File No. 0735-10-STL 405 & 407

CIP No.: STL405 CIP No.: STL415

THIS IS A PREVAILING WAGE PROJECT

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415)

AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

CONSTRUCTION SCHEDULE

ADVERTISE	fri	MARCH 24, 2017
RECEIVE BIDS (CITY COUNCIL ROOM C-106 @ 2:00 PM)	wed	APRIL 19, 2017
AWARD CONTRACT	tue	MAY 23, 2017
EXECUTE CONTRACT	wed	JUNE 7, 2017
BEGIN WORK (90 WORKING DAYS) APPROXIMATELY	mon	JUNE 19, 2017
END WORK APPROXIMATELY	fri	OCTOBER 27, 2017

COST: \$6.00 or \$9.00 if mailed

ENGINEER'S ESTIMATED CONSTRUCTION COST RANGE: \$500,000 to \$650,000

cc: Rick. A. Hopkins, Director of Public Works

William Valle, Assistant Director of Public Work Engineering/City Engineer

Iracsema Quilantan, Assistant Director of Public Works Operations

Jose Gomez, Principal Civil Engineer

Frank Rivera, Principal Civil Engineer

Silvester Evetovich, Principal Civil Engineer

PDM; Alan/Claudia/David/Luis/Mario/Patrick/Rosina/Thimothy

Kalani Camacho, Public Works, Street Maintenance Manager

NPDES; Boushra/Donald

Sam Oludunfe, Open Space Manager, City Forester Advanced Planning; Roberto Yano/Muna/Beth Chopp

Construction Inspection; Mike/David/Kristi

Environmental Planning; Steve Power/Cheryl Goddard/Dai Hoang

Survey; Greg Tscherch/Eric Lazovich

Contract Admin; Bob/Florence/Ramon/Claudia Permits Counter; Emily Novak/Roberto/Susan

File No. 0735-10-STL405 0735-10-STL407 0735-10-STL415



Contract Documents for:

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415)

AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

THIS IS A PREVAILING WAGE PROJECT

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AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

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CITY OF CHULA VISTA STATE OF CALIFORNIA

NOTICE TO CONTRACTORS

SEALED PROPOSALS will be received at the Department of Public Works, Engineering located in the Public Service Building (PSB), Building B, 276 Fourth Avenue, City of Chula Vista, California, until 2:00 p.m. on **WEDNESDAY**, **FEBRUARY 15, 2017** at which time they will be publicly opened and read for performing work as follows:

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415)

AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

The City of Chula Vista hereby notifies all bidders that it will affirmatively ensure that in any Contract entered into pursuant to this Notice, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

The contractor and its subcontractors are required by bid specifications to pay prevailing wage ("Prevailing Wage Rates") to persons employed by them for work under this Contract. In accordance with the provisions of Section 1773 of the Labor Code of the State of California, the City of Chula Vista has ascertained the general prevailing wage scales applicable to the work to be done. The prevailing wage scales are those determined by the Director of Industrial Relations, State of California.

The State prevailing wage rates determination is available directly from the Director of Industrial Relations, State of California home page under www.dir.ca.gov/dlsr.

No bid shall be received unless it is made on a Proposal Form furnished by the City Engineer. Each bid must be accompanied by cash, certified, of cashier's check, or bid bond in an amount equal to at least ten percent (10%) of the amount bid, such Guaranty to be forfeited should the bidder to whom the Contract is awarded fail to enter into the Contract. No bidder's Guaranty is required if the bid amount is \$50,000 or less.

City requires that throughout the duration of this contract insurance be placed with licensed insurers admitted to transact business in the State of California with a current A.M. Bestøs rating of no less than A, V in the amounts specified in the contract. If insurance is placed with a surplus lines insurer, insurer must be listed on the State of California List of Eligible Surplus Lines Insurers (LESLI) with a current A.M. Bestøs rating of no less than A, X. Evidence of insurance must be submitted within ten (10) days after the awarding of the Contract, and approved prior to commencement of work under the contract. Any insurance terminating during the course of the contract must be renewed and evidence of renewal must be submitted to the City within 15 days prior to the expiration of the prior policy and must meet the same criteria. Contractor must include all subcontractors as insured under its policies or furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors is subject to all of the requirements as above. No substitutions shall be allowed.

City requires Performance, Labor and Material Bonds, be issued by a Surety authorized to transact such business in the State of California, be listed as approved by the United States Department of Treasury Circular 570, and who Underwriting Limitation is sufficient to issue bonds in the amount required by the

contract. Approved listing can be obtained through the United States Department of Treasuryøs website address https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm. Any renewal certificates required during the course of the contract must be renewed and received by the City within 15 days prior to expiration and must meet the same criteria. No substitutions shall be allowed.

Bidder acknowledges the duty to provide bonds from a surety specified in the bid specifications. By bidding on this job, (1) Bidder waives any rights they may have under Civil Code Sections 995.660 and 995.670; and (2) Bidder agrees to indemnify and hold City harmless against any loss, expense or expenditure, including attorneys fees and costs, which City may suffer in any claim, action, suit or other proceeding that may be brought by a surety submitted by Bidder that does not meet the United States Department of Treasury's Circular 570 specifications for a surety. Bidder acknowledges that City may reject any and all bids, and that if a low bidder bids with a lower cost premium for sub-specification performance and payment bonds, other bidders not similarly taking advantage of the lower cost premium will be put in a cost disadvantage in the bid process, and that this may, in the City's judgment, necessitate re-bidding the job.

The Contractor is responsible for implementing the Construction Storm Water Pollution Control Plan (CSWPCP) for this project (see **Appendix C**) and modify as needed based upon site circumstances as required by the City inspector. The Contractor is responsible for maintaining compliance with the Cityøs Storm Water Management and Discharge Control Ordinance (Chula Vista Municipal Code (CVMC) Chapter 14.20) and the project Specifications with regard to storm water and non-storm water related discharges. Contractor participation in this program is mandatory, and non-compliance found at any of the construction site(s) covered by the contract will result in penalties to the contractor. Penalties may include, but are not limited to, monetary setoffs, withholding of payments, reimbursements for costs; expenses (including lawyerøs fees), fines and civil penalties incurred by the City, and/or liquidated damages.

The Contractor is responsible for managing storm water and non-storm water discharges from the site in accordance with the attached Pollution Control Plan, CVMC 14.20, and any additional specifications provided by the City or required by a City inspector. Contractor shall be responsible for any enforcement action taken by Federal, State, and/or Local authorities, including cost of fines, construction delays, and remedial actions resulting from the Contractor failure to comply with Federal, State, or local laws and regulations.

The Contractor shall maintain a copy of all water quality documents for this project on-site at all times. In the event that a City inspector should request review of the documents and/or inspection of the construction site, the Contractor shall allow such review and inspection.

A bid may be rejected on the basis of a bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation.

All bid protest must be presented in writing and filed with the City of Chula Vista's City Engineer within <u>five (5) consecutive working days</u> after the proposals have been opened and read publicly at the time indicated in this Notice to Contractors. The City reserves the right to reject any and all proposals.

Plans, forms of proposals, bonds, Contract special provisions, and specifications may be examined at the Department of Public Works, Engineering located in the Public Service Building, Building B, 276 Fourth Avenue, Chula Vista, California. Copies of plans and specifications may be obtained at the Department of Public Works, Engineering upon payment of \$6.00, Remit \$9.00 if you wish to have the plans and

specifications mailed to you. If payment is to be made by check, it should be made payable to the "City of Chula Vista."

NO REFUND WILL BE MADE.

The special attention of prospective bidders is called to proposal Requirements and Conditions for instructions regarding bidding on the following page.

The City Council reserves the right to reject any or all bids and to waive any irregularity or informality in any bid to the extent permitted by law.

DATED: 🏄 🤅

Jose Luis Gomez, P.E., P.L.S.

Principal Civil Engineer

Department of Public Works Engineering

City of Chula Vista

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ENGINEER OF WORK RESPONSIBLE CHARGE:

DATED: 3/22/17

Mario J. Ingrason, P.E.

Department of Public Works Engineering

City of Chula Vista



PROPOSAL REQUIREMENTS AND CONDITIONS

1. EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK

The bidder is required to examine carefully the site and the proposal, plans, specifications, and Contract forms for the work contemplated, and it will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, the special provisions, and the Contract. It is mutually agreed that submission of a proposal shall be considered prima facie evidence that the bidder has made such an examination.

Any Request for Information (RFI) regarding the advertised project must be submitted in writing to the office of Engineering, 276 Fourth Avenue Chula Vista, CA 91910 no later than five (5) consecutive working days prior to the bid opening. Any RFI request after the deadline will not be entertained.

2. PROPOSAL FORM

All proposals must be made upon forms furnished by the City of Chula Vista, office of the Department of Public Works Engineering.

The following documents **MUST** be completed and submitted with the bid:

- 1. Proposal
- 2. Individual, or Co-Partnership, or Corporation letter authorizing capacity(ies) for signature
- 3. List of Contractors
- 4. Affidavit to Accompany Proposal
- 5. Bidder's Bond (for bids greater than \$50,000)
- 6. Disclosure Statement
- 7. Addenda (if any)
- 8. Bid Submittal Checklist

Upon determination of the apparent lowest bidder for this project, the City shall mail and fax a Letter of Notification of Apparent Lowest Bidder to the Contractor.

After receipt of the Letter of Notification, the Contractor **MUST** complete within seven (7) working days the following documents:

- 1. Contract
- 2. Bond for Faithful Performance (for bids greater than \$25,000)
- 3. Bond for Material and Labor (for bids greater than \$25,000)
- 4. Non-Collusion Affidavit
- 5. Workers' Compensation Insurance Declaration
- 6. Liability Insurance (see Section 7-3 Special Provisions General)
- 7. Guaranty (if required)

3. PUBLIC OPENING OF PROPOSALS

Proposals will be opened and read publicly at the time and place indicated in the Notice to Contractors. Bidders or their authorized representatives are invited to be present.

4. REJECTION OF PROPOSALS CONTAINING ALTERATIONS, ERASURES, OR IRREGULARITIES

Proposals may be rejected if they show any alterations of form, additions not called for, conditional or alternative bids, incomplete bids, erasures, or irregularities of any kind.

In case of disparity in the proposal between the lump sum or unit bid price shown in figures and words, the unit bid price or lump sum amount as stated in words shall prevail and take precedence. Proposals in which the prices obviously are unbalanced may be rejected.

All bid protest must be presented in writing and filed with the City of Chula Vista, City Engineer within five (5) consecutive working days after the proposals have been opened and read publicly at the time indicated in the Notice to Contractors. The City reserves the right to reject any and all proposals.

5. DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION REQUIREMENTS

No contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered with the Department of Industrial Relations and qualified to perform public work pursuant to Labor Code section 1725.5. [Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

6. CONTRACTORS & SUBCONTRACTORS LICENSE

No bid will be accepted from a prime contractor and/or subcontractors who are not licensed in accordance with the provisions of Chapter 9, Division 3 of the Business and Professions Code and its implementing regulations. Minimum combination of license requirements for this contract: Class A – "General Engineering Contractor", or the combination of each of the following C8, C10, AND C12 contractor licenses. All traffic control plans must be prepared and signed by an õAö or a õC-31ö licensed contractor. All contractors and subcontractors are required to have a valid City of Chula Vista business license prior to start of work. The department shall require from all prospective bidders the completion, under penalty of perjury, and submittal of a standard form of information whether such prospective bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, has ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation, and if so, to explain the circumstances.

http://www.cslb.ca.gov/About_Us/Library/Licensing_Classifications/

7. WAGE RATES AND CLASSIFICATIONS FOR PREVAILING WAGE PROJECTS

The Consultant and its subcontractors are required by bid specifications and California Labor Code sections 1771 & 1774 to pay prevailing wage ("Prevailing Wage Rates") to persons employed by them for work in a covered work classification under this Contract. In accordance with the provisions of Section 1773 of the Labor Code of the State of CA, the City has ascertained the general prevailing wage scales

applicable to the work to be done. The prevailing wage scales are those determined by the U.S. Federal Department of Labor Relations (Davis-Bacon) and those determined by the Director of Industrial Relations, State of California. The Consultant is obligated to pay the higher of the two wage determinations (hourly rate plus fringe benefits) for each applicable craft or classification. Attention is directed to provisions of Labor Code section 1775: Prevailing Wage Penalties. The Consultant who is awarded the contract and who intends to use a craft or classification not shown on the general prevailing wage rates determinations may be required to pay the wage rate of that craft or classification most closely related to it as shown in the general wage rates determinations effective at the time of the call for bids.

The Federal prevailing wage rates determination is available directly from Department of Labor home page under <code>www.wdol.gov</code>. Click on <code>oBrowse</code> All Determinations by Stateö then click on <code>oCalifornia.object Tederal Prevailing Wage Rate Determinations are subject to any <code>oModificationsobject Tederal Prevailing Wage Rate Determinations</code> are subject to any <code>oModificationsobject Tederal Prevailing Wage Rate Determinations</code> are subject to any <code>oModificationsobject Tederal Prevailing Wage Proposal due date.</code></code>

The Contractor is required to provide with its bidding documents a list of its subcontractors and the classifications and wages of its workers. The worker classifications must be compliant with the specifications of the Department of Industrial Relations, State of California. The State prevailing wage rates determination is available directly from the Director of Industrial Relations, State of California home page under www.dir.ca.gov/dlsr/.

To verify compliance with State prevailing wage requirements, the State of California Department of Industrial Relations maintains an online registry of Consultants to which Consultants will be requirement to submit certified payrolls. In addition to Federal prevailing wage requirements, the following State requirements apply:

No contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered with the Department of Industrial Relations and qualified to perform public work pursuant to Labor Code section 1725.5. [Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

Attention is also directed to provisions of Labor Code 1810: Hours in legal days work, 1813: Penalty for exceeding legal days work, and 1815: One and one half time rate of pay. The Contractor is required to be in conformance with these sections.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

8. EMPLOYMENT OF APPRENTICES

Attention is directed to the provisions in Section 1777.5 (Chapter 1411, Statutes of 1968) and 1777.6 of the Labor Code concerning the employment of apprentices by the prime Contractor or any subcontractor under him/her who is awarded a Contract over \$30,000 or 20 working days. Section 1777.5, as amended, requires the Contractor and subcontractor employing tradesperson (s) in any apprenticeable occupation to employ a ratio of not less than one apprentice for each five journeyperson (s), except under the following conditions:

A. When unemployment in the area of coverage by the joint apprenticeship committee has exceeded an average of 15 percent in the 90 days prior to the request for certificate, or

B. When the number of apprentices in training in the area exceeds a ratio of one to five, or

- C. If there is a showing that the apprenticeable craft or trade is replacing at least 1/30 of its Journeyperson (s) annually through apprenticeship training on a statewide or local basis, or
- D. If assignment of an apprentice to any work performed under public works Contract would create a condition which would jeopardize his/her life or the life, safety, or property of fellow employees or the public at large, or if the specific task to which the apprentice is to be assigned is of such nature that training cannot be provided by a journeyperson (s).

The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if he/she employees registered apprentices or journeyperson (s) in an apprenticeable trade on such Contracts, and if other Contractors on the public works site are making such contributions. The Contractor and any subcontractor under him/her shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Information relative to apprenticeship standards, wage schedule and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the division of Apprenticeship Standards and its branch offices.

The City of Chula Vista is required to notify the Division of Apprenticeship Standards within five days of the award of any Contract covered under the above provisions.

Attention is also directed to the provisions of Section 1776 of the Labor Code concerning "Payroll Records of Wages Paid: Inspection: Effect of Non-compliance: Penalties." The Contractor is required to be in conformance with this section. Copies of the wage reporting form are available from Division of Labor Standard Enforcement (DLSE).

9. BIDDER'S GUARANTY

The City Charter requires that all bids of more than fifty thousand dollars (\$50,000) shall be accompanied by cash, certified or cashier's check, or a bidder's bond, made payable to the City of Chula Vista. If bidders bond is utilized for this guaranty, bond shall be executed by a surety authorized to transact such business in the State of California and surety Underwriting Limitation, as listed in the United State Department of Treasury Circular 570 (website address

https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm) listing of approved surety companies, shall be sufficient to issue bonds in the amount required by the contract.

All bids shall be presented under sealed cover and shall be accompanied by a Bidder's Guaranty if the amount of the bid exceeds \$50,000. The Bidder's Guaranty shall be for an amount equal to at least ten percent (10%) of the amount of said bid, and no bid shall be considered unless such Guaranty is enclosed therewith.

The Contractor is responsible for including a proper bid Guaranty whether or not the amount of the total bid is correct. If it is found upon opening of the bid and checking the bid items that a bid guaranty should have been included and was not (the correct grand total bid amount exceeds \$50,000), the bid shall be rejected. Also, if the amount of the bid bond is less than that specified in the notice inviting bids or in the specifications referred to therein, the bid shall be subject to rejection. Cause for rejection for insufficient amount of bid Guaranty shall be left to the discretion of the City.

10. AWARD AND EXECUTION OF CONTRACT

The award of the contract will be to the lowest responsible bidder whose bid complies with all the requirements prescribed.

The contract shall be executed by the successful bidder and shall be returned together with the contract bonds, to the City of Chula Vista so that it is received within 10 days, not including Saturdays, Sundays and legal holidays, after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address:

1800 Maxwell Road, Chula Vista, CA 91911 Attn.: Kristi Philips

11. SUBCONTRACTING

Pursuant to California Public Contract Code Section 4104(a)(1), the person making the bid shall set forth the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor total bid or ten thousand dollars (\$10,000), whichever is greater.

In addition to the foregoing, the City requires that the prime contractor identify \underline{ALL} subcontractors performing \underline{ANY} work on the Project, regardless of the percentage of the total bid to be performed by the subcontractor. The City has included a form titled "LIST OF CONTRACTORS" on which the prime contractor shall identify all of the following:

- 1. Name, Address and Telephone Number of all Contractors.
- 2. License Number(s) and class (es) of License(s) held by all Contractors.
- 3. Department of Industrial Relations Registration Number
- 4. Description of Work to be performed by all Contractors.
- 5. Bid Schedule Line Items
- 6. The Percentage of Each Line Item to be performed by the Contractor.
- 7. The Percentage of the Total Project bid by to be performed by the Contractor.
- 8. Worker Classifications for all Contractors.
- 9. Contractor/Subcontractor contact person, telephone number and email.

If the Contractor violates Public Contract Code § 4100 et seq., the City of Chula Vista may exercise the remedies provided under Public Contract Code § 4110. The City of Chula Vista may refer the violation to the Contractors State License Board as provided under Public Contract Code § 4111.

The bidder's attention is directed to the other provisions of said act related to penalties for failure to observe the provisions by using unauthorized subcontractors or by making unauthorized substitutions.

A sheet listing of subcontractors as required herein is included in these specifications. Each subcontract must comply with the contract and must have an active and valid State contractors license with a classification appropriate for the work to be performed (Business & Professional Code, § 7000 et seq.).

All subcontractors are required to have a valid City of Chula Vista business license before a notice to proceed may be issued.

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor work.

The Contractor shall comply with Section 2-3.1 of the Standard Specifications and Regional Supplement Amendments and shall perform at least forty percent (40%) of the contract work with his or her own organization.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations web site at: http://www.dir.ca.gov/dlse/debar.html. Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

12. PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the Cityøs prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanctions and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

13. LABOR NONDISCRIMINATION

The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations), Part 26 in the award and administration of US DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

14. REMOVAL OF ASBESTOS & HAZARDOUS SUBSTANCE

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe.

The Contractor shall immediately cease work in the in conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed.

15. LABOR COMPLIANCE POSTERS:

In California, all employers are required to post for all Projects:

- õDiscrimination and Harassment in Employment are Prohibited by lawö (DFEH-162);
- õLa ley Prohibe la Discriminación y el Acoso en el Empleo ó Spanish/Españolö (DFEH 162S); and
- The Department of Industrial Relationsøposters õPayday Noticeö (DSLE8)

In addition, for Sate Funded Projects, all employers are required to post the following:

- Notice of Labor Compliance Program Approval ó English (16429-I)
- Notificación Sobre La Aprobación Del Programa Para El Cumplimiento De La Ley Laboral ó Spanish/Español (16429-I-S).

Copies of all of said posters are incorporated as an Attachment included for reference only. It is the responsibility of the consultant to obtain the latest required posters from the US Department of Labor from the USDOL website at https://www.dol.gov/general/topic/posters or the Caltrans Local Assistance website at http://www.dot.ca.gov/hq/construc/LaborCompliance/posters.htm



BID SUBMITTAL CHECKLIST (SUBMIT WITH BID PROPOSAL)

PROJECT:

ITEM

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415)

AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

THIS IS PREVAILING WAGE PROJECT

Bid Proposal
Individual, or Co-Partnership, or Corporation letter authorizing capacity(ies) for signature
List of Contractors
Bidder's Bond (for bids greater than \$50,000) & must include Notaries and Powers of Attorney for both the Contractor & Surety Company
Affidavit to Accompany Proposal
Disclosure Statement
Addenda (if any)
Bid Submittal Checklist
Contractor Name:
Bidderøs Signature Date

SAMPLE LETTER AUTHORIZING CAPACITY FOR SIGNING OFFICIAL DOCUMENTS

USE CORPORATE LETTERHEAD

MEETING OF THE BOARD OF DIRECTORS OF (CORPORATION'S NAME)

A meeting of the Board of Directors of (CORPORATION'S NAME) was held on [INSERT DATE], during which a resolution was passed authorizing the following individual(s) to, by his/her/their signature(s), enter into any and all contracts on behalf of the corporation and, thereby, bind the corporation to such contract:

(Print Name & Title)	Authorized Signature
(Print Name & Title)	Authorized Signature
(Print Name & Title)	Authorized Signature
Certified by and Corporate Seal affixed her	ad pil.
	(This Area for Official Seal)
Secretary and/or Chairman	

BID PROPOSAL

To the Honorable Mayor and City Council of the City of Chula Vista.

The undersigned acknowledges that he/she has carefully examined the plans and specifications for:

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415) AND

REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

and that he/she has examined the location of the proposed work and has read the accompanying instructions to bidders, and hereby proposes to furnish all materials, and do all the work required to complete the said work in accordance with said plans, specifications, and Special Provisions for the unit price or lump sum set forth in the following schedule. Any Request for Information (RFI) regarding the advertised project must be submitted in writing to the office of Engineering, 276 Fourth Avenue Chula Vista, CA 91910 no later than five (5) consecutive working days prior to the bid opening. Any RFI request after the deadline will not be entertained.

The Contractor has NINETY (90) consecutive working days to complete the project.

1 – ADA RAMP INSTALLATION AND CURB, GUTTER AND SIDEWALK REPLACEMENT BID PROPOSAL "A"

Item	Description	Qty	Unit	Unit Price in Words	Unit Cost in Figures	Total
1	Removal and Replacement of 6-inch PCC Monolithic Curb, Gutter and Sidewalk (SDRSD G-3)	550	LF			
2	Removal and Replacement of 6-inch PCC Curb and Gutter (SDRSD G-2)	1000	LF			
3	Removal and Replacement of 6-inch Monolithic PCC Driveway with Approach & Sidewalk (CVCS-1A)	850	SF			

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Item	Description	Qty	Unit	Unit Price in Words	Unit Cost in Figures	Total
4	Removal and Replacement of 4-inch PCC Sidewalk (SDRSD G-7)	19,000	SF			
5	Removal and Replacement of 6" PCC Slab Work (Spandrel / Cross Gutter) – (CVCS-2)	500	SF			
6	Installation of P.C.C. Pedestrian Ramps (CVCS-25)	11	EA			
7	Installation of P.C.C. Pedestrian Ramps (CVCS-27)	53	EA			
8	Installation of P.C.C. Pedestrian Ramps (CVCS-28)	21	EA			
9	6" Stem Wall	60	LF			
10	AC Grind & Overlay	1000	SF			
11	Remove and Replace AC Pavement (Full Section)	250	SF			
12	Thermoplastic Striping & Pavement Legends	800	SF			
13	Tree and Stump Removal (Diameter Inches)	320	IN			
14	Root Pruning and Tree Trimming (see list, Appendix B)	1	LS			
15	Supply and Install Root Barrier (19.5" Deep)	600	LF			

Item	Description	Qty	Unit	Unit Price in Words	Unit Cost in Figures	Total
16	Clearing and Grubbing, Removal and Disposal of Existing Improvements	1	LS			
17	Instal Red Curb (Paint)	100	LF			
18	Furnish and Install TRANSNET Sign	2	EA			
19	Public Convenience and Safety (Traffic Control)	1	LS			

2 - INTERSECTION IMPROVEMENTS AT MAIN STREET AND THIRD AVENUE BID PROPOSAL "B"

Item	Description	Qty	Unit	Unit Price in Words	Unit Cost in Figures	Total
20	Installation of P.C.C. Pedestrian Ramps (CVCS-25) (3 rd & Main)	2	EA			
21	Installation of P.C.C. Pedestrian Ramps (CVCS-28)	1	EA			
22	Removal and Replacement of AC Pavement (Full Section)	2400	SF			
23	Removal and Replacement of 4-inch PCC Sidewalk (SDRSD G-7)	220	SF			
24	Furnish and Install Type 1A Standard	2	EA			
25	Furnish and Install Ped Push Button Post	2	EA			
26	Furnish and Install #5 Pull Box	1	EA			

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Item	Description	Qty	Unit	Unit Price in Words	Unit Cost in Figures	Total
27	Furnish and Install #6 Pull Box	2	EA			
28	Furnish and Install Pedestrian Countdown Indication and Mounting Hardware	4	EA			
29	Relocate Existing Pedestrian Push Buttons	3	EA			
30	Furnish and Install Loop Dectors	18	EA			
31	Furnish and Install Conduit	95	LF			
32	Furnish and Install Conduit Stub-out	3	EA			
33	Furnish and Install Detector Lead-in Cable	1	LS			
34	Furnish and Install 3 Conductor Cable	1	LS			
35	Furnish and Install 12 Conductor Cable	1	LS			
36	Thermoplastic Striping & Pavement Legends	2000	SF			
37	Removal, Disposal and/or Salvage of Existing Improvements	1	LS			
38	Public Convenience and Safety (Traffic Control)	1	LS			

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SUBTOTAL		
(BASE BID "A" - ADA CURB RAMPS &		
REPLACEMENT OF CURB &GUTTER):		
,	(Bid Items #1 thru #19)	
SUBTOTAL		
(BASE BID "B" - INTERSECTION		
IMPROVEMENTS AT MAIN STREET		
AND THIRD AVENUE:		
	(Bid Items #20 thru #38)	
GRAND TOTAL BASE BID (A + B)		
	(In Figures)	
GRAND TOTAL BASE BID (A + B)		
CRAID TOTAL DASE DID (A + D)	(In Words)	
	(111 ** 01 43)	

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The undersigned further agrees that in case of default in executing the required Contract, with necessary bonds, within ten (10) working days after having received notice that the Contract is ready for signature, the proceeds of the check or bond accompanying his/her bid shall become the property of the City of Chula Vista.

Licensed in accordance with an Act providi	ing for the registration of Contractors,
License No; Li	icense Expiration Date;
Contractor's State License Classification	;
Public Works Contractor Registration Num	ber with DIR
Signature of bidder:	
	artnership, state the firm name and give the names of all If a corporation, also names of President, Secretary, orporate Seal thereto.)
	(Business Name)
Dated:, 20	
Dated	(Business Address)
	(Phone Number)
TAX IDENTIFICATION NUMBER	

(Attach Proper Notarization & Official Seal)

LIST OF CONTRACTORS SHEET 1 OF 7

The Bidder shall list the name and location of the place of business of <u>ALL</u> Contractors who will perform work or labor or render services in or about the construction of work or improvement or fabricate and install a portion of the work according to detailed drawings contained in the plans and specifications. The Bidder shall also reference the Worker Classification No. s for <u>ALL</u> Contractors, which can be found on Sheets 4 through 6 of the List of Contractors.

Name, Address and Telephone Number of Subcontractor	Class	Description of Work to be Performed by Subcontractor	Bid Schedule Line Item	No(s)	% of Total Bid
	DIR Reg No.		No(s)	Performed	Amount
PRIME CONTRACTOR					
Name:					
Address:					
City:State:					
Zip: Phone: ()					
Worker Classification No(s):					
Contact Person:	Phone: ()_	Email:			
SUBCONTRACTOR #1					
Name:					
Address:					
City: State:					
Zip: Phone: ()					
Worker Classification No(s):	•		•		
Contact Person:	Phone: ()_	Email:			

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LIST OF CONTRACTORS SHEET 2 OF 7

Name, Address and Telephone Number of Subcontractor	License No. & Class DIR Reg No.	Description of Work to be Performed by Subcontractor	Bid Schedule Line Item No(s)	% of Item No(s) Performed	% of Total Bid Amount
SUBCONTRACTOR #2					
Name:					
Address:					
City:State:					
Zip: Phone: ()					
Worker Classification No(s):					
Contact Person:	Phone: ()_	Email:			
SUBCONTRACTOR #3					
Name:					
Address:					
City:State:					
Zip: Phone: ()					
Worker Classification No(s):					
Contact Person:	Phone: ()_	Email:			

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LIST OF CONTRACTORS SHEET 3 OF 7

Name, Address and Telephone Number of Subcontractor	License No. & Class	Description of Work to be Performed by Subcontractor	Bid Schedule Line Item	% of Item No(s)	% of Total Bid
	DIR Reg No.	,	No(s)	Performed	Amount
SUBCONTRACTOR #4					
Name:					
Address:					
City:State:					
Zip: Phone: ()					
Worker Classification No(s):	1				
Contact Person:	Phone: ()	Email:			
SUBCONTRACTOR #5					
Name:					
Address:					
City:State:					
Zip: Phone: ()					
Worker Classification No(s):					
Contact Person:	Phone: ()	Email:			
I have used all reasonable diligence in preparing th		·	ontained herein i	s true and co	mplete.
PROPER NAME OF BIDDER:					
BY:		TITLE:			
SIGNATURE:					

LIST OF CONTRACTORS SHEET 4 OF 7

The following list includes commonly used worker classifications for Engineering Construction contracts. At the end of the list, the Bidder shall include any additional worker classifications as needed.

CLASSIFICATION NO:	CLASSIFICATION (JOURNEYPERSON)
CRAFT: DRIVER (ON/OFF	F-HAULING TO/FROM CONSTRUCTION SITE) 6 STATEWIDE
1	Driver: Mixer Truck
CRAFT: OPERATING ENG	GINEER 6 SAN DIEGO
2	Group 1 ó Pump Operator, Signalman, Switchman
3	Group 3- Asphalt-Rubber Blend Operator
4	Group 4 ó Backhoe Operator; Boring Machine Operator; Boring System Electronic Tracking Locator; Boxman or Mixerman (Asphalt or Concrete); Chip Spreading Machine Operator; Concrete Pump Operator (Small Portable); Drilling Machine Operator, Small Auger Types (Texoma Super Economatic,Or Similar Types ó Hughes 100 Or 200, Or Similar Types ó Drilling, Depth Of 30ø Maximum); Excavator Track/Rubber Tired (Operating weight under 21,000 lbs); Guard Rail Post Driver Operator Highline Cableway Signalman; Horizontal Directional Drilling Machine; Hydra-Hammer-Aero Stomper; Hydraulic Casing Oscillator Operator ó drilling depth of 30ø maximum; Micro Tunneling Operator (Above Ground Tunnel); Power Concrete Curing Machine Operator; Power Concrete Saw Operator; Power ó Driver Jumbo Form Setter Operator; Power Sweeper Operator; Rock Wheel Saw/Trencher; Roller Operator (Compacting); Screed Operator (Asphalt Or Concrete); Trenching Machine Operator (Up To 6 Ft.); Vacuum or Muck Truck
5	Group 6 ó Roller Operator (Asphalt or Finish)
6	Group 8 ó Asphalt or Concrete Spreading Operator (Tamping or Finishing); Backhoe Operator (Up To and Including ¾ Yd.) Small Ford, Case or Similar; Cast In Place Pipe Laying Machine Operator; Cold Foamed Asphalt Recycler; Combination Mixer And Compressor Operator (Gunite Work); Compactor Operator ó Self Propelled; Concrete Mixer Operator (Paving); Drilling Machine Operator, Bucket or Auger Types; Global Position System/GPS (or technician)
CRAFT: LANDSCAPE OPI	ERATING ENGINEER 6 SOUTHERN CALIFORNIA
7	Landscape Operating Engineer
CRAFT: <u>LANDSCAPE/IRR</u>	RIGATION LABORER/TENDER 6 SAN DIEGO
8	Landscape Irrigation Laborer
9	Landscape Hydro Seeder
10	Landscape Maintenance Tree Trimmer

LIST OF CONTRACTORS

CLASSIFICATION NO:	CLASSIFICATION (JOURNEYPERSON)
CRAFT: <u>LABORER</u> (CONS	STRUCTION-FENCE ERECTOR-HOUSEMOVER) 6 SAN DIEGO
11	Group 1 ó Asphalt-Rubber Material Loader; Boring Machine Helper; Certified Confined Space Laborer; Concrete Screeder (for rough strike-off); Concrete ó Water Curing; Demolition Laborer; Fiberoptic Installation (Blowing, Splicing and Testing Technician on Public Right of Ways only); Flagman; Laborer, General or Construction; Material Hoseman (Slabs, walls and decks); Plugging, Filling of Shee-Bolt Holes; Dry Packing of Concrete and Patching; Post Hole Digger (Manual); Traffic Control by any method
12	Group 2 ó Asphalt Headboard Man; Asphalt Shoveler; Cement Dumper (on 1 yard or larger mixers and handling bulk cement); Cesspool Digger and Installer; Chucktender; Chute Man (handling chute for concrete pouring from mixer truck for walls, slabs, decks, floors, foundations, curbs, etc.); Concrete Curer; Fine Grader (for streets, highways, airport runaways and similar work); Installation of all Asphalt Overlay Fabric and Materials used for Reinforcing Asphalt; Laborer, Packing Rod Steel and Pans; Pittsburg Chipper (and similar type Brush Shredders); Riprap Stone Paver; Roto Scraper & Tiller; Sandblast pot Tender; Underground Laborers (Including Caisson Bellower)
13	Group 3 ó Asphalt Installation of all fabrics; Buggymobile Man; Compactor (all types including Tamper, Barko and Wacker); Concrete Pile cutter; Driller/Jackhammer (with drill steel 2 ½ feet or longer); Impact Wrench Man (multi-plate); Kettleman-Potman Hot Mop, (includes applying Asphalt, lay-kold, creosote, lime caustic and similar types of materials); Laser Beam (In connection with Laborer work); Pipelayer Backup man (coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and other services); Power Machine Operators (Pneumatic, Gas, Electric tools-vibrating machines, pavement breakers, air blasting, Come-Alongs and similar machines not separately classified herein); Power Post Hole Digger; Rotary Scarifier (multiple head concrete chipper Scarifier); Steel Headerboard man (and Guideline Setter); Trenching Machine (Hand propelled)
14	Group 4 ó Asphalt Raker & Luteman (Including Ironer, Dumpman and Spreader Box); Concrete Coring (Wall, floor and ceiling Cutter ó Grinding Sander); Concrete Saw Man (cutting walls or flat work, scoring old or new concrete); Laborer, Asphalt ó Rubber Distributor Bootman; Oversize Concrete Vibrator Operator, 70 pounds and over; Pipe Layer; Prefabricated manhole (Installer); Raw Sewage Exposure (any worker); Sandblast Nozzle Man (water blasting ó Porta Shot Blast); Traffic Lane Closure, Certified
15	Group 5 ó Driller (All power drills, excluding Jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power); Toxic Waste Removal; Welding (in connection with Laborers work)

SHEET 5 OF 7

LIST OF CONTRACTORS SHEET 6 OF 7

Control Person & Serviceman, Asphalt Repair, Equipment Repair Technician Group 2 ó Traffic Surface Abrasive Blaster, Pot Tender, Traffic Cont Person/Certified Traffic Control Person, Repairing and filling of cracks a surface cleaning on streets, highways, and airports by any means, and ot work not directly connected with the application of slurry seal, Slurry S Squeegeeman (finisher) Group 3- Traffic Delineating Device Applicator, Traffic Protective Syst Installer, Pavement Marking Applicator, Slurry Seal Applicator Operator (L Driver), Shuttleman (loader/slurry machine operations) operation of all relamachinery and equipment Group 4 6 Traffic Striping Applicator, Slurry Seal Mixer Operator, Pow Broom Sweeper (operation of all related machinery and equipment) CRAFT: CEMENT MASON 6 SAN DIEGO 20 Engineering Construction 21 Building Construction: Type I & II 22 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete	CLASSIFICATION NO:	CLASSIFICATION (JOURNEYPERSON)
Control Person & Serviceman, Asphalt Repair, Equipment Repair Technician Group 2 ó Traffic Surface Abrasive Blaster, Pot Tender, Traffic Cont Person/Certified Traffic Control Person, Repairing and filling of cracks a surface cleaning on streets, highways, and airports by any means, and ot work not directly connected with the application of slurry seal, Slurry S Squeegeeman (finisher) Group 3- Traffic Delineating Device Applicator, Traffic Protective Syst Installer, Pavement Marking Applicator, Slurry Seal Applicator Operator (L Driver), Shuttleman (loader/slurry machine operations) operation of all relamachinery and equipment Group 4 6 Traffic Striping Applicator, Slurry Seal Mixer Operator, Pow Broom Sweeper (operation of all related machinery and equipment) CRAFT: CEMENT MASON 6 SAN DIEGO 20 Engineering Construction 21 Building Construction: Type I & II 22 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete	(STRIPING, SLUR	RRY AND SEAL COAT OPERATIONS-LABORER) 6
Person/Certified Traffic Control Person, Repairing and filling of cracks a surface cleaning on streets, highways, and airports by any means, and ot work not directly connected with the application of slurry seal, Slurry S Squeegeeman (finisher) Group 3- Traffic Delineating Device Applicator, Traffic Protective Syst Installer, Pavement Marking Applicator, Slurry Seal Applicator Operator (L Driver), Shuttleman (loader/slurry machine operations) operation of all relamachinery and equipment 19	16	Group 1 ó Protective coating, Pavement sealing, Installation of carstops, Traffic Control Person & Serviceman, Asphalt Repair, Equipment Repair Technician
Installer, Pavement Marking Applicator, Slurry Seal Applicator Operator (L Driver), Shuttleman (loader/slurry machine operations) operation of all relamachinery and equipment 19 Group 4 ó Traffic Striping Applicator, Slurry Seal Mixer Operator, Pow Broom Sweeper (operation of all related machinery and equipment) CRAFT: CEMENT MASON ó SAN DIEGO 20 Engineering Construction 21 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER ó SAN DIEGO 23 Group 1 ó Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 ó Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 ó Nondestructive Testing (NDT)	17	Group 2 6 Traffic Surface Abrasive Blaster, Pot Tender, Traffic Control Person/Certified Traffic Control Person, Repairing and filling of cracks and surface cleaning on streets, highways, and airports by any means, and other work not directly connected with the application of slurry seal, Slurry Seal Squeegeeman (finisher)
Broom Sweeper (operation of all related machinery and equipment) CRAFT: CEMENT MASON 6 SAN DIEGO 20 Engineering Construction 21 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	18	Group 3- Traffic Delineating Device Applicator, Traffic Protective System Installer, Pavement Marking Applicator, Slurry Seal Applicator Operator (Line Driver), Shuttleman (loader/slurry machine operations) operation of all related machinery and equipment
20 Engineering Construction 21 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforce Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	19	Group 4 ó Traffic Striping Applicator, Slurry Seal Mixer Operator, Power Broom Sweeper (operation of all related machinery and equipment)
21 Building Construction: Type I & II 22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	CRAFT: <u>CEMENT MASON</u>	ó SAN DIEGO
22 Building Construction: Type III, IV & V CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	20	Engineering Construction
CRAFT: BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	21	Building Construction: Type I & II
TESTER 6 SAN DIEGO 23 Group 1 6 Field Soils and Material Tester; Field Asphaltic Concrete (Soils a Material Tester); Field Earthwork (Grading Excavation and Filling) 24 Group 2 6 Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 6 Nondestructive Testing (NDT)	22	Building Construction: Type III, IV & V
Material Tester); Field Earthwork (Grading Excavation and Filling) Group 2 ó Licensed Grading Inspector; Reinforcing Steel; Reinforcing Concrete; Pre-Tension Concrete; Post-Tension Concrete Group 3 ó Nondestructive Testing (NDT)		
Concrete; Pre-Tension Concrete; Post-Tension Concrete 25 Group 3 ó Nondestructive Testing (NDT)	23	
	24	
CRAFT: <u>STREET LIGHTING,TRAFFIC SIGNAL, UNDERGROUND SYSTEMS JOURNEYMAN, 6</u> <u>SAN DIEGO</u>	· · · · · · · · · · · · · · · · · · ·	IG,TRAFFIC SIGNAL, UNDERGROUND SYSTEMS JOURNEYMAN, 6
26 Technician Grade 1		Technician Grade 1
27 Technician Grade 2		
28 Technician Grade 3		Technician Grade 3
29 Technician Grade 5	29	Technician Grade 5
30 Technician Grade 1		
CRAFT: CARPENTER (ENGINEERING CONSRUCTION)ó SAN DIEGO	CRAFT: <u>CARPENTER (EN</u>	GINEERING CONSRUCTION)6 SAN DIEGO
Carpenter (Heavy and Highway Work)	31	Carpenter (Heavy and Highway Work)
32 Bridge Carpenter (Highway Work)	32	Bridge Carpenter (Highway Work)

LIST OF CONTRACTORS

SHEET 7 OF 7

CLASSIFICATION NO:	CLASSIFICATION (JOURNEYPERSON)
CRAFT: TEAMSTER (WO	RK ON CONSTRUCTION SITE ONLY) 6 SAN DIEGO
33	Group 2 ó 2 Axle Dump Truck, 2 Axle Flat Bed, Bunkerman, Concrete Pumping Truck, Forklift under 15,000 lbs, Industrial Lift Truck, Motorized Traffic Control Pickup Truck on jobsite, Truck Repairman Helper, Warehouse Clerk, Warehouseman, Welder Helper
34	Group 3 ó 2 Axle Water Truck, 3 Axle Dump Truck, 3 Axle Flat Bed, Bootrman, Cement Distributor or Slurry Driver, Dumpcrete Truck less than 6 ½ yds, Erosion Control Nozzleman, Forklift 15,000 lbs and over, Pipeline Work Truck Driver, Prell Truck, Ross Carrier
ADDITION	NAL CLASSIFICATIONS AS NEEDED BY CONTRACTOR
<u>CRAFT:</u>	
35	
36	
37	
38	
<u>CRAFT:</u>	
39	
40	
41	
42	

(This Area for Official Seal)

AFFIDAVIT TO ACCOMPANY PROPOSAL

USE THIS FORM WHEN BIDDER IS AN INDIVIDUAL STATE OF CALIFORNIA) SS. COUNTY OF _____ , affiant, being first duly sworn, deposes and says: that he/she is the bidder who makes the accompanying proposal; that such proposal is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not therein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm, or corporation to refrain from bidding and that the bidder has not in any manner sought by collusion to secure for himself/herself an advantage over any other bidder. Signature STATE OF CALIFORNIA) SS. COUNTY OF _____ On ______ before me, _____ personally appeared, _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed, the instrument WITNESS my hand and official seal.

Signature

AFFIDAVIT TO ACCOMPANY PROPOSAL

USE THIS FORM WHEN BIDDER IS A	CO-PARTNERSHIP
STATE OF CALIFORNIA) SS. COUNTY OF)	
, affiant(s), being first duly sworn, that	each for himself/herself deposes and says:
(Names of all partners) are partners, doing business under the firm name and style of:	
(Names of Firm)	
and that said co-partnership makes the accompanying proposal; tha collusive, nor made in the interest or in behalf of any person not directly or indirectly induced or solicited any other bidder to put i corporation to refrain from bidding and that the bidder has not in an himself/herself an advantage over any other bidder:	therein named, and that the bidder has not n a sham bid, or any other person, firm, or
	Signature
_	Signature
STATE OF CALIFORNIA) SS. COUNTY OF)	
On before me,	personally appeared,
satisfactory evidence) to be the person(s) whose name(s) is/are acknowledged to me that he/she/they executed the same in his/her his/her/their signature(s) on the instrument the person(s), or the acted, executed, the instrument WITNESS my hand and official sea	r/their authorized capacity(ies), and that by entity upon behalf of which the person(s)
(This Area for Official Seal)	Signature

AFFIDAVIT TO ACCOMPANY PROPOSAL

USE THIS FORM WHEN BIDDER IS A CORPORATION

	, affiant, the	President, Secretary, or Managing Officer
		, o
of	Nam	e of Corporation
such proposal is genuine, and therein named, and that the bide sham bid, or any other person,	not sham or colluder has not directly firm, or corporation	roposal, having been first duly sworn, deposes and says: that sive, nor made in the interest or in behalf of any person not or indirectly induced or solicited any other bidder to put in a on to refrain from bidding and that the bidder has not in any herself an advantage over any other bidder:
		Signature President, Secretary, or Managing Officer
STATE OF CALIFORNIA COUNTY OF		
On	before me, _ _, personally kno	personally appeared, wn to me (or proved to me on the basis of satisfactory
evidence) to be the person(s) v me that he/she/they executed	whose name(s) is/a the same in his/ the person(s), or the	re subscribed to the within instrument, and acknowledged to her/their authorized capacity(ies), and that by his/her/their ne entity upon behalf of which the person(s) acted, executed,

BIDDER'S BOND TO ACCOMPANY PROPOSAL

KNOW ALL PERSONS BY THESE PRESENT, as Surety, are held firmly bound unto (\$	or its attorney, its successors and assigns; for	in the sum of or which payment,
THE CONDITION OF THIS OBLIGATION IS bids on the following project, to-wit:	S SUCH, that if the bid of Principal on the	City's request for
	MPS FY2014/2015 (STL405) MPS FY2016/2017 (STL415)	
	AND	
	CURB & GUTTER PROGRAM E FY2015/16 (STL407)	
which bid is dated, is accepted executors, administrators, successors and assign construction and shall execute and deliver the bospecified in the "Notice of Award," which date shall the date the bounden Principal is notified by and execution, then this obligation shall become null and virtue.	ns, shall duly enter into and execute a Conds required by said Bid Specifications, on hall be no less than ten (10) days (not includ I from the City of Chula Vista that said Cor	contract for such or before the date ing Sunday), from ntract is ready for
IN WITNESS WHEREOF, I/We hereunder 20	set our hands and seals this Principal:	day of,
	Surety:	
(Attach Notaries and Powe	ers of Attorney for Principal & Surety)	
APPROVED AS TO FORM:		
CITY ATTORNEY		

Bond in the value of 10% of the total bid amount is mandatory. A specific dollar amount is preferred. If amount is not known at the time the bond is issued, please insert "10% of bid amount."

CITY OF CHULA VISTA DISCLOSURE STATEMENT

Pursuant to Council Policy 101-01, prior to any action upon matters that will require discretionary action by the Council, Planning Commission and all other official bodies of the City, a statement of disclosure of certain ownership or financial interests, payments, or campaign contributions for a City of Chula Vista election must be filed. The following information must be disclosed:

		_	
		_	
			rporation or partnership, list the name poration/partnership) entity.
			-profit organization or trust, list the nation or as trustee or beneficiary or tr
		_ _ _	
Please identi you have ass	fy every person, in igned to represent	cluding any agents, employou before the City in this	oyees, consultants, or independent cors matter.
		_	
	on* associated wit	h this contract had any fir	nancial dealings with an official** of

STL405, STL407 & STL415

· · · · · · · · · · · · · · · · · · ·	re than \$250 within the past twelve (12) months to a cil? No Yes If yes, which Council member?
• •	or an item of equivalent value) to an official** of the Conths? (This includes being a source of income, money to r
legal debt, gift, loan, etc.) Yes No	
legal debt, gift, loan, etc.) Yes No	
legal debt, gift, loan, etc.) Yes No	

- * Person is defined as: any individual, firm, co-partnership, joint venture, association, social club, fraternal organization, corporation, estate, trust, receiver, syndicate, any other county, city, municipality, district, or other political subdivision, -or any other group or combination acting as a unit.
- ** Official includes, but is not limited to: Mayor, Council member, Planning Commissioner, Member of a board, commission, or committee of the City, employee, or staff members.

BOND FOR FAITHFUL PERFORMANCE

KNOW ALL PERSONS BY THESE PRES	SENTS, that I/We, the
corporation organized and existing under th	as Principal and
and duly authorized to transact business und	der the laws of the State of California as a Surety, and are listed and
	y Circular 570, are held and firmly bound unto the City of Chula
	ornia, in the sum of(\$
) lawful m	noney of the United States, for which payment, well and truly to be
made, we bind ourselves, jointly and severa	ally, firmly by these presents.
Signed, sealed, and dated	
shall faithfully perform each and all of the furnish all tools, equipment, apparatus, faci	nat if said Principal, as Contractor in the Contract hereto annexed, conditions of said Contract to be performed by him/her, and shall lities, transportation, labor and material, other than material, if any, by to perform and complete in a good and workmanlike manner, the
	RAMPS FY2014/2015 (STL405) RAMPS FY2016/2017 (STL415)
	AND
REPLACEMENT	OF CURB & GUTTER PROGRAM
	VIDE FY2015/16 (STL407)
cause to be paid, all persons who performs subcontractor in the execution of the said remain in full force and effect; and the Survextension of time, alteration or addition thereunder, or the specifications accompanies.	nditions set forth in the Contract hereto annexed, and shall pay or rm labor for, or furnish materials to said Contractor, or to any Contract, then this obligation shall be null and void, otherwise to ety, for value received, hereby stipulates and agrees that no change, to the terms of the Contract or to the work to be performed nying the same, shall be in any wise affect its obligations on this my such change, extension of time, alteration or addition to the terms diffications.
Company	Company
Contractor (Print Name)	Surety (Print Name)
Contractor (Signature)	Surety (Signature)
(At	tach Proper Notarization)
APPROVED AS TO FORM:	
City Attorney	

BOND FOR MATERIAL AND LABOR

KNOW ALL PERSONS BY THESE F	PRESENTS, that I/We, the
Contractor in the Contract hereto anne	xed, as Principal and, a
corporation organized and existing und	er the laws of the State of
approved under the United States Tre Vista, located in San Diego County, Ca	s under the laws of the State of California as a Surety, and are listed and asury Circular 570, are held and firmly bound unto the City of Chula diffornia, in the sum of (\$
ourselves, jointly and severally, firmly	ne United States, for which payment, well and truly to be made, we bind by these presents.
Signed, sealed, and dated	
his/her or its subcontractor, fails to pay in, upon, for or about the performance tools, equipment, apparatus, facilities,	s that if said Principal, as Contractor in the Contract hereto annexed, or for any material, provisions, provender or other supplies, or teams used of work contracted to be done by said Contractor, namely to furnish all transportation, labor and material, other than materials, if any, agreed to perform and complete, and to perform and complete in a good and
	JRB RAMPS FY2014/2015 (STL405) JRB RAMPS FY2016/2017 (STL415)
	AND
REPLACEM	ENT OF CURB & GUTTER PROGRAM
	TYWIDE FY2015/16 (STL407)
done thereon of any kind, said Surety forth, and also in case suit is brought up bond shall inure to the benefit of any a and by virtue of the provisions of Chap the California Civil Code, as amended no change, extension of time, alteration thereunder or the specifications accommodition.	conditions set forth in the Contract hereto annexed, or for work or labor will pay the same in an amount not exceeding the sum herein above set pon this bond, a reasonable attorney's fee to be fixed by the courts. This nd all persons, companies, and corporations entitled to file claims under over 7 (commencing with Section 3247) of Title 15, Part 4, Division 3 of and the said Surety, for value received, hereby stipulates and agrees that in or addition to the terms of the Contract or to the work to be performed apanying the same shall in any way affect its obligations on this bond, a such changes, extension of time, alteration or addition to the terms of pecifications.
Company	Company
Contractor (Print Name)	Surety (Print Name)
Contractor (Signature)	Surety (Signature)
	(Attach Proper Notarization)
APPROVED TO FORM:	
City Attorney	_

CONTRACT

This Contract, made and entered into this day of	, 20	, by and between the City of
Chula Vista, State of California, hereinafter called the "Owner" and		
hereinafter called the "Contractor";		
W. WED. W. G. G. D. T. V.		

WITNESSETH:

That the Owner and the Contractor for the consideration, hereinafter named, agree as follows:

- 1. The complete Contract includes all of the Contract Documents as if set forth in full herein, to wit: The Advertisement for Bids; the Proposal; the Accepted Bid; the Affidavit to Accompany Proposal; the Faithful Performance Bond; the Material and Labor Bond; the Plans and Specifications; Standard Specifications; Standard Special Provisions; Chula Vista Standard Special Provisions; Standard Plans; Special Provisions; this Contract and all addenda setting forth any modifications or interpretations of any of said Documents.
- 2. The Contractor will furnish all materials except as otherwise provided in the Specifications or on the Plans and will perform all the work for:

ADA CURB RAMPS FY2014/2015 (STL405) ADA CURB RAMPS FY2016/2017 (STL415) AND REPLACEMENT OF CURB & GUTTER PROGRAM CITYWIDE FY2015/16 (STL407)

All the above work is on City property or on easements, and under the directions of the Engineer or other official designated by the Owner to provide compliance with the terms and specifications of the Contract and all included documents all as provided in and subject to the Contract Documents.

- 3. The Owner will pay the Contractor in current funds for the performance of the Contract on the basis of the accepted unit prices and the actual measured quantities of work done at such times as are stated in the Specifications, and will otherwise fulfill its obligations thereunder.
- 4. All time limits stated in the Contract Documents are of the essence of this Contract.
- 5. In accordance with the provisions of Section 1773 of the Labor Code of the State of California, the City of Chula Vista has ascertained the general prevailing wage scales applicable to the work to be done. The prevailing wage scales are those determined by the Director of Industrial Relations, State of California. The contractor and its subcontractors are required by bid specifications to pay prevailing wage ("Prevailing Wage Rates") to persons employed by them for work under this Contract.

STL405, STL407 & STL415

The State prevailing wage rates determination is available directly from the Director of Industrial Relations, State of California home page under www.dir.ca.gov/dlsr/.

- 6. The Contractor shall allow access by the City, the federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the Contractor pertinent to that specific Contract.
- 7. The Contractor Agrees to comply with Section 2-3.1 of the Standard Specifications and Regional Supplement Amendments and shall perform at least 40% of the contract work with his/her own organization.
- 8. The Contractor shall retain all required records for three years after final payments are made and all other pending matters are closed.

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

EOD THE CONTRA CTOR

FOR THE CITY OF CHULA VISTA:	FOR THE CONTRACTOR:
BY: MARY CASILLAS SALAS MAYOR	BY:
ATTEST:CITY CLERK	BY:
(Attach Proper I	Notarization & Official Seal)
I hereby certify that I have examined this Contr State of California.	act and find it to be in accordance with the provisions of the
BY:CITY ATTORNEY	

STL405, STL407 & STL415

(This affidavit shall be executed by the successful bidder in accordance with instructions in the Proposal Requirements of this Contract, but bidder may execute the affidavit on this page at the time of submitting his/her bid).

NON-COLLUSION AFFIDAVIT

To the City of Chula Vista, Director of Public Works, Engineering Division:

The undersigned, in submitting a bid for performing the following work by Contract being duly sworn, deposes and says:

That he/she has not, either directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding and has not accepted any deposit from any subcontractor or material supplier through any bid depository, the by-laws, rules, and regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or material supplier, which is not processed through said bid depository, or which prevent any subcontractor or material supplier from bidding to any Contractor who does not use the facilities or accept bids from or through such bid depository in connection with this Contract.

Business Address	Print Name of Bidder
Place of Residence	Signature of Bidder

STL405, STL407 & STL415

WORKERS' COMPENSATION INSURANCE DECLARATION

Date:	
against liability for Workers' Compe	ion 3700 of the Labor Code which require every employer to be insured ensation or to undertake self-insurance in accordance with the provisions of ch provisions before commencing the performance of the work of this
Signature	
Contractor	
State Contractor's License No.	
Address	
City/State	
Phone Number	
	(Attach Proper Notarization)

SPECIAL PROVISIONS TECHNICAL

SPECIAL PROVISIONS - TECHNICAL

01 SCOPE OF WORK

The scope of work consists of; the installation of ADA Pedestrian Ramps and removal and replacement of curbs, gutters, sidewalks, and driveways displaced due to tree roots on various streets in the City of Chula Vista, California. The Contractor shall remove tree roots in the concrete replacement areas to a depth of 12 inches below the finished subgrade and up to 24 inches laterally.

The scope of work also includes the installation of ADA Pedestrian Ramps and other intersection improvements at the Third Avenue and Main Street as shown on Exhibit B in Appendix õAö.

The Replacement and Repair of Curb and Gutter work includes excavation and grading, PCC sidewalks, driveways, curbs and gutters, cross gutter, ADA pedestrian ramps, , asphalt concrete pavement, removal and disposal of existing improvements, traffic control, other miscellaneous work, and all labor, material, equipment, and transportation necessary for the project, and described in these documents.

Other items or details that are required by the plats and these specifications not mentioned above and not specifically reflected in the requested bid proposal, shall be performed, placed, constructed or installed. Payment for these work items are to be considered included in the various lump sum or unit cost prices contained herein.

The quantity listed in the bid schedule is considered approximate, and the Contractor shall be compensated based on the actual quantity of work performed by the Contractor and at the unit price listed on the contract for this item of work.

The Contractor shall construct or finish the items satisfactorily conforming to the specifications. The contract will be awarded to the lowest responsible bidder for the grand total of all the bid items listed in the proposal.

02 STANDARD SPECIFICATIONS AND STANDARD DRAWINGS

- 1. 2012 City of Chula Vista Subdivision Manual
- 2. Standard Specifications for Public Works Construction, 2012 Edition ("Greenbook")
- 3. 2012 Regional Supplement to Standard Specifications for Public Works Construction ("Regional Supplement")
- 4. San Diego Regional Standard Drawings ("SDRSD"), dated September 2012
- 5. *City of Chula Vista Standard Special Provisions ("CV Special Provisions") ó dated January 2015
- 6. *City of Chula Vista Department of Public Works Design and Construction Standards ("CVDS") & ("CVCS") ó 2002 Edition
- 7. California Department of Transportation Standard Plans 2010 ("Caltrans Standard Plans")
- 8. California Department of Transportation Standard Specifications 2010 ("Caltrans Standard Specifications")
- 9. 2014 California Manual on Uniform Traffic Control Devices ("MUTCD")

*Document can be found at the following web address under õQuick Linksö: http://www.chulavistaca.gov/departments/public-works/engineering

All provisions applicable to the work to be performed in accordance with these drawings and Special Provisions of this project shall apply whether specifically referred to herein or not. References to these various standards have been made in the Special Provisions. These references apply directly to the work the Contractor is to perform.

03 EXCAVATION AND GRADING

All excavation and grading shall be done according to Section 300 and 301 of the Standard Specifications, Regional Supplement Amendments, applicable standard drawings, and as directed by the Engineer.

Section 4216/4217 of the government code requires a dig alert identification number be issued before a õPermit to Excavateö will be valid. For your õDig Alertö I.D. number, call Underground Service Alert toll free at 1-800-422-4133 or 8-1-1 two working days before digging.

The Contractor will be required to grade and prepare the subgrade in the sidewalk/driveway replacement area to a depth of 12 inches below the finished subgrade and 24 inches laterally. If additional subgrade material is required to make grade, the cost of supplying and placing this material is considered included in the unit price paid for the various items of work.

The full compensation for this item is considered included in the unit price paid for various items of work.

04 ASPHALT CONCRETE PAVEMENT

Asphalt pavement shall consist of both, õRemoval and Replacement of AC Pavement (Full Section)" and õAC Grind and Overlay".

"Removal and Replacement of AC Pavement (Full Section)" is intended primarily for the area immediately adjacent to the new curb returns constructed with the Pedestrian Ramps. The width of the pavement repair next to the new curb and gutter shall be twelve (12) inches minimum and or as approved by the Engineer or through properly authorized agents, acting within the scope of the particular duties delegated to them.

No base material will be required. The top 6" of the subgrade or base shall be compacted to 90 percent relative density per section 301 of the Standard Specifications. Performance Grade 64-10 paving asphalt shall be used.

AC Grind and Overlay is intended to provide a smooth transition between the existing pavement and the new pedestrian ramps that will help meet the ADA grade requirements. Areas to grind and overlay will be approved by the Engineer and will be installed as described below.

A) COLD MILLING ASPHALT CONCRETE PAVEMENT (GRINDING)

The Contractor shall cold mill (õgrindö) the asphalt concrete pavement to provide smooth transitions between existing pavement surface and the new pedestrian ramps as directed by the Engineer and shall be done in accordance with Section 302-5.2 of the Greenbook. **Grind limits shall extend approximately 4 to 6 feet out from the new pedestrian ramps as directed by the Engineer**.

Compensation for asphalt concrete pavement milling (Grinding), removal, disposal of excess material resulting from it, temporary pavement and warning sign installation, furnishing all labor, materials, tools, equipment, incidentals, protection and repair of damaged property, is considered included in the contract unit price paid for "AC Grind and Overlay" and no additional compensation shall be allowed therefore.

B) ASPHALT CONCRETE PAVEMENT

All asphalt concrete (AC) shall be according to the provisions of Sections 203-6 and 302-5 of the Standard Specifications, CV Special Provisions, Regional Supplement Amendments, Standard Special Provisions, and applicable Regional Standard Drawings. Asphalt concrete mixture shall be in accordance with Section 400-4 of the Standard Specifications and shall be ³/₄ö Type III, B2/B3, PG64-10 and ½ö Type III, C2/C3, PG64-10.

All asphalt concrete pavement <u>for overlay shall be ½" Type III, C2/C3, PG 64-10</u>. The mixing and spreading shall be according to the provisions of Section 302-5.10 Standard Specifications and Chula Vista Standard Special Provisions.

The asphalt concrete pavement <u>for pavement reconstruction shall be 3/4" Type III, B2/B3, PG64-10 for the AC base course, and 1/2" Type III, C2/C3, PG64-10 for the pavement cap</u>. The mixing and spreading shall be according to the provisions of Section 302-5.5 Standard Specifications and Chula Vista Standard Special Provisions.

The Contractor shall submit a job mix formula at the pre-construction meeting for review by the City for each source of supply and type of mixture specified. The job mix formula shall indicate the percentage passing each specified sieve size and the percent of asphalt to be used for each asphalt concrete mixture to be incorporated in the work.

The contract unit price for Asphalt Concrete Overlay is included in the unit price for "AC Grind and Overlayö shall include full compensation for the preparation, tack coat, , providing and placing identification locators, seal coat, and asphalt concrete overlay and replacement, and all labor, materials, tools, equipment and incidentals, and for doing all the work involved in place, as specified in the Standard Specifications and these Special Provisions, and no additional compensation will be allowed.

The Contractor shall submit a job mix formula one week before paving for review by the City for each source of supply and type of mixture specified.

The full compensation for Remove and Replace AC Pavement (Full Section) shall include tack coat associated with the replacement of curb and gutter, sidewalks and cross gutters shall be considered included in the contract unit price paid for õRemove and Replace AC Pavement (Full Section)" and no additional compensation will be allowed therefore.

The unit bid price shall apply no matter how much the actual quantity varies from that estimated in the proposal. There will be no adjustment in the compensation for this item as permitted in Section 3-2 of the Standard Specifications.

05 CONCRETE WORK

(6" or 8") PCC curb and gutter, 4-inch PCC slabwork (sidewalk), 6-inch PCC slabwork (driveways, cross gutters & spandrels) shall be according to Section 303-5 of the Standard Specifications and with the Regional Standard Drawings and shall either be doweled-in to the existing concrete or have a thickened edge (as shown on details in **Appendix "D").** Dowels shall be bonded with an approved epoxy adhesive. The epoxy adhesive shall have minimum bond strength in 1 day equal to 2000 psi. The drill bit used shall equal the bar diameter plus 1/8-inch. Copies of these drawings are included in **Appendix "D."** The quantities for the various bid items are for the project as a whole. The individual quantities at each location will vary depending how the City marks out the removal.

A) P. C. C. CURB, GUTTER SIDEWALK, AND STEM WALL

All forming, finishing, joints, and curing shall conform to the appropriate sections of the Standard Specifications and the Standard Drawings for 6-inch P.C.C. Monolithic curb, gutter and sidewalk and shall be constructed in accordance with SDRSD G-3; 6-inch P.C.C. Curb and Gutter constructed in accordance with SDRSD G-2; 4-inch PCC Sidewalk constructed in accordance with SDRSD G-7; and 6-inch Stem Wall.

All work shall be included in the, contract unit price paid per lineal foot for "Removal and Replacement of 6-inch P.C.C. Monolithic curb, gutter and sidewalk", and in the contract unit price paid per lineal foot for "Removal and Replacement of 6-inch PCC Curb and Gutter" per

SDRSD G-2 and in the **contract unit price paid per square foot for "Removal and Replacement of 4-inch PCC Sidewalk"** and in the **contract unit price paid per lineal foot for "6-inch Stem Wall".** All newly placed curb and gutter shall be water tested to verify that no ponding occurs. Contractor shall remove and replace areas where ponding occurs, as directed by the City. No grinding shall be permitted.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to install this P. C. C. Curb, Gutter, and Sidewalk includes P.C.C. slabwork and aggregate base complete in place and shall be considered included in the contract unit prices.

B) P.C.C. SLAB, DRIVEWAY

Contractor shall install 4-inch thick P.C.C. sidewalk including walkway per SDRSD G-7 (when applicable) and P.C.C. 6-inch thick driveways per CVCS-1A. Compensation for P.C.C. 6-inch thick standard driveway per CVCS-1A shall be measured from the edge (lip) of gutter to the back of driveway property line, including the driveway wing area. Quantities for sidewalks through driveways (6ö) are included with the 6ö thick driveway quantity and no additional compensation shall be allowed for these sidewalks. Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to install this PCC Sidewalk and Driveway including P.C.C. slabwork and aggregate base complete in place and shall be considered included in the contract unit prices paid per square feet for "Removal and Replacement of 4-inch PCC Sidewalk" including walkway per SDRSD G-7, "Removal and Replacement of 6-inch thick Monolithic Driveway" per CVCS-1A, and the "Removal and Replacement of 6-inch PCC Cross gutter and Spandrel" per SDRSD G-2 and no additional compensation will be allowed. The various heights of curb and gutter (e.g. transitions to existing curb, etc.), various widths of sidewalk, transitions from driveway to sidewalk and sidewalk to sidewalk is considered included in the contract unit price paid for various concrete work.

The Contractor shall install cross gutters per CVCS-2 and as needed per instructions through the City Engineer or through properly authorized agents, acting within the scope of the particular duties delegated to them. Concrete shall be 560-C-3250. Crushed aggregate base shall conform to Section 200-2.2, 200-1.1 and 200-1.2 of the Standard Specifications. The base shall be laid in thickness as shown on the standard drawing. Full compensation for subgrade preparation, removal and disposal of existing subgrade, furnishing all labor, materials, tools, equipment and incidentals necessary to install these items complete in place is considered included in the contract unit price paid for various contract items of work for sidewalks if needed per the inspector's directions.

C) P.C.C. PEDESTRIAN RAMPS

Contractor shall install "P.C.C. pedestrian ramps per CVCS-25, CVCS-27 and CVCS-28" at the locations shown on Exhibit õAö, including the 3 pedestrian ramps at the Third Avenue and Main Street location shown on Exhibit õAö and Drawing No.17013. The ADA pedestrian ramp construction involved in this project will be õfield-builtö to best fit the existing field conditions and in according to Section 303-5 of the Standard Specifications, to the applicable Regional and City Standard Drawings, and "Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way," published July 26, 2011 (http://www.access-board.gov/prowac/nprm.htm).

Some locations may have inadequate right-of-way to provide for a four-foot landing. The Contractor shall use the applicable pedestrian ramp per Chula Vista Construction Standards and/or Regional Standard Drawings at the direction of the Engineer. The ramp shall be constructed with no lip between bottom of ramp and flow-line of gutter. A slope between 1:10 and 1:12 is allowed for a maximum rise of 6 inches. The new lip of gutter shall be lowered to meet the required slope and the street pavement restored to the new lip of gutter. Existing asphalt concrete cross slope exceeding 5% at the pedestrian ramp opening shall be cold planed to the satisfaction of the Construction Inspector, a

Type III C2/C3, PG64-10 asphalt concrete cap shall be placed to meet the standards described above, and shall be included in the unit price bid for each pedestrian ramp.

The removal of existing concrete curb, gutter, sidewalk, and pavement for curb ramp installation shall be according to the San Diego Regional Standard Drawing G-11, and shall be included in each respective unit price. The existing concrete shall not be saw cut until the engineer has approved the contractor's layout per the Chula Vista Construction Standards and/or Regional Standard Drawings and the exact ramp location. All concrete saw cutting shall be in accordance with Section 2-05, of these Special Provisions. Due care must be exercised when saw cutting.

All forms used on curb returns shall be not less than 19mm (3/4 inch) in thickness, and held rigidly in place by the use of metal stakes and clamps. The curb face forms shall be cut to conform exactly with the curb face batter. Bender boards are not allowed for use for curb face forms.

Any relocation of utility boxes shall be the responsibility of the utility company of concern. Only the responsible utility company may relocate their respective utility boxes. Contractor shall be responsible for relocating traffic signal pull boxes only.

The contract unit price for pedestrian ramps constructed per CVCS-25, CVCS-27 and CVCS-28 shall include all improvements from P.C.R. to P.C.R. and also includes the curb, gutter, sidewalk, stem wall and AC Pavement within these limits. Where pedestrian ramps are to be constructed at locations not within a curb return radius (at t-intersections) the contract unit price for pedestrian ramps constructed per CVCS-25", CVCS-27 and CVCS-28 shall include all improvements within 15 feet of the pedestrian ramp landing.

The contract unit price bid for **the various P.C.C. Pedestrian Ramps** shall be based on the dimensions of a corresponding õtypical Standard Drawingö ramp installed on a horizontal plane from the lip of gutter to back of ramp and to the nearest construction joint beyond the edge of each side of the ramp. All required PC concrete in excess of these dimensions will be paid as additional PCC concrete work (e.g., sidewalk, curb/gutter), and as approved and directed by the Engineer.

The contract unit price paid for the "Instalation of P.C.C. Pedestrian Ramp per CVCS-25", "Instalation of P.C.C. Pedestrian Ramp per CVCS-27" and "Instalation of P.C.C. Pedestrian Ramp per CVCS-28" shall also include full compensation for all excavation, layout, saw cutting, removal and disposal of existing concrete, grading, layout, forming, placing concrete, curb & Gutter, sidewalk, expansion joints, stem walls (if necessary), detectable warning system, pavement restoration/transition, replacement of existing red curb, replacement of thermoplastic striping and pavement legend, adjustment of traffic sign poles and traffic signal pull boxes and other items necessary to construct each pedestrian ramp in place. The pedestrian ramps contract unit price bid shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to install the ramps, and no additional compensation will be allowed therefore.

If additional existing sidewalk, curb and gutter and AC Pavement are required to be removed and replaced, as directed by the Engineer, on all sides of the proposed ramps, to ensure an acceptable transition to the existing sidewalk, the quantities of new curb, gutter, sidewalk and other related contract items, shall be concrete bid items (e.g., "6" P.C.C. Curb & Gutter (SDRSD G-2)", "4" P.C.C. Sidewalk (SDRSD G-7)", 6" Stem Wall, etc.) and AC Pavement.

The Contractor shall install detectable warning system per CVCS-29, with minimum 3 ft. x 4 ft. dome dimensions. The detectable warning system shall be an integral part of the walking surface. The detectable warning system shall be the cast-in-place type, similar to Armor Tile cast-in-place tiles. Detectable warnings shall not be the surface (tiles) type applied to hardened concrete.

Compensation for detectable warnings on pedestrian ramps is considered included in the contract price paid for "P.C.C. Pedestrian Ramps per CVCS-25, CVCS-27 and CVCS-28", and shall include full compensation for all forming, setting in concrete, and other items necessary to install each detectable warning system on each pedestrian ramp in place. The contract unit price bid shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals necessary to install the item of work.

06 PRESERVATION OF HISTORIC SIDEWALK

According to Section 106 of the National Historic Preservation Act and the promulgating regulations in 36CRF§800, the Contractor shall preserve any historic sidewalks within the project area according to the following guidelines:

- 1. Any Contractor and date stamp older than fifty (50) years of age shall be preserved.
- 2. If the stamp marks are within the area to be modified by an ADA curb and cannot be left in place, then shall be preserved by being relocated as closely as possible to their original locations.
- 3. Old concrete, where it must be replaced, shall be replaced, shall be replaced õin-kindö to match as closely as possible existing conditions, including the existing color and texture and the continuation of existing scour line patterns in to the new concrete and into the new ADA curb areas.

07 THERMOPLASTIC STRIPING AND PAVEMENT LEGENDS

The Contractor shall remove existing striping and pavement legends, and reinstall new thermoplastic striping and pavement legend as directed by the Engineer. The Contractor shall apply an approved seal coat to all pavement surfaces where striping or pavement legends have been removed. The Engineer shall approve the location of all new striping and pavement legends prior to installation.

Standard stencils shall be used for all pavement markings and legends. See Section 84-2 of CalTrans Standard Specifications.

Compensation for this item, including labor, tools, materials, equipment, and incidentals necessary to remove and install striping and pavement legends, and install pavement seal coat is considered included in the **contract unit price paid for "Thermoplastic Striping and Pavement Legends".** Removal of Existing Pavement Marking and Striping for locations at the intersection of Third Avenue and Main Street is considered included in the **contract unit price paid for õRemoval of Existing Pavement Marking and Striping"**, as contained in the proposal and no additional compensation will be allowed therefore.

08 INSTALL RED CURB (PAINT)

The Contractor shall replace existing red curb paint in all locations where red curb was removed. Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for doing all the work involved in replacing existing red curbs (painting the new curbs) is considered included in **contract unit price paid per lineal foot for "Install Red Curb (Paint)"** and no additional compensation will be allowed therefore.

09 TRAFFIC SIGNAL AND ELECTRICAL IMPROVEMENTS

The full compensation for the removal, relocation, installation and/or re-installation of existing, new or City-furnished traffic signal equipment and appurtenances, including the installation of new mounting hardware

shall be included in the **contract lump sum unit price for Installation of Traffic Signal Improvements** are for the Third avenue and Main Street portion (see Exhibit õCö in Appendix õAö) of the project and no additional compensation will be allowed therefore.

The full compensation for the repair or replacement (equal or better than) of all existing improvements within or adjacent to the area of work (i.e., irrigation lines, landscaping, sprinkler heads, drainage work, utility installation, stamped concrete, etc.) which are damaged or removed as a result of his/her operations shall be considered included in the various unit prices bid for the various items of work included in this project.

USE CALTRANS STANDARD SPECIFICATIONS SECTION 86-7 FOR REMOVING, REINSTALLING, OR SALVAGING OR ELECTRICAL EQUIPMENT.

(A) Foundations

Use CalTrans Standard Specifications Section 86-2.03 and Greenbook Section 201.

Concrete to be Class 560-C-3250 per Greenbook.

Exact location of signal standards are to be determined in the field by the Engineer and City Traffic Signals and Street Lighting staff.

All foundations are to be potholed before excavation is begun. In the event that a conflict is found with the utilities, exact location of the standard to be as directed by the Traffic Engineering Section. Any further potholes are to be done on an extra work force account basis, and shall be paid as per General Provision Part 1, Section 3-3.2.3 Mark up.

All foundations to be abandoned are to be removed to a depth of 12" minimum in paved areas below existing surface grade. In dirt areas, removal to 30" below grade is required.

(B) <u>Standards-(1a)</u>

Use CalTrans Standard Specifications Section 86-2.04, Chula Vista Construction Standards 6 and 7 (CVCS-6 & CVCS-7), Caltrans Standard plans ES-7B, ES-7F, and these Special Provisions.

The Contractor shall install new 1A Standard on a new Foundation per plan.

The Contractor shall furnish new foundations, cages, nuts, bolts, washers and other mounting hardware. Also provide tenon with cap on mast arms for future use and per Caltrans Standards.

(C) Traffic Signals and Appurtenances -

Use CalTrans Standard Specifications Section 86-4, CalTrans Standard Plans ES-4A, B, C, D, and E, and Chula Vista Construction Standard 8 (CVCS-8).

All signal heads, visors, back plates, brackets, etc., shall be as manufactured by the Econolite or McCain Traffic Supply or Traffic Parts, Inc. No plastic heads, lenses, or backplates.

All signal heads shall be furnished with tunnel visors. The reflector and lamp assembly shall provide for fixed focus of lamp assembly. All signal heads shall have twelve (12) inch indications and olycarboinate backplates and visors.

New signal lamps shall be furnished by the Contractor, including all 12-Inch red, amber and green L.E.D. indication lamps. Signal lamps shall be manufactured by Gelcore or Dialight or Leoteck.

Mast arm and bracket mounted signals shall conform to Chula Vista Construction Standard-8 (CVCS-8).

When a signal head is installed or relocated, the Contractor shall furnish new mounting hardware, framework, nuts, bolts, cap screws and washers. New hardware shall conform to the requirements for hardware used with new standards.

All replaced equipment (unless otherwise noted) is to be removed and disposed of by the Contractor in accordance with the provisions in Section 7-1.13, "Disposal of Material Outside of the Highway Right-of-Way," of the CalTrans Standard Specifications.

(D) Service

Electric Meter Pedestal shall be Type IIIBF USP16-2M2100-188CTB-SD-AA

Use CalTrans Standard Specifications Section 86-2.11.

Electrical service shall be obtained from SDG&E service point approved location. Service shall be 3 conductors 120/240 volt. Signals shall be metered, safety lighting shall be un-metered. Meter, signal, and safety lighting disconnect breakers shall be mounted in the service pedestal.

Use 1-P, 50 AMP circuit breaker for signals. Use 1-P, 30-amp circuit breaker (or larger if necessary) for safety lighting. If applicable, Use 1-P, 20-amp circuit breaker for illuminated street name sign. Use 1-P, 15-amp circuit breaker for Video detector cameras. The Contractor shall furnish all the required circuit breakers.

The Contractor shall protect existing Meter Pedestal in place unless it is called for replacement. When to be replace the Contractor shall remove existing and install new SDG&E approved Meter Pedestal on new foundation.

(E) <u>City Test of Controller</u>

Use CalTrans Standard Specifications Section 86-2.14.

Testing of control equipment and cabinet wiring shall be done at the City of Chula Vista labs (by City staff) located at 1800 Maxwell Road prior to field installation. The Contractor shall be responsible to drop/pick up the signal controller and cabinet from the City of Chula Vista Signal Lab for testing.

(F) <u>Controller and Cabinet</u>

Use CalTrans Standard Specifications Section 86-3, CalTrans Standard Plans ES-3C and these special provisions.

The Contractor shall protect existing controller and cabinet in place

(G) Pedestrian Signals

The Contractor shall remove and replace existing with new LED pedestrian indications (countdown style). New pedestrian signal to be placed on new Type 1A Standard

Pedestrian signals shall be õCountdown Styleö all LED (light emitting diode), õHand-Walking Person,ö õSide by Sideö symbol configuration with all solid õfilledö (not outlined) symbols. Each pedestrian signal shall consist of a housing with front screen, a message plate and two light sources. Each light source shall consist of a light emitting diode (LED) module and power supplies for the LED module (luminous tubing or incandescent bulbs are not acceptable). There shall be no perceptible flicker in the visual operation of the pedestrian signal.

The message plate shall be 1/8-inch nominal thickness, ultraviolet-stabilized, prismatic-patterned polycarbonate plastic; 3/16-inch nominal thickness hammered wire glass; or 3/16-inch nominal thickness ultraviolet-stabilized, prismatic-patterned acrylic plastic. The message plates shall have a flat-black surface over the entire projected area except where the symbols are located. The material used to mask the message plate shall be hard and durable and shall bond such that it will not flake nor peel when the message plate is in use or is washed. The symbols shall be the only illuminated portion of the message plate. Each symbol shall not be less than 11 inches high and not less than 7 inches wide. The illuminated õFull Handö symbol shall be Portland Orange in color and the illuminated õWalking Personö symbol shall be white in color.

The message plate shall be sealed to a polycarbonate case to form a dust tight and weatherproof module. The module shall contain and properly support the LED modules and power supplies.

Each light source shall have a separate power supply. Each power supply shall require less than 12 watts with a power factor of not less than 90 percent over a range of input voltages from 95 to 135, at a frequency of 60 (+/-1) Hz.

(H) Remove and Relocate Pedestrian Push Button onto new Ped 1A Standard

Use CalTrans Standard Specifications Section 86-5 and Caltrans Standard Plans, ES-5D.

The Contractor shall remove and relocate existing Push Button to new 1A Standard. Holes left in the shaft of an existing standard due to removal of equipment shall be sealed per CALTRANS Section 86-2.04.

Pedestrian push button (PPB) shall be highly vandal resistant button with essentially no moving parts. It shall be pressure activated, but can withstand an impact from a baseball bat or hammer. When the switch activates, a two-tone beep shall be heard and the LED flashes. PPB shall be aluminum powder coated, green.

Button material shall be 316 stainless steel and assembled with all stainless steel components so as not to be corrosive. The micro-switch component shall be a dust proof, water resistant type. It shall be single pole, precision, snaps acting type. It shall also be U.L. listed and CSA certified and meet the requirements for NEMA TS-1 and TS-2.

PPB shall be Piezo Driven Solid State Switch, operating at temperatures $630^{\circ}F$ to $165^{\circ}F$ (-34°C to 70°C), operating voltage of 15-36V DC or 12-28V AC, on resistance 10 typical. Operating life greater than 100 million operations, operating standby current at 10μ A typical (equivalent to 2M at 20V).

LED operating mode at approximately 0.025 sec flash each time button is pressed. Luminous intensity shall be greater than 1200 mcd (ultra-bright red) at viewing angle of 160 @

Beeper shall sound simultaneously with LED flash. Different tones for press and release, 2.3 kHz & 2.6 kHz. Beeper uses power form existing switch wires.

Use Polara Vandal Resistant Pedestrian Push Button with LED, Momentary, BDL3 or City approved equivalent.

Push button frames shall be capable of mounting specified pedestrian guidance signs without use of frame adapters. Push button frames shall have stainless steel HeliCoil threaded inserts and stainless steel screws to prevent bi-metal corrosion. Push Button Frames shall be directly compatible with the above specified Pedestrian Push Button hardware without modification to either the frame or push button.

Use Polara Push Button Frame - PBF9X15-X (for 9ö x 15ö pedestrian guidance signs), or City approved equivalent.

Use ADA (2" diameter) push buttons. Pedestrian push buttons shall meet or exceed all ADA accessibility guidelines. All 9"x 15" pedestrian push button sign plates R10-3E (2-sided model) shall contain the four (4) part pedestrian instruction for safe intersection crossing and the directional arrow. Refer to pole schedule for location of push buttons and signs.

The contractor shall furnish and install vandal resistant Accessible Pedestrian Signal (APS) that provides a vibro-tactile ADA compliant 2ö push button with a raised directional arrow and audible sounds during all pedestrian cycles. Sounds are emitted out from behind the unit via a recessed weatherproof speaker. A custom voice-on-location message can be provided with an extended push of the button. The message typically gives information about the intersection and street being crossed. Use Polaraøs Navigator Accessible Pedestrian Signal or approved equal.

(I) Conduit

Use CalTrans Standard Specifications Section 86-2.05 and Chula Vista Construction Standard 7 (CVCS-7).

The Contractor shall Furnish and Install new conduits per plan.

Conduit shall be new PVC Schedule 80, 2" minimum for traffic signals or new PVC Schedule 80, 2" minimum for street lights. Conduits crossing street shall be 3" minimum for traffic signal or 2" minimum for streetlight. No steel conduits are allowed.

A new conduit shall be installed for signal interconnect cables (SIC) and signal wiring (including DLC). Sharing of conduits with SIC is allowed on intersection modification when conduit fill is less than 40%.

(J) Trenching, Installation of Conduit and Backfill

Use Section 306-1 of the Standard Specifications, Chula Vista Construction Standard 10 (CVCS-10) and these Special Provisions.

Signal conduit shall be placed minimum 30øbelow gradebehind curb.

If Contractor chooses to reconstruct the existing street section with deep lift A.C., he/she shall place one inch A.C. for 2 inches of base, plus existing thickness of A.C. plus one additional inch of A.C.

Fiber Optic stub-out shall be per CALTRANS Standard Plan ES-5D.

For trench resurfacing, use CVCS 3 and 4. Type "B" shall not be used on lateral crossings.

(K) Pull Boxes

Use CalTrans Standard Specifications Section 86-2.06 and Chula Vista Construction Standard 11 (CVCS-11).

Pull boxes installed for electrical service shall comply with SDG&E Electric Standard 3309.

Traffic signal pull box shall be preformed polymer concrete. Polymer Concrete pull box shall be Quazite "PG" style or approved equal.

The contractor shall use existing pull boxes whereever possible. If required, new pull boxes shall be #5 unless shown otherwise. Maximum distance between pull boxes shall be 190ø Plastic pull boxes or covers shall not be used.

Traffic signal pull box covers shall say õTraffic Signal.ö

Street Light pull box covers shall say õStreet Light.ö

Any relocation of utility boxes shall be the responsibility of the utility company of concern. Only the responsible utility company may relocate their respective utility boxes. The contractor shall be responsible for relocating the traffic signal pull boxes.

(L) **Bonding and Grounding**

Use CalTrans Standard Specifications Section 86-2.10, Chula Vista Construction Standard 9 (CVCS-9), and these Special Provisions.

Conduit to be grounded to signal standard anchor bolts using copper grounding strap and brass bolts. This is to be done below top of concrete foundation.

Grounding jumper shall be attached by a 3/16 inch or larger bolt in the signal standard or controller pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box. Grounding jumper shall be visible after cap has been poured on foundation.

Equipment grounding conductors will not be required in conduit containing loop lead-in cables only.

(M) Conductors and Wiring

Use CalTrans Standard Specifications Sections 86-2.08 and 86-2.09.

Splices shall be made in the junction boxes in the standards, in controller cabinets, or with the permission of the Engineer. A minimum of 3 feet of slack shall be provided at each splice and 6 feet at each controller cabinet.

Insulation for #14 and larger conductors shall be THW.

SIGNAL CABLE - Where shown on the plans, signal cable shall be installed in lieu of individual conductors.

Traffic signal cable and conductors: Use three (3) conductor cables for all pedestrian push-button. All cables and other conductors excluding grounds shall be unspliced and shall terminate at the terminal board of each traffic signal standard only. Traffic signal and pedestrian push button cable; leave insulation intact to termination point.

Signal cable shall conform to the following:

The cable jacket shall be black polyethylene with an inner polyester binder sheath, and shall be rated for 600 volts and 75°C. All cables shall have clear, distinctive, and permanent markings on the outer surface throughout the entire length of the cable showing the manufacturer's name or trademark, insulation designation, number of conductors, conductor sizes, and the voltage rating of the jacket. Filler material, if used, shall be polyethylene material. Individual conductors in the cable shall be solid copper with Type THWN insulation, and shall conform to the requirements in Section 86-2.08, "Conductors," of the Standard Specifications, and ASTM Designation: B 286. The minimum thickness of Type THWN insulation, at any point, shall be 13 mils for conductor sizes No. 14 and No.

12, and 18 mils for conductor size No. 10. The minimum thickness of the nylon jacket shall be 4 mils at any point.

The Contractor shall provide all new conductors, cables and wiring and shall be responsible in making the traffic signal work to its full operation.

(N) <u>Loop Detector Installation</u>

Use CalTrans Standard Specifications Section 86-5 and Caltrans Standard Plans, ES-5D.

The Contractor shall Furnish and Install Loop Detectors per plan.

Damaged traffic signal loops shall be replaced within five (5) working days. The loops shall be placed after cold planing of the existing asphalt concrete and before the placement of the asphalt concrete overlay.

Exact location of detectors shall be determined in the field by the Engineer. Loop mark-out will be done by City forces.

Type E and Type E Modified Loop detectors shall be 6 feet diameter, with 4 turns and 10 feet spacing, unless otherwise indicated in the plans. Loop detectors shall be Type 2 inductive loop conductors.

The sides of the slot shall be vertical and the minimum radius of the slot entering and leaving the circular part of the loop shall be $1\frac{1}{2}$ inches. Slot width shall be a maximum of $\frac{3}{4}$ inch. Forward loop to be Type E Modified configuration (Bicycle detector refer to ES-5B). Bicycle detector to have 3 turns when by itself or 5 turns when connected in series with the Type E loop.

Installation - Slots cut in the pavement shall be washed clean, then blown out and dried before installation of inductive loop detectors. The additional length of conductor for each loop shall be twisted together into a pair (at least 2 turns per foot) before being placed in the slot and conduit to termination pull box.

Splices in loop detector circuits shall be insulated with heat shrink tubing. At least one inch of overlap of the conductor insulation shall be provided. The heat shrink material shall be contracted enough so that no opening shall be visible at the ends of the tubing.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes occupied by public traffic and shall be removed from the pavement surface.

After conductors are installed in the slots cut in the pavement for detectors, the slots shall be filled with sealant in conformance to the requirements for epoxy sealant in Section 86 - 5.01A (5), õInstallation Details,ö of the CalTrans Standard Specifications. The sealant shall be at least 7/8 inch thick above the top conductor in the slot.

Hot melt rubberized asphalt sealant shall be used.

(O) Galvanizing

Use CalTrans Standard Specifications Section 86-2.15.

(P) Painting

Use CalTrans Standard Specifications Section 86-2.16.

Standards and poles for traffic signals and street lighting shall <u>not</u> be painted. Paint existing traffic signal vehicle and pedestrian heads.

(Q) Patents

The contractor shall hold and save the City of Chula Vista, its officers, agents, servants and employees harmless from liability of any nature or kind, or any claim therefore, including costs and expenses for or on account of any patented or unpatented invention, article, or appliance, for use in the performance of this contract, and said contractor agrees to furnish the said City of Chula Vista with proper release from all such claims and demands, unless otherwise specifically stipulated in this contract.

(R) General Statement Concerning Equipment for Use

The products' names, model and catalog numbers called for in the special provisions and specifications are for the purpose of establishing quality of control and auxiliary equipment. In the event the contractor proposes to substitute materials for that shown on these specifications, the City shall be notified of such intention and a sample of such equipment may be required to be submitted for approval. Substitute equipment must be equal to or better than that specified in all respects. Attention is directed particularly to Section 86-1.03 of the CalTrans Standard Specifications.

(S) <u>Public Utilities</u>

Where it is necessary to attach any part of this improvement to property of any public utility, the contractor shall make proper application to the City Engineer, who shall notify the public utility of such attachment and if such attachment is to be made, such public utility shall be notified by the City Engineer to make such change within a specified reasonable time. The contractor shall not interfere with said property until the expiration of the time specified.

10 ROOT REMOVAL

All roots under the new concrete work shall be removed by the contractor to a depth of 12 inches below the finished grade and to a distance of up to 24 inches outside the limits of concrete replacement. The Contractor shall notify the City Inspector to have the City Arborist inspect the exposed roots upon completion of the removal of the existing improvements and prior to root pruning/subgrade preparation. Root pruning, old tree stump removal, and or root barrier installation shall be performed to the satisfaction of the City Arborist/City Inspector. All root pruning of trees within the work area that are to remain, shall be done with a machine designed for this purpose, e.g., a root pruner or a stump grinder. In lieu of this, roots may be exposed and individually cut with a sharp hand or chainsaw only. Under no circumstances should roots be torn, ripped out, or otherwise damaged with a backhoe or other equipment.

Trees and plants that are not to be removed shall be fully protected from damage by the Contractor at all expense.

Full compensation for furnishing all labor, materials, tools, equipment, transportation and incidentals necessary for doing the work involved in the tree root removal & pruning shall be considered included in the contract unit price paid for in the various contract items of work under "Clearing, Grubing, Removal and Disposal of Existing Improvements as contained in the proposal and no additional compensation will be allowed therefore.

11 ROOT BARRIER

The Contractor shall install root barrier along the new sidewalk improvements where required and as determined by the Engineer. The Contractor may use Bio-barrier with a width of 18ö vertically manufactured by Typar (530-306-7110 or Hydroscape at 619-691-9700), or an approved alternative. Bio-barrier is a root control system consisting of time release nodules impregnated with a herbicide. The nodules are attached permanently to a flexible and permeable geotextile fabric which can be contour and which will inhibit plant root encroachment. The Bio-barrier shall be ready for in-soil installation as received and should be installed by qualified personnel according to the manufacturer¢s recommendations, and as specified below. The fabric shall be in soil as soon as practical after removal from the sealed shipping container, minimizing exposure to direct sunlight and elevated temperatures. Prolonged exposure can reduce the effective life of the product.

Store any unused portions of the product tightly resealed in the original container in a dry place. A qualified person installing the bio-barrier shall have a current and valid Qualified Applicator Certificate from the California Department of Pesticides (DPR) or is under the direct supervision (within eyesight) of a person who has a qualified applicator certificate.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for doing all the work involved in installing the new root barrier completed in place is considered included in **contract unit price paid per lineal foot for "Supply and Install Root Barrier"** and no additional compensation will be allowed therefore.

12 REMOVAL OF EXISTING TREES

The Contractor shall remove existing trees/bushes as shown on the plan/Location List. All roots under the new concrete and pavement work shall be removed by the Contractor to a depth of 12 inches below the finished grade and to a distance of 2 feet outside the limits of the concrete and pavement work/replacement.

The Contractor shall notify the City Inspector to have the City Arborist inspect the exposed roots upon completion of the removal of the existing improvements and prior to root pruning/subgrade preparation. Root pruning shall be performed to the satisfaction of the City Arborist/City Inspector. All root pruning of trees within the work area that are to remain, shall be done with a machine designed for this purpose, e.g., a root pruner or a stump grinder. In lieu of this, roots maybe exposed and individually cut with a sharp hand or chainsaw only. Under no circumstances should roots be torn, ripped out, or otherwise damaged with a backhoe or other equipment.

Trees and plants that are not to be removed shall be fully protected from damage by the Contractor at all expense. Tree branches that hang within 9 feet above finish curb and sidewalk grade shall be cut off to the boles. The Contractor shall remove additional tree branches under the direction of the Engineer, in such a manner that the tree will present a balanced appearance. Scars shall be treated with a heavy coat of an approved tree sealant. See Landscape and Irrigation Specifications for additional details.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in the removal and disposal of existing trees, including stumps, roots (12 inches below finish grade), called out for removal on the plans, etc., shall be considered as included in the **contract unit price paid for** "Tree and Stump Removal (Diameter Inches)" and no additional compensation will be allowed therefore. (The unit price is determined by the cost per inch of diameter of the trees)

13 AVOIDANCE OF SIGNIFICANT IMPACTS TO MIGRATORY BIRDS AND OCCUPIED RAPTOR NESTS (Project Specific. Contact Cheryl Goddard for review.)

Citywide Vegetation Removal

In order to avoid any direct impacts to raptors and/or any migratory birds, removal of habitat, including mature trees, that support active nests on the proposed area of disturbance should occur outside of the breeding season for these species (January 15 to August 31). If removal of habitat on the proposed area of disturbance must occur during the breeding season, the City-approved biologist that manages the property will conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation and trees). The results of the pre-construction survey will be reviewed and approved by the City of Chula Vista Development Services Director or designee prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan as deemed appropriate by the Development Services Director or designee will be prepared and will include proposed measures to be implemented to ensure that disturbance of breeding activities is avoided. The report or mitigation plan will be prepared and implemented to the satisfaction of the City® Development Services Director or designee. If construction work is proposed outside the bird-breeding season (January 15 and August 31) and the construction area is found outside the Chula Vista Multiple Species Conservation Program

(MSCP) Sub Area Plan, then, removal of non-native vegetation, including trees, may proceed without the aforementioned restrictions.

Full compensation to retain a City-approved biologist to conduct the pre-construction survey, determine the presence or absence of nesting birds, provide results to the City, and if necessary prepare a report or mitigation plan shall be considered included in the **contract unit price paid for the various contract items of work for "Tree and Stump Removal (Diameter Inches)"** and no additional compensation will be allowed therefore.

During construction work, a City-funded biologist will be on-site serving as a biological monitor. The biological monitor shall attend all preconstruction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. In addition, the biological monitor shall be on site during construction to ensure that vehicles stay within the limits of the existing access road. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the City MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project. Please contact Cheryl Goddard, Senior Planner, at (619) 476-2329 or cgoddard@chulavistaca.gov at least seven (7) days prior to the preconstruction meeting and/or prior to vegetation removal to allow coordination with the biological monitor.

14 PUBLIC CONVENIENCE AND SAFETY

Public convenience and safety shall be according to Section 7-10 of the Standard Specifications for Public Works Construction and Regional Supplement Amendments. The Contractor shall submit traffic control plans for work to be done two weeks before starting of work, for the City Engineer approval. The Contractor shall comply with the traffic control plans. Traffic control shall conform to the Manual on Uniform Traffic Control Devices, or MUTCD. The Contractor shall notify each affected resident in person seventy-two (72) hours before starting the project and closing of driveways (if any).

It is the responsibility of the Contractor performing work on a City street to install and maintain the traffic control devices and such additional traffic control devices as may be required to insure safe movement of traffic motorists, bicyclists and pedestrian through and around the work area and provide maximum protection and safety to construction workers.

When an existing pedestrian access route is blocked by construction, alteration, maintenance or other temporary conditions, the traffic control plan shall include an alternate pedestrian access route complying to the maximum extent possible with the applicable requirements of the American with Disabilities Act (ADA) and the latest adopted edition of Manual Uniform of Traffic Control Devises (MUTCD) and California Supplements to the MUTCD.

The City reserves the right to observe the traffic control plans in use and to make changes as field conditions warrant. Any changes will supersede the plans and will be done solely at the Contractor's expense. The Contractor is responsible for maintaining all traffic control devices and conforming to the State of California and City of Chula Vista standards and specifications. The Contractor shall replace all roadway striping removed by the construction work. The Contractor shall be fully responsible for the adequacy of any traffic plan used. He or she shall notify the City at least two (2) working days before starting any construction detour.

The full compensation for this work shall be considered included in the lump sum unit price for "Public Convenience and Safety (Traffic Control)" and no additional compensation will be allowed therefore.

15 NOTIFICATION OF UTILITY COMPANIES AND CITY

The Contractor shall notify all utility companies before starting work and shall coordinate his work with the company representatives. The location of the utilities shall be marked out at the project site before the Contractor beginning work.

For location of existing facilities, contact the following:

San Diego Gas and Electric Co.	858-654-8339
AT&T Telephone	619-266-4725
Cox Communications	619-263-1032
Access Cable	760-460-4604
Otay Water District	619-670-2285
Sweetwater Authority	619-409-6850
Crown Castle	626-320-0996
Street Lights, Traffic Signals	619-397-6163
Storm Drains, Sewer	619-397-6009

Section 4216/4217 of the government code requires a dig alert identification number be issued before a "Permit to Excavate" will be valid. For your dig alert I.D. number, call Underground Service Alert toll free at 8-1-1 two working days before you dig.

The Contractor shall notify the City's Inspection Section (619) 397-6128 forty-eight (48) hours before commencing work, and twenty-four (24) hours in advance for calls for inspection. All work performed without benefit of inspection will be subject to rejection and removal.

No additional compensation shall be paid to the Contractor for expenses incurred for repairing or replacing private utilities (such as water, gas, electric, telephone, etc.) damaged during the removal of the various improvements.

16 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

Protection and restoration of existing improvements shall conform to Section 7-9 of the Standard Specifications for Public Works Construction and as described below.

Trees, shrubs, and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and water lines, all highway or street facilities, and any other improvements or facilities within or adjacent to the right-of-way shall be protected from injury or damage. If the objects are injured or damaged because of the Contractors operations, they shall be replaced or restored at the Contractors expense.

Before commencement of construction activity, the Contractor shall meet with each property owner or occupant to determine condition of existing private improvements (e.g., irrigation systems, driveways, landscaping, etc.), and inform property owner or occupant of release form (Appendix õCö). Pictures shall be taken at each location and copies shall be submitted to the City. At the completion of the work, the Contractor shall obtain the signed release form from each property impacted by the project.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in protecting or repairing property shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore

The Contractor shall remove and reset street signs in conflict with the work or as directed by the Engineer. The Contractor shall replace signposts destroyed or damaged during removal. If required, the City will provide new signs. The concrete base of existing sign post shall be removed prior to resetting.

Full compensation for protecting and replacing existing striping and removing and resetting of signs shall be included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

17 CLEARING, GRUBBING, AND THE REMOVAL AND DISPOSAL OF EXISTING IMPROVEMENTS

The Contractor shall clear and grub all objectionable material within the construction area in accordance with Section 300-1 of the Greenbook and Regional Supplement. All existing improvements required to be removed by construction of the new work as identified in the plans/plats shall become the property of the Contractor and shall be removed and disposed of in accordance with the provisions of Section 300-1.3, Removal and Disposal of Materials, of the Greenbook, Regional Supplement, and as directed by the Engineer.

The Contractor has sole discretion on the means of hauling away the removal items. The Contractor may use Contractor own vehicles and employees to haul waste that is incidental to the contract. If the Contractor self-hauls waste material, he or she must designate the specific State permitted landfill or recycling facility that will be used to dispose of any waste material generated on the job. If the Contractor does not designate a State permitted disposal site, he or she shall obtain a hold harmless agreement acceptable to the City Risk Manager and the City Attorney.

If the Contractor subcontracts for waste hauling, he or she is obligated to use the franchised waste disposal company that has an agreement with the City (Currently Republic Waste Services at (619) 421-9400). For questions regarding waste disposal requirements, call Republic Waste Services, George Ortiz (619) 482-4058, cell number (619) 921-4932 or David Pote at (619) 482 - 4002, cell (619) 921 4982. For a listing of commercial recycling services, or construction, demolition and yard waste sites, call the õI love a clean San Diegoö at 1-800-237-2583 or online at www.cleansd.org/recycle.

For additional information or questions regarding waste disposal requirements and for a listing of commercial recycling services, or construction, demolition and yard waste sites within the City of Chula Vista, call the City of Chula Vista Recycling Specialist Manuel Medrano at (619) 585-5766 or Martie Solomon at (619) 409-5844.

Full compensation for removal and disposal of all improvements required by construction of the new work and all necessary items, labor equipment, manpower, removal and disposal of excess material, pavement, concrete, slab work, walls, fences, bushes, trees, roots (24 inches below finish grade), etc., is considered included in the contract Lump Sum price paid for "Clearing, Crubbing, and the Removal and Disposal of Existing Improvements" and no other compensation will be allowed therefore.

No additional compensation shall be paid to the Contractor for expenses incurred for repairing or replacing private utilities (e.g. water, gas, electric, telephone, etc.) damaged during the removal of the various improvements.

18 FURNISH AND INSTALL TRANSNET SIGNS

The Contractor shal furnish and install Transnet Signs (Min of two) that inform the public of the fund source. The signs must be easily protable so that they can be used at the various sites where the ADA Ramps are being istalled.

The full cost of the furnishing and installing the Transinet Signs at the various locations shall be the **contract usnit price paid for Furnish and Install Transnet Signs** and no other compensation will be allowed therefore.

19 CHANGE IN QUANTITY OF WORK

The City shall have the option of increasing or decreasing the unit quantity for all bid items in the proposal any amount without a change in contract unit prices. There will be no adjustment in compensation as permitted in Section 3-2 of the Standard Specifications. This does not limit the City right to increase or decrease any quantities of work in the Contract as allowed by the Standard Specifications or other pertinent law.

The quantities listed in the proposal are those shown in Appendix õAö and Appendix õBö. Should the City receive bids lower than the available funds, the City will likely increase the quantities to expend all available monies in the list. Similarly, if the bids received are higher than the available funds, the City shall decrease the quantities in the proposal to match available monies. The City reserves the right to change the sequence of the addresses to be worked on with no increase in cost in the various items of work in the bid proposal.

20 FLOOD CONTROL AND CONSTRUCTION DURING PERIODS OF RAINFALL

The Contractor shall implement appropriate and effective measures to allow flow of storm water during periods of rainfall such that said flow will not damage private property, public property, or construction work under this contract within, upstream, or downstream of the limits of construction. Any damage that occurs shall be repaired at the expense of the Contractor, as well as cleanup of all areas required due to flow of mud, silt, or debris from the construction operations. The contractor shall be financially liable and responsible for any and all actions arising from said damage. Further, the City shall have the right, at any and all times, to direct the Contractor to implement corrective actions and measures that are necessary to fully comply with the requirements of this section and all applicable laws, ordinances, and regulations.

Any costs incurred by the Contractor are considered included in the unit cost paid for the various items of work.

21 STORM WATER POLLUTION PREVENTION PLAN

In performing work under this contract, the Contractor shall comply with all federal, state, and local laws and regulations relating to storm water pollution prevention, including but not limited to:

- Federal Clean Water Act
- California Porter-Cologne Water Quality Control Act
- National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 (NPDES General Construction Permit), and any subsequent reissuances of or amendments thereto
- City of Chula Vista Municipal Code Chapter 14.20
- City of Chula Vista BMP Design Manual

The Contractor shall implement Best Management Practices (BMPs) to prevent the discharge of pollutants to storm water conveyance systems during all phases of construction until the project is completed and the site is fully stabilized. Implementation of BMPs shall be to the maximum extent required by federal, state, and local laws and regulations, as well as any contract documents, including Contract Specifications and plans. The City Engineer shall have sole discretion in determining if compliance with BMP requirements has been met or not. The City reserves the right to require modifications in the field to BMPs requirements where the City determines that Contractor-selected BMPs are not effective in preventing the discharge of pollutants to the storm water conveyance system to the extent required by federal, state, and local laws and regulations.

Notwithstanding identification or selection of BMPs in the projectøs Storm Water Pollution Prevention Plan (SWPPP), Construction Storm Water Pollution Control Plan (CSWPCP), or Construction Storm Water BMP Certification Statement, the Contractor shall be fully responsible and obligated to implement all necessary BMPs to prevent the discharge of pollutants due to construction activities as required in this section. The City Engineer or designee, at their sole discretion, shall determine if implemented BMPs are adequate or if additional BMPs are necessary, in which case the Contractor shall implement additional BMPs needed to comply with the requirements f this section.

To ensure compliance with federal, state, or local storm water laws and regulations, the City may take enforcement action as follows:

> Stop all other work on the project at no cost to the City until the non-compliance is corrected; working days shall continue to be assessed;

- Require revisions to plans at no cost to the City;
- ➤ Require modifications/BMPs improvements in the field at no cost to the City
- Assess fines and penalties;
- Other enforcement action, as may be appropriate;

All costs incurred by the Contractor in complying with the provisions specified in this section are included in the various unit costs for the items of work and no additional payments will be made for implementation of storm water pollution prevention measures.

Contractor shall not dispose of washout water or slurry on private or public property. It must be contained and properly removed.

Projects Disturbing Less Than One Acre of Land

The Contractor is responsible for implementing the Construction Storm Water Pollution Control Plan (CSWPCP) for this project which is provided in the appendix. The Contractor shall modify as need based upon site circumstances as required by the City inspector. The Contractor shall select all applicable minimum and recommended BMPs from provided document and shall implement such BMPs during construction as necessary to prevent pollution of storm water conveyance systems.

OR

The Contractor is responsible for signing a Construction Storm Water BMP Certification Statement (see appendix) and implementing the requirements set forth. A signed copy of said statement shall be submitted at the pre-construction meeting. The Contractor shall select all applicable minimum and recommended BMPs from the Chula Vista BMP Design Manual Appendix K õConstruction BMP Standardsö and shall implement such BMPs during construction as necessary to prevent pollution of storm water conveyance systems. The Contractor shall modify selected BMPøs as need based upon site circumstances or as required by the City inspector.

The Contractor shall maintain a copy of all water quality documents for this project on-site at all times. In the event that a City inspector should request review of the documents and/or inspection of the construction site, the Contractor shall allow such review and inspection.

22 CLEANING AND CLEAN-UP

Contractor shall not permit the adjacent property, public or private, to become dirty and unsightly because of work under this section or specifications.

The Contractor shall carefully and continuously protect all areas included in the contract, including lawn areas, plant material, supports, etc. until final acceptance by the City. Repair and/or replace any damaged areas at no additional cost to the City.

Use water or other means to control dust generated by work noted herein per NPDES requirements. All water and equipment necessary to provide dust control shall be included in the unit price paid for various items of work.

23 SUBMITTALS

The contractor shall furnish a list of the contractor sources of materials and the locations at which those materials will be available for inspection. Materials to be used in the work will be subject to inspection and tests by the engineer. The contractor shall furnish without charge such samples as may be required. The list must be furnished to the engineer before or at the time of the pre-construction meeting.

Materials shall not be furnished or fabricated, nor any work done for which submittals are required. Neither review nor approval of submittals by the engineer shall relieve the contractor from responsibility for errors, omissions, or deviations from the contract documents, unless specifically called to the attention of the engineer.

Submittals shall consist of the appropriate combination of catalog sheets, material lists, manufacturersø brochures, technical bulletins, specifications, diagrams, or product samples, necessary to describe a system, product, or item. Appendix õEö is a checklist of required submittals.

24 COMMENCEMENT OF WORK

The Contractor shall begin work no later than fifteen (15) days after the execution of the contract, or directed by the Engineer.

25 OBSERVANCE OF CITY HOLIDAYS

The City of Chula Vista observes the following holidays and all offices including Public Works Inspection Services will be closed. Therefore, inspection services will not be provided.

December Holidays December 25 New Years Day January 1

Martin Luther King Jr. Birthday 3rd Monday of January

Cesar Chavez Day March 31

Memorial Day Last Monday of May

Independence day July 4

Labor Day 1st Monday of September

Veteranøs Day November 11

Thanksgiving Day and 4th Thursday and Friday of November

Day after Thanksgiving

As specified in Section 2-11 of the Standard Specifications for Public Works Construction (õGreenbookö), õWork shall be done only in the presence of the engineer. Any work done without proper inspection will be subject to rejection.ö The contractor must arrange all construction work to avoid performing work that requires inspection including traffic control during these days. Under Section 6-7.2, the above holidays are not considered working days.

26 LIQUIDATED DAMAGES

Per Section 6-9 of the 2006 Regional Supplement to the 2006 Green Book õExecution of the Contract shall constitute agreement by the Agency and Contractor that \$250 per day for contracts with a value of \$100,000 or less, and \$500 per day for contracts with a value of over \$100,000 are the minimum values of the costs and actual damages caused by failure of the Contractor to completed the work within the allotted time. Such sums are liquidated damages and shall not be construed as a penalty, and such sums may be deducted from payments due the Contractor if such delay occurs.ö

27 AS-BUILT DRAWINGS

A copy of the approved project plans and a set of specifications will be kept at all times at the job site, on which all changes or variations in the work, including all existing utilities are to be recorded and /or corrected daily, and submitted to the City Engineer when the work to be done is completed.

28 LIST OF EXHIBITS AND APPENDIXES

Exhibit õAö: Location Map For All Improvements

Exhibit õBö: Intersection Improvements for Third ave. and Main St. (Dwg. No.17013)

Appendix õAö: ADA Ramp Locations (STL404 & STL415)

Appendix õBö: Location Table & Plats for Curb, Gutter, Sidewalk & Driveway

Replacement and Tree Removal (STL407)

Appendix õCö: Construction Storm Water Management Plan (CSWMP)

Appendix õDö: Standard Drawings (CVCS & SBRSD)

Appendix "Eö: Release Form

Appendix õFö: Required Submittals

Appendix õGö: Root Barrier (BioBarrier Root Control)

Appendix õHö: Transnet Signs

APPENDIX "A"

ADA RAMP LOCATION PRIORITY LISTS (SEE ATTACHED EXHIBIT "A" FOR LOCATION MAP)

ADA RAMP PROJECT

STM405 (FY14/15) STM415 (FY16/17)

PROPOSED LOCATIONS

Location Map No.	Street 1	Street 2	Intersection Type	No. of Ramps Needed	NW COR PED RAMP (T PE) CVCS	COR PED RAMP (T PE) CVCS	SE COR PED RAMP (T PE) CVCS	NE COR PED RAMP (T PE) CVCS	τ
101	East 30th St	"N" Ave	Т	2	26			26	
102	Smith Ave	North of H St	Alley	1				28	School
103	"H Street	Alley bet 374 &398	Alley	2		28	28	 	
104	Second Ave	Laguna St (Whitney St)		1		27			
105	WHITNEY-MANKATO West	WHITNEY ST (West)		3	27	27	27	! !	Christmas Tree Cir
106	WHITNEY-MANKATO East	WHITNEY ST (East)	Т	3		27	27	27	Christmas Tree Cir
107	FIRST AVE	CASITAS CT (Shasta)	 	2	26	26		 	
108	FIRST AVE	MURRAY ST	Т	2	27	27	 	 	
109	FIRST AVE	HALSEY ST	Т	2	27	27		! !	
110	Hilltop Dr	San Miguel/Vista Wy	4-way-	1		27	 	 	Squewed & Inlet
111	SAN MIEGUEL Dr	VISTA Wy		3	27	27	i 	27	
112	SAN MIEGUEL Dr	Country Club Dr		3	27	27	 	27	
113	Date Ave	Sierra Way	FOUR-WAY	4	27	27	27	27	
114	Cedar Ave	Sierra Way	FOUR-WAY	1			27	 !	
115	"K" St	Beech Ave	Т	1			26	 	School
116	Woodlawn Ave	Kearney St	FOUR-WAY	4	27	27	27	27	
117	Oaklawn Ave	Kearney St	FOUR-WAY	4	27	27	27	27	
118	Jefferson Ave	Kearney St	FOUR-WAY	4	27	27	27	27	
119	Madison	Kearney St	FOUR-WAY	4	27	27	27	27	
120	Riverlawn Ave	Sierra Way	Т	2	27	27	i	 	
121	Jefferson Ave	Sierra Way	FOUR-WAY	1	27		 	 	
122	Oaklawn Ave	Sierra Way	FOUR-WAY	2	27	27			
123	Colorado Ave	Sierra Way	Т	2			27	27	Park/Playground
124	Colorado Ave	K St	Т	2	27	27	 	 	Park/Playground
125	Naples St	West of Broadway	Pvt Drive	1	28				Comercial
126	Nolan Ave	E. Palomar St	4-way	1		26			School
127	Nolan Ave	Prt. D/W	Alley	2			28	28	Near School
128	Napa Ave	E. Oneida St	T-	2	26	26		 	Near school
129	Monterey Ave	E. Oneida St	4-way	2	26		i ! !	26	
130	Rcho Del Rey So Pk	Camino Biscay	School Xing	1		27		l	School
131	East J St	Paseo Ladera	4-way	1		26		 	
132	Elmhurst St	Auburn	School Xing	1		27		 	School
133	Sequoia Ave	At Park	Mid-Blk	2	27	27	 		School
134	Sonora Drive	1539	Alley type	2	5	5	3	3	50 pts. ea.
134	Sonora Drive	1541	Alley type	2				[
134	Sonora Drive	1543	Alley type	2			 	<u> </u>	
134	Sonora Drive	1545	Alley type	2		- -		<u> </u>	
134	Sonora Drive	1547	Alley type	2			-	<u> </u>	
134	Sonora Drive	1547	Alley type	2		 -	 -	<u></u>]	
134	Sonora Drive	1546	Alley type	2				[]	
134	Sonora Drive	1542	Alley type	2					
135	Main St	Third Ave	4-way	3	26			2 @ 26	Separate Item
ļ						P TYPES		TALS	
ļ	i 	i 	 		CVCS 26	CVCS 27	CVCS 28	TOTAL	
тот	ALS: (Does not in	clude Main St & 3rd	l)	85	11	53	21	85	

ADA RAMP PROJECT

STM405 (FY14/15) STM415 (FY16/17)

PROPOSED LOCATIONS

ocation Map No.			Intersection Type	of Ra	NW COR PED RAMP (T PE)	RAMP (T PE)	SE COR PED RAMP (T PE)	NE COR PED RAMP (T PE)	τ
	Street 1	Street 2	_	8	CVCS	CVCS	CVCS	CVCS	

	OPTIONAL LOCATIONS											
Α	Banner Ave	BETHUNE WY	Knuckle	1	26				Inside Curve (knuckle)			
В	Banner Ave	CARVER ST	T-	1		[27				
С	Banner Ave	ALLEY	Alley, 4-way	4	28	28	28	28				
D	Banner Ave	ALLEY	4-way Alley	4	28	28	28	28				
Е	Banner Ave	ALLEY B/W		2	28	28]				
F	Coralwood Ct	Sandalwood Dr	Т	3		27	26	26				
G	Eucalyptus Ct	Sandalwood Dr	Т	2		27	26					
Н	SHASTA ST	ELM AVE	Т	3	27	27	[27				
I	SHASTA ST	LINDA LN	Т	2		27	27	 				
J	WHITNEY ST	CORTE HELENA AVE	Т	2		27	27	 				
K	CARLA AVE	E. MANKATO ST	Т	2		[27	27				
L	CARLA AVE	E. SHASTA ST.	Т	2		 	27	27				
M	E. Quintard St	Monserate Ave	4-way	2		27	27					
N	E. Quintard St	Myra Ave	T-	2	26	[[26				
0	Moss	Vista Wy	4-Way	4	27	27	27	27				
Р	Moss	Corte Maria Av	Т	2		 	27	27				
Q	Kearney St	Alpine	Т	2	26	27	 	ļ	No s/w to east			
R	Kearney St	Alley w/o Alpine	Т	2	28	 		28				
S	Hidden Vista Dr	Smoky Cr	Т	3	27	27		27				
T	Smoky Cir	Tram Pl	Т	2			27	27				
U	Horizon View Dr	Bay Lief Dr	Т	2		 	27	27				
V	Horizon View Dr	Bay Lief Dr	Т	2	27	 	27					
W	OLEANDER AVE	D/W @ 991 Oleander Av	Т	2			28	28				
X	OLEANDER AVE	D/W @ 1005 Oleander Av	Т	2		 	28	28				
Y	OLEANDER AVE	D/W @ 999 Oleander Av	Т	2		 	28	28				
					26	27	28	TOTAL				
				57	7	32	18	57				

APPENDIX "B"

LOCATION OF WORK (CURB GUTTER SIDEWALK DRIVEWAYS) PLATS AND TABLE

EXHIBIT "A" CURB, GUTTER SIDEWALK REPLACEMENT PROJECT

LEGEND:

BP BRAZILIAN PEPPER TREE NZC NEW ZEALAND CHRISTMAS TREE

HOA HOA MANAGEMENT MANINTAINED TREE PVT PRIVATE TREE

NTI NO TREE ISSUES RP ROOT PRUNE & CROWN TRIM

PRIORITY I LIST:

LOCATION AND WORK TO BE DONE (CIP NO.:STL-407)

LOC. MAP No.	LOC PLAT		ADDRESS	SIDEWALK	4" SW (SF)	5" Mono SW/C/G (LF)	6" DW C/G/SW (SQ)	6" DW (SW\F)	C/G (LF)	P/L MARKERS	ADDITIONAL WORK REQUIRED
I	3	258	ALPINE AVENUE	S/W	80						RP FERN PINE
2	3	247	ALPINE AVENUE	S/W	224					I	RP 2 FERN PINE
3	3	253	ALPINE AVENUE	S/W	64						RP FERN PINE
4	3	257	ALPINE AVENUE	S/W, APRON	84						RP FERN PINE
5	II	280	ANNADALE WAY	S/W		13				1	
6	4	2855	ASPEN GLEN COURT	S/W	235						RP CHINESE FLAME
7	8	764	BAJO COURT	S/W		19				1	RP FREN PINE
8	5	1346	BLUE SAGE WAY	S/W	90						RP PINE TREE
9	7	700	BUENA VISTA WAY (BALL FIELD)	S/W, C/G	100						
10	7	1243	CALLE SANTIAGO	DRIVEWAY,PR WALKWAY,S/W	63	22		160		I	RP SWEETGUM TREE
П	7	1065	CAMINO DEL SOL	MONO		20				I	
12	2	540	CARLA AVENUE	S/W	152						REMOVE FERN PINE
13	2	602	CARLA AVENUE	S/W	76						RP NZ CHRISTMASS TREE
14	5	2830	CASTLEWOOD COURT	S/W	72						
15	1	856	CEDAR AVENUE	S/W, CURB	92				31		REMOVE I FERN PINE
16	3	267	Church Av	S/W,C/G	215				41		REMOVE I FERN PINE
17	2	781	CHURCH AVENUE	S/W	120						REMOVE I FERN PINE
18	2	626	CLAIRE AVENUE	SW	104				21		
19	2	660	CLAIRE AVENUE	S/W,CURB/SLAB	32			32	47		RP SILK FLOSS TREE
20	8	1455	COUNTRY VISTA LANE	Mono, Apron		44		130			
21	8	1562	COUNTRY VISTA LANE	Момо		21					
22	3	211	CYPRESS STREET	S/W	93						
23	3	219	DEL MAR AVENUE	S/W,APRON, C/G	675				50		
24	2	661	DEL MAR AVENUE	S/W	80						RP 2 JACARANDA TREE
25	2	732	DEL MAR AVENUE	S/W	375						
26	3	124	"E" STREET	S/W, (SLAB 5x31)	355						RP 2 FERN PINE
27	3	132	"E" STREET	S/W,C/G	200				39		REMOVE FERN PINE
28	2	514	ELM AVENUE	S/W	172				16	I	RP BOTTLE BRUSH
29	3	21	"F" STREET	S/W	190						
30	3	41	"F" STREET	S/W	90						RP CA PEPPER TREE
31	3	125	"F" STREET	S/W	469						REMOVE 2 FERN PINE
32	3	140	"F" STREET	S/W	250						RP CA PEPPER TREE
33	3	246	"F" STREET	S/W	588					1	RP 2 CHINESE FLAME
34	3	270	"F" STREET (AT NORMAN CENTER)	S/W,C/G	1279				35		
35	8	1241	FALLBROOK COURT	Моно		37				I	
36	8	1241	FALLBROOK COURT (ACROSS STREET)	Mono, ADA	40	16					
37	10	375	"G" STREET	S/W	20						RP I CA PEPPER TREE
38	8	547	GLOVER AVENUE	S/W, CURB	240				91		REMOVE STUMP
39	II	2145	HAMDEN DRIVE	S/W		16					
40	9	1483	JUDSON WAY	C/G					14		RP I CAROB TREE
41	9	1492	JUDSON WAY	c/G					14		RP FIG TREE
42	2	190	"K" STREET	S/W,APRON, DRIVEWAY	526			77			RP 2 FERN PINES
		_									

EXHIBIT "A"

CURB, GUTTER SIDEWALK REPLACEMENT PROJECT

LEGEND:

BP BRAZILIAN PEPPER TREE NZC NEW ZEALAND CHRISTMAS TREE

HOA HOA MANAGEMENT MANINTAINED TREE PVT PRIVATE TREE NTI NO TREE ISSUES RP ROOT PRUNE & CROWN TRIM

PRIORITY I LIST:

LOCATION AND WORK TO BE DONE (CIP NO.:STL-407)

LOC. MAP No.	LOC. PLATS		ADDRESS	SIDEWALK	4" SW (SF)	5" Mono SW/C/G/ (LF)	6" DW C/G/SW (SQ)	6" DW (SW\F)	C/G (LF)	P/L MARKERS	ADDITIONAL WORK REQUIRED
43	Ţ	590	"K" STREET	S/W	1746						RP 2 FERN PINES
44	9	898	MARIA WAY	S/W	124						
45	9	1368	MAX AVENUE	S/W	116						
46	3	252	MINOT AVENUE	S/W, APRON C/G	176				19		REMOVE FERN PINE
47	3	253	MINOT AVENUE	S/W, APRON, C/G	216				26	1	RP CHINESE FLAME
48	3	247	MINOT AVENUE	S/W,C/G, APRON	324				29		RP 2 PODOCARPUS TREE
49	10	781	MONSERATE AVENUE	S/W	128						
50	3	331	MONTCALM STREET	S/W, CURB, APRON	314				53		RP FERN PINE
51	3	325	MONTCLAIR ST	S/W	240					_	RP I CHIN FLAME
52	3	171	MONTEBELLO STREET	S/W,C&G	220				10	1	REMOVE 2 MAGNOLIAS
53	10	770	NACION AVENUE	S/W, APRON		20	147				
54	9	908	NACION AVENUE	S/W	352					1	
55	5	2580	OAK SPRINGS DRIVE	S/W	66						
56	I	568	OAKLAWN AVENUE	S/W	80					ı	
57	I	668	OAKLAWN AVENUE	S/W	104						
58	3	151	E. ONEIDA ST	S/W	40						RP CHINESE FLAME
59	5	BASEBALL FIELD	OTAY LAKES ROAD	S/W	440						LEAGUE FILELD) RP I PEAR
60	10	2300 INTER- SECTION	OTAY LAKES ROAD	S/W	1180						REMOVE SWEETGUM TREE
61	3	30	E. ORLANDO COURT	Mono S/w C&G		33					
62	3	147	EAST ORLANDO STREET	S/W, APRON, C/G	248			80	II		
63	3	151	EAST PROSPECT ST	S/W	68						RP NZ C TREE
64	12	1629	QUAILSPRINGS CT	S/W	60						
65	3	75	EAST QUEEN ANNE DRIVE	S/W	125						RP FERN PINE
66	3	108	EAST QUEEN ANNE DRIVE	S/W	250						RP PEAR TREE
67	3	115	EAST QUEEN ANNE DRIVE	S/W,APRON C/G	406				66		RP PEAR TREE
68	3	120	EAST QUEEN ANNE DRIVE	S/W	132						
69	3	152	EAST QUEEN ANNE DRIVE	S/W, APRON	316						RP FERN PINE
70	3	183	EAST QUEEN ANNE DRIVE	S/W	80						RP I PODOCARPUS
71	3	189	EAST QUEEN ANNE DRIVE	S/W, APRON, C/G	382				61		
72	3	190	EAST QUEEN ANNE DRIVE		320				14		RP I PODOCARPUS
73	3	195	EAST QUEEN ANNE DRIVE	S/W	164						RP E PEAR, MONSERATE

EXHIBIT "A" CURB, GUTTER SIDEWALK REPLACEMENT PROJECT

LEGEND:

BP BRAZILIAN PEPPER TREE NZC NEW ZEALAND CHRISTMAS TREE

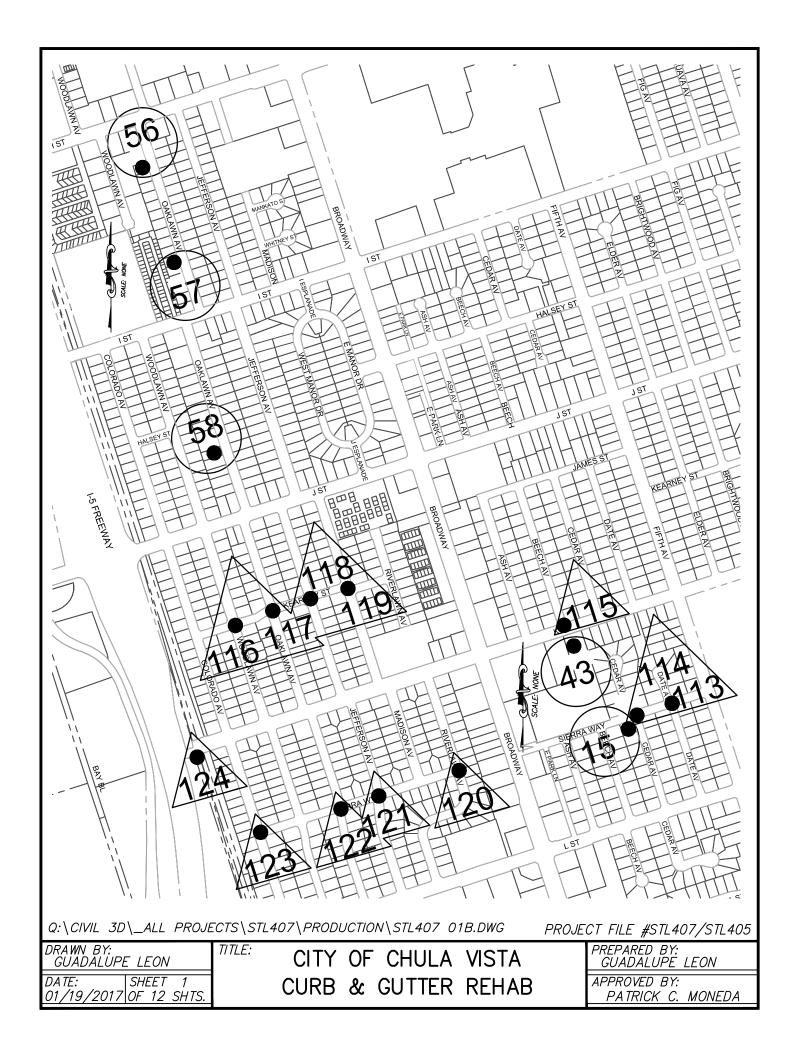
HOA HOA MANAGEMENT MANINTAINED TREE PVT PRIVATE TREE

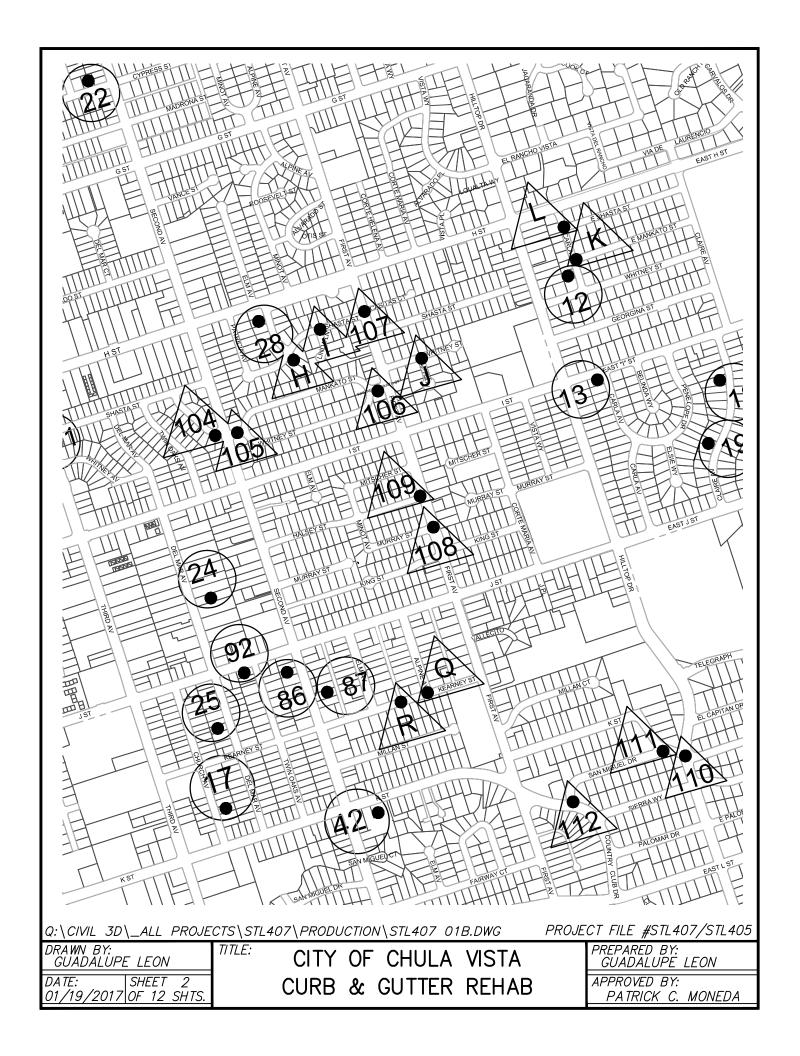
NTI NO TREE ISSUES RP ROOT PRUNE & CROWN TRIM

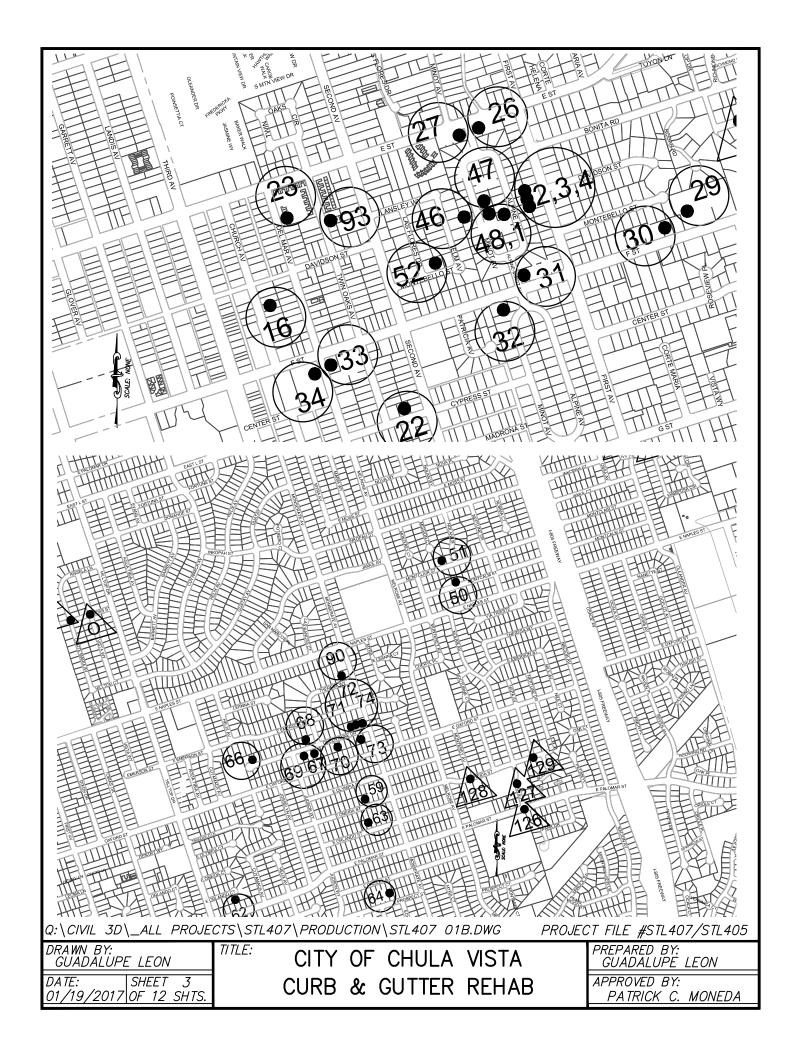
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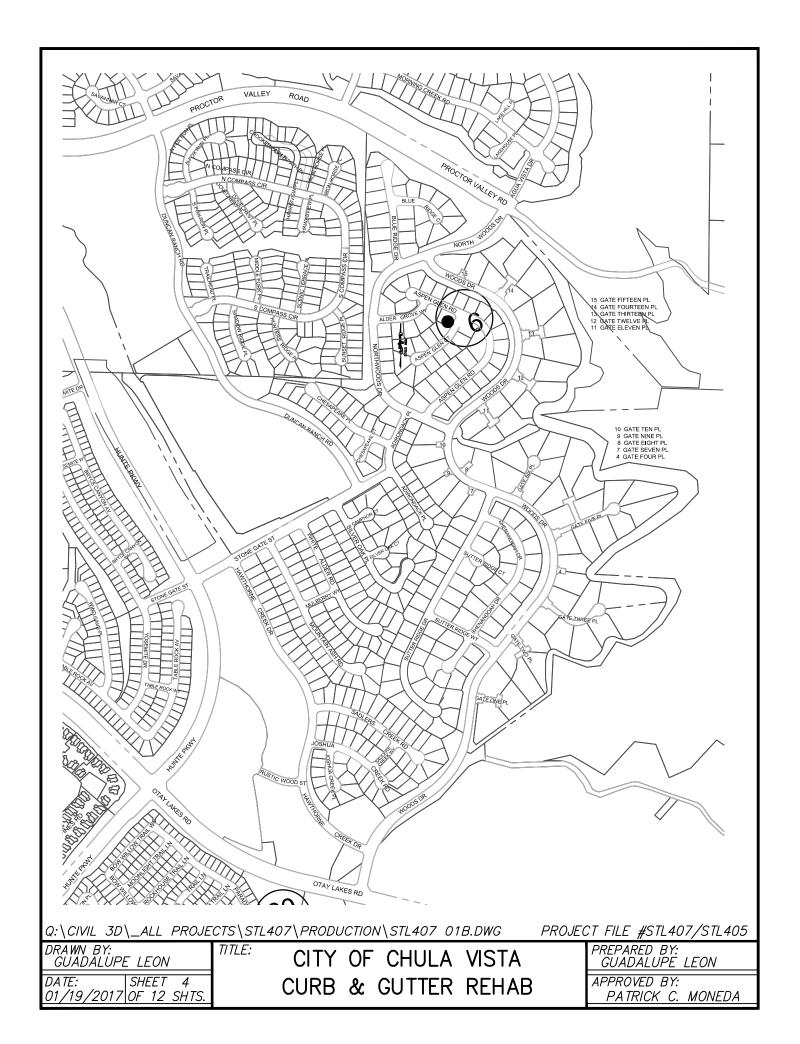
LOCATION AND WORK TO BE DONE (CIP NO.:STL-407)

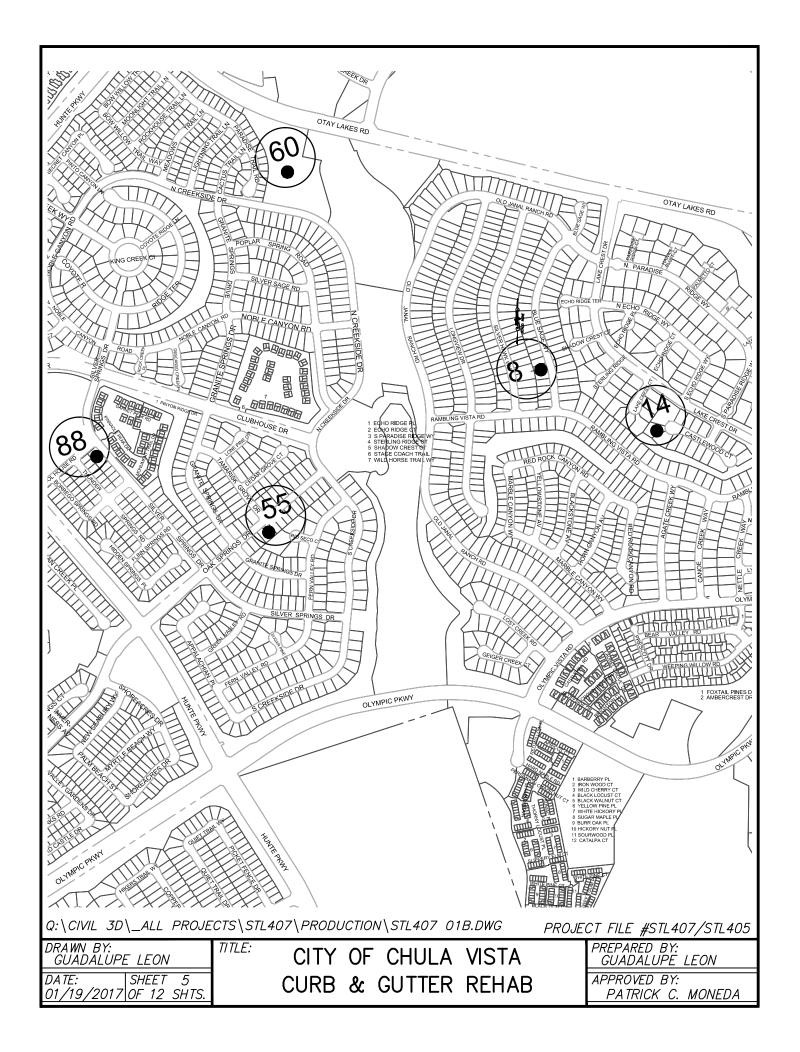
LOC. MAP No.	LOC. PLATS		ADDRESS	SIDEWALK	4" SW (SF)	5" Mono SW/C/G/ (LF)	6" DW C/G/SW (SQ)	6" DW (SW\F)	C/G (LF)	P/L MARKERS	ADDITIONAL WORK REQUIRED
74	6		N RANCHO DEL REL PARKWAY	S/W	315						
75	6		N RANCHO DEL REL PARKWAY	S/W	75						RP I CANARY ISLAND PINE
76	6		S RANCHO DEL REY PARKWAY	S/W, MONO	100						RP I CANARY ISLAND PINE
77	6		S RANCHO DEL REY PARKWAY	S/W	670						RP 3 CANARY ISLAND PINE
78	7		S RANCHO DEL REY PARKWAY	S/W	95						RP I CARROTWOOD R/P 190' NORTH OF BUENA VISTA E/S OF S.RANCHO DRIVE (AT DISCOVERY PARK)
79	7		S RANCHO DEL REY PARKWAY	S/W	185						REMOVE CANARY ISLAND PINE
80	7		S RANCHO DEL REY PARKWAY	Моно		10					RP 2 CHINESE FLAME, RP I CANARY ISLAND PINE, RP I NZ CHRISTMAS TREE
81	6		S RANCHO DEL REY PARKWAY	Моно		15				1	RP I CHINSES FLAME
82	6		S RANCHO DEL REY PARKWAY	Моно		16					RP I CANERY ISLAND PINE
83	6		S RANCHO DEL REY PARKWAY	Моно		36					RP CHINESE FLAME (AT EXPLORER PARK)
84	6		S RANCHO DEL REY PARKWAY	Моно		14					RP I CHINESE FLAME
85	2	712	SECOND AVENUE	S/W	50						
86	2	733	SECOND AVENUE	APRON,S/W	II2						REMOVE LARGE CAROB TREE
87	5	1310	SILVER SPRINGS DRIVE	S/W	222						RP I PINE
88	9	1585	SKYLARK WAY	APRON, DRIVEWAY				200			
89	3	191	THERESA WAY	S/W, C&G	120				45		
90	8	500	THIRD AVENUE	S/W 2 UNITS	312						
91	2	700	TWIN OAKS AVENUE	S/W, P/WY, APRON/CURB,	387				36		
92	3	237	TWIN OAKS AVENUE	S/W,CURB	105				5		
					18200	350	150	680	780	13	REMOVE 13 TREES (I STUMP)

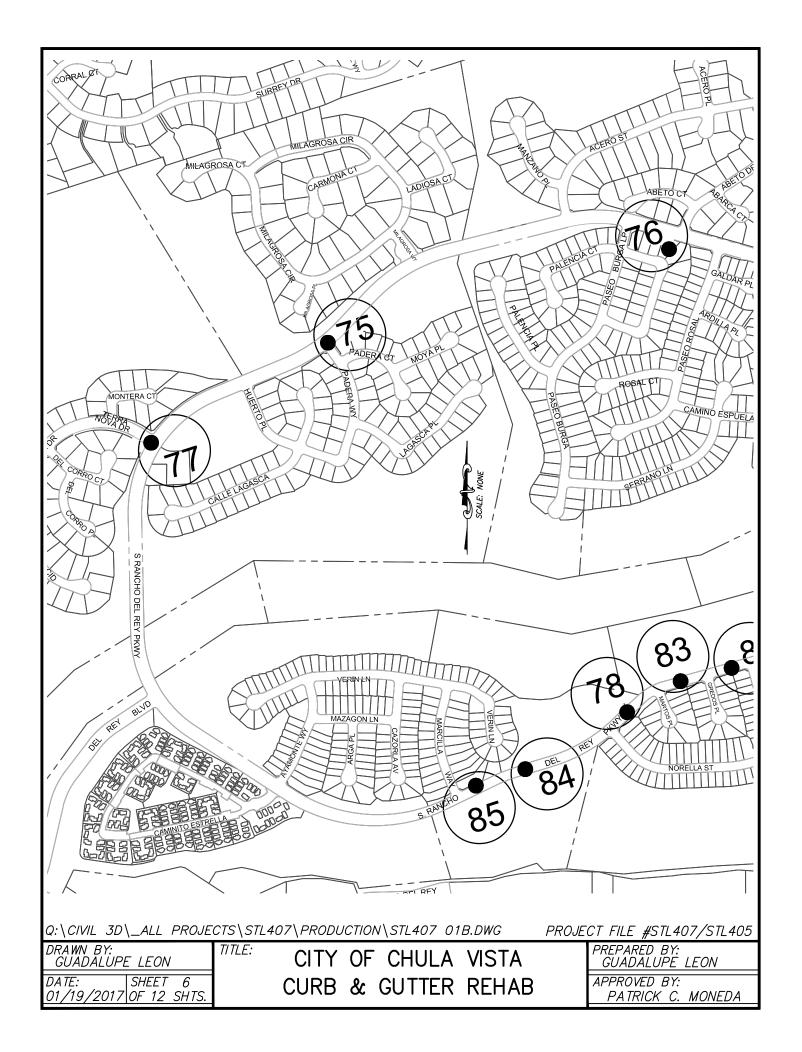


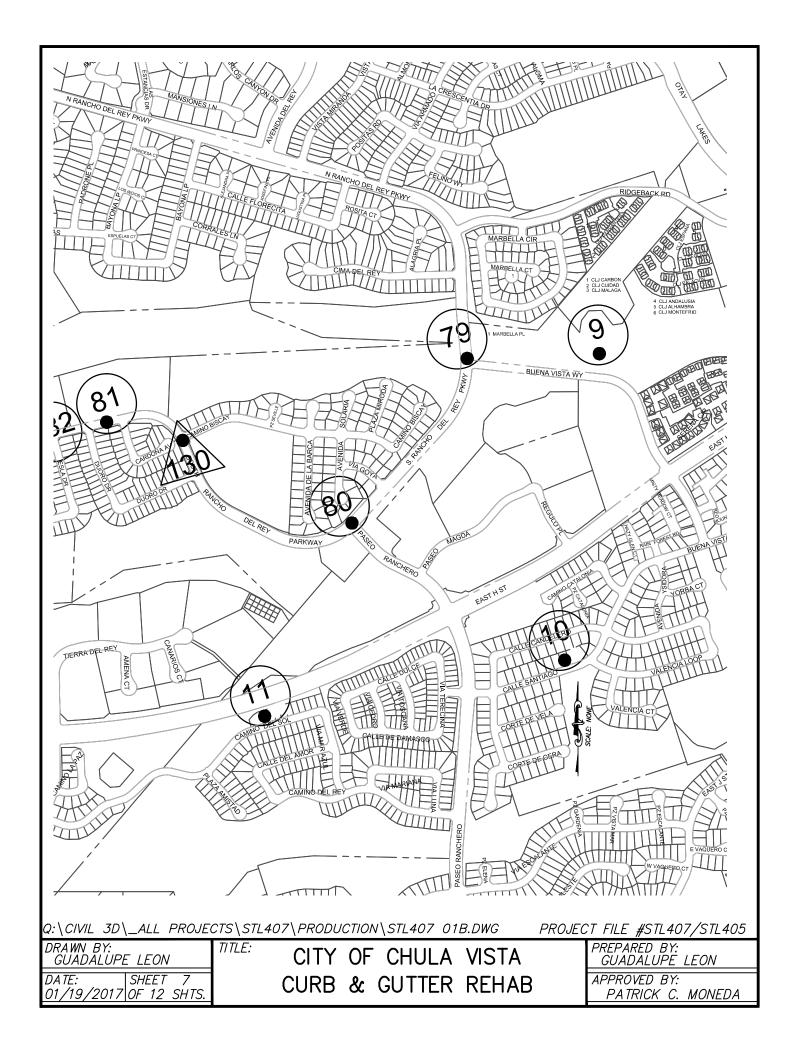


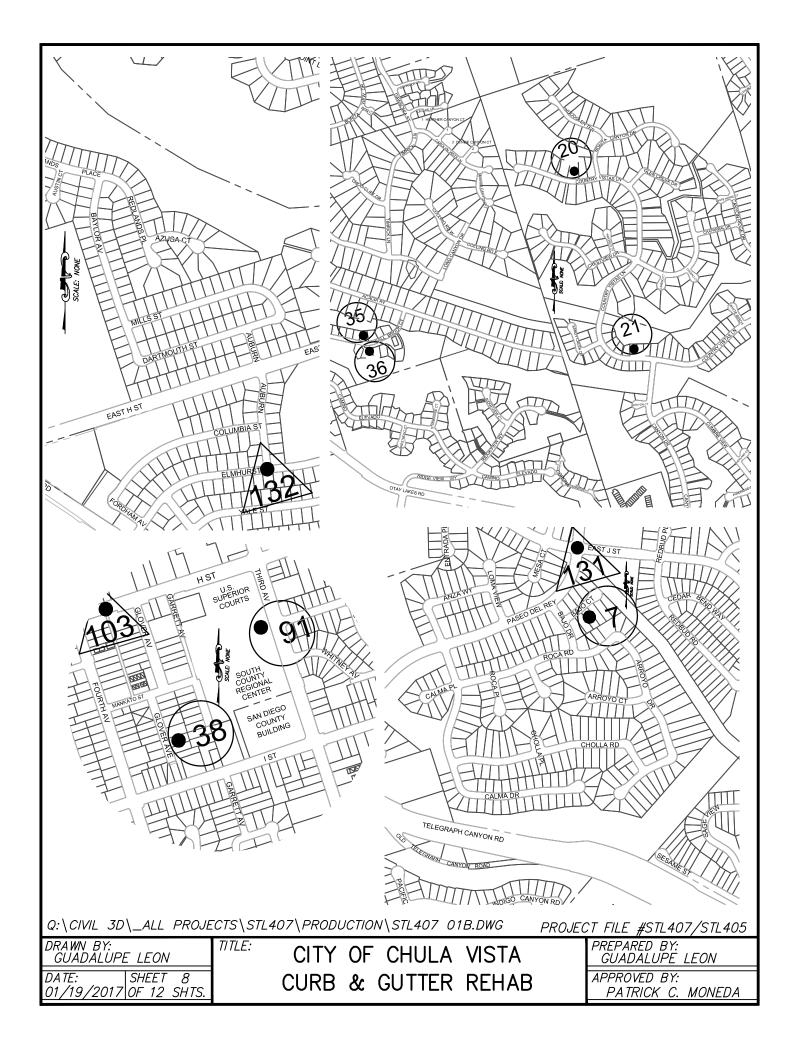


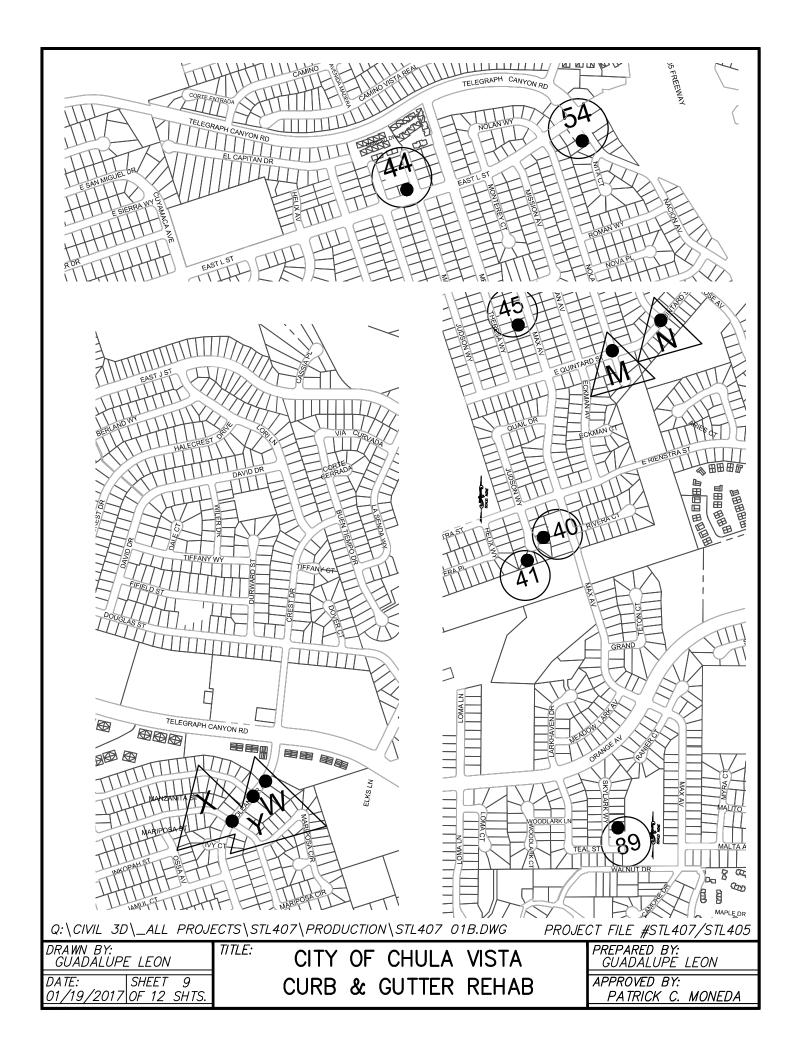


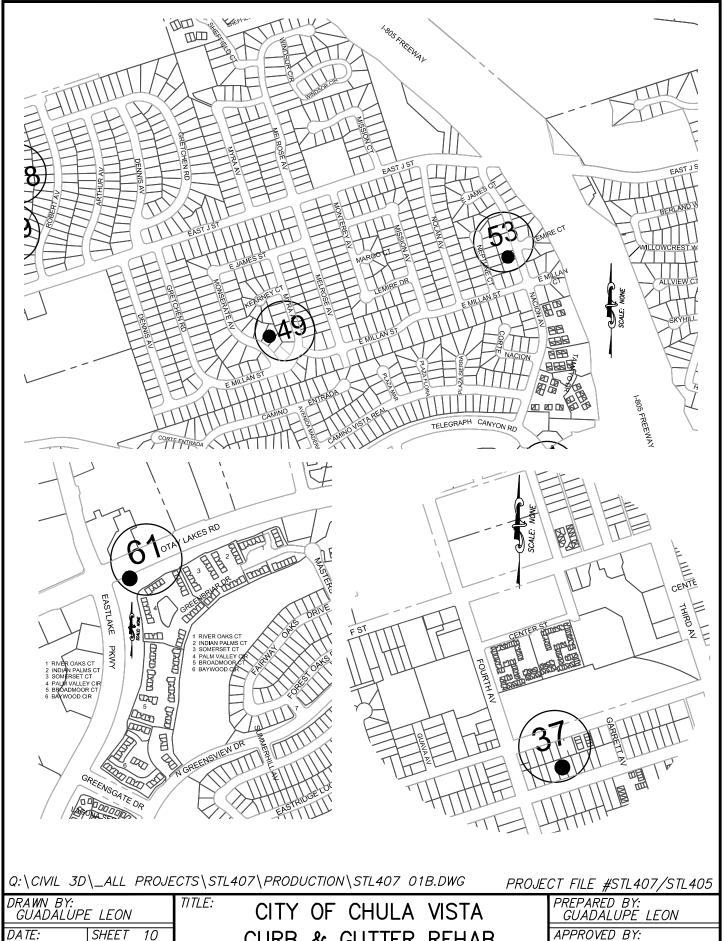








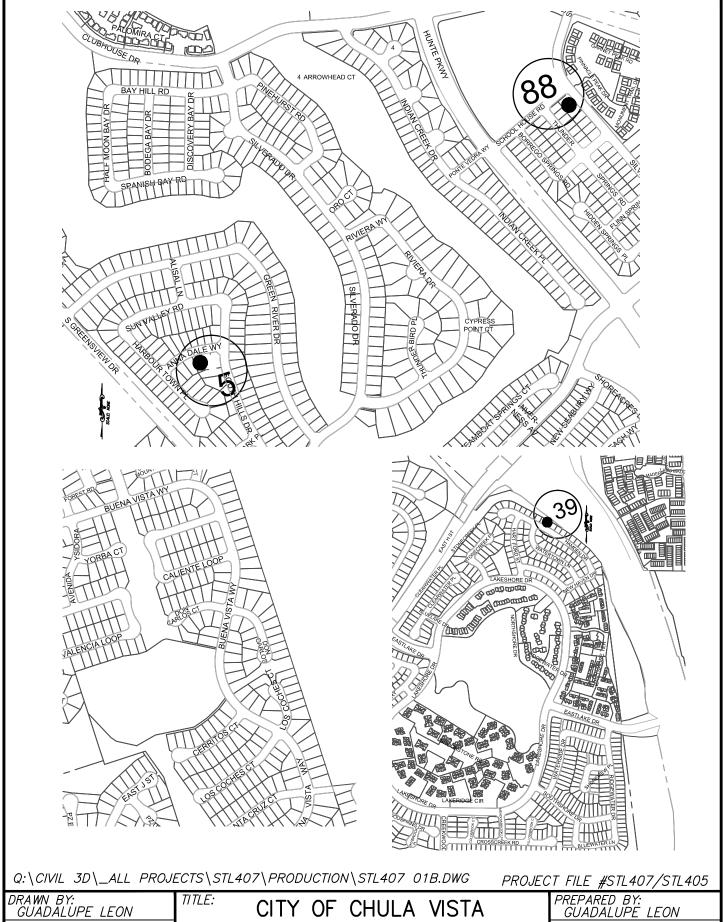




DATE: SHEET 10 01/19/2017 OF 12 SHTS.

CURB & GUTTER REHAB

PATRICK C. MONEDA



DATE: SHEET 11 01/19/2017 OF 12 SHTS.

CURB & GUTTER REHAB

PREPARED BY: GUADALUPE LEON

APPROVED BY: PATRICK C. MONEDA



DATE: SHEET 12 01/19/2017 OF 12 SHTS.

CITY OF CHULA VISTA CURB & GUTTER REHAB PREPARED BY: GUADALUPE LEON

APPROVED BY: PATRICK C. MONEDA

APPENDIX "C"

CONSTRUCTION STORM WATER MANAGEMENT PLAN (CSWMP)

i Form

Storm Water Requirer CHULAVISTA (Intake Form		oplicability Checklist Permit Applications
Public Works Department - Storm Water Management Section		April 2016
Project Inform	nation	
Project Address: VARIOUS LOCATIONS	Project Applic	ation Number:
Project Name: ADA Curb Ramps & Curb, Gutter and Sidewalk Replacement Project	APN(s) N/A	
Brief Description of Work Proposed: Install missing ADA F	Ramps and Rep	olace Damaged Curb, Gutter & Side
Owner/Contact In	formation	t - man
Name of Person Completing this Form: Mario Ingrasci		
Role: Property Owner Contractor Architect	⊠ Engineer	□ Other
Email: MIngrasci@ChulaVistaCA.gov	Phone:	619-409-5476
Signature: Mario Sylatre	Date Con	ppleted: Jan 19, 2017
Answer each section below, starting with Section 1 and information for determining the requirements is found in the City's website at http://www.chulavistaca.gov/departreprevention/documents-and-reports .	he Chula Vista	a BMP Design Manual available on
SECTION 1: Storm Water BMP Requirements		
Does the project consist of one or both of the following: Repair or improvements to an existing building or structure that donot alter the size such as: tenant improvements, interior remodeling, electrical work, fire alarm, fire sprinkler system, HVAC work, Gas, plumbing, etc.	⊠Yes	Project is NOT Subject to Permanent Storm Water BMP requirements, BUT IS subject to Construction BMP requirements. Review & sign "Construction Storm Water BMP Certification Statement" on page 2.
Routine maintenance activities such as: roof or exterior structure surface replacement; resurfacing existing roadways and parking lots including literature.		is district three business
including digouts, slurry seal, overlay and restriping; repair damaged sidewalks or pedestrian ramps on existing roads without expanding the impervious footprint; routine replacement of damaged pavement, trenching and resurfacing associated with utility work (i.e. sewer, water, gas or electrical laterals, etc.) and pot holing or geotechnical investigation borings.	□No	Continue to Section 2, page3.

Construction Storm Water BMP Certification Statement

The following stormwater quality protection measures are required by City Chula Vista Municipal Code Chapter 14.20 and the City's Jurisdictional Runoff Management Program.

- 1. All applicable construction BMPs and non-stormwater discharge BMPs shall be installed and maintained for the duration of the project in accordance with the Appendix K "Construction BMP Standards" of the Chula Vista BMP Design Manual.
- 2. Erosion control BMPs shall be implemented for all portions of the project area in which no work has been done or is planned to be done over a period of 14 or more days. All onsite drainage pathways that convey concentrated flows shall be stabilized to prevent erosion.
- 3. Run-on from areas outside the project area shall be diverted around work areas to the extent feasible. Run-on that cannot be diverted shall be managed using appropriate erosion and sediment control BMPs.
- 4. Sediment control BMPs shall be implemented, including providing fiber rolls, gravel bags, or other equally effective BMPs around the perimeter of the project to prevent transport of soil and sediment offsite. Any sediment tracked onto offsite paved areas shall be removed via sweeping at least daily.
- 5. Trash and other construction wastes shall be placed in a designated area at least daily and shall be disposed of in accordance with applicable requirements.
- 6. Materials shall be stored to avoid being transported in storm water runoff and non-storm water discharges. Concrete washout shall be directed to a washout area and shall not be washed out to the ground.
- 7. Stockpiles and other sources of pollutants shall be covered when the chance of rain within the next 48 hours is at least 50%.

I certify that the stormwater quality protection measures listed above will be implemented at the project

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Appendix K Construction BMP Standards

- K.1 Introduction/Purpose
- K.2 Determining Applicable Storm Water Regulations
- K.3 Determining Applicable Non-Storm Water Regulations
- K.4 Construction Site Prioritization
- K.5 Pollution Control Plan Requirements
- K.6 Required Best Management Practices
- K.7 Permanent BMP Inspections during Construction
- K.8 Compliance Verification and Enforcement
- Attachment 1: Construction Storm Water Pollution Control Plan (CSWPCP)
- Attachment 2: Construction Storm Water Certification Statement
- Attachment 3: Storm Water Quality Inspection for Construction Activities Form



Appendix K: Construction BMP Standards

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K.1 Introduction/Purpose

This section addresses the storm water impacts and required controls associated with construction activities in the City of Chula Vista (City). The purpose of these standards is to provide guidance to prevent construction activities from adversely impacting downstream and on-site resources. The protection of water quality from on-site pollutant sources is easily attainable when suitable Best Management Practices (BMPs) are planned, installed and correctly maintained.

All construction sites are required to implement construction BMPs in accordance with the performance standards in this manual and Chula Vista Municipal Code Chapter 14.20. Every construction site within the City's jurisdiction is required to select, install, and maintain BMPs that address project planning, erosion control, sediment control, and waste management and good housekeeping to reduce, retain, and manage pollutant discharges to the MEP. BMPs must be implemented at each construction site year round. Non-storm water discharges from construction sites into the City's storm drain system are prohibited year-round. City inspectors have the authority to require additional BMPs to prevent discharges of pollutants and to prevent non-storm water discharges to the City's storm drain system from construction sites year round.

K.2 Determining Applicable Storm Water Regulations

Storm water and non-storm water runoff generated by construction activities in the City Chula Vista are subject to regulation by the State Water Resources Control Board (SWRCB) and the San Diego Regional Water Quality Control Board (SDRWQCB). The SDRWQCB is responsible for implementing statewide water quality regulations in the San Diego region including state programs implemented as delegated under the Federal Clean Water Act and the California Porter-Cologne Water Quality Act. Under these provisions, the SWRCB and SDRWQCB have adopted several permits that impact construction activities. Applicable storm water regulations include the California Construction General Permit (CGP) and the Municipal Separate Storm Sewer System (MS4) Permit.

All construction sites are required to implement construction BMPs in accordance with the performance standards in this manual. Some sites are additionally required to obtain coverage under the CGP, which is administered by the SWRCB. Generally all sites with soil disturbance of one acre or more are subject to the CGP. The project owner (or owner's representative) is responsible for determining applicability to CGP requirements. The City requirements have been aligned to requirements under the CGP where possible; where the requirements differ, the project owner must comply with both requirements.

In general, for projects disturbing one (1) acre or more that require coverage under and compliance with the CGP, the construction BMPs must be identified in a Storm Water Pollution Prevention Plan (SWPPP). For projects disturbing less than one (1) acre, a Construction Storm Water Pollution Control Plan (CSWPCP) is required that identifies the pollution prevention measures that will be taken to comply with local City standards. If the project qualifies for an Erosivity Waiver under the CGP, a CSWPCP may be submitted in lieu of a SWPPP. However, if the Erosivity Waiver expires prior to project completion, the project applicant shall obtain a new Waste Discharge Identification number and submit a SWPPP.



It is the responsibility of the property owner or his/her designee (contractor) to select, install, and maintain appropriate BMPs. The Storm Water Requirements Applicability Checklist (Intake Form) shall be completed to determine a project's permanent and construction storm water BMP requirements. A list of construction BMPs is provided for reference in section K.5. BMPs must be installed in accordance with an industry recommended standard or in accordance with the requirements of the CGP. More information about BMPs is provided in statewide storm water BMP manuals (e.g., the California Storm Water Quality Association [CASQA] Construction BMP Online Handbook, and the Caltrans Construction Site BMP Manual).

Construction projects have differing requirements based on the degree of threat to receiving waters. Projects subject to the CGP must calculate the Risk Level (or Linear Underground/Overhead Type) and implement the CGP requirements for that Risk Level (or Linear Underground/Overhead Type).

K.3 Determining Applicable Non-Storm Water Regulations

Most non-storm water discharges are prohibited, but exceptions apply (see Municipal Code Section 14.20.110). Additionally, the project owner is responsible for knowing if coverage under additional National Pollutant Discharge Elimination System (NPDES) permits is required.

Table 3–1 identifies NPDES General Permits that may require enrollment for certain types of discharges. Unique sources of non-storm water discharges, such as discharge of contaminated water that has been treated, may require an individual NPDES permit and the SDRWQCB should be consulted for determination of permit requirements.

Table 3-1. General NPDES Permits That Typically Apply to Non-Storm Water Discharges from Construction Sites

Abbreviation	Permit Name / Order Number	Description	Applicability
Discharge To Land	Conditional Waiver of Waste Discharge Requirements for Low Threat Discharges in the San Diego Region SWRCB Order No. R-2014-0041	Order is intended to cover temporary discharges of low threat waters to land.	Small or temporary dewatering projects, such as excavation during construction, flushing water lines, discharging recycled water which are discharge to land for infiltration
Groundwater Dewatering Discharges – San Diego Region except to San Diego Bay	General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay; Order No. R9- 2008-0002 NPDES No. CAG919002	Order is intended to cover all discharges of groundwater extraction wastes to surface waters within the San Diego Region except the San Diego Bay. Emphasis is placed on groundwater extraction due to construction and other groundwater extraction activities regardless of volume, including discharges less than 100,000 gallons per day.	Projects discharging any temporary flow or volume of extracted groundwater into surface waters, except San Diego Bay.



Abbreviation	Permit Name / Order Number	Description	Applicability
Groundwater Dewatering Discharges – San Diego Bay	General Waste Discharge Requirements for Discharges from Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay, Tributaries thereto under Tidal Influence, and Storm Drains or Other Conveyance Systems Tributary thereto; Order No. R9-2007-0034 NPDES No. CAG919001	Order is intended to cover temporary discharges of groundwater extraction wastes to San Diego Bay, and its tributaries under tidal influence, from groundwater extraction due to construction and other groundwater extraction activities.	Projects discharging any temporary flow or volume of extracted groundwater into the San Diego Bay.
Hydrostatic Water and Potable Water Discharges	General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems within the San Diego Region; Order No. R9-2010-0003 NPDES No. CAG679001	Order is intended to cover discharges of hydrostatic test water and potable water to various receiving surface waters within the San Diego Region.	Include, but are not limited to, potable and hydrostatic test discharges resulting from testing, repair, and maintenance of pipelines, tanks, and vessels dedicated to drinking water purveyance.
Utility Vaults and Structures	General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Waters of the United States; Order WQ 2014-0174-DWQ NPDES No. CAG990002	Order is intended to cover short- term intermittent discharges of pollutants to surface waters from utility vaults and underground structures.	Include, but are not limited to, suppliers of natural gas, electricity, internet, cable television, and telephone services.

Discharges to surface waters within the San Diego region from foundation drain or footing drain systems designed to be located at or below the groundwater table to actively or passively extract groundwater during any part of the year are prohibited unless the discharge has coverage under NPDES Permit No. CAG919001 or NPDES Permit No. CAG919002.

Discharges to surface waters within the San Diego region from foundation drain or footing drain systems designed to be located above the groundwater table at all times of the year, and only expected to discharge non-storm water under unusual circumstances may be prohibited if the City of Chula Vista or SDRWQCB identifies the discharge as a source of pollutants to receiving waters.



K.4 Construction Site Prioritization

The Municipal Permit requires the following factors to be considered when determining threat to water quality:

- Sites located within a hydrologic subarea where sediment is known or suspected to contribute to the highest priority water quality conditions identified in the San Diego Bay Water Quality Improvement Plan (WQIP),
- Sites located within the same hydrologic subarea and tributary to a water body segment listed as impaired for sediment on the CWA section 303(d) List;
- Sites located within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
- Other sites determined by the Copermittee or the San Diego Water Board as a high threat to water quality.

The WQIP does not identify hydrologic subareas where sediment in known or suspected to contribute to the highest priority water quality conditions in the City of Chula Vista. Also, the City does not discharge to a CWA section 303(d) listed water body impaired for sediment. Therefore, the first two factors do not apply to Chula Vista. There are significant areas of land within the City which are considered Environmentally Sensitive Areas (ESAs). These ESAs are shown on Map 3 included in Appendix E of this JRMP. Also, there are other factors that the City considers to affect a construction site's threat to water quality as discussed below. Therefore, the City has developed the following criteria for designating a site as a high threat to water quality.

- A site 50 acres or more in size where grading will occur during the rainy season.
- A site within, directly adjacent to, or discharging directly to a receiving water body within an ESA.
- Any other site that has been determined by the City to pose a significant Threat to Water Quality (TTWQ). The City will consider the following factors when evaluating TTWQ:
 - o Soil erosion potential
 - o Site slope
 - o Project type
 - o Sensitivity of receiving water bodies
 - o Proximity to receiving water bodies
 - o Non-storm water discharge potential
 - o Past record of non-compliance at the site
 - o Other site specific factors

K.4.1 Low Threat to Water Quality Sites

Construction sites that are not classified as high TTWQ are considered low TTWQ. These sites are generally less than one acre and have not otherwise been determined to be a significant threat to water quality. The City recognizes that there are other factors besides those discussed above that can influence a construction site's TTWQ. The City maintains the right to re-prioritize a construction site's assigned TTWQ during the course of construction based on compliance history or if any of the prioritization factors change.



K.5 Pollution Control Plan Requirements

In accordance with the MS4 Permit (E.4.a), a pollution control plan, construction BMP plan, and/or an erosion and sediment control plan is required to be developed and submitted by the project applicant prior to issuance of any permit(s) that allows the commencement of construction projects that involve ground disturbance or soil disturbing activities that can potentially generate pollutants in storm water runoff. The City requires a Storm Water Certification Statement, Construction Storm Water Pollution Control Plan (CSWPCP), or a Storm Water Pollution Prevention Plan (SWPPP), for all projects. Some project types, such as interior plumbing, electrical and mechanical work, may be considered exempt. Requirements for each document are further summarized in subsections below.

K.5.1 SWPPP Requirements

Project disturbing one acre or greater is subject to coverage and compliance under the CGP (which is administered by the SWRCB). The applicant must provide a SWPPP, using either the CASQA or Caltrans template, which identifies all construction BMP requirements, in accordance with the CGP. A Waste Discharge Identification number is required prior to issuance of a permit and start of construction. The SWPPP must be kept on site and made available upon request of a representative of the City, SDRWQCB, or the SWRCB. Additionally, the CGP has requirements for preparing Site Maps, BMP inspection, discharge monitoring, and reporting that all must be implemented in accordance with CGP requirements. Projects that are required to obtain coverage under the CGP are encouraged to visit the SWRCB's website for permit application instructions.

Project disturbing one acre or greater and qualifies for an Erosivity Waiver under the CGP, may be allowed to submit a CSWPCP in lieu of a SWPPP. However, if the Erosivity Waiver expires prior to project completion, the project applicant shall obtain a new Waste Discharge Identification number and submit a SWPPP.

K.5.1.1 Maximum Disturbed Area for Erosion Controls

The City requires that temporary or permanent erosion controls be implemented before a construction site has disturbed a total of 100 acres. If the site is in compliance with applicable stormwater regulations and has adequate control practices implemented to prevent stormwater pollution, the City has the option to give the site written authorization to disturb beyond the maximum disturbed area allowed. The City will require, as necessary, additional controls for construction sites allowed to disturb more than 100 acres, which could include additional BMPs, increased inspection frequency, and/or stronger penalties for non-compliance.

K.5.2 CSWPCP Requirements

A Construction Storm Water Pollution Control Plan (CSWPCP) must be developed and implemented for construction projects that:

- Result in disturbance of less than one acre of total land area and are not part of a larger common plan of development or sale; and
- Have Grading, Construction, and Demolition/Removal approval types or require submittal of grading plans for review and approval.



- A (CSWPCP) must be developed and implemented for all linear utility projects (Capital Improvement Projects) that:
 - Result in disturbance of less than one acre of total land area, or are considered maintenance projects and are not part of a larger common plan of development or sale, or
 - Result in disturbance of an acre or more of total land area and are considered regular maintenance projects performed to restore the original line, grade, or capacity of the facility, or
 - Result in disturbance of one to five acres of total land area and can demonstrate that there will be no adverse water quality impacts by applying for a Construction Rainfall Erosivity Waiver.

Linear underground projects involve the replacement and/or rehabilitation of sewer and/or storm drains along with their associated appurtenances in the public Right of Way. Linear Utility projects may also include ADA improvements to curb ramps and sidewalk, street repair from full width to trench limits, and traffic improvements (does not include street resurfacing).

The CSWPCP is a report and shall depict the BMPs to be implemented during construction to reduce/eliminate discharges of pollutants to the storm drain conveyance system. The CSWPCP and Site Map shall be updated with each phase of construction activity. The CSWPCP must be kept on site and made available upon request of a representative of the City, SDRWQCB, or the SWRCB (refer to Attachment 1 for CSWPCP template).

Any hydrology or hydraulic calculations, soils reports or geotechnical reports prepared in support of a CSWPCP must be prepared by a professional engineer with appropriate registration qualifications issued by the State of California.

It is the responsibility of the property owner or his/her designee (contractor) to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with the City's Storm Water and Grading Ordinances. Failure to prevent soil erosion and discharges of sediment and other pollutants from construction sites is subject to enforcement by the City and others.

K.5.2.1 Basic Elements to a CSWPCP

The following steps are to be used to aid in the design and development of erosion and sedimentation control measures to be included in the CSWPCP.

- 1. Project planning (establish construction schedule, disturbed area phasing, BMP materials storage)
- 2. Preserve existing vegetation and delineate clearing limits (orange construction fence, staking with ribbon).
- 3. Establish construction access points (gravel entrance, shaker plates, tire wash area).
- 4. Control run-on and run-off flow (using pipe, drainage swales, berms).
- 5. Install sediment controls (silt fence, sediment traps, etc.).
- 6. Stabilize soils (erosion controls including but not limited to mulch, hydroseed, straw).



- 7. Protect slopes (divert water from top of slope, cover with plastic or erosion control blanket).
- 8. Protect drain inlets (catch basin inserts).
- 9. Stabilize channels and outlets (cover with grass, riprap).
- 10. Control pollutants (maintain equipment to prevent leaks, drip pans, covered trash bins).
- 11. Control dewatering (pump to sediment trap).
- 12. Maintain BMPs (weekly maintenance/replacement, preparation for storm events).
- 13. Manage the project (re-assess construction schedule, phasing, contact numbers).
- 14. Document BMP education of contractor/subcontractor employees
- 15. Retain Inspection Notices and Self-Inspection Worksheets

The CASQA Construction BMP Online Handbook and Caltrans Construction Site BMP Fact Sheets serve as a reference to develop a construction BMP plan.

K.5.3 Storm Water Certification Statement

A Storm Water Certification Statement (refer to Attachment 2) must be signed by the Owner/Applicant prior to any approval and/or permit issuance for projects that:

- Have Individual Construction permit that exclusively include <u>one</u> of the following activities
 associated with curb/sidewalk repair, water lateral, sewer lateral, storm drain lateral, or utility
 service, or
- Have Grading/Construction permit with a project footprint less than 150 linear feet that
 exclusively include only <u>one</u> of the following activities: curb ramp, sidewalk and driveway
 apron replacement, pot holing, geotechnical borings, curb & gutter replacement, and
 retaining walls, or
- Have Building/Grading/Construction permit for project proposing less than 5,000 square feet of ground disturbance and has less than 5-foot elevation change over the entire project area.

Projects with no soil disturbance or change to building dimensions or structural framing such as: interior remodeling, electrical work, mechanical work, gas and pluming work, fire alarm, and fire sprinkler work etc. all within existing enclosed structures are considered exempt.

It is the responsibility of the property owner or his/her designee (contractor) to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with the City's Storm Water and Grading Ordinances. Failure to prevent soil erosion and discharges of sediment and other pollutants from construction sites is subject to enforcement by the City and others.



K.6 Required Best Management Practices

K.6.1 Minimum BMP Requirements

BMPs collectively refer to a variety of pollution prevention controls implemented throughout the project site at various times during the project. BMPs discussed herein are specifically aimed to control pollution in storm water runoff during the construction phase of the project. The major construction BMP categories as identified in the MS4 Permit (E.4.c) care:

- 1. Project Planning;
- 2. Good Site Management "Housekeeping", including Waste Management;
- 3. Non Storm Water Management;
- 4. Erosion Control;
- 5. Sediment Control;
- 6. Run-on and Run-off Control; and
- 7. Active/Passive Sediment Treatment Systems, where applicable

Construction sites are required to implement minimum construction BMPs outlined in Table 5-1 below as applicable to prevent pollution discharges to the MEP regardless of the season. The City also requires additional or enhanced BMPs for specific site conditions that may be different for the rainy season (October 1st – April 30th) than they are for the dry season (May 1st – September 30th). Sites are also required to retain enough materials on site to protect all disturbed areas if a rain event were to occur.



ВМР Туре	Minimum Required BMPs	CASQA Factsheet	Caltrans Factsheet ¹
Project	Preservation of natural hydrologic features		-
Planning	where feasible Preservation of riparian buffers and corridors		
	where feasible		-
	Preservation of existing vegetation	EC-2	SS-2
	Minimization of areas that are cleared and		
	graded to only the portion of the site that is		-
	necessary for construction		
	Minimization of exposure time of disturbed soil areas	EC-1	SS-1
	Minimization of grading during the wet season and correlation of grading with seasonal dry	EC-1	SS-1
	weather periods to the extent feasible		
	Employee and Subcontractor Training, as applicable		-
Erosion Control	Temporary stabilization and permanent re-	EC-1	SS-1
	vegetation or landscaping as early as feasible	EC-1	33-1
	Preservation of existing vegetation	EC-2	SS-2
	Physical Stabilization of exposed soil		
	Hydraulic Mulch	EC-3	SS-3
	 Hydroseeding 	EC-4	SS-4
	 Soil Binders 	EC-5	SS-5
	Straw Mulch	EC-6	SS-6
	 Geotextiles, Plastic Covers, and Erosion Control Blankets/Mats 	EC-7 EC-8	SS-7 SS-8
	Site Drainage		
	Earth Dikes/Drainage Swales	EC-9	SS-9
	 Energy Dissipater/Outlet Protection 	EC-10	SS-10
	Slope Drains	EC-11	SS-11
Sediment Control	Perimeter Protection (one or more must be		
	implemented)	SE-1	SC-1
	• Silt Fence	SE-6	SC-6
	Gravel Bag Berm Ell Ball Ball Gravel Bag Berm Ell Bag Berm	SE-5	SC-5
	• Fiber Rolls		
	Sediment Capture (one or more must be implemented)		
	Sediment/Desilting Basin ²	SE-2	SC-2
	Storm Drain Inlet Protection	SE-10	SC-10
	Sediment Trap	SE-3	SC-3
	Gravel Bag Barrier	SE-8 SE-9	SC-8 SC-9
	Straw Barrier	SEE-9	3C-9



BMP Type	Minimum Required BMPs	CASQA Factsheet	Caltrans Factsheet ¹
	Sediment Tracking		
	 Stabilized Construction Entrance/Exit 	TC-1	TC-1
	 Construction Road Stabilization 	TC-2	TC-2
	 Entrance/Exit Tire Wash 	TC-3	TC-3
	Street Sweeping	SC-7	SC-7
Good Site	Vehicle and Equipment Management		
Management,	Cleaning	NS-8	NS-8
"Housekeeping"	• Fueling	NS-9	NS-9
	Maintenance	NS-10	NS-10
	Materials Management		
	Material Delivery and Storage	W/M 1	W/M 1
	Material Use	WM-1 WM-2	WM-1 WM-2
	Stockpile Management	WM-3	WM-3
	Spill Prevention and Control	WM-4	WM-4
	Waste Management (where applicable)	77.2.2	*****
	Solid Waste	W/M E	WM-5
	Hazardous Waste	WM-5 WM-6	WM-6
	Contaminated Soil	WM-7	WM-7
	Concrete	WM-8	WM-8
	Sanitary Waste	WM-9	WM-9
	Liquid	WM-10	WM-10
Non-Stormwater		270.4	270.4
Management		NS-1	NS-1
- Management	Dewatering Operations	NS-2	NS-2
	Paving and Grinding	NS-3 NS-7	NS-3 NS-7
	 Potable Water/Irrigation and Flushing 	1NO-/	1NO-/

K.6.2 Additional Erosion and Sediment Control Requirements

In addition to the minimum BMPs listed in the table above, construction projects are also required to comply with the following requirements:

- 1. The faces of cut-and-fill slopes and the project site shall be prepared and maintained to control against erosion. All exposed disturbed areas must have erosion prevention controls properly installed including building pads, unfinished roads and slopes. Slopes greater than 33.3% or 1:3 (vertical vs. horizontal) may use properly designed and installed de-silting basins at all discharge points in lieu of this requirement.
- 2. Where necessary, temporary and/or permanent erosion control devices such as desilting basins, check dams, cribbing, riprap, or other devices or methods as approved by the City Engineer shall be employed to control erosion, prevent discharge of sediment, and provide safety.



- 3. Temporary desilting basins constructed of compacted earth shall be compacted to a relative compaction of 90 percent of maximum density. A gravel bag or plastic spillway must be installed for overflow, as designed by the engineer of work, to avoid failure of the earthen dam. A soils engineering report prepared by the soils engineer, including the type of field testing performed, location and results of testing shall be submitted to the City Engineer for approval upon completion of the desilting basins.
- 4. Desilting facilities shall be provided at drainage outlets from the graded site, and shall be designed to provide a desilting capacity capable of containing the anticipated runoff for a period of time adequate to allow reasonable settlement of suspended particles.
- 5. Desilting basins shall be constructed around the perimeter of projects, whenever feasible, and shall provide improved maintenance access from paved roads during wet weather. Grading cost estimates must include maintenance and ultimate removal costs for temporary desilting basins.
- 6. The erosion control provisions shall take into account drainage patterns during the current and future phases of grading.
- 7. Erosion protection may include effective planting of all slopes unless otherwise approved by the City Engineer. Planting of the slopes shall be done as soon as practicable, and prior to rough grade approval. If this is not accomplished, the slope shall be treated with punched cereal straw, broadcast on the soil surface at 4,000 pounds per acre and held with a tackifier, fiber or net, or an equal system approved by the City Engineer. Planting shall be installed, fully germinated, and effectively cover the required slopes prior to finished grade approval.
- 8. The permittee or owner shall be responsible for control of erosion on all areas of grading until acceptance of the completed grading by the City Council. This responsibility extends to completed and occupied lots.
- 9. Equipment and workers for emergency work shall be made available at all times. One hundred twenty-five percent of all necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices at all times.
- 10. All removable protective devices shown shall be in place at the end of each working day when there is a 50 percent chance of rain within a 48-hour period. If the developer does not provide the required installation or maintenance of erosion control structures within two hours of notification at the 24-hour number on the plans, the City Engineer may order City crews or the City's Contractor to do the work or may issue contracts for such work and charge the cost of this work along with reasonable overhead charges to the cash deposits or other instruments implemented for this work without further notification to the owner. No additional work on the project, except erosion control work, may be performed until the full amount drawn from the deposit is restored by the developer.
- 11. At any time of year, an inactive site shall be fully protected from erosion and discharges of sediment. Flat areas with less than five percent grade shall be fully covered unless sediment control is provided through desilting basins at all project discharge points. A site is considered inactive if construction activities have ceased for a period of 14 or more consecutive days.



K.6.3 ADVANCED TREATMENT METHODS

For the majority of the construction sites within the City's jurisdiction, the minimum required BMPs, if correctly installed and maintained, should adequately control sediment discharges from the site. However, if it is determined that a site possesses characteristics that could result in standard construction BMPs being ineffective in the treatment of sediment, thus resulting in an exceptional threat to water quality, advanced treatment will be required. The term "advanced treatment," as used in this section, includes both active and passive sediment treatment systems. These systems usually involve adding a coagulant to construction site discharge to facilitate sediment removal; see the BMP Design Manual for additional details.

A site is considered to pose an exceptional threat to water quality if it meets all of the following criteria:

- Is located within, adjacent to, or a portion of the site is within 200 feet of waters listed on the 303(d) List for sedimentation or turbidity impairments;
- Disturbance is greater than five acres, including all phases of the development;
- Disturbed slopes are steeper than 4:1 (horizontal: vertical) and higher than 10 feet that drain toward the 303(d) Listed receiving water;

Contains a predominance of soils with U.S. Department of Agriculture – National Resources Conservation Service Erosion factor K greater than or equal to 0.4. Alternatively, applicants may perform a Revised Universal Soil Loss Equation or Modified Universal Soil Loss Equation analysis to prove to the City Engineer's satisfaction that advanced treatment is not required.

Treatment effluent water quality shall meet or exceed the water quality objectives for turbidity, and any other parameter deemed necessary by the City Engineer as listed in the Water Quality Control Plan for the San Diego Basin for Inland Surface Waters and Lagoons and Estuaries (Basin Plan) for the appropriate hydrologic unit.

Additionally, the City may require advanced treatment for sites that have a record of noncompliance with the City's construction BMP requirements, regardless of whether they meet the above criteria. For projects where advanced treatment is required, the applicant must submit the design, operations and maintenance schedule, monitoring plan, and certification of training of staff to the satisfaction of the City.

K.6.4 ADDITIONAL CONTROLS FOR CONSTRUCTION SITES

Depending on specific site conditions and where a threat to water quality is anticipated, the City may require a construction site to implement BMPs in addition to the minimum and seasonal BMPs describe above. Such additional BMPs will be determined by the City on a site-by-site basis. Additional controls may include required de-silting basins, increased inspection frequency, and/or stronger penalties for non-compliance. Currently, there are no water bodies that are 303(d) Listed for sediment in or downstream of the City.



K.6.5 BMP Implementation

BMPs shall be selected, designed, installed, and maintained properly throughout the duration of construction projects to control off-site discharges and prevent sediment-laden water and other pollutants from impacting adjacent properties or entering the City's public storm system and/or adjacent or downstream rivers, streams, and sensitive areas. BMPs must be discussed with all project contractors, subcontractors, and any party involved, because education is essential to good BMP implementation and maintenance and overall site compliance.

K.6.6 BMP Effectiveness

BMPs shall be routinely evaluated for their effectiveness. Additional BMPs shall be implemented as dictated by site conditions throughout all phases of the project. The contractor shall contact the SWPPP developer or CSWPCP preparer as applicable if BMPs are found to be ineffective. As described in Section K.8, The City Inspector may require additional measures depending on individual site conditions.

K.6.7 BMP Maintenance

BMP measures stated in the SWPPP or CSWPCP, as applicable, shall be maintained in fully functional condition until no longer required for a completed phase of work or final stabilization has been achieved.

K.7 Permanent BMP Inspections during Construction

For Priority Development Projects, a City inspection is required to verify permanent BMPs have been installed in accordance with the Storm Water Quality Management Plan. A copy of the Permanent Constructed BMP Self Certification Form is provided in Appendix I.

The contractor is prohibited from making modifications to the permanent BMPs shown on the plans. To propose modifications:

- For private permit projects, the engineer of record is required to submit a revised SWQMP to the Development Services Department for approval, prior to installation.
- For capital improvement projects, the contractor is required to obtain approval from the city engineer responsible for the design of the plans.

K.8 Compliance Verification and Enforcement

K.8.1 Construction Site Inspections

It is the responsibility of the site owners or contractors to abide by inspection requirements. Regardless of any inspections conducted by the City, property owners or contractors are required to prevent any construction-related materials, trash, wastes, spills or residues from entering a storm water conveyance system.

The City is responsible for performing periodic storm water compliance inspections of construction sites within its boundaries, and all project owners must allow City Inspectors onto the project site



for these inspections. All construction sites are subject to site inspection by City staff in accordance with the City's Municipal Code, the Municipal Permit, City's policies and procedures and these standards.

City inspectors have the authority at any phase of construction to require additional BMPs if the SWPPP/CSWPCP is not protective of water quality.

Note: projects may also be subject to inspection by staff of the SWRCB, SDRWQCB, or U.S. EPA. Inspection procedures for those agencies are separate and carry different enforcement actions/mechanisms.

K.8.2 Inspection Frequency

Each construction site shall be inspected by City staff for compliance with storm water standards at the minimum frequencies shown in Table 8–1. Site-specific inspection frequencies are re-assessed periodically, especially when grading activities are planned during the rainy season. City staff may conduct additional inspections and modify site priority based on several factors including, but not limited to:

- Site conditions;
- Developer/Contractor previous violations and past performance;
- Rain events during the dry season
- Grading during rainy season; and
- Proximity to water bodies

Table 8-1 Construction Inspection Frequencies

Site Prioritization	Inspection Frequency			
Site I Horitization	Rainy Season	Dry Season		
High	2x per Month	Monthly		
Low	Monthly	As needed		
Inactive	Monthly	As needed		

K.8.3 Inspection Content

Construction site inspections will include the following:

- a. Where applicable, a check for proof of coverage under the Construction General Permit. This may include checking the SWPPP for a copy of the Notice of Intent and/or the WDID number. This proof can also be obtained from the State Water Resources Control Board SMARTS website. Once coverage has been confirmed, this information is not checked during subsequent inspections.
- b. Assessment of the implementation of all required BMPs, including the minimum and any additional controls required by the City in the SWPPP or the CSWMP.



- c. Assessment of BMP adequacy and effectiveness. The inspector can issue orders for additional BMPs if it is determined that previously approved BMPs are not adequate or effective.
- d. Visual observations of actual non-storm water discharges, actual or potential illicit connections, and potential discharge of pollutants in storm water runoff.
- e. Visual observations for actual or potential discharge of sediment and/or construction related materials from the site.
- f. A check for proper maintenance of the applicable BMPs.
- g. Education of responsible person at the construction site on storm water pollution prevention as needed. A responsible person, preferably the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), or the site superintendent, should accompany the inspector and receive instructions on BMP deficiencies and corrective actions.
- h. Photographs to document BMP implementation and potential violations. This photo documentation will be required in the event that enforcement actions become necessary.

The inspection form titled "Storm Water Quality Inspection for Construction Activities", refer to Attachment 3, will be used during all construction site BMP inspections. The inspection form contains questions to ensure all the previously mentioned inspection components are addressed. The form lists the construction BMPs required by the City and includes boxes to document if BMPs need to be implemented or if they require maintenance. If required BMPs are missing or found to be improperly implemented, appropriate enforcement actions, as described in Section below, will be taken.

K.8.4 Construction Site Enforcement

The City is responsible for enforcement of local ordinances and applicable local permits at all construction sites in its jurisdiction. Enforcement for construction projects will be administered by City inspectors and/or other staff with inspection and enforcement authority.

When violations are observed and documented during a site inspection, the City will utilize appropriate enforcement measures based on the severity of the violation. Enforcement can range from verbal warnings to more severe enforcement such as Stop Work Notices. Escalating enforcement measures will be used as necessary if proper corrective actions are not implemented during the allotted time frame or if the severity of the violation warrants stricter enforcement.

The typical progressive enforcement steps that the City will implement for construction sites include the following:

- Verbal warnings
- Written warnings
- Enforcement of contracts (municipal projects)
- Stop Work Notices and Orders
- Denial or revocation of permits



• Administrative, Civil, and criminal actions

As required by the Municipal Permit, City inspectors will seek to resolve incidents of observed noncompliance within 30 calendar days, or before the next rain event, whichever is sooner. In cases where the violation cannot be resolved within the appropriate timeframe, the reason additional time was needed for case resolution will be documented and kept in the project's file.

K.8.5 RWQCB Notification

In accordance with the Municipal Permit, the City will report any non-compliance associated with construction activity that may endanger human or environmental health. All information will be reported to the RWQCB verbally within 24 hours of the City becoming aware of the circumstances. Within 5 days of the City first becoming aware of the circumstances, a written submission including the following information will be provided to the RWQCB:

- Description of the non-compliance and its cause
- Exact dates and times of non-compliance, or if the non-compliance has not been corrected by the time of the written submission, the anticipated time it is expected to continue
- Description of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance

Criteria listed below will be used to determine the human or environmental health threats of a non-compliance event, whether from storm water or non-storm water discharges, where applicable:

- Estimated area of erosion caused by discharge
- Estimated pollutant load discharged from site
- Estimated volume of discharge
- Types of pollutants discharged, including if toxic materials were discharged
- Total suspended solids (TSS) concentration and turbidity of discharge
- Other materials discharged that pose a threat (concrete washout, sanitary washes, etc.)
- Sensitivity of the receiving water body, including if it is 303(d) Listed for any of the pollutants in the discharge
- Proximity of site to sensitive habitat/endangered species
- Proximity of site to public water supply (well head, monitoring wells)
- How much, if any, of the discharge reached the receiving water body
- Beneficial uses for affected water bodies
- In addition to notifying the RWQCB about threats to human health or the environment, the City copies the RWQCB on NOVs, Stop Work Notices, or any other high level enforcement measures whenever they are issued to construction sites in the City's jurisdiction.



Attachment 1 Construction Storm Water Pollution Control Plan (CSWPCP Form)





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Construction Storm Water Pollution Control Plan (CSWPCP)

Department of Public Works-Storm Water Management Section

March 2016

In order to comply with the Federal Clean Water Act, the State Water Code, City of Chula Vista Storm Water Management and Discharge Control and Grading Ordinances, BMP Design Manual and Jurisdictional Runoff Management Program, the City of Chula Vista requires that property owners complete a Construction Storm Water Pollution Control Plan (CSWPCP) prior to issuance of any permit for all private and public development and redevelopment projects not subject to NPDES Construction General Permit requirements (CGP).

This form is utilized for all private or public development and redevelopment permit applications not subject to the NPDES Construction General Construction (CGP) including but not limited to:

- Project that results in disturbance of less than one acre of total land area and are not part of a larger common plan of development or sale; or
- Project that have Grading, Construction, Building and Demolition/Removal approval types or require submittal of grading/construction plans for review and approval; or
- Project that results in disturbance of one to five acres of total land area and can demonstrate that there
 will be no adverse water quality impacts by applying for a Construction Rainfall Erosivity Waiver.
- Linear underground project that results in disturbance of an acre or more of total land area and are considered regular maintenance projects performed to restore the original line, grade, or capacity of the facility.

Linear underground projects involve the replacement and/or rehabilitation of water, sewer and/or storm drains along with their associated appurtenances in the public Right of Way. Linear Utility projects may also include ADA improvements to curb ramps and sidewalk, street repair from full width to trench limits, and traffic improvements (does not include street resurfacing).

Section 1: Identify Relevant Project Information					
Permit Application Number:	Project Name:				
Project address/location:	APN:				
Brief Project Description:					
Estimate Amount of Disturbed Differential Acreage:	Estimated Elevation over entire Project Area:				
Estimate Project Start Date:	Estimate Project Finish Date:				
Section 2: Owner/Applicant & Contact Information	tion:				
Owner Name:	Owner E-mail:				
Contact Name:	Contact E-mail:				
Contact Address:	City: State: Zip Code:				
Telephone No.:					
Contractor Name:	Company Name:				
Telephone No.:	E-mail:				

Section 3: Identify Construction Storm Water BMPs

The purpose of the CSWPCP is to document Best Management Practices (BMPs) that will be implemented to prevent pollutants, including sediment, from entering the storm water conveyance system and receiving waters. The CSWPCP becomes a part of the permit and is subject to enforcement by the City and others.

Unprotected construction sites have the potential to discharge sediment and other pollutants into local waterways. All construction projects are required to reduce pollution to the Maximum Extent Practicable by implementing best management practices (BMPs). The seven major categories as identified in the MS4 Permit (E.4.c) are:

- 1. Project Planning;
- Good Site Management "Housekeeping", including Waste Management;
- 3. Non Storm Water Management;
- 4. Erosion Control;
- 5. Sediment Control;
- 6. Run-on and Run-off Control; and
- 7. Active/Passive Sediment Treatment Systems, where applicable

BEST MANAGEMENT PRACTICES (BMP)

The BMPs listed in Tables 1 and 2 (attached) will be implemented on a year-round basis throughout the project duration, not solely during seasons in which the probability of a rain event is high. All areas not in use for 14 days will be stabilized (i.e., exposed soil will be covered). Sufficient BMP materials will be maintained on-site to allow implementation and emergency installation in the event of a breech. Locations where BMPs will be implemented are to be shown on the Site Map/plan sheet.

BMPs from each of the above categories must be used together as a system in order to prevent potential pollutant discharges. Projects containing site features identified with a "yes" answer in Table 1 must utilize BMPs from the applicable BMP from Table 2. If no BMPs from a specific table are selected, an explanation must be provided. The questions in Table 1 below are designed to assist with selecting appropriate BMPs for the site; please check "Yes" or "No" and provide additional information if needed)

For BMP implementation details, refer to:

- California Stormwater Quality Association (CASQA) Construction BMP Handbook, online at: http://www.casqa.org/LeftNavigation/ConstructionBMPHandbookPortalSWPPPTemplate/tabid/200/Default.aspx, (subscription required); and
- California Department of Transportation (Caltrans) Construction Site BMP Handbook (most current), online at: http://www.dot.ca.gov/hg/construc/stormwater/CSBMPM 303 Final.pdf.

Note: It is the responsibility of the property owner and the contractor to determine the types of BMPs that will be used, as well as the levels of application necessary to comply with all applicable requirements. Failure to prevent soil erosion and discharges of sediment and other pollutants from construction sites is subject to enforcement by the City and others.

BMP Inspections

Routine inspections are necessary to ensure the integrity and effectiveness of BMPs, and helps protect a site from unexpected weather events. Project owner or contractor should perform daily inspections to identify BMPs in need of maintenance. Best management practice maintenance requirements are listed in Table 3 below.

	Table 1 - Determination of Site Features, Activities, and Potential Pollutants					
No	Site/Activity Features Questions	No	Yes	If Yes, Select BMPs from Table 2:	Potential Pollutant Sources (add, if not listed)	
1	Is there run-on to the site from surrounding areas?	Ш		Item H	-	
2	Are storm drain inlets located within the project boundary and/or will the site discharge storm water to nearby storm drain inlets?			Items F & H	-	
3	Will concentrated flows and/or large accumulations of water occur on-site?	Ш		Item H	-	
4	Is the site adjacent to a waterway or sensitive habitat (i.e., wetland, vernal pool, etc.)? Note: additional permitting may be required.		Ш	Item E	-	
6	Will the site have exposed/disturbed slopes greater than 5 percent?	Ш	Ш	Items A, B, C & D, F	-	
7	Will there be soil-disturbance activities (grading, stockpiling, trenching, etc.)?	Ш	Ш	Items A, B, C & D, F, G	Sediment	
8	Will there be asphalt paving, cutting, and/or patching?	Ш	Ш	Item A & J	Asphalt aggregate	
9	Will there be stockpiling (i.e., soil, concrete, solid waste, etc.) for over 24 hours?	Ш	Ш	Item K	Stockpiled material, please specify:	
10	Will there be slurries from concrete or mortar mixing, coring, or saw cutting?	Ш	Ш	Items I, J & K	Concrete materials, aggregate, slurry water	
11	Will wash water or liquid waste be generated from this project?	Ш	Ш	Items I, J & M	Liquid waste, please specify:	
12	Will there be dewatering operations?	Ш	Ш	Item M	Dewatering water, please specify:	
13	Will there be on-site storage of construction materials such as mortar mix, raw landscaping and soil stabilization materials, treated lumber, rebar, and plated metal fencing materials?			Item K	Construction materials, please specify:	
14	Will trash or solid wastes (including landscaping wastes) be generated from this project?			Item J	Solid waste, please specify:	
15	Will hazardous materials or wastes, including paint, be stored or handled onsite?	Ц	Ш	Item J	Hazardous material, please specify:	
16	Will construction equipment and/or vehicles be stored, fueled, maintained, or washed on- site?	Ц	Ц	Items I, L & M	Engine fluids, fuels, oil, grease, wash water	
17	Will portable sanitary facilities ("Porta- potties") be used on the site?	Ш	Ш	Items I, J	Sanitary waste	
18	Are underlying soils potentially contaminated?	Ш	Ш	Item J	Contaminated soil	
19	Will dust (i.e., from grading, driving on unpaved roads, etc.) or particulates (i.e., from sandblasting, concrete cutting, painting, etc.) be generated from this project?		Ш	Item N	Sediment, particulate construction materials, please specify:	

(March 2016)

TABLE 2 - Minimum Required Standard Construction Stormwater BMPs					
	References		Check at	If no BMP were selected,	
Minimum Required BMPs	CASQA BMP	Caltrans BMP	least one BMP	explain the rational	
Item A: General Erosion Control BMPs					
Scheduling/Phasing Construction	EC-1	SS-1			
Minimize Slope Length and Gradient	-	-			
Manage Soil Stockpiles	WM-3	WM-3	Ш		
Item B: Physical Stabilization BMPs					
Erosion Control Blankets and Turf Reinforced Mats	EC-7	SS-7			
Mulch and Bonded Fiber Matrix	EC-3, EC-5	SS-3			
Soil Binders	EC-5	SS-5			
Mulch	EC-6, EC-8, EC-14	SS-6, SS-8			
Compost Blankets	EC-14	-			
Soil Roughening	EC-15	-			
Topsoil Reapplication	-	-			
Permanent Stabilization (i.e., retaining walls, rock gabions, rock riprap, etc.)	-	1	Ц		
Item C: Vegetation Stabilization BMPs					
Preserve Existing Vegetation	EC-2	SS-2			
Establish Interim Vegetation	EC-4	SS-4	Ш		
Establish Permanent Landscaping	-	-	Ц		
Streambank Stabilization	EC-12	SS-12	Ш		
Item D: Perimeter Control BMPs					
Silt Fencing	SE-1	SC-10	Ш		
Gravel Bag Barriers	SE-6	SC-6			
Fiber Rolls or Straw Wattles	SE-5	SC-5	Ш		
Compost Socks and Berms	SE-13	-			
Item E: Resource Protection BMPs					
Linear Protection	SE-1, SE-6, SE-5, SE-13				
Preserve Natural Hydraulic Features & Riparian Area Buffers	-	-	Ц		
Demolition Adjacent to Water	NS-15	NS-15	Ш		
Temporary Stream Crossing	NS-4	-			
Item F: Sediment Capture BMPs					
Storm Drain Inlet Protection	SE-10	SC-10	Ш		
Sediment Trap	EC-3	SC-3			
Sedimentation Basin	SE-2	SC-2			
Active Treatment System	SE-11	-			
Item G: Off-Site Sediment Tracking BMPs					
Construction Entrance/Exit Stabilization	TC-1	TC-1	Ш		
Construction Road Stabilization	TC-2	-	Ш		
Tire Wash	TC-3	TC-3			

City of Chula Vista	 Construction Storm Water Pollution Control Plan (CSWPCP) 	❖ Page of 6
		(March 2016)

TABLE 2 - Minimum Requi	ired Standa	rd Construct	ion Storn	nwater BMPs
		rences	Check at If no BMP wer	
Minimum Required BMPs	CASQA BMP	Caltrans BMP	least one BMP	explain the rational
Street Sweeping and Vacuuming	SE-7	SC-7		
Item H: Run-On and Site Storm Water M		MPs		
Divert Run-on from Surrounding Areas	EC-9, SE-5, SE-6, SE-13			
Check Dams	SE-4	SC-4		
Slope Drains and/or Stabilized Drainage Swales	EC-9, EC-11	SS-9, SS-11	Ш	
Outlet Protection	EC-10	SS-10	Ш	
Item I: Spill Control BMPs				
Spill Prevention and Control	WM-4	WM-4	Ш	
Reporting Significant Spills	-	-		
Item J: Waste Management BMPs				
Solid Waste Management	WM-5	WM-5		
Liquid Waste Management	WM-10	WM-10	Ш	
Contaminated Soil Management	WM-7	WM-7	Ц	
Sanitary Waste Management	WM-9	WM-9	Ш	
Concrete Waste Management	WM-8	WM-8		
Hazardous Waste Management	WM-6	WM-6		
Stockpiled Waste Management	WM-3	WM-3	Ц	
Item K: Material Storage and Handling E	BMPs			
Material Storage	WM-1	WM-1		
Material Handling	WM-2	WM-2		
Paving and Grinding Operations	NS-3	NS-3	Ш	
Concrete Management	NS-12, NS- 13, NS-16	NS-12, NS-14		
Item L: Vehicle and Equipment Manage	ment BMPs			
Vehicle and Equipment Fueling	NS-9	NS-9		
Vehicle and Equipment Maintenance	NS-10	NS-10	Ш	
Item M: Non-Storm Water Management	BMPs			
Illicit Connection/Discharge Control	NS-6	NS-6		
Potable Water/Irrigation	NS-7	NS-7	Ш	
Vehicle and Equipment/Cleaning	NS-8	NS-8	Ш	
Water Conservation Practice	NS-1	NS-1	Ш	
Dewatering Operations	NS-2	NS-2	Ш	
Item N: Particulate and Dust Control BN	/IPs		•	
Wind Erosion Control	WE-1	WE-1		
	1			I.

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Section 4: Develop a Construction BMP Site Map/Plan

A Site Map must be developed and included as Appendix A of this WPCP. The site map should be neat and legible. Several sheets may be used to illustrate the phasing of BMP implementation as construction progresses over time. When two or more sheets are used to illustrate the plan view, an index sheet is required. The Site Map must include all of the following, where applicable:

- Legend, north arrow, and scale of the drawing
- The site boundary and limits of construction;
- Key site features such as steep slopes, highly erodible soils, etc., including State and federal wetlands, if any;
- Storm water conveyance features including, but not limited to all streams and drainage ways delineated, all storm drain inlets and outlets, curb and gutter, swales and channels.
- Anticipated discharge points for construction wastewater (i.e. stormwater, groundwater, and construction wastewater such as dewatering byproducts):
- Drainage areas and direction of flow
- Location of nearby water bodies (including Clean Water Act Section 303(d) List of Impaired Segments in the site's vicinity)
- Location of entrance/exits to the project area
- Areas of soil disturbance and potential pollutant sources;
- Material, stockpile, and waste storage areas (e.g., trash, soil, fuel, construction materials);
- Vehicle and equipment fueling, wash and maintenance areas;
- · Locations of portable sanitary facilities;
- Locations where underlying soil is potentially contaminated; and
- Locations of all BMP implementation areas (types of erosion and sediment controls, as well as dewatering and soil stabilization controls, where applicable).
- Location of building and activity areas (e.g., fueling islands, garages, waste container area, wash racks, hazardous material storage areas).

Section 5: CSWPCP Certification Statement

The property owner and contractor must sign the following certification before a Permit will be issued.

I have read and understand that the City of Chula Vista has adopted minimum requirements for managing urban runoff, including storm water from construction and land development activities. I certify that the BMPs selected on this form will be implemented to minimize the potentially negative impacts of this project's construction and land development activities on water quality. I further agree to install, monitor, maintain, or revise the selected BMPs to ensure their effectiveness.

I also understand that non-compliance with the City's Storm Water Standards may result in enforcement by the City, including fines, cease and desist orders, or other actions. I further understand that approval of this WPCP does not relieve me of my responsibility to comply with storm water regulations including the protection of adjacent properties from inundation as a result of my construction activities.

Contractor Name:	
Contractor's Signature:	Date:
Property Owner's Name:	
Property Owner's Signature:	Date:

Attachment 2

Construction Storm Water Certification Statement

(Refer to the Intake Form of Exhibit A.1)





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Attachment 3

Storm Water Quality Inspection for Construction Activities Form





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INSPECTION REPORT • Part 1

Storm Water Quality Inspection for Construction Activities

CHULA VISTA 1800	0 Maxwell Road, Chula Vista, CA 91911	• 619-397-6000 • Fax 619-397-6259
☐ 1st NOTICE ☐ 2nd	NOTICE NOTICE OF VI	OLATION STOP WORK ORDER
		Inspection Date/TimeAM/PM Responsible Person(s):
		Telephone # () ()
Project Address:		Inspection Report: Faxed Posted
		Amount of rainfall since last inspection:
INSPECTION TYPE Routine Site Inspection Complaint Investigation Follow-Up GENERAL OBSERVATIONS	Prior to Forecasted Rain Event After Rain Event WDID# OF CONDITIONS OF CONCER	Does the site maintain a SWPPP? TYES NO
REQUIRED BEST MANAG	GEMENT PRACTICES (BMP) BMP BMP	
Best Management Practice		omments

REQUIRED BEST MAN	agement pr	ACTICES (BA	1P)
Best Management Practice	BMP Implementation Required	BMP Maintenance Required	Comments
Good Housekeeping			
Materials Storage			_
Spill Control / Containment			
Stabilized Entrance / Exit			
Dust Control			
Material Washout Area(s)			
Storm Drain Inlet Protection			
Vehicle Storage / Maint.			
Street Maintenance			
Stockpile(s) Management			
Slope / Soil Stabilization			
Silt Fencing			
Fiber Rolls			
Gravel Bags / Check Dams			
SWPPP Maintenance			
BMP:			
Non-Storm Water Management			
Inspector Signature:			Date/
I have received a copy of this Inst the inspection unless otherwise n action per Chula Vista Municipal	pection Report. The loted. I understand Code, chapter 14.2	Corrective Actions that non-compliand 0.	required above will be considered and acted upon within days of the with corrective actions listed above may result in further enforcement
Received By (Signature):			//

EROSION AND SEDIMENTATION CONTROL/WATERCOURSE PROTECTION

All development projects in Chula Vista need to implement erosion and sedimentation control and watercourse protection measures. If control measures are not properly implemented/maintained and monitored for effectiveness, the potential is great for the release of significant volumes of sediment and other pollutants to the City's watercourses during the construction of the project from initial grading through completion.

During periods of heavy rain, some control measures may be overwhelmed by large volumes of rainfall and silt. Other measures may prove to be very effective. City Ordinances and National Pollutant Discharge Elimination System (NPDES) regulations require you to implement and maintain Best Management Practices in order to reduce/control and eliminate sediment and pollutant discharges to the City's storm water conveyance systems, including storm drain channels, to the Maximum Extent Practicable.

As specified in the Chula Vista Municipal Code Chapters 14.20, 15.04, and 1.41, failure to comply could result in enforcement actions that may include a Cease and Desist Order (Stop Work Notice), assessment of fines and/or Civil Penalties up to \$10,000 for each day such a violation exists.

CVMC 14.20.100 • DISCHARGE OF NON-STORM WATER PROHIBITED

- A. It is unlawful for any person to discharge non-storm water into the storm water conveyance system, except as provided in CVMC 14.20.110.
- B. It is unlawful for any person to cause either individually or jointly any discharge into or from the Storm Water Conveyance System that results in or contributes to a violation of any NPDES permit. Liability for any damage, abatement costs, or fines against the permit holder caused by such discharge shall be the responsibility of the person(s) causing or responsible for the discharge. (Ord. 2854 § 5, 2002; Ord. 2597 § 11, 1994).

CVMC 14.20.120 • REDUCTION OF POLLUTANTS CONTACTING OR ENTERING STORM WATER REQUIRED Any person engaged in activities, which may result in Pollutants entering the Storm Water Conveyance System, shall, to the maximum extent practical, undertake all measures to reduce the risk of illegal discharges. The following requirements shall apply:

- A. Best Management Practices Implementation. It is unlawful for any person not to comply with BMPs and pollution control requirements established by the city or other responsible agency to eliminate or reduce pollutants entering the city's storm water conveyance system. BMPs shall be complied with throughout the life of the activity.
- B. Storm Water Pollution Prevention Plan. When the enforcement official determines that a business or business-related activity causes or may cause an illegal discharge to the storm water conveyance system, then the enforcement official may require the business to develop and implement a storm water pollution prevention plan (SWPPP). Businesses which may be required to prepare and implement a SWPPP include, but are not limited to, those which perform maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading, and/or cleanup activities partially or wholly out of doors.
- C. Coordination with Hazardous Materials Response Plans and Inventory. Any activity subject to the hazardous materials inventory and response program, pursuant to Chapter 6.95 of the California Health and Safety Code, shall include provisions for compliance with this chapter in its hazardous materials response plan, including prohibitions of unlawful non-storm water discharges illegal discharges, and provisions requiring the use of BMPs to reduce the discharge of pollutants in storm water.
- D. Impervious Surfaces. Persons owning or operating a parking lot or an impervious surface (including, but not limited to, service station pavements or paved private streets and roads) used for automobile-related or similar purposes shall clean those surfaces as frequently and as thoroughly as is necessary, in accordance with BMPs, to prevent the discharge of pollutants to the city's storm water conveyance system. Sweepings or cleaning residue from parking lots or impervious surfaces shall not be swept or otherwise made or allowed to go into any storm water conveyance, gutter, or roadway, but must be disposed of in accordance with regional solid waste procedures and practices.
- E. Compliance with NPDES Permit for Storm Water Discharges. Each discharger, subject to any NPDES permit for storm water discharges shall comply with all requirements of such permit. (Ord. 2854 § 7, 2002; Ord. 2597 § 11, 1994).

CVMC 14.20.130 • CONTAINMENT, CLEANUP, AND NOTIFICATION OF SPILLS

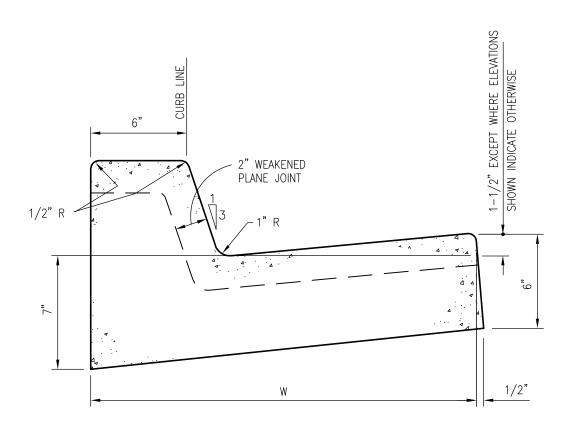
It is unlawful for any person owning or occupying any premises who has knowledge of any release of significant quantities of materials, pollutants, or waste which may result in pollutants or non-storm water discharges entering the city's storm water conveyance system to not immediately take all reasonable action to contain, minimize, and clean up such release. Such person shall notify the city of Chula Vista of the occurrence and/or the County of San Diego department of health services/environmental health services hazardous materials management division, and any other appropriate agency of the occurrence as soon as possible, but no later than 24 hours from the time of the incident's occurrence. (Ord. 2597 § 11, 1994).



APPENDIX "D"

STANDARD DRAWINGS

(San Diego Regional Standard Drawings) &
(Chula Vista Construction Standards)



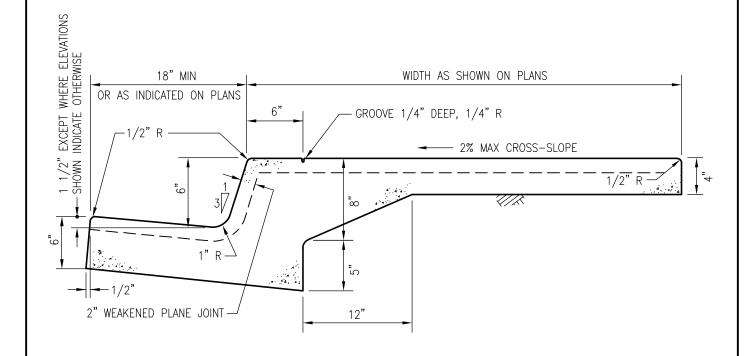
TYPE	W	*AREA
G	24"	1.34 SQ. FT.
Н	30"	1.60 SQ FT.

* 6" CURB HEIGHT

- CONCRETE SHALL BE 520-C-2500.
 SEE STANDARD DRAWINGS G-9 AND G-10 FOR JOINT DETAILS.
 SLOPE TOP OF CURB 2% MAX TOWARD GUTTER.

LEGEND ON PLANS

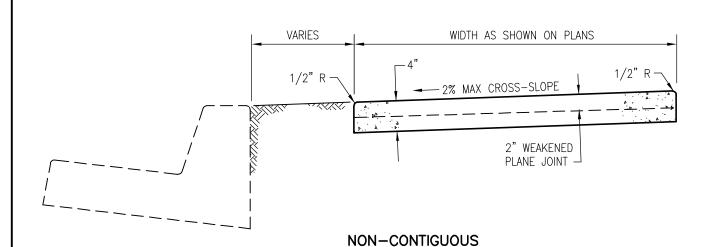
Revision	Ву	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		KERCHEVAL	12/75	SAN DIEGO REGIONAL STANDARD DRAWING	REGIONAL STANDARDS COMMITTEE
ADD METRIC		T. STANTON	03/03		Manton 12/17/2015
REFORMATTED		T. STANTON	04/06	CURB AND GUTTER - COMBINED	Chairperson R.C.E. 19246 Date
UPDATED	MR	MR/CV	11/11		DRAWING G-02
UPDATED	CV	CV	12/15		NUMBER G-UZ

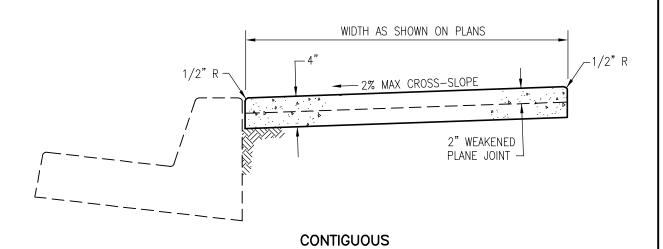


- 1. CONCRETE SHALL BE 520-C-2500.
- 2. SEE STANDARD DRAWINGS G-9 AND G-10 FOR JOINT DETAILS.
- 3. MONOLITHIC CURB, GUTTER AND SIDEWALK IS TO BE USED WITH AGENCY APPROVAL ONLY.

LEGEND ON PLANS

Revision	Ву	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		KERCHEVAL	12/75	SAN DIEGO REGIONAL STANDARD DRAWING	REGIONAL STANDARDS COMMITTEE
ADD METRIC		T. STANTON	03/03	MANALITURA AUDD	Manton 12/17/2015
REFORMATTED		T. STANTON	04/06	MONOLITHIC CURB,	Chairperson R.C.E. 19246 Date
UPDATED	MR	MR/CV	11/11	GUTTER AND SIDEWALK	DRAWING G-03
UPDATED	CV	CV	12/15	COTTEN AND OIDENALK	NUMBER G-03



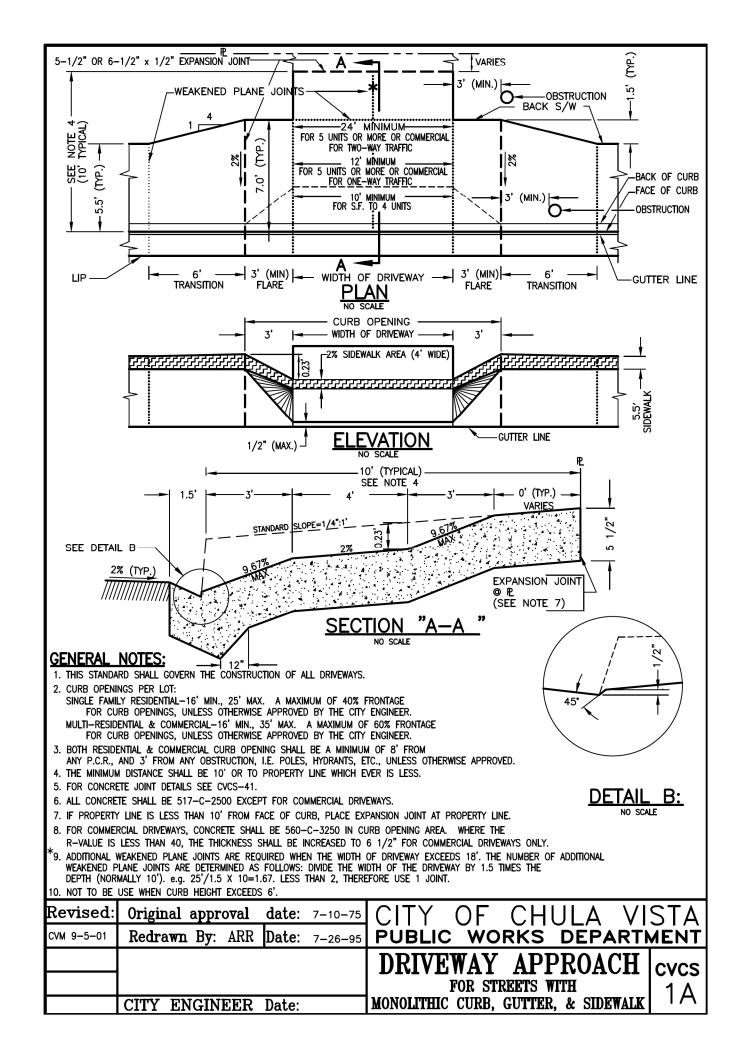


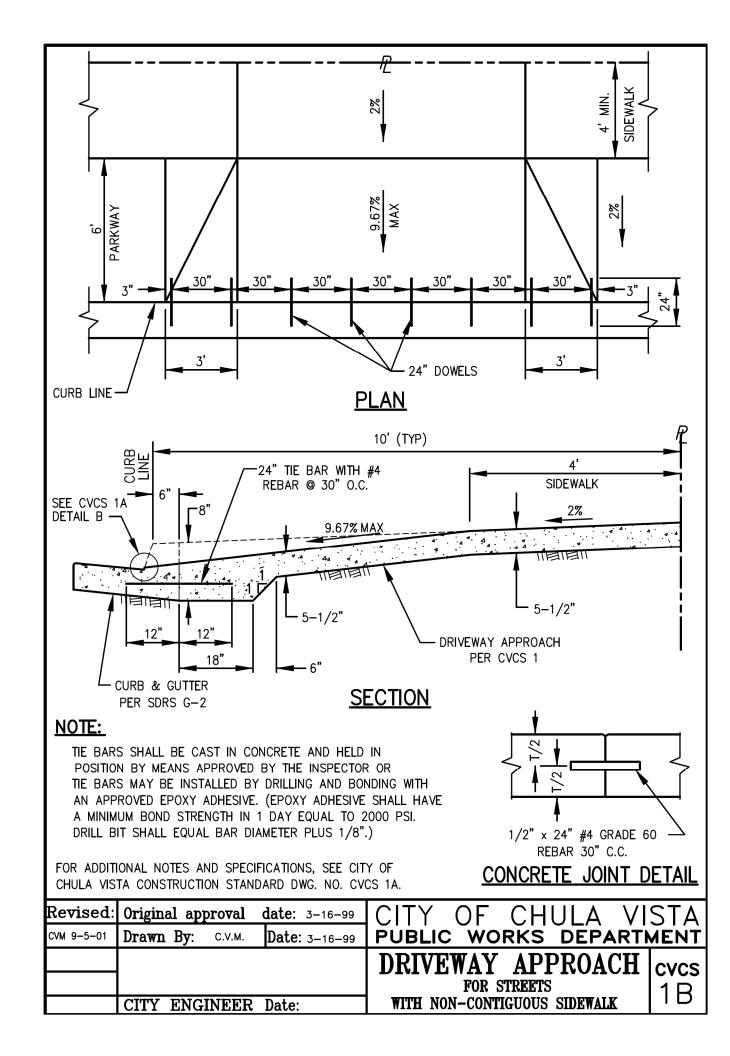
- 1. CONCRETE SHALL BE 520-C-2500.
- 2. SEE STANDARD DRAWINGS G-9 AND G-10 FOR JOINT DETAILS.

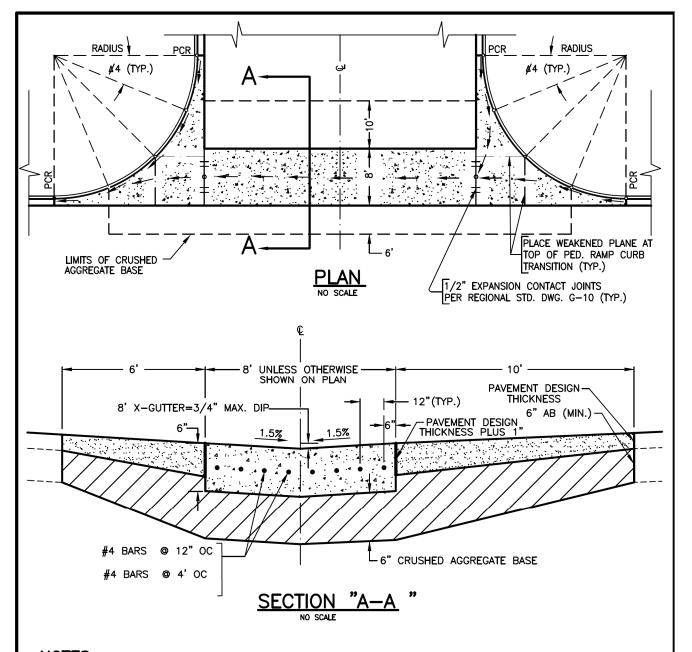
LEGEND ON PLANS

1837) 1831.

Revision	Ву	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		KERCHEVAL	12/75	SAN DIEGO REGIONAL STANDARD DRAWING	REGIONAL STANDARDS COMMITTEE
ADD METRIC		T. STANTON	03/03		Matanton 12/17/2015
REFORMATTED		T. STANTON	04/06	SIDEWALK - TYPICAL SECTIONS	Chairperson R.C.E. 19246 Date
UPDATED	MR	MR/CV	11/11		DRAWING G-07
REVIEWED	CV	CV	12/15		NUMBER G-07

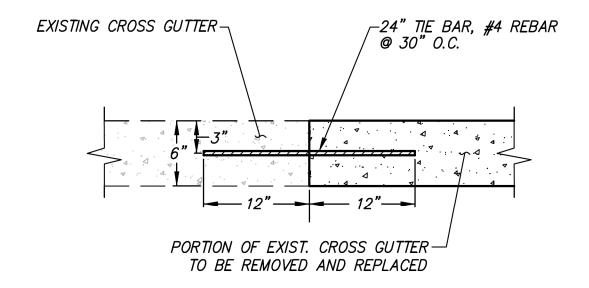






- 1. ALL CONCRETE TO BE 560-C-3250.
- 2. — — = HORIZONTAL LIMITS OF CRUSHED AGGREGATE BASE. TO BE A MINIMUM OF 6" THICK UNDER CROSS GUTTER AND RETURN SEGMENTS(SPANDRELS), COMPACTED TO 95%.
- 3. RETURN SEGMENTS TO HAVE 6" X 6", 10 GAGE WIRE MESH (#4 REBAR © 12" O.C. BOTH WAYS MAY BE SUBSTITUTED).
- 4. —— · —— = WEAKENED PLANE JOINTS. OTHER EXPANSION JOINTS AND WEAKENED PLANE JOINTS FOR SIDEWALKS, CURB AND GUTTER PER CVCS-41
- 5. — =TYPICAL FLOWLINES.
- 6. = ELEVATIONS TO BE SHOWN ON PLANS.
- 7. RETURN SEGMENTS TO BE 6" THICK.
- 8. PLACE WEAKEN PLANE JOINT PER RSD G-10 AT TOP OF PEDESTRIAN RAMP CURB TRANSITION.

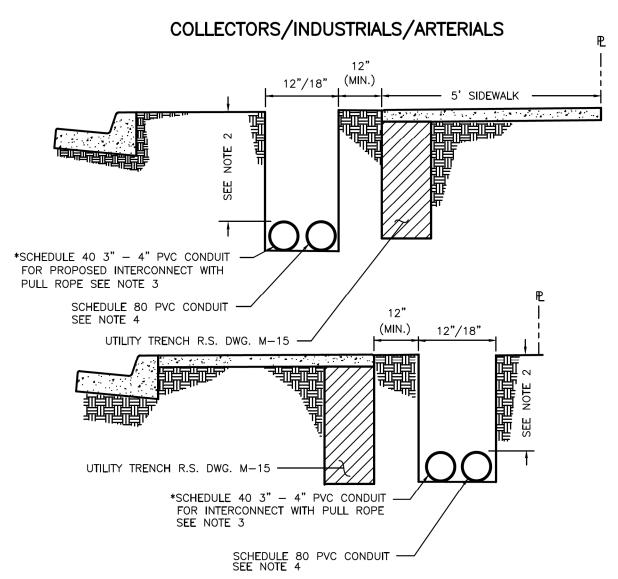
Revised:	Original approval date: 7-10-75	CITY OF CHULA VISTA
CVM 9-5-01	Redrawn By: ARR Date: 7-26-95	PUBLIC WORKS DEPARTMENT
		CROSS GUTTER cvcs
	CITY ENGINEER Date:	1



NOTE: TIE BARS SHALL BE INSTALLED BY DRILLING AND BONDING WITH AN APPROVED EPOXY ADHESIVE. (EPOXY ADHESIVE SHALL HAVE A MINIMUM BOND STRENGTH IN ONE (1) DAY EQUAL TO 2000 PSI. DRILL BIT SHALL EQUAL BAR DIAMETER PLUS 1/8".) DRILL AND SET TIE BARS IN EXISTING CONCRETE WHEN CONNECTING TO NEW CONCRETE.

Q: \CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 2B X-GTR-CONNECTION - COMPY.DVMB016 11:52:18 AM

Revised:	Original approval	date: 06/03/2009	ICITY OF (CHULA	VISTA
	Redrawn By: PGS	Date: 07/01/2016	CITY OF (public wor	KS DEPA	RTMENT
			CROSS (GUTTER	cvcs
	CITY ENGINEER	Date:	CONNECTION TO	NEW CONCRET	E 2B

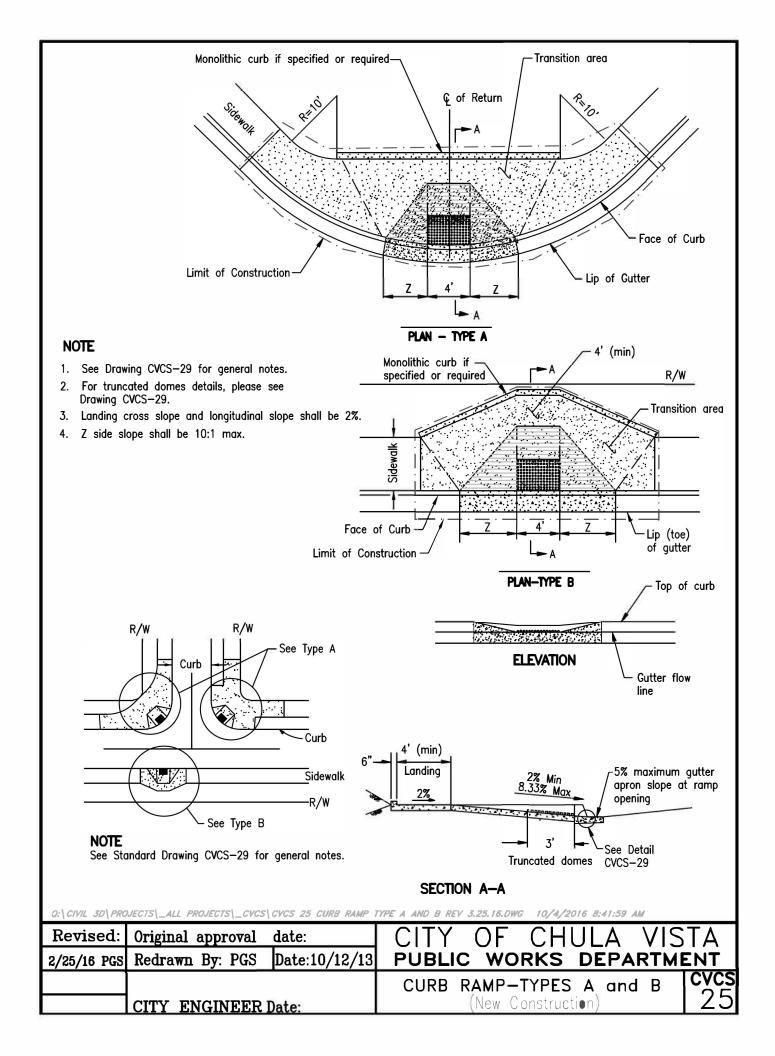


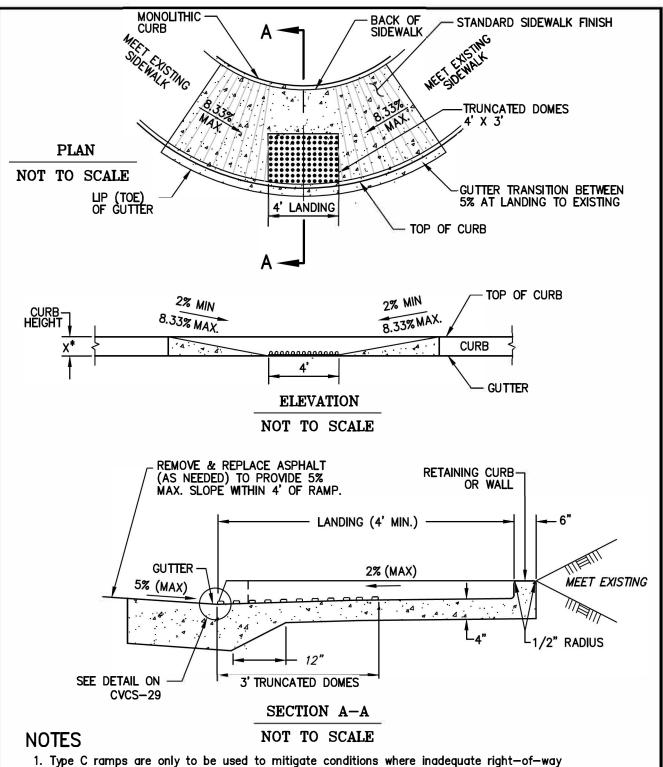
STREET LIGHT/TRAFFIC SIGNAL CONDUIT TRENCH 18" DEEP MINIMUM NOT TO SCALE

- 1. BACKFILL TO BE COMPACTED 90%.
- 2. CONDUIT SHALL BE PLACED A MINIMUM OF 30" BELOW GRADE IN STREET, AND A MINIMUM OF 18" BELOW GRADE BEHIND CURB.
- 3. PULL ROPE SHALL BE INSTALLED FOR FUTURE STREET LIGHT/TRAFFIC SIGNALS/INTERCONNECT.
- 4. CONDUCTOR TYPE & QUANTITY AS APPROVED BY CITY ENGINEER.
- 5. SEE CVCS 11 FOR PULL BOX DETAILS
- 6. * FOR COLLECTOR/INDUSTRIAL/ARTERIAL ROADWAYS USE AN 18" WIDE TRENCH.

Q:\CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 10 ST LT_TRAFFIC SIGNAL.REV 2.26.16.DWG 10/4/2016 10:51:01 AM

Revised:	Original approval	date: 8–18–78	ICITY OF CHULA VI	STAI
9-6-01 CVM	Redrawn By: ARR	Date : 7-26-95	PUBLIC WORKS DEPART	MENT
			STREET LIGHT/TRAFFIC SIGNAL CONDUIT TRENCH	
	CITY ENGINEER	Date:	CONDUIT IKENCH	10

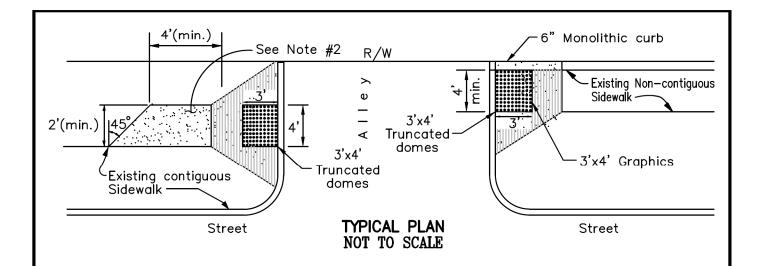


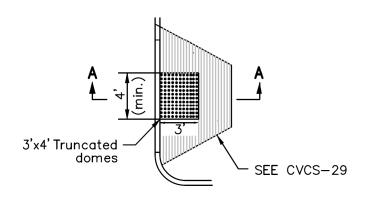


- 1. Type C ramps are only to be used to mitigate conditions where inadequate right—of—way exists. Type C shall only be used with the approval of the City Engineer.
- 2. See CVCS-29 for General Notes.
- 3. Landing cross slope and longitudinal slope shall be 2% maximum.
- 4. For truncated domes, please see CVCS-29.
- 5. Sidewalk transition slope to landing shall be 8.33% maximum in all directions.

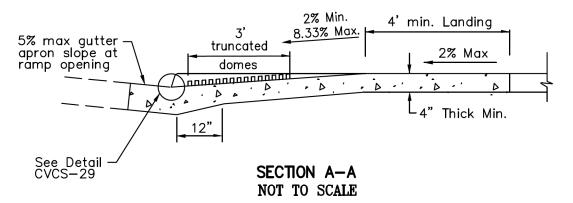
Q: \CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 27B CURB RAMP TYPE C. REV 03.25.16.DWG 10/4/2016 12:35:24 PM

Revised:	Original Approval Date: 3-23-94	CITY OF CHULA V	/ISTAI
		PUBLIC WORKS DEPAR	
10/13/15		DEDECTRIANI DAMP DETAIL	cvcs
03/25/16 PGS	R. A. HOPKINS, P.E.	PEDESTRIAN RAMP DETAIL TYPE "C" MODIFIED	77
	CITY ENGINEER Date:	THE C MODIFIED	Z /





PLAN VIEW NOT TO SCALE



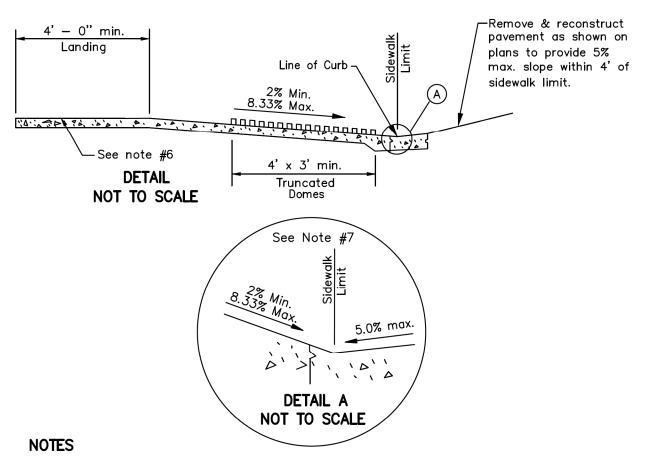
NOTES

- 1. See CVCS-29 for general notes.
- 2. Landing cross slope and longitudinal slope shall be 2% max.
- 3. For truncated domes details, see CVCS-29.

NOT TO SCALE

Q:\CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 28 CURB RAMP TYPE D. REV 3.25.16.DWG 10/4/2016 9:57:20 AM

Revised:	Original approval	date:	CITY	OF (CH	ULA	VIS	STAI
03/25/16 PGS	Redrawn By: PGS	Date: 10/13/15						
	CITY ENGINEER	Date:	CURB	RAMP	_	TYPE	D	cvcs 28



- 1. For construction of Curb Ramps on existing sidewalks, removal of additional sidewalk maybe required to comply with ADA requirements to meet the existing grade.
- 2. Areas shown thus: shall have a medium to heavy broom texture finish, perpendicular to the axis of the ramp.
- 3. Areas shown thus: are the minimum required for a complete ramp installation and shall be concrete class 520-C-2500.
- 4. If obstructions such as inlets, utility poles, fire hydrants, etc., are encountered, the ramp locations may be adjusted upon the approval of the Resident Engineer or Agency Inspector. No utility box covers, grates, etc. shall be allowed within the ramp area and landing.
- 5. Adjoining slope beyond ramp shall not exceed 20:1 (5%) within 4' of sidewalk limit with maximum of 2% cross—slope.
- 6. Landing cross slope and longitudinal slope shall be 2% max except at mid—block curb ramps.
- 7. All projects (new construction & alteration), the lower end of 48—inch width of the ramp shall be flush and free of abrupt changes between the bottom of the ramp and the street pavement surface.
- 8. There shall be a minimum of 6—inches and a maximum of 8—inches separation between the face of the curb and any given point of the nearest edge of the truncated domes.
- 9. The ramp longitudinal slope shall be 2% minimum and 8.33% maximum. Ramp cross—slope shall be 2% maximum.
- 10. Exceptions may be allowed in existing construction and alterations upon City Engineer approval that full compliance is technically infeasible.

Q:\CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 29A GENERAL NOTES.REV 3.25.16.DWG

Revised: Original approval date:

Redrawn By: Date:

CITY ENGINEER Date:

CITY ENGINEER Date:

CITY ENGINEER Date:

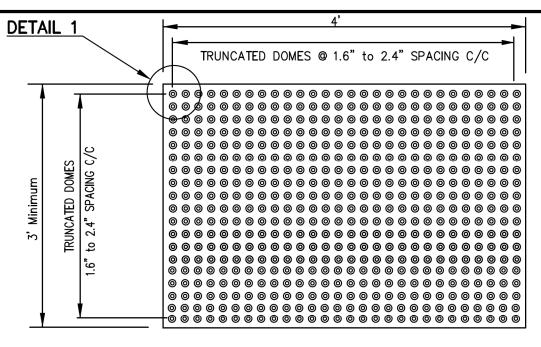
CITY OF CHULA VISTA
PUBLIC WORKS DEPARTMENT

GENERAL NOTES

FOR CURB RAMPS

1 0F 2

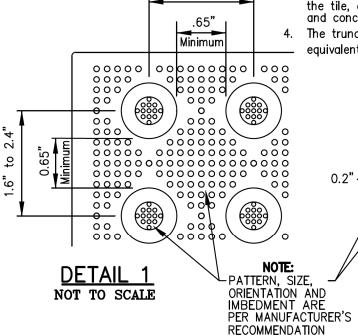
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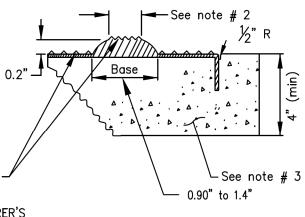
PLAN - TILE NOT TO SCALE

NOTES

- Detectable warning surface color shall be yellow conforming to federal standards 595B Table IV, color No. 33538. Color shall be homogeneous throughout the tile.
- 2. Truncated dome top diameter of 50% of the base diameter minimum to 65% of the base diameter maximum.
- During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external forces placed on the tile to rock the tile, causing a void between the underside of tile and concrete.
 - The truncated dome shall be Armour Tile or an approved equivalent.

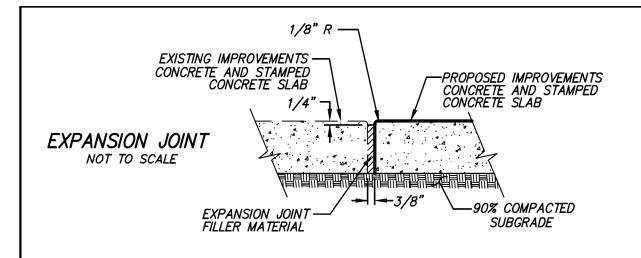


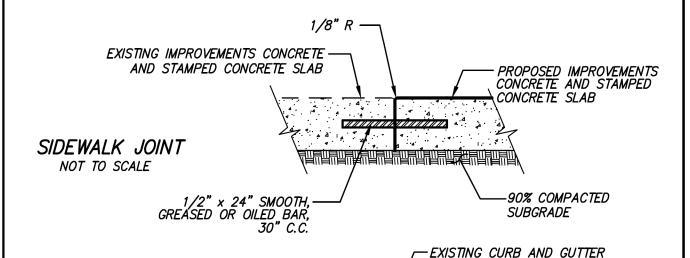
1.6" to 2.4"



Q: \CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 29B TRUNCATED DOME.REV 10.12.15.DWG 10/4/2016 9: 20: 45 AM

	Original Approval Date: 3-13-94	ICITY OF CHULA VISTA
Revised:		PUBLIC WORKS DEPARTMENT
12-08-05		GENERAL NOTES CVCS
09-02-10	R. A. HOPKINS, P.E. CITY ENGINEER Date:	FOR CURB RAMPS $\begin{bmatrix} 29 \\ 2 \text{ of } 2 \end{bmatrix}$





CURB AND SIDEWALK
CONCRETE JOINT DETAIL
NOT TO SCALE

13"

PROPOSED P.C.C. SIDEWALK

11"

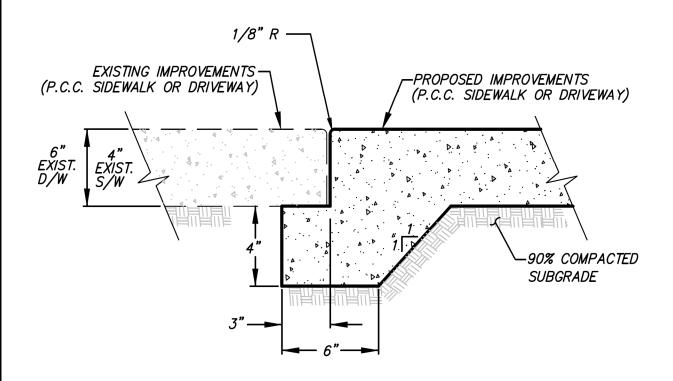
PROPOSED P.C.C. SIDEWALK

·24" TIE BAR, #4 REBAR @ 30" O.C.

NOTE: TIE BARS SHALL BE INSTALLED BY DRILLING AND BONDING WITH AN APPROVED EPOXY ADHESIVE. (EPOXY ADHESIVE SHALL HAVE A MINIMUM BOND STRENGTH IN ONE (1) DAY EQUAL TO 2000 PSI. DRILL BIT SHALL EQUAL BAR DIAMETER PLUS 1/8".) DRILL AND SET TIE BARS IN EXISTING CONCRETE WHEN CONNECTING TO NEW CONCRETE.

Q:\CIVIL 3D\PROJECTS_ALL PROJECTS_CVCS\CVCS 41 CB SW CONNECTION JOINT DETAIL.DWG 10/4/2016 10:04:17 AM

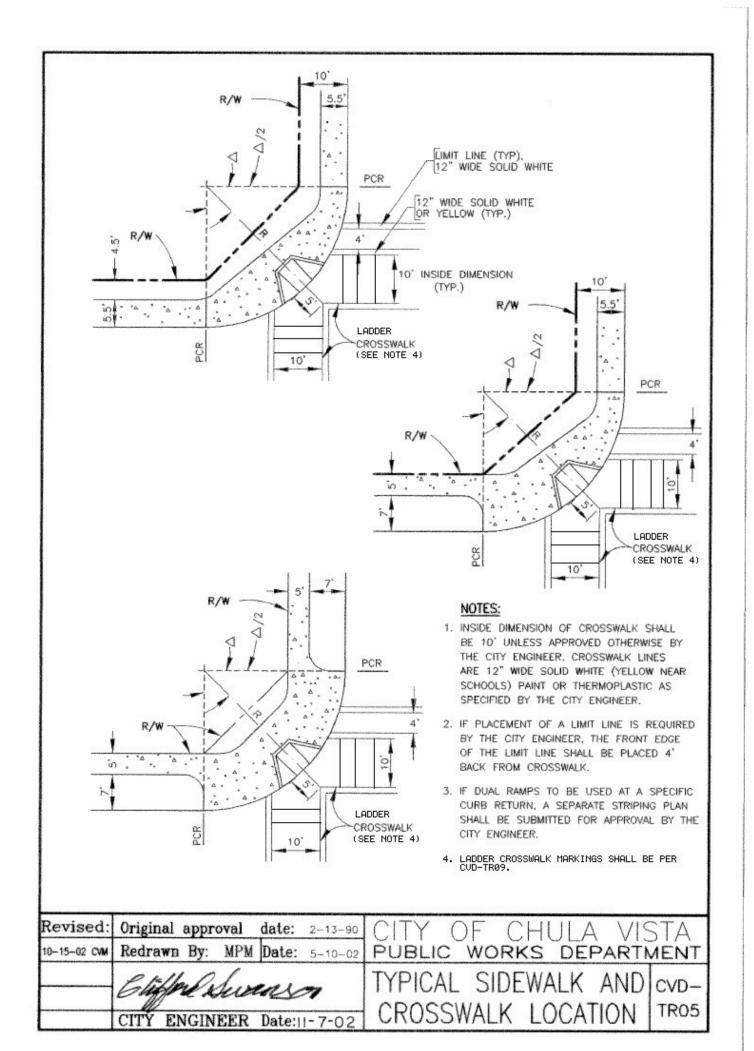
Revised:	Original approval	date : 06/03/2009	ICITY OF CHULA '	/ISTA
	Redrawn By: PGS	Date: 07/01/2016	CITY OF CHULA	TMENT
			CURB AND SIDEWALK	cvcs
	CITY ENGINEER I	Date:	JOINT DETAIL	4



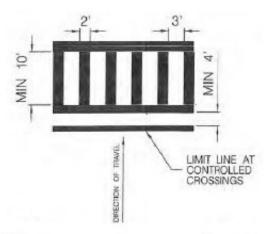
TO BE USED AT ALL EXISTING DRIVEWAY AND SIDEWALK LOCATIONS

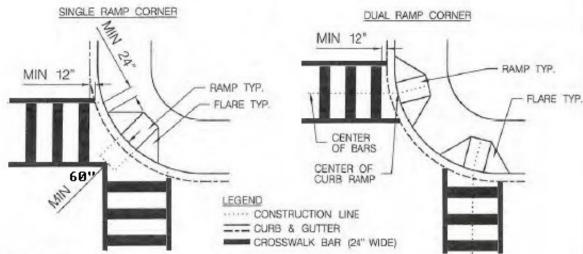
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Revised:	Original approval date: 12-15-2006	LCITY OF CHULA VIS	TA
	Redrawn By: PGS Date: 07-01-2016		
		DRIVEWAY & SIDEWALK THICK	cvcs
	CITY ENGINEER Date:	EDGE CONNECTION DETAIL	42



TYPICAL LADDER CROSSWALK MARKINGS





GENERAL NOTES:

I. MARKED CROSSWALKS SHALL BE WHITE OR YELLOW THERMOPLASTIC (AS REQUIRED) AND SHALL HAVE LADDER MARKINGS UNLESS APPROVED OTHERWISE.

2. MARKED CROSSWALK LOCATIONS CONSISTING OF BRICK PAVERS OR OTHER DECORATIVE PAVING SHALL

BE PROVIDED WITH A LIMIT LINE ONLY.
SIGNALIZED INTERSECTIONS SHALL BE PROVIDED WITH A MARKED CROSSWALK ACROSS EACH LEG WHERE PEDESTRIANS ARE PERMITTED TO CROSS.

CROSSWALK MARKINGS SHALL BE ALIGNED PARALLEL TO THE DIRECTION OF VEHICULAR LADDER TRAVEL

5. LIMIT LINES SHALL BE INSTALLED A MINIMUM OF 4 FEET IN ADVANCE OF MARKED CROSSWALKS FOR THE APPROACH LANES AT ALL CONTROLLED CROSSINGS.

6. MARKED CROSSWALKS SHOULD BE A MINIMUM OF 10 FEET IN WIDTH, PLACEMENT OF LADDER CROSSWALKS SHALL COMPLY WITH ACCESSIBILITY REGULATIONS PER THE MOST RECENT VERSION OF AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS.

7. THE CROSSWALK BETWEEN A DUAL RAMP CORNER AND A SINGLE RAMP CORNER SHALL BE AT LEAST 10 FEET WIDE AND SATISFY THE MINIMUM OF 2 FEET BEYOND THE FLARE REQUIREMENT FOR THE SINGLE

RAMP

LADDER CROSSWALK BARS SHALL BE UNIFORM WITHIN THE SAME CROSSING, NO PARTIAL BARS SHALL BE INSTALLED.

9. A CROSSWALK BAR SHALL BE CENTERED IN THE CENTER OF THE CROSSING.
10. CROSSWALK MARKINGS SHALL BE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) RETROREFLECTIVITY COMPLIANT AND SKID RESISTANT.

Revised:	Original approval	date:	CITY OF CHULA VIS	STA
	Redrawn By:	Date:	PUBLIC WORKS DEPARTM	MENT
	CITY ENGINEER	Date:	LADDER CROSSWALK MARKINGS LAYOUT AND NOTES	CVD- TRO9

APPENDIX "E"

RELEASE FORM

RELEASE FORM

Projec	et No.:			
THE	UNDERSIGNED	PROPERTY O	WNER	OCCUPANT OF
cartifi	as that the Drime Contro	eter		
in con	nection with the work of	f improvements kn	nown as:	
		face of the unders		petter than its condition before the start of perty that was injured or damaged
	No work was perform	ed on the property	by the Contract	or.
Signa	ture			Date
	rty Owner or Occupant			
Print 1	Name			
Prope	rty Owner or Occupant			

APPENDIX "F"

REQUIRED SUBMITTALS

REQUIRED SUBMITTALS

Submittals for the following items, if applicable, must be delivered to the engineer at or prior to the pre-construction meeting: ☐ Project Schedule (Critical path format) - shall include a date of purchase and delivery of materials and shall be submitted no later than the commencement of work ☐ Work Schedule with Critical Path ☐ Traffic Control Plan with Road Construction Signs Warning Expected Delays with dates (shall be submitted and approved by the City prior to the commencement of work). ☐ Material List - All product intended for use on this project (i.e.: Method of Curing etc.) Maybe submitted with the signed contract after award notification O Name of Manufacturer and / or type for: Supplied Pipes Saddles wyes and tee connections Design Mix for Asphaltic Concrete Pavement Crushed Aggregate Base for Paving Crushed Rock for pipe bedding Root Barrier Cure in Place Pipe Steamed Water or UV Lighting Method Lined Lateral Design Method Traffic Signal Equipment Statement of Experience Sewer Manhole Lining **Epoxy** Crafco-Pavement Joint Adhesive or an Approved Equal □ Construction Storm Water Pollution Control Plan (CSWPCP) [for exempt projects. See intake form.] □ NPDES Documents ☐ Sewer Spill Action Plan ☐ Means for Removal (Trucking) ☐ Dig Alert Identification Number for Each Location (Case-by-Case) ☐ All Required Permits (i.e. Air Quality (if needed), trucking, etc.) ☐ Submitted Shop drawings and Signed Calculation for Manhole ☐ Location of state-permitted landfill or recycling facility

APPENDIX "G"

ROOT BARRIER (BIOBARRIER ROOT CONTROL)



Installation Instructions for Vertical Installation

BEFORE YOU START:

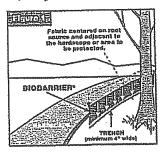
- Contact your utility company prior to trenching if you suspect service lines are present. Consult a professional arborist if root trimming is required.
- Follow all EPA label instructions located on the box and yellow packaging sleeve when installing product.
 Additional instructions in box.

- IMPORTANT NOTES:

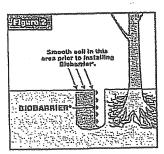
 Biobarrier should be installed on the side of the trench apposite the root source.
- Install and cover Biobarrier as soon as possible (within 12 hours) after opening sealed yellow bag; high temperatures and direct sunlight can reduce effective product life.

INSTALLING THE PRODUCT:

Cut a trench a minimum of 4 inches (100mm) wide and at least equal to the length of mature tree canopy plus 10 feet, centered on the root source and adjacent to the structure using clean-cutting trench digging equipment (see figure 1).



- Cut all roots back flush to trench walls on both sides of trench. For some species, it may be neces-sary to spray the cut end of the severed root on the side opposite tree to prevent root regrowth under the hardscape. If this is necessary, use a systematic herbicide and be extremely careful to avold contact with roots on the opposite side of the trench.
- Smooth soil surface to desired FINAL GRADE LEVEL on side of trench opposite root source (see Figure 2).



- CAREFULLY open yellow bag of Biobarrier on one end to prevent damage. Use yellow bag to store any unused product.
- Roll out Biobarrier and trim to proper length. Place excess material back in yellow bag and seal tightly with spare ties provided.

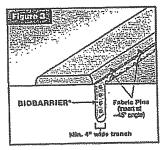
Beginning at one end of the trench, hold product in place at finished grade level on the side of the trench adjacent to the hardscape (opposite root source) and stake in position using plus provided. Use Caution when handling installation plus - they are sharp.

Pins should penetrate fabric between the nodules -1/4" from the top edge of the fabric and at -45 degree angle to the trench wall (see Fig. 3).

Enough pins are provided to secure fabric every 2



Backfill and tamp firmly to eliminate soil settling. Wet soil, if necessary, to ensure proper soil compaction.



For more information on Biobarrier, or for technical assistance,

1-800-25ROOTS ext. 7500

NOTE:

These guidelines treat a typical urban sidewalk application. Other installations such as property lines, building foundations, retaining walls, ornamental beds, septic systems, storm drains, etc. may require minor procedural adjustments.

BIOBARRIER®

Fiberweb, Inc. 70 Old Hickory Blvd. Old Hickory, TN 37138 USA www.biobarrier.com

Made in the USA

Biobarrier® Root Control General Installation Guidelines

THESE GENERAL GUIDELINES MUST BE FOLLOWED IN ALL BIOBARRIER INSTALLATIONS. REFER TO PAGE 5 FOR INDEX OF SPECIFIC INSTRUCTIONS

- Review site-specific design plan with a certified local arborist for all applications specifically for depth of Biobarrier required and ESPECIALLY IF ROOT TRIMMING IS REQUIRED!
- Contact utility companies prior to digging or trenching if there are possibility service lines are present.
- Wear chemical resistant gloves when handling Biobarrier to prevent staining.
- See product label and MSDS sheet for further information.
- Do not allow gaps in fabric during installation or backfilling.
- Many severed roots can regenerate, so they should always be completely removed. If removal is not possible, a systemic herbicide must be applied to severed roots to prevent re-growth. The systemic herbicide should be carefully applied, according to manufacturer directions, insuring that it does not come in contact with existing tree roots. This could damage or kill the tree.

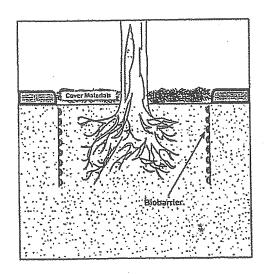
In high organic soils (>10%) with aggressive root species in close proximity to olefin plastics, spray or saturate trench walls with liquid <u>trifluralin</u>.

- When joining two pieces of Biobarrier®, be sure they do not become separated at any point. Seaming can be accomplished by using construction adhesive and/or overlapping. If the latter is used, seams should be overlapped at least 3 inches (or 2 nodule widths). Sod pins may also be used for seams, but make sure there are no gaps.
- Biobarrier® should not be left exposed to surface water or sunlight.
- Biobarrier® products are for non-food uses only.

Biobarrier® stops roots within ~1 inch of a nodule. Proper placement is very important.

It is only effective where it is!

For Technical Assistance on any of these applications, call 1-800-25ROOTS EXT. 7500



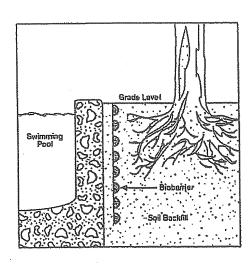
Sidewalks/Paths/Streets/Curbs/Medians/ Tennis Courts

Dig a trench adjacent to hardscape (as close as possible) insuring depth is below where existing roots are found. After trenching, remove remaining roots, leaving walls of trench smooth. Place top edge of Biobarrier® at finished grade level, securing with installation strips and/or pins provided. Backfill carefully to avoid dislocating Biobarrier®, and compact firmly.

Refer to General Guidelines (Pg. 1) & Vertical Instructions (Pg. 2)

Swimming Pools

Dig a trench adjacent to hardscape, pruning and removing any existing roots, leaving trench clean. Place Biobarrier® at finished grade level, securing with installation strips and/or pins provided. Backfill the trench, compacting the dirt firmly to ensure there are no gaps.



Refer to General Guidelines (Pg. 1) & Vertical Instructions (Pg. 2)

APPENDIX "H"

TRANSNET SIGNS

LINK: <u>HTTP://WWW.SANDAG.ORG/UPLOADS/PROJECTID/PROJECTID 528 20120.PDF</u>

TransNet Project Signs Guidelines

TransNet Project Sign Guidelines

As a TransNet funded project, it is important to notify the public about project construction, responsible parties/funding sources, and where to find more information. The following are general guidelines for the recommended use, appearance, and placement frequency of TransNet signage. To ensure the public is informed before, during, and for a period after project construction, a series of *TransNet* project signs have been developed, including variations for:

- *Traffic Relief* (which may be used for highway and major arterial street work)
- Bike Projects
- Smart Growth
- Active Transportation
- Transit Construction
- Street Widening
- Street Upgrades
- Other Graphic Marks

Vertical and horizontal signs have been designed and quotes have been collected to provide high intensity reflectivity as well as the recommended graffiti overlay. Secondary signs to accompany the primary *TransNet* sign may be used to recognize project funds provided by additional entities and/or to provide a phone number (for projects on local streets only) for more information. Design for secondary signs can be requested through SANDAG by contacting Elizabeth Cox, Marketing and Communications Manager, at elizabeth.cox@sandag.org or (619) 699-1937.

Sign Production and Specifications

Artwork for the following sign packages is on file with Myers & Sons Hi-Way Safety Inc. This preferred vendor was identified by SANDAG Creative Services Manager, Keith Kanzel, as successfully meeting quality standards and production specifications while providing competitive pricing.

TransNet signs can be ordered by contacting:



Robert Marquez

Myers & Sons / Hi-WAY SAFETY Inc.

520 W. Grand Avenue

Escondido, CA 92925

Phone: (760) 745-2250 • Cell: (909) 270-0629 • FAX: (760) 745-2094

Email: robert2@hiwaysafety.com

Please email keith.kanzel@sandag.org when you submit your TransNet sign order for signage tracking and quality control during manufacturing, and request that Keith be copied on proofs prior to final production. Sign design files can be provided to other vendors upon request.



TransNet Signage Construction Material Details

- 0.063" Anodized Aluminum Panels
- Avery-Dennison T-6500 High Intensity Series Prismatic Reflective Sheeting (3M Type IV), or equivalent
- Avery-Dennison T-9500 OmniView Series **Premium Prismatic Grade Reflective Sheeting** (3M Type IX Diamond Grade VIP), or equivalent -To be used for KeepSanDiegoMoving URL area ONLY
- Avery-Dennison OL-1000 Premium Anti-Graffiti Overlay Film, or equivalent
- UV Inks to be used without exception

NOTE: Sign production contingent on approval of full scale proof using actual materials by Keith Kanzel.

Color Palette





CMYK:







Pantone Matching System: PMS 186 - Red

Pantone Matching System: PMS 116 - Yellow

Pantone Matching System: PMS 285 - Blue

Pantone Matching System: **PMS Black**

Pantone Matching System: PMS 186 - Red

PMS 116 - Yellow

CMYK: C = 11.88%M = 100.00%Y = 91.92%K = 2.83%

0% M = 18.39%Y = 100% 0% K =

CMYK: C = 90.75%M = 52.67%Y = 0% 0% K =

C = 130%M = 30%Y = 40%K = 100%

CMYK:

(Red to Yellow **Gradient Used in** SANDAG Logo)

RGB: R = 17719 B = 47

RGB: R = 245G = 205B = 33

RGB: R = 41G = 112B = 202 RGB: R = 0G = 0B = 0

TransNet Street Upgrade Projects

Sign Sizes

The following layouts and sizes are readily available and cost estimates have been secured for high intensity reflectivity, which is required for signs to be easily seen from a distance at night. Securing exact price quotes is highly recommended prior to ordering signs.

- **Vertical treatment** (30 inches wide by 36 inches high)
- Horizontal treatment (96 inches wide by 48 inches high) with secondary funding sign (60 inches wide by 24 inches high)

Installation / Removal, Placement, and Maintenance

Contractor shall furnish and install a minimum of two (2) TransNet project signs for each project prior to any major physical construction work that would be readily visible to the public. Contractor/consultant is responsible for keeping signs clean and in good repair.

At a minimum, one sign will be placed at each end of the project in both directions. If the project is more than three miles in length, additional signs will be installed at an appropriate mid-point and/or at two-mile intervals along the project.

Signs shall remain in position for the duration of construction and for a period of no less than 45 days following completion or until a community/media event takes place, whichever is later.

TransNet Street Upgrades (Vertical)

TransNet Sign Dimensions:

30" W x 36" H - (2.5' W x 3.0' H)

Construction Details:

- 0.063" Anodized Aluminum Panels
- Avery-Dennison T-6500 High Intensity Series Prismatic Reflective Sheeting (3M Type IV), or equivalent
- Avery-Dennison T-9500 OmniView Series Premium Prismatic Grade Reflective Sheeting (3M Type IX Diamond Grade VIP), or equivalent -To be used for KeepSanDiegoMoving URL area ONLY
- Avery-Dennison OL-1000 Premium Anti-Graffiti Overlay Film, or equivalent
- UV Inks to be used without exception

NOTE: Sign production contingent on approval of full scale proof using actual materials by Keith Kanzel.

