



**CITY OF REDONDO BEACH
DEPARTMENT OF PUBLIC WORKS – ENGINEERING SERVICES DIVISION**

ADDENDUM

Date: September 30, 2015

To: All Bidders

From: City Engineer

**Subject: Addendum No. 1 – Aviation Boulevard Resurfacing Improvement Project
Manhattan Beach Boulevard to Marine Avenue
Job No. 40930, Federal Program No. STPL-5093(019)**

The following changes to the contract documents for the above subject project shall be incorporated into the plans and specifications of said project and made part thereof:

1. **REFER TO DRAWING NO. C-1, SHEET 2 of 3. Replace Utility Note 24 with the following:**

ADJUST TRAFFIC SIGNAL PULL BOX AND SET TO GRADE.

2. **REFER TO NOTICE TO CONTRACTORS INVITING BIDS PARAGRAPH 1 (page 7). Replace the first sentence with the following:**

NOTICE IS HEREBY GIVEN that sealed proposals for performing the following described work will be received at the office of the City Clerk of the of Redondo Beach, 415 Diamond Street, Door C, Redondo Beach, California, until 10:00 A.M. on October 6, 2015.

3. **REFER TO NOTICE TO CONTRACTORS INVITING BIDS PARAGRAPH 5 (page 7). Replace the first sentence with the following:**

The estimated cost of the above described work is \$410,000.00.

4. ADD THE ATTACHED QUALITY ASSURANCE PROGRAM (QAP) AS EXHIBIT Q TO THE SPECIFICATIONS. Add the following.

The City of Redondo Beach will hire a consultant to perform the Assurance Testing in accordance with the Quality Assurance Program (QAP) in Exhibit Q to ensure the materials incorporated into the construction project are in conformance with the contract Specifications.

When the City's consultant performs additional materials inspection and/or testing as a result of an action or delay caused by the Contractor, except for specific work allowed by the Engineer, the City may charge and deduct the additional fee for said inspection and testing from a Progress Payment to the Contractor. The Engineer also may deduct the cost to perform additional testing when an initial test fails to meet the requirements of this Contract and QAP.

Acknowledgment of this Addendum shall be executed and attached to your Bid Proposal form. Failure to do so shall result in your bid being rejected.

CITY OF REDONDO BEACH

By: Wisam Altowaiji
Wisam Altowaiji, City Engineer

ACKNOWLEDGED

Bidder's Name: _____

Authorized Representative: _____ Date: _____



Public Works Department
Engineering Services Division

415 Diamond Street
Redondo Beach, California 90277
www.redondo.org

tel: 310 318-0661
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QUALITY ASSURANCE PROGRAM (QAP) City of Redondo Beach, County of Los Angeles For Federal-aid Projects

The purpose of this program is to provide assurance that the materials incorporated into the construction projects are in conformance with the contract specifications. This program should be updated every five years or more frequent if there are changes of the testing frequencies or to the tests themselves. To accomplish this purpose, the following terms and definitions will be used:

DEFINITION OF TERMS

- Acceptance Testing (AT) – Sampling and testing, or inspection, to determine the degree of compliance with contract requirements.
- Independent Assurance Program (IAP) – Verification that AT is being performed correctly by qualified testers and laboratories.
- Quality Assurance Program (QAP) – A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction project are in conformance with the contract specifications. The main elements of a QAP are the AT, and IAP.
- Source Inspection – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.

MATERIALS LABORATORY

The AGENCY will use their own materials laboratory or a private consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California registered Engineer with experience in sampling, inspection and testing of construction materials. The Engineer shall certify the results of all tests performed by laboratory personnel under the Engineer's supervision. The materials laboratory shall contain certified test equipment capable of performing the tests conforming to the provisions of this QAP.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

1. Correlation Testing Program – The materials laboratory shall be a participant in one or more of the following testing programs:
 - a. AASHTO Materials Reference Laboratory (AMRL)
 - b. Cement and Concrete Reference Laboratory (CCRL)
 - c. Caltrans' Reference Samples Program (RSP)
2. Certification of Personnel – The materials laboratory shall employ personnel who are certified by one or more of the following:
 - a. Caltrans District Materials Engineer
 - b. Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt, National Institute of Certification of Engineering Technologies, etc.
 - c. Other recognized organizations approved by the State of California and/or

Recognized by local governments or private associations.

3. **Laboratory and Testing Equipment** – The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year. All testing equipment must be calibrated by impartial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

ACCEPTANCE TESTING (AT)

AT will be performed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the contract specifications.

Testing methods will be in accordance with the CT Methods or a national recognized standard (i.e., AASHTO, ASTM, etc.) as specified in the contract specifications.

Sample locations and frequencies may be in accordance with the contract specifications. If not so specified in the contract specifications, samples shall be taken at the locations and frequencies as shown in Attachment #1 (Appendix D, "Acceptance Sampling and Testing Frequencies" of the QAP Manual).

INDEPENDENT ASSURANCE PROGRAM (IAP)

IAP shall be provided by personnel from Caltrans, the Agency's certified materials laboratory, or consultant's certified materials laboratory. IAP will be used to verify that sampling and testing procedures are being performed properly and that all testing equipment is in good condition and properly calibrated.

IAP personnel shall be certified in all required testing procedures, as part of IAP, and shall not be involved in any aspect of AT.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, Sand Equivalent, and Cleanness Value tests. All other types of IAP shall be witness tests.

Poor correlation between acceptance tester's results and other test results may indicate probable deficiencies with the acceptance sampling and testing procedures. In cases of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel, or an independent materials laboratory chosen by the Agency. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.

REPORTING ACCEPTANCE TESTING RESULTS

The following are time periods for reporting material test results to the Resident Engineer:

- When the aggregate is sampled at material plants, test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 24 hours after sampling.
- When materials are sampled at the job site, test results for compaction and maximum density should be submitted to the Resident Engineer within 24 hours after sampling.
- When soils and aggregates are sampled at the job site:
 - (1) Test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 72 hours after sampling.
 - (2) Test results for "R" Value and asphalt concrete extraction should be submitted to the Resident Engineer within 96 hours after sampling.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible, in order to avoid a predictable sampling routine. The reporting of AT results, if not performed by the Resident Engineer's staff, shall be done on an expedited basis such as by fax or telephone.

TESTING OF MANUFACTURED MATERIALS

During the Design phase of the project, the Project Engineer may submit a "Source Inspection Request" see Attachment#2 (Exhibit 16-V of the LAPM) to the Agency, consultant, or Caltrans for inspection and testing of manufactured and prefabricated materials by their materials laboratory. A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment #3 (Appendix F of the QAP Manual). All certificates of compliance shall conform to the requirements of the contract specifications, for examples see Attachment #4 (Appendix J of the QAP Manual).

Should the Agency request Caltrans to conduct the source inspection, and the request is accepted, all sampling, testing, and acceptance of manufactured and prefabricated materials will be performed by Caltrans' Office of Materials Engineering and Testing Services.

For Federal-aid projects on the National Highway System (NHS), Caltrans will assist in certifying the materials laboratory, and the acceptance samplers and testers. For Federal-aid projects off the NHS, Caltrans may be able to assist in certifying the materials laboratory, and the acceptance samplers and testers.

PROJECT CERTIFICATION

Upon completion of a Federal-aid project, a "Materials Certificate" shall be completed by the Resident Engineer. The Agency shall include a "Materials Certificate" in the Report of Expenditures submitted to the Caltrans District Director, Attention: District Local Assistance Engineer. A copy of the "Materials Certificate" shall also be included in the Agency's construction records. The Resident Engineer in charge of the construction function for the Agency shall sign the certificate. All materials incorporated into the work which did not conform to specifications must be explained and justified on the "Materials Certification", including changes by virtue of contract change orders. See Attachment # 5 for an example (Appendix K of the QAP Manual).

RECORDS

All material records of samples and tests, material releases and certificates of compliance for the construction project shall be incorporated into the Resident Engineer's project file. If a Federal-aid project:

- The files shall be organized as described in Section 16.8 "Project Files" of the Local Assistance Procedures Manual.
- It is recommended that the complete project file be available at a single location for inspection by Caltrans and Federal Highway Administration (FHWA) personnel.
- The project files shall be available for at least three years following the date of final project voucher.
- The use of a "Log Summary," as shown in Appendix H of the QAP Manual, facilitates reviews of material sampling and testing by Caltrans and FHWA, and assists the Resident Engineer in tracking the frequency of testing.

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples or perform separate tests for each project; however, copies of the test reports are to be provided for each of the projects to complete the records.

APPROVED BY: Wisam Altowaiji (Signature) CE #44413 Exp. 3-31-2016 (CE # and Expiration Date)

NAME: Wisam Altowaiji DATE: 9/29/2015

TITLE: City Engineer CITY: City of Redondo Beach

Acceptance Sampling and Testing Frequency

MATERIALS TO BE SAMPLED/TESTED	SAMPLE SIZE	SAMPLING/TESTING FREQUENCY	TEST METHOD	COMMENTS
PORTLAND CEMENT	N/A	Certificate of Compliance	N/A	
PORTLAND CEMENT CONCRETE	Approx. 150 lb. (or 1 cu.ft.) near mixer discharge	When tests are required, take at least one sample for each 500 to 1000 cu.yd. of PCC	CT 539	Sampling Fresh Concrete
PORTLAND CEMENT CONCRETE	Approx. 150 lb. (or 1 cu.ft.) near mixer discharge	On projects with 500 cu.yd., or more, test at least one sample per job.	CT 556	Slump
PORTLAND CEMENT CONCRETE	Approx. 150 lb. (or 1 cu.ft.) near mixer discharge	On projects with 500 cu.yd., or more, test at least one sample per job.	CT 504	Air Content
PORTLAND CEMENT CONCRETE	Approx. 150 lb. (or 1 cu.ft.) near mixer discharge	On projects with 500 cu.yd., or more, test at least one sample per job.	CT 518	Unit Weight
PORTLAND CEMENT CONCRETE	Approx. 150 lb. (or 1 cu.ft.) near mixer discharge	On projects with 500 cu.yd., or more, test at least one sample per job.	CT 521	Compressive Strength
SOILS AND AGGREGATE	One 35-lb sample	One sample for each soil type encountered	CT 216	Maximum Density/Optimum Moisture Content
SOILS AND AGGREGATE	One 50-lb sample	One sample for every 1,000 tons of material from an individual material supplier.	CT 217	Sand Equivalent
SOILS AND AGGREGATE	One 50-lb sample	One sample for every 1,000 tons of material from an individual material supplier.	CT 202	Sieve Analysis
SOILS AND AGGREGATE	One 50-lb sample	One sample for every 1,000 tons of material from an individual material supplier.	CT 301	R-Value
SOILS AND AGGREGATE	One random location for every 2,500 sq.ft.	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	CT 231	Field Density & Relative Compaction using nuclear gauge
SOILS AND AGGREGATE	One random location for every 2,500 sq.ft.	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	CT 231	Water Content using the nuclear gauge.
ASPHALT CONCRETE	One 10-lb sample	Obtain one sample during every day of production	CT 304 and CT 366	Hveem Stability "S"
ASPHALT CONCRETE	One 30-lb sample	Obtain one sample for each type of asphalt concrete representing every 1,000 tons or a single day's paving, whichever is less.	CT 308	Bulk Specific Gravity & Maximum Density
ASPHALT CONCRETE	One 30-lb sample	Minimum 1 per day for each asphalt type. Obtain sample during paving.	CT 382	Asphalt Binder Content
ASPHALT CONCRETE	One 30-lb sample	Obtain sample during paving. (1 test /1000 tons)	CT 202	Sieve Analysis/Aggregate Gradation
ASPHALT CONCRETE	Sample any test location (random basis)	Obtain samples during paving. (1 test /1000 tons)	CTM 375	Field Density & Relative Compaction using nuclear gauge

ATTACHMENT #1

SAMPLE COVER MEMO
SOURCE INSPECTION REQUEST
FROM LOCAL AGENCY TO
CALTRANS' DISTRICT LOCAL ASSISTANCE ENGINEER
(Prepared By Applicant On Applicant Letterhead)

To: (name) _____ Date: _____
Caltrans' District Local Assistance Engineer
Caltrans' Local Assistance Office
(district office address)

Federal-aid Project Number: (if one has been assigned) _____
Project Description: _____
Project Location: _____

Subject: *(Source Inspection for Project Name, County)*

We are requesting that Caltrans provide Source Inspection (reimbursed) services for the above mentioned project. We understand we are responsible for paying for this service provided for by the State. Listed below are the materials for which we are requesting Caltrans' Source Inspection (reimbursed) services.

Materials that will require source inspection:

Justification for request. (Based on the requirements in Section 16.14 under "Source Inspection") _____

Any question you might have about the above materials should be directed to: _____ at _____ (phone #) _____.

Approved:

(Applicant Representative Name)

District Local Assistance Engineer

(Title)

(Date)

(Local agency name & address)



Appendix F - Construction Materials Accepted by a Certificate of Compliance *

Soil Amendment
Fiber
Mulch
Stabilizing Emulsion
Plastic Pipe
Lime
Reinforcing Steel
Structural Timber and Lumber
Treated Timber and Lumber
Timber and Lumber
Culvert and Drainage Pipe Joints
Reinforced Concrete Pipe
Corrugated Steel Pipe and Corrugated Steel Pipe Arches
Structural Metal Plate Pipe Arches and Pipe Arches
Perforated Steel Pipe
Polyvinyl Chloride Pipe and Polyethylene Tubing
Steel Entrance Tapers, Pipe Down drains, Reducers, Coupling Bands and Slip Joints
Aluminum Pipe (Entrance Tapers, Arches, Pipe Down drains, Reducers, Coupling Bands and Slip Joints)
Metal Target Plates
Electrical Conductors
Portland Cement
Minor Concrete
Waterstop

* If Caltrans Standard Specifications May 2006 is part of contract specifications.

Note: Usually these items are inspected at the site of manufacture or fabrication and reinspected after delivery to the job site.



Appendix J.1 - Example of a Vendor's Certificate of Compliance

No. 583408

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 VENDOR'S CERTIFICATE OF COMPLIANCE
 MR-0543 (REV. 5/03) PCT-7541-6020-2

PRECAST CONCRETE PRODUCTS OR SOUNDWALL
 TO: BILL SYNDER.

STATE HIGHWAY ENGINEER
RESIDENT ENGINEER - CITY OF FLATLAND

We certify that the portland cement, chemical and mineral admixtures contained in the material described below are brands stated and comply with specifications for:

CONTRACT NUMBER:	
CEMENT BRAND <u>XYZ CEMENT CO.</u>	MILL LOCATION <u>MIDLAND, CALIFORNIA</u>
TYPE <u>II MODIFIED</u>	
CHEMICAL ADMIXTURE	
1. BRAND <u>ABC ADMIXTURE</u>	MANUFACTURER <u>XYZ SUPPLIER</u>
TYPE <u>WATER REDUCER</u>	
2. BRAND	MANUFACTURER
TYPE	

CHECK BOX IF A CHEMICAL ADMIXTURE WAS NOT USED

MINERAL ADMIXTURE	
MANUFACTURER <u>POZZ. INC.</u>	CLASS <u>F</u>

CHECK BOX IF A MINERAL ADMIXTURE WAS NOT USED

DELIVERY DATE (If ready mix) <u>7/7/07</u>	DATES OF FABRICATION (If precast)
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LIST PRODUCTS TO WHICH CERTIFICATE APPLIES. (Show size and lot # of pipe, etc., delivery slip numbers for ready mix.)

Portland Cement
Flyash
Water Reducer

MANUFACTURER OF CONCRETE PRODUCTS <u>A.E.B. READY MIX</u>
By: AUTHORIZED REPRESENTATIVE SIGNATURE <u>Joe Anderson</u>



Appendix J.2 - Example of a Certificate of Compliance for Portland Cement (continued)

This is to certify that the

Portland Cement

Supplied by ABC Cement Company complies with all
requirements for Type II Portland Cement when tested in
accordance with ASTM C - 494.

Local Agency Project No.
HP21L - 5055 - 111

Albert Howakowa
Quality Assurance Engineer
ABC Cement Company

Date: 07/07/07



**Appendix K - Examples of Materials Certificates/Exceptions
 (Signed by the Resident Engineer at the Completion
 of the Project)**

Federal-aid Project No.: Project HP21L - 5055 - 111

Subject: **Materials Certification**

This is to certify that the results of the tests on acceptance samples indicate that the materials incorporated in the construction work and the construction operations controlled by sampling and testing were in conformity with the approved plans and specifications.

All materials exceptions to the plans and specifications on this project are noted below.

No exceptions were found to the plans and specifications on this project.

Bill Sanders
 Resident Engineer (Print Name)

Bill Sanders
 Resident Engineer (Signature)

7/7/07
 (Date)

Note: The signed original of this certificate is placed in the Resident Engineer's project files and one copy is mailed to the DLAE and filed under "Report of Expenditures."

See the attachment (next page)



Appendix K (continued)

Attachments: Materials Exceptions (Acceptance Testing)

Type of Test	Description of Work	Total Tests Performed On the Project	Number of Failed Tests	Action Taken
Slump Test	Concrete Sidewalk	8	1	When the measured slump exceeded the maximum limit, the entire concrete load was rejected.
Sand Equivalent	Aggregate for Structural Concrete	10	1	The tested S.E. was 70 and the contract compliance specification was 71 minimum. However, the concrete 28-day compressive strength was 4800 psi. The concrete was considered adequate and no materials deductions were taken.
Compaction	Sub grade Material	12	1	One failed test was noted. The failed area was watered and reworked. When this was completed, a retest was performed. The retest was acceptable.
Compaction	Hot Mix Asphalt	12	1	One failed area was noted. It was reworked and retested. The second test met specifications.

Bill Sanders
Resident Engineer (Print Name)

Bill Sanders
Resident Engineer (Signature)

July 4, 2007
Date