

Portland Cement Concrete Pavement - URBAN

Project No: _____

Date: _____

Reviewer: _____

Time Elapsed: _____%

Work Complete: _____%

In Company With: _____

Specification Requirements (UCP sheet 3)

Concrete Mix Temperature _____°F min & _____°F max

Air Content _____% to _____%

Slump _____inches to _____inches

C = Cement

P=Pozzolan

W/C Ratio _____lbs/lbs or

Strength _____psi (Minimum compressive at 28 days)

Thickness _____inches

Flexural Strength _____psi (minimum at 7 days)

Note: "Urban Concrete Pavement" (UCP) sheets 1 - 16.

Plant Site

1. Which gradation was selected (UCP sheets 1 & 2)?
 - a. Coarse aggregate
(check test results)
 - b. Fine aggregate
(check test results)
2. Are stockpiles neat and regular in form? Have the stockpiles been built for the quantity needed for a single day's production for paving or elongated stockpiles from which the approximate tonnage required for a single day's paving operation can be readily identified and marked off from the remainder of the stockpile (UCP sheet 4)?
3. Have stockpiles been built two days in advance of the time they are to be used but not accepted more than 30 days before intended use (UCP sheet 4)?
4. Has the project engineer approved the mix design (UCP sheet 4)? Any changes to mix design? If so, were they approved (UCP sheet 4)?
5. Has the water source been approved (UCP sheet 2)?
6. Has a water reducing agent been included in the mix design (UCP sheet 2)?
7. Has Pozzolan (fly ash) been included in the mix? What percent replacement? Is the fly ash coming from one of the DOT approved sources? Has 611 lbs/cy of cement been used in the design before replacement (UCP sheet 2)?

8. Other fly ash sources must be approved by the project engineer. Have any other sources been used, or has the source of supply been changed during the life of the project (UCP sheet 2)?
9. Is the batch plant equipped with a numerical printout device that will make a continuous, permanent, and accurate record of the weights of cement, gravel, sand and water (including water added after initial batching), and additives used in each batch of concrete with the time of day for each batch shown in hours and minutes with daily accumulated totals (UCP sheet 6)?
10. Have the beams, scales, and water meters on the batch plant been checked and certified by the State Department of Agriculture (UCP sheet 6)?
11.
 - a. Central Mixed. Has the concrete been mixed for 80 seconds after all the materials are in the drum? Based on efficiency tests using design mix materials, has the engineer approved a shorter mixing time not less than 60 seconds (UCP sheet 6)?
 - b. Transit Mixed. Has the concrete been mixed in accordance with AASHTO M-157? Also, an additional 20 revolutions at mixing speed if, water has been added after initial batching (UCP sheet 6)?
12. Have admixtures been added to the mix water such that each enters the mixer drum separately (UCP sheet 6)?
13. When Pozzolan is used, has the cement been introduced before the Pozzolan (UCP sheet 6)?

14. Are air content and slump tests and compressive strength cylinders cast for each 200 CY of concrete (UCP sheet 5)?
Are samples taken on a random basis?
15. Are air content and slump tests made on the first three loads at start-up and after any shutdown of more than one hour?
Also, if a test fails on a random sample, are three consecutive loads tested and accepted before full operation is resumed (UCP sheet 5)?
16. Have out of specification tests been verified by one more test on the same load? If the second test is within specifications, has a third test been used as a reference test (UCP sheet 5)?
17. Have two sets of two flexure beams been cast for each day concrete is placed for the flexural strength tests (UCP sheet 5)?
18. Has the batching operation been slowed down to allow completion of each air and slump test before the next batch is made so test results can be communicated to the batch plant operator and necessary corrections made (UCP sheet 5)?
19. Has the contractor provided a communication system so the inspector on the platform can communicate with the batch plant operator (UCP sheet 7)?

Project Site

1. Has the base surface upon which the concrete is to be placed been kept moistened 500 feet in front of the paver without areas of standing water (UCP sheet 8)?
2. Is the slip-form paver equipped with vibrators meeting the following requirements:

Vibrator minimum requirements:

- Eccentric Diameter 1-7/8 inch min
- Frequency 9,500 vibrations per/minute minimum
- Spacing 18" maximum mounted longitudinally

The vibrators shall be operated horizontally at the midpoint of the concrete slab and mounted so they will maintain this position. Parallel to the direction on paving.

Each vibrator checked for operation by the Contractor each day. Any indication that a vibrator or vibrators are not operating properly, the paving operations shall stop immediately and not resume until the faulty vibrator or vibrators have been repaired or replaced.

3. Is the discharge of mixed concrete from non-agitating hauling equipment accomplished within thirty-five minutes after introduction of the mixing water? Within 75 minutes for agitating haul units? Has the concrete been distributed by the lay down machine within fifteen minutes of dumping (UCP sheet 8)?
4. Has the concrete been deposited in such a manner as to require as little re-handling as possible (UCP sheet 8)?
5. Has any water been added to the surface behind the final screed on the paver (UCP sheet 8)?
6. Have tie bars been used for all longitudinal joints and transverse contact joints (UCP sheet 7)?
7. Have there been any delays in excess of thirty minutes in performing the preliminary finishing (UCP sheet 10)?
8. Has a drag finish been completed with one pass of a burlap drag? Have the transverse grooves been properly placed

(UCP sheet 10)? (Spacing of 3/4 inch " \pm 1/8 inch, depth 3/32 to 5/32 inch)

9. Has the curing-sealing compound been applied to the entire pavement surface and exposed edges as soon as finishing operations have been completed at a rate of one gallon per 100 SF (UCP sheet 10)?
10. Has the compound been applied to the entire pavement surface with mechanical sprayers? Is the spraying equipment of the fully atomizing type (UCP sheet 10)?
11. Has the edge slump requirement for longitudinal contact joints been met (1/8 inch in 10 feet) (UCP sheet 11)?
12. Has the concrete in the adjacent lane attained a modulus of rupture of 490 psi before placement of concrete in the adjoining longitudinal section (UCP sheet 8)?

Sawing & Sealing

1. Have the sawed joints been made with suitable power driver saws? Does the contractor have a minimum of two working power saws and one standby power saw on the project when concrete operations are underway (UCP sheet 12)?
2. Has the sawing of the joints commenced as soon as the concrete has hardened sufficiently to permit sawing (UCP sheet 12)?
3. Are all joints immediately flushed with water after sawing? Are the cuttings immediately washed off the road surface (UCP sheet 12)?
4. Have the joints been Thoroughly cleaned immediately after sawing of all loose debris and cement powder with a jet of water at 2,000 psi minimum pressure (UCP sheet 12)?

5. Have the joints been blown with air at a minimum of 100 psi just prior to placing the joint sealant (UCP sheet 12)?
6. Have all the joints been filled with the joint sealant? Do they have the proper clearance (longitudinal 1/8 inch " ± UCP sheet 12, transverse 1/4 inch " ± plan sheet 2B)?

General Notes

Check test results for the following:

1. Compressive Strength (4,000 psi) (UCP sheet 16).
2. Thickness (UCP sheets 14, 15 & 16). All corrective work for pavement profile is to be completed before thickness tests.
3. Surface Smoothness (UCP sheets 13 & 14). PI of 12 inches/mile with grinding of deviations greater than 0.3 inches in 25 feet.
4. Any Price Adjustments (UCP sheet 16)?