DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
OFFICE ENGINEER
1727 30th Street MS-43
P.O. BOX 168041
SACRAMENTO, CA 95816-8041
FAX (916) 227-6214
www.dot.ca.gov/hq/esc/oe

Flex your power!
Be energy efficient!

September 16, 2013

07-LA-210-R9.7/R16.1
07-288014
Project ID 0700020957
NHPI-2101(816)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN LOS ANGELES COUNTY IN LOS ANGELES AND GLENDALE FROM 0.2 MILE WEST OF BIG TUJUNGA WASH BRIDGE TO DUNSMORE AVENUE UNDERCROSSING.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Thursday, September 19, 2013.

This addendum is being issued to revise the project plans, the *Notice to Bidders and Special Provisions* and the *Bid* book.

Project plan sheets 6, 7, 27, 31, 32, 208, 255, 259, 261 and 328 are replaced and attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 40-5, "JOINTED PLAIN CONCRETE PAVEMENT WITH ROLLER COMPACTED CONCRETE," is deleted.

In the Special Provisions, Section 40-7, "JOINTED PLAIN CONCRETE PAVEMENT WITH ROLLER COMPACTED CONCRETE," is added as attached.

In the Special Provisions, Section 90-8, "ROLLER COMPACTED CONCRETE," is added as attached.

In the *Bid* book, in the "Bid Item List," Items 42, 49, 53, 54, 65, 66, 67, 69 and 81 are replaced, Items 127 and 128 are added and Item 126 is deleted as attached.

07-LA-210-R9.7/R16.1
07-288014
Project ID 0700020957
NHPI-2101(816)E

To *Bid* book holders:

In the *Bid* book, pages 5, 6, 7 and 9 of the "Bid Item List" are replaced as attached. The attached Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the *Notice to Bidders* section of the *Notice to Bidders and Special Provisions*.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the *Bid* book.

Submit bids in the *Bid* book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/07/07-288014

If you are not a *Bid* book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

Rebecca D. Harnagel

REBECCA D. HARNAGEL
Chief, Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

Replace section 40-7 in the RSS for section 40 with:

40-7 JOINTED PLAIN CONCRETE PAVEMENT WITH ROLLER COMPACTED CONCRETE

40-7.01 GENERAL

40-7.01A Summary

Section 40-7 includes specifications for constructing JPCP with roller compacted concrete (JPCP—RCC).

JPCP—RCC must comply with the specifications for JPCP in section 40-2 except the specifications for modulus of rupture do not apply. JPCP—RCC is constructed without tie bars and without dowel bars.

40-7.01B Definitions

high density paver: a paver equipped with a high density screed capable of placing the RCC material to a minimum of 88 percent relative density based on wet density.

40-7.01C Submittals

At least 30 days before starting field qualification, submit the proposed concrete mix proportions, the corresponding mix identifications, and laboratory test reports including the compressive strength for each trial mixture at 3, 7, 28, and 42 days. If the mix proportions qualify for 56 days to attain the strength under 90-1.01D(5)a, submit the strength test results for 56 days.

40-7.01D Quality Control and Assurance

40-7.01D(1) General

Section 40-2.01C(2) does not apply

40-7.01D(2) Quality Control Plan

A process is out of control if the average of 4 consecutive in-place density tests is below 98 percent or 1 test is below 96 percent

The QC plan must address achieving density.

40-7.01D(3) Quality Control Testing

Your quality control testing must include in-place density testing under ASTM C 1040. Test at random locations and at a frequency of at least 2 tests per 1500 cu yd of JPCP—RSC. Complete each density test within 30 minutes of compacting the test location.

40-7.01D(4) Mix Design

Section 40-1.01D(5) does not apply.

Determine mix proportions based on strengths of more than 4000 psi at 28 days age and 5000 psi at 42 days age. If the mix proportions qualify the mix to allow 56 days to attain the strength under 90-1.01D(5)a, determine mix proportions based on strengths of more than 3500 psi at 28 days and 5000 psi at 56 days.

Verify strength by preparing cylinders under ASTM C 1435 and testing under CT 521.
If changing an aggregate supply source or the mix proportions, produce a trial batch and field-qualify the new mix design. The Engineer does not adjust contract time for performing sampling, testing, and qualifying new mix proportions or changing an aggregate supply source.

40-7.01D(5) Acceptance Criteria

40-7.01D(5)(a) General

The Department's acceptance testing includes testing the properties at the frequency shown in the following table:

Department Pavement Testing

Property	Test method	Frequency[a]
28-day compressive strength Sample Test	 ASTM C 1435 CT 521	 1,000 cu yd 1,000 cu yd
In-place density	ASTM C 1040	1,500 cu yd
Thickness	California Test 531	1,200 sq yd
Coefficient of friction	California Test 342	1 day's paving

[a] A single test represents no more than the quantity specified

40-7.01D(5)(b) Field Qualification

For field qualification, fabricate and test 5 cylinders at each test age. The strength of each cylinder must be at least:

1. 3,500 psi at 28 days or less
2. 5,000 psi by the maximum days allowed

40-7.01D(5)(c) Compressive Strength

JPCP—RCC must have a minimum strength of either 4000 psi at 28 days or 5000 psi at the maximum age allowed.

40-7.02 MATERIALS

40-7.02A General

Section 90-1.02A does not apply.

40-7.02B Concrete

JPCP—RCC must comply with section 90-8 <Roller Compacted Concrete>.

40-7.02C Cementitious Material

JPCP—RCC must contain at least 450 pounds of cementitious material per cubic yard.

40-7.02D Aggregate

Section 40-1.02B(3) does not apply.

For the surface lift use the 1/2-inch or the 3/4-inch maximum size grading. For other than the surface lift choose a maximum size that is less than 1/3 of the lift thickness

40-7.03 CONSTRUCTION

40-7.03A General

Section 40-1.03G does not apply.

40-7.03B Joints

40-7.03B(1) General

Construct longitudinal joints as either construction joints or isolation joints.

40-7.03B(2) Construction Joints

Construct transverse construction joints by placing and compacting the concrete beyond the joint at a sufficient distance such that the pavement is full thickness at the construction joint . Saw cut the JPCP—RCC at the construction joint full depth and remove excess concrete.

Construct longitudinal construction joints by sawing the older pavement full depth and removing the edge of pavement. If the older pavement is existing or new JPCP or CRCP cut as close to the edge as possible to create a vertical edge. If the older pavement is RCC cut 1.2 times the pavement thickness from the edge.

40-7.03B(3) Contraction Joints

Where shoulders are adjacent to JPCP, match the joint spacing of the adjacent pavement. Where shoulders are adjacent to CRCP or HMA, cut joints spaced at 1.4 times the paving width or less.

Where a slab length of less than 0.7 times the monolithic width would be formed, adjust the transverse contraction joint spacing such that slab length is more than 0.7 times the paving width and less than both 45 times the paving thickness and 1.4 times the paving width. Construct transverse contraction joints at an angle to the centerline of the pavement that is equal to 2 feet per 12-foot width.

40-7.03C Placing Concrete

40-7.03C(1) General

Section 40-1.03H does not apply.

Place RCC using equipment specifically designed or adapted for placing RCC. Produce a uniform surface without tearing, shoving, gouging or signs of segregation. Compact RCC with steel tired rollers, rubber tired rollers or a combination of both. The minimum compacted thickness of a lift is 0.33 feet. The maximum thickness of a lift is 0.50 feet unless a high density paving machine is used and then the maximum is 0.77 feet compacted thickness.

Compact RCC to 98 percent relative compaction, minimum based on wet density.

When JPCP—RCC is placed in multiple lifts, place the subsequent lift on compacted RCC that was placed less than 45 minutes before. Keep the surfaces of the prior lift damp until it is covered.

Place RCC adjacent to previously placed RCC within 60 minutes of mixing the previously placed concrete or construct a construction joint. Keep the previously placed RCC surface damp until it is covered or cured.

40-7.03C(2) Surface Treatment of Adjacent Existing Concrete Pavement

Where JPCP—RCC is placed adjacent to existing concrete pavement:

1. Grind adjacent pavement before placing the JPCP—RCC
2. If equipment will operate on existing pavement, use paving equipment with padded crawler tracks or rubber-tired wheels with enough offset to prevent damage
3. Match pavement grade with the elevation of existing concrete pavement after grinding.

40-7.03D Preliminary Finishing

Section 40-1.03L does not apply

Preliminary finishing must produce a smooth and true-to-grade finish. After preliminary finishing, mark each day's concrete pavement with a stamp. The stamp must be authorized before paving starts. The stamp must be approximately 1 by 2 feet in size. The stamp must form a uniform mark that remains from 1/8 to 1/4 inch deep after final finishing. Locate the mark 20 ± 5 feet from the transverse construction joint formed at each day's start of paving and 1 ± 0.25 foot from the concrete pavement's outside edge. The stamp mark must show the month, day, and year of placement and the station of the transverse construction joint. Orient the stamp mark so it can be read from the concrete pavement's outside edge.

Use rubber tired rollers or rubber coated steel drum rollers to produce a finish free from cracks or fissures. If authorized, you may fill cracks and fissures with cement slurry. After filling cracks and fissures, remove slurry from the surface.

Complete finishing activities during daylight unless lighting is authorized.

40-7.03E Curing

Section 40-1.03N does not apply

Cure the concrete pavement's exposed area under section 90-1.03B< Curing Concrete > using the curing compound method or waterproof membrane method. If using the curing compound method use curing compound 1 or 2.

Apply curing compound with mechanical sprayers in two applications. Complete the 1st application at a nominal rate of 150 sq ft/gal. Complete the 2nd application at a nominal rate of 300 sq ft/gal with the nozzles offset at 50 percent of the nozzle spacing from the 1st application. Reapply curing compound to saw cuts and disturbed areas.

40-7.03F Final Finishing

Final finishing is performed after curing and the concrete is strong enough to finish without spalling or dislodging aggregate particles. Apply one of the following final finishes:

1. Grind the entire width of the JPCP RCC
2. Groove the entire width of the JPCP RCC
3. No additional finishing

On a continuous length of JPCP RCC is less than 2000 feet apply one final finish to the entire surface. On lengths that are greater than 2000 feet long, you may use two or more finial finish surfaces provided that no length of any one finish is less than 3000 feet or one half the continuous length of JPCP RCC, whichever is shorter.

When the smoothness requirements of 40-1.01D are not met, grind the pavement under section 42 to comply with 40-1.01D(9)

When the smoothness requirements of 40-1.01D are met and the coefficient of friction is less than 0.30 when tested under California Test 342, groove or grind the pavement under section 42 to achieve a coefficient of friction of at least 0.30.

When the smoothness requirements of 40-1.01D are met and the coefficient of friction is at least 0.30 when tested under California Test 342, no additional finishing is required and you may grind or groove the pavement under section 42.

Open the pavement to public traffic only after final finishing is complete and after 3 days.

40-7.04 PAYMENT

Not used

Replace section 90-8 with:

90-8 ROLLER COMPACTED CONCRETE

90-8.01 GENERAL

90-8.01A Summary

Section 90-8 includes specifications for furnishing roller compacted concrete (RCC.)

90-8.01B Definitions

Not Used

90-8.01C Submittals

Not Used

90-8.01D Quality Control and Assurance

90-8.01D(1) General

Fabricate compressive strength test specimens under ASTM C 1435.

Paragraph 2 of section 90-1.01D(2) does not apply to RCC.

Prequalify RCC under section 90-1.01D(5)(b).

90-8.01D(2) Shrinkage

Perform shrinkage tests on samples that have been cut from compacted RCC. Remove specimens from the in-place compacted RCC between 24 hours and 48 hours age. Store specimens in a water bath. At least 24 hours before the initial reading trim specimens to a 4 inch by 4 inch cross section and the required length for a 10 inch gage length.

90-8.01D(3) Compressive Strength

The fifth paragraph of section 90-1.01D(5)(a) does not apply to RCC. If the compressive strength is 5000 psi or more, 42 days are allowed to attain the specified strength.

90-8.02 MATERIALS

90-8.02A General

If the minimum cementitious material content specified is less than 425 lb/cu yd, use the following equation in place of Equation 2 in 90-1.02(B)3:

$$(425 - MSCM - PC) \geq 0$$

If the total alkali content of the cement used is less than 2 pounds per cubic yard of concrete, paragraph 3 of section 90-1.02(B)3 does not apply to RCC.

90-8.02B Aggregate Gradings

90-8.02B(1) General

Section 90-1.02C(4) does not apply to RCC.

Furnish aggregate divided into two or more sizes. The grading of each of the sizes is at your discretion. Control the gradation of each size with a minimum of 4 sieves. Maintain the gradation on each sieve within 10 percentage points of your target for each sieve.

90-8.02B(2) Combined Aggregate Grading

Combined aggregate must be graded within the limits shown in the following table:

Sieve size	Percentage passing				
	1/2 inch max	3/4 inch max	1 inch max	1-1/2 inch max	2 inch max
2-1/2 inch	--	--	--	--	100
2 inch	--	--	--	100	90–100
1-1/2 inch	--	--	100	87–100	78–97
1 inch	--	100	82–100	71–91	--
3/4 inch	100	87–100	72–91	--	56–76
1/2 inch	81–100	71–91	--	50–71	--
3/8 inch	71–91	--	50–71	--	39–59
No. 4	49–70	42–63	--	30–49	27–46
No. 8	33–54	--	23–42	--	--
No. 16	--	18–36	--	13–28	--
No. 30	12–28	--	8–22	--	6–18
No. 50	--	5–19	--	3–15	--
No. 100	3–16	1–13	1–12	1–11	1–10
No. 200	0–10	0–9	0–8	0–7	0–7

90-8.03 CONSTRUCTION

90-8.03A General

Not Used

90-8.03B Mixing and Transporting RCC

90-8.03B(1) General

Mix and transport concrete under 90-1.02G. You may use batch mixing or horizontal shaft mixing. Section 90-1.02G(5) and 90-1.02G(6) do not apply.

Protect concrete hauled in open-top vehicles from rain or evaporation with retractable covers.

Discharge RCC material within 45 minutes after the addition of the cement to the aggregates. Deposit the RCC material directly into the hopper of the paver or into a secondary material distribution system that deposits the material into the paver hopper.

90-8.03B(2) Horizontal Shaft Mixing

A horizontal shaft mixing plant must be a central plant type with a twin-shaft mixer, capable of either batch or continuous mixing, equipped with synchronized metering devices and feeders to maintain the correct proportions of aggregate, cement, SCM, and water. Plants must utilize:

1. Controlled aggregate feed rate. Use aggregate bins with a feed rate controlled by a variable speed belt, or an operable gate calibrated to accurately deliver any specified quantity of material. The feed rate from each aggregate bin must be readily adjustable to change aggregate proportions. Feed rate controls must maintain the established proportions of aggregate from each stockpile bin when the combined aggregate delivery is increased or decreased.
2. Plant scales. Plant scales must conform to Section 90-1.02F(3), "Proportioning Devices."
3. Cement and SCM storage. Supply separate and independent storage silos for cement and SCM. Each silo must have a sign at each fill inlet clearly identifying the material that is in the silo that is easily read even when completely coated with dust. Make the sign from a durable material, with minimum two-inch high by ¼-inch wide letters that are raised, indented, or cut.
4. Preblended portland cement and SCM. If you preblend portland cement and SCM at the batch plant, demonstrate, with a testing plan, the ability to successfully produce a uniform blended material meeting the mix design requirements. Perform testing on at least a daily basis to ensure both uniformity and proper quantities.
5. Cement and SCM feed unit. Provide a satisfactory means of dispensing portland cement and SCM, volumetrically or by weight, to ensure a uniform and accurate quantity of cementitious material enters the mixer.
6. Water control unit. Use a water control unit capable of measuring the required amount of water for the approved mix by weight or volume. Ensure that the unit is equipped with an accurate metering device. Vary the amount of water to be used only with the Engineer's approval.
7. Gob hopper. For continuous operating mixers, provide a gob hopper attached to the end of the final discharge belt to temporarily hold the roller compacted concrete material in order to allow the plant to operate continuously.

90-8.04 PAYMENT

Not Used

BID ITEM LIST

07-288014

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	152604	MODIFY INLET	EA	33		
42	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	46,100		
43	153221	REMOVE CONCRETE BARRIER	LF	33,800		
44	153226	REFINISH BRIDGE DECK	SQFT	8,649		
45	160102	CLEARING AND GRUBBING (LS)	LS	LUMP SUM	LUMP SUM	
46	190101	ROADWAY EXCAVATION	CY	172,000		
47	194001	DITCH EXCAVATION	CY	94		
48	260303	CLASS 3 AGGREGATE BASE (CY)	CY	42,200		
49	025691	BASE BOND BREAKER	SQYD	282,000		
50	280000	LEAN CONCRETE BASE	CY	31,900		
51	280015	LEAN CONCRETE BASE RAPID SETTING	CY	1,060		
52	390132	HOT MIX ASPHALT (TYPE A)	TON	2,500		
53	390250	HOT MIX ASPHALT (TYPE A-WMA)	TON	110		
54	390253	RUBBERIZED HOT MIX ASPHALT (GAP GRADED-WMA)	TON	5,380		
55	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
56	394073	PLACE HOT MIX ASPHALT DIKE (TYPE A)	LF	19,800		
57	394074	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	1,100		
58	394075	PLACE HOT MIX ASPHALT DIKE (TYPE D)	LF	10,100		
59	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	7,340		
60	397005	TACK COAT	TON	27		

REPLACED PER ADDENDUM NO. 2 DATED SEPTEMBER 16, 2013

BID ITEM LIST

07-288014

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	401050	JOINTED PLAIN CONCRETE PAVEMENT	CY	87,800		
62	025692	JOINTED PLAIN CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)	CY	3,090		
63	025693	JOINTED PLAIN CONCRETE PAVEMENT (ROLLER COMPACTED CONCRETE)	CY	3,950		
64	401081	SHOULDER RUMBLE STRIP (CONCRETE PAVEMENT, ROLLED-IN INDENTATIONS)	STA	98		
65	404093	SEAL ISOLATION JOINT	LF	143,000		
66	410095	DOWEL BAR (DRILL AND BOND)	EA	2,400		
67	411105	INDIVIDUAL SLAB REPLACEMENT (RSC)	CY	530		
68	413113	REPAIR SPALLED JOINTS, POLYESTER GROUT	SQYD	120		
69	420201	GRIND EXISTING CONCRETE PAVEMENT	SQYD	134,000		
70	498052	60" CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	LF	500		
71	510081	AGGREGATE BASE (APPROACH SLAB)	CY	457		
72	510087	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	CY	4,552		
73 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	91		
74	510800	PAVING NOTCH EXTENSION	CF	2,307		
75	511118	CLEAN EXPANSION JOINT	LF	94		
76	519088	JOINT SEAL (MR 1")	LF	3,614		
77 (F)	560218	FURNISH SIGN STRUCTURE (TRUSS)	LB	355,084		
78 (F)	560219	INSTALL SIGN STRUCTURE (TRUSS)	LB	355,084		
79	560233	FURNISH FORMED PANEL SIGN (OVERHEAD)	SQFT	3,560		
80	568007	INSTALL SIGN OVERLAY	SQFT	144		

REPLACED PER ADDENDUM NO. 2 DATED SEPTEMBER 16, 2013

BID ITEM LIST

07-288014

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	025694	STAINING GALVANIZED SURFACES	LF	15,700		
82	650014	18" REINFORCED CONCRETE PIPE	LF	97		
83	650018	24" REINFORCED CONCRETE PIPE	LF	8		
84	665717	18" SLOTTED CORRUGATED STEEL PIPE (.079" THICK)	LF	540		
85	680905	8" PERFORATED PLASTIC PIPE UNDERDRAIN	LF	790		
86	025695	8" NON-PERFORATED PLASTIC PIPE UNDERDRAIN	LF	19		
87	025696	FILTER FABRIC	SQYD	670		
88 (F)	682008	PERMEABLE MATERIAL (BLANKET)	CY	82		
89	025697	8" CORRUGATED STEEL PIPE RISER (.064" THICK)	LF	35		
90	703220	18" CORRUGATED STEEL PIPE RISER (.168" THICK)	LF	2		
91	731519	MINOR CONCRETE (STAMPED CONCRETE)	CY	360		
92 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	24,398		
93	820107	DELINEATOR (CLASS 1)	EA	2,400		
94	025698	INSTALL MEDIAN MILEAGE PANEL	EA	64		
95	832002	METAL BEAM GUARD RAILING (STEEL POST)	LF	10,800		
96	832003	METAL BEAM GUARD RAILING (WOOD POST)	LF	1,500		
97	025699	METAL BEAM GUARD RAILING (7' STEEL POST)	LF	15,600		
98	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	9,530		
99 (F)	044312	CONCRETE BARRIER (TRANSITION)	LF	27		
100	839541	TRANSITION RAILING (TYPE WB)	EA	16		

REPLACED PER ADDENDUM NO. 2 DATED SEPTEMBER 16, 2013

BID ITEM LIST

07-288014

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	860400	LIGHTING (TEMPORARY)	LS	LUMP SUM	LUMP SUM	
122	860889	MODIFY TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
123	861088	MODIFY RAMP METERING SYSTEM	LS	LUMP SUM	LUMP SUM	
124	025701	TEMPORARY RAMP METERING SYSTEM	LS	LUMP SUM	LUMP SUM	
125	861504	MODIFY LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
126	BLANK					
127	150847	REMOVE CONCRETE PAVEMENT AND BASE	CY	3,110		
128	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: **$** _____

REPLACED PER ADDENDUM NO. 2 DATED SEPTEMBER 16, 2013