

**CONSTRUCTION INSPECTOR'S CHECKLIST
FOR
CONCRETE STRUCTURES OTHER THAN BRIDGE DECKS**

While its use is not required, this checklist has been prepared to provide the field inspector a summary of easy-to-read step-by-step requirements relative to the proper construction of Concrete Structures other than Bridge Decks. The following questions are based on information found in Standard and Supplemental Specifications, Special Provisions, Plans, Highway Standards and Section 500 of the Construction Manual.

Various website links can be found in section 26 of this checklist.

1. PLAN AND SPECIFICATION REVIEW

Have you thoroughly reviewed the Contract Special Provisions, Plans and the Standard and Supplemental Specifications? _____

On bridge construction and reconstruction contracts have you checked the proposed or existing span lengths prior to starting work? (The contract may make this the Contractor's responsibility.) _____

On bridge construction and reconstruction contracts have you checked the existing or proposed vertical or horizontal clearances? _____

Prior to the start of construction, have you checked the plan elevations of the bottom of footings, intermediate substructure components and bearing seat elevations of abutments and piers to ensure they correspond to the appropriate top of deck elevations and dimensions shown on the superstructure plans? _____

Have you reviewed the appropriate Sections of the Construction Manual (CM): Section 500, the CM Documentation Section, the Construction Forms, and Construction Memorandum Nos. 39, 64, 72, 73, 74 and 78? _____

Have you reviewed the Project Procedures Guide (PPG) for minimum testing requirements? _____

If this contract contains the Recurring Special Provision for Quality Control/Quality Assurance (QC/QA) of Concrete Mixtures, have you reviewed the QC/QA special provision and discussed its requirements with the district Materials office? In addition, has the district Materials office approved the contractor's Quality control Plan? _____

Have you determined what material must be inspected prior to incorporation into the work and what material certifications are required? (See PPG Attachment 3) _____

Have you computed the volume of concrete (see Art. 1020.04) and mass (weight) of reinforcement bars (see Art. 508.07) for agreement with the quantity shown in the bill of materials? This will satisfy part of your documentation requirements, help familiarize you with the plans and, possibly, find plan errors. (Note: This is not a documentation requirement if Form BC 981, Agreement On Accuracy of Plan Quantities is jointly signed.) _____

If this contract contains the Structural Assessment Reports special provision (SARs), have the submittal requirements been fulfilled? (Note per the SAR special provision, separate portions of work may be covered by separate SARs. Thus there may be various SAR submittals at various times.)

2. PLANT & MATERIALS APPROVAL

Has the plant where the concrete is to be produced been approved? (Art. 1103.02) _____

Has the Contractor notified you of his/her proposed sources of materials prior to delivery? (Art. 106.01) _____

Has all material been inspected, tested and approved before incorporation in the work? (Art. 106.03) _____

3. EROSION AND SEDIMENT CONTROL

Prior to the start of work, has a jobsite inspection been conducted to review and designate the locations and types of erosion and sediment control protection to be placed? (Art. 280.03) _____

Prior to beginning work activities which will potentially create erodible conditions, have all erosion and sediment control measures been installed and approved by the Engineer? (See Temporary Erosion and Sediment Control Bureau of Design and Environment (BDE) Special Provision) _____

4. EXCAVATION FOR STRUCTURES

When the contract provides for separate payment of excavation for structures, are you taking surface elevation measurements or cross-sections of the existing ground surface prior to the start of excavation but after clearing and tree removal have been completed? (See Art. 502.02, Art. 502.12, and Art. 502.13) _____

If the contract provides for cofferdams or underwater structure excavation protection, is the contractor submitting plans for approval? (See Art. 502.06 and Guide Bridge Special Provision (GBSP) for cofferdams) _____

Is any pumping from the interior of a foundation enclosure done in a manner approved by the Engineer? (See Art. 502.08) Make sure that no water with suspended silts, clays, or other contaminants is being pumped unfiltered directly into a waterway. (See 404 Permit Special Provision) _____

Is the Contractor notifying you after each excavation is complete? No concrete shall be placed until after the Engineer has approved the depth of the excavation and the character and condition of the foundation material. (Art. 502.09)

Has special care been taken not to disturb the bottom of any foundation excavation? In footings not supported by piling, the final removal of foundation material to grade shall not be made until just before the reinforcement and concrete is placed.

For footings not supported by piling, has the District Geotechnical Engineer verified the insitu soil (or rock) strength is equal to or greater than the design strength (shown in the plans) at the bottom of footing elevation? (See Art. 502.04)

In all footings, if the surface upon which the concrete is to be placed is soft, muddy or other unsuitable, is the material removed to an elevation directed by the Engineer and replaced with crushed stone, gravel or other material approved by the Engineer? (See Art. 502.07)

5. REINFORCEMENT BAR INSPECTION

Are all delivered rebars being stored above the ground upon skids, platforms or other supports? Are epoxy coated reinforcement bars stored on wooden or padded steel cribbing? (See Art. 508.03)

|

Are the reinforcement bars protected from mechanical injury and from deterioration by exposure? (For non-epoxy bars, a light coating of rust will not be considered objectionable.) (See Art. 508.03 and Art. 1006.10)

|

Do reinforcement bars conform with the plan diameter, shape and dimensions? (See Art. 508.04)

Has District Materials been notified of the reinforcement bar delivery? Have samples been taken as instructed by Materials? (See Bureau of Materials and Physical Research (BMPR) Policy Memorandum 25-08.5 – Inspection of Black and Epoxy Coated Reinforcing Bars)

|

Are the reinforcement bars furnished from a Certified Producer? (No rebars shall be used unless the producer has been certified.) (BMPR Policy Memorandum 26-08.5 – Reinforcement Bar and/or Dowel Bar Plant Certification Procedure, and BMPR Approved List for Certified Reinforcing Bar and/or Dowel Bar Procedures)

|

For epoxy coated reinforcement bars, has the epoxy coating been applied by a Certified Producer? Has the Contractor given the epoxy coating producer's certifications to the Resident Engineer? (See BMPR Policy Memo 24-08.1 – Epoxy Coating Plant Certification Procedure, and BMPR Approved List for Certified Epoxy Coating Plants)

|

For epoxy coated reinforcement bars, have you made a preliminary check for damaged epoxy coating? (See Art. 508.05) _____

6. FORMS

Are the forms clean, braced, tight and sufficiently rigid to prevent distortion? (See Art. 503.06) _____

When wooden forms are used, are they dressed lumber or plywood, and are they oiled prior to rebar placement? When the surfaces are not exposed to view, in lieu of form oil the wood forms may be saturated with water immediately prior to placement of the concrete. (See Art. 503.06) _____

Are all sharp corners in forms being filleted with 3/4-inch (20 mm) molding, or 1/2-inch (13 mm) for corners on handrails and handrail posts? (See Art. 503.06) _____

Is a V-shaped groove 1/2-inch (13 mm) triangular molding being formed into the exposed face of adjacent sections of retaining walls and abutment walls? (See Art. 503.09) _____

7. REINFORCEMENT BAR PLACEMENT

Are all reinforcement bars held securely in place? (Floating or sticking bars into wet concrete is not acceptable.) (See Art. 508.05) _____

Are all bar intersections being tied? (Alternate intersection tying will be allowed when the spacing is less than one foot in each direction.) (See Art. 508.05) _____

Are the reinforcement bars being rigidly supported from faces of forms and bottoms of footings, at the required clearance, by approved stays, blocks, ties, hangers or other supports? (Tips of metal bar supports must be galvanized or plastic tipped or epoxy coated. For epoxy coated rebars, the supports must be made of either epoxy coated metal or of recycled plastic.) (See Art. 508.05) _____

Are all reinforcement bar splices (laps) at least the length as shown on the plans and contact spliced? (See Art. 508.06) If you need to install an unplanned splice, call the Bureau of Bridges & Structures for the proper splice length. _____

Are lapping reinforcement bars not specified to be contact spliced, placed at a clear distance apart of at least 2 1/2 inches (65 mm) or contact spliced? (See Art. 508.06) _____

Do all bars have the clearance from the forms as indicated on the plans? Is the clearance being maintained by the use of chairs or other supports approved by the Engineer? (See Art. 508.05) _____

When epoxy coated rebars are specified to be cut in the field, are they being sawed or sheared and the cut ends painted with epoxy? (Flame cutting is not permitted.) Note: "spray can" epoxy repair will not satisfy AASHTO M317. (See Art. 508.04)

Are epoxy coated rebars handled properly to prevent damage to the rebar coating? (Use rope slings, no dragging or dropping permitted.) (See Art. 508.03)

After epoxy coated rebars are in place, are you inspecting the rebars for damage to the coating and requiring the Contractor to repair all scars greater than 1/4 by 1/4 in. (6 x 6 mm)? (See Art. 508.05)

Are rebars being rejected that have either a total damage greater than 2% of the bar surface in each 1ft. (300 mm) length of bar or greater than 5% of the bar surface area covered with patching material? (See Art. 508.05)

8. PREPOUR INSPECTION

Prior to the placement of the concrete have the reinforcement bars, construction joints, and forms been cleaned of loose mill scale, mortar, dirt, oil, debris, and other foreign substances? (If directed by the Engineer, temporary openings shall be provided in the bottom of forms for cleaning out all extraneous material.) (See Art. 508.05 and Art. 503.06)

Are you inspecting and approving the placement of reinforcement before concrete is placed? (See Art. 508.05)

Are you ensuring that no concrete will be placed on ice, snow or frozen foundation material? (See Art. 503.07)

Is the Contractor aware that he/she is not to place any concrete until the Engineer has approved the depth of excavation, condition of the foundation material, line and grade of forms, form dimensions, and reinforcement placement? (See Art. 502.09, Art. 503.06 and Art. 508.05)

9. DRAINAGE OPENINGS

Are drainage openings (weep holes) being constructed in abutment walls, wing walls, retaining walls and culvert sidewalls when specified in the plans? (See Art. 503.11)

Is a cubical deposit of gravel or crushed stone deposited behind each drainage hole with the backfilling operation? Is the cubical deposit completely enclosed in a fabric envelope? (See Art. 503.11 and Art. 502.10)

10. PLACING AND CONSOLIDATING

Is the air temperature above 40°F (4°C) and rising? (See Art. 1020.14(b))

Are open troughs, chutes, tubes or tremies being used to place the concrete so that the concrete will drop no farther than 5 ft (1.5 m)? (See Art. 503.07) _____

Is the concrete being deposited as near to its final position as possible? (Running concrete with vibrators is not permitted.) (See Art. 503.07) _____

Is all structural concrete being internally consolidated with vibrators? Vibration shall be supplemented by spading for inaccessible locations. (See Art. 503.07 & Section 503.07 of the Construction Manual) _____

When consolidating concrete around epoxy coated rebars, do the vibrators have non-metallic heads that were coated by the manufacturer? Slip-on covers are not allowed. (See Art. 1103.17(a)) _____

For vertical construction, is the concrete being placed in continuous horizontal layers? Is the concrete being delivered such that there is no more than 20 minutes between successive layers? (See Art. 503.07) _____

11. CONCRETE MIX DESIGN

Are you verifying that the proper concrete mix design is being delivered? (See Art. 1020.04) _____

12. TEMPERATURE CONTROL

Are temperature checks of the plastic concrete being taken? The allowable limits for structural concrete are 50 °F (10°C) to 90 °F (32°C). When insulated forms are used, 50 °F (10°C) to 80 °F (25°C) (See Art. 1020.14(b)) _____

13. CONCRETE DELIVERY TICKET

Are all truck tickets being collected and retained? (See Art. 1020.11(a)(7)) _____

Do concrete tickets show contract number, time of batch, batch quantity, truck number, etc? (See Art. 106.03 and Art. 1020.11(a)(7)) _____

Are you recording on each truck ticket the inspector's initials, the results of air/slump tests, concrete temperature checks, time of discharge, water or admixtures added, drum revolutions of transit mix trucks upon arrival and strength specimens taken? As an alternative, air/slump test results can be recorded and retained in job records via means of a hardback field book. _____

Are all jobsite air, slump, water or admixture additions and beam test results being submitted to the proportioning technician daily for posting on MISTIC Form BMPR MI 654, Concrete, Air, Slump Quantity, and Form BMPR MI 655, PC (Portland Cement) Concrete Strengths? _____

14. REVOLUTIONS

For transit-mixed or shrink-mixed concrete, are you immediately inspecting the revolution counter (See Art. 1103.01(b)) on all arriving truck mixers to ensure the required number of revolutions at mixing speed have been obtained? (See Art. 1020.11(a)(2) and 1020.11(a)(5)) _____

Does the number fit within the allowable number of revolutions shown in the table below? _____

| Time Minutes | 60 Mixing Revs. Required (Simultaneous Charging) | | 70 Mixing Revs. Required (Separate Charging) | |
|-----------------|---|---------|---|---------|
| | Minimum | Maximum | Minimum | Maximum |
| 10 | 60 | 119 | 70 | 119 |
| 15 | 66 | 144 | 72 | 144 |
| 20 | 76 | 169 | 82 | 169 |
| 25 | 86 | 194 | 92 | 194 |
| 30 | 96 | 219 | 102 | 219 |
| 35 | 106 | 244 | 112 | 244 |
| 40 | 116 | 269 | 122 | 269 |
| 45 | 126 | 294 | 132 | 294 |
| 50 | 136 | 319 | 142 | 319 |
| 55 | 146 | 344 | 152 | 344 |
| 60 | 156 | 369 | 162 | 369 |
| 65 | 166 | 394 | 172 | 394 |
| 70 | 176 | 419 | 182 | 419 |
| 75 | 186 | 444 | 192 | 444 |
| 80 | 196 | 469 | 202 | 469 |
| 85 | 206 | 494 | 212 | 494 |
| 90 | 216 | 519 | 222 | 519 |

Agitating Speed
2-5 rev/min.

Mixing Speed
5-16 rev/min.

For transit-mixed or shrink-mixed concrete, whenever water or admixtures are added to the truck at the jobsite or the revolutions on the truck are below the minimum revolutions shown on the above chart, an additional 40 revolutions at mixing speed shall be put on the truck.

No additional water may be added at the jobsite to central-mixed concrete if a reduction in the cement factor has been given for central-mixed concrete. (See Art. 1020.11(a)(4))

15. TIME OF HAUL

Is all concrete which is being hauled in truck mixers or truck agitators being deposited within the specified haul time? (See Art. 1020.11(a)(7)) _____

| Concrete Temperature at Point of Discharge °F (°C) | | <u>Haul Time</u> | | |
|--|---------|------------------|---------|--------------------|
| | | Hours | Minutes | |
| (50-64) | 10-17.5 | 1 | 30 | |
| (65-90) | 18-32 | 1 | 0 | (without retarder) |
| (65-90) | 18-32 | 1 | 30 | (with retarder) |

If central-mixed concrete is being hauled in nonagitator trucks, is the concrete being deposited within 30 minutes? (See Art.1020.11(a)(7)) _____

16. AIR CONTENT DETERMINATION

Allowable air content = 5% - 8% (See Art. 1020.08) _____

On non-QC/QA jobs, are you making an air content test on the first load each day and at least once each 50 cu.yd. (40m³) of concrete thereafter (Sampling Schedule 3, PPG) or when mix water or air entrainment admixture is added at the jobsite? _____

Note: that a slump test and air test is required when a strength specimen is made.

On QC/QA jobs, the sampling and testing frequency is in accordance with Quality Control/Quality Assurance of Concrete Mixes Recurring Special Provision and stand-alone documents.

If a pump or conveyor is used for placement, is an air loss correction factor being established and used? (See Construction Memo 74, Construction Inspector's Checklist for Bridge Superstructures, and QC/QA of Concrete Mixtures Recurring Special Provision) _____

17. SLUMP TEST

Allowable slump = 2 - 4 in. (50 - 100 mm) for Class SI without high-range water reducing admixture. (See Art. 1020.07)

The maximum slump may be increased to 7 in. (175 mm) when a high range water-reducing admixture is used. (See Art. 1020.04 note 4)

On non-QC/QA jobs, are you making a slump test at least once each 100 cu. yd. (75 m³); min. 1/day? (Sampling Schedule 3, PPG) _____

Note that a slump test and air test is required when a strength specimen is made.

On QC/QA jobs, the sampling and testing frequency is in accordance with the QC/QA of Concrete Mixtures Recurring Special Provision and stand-alone documents.

18. STRENGTH TEST

On non-QC/QA jobs, are either concrete test beams or cylinders being cast at the site of work and the following requirements met? (See Art. 1020.09) _____

(1) Modulus of Rupture (6 x 6 x 30 in. (150 mm x 150 mm x 750 mm) beam). _____

Cast 2 beams per pour (Sampling Schedule 3, Non-QC/QA Concrete in the PPG) _____

Are the beams being made, cured and tested in accordance with the methods given in the Manual of Test Procedures for Materials (MTPM)? _____

Designed flexural strength = 650 p.s.i. (4500 kPa) in 14 days. (See Art. 1020.04) Record beam test in "Field Record Book of Modulus of Rupture Test of Concrete Beams," Form LW-3 _____

(2) Compressive Strength 6 in. (150 mm) diameter x 12 in. (300 mm) cylinder: Cast 2 cylinders in lieu of each beam, i.e. 4 cylinders per pour. (See Sampling Schedule 3 Non-QC/QA Concrete in the PPG) _____

Are the cylinders being made, cured and tested in accordance with the MTPM? _____

Designed compressive strength = 3500 p.s.i. (24,000 kPa) in 14 days. (See Art. 1020.04) _____

Note: Submit MISTIC Form BMPR MI 655, Portland Cement Concrete Strengths to the District Materials Engineer.

On QC/QA jobs, the sampling and testing frequency is in accordance with the QC/QA of Concrete Mixtures Recurring Special Provision and stand-alone documents.

Note: If the Contractor intends to load the concrete before the completion of specified curing period, then additional beams or cylinders should be made to ensure the concrete has adequate strength.

19. CONSTRUCTION JOINTS

Are construction joints being made only at locations shown on the plans or approved by the Engineer, except in cases of breakdowns or other unforeseen and unavoidable delays? (See Art. 503.09) _____

Are all construction joints bonded unless otherwise specified on the plans? (See Art. 503.09) _____

a. Unbonded construction joint. Is the new concrete thoroughly consolidated against the previous placed concrete? The first pour should be formed or struck to a true and even surface. (See Art. 503.09(a)). _____

b. Bonded construction joint. Is the existing surface prepared by washing with water under pressure or by sandblasting to expose clean, well bonded aggregate? (See Art. 503.09(b)) _____

Removal of cement paste on the first pour may be facilitated by thoroughly coating the form in contact with surface retarder, or by applying surface retarder directly to the exposed, fresh concrete surface.

When surface retarder is used, is it approved by the Engineer in advance of beginning the work? (See Art. 503.09(b)) _____

Has the prepared surface of the existing concrete been wetted for a minimum of one hour before application of the new concrete? (See Art. 503.09(b)): _____

Is all excess water being removed immediately prior to the second pour? (See Art. 503.09(b)) _____

20. CURING

Is concrete not covered by forms being cured for 7 days by one of the following methods in accordance with the table shown in Art. 1020.13? _____

a. Waterproof paper method (See Art. 1020.13(a)(1)) _____

b. Polyethylene sheeting method (See Art. 1020.13(a)(2)) _____

c. Wetted burlap method (See Art. 1020.13(a)(3)) _____

d. Membrane curing method, (Type I only for substructures and retaining walls) (See Art. 1020.13 Note 1 and 1020.13(a)(4)) _____

e. Wetted cotton mat method (See Art. 1020.13(a)(5)) _____

Note: In addition to the above curing methods, footings, foundations, seal coats, and bottom slabs of culverts may be inundated with water providing the water temperature can be maintained at 45 °F (7°C) or higher. (See Art. 1020.13 Note 6)

If the Contractor is permitted to remove the forms prior to the end of the 7-day curing period, is the concrete curing continued as specified in Article 1020.13? (See Art. 503.06)

21. PROTECTION

Is all concrete which is placed during the winter period, December 1 through March 15, being protected by one of the following methods in accordance with the table shown in Art. 1020.13? (See Art. 1020.13(d))

a. Method I. The concrete and forms shall be completely covered with insulating material (having the appropriate thermal resistance value) for 7 days. The insulating material shall be completely enclosed on all sides and edges with a waterproof liner. (See Art. 1020.13(d)(1))

b. Method II. The concrete shall be enclosed in adequate housing for the entire 7-day curing period. The air surrounding the concrete shall be kept between 50 °F (10°C) and 80 °F (27°C). (See Art. 1020.13(d)(2)) (Exposed concrete within the enclosure (not in forms) shall be cured in accordance with the table shown in Article 1020.13)

c. Method III. Note: Not allowed for all types of Construction. As soon as the surface is sufficiently set to prevent marring, the concrete shall be covered with 12 in. (300 mm) of loose, dry straw followed by a layer of impermeable covering. The edges of the covering shall be sealed to prevent circulation of air and prevent the cover from flapping or blowing. The protection shall remain in place until the concrete is seven days old. (See Art. 1020.13(d)(3))

If the concrete is placed outside the winter period and the temperature is forecast to be below 45 °F (7°C) the concrete shall be protected. (See Art 1020.13(d))

If the actual temperature drops below 45°F (7°C) and the concrete is less than 72 hours old the concrete shall be protected.

22. SURFACE FINISH

Are all depressions resulting from the removal of ties, rods or bolt anchorages and all air pockets or rough places larger than 1/2-inch (13 mm) diameter being carefully and neatly pointed with mortar? (See Art. 503.15)

- a. Normal Finish. Are all surfaces that will be exposed to view after completion of the work (except floors, sidewalls, curbs and medians on bridges) being given a normal finish consisting of the removal of all fins, rough spots, stains, hardened mortar or grout and form lines by rubbing with a #16 carborundum stone or equal abrasive quality? (See Art. 503.15(a)) _____

Note: If the surface of concrete is oil-stained or is otherwise not of uniform color, are you requiring as the cleaning method specified in Article 503.15(a) be performed? _____

- b. Rubbed Finish. Are you requiring this special finish on only those areas shown in the plans or special provisions? (Art. 503.15(b)) _____

- c. Are bearing seats finished in accordance with Article 503.15(c)? (Note: this provision is not applicable to integral abutments.) _____

23. WATERPROOFING

When the plans specify designated surfaces of concrete to be waterproofed, are the material options, applications rates, temperature requirements and construction procedures of Article 503.18 being met? _____

24. NOTIFICATION

When earthen slopes are constructed or reshaped and the final cross section is steeper than 2.5 to 1, District Operations must be notified as soon as possible. _____

25. DOCUMENTATION OF FINAL CONTRACT QUANTITIES

STRUCTURE EXCAVATION – Cubic Yards (Cubic Meters)
 ROCK EXCAVATION FOR STRUCTURES – Cubic Yards (Cubic Meters)

Note: Excavation for construction of slopewalls, pipe culverts, and (typically) concrete box culverts, except excavation of rock and excavation of unstable and unsuitable, will not be measured for payment.

The cost of all bailing, draining, pumping, sheeting, cribbing, disposal excess suitable material, and backfilling to the level of the existing ground surface are included in the cost of the excavation for structures, unless separate payment has been specified for any particular location.

- a. When specified for payment, are before and after field measurements of the excavation recorded and on file? Are computations of the final pay quantity on file? _____

- b. In lieu of measurements, do you have a jointly signed Form BC 981 agreeing to plan quantities to document the final pay quantity? _____

COFFERDAMS – Each
COFFERDAM EXCAVATION – Cubic Yards (Cubic Meters)
STRUCTURE EXCAVATION PROTECTION - Each

- a. Are before and after field measurements of the cofferdam excavation recorded and on file? Are computations of the final pay quantity on file? _____
- b. In lieu of measurements for cofferdam excavation, do you have a jointly signed Form BC 981 agreeing to plan quantities to document the final pay quantity? _____

CONCRETE STRUCTURES - Cubic Yards (Cubic Meters)
CONCRETE SUPERSTRUCTURE - Cubic Yards (Cubic Meters)
REINFORCEMENT BARS - Pounds (Kilograms)
RUBBED FINISH – Square Feet (Square Meters)

- a. Are computations based on plan dimensions in permanent file to verify plan quantities? _____

If your computations are not reasonably close to plan quantity, within 0.3 cu. yd. (0.2 m³) for Concrete Structures and Concrete Superstructure, and 10 lbs. (4.5 Kg) for Reinforcement Bars, are your calculations being checked by another person to verify the revised quantity? _____

Are you indicating in your records that the structure was “Built to plan dimensions”? Otherwise, are you showing revised dimension? _____

Are you computing the weight of reinforcing bars using the theoretical weights as listed in Article 508.07? _____

If a Design Standard was used to build the structure, have you written the statement “Built to Standard #____” in your records? _____
- b. In lieu of all of the above, do you have a jointly signed Form BC 981 agreeing to plan quantities for appropriate pay items to document the final pay quantity? _____

26. WEBSITE LINKS

2012Standard Specifications for Road and Bridge Construction:
<http://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Guides-&-Handbooks/Highways/Construction/Standard-Specifications/12SpecBook.pdf>

2013 Supplemental Specifications and Recurring Special Provisions:

<http://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Guides-&-Handbooks/Highways/Construction/Supplemental-Standards-Specifications/2013Supp.pdf>

List of Prequalified Consultants:

<http://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Specialty-Lists/Highways/Design-&-Environment/ConsultantsPrequalificationr080.pdf>

Bureau of Materials and Physical Research Policy Memorandums:

<http://www.idot.illinois.gov/doing-business/procurements/materials-producers-suppliers/index>

Project Procedures Guide – Sampling Frequencies for Material Testing and Inspection:

<http://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Guides-&-Handbooks/Highways/Materials/ppgfinal.pdf>

Approved List for Materials:

<http://www.idot.illinois.gov/doing-business/procurements/materials-producers-suppliers/lists/index>

Bureau of Design and Environment Special Provisions:

<http://www.idot.illinois.gov/doing-business/procurements/construction/contractors-resources/index>

Guide Bridge Special Provisions:

<http://www.idot.illinois.gov/doing-business/procurements/engineering-architectural-professional-services/Consultants-Resources/agmu-memos>

Current Construction Memorandum:

<http://www.idot.illinois.gov/doing-business/procurements/construction/contractors-resources/construction-memorandums>

Current Construction Inspector's Checklist:

<http://www.idot.illinois.gov/doing-business/procurements/construction/contractors-resources/index>

2006 Construction Manual:

<http://www.idot.illinois.gov/Assets/uploads/files/Doing-Business/Manuals-Guides-&-Handbooks/Highways/Construction/Construction-Manual/Construction%20Manual%202006.pdf>

Bureau of Construction Forms:

<http://www.idot.illinois.gov/home/resources/Forms-Folder/c>

Bureau of Materials and Physical Research Forms:

<http://www.idot.illinois.gov/home/resources/Forms-Folder/m>

Revised to conform with the
Standard Specifications for Road and Bridge Construction
Adopted January 1, 2013
Supplemental Specifications and Recurring Special Provisions
Adopted January 1, 2013