

# CITY OF SAN DIEGO



## SUPPLEMENT AMENDMENTS

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To Be used in conjunction with the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2003 Edition and REGIONAL SUPPLEMENT AMENDMENTS adopted by Regional Standards Committee.

## 2003 CITY OF SAN DIEGO SUPPLEMENT

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The City of San Diego is dedicated to the quality of this publication and desires to correct any errors, omissions or ambiguity. If you have any corrections or additions you would like to submit for consideration to be included in the next publication, you are encouraged to submit them to:

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San Diego, CA 92101

### *ORDER OF PRECEDENCE*

*These City of San Diego Supplement Amendments have been prepared to be used in conjunction with the "Greenbook" Standard Specifications for Public Works Construction, 2003 Edition, and the Regional Supplement Amendments dated April, 2003.*

*The specifications contained herein take precedence over the specification language contained in the "Greenbook" Standard Specifications for Public Works Construction, 2003 Edition, including the Regional Supplement Amendments and are to be used in all applicable cases unless modified by a higher precedence document.*

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# **PART 1**

## **GENERAL PROVISIONS**

### **SECTION 1 – TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS**

#### **1-2 DEFINITIONS.**

Page 2 – Twenty-fourth definition, House Connection Sewer, add the following:

Such a connecting sewer is commonly know as a sewer lateral and may be so identified.

### **SECTION 2 – SCOPE AND CONTROL OF WORK**

#### **2-3 SUBCONTRACTS.**

##### **2-3.2 Additional Responsibility.**

Page 10 - Second paragraph, delete second sentence and substitute the following:

Unless “Specialty Items’ are designated by the Engineer in the Bid Proposal, the following items of work will qualify as “Specialty Items” providing they are identified by the bidder in the Bid Proposal and their total cost does not exceed twenty-five percent (25%) of the Bid:

“Street lights, traffic signal, landscaping, irrigation, sewer, water, tile, precast paving units, Stamped concrete, masonry, iron or steel, pavement markings and striping.”

#### **2-4 CONTRACT BONDS.**

Page 10 - First paragraph, delete second and third sentences and substitute:

Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California. Bonds shall be either:

1. Surety rated, Class A, by A.M. Best, Key Rating Guide to an amount not to exceed 10% of its capital and surplus, or
2. Listed in Federal Register Circular 570 in conformance with the Underwriting Limitation.
3. Where a company is not included in either No. 1 or No. 2 above, it must conform with the State of California Insurance Code and must show by convincing evidence that its financial responsibility is equal or better than the rating set forth in No. 1 or No. 2 above.

**2-5 PLANS AND SPECIFICATIONS.**

**ADD:**

**2-5.4 As-Built Drawings.**

Accurate and legible records shall be kept on a set of project blue line prints of all changes of work which occur during project construction. The Contractor shall record the location, by stationing to nearest foot, and the depth, by elevation to the nearest tenth of a foot ( $\pm 0.1'$ ), of all City utility underground lines, including valves, plugged tees, capped ends, etc. The Contractor shall record, by dimension and/or scale drawings, all wiring, conduits and pull boxes as actually installed. All information necessary to maintain and/or service any concealed work shall be noted on the record drawings. The locations by station of sewer laterals and water services that are not perpendicular to the main must be noted on the record drawings. Records shall be kept up to date with all entries checked by the Engineer before the work is buried or covered up. Prior to field acceptance, the Contractor shall deliver this "As-Built" information to the Engineer.

**2-9 SURVEYING.**

**2-9.2 Survey Service.**

Page 14 - Add the following:

The property and/or right-of-way line shall be located and marked with flags spaced 100 ft. apart or as necessary to clearly mark the line before grading starts whenever the work to be done is within 50 ft. of the line or when specified on the plans.

**ADD:**

**2-13 JOINT VENTURE CONTRACTOR.**

In the event the Contractor is a joint venture, all grants, covenants, provisions, and claims, rights, powers, privileges and liabilities of the Contract shall be construed and held to be several as well as joint. Any notice or communication required to be or that may be given by the City or Construction Manager to the Contractor shall be deemed given to all entities being the Contractor if given to any one or more of such entities. Any notice, request or other communication given by any one of such entities to the City or the Construction Manager under this contract shall be deemed to have been given by and shall bind all entities being the Contractor. The Joint Venture shall designate an on-site representative and an alternate in writing. The on-site representative and the alternate shall have the full authority to bind all Joint Venture partners. The Joint Venture shall provide a copy of the Joint Venture agreement and the Joint Venture license to the City prior to Contract Award.



**SECTION 3 – CHANGES IN WORK**

**3-3 EXTRA WORK.**

**3-3.2 Payment.**

**3-3.2.3 Markup.**

Page 17 - Delete in its entirety and substitute the following:

- (a) Work by the Contractor. The percentage of markup for Labor, Materials, Equipment Rental, Other Items and expenditures, and compensation for bonding set forth in the Special Provisions shall be added to the contractor’s costs and shall constitute the markup for all overhead and profits. If no markups are set forth in the Special Provisions, the following percentage markups shall be added to the Contractor’s cost and shall constitute the markup for all overhead and profits:

1)	Labor	20
2)	Materials	15
3)	Equipment Rental	15
4)	Other Items and Expenditures	15

To the sum of the cost provided for in this subsection shall be added a one percent (1%) surety bond premium unless the Contractor can demonstrate a higher surety bond premium, in which case the actual bond rate will be used, subject to a maximum of 2-½ percent of the sum of the costs and markups provided for in this subsection.

- (b) Work by Subcontractor. When all or any part of the extra work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor’s actual cost of such work. A markup of 10 percent on the first \$5,000 of the subcontracted portion of the extra work and markup of 5 percent on work added in excess of \$5,000 of the subcontracted portion of the extra work may be added by the Contractor.

**3-5 DISPUTED WORK.**

Page 18 – Delete in its entirety and substitute the following:

If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the work. Payment shall be as later determined by mediation or arbitration, if the Agency and Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under extra work provisions, the Contractor shall keep and furnish records of disputed work in accordance with Section 3-3.



**ADD:**

**3-6 DISPUTE RESOLUTION PROCESS.**

**3-6.1 Mandatory Non-Binding Mediation.**

If a dispute arises out of, or relates to this contract, or the breach thereof, and if said dispute cannot be settled through normal contract negotiations, the parties agree to first endeavor to settle the dispute in an amicable manner, using mandatory mediation under the Construction Industry Mediation Rules of the American Arbitration Association /or any other neutral organization agreed upon before having recourse in a court of law.

**3-6.1.1 Mandatory Mediation Costs.**

The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the parties, unless they agree otherwise.

**3-6.1.2 Selection of Mediator.**

A single mediator that is acceptable to both parties shall be used to mediate the dispute. The mediator will be knowledgeable in construction aspects and may be selected from lists furnished by the American Arbitration Association (AAA) or any other agreed upon mediator. To initiate mediation, the initiating party shall serve a Request for Mediation on the opposing party. If the mediator is selected from a list provided by AAA, the initiating party shall concurrently file with AAA a "Request for Mediation" along with the appropriate fees; a copy of requested mediators marked in preference order, and, a preference for available dates.

If AAA is selected to coordinate the mediation (Administrator), within ten (10) working days from the receipt of the initiating party's Request for Mediation, the opposing party shall file the following: a copy of the list of the preferred Mediators listed in preference order, after striking any Mediators to which they have any factual objection, and, a preference for available dates. If the parties agree not to use AAA, then a mutually agreed upon mediator, date and place for the mediation shall be agreed upon.

The Administrator will appoint or the parties shall agree upon the highest, mutually preferred, Mediator from the individual parties' lists who is available to serve within the designated time frames.

**3-6.1.3 Conduct of Mediation Sessions.**

Mediation hearings will be conducted in an informal manner and discovery will not be allowed.

All discussions, statements, or admissions will be confidential to the proceedings and will not be used for any other purpose as it relates to the party's legal position. The parties may agree to exchange any information they deem necessary.

Both parties must have an authorized representative attend the mediation. Each representative must have the authority to recommend entering into a settlement. Either party may have

attorney(s), witnesses or expert(s) present. Either party may request a list of witnesses and notification whether attorney(s) will be present.

Any resultant agreements from mediation shall be documented in writing. All mediation results and documentation, by themselves, shall be “non-binding” and inadmissible for any purpose in any legal proceeding, unless such admission is otherwise agreed upon, in writing, by both parties. Mediators shall not be subject to any subpoena or liability and their actions shall not be subject to discovery.

## SECTION 5 – UTILITIES

### 5-1 LOCATION.

Page 21 - Fifth paragraph, delete the first sentence and substitute the following:

The Contractor shall determine by pothole the location and depth of all utilities, including service connections, which have been marked by the respective owners or shown on the plans and which may affect or be affected by its operation. Contractor shall remove all evidence of mark-outs upon completion of construction.

Add the following:

The Agency does not warrant the accuracy or completeness of the location and type of existing utilities and substructures shown on the plans.

The Contractor is responsible to accurately locate, by potholing or other suitable methods, all existing utilities and substructures as shown on the plans and marked out by Underground Service Alert (USA), to prevent damage to such facilities and to identify any conflicts with the proposed work. The cost of utility location shall be included in the price per linear foot for pipelines, and no additional compensation will be made by the Agency. Potholing for existing utilities not shown on the plans, but marked out by USA shall be as directed by the Engineer and paid for according to Section 3-3, “Extra Work”. The Contractor shall fill all potholes on the same day of excavation, and fully restore all potholes (and any damaged surrounding areas) to their original condition, if no trenching is performed within ten (10) working days.

There will be no other compensation for potholing at any specific location required by the plans. Neither will showing some specific locations on the plans relieve the Contractor of the responsibility to pothole as previously mentioned in this Subsection.

The Contractor shall notify the Engineer, in writing, of any conflicts between existing utilities and the proposed work a minimum of five (5) working days, and three hundred feet (300’) in advance of the work to provide adequate time, and space for any changes to the work needed to avoid unforeseen conflicts. The Contractor shall perform utility location far enough in advance of the work to provide the written notification specified in this section.

The written notification shall include; date of utility location, method of utility location, type, size, and material of utility, horizontal location (to the nearest Station), depth for existing

pavement or ground surface to top and bottom of utility, suspected ownership of utility, and the date on which any conflict with the utility will impact the Critical Path.

For existing utilities shown on the plans or marked out by USA, the Contractor shall not be entitled to an extension of Contract Time or compensation for delay if direction is provided by the Engineer within five (5) working days from receipt of the Contractor's written notification of the utility conflict. If the Engineer does not provide direction to the Contractor within the five (5) working days, an extension of Contract Time may be granted in accordance with Section 6-6.2, beginning on the sixth (6th) working day after receipt of the Contractor's written notification.

## **SECTION 6 – PROSECUTION, PROGRESS, AND ACCEPTANCE OF WORK**

### **6-6 DELAYS AND EXTENSIONS OF TIME.**

#### **6-6.1 General.**

Page 25 - First paragraph, second sentence, delete the following:

“..., adverse weather or elements necessitating cessation of work,...”

### **6-7 TIME OF COMPLETION.**

#### **6-7.2 Working Day.**

Page 26 - Add the following:

If the Contractor desires an extension of time for a delay as specified in Section 6-6.1, the Contractor, during that day, shall request a conference between the Engineer and the Contractor. The Engineer shall determine if the time extension will be granted. Upon approval, the Engineer shall extend the date of completion accordingly, but the Contractor shall not be entitled to damages or additional payment due to such delay.

#### **ADD:**

### **6-11 RIGHT TO AUDIT.**

#### **6-11.1 Owner's Right.**

The City retains the right to review and audit, and the reasonable right of access to Contractor's and all Subcontractor's premises to review and audit Contractor's compliance with the provisions of this Contract [City's Right]. The City's Right includes the right to inspect and photocopy same, and to retain copies, outside of Contractor's premises, of any and all records with appropriate safeguards, if such retention is deemed necessary by City in its sole discretion. This information shall be kept by the City in strictest confidence.

**6-11.2 Audit.**

The City's Right includes the right to examine any and all books, records, documents and any other evidence of procedures and practices that the City determines is necessary to discover and verify that Contractor is in compliance with all requirements under this Contract.

**6-11.2.1 Cost Audit.**

If there is a claim for additional compensation or for changes in Work, the City's Right to Audit includes the right to examine books, records, documents, and any and all other evidence and accounting procedures and practices that the City determines is necessary to discover and verify all direct and indirect costs, of whatever nature, which are claimed to have been incurred, anticipated to be incurred, or for which a claim for additional compensation or for changes in the Work have been submitted.

**6-11.2.1.1 Accounting Records.**

Contractor shall maintain complete and accurate records in accordance with generally accepted accounting practices in the construction industry. The Contractor shall make available to the City for review and audit, all project related accounting records and documents, and any other financial data. Upon City's request, the Contractor shall submit exact duplicates of originals of all requested records to the City.

**6-11.3 City's Right -Binding on Subcontractors.**

The Contractor shall include City's Right as described in this Section 6-11, in any and all of their subcontracts, and shall ensure that this Section 6-11 is binding upon all Subcontractors.

**6-11.4 Compliance Required Before Mediation and Litigation.**

A condition precedent to proceeding with mandatory mediation and further litigation provided for in Section 3-6 is the Contractor's full compliance with the provisions of this Section 6-11 within sixty days of the date on which City mails a written request to review and audit compliance.

**SECTION 7 – RESPONSIBILITIES OF THE CONTRACTOR**

**7-2 LABOR.**

**7-2.2 Laws.**

Page 28 - Add the following:

No work that is considered to be disturbing, excessive or offensive shall be done Monday through Saturday prior to 7:00 a.m. or after 7:00 p.m. or on Sunday and holidays without a noise abatement variance. No work shall be done on Saturday, Sunday and holidays without authorization by the Engineer twenty-four (24) hours in advance of work.

### **7-3 LIABILITY INSURANCE.**

Page 28 - Revise second and third paragraphs to read:

The Contractor may file insurance acceptable to the Agency covering more than on (1) project. The coverage shall provide the following minimum limits:

COMBINED SINGLE LIMIT COVERAGE applying to Bodily and Personal  
Injury Liability and Property Damage ... \$1,000,000.00

Such coverage shall be PRIMARY and no other insurance carried by the CITY will be called upon to contribute to a loss under this coverage; such policy coverage shall be on an OCCURRENCE basis; such coverage shall contain PRODUCTS AND COMPLETED OPERATIONS; such coverage shall be provided by an insurance company that is authorized to transact business in the State of California and satisfactory to the Agency.

The Agency further reserves the right, from time to time, to review the Contractors coverage's and limits to determine if they are acceptable to the Agency based upon the Contractors scope and control of work performed.

#### **ADD:**

#### **7-3.5.8 Contractors Pollution Liability.**

##### **7-3.5.8.1 Handling Hazardous or Toxic Waste.**

If the Contractor's WORK includes cleanup, removal, storage, or otherwise handling of hazardous or toxic chemicals, materials, substances, or any other pollutants the Contractor shall provide at their expense Contractors Pollution Liability Insurance appropriate to cover such activities in an amount not less than \$1,000,000 Combined Single Limit per occurrence/aggregate for bodily injury and property damage.

##### **7-3.5.8.2 Deductible.**

Claims Made policies will include a twelve (12) month Extended Claims Discovery Period applicable to this contract and will not contain more than a \$25,000 per claim deductible.

##### **7-3.5.8.3 Subcontractor Inclusion.**

The policy for this insurance shall include contractual liability coverage. Such policy shall be endorsed to specifically provide for WORK performed under the Contract, and shall extend to all subcontractors engaged in hazardous materials work.

##### **7-3.5.8.4 Owner Inclusion.**

The Contractor shall furnish the Owner a policy or Certificate of Liability Insurance in which the Owner, its officers, employees, and agents are named as additional insured with the Contractor. The policy or Certificate shall also provide that thirty (30) days written notice shall be given to the Certificate Holders before the insurance policy is canceled, non-renewed or materially reduced. The policy or Certificate must plainly designate the name of the project. This policy or



Certificate must be furnished to the Owner, evidencing compliance with the outlined requirements prior to the Contractor or subcontractor beginning their Work on the project. Any failure to furnish this policy or Certificate of Insurance shall not relieve Contractor or subcontractor from their obligations under this paragraph.

## **7-8 PROJECT SITE MAINTENANCE.**

### **7-8.1 Cleanup and Dust Control.**

Page 30 - First paragraph, add the following:

The Contractor shall keep the streets in and adjacent to the construction area clean at all times. Streets must be swept before washing.

#### **ADD:**

### **7-8.1.2 Dust Abatement.**

The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures whenever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, domestic animals, or causing a nuisance to persons living or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Engineer. No separate payment will be allowed for dust abatement measures and all costs therefore shall be included in the Contractor's bid price.

#### **ADD:**

### **7-8.1.3 Rubbish Control.**

During the progress of the work, the Contractor shall keep the site of the work and other areas used by it in a neat and clean condition; free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Equipment and material storage shall be confined to areas approved by the Engineer. Disposal of all rubbish and surplus materials shall be off the site of construction, at the Contractor's expense, and in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and the particular requirements of Subpart H, Section 1926.252 of the OSHA Safety and Health Standards for Construction.

### **7-8.2 Air Pollution Control.**

Page 31 - Add the following:

The Contractor shall comply with all applicable standards, orders or requirements of the Clean Air Act of 1970, including but not limited to Section 306 (42 U.S.C. 7606), Executive Order 11738, prohibiting contracting with Clean Air Act violators; and Sections 608 and 609 (42

U.S.C. 7671g, 7671h) as amended November 15, 1990, prohibiting the intentional release of chlorofluorocarbons into the environment when performing work specified by the contract.

### **7-8.6 Water Pollution Control.**

Page 31 - Add the following:

The Contractor shall comply with all applicable standards, orders, or requirements issued under Section 508 of the Clean Water Act (33 U.S.C. 1368) Executive Order 11738.

The Contractor shall exercise extreme care when excavating adjacent to existing sewer systems. The Contractor shall include in his bid all labor and materials necessary to protect existing sewer facilities. If no pay item is provided in the contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work. The Contractor will be liable for all damages and fines associated with sewage spills caused by improper support or damage to the existing sewer facilities.

### **ADD:**

#### **7-8.6.1 Water Pollution Control Site Management.**

The Contractor shall comply with all federal, state and City standards, orders and requirements. The following is definition to terms used in this section:

**Best Management Practice (BMP):** (1) A measure that is implemented to protect water quality and reduce the potential for pollution associated with storm water runoff. (2) Any program, technology, process, site criteria, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

**Clean Water Act (CWA):** The Federal Water Pollution Control Act entered in 1972 by Public Law 92-500 and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless said discharge is in accordance with an NPDES permit. The 1987 amendments include guidelines for regulating municipal, industrial, and construction storm water discharges under the NPDES program.

**Maximum Extend Practicable (MEP):** Means the technology-based standard established by Congress in the Clean Water Act 402(p) (3) (B) (iii) that municipal discharges of urban runoff discharges must meet. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional lines of defense).

**National Pollutant Discharge Elimination System (NPDES):** EPA's program to control the discharge of pollutants to waters of the United States. NPDES is a part of the federal CWA, which requires point and non-point source discharges to obtain permits. These permits are referred to as NPDES permits.

**Storm Water Management (SWM):** The recognition of adverse drainage resulting from altered runoff and the solutions resulting to mitigate, abate, or reverse those adverse results.

**Storm Water Pollution Prevention Plan (SWPPP):** A plan required by storm water regulations or permits that includes site map(s), an identification of construction/Contractor activities that could cause pollutants in the storm water, and a description of measures or practices to control these pollutants.

**Water Pollution Control Plan (WPCP):** This plan is to show BMPs placed to the MEP for a site where project area is less than 1 acre and SWPPPs are not required.”

**Water Pollution Control Site Management Plan (WPCSMP):** A combination of a WPCP and site management that together effectively controls pollution leaving a construction site to the MEP.

The Contractor’s Water Pollution Control Site Management plan shall be submitted at the preconstruction meeting, and Resident Engineer approval is required prior to start on any construction activities.

At a minimum, the Contractor shall be required to do the following:

1. The Contractor shall designate a qualified person who is trained and competent in the use of BMPs and shall be on site daily, although not necessarily full time, to evaluate the conditions of the site with respect to storm water pollution prevention.

This person shall implement the conditions of the WPCP, contract documents and local ordinances with respect erosion and sediment control and other waste management regulations.

This person is responsible for monitoring the weather and implementation of any emergency plans as needed. The weather shall be monitored (use National Weather Forecast <http://www.wrh.noaa.gov/sandiego/index.shtml>) on a 5-day forecast plan and a full BMP protection plan shall be activated when there is a 40% chance of rain.

This person is responsible for overseeing any site grading, operations, and evaluating the effectiveness of the BMPs. This person shall modify the BMPs as necessary to keep the dynamics of the site in compliance. This person or other designated site management staff is responsible to check the BMPs routinely for maintenance.

2. Educate all subcontractors and employees about storm water pollution and mitigation measures needed during various construction activities to prevent the impact of construction discharges. Education requirements shall be in accordance with Section F.2.J of the San Diego Regional Water Quality Control Board (SDRWQCB) Order No. 2001-1, dated February 21, 2001. The Contractor shall insure that all personal are trained in basic urban runoff management. A log of the attendees and the educational materials shall be available upon request of the Resident Engineer.
3. Protect all new and existing storm water conveyance system structures from sedimentation and concrete rinse, or other construction related debris and discharges with gravel bags and filter fabric or by any other equal product that is approved by the Resident Engineer.



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4. Within your WPCP show where concrete wash out, vehicle maintenance, staging, and storage areas will be located. Also, show pollutant control measures to be utilized to keep construction waste in these designated areas, including measures to reduce the tracking of sediment onto public and private roads.
5. Inspect monthly all pollutant control measures installed to mitigate construction activities during the dry season (May 1 through September 30). The Contractor shall include in his/her Water Pollution Control Site Management documentation that these pollutant control measures were inspected for the duration of the project with each progress payment submitted to the Resident Engineer.
6. Maintain all pollutant control measures installed to mitigate construction activities daily or as requested by the Resident Engineer.
7. All pollutant control measures shall be inspected weekly, before and after every rain event, and every 24 hours during any prolonged rain event. The Contractor shall include in his/her Water Pollution Control Site Management documentation that these pollutant control measures were inspected for the duration of the project with each progress payment submitted to the Resident Engineer.
8. All pollutant control measures shall be maintained daily, before and after every rain event and every 24 hours during any prolonged rain event. The Contractor shall maintain and repair all pollutant control measures as soon as possible after the conclusion of each rain event as worker safety allows.
9. Every storm drain inlet within the project's boundaries shall be stenciled or have a concrete stamp stating "NO DUMPING - I LIVE DOWN STREAM". The contractor shall use stencil stamp on existing inlets and concrete stamps shall be used on new inlets. The concrete stamp is available from the Resident Engineer, with five days advance notice. On curb inlets the concrete stamp shall be placed on the inlet roof or in the sidewalk behind the inlet. On catch basins, the Concrete stamp shall be imprinted next to the inlet grate. Extra concrete may be required next to the grate to cover the 31" by 8.5" concrete stamp dimensions. Any cost associated with this work shall be included in the inlet protection bid item.
10. If an unmitigated non storm drain water discharge leaves the project site, the Contractor shall immediately stop the activity causing the discharge and mitigate the discharge. The Contractor shall also immediately notify the Resident Engineer of the discharge. As soon as practical, any and all waste material, sediment and debris from each unattended discharge shall be removed from the drainage system by the contractor.

All work associated with the above mentioned requirements as described under this Section 7-8.6.1 shall be included in the various bid items if no specific bid item is provided in the bid schedule.

**ADD:**

**7-8.6.2 Performance Standards.**

The City will evaluate the adequacy of the Contractor's site management for storm water pollution prevention, inclusive of BMP implementation, on construction sites based on performance standards for storm water. Performance standards shall include:

- A. No observable discharge of sediment or other pollutions in runoff from the site.
- B. Slope erosion shall be managed and contained utilizing approved BMP's; if rills and gullies become evident they must be repaired immediately and additional BMPs added to correct the source.
- C. Water velocity moving offsite must be manageable in order not to create flooding or other impacts downstream.

At any time of year, an inactive site must be fully protected from erosion and discharges of sediment. A site will be considered inactive if construction activities have ceased for a period of Seven (7) or more consecutive calendar days.

It is also the Contractor's responsibility at both active and inactive sites to implement a plan to address all potential non-storm water discharges. The City of San Diego has adopted BMPs (City of Los Angeles and CalTrans Standard BMPs) that can be used for wet and dry seasons.

**7-8.6.2.1 Dry Season Requirements (May 1 through September 30).**

- A. Perimeter protection BMPs shall be installed and maintained to comply with the performance standards listed in section 7-8.6.2.
- B. Sediment control BMPs shall be installed and maintained to comply with the performance standards listed in section 7-8.6.2.
- C. BMPs to control sediment tracking shall be installed and maintained at on and off site entrances/exits to comply with the performance standards listed in section 7-8.6.2.
- D. Material needed to install standby BMPs necessary to completely protect the exposed portions of the site from erosion, and to prevent sediment discharges, shall be stored on site.
- E. The Contractor shall have an approved weather triggered action plan and have the ability to deploy standby BMPs as needed to completely protect the exposed portions of the site within 24 hours of prediction of a storm event (a predicted storm event is defined as a forecasted, 40% or greater chance of rain). On request, the Contractor shall provide proof of this capability that is acceptable to the City.
- F. The area that can be trenched, cleared or graded and left exposed at one time is limited to the amount of acreage that the Contractor can adequately protect prior to a predicted storm event.

### **7-8.6.2.2 Rainy Season Requirements (October 1 through April 30).**

In addition to the requirements listed under the Dry Season Requirements, the following shall be required during the rainy season:

- A. Erosion control BMPs shall be upgraded as necessary to provide sufficient protection for the 2-year storm event, most likely to occur, during the rainy season.
- B. Perimeter protection and sediment control BMPs shall be upgraded as necessary to provide sufficient protection for storms likely to occur during the rainy season.
- C. Physical or vegetation erosion control BMPs shall be installed and established for all completed construction facilities prior to the start of the rainy season, to comply with the performance standards listed in section 7-8.6.2. These BMPs shall be maintained throughout the rainy season. If a selected BMP fails, it shall be repaired and improved, or replaced with an acceptable alternate as soon as it is safe to do so. The failure of a BMP shall indicate that the BMP, as installed, was not adequate for the circumstances in which it was used and the BMP shall be corrected or modified as necessary. Repairs or replacements must therefore put a more effective BMP in place.
- D. The amount of exposed soil allowed at one time shall not exceed that which can be adequately protected by deploying standby erosion control and sediment control BMPs prior to a predicted storm event.
- E. A disturbed area that is not completed but that is not being actively graded or excavated must be fully protected from erosion if left for 7 or more calendar days. The ability to deploy standby BMP materials shall not be considered sufficient protection for these areas. BMPs must actually be deployed.

### **7-8.6.2.3 Construction BMPs.**

Unless specifically noted otherwise, it is the responsibility of the Contractor to select, install and maintain appropriate BMPs in accordance with these specifications. It is the contractor's responsibility to insure that the BMPs are operational and working properly. Furthermore, the Contractor shall be held responsible for any citation and/or fine due discharges or malfunctioning of the BMPs. BMPs shall be installed in accordance with an industry recommended standard (for example: City of Los Angeles, CalTrans or California Storm water BMP handbooks) or in accordance with the California General Permit for Construction Activities. The web site address for CalTrans and City of Los Angeles are as follows:

CalTrans - [WWW.DOT.CA.GOV/HQ/CONSTRUC/STORMWATER.HTML](http://WWW.DOT.CA.GOV/HQ/CONSTRUC/STORMWATER.HTML)

City of Los Angeles - [WWW.CITYOFLA.ORG/SAN/WPD/INDEX.HTM](http://WWW.CITYOFLA.ORG/SAN/WPD/INDEX.HTM)

Depending on project scope and potential associated discharges, additional BMPs may be needed. If the Contractor proposes to use a BMP not listed in the bid items, approval from the City is required prior to installation.

If particular minimum BMPs are infeasible at any specific site, the City will require the implementation of other equivalent BMPs. Site specific BMPs shall be required as necessary to comply with Order No. 2001-01 (copy available in the City's Storm Water Pollution Prevention Division), including BMPs which are more stringent than those required under the statewide General Construction Permit.

### **7-8.6.2.4 Storm Drain Inlet Protection.**

Storm drain inlet protection shall be installed and maintained through construction, and later removed. Only storm drain inlet protection methods specified in these specifications and plans may be used. All on-site storm drain inlets shall be protected. Off-site storm drain inlets shall be protected in areas where construction activity tracks sediment onto paved areas or where inlets receive runoff from disturbed areas.

Storm drain inlet sediment control measures shall be of sufficient capacity and dimensions so as to handle received flows and debris without blocking or diverting flows from the inlets. Area around the inlet shall be provided for water to pond without flooding structures and property.

The storm drain inlet sediment control measures shall not impede the safe flow of traffic. The storm drain inlet sediment control measures shall be of sufficient weight so as not to shift out of place, or shall be secured in place against movement.

Inlet sediment control measures shall be maintained daily or more often if needed. Maintaining inlet sediment control measures shall include removing and disposing of accumulated trash & debris when depth exceeds one third the height of filter/trap. Waste materials shall be removed and disposed in accordance with the Green Book Maintaining inlet sediment control protection shall also include daily checks for excessive debris and for damaged inlet sediment control measures. Damaged inlet sediment control measures shall be repaired or replaced immediately.

When storm drain inlet protection is no longer required for the work, as approved by the Resident Engineer, the inlet sediment control measures shall be completely removed. Storm drain inlet protection shall not be removed until upstream soils are stabilized and streets are cleaned. Materials for inlet sediment control shall become the property of the contractor and shall be removed from the site of the work and disposed off-site as specified in the contract.

Storm drain inlet sediment control will be measured and paid for per number of facilities installed as listed in the unit bid price. The contract unit price paid for storm drain inlet sediment control shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, placing, maintaining, removing and disposing of waste and inlet sediment control facilities, as specified in the specs and as directed by the Resident Engineer. Failure of the storm drain inlet sediment control due to inadequate device or maintenance may result in reduced payment to the Contractor.

**7-8.6.2.5 Pollution Control Measures For Equipment Maintenance Fueling, Cleaning and Storage.**

The WPCP shall include where and how pollution control measures for equipment maintenance, fueling, cleaning and storage will take place. This WCPC shall include drawings with descriptions showing pollution control measures to be utilized to keep any resulting waste in these designated areas and measures to dispose of this waste and prevent tracking onto public and private roads. If during construction operations, pollution control measures for equipment maintenance, fueling, cleaning and storage in the public or private right of way is unavoidable, measures similar to those used on off site locations are to be followed. If any discharge leaves the control site, the Contractor shall immediately stop the activity, mitigate the discharge, and notify the Resident Engineer.

The Resident Engineer may allow the contractor to fuel construction equipments outside of the designated areas, provided that the contractor takes all necessary precaution measures to prevent any potential fuel spillage, and to prevent fuel contact with the street surfaces.

Locations of these activities are to be restored to their prior condition as soon as possible and no later than at construction completion.

Pollution control measures for equipment maintenance, fueling, cleaning and storage will be paid for by the lump sum bid price. The contract lump sum bid price shall include full compensation all labor, materials, tools, equipment, and incidentals to perform this work unless otherwise approved for changed conditions per Section 3-2 of the Green Book. The lump sum price shall cover all pollution control measures for equipment maintenance, fueling, cleaning and storage regardless of the number of locations.

**7-8.6.2.6 Street Sweeping.**

The Contractor shall sweep the streets construction active area daily, and as often as needed, with a motor sweeper in accordance with section 7-8.1 of the specifications. Failure of the contractor to comply with this to the satisfaction of the Resident Engineer will result in reduced payment for the contractor. The contract lump sum price for street sweeping shall include all labor, materials, tools, equipment, and incidentals to perform this work as specified. The lump sum price shall cover all street sweeping regardless of the number of locations.

**7-8.6.2.7 Storage/ Staging Areas Protection.**

Storage / Staging areas shall be the responsibility of the Contractor. The staging/storage area shall be as close as possible to the project site. The Contractor is responsible for obtaining any permits, leases, or any other items necessary to obtain staging areas. The contract lump sum price bid for storage/staging area and protection shall include full compensation for all costs associated with locating the site, securing necessary permits, complying with all local regulations. The cost of storage/staging areas shall be included in the various bid items if no specific bid item is provided in the bid schedule.

The Contractor shall be responsible for ensuring that all waste and debris generated during the period of construction is contained within the storage/staging area. No dust, oil, or contaminated run-off shall be allowed out of the staging/storage area. Perimeter and run-off control measures



shall be installed around the staging/storage area. The entrance to the construction staging/storage area shall have stabilized gravel entrances/roadways, metal pans to loosen dirt from tires, or the like, to reduce tracking and create a sediment barrier between the storage/staging area and the roadway. The cost for storm water protection and control of storage/staging areas including the perimeter control, tracking, etc., as noted above shall be included in the lump sum bid item. The lump sum price shall cover all storage / staging area regardless of the number of locations.

#### **7-8.6.2.8 Temporary Silt Fence.**

As part of the WPCP, the Contractor shall show where and how temporary silt fencing will be utilized to stop sediment movement. The silt fence shall be installed in accordance with CalTrans detail for silt fences, if specific detail is not provided in the contract.

The silt fence shall be constructed only along a level contour. Enough room shall be allowed below the silt fence to allow sediment removal equipment to operate. Silt fences shall be used below the toe of exposed and erodible slopes, down slope of exposed soil area, around temporary stockpiles, and along streams and channels. Silt fence shall not be used in streams, channels, or anywhere flow is concentrated. In addition, silt fences shall not be used below slopes subject to creep, slumping or landslide. Silt fences shall not be used to divert flow. The silt fence fabric shall be woven polypropylene with a minimum width of 36 inches and a minimum tensile strength of 100 pound-force, conforming to the requirements of ASTM Designation D 4632, and shall have an integral reinforcement layer. The permittivity of the fabric shall be between  $0.1 - 0.15 \text{ sec}^{-1}$ .

The silt fence shall be inspected at least once per month in the dry season and weekly in the wet season, and immediately after each rainfall. Sediment shall be removed if and when it reaches one third the height of the fence. Silt fences that are damaged and become unsuitable for the intended purpose, as determined by the Resident Engineer, shall be removed and replaced with new silt fence. Silt fence shall be removed when no longer needed or as required by the Resident Engineer. Contractor shall fill and compact post holes and anchorage trench, remove sediment accumulation, and grade fence alignment to blend with adjacent ground.

Gravel bags used in combination with the silt fence shall be paid as a separate bid item and in accordance with the bid price for gravel bags.

Temporary silt fence will be paid for by the bid unit price. The contract unit price shall include all labor, materials, tools, equipment, and incidentals to perform this work as specified in these specifications.

#### **7-8.6.2.9 Temporary Concrete Washout.**

Whenever required, temporary concrete washouts shall be constructed prior to any placement of concrete; maintained and later removed. Location of the temporary concrete washouts shall be shown on the WPCP. The facility shall be located away from construction traffic or access areas to prevent disturbance and tracking. Temporary washout shall be located a minimum of 50 feet from downstream storm drain inlets, open drainage facilities, and any water course. The perimeter of the concrete washout shall be delineated by lath and flagging to prevent accidental access. Temporary concrete washout facilities shall be maintained daily or more often as

needed. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete. Concrete waste materials shall be removed and disposed in accordance with the Green Book.

When temporary concrete washout is no longer required for the work, the remaining concrete waste shall be removed and disposed of. Materials for temporary concrete washout shall become the property of the Contractor and shall be removed from the site of the work and disposed of outside the project area per the Green Book.

Trenches, depressions and pits caused by the removal of temporary concrete washout shall be backfilled in kind.

The Resident Engineer may allow the Contractor to use the 55 gallons commercially available drums to disposed concrete washout, provided that all necessary protection measures are in place to prevent any spillage.

Temporary concrete washout will be measured and paid for by the lump sum bid price. The contract lump sum price paid for temporary concrete washout shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, placing, maintaining, removing and disposing of concrete waste and temporary concrete washout, as specified in the specs under "Temporary Concrete Washouts." The lump sum price shall cover all temporary concrete washouts regardless of the number of locations.

### **7-8.6.2.10 Temporary Gravel Bags.**

Temporary gravel bags shall be installed, maintained, and later removed as approved by the Resident Engineer. The Contractor will not be paid any additional money for the maintenance, removal and replacement of gravel bag at the same location.

Gravel bags fill material shall be one-half to one-inch Class 2 aggregate base, clean and free from clay and deleterious material. Gravel bag fabric shall be woven high density polyethylene fabric with a minimum unit weight of 5 oz. /square yard. The fabric shall have a Mullen burst strength of at least 350 psi, conforming to the requirements of ASTM Designation D 3786, and an ultraviolet (UV) stability exceeding 70 percent. Gravel bags, when filled, shall have nominal dimensions (length x width x height) of 16 in. x 12 in. x 6 in., and a fill mass of 35 to 60 pounds. The Contractor shall use other methods if ponding will encroach in to the traffic or onto erodible surfaces and slopes. Flow from a severe storm shall not overtop the curb. Temporary gravel bags shall be maintained to provide for adequate sediment holding capacity. The Contractor shall remove the sediment behind the barrier when it reaches one-third the height of the barrier and immediately before and after each storm event. When no longer required for the intended purpose, temporary gravel bag barriers shall be removed from the site of work.

Temporary gravel bags will be measured and paid for by the bid item unit price per bag. The contract bid price paid for temporary gravel bags shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, placing, maintaining, removing and disposing of temporary gravel bags, as specified in the specs. The cost associated with gravel bags for inlet protection details and the like shall be

included in those items of work noted, not this item. This bid item is for miscellaneous applications, not covered in other drawing details.

**7-8.6.2.11 Stock Pile Protection.**

The Contractor shall avoid placing stock piles in any drainage path. The Resident Engineer may approve temporary stockpiling in a drainage path provided that measures are taken to allow unimpaired drainage and sediment transport is prevented. Regardless of the location of stockpiled materials, containment measures are to be employed to control dust and sediment movement arising from wind, rain, and/or runoff. Controlling measures includes but are not limited to covering the stockpiled material and the installation of protection around the perimeter of the stockpiled material during rain events and winds.

Stock pile protection will be paid for by the lump sum price. The contract lump sum price shall include all labor, materials, tools, equipment, and incidentals to perform this work as specified in these specifications. The lump sum price shall cover all stock pile protection regardless of the number of locations.

**ADD:**

**7-8.8 Sewage Spill Prevention and Response Plan.**

Prior to the start of construction, the Contractor shall develop and submit to Engineer, for review and approval, a written Sewage Spill Response Plan. The Contractor shall observe and comply with the City's policy of zero spills. The Sewage Spill Response Plan shall be developed to respond to any construction related sewage spill(s). This plan shall include but not limited to:

1. Identifying all nearby environmentally-sensitive areas such as waterways, channels, catch basins and entrances to existing underground storm drains.
2. Making arrangements for an emergency response unit, stationed at or near the job site, comprised of emergency response equipment and trained personnel to be immediately dispatched in the event of a sewage spill(s). This could also include field biologists and/or archaeologists if in an environmentally-sensitive area such as a canyon.
3. Developing an emergency notification procedure, which includes an emergency response team with telephone numbers and arrangements for backup personnel and equipment. The emergency response unit shall be able to dispatch to the site 24 hours a day 7 days a week including weekends and holidays. The Contractor shall designate primary and secondary representatives, their respective phone numbers, pager numbers, and mobile phone numbers. These Contractor's representatives shall be accessible and available at all times to respond immediately to any sewer spill event.
4. Identifying any property owners who may be affected including but not limited to City Park and Recreation Department.

At the preconstruction meeting the Contractor will be provided with a list of city representatives to contact in case of a sewage spill(s). In case of a sewage spill(s), the Contractor shall immediately call the Sewage Spill Hotline number at **(619) 527-5481** and shall act immediately **without instructions** from the City, to control the spill and take all appropriate steps to contain it



in accordance with the Sewage Spill Prevention and Response Plan and Section 7-8.8.1, Flow Diversion Plan. The Contractor shall immediately notify the City representatives of the spill and shall report project name, location, Contractor name, Project Engineer and Resident Engineer names. The Contractor shall, within three working days from the occurrence of the spill, submit to the Engineer a written report describing the following information related to the spill: the location; the nature and estimated volume; the date and time; the duration; the cause; the type of remedial and/or clean up measures taken (including erosion control measures) and the date and time of implementation; the corrective and/or preventive actions taken to avoid further spills; equipment used in spill response; and the environmentally-sensitive habitat such as a water body, if any, impacted and results of any necessary monitoring. The Contractor shall also provide a list of who from the City was notified, date and time of notification, date and time Contractor was notified of the spill, date and time Contractor arrived on site.

The Engineer may institute further corrective actions, as deemed necessary, to fully comply with existing laws, ordinances, codes, order or other pertinent regulations. The Contractor shall be responsible for all costs incurred for the corrective actions including mitigation measures (habitat restoration, etc.) and obtaining after-the-fact permits if necessary, in environmentally sensitive areas. These permits include but are not limited to those from the City Planning Department, Development Services, California Coastal Commission, U. S. Army Corps of Engineers and the California Department of Fish and Game.

It shall be the Contractor's responsibility to assure that all field forces, including subcontractors, know and obey all safety and emergency procedures, including the Spill Response Plan applicable to the work, to be maintained and followed at the job site. If in an environmentally sensitive area, such as canyon, stream, or lagoon, impacts must be minimized. Crews must be aware at the start of the job of any sensitive environmental habitats, breeding season restrictions, etc.

The Contractor shall take extreme care to prevent spills when working on sewer lines such as when making temporary connection and when connecting new lines into the sewer system. The Contractor shall not trap debris and discharge rock or debris downstream. Avoidance of streams is paramount unless authorized via permits.

The Contractor shall defend, indemnify, protect, and hold harmless the City, its agents, officers, and employees, from and against all claims asserted, or liability established for damages or injuries to any person or property resulting from any sewage spill caused or claimed to be caused by the Contractor's action or failure to take measures to prevent a spill. The Contractor shall also be responsible for payment of any fines assessed against the City for such sewage spills. The Contractor's duty to indemnify and hold harmless shall not include any claims or liability arising from the established sole negligence or willful misconduct of the City, its agents, officers or employees.

The Contractor shall obtain and maintain an additional insurance coverage for Pollution Liability with its limits and requirements as set forth in Section 7-3.5.8 Contractors Pollution Liability. The limits and requirements for Pollution Liability shall be in an amount sufficient to cover potential losses from sudden and accidental pollution. Unless otherwise provided for in the Bid Proposal, all costs associated with the requirements for "Sewage Spill Response Plan," including additional insurance, shall be included in the prices for other related bid items.

### **7-8.8.1 Flow Diversion Plan.**

The Contractor shall submit to the Engineer for approval, a wastewater flow diversion plan at least fifteen (15) working days prior to implementation of flow diversion in compliance with the City's policy of "ZERO SPILLS." The diversion plan shall indicate the sequence of diversion operations, and all other operations the Contractor will establish to maintain wastewater service during the construction period. The diversion plan shall include an emergency response plan indicating the procedures, equipment, and activities that will be implemented in the event of an emergency shutdown or failure of the flow diversion equipment used for construction. The Contractor shall be responsible for implementation of the emergency plan in accordance with Section 7-8.8 "Sewage Spill Prevention and Response Plan".

The Contractor's Wastewater Flow Diversion Plan shall be reviewed and approved by the Wastewater Collection Division before flow can be diverted. No deviation from the approved Wastewater Flow Diversion Plan will be allowed without prior approval from the Resident Engineer.

The Contractor shall observe and comply with all Federal, State, and local laws, ordinances, codes, orders, and regulations which in any manner affect the conduct of the work, specifically as it relates to sewage spills. The Contractor shall be fully responsible for preventing sewage spill(s), containing any sewage spill(s), recovery and legal disposal of any spilled sewage, any fines, penalties, claims and liability arising from negligently causing a sewage spill(s), and any violation of any law, ordinance, code, order, or regulation as a result of the spill(s).

The Contractor shall exercise care not to damage existing public and private improvements, interrupt existing services and/or facility operations which may cause a sewage spill(s). Any reasonably anticipated utility and/or improvement which are damaged by the Contractor shall be immediately repaired at the expense of the Contractor. In the event that the Contractor damages an existing utility or interrupts an existing service, which causes a sewage spill(s), the Contractor shall immediately call the emergency number at (619) 515-3525.

The Contractor shall exercise care not to damage any sensitive habitats or historic resources unless authorized via the discretionary permit and Mitigation, Monitoring and Reporting Program approved by the City of San Diego.

The Contractor shall provide all facilities, labor, power, and appurtenances necessary to divert wastewater flows as necessary to allow proper installation of the pipeline and/or manhole linings.

The Contractor shall submit as part of their Flow Diversion Plan their monitoring procedure and frequency and shall continuously monitor the flow levels downstream and upstream of the flow diversion to detect any possible failure that may cause a sewage backup and spill(s). The Contractor shall maintain a log of the monitoring and provide daily copies to the Resident Engineer in a manner acceptable to the Engineer.

The Contractor shall inspect and maintain the diversion system daily, including the back-up system. The Contractor shall submit with their bypass plan their maintenance procedures and frequency. The Contractor shall maintain a log of all inspection, maintenance and repair records,

and provide copies to the Resident Engineer upon request in a manner acceptable to the Engineer.

The Contractor shall size the flow diversion system to handle the peak flow and shall include a 100% backup in the flow diversion system. The Contractor shall provide temporary means to maintain and handle the sewage flow in the existing system as required to complete the necessary construction. The Contractor shall utilize the flow diversion system to mitigate any additional wet weather flows, perform the necessary maintenance and repairs on the flow diversion system, and exercise and ensure the operation of the backup system. Each pump, including the backup pumps, shall be a complete unit with its own suction and discharge piping. The Contractor shall operate the backup flow diversion system for a minimum of 25% of the total diversion time on a weekly basis. The backup flow diversion system shall be fully installed, operational, and ready for immediate use. The diversion system shall be hydraulically tested with clean water prior to wastewater flow diversion. The Contractor shall demonstrate to the satisfaction of the Engineer that both the primary and backup flow diversion systems are fully functional and adequate, and shall certify the same, in writing, to the Engineer in a manner acceptable to the Engineer.

The Contractor shall provide one dedicated fuel tank for every single pump/generator, if fuel/generator driven pumps are used. The Contractor shall provide an emergency standby power generator, if electric power driven pumps are used. The Contractor shall provide a fuel level indicator outside each fuel tank. The Contractor shall continuously (while in use) monitor the fuel level in the tanks and ensure that the fuel level does not drop below a level equivalent of two hours of continuous flow diversion system operation. The Contractor shall take the necessary measures to ensure the fuel supply is protected against contamination. This includes but is not limited to fuel line water traps, fuel line filters, and protecting fuel stores from precipitation. The Contractor shall also monitor all hoses and repair leaks immediately.

Unless otherwise provided for in the Bid Proposal, full compensation for the Wastewater Flow Diversion Plan, its implementation including but not limited to labor, facilities, equipments, power, appurtenances and incidental, shall be included in the price bid per lineal foot of sewer main and no additional compensation shall be made.

### **ADD:**

#### **7-8.12 Graffiti Control.**

The Contractor shall maintain all site improvements, including any temporary facilities, equipment or other materials in a graffiti free condition throughout the construction period, until acceptance of the project by the City. Graffiti encountered on the job site shall be removed by the Contractor within twenty-four (24) hours. Costs for removal shall be included in other items of work.

## **7-10 PUBLIC CONVENIENCE AND SAFETY.**

### **7-10.1 Traffic and Access.**

Page 32 - Add the following:

The requirements for providing and approving traffic control varies according to the type of work being performed and at least one of the following sections shall apply to the work, or portions thereof, as described in each section.

#### **ADD:**

##### **7-10.1.1 Traffic Control by Shop Drawings.**

For those portions of the work where traffic control drawings are not a part of the plans and the plans indicate that traffic control shop drawings are required, then the requirements described in this section shall apply.

The Contractor shall, in accordance with Subsection 2-5.3, prepare traffic control shop drawings and submit them to the Resident Engineer. The shop drawings shall be prepared in accordance with current modern engineering practice and shall be of a size and scale to clearly show all necessary details. Each shop drawing shall be a good quality print. Typical plans and sections will not be accepted. The traffic control shop drawing shall be site-specific. The Contractor shall allow a minimum of 20 working days for review of the shop drawings. If extensive additions or corrections are required, the Engineering Traffic Control Section will return the marked-up print for corrections and re-submission. If no change or correction is required, the original shop drawings will be retained by the Engineering Traffic Control Section and one copy, with the Traffic Control Plan (TCP) Permit attached, will be returned to the Contractor. Work shall not begin in the public roadway without the approved TCP Permit. No extension of time will be allowed as a result of the Contractor's failure to properly produce traffic control shop drawings and to schedule the work.

The Contractor shall furnish, install, and maintain the traffic control devices as shown on the TCP Permit, and additional traffic control devices as may be required to ensure the safe movement of vehicles and pedestrians, and to provide for the safety of construction workers. The Contractor shall maintain existing traffic control signs and traffic signals in their proper location on temporary mounting supports until permanent signs or signals are restored. The Contractor shall use signs, delineators, barricades, etc., as per the latest State of California, "Manual of Traffic Controls for Construction and Maintenance Work Zones." The name of the Contractor or vendor who owns the traffic control devices shall be clearly noted on each device.

Barricades used at night shall be equipped with flashing lights. Signs used at night shall be reflectorized with a material that has a smooth, sealed outer surface, or illuminated to show approximately the same shape and color day and night. Internally or externally illuminated signs shall be used where there is significant interference from extraneous light sources and reflectorized signs will not be effective. External light sources shall be properly shielded to protect drivers from glare. Street lighting is not adequate for sign illumination.



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Traffic controls shall be in accordance with Traffic Control Plans of the San Diego Regional Standard Drawings, and current CalTrans Standard Specification, Section 12, and shall conform to the following unless otherwise shown on the TCP Permit:

- 1) The working hours shall be between 8:30 A.M. and 3:30 P.M. if construction is to be performed in phases; all work shall be completed in each phase prior to beginning work on the next phase. Approval of a traffic plan for hours outside of these does not constitute a guarantee that inspection will be available (see Section 2-11).
- 2) Equipment, material, or debris shall not be stored or remain in the public right-of-way without prior approval by the Resident Engineer.
- 3) Travel lanes shall be 12 feet wide, minimum. For lane closures on roadways with bike lanes, the rightmost travel lane shall be 14 feet wide, minimum.
- 4) Flashing arrow boards shall be used when the posted speed is 40 mph or more, or when curvature of the roadway limits visibility.
- 5) The Contractor shall maintain cross traffic and turning moves at the intersections.
- 6) Trenches shall be backfilled or trench-plated at the end of each work day. An asphalt ramp shall be placed around each trench plate to prevent the plate from being dislodged. Upon completion of excavation backfill, the Contractor shall provide a satisfactory surface for traffic. Portable concrete barrier (K-rail), additional noticing, and other items may be required when trenching cannot be secured overnight by backfilling or trench-plating.
- 7) The Contractor shall repair or replace traffic control devices (including traffic signs, striping, pavement markers, pavement markings, legends, curb markings, loop detectors, traffic signal equipment, etc.) damaged or removed as a result of operations and not designated for removal. Repairs and replacements shall be equal to existing improvements. Loop detectors shall be replaced within 3 working days of completion of underground work.
- 8) The Contractor may use the parking lane while working next to the curb. The Contractor shall post "TOW-AWAY/NO PARKING" signs 24 hours in advance for temporary parking removal. Signs shall indicate specific days, dates, and times of restrictions.
- 9) The Contractor shall provide for a safe 4-foot wide pedestrian walkway along entire length of construction area.
- 10) Access to private property shall be maintained to the greatest extent practicable. The Contractor shall minimize the time periods that driveways will be closed, and shall minimize inconvenience to the driveway users. When a driveway or pedestrian access is to be closed, the Contractor shall notify the property owner and tenants a minimum of 5 working days prior to closure, and shall explain to the owner/occupant when the closure is to start and how long the work will take. The Engineer shall approve the format of the notice prior to its being issued.
- 11) The Contractor shall post signs notifying the public a minimum of 5 working days prior to closure, or detour, of streets.

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12) The Contractor shall maintain full width of all traffic lanes of the existing roadway during non-working hours and on Saturday, Sunday, designated holidays, and when construction operations are not actively in progress on working days. The Contractor shall keep the streets in and adjacent to the construction area clean. Streets must be swept before washing.

13) When constructing a new roadway, the Contractor is to install and maintain Type III barricades with flashing yellow lights and "Road Closed" signs and/or chain link fences until the new roadway is accepted by the City Engineer.

The Contractor shall notify San Diego Transit at 238-0100, Ext. 424, a minimum of 5 working days prior to excavation, construction, or traffic control affecting bus stops.

The Contractor shall notify the following agencies a minimum of 2 working days prior to excavation, construction, or traffic control affecting the agencies:

A.	Fire Department Dispatch	(Street or alley closure)	(858) 573-1300
B.	Police Department Traffic	(Street or alley closure)	(858) 495-7800
C.	Environmental Services Dept.	(Refuse collection)	(858) 694-7000
D.	Street Division/Electrical	(Traffic signals)	(619) 527-7500
E.	U.S. Navy	(32 <sup>nd</sup> Street Naval Station)	(619) 556-1319
F.	Underground Service Alert	(Any excavation)	1-800 422-4133
G.	MTDB	(Street Closure)	(619) 557-4549

The Contractor shall submit proposed changes to and deviations from the TCP Permit to the Resident Engineer for approval. Prior to implementation, the Resident Engineer will observe all traffic control plans in operation and reserves the right to require the Contractor to make changes as field conditions warrant. The Resident Engineer may approve the changes to the TCP Permit, or, if directed in writing by the Resident Engineer, the Contractor shall call the Engineering Traffic Control Section at (858) 495-4741, for an appointment, to request a revision to the TCP Permit. Such changes shall supersede the original TCP Permit.

All costs for traffic requirements shall be included in the lump sum price for the traffic control system required to do the work when provided in the bid proposal. The lump sum price bid shall include full compensation for furnishing all labor, materials, tools and equipment doing all work required for traffic control. These costs include all costs for traffic control plans, signs, barricades, lights, and any other traffic control devices which may be required by the City. If no bid item is provided, all costs for traffic requirements shall be considered as part of the various items of work of this contract and no additional payments will be made therefore.

### **ADD:**

#### **7-10.1.2 Traffic Control by Appointment.**

For those portions of the work where traffic control drawings are not a part of the plans and either the plans indicate that the TCP permit is to be issued by appointment or the plans do not indicate a procedure, then the requirements of Section 7-10.1.1 shall apply and as noted below, except that traffic control shop drawings are not required.

The Contractor shall prepare traffic control plans and shall call the Engineering Traffic Control Section, at (858) 495-4741, for an appointment to apply for a TCP Permit. The Contractor shall allow a minimum of 2 working days prior to starting work (5 working days when the work will affect a traffic signal). Upon approval of the TCP, the Engineering Traffic Control Section will issue the TCP Permit. Work shall not begin in the public roadway without the approved TCP Permit.

**ADD:**

**7-10.1.3 Traffic Control - Part of Plans.**

For those portions of the work where traffic control drawings are included in the plans, the requirements of Section 7-10.1.1 shall apply, except as stated below.

The Traffic Control Plan (TCP) is not valid until work dates are approved and a TCP Permit is issued. To obtain a TCP Permit, the Contractor shall call the Engineering Traffic Control Section, (858) 495-4741 for an appointment a minimum of 2 working days prior to starting work (5 working days when the work will affect a traffic signal). The Contractor shall provide 2 copies of the traffic control drawings in the plans at the time of the appointment. The Contractor shall prepare traffic control shop drawings for work not included in the traffic control drawings in the plans.

When included in the bid, the following traffic control bid items will be paid separately for those portions shown in the plans:

1. K-rail will be measured and paid for per linear foot along the top of the rail per location. The contract unit price paid for K-rail shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing, placing, maintaining, repairing, replacing, and removing the K-rail, including, but not limited to, excavation and backfill, drilling holes and grouting threaded rods or dowels when required, removing threaded rods or dowels and filling drilled holes with mortar, and moving and replacing removable panels as required, complete in place, as shown on the plans, as specified in these Specifications and the Special Provisions, and as directed by the Engineer.
2. Crash cushion modules shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing, placing, maintaining, repairing, replacing, and removing the modules, complete in place, as shown on the plans, as specified in these Specifications and the Special Provisions, and as directed by the Engineer. Crash cushion modules shall be measured per each individual module (barrel), on a one-time basis, for each location shown on the plans.
3. The lump sum bid for flashing arrow boards and electronic message signs shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing, placing, maintaining, repairing, replacing, and removing the flashing arrow boards and electronic message signs, complete in place, as shown on the plans, as specified in these Specifications and the Special Provisions, and as directed by the Engineer. Flashing arrow boards and electronic message signs shall be

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available for use twenty-four (24) hours per day as required, without any additional payment for time or number of locations unless otherwise required for changed conditions.

No additional compensation will be allowed for removal and replacement of K-Rail, crash cushion modules, or flashing arrow boards and electronic message signs at the same location. Those portions of these items not covered by the plans shall not be paid separately.

### **7-10.4 Safety.**

#### **7-10.4.1 Safety Orders.**

Page 33 - Add the following:

In non – emergency situations, the Contractor shall back fill trenches and restore roadway for safe night-time traffic usage. No open trenches shall be allowed overnight or during non-working hours unless prior written approval is received from the Engineer.

#### **ADD:**

#### **7-10.5 Temporary Street Name Signs.**

Upon completion of rough grading and prior to underground construction, temporary street name signs shall be provided and maintained at each intersection until the permanent street name signs have been placed.

Temporary street name signs shall be constructed and placed to the following minimum requirements:

- 1) Five-inch (5”) high black lettering on eight-inch by thirty-two inch (8” x 32”) white blades.
- 2) The bottom of the blades shall be a minimum of seven feet (7’) above ground line, mounted on white 4 x 4 posts.
- 3) Posts are to be placed radial to mid-point of curb returns, fifteen feet (15’) in from the future face of curb.

#### **ADD:**

#### **7-10.6 Encountering Hazardous Substances.**

If the Contractor encounters hazardous substances, work in the area must immediately cease. Any substance which is toxic, corrosive, an irritant, a strong sensitizer, flammable, combustible, or radioactive and may cause substantial personal injury or substantial illness as a proximate result of any customary or reasonable foreseeable handling or use is considered a hazardous substance. Contractor shall immediately notify *Project Manager*, County of San Diego, Department of Environmental Health (DEH), at Telephone No. (619) 338-2222 (during normal work hours) or Telephone No. 911 (outside normal work hours). If there is an immediate fire, explosion, health or safety threat, the Fire Department shall be notified via 911. If there is a



health and safety plan for this specific site or project, it must be followed precisely. Contractor shall follow and comply with all applicable laws and regulations.

**ADD:**

**7-12.1 Product Endorsement.**

Any advertisement referring to the City of San Diego as a user of a product, material or service by the Contractor or any Subcontractor, material supplier, vendor or manufacturer is expressly prohibited without prior written approval of the City Manager of the City of San Diego.

**ADD:**

**7-15 WATER FOR CONSTRUCTION PURPOSES.**

The Contractor shall purchase all water required for construction, except water used for initial filling and final flushing of a new pipeline.

Only the two and one-half inch (2 ½") fire hydrant port may be used. The four-inch (4") port shall be free for use in the event of a fire.

Water meter may be rented for a fee from the Meter Shop Supervisor at Chollas Operations, 2797 Caminito Chollas. A meter shall be installed whenever water is required by the Contractor. The Contractor shall pay the regular monthly fee for water and, in addition, a fee for quantity of water used.

Any usage of unpurchased water by the Contractor during construction process is subject to a fine of \$500 or six (6) months imprisonment, or both, under State Penal Code Section 499. In addition, the Contractor is subject to a civil liability to the City for such misappropriation.

For projects constructed by City Contract, the Water Department shall estimate the amount of water misappropriated by the Contractor and his agents or Subcontractors and shall deduct such value from the payments due to the Contractor. In the event that such value cannot be reasonably determined by the Water Department, the parties to this contract further agree that as liquidated damages and not as a penalty, the City may deduct the sum of \$100 per day, computed on a daily basis, from the date Notice to Proceed is issued unless Contractor shall establish to the satisfaction of the Engineer that a later date applies.

## **PART 2 CONSTRUCTION OF MATERIALS**

### **SECTION 201 – CONCRETE, MORTAR, AND RELATED MATERIALS**

#### **201-1 PORTLAND CEMENT CONCRETE.**

##### **201-1.1 Requirements.**

##### **201-1.1.4 Concrete Specified by Compressive Strength.**

Page 54 - Delete last sentence of the first paragraph and substitute the following:

The concrete shall contain not less than 520 pounds of cement per cubic yard for concrete strengths of less than 3250 psi.

### **SECTION 206 – MISCELLANEOUS METAL ITEMS**

#### **ADD:**

#### **206-7 PERMANENT STREET NAMES SIGNS.**

##### **206-7.1 General.**

Street name sign head assemblies for post top mounting shall consist of name blade units, sign to sign bracket assembly, and sign bracket assembly post cap, all as indicated on the Standard Drawings and/or specified in these specifications. The parts of the head assembly shall be constructed so as to allow one (1), two (2), or three (3) name blade units to be mounted one above the other. Sign to sign bracket assembly shall provide the means of installing name blade units in a ninety degree (90°) or forty-five degree (45°) position to the street and to each other. Head assemblies shall be mounted on two and seven-eighths inch (2-7/8) inch O.D. Pipe Posts.

##### **206-7.2 Name Blade Units.**

Name blade units shall be of extruded aluminum construction, Reynolds Aluminum No. 20779-A, alloy 6061-T or equal. Extruded blade to be nine inches (9") wide with both edges of blade to be .250 – inch and flat section of blade to be .091-inch thick or aluminum sheet stock, mill flat, 6061-T6, or 5052 alloy, 0.125-inch thick. Ends of blades to be perpendicular to top and bottom edges. All edges shall be free from sharp burrs. Blades shall be free from dents and shall have a smooth and uniform surface.

Each blade to be drilled with two (2) 11/32 – inch holes, 3-13/16 – inches apart on both top and bottom edge of blade. Holes to be centered on blade and distance of holes from edge of blade to match holes in sign bracket assemblies. All blades shall be degreased and treated with Alodine No. 1200 or equal and ready for application of reflective sheeting without further preparation.

All name blades shall be reflectorized with encapsulated lens reflective sheeting (3M Hi-intensity) or equal. Material furnished to be No. 3870 Series 3M Scotchlite Brand, silver background reverse screened with 3M 800 series green transparent ink or equal, or 3M No. 3877

series Scotchlite Brand reflecting sheeting background to cover the entire face or both sides of the sign blade, applied as recommended by the reflective sheeting manufacturer. Each sign face blade shall show the street name, block number and indicating arrow using specified letter size shown on the Standard Drawings. All letters and designs shall be clearly and sharply defined. Reflectorized letters, numerals and directional arrow shall be silver with green reflectorized background.

**206-7.3 Lettering and Spacing.**

Street name and lettering shall be upper and lower case, five inches (5") and three and three-quarter inches (3-3/4"), respectively, with top and bottom five-sixteenths inches (5/16") border stripe. Street and block number suffix to be in two-inch (2") series "B" capitals. Arrows to be shown on the Standard Drawings. The message shall be no closer than one and one-half inches (1-1/2") from either end and no less than two inches (2") between street name and block number suffix. The horizontal spacing of letters and works on the signs shall be as follows:

5" U.C. to 3-3/4" L.C.	18% of upper case to lower case
3-3/4" L.C. to 3-3/4" L.C.	15 % of upper case to lower case
5" U.C. to 5" U.C.	25% of upper case (numbers only to upper case
5" U.C. to 2" L.C	30% upper case numeral (number to letter to lower case letter which follows
2" L.C. to 2" L.C.	20% lower case to lower case
3" U.C. to 3" U.C.	12% of upper case to upper case
2" Series C.U.C. to U.C.	8% of upper case to upper case

**206-7.4 Mounting Hardware.**

Top of pole mounting hardware using aluminum alloy No. 384 or No. 385 die cast post cap with sign bracket and sign to sign separator as shown on Standard Drawings. Sign to sign separator to be made for either ninety degree (90°) or forty-five degree (45°) installation. Post caps shall be for standard two and seven-eights inch (2-7/8") O.D. pipe posts.

Cantilever installation shall be at off-set height of nine inches (9") for purpose of visibility, and secured with Band-it type buckle and band of stainless steel three-quarters inch (3/4") or equivalent.

**206-7.5 Sign Post.**

Sign posts shall be standard two and seven-eights inch (2-7/8") O.D. pipe, aluminum alloy 6061-T6 or equal.

## **SECTION 207 – PIPE**

### **207-4 CONCRETE CYLINDER PIPE.**

#### **207-4.2 Design, Manufacture and Tests.**

Page 140 - Add the following:

For pipe size sixteen inches (16”) and larger, minimum cement mortar lining thickness shall be three-quarters of an inch (3/4”) and cement mortar coating thickness shall be one and one-quarter inches (1-1/4”) over reinforcing rod.

Electrical continuity shall be maintained by welding or providing jumper straps all along pipe, fittings and valves per SDW-116.

Minimum radius of any fabricated bend or fitting shall be two and one-half (2-½) times pipe diameter.

### **207-9 IRON PIPE AND FITTINGS.**

#### **207-9.2 Ductile Iron Pipe for Water and Other Liquids.**

##### **207-9.2.3 Fittings.**

Page 146 - Add the following:

##### Threaded Flange Ductile-Iron Extension Spools for Above Ground and Vault Installations.

The pipe shall be Class 53 minimum and cut to allow for ½ – inch additional length for Flange x Flange and ¼ -inch additional length for Flange x Pipe End.

Machine tapered pipe thread (NPT) shall comply with ANSI B1.20.1 adapted to ductile-iron pipe outside diameters.

The threaded flange shall be dimensioned in accordance with USA Standard Taper Pipe and shall be attached to the machined pipe threads. The threaded flange shall be removed from the pipe and two-part epoxy thread sealant shall be applied to the pipe threads and the flange threads. Coal tar coating shall comply with AWWA C203 and epoxy coating shall comply with AWWA C213. The threaded flange shall be re-attached to the pipe threads and shall be machine tightened. Facing and flange alignment for the threaded joints shall comply with AWWA C115.

The threaded joint and spool assembly shall be hydrostatically tested 300 psi, stamped with the manufacturer’s mark indicating length, weight, and customer, and stenciled with “Tested at 300 PSI”.

Certification of Compliance with all specifications shall be furnished.

## **207-10 STEEL PIPE.**

### **207-10.1 General.**

Page 146 - Add the following:

Design and installation of fabricated steel pipe shall conform to AWWA M-11, "Manual of Steel Pipe Design and Installation", (latest Edition at time of bid), with the following exceptions,

- 1) Steel plates used in the manufacture shall have a minimum yield point strength of 33,000 psi and the design stress shall not exceed 16,500 psi.
- 2) For pipe size sixteen inches (16") and larger, minimum cement mortar lining thickness shall be three-quarters of an inch (3/4") and cement mortar coating thickness shall be one and one-quarter inches (1-1/4").
- 3) Electrical continuity shall be maintained by welding or providing jumper straps all along pipe, fittings and valves per SDW -116.
- 4) Minimum radius of any fabricated bend or fitting shall be two and one-half (2-1/2) times pipe diameter.

## **207-11 CORRUGATED STEEL PIPE AND PIPE ARCHES.**

### **207-11.2 Materials.**

#### **207-11.2.2 Coupling Bands.**

Page 152 -

- a) First paragraph, third sentence, CHANGE, "... three standard culvert sheet..." TO "one standard culvert sheet..."
- b) First paragraph, end of fourth sentence, CHANGE, "100mm... (4inches), " TO "... (8 inches) 200mm."
- c) First paragraph, end of fifth sentence, DELETE, "...without prior written approval of the Engineer."
- d) Second paragraph, DELETE in its entirety and SUBSTITUTE the following:

Water-tight joints shall be provided by use of approved sealant or gasket materials for all slope drains at grades of twenty percent (20%) or greater. Test for water-tight joints shall conform to the requirements of Subsection 306-1.4.6

**207-11.3 Fabrication.**

**207-11.3.3 Fabrication by Continuous Helical Seam.**

Page 153 – Subparagraph b) Continuous Lock Seam Pipe, Item 3), end of first sentence, add the following:

“or protective coating”

**207-11.4 Repair of Damaged Galvanizing or Aluminizing.**

Page 154 - First sentence after word, “flux” add a comma and the word “oxidation,”.

**207-11.7 Slotted Pipe.**

Pages 156 - Fifth paragraph last sentence, delete the words: “64mm (2 ½ inches) or”

**207-17 PVC PLASTIC PIPE.**

**207-17.1 General.**

Page 164 - Delete in its entirety and substitute the following:

This subsection applies to the requirement for unplasticized polyvinyl chloride (PVC) plastic pipe for gravity flow sewers and house connection sewers. Pipe, fittings, couplings and joints shall be in conformance with the requirements of ASTM D-3033, D-3034 or F-679, except as modified herein. The ASTM Designation, SDR, pipe stiffness and type of joint shall be specified on the plans and/or specifications. When PVC sewer pipe is specified without further qualifications the pipe shall conform to the following requirements:

- 1) Four-inch (4”) thru fifteen-inch (15”) size pipe ASTM D-3034, SDR 35
- 2) Eighteen-inch (18”) thru twenty-seven inch (27”) size pipe ASTM F-679
- 3) Shall conform to SDS-101 and,
- 4) Shall have gasketed joints.

**207-20 CENTRIFUGALLY CAST FIBERGLASS REINFORCED PLASTIC MORTAR (CCFRPM) PIPE.**

**207-20.2 Materials.**

Page 167 - Add the following:

CCFRPM pipe shall conform to the minimum pipe stiffness requirements contained in 207-20.5 which is the minimum pipe stiffness value at the end of service life of 50 years, (60 years for Storm Drains).



**207-20.7 Pipe Acceptance or Rejection.**

Page 170 - Add the following:

For the purpose of these specifications, a lot is defined as 400 feet but no more than 50 sections of pipe, or fraction thereof, of one size and class manufactured on consecutive working days. If the 400 feet, but no more than 50 sections of pipe are not made on consecutive working days, then only those made on consecutive working days shall be considered a lot. If an interruption in manufacturing occurs, the Engineer may permit the pipe made after the interruption to be included in the lot, provided that the interruption lasts less than 7 calendar days and no other pipe is manufactured on that machine in the interim period. A new lot number will be assigned if any change occurs in size or spacing of reinforcing materials, in the mix, or in the curing method.

**207-20.8 Installation and Field Inspection.**

Page 170 - Add before first paragraph:

Each section of pipe shall be moved or installed using approved non-metallic slings. The slings shall support each pipe section at a minimum of two (2) locations in such a way that the pipe is not damaged by flexure or abrasion. The Contractor shall submit detailed drawings of slings proposed for the handling of the pipe during production, loading, unloading, and installation.

Add the following at end of Section:

The installation depth of CCFRPM pipe shall be limited to a minimum cover of 5 feet to a maximum of 15 feet including cover, unless a special design is approved by the Engineer.

**207-26 PIPE APPURTENANCES (2003 REGIONAL SUPPLEMENT).**

**207-26.2 Fire Hydrants.**

Page 16 – To the third paragraph, delete in its entirety and substitute the following:

“Unless otherwise specified, fire hydrants for residential areas shall have one 4 –inch port and one 2 -½ inch port and fire hydrants for commercial and industrial areas shall have two 4-inch ports and one 2-½ inch port.”

**ADD:**

**207-27 APPROVED MATERIALS LIST.**

All the material, including pipe, fittings, valves and appurtenances, shall be in accordance with materials listed in the current City of San Diego, Water and Sewer, Approved Materials List. The approved Materials List is available at the Engineering and Capital Projects Department, Water and Wastewater Facilities Division.

Materials not on the list shall be submitted to the Engineer for approval prior to delivery to project site. The decision of the City as to acceptability of any substitute material shall be final.

**SECTION 208 – PIPE JOINT TYPES AND MATERIALS**

**208-2 JOINTS FOR CLAY PIPE.**

**208-2.1 General.**

Page 176 - Delete in its entirety and substitute the following:

Joints approved for Vitrified Clay pipe are Type “G” joints for socket and spigot pipe, and Type “D” joints for plain end pipe. The circular sleeve of the Type “D” joint shall be polyurethane or a synthetic rubber with equal or greater resistance to solvency, chemical or biological attack.

**SECTION 210 – PAINT AND PROTECTIVE COATINGS**

**210-2 PLASTIC LINER.**

**210-2.3 Tests.**

**210-2.3.5 Shop-Welded Joints.**

Page 189 - Add the following:

Liner for pipes 15-inches or larger in diameter shall be shop-welded by lapping a minimum of ½ inch and fusing the sheets together by high frequency dielectric fusion, or other electric fusion process as approved by the Engineer.

**SECTION 211 – SOILS AND AGGREGATE TESTS**

**211-2 COMPACTION TESTS.**

**211-2.2 Field Density.**

Page 195 - Delete in its entirety and substitute the following:

Field density of soil shall be by ASTM Methods D 1556 (Sand Cone), D 2922 (Nuclear Gauge), or California Test Methods 216 (Sand Cone) or 231 (Nuclear Gauge).

The minimum test whole volume shall be 0.10 cu.ft. A test hole six and one-half inches (6-½”) wide (per Figure 1, ASTM D 1557) by five inches (5”) deep equals 0.096 cu. ft. If the layer of soil is less than five inches (5”) deep, then the full depth of the layer shall be tested.

## **SECTION 212 – LANDSCAPE AND IRRIGATION MATERIALS**

### **212-1 LANDSCAPE MATERIAL.**

#### **212-1.1 Topsoil.**

##### **212-1.1.2 Class “A” Topsoil.**

Page 195 - Add the following:

Any amendments which must be added to the topsoil to meet the requirements of class “A” as specified in this section shall be uniformly blended through a mixer (pug mill) prior to delivery to the job site.

## **SECTION 216 – DETECTABLE SURFACE**

### **216-1 TRUNCATED DOMES:**

#### **216-1.1 General.**

This section includes specification for furnishing and installing cast-in-place, embedded in an inline dome pattern on all curb ramps and walking surfaces at the locations and to the dimension shown on the plans, in accordance with these Special Provisions and as directed by the Engineer.

##### **216-1.1.1 Related Documents.**

Detectable surface tiles shall comply with Americans with Disabilities Act (ADA) Title 49 CFR Transportation, Part 37.9 Standards for Accessible Transportation Facilities, Appendix A, Section 4.29.2 Detectable Warnings on Walking Surfaces and California Code of Regulations (CCR) Title 24 Part 1, Articles 2, 3 and 4; and Part 2, Section 205 definition of “Detectable Warning”, Section 1127B.5 for “Curb Ramps”, and Section 1133B.8.5 for “Detectable Warnings at Hazardous Vehicle Areas”.

##### **216-1.2 Submittals.**

Submittals shall contain product data for each specified product, including, but not limited to, shop drawings, showing detailed plans of tile profile, and installation methods. Contractor shall submit two (2) tile samples, minimum size 6” x 8” of the kind proposed for use.

##### **216-1.2.1 Material Test Reports.**

Submit test reports from qualified independent testing laboratory indicating that materials proposed for use are in compliance with requirements and meet the properties indicated. All test reports shall be conducted on a cast-in-place as certified by a qualified independent testing laboratory.

### **216-1.2.2 Maintenance Instructions.**

Submit copies of manufacturer's specified maintenance practices for each type of tactile tile and accessory as required.

### **216-1.3 Quality Control.**

Provide cast-in-place detectable surface tiles and accessories as produced by a single manufacturer. Contractor must engage an experienced installer certified in writing by tile manufacturer, who has successfully completed tile installations similar in material, design, and extent to that indicated for Project.

#### **216-1.3.1 Performance.**

Tiles shall meet or exceed the following criteria:

Slip Resistance shall be 0.80 minimum combined wet/dry static coefficient of friction on top of domes and field area, when tested in accordance with ASTM C1028. Compressive Strength shall be 18,000 psi minimum, when tested in accordance with ASTM D695. Tensile Strength shall be 10,000 psi minimum, when tested in accordance with ASTM D638. Flexural Strength shall be 24,000 psi minimum, when tested in accordance with ASTM C293.

**Delivery, Storage and Handling.** Tiles shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy wrappings.

### **216-1.4 Guarantee.**

Shall be in accordance with the Standard Specifications for Public Work (Greenbook) Section 6-8.

### **216-1.5 Materials.**

The color shall be Yellow conforming to Federal Standard 595B Table IV, Color No. 33538. Color shall be homogeneous throughout the tile. The domes shall be Square grid pattern of raised truncated domes of 0.2 inches nominal height, base diameter of 0.9 inches minimum to 1.4 inches maximum, and top diameter of 44% of the base diameter minimum to 65% of the base diameter maximum. Domes shall have a center-to-center spacing of 1.6 inches minimum to 2.4 inches maximum, and a base to base spacing of 0.65 inches minimum, measured between the most adjacent domes on square grid. The field area shall consist of a non-slip surface with a minimum static coefficient of friction of 0.80, wet and dry. Tile shall have a sound attenuating plastic back plate for sound on cane differential. Cleaning materials used on site shall have code acceptable low VOC solvent content and low flammability. The specifications of the concrete, sealants and related materials shall be in accordance with the contract documents and the guidelines set by their respective manufacturers.

**216-1.6 Manufacturers.**

Available Manufacturers include, but are not limited to, Armor-Tile, ADA Solutions, Inc., or approved equal.

**216-2 CAST-IN-PLACE DETECTABLE SURFACE TILE.**

Unless otherwise specified, shall conform to Section 216-1.

## PART 3 CONSTRUCTION METHODS

### SECTION 301 – TRATED SOIL, SUBGRADE PERPARTION AND PLACEMENT OF BASE MATERIALS

#### 301-1 SUBGRADE PREPARATION.

##### 301-1.2 Preparation of Subgrade.

Page 229 - After first paragraph, add the following:

Subgrade soil shall be tested for expansive potential per ASTM Test Method D4829. If expansive soil is encountered within the roadway improvements and extending beyond the limit of paved sidewalks, curb and gutter or edge of pavement, then one of the following methods shall be used to mitigate the expansive soil:

1. Expansive soil subgrade shall be removed, and replaced with a non-expansive material having an expansion index of less than 20 (ASTM D 4829). The depth of excavation will be based on the Expansive Index of the native soil in accordance with the following table:

Expansive index of native subgrade soil*	Minimum depth of expansive materials to be removed and replaced (in inches) **
0-50	None
51-90	18
91-130	24
Above 130	36

\* Based on expansion index test. UBC Table 29-C 1988 edition.

\*\* Removal shall extend beyond edge of sidewalk a horizontal distance equivalent to the minimum depth of removal.

2. "R" value shall be determined on the original soil for pavement design.
3. The project Geotechnical Consultant may submit an optional plan for soil treatment to the Engineer for review and approval.

##### 301-1.7 Payment.

Page 230 - Last paragraph, revise to read:

If no provision for manhole adjustment or reconstruction is made, payment for such work will be deemed to be included in the other items of work and no additional payment will be made therefore.



**301-3 PORTLAND CEMENT TREATED MIXTURES.**

**301-3.1 Soil-Cement.**

**301-3.1.5 Cement Application, Mixing and Spreading.**

Page 232 - Delete first sentence in its entirety and substitute the following:

Mixing of the soil, cement and water shall be accomplished by the central plant-mixed method only.

**301-3.1.8 Placing, Compacting, and Finishing.**

Page 233 - Add the following:

Vibratory rollers shall not be used for finish rolling of cement treated base.

**SECTION 302 ROADWAY SURFACING**

**302-5 ASPHALT CONCRETE PAVEMENT.**

**302-5.10 Seal Coat (2003 Regional Supplement).**

Page 37 - Add the following paragraph:

For trench restoration work in accordance with City Standard Drawings SDG-107, the asphalt concrete mixture shall be Class "F" and no seal coat or sand shall be applied.

**SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION**

**303-1 CONCRETE STRUCTURES.**

**303-1.3 Forms.**

Page 264 - Eleventh paragraph, delete in its entirety and substitute the following:

Exterior forms are required for all structures unless otherwise specified on the plans or in the specifications.

**303-2 AIR-PLACED CONCRETE.**

**303-2.4 Tests.**

Page 280 - After the sixth paragraph; add the following:

For brow and/or terrace ditches only, the minimum strength of test specimens shall be:

7 day (cylinders)	1500 psi
14 day (cores)	1750 psi
28 day	2500 psi

**303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS.**

**303-5.1 Requirements.**

**303-5.1.1 General.**

Page 292 - After the first paragraph, add the following:

Monolithic curb, gutter and sidewalk shall not be allowed.

**ADD:**

**303-5.1.4.3 Protection and Preservation of Improvements.**

Existing improvements, adjacent property, utility and other facilities, and trees and plants that are not to be removed shall be protected from injury or damage in accordance with Section 7-9.

In the event that any Contractor Date Stamps/Impressions are located on existing sidewalks, pedestrian ramps or curbs which are scheduled to be removed, the disposition and placement of those stamps/impressions shall be per SDG-115. For those stamps/impressions to be relocated, the Contractor shall carefully remove and relocate the existing contractor date stamp/impression, and street name stamps outside the pedestrian travel way to the parkway area/face of sidewalk, as shown on standard drawing SDG-115. The stamp's position shall be such that it can be read from the street and as close as practical to the stamp's original location. If it is determined that the stamp/impression can not be relocated and the plans designate the stamp/impression to be removed, the contractor shall saw cut full depth at a minimum distance of two (2) inches from the edge of the stamp, carefully remove, bag, label, and set it aside on site in a location designated by the Resident Engineer for pickup by others. Additionally, the Contractor shall stamp, in concrete, the current contractor's name and date. The Contractor is to follow the same procedure if, during construction operations, and contractor date stamp as designated on the plans for relocation is broken or is in a condition such that it can not be relocated as determined by the Resident Engineer.

If any existing curb and/or gutter or sidewalk are replaced, the Contractor shall duplicate the surrounding score pattern and color as shown on the plans. The score pattern and color shall be approved in advance by the Resident Engineer.

**303-5.5.3 Walk.**

Page 295 – Add the following:

If the continuous sidewalk length equals a block or more, the name of the contractor, together with the year in which the improvements is constructed, shall be stamped therein to a depth of 6mm (1/4 inch) in letters not less than 19mm (3/4 inch) high, at a location determined by the Resident Engineer.

**303-5.10 Detectable Surface Installation.**

**303-5.10.1 General.**

**303-5.10.1.2 Installation.**

Tile shall be installed per manufacturer's instructions. The tile shall be oriented such that the rows of detectable surface domes are parallel with the direction of the ramp. When multiple tiles regardless of size are used, the domes shall be aligned between the tiles and throughout the entire detectable surface installation. Tile shall be placed to the back of curb in accordance with the contract drawings. Cutting the tiles may be required.

**303-5.10.1.3 Cleaning and Protecting.**

Protect tiles against damage during construction period to comply with tactile tile manufacturer's specification. 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. Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood. Clean tactile tiles not more than four days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean tactile tile by method specified by tactile tile manufacturer.

**303-5.10.2 Cast-In-Place Detectable Surface Tile.**

Unless otherwise specified, shall conform to subsection 303-5.10.1.

**303-5.10.2.1 Preparation.**

During all concrete pouring and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards. An overly wet mix will cause the Cast-In-Place System to float, therefore under these conditions suitable weights such as 2 concrete blocks or sandbags (25 lb) shall be placed on each tile. The concrete shall be poured and finished, true and smooth to the required dimensions and slope prior to tile placement.

**303-5.10.2.2 Installation.**

In addition to subsection 305-10.1.2, the Cast-In-Place Tiles shall be tamped or vibrated into the fresh concrete to ensure that the field level of tile is flush to the adjacent concrete surface or as the contract drawings indicate to permit proper water drainage and eliminate tripping hazards between adjacent finishes.

**303-5.10.3 Payment.**

Payment for furnishing and installing the Truncated Domes, as specified herein, shall be included in the price bid for Curb Ramp. If there is no bid item for curb ramps, then payment for truncated domes shall be included in the other items of work.

**303-6 STAMPED CONCRETE.**

**303-6.1 General.**

Page 296 - Delete in its entirety and substitute with the following:

Stamped concrete pavement shall be constructed in accordance with the following conditions:

- 1) Prior to construction, a test section at least five feet by five feet (5' x 5') shall be approved by the City Engineer. Prior to approval of the test section, it will be designated as the standard for that particular pattern on the subject project. Approval shall be by inspection as determined by the City's Materials Testing Laboratory. In case of dispute, testing may be required by either ANSI/ASTM E-274 or California Test Method No. 342, with a minimum acceptance value of 0.35 for both tests.
- 2) Visual inspection of all work shall be performed to determine that surface texture is as rough as the approved test section and the surface flatness is as flat as the approved test section.
- 3) In the event of rejection of a completed pavement area, the Contractor shall have the opportunity to rework the rejected area to meet requirements.
- 4) Concrete color shall have prior approval by City Engineer.
- 5) Color shall be integrated throughout the entire monolithic pavement section.
- 6) All coloring and curing compounds used in the work shall be from the same manufacturer and batch lot.
- 7) Color Conditioned Admixture or Pure Mineral Spirits shall be added to the concrete in accordance with approved manufacturers printed instructions. No calcium chloride or other admixtures shall be added to the concrete.
- 8) The thickness of the concrete paving shall be increased by one-half inch (1/2") over that which is required for Schedule "J" paving (SDG-113).
- 9) The pavement section shall be Portland cement concrete, Class 560-C-3250, placed in conformance with Subsection 302-6.

- 10) A full structural Portland cement concrete pavement section shall be provided below the stamped concrete for the support of the stamped concrete (the PCC must be a monolithic pour of the base and surface – no cold joint permitted).
- 11) The final finishing for textured, stamped or colored concrete paving shall be in accordance with Section 302-6.4.4, subject to the following conditions:
  - a) Stamping will be performed before the initial set of the concrete. No water
  - b) A flat surface shall be maintained (no rounding).
  - c) Limited to a running bond pattern.
  - d) One quarter inch (1/4”) wide maximum groove – one quarter inch (1/4”) deep maximum imprint.
  - e) Portland cement concrete shall no be poured in air temperature exceeding eighty-five degrees Fahrenheit (85° F.).
  - f) A very heavy broom finish, perpendicular to the traveled way, shall be used.
  - g) No wax curing or wax sealing is permitted.

## **SECTION 304 – METAL FABRICATION AND CONSTRUCTION**

### **ADD:**

#### **304-5 STREET NAME SIGN.**

##### **304-5.1 General.**

Materials for street name signs shall conform to the requirements of Subsection 206-7.

##### **304-5.2 Installation.**

Street name signs shall be installed at the locations shown on the plans. Installation of the street name signs shall be in conformance with Standard Drawing SDM-102.

##### **304-5.3 Measurement and Payment.**

Street name signs will be paid for at the contract price, complete, including footing, post, sign and all required hardware.

**SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION**

**306-1 OPEN TRENCH OPERATIONS.**

**306-1.1 Trench Excavation.**

**306-1.1.2 Maximum Length of Open Trench.**

Page 322 - Third paragraph, add the following:

If compliance is not achieved promptly, the Engineer may order City Forces to restore non-complying portions of the trench after written notice to the Contractor. If City Forces are used, the cost, at premium overtime rates with overhead charges applied to labor, equipment, and material costs, shall be paid to the City upon demand or shall be withheld from any monies due the Contractor.

**306-1.2 Installation of Pipe.**

**306-1.2.1 Bedding.**

Page 323 - Delete the seventh paragraph in its entirety and substitute the following:

All sanitary sewer pipes shall be bedded in three-eighths inch (3/8”) crushed rock (ref. 200-1.2) and in conformance with Standard Drawings S-4, Type “C” and SDS-100.

All water pipes, including steel, shall be bedded in accordance with Standard Drawings W-21 and SDW-100. The bedding material shall either be sand, gravel, crushed aggregate, or native free-draining granular material having a sand equivalent of not less than fifty (50) and an expansion when saturated with water of not more than 0.5 of one percent.

All sanitary sewer and water pipe bedding shall have a pH with the range of 6.0 to 8.5, a resistivity of 2,000 ohm-cm. or greater, a soluble sulfate content of 500 ppm or less, and a soluble chloride content of 200 ppm or less. The analytical methods described in California Test 417 and 422 shall be used to measure soluble sulfates and soluble chlorides, respectively.

**306-1.2.2 Pipe Laying.**

Page 325 - Add the following:

Where applicable, in domestic water projects, all valves shall be flanged to crosses and tees.

**306-1.2.12 Field Inspection for Plastic Pipe and Fittings.**

Page 332 - To the third Paragraph, delete the first sentence and substitute the following:

Deflection tests shall be performed not sooner than 30 days after completion of placement and densification of backfill and prior to the placing of permanent pavement.



### **306-1.3 Backfill and Densification.**

#### **306-1.3.3 Jetted Backfill.**

Page 337 - Delete subsection in its entirety and substitute the following:

All backfill material to be densified by water shall be jetted and shall have a minimum sand equivalent of thirty (30). Jetting shall be accomplished by the use of a jet pipe to which a hose is attached, carrying a continuous supply of water under pressure. The backfill shall be jetted in accordance with the following requirements:

- 1) The jet pipe shall consist of a minimum one and one-half inch (1-1/2") diameter pipe to which a minimum two-inch (2") diameter hose is attached at the upper end. The jet shall be of sufficient length to project to within two feet (2') of the bottom of the lift being densified.
- 2) The Contractor shall jet to within two feet (2') of the bottom of the lift and apply water in a manner, quantity and at a rate sufficient to thoroughly saturate the thickness of the lift being densified. The jet pipe shall not be moved until the backfill has collapsed and the water has been forced to the surface.
- 3) Backfill material shall be placed and consolidated in layers not exceeding six feet (6') in thickness.
- 4) The jetting shall be performed without softening the embankment and in a manner that excess water will not be impounded.
- 5) The jetting methods shall be supplemented by the use of vibratory or other consolidation equipment as necessary to obtain the minimum specified relative compaction.
- 6) The upper three feet (3') below finished subgrade shall be mechanically compacted in street areas.
- 7) The Contractor shall make its own determination that jetting will not result in damage and any resulting damage shall be repaired at the Contractor's expense.

#### **306-1.3.4 Backfilling Narrow Trenches.**

Page 338 – Add the following:

Trench backfill shall be densified to a minimum ninety percent (90%) relative compaction. The final foot shall be densified to a minimum 95% relative compaction except in unimproved areas.

**306-1.4 Testing Pipelines.**

**306-1.4.5 Water Pressure Test.**

Page 343 - Add the following:

Testing of the completed pipeline shall be performed in sections between test bulkheads after all anchors and appurtenances have been installed, and backfilling completed except at joints. The Contractor shall install the test bulkheads at locations designated by the Engineer.

Test pressure at the lowest elevation shall be one hundred and fifty percent (150%) of pipe pressure classification (psi) and no less than one hundred percent (100%) of pipe pressure classification (psi) at the highest elevation.

Side outlets valves to be furnished with blind flanges shall be tested with the blind flange bolts loose and the valves uncovered to allow visual inspection for valve leakage during the required field hydrostatic test.

An Optional Field Hydrostatic Test may be permitted by the Engineer. The duration of the test and the maximum leakage permitted shall be as stated below:

DURATION

Pumping Continuously	1 hour
Pumping Discontinued	1 hour

LEAKAGE

The Contractor shall provide accurate means for measuring the quantity of water lost. To be acceptable, the rate of loss of water shall not exceed fifteen (15) gallons per inch diameter, per mile of pipeline, per 24- hour day.

In the event that the rate of loss of water during either test method exceeds the acceptable rate, the Contractor shall locate the leaks and perform the required repairs. Regardless of the outcome of the test, all detectable leaks shall be repaired by the Contractor at his own expense. Additional test shall be performed until a satisfactory test has been completed. The connections to existing pipelines shall be tested at line pressure after refilling the existing pipelines. The Contractor shall repair all leaks in the connections which occur as a result of these operations.

No leakage is allowed for welded steel pipe and welded concrete cylinder pipe (SCRW) with welded joints.

**306-1.4.8 Televising Sewer Mains and Storm Drains (2003 Regional Supplement).**

**306-1.4.8.1 General Requirements.**

Page 43 – To subparagraph 2), 3), and 6), revise to read:

- 2) Videotapes shall be high quality COLOR in VHS format and recorded in either SP or LP modes. Recordings made in SLP or EP modes are not acceptable. Any out-of-focus video recording or portions thereof, shall be cause for rejection of the video recording and will necessitate re-televising.
- 3) Engineer shall be notified a minimum of two (2) working days in advance of televising. The entire televised inspection process must be done in the presence of the Engineer.
- 6) For underground sewer or storm drain conduit installations, the maximum operational tolerance for sag shall be one-half inch (1/2"). When televised inspection is used to check for sag, a calibrated one-quarter (1/4") diameter steel bar, mounted in front of the camera, shall be used to measure the depth of a sag.

At the end of subsection, add the following:

All material, equipment and labor to perform the test shall be provided by the Contractor at no cost to the Agency.

**ADD:**

**306-1.4.9 Balling Sewers.**

Prior to acceptance by Engineer, the Contractor shall prove all new sewer mains are clear of obstructions.

The Engineer shall require the Contractor to Wayne ball the sewer main in their presence.

**306-1.5 Trench Resurfacing.**

**306-1.5.2 Permanent Resurfacing.**

Page 344 - Delete in its entirety and substitute the following:

All surface improvements damaged, displaced or removed as a result of the Contractor's operation shall be reconstructed by the Contractor according to City of San Diego Standard Drawings SDG-107 and SDG-108.

Subgrade for trench resurfacing shall conform to Section 301-1 and the pavement reconstruction shall comply with the applicable provisions of Section 302.

A paving machine or spreader box shall be used to place the Class "F" asphalt concrete wearing surface, followed immediately by a roller. Resurfacing shall be completed within a maximum of thirty (30) calendar days after traffic is restored.

**306-4 CAST-IN-PLACE NON-REINFORCED CONCRETE PIPE. (CIPCP).**

**306-4.1 General.**

Page 354 - Revise Item two (2) to read:

- 2) Where soils encountered are not capable of standing unsupported from the bottom of trench to the top of the trench, or three feet (3') above the top of pipe, whichever is greater, without any sloughing, and where soils are saturated or contain water quantities or other conditions harmful to the concrete, the Contractor shall install an alternate pipe as directed by the Engineer. The substitution of alternate pipe shall be at no additional expense to the Agency.

**ADD:**

**306-4.1.1 Inspection.**

On all private contract work the Contractor shall not construct CIPCP without the presence of a City provided Registered Civil Engineer special inspector of case-in-place concrete pipe experienced in the manufacture and placement of CIPCP, for continuous inspection of the construction of the pipe. The inspection shall be certified in writing and signed by the Registered Civil Engineer. The certification is to be done on a daily basis of operation and shall include, as a minimum, the following:

- 1) Confirm that a California Registered Civil Engineer who qualifies as a Soils Engineer or Geotechnical Engineer has determined and verified, in writing, the following:
  - a) A minimum of ninety percent (90%) relative compaction exists in the pipe support area of the trench.
  - b) Integrity of the trench bottom and sides is sufficient to provide necessary support to the CIPCP, as required by Section 306-4.1.
- 2) Report on concrete mix design used, method of placing transit mix concrete, including drum revolution counts, time from mix to placement and slump as placed.
- 3) Report on visual appearance of the pipe as poured for smoothness, rock pockets, if any alignment and grade.
- 4) Report on curing method.
- 5) Report on method and timing of backfill.

6) Review of concrete test results and adequacy of the finished product.

**306-4.4 Placement.**

**306-4.4.7 Curing.**

Page 356 - Add the following:

At no time will drainage be allowed within the pipe during the curing period.

**306-4.4.8 Repairing.**

Page 356 - At the beginning of the section, add the following:

The City Engineer shall be the sole judge as to the reparability of deficiencies.

**306-4.4.9 Rejection.**

Page 356 - At the beginning of the section, add the following:

The City Engineer shall be the sole judge as to whether or not the pipe shall be rejected.

**306-4.5 Backfill.**

Page 357 - Add the following:

Maximum height of cover over top of pipe shall not exceed fifteen feet (15').

**SECTION 307 – STREET LIGHTING AND TRAFFIC SIGNALS**

**307-2 CONSTRUCTION GENERAL.**

**307-2.7 Bonding and Grounding.**

Page 374 - Add the following:

On fiberglass or wood poles, all metallic equipment mounted less than eight feet (8') above ground surface shall be grounded. For bonding purposes of this metallic equipment, a No. 8 bare copper wire, or colored copper wire coded to Code requirements, shall be run continuously to the service point ground rod, or a ground rod at the base of the fiberglass or wood pole.

**SECTION 308 – LANDSCAPE AND IRRIGATION INSTALLATION**

**308-6 MAINTENANCE AND PLANT ESTABLISHMENT.**

Page 392 - To the fifth paragraph, change “30 calendar days” to read “90 calendar days”.

**SECTION 310 - PAINTING**

**310-5 PAINTING VARIOUS SURFACES.**

**310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.**

**310-5.6.1 General.**

Page 401 - Last paragraph, revise as follows:

Delete second sentence.

At the end of paragraph, add the following:

The Contractor shall within one (1) working day or as directed by the Engineer, remove by wet sandblasting all existing or temporary traffic markings that may confuse the public and afterwards seal and sand the abraded area. Additionally, all construction related markouts, including utility markouts, shall be removed upon completion of the job. Unless otherwise specified, payment for sandblasting, sand and seal shall be included in other items of work and no additional payment will be made therefor.