SPECIAL PROVISIONS

AMENDMENTS TO THE "GREENBOOK"
STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

PART 1 GENERAL PROVISIONS

The following SECTIONS supplement the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, ("Greenbook"), 2021 edition, regional supplements, and all current supplements, and supersede any conflicting requirements, (A "conflicting requirement" is one that cannot operate by law within the Special Provisions listed herein or both cannot be physically produced). Otherwise, these Special Provisions only supplement the Standard Specifications. If any of the sections or part of sections below contradict or are not in conformance with current California Codes and Regulations at the time of bidding, the Contractor will assume that the current California Codes and Regulations supersedes that item in these specifications. *When there are two or more specifications for the same item or work the contractor shall bid the more expensive item or work specified unless the one specified item specifically states that it shall take precedent over other specified items for the same work.*

SECTION 1 – GENERAL, TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE; AND SYMBOLS

1-1 GENERAL

1-1.1 General

Add the following:

The work embraced herein shall be done in accordance with the Special Provisions herein which amend, modify, or supplement the Standard Specifications and Sections 1 through 800 of the Standard Specifications for Public Works Construction, (Greenbook) current edition and the Standard Specifications, (Greenbook) current edition.

1-2 TERMS AND DEFINITIONS

Add or replace the following:

Agency	City of Lake Elsinore
City	Council of the City of Lake Elsinore, constituting the awarding authority of the City
County	County of Riverside
Engineer	City Engineer of the City of Lake Elsinore or his authorized representative

1-3 ABBREIVATIONS

1-3.2 Common Usage

Add the following:

Abbreviation	Word or Words
B&P	Business and Professions Code Section No.
CA	California Administration Code Section No.
CBC	California Building Code, Pacific Coast Building Officials Conference of the International Conference of Building Officials
CC	Civil Code Section No.
CGC	California Government Code Section No.
CVC	California Vehicle Code Section No.
DBE	Disadvantaged Business Enterprise
EDC	Educational Code Section No.
LC	Labor Code Section No.
PCC	Public Contract Code Section No.
RFI	Request for Information

1-3.3 Institutions

Add the following:

Abbreviation	Word or Words
AAN	American Association of Nurserymen
AGA	American Gas Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AISI	American Iron & Steel Institute
APHA	American Public Health Association
ASA	American Standards Association (now ANSI)
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
CRSI	Concrete Reinforcing Steel Institute
CSD	Community Services District of the City of Lake Elsinore
EVMWD	Elsinore Valley Municipal Water District
NBFU	National Board of Fire Underwriters
OSA	Office of State Architect
RCTC	Riverside County Transportation Commission
WRCOG	Western Riverside Council of Governments
PCA	Portland Cement Association
RCFC & WCD	Riverside County Flood Control and Water Conservation District
RDA	Community Redevelopment Agency of the City of Lake Elsinore
SSPC	Steel Structures Painting Council
USASI or USAS	United States of America Standards Institute (Now ANSI)
WMWD	Western Municipal Water District

1-4 UNITS OF MEASURE

1-4.2 Units of Measure and Their Abbreviations

Add the following:

U.S. Customary Unit	Equal To
1 Acre	43,560 S.F.

1-7 AWARD AND EXECUTION OF THE CONTRACT

1-7.1 General

Add the following:

Within 10-working days after the date of the AGENCY's Notice of Award, the Contractor shall execute and return the following contract documents to the AGENCY:

Contract Agreement

Faithful Performance

Bond Labor and

Materials Bond

Public Liability and Property Damage Insurance

Certificate Workers' Compensation Insurance Certificate

Failure to comply with the above will result in annulment of the award and forfeiture of the proposal guarantee.

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

A corporation to which an award is made may be required, before the Contract Agreement is executed by the AGENCY, to furnish evidence of its corporate existence, of its right to enter into contracts in the State of California and that the officers signing the contract and bonds for the corporation have the authority to do so.

1-7.2 Contract Bonds

Add the following:

All bonds shall be submitted on the City's bond forms included hereinbefore. Each bond shall be signed by both the Bidder and the Surety, with all signatures notarized and all acknowledgments attached thereto. The attorney-in-fact for a corporate Surety shall be registered as such in the State of California and file with each bond an original, notarized, corporately sealed, and effective dated Power of Attorney. Certified copies of the Power of Attorney are acceptable, providing they are contemporaneously signed, notarized, and corporately sealed.

The cost of all bonds, including premiums and incidentals, shall be included in the Contract lump sum price paid for mobilization, and no additional compensation will be allowed. When the Contract does not include a Contract pay item for mobilization, all bond costs shall be considered to be included in and distributed proportionately through all of the Contract items of work. In the event any Contract pay items are deleted, or reduced in quantity or value, no payment will be made to the Contractor for the cost of any portion of the bonds.

The Faithful Performance Bond shall remain in force for a period of 1 year after the date of recordation of the Notice of Completion. The Material and Labor Bond shall not be for less than 100 percent of the contract price and shall remain in force until 75 days after the date of recordation of the Notice of Completion.

SECTION 2 – SCOPE OF THE WORK

2-1 WORK TO BE DONE

Add the following subsection:

2-1.1 Order of the Work

Order of work - Order of work shall conform to the Standard Specifications and these Special Provisions.

1. Call Dig Alert and perform potholing for existing underground utilities.
2. Prepare traffic control plans and obtain approval from the City. Install project signs 10 days prior to start of construction. Mobilize equipment and materials as necessary.
4. Notify property owners located within project limits.
5. Construct improvements as shown on plans.

2-2 PERMITS

In respect to work performed under the Contract, the first sentence to the first paragraph of Subsection 2-2, "Permits", of the Standard Specifications shall be deemed revised to read as follows:

No work shall be started until the Contractor has obtained all necessary licenses and permits. Therefore, the Contractor shall obtain and pay for all permits and give all notices necessary and incident to the due and lawful prosecution of the work and to the preservation of the public health and safety. The Contractor shall pay all cost incurred by the permit requirements. Fees will not be collected on those permits obtained from the City for City-owned projects.

2-2.1 Licenses

Subsection 2-2.1 is hereby added to Section 2 of the Standard Specifications as follows:

The Contractor and subcontractors shall obtain and incur all costs for licenses necessitated by his or her operations. Prior to starting any work, the Contractor and subcontractors shall be required to have a City of Lake Elsinore business license valid for at least the life of the Contract; subcontractors shall have business licenses valid for the time they are engaged in work under the Contract.

2-3 RIGHT OF ENTRY

Add the following:

At no time shall the Contractor encroach on Caltrans Right-of-Way without a proper encroachment permit from Caltrans.

2-4 COOPERATION AND COLLATERAL WORK

Add the following subsection:

2-4.1 Special Considerations

The Contractor will be required to closely coordinate all its work affecting private property in advance with the property owner. Any damage to this property due to the construction will be repaired and restored to the satisfaction of the owner.

Property Owner Coordination – The Contractor shall inspect each property and make his own determination as to the extent of work required to remove existing fences or walls and grading adjacent to screen walls. The Contractor shall prepare a photo log of all existing on-site conditions at each property which shall be used as the basis for determining the adequacy of the Contractor's on-site restoration work.

Special Note: By submitting a Bid, the Contractor acknowledges that he has visited each individual property and investigated the level of effort required to construct the required improvements, including but not limited to removal existing fences and walls.

Before any on-site work is initiated, the Contractor shall coordinate with each individual property owner to determine access requirements and verify the general scope of on-site restoration work required. Seventy-eight (48) hours advance notice shall be given to each property owner prior to initiating work. Interruption of access shall be minimized to the greatest degree possible and shall not exceed 6 hours.

The Engineer shall review the completion of all on-site restoration work with each property owner prior to final acceptance. Using the Contractor's photo log of existing on-site improvements, the Engineer shall determine if restoration meets or exceeds the condition prior to construction. The Contractor shall be responsible to obtain the property owner's acceptance of all on-site restoration work.

Utility Coordination – Construction will not require removals and relocation of existing utilities.

2-5 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

2-5.1 General

In respect to work performed under the Contract, the first paragraph of Subsection 2-5.1, "General" of the Standard Specifications shall be deemed revised to read as follows:

Such equipment and facilities shall meet all requirements of applicable ordinances and laws.

In respect to work performed under the contract, the second paragraph of Subsection 2-5.1, "General", of the Standard Specifications shall be deemed revised to include as follows:

The Contractor shall provide a hand washing facility. The Contractor shall comply with all applicable laws, ordinances, and regulations pertaining to public health and sanitation.

2-7 CHANGES INITIATED BY THE AGENCY

2-7.1 General

In respect to work performed under the Contract, Subsection 2-7.1, "General," of the Standard Specifications shall be deemed revised to include the following:

The City reserves the right to make changes in the work or eliminate any contract (bid) item of work without impairing the validity of the Contract. Such changes shall be made in accordance with any of the following methods:

A. By written modification of Contract (Supplemental Agreement or Contract Change Order) ordered by the City Council.
B. By written Contract Change Order, signed by the City Manager or City Engineer in the amounts specified by City Policy.
C. All Contract modifications shall be signed by the Contractor.

Changes in the work made pursuant to this section, "Changes in Work" and extensions of completion time made necessary by reason thereof, shall in no way release any Guarantee given by the Contractor of the Contract let hereunder. The Sureties in excluding the Bonds on the Contract made pursuant to the General Conditions shall be deemed to have expressly agreed to any change increasing the cost of the work and to any extension of time made by reason thereof. Such changes in the work shall not relieve or release the Sureties of Bonds executed for the work. Whenever a change is pending, the Contractor shall notify the City if it is necessary to halt other work in the area of the change that would be affected thereby, until such time as the change is authorized.

Any change to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the City, except that when, in the opinion of the City such basis is not feasible, the change to the Contract amount shall be determined as provided for in Subsection 2-8, "Extra Work," of the Standard Specifications.

Each lump sum quotation from the Contractor shall be accompanied by sufficiently detailed estimates to permit verification of totals in accordance with Subsection 7-3, "PAYMENT," of the Standard Specifications.

When the work is to be done on a cost-plus-percentage basis, the Contractor shall submit daily work reports as required by the City showing all labor, material and equipment costs incurred, and upon completion of the work, a Summary of Costs, including overhead and profit, and in accordance with Subsection 7-3, "Payment," of the Standard Specifications.

The signature of the City's inspector on the daily reports does not obligate the City to payment of any or all items of work listed on the City issued daily work reports, the inspector's signature just acknowledges receipt of the City issued daily work report. The Engineer will review the daily report for the applicable items of work related to extra work.

2-8 EXTRA WORK
Add the following:

The Contractor shall not perform any extra work except upon written authorization from the Engineer.

Any change in work shall conform to the original drawings and Specifications insofar as they may apply without conflict to the conditions involved in the change.

2-10 DISPUTED WORK
In respect to work performed under the Contract, the first paragraph of Subsection 2-10, "Disputed Work" of the Standard Specification shall be deemed revised to read as follows:

If unable to reach agreement under any of the foregoing procedures, the City may direct the Contractor to proceed with the work. Payment shall be made for such work as is later determined by negotiation between the parties or as is fixed by a court of law.

2-11 FORMAT FOR CHANGES IN WORK

Subsection 2-11 is hereby added to Section 2 of the Standard Specifications as follows:

2-11.1 General

A Contract Change Order will be issued for all changes in the work unless a supplemental agreement is made between the City and Contractor. The Contract Change Orders will be made on a City form and will contain a summary of all costs as supplied by the Contractor or agreed to by the City and Contractor. The Contractor shall use City Contract Change Order report forms (as follows):

2-11.2 (a)	Change Order Summary Report
2-11.2 (d)	Material Cost Report
2-11.2 (b)	Labor Cost Report
2-11.2 (e)	Equipment Cost Report
2-11.2 (c)	Labor Rates Report
2-11.2 (f)	Special Forces/Services Cost Report

Date

CCO Proposal No. Contractor

Item No. Location

2-11.2 (a) CONTRACT CHANGE ORDER SUMMARY REPORT AMOUNT

General Contractor

1. Labor Cost:.....$

2. Material Cost:.....$

3. Equipment Cost:.....$

4. Special Forces/Services:.....$

Subtotal Contractor Cost:.....$

5. Subcontractor/Sub-subcontractor Name

a. Labor Cost.....$

b. Material Cost .....$

c. Equipment Cost.....$

Subtotal Subcontractor/Sub-subcontractor Cost.....$

6. Subcontractor/Sub-subcontractor Name

a. Labor Cost.....$

b. Material Cost .....$

c. Equipment Cost.....$

Subtotal Subcontractor/Sub-subcontractor Cost.....$

TOTAL CONTRACT CHANGE ORDER COSTS.....$

Date

CCO Proposal No. Contractor or Subcontractor

Item No. Location

2-11.2 (b) LABOR COST REPORT

CLASSIFICATION AND NAME	HOURS	HOURLY RATE	EXTENDED AMOUNTS
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
Classification:	OT	$	$
Name:	REG	$	$
TOTAL LABOR			$

Overhead/profit 33% .....$

Total labor/overhead/profit .....$

Subcontractor's mark-up of total sub-subcontractor labor/overhead/profit (if applicable) 5%.....$

General contractor's mark-up of total subcontractor or sub-subcontractor labor/overhead/profit (if applicable) 5% .....$

Total .....$

Date

CCO Proposal No. Contractor or Subcontractor

Item No. Location

2-11.2 (c) LABOR RATES REPORT

CLASSIFICATION:

TAXABLE BASE:	AMOUNT
Base Hourly Pay	$
Vacation	$
TOTAL TAXABLE BASE	$

TAXES & INSURANCE	PERCENT	AMOUNT
Social Security Tax		$
State Unemployment Tax		$
Federal Unemployment Tax		$
Workmen's Compensation		$
Liability & Umbrella Insurance		$
TOTAL TAXES & INSURANCE		$

FRINGE BENEFITS	AMOUNT
Pension	$
Health & Welfare	$
Training	$
Other Fringe Benefits	$
TOTAL FRINGE BENEFITS	$
TOTAL LABOR RATE PER CLASSIFICATION	$

Date
CCO Proposal No. Contractor or Subcontractor

Item No. Location

2-11.2 (d) MATERIAL COST REPORT

INVOICE NO.	DESCRIPTION	AMOUNT
1.	Material	$
	Sales Tax (Prevailing Tax Rate) 8.75%	$
	Subtotal	$
2.	Material	$
	Sales Tax (Prevailing Tax Rate) 8.75%	$
	Subtotal	$
3.	Material	$
	Sales Tax (Prevailing Tax Rate) 8.75%	$
	Subtotal	$
SUBTOTAL MATERIAL COST		$

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices and other pertinent date shall be submitted along with the material cost report.

Overhead/profit 15% .....$

Total material/overhead/profit .....$

Subcontractor's mark-up of total sub-subcontractor
material/overhead/profit (if applicable) 5%.....$

General contractor's mark-up of total subcontractor
or sub-subcontractor material/overhead/profit (if applicable) 5%....$

Total .....$

Date

CCO Proposal No. Contractor or Subcontractor

Item No. Location

2-11.2 (e) EQUIPMENT COST REPORT

EQUIPMENT NO. (Description, Type, Size)	HOURS	HOURLY RATE	EXTENDED AMOUNTS
SUBTOTAL EQUIPMENT COST			$

Overhead/profit 15%..... $

Total equipment/overhead/profit..... $

Subcontractor's mark-up of total sub-subcontractor
equipment/overhead/profit (if applicable) 5% ..... $

General contractor's mark-up of total subcontractor
or sub-subcontractor equipment/overhead/profit (if applicable) 5%..... $

Total ..... $

Date
CCO Proposal No. Contractor or Subcontractor
Item No. Location

2-11.2 (f) SPECIAL FORCES/SERVICES COST REPORT

INVOICE NO.	DESCRIPTION	AMOUNT
1.		$
		$
	Subtotal	$
2.		$
		$
	Subtotal	$
3.		$
		$
	Subtotal	$
SUBTOTAL MATERIAL COST		$

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices and other pertinent date shall be submitted along with the special forces/services cost report.

Overhead/profit 15%..... $

Total Special Forces/Services Overhead/Profit ..... $

SECTION 3 – CONTROL OF THE WORK

3-1 ASSIGNMENT

Add the following subsection:

3-1.1 Contractor Indebtedness

Indebtedness incurred by or on behalf of the Contractor for any cause in connection with this work must be paid by the Contractor. The City of Lake Elsinore has no obligation for any indebtedness or claim other than payments under the terms of the Contract, and the Contractor shall not represent that he or she has any authority to create by such obligation on behalf of the City. The Contractor shall indemnify and hold harmless the City of Lake Elsinore, its officers, employees and agents from any loss, demand, damages, claims, or actions arising from or in connection with said indebtedness.

3-2 SELF PERFORMANCE

Add the following:

In respect to the work performed under the Contract, Subsection 3-2, "Self Performance," of the Standard Specifications shall be deemed revised to include the following:

If the Bid submitted by the Contractor fails to meet at least fifty (50) percent of the amount of work required with its own forces, the Bid will be considered non- responsive and will be rejected with no further consideration. If after execution of the agreement the City discovers the Contractor is performing work amounting to less than fifty (50) percent of the Contracted amount, except for "Specialty Items," the Contractor will be notified that he or she is in violation of the Contract and will have that portion subcontracted for which is less than fifty percent (50%) of the amount of work required to be performed by the Contractor deducted from payment to the Contractor. The deduction shall not exceed fifty (50) percent of the Contracted amount required to be performed by the Contractor. The Contractor will not be penalized by the City resulting from Contract Change Orders that increase subcontract items of work.

Subcontracts shall include Provisions that the Contract between the City and the Contractor is part of the subcontract, and that all terms and Provisions of said Contract are incorporated in the subcontract. Subcontracts shall also contain certification by the subcontractor that said subcontractor is experienced in and qualified to do, and knowledgeable about, the subcontracted work. Copies of subcontracts shall be available to the Engineer at the time any litigation against the City concerning the project is filed.

3-3 SUBCONTRACTORS

Add the following:

In respect to the work performed under the Contract, Subsection 3-3, "Subcontractors" of the Standard Specifications shall be deemed revised to include the following:

a. The Contractor shall be fully responsible to the City for the acts and omissions of subcontractors and of persons employed by them, as the Contractor is for the acts and omissions of persons directly employed upon their work.
b. The Contractor shall be responsible for the coordination of the trades, subcontractors and material suppliers engaged upon their work. Neither the City nor any representative of the City will undertake to settle any difference

between the Contractor and subcontractors or between subcontractors.

3-5 INSPECTION

In respect to work performed under the contract, Section 3-5, "Inspection," of the Standard Specifications shall be deemed revised to include the following:

Inspection of the work shall not relieve the Contractor of any of his obligations to fulfill the Contract. Defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such defective work and materials have been previously approved by the Engineer or included in the quantities for progress payments. The inspector does not have authority to deviate from the plans and specifications, and to obligate the city financially.

If any such work is concealed or performed without the prior inspection notice, then the work shall be subject to such tests or exposure as may be necessary to prove to the Engineer that the materials used and the work done are in conformity with the plans and specifications or may be removed and installed again at the discretion of the City Engineer. All labor, equipment and materials necessary for exposing, testing or complete removal, and installation or replacement shall be furnished by the Contractor at its expense. The Contractor shall replace, at its own expense, any materials or work damaged by exposure or testing.

Cost of rework inspection incurred by the City will be deducted from the Contractor's progress payments. Rework inspection cost is as follows:

1. Contractor's failure to complete the Work within the Contract time stated in the Contract and any previously authorized extensions thereof.
2. Extra inspections required for Contractor's correction of defective work.
3. Overtime costs for acceleration of work done for Contractor's convenience.
4. All associated costs including travel.

3-6 THE CONTRACTOR'S REPRESENTATIVE

In respect to work performed under the Contract Subsection 3-6, "The Contractor's Representative," of the Standard Specifications shall be deemed to include the following:

The Contractor's representative shall give to the engineer a daily list of all labor, equipment, and materials used on the project for that day.

The Contractor's authorized representative shall be present at the site of the work at all times while work is actually in progress. Work by subcontractors will not be allowed in the absence of the contractor's authorized representative, unless previous arrangements are agreed to by the Engineer. In the event a subcontractor attempts to perform work in the absence of the contractor's authorized representative, a STOP WORK NOTICE will be issued to the subcontractor.

When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

3-7 CONTRACT DOCUMENTS

3-7.1 General

Add the following:

The Contractor shall maintain a control set of Plans and Specifications on the project site at all times. All final locations determined in the field and any deviations from the Plans and Specifications shall be marked in red on this control set to show the as-built conditions. Upon completion of all work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met.

3-7.2 Precedence of Contract Documents

Add the following:

The Special Provisions shall include the Bid Proposal.

3-8 SUBMITTALS

3-8.1 General

In respect to the work performed under the Contract, under Subsection 3-8.1, "General," of the Standard Specifications shall be deemed revised to include the following:

Within fourteen (14) calendar days after the Award of Contract, the Contractor shall, at his or her expense, transmit by letter to the Engineer for review and acceptance, working drawings, shop drawings, supporting information, and/or other available instructive and descriptive information from the manufacturer, when and as required by the Plans or Special Provisions, or requested by the Engineer. Shop drawings will normally not be required for standard items in common use for which adequate manufacturers' literature is available.

The Contractor shall consecutively number, thoroughly check, approve and sign each submittal and transmit the submittals by letter to the Engineer for review. In the event that certain submittals are submitted without the Contractor's approval signature or are unacceptable to the City, they will be rejected by the Engineer. The Contractor shall thereafter, correct said submittals and resubmit.

In the event that in the process of development of the submittals, it is discovered that there are defects and/or errors on the Plans, resulting in conflict between said Plans and the submittals, or if the submittals show variation from the Plans and/or Contract requirements because of standard shop practice or other reasons, the Contractor shall thoroughly describe and explain said defects and/or conflicts in his or her transmittal letter to the Engineer.

The Engineer's review of the submittals will be for general design and arrangement only and shall not relieve the Contractor from responsibility for errors of any sort in the submittals or of the responsibility for executing the work in accordance with the Contract. The Contractor shall be solely responsible for the correctness of the submittals, for shop fits and field connections, and for the results obtained by use of such submittals. The Contractor shall verify and be fully responsible for all dimensions and job-site conditions affecting the work and shall be responsible for furnishing and installing the proper materials required by the Contract, whether or not

indicated on the submittals when reviewed. The Contractor will not be given an extension of contract time due to the failure of the Contractor to provide submittals as required by the Specifications in a timely manner.

3-10 SURVEYING

3-10.1 General

In respect to work performed under the contract Subsection 3-10.1, "General," of the Standard Specifications shall be deemed revised to read:

The contractor will provide surveying and construction staking required for the construction of this project, consistent with industry standards and as determined by the Engineer.

The Contractor shall establish his own finish elevation control from the offset construction staking. Payment for surveying service and/ or setting additional control shall be considered as included in the price bid for the applicable items of work.

The Contractor shall notify the Engineer, at least 7 days before starting work. The contractor shall preserve all survey monuments, lot stakes (tagged), and benchmarks. The Contractor shall not disturb survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California.

The Contractor shall preserve bench marks, survey monuments, survey stakes and points set for lines, grades or measurements of work in their proper places unless removal is authorized by the Engineer. In case of their impending removal or destruction by his/her operations he/she shall be responsible for notifying the City Engineer prior to their removal. Failure to provide such notification will result in in the Contractor being liable for all costs associated with their replacement. The cost of re-staking due to the negligence of the Contractor will be deducted from the Contractor's progress payment.

3-10.2 Lines and Grade

Add the following:

Unless otherwise specified in the Contract Special Provisions, all lines and grades will be established by the Contractor.

Add the following subsection:

3-10.3 Measurement and Payment

The Contract unit price paid for construction survey and staking shall include full compensation for furnishing all labor, materials, tools, equipment, surveyor, supervision, and incidentals for doing all the work, and no separate or additional compensation will be allowed therefore.

3-12 WORK SITE MAINTENANCE

3-12.1 General

In respect to work performed under the Contract, the second paragraph of Subsection 3-12.1, "General," of the Standard Specifications shall be deemed revised to read as follows:

When and as often as required by the Engineer, the Contractor shall furnish and operate self-loading motorized street sweeper equipped with a functional water spray system, to keep paved areas affected by the work clean and dust free. If the sweeper fails to keep the paved areas clean and dust free then the Contractor shall provide the additional sweepers or stop the work until the paved areas are clean and dust free. The use of water resulting in mud on paved areas will be not permitted.

In respect to work performed under the contract, Subsection 3-12.1, "General", of the Standard Specifications shall be deemed revised to include as follows:

All cleanup costs shall be included in the various related items of work and no additional compensation will be allowed as a result of suspension of work for failure to comply with clean up orders.

3-12.2 Air Pollution Control

Add the following:

The contract item Dust Abatement includes the action necessary to prevent, reduce or control dust within the work area as required completing the work. The Contractor shall carry out proper and efficient measures to prevent his operations from producing dust in amounts damaging to property or causing a nuisance or harm to persons living nearby or occupying buildings in the vicinity of the work.

The Contractor shall implement appropriate fugitive dust control measures including watering, stabilized construction access to reduce tracking of mud or dirt onto public roads, covering trucks hauling loose dirt offsite and street sweeping of track-out. The Contractor can contact SCAQMD for their Rule 403 and Rule 403.1 implementation handbooks which contain a detailed listing of reasonably available dust control measures.

The Contractor shall prepare and implement a dust control plan in accordance with the requirements set forth in the latest version of the SCAQMD Rule 403 and Rule 403.1. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the Engineer prior to starting any work included in this contract. If the Contractor's operations meet the Rule 403 definition of "Large Operations", the dust control plan shall be submitted to SCAQMD for review and approval prior to start of operations.

Construction equipment idling shall not exceed 10 minutes to ensure that the SCAQMD daily thresholds are not exceeded.

The contract lump sum price paid for Dust Abatement shall include full compensation for all direct and indirect costs incurred under this section.

This payment will be made on a basis of the percentage of work completed on the entire project.

3-12.6.4 Dewatering

In respect to work performed under the contract, the second paragraph of Subsection 3-12.6.4, "Dewatering", of the Standard Specifications shall be deemed revised to include as follows:

The Contractor shall maintain drainage within and through the work areas.

3-13 COMPLETION, ACCEPTANCE, AND WARRANTY

3-13.3 Warranty

In respect to work performed under the Contract, add to the first paragraph of Subsection 3-13.3, "Warranty" of the Standard Specifications shall be deemed revised to read as follows:

The Contractor shall warranty that all work performed by him/her under this Contract fully meets the requirements thereof as to quality of workmanship and materials furnished. If any defects in materials or workmanship become evident within a period of one year from the date of the acceptance of the work by the City Council, the Contractor shall, at his or her own expense, make any repair or replacement necessary, including repair of settled backfill and resurfacing, pay administrative costs relative to inspection, testing, Contract administration, and attorney fees to restore the work to full compliance with the Plans and Specifications.

Such repair and replacement shall be made promptly upon receipt of written notice from the Engineer. If the Contractor fails to make such repair and replacement promptly, the Engineer may cause the work to be done and the costs incurred thereby shall become the liability of the Contractor and his or her Surety.

If in the opinion of the Engineer, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operations of the City, the City will attempt to give the notice required by this article. If the Contractor cannot be contacted or does not comply with the Engineer's request for correction within a reasonable time as determined by the Engineer, the City may, notwithstanding the Provisions of this article, proceed to make such correction or provide such attention, and the costs of such correction or attention shall be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees provided in this article or elsewhere in this Contract.

This article does not in any way limit the warranty on any items for which a longer warranty is specified or on any items for which a manufacturer gives a guarantee for a longer period, nor does it limit other remedies of the City in respect to latent defect, fraud implied warranties, or assigned claims.

Warranty does not include items of maintenance with normal ware or items over which the Contractor has no control.

Payment for fulfilling the requirements of this section shall be considered to be included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefore.

3-14 PROJECT IDENTIFICATION SIGNS

Section 3-14, "Project Identification Sign" is hereby added to Section 3, of the Standard Specifications as follows:

The Contractor shall provide and erect project identification signs at the locations noted in the Plans or as otherwise approved by the Engineer. The signs shall be furnished by the Contractor, and shall be labeled as shown in the Appendix. The project identification signs shall be erected five working days prior to the start of work.

The project identification signs shall be 1.22 m x 2.44 m (4' x 8') in size, with two (2) 100 mm x 100 mm x 4.88 m (4" x 4" x 16') posts. The sign posts shall be set 1.5 m (5') in good, solid ground, and the backfill shall be carefully tamped into place.

The Contractor shall revise all misspellings and any other corrections on the sign at no extra cost to the City. If the Contractor is ordered to revise the Mayor's name and council member's name(s) on the sign, after the project identification sign has been approved by the Engineer, a Contract Change Order will be issued in accordance with Subsection 2-7, "Changes Initiated by the Agency," of the Standard Specifications for the cost of changing names.

Upon completion of the project, each project identification sign shall be removed from the project limits and disposed of by the Contractor. The cost of project identification sign removal and disposal shall be considered incidental to the other items of work and no separate or additional payment will be allowed therefore.

The Contract unit price paid for project identification signs shall include full compensation for furnishing all labor, equipment materials and tools required for performing all work necessary to paint, label, assemble, and for erecting project identification signs complete in place, and no separate or additional compensation will be allowed therefore.

3-15 AGENCY PHONE NUMBERS

Subsection 3-15 is hereby added to Section 3 of the Standard Specifications as follows:

The following list of individuals or entities, that may have facilities in the area to be improved hereunder is merely for the Contractor's information and may not be accurate or complete:

Time Warner Communications	951.549.3977
City of Lake Elsinore, Public Works Division	951.674.3124
City of Lake Elsinore, PW Operations Department	951.674.5170
City of Lake Elsinore Police Department	951.275.3300
City of Lake Elsinore Fire Department	951.674.2161
Elsinore Valley Municipal Water District	951.674.3146
Lake Elsinore Unified School District	951.674.7731
Comcast Cable	951.549.3997
Riverside Transit Agency	951.684.0850
SBC (formerly Pacific Bell)	800.750.2355

Southern California Edison Company	951.928.8206
Southern California Gas Company (Distribution)	909.335.7582
Southern California Gas Company (Transmission)	213.244.2268
Trash Collection (CR&R)	800.755.8112
Underground Service Alert	800.227.2600
Verizon	951.929.9493

3-16 SOUTHERN CALIFORNIA EDISON COMPANY TEMPORARY ELECTRICAL SERVICE CONNECTION FOR CONSTRUCTION POWER

Subsection 3-16 is hereby added to Section 3 of the Standard Specifications as follows:

The Contractor shall apply for and pay all charges levied by Southern California Edison Company for rendering temporary electrical service to this project. Charges can be obtained by contacting Southern California Edison Company, 26100 Menifee Road, Romoland, California 92585, Phone 951.928.8288. The foregoing address and telephone numbers are for informational assistance only and may not be accurate or complete.

SECTION 4 – CONTROL OF MATERIALS

4-1 GENERAL

4-1.1 Property Rights in Materials

Subsection 4-1.1 is hereby added to Section 4 of the Standard Specifications as follows:

Nothing in the Contract shall be construed as vesting in the Contractor any right, title or interest in material used in the work after it has been attached or affixed to the work or the soil. All such material shall become the property of the City upon being so attached or affixed.

4-1.2 Foreign Materials.

Subsection 4-1.2 is hereby added to Section 4 of the Standard Specifications as follows:

Materials which are manufactured, produced or fabricated outside of the United States shall be delivered to a distribution point in California, unless otherwise required in these Specifications or the Special Provisions, where they shall be retained for a sufficient period of time to permit inspection, sampling, and testing.

The Contractor shall not be entitled to an extension of time for acts or events occurring outside of the United States and it shall be the Contractor's responsibility to deliver materials obtained from outside of the United States to the point of entry into the continental United States in sufficient time to permit timely delivery to the job site.

The Contractor, at no cost to the City, shall supply the facilities and arrange for any testing required in California, which the City is not equipped to perform. All testing by the Contractor shall be subject to witnessing by the Engineer.

The manufacturer, producer or fabricator of foreign material shall furnish to the Engineer a Certificate of Compliance in accordance with the provisions in Subsection 4-5 "Certificate of Compliance." In addition, certified mill test reports or actual specimen tests clearly identifiable to the lot of material shall be furnished where required in these Specifications or otherwise required by the Engineer.

If the welding of steel for structural steel members or the casting and pre- stressing of precast pre-stressed concrete members is to be performed outside of the United States, the following requirements shall apply:

A. The fabrication shall be performed only within the plants and by fabricators who have previously established, to the satisfaction of the Engineer, that they have the experience, knowledge, trained manpower, quality controls, equipment and other facilities required to produce the quality and quantity of work required. At the option of the Engineer, prequalification of the plant and fabricator will be established either by the submission of detailed written proof thereof or

through in-plant inspection by the Engineer or the Engineer's representative, or both.

B. The Contractor shall make written application to the Engineer for approval for the foreign fabrication at the earliest possible time and in no case later than 50 days in advance of the planned start of fabrication. The application shall list the specific units or portion of a work that will be fabricated outside of the United States.

C. The Contractor shall advise the Engineer, in writing, at least 20 days in advance of the actual start of any of the foreign fabrication.

D. All documents pertaining to the Contractor, including but not limited to, correspondence, Bid documents, working drawings and data shall be written in the English language and all numerical data shall use the International System of Units (SI) for measurement.

4-1.3 State Specification Number

Subsection 4-1.3 is hereby added to Section 4 of the Standard Specifications as follows:

The State Specification number of material furnished on the Contract shall conform to the number specified in these Specifications or the Special Provisions for the material involved, except that material conforming to a later specification issue will be acceptable.

4-2 PROTECTION

In respect to work performed under the contract, Subsection 4-2, "Protection," of the Standard Specifications shall be deemed revised to include the following:

Materials shall not be stored in the right-of-way unless written permission is given by the Engineer.

4-4 TESTING

In respect to work performed under the Contract the third sentence of the first paragraph of Subsection 4-4, "Testing" of the Standard Specifications shall be deemed revised to read as follows:

Unless otherwise called for hereinafter in these Special Provisions, all testing will be performed by the City in such number and at such locations as deemed necessary by the Engineer to insure compliance with the Plans and Specifications; the cost of all initial testing will be borne by the City; the cost of all retesting will be borne by the Contractor, and the amount due the City for said retesting will be deducted from the Contractor's progress payments.

Add the following subsection:

4-4.1 Material Testing

All materials shall first be tested and satisfactorily passed in accordance with the requirements of the plans and these specifications, before incorporating said material in the work. Materials placed otherwise shall be considered defective and will be subject to rejection. The cost of testing of materials and workmanship shall be paid by the City. The cost of re-testing of materials and workmanship shall be at the expense of the contractor. The contractor, at his expense, shall deliver materials for testing to the place and at the time designated by the Engineer.

All fill, sub-base, base, under pavement, curb, gutter, and sidewalk to be completed in place to 95% relative compaction except where specified otherwise. The earthwork and geotechnical related compaction will be tested for compliance by a Registered Soils Engineer contracted and scheduled by the contractor. The test results will be submitted to the City for approval. The contractor will be paid by the City for tests that pass the minimum compaction requirements. Any testing by the Soils Engineer due to failure to achieve minimum compaction will be paid for by the Contractor.

4-5 CERTIFICATE OF COMPLIANCE

In respect to work performed under the contract, Subsection 4-5, "Certificate of Compliance," of the Standard Specifications shall be deemed revised to include the following:

A Certification of Compliance shall be furnished prior to the use of any materials for which these Specifications or the Special Provisions require that a certificate be furnished. In addition, when so authorized in these Specifications or in the Special Provisions, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.

All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Plans and Specifications, and any material not conforming to the requirements will be subject to rejections, whether in place or not.

The City reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

4-6 TRADE NAMES

In respect to work performed under the Contract, Subsection 4-6, "Trade Names" of the Standard Specifications shall be deemed revised to include the following:

The words “or equal” shall be interpreted to mean “or approved as equal in the opinion of the Engineer.”

Within ten (10) working days from the date of the Award of Contract, the Contractor shall, at his/her expense, submit a written request to the Engineer for each desired substitution, accompanied by complete descriptive information from the manufacturer, samples as requested by the Engineer, complete detailed test results from a licensed independent testing laboratory of the City’s choice if requested by the Engineer, and if requested by the Engineer, an evaluation report from a qualified licensed professional engineer, all for final evaluation by the Engineer. If in the Engineer’s opinion, the requested substitution is of lesser quality or in variance with that specified, or if the information submitted is insufficient or incomplete, the requested substitution will be disallowed, and the specified materials or equipment shall be furnished. No request for substitutions submitted after the 10-day deadline specified hereinabove, will be considered.

The City may describe in the “Notice Inviting Bids,” in the Bidder’s Schedule, Specifications, Plans, or Request for Proposals that a particular material, product, thing, or service is designated by specific brand or trade name in accordance with Section 3400 of the Public Contract Code for either of the following purposes: a) In order that a field test or experiment may be made to determine the product’s suitability for future use, b) In order to match other products in use on a particular public improvement, either completed or in the course of completion.

SECTION 5 – LEGAL RELATIONS AND RESPONSIBILITIES

5-4 INSURANCE

Liability Insurance shall be in accordance with Section 9 of the Agreement. In respect to work performed under the Contract, Subsection 5-4, "Insurance," of the Standard Specifications shall be deemed to have been deleted.

SECTION 6 – PROSECUTION AND PROGRESS OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK

In respect to work performed under the Contract of Subsection 6-1, "Construction Schedule and Commencement of Work", of the Standard Specifications shall be deemed revised to include as follows:

The Contractor's representative and the Contractor's principal subcontractors shall attend the City's pre-construction meeting. Other agencies and utilities involved in this project may also have separate pre-construction meetings; the contractor and applicable subcontractors are required to attend the agency/utility meetings.

In respect to work performed under the Contract, the first sentence of the first paragraph of Subsection 6-1, "Construction Schedule and Commencement of Work," of the Standard Specifications shall be deemed revised to read as follows:

The Contractor shall submit a proposed construction schedule (Gant Chart) for the entire work to the Engineer for review and approval five (5) working days prior to the Pre-Construction Meeting and revised schedules thereafter as required by the Engineer when the Contractor's activities differ or are expected to differ from the latest existing schedule. If the Contractor has not submitted a Construction Schedule upon the date to start work in the Notice to Proceed, the Contractor will not be allowed to start work and will not be granted additional time. The Contractor shall refer to the PROJECT SPECIFIC SCOPE OF WORK section in the Technical Provisions for any required or preferred sequence of work.

In respect to work performed under the Contract, the second paragraph of Subsection 6-1, "Construction Schedule and Commencement of Work," of the Standard Specifications shall be deemed to have been deleted.

6-2 PROSECUTION OF WORK

The following sentence is hereby added to Section 6-2:

The Contractor shall provide the following:

1. The Contractor must place concrete within 3 working days after the removal of existing concrete. Asphalt Concrete pavement replacement at driveways shall be installed within 3 calendar days of pouring concrete.

2. AC pavement replacement shall be installed the same day as removals are performed.

3. The Contractor shall clean up all rubble/debris piles daily.

4. The Contractor shall not commence any cold milling operation unless the traffic signal camera is in full operation and shall not be performed more than 3 calendar days ahead of paving.

5. Permanent striping shall be performed within 72 hours of paving on all streets.

6. Manhole frames and covers to be raised shall be raised and patched with within 3 calendar days of final day of overlay paving.

FAILURE OF THE CONTRACTOR TO COMPLY WITH THE AFOREMENTIONED WORK SCHEDULING REQUIREMENTS, (1)-(6), DUE TO CONDITIONS UNDER HIS CONTROL WILL RESULT IN DAMAGES BEING SUSTAINED BY THE AGENCY. SUCH DAMAGES ARE, AND WILL CONTINUE TO BE, IMPRACTICAL AND EXTREMELY DIFFICULT TO DETERMINE. FOR EACH DAY THE CONTRACTOR FAILS TO CONFORM TO THESE REQUIREMENTS, THE CONTRACTOR SHALL PAY TO THE AGENCY, OR HAVE WITHHELD MONIES DUE TO HIM THE SUM OF FIVE HUNDRED DOLLARS ($500.00), AS LIQUIDATED DAMAGES FOR EACH CALENDAR DAY.

All costs to the Contractor for protecting, removing, restoring, relocating, repairing, replacing, or reestablishing existing improvements shall be included in the bid.

The Contractor shall protect all work, materials, and equipment from damage from any cause whatever, and shall provide adequate and proper storage facilities during the progress of the work. He or she shall provide for the safety and good condition of all work until final acceptance of the work by the City, and shall replace all damaged or defective work, materials, and equipment before requesting final acceptance.

The Contractor is and shall be held responsible for the protection and correction of the work of all trades from smears, splashes, stains, or damages that might occur in the process of the work.

The Contractor shall constantly monitor the worksite and all equipment and appurtenances associated with the project for vandalism/graffiti. Equipment, materials, or signs containing graffiti shall not be brought to the project. Any vandalism/graffiti found within the project limits or worksite by the Contractor or the City shall be removed or repaired by the Contractor within 24 hours. Failure to correct the situation to the satisfaction of the City within 24 hours will result in the Agency taking corrective action and deducting the cost from any monies due to the Contractor.

Prior to final acceptance of the project the Contractor shall remove all markings including, but not limited to, USA markings from the project area to the satisfaction of the City Engineer.

Full compensation for furnishing all labor, equipment, materials, and tools required for protection of work, including but not limited to graffiti removal, vandalism repair and/or USA marking removal, as ordered by the Engineer, shall be considered as being included in the various Contract items of work and no separate or additional compensation will be allowed therefore.

6-3 TIME OF COMPLETION

6-3.2 Contract Time Accounting

In respect to work performed under the Contract, Subsection 6-3.2, of the Standard Specifications shall be deemed to include the following:

The Contract time, commencement of work, and completion of work, including corrective items of work, shall be in accordance with Section 3 of the Agreement.

Extensions of time, when granted by the Engineer, will be in working days and will otherwise be in accordance with the Standard Specifications and given in writing by Contract Change Order.

6-3.3 Holidays

Subsection 6-3.3 is hereby added to Section 6 of the Standard Specifications as follows:

The following days have been designated as holidays by the City of Lake Elsinore:

New Year's Day	January 1
Martin Luther King, Jr. Day	3rd Monday in January
President's Day	3rd Monday in February
Memorial Day	Last Monday in May
Juneteenth	June 19
Independence Day	July 4
Labor Day	1st Monday in September
Veterans' Day	November 11
Thanksgiving	4th Thursday in November
Day after Thanksgiving	4th Friday in November
Christmas Day	December 25

If a holiday falls upon a Sunday, the following Monday shall be the day the holiday is observed, and if a holiday falls upon a Saturday, the preceding Friday shall be the day the holiday is observed.

6-3.4 Work Outside Regular Hours

Subsection 6-3.4 is hereby added to Section 6 of the Standard Specifications as follows:

No work shall be allowed outside of regular working hours (in general unless specified, 7:00 a.m. to 3:30 p.m., on weekdays), without the approval of the Engineer, except work items relating to maintenance and cleanup of the work area for the purpose of public safety and convenience. The Contractor shall not fuel, grease, or perform work on the equipment or trucks between the hours of 7:00 p.m. to 6:00 a.m., Monday through Friday, and at no time on Saturday, Sunday or holidays.

Should work outside of the above hours be approved, inspection, testing and construction engineering costs as a result of the work outside of regular working hours shall be paid by the Contractor at the hourly rate, including fringe benefits, at straight time or time and one-half rates as applicable, or if consultant inspection service is retained by the City, then the Contractor will reimburse the City for the actual cost. Under no circumstances will work outside regular hours be allowed without full-time inspection.

6-4 DELAYS AND EXTENSIONS OF TIME

In respect to work performed under the contract, Subsection 6-4, "Delays and Extensions of Time,"

of the Standard Specifications shall be deemed revised to include the following:

In accordance with Section 4215, of the California Government Code, if such utilities have not been identified with reasonable accuracy in the Contract documents, the Contractor shall be compensated for the cost of protecting, removing, relocating, and repairing damage to main or trunk line utility facilities located on the job site, where not due to the failure of the Contractor to exercise reasonable care; and for the operating costs for equipment on the project necessarily idled during such work.

6-4.1 General

In respect to work performed under the Contract, add to the first paragraph of Subsection 6-4.1, "General" of the Standard Specifications shall be deemed revised to read as follows:

Work will not be allowed on days predicted by the South Coast Air Quality Management District (SAQMD) to be "Stage III" smog episode days. Notification will be given to the Contractor's representative by the Engineer no later than 3:00 p.m. on the day preceding the predicted "Stage III" episode day. The Contractor will be entitled to an extension of time for such delays, but the Contractor will not be entitled to damages or additional payment due to such delays.

Work required to maintain the project site in a safe condition (including but not limited to maintenance of traffic control), shall be allowed on all days.

6-4.2 Extension of Time

Add the following:

If the Contractor is delayed in completing the work by reasons of any change ordered by the City, the time for completion of work will be extended for a period equal to the number of days by which the entire project has been delayed because of such change. The Contractor will not be liable for liquidated damages for such period of time and shall have no claim for any other compensation for any such delay except as provided herein.

6-6 SUSPENSION OF THE WORK

6-6.2 Archaeological and Paleontological Discoveries

In respect to work performed under the contract Subsection 6-6.2 "Archaeological and Paleontological Discoveries," of the Standard Specifications shall be deemed to include:

During construction, if subsurface archaeological resources are encountered, they shall be left in place and a qualified archaeologist shall be called in to examine the findings. Work shall not resume, where discovery was made, until the archaeologist has reviewed the findings, made recommendations for their removal or preservation, and has a reasonable opportunity to carry out the necessary mitigation procedures.

An extension of time will be granted only where the Contractor shows that there is no possible way to

proceed with other work items.

6-9 LIQUIDATED DAMAGES

In respect to work performed under the Contract, the last sentence of the first paragraph of Subsection 6-9, "Liquidated Damages" of the Standard Specifications shall be deemed revised to read as follows:

Liquidated damages shall be in the amount as specified in the Agreement and shall be for each consecutive calendar day in excess of the time allowed under this Contract for the completion of the work, including corrective items of work as adjusted by the Contract Change Order. The amount of the liquidated damages shall be deducted from payments due the Contractor.

In respect to work performed under the Contract, the following paragraph is added after the last paragraph of Subsection 6-9, "Liquidated Damages" of the Standard Specifications:

The Contractor will not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the City or the Owner of a utility to provide for removal or relocation of an existing unknown utility facility.

SECTION 7 – MEASUREMENT AND PAYMENT

7-3 PAYMENT

7-3.1 General

In respect to work performed under the Contract, the ninth paragraph of Subsection 7-3.1, "General," of the Standard Specifications, shall be deemed revised to include the following:

In the event that one or more Stop Notices are filed with the City, an amount equal to 125% of the total of the amount(s) called for therein will be retained by the City until the demand(s) have been satisfied in accordance with applicable laws.

7-3.2 Partial and Final Payment

In respect to work performed under the Contract, the first, second and third paragraphs of Subsection 7-3.2, "Partial and Final Payment," of the Standard Specifications shall be deemed revised to read as follows:

Except as otherwise provided for under Subsection 7-2, "Lump Sum Work," hereinabove for L.S. items, the Contractor will be entitled to no more than one progress payment per month. Thirty days prior and prerequisite to each progress payment, the Contractor shall submit to the Engineer a detailed estimate and invoice of the total quantity and value of work completed since the cut-off date for the previous progress payment. The Engineer will make the final determination as to the actual quantity and value of work completed for which payment will be made. Five percent (5%) of the value will be deducted from each progress payment and retained by the City until later released as specified hereinafter.

Before he or she shall be entitled to final payment of the retention withheld from the progress payments, the Contractor shall execute and file with the City a conditional or unconditional waiver and release, upon a form which complies with Section 3262, of the Civil Code, and which is acceptable to the City, releasing the City from all claims or liability relating to undisputed Contract amounts for work performed in relation to said amount. If pursuant to a conditional release, such release shall contain or have attached a list of all Contract amounts as to which a dispute exists.

The Contractor will be permitted the substitution of securities for any monies withheld by a public agency to ensure performance under the Contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a state or federally chartered bank as the escrow agent, who shall pay such monies to the Contractor upon satisfactory completion of the Contract. Securities eligible for investment shall include those listed in Section 16430 of the Government Code or bank or savings and loan certificates of deposit. The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any dividend interest thereon. Such substitutions shall be conducted in accordance with Section 22300, of the Public Contract Code.

The final payment of the five percent (5%) retention withheld from the progress payments shall not be due and payable until the expiration of at least 35 calendar days from the date of recording of the "Notice of Completion" with the County Recorder.

In respect to work performed under the Contract, the fourth paragraph of Subsection 7-3.2, "Partial and Final Payment," of the Standard Specifications, shall be deemed revised to include the following:

The amount of liquidated damages will be deducted from earned progress payments due the Contractor.

7-3.3 Delivered Materials

Subsection 7-3.3, "Delivered Materials," of the Standard Specifications shall be deemed revised to read as follows:

Unless included in the Bid Schedule, or unless otherwise called for in these General Provisions, no payment will be made for materials or equipment delivered but not yet incorporated in the work.

7-3.4 Mobilization

In respect to work performed under the Contract, Subsection 7-3.4, "Mobilization," of the Standard Specifications shall be deemed revised to read as follows:

Mobilization shall consist of preparatory work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings, construction yards, sanitary facilities, and any other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site, as well as the related demobilization costs anticipated at the completion of the project. The cost of all bonds and insurance policies, including premiums and incidentals, shall be included in Mobilization.

No additional compensation will be allowed for additional mobilizations required, including but not limited to, delays caused by the relocation of existing utility facilities shown on the plans or discovered during construction operations.

The amount credited for Mobilization on each monthly progress payment shall be based upon the percentage of the total of the amounts credited for work on all the other contract items for that monthly progress payment, up to a cumulative limit of eighty (80) percent of the contract item price for Mobilization. The remaining twenty (20) percent of the contract item price for Mobilization shall be paid with the final progress payment.

The deletion of work or the addition of extra work as provided for herein shall not affect the price paid for Mobilization.

The contract lump sum price paid for mobilization shall include full compensation for furnishing all

labor, materials, tool, equipment, the cost of all bonds and insurance policies, and incidentals, and for doing the work involved in mobilization as specified herein.

7-3.5.2 Increases of More Than 25 Percent

In respect to the work performed under the contract, the first paragraph of Subsection 7-3.5.2 "Increases of More than 25 Percent" of the Standard Specifications shall be deemed revised to read as follows:

Should the actual quantity of a major item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications, exceed the Bid quantity by more than 25 percent, a Contract Change Order will be issued and payment for the quantity in excess of 125 percent of the Bid quantity will be made on the basis of the extension of contract with price adjustment in the Contract Unit Price mutually agreed to by the Contractor and the Agency, Subsection 7-3.7 "Agreed Prices", of the Standard Specifications or at the option of the Engineer, on the basis of Subsection 2-8 "Extra Work" of the Standard Specifications.

The Contractor will be paid at the contract unit price for minor bid items regardless of if there is an increase in excess of twenty-five percent (25%) in the quantity listed in the bid.

7-3.5.3 Decreases of More Than 25 Percent

In respect to the work performed under the contract, the first paragraph of Subsection 7-3.5.3 "Decrease of More than 25 Percent", of the Standard Specifications shall be deemed revised to read as following:

Should the actual quantity of a major item of work covered by a Contract Unit Price, and constructed in conformance with the Plans and Specifications, be less than 75 percent of the Bid quantity, and adjustment in payment will not be made unless so requested in writing by the Contractor. If the Contractor so requests, a Contract Change Order will be issued and payment will be made on the basis of an adjustment in the Contract Unit Price mutually agreed to by the Contractor and the Agency, or at the option of the Engineer, on the basis of Subsection 2-8 "Extra Work" of the Standard Specifications; however, in no case will payment be less than would be made for the actual quantity at the Contract Unit Price.

The Contractor will be paid at the Contract Unit Price for minor bid items regardless of if there is a decrease in excess of twenty-five (25%) percent in the quantity listed in the bid.

7-4 PAYMENT FOR EXTRA WORK

7-4.2 Basis for Establishing Costs

7-4.2.1 Labor

In respect to work performed under the Contract, the first paragraph of Subsection 7-4.2.1, "Labor" of the Standard Specifications shall be deemed revised to read as follows:

The costs of labor will be the actual cost for wages prevailing locally for each crafter type of worker (including foreman when authorized by the Engineer) performing the extra work at the time the extra work is done, plus, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs, as well as assessments or benefits required by lawful collective bargaining agreements.

To the actual wages, as defined above, will be added a labor surcharge set forth in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates," which is in effect on the date upon which the work is accomplished, and which is part of the contract. The labor surcharge shall constitute full compensation for all payments imposed by state and federal laws and for all other payments made to, or on behalf of the workers, other than actual wages, subsistence and travel paid to the workers. Labor surcharge includes Workers' Compensation Insurance, Social Security, Medicare, Federal Unemployment, State Unemployment and State Training Taxes.

7-4.2.2 Materials

In respect to the work performed under the contract, Subsection 7-4.2.2 "Materials," of the Standard Specifications shall be deemed revised to include the following:

If the Contractor does not furnish satisfactory evidence of the cost of the materials from the actual supplier thereof within a specified time period after the date of delivery of material, the Engineer reserves the right to establish the cost of the materials at the lowest current wholesale prices at which the materials were available, in the quantities concerned, delivered to the location of the work, less any discounts.

7-4.2.3 Tool and Equipment Rental

In respect to work performed under the Contract, the first paragraph of Subsection 7-4.2.3, "Tool and Equipment Rental," of the Standard Specifications shall be deemed revised to read as follows:

Individual pieces of equipment or tools not listed in the Equipment Rental Rates and having a replacement value of $200 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.

The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Department of Transportation publication entitled, "Labor Surcharge and Equipment Rental Rates," which is in effect on the date upon which the work is accomplished.

Move in and out, or minimum charges other than the hourly rate, shall not apply to equipment available from the force already on the job site.

Equipment which is rented from a local equipment agency, other than Contractor owned, the Contractor will be paid at the hourly rate shown on the rental agency invoice or agreement for the time used on extra work. If a minimum equipment rental amount is required by the local equipment rental agency, the actual amount charged will be paid to the Contractor.

If it is deemed necessary by the Engineer to use equipment not listed in the Labor Surcharge and Equipment Rental Rates publication, a suitable rental rate for that equipment will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of the rental rate. If the rental rate established by the Engineer is $10.00 per hour or less, the provisions above concerning rental of equipment from a local equipment agency shall apply.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

When owner operated equipment is used to perform extra work to be paid for on a force account basis, the Contractor will be paid for the equipment and operator as follows:

Payment for the equipment will be made at the rental rates listed for such equipment in the Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates," which is in effect on the date upon which the work is accomplished.

Payment for the cost of labor will be made in conformance with the provisions in Subsection 7-4.2.1 "Labor" of the Standard Specifications as revised.

7-4.3 Markup

In respect to work performed under the Contract Subsection 7-4.3 (.1 & .2), "Markup," of the Standard Specifications, shall be deemed revised to read as follows:

The markup for overhead and profit on work added to the Contract shall be according to the following schedule:

1. For work performed by the Contractor's force, the added cost for overhead and profit shall be thirty-three percent (33%) to the cost of labor, fifteen percent.

   (15%) to the cost of materials, and fifteen percent (15%) to the cost of equipment rentals.

2. For work performed by a subcontractor, the added cost for overhead and profit shall be thirty-three percent (33%) to the cost of labor, fifteen percent (15%) to the cost of materials, and fifteen percent (15%) to the cost of equipment rentals, to which the Contractor may add five percent (5%) of the subcontractor's price of the work. The additional five percent (5%) mark-up shall reimburse the Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

3. For work performed by a sub-subcontractor, the added cost for overhead and profit shall be thirty-three percent (33%) to the cost of labor, fifteen percent (15%) to the cost of materials, and fifteen percent (15%) to the cost of equipment rentals, to which subcontractor and general Contractor may add an additional five percent (5%) each of the total price from

the lower tier subcontractor. The additional five percent (5%) mark-up shall reimburse the subcontractor and general Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

4. For work performed by special force or other special services, the Engineer and the Contractor, by agreement, will determine that a special service or an item of extra work cannot be performed by the forces of the Contractor or those of any of his subcontractors, such service or extra work item may be performed by a specialist. Invoices for such service or item of extra work on the basis of the current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization.

   In those instances wherein a Contractor is required to perform extra work necessitating a fabrication or matching process in a fabrication or machine shop facilities away from the job site, the charges for that portion of the extra work performed in such facility may, by Agreement between the Contractor and Engineer, be accepted as a specialist billing.

   To the specialist invoice price, less a credit to the City for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added fifteen percent (15%) for overhead and profit in lieu of the percentages provided above.

5. The cost of direct supervision, except when provided by working foremen whose time is included above, of Contract Change Order work when done exclusively and not in conjunction or at the same time of other work performed on the job and when approved in advance by the Engineer including only payroll taxes, insurance, pension and direct costs for the labor of supervision, may be charged to the Contract Change Order. The cost of transportation, use of vehicle, and other costs incurred by supervision will not be allowed.

6. For added or deducted work by subcontractors, the Contractor shall furnish to the Engineer, with the subcontractor's signed detailed estimate of the cost for labor, materials, and equipment, including the markup by such subcontractor for overhead and profit. The same requirement shall apply to subcontractors.

7. For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the Engineer a detailed estimate or quotation of the cost to the Contractor for such work, signed by such vendor or supplier.

8. Any change in the work involving both extras and credits shall show a net total cost, including subcontracts. Allowances for overhead and profit, as specified herein, shall be applied if the net total cost is an extra. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.

7-4.4 Daily Reports

In respect to work performed under the Contract, Subsection 7-4.4, "Daily Reports," of the Standard Specifications shall be deemed to include the following:

Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily extra work reports, or if not available, they shall be submitted with subsequent daily extra work reports. The Contractor shall maintain Contractor's records in such a manner as to provide a clear account basis and the costs of other operations.

Daily extra reports shall be made on City daily work report forms. The daily extra reports shall describe in detail the work that was performed, location (station, etc.). Separate daily extra reports shall be submitted for work that is being performed for more than one location or for different tasks that occur on the same day.

The Engineer will compare the Inspector's records with the completed daily extra work reports furnished by the Contractor and make any necessary adjustments. When these daily extra work reports are agreed upon and signed by both parties, said reports shall become the basis of payment for the work performed.

SPECIAL PROVISIONS

AMENDMENTS TO THE "GREENBOOK"
STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

PART 2 CONSTRUCTION MATERIALS

The following SECTIONS supplement the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, ("Greenbook"), 2021 edition, regional supplements, and all current supplements, and supersede any conflicting requirements, (A "conflicting requirement" is one that cannot operate by law within the Special Provisions listed herein or both cannot be physically produced). Otherwise, these Special Provisions only supplement the Standard Specifications. If any of the sections or part of sections below contradict or are not in conformance with current California Codes and Regulations at the time of bidding, the Contractor will assume that the current California Codes and Regulations supersedes that item in these specifications. *When there are two or more specifications for the same item or work the contractor shall bid the more expensive item or work specified unless the one specified item specifically states that it shall take precedent over other specified items for the same work.*

SECTION 200 ROCK MATERIALS

200-2 UNTREATED BASE MATERIALS

200-2.1 General

Add the following:

Aggregate base shall be either crushed miscellaneous base pursuant to Section 200-2.4, or recycled Class 2 Aggregate Base per Caltrans Standard Specification, Section 26: Aggregate Bases, Section 26-1.02B, Class 2 Aggregate Base, latest edition, and as specified herein.

Add the following section:

200-2.9 Class 2 Aggregate Base

Aggregate for recycled Class 2 aggregate base shall be free from organic matter and other deleterious substances and shall be of such nature that it can be compacted readily under watering and rolling to form a firm, stable base. Aggregate may be composed of a combination of the following:

1. 100% reclaimed asphalt concrete, Portland cement concrete, lean concrete base, or cement treated base
2. Broken stone
3. Crushed gravel
4. Natural rough surface gravel
5. Sand

The aggregate shall conform to the grading and quality requirements shown in the following tables. At the option of the Contractor, the grading for either the 11/2-inch maximum or 3/4

inch maximum shall be used, except that once a grading is selected it shall not be changed without the Engineer's written approval.

AGGREGATE GRADING REQUIREMENTS

PERCENTAGE PASSING

	1 ½" Maximum	*¾" Maximum*
Sieve Sizes	*Operating Range*	*Operating Range*
2".....	100	—
1 ½".....	90-100	—
1".....	—	100
¾ ".....	50-85	90-100
No. 4.....	25-45	35-60
No. 30.....	10-25	10-30
No. 200.....	2-9	2-9

QUALITY REQUIREMENTS

Property	*California Test*	*Operating Range*
Resistance (R-value)	301.	78 Min.
Sand Equivalent	217	25 Min.
Durability Index	229	35 Min.

The aggregate shall not be treated with lime, cement or other chemical material before the Durability Index test is performed.

If the results of either or both the aggregate grading and Sand Equivalent tests do not meet the requirements specified for "Operating Range" but meet the "Contract Compliance" requirements, placement of the aggregate base may be continued for the remainder of that day. However, another day's work may not be started until tests, or other information, indicate to the satisfaction of the Engineer that the next material to be used in the work will comply with the requirements specified for "Operating Range."

If the results of either or both the aggregate grading and Sand Equivalent tests do not meet the requirements specified for "Contract Compliance," the aggregate base which is represented by these tests shall be removed. However, if requested by the Contractor and approved by the Engineer, the aggregate base may remain in place and the Contractor shall pay to the City $2.25 per ton for such aggregate base left in place. The City may deduct this amount from anymoneys due, or that may become due, the Contractor under the contract. If both the aggregate grading and Sand Equivalent do not conform to the "Contract Compliance" requirements, only one adjustment shall apply.

No single aggregate grading or Sand Equivalent test shall represent more than 500 tons or one day's production, whichever is smaller.

SECTION 201 CONCRETE, MORTAR, AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE

201-1.1 General

Add the following:

The Contractor shall furnish the engineer in the field with a copy of the mix design to be used, and with a legible certified weighmasters certificate for each load of PCC delivered to the project. PCC delivered to the project site having a water content and/or slump greater than that specified in the mix design shall be rejected and removed from the project site.

201-3 EXPANSION JOINT FILLER AND JOINT SEALANTS

201-3.4 Type "A" Sealant (Two-Part Polyurethane Sealant)

Add the following:

All finished concrete surfaces shall have a ½" continuous expansion joint at locations indicated on the plans and notes and shall be located either parallel or perpendicular to the curb line. When not otherwise indicated, all expansion joints located adjacent to colored concrete shall be sealant Type "A" and colored to match the color of the concrete surface.

Contractor shall provide joint sealants that have been produced and installed to establish and to maintain watertight and airtight continuous seals without causing staining or deterioration of joint substrates.

The contractor shall submit product data from the manufacturer of each joint sealant product required, including instructions for joint preparation and joint sealer application. Contractor shall also submit samples for initial selection purposes in form of manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view. Samples shall be submitted to the Engineer. Submit complete schedule of type (and location where type is to be used) of each sealant.

The contractor shall engage an experienced installer who has completed joint sealant applications similar in material, design and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.

Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturers based on testing and field experience.
Provide color selections made by Engineer from manufacturer's full range of standard colors for products of type indicated. Sealant color parallel to curb line shall match color of Paving Treatment Type "A" as specified in Section 201-1.2.4(a) of these Special Provisions.

Joint sealants shall be multi-component polyurethane sealant. Except as otherwise indicated, provide manufacturer's standard, non-modified, 2-or-more-part, polyurethane-based, elastomeric sealant; complying with either ASTM-C-920-87, Type M, Grade P, Class 25, or FS TT-S 0227E Class A, non-sag, Type II.

Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

Plastic foam joint fillers shall be performed, compressible, resilient, non-staining, non-waxing, non-extruding strips of flexible plastic foam either open-cell polyurethane foam or closed-cell polyethylene foam, subject to approval of sealant manufacturer, for cold-applied sealants only. Polystyrene foam is not acceptable.

SECTION 203 BITUMINOUS MATERIALS

203-1 PAVING ASPHALT

203-1 GENERAL

Add the following:

Paving Asphalt shall be PG 64-10

203-3 EMULSIFIED ASPHALT

Add the following sub section:

203-3.4.7 Polymer Modified Rejuvenating Emulsion (PMRE) for chip and scrub seals

At least 14 days prior to use, the Contractor shall submit certifications from the manufacturers of the recycling agent and polymer identifying the types of agents and polymer used. The Contractor shall submit test results on the polymer supplied by the supplier of the polymer and shall submit certifications from the emulsion supplier that the emulsion meets the specification. The engineer may request these specifications weekly during the project.

The asphalt emulsion shall be a quick break Polymer Modified Rejuvenating Emulsion with a latex polymer, a rejuvenating agent and asphalt and shall meet the following specifications.

Test on Emulsion	**Method**	**Specification**
Viscosity @122° F (SFS)	ASTM D244	50 - 400
Residue, w%, minimum.	ASTM D244	65
pH	ASTM E70	2.0 - 5.0
Sieve, w%, max.	ASTM D244	0.1
Oil distillate, w%, max.	ASTM D244	0.5
Test on Residue[1]		
Viscosity @ 140° F, (P), maximum.	ASTM D2171	5000
Penetration @ 39.2°F, minimum.	ASTM D5	40-65
Elastic Recovery on residue by distillation, %, minimum. [3]	AASHTO T59, T301 [1,2]	60
OR		
Modified Torsional Recovery, % minimum. [3]	California Test 332 [4]	45
Test on Latex [5]		
Tensile Strength, die C dumbbell, psi, minimum	ASTM D412	500
Swelling in rejuvenating agent, % maximum; 48 hours exposure @ 104° F	ASTM D471[6] Modified	40% intact film

Test on Rejuvenating Agent:		
Viscosity, 104° F, CST	ASTM D2170	50-175
Flash point, COC , °F	ASTM D92	> 380
Saturate, %, by wt.	ASTM D2007	30 Max.
Asphaltness	ASTM D2007	1.0 Max.
Test on Rejuvenating Agent Residue:		
Weight Change, %	ASTM D2872	6.5 Max.
Viscosity Ration	ASTM D2170	3 Max.

(1) Exception to AASHTO T59: Bring the temperature on the lower thermometer slowly to 350° F plus or minus 10° F. Maintain at this temperature for 20 minutes. Complete total distillation in 60 plus or minus 5 minutes from first application of heat.

(2) Elastic Recovery @ 10° C (50° F): Hour glass sides, pull 20 cm, hold 5 minutes then cut, let sit 1 hour.

(3) Choose either Elastic Recovery or Torsional Recovery as a test.

(4) Torsional Recovery shall include the first 30 seconds.

(5) Latex films shall be cured at 75° F and 50% relative humidity for 14 days prior to cutting or molding specimens. Suitable substrate for film formation shall be polyethylene boards, silicone rubber sheeting, glass, or any substrate which produces a cured film of uniform cross-section.

(6) Report mass increase as a percent by weight of the original latex film mass upon exposure of films to "Rejuvenating Agent"

Asphalt rejuvenating agent furnished without a Certificate of Compliance shall not be used in the work until the Engineer has approved the asphalt rejuvenating agent for use. The Engineer shall have 10 days to approve the asphalt rejuvenating agent for use. If, in the opinion of the Engineer, the Contractor's controlling operation is delayed to interfered with by reason of the Engineer not completing the evaluation of the asphalt rejuvenating agent within the time specified, the delay will be considered as the Contractors inability to perform the work and no extension of time shall be granted in accordance with section 6-6 Delays and Extension of Time of the Special Provisions.

The Contractor shall submit a contingency plan to the Engineer at least 10 days prior to applying the asphalt rejuvenating agent. The contingency plan shall describe in detail the corrective actions the Contractor will take if the coefficient of friction is less than 0.30 or if the asphalt rejuvenating agent does not break within the times specified for lane closures. The plan shall include any additional traffic handling, additional materials on hand, or additional equipment kept available for contingency situations. The engineer must approve the use of a corrective action before it is implemented.

203-4 MICROSURFACING

Replace entire section with the following:

203-4.1 Asphalt Emulsion

Asphalt emulsion shall conform to 203-3.4.6 of the Standard Specifications.

203-4.2 Water and Additives

Water shall be potable and of such quality that the asphalt will not separate from the emulsion before the micro surfacing is in place on the pavement. If necessary for workability, a set-control agent that will not adversely affect the micro surfacing may be used.

203-4.3 Mineral Filler

Mineral filler shall be any recognized brand of non-air entrained Portland cement or hydrated lime that is free of lumps. The type and amount of mineral filler needed shall be determined by the laboratory mix design and will be considered as part of the mineral gradation requirement. An increase or decrease of less than one percent may be permitted when the micro surfacing is being placed if it is found to be necessary for better consistency or set times.

203-4.4 Aggregate

The mineral aggregate used shall be of the type and grade specified for the particular use of the micro surfacing. The aggregate shall be manufactured crushed stone such as granite, slag, limestone, or other high-quality aggregate, or combination thereof. The material shall be free from vegetable matter and other deleterious substances. All aggregate shall be free of caked lumps and oversize particles.

The aggregate, prior to the addition of emulsion shall conform to the requirements of this section. If aggregates are blended each component aggregate shall meet the sand equivalency and abrasion resistance and shall be 100% crushed as tested in accordance with California Test 205. The definition of a crushed particle in California Test 205 Section D, is amended to read: "Any particle having 2 or more fresh mechanically fractured faces shall be considered a crushed particle."

The percentage composition by mass of the aggregate shall meet the following grading requirements when tested in conformance with California Test 202:

Sieve Size	**Percentage Passing**	
	Type II	Type III
3/8"	100	100
No. 4	94 - 100	70 - 90
No. 8	65 - 90	45 - 70

No. 16	40 - 70	28 – 50
No. 30	25 - 50	19 – 34
No. 200	5 - 15	5 – 15

Aggregate excluding mineral filler shall conform to the following additional quality requirements:

Test	**Method**	**Requirement**
Sand Equivalent	California Test 217	65 minimum
Durability Index	California Test 229	65 minimum
Percentage of crushed particles.*	California Test 205	95% minimum
Los Angeles Rattler Loss at 500 revolutions**	California test 211	35% maximum

* Crushed particles must have at least 1 fractured face.
**California Test 211 must be performed on the parent aggregate before crushing.

203-4.5 Mix Design

At least 7 working days before micro surfacing placement commences, the Contractor shall submit to the Engineer for approval a laboratory report of tests and a proposed mix design covering the specific materials to be used on the project.

The tests and mix design shall be performed by a laboratory capable of performing the applicable International Slurry Surfacing Association (ISSA) tests. The proposed micro surfacing mixture shall conform to the requirements specified when tested in accordance with the following tests:

Test	**ISSA Test**	**Requirement**
Wet Cohesion	TB* 139 @ 30 min. (set)	12 kg-cm minimum

	@ 60 min. (traffic)	20 kg-cm minimum (or near spin)
Excess Asphalt	TB 109	540 g/m[JF1] 2 maximum
Wet Stripping	TB 114	Pass (90% minimum)
Wet Track Abrasion	TB 100 Six day soak	810 g/m2 max loss
Displacement	TB 147A	
	Lateral	5% max
	Specific Gravity after 1000 cycles of 56.8 kg	2.10
Classification Compatibility	TB 144**	(AAA,BAA) 11 grade points minimum
Mix Time @ 25°C	TB 113	Controllable to 120 seconds minimum

* TB = Technical Bulletin

The original laboratory report shall be signed by the laboratory that performed the tests and mix design and shall show the results of the test on individual materials, comparing their values to those required by the specifications. The report shall clearly show the proportions of aggregate, filler, water (minimum and maximum), set control additive, and asphalt solids content (minimum and maximum) based on the dry mass of aggregate. The laboratory shall also report the quantitative effects of moisture content on the unit mass of the aggregate (bulking effect). Previous laboratory reports covering the same materials may be accepted provided they are made within the previous 12 months. The mix design will further show recommended changes in cement, water and additive proportions for high temperature weather conditions by reporting proportions of materials required for 60 seconds of mix time with materials heated to 38°C. This 38°C mixing report will not be required for projects requiring nighttime application or application in cool weather conditions.

All the component materials used in the mix design shall be representative of the materials proposed by the contractor to be used on the project.

Once the proportions of materials to be used are approved by the Engineer, no substitution of other materials will be permitted unless the materials proposed for substitution are first tested and a laboratory report is submitted for the substituted design as specified above. Substituted materials shall not be used until the mix design for those materials is approved by the Engineer.

203-4.6 Proportioning

Aggregate, mineral filler, asphalt emulsion, water, and additives, including set-control agent if used, shall be proportioned by volume utilizing the mix design approved by the Engineer. If more than one kind of aggregate is used, the correct amount of each kind of aggregate to produce the required grading shall be proportioned separately, prior to adding the other materials of the mixture, in a manner that will result in a uniform and homogeneous aggregate blend.

The percentages of each individual material required shall be shown in the laboratory report. Adjustments may be required during the construction, based on field conditions. The component materials shall be within the following limits:

Residual Asphalt	5.5% to 10.5% by dry weight of aggregate
Mineral Filler	0% to 3% by dry weight of aggregate
Additive	As needed
Water	As required to produce proper mix consistency

The completed mixture, after addition of water and any set-control agent, shall be such that the micro surfacing mixture has proper workability and (a) will permit a traffic flow without pilot-car- assisted traffic control on the micro surfacing within one hour after placement, and (b) will prevent development of bleeding, raveling, separation or other distress within 15 days after placing the micro surfacing. However, when ambient temperatures are below 25°C traffic may not be permitted on the micro surfacing until it has sufficiently cured. The time for sufficient curing shall be mutually agreed upon between the contractor and the Engineer.

203-6 ASPHALT CONCRETE

203-6.1 General

Delete the first two paragraphs and replace with the following:

Asphalt concrete shall be the product of mixing mineral asphalt with asphalt binder at a central mixing plant. Reclaimed Asphalt Pavement (RAP) shall be included in the mix per the specifications below:

Base course Asphalt shall contain a maximum of 10 percent RAP. There shall be no RAP in the final asphalt cap (1 1-/2" min).

203-6.2 Materials

Add the following:

Asphalt material shall conform to Section 39 "Asphalt Concrete," of the Caltrans Standard Specifications 2022 edition. The amount of asphalt binder to be mixed with the aggregate shall be proposed by the Contractor for approval by the Engineer. The Contractor shall submit its mix designs for the asphalt concrete pavement specified herein, for review and approval by the Engineer, at the Pre-Construction Conference. The Contractor shall be responsible for providing the Engineer with all required technical and material specifications necessary to review the Contractor's proposed mix designs. Modification of the amount of asphalt binder shall be made to the Contractor's mix designs as may be required by the Engineer. Commencement of construction of asphalt concrete pavement shall not occur until the Contractor has received the Engineer's approval of proposed mix designs.

All asphalt concrete pavement used on this project shall consist of Type A. Asphalt binder used in the asphalt concrete pavement shall comply with specifications for Performance Graded (PG) 64-10 asphalt binder, in accordance with Section 92 "Asphalt Binders," of the Caltrans Standard Specifications.

Laboratory tests may be performed at the expense of the City, when required by the Engineer, to determine if aggregates at the plant fall within specifications. Sampling of asphalt concrete pavement delivered to the site and placed on a prepared base course shall be performed by the Engineer to ensure the type of asphalt concrete pavement laid conforms to these Special Provisions, and to the proposed mix designs approved by the Engineer.

203-6.4.1 Class and Grade

Base course asphalt concrete shall be class B-PG64-10
Final lift asphalt concrete shall be class C2-PG64-10.
Leveling course asphalt concrete shall be class D2-PG64-10

203-11 ASPHALT RUBBER HOT MIX (ARHM)

203-11.1 General

Add the following:

Asphalt Rubber Hot Mix shall be Gap Graded (ARHM-GG) with class and grade C-PG 64-16.

Contractor and subcontractors shall comply with the following:

a. 100% California waste tires must be used in the runner portion of AHRM.
b. AHRM to meet ASTM D6114-97 standard.
c. Submitting the "Recycled Content Certification" CIWMB 74G-RAC form along with supporting documentation.

203-11.2 Materials

Replace with the following:

Certificates of Compliance shall conform to section 4.5 and be submitted to the Engineer. Certificates of Compliance for the paving asphalt and asphalt modifier shall be submitted prior to the start of asphalt rubber hot mix production. The Certificate of Compliance for the crumb rubber modifier shall be submitted no later than 1 week following completion of asphalt rubber hot mix production.

203-11.2.3 Crumb Rubber Modifier (CRM)

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

Whole scrap tire CRM shall be derived from whole scrap tires generated within the State of California.

SECTION 206 MISCELLANEOUS METAL ITEMS

Add the following section:
206-7 TRAFFIC SIGNS

Add the following section:
206-7.1 General
All traffic signs shall conform to the California Manual on Uniform Traffic Control Devices (MUTCD) except as modified herein.

Add the following section:
206-7.2 Sign Posts
Traffic signs shall be installed per City of Lake Elsinore Standard Plan No. 407 or as approved by the Engineer.

Add the following section:
206-7.3 Street Name Signs
Street name signs shall comply with City of Lake Elsinore Plan No. 400B or as approved by the Engineer.

SECTION 207 GRAVITY PIPE

207-2 REINFORCED CONCRETE PIPE (RCP)

207-2.5 Joints

Delete the second paragraph and add the following:

Reinforced concrete pipe with 'O' ring joints shall conform to the requirements of Section 208-3, Gaskets for Concrete Pipe, except the 'O' ring joints shall be as made by Ameron, Precon, Hydro-Conduit, or other approved equal.

Pipe designated in the plans as "pressure pipe" or with a 100-year hydraulic grade line at or above the pipe soffit shall be bell and groove spigot joint with "O" rings conforming to ASTM C-443 and C-361 for the limits shown on the plans.

Add the following section:

207-26 SUBDRAIN PIPE FOR REINFORCED CONCRETE BOX

Add the following section:

207-26.1 General

The subdrain pipe, both perforated and non-perforated, shall comply with the following:

Material	ASTM Specification
Polyvinyl Chloride	D2729
Polyethylene	F405

Pipe of the same material shall be used throughout the entire project.

Add the following section:

207-26.2 Pipe Perforations

Perforations shall be located in the bottom half of the pipe as laid.

Add the following section:

207-26.3 Pipe Joints

The joints between sections of perforated pipe shall be of a type that will hold the pipe securely in alignment and maintain the inner surfaces of abutting pipes flush and even.

SECTION 211 MATERIALS TEST

Add the following section:
211-7 AGRONOMIC SOIL TEST

Prior to ordering material and delivery to the site, and prior to soil amendment and preparation, Contractor shall obtain soil samples from proposed topsoil material as approved by the Engineer. Contractor shall transmit soil samples to an approved agronomic soil–testing laboratory for analysis. Provide a soil analysis report from the laboratory, with recommendations for soil amendment and preparation. Submit a copy of the report to the Engineer for review. The contractor shall pay for soil sampling and testing. Soil analysis shall indicate following soil properties:

(a) organic matter content (%)
(b) fertility—nitrogen (N), phosphorus (P), potassium (K)
(c) pH reaction (acid–neutral–alkaline)
(d) ECe (salinity)
(e) SAR (sodium absorption ratio)
(f) particle size analysis (% sand, % silt, % clay)
(g) micronutrients (calcium, magnesium, copper, zinc, manganese, iron)
(h) specific toxicities (boron, chloride, fluoride, sodium, etc.)
(i) percolation (water infiltration rate)
(j) recommendations for amendments

SECTION 213 ENGINEERING GEOSYNTHETHICS

213-5 GEOTEXTILES AND GEOGRIDS

213-5.1 General

Add the following:

Geosynthetic types shall be used for the applications listed in Table 213-5.2(F)

TABLE 213-5.2(F)
GEOTEXTILE APPLICATIONS

Application of Geotextile	Type Designation
Subgrade stabilization	Tensar BX1200 Geogrid
Separation of Soil and Street Structural Section	90WS
Separation of Soil and Subsurface Aggregate Drain	180N
Reinforcement of Street Structural Section	200WS
Remediation and Separation of Soil	270WS
Reinforcement of Soil	270WS
Drainage at the Interface of Soil Structures	N/A
Drainage at the Interface of Soil and Structures	N/A
Rock Slope Protection Fabric for Rock Sizes Below 225 kg (¼ Ton)	180N
Rock Slope Protection Fabric for Rock Sizes Including and Above 225 kg (¼ Ton)	250N
Plant Protection Covering	90N
Erosion Control Fence with 14 AWG - 150 mm x 150 mm (6”x6”) Wire and 3 m (10’) Post Spacing	90WS
Erosion Control Fence with 1.8 m (6’) Post Spacing and No Wire Fencing	200WS

Add the following section:

213-6 EROSION CONTROL SPECIALTIES

213-3.1 Gravel bags

Gravel bags for the use of temporary erosion control shall be burlap type, filled with no less than 23kg (50 lbs) of 19 mm ($^3/_4$“) crushed rock and securely tied closed. Plastic bags are not acceptable.

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

Delete the entire section and replace with the following:

214-1 REMOVALS

This work shall consist of the removal and disposal of existing or temporary traffic stripes, pavement markings, pavement markers, etc., on streets, parking lots in preparation for either the application of temporary delineation for public traffic or the application of permanent delineation as specified in the contract documents, and shall conform to the provisions of Section 15, "Existing Facilities," of the State of California Standard Specifications 2022 edition and these Special Provisions.

Where paint, thermoplastic striping or markings exist, traffic stripe and pavement marking removal shall be by wet sandblasting or better.

The method of removal of traffic stripes and pavement markings shall result in complete removal to the extent that changing light conditions and/or wet pavement conditions shall not produce an image of the removed device. The Contractor shall extend grinding or sandblasting, beyond the edges of the stripes or markings being removed, sufficiently to eliminate such imaging.

Additional work necessary to achieve the foresaid effectiveness of removal shall be considered as compensated by the prices paid (in accordance with the applicable provisions for measurement and payment) for "Traffic Striping, Signage & Markings," and no additional payment will be made therefore.

Removal of temporary traffic delineation shall conform to the procedural provisions of this section, and Section 15, Existing Facilities," of the State of California Standard Specifications.

Where blast cleaning is used for the removal of painted traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by vacuum attachment operating concurrently with the blast cleaning operation.

Payment for all removal of all required traffic striping and markings shall be considered as included in the lump sum bid for "Install Sign, Thermoplastic Striping, Pavement Marking and Raised Marker," and no additional payment will be made therefore.

214-2 THERMOPLASTIC PAVEMENT STRIPING AND PAVEMENT MARKINGS

214-2.1 General

All traffic striping shall be thermoplastic. Thermoplastic traffic stripes and pavement markings shall conform to the provisions in Sections 84 of the Standard Specifications of the California Department of Transportation 2022 edition, and as specified in these special provisions.

214-2.2 Material

Thermoplastic striping material shall consist of 3M bonded core all weather reflective elements series 50 (or approved equal) and shall allow for both wet and dry reflectivity.

Thermoplastic material for traffic stripes and pavement markings shall be applied at a minimum thickness of 0.100 inch.

Thermoplastic traffic stripes and pavement markings with enhanced wet-night visibility shall consist of a single uniform layer of thermoplastic and a layer of bonded core elements and a layer of glass beads as follows:

The 1st layer of bonded core elements shall be 3M Bonded Core All Weather Reflective Elements for use in thermoplastic traffic stripes and pavement markings. The color of the bonded core elements shall match the color of the stripe or marking to which they are being applied.

The 2nd layer of glass beads shall comply with AASHTO M247 Type 2.

Both bonded core elements and glass beads must be surface treated for use with thermoplastic under the manufacturer's instructions.

The bonded core elements (surface-drop) shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the opacified core. *These elements shall not be manufactured using lead, chromate or arsenic*. All "dry performing" microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 1.8 when tested using the liquid oil immersion method. All "wet performing "microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 2.30 when tested using the oil immersion method.

Gradations for the Bonded Core Elements

Element Gradations Mass Percent Passing (ASTM D1214)		
US Mesh	Micron	"S" series
12	1700	85-100
14	1410	70-96
16	1180	50-90
18	1000	5-60
20	850	0-25
30	600	0-7

A sample of bonded core reflective elements supplied by the manufacturer shall show resistance to corrosion of their surface after exposure to a 1 % solution (by weight) of sulfuric acid. The 1 % acid solution shall be made by adding 5.7 cc of concentrated acid into 1000 cc of distilled water.

The bonded core elements shall be surface treated to optimize embedment and adhesion to the thermoplastic binder.

Minimum retroreflectivity values [mcd(ft^2)(fc)] metric equivalent [mcd(m^2)(lux)] are shown below:

Minimum Initial Retroreflectivity Values

Test Method	White	Yellow
Dry (ASTM E1710)	700	500
Wet recovery (ASTM E2177)	280	250

Note: Increased element drop may be necessary to compensate for increased surface area characteristic of rough pavement surfaces.

214-2.3 Application

Mobile truck mounted applicators shall be capable of traveling at a uniform, predetermined speed over variable road grades to produce uniform application of striping material, following straight lines and making normal curves in a true arc. The equipment shall be capable of air blasting the pavement, applying the stripe and immediately dropping the bonded core elements and glass beads in a single pass at speeds of up to 8 MPH.

Walk-behind cart applicators shall be capable of uniform application of striping material at walking speeds, following straight lines and making tight turns symbols and legends. Mobile equipment must be available to air blast the areas immediately prior to hand cart application. The walk-behind cart shall be capable of applying the molten binder and immediately dropping the bonded core elements and glass beads in a single pass at walking speeds.

The equipment shall be capable of application of bonded core elements and glass beads to the surface of the pavement marking by double drop application. The element dispenser for the first drop shall be attached to the striping machine in such a manner that the elements are dispensed closely behind the binder application device. The bead dispenser for the second drop shall be attached to the striping machine in such a manner that the beads are dispensed immediately after the first drop (bonded core elements).

The applicator for the bonded core elements and glass beads shall be capable of delivering a uniform drop rate at required application speeds. The bonded core elements and glass beads are applied such that they appear uniform on the entire traffic marking.

The specified reflective media shall be dropped immediately after binder application. Reflective media consists retroreflective elements followed by glass beads commonly called “Double-Drop” and shall be applied to achieve the application rates shown below.

Bonded Core Element Application Rates for Thermoplastic Binders

Units	Minimum for smooth pavement surfaces
Lb. per 4 in. ln. ft.	0.022
Lb. per 100 sq. ft.	6.6
Gr. per 4 in. ln. ft.	10

Note: Increased element drop may be necessary to compensate for increased surface area characteristic of rough pavement surfaces

Application Rates for Glass Beads

Units	AASHTO M247 Type 2
Lb. per 4 in. ln. ft.	0.048
Gr. per 4 in. ln. ft.	22
Lb. per 100 sq. ft.	14.4

Note: Increased glass bead may be necessary to compensate for increased surface area characteristic of rough pavement surfaces

214-3 PAINTED PAVEMENT STRIPING AND PAVEMENT MARKINGS

Painted traffic stripes and pavement markings shall conform to the provisions in Section 84-2 "Traffic Striping and Pavement Markings", of the State of California Standard Specifications 2022 edition and these Special Provisions.

The subparagraphs of the first paragraph in Section 84-2.02, "Materials," of the State of California Standard Specifications are amended to read:

	State Specification No.
Rapid Dry Water Base, Traffic Line. —White, Yellow and Black	PTWB-01

The second and third paragraphs in Section 84-2.02, "Materials," of the State of California Standard Specifications are amended to read:

State Specifications for traffic paint and glass beads may be obtained from the Transportation Laboratory, 5900 Folsom Boulevard, Sacramento, CA 95819-4612, telephone number 916.227.7289.

Glass beads shall conform to 1-ACOT type beads or equal.

The Contractor shall layout and "cat-track" the alignment of the proposed striping at 15 ft intervals and "spot" the proposed pavement markings as called for on the Plans. Striping shall vary no more than 2" in 50 ft from the specified alignment. The Engineer may waive minor variations.

The Contractor shall not proceed with applying thermoplastic pavement markings until the Engineer has checked and approved the cat-tracking and spotting and has authorized the Contractor to proceed.

Traffic striping shall be applied with airless equipment. All traffic striping shall be performed with a road liner type striping machine. Where the configuration or location of a traffic stripe is such that the use of a road liner type striping machine is unsuitable, traffic paint and glass beads may be applied by other methods and equipment approved by the Engineer. The Engineer shall determine if the road liner type striping machine is unsuitable for a particular use.

The first coat of paint shall be applied upon completion of the surfacing. The second coat of paint shall not be applied until seven (7) calendar days after the first coat. Each coat of paint shall be applied at the wet film thickness of 10-12 mils for white and yellow paint and 7 mils for black paint. All paint shall be applied at a relative humidity below seventy-five percent (75%) and an ambient temperature above 13°C (55°F), unless otherwise approved by the Engineer.

Except for black paint, No. 1 reflective glass beads shall be uniformly incorporated in all coats of paint concurrently with the application of the paint. The glass beads shall be embedded in the coat of traffic paint being applied to a depth of at least one-half their diameters. The reflective glass beads shall be applied to the first coat of paint at the rate of 0.7 kg (1.5 lb) of beads per liter (0.26 Gal) of paint, and to the second coat of paint at the rate of 0.95 kg (2 lb) of beads per liter (0.26 Gal) of paint.

Except as otherwise noted on the Plans or as directed by the Engineer, all angle points, as shown on the striping plans, shall be painted as a smooth, tangent curve with a radius and length as approved in the field.

Temporary tape or reflective markers utilized for the purposes of interim delineation for centerline, lane lines, and crosswalk lines shall be placed to the side of the final striping pattern in such a way so that it will not interfere with the first coat of paint. All temporary tape and reflective markers applied for the purpose of interim delineation shall be removed by the Contractor at no additional cost to the City upon completion of the first coat of striping and prior to the final striping.

Stencils used for pavement markings must conform to the latest Caltrans approved Metric Stenciling Standards.

Add to Subsection 84-2.01D(1), “General,” of the State of California Standard Specifications 2022 edition the following:

Newly painted striping or markings which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be replaced, and any associated removals shall be performed as outlined in these Special Provisions at the sole expense of the Contractor and no separate compensation will be allowed therefore.

Existing traffic striping and pavement markings that do not conform to the approved Plans shall be removed by wet sandblasting. Other methods may be requested by the Contractor but shall be submitted in writing to the Engineer for approval. Blackout of existing traffic striping or pavement

markings, which do not conform to the approved Plan, shall not be allowed.

214-4 RAISED PAVEMENT MARKERS

Raised pavement markers shall conform to the provisions in Section 81-3, "Pavement Markers," of the State of California Standard Specifications 2022 edition and these Special Provisions.

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

Reflective pavement markers shall comply with the specific intensity requirements for reflectance after abrading the lens surface in accordance with the retroreflectivity requirements, specified in Section 81-3.02C “Retroreflective Pavement Markers," of the State of California Standard Specifications.

The bituminous adhesive used to install the markers shall be a hot melt bituminous adhesive asphaltic material with a homogeneously mixed mineral filler and shall conform with the requirements specified in Section 95-1.02E,” Epoxy Adhesive for Pavement Markers,” of the State of California Standard Specifications.

Reflective pavement markers shall be installed per the approved Plan unless otherwise approved by the Engineer. The composition of the material shall be such that its properties shall not deteriorate when heated to and applied at temperatures up to 218°C (425°F), using either air or oil jacketed melters.

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

The Contractor shall remove existing reflective pavement markers that do not conform to the approved Plan.

Reflective pavement markers shall be of the prismatic reflector type (3M model white RP290w and yellow RPM 2912y or equal).

Existing pavement markers (blue) designating the location of the fire hydrants shall be replaced “in kind” after the paving is completed.

The Contractor shall contact the Engineer 72 hours before any legends are painted on city streets to ensure that the patterns the Contractor is using match the patterns used by the City of Lake Elsinore. No other pattern will be allowed except patterns that match patterns used by the City of Lake Elsinore.

SPECIAL NOTE: The Contractor is advised that at some local intersections, the "STOP" legend and/or "STOP" bar may be missing. The Contractor shall install new "STOP" legends and/or "STOP" bars at local intersections, whether or not the "STOP" legend and/or "STOP" bar previously existed. Payment for installing new "STOP" legends and "STOP" bars shall be considered as included in the lump sum bid item price for removal and replacement of all existing traffic striping, and no additional compensation will be made therefore.

214-5 PAYMENT

The lump sum price paid for "Install Sign, Thermoplastic Striping, Pavement Marking and Raised Marker," shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved installing traffic striping, markings, raised pavement markers and signs, complete in place, as shown on the Plans, as specified in the Standard Specifications and these Special Provisions and as approved by the Engineer, and no additional compensation will be allowed therefore.

The lump sum price paid for "Install Sign, Thermoplastic Striping, Pavement Marking and Raised Marker," shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in relocating or resetting existing signs, salvaging signs to the City Yard, and installing new traffic signs complete in place in accordance with the Plans and Specifications, and as directed by the Engineer, and no additional compensation will be allowed.

The contractor is required to submit a schedule of values for this lump sum bid item. Submit the schedule of values within 15 days of contract approval.

SPECIAL PROVISIONS

AMENDMENTS TO THE "GREENBOOK"
STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

PART 3 CONSTRUCTION METHODS

The following SECTIONS supplement the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, ("Greenbook"), 2021 edition, regional supplements, and all current supplements, and supersede any conflicting requirements, (A "conflicting requirement" is one that cannot operate by law within the Special Provisions listed herein or both cannot be physically produced). Otherwise, these Special Provisions only supplement the Standard Specifications. If any of the sections or part of sections below contradict or are not in conformance with current California Codes and Regulations at the time of bidding, the Contractor will assume that the current California Codes and Regulations supersedes that item in these specifications. *When there are two or more specifications for same item or work the contractor shall bid the more expensive item or work specified unless the one specified item specifically states that it shall take precedent over other specified items for the same work.*

SECTION 300 EARTHWORK

300-1 CLEARING AND GRUBBING

300-1.1 General

Add the following to the first paragraph:

Clearing and grubbing shall also include the removal, relocation, adjusting, or salvaging of all facilities so indicated on the Plans which are not designated as separate bid items, or which are not included in other bid items.

Add the following to the third paragraph:

During surface clearing operations, the Contractor shall not cover or bury any plant material or other objectionable materials. If the Contractor cannot successfully separate the plant material from the surface soil and advertently or inadvertently mixes organic or other objectionable materials with the soil, the soil so contaminated shall be removed from the site by the Contractor. All costs associated with removing and disposing of the soil mixed with organic or other objectionable materials and importing soil to replace said contaminated soil shall be borne by the Contractor and no additional payment shall be made therefore.

Add the following:

Clearing and Grubbing shall also include, but is not limited to, the following items as shown on

the Plans or specified in these Special Provisions:

Clearing for and providing temporary graded driveways and continuing maintenance thereof to provide safe, smooth, stable and continuous all weather access to all residences and businesses within the project area and as directed by the Engineer.

Minor grading for swales and drainage control.

Dust control throughout the duration of the project conforming to Section 3-12.2 "Air Pollution Control", of these Special Provisions.

Progressive clean-up and maintenance of project appearance.

Control of water and dewatering during construction.

Clean-up of project area upon completion of the Work.

Capping and removing sprinkler lines and sprinkler heads that are within the project limits and providing same to the property owner. The Contractor shall mark locations of capped lines with lath so that Owner can locate them later.

Removing and disposing of interfering portions of, making modifications to, and maintaining existing private sprinkler systems in working order. This includes water supply, water distribution, electrical supply, and electrical control elements of the existing sprinkler system.

Removing existing street signs and other miscellaneous signs that are in conflict with roadway construction and replacing/relocating them at new locations per plan or salvaging as directed by the Engineer.

Protection of all existing structures and improvements which fall within or are adjacent to the limits of work specified under this Contract in accordance with Sections 4-2 and 402-2 of the Standard Specifications.

Removal and salvage/disposal of miscellaneous items such as utility boxes and covers, street signs, posts, poles, interfering portions of water, sewer and storm drain pipes, fences, mail boxes, and retaining walls.

Removal and disposal of interfering portions of abandoned utility lines and structures and the filling with blown sand and plugging of abandoned pipes and conduits not removed.

Installation, maintenance, and removal of fences, temporary fences, and gates as required in these Special Provisions and/or for the contractor's convenience.

Removal and disposal of any additional items not specifically mentioned which may be found within the work limits as directed by the Engineer.

Removal and disposal of existing A.C. berm, pedestrian ramps, lined ditches, curb inlets and outlets, and mow curbs which may be found within the work limits as directed by the Engineer.

Removal of all items necessary to complete the work including items not specifically shown on the demolition plans but discoverable through site visit or other reasonable means at time of bid. The Engineer shall have sole discretion in determining what items were "discoverable" but will generally be defined as items that could be seen, measured, and/or otherwise identified through surface investigation.

300-1.3 Removal and Disposal of Materials

300-1.3.1 General
Add the following:

The Contractor shall specify the route and the disposal site of the material that is required to be removed and hauled away. The Contractor shall provide this information at the Pre-Construction Conference

300-1.4 Payment
Delete the first paragraph and add the following:

Payment for clearing, grubbing and miscellaneous removals, relocations or adjustments not specifically identified on the Plans, not specifically designated in these Special Provisions or separately paid for in the Bid Schedule(s), shall be made at the contract lump sum price for Clearing and Grubbing, and no additional compensation shall be allowed therefore. The Contractor shall be required to remove adequately and completely any and all existing improvements within the limits of the Work, as necessary to construct the required improvements.

300-2 UNCLASSIFIED EXCAVATION

300-2.1 General
Delete the first paragraph and add the following:

Unclassified excavation shall consist of making all cuts and fills to the lines and grades shown on the Plans, stockpiling of suitable material, transport of stockpiled material to its ultimate location, all mixing, moisture conditioning, and compaction of stockpile and fill material, and export of excess material to a legal site.

Unclassified excavation shall also include scarification, moisture conditioning, and compaction of the top one foot of subgrade material to 95 percent relative compaction under roadway and other paved areas bearing traffic loads.

300-2.2 Unsuitable Material

300-2.2.1 General
Add the following:

Such direction may include, but is not limited to, directing the Contractor to blend, adjust moisture content of, rework, or place unsuitable soils at specific locations or elevations within the Project Site.

Add the following section:
300-2.2.3 Removal & Recompaction
Compressible soils such as uncontrolled fills, alluvium, and colluvium may exist within the limits of Work. When encountered, these unconsolidated soils shall be removed by the Contractor until a firm and unyielding surface is exposed and approved by the Engineer. If the excavated material has a moisture content greater than optimum moisture content, the Contractor shall blend the wet soil with soils having a lower moisture content and/or spread the excavated material in a manner that enables the material to dry to optimum moisture content. The cost of blending, spreading and/or drying shall be included in the contract unit price for Removal and Recompaction. The excavated material shall be placed and compacted in accordance with Section 300-4, "Unclassified Fill", except that Sections 300-4.9 and 300-4.10, "Measurement and Payment", shall not apply.

300-2.5 Slopes
Add the following after the first sentence of the first paragraph:

A slope shall be defined as any area steeper than three horizontal to one vertical.

And add the following to the first paragraph:

The hinge points (the top and bottom) of slopes shall be located within 75 mm (0.25') of the locations shown on the plans.

300-2.6 Surplus Material
Add the following:

The Contractor shall export all surplus material from the project. The Contractor shall utilize highway legal trucks for the export of material from the Project Site to a legal site secured by the Contractor. No earth moving equipment or special construction equipment, as defined in Section 565 of the California Vehicle Code, will be allowed for hauling material on public streets.

300-2.7 Selected Material
The text of Subsection 300-2.7 of the Standard Specifications is hereby deleted and replaced with the following:

Selected materials encountered in the excavations within the limits of the Work that conform to

the Standard Specifications for base material, trench bedding, backfill, topsoil, or other specified materials shall be used as shown on the Plans, in the Special Provisions, or as directed by the Engineer. Topsoil excavated may be considered only for the purpose of backfilling areas to be planted.

300-2.8 Measurement

Delete the first and second paragraphs and add the following:

Unclassified Excavation payment quantity shall consist of all cut shown on the plans.

When paid as a unit price, Unclassified Excavation shall be measured based on the volume it occupies in its original position before excavation. The quantity of Unclassified Excavation shall be the volume of cut occupied between the original ground surface after clearing and grubbing and the design elevations shown on the plans. Materials excavated or otherwise removed as all or part of any other bid item shall not be measured as Unclassified Excavation.

Unclassified Fill shall be paid as Unclassified Excavation, and no separate payment will be made.

The Contractor shall notify the Engineer three (3) working days prior to completing clearing and grubbing and the removal of all deleterious material from the entire site. It is the intent of the Engineer to schedule and perform field survey and/or aerial photography of the entire site at one time to determine the original ground surface prior to grading for the purpose of Unclassified Excavation quantification. If the Contractor has not removed all deleterious material from the entire site by the day prior to the scheduled field survey and/or photography, the field survey and/or photography will be cancelled and not rescheduled until the Contractor has completed removing all material from the entire site. The Contractor shall not be entitled to any additional compensation or extensions in time if the field survey and/or aerial photography is cancelled due to the Contractor not completing clearing and grubbing and removal operations as scheduled. If the entire site cannot have field survey performed and/or be photographed because of weather, poor visibility or adverse flight conditions the Contractor will be entitled to a corresponding time extension but shall not entitled to any additional compensation due to the delay.

Removal and Recompaction shall be paid at the unit price bid. The quantity of Removal and Recompaction shall be the volume occupied between the original ground surface after clearing and grubbing where the original ground surface is at or beneath the design lines and grades and the bottom contours of the removal and recompaction area.

The Contractor shall allow a minimum of 36 hours after completion of the removal of compressible soils in Removal and Recompact areas for the Agency to measure the cut for the quantity of work performed.

300-2.9 Payment

Delete this section and add the following:

Payment for Unclassified Excavation and Removal & Recompaction will be made at the unit prices

bid in the proposal unless specified otherwise. Only the quantity of Unclassified Excavation and Removal & Recompaction measured shall be paid for. No excavated material which is re-excavated will be paid for. For progress payments, the quantity of Unclassified Excavation and Removal & Recompaction shall be estimated by the Engineer. The Engineer's calculations shall be considered the definitive determinant for quantities for progress and final payments. All topographic surveying and calculations necessary to quantify Unclassified Excavation and Removal & Recompaction payment quantities shall be performed by the Engineer.

Payment for Unclassified Excavation and Removal & Recompaction shall include all costs for salvaging clean and suitable material and filling areas to the required grades and cross sections, transport, placement, compaction, moisture conditioning and water therefore, rework of compressible soils, all work incidental to Section 300-4.8, slope rounding, grading, stockpiling, exporting and disposing of excess material, access roads, temporary detour roads, matching existing grades, construction of transitions, and grading of earthen swales and drainage channels as shown on the drawings or required by the contract documents.

When payment for Unclassified Excavation is made as a Final Pay Quantity it shall be made pursuant to Section 7-1.1, "General", and no additional payment shall be made therefore.
When no bid item(s) exist for Unclassified Excavation and/or Removal & Recompaction then costs shall be considered included in other items of work and no additional payment shall be made.

Add the following section:

300-2.10 Grading Tolerance

The Contractor shall finish excavated areas other than slopes and subgrade below structures, within the roadway and sidewalk areas within 0.1' of the grades shown on the plans. Subgrade tolerances shall conform to the requirements of Section 301-1.4, "Subgrade Tolerances".

300-3 STRUCTURE EXCAVATION AND BACKFILL.

300-3.1 General

Add the following:

The Contractor shall excavate to the lines and levels required and/or shown on the Drawings. The Contractor shall provide all shoring, bracing, cribbing, pumping, and planking required. The Contractor shall excavate and maintain the bottom of all trenches in a condition that is level, firm, clean and free from all debris or foreign matter. Excavations shall be kept free from water at all times. The Contractor shall remove any unsuitable material encountered below grade as directed by the Engineer.

300-3.6 Payment

Add the following:

Dewatering shall be considered incidental to structure excavation and no additional compensation shall be made therefore. Except for unsuitable materials removed as part of unclassified excavation, unsuitable material encountered below structural excavation finished

grade will be paid for at the unit price, lump sum, or if neither are included in the Contract pursuant to Section 2-8, “Extra Work”, of Standard Specifications.

300-4 UNCLASSIFIED FILL

300-4.1 General

The following text is hereby added to subsection 300-4.1 of the Standard Specifications:

The site shall be graded to the limit lines and elevations shown on the drawings with such allowances as may be required for the construction of walks, and other site improvements. Tolerance for rough grading is 1/10th of a foot, plus or minus, at drainage swales, adjacent property grates, and paved areas. At other areas, appearance shall be the governing factor.

Finish grades shall slope to drain without water pockets or irregularities and shall conform to the intent of all plans and sections, after thorough settlement, and compaction of the soil. Finished grades shall meet all existing or established controls of sidewalks, curbs, and walls and shall be of uniform slope and grade between points of fixed elevations or elevation controls from such point to established grades. Tolerance for finish grading is ¼ inch, plus or minus.

Delete the second and third paragraphs of subsection 300-4.1 and replace with the following:

Rocks, broken concrete, or other solid materials which are larger than 1 inch in greatest dimension shall not be placed in fill areas that are to be planted.

Clods or hard lumps of earth 1 inch or more in greatest dimension shall be broken up before compacting the material in fill areas to be planted. Fill material containing large rocks, boulders, or hard lumps (such as hardpan or cemented gravel which cannot be broken readily) over 12 inches in greatest dimension shall not be incorporated in the fill. Such materials shall be removed from the site.

Selected material from the site that meets the requirements for Class C topsoil may be used in landscaped areas in the upper 12 inches of fill or as make-up fill material underneath hardscape paving.

Make-up fill material in landscaped areas shall be Class A topsoil for the upper 12 inches of fill.

300-4.3 Other Fill Materials

Delete this section and add the following:

Excess soil remaining on the Project Site from excavations other than Unclassified Excavation may only be used for fill material when rocks, lumps, cobbles, clods, or other solid materials such as broken concrete or asphalt from removal operations are suitable for the particular area to be filled as determined by the Engineer and in conformance with the requirements of the geotechnical investigation. Broken concrete or asphalt pavement materials shall not be allowed within site fill areas or roadway fills less than three feet (3’) in height, within three feet (3’) of final grade in any area, or within five feet (5’) (vertically) of the existing ground water table.

Concrete or asphalt placement shall be approved by the Geotechnical Engineer. Concrete or asphalt pieces shall be less than six inches (6”) in maximum dimension and surrounded by soil particles when used as compacted fill. No nesting shall occur.

300-4.4 Benching
Add the following:

Benching and keyways shall be constructed as shown in the Contract Documents. Benching and keyways shall be considered as incidental to Unclassified Fill and no separate payment shall be made therefore.

300-4.5 Placement
Add the following:

The Contractor shall perform grading such that the upper 3’ of fill placed in the roadway right-of-way is composed of properly compacted low expansive soils when available on-site or when specified. The more highly expansive soils shall be placed in the deeper fill areas and/or properly compacted or exported from the site. Low expansive soils are defined as those soils that have an Expansion Index of 50 or less when tested in accordance with 1994 UBC Standard 18-2 as published by the International Conference of Building Officials. Should insufficient soils meeting the requirement of an expansion index of 50 or less be present within the limits of work, soils of the least expansion index that are available within the limits of work shall be incorporated in the upper 3’ of fill placed in the roadway.

Delete the third paragraph and add the following:
No rock or similar irreducible material with a maximum dimension greater than 6 inches shall be buried or placed in fills closer than 10 feet to the finished grade unless recommendations for such placement have been submitted by the Soils Engineer in advance and approved by the Engineer. Rocks shall not be nested but shall be spread with sufficient room between them so that intervening voids can be adequately filled with fine material to form a dense, compact mass. Oversized material shall be removed from the site by the Contractor. If disposed of within the City of Lake Elsinore, a separate grading permit will be required for disposal of rock.

300-4.6 Application of Water
Add the following:

The Contractor shall place all fill soil at a moisture content no less than one (1) percent below optimum moisture as determined by ASTM test D-1557-91.

300-4.7 Compaction
Add the following:

The Contractor shall compact all fill soils placed within the top 1’ of roadway subgrade to a minimum of 95 percent relative compaction.

300-4.8 Slopes
Add the following:

Feathering of fill over the tops of slopes will not be permitted.

300-4.10 Payment
Delete this section and add the following:

Unclassified fill, grading, shaping, compacting or consolidating, moisture conditioning, slope rounding, construction of transitions and all work included in and incidental to Section 300-4, Unclassified Fill, shall be paid for as unclassified excavation, and no additional payment will be made therefore.

300-5 BORROW EXCAVATION

300-5.2 Imported Borrow
Add the following section:

300-5.2.1 Imported Borrow Properties
The Contractor shall provide imported borrow that is clean well graded soil consisting of material conforming to all of the requirements in Table 300-5.2.1(A) and the following requirements. Rock shall not be a component of imported borrow.

TABLE 300-5.2.1(A)
IMPORTED BORROW PROPERTIES

Tests	Test Method No.	Requirements
R-Value	Calif. 301	40 Min.
Expansion Index	UBC Standard 18-2	30 Max.
Plasticity Index	ASTM D 424	4 Max.
Sieve Analysis	ASTM D 422	Percent Passing 75μ (No. 200) 15 Max.

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

301-1 SUBGRADE PREPARATION

301-1.2 Preparation of Subgrade

Delete the first sentence of the second paragraph and add the following:
After rough grading has been completed, when scarifying and cultivating are required, the roadbed shall be loosened to a depth of at least 12 inches (305 mm).

Delete the third paragraph and add the following:
Uniform pervious soils, that allow the immediate penetration of water or uniform impervious soils which will allow the penetration of water to a depth of at least 12 inches (305 mm) after the addition of a suitable wetting agent, will not require scarifying and cultivation unless a condition pervious set forth in this section requires such processing. When scarifying and cultivation are not required, the moisture content of the top 12 inches (305 mm) of the subgrade material shall be brought to optimum by the addition of water at the surface, and the material shall be compacted by approved equipment to the specified relative compaction.

Water for use in subgrade preparation shall be potable. Water shall be applied to compact soil, subgrade, base, and surfacing material through the use of a watering truck which shall spray water uniformly. No chemical additives shall be used during the water application process.

301-1.3 Relative Compaction

Delete the first paragraph and add the following:

The Contractor shall compact the upper 12” of subgrade beneath roadways, alleyways, parking lots, other pavement areas under traffic loading, and beneath and including curb to curb to not less than 95 percent maximum dry density as determined by ASTM test D-1557-91, whether pavement is placed directly on subgrade, subbase, or base. The top 12” of all other areas shall be compacted to no less than 90 percent maximum dry density as determined by ASTM test D-1557-91.

SECTION 302 ROADWAY SURFACING

302-2 CHIP SEAL

302-2.1 General

Add the following:

The Contractor shall treat all vegetation within the limits of the paved area to receive chip seal with a post emergent herbicide. Herbicide shall be applied at least 5 (five) working days prior to chip sealing the street. Allowance for the five-day period shall be shown in the schedule required per Section 6-1, Construction Schedule and Commencement of the Work.

The Contractor shall comply with Section 302-4.7 "Scheduling, Public Convenience and Traffic Control."

302-2.4 Roadway Surface Preparation

Add to the first paragraph:

All traces of plastic, residual emulsion and chips shall be removed from all personnel covers, drain inlet covers, monument covers, and all other utility covers as quickly as possible, after the application of the chip seal and/or prior to final acceptance of the project.

Add to the second paragraph:

When removing the raised pavement markers the Contractor shall remove excessive adhesive left on pavement caused by the removal of raised pavement markers. Removal shall be done to the satisfaction of the Engineer.

Immediately prior to the chip sealing operations, the Contractor shall sweep the entire surface with vacuum assisted power brooms on city streets and kick brooms on county and state highways when approved by the Engineer. Areas that have been patched shall receive a fog seal at the discretion of the Engineer.

Add the following sub-section:

302-2.6.6 Polymer Modified Rejuvenating Emulsion (PMRE) for chip and scrub seals

302-2.6.6.1 General

The work shall consist of but not limited to furnishing all labor, materials, equipment and transportation for the application of the Polymer Modified Rejuvenating Emulsion. Application of aggregate to conform with 302-2 of the standard specifications and these Special Provisions unless otherwise specified herein. The work shall be done in the following order: Preparing the pavement surface; applying the Polymer Modified Asphalt Surface Sealer and scrubbing the applied emulsion sealer with a scrub broom as specified herein; applying aggregate, brooming the aggregate with a secondary broom when specified, rolling the aggregate; and sweeping up

and disposing of excess aggregate off from the job site. The Polymer Modified Asphalt Rejuvenating Emulsion shall comply with Section 203-3 of these Special Provisions.

The screenings shall conform with section 200-1.2.2 and Section 302-2 of the Standard Specifications

302-2.6.6.2 Pre-Qualification

The Contractor shall: **a)** have had a minimum of three (3) years experience in the application of the Polymer Modified Rejuvenating Emulsions as applied to scrub-seal; and **b)** have successfully completed at least three (3) Scrub Seal projects utilizing the scrub-broom to the satisfaction of their clients.

302-2.6.6.3 Equipment

The following equipment to be used for the scrub-seal shall be as follows:

A. An asphalt distributor for application of the emulsion sealer shall have a full circulation spray bar that is adjustable to at least sixteen (16) feet wide in two (2) feet increments and capable of heating and circulating the emulsion simultaneously. It must have computerized rate control for adjusting and controlling the application from the cab that is adjusting by .01 gallons per square yard increments. The distributor shall also be equipped with a volume measuring device and a thermometer for measuring the emulsion temperature in the tank.

B. A SCRUB BROOM as described herein shall be used to scrub the emulsion sealer after application.

C. A self-propelled aggregate spreader with front discharge that can evenly distribute aggregate.

D. A minimum of two (2) pneumatic rollers weighing at least five (5) tons each.

E. Two (2) mechanically powered kick-brooms or vacuum type brooms.

F. A back pack blower for removing excess chips during the sweeping operation.

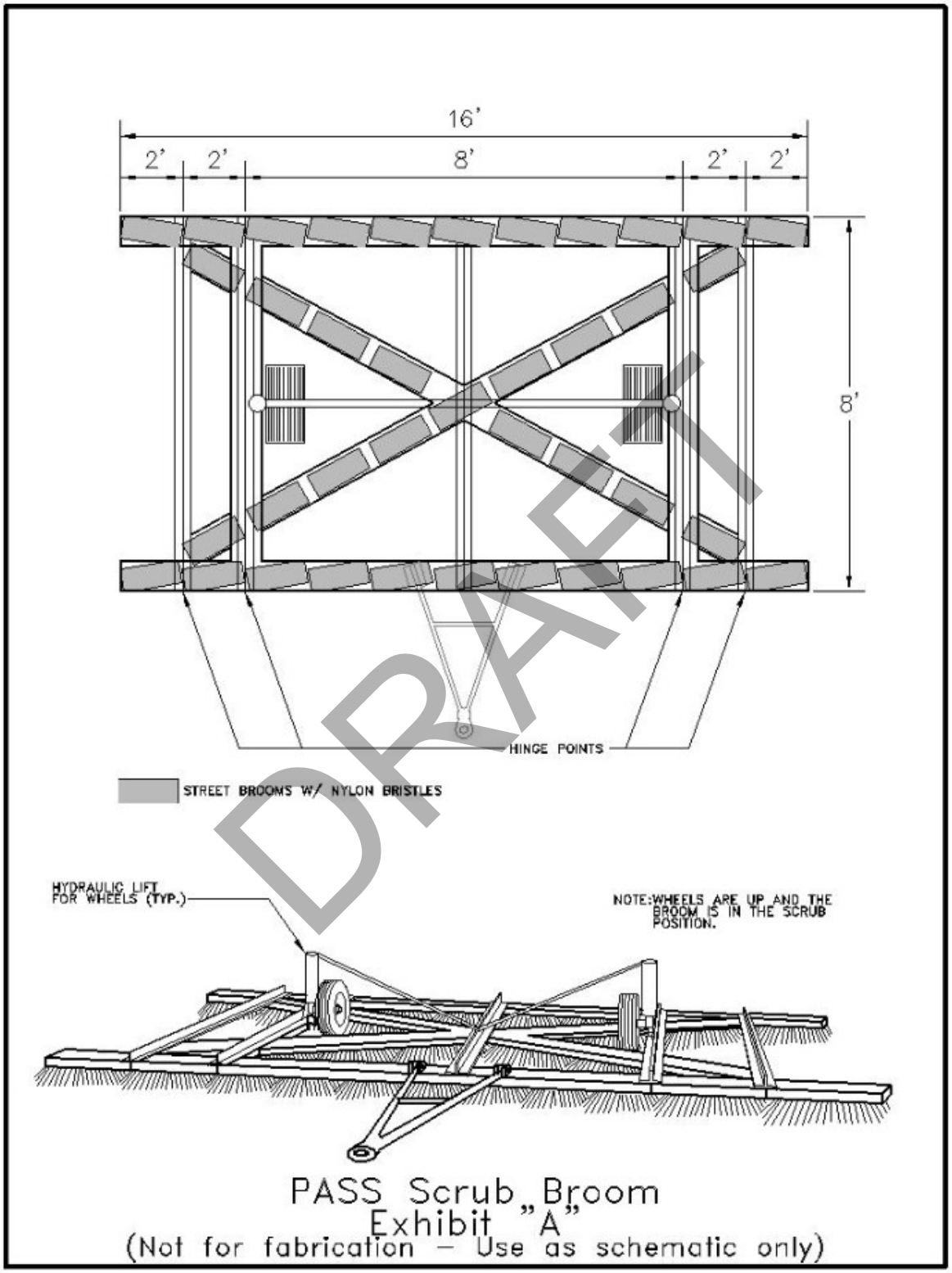
302-2.6.6.4 Scrub Broom Equipment

The scrub broom frame shall be constructed of metal. The scrub broom shall be attached to and pulled by the distributor truck. The scrub broom must be equipped with the means to mechanically raise and lower the scrub broom off and onto the road surface at designated points of completion and start up. It shall be tow able in the elevated position to the next area of construction. The weight of the broom assembly shall be such that it does not squeegee the emulsion sealer off the roadway surface.

The main body of the scrub broom shall be a **minimum** of 6’-9” wide and 8’-0” (ft) deep. The maximum width of the rigid frame at any point shall not exceed 8’-0”. The depth shall not exceed

10’-0” The nearest and furthest members, paralleling the back of the spreader truck, and diagonal members shall be equipped with street brooms. **The leading member and the trailing member shall have broom heads angled at 15 degrees off the centerline of the supporting member.** The diagonal members shall have broom heads attached in line with the centerline of the supporting member. Each individual street broom attached to the scrub broom assembly shall be 3 ½” w x 6 ½” h x 16” L and have stiff nylon bristles. Bristle height is to be maintained at a minimum of 5”. The scrub broom shall be equipped with a min. of 2- hinged wing assemblies attached to the main body not to exceed 4’-6” (ft) in total per side, with diagonals and equipped with street brooms. The purpose of the maximum rigid frame width and the hinged wing extensions is not only for maximum width of 16’ (ft) but to maintain the scrubbing process evenly as contours and cross-sections change across the existing road surface.

NOTE: The contractor shall supply a scrub broom as described for the purpose of scrubbing the Polymer Modified Rejuvenating Emulsion. If the Contractor fails to supply the scrub broom specified, the project shall be shut down until the contractor supplies the required equipment in full operation. Shutdowns resulting from the failure to provide this specified scrub broom shall not excuse the Contractor from the provisions of contract working days.


16'
2'
2'
8'
2'
2'
8'
HINGE POINTS
STREET BROOMS W/ NYLON BRISTLES
HYDRAULIC LIFT FOR WHEELS (TYP.)
NOTE:WHEELS ARE UP AND THE BROOM IS IN THE SCRUB POSITION.
PASS Scrub „Broom
Exhibit „A"
(Not for fabrication – Use as schematic only)

302-2.6.6.5 Application

All incidental work such as surfacing of driveway aprons and returns shall be done concurrently with the surfacing of the street proper. The scrub seal shall be applied 0”-4” from the lip of the gutter. Where a curb exists without gutter, the scrub seal shall be applied 0”-4” from the face of curb when receiving a cape. If a cape is not specified, then the scrub seal shall be placed from edge of pavement to edge of pavement. Where no curb or gutter exists, the scrub seal shall be applied from edge of pavement to edge of pavement. The edges of the limits of the scrub seal application on both sides of the street shall be maintained in a neat and uniform line. Scrub seal shall not be applied on concrete gutters or pads unless directed by the Engineer.

The application of the Polymer Modified Rejuvenating Emulsion shall be applied when ambient temperature is above forty (40) degrees Fahrenheit and rising. The polymer modified rejuvenating emulsion shall not be placed if the ambient temperature during the twenty-four curing period (24) hours is expected to be below twenty-five (25) degrees Fahrenheit. The termination time of application shall be determined by the Engineer.

The areas to be scrub sealed shall have the Polymer Modified Rejuvenating Emulsion applied with a distributor truck to the pavement surface at a rate of 0.25 to 0.40 gallons per square yard. For cul-de-sacs, turnout pockets, elbows and curve returns the use of the scrub broom will not be required. The actual emulsion sealer application rate required will be determined by the pavement surface condition and aggregate the aggregate used. Recommended application rate ranges for both aggregate and emulsion are shown in **Table 302-2.6.2 and Table 302-2.6.4.2 of the Standard Specifications.** The actual application of the emulsion sealer shall be determined by the manufacturer’s representative and/or the Engineer.

The Polymer Modified Rejuvenating Emulsion temperature when applied shall be at a minimum of 110 degrees Fahrenheit. For smaller areas the emulsion sealer may be applied with a wand. The emulsion sealer shall be immediately broomed to fill cracks and voids.

The application of the Polymer Modified Rejuvenating Emulsion and the scrub broom operation shall cease 40’ (ft) prior to the end of the street section or intersection. The remaining emulsion sealer shall be drug out by the scrub broom, and the remaining emulsion sealer required to complete the pass shall be applied only by the spread truck (boot truck), at the specified rate.

Immediately following the scrubbing of emulsion sealer, aggregate shall be applied at the rate specified. The rate shall be adjusted up or down so that no “bleed through” occurs during rolling.

The aggregate shall be spread evenly by a mechanical spreader. Aggregate ¼”X #10 or less shall be broomed with a SECONDARY AGGREGATE BROOM to fill all cracks and voids, unless otherwise directed by the Engineer. The SECONDARY AGGREGATE BROOM when used must be equipped with the means to mechanically raise and lower the broom off and onto the road surface at

designated points of completion and start up. The design shall be similar in design to that of the emulsion broom. The exception would be that the internal diagonal members shall be used for stiffness and shall not have broom heads attached to the cross members. It shall be pulled by a vehicle following the aggregate spreader to ensure even distribution of the aggregate, and penetration of the aggregate into the cracks. The weight of the broom assembly shall be such that it does not roll or turn the aggregate that is set in the emulsion sealer. The use of the SECONDARY AGGREGATE BROOM can be used immediately after the application of the chips or after rolling. The sequence of operation will be determined by the Engineer.

302-2.7 Finishing

Finishing shall conform with section 302-2.7 of the Standard Specifications and these Special Provisions.

A minimum of two self-propelled pneumatic-tired rollers shall be used for the required rolling of the aggregate. The pneumatic-tired rollers shall be in good working condition and actively rolling at all times during the scrub seal operation. The pneumatic-tired rollers shall be a minimum of 5 tons. The pneumatic-tired rollers shall be operated in such a manner to prevent the dislodging of newly applied aggregate.

Power sweeping shall be done before the end of the day after scrub seal operation to remove any excess loose aggregate. During the sweeping process the Contractor shall use a backpack blower to clear driveways, gutters and sidewalks of excess aggregate at the end of each day until the street is surfaced. **The Contractor shall wait a minimum of one day after the scrub seal application before applying other surface treatments as specified.**

The Contractor shall exercise care to prevent oil from being deposited on concrete surfaces. Each day the Contractor shall remove oil from the surfaces not designated to caped. No additional streets shall be scrub sealed until this cleanup has been performed. The method of the oil removal shall be approved by the Engineer.

The Contractor shall install temporary raised pavement markers and tabs once the scrub seal is cured until the roadway surface is ready for permanent raised pavement markers and striping.

302-2.11 Payment

Add the following:

Payment for chip seal shall include post emergent herbicide treatment of the areas to receive chip seal and no additional payment will be made, therefore.

302-3 MICROSURFACING

302-3.8 Scheduling, Public Convenience and Traffic Control

Scheduling for Microsurfacing shall conform to Section 302-3.8 of the Standard Specifications and these Special Provisions.

The Contractor shall schedule the work so as to prevent damage by all traffic, including but not limited to, mail delivery and trash pickup. The Contractor shall not schedule work so as to conflict with trash pickup. The Contractor shall obtain the trash pickup schedule and provide its schedule and any modifications thereto to the trash pickup entity. At least two weeks prior to work, the Contractor shall send, by first class mail, notification letters to all property addresses on which sealing will occur and all other property addresses within 500 feet thereof. Obtaining the appropriate addresses shall be the contractor's responsibility. Notification letters shall be in bold type as follows, with the appropriate information specific to the work inserted at the locations indicated in the brackets and italicized.

(*Name of Contractor*)
(*Address of Contractor*)
(*Contractor's License Number*)

(*Date*)

As a part of the City of Lake Elsinore's ongoing program to maintain its streets, your street will be sealed with a mixture of asphalt and aggregates, beginning in two or three weeks. This process requires that your street be closed for X day(s) starting at 7:00 a.m. to X:XX p.m. and until the Contractor removes the traffic control devices. You will be notified 72 hours in advance of the day your street will be closed by a brightly colored 3 ½" x 8 ½" card attached to your doorknob. You will also notice temporary no parking signs on your street with a specific no parking date written on it.

A successful street maintenance program depends on your cooperation. Please do not drive, walk, play, skate or allow pets on the newly sealed street until all traffic control devices have been removed.

Furthermore, please do not wash your car or turn on any sprinklers during the closure period. If you plan to leave your home after 7:00 a.m. on the day your street will be sealed, and you need to use your vehicle later, please park your car on an adjacent street in your neighborhood that is not signed as a no parking zone. When walking to and from your car, remember not to walk on the newly sealed street or you will have black residue on the bottom of your shoes. The residue will damage some surfaces, will mark all surfaces that you track it on, and will be very difficult to remove.

(*Name of Contractor*) is the Contractor that will be performing the resurfacing work for the City and you may call them at (*24 hour per day attended telephone number in the 951 area code*) for any questions you may have about the project. Sealing of your street will not occur on the day your trash is collected. On the day your street is sealed mail delivery may be delayed until the following day. You will not know

the exact date your street will be closed until you receive the 3 ½" x 8 ½" card. If you have a moving company scheduled to come to your house within the next two weeks, please call and inform the Contractor of the date. If you have any concerns which are not addressed by the Contractor, please call the City's Engineering Department at 951-674-3124. They will assist you in resolving the concerns.

During sealing operations, the Contractor's schedule shall be designed to provide residents and business owners whose streets are to be sealed sufficient paved parking within an 800 foot distance from their homes or businesses.

302-4 SLURRY SEAL SURFACING

302-4.1 General

Add the following:

Slurry Seal shall be emulsion-aggregate slurry (EAS) conforming to 302-4.3, TYPE II, with Carbon Black additive.

Add the following subsection:

302-4.1.1 Rout and Seal Random Cracks

All cracks will be filled with a rubberized asphalt material that has a minimum softening point temperature of 200° Fahrenheit and a safe heating temperature of 380° Fahrenheit, or otherwise directed by the City representative/inspector.

1. For cracks in size of 1/8 inch to 3/8 inch width, the crack shall be widened using a router to form a sealant reservoir which is a minimum of 1/2 inch wide and ¾ inch to 1 inch deep. The routed crack shall then be cleaned with hot compressed air to remove all dust and moisture, and then sealed to service level.

2. Cracks that are more than 3/8 inch but less than ¾ inch shall be cleaned for the entire crack depth using sandblasting, brushing and hot air blowing techniques, as required to provide a crack free from all debris, dust, loose material, and moisture, The clean crack shall be filled with sealant, from the bottom up to the surface level, in a manner which does not result in sealant bridging or entrapped air pockets. With deep cracks, settlement of sealant may occur, thus requiring application of a second layer of sealant material. For cracks with depressed surfaces on each side of the crack shall be overfilled beyond level with pavement surface and then squeezed to fill in depressed area. No more than 2 inch wide and 1/16" thick strip of material may be applied to the pavement surface. The crack seal for the specified width of 3/8 inch to ¾ inch shall apply to all pavement surfaces receiving slurry seal II treatment with Black Carbon additive.

3. Cracks wider than ¾ inch and potholes shall be cleaned using sandblasting or other cleaning technique approved by the Engineer. The cracks and/or potholes shall then be filled with pea-gravel size hot mix asphalt concrete as directed by the Engineer. Filling cracks and potholes shall apply to all pavement surfaces receiving type II Slurry with Black Carbon

additive.

4. No Slurry seal material shall be placed until after the crack seal and/or fill material has been in place for a minimum of two (2) calendar days.

Payment:

The Contract Lump Sum price for Rout and Seal Random Cracks/Fill Potholes shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, including traffic control, required for crack routing, crack cleaning, crack sealing, crack and pothole filling, sweeping and application of herbicide and sealant as directed by the engineer and no additional compensation will be allowed.

302-4.7 Scheduling, Public Convenience and Traffic Control
Add the following:

The Contractor shall schedule the work so as to prevent damage by all traffic, including but not limited to, mail delivery and trash pickup. The Contractor shall not schedule work so as to conflict with trash pickup. The Contractor shall obtain the trash pickup schedule and provide its schedule and any modifications thereto to the trash pickup entity. At least two weeks prior to work, the Contractor shall send, by first class mail, notification letters to all property addresses on which sealing will occur and all other property addresses within 500 feet thereof. Obtaining the appropriate addresses shall be the contractor's responsibility. Notification letters shall be in bold type as follows, with the appropriate information specific to the work inserted at the locations indicated in the brackets and italicized.

(Name of Contractor)
(Address of Contractor)
(Contractor's License Number)

(Date)

As a part of the City of Lake Elsinore's ongoing program to maintain its streets, your street will be sealed with a mixture of asphalt and sand, beginning in two or three weeks. This process requires that your street be closed for X day(s) starting at 7:00 a.m. to X:XX p.m. and until the Contractor removes the traffic control devices. You will be notified 72 hours in advance of the day your street will be closed by a brightly colored 3 ½" x 8 ½" card attached to your doorknob. You will also notice temporary no parking signs on your street with a specific no parking date written on it.

A successful street maintenance program depends on your cooperation. Please do not drive, walk, play, skate or allow pets on the newly sealed street until all traffic control devices have been removed.

Furthermore, please do not wash your car or turn on any sprinklers during the closure period. If you plan to leave your home after 7:00 a.m. on the day your street will be sealed, and you need to use your vehicle later, please park your car on an adjacent street in your neighborhood that is not signed as a no parking zone. When walking to and from your car, remember not to walk on the newly sealed street or

you will have black residue on the bottom of your shoes. The residue will damage some surfaces, will mark all surfaces that you track it on, and will be very difficult to remove.

(*Name of Contractor*) is the Contractor that will be performing the resurfacing work for the City and you may call them at (*24 hour per day attended telephone number in the 951 area code*) for any questions you may have about the project. Sealing of your street will not occur on the day your trash is collected. On the day your street is sealed mail delivery may be delayed until the following day. You will not know the exact date your street will be closed until you receive the 3 ½" x 8 ½" card. If you have a moving company scheduled to come to your house within the next two weeks, please call and inform the Contractor of the date. If you have any concerns which are not addressed by the Contractor, please call the City's Engineering Department at 951-674-3124. They will assist you in resolving the concerns.

During sealing operations, the Contractor's schedule shall be designed to provide residents and business owners whose streets are to be sealed sufficient paved parking within an 800 foot distance from their homes or businesses.

302-4.8.2 Emulsion Aggregate Slurry (EAS)
Add the following section:

As part of surface preparation prior to application of emulsion-slurry seal the Contractor shall:

1. Treat the area to receive emulsion-slurry seal with a post emergent herbicide. Herbicide shall be applied at least 5 (five) working days prior to sealing of street. Allowance for the five day period shall be shown in the schedule required per Section 6-1, Construction Schedule and Commencement of the Work.
2. Remediate cracks, potholes, and large areas of alligator cracking. Remediation shall be accomplished by:
    a) Removal of existing asphalt pavement, base material and soil and replacement with full depth asphalt concrete in locations designated by the Engineer.
    b) Crack cleaning and sealing of all cracks designated by the Engineer.

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General
Add the following:

The Contractor shall treat all vegetation within the limits of the paved area to receive asphalt concrete paving with a post emergent herbicide. Herbicide shall be applied at least 5 (five) working days prior to paving the area. Allowance for the five day period shall be shown in the schedule required per section 6-1, Construction Schedule and Commencement of the Work.

The surface course asphalt concrete shall be installed as a last order of work after all concrete improvements and base course asphalt has been installed.

302-5.4 Tack Coat

Add the following:

The Contractor shall place a tack coat between the interface of existing pavement and new pavement and successive courses when, in the opinion of the engineer, the Contractor has failed to maintain or prepare each previously laid course of asphalt receiving the subsequent course of asphalt in a sufficiently clean state and the asphalt receiving the new pavement course is dirty enough to impair bonding between the next lift of asphalt.

Tack coat for overlay shall be Thermoplastic Polymer Modified High Performance Seal (TPMS) manufactured by Paramount Petroleum Corporation (562-531-2060), for overlay, or an approval equal. The Engineer shall approve the exact rate and number of applications.

The tack coat shall be applied as specified in Subsection 302-5.4 of the Standard Specifications and these Special Provisions. The Engineer will determine if the pavement is sufficiently dry for the application of the tack coat. Tack coat shall not be applied when the temperature of the surface to be tacked is below 50° F in the shade. Whenever pavement surface temperatures exceed 120, a small test section shall be applied approximately 30 feet in length to gauge setup time for the tack to not stick to truck tires. The setup time shall be recorded. Paving, material delivery and tack coat placement must be coordinated and scheduled to provide that tack is setup before placing trucks on the tacked area. Pavement surface temperatures shall be monitored, and additional test sections shall be performed to revise the paving operation as conditions change. Upon occurrence of tracking of tack coat, paving shall cease, except remaining material in the hopper shall be used, and the tack shall be allowed time to setup.

On all vertical joins of AC patching, apply SS-1H tack coat uniformly in two coats of .20 gallons per square yard each with full “break” in between, or .20 gallons per square yard PG 64-10 uniformly in one coat. Tack coat shall not be applied when the temperature of the surface to be backed is below 60° F in the shade.

The TPMS shall be heated slowly to 350-425 F. At no time TPMS shall be heated above 750 F. The product shall be applied through a distributor truck equipped with a heating unit capable of raising temperature at least 3 F per hour, and shall maintain tack coat temperature at or above 350 F. It shall be equipped with a full circulating spreader bar and pumping system capable of applying TPMS material within a +0.01 gallons per square yard tolerance of specified application rate and give uniform covering of the surface to be treated. The distributor shall also include a tachometer, pressure gauge, and volume measuring device and thermometer. The application rates shall be 0.15 gallons per square yard for all ARHM overlay or as otherwise directed by the Engineer.

Tack coat shall not be applied until preparation of the existing surface has been completed and thoroughly cleaned, and then only so far in advance of placing the overlay as permitted by the Engineer. Tack coat shall not be left exposed overnight. Immediately in advance

of placing the overlay, additional tack coat shall be applied as directed by the Engineer, to areas where the tack coat has been destroyed or otherwise rendered ineffective, and no additional compensation will be allowed for such work.

Paving of overlay shall not proceed until the tack coat has stiffened sufficiently to not stick to truck tires.

Existing concrete curb faces and all concrete not to be overlaid shall be protected against disfigurement from the tack coat. Residue of tack coat material shall be removed from curb faces by sandblasting to return the concrete to its original condition unless otherwise directed by the Engineer.

Excessive tracking of tack coat onto adjacent pavements will require immediate clean-up. If significant amounts of paving asphalt are traced onto existing adjacent pavements, the contractor shall clean it off to the satisfaction of the Engineer or provide a slurry seal to restore the pavement at their own expense.

302-5.5 Distribution and Spreading

Modify as follows:
Add to the fifth paragraph:

Asphalt Concrete pavement sections greater than 4" thick shall be constructed in two lifts or as directed; pavement base course shall be type B-PG64-10 and the final lift (surface layer) shall be C2-PG64-10 with a minimum thickness of 1-1/2 inch and shall not exceed 2-1/2 inch. Spreading, once commenced, shall be placed without interruption. The final or surface layer of asphalt concrete shall not be placed until all on-site improvements have been completed, including all grading.

Add the following:
Contractor shall provide and install header along longitudinal edge of pavement adjacent to natural earth shoulders.

The Contractor shall provide 20-foot long automatic screed control on both sides of the paving machine for all paving with paving machine, as directed by Engineer.

Each paving machine used will require a paving foreman for each machine along with a full set of rollers as specified and two rakers and one shoveler laborer at a minimum.

302-5.6 Rolling

302-5.6.1 General

After last paragraph, add the following:

Unless directed otherwise by the Engineer, the initial breakdown rolling shall be followed by a

pneumatic-tired roller as described in this section.

Rolling along a joint shall be such that the widest part of the roller is on the hot side of the joint.

Rubber tire rollers shall be used on any leveling course.

Three rollers shall be provided for installation of AC greater than 181 tonne (200 tons) per hour, regardless of thickness.

Construction of hot mix asphalt concrete shall conform to Section 302-5 “Asphalt Concrete Pavement” of the Standard Specifications, except as modified herein.

Should the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the requirements, including straightedge tolerance, of Subsection 302-5.6.2, "Density and Smoothness," of the Standard Specifications, the paving operation shall be discontinued, and the Contractor shall modify his equipment or furnish substitute equipment.

A drop-off of more than 0.15 ft will not be allowed at any time between adjacent lanes open to public traffic.

The Contractor shall furnish a sufficient number of rollers to obtain the specified compaction and surface finish required by the Standard Specifications and these Special Provisions.

Pneumatic rollers shall be required on the lower layer only.

Initial breakdown compaction shall consist of a minimum of three (3) coverages of a layer of asphalt mixture. A pass shall be a movement of rolling in both directions over the same path. Coverage shall consist of as many passes as are necessary to cover the entire width being paved. Overlap between passes during coverage, made to ensure compaction without displacement of material in accordance with good rolling practice, shall be considered to be part of the coverage being made and not part of a subsequent coverage.

Each coverage shall be completed before subsequent coverages are started.

302-5.6.2 Density and Smoothness

Add the following to the first paragraph:

The completed surfacing shall be thoroughly compacted, smooth and free from ruts, humps, depressions or irregularities. Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete shall be eliminated by rolling or other means. The use of any equipment that leaves humps, ridges, irregularities, indentations or other objectionable marks in the asphalt concrete shall be discontinued, and acceptable equipment shall be furnished by the Contractor.

The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.01 ft. are present when tested with a straightedge 10 feet long, laid in a direction transverse to the center line.

If the test results for any lot of asphalt concrete indicate that the relative compaction is below 95.0 percent (95%), the Contractor will be advised that he is not attaining the required relative compaction and that his materials, procedures, or both, need adjustment. Asphalt concrete spreading operations shall not continue until the Contractor has notified the Engineer of the adjustment that will be made in order to meet the required compaction.

302-5.7 Joints

Add the following:

Before placing the top layer adjacent to cold transverse construction joints, the joints shall be trimmed to a vertical face and to a neat line. Longitudinal joints shall be trimmed to a vertical face and to a neat line if the edges of the previously laid surfacing are, in the opinion of the Engineer, in such a condition that the quality of the completed joint will be affected. Longitudinal and transverse joints shall be tested with a 10-foot straightedge and shall be cut back as required to conform to the provisions in Subsection 302-5.6.2, "Density and Smoothness," for surface smoothness. Connections to existing surfacing shall be feathered to conform to the provisions for smoothness.

Longitudinal joints in the top layer shall correspond with the edges of proposed traffic lanes (striping). Longitudinal joints in all other layers shall be offset not less than 0.5 foot alternately each side of the edges of traffic lanes.

All feathered joints shall be sealed after rolling.

During asphalt concrete paving operations, it shall be the Contractor's responsibility to place protective covering over, or to otherwise avoid paving over survey markers, monuments, and benchmarks, and to remove said covering and/or asphalt concrete after paving operations have been completed.

Join lines between successive runs shall be within 6 inches of lane lines or center of street or a minimum of 14 feet outside of the outer most lane line or center of street, or 5 to 6 feet from a lane line or center of street and within a lane. The joint pattern for all pavement layers shall be submitted in writing to the Engineer for review and approval 2 weeks in advance of the first lift of pavement to be placed. No exceptions to the specified requirements for joints shall be anticipated, and the Engineer's decision shall be final.

302-5.9 Measurement and Payment

Add the following:

Payment for Asphalt Concrete shall be made at the price bid per ton and shall include full compensation for furnishing all labor, materials, equipment, and incidentals necessary to perform the work.

Payment for tack coat shall be included in the price bid for Asphalt Concrete for which tack coat is required and no additional payment shall be allowed therefore.

302-7 PAVEMENT FABRIC

302-7.1 General
Add the following:

Pavement reinforcing shall be placed to the limits approved by the Engineer.

302-7.2.3 Laydown
Add the following:

The fabric shall be stretched, aligned, and placed without any wrinkles that lap. The test for lapping shall be made by gathering together the fabric in a wrinkle. If the height of the double portion of extra fabric is 1/2" or more, the fabric shall be cut to remove the wrinkle, and then lapping in the direction of paving. Lap in excess of 2" shall be removed.

Delete the second sentence of the eighth paragraph and add the following:
If necessary, exposed tack coat on top of fabric shall be covered lightly with sand.

302-9 ASPHALT RUBBER HOT MIX (ARHM)

302-9.1 General
Replace the entire subsection with the following:

ARHM shall conform to 203-11. Unless otherwise shown on the Plans, ARHM shall be Class ARHM-GG-C.

The Contractor shall schedule the paving work such that no longitudinal drop-offs on the pavement will remain overnight in the travelled way. Any transverse drop-offs on the pavement over 1 inch in height that will remain overnight shall be ramped with temporary AC pavement.

[Include the following if the Work includes full-width cold milling and placement of ARHM directly over the cold milled surface, not on an ARAM:]
Roadways to receive full-width cold milling shall be resurfaced within 24 hours of cold milling any portion of the Work.
[End inclusion.]

[Include the following if the Work includes placement of ARHM over an ARAM:]

ARHM shall be placed within 48 hours of the completion of placement of the asphalt rubber and aggregate membrane (ARAM).
[End inclusion.]

302-9.3 Distribution and Spreading
Replace the second sentence with the following:

Asphalt rubber hot mix shall not be placed until the atmospheric temperature is a minimum of 55 degrees F and rising, and the surface temperature of the underlying material is a minimum of 55 degrees F, or during unsuitable weather.

Add the following:

The spreading and finishing machine shall be equipped with a fully automatic screed control system which shall be in operation at all times. The system shall be either a contact (skid) or non-contact (sonic averaging) system. The skid shall be a minimum of 30-feet long, mounted on the side of the spreading and finishing machine which will receive the next mat of material, and be placed in contact with the pavement surface.

The sonic averaging system shall have a ski, a minimum of 24 feet long, mounted on the side of the spreading and finishing machine which will receive the next mat of material. A joint maker placed on the side of the spreading and finishing machine to ride on the existing or previously constructed surface or mat of material may be required as directed by the Engineer.

302-9.5 Joints
Add the following:

Longitudinal joints shall coincide with traffic lane lines unless otherwise approved by the Engineer.

302-9.6 Manholes (and Other Structures)
Add the following:

Survey monuments shall be protected in place. The Contractor shall locate all survey monuments within the project area prior to the start of the Work. During the progress of the Work, cold millings, hot or cold mix asphalt concrete materials, and other debris shall not damage or cover the survey monuments. Damaged survey monuments shall be replaced at the contractor's expense. Should the survey monuments be damaged, the Contractor shall notify the Engineer prior to replacing.

SECTION 303 CONCRETE AND MASONRY CONSTRUCTION

303-1 CONCRETE STRUCTURES

303-1.1 General

Add the following:

Where the Plans refer to the Standard Drawings or Standard Plans for construction details for concrete structures or elements and the primary dimensional requirements (such as chamber length, width, depth, etc.) are not shown in said Standard Drawings or Plans, then the next larger size dimension for that requirement shall be used to establish dependent structure element characteristics (such as wall thickness, reinforcement schedule, etc.).

The Contractor may extend or otherwise increase the total length of inlet, basin or cleanout structures by as much as a total of four feet (4'), to meet the uncut ends of pipe. Payment for pipe to the limits shown on the Plans shall be full compensation for extending such structures. Where concrete structures are extended, steel reinforcing shall be extended in the pattern and spacing shown for the standard length structure.

Concrete brow ditches, if air-placed, shall be constructed in accordance with Section 303-2, Air Placed Concrete, of the Standard Specifications, and these Special Provisions. Otherwise, brow ditch construction and materials shall conform to the applicable provisions of Section 303-1, Concrete Structures.

303-1.2 Subgrade for Concrete Structures

Add the following section:

303-1.2.1 Reinforced Concrete Box Subgrade

The design details for the project provide for the placement of six-mil polyethylene sheeting as an underlayer below the RCB culvert and transition structures and over the gravel foundation mattress. The Contractor shall furnish and place six-mil polyethylene sheeting as an underlayer below these reinforced concrete structures. The placing of steel reinforcement and placement of concrete shall be accomplished as soon after the installation of the polyethylene sheeting as possible.

Add the following section:

303-1.2.2 Reinforced Concrete Box Gravel Foundation Mattress

Gravel foundation mattress under the reinforced concrete box (RCB) culverts and reinforced concrete box (RCB) transition structures shall be constructed to the limits and grades shown on the Plans and in accordance with these Special Provisions.

It is the intent of these specifications that a firm, unyielding gravel mattress or layer be constructed to help bridge any earthen subgrade irregularities or minor differential settlements and to act as a stable working surface for the placement of reinforcing steel and concrete forms

for the construction of RCB culverts and transition structures.

Permeable material for use as gravel foundation mattress under RCB and transition structures shall consist of hard, durable, clean sand, gravel, or crushed stone; and shall be free of organic material, clay balls, or other deleterious substances. Permeable material shall conform to the gradation requirements for Class 1, Type B permeable material specified in Section 200-3.2, “Permeable Material”, of these Special Provisions.

The Contractor shall place permeable material for foundation mattress within the limits and to the lines and grades shown on the Plan. Permeable material shall be placed directly on prepared subgrade unless filter fabric material is specified or shown on the Plans. The finish subgrade surface of the pervious mattress material shall be held to the closest practicable tolerance, and in no case shall the finish subgrade surface deviate from the indicated slope and grade lines by greater than plus zero inches (0”) above or minus two inches (-2”) below.

Permeable mattress material shall be spread uniformly on the prepared subgrade to the neat lines indicated on the drawings in such a manner that the gradation after final placement remains within the limits specified. Placing of material by methods which will tend to segregate particle size within the mattress layer will not be permitted.

Permeable material shall be deposited and spread in a manner so as to prevent damage to or displacement of the filter fabric subgrade cover below.

Imported permeable material shall be placed on the subgrade as uniform mixtures and each layer shall be spread in one operation. Segregation shall be avoided, and the layer shall be free from pockets of coarse or fine material.

Permeable material shall be deposited at a uniform quantity per linear foot, which quantity will provide the required compacted thickness within the tolerances specified herein without resorting to spotting, picking up, or otherwise shifting the gravel material.

Where the required thickness is twelve inches (12”) or less, the gravel mattress material may be spread and compacted in one layer. Where the required thickness is more than twelve inches (12”), the permeable material shall be spread and compacted in two or more layers of approximately equal thickness, and the maximum compacted thickness of any one layer shall not exceed twelve inches (12”). Each layer shall be spread and compacted in a similar manner.

The use of motor graders will be permitted during depositing, spreading, and compacting operations.

Rolling for compaction shall always be commenced along the edge of the area to be compacted and the roller shall gradually advance toward the center of the area to be compacted. Rollers shall be operated along lines parallel or concentric with the centerline of the road being constructed, and no material variation there from will be permitted. All rollers must be maintained in good mechanical condition.

During and after placement and compaction of the permeable mattress material, the surface shall be protected from damage, erosion, or movement by flowing water or mechanical injury.

Add the following section:

303-1.2.3 Reinforced Concrete Box Subdrain and Back drain Systems

Sidewall back drain systems along reinforced concrete box (RCB) culverts and transition structures shall be constructed to the limits and grades and per the details shown on the Plans and in accordance with these Special Provisions.

Each pipe shall be carefully inspected immediately before it is laid, and any that are damaged or defective shall not be used. The pipe shall be placed on the bedding surface that is accurately shaped to conform to the lower ¼ of the outside portion of the pipe. Perforated pipe shall have two rows of perforations of one-half inch diameter (1/2" Φ) holes at five inches (5") on center, with rows separated by 120 degrees (120°) of arc centered at the pipe bottom. Pipe shall be laid to the grades and alignment indicated or as directed. Pipe laying shall proceed upgrade from the lower end of the pipeline. Pipe grade shall be maintained within ¼ inch in 10 feet of that indicated. Upon completion of backfill, the area shall be suitable for placement of concrete invert or fill as applicable.

The Contractor shall flush the sidewall back drain system with sufficient water to develop a flow of at least five cubic feet per minute (5 cfm) out of the end of the length of pipe being tested, as measured by approved measuring equipment furnished by the Contractor. Tests shall be conducted in the presence of the Engineer.

Two separate tests to demonstrate the proper functioning of the sidewall back drain collector lines shall be made by the Contractor. The first test of each completed section of the new back drain system shall be made immediately prior to placing concrete invert. Both tests shall conform to the above requirements. Final acceptance will be made only if the discharge is free and of adequate quantity. Any necessary clearing of drain lines shall be performed at no additional cost to the Agency.

Add the following section:

303-1.2.4 Reinforced Concrete Box Subdrain and Back Drain Pipe Materials

Pipe for weep holes and back drain collector pipes shall be smooth-wall polyvinyl chloride (PVC).

Perforated pipe materials specified above for the back drain system shall conform to the requirements of Sections 68-1.02 and 68-2.02 of the State Standard Specifications and as specified herein.

Standard for pipe diameter requirement shall be deleted from Section 68-2.02 of the State Standard Specifications and as specified herein. PVC pipe shall be smooth-wall type; no corrugated pipe shall be allowed.

Cast iron pipe and fittings for back drain outlet shall be service weight and shall conform to the requirements of ASTM A74.

Add the following section:

303-1.2.5 Reinforced Concrete Box Back Drain Permeable Material

Permeable material for sidewall back drains shall be Class 2 permeable material per Section 200- 3.3, Permeable Material, of these Special Provisions.

Add the following section:

303-1.2.6 Reinforced Concrete Box Filter Fabric/Composite Drain

Filter fabric shall be in accordance with Section 213-5, "Geosynthetics and Geogrids", of these Special Provisions.

Composite drain material on the sidewalls of the culverts shall be installed at the locations indicated on the project plans. Drain material shall be Miradrain G100N, J-Drain 300, or approved equivalent drainage system installed in accordance with the recommendations of the manufacturer. The composite drain material shall have a minimum compressive strength of 20,000 pounds per square foot (20,000 psf), a minimum flow rate of seven gallons per minute per foot (7 gpmpf), and the filter fabric shall have a minimum grab tensile strength of 90 pounds. The fabric side of the composite drain shall be placed toward the soil.

Add the following section:

303-1.2.7 Reinforced Concrete Retaining Wall Foundation

Foundation soil shall be excavated as required to the depths and locations shown on the Plans or as directed by the Engineer. The exposed foundation soil shall be observed by the geotechnical engineer prior to construction to verify that the exposed material is suitable for the design bearing pressure and that the base of the excavation is free of loose soil, uncompacted fill, or water. The Contractor shall undercut any unsuitable soil when directed by the Engineer. Undercut areas shall be filled with crushed gravel or granular native soil when required by the

geotechnical engineer and compacted to at least 90% of the material's maximum dry density (per ASTM D1557).

Add the following section:

303-1.2.8 Reinforced Concrete Retaining Wall Backfill

Wall backfill material shall be placed in maximum eight inch (8") loose lifts and compacted to at least 90% of the material's maximum dry density as determined by ASTM D1557. Backfill shall be placed, spread, and compacted in such a manner that minimizes disturbance to the wall backdrain and drainpipe. The soil shall be sloped during construction in such a manner to drain all water away from the wall.

Construction equipment shall be operated in such a way so as not to damage the wall drain and drainpipe system.

Wall backfill soil shall have the following properties:

- Soil friction angle shall be greater than or equal to 33 degrees.
- Expansion index less than or equal to 50 (per UBC Standard 18-2).
- Maximum particle size = 2 inches.

On-site soils meeting the above criteria may have to be processed or selectively graded, or soils may need to be imported onto the site to meet this specification.

303-1.3 Forms

Add the following:

Forms shall be braced to withstand the pressures developed and shall be tight to prevent loss of mortar. Tangent sections for formed wall surfaces shall result in concrete surface free of any unevenness greater than quarter-inch (1/4") when checked with a ten-foot (10') straightedge.

Forms for covered conduit or open channel curved sections shall be constructed along the arc of the curve. The finished surface shall follow the arc of the curve.

If permitted by the Engineer, covered conduit curved section may use chord panel length not to exceed eight feet (8'). Ends of the chord panel shall be on the arc of the curve.

Reinforcing steel shall be billet steel conforming to ASTM A615 and of the grade shown.

303-1.6 Falsework

303-1.6.2 Falsework Design

Add the following:

The Contractor shall provide all temporary bracing necessary to withstand all imposed loads

during erection, construction, and removal of any falsework. The Contractor shall provide falsework drawings and calculations prepared by a registered professional engineer, civil or structural, that show provisions for resolution of all loads that may be imposed upon the falsework. Such plans and calculations shall include:

1. Resolution of all live, dead, wind, construction and impact loads that may be imposed on the falsework.
2. Temporary bracing or methods to be used during each phase of erection and removal of the falsework.
3. Concrete placement sequence.
4. Erection and removal sequence.
5. Deflection values for the falsework that include recommended methods to compensate for falsework deflections, vertical alignment, and anticipated falsework deflection.

303-1.7 Placing Reinforcement

303-1.7.1 General
Add the following:

Aluminum and plastic support for reinforcement shall not be used.

Bars shall be accurately spaced as shown on the Plans and spacing of the first bar immediately adjacent to a transverse construction joint shall be one-half the required spacing shown on the Plans. In no case shall the clear distance between parallel bars be less than 2 ½ diameters of the bar or a minimum of two inches (2").

Unless otherwise shown on the plans, embedment of reinforcing steel (other than stirrups and spacers) shall be 1 ½ inches clear depth for #8 bars and smaller and shall be 2 inches clear for #9 bars and larger. Where placement of reinforcing steel requires alternate bars of different size, embedment requirements shall be governed by the larger bar. Stirrups and spacers shall be embedded not less than one-inch clear depth. Measurement of embedment shall be from the outside of the bar to the nearest concrete face.

Tack welding on reinforcing bars will not be permitted.

303-1.7.2 Splicing
Add the following:

Splicing of reinforcing bars shall be either by lapping, butt welding, or by mechanical butt splicing, at the option of the Contractor.

Reinforcing bars may be continuous at locations where splices are shown on the Plans, at the option of the Contractor. The location of splices, except where shown on the Plans, shall be determined by the Contractor as approved by the Engineer, based upon using available commercial lengths where practicable.

Unless otherwise shown on the Plans or approved by the Engineer, splices in adjacent reinforcing bars shall be staggered. The minimum distance between staggered splices for reinforcing bars No. 11 or small shall be the length required for a lapped splice in the bar.

Completed welded butt splices and mechanical butt splices shall develop not less than ninety percent (90 %) of the specified minimum ultimate tensile strength of the un-spliced reinforcing bar.

The deviation in alignment of reinforcing bars at a welded or mechanical splice shall not be more than ¼-inch over a 3 ½ foot length of bar.

Prior to use in the work, welded butt splices and mechanical butt splices shall be qualified by tests made on sample splices.

During the progress of the work, in addition to inspection and non-destructive testing performed by the Engineer on all types of butt splices, job control tests shall be made on sample splices representing each lot of mechanical butt splices. Sample splices for qualification and job control tests shall be tested for compliance with all specified requirements for splices. All such sample splices shall be fabricated and tested by the Contractor at its cost and a copy of the test results furnished to the Engineer.

Splices shall consist of placing the reinforcing bars in contact and wiring them together in such a manner as to maintain the alignment of the bars and to provide minimum clearances.

No lapped splices will be permitted at locations where the concrete section is not sufficient to provide a minimum clear distance of two inches (2") between the splice and the nearest adjacent bar. The clearance to the surface of the concrete shall not be reduced.

The length of lapped splices shall be as follows: Reinforcing bars No. 8, or smaller, shall be lapped at least 45 diameters of the smaller bar joined, and reinforcing bars Nos. 9, 10, and 11 shall be lapped at least 60 diameters of the smaller bar joined, except when otherwise shown on the Plans.

Splices of tensile reinforcement at points of maximum stress shall be avoided; however, any deviation from splices shown on the Plans shall be approved by the Engineer. Splices in longitudinal steel shall be staggered at least the length of the splice.

303-1.8 Placing Concrete

Add the following:

When concrete is to be deposited in a member less than 16 inches in width, the use of double belting to prevent segregation of the concrete shall be permitted, in lieu of pipes or tremies. Each belt shall extend equidistant into the forms to a point where concrete shall not fall more than six feet (6'). When placed in the forms, the belts shall be aligned directly opposite each other.

303-1.8.6 Joints
Add the following:

Unless otherwise specified, transverse construction joints shall be placed in all reinforced sections at intervals of not less than ten feet (10') or more than fifty feet (50'). The joints shall be in the same plane for the entire structure, and for concrete thickness greater than six inches (6") shall be keyed as directed by the Engineer.

Construction of all reinforced concrete sections (including inverts) shall be by the alternate panel method, and no continuous placement through joints will be permitted. After placement of all concrete in a panel or section on one side of the joint has been completed, placement of concrete on the other side of the joint shall be delayed as directed by the Engineer; but in no event shall the delay be less than eight (8) hours.

303-1.9 Surface Finishes

303-1.9.1 General
Add the following:

The longitudinal and transverse channel invert elevation shall not vary from true line and grade more than ½ inch. The unevenness shall not be more than ¼ inch when checked with a ten-foot (10') straightedge.

Top of channel wall and channel side slope elevation shall not vary from true line and grade more than ½ inch. Unevenness shall not be more than ½ inch when checked with a ten-foot (10') straightedge.

Any surfaces which fail to conform to the above tolerances shall be ground in accordance with the best standard practice until the tolerances are met. Grinding shall not reduce the concrete cover on reinforcing steel to less than 1-1/2 inches. Portions of inverts which cannot be corrected satisfactorily by grinding shall be removed and replaced.

Except as specified above, vertical or horizontal position of structures as shown on the Plans or as specified in these specifications, shall not vary more than ½ inch from true position. Elevation at inlet lips shall not vary more than ¼ inch from elevations shown on the Plans.

The ten-foot (10') straightedge or template shall be furnished by the Contractor and shall be readily available prior to placing of concrete.

303-1.9.2 Ordinary Surface Finish
Add the following:

Ordinary surface finish shall not apply to rock pockets which, in the opinion of the Engineer, are of such an extent or character as to affect the strength of the structure materially or to endanger the life of the steel reinforcement. In such cases, the Engineer may declare the concrete

defective and require the removal and replacement of the portions of the structure affected.

Add the following section:

303-1.9.5 Surface Finish for Concrete Spillway

The Contractor shall provide a surface finish for concrete spillway to prevent the use of rollerblades, skateboards, and other rolling devices. Surface finish shall be a rough finish approved by the Engineer.

303-1.10 Curing

Add the following:

Where the curing compound method is used on concrete surfaces exposed after construction, the invert surface shall be sealed with a Type 1 chlorinated rubber base compound, and the wall surfaces shall be sealed with a Type 1 wax base compound.

303-1.12 Payment

Add the following:

Full compensation for this work shall be paid at the lump sum or unit prices bid for various concrete construction and appurtenant items or shall be considered as included in the Contract price for other items of work.

The unit or lump sum price paid for the various concrete structures shall be considered as including the furnishing and installation of all concrete, reinforcing steel, forming, finishing, form removal, miscellaneous metal, gratings, frames and covers, excavating, backfilling, compaction, making connection of pipes, chain, access steps, ladders, plates, hardware, concrete bases, supporting utilities, weep holes and back drains, and providing all labor, equipment, materials, and tools necessary to provide the structure complete in place.

Payment for curb inlets, curb outlets, catch basins, clean-outs, pipe collars and manholes shall be at the contract unit price per each.

Payment for concrete brow ditch shall be at the contract unit price per lineal foot complete in place.

Payment for concrete encasement or backfill of structures shall be considered as included in the contract price(s) paid for various types of pipe as specified elsewhere in these Special Provisions.

Add the following section:

303-1.12.1 Reinforced Concrete Box Payment

Payment for reinforced concrete box (RCB) culvert and transition structures shall be at the Contract lump sum or unit price bid. Such payment shall be considered as full compensation for the furnishing of all labor, material, tools, equipment, and for performing of all work necessary for the construction of RCB culverts, complete, and in place including, but not limited to,

structural excavation, removal of portions of existing culverts and connecting thereto, forming, joints, joint material, finishing, Portland cement concrete, reinforcing steel; weepholes, permeable mattress and backdrain material, subdrain & backdrain systems, inlet pipe connections, access manholes, flab gates, variable-width common walls, interior wall hydraulic window openings, parapet walls, cut-off walls, wing walls, polyethylene subgrade cover; temporary utility support; phased construction requirements, integral utility crossing structures or sleeves, and backfill.

All costs involved in the construction of windows for box conduits shall be included in the price bid for the applicable RCB item. For purposes of payment, no additions or deductions in box quantities will be made for windows.

Add the following section:

303-1.12.2 Reinforced Concrete Retaining Wall Payment

Payment for reinforced concrete retaining walls shall be made at the lump sum or unit prices bid. Such payment shall be considered as full compensation for the furnishing of all labor, materials, tools, equipment and for performing all work necessary for the construction of the Project Site retaining walls, complete, and in place including, but not limited to, structural excavation, forming, joints, joint material, reinforcing steel, weep holes, Portland cement concrete, finishing, waterproofing, installation of wall back drain system and connections to the storm drain system, backfill, and spoils disposal.

303-4 MASONRY CONSTRUCTION

303-4.1 Concrete Block Masonry

303-4.1.2 Construction

Add the following section:

303-4.1.2.1 Masonry Retaining Wall Foundation

Foundation soil shall be excavated as required to the depths and locations shown on the Plans or as directed by the Engineer. The exposed foundation soil shall be observed by the geotechnical engineer prior to construction to verify that the exposed material is suitable for the design bearing pressure and that the base of the excavation is free of loose soil, uncompacted fill, or water. The Contractor shall undercut any unsuitable soil when directed by the Engineer. Undercut areas shall be filled with crushed gravel or granular native soil when required by the geotechnical engineer and compacted to at least 90% of the material's maximum dry density (per ASTM D1557).

Add the following section:

303-4.1.2.2 Masonry Retaining Wall Backfill

Wall backfill material shall be placed in maximum eight inch (8") loose lifts and compacted to at least 90% of the material's maximum dry density as determined by ASTM D1557. Backfill shall be placed, spread, and compacted in such a manner that minimizes disturbance to the wall

back drain and drainpipe. The soil shall be sloped during construction in such a manner to drain all water away from the wall.

Construction equipment shall be operated in such a way so as not to damage the wall drain and drainpipe system.

Wall backfill soil shall have the following properties:

- The soil friction angle shall be greater than or equal to 33 degrees.
- Expansion index less than or equal to 50 (per UBC Standard 18-2).
- Maximum particle size = 2 inches.

On-site soils meeting the above criteria may have to be processed or selectively graded, or soils may need to be imported onto the site to meet this specification.

303-4.1.5 Measurement and Payment

Add the following section:

303-4.1.5.1 Masonry Retaining Wall Measurement and Payment

Payment for masonry retaining walls shall be made at the lump sum or unit prices bid. Such payment shall be considered as full compensation for the furnishing of all labor, materials, tools, equipment and for performing all work necessary for the construction of the Project Site retaining walls, complete, and in place including, but not limited to, structural excavation, joints, joint material, reinforcing steel, weep holes, Portland cement concrete, finishing, waterproofing, installation of wall back drain system and connections to the storm drain system, backfill, and spoils disposal.

When paid by the square foot the quantity measurement shall be the length of the wall by the height of the wall from top of footing to top of wall.

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

303-5.1 Requirements

303-5.1.1 General

After the second sentence of the first paragraph, add the following:

Delete the Class “B” mortar coat should curb be placed by extrusion machine and concrete mix is approved by the Engineer. All concrete shall be class 560-C-3250 unless otherwise specified on the plans.

Delete the first sentence of the second paragraph and *add the following*:

Unless otherwise specified on the Plans, and except as otherwise prescribed in 303-5.1.3, Driveway Entrances, the minimum thickness of walks shall be 4 inches (101.6 mm). Prior to

placing concrete on subgrade, the existing grade shall be in a moistened condition to obtain optimum moisture content, and recompacted as determined by ASTM D1557-78.

Add the following:

When removals of curb and/or sidewalk are located at curb return, the Contractor shall install access ramps. The Contractor is to construct all access ramps in accordance with American Disability Act (ADA) Standards/California Code of Regulations Title 24 – Accessibility Regulations. If the ramps constructed by the Contractor are found to be in non-compliance with ADA Standards, the Contractor will be required to remove and replace the ramps to ADA Standards at the Contractor's expense.

All removed curb and gutter, cross gutters, spandrels, driveway approaches, and sidewalks shall be replaced within three (3) calendar days, unless the Contractor provides reasonable documentation to exceed the three (3) day limit five (5) working days before removal and approved in writing by the Engineer. The Asphalt Concrete patch shall be placed within five (5) working days after the curb and gutters are replaced, and seven (7) days after the cross gutter and spandrels are replaced.

No PCC shall be ordered and/or placed until the forms and subgrade have been inspected and approved by the Engineer in the field.

All pull boxes, water meter boxes, and water valve covers shall be adjusted to the proposed finish grade and approved by the Engineer in the field prior to placement of the PCC.

303-5.1.2 Drainage Outlets Through Curb
Add to the first paragraph with the following:

Coring shall be required for all drains through existing curbs.

303-5.4.3 Weakened Plane Joints
Add the following:

All weakened plane joints shall be spaced at a maximum of 10 feet for curbs, gutters, and sidewalks. Scoring lines shall conform to those prevailing in the area and be uniform in spacing.

303-5.5 Finishing

303-5.5.2 Curb
Add the following:

The Contractor shall stamp the curb face with 3” high block letters directly above the point that it is crossed by underground facilities with the marking specified in Table 303-5.5.2(A)

TABLE 303-5.5.2(A)
CURB FACE MARKINGS

Type of underground facilities	Marking
Water Service Lateral	W
Sewer Service Lateral	S
Irrigation/Reclaimed Water Lateral or Sleeve	RW
Gas Service Lateral	G

Delete the last sentence of second paragraph and add the following:
The name of the Contractor and the year in which the improvement is constructed shall not be stamped in the completed work.

Delete the first sentence in Paragraph 1 and add the following:

The curb and gutter surface shall not vary more than 0.01 ft. from 10 ft. straightedge except at the grade changes. Prior to the removal of the forms, the surface shall be finished true to grade by means of a straightedge float of not less than 10 ft. in length and operated longitudinally over the surface of the concrete. Form clamps shall be constructed as not to interfere with the operation of the float. The form on the front of the curbs shall not be removed less than one (1) hour, or more than six (6) hours after the concrete has been placed. In no event shall forms be removed while the concrete is sufficiently plastic to slump. The top and face of the finished curb shall be true and straight and top surface of curbs shall be of uniform width, free from humps, sags, blemishes or other irregularities.

303-5.5.3 Walk
Add the following:

The sidewalk surface shall not vary more than 0.02' from the 10' straightedge except at grade changes, and the finished surface shall be free from humps, sags, blemishes or other irregularities. All sidewalks shall be a minimum of 4" thick, except at driveways where the sidewalks shall be a minimum of 6" thick for single family residential areas and 8" thick for all other areas.

Construction of concrete sidewalk shall conform to City of Lake Elsinore Standard Drawing No. 210 for Standard Curb Sidewalk and No. 211 for Non-contiguous Sidewalk. Sidewalk shall be constructed to the dimensions as specified in the City's Standard Drawing and as shown on the Plans, but application details and other specifications not explicitly stated or shown in the City's Standard Drawing shall conform to Section 303-5 of the Standard Specifications. Portland cement concrete material shall be Portland Cement Concrete of type 560-C-3250.

Certain segments of existing concrete curb may have broken or are out of alignment. Where any segment of existing concrete curb is broken and/or misaligned by more than one inch (1"), the broken or misaligned curb shall be removed and replaced with new concrete curb. A concrete sidewalk shall be constructed adjacent to curb that makes for a smooth flush surface.

The Contractor is responsible for protecting all new Portland cement concrete construction from vandalism. All construction of Portland cement concrete shall be conducted under direct supervision of the Contractor's staff and shall be monitored until the work has adequately cured and is not susceptible to damage from vandalism. Any vandalism identified on new concrete construction shall be removed and replaced by the Contractor, as required and directed by the Engineer, at no additional cost to the City.

303-5.6 Curing

Delete first paragraph and add the following:

Immediately after finishing operations are completed, Type 2 concrete curing compound shall be applied at a rate of one gallon per 150 square feet.

303-5.9 Measurement and Payment

Add the following:

Payment for concrete Curb and Gutter or Curb only shall be made at the price bid per linear foot, including transition sections where the curb face height varies (such as at pedestrian ramps, curb inlets, cross gutters and other depressions). Payment for concrete Sidewalk, Driveway, and Cross Gutter shall be at the unit prices bid per square foot, including transition sections where the concrete thickness varies (such as at the wings of driveways).

Payment for curb inlet transitions on each side of curb inlets shall be made at the unit price bid for Curb and Gutter and no additional payment shall be made therefore.

SECTION 304 METAL FABRICATION AND CONSTRUCTION

304-3 CHAIN LINK FENCE

304-3.1 General

Add the following:

The work includes installation of new chain link fencing and gates and the removal and relocation of existing chain link fencing as shown on the Plans.

304-3.2 Fence Construction

Add the following:

New fence construction includes both hole-dug ground surface installations and embedded-pole, structure-mounted installations (such as on parapets, wing walls, headwalls, retaining walls, and channel lining stiffeningbeams). Unless otherwise specified, materials and construction of chain link fencing and gates shall conform to Sections 206-6, Chain Link Fence, and 304-3, Chain Link Fence, of the Standard Specifications, the Plans, the Standard Drawings, and as provided herein. Where so specified or shown on the Plans, chain link fence materials and construction shall conform to Section 80-3, Chain Link Fence, of the State Standard Specifications, the Standard Plans, and as provided herein.

304-3.3 Installation of Gates

Add the following:

Where existing chain link fencing and/or gate improvements are shown on the Plans to be relocated, or where new fencing is required to remodel Caltrans right-of-way fencing, new fabric and support posts or framework materials shall match those to be joined or extended.

Where existing fence is shown to be removed and relocated, and the Contractor does not undertake the installation in the new location immediately after removal, then the Contractor shall make provision to install temporary fencing or other type of perimeter enclosure or security during the interim period. The use and type of temporary, interim fencing, if proposed, shall be approved by the Engineer prior to the removal of the original fencing. The needs and wishes of the affected property owner shall be considered when selecting the type of temporary fence material for, and the timing of, interim fence installation.

304-3.4 Measurement and Payment

Add the following:

Payment for the installation of new chain link fence shall conform to this section or alternatively, when applicable, to Section 80-3.04, “Payment”, of the State Standard Specifications, and the following:

Payment for a new chain link fence, regardless of type, shall be at the contract unit price per lineal foot.

Payment for the removal and relocation of existing chain link fencing shall be at the contract unit price per lineal foot when a unit price bid item is provided or shall be included in clear and grub if no specific bid item is provided.

SECTION 306 OPEN TRENCH CONDUIT CONSTRUCTION

306-3 TRENCH EXCAVATION

Add the following:

The work covers trench excavation, installation and backfill of reinforced concrete pipe (RCP), polyvinyl chloride (PVC) pipe, corrugated high density polyethylene (N-12 HDPE) pipe, vitrified clay pipe (VCP), ductile iron pipe (DIP), cement mortar lined and coated (CMLC) steel pipe, cement mortar lined and epoxy painted steel pipe, Southern California Edison conduit, Gas Company, ATT/ Verizon conduit, Cox Communications/ Time Warner/ Mediacom Communications cable television conduit, irrigation conduit, other conduits of any type, and other appurtenant work.

Open excavations on the Project Site shall be either backfilled by the end of each workday or secured with steel plates or temporary 6' chain link fence as approved by the Engineer.

306-3.1 General

Add the following to the first paragraph:

No trenching operations requiring a permit shall be allowed until proof of a valid permit is submitted and approved to the satisfaction of the Engineer. The Contractors inability or delay in obtaining the permit shall not be cause for delay, additional contract days, and/or additional compensation.

306-3.3 Removal and Abandonment of Existing Conduits and Structures

Replace the third paragraph with the following:

Structures shown on the Plans to be removed shall be removed to the full depth of the structure, including its foundation. Voids resulting from removed structures that are located in the pavement area and subject to traffic loads shall be filled with material approved by the Engineer and shall follow City Standards 602A and 602B for compaction requirements. Voids resulting from abandoned or removed structures not subject to traffic loads shall be filled with material approved by the Engineer and compacted to a relative compaction of 90%.

Add the following:

Contractor is responsible to coordinate necessary inspections with the appropriate utility owner prior to abandoning and/or removing existing facilities.

306-3.4 Minimum and Maximum Pipe Zone Trench Width.

Add the following:

There shall be no additional payments or deductions for variations in the trench excavation width.

There shall be no direct payment for trench temporary and/or permanent pavement resurfacing.

306-4 SHORING AND BRACING
Add the following:

The Contractor shall furnish all labor, equipment and materials required to design, install, and remove shoring, sheeting, bracing, lagging, cribbing, piling, tiebacks, soil anchors, shields, temporary retaining structures or wall, or other types of support for the walls of all open excavations required for construction of this Project.

Add the following section:
306-4.1 Steel Plates
All open trenches within the traveled way shall be backfilled and patched by the end of each workday or covered with steel plates set flush with adjacent pavement. Plates shall be adequate to support traffic loadings without noticeable deflection and shall be required at all times.

Trench plate installation shall follow City Standard 602D.

Add the following section:
306-4.2 Measurement and Payment
Unless a separate bid item is provided for sheeting, shoring, and bracing, the cost of sheeting, shoring and bracing shall be included with related items of work including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in providing trench safety, shoring or sloping of excavations; including, but not limited to, constructing trench shoring, design of the shoring system, removal and disposal of the shoring materials, obtaining all necessary permits from the Division of Occupational Safety and Health; all as shown on the Plans, as specified in the General conditions, Standard specifications, and these Special Provisions.

No additional payment will be made for sheeting, shoring, and bracing as a result of required revisions in the trench support details due to a type of soil encountered which requires a method of trench support different from that approved.

Steel plate bridging including, but not limited to, cold milling, plate installation, temporary cold mix asphalt, and subsequent plate removal shall be paid for as an incidental to the work for which the bridging is required and no separate payment shall be made therefore.

306-5 DEWATERING
Replace the entire subsection with the following:
The work shall include furnishing, installing, and operating a dewatering system capable of dewatering any excavation for any work in progress or planned, and subsequent removal of such equipment from the

site.

The Contractor shall limit the area to be excavated at any one time to that area which can be properly dewatered by the equipment in use. The equipment in use shall be both capable of removing any water that accumulates in the excavation and maintaining the excavation in a dry condition while construction is in progress. The surface of the ground adjacent to the trench shall be sloped away from the excavation or temporary dikes or pipe culverts shall be provided to prevent surface water from entering the excavation.

Disposal of the water from the dewatering system shall be done in such a way as not to damage, contaminate, or overload the existing drainage facilities in the area. The Contractor shall protect from injury any portion of the work completed or in progress such as street surfaces, lawns, or private property. No water shall be directed across a public street outside of the Work limits.

All water encountered during trench excavation shall be disposed of by the Contractor in such a manner as to not damage public or private property, create a nuisance, or health menace. The Contractor shall furnish, install, and operate pumps, pipes, appliances, and equipment of sufficient capacity to keep all excavations free from water until the excavation is backfilled, unless otherwise authorized by the Engineer. The Contractor shall provide all means or facilities necessary to conduct water to the pumps.

Discharge of pumped groundwater shall be in conformance with the requirements of the Regional Water Quality Control Board, the County of Riverside Department of Environmental Health, the City of Lake Elsinore, and other agencies having jurisdiction. The Contractor shall obtain all required permits before pumped water from naturally occurring groundwater or from rainfall is discharged to any storm drain or sewer. A means shall be provided for desilting the water before discharging it where required by the Engineer or by the terms of the discharge permits.

Add the following section:

306-5.1 Measurement and Payment

Dewatering shall be paid at the unit price or lump sum price bid when such an item is provided or as incidental to the work for which the dewatering is required and no separate payment shall be made therefore.

306-6 BEDDING

306-1 General

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

Bedding material shall consist of clean sand or gravel and shall conform to section 217. Sand shall meet the gradation for Table 200-1.5.5.

306-7 PERFABRICATED GRAVITY PIPE

306-7.8 Gravity Pipeline Testing

306-7.8.1 General

Add the following:

All storm drain lines less than 48 inches in diameter shall be inspected by closed circuit television paid for by the Contractor after installation of the pipe and prior to installation of permanent surface improvements. The video inspection shall be performed by an entity with the demonstrated experience to perform the inspection as approved by the Agency.

306-15 PAYMENT

Add the following:

Payment for underground conduit construction shall also include removal and disposal of excavated material not suitable for use as trench backfill.

306-15.9 Temporary Resurfacing

Replace entire subsection with the following:

Temporary bituminous resurfacing materials which are placed by the Contractor are for its convenience and shall be at no cost to the Agency. Temporary bituminous resurfacing materials shall be used in lieu of permanent resurfacing only when approved by the Engineer. When temporary bituminous resurfacing materials are used in lieu of permanent resurfacing it shall be removed and replaced with permanent resurfacing within 7 days of placement or as approved by the Engineer. No additional payment will be made for temporary bituminous resurfacing materials.

The price bid for the associated conduit or structure shall include full compensation for furnishing, placing, maintaining, removing, and disposing of such temporary resurfacing materials.

In the event the Contractor does not place temporary resurfacing by end of workday of placing backfill, the Agency may furnish and place temporary resurfacing at the sole expense of the Contractor. The Agency shall deduct such expense from payments due to the Contractor.

Add the following section:

SECTION 313 TRAFFIC SIGNING

Add the following section:

313-1 GENERAL

The Contractor shall provide and install all permanent traffic control signs as shown on plans and as specified herein. Traffic signs shall comply with Section 206-7, Traffic Signs.

This work shall include the furnishing and installation of new signs and posts, relocating, and resetting existing signs as indicated on the Plans with new post(s), and salvaging signs to the City Yard.

All work and materials shall conform to the provisions set forth in Section 56 of the latest issue as currently available of the State of California, Department of Transportation Standard Specifications entitled "Signs," except as noted otherwise in the following Technical Provisions.

All sign panels shall be 2 mm (0.080 in) gauge 6061-T76 or 5052-H38 aluminum alloy certified as meeting all California Specifications and treated with an alodine 1200 conversion coating. The reflectivity of all stop and warning signs shall be DG3 grade and all other signs shall be engineering grade unless specified by the Resident Engineer. Any chipping or bending of sign panels shall be considered as sufficient cause to require replacement of panels at the Contractor's expense.

The sign post assembly shall consist of a 50 mm (2 in) square perforated steel tube. The anchor assembly will consist of a 56 mm (2 ¼ in) square perforated steel tube which measures 750 mm (2' 6") or 915 mm (3 ft) long. The steel tubes shall be 12 gage and fully galvanized inside and outside.

All sign installations shall have a minimum vertical clearance of 2.1 m (7 ft) from the bottom of the sign to grade and a minimum horizontal clearance of 0.6 m (2 ft) from face of curb to edge of signpost. There must be a minimum 1.2 m (4 ft) clearance from sign post to the back edge of the sidewalk for wheelchair access or as specified by the resident engineer. When there is no sidewalk, curb and gutter, the horizontal clearance shall be 1.8 to 2.4 m (6 - 8 ft) from edge of pavement. The Contractor shall replace existing sign post if the minimum vertical clearance of the signs cannot be achieved.

All signs not mounted on streetlights or traffic signal standards shall be attached to a 50 mm (2 in) square perforated fully galvanized (inside and outside) 12-gauge steel tube post. The post shall be anchored in the ground by a two piece, perforated, fully galvanized anchor and sleeve assembly in all cases. The anchor shall be 900 mm (36 in) in length if being installed in soil and may be 750 m (30 in) in length if being installed through asphalt concrete or through Portland cement concrete.

The anchor and sleeve assembly shall be power driven into the ground simultaneously until 100 mm (4 in) of the anchor and sleeve assembly is above the grade. The square sign post shall then

be installed into the anchor and sleeve assembly to a minimum of 150 mm (6 in) and secured in place with a minimum of two 3/8 inches drive rivets installed in the on-coming traffic side and curb side to pull the post into one corner of the anchor.

All signs shall be installed with washers larger than the head of the drive rivet or bolt (Fender washers preferred).

Installation according to these requirements is essential to maintain the break-away characteristics of the post system. Under no circumstances shall the anchor assembly be secured in concrete footings.

Any sign measuring 1 m (36 in) or larger, except stop signs and street name signs must have approved strapping or back braces installed. Any deviation shall be approved by the Engineer.

All signs shall be installed before the roadway is open to traffic. However, those signs that are not applicable at the time of opening shall be covered until such time when they become valid.

Existing traffic signs and posts that do not conform to the approved Plans shall be removed by the Contractor. All signs and posts removed shall be delivered to the City Yard. Any holes left in the existing sidewalk as a result of post removal shall be filled by the Contractor with a concrete mix or equal to a point flush with the existing sidewalk.

All signs and posts shall be new unless specified to be reused. Any damaged existing signs or signposts that are denoted as being relocated on the Plans shall be replaced with new materials, as directed by the Engineer.

Add the following section:

313-2 SIGN POSTS

Sign locations shall be approved by the Agency prior to installation.

Sign posts shall be located such that they maintain a minimum of forty-eight (48) inches of clearance between the post and the back of sidewalk for ADA compliance.

Signs shall have 7’ vertical clearance from bottom of sign to finished surface for one sign and 6’ vertical clearance for a two-sign installation.

Each post shall be new and have a maximum of two signs (with different meanings) on each side of a post (maximum number of signs on both sides shall not exceed four).

Sign posts shall be installed per City of Lake Elsinore Standard Plan No. 407.

Sign posts located in the median shall be set in an eight (8) inch diameter by twenty-four (24) inch deep PVC sleeve and backfilled with sand to top of sleeve.

Wood posts for Class II & III barricades shall be painted white.

Add the following section:

313-3 SIGNS

All traffic signs shall conform to the California Manual on Uniform Traffic Control Devices (MUTCD) except as modified herein.

Signs shall be a minimum of twelve (12) inches clear (horizontal) from curb face.

Signs that are forty-eight (48) inches wide shall be installed utilizing sign strap hardware on the back.

Signs greater than forty-eight (48) inches wide shall be installed utilizing two posts. Signs shall be installed on existing or new street light poles utilizing ¾" "band it" stainless steel strapping with fasteners.

Single signs mounted on aluminum posts shall include 2 7/8" post caps and double signs shall include 2 7/8" cross saddle.

Signs shall not be installed on utility company poles.

Existing signs shall be salvaged and delivered to the Public Works Department.

Add the following section:

313-4 MEASUREMENT AND PAYMENT

Permanent signing and appurtenances thereto shown on the plans or required in the specifications shall be paid as part of the lump-sum price bid for Traffic Signing & Striping and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in supplying and installing permanent signing, striping, and appurtenances, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, and as directed by the Engineer.

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

314-4 APPLICATION OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS

Delete the entire section and replace with the following:

Pavement striping and pavement markings (legend) application shall conform to Section 84 of the Caltrans Standard Specifications 2022 edition and the Caltrans Standard Plans.

314-5 PAVEMENT MARKERS

Raised pavement markers construction shall conform to Section 81-3 of the Caltrans Standard Specifications 2022 edition and the Caltrans Standard Plans.

Adhesive for raised pavement markers shall be epoxy in conformance to Section 95 of the Caltrans Standard Specifications 2022 edition. Markers shall be applied using rapid-set epoxy conforming to Section 95-1.02E of the Caltrans Standard Specifications 2022 edition.

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PART 4 EXISTING IMPROVEMENTS

SECTION 400 PROTECTION AND RESTORATION

400-1 GENERAL

Add the following:

The Contractor shall protect utility facilities relocated prior to or during construction of the Work.

The Contractor shall not do any work that would affect any oil, gas, sewer, or water pipeline; any telephone, television, telegraph, or electric transmission line or cable; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the City has secured authority therefore from the proper party. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin work, and shall give said party convenient access and every facility for removing, shoring, supporting, or otherwise protecting such improvements and for replacing same.

Maintaining in Service: All oil and gasoline pipelines, power, and telephone television, or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

The Contractor shall be responsible for any and all damage done to existing property and adjacent properties during all construction work under this contract, and the Contractor, at its expense, shall make any repairs that result from its operations to the approval of the Engineer and the subject property owner.

Damaged or removed traffic striping shall be replaced by the Contractor with permanent striping within 24 hours of damage or removal or replaced with temporary striping at the discretion of the Engineer.

SECTION 401 REMOVAL

401-1 GENERAL
Add the following:

All materials removed shall be disposed of at a legal site outside of the Project Site.

401-2 ASPHALT CONCRETE PAVEMENT
Add the following:

401-2.1 Payment
Asphalt Concrete Excavation covers the header cut, removal of asphalt concrete pavement and aggregate base to the depths and dimensions as specified and as shown on the drawings and the disposal of all surplus material. Included in this contract item is the re-compaction of the existing Aggregate Base to 95% relative compaction after removal and disposal of existing asphalt concrete.

401-3 CONCRETE AND MASONRY IMPROVEMENTS
Replace the entire subsection with the following:

All Portland Cement Concrete (PCC) removals, including, but not limited to, cross gutters, curbs, driveway approaches, gutters, sidewalks and spandrels shall be made by removing and replacing the entire section between joints. If any utility cuts are made in PCC improvements, the entire section shall be removed and replaced. Sidewalk removal in front of driveway approaches shall be no less than two squares.

All existing or newly broken, cracked, chipped or damaged PCC within the project limits shall be removed and replaced.

Removal of improvements covered by this section shall include sawcutting and removal of a twenty-four inch (24") wide section of the adjacent bituminous pavement or as approved by the Engineer. Replacement of said pavement shall be full depth in-kind.

Concrete sidewalk, including access (handicap) ramps, concrete curb returns, spandrels and cross gutters, driveway approaches, and other concrete surfacing shall be removed at locations as indicated on the plans, to neatly sawed edges with saw-cuts made to a minimum depth of one-half the thickness of the concrete. Concrete surfaces to be removed shall be neatly sawed such that construction joints to new concrete improvements are clean and straight.

Existing curb or curb and gutter where indicated on the plans shall be completely removed and disposed. The depth of the removal shall be at least to the section subgrade surface, plus necessary scarification depth for achieving the necessary 90% or 95% relative compaction as specified by the project specification and standard plan.

401-5 OTHER IMPROVEMENTS
Add the following:

Existing wood fence, chain Link fence, low block wall and pilaster where indicated on the plans to be removed shall be completely removed and disposed to the satisfaction of the Engineer.

Existing roadside signs where indicated on the plans shall be completely removed or relocated to the satisfaction of the Engineer.

Do not remove roadside signs until the replacement signs are installed or until the existing signs are no longer required for public traffic.

Existing tree where indicated on the plans shall be completely removed and grind the stump. Tree roots larger than 1 inch in diameter shall be completely removed. The depth of the removal shall be at least to the pavement structural section subgrade surface, plus necessary scarification depth for achieving the necessary 90% or 95% relative compaction as specified by the project specification and plan.

The tree holes after tree removal shall be backfilled with soils from the surrounding area the same day the trees are removed and compacted to a minimum of 90% relative compaction.

Add the following section:
401-8 REMOVE AND SALVAGE/REMOVE AND RELOCATE

The work covers the Remove and Salvage and/or Remove and Relocate of all objectionable or interfering material, natural or man-made, within the public right-of-way and adjoining land within the project limits as shown on the Plans.

The work of Remove and Salvage/Relocate of existing improvements shall conform to the provisions of applicable portions of Sections 401, “Removal”, and 306-3.3, “Abandonment of Conduits and Structures”, of the Standard Specifications; referenced sections of other utility standard specifications; referenced sections of the Standard Specifications; as shown on the Plans; as specified in these Special Provisions; and as directed by the Engineer.

The Contractor, unless noted or shown otherwise, shall demolish and remove from the site all existing surface and subsurface improvements adversely affecting or adversely affected by the proposed work.

All known existing improvements are identified on the Plans. These improvements include, but are not limited to, the following: asphalt pavement, water mains, sewer mains, pipe storm drains, gas mains, concrete headwall structures, curb inlets, poles, fencing, lighting, utility appurtenances, etc.

The terminal post of any fence removed shall be reinforced by bracing or other appropriate means to maintain the structural integrity of the fence. Relocation and reconnection of existing fences shown on the plans shall include all posts, hardware, and all incidentals necessary to complete the Work.

401-8.1 Remove and Salvage

All removed and Salvage Items shall require the Contractor to deliver all salvageable materials, including traffic signs and streetlights, to the City of Lake Elsinore at time and location to be determined at the preconstruction meeting.

Terminations for street or parking lot lights to be removed and salvaged shall be in accordance with the National Electric Code. To avoid any live wires remaining in service, the entire length of wire extending to street light or street lights being removed shall be disconnected at the power supply and removed from the site. Complete restoration of affected surface improvements shall be required.

The Contractor shall remove existing street signs and miscellaneous signs in conflict with roadway construction and place same at new locations as directed by the Engineer.

401-8.2 Remove and Relocate

The Contractor shall remove and relocate all existing improvements shown on the Plans to be relocated.

All existing water services shall be relocated per EVMWD standards and requirements. The Contractor shall inspect and verify that the existing service, including the connection at the main, meets current EVMWD standards. Where existing services meet EVMWD standards, extension of the service will be allowed at the price bid for water meter relocations.

401-8.3 Abandon In Place

All existing sewer or water facilities to be abandoned within the proposed project limits shall be terminated at the mainline in accordance with EVMWD requirements. This shall include removal of sewer and water services back to the main. Sewer laterals shall be capped with concrete at the wye connection. Water services shall be terminated at the corporation stop and the stop closed.

SECTION 402- UTILITIES

402-1 LOCATION
402-1.1 General

In respect to work performed under the Contract, Subsection 402-1.1, "General" of the Standard Specifications shall deemed revised to include the following:

When work is to be conducted in an area which is known, or reasonably known, to contain underground utilities or subsurface improvements, the Contractor shall contact Underground Service Alert of Southern California at least 2 working days, but not more than 14 calendar days in advance of any construction activity, which will or could damage or affect any underground utility or subsurface improvement and obtain an inquiry identification number (CGC 4216). The Contractor shall delineate with white paint or other suitable markings the area to be excavated.

The Contractor shall notify Underground Service Alert in the event of change in the project limits or change in original work previously shown on the Plans or indicated in the Specifications. When all work is completed, the Contractor shall remove all markings for underground utilities.

Subsurface installations are considered within 24 inches (600mm) horizontally on either side of the exterior surface of the subsurface installation (CGC 4216). When the subsurface installation markings are no longer reasonably visible, the Contractor shall notify Underground Service Alert to remark those subsurface installations which may be affected by excavation to the extent necessary (CGC 4216.3©).

Add the following subsection:
402-6 WATER VALVE ADJUSTMENT

Existing water valves and / or water meters where indicated on the plans or within the street overlay areas shall be adjusted to grade. Adjustment of valves and meter boxes shall conform to the EVMWD standards.

SECTION 403 MANHOLE ADJUSTMENT AND RECONSTRUCTION

403-3 MANHOLES IN ASPHALT CONCRETE PAVEMENT
Add the following:

Existing manholes within the street overlay areas shall be adjusted to grade. Adjustment of manholes shall conform to Section 301-1 of the Standard Specifications and EVMWD standards.

SECTION 404 COLD MILLING

404.1 General
Add the following:

Additional widths of cold milling may be required at various locations as determined by the Engineer.

404.9 Traffic Signal Loop Detectors
Delete section and add the following.

Before cold milling pavement within 90 m (300 feet) of a traffic signal, the Contractor shall notify the Agency at least 3 working days prior to commencing work within said area. Upon notification, the Agency will mark the location of all existing loop detectors unless shown on plans.

The Contractor shall not mill within 12 inches (300mm) of any existing loop detectors that are shown to be protected in place on the Plans or in the Special Provisions. Traffic signal loop detectors that were shown to be protected in place but are damaged or removed shall be replaced in their entirety in conformance with section 400-1 "General", of Standard Specifications.

Damage to the existing loops caused by the Contractor operation will require replacement of the loops in their entirety at the Contractor's expense.

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PART 6 TEMPORARY TRAFFIC CONTROL

SECTION 600 ACCESS

600-1 GENERAL
Add the following:

All streets shall remain open to through traffic at all times except when street closure is approved by the Engineer. The Contractor shall make provisions to allow local traffic access to the closed streets. The local traffic consists of, but is not limited to, residences, church congregations, farmers, post offices, fire stations, meter readers, trash pickup, school buses, and emergency vehicles. The Contractor shall provide a smooth travel way and either a flagger and/or signing to direct traffic.

600-4 NOTIFICATION
Add the following section:

The Contractor shall notify in person and with printed notification (in English and Spanish language), at least ten (10) working days prior to commencing work, to all agencies, firms, institutions, postal service, residents, hospital, transit authorities, schools, stores, utilities and waste disposal service fronting or affected by the work. Additional printed notification (in English and Spanish language) shall be given not less than seventy- eight (48) hours prior to performing any work which will restrict property access, close or partially close the street, or which will restrict or disallow street parking. All schools and churches shall receive seven (7) working days notification prior to performing any work which will restrict property access.

As applicable, the Contractor shall coordinate with the school district for pick-up and drop-off of school children, transit authority for the pick-up and drop off of riders, waste disposal collection, the postal service to ensure delivery of mail, and churches for weekly or special activities.

The printed notices shall contain a general description of the work to be done and the date that the work is to be done. The notices shall also include a statement that parking will be restricted as called for on the "NO PARKING" signs to be posted along the street. All public notices must be reviewed and approved by the City Engineer prior to its distribution. The Contractor shall allow a minimum of fourteen (14) calendar days for review and approval of public notices.

The Contractor shall also post printed "NO PARKING-TOW AWAY" signs at one- hundred-foot

(100') (thirty meters (30m)) maximum spacing along each side of the affected street for seventy-eight (48) hours prior to the commencement of the street improvement work. The Contractor shall document the day, date and time the "NO PARKING" signs were posted. Posting of signs on trees and utility poles will not be allowed.

The signs shall contain the day, date, hours and vehicle code, that parking will be prohibited on that particular street, CVC 22651L and CVC 22654D. The signs shall be removed immediately upon completion of work that will prohibit parking.

The printed notices and the "NO PARKING" signs shall be furnished by the Contractor.

No Separate Payment will be made for Public Notification.

SECTION 601 TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES

601-1 GENERAL
Add the following:

The Contractor shall supply and install temporary traffic pavement markers, channelizers, signing, railing (type K), crash cushions and appurtenances at the locations shown on the plans and as required in the specifications, complete in place prior to opening the traveled way served by said final and temporary traffic pavement markers, signing, railing (type K) and appurtenances to public traffic.

The Engineer retains the authority to initiate field changes in traffic control to ensure public safety and minimize traffic disruptions. ***The Contractor shall maintain all traffic control devices in proper working condition 24 hours a day, 7 days a week for the duration of the Work***, regardless of whether the subject traffic control devices were originally included in the Contract or were added at the discretion of the Engineer. All traffic control devices shall be removed from view and non-operational when not in use.

Construction signing, lighting, concrete barriers, and barricading shall be provided on all projects as required by City Standards or as directed by the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with **Part 6 "Temporary Traffic Control" of the California Manual on Uniform Traffic Control Devices (CA-MUTCD) for Streets and Highways**, or subsequent editions in force at the time of construction. Part 6 of the California MUTCD is available online at:

http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/pdf/camutcd2012/Part6.pdf

All signs, barricades and other temporary traffic control devices required for the work shall be indicated on and be an integral part of the Traffic Control Plan submitted to and approved by the Engineer.

For all road closures, road detours, lane closures, and all-night operations, the Contractor shall obtain written approval from the Engineer a minimum of 2 working days prior to the commencement of the Work. All warning signs shall be manufactured with high intensity faces and legends and shall be placed at least 7 calendar days prior to the commencement of construction. Any of the Contractor's work that may disrupt normal traffic shall be coordinated with the Engineer a minimum of 2 working days prior to the commencement of the Work.

In public streets, during working hours, the Contractor shall maintain not less than one lane of traffic open in each direction at all times. At night and during non-working hours, the Contractor shall leave the work site in a safe condition and allow for the full use of two lanes of traffic or provide the minimum lane requirements for lane closure as approved by the City.

Flaggers shall be utilized to ensure the safe flow of traffic at intersections and businesses that may be affected. This work shall be included in the lump sum bid item price for "**Traffic control**," in the Bid Schedule(s), and no additional compensation will be allowed therefore.

Payment for traffic control shall be made at the lump sum bid item price for "**Traffic Control**", and no additional compensation shall be allowed therefore.

601-2 TEMPORARY TRAFIC CONTROL PLAN (TCP)

601-2.1 General
Add the following:

The Contractor shall be required to submit Traffic Control Plans for review and approval by the City Engineer. The Traffic Control Plans shall be submitted to the Engineer and approved prior to the Pre-Construction Conference. All traffic control used for this project shall be in accordance with the approved Contractor prepared traffic control plans as well as the Caltrans Traffic Control Plans.

The Contractor shall provide, install, and remove any detours for the routing of vehicular and pedestrian traffic as shown on the approved Traffic Control Plans, as specified in the Special Provisions, or as directed by the Engineer. Payment for such work shall be included in the lump sum bid item price for "**Traffic Control**," in the Bid Schedule, and no additional compensation will be allowed therefore.

601-3 TEMPORARY TRAFFIC CONTROL (TTC)

601-3.4 Operation & Maintenance

601-3.4.1 General
Add the following:

The Contractor shall provide and maintain all necessary traffic control to protect and guide traffic around all work in the construction zone. All traffic controls shall be clearly posted with signs prior to the commencement of the Work. All traffic restrictions listed herein shall supplement any other traffic control requirements of the City and are not intended to replace any part of these requirements. Local access shall be maintained to all properties fronting the Work at all times.

Access shall be maintained to all driveways within the construction zone, unless other prior arrangements have been made with the Engineer and the affected property owner.

The Contractor shall erect signs and barricades to direct pedestrians through or around the construction zone. Payment for installation of pedestrian signs and barricades shall be included in the lump sum bid item price for "**Traffic Control**," in the Bid Schedule(s), and no additional compensation will be allowed therefore.

Notwithstanding the Contractor's primary responsibility for safety at the site of the Work when the Contractor is not present, the Engineer, at his option, after attempting to contact the Contractor, may direct City forces to perform any functions he may deem necessary to ensure public safety at or in the vicinity of the site of the Work. If such procedures are implemented, the Contractor shall be responsible for all expenses incurred by the City.

601-3.5 SIGN AND SIGNAGE

601-3.5.1 General
Add the following:

Temporary No Parking signs shall be posted at least 24 hours, but no more than 48 hours in advance of the work. The signs shall be placed no more than 100 feet apart on each side of the street and at shorter intervals if conditions warrant. The Contractor shall provide the signs and will be responsible for adding the dates and hours of closure to the signs. Removal of signs and furnishing and placing of barricades, if necessary, posts of signs shall be provided by the Contractor. All signs shall be removed within 24 hours after the effective date.

The Contractor shall coordinate with the waste disposal collection and the postal service to ensure delivery of mail.

The printed notices shall contain a general description of the work to be done and the date that the work is to be done. The notices shall also include a statement that parking will be restricted as called for on the "NO PARKING" signs to be posted along the street. All public notices must be reviewed and approved by the Engineer prior to its distribution.

The Contractor shall also post printed "NO PARKING-TOW AWAY" signs at one-hundred-foot (100') maximum spacing along each side of the affected street for seventy-eight (48) hours prior to the commencement of the street improvement work. The Contractor shall document the day, date and time the "NO PARKING" signs were posted. Posting of signs on trees and utility poles will not be allowed.

The NO PARKING signs shall contain the day, date, hours and vehicle code, that parking will be prohibited on that particular street and a statement that parked vehicles will be towed away at the owner's expense per California Vehicle Codes CVC 22651L and CVC 22654D. The signs shall be removed immediately upon completion of work that will prohibit parking.

The printed notices and the "NO PARKING" signs shall be furnished by the Contractor.

Full compensation for compliance with the preceding requirements shall be considered as being included in the lump sum price for "**Traffic Control**" in the bid schedule and no additional compensation will be allowed therefore.

Add the following sections:

601-7 TEMPORARY RAILING (TYPE K) AND CRASH CUSHIONS

Add the following subsection:

601-7.1 General

Temporary railing (Type K) shall consist of interconnected new or undamaged used precast concrete barrier units as shown on the plans. Temporary sand-filled crash cushions shall consist of new or undamaged used temporary sand-filled crash cushions units as shown on the plans.

Add the following subsection:

601-7.2 Appearance

Exposed surfaces of new and used units of Temporary railing (Type K) shall be freshly coated with a white color paint prior to their first use on the project. The paint shall conform to the provisions in Sections 210-1.5, "Paint Systems", and 310, "Painting". The Contractor shall be responsible for the removal and cleanup or painting over the graffiti from the K-Rails within 48 hours. The Contractor Shall replace or repaint units of Temporary railing (Type K) or shall remove graffiti, tire or vehicle marks, dirt or any and all materials such that said marks or discoloration mar the appearance of said units when ordered by the Engineer after the units are in place.

Add the following subsection:

601-7.3 Manufacture of Temporary Railing

In addition to the requirements herein the temporary railing (Type K) shall be manufactured per CALTRANS Standard Drawing T3A Concrete used to manufacture Temporary railing (Type K) shall conform to the provisions in Sections 201-1, "Portland Cement Concrete", and 303-1, "Concrete Structures". Load tickets and a Certificate of Compliance will not be required. Reinforcing steel shall conform to the provisions in Sections 201-1, "Portland Cement Concrete", and 303-1, "Concrete Structures". Steel bars to receive bolts at ends of concrete panels shall conform to ASTM Designation: A 36/A 36M. The bolts shall conform to ASTM Designation: A 307. A round bar of the same diameter may be substituted for the end-connecting bolt shown on the plans. The bar shall conform to ASTM Designation: A 36/A 36M, shall have a minimum length of 660 mm and shall have a 75 mm (3") diameter by 9 mm ($^3/_8$") thick plate welded on the upper end with a 5-mm ($^3/_{16}$") fillet weld. The final surface finish of temporary railings (Type K) shall conform to the provisions in section 303-1.9.2 "Ordinary Surface Finish." Exposed surfaces of concrete elements shall be cured by the water method, the forms-in-place method, or the pigmented curing compound method. The pigmented curing compound shall be type 2 curing compound. Temporary railing (Type K) may have the Contractor's name or logo on each panel. The name or logo shall not be more than 100 mm in height and shall be located not more than 300 mm above the bottom of the rail panel.

Add the following sections:

601-7.4 Installation of Temporary Railing

In addition to the requirements herein the temporary railing (Type K) shall be installed per CALTRANS Standard Drawing T3A. Temporary railing (Type K) shall be set on firm, stable

foundation. The foundation shall be graded to provide a uniform bearing throughout the entire length of the railing. Abutting ends of precast concrete units shall be placed and maintained in alignment without substantial offset to each other. The precast concrete units shall be positioned straight on tangent alignment and on a true arc on curved alignment each rail unit placed within 3 m (10') of a traffic lane shall have a reflector installed on top of the rail as directed by the Engineer. Reflectors and adhesive will be furnished by the Contractor. A Type P marker panel conforming to the requirements of the CALTRANS Traffic Manual shall also be installed at each end of railing installed adjacent to a two-lane, two-way highway and at the end facing traffic of railing installed adjacent to a one-way roadbed. If the railing is placed on a skew, the marker shall be installed at the end of the skew nearest the traveled way. Type P marker panels shall conform to the provisions of section 206-7.2, "Sign Posts". Where shown on the plans, threaded rods or dowels shall be bonded in holes drilled in existing concrete. When temporary railings (Type K) are removed, any area where temporary excavation or embankment was used to accommodate the temporary railing shall be restored to its previous condition, or constructed to its planned condition.

Add the following subsection:

601-7.5 Temporary Sand-Filled Crash Cushions

Temporary sand-filled crash cushion units shall be "Energite III" manufactured by Energy Absorption Systems, "Fitch Inertial Barrier System Modules" manufactured by Roadway Safety Service, or equal. Features required to determine equivalence of any other temporary sand-filled crash cushion units shall be approval of the system by CALTRANS and that the temporary sand-filled crash cushion units meet NCHRP 350 standards. Other features will be suitability to application, operational characteristics, durability and other such characteristics that the Engineer shall determine. Temporary sand-filled crash cushions (TSFCC) shall be of the type and array configurations shown on plans, and installed at every end of, or gap in, the temporary railing (Type K) whenever the closest point of approach of traffic, regardless of direction, is 4.6 m (15') or less to the end of the temporary railing (Type K) being considered. The TSFCC shall be installed per CALTRANS Standard Drawings T1 and T2 for approach speeds no less than the posted speed of the street prior to construction or 55 kilometers per hour (35 mph), whichever is the greater. The TSFCC array shall be appropriate to the application as shown on said standard drawings. A Type J and/or P marker panel conforming to the requirements of the CALTRANS Traffic Manual shall also be installed at each TSFCC array as shown in CALTRANS Standard Drawings T1 and T2. Particular care shall be taken to assure that crash cushions are installed with the soil supporting them and the adjacent soil leveled to match the elevation of the bottom of the temporary railing immediately adjacent to the crash cushion. All routes of approach to the TSCFF array shall be graded such that any vehicle diverging from the traveled way to strike the TSCFF will travel on a vertical alignment parallel to the segment of the travel lane that it departed from.

Add the following subsection:

601-7.6 MEASUREMENT AND PAYMENT

Temporary railing (type K), temporary crash cushions and temporary appurtenances thereto shown on the plans or required in the specifications are a part of the lump-sum item for traffic

control and payment therefore shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in applying, installing, maintaining, and removing temporary traffic pavement markers, channelizers, signing, railing (type K), crash cushions and appurtenances, complete in place, as shown on the plans, as specified in the Standard Specification and these special provisions, and as directed by the Engineer. Payment for temporary crash cushions, concrete barriers and the signs and reflectors marking them shall include the installation, grading for installation, grading for the approach path, maintenance, painting and re-painting, replacement of damaged units and removal and shall also be included in the lump-sum price bid for traffic control. Payment for installation and/or relocation of K-rails and crash cushions when not shown on the plans and requested by the Engineer shall be made per Section 2-8, “Extra Work,” of Standard Specifications.

SPECIAL PROVISIONS

AMENDMENTS TO THE "GREENBOOK"
STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

PART 7 STREET LIGHTING AND TRAFFIC SIGNAL SYSTEM MATERIALS

SECTION 700 MATERIALS

Delete entire section and replace with the following:

700-1 GENERAL

The following specifies the requirements for materials to be installed in the street lighting and traffic signal systems.

The Contractor shall submit, prior to acceptance of the contract, the manufacture's warranties, guaranties, instruction sheet and parts lists supplied for the material used in the work.

700-2 REFERENCE SPECIFICATIONS

a) State of California Department of Transportation Standard Specifications – referred to herein as State Standard Specifications.
b) State of California Department of Transportation Standard Plans – referred to herein as State Standard Plans.
c) City of Lake Elsinore Street Light Manual -Design Criteria and Standards.
d) City of Lake Elsinore Traffic Signal Specification and Installation Manual.

700-3 STREET LIGHTING SYSTEM MATERIALS

New or relocated streetlights located within City R/W or City easements are required to include light emitting diode (LED) luminaries. Refer to City of Lake Elsinore Street Light Manual -Design Criteria and Standards.

700-4 TRAFFIC SIGNAL MATERIALS

Refer to City of Lake Elsinore Traffic Signal Specification and Installation Manual for special traffic signal equipment and installation requirements.