



**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

May 22, 2017

CALL NO. 408
CONTRACT ID NO. 172956
ADDENDUM # 1

Subject: Fayette-Woodford Counties, 121GR17M032-FE02
Letting May 26, 2017

- (1) Revised - Notes - Pages 14, 16, 23, 24, 28, 36, 37, 41, & 43 of 68
- (2) Added - Note - Page 24(a) of 68

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:ks
Enclosures



An Equal Opportunity Employer M/F/D

Abrasive Blast

All structural steel shall be abrasive blast cleaned to an **SSPC-SP 10/NACE NO. 2** “Near White Metal Blast Cleaning” standard as described in the current SSPC documents. After blast cleaning all surface imperfections that remain (e.g. sharp fins, sharp edges, weld splatter, burning slag, scabs, slivers, etc.) shall be removed. The abrasive blast profile shall be **angular, 1.5 to 4.5 mils** as measured in accordance with **ASTM D 4417 Method B**.

Abrasive Media

Clean, dry, uniformly graded recyclable steel grit or grit/shot abrasive mix shall be used to produce an angular profile for blast cleaning that is free of oil, soluble salts and other similar substances which could contaminate the blasted surface. The abrasive shall meet the **SSPC-AB 2** “Cleanliness of Recycled Ferrous Metallic Abrasive” standard.

Residual lead paint may still be on bridge. The Contractor is advised to take all necessary protective measures including worker safety and environmental regulations when performing surface preparation. The Department will not consider any claims based on residual lead paint.

D. PAINT APPLICATION

Areas shall not be painted until they have been inspected and approved by the Engineer. Paint shall be applied only to clean, dry surfaces. Ensure that the appropriate surface condition, as described in the Abrasive Blast Cleaning section, is present at the time of primer application (i.e. re-treat if rust-back occurs). Apply a **Class II (Type I or Type II)** system from the approved list referenced in the **SPECIAL NOTE FOR PAINT**.

All coatings shall be applied within manufacturers recommended dry film thickness range. Comply with KYTC “Standard Specifications for Road and Bridge Construction” Section 614.03.02 and coatings supplier recommended conditions for application.

**The finish coat shall be green and will meet the following values.
120B00030N:**

	L*	a*	b*
Green	24.95	- 35.59	5.82

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	L*	a*	b*
Blue	35.44	9.83	-48.11

Damages - All steps necessary to preclude damage to public property from paint overspray shall be taken. These steps shall include changes in the type of containment or cessation of spraying operations. The contractor shall be solely responsible for any damages arising from the painting operations.

Repair of paint defects - All defects in the new paint shall be repaired.

G. BRIDGE CLEANING AND PREVENTIVE MAINTENANCE

Surface Preparation: Remove all debris and clean all concrete surfaces above the existing ground line on end bents and piers and all faces of parapet walls including end bent wing walls, all deck drains and gutters 2’-0” each side of the bridge deck. Cleaning shall be done with pressure washing equipment. Equip the pressure washer(s) with calibrated gage(s) and pressure regulators to ascertain and regulate water pressure. All equipment for pressure washing shall be operated at a minimum pressure of 4000 psi with fan tips and or 0 degree spinner tips as determined by the engineer at the working location with a minimum flow rate of 3.5 gal/minute provided that these pressures do not disturb concrete or any intact existing coatings. Pressure and flow rates shall be reduced or increased to a level satisfactory to the Engineer should any existing intact coating is disturbed due to power washing procedures. The washing wand must be approximately perpendicular to the washed surface and within a maximum 12 inches of the surface. Wand extensions greater than 36 inches will be subject to Central Office Division of Construction approval. Use clean potable water for all pressure washing.

Concrete Coatings: Apply concrete coatings to all concrete surfaces above the existing ground line on all end bents and piers and all faces of parapet walls including end bent wing walls after all debris are removed and power washing is complete. Use compressed air to remove any loose debris from the concrete surfaces that are to be coated after power washing. See concrete coating diagram for a additional details. All coatings shall be applied within manufacturers recommended dry film thickness range. Comply with KYTC “Standard Specifications for Road and Bridge Construction” Section 614.03.02 and coatings supplier recommended conditions for application. Allow the surfaces to be coated to dry a minimum or 24 hours before any coating is applied. The coating must be applied within 72 hours of pressure washing. All coating application shall be executed using brushes, rollers, etc. Spray application will be permitted if containment is in place for structural steel paint application. Use one of the following coating systems from the manufacture listed below shall be used. The Department requires acceptance testing of samples obtained on a per-lot basis per-shipment. The Division of Materials shall perform acceptance testing.

<u>Manufacture</u>	<u>Prime Coat</u>	<u>Finish Coat</u>
Sherwin Williams	Macropoxy 646	Acrolon 218 HS
PPG	Amberlock 2	Devoe Devflex HP
Carboline -	Carboguard 890	Carbothane 133 HB
Tnemec -	Elastogrip 151	EnviroCrete 156

The finish coat shall be gray and will meet the following values.

	L*	a*	b*
Grey	74.94	- 1.54	3.92

SPECIAL NOTE FOR QUALITY CONTROL

The contractor shall provide QC inspectors to monitor all work, insure that all work is completed in accordance with the Special Notes and Standard Specifications, and record inspection results. All QC inspectors shall possess at a minimum one of the following certifications: **SSPC-BCI level 1 or NACE CIP level 1**. The QC inspector(s) shall not perform production work that requires QC/QA inspection. The Department's (QA) inspector shall conduct in-progress reviews of the Contractor's operations and perform follow-up quality assurance (QA) inspections after the QC inspector has certified that a portion of work is complete.

Progress of Work - Work shall proceed by sections, bays or other readily identifiable parts of the structure. All work shall proceed from top to bottom of the structure. The work shall be broken down into adjacent sections (control areas) separated by bulkheads. Bulkheads shall be sealed to the containment and meet all **SSPC Guide 6 – Containment Classification Class 2A** requirements. Only one phase of work shall be permitted in a given control area at any time.

In any control area, Quality Control Point inspection and approval shall precede the start of succeeding phases of work. Quality Control Points are progress milestones that occur when one phase of work is complete and ready for inspection prior to continuing with the next operational step. At those points, the Contractor shall provide the Departments QA inspectors with OSHA compliant access to inspect all pertinent surfaces. If QA inspection indicates a deficiency, that phase of the work shall be corrected and re-inspected prior to beginning the next phase of work.

A. CLEAN AND PAINT STRUCTURAL STEEL

<i>Quality Control Point</i>	<i>QC Inspection Function</i>
1. Surface Preparation A. Solvent Cleaning B. Abrasive Blast Cleaning	Visually inspect. Measure profile Visually inspect for cleanliness.
2. Full Prime Coat Application	Check for dry film thickness, and defects in paint
3. Full Intermediate Coat (if applicable)	Check for dry film thickness, and defects in paint
4. Finish Coat Application	Check for dry film thickness, paint appearance, color and quality of application

B. BRIDGE CLEANING AND PREVENTIVE MAINENANCE

Quality Control Point

QC Inspection Function

- | | |
|----------------------------|---|
| 1. Surface Preparation | Visual |
| 2. Prime Coat Application | Check for dry film thickness,
and defects in paint * |
| 3. Finish Coat Application | Check for dry film thickness*, paint
appearance, color and quality of application. |

*Destructive DFTs shall be used. Contractor shall repair all test locations, cost will be considered incidental to the contract.

The surface profile shall be verified with a minimum of 3 measurements per nozzle per shift. Each measurement shall be the average of 3 individual readings. Individual gage readings and averages shall be recorded in the log book. The Engineer may request additional measurements at any time. The QC Inspector shall inspect prepared surfaces to determine whether those conform to the specification (see **SPECIAL NOTE FOR SURFACE PREPARATION AND PAINT APPLICATION**). Inspect each individual coat of paint using **KM 64-258-08 Procedure C**. Inspect for areas of incomplete coating coverage and coating defects. The Engineer may request tests, including destructive DFT tests, at additional sites or he may elect to perform additional tests.

C. INSPECTION RECORDS

The QC inspector shall maintain a handwritten record of all-painting activities, operations and inspections in the log book(s). At a minimum, the following information must be recorded:

1. all paint inventory and approval information,
2. daily records of ambient conditions (including all measurements taken),
3. daily progress of work information including start-up/shut-down times, bridge locations by control numbers, structural steel components by proper terminology and pertinent operations by control points, and
4. QC inspection information including evaluations at control points, rework comments, or approvals.

Make entries on consecutive pages of the logbook (in indelible ink) and make corrections by marking through mistakes with a single line. Do not remove pages or erase or obliterate entries in the logbook.

The QC inspector and QA inspector shall jointly assign adjacent control areas consecutive numbers and a short description defining their location. After completion of a phase of work in a control area, the QC inspector shall perform an inspection and shall determine whether the area has been satisfactorily prepared. If work in a control area is unsatisfactory, the QC inspector shall require the contractor to make the necessary corrections. That process shall be repeated as necessary until suitable corrections have been made. Once a control area is approved by the QC, the QA will be requested to inspect that control area. The QA will note acceptance or rework comments in log book. Repeat until approved by the QA.

All logbooks shall be maintained at the job site at all times during the project, made available, upon request, to the Department's representatives and submitted to the Engineer at the end of the project for his review and records.

Test Patch - Prior to initiation of painting, prepare at least one test patch in each Section of work to serve as a standard for reference during the balance of the painting operations. The test patch shall be located at an accessible area incorporating surface types of the project. Use the specified surface preparation on a surface with at least 20 ft² per application method per coating plus 20 ft² for surface preparation. When Central office personnel, the Engineer, QC inspector, and the QA inspector, agree that the appropriate level of cleanliness and surface preparation have been achieved, the contractor shall apply a clear sealer, supplied by the coatings manufacturer, to at least 20 ft² of the prepared surface. The contractor will then apply coating to the remainder (at least 20-ft²) of the test patch. Set aside the test patch area as a standard for proper application and appearance. Do not paint the reference areas until the balance of the project is completed. After the project is complete, re-blast the area of the test patch with clear sealer, and apply all specified coatings. Apply all coatings, including the clear sealer, in the presence of Central Office personnel, the Engineer, the QA inspector, QC inspector, and a technical representative of the paint manufacturer. If QC and QA inspectors agree, clear coat preservation of the test patch may be replaced with pictorial records.

PAYMENT

All cost to provide QC inspectors shall be considered incidental to the lump sum bid for:
Clean and Paint Structural Steel (08434). All Structural Steel Items.
Bridge Cleaning and Preventive Maintenance (23494EC): All Bridge Cleaning and Preventive Maintenance Items..

SPECIAL NOTE FOR PAYMENT

Payment for cleaning and painting structural steel shall be according to Standard Specifications for Road and Bridge Construction (Current Edition) Section 614.05 with the following modification to Section 614.05.

Three-Coat Field Applied System. Partial payments will be based on acceptance of the following:

Surface Preparation	25%
Prime Coat	20%
Intermediate Coat	20%
Finish Coat	20%
De-rigging, touch-up of de-rigging marks and damage, and Environmental documentation	15%

Bridge Cleaning and Preventive Maintenance payment will be based on acceptance of the work upon completion.

Concrete Patching payment will be based on acceptance of the work upon completion.

Joint Seal Replacement payment will be based on acceptance of the work upon completion.

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Equipment staging will be permitted in the median of KY 4 on either end of the bridges. The Contractor shall be responsible for any base material to park equipment on. This material must be removed and site restored to original condition as directed by the Engineer upon completion of the project. Temporary Concrete Barriers 9t shall be used to protect work area in the median clear zones. Temporary Concrete Barriers shall remain the Contractor's property and shall be removed from the construction site upon completion of construction. Cost of any base material and temporary concrete barrier 9t shall be considered incidental to the "Lump Sum Bid for Maintain and Control Traffic.

Single lane closures will be permitted on KY 4 for rigging and containment installation/removal, equipment placement/removal in the median and bridge cleaning and preventive maintenance operations specified for the parapets on the bridge. One 12-foot usable lane shall be maintain in each direction. All work using lane closures shall be done during the hours of 7:00 PM through 6:00 AM.

Single lane closures on RT 3559 will be permitted for all cleaning and painting operations. One 12-foot usable lane shall be maintain. Flagging or traffic signals shall be used. If traffic signals are used the Contractor shall use flagging to minimize impact on school bus traffic when school is in session. The Contractor shall be responsible for establishing the dates and times when school bus traffic will impact the job site.

A 14'-0" minimum vertical clearance will be permitted over protected traffic on RT 3559 and must be signed. A semi ridged working platform shall be constructed to protect traffic when working over the lanes. No work will be conducted over unprotected traffic at any location. The Contractor shall notify the Cabinets Department of Motor Vehicle Oversize Permits Section for height and width restrictions when using platforms with minimal clearance.

One usable sidewalk and bike lane on RT 3559 shall be maintained throughout the project.

No production work shall be commenced during the hours of 8:00 PM -6:00 AM.

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A lane reduction will be permitted on the BG 9002 entrance ramp for joint seal replacement operations, concrete patching repair operations and rigging and containment installation/removal. One 12-foot usable lane shall be maintain.

Single lane and shoulder closures on US 60 will be permitted for all cleaning and painting operations. One 12-foot usable lane shall be maintain in each direction. All work using lane closures shall be done during the hours of 7:00 PM and 6:00 AM. Shoulder closures will be permitted to remain.

Gore areas in the US 60/BG 9002 intersection may be used for staging. Any base material used for staging must be removed and the site restored to original condition as directed by the Engineer upon completion of the project.

A 15'-0" minimum vertical clearance will be permitted over protected traffic on US 60 and must be signed. A semi ridged working platform shall be constructed to protect traffic when working over the lanes. No work will be conducted over unprotected traffic at any location. The Contractor shall notify the Cabinets Department of Motor Vehicle Oversize Permits Section for height and width restrictions when using platforms with minimal clearance.

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No lane closures will be permitted on the following dates:

University of Kentucky Foot Ball Home Schedule.

September 2, 2017
September 23, 2017
September 30, 2017
October 7, 2017
October 28, 2017
November 4, 2017

MEASUREMENT.

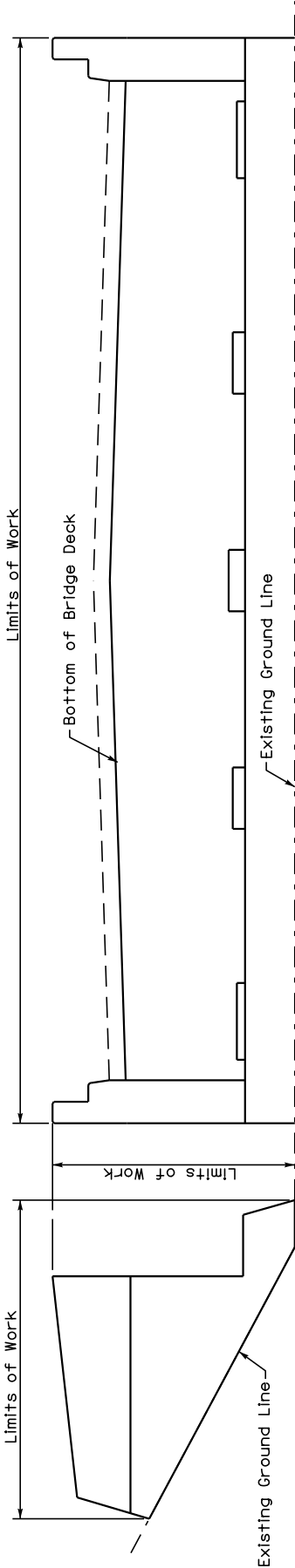
A. Maintain and Control Traffic: The Department will measure the quantity as “Lump Sum”.

B. Portable Changeable Message Sign: The Department will measure the quantity for “Each”.

PAYMENT.

A. Maintain and Control Traffic (02650): Payment of the contract lump sum amount for "maintain and control traffic" shall be full compensation to furnish, install, maintain and remove all items necessary to maintain and control traffic as specified for this contract. All traffic control items shall remain the property of the contractor when the work is complete.

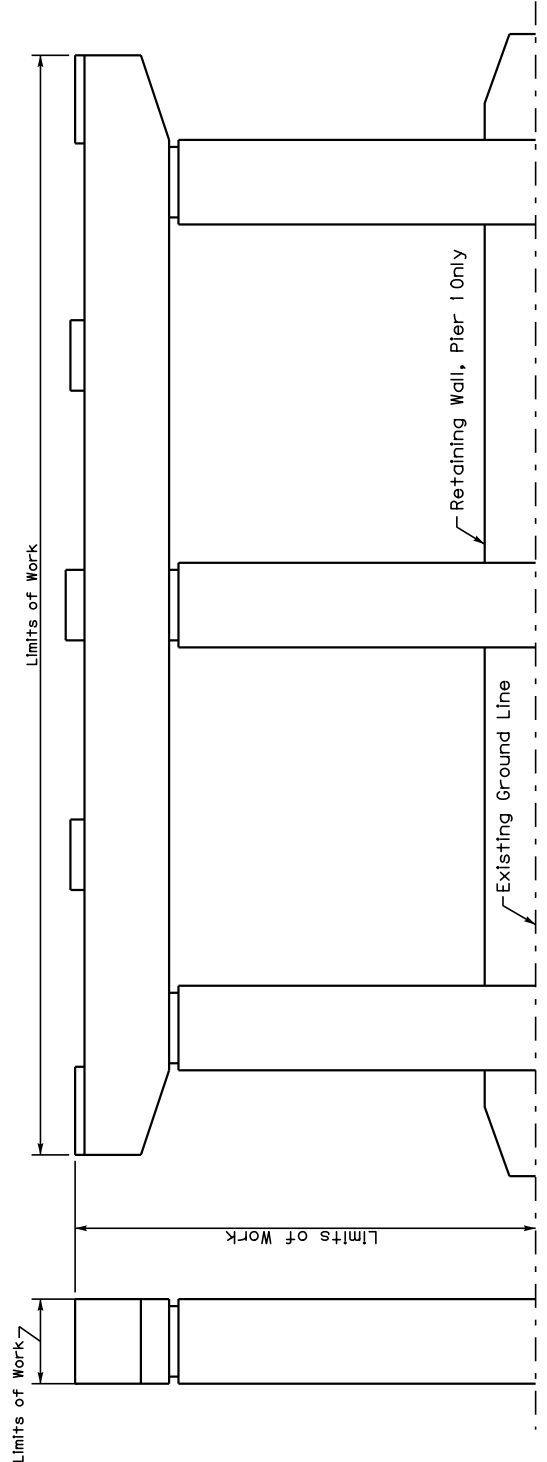
B. Portable Changeable Message Sign (02671): Payment at “each” shall be full compensation to furnish, install, maintain and remove all portable changeable message signs as specified.



END BENT ELEVATION

END ELEVATION

CONCRETE COATINGS for End Bents and Piers
 ALL concrete surfaces above the existing
 groundline shall have debris removed, cleaned
 and concrete coatings applied as specified.

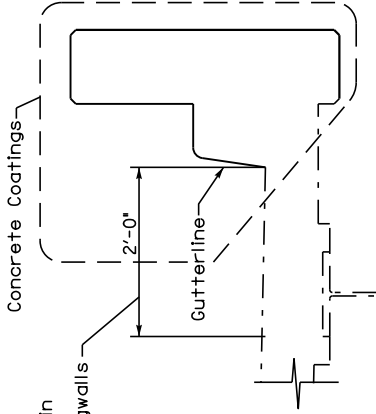


PIER ELEVATION

END ELEVATION

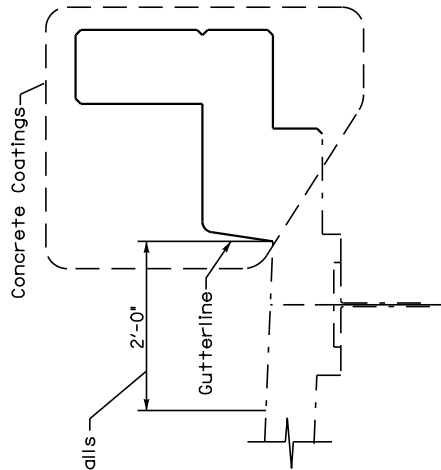
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Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS
FAYETTE
CONCRETE COATING DIAGRAM
Division of Maintenance
Bridge Preservation Branch



SECTION THROUGH PAPAPET

034B00027L&R



SECTION THROUGH PAPAPET

120B00030N

Remove debris and clean gutters in these limits the entire length of the bridge including end bent wingwalls

CONCRETE COATINGS for Parapet Walls
 ALL faces of parapet walls the entire length of bridge including the end bent wing walls shall have debris removed, cleaned and concrete coatings applied as specified.

Remove debris and clean gutters in these limits the entire length of the bridge including end bent wingwalls

121GR17M032

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS
FAYETTE / WOODFORD
CONCRETE COATING DIAGRAM
PREPARED BY Division of Maintenance Bridge Preservation Branch