installation shall not exceed manufacturer's recommended maximum deflection at any location. Should the installed pipe exceed manufacturer's recommended maximum deflection, each and every length of pipe so affected shall be removed and replaced.

15.03 Trenches and Backfill

This work shall consist of performing all operations necessary to excavate earth and rock or other material, of whatever nature, including water, regardless of character and subsurface conditions, necessary to excavate trenches for pipes and appurtenances; to place backfill for structure, pipes and appurtenances and other facilities; to backfill trenches and depressions resulting from the removal of obstructions; to remove and replace unsuitable material; to construct protection dikes; and to remove unstable material and slide material which may enter trenches. All such work shall be in conformance with the approved plans and these Improvement Standards or as directed by the City Engineer. Typical trench details shall be shown on the plans.

Backfill material shall conform to the provisions in Section 19, "Earthwork," of the State Standard Specifications. Pervious backfill material required by the plans and these specifications shall be considered structure backfill and full compensation therefore shall be included in the contract price paid for the various items of work, and no additional compensation will be allowed therefore.

When a firm foundation is not encountered due to soft, spongy, or other unsuitable material, such material shall be removed to the limits directed by the Engineer, and the resulting excavation shall be backfilled with approved washed drain rock compacted to ninety-five percent (95%).

When removal of unsuitable material requires excavation to a depth greater than 12" below pipe flow line grade, the Engineer will determine the limits of the required excavation. Excavation limits shall be trench width for the length specified by the Engineer.

Where pipes are to be installed above original ground or in new embankment fills, embankment shall first be constructed to the required height for a distance on each side of the pipeline of not less than five feet (5'). Embankment shall have relative compaction of not less than ninety-five percent (95%). Upon completion and approval of the embankment the trench shall be excavated with the sides nearly vertical and the pipelines installed in accordance with these Improvement Standards.

Materials excavated from trenches shall be placed and maintained so as to offer minimum obstruction to traffic.

Unsuitable materials shall become the property of the Contractor and disposed of in accordance with local regulations.

Ditches shall be kept clear for the purpose of handling road drainage. Drainage ways, walkways, and driveways shall be kept clear.

At the end of each working day, there shall be no open trench, unless otherwise permitted by the City Engineer.

In connection with earthwork, all tests shall be made in conformance with the following requirements set forth in the State Standard Specifications:

<u>Tests</u>	<u>Test Method No</u>
Relative Compaction	Cal 216 & 231
Sand Equivalent	217
Resistance (R-value)	301
Sieve Analysis	202

Foreign material which falls into the trench prior to or during placement of the backfill shall be removed.

The trench widths set forth on the plans are minimum widths. Where excavation greater than the specified widths is necessary for execution of the work, machine or hand excavation to a stabilized slope will be permitted provided one-way traffic can be maintained. Minimum trench width is the distance face-to-face of trench walls or inside face to inside face of sheeting should solid sheeting be used. Maximum trench widths from the bottom of the trench to the top of the pipe shall be limited to six inches (6") outside the specified minimum trench width, except with specific approval by the City Engineer.

The Contractor shall furnish all materials and facilities required for trench excavation and shall make trenches and excavation dry throughout all pipe laying operations.

The location of underground utilities or other obstructions shall be determined by the Contractor sufficiently in advance of excavation so that pipe alignment can be confirmed or re-routed without delay. Contractor's attention is directed to Section 13.14, "Locate and Protect Existing Utilities," of these Improvement Standards.

Material for backfill shall be placed in uniform horizontal layers not exceeding one foot (1') in thickness before compaction, and shall be brought up uniformly on all sides of the trench, structure or facility. When the Contractor can satisfactorily demonstrate to the City Engineer an alternative method of placing the backfill so that all requirements, other than the layer thickness, are met, the City Engineer may permit the Contractor to use the alternative method. Under no circumstance will the Contractor use the alternative method unless the City Engineer's approval is obtained in writing.

Each layer of backfill shall be compacted to a relative compaction indicated for the backfill involved.

Backfill shall not be placed until the pipe or other facility has been inspected by the City Engineer and approved for backfilling. The percentage composition by weight as determined by laboratory sieves shall conform to the following requirements:

Class 1 Backfill

<u>Sieve Sizes</u>	<u>% Passing Sieves*</u>
No. 4	90-100
No. 200	<5

*Gradations requirements may be waived with written approval from the Engineer.

"Crusher fines" are acceptable for Class 1 backfill. "Pervious backfill" shall be coarse or medium screenings in accordance with Section 37, "Bituminous Seals," of the State Standard Specifications or as otherwise approved by Engineer.

Class 2 Backfill

Class 2 Aggregate Base, 3/4" maximum, in accordance with Sections 26-1.02, 26-1.02B, 26-1.03 of the State Standard Specifications except that percentage of No. 200 material shall be 15-30% unless otherwise approved by the Engineer.

Class 3 Backfill

Material for Class 3 Backfill may consist of material from excavation free from rocks or lumps exceeding three inches (3") in greatest dimension, vegetable matter, and other unsatisfactory material. Backfill shall be compacted to the relative compaction shown on the plans or as set forth in these specifications.

Class 4 Backfill

Class 4 Backfill shall be cement-sand slurry comprised of aggregate, cement and water. The aggregate, cement and water shall be proportioned either by weight or volume. Cement used shall be 190 to 210 pounds for each cubic yard of material produced. The water content shall be sufficient to produce a fluid workable mix that will flow and can be pumped without segregation of the aggregate while being placed.

Materials shall be thoroughly machine mixed in a rotary drum mix truck and placed in the trench from a direct truck discharge unless otherwise approved.

Mixing shall continue until cement and water are thoroughly dispersed throughout the material. All mixed slurry shall be placed within one hour of the introduction of water and cement to the material.

Aggregate shall be commercial-quality concrete sand. Aggregate shall be free of organic materials and other deleterious substances and have a minimum sand equivalent of 20. Aggregate shall conform to the following grading:

<u>Sieve Sizes</u>	<u>% Passing Sieves*</u>
1/2"	95-100%
3/8"	80-100%
#4	75-100%
#100	10-24%

The Contractor may use Class 4 backfill, slurry backfill, at locations approved by the Engineer as an alternative to Class 1 backfill. Slurry backfill shall be placed to neat line trench walls using

care to completely envelope the pipe in the backfill. Road surfacing will not be permitted until the Engineer is satisfied that the set is sufficient to support traffic but in no case prior to setting four (4) hours. The Contractor shall include in all items of work using slurry backfill the full cost of all labor and equipment to prevent traffic from crossing any trench with slurry backfill prior to setting.

The Contractor may use sufficient amounts of additives for speeding the set of slurry backfill in accordance with manufacturer's recommendations. No additive shall be used without prior approval of the Engineer as to type and amount.

Slurry backfill shall be placed in a uniform manner that prevents voids in, or segregation of the backfill and will not float the pipe.

15.04 Compaction Testing

The Owner will provide compaction tests at various locations during the work as directed by the Engineer. In the event of a test failure, the Contractor shall remove and re-compact unacceptable backfill or fills in accordance with the plans and specifications.

THE COST OF RE-TESTING SHALL BE BORNE BY THE OWNER OR CONTRACTOR.

15.05 Manholes

All manholes shall be of concrete construction and shall be placed in accordance with the approved plans, and these Improvement Standards. The manhole base may be pre-cast or poured in place, conform to ASTM C-470, and shall be placed in accordance with the plans and these specifications. Control of water in excavations shall be to the satisfaction of the City Engineer. Precautions shall be taken to assure that pipe entering and leaving manholes does not deviate from the installed alignment and grade during and after construction. Flex connectors at the inlet and outlet of manholes shall comply with ASTM C-923. Sufficient material shall be placed on said lines to prevent such movement. Ground beneath the manhole shall be compacted to 95% relative compaction prior to placing the base.

All manholes shall be precast concrete bases with precast reinforced concrete pipe sections, tapered sections, and adjustment rings. Reinforced concrete parts shall conform to ASTM designation C-478, and pipe sections shall be not less than 4 feet inside diameter.

Manhole joints shall be sealed against infiltration and exfiltration by means of sand-cement mortar between each joint, or by means of joint sealing compound as manufactured by the K.T. Schneider Co., Houston, Texas under the brand name "Ram-Nek," or "Quick-Seal," as manufactured by Associated Concrete Products, Inc., or approved equal. Appropriate primers and preparation as specified by manufacturer shall be used.

Manholes shall be finished inside and out with sand-cement mortar to produce a water tight, smooth finish. Flow line channel through manhole shall have smooth trowel finish.

Backfill shall be placed uniformly around the outside of the manhole so as to not create differential forces and the possibility of dislodging the manhole sections.

15.06 Concrete Structures

Concrete structures (drainage inlets and junction boxes, headwalls, inlet and outlet structures) shall be constructed of Class A concrete and shall conform to the plans, the provisions in Section 51, "Concrete Structures," of the State Standard Specifications, and these Improvement Standards. Concrete structure reinforcement, when not set forth on plans, shall conform to Caltrans Standard Plan details.

Box culvert invert elevations shall be as directed by the City Engineer to match existing conditions.

All concrete structures shall have smooth trowel finish and rounded inlets at all openings. Drainage inlet, junction box combination structures shall pass full pipe flow in concrete channel.

Concrete structures in roadways shall be backfilled with Class 2 backfill compacted to not less than ninety-five percent (95%) relative compaction. Concrete structures off road or behind concrete curbs shall be backfilled with Class 3 backfill at not less than ninety percent (90%) relative compaction.

15.07 Miscellaneous Iron and Steel

Frames, grates, covers, and manhole riser rings shall conform to the provisions in Section 75, "Miscellaneous Metal," of the State Standard Specifications.

Manhole frames and covers shall be cast iron in accordance with ASTM A-48, Class 35B with H20 loading rating and shall be California Concrete Pipe Model A-640/A-1024 or approved equal.

Manhole covers shall have raised lettering not less than 1" spelling out "City of Sutter Creek," cast into cover and center of each manhole shall spell out "Sewer" or "Storm Drain" with 2" lettering or as approved by City Engineer.

15.10 Adjusting Utilities to Grade

Contractor shall adjust existing manhole frames, water valve boxes, and water meter boxes affected by his work to grade in accordance with these Improvement Standards.

Manholes shall be adjusted to grade with cast iron riser rings and asphalt concrete backfill. Riser rings shall conform to these Improvement Standards. Asphalt concrete shall conform with Section 13.09 except it can be hand placed.

16.00 CONSTRUCTION STANDARDS – SANITARY SEWER

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STANDARD PRACTICE FOR TESTING CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE (VACUUM) TEST	ATTACHMENT A
STANDARD DETAILS	ATTACHMENT B

SECTION 01080 - STANDARD SPECIFICATIONS

All items noted on the plans related to the installation of sewers not covered by these Technical Specifications shall be provided and installed per the Standard Specifications.

The Standard Specifications shall be as published by the State of California, Business and Transportation Agency, Department of Transportation, latest edition.

Whenever in the Standard Specifications the following terms are used, the intent and meaning shall be interpreted as follows:

1. Department of Transportation: City of Sutter Creek
2. Engineer of State Highway Engineer: Weatherby-Reynolds-Fritson Engineering and Design.
3. State: City of Sutter Creek
4. Special Provisions: These specifications and contract documents.

In case of conflict between the Standard Specifications and these Technical Specifications, these Technical Specifications shall take precedence over and be used in lieu of such conflicting portions.

SECTION 01210 - PRECONSTRUCTION CONFERENCE

DESCRIPTION: Prior to start of construction, owner will arrange an on-site meeting with the contractor. The meeting agenda will include the following:

- Correspondence Procedures
- Designation of Responsible Personnel
- Labor Standards Provisions
- Payroll Reports
- Changes
- Payments to Contractor
- Subcontractors
- County and State Regulations
- Accident Prevention Program (including name of responsible supervisor)
- Safety Program
- Tentative Construction Schedule
- Submittal of Shop Drawings, Project Data and Samples

The contractor shall designate a supervisory employee to carry out the Contractor's Accident Prevention Program and shall submit a proposed Safety Program, for approval by the owner, prior to commencing work under the contract.

SECTION 01220 - PROGRESS MEETINGS

Once each month, the contractor and engineer shall arrange for an on-site meeting to discuss the following agenda items:

1. Review past months progress and update progress schedule submitted (Section 01300).
2. Determine and review next months' progress.
3. Update record drawings.
4. Determine contract payment amount.
5. Review change order progress.
6. Determine need for additional change orders.
7. Review payroll records.
8. Submission of shop drawings, project data and samples.
9. Other items, as necessary.

The contractor shall be responsible for maintaining one complete set of plans and specifications at the job site for the progress meeting and shall be turned over to the engineer before final payment request.

Upon completion of all work and prior to final contract payment, the contractor shall furnish the engineer with three (3) sets of prints, catalog cuts, parts lists and operations and maintenance manuals for all mechanical and electrical items incorporated in the work.

SECTION 01300 - SUBMITTALS

1. **SUBMISSION PROCEDURES:** At least ten (10) days before contractor's need for approval, submit three copies or two specimens (unless a different number is specified in the individual section) of all submittals required under this section to engineer. Identify all submittals. When approved, one copy will be returned to contractor.
However, engineer reserves the right to request additional submittals. No materials requiring engineer's approval shall be delivered to the site until approval has been given.
2. **ENGINEER'S APPROVAL:** Engineer will indicate his approval or disapproval of the submittals and, if not approved as submitted, will indicate his reasons therefor. Any work done prior to such approval shall be at contractor's risk.
3. **SHOP DRAWINGS:**
 - A. **Definition:** The term "shop drawings" includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by contractor to explain in detail specific portions of the work required by the contract.
 - B. **Contractor's Review and Approval:** Contractor shall coordinate all such drawings, and review them for legibility, accuracy, completeness and compliance with contract requirements and shall indicate his approval thereon as evidence of such coordination and review. Shop drawings submitted to engineer without evidence of contractor's approval shall be returned for resubmission.
 - C. **Approval by Engineer:** Such approval shall not relieve contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with Paragraph D below.
 - D. **If shop drawings show variations from the contract requirements,** contractor shall describe such variations in writing, separate from the drawings, at the time of submission. All such variations must be approved by the engineer.
4. **PROGRESS SCHEDULE:** Within five (5) days after receiving Notice to Proceed, submit a Progress Schedule (normally in bar chart form) showing estimated starting and completion dates for each part of the work.

SECTION 01380 - PRECONSTRUCTION PHOTOGRAPHS

Prior to starting construction, contractor shall provide engineer with preconstruction photographs as follows:

Pipeline:

- a) Public streets - 100 ft. intervals looking ahead.
- b) Cross-Country - 200 ft. intervals looking ahead.
- c) Fence Lines and Driveways - Two (2) required at each crossing to clearly show condition and materials of construction.
- d) Minor Structures - Four (4) required, one (1) from each of the cardinal directions, such as: North, South, East and West; or, in the case of stream structures, upstream and downstream; and one (1) from each side of the stream.

Buildings and Major Structures:

At least ten (10) photographs from angles sufficient to show all aspects of the construction.

Photographs will be processed; identified for location and placed in a photo album; bound in hard-back, three ring (two-inch diameter) binders; and turned over to the owner within thirty (30) days after award of contract and prior to starting construction.

NO WORK SHALL BE ALLOWED TO START UNTIL PHOTO ALBUM HAS BEEN REVIEWED AND APPROVED BY THE ENGINEER.

SECTION 01500 - TEMPORARY FACILITIES

1. **SIGNS, SIGNALS, AND BARRICADES:** Contractor to provide, erect and maintain barricades, lights, danger signals and warning signs, and take all necessary precautions for the protection of the work.
2. **UTILITIES:**
 - A. **Power:** The contractor shall arrange with the Pacific Gas and Electric Company for temporary and permanent electric power used for construction and operation. The cost of construction power shall be paid by the contractor. **EXISTING UTILITY POLES ARE NOT TO BE MOVED.**
 - B. **Water:** Water for all domestic consumption and construction will be provided by the contractor. Contact the Amador County Water Agency at 223-3018.
 - C. **Temporary Heating:** The contractor shall provide temporary heating, covering and portable enclosures as necessary to protect all work and material against damage by dampness and cold. The contractor shall supply all fuel, equipment and materials required for temporary heating.
3. **STORAGE FACILITIES:**
 - A. Confine storage of materials to contractor's office site.
 - B. Contractor to provide temporary sheds or other covered facilities for storage of materials subject to weather damage. Number and size of structures shall be subject to engineer's approval. Locate structures to avoid interference with work and relocate as required by progress of work.
 - C. Contractor to remove structures and surplus stored materials at completion of work.
4. **SANITARY FACILITIES:**
 - A. Contractor to provide and maintain facilities in compliance with applicable state and local laws, codes and ordinances.
 - B. Contractor to provide cool, potable water for construction personnel in locations convenient to work stations.
 - C. Contractor to provide sufficient lighted and ventilated toilet facilities in weatherproof, sightproof, sturdy enclosures. Place in approved locations where facilities will be secluded from public observation and convenient to work stations. Relocate as work progress requires.
 - D. Contractor to completely remove temporary facilities on completion of work.
5. **CONSTRUCTION CAMP:** No construction camp will be allowed on the project site.

6. **CONTRACTOR'S OFFICE:** During the performance of the contract, the contractor may maintain a suitable office at the site of the work which shall be the headquarters of a representative of the contractor. If the contractor elects to provide office space, it shall be a subsidiary obligation of all other items of work.

SECTION 01560 - SPECIAL CONTROLS

1. **PRESERVATION OF NATURAL FEATURES:** Confine all operations to within the work limits of the project. Exercise special care to maintain natural surroundings undamaged. Do not remove, injure or destroy trees or other planting without prior approval. Do not fasten ropes, cables or guys to existing trees for anchorage. Restore damaged trees or natural features as nearly as possible to original condition at no additional expense to the owner.
2. **HOUSEKEEPING:**
 - A. Keep project neat, orderly and in a safe condition at all times. Immediately remove all hazardous rubbish. Do not allow rubbish to accumulate. Provide on-site containers for collection of rubbish or dispose of it at weekly intervals during progress of work.
 - B. Wet down dry materials and rubbish to prevent blowing dust.
 - C. Keep volatile waste in covered containers.
 - D. Unless stated otherwise in permits, place cold mix surfacing where trench crosses areas where permanent paving is required at the end of each day's work.
3. **DISPOSAL OF RUBBISH:** Dispose of waste materials, legally, at county dump. Do not bury wastes inside the project site.
4. **AIR AND WATER POLLUTION CONTROL:**
 - A. Take all necessary reasonable measures to reduce air and water pollution by any material or equipment used during construction.
 - B. No burning of debris will be permitted inside the project unless a valid California Division of Forestry burning permit has been issued.
 - C. Do not dispose of volatile wastes or oils in storm or sanitary drains, nor allow such materials to reach streams.
 - D. Do not allow waste materials to be washed into the bed of a stream. Provide silt fences and hay bales, as required.
 - E. When excavations are made, immediately utilize resultant loose earth by filling and compacting in place, or dispose of it off the site.
5. **FIRE PREVENTION AND PROTECTION:**
 - A. **Hazard Control:** Take all necessary precautions to prevent fire during construction. Provide adequate ventilation during use of volatile or noxious substances.
 - B. **Spark Arrestors:** Equip all gasoline or diesel powered equipment used in potential forest or grass fire locations with spark arrestors approved by the U.S. Forest Service. Written determinations of areas and periods of potential fire hazard will be issued by engineer.

- C. Building Safety: Smoking within buildings or temporary storage sheds is prohibited. No welding or cutting by torch shall be performed unless adequate fire protection is provided and maintained for the duration of the work in the area of operations.
 - D. Protection Equipment Required: Provide and maintain suitable fire protection equipment. Furnish a minimum of one UL Class 2A, 2.5 gallon water type, stored pressure extinguisher, and one UL Class 10, Type 1, 15 pound B:C carbon dioxide extinguisher for each 3,000 square feet of building area or major fraction thereof. Travel distance from any workstation to the nearest extinguisher shall not exceed 100 feet.
- 6. DUST CONTROL: The contractor shall be responsible for alleviation or prevention of any dust nuisance arising from the work on this project, but the use of water or dust palliative as required, and as directed by the Engineer, and as set forth in these specifications. No separate payment will be made for dust control. The cost for same shall be considered to be included in the unit bid prices for the items to which it may apply. No petroleum or asphalt dust palliative may be used.
 - 7. OCCUPATIONAL SAFETY AND HEALTH REGULATIONS: All provisions of the California Occupational Safety and Health Act (OSHA) shall be adhered to.
 - 8. TRENCH SAFETY PLAN: The contractor shall be responsible for meeting all requirements of the State Division of Industrial Safety for trench excavations. Prior to the starting of work, the contractor shall obtain, at his expense, any necessary permits.

Nothing herein shall be deemed to allow the use of shoring, sloping or protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety. In particular, the contractor shall, within five (5) days of the Notice to Proceed and in advance of excavation of any trench or trenches five feet or more in depth, submit to the owner a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of trench or trenches, in accordance with Section 6705 of the Labor Code, for acceptance by the engineer, and shall not proceed with such trenching until the plan has been accepted by the engineer. If such plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer. Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent support, and the contractor shall comply with this law.

- 9. RIGHT OF ACCESS: The right is reserved to the owner, their consultants, employees or authorized agents, and electric, telephone and telegraph companies, and other utility companies to enter upon the area for the purpose of making repairs, changes and new installations that have become necessary by the improvement thereof, or for necessary maintenance or for construction review.
- 10. UTILITIES: Prior to starting construction, call U.S.A. (800) 227-2600 for assistance in locating all existing underground utilities.

SECTION 01700 - CONTRACT CLOSEOUT

1. FINAL CLEANING: Remove all tools, equipment, surplus materials, and rubbish. Repair marred surfaces and remove grease, dirt, stains, foreign materials, fingerprints, and labels from interior and exterior finished surfaces. Do any required waxing and polishing. At time of final inspection, project shall be thoroughly clean and ready for occupancy.
2. PROJECT RECORD DRAWINGS:
 - A. Using colored ink, make changes on a set of clean prints of original tracings. Indicate all changes and revisions to the original design, which affect the permanent structures and will exist in the completed work. Reference underground utilities to semi-permanent or permanent physical objects.
 - B. Keep record drawings current. Inspection will be made monthly. Certification of accuracy and completeness will be required on submitted monthly payment requisitions.
3. SUBSTANTIAL COMPLETION AND FINAL INSPECTION: Submit written certification that project, or designated portion of project, is substantially complete, and request, in writing, a final inspection within ten days of receipt of request.

Should owner determine that the work is substantially complete, he will prepare a punch list of deficiencies that need to be corrected before final acceptance, and issue a notice of substantial completion with the deficiencies noted. Should owner determine that the work is not substantially complete, he will immediately notify contractor, in writing, stating reasons. After contractor completes work, he shall resubmit certification and request for final inspection.

4. ACCEPTANCE OF THE WORK: After all deficiencies have been corrected, a letter of final acceptance will be issued. If only designated portions of the project have been inspected, a letter of partial acceptance will be issued for that portion of the work.

Temporary use of facilities by the owner will not constitute acceptance of the facilities used.

5. CLOSEOUT SUBMITTALS: Submit before final payment request.
 - A. Project Record Drawings: As specified above.
6. POST-CONSTRUCTION INSPECTION: Prior to expiration of one year from date of final acceptance, owner will inspect project to determine whether corrective work is required. Contractor will be notified, in writing, of all deficiencies. In accordance with terms of the Performance Bond, corrective work must start on noted deficiencies within ten days of receipt of notification to contractor or bonding company will be notified of forfeiture.

SECTION 02102 - CLEARING AND GRUBBING

PART 1: GENERAL

- 1-1 DESCRIPTION: The work of this section consists of the clearing of vegetation; removal of foundations, culverts, stumps, roots and debris; disposal of unutilized materials; and related incidentals required to prepare the site for the contract work.
- 1-2 JOB CONDITIONS: Work Limits: Specific areas to be cleared and grubbed will be the areas necessary to do the contract work. However, in no case shall the area to be cleared extend beyond twenty feet from the centerline of the pipe work or twenty feet from any structure, unless shown otherwise on the plans.

PART 2: MATERIALS – None.

PART 3: EXECUTION

- 3-1 GRUBBING: When the height of the embankment is less than three feet from finish subgrade, removal all stumps, roots, and debris a minimum of twelve inches below the original ground. When the height of the embankment is three feet or more from finish subgrade, stumps may be cut flush and left in place. In embankment areas, backfill stump and root holes with approved material and compact before placing embankment material. In all excavation areas, remove stumps, roots, and debris a minimum of twelve inches below finish grade. All excess material shall be hauled to the County solid waste disposal site, unless an alternative is presented to the engineer and approved prior to the need for disposal.

PART 4: MEASUREMENT AND PAYMENT

- 4-1 Per project agreement.

SECTION 02200 - EARTHWORK

PART 1: GENERAL

- 1-1 DESCRIPTION: Earthwork includes all labor, equipment, appliances, and materials as required or necessary to excavate, fill, backfill, and grade for the construction of all structures, ditches, dikes, embankments and graded areas, as shown on the plans and specified herein.

PART 2: MATERIALS

- 2-1 All materials for fill shall be native materials from the site unless all materials are found to be unusable. Material specifications shall be as noted in the Standard Specifications Section 19 and the California Building Code Appendix J, Latest Edition.

PART 3: EXECUTION

- 3-1 Earthwork shall conform to the provisions in section 19, "Earthwork", of the Standard Specifications, Appendix J of the California Building Code, Latest Edition, and these Special Provisions.

Compaction and placement dimensions shall meet the requirements of Section 19-6 (95% relative compaction) and the plans.

- 3-2 SURPLUS MATERIALS: All surplus materials may be stored at locations designated by the City of Sutter Creek Department of Public Works.

PART 4: MEASUREMENT AND PAYMENT

Measurement and payment shall conform to the provisions in Section 19-2 of the Standard Specifications (end-area method and cubic yards).

SECTION 02221 - EXCAVATION, TRENCHING AND BACKFILLING

PART 1: GENERAL

- 1-1 DESCRIPTION: The work of this section consists of excavating, trenching, and backfilling for the construction and installation of pipelines and related structures. All excavation will be open cut. It includes all clearing and grubbing, drilling and blasting, construction of cribbing and cofferdams, dewatering and incidental work.
- 1-2 RELATED WORK SPECIFIED ELSEWHERE: Watering, Section 02233.
- 1-3 JOB CONDITIONS: If unauthorized overexcavation occurs, contractor shall be responsible for the repair of the area by backfilling with approved select material and compacting to 95 percent maximum density. (AASHTO-T-191)
- 1-4 EXCAVATION CLASSIFICATION: Regardless of the nature of material excavated, all excavation will be considered unclassified.

PART 2: MATERIALS

- 2-1 GENERAL: All backfill material shall be approved before use and be free of roots, brush, debris, or other objectionable material.
- 2-2 EXCAVATED MATERIALS: Use only approved material for backfill and provide additional needs from approved sources outside of the project boundaries. Excess excavated material for backfill may be transported and used in areas of deficiency.
- 2-3 BACKFILL MATERIAL:
 - A. Initial Backfill: Shall be the material placed around the pipe to a point six inches below the top of the pipe and may be selected from job excavated material provided such material is finely divided and free from debris, organic matter and other deleterious substances and shall be classified such that 100 percent passes the No. 3/4 inch sieve. The material shall be placed immediately after pipe joints have been completed, inspected and passed by the Engineer. The material shall be carefully placed so as not to disturb or damage the pipe and shall be brought up evenly on both sides.

Where imported bedding material is used, initial backfill material may be selected from job excavated material, as described previously, if such suitable material is available.
 - B. Intermediate Backfill: Trench backfill above the initial backfill and to a point two feet below the top of the trench may be of job excavated material or imported backfill material, placed in any manner determined by the contractor. However, until the total backfill above the top of the pipe exceeds one (1) foot, machine-placed backfill material shall not be allowed to "free-fall" more than two feet. Jetting will not be allowed.

- C. Trench Excavated Intermediate Backfill Material: Shall be free from organic matter and other deleterious material and shall contain no concrete, stones or clods larger than three (3) inches in diameter and shall contain sufficient fines so that all voids will be filled when compacted, and shall be so constituted that compaction requirements can be met.
- D. Imported Intermediate Backfill Material: Shall be identical with imported bedding material specified previously and shall be used where shown on the drawings. Jetting will not be allowed.
- E. Top Backfill: The top two feet of backfill shall be job excavated material free from organic matter and other deleterious material and shall contain no concrete, stones, clods larger than three (3) inches in diameter and shall contain sufficient fines so that all voids will be filled when compacted, and shall be so constituted that compaction requirements can be met.

3-1 WATER: Clean, free from harmful substances.

PART 3: EXECUTION

3-1 STRUCTURE EXCAVATION:

- A. Excavation Dimensions: Provide eighteen inches of clear working space, except as noted on the plans, between the exterior lines of the structure and the face of excavation or shoring. In all cases, extend to solid bearing and below frost line.
- B. Foundation Treatment: Clean all rock or other foundation surface of loose material and cut to a firm surface either level, stepped, or serrated, as directed. Avoid excavation below the specified grade.
- C. Excavation Approval: When excavation has been completed for a structure, the contractor shall notify the engineer, who will inspect the excavation. Place no concrete until the excavation is approved.

3-2 TRENCH EXCAVATION:

- A. General: Excavate trenches to lines, grades and elevations indicated or staked in the field. Fine grade the trench bottom throughout and excavate to accommodate joints and connections so the barrel of the pipe will receive bearing pressure throughout from the trench bottom.
- B. Trenching Guidelines: For excavation, trench width and depth shall be as follows: Width, ample to allow a minimum free working space of one foot on each side of pipe barrel, except when hand dug; width of hand excavated trenches may be reduced providing approval is given, stability of soil is consistent with depth of trench required, and pipe can be satisfactorily installed to line and grade and properly backfilled; depth, at least four inches, but not exceeding twelve inches below pipe bottom; hand excavate placements for thrust blocks at grade and trim sides straight upward to original ground; pump off water which has accumulated in low ground; and keep excavation drained of water.

- C. If water is allowed to stand and the earth is softened, the earth must be completely dried or removed to firm material and the proper backfill placed before construction can proceed.

3-3 SHORING AND SHEETING:

- A. Construct and maintain all shoring and sheeting necessary to protect the excavation, as needed for the safety of the employees and as required by applicable state and federal laws.
- B. Do not disturb or remove timber or other sheeting driven to a depth below the elevation of the top of the pipe.
- C. As directed, remove all other sheeting and shoring when safe to do so. Any portion wholly buried by earth and at a distance of at least eighteen inches from any timber members of permanent structures need not be stripped.
- D. When shoring or sheeting is used in the trench, the fill shall be carried to a height sufficient to prevent the surrounding ground from cracking or caving into the trench before the shoring or sheeting is removed.

3-4 BACKFILL: As directed, mound at the surface to allow for settlement to adjacent finish grades. Prior to final inspection and acceptance, level areas of fill to surrounding ground surface. Do not backfill until all pipelines have been inspected and tested, and permission given to backfill. Place no backfill against foundation walls until concrete has thoroughly set.

- A. Compaction of Backfill Material: May be accomplished by mechanical tamper, by vibrating, or by a combination of these methods, as required.

3-5 BACKFILL OF STRUCTURES: Place backfill material in horizontal uniform layers not to exceed eight inches. Bring each layer up uniformly on all sides of the structure and thoroughly compact using pneumatic compaction or other approved methods. Moisten backfill prior to placing to insure maximum compaction. Puddling or water flooding for consolidation of the backfill will not be permitted.

3-6 TRENCH BACKFILL WITHIN CITY ROADS: Trench backfill within City roads shall be concrete slurry per City Standard Detail.

3-7 TRENCH WORK WITHIN STATE RIGHT OF WAY: Same as above or per City permit.

3-8 TRENCH WORK WITHIN PRIVATE ROADWAYS, DRIVEWAYS AND/OR IN OTHER TRAFFIC AREAS: None.

3-9 TRENCH WORK WITHIN NON-TRAFFIC EASEMENTS LOCATIONS: Bedding and initial backfill portions of the trench shall be compacted to a minimum compactive effort of 90%, as measured by California Test Method No. 216. The intermediate portion of backfill shall be compacted sufficiently to prevent settling of the trench backfill.

- 3-10 SHORING, SHEETING AND BRACING: When shoring or sheeting is used in the trench, the fill shall be carried to a height sufficient to prevent the surrounding ground from cracking or caving into the trench before the shoring or sheeting is removed.
- 3-11 CHECK DAMS: Check dams shall be constructed to reduce erosion along the surface of the new trench construction.
- 3-12 CLEANUP: Grade all areas disturbed to a finish ordinarily obtained from a blade grader with no abrupt changes in grade or irregularities that will hold water. Prior to final inspection and acceptance, remove all rubbish and excess material and leave area in a neat, satisfactory condition.

PART 4: MEASUREMENT AND PAYMENT

- 4-1 Per project agreement.

SECTION 02540 - EROSION CONTROL

PART 1: GENERAL

- 1-1 DESCRIPTION: This work shall consist of performing, erosion control, planting and other work necessary for improving the appearance of the disturbed areas and preserving the owner's investment.

Erosion control and planting shall be performed in accordance with these technical specifications, the Cal-Trans Standard Specifications, Section 21 (Latest Edition), the details shown on the plans, and as directed by the engineer.

PART 2: MATERIALS

- 2-1 TOPSOIL: Shall consist of fertile, friable soil of loamy character and shall contain an amount of organic matter normal to the region. It shall be obtained from well drained arable land and shall be reasonably free from subsoil, refuse, roots, heavy or stiff clay, stones larger than one inch in size, coarse sand, noxious seeds, sticks, brush, litter and other deleterious substances. Topsoil shall be capable of sustaining healthy plant life.
- 2-2 COMMERCIAL FERTILIZER: Shall conform to the requirements of the California Food and Agricultural Code. Commercial fertilizer for erosion control work shall be in pelleted or granular form and shall have a minimum guaranteed chemical analysis of sixteen percent (16%) nitrogen and twenty percent (20%) phosphoric acid. The fertilizer for erosion control work need not contain water-soluble potash.
- 2-3 FIBER: Unless otherwise specified, fiber shall be produced from non-recycled wood, such as wood chips or similar wood materials and shall not be produced from sawdust or from paper, cardboard, or other such materials. Fiber shall be of such character that the fiber will disperse into a uniform slurry when mixed with water. Water content of the fiber, before mixing into a slurry, shall not exceed fifteen percent (15%) of the dry weight of the fiber. The percentage of water in the fiber shall be determined by California Test 226. Commercially packaged fiber shall have the moisture content of the fiber marked on the package. Fiber shall be colored to contrast with the area on which the fiber is to be applied, shall be non-toxic to plant or animal life, and shall not stain concrete or painted surfaces.
- 2-4 SEED: All seed that is required to be labeled under the California Food and Agricultural Code, shall be labeled in accordance with said Code.

Before seeding, the contractor shall furnish written evidence (seed label or letter) to the engineer that seed, not required to be labeled under the California Food and Agricultural Code, conforms to the purity and germination requirements in the special provisions.

The percentage of seed germination shall include the germination percentage of any hard seed.

If seed conforming to the specified purity or germination is not readily available, seed with less than the specified purity or germination may be used under the following conditions:

- A. The application rate for such seed shall be increased to compensate for the less than specified purity or germination.
- B. Prior to using such seed, the contractor shall submit to the engineer the purity and germination percentages, and the proposed increased application rate for such seed.
- C. No such seed shall be used before the engineer has approved, in writing, the use of such seed and the increased application rate.
- D. The additional seed required because of the increased application rate shall be furnished and applied at the contractor's expense.

Seed specified without a purity or germination requirement shall be labeled to include the name, date (month and year) collected, and the name and address of the seed supplier. Said seed, at the time of sowing, shall be from the previous or current year's harvest.

All shipments of seed not accompanied by a valid California Nursery Stock Certificate shall be reported to the County Agricultural Commissioner at the point of destination for inspection and shall be held until released by the Commissioner.

Seed treated with mercury compounds shall not be used.

- 2-5 SEED SPECIES: The seed used for all outside of yard areas shall consist of 50% Blando Brome and 50% Annual Rye. Contractor to contact the Amador County Agricultural Commissioner for verification of seed mixture. Seed for yard areas shall be an approved lawn seed selected by the contractor and approved by the engineer.
- 2-6 Twelve (12) straw hay bales shall be kept on the site at all times when rainfall and runoff are eminent. Steel rods (three feet long) shall be used (two per bale) to hold bales down.

PART 3: EXECUTION

- 3-1 DESCRIPTION: This work shall consist of furnishing erosion Control materials; preparing slopes and planting areas; placing topsoil where necessary; applying fertilizer, seed, fiber; and planting all areas disturbed by construction. Erosion control work shall consist of mixing seed, fertilizer, fiber and water and applying said mixture by hand or with hydro-seeding equipment, at the contractor's option.
- 3-2 PREPARATION: Preparation shall include all work required to make ready the areas for erosion control materials.

Loose rocks larger than 2.5 inches in maximum dimension and debris on the surface of the ground shall be removed and disposed of outside the project.
- 3-3 SEEDING AND FERTILIZING: Hand-seeding or hydro-seeding shall consist of mixing and applying seed and commercial fertilizer with fiber and water.

The materials shall be applied uniformly at the following rates:

Seed: 100 pounds per acre
Fertilizer: 100 pounds per acre
Fiber: 500 pounds per acre

The quantity of water shall be as need for application.

Mixing of materials with hydro-seeding equipment shall be performed in a tank with a built-in continuous agitation system of sufficient operating capacity to produce a homogeneous mixture and a discharge system which will apply the mixture at a continuous and uniform rate.

- 3-4 PLACING STRAW BALES: Three (3) bales shall be placed at locations identified by the engineer if runoff occurs.

PART 4: MEASUREMENT AND PAYMENT

- 4-1 Per project agreement.

SECTION 02701 - ROADWAY REPAIR

PART 1: GENERAL

- 1-1 DESCRIPTION: The work of this section consists of the backfilling, compaction, grading and repaving of roadways damaged or destroyed during the construction of project elements and appurtenances.
- 1-2 RELATED WORK SPECIFIED ELSEWHERE: Section 02221 - Excavation, Trenching and Backfilling; Section 02233 - Watering; Encroachment Permits.
- 1-3 QUALITY ASSURANCE: California Business and Transportation Agency, Department of Transportation (Cal-Trans) Standard Specifications. Reference to Cal-Trans is for the purposes of specifying material requirements and methods only.

PART 2: MATERIALS

- 2-1 BACKFILL UNDER ROADWAYS: Shall be selected material approved by the Engineer and shall be free of humus, organic material and deleterious material.
- 2-2 AGGREGATE BASE COURSE: Shall comply with Standard Specifications Section 26-1.02B, Class 2 Aggregate Base and shall be 3/4 inch maximum.
- 2-3 PRIME COAT: Shall conform to Standard Specifications Section 93, Liquid Asphalts and shall be grade MC-70.
- 2-4 ASPHALTIC PAVEMENT: Shall conform to Standard Specifications Section 39, Asphaltic Concrete and shall be Type B, gradation .75 inch maximum medium. Asphalt shall be grade AR 4000. An equivalent cold mix shall be used for temporary paving.

PART 3: EXECUTION

- 3-1 BACKFILL: Shall be placed in accordance with Section 02221. The uppermost two feet of backfill shall be compacted to ninety-five percent (95%) of optimum density at optimum moisture content as measured in the field using AASHTO T-191, or as specified in the applicable Encroachment Permit.
- 3-2 AGGREGATE BASE: Shall be in accordance with Standard Specifications Section 26. Minimum depth shall be six inches for roadways.
- 3-3 PRIME COAT: Shall be in accordance with Standard Specifications Section 93 and shall be applied at the rate of .50 gallons per square yard, as directed for roadways.
- 3-4 ASPHALTIC PAVEMENT: All disturbed areas which were originally paved shall be repaved with minimum of two inches of asphalt concrete pavement for roadways. Asphalt concrete shall be in accordance with Standard Specifications Section 39. Finished pavement shall be spread and compacted in accordance with Standard Specifications Section 39-6 and 39-7.

At end of each day's work, temporary paving shall be placed in all areas where permanent paving will be placed.

PART 4: MEASUREMENT AND PAYMENT

4-1 Per project agreement.

SECTION 03306 - CONCRETE

PART 1: GENERAL

- 1-1 QUALITY ASSURANCE: Standards, American Concrete Institute (ACI), American Society for Testing and Materials (ASTM), and Federal Specifications (FS).
- 1-2 Coordinate these specifications with Section 90 of the Standard Specifications.

PART 2: MATERIALS

- 2-1 CEMENT: FS SS-CI92, Type I, Portland Cement, free from lumps.
- 2-2 AGGREGATE: Free from oil, alkali, organic matter, or other deleterious substances. Aggregate may consist of sand and gravel separately batched at construction site, central batching plant combined sand and gravel, or pit-run gravel, as approved, and well graded in accordance with Section 90-3.04 of the Standard Specifications, one inch maximum.
- 2-3 WATER: Potable.
- 2-4 REINFORCING STEEL BARS: FS QQ-S-632, Type II, Class B40, Intermediate, billet-steel, free from rust, scale or oil.
- 2-5 REINFORCING STEEL MESH: Welded steel fabric, ASTM A185, free from rust, scale or oil. Fabric, steel wire, FS RR-W- 375.
- 2-6 FORMS: Steel, plywood, or other approved material.
- 2-7 CURING COMPOUNDS: In accordance with Section 90-7 of the Standard Specifications.
- 2-8 ADMIXTURES: In accordance with Section 90-4 of the Standard Specifications.

PART 3: EXECUTION

- 3-1 FORMS: Construct true to line and grade, sufficiently rigid to prevent deformation under load or vibration placement of concrete. Clean and oil forms before placing concrete.
- 3-2 REINFORCING STEEL: Clean, place and secure, using metal chairs, spacers, or other approved devices. Tie wire, eighteen-gauge minimum, black annealed wire. Bending, splicing, and protection, ACI 318. Provide dowels in foundations for all vertical bars. Place reinforcement as indicated or directed.
- 3-3 PROPORTIONING AND CONTROL: Concrete, minimum of six 94-pound sacks (I. 5 barrels) of cement per cubic yard of concrete. Maximum allowable net water content, including water in aggregate, 6.5 gallons of water per sack of cement. Roadway deck slabs shall have a minimum of seven 94 pound sacks of cement per cubic yard of concrete.

- A. Consistency: Determine consistency in the field by the slump test, ASTM C143. Slump for vibrated concrete, two to four inches; for non-vibrated concrete, two to five inches.
- B. Strength: During pouring of the concrete, the contractor shall prepare standard test cylinders, which shall accurately represent the concrete placed in the forms. For each 75 cubic yards, or portions, poured each day in each separate structure, four standard cylinders shall be cast. Casting, handling, and curing of all cylinders shall be in accordance with ASTM C31. Additional cylinders may be required if an error in batching is suspected. The engineer may require that the test cylinders be prepared by inspection personnel.

Cylinders shall be tested for strength by a recognized testing laboratory at the contractor's expense and certified copies of the results shall be submitted to the engineer. One test cylinder from each group of four shall be tested at the end of seven days and three shall be tested at the end of twenty-eight days, all in accordance with ASTM C39. The minimum compressive strength for slabs and walls shall be 3000 pounds per square inch and all other structure shall be minimum 2400 pounds per square inch.

- 3-4 **MIXING**: Mix cement, aggregate, and water in an approved mechanical mixer for a minimum of 1.5 minutes before concrete placement. For small quantities, hand mixing may be permitted with approval. Remove entire content of drum before filling with materials for a succeeding batch. Mix concrete only in quantities required for immediate use. Retempering of concrete will not be permitted.
- 3-5 **PLACING**: With minimum handling, place concrete within thirty minutes after mixing. Do not drop freely more than five feet. Place concrete footings on surfaces free of mud, loose or unsound rock, or other detrimental substances. Thoroughly tamp or vibrate concrete in forms.
- 3-6 **FORMS REMOVAL**: After concrete has set, minimum twelve hours, remove forms when and as directed.
- 3-7 **CURING**: Prevent rapid drying by covering exposed surfaces with craft paper, mats, earth, wet burlap, or an approved membrane curing compound for at least seven days.
- 3-8 **PROTECTION**: After placement in forms, maintain concrete at a temperature of fifty degrees Fahrenheit for a period of seventy-two hours, and at a temperature above thirty-two degrees Fahrenheit for an additional period of three days.

PART 4: MEASUREMENT AND PAYMENT

- 4-1 Per project agreement.

SECTION 15060 - PIPE AND PIPE FITTINGS

PART 1: GENERAL

- 1-1 DESCRIPTION: The work of this section includes furnishing and installing all pipe, fittings and other appurtenances where replacement is found to be the most cost effective means of rehabilitation.
- 1-2 QUALITY ASSURANCE: See individual sections in Division 15.
- 1-3 RELATED WORK SPECIFIED ELSEWHERE: Excavation, Trenching and Backfilling - Section 02221; Concrete - Section 03306; Gravity Sewer - Section 15403.

PART 2: MATERIALS

- 2-1 PIPING: Cast iron, ductile iron or plastic pipe may be used. Alternative materials will be reviewed on a case by case basis.
- 2-2 PIPE FITTINGS: Fittings to be manufactured by the pipe manufacturer or to their specifications. Other appurtenances shall have special adapters which are compatible with both fittings and pipes. All metal fittings shall be bituminous coated and lined.

PART 3: EXECUTION

- 3-1 INSTALLATION: Shall be in accordance with the pipe manufacturer's recommendations, these specifications and the engineer's direction.
- 3-2 CLEANING: All cleaning shall be accomplished prior to testing and shall be in accordance with individual pipe sections.
- 3-3 TESTING: According to Section 15403 for the respective pipe.
- 3-4 DISINFECTION: No disinfection is required for any pipeline work.

PART 4: MEASUREMENT AND PAYMENT

- 4-1 Per project agreement.

SECTION 154030- GRAVITY SEWERS

PART 1: GENERAL

- 1-1 DESCRIPTION: The work of this section consists of furnishing and installing PVC pipe for the gravity flow sewer lines and furnishing and installing ductile iron pipe at locations where shown on and detailed in the plans.
- 1-2 RELATED WORK SPECIFIED ELSEWHERE: Excavation, Trenching and Backfilling, Section 02221; Watering, Section 02233; Clearing and Grubbing, Section 02102; Concrete, Section 03306; Pipe and Pipe Fittings, Section 15060; Roadway Repair, Section 02701.
- 1-3 QUALITY ASSURANCE: References, American National Standards Institute (ANSI); American Water Works Association (AWWA); and manufacturer's printed recommendations.

PART 2: MATERIALS

- 2-1 PIPE: Pipe and pipe fittings of the type, class and size shown on the plans shall conform to the respective specifications and other requirements specified below.

PVC sewer pipe shall conform to the requirements of ASTM Designation D3034, Type PSM of the size as shown on the plans. Pipe joints shall be an integral part of the pipe, joining with an O-ring.
- 2-2 At locations where shown on and detailed in the plans, the contractor shall install the below listed pipe.
 - A. Ductile iron pipe shall conform to the requirements of ANSI Standards A21.50 and A21.51, thickness Class 5. The pipe shall be bell and spigot with a tyton joint conforming to the requirements of ANSI Standards A21.11. Pipe shall have a coal-tar epoxy lining in conformance with AWWA Standards C210.
- 2-3 At locations shown on the plans, furnish and install casing of the size shown, meeting the requirements of the State Department of Transportation.
- 2-4 PRECAST CONCRETE MANHOLES:
 - A. Precast concrete manhole parts shall conform to the requirements of ASTM Designation C478 or AASHTO Designation M199, using Type II cement conforming to ASTM Designation C150.
 - B. Manhole Joints: Precast manhole shall be a commercial joint compound. Cement mortar shall consist of one part Portland cement and two parts sand by volume. Sand shall be well-graded and of such size as will pass a No. 8 sieve and shall conform to the strength requirements of AASHTO Designation M45.
 - C. Miscellaneous Iron and Steel Items: Shall conform to the dimensions and details shown on the plans, and as specified herein:

Cast iron for manhole frames and covers and cleanout frames and covers shall conform to the requirements for Class 30 gray iron castings, as specified in ASTM Designation A48. The castings shall be thoroughly cleaned and coated with commercial quality, asphaltum paint. Frames and covers shall fit into their frames without rocking.

- 2-5 FLEXIBLE COUPLINGS: Shall be Smith-Blair flexible cast iron couplings series 411, Dresser Style 38, or equal or in locations where no evidence of high ground water exists, flexible couplings made of virgin poly-vinyl chloride installed with stainless steel clamps may be used.

PART 3: EXECUTION

- 3-1 EXCAVATION, TRENCHING AND BACKFILLING: Excavation of trenches, backfilling and compacting for gravity sewers shall be in accordance with the applicable requirements of Section 02221 - Excavation, Trenching and Backfilling.
- 3-2 PIPE LAYING: Shall proceed upgrade with the spigot ends of bell and spigot pipe painting in the direction of the flow. If the maximum width of the trench at the top of the pipe, specified in Section 02221, is exceeded for any reason other than by direction, the contractor shall install, at no additional cost to the owner, such higher strength pipe or improved bedding as may be required to satisfactorily support the added load of the backfill. Trenches shall be kept free from water, and pipe shall not be laid when the condition of the trench or the weather is unsuitable for such work. As work progresses, a 9 gage galvanized steel locator wire shall be installed under the centerline of all non-metallic pipe in the trench.
- A. Alignment: Each pipe shall be laid true to line and grade and in such manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line. Alignment and grade shall be obtained by plumbing and measuring from a tightly stretched wire or line running parallel with the flow line grade, and supported over the center line of the sewer by batterboards or bars accurately placed and firmly fastened in place across the trench.
- B. Pipe Cleaning: As the work progresses, the interior of the sewer pipe shall be cleared of all dirt and superfluous materials of every description. At times when work is not in progress, or where pipe stub-outs have been constructed, open ends of pipe and fittings shall be securely and satisfactorily closed so that no trench water, earth or other substances will enter the pipe or fittings.
- 3-3 JOINTING: The inside of bells or couplings, gasket grooves, gaskets and spigot ends shall be cleaned prior to joining pipe. All jointing surfaces shall be lubricated and the joint assembled as recommended by the respective pipe manufacturer.
- 3-4 MANHOLES: Manholes shall be constructed in the location and to the dimensions shown on the plans. The precast units shall be assembled accurately, with full-bed commercial joint compound. All manhole bases shall be four way precast units.

The top of the manhole covers shall be accurately brought to the elevations indicated on the plans, or if no elevations are indicated, they shall be brought flush with the surface of the surrounding pavement. Manholes located outside paved areas shall be constructed to a cover grade six inches above the surrounding ground. Manholes shall be constructed

with not more than twelve inches of throat section between the top of the cone and the base of the frame.

All precast concrete manhole parts and cast iron frames and covers, which are removed per plans, shall be returned to the owner. All precast concrete manhole parts and cast iron frames and covers, which are removed, shall be shipped to suitable storage site, as specified by the owner.

- 3-5 AREAS REQUIRING FILL: Areas requiring fill so as to provide protection for the pipe or manholes shall be filled with import or select excavated material similar to normal backfill material to the required grade as shown on the plans. Grading, spreading and compacting shall be as approved by the engineer.
- 3-6 PAVEMENT RESTORATION: Pavement, bases and subgrade cut or damaged during the construction of sewer facilities, shall be replaced as specified in Section 02701. Where permanent pavement cannot be placed within 24 hours after backfilling, temporary pavement shall be placed and then removed when permanent paving is installed.
- 3-7 CLEANING SEWER LINES: Pressure sewer shall be flushed with water and "balled" to ensure that all dirt, debris and obstructions are removed. Such work shall be performed in the presence of and to the satisfaction of the engineer; and the contractor shall notify said party at least one working day in advance of starting the cleaning work. Water for flushing shall be furnished and paid for by the contractor.
- 3-8 LEAKAGE TESTS: Gravity sewers and manholes shall be initially tested by the contractor for tightness after they have been completed and backfill has been placed.

All tests shall be witnessed and approved by the engineer. Water, air and equipment for tests shall be furnished and paid for by the contractor.

- A. Air Test for Gravity Sewer Lines: Shall be performed in accordance with the following:

Before this test is performed, the pipe installation shall be cleaned in the following manner:

The contractor shall furnish an inflatable rubber ball of a size that will inflate to fit snugly into the pipe to be tested. The ball may, at the option of the contractor, be used without a tag line; or a rope or cord may be fastened to the ball to enable the contractor to know and control its position at all times. The ball shall be placed in the last cleanout or manhole on the pipe to be cleaned, and water shall be introduced behind it. The ball shall pass through the pipe with only the force of the water impelling it. All debris flushed out ahead of the ball shall be removed at the first manhole where its presence is noted. In the event cemented or wedged debris, or a damaged pipe shall stop the ball, the contractor shall remove the obstruction.

Test: The contractor shall furnish test plugs; an air compressor; and personnel for conducting the acceptance test under the direction of the owner. The owner shall furnish the test gauge; stopwatch; and the supervision of the test.

Immediately following the pipe cleaning described, the pipe installation shall be tested with low-pressure air. Air shall be slowly supplied to the plugged pipe installation until the internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe. At least two minutes shall be allowed for temperature stabilization before proceeding further.

The rate of air loss shall then be determined by measuring the time interval required for the internal pressure to decrease from 3.5 to 3.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe.

The pipeline shall be considered acceptable, when the time interval for the decrease in pressure exceeds that shown in the table below:

<u>Pipe Size (Inches)</u>	<u>Time</u>
4	2 min. 32 sec.
6	3 min. 50 sec.
8	5 min. 6 sec.
10	6 min. 22 sec.
12	7 min. 39 sec.

If leakage is greater than that specified above, the defective joints shall be located and repaired until the leakage is within the specified allowance, without additional cost to the owner.

- B. Manhole Leakage: All manholes shall be tested for leakage. This test shall be made by plugging all openings in the manholes, filling same with water and checking the loss in a one-hour period. The loss shall not exceed 0.25 gallons, per foot of depth, per hour. Manhole leakage in excess of the allowable maximum shall be corrected by repairs and retesting, as required.
- C. Alternate Manhole Leakage Test Method: An acceptable leakage test method for the manholes shall be by the negative air pressure (vacuum) test method. Testing shall be per ASTM Standard C924 and "Standard Practice for Testing Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test" as prepared by Mel C. Marshall Industrial Consultants, Inc. Testing apparatus and printed detailed testing procedures are available from Teichert Precast (916) 386-6964.

- 3-9 Following completion of each line, connect new line to old line with the least amount of disturbance to existing customers. Notify City maintenance and cooperate in determining an appropriate time for the changeover.

PART 4: MEASUREMENT AND PAYMENT

4-1 MEASUREMENT:

- A. General: Work covered by this section will not be accepted until backfilling and tests connected with the work have been completed satisfactorily. Any section of the sewer that is found defective in material, alignment, grade or joints before acceptance shall be satisfactorily corrected by the contractor at no additional cost to the owner.
- B. Gravity Pipe: Gravity pipe of the respective sizes and types will be measured in place along the surface of the pipe by the linear foot. The measurement will be continuous through all manholes, except that said measurement will be taken to center only of manholes where sewer lines terminate.
- C. Manholes: Will be measured on the basis of each manhole type completely installed. The cost of plugged sewer stubs shall be included in the unit price bid for manholes.

All precast concrete manhole parts and cast iron frames and covers, which are removed per plans, shall be returned to the owner. All precast concrete manhole parts and cast iron frames and covers, which are removed, shall be shipped to suitable storage site, as specified by the owner.

- D. Casing: Will be measured for the respective sizes in place.

4-2 PAYMENT:

Per project agreement.

17.00 DESIGN STANDARDS - LANDSCAPING

Project specific tree, landscaping, and irrigation plans shall be provided in accordance with the requirements of City of Sutter Creek Municipal Code Section 13.24. All plans are to be prepared by a qualified landscape person and submitted to the City for approval. Upon plan approval, all trees, landscaping, and irrigation system defined therein shall be constructed by the project proponent. All landscaping must be installed prior to issuance of a building permit certificate of occupancy.

18.00 STANDARD DETAILS: STREETS, STORM DRAIN, SEWER

Index of Standard Detail Drawings

STREET DETAILS:

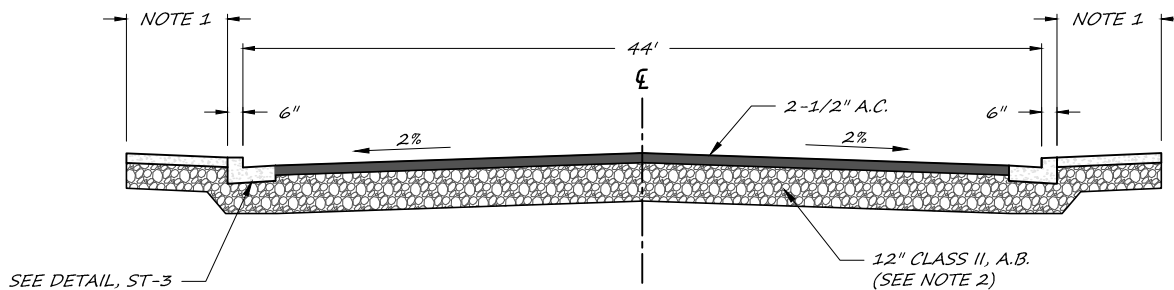
Typical Street Sections	ST-1
Typical Locations of Underground Utilities	ST-2
Curb, Gutter, & Sidewalk	ST-3
Typical Ramp Driveways	ST-4
Standard Residential Driveway Approach.....	ST-5
Driveway Profile.....	ST-6
Standard Driveway for Hillside Lots	ST-7
Standard Cul-De-Sac	ST-8
Intersection Bulb.....	ST-9
Standard Street Sign Detail.....	ST-10
Standard Street and Stop Sign Post Detail.....	ST-11
Standard Cross Gutter	ST-12
Standard Guard Panel	ST-13
Trench Restoration.....	ST-14
Street Light.....	ST-15

STORM DRAIN DETAILS:

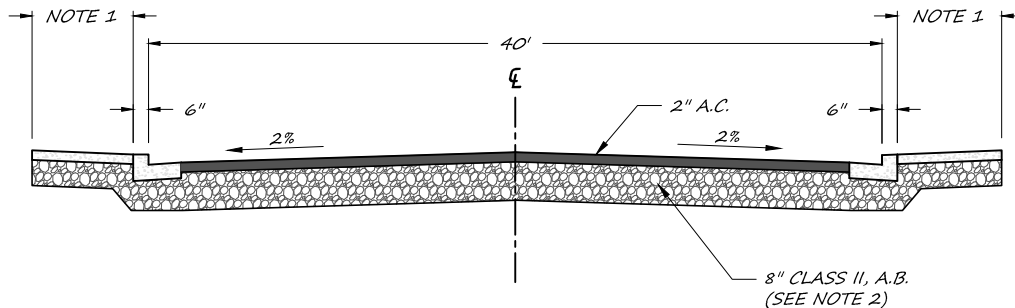
Drain Inlet Box	SD-1
Storm Drain Manhole	SD-2
Curb & Grate Inlet	SD-3
Under Walk Drain.....	SD-4
Storm Drain Outfall	SD-5
Rainfall Intensity Chart.....	SD-6

SANITARY SEWER DETAILS:

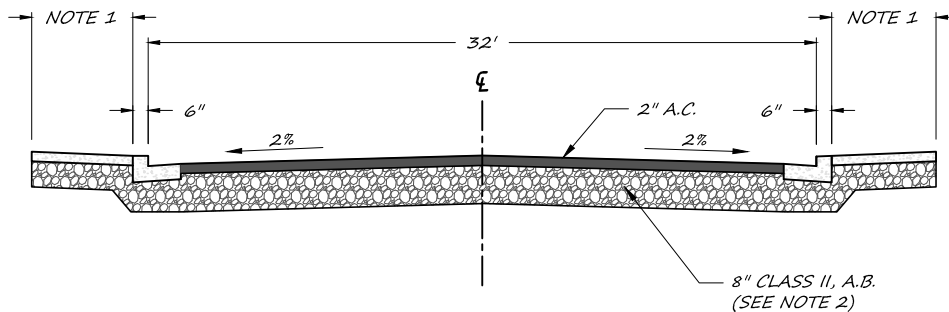
Standard Sewer Manhole Detail	SS-1
Sewer Service Detail.....	SS-2
Cleanout to Grade	SS-3
Trench Detail	SS-4
Minimum Coverage Section	SS-5
Water Main Crossing Detail	SS-6
Sewer Notes	SS-7



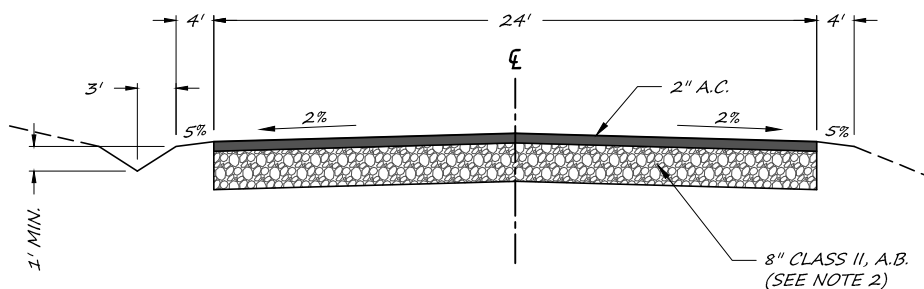
ARTERIAL



COLLECTOR



LOCAL



LOCAL RURAL

NOTES :

1. 6' COMMERCIAL
4' RESIDENTIAL
2. MINIMUM STRUCTURAL SECTION, PER CITY STANDARDS, ACTUAL STRUCTURAL SECTION TO BE BASE UPON R-VALUE TESTING.
3. SUBGRADE AND A.B. UNDER CURB, GUTTER & A.C., SHALL BE COMPACTED TO 95% R.C.

CITY OF SUTTER CREEK

TYPICAL STREET SECTIONS

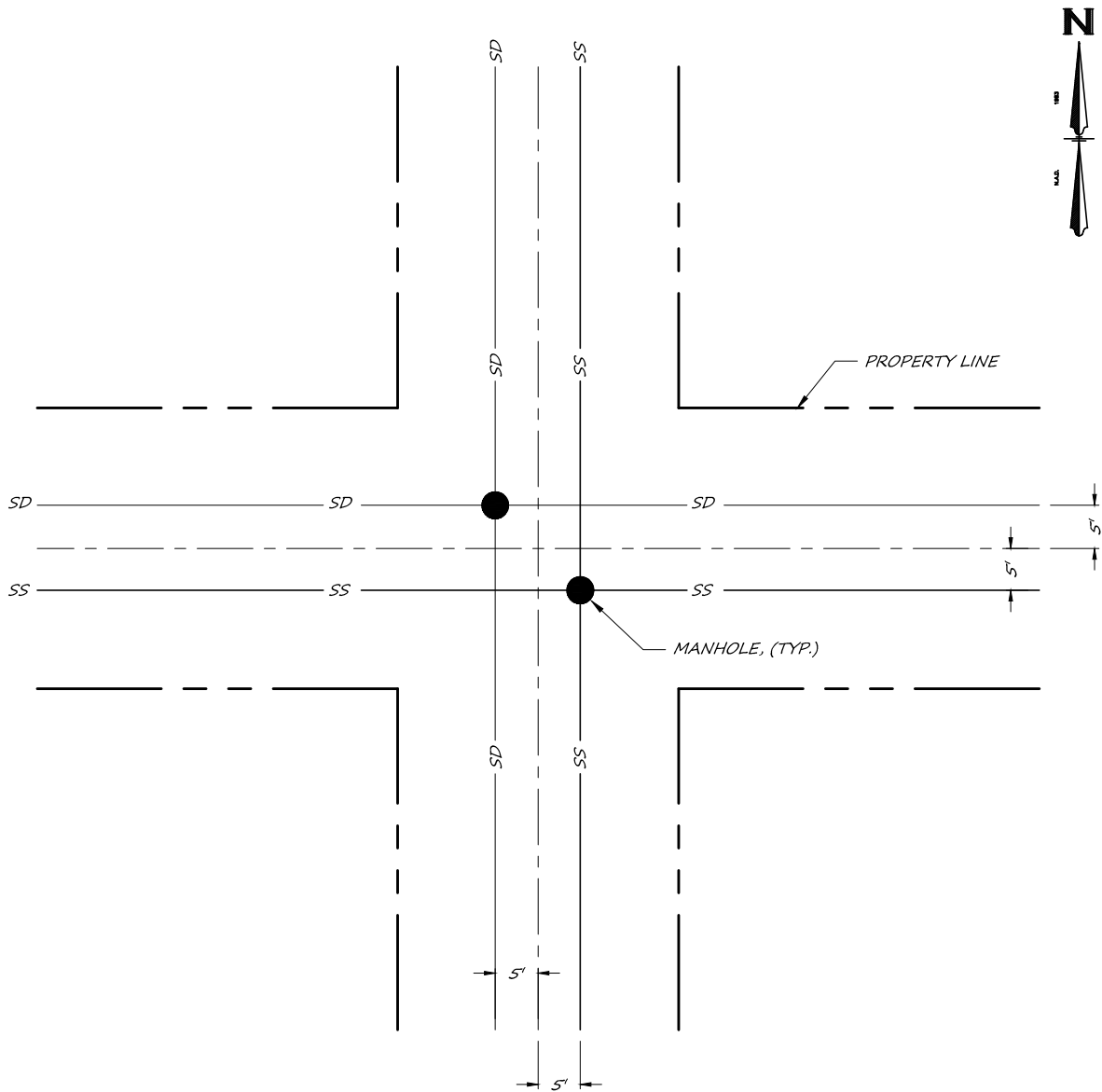
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LEGEND :

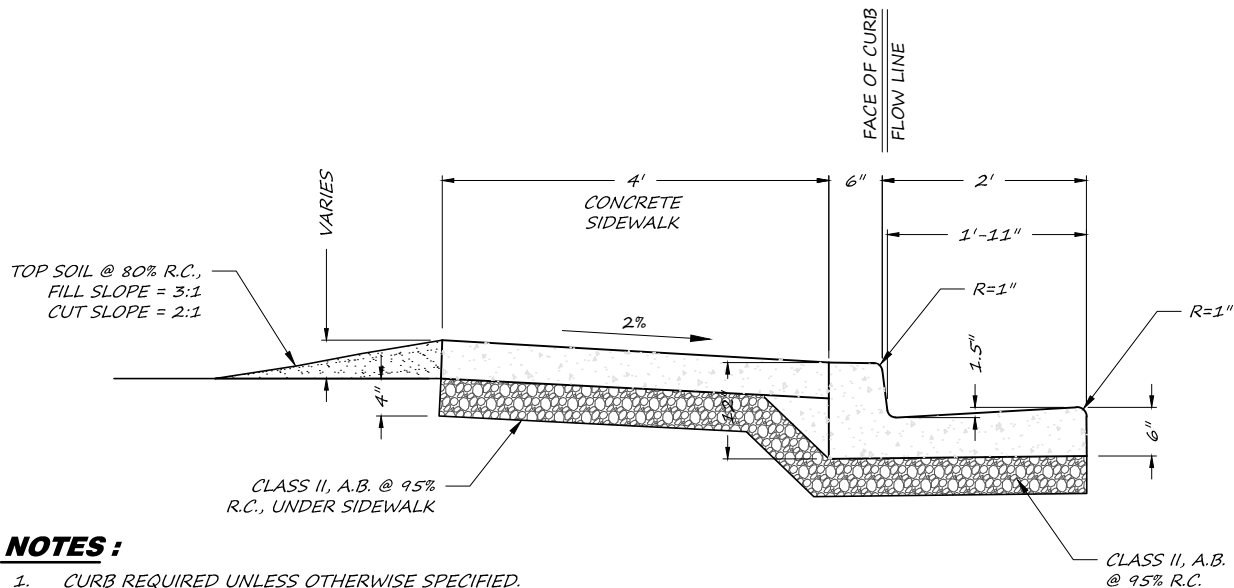
STORM DRAIN, (SD) ——— SD ———
 SANITARY SEWER, (SS) ——— SS ———
 STREET CENTERLINE — - - - -
 PROPERTY LINE — - - - -

NOTES :

1. DEVIATIONS FROM THE STANDARD LOCATIONS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.

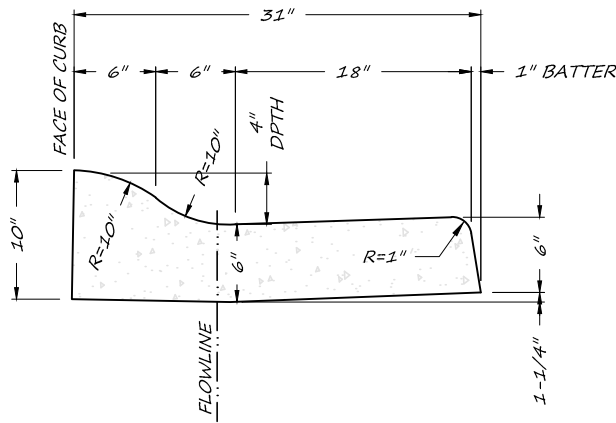
CITY OF SUTTER CREEK
TYPICAL LOCATION OF
UNDERGROUND UTILITIES

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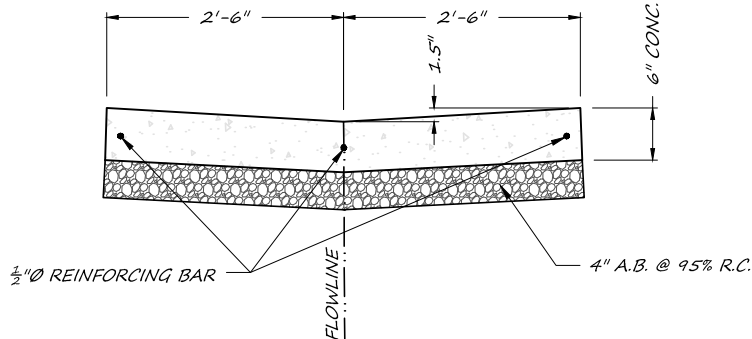


NOTES :

1. CURB REQUIRED UNLESS OTHERWISE SPECIFIED.
2. LOCATE $\frac{1}{2}$ " TRANSVERSE EXPANSION JOINTS OF ASPHALT IMPREGNATED CELOTEX IN SIDEWALK, CURB AND GUTTER AT 20' INTERVALS.
3. ALL CONCRETE TO BE CLASS "B" OR BETTER.
4. FORMS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLACEMENT OF CURB AND GUTTER.



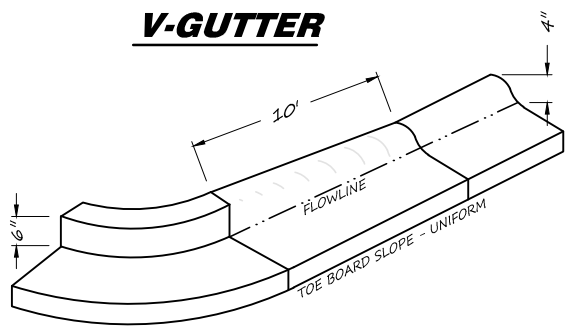
ROLLED CURB & GUTTER



V-GUTTER

NOTES :

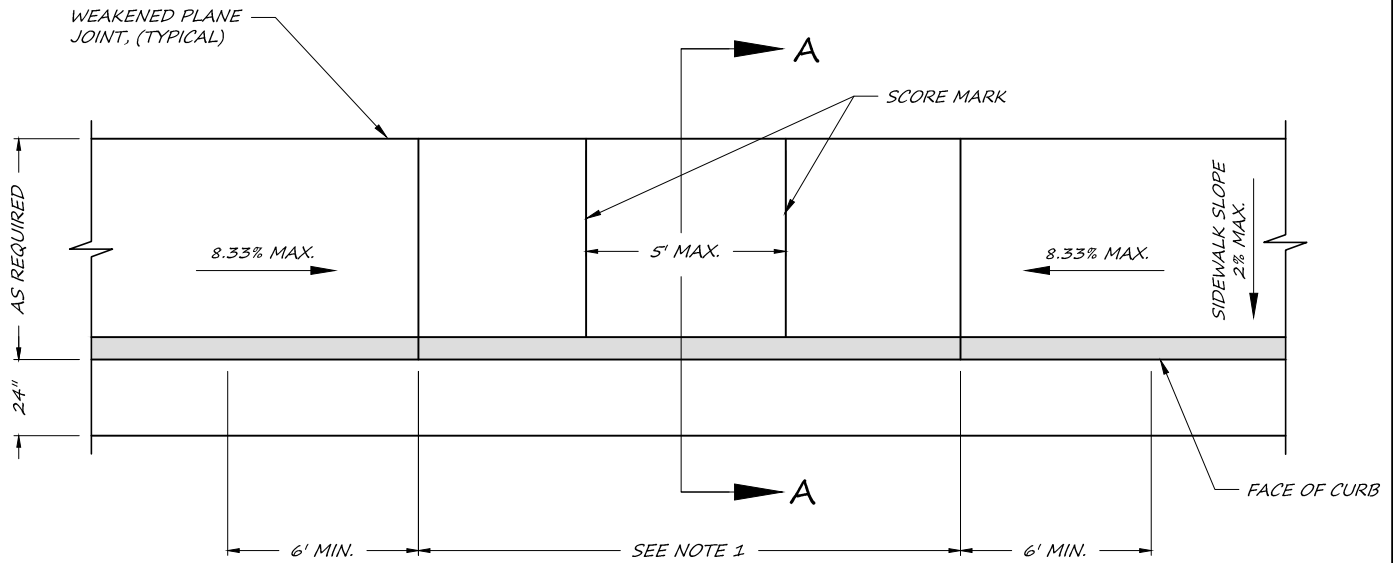
1. VERTICAL CURB AND GUTTER SHALL BE USED AT ALL CURB RETURNS.
2. $\frac{1}{2}$ " EXPANSION JOINT AT BOTH ENDS & MIDPOINT OF CURB RETURN
3. $\frac{1}{2}$ " WIDE EXPANSION JOINTS MAXIMUM INTERVAL 60'
4. $\frac{5}{8}$ " SCORED CONTROL JOINTS MAXIMUM INTERVAL 10'
5. GUTTER PAN WIDTH MAY BE REDUCED WITH APPROVAL OF CITY ENGINEER



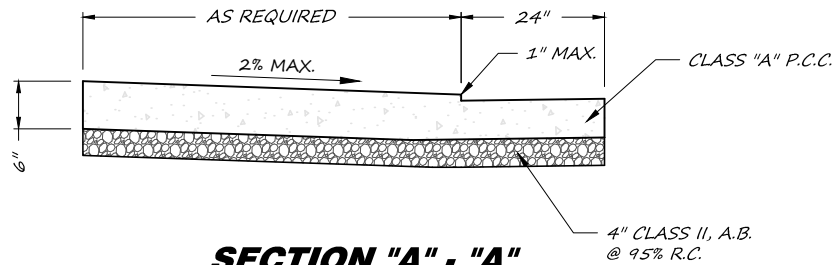
TRANSITION FROM ROLLED CURB & GUTTER TO VERTICAL CURB & GUTTER AT CURB RETURNS

**CITY OF SUTTER CREEK
CURB, GUTTER, AND SIDEWALK**

			ST
REV No.:	DATE:	BY:	3



PLAN



SECTION "A" - "A"

NOTES :

1. MINIMUM DRIVEWAY WIDTH SHALL BE 16' FOR RESIDENTIAL AND 24' FOR COMMERCIAL. MAXIMUM WIDTH SHALL BE 30'.
2. DRIVEWAY TO CONFORM WITH EXISTING SIDEWALK UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
3. IF SIDEWALK EXISTS, IT SHALL BE REMOVED AND REPLACED WITH PORTLAND CONCRETE 6" THICK
4. WHERE HIGH STREET CROWN EXISTS, DRIVEWAY RAMP MAY BE EXTENDED TO BACK OF SIDEWALK
5. WHERE DRIVEWAY PROVIDES ACCESS TO A ONE-WAY STREET, APPROPRIATE SIGNS AS SPECIFIED BY THE CITY ENGINEER WILL BE REQUIRED.
6. DRIVEWAY RAMP SHALL BE AS WIDE AS EXISTING DRIVEWAY INTO YARD, ROUNDED UP TO NEXT EVEN FOOT. (10' MINIMUM).
7. IN EVENT OF OBSTRUCTIONS IN PARKWAY, (E.G. POWER POLES ETC.), WIDTH MAY BE MODIFIED TO MEET EXISTING CONDITIONS.
8. PARKWAY WARP WINGS SHALL BE 3' FOR 6" OR HIGHER CURB. FOR 4-1/2" CURB, WARP WINGS SHALL BE 2'.
9. WHEN IT IS NOT POSSIBLE TO PROVIDE 2 LINEAL FEET OF FULL CURB HEIGHT, (WITH STANDARD 3' WARPS ON EITHER SIDE) BETWEEN ADJACENT DRIVEWAYS, A COMMON DRIVEWAY SHALL BE INSTALLED.
10. FINE HAIR BROOM FINISH ON ALL DRIVEWAYS

CITY OF SUTTER CREEK

TYPICAL RAMP DRIVEWAYS

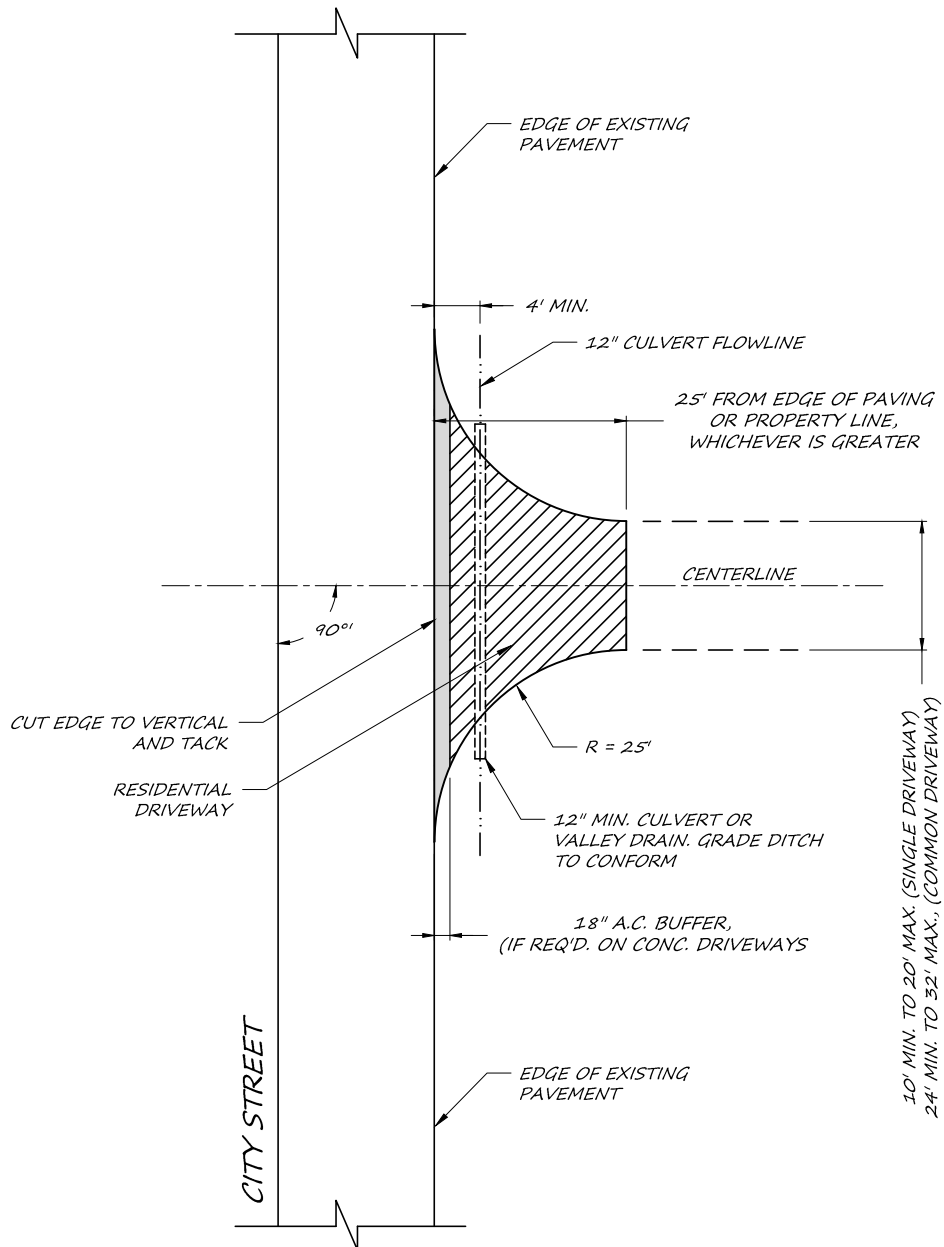
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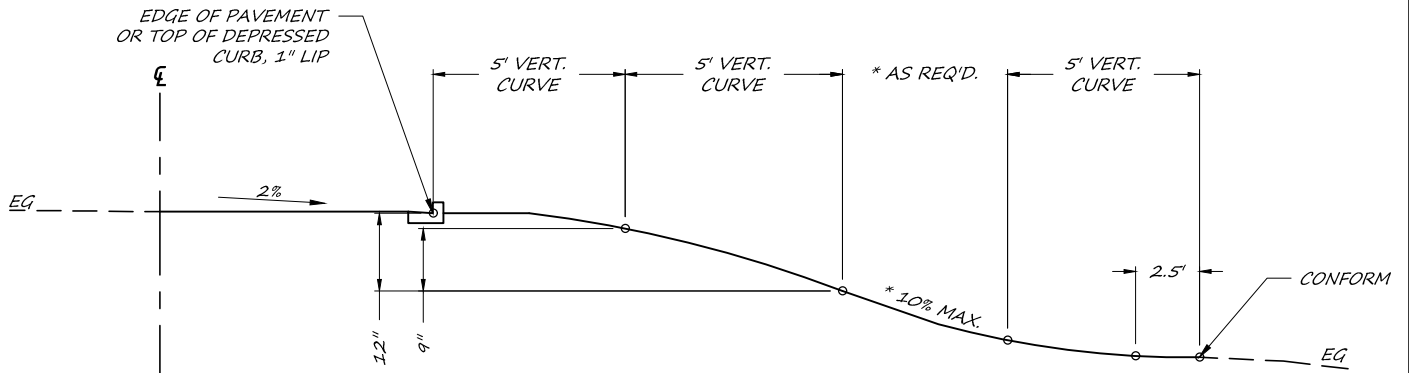


NOTES :

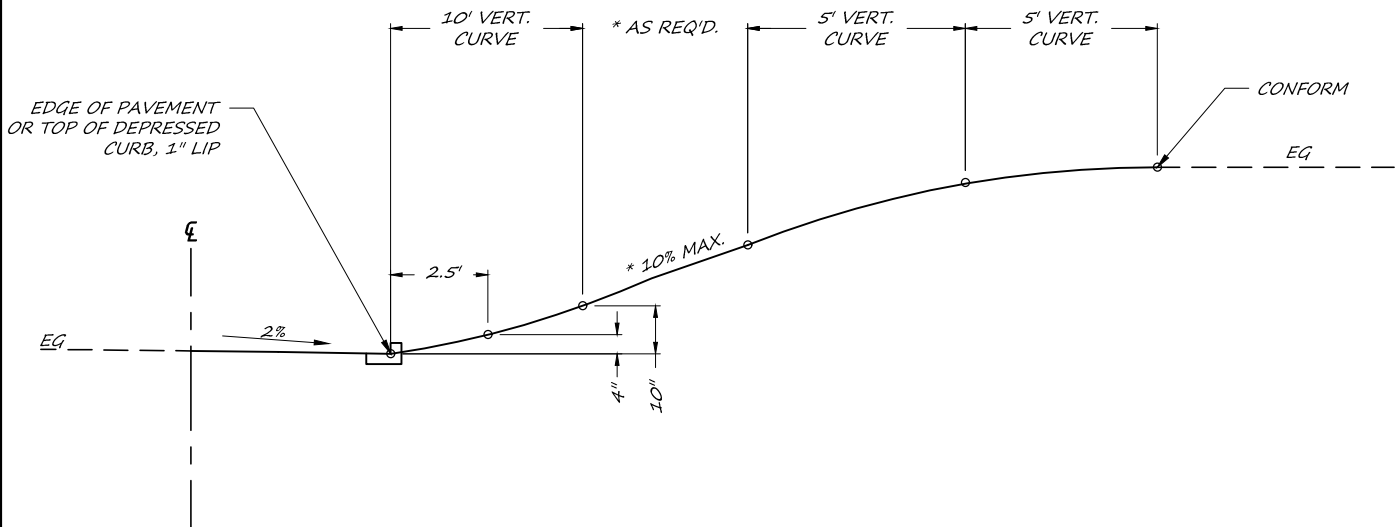
- APPROACH SHALL BE CONSTRUCTED FROM ONE OF THE FOLLOWING:
 - 2" A.C. OVER 4" CLASS II A.B.
 - 6" CONCRETE w/6" x 6" x 10GA MESH OVER 2" CLASS II A.B.
 - ALTERNATE DESIGN SUGGESTED AND APPROVED BY THE CITY.
- SUBGRADE INSPECTION IS REQUIRED BEFORE PLACING A.B.
- A BASE ROCK OR SAND LEVELING COURSE INSPECTION IS REQUIRED BEFORE PLACING A.C. OR CONCRETE.
- ALL WORK SHALL BE IN CONFORMANCE WITH CITY STANDARDS.
- DRIVEWAY APPROACH SHALL BE AT 90° OR AS NEAR AS 90° AS POSSIBLE.
- PERPETUAL MAINTENANCE IS THE RESPONSIBILITY OF THE PERMITTEE.

CITY OF SUTTER CREEK STANDARD RESIDENTIAL DRIVEWAY APPROACH

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DESCENDING DRIVEWAY

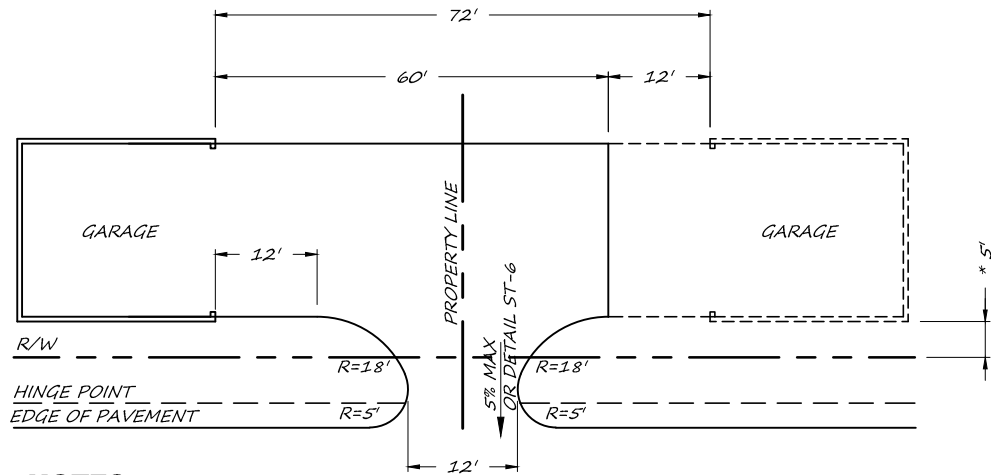


ASCENDING DRIVEWAY

* GRADE CHANGE OF 8% MAX. IN 10'.

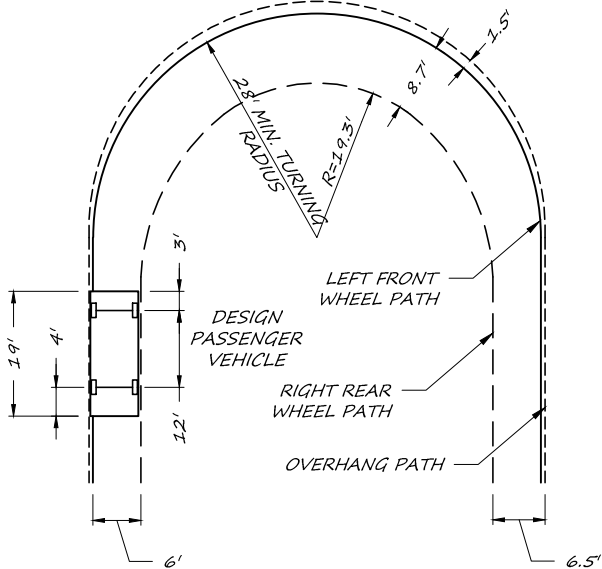
CITY OF SUTTER CREEK
DRIVEWAY PROFILE

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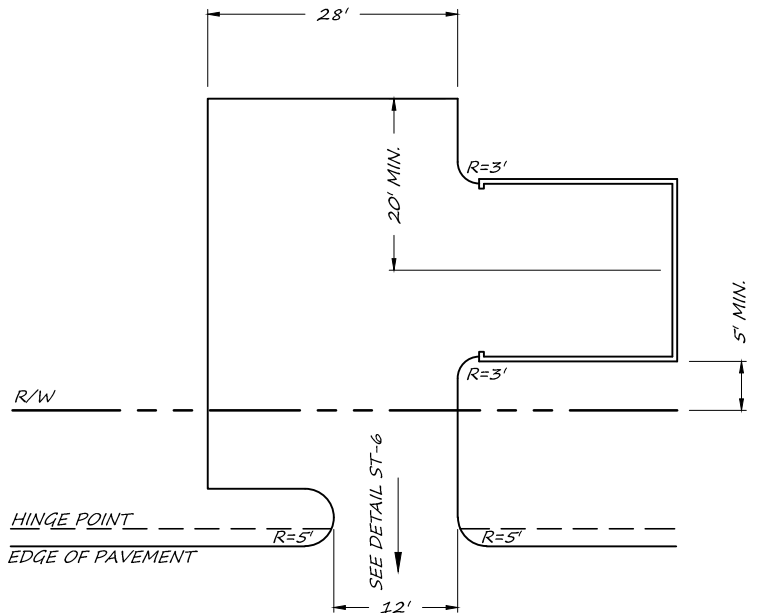


NOTES :

1. PROPERTY LINE AT CENTERLINE OF DRIVEWAY ONLY WHEN BOTH OWNERS USE SAME DRIVEWAY
2. * DEPENDS ON SETBACK REQUIREMENT



OTHER DRIVEWAY DESIGNS MAY BE APPROVED BASED ON THIS STANDARD



NOTE :

1. THESE STANDARDS APPLY ONLY WHEN GARAGE AND TURNING AREA ARE NEAR ROAD GRADE AND NEAR R/W.

**CITY OF SUTTER CREEK
STANDARD DRIVEWAYS
FOR HILLSIDE LOTS**

			ST 7
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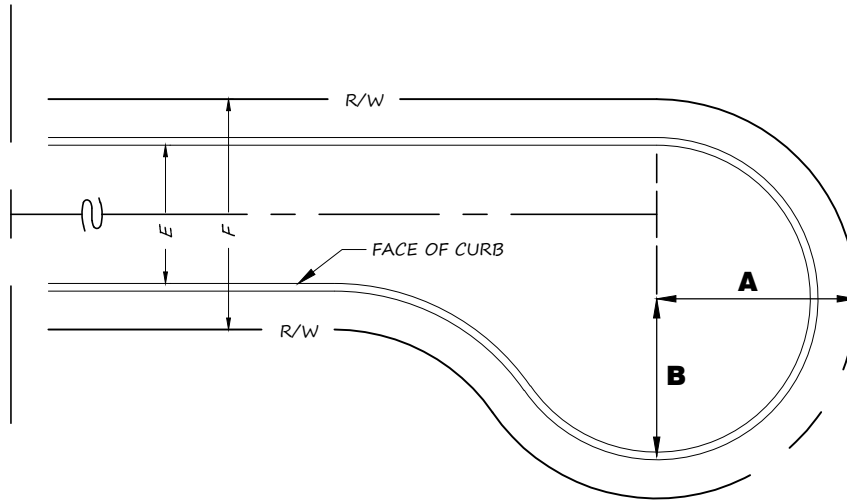
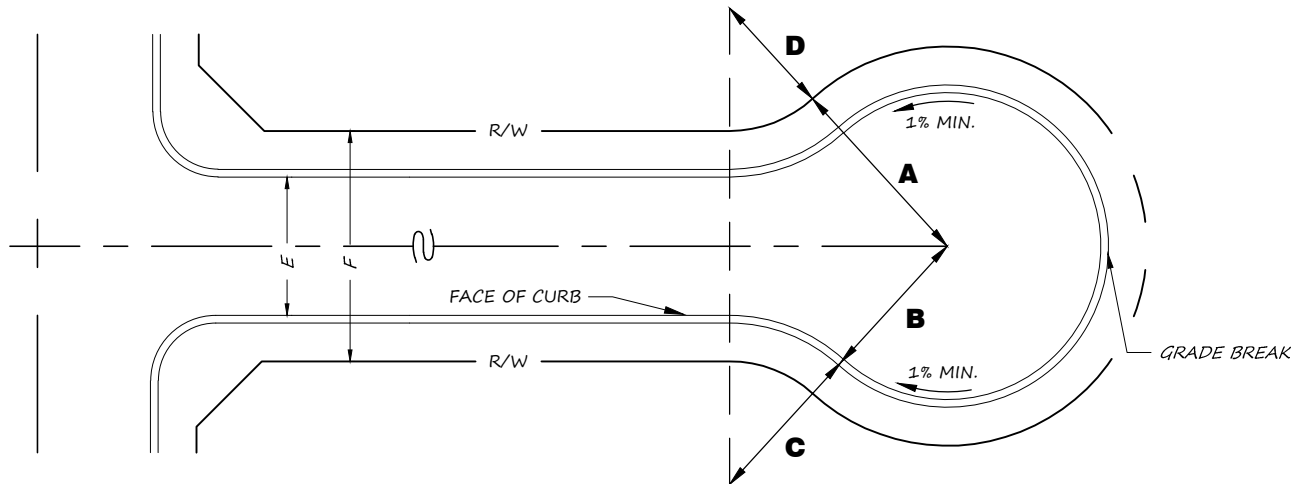


TABLE OF DIMENSIONS			
A	B	C	D
50'	40'	32'	20'

NOTES:

1. NO MORE THAN 20 SINGLE FAMILY RESIDENCES MAY BE SERVED BY A CUL-DE-SAC STREET, (OR A TEMPORARY DEAD-END STUBBED STREET).
2. DIMENSION "E" & "F" SUBJECT TO SPECIFIC PROJECT APPROVAL.
3. 500' MAXIMUM LENGTH TO CENTERLINE OF INTERSECTING STREET.
4. GUTTER SLOPE AROUND CUL-DE-SAC SHALL BE 0.005 FT./FT. MINIMUM
5. BULB DIAMETER TO BE 104' AT PROPERTY LINE.

CITY OF SUTTER CREEK

STANDARD CUL-DE-SAC

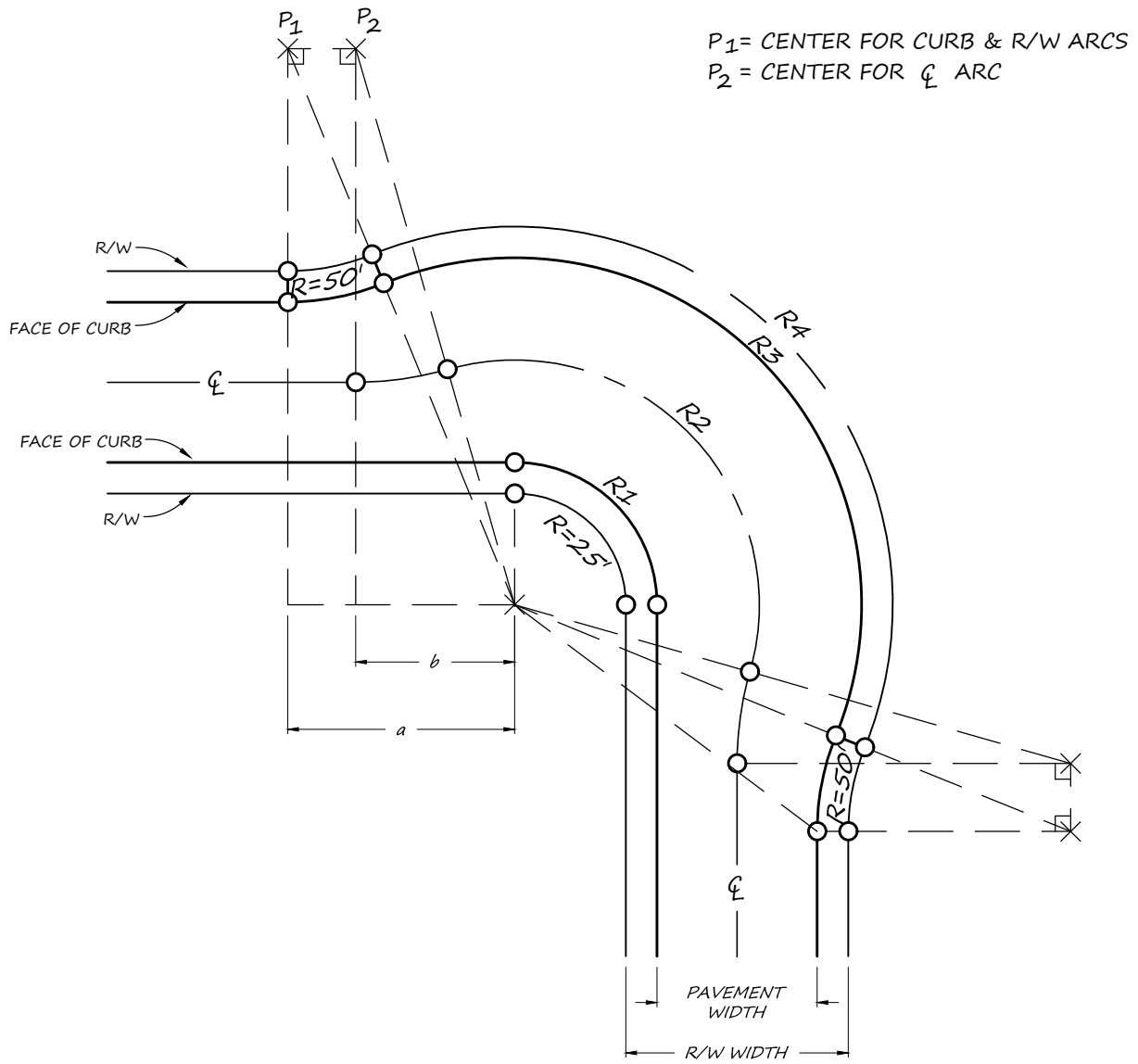
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8

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BY:



R/W WIDTH	PAVEMENT WIDTH	R_1 CURB	R_2 ℓ	R_3 CURB	R_4 R/W	a	b	P_1 TO P_2
60'	40'	35'	60'	85'	95'	52.91'	37.10'	15.81'
50'	32'	25'	60'	79'	85'	62.91'	47.10'	15.81'

NOTES:

1. KNUCKLE DIMENSIONS TO VARY PROPORTIONALLY WITH OTHER R/W AND PAVEMENT WIDTHS.
2. OTHER R/W AND PAVEMENT WIDTHS SUBJECT TO APPROVAL BY CITY ENGINEER.

CITY OF SUTTER CREEK

INTERSECTION BULB

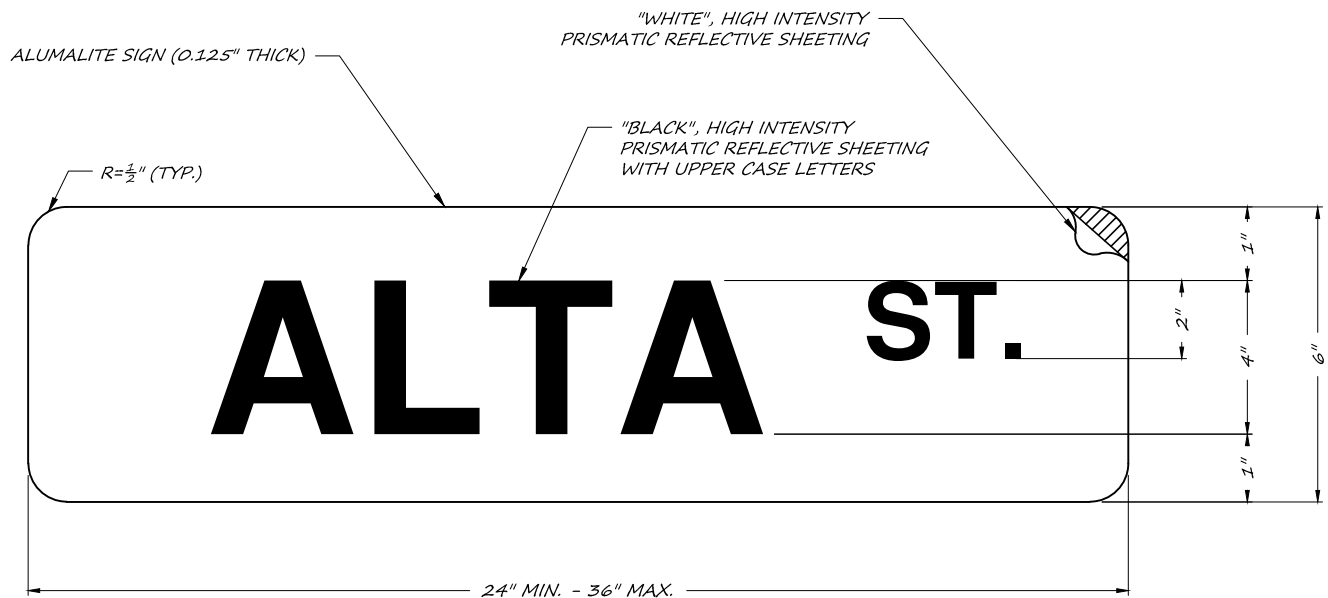
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NOTES :

1. SIGNS SHALL BE PRINTED ON BOTH SIDES.
2. ALLEN HEAD SCREWS AFFIXING THE SIGN TO THE HARDWARE & CAP TO THE PIPE SHALL BE TIGHTENED, WITH HOLES THEN BEING FILLED WITH A "LIQUID METAL", IN SUCH A MANNER THAT THEIR REMOVAL IS RENDERED IMPOSSIBLE.
3. SEE STANDARD SIGN POST DETAIL ST-11..
4. CENTER LETTERS ON SIGN AND LEAVE $\frac{1}{2}$ " MIN. MARGIN ON BOTH ENDS.
5. 8-1/2" WITH BLOCK NUMBERS, BLOCK NUMBERS MAY BE REQUIRED BY CITY OR FIRE DISTRICT. BLOCK NUMBER & ARROW SHALL BE LOCATED AT THE TOP CENTER OF THE SIGN.

CITY OF SUTTER CREEK

STANDARD STREET SIGN DETAIL

ST

10

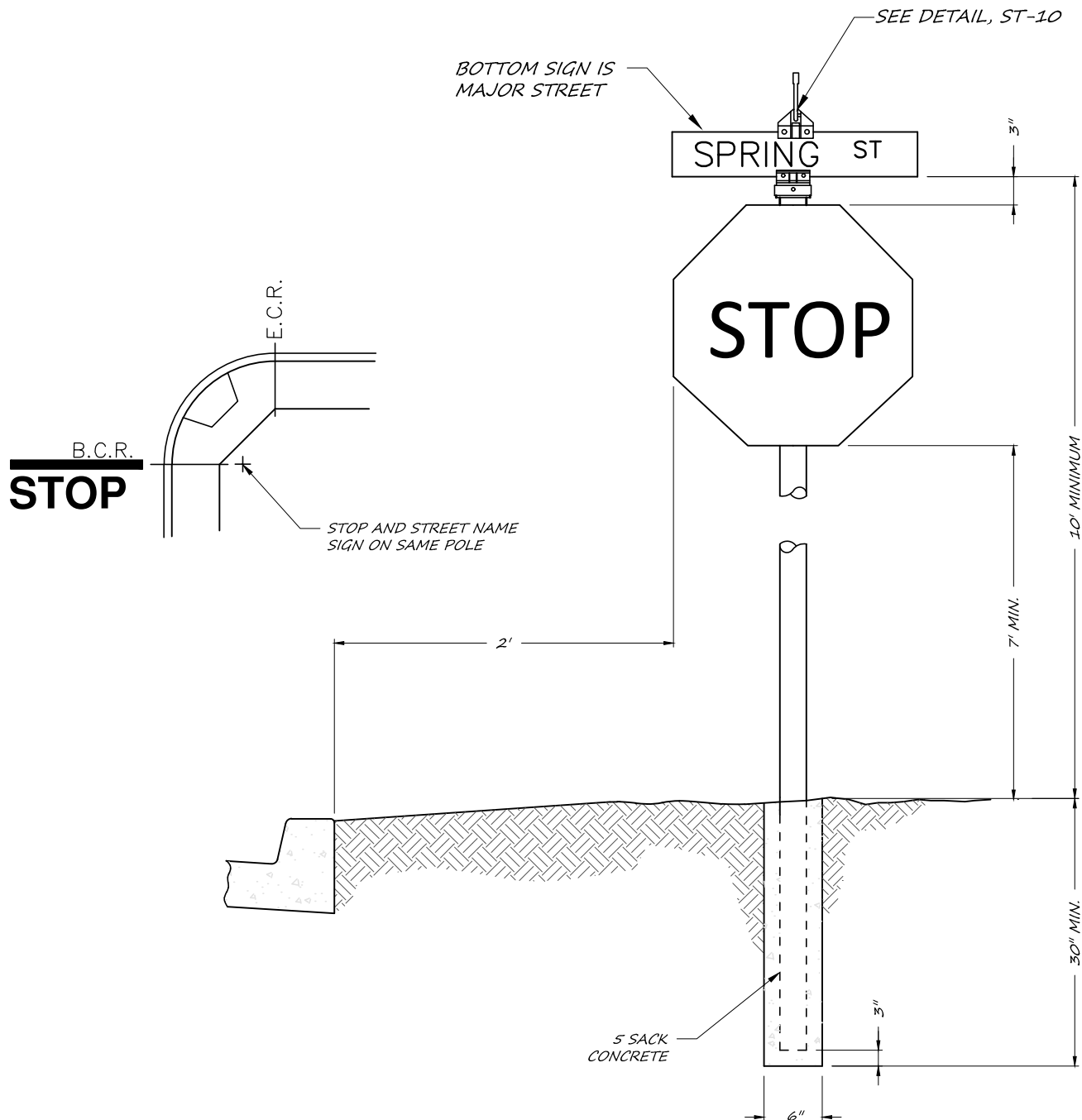
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NOTES :

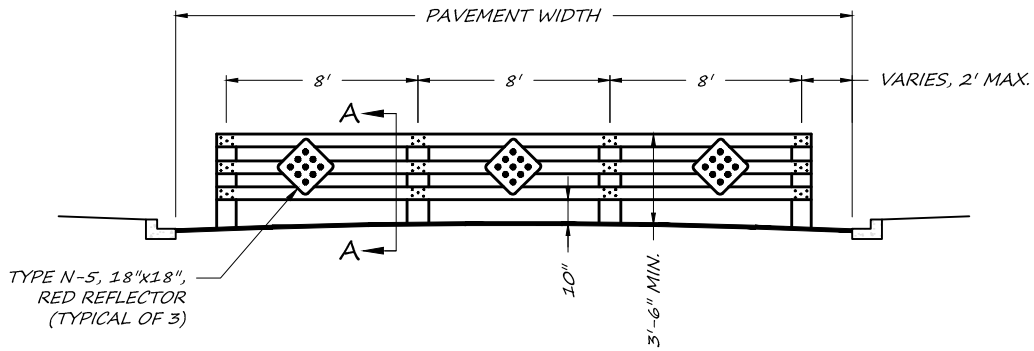
1. STOP SIGN SHALL BE 30" FOR ALL STREET TYPES.
2. HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING SHALL BE USED ON ALUMINUM 0.080".
3. USE STANDARD 2" I.D. GALVANIZED IRON PIPE.
4. STOP BAR & "STOP" PER CALTRANS STANDARD DETAIL.



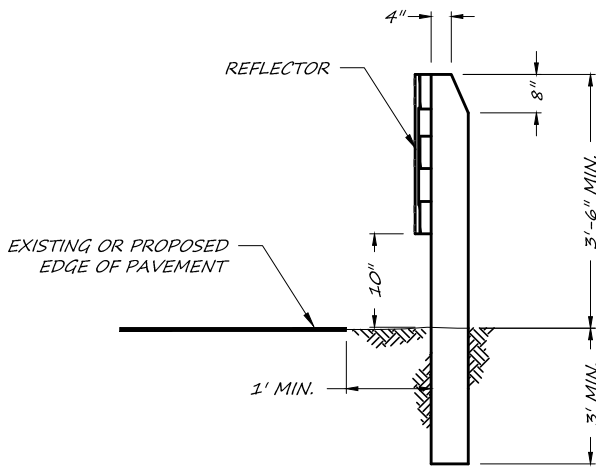
**CITY OF SUTTER CREEK
STANDARD STREET AND STOP SIGN
POST DETAIL**

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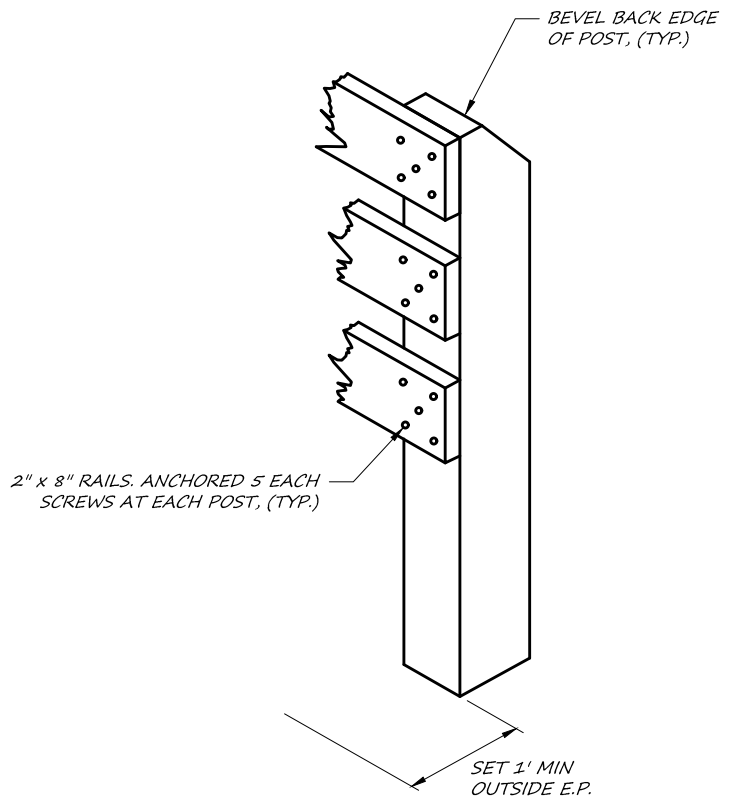
BY:



FRONT ELEVATION



SECTION "A" - "A"



ISOMETRIC

NOTES :

1. RAILS TO BE 2" x 8" CLEAR DOUGLAS FIR S4S, AND POSTS TO BE 6" x 6" PRESSURE TREATED DOUGLAS FIR.
2. BUTT ALL RAIL JOINTS ON CENTER OF POSTS, AND ADD ADDITIONAL SCREWS AS DIRECTED.
3. ALL EXPOSED WOOD SHALL BE PAINTED WHITE, 2 COATS OF EXTERIOR ALKYD RESIN HI-GLOSS ENAMEL OR APPROVED EQUAL.
4. STANDARD TYPE N-5, 18" x 18" REFLECTOR TO BE CENTERED BETWEEN BARRICADE POSTS..

CITY OF SUTTER CREEK

STANDARD GUARD PANEL

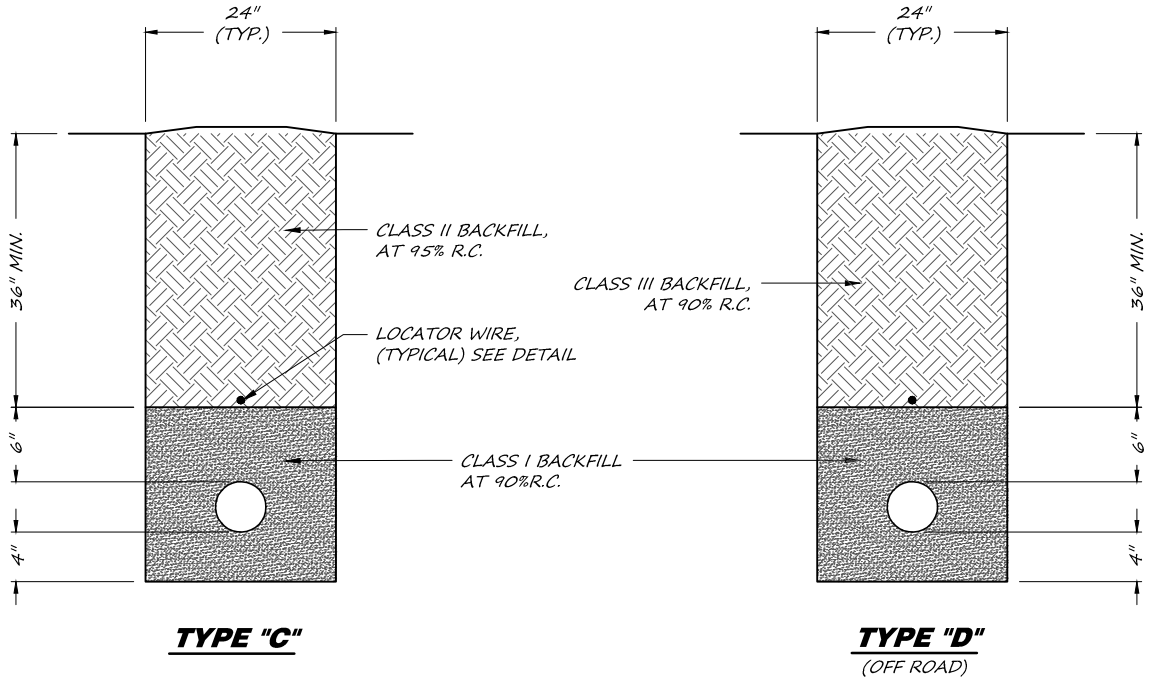
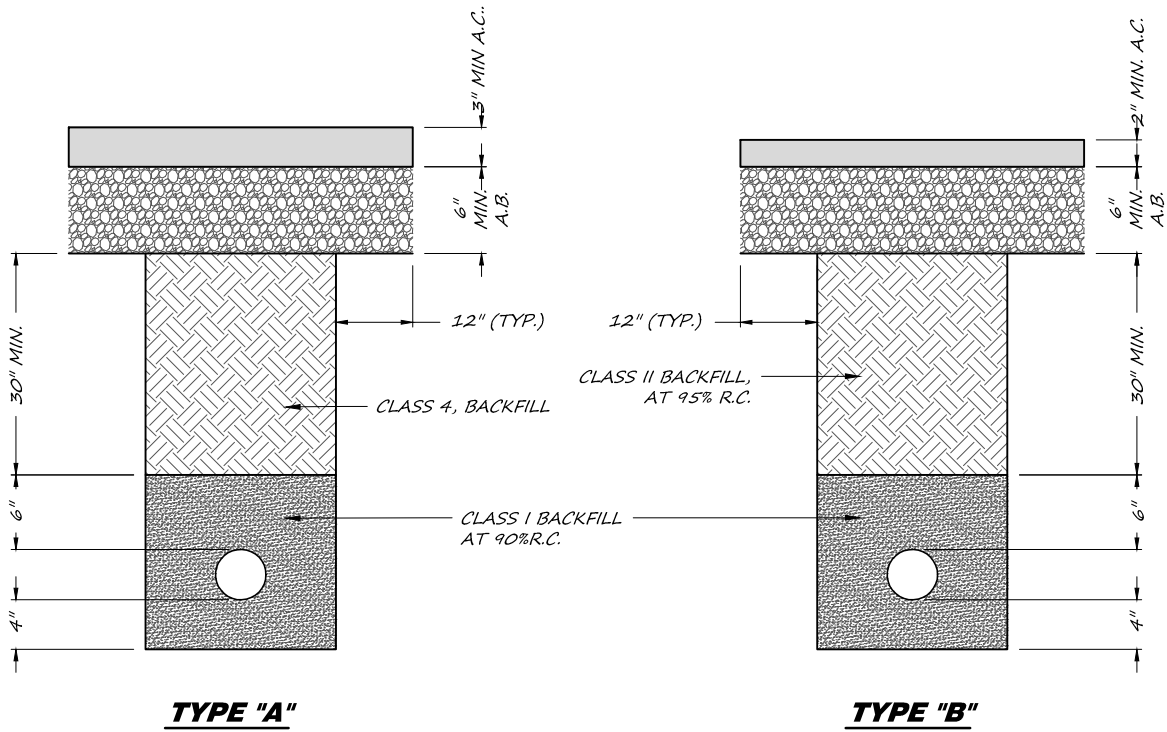
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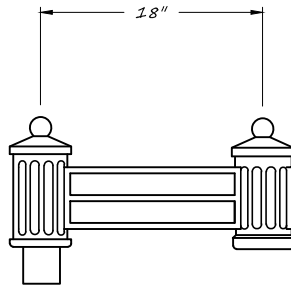
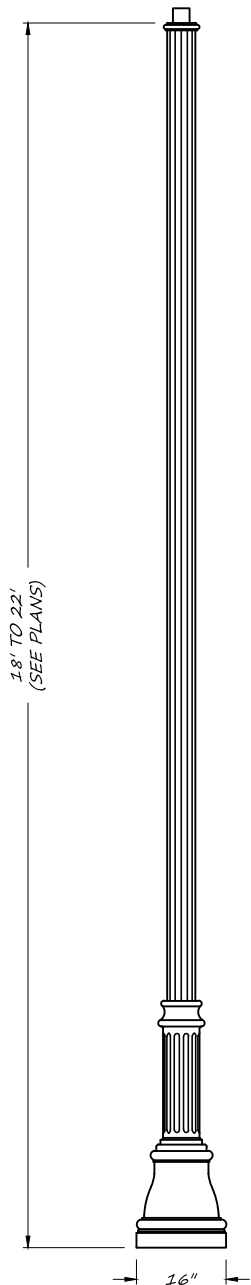
CITY OF SUTTER CREEK

TRENCH RESTORATION

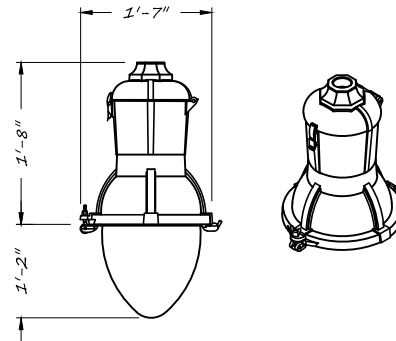
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REV No.:	DATE:	BY:	

NOTES :

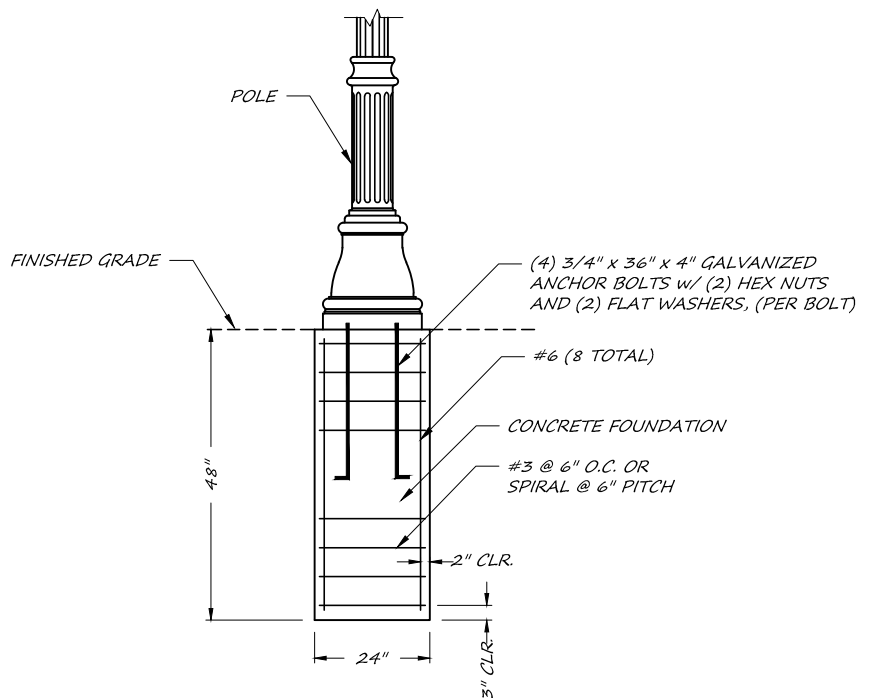
1. ASTM A307 ANCHOR BOLTS ARE REQUIRED FOR EACH POLE. PROVIDE A HEX NUT, LEVELING NUT AND (2) WASHERS FOR EACH BOLT.
2. HAND HOLES SHALL BE ORIENTED ON THE POLE SO THAT A TECHNICIAN FACING THE HAND HOLE IS ALSO FACING ONCOMING TRAFFIC.
3. CAP SCREWS SHALL BE TIGHTENED BY THE TURN-OFF-NUT METHOD, 1/3 TURN TO FORM A SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
4. DURING POLE ERECTION, THE POST SHALL BE RAKED AS NECESSARY WITH THE LEVELING NUTS TO PROVIDE A PLUMB POLE AXIS.
5. ELECTROLIER IDENTIFICATION DECALS TO BE ASSIGNED BY PG&E.
6. OUTSIDE DIAMETER WALL THICKNESS AND CORRESPONDING SECTION PROPERTIES AS SHOWN IN THE CITY STANDARDS ARE MINIMUMS UNLESS OTHERWISE SPECIFIED, ALTERNATIVE SECTIONS REQUIRE APPROVAL BY THE CITY ENGINEER.
7. STREET LIGHT LUMINAIRE SHALL BE LED AND SOLAR POWER WHERE POSSIBLE.



**BRACKET ARM,
(PHILADELPHIA)**



**TEARDROP LUMINAIRE,
(MEMPHIS)**



**CHARLESTON,
STYLE 5" EXTRUDED ALUMINUM POLE**

**FOUNDATION DETAIL
FOR CITY DECORATIVE STREETLIGHT**

CITY OF SUTTER CREEK

STREET LIGHT

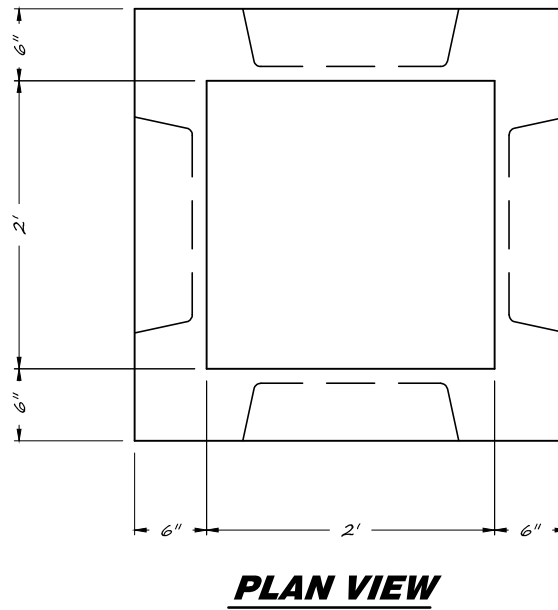
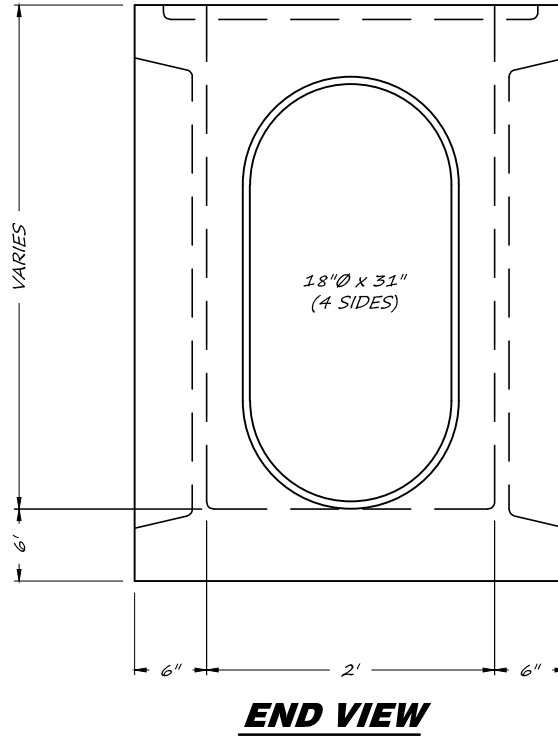
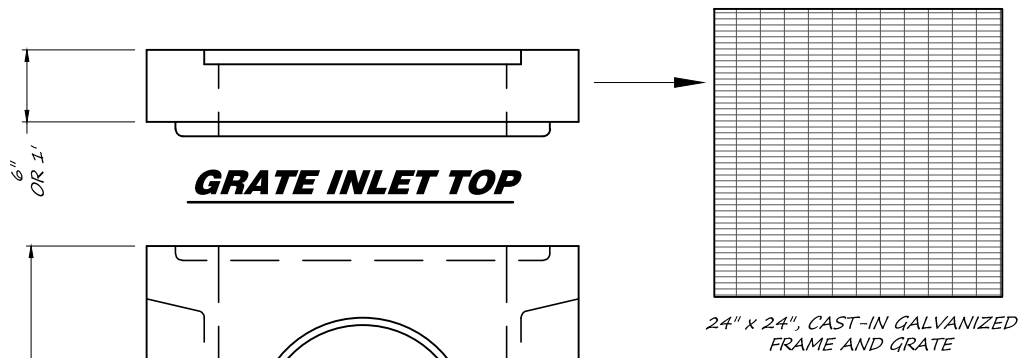
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DATE:

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CITY OF SUTTER CREEK

DRAIN INLET BOX

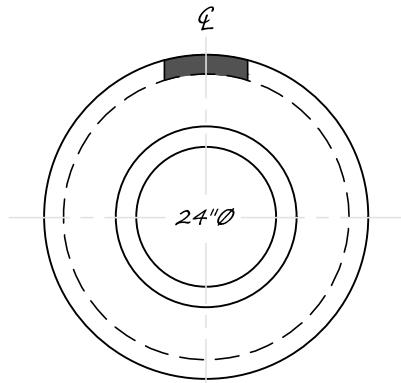
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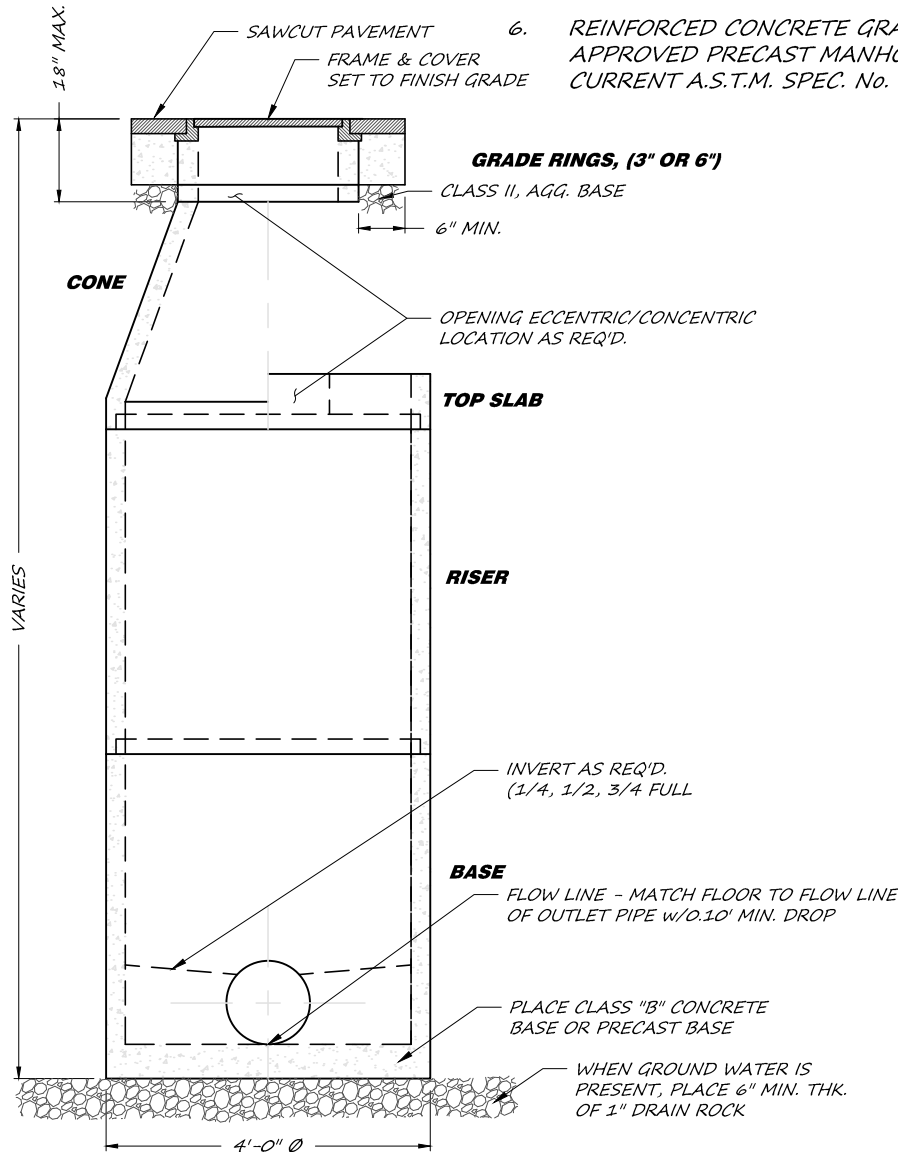
BY:



PLAN VIEW

NOTES :

1. ALL JOINTS BETWEEN PRECAST SECTIONS SHALL BE MORTARED, INSIDE AND OUTSIDE.
2. INTERIOR OF THE MANHOLE SHALL HAVE A SMOOTH TROWELED SURFACE.
3. MANHOLE COVER SHALL HAVE THE WORDS "STORM DRAIN" MOLDED INTO THE COVER, WITH PICK HOLE AND EDGE HOLE.
4. PIPES LARGER THAN 24" REQUIRE A SPECIAL DESIGN.
5. CONSTRUCT STORM DRAIN BOX WITH DECK AND KEY FOR PRECAST TAPERED CONE, FOR A FULL DECK BEARING. ALL CONSTRUCTION JOINTS TO BE APPROVED BY CITY ENGINEER.
6. REINFORCED CONCRETE GRADE RINGS, CONES, PIPE RISERS OR APPROVED PRECAST MANHOLE SECTIONS SHALL CONFORM TO CURRENT A.S.T.M. SPEC. No. C-478.



ELEVATION VIEW

CITY OF SUTTER CREEK

STORM DRAIN MANHOLE

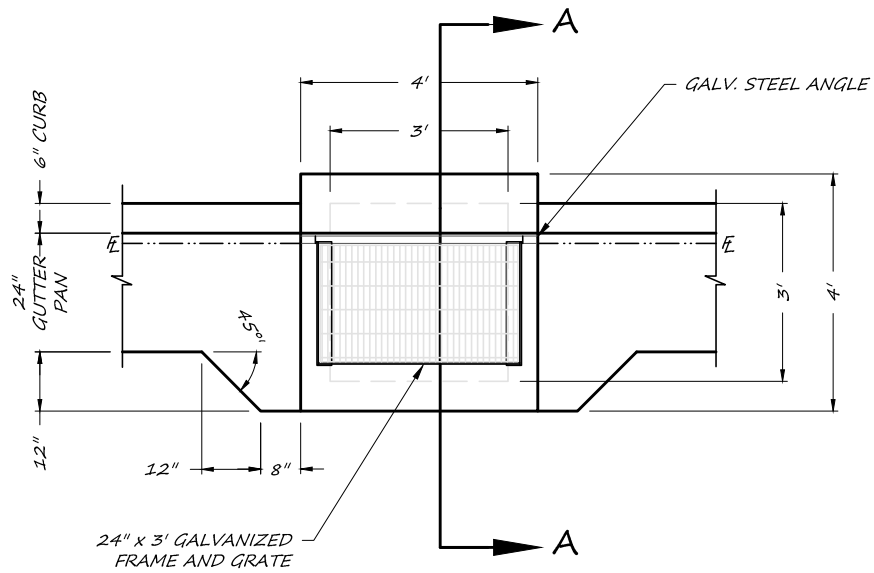
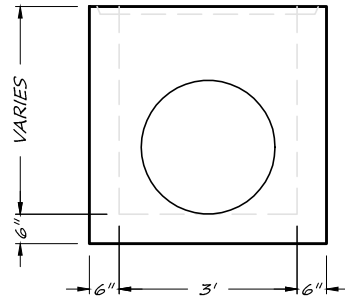
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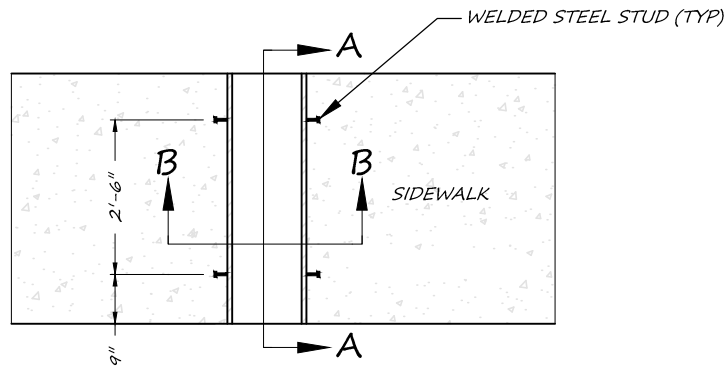
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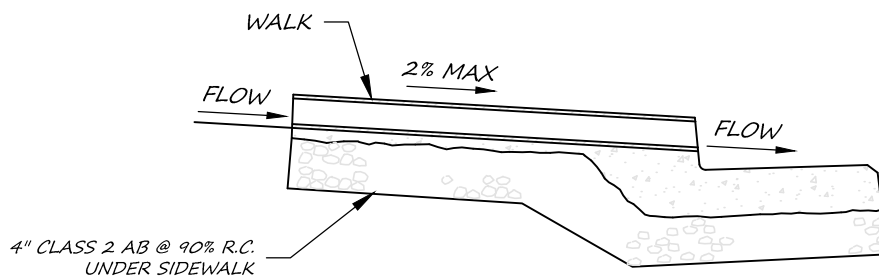


PLAN VIEW

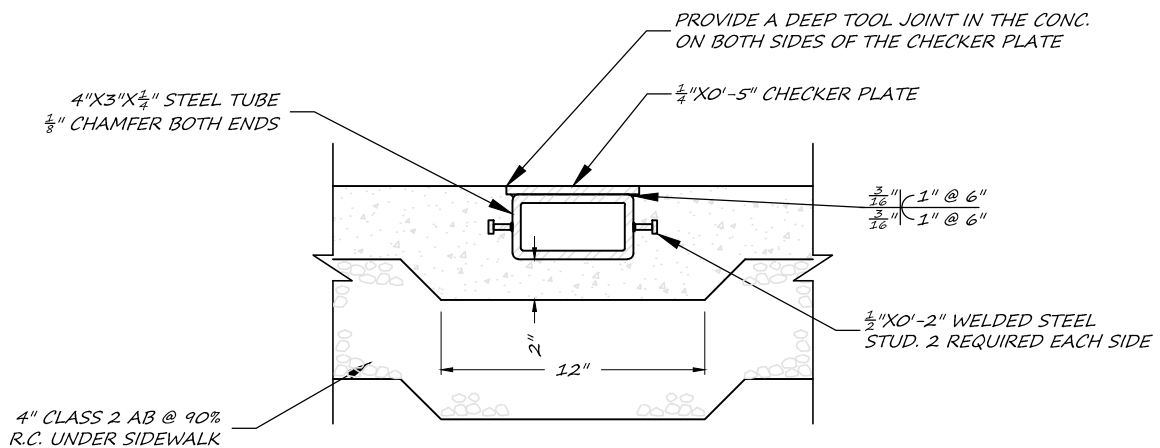
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PLAN VIEW



SECTION A-A



SECTION B-B

NOTES:

1. GALVANIZE AFTER FABRICATION.

CITY OF SUTTER CREEK

UNDER WALK DRAIN

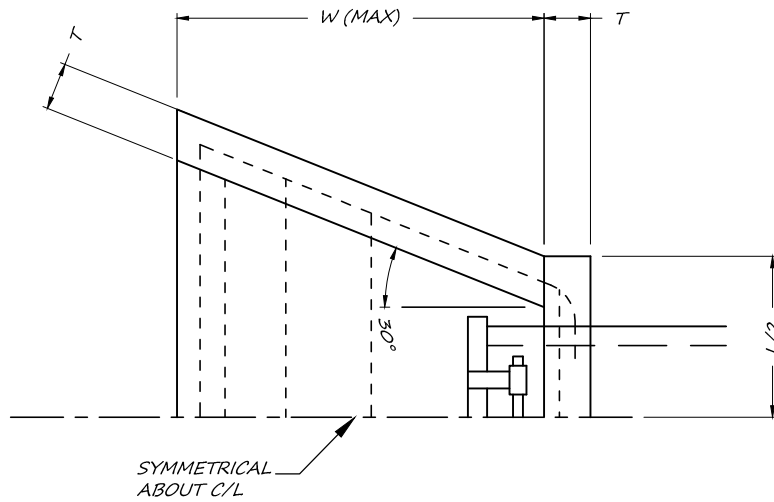
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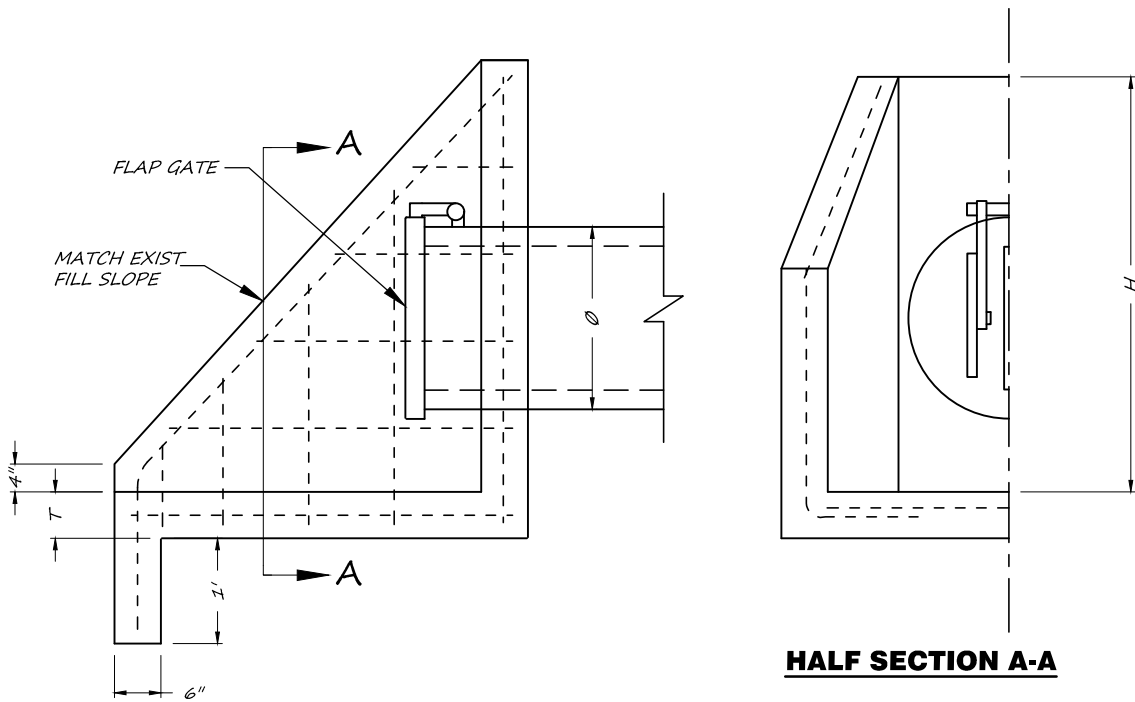
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PLAN



ELEVATION

HALF SECTION A-A

NOTES:

1. REINFORCING BAR SPACING & HEAD WALL DIMENSIONS SHALL COMPLY WITH CALTRANS DETAIL RSP D89 OR AS APPROVED BY CITY ENGINEER.

CITY OF SUTTER CREEK

STORM DRAIN OUTFALL

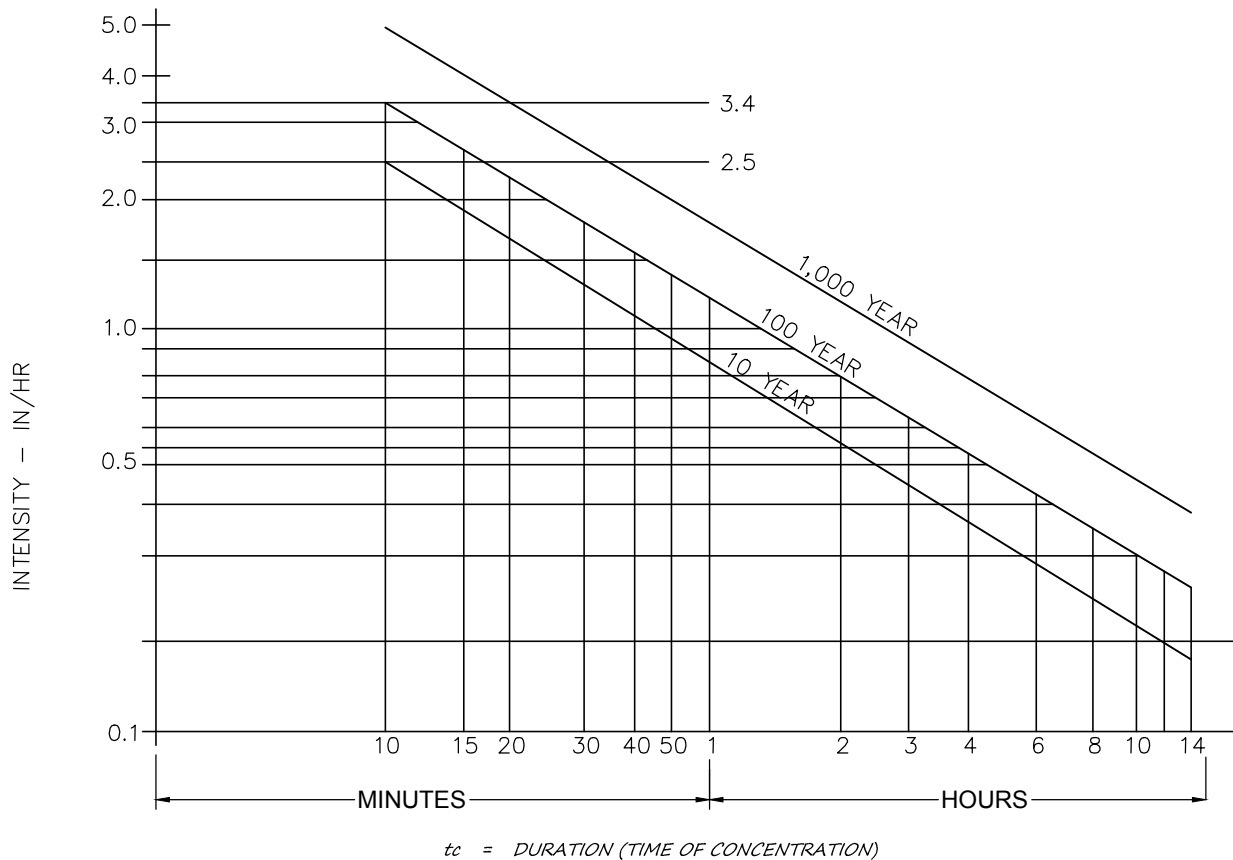
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REV No.:

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BY:



SLOPE	VELOCITY - FT. / SEC		
	OVERLAND	UNPAVED CHANNEL	PAVED GUTTER
< - .005	.25	2 - 3	1.0 - 1.7
.005 - .015	.50	3 - 6	1.7 - 3.0
.015 - .030	.75	6 - 8	3.0 - 4.2
.030 - .060	1.00	8 - 10	4.2 - 5.4
.060 - .10	1.50	10 - 13	5.4 - 7.8
.10 - .15	2.00	13 - 14	7.8 - 10
.15 - <	3.00	15	10

INSTRUCTIONS:

1. SELECT VELOCITY FROM TABLE AT LEFT
2. $T_c = L/V \times 60$, SEE FIGURE I-6 OF STREET AND HIGHWAY DRAINAGE VOLUME 1 (ITTE)
3. IN CHART, GO VERTICAL TO STORM FREQUENCY CURVE DESIRED, THEN HORIZONTAL TO READ THE INTENSITY.

NOTES:

CURVES ARE BASED ON DATA FROM P.G.&E. RAINFALL RECORDS & U.S. DEPARTMENT OF COMMERCE PRECIPITATION FREQUENCY ATLAS FOR WESTERN U.S.

CITY OF SUTTER CREEK

RAINFALL INTENSITY CHART

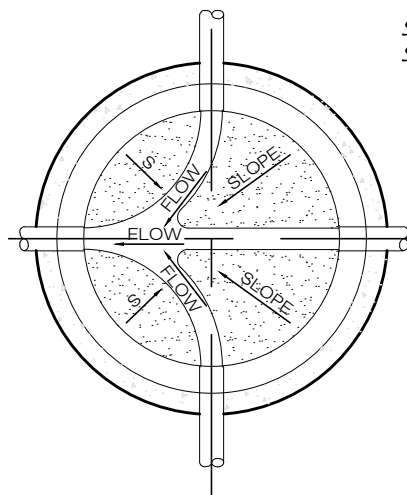
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6

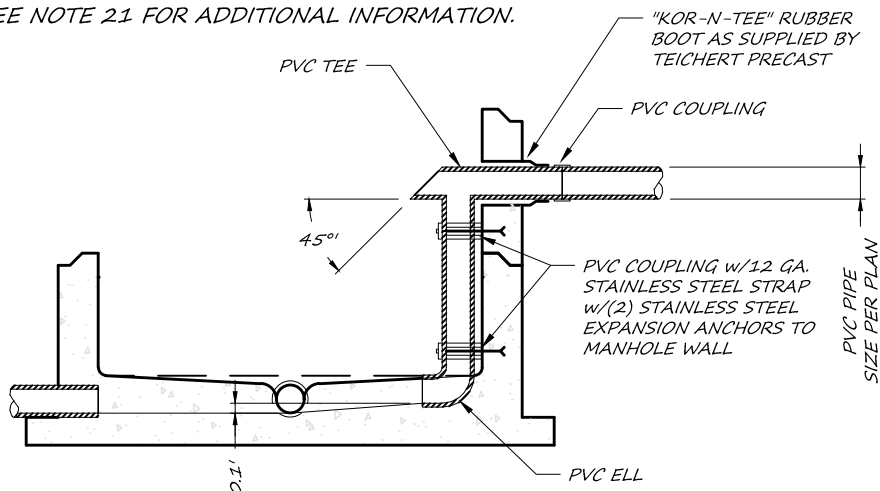
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SEE DETAIL SS-7 FOR ADDITIONAL INFORMATION.
SEE NOTE 21 FOR ADDITIONAL INFORMATION.

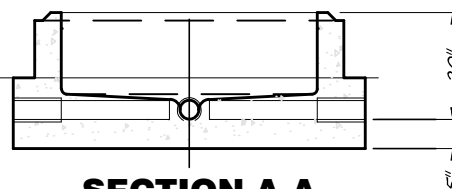
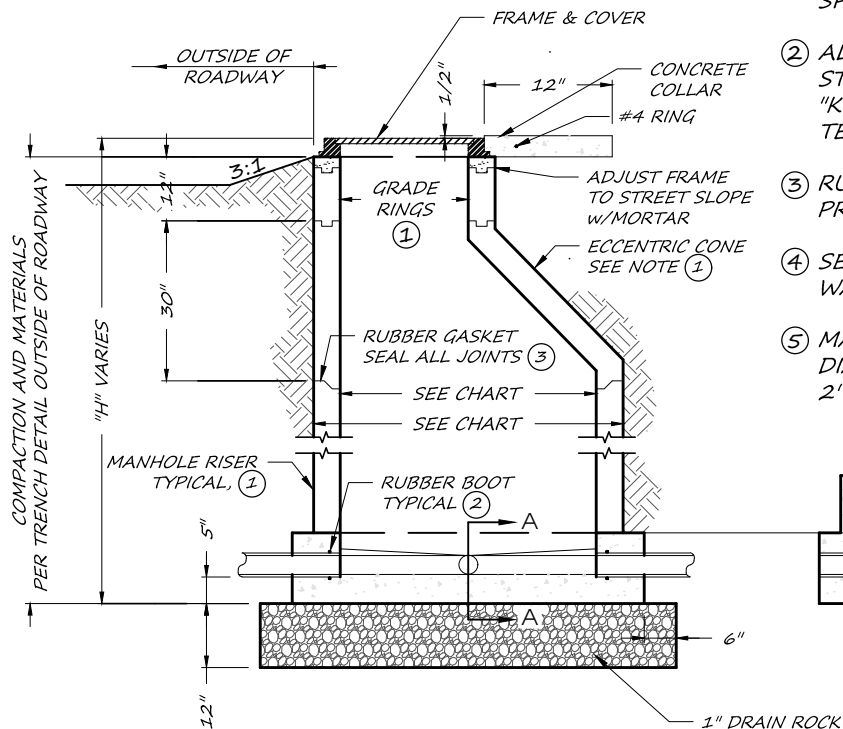


MANHOLE HEIGHT / DIAMETER CHART	
HEIGHT IN FEET	INSIDE DIAMETER IN FEET
≤8	4
>8 AND ≤12	5
≥12	6

DROP CONNECTION DETAIL

NOTES:

- REINFORCED CONCRETE GRADE RINGS, CONES, PIPE RISERS OR APPROVED PRECAST MANHOLE SECTIONS SHALL CONFORM TO CURRENT ASTM SPEC. NO. C-478 (TEICHERT PRECAST).
- ALL INLETS AND OUTLETS FROM MANHOLE STRUCTURES SHALL HAVE A FACTORY INSTALLED "KOR-N-TEE" RUBBER BOOT AS PROVIDED BY TEICHERT PRECAST OR EQUIVALENT.
- RUBBER GASKETS SHALL BE "RAMNECK". GASKET PRIMER SHALL BE USED AT ALL JOINTS.
- SEE SPECIFICATIONS FOR REQUIRED WATER-TIGHTNESS TESTING AT JOINTS.
- MANHOLE LIDS SHALL BE SIZED AS FOLLOWS: 4' DIA. MANHOLE = 2' DIA. LID, 5' DIA. MANHOLE = 2' DIA. LID, AND 6' DIA. MANHOLE = 2' DIA. LID.



CITY OF SUTTER CREEK

STANDARD SEWER MANHOLE DETAIL

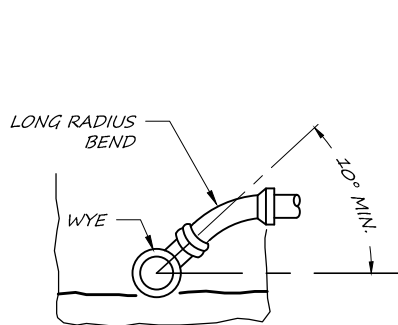
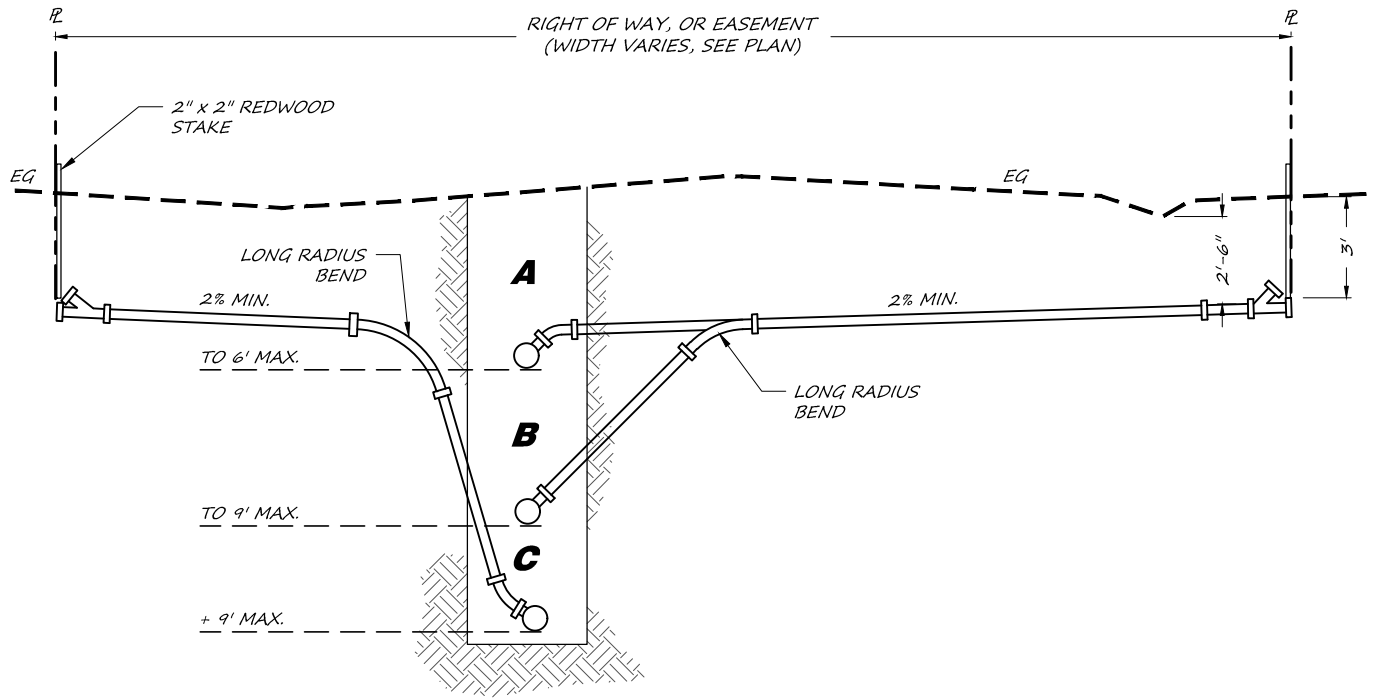
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1

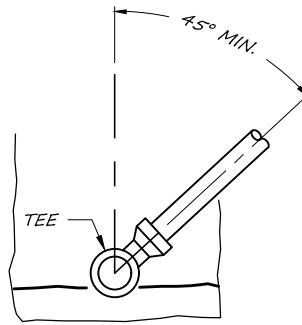
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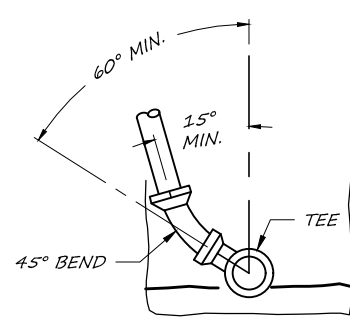
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*** TYPE "A"**



*** TYPE "B"**



*** TYPE "C"**

CONNECTION DETAILS

NOTES :

1. ALL SERVICE LINES SHALL BE 4" I.D. U.N.O.
2. SERVICES SHALL HAVE SAME BEDDING AND BACKFILL AS LATERAL SEWER.
3. CONTRACTOR SHALL USE THE MOST APPROPRIATE TYPE OF CONNECTION, (A, B OR C) FOR THE PARTICULAR SITUATION ENCOUNTERED.
4. SERVICE SEWER SHALL HAVE A MINIMUM 3' COVER AT PROPERTY LINE.
5. PLACE CONCRETE 12" WIDE OR WELL COMPACTED BEDDING MATERIAL 18" WIDE UNDER WYE BRANCH AND FITTINGS, AND UNSUPPORTED PIPE. WHEN BEDDING MATERIAL IS USED, PLACE ADDITIONAL MATERIAL TO TOP OF BEND, THE FULL WIDTH OF THE TRENCH.
6. INSTALL OSCAR VALVE OR APPROVED BACKFLOW PREVENTION DEVICE AS REQUIRED ON SERVICE LINE.
7. WHERE REQUIRED PLACE CHRISTY B-5 UTILITY BOX WITH COVER MARKED "SEWER" OVER CLEANOUTS CUT TO GRADE.

CITY OF SUTTER CREEK

SEWER SERVICE DETAIL

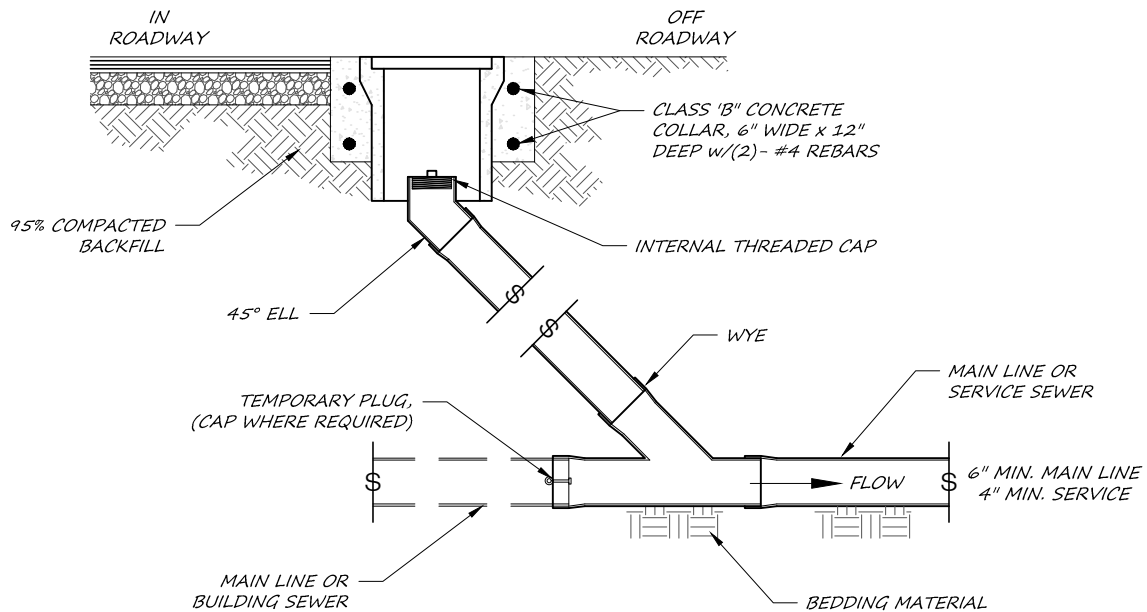
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2

REV No.:

DATE:

BY:



NOTES:

ALL PIPE AND FITTINGS SHALL BE THE SAME SIZE AND MATERIAL AS THE HORIZONTAL PIPE IN WHICH THEY CONNECT. JOINT SHALL BE AS SPECIFIED FOR THE TYPE OF PIPE USED.

CITY OF SUTTER CREEK

CLEANOUT TO GRADE

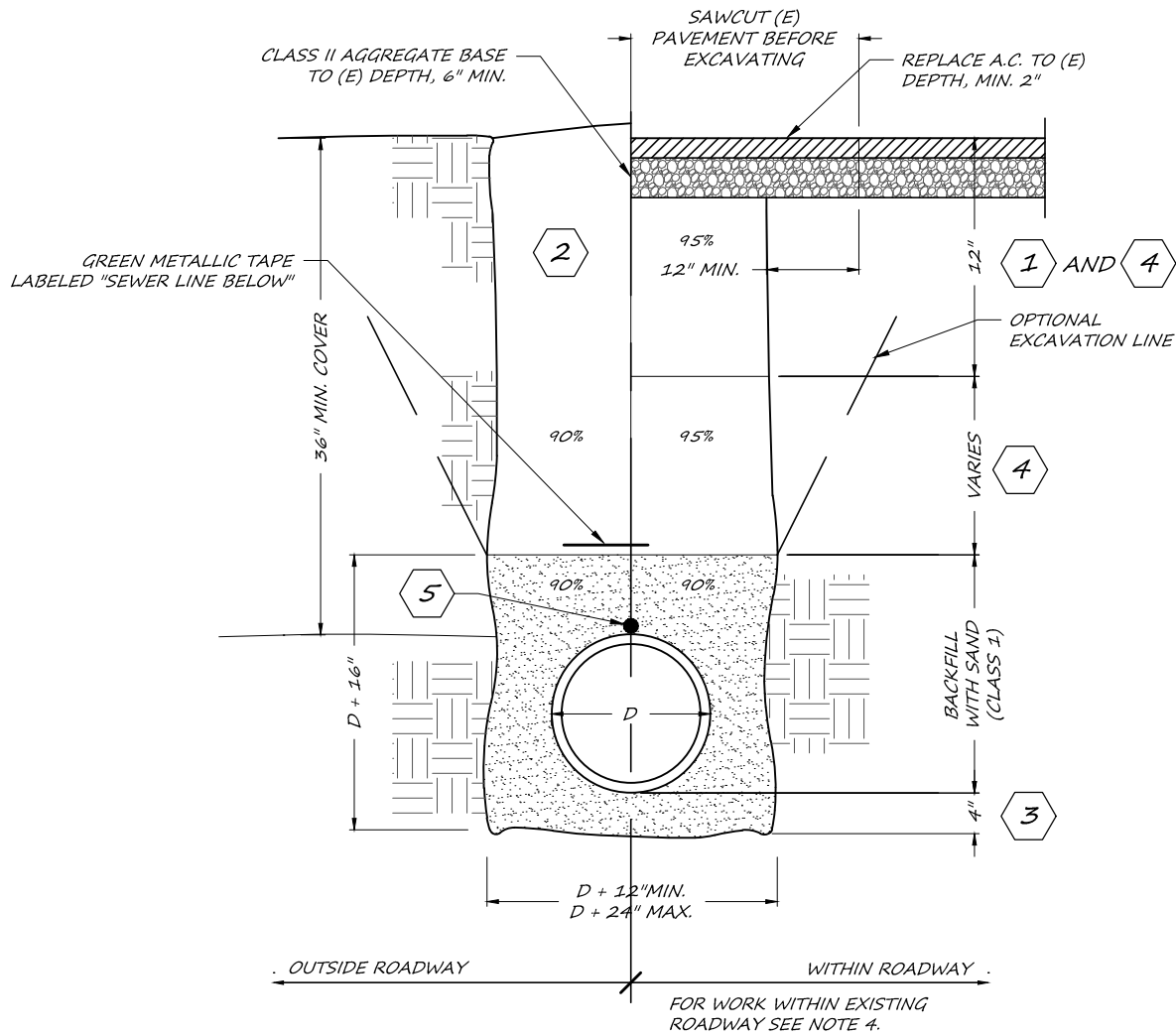
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3

REV No.:

DATE:

BY:



NOTES :

1. TOP BACKFILL SHALL BE IN ACCORDANCE WITH "SPEC. 19-5" STATE OF CALIF STD. SPECS.
2. INTERMEDIATE BACKFILL (CLASS III) MAY BE FROM NATIVE MATERIAL, NO ROCKS LARGER THAN 3'. SCREEN INSIDE ROADWAY, HAND PICK OUTSIDE ROADWAY. (MAY BE EXTENDED TO SURFACE OUTSIDE ROADWAY STRUCTURAL SECTION)
3. EXCAVATE 4" BELOW PIPE AND BACKFILL WITH SAND.
4. IN EXISTING ROADWAYS, TOP AND INTERMEDIATE BACKFILL SHALL BE 2 SACK CONCRETE SLURRY (CLASS IV) IF MIN. COVER IS LESS THAN 36". IF COVER EXCEEDS 36" REMAINDER OF BACKFILL ABOVE SAND SHALL BE AGGREGATE BASE (CLASS II)
5. PROVIDE LOCATOR WIRE NO. 10 AWG COATED SOFT DRAWN COPPER WIRE. TAPE TO PIPE EVERY 10 FEET.

CITY OF SUTTER CREEK

TRENCH DETAIL

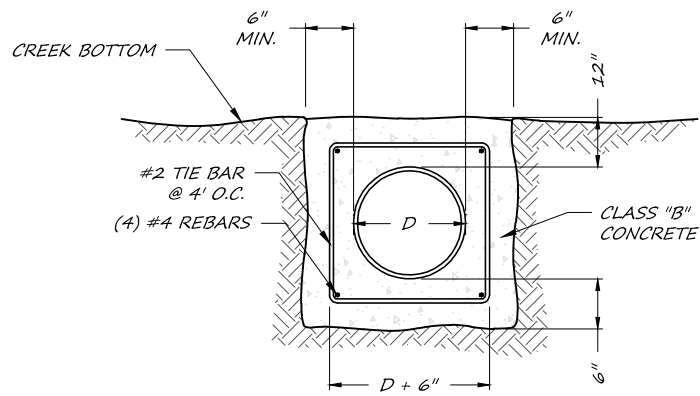
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DATE:

BY:



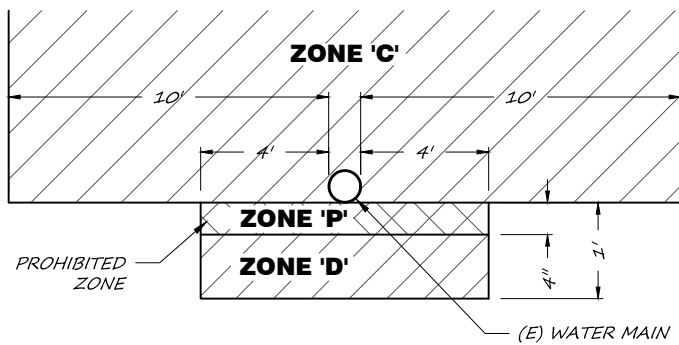
NOTES:

PROVIDE FLEXIBLE CONNECTION AT EACH END OF ENCASEMENT TO PROVIDE FOR SETTLEMENT.

CONTRACTOR TO PROVIDE CONNECTOR SUBMITTAL FOR APPROVAL PRIOR TO PURCHASE.

CITY OF SUTTER CREEK
MINIMUM COVERAGE SECTION

			SS
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NOTES :

IF A SEWER LINE CROSSES A WATER MAIN IN ZONE 'C' OR 'D', THE SEWER LINE SHALL BE DUCTILE IRON PIPE CL. 50, COMPRESSION JOINT, OR PVC CL. 200 (4:1 SAFETY FACTOR AS PER AWWA SPEC. C-900) WITH RUBBER GASKET JOINT, WITHIN 10 FEET OF WATER MAIN.

CITY OF SUTTER CREEK

WATER MAIN CROSSING DETAIL

SS

6

REV No.:

DATE:

BY:

NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THESE PLANS AND CALTRANS STANDARD SPECIFICATIONS (MOST CURRENT EDITION) AND TO THE STANDARD SPECIFICATIONS OF THE CITY OF SUTTER CREEK.
2. THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS BEFORE STARTING CONSTRUCTION.
3. ALL SEWER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CITY OF SUTTER CREEK SPECIFICATIONS AND STANDARD DETAILS.
4. ALL SEWER SERVICES SHALL HAVE A MINIMUM OF THREE (3) FEET OF COVER AT THE PROPERTY LINE AND TERMINATE AT THE PROPERTY LINE WITH PLUG AND CLEANOUT, AS PER THE CITY STANDARD.
5. A MINIMUM OF 36" COVER BELOW FINISH GRADE FOR SEWER LINE.
6. ALL GRAVITY SEWER PIPE SHALL BE ASTM D-3034, SDR-35, PVC UNLESS REQUIRED TO BE CL200 AWWA C900 AT WATER MAIN CROSSINGS. ALL PRESSURE SEWER PIPE SHALL BE PVC CLASS 200, UNLESS OTHERWISE APPROVED. IF AWWA C900 PIPE IS USED, THE PIPE SHALL BE COLORED GREEN OR A GREEN STRIPE SHALL BE PAINTED ALONG THE TOP OF THE PIPE ALONG ITS ENTIRE LENGTH.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATING AND PROTECTING OF ALL UNDERGROUND FACILITIES AFFECTED BY THE WORK AND SHALL CONTACT UNDERGROUND SERVICES ALERT (USA) 48 HOURS PRIOR TO ANY EXCAVATION WORK FOR DETERMINATION AND LOCATION OF UNDERGROUND UTILITIES (PHONE 800-227-2600).
8. WHERE EXCAVATION FOR ANY FACILITIES CONSTRUCTION EXCEEDS 5 FEET IN DEPTH, CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CAL/OSHA.
9. ALL SEWER SERVICES TO BE 4" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
10. SERVICES SHALL HAVE SAME BEDDING AND BACKFILL AS LATERAL SEWER.
11. SERVICE SEWER SHALL HAVE MINIMUM 3'-0" COVER AT PROPERTY LINE WHENEVER LATERAL DEPTH AND SERVICE SEWER SLOPE OF 1/4" PER FOOT PERMITS. CONTRACTOR SHALL VERIFY THE DEPTH OF ALL SEWER SERVICES AND SHALL NOTIFY THE ENGINEER IF ANY SERVICES CANNOT HAVE THE REQUIRED MINIMUM COVER PRIOR TO INSTALLATION. ALL WATER AND SEWER LINES SHALL MAINTAIN A 10'-0" HORIZONTAL CLEARANCE AND A 1'-0" VERTICAL CLEARANCE.
12. AT SERVICES, PLACE CONCRETE 12" WIDE OR WELL COMPACTED BEDDING MATERIAL 18" WIDE UNDER THE WYE BRANCH, THE FITTING, AND UNSUPPORTED PIPE. WHEN BEDDING MATERIAL IS USED, PLACE ADDITIONAL BEDDING MATERIAL TO TOP OF BEND, THE FULL WIDTH OF THE TRENCH.
13. MINIMUM COVER 3'-0" AT THE PROPERTY LINE SHALL BE MEASURED FROM THE EXISTING GROUND SURFACE OR EDGE OF ADJACENT ROADWAY, WHICHEVER IS LOWER.
14. ALL MANHOLE BARREL SECTIONS, K CONES, AND GRADE RISING SHALL BE REINFORCED IN ACCORDANCE WITH THE REQUIREMENTS OF THE REINFORCED CONCRETE SECTION, A.S.T.M. DESIG. C 478-75.
15. PREFORMED, ROPE-LIKE, READY TO USE, COLD-APPLIED, PERMANENTLY ADHESIVE AND FLEXIBLE, PLASTIC JOINT SEALING COMPOUND, (K.T. SNYDER CO. INC., RAM-NEK) OR EQUAL SHALL BE USED ON MANHOLE JOINTS.
16. ALL SEWER MAINS AND SEWER LATERALS SHALL BE BALLED, MANDRELLED, TELEVISION INSPECTED AND AIR TESTED PRIOR TO ACCEPTANCE BY THE CITY. SEE CITY STANDARD FOR AIR TESTING REQUIREMENTS
17. ALL MANHOLES SHALL BE VACUUM TESTED PRIOR TO ACCEPTANCE BY THE CITY. SEE CITY STANDARD SPECIFICATION FOR VACUUM TESTING REQUIREMENTS.
18. ALL MANHOLE LIDS SHALL HAVE BLIND HOLES FOR LIFTING. PICK HOLES WILL NOT BE ALLOWED. ALL MANHOLES SHALL BE GASKETED USING FLAT GASKETS. "O" RINGS WILL NOT BE ALLOWED.
19. SEWER LINE INSTALLATIONS ON A RADIUS SHALL BE ACCOMPLISHED BY BENDING PIPE ON A RADIUS NOT LESS THAN MANUFACTURER'S MINIMUM RADIUS OR BY USING FITTINGS. AXIAL DEFLECTIONS AT PIPE JOINTS WILL NOT BE ALLOWED.
20. MANHOLE LIDS SHALL BE SIZED AS FOLLOWS: 4' DIA. MANHOLE = 2' DIA. LID, 5' DIA. MANHOLE = 2' DIA. LID, AND 6' DIA. MANHOLE = 2' DIA. LID.
21. AT DEEP DROP SERVICE LINES AT MANHOLES, PROVIDE PVC COUPLING WITH STAINLESS STEEL STRAPS AND STAINLESS STEEL ANCHORS WITHIN 6" OF THE TOP AND BOTTOM AND 4'-0" ON CENTER MAXIMUM SPACING.

CITY OF SUTTER CREEK

SEWER NOTES

SS

7

REV No.:

DATE:

BY:

4 City of Sutter Creek Capital Improvement Program and Funding Strategy

Placeholder

5 City of Sutter Creek Design Standards, 2015

The City of Sutter Creek Design Standards, 2015 is available at the City Office and on the City's website, cityofsuttercreek.org.

6 City of Sutter Creek Conservation Best Management Practices

6 City of Sutter Creek Conservation Best Management Practices

6.1 Wildlife Habitat Management Plan (WHMP)

The Wildlife Habitat Management Plan (WHMP) describes guidelines for the preservation, enhancement, and management of wildlife habitats and conservation and open space preserve lands in a project.

6.1.1 Preparation and Contents of the WHMP

Prior to the City issuing a grading permit for construction in a project, project applicants must retain a qualified wildlife biologist to prepare and implement a WHMP. The WHMP is intended to reduce impacts to wildlife habitats and populations associated with construction, and enhance habitat values in the project. The WHMP shall demonstrate to the satisfaction of the City that implementation will enhance wildlife habitat value in the project.

The WHMP shall include the following elements to be implemented during construction of the project, including a description of the implementation schedule, methods, and responsible parties:

- Wildlife-friendly crossings (including, but not limited to, over-sized natural bottom box culverts at grade with dry trails for small mammals; directional fencing to focus wildlife movement; landscaping with locally-native species to provide cover) shall be designed and installed where roads cross streams and other drainages and wildlife movement corridors;
- Wildlife impact avoidance, minimization, and mitigation measures to be implemented during construction in the project;
- A buffer of natural habitats in open space lands shall be maintained along tributary streams and wetlands throughout the project;
- Locally-native plants shall be emphasized in landscaped areas and used entirely adjacent to open space lands;
- Informational brochures shall be developed by qualified biologists and provided to new residents describing wildlife-friendly practices such as:
 - Wildlife-friendly landscaping suggestions;
 - Avoiding landscaping with non-native invasive plant species;
 - Properly disposing of trash and securing trash can lids;
 - Not releasing domestic pets;
 - Maintaining pets in fenced yards and on leashes
 - Not handling or capturing native wildlife;
- The WHMP shall describe a variety of wildlife habitat structures to be installed in open space lands in the project and in offsite preserved oak woodland habitats acquired for developments in the project. The WHMP shall map locations and describe types of structures, materials, sources, and construction and installation methods. Types of structures to retain or install may include, but are not limited to, the following:
 - Downed wood or log structures,
 - Mammal dens within log structures,
 - Brush piles,
 - Tree snags,
 - Bat roosting slits, bark flanges, and stumps,
 - Sapwells,
 - Tree cavities and hollow trees,

- Artificial raptor perches, and
 - Bird houses;
- Large woody debris for wildlife habitat structures shall be derived from construction areas and placed in adjacent open space lands;
- The WHMP shall quantify the number, density, distribution, and type of habitat structures based on a field investigation by a qualified biologist of habitat values in open space lands in the project;
- The design, size, location, and materials of habitat structures placed in wildland-urban interface areas must comply with *General Guidelines for Creating Defensible Space* (State Board of Forestry and Fire Protection [BOF] and California Department of Forestry and Fire Protection [CalFire], 2006) and site-specific fuels management requirements of CalFire or the Sutter Creek Fire Protection District.

6.2 General Wildlife Habitat Management Standards

The Standards apply to the design, planning, and implementation of general vegetation management, road and trail crossings, drainage under crossings, and avoidance and minimization of impacts to bird and bat species during construction activities.

6.2.1 Vegetation Management

Vegetation management in open space lands shall be limited to the following activities:

- Restoration of locally-native vegetation communities;
- Invasive plant control;
- Vegetation removal for the construction of permitted maintenance roads, trails, and utilities;
- Vegetation clearance for safety and maintenance needs adjacent to roads, trails, and structures;
- Other activities consistent with the long-term conservation and enhancement of natural habitats and habitat values for locally-native wildlife species; and,
- Fuel management activities necessary to maintain consistency with wildland-urban interface guidelines established under PRC 4291, *General Guidelines for Creating Defensible Space* (State Board of Forestry and Fire Protection [BOF] and California Department of Forestry and Fire Protection [CalFire], 2006) and site-specific fuels management requirements of CalFire or the Sutter Creek Fire Protection District.

6.2.2 Road and Trail Crossings

The design and location of road and trail crossings for wildlife species shall be based on site-specific observations by a qualified wildlife biologist and documented in the WHMP.

- Locations of known or observed frequent mammal crossings of roads shall be marked with appropriate warning signs for motorists to reduce the incidence to vehicle-wildlife collisions;
- Signs shall be posted to indicate wildlife crossings in order to encourage drivers and pedestrians to be observant of animals on the roadway or pathway;
- Landscaped areas within 150 feet of wildlife crossing locations shall use only locally-native plant species, and include multiple-layers, including trees, shrubs and groundcovers to provide cover for a variety of wildlife species;
- Fences can be used to help in funneling animals towards a safe crossing for animals;
 - Heights of fences may vary up to eight feet based on the wildlife species;
- The entrances and exits of crossings shall be of a gradual slope;

- To encourage wildlife use of crossings, human presence and artificial lighting shall be avoided or minimized; and
- Lights or reflectors shall be placed a safe distance away from the crossing to divert animals to the crossing.

6.2.3 Road and Trail Drainage Under Crossings

- Drainage under crossings beneath roads and trails may vary for different areas and types of animals, hydrologic regimes, and channel geometries. Four types of under crossings may be used, in order of preference:
 - Bridges-on-piers;
 - Bottomless box culverts;
 - Standard box culverts; and
 - Pipe culverts;
- Under crossings shall provide an opportunity for terrestrial animal movement on the ground during times of high and low water, such as a small raised pathway of natural material that remains dry during a 10-year flow event;
- Under crossings shall be designed to minimize water pooling that may compromise the safety and accessibility of animals in the under crossing;
- Undercrossing shall be designed and installed to be maintained on grade at the entrance and exit;
- Under crossings shall not incorporate artificial lighting.

6.2.4 Avoidance and Minimization of Impacts to Nesting Birds

Construction, grading and vegetation removal may affect nesting bird species protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) and F&G Code (Sections 3503, 3503.5, and 3800). Trees provide potential nest sites for raptors including Cooper’s hawk, white-tailed kite, great horned owl, red-shouldered hawk, and red-tailed hawk. Grasslands provide nesting habitat for California horned lark and other sensitive species. Active nests of bird species listed under the MBTA or F&G Code prohibit the take, possession, or destruction of birds, their nests, or eggs. Disturbance that causes nest abandonment and/or loss of reproductive effort could be considered a “take.”

The following Standards require avoidance and minimization of impacts to nesting birds by conducting pre-construction surveys and consultation with the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) if special-status bird species are detected. Avoidance of vegetation clearance or initiation of new construction during the nesting season will successfully avoid impacts to active nests. Pre-construction surveys to document the presence or absence of active nests, and consultation with responsible agencies to develop site and species-specific protection measures, will avoid or minimize impacts to active nests.

Prior to the City issuing a grading permit, project applicants shall demonstrate compliance with the following Standards:

- The initiation of ground disturbing activities and construction shall not occur during the nesting season (March 1 to August 31) to avoid or minimize impacts to nesting bird species, or
- If vegetation clearing or the initiation of new construction cannot be avoided during the nesting period, then project applicants shall complete the following additional measures:
 - Project applicants shall retain a qualified biologist to conduct pre-construction nesting bird surveys 15-30 days prior to the initiation of construction activities within 500 feet of ground disturbance;
 - If no nesting birds are detected, no additional measures are required;

- If active nests are detected, then the project applicants shall consult with CDFW and/or USFWS, as appropriate, to develop site-specific impact avoidance and minimization measures and apply those measures during construction;
- Project applicants must demonstrate compliance with impact avoidance and minimization measures required by the CDFW and USFWS prior to the City issuing a grading permit.

6.2.5 Avoidance and Minimization of Impacts to Bat Species

Oak woodlands, oak savannas, and riparian woodlands provide roosting habitat for bats. Mature trees may have cavities or dead limbs with peeling bark that provide potential roosting sites for bats.

Removal of trees for development may reduce bat species habitat and could result in the take of bats. Human activities such as recreation, noise, lighting, and other aspects of the development and land uses may degrade bat habitat. Prior to the City issuing a grading permit, project applicants shall demonstrate compliance with the following Standards:

- A qualified biologist shall conduct pre-construction surveys to determine if suitable habitat and evidence of bat use occur in trees or structures that will be removed;
 - If a tree or structure offers no suitable bat roosting habitat, it may be removed with no additional measures;
 - If suitable habitat occurs, the habitat shall be removed only after it is determined that no roosting bats occur by implementing the following measures:
 - If bats are detected, the habitat shall be removed during the non-nesting season (September 1 through April 1), and only after a qualified biologist has excluded bats from the removal site by installing exclusion devices during night when the roost is unoccupied.
 - If habitat removal during breeding season (April 1 - August 31) cannot be avoided, a qualified biologist must exclude bats before April 30 to avoid impacting pregnant females that are establishing a maternity roost.

6.3 Wildlife Habitat Management in Lakes, Streams, Wetlands, and Associated Riparian Areas

Lakes, streams, wetland, and associated riparian areas provide important habitats for terrestrial, aquatic, and amphibious species. Riparian areas provides important foraging habitat, movement corridors, cover, and nesting habitat for most species of wildlife in the area. The loss of riparian habitats reduces important breeding and foraging areas and disrupts movement corridors. The WHMP shall incorporate the following measures applicable to avoiding, minimizing, and mitigating impacts to wildlife species and habitats associated with lakes, streams, wetland, and riparian areas. These habitats may support populations of special-status species, such as the Valley elderberry longhorn beetle (VELB), Northwestern pond turtle (NPT), and other species.

6.3.1 Lakes, Streams, Wetlands, and Associated Riparian Habitats

Prior to the issuance of a grading permit that may affect lakes, streams, wetlands, or other jurisdictional waters of the U.S. (WoUS) and associated riparian habitats, project applicants must provide copies of applicable permits to the City and demonstrate to the City compliance with the following standards:

- Project applicants shall obtain and demonstrate compliance with conditions in required State and federal permits including, but not limited to the following:

- Clean Water Act, Sec. 404 permit from the U.S. Army Corps of Engineers (Corps);
- Clean Water Act, Sec. 401 certification or waiver from the Central Valley Regional Water Quality Control Board (CVRWQCB);
- Fish and Game Code Sec. 1600, Lake or Stream Bed Alteration Agreement with the CDFW;
- The following measures shall be implemented to avoid or minimize construction-related impacts to lakes, streams, wetlands, and associated riparian habitats, except where otherwise permitted by the Corps, CVRWQCB, and CDFW:
 - Construction shall be scheduled during the dry or low flow season;
 - If standing or flowing water is present during construction, a temporary dam shall be constructed for the construction site using non-erosive materials (e.g., sand bags, sheet pile, rubber/plastic tubes);
 - If sufficient stream flows are present at the time of construction, a flexible diversion pipe shall be installed to convey flows from above the upstream dam to an area downstream of the downstream dam. The pipe shall be screened to prevent large fish and amphibians from becoming entrained into the pipe;
 - Silty or turbid water produced from dewatering or other pipeline construction activities shall not be discharged directly into the streams, ponds, or wetlands. Instead, water impounded between the dams and/or underflow seepage into the work site shall be pumped into an upland containment area where the water will be allowed to percolate into the soil and not mix with channel flows;
 - A qualified biologist shall relocate stranded wildlife during initial construction of impoundments;
 - The use of heavy equipment in WoUS shall be limited to the area between impoundments;
 - Excavated material, equipment, and vehicles shall be stored outside of WoUS and riparian habitats to prevent incidental discharge and habitat degradation;
 - The primary streambed access point shall be stabilized on the bank using a pad of coarse aggregate underlain by filter cloth to reduce erosion and tracking of sediment;
 - After backfilling, disturbed areas in WoUS shall be recompact to original conditions prior to restoration of flows;
 - Water impoundments, if used, shall be removed starting with the downstream structure, and construction materials shall be removed from the channel before flows are restored.
 - Establishment of native vegetation shall be considered as a method to meet erosion control and bank stabilization goals and objectives.
 - Riparian habitats temporarily disturbed during construction shall be restored to natural contours and soils and revegetated with locally-native plant species and maintained and monitored until established locally-native species dominate vegetative cover.

6.3.2 Special-Status Species Habitats

Valley Elderberry Longhorn Beetle (VELB) Habitats

Blue elderberry (*Sambucus mexicana*) shrubs are obligate hosts for the federally-listed Threatened VELB, providing the VELB its sole source of food and broodwood. Blue elderberry is normally associated with riparian habitats and mesic upland sites. Construction activity that removes or degrades VELB habitat may be considered as “take” under the federal Endangered Species Act. The USFWS normally requires consultation for ground disturbing action within 100 feet of elderberry shrubs. The following provisions will not apply if the VELB is removed from the federal endangered species list.

Prior to the City issuing a grading permit for construction-related or maintenance activities within 100 feet of VELB habitat, project applicants must demonstrate compliance with the following standards:

- Project applicants shall retain a qualified biologist to conduct an inventory and map of VELB habitat (elderberry shrubs with at least one stem greater than one inch in diameter) within 100 feet of construction activity. Survey and habitat inventory methods shall be consistent with USFWS protocols;
- If no VELB habitat occurs within 100 feet of ground-disturbing activities, no additional measures are required; and
- If VELB habitat occurs, the following additional measures are required:
 - VELB habitat shall be shown on grading and vegetation clearance plans;
 - A qualified biologist shall prepare a Biological Assessment and submit to the USFWS for consultation and an incidental take permit under Section 7 or Section 10(a)(1)(B) of the ESA; and
 - Copies of reports, inventories, consultation, and permits shall be provided to the City.

If the USFWS issues a Biological Opinion and incidental take permit, project applicants shall demonstrate compliance with permit conditions prior to the City issuing a grading permit, including, but not limited to, the following measures:

- VELB habitat and elderberry shrubs shall be avoided with sufficient buffer areas established and maintained from the dripline of elderberry shrubs during construction;
- Brief contractors and work crews on the legal requirements for avoiding damage to elderberry plants and VELB habitat and the criminal penalties for non-compliance;
- Fence and post signs around areas to be avoided;
 - Post signs no more than 50 feet apart along the edge of the avoidance areas stating: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment;”
 - The signs shall be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction;
- If the buffer area is damaged during construction, the damage shall be reported immediately to the USFWS to determine if additional habitat mitigation is required;
- Retained elderberry shrubs shall have a 100-foot no disturbance buffer unless otherwise permitted by the USFWS;
- Elderberry shrubs that cannot be avoided with a sufficient no disturbance buffer during construction and maintenance activities shall be transplanted to an USFWS-approved VELB habitat conservation area when the shrub is dormant, normally between November 1 and February 15, or other period as approved by the USFWS.
 - The VELB habitat conservation area shall be:
 - Located, designed, planted, monitored, maintained, and reported in accordance with USFWS guidelines and performance standards; and
 - Located in an ecologically-suitable part of the project such as riparian habitats in open space lands.

Special-Status Reptile and Amphibian Species

Habitat for special-status reptile and amphibians may occur in the project and be affected by construction activities. Prior to the City issuing a grading permit, project applicants must demonstrate compliance with the following Standards:

- Prior to ground disturbing activities, project applicants shall retain a qualified biologist to review previously completed reports and construction plans, and conduct updated field surveys and literature reviews as needed, and submit a report of findings to the City;
 - If the proposed project has no potential to affect habitats or populations of special-status reptiles and amphibians, no further measures are required;
- If construction may affect habitat or populations of special-status reptile and amphibian species, project applicants shall complete the following additional measures:
 - Consult with the CDFW and/or USFWS, as appropriate, and obtain required permits;
 - Develop site-specific plans to avoid and minimize impacts, and habitat restoration and compensation plans as required by permit conditions. These measures may include, but are not limited to, the following measures:
 - A qualified biologist shall conduct pre-construction surveys and worker environmental training, direct the installation of protective barriers to prevent species from entering work areas, and monitor grading and vegetation clearing activities;
 - Establish non-disturbance buffer areas around ponds, streams, springs, riparian areas, and other sensitive habitats;
 - If individual special-status reptile and amphibians are found in construction areas, work in the vicinity of the species shall be halted until a qualified biologist relocates the animal to a site approved by the CDFW or USFWS. The CDFW and/or USFWS shall be consulted for additional mitigation measures as appropriate;
 - Best Management Practices shall be implemented to prevent or control surface runoff, soil erosion, sedimentation, and chemical spills into riparian, wetland, and aquatic habitats;
 - Areas of temporary disturbance shall be restored to natural contours and locally-native plant species, and maintained and monitored until established locally-native species dominate the vegetative cover.

7 City of Sutter Creek Oak Woodland Management Plan Requirements and Rare Plant Management Plan

7 City of Sutter Creek Oak Woodland Management Plan Requirements and Rare Plant Management Plan

7.1 Oak Woodland Management Plan (OWMP) Preparation

An Oak Woodland Management Plan (OWMP) shall be prepared and submitted to the City of Sutter Creek for approval for those portions of a project proposed for grading and vegetation removal within oak woodlands. The OWMP addresses three aspects of managing oak woodlands: 1) a description of oak woodland habitats proposed for removal and preservation, 2) an inventory of trees proposed for removal and preservation in development areas, and 3) replanting locally-native trees, as needed.

7.1.1 Definitions

For the purposes of the OWMP, the following definitions apply:

- Oak woodlands are defined as “an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover” (Oak Woodlands Conservation Act, California Fish and Game Code 1361(h));
- Oak woodland habitat type mapping and the calculation of percent canopy cover shall use a 2.5-acre minimum mapping unit;
- Diameter at breast height (DBH) is the tree stem diameter measured in inches at 4.5 feet (54 inches) above grade;
- Tree inventories shall include trees measuring 5 inches or greater DBH (single stem or cumulative if multi-stemmed) (Public Resources Code 21083.4), rooted in or having a portion of their canopy projection dripline area over areas of ground disturbing activities;
- The canopy projection dripline area is the area on the ground directly beneath the furthest horizontal extent of branches in a tree canopy;
- The Root Protection Zone (RPZ) is a circle drawn on the ground with the tree stem at the center with a radius measuring 1.5 feet per inch of DBH;
- The Critical Root Zone (CRZ) is a circle drawn on the ground with the tree stem at the center with a radius measuring 0.5 feet per inch of DBH;
- Comparable oak woodland habitat to be preserved is defined as oak woodland habitat with similar species composition and within 20% of the canopy cover of the removed woodland.

7.1.2 Qualified, Independent Professionals

The OWMP shall be prepared by independent professionals working under the direction of the City of Sutter Creek at the sole expense of project applicants. Professionals shall be qualified based on their experience and work on subjects consistent with professional standards and licensing requirements. For example:

- A registered professional forester may measure, map, and describe oak woodlands, percent canopy cover, species composition, tree size, and develop an oak woodland restoration plan in permanently preserved open space;
- A certified arborist may inventory trees in construction areas, including mapping and describing species, measuring size, assessing pre- and post-construction tree health, describing construction-related impacts and protection measures, and replanting plans in developed or maintained landscape areas;
- A licensed landscape architect may develop planting, maintenance, and monitoring plans for locally-native trees in developed or maintained landscape areas.

7.1.3 Lifespan of OWMP Field Data

In order to provide accurate information about oak woodlands and trees that may be affected in construction areas, field data and measurements should be up to date. The following standards for the useable life of field data are based on the typical growth rates of trees in foothill blue oak woodlands. Blue oak trees average approximately one-seventh to one-eighth of an inch of radial stem growth per year. Consequently, it requires an average of seven to eight years of growth to measure a different DBH, or for a four-inch DBH seedling to measure five inches and be counted in the tree inventory.

- Oak woodland and tree field data shall be considered valid for five years after the fieldwork date. After five years, either field verification or a new inventory is required.
- If a catastrophic stand replacement event occurs prior to a site-specific inventory, then sampling data and/or a habitat map of oak woodlands and oak savanna data may be used to estimate the number, density, and sizes of individual trees in construction areas, oak woodland acreage, and percent canopy cover. Oak woodland distribution and percent canopy cover may also be measured on recent pre-disturbance orthorectified aerial imagery of the project.
- If a major disturbance event occurs in construction or preservation areas after the OWMP inventory, then the OWMP data remains as the basis for determining offsite oak woodland habitat preservation acreage requirements.

7.1.4 OWMP Contents

The OWMP shall provide a map and description of oak woodland habitats affected by construction-related activities and oak woodland habitats proposed for permanent preservation.

Inventory of Oak Woodland Habitats in Construction Areas

The OWMP shall include the following data on oak woodland habitats affected by construction-related activities:

- Acres of oak woodland habitat, average percent canopy cover, and dominant and codominant tree species;
- A qualitative description of the overall health, size structure, and reproductive status of oak woodland habitats, including,
 - Estimated number, density, and distribution of senescent trees, snags, and seedlings (1-4 inches DBH), and,
 - A description of understory plant species composition;

- A description and mapped locations of locally-native trees measuring at least five inches in DBH rooted in or having a portion of its canopy projection dripline area over areas of ground-disturbing activities, including:
 - Individual tree identification number,
 - Species,
 - DBH,
 - Health classification (e.g., good, fair, poor),
 - Construction – related impact (e.g., removal, adverse impact, preservation),
- The following data shall be provided for trees proposed to be preserved in construction areas:
 - Stem location, canopy projection area, CRZ, and RPZ and the placement and type of protection measures (e.g., construction fencing) shown on grading and construction plans;
 - Percentage of CRZ and RPZ affected by construction;
 - Recommended tree protection measures to be implemented during construction, such as limits on excavation and fill, soil aeration measures, staking, pruning, and cabling.

Inventory of Oak Woodland Habitats in Preservation Areas

For oak woodlands habitats proposed for preservation either within the project or outside of the project, the OWMP shall provide a map and description of the habitat, including:

- Acres of oak woodland habitat, average percent canopy cover, and dominant and codominant tree species proposed for preservation;
- A qualitative description of the overall health, size structure, and reproductive status of oak woodland habitats, including,
 - Estimated number, density, and distribution of senescent trees, snags, and seedlings (1-4 inches DBH), and,
 - A description of understory plant species composition;
- Land owner, assessor's parcel number, acreage, and legal description of the preserved area;
- The complete text of the conservation easement that describes acceptable, required, and prohibited land uses and management activities based on a site-specific assessment by a qualified registered professional forester. Land uses and management activities in preserved oak woodland habitat areas shall be consistent with the long-term conservation, sustainable use, and natural regeneration of oak woodlands and wildlife habitats. Examples include:
 - Properly managed livestock grazing,
 - Walking, equestrian, or other non-motorized recreational trails,
 - Fuels management,
 - Invasive plant removal,
 - Habitat restoration, and
 - Other low intensity uses;
- Proposed dollar amount of the management preserve trust account sufficient to perpetually maintain land management activities necessary to conserve oak woodlands and promote sustainable levels of natural oak regeneration;
 - An itemized cost estimate and schedule for management actions shall be developed as the basis for the calculation of the preserve trust account. Examples of land management activities to support or sustain oak woodland habitats may include:
 - Repair, construction, or replacement of gates and fences;
 - Livestock management;
 - Browse protection caging of oak seedlings;
 - Removal of non-native invasive plants;

- Fuel management in wildland-urban interface areas; and,
- Fuel break construction and maintenance.

Native Oak Woodland Tree Planting Plan

If needed or applicable, the OWMP shall include the following information regarding a locally-native tree replanting plan:

- Map and description of planting sites, including:
 - Size (acres),
 - Existing vegetation types and tree canopy areas,
 - Hardscape areas, and
 - Site preparation requirements (e.g., mowing, disking, herbicide, fencing, road access);
- Tree planting plans, including:
 - Species and quantities,
 - Genetic sources,
 - Installed size (e.g, seed or nursery container size),
 - Planting density and designs,
 - Soil amendments, and
 - Site access;
- Maintenance plans, including:
 - Type of browse protection and staking,
 - Irrigation system type, design, and operation,
 - Wood chips or mulch,
 - Weeding methods, including methods and frequency;
- Monitoring and reporting plans, including:
 - Frequency,
 - Responsible parties and contact information, and
 - Methods for measuring seedling height, DBH, health, and performance of maintenance activities.

7.2 Permanent Preservation of Oak Woodland Habitats at a 2:1 Ratio

At least two acres of oak woodland habitat shall be preserved for each acre removed in the project (2:1). Oak woodlands are assumed to be removed if they are located in a parcel designated for residential, commercial, recreation, or other land uses other than permanently protected open space. After accounting for oak woodland habitats preserved in the project, additional acreage of comparable oak woodland maybe be acquired to be permanently preserved outside of the project.

The following Standards apply to the preservation of comparable oak woodland habitats:

- At least two acres of comparable oak woodland habitat shall be permanently preserved by acquisition in fee or perpetual conservation easement for one acre of oak woodland habitat removed or adversely affected in the project (2:1 preserved:removed);
- Comparable oak woodland habitat to be preserved is defined as oak woodland habitat with similar species composition and within 20% of the canopy cover of the removed woodland;
- If oak woodlands proposed for preservation are below the comparable canopy cover standard, project applicants may, through mutual agreement with the City, preserve larger habitat areas to make up the deficit in canopy cover such that the preserved oak woodland has:
 - At least twice the total habitat area removed or affected, and,

- Twice the comparable canopy cover area. The following is an example of how to apply the canopy cover deficit calculation:
 - If a development phase removes 100 acres of oak woodland habitat with an average of 50% canopy cover, that phase removes approximately 50 acres of oak woodland canopy area. Since comparable oak woodlands are defined as having within 20%, or greater, of the canopy cover of the oak woodlands affected by construction, the minimum required preservation area is at least 200 acres of oak woodland averaging at least 30% canopy cover, or at least 60 acres of canopy cover;
 - If the proposed preservation site in this example has only 20% canopy cover, then the preservation site has only 40 acres of oak tree canopy, and a canopy cover deficit of 20 acres. To make up the deficit, the project applicant may increase the preserved acreage to 300 acres of oak woodland with an average canopy cover of 20%, thereby preserving the required minimum of 60 acres of total canopy area;
- Oak woodlands proposed for preservation shall be described in the OWMP and acquired at the minimum 2:1 ratio by project applicants in fee or permanent conservation easement;
- Oak woodland preservation may be implemented on a phased basis or for the buildout of the project provided that the standard of 2:1 preservation is met for that portion of oak woodland habitat subject to removal under a grading permit;
- Prior to the City issuing a grading permit, project applicants shall complete the following:
 - Submit to the City for review, and gain approval of, the OWMP for the area under the grading permit;
 - Acquire in fee or permanent conservation easement at least two acres of comparable oak woodland habitats for one acre of oak woodland habitat to be removed or adversely affected under the grading permit or by construction-related activities;
 - Record the conservation easement;
 - Provide a management preserve trust account sufficient for perpetual maintenance of the habitat area;
 - Transfer to the City or City-approved local land trust the title or easement of the preserved oak woodland habitat parcels and the management preserve trust endowment for managing the preserved oak woodlands in perpetuity;
- The preservation of comparable oak woodlands habitats outside of the project must occur within western Amador County. Candidate sites are subject to the review and approval in advance by the City.
- There is no minimum size requirement for offsite preserved oak woodland habitats if they are contiguous with other existing preserved open space at least 100 acres in size;
- In order to provide comparable wildlife habitat values if the parcel is isolated from other protected areas, the minimum allowable parcel size of preserved habitats outside of the project shall be 20 acres;
- Single, contiguous large sites provide better habitat values for wildlife, are more efficient to manage, and qualify for participation in the California Climate Action Registry. The priority configuration of properties for the preservation of comparable oak woodland habitats outside of the project are, in order of priority:
 - 1) A single parcel or contiguous parcels to satisfy the acreage requirement for the buildout of the project;
 - 2) Multiple parcels each with a minimum of 100 contiguous acres in size. Single, continuous large sites would provide comparable habitat values for wildlife populations and movement corridors as that affected by development in the project, be more efficient to manage, and qualify for participation in the California Climate Action Registry;

- 3) Parcels less than 100 acres in size but contiguous with other permanently protected open space;
- 4) Parcels at least 20 acres in size but isolated from other permanently protected open space;
- The priority locations for preserving oak woodland habitats outside of the project are sites that are visible and accessible to the public, and are, in order of priority:
 - 1) Parcels contiguous with preserved oak woodlands in the project;
 - 2) Parcels within or contiguous to the City of Sutter Creek sphere of influence; and
 - 3) Parcels within 2 miles of the Sutter Creek sphere of influence.

7.2.1 Avoidance of Oak Woodland Habitats Within Construction Areas in the Project

The calculation of removed oak woodland habitat includes the entire area of a parcel subject to grading or development. While individual oak trees may be preserved (see Section 3.1 below), it is assumed the natural habitat values of oak woodlands have been permanently adversely affected in parcels that are not protected as open space lands. Consequently, retaining individual trees or small groves in residential parcels does not reduce the 2:1 habitat preservation requirement described above in Section 2.0. To avoid impacts to oak woodland habitats and thereby reduce the 2:1 habitat preservation requirement, a parcel must be designated as permanently protected open space land and contiguous with other open space lands in the project. Retained oak woodlands that are isolated from other oak woodlands in open space lands are not considered adequately preserved habitats and will not reduce the 2:1 habitat preservation acreage requirement.

7.2.2 Monitoring and Reporting Requirements for Preserved Oak Woodlands

The oak woodland habitat management endowment holder shall provide a progress report to the City annually. The progress report shall include the following items:

- An accounting of the preserve trust account;
- Land uses and management activities during the reporting period;
- An assessment of observed changes to the health, structure, species composition, reproduction, and habitat quality of the preserved oak woodland habitats;
- Recommended or planned land uses and management activities; and,
- Proposed actions to improve, restore, or sustain oak woodland habitats.

7.3 Tree Retention

The following Standards apply to the preservation of existing native oak trees in the project.

7.3.1 Tree Retention Goals

Oak trees shall be retained in the project unless it is demonstrated that to do so is neither feasible nor reasonable. The removal and preservation of oak trees in developed areas shall be consistent with the grading ordinance when adopted in conformance with General Plan Policies COS-1.8.1 and COS-1.8.2 and Implementation Measures COS-1.8.1.1 and COS-1.8.2.1.

7.3.2 Tree Retention Monitoring

- A qualified registered professional forester or certified arborist shall conduct a pre- and post-construction health assessment of retained trees, prescribe site-specific tree protection measures,

monitor construction activities to verify that protection measures are being implemented correctly;

- The pre-construction health assessment shall be conducted within 1 year prior to construction, and the post-construction assessment shall be conducted during the period not less than two years and not later than three years (2-3 years) after the initiation of ground disturbance in the vicinity of the tree;
- Assessments shall be conducted during an appropriate phenological period to accurately assess and compare tree health and vigor;
- Retained trees are considered adversely affected by construction if any one of the following occurs due to construction-related activities:
 - Tree mortality;
 - >25% of the canopy is removed;
 - The CRZ is disturbed;
 - >35% of the RPZ is affected by ground disturbance; or
 - The post-construction tree health assessment finds a substantial decline in tree health or vigor.

7.4 Native Oak Woodland Tree Replanting

The OWMP shall describe the seedling planting and establishment plan including design, location, species, quantity, site preparation, maintenance, monitoring, reporting, and responsible parties. The plan shall describe how seedling planting and establishment will meet the following Standards.

7.4.1 Tree Seedling Planting Standards

- Species, planting densities and designs, and maintenance requirements shall be based on ecological compatibility with site-specific growing conditions;
- Seedlings may be planted in a variety of settings suitable for the growth and establishment of locally native trees, including:
 - Developed or maintained landscaped areas in the project;
 - Portions of open space lands in the project or offsite oak woodland habitat preservation areas that are not dominated by trees; or
 - In conjunction with other onsite habitat mitigation or restoration measures, such as riparian or VELB habitat restoration.
- The maximum average density is 150 tree seedlings per acre (17 feet on center average spacing);
- In wildland-urban interface areas, seedling planting designs shall be consistent with fuel management guidelines under PRC 4291 (State Board of Forestry and Fire Protection (BOF) and California Department of Forestry and Fire Protection [CalFire]. 2006. *General Guidelines for Creating Defensible Space*) at vegetation maturity and be approved by the Sutter Creek Fire Protection District;
- In natural habitat areas such as open space lands in the project or offsite habitat preservation areas:
 - Trees shall be planted at least 20 feet from buildings and hardscape infrastructure and at least 10 feet from the canopy dripline of an existing tree;
 - Planting shall be in a naturalistic pattern;
 - Seedlings shall be planted within one year of tree removal or mortality due to construction;
 - Installed seedlings may vary in size from seeds (acorns) to small container stock (e.g., 2" x 9" d-pots to 4" x 14" treepots);
- In developed and maintained landscape areas,

- Trees shall be planted at least 10 feet from the canopy dripline of existing trees;
- If trees are planted within 10 feet of hardscape, root barriers shall be installed to protect infrastructure and tree roots;
- Seedlings shall be planted within one year of tree removal due to construction or in the first suitable planting weather after the completion of construction activities;
- Installed seedlings may vary in size from small to large container stock (e.g., 4" x 14" treepots to 15-gallon containers);
- Seedling genetic stock shall be derived from western Amador County;
- In order to maintain local genetic stock, tree planting may be delayed if a regional acorn crop failure occurs limiting seed collection, and planting would occur during the next suitable planting season after the next available crop is produced;
- Seedlings shall be installed with:
 - Friable native soil, with rocks greater than 1-inch removed, and tamped down and watered in at planting to remove air pockets;
 - Appropriate quantity and type of slow-release fertilizer;
 - All-weather aluminum tag with unique identification number;
 - Browse protection to minimize damage by deer, rodents and other herbivores;
 - A 3-ft. diameter, 4-inch deep watering basin;
 - Wood mulch, chips, or other natural material to retain soil moisture and control weed growth.

7.4.2 Tree Seedling Maintenance Standards

- Irrigation requirements during the growing season (April 15 – October 15) include:
 - No overhead spray shall be used in contact with seedlings;
 - Drip irrigation is an acceptable method for watering oak tree plantings;
 - Irrigation events shall be sufficient to fill the water basin or thoroughly irrigate the entire root zone via drip irrigation;
 - At least weekly irrigation during Year 1 or as needed based on temperature and precipitation and allowing the soil surface to dry between irrigation events;
 - At least bi-weekly irrigation Years 2–3 or as needed based on temperature and precipitation and to allowing the soil surface to dry between irrigation events;
 - Irrigation shall be provided bi-weekly or as needed Years 4–7 to promote the establishment and growth of seedlings;
- Weeding requirements include:
 - Weed control shall be conducted as needed to maintain a weed free area at least 3 feet from the seedling and vegetation to less than 6 inches in height within 6 feet of the seedling until the seedling is established;
- Browse protection, staking, watering basins, and wood chips or mulch shall be repaired or replaced as needed until the seedling is established;
- Seedlings shall be actively maintained with supplemental irrigation, weeding, and browse protection until established.

7.4.3 Tree Seedling Survival and Establishment Standards

- Established seedlings are considered to be wind firm, have a good tree-like growth form with a balanced canopy structure, healthy foliage, and no longer reliant on supplemental irrigation, weeding, staking, or browse protection for continued good growth to maturity;
- In natural habitat areas such as open space lands in the project or offsite habitat preservation areas:

- The survival standard is 100% at the end of Year 4, and at least 70% of seedlings shall be established at the end of Year 7;
- In developed and maintained landscape areas:
 - The performance standard is 100% survival and replacement as needed for the life of the Project.

7.4.4 Tree Seedling Monitoring and Reporting Plan

The tree seedling monitoring and reporting plan described in the OWMP shall include:

- Map of planting locations, species, number, installed size and materials, and planting date;
- Monthly inspections April – October, Years 1–3 after initial planting;
- Inspections twice during the growing season, April – October, Years 4–5;
- Inspections at least once prior to July 15, Years 6–7 after initial planting;
- Within 14 days after each inspection, a letter report shall be distributed to the project applicant, City of Sutter Creek, and the parties responsible for maintenance describing general observations of growing conditions, maintenance levels, and recommended actions to improve success;
- During September – October of Years 1–7, an inventory shall be conducted recording tree number, height, canopy width, DBH, and overall health and vigor;
- A summary report shall be provided to the City of Sutter Creek and responsible entities by December 1 each year for Years 1–7, including the following information:
 - Seedling survival percentage, growth (height, width, DBH), and health;
 - Irrigation schedule, method, frequency, and quantity;
 - Weed conditions, removal schedule, method, and frequency;
 - Seedlings considered established;
 - Representative photographs of installed seedlings and planting areas;
 - Browse protection performance and condition; and
 - Recommended remedial actions or maintenance to improve site or seedling establishment success.

7.5 Rare Plant Management Plan

Rare plants are considered those listed under the federal Endangered Species Act, the California Endangered Species Act, the California Native Plant Protection Act (CNPPA), or the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants* (Skinner and Pavlik 1994, California Native Plant Society 2008). Prior to the issuance of permits for construction of off-site infrastructure to service the project, or for the planting of locally-native trees in natural habitat area, project applicants shall demonstrate to the satisfaction of the City that the Standards listed below have been achieved:

- Prior to the City issuing a permit for construction of offsite infrastructure improvements, or in offsite areas proposed for oak tree planting and oak woodland restoration under the project's OWMP above, a qualified botanist shall conduct rare plant surveys in areas of ground disturbance;
- Surveys shall be conducted during the appropriate phenological period to properly identify special-status plant species that may occur;
- Surveys shall be conducted in accordance with the CNPS' (2001) *CNPS Botanical Survey Guidelines* and the California Department of Fish and Game's (CDFG) (2000) *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and*

Natural Communities;

- The results of the survey shall be submitted to the City of Sutter Creek prior to the City issuing grading permits;
- If no special-status plant species occur in the area of ground disturbance, no impacts to special-status plants are expected to occur and no measures are required;
- If special-status plant species occur, the results of the surveys shall be submitted to the City of Sutter Creek and CDFW prior to the City issuing permits, and the following measures are required:
 - Development design modifications shall be developed and implemented to avoid or reduce impacts to rare plants;
 - If avoidance of rare plant populations is not achieved, project applicants shall consult with the CDFW under Section 1913 (CNPPA) to develop and implement species-specific measures, which may include:
 - Seasonal construction restrictions;
 - Boring below populations;
 - Erection of protective barriers;
 - Collection and relocation of individual plants or seeds;
 - Site monitoring during construction;
 - Site restoration following construction;
 - Restoration of similar habitats in offsite locations;
 - Acquisition and permanent preservation of unprotected populations; and
 - Implementation of construction practices that will avoid specific areas.

7.6 References

Skinner, M.W. and B.M. Pavlik. 1994. *Inventory of Rare and Endangered Vascular Plants of California*. California Native Plant Society, Special Publication No. 1. Sacramento, California.

California Department of Fish and Game. 2000. *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities*. State of California, The Resources Agency, California Department of Fish and Game. December 9, 1983, Revised May 8, 2000. Sacramento, CA.
[<http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/guideplt.pdf>]

California Native Plant Society. 2008. *Inventory of Rare and Endangered Plants* (Version 7-08b). Accessed at <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed on May 1, 2008. California Native Plant Society. Sacramento, CA.

State Board of Forestry and Fire Protection (BOF) and California Department of Forestry and Fire Protection (CalFire). 2006. *General Guidelines for Creating Defensible Space*. Adopted by BOF on February 8, 2006. Approved by Office of Administrative Law on May 8th, 2006. BOF and CalFire. Sacramento, CA.

8 City of Sutter Creek Energy Action Plan, 2015

The City of Sutter Creek Energy Action Plan, 2015 is available at the City Office and on the City's website, cityofsuttercreek.org.

9 City of Sutter Creek Traffic Impact Study Guidelines

The City of Sutter Creek Traffic Impact Study Guidelines is available at the City Office and will be available on the City's website, cityofsuttercreek.org.

10 Amador Countywide Pedestrian and Bicycle Plan, October 2017

The Amador Countywide Pedestrian and Bicycle Plan (October 2017) is available at the City Office and will be available on the City's website, cityofsuttercreek.org.

11 Amador County Park and Recreation Master Plan, 2006

The Amador County Park and Recreation Master Plan is available at the City Office and on the City's website, cityofsuttercreek.org.

12 Design Standards from the Cramer Hill East CC&Rs



Amador County Recorder

Sheldon D. Johnson

DOC- 2002-0015138-00

Check Number 6214

REQD BY JOHN B. ALLEN

Thursday, DEC 05, 2002 16:43:30

Ttl Pd \$123.00

Nbr-0000047569

SDJ/R1/1-40

RECORDING REQUESTED BY

John B. Allen, Sr., George E. Allen,
Janet L. Allen and John B. Allen, Jr.

AND WHEN RECORDED MAIL TO:

Name JOHN B. ALLEN
Address P.O. Box 232
City & Sutter Creek, CA 95685
State

SPACE ABOVE THIS LINE FOR RECORDER'S USE

**DECLARATION OF COVENANTS, CONDITIONS AND
RESTRICTIONS FOR PROPERTY KNOWN AS
CRAMER HILL EAST**

SECTION 1. DECLARANTS. THIS DECLARATION, called "CC&R's," is made on the date set forth below by the following owners, collectively called "Grantors" in these CC&R's:

John B. Allen, aka John B. Allen, Sr. and George E. Allen as Co-Executors of the Estate of Vera Allen as to an undivided 1/2 interest; John Allen, aka John B. Allen, aka John B. Allen, Sr., a married man dealing with his sole and separate property as to a 1/6 interest; and John Allen, aka John B. Allen, aka John B. Allen, Sr., and Janet L. Allen, husband and wife, dealing with their community property with right of survivorship as to a 1/3 interest.

SECTION 2. PROPERTY DESCRIPTION. The affected Parcels of real property are as follows.

2.01. This burdens and reciprocally benefits Parcels 51 through 57 as depicted on that certain "Record of Survey for Boundary Line Adjustment for The Estate of Vera M. Allen, John Allen, Ann Munn & Carolyn Bowers" by Fred A. Strauss, R.C.E. 7442 and recorded December 22, 1999, in the official records of Amador County, California at Book 52 of Maps and Plats at Pages 100 through 105. This map is called "52-M-100" in these CC&R's. Parcels 51-57 and any lot or parcel made from those Parcels or added to the burden of these CC&R's in the future, are called "Cramer Hill East Parcels" in these CC&R's.

2.02. This also benefits all the following other lands (in addition to Cramer Hill East Parcels 51 through 57) that are currently owned by Allens, some of them, or by a combination of some of them and trustees of other family members, and that are not under Williamson Act Contracts, being: Parcels 44 through 58 as depicted on 52-M-100 and that certain parcel of approximately 3 acres owned by John Allen, surrounded by Parcels 49 and 51 and depicted on 52-M-100 as "John Allen 47 OR 127 N.P." These are individually and collectively called "Northerly Allen Transition Lands" in these CC&R's.

2.03. This also benefits all the following other lands that are currently owned by Allens and that are under Williamson Act Contracts, being: Parcels 11, 16, and 17, as depicted on 52-M-100. These are called "Allen Ranch" in these CC&R's.

2.04. As Lot 16 (defined below) has other owners, this does not initially benefit Lot 16 except as to the Grantors, but it is intended to do so in the future if all the owners of Lot 16 join into the CC&R's with the certain changes and under certain conditions noted in this document. As a transitional lot already smaller than 3 acres, Lot 16 would be allowed division, higher density, greater lot coverage, and other matters appropriate to its size, location, and topography. Due to the challenges of building there, it would not have designated building sites.

SECTION 3. PREAMBLE - BACKGROUND AND INTENT

3.01. The affected land has been in the Allen family since the 1860's, used for grazing land, and is situated immediately adjacent to the old part of Sutter Creek ("Old Town"). Sutter Creek enjoys some of the highest property values in Amador County. The affected land is currently rolling oak-woodland with woodlots, consisting of blue oak and live oak, with annual grasses and rock outcroppings under them, and open grassy areas, consisting of annual grasses with clover and redstem filaree and other forbs. The grass is fed off annually, with some grass cover left for fall. This creates the appearance that the grass is uniformly green in the spring, without grey dead grass or weeds or other vegetation visible, and yellow after it dries. Clusters of oaks dot the landscape. Their lower branches and leaves are trimmed by cattle up to a uniform height of about 4'.

3.02. The intent and purpose of this document is to preserve the natural beauty of the area which resulted from the grazing use, to continue agricultural uses and to preserve the open space, while providing a high-class residential area in the orderly development of the Cramer Hill East Parcels and other Northerly Allen Transition Lands, and to preserve the views of the Cramer Hill East Parcels and

from the Cramer Hill East Parcels and from the Northerly Allen Transition Lands. This is to be accomplished with specified types and sizes of buildings and uses that blend in with the "Old Town" look of Sutter Creek and are clustered in certain locations, to maintain consistency and enhance property values, while protecting the adjoining Northerly Allen Transition Lands and Allen Ranch, and their future agricultural, recreational, commercial and industrial uses.

3.03. The goals are to blend the new uses seamlessly into the adjoining existing "Old Town" Sutter Creek with a look circa 1910; to preserve the charm of "Old Town" and the views from "Old Town," to establish and maintain a consistent, identifiable, and desirable architectural style and neighborhood throughout the Cramer Hill East Parcels, with the external appearance of having been established circa 1910; to provide more "Old Town" for those who are unable to live in "Old Town" due to limited availability of lots, those who wish to have new homes with modern construction and convenience, and those who wish for some space around their homes; to preserve the appearance of Sutter Creek as a Gold Rush town for tourism, including the appearance of the open oak tree-studded hillsides visible from downtown; to enhance property values and uses of the Northerly Allen Transition Lands; to prevent eyesores, to emphasize aesthetics and to provide a scenic vista for the neighborhood, for downtown Sutter Creek, and for the Northerly Allen Transition Lands; to blend future Parcels together into one functional neighborhood no matter who builds it out; to protect the views; to provide an environment in which people, now and far into the future, will be proud to make a home for their families, to raise their children and to enjoy retirement; and to protect and minimize interference with the rest of the present and future uses of the Northerly Allen Transition Lands and Allen Ranch.

SECTION 4. RECITALS

WHEREAS:

Grantors own the certain real property described above in these CC&R's, which has been in the family for many generations and adjoins the old part of downtown Sutter Creek; and

Grantors seek to benefit the historical and beautiful aspects of the City of Sutter Creek and the Cramer Hill East Parcels by retaining its desirable characteristics and preserving them far into the future; and

Grantors own property which adjoins the property described above in these CC&R's, which adjoining property will be benefitted; and

Grantors intend by these CC&R's to establish restrictions, limitations, and covenants that run with the land and will be binding on all persons (and their successors) having or acquiring any right, title, or interest in the Cramer Hill East Parcels under a general plan or scheme of improvement for the benefit of it, the Northerly Allen Transition Lands and Allen Ranch; and

Grantors intend that the future owners of Northerly Allen Transition Lands and Allen Ranch shall benefit so long as any Allen Family Member own it or any right, title or interest in or to any part of it.

NOW, THEREFORE, Grantors declare that the Cramer Hill East Parcels are held and will be held, conveyed, sold, mortgaged, encumbered, hypothecated, leased, rented, used, occupied, and improved subject to the following limitations, restrictions, declarations, covenants, conditions, reservations, and easements, all of which are declared and agreed to be (1) in furtherance of a plan for the improvement, use, and sale of the Cramer Hill East Parcels, improvement, use, and potential sale of the Northerly Allen Transition Lands, and improvement, use, and possible sale of the Allen Ranch lands, and (2) are established and agreed on for the purpose of enhancing and protecting the value, desirability, and attractiveness of the Cramer Hill East Parcels, Northerly Allen Transition Lands, Allen Ranch and every part of such lands.

All of the foregoing shall run with the land and shall be binding on and burden all persons having or acquiring any right, title, or interest in the Cramer Hill East Parcels or any part thereof (Buyer), and will benefit and inure to the benefit of all of the Cramer Hill East Parcels hereafter and also of such parcels of the Northerly Allen Transition Lands and Allen Ranch that any Allen Family Member owns or has any right, title or interest in or to any part of it.

Each grantee of a conveyance or purchaser under a deed, contract or agreement of sale, or mortgage, deed of trust, lien or other transfer, covering any right, title, or interest in the Cramer Hill East Parcels, by accepting any document conveying an interest in the property accepts the document subject to, and agrees to be bound by, any and all of the limitations, restrictions, declarations, covenants, conditions, reservations, and easements set forth in these CC&R's.

SECTION 5: DEFINITIONS

In addition to other definitions provided for elsewhere herein, the following terms when capitalized shall have the following meanings:

5.01. "Allen Family Member" means, individually or collectively, John Allen, Sr., Janet L. Allen, and lineal descendants of theirs to the third degree. It also includes trustees of trusts for the benefit of any of the foregoing, any family limited partnerships of other entities consisting of or for the benefit of any of the foregoing, whether existent now or formed in the future. "Allens" includes the Estate of Vera Allen and/or any of the foregoing, or any combination of the same.

5.02. "Building Site" shall mean that area designated on **Exhibit A Building Sites, Easements, & Park** as the area within which buildings may be constructed.

5.03. "Buyer" shall mean each person or entity holding a record fee ownership in a Cramer Hill East Parcel.

5.04. "Lot 16" means Lot 16 as depicted on that certain "Record of Survey Boundary Line Adjustment for Vera M. Allen" and recorded June 12, 1987, in the official records of Amador County, California at Book 41 of Maps and Plats at Page 63.

5.05. "Rock Walls" shall mean having the appearance of tightly-stacked unmortared native rock, as seen in the rock walls that currently survive on Cramer Hill East and in the vicinity, from the 1800's.

5.06. "Structure" shall mean any tangible thing or device to be fixed permanently or temporarily to real property and anything made by a person, including any covered by building codes and any building, house, barn, garage; outbuildings, barn, shed, stable, landscaping Structures (e.g., gazebo, trellis), wall (including any visible from the side, such as dams, flumes and ditches), fence, gate, pylon, pole, sign, antenna, exposed plumbing, equipment, facilities for animals, or the like.

5.07. "Screened" shall mean not visible by the naked eye, as though the conditions were clear daylight, from other Cramer Hill East Parcels, Northerly Allen Transition Lands or Allen Ranch, from roads, streets, or driveways as depicted on **Exhibit A Building Sites, Easements, & Park** within Cramer Hill East, or from Main Street Sutter Creek, due to obstructions to view such as terrain, appropriate vegetation, or permitted Structures.

5.08. "Utility" means all things and facilities making a connection between a parcel of land and a public or private utility or service provider, including, but not limited to, such things brought to or from a Cramer Hill East Parcel, such as water, sewer, energy, communications and deliveries by wire, conduit, cable,

pipe, etc.

5.09. "Vehicle" shall mean a conveyance for persons or property or equipment, whether powered, carried or towed; equipment and implements; aircraft, boats and vessels; campers, recreational vehicles, and other portable living and camping units; anything with wheels, tracks, skids, or hulls, and includes anything defined in the California Vehicle Code as a vehicle. It does not include horse drawn wagons constructed of wood and iron with wood fellows and steel tires that look like such wagons commonly looked in the 1800's.

5.10. "Visible" shall mean can be seen by the naked eye, as though the conditions were clear daylight, from other Cramer Hill East Parcels, Northerly Allen Transition Lands or Allen Ranch, from roads, streets, or driveways as depicted on **Exhibit A Building Sites, Easements, & Park** within Cramer Hill East, or from Main Street Sutter Creek.

SECTION 6: STRUCTURES

6.01. General Appearance and Requirements. In order to maintain and enhance the charm of the City of Sutter Creek, all Visible Structures shall resemble and blend with the architectural styles of Sutter Creek existent circa 1910 (the "Period"), as exemplified for residences, barns and sheds by the predominate style on the attached excerpted illustrations from *Toby Tyler* drawings of schematic sketches of Sutter Creek buildings, incorporated herein as **Exhibit B Toby Tyler Sutter Creek Buildings Drawings Excerpts** and on the portions of illustrations in *Mason's History of Amador County by Thompson and West 1881* that are listed on **Exhibit C List of Illustrations from Mason's History of Amador County by Thompson and West 1881**. All illustrations are for examples of houses, barns, and sheds, for ideas such as general look and features, but nothing in the illustrations shall override the requirements herein. All Structures shall have a Period look of Sutter Creek, with appearance, massing, scale, proportion, and detailing to match the nature of Sutter Creek consistent with the foregoing Exhibits B and C, be tasteful, well-built, attractive, and be maintained in good condition. Examples of architectural elements required, allowable, and prohibited are attached hereto on **Exhibit D Architectural Elements**. All habitable Structures shall be designed by an architect.

6.02. Quality. The construction, improvement, modification, maintenance and replacement of all Structures and components shall be of the highest quality, with first rate workmanship. Quality shall not be sacrificed for quantity, i.e., square feet or cubic feet.

6.03. Size and Height. No single Structure containing a residence or having the appearance of a residence, including any attached garage or carport, shall be more than 3500 square feet of footprint. Footprint is calculated by the largest perimeter including all projections, of all floors of the total of the residence, plus the garage, carport, covered walkway, covered porches, decks, eaves, overhangs, and all other building elements, as projected at the ground plane. Long and narrow Structures that appear larger than the foregoing shall be prohibited. Structures shall be limited to a maximum of two normal stories, not counting basements that are predominantly underground, and attics. No secondary residence shall be over half the size of the primary residence, and shall not predominate over it. However, the primary residence need not be the first residence built. Detached Structures shall not be situated so as to appear to be part of another Structure as viewed from other Cramer Hill East Parcels, Northerly Allen Transition Lands and Allen Ranch, roads, streets, and driveways as depicted on **Exhibit A Building Sites, Easements, & Park** within Cramer Hill East, and from Main Street Sutter Creek.

6.04. Colors. All Structures shall be done in colors which are appropriate to the Sutter Creek historical Period and style being portrayed. Examples of desirable colors are white, pastels, and red or yellow if brick. It is preferred the body colors of residences be white or of another light shade. A natural wood appearance is acceptable, especially for outbuildings. Notwithstanding the foregoing, loud, obtrusive, or unusual colors either for the body or the roof of the house, such as mustard, orange, pink, or purple, or black for the body, shall be prohibited. In addition, all residences are to be trimmed in at least one complimentary color. Green was a common trim color for white buildings and is acceptable.

6.05. Location. Except for perimeter fencing, all Structures shall be constructed only within the building limits of each Building Site, being clustered and covering no more than 20% of the Cramer Hill East Parcel area (except Parcel 52), located as generally depicted on the map attached as **Exhibit A Building Sites, Easements, & Park**, to preserve the open space look with woodlots and so as to mitigate impacts on views of Main Street Sutter Creek from designated Building Sites of other Cramer Hill East Parcels or Northerly Allen Transition Lands. The location and design of the Structure or Structures on the Building Site and the landscaping must bear an overall relation to the adjacent properties so as to create an aesthetically pleasing overall appearance and to substantially maintain the foregoing views. It is understood that views cannot be entirely unaffected.

6.06. Garages. Garages shall be disguised as part of the residence or detached,

but may be connected to the residence with architecturally consistent breezeways or covered walkways or with arbors, so long as the design does not make the house look larger. Each garage shall match its companion residence or have the look of a small local nineteenth century barn or carriage house but shall not predominate over the residence. Modern style garage doors shall be unobtrusive but old-style swinging wooden-appearing doors may be more noticeable. No more than two covered garage bays shall be Visible. Carports may be provided as an addition to, but not in place of, required enclosed garage spaces.

6.07. Fences. Visible fences shall have a Sutter Creek Period look consistent with that of the residence and other buildings located on the Cramer Hill East Parcel. Visible fences in the Building Site areas near the residences may be decorative iron, wood-appearing pickets, hedges, or Rock Walls in appearance, consistent with those on **Exhibit C List of Illustrations from Mason's History of Amador County by Thompson and West 1881**. Away from the residences and off the building sites, fences shall be inconspicuous, such as posts that resemble unpainted natural split or sawn wood, (not peeler cores) with similar rails or tight high-tensile strength class 3 galvanized wire, (to deter rust) or Rock Walls in appearance, to maintain the open look of the area with islands of building areas. Buyer shall build and maintain the fences strong, tight, straight, and uniform. Examples of fences not permitted are: Visible chain link fences; masonry fences, including stucco, cinder blocks, cobble or other non-indigenous rock, or Visible mortar; bright or shiny plastic; or the like. No showy, massive or masonry pylons or entryways shall be permitted. Gates outside the Building Sites shall have the appearance of wood.

6.08. Architectural Review. Before any construction or Visible change begins of any Structure, any portion of which will be Visible, two sets of Preliminary Plans, containing all applicable information required on **Exhibit E Preliminary Plans Requirements** attached hereto and incorporated herein, for any Structure shall be first submitted to the Architectural Control Committee (ACC), consisting of John B. Allen, Jr., or his designee, for Architectural Review, together with a review fee for the application as follows, plus a 6% per year from 2002 inflation index:

Residential Structures	\$500
Outbuilding Structures	\$200
All other Visible Structures	\$100
Corrective Resubmittal ¹	Half of otherwise applicable charge

The mailing address is P.O. Box 232, Sutter Creek, CA 95685, which is subject to change. In seeking advice on review, the ACC may, but is not required to,

¹. Corrective Resubmittal of plans substantially similar to those previously rejected, but with minor corrections to address reasons for prior rejection.

share viewing of plans with architects or other qualified persons, local officials, and owners of neighboring Parcels, and may rely on the foregoing and other information in the review. In the event the ACC fails to notify the applicant of the specific matters to which it objects to the applicant's address phone number, fax number, or e-mail address, as provided by the applicant, within 21 days after receipt of sufficient submission of an application, the application shall be deemed approved, providing it is consistent with these standards. If objections are noted, amended plans shall be resubmitted. Final plans consistent with the approval or comments shall be submitted for a similar final review before either building permit is issued or construction begins. Such approval is valid for one year. If construction is not completed within that time, plans must again be submitted for approval. The ACC may, but is not required to, keep one set of plans. Construction of any Structure must be prosecuted diligently and continuously from the start thereof until it is completed, with the main residence for each Cramer Hill East Parcel completed no later than the outbuildings. Review and approval is for Allens, and primarily for aesthetics as a matter of taste, and is not a check or a warranty of suitability, structure, safety, code compliance, longevity, maintenance requirements, preservation of views or property values, protection or placation of Parcel owners or neighbors, or any other attributes. John B. Allen, Jr. or 2/3 of the Allen Family Members may designate a replacement for John B. Allen, Jr.

6.09. Exceptions. The limitations of this Section do not apply to portions of Structures that are inside the Structure, or entirely underground with no ground disturbance Visible after one year from beginning construction.

SECTION 7: SURROUNDINGS

7.01. Landscaping. Landscaping and non-indigenous vegetation are subject to the same location restrictions as are Structures, except that up to 40% of the Cramer Hill East Parcel area, including the building site and adjacent to the building site, may be farmed in a manner that looks consistent with the Period in the Sutter Creek area. The remaining, 60% of each Cramer Hill East Parcel area shall be left in its natural state substantially as it appears in the year 2002, as depicted on the attached 1978 aerial photo with approximate Parcel locations depicted, incorporated herein as **Exhibit F Open Areas and Woodlots with approximate Parcel Locations**, incorporated herein by reference. Thus, disturbance to vegetation and contours shall be minimized. Cuts and fills are encouraged to be minimal, with rough irregular banks and planted with scattered native grasses and wildflowers. Landscaping is encouraged to be indigenous and shall not be noticeably contrasting to the natural appearance. In addition, Buyer shall make reasonable efforts to leave and avoid harming indigenous vegetation.

Each oak tree lost shall be replaced by four viable trees of the same species and, if intentionally removed, by viable equivalent basal-area square footage. Disturbed soil or vegetation shall be revegetated promptly to minimize erosion, dust, and unsightliness. Planted trees, no matter how long they have been established, shall not be allowed to block any views of Main Street Sutter Creek from designated Building Sites of other Cramer Hill East Parcels, Northerly Allen Transition Lands and/or Allen Ranch. Even within the building site and farming areas, non-indigenous trees shall be avoided if they conflict, overpower, or detract from the natural look of the indigenous vegetation in areas where they are Visible, or block views of Old Town Sutter Creek from other Cramer Hill East Parcels, Northerly Allen Transition Lands, roads, streets, and/or driveways as depicted on **Exhibit A Building Sites, Easements, & Park** within Cramer Hill East.

7.02. Grading. Cuts and fills shall be minimized and made as unobtrusive as possible as set forth in the Subsection above, or lined with Rock Walls. Structures shall blend with the terrain to the extent reasonably feasible, as exemplified by **Exhibits B and C**.

7.03. Rock Walls. Rock Walls now existing on the Cramer Hill East Parcels shall be protected, and if disturbed or damaged, shall be restored to their former condition at the expense of the Owner of the Cramer Hill East Parcel upon which they were located. Rock Walls may be constructed on the Cramer Hill East Parcels if they closely resemble the Rock Walls as to the Visible features in materials, construction and appearance.

7.04. Parking. All Cramer Hill East Parcels shall contain a sufficient number of parking spaces enclosed or Screened and available for parking all vehicles normally kept on the Cramer Hill East Parcel, including those that are used daily, Screened when not being driven. Thus, parked Vehicles shall not be Visible on the Cramer Hill East Parcel except for visitors for short stays.

7.05. Lighting. Stray lighting off the property shall be minimized. December holiday lighting shall be Visible only from Thanksgiving Day to the end of the weekend after January 7th. All other holiday lighting that is Visible shall be limited to fourteen days.

7.06. Utilities. All utilities, except deliveries by common carrier vehicle, shall be underground so as not readily Visible and shall not interfere with non-structural temporary, transitory, mobile, or ephemeral surface uses, such as grazing, walking, and vehicular use. Other than now existing Rock Walls, Structures, no matter how long present, shall not interfere with placement or maintenance of utilities. Mechanicals, such as heating, air conditioning,

electrical, pumps, etc., shall not be Visible, except for unobtrusive and tastefully integrated solar or other alternative energy collectors. Alternative Energy devices shall be favored, but all such devices shall be integrated aesthetically and architecturally with the Structure and be Screened as much as possible and shall avoid Visible reflections off the Parcel upon which they are located.

7.07. Temporary Structures. No temporary buildings, trailers, or Structures are allowed except temporary power poles, portable toilets, and others as required during construction, which shall not be allowed to remain over one year.

7.08. Poles, Masts, Antennae, and Roof Projections. With the exception of small satellite dishes measuring less than two feet in diameter, no poles, masts, antennae, towers, aerials, or facilities for the reception or transmission of communication or energy signals or other means of communication shall be Visible on any Cramer Hill East Parcel. However, reasonable sized flagpoles for United States and State flags are permitted.

7.09. Weeds. "Weeds" to which this applies are defined as those on the weed list of the California Dept. of Food and Agriculture, Division of Plant Health and Pest Prevention Services, Pest Ratings of Noxious Weed Species and Noxious Weed Seed, Classes A, B, C, and O, or equivalent, as amended and implemented from time to time by the State of California and by the Amador County Agricultural Commissioner (the current list, a copy of which is attached as **Exhibit G Weed List** is incorporated herein by reference). Weeds and plants that are noxious, unsightly, or poisonous to people or domestic animals shall not be allowed to grow, seed, or spread on any Cramer Hill East Parcel or to infect neighboring Cramer Hill East Parcels or the Northerly Allen Transition Lands and/or Allen Ranch. Vegetation shall be kept cut, grazed, or trimmed as appropriate for a neat appearance and reduction in fire hazard. Dry grass shall be fed or mowed annually to reduce fire hazard in the summer and eliminate unsightly grey stems in the spring. Buyer shall ensure that all contracts for construction shall require the contractors and subcontractors to thoroughly clean Weed reproductive organisms off equipment and vehicles before bringing them onto a Cramer Hill East Parcel and be responsible to eradicate Weeds that grow on the Cramer Hill East Parcels as a result of their activities. Buyer shall not spread uncertified hay about the Cramer Hill East Parcel due to the possibility of contamination. If Weeds from any Cramer Hill East Parcel are allowed to seed and/or infect neighboring Cramer Hill East Parcels or the Northerly Allen Transition Lands and/or Allen Ranch, Buyer shall be responsible for the cost to eradicate from such property such weeds which are caused by such infection. Finally, vegetation control methods shall not be overly conspicuous, cause erosion, or create a nuisance to the owners of other Cramer Hill East Parcels.

Northerly Allen Transition Lands and/or Allen Ranch, such as excessive noise, odors, smoke, chemicals, pollution, dust, stripped vegetation, bare dirt, eroded, impure, or degraded runoff, or any other unsightliness.

7.10. Grazing. The Cramer Hill East Parcels are currently within a field used by the Grantors for livestock grazing. Therefore, Buyer shall be responsible to fence off portions of the Cramer Hill East Parcel which the Buyer does not wish to be grazed, up to boundary of the Cramer Hill East Parcel. Buyer shall build and maintain strong tight fencing at least 5' high that is sufficient to turn cattle, dogs and people. Before Buyer begins keeping livestock or roaming pets or doing anything on the Buyer's Parcel that may be damaged by grazing, the Buyer shall fence as specified herein the area in which such animals are to be kept or the area to be protected or the entire Parcel, as appropriate. Until this fence is completed for each Cramer Hill East Parcel:

(a) Allen Family Members or their tenants will be able to graze, but not required to graze, the unfenced portions of each Cramer Hill East Parcel, and

(b) Buyer shall keep the existing perimeter fence and cross-fencing closed or gated, and

(c) Buyer may install gates or cattleguards upon suitable cornerposts properly placed in the perimeter fence and cross-fencing on Buyer's Parcel, but gates must be kept closed to restrain cattle and prohibit trespassers.

7.11. Animals. A reasonable number of traditional pets and livestock or other animals that do not have dangerous propensities may be kept so long as they do not overburden the land or create a nuisance to owners or occupants of other Cramer Hill East Parcels, or to the current and future owners of Northerly Allen Transition Lands and/or Allen Ranch. The following problems associated with animals, if excessive, shall be conclusively presumed to be a violation of this covenant: noise, odors, manure, disease, dust, mud or runoff, straying or trespass, stripped vegetation, bare dirt, or other unsightliness. Danger and disease associated with animals are *per se* violations. In no event shall more than one mature horse, cow, or equivalent livestock weight per Cramer Hill East Parcel be kept so as to be Visible, except for temporary grazing by the Allen Family Members, by their tenants, and by Buyers to control dry grass. Grazing shall not substantially expose bare soil.

7.12. Parcel Maintenance. All Cramer Hill East Parcels shall be kept neat. No uses shall be made that are unsightly or cause a nuisance for current and future owners of Cramer Hill East Parcels or Northerly Allen Transition Lands and/or Allen Ranch. All improvements and landscaping on such Cramer Hill East Parcel shall be maintained by the owner in good condition and repair, so as to prevent them from becoming unsightly, unsanitary, unusable, run-down, dangerous, or a health hazard. If not grazed, the dry grass shall be cut at least

annually so as to maintain the open fields in a neat and attractive manner.

7.13. Eyesores. No unsightly or overly conspicuous materials or items or brightly colored weather protective coverings or screenings shall be Visible.

7.14. Nuisances. No health hazards, noxious, illegal, or seriously offensive activities shall be carried on within the Cramer Hill East Parcels. Nor shall anything be done thereon which may be or may become an annoyance, eyesore, nuisance or higher insurance risk to the current and future owners or occupants of Cramer Hill East Parcels or Northerly Allen Transition Lands and/or Allen Ranch. Activities which may in any way interfere with the ownership and quiet enjoyment of Cramer Hill East Parcels or Northerly Allen Transition Lands and/or Allen Ranch, or which shall negatively impact the view therefrom, or which shall in any way increase the rate of insurance for Cramer Hill East Parcels, Northerly Allen Transition Lands and/or Allen Ranch are also prohibited. Examples include but are not limited to fire hazard, hazardous materials, unsightliness, dust, dirt, mud, erosion, interference with storm waters, runoff, weeds, noises, odors, junk, trash, garbage, storage of any items or materials, rodent or insect or other pest problems, or the ill or lack of maintenance or care of any improvement, Structure, building, Vehicle, equipment, animal, plant or landscaping.

SECTION 8: EASEMENTS

8.01. Easements are as depicted in **Exhibit A Building Sites, Easements, & Park**, as further recited below, and as may be recited on individual deeds.

8.02. Major Collector. Grantors reserve a 60 foot exclusive easement for road access for a major collector street and underground utility purposes over the northerly 60 feet of Parcels 55, 56, and 57, adjacent and parallel to that designated "60 foot road and P.U.E." (as shown on northerly end of property on 41 M 63). The future collector street is to serve the Northerly Allen Transition Lands and to connect them up to other lands to the south so that eventually they are connected from north to south for various future lots and uses, and is intended to connect to various other major public thoroughfares, including Badger Street, Valley View, Green Rock Road, Highway 104, the current Highway 49, and the future Highway 49 Sutter Creek Bypass. Grantors further reserve the right to offer the same area for dedication in the future, but make no such offers at this time.

8.03. David Drive extension. Grantors grant and reserves a 65' non-exclusive

easement for road access and underground utility purposes for Parcels 51 through 57, and for the Northerly Allen Transition Lands and Allen Ranch, over the David Drive extension through Parcels 52, 53, and 54, and 56.

8.04. Allen Ranch Road for Allens' Other Property. Grantors reserve a non-exclusive 50' wide easement for road access and underground utility purposes for the Northerly Allen Transition Lands and Allen Ranch, and all uses thereof, over Allen Ranch Road through Parcels 51 and 52.

8.05. Allen Ranch Road Parcel 51 and 52. Grantors grant and reserves a 50' non-exclusive easement for road access and underground utility purposes for Parcels 51 and all lots to be made from Parcel 52 over Allen Ranch Road through Parcel 52.

8.06. Driveway Westerly from Cul-de-sac. Grantors grant and reserves an 30' non-exclusive easement for road access and underground utility purposes westerly over the northerly portion of Parcel 53 from the cul-de-sac at the northerly end of the David Drive Extension for Parcels 53 and 56, as depicted on the attached **Exhibit A Building Sites, Easements, & Park**, incorporated herein.

8.07. Driveway Easterly from Cul-de-sac. Grantors grant and reserves an 30' non-exclusive easement for road access and underground utility purposes easterly over the northerly portion of Parcel 54 from the cul-de-sac at the northerly end of the David Drive Extension for Parcels 56 and 57, as depicted on the attached **Exhibit A Building Sites, Easements, & Park**, incorporated herein.

8.08. Lot 16. For Lot 16, Grantors reserve a 65' non-exclusive easement for road access and underground utility purposes over the David Drive extension through Parcels 52, 53, and 54, and 56, and Grantors further reserve to the Grantors a 30' non-exclusive easement for road access and underground utility purposes easterly over the northerly portion of Parcel 54 (non-exclusive) the southerly portion of Parcel 57 (exclusive) from the cul-de-sac at the northerly end of the David Drive Extension for Lot 16, as depicted on the attached **Exhibit A Building Sites, Easements, & Park**, incorporated herein. In that the Grantors own a 2/3 interest in Lot 16, these easements shall initially be personal to the Grantors and not appurtenant to Lot 16 but Grantors reserve the right to grant them as appurtenant to Lot 16, should all owners of Lot 16 agree (1) to these CC&R's, modified as to Lot 16 as to divisions, density, lot coverage, and other matters appropriate to its size, location, and topography, and (2) to other conditions to be determined personally by and in the sole discretion of Grantors and placed upon Lot 16 by Grantors as to the use of the driveway, David Drive, uses of Lot 16, CC&R's specific to Lot 16, and a proportional reimbursement for

expenses of building the David Drive Extension and driveways. In the event that for any reason this personal easement is not valid, Grantors reserve an appurtenant easement for Lot 16 identical to those described in this paragraph above, to become effective at such time as the invalidity is established, and subject to the same conditions mentioned above.

8.09. Utilities Along Edges of Parcels. Grantors reserve and grant a 5' easement over Parcels 51 through 57 for underground utility purposes along and touching all the insides of the exterior boundaries of each Cramer Hill East Parcel, for Parcels 50-58 and for the Northerly Allen Transition Lands and Allen Ranch for various future lots and uses of the Cramer Hill East Parcels. For the same lands, Grantors grant an additional adjoining 5' easement to construct, maintain, repair and replace the underground utilities within the utility easement. The width shall be doubled where there are no common boundaries between Parcels so that there is a 10' easement area available in all cases for the underground utilities and a 20' construction easement area available for the underground utilities.

8.10. Drainage. Grantors reserve a 20' drainage easement through Parcel 52 to provide for drainage of the David Drive Extension of runoff from the watershed above David Drive.

8.11. Sewer. Grantors reserve a 20' underground sewer line easement through Parcel 51 and Parcel 52, along the entire southerly boundary, to connect the existing sewer line on Parcel 52 to the David Drive Extension to provide a connection to the sewer line to be constructed in David Drive to serve sewer lines to be constructed on the Cramer Hill East Parcels and to serve sewer lines to be constructed on the Northerly Allen Transition Lands and Allen Ranch.

8.12. Park. Grantors grant an exclusive easement to the City of Sutter Creek for park purposes to be offered for dedication. It is located at the easterly edge of Parcel 52, as depicted on the map attached as **Exhibit A Building Sites, Easements, & Park**. After annexation to the City of Sutter Creek and rezoning of Parcel 52 to less than a 5 acre minimum, this park area shall be transferred in fee to the City. If the City fails to properly develop, maintain, use, clean and patrol it, and make it available to all Buyers, for a park, or to properly continue the foregoing for a period of 5 years, the easement and dedication shall be extinguished and all rights to the park area shall revert to the then current owner of the then adjoining portion of Parcel 52, free of easement, dedication and ownership by the City or the public.

8.13. Avoiding Interference. Buyers may make any use of the easement areas on their Cramer Hill East Parcel that do not interfere with easement uses at the

time. Until an easement area is actually required for use of the easement, Buyers may disregard future easement uses not yet being exercised or needed. However, no matter how long it has been present, continued or interfered, any Structures, vegetation landscaping or any other use located within portions of an easement area required for use of the easement, shall then be removed forthwith at the Buyer's expense and kept out of all portions of the easement area required for use during the time required for use of the easement, if, when, and where it does actually interfere with the easement use, on the grounds that the easement area or portion of easement area is then actually required for use of the easement. Easements shall be used in a reasonable manner, without unnecessarily interfering with use and enjoyment of the underlying land. Excessive speeds on roads, streets, and/or driveways as depicted on **Exhibit A Building Sites, Easements, & Park** within Cramer Hill East, are prohibited, but Buyers and their occupants shall not insist upon unreasonable slow speeds or allow children to play in the roads, streets and driveways if it poses a safety hazard. Underground easements shall work around and not interfere with boundary line fencing; such fencing may be removed temporarily during construction so long as adequate precautions are taken to prevent escape or intrusion by animals and trespass, and that the fence is replaced in the same condition or better, and not weakened (e.g. splices weaker than the wire of wire loosened) or made substantially different in appearance by having been opened.

8.14. No Other Easements. There are no easements, express or implied for any Parcel or Buyer over Parcels 1 through 50 and Parcel 58, as depicted on 52-M-100. Except as expressly set forth herein as to Parcels 51 through 57, there are no easements, express or implied over Allens' lands.

8.15. No Dedications. Nothing in these CC&R's is intended to be an offer of dedication of any property to the public, unless specifically stated.

SECTION 9: MAINTENANCE OF COMMON IMPROVEMENTS

9.01. Common Improvements. This maintenance and improvement responsibility applies to any common improvements, including roads, drainages, and utilities, that all Cramer Hill East Parcel owners have a right to use that are not maintained by a public entity or utility. Road maintenance includes the roadway, underlayment and surface, ditches, banks, culverts and drainage facilities located within the roadway easement and planting and maintaining native wildflowers along the road banks. Such wildflowers shall be so planted and maintained.

9.02. Exceptions. This does not include upper Allen Ranch Road west of David Drive, which is only for use of the owners of Northerly Allen Transition Lands

and Allen Ranch, and the Buyer of Parcel 51. This does not include any improvements, including roads, drainages, and utilities that are maintained by the City of Sutter Creek. Other than in their shared capacity as owners of Cramer Hill East Parcels or Lots, Allens and Grantors and their successors shall not be required to design, construct, maintain, improve, or remove any shared improvements, including roads, drainages, and utilities.

9.03. Responsibility. Unless the maintenance repressibility is taken over by a public entity or a utility, the owners of all Cramer Hill East Parcels and Lots, developed or not, shall equally maintain or provide for the maintenance and improvement of all common improvements. Each owner of a Cramer Hill East Parcel shall be individually responsible for maintenance and improvement of their own private driveways and their own utilities within such owner's Cramer Hill East Parcel.

9.04. Traffic Calming. A reasonable number of low, marked, speed bumps or other traffic calming devices that are agreed to by all but one vote, as provided for improvements, below, and do not pose a safety hazard or a risk of damage to Vehicles may be maintained in limited locations on the common roads, streets or driveways that are shared by all Parcels.

9.05. Private Digging. Any Buyer or other person who digs up any common area to place underground utilities or for any other purpose shall be responsible to repair it substantially to its previous condition in a manner so that the surface is not depressed or raised from the surrounding surface. Trenches shall not be left open any longer than necessary and shall be properly barricaded or marked, as is appropriate to avoid injuries.

9.06. Votes.

A. Each Cramer Hill East Parcel has two votes. The rules below apply to the maximum number of votes, according to the number of Cramer Hill East Parcels and Lots. Initially, there are 14 votes for the seven Parcels.

B. To approve maintenance requires a vote of over 50%. To approve improvements requires a supermajority vote of all but 2 votes.

C. Maintenance and improvement costs shall be shared as follows: Each Cramer Hill East Parcel shall bear an equal proportion including any new lots or parcels created from a Cramer Hill East Parcel. Initially, this assessment shall be \$100 per Cramer Hill East Parcel per year. To change amount of fees by less than 100% per 5 year period requires a vote of over 50%. To change amount of fees by more than this, requires a supermajority vote of all but 2 votes.

D. No formal organization is required. Any Buyer may collect and hold the funds as trustee or in a special account or may spend funds and seek reimbursement of approved work upon providing proof of payment. Any Buyer

may propose maintenance or improvements for vote of owners of Cramer Hill East Parcels or Lots. Such person may be elected by a majority of owners of Cramer Hill East Parcels or Lots and serve indefinitely until replaced by another elected person. An elected person supersedes and has priority over any self-appointed person.

E. All proposals for vote shall include a budgeted cost, description of what work is proposed, in what manner the work is to be performed, by whom, a statement whether a permit is required, what kind of permit, the cost, and whether engineering is required and the cost. Such proposals shall be sent, together with the text of this Section 9 of these CC&R's, by first-class mail to all owners as listed on tax assessor records for the Cramer Hill Parcels, and to any new owners whose address is known or reasonably ascertainable, with proof of mailing being retained. Any Buyers objecting to the proposed maintenance shall send objections to the sender of the proposal within 30 days, with proof of mailing retained. Objections shall be retained by the proposer. A lack of response within 35 days of mailing shall be deemed an affirmative vote. The proposer shall then send to all owners the results of the vote. Each Buyer shall then remit that Buyer's proportion of the cost of the work within 30 days of sending of any notice that work has been approved.

F. All contracting shall be of persons properly licensed and qualified for the job.

9.07. Adjustment for Disproportionate Use If any Cramer Hill East Parcel(s) uses the road or a utility maintained by the Buyers to a much greater extent than other developed Cramer Hill East Parcels, such as much greater weight of vehicles or much greater frequency of use, but not distance, the fees for such Cramer Hill East Parcel(s) may be increased to accommodate the extra use bearing a reasonable relation to the increased use, by a supermajority vote of all but 1 vote. A use of over 300% greater than the average of the use of other developed Cramer Hill East Parcel(s) is presumed to be much greater. If any disagreement ensues, either party may have the amount or percentage established under the terms of Civil Code §845, with attorney fees and costs awardable as provided below.

9.08. Maintenance Enforcement. Any properly charged road maintenance fee not timely paid shall bear a late fee of 10% and further late charges of 1.5% per month until paid. If work was deferred awaiting payment, all nonpaying owners shall also bear a proportional responsibility for any extra costs or liability related to the inability to perform the work at the time payment was due. The owner of any Cramer Hill East Parcel may enforce the road maintenance responsibilities against any owner under Civil Code §845 and all other remedies provided by law for road maintenance agreements and shared easements. An action for the amount owed in small claims court is the preferred remedy. The prevailing party shall be entitled to all reasonable attorney fees and costs related to the

action. Any Judgment may be recorded by way of an Abstract to lien the property of the non-paying owner and shall be subject to all Judgment enforcement measures. The attorney fees and costs of collecting against such nonpaying owner shall become part of the Judgment and be likewise enforceable.

9.09. Entry Feature. If the owners of Cramer Hill East Parcels or Lots desire a common entry feature, it shall be treated as an improvement, properly engineered, constructed and maintained, and meeting the requirements of a "Structure" within this document.

SECTION 10: FUTURE DEVELOPMENT BY ALLEN

10.01. Future Plans. Allens intend to develop Lot 16, that certain parcel of approximately 3 acres owned by John Allen, and Parcel 50 and Parcel 58 for other uses, and also the Northerly Allen Transition Lands and Southerly Allen Transition Lands (Parcels 38-42), and potentially Allen Ranch. Allens have plans for further development of such lands some of which currently adjoin the Cramer Hill East Parcels, including for a major collector highway traversing along both sides of the line common to Parcel 58 and Parcels 55, 56, and 57, to serve other lands of Allens, including Northerly Allen Transition Lands and potentially other adjoining Lands of Allens. Plans are not finalized at this time and are still being formulated, but are intended to include high density residential, commercial, and commercial recreational uses. Such development could be soon or many years away. The lots are intended to be smaller and the density greater than for Cramer Hill East. Allens also contemplate further Annexations to the City of Sutter Creek. Cramer hill East is the first step of this plan. Buyer has benefitted by obtaining a desirable lot from this plan and agrees not to impede or interfere with any development or use by Allens.

10.02. Pending Uses. Pending development, Allens intend to continue to use that certain parcel of approximately 3 acres owned by John Allen, Parcel 50 and Parcel 58, the Northerly Allen Transition Lands and Southerly Allen Transition Lands, and Allen Ranch for agricultural and recreational uses, including potential commercial recreation. Buyer agrees not to impede or interfere with such uses by Allens.

10.03. Annexation. Buyer agrees not to impede or interfere with Grantor's or Allen Family Members' annexation process of Parcels and Allen lands and if any Parcel is purchased before annexation is completed, shall cooperate in annexation of Cramer hill East.

10.04. Limitations on Division. Buyer may make up to four lots from Parcel 52

(but not build northwesterly of Allen Ranch Road), but Allens are not allocating density to those Parcels or any of the Parcels from the density Allens can use throughout the Northerly Allen Transition Lands or other lands. Each such lot created from Parcel 52 shall be treated as a Cramer Hill East Parcel and subject to these CC&R's. Parcels 51 through 57 shall not otherwise be split, divided, adjusted, or reduced in any way to a size smaller than 5 acres each.

10.05. Adding or Removing Property. Grantors reserve the right for Allens to unite other properties into the burden of coverage by these CC&R's in the future and to remove land, other than the Cramer Hill East Parcels, from the benefit of these CC&R's.

SECTION 11: GENERAL PROVISIONS

11.01. Standards. These restrictions are primarily for the look and compatible occupancy of the area, and are independent of the subdivision, building standards, codes, ordinances, and laws of the City of Sutter Creek or any other governmental entity. In event of a conflict, the stricter apply.

11.02. Enforcement. Allen Family Members and any Buyer may, but are not required to, enforce the CC&R's against any Buyer, person with an interest in Buyer's Parcel, or occupant of a Parcel in violation thereof. Failure to comply with any of the CC&R's is a violation. Legal damages are hereby declared to be inadequate and the enforcing party may move the Court for, and be entitled to, a permanent injunction, a preliminary injunction without bond, and/or a temporary restraining order, any of which may require the conduct to be stopped, the matter, situation, or violation to be rectified, and prohibit the conduct. Failure by the enjoined party to rectify the foregoing in compliance with the injunction shall allow the Court to order the matter be rectified by properly qualified personnel, at the expense of the enjoined party, with any unpaid amounts enforceable by lien upon the Cramer Hill East Parcel in violation. Failure to enforce upon violations thereof shall not estop or prevent enforcement thereafter or be deemed a waiver of the right to do so. Each party shall bear their own attorneys' fees.

11.03. Term. The declarations, covenants, conditions, restrictions, limitations, and easements of these CC&R's shall run with and bind the Cramer Hill East Parcels and all parts and Lots thereof, and shall inure to the benefit of, and be binding on, the Buyer of any Cramer Hill East Parcels and all parts and lots thereof, their legal representatives, heirs, grantees, trustees, conservators, persons taking title after foreclosure, tenants, successors, and assigns, for a term as long as the law allows and shall additionally benefit the owners of that certain

parcel of approximately 3 acres currently owned by John Allen, Parcel 50 and Parcel 58, the Northerly Allen Transition Lands and Allen Ranch for a term as long as the law allows. Thereafter, subject to the Subsection below entitled "Amendment; Revocation," they shall be automatically extended each year for 10 more years into the future, so they always have 10 years to run.

11.04. Amendment and Revocation. These CC&R's may revoked only by the unanimous affirmative vote of: Allen Family Members, with two votes, the Buyers with one vote for each Cramer Hill East Parcel and for each lot made from the Parcels, and one vote for each additional Parcel from the Northerly Allen Transition Lands and Allen Ranch that Allen Family Members may have by then united into the burden of these CC&R's. Amendment shall require a supermajority of all but one of the above votes.

11.05. Captions and Invalidity. Captions are for convenience only, and are not intended to be used to construe this document. Any invalidity shall be severed from this document and the rest enforced. If the invalidity is as to the benefit, enforcement or votes of Allens of Allen Family Member, such words shall be replaced with the words "Grantors or their successors."

11.06. Attachments. All Attachments and Exhibits to these CC&R's are incorporated herein by reference.

LIST OF EXHIBITS

Exhibit A Building Sites, Easements, & Park

Exhibit B Toby Tyler Sutter Creek Buildings Drawings Excerpts

Exhibit C List of Illustrations from Mason's History of Amador County

by Thompson and West 1881

Exhibit D Architectural Elements

Exhibit E Preliminary Plans Requirements

**Exhibit F Aerial Photo of Open Areas and Woodlots
with approximate Parcel Locations**

Exhibit G Weed List

IN WITNESS WHEREOF, Grantors have executed these CC&R's effective as of the date it is recorded

Dated: 12/3/02

John B. Allen
John B. Allen, aka John B. Allen, Sr.
as Executor of the Estate of Vera Allen

Dated: 12-03-02

George E. Allen CO-EXECUTOR
George E. Allen as Executor of the Estate of Vera Allen

Dated: 12/3/02

John B. Allen
John Allen, aka John B. Allen, aka John B. Allen, Sr.

Dated: 12/3/02

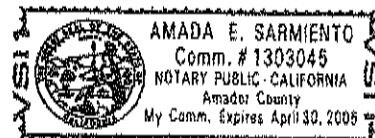
Janet L. Allen
Janet L. Allen

State of California
County of Amador

On December 3, 2002, before me, Amada E. Sarmiento
Notary Public, personally appeared John B. Allen, aka John B. Allen, Sr. as
Executor of the Estate of Vera Allen, George E. Allen as Executor of the Estate
of the Vera Allen, and Janet L. Allen
personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s)
whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they
executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on
the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the
instrument.

WITNESS my hand and official seal.

Signature Amada Sarmiento (Seal)

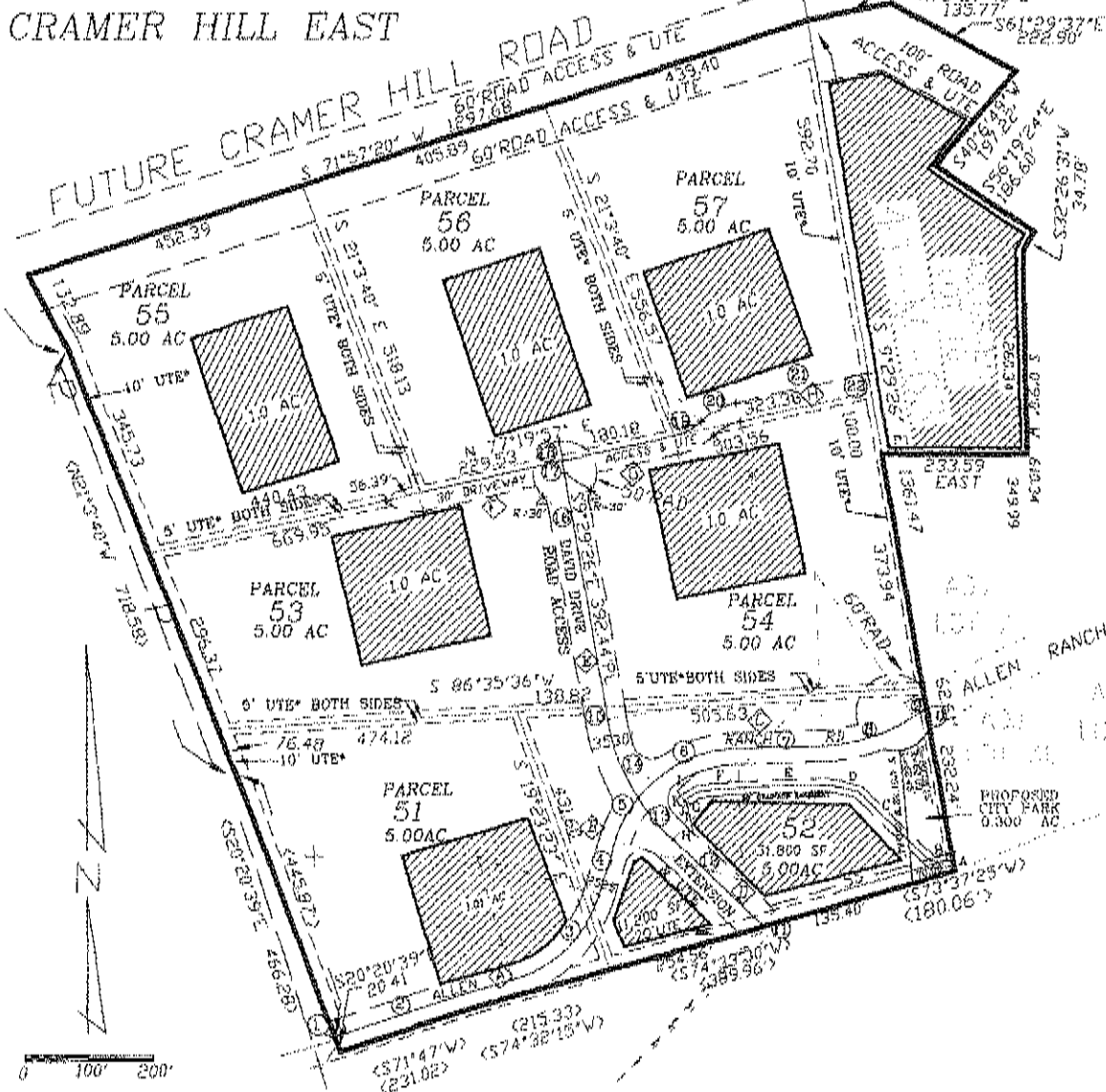


R. Thumbprint JBA

R. Thumbprint JLA

R. Thumbprint GEA

CRAMER HILL EAST



ACCESS, UTE'S AND BUILDING ENVELOPES

NOTES & LEGENDS

BUILDING SITES ENVELOPE

EASEMENT PLAN (NOTE: EASEMENTS ARE ONLY FOR PARCELS / OWNERS DESCRIBED BELOW)

- ① 50' PRIVATE ROAD & UTILITY EASEMENT OVER PARCEL 51 FOR THE USE OF ALLEN'S REMAINING PROPERTY
- ② 50' PRIVATE ROAD & PUBLIC UTILITY EASEMENT OVER PARCEL 52 FOR THE USE OF PARCEL 51 AND ALLENS
- ③ 50' PRIVATE ROAD & PUBLIC UTILITY & PEDESTRIAN EASEMENT OVER PARCEL 52 FOR THE USE OF THE CITY AND ALLENS
- ④ 65' ROAD ACCESS, PUBLIC UTILITY & PEDESTRIAN EASEMENT OVER PARCEL 52 FOR THE USE OF PARCELS 51, 52, 53, 54, 55, 56, 57, ALLEN'S ADJ. LOT 16, THE CITY AND ALLENS
- ⑤ 65' ROAD ACCESS & PUBLIC UTILITY EASEMENT OVER PARCELS 53 AND 54 FOR THE USE OF PARCELS 53, 54, 55, 56, 57, ALLEN'S ADJ. LOT 16, THE CITY AND ALLENS
- ⑥ 30' PRIVATE DRIVEWAY & PUBLIC UTILITY EASEMENT OVER PARCEL 53 FOR THE USE OF PARCELS 53 AND 55
- ⑦ 30' PRIVATE DRIVEWAY & PUBLIC UTILITY EASEMENT OVER PARCEL 54 FOR THE USE OF PARCEL 57 AND ALLENS
- ⑧ 30' PRIVATE DRIVEWAY & PUBLIC UTILITY EASEMENT OVER PARCEL 57 FOR THE USE OF ALLENS FOR ADJ. LOT 16
- SS 20' SEWER EASEMENT
- UTE UNDERGROUND UTILITY EASEMENT
- UTE* UNDERGROUND UTILITY EASEMENT (DOUBLE THE WIDTH TO CONSTRUCT, MAINTAIN, REPAIR AND REPLACE)

EXHIBIT "A" BUILDING SITES, EASEMENTS & PARK

LDT52.DWG 12/02/2002

SHEET 1 OF 3

EXHIBIT "A" BUILDING SITES, EASEMENTS & PARK

CRAMER HILL EAST

DRAINAGE EASEMENT

A	N	09°29'25"	W	15.60'
B	S	89°23'33"	W	35.60'
C	N	45°46'29"	W	24.07'
D	N	75°32'35"	W	49.09'
E	S	87°23'24"	W	124.12'
F	S	81°49'23"	W	96.38'
G	S	59°39'53"	W	12.85'

DAVID DRIVE EAST EASEMENT

H	N	46°48'23"	W	16.62'
I	N	13°01'25"	W	49.73'
J	N	39°23'10"	W	5.01'
K	N	39°23'10"	W	18.22'
L	N	45°40'00"	E	43.26'

EASEMENT COURSES

①	N	20°20'39"	W	4.61'
②	N	72°47'00"	E	307.36'
③	D=54°26'15"	R=200.00'	L=190.02'	
④	N	17°20'45"	E	85.88'
⑤	D=21°03'14"	R=210.00'	L=77.17'	
⑥	D=49°51'36"	R=210.00'	L=182.75'	
⑦	N	88°15'35"	E	134.83'
⑧	D=32°26'43"	R=275.00'	L=155.73'	
⑨	N	55°48'52"	E	24.07'
⑩	S	9°29'26"	E	30.30'
⑪	D=00°36'26"	R=340.00'	L=3.60'	
⑫	N	46°48'23"	W	193.96'
⑬	D=14°40'29"	R=340.00'	L=87.08'	
⑭	D=22°38'28"	R=340.00'	L=134.35'	
⑮	N	9°29'26"	W	20.81'
⑯	N	9°29'26"	W	373.19'
⑰	N	9°29'26"	W	19.25'
⑱	N	9°29'26"	W	30.76'
⑲	D=31°0'10"	R=90.00'	L=48.69'	
⑳	D=31°0'10"	R=120.00'	L=64.14'	
㉑	N	77°19'57"	E	216.87'
㉒	S	9°29'11"	E	30.05'

EXHIBIT "A" BUILDING SITES, EASEMENTS & PARK

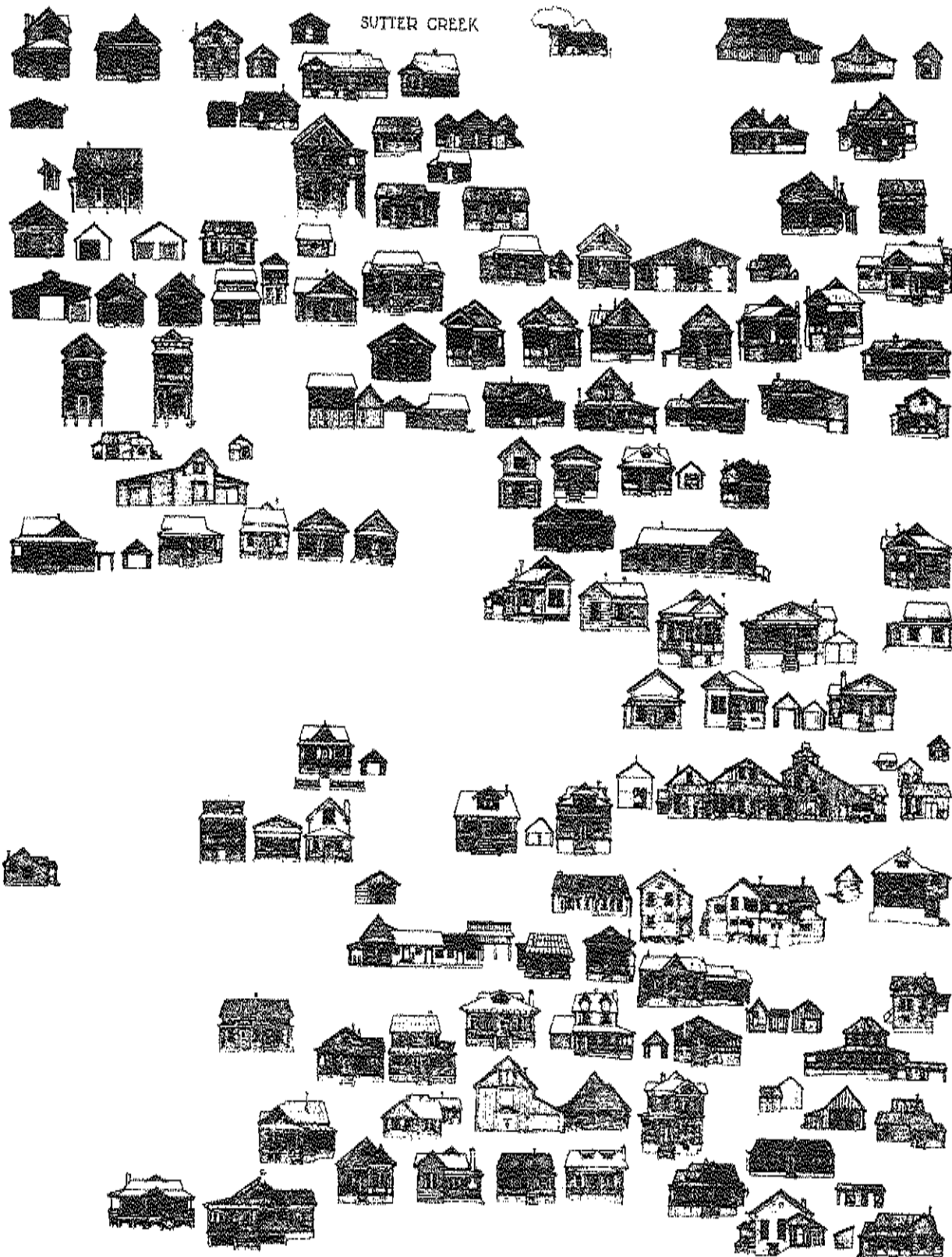


EXHIBIT B to CRAMER HILL CC&R'S
Excerpts from Toby Tyler Prints

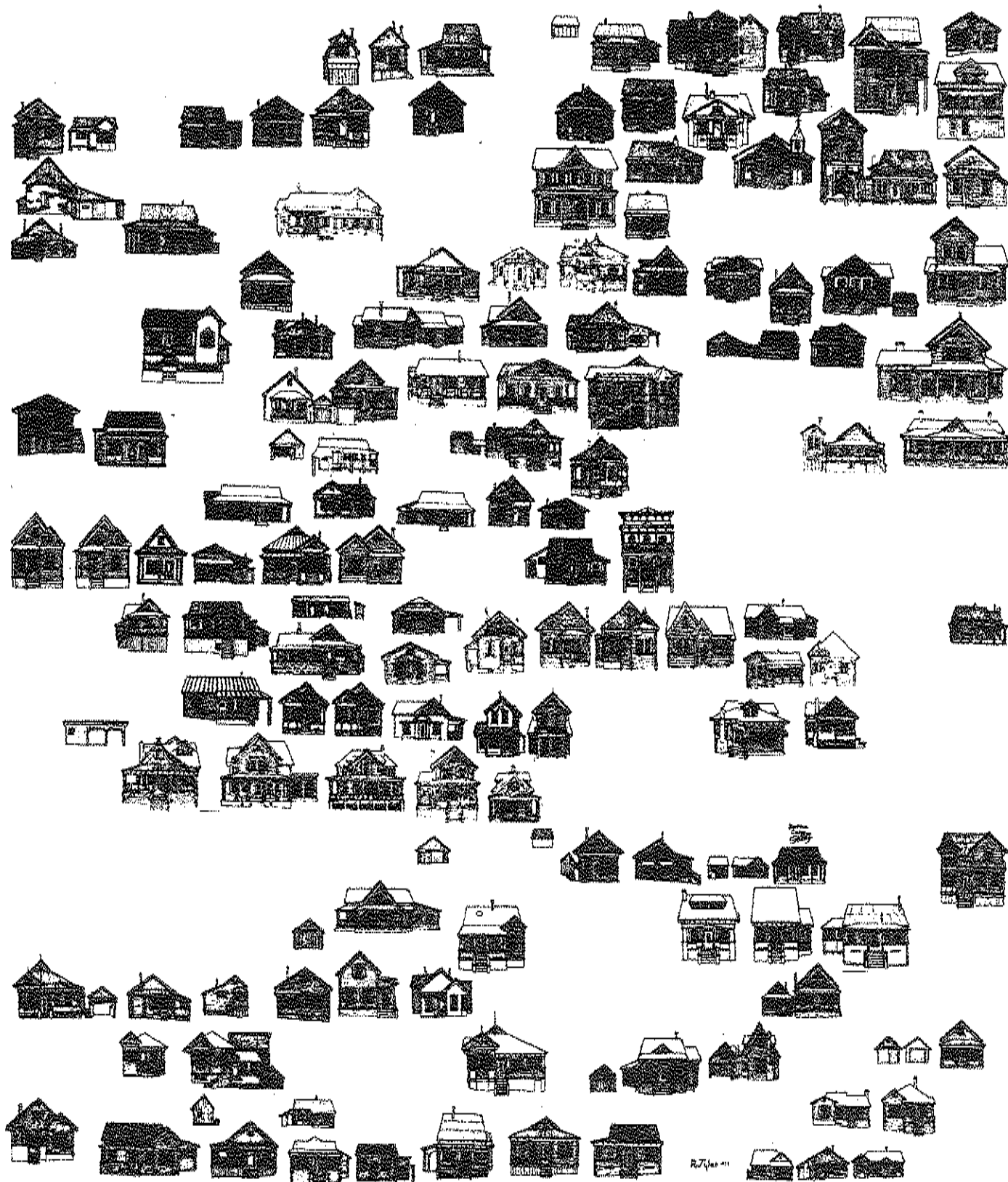


EXHIBIT B to CRAMER HILL CC&R'S
Excerpts from Toby Tyler Prints

Mason's History of Amador County with Illustrations

Architectural Examples

Illustration Number	Illustration Title	P.G. # Pre.	P.G. # AFT.	Residence Architectural Style	Building Clustering	Out-Building Style	Yard	Slope	Fencing	Notes
1	Residence of J.W. Hutchins, Clinton	32	33	Y*	Y	Y	Y	NA	Y	No vertical siding on residence, OK on outbuildings
2	Residence & Flouring Mill of James Cumming, Ione City	32	33	Y	Y*	Y*	Y	NA	Y	Not including flour mill
3	Ranch & Residence of Dwight Younglove, Ione Valley	36	37	Y	Y	Y	Y	NA	Y	
4	Residence and Property of Frank Frates, Ione City	40	41	Y*	Y	Y	Y	NA	Y	House style OK with gabled roof
5	Ranch & Residence of John Sanderson, 2 Miles W. of SC	56	57	N	Y	Y	Y	NA	Y	
6	Residence, Ranch, & Toll Gate of John Hosley, Ama. Wagon Rd.	56	57	Y	Y	Y	Y	NA	Y	
7	Residence of Miss Mary Ludgate, Ione City	56	57	Y	NA	NA	Y	NA	Y	
8	Residence of W.M. Penry, Jackson	56	57	Y	NA	NA	Y	Y	Y	
9	Ranch and Residence of William Washington Carfile, Ione	60	61	Y	Y	Y	Y	NA	Y	
10	Business Place of W.C. Jones, Ione-Jackson Rd.	68	69	Y	Y	Y	NA	NA	Y	
11	Residence of Charles Green, Plymouth	72	73	Y	Y	Y	Y	NA	Y	
12	Residence of Conrad Weller, Jackson	76	77	Y*	NA	NO	Y	Y	Y	Ignore flat roof structure
13	Ranch and Residence of William H. Prouty, Jackson	80	81	Y	Y	Y	Y	NA	Y	
14	Residence of Edgar Bishop, Ione City	80	81	Y	NA	NA	Y	NA	Y	
15	Residence of O.E. Martin, Amador City	84	85	Y	NA	NA	Y	Y	Y	
16	Ranch, Residence And Business Place of S.W. Emmons, Pine Grove	84	85	Y	Y	Y	NA	NA	Y	
17	Residence, Ranch and Orchard of J.W. Violett, Ione Valley	92	93	Y	Y	Y	Y	NA	Y	
18	Residence of J. Meehan, Jackson	92	93	Y	Y	Y	Y	Y	Y	
19	Residence of D.B. Spagnoli, Jackson	96	97	NO	Y	Y*	Y	NA	NO	Good barn example
20	Springdale, Residence and Farm of A. Caminetti, 4 Miles NE of Jackson	96	97	Y	NO	Y	Y	NA	Y	
21	Residence and Ranch of James Shealar, 8 Miles E. of Volcano	100	101	Y	Y	Y	Y	NA	Y	
22	Residence of George Allen, Sutter Creek	104	105	Y*	Y*	Y*	Y*	NA	Y*	Example of residence only, Not Lumber yard
23	Residence and Ranch of Capt. M.J. Little, Jackson	108	109	Y	Y	Y	Y	NA	Y	
24	Residence of R.C. Downs, Sutter Creek	108	109	Y*	NA	NA	Y	NA	Y	Recommended Style
25	Residence of Judge George Moore, Jackson	112	113	Y*	NA	NA	Y	NA	Y	Good example of Gothic style
26	Residence of Hon. James T. Farley, Jackson	112	113	Y*	NA	NA	Y	NA	Y	House needs porches
27	Residence of John Vogan, Jackson	120	121	Y	NA	NA	Y	Y	Y	
28	Mountain Springs, Ranch and Toll House of John Vogan, Ione & Jackson Rd.	120	121	Y	Y	Y*	Y	NA	Y	No open faced sheds or barns

Mason's History of Amador County with Illustrations

Architectural Examples

Illustration Number	Illustration Title	P.G. # Pre.	P.G. # AFT.	Residence Architectural Style	Building Clustering	Out-Building Style	Yard	Slope	Fencing	Notes
29	Fruit Ranch and Residence of John Northup, Julian Dist.	152	153	Y	Y	Y*	Y	NA	Y	No open faced sheds or barns
30	Ranch and Residence of A.A. Van Sandt.	152	153	Y	Y	Y	Y	NA	Y	
31	Residence and Ranch of Alexander Sheakley, Lone City	160	161	Y*	Y	Y	Y	NA	Y	Residence Style Ok except Roof Recommended residence architectural style, Not the tall thin trees
32	Residence and Livery Stable of Peter Fagan	164	165	Y*	NA	NA	Y	Y	Y*	
33	Residence and Ranch of 320 Acres, Jefferson Baird, 3 Miles NE of Plymouth	168	169	Y	Y*	Y*	Y	NA	Y	Not including distant out building
34	Residence and Lumber-yard of E.B. Potter, Plymouth	168	169	Y	Y	Y*	Y	NA	Y	No open faced sheds or barns
35	Residence and Ranch of Mrs. Mary Kidd, Jackson Valley	176	177	Y	Y	Y	Y	NA	Y	
36	Residence and Ranch of 320 Acres, Inglefield B. Gregory, Jackson Valley	176	177	Y	Y	Y*	Y	NA	Y	No open faced sheds or barns
37	Residence and property of S.D.R. Stewart, Sutter Creek	180	181	Y	Y	Y*	Y	NA	Y	Good example of secondary residence
38	Ranch and Residence of Jonathan H. Ringer, Jackson Valley	184	185	Y	N	Y*	Y	NA	Y	No open faced sheds or barns
39	Residence and Ranch of Issac W. Whitacre, Near Plymouth	188	189	Y*	Y*	Y*	Y*	NA	Y*	Recommended all accounts, although house small
40	Residence and Ranch of Joseph Woolford, Plymouth	188	189	Y*	Y*	Y*	Y*	NA	Y*	Recommended all accounts, although house small
41	Residence and Stock Ranch of James Robertsonm, Near Mountain Springs	193	194	Y	Y	Y	Y	NA	Y	
42	Residence of Matthew Murray, Landna Flana	193	194	Y	NA	NA	Y	NA	Y	
43	Residence of J.D. Stoloken, Volcano	200	201	Y	NA	NA	Y*	NA	Y	Except tall tree
44	Residence and Ranch of J.E. Pettit, Plymouth	200	201	Y	Y*	Y	Y	NA	Y	Outbuilding clustering may be to spread for 1 acre
45	forest Livery Stable, Thompson Davis & Merwin Leach, Props., Plymouth	208	209	NA	NA	Y*	NA	NA	NA	Except for false front on barn and no exposed lines
46	Forest House, T.W. Easton, Owner and Prop., Plymouth	208	209	Y*	NA	NA	N*	NA	NA	Recommended style, no tall non native trees
47	Residence, Hotel and Ranch of Mrs. Margaret Foster, Ama Wagon Rd.	216	217	Y*	Y	Y*	NA	NA	Y	Good Gothic style house, good barn example except open side
48	Ranch and Residence of Charles Bamert, Near Mokelumne River	216	217	N	Y	Y*	Y	NA	Y	Good barn example except open side
49	Residence of Fr., Herman, Sutter Creek	220	221	Y*	Y	Y	Y	NA	Y	Recommended, good architectural style.
50	Residence of Father P. Bermingham, Sutter Creek	220	221	Y*	Y	Y	Y*	Y	Y	Recommended, good architectural style, yard OK except willow tree
51	Hamm's Station, Hotel and ranch of A.C. Hamm, Ama Wagon Road	236	237	NA	Y*	Y*	NA	NA	Y	Good examples of outbuildings and clustering House lacks porches, No open bays on barns, fencing must be consistent
52	Residence, Ranch and Business Place of A.C. Hamm, Aqueduct City	236	237	Y*	Y	Y*	Y	NA	Y*	
53	Residence and Ranch of Nason C. Williams, Near Volcano	240	241	N	Y	Y*	NA	NA	Y	Main part of barn good
54	Ranch and Residence of J.C. Blyther, Township 4	272	273	Y	Y	Y*	Y*	NA	Y	Barn NO, Old style wind mill OK
55	Residence and Ranch 320 Acres of Johnathan Sallee, Near Plymouth	280	281	Y	Y*	Y*	Y	NA	Y	Clustering should be closer, outbuildings shall be enclosed

EXHIBIT D TO CRAMER HILL CC&R'S

Architectural Elements

Examples of architectural elements required are the external appearance of:

Roofs: steep-pitched roofs with the appearance of shakes or 'tin" or actual solar PV shingles, but not tile, with generous overhangs (1' min), enclosed soffits, and gable ends or multiple gables

Skylights: Skylights must have a low profile, rising from the roof plane a maximum of 4", and glazing must be flat, not bowed.

Solar Design: The architectural design of Structures to be heated or cooled should use passive solar design features where possible. Solar design features shall be utilized where possible and architecturally blended and consistent with the Period look. Active solar design features that are proposed shall be integrated into the structure so as to be unobtrusive as possible, avoiding reflective elements where Visible.

Outbuildings: Sheds or barns or other outbuildings and garages may have 1 or 2 wings or saltbox attached to the steep-pitched gabled center portion, which may be higher. Roofs shall not be gambreled. No sheds or barns shall be open on any side.

Windows: Single or double hung windows, 1/1, 2/2, or 6/6 lites.

Doors: Appearance of natural or painted wood, may have windows, sidelites, and transom lites.

Siding: Horizontal siding that looks like smooth wood, 8" to 10" beveled or cove shiplap, V-Rustic, or clapboard or red or yellow brick as seen on buildings in Amador County that were constructed in the 1800's; on sheds or barns or other outbuildings and garages that do not match the house - appearance of rough vertical board or board and batten siding that appears lightly stained or unpainted.

EXHIBIT D TO CRAMER HILL CC&R'S

Architectural Elements

Porches and Balconies: Porches in fronts. Porches to be covered and supported by posts. Porch decking to have appearance of wood boards. Balustrades not required on low porches under 30" off ground (unless by code); balustrades to be decorative, e.g., horizontal pickets.

Foundations: House to sit up off ground, not to hug ground. Complete perimeter foundations required, but concrete blocks or cinderblocks not to be Visible. Foundation stepped on slopes to minimize exposed foundation surfaces. No more than 2 feet of foundation exposed, unless it has appearance of Rock Wall.

Refuse container enclosures: Each building site shall provide an enclosed space within the structure of the home, garage, or carport for refuse containers of sufficient size to service all activities on the Cramer Hill East Parcel in a method to accommodate trash pickup services. Any detached enclosure shall bear a resemblance to the specified appearance for a shed.

Pools, Spas, etc: Pools of all types, including swimming pools, lap pools, reflecting pools, spas, jacuzzi's, hot tubs, other water elements, and the like, including their water treatment and pumping equipment, shall be designed as a visual extension of the residence through use of methods such as walls, roofs, courtyards, fencing, sheds, so as to be Screened.

Examples of architectural elements allowable are the external appearance of:

- Symmetrical or asymmetrical.
- Multiple Gables, Mansard Roofs
- Bay windows with Gables
- Box Soffit wrapping partially around gable end to give illusion of defining triangle.
- Gables with decorative shingles and/or gingerbread
- Overhanging eaves
- Eaves and rooftop ridgelines with gingerbread
- Turned Porch posts and balusters
- Moderate accents of stained glass.
- Covered porches and double porches.

Examples of architectural elements prohibited are the external appearance of:

- Large columns, multiple-storey-columns, Plantation Style, Colonial Style, Saltbox Style, Shingle Style, Mission Style, Spanish Style, Mediterranean

EXHIBIT D TO CRAMER HILL CC&R'S

Architectural Elements

Style, Ranch Style, Prairie Style, etc.

T-111, Stucco, Blocks, Tiles, or expanses of masonry.

Sliders or casement windows.

Gambreled roofs, hip roofs, low pitched roofs, flat roofs or shed roofs (except shed roofs on small sheds), gables that overhang the porch, or small eave overhangs.

EXHIBIT D TO CRAMER HILL CC&R'S

Architectural Elements

Page 3 of 3

EXHIBIT E TO CRAMER HILL CC&R'S Preliminary Plans Requirements

Exhibit E Preliminary Plans Requirements

Preliminary and Final Plans shall contain 2 sets of the following required information, indicating both existing and proposed improvements:

1. Applicants' current names, address, phone number, fax number (if any), and e-mail address (if any).
2. Statement of Intent by architect, building or project engineer.
3. Site Plan Drawings including:
 - building locations on the Cramer Hill East Parcel
 - driveways and walkways
 - landscaping and landscape zones
 - all site improvements
 - fenced zones
4. Floor Plan Drawings including:
 - dimensions (general scale for preliminary drawings)
 - square footage (calculate liveable, garage, and total footprint)
 - room names
 - floor heights
 - indicated decks and porches
 - indicated locations of mechanical equipment
5. Exterior Elevations for each side including:
 - building heights
 - materials
 - trim
 - colors
6. Section Through Building (major section showing main floors, attic and basement, if any)
7. Roof Plan including:
 - general roof features, components, materials, and colors
 - skylights
 - chimney locations
8. On Site Staking including:
 - all structure corners staked and labeled
 - all trees to be removed marked and labeled
 - replacement tree locations marked and labeled
 - driveway centerline staked or strung

EXHIBIT E TO CRAMER HILL CC&R'S Preliminary Plans Requirements



EXHIBIT F TO CRAMER HILL CC&R'S
Aerial Photo depicting
Open Areas and Woodlots,
with approximate Parcel Locations

Timely IMPORTANT NOTICES will announce additions and changes to this list, which will become obsolete upon the issuance of the next revision scheduled for January, 2001.

G. Frederic Heuser, Ph.D., Senior Plant Systematist
Botany Laboratory, Herbarium CDA
Plant Pest Diagnostics Branch
Division of Plant Health & Pest Prevention Services
(916) 262-1143

RATING DEFINITIONS:

- "A" - Eradication, containment, rejection, or other holding action at the state-county level. Quarantine interceptions to be rejected or treated at any point in the state.
- "B" - Eradication, containment, control or other holding action at the discretion of the county commissioner.
- "C" - State endorsed holding action and eradication only when found in a nursery; action to retard spread outside of nurseries at the discretion of the commissioner; reject only when found in a cropseed for planting or at the discretion of the commissioner.
- "Q" - Temporary "A" action outside of nurseries at the state-county level pending determination of a permanent rating. Species on List 2, "Federal Noxious Weed Regulation" are given an automatic "Q" rating when evaluated in California.

STATE OF CALIFORNIA
DEPARTMENT OF FOOD AND AGRICULTURE
DIVISION OF PLANT HEALTH & PEST PREVENTION SERVICES

PEST RATINGS OF NOXIOUS WEED SPECIES
AND NOXIOUS WEED SEED

List 1. ALPHABETICAL BY SCIENTIFIC NAME
(SEE LIST 2 FOR DISCUSSION, SYNONYMS, MISAPPLICATIONS)

<u>RATING</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
B	<i>Acacia paradoxa</i> DC.	kangaroothorn
A	<i>Acacia novae-zelandiae</i> Kirk	biddy-biddy
A	<i>Acacia pallida</i> (Kirk) J.W. Dawson	pale biddy-biddy
A	<i>Achnatherum brachychaetum</i> (Godr.) Barkworth	panagrass
B	<i>Acroptilon repens</i> (L.) DC.	Russian knapweed
B	<i>Aegilops cylindrica</i> Host	jointed goatgrass
B	<i>Aegilops ovata</i> L.	ovate goatgrass
B	<i>Aegilops triuncialis</i> L.	berb goatgrass
A	<i>Aeschynomene rudis</i> Benth.	rough jointvetch
A	<i>Alhagi maurorum</i> Medik.	camelthorn
B	<i>Allium paniculatum</i> L.	panicked onion
B	<i>Allium vineale</i> L.	wild garlic
A	<i>Alternanthera philoxeroides</i> (Mart.) Griseb.	alligatorweed
B	<i>Ambrosia trifida</i> L.	giant ragweed
B	<i>Amorpha sericifera</i> Brot.	blackdierflower
A	<i>Arctostheca calendula</i> (L.) Levyns	capeweed
Q	<i>Cahomba caroliniana</i> A. Gray	Carolina fanwort
B	<i>Cardaria chalapensis</i> (L.) Hand.-Mazz.	lens-podded hoarycress
B	<i>Cardaria draba</i> (L.) Desv.	heart-podded hoarycress
B	<i>Cardaria pubescens</i> (C.A. Mey.) Jermol.	globe-podded hoarycress
A	<i>Carduus acanthoides</i> L.	plumeless thistle
A	<i>Carduus nutans</i> L.	musk thistle
C	<i>Carduus pycnocephalus</i> L.	Italian thistle

<u>RATING</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
C	<i>Carduus tenuiflorus</i> Curtis	slenderflowered thistle
B	<i>Carthamus bacticus</i> (Boiss. & Reut.) Nyman	smooth distaff thistle
B	<i>Carthamus lanatus</i> L.	woolly distaff thistle
A	<i>Carthamus leucocaulos</i> Sibth. & Sm.	whitestem distaff thistle
C	<i>Cenchrus echinatus</i> L.	southern sandbur
C	<i>Cenchrus incertus</i> M. Curtis	coast sandbur
C	<i>Cenchrus longispinus</i> (Hackel) Fernald	mat sandbur
B	<i>Centaurea calcitrapa</i> L.	purple starthistle
A	<i>Centaurea diffusa</i> Lam.	diffuse knapweed
A	<i>Centaurea iberica</i> Trev. ex Spreng.	Iberian starthistle
A	<i>Centaurea maculosa</i> Nutt. non Lam.	spotted knapweed
C	<i>Centaurea solstitialis</i> L.	yellow starthistle
A	<i>Centaurea squarrosa</i> Willd.	squarrose knapweed
B	<i>Centaurea sulphurea</i> Willd.	Sicilian starthistle
A	<i>Chondrilla juncea</i> L.	skeletonweed
B	<i>Chorispora tenella</i> (Fall.) DC.	purple mustard
B	<i>Cirsium arvense</i> (L.) Scop.	Canada thistle
Q	<i>Cirsium japonicum</i> DC.	Japanese thistle
A	<i>Cirsium ochrocentrum</i> A. Gray	yellowspine thistle
A	<i>Cirsium undulatum</i> (Nutt.) Spreng.	wavyleaf thistle
C	<i>Convolvulus arvensis</i> L.	field bindweed
B	<i>Coronopus squamatus</i> (Forskell) Asch.	swinecress
A	<i>Crepina vulgaris</i> Cass.	bearded creeper
A	<i>Cucumis melo</i> L. var. <i>dudaim</i> (L.) Naudin	dudaim melon
B	<i>Cucumis myriocarpus</i> Naudin	paddy melon
A	<i>Cuscuta reflexa</i> Roxb.	giant dodder
C	<i>Cuscuta</i> spp. [except <i>C. reflexa</i> Roxb.]	dodder
B	<i>Cynara cardunculus</i> L.	artichoke thistle

<u>RATING</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
C	<i>Cynodon</i> spp. & hybrids	bermudagrasses
B	<i>Cyperus esculentus</i> L.	yellow nutsedge
B	<i>Cyperus rotundus</i> L.	purple nutsedge
C	<i>Cytisus scoparius</i> (L.) Link	Scotch broom
B	<i>Elytrigia repens</i> (L.) Desv.	quackgrass
A	<i>Euphorbia esula</i> L.	leafy spurge
B	<i>Euphorbia oblongata</i> Griseb.	oblong spurge
A	<i>Euphorbia serrata</i> L.	serrate spurge
Q	<i>Euphorbia terracina</i> L.	Geraldton carnation spurge
B	<i>Gaura coccinea</i> Pursh	scarlet gaura
B	<i>Gaura drummondii</i> (Spach) Torr. & A. Gray	Drummond's gaura
B	<i>Gaura sinuata</i> Ser.	wavy-leaved gaura
C	<i>Genista monspessulana</i> (L.) L.A.S. Johnson	French broom
B	<i>Gypsophila paniculata</i> L.	baby's breath
A	<i>Halimodendron halodendron</i> (Pall.) Voss	Russian salt tree
A	<i>Halostylon glomeratus</i> (M. Bieb.) C.A. Mey.	halostylon
A	<i>Helianthus ciliaris</i> DC.	blueweed
A	<i>Heteropogon contortus</i> (L.) Roem. & Schult.	tanglehead
A	<i>Hydrilla verticillata</i> (L.f.) Royle	hydrilla
C	<i>Hyoscyamus niger</i> L.	black henbane
C	<i>Hypericum perforatum</i> L.	Klamathweed
B	<i>Imperata brevifolia</i> Vasey	eastern tail
C	<i>Iris douglasiana</i> Herb.	Douglas iris
C	<i>Iris missouriensis</i> Nutt.	western blue flag
B	<i>Isatis tinctoria</i> L.	dye's wood
C	<i>Iva axillaris</i> Pursh	povertyweed
B	<i>Lepidium latifolium</i> L.	perennial peppergrass
Q	<i>Limnabium spongia</i> (Boeck) Steud including <i>L. laevigatum</i> (Humb. & Bonpl. ex Willd.) Heine	spongeplant South American spongeplant

<u>RATING</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
Q	<i>Limnophila indica</i> (L.) Druce	ambulia
A	<i>Linaria genistifolia</i> (L.) Mill. subsp. <i>dalmatica</i> (L.) Maire & Petitm.	Dalmatian toadflax
B	<i>Lythrum salicaria</i> L.	purple loosestrife
C	<i>Malvella leprosa</i> (Ortega) Krapov.	alkali mallow
B	<i>Muhlenbergia schreberi</i> J.F. Smolin	nimblewill
B	<i>Nothoscordum inodorum</i> (Ait.) G. Nicholson	false garlic
B	<i>Nymphaea mexicana</i> Zucc.	banana waterlily
Q	<i>Oenotis alopecuroides</i> L.	foxtail reedherow
A	<i>Onopordum acanthium</i> L.	Scotch thistle
A	<i>Onopordum illyricum</i> L.	Illyrian thistle
A	<i>Onopordum tauricum</i> Willd.	Taurian thistle
A	<i>Orobancha cooperi</i> (A. Gray) A. Heller	Cooper's broomrape
A	<i>Orobancha ramosa</i> L.	branched broomrape
B	<i>Oryza rufipogon</i> Griff.	perennial wild red rice
B	<i>Panicum antidotale</i> Retz.	blue panicgrass
A	<i>Peganum harmala</i> L.	harmel
C	<i>Pennisetum clandestinum</i> Chiov.	Kikuyugrass
A	<i>Physalis longifolia</i> Nutt.	long-leaf groundcherry
B	<i>Physalis viscosa</i> L.	grape groundcherry
Q	<i>Pistia stratiotes</i> L.	water lettuce
C	<i>Polygonum amphibium</i> L. var. <i>emerum</i> Michx.	kelp
B	<i>Polygonum cuspidatum</i> Siebold & Zucc.	Japanese knotweed
B	<i>Polygonum polystachyum</i> C.F.W. Meissn.	Himalayan knotweed
B	<i>Polygonum sachalinense</i> Maxim.	giant knotweed
A	<i>Prosopis strombulifera</i> (Lam.) Benth.	creeping mesquite
B	<i>Rorippa austriaca</i> (Crantz) Besser	Austrian field cross
Q	<i>Rorippa sylvestris</i> (L.) Besser	creeping yellow field cross

<u>RATING</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
Q	<i>Salsola collina</i> Benth.	spineless Russianthistle
A	<i>Salsola vermiculata</i> L.	wormleaf saltwort
C	<i>Salsola paulsenii</i> L.	barbwire Russianthistle
C	<i>Salsola tragus</i> L.	common Russianthistle
B	<i>Salvia aethiopis</i> L.	Mediterranean sage
A	<i>Salvia virgata</i> Jacq.	southern meadow sage
Q	<i>Salvinia auriculata</i> Aubl. complex [including <i>S. auriculata</i> , <i>S. molesta</i> , <i>S. biloba</i> , <i>S. herzogii</i>]	salvinia
A	<i>Scotymus hispanicus</i> L.	golden thistle
B	<i>Senecio jacobaea</i> L.	tansy ragwort
B	<i>Senecio squalidus</i> L.	Oxford ragwort
B	<i>Setaria faberi</i> R. Herm.	giant foxtail
A	<i>Solanum cardiophyllum</i> Lindl.	heartleaf nightshade
B	<i>Solanum carolinense</i> L.	Carolina horsenettle
A	<i>Solanum dimidiatum</i> Raf.	Torrey's nightshade
B	<i>Solanum elaeagnifolium</i> Cav.	white horsenettle
B	<i>Solanum lanceolatum</i> Cav.	lanceleaf nightshade
B	<i>Solanum marginatum</i> L.f.	white-margined nightshade
A	<i>Sanchez arvensis</i> L.	perennial sowthistle
C	<i>Sorghum halepense</i> (L.) Pers.	Johnsongrass
A	<i>Sphaerophysa salsula</i> (Pall.) DC.	Austrian peaweed
A	<i>Striga araliica</i> (L.) Kuntze	witchweed
B	<i>Symphytum asperum</i> Lepechin	rough comfrey
C	<i>Tausenlatherum caput-medusae</i> (L.) Nevski	medusahed
A	<i>Tagetes minima</i> L.	wild marigold
C	<i>Tribulus terrestris</i> L.	puncturevine
B	<i>Ulex europaeus</i> L.	gorse
B	<i>Vitacum album</i> L.	European mistletoe
A	<i>Zygophyllum fabago</i> L.	Syrian beancaper

EXHIBIT 'G' to CRAMER HILL CC&R's WEED LIST

13 Airport Land Use Plan for Westover Field, Amador County, 1990

The Airport Land Use Plan for Westover Field is available at the City Office, on the Amador County website (<https://www.amadorgov.org/home/showdocument?id=10967>), and will be available on the City's website, cityofsuttercreek.org.