


ADDENDUM TO RFP DOCUMENTS

 <p>SOLANO COMMUNITY COLLEGE</p>	ADDENDUM #01
	SCCD RFP: #17-007
	Project: Solano Community College District Vacaville Center Intersection Improvements
	Date: March 23, 2017

Addendum # 01 – The following clarifications are provided based on questions received and must be added/considered when completing your submittal: Acknowledgement of receipt of this **ADDENDUM** is **required** in the proposal’s cover letter of introduction. Please clearly note the addendum date and number.

ITEM:

1. Mandatory Pre-Bid Meeting Sign-In Sheet (see attached).
2. Point of contact: For bidding and technical questions replace Karim Nassab with Scott Christie, christie@swinerton.com . Reference: Invitation to Bid
3. Question/RFI: Would the District allow an A *or* a C-10 License to bid as a General Contractor?

Answer: We reviewed this closely and also discussed with CSLB and confirmed that prime for this project does need to have A license. The amount and type of non-electrical work is not considered incidental, so a C-10 should not act as prime contractor.

4. Clarification: The District has submitted application and paid encroachment permit fees to the City of Vacaville for this project. Therefore, the contractor will not need to pay such fees, but will need to list itself as the contractor of record for the project and sign for encroachment permit and related city permits.
5. Clarification: Confirming that Section 00-52-13-1 (Agreement) paragraph 4, states contract time of completion as 136 calendar days from the date specified in the Notice to Proceed. Revise contract duration shown in Section 00-01-20 (List of Schedules – Milestone Dates) from 186 to 136 calendar days. Also note the Construction Start and Finish Dates shown on Milestone Dates are dependent on issue date of Notice to Proceed.
6. 00 43 36 Subcontractor listing – since this is a streets and highway project, revise the paragraphs that have the 0.5% threshold to read “in excess of one-half of one percent of the total bid or \$10,000, whichever is greater”.

7. Plans – replace Sheet SSP-3, dated 2-28-2017 with attached Sheet SSP-3, Revision 1, dated 3-22-17. This clarifies that the “latest 2010 Caltrans Standard Plans” shall mean to include all 2010 RSP’s (2010 Caltrans Revised Standard Plans) issued up to the date of the bid notice of 3-8-2017.
8. Plans – clarification: Sheet CD-1, Project Note 1 calls out curb ramps per city standard drawing 3-15C. The truncated domes shall be wet set in concrete.
9. Plans – replace Sheets SSP-1 and SSP-2, dated 2-28-2017 with attached Sheets SSP-1 and SSP-2, Revision 1, dated 3-22-17, which add slurry seal specification. Slurry seal shown on the plans (see CD-1), shall utilize Type II aggregate and quick setting PMCSQS-1h grade emulsion. Surface preparation shall include crack sealing.



SOLANO

COMMUNITY COLLEGE



**Solano Community College District
Capital Improvement Program**

360 Campus Lane, Suite 203, Fairfield, CA 94534

**MANDATORY PRE-BID MEETING
SIGN-IN SHEET**

Phone: (707) 864-7189

PLEASE WRITE CLEARLY AND PLEASE LEAVE A BUSINESS CARD

DATE: March 16, 2017
PROJECT: SCCD –Vacaville Center Intersection Improvements Project
PROJECT No.: #17-007

PLACE: Solano Community College District
2000 North Village Parkway (Vacaville Center Annex)
Vacaville, CA 94688

TIME: 2:00 PM

Print Name	Company / Firm	Phone No.	Email Address
Peyton Gastelum	Pacific Excavation, Inc.	(916) 686-2800	peyton@pacificexcavation.com
Lisa Moore	W. Bradley Electric	(707) 864-3950	lmoore@wbeinc.com
Danielle Gillman	St. Francis Electric	(510) 639-0639	dgillman@sfe-inc.com
Mike Baker	Vaca Valley Excavating	(707) 453-1812	mike@vexc.com
Doug Ries	Omni-Means	(916) 782-8688	dries@omnimeans.com

SPECIAL PROVISIONS

THE CONTRACTOR SHALL CONFORM TO THE 2006 CALTRANS STANDARD SPECIFICATIONS, THE LATEST REVISED 2010 CALTRANS STANDARD PLANS, THE LATEST CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), THE PROJECT PLANS AND THESE SPECIAL PROVISIONS.

SECTION 10 - CONSTRUCTION DETAILS

10-1.01 COOPERATION

The Contractor's attention is directed to Sections 7-1.14, "Cooperation," and 8-1.10, "Utility and Non-Highway Facilities," of the Caltrans Standard Specifications, and these Special Provisions, UCSICON

Contractor must coordinate his work with various utility companies and outside forces that are required for the installation, programming and turn-on support for various electrical equipment specified in these Special Provisions that are involved with this Project and schedule his work to minimize construction delays and conflicts.

10-1.02 TRAFFIC CONTROL SYSTEM

The Contractor's attention is directed to Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, and the provisions under "Maintaining Traffic" elsewhere in these Special Provisions.

When lane closures or sidewalk closures are required on City streets, Contractor shall submit lane closure/traffic control plans to the Engineer to review in advance of such closure. The City shall have a minimum of two working days to review and approve/reject the Plans. In the case that the Plans are rejected, a new two working day review period shall commence for each resubmittal. The Contractor shall not start lane closure work until he has received written approval of said plan. Street closures will not be allowed and all lanes of traffic must be open in each direction for every street affected by the Contractor's work, unless such lane closure plan has been approved by the Engineer.

The traffic control plan shall address traffic handling during lowering and raising of the various manholes and boxes. The provisions in this section will not relieve the Contractor from the responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

During traffic striping operations and pavement marker placement using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving type lane closures. During all other operations, traffic shall be controlled with stationary type lane closures. The Contractor's attention is directed to the provisions in Section 84-1.04, "Protection From Damage," and Section 85-1.06, "Placement," of the Standard Specifications.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, (from any cause, during the progress of the work) the Contractor shall immediately repair the component to its original condition or replace the component and shall restore the component to its original location.

10-1.03 MAINTAINING TRAFFIC

The Contractor's attention is directed to Sections 7-1.08, "Public Convenience," 7-1.09, "Public Safety," and 12, "Construction Area Traffic Control Devices," of the Standard Specifications. Nothing in these Provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.09 of the Standard Specifications.

The minimum size specified for Type II flashing arrow signs in the table following the second paragraph of Section 12-3.03, "Flashing Arrow Signs," of the Standard Specifications is amended to read "36 inches by 72 inches".

The second and third paragraphs of Section 12-3.10, "Traffic Cones," of the Standard Specifications are amended to read:

During the hours of darkness, traffic cones shall be affixed with reflective cone sleeves. The reflective sheeting of sleeves on the traffic cones shall be visible at 1,000 feet at night under illumination of legal high beam headlights, by persons with vision of or corrected to 20/20.

Reflective cone sleeves shall conform to the following:

- 1. Removable flexible reflective cone sleeves shall be fabricated from the reflective sheeting specified in the Special Provisions, have a minimum height of 13 inches and shall be placed a maximum of 3 inches from the top of the cone. The sleeves shall not be in place during daylight hours.
- 2. Permanently affixed semitransparent reflective cone sleeves shall be fabricated from the semitransparent reflective sheeting specified in the Special Provisions, have a minimum height of 13 inches, and shall be placed a maximum of 3 inches from the top of the cone. Traffic cones with semitransparent reflective cone sleeves may be used during daylight hours.
- 3. Permanently affixed double band reflective cone sleeves shall have 2 white reflective bands. The top band shall be 6 inches in height, placed a maximum of 4 inches from the top of the cone. The lower band shall be 4 inches in height, placed 2 inches below the bottom of the top band. Traffic cones with double band reflective cone sleeves may be used during daylight hours.

The type of reflective cone sleeve used shall be at the option of the Contractor. Only one type of reflective cone sleeve shall be used on the project.

Lane closures shall conform to the provisions in the section of these Special Provisions entitled "Traffic Control System."

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

The Contractor shall notify local authorities of his intent to begin work at least five (5) days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make his own arrangements relative to keeping the working area clear of parked vehicles.

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

Lane closures shall be limited to the hours of 8:00 AM to 4:00 PM Monday through Friday excluding designated legal holidays. Requests for deviation from this plan must be submitted to the Engineer in writing and approved before being placed in the field.

10-1.04 OBSTRUCTIONS

The Contractor's attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities," and 15, "Existing Highway Facilities," of the Caltrans Standard Specifications and these Special Provisions.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi gauge; underground electric supply system conductors or cables, with potential to ground of more than 300 volts, either directly buried or in duct or conduit which do not have concentric grounded conductors or other effectively grounded metal shields or sheaths.

The Contractor's attention is directed to the existence of:

- 1. Underground utilities existing within the project limits including, but not limited to, electrical, gas, storm drainage, sanitary sewer and water lines.
- 2. Underground traffic signal conduits, traffic loops and signal interconnect cables
- 3. Solano Irrigation District pipelines located within and adjacent to the Project site.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444

10-1.05 SALVAGE EXISTING STREET LIGHTING

Construction of improvements will require the removal of existing street lighting as shown on the Plans. Removal of existing street lighting shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Caltrans Standard Specifications, these

Special Provisions, and the Project Plans.

Removal of existing street lighting shall include complete removal of the existing street light foundation and street light box. The resulting excavations shall be backfilled with native material generated from the Project and compacted to 85% relative compaction.

Contractor shall salvage all existing street lighting equipment to be removed, as shown on the Project Plans. Equipment to be salvaged includes, but is not limited to streetlight standards, mast arms and lighting fixtures. Removal shall not damage the streetlight standards, mast arms and lighting fixtures.

The Contractor shall be required to supply all equipment necessary for loading, transporting and unloading the salvaged streetlight standards, mast arms and lighting fixtures to the City's Corporation Yard. Equipment to be salvaged shall be delivered to the City Corporation Yard located at 1001 Allison Drive, Vacaville CA. The Contractor shall provide the Engineer at least two working days prior to the delivery of any equipment.

Street lights shall not be removed until their use is no longer required. The Contractor shall notify the Engineer three working days before removal of existing street lighting.

Material to be removed (and not salvaged) under this section of the Special Provisions shall become the property of the Contractor and disposed of at the Contractor's expense outside of the limits of work as provided in Section 7-1.13, "Disposal of Material Outside the Highway Right Of Way," of the Caltrans Standard Specifications.

10-1.06 REMOVE ROADSIDE SIGN

Construction of the project will require removal of existing roadside signs at the locations shown on the Project Plans or in conflict with proposed improvements. New signs shall be reinstated in conformance with the details indicated on the Project Plans and Section 10-1.38, Roadside Signs.

Removal of roadside signs shall include complete removal of the existing foundation, sign and post.

Sign panels to be removed shall be salvaged and delivered to the City's Corporation Yard at 1001 Allison Drive. All other material removed under this section of the special provisions shall become the property of the Contractor and disposed of at the Contractor's expense outside of the limits of work as provided in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way", of the Standard Specifications.

10-1.07 REMOVE PAVEMENT DELINEATION AND PAVEMENT MARKINGS

Existing pavement delineation (stripes and markers) and pavement markings shown to be removed on the plans shall be removed by either sandblasting or by grinding.

The Contractor shall provide a Lead Compliance Plan in accordance with Title 8, California Code of Regulations, Section 1532.1, "Lead." Before submission to the Engineer, the Lead Compliance Plan shall be approved by an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene. The Plan shall be submitted to the Engineer at least seven (7) days prior to beginning removal of yellow thermoplastic.

Immediately following the removal of existing stripes, markers and markings, the Contractor shall clean and sweep roadways and on-site-paved areas to eliminate all materials attributed to or involved with removal operations. All materials shall be removed from the roadway prior to the end of each working day or as directed by the Engineer. The Contractor shall not use water to flush down streets in place of street sweeping.

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

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

10-1.08 TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained, and removed in accordance with the provisions in Section 12-3.01, "General," of the Caltrans Standard Specifications and these Special Provisions. Nothing in these Special Provisions shall be construed as to reduce the minimum standards specified in the latest California MUTCD or as relieving the Contractor from his responsibility, as provided in Section 7-1.09, "Public Safety," of the Standard Specifications.

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic, unless otherwise approved by the Engineer. Lane and centerline pavement delineation shall be provided at all times for traveled ways open to public traffic. In addition, crosswalks, stop bars/limit lines, pavement legends, arrows, and other markings designated by the Engineer, shall be in place prior to opening the roadway to public traffic.

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

Temporary pavement delineation shall be maintained until replaced with permanent pavement delineation. Temporary pavement delineation shall be removed when, as determined by the Engineer, the temporary pavement delineation conflicts with the permanent pavement delineation or with a new traffic pattern for the area and is no longer required for the direction of public traffic. When temporary pavement delineation is required to be removed, all lines and marks used to establish the alignment of the temporary pavement delineation shall be removed.

Temporary pavement delineation shall consist of temporary reflective raised pavement markers placed on lane lines and centerlines at longitudinal intervals of not more than 24 feet apart, or 12 feet apart on radii, and reflective tape to establish obliterated pavement markings including, but not limited to, crosswalks, stop bars, pavement legends, and turn arrows. Temporary reflective raised pavement markers and temporary reflective tape shall be the same color as the lane line, centerline, or pavement marking the markers/tape replace.

Temporary stop bars and crosswalks shall be marked in one coat of traffic paint and supplemented with raised temporary markers placed every two (2) feet. The painted temporary stop bars and crosswalks shall be placed at their final location such that the permanent thermoplastic marking completely cover the temporary painted markings.

Temporary reflective raised pavement marker shall be, at the option of the Contractor, one of the materials listed in the Caltrans Authorized Material List.

Temporary reflective raised pavement markers shall be placed in accordance with the manufacturer's instructions. Temporary reflective raised pavement markers shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place temporary reflective raised pavement markers in areas where removal of the markers will be required.

Temporary pavement delineation shall be used for a maximum of fourteen (14) days on streets/lanes opened to public traffic. Where the final layer of surfacing is in place, the permanent pavement delineation shall be placed within fourteen (14) days after opening the lanes to public traffic.

When the Contractor's operations are such that temporary delineation will be in use on streets/lanes opened to public traffic for longer than the fourteen (14) days, the Contractor shall provide, at his/her expense, prior to the end of fourteen (14) days, additional pavement delineation. The additional temporary pavement delineation to be provided shall be equivalent to the pattern shown for permanent pavement delineation, as determined by the Engineer.

10-1.09 THERMOPLASTIC PAVEMENT DELINEATION AND PAVEMENT MARKINGS

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

The first paragraph of Section 84-2.02, "Materials," is amended to read:

The thermoplastic material shall conform to State Specification PTH-02HYDRO or PTH-02ALKYD. Glass beads to be applied to the surface of the molten thermoplastic material shall conform to the requirements of State Specification 8010-004 (Type II).

The seventh paragraph of Section 84-2.04, "Application," is amended to read:

The thermoplastic material shall be applied by extrusion methods in a single uniform layer.

Traffic stripes and pavement markings shall be thermoplastic, unless noted otherwise on the Project Plans. Pavement markings shall be placed at the locations indicated on the Project Plans and where described in these Special Provisions. Thermoplastic material for traffic stripes and pavement markings shall be applied at a minimum thickness of 0.070 inch.

Unless otherwise noted on the plans, all crosswalks for all legs of the intersection, as designated by the Project Plans shall receive new markings, even if only one existing leg in the intersection is disturbed. Prior to the replacement of additional crosswalk, markings to be replaced shall be removed in accordance with the Section titled, "Remove Pavement Delineation and Pavement Markings," of these Special Provisions.

Adjacent existing markings which do not coincide with new markings shall be removed. Removal of such markings shall be the same day the proposed striping is installed. Removal of existing stripes and/or markings, where necessary, shall be as specified in the Section titled, "Remove Pavement Delineation and Pavement Markings," of these Special Provisions.

The Contractor shall notify the City a minimum of two working days in advance of the layout and cat-tracking of the proposed improvements. The Contractor shall notify the City Traffic Engineer Staff when a portion or all of the proposed striping/pavement markings have been laid out and ready for inspection. The City shall have a minimum of two working days to review and approve/reject the cat-tracking after the notification. A new two working day review period shall commence after each notification. Stop limit lines shall be installed a minimum of four (4) feet behind the prolongation of the curb faces of the intersecting street or before the accessible ramp, if one exists.

10-1.10 PAVEMENT MARKERS

Pavement Markers, reflective and non-reflective, shall be furnished and installed at the locations shown on the Project Plans and shall be in conformance with the Standard Plans and Section 85, "Pavement Markers," of the Caltrans Standard Specifications except as amended herein.

When bituminous adhesive is used for pavement marker placement, traffic control during placement operations shall conform to the requirements of the Section titled, "Traffic Control System," of these Special Provisions.

A blue raised retroreflective, bidirectional pavement marker shall be installed two (2) feet off the street centerline at each fire hydrant, on the fire hydrant side of the roadway.

The Contractor shall notify the Inspector a minimum of two working days prior to the day of layout and cat tracking of the proposed striping and pavement markings. The Contractor shall be responsible for layout and cat tracking of the proposed striping and pavement markings and shall notify the City Traffic Engineer Staff when a portion or all of the proposed striping/pavement markings have been laid out and ready for inspection. The City shall have a minimum of two working days to review and approve/reject the cat-tracking after the notification. A new two working day review period shall commence after each notification.

10-1.11 ROADSIDE SIGNS

Roadside signs shown on the Project Plans to be installed, shall be furnished and installed in accordance with Section 56, "Signs," of the Caltrans Standard Specifications, and these Special Provisions.

Roadside signs up to 30"x30" shown to be installed on a 2"x2", 12 ga. Square perforated galvanized steel tubing with breakaway post and base, and bottom of the sign shall be mounted a minimum of 7 feet above adjacent sidewalk or shoulder, unless otherwise noted on the Project Plans. Galvanized steel or aluminum caps are required on the top of the tubings.

All traffic signs shall be 0.080in thick aluminum. All regulatory signs shall have High Intensity Prismatic Reflective Sheeting with applied Protective Overlay Graffiti Film and are in accordance with the latest CA MUTCD. All other signs that do not have white background, procured to guide, warn or regulate traffic shall have retroreflective sheeting American Society for Testing and Materials D4956-13(ASTM) Type XI on the entire sign that include but not limited to background, borders, numerals, symbols, arrows, etc and have applied Protective Overlay Graffiti Film. All new warning sign panels shall have a fluorescent yellow background.

Where shown on the Project Plans, certain signs may be fastened on streetlight poles as shown in the Project Plans, the bottom of the sign shall be mounted a minimum of 7 feet above the top of grade of adjacent sidewalk or shoulder. Signs shall be fastened to poles with appropriate band brackets.

Concrete footings for the roadside signs shall conform to the provisions in the section titled, "Minor Concrete," of these Special Provisions.

10-1.12 MINOR CONCRETE

Minor concrete shall include curb, gutter, sidewalk, accessible ramps, retaining curb, valley gutters, and median curbs and shall conform to the provisions in Section 73, "Concrete Curbs and Sidewalks," and Section 90-10, "Minor Concrete," of the Caltrans Standard Specifications, and these Special Provisions.

The reinforcement specified in Minor Concrete shall conform to Section 52, "Reinforcement," of the Caltrans Standard Specifications and shall be Grade 60.

The cement content for minor concrete shall be a minimum of 6 sacks of cement per cubic yard of concrete.

Coarse aggregate material shall conform to the grading requirements for (1" x No. 4) primary aggregate nominal size.

Where new concrete is to conform to existing concrete, the existing concrete shall be cut to a true line, at an existing score mark or deep joint. The full depth of the existing concrete section with a power driven abrasive saw. The existing concrete shall be drilled to accept 9-inch long #4 rebar dowels installed every two feet. The dowels shall be embedded a minimum of 3 inches and maximum of 4 1/2 inches into the existing concrete.

Deep joints and score marks shall conform to the following requirements:

- 1. Deep joints shall be a minimum of 1 inch deep.
- 2. Score marks shall be 1/4 inch deep.
- 3. Deep joints and score marks for curb, gutter, sidewalk, driveways, and accessible ramps shall conform to the City Standard Drawings.
- 4. Deep joints for median curbs shall be installed a minimum of 1-inch deep through each face and the top of the curb evenly spaced at no more than 10 foot intervals.
- 5. Deep joints and score marks for curb, gutter, sidewalk, driveways, and accessible ramps shall conform to the Project Plans.
- 6. Deep joints for median curbs shall be installed a minimum of 1-inch deep through each face and the top of the curb evenly spaced at no more than 10 foot intervals.
- 7. Deep joints for concrete Maintenance Roads and all other concrete flat work shall conform to the following:
 - a. Transverse and longitudinal deep joints shall be evenly spaced at not less than 5-foot and no more than 10-foot intervals.
 - b. Score marks shall not be made unless otherwise required by the Project Plans.

The letter "S" shall be stamped over each sanitary sewer service and the letter "W" shall similarly be stamped over each water service. The letters shall be placed at the top of curb on vertical curb and on the top of the roll of the low profile curb.

The Contractor shall protect concrete in accordance with Section 90-8, "Protecting Concrete" of the Caltrans Standard Specifications and these Special Provisions. Additionally, the Contractor shall protect the surface of the concrete against all damage and markings both from pedestrian and other traffic. Appropriate traffic control barriers and signing shall be placed at the proper locations to protect the concrete and to maintain the safety for pedestrians and other traffic. Contractor's attention is directed to Section 10-1.16, "Traffic Control System" of these Special Provisions for additional information.

The Contractor shall test the gutter for water conveyance as soon as the surface of the concrete has sufficiently set to permit the introduction of a shallow stream of water without causing damage to the gutter surface. All flow line irregularities shall be corrected before the concrete has set.

It is the sole responsibility of the Contractor to ensure that the grading, forming and final finish for placement of concrete will result in improvements that comply with the slope and dimension requirements of these Special Provisions and the Project Plans. At his/her own expense, the Contractor shall remove and replace all concrete improvements that are not in conformance with these requirements.

The Contractor shall adjust to grade any utility boxes within minor concrete areas to the grade of the finished concrete surface. The Contractor shall also be responsible for cleaning and clearing concrete mortar from all utility boxes so that they are fully accessible upon completion of the installation.

10-1.13 UNDERGROUND SYSTEMS

10-1.13A GENERAL

All underground systems shall conform to the provisions in Section 70, "Miscellaneous Facilities," of the Caltrans Standard Specifications and these Special Provisions.

Work associated with underground systems shall include, but not be limited to, saw cutting of existing street asphalt, curb and gutter, sidewalks, etc. and placing the underground facilities in accordance with the Standard Specifications, the Project Plans, and these Special Provisions.

The Contractor's attention is directed to the Project Plans for the depth of existing asphalt concrete.

10-1.13B CONFINED SPACES

The Contractor is warned that the worksite may involve locations that exhibit confined space conditions such as trenches, pipelines, manholes, basins, and vaults. The Contractor shall comply with California Code of Regulations, Title 8, Division 1, Chap 4, Sub-Chapter 7, Article 108, Section 5188 and any other applicable sections of the Code. At a minimum, all employees involved with a confined space entry shall be trained for such entry and shall be operating under specific written operating procedures prepared by the Contractor for such entry. The space shall be emptied, flushed, purged and protected from re-entry of hazardous substances. The air within the confined space shall be continually monitored and tested for contamination or oxygen deficiency/enrichment. Ventilation shall be provided if required to preserve a safe atmosphere. Provisions shall be made for ready entry into and exit from the confined space. Where appropriate, a retrieval system shall be in place and manned. Communication shall be maintained with employees entering the confined space. Ongoing surveillance of the surrounding area and operations shall be maintained by an employee dedicated to that specific task during confined space operations.

SECTION 11 - ELECTRICAL

11-1.01 TRAFFIC SIGNAL SYSTEM

11-1.01A DESCRIPTION

Installation of traffic signals, lighting, mast arms, and pole mounted signs and removal of existing traffic signal components, as shown on the Project Plans, shall conform to the provisions in Section 86, "Signals, Lighting and Electrical Systems," of the Caltrans Standard Specifications, Caltrans Standard Plans, and these Special Provisions.

All equipment shown on the Project Plans, specified in the Standard Specifications and these Special Provisions, shall be furnished by the Contractor.

The Contractor shall arrange and coordinate with the City Traffic Engineer and certified personnel that are required for various equipment turn-on support, as specified in these Special Provisions, to be present and ensure functionality of the Traffic Signal System at the time equipment is activated.

Traffic Signal work is to be performed at the following locations:

- 1. Intersections of North Village Parkway/Solano College and Vaca Valley Parkway/North Village Parkway/New Horizons Way.

11-1.01B INSPECTION

For installation of traffic signal systems the following items of work and equipment locations shall be specifically inspected by the Engineer. Contractor shall provide notification to the City a minimum of two working days prior to the actual inspection.

- 1. Layout and location of traffic signal pole foundations.
 - The Contractor shall be responsible to have the face of curb (including medians and islands) laid out horizontally and vertically and have utilities located prior to requesting inspection of pole foundations locations by the Engineer. Layout by the Contractor shall include providing stakes identifying the exact elevations of the final improvements and marking in paint - from curb return to curb return - the face of curb, back of walk and accessible ramp/crosswalk/limit line. If pole foundations are located within an island, the entire island shall be marked in paint.
 - Prior to placing concrete, location, orientation, reinforcing steel, and bolts for the traffic signal pole foundations shall be verified by the Engineer. Contractor shall have lane lines temporarily cut tracked prior to inspection.
- 2. Layout and location of traffic signal controller pad.
 - Prior to placing concrete, size, location, orientation, reinforcing steel, and bolts for controller/service pad shall be verified by the Engineer.
- 3. Prior to aiming the video detection camera and programming the video detection zones, location, size and alignment shall be verified by the Engineer. Contractor shall have lane lines temporarily cut tracked and the leading edge of the detections zones marked on the pavement prior to this inspection.
- 4. Prior to backfilling trenches, grouting pull boxes, or otherwise concealing electrical conduit, size and connections of the conduit shall be verified by the Engineer.
- 5. Prior to activation of the system, size, type, location, splices, connections and general workmanship of all electrical conductors, controller cabinet wiring, and service pedestal wiring shall be inspected by the Engineer.
- 6. Prior to sawcutting loop detectors, location, size and alignment shall be verified by the Engineer. Contractor shall have lane lines temporarily cut tracked prior to this inspection.

11-1.01C EXCAVATING AND BACKFILLING

Excavating and backfilling shall conform to the provisions in Section 86-2.01, "Excavating and Backfilling" of the Caltrans Standard Specifications, the Project Plans and these Special Provisions.

Paragraph 2 of Section 86-2.01, "Excavating and Backfilling", of the Caltrans Standard Specifications shall be amended to read:

"Unless otherwise permitted in writing by the Engineer, all surplus excavated material shall become the property of the Contractor and shall be removed and disposed of within the same day as the excavation, outside the highway right of way in accordance with the provisions in Section 7-1.13, "Disposal of Material Outside of the Highway Right of Way," of the Standard Specifications."

11-1.01D REMOVING EXISTING IMPROVEMENTS

Paragraphs 2 and 3 of Section 86-2.02, "Removing and Replacing Improvement", of the Caltrans Standard Specifications shall be amended to read:

"Whenever a section of existing concrete sidewalk, curb, gutter, or driveway is broken, damaged, or removed for construction of new improvements, the entire section shall be removed to the nearest score or deep joint, and the concrete reconstructed in accordance with the provisions for Minor Concrete provided elsewhere in these Special Provisions.

When removing existing concrete or asphalt adjacent to concrete or asphalt to remain, the surface to concrete or asphalt to remain, the surface shall be sawcut to a depth sufficient to cut through the surface completely and along a neat, straight line prior to removal."

Material to be removed (and not salvaged) under this section of the Special Provisions shall become the property of the Contractor, and shall be disposed of outside of the limits of work as provided in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Caltrans Standard Specifications.

11-1.01E FOUNDATIONS

Traffic signal pole foundations shall conform to Section 86-2.03, "Foundations" of the Caltrans Standard Specifications, the Standard Plans, these Special Provisions, and the Project Plans.

Portland cement concrete for traffic signal pole foundations shall conform to the provisions of Section 10-1.32, "Minor Concrete" of these Special Provisions.

The traffic signal controller and electrical service shall be incorporated into one concrete pad in accordance with Standard Plans ES-3C and the Project Plans.

The base plate of type 1-B standards shall be flush with the finished grade. No sleeve nuts shall be used on Type 1-B standard.

The Contractor's attention is directed to Section 10-1.09, "Obstructions" of these Special Provisions. In areas of potential underground utility conflict where auguring may cause damage, hand digging of pole foundations shall be required.

11-1.01F CONDUIT

Electrical conduit shall conform to Section 86-2.05, "Conduit," of the Caltrans Standard Specifications, these Special Provisions, and the Project Plans.

Material:

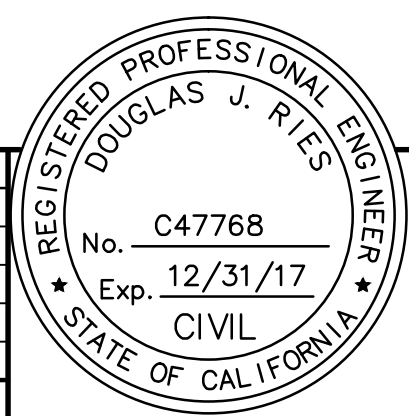
Section 86-2.05A, "Material," of the Caltrans Standard Specifications shall be amended to read:

FINAL SUBMITTAL PRELIMINARY, NOT FOR CONSTRUCTION 3-22-17

811
Know what's below. Call before you dig.
Contractor shall call Underground Service Alert at 811 two working days prior to excavation

REFERENCE FILES:

NO.	DATE	DESCRIPTION	BY
1	3/22/17	ADDENDUM #1 - ADD "LATEST REVISED 2010 CALTRANS STANDARD PLANS"	DJZ



omni • means
REGISTERED CIVIL ENGINEER
PLANS APPROVAL DATE
12/31/17
CIVIL

APPROVED BY:
SHAWN L. CUNNINGHAM, R.C.E. 51420
DIRECTOR OF PUBLIC WORKS

RECOMMENDED APPROVAL BY:
TIMOTHY F. BURKE, R.C.E. 52989
CITY ENGINEER

omni • means
ENGINEERS PLANNERS
SACRAMENTO REGION
943 Reserve Dr. #100
Roseville, CA 95678
(916) 782-8686
also in:
REDDING
WISLAHA
WALNUT CREEK

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CONSTRUCTION STANDARDS
SECTION CS 4
AGGREGATE BASE

CS 4-01 GENERAL: Furnishing, spreading and compacting aggregate base shall be conformance with Section 26, Aggregate Bases of the CALTRANS Standard Specifications except as amended by Section CS-4 Aggregate Base, of the City Standard Specifications and Standard Drawings.

CS 4-02 ALLOWABLE MATERIALS: Aggregate base material shall conform to Class 2 Aggregate Base, ¾ inch maximum aggregate grading requirements, of the CALTRANS Standard Specifications

The Contractor shall provide to the Director of Public Works for review and approval an aggregate base submittal that substantiates that the material proposed to be delivered to the project complies with the Aggregate Grading and Quality Requirements specified in Section 26 of CALTRANS Standard Specifications for Class 2, ¾ inch maximum aggregate grading.

CONSTRUCTION STANDARDS
SECTION CS 5
ASPHALT CONCRETE

CS 5-01 GENERAL: Furnishing, spreading and compacting Asphalt Concrete shall be in conformance with Section 39, "Asphalt Concrete" of the CALTRANS Standard Specifications except as amended by Section CS-5, "Asphalt Concrete", of the City Standard Specifications and Standard Drawings.

CS 5-02 ALLOWABLE MATERIALS:

A.General: Asphalt Concrete shall be Type A, Modified unless otherwise specified by the Project Plans or Special Provisions.

B.Aggregate grading: Aggregate used in Asphalt Concrete shall conform to the grading requirements of Section 39-2.02, "Aggregate," of the Standard Specifications, as modified herein.

- Aggregate shall be a minimum of 85% machine aggregate with a minimum of two fractured faces.
- Aggregate shall be ¾ inch Maximum, Medium grading for streets with a Traffic Index greater than eight (8).
- Aggregate shall be ½ inch Maximum, Medium grading for parking lots, bike paths, streets with a Traffic Index equal to or less than eight (8), and for overlays less than 2/4 inches in compacted thickness.
- Aggregate shall be 3/8 inch Maximum grading for sports courts.

C.Asphalt Binder: Asphalt binder shall be Performance Grade 64-10 paving asphalt conforming to Section 92, "Asphalt," of the CALTRANS Standard Specifications unless otherwise specified on the Project Plans or Special Provisions.

D.Air Voids: The percentage of air voids in the mix design at the target asphalt binder content ("Target Oil Content") shall be between three (3) and five (5) percent.

CS 5-03 MIX DESIGN:

A.The Contractor shall provide the Asphalt Concrete mix design to the Director of Public Works at least ten (10) working days prior to start of work on the project for review and approval. The mix design must be approved prior to commencement of work.

The Asphalt Concrete mix design shall indicate the following:

- Complete aggregate gradings with the percentage of aggregate passing each sieve size and the aggregate is in conformance with paragraph CS5-02B.
- Percent air voids for each percentage of asphalt binder used in the mix design determination.
- Hveem Stability for each percentage of asphalt binder used in the mix design determination.
- Compacted unit weight for each percentage of asphalt binder used in the mix design determination per CTM 308 "Method of Test Bulk Specific Gravity and Density of Bituminous Mixtures".
- Laboratory Test Maximum Density at Target asphalt binder used in the mix design determination per CTM 375 "Determining the in Place Density and Relative Compaction of Asphalt Concrete".
- Percent asphalt binder recommended for the Target Oil Content.

B.The Target Oil Content to be mixed with the aggregate for Asphalt Concrete shall be approved by the Director of Public Works based on data from California Test Method (CTM) 367, "Method for Determining Optimum Bitumen Content", provided by the Contractor.

CS 5-04 PROPORTIONING AND MIX TOLERANCE:

A.Proportioning: If the Contractor selects the batch mixing method, Asphalt Concrete shall be produced by the automatic batch mixing method as provided in Section 39-3.03A(2), "Automatic Proportioning," of the Standard Specifications.

B.Mix Tolerance: The maximum single point tolerance for binder content during placement of the Asphalt Concrete shall be plus or minus 0.45% from the Target Oil Content designated by the approved mix design unless the tolerance will create a mix that is outside the specifications for air voids and/or stability.

CS 5-05SPREADING AND COMPACTING:

A.General: Spreading and Compacting shall conform to Section 39-6 "Spreading and Compacting of the CALTRANS Standard Specifications except as amended herein. Asphalt Concrete shall be placed only when the atmospheric temperature is above 50 degrees F. Asphalt Concrete shall be spread at a mix temperature of not less than 260 degrees F. When placing Asphalt Concrete, large aggregate that migrates to the surface during any handwork shall be returned to the paver box, rather than scattered over the surface of the mat.

B. Asphalt thickness less than 0.15 foot in thickness or widths less than 5 feet: Asphalt Concrete placed in layers less than 0.15-foot in compacted thickness or widths of less than five (5) feet shall be spread and compacted with the equipment and by the methods specified in Section 39 of the CALTRANS Standard Specifications.

C. Asphalt thickness of 0.15 foot in thickness and widths of 5 feet and greater: Asphalt Concrete placed in layers of 0.15-foot and greater in compacted thickness and widths of five (5) feet and greater shall be spread and compacted with the equipment and by the methods specified in said Section 39, except as amended as follows:

1. The entire contents of Section 39-5.02, "Compacting Equipment," of the CALTRANS Standard Specifications are amended to read:

"39-5.02 Compacting Equipment - The Contractor shall furnish a sufficient number of rollers to obtain the compaction specified and surface finish required by these Specifications. Each roller shall have a separate operator. All rolling equipment shall be self-propelled and reversible. All rollers shall be equipped with pads and water systems, which prevent sticking of asphalt mixtures to the pneumatic or steel-tired wheels. A parting agent, which will not damage the asphalt mixture, as determined by the Inspector, may be used to aid in preventing the sticking of the mixture to the wheels. Other equipment, approved by the Inspector in accordance with CTM 113, "Method for Evaluating the Capabilities of Asphalt Concrete Compactors", may be substituted for 3-wheel or tandem rollers when used as specified in Section 39-6.03, "Compacting."

2. The entire contents of Section 39-6.03, "Compacting," of the CALTRANS Standard Specifications, is amended to read:

"39-6.03 Compacting - A pass shall be one movement of a roller in either direction. A coverage shall be as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage, made to ensure compaction without displacement of material in accordance with industry accepted 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 coverage is started.

Rolling shall commence at the lower edge and shall progress toward the highest portion, except that when compacting layers which exceed 0.25-foot in compacted thickness, and if directed by the Inspector, rolling shall commence at the center and shall progress outwards.

Rolling shall be performed so that cracking, shoving, or displacement is avoided.

Initial breakdown rolling shall commence as soon as practical following the spreading of the Asphalt Concrete.

Finish rolling or final compaction shall be completed while the temperature of the mixture is at or above 150° F. A vibratory roller may be used as the finish roller provided that it meets the requirements for a finish roller and is operated with the vibratory unit turned off.

Asphalt Concrete shall be finished to the lines, grades, and cross section shown on the Project Plans.

Asphalt Concrete shall be compacted to not less than 95.0 percent for a single test and not less than an average in place density of 96.0 percent relative compaction of the Laboratory Test Maximum Density as determined by, CTM 375 except as modified by these specifications.

In-place density of the Asphalt Concrete will be based on test results from a nuclear gauge and core samples taken in accordance with CTM 375, "Determining the in Place Density and Relative Compaction of Asphalt Concrete Pavement" except as modified below. The Inspector will determine when core sample testing shall be completed.

The materials testing laboratory will obtain random samples of the hot mix asphalt (HMA) material from behind the paving machine in accordance with CTM 125, "Methods for Sampling Highway Materials and Products in Roadway Structural Sections", to determine the Laboratory Test Maximum Density of the HMA mixture in accordance with CTM 308.

Asphalt Concrete compaction shall be accepted based upon passing tests taken from the nuclear gauge. In the event that the nuclear gauge testing presents failing results, then core samples will be the determination for the in place density and acceptance or rejection of the compaction.

When core testing is to be performed to determine the relative compaction after nuclear gauge testing has not produced passing tests, the materials testing laboratory will obtain four 4" diameter core specimens (or four 6" diameter core specimens) for determination of relative density of the completed pavement. The four cores shall represent each 500 ton lot in lieu of the sample frequency requirements specified in CTM 375.

Upon completion of the rolling operations, if requested by the Contractor and accepted by the Inspector, the Asphalt Concrete shall be cooled by applying water. Applying water shall conform to the provisions in Section 17, "Watering of the CALTRANS Standard Specifications".

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 by blading or other equipment shall be eliminated by rolling or other means approved by the Inspector. The use of any equipment that leaves ridges, indentations or other objectionable marks in the Asphalt Concrete shall be discontinued, and acceptable equipment shall be furnished by the Contractor.

When a straightedge 12 feet long is laid on the finished surface and parallel with the center line, the surface shall not vary more than 0.01-foot from the lower edge of the straightedge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02-foot are present when tested with a straightedge 12 feet long laid in a direction transverse to the center line and extending from edge to edge of a 12-foot traffic lane.

Pavement within 50 feet of an approach slab, or within 50 feet of a structure when no approach slab exists shall conform to the smoothness tolerances specified in Section 51-1.17, "Finishing Bridge Decks", of the CALTRANS Standard Specifications."

CS 5-06 EXISTING PAVEMENT:

A.Cut lines made on existing pavement, both longitudinally and transversely, for the placing of new structural section shall be straight and smooth.

B.Edge grinding (Cold Planing) shall be required where existing asphalt is to be overlaid. The edge grind shall match the depth of the Asphalt Concrete overlay along the length of the gutter lip and abutting pavement where the Asphalt Concrete pavement is proposed to conform to the existing pavement.

C.The surface edges that abut the proposed Asphalt Concrete shall be clean and free of dirt and dust prior to placing a tack coat. Asphalt emulsion shall be used as a tack coat or paint binder on new pavement that is to receive a second lift which is not placed within 24 hours of the first lift, or which has been exposed to traffic or other sources of contaminants, or on existing pavements that are to receive an Asphalt Concrete overlay, and also along exposed edges of abutting pavement and concrete curbs and gutters. A tack coat may also be required between subsequent layers of Asphalt Concrete placed by the contractor when ordered by the Director of Public Works. Asphalt emulsion shall conform to Section 92, "Asphalts", of the CALTRANS Standard Specifications.

D.Existing pavements to be overlaid with Asphalt Concrete shall include the installation of pavement reinforcing fabric in accordance with Section CS 7, "Geotextile Fabrics", of the City Standard Specifications.

CS 5-07 MISCELLANEOUS PAVING REQUIREMENTS:

A.The Contractor shall schedule paving operations such that at the end of each work shift, each layer of Asphalt Concrete is placed on all contiguous lanes and shoulders of a traveled way to be opened to public traffic.

B.At the end of each work shift, the distance between the ends of the layers of Asphalt Concrete on adjacent lanes shall not be greater than 10 feet nor less than five (5) feet. A drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

C.Additional Asphalt Concrete shall be placed along the transverse edge at the end of each lane and along the exposed longitudinal edges between adjacent lanes, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conform tapers to facilitate the removal of the taper when paving operations resume.

D.Additional Asphalt Concrete surfacing material shall be placed along the edge of the surfacing at private drives, hand raked, if necessary, and compacted to form smooth tapered conforms.

CS 5-08 GRADING TOLERANCE:

A.If the finished surface of the Asphalt Concrete does not meet the required surface tolerances, as specified in Section CS 5-05D, "Compacting," of the City Standard Specifications, the Contractor shall at its own expense, bring the pavement surface within tolerance by one of the following methods: The Inspector shall determine which method the Contractor is required to perform.

1. Method A

a. The Contractor shall Cold Plane the asphalt pavement to a minimum depth of 0.15 feet from specified finish surface (lateral limits shall be from edge of Asphalt Concrete to edge of Asphalt Concrete; longitudinal limits shall extend a minimum of 50 feet, starting from the outer edge of the tolerance area and extending outward, and as directed by the Inspector). All grindings shall be removed and disposed of in accordance with Section 7-1.13, "Disposal of Material Outside the Highway Right-of-Way," of the CALTRANS Standard Specifications.

b.The Contractor shall apply tack coat and place an overlay of Asphalt Concrete in accordance with the requirements of the City Standard Specifications.

c. The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction.

2. Method B

a. The Contractor shall groove and grind the Asphalt Concrete pavement in conformance with Section 42, "Groove and Grind Pavement", of the CALTRANS Standard Specifications.

b. The Contractor shall furnish and apply a fog seal on the pavement after the Inspector approves the groove and grind work. The fog seal shall conform to Section 37, "Bituminous Seals" of the CALTRANS Standard Specifications. The Inspector shall approve the grade of asphaltic emulsion to be used in the fog seal and the limits of installation.

c. The area to which the fog seal has been applied shall be closed to public traffic. Care shall be taken to avoid tracking the fog seal material onto existing pavement surfaces beyond the limits of construction.

CONSTRUCTION STANDARDS
SECTION CS 16
SLURRY SEAL

CS 16-1 GENERAL: Furnishing and placement of slurry seal shall conform with Section 37-2, "Slurry Seal" of the CALTRANS Standard Specifications except as amended by the provisions in this Section CS 16, "Slurry Seal" of the City Standard Specifications.

CS 16-02 MATERIALS: Materials for slurry seal shall conform to the requirements of Section 37-2.02 "Materials (Slurry Seal)" of the CALTRANS Standard Specifications except as modified by the following requirements included in these City Standard Specifications:

A.Asphalt Emulsion: Asphalt Emulsion shall consist of Polymer Modified Asphalt Emulsion and shall be quick setting Type PMQS-1h grade conforming to the requirements for Type CQS-1h of Section 94, "Asphaltic Emulsions," of the CALTRANS Standard Specifications, except as modified by these City Standard Specifications.

1. The polymer modified asphalt emulsion shall conform to the requirements shown in **Table CS 16-1** in addition to the requirements specified in Section 94, "Asphalt Emulsions" of the Caltrans Standard Specifications.

Table CS 16-1
Polymer Emulsified Asphalt Test Requirements

TEST ON EMULSIONMETHOD OF TESTREQUIREMENTS Residue by Distillation
%, MinimumAASHTO T5960**TEST ON RESIDUE FROM DISTILLATION TESTMETHOD OF TESTREQUIREMENTS** Penetration.

77° F (25°C), 100g,5sASTM D5/AASHTO T4940-80Torsional RecoveryCALTRANS Test Method 33118% minimum

- The polymer latex shall be added to the water/soap phase by injection prior to the mill manufacture of the emulsified asphalt by the emulsion producer.
- The optimum rate of application for the polymer emulsified asphalt to be added to the aggregate shall be determined by the job mix design submitted by the

Contractor for approval by the Inspector. The actual rate of application of the polymer shall be within 1% of the optimum rate.

B.Aggregate: Aggregate for slurry seal shall conform to the provisions in Section 37- 2.02C, "Aggregate (Slurry Seal)" of the CALTRANS Standard Specifications for Type II aggregate with the following exceptions:

- The percentage of aggregate passing the No. 4 sieve shall be 100 percent.
 - The aggregate shall have a minimum Sand Equivalent result of seventy-two (72) when tested in accordance with California Test Method 217.
 - The aggregate shall have a minimum Durability Index result of seventy-five (75) when tested in accordance with California Test Method 229.
3. Aggregate shall be 100% crushed with no rounded particles, volcanic in origin and black in color. The use of gray or light colored aggregate will not be allowed.

C.Storage of Materials: The Contractor shall arrange for storage of materials at locations of his choice as long as it is in compliance with the conditions specified in this paragraph. Storage of materials for slurry seal, including aggregate, emulsions, etc., shall not be permitted on public right-of-way. Additionally, storage of said materials shall not be permitted on public or private property without first obtaining a written authorization from the owner or its representative. The authorization shall include the specific terms of the agreement by the owner to allow the Contractor to store these materials. Stockpiled materials shall be placed on flat, graded surfaces. The Contractor shall be responsible for the complete clean up and removal of all materials at stockpile/storage locations.

CS 16-03 MIX DESIGN: Mix Design shall conform to Section 37-2.03, "Mix Design" of the CALTRANS Standard specifications except as modified herein.

The "Wet Stripping" Test shown in the table following the 2nd paragraph of CALTRANS Standard Specifications Section 37-2.03, Mix Design shall be modified to include the requirement of "Pass (90% minimum)".

CS 16-04 PROPORTIONING: Proportioning shall conform to Section 37-2.04, "Proportioning" of the CALTRANS Standard specifications except as modified herein.

A. The components of the slurry seal mix shall be proportioned in accordance with the requirements of these Standard Specifications and the approved mix design which is suitable for the current climate, curing, and traffic conditions. The mix design shall include the recommended application rate considering these factors.

B Volume or weight controls for proportioning each individual material to be added to the slurry seal mix (i.e. aggregate, mineral filler, emulsified asphalt and additive) shall be provided, properly marked and calibrated.

C. The completed slurry seal mixture after addition of water and any control agent used, shall be such that the slurry seal mixture has proper workability and (a) breaks, set, and be ready for traffic no later than 4:00 pm of the day of application unless

otherwise allowed by the Inspector. There shall be no bleeding, raveling, separation or other distress within seven (7) days after placing the slurry seal.

CS 16-05 MIXING AND SPREADING EQUIPMENT: Mixing and spreading equipment shall conform to Section 37-2.05, "Mixing and Spreading Equipment" of the CALTRANS Standard Specifications except as modified herein.

A.The slurry seal shall be mixed in a self-propelled mixing machine (mixer/spreader truck) equipped with a continuous flow pug mill capable of accurately delivering and automatically proportioning each component of the slurry seal mix.

B.Each spreader box used on the project shall be equipped with augers to ensure uniform application of the slurry and shall have inboard set skids.

D.The slurry box squeegees, rubber belting or similar material, shall be flexible enough to spread the slurry uniformly over the surface.

E.Each mixer/spreader truck used on the project shall be calibrated in accordance with California Test 109. Calibration shall take place a maximum of ten days prior to application of slurry seal. The Contractor shall notify the Inspector a minimum of three (3) days prior to calibration so that City representatives may make arrangements to observe.

CS 16-06 PLACING: Placing of slurry seal shall conform to Section 37-2.06, "Placing" of the CALTRANS Standard Specifications except as amended herein.

A.A sufficient amount of slurry shall be carried in all parts of the spreader at all times so that complete coverage is obtained. No lumping, balling, or unmixed aggregate shall be permitted. No streaks such as caused by oversize aggregate shall be left in the finished pavement.

B.No excessive buildup or unsightly appearance of slurry shall be permitted on longitudinal or transverse joints. Burlap or similar material drags shall be used to smooth out these joints.

C.Squeegees shall be used to spread slurry in areas not accessible to the slurry mixer/spreader.

D. When required by local conditions, the surface to be slurred shall be lightly pre- dampened with a fog spray of water.

E.Slurry seal shall be spread at a rate of 15 pounds of dry aggregate per square yard. The completed spread shall be within ten (10) percent of the specified rate. The Contractor shall submit certified weight tickets for all loads of aggregate delivered to the project site(s). Tickets shall be submitted to the Inspector by the end of each day in which a delivery is made.

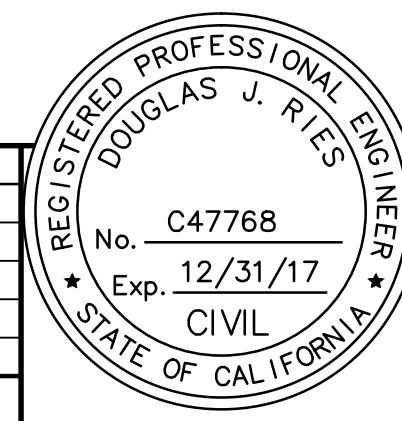
FINAL SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION
3-22-17



Know what's Below.
Call before you dig.

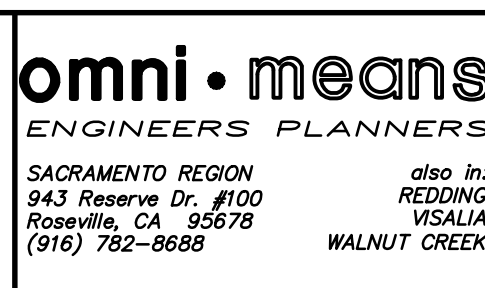
Contractor shall call
Underground Service Alert at
811 two working days prior
to excavation

NO.	DATE	DESCRIPTION	BY
Δ	3/22/17	ADDENDUM #1 - ADD SLURRY SEAL STANDARD SPECIFICATION	DTZ



APPROVED BY:
SHAWN L. CUNNINGHAM, R.C.E. 51420
DIRECTOR OF PUBLIC WORKS

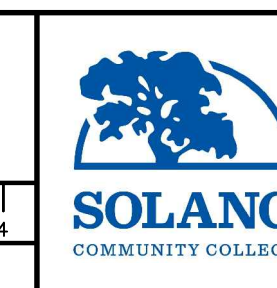
RECOMMENDED APPROVAL BY:
TIMOTHY F. BURKE, R.C.E. 52989
CITY ENGINEER



DRAWN	By	Checked
DESIGN	DTZ	DJR
DESIGN	DTZ	DJR
QUANTITIES	DTZ	DJR

SOLANO COMMUNITY
COLLEGE DISTRICT

SCALE: HORIZONTAL: N/A VERTICAL: ORIGINAL SCALE IS IN INCHES FOR REDUCED PLANS



VACAVILLE CENTER INTERSECTION IMPROVEMENTS PROJECT			
CITY STANDARD SPECIFICATIONS			
SSP-1			
DWG File:	DISREGARD PRINTS BEARING EARLIER PLOT DATES	DATE PLOTTED	SHEET
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			OF 13

2056C002.dwg 3/22/2017 8:51pm

F. The spreader box shall be pulled at a rate NOT GREATER THAN 270 FEET PER MINUTE.

G. At limits of slurry seal (start or finish), a straight line cut-off shall be obtained by laying down a strip of building paper or other approved material. Such paper and any excess slurry shall be removed and disposed of by the Contractor after application of the slurry seal.

H. Edge limits of the slurry on both sides of the street or bike path shall be maintained in a neat, straight, and uniform line. Slurry seal shall extend to the lip of gutter. The slurry may be allowed to extend onto the gutter pan one (1) to two (2) inches, but a neat, straight, and uniform line must be maintained. In the event that slurry extends onto the gutter more than one (1) to two (2) inches or the slurry is not in a neat, straight, uniform line, it will be the responsibility of the Contractor to remove all excess slurry from the gutters using an appropriate method. Any runs or drips that spill on to any concrete surface shall be removed the same day that the spill occurs. At the completion of removal operations, concrete surfaces shall be restored to original condition (grey/white concrete finish). All work associated with the removal of slurry from the concrete surfaces shall be conducted at the Contractor's expense.

I. For the convenience of the Contractor a Deficiency List will be provided by the Inspector. The items on the Deficiency List shall be completed by the Contractor within one (1) working day from the date the Deficiency List is issued. At the end of the project a Final Punch list will be issued to the Contractor for outstanding items.

CS 16-07 SCHEDULE: The Contractor shall comply with the following requirements in furnishing the Inspector the Schedule for the proposed work.

- A. The Contractor shall prepare and submit a written schedule to the Inspector for approval listing the streets, limits of slurry sealing, and the date of proposed sealing.
- B. The written schedule shall be submitted a minimum of five (5) working days prior to the first event on the Schedule.
- C. The Contractor shall consult with Vacaville Sanitary Service during the process of preparing the Schedule in order to avoid scheduling streets for sealing on trash/recycling pick-up days.
- D. The Contractor shall provide a map to the Inspector showing the order in which the streets for a particular day are to be sealed. The map shall be submitted at least five (5) working days in advance of the work.
- E. The Contractor shall adhere diligently to said written schedule in the prosecution of the work.

CS 16-08 PREPARATION: Prior to sealing each street, the Contractor shall verify that each street to be sealed has been "approved for sealing" by the Inspector. In order for the street to be approved for sealing the Contractor shall ensure the following requirements have been performed by the Contractor to the Inspector's satisfaction:

A. All thermoplastic markings, painted markings and pavement markers have been removed in accordance with the following requirements:

- 1. All existing painted or thermoplastic traffic stripes and pavement markings within areas to receive slurry seal shall be removed prior to sealing operations, unless indicated otherwise on the Project Plans.
- 2. Removal of existing painted or thermoplastic striping/markings shall be performed by grinding. Removal shall be to the satisfaction of the Inspector.

3. Existing pavement markers in the areas of sealing shall be removed and disposed of by the Contractor in accordance with Section 15-2, "Existing Highway Facilities" of the CALTRANS Standard Specifications and as amended herein.

4. Any pavement damaged during marker removal shall be repaired to the satisfaction of the Inspector prior to slurry sealing of the roadway. All repair work shall be at the Contractor's expense.

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

6. Immediately following the removal of existing pavement striping/markings and pavement markers, the Contractor shall clean and sweep roadways and on-site paved areas to eliminate all materials attributed to or involved with removal operations. All materials shall be removed from the roadway prior to the end of each working day or as directed by the Inspector. The Contractor shall not use water to flush down streets in place of street sweeping.

7. Portions of streets that have been previously open to public traffic shall be subject to the following additional requirements:

- a. Stop bars and legends, excluding those at intersections with collector or arterial streets may be removed up to seven (7) calendar days prior to placement of slurry seal. All other stripes and markings, including crosswalks and stop bars at intersections with collector or arterial streets requiring removal shall be removed the same day slurry seal is to be placed.
- b. If pavement markers, paint or thermoplastic delineation, stop bars, or legends are removed in advance of the day of slurry seal application, the Contractor shall install temporary pavement delineation in accordance with Section CS 16-12, "Temporary Pavement Delineation" of the City Standard Specifications.

B. All vegetation has been removed in accordance with the following requirements:

- 1. All vegetation has been removed from all cracks in the existing paved surfaces and along the edge of pavement or gutter lips prior to placing slurry seal.
- 2. In the event that mature trees are encountered adjacent to streets or bike paths requiring slurry seal, it is the responsibility of the Contractor to conduct its operations around the trees such that the desired slurry sealing result is accomplished without damage to the trees. No trimming of trees shall be allowed without specific written permission of the Inspector. Any trimming that may be required must be approved at least two (2) working days in advance of slurry sealing operations.
- 3. Vegetation and tree limbs removed shall be disposed of outside the highway right-of-way in accordance with provisions in Section 7-1.13, "Disposal of

Material Outside The Highway Right of Way" of the CALTRANS Standard Specifications.

C. All manhole covers, valve boxes, and utility lids have been protected in accordance with the following requirements:

- 1. The surface of all manhole covers and miscellaneous utility covers and lids within the limits of work shall be protected from the slurry seal.
- 2. All materials used to protect lids and covers shall be removed and disposed of properly after slurry sealing operations.

3. All lids and covers shall have a clean surface after slurry sealing.

4. Prior to application of slurry seal, the Contractor shall mark the locations of all existing utility covers and lids within the streets to be slurry sealed.

D. Asphalt crack sealing has been applied in accordance with the following requirements:

- 1. Crack sealing shall consist of cleaning, drying and sealing cracks in bituminous pavements.
- 2. The crack sealing material to be furnished and applied by the Contractor shall be CalSeal Modified Asphalt Joint Sealant, as manufactured by Henry Inc., or an approved equal and shall conform to the following requirements specified in Table CS 16-2:

Table CS 16-2
Crack Seal Material Properties

PHYSICAL PROPERTIES/METHOD OF TEST/REQUIREMENTS Softening Point ASTM D36180° F - 205° F Cone Penetration @ 77° FASTM D532920-50 dmm Resilience @ 77° FASTM D532940% - 68% Bitumen Content ASTM D460% - 64% Flow @ 140° FASTM D53290mm - 3mm Ductility, 77° FASTM D11330 cm - 38 cm Weight per Gallon ASTM D709.7 - 9.8 lbs/gal

3. The Contractor shall provide to the Inspector a certificate from the supplier of the crack sealing material giving the trade name of the sealer and verification that the sealer conforms to these specifications.

4. Crack sealing material shall be applied to all cracks 3/16" or wider in accordance with manufacturer recommendations and these provisions of the City Standard Specifications.

5. The Contractor shall refer to the manufacturer's product information sheet or application specifications for application methods, handling requirements, and other information.

6. No sealant shall be placed in cracks until cracks have been cleaned free of all deleterious materials, including old sealant, organic materials, sand, dust and clay, and are dry.

7. Cracks shall be filled flush with the surface and any overflow shall be squeegeed so that the overband cap does not exceed 1/16" above the surface and the width does not exceed two (2) inches beyond the crack edges.

8. The Contractor shall be responsible for protection of newly placed materials from damage by traffic, weather, or other forces until fully cured. All crack sealed areas damaged by any force prior to acceptance of the work shall be corrected by the Contractor at his/her own expense.

9. Work shall be scheduled such that crack seal operations in a given area are performed and completed at least one week prior to application of slurry seal.

E. The surface of each street to be slurry sealed has been adequately cleaned a maximum of forty-eight (48) hours prior to spreading of slurry seal by sweeping as necessary to remove all loose particles of paving, dirt, vegetation, oil, and gasoline drippings; and all other extraneous material.

CS 16-09 ROAD CLOSURES FOR SLURRY SEAL OPERATIONS: Streets (or sections of streets) to be slurry sealed shall be closed to all but emergency (police, fire and ambulance) vehicles during the sealing and curing period. The closures shall be subject to the following conditions:

A. Streets that have been previously open to public traffic shall be closed for as short a time as possible, and in all cases shall be opened for use by the public prior to 8 AM and after 5 PM on Monday through Friday, all day on Saturday and Sunday, all day on designated holidays, and when construction operations are not actively in progress (unless noted otherwise on the Project Plans or within the Special Provisions provided for the project).

B. Access for emergency vehicles shall be allowed whenever necessary.

C. The Contractor shall conform to the requirements of a Traffic Control Plan in accordance with the requirements of Section CS16-11, "Traffic Control Plan" and this Section CS 16-09, "Road Closures For Slurry Seal Operations" of the City Standard Specifications.

D. The Contractor shall furnish and install CSA signs (ROAD CLOSED TO THRU TRAFFIC) at the entrance to all streets that "dead end" due to road closures for slurry sealing operations. All signs shall be provided, installed, and maintained by the Contractor.

E. Portions of streets to be slurry sealed that include an existing business, residence, or school frontage that shall be subject to the following additional requirements:

1. The Contractor shall notify each business, residence, or school, of planned slurry sealing adjoining their properties two weeks prior to such work by furnishing and delivering printed material (i.e. Door Hangers) to each residence, school, or business indicating when their street and adjacent streets will be closed for slurry sealing.

2. A second notification (i.e. Door Hangers) shall be furnished and delivered five (5) working days for businesses and three (3) working days for residences and schools in advance of such work. In addition to this requirement, the Contractor shall notify all schools within the project area of planned slurry sealing of bike paths a minimum of five (5) working days in advance of such work by furnishing and delivering printed material (i.e. door hangers) to each school.

3. The Inspector shall make the final determination as to which streets require posting. A sample of the Door Hanger can be obtained from the Inspector for Private Development projects and is included in the Special Provisions for City Capital Improvement projects. The Door Hanger proposed for use by the Contractor must be reviewed and approved by the Inspector prior to distribution.

4. During street closures, businesses and residences along the street shall be provided pedestrian passage as far as practical. Convenient pedestrian access to driveways, houses and buildings along the street shall be maintained. The maximum distance that a resident

must walk to a legal parking area during sealing operations shall be one thousand (1,000) feet. Vehicular access to any business and/or residence shall only be blocked once during the slurry seal process.

5. Pedestrian access shall be provided at intersections or at other locations as directed by the Inspector. Placing sand or aggregate, or laying down a strip of building paper or other approved material shall be the methods used to provide pedestrian access. The pedestrian access shall be a minimum of forty-eight inches (48") wide.

6. The Contractor shall cooperate with, and advise as to the current schedule, the Vacaville Police and Fire Departments, local ambulance services, the Vacaville City Coach (Bus), Vacaville Sanitary Service, the Vacaville Unified School District Transportation Department, Travis Unified School District Transportation Department, and the U.S. Post Office forty-eight (48) hours in advance of the start of work on any street. The Contractor shall also notify United Parcel Service (UPS), Federal Express, and other mail delivery services of planned road closures and the current schedule.

7. The Contractor shall make arrangements to keep the work area free of parked vehicles and shall cooperate fully with local authorities in maintaining traffic flows through the area. The Contractor shall notify the Inspector of any vehicles

that remain within the limits of that day's operation, so that the Inspector may coordinate the removal of that vehicle.

8. The Contractor shall install Type II barricades with "No Parking" signs (signs to be furnished by the City - Contractor shall notify Inspector two weeks in advance of when signs are needed) and shall clearly mark the date(s) and hours that NO PARKING ZONES shall be in effect. The dates posted on the barricades must match the dates that the work is scheduled to be performed at the location posted. Barricades shall be spaced at one hundred (100) foot intervals or less on both sides of streets. These signs and dates shall be fully coordinated with the City of Vacaville Police Department to conform to all current Vehicle Code requirements for notice and signing, and in no event shall said signs be posted less than 72 hours (three working days) in advance of the sealing operation.

9. The Contractor shall be responsible for re-notifying all affected residences, schools and businesses in the event that a street needs to be rescheduled due to unforeseen delays. Re-notification shall be in accordance with the requirements specified above for initial notification. The Contractor shall also be responsible for re-posting of "No Parking" signs and barricades.

CS 16-10 LANE CLOSURES FOR SLURRY SEAL OPERATION: Lane closures may be required along portions of City streets (streets open to public traffic) to complete slurry sealing of adjacent project streets/areas. Lane closures shall be subject to the following conditions:

A. The Contractor shall conform to the requirements of a Traffic Control Plan in accordance with the requirements of Section CS16-11, "Traffic Control Plan" and this Section CS 16-10, "Lane Closures For Slurry Seal Operations" of the City Standard Specifications.

B. The Contractor shall ensure at least one driveway to a business or apartment complex is open at all times by placing sand or aggregate, or laying down a strip of building paper or other approved material.

C. At least one minimum 10-foot wide lane in each direction of travel shall be provided at all times. Unless otherwise specified by the City Traffic Engineer, the full width of traveled way shall be open for use by the public prior to 8 AM and after 5 PM, Monday through Friday, all day on Saturday and Sunday, all day on designated legal holidays (unless noted otherwise in the Special Provisions provided for the project), and when construction operations are not actively in progress. (The City Traffic Engineer may specify certain conditions on specific aspects of the Traffic Control Plan which may alter the hours of closure from those identified above.) When not in use, all components of the traffic control system shall be removed from the traveled way and shoulder.

CS 16-11 TRAFFIC CONTROL PLAN: The Contractor is required to conform to the requirements specified herein for preparing, submitting, and obtaining City approval for a Traffic Control Plan for any Street and Lane Closure necessary for Slurry Seal operations.

A. The Contractor shall prepare and submit a Traffic Control Plan to the Inspector for review and approval at least fifteen (15) working days prior to planned beginning of the Lane or Street Closure. The Traffic Control Plan shall depict the details of all proposed lane and/or street closures.

B. For each closure, the Contractor shall submit a detailed drawing showing placement of delineators, barricades, construction signing, flagmen, etc. and shall indicate the reasons for each closure and the duration of each closure.

C. When placing slurry seal at signalized intersections, the Contractor shall contact the City Traffic Engineer a minimum of forty-eight (48) hours in advance of working at the intersection in order to modify the signal operation.

CS 16-12 TEMPORARY PAVEMENT DELINEATION: Temporary pavement delineation shall be furnished, placed, maintained, and removed in accordance with the provisions in Section CS 12-05, "Temporary Pavement Delineation" of the City Standard Specifications.

CS 16-13 PERMANENT TRAFFIC STRIPES, PAVEMENT MARKING, AND PAVEMENT MARKERS: Permanent traffic stripes, pavement marking, and pavement markers shall conform to Section CS 12, "Traffic Stripes, Pavement Markings, and Pavement Markers" of the City Standard Specifications except as amended herein.

A. No permanent traffic stripes, pavement marking, or pavement markers shall be installed for seven (7) calendar days after the street has been slurry sealed, not including the day of application. This period of time has been set aside to allow the slurry to cure.

B. Permanent traffic stripes, pavement marking, and pavement markers shall be installed on or between the eighth (8th) and the thirteenth (13th) calendar day following the day of slurry sealing.

CS 16-14 STREET SWEEPING FOLLOWING APPLICATION OF SLURRY SEAL: The Contractor shall provide all necessary equipment, skill and manpower to sweep all completed slurry sealed streets/areas to the satisfaction of the City Inspector in accordance with the following requirements:

A. The Contractor shall use a commercial sweeper to sweep each street and area slurry sealed.

B. During the sweeping, the sweeper shall use only the rear broom. The front brooms shall not be used during this sweeping operation.

C. The initial sweeping shall be performed no sooner than three (3) and no more than five (5) calendar days after the slurry has been applied to the street/area.

D. The final sweeping on through streets shall be performed no sooner than two (2) weeks and no later than four (4) weeks after the slurry has been applied to the street/area. The final sweeping on cut-de-sacs shall be performed no sooner than four (4) weeks and no later than six (6) weeks after the slurry has been applied to the street/area.

E. The sweepings removed shall be disposed of outside the highway right-of-way in accordance with provisions in Section 7-1.13, "Disposal of Material Outside The Highway Right of Way" of the CALTRANS Standard Specifications.

**FINAL SUBMITTAL
PRELIMINARY, NOT
FOR CONSTRUCTION
3-22-17**

811
Know what's Below.
Call before you dig.
Contractor shall call
Underground Service Alert at
811 two working days prior
to excavation

NO.	DATE	DESCRIPTION	BY
1	3/22/17	ADDENDUM #1 - ADD SLURRY SEAL	DTZ

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS J. RILES
No. C47768
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

REGISTERED CIVIL ENGINEER
PLANS APPROVAL DATE
omni • means
ENGINEERS PLANNERS

APPROVED BY:
SHAWN L. CUNNINGHAM, R.C.E. 51420
DIRECTOR OF PUBLIC WORKS

RECOMMENDED APPROVAL BY:
TIMOTHY F. BURKE, R.C.E. 52989
CITY ENGINEER

omni • means
ENGINEERS PLANNERS
also in:
REDDING WISLA
WALNUT CREEK
SACRAMENTO REGION
943 Reserve Dr. #100
Roseville, CA 95678
(916) 782-8686

DRAWN	By DTZ	Checked DJR
DESIGN	By DTZ	Checked DJR
QUANTITIES	By DTZ	Checked DJR

SOLANO COMMUNITY COLLEGE DISTRICT
SCALE: HORIZONTAL: N/A VERTICAL:
ORIGINAL SCALE IS IN INCHES FOR REDUCED PLANS

SOLANO COMMUNITY COLLEGE

VACAVILLE CENTER INTERSECTION IMPROVEMENTS PROJECT
CITY STANDARD SPECIFICATIONS
SSP-2
DWG File: K:\PRJ\2056\2056C002.dwg
DISREGARD PRINTS BEARING EARLIER PLOT DATES
DATE PLOTTED: 03/22/17
SHEET 3 OF 13