

SECTION E

SPECIAL PROVISIONS

The following Special Provisions supplement and amend the Standard Specifications for Public Works Construction (2012 Edition) and the Standard Specifications of the State of California Department of Transportation (Caltrans), 2010 edition, as noted herein. These Special Provisions have been arranged into a format that parallels the Standard Specifications for Public Works Construction.

SECTION E - SPECIAL PROVISIONS

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PART 1 - GENERAL PROVISIONS

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-2 TERMS AND DEFINITIONS. Add or redefine the following:

Agency – The City of Torrance, herein referred to as CITY.

Board – The City Council of the City of Torrance, herein referred to as City Council.

Engineer –The Public Works Director and/or City Engineer of the City of Torrance, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Claim - A separate demand by the Contractor for (A) a time extension, (B) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the Agency.

1-3 ABBREVIATIONS.

1-3.2 Common Usage:

Add the following abbreviations:

Approx	Approximate
CA	City and/or Consulting Arborist
Exist.	Existing
L.A.C.D.P.W.	Los Angeles County Department of Public Works
Med.	Median
M.L.	Main Line
OH	Overhead
Ped.	Pedestrian
Reconst.	Reconstruct
Temp.	Temporary
Theo.	Theoretical
WM	Wire mesh or water meter

SECTION 2 - SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF CONTRACT. Replace the entire subsection with the following:

Within ten (10) working days after the date of the CITY’S award of contract, the Contractor shall execute and return all Contract Documents required by the CITY. The CITY reserves the right to terminate the award if the above requirement is not met. Such termination will result in the forfeiture of the Proposal Guaranty.

The Contract shall not be considered binding upon the CITY until executed by the authorized CITY officials.

2-4 CONTRACT BONDS. Revise the second sentence of the fourth paragraph to read as follows:

The "Performance Bond" shall be for 100 percent of the Contract Price and shall remain in effect for one year following the date specified in the Notice of Completion or, if no Notice of Completion is recorded, for one year following the date of final acceptance by the Engineer.

2-5. PLANS AND SPECIFICATIONS.

Add the following subsections:

2-5.1.1 Plans. There are no Plans for the Work. Included in the Appendices are project location and detail area maps, and spreadsheets of related information. Actual limits of Work will be determined in the field by the Engineer.

2-5.1.2 Specifications. The Work shall be performed or executed in accordance with these Special Provisions and the following:

- 1) Standard Specifications for Public Works Construction, latest edition and supplements thereto, hereinafter referred to as the Standard Specifications, as written and promulgated by Public Works Standards, Inc. The Standard Specifications are published by BNi Building News, Inc., 1612 South Clementine Street, Anaheim, CA 92802, Phone: (800) 873-6397.
- 2) Sections 84 and 85 of the State of California Department of Transportation (Caltrans) Standard Specifications, latest edition, and all supplements.

2-5.2 Precedence of Contract Documents. Replace the entire subsection with the following:

If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The order of precedence shall be as follows:

- 1) Permits issued by other agencies.
- 2) Change Orders (including Plans and Specifications attached thereto).
- 3) Public Works Agreement
- 4) Addenda
- 5) Special and General Provisions
- 6) Plans and/or Maps
- 7) City Standard Plans
- 8) Other Standard Plans
- 9) Standard Specifications for Public Works Construction
- 10) Reference Specifications

With reference to the Plans/Drawings, the order of precedence is as follows:

- 1) Change Order plans govern over Addenda and Contract plans
- 2) Addenda plans govern over Contract plans
- 3) Contract plans govern over standard plans
- 4) Detail plans govern over general plans
- 5) Figures govern over scaled dimensions

Within the Specifications, the order of precedence is as follows:

- 1) Change Orders

- 2) Permits from other agencies/Supplemental Agreements
- 3) Special Provisions
- 4) Instruction to Bidders
- 5) Referenced Standard Plans
- 6) Referenced Standard Specifications

If the Contractor, in the course of the Work, becomes aware of any claimed errors or omissions in the Contract Documents or in the CITY's fieldwork, the Contractor shall immediately inform the Engineer. The Engineer shall promptly review the matter, and if the Engineer finds an error or omission has been made the Engineer shall determine the corrective actions and advise the Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of work called for in the Contract, the CITY shall issue an appropriate Change Order in accordance with 3-3. After discovery of an error or omission by the Contractor, any related work performed by the Contractor shall be done at the Contractor's risk unless authorized by the Engineer.

2-5.3 Submittals

2-5.3.4 Supporting Information. Replace the second paragraph with the following:

Submittals are required for the following:

- 1) Type I Slurry Seal with 2.5% latex additive
- 2) Type II Slurry Seal with 2.5% latex additive
- 3) Crack Sealant
- 4) Catch Basin Grating
- 5) Cobblestones
- 6) Asphalt Mix Designs
- 7) Concrete Mix Designs
- 8) Crushed Miscellaneous Base Mix Designs/Properties
- 9) Striping and Marking Materials
- 10) Detectable Warning Surfaces
- 11) Trees
- 12) Construction Schedule
- 13) Signs

In addition to the above, submittals may be required for any product, manufactured item, or system not specifically listed above.

2-6 WORK TO BE DONE. Add the following:

The Work generally consists of furnishing all labor, materials, tools, equipment, and incidentals necessary to remove (by grinding) existing thermoplastic and painted striping, pavement markings and legends; remove raised pavement markers; apply bituminous pavement crack sealant; apply slurry seal in areas indicated; install new striping, pavement markings, legends and raised pavement markers; and install new concrete wheel stops; on City streets and on City parking facilities shown on the location and detail area maps, as listed in the Appendices, as specified in the Specifications and there Special Provisions, and as directed by the Engineer.

The Work also includes sweeping before and after slurry seal applications; removing of grease spots (by grinding); all necessary traffic control; preparing and updating construction schedules; posting signs for "NO PARKING" and arranging for towing of cars, if necessary; protecting utility covers in place; and installing temporary pavement markers. In areas where ponding occurs, some curb, gutter, sidewalk, and tree removal/replacements will be performed prior to application of the slurry seal.

The Contractor shall be responsible for cleaning, sweeping and removing all loose rock from surfaces, parking areas, gutters, sidewalks, driveways and parkways after slurry seal application, as specified in the Specifications and these Special Provisions, and as directed by the Engineer.

Additional concrete improvements on Palos Verdes Boulevard at Monte D'Oro will also be constructed to install a new curb ramp and drainage improvements on the east side of the intersection. This project will also modify the center median on Calle Miramar to the west of Palos Verdes Boulevard to decrease the overall width of the median and install decorative cobblestones similar to those along Palos Verdes Boulevard.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers. Replace the entire Subsection 2-9.1 with the following:

The Contractor shall not disturb survey monuments, lot stakes (tagged), centerline ties, or benchmarks without notifying the Engineer. The Contractor shall be responsible to have a CA Registered Land Surveyor document all surveying monuments, lot stakes (tagged), centerline ties, and bench marks that may be disturbed during construction. In the event that identification numbers on survey monuments are illegible, it shall be the responsibility of the Contractor to obtain all information necessary to restore the monuments in their correct location. The Contractor or its Surveyor shall file a Corner Record Form at the Los Angeles County Surveyor referencing survey monuments subject to disturbance prior to the start of construction and also prior to the completion of construction, including a location for reestablishment of disturbed monuments. Copies of the records shall be provided to the City. **Final payment will not be made until the aforementioned documentation is provided to the CITY.**

All surveying shall be performed by a CA Registered Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state. All monuments and centerline ties shall be tied out and reset in accordance with Section 8771 (Land Surveyors Act) of the Business and Professions Code of the State of California.

2-9.2 Survey Service. Replace the first two paragraphs with the following:

All construction surveying necessary to complete the Work provided in these Contract Documents shall be accomplished by or under the direction of a Registered Land Surveyor or Registered Civil Engineer authorized to practice land surveying in the State of California, retained and/or provided by the Contractor. The CITY reserves the right to direct additional construction survey work to be performed at no additional cost when the City determines it is required to adequately construct the Work.

The Contractor shall notify the Engineer in writing at least 2 working days prior to the actual survey. The Contractor shall provide any required traffic control necessary for construction surveying. Prior to disturbing survey monuments, the Contractor shall notify the Engineer in accordance with Section 2-9.1.

Stakes shall be set and stationed by the Contractor for curbs, curbs and gutters, sidewalks, access ramps, cross gutters, driveways, headers, storm drains, sewers, water lines, spandrels,

catch basins, rough grade, and other items as necessary. A corresponding cut or fill to finished grade (or flow line) shall be indicated on a grade sheet. A copy of each grade sheet shall be furnished to the Engineer. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be by the Contractor at its expense.

Construction stakes shall consist of the following:

- a. Offset line and grade stakes for gravity sewer at 50-foot intervals with grade sheets indicating cut to the pipe invert.
- b. One set of control stakes for manholes and jacking pits.
- c. One set of paving stakes.
- d. Pipe heading checks for line and grade at each manhole.
- e. Line and grade of new curb and gutter
- f. Line and grade of existing features shown on the plan to be replaced in kind sufficient for their construction

The Contractor shall submit to the City within 2 days after completion of each respective survey, setting of each stake and heading check a copy of the survey notes and calculations certified by the licensed Land Surveyor for the following:

- a. Level and horizontal control circuit for survey control.
- b. Grade sheets for pipeline stakes.
- c. Pipe heading checks.

Add the following subsection:

2-10 AUTHORITY OF THE BOARD AND THE ENGINEER. Add the following:

Failure of the Contractor to comply with the requirements of the Contract Documents, or to follow the directions of the Engineer, and/or to immediately remedy such noncompliance or to follow directions, may, upon notice from the Engineer, result in the suspension of the Contract monthly progress payments. Any monthly progress payments so suspended may remain in suspension until the Contractor is in compliance with the Contract Documents and the directions of the Engineer, as determined by the Engineer.

2-11 INSPECTION. Replace the entire subsection with the following:

The Work is subject to inspection and approval by the Engineer. The Contractor shall notify the Engineer a minimum of 48 hours in advance of the required inspection.

The Engineer will make, or have made, such inspections and tests as he deems necessary to see that the Work is in conformance with the Contract Documents. In the event such inspections or tests reveal noncompliance with the Contract Documents, the Contractor shall bear the cost of such corrective measures as deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing.

Work done in the absence of inspection by the Engineer may be required to be removed and replaced under the inspection of the Engineer, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the CITY and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered without the approval of the Engineer shall, if so directed by the Engineer, be uncovered to the extent required by the Engineer, and the Contractor shall similarly bear the entire cost of performing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement, including all costs for additional inspection.

The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents.

Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

Add the following subsections:

2-11.1 Special Inspection Fees. If the Contractor elects to work under this Contract more than 8 hours/day or more than 40 hours/week, Saturday, Sunday, or CITY holidays, the Contractor shall arrange with the Engineer for the required inspection service and pay the Special Inspection Fees which will be charged at the following rates:

Mondays through Fridays	-	\$135.00 per hour
Saturdays, Sundays, Holidays	-	\$1,200.00 per day

Fees may be deducted from payments due to the Contractor at the discretion of the Engineer.

If the Contractor works under this contract at times other than within the allowed working hours without permission from or prior arrangement with the Engineer, the Contractor will be charged a lump sum amount of \$500.00 for each occurrence, in addition to the above fees. The amount will be deducted from a Progress Payment.

2-11.3 Inspections During Construction. During the construction, the Contractor shall make the Work site available for periodic inspections by the regulatory agencies. These agencies may include: Los Angeles County Department of Health Services, Los Angeles Regional Water Quality Control Board, the State Water Resources Control Board, Division of Drinking Water and CITY Water Department.

2-11.4 Material Inspection/Testing and other City Expenses.

- (a) If a City subcontractor hired to perform material inspection and/or testing is required to work additional time to perform inspection and testing as a result of an action or delay caused by the Contractor, except for specific work allowed by the Engineer, the City subcontractor may charge the City an additional fee. The Engineer may deduct the additional fee for said inspection and testing from a Progress Payment to the Contractor. The Engineer also may deduct the cost to perform additional testing when an initial test fails to meet the requirements of this Contract. The typical rates for material testing and inspection are available upon request from the Public Works Department.
- (b) If the Contractor does not comply with a requirement of these Special Provisions or if it does not immediately respond, after being informed, to a request by the Engineer to amend a site condition that jeopardizes the public health, safety or welfare, the Engineer may direct City staff to perform the work. For each occurrence, the City will charge the Contractor a base charge in the amount of \$750 in addition to all costs incurred by the City for administration, labor, equipment and materials. The standard rates for City staff are available upon request from the Public Works Department.
- (c) For each sign, drum, delineator, cone, barricade, warning device, or other type of required traffic control device that is not provided and/or replaced by the Contractor when required by the Traffic Control Plans and/or directed by the Engineer, the Engineer may deduct \$75 per day for each missing device from a Progress Payment.
- (d) Temporary lane closures maintained prior to 8:30 A.M. and/or after 3:30 P.M. may have a negative economic effect on the local residential, commercial or industrial community. Unless a temporary lane closure is otherwise authorized, the Engineer may deduct a fee from a Progress Payment for each temporary lane closure maintained prior to 8:30 A.M. or after 3:30 P.M. The fee will be assessed at a rate of \$700 per each travel lane per each thirty (30) minute interval, or fraction thereof.

SECTION 3 – CHANGES IN WORK

3-2 CHANGES INITIATED BY THE AGENCY

Section 3-2.2.1 General. Delete this subsection in its entirety. Add the following:

The City reserves the right to increase or decrease any bid item quantity, as necessary, to meet the City's needs and/or the project and/or budget requirements. If the City increases or decreases any bid item quantity by more than 25% of the original contract quantity, either the City or the Contractor may initiate discussions and/or negotiations regarding a potential adjustment to the contract unit bid price.

Section 3-2.2.2. Increases of More Than 25%. Delete this subsection in its entirety.

Section 3-2.2.3. Decreases of More Than 25%. Delete this subsection in its entirety.

3-3 EXTRA WORK

3-3.1 General. Add the following:

Payment for additional work and all expenditures in excess of the Contract Price must be authorized in writing by the Engineer. Such authorization shall be obtained by the Contractor prior to engaging in additional work. It shall be the Contractor's sole responsibility to obtain written approval from the Engineer for any change(s) in material or in the work proposed by suppliers or subcontractors. No payment shall be made to the Contractor for additional work which has not been approved in writing, and the Contractor hereby agrees that it shall have no right to additional compensation for any work not so authorized.

The Contractor shall be responsible to provide all data and to obtain all approvals required by the Specifications, including submittal of Daily Extra Work Reports. No claims or extras shall be approved by the Engineer unless all work was done under the direction of and subject to the approval of the Engineer. Disputed work claims shall comply with 3-3 as modified herein.

3-3.2.2 Basis for Establishing Costs.

3-3.2.2.3 Tool and Equipment Rental. Replace the second paragraph with the following:

The Contractor will be paid for the use of equipment at the lower of the actual rental rates paid by the Contractor or the rental rates listed for such equipment in either the "Rental Rate Blue Book" published by Dataquest, Inc., 1290 Ridder Park Drive, San Jose, California 95131; telephone (408) 971-9000 or the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rates" available at the Caltrans web site, www.dot.ca.gov/hq/eqsc/inforesources.htm, which is in effect on the date upon which the work is accomplished, and that hereby is made a part of the Contract, regardless of ownership or any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the Engineer to use equipment not listed in the said publication, a suitable rental rate will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of such rental rate.

3-3.2.3 Markup. Add the following:

The markups mentioned hereinafter shall include, but are not limited to, all costs for the services of superintendents, project managers, timekeepers and other personnel not working directly on the change order, and pickup or yard trucks used by the above personnel. These costs shall not be reported as labor or equipment elsewhere except when actually performing work directly on the change order and then shall only be reported at the labor classification of the work performed.

3-3.2.3.1 Work by Contractor. Replace the entire subsection with the following:

The following percentages shall be added to the Contractor's costs and shall constitute the mark-up for all overhead and profit, which shall be deemed to include all items of expense not specifically designated as cost or equipment rental in Subsections 3-3.2.2.1, 3-3.2.2.2, and 3-3.2.2.3.

Labor	20
Materials	15
Equipment Rental	15
Other Expenditures	15

To the sum of the costs and markups provided for in this subsection, one (1) percent shall be added as compensation for bonding.

3-3.2.3.2 Work by Subcontractor. Replace the entire subsection with the following:

When any part of the extra work is performed by a subcontractor, the markup established in 3-3.2.3.1 shall be applied to the subcontractor's actual cost of such work. A markup of ten (10) percent on the first \$5,000 of the subcontracted portion of the extra work and a mark-up 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.

The markups specified in the two subsections above shall be considered as including, but not limited to, the Contractor's labor costs for personnel not working directly on the extra work, including the cost of any tools and equipment that they may use. Such costs shall not be reported as labor or equipment costs elsewhere except when they are actually used in the performance of the extra work. Labor costs shall in that case be reported for the labor classification corresponding to the type and nature of extra work performed.

3-4 CHANGED CONDITIONS.

Add the following:

This subsection does not apply to utilities.

SECTION 4 – CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP.

4-1.1 General.

Add the following paragraph after the second paragraph:

If the work, or any portion thereof, shall be damaged in any way, or if any defective materials or faulty workmanship shall be discovered at any time prior to the final payment, the Contractor shall

forthwith, at its own cost and expense, repair said damage, or replace such defective materials, or remedy such faulty workmanship in a manner satisfactory to the Engineer.

4-1.2 Protection of Work and Materials. Add the following:

The Contractor shall assume all risks and expense of interference and delay in his operations, and the protection from or the repair of damage to improvements being built under the contract, as may be caused by water of whatever quantity from floods, storms, industrial waste, irrigation, underground or other sources. However, the Contractor shall be entitled to an extension of time in accordance with the provisions of Subsection 6-6. The Contractor shall also assume full responsibility and expense of protecting, or removing and returning to the site of Work, all equipment or materials under his care endangered by any action of the elements.

Furthermore, the Contractor shall indemnify and hold the City harmless from all claims or suits for damages arising from his operations in dewatering the Work and control of water.

SECTION 5 – UTILITIES

5-1 LOCATION. Add the following:

The Contractor shall provide coordination with all the utility companies involved and shall provide protection from damage to their facilities. The Contractor shall be responsible for repair or replacement to said facilities made necessary by its failure to provide required protection. The Contractor is required to include utility requirements in the Construction Schedule per Section 6-1.

The Contractor shall utilize the services of "Underground Service Alert-Southern California" for utility locating in all public right-of-ways by calling 1-800-227-2600 at least 48 hours prior to any excavation.

Where water lines exist, at each angle point, cross connection and "T" connection, the Contractor, for bidding purposes, shall assume the existence of a concrete thrust block located such as to resolve thrust loads. Any and all costs resulting from the existence of a thrust block, including costs for its removal and restoration if required, shall be deemed as being included in the prices bid for the various items of work.

Underground lines that are potentially hazardous such as oil company lines, natural gas mains, and electrical conduits will be carefully located by the owner as provided in the Standard Specifications. The Contractor shall take special precautions in determining the precise location and depth of these structures to insure that they will not be damaged by its operations.

Substitute the following for the last paragraph:

Prior to starting construction, the Contractor shall be responsible to determine the location and depth of all utilities which have been marked by the respective owners and which may affect or be affected by its operations. The Contractor also shall determine the location and depth of each service connection, whether or not marked. Full compensation for such work shall be considered as included in the prices bid for other items or work. If a utility which was marked or a service connection is found to interfere with the work after construction has commenced, the Contractor shall be solely responsible for all costs of any delay and for any costs which could have been avoided if the Contractor had located the utility prior to start of construction.

5-2 PROTECTION. Add the following:

If, in the course of construction, the Contractor damages a sewer lateral or water lateral, the Contractor shall be responsible to completely expose said lateral from the main line to the point of connection at private property to verify integrity of all joints to the satisfaction of the Engineer. This shall not be considered to be extra work and no extra costs shall be allowed therefor.

Sewers, including lateral repairs, shall be constructed of Vitrified Clay Pipe, unless otherwise approved in writing by the Engineer.

Add the following after the final paragraph:

As noted in subsections 5-2.1, 5-2.2 and 5-2.3 utilities are classified and are to be handled in one of three ways by the Contractor in the course of performing the contract.

Add the following subsections:

5-2.1 Noninterfering Utilities

Utilities that are not abandoned by the owner and do not physically interfere with the permanent work in its final location shall be supported, protected and maintained in place by the Contractor, and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from his/her failure to do so and the Contractor shall indemnify and hold harmless the City from any and all such consequences. Noninterfering utilities may, with the permission of the owner and the Public Works Director, be relocated still farther from the permanent work in its final locations, but the Contractor shall not so consider, in submitting his bid, unless the relocation is shown on the plans.

5-2.2 Abandoned Utilities

Abandoned utilities are those portions of any utility which are no longer needed or desired by the owner and whose destruction is consented to by the owner and/or is permitted by notation on the plans. Abandoned utilities which physically interfere with the permanent work or with the construction thereof shall be removed by the Contractor and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from the removal and the Contractor shall indemnify and hold harmless the City from any and all such consequences.

5-2.3 Interfering Utilities

Any utility shall be deemed an interfering utility (1) which physically occupies any part of the space to be occupied by the permanent work in its final locations, or (2) whose length within the theoretical width of excavation for the permanent work exceeds five times the width of said theoretical excavation whether or not the utility physically interferes with the permanent work. Interfering utilities that are not abandoned by the owner shall be relocated so as not to interfere with the permanent work in its final location. Such relocation will be performed by the owner or the City unless otherwise shown on the plans.

The Contractor shall exercise caution to prevent damage to or movement of the utilities while constructing the permanent work along and adjacent to the utilities.

Should any manhole extend within a trench excavation, the Contractor shall choose one of the following methods of construction and shall assume all responsibilities thereof:

- (1) Support and maintain the manholes in place during the construction of the permanent work in open cut.

- (2) Remove the shaft and maintain the base of the manhole in place until the backfill is placed and compacted; then reconstruct the manhole shaft.
- (3) Use another method of construction which has been submitted to and approved by the Engineer. All costs for the work pertaining to the manholes that might be found to extend partially within the excavation limits or any protective measures required due to the proximity of the manholes and the permanent work at these locations shall be absorbed in the prices bid for the various items of work.

5-2.4 Protection of Underground Hazardous Utilities. This Subsection shall apply to projects where there are underground utilities within the Work area which may be potentially hazardous if damaged. A hazardous substance shall be defined as one having the potential for an immediate disaster such as, but not limited to, gasoline, electricity, fuel oil, butane, propane, natural gas, chlorine or other chemicals.

Abandoned or inoperative utilities designed to carry hazardous substances and unidentified or unknown utilities shall be considered hazardous until determined otherwise. Whenever the Contractor is directed by the Engineer to tap these lines, the Contractor shall provide personnel specialized in this work and payment therefore will be considered as extra work per 3-3 of these Special Provisions.

The Contractor shall comply with the following requirements when working around underground hazardous utilities:

- 1) The Contractor shall not trench or excavate within the area where a utility known to carry a hazardous substance exists until its location has been determined by excavation or other proven methods acceptable to the Engineer. The intervals between exploratory excavations or location points shall be sufficient to determine the exact location of the line. Unless otherwise directed by the Engineer, excavation for underground hazardous utilities shall be performed by the Contractor and paid for as specified per 5-1 of these Special Provisions.
- 2) If it is determined that the horizontal or vertical clearance between the utility known to carry hazardous substances and the construction limit is less than 300 mm (12 inches) (450mm (18 inches) if scarifying), the Contractor shall confer with its owner. Unless the owner elects to relocate the line or take it out of service, the Contractor shall not excavate until the line has been completely exposed within the limits of construction.
- 3) Once the physical location of the utility known to carry hazardous substances has been determined, the Contractor, in cooperation with and with the concurrence of the utility owner, shall determine how to protect and/or support the utility from damage before proceeding with the Work.
- 4) During all excavation and trenching operations, the Contractor shall exercise extreme caution and protect the utilities from damage.
- 5) The Contractor shall notify the Engineer, the public agency maintaining records for the jurisdiction in which the Project is located and the owner, if known, whenever previously unidentified or unknown underground utilities are encountered so that the location can be accurately established and made a part of permanent substructure records.

Full compensation for protecting underground hazardous utilities as specified or noted on

the Plans shall be considered as included in the prices bid for the various items of work.

5-3 REMOVAL.

Add the following:

It shall be the Contractor's responsibility irrespective of the notations on the plans to confirm or determine that a utility is to be abandoned before treating the same as an abandoned utility and shall assume all risks in so determining.

5-5 DELAYS.

Substitute the following:

If the contractor while performing the contract discovers utility facilities not identified by the public agency in the contract plans or specifications, he shall immediately notify the City and utility in writing. The Contractor shall not be entitled to damage or additional payment, nor shall it be entitled to standby time for labor if a delay does occur. The Contractor also shall not be entitled to damage or additional payment for equipment not on the project during the occurrence of the event that caused the related delay. The Engineer will determine the extent of the delay attributable to such interferences, the affect of the delay on the project as a whole, and any commensurate extension of time.

Any failure of the City and/or utility company to accomplish relocations in a reasonable manner in light of the Contractor's operations (to the extent such operations would otherwise be feasible and in accordance with the contract and as disclosed to the City prior to the Contractor encountering any such utility) shall entitle the Contractor to an extension of contract time to the extent that, in the judgment of the Engineer, the Contractor's completion of the overall contract work has been delayed; however, the Contractor shall be entitled to no other remedy and, in submitting its bid, thereby waives such other remedies, if any, unless the relocation delay is the result of arbitrary, capricious or malicious conduct by the City.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

6-1.1 Construction Schedule. Replace the entire subsection with the following:

Within ten (10) working days after the date of the CITY's execution of the Contract, the Contractor shall submit a proposed construction schedule to the Engineer for approval. The schedule shall be in accordance with 6-1.3 and 6-1.4 and shall be in sufficient detail to show chronological relationship of all activities of the Work. These include, but are not limited to: estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials and scheduling of equipment. The schedule shall be in accordance with the Specification and these Special Provisions.

In addition, during construction, the Contractor shall also submit to the Engineer, a two-week "look ahead" construction schedule every Monday morning. The schedule shall indicate, by date, the locations of Work during the next 2 weeks. The schedule shall consist of an 8*1/2" x 11" street map of the part of the city to be completed, with each week's work area outlined.

Prior to issuing the Notice to Proceed, the Engineer will schedule a Pre-Construction Meeting

with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination and clarify inspection procedures.

Prior to starting any Work, the Contractor may be required to attend a Community Meeting to be scheduled by the Engineer. The meeting, to be held in the evening, will address the residents' questions and concerns regarding the Work, what can be expected during construction and vehicular and pedestrian access that may be temporarily restricted during construction. Compensation for attending these meetings shall be considered a part of Mobilization or, when there is no bid item for Mobilization, shall be considered as part of the bid items of work for this contract.

Notwithstanding any other provisions of the Contract, the Contractor shall not be obligated to perform any work and the CITY shall not be obligated to accept or pay for any work performed by the Contractor prior to delivery of a Notice to Proceed. The CITY's knowledge of work being performed prior to delivery of the Notice to Proceed shall not obligate the CITY to accept or pay for such work. The Contractor shall provide all required Contract bonds and evidences of insurance prior to commencing work at the site.

6-1.3 Criteria. Construction schedules shall consider the following:

- 1) **ALL WORK MUST BE COMPLETED ON OR BEFORE SATURDAY, OCTOBER 29, 2016.**
- 2) **REFUSE AND RECYCLING COLLECTION.** Detailed Area Maps in the Appendices show the refuse and recycling collection day for each area. **Application of Slurry Seal is prohibited on the day prior to and on the same day as refuse and recycling collection.**

Slurry Seal shall be scheduled to occur on the days immediately following trash collection. Also, Slurry Seal should be scheduled to allow a minimum of 4 calendar days of cure time, prior to trash collection days.

- 3) **Application of Slurry Seal at Greenwood Park parking lot shall be performed only on a Saturday.**
- 4) **Application of Slurry Seal at Sea Aire Golf Course parking lot shall be performed only on a Monday.**
- 5) **During application of slurry seal on arterial streets, Contractor shall maintain access to at least one-half of each driveway in the work area at all times. Flag strings shall be utilized to clearly delineate the work area to prevent cars from driving on fresh slurry until completely dry.**
- 6) **TEMPORARY PAVEMENT MARKINGS, CAT-TRACKING, AND STRIPING:** Reflective yellow and white "tabs" shall be installed following slurry seal installation to indicate locations of lane lines, STOP limit lines, all yellow crosswalks, and shall be maintained until new striping is installed. Cat-tracking layout for final pavement markings shall be completed within three (3) working days after applying slurry seal to residential and/or arterial streets. Striping shall take place between seven (7) and fourteen (14) calendar days after applying slurry seal.
- 7) **TEMPORARY STREET PARKING FOR RESIDENTS.** The schedule shall allow affected residents ample on-street parking within an 1,000-foot distance from their homes, and shall consider pedestrian access routes to said parking.

- 8) STOCKPILE AREA. Schedule shall indicate date for cleanup of stockpile area.
- 9) WORK HOURS. Work shall be performed between the hours of 7:00 a.m. and 4:30 p.m. unless otherwise approved by the Engineer. Then Contractor shall consider in its schedule any reasonable delay required to locate owners of vehicles parked within the work areas. Locating vehicle owners must be coordinated with the Engineer, Inspector, and Torrance Police Department.
- 10) WEEKEND WORK: Weekend work is required for several project areas, as described in these Specifications.

6-1.4 Requirements. In preparing the construction schedule, the following items shall be considered:

Sequence of Construction - The Contractor shall sequence the Work in a manner to expeditiously complete the project with a minimum of inconvenience to the adjacent owners and to conform to the following:

1. **The Contractor may not begin any pavement reconstruction activities until it has completed the installation of all new PCC improvements (i.e. curb/gutter, cross gutters, sidewalk, driveways, curb ramps, etc. for the entire project.**
2. Concrete removal - All concrete removed shall be hauled off the Work site (including the Contractor's storage yard) no later than the calendar day following the day that the removal is performed. If the calendar day following the removal is a non-working day (Saturday, etc.) the concrete shall be hauled off the Work site on the same day it was removed. Unless otherwise authorized by the Engineer, failure by the Contractor to haul concrete from the Work site and/or Contractor's storage yard(s) in a timely manner may result in a liquidated damage assessed upon the Contractor. Such liquidated damage shall be determined by the Engineer and will be deducted, accordingly, from a Progress Payment due to the Contractor.
3. PCC construction - Construction of PCC sidewalks, driveways, access ramps, curbs, gutters and cross gutters shall be formed and poured within 5 working days following removal of the existing material at any location. Any adjacent trench (i.e. 1-foot wide slot trench), required to remove and construct said PCC construction shall be restored per these Specifications and no later than 2 calendar days following the PCC construction. Failure by the Contractor to comply with these requirements in a timely manner may result in a liquidated damage assessed upon the Contractor. Such liquidated damage shall be determined by the Engineer and will be deducted, accordingly, from a Progress Payment due to the Contractor.
4. The Contractor is required to work on tree and stump removals per 300-1.3.2(d), sidewalk, access ramps, curb, gutter, cross gutters and driveway replacements in a continuous operation and simultaneously with the work in item 1 above.
5. The contractor is required to construct the new pavement in separate phases. All dig-outs shall be complete in one phase prior to the start of work in any subsequent phase. However, when approved by the Engineer, the Contractor may begin pavement reconstruction in a subsequent phase, prior to the application of permanent thermoplastic striping in the completed phase. Accordingly, the Contractor is required to provide and maintain temporary striping and/or reflectorized yellow and white tabbing in the completed phase until such permanent thermoplastic paint is applied.

6. Pavement removal - All pavement removed as a result of trenching shall be hauled off the Work site no later than the same day that the removal is performed.
7. Within 5 working days following the installation of the slurry seal on any street, the Contractor shall complete the "cat-tracking" of all proposed pavement markings provided in Appendix III, VI and VI. The City will inspect all "cat-tracking" within 2 working days and notify the Contractor of any needed corrections or adjustments. Upon approval of the "cat-tracking" by the Engineer, the Contractor shall then complete the installation of all thermoplastic pavement markings no earlier than 7 calendar days following the installation of the final ARHM surface course in any Phase, but under no circumstances no later than 10 calendar days following the installation of the slurry seal on any given street.
8. Tree and Stump removals per 300-1.3.2(d) are to be performed before concrete removals.
9. Irrigation systems - Irrigation systems disrupted by the Contractor shall not be left inoperable for more than three working days.
10. The proposed sequence of pavement construction. The Contractor may proceed with the pavement construction work after the completion of the concrete work as listed above.
11. All Work shall only be performed between the hours of 7:00 a.m. and 3:30 p.m. unless otherwise approved by the Engineer.
12. A move-in period of 10 calendar days will be allowed starting on the date in the Notice to Proceed.
13. Holiday Moratorium per 7-10.2.8 of these Special Provisions.
14. Refuse and recycling collection. Refuse and recycling collection days are established and will not be changed. Weekly and holiday schedules are provided in Appendix VIII. For the week of September 5, if slurry seal operations are occurring, the work for that Monday shall be rescheduled to the Monday of the sixth week unless otherwise approved by the engineer and no additional payment will be allowed therefore. The City requires a 5-day cure period for slurry seal material. No slurry seal shall be applied to a street within the 2 calendar days prior to refuse collection day for that street. (Example: If Thursday is the collection day for a street in this contract, then slurry sealing must be applied either Monday or Tuesday prior or Friday thereafter).

The City utilizes automated refuse and recycling vehicles. After refuse collection, the City will attempt to place the refuse containers on parkways and driveways and off of the roadway areas. In some cases, however, this may not be possible, and the contractor will be responsible for moving the receptacles out of the way.

For streets that have dig-outs, the Contractor must provide a stable driving surface on refuse collection day that can accommodate the weight of the City's refuse collection vehicle AND the refuse collection activity. It should be noted that refuse containers are placed along the curb/gutter so they can be "grabbed" by an automated collection arm.

15. Stockpile area. Schedule shall indicate date for cleanup of stockpile area.

Should the Contractor fail to meet the Requirements, the Engineer reserves the right to prohibit the Contractor from making further removals until the clean up, construction, or rehabilitation of sprinklers is in conformance with the aforementioned requirements. Furthermore, if after notice is given to the Contractor to perform work to meet these requirements, and the Contractor refuses or for any reason fails to perform sufficiently to meet these schedules, CITY may perform said work and charge the Contractor for all costs incurred.

6-1.5 Updates. The Contractor is expected to strictly adhere to the approved schedules. Should it be necessary to change the sequence of the streets previously scheduled for Work, the Contractor shall immediately inform the Engineer, and within 24-hours of such notification, submit a revised schedule for approval. In no case shall the Contractor be allowed to slurry on a street without notifying the Engineer and the residents as required in the Specifications.

Written re-notification is required, per Section 7-10.1.2, Notifications and Postings.

6-1.6 Order of Work. The Contractor shall pothole mast arm pole foundations for conflicting utilities prior to ordering poles. The Contractor shall order traffic signal poles and equipment and/or other materials requiring a delivery delay within 5 working days subsequent to pothole activities. Contractor shall provide written proof(s) of timely material order(s) and shall include any delivery delays in the Construction Schedule.

6-7 TIME OF COMPLETION.

6-7.1 General. Replace the first sentence with the following:

Time shall be of the essence in the Contract. The Contractor shall begin Work after the mailing by the Engineer to the Contractor, first class mail, postage prepaid, a Notice to Proceed and shall diligently prosecute the same to completion within (5) working days from the start date specified in the Notice to Proceed.

6-7.3 Contract Time Accounting. Insert the following before the sentence:

Unless otherwise specified, contract time accounting shall be expressed in working days.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY.

6-8.1 Completion. Replace the entire subsection with the following:

If, in the Engineer's judgment, the Work has been completed and is ready for acceptance, the Engineer will so certify and will determine the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. The Engineer may cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office. At the Engineer's option, the Engineer may certify acceptance to the City Council who may then cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office.

It is the intent of the Specifications that only first-class materials and workmanship will be acceptable. The Contractor shall take all necessary measures to protect Work from damage and prevent accidents and vandalism during any and all phases of the work.

Until the final acceptance of the Work by the City, by written action of the Engineer, the Contractor shall have the charge and care thereof and will bear the risk of injury or damage to any part of the Work by the action of the elements, vandalism, or any other cause. The Contractor

shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any cause before its completion and acceptance and will bear the expense thereof.

A partial list of causes for rejection of Work includes:

- Power steering marks
- Drive-through marks
- Raveling
- Color variations
- Loose gravel on roadways, sidewalks, gutters and parkways
- Deliberate defacing by vandals
- Chip Seal or Slurry applied over traffic markings and/or manhole and utility valve covers
- Inadequate temporary traffic markers

6-8.3 Warranty. Add the following subsection:

6-8.3.1 Manufacturer's Warranties. Manufacturer's warranties shall not relieve the Contractor of liability under these Specifications. Such warranties only shall supplement the Contractor's responsibility. The Engineer may, at his option, require a manufacturer's warranty on any product offered for use.

6-9 LIQUIDATED DAMAGES. In each of the two paragraphs, substitute "\$500" in place of "\$250" as the amount of the liquidated damages per each consecutive calendar day.

Add the following section:

6-11 SEQUENCE OF CONSTRUCTION

6-11.1 Multiple Headings. In order to meet the contract schedule, the Contractor will be allowed to initiate and maintain two or more construction headings. However, the Contractor will not be allowed to have multiple phases of work occurring that have the corresponding traffic control devices in conflict with each other.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-2 LABOR

7-2.3 Payroll Records. Add the following:

Any payroll and payroll records required for this project shall be submitted, for each week in which any contract work is performed, to the Engineer. A retention of \$5,000 per report per pay period will be withheld from a progress payment for a late or missing report. A report shall be deemed as late or missing when not submitted to the Engineer within 10 calendar days from the close of the pay period for which the report applies. In addition, a non-refundable deduction of \$100 per report per day will be deducted from payments due the Contractor for each late or missing report. The \$100 non-refundable deduction per day will be incurred beginning on the first day the report is late or missing.

Add the following subsections:

7-2.5 Subcontractor and DBE Records

At the completion of the contract if the Contractor does not submit its Subcontractor and DBE Records to the Engineer a retention in the amount of \$10,000 per record will be withheld from a progress payment for a late or missing record. A record shall be deemed as late or missing when not submitted to the Engineer within 15 calendar days from the completion of the contract. In addition, a non-refundable deduction of \$300 per record per day will be deducted from payments due the Contractor for each late or missing record. The \$300 non-refundable deduction per day will be incurred beginning on the first day the record is late or missing.

7-2.6 Department of Industrial Relations' monitoring and enforcement of prevailing wage laws

California Labor Code:

1771.1. (a) A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

SB 854 amended the Labor Code to require all contractors bidding on public work to register with the Department of Industrial Relations (DIR) and to pay an annual fee. The registration requires contractors to provide the State with evidence of the contractors' compliance with a number of statutory requirements. The registration requirement took effect on July 1, 2014 to fund the Department of Industrial Relations' monitoring and enforcement of prevailing wage laws. The registration period is open now, and contractors and subcontractors wishing to work on a public works project must be registered by March 1, 2015. For public agencies/awarding bodies, the new law requires that all public works projects with bids due after March 1, 2015, or awarded on or after April 1, 2015, use only registered contractors and subcontractors. The bill also requires awarding bodies to include notice of the registration requirement in their bid invitations and bid documents. In addition, public agencies must also file notice of their public works projects using DIR approved forms.

Registration is completed through an online application and requires a non-refundable \$300 fee to be paid by the contractors and subcontractors. The registration process requires contractors to:

- provide workers' compensation coverage to its employees
- hold a valid Contractors State License Board license
- have no delinquent unpaid wage or penalty assessments
- not be subject to federal or state debarment

Contractors must pay an annual renewal fee by July 1 of each year. The registration form is located on the DIR's website at <http://www.dir.ca.gov/DLSE/dlsepublicworks.html>.

To help awarding bodies and contractors comply with the new requirements, the DIR will post a database of registered contractors and subcontractors on its website. While non-registered

contractors may not be awarded public works contracts after the effective date, inadvertently listing an unregistered subcontractor on a bid will not necessarily invalidate that bid. In addition, the registration requirement does not apply to private jobs that are determined to be public works after the contract has been awarded.

The City is required to provide notice of award to the DIR on all projects. Said notice is by an online application and within five (5) days of project award. The online application is at: <https://www.dir.ca.gov/pwc100ext/>

7-3 INSURANCE.

7-3.2 General Liability Insurance. Replace the second sentence of the second paragraph with the following:

The Contractor must maintain at its sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

- 1) Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a). Combined single limits of \$2,000,000 per occurrence.
- 2) General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$3,000,000 per occurrence, with an annual aggregate of no less than \$5,000,000.

Add the following:

The Contractor must include all subcontractors as insureds under its policies or must furnish separate certificates and endorsements for each subcontractor.

7-3.3 Worker's Compensation Insurance. Add the following after the fourth paragraph:

Worker's Compensation Insurance shall be with limits as required by the State of California and Employer's Liability with limits of at least \$1,000,000.

7-3.4 Auto Liability Insurance Delete subsection in its entirety.

7-4 WORKERS' COMPENSATION INSURANCE. Add the following after the first sentence of the second paragraph:

Worker's Compensation Insurance shall be per Section 17 of the Public Works Agreement.

7-5 PERMITS. Replace this section with the requirements of paragraph J in the Instructions to Bidders.

Full compensation for complying with the above requirements shall be considered as included in the prices bid for the appropriate items of work.

7-5.1 State Encroachment Permit. A State of California Department of Transportation (Caltrans) Encroachment Permit will be obtained by the CITY. Additionally, the Contractor shall submit to Caltrans, a signed application requesting a separate permit authorizing the Contractor to perform the work within Caltrans right-of-way for the CITY. The Contractor shall pay all charges, fees and bonds for this permit. The application shall be made to the State of California, Department of Transportation, 120 South Spring Street, Los Angeles, CA 90012, telephone (213) 897-3631.

Full compensation for complying with the above requirements shall be considered as included in the lump sum price for "Caltrans Permit and Fees". However, this is not the amount that will be paid to the Contractor. The amount that shall be paid to the Contractor shall be the actual permit and inspection fees paid to the State with no mark-up or extra costs, except the Contractor shall be solely responsible for any fee charged to re-inspect rejected or incomplete work.

Unless otherwise authorized by the State Encroachment Permit, all work within Caltrans Right-of-Way shall be performed in accordance with the latest State of California Department of Transportation Standard Specifications and said permit.

7-6 THE CONTRACTOR'S REPRESENTATIVE

Add a third paragraph to the section stating the following:

The Contractor's Representative shall be approved by the CITY prior to the start of the Work. If the designated representative is rejected, the Contractor shall immediately designate another representative in writing and submit to the City for consideration. The CITY shall have the authority to require the Contractor to remove its representative and/or alternate representative at any time and at no cost to the CITY.

7-8 WORK SITE MAINTENANCE.

7-8.1 General. The second paragraph is amended to read:

Unless directed otherwise by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean to the City whenever construction, including restoration, is incomplete.

Add the following subsections:

7-8.1.1 Temporary Light, Power, and Water. If required, the Contractor shall obtain a construction water meter, at least one (1) week prior to the start of work, from the City by calling Global Water at (855) 354-5623. A \$1,000 deposit is required and refundable upon return of the meter in good working condition. The Contractor shall pay for the water used, at the CITY's current water rates.

Some water mains in Torrance are owned/operated by California Water Service. For rental of a hydrant meter the Contractor shall call California Water Service at (310) 257-1400.

7-8.1.2 Graffiti Removal. The Contractor shall maintain the Work, all of its equipment, and all traffic control devices, including signage, free of graffiti throughout the duration of the Contract. The Contractor shall respond to any request from the Engineer to remove graffiti within 4 hours of notification. Should the Contractor fail to respond to such request, the City reserves the right to make other arrangements for the requested graffiti removal and deduct the cost from any monies due the Contractor.

7-8.6.2 Best Management Practices (BMPs). Replace the entire subsection with the following:

Best Management Practices shall be defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution. The Contractor shall obtain and refer to the California Stormwater Quality Association's: Stormwater Best Management Practice Handbook Portal: Construction. The publication is available from CASQA.

The Contractor shall have a minimum of two (2) readily accessible copies of each publication on the Work site at all times. The Contractor shall implement BMPs in conjunction with the following construction operation and activities:

CONSTRUCTION PRACTICES	Clearing, Grading and Excavating
	Water Conservation Practices
	Dewatering
	Paving Operations
	Structure Construction and Painting
MATERIAL MANAGEMENT	Material Delivery and Storage
	Material Use
	Spill Prevention and Control
WASTE MANAGEMENT	Solid Waste Management
	Hazardous Waste Management
	Contaminated Soil Management
	Concrete Waste Management
	Sanitary/Septic Waste Management
VEHICLE AND EQUIPMENT MANAGEMENT	Vehicle and Equipment Cleaning
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance

The Contractor shall implement the following BMPs in conjunction with the previously listed construction operation activities:

VEGETATIVE STABILIZATION	Scheduling of Planting
	Preservation of Existing Vegetation
	Temporary Seeding and Planting
	Mulching
PHYSICAL STABILIZATION	Geotextiles and Mats
	Soil Stabilizer/Dust Control
	Temporary Stream Crossing

	Stabilized Construction Roadway
	Stabilized Construction Entrance
RUNOFF DIVERSION	Sodding, Grass Plugging, and Vegetative Buffer strips
	Earth Dikes, Drainage Swales, and Lined Ditches
	Top and Toe of Slope Diversion Ditches/Berms
	Slope Drains and Subsurface Drains

VELOCITY REDUCTION	Flared Culvert End Sections
	Outlet Protection/Velocity Dissipation Devices
	Check Dams
	Slope Roughening/Terracing/Rounding
SEDIMENT TRAPPING	Slit Fences
	Straw Bale Barrier
	Sand Bag Barrier
	Brush or Rock Filter
	Storm Drain Inlet Protection
	Sediment Traps
	Sediment Basin

Additional BMPs may be required as a result of a change in actual field conditions, contractor activities, or construction operations. When more than one BMP is listed under each specific BMP category, the Contractor shall select the appropriate and necessary number of BMPs within each category in order to achieve the BMP objective.

BMPs for contractor activities shall be continuously implemented throughout the year. BMPs for erosion control and sedimentation shall be implemented during the period from October 15 to April 15, and whenever the National Weather Service predicts rain within 24 hours. BMPs for erosion control and sedimentation shall also be implemented prior to the commencement of any contractor activity or construction operation that may produce run-off, and whenever run-off from other sources may occur.

The CITY, as a permittee, is subject to enforcement actions by the State Water Resources Control Board, the Environmental Protection Agency and private citizens. The CITY may assess the Contractor a penalty of \$1,000 for each calendar day that the Contractor has not fully implemented the appropriate BMPs and/or is otherwise in noncompliance with these provisions. In addition, the CITY will deduct, from the final payment due the Contractor, the total amount of any fines levied on the CITY, plus legal and staff costs, as a result of the Contractor's lack of compliance with these provisions and/or less than complete implementation of the appropriate BMPs.

Full compensation for the implementation of BMPs, including the construction, removal, and the furnishing of all necessary labor, equipment, and materials, shall be considered as included in the price bid for NPDES COMPLIANCE.

Add the following subsections:

7-8.7 Temporary Light, Power, and Water. Add the following:

The Contractor shall furnish, install, maintain, and remove all temporary light, power, and water at its own expense. These include piping, wiring, lamps and other equipment necessary for the Work. The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water agency concerned.

The Contractor shall obtain a construction water meter from the CITY by calling Global Water at 855-354-5623. A \$1,000 deposit is required and refundable upon return of the meter in good working condition. The Contractor shall pay for the water used, at the CITY's current water rates.

Some water mains in Torrance are owned/operated by California Water Service. For rental of a hydrant meter the contractor shall call California Water Service at (310) 257-1400.

7-8.8 Contractor's Storage Yard. The Contractor shall be responsible for obtaining a storage yard for the duration of the Work. If the proposed location of the yard is located within the boundaries of the CITY, the Contractor shall obtain prior approval from the Engineer.

7-8.9 Graffiti Removal. The Contractor shall maintain the Work, all of its equipment, and all traffic control devices, including signage, free of graffiti throughout the duration of the Contract. The Contractor shall respond to any request from the Engineer to remove graffiti within 4 hours of notification. Should the Contractor fail to respond to such request, the CITY reserves the right to make other arrangements for the requested graffiti removal and deduct the cost from any monies due the Contractor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.

Add the following paragraphs:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked or having wet slough material deposited thereon. If new concrete work is marked, the Contractor shall replace it at its expense in accordance with 303-5.7 of these special provisions.

The Contractor shall perform all private lawn, hardscape, and parkway restorations, (not included in the project plans) including restoration of irrigation systems and existing curb drains within five (5) days after the adjacent improvements have been constructed at his own expense. The Contractor shall not delay restorations for tree plantings. Add the following subsections:

7-9.1 Replacement of Lawns. When the Contract requires the removal and replacement of lawns or sod, including parkways, the Contractor shall comply with the following minimum requirements: the area to be replanted shall be regraded and covered with two inches of an approved topsoil; the grass seed or sod shall be for grass or sod of the same type as was removed, or an approved equal, and grass shall be sown at the rate recommended by the seed distributing company; Bandini steer manure or approved equal shall be applied to the planted area at the rate recommended by the vendor. The Contractor shall water and care for replaced lawns until the grass has attained a complete cover and has been given its first cutting, unless other arrangements are made with the property owners. The lawn restoration, as above described, shall be completed prior to the final payment.

Topsoil shall be in accordance with 212-1.1.

7-9.2 Replacement of Sprinkler Systems. Damaged sprinklers shall be replaced so that the area watered by the original system will be adequately watered by the reconstructed system without undue waste of water. Overspray on any area no longer planted should be avoided, and any revised shape or layout of the remaining planted area will be adequately watered. Any additional material or work required to obtain said adequate coverage shall be furnished by the Contractor, at its expense. The Contractor shall be responsible to replace any lawn or plant damaged from lack of irrigation resulting from the Contractor's operations, at its expense, to the satisfaction of the Engineer.

7-9.3 Parkway Trees. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the Engineer. All existing trees and shrubs that are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company to the satisfaction of the Engineer. Tree trimming and replacement shall be accomplished in accordance with the following requirements:

- (a) Trimming. Symmetry of the tree shall be preserved; no stubs, splits torn branches or torn roots left; clean cuts to be made close to trunk or large branch. Spikes shall not be used for climbing live trees. All cuts over one and one-half inches in diameter shall be coated with a suitable tree wound paint as approved by the Engineer.
- (b) Replacement. The Contractor shall immediately notify the Engineer if any tree is damaged by its operations. If, in the opinion of the Engineer, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense. The tree shall be of a like variety as the tree damaged, subject to the approval of the Engineer. The size of the tree shall be the size of the tree replaced or 3" in diameter, whichever is smaller.

7-9.4 Street Furniture. The Contractor shall be responsible for removal, storage and replacement of trash receptacles, bus benches, bus enclosures, newspaper boxes, mail boxes, etc. and coordination with the Owners as required throughout construction. Replacement of the removed items shall be per the direction of the Owner or Engineer.

7-9.5 Protection of Existing Pavement Surfaces from Tack Coat and Oil. When work requires the placement of a tack coat pursuant to Subsection 302-5.4, the Contractor shall protect existing pavement surfaces outside of the work limits from the spreading of tack coat and oil adhering to truck tires exiting work area. The protected area shall extend the full width of the street and be by either of the following methods:

- 1) The Contractor shall wet the existing pavement surface to a distance of ten (10) feet away from the work limit. The wetted area shall be maintained as such until placement of asphalt concrete pavement is completed; OR
- 2) The Contractor shall provide a thin spreading of sand or rock dust material to a distance of five (5) feet away from the work limit. The sand or rock dust area shall be maintained as such until placement of asphalt concrete pavement is completed. The Contractor shall be responsible to remove the sand or rock dust immediately after the placement of asphalt concrete pavement is completed.

7-9.6 Curb Addresses. The Contractor shall be responsible to repaint addresses (4-inch high black numbers on white background) on curb faces when printed addresses have been removed due to curb construction.

7-9.7 Protection of Permanent Pavement Markers, Manholes, Valves, Thermoplastic Markings.

The Contractor shall cover and protect existing raised pavement markers (blue, white, and yellow), manhole covers, utility valve covers, survey markers and similar items from damage and discoloration from the slurry seal operation. The City uses special water valve lids which must be protected at all times. Existing thermoplastic "STOP" legends and 12"-wide stop bars and other thermoplastic pavement markings that are not within the work area, but in close proximity shall either be masked to prevent damage during the slurry seal application or, if damaged, replaced in-kind after the slurry seal application. Refer to Section 310-5.6.1 of these Specifications.

All protective masking material shall be promptly removed by the Contractor.

Full compensation for protection and restoration of existing improvements shall be included in the bid items to which this work is appurtenant and no additional compensation will be allowed therefore.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Access.

7-10.1.2 Vehicular Access Replace the entire subsection with the following:

The Contractor's operations shall cause no unnecessary inconvenience. The access rights for the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the Work, or an approved detour shall be provided.

Safe and adequate vehicular access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; service stations and motels; hospitals; police and fire stations; and establishment of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Engineer.

Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access.

The Contractor is allowed to fully close local residential street segments and restrict driveway access to private properties for up to 9 hours (7:00 a.m. to 4:00 p.m.), subject to compliance with the operational requirements of these specifications. The Contractor's operations shall cause no unnecessary inconvenience and shall accommodate emergency access to residents and businesses on a case by case basis.

The Contractor shall provide and maintain all signs, barricades, flashers, delineators and similar devices needed for traffic control in accordance with the California Manual on Uniform Traffic Control Devices, latest edition. Flagmen shall also be provided by the Contractor on an as-needed basis.

The Contractor shall protect the work from traffic. Should the slurry seal be damaged, the Contractor shall provide satisfactory repairs at no cost to the City.

At the end of each day's work and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from the roadway

Unless the Contractor makes other arrangements satisfactory to the owners, the Contractor shall provide and maintain safe, adequate vehicular access to places of business and public gathering as stated herein below:

- (a) For each establishment (such as, but not limited to, gas stations, markets, and other "drive-in" business) on the corner of an intersection, which has a driveway (or driveways) on each intersecting street, the Contractor shall provide vehicular access to at least one driveway on each intersecting street insofar as the access is affected by the Contractor's operations.
- (b) For each establishment (such as, but not limited to, motels, parking lots and garages) which has a one-way traffic pattern with the appropriate entrance driveway and exit driveway, the Contractor shall provide vehicular access to the entrance driveway and the exit driveway insofar as the access is affected by the Contractor's operations.
- (c) The Contractor shall provide vehicular access to all schools and parking lots including, but not limited to, apartment building parking lots.
- (d) The Contractor shall provide vehicular access to all establishments requiring such access for receiving or delivering materials or supplies and for delivery of mail.
- (e) The Contractor shall make every reasonable effort to provide maximum access to churches on their Sabbath days. In addition, the Contractor shall not park or store equipment at the site of a church on its Sabbath days.
- (f) At least three (3) days prior to starting work in any location, the Contractor shall distribute written notices to all homeowners and residents that will be impacted by the work. The City will provide the notice.
- (g) The Contractor shall provide a minimum 1-inch thick temporary asphalt surface for an access ramp or sidewalk if it is not able to install the permanent improvement within 5 working days following the removal of the existing material at any location. The offset at any transverse or longitudinal joint shall not be more than one-half (1/2) inch. On the temporary asphalt surface: the running slope shall not exceed 1:20; the cross slope shall not exceed 1:50. The Contractor shall not be allowed any additional compensation for the installation and removal of temporary asphalt.
- (h) The Contractor shall protect the work from traffic. Should the slurry seal be damaged, the Contractor shall provide satisfactory repairs at no cost to the City.

Should any change in these requirements be necessitated by extraordinary occurrences or requirements during the execution of the Work, the Contractor shall obtain prior written approval of the Engineer.

All costs for the above requirements shall be made on the lump sum basis per the Contract Unit Price for "TRAFFIC CONTROL" in the Bidder's Proposal, and progress payments shall be pro-rated as a percentage of the overall progress of work. Payment shall include all signage, barricades, delineators, flashing arrow boards, traffic control devices, preparation and distribution

of public notices, re-notification of affected homeowners and businesses as necessary, assistance in the towing of parked vehicles, and all other appurtenant work, and no extra payment shall be allowed.

7-10.1.3 Pedestrian Access. Replace the entire subsection with the following:

The Contractor's operations shall cause no unnecessary inconvenience. The access rights for the public shall be considered at all times, unless otherwise approved by the Engineer.

Safe and adequate pedestrian access shall be provided and maintained to: fire hydrants; commercial and industrial establishments; churches, schools and parking lots; service stations and motels; hospitals; police and fire stations; and establishment of similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Engineer.

Safe and adequate pedestrian zones and public transportation stops, as well as pedestrian crossings of the Work at intervals not exceeding 300 feet, shall be maintained unless otherwise approved by the Engineer.

All costs for the above requirements shall be included in the Contract Unit Price for TRAFFIC CONTROL.

Add the following subsections:

7-10.1.4 Notifications and Postings.

SIGNS SHALL NOT BE POSTED ON TREES, TRAFFIC SIGNAL POLES, UTILITY POLES, STREET LIGHTS, OR ANY OTHER STREET FURNITURE.

Notifications and postings shall consist of "door-hanger" Notices, printed Notices mounted on barricades or wood stakes, and "No Parking – Tow Away" signs. The Contractor shall supply, distribute, and/or post all such notices. All notices must be submitted for approval to the Engineer and at least two (2) prior to the required distribution date. The Contractor shall be responsible for revising said Notices, if required by the Engineer.

A "door-hanger" Notice for each street segment shall be distributed: a) one (1) week prior to the scheduled work, and b) 48 hours in advance of the Work on that street segment. Said Notice shall be written as being issued by the City of Torrance and shall contain a general description of the work to be done; the name of the street (with limits) to be closed for Work; the day and date of scheduled Work; a statement that no on-street parking will be allowed between the hours of 7:00 a.m. and 5:00 p.m. on the day of scheduled Work (with a statement that the street will be re-opened earlier if possible); a statement **(in bold type)** that it will be necessary to tow away parked vehicles at the owner's expense per California Vehicle Code CVC 22651L and CVC 22654D; a statement that in the event the street is missed, it will be rescheduled in approximately 1-2 weeks and that the residents will be re-notified; a statement that there will be no disruption of trash collection schedules; and the name and telephone number of the Contractor. Additionally, the Notice shall contain a statement that the street to be sealed will be closed to all vehicular traffic, including access to and from parking areas and garages, and the suggestion that if residents require the use of their vehicles on the day of scheduled Work, they should consider parking their vehicle on nearby streets not scheduled for slurry seal or closure.

A copy of the above Notices shall be posted at each and all access points to the affected street segment and in the same manner as the "No Parking – Tow Away" signs.

The “No Parking-Tow Away” signs shall be posted on each street segment at least 48 hours in advance of scheduled Work. The signs shall be mounted on 1” x 2” wood stakes, barricades, or other approved support. Signs shall be spaced at approximately 100’ intervals on both sides of the street. The text shall include the day, date, and hours that parking will be prohibited on that particular street and a statement that parked vehicles must be towed away at owner’s expense per California Vehicle code CVC 22651L and CVC 22654D.

The Contractor shall document the day, date, and time that the signs are installed. The “No Parking” restriction cannot be enforced until the signs have been in place at least 24 hours. The Contractor shall maintain said signs through the day of work, and shall remove all of said signs on the same day after completion of the work, or as otherwise directed by the Engineer.

If, in the event a street scheduled for Work is missed, the Contractor shall immediately remove all “No Parking” signs and Notices and deliver a new Notice from the City to all previously notified persons. The Contractor shall have on the job site, prior to the start of each day’s work, an adequate supply of approved Notices for missed streets.

Full compensation for conforming to the above requirements shall be considered as included in the various bid items to which the notifications and postings are appurtenant, and no additional compensation will be allowed therefore.

7-10.1.5 Storage of Equipment and Materials in Public Streets.

Construction materials and equipment shall not be stored in streets, roads or highways, unless specifically authorized by Engineer.

7-10.1.6 Street Closures, Detours, Barricades. Add the following.

The Contractor shall provide and maintain all other signs, barricades, pedestals, flashers, delineators, and other necessary facilities for the protection of the public and control of vehicular and pedestrian traffic within the limits of the construction area. All traffic control devices shall be clean and free of graffiti, and the Contractor shall be responsible to immediately clean and replace any device to the satisfaction of the Engineer. All barricades used as warning and guiding devices shall bear the name of the Contractor in legible letters.

The Contractor shall notify the following offices at least two (2) working days in advance prior to any street closure, or partial closure, or restriction to access:

Engineer	(310) 781-6900
Torrance Police Department	(310) 618-5557
Torrance Fire Department	(310) 781-7040
Torrance Sanitation Division (Tony Mulliken)	(310) 781-6904
Torrance Transit Department (Bus Operations)	(310) 618-6927
Torrance Unified School District – District Office	(310) 972-6500

7-10.2 Work Area Traffic Control

7-10.2.1 General. Delete subsection in its entirety.

Add the following subsections:

7-10.2.4 Minimum Requirements for Maintaining Traffic Flow. The Contractor shall observe the following minimum requirements:

- a) Unless otherwise shown on the Traffic Control Plans, permitted by this Contract or authorized by the Engineer, all roadways, driveways, travel and turning lanes, sidewalks and access ramps shall remain open at all times.
- b) The Contractor shall provide adequate steel plating to cover and protect a newly poured PCC cross gutter with spandrels and integral curb in order to allow traffic flow and not close a street. A minimum lane width of 14 feet shall be provided over the steel plating.
- c) At a minimum, the Contractor shall maintain one (1) ten (10) foot-wide lane open in each direction between the hours of 7:00 a.m. and 3:30 p.m. All travel lanes shall be kept open all other times.
- d) Any travel lane adjacent to the curb and within the work zone shall be, at a minimum, a twelve (12) foot-wide lane.
- e) Reduction in lane requirements may be afforded only with prior written approval from the Engineer.
- f) Traffic signs, flaggers, warning devices, safety traffic devices and, on select streets, electronic arrow boards for diverting and directing traffic shall be furnished, installed and maintained by the Contractor throughout the project.
- g) The Contractor must provide access through the work zone in non-working hours by means of temporary ramps. Open trenches shall either be covered by steel plates, or ramped with crushed miscellaneous base. No drop-off at either transverse or longitudinal joints shall be allowed at any time. Temporary ramps, including those for driveway access, shall be constructed with either crushed miscellaneous base or temporary asphalt, as appropriate, with a minimum of 1" to 12" slope in both longitudinal and transverse directions.

All costs for the above requirements shall be included in the Contract Unit Price for Traffic Control.

7-10.2.5 Temporary Pavement Markings. If permanent pavement markings cannot be restored by the end of the work shift in which they were obliterated, temporary markings shall be provided by the Contractor prior to leaving the Work site on all streets except any street closed to through traffic. These temporary markings shall be as follows:

Temporary lanelines and/or centerlines shall consist of day/night reflectorized raised pavement markers, approved by the Engineer, spaced approximately twenty-four (24) feet apart. A list of approved day/night reflectorized raised pavement markers may be obtained from the CITY.

Where approved by the Engineer, the Contractor may use reflectorized lines approximately twenty-four (24) inches long and four (4) inches wide, spaced approximately twenty-four (24) feet apart.

Right edgelines shall not be simulated with dashes or pavement markers; however, portable delineators, guide markers, etc., may be used by the Contractor where it is considered desirable to enhance the edge of traveled way due to curvilinear alignment, narrowing pavement, etc., and shall be used when directed by the Engineer.

Locations where no-passing zone centerline delineation has been obliterated shall be posted by the Contractor with a sign package consisting of a **W20-1 "ROAD WORK AHEAD"** and **SC13 "DO NOT PASS"**.

All temporary pavement markings and signs shall be maintained, or replaced as necessary by the Contractor, until permanent pavement markings are restored.

All costs associated with the above requirements shall be included in the Contract Unit Price for Traffic Control.

7-10.2.6 Temporary Pavement Markers/Delineation. Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions of Section 12-3.01, of the Caltrans Standard Specifications. Nothing in these Special Provisions shall be construed as to reduce the minimum standards specified in the Manual of Traffic Controls published by Caltrans or as relieving the Contractor from responsibility as provided in 7-10 of these Special Provisions.

Whenever the work causes obliteration of pavement markers and/or delineation, the Contractor shall set in place temporary pavement markers/delineation prior to opening the traveled way to traffic. All pavement markers/delineation, including but not limited to lane lines, centerlines, directional arrows, pavement legends, etc, shall be provided at all times for traveled ways open to traffic.

All work necessary to establish temporary pavement markers/delineation shall be performed by the Contractor. Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement delineation is applied. Temporary pavement markers/delineation shall not be applied over existing pavement delineation or other temporary pavement delineation.

Temporary pavement markers/delineation shall be maintained until replaced with permanent pavement markers/delineation. Temporary pavement delineation shall be removed when 1) it conflicts with the permanent pavement delineation; 2) a new traffic pattern is established or 3) as determined by the Engineer.

Temporary pavement delineation shall consist of temporary reflective raised pavement markers placed on lane lines and centerlines at longitudinal intervals of not more than 24 feet apart. Temporary reflective raised markers shall be the same color as the lane line or centerline the markers replace. Temporary reflective raised pavement markers shall be, at the option of the Contractor, one of the following or approved equal:

Apex Universal Product No. 2SCSM-1W or 2SCSM-2Y markers manufactured by Apex Universal, 11033 Forest Place, Santa Fe Springs, CA 90607, Telephone (562) 944 8878.

Flex-O-Lite Raised Construction Marker (RCM), manufactured by Flex-O-Lite, Lukens Company, P.O. Box 4366, St. Louis, MO 63123-0166, Telephone (800) 325-9525.

Temporary reflective raised pavement markers shall be placed as directed by the Engineer. Temporary reflective raised pavement markers shall be applied to the pavement surface with the adhesive in accordance with the manufacturer's instructions. Epoxy adhesive shall not be used to apply temporary reflective raised pavement markers in areas where the pavement will not be removed.

Temporary lane line or centerline delineation consisting of temporary reflective raised pavement markers placed on longitudinal intervals of not more than twenty-four (24) feet, shall be

used on lanes opened to public traffic for a maximum of fourteen (14) days. Prior to the end of the fourteen (14) days the planned permanent pavement delineation, except permanent pavement markers, shall be placed. If the planned permanent pavement delineation, exclusive of permanent pavement markers, is not placed within fourteen (14) days, the Contractor shall provide, at its expense, additional temporary pavement delineation as directed by the Engineer. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent traffic lines as determined by the Engineer.

Full compensation for furnishing, placing, maintaining, and removing the temporary pavement markers/delineation shall be considered as included in the Contract Unit Price for TRAFFIC CONTROL.

7-10.2.7 Temporary "No Parking" Signs. The Contractor is responsible to post "Temporary No Parking" signs at least forty-eight (48) hours in advance of the first date of work and the required enforcement. If work is to begin on either a Monday or Tuesday, the Contractor shall post the signs on a Friday. Each sign must include text indicating the beginning and end dates and the hours in effect. "Tow-Away" and "No Parking" must be shown on each sign face. If it is required to temporarily restrict parking 24 hours/day then "Tow-Away" and "No Parking Anytime" must be shown on each sign face. The signs shall be mounted on either 1" x 2" X 3' high wood stakes, Type II barricades, or 39-inch high delineators. Signs shall be spaced at approximately 100' intervals on the effected side(s) of the street. Signs shall not be posted on trees, traffic signal poles, utility poles, street lights, or any other street furniture.

Signs shall be professionally made of moisture-resistant, heavy duty cardboard or other approved material. All signs shall be maintained by the Contractor and kept free of graffiti. Any sign that becomes illegible or is removed shall be replaced within twenty-four (24) hours. The Contractor shall only be permitted to restrict parking for the minimum time necessary to complete on-going work. The Contractor shall be responsible to remove and repost "Temporary No Parking" signs when work will be delayed for more than five (5) consecutive days, or if the work must go beyond the end date shown on the signs, or otherwise directed by the Engineer.

The Contractor shall obtain approval for the signs and the placement thereof from the Engineer. Immediately after this approval and posting, the Contractor shall notify Torrance Police Department, Traffic Division, at (310) 618-5557 for review and enforcement. The parking restriction cannot be enforced until the signs have been in place 48 hours and the Police notified.

The Contractor shall maintain said signs through the day of work, and shall remove all of said signs on or within one (1) calendar day of the completion of work within the restricted parking area.

If, in the event a street scheduled for slurry or cape sealing was missed, the Contractor shall immediately remove all "No Parking" signs and notify all residents and others previously notified, with printed notices, that due to unforeseen circumstances, the Contractor was not able to seal the street as previously notified, that the street will be rescheduled in approximately 1 to 2 weeks, and that they will be re-notified. The Contractor shall, on the job site prior to the start of each day's work, have an adequate supply of approved letters of notification to residents for missed streets.

Full compensation for furnishing, placing, maintaining and removing temporary signs shall be considered as included in the Contract Unit Price for Traffic Control.

7-10.2.8 Holiday Moratorium. No reduction in lane widths on any major street shall be permitted during the CITY's holiday period construction moratorium, which begins on the Monday prior to Thanksgiving and ends on the Friday following New Year's Day. No traffic signal shall be out of operation for any period of time during said moratorium.

7-10.2.9 Refuse Collection. Refuse collection days are established and will not be changed. Weekly and holiday schedules are provided in Appendix VIII. The Contractor shall ensure streets and alleys affected by the work are accessible to the CITY's automated trash trucks on designated pick up days. In alleys, Contractor shall be responsible to provide and maintain access to large trash containers during the course of the work.

7-10.2.10 Protection of Permanent Pavement Markings, Manholes, Valves. The Contractor shall, in areas outside of the work zone, protect existing raised pavement markers, thermoplastic legends and markings. The Contractor shall cover and protect existing valve and manhole covers, utility caps, and similar items from damage and discoloration from the slurry and cape seal applications. Prior to the application of the slurry seal or cape seal the Contractor shall remove by method of wet sandblasting any existing thermoplastic or painted pavement legend or marking within the limits of work and all concrete areas outside of slurry seal limits when striping extends within the spandrel, gutter, and cross gutters.

The contractor shall be responsible for replacing or restoring any damaged items to the satisfaction of the Engineer.

Full compensation for the items in this subsection shall be considered as included in the Contract Unit Price for "REMOVE EXISTING PAVEMENT STRIPING, MARKINGS, LEGENDS, AND RAISED PAVEMENT MAKERS."

7-10.5.3 Steel Plate Covers. Replace the entire subsection with the following:

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal cannot be properly complete within a work day, steel plate bridging with a non-skid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate used for bridging shall extend a minimum of 12-inches beyond the edges of the trench.
2. Steel plate bridging shall be installed to operate with minimum noise.
3. The trench shall be adequately shored to support the bridging and traffic loads
4. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
5. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

Steel plate bridging and shoring shall be installed using either the following Method (1) or Method (2):

Method (1) (For speeds more that 45 mph – Van Ness Avenue, Sepulveda Boulevard, Crenshaw Boulevard and 182nd Street)

The Pavement shall be cold planed to a depth equal to the thickness of the plate and width and length equal to the dimensions of the plate.

Method (2) (For speeds 45 mph or less)

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway

b a minimum of two (2) dowels pre-drilled into the corners of the plate and drilled 2-inches into the pavement. Subsequent plates are butted to each other. Fine grade asphalt concrete shall be compacted to form ramps, maximum slope of 8.5% with a minimum 12- inches taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or an equivalent slurry that is satisfactory to the City and/or Caltrans.

The Contractor shall be responsible for maintenance of the steel plates, shoring and asphalt concrete ramps.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading).

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 1/4"

For spans greater the 5'-3" a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right-of-way whether used in or out of the travel way shall be without deformation. Steel plates shall be non-skid. Advanced signs shall be required for steel plates within traveled ways (Type P per the Watch Manual or a Rough Road sing (W33) per Caltrans requirements).

Add the following subsection:

7-10.6 Street Closures, Detours, Barricades.

In addition to the requirements of this subsection, the Contractor shall conform to the requirements for street closures, detours, and barricades as stipulated in the Special Provisions. However, deviations from the requirements stipulated in the Special Provisions may be permitted upon written approval of the Public Works Director when such deviations are in the best interest of the City.

The Contractor shall notify the Engineer at least ten (10) working days in advance of closing or partially closing any street or alley and comply with their requirements. In addition, the Contractor shall notify the Torrance Police Department-Traffic Division at (310) 618-5557 and Torrance Fire Department at (310) 781-7042 at least two (2) working days in advance of such closing.

It shall be the Contractor's responsibility to allow passage of the Torrance Transit System coaches through the construction area at all times. The Contractor shall notify the Torrance Transit Department at (310) 618-6266 at least 48 hours prior to construction affecting bus stop zones to allow said Transit System to temporarily abandon and relocate bus stop zones within the construction area.

The Contractor shall immediately notify the above parties upon completion of the construction work and opening or reopening of any street or alley.

The Contractor shall install, maintain, and remove all temporary delineators, barricades, lights, warning signs and other devices necessary to control traffic as specified in the project plans and these specifications. Materials for a temporary facility may be provided from new or used materials. If used materials are provided, they shall be sound, in good condition and otherwise meet the requirements of new materials. All traffic control devices shall be free of graffiti, and the

Contractor shall be responsible to immediately clean and/or replace any device to the satisfaction of the Engineer.

Full compensation for furnishing, installing, maintaining and removing the above traffic control devices shall be considered as included in the Contract Unit Price for TRAFFIC CONTROL.

Where streets in which improvements are being constructed are specified hereinafter to be closed to through traffic, it shall be understood that such closures shall apply only to the portions of such streets where construction is actually in progress.

After award of the contract, the Contractor shall submit to the City its proposed Traffic Control Plan as required by the Special Provisions and to comply with the requirements specified herein. This submittal shall be made sufficiently in advance (street closure schedules MUST be submitted ten (10) days prior to closing the affected street) of any rerouting or diversion of traffic by the Contractor to allow for a review of the Contractor's proposed traffic control by the Public Works Director.

The Contractor shall submit to the City Engineer detailed plans prepared by a Registered Civil Engineer of all temporary bridges proposed for use on this project. This includes bridges which may have been used on previous projects. Temporary bridges shall be clearly posted as to load limit, with signs and posting conforming to current requirements covering "signs" as set forth in the Traffic Manual published by the California Department of Transportation. The Contractor shall allow 15 days for approval by the Engineer. The drawings shall indicate specific locations where the bridge is to be used. Bridges shall not be installed until such time as written approval is obtained from, and the bridge is inspected by, the City Engineer.

This manual shall also apply to the street closures, barricades, detours, lights, and other safety devices required, except as modified hereinafter or within the Special Provisions.

The Contractor shall conform to Section 74.6.8 of the Torrance Municipal Code. In addition, the Contractor shall comply with directions from the Engineer to provide protection at excavations, trenches and/or other potentially hazardous construction areas.

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

9-1.2 Methods of Measurement. Add the following subsections:

9-1.2.1 Payment for Labor and Materials.

The Contractor shall pay and cause the subcontractors to pay any and all accounts for labor, including Worker's Compensation premiums, State Unemployment and Federal Social Security payments and all other wage and salary deductions required by law. The Contractor also shall pay and cause the subcontractors to pay any and all accounts for services, equipment and materials used by it and the subcontractors during the performance of work under this contract. All such accounts shall be paid as they become due and payable. If requested by the Engineer, the Contractor shall immediately furnish the City with proof of payment of such accounts.

9-1.2.2 Measurement and Payment

Payment of each item will include full compensation for furnishing all labor, materials, tools, equipment and backup equipment; transportation and technical competence for performing all work necessary to complete each item as specified in these Contract Documents, including but not limited to obtaining all applicable certifications necessary for specialty personnel and major

equipment in conformance with Subsection 7-5, and all other applicable permits; securing a storage yard to store all equipment and materials to be used on the job, disposal of waste materials, restoration of the site, etc. The storage yard may also be used as a temporary storage for excavated materials, and traffic control items. Costs for mobilization/demobilization shall be included in the unit price bid for MOBILIZATION.

9-2 LUMP SUM WORK. Replace the second paragraph with the following:

The Contractor shall, within five (5) working days of receipt of a request from the Engineer, submit a complete breakdown of lump sum bid prices showing the value assigned to each part of the work, including an allowance for profit and overhead. In submitting the breakdown, the Contractor certifies that it is not unbalanced and that the value assigned to each part of the work represents its estimate of the actual cost, including profit and overhead, of performing that part of the work. The breakdown shall be sufficiently detailed to permit its use by the Engineer as one of the bases for evaluating requests for payment. No extra costs shall be allowed for providing these breakdowns.

9-3 PAYMENT.

9-3.2 Partial and Final Payment. Replace the third paragraph with the following:

For each progress estimate, 5 percent will be deducted and retained by the CITY, and the remainder less the amount of all previous payments will be paid. In addition, 125% of the amount of unreleased "STOP" Notices will be withheld.

Add the following:

The Contractor shall submit all requests for payment on a Progress Payment Invoice.

Prior to submittal of said invoice, all items for which payment is requested shall be checked and approved in writing by the Engineer. No payments will be made unless all back-up data is submitted with the payment request and the Progress Payment Invoice is signed by both Contractor and Engineer.

9-3.4 Mobilization. Replace the entire subsection with the following:

Mobilization shall include the provisions of the Construction Schedule, Best Management Practices and Storm Water Pollution Prevention Plan; Sewage Spillage Prevention; Emergency Response Plan; site review; obtaining all permits, insurance, and bonds; moving onto the site all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities, and removal of same at completion of the Work; and other work, all as required for the proper performance and completion of the Work.

Mobilization shall include, but not be limited to, the following items:

- (a) Submittal and modification, as required, of the Construction Schedule.
- (b) Moving on to the site of all Contractor's equipment required for the work.
- (c) Installing temporary construction power and wiring.
- (d) Establishing fire protection system.

- (e) Developing construction water supply.
- (f) Providing on-site sanitary facilities and portable water facilities, as required.
- (g) Arranging for and erection of Contractor's work and storage yard.
- (h) Submittal of all required insurance certificates and bonds, including subcontractors.
- (i) Obtaining all required permits.
- (j) Posting all OSHA required notices and establishment of safety programs.
- (k) Potholing and other research and review as necessary to verify site conditions and utility locations
- (l) Having the Contractor's Superintendent present at the job site full-time.
- (m) Removal (including all spray-painted markings on any surface), cleanup, and restoration
- (n) Demobilization.

Payment for Mobilization will be all made on the lump sum basis per the Contract Unit Price for "MOBILIZATION and DEMOBILIZATION," in the Bidder's Proposal, and progress payments shall be pro-rated as a percentage of the overall progress of work. Payment for Mobilization shall include all items listed in Section 9-3.4 of these Specifications.

Add the following subsection:

9-3.5 Noncompliance with Plans and Specifications.

Failure of the Contractor to comply with any requirement of the Plans and Specifications, and/or to immediately remedy any such noncompliance upon notice from the Engineer, may result in suspension of Contract Progress Payments. Any Progress Payments so suspended shall remain in suspension until the Contractor's operations and/or submittals are brought into compliance to the satisfaction of the Engineer. No additional compensation shall be allowed as a result of suspension of Progress Payments due to noncompliance with the plans or specifications. The Contractor shall not be permitted to stop work due to said suspension of Progress Payments.

Add the following section:

9-4 CLAIMS.

The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the CITY, or the happening of any event, thing or occurrence, unless the Contractor shall have given the CITY due written notice of potential claim as hereinafter specified.

The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Said notice shall be submitted on a form approved by the CITY at least forty-eight (48) hours (two working days) in advance of performing said work,

unless the work is of an emergency nature, in which case the Contractor shall notify and obtain approval from the Engineer prior to commencing the work. The Engineer may require the Contractor to delay construction involving the claim, but no other work shall be delayed, and the Contractor shall not be allowed additional costs for any said delay but may be allowed an extension of time if the Engineer agrees that the work delayed is a controlling element of the Construction Schedule. The Contractor shall be required to submit any supporting data (or a detailed written explanation justifying further delay) within five (5) work days of a request from the Engineer and shall be responsible for all costs associated with any delays resulting from late and/or incomplete submittals. By submitting a Bid, the Contractor hereby agrees that this subsection shall supersede 6-6.3 and 6-6.4 of the Standard Specifications.

It is the intention of this subsection that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was timely filed.

PART 2 - CONSTRUCTION MATERIALS

SECTION 200 – ROCK MATERIALS

200-2 UNTREATED BASE MATERIALS

200-2.1 General. Replace the entire subsection with the following:

Untreated base for pavement, curb, gutter, cross gutters, bus pads, hardscape and other improvements shall be either Crushed Aggregate Base conforming to 200-2.2 or Crushed Miscellaneous Base conforming to 200-2.4.

SECTION 203 – BITUMINOUS MATERIALS

203-5 SLURRY SEAL

203-5.1 General. Replace the first sentence with the following:

Slurry seal shall be quick-set emulsion-aggregate slurry (EAS), with the addition of 2.5% latex, and is herein referred to as “Slurry.”

Type I Slurry Seal shall be used in City Parking Facilities.

Type II Slurry Seal shall be used on all residential and arterial streets.

203-5.4 Emulsion-Aggregate Slurry (EAS)

203-5.4.2 Materials.

203-5.4.2.2 Emulsified Asphalt Delete the first sentence of the first paragraph and replace with the following:

Emulsified asphalt shall be quick-set and contain 2.5% latex.

203-5.4.2.3 Water. Add the following:

Water shall be potable and compatible with the other ingredients of the slurry.

203-5.4.2.5 Set Control Agents Add the following:

The Retarder for quick-setting emulsion and the asphalt modifier shall be a type approved by the Engineer. The amount of retarder and asphalt modifier to be included in the quick-set slurry shall be that amount necessary to ensure that the applied slurry can support vehicular traffic within 60 minutes after the last application.

203-6 ASPHALT CONCRETE

203-6.1 General. Add the following:

Asphalt concrete shall be Type Class B-PG-64-10 for the base courses and C2-PG-64-10 for surface courses and leveling courses of 1.5 inch thick or greater. For leveling courses between 1 inch to 1.49 inches thick, asphalt concrete shall be Type Class D2-PG-64-10.

SECTION 210 – PAINT AND PROTECTIVE COATINGS

210-1 PAINT

Add the following subsection:

210-1.6 Paint for Traffic Striping, Pavement Marking, and Curb Marking

210-1.6.1. General.

All permanent striping and pavement markings shall be hot applied alkyd thermoplastic in accordance with the provisions of Section 84-2.02 of the Caltrans Standard Specifications.

210-1.6.2. Thermoplastic Paint, State Specifications.

Thermoplastic traffic stripes and pavement markings shall conform to the provisions of Section 84 of the Caltrans Standard Specifications. Contractor shall paint a solid black stripe between all double thermoplastic striping.

Add the following subsections:

210-1.7 Test Reports and Certifications

At the time of delivery of each shipment of material, the Contractor shall, upon request, deliver to the Engineer certified copies of manufacturer's test report. The test report shall indicate the name of manufacturer, type of material, date of manufacture, quantity, State Specification number, manufacturer's lot or batch number, and results of the required tests. The test report shall be signed by an authorized representative of the manufacturer. The certified test reports and the testing required in connection therewith shall be at no cost to the CITY.

SECTION 212 – LANDSCAPE AND IRRIGATION MATERIALS

212-1.1 Topsoil.

212-1.1.1 General. Add the following:

Unless otherwise specified on the Plans or required by the Engineer, topsoil shall be Class "C" in accordance with the requirements of 212-1.1.4. Imported soil, if required, shall be Class "A" topsoil in accordance with the requirements of 212-1.1.2.

The Contractor shall provide an Agricultural Soil Suitability Report for topsoil to be furnished, and the requirements for fertilization and amendments as specified herein may be modified as necessary by the Engineer prior to start of the work of this section.

212-1.2.5 Mulch. Add the following:

Bark mulch shall be shredded cedar, pine, or fir bark or equal commercial product. Typical mulch size shall be three inches by one-half inch (3" x ½"). Submit two (2) samples to the Engineer for approval prior to installation. The material shall be free of seeds, debris, and deleterious materials, and shall have a rich brown color when supplied.**212-1.4 Plants.**

212-1.4.2 Trees. Add the following:

Trees shall be of the type and size as shown on the Plans or specified in the Specifications.

For single-trunk trees: the trunk shall be straight, slightly tapered at the crown, free of disfigurements or gnarls and well hardened off. The tree shall be free of disease and parasites.

For multi-trunk trees: the trunk shall be well hardened off and the tree free of disease and parasites.

LIST OF REPLACEMENT TREES:

STREET NAME	TREE NAME	SIZE	Approx. # of Trees
Emerald Street	Water Gum (Tristania Laurina)	15 Gallon	1
Maricopa Street	Crape Myrtle Natchez	15 Gallon	12
Wood Ave	Pink Trumpet	15 Gallon	4

212-1.5 Headers, Stakes, and Ties

212-1.5.3 Tree Stakes. Replace the first paragraph with the following:

Tree stakes shall be either 2-inch diameter lodge pole pine, treated with copper nanthanate or pressure treated with chromated copper arsenate, or galvanized steel pipe, per 308-4.6.1 (Method A) and City of Torrance Standard Plan No. T401.

Add the following:

Tree ties shall be a commercially manufactured tie, split plastic hose with a minimum length of twenty inches (20"). Split plastic hose ties shall be "Cinch-tie" by V.I.T. or approved equal.

SECTION 214 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

Delete the entire Section 214 and replace with Section 84 and Section 85 of the Caltrans Standard Specifications (latest edition).

85-1.05 RETRO-REFLECTIVE PAVEMENT MARKERS

85-1.055 Adhesives. Add the following:

At the option of the Contractor, a hot melt bituminous adhesive may be used to cement the markers to the pavement, instead of the Rapid Set Type or Standard Set Type adhesive specified in Section 85-1.06 of the Caltrans Standard Specifications. The bituminous adhesive material, if used, shall conform to the following:

<u>ASTM Test Specification</u>	<u>Method</u>	<u>Requirement</u>
Flash Point, COC °F	D 92	550 Min.
Softening Point, °F	D 36	200 Min.

Brookfield Viscosity, 400° F	D 2196	3,000- 7,500 cP
Penetration, 100g 5 sec., 77° F	D 5	10-20 dmm
Filler Content, % by weight (Insoluble in 1,1,1 Trichloroethane)	D 2371	50-75

PART 3 - CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING.

300-1.3 Removal and Disposal of Materials.

300-1.3.1 General. Replace the entire subsection with the following:

Unless otherwise stated on the Specifications, all material removed from the Work shall become the property of the Contractor and shall be disposed of in a lawful manner. Removals shall include, but not limited to, all excess excavation material, trees and plants, debris, interfering portions of curb, gutters, cross gutters, asphalt and PCC concrete pavements, parkways, and sidewalks (including base, where applicable). The Contractor shall conform to the following requirements:

- 1) The Contractor shall not start any removal work unless it is prepared to perform reconstruction work within 24 hours of the time removals were begun, unless otherwise approved by the Engineer.
- 2) The Contractor shall complete forming and pouring of PCC construction within five (5) working days following the removal of existing material at any location.
- 3) The Contractor shall not remove on-site improvements until it is prepared to construct the adjacent street section and shall promptly restore all such improvements as applicable, upon completion of the adjacent street work.

All concrete removed shall be hauled off the Work site no later than the calendar day following the day that the removal is performed.

The limits for sidewalks, parkways, cross gutters, curb and gutters, and driveways shown on the plans are approximate. The actual removal and/or construction limits shall be as marked and/or directed by the Engineer in the field.

Prior to making removals, the Contractor shall meet with the Engineer to verify the limits of removals, locations of joins, to establish smooth joins and to ensure proper drainage. The Contractor may make minor changes in the location of joins and the limits of removals, provided a smooth join and proper drainage can be achieved and it has obtained prior written approval from the Engineer.

In order to protect the public streets from deterioration due to hauling of materials, the Contractor shall submit, prior to the Pre-Construction Meeting, for approval, a proposed route for hauling of materials for disposal. Upon approval, the Contractor shall strictly adhere to that route, unless written permission from the Engineer is obtained to change the route.

300-1.3.2 Requirements.

- a) **Bituminous Pavement.** Replace the first and second sentences with the following: Bituminous pavement shall be removed to neatly sawed edges.

Add subparagraphs (d), (e), and (f):

- (d) **Trees.** The City maintains a tree conservation policy. Unless otherwise shown, all trees are to be protected in place. Demolition and destruction of trees and tree parts, including trunks, branches and foliage, shall be limited to tree removals as shown on the Plans. Root pruning and removals shall be limited to the minimum required to construct new improvements where trees are to be conserved.

The Engineer shall place a visible removable “tag” on each tree proposed to be removed at least five (5) work days and no earlier than ten (10) work days prior to removal. Said “tag” is intended to give adjacent residents proof of trees to be removed or saved. Tags shall be on the sidewalk side of trees and located at least five feet (5') above ground.

The Contractor shall remove only trees that have been marked by the Engineer for removal. Trees shall be removed in a workmanlike manner so as not to injure other standing trees, plants, and improvements which are to be preserved.

Stumps shall be ground down three feet (3') below ground surface within five (5) feet of the center of the stump. All surface roots shall be removed within the parkway.

The Contractor shall conform to the following requirements:

- 1) The cutting down or removal of trees is prohibited after the prescribed working hours unless permission is granted by the Engineer.
 - 2) All debris from pruning or removing a tree shall be cleaned up and hauled away from the Work site on the same day that the tree is cut or pruned. Firewood-size logs may be left neatly piled for residents to pick up for no longer than three (3) days.
 - 3) All holes created from removal of tree stumps shall be backfilled and graded to finish level by the end of the workday. For tree removal on Lomita Boulevard in the center median, mulch shall be provided.
 - 4) Sprinkler systems disrupted by the Contractor shall be capped or restored by the end of the workday. Capped systems shall be restored to original working condition within three (3) days.
- (e) **Parkway Hardscape.** Removal of existing parkway hardscape shown on the Plans and/or directed by the Engineer shall be removed, hauled, and disposed by the Contractor. Area shall be backfilled with approved topsoil and replanted with grass seed or sod in accordance with Section 7-9.1.
- (f) **Miscellaneous Removals and Relocations.** This work shall include all removals not specifically listed in the Proposal or otherwise covered by these Specifications, and all necessary relocations and restorations of walls, fences, plants, hardscape, signs and other items, whether shown on the Plans or not, and as necessary to complete the improvements.

Add the following section:

300-1.3.3 Construction and Demolition Debris Recycling.

General. Consistent with the Agency's efforts to comply with the California Integrated Waste Management Act of 1989 (AB 939), the Contractor shall reduce, reuse, and/or recycle to the maximum extent feasible, the construction and demolition debris (debris) generated by this

Contract hereby diverting the debris from disposal facilities, saving landfill space, and conserving virgin materials and natural resources.

Definitions.

Shall be as defined in the TORRANCE MUNICIPAL CODE, DIVISION 4, CHAPTER 3, ARTICLE 8 (or Section 43.8.1).

RECYCLING SUMMARY.

The Contractor shall prepare and submit a Recycling Summary report using the form included as Appendix IX summarizing the disposal, reuse, and/or recycling activities which occurred throughout the Contract duration. This report shall be submitted by the Contractor to the Agency, before or with its request for the final Progress Payment for said Contract.

Failure of the Contractor to submit the Recycling Summary within the time specified will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For failure to submit the Recycling Summary, as required, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$10,000 for a contract of \$500,000 or more. The Contractor shall pay to the Agency, or have withheld from monies due it, 2% of the total contract amount for a contract of \$499,999 or less.

Execution of the Contract shall constitute agreement by the Agency and Contractor that \$10,000 (2% for contracts \$499,999 or less) is the minimum value of the costs and actual damage caused by the failure of the Contractor to submit the Recycling Summary within the time specified. Such sum is liquidated damages and shall not be construed as a penalty, and may be deducted from payments due the Contractor.

PAYMENT.

The cost of construction and demolition debris recycling and completing the Recycling Summary report shall be considered as included in the Contract Unit Price for the various Bid items. The quantities reported will be used for information gathering purposes and not for purposes of payment to the Contractor.

300-1.4 Payment. Replace the entire subsection with the following:

When the Contract does not include a pay item for clearing and grubbing, payment under this section shall be by the following:

- a) **Bituminous Pavement.** Payment for removal and disposal of asphalt pavement within the Calle Miramar median shall be included in the Contract Price for the remove existing AC pavement and shall include sawcutting, complete removal of adjacent pavement and berm, disposal, subgrade preparation and compaction, and all labor and equipment necessary to complete the required removal.
- b) **Concrete Pavement, Cross-Gutters and Alley Intersections.** Payment for removal and disposal of concrete cross-gutters, shall be included in the Contract Price for the appurtenant items of work and shall include sawcutting, complete removal of adjacent pavement and subgrade (within 1-foot of the proposed gutter), underlying subgrade and base, disposal, subgrade preparation and

compaction, and all labor and equipment necessary to complete the required removal.

- c) **Concrete Curb, Walk, Gutters and Driveways.** Payment for removal and disposal of concrete curb, curb and gutter, sidewalk, access ramps and driveways shall be included in the Contract Unit Price for the appurtenant items of work. Removals shall include sawcutting, complete removal of adjacent pavement and subgrade (within 1-foot of gutter) root pruning, complete removal of underlying subgrade and base, subgrade preparation and compaction, disposal, and all labor and equipment necessary to complete the required removal.
- d) **Trees.** Payment for tree removals and disposal shall be per the Contract Unit Price and shall include all work involved in tagging, cutting and complete removal of trunks, branches, stumps and roots to a depth of 3 feet below existing grade, excavation, hauling, disposal, backfilling tree wells, restoration and replanting of removal areas, mulch; and other appurtenant work.
- e) **Miscellaneous Removal and Relocations.** Payment for miscellaneous removals and relocations shall be per the Contract Unit Price, and shall include full compensation for excavation, backfilling, grading, trimming plants, import if required, placing of top soil, disposing of surplus material and appurtenant work.
- f) **Painted Curb.** There is no separate payment for removal of paint on concrete curb. Full compensation for furnishing all labor materials, tools, equipment and incidentals as shown on the plans and specified in these Special Provisions shall be included in the contract unit price for traffic striping, markings and pavement markers.

300-2 UNCLASSIFIED EXCAVATION.

300-2.1 General. Add the following text:

Roadway Dig-outs:

Unclassified excavation of existing AC payment and underlying materials will be requires as directed by the Engineer. City Staff will inspect the pavement condition to identify the locations and extents of each area.

300-2.9 Payment. Add the following:

Measurement & Payment for the removal and disposal of bituminous pavement and unclassified excavation to a total depth of 10 inches below existing arterial roadway grade shall be considered as included in the Contract Unit Price for "DIG-OUTS" as measured in the field and shall include sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, placement & compaction of 6 inches of CMB, placement & compaction of 4 inches of Type B-PG-64-10 Asphalt Concrete, application of tack coat, and all labor and equipment.

Measurement & Payment for the removal and disposal of bituminous pavement and unclassified excavation to a total depth of 7 inches below existing residential roadway grade shall be considered as included in the Contract Unit Price for "DIG-OUTS – RESIDENTIAL" as measured in the field and shall include sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, placement & compaction of 4 inches of CMB,

placement & compaction of 3 inches of Type B-PG-64-10 Asphalt Concrete, application of tack coat, and all labor and equipment.

SECTION 301 – TREATED SOIL, SUBGRADE PREPARATION, AND PLACEMENT OF BASE MATERIALS

301-2 UNTREATED BASE.

301-2.1 General. Add the following:

Base is required under all PCC and AC improvements. Additional base may be required after review of work areas following removals. Prior to constructing new improvements, the Contractor shall verify with the Engineer that the base sections (including areas where no base is called for) are adequate. Payment for any changes shall be made pursuant to Section 3.

A minimum of 8-inches CMB shall be placed under curb, curb and gutter, and cross gutters. A minimum of 6-inches CMB shall be placed under driveways (includes portion to right-of-way/property line), alley intersections, local depressions, and AC or PCC pavement on private property as part of driveway reconstruction. A minimum of 4-inches CMB shall be placed under sidewalks, and access ramps.

301-2.4. Measurement and Payment. Delete the second paragraph and add the following:

Payment for construction of CMB under AC pavement, cross gutters, curb, curb and gutter, driveways, local depressions, sidewalks, and access ramps shall be considered as included in the unit price bid for the item of work and no additional compensation will be allowed therefore.

SECTION 302 – ROADWAY SURFACING

302-4 SLURRY SEAL SURFACING

302-4.1 General. Add the following:

The Contractor shall immediately inform the City of any necessary asphalt patching or repairs, and all other roadway surface preparation work not included in these specifications, but is required in order to achieve the required quality of slurry seal work, at any project location.

Prior to Slurry application, the Contractor shall perform the following preparation Work in all project areas, unless otherwise specified:

- 1) Remove all existing pavement striping, markings, and legends, and raised pavement markers per Section 314, "TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT PARKERS," in these Special Provisions.
- 2) Apply crack sealant in accordance to Section 302-14 "BITUMINOUS PAVEMENT CRACK SEALING," of these Special Provisions.
- 3) Protect all manhole covers, drain inlet covers, monument covers and all other utility covers from Slurry Seal operations by applying a sheet of plastic, cut to fit or placing a plastic bag over the exposed facilities or other methods approved by the Engineer. All traces of plastic, residual emulsion and Slurry shall be removed from all manhole

covers, drain inlet covers, monument covers and all other utility covers as quickly as possible, after the application of Slurry and/or prior to final acceptance of the project.

Clean all surfaces that are to be Slurried, including removing all debris, vegetation, and other organic matter, removing any standing water, and sweeping the project area to remove all loose rocks and material.

302-4.5 Scheduling, Public Convenience and Traffic Control. Modify the first paragraph to read:

In addition to the requirements of 7-10 of these Special Provisions

Modify the second sentence of the second paragraph to read:

Based upon the spreading schedule, the Contractor shall notify residents and businesses of the work and post temporary "No Parking" signs at least 48 hours in advance of sealing operations in accordance with 7-10.2.7 of these Special Provisions.

302-4.6 EMULSION-AGGREGATE SLURRY (EAS)

302-4.6.1 General. Replace the entire subsection with the following:

Materials for emulsion-aggregate slurry shall conform to 203-5.4 of these Special Provisions.

302-4.6.4 Aggregate Application Rate.

302-4.6.4.1 General. Replace the entire subsection with the following:

Type I and Type II slurry shall be applied at the application rate shown in Table 302-4.6.4.1(A)

Add the following subsection:

302-4.6.5 Measurement and Payment. Delete this subsection and replace with the following:

Slurry will be measured by the square foot (SF) for the actual pavement area slurry sealed. Quantities shown in the Bidder's Proposal are based on estimated measurements of the project areas and are approximations only.

Payment for furnishing, preparing and placing Slurry in City Parking Facilities will be made at the Contract Unit Price per square foot bid for "TYPE I SLURRY SEAL WITH 2-1/2% LATEX" in Bidder's Proposal, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work involved in the application of Slurry, including but not limited to, all surface preparations; sweeping of all work areas before and after Slurry applications; all weed and debris removal; protection of manholes, valve boxes, drop inlets and other service entrances; and site clean-up.

Payment for furnishing, preparing and placing Slurry on all residential and arterial streets will be made at the Contract Unit Price per square foot bid for "TYPE II SLURRY SEAL WITH 2-1/2% LATEX" in Bidder's Proposal, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work involved in the application of Slurry, including but not limited to, all surface preparations; sweeping of all work areas before and after Slurry applications; all weed and debris removal; protection of manholes, valve boxes, drop inlets and other service entrances; and site clean-up.

Compensation for preparation Work described in this Section will be considered as included in the Contract Unit Price for the items of work involved and no additional compensation will be allowed therefore.

No payment shall be made for any area requiring re-application of Slurry due to damage of Slurry, prior to acceptance of Work.

302-4.8 Spreading and Application. Delete the second sentence of the second paragraph. Delete the fifth paragraph. Add the following to the seventh paragraph:

If rippled or chatter marks appear in the surface of the finished slurry, a slower rate of spread shall be required to prevent these surface blemishes that will negatively affect ride quality.

302-5 ASPHALT CONCRETE PAVEMENT.

302-5.4 Tack Coat. Add the following paragraph:

A Tack Coat shall be applied between base and finish courses when i) the finish course is not placed immediately after the base course (within 24 hours AND with no traffic using the base course surface); ii) to existing paved surfaces where new asphalt concrete overlaps or abuts existing pavement; and iii) along all edges of concrete gutters and PCC pavement slabs. There shall be no separate payment for Tack Coat.

302-5.5 Distribution and Spreading. Delete the fourth paragraph and replace with the following:

Asphalt concrete shall not be placed until the atmospheric temperature is a minimum of 55°F and rising and the surface temperature of the underlying material is a minimum of 50°F. Asphalt concrete also shall not be placed during unsuitable weather.

Fully automatic screeds will be required on this Project. A fully automatic screed shall have a sled, 30 feet in length, on the side of the machine which will receive the next mat of material. A joint maker, ski, etc., placed on the side of the machine to ride on the existing or previously constructed surface or mat of asphalt concrete material may be required as directed by the Engineer.

Delete Table 302-5.5(A) and replace with the following:

TABLE 302-5.5(A)

Specified Total Thickness of Pavement		Required Number of Courses	Class Of Mixture
Greater Than Inches	But Not More Than Inches		
0	1	-	(not allowed)
1	1-1/2	1	D2-PG 64-10
1-1/2	3	1	C2-PG 64-10
3	4	1	Base Course - B-PG 64-10 and/or Finish Course - C2-PG 64-10 as specified on Plans.
4	8	2 or more	Base Course - B-PG 64-10

			for underlying course. Finish Course - C2-PG 64-10 for surface course.
--	--	--	--

302-5.8 Manhole (and other structures). Add the following:

Contractor shall be required to remove manholes and utility access covers to below the depth to be removed and restore said covers to finish grade upon completion of paving.

Add the following subsection:

302-5.8.1 Payment. Payment shall be per the Contract Unit Price bid per each for adjustment of utility access covers and manholes to grade.

Add the following subsection:

302-5.11 AC Slot Patch and Pavement Repair.

Payment for AC pavement repair shall be included in the contract bid for “CONSTRUCT ADDITIONAL FULL DEPTH PAVEMENT REPAIR ON CALLE MIRAMAR” per square foot (SF), which shall include full compensation for removals, furnishing all labor, materials, paint binder (tack coat), tools, equipment and incidentals and for doing all of the work involved in constructing asphalt concrete pavement complete in place as shown on the plans and specified in the Special Provisions, and no additional compensation will be allowed.

Pavement for 1' wide AC Slot Patch shall be included in the various bid items for which this item is appurtenant, and no additional compensation shall be allowed therefore.

Add the following section:

302-14 BITUMINOUS PAVEMENT CRACK SEALING

302-14.1 General. Bituminous pavement crack sealing shall consist of furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work involved in the application of bituminous pavement crack sealant.

All pavement cracks equal to 1/4" in width of greater shall be sealed.

302-14.2 Cleaning. Prior to crack sealing, the Contractor shall be responsible for properly cleaning all pavement cracks to be sealed, to the satisfaction of the Engineer. Cleaning of pavement cracks shall include, but is not limited to, the application of approved weed killer, as specified by the manufacturer or Engineer, removal of debris or loose material from cracks, and cleaning of cracks with a hot air lance.

302-14.3 Materials. The crack sealing material shall be an asphalt cement, aromatic rubber extender, oil and a minimum of 20% powdered rubber by weight combined in such a manner as to produce a material with the following properties:

- 1) **WORKABILITY.** The material shall pour readily and penetrate large cracks at temperatures below 400° Fahrenheit.
- 2) **CURING.** The product shall contain no water or volatile solvents and shall cure

immediately upon cooling to a sufficient viscosity to prevent tracking by traffic.

- 3) LABORATORY EVALUATION. When the sample of the product has been heated at 350° Fahrenheit for two hours, it shall pass the following tests:

Softening Point (R & B) 135°F Min. (ASTM D312)

Flexibility A 1/8" thick specimen of the product conditioned to 10°F shall be capable of being bent to a 90° angle over 1" mandrel without cracking.

The sealer shall be forced into the crack by use of a squeegee.

302-14.4 Measurement and Payment. Payment for bituminous pavement crack sealing will be made on the lump sum basis per the Contract Unit Price for "CRACK SEALING" in the Bidder's Proposal, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work, as specified in the Specifications and these Special Provisions, and as directed by the Engineer.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

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

303-5.1 Requirements.

303-5.1.1 General. Replace the first sentence of the first paragraph with the following:

Concrete curbs, gutters, curb and gutters, sidewalks, walks, cross gutters, alley intersections, access ramps, driveways, and stained median concrete paving shall be constructed of Portland cement concrete of the class, compressive strength and other requirements prescribed in 201-1.

Replace the first sentence of the second paragraph with the following:

Except otherwise prescribed in 303-5.1.3 under the heading "Driveway Entrances," the minimum thickness of walks shall be 3-1/2 inches.

303-5.5. Finishing

303-5.5.2 Curb Add the following:

Unless otherwise approved by the Engineer, the entire affected concrete curb, gutter, cross-gutter, or spandrel portion shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the affected area to be removed. Where applicable, the contractor shall reconstruct this one (1) foot wide section with a 2-inch thick section of AC pavement (C2-PG-64-10) on a 4-inch thick section of 1-sack cement and sand slurry mix on an 8-inch thick section of untreated Base. If the affected curb and gutter is located in a spandrel, the spandrel shall be sawcut six inches (6") minimum from the flow line of the gutter and the spandrel reconstructed to match the existing spandrel portion to remain and be on 8 inches of untreated Base.

For concrete curb and gutter work located in a spandrel, sawcut spandrel to a distance of six inches (6") minimum from the flow line of the gutter to be removed. The Contractor shall

reconstruct the spandrel to match the existing spandrel portion to remain and be on eight inches (8") of untreated Base. No extra payment will be allowed for the PCC spandrel construction.

For concrete curb and gutter reconstruction work adjacent to areas of pavement reconstruction, the Contractor has the following 2 options:

1. The entire portion may be removed without sawcutting and removing the adjacent AC pavement; however, any damaged pavement must be removed and temporary AC provided and maintained in its place until the adjacent pavement is removed as per the contract; or
2. Remove the entire affected concrete curb or curb and gutter portion by sawcutting the adjacent AC pavement a distance of six (6) inches from the face of curb or edge of gutter to be removed. The contractor shall reconstruct this six (6) inch wide section with a 2-inch thick section of temporary AC pavement on either Crushed Miscellaneous Base or imported fill with a sand equivalent of 30 or greater.

303-5.5.5. Alley Intersections, Access Ramps, and Driveways. Add the following:

Unless otherwise approved by the Engineer, the entire affected curb and gutter portion shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the PCC gutter. Where applicable, the contractor shall reconstruct this one (1) foot wide section with a 2-inch thick section of AC pavement (C2-PG-64-10) on a 4-inch thick section of 1-sack cement and sand slurry mix on an 8-inch thick section of untreated Base. If the affected curb and gutter is located in a spandrel, the spandrel shall be sawcut six inches (6") minimum from the flow line of the gutter and the spandrel reconstructed to match the existing spandrel portion to remain and be on 8 inches of untreated Base. No extra payment will be allowed for the PCC spandrel construction.

PCC Access Ramp shall be constructed on 4" CMB located on the north side of Lomita Boulevard at Kent Avenue per the 2012 Standard Plans for Public Work Construction STD 111-5, Case A Type 5, included in Appendix IV.

Access ramps constructed in existing curb returns may obliterate survey tie points. The Contractor shall give a minimum of three (3) work days advance notice of each location to the Engineer prior to removals so the CITY may reestablish the existing survey tie points.

Detectable Warning Surface. Access ramps shall have a single piece prefabricated detectable warning surface with dimensions of 36-inches (perpendicular to curb) by 48-inches wide (along curb) installed in accordance with the 2012 Standard Plans for Public Work Construction 111-5 and comply with the requirements of the Americans with Disabilities Act (ADA). Detectable warnings shall consist of raised truncated domes with a base diameter of nominal 0.9 inches, a top diameter of nominal 0.45 inches, a height of nominal 0.20 inches and a center-to-center spacing of nominal 2.35 in (60 mm). The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.

The detectable warning surface shall be a Cast-In-Place Replaceable Tactile Warning Surface Tile. The color of the detectable warning surface shall be Dark Gray (Federal Color No. 36118) or as approved by the Engineer prior to installation. The detectable warning system is to be manufactured with materials that are fully recyclable. The detectable warning surface shall be installed in accordance with the manufacturer's recommendations and instructions. The manufacturer shall provide a minimum 5-year warranty, guaranteeing replacement when there is a defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience or attachment. The warranty period shall begin on the date of acceptance of the Contract.

Driveways shall have a concrete thickness of 4 inches for single family residences and 6 inches for all other areas.

303-5.7 Repairs and Replacements. Add the following:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked following replacement thereof. If new concrete work is marked, the Contractor shall replace it at its expense and no extra costs will be allowed.

303-5.9 Measurement and Payment. Replace the entire subsection with the following:

Payment for concrete curb and curb and gutter (excluding integral curb and curb/gutter associated with driveways, alley intersections and cross-gutters) shall include all joints and keyways, Base, adjacent AC pavement reconstruction, protection of existing trees, parkway restoration, repainting of addresses on curb faces where painted addresses have been removed due to new curb construction and repainting of red curb (top and face) where red curb has been removed due to new curb construction and shall be per the Contract Unit Price per linear foot.

Payment for curb and curb gutter transitions to match existing and mountable curbs at connection points and maintenance vehicle pullouts will be measured and paid for as the standard curb or curb and gutter adjacent to the transitions.

Payment for concrete walks, sidewalks shall include all joints as shown in standard plans and construction details and shall include protection of existing trees, parkway restoration, and Base and shall be per the Contract Unit Price per square foot.

Payment for driveways, cross-gutters and spandrels shall include all joints as shown in standard plans and construction details, and reconstruction of adjacent 1' wide AC pavement and shall be per the Contract Unit Price per square foot.

Payment for the retaining curb and retaining curb with footing on the access ramp at Palos Verdes Boulevard and Via Monte D'Oro will be made at the Contract Unit Price per linear foot.

Payment for furnishing and installing detectable warning surfaces will be made at the Contract Unit Price for "Furnish and Install Detectable Warning Surface at Access Ramps" and includes all labor, materials and equipment listed in the manufacturer's instructions/installation procedure.

Payment for local depressions at catch basins shall be per the Contract Unit Price.

Add the following subsection:

303-9 Grouted Cobblestone Pavement

The Contractor shall remove existing improvements, grade, compact, prepare subgrade, and place Portland cement concrete with cobblestone rocks grouted in place per plan. Rocks shall vary in size and color where shown, and as specified below. Location shall be excavated, graded, and subgrade compacted to 95% minimum prior to placement of PCC. Concrete shall be placed, then cobblestones placed on top and worked into place in the wet mixture to 1/2 of their diameter in depth. The concrete mix slump shall be as required to work cobbles into place, yet not migrate. Slump on slope areas may need to be 1" or less. Cobbles shall be clean, and shall be secure in place after curing. Fractured edges which may cause injury shall not be allowed. Overly smooth or polished cobbles that may cause a slipping hazard shall not be allowed. Loose cobbles shall be removed, and repaired at the direction of the Engineer. Cobbles shall cover at least 80% of the surface area of the cobblestone pavement, and present a neat and uniform appearance.

Cobbles shall be type as noted per plan and as follows:

Type 1 - Southwest Builder and Stone, Mexican Beach Buff, 3" to 5", or equal

See the following web site for additional reference information:

<http://www.southwestboulder.com/cobbles-pebbles/>

Payment for complying with the work contained in this section shall be included in the contract bid price for "GROUTED COBBLESTONE PAVEMENT" per square foot (SF), which shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all of the work involved in constructing improvements complete in place as shown on the plans and specified in these Special Provisions, and no additional compensation will be allowed.

SECTION 308 – LANDSCAPE AND IRRIGATION INSTALLATION

308-2 EARTHWORK AND TOPSOIL PLACEMENT.

308-2.1 General. Add the following:

The landscape work shall not begin until all other trades have repaired all areas of settlement, erosion, rutting, etc., and the soils have been re-established, recompact and refinished to final grades. The Engineer shall be notified of all areas where the landscape work is prevented from being executed.

Surface drainage shall be provided by modeling the surfaces to facilitate the natural run-off of water. Low spots and pockets shall be filled with topsoil and graded to drain properly.

308-2.2 Trench Excavation and Backfill. Subparagraph b) is amended as follows:

- b) Waterlines continuously pressurized – 36 inches (42 inches under roadways).

Subparagraph c) is amended as follows:

- c) Lateral sprinkler lines – 12 inches (30 inches under roadways).

308-2.3 Topsoil Preparation and Conditioning

308-2.3.1 General. Substitute Class A with Class C in the first sentence of the first paragraph.

Add the following:

Before soil preparation operations are started in any area, the Contractor shall remove and dispose of all trash and any other debris on the surface of the ground.

Mowing and spraying operations shall be performed in all areas throughout the limits of the landscape portion of the Work. The sequence of operations shall be determined by the Engineer. Before applying any chemical spray material, the Contractor shall obtain from the Engineer written approval of the material to be used, the rate, and method of application.

Stolon-type grasses and weeds shall be killed by spraying with an approved weed control chemical. Other weeds shall be mowed as close to the ground as possible. Such weeds or grasses shall be removed by grubbing prior to cultivating.

Any weed growth which subsequently appears shall be killed by additional spraying before the weeds exceed two (2) inches in height. At the time of planting, each area to be planted shall be free of living weeds of any height.

The Contractor immediately shall remove and dispose of mowed weed growth and all other debris generated by clearing and grubbing when so directed by the Engineer.

308-2.3.2 Fertilizing and Conditioning Procedures. Add the following:

The conditioning material per 1000 square feet shall be:

- a) Four (4) cubic yards nitrogen stabilized organic amendment derived from redwood, fir or cedar sawdust.
- b) Fifteen (15) lbs. 12-12-12 commercial fertilizer.
- c) Fifteen (15) lbs. soil sulfur.

The Contractor shall apply post-plant fertilizer at the rate of twenty pounds (20 lbs.) per 1,000 sq. ft., thirty (30) days after planting and once again at the end of the post-construction maintenance period.

308-2.4 Finish Grading. Replace the second paragraph with the following:

The finish grade below adjacent paving, curbs or headers shall be one inch in lawn areas and three inches in shrub or groundcover areas.

308-4 PLANTING

Add the following subsections:

308-4.10 Parkway Trees

308-4.10.1 General. The CITY maintains a tree conservation policy. The Contractor is required to assist the CITY in its efforts to conserve trees.

The Contractor shall be required to provide a Consulting Arborist (CA) to review and guide its operations that may impact trees to remain. The CA shall be required to have Certification as an Arborist by the International Society of Arboriculture (217-355-9411), unless otherwise approved by the Engineer.

The CA shall inspect all work locations and assess the impact of construction on existing trees to remain. If the CA determines that destructive impact is likely, Contractor is required to modify its operations to reduce the likelihood of damage to the fullest extent feasible. Contractor shall be responsible to schedule its operations in a manner that will permit the CA to view areas after removals and prior to construction, as necessary.

The CA shall spot-check representative operations and modifications employed to protect existing trees. A preliminary identification of trees that may potentially be impacted has been made

by the Engineer. The CA shall check these and other locations to assure adequate protective measures are taken.

There shall be no separate payment for the services of the CA. All costs for the CA shall be included in the prices bid for appurtenant work.

308-4.10.2 Conservation Methods. Manual operations shall be employed for the removal of sod and soil to establish a finished grade within 4 feet of existing trees to remain.

Tree root systems must remain adequate to withstand heavy windstorms.

Construction equipment, materials, sand, soil, gravel, or other material shall not be placed, parked or stored on the surface of any unpaved areas within the driplines (outermost reach of branches) of street trees. No chemicals, rinstates, or petroleum products shall be deposited within the driplines of street trees.

308-4.10.3 Root Barrier and Pruning. Roots shall be pruned immediately adjacent to the edge of the sidewalk and the back of curb. Cuts shall be 7.5-inches adjacent to sidewalk and 18-inches deep adjacent to curb and gutter. The cuts shall extend 6 feet in each direction along the curb from the center of the tree trunk for a total length of 12 feet or as directed by the Engineer.

Root pruning equipment shall be specifically designed for this purpose, sharpened adequately to sever roots in a clean manner, and equipped with padded tracks or rubber tires to prevent scraping or marking of the roadway or curbs.

Areas root pruned shall be backfilled with Class "C" topsoil either immediately upon completion of root pruning or upon completion of the adjacent work provided that adequate safety and warning devices are placed and maintained at each location.

The Contractor shall repair or replace all utility service connections and sprinkler systems within the right-of-way which are damaged or removed as a result of the root pruning operation. Repairs shall be initiated immediately upon the occurrence of damage or removal and completed by the end of each working day. Repairs and replacements shall be the equivalent of, or better than, the existing improvements in material, dimension, and function. All repairs shall be at the Contractor's expense and to the satisfaction of the Engineer.

Root sealer shall be approved by the Engineer a minimum of two (2) working days prior to the start of root pruning operations and shall be applied to all cut root areas which are larger than 50mm (2 inches) in diameter. The approved sealer shall be applied as soon as practical after the cuts have been made.

When constructing or replacing driveway approaches, roots shall not be cut by means of mechanical root cutting machines. If root removal is essential to driveway construction, roots shall be manually cut using hand implements with guidance from the CA.

Exposed tree roots shall be covered with mulch and watered from a period immediately following curb and gutter removal, until the area is backfilled following construction.

The root barrier shown in City of Torrance Standard Plan Nos. T401 and T402 is hereby deleted from this project.

308-4.11. Payment. Payment for providing prepared topsoil, furnishing and planting trees, shrubs, and plants to within the adjacent parkway shall be considered as included in the bid price for the various items of work.

The Contract Unit Price for Parkway Trees shall include full compensation to install the specified 15 gallon trees complete in place, as shown on the Plans and in accordance with these Special Provisions, including installation of the tree stakes, ties, tree trunk protector, tree well, providing prepared topsoil, backfill, restoration of adjacent grass and parkway, and all appurtenant work.

The Contract Unit Price for Tree Root Pruning shall include full compensation for labor, tools equipment, backfill, repairs to any damaged irrigation or utility connections during work, root sealer, and mulch, and all appurtenant work.

308-6 MAINTENANCE AND PLANT ESTABLISHMENT. Replace the entire subsection with the following:

The Establishment and Maintenance Period shall begin on the first day after all planting in this Work is completed and accepted, and shall continue thereafter until six (6) months have passed. Notify the Engineer at least seven (7) days in advance of completion. Failure by the Contractor to notify the Engineer will delay the start of the Establishment and Maintenance Period.

Should the Establishment and Maintenance Period be extended beyond the prescribed six (6) months because of rejection by the Engineer for whatever reason, the entire installation shall remain the responsibility of the Contractor unless otherwise determined by the Engineer. Any rejected material shall be replaced and the six (6) months Establishment and Maintenance Period shall be restarted from that time for the replaced material only.

All areas landscaped or restored under this Contract shall be maintained by the Contractor. The Contractor, without any expense to the CITY, shall weed the planted areas as needed and shall remove all accumulated debris from the landscaped areas as needed and/or as called for by the Engineer.

One month after planting, fertilize plants with 12-12-12 (N-P-K) commercial fertilizer at the rate of 3 level tablespoons per 5-gallon plant basin. The Engineer may require additional fertilization at each monthly interval.

Apply Iron Sequestrene as specified by the manufacturer immediately at the onset of any symptom of iron chlorosis. Repeat fertilization monthly for duration of maintenance period.

The above fertilization schedule may be revised by the Engineer if, in his/her opinion, optimal plant health and growth is not being obtained. The Contractor shall comply with all changes as directed.

The Contractor shall be responsible to provide adequate water to all plants without overwatering. Water conservation is mandated. The Contractor shall obtain approval from the Engineer for its proposed irrigation schedule and any changes thereto.

Add the following subsection:

308-6.1. Payment. Payment for PLANT ESTABLISHMENT & MAINTENANCE PERIOD shall be on a lump sum basis per the Contract Unit Price. The Contract Unit Price shall include full

compensation for all tools, materials, labor, equipment, water and incidentals to complete this work in accordance with the Plans and Special Provisions.

308-7 PAYMENT. Replace the entire section with the following:

The Contract Unit Price for RESTORE LANDSCAPING AND IRRIGATION shall include full compensation to seed and restore irrigation systems (as detailed in this Section, including prepared topsoil) complete in place, per these Specifications, excluding Plant Establishment and Maintenance. Area shall be backfilled with approved topsoil and replanted with grass seed or sod in accordance with Section 7-9.1.

Add the following section:

308-8 GUARANTEE. Add the following:

The Contractor, without expense to the CITY, shall adjust all irrigation heads to their appropriate operational heights, shall adjust and clean or replace, if necessary, all irrigation heads so that the planting areas are properly covered and they shall be adjusted so as to prevent excessive overflow into the adjacent street right-of-way.

The CITY reserves the right to make temporary repairs as necessary to keep the irrigation system equipment in operating condition. The exercise of this right by the CITY shall not relieve the Contractor of its responsibility under the terms of the Contract as herein specified.

Maintenance shall be done by qualified and experienced irrigation pipefitters.

All fifteen (15) gallon and larger trees installed under the contract shall be guaranteed to live and grow for one (1) year from the date of final acceptance of the contract work unless decline of the tree is specifically attributable to causes unrelated to installation, plant material quality, and the Contractor's maintenance practices.

All other plant material shall be guaranteed to live and grow for a period of ninety (90) calendar days from the date of final acceptance of the contract work unless decline of the plant material is specifically attributable to causes unrelated to installation, plant material quality, and the Contractor's maintenance practices.

Any plant material found to be dead, missing, or in poor condition during the post-construction maintenance period, shall be replaced immediately at the Contractor's expense. The Engineer shall be the sole judge as to the condition of the material. Replacement shall be made to the same specifications required for the original plantings.

During the guarantee period, should the Contractor fail to expeditiously replace dead plant material upon written notification by the Engineer, the City shall cause the work to be corrected and bill the actual costs incurred to the Contractor.

SECTION 310 - PAINTING

310-5 PAINTING VARIOUS SURFACES.

Use Sections 84-1 and 84-2 of the Caltrans Standard Specifications.

SECTION 84: TRAFFIC STRIPES AND PAVEMENT MARKINGS

84-1 GENERAL Add the following:

The Contractor shall paint red curb markings at existing locations and all fire hydrant locations. When street addresses painted on curb faces have been eliminated due to work associated with this contract, each street address shall be restored by painting on the face of new curb. Background shall be white in color and address numbers shall be black in color and 4 inches in height. Existing paint markings on curbs shall be removed prior to applying the new paint markings.

84-1.01 Description. Replace the first two paragraphs with the following:

This work shall consist of applying thermoplastic traffic stripes (traffic lines) and pavement markings at the locations and in accordance with the details shown on the Plans or designated by the Engineer, and as specified in these Specifications and Special Provisions.

The thermoplastic material shall conform to the provisions of 84-2.02 of the Caltrans Standard Specifications.

84-2.06 Payment. Replace the entire subsection with the following:

Payment for traffic striping, pavement marking, and curb markings shall be on a lump sum basis per the Contract Unit Price and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, necessary to complete the Work.

All costs for establishing alignment of traffic stripes, pavement markings, layout, temporary pavement painting, and sandblasting of existing lines and markings shall be included and no extra costs will be allowed.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

Delete the entire Section 314 and replace with Sections 85-1.06, 85-1.07 and 85-1.09 of the Caltrans Standard Specifications.

85-1.06 Placement. Add the following:

The solid 4" white lines at intersections shall have a marker installed at each end. These markers shall be placed on the line.

Markers shall not be installed on bike lane striping.

85-1.09 Payment. Replace the entire subsection with the following:

Payment for the removal of pavement striping, markings and legends, and raised pavement markers will be made on the lump sum basis per the Contract Unit Price for "REMOVE EXISTING PAVEMENT STRIPING, MARKINGS, LEGENDS, AND RAISE PAVEMENT MARKERS" in the Bidder's Proposal, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work, as specified in the Specifications and these Special Provisions, and as directed by the Engineer.

Add the following Section:

SECTION 317 - SIGNAGE

317.1 ROADSIDE SIGNS.

All signs shall be installed in accordance with the requirements of Section 56-4 of the Caltrans Standard Specifications, Caltrans Standard Plans and these Special Provisions. Roadside signs shall be installed at the locations shown on the Plans or where directed by the Engineer.

Unless otherwise indicated, all signs shown on the plans shall be new signs provided and installed by the contractor, except for existing signs specifically indicated to be relocated or to remain.

All signs shall be of 3M Diamond Grade Cubed, with 1160 protective anti-graffiti overlay film and matched components system warranty (12 years) on 0.080 Aluminum with "Torrance" and year on border.

56-4.03 CONSTRUCTION. Delete the third paragraph and last sentence of the eleventh paragraph.

Delete the entire subsection 56-2.05.

56-4.04 PAYMENT. Replace the entire subsection with the following:

Payment for REMOVE AND RELOCATE EXISTING TRAFFIC SIGN shall be per the Contract Unit Price and shall include all labor, materials, tools, equipment, and individuals, and for doing all the work involved in furnishing and installing roadside signs, complete in place, as shown on the Plans and these Special Provisions, and as directed by the Engineer.

Payment for installation of new signs shall be per the Contract Unit Price and shall include all labor, materials, tools, equipment, and individuals, and for doing all the work involved in furnishing and installing roadside signs, complete in place, as shown on the Plans and these Special Provisions, and as directed by the Engineer.

Add the following Section 318 in its entirety.

SECTION 318 – CONCRETE WHEEL STOPS

318-1.1 General.

Refer the City Parking Facilities inventory table in the Appendices for approximate concrete wheel stop quantities for each project area. All concrete wheel stops at City Parking Facilities indicated, shall be protected in places, unless otherwise directed by the Engineer.

The Contractor shall completely remove and properly dispose all existing wood wheel stops, including 1" galvanized pipes used to secure wood wheel stops in place.

Contractor shall completely remove all concrete wheel stops, including rebar pin, and stack concrete wheel stops neatly in a location adjacent to the Work site, to be identified by the Engineer. Said wheel stops shall be re-installed by Contractor after installation of parking stall striping and markings. Prior to removing concrete wheel stops, Contractor shall notify the Engineer of existing concrete wheel stops that are damaged, which shall be replaced with a new concrete wheel stop.

New concrete wheel stops shall be 4' long. Material for new concrete wheel stops shall be in accordance with Sections 201 and 303 of the latest edition of the Standard Specifications for Public Works Construction unless specified otherwise. Portland cement concrete shall be Class A six sack mix developing not less than 3,250 psi compressive strength at 28 days. All cement shall be Type II.

318-1.2 Payment.

Payment for furnishing and installing new concrete wheel stops will be made at the Contract Unit Price per each bid for "FURNISH AND INSTALL NEW CONCRETE WHEEL STOPS," in the Bidder's Proposal, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the Work, as specified in the Specifications and these Special Provisions, and as directed by the Engineer.