County shall replace them at the County's earliest convenience and deduct the cost of replacement from payment due to the Contractor.

7-1.14 RESPONSIBILITY OF CONTRACT TO ACT IN AN EMERGENCY:

In case of an emergency which threatens loss or injury to property or life, Contractor shall act without previous instructions as the situation may warrant. Contractor shall notify Director of TLMA immediately thereafter. Any compensation claimed by Contractor, together with substantiating documentation shall be submitted to County via Director of TLMA.

7-1.15 JOB SITE POSTERS:

Contractor shall obtain, furnish, post, preserve and maintain notices and posters in areas readily accessible to all personnel. Areas include, but are not limited to, jobsite trailer common area, material staging area, designated area where employees meet to take shift breaks, and /or equipment storage area. The designated location(s) of posters must be approved by the Engineer.

If posters are placed outside, they will need to be weatherproofed.

Copies of the posters may be obtained at the Caltrans Division of Construction Website:

http://www.dot.ca.gov/hq/construc/LaborCompliance/posters.htm

The Contractor shall check the website periodically for poster updates, additions, and changes. Contact information for various government agencies associated with poster information are provided at this website with links.

The following is a list of required posters:

Document number	Poster Name	Note/ Comment
-	Notice of Labor Compliance Program Approval	Required in English and Spanish and for all projects.
DFEH 162	Discrimination and Harassment in Employment are Prohibited by Law	Required in English and Spanish and for all projects.
DSLE 8	Payday Notice	Required for all projects.

WH Publication 1321	Davis-Bacon Act Poster (Notice to All Workers Working on Federally Financed Construction Projects)	Required in English and Spanish and for Federally funded projects.
FHWA 1495	Wage Rate Information Federal-Aid Highway Project	Required in English and Spanish and for Federally funded projects.
EEOC P/E-1	Equal Employment Opportunity is THE LAW (Revised 11/09)	Required in English and Spanish and for Federally funded projects.
FHWA 1022	False Statement Notice	Required for Federally funded projects.
OSHA 3165 (3167-Spanish)	Job Safety and Health – It's the law!	Required in English and Spanish and for Federally funded projects.
WHD Publication 1088	Employee Rights Under the Fair Labor Standards Act (Revised July 2009)	Required for Federally funded projects.
WHD Publication 1420	Employee Rights And Responsibilities Under The Family And Medical Leave Act (Revised January 2009)	Required for Federally funded projects.
WH Publication 1462	NOTICE Employee Polygraph Protection Act (June 2003)	Required for Federally funded projects.
-	Whistleblower Poster	Required for ARRA funded projects.

Though not posters, but included in the listing above, are the Federal (Davis-Bacon) wage rates and the California State prevailing wage rates, which are applicable to this specific contract, and also to be posted at the job site. See Appendix for "Federal Prevailing Wage Decision" or see correlated addendum that updates this referenced section.

Additionally, copies of the U.S. Department of Transportation Federal Highway Administration (FHWA) posters may be obtained at the FHWA Website:

http://www.fhwa.dot.gov/programadmin/contracts/poster.cfm

The revision dates shown in this listing were current as of April 20, 2010.

Payment

Full compensation for obtaining, furnishing, posting, preserving and maintaining all notices and job site posters shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

7-1.16 FINAL INSPECTION – NOTICE OF COMPLETION:

When the work is ready for final inspection, County shall cause the work to be inspected and subjected to such tests as seem to it to be required for the purpose of determining if the work is complete in every respect.

At a meeting of the governing body of County held within ten (10) days after final inspection, the governing body shall consider the facts developed at the inspection. If it is found that the work is apparently complete in every respect, County will accept the work and a Notice of Completion will be recorded.

As between the parties, the recordation of the Notice of Completion, unless recorded because of a cessation of labor, means only that the time for final payment and the commencement of the guarantee period commences to run.

7-2.01 DUST ABATEMENT:

Dust control shall conform to Section 10, "Dust Control", Section 7-1.01F, "Air Pollution Control", Section 17, "Watering", and Section 18, "Dust Palliative" of the Standard Specifications, Rules no. 401, 402, 403 and 403.1 of the South Coast Air Quality Management District (AQMD), Riverside County Code, Chapter 8.52, "Fugitive Dust Reduction Program For Coachella Valley" (if project location is within the Coachella Valley), all other applicable Federal and State laws, and the requirements set forth herein.

The Contractor is cautioned that failure to control fugitive dust may result in fines being levied by the South Coast Air Quality Management District to both the Contractor and the County, as Owner. The Contractor shall be fully responsible for payment of all fines pertaining to air pollution control violations, resulting from Contractor's operations related to the construction contract, which may be levied against both the Contractor and the County by the AQMD or other regulatory agencies. The Contractor's attention is directed to Section 7-1.01, "Laws to be Observed" of the Standard Specifications. The cost of all fines levied against the County will be deducted from any moneys due or which may become due to the Contractor, unless other payment arrangements are made by the Contractor.

Dust control of all of the Contractor's operations is required 24 hours per day, 7 days a week for the duration of the contract, and until the disturbed soil is permanently stabilized. The Contractor shall take every precaution to prevent emissions of fugitive dust from the project site, from locations of stockpiled materials, from unpaved driving surfaces, from haul vehicles, from inactive construction areas, and from all other operations of the Contractor. The Contractor shall plan for and carry out proper and efficient measures to prevent their operations from producing dust in amounts damaging to property or which constitute a public nuisance, or which cause harm to persons living or working in the vicinity of the work. Particular concern of emissions is PM10 particles.

PM10 particles are fine particulate matter of 10 microns or less which are associated with sickness and death from respiratory disease.

The Contractor shall furnish and post dust mitigation signs, which shall be, at a minimum, in accordance with the "AQMD Recommendations", attached hereto (See Appendix). Additional copies are available upon request from the Engineer. The sign shall include the Contractor's phone number which shall be maintained on a 24 hour basis. The sign message, size and design, including any deviations from the signage recommendations, shall be approved by the Engineer prior to fabrication.

The Contractor shall respond to complaints by mobilizing equipment and personnel at the construction site within 2 hours of each complaint to control fugitive dust.

Attention is directed to AQMD Rule 403.1, which applies to all contracts within the Coachella Valley Area of Riverside County. That AQMD Rule requires the Contractor to take specified dust control actions when prevailing wind speeds exceed 25 miles per hour. Wind forecasts, AQMD Rules and other related information are provided by AQMD at 1-800-CUT-SMOG and at www.aqmd.gov.

Any days on which the Contractor is prevented from working, due to the requirements of AQMD Rules, will be considered as non-working days, in accordance with Section 8-1.06, "Time of Completion" of the Standard Specifications.

The Contractor shall utilize the "Best Available Control Measures" of controlling fugitive dust, as prepared by the AQMD. For projects within the Coachella Valley, the "Reasonably Available Control Measures" may be employed, if effective within the context of the AQMD rules. However, if fugitive dust crosses the project boundary, more effective control measures, including the "Best Available Control Measures" shall be implemented.

A site-specific fugitive dust control plan shall be submitted to the Engineer for review and approval at least 10 days prior to the start of construction. Additionally, for projects outside of the Coachella Valley which meet the criteria for AQMD plan approval, the Contractor shall submit the dust control plan to AQMD for approval. AQMD plan submittal criteria is defined in AQMD Rule 403 as being for projects that will have disturbed surface area in excess of 100 acres, or for projects with a scope of work which requires the movement of more than 10,000 cubic yards of soil on each of any three working days.

A sample plan and other pertinent information is attached, and additional copies are available from the Engineer upon request. The fugitive dust control plan shall include the "Reasonably Available Control Measures" and "Best Available Control Measures" of controlling fugitive dust, as may be appropriate and necessary, including but not limited to watering, application of chemical dust suppressants, wind fencing, covering of haul vehicles, haul vehicle bed-liners, covering or chemically stabilizing stored materials, phased grading, planting of vegetation, the use of a 24 hour environmental observer, and

track-out controls at locations where unpaved construction accesses intersect with paved roads. The use of chemical stabilizers, which are approved by all environmental regulatory agencies, and the use of reclaimed water is encouraged. If water is intended as a primary dust control tool, the dust control plan shall provide for at least one 2,000 gallon water truck for every 4 acres of disturbed soil, unless otherwise approved by the Engineer.

If the Construction Engineer determines that the project scope and the forecasted weather conditions are such that the Contractor's work is unlikely to be a source of dust emissions, the Construction Engineer has the authority to waive the requirements for submittal of a dust control plan and for placement of the dust control signs described herein. However, the Contractors responsibilities for the control of fugitive dust and the other requirements of this Section may not be waived.

A completion notice will not be filed, and the final payment will not be made to the Contractor until the areas of disturbed soil on the construction site, including roadway shoulders, are suitably stabilized for long term control of fugitive dust.

The successful Contractor shall attend an AQMD PM10 Dust Control Program training session, and furnish evidence of attendance to the Engineer. Attendance at AQMD training seminars can be scheduled through AQMD at 1-866-861-DUST (1-866-861-3878) or by email to dustcontrol@aqmd.gov. Current AQMD certification of previous attendance will be accepted.

At that training session, the successful Contractor will be furnished with the AQMD prepared Rule 403 and Rule 403.1 implementation handbooks, which include the "Best Available Control Measures" and "Reasonably Available Control Measures", and other associated information, including a listing of suggested dust control related devices, materials and chemicals.

The signature of the Contractor on the Bid constitutes acknowledgement by the Contractor of the dust control requirements established by law and described herein, and the enforceability of those requirements.

Payment

When the contract includes a bid item for Dust Abatement, full compensation for conformance with these dust abatement requirements, including labor, equipment, materials, developing water supply and incidentals, shall be paid at the lump sum price for Dust Abatement, and no additional compensation will be allowed therefor.

When the contract does not include a bid item for Dust Abatement, full compensation for conformance with these dust abatement requirements, including labor, equipment, materials, developing water supply and incidentals, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

SECTION 8 (MATERIALS)

SECTION 8-1.MISCELLANEOUS

8-1.01 BUY AMERICA REQUIREMENTS:

Attention is directed to the "Buy America" requirements of the Surface Transportation Assistance Act of 1982 (Section 165) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) Sections 1041(a) and 1048(a), and the regulations adopted pursuant thereto. In conformance with the law and regulations, all manufacturing processes for steel and iron materials furnished for incorporation into the work on this project shall occur in the United States; with the exception that pig iron and processed, pelletized and reduced iron ore manufactured outside of the United States may be used in the domestic manufacturing process for such steel and iron materials. The application of coatings, such as epoxy coating, galvanizing, painting, and other coating that protects or enhances the value of steel or iron materials shall be considered a manufacturing process subject to the "Buy America" requirements.

A Certificate of Compliance, conforming to the provisions in Section 6-1.07, "Certificates of Compliance" of the Standard Specifications, shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall specifically certify that all manufacturing processes for the materials occurred in the United States, except for the above exceptions.

The requirements imposed by the law and regulations do not prevent a minimal use of foreign steel and iron materials if the total combined cost of the materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or $2,500, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of the foreign steel and iron prior to incorporating the materials into the work.

8-1.02 BRAND OR TRADE NAME – SUBSTITUTE OF EQUALS:

Reference is made to §3400 of the Public Contracts Code, which is by this reference incorporated herein with like effect as if here set forth in full.

If a potential Bidder believes he knows of an equal to a specified brand or trade name which is not mentioned in the Contract Documents, then such potential bidder may so advise Director of TLMA of such fact, giving all relevant information. If appropriate, an addendum will be issued as to the alleged equal provided that such issuance may be accomplished at least 5 Business Days before the time fixed for opening bids.

Unless the subject article or product is expressly designated for matching others in use in a particular public improvement either completed or in the course of completion, any bidder may, as part of its bid proposal, include a request for substitution of an item equal to any specified by brand or trade name.

Within 35 calendar days after award of the contract, Contractor may submit to Director of TLMA data substantiating such a request, and the difference, if any, in cost. Director of TLMA shall promptly investigate the request and make a recommendation to County as to equality. The governing body of County shall promptly determine whether the substitute is equal in every respect to the item specified, and approve or deny the request accordingly, and shall notify Director of TLMA of the determination made, who shall advise Contractor in writing of the decision. Unless the request is granted, substitution will not be permitted.

Nothing herein shall authorize a change in the contract price or prevent the use of change orders in the manner provided elsewhere in the Contract Documents.

8-1.03 TESTING:

Whenever a reference is made in the specifications to any of the California Test numbers specified below the corresponding ASTM Designation or AASHTO Designation test numbers may be used to determine the quality of materials:

California Test	ASTM Designation	AASHTO Designation
216	D 1557	T 180
231	D 2922	T 238
203	D 422	T 88
204	D 4318	T 89 (a)
--	--	T 90 (b)
504	C 231	T 152
518	C 138	T 121
521	C 39	T 22
523	C 293 (c)	T 177 (c)
--	C 78 (d)	T 97 (d)
533	C 360	--
211	C 131 (e)	T 96 (f)
--	C 535 (g)	--

Notes:

a) Determining the Liquid Limit of Soils.
b) Determining the Plastic Limit and Plasticity Index of Soils.
c) Flex Strength of Concrete (Using Simple Beam with Center Point Loading).
d) Flexural Strength of Concrete (Using the Simple Beam with Third Point Loading).
e) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact on the Los Angeles Machine.
f) Resistance to Degradation of Small- Size Coarse Aggregate by Use of the Los Angeles Machine.
g) Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

8-1.04 PORTLAND CEMENT CONCRETE CLASS:

Requirements on the construction plans for Portland Cement Concrete are modified to the PCC Class designations, as described in Section 90-1.01 of the 2006 Standard Specifications, as follows:

Class "A" shall mean Class "2"
Class "B" shall mean Class "3"
Class "C" shall mean Class "4"
Class "D" shall mean Class "1"

8-1.05 SLAG AGGREGATE:

Steel slag shall not be used on this project. Iron blast furnace slag will be allowed.

Special Provisions, (Continued)
Table of Contents

Whittier Avenue Sidewalk Project
Yale Street to Cornell Street
in the Community of East Hemet

Project No. C2-0142
Federal Aid No. SRTSL – 5956 (212)

SECTION 9

(Blank)

SECTION 10

SPECIAL PROVISIONS

10-1.01 DESCRIPTION:

In general this project proposes to construct sidewalk and associated improvements on Whittier Avenue, from Yale Street to Cornell Street, in east Hemet area of Riverside County.

Two segments of sidewalk will be constructed. The first segment is on the south side of Whittier Avenue from Yale Street to Columbia Street, and the second segment is on the north side of Whittier Avenue from Columbia Street to Cornell Street. In addition to the new sidewalk improvements, any damaged curb & gutter and non-compliance ADA access ramps will be removed and replaced. The following are main construction activities proposed for this project.

1. Construction of concrete sidewalk.
2. Construction of curb & gutter.
3. Reconstruction of driveway approaches.
4. Reconstruct driveways behind sidewalk.
5. Minor roadway excavation.
6. Retaining curb.
7. Minor road widening
9. Minor drainage improvements

In addition to the above listed items the project will include relocation and/or reconstruction of private driveways, walkways, mailboxes, fencing and gates. Drainage improvements include under sidewalk drain, cross gutter. General work includes removing or trimming trees and bushes, reworking of irrigation systems and other work as may be required.

10-1.02 ADDITIONAL INSURANCE AND HOLD HARMLESS:

In addition to the requirements of Section 3-1.05, "Insurance and Hold Harmless" of these Special Provisions, the Contractor's Certificate of Insurance and endorsements for the project shall name the following entities as additional insured under the Contractor's general liability, excess liability and auto liability insurance policies and on the Waiver of Subrogation for the Contractor's Workers Compensation policy.

1. Lake Hemet Water District, its director, officers, elected and appointed officials, employees, agents, and representatives

Full compensation for compliance with the requirements of this Section shall be considered as included in the various items of work and no additional compensation will be allowed therefore.

10-1.03 REFERENCE SPECIFIC BRANDS OR PRODUCTS:

Although the Special Provisions and construction plans reference specific brands or products, the intent of these references is as a guideline only, and products from alternate manufacturers will be accepted, provided that the product and its performance are a close approximation of the specified product. The Contractor shall submit information and specifications of the proposed alternate product to the Engineer for evaluation and approval prior to placing an order with the vendor.

10-1.04 CULTURAL RESOURCES:

Contractor shall protect all known and identified historic or prehistoric sites, buildings, objects, and properties related to American history, architecture, archaeology, and culture against destruction, obliteration, removal, or damage during Contractor's operations. Measures needed to protect such areas shall be approved by the Engineer prior to implementation. Contractor shall immediately notify the Engineer if disturbance occurs to any known site and shall immediately halt operations in the vicinity of the site until the Engineer authorizes Contractor to proceed.

If human remains are found at the project site during excavation of the project, work shall be suspended in the immediate area of the find and the Engineer will notify the Riverside County Coroner's Office. Standard guidelines set by California law for the treatment of human remains shall be followed (Public Resources Code § 5097.98 et seq., Health and Safety Code § 7050.5, and others).

If archaeological resources are discovered during construction activities on-site, the contractor shall stop all work and the County shall retain a qualified archaeologist to evaluate the significance of the potential finding and Identify an appropriate course of action. Salvage operations shall follow requirements pursuant to Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines.

10-1.05 BIOLOGICAL MONITORING:

The County will have available a qualified biologist as specified in these Special Provisions for a pre-construction survey of the project site, on site monitoring, if required, and all Endangered species handling that may be required. "Biologist" or "Monitor" referenced in these specifications refers to the biologist provided by the County. The Contractor shall request this service from the Engineer at least 10 days prior to the initial performance of work activities.

10-1.06 BIRD PROTECTION:

The Department anticipates nesting or attempted nesting by migratory and nongame birds from February 1 to August 31.

In the event that Initial groundwork cannot be conducted outside the bird breeding season, focused surveys will be conducted by a qualified biologist prior to ground-disturbing activities.

Should nesting birds be found, an exclusionary buffer will be established by a qualified biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the qualified biologist, and construction or clearing will not be conducted within this zone until the qualified biologist determines that the young have fledged or the nest is no longer active. Stop all work within a 500-foot radius of the discovery except as specified herein and as directed by engineer. The contractor shall comply with the provision of "**Regulatory Requirements**" under section "REMOVE TREE" of these Special Provisions.

During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.

Payment

Full compensation for complying with the requirements of this article shall be considered as included in the various items of work and no additional compensation will be allowed.

10-1.07 HAZARDOUS WASTE:

Contractor is required to proper handling and removal of lead-based paint as well as requirements that the Contractor truck excavated material off-site to a Class 1 Landfill.

If any transformers are relocated during the site construction this activity should be conducted under the purview of the local utility purveyor to identify property-handling procedures regarding potential PCBs. During final design, utility pole-mounted transformers that will have to be relocated as a result of the project should be inspected for leaks. Leaking transformers should be considered a potential PCB hazard, and Southern California Edison

should be contacted and handled accordingly by SCE if the leaking transformer must be located as a part of project construction.

10-1.08 PALEONTOLOGY:

Attention is directed to the California Public Resources Code Section 5097.5, which protects vertebrate paleontological sites or other paleontological features situated on public lands. In compliance with the California Environmental Quality Act (CEQA) requirements a Paleontologist provided by the Riverside County Transportation Department will monitor the excavation within the project limits to salvage fossil specimens as necessary during construction within the project limits.

In the unlikely event that paleontological resources are encountered during project-related excavation between the surface and 10 ft. beneath the surface, it is recommended that work in the immediate area of the find be redirected until a paleontologist can be contacted to come out to the location of the discovery to assess the find for scientific significance. If the find is determined to be significant, it may be necessary to develop a Paleontological Monitoring Plan (PMP) to reduce Impacts to nonrenewable paleontological resources following the guidelines outlined In the Caltrans Standard Environmental Reference (SER) as well as recommendations from the SVP.

All employees, subcontractors, and Contractor's representatives on the project site involved in excavation activities shall receive a one-hour paleontological resource awareness training program provided by the Paleontologist prior to performing on-site work. The Contractor shall submit a written request to the Engineer 10 days prior to the performance of any work requesting the paleontological resource awareness training.

If fossils are discovered, the Engineer may temporarily divert or suspend the excavation operations until the Paleontologist completes the salvage and removal of the fossil specimens.

All fossil specimens salvaged from within the State Right of Way shall remain the property of the State.

A delay due to paleontological monitoring or the salvage and removal of fossil specimens, when ordered by the Engineer, will be considered a temporary suspension of work, in accordance with the provisions in Section 8 1.05, "Temporary Suspension of Work," of the Standard Specifications.

Payment

Full compensation for conforming to these requirements shall be considered as included in the contract price paid for various contract items of work involved and no additional compensation will be allowed therefore.

Any additional excavation required due to the discovery of paleontological remains, when ordered by the Engineer will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

10-1.09 ORDER OF WORK:

Order of work shall conform to the provisions in section 5-1.05, "Order of Work" of the Standard Specifications and these Special Provisions.

Attention is directed to "Traffic Control" of these Special Provisions regarding the construction schedule. County intents to complete construction of curb & gutter, sidewalk and paving when the schools are out for summer vacation. The days the schools will be closed are in the Hemet Unified School District (HUSD) are between May 30 and August 11

Attention is directed to "Public Convenience" of these Special Provisions regarding access to the homes and school with driveways on Whittier Ave. The Contractor shall coordinate with these occupants to make accommodations to provide continual access.

Attention is directed to "Clearing and Grubbing" of these Special Provisions regarding property owner improvements within the project areas. The Contractor shall work directly with the County Inspector and property owners on the removal and relocation of the property owner's improvements within and adjacent to the right of way. The Contractor shall minimize the disturbance to the improvements, including grading, driveway reconstruction, fencing, walls, landscaping, irrigation and decorative features.

Attention is directed to "Clearing and Grubbing" of these Special Provisions regarding Remove/Trim trees. Ground disturbance, shrub and/or vegetation removal that occurs between February 1st and September 1st will require a preconstruction survey for nesting birds. The survey will be provided by the County. The occurrence of nesting birds may require a "Temporary Suspension of Work".

Attention is directed to "Temporary Fencing" of these Special Provisions regarding temporary fencing and access control. Many of the properties have small children, pets and other animals. The provisions under "Temporary Fencing" shall be strictly adhered to by Contactor.

Attention is directed to "Public Convenience" of these Special Provisions regarding activities at Ramona Elementary School. The Whittier Ave. and Columbia St. are extremely congested prior to the start of school and in the afternoon when classes let out. There may also be special evening and weekend events at the School. Contractor shall coordinate with the School Administrators and avoid activity in the traffic lanes and road shoulders at the peak hours and when special events are planned.

Attention is directed to "Mail Delivery/Mailbox Relocation" of these Special Provisions regarding mail delivery on Whittier Ave. Contractor shall comply with the "Coordination" section that may affect mail delivery.

Attention is directed to "Public Convenience" of these Special Provisions regarding construction of concrete gutters. Upon removal of the existing concrete cross gutter and adjacent pavement, steel plates shall be placed that span between the remaining asphalt surfaces. The steel plates shall remain in place until the replacement concrete cross gutter and adjacent pavement have been placed.

10-1.10 COOPERATION:

Attention is directed to Section 7-1.14, "Cooperation" of the Standard Specifications and these Special Provisions.sr

The Contractor is hereby advised to cooperate with utility companies, homeowners, and local businesses within or adjacent to project limits.

Should construction be under way by other forces or by other Contractors within or adjacent to this project limits, the Contractor shall cooperate with all the other Contractors or other forces to avoid any delay or hindrance to their work. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

The contractor must coordinate with Verizon, the owner of the flowerpot/pull box on Whittier Avenue located at station 51+70 (LT). Before the contractor begins construction, the contractor will notify Phil Brillinger with Verizon at (951) 658-7305 and coordinate a schedule for Verizon to work. Verizon is expected to adjust the flowerpot/pull box to the sidewalk grade. During the construction the contractor shall ensure that the facilities are protected and are not damaged in any construction activity. Verizon shall be allowed 5 non-exclusive working days for the above described work, and for any other work that may be required of Verizon during construction.

10-1.11 DEVELOP WATER SUPPLY:

Develop water supply shall conform to the provisions of Section 17 of the Standard Specifications and these Special Provisions.

Attention is directed to the requirements of Section 10, "Dust Control". Water in amounts specified by the Engineer will be used for dust control, and the cost thereof will be included in the lump sum price paid for Dust Abatement.

During construction, the contractor will ensure that all active portions of the construction site are watered as needed to prevent excessive amounts of dust due to dry or windy conditions.

During construction, the contractor will ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.

Payment

Full compensation for developing water supply and furnishing watering equipment shall be paid as lump sum and no additional compensation will be allowed therefor.

10-1.12 WATER POLLUTION CONTROL (SANTA ANA REGION):

Throughout the term of this contract, the total land disturbance area of the project site shall be less than 1 acre. The Contractor shall comply with the Area-Wide Municipal Stormwater Permit NPDES No. CAS 618033, hereafter referred to in this section as the "Municipal Permit", issued by the California Regional Water Quality Control Board (CRWQCB) – Santa Ana Region. This Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. A copy of the Permit may be obtained at the office of the County of Riverside Transportation Department, 14th Street Transportation Annex, 3525 14th Street, Riverside, California. (951) 955-6780, or may be obtained on the internet at: http://www.waterboards.ca.gov/santaana/

The Contractor shall comply with the requirements of the Municipal Permit, and all other applicable federal, state and local laws, ordinances, statues, rules, and regulations concerning water pollution control.

Contractor's Water Pollution Control Program (WPCP) shall be prepared by a Qualified SWPPP Developer in accordance with Section 3, "Preparing a Water Pollution Control Program (WPCP)", of the Caltrans Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (June 2011), which is available as a free download from:
http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

Water Pollution Control Measures

A. Work having the potential to cause water pollution shall not commence until the Contractor's WPCP has been reviewed and approved by the Engineer. The Engineer's review and approval of the Contractor's WPCP shall not waive any contractual requirements and shall not relieve the Contractor from achieving and maintaining compliance with all federal, state, and local laws, ordinances, statues, rules, and regulations. A copy of Contractor's WPCP shall be maintained onsite. When the WPCP or access to the construction site is requested by a representative of a federal, state, or local regulatory agency, Contractor shall make the WPCP available and Contractor shall immediately contact the Engineer. Requests from the public for the Contractor's WPCP shall be directed to the Engineer.

B. Contractor's WPCP shall describe the Contractor's plan for managing runoff during each construction phase. Contractor's WPCP shall describe the Best Management Practices (BMPs) that will be implemented to control erosion, sediment, tracking, construction materials, construction wastes, and non-stormwater flows. BMP details shall be based upon California Stormwater Quality Association's (CASQA) California Stormwater Quality BMP Handbook Subscription Portal (http://www.cabmphandbooks.com) or the Caltrans Construction Site BMP Manual (http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm). Contractor's WPCP shall describe installation, operation, inspection, maintenance, and monitoring activities that will be implemented for compliance with the Municipal Permit and all applicable federal, state, and local laws, ordinances, statutes, rules, and regulations related to the protection of water quality.

C. The Contractor's WPCP preparer shall have been trained to prepare WPCPs or SWPPPs and shall have previous experience with preparing SWPPP or WPCP requirements on a previous project.

The Contractor shall designate a Water Pollution Control Manager that shall have been trained to implement WPCP or SWPPP requirements. Contractor's Water Pollution Control Manager shall:

1. Be responsible for all water pollution control work.
2. Be the Engineer's primary contact for all water pollution control work.
3. Have the authority to mobilize resources (crews, supplies, equipment, etc.) to make immediate repairs of water pollution control measures or to supplement water pollution control measures to maintain compliance with all federal, state, and local laws, ordinances, and regulations related to the protection of water quality, including the Municipal Permit.

The WPCP shall contain all required and applicable certifications and evidence of training for the Water Pollution Control Manager, WPCP Developer, and all other employees working on the project receiving formal training or certification.

Water Pollution Control Training: Contractor shall provide water pollution control training to Contractor's employees and subcontractors prior to their performing work on the work site. The water pollution control training shall be appropriate to the employee or subcontractor function and area of responsibility and shall address (as applicable):

1. Erosion Control (water and wind)
2. Sediment Control
3. Tracking Control
4. Materials & Waste Management
5. Non-Stormwater Discharge Management
6. Run-on and Run-off Control

Monitoring and Reporting: Observations and inspections conducted by the Contractor's Water Pollution Control Manager shall be documented on the Construction Site Inspection Checklist included in Contractor's WPCP. A copy of each completed Construction Site Inspection Checklist shall be submitted to the Engineer within 24 hours of conducting the inspection.

General Requirements

In the event the County incurs any Administrative Civil Liability (fine) imposed by the CRWQCB – Santa Ana Region, the State Water Resources Control Board, or EPA, as a result of Contractor's failure to fully implement the provisions of "Stormwater and Non-Stormwater Pollution Control", the Engineer, may, in the exercise of his sole judgment and discretion, withhold from payments otherwise due Contractor a sufficient amount to cover the Administrative Civil Liability including County staff time, legal counsel, consultant support costs and all other associated cost.

The Contractor shall be responsible for all costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in "Water Pollution Control", including but not limited to, compliance with the applicable provisions of the Caltrans Handbooks, Municipal Permit, Federal, State, and local regulations. For the purpose of this paragraph, costs and liabilities include, but not limited to, fines, penalties, damages, and costs associated with defending against enforcement actions whether taken against the County or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Act.

Within fifteen (15) working days after the award of the contract, the Contractor shall submit two (2) copies and one pdf. file of the WPCP to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the WPCP. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the WPCP within three (3) working days of receipt of the Engineer's comments and shall allow ten (10) working days for the Engineer to review the revisions. The Contractor shall submit four (4) copies of the approved WPCP and one pdf file to the Engineer prior to notice to proceed. The Contractor must have an approved WPCP prior to the notice to proceed.

Unless otherwise directed by the Engineer or specified in these Special Provisions, the Contractor's responsibility for WPCP implementation shall continue throughout any temporary suspension of work ordered in accordance with Section 8-1.05, "Temporary Suspension of the Work", of the Standard Specifications. The Engineer may withhold progress payments or order the suspension of construction operations without an extension of the contract time, if the Contractor fails to comply with the requirements of "Water Pollution Control" as determined by the Engineer.

All BMP repairs shall be implemented by the Contractor within 72 hrs.

During construction, the construction contractor will ensure that all active portions of the construction site are watered as needed to prevent excessive amounts of dust due to dry or windy conditions.

During construction, the construction contractor will ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust.

Only certified weed-free straw, mulch, and or fiber rolls will be used for erosion control.

All mulch, topsoil, and seed mixes used during any post construction landscaping activities and erosion control Best Management Practices (BMPs) implemented will be free of invasive plant species propogules. Trucks with load carrying vegetation shall be covered and vegetative materials removed from the site shall be disposed of in accordance with all applicable laws and regulations

After construction, all re-vegetated areas will avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory that have a high or moderate rating. Eradication procedures, e.g., spraying and/or hand weeding) will be outlined should and infestation occur, the use of herbicide will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by a qualified biologist.

Payment

Payment for Water Pollution Control shall be on a lump sum basis and shall include full compensation for the work performed, including, developing, preparing, revising, obtaining approval of, and amending the WPCP, implementing, installing, constructing, operating, maintaining, and removing and disposing of temporary BMPs, performing the observations, inspections, sampling, analysis, reporting, and street sweeping, and as specified in the Caltrans Handbooks, Municipal Permit and these Special Provisions, and as directed by the Engineer.

10-1.13 STREET SWEEPING:

GENERAL

Summary
This work includes street sweeping.

The WPCP shall describe and include the use of street sweeping as a Water Pollution Control practice for sediment control and tracking control. Street sweeping shall also conform to all applicable AQMD requirements.

Submittals

At least 5 working days before starting clearing and grubbing, or other activities with the potential for tracking sediment or debris, submit:

A. The number of street sweepers that will be used as described in the WPCP.
B. Type of sweeper technology (or technologies).

Quality Control and Assurance
Retain the following records related to street sweeping and submit weekly to Engineer:

A. Tracking Inspection Log
B. Sweeping times and locations.
C. Quantity of sweeping waste disposal.

CONSTRUCTION

Street Sweepers

Sweepers must use one of these technologies:

A. Mechanical sweeper followed by a vacuum-assisted sweeper.
B. Vacuum-assisted dry (waterless) sweeper.
C. Regenerative-air sweeper.
or
D. Sweeping by hand is acceptable in lieu of A, B, and C above if approved by Engineer.

Operation
Street sweeping shall be conducted at:

A. Paved roads at job site entrance and exit locations.
B. Paved areas within the job site that flow to storm drains or water bodies.

Street sweeping shall be conducted, and sweeper(s) shall be available to operate at all times, for the following:

A. During clearing and grubbing activities.
B. During earthwork activities.
C. During trenching activities.
D. During roadway structural section activities.
E. When vehicles are entering and leaving the job site.
F. After soil disturbing activities.
G. After observing offsite tracking of material.

Contractor's Water Pollution Control Manager shall inspect adjacent paved areas at job site entrances and exits and paved roadways within the job site on a minimum daily basis, and more frequently when activities that require street sweeping are being performed. Contractor's Water Pollution Control Manager shall maintain a "Tracking Inspection Log." Street sweeping shall be conducted:

A. Within 1 hour, if sediment or debris is observed on paved areas or paved roadways.

At least one sweeper, in good working order, must be on the job site at all times when sweeping work may be required.

Perform street sweeping to minimize dust. If dust generation is excessive or sediment pickup is ineffective, water may be used but shall be contained, collected (e.g. vacuum), and properly disposed.

Material collected during street sweeping must be removed and disposed of under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way" of the Standard Specifications.

Payment

Full compensation to conform with the requirements of this section shall be considered as included in the contract lump sum price paid for Water Pollution Control including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in street sweeping, including disposal of collected material, as shown on the plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer. Therefore, no additional compensation will be allowed for street sweeping.

10-1.14 TRAFFIC CONTROL SYSTEM/ PUBLIC CONVENIENCE/ PUBLIC SAFETY:

Contractor shall prepare construction staging and traffic control plans for review and approval by the Transportation Department.

Proposed plans shall be submitted by the Contractor for review and approval by the Transportation Department at least two weeks prior to the start of construction. The construction staging and traffic control plans shall be prepared, signed and stamped by a Civil Engineer or Traffic Engineer who is registered as such in the State of California, unless otherwise specifically allowed by the Engineer. The Contractor shall revise and implement the plans as directed by the Construction Engineer. Construction shall not begin until the Engineer provides Contractor with County approval of the plans.

Construction staging and traffic control plans shall be in accordance with the appropriate standards and specifications for construction staging, detour roads, traffic control, including the State of California Highway Design Manual, the Manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation, Standard Plans and Standard Specifications, and the Work Area Traffic Control Handbook (WATCH), as published by Building News, Inc. Any requests for deviation from the established design standards or specifications are to be submitted to the Construction Engineer for review and approval prior to submission of the required plans.

With regard to the preparation and implementation of the plans, attention is especially directed to Sections 7-1.06, 7-1.08, 7-1.09, 7-1.11, 7-1.12 and Section 12 of the State of California Standard Specifications. Section 12-2.02 of the Standard Specifications is deleted.

Maintaining traffic shall conform to the provisions in 7 1.02 "Load Limitations", 7 1.06 "Safety and Health Provisions", 7 1.08 "Public Convenience", 7 1.09 "Public Safety", and 12 3.04 "Portable Delineators" of the Standard Specifications, the Manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation, the Section of these contract documents entitled "Insurance - Hold Harmless", and these Special Provisions.

All existing traffic control signs and street name signs shall be maintained in visible locations as directed by the Engineer.

No detours will be allowed, unless specifically allowed herein. The Contractor will be required to conduct his operations in such a manner that traffic will be permitted to pass through the work area with as little delay as possible.

All warning lights, signs, flares, barricades and other facilities for the sole convenience and direction of public traffic shall be furnished and maintained by the Contractor. All traffic control devices shall conform to and be placed in accordance with the Manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation.

All construction signs shall be either covered or removed when not required by the nature of the work or if no present hazard to the motorist exists.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to commencing excavation for construction area sign posts. The regional notification centers include, but not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Southern California (USA)	1-800-422-4133 1-800-227-2600 or 811

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

No payment for extra work will be allowed for work performed as specified in Section 12 2.02 (Flagging Costs) of the Standard Specifications. Flagging costs will be borne entirely by the Contractor.

The Contractor shall be responsible to distribute an information letter pertaining to the planned work to all affected residences and businesses, at least one week prior to commencing work adjacent to those residences and businesses. It shall be the responsibility of the Contractor to design the information letter, obtain design approval from the Engineer, print sufficient copies, and distribute the letter. The Transportation Department logo shall be included on the letter. A computer file of the logo may be obtained from the Engineer in .WPG, .DXF, .DGN or .DWG format. The letter shall be similar to the sample provided by the Engineer, and shall include a project description, the scope of work, the anticipated construction schedule, and other information as appropriate.

The Contractor shall post temporary no parking signs on affected streets 24 hours prior to work on those streets. The temporary no parking signs shall state the anticipated dates and hours of work on those streets.

Payment

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article, including furnishing, installing and maintaining all traffic control devices shown on the construction staging and traffic control plans, including construction area signs, channelizers, portable changeable message signs, temporary pavement markers, temporary traffic stripes, graffiti removal and clean up, shall be considered as included in the contract lump sum price paid for Traffic Control System, and no additional compensation will be allowed therefor.

10-1.15 MAINTAINING TRAFFIC:

Maintaining traffic shall conform to the provisions in Section 7-1.08, "Public Convenience", Section 7-1.09, "Public Safety" and Section 12, "Construction Area Traffic Control Devices" of the Standard Specifications and "Public Safety" of these Special Provisions.

Daily working hours shall be between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, except legal holidays, as approved by the Engineer. Exceptions and specific work schedules shall be submitted to the Engineer for consideration.

Closure is defined as the closure of a traffic lane or lanes, including shoulder, ramp or connector lanes, within a single traffic control system.

Closure shall conform to the provisions in "Traffic Control System" of these Special Provisions.

Local authorities shall be notified at least five (5) business days before work begins. The Contractor shall cooperate with local authorities to handle traffic through the work area and shall make arrangements to keep the work area clear of parked vehicles.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including sections closed to public traffic.

When work vehicles or equipment are parked on the shoulder within six (6) feet of a traffic lane, the shoulder area shall be closed.

When work vehicles or equipment are parked on the shoulder within six (6) feet of a traffic lane, the shoulder area shall be closed with fluorescent orange 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 traffic cones or portable delineators shall be used for the taper. A W20-1 (ROAD WORK AHEAD) or W21-5b (RIGHT/LEFT SHOULDER CLOSED AHEAD) or C24 (CA) (SHOULDER WORK AHEAD) sign shall be mounted on a crashworthy portable sign support with flags. The sign shall be placed where designated by the Engineer. The sign shall be a minimum of 48" x 48" in size. The Contractor shall immediately restore to the original position and location a traffic cone or delineator that is displaced or overturned, during the progress of work.

If minor deviations are required on traffic control plan, a written request shall be submitted to the Engineer at least 15 days before the proposed date of the closure. The Engineer may approve the deviations if there is no significant increase in the cost to the County and if the work can be expedited and better serve the public traffic.

Designated County legal holidays are January 1st, the third Monday in January, February 12th, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, the second Monday in October, November 11th, Thanksgiving Day, the Friday following Thanksgiving Day, December 24th and 31st when they fall on Monday, December 25th, December 26th and January 2nd when they fall on Friday, When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When

January 1st, February 12th, July 4th, November 11th, or December 25th fall on a Saturday, the preceding Friday shall be a designated legal holiday.

Payment

Full compensation for furnishing, erecting, maintaining, removing and disposing of the signs shall be considered as included in the contract lump sum price paid for Traffic Control System and no additional compensation will be allowed therefor.

10-1.16 CLEARING AND GRUBBING:

Clearing and grubbing, **including but not limited to removal of AC dike/berm, curb & gutter, concrete aprons, concrete and AC driveways, pavers, brick planters, brick wall, wood fence, posts, railroad ties, tree stump, removal of and/or trimming hedges, small trees, shrubs and other removal of hardscape and landscape shown on the plans or as directed,** shall conform to the provisions in Section 16 of the Standard Specifications.

Nothing in this section shall relieve the Contractor from providing for public safety in conformance with the provisions in Section 7-1.09, "Public Safety" of the Standard Specifications.

Payment

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article including all labor, equipment, materials and incidentals, for performing clearing and grubbing including but not limited to **removal of AC dike/berm, curb & gutter, concrete aprons, concrete and AC driveways, pavers, brick planters, brick wall, wood fence, posts, railroad ties, tree stump, removal of and/or trimming hedges, small trees, shrubs and other removal of hardscape and landscape shown on the plans or as directed,** shall be considered as included in the contract price paid per lump sum for Clearing and Grubbing and no additional compensation will be allowed therefor.

10-1.17 REMOVE TREE:

Trees shall be removed including roots as shown on the plan and/or as directed by the Engineer.

Vegetation-clearing and the majority of preliminary ground-disturbance work should be completed outside of bird breeding season (typically set as February 1 through August 31).
In the event that Initial groundwork cannot be conducted outside the bird breeding season, focused surveys will be conducted by a qualified biologist prior to ground-disturbing activities.

Removed trees and trimmings shall be the property of the Contractor and shall be disposed of by the Contractor, as provided in Section 7-1.13 of the Standard Specifications.

Tree trimming and tree removal shall be in accordance with the applicable American National Standard and ANSI Z133.

Regulatory Requirements

Attention is directed to the Federal Migratory Bird Treaty Act (15 USC 703-711) 50 CFR Part 21 and 50 CFR Part 10, and the California Department of Fish and Game Code Sections 3503, 3513 and 3800, that protect migratory birds, their occupied nests, and their eggs from disturbance or destruction.

Construction

Ground disturbance, tree, shrub and/or vegetation removal that occurs between March 1st and September 15th will not commence until a preconstruction survey for nesting birds has verified that no active nests have been located or the Engineer has approved the beginning of work. If an active nest is located, construction within 500 feet of the nest must be avoided until the nest has been vacated and the young are independent of their parents.

Between February 1st and September 1st, the Contractor shall notify the Engineer 15 working days prior to beginning work disturbing structures, the ground or vegetation. The Engineer will approve the beginning of work disturbing the ground or vegetation between February 1 and September 1.

The Contractor shall use exclusion techniques directed by the Engineer to prevent migratory birds from nesting on the ground, on structures or in trees, shrubs or other vegetation within the project limits.

If evidence of bird nesting is discovered, the Contractor shall not disturb the nesting birds or nests until the birds have naturally left the nests. If evidence of migratory bird nesting is discovered after beginning work, the Contractor shall immediately stop work within 500 feet of the nests and notify the Engineer. Work shall not resume until the Engineer provides a written notification that work may begin at or adjacent areas of the discovered bird nest locations.

Attention is directed to Section 8-1.05, "Temporary Suspension of Work" of the Standard Specifications.

Nothing in this section shall relieve the Contractor from providing for public safety in conformance with the provisions in Section 7-1.09, "Public Safety" of the Standard Specifications.

Method of Payment and Penalties

If, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of the Engineer's delay in approving the disturbance structures, ground or vegetation, the Contractor will be compensated for resulting losses, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Way Delays" of the Standard Specifications.

Preventing nesting by using appropriate exclusion techniques will be paid for as extra work as provided in Section 4-1.03D,"Extra Work" of the Standard Specifications.

Notwithstanding any other remedies authorized by law, the County may retain or withhold monies due the Contractor under the contract, in an amount determined by the Department, up to and including the entire amount of penalties proposed, assessed, or levied as a result of the Contractor's violation of Federal or State law, regulations or requirements. Funds may be retained by the County until final disposition has been made as to the penalties. The Contractor shall remain liable for the full amount of penalties until such time as they are finally resolved with the entity seeking the penalties. Upon final disposition, the County shall inform the Contractor or the withheld amount.

Penalties as used in this section, "General Migratory Bird Protection" shall include fines, penalties, and damages whether proposed, assessed, or levied against the County or the Contractor. Penalties shall also include payments or costs incurred in settlement for alleged violations of applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Exclusion devices, nesting prevention measures, and nest removal that are ordered by the Engineer shall be compensated per Section 5-1.16 "Payment for Extra Work (Force Account Bases)" of these Special Provisions.

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article, including all labor, equipment, materials and incidentals, to remove trees as shown on the plans or as directed by the engineer, shall be paid **per each** as and no additional compensation will be allowed therefor.

10-1.18 ROADWAY EXCAVATION:

Roadway excavation shall conform to the provisions of Section 19 of the Standard Specifications and these Special Provisions.

At road connections and at limits of asphalt paving, existing pavement shall be header cut as shown on the plans or as directed by the Engineer. Full compensation for furnishing all labor, tools and doing all the work necessary including grinding, and sawcutting shall be considered as included in the contract prices paid for the various asphalt concrete items and no additional compensation will be allowed therefor.

Existing pavement including any base material shall be cut back to neat lines and removed as shown on the plans or as directed by the Engineer. Excess material will become the property of the Contractor and will be disposed of as provided in Section 7-1.13 of the Standard Specifications.

Removal of pavement, and base material will be considered as roadway excavation for payment purposes.

Relative Compaction:

Relative compaction shall conform to the provisions of Section 19-5.03, "Relative Compaction (95 Percent)" of the Standard Specifications, these Special Provisions and/or as directed by the Engineer.

Whenever relative compaction is specified to be determined by Test Method No. Calif. 216, the in-place density may be determined by Test Method No. Calif. 231. The in-place density required by Test Method No. Calif. 312 may be determined by Test Method No. 231. The wet weight or dry weight basis and English Units of Measurement may be used at the option of the Materials Engineer.

Payment

The contract unit bid price paid per cubic yard for Roadway Excavation shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved including the compaction of the subgrade and the grading of the shoulder as directed by the Engineer and no additional compensation will be allowed therefor.

10-1.19 WEDGE PLANE ASPHALT CONCRETE:

The Contractor shall cold plane/wedge plane the asphalt concrete pavement to a depth as shown on the approved plans or as directed by the Engineer.

The cold plane machine shall have a cutter head at least 72 inches wide and shall be operated so as not to produce fumes or smoke.

The depth, width and shape of the cut shall be as indicated on the plans. The outside lines of the planed area shall be neat and uniform. The road surfacing to remain in place shall not be damaged in any way.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way shall become the property of the Contractor and shall be immediately removed from the site of the work and disposed of as provided in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way", of the Standard Specifications. The removal crew shall follow within 50 feet of the planer, unless otherwise directed by the Engineer.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety" of the Standard Specifications.

Payment

The contract unit bid price paid per Linear Foot for Wedge Plane Asphalt Concrete shall include full compensation for providing all labor, tools, equipment and disposing of the grindings and no additional compensation will be allowed therefor.

10-1.20 AGGREGATE BASE:

Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases" of the Standard Specifications and these Special Provisions and shall meet the gradation requirements for ¾ inch maximum.

The first paragraph of Section 26-1.02A, "Class 2 Aggregate Base" shall be modified to read:

> Aggregate for Class 2 aggregate base shall be free from organic matter and other deleterious matter, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm and stable base. Aggregate may consist of broken and crushed asphalt concrete or Portland cement concrete and may contain crushed aggregate base or other rock materials. The material may contain no more than 3 percent brick by weight as determined by California Test Method 202 as modified: Brick material retained on a No.4 sieve shall be identified visually and separated manually. Brick quantification shall be based on total weight of dry sample. Also, material retained on the 4.75 mm (No.4) sieve shall contain no more than 15 percent of particles (gravel) that have no more than one fractured face.

The Quality Requirements contained in Section 26-1.02A shall be modified to read:

QUALITY REQUIREMENTS

Test	Contract Compliance
Resistance (R-Value)	
Virgin Rock	78 Minimum
Crushed Miscellaneous	80 Minimum
Sand Equivalent	
Virgin Rock	25 Minimum
Crushed Miscellaneous	35 Minimum
Durability Index	35 Minimum
Percentage Wear	
100 Revolutions	15 Maximum
500 Revolutions	52 Maximum

During construction, soil/gravel/rock will be obtained from weed free sources.

Payment

Quantities of Aggregate Base will be paid for at the contract unit price per cubic yard and in accordance with the provisions of Sections 26-1.06 and 26-1.07 of the Standard Specifications, and will include the base requirements under all proposed AC pavement improvements. No adjustment in the bid price per cubic yard for overages or underages from the stated quantity will be allowed.

10-1.21 PREPARING EXISTING ROADBED FOR RESURFACING:

When asphalt concrete is to be spread over existing pavement, the existing pavement shall first be cleaned of all dirt and extraneous material. The area shall be sprayed with paint binder prior to resurfacing.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction. Full compensation for furnishing all labor, tools, and materials necessary to clean tracked paint binder shall be considered as included in the contract price paid per ton for Asphalt Concrete.

Asphalt concrete shall be placed on all existing surfacing, including curve widening, public road connections, and left turn pockets, unless otherwise directed by the Engineer.

All raised pavement markers shall be removed prior to the application of paint binder.

The Contractor will be required to place and remove temporary pavement markings as directed by the Engineer.

At the end of each day's work, preceding a non-working day or a day on which the Contractor does not work, the distance between the ends of the adjacent surfaced lanes shall not be greater than 10 feet nor less than 5 feet.

Payment

Except as otherwise provided, full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in preparing existing roadbed as shown on the plans, as specified herein, and as directed by the Engineer shall be considered as included in the contract prices paid for the various asphalt concrete items.

10-1.22 HOT MIX ASPHALT:

Asphalt concrete shall be Type "A" and shall conform to the requirements of Section 39 of the Standard Specifications and the following:

Aggregate grading shall be three-quarter inch (3/4") maximum.

The asphalt lift thickness table, as shown in Section 39-6.01, "General Requirements" of the Standard Specifications, is revised as follows:

Total Thickness Shown on Plans	Minimum No. of Layers	Top Layer Thickness (foot)		Next Lower Layer Thickness (foot)		All Other Lower Layer Thickness (foot)	
		Min.	Max.	Min.	Max.	Min.	Max.
0.24-foot or less[a]	1	-	-	-	-	-	-
0.25-foot	2[b]	0.12	0.13	0.12	0.13	-	-
0.26 - 0.46 foot	2	0.12	0.21	0.14	0.25	-	-
0.47-foot or more	3 or more	0.15	0.21	0.15	0.25	0.17	0.25

Footnotes to asphalt thickness table are revised as follows:

a. No Change.

b. One layer of 0.25 foot thick may be placed as approved by the Engineer. When the Traffic Index specified is 5.5 or below, two layers shall be placed.

Asphalts:

Asphalt shall conform to the provisions in this Section, "Asphalts". Section 92, "Asphalts" of the Standard Specifications shall not apply.

Asphalt shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt shall be:

1. Free from residues caused by the artificial distillation of coal, coal tar, or paraffin;
2. Free from water;
3. Homogeneous.

General:

The Contractor shall furnish asphalt in conformance with the State California Department of Transportation's "Certification Program for Suppliers of Asphalt". The Department maintains the program requirements, procedures, and a list of approved suppliers at:

http://www.dot.ca.gov/hq/esc/Translab/fpmcoc.htm

The Contractor shall ensure the safe transportation, storage, use, and disposal of asphalt.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

Grade:

Performance graded (PG) asphalt binder shall conform to the following:

Property	AASHTO Test Method	Specification Grade		
		PG 64-10	PG 64-16	PG 70-10
Original Binder				
Flash Point, Minimum °C	T48	230	230	230
Solubility, Minimum %[b]	T44	99	99	99
Viscosity at 135 °C, Maximum, Pa·s	T316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	64 1.00	64 1.00	70 1.00
RTFO Test[e], Mass Loss, Maximum, %	T240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	64 2.20	64 2.20	70 2.20
Ductility at 25 °C Minimum, cm	T51	75	75	75
PAV[f] Aging, Temperature, °C	R28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G*/sin(delta), kPa	T315	31[d] 5000	28[d] 5000	34[d] 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, Mpa Minimum M-value	T313	0 300 0.300	-6 300 0.300	0 300 0.300

Notes:

a. Not used.

b. The Engineer will waive this specification if the supplier is a Quality Supplier as defined by Department's "Certification Program for Suppliers of Asphalt".

c. The Engineer will waive this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.

d. Test the sample at 3 °C higher if it fails at the specified test temperature. G*sin(delta) shall remain 5000 kPa maximum.

e. "RTFO Test" means the asphaltic residue obtained using the Rolling Thin Film Oven Test, AASHTO Test Method T240 or ASTM Designation: D2827.

f. "PAV" means Pressurized Aging Vessel.

Performance graded polymer modified asphalt binder (PG Polymer Modified) is:

Performance Graded Polymer Modified Asphalt Binder [a]

Property	AASHTO Test Method	Specification Grade		
		PG 58-34 PM	PG 64-28 PM	PG 76-22 PM
Original Binder				
Flash Point, Minimum °C	T 48	230	230	230
Solubility, Minimum % [b]	T 44[c]	98.5	98.5	98.5
Viscosity at 135°C, [d] Maximum, Pa·s	T 316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C	T 315	58	64	76
Minimum G*/sin(delta), kPa		1.00	1.00	1.00
RTFO Test, Mass Loss, Maximum, %	T 240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C	T 315	58	64	76
Minimum G*/sin(delta), kPa		2.20	2.20	2.20
Dynamic Shear, Test Temp. at 10 rad/s, °C	T 315	Note e	Note e	Note e
Maximum (delta), %		80	80	80
Elastic Recovery[f], Test Temp., °C	T 301	25	25	25
Minimum recovery, %		75	75	65
PAV[g] Aging, Temperature, °C	R 28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C	T 315	16	22	31
Maximum G*sin(delta), kPa		5000	5000	5000
Creep Stiffness, Test Temperature, °C	T 313	-24	-18	-12
Maximum S-value, MPa		300	300	300
Minimum M-value		0.300	0.300	0.300

Notes:

a. Do not modify PG Polymer Modifier using acid modification.
b. The Engineer waives this specification if the supplier is a Quality Supplier as defined by the Department's "Certification Program for Suppliers of Asphalt".
c. The Department allows ASTM D5546 instead of AASHTO T44.
d. The Engineer waives this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
e. Test temperature is the temperature at which G*/sin(delta) is 2.2 kPa. A graph of log G*/sin(delta) plotted against temperature may be used to determine the test temperature when G*/sin(delta) is 2.2 Kpa. A graph of (delta) versus temperature may be used to determine delta at the temperature when G*/sin(delta) is 2.2 kPa. The Engineer also accepts direct measurement of (delta) at the temperature when G*/sin(delta) is 2.2 kPa.
f. Test without a force ductility clamp may be performed.
g. "PAV" means Pressurized Aging Vessel.

Sampling:

The Contractor shall provide a sampling device in the asphalt feed line connecting the plant storage tanks to the asphalt weighing system or spray bar. The sampling device shall be accessible between 24 and 30 inches above the platform. The Contractor shall provide a receptacle for flushing the sampling device.

The sampling device shall include a valve:

1. With a diameter between 1/2 and 3/4 inches;

2. Manufactured in a manner that a one-quart sample may be taken slowly at any time during plant operations;

3. Maintained in good condition.

The Contractor shall replace failed valves.

In the presence of the Engineer, the Contractor shall take 2 one-quart samples per operating day. The Contractor shall provide round friction top containers with one-quart capacity for storing samples.

Applying Asphalt:

Unless otherwise specified, the Contractor shall heat and apply asphalt in conformance with the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications.

Section 39-2.01, "Asphalts" is replaced in its entirety with the followings:

Asphalt binder to be mixed with aggregate shall conform to the provisions in "Asphalts" of these Special Provisions.

The grade of asphalt binder shall be: PG 64-10 (Inland valleys).

Liquid asphalt for prime coat shall conform to the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications and shall be the Grade 64-10 unless otherwise designated by the contract item or otherwise specified in these Special Provisions.

Asphaltic emulsion for paint binder (tack coat) shall conform to the provisions in Section 94, "Asphaltic Emulsion" of the Standard Specifications for the rapid-setting or slow-setting type and grade approved by the Engineer. Grade 64-10 shall be used if not otherwise specified.

Section 39-3.01B (1) shall be amended to include:

Aggregate of the 3/4 inch or 1/2 inch maximum size and aggregate for asphalt concrete base shall be separated into 3 or more sizes and each size shall be stored in separate bins.

If 3 sizes are used, one bin shall contain that portion of the material which will pass the maximum size specified and be retained on a 3/8 inch sieve; one bin shall contain that portion of the material which will pass a 3/8 inch sieve and be retained on a No. 8 sieve; and one bin shall contain that portion of the material which will pass a No. 8 sieve.

Aggregate of 3/8 inch maximum size shall be separated into 2 sizes and each size shall be stored in separate bins. One bin shall contain that portion of the material which will pass the maximum size specified and be retained on a No. 8 sieve and one bin shall contain that portion of the material which will pass a No. 8 sieve.

The bin containing the fine material shall not contain more than 15 percent of material retained on the No. 8 sieve. The material in any of the other bins shall not contain more than 15 percent of material passing a No. 8 sieve. Failure to comply with this requirement shall be corrected immediately, and the material in the bins not meeting these requirements shall be re-screened or wasted.

All asphalt concrete for this project shall be supplied from one source unless approved by the Engineer. Said source shall be listed on the Contractors Source of Materials List as required in Section 6 of the Standard Specifications.

Asphaltic emulsion shall be furnished and applied as provided in Section 39-4.02.

In addition to the provisions in Section 39-5.01, "Spreading Equipment" of the Standard Specifications, asphalt paving equipment shall be equipped with automatic screed controls and a sensing device or devices.

When placing asphalt concrete to the lines and grades established by the Engineer, the automatic controls shall control the longitudinal grade and transverse slope of the screed. Grade and slope references shall be furnished, installed, and maintained by the Contractor. The Contractor shall use a ski device with a minimum length of 30 feet or as directed by the Engineer. The ski device shall be a rigid one piece unit and the entire length shall be utilized in activating the sensor.

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline shall be controlled by a sensor activated by a ski device not less than 30 feet. The end of the screed farthest from centerline shall be controlled by an automatic transverse slope device set to reproduce the cross slope designated by the Engineer, by a sensor activated by a similar ski device or as directed by the Engineer.

When paving contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to the grade of the previously placed mat and will reproduce the grade in the new mat within a 0.12 inch tolerance. The end of the screed farthest from the previously placed mat shall be controlled in the same way it was controlled when placing the initial mat.

Should the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the provisions, including straightedge tolerance, of Section 39-6.03, "Compacting" of the Standard Specifications or elsewhere in these Special Provisions,

the paving operations shall be discontinued and the Contractor shall modify the equipment or methods, or furnish substitute equipment.

Should the automatic screed controls fail to operate properly during a day's work, the Contractor may manually control the spreading equipment for the remainder of that day. However, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the provisions in this section before starting another day's work.

General Criteria For Profiling:

In addition to the straightedge provisions in Section 39-6.03, "Compacting" of the Standard Specifications, asphalt concrete pavement shall conform to the surface tolerances specified herein.

The uppermost layer of asphalt concrete surfacing shall be profiled in the presence of the Engineer using a California Profilograph or equivalent in conformance with California Test 526 and as specified in these Special Provisions.

The California Profilograph or equivalent will not be required for the following areas of the pavement surface but shall conform to the straightedge requirements in Section 39-6.03, "Compacting" of the Standard Specifications:

1. Pavement with a total thickness less than 0.24 foot;

2. Pavement on horizontal curves with a centerline curve radius of less than 1,000 feet and the pavement within the superelevation transition on those curves;

3. Pavement placed in a single lift when required by the Special Provisions;

4. Pavement with extensive grade or cross slope correction which does not receive advance leveling operations in conformance with the provisions in Section 39-6.02, "Spreading" of the Standard Specifications;

5. Pavement for ramps and connectors with steep grades and high rates of superelevation, as determined by the Engineer;

6. Shoulders and miscellaneous areas.

The Contractor shall conform to California Test 526, except a zero (null) blanking band shall be used for determining the Profile Index. Prior to beginning profiles, the profilograph shall be calibrated in the presence of the Engineer. Two profiles shall be obtained within each traffic lane, 3 feet from and parallel with the edges of the lane.

Pavements profiled shall conform to the following Profile Index requirements:

1. Pavement on tangent alignment and pavement on horizontal curves having a centerline curve radius of 2,000 feet or more shall have a Profile Index of 0.16 foot or less for each 330 feet section profiled;

2. Pavement on horizontal curves having a centerline curve radius of 1,000 feet or more but less than 2,000 feet, including the pavement within the superelevation transition of these curves, shall have a Profile Index of 0.32 foot or less for each 330 feet section profile;

3. Pavement within any 330 feet section, containing high point areas with deviations in excess of 0.025 foot in a length of 25 feet or less, when tested in conformance with the requirements in California Test 526, shall be corrected by the Contractor regardless of the Profile Index.

The Contractor shall complete initial runs of the profilograph prior to opening the pavement to public traffic. If initial profiles cannot made prior to opening the pavement to public traffic, the initial runs of the profilograph shall be made the next day that traffic control is permitted for the area to be profiled.

Areas of the top surface of the uppermost layer of asphalt concrete pavement that do not meet the specified surface tolerances shall be brought within tolerance by abrasive grinding.

Abrasive grinding shall be performed to reduce individual deviations in excess of 0.025 foot, and to reduce the Profile Index of the pavement to be within the specified tolerance. Areas which have been subjected to abrasive grinding shall receive a seal coat. Deviations in excess of 0.025 foot which cannot be brought into specified tolerance by abrasive grinding shall be corrected by either (1) removal and replacement or (2) placing an overlay of asphalt concrete. The corrective method for each area shall be selected by the Contractor and shall be approved by the Engineer prior to beginning the corrective work. Replacement or overlay pavement not meeting the specified tolerances shall be corrected by the methods specified above. Corrective work shall be at the Contractor's expense. The Contractor shall run profilograms on the areas that have received abrasive grinding or corrective work until the final profilograms indicate the Profile Index of the area is within the specifed tolerance.

When abrasive grinding is used to bring the top surface of the uppermost layer of asphalt concrete surfacing within the specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel with, the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within a ground area. Ground areas shall be neat rectangular areas of uniform surface appearance.

The original of the final profilograms that indicate the pavement surface is within the Profile Index specified shall become the property of the County and shall be delivered to the Engineer prior to acceptance of the contract.

Payment

Hot Mix Asphalt will be paid for at a unit price per ton as a combined item, including mineral aggregate and asphalt binder in place on the roadbed.

Full compensation for furnishing and applying asphaltic emulsion for paint binder (tack coat) shall be considered as included in the contract price paid for Hot Mix Asphalt.

The contract bid price paid per ton for Hot Mix Asphalt shall include full compensation for furnishing all labor, tools, materials, equipment, and incidentals, and for doing all the work involved including the furnishing/application of asphaltic emulsion (paint binder) and header cutting and joining existing pavement as shown on the plans and/or as directed by the Engineer

Header Cuts:
At road connections and at limits of asphalt paving, existing pavement shall be header cut as shown on the plans or as directed by the Engineer. Full compensation for furnishing all labor, tools and doing all the work necessary including grinding, and sawcutting shall be considered as included in the contract prices paid per ton for the various asphalt concrete items and no additional compensation will be allowed therefor.

10-1.23 COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS:

The provisions of this section shall apply only to the following contract items:

ITEM CODE	ITEM
390130	Hot Mix Asphalt

The compensation payable for asphalt binder used in hot mix asphalt will be increased or decreased in conformance with the provisions of this section for paving asphalt price fluctuations exceeding 10 percent (Iu/Ib is greater than 1.10 or less than 0.90) which occur during performance of the work.

The adjustment in compensation will be determined in conformance with the following formulae when the item of asphalt concrete and asphalt rubber hot mix are included in a monthly estimate:

A. Total monthly adjustment = AQ

B. For an increase in paving asphalt price index exceeding 10 percent:

$A = 0.90 (Iu/Ib - 1.10) Ib$

C. For a decrease in paving asphalt price index exceeding 10 percent:

$A = 0.90 (Iu/Ib - 0.90) Ib$

D. Where:

A = Adjustment in dollars per ton of paving asphalt used to produce hot mix asphalt rounded to the nearest $0.01.

Iu = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

Ib = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in tons of paving asphalt that was used in producing the quantity of asphalt concrete shown under "This Estimate" on the monthly estimate using the amount of asphalt determined by the Engineer.

The adjustment in compensation will also be subject to the following:

A. The compensation adjustments provided herein will be shown separately on payment estimates. The Contractor shall be liable to the County for decreased compensation adjustments and the Department may deduct the amount thereof from moneys due or that may become due the Contractor.

B. Compensation adjustments made under this section will be taken into account in making adjustments in conformance with the provisions in Section 4-1.03B, "Increased or Decreased Quantities" of the Standard Specifications.

C. In the event of an overrun of contract time, adjustment in compensation for paving asphalt included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began.

The California Statewide Paving Asphalt Price Index is determined each month on the first business day of the month by the Department using the median of posted prices in effect as posted by Chevron, Mobil, and Unocal for the Buena Vista, Huntington Beach, Kern River, Long Beach, Midway Sunset, and Wilmington fields.

In the event that the companies discontinue posting their prices for a field, the Department will determine an index from the remaining posted prices. The Department reserves the right to include in the index determination the posted prices of additional fields.

The California Statewide Paving Asphalt Price Index is available on the Division of Engineering Services website at: http://www.dot.ca.gov/hq/esc/oe/asphalt_index/astable.html.

10-1.24 PLACE ASPHALT CONCRETE DIKE:

Asphalt concrete dikes shall conform to the County Road Improvement Standards and Specifications, the plans, and as specified and as directed by the Engineer.

The asphalt concrete shall be Type "A" with ½" grading in conformance with the requirements of Section 39 of the Standard Specifications and its amendments:

Asphalt binder to be mixed with the aggregate shall match the binder specified under the HMA specification in accordance with the Special Provision for Asphalt, or as directed by the Engineer.

Payment

The contract unit price paid per linear foot for Place Asphalt Concrete Dike shall include full compensation for furnishing all labor, materials (other than asphalt concrete), tools, and equipment and for doing all the work involved in removing existing dikes, placing and compacting the new dikes and no additional compensation will be allowed therefore.

10-1.25 PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA):

Place asphalt concrete miscellaneous areas shall conform to the County Road Improvement Standards and Specifications, the plans, and as directed by the Engineer.

The paid quantity for Place Asphalt Concrete (Miscellaneous Areas) shall include placement of Asphalt Concrete and other material required to perform the work. Hot Mix Asphalt Concrete shall meet the requirements provided in the special provisions for Hot Mix Asphalt.

Payment

The contract unit price paid per square yard for Place Asphalt concrete (Miscellaneous Area) shall include full compensation for furnishing all labor, materials (other than the quantity of HMAC), tools, and equipment and for doing all the work involved in placing and compacting the miscellaneous areas and no additional compensation will be allowed therefore.

10-1.26 FINISHING ROADWAY:

Finishing roadway shall conform to Section 22 of the Standard Specifications and these Special Provisions.

Payment

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article shall be considered as included in bid item for Mobilization, De-mobilization, and Final Clean Up and no additional compensation will be allowed therefor.

10-1.27 MINOR CONCRETE:

Minor Concrete curb and gutter, cross-gutter, spandrel, driveway and driveway approach, sidewalk, and curb ramps, monolithic curb at back of walk, and miscellaneous construction shall be constructed in accordance with the County Road Improvement Standards and Specifications, plans, as directed by the Engineer and in conformance with Section 51, 73 and 90 of Standard Specifications, except as herein modified:

Class 2 concrete shall be used for Cross Gutter and spandrel.

Class 3 concrete shall be used for curb and gutter, curb ramp, driveways and approaches, and sidewalk.

Minor Concrete (Miscellaneous Construction) shall include but not limited to remove and replace existing concrete as shown on the plan and called out as Construction note Numbers 23 & 39 on construction plans.

Construction of concrete improvements shall include all removal and restoration of the affected irrigation and landscaping, and related work, to return the area adjacent to the new improvements to its original condition and to conform the area to the new improvements.

The area behind and along the concrete improvements (e.g. curb ramps and sidewalk) shall be filled and compacted with native or select material and graded to match and provide a smooth transition from the edge of the new improvements, to the satisfaction of the Engineer. Full compensation to match up and grinding the area behind and along the concrete improvements shall be considered as included in the bid price paid for that item of work.

Preparation of subgrade for the concrete structures shall be done in conformance with the requirements of Section 73-1.02 of the Standard Specifications. Unless otherwise specified, all curbs and gutters will be backfilled as shown on the plans.

Excess material resulting from the excavation of the subgrade shall be disposed of as elsewhere provided in these Special Specifications.

The Contractor is responsible for meeting requirements of all American with Disabilities Act (ADA).

Construction of curb and gutter, cross gutter, spandrel, curb ramps, sidewalk, driveway and driveway approaches, and monolithic curb at back of walk shall include, but not be limited to, the following:

1) Removal and disposal of existing sidewalk, curb, and/or curb and gutter, curb outlet, driveway approaches, cross-gutter, spandrel, monolithic curb at back of walk and existing soil and aggregate as required;
2) Establishing grades, and assuring that all grades are met;
3) Performing all grading and compaction – including all required aggregate import, as directed by the Engineer and in accordance with County Standard 403;
4) Construction of new curb ramp, sidewalk, curb, and/or curb and gutter, driveway, driveway approaches, cross-gutter, and spandrel, monolithic curb at back of walk;

5) All scoring/grooving and required saw cutting;
6) Repair of existing asphalt and PCC surfacing;
7) Installing 1/2" wide expansion joints;
8) All landscaping, and related work, to return the area adjacent to the sidewalk, curb ramps, driveways, driveway approaches, curb and/or curb and gutter to its original condition and to conform the area to the new improvements;

At a minimum, the area from the BCR to ECR shall meet all required ADA standards. Therefore, to conform to existing conditions and/or to achieve the required four-foot level area (maximum of 2.0% crossfall) at the top potion of the curb ramp, it may be necessary to extend the work beyond the BCR/ECR in certain instances.

Driveway approaches shall be constructed as shown on the plans or as directed by the Engineer.

With the exception of unimproved driveways and concrete driveway aprons, surfacing for driveways shall consist of a replacement in kind of the existing driveway surfacing, using the contract item material most resembling that in place on the driveway. If there is no item in the contract for a similar material or if a special driveway surfacing is requested by the Engineer, said special surfacing shall be furnished and placed by the Contractor, and the cost thereof will be paid for as extra work as elsewhere provided herein.

Except as noted above, all other driveway work shall be paid for on the basis of the applicable contract item and no additional allowance will be made therefor.

Payment

The contract payment per square foot for Minor Concrete (Driveway Approach) shall include full compensation for the construction of the driveway approaches and the concrete driveways and no additional compensation will be allowed therefor.

The contract unit bid prices paid per each for Minor Concrete (Curb Ramp) of the different kinds as provided in the bid items list; per square foot for Minor Concrete (Driveway, Driveway Approach), Minor Concrete (Cross-Gutter), Minor Concrete (Spandrel), and Minor Concrete (Sidewalk); and per linear foot for Minor Concrete (Curb and Gutter), and monolithic curb at back of walk shall include full compensation for furnishing all labor, equipment, including the removal of existing curb and gutter, curb ramps, cross-gutters, spandrels, sidewalk, or driveway approaches, excavation, placing of suitable fill to prepare the sub-grade, furnishing and placing expansion joint material, materials and tools, and incidentals, and for doing all the work involved in the construction and complete in place as shown on the plans, or as herein specified, or as directed by the Engineer.

10-1.28 PRIVATE DRAIN THROUGH CURB:

Under sidewalk drains (private drain through curb) shall conform to the County of Riverside Road Improvement Standards and Specification, and as specified and directed by the Engineer.

Payment

The contract unit bid price paid per each for Private Drain Through Curb (CRS 310) shall include full compensation for furnishing all labor, materials, tools, equipment, and complete in place including removal/salvage any existing drain and no separate compensation will be allowed therefor.

10-1.29 CURB RAMP DETECTABLE WARNING SURFACE (TRUNCATED DOMES):

This work includes installing detectable warning surface on the existing curb ramps or on the areas as shown on the plans, and as specified in these Special Provisions, and as directed by the Resident Engineer.

Curb Ramp Detectable Warning Surface (Truncated Domes) constructed, or furnished and installed on new Curb Ramps shall be considered as included in the contract unit price paid for Minor Concrete (Curb Ramp) and no separate payment will be made therefor.

Curb ramp detectable warning surface must be:

1. Yellow color complying with Federal Standard 595B, Color No. 33538.
2. Raised truncated domes.

The manufacturer must provide a written 5-year warranty for detectable warning surface, guaranteeing replacement when there is defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period will begin upon acceptance of the contract.

Installation of curb ramp detectable warning surface must comply with the manufacturer's recommendations.

Curb ramp detectable warning surface will be determined as units from the actual count in place.

Payment

The contract price paid per each for Curb Ramp Detectable Warning Surface (Truncated Domes) includes full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all work involved in constructing detectable warning surface on existing curb ramps, complete in place, as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

10-1.30 THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING:

Thermoplastic crosswalk and pavement markings shall conform to the provisions in Sections 84-1, "General," and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

Payment

The contract unit bid price paid per **Lump Sum** for Thermoplastic Crosswalk and Pavement Markings including removal of existing thermoplastic striping, crosswalk lines and pavement markings shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and doing all the work necessary to place the striping, and pavement markings and pavement markers complete in place and no additional compensation will be allowed therefor.

10-1.31 PAVEMENT MARKER:

Pavement markers shall conform to the provisions of Section 85, "Pavement Markers," of the State of California Standard Specifications and these Special Provisions.

Certificates of compliance shall be furnished for pavement markers as specified in "Prequalified and Tested Signing and Delineation Materials," elsewhere in these Special Provisions.

Reflective pavement markers shall comply with the specific intensity requirements for reflectance after abrading the lens surface in accordance with the "Steel Wool Abrasion Procedure," specified for pavement markers placed in pavement recesses in Section 85-1.05, "Reflective Pavement Markers", of the State of California Standard Specifications.

Non-reflective pavement markers, conform to the requirements of Section 85-1.04 "Non-Reflective Pavement Markers," of the State of California Standard Specifications. The bituminous adhesive used to install the markers shall be a hot melt bituminous adhesive asphaltic material with homogeneously mixed mineral filler and shall conform to the requirements specified in Section 85-1.055, "Adhesives," of the State of California Standard Specifications.

Reflective pavement markers shall be installed at locations as established by the applicable Caltrans striping detail noted on the approved striping Plan, which includes, but is not limited to temporary painted line(s) , new striping or existing striping. There shall be one marker for each location. All work necessary to establish satisfactory locations for markers shall be performed by the Contractor.

Existing reflective pavement markers that do not conform to the approved Plan shall be removed by the Contractor.

Reflective pavement markers shall be of the prismatic reflector type (3M model white RP290w and yellow RPM 2912y or equal) as outlined in Subsection 85-1.05, "Reflective Pavement Markers," of the State of California Standard Specifications.

Blue reflective pavement markers designating the location of fire hydrants within project limits shall be replaced after the paving is completed at all fire hydrants locations, whether the blue reflective makers exist or not prior to paving. Installation of blue markers shall comply with the requirements of Riverside County Fire Department, Standard No. 06-11, attached to these Special Provisions.

Payment

Full compensation for any reflective, non-reflective and blue pavement marker shall be considered as included in the **lump sum** price bid paid for "Thermoplastic Crosswalk and Pavement Marking" and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and installing pavement markers (reflective, non-reflective, or blue) complete, in place, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions or as directed by the Engineer.

10-1.32 MAIL DELIVERY / MAILBOX RELOCATION:

Coordination

Contractor shall notify the local Post Master at least 15 working days in advance of the start of construction. Contractor shall coordinate with the Post Master the method of mail delivery after construction begins. If mail delivery will be disrupted, rescheduled or held by the local post office, Contractor shall notify all affected residences at least 5 days in advance of the start of construction, in writing, disclosing any changes in delivery of the mail. The notice to residents shall be approved by the Engineer is advance of distribution.

Relocation

Relocate mailbox shall conform to the approved plans and as directed by the Engineer. Existing mailbox shall be removed and reset on temporary portable mount, typically a timber post supported in five gallon can or bucket, in accordance with Section 15 of the Standard Specifications and these Special Provisions, or as directed by the Engineer. During construction operations, the portable mount shall be moved as necessary to clear the Contractor's operations, but at all times shall be easily accessible for mail delivery. When construction is complete, the mailbox shall reset at its final position as directed by the Engineer.

At the direction of the Engineer, and prior to final placement, a damaged mailbox or support may require replacement with a new T1 or C1 standard mailbox and/or a new single, 4 inch x 4 ½ inch diameter wooden post or a 2" metal post. The cost of a new mailbox and support, as described above, shall be at the Contractor's expense. Mailboxes with non-standard supports shall be relocated as directed by the Engineer.

Groups of mailboxes, on single-post or multiple post supports shall be set on two-post portable mounts as herein specified for single-post mountings and shall be provided with a supporting cross member between the tops of the portable mounts.

Payment

The contract unit bid price paid per each for Relocate Mailbox shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all the work involved in coordinating, removing and relocating the mailboxes to final locations including all necessary concrete work, excavation, and backfill, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

10-1.33 RELOCATE ROADSIDE SIGN:

Relocation of existing roadside signs shall conform to the provisions in Section 56-2, "Roadside Signs" of the Standard Specifications and as directed by the Engineer.

Roadside Signs to be removed and relocated shall be installed per the Roadside signs special provisions above.

Roadside signs shall be relocated at the locations shown on the construction plans or where directed by the Engineer.

Payment

The contract unit prices paid per each for Relocate Roadside Sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work including all necessary concrete, excavation and backfill as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

10-1.34 RELOCATE FENCE AND GATE:

Relocate fence and Gate shall be in accordance with the approved construction plans or as directed by the Engineer. Full compensation for the relocation of existing fence and gate shall include construction of fence posts concrete footings, the replacement of hardware and the fence (if necessary) as directed by the Engineer.

Where it is necessary and/or required by property owner, temporary fence shall be placed for the safety of the homeowner or the protection of pets/ livestock. The cost for this temporary fencing is included in the contract price paid per linear foot for Relocate Fence and Gate.

Payment

The contract price paid per linear foot for Relocate Fence and Gate shall include full compensation for furnishing all labor, tools, materials, equipment, and incidentals for doing all work involved including concrete footings and replacing fence in kind as necessary in accordance with these Special Provisions and no additional compensation will be allowed therefor.

10-1.35 RELOCATE/ADJUST GATE:

Relocate/Adjust Gate shall be in accordance with the approved construction plans or as directed by the Engineer. Full compensation for the relocation of existing gate shall include construction of posts concrete footings, the replacement of hardware and the fence (if necessary) as directed by the Engineer.

Where it is necessary and/or required by property owner, temporary fence shall be placed for the safety of the homeowner or the protection of pets/ livestock. The cost for this temporary fencing is included in the contract price paid for Relocate Gate.

Payment

The contract price paid per each for Relocate Gate shall include full compensation for furnishing all labor, tools, materials, equipment, and incidentals for doing all work involved including concrete footings and replacing fence in kind as necessary in accordance with these Special Provisions and no additional compensation will be allowed therefor.

10-1.36 OBSTRUCTIONS:

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities", and 15, "Existing Highway Facilities" of the Standard Specifications and these Special Provisions.

Existing utility and privately owned facilities shall be protected in accordance with Section 7-1.11, "Preservation of Property" and these Special Provisions. The Contractor is also responsible to protect those facilities that are to be relocated by others prior to or during construction, and shall protect those facilities in both their existing and their ultimate locations. The Contractor shall cooperate with owners and their Contractors of utility and privately owned facilities, for the relocation of said facilities, in accordance with Section 7-1.14, "Cooperation" of the Standard Specifications.

All water valves and covers, clean out valve, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances shall be protected in place.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipe lines greater than 6 inches in diameter or pipe lines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least twenty-four hours prior to performing any work in the vicinity of such facilities.

Attention is directed to the requirements of Government Code Sections 4216-4216.9 pertaining to existing utility facilities.

The Contractor shall assume that every house, building and lot within the project limits has utility service pipes and conductors (laterals), and that utility main and trunk facilities exist within the project limits. The Contractor shall determine if it is warranted to determine the exact location of these utility service laterals and existing main lines, unless directed by the Engineer to pot-hole at specific locations, or as otherwise required herein. The Contractor will not be directly reimbursed for determining the exact location of the utility main lines or services laterals but shall include any compensation for this work in the contract price paid for the various items of work. Any damage to existing main lines or service laterals for which pot-holing was not performed shall be considered damage due to not using reasonable care and the damage shall be repaired at the Contractor's expense.

The Contractor shall conduct his operations with the assumption that underground utility facilities exist within the project limits. The Contractor shall exercise caution and best construction practices for safety and for protection of underground facilities. The approximate locations of underground utility facilities, as shown on the plans, are based on information provided by the respective owners, listed below. The Contractor shall also utilize the markings of the regional notification center (Underground Service Alert), and above-ground utility appurtenances to determine the existence and approximate location of underground utilities.

No excavation shall be made within 4 feet of any underground utilities, as listed below, unless and until such utilities have been positively located as to horizontal and vertical position. This requirement applies to all underground electric, natural gas, toxic or flammable gas, chlorine, oxygen or petroleum facilities.

Forty-eight hours prior to beginning construction, the Contractor shall notify the following agencies:

Underground Service Alert	800-227-2600
Southern California Edison Company	951-928-8318
Southern California Gas Company	909-335-7561
Verizon Communications	951-925-5319
Time Warner Cable	951-549-3977
City of Hemet	951-765-3710
Lake Hemet Municipal Water District	951-658-3241
Santa Ana Watershed	951-354-4220

Payment

Full compensation for all costs, including labor, equipment, materials and incidentals, required to comply with the requirements of this section above, including protection of water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

Adjustments to Grade for Obstructions

The Contractor shall adjust to finish grade any valve covers encountered within the project limits, as required, for those utility valves that are provided with slip cans and are adjustable without the replacement of parts or the removal of concrete collars. In cases where the owning utility company insists upon upgrades in the standards, or when additional parts or the removal of concrete collars are required for the adjustment, said adjustment will be the responsibility of the owning utility company.

Communication and coordination with the owning utility company shall be the responsibility of the contractor.

For public safety, traffic shall not be allowed on temporary or permanent pavement until all manholes are either adjusted to grade or otherwise protected, as approved by the Engineer. The Contractor shall adjust to grade manholes and valves when and as necessary for the protection of the traveling public during construction, and shall coordinate all work on said facilities with the owning utility companies. This requirement is intended for traffic that is to be allowed on temporary surfaces during the course of construction. Final adjustment to grade will be the responsibility of the owning utility company, except as provided herein.

Said work shall be performed in accordance with Section 15-2.05A, "Frames, Covers, Grates, and Manholes" of the Standard Specifications. Full compensation for adjustment of valve covers shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

All existing utility facilities shall be protected from damage by the Contractor's operations.

Unless otherwise provided herein, the owning utility companies will not be obligated to lower their surface utilities (manholes and valve covers) for Contractor's grading, grinding and/or paving operations. The contractor shall lower surface facilities, including manholes and valve covers, to facilitate construction, and the following shall apply:

1. Contractor shall coordinate all work with the utility owner.

2. Contractor shall be responsible for all costs and shall be responsible for any damage caused to the owner's facilities. If the Contractor observes any pre-existing damage to the utility facilities, the Contractor shall notify the Engineer and the utility owner of that damage prior to performing additional work on the facility.

3. Contractor shall, after removing grade rings and covers, arrange for pickup by, or delivery to, the owner's yard. Any and all concrete collars removed by the Contractor shall become the property of the Contractor, and shall be disposed of as specified elsewhere in these special provisions.

4. The Contractor is advised that he is responsible for ensuring that construction materials do not enter the utility owner's facilities. The Contractor shall install traffic bearing steel plates for this purpose, and provide all coordination and transportation necessary. It is recommended that the Contractor request the utility owner to provide

such steel plates. If the Contractor provides steel plates, it shall be the Contractor's responsibility to coordinate with the utility owner for the return of the steel plates to the Contractor after final adjustment to grade. If the Contractor utilizes utility owner's steel plates, and if the Contract items of work include adjustment to final grade, the Contractor shall return the steel plates to the Utility owner's yard, or as otherwise arranged with the Utility owner.

5. Prior to paving or covering the plated utility facility, the Contractor shall tie-out the facility utilizing a method acceptable to the utility owner and provide notes and data of all covered facilities to both the utility owner and the Engineer.

6. Final Adjustment to Grade

   a. The Contractor shall adjust to finish grade all manhole and valve covers that are not designated on the construction plans to be adjusted to grade by the utility owner.
   b. The utility owner is expected to adjust to finish grade all manhole and valve covers that are designated on the construction plans to be adjusted to grade by the utility owner, unless there is a contract item for that work.
   c. The Contractor shall notify the utility owner, upon completion of the Contractor's work, when the utility owner may move in to make the final adjustments to grade. The utility owner shall be given adequate notice and allowed sufficient time for that work, as directed by the Engineer.

7. The requirements for lowering of surface facilities shall not apply to vaults. The Contractor shall notify the utility owner of the need to make adjustments to such major facilities.

8. The Contractor is reminded that the utility facilities are owned by public and private utility companies that operate their facilities within public rights of way. The utility owner's preferences with regards to the handling of its facilities shall be complied with to the greatest extent feasible.

Payment

Full compensation for all costs, including labor, equipment, materials and incidentals, required to comply with the requirements of this section above, including protection of water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

Full compensation for initial lowering of surface utilities facilities shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

10-1.37 FUNDING AWARENESS SIGN:

The Contractor shall furnish and install **four (4)** construction Funding Awareness Signs (4' X 4'); the signs shall be installed at locations on Whittier Avenue to be determined by the Engineer, within or near the project limits, in accordance with the relevant requirements of Section 56-2 of the Standard Specifications and the appropriate details of Standard Plans RS1 through RS4 for two post installation of signs, and as directed by the Engineer.

A reference exhibit displaying the text and colors of the sign will be provided to the Contractor prior to construction. The Contractor shall submit a copy of the final sign design for approval by the resident Engineer prior to fabrication.

The Contractor shall submit to the Engineer the final sign design in the form of an editable picture file in .eps format – Encapsulated PostScript file.

At the completion of the project, the signs will become property of the County. When directed by the Engineer, the Contractor shall remove all hardware from the signs. Posts and hardware shall become the property of the Contractor. The Contractor shall deliver and off-load the signs to the address listed below or as directed by the Engineer:

John Wilson Operations Center
595 N. Juanita Street
Hemet, California 92543
Telephone (951) 314-9441

Payment

The contract unit price paid per each for Funding Awareness Sign and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all the work including sign installation, transportation, maintenance, removal, delivery, excavation and backfill as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

10-1.38 MOBILIZATION, DE-MOBILIZATION AND FINAL CLEAN UP:

Mobilization shall consist of preparatory work and operations, including, but not limited to those necessary for the movement of personnel, equipments, supplies and incidentals to the project site and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

De-mobilization shall consist of the completion of all final construction and administrative work required to secure the project for termination and acceptance by the Engineer, including, but not limited to the following:

1. Satisfactory completion of Finishing Roadway in accordance with Section 22, "Finishing Roadway" of the Standard Specifications;

2. Removal of all temporary facilities, temporary utilities, temporary BMPs, plant, equipment, surplus material, construction debris and similar from project limits and adjacent property, as required and as directed by the Engineer;

3. Restoration of all temporary roads and haul routes and construction storage and office areas, etc. to original or better condition;

4. Completion of record of drawings (as-built), to the satisfaction of the Engineer;

5. Submission of final certified payroll documents to the Engineer;

6. Submission of property owner releases, as required by the Engineer;

7. Completion of the requirements of permits issued by other agencies;

8. Satisfactory completion of all other contractually and legally required construction and administrative items of work.

De-Mobilization shall include the satisfactory completion of all items of work, but shall not be construed as being a separate payment for work that is paid under separate contract items. The De-Mobilization is intended for proper close-out activities.

Method of Payment

A. The following schedule will be used to determine measurement of mobilization, demobilization and final cleanup and disbursement of the bid price for mobilization, demobilization and final cleanup:

Percent of Contract work Completed ($ Expended/ $ Total Contract Price)	**Percent of Mobilization, Demobilization, and Final Cleanup Considered to be Complete (Compensated for)**
10% - 50%	30%
51% - 79%	40%
More Than 80%	50%
Upon Demobilization and Final Cleanup	100%

B. Payment of Mobilization, Demobilization and Final Cleanup work shall be based upon the fixed bid price for Bid item "**Mobilization, Demobilization and Final Cleanup.**" Payment shall constitute full compensation for all labor, material, equipment, and all other items necessary and incidental for completion of this item of work. The deletion for work or the addition of extra work, as provided for herein, shall not affect the price paid for Mobilization, Demobilization, and Final Cleanup.

10-1.39 ADJUST MANHOLE:

Existing Manhole covers shall be adjusted to finish grade and new concrete collars, if included in the standards of the owning utility, poured with materials similar in quality to those in the original structure in accordance with the applicable provisions of Sections 15-2

and 71 of the Standard Specifications, the requirements of the owning utility company and these Special Provisions.

Unless otherwise specified by the owners of the facilities, the Contractor shall provide new manhole covers and frames as necessary for the project. The Contractor shall be responsible to coordinate with the owners to obtain the materials approval.

After the structure frame has been removed, the top of the structure shall be carefully trimmed to provide a suitable foundation for the new material.

Steel plates shall be used as necessary and when directed by the Engineer to prevent asphalt and debris from entering the sewer system.

Additionally, a "False Bottom" shall be fabricated and temporarily placed in the manhole cone as a second barrier to prohibit foreign objects from entering the sewer system. Said "false bottom" shall be made from plywood of suitable thickness (3/4" minimum) or stronger material to prohibit heavy objects from breaking the barrier. "False Bottom" shall be fabricated and installed in accordance with the requirements and standards of the owner. The false bottom shall comply with the attached "Standard No. 11" of the Lake Hemet Municipal Water District, or as otherwise approved by the Engineer.

After completion of the work, the structure covers, frames, grade rings and old concrete collar debris that were removed from the roadbed shall become the property of the Contractor.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety" of the Standard Specifications.

Coordination and communication shall be maintained between the Contractor and the owning sewer company.

The Contractor shall adjust to final grade all manhole covers owned by the Riverside County Flood Control and Water Conservation District.

The adjustment to grade of other manhole covers, such as those owned by phone and electric companies, will be performed by the utility owner. Contractor shall be responsible to coordinate with each utility owner for such work.

Water and gas valve covers shall be adjusted by the Contractor as provided elsewhere in these Special Provisions.

Payment

The contract unit bid price paid per each for Adjust Manhole shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for doing all the work involved including the installation of the concrete ring and no additional compensation will be allowed therefor.

Appendix

Table of Contents

* Note: See the first page of this document description for a detailed Table of Contents.

Appendix A

AQMD Recommendations

Dust Abatement Attachments

Table of Contents

AQMD SIGNAGE RECOMMENDATIONS

November, 2001

Plan holder shall post signage at specified locations on the subject property in accordance with the standards specified below. The exception to the standards is that all letters shall be 4 inches high, with the names and telephone numbers of appropriate contacts and services in bold print, as indicated in the standards. These signs shall also include the SCAQMD toll free complaint line 1-800-CUT-SMOG (1-800-288-7664) and the telephone number for the Environmental Observer. These signs shall be posted within 50 feet of the curb on all four (4) corners of the subject property.

For each Dust Control Plan aggregating less than, or equal to, ten (10) acres:

1. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:

   (a) Such sign shall measure at least four (4) feet wide by four (4) feet high and conform to the specifications in 1 (a) below.

For each Dust Control Plan aggregating over ten (10) acres:

2. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:

   (a) Such sign shall measure at least eight (8) feet wide by four (4) feet high and conform to the specifications in 1 (b) below.

THE SIGN SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

1. **The sign boards shall be constructed with materials capable of withstanding the environment in which they are placed.**

   (a) For 4' x 4' signs, the District recommends the following:

   I. ¾ " A/C laminated plywood board
   II. Two 4" x 4" posts
   III. The posts should be attached to the edges of the plywood board with at least 2 carriage bolts on each post.
   IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

   (b) For 4' x 8' signs, the District recommends the following:

   I. 1" A/C laminated plywood board
   II. Two 5" x 6" posts
   III. The posts should be attached to the 4' edges of the plywood board with at least 2 carriage bolts on each post.
   IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

2. **The sign board shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times until the expiration date of the Dust Control plan.**

   (a) For 4' x 4' signs, the District recommends the following:
   - I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
   - II. The posts should be set in a hole at least 3' deep with concrete footings to preclude downing by high winds.
   - III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
   - IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
   - V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

   (b) For 4' x 8' signs, the District recommends the following:
   - I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
   - II. The posts should be set in a hole at least 4' deep with concrete footings to preclude downing by high winds.
   - III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
   - IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
   - V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

3. **The sign board shall contain the following information:**

   (a) Project Name
   (b) Name of Prime Contractor
   (c) Phone Number of Contractor's Employee Responsible for Dust Control Matters
   (d) County designated phone number (to be provided by the Engineer)
   (e) South Coast Air Quality Management District Phone Number

4. **The sign board shall be designed to the following alpha and numeric text dimensions (sign boards written in longhand are unacceptable).**

   (a) For a permittee subject to the 4' x 4' sign requirement, the District provides the following example: (as modified by the County of Riverside for use on County Public Works projects)

1" UPPERCASE Letters →	PROJECT NAME:		← 3 ½ " Title Case Bold Letters
1" UPPERCASE Letters →	CONTRACTOR		← 3 ½ " Title Case Bold Letters
1" Title Case Letters →	Contractor's Dust Control Phone #		← 3" Bold Numbers
1" Title Case Letters →	County of Riverside Phone #		← 3" Bold Numbers
1" Title Case Letters →	Phone Number:	**SCAQMD 1-800-CUT-SMOG**	← 3 ½ " Bold Numbers

"Title Case" means the first letter of a word is capitalized and subsequent letters are lower case.

(b) For a permittee subject to the 4' x 8' sign requirement, the District provides the following example: (as modified by the County of Riverside)

2" UPPERCASE Letters →	PROJECT NAME:		← 4" Title Case Bold Letters
2" UPPERCASE Letters →	CONTRACTOR		← 4" Title Case Bold Letters
2" Title Case Letters →	Contractor's Dust Control Phone #		← 4" Bold Numbers
2" Title Case Letters →	County of Riverside Phone #	**909-**	← 4" Bold Numbers
2" Title Case Letters →	Phone Number:	**SCAQMD 1-800-CUT-SMOG**	← 4 ½ " Bold Numbers
2" Title Case Letters →	**COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT**		

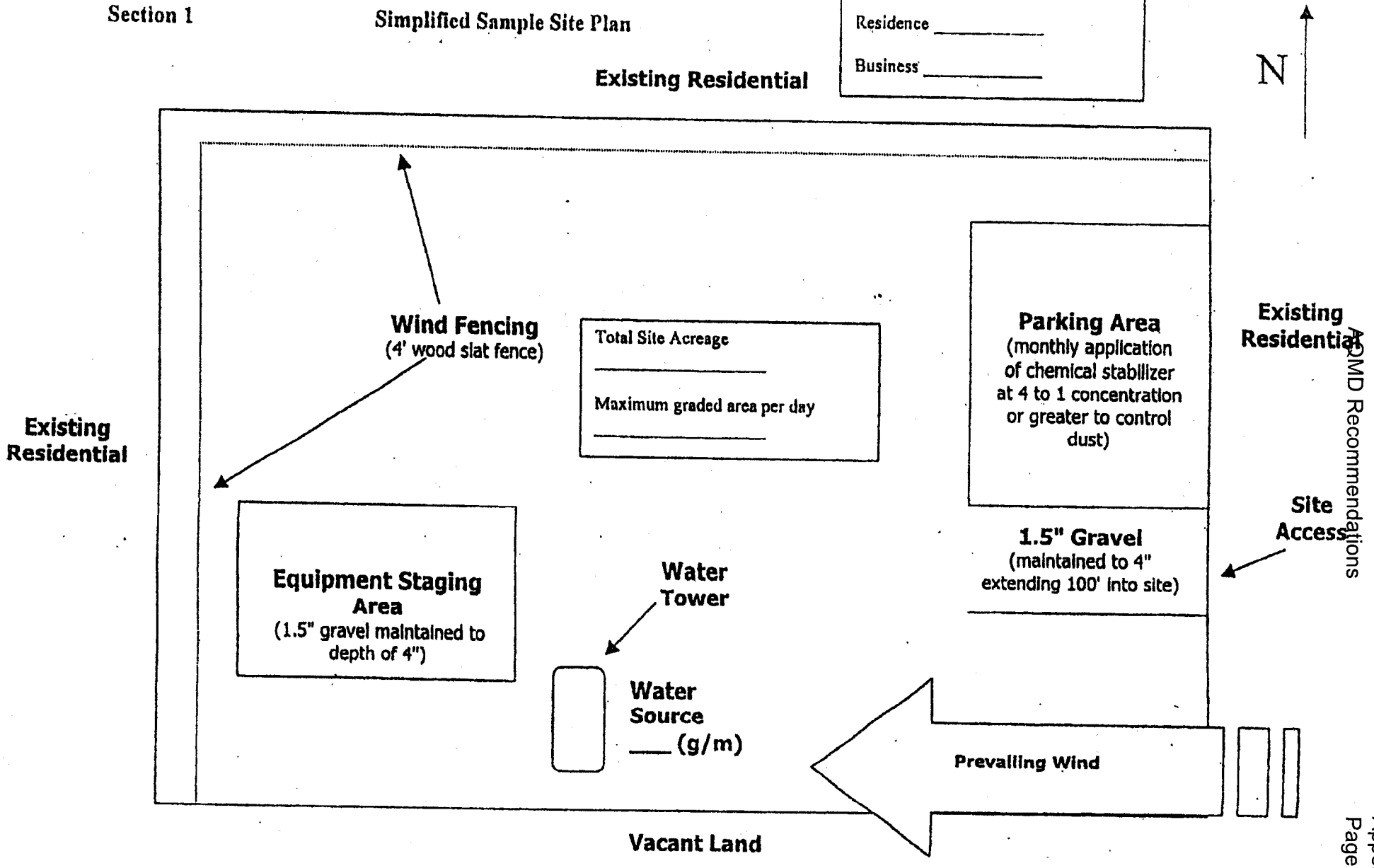
Section 1

Simplified Sample Site Plan

Distance and location of nearest:

Residence _____

Business _____



Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

AQMD Recommendations

Plan Review Checklist
Clearing/Grubbing/Mass Grading Phase

☐ If feasible, use grading permit conditions to break the project into phases so that only a portion of the site is disturbed at any given time to ensure control of fugitive dust. This technique is critical for project sites with greater than 100 acres.

☐ Prior to initiating activity, pre-water site through use of portable irrigation lines. At least 72 hours of pre-watering is recommended for each area prior to initiating earth-movement. Require the Applicant to specify water source and available flow rate (g/m).

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of one 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during mass grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site.

☐ A perimeter watering system consisting of portable irrigation equipment may be an effective mitigation system to protect surrounding residences and businesses. The portable watering system may be used in place of or in conjunction with watering trucks. The local jurisdiction may also be provided access to this equipment.

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

☐ Construction site accesses are to be improved with 1.5" gravel maintained to a depth of 4", at least 20' wide, and extending 100 feet into the site. If the project site is not balanced, a wheel washing system and/or ribbed steel plates should be placed in the roadway before the vehicle enters the graveled area to clean the tires and prevent trackout.

☐ Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".

☐ Employee parking areas are to be covered with 1.5" gravel maintained to a depth of 4" or treated with chemical dust suppressants at a 4 to 1 ratio on at least a monthly basis to prevent fugitive dust.

☐ Chemical dust suppressants are to be mixed at a ratio of 20 to 1 and applied to all disturbed surfaces that are proposed to remain inactive for a period of at least 10 consecutive days. These products are effective in preventing and controlling dust. Recordkeeping is necessary to demonstrate compliance.

☐ All project sites greater than 100 acres shall monitor daily wind speeds and AQMD forecasted wind events (call 1.800.CUT.SMOG. press one for air quality information, and then press five for Coachella Valley wind forecasts). Operators shall maintain these records for review by any local code enforcement officer or AQMD inspector.

☐ An environmental observer whose primary duty is to oversee dust control at the site is to be used for construction projects greater than 100 acres and/or sites with more than 50 acres of active construction. The environmental observer is tasked with monitoring dust abatement measures and authorized to deploy additional water trucks and other dust control actions (i.e.. wind fencing, street sweepers, chemical dust suppressants, etc.) as necessary to prevent or control fugitive dust.

☐ Other (specify):_____

_____

_____

_____

_____

_____

_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

Plan Review Checklist
Finish Grading Phase

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of a 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during finish grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.

☐ Wind fencing is necessary between the site and nearby residences or businesses to reduce fugitive dust. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through a site.

☐ Chemical dust suppressants are to be applied at a concentration of at least 10 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.

☐ Construction site access(es) are to be improved with 1.5" gravel maintained to a depth of at least 4" ,with a minimum width of at least 20', extending 100 feet into the project site.

☐ Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".

☐ Internal roadway networks are to be treated with chemical dust suppressants at a minimum rate of at least 4 to 1 and retreated on a monthly basis once final roadway elevations have been reached.

☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of at least 4 to 1 and retreated on at least a monthly basis or covered with 1.5" gravel maintained to a depth of 4" to prevent fugitive dust.

☐ Other (specify):_____

_____

_____

_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

Plan Review Checklist
Construction Phase

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull is necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during the construction phase and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site. Block walls, if part of the final project, can replace wind fencing during the construction phase.

☐ Chemical dust suppressants are to be applied at a concentration of at least 20 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.

☐ Construction site accesses are to be improved with 1.5" gravel, maintained to a depth of 4", with a width of at least 20', extending 100' into the project site. Paving internal roadways can substitute for gravel.

☐ Internal roadway networks are to be paved as early as feasible in the construction phase. Street sweeping of internal and/or external access roads will likely be required to control entrained road dust.

☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of no less than 4 to 1 and retreated on a monthly basis, or more frequently if fugitive dust is observed. If internal roadway is complete, employees are to be instructed to park on paved roads.

☐ Other (specify):_____

_____

_____

_____

_____

_____

_____

Remember...
DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK, REGARDLESS OF CONSTRUCTION STATUS

REASONABLY AVAILABLE CONTROL MEASURES

Paragraph (d)(3) of Rule 403 allows activities outside the South Coast Air Basin (see Figure 2-1) to implement reasonably available control measures in lieu of best available control measures. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects outside the South Coast Air Basin must demonstrate to the satisfaction of the District that the given activity is employing all reasonably available fugitive dust control measures.

The District has prepared the attached listing of reasonably available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Control of Open Fugitive Dust Sources," Midwest Research Institute, September 1988.

The District encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

REASONABLY AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the reasonably available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

CONTROL MEASURES	DESCRIPTION
(A) Watering	(1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability. (2) Pre-application of water to depths of proposed cuts. (3) Once the land clearing/earth moving activities are complete, a second application of water can generate a thin crust that stabilizes the disturbed surface area provided that it is not disturbed. (Security fencing can be used to prevent unwanted future disturbances of sites where a surface crust has been created).
(B) Chemical stabilizers	(1) Only effective in areas which are not subject to daily disturbances. (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.
(C) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site. (2) Would likely be used in conjunction with other measures (e.g., watering, chemical stabilization, etc.) to ensure that visible emissions do not cross a property line.
(D) Cover haul vehicles	(1) Entire surface area of hauled earth should be covered once vehicle is full.
(E) Bedliners in haul vehicles	(1) When feasible, use in bottom-dumping haul vehicles.

HIGH WIND MEASURE

(a) Cease all active operations; or
(b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

Source: **(2) Unpaved Roads**

CONTROL MEASURES	DESCRIPTION
(F) Paving	(1) Requires street sweeping/cleaning if subject to material accumulation.
(G) Chemical stabilization	(1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule (2) Not recommended for high volume or heavy equipment traffic use.
(H) Watering	(1) In sufficient quantities to keep surface moist. (2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.
(I) Reduce speed limits	(1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.
(J) Reduce vehicular trips	(1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.
(K) Gravel	(1) Gravel maintained to a depth of four inches can be an effective measure. (2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.

HIGH WIND MEASURE

(c) Apply a chemical stabilizer (to meet the specifications established by the Rule) prior to wind events; or
(d) Apply water once each hour; or
(e) Stop all vehicular traffic.

Source: (3) **Storage Piles**

CONTROL MEASURES	DESCRIPTION
(L) Wind sheltering	(1) Enclose in silos. (2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.
(M) Watering	(1) Application methods include: spray bars, hoses and water trucks. (2) Frequency of application will vary on site-specific conditions.
(N) Chemical stabilizers	(1) Best for use on storage piles subject to infrequent disturbances.
(O) Altering load-in/load-out procedures	(1) Confine load-in/load-out procedures to leeward (downwind) side of the material. (2) May need to be used in conjunction with wind sheltering to prevent visible emissions from crossing the property line.
(P) Coverings	(1) Tarps, plastic, or other material can be used as a temporary covering. (2) When used, these should be anchored to prevent wind from removing coverings.

HIGH WIND MEASURE

(f) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or
(g) Apply water once per hour; or
(h) Install temporary covers.

Source: (4) Paved Road Track-Out

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Sweep/clean roadways	(1) Either sweeping or water flushing may be used.
(S) Cover haul vehicles	(1) Entire surface area should be covered once vehicle is full.
(T) Bedliners in haul vehicles	(1) When feasible, use in bottom dumping vehicles.
(U) Site access improvement	(1) Pave internal roadway system. (2) Most important segment, last 100 yards from the connection with paved public roads

HIGH WIND MEASURE

(i) Cover all haul vehicles; and
(j) Clean streets with water flushing, unless prohibited by the Regional Water Quality Control Board.

Source: (5) Disturbed Surface Areas/ Inactive Construction Sites

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Watering	(1) Requires frequent applications unless a surface crust can be developed.
(S) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site.
(T) Vegetation	(1) Establish as quickly as possible when active operations have ceased. (2) Use of drought tolerant, native vegetation is encouraged.

HIGH WIND MEASURES

(k) Apply chemical stabilizers (to meet the specifications established by the Rule); or
(l) Apply water to all disturbed surface areas 3 times per day.

BEST AVAILABLE CONTROL MEASURES

Rule 403, paragraph (d)(2) requires active operations [defined in Rule 403, paragraph (c)(1)] within the South Coast Air Basin (see Figure 2-1) to implement at least one best available control measure for each fugitive dust source type on site. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects within the South Coast Air Basin must demonstrate to the satisfaction of the AQMD that the given activity is employing all best available fugitive dust control measures.

The AQMD has prepared the attached listing of best available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures," Office of Air and Radiation, September 1992.

The AQMD encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

BEST AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the best available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

CONTROL MEASURES	DESCRIPTION
(A) Watering (pre-grading)	(1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability. (2) Pre-application of water to depths of proposed cuts.
(A-1) Watering (post-grading)	(1) In active earth-moving areas water should be applied at sufficient frequency and quantity to prevent visible emissions from extending more than 100 feet from the point of origin.
(A-2) Pre-grading planning	(1) Grade each phase separately, timed to coincide with construction phase; or (2) Grade entire project, but apply chemical stabilizers or ground cover to graded areas where construction phase begins more than 60 days after grading phase ends.
(B) Chemical stabilizers	(1) Only effective in areas which are not subject to daily disturbances. (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.
(C) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site. Must be implemented in conjunction with either measure (A-1) or (B).
(D) Cover haul vehicles	(1) Entire surface area of hauled earth should be covered once vehicle is full.
(E) Bedliners in haul vehicles	(1) When feasible, use in bottom-dumping haul vehicles.

HIGH WIND MEASURE

(a) Cease all active operations; or
(b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

Source: (2) Unpaved Roads

CONTROL MEASURES	DESCRIPTION
(F) Paving	(1) Requires street sweeping/cleaning if subject to material accumulation.
(G) Chemical stabilization	(1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule (2) Not recommended for high volume or heavy equipment traffic use.
(H) Watering	(1) In sufficient quantities to keep surface moist. (2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.
(I) Reduce speed limits	(1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.
(J) Reduce vehicular trips	(1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.
(K) Gravel	(1) Gravel maintained to a depth of four inches can be an effective measure. (2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.

HIGH WIND MEASURE

(a) Apply a chemical stabilizer (to meet the specifications established by the Rule) prior to wind events; or
(b) Apply water once each hour; or
(c) Stop all vehicular traffic.

Source: **(3) Storage Piles**

CONTROL MEASURES	DESCRIPTION
(L) Wind sheltering	(1) Enclose in silos. (2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.
(M) Watering	(1) Application methods include: spray bars, hoses and water trucks. (2) Frequency of application will vary on site-specific conditions.
(N) Chemical stabilizers	(1) Best for use on storage piles subject to infrequent disturbances.
(O) Altering load-in/load-out procedures	(1) Confine load-in/load-out procedures to leeward (downwind) side of the material. Must be used in conjunction with either measure (L), (M), (N), or (P).
(P) Coverings	(1) Tarps, plastic, or other material can be used as a temporary covering. (2) When used, these should be anchored to prevent wind from removing coverings.

HIGH WIND MEASURE

(a) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or
(b) Apply water once per hour; or
(c) Install temporary covers.

Source: (4) Paved Road Track-Out

CONTROL MEASURES	DESCRIPTION
Compliance with District Rule 403.	Paragraph (d)(5).

Source: (5) Disturbed Surface Areas/ Inactive Construction Sites

CONTROL MEASURES	DESCRIPTION
(Q) Chemical stabilization	(1) Most effective when used on areas where active operations have ceased. (2) Vendors can supply information on methods for application and required concentrations.
(R) Watering	(1) Requires frequent applications unless a surface crust can be developed.
(S) Wind fencing	(1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site. Must be used in conjunction with either measure (Q), (R), or (T).
(T) Vegetation	(1) Establish as quickly as possible when active operations have ceased.*

HIGH WIND MEASURES

(a) Apply chemical stabilizers (to meet the specifications established by the Rule); or
(b) Apply water to all disturbed surface areas 3 times per day.

* Use of drought tolerant, native vegetation is encouraged.

TABLE 1

BEST [REASONABLY]* AVAILABLE CONTROL MEASURES FOR HIGH WIND CONDITIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice [once] per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice [once] per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 1 may be used.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2
DUST CONTROL ACTIONS FOR EXEMPTION FROM PARAGRAPH (d)(4)*

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2 (Continued)*

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 [70] percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 [70] percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 [30] days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2 (Continued)*

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 [70] percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

AQMD Recommendations

TABLE 3

TRACK-OUT CONTROL OPTIONS

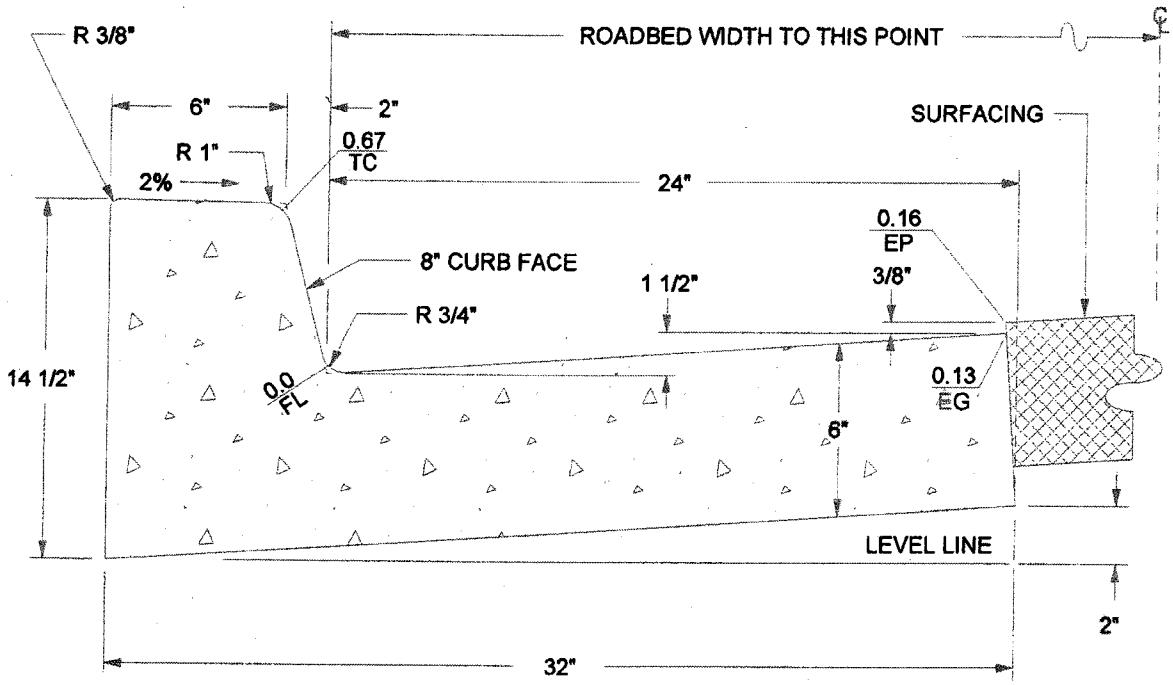
PARAGRAPH (d)(5)(B)

CONTROL OPTIONS

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Appendix B

Reference Drawings



CLASS "B" CONCRETE

1.73 CU. FT. / L.F.

1 CU. YD. = 15.60 L.F.

ABBREVIATIONS:

TC = TOP OF CURB
FL = FLOWLINE
EG = EDGE OF GUTTER
EP = EDGE OF PAVEMENT

APPROVED BY:

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07

REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

TYPE A-8 CURB

STANDARD NO. 201

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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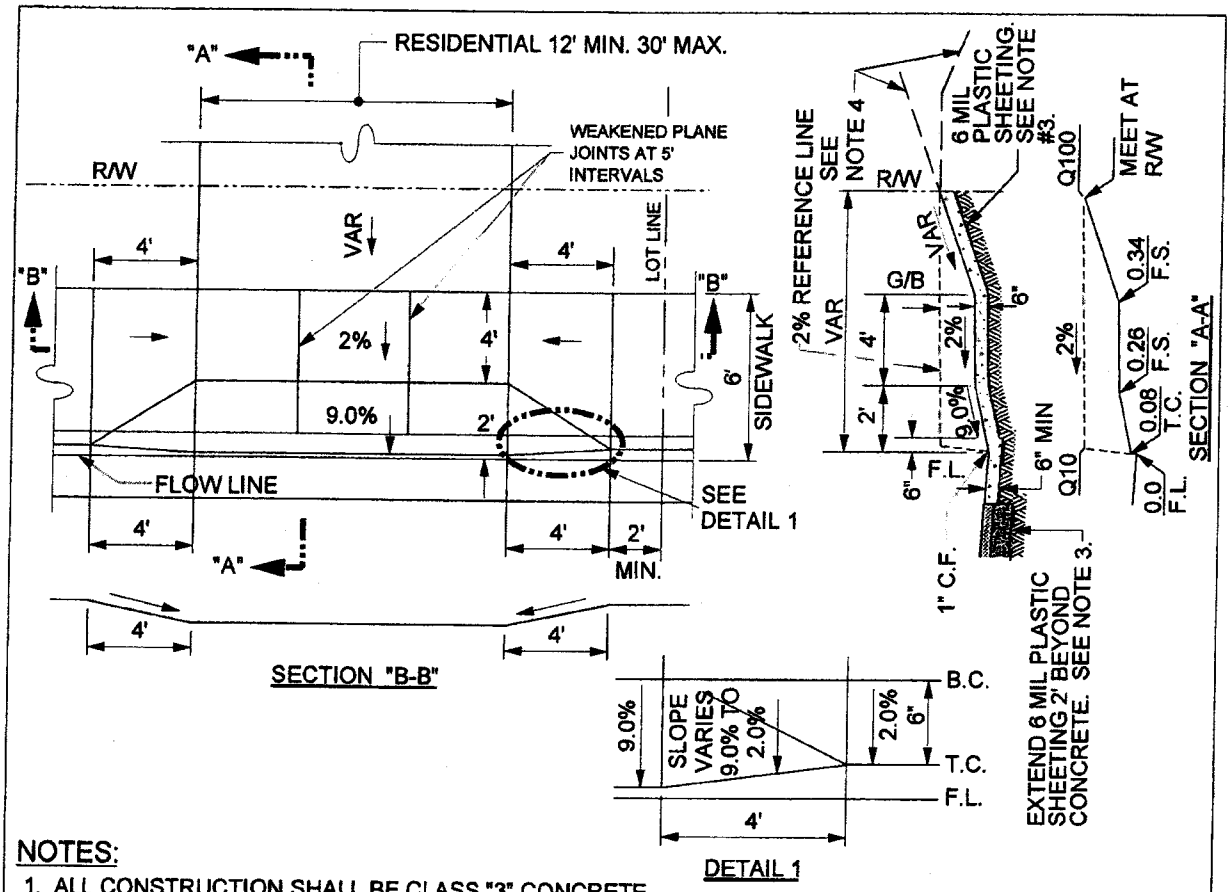
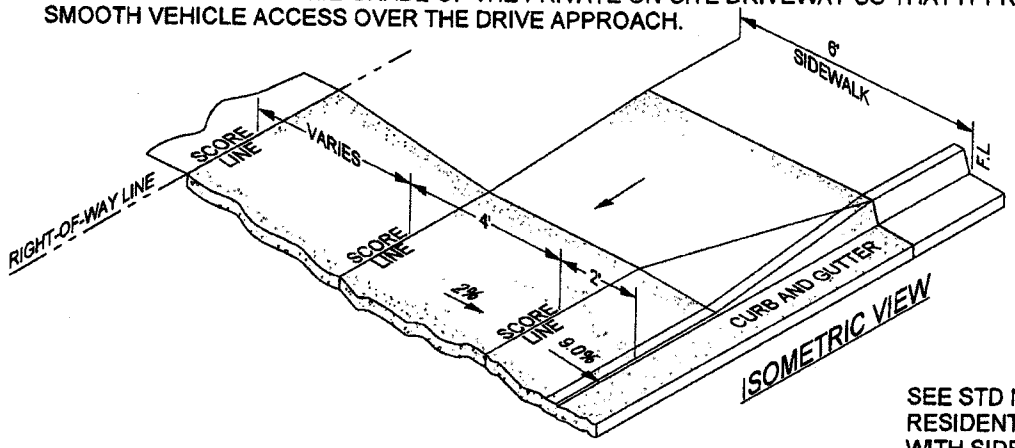
2-90, 11-04		2				5			
		3				6			



NOTES:

1. ALL CONSTRUCTION SHALL BE CLASS "3" CONCRETE.
2. 20' OF FULL-HEIGHT CURB REQUIRED BETWEEN DRIVEWAYS WITHIN ANY ONE PROPERTY FRONTAGE.
3. USE 6 MIL PLASTIC SHEETINGWHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, SPECIAL CONSIDERATIONS ARE REQUIRED. SEE SPECIFICATIONS (SECTION 16.04).
4. CONSTRUCT THE PROFILE GRADE OF THE PRIVATE ON-SITE DRIVEWAY SO THAT IT PROVIDES SMOOTH VEHICLE ACCESS OVER THE DRIVE APPROACH.



NOT TO SCALE

SEE STD NO. 213 FOR RESIDENTIAL DRIVEWAY WITH SIDEWALK AT R/W

APPROVED BY:

DATE: 11/15/04

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

REGISTERED PROFESSIONAL ENGINEER GEORGE A. JOHNSON No. CE 42328 Exp. 3-31-08 CIVIL STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

RESIDENTIAL DRIVEWAY WITH SIDEWALK AT CURB

STANDARD NO. 207

REVISIONS	
8-71, 8-77	11-04
5-80, 2-82	
2-90, 12-97	

REV.	BY:	APR'D	DATE
1			
2			
3			

REV.	BY:	APR'D	DATE
4			
5			
6			

APPROVED BY:

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07

REVISIONS	REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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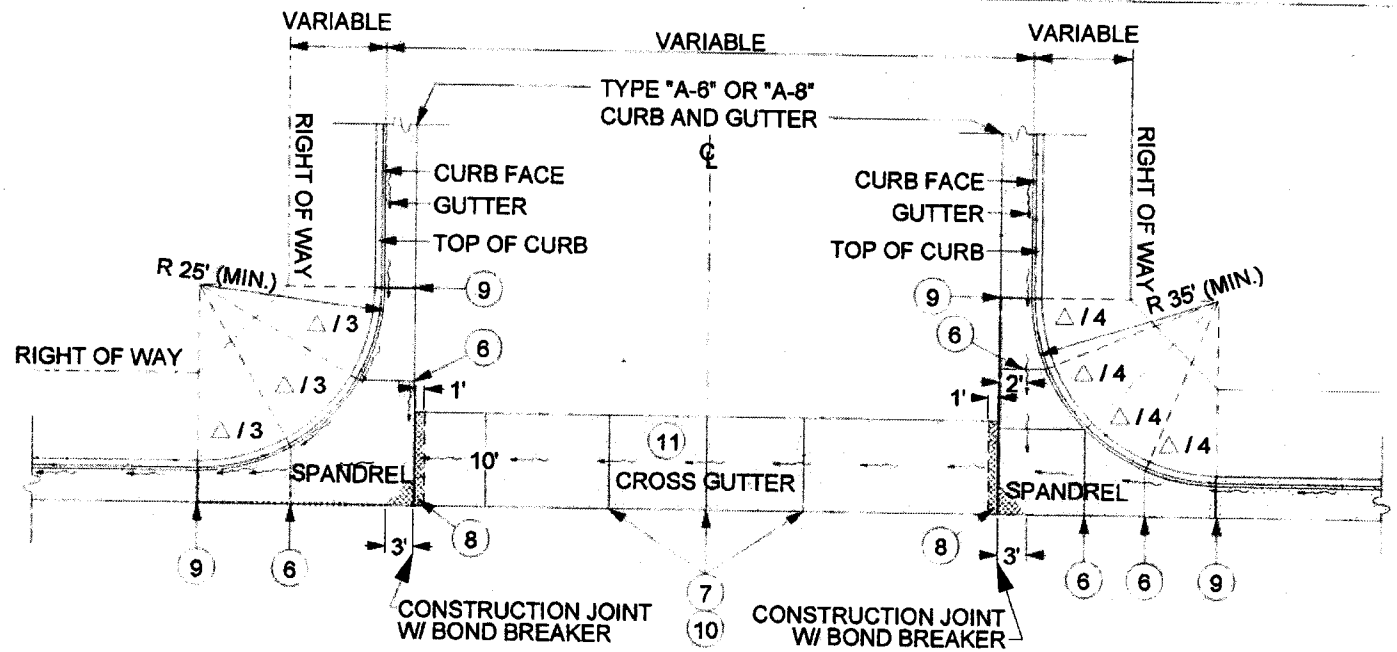
9-88, 2-90	2				5			
11-04	3				6			



NOT TO SCALE

(1) CROSS GUTTER FOR USE WITH TYPES "A-6" AND "A-8" CURB.

(2) APRON THICKNESS TO BE 8" MINIMUM.

(3) CROSS GUTTER THICKNESS TO BE 8" MINIMUM.

(4) CLASS "A" CONCRETE.

(5) PLACE MIN. 6" BASE UNDER ENTIRE SPANDREL AND CROSS GUTTER AREA.

(6) WEAKENED PLANE JOINTS TO BE CONSTRUCTED AT 1/3 POINTS ON 25' RADIUS SPANDRELS, AND AT 1/4 POINTS ON 35' RADIUS SPANDRELS.

(7) CONSTRUCT WEAKENED PLANE JOINT(S) PER STANDARD #205 AT MIDPOINT OF CROSS GUTTERS LESS THAN 40' LONG, OR AT 1/3 POINTS OF CROSS GUTTERS OF 40' OR LONGER.

(8) THIS PORTION OF SPANDREL AND CROSS GUTTER SHALL BE CONSTRUCTED WITH 12 INCH THICK, CLASS "A" CONCRETE.

(9) CONSTRUCT EXPANSION JOINT PER STANDARD # 205.

(10) CONSTRUCT WEAKENED PLANE JOINT PER STANDARD # 205.

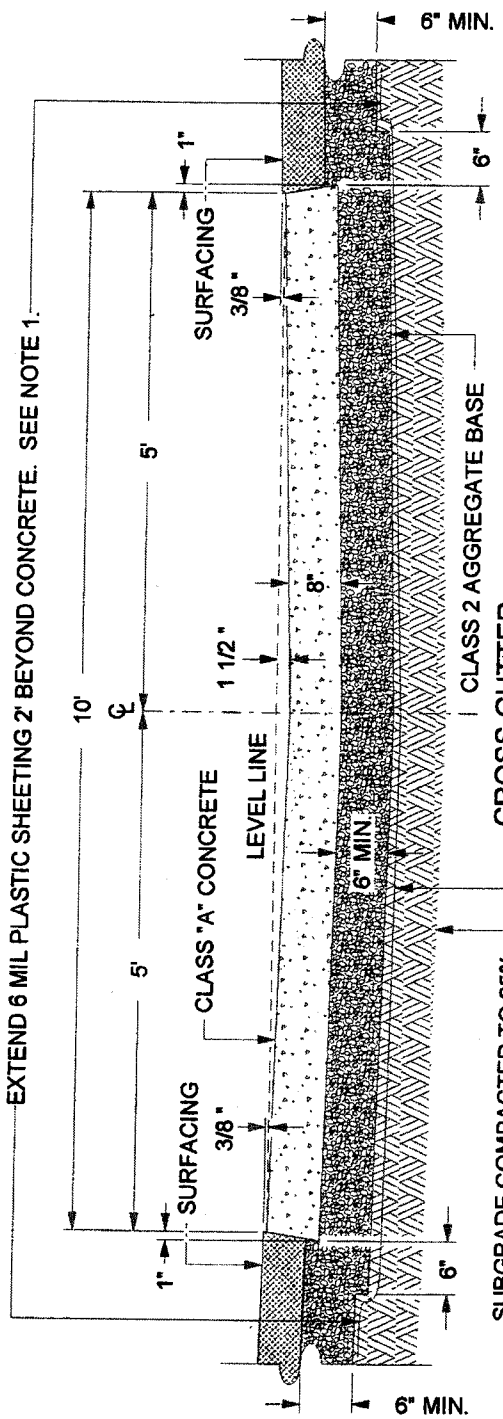
(11) CONSTRUCT CROSS GUTTER PER TYPICAL SECTION ON SHEET 2.

(12) WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, SPECIAL CONSIDERATIONS ARE REQUIRED. SEE SPECIFICATIONS (SECTION 16.04).

CROSS GUTTER (LAYOUT)

COUNTY OF RIVERSIDE

STANDARD NO. 209 (1 OF 2)



NOT TO SCALE

NOTE

1. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, SPECIAL CONSIDERATIONS ARE REQUIRED. SEE SPECIFICATIONS (SECTION 16.04).

APPROVED BY:

DIRECTOR OF TRANSPORTATION
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DATE: 05/01/07

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STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

CROSS GUTTER (TYPICAL SECTION)

STANDARD NO. 209 (2 OF 2)

REVISIONS	REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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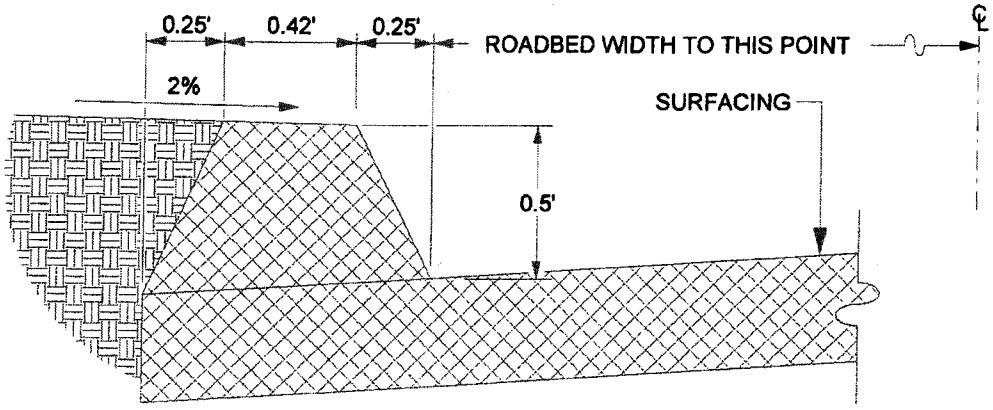
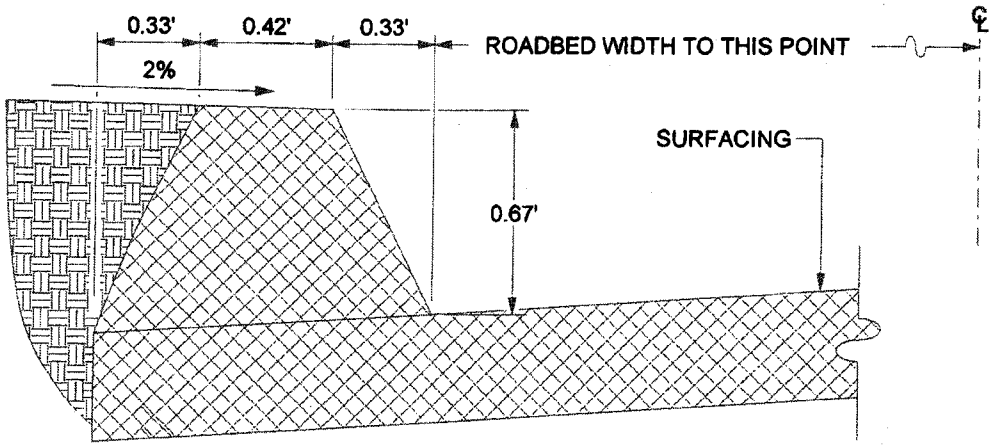
2-90, 12-97	2				5			
11-04	3				6			



6" A.C. DIKE



8" A.C. DIKE

NOT TO SCALE

NOTE: A.C. DIKE REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO EROSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

APPROVED BY:

DATE: 05/01/07

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CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

ASPHALT CONCRETE DIKES

STANDARD NO. 212

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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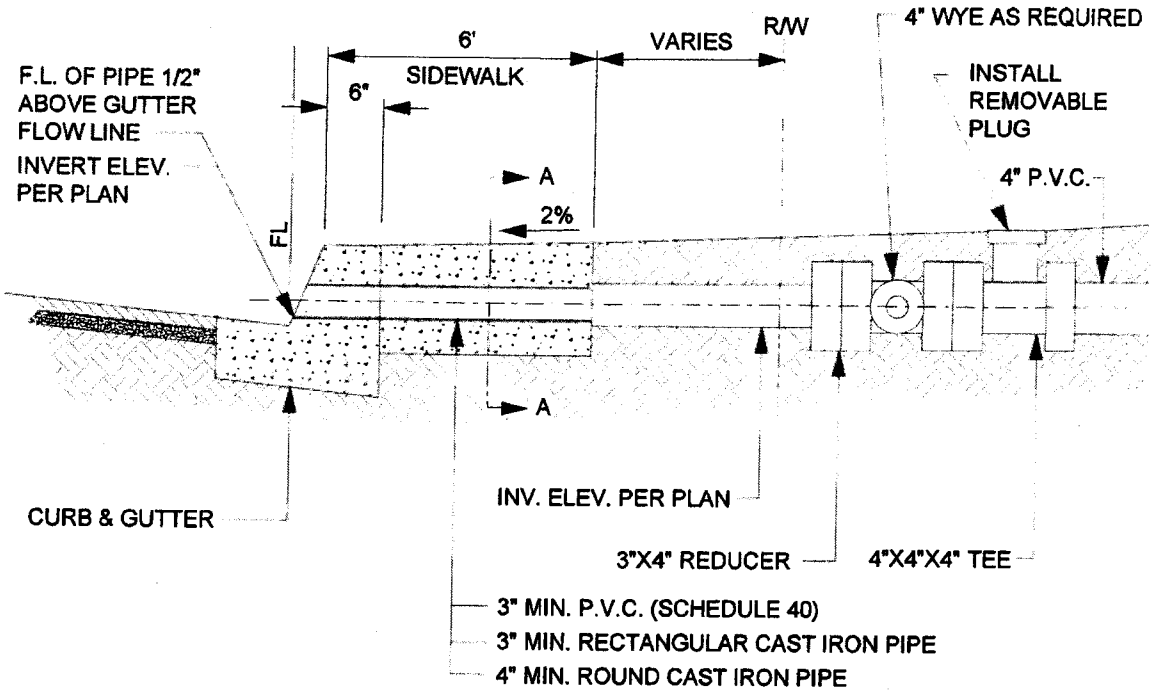
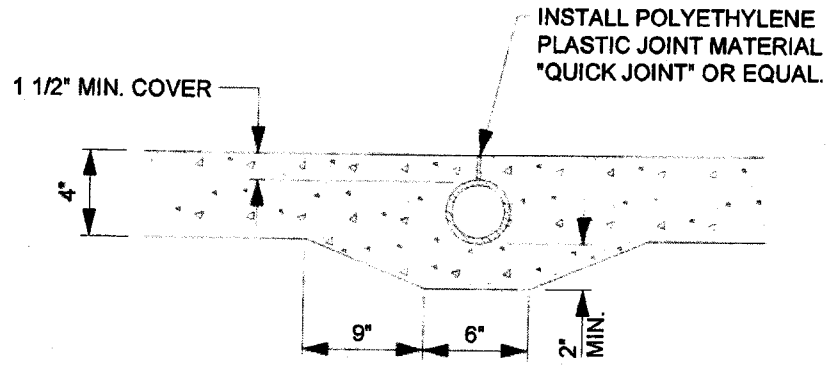


ELEVATION



SECTION A-A

NOT TO SCALE

APPROVED BY:

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07

REGISTERED PROFESSIONAL ENGINEER GEORGE A. JOHNSON No. CE 42328 Exp. 3-31-08 Civil STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

PRIVATE DRAIN THROUGH CURB

STANDARD NO. 310

REVISIONS	REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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	2				5			
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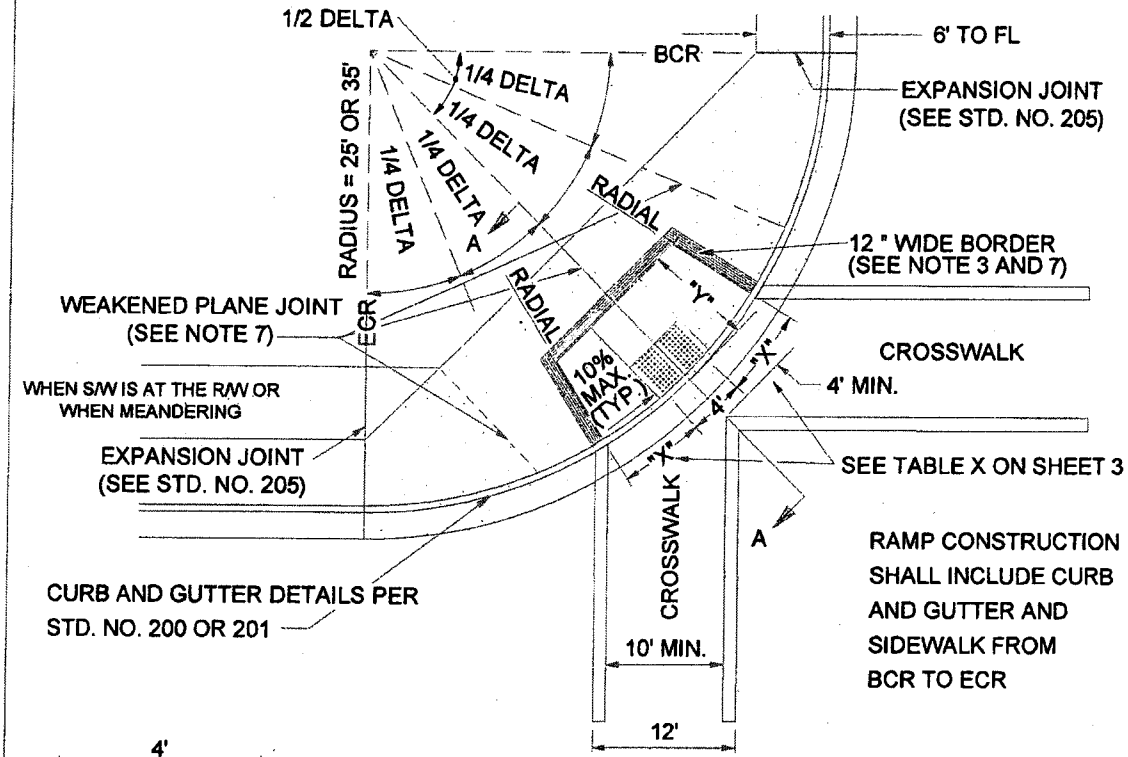

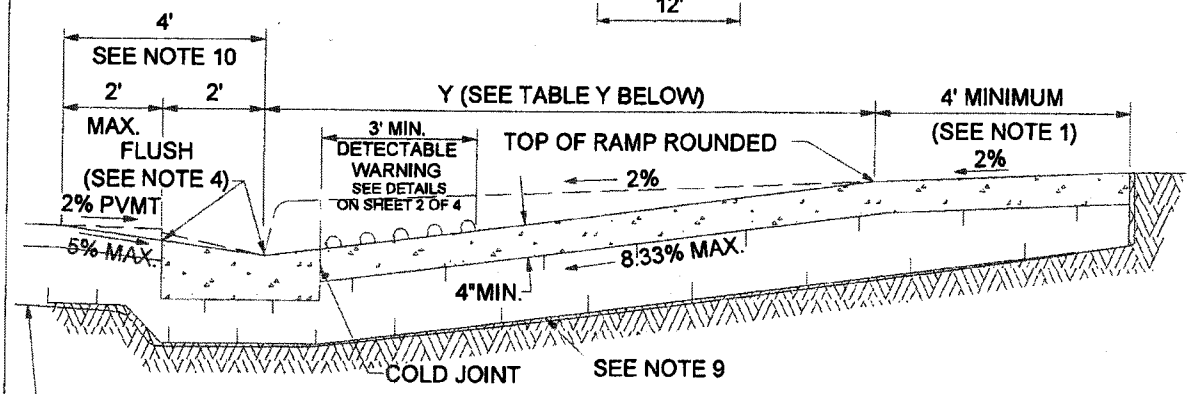

SECTION A-A

TABLE Y

CF	Y
6"	7.90'
8"	10.53'

$$Y = \frac{\text{CURB FACE (FT.)}}{6.33\%}$$

NOT TO SCALE

SEE SHEET 4 OF 4 FOR NOTES.

APPROVED BY:

DIRECTOR OF TRANSPORTATION
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DATE: 11/15/04

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Exp. 3-31-06
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STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

CURB RAMP
CASE A

STANDARD NO. 403 (1 OF 4)

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
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10-81, 6-82		2				5			
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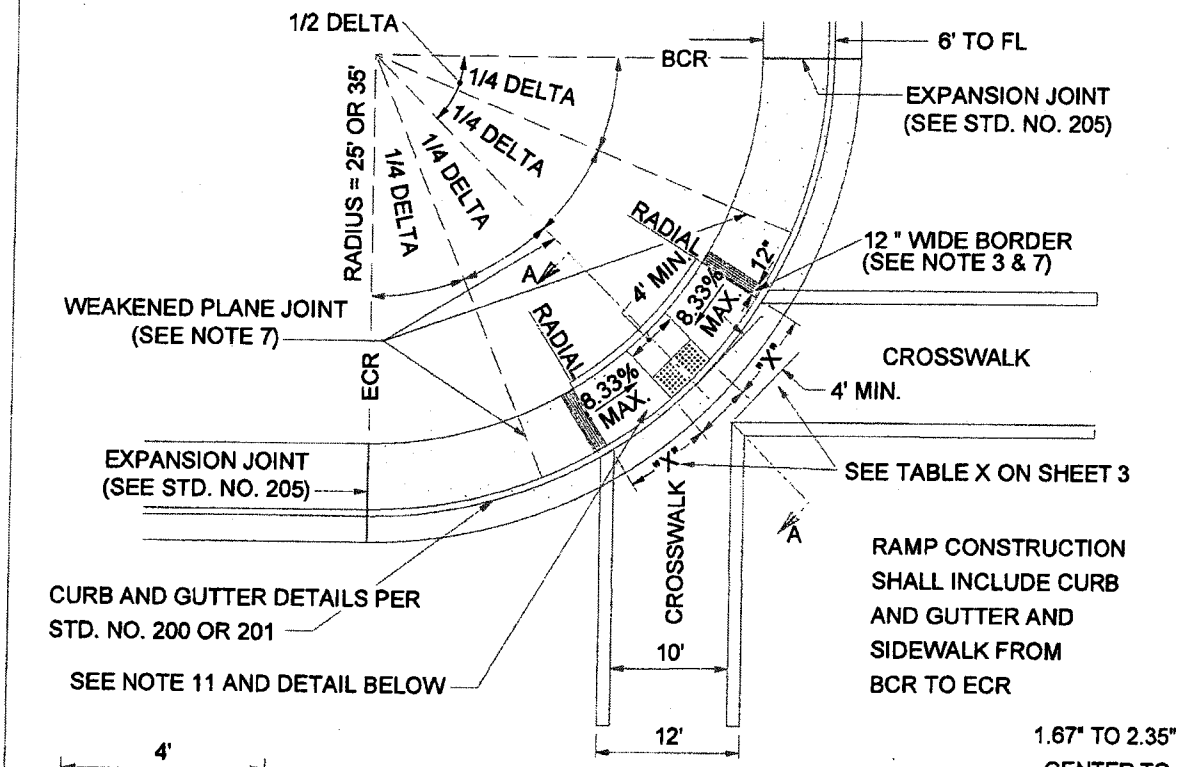
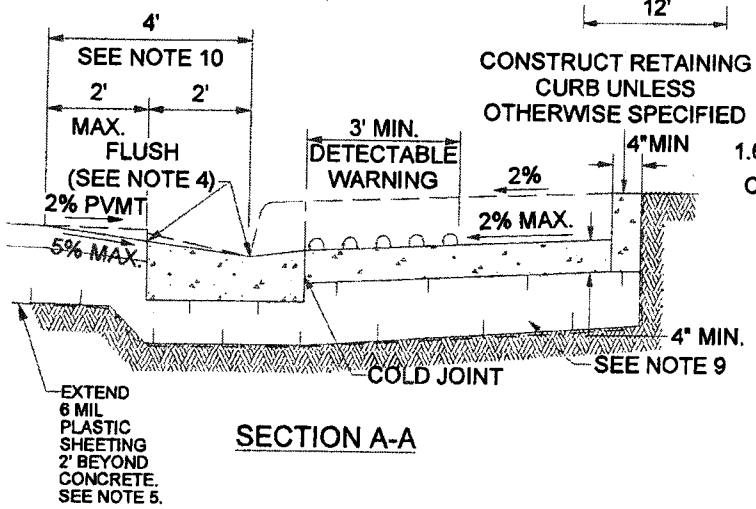
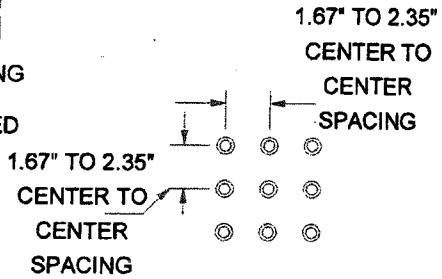
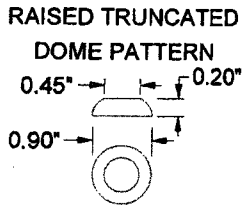




SECTION A-A





RAISED TRUNCATED DOME
DETECTABLE WARNING SURFACE
SEE NOTE 11

SEE SHEET 4 OF 4 FOR NOTES.

NOT TO SCALE

APPROVED BY:

DATE: 11/15/04

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-05
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

CURB RAMP
CASE B

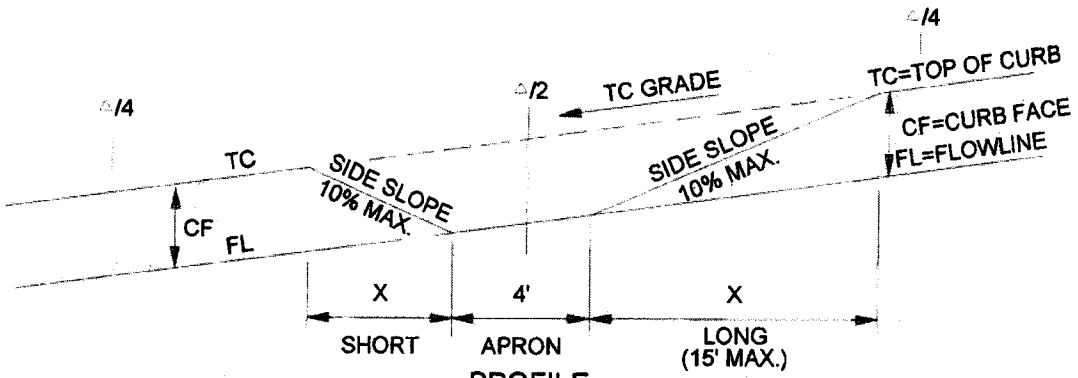
STANDARD NO. 403 (2 OF 4)

12-97

REVISIONS	
8-77, 5-80	11-04
10-81, 6-82	
9-88, 2-90	

REV.	BY:	APR'D	DATE
1			
2			
3			

REV.	BY:	APR'D	DATE
4			
5			
6			



PROFILE

TABLE X

CF (IN)	RADIUS (FT)	SIDE SLOPE	X	TC GRADE (ALONG CURB RETURN)					
				1%	2%	3%	4%	5%	6%
6"	35'	10%	X_S	4.6	4.2	3.9	3.6	3.4	3.2
			X_L	5.6	6.3	7.2	8.4	10.0	12.5
8"	35'	10%	X_S	6.1	5.6	5.2	4.8	4.5	4.2
			X_L	7.5	8.4	9.6	11.2	13.4	15.0

TO CALCULATE "X" DIMENSION:

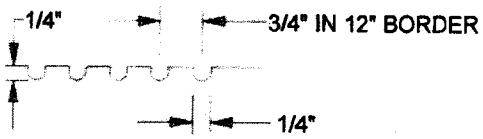
SHORT SIDE (DOWN SLOPE):

$$X_S\ (FT) = \frac{\text{CURB FACE (FT)}}{\text{SIDE SLOPE + TC GRADE}}$$

LONG SIDE (UP SLOPE):

$$X_L\ (FT) = \frac{\text{CURB FACE (FT)}}{\text{SIDE SLOPE - TC GRADE}}$$

ENGINEER TO SHOW X_S AND X_L ON IMPROVEMENT PLANS



GROOVING DETAIL

APPROVED BY:

DATE: 05/05/04

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

REGISTERED PROFESSIONAL ENGINEER GEORGE A. JOHNSON No. CE 42328 Exp. 3-31-05 CIVIL STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

CURB RAMP

STANDARD NO. 403 (3 OF 4)

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	11-04	1				4			
10-81, 6-82		2				5			
9-88, 2-90		3				6			

CONSTRUCTION NOTES:

1. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMODATE RAMP AND 4' LANDING, THEN USE THE CASE "B" RAMP.
2. IF SIDEWALK IS LESS THAN 6' WIDE, THE FULL WIDTH OF THE SIDEWALK SHALL BE DEPRESSED AS SHOWN IN CASE B. MINIMUM SIDEWALK WIDTH IS 4' FROM BACK OF CURB.
3. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH GROOVES 1/4" WIDE AND 1/4" DEEP APPROXIMATELY 3/4" ON CENTER. SEE GROOVING DETAIL.
4. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
5. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, SPECIAL CONSIDERATIONS ARE REQUIRED. SEE SPECIFICATIONS (SECTION 16.04).
6. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP (EXCEPT IN CASE B).
7. CONSTRUCT WEAKENED PLANE JOINTS AT 1/4 DELTAS WHEN RADIUS EQUALS 35' AND AT INSIDE EDGE OF GROOVED BORDER WHEN RADIUS EQUALS 25'.
8. IF EXPANSIVE SOIL IS ENCOUNTERED, THEN RAMP SHALL BE CONSTRUCTED OVER CLASS 2 AGGREGATE MATERIAL.
9. CONCRETE SHALL BE CLASS B.
10. MAXIMUM SLOPES OF ADJOINING GUTTERS: THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4' OF THE BOTTOM OF THE CURB RAMP.
11. DETECTABLE WARNING SURFACES ARE REQUIRED ON ALL CURB RAMPS THAT ENTER INTO A VEHICULAR TRAVEL WAY.

APPROVED BY:

DATE: 11/15/04

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-06
CIVIL
STATE OF CALIFORNIA

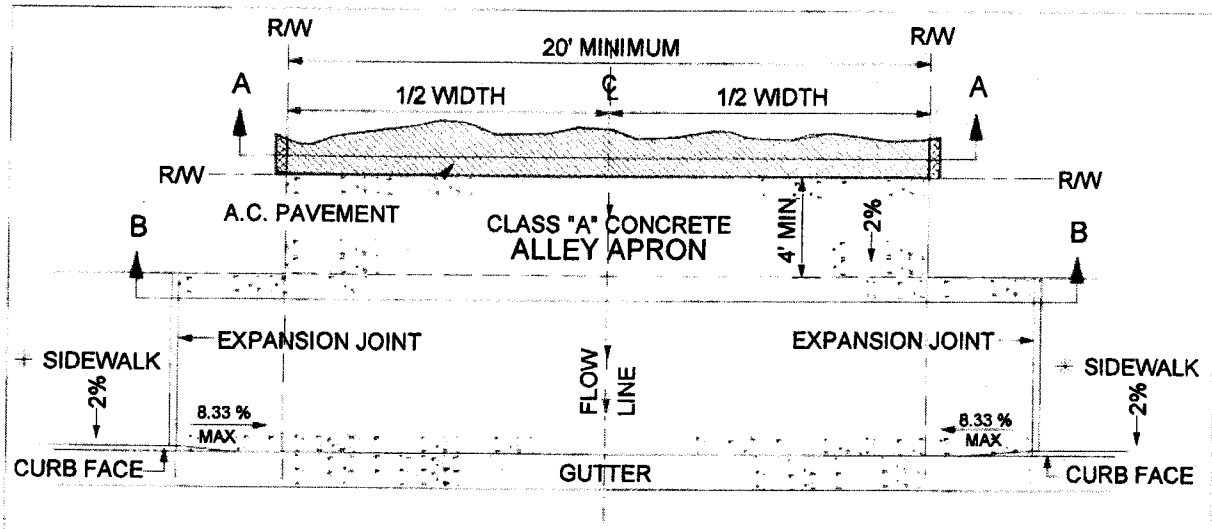
REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	11-04	1				4			
10-81, 6-82		2				5			
9-88, 2-90		3				6			

COUNTY OF RIVERSIDE

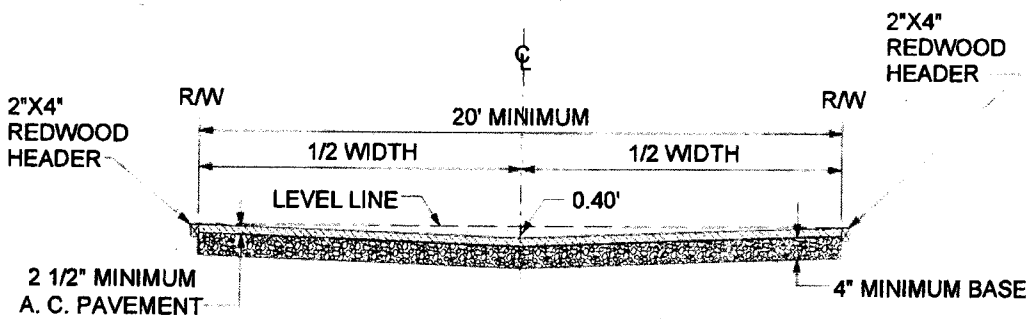
CURB RAMP CONSTRUCTION NOTES

12-97

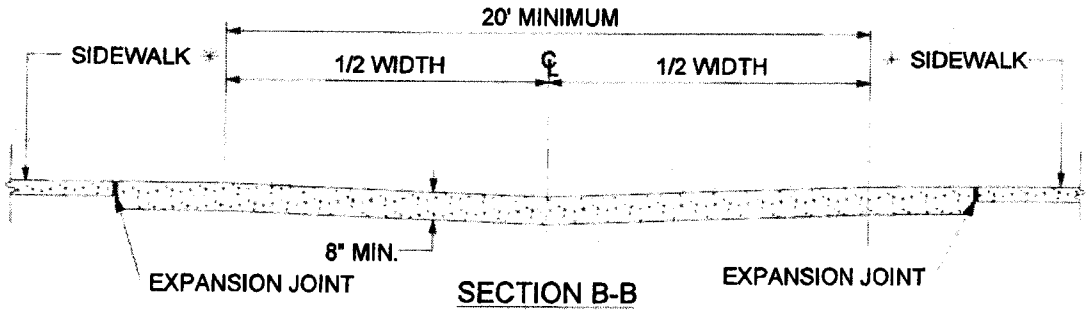
STANDARD NO. 403 (4 OF 4)



PLAN



SECTION A-A



SECTION B-B

ALLEY WIDTH AS SPECIFIED BY THE DIRECTOR OF TRANSPORTATION.

+ WHEN REQUIRED OR PERMITTED

NOT TO SCALE

APPROVED BY:

DIRECTOR OF TRANSPORTATION
GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07

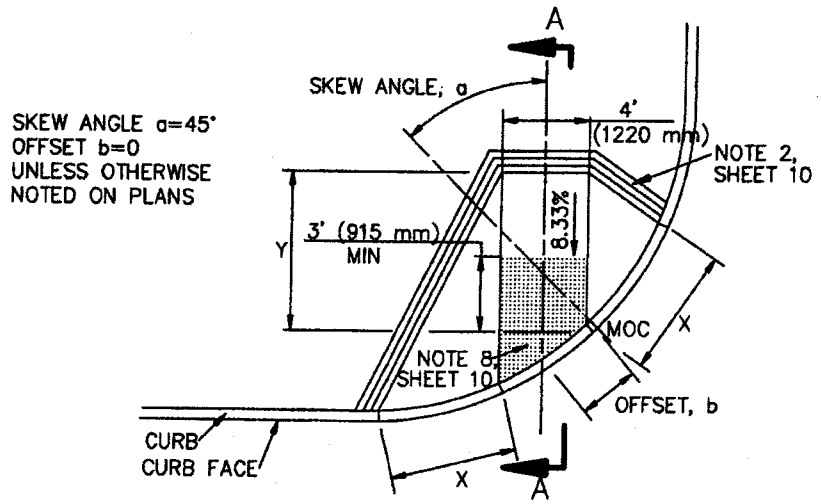
REGISTERED PROFESSIONAL ENGINEER
GEORGE A. JOHNSON
No. CE 42328
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

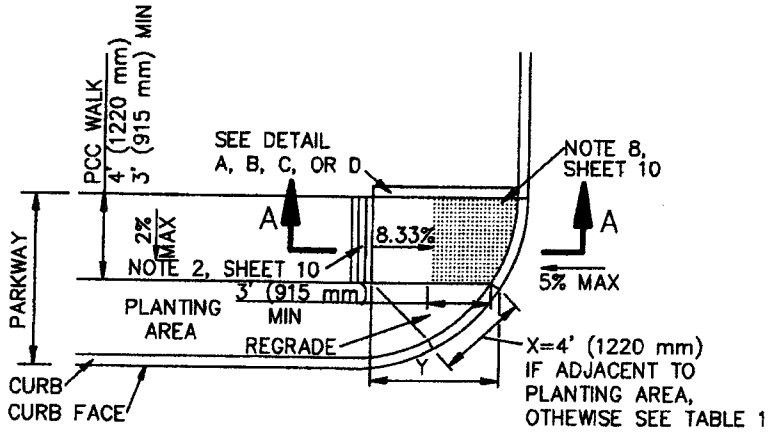
TYPICAL ALLEY and ALLEY APRON SECTIONS

STANDARD NO. 500

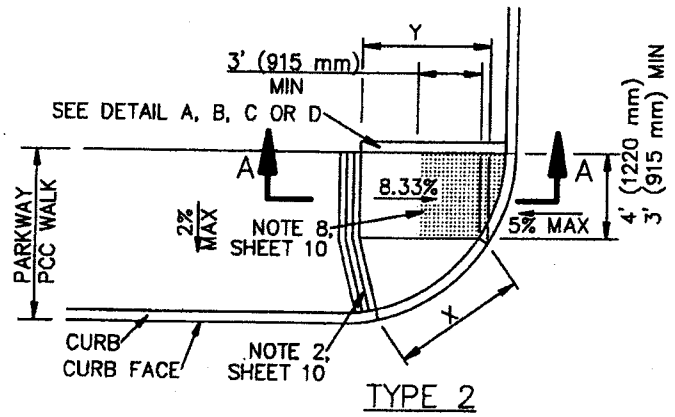
REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-24-71		1				4			
8-18-77		2				5			
11-80, 11-04		3				6			



CASE C



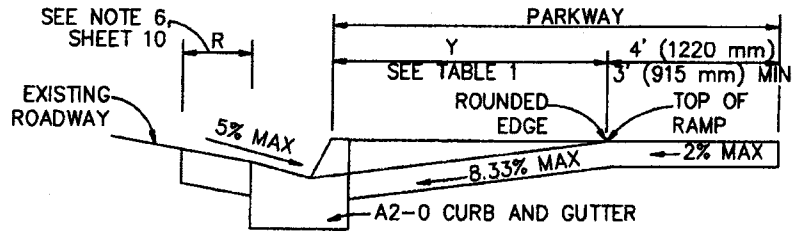
TYPE 1



TYPE 2

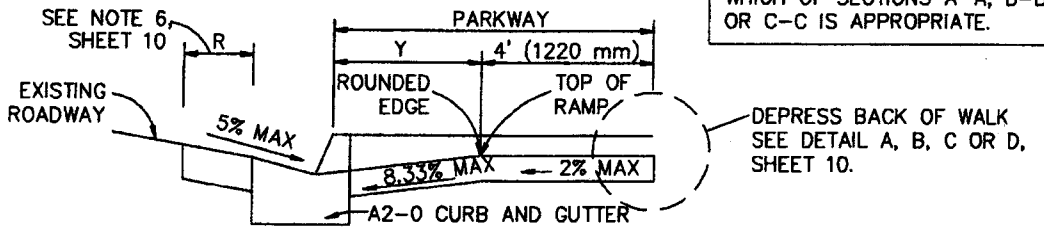
CASE D

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN
CURB RAMP	111-4
	SHEET 6 OF 10

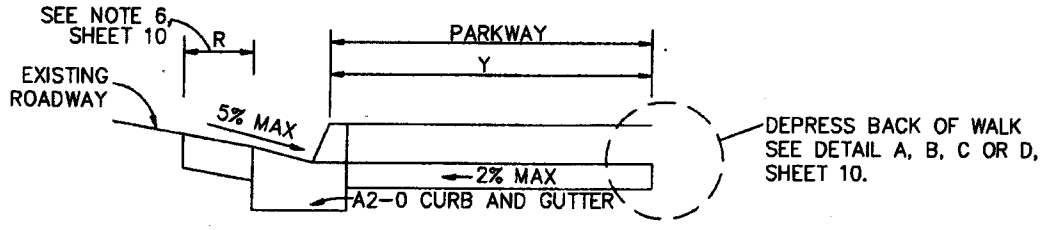


SECTION A–A

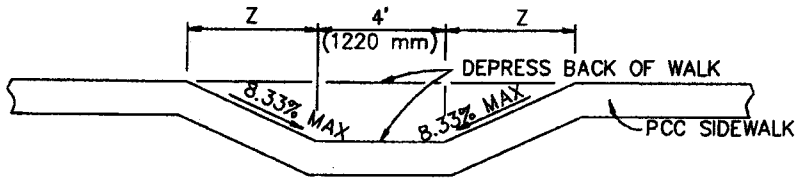
USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A–A, B–B OR C–C IS APPROPRIATE.



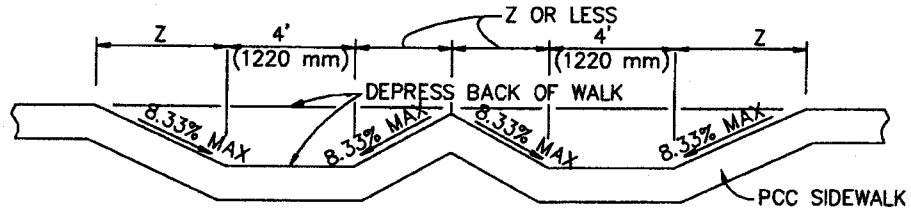
SECTION B–B



SECTION C–C



SECTION R–R



SECTION S–S

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN
CURB RAMP	111-4 2 4 SHEET 7 OF 10

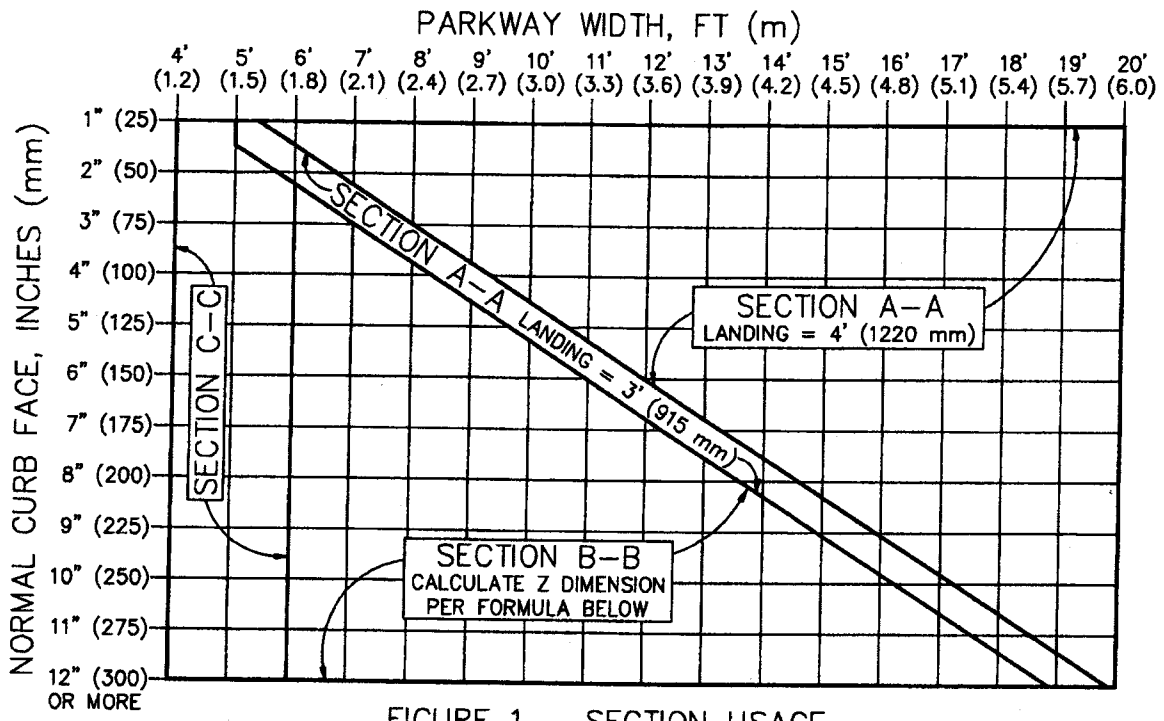


FIGURE 1 – SECTION USAGE

NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y–Y Y, FT (mm)
2" (50)	4.00' (1200) MIN	2.63' (790)
3" (75)	4.00' (1200) MIN	3.95' (1185)
4" (100)	4.00' (1200)	5.26' (1580)
5" (125)	5.00' (1500)	6.58' (1975)
6" (150)	6.00' (1800)	7.90' (2370)
7" (175)	7.00' (2100)	9.21' (2765)
8" (200)	8.00' (2400)	10.53' (3160)
9" (225)	9.00' (2700)	11.84' (3555)
10" (250)	10.00' (3000)	13.16' (3950)
11" (275)	11.00' (3300)	14.47' (4340)
12" (300)	12.00' (3600)	15.79' (4735)

SEE SHEET 9 FOR STREET SLOPE ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 – X AND Y VALUES

TABLE 1 REFERENCE FORMULAS:
X = CF / 8.333%
Y = CF / (8.333% – 2% WALK CROSS SLOPE)

WHERE FIGURE 1 SHOWS USE OF SECTION B–B, FIGURE Z DIMENSION AS FOLLOWS:

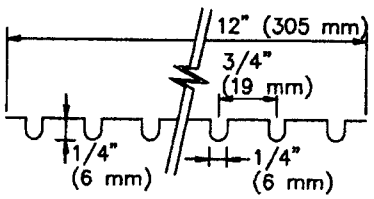
W = PARKWAY WIDTH
L = LANDING WIDTH, 4' (1220 mm) TYP, 3' (915 mm) MIN

$Z = [(Y+L)-W] \times 0.760$

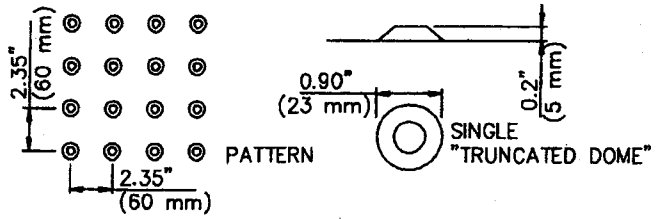
IF $(Y+L) < W$, THEN $Z = 0$

TABLE 1 SHOWS X FOR A FLARE SLOPE OF 8.33% AT THE CURB FACE. IF L IS 4' (1220 mm) OR MORE, X MAY BE MULTIPLIED BY 0.833 FOR A MAXIMUM FLARE SLOPE OF 10% AT THE CURB FACE.

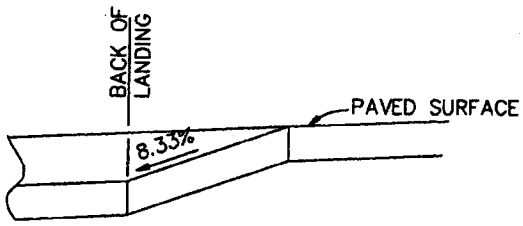
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN
CURB RAMP	111–4 3 4
	SHEET 8 OF 10



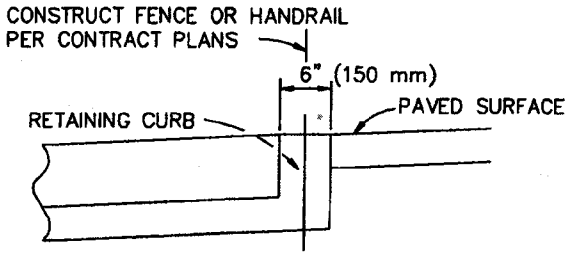
GROOVING DETAIL



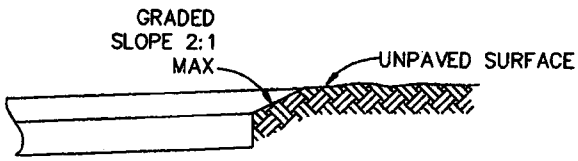
DETECTABLE WARNING DETAIL



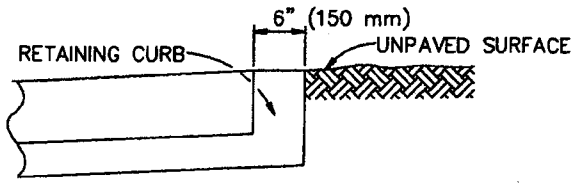
DETAIL A



DETAIL B



DETAIL C

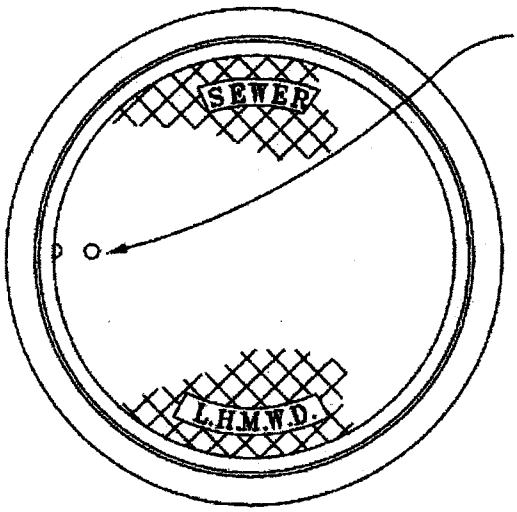


DETAIL D

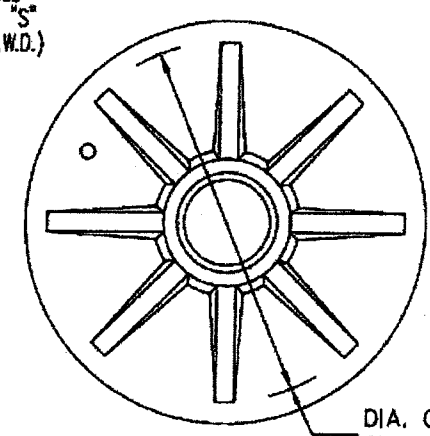
GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 520-C-2500 (310-C-17) CONFORMING TO SSPWC 201-1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' (900 mm) UNLESS OTHERWISE SHOWN ON PLAN.
7. ANGLE = $\Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION	STANDARD PLAN
CURB RAMP	111-4 SHEET 4 OF 4

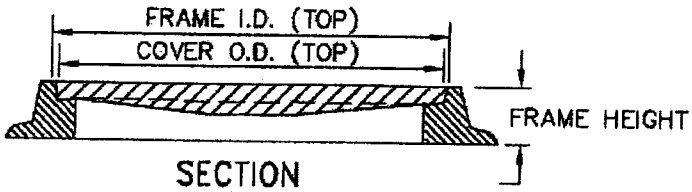


TOP VIEW

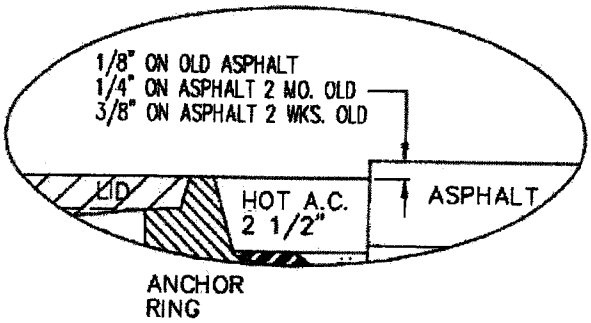


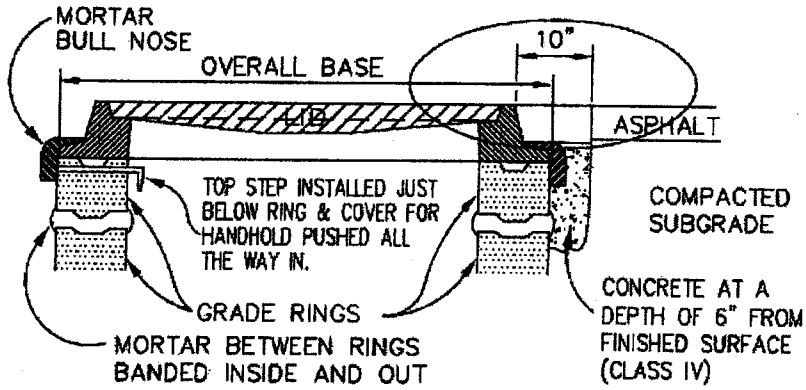
BOTTOM VIEW

COVER DETAIL



SECTION





SECTIONS THRU FRAME SHOWING TYPICAL INSTALLATIONS

1. Manhole cover shall be designed for A.A.S.H.O. H-20 loading.
2. Cast iron shall have minimum tensile strength of 30,000 p.s.i.
3. Manhole cover shall be Alhambra Foundry Co. Type A-1254-6 for 24" dia. and Type A-1261-6 for 36" dia. or approved equal.

MANHOLE COVER AND FRAME REQUIRED DIMENSIONS

CLEAR OPENING	COVER O.D.	FRAME I.D.	FRAME HEIGHT	OVERALL BASE	TOTAL WT.
24"	25 1/4"	25 1/2"	6"	36"	425 lbs.
36"	30"	38 1/4"	6"	44"	650 lbs.

DATE	REVISION	BY

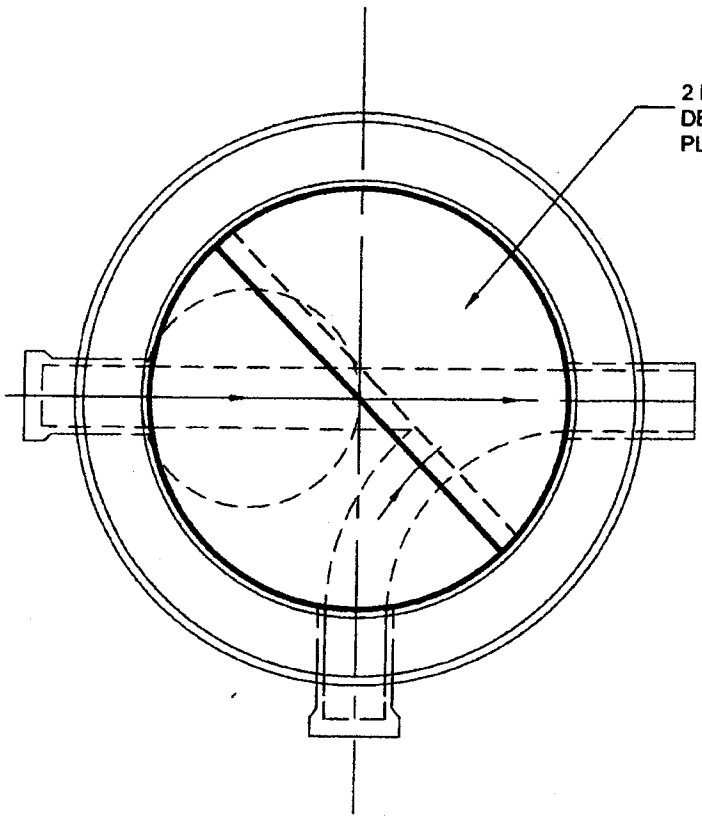
APPROVED BY *Robert V. Lindquist* 12/17/97
GENERAL MANAGER DATE

John M. Brudin 12/12/97
DISTRICT ENGINEER DATE

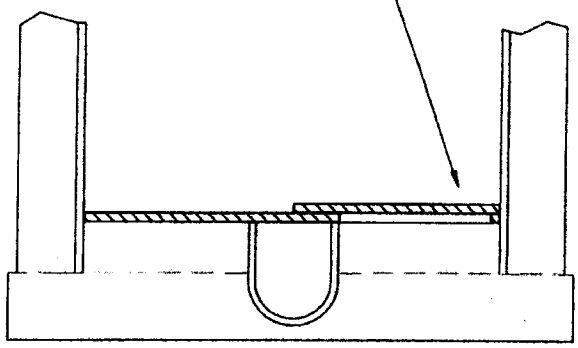
LAKE HEMET MUNICIPAL WATER DISTRICT
SEWER IMPROVEMENT

STANDARD MANHOLE COVER

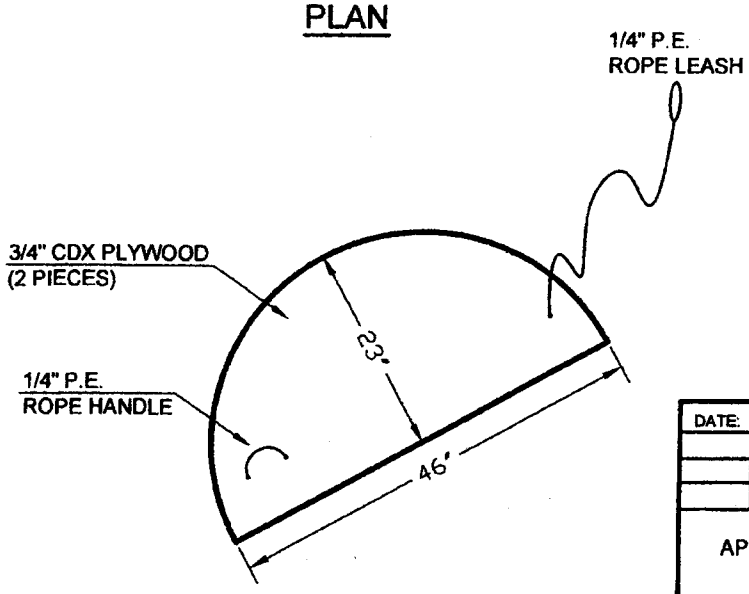
STANDARD No. 3



PLAN



SECTION



DETAIL "A"

DATE:	REVISION	BY

APPROVED BY _____
GENERAL MANAGER DATE:

CHIEF ENGINEER 6/5/09 DATE:

SCALE: NONE | DRAWN BY: S.R.W.

LAKE HEMET MUNICIPAL WATER DIST.
WATER IMPROVEMENT

TEMPORARY FALSE BOTTOM / DEBRIS CATCH FOR STANDARD SEWER MANHOLE

STANDARD NO.11

Appendix C

Federal Prevailing Wage Decision

General Decision Number: CA140036 01/24/2014 CA36

Superseded General Decision Number: CA20130036

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Riverside County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/03/2014
1	01/10/2014
2	01/24/2014

ASBE0005-002 07/01/2013

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems)	$ 34.51	18.55
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls)	$ 24.34	16.09

ASBE0005-004 06/24/2013

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)	$ 16.95	10.23

BOIL0092-003 10/01/2012

	Rates	Fringes
BOILERMAKER	$ 41.17	28.27

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* BRCA0004-011 05/01/2013

	Rates	Fringes
BRICKLAYER; MARBLE SETTER	$ 36.41	11.32

*The wage scale for prevailing wage projects performed in Blythe, China lake, Death Valley, Fort Irwin, Twenty-Nine Palms, Needles and 1-15 corridor (Barstow to the Nevada State Line) will be Three Dollars ($3.00) above the standard San Bernardino/Riverside County hourly wage rate

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BRCA0018-004 06/01/2012

	Rates	Fringes
MARBLE FINISHER	$ 27.04	10.66
TILE FINISHER	$ 22.37	9.19
TILE LAYER	$ 33.55	13.55

BRCA0018-010 09/01/2011

	Rates	Fringes
TERRAZZO FINISHER	$ 26.59	9.62
TERRAZZO WORKER/SETTER	$ 33.63	10.46

CARP0409-001 07/01/2010

	Rates	Fringes
CARPENTER		
(1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer	$ 37.35	11.08
(2) Millwright	$ 37.85	11.08
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Framer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial)	$ 37.48	11.08
(4) Pneumatic Nailer, Power Stapler	$ 37.60	11.08
(5) Sawfiler	$ 37.44	11.08
(6) Scaffold Builder	$ 28.55	11.08
(7) Table Power Saw Operator	$ 37.45	11.08

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): $0.13 per hour additional.