

Project Number: 180156

PID #: 97956

Contract ID: CLA97956

EDGE Goal: 5%

Clark

SR SMOOTH FY2018

FOUR LANE RESURFACING

Work Type Percentage Performed by Prime: 50

THE 2016 CONSTRUCTION AND MATERIAL SPECIFICATION BOOK IS PART OF THE
BIDDING DOCUMENTS ON THIS PROJECT

PROPOSAL

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

Jerry Wray, Director

February 15, 2018

Submitted by _____

Bidder Id _____

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PN 019 – 01/20/2016 - PREPARATION OF PROPOSAL

ELECTRONIC BIDDING REQUIREMENTS

The Department uses the Bid Express website (<http://www.bidx.com>) as an official repository for electronic bid submittal. Bidders must prepare their bids electronically using Project Bids and submitted via Bid Express.

The Department will not accept handwritten bids or bids generated electronically from software other than that used and supplied by the Department. All handwritten bids and bids generated electronically from software other than that used and supplied by the Department shall be considered non-responsive and ineligible for award. The Department will only accept and consider bids that have been produced using Project Bids and submitted via Bid Express.

The Department's Office of Contracts will provide planholders with a proposal, plan set and any required addenda. Most addenda will not be provided by hard copy, but will be available on the Office of Contracts website at: <http://contracts.dot.state.oh.us>. Planholders will be notified of all addenda via email. All proposals, plans, Project Bids (EBSX) files and addenda are also available on the Office of Contracts web site.

Electronic bids must comply with all special provisions, the Construction and Material Specifications, Supplemental Specifications and the rules and regulations of the Ohio Department of Transportation regarding bid preparation and bid submittal.

Blank unit prices will be considered an invalid bid EXCEPT in the case of optional designs (projects where the bidder is required to bid on only one design). Unit prices of zero are not permitted at any time.

Addenda and/or amendments must be acknowledged in the Bid Acknowledgement section of the Project Bids (EBSX) file in order for your bid to be considered for award of this project. The section contains the certification of receipt of all hard copy proposals, addenda, amendments, plans, standard specifications and supplemental specifications. Supplemental Questionnaire information regarding the bidder's outstanding ODOT and non-ODOT work have also been included in this section. Bid Express will not accept bids that do not have amendments incorporated. Failure to incorporate changed quantities or items in your Project Bids (EBSX) submissions will result in the rejection of your bid.

Each bidder is required to file with his bid a certified check or cashier's check for an amount equal to five percent (5%) of its bid, but in no event more than fifty thousand dollars, or a bid bond for ten percent (10%) of its bid payable to the "Director of Transportation." Electronic bid bonds will be verified upon submission of bids through Bid Express. Bidders must obtain and verify a Bond ID number from the surety. This Bond ID must be entered in the "Bond ID Number" field in the Bid Bond Section of the Project Bids file.

If the contractor chooses to submit a certified check to guaranty its bid, the Department's Office of Contracts will accept a check up to 72 hours in advance of the letting. The Office of Contracts must receive the certified check by 10:00 a.m. on the day the project sells. All checks must be sent to ODOT, Office of Contracts, Attention: Letting Manager, First Floor, 1980 W. Broad St., Columbus, Ohio 43223.

The successful bidder must furnish a performance bond and a payment bond in an amount equal to one hundred percent (100%) of the awarded contract amount. (Ohio Revised Code Section 5525.16)

Any bid received after 10:00 a.m. on the scheduled day of opening will receive no further consideration for award. The Department will not be responsible for a late bid due to failure of the bidder to allow sufficient time for delivery of the bid.

The Department will ensure that this electronic bid depository is available for a two-hour period prior to the deadline for submission of bids. In the case of disruption of national communications or loss of services by <http://www.bidx.com> during this two-hour period, the Department will delay the deadline for bid submissions to ensure the ability of potential bidders to submit bids. If this occurs, instructions will be communicated to potential bidders.

PN 033 - 04/18/2008 - AS PER PLAN DESIGNATION - PROPOSAL NOTE

For the last several years the "As Per Plan" designation has been added to some item descriptions in the proposal to assist the Contractors to easily identify standard items that have been altered by plan notes.

The "As Per Plan" designation has proven to be a very useful tool for the Contractors. However, its use was never intended to relieve the Contractors of their responsibility to read, bid and construct all items in accordance with all governing plan notes. Therefore, the absence of an "As Per Plan" designation on some item descriptions in the proposal for which there are clear and controlling plan notes does not relieve the Contractors of the responsibility to read, bid and construct those particular items in accordance with the governing plan notes.

Be advised that the item descriptions in the bidding proposal must be read or interpreted with the governing plan notes and the Ohio Department of Transportation Construction and Materials Specifications. A claim based upon an "order of precedence" basis will be denied. In the event that a conflict, either real or perceived, exists between the item description and the governing plan note, the Contractors are to request clarification through the pre-bid process.

PN 038 - 10/15/2004 - UNRESOLVED FINDING FOR RECOVERY

The Contractor affirmatively represents to the Department that it is not subject to a finding for recovery under Ohio Revised Code §9.24, or that it has taken the appropriate remedial steps required under §9.24 or otherwise qualifies under that section. The Contractor agrees that if this representation is deemed to be false, the contract shall be void ab initio as between the parties to this contract, and any funds paid by the state hereunder shall be immediately repaid to the Department, or an action for recovery may be immediately commenced by the Department for recovery of said funds.

PN 039 - 10/15/2004 - ASSIGNMENT OF ANTITRUST CLAIMS IN STATE CONTRACT LANGUAGE

It is the policy of the Ohio Department of Transportation that ODOT and the Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are usually borne by ODOT. As consideration for the Award of the Contract and intent to be legally bound, the Contractor acting herein by and through the person signing this contract on behalf of the Contractor as a duly authorized agent, hereby assigns, sells, conveys, and transfers to ODOT any and all right, title and interest to any and all claims and causes of action the Contractor now has or hereafter requires under state or federal antitrust laws provided that the claims or causes of action related to the goods or services that are the subject to the contract. In addition, the Contractor warrants and represents that it will require any and all of its subcontractors and first tier suppliers to assign any and all federal and state antitrust claims and causes of action to ODOT. The provisions of this article shall become effective at the time ODOT executes this contract without further acknowledgment by any of the parties.

All contracting entities shall assign their rights and responsibilities to ODOT for all antitrust claims and causes of action regarding subcontractors.

PN 022 - 04/15/2013 - ENCOURAGING DIVERSITY, GROWTH AND EQUITY (EDGE) REQUIREMENTS

Pursuant to Ohio Revised Code 123.152, the percentage indicated on the front cover of this bid is the percent of the awarded Contractor's bid. The percentage goal may be met if the Contractor is EDGE certified or by subcontracting to certified EDGE firms. EDGE certified firms are those who have been certified by the Ohio Department of Administrative Services. If not EDGE certified, the Contractor must use its best efforts to solicit quotes from and to utilize EDGE subcontractors/suppliers on this project.

WAIVER PROCESS FOR EDGE GOAL

If not EDGE certified, the Contractor must document the progress and efforts made in securing the services of EDGE subcontractors/suppliers. In the event the Contractor is unable to meet the EDGE Goal placed on this project, a request for a waiver of all or part of the goal may be made to the DBE Services Section. The written request must include all signed and dated purchase orders and subcontract agreements for any goal attainment achieved and indicate a good faith effort was made to meet the goal and be sent to the DBE Services Section, Division of Construction Management, 1980 West Broad Street, Mail Stop 4110, Columbus, Ohio, 43223. There will be no extension of time for the project granted if the Contractor wishes to avail itself of this process. If an item of work subcontracted to an EDGE firm is non-performed by the Department or the subject of an approved VECF, the Contractor may request a waiver for the portion of work excluded.

The Department shall consider the following information and documentation when a request for an EDGE goal waiver is received:

1. Dollar value and % of EDGE goal. Dollar value and % of waiver request.
2. Signed copy of each subcontract or purchase order agreement between the prime and EDGE subcontractor/supplier utilized in meeting the contract goal.
3. Copy of dated written communication, fax confirmation, personal contact, follow up and negotiation with the EDGE firm.
4. Copy of dated written communication and/or fax confirmation that bidder solicited and provided EDGE with adequate information about the plans, specifications and requirements of the contract in a timely manner to assist them in responding to a solicitation.
5. Copy of dated written communication and/ or fax confirmation of each noncompetitive EDGE quote that includes the dollar value of each reference item and work type.
6. Copy of dated written communication and/ or dated fax confirmation of EDGE firms that were not interested in providing a quote for the project.

7. All solicitations made by the Contractor for subcontracting opportunities and EDGE quotes through SBN.
8. Documentation of all negotiating efforts and reason for rejecting quotes from EDGE firms.
9. Documentation of good faith efforts (GFE) to meet the EDGE subcontract goal, by looking beyond the items typically subcontract or consideration of subcontracting items normally performed by the prime as a way to meet the EDGE goal.

The Administrator will review the submitted documentation and issue a written decision within ten (10) business days. The Contractor may request administrative reconsideration within 14 days of being informed that it did not perform a GFE. The Contractor must make this request in writing to the following official:

Ohio Department of Transportation
Attention: Deputy Director, Division of Construction Management
1980 West Broad Street, Mail Stop 4110
Columbus, Ohio 43223

The reconsideration official will not have played any role in the original determination that the Contractor did not document sufficient good faith effort.

As part of this reconsideration, the Contractor will have the opportunity to provide written documentation or an argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT will send the Contractor a written decision on reconsideration explaining the basis for finding that the Contractor did or did not meet the goal or make adequate good faith efforts. The result of the reconsideration process may be appealed to the Court of Claims.

AFFIDAVIT OF SUBCONTRACTOR PAYMENT

The Ohio Revised Code 123.152, requires the Ohio Department of Transportation (ODOT) to monitor and verify that work subcontracted to Encouraging Diversity, Growth and Equity (EDGE) firms is actually performed by the EDGE firms. The affidavit seeks to verify actual payments made to EDGE firms on the project. Each EDGE firm must verify the actual payment amount.

The blank spaces in the affidavit must be filled in correctly, where indicated. The affidavit must be signed by the Contractor and subcontractor, or by the subcontractor and EDGE sub-contractor, if applicable. By signing the affidavit, the noted firm agrees that the payment amount recorded is true and accurate as of the payment time period.

Completed and signed affidavit shall be mailed to the Ohio Department of Transportation, DBE Services Section, 1980 West Broad Street, Mail Stop 4110, Columbus, Ohio 43223.

SANCTIONS

The Ohio Department of Transportation will issue sanctions if the Contractor chooses not to request a waiver, the Contractor fails to comply with the contract requirements and/or fails to demonstrate the necessary good faith effort.

The Ohio Department of Transportation may impose any of the following sanctions:

- (1) letter of reprimand;
- (2) liquidated damages computed up to the amount of goal dollars not met;

- (3) cross-withhold from future projects;
- (4) contract termination and/or
- (5) other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions include, but are not limited to:

- (1) the magnitude and the type of offense;
- (2) the degree of the Contractor's culpability;
- (3) any steps taken to rectify the situation;
- (4) the Contractor's record of performance on other projects including, but not limited to:
 - a. annual EDGE participation over EDGE goals;
 - b. annual EDGE participation on projects without goals;
 - c. number of complaints the Ohio Department of Transportation has received from EDGE firms regarding the Contractor; and
 - d. the number of times the Contractor has been previously sanctioned by the Department of Transportation; and
- (5) whether the Contractor falsified, misrepresented, or withheld information.

PN 016 - 10/15/2004 - STATE EEO CERTIFICATION CLAUSE

The hiring of employees for the performance of work under this contract shall be done in accordance with Sections 153.59 and .591, of the Ohio Revised Code, the Governor's Executive Order of January 27, 1972, including Appendices "A" and "B" and the Governor's amended Executive Order 84-9 of November 30, 1984. The successful contractor shall not discriminate against or intimidate any person hired for the performance of the work by reason of race, color, religion, national origin, ancestry, sex or handicap. For any violation the contractor shall suffer such penalties as provided for in Section 153.60, of the Ohio Revised Code, and the Governor's Executive Order of January 27, 1972. The bidder also agrees that upon the award of this contract he shall incorporate this certification in all subcontracts on this project regardless of tier.

PN 090 - 01/21/2011 - WORK TYPE CODES AND DESCRIPTIONS

The Department will indicate the work type required for each pay item. If the line item does not have a corresponding work type, NR will be shown in the work type column. This proposal note will govern the assignment of work types to pay items.

However, the Contractor may perform incidental work items for which it does not hold the required work type provided the cost of the work does not exceed 5% of the total bid. The Contractor may also perform Work Type 26 (Structural steel painting) without holding the required work type provided the total area to be painted does not exceed 700 SF per structure. The Contractor may perform Work Type 57 (Sealing of Concrete Surfaces with Epoxy or Non-Epoxy Sealers) without holding the required work type provided the total area to be sealed does not exceed 75 SY per project.

Listed below are the work types for this proposal. In accordance with Ohio law, a bidder must possess work types, and perform work equal to the percentage included on the front cover of this proposal. This is a percentage of the total amount of the submitted bid price. The Director may, by insertion of a contract provision, reduce the fifty percent amount.

Work Type Code	Work Type Description	Work Type Code	Work Type Description
1	Clearing & Grubbing	29	Structure Repairs
2	Building Removal	30	Hydrodemolition
3	Gas, Oil, Water Well Abandonments	31	Structural Steel Repairs
4	Roadway Excavation & Embankment Construction	32	Heat Straightening
5	Major Roadway Excavations	33	Tieback Installation
6	Incidental Grading	34	Earth Retaining Structures
7	Soil Stabilization	35	Drainage (Culverts, Misc.)
8	Temporary Soil Erosion & Sediment Control	36	Guardrail / Attenuators
9	Aggregate Bases	37	Fence
10	Flexible Paving	38	Misc. Concrete
11	Apply Bituminous Treatments	39	Maintenance of Traffic
12	Rigid Paving	40	Waterproofing
13	Pavement Planning, Milling, Scarification	41	Raised Pavement Markers
14	Concrete Texturing	42	Signing
15	Sawing	43	Highway Lighting
16	Flexible Replacement	44	Traffic Signals - Standard
17	Rigid Pavement Replacement	45	Pavement Markings
18	Pavement Rubblizing, Breaking, Pulverizing	46	Landscaping
19	Structure Removal	47	Mowing
20	Level 1 Bridge	48	Trucking
21	Level 2 Bridge	49	Herbicidal Spraying
22	Level 3 Bridge	50	Railroad Track Construction
23	Reinforcing Steel	51	Micro Tunneling
24	Structural Steel Erection	52	Tunneling
25	Stud Welding	53	Piling
26	Structural Steel Painting	54	Post-Tensioning Bridge Members
27	Expansion & Contraction Joints, Joint sealers, Bearing Devices	55	Fiber Optic Cable Installation, Splicing, Termination and Testing – Traffic Signal System
28	Caissons / Drilled Shafts	56	Fiber Optic Cable Installation, Splicing, Termination and Testing – Intelligent Transportation System
		57	Sealing of Concrete Surfaces with Epoxy or Non-Epoxy Sealers

PN 060 – 10/22/2012 - PREVAILING WAGES ON STATE PROJECTS WITH NO FEDERAL AID

The following is in addition to Section 108.10.

This contract is subject to Ohio Prevailing Wage Laws, Chapter 4115 of the Ohio Revised Code and the Contractor and all subcontractors shall comply with all provisions contained therein or as otherwise provided by this note. The Contractor guarantees that the prevailing wage scale to be paid to all laborers and mechanics employed on this contract shall be in accordance with the schedule of the prevailing hourly wage and fringe benefits as determined by the Ohio Department of Commerce for the county in which the work is being performed. The failure to pay prevailing wages to all laborers and mechanics employed on this project, shall be considered a breach of contract. Such a failure may result in the revocation of the contractor's and/or subcontractor's certificate of qualification and debarment. A schedule

of the most current prevailing wage rates may be accessed by registering with the Ohio Department of Commerce, Labor and Worker Safety Division, Wage and Hour Bureau at the following web address:

<http://198.234.41.198/w3/webwh.nsf?Opendatabase>

The Contractor and all subcontractors shall compensate the employees on this contract at a pay rate not less than the hourly wage and fringe rate listed on the website noted above, for the applicable job classification or as may be modified by the Ohio Department of Commerce, Division of Labor and Worker Safety Wage and Hour Bureau, when new prevailing rates are established.

Overtime shall be paid at one and one-half times the basic hourly rate for any hours worked beyond forty hours during a pay week. The Contractor and all subcontractors shall pay all compensation by company check to the worker and fringe benefit program.

The wage and fringe rates determined for this project or as may be later modified, shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers or otherwise made available to the workers. On the first pay date of contract work the Contractor and all subcontractors shall furnish each employee covered by prevailing wage a completed form whpw1512 in accordance with section 4115.05 of the Ohio Revised Code, showing the classification, hourly pay rate, fringes, and identifying the District Prevailing Wage Coordinator (DPWC), if such employees are not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of labor. These forms shall be signed by the Contractor or subcontractor and the employee and kept in the Contractor's or subcontractor's payroll files.

The Contractor shall submit to the designated Department representative, certified payrolls for the Contractor and all subcontractors on form whpw1509 or equivalent, in accordance with sections 4115.07 and 4115.071 (C) of the Ohio Revised Code, three weeks after the start of work and every subsequent week until the completion of the contract. Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted, for all apprentices working on this project. Upon completion of the contract and before the final payment, the Contractor shall submit to the DPWC a final wage affidavit in accordance with section 4115.07 of the Ohio Revised Code stating that wages have been paid in conformance with the minimum rates set forth in the contract. Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in Chapter 4115 of the Ohio Revised Code, are strictly adhered to by all subcontractors.

The Contractor and all subcontractors shall make all of its payroll records available for inspection, copying or transcription by any authorized representative of the contracting agency. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

If the Contractor or any subcontractor fails to comply with any of the provisions contained in this proposal note, the Department may terminate the contract, debar the Contractor or Subcontractor and/or withhold or suspend pay estimates after written notice and a reasonable opportunity to comply has been provided.

PN 045 - 10/15/2004 - NON - COLLUSION AFFIDAVIT

In accordance with Title 23 United States Code, Section 112 and Ohio Revised Code, Chapter 1331 et. seq; and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and under

other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall constitute also signature of this Non-Collusion Affidavit as permitted by title 28 United States Code, Section 1746.

REPORTING BID RIGGING

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

PN 420 - 10/21/2016 - SURFACE SMOOTHNESS REQUIREMENTS FOR PAVEMENTS

DESCRIPTION: The surface tolerance specification requirements are modified as follows for all pavements of constant width with at least 1 centerline mile (1.6 km) of continuous paving. Short breaks in paving such as bridge decks, intersections, etc. are not considered breaks in continuous paving. Also included is pavement for ramps, acceleration lanes, and deceleration lanes greater than 0.5 miles (0.8 km) in length. Do not include pavement for turn lanes including center turn lanes, shoulders, crossovers, approach slabs, and bridge decks.

Roads with less than 1 centerline mile (1.6 km) of paving; ramps, acceleration lanes, and deceleration lanes less than 0.5 miles (0.8 km); and sections of undivided highways, as defined in this note, within corporation limits with posted speed limits less than 40 miles per hour require smoothness measurement and corrective action for all areas of localized roughness with an IRI in excess of 250 inches per mile (3.95 m/km) in 25 feet (7.6 m) only. Do not include pavement for turn lanes including center turn lanes, shoulders, crossovers, approach slabs, and bridge decks.

Areas not part of this specification are subject to the requirements of the original item(s) specified.

If the pavement surface is Rubberized Open Graded Asphalt Friction Course (Supplemental Specification 803), this specification applies to the surface of the course immediately below and references to the number of courses placed do not include the SS803 course.

MATERIALS AND EQUIPMENT: Provide smoothness measuring equipment conforming to Supplement 1058. Furnish the Department's approval letter of the profiler and the operator to the Engineer. The Engineer will verify the smoothness measuring equipment conforms to Supplement 1058. The Engineer will complete the Smoothness Profiler Verification Report found in Supplement 1058, Appendix A, to document profiler calibration prior to measurement. The Engineer will verify the profile operator's certification against the operator list posted on the Office of Technical Services webpage. Furnish equipment meeting the requirements of C&MS 257.02 for performing corrective diamond grinding.

SMOOTHNESS MEASUREMENT: Measure the pavement surface smoothness in both wheel paths. Wheel paths are located parallel to the centerline or baseline of the roadway or ramp and approximately 3.0 feet (1.0 m) from the centerline of the lane or ramp, measured transversely in both directions. Ensure the path of the profiler is parallel to the lane centerline at all times. Measure the entire length of pavement, event marking the profile runs such that profile data can later be identified when the profile sensor(s) is within 1.0 foot (0.3 m) of any existing pavement not constructed on the project, pressure relief joint, approach slab, or other non pavement features (i.e. manholes, valve boxes). Remove any objects such as dirt, debris, curing covers, etc., prior to performing the surface smoothness measurements. Replace any curing covers after the measurements are taken. Repair any membrane curing damaged during the measurements.

Do not perform any surface smoothness measurements until the pavement has cured sufficiently to allow measuring without damaging the pavement. When the pavement will not support the profiler on the next working day, notify the Engineer and inform the Engineer when the measurements will be taken. Provide the Engineer at least 24 hours' notice prior to performing any measurements. Do not take measurements until project site verification is demonstrated to the Engineer according to Supplement 1058.

Develop an International Roughness Index (IRI) according to ASTM E 1926 for each 0.1-mile (0.16 km) section. Submit two copies of the summary report from ProVAL conforming to Supplement 1110 and two electronic copies of all longitudinal pavement profiles in ProVAL compatible format to the Engineer. The Engineer will submit one copy of the summary report and one electronic copy of the profiles to the Office of Technical Services.

Provide necessary traffic control and survey stationing for all surface smoothness measurements.

MANDATORY CORRECTIVE ACTION: Perform corrective action for the applicable surface type as required. Do not include pavement within 40 feet (12.2 m) of a bridge deck or approach slab in any 0.1-mile (0.16 km) section evaluated for pay adjustment. Measure and evaluate these 40 foot (12.2 m) sections for localized roughness corrections. Provide a list of all mandatory corrective action locations, with station, lane, and proposed corrections to the Engineer for approval. Do not perform any corrective actions without approval of the Engineer.

Asphalt Concrete Surface: Classify asphalt pavement areas into one of the following types based on the work performed as part of the Project.

- Type A: Asphalt pavement specified as at least two uniform courses with the total thickness placed greater than or equal to 3 inches (75 mm).
- Type B: Asphalt pavement specified as either: a) at least one uniform course with the total thickness placed less than 3 inches (75 mm) and including Item 254 or SS897 planing prior to resurfacing, or b) at least two uniform courses with the total thickness less than 3 inches (75 mm) without including Item 254 or SS897 planing prior to resurfacing.
- Type C: Asphalt pavement specified as a single uniform course not meeting the criteria of Type B. The uniform course may be placed on a non-uniform leveling course.

TABLE 420-1 ASPHALT CONCRETE PAVEMENT CLASS CRITERIA				
	Divided Highways*		Undivided Highways*	
Pavement Class	Corrective Action	Pay Adjustment	Corrective Action	Pay Adjustment

		Schedule (Table 420-3)		Schedule (Table 420-3)
Type A [\geq 3in. + 2-course]	[1],[5]	A	[2],[5]	A
Type B [$<$ 3in. + Milling] or [$<$ 3in. + 2-course]	[1],[5]	A	[3],[5]	A
Type C [$<$ 3in. + 1-course]	[2],[5]	A	[4]	B

* Divided highways have physical separation such as a grass median, raised concrete median, guardrail, or barrier between the two directions of travel. Highways with continuous two way left turn lanes are considered undivided. Undivided highways with short sections, less than 1000 feet (300 m), of physical separation are considered undivided for the entire length.

Corrective Action:

- [1] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 160 inches per mile (2.53 m/km) in 25 feet (7.6 m).
- [2] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 200 inches per mile (3.16 m/km) in 25 feet (7.6 m).
- [3] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 225 inches per mile (3.55 m/km) in 25 feet (7.6 m).
- [4] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 250 inches per mile (3.95 m/km) in 25 feet (7.6 m).
- [5] Correct any 0.1-mile (0.16 km) sections having an IRI greater than 90 inches per mile (1.42 m/km).

Perform corrective action as required in Table 420-1 by removing and replacing to the depth necessary to correct the deviations or by diamond grinding. Use asphalt concrete meeting the contract requirements for the replacement work. Apply Item 407 Tack Coat prior to placing the surface course. The total amount of grinding is limited to no more than 5% by longitudinal length of the lane-miles (lane-km) eligible for a pay adjustment.

Re-measure each 0.1-mile (0.16 km) section where corrective action was performed to ensure compliance with Table 420-1.

If the final surface course is Item 803, seal any diamond ground areas with material meeting the requirements of 702.04 prior to placing the Item 803.

Portland Cement Concrete Surface: Classify pavement areas into one of the following types based on the work performed as part of the Project.

- Type A: Concrete pavement with the total specified thickness greater than or equal to 8 inches (200 mm).
- Type B: Concrete pavement with the total specified thickness greater than 6 inches (150 mm) and less than 8 inches (200 mm).
- Type C: Concrete pavement with the total specified thickness less than or equal to 6 inches (150 mm).

TABLE 420-2 PORTLAND CEMENT CONCRETE PAVEMENT CLASS CRITERIA				
	Divided Highways*		Undivided Highways*	
Pavement Class	Corrective Action	Pay Adjustment Schedule	Corrective Action	Pay Adjustment Schedule (Table 420-3)

		(Table 420-3)		
Type A [≥ 8 in.]	[1],[5]	A	[1],[5]	A
Type B [> 6 in. & < 8 in.]	[1],[5]	A	[2],[5]	A
Type C [≤ 6 in.]	[2],[5]	A	[3]	B

* Divided highways have physical separation such as a grass median, raised concrete median, guardrail, or barrier between the two directions of travel. Highways with continuous two way left turn lanes are considered undivided. Undivided highways with short sections, less than 1000 feet (300 m), of physical separation are considered undivided for the entire length.

Corrective action:

- [1] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 160 inches per mile (2.53 m/km) in 25 feet (7.6 m).
- [2] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 200 inches per mile (3.16 m/km) in 25 feet (7.6 m).
- [3] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 225 inches per mile (3.55 m/km) in 25 feet (7.6 m).
- [5] Correct any 0.1-mile (0.16 km) sections having an IRI greater than 90 inches per mile (1.42 m/km).

Perform corrective action as required in Table 420-2 by diamond grinding or removing and replacing. Use Portland cement concrete meeting the contract requirements for the replacement work.

Re-measure each 0.1-mile (0.16 km) section where corrective action was performed to ensure compliance with Table 420-2.

Complete all corrective action prior to determination of pavement thickness. If corrective action is required, the surface texture after diamond grinding is acceptable and no additional texturing is required.

Asphalt and Portland Cement Concrete Surfaces: If corrective action is required, develop a corrective action plan at least 7 days before beginning corrective action. Include in the plan identification and detailed location descriptions of all localized and lot violations and proposed corrective action. Do not begin corrective action until receiving the Engineer's acceptance of the corrective action plan. The corrective action plan is limited to grinding, pavement removal and replacement or a combination of the two. Upon completion of the corrective action, re-measure surface smoothness according to this specification. In the event the Contractor is not able to correct the surface smoothness to meet the Specification, the DCA may establish a deduction to the Contract in accordance with section 105.03 of the C&MS.

EXEMPTED CORRECTIONS: Required corrective action resulting from contract requirements for maintaining traffic and construction joints placed at the beginning and end of each work period are considered exempted corrections. The contractor will identify and define all exempted correction locations. Exempted corrections for maintaining traffic occur primarily at ramps or other access points where paving must be suspended. Required corrective action due to material availability, weather, or any other reason not listed above, is not considered an exempted correction. No exempted corrections for maintaining traffic exist on projects where the maintenance of traffic plan does not interfere with paving operations. Perform exempted corrections according to the requirements for mandatory corrective action.

METHOD OF MEASUREMENT: Determine the IRI for each lane for each 0.1-mile (0.16 km) section of paving. The IRI for a 0.1-mile (0.16 km) section is the average of the IRI of the two wheel paths.

PAY ADJUSTMENTS: A lump sum pay adjustment will be made according to the following schedule and calculations for each lane for each 0.1-mile (0.16 km) section. Payment will be based on a 12 foot (3.7 m) lane width, regardless of lane width. Pay adjustments are based on the weighted average bid unit cost

per square yard for the section multiplied by the pay factor as determined in Table 420-3. Pavement thickness is the total thickness of asphalt concrete, Portland cement concrete, or both placed as part of the contract and does not include any SS803 course, free draining base, aggregate base, stabilized subgrade, etc.

TABLE 420-3 PAY SCHEDULE			
SCHEDULE A		SCHEDULE B	
IRI	PAY ADJUSTMENT	IRI	PAY ADJUSTMENT
Inches per mile per 0.1 mile section (m/km per 0.16 km section)	Percentage of Unit Cost (PUC) (%)	Inches per mile per 0.1 mile section (m/km per 0.16 km section)	Percentage of Unit Cost (PUC) (%)
35 (0.55) or less	4	45 (0.71) or less	4
Over 35 to 50 (0.55 to 0.79)	$(50 - \text{IRI}) * \left(\frac{4}{15}\right)$	Over 45 to 60 (0.71 to 0.95)	$(60 - \text{IRI}) * \left(\frac{4}{15}\right)$
Over 50 to 70 (0.79 to 1.10)	0	Over 60 (0.95)	0
Over 70 to 90 (1.10 to 1.42)	$-(\text{IRI} - 70) * \left(\frac{6}{20}\right)$		
Over 90 (1.42)	(1)		

(1) Corrective action required

Asphalt Pavements:

$$WUC = \frac{(t_1 \times u_1) + (t_2 \times u_2) + (t_3 \times u_3) \dots}{36}$$

Where: *WUC* = weighted unit cost (\$/SY).

t = lift thickness (in.).

u = bid unit cost (\$/CY).

Concrete Pavements:

$$WUC = \text{bid unit cost } (\$/SY)$$

Pay Adjustment (*PA*):

$$PA = WUC \times 704 \times PUC$$

Where: *WUC* = weighted unit cost (\$/SY).

PUC = percentage of unit cost from Table 420-3, expressed as a decimal.

Pay adjustments will be based on the measured IRI after any mandatory corrective action however no incentive will be paid for any 0.1-mile (0.16 km) section where mandatory corrective action was performed regardless of the resulting IRI.

One-tenth mile (0.16 km) sections with exempted corrections only are eligible for incentive pay based on IRI measurements taken after completion of the exempted corrections.

At the Contractor's option, corrective action may be performed on any section with an IRI greater than 70 inches per mile (1.10 m/km) to reduce or eliminate the negative pay adjustment however, no incentive will be paid regardless of the resulting IRI. As an option the Department may allow corrective action, in the form of diamond grinding, Item 254, or SS897 pavement planing, to improve the profile on any course prior to the surface course. If the final course is Item 803 do not perform corrective action on the Item 803. Only diamond grinding may be performed on the course immediately below Item 803.

Negative pay adjustments apply to sections with mandatory corrective action and exempted corrections.

No payment will be made for any 0.1-mile (0.16 km) section subject to Schedule A that has an IRI greater than 90 inches per mile (1.42 m/km) until corrective action has been completed and the IRI has been reduced to less than 90 inches per mile (1.42 m/km).

BASIS OF PAYMENT: Include the cost of all labor, equipment, and materials necessary to meet this specification in the contract unit or lump sum price for the applicable pavement items.

PN 512 - 01/15/2016 - ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECKS

A. Description. This item consists of furnishing the necessary labor, materials and equipment to repair concrete bridge decks, including the removal of all loose and unsound concrete, bituminous patches, surface preparation, bonding coat and the mixing, placing, finishing and curing of the mortar or concrete patches.

B. Materials. Furnish materials conforming to the following requirements:

Fine aggregate (natural sand).....	703.02
Coarse aggregate (No.8).....	703.02
Portland cement	701.05
Quick Setting Concrete Mortar, Type 1 or 2.....	705.21
Air-entraining admixture	705.10
Curing materials - Type A or B Patches.....	705.07
Curing materials - Type C Patches	Mfgr's recommendations

C. Removal of Unsound Concrete. The Engineer shall sound the entire deck and outline the areas to be removed. Sound the deck when it is sufficiently dry to permit detection of all areas of delamination. Saw the perimeter of all removal areas to a depth of 1 inch (25 mm) to produce a vertical or slightly undercut face. Use additional saw cuts to facilitate removal, if necessary. Remove all unsound concrete including all patches other than sound Portland cement concrete, and all loose and disintegrated concrete. Remove the unsound concrete by chipping or hand dressing. Use chipping hammers that are not heavier than the nominal 35 pound (16 kg) class. Operate the chipping hammers at an angle of less than 45 degrees measured from the surface of the deck Remove the concrete in a manner that prevents cutting, elongating or damaging reinforcing steel. Where the bond between the concrete and a primary reinforcing bar has been destroyed, or where more than one half of the periphery of such a bar has been exposed, remove the adjacent concrete to a depth that will provide a minimum 3/4 inch (19 mm) clearance around the bar except where other reinforcing bars make this impracticable. Adequately support and tie back into place reinforcement which has become loose . After completion of the secondary removal operations, the Engineer will re-sound the deck to ensure that only sound concrete

remains. Minimize construction joints. Only place construction joints on the perimeter of the removal areas.

D. Surface Preparation. Clean and then apply the bonding grout and/or the patching material. Thoroughly clean by sandblasting followed by an air blast, the surface to be patched and the exposed reinforcing steel. Use hand tools to remove scale from the reinforcing steel. Keep the prepared surface dry for Type A and Type B patches and Type C patches which do not use water as the activator. Leave the prepared surface in the condition as recommended by the manufacturer for Type C patches which require water as the activator. Follow the manufacturer's recommendations for any additional surface preparation for the patching material which is used.

E. Bonding Grout. The grout for bonding Type A patches consists of equal parts by volume of Portland cement and sand, mixed with sufficient water to form a stiff slurry. Apply this slurry with a stiff brush or broom to the existing surface in a thin, uniform coating. Scrub the coating of grout onto the dry surface immediately before placing the concrete. Ensure that no excess grout is permitted to collect in low spots. The grout is not be permitted to dry before placing the new concrete. Paint thinned grout over all joints between the new existing concrete immediately after the finishing has been completed. Bond Type B and Type C patches according to the manufacturers recommendations.

F. Patching. Place the mortar or concrete as Type A, B, or C.

1. Type A. The mixture consists of 1 part high-early-strength Portland cement, 1-1/2 parts fine aggregate and 1-1/2 parts coarse aggregate by volume. Add sufficient air-entraining agent to maintain an air content of 8 plus or minus 2 percent. Maintain the slump at the minimum practical for placing and at a maximum of 2 inches (50 mm). Mix the materials at the site. Ready-mixed concrete is not be permitted. Place the mix in the area to be patched while the bonding grout is still wet, slightly overfilled and struck off with a vibrating screed drawn slowly across the area. Hand finish with a wood float to produce a tight, uniform surface.

2. Type B. Patching material consists of Quick Setting Concrete Mortar, Type 1 or 2, 705.21. Mix and place the mortar as per manufacturer's recommendations. Add coarse aggregate in accordance with the manufacturer's instructions when the depth of the patch exceeds 1 inch (25 mm).

3. Type C. Patching material consists of a blend of 705.21 Type 2 material and selected aggregates with an activator. Mix and place these materials as per manufacturer's recommendations. Add coarse aggregate in accordance with the manufacturer's instructions when the depth of the patch exceeds 1 inch (25 mm).

G. Curing. Cure Type A patches in accordance with 511.14, Method (A), for not less than 24 hours if membrane waterproofing is to be applied immediately. If not, use Method (A) for 48 hours, after which apply membrane curing material at a rate not less than one gallon per 200 square foot (1 L per 5 m²). Remove membrane curing material prior to placing waterproofing. Cure Type B and Type C patches in accordance with the manufacturer's recommendations.

H. Method of Measurement. The Department will measure the actual area in square yards (square meters) of the exposed surface of all patches, irrespective of the depth of the patch, complete, in place and accepted.

I. Basis of Payment. The Department will pay for accepted quantites at the contract price bid for:

ITEM	UNIT	DESCRIPTION
Special	Sqare Yard (Square Meter)	Patching concrete bridge decks, Type _____.

PN 520 09/09/2015 - FUEL PRICE ADJUSTMENT

General: This Fuel Price Adjustment (Fpa) provision is intended to minimize risk to the Contractor or Design Build Team, (DBT) due to fuel price fluctuations that may occur during the Contract. This provision is not designed to estimate actual quantities of fuel used in construction operations, but to provide a reasonable basis for calculating a fuel price adjustment based on average conditions.

The Department determines adjustments under the provisions of this Proposal Note, and presumes that the Contractor/(DBT) has relied on these provisions when determining unit bid prices. The monthly application range for percent change (Mbp/Cbp) will not exceed 50% for a Fuel Price Adjustment increase or decrease as outlined in Section B, Calculation of Fuel Price Adjustment.

A. Price Adjustment Criteria: These requirements provide for a price adjustment, positive or negative, to payments due the Contractor/(DBT) for fluctuations in the cost of fuel consumed in the performance of certain items of work. These price adjustment provisions apply only to those items in the contract as grouped by category and identified in Table A-1. All adjustments will be made based on fuel consumption indicated by Table A-1, and no changes will be made for actual consumption rates.

Category descriptions and the fuel usage factors which are applicable to each are as follows:

Fuel Adjustment Categories, Table A-1				
Category	Basis of Calculation and Threshold Quantity	Eligible Items	Units	Fuel Usage Factor
Earthwork	Apply only to the greater of the sum of all Excavation quantities or the sum of all Borrow and Embankment quantities. Threshold Quantity* = 30,000 c.y. (22,936 c.m.)	203, 204	Gallons per cubic yard (Gallons per cubic meter)	0.50 (0.65)
Aggregate Bases	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,500 c.y. (1,912 c.m.)	304, 307	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Select Granular Backfill	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,000 c.y. (1,529 c.m.)	840	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Flexible Bases and Pavements	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	301, 302, 424, 441, 442, 443, 446, 448, 803, 826, 851, 857, 880	Gallons per cubic yard (Gallons per cubic meter)	1.70 (2.22)
Rigid Bases and Pavements	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	305, 306, 451, 452, 526, 884,	Gallons per cubic yard (Gallons per cubic meter)	1.00 (1.31)
Structural	Apply to quantity calculated based on the	511, 524,	Gallons per	4.00

Concrete	Method of Measurement and Basis of Payment. Threshold Quantity* = 350 c.y. (268 c.m.)	842, 892	cubic yard (Gallons per cubic meter)	(5.23)
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* A Fuel Price Adjustment will only apply when the sum of all **original** contract quantities or for Design Build Projects all completed in-place accepted final quantities for the category meet or exceed the specified Threshold Quantity. When a Fuel Price Adjustment applies, calculate the Fuel Price Adjustment for the sum of all quantities for the category per this proposal note.

B. Calculation of Fuel Price Adjustment: Fuel Price Adjustments may be either positive or negative. A positive Fuel Price Adjustment will result in a payment to the Contractor/(DBT) while a negative Fuel Price Adjustment will result in a deduction.

The Department will calculate a Monthly Base Price (Mbp) for fuel for each month of each calendar year beginning with January 2001. The method for calculating the Monthly Base Price (Mbp) will be on file in the Division of Construction Management. The Monthly Base Price (Mbp) will be used to calculate all Fuel Price Adjustments. The Contract Base Price (Cbp) will be the Monthly Base Price (Mbp) for the month the contract was bid. All Monthly Base Price (Mbp) values will be posted on the Division of Construction Management, Office of Construction Administration website at: <http://www.dot.state.oh.us/Divisions/ConstructionMgt/Admin/Pages/PriceIndexes.aspx>

During each month of the contract the Engineer will select the applicable Monthly Base Price (Mbp) and calculate the ratio of the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp). The formulas below allow for a variation in fuel prices without recognizing cost increases/ decreases within the range of 90% to 110% of the Contract Base Price (Cbp).

When, and only when, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.90 or greater than 1.10 will the Engineer calculate a Fuel Price Adjustment (Fpa).

Cost increases in excess of 150% of the Contract Base Price (Cbp) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is greater than 1.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 1.50.

Cost decreases in excess of 50% of the Contract Base Price (CBP) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 0.50.

For a Price Increase:

$$Fpa = [(Mbp/Cbp) - 1.10] \times Cbp \times Q$$

For a Price Decrease:

$$Fpa = [(Mbp/Cbp) - 0.90] \times Cbp \times Q$$

Where:

Fpa = Fuel Price Adjustment

Mbp = Monthly Base Price

Cbp = Contract Base Price

Q = The number of gallons of fuel used in the placement of items identified in Table A-1 during that month at the specified Fuel Usage Factor. Q will be determined by the Engineer for each category by

multiplying the applicable Fuel Usage Factor by the sum of quantities of completed and accepted work for the specified items.

The total Monthly Fuel Price Adjustment will be the algebraic sum of the Fuel Price Adjustments for materials placed during the month for each applicable category identified in Table A-1. The Total Fuel Price Adjustment for the project will be the algebraic sum of all Monthly Fuel Price Adjustments. The

Department will calculate the Monthly and Total Fuel Price Adjustment on a monthly basis and make contract modifications as provided in Section C, Payment/Deduction.

C. Payment/Deduction: The Fuel Price Adjustment will be paid, or deducted, upon approval of a change order prepared after completion of all work. Contractor/(DBT) markups are not permitted. Partial payments or deductions will be processed prior to total completion when the unpaid accrued Total Fuel Price Adjustment exceeds \$10,000 or once every 12 months.

D. Expiration of Contract Time: When eligible items of work grouped by category and identified in Table A-1 are performed after expiration of contract time and liquidated damages are chargeable, the value of Monthly Base Price (Mbp) used to compute the price adjustment will be either the Monthly Base Price (Mbp) at the time of actual performance or the Monthly Base Price (Mbp) at the time contract time expired, whichever is less.

E. Extra Work: When eligible items of work grouped by category and identified in Table A-1 are added to the contract as Extra Work and for which a unit price is negotiated the Contractor/(DBT) must use the appropriate price for fuel when preparing required backup data for the negotiated price. No Fuel Price Adjustment will be made for fuel consumed in the performance of eligible work added to the contract as Extra Work at a negotiated price when the work commences within 90 days of the approval of the change order authorizing said extra work. If the eligible work at a negotiated price commences more than 90 days after the approval of the change order authorizing said extra work a Fuel Price Adjustment will be made if said extra work quantities exceed the applicable threshold quantity in Table A-1. The Fuel Price Adjustment will be calculated using the Monthly Base Price (Mbp) value for the month the change order authorizing said extra work was approved as the value for its Contract Base Price (Cbp).

When Extra Work is added to the contract as a Force Account operating costs for equipment used in the performance of this work will be paid in accordance with C&MS 109.05.C.4 with no further adjustment.

F. Final Quantities: Upon completion of the work and determination of final pay quantities a change order will be prepared to reconcile any difference between estimated quantities previously paid and the final quantities. In this situation, the value for the Monthly Base Price (Mbp) used in the price adjustment formula will be the average of all Monthly Base Price (Mbp) values previously used for computing price adjustments.

PN 534- 04/17/2015 - ASPHALT BINDER PRICE ADJUSTMENT

Eligibility

If the Department's asphalt binder index has increased or decreased in excess of 10%, asphalt concrete may be eligible for a price adjustment. The total price adjustment must be more than \$800.

Price Adjustment Criteria and Conditions:

The Department will establish and publish the asphalt binder Bidding Index (BI) and Placing Index (PI) for each month of each calendar year. The asphalt binder indexes will be posted on the Department's website.

The Department will establish the asphalt binder indexes based on the data provided in the Poten & Partners, Inc., Asphalt Weekly Monitor® (AWM) (<http://www.poten.com/copyright.asp>).

The Department will use the selling price for PG 64-22 paving grade asphalt from the Midwest/Mid-continent Markets of Illinois/Michigan/Ohio/Indiana/Kentucky for the Ohio cities/areas listed. The Department will average the Ohio cities/areas low and high selling prices as published in the last weekly publishing period of each month that includes the last Friday of the month to calculate the BI and PI. The calculated asphalt binder BI will be posted by the Department as the index for the following month. The calculated asphalt binder PI will be posted by the Department as the index for the current month.

The Director will determine the asphalt binder indexes in the event data from the AWM is unavailable for any reason.

Price Adjustment Calculations

If the ratio of the PI to the BI is greater than 1.10 or less than 0.90, the Department will adjust the compensation the contractor receives for eligible quantities of asphalt concrete. The adjustment is based on the bid month and the month of asphalt concrete placement. The adjustment will apply to the price for asphalt binder used in eligible asphalt concrete quantities according to the following formula:

For a price increase:

$$PA = \left(\frac{PI}{BI} - 1.10 \right) \times C \times Q$$

For a price decrease:

$$PA = \left(\frac{PI}{BI} - 0.90 \right) \times C \times Q$$

Where:

PA = Price Adjustment

BI = Bidding Index, the asphalt binder index for the month the project is bid

PI = Placing Index, the asphalt binder index for the month the asphalt concrete is placed

C = BI x percent virgin asphalt binder / 100

Q = Eligible quantity of asphalt concrete in tons (metric tons)

The percent of virgin asphalt binder used to calculate C is determined from the approved Job Mix Formula (JMF).

The eligible quantity of asphalt concrete, Q, is the complete, in-place, and accepted quantity in tons (metric tons) placed in the month being considered for price adjustment. If the quantity is paid in cubic yards (cubic meters), the Department will convert the volume into tons (metric tons) using the conversion factor established according to the Department's Construction and Material Specifications Item 401.21.

If eligible asphalt concrete is placed beyond an approved Contract Completion Date, the Department will base price adjustments on either the PI for the last month of the approved Contract Completion Date, or the PI for the actual month of placing, using whichever PI is less.

At a minimum, the Department will calculate and apply price adjustments at the end of each construction season and as soon as practical after the completion of the project.

A. Extra Work/Force Account:

When new asphalt concrete pay items are added to the contract as Extra Work, in accordance with the provisions of C&MS Section 109.05, no price adjustments will be made.

SPECIAL CLAUSES IN THE PROPOSAL

The bidder, if awarded the contract for this improvement agrees:

1. To cooperate at all times with the local officials of the railroad company.
2. To use all reasonable care and diligence in the work in order to avoid accidents, damage or unnecessary delay to, or interference with the trains and other property of the railroad company.
3. To conduct his work in a manner satisfactory to the Chief Engineer of the railroad company or his authorized representative, to perform his work in such manner and at such time as not to unnecessarily interfere with the movements of trains or railroad traffic, and to hold his work at all times open to inspection of railroad company inspectors.
4. To cooperate with a public utility, railroad or other organizations having occasion to do work on or in connection with the improvement.
5. To avoid unnecessary use of railroad property without written permission of the railroad company and to leave railroad roadbed and property in a condition acceptable to the Chief Engineer of the railroad company.
6. To execute a bond conditioned according to Section 5525.16 of the Revised Code of Ohio, in favor of the State of Ohio, and further to carry insurance of the kinds and amounts as delineated on pgs. 9-12 in the railroad's 'Special Provisions for Protection of Railway Interest' (attached).

The number of trains operating over the crossing at the indicated location is estimated to be:

0 Passenger trains per day @ a maximum authorized operating speed of ___ miles per hour.

25 Freight trains per day @ a maximum authorized operating speed of 50 miles per hour.

- Norfolk Southern does not accept electronic submissions of insurance policies; they must be mailed as directed in section 14.E of the attached Norfolk Southern 'Special Provisions for Protection of Railway Interest'. The original railroad protective policy must be sent to Norfolk Southern.
- Contractors should submit their insurance to Norfolk Southern at least 30-45 days prior to their anticipated start date.
- It is recommended that the insurance is mailed overnight, with tracking.
- Allow two (2) weeks from the day that Norfolk Southern receives your submission for approval or denial.

- Including the NS file number on the cover page of the insurance transmittal will aid in quickly identifying the project for which the submission has been made. However, do not include milepost data or DOT #'s in the actual policy.
- Contractors should simultaneously submit their insurance policy to Norfolk Southern and the Department

(a) General Insurance Requirements

The insurance hereinbefore specified shall be with an acceptable insurance company authorized to do business in the State of Ohio, and shall be taken out before execution of the Contract by the Director and kept in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the State. Such policies shall include thirty (30) days canceling notice. The cost of insurance hereinbefore specified in subsection (a) will be a specific bid item.

Notwithstanding the Department's Construction and Material Specification No.107.12 "Evidence" as above set forth shall consist of furnishing the Director of Transportation three (3) certified copies of the railroad policy.

7. The Railroad company will assign, at the sole cost and expense of the Department, railroad flaggers or other protective services and devices as necessary to insure the safety and continuity of the work to be performed as a part of this contract. Said services and devices will be provided when necessary, as determined by the railroad company, because of any of the Contractor's operations over, under or adjacent to tracks over which trains are operating. The provision of such protective personnel and devices does not relieve the Contractor from the liability of payment for damage caused by his operations.

The Contractor shall notify the following named individual for each railroad company at least 30 days, or as directed by the authorized representative of the Railroad, in advance of starting any work which might require protection:

Kevin G. Hauschildt, Chief Engineer
Bridges and Structures
Norfolk Southern Corporation
1200 Peachtree Street, N.E.
Atlanta, GA 30309
Attn: E.W. Chambers
Telephone: (404) 529-1436

All email correspondence should include (at a minimum) either the ODOT Project Identification (PID) Number, and/or the NS File Number in the Subject line for ease of reference.

The Contractor shall notify the railroad at least 5 working days in advance of suspending or ceasing operations that require a flagger, and must provide the Project Name, PID number, railroad line and milepost information and/or AARDOT# as shown at the top of pg. SC-1.

The Contractor will be responsible for protective services provided at his request and not utilized due, in the opinion of the Engineer, to a change in the Contractor's construction schedule or if it is determined by the Engineer that the requested services were not necessary. The actual costs for such protective services so assessed to the Contractor will be deducted from the Contract.

The decision of the Director of Transportation shall be final in the event of controversy as to the necessity for any protection services provided and not utilized by the Contractor as described in the preceding paragraph.

8. To pay the railroad or owning company for any changes, requested for his convenience, to railroad property, facilities, wire, fiber optic and/or pipe lines other than shown on the plans for the project.
9. If at any time the contractor desires a temporary crossing of the railroad's tracks, he shall make a request for a temporary crossing from the railroad. If approved, he shall arrange with the railroad company, execute its regular form of private grade crossing agreement covering the crossing desired, paying any fees directly to the railroad necessary for construction, maintenance, removal, protection and other costs associated with the temporary crossing – See attached NS 'Private Road Crossing Application'

Contractor should be aware that submittal, review and approval of a temporary crossing application may take anywhere from 8-12 weeks after submittal of the application to the railroad, and Contractor should account for this in his construction schedule.

10. Methods and procedures for performing work on property of Norfolk Southern Railway Company, including temporary crossing applications, must be approved by:

E.W. Chambers
Norfolk Southern Corporation
Engineer – Public Improvements
1200 Peachtree Street N.E.
Atlanta, GA. 30309
404-529-1436
eldridge.chambers@nscorp.com

AUTHORITY OF RAILROAD ENGINEER AND STATE ENGINEER

The authorized representative of the Railroad company, hereinafter referred to as the Railroad Engineer, shall have final authority in all matters affecting the safe maintenance of railroad traffic of his company including the adequacy of the foundations and structures supporting the railroad tracks.

NOTICE OF STARTING WORK

- A. The Contractor shall not commence any work on Railroad right of way until he has complied with the following conditions:
 1. Give the Railroad Engineer at least ten working day advance written notice, with copy to the Engineer, of the date he proposes to begin work on railroad right of way. Said notice shall be sent to Mr. Kevin G. Hauschildt, Chief Engineer, Bridges and Structures, Norfolk Southern Corporation, 1200 Peachtree Street, N.E., Atlanta, Georgia 30309 – Attn. EW Chambers
 2. Obtained written authorization from the Railroad Engineer to begin work on Railroad right of way.
 3. Obtained written approval from the Railroad of the Railroad Protective Liability Policy of Insurance.
- B. The Railroad Engineer's written authorization to proceed shall include the names, addresses, and telephone numbers of the railroad's local representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility shall be specified.

FLAGGING SERVICE

A. WHEN REQUIRED

Under the terms of the Agreement between the Department and the Railroad, the Railroad has the sole authority to determine the need for flagging required to protect its operations. In general, the requirements of such flagging services will be whenever the Contractor's men or equipment are, or are likely to be, working on the Railroad's right of way and is across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a railroad track structure, railroad roadbed or the track surface and alignment of any track to such an extent that the movement of trains must be controlled. Normally the Railroad will assign one flagger to a project; but in some cases, more than one may be necessary. However, if the contractor works within distances that violate instructions given by the Railroad's local representative, or performs work that has not been scheduled with the Railroad's local representative, additional flaggers may be required full time until the project has been completed. See pg. 4 in the railroad's 'Special Provisions for Protection of Railway Interest' (attached).

For Projects exceeding 30 days of construction, Contractor shall provide the flagmen a small work area with a desk/counter and chair within the field/site trailer, including the use of bathroom facilities, where the flagman can check in/out with the Project, as well as to the flagman's home terminal. The work area should provide access to two (2) electrical outlets for recharging radio(s), and a laptop computer; and have the ability to print off needed documentation and orders as needed at the field/site trailer. This should aid in maximizing the flagman's time and efficiency on the Project,

B: SCHEDULING AND NOTIFICATION

The Contractor shall furnish to the Railroad's local representative and the Engineer a schedule for all work required to complete the portion of the project within the Railroad right of way and arrange for a job site meeting between the Contractor, Engineer and the Railroad's local representative. Flagging services may not be provided until such meeting has been conducted and the contractor's work scheduled.

The Contractor shall give the Railroad's local representative, copy to the Engineer, at least 10 working days of advance written notice of work to be performed within railroad right of way. Such notices shall include sufficient details of the proposed work to enable the Railroad's local representative to determine if flagging will be required. If flagging is required no work shall be undertaken until the flaggers are present at the job site. Railroad labor agreements usually require flaggers to be assigned to a project on a continual basis and therefore cannot be called for on a spot basis.

If flagging service becomes unnecessary and is suspended it may take up to thirty days to again obtain service from the Railroad. The Contractor shall give five working days notice to cease flagging service.

C: EMERGENCIES

If emergencies arise which require the flagger's presence elsewhere, the Contractor shall delay his work until such time as the flaggers are again available.

D: SUSPENSION OF WORK

If work is suspended the Contractor shall give the Railroad's local representative at least three working days notice before resumption of said work.

E. VERIFICATION

The Railroad flagman assigned to the project will be responsible for notifying the State or Contractor's on-site project representative or Contractor Superintendant upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The State or Contractor's on-site project representative will document such notification in the project records. When requested, the State or Contractor's on-site project representative will also sign the flagman's diary, timesheet or flagging report showing daily time spent and activity at the project site.

End of Special Clauses

A. Norfolk Southern – Special Provisions for Protection of Railway Interests**RESURFACING ONLY****1. AUTHORITY OF RAILROAD ENGINEER AND SPONSOR ENGINEER:**

Norfolk Southern Railway Company, hereinafter referred to as “Railroad”, and their authorized representative shall have final authority in all matters affecting the safe maintenance of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks. For Public Projects impacting the Railroad, the Railroad’s Public Projects Engineer, hereinafter referred to as “Railroad Engineer”, will serve as the authorized representative of the Railroad.

The authorized representative of the Project Sponsor (“Sponsor”), hereinafter referred to as the “Sponsor’s Engineer”, shall have authority over all other matters as prescribed herein and in the Project Specifications.

The Sponsor’s Prime Contractor, hereinafter referred to as “Contractor” shall be responsible for completing any and all work in accordance with the terms prescribed herein and in the Project Specifications. These terms and conditions are subject to change without notice, from time to time in the sole discretion of the Railroad. Contractor must request from Railroad and follow the latest version of these provisions prior to commencing work.

2. NOTICE OF STARTING WORK:

A. The Contractor shall not commence any work on railroad rights-of-way until he has complied with the following conditions:

1. Signed and received a fully executed copy of the required Norfolk Southern Contractor Right of Entry Agreement.
2. Given the Railroad written notice in electronic format to the Railroad Engineer, with copy to the Sponsor’s Engineer who has been designated to be in charge of the work, at least ten days in advance of the date he proposes to begin work on Railroad rights-of-way.
3. Obtained written approval from the Railroad of Railroad Protective Liability Insurance coverage as required by paragraph 14 herein. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.
4. Obtained Railroad’s Flagging Services as required by paragraph 7 herein.
5. Obtained written authorization from the Railroad to begin work on Railroad’s rights-of-way, such authorization to include an outline of specific conditions with which he must comply.
6. Furnished a schedule for all work within the Railroad’s rights-of-way as required by paragraph 7.B.1.

- B. The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

3. INTERFERENCE WITH RAILROAD OPERATIONS:

- A. The Contractor shall so arrange and conduct his work that there will be no interference with Railroad's operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, wires, and other facilities of tenants on the rights-of-way of the Railroad. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service shall be deferred by the Contractor until the flagging service or inspection service required by the Railroad is available at the job site.
- B. Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in his absence, the Railroad's Division Engineer, such provisions is insufficient, either may require or provide such provisions as he deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the Sponsor.

4. TRACK CLEARANCES:

- A. The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. If temporary clearances are not shown on the project plans, the following criteria shall govern the use of falsework and formwork above or adjacent to operated tracks.
 - 1. A minimum vertical clearance of 22'-0" above top of highest rail shall be maintained at all times.
 - 2. A minimum horizontal clearance of 13'-0" from centerline of tangent track or 14'-0" from centerline of curved track shall be maintained at all times. Additional horizontal clearance may be required in special cases to be safe for operating conditions. This additional clearance will be as determined by the Railroad Engineer.
 - 3. All proposed temporary clearances which are less than those listed above must be submitted to Railroad Engineer for approval prior to construction and must also be authorized by the regulatory body of the State if less than the legally prescribed clearances.
 - 4. The temporary clearance requirements noted above shall also apply to all other physical obstructions including, but not limited to: stockpiled materials, parked equipment, placement or driving of piles, and bracing or other construction supports.
- B. Before undertaking any work within Railroad right-of-way, and before placing any obstruction over any track, the Contractor shall:
 - 1. Notify the Railroad's representative at least 72 hours in advance of the work.

2. Receive assurance from the Railroad's representative that arrangements have been made for flagging service as may be necessary.
3. Receive permission from the Railroad's representative to proceed with the work.
4. Ascertain that the Sponsor's Engineer has received copies of notice to the Railroad and of the Railroad's response thereto.

5. CONSTRUCTION PROCEDURES:

A. General:

1. Construction work and operations by the Contractor on Railroad property shall be:
 - a. Subject to the inspection and approval of the Railroad Engineer or their designated Construction Engineering Representative.
 - b. In accordance with the Railroad's written outline of specific conditions.
 - c. In accordance with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.
 - d. In accordance with these Special Provisions.
2. Submittal Requirements
 - a. The Contractor shall submit all construction related correspondence and submittals electronically to the Railroad Engineer.
 - b. The Contractor shall allow for 30 days for the Railroad's review and response.
 - c. All work in the vicinity of the Railroad's property that has the potential to affect the Railroad's train operations or disturb the Railroad's Property must be submitted and approved by the Railroad prior to work being performed.
 - d. All submittals and calculations must be signed and sealed by a registered engineer licensed in the state of the project work.
 - e. All submittals shall first be approved by the Sponsor's Engineer and the Railroad Engineer, but such approval shall not relieve the Contractor from liability.
 - f. For all construction projects, the following submittals, but not limited to those listed below, shall be provided for review and approval when applicable:
 - (1) General Means and Methods
 - (2) Roadway Protection and/or Phasing Plans

(3) Anticipated Schedule of Work

B. Track Monitoring

1. At the direction of the Railroad Engineer, any activity that has the potential to disturb the Railroad track structure may require the Contractor to submit a detailed track monitoring program for approval by the Railroad Engineer.
2. If any movement has occurred as determined by the Railroad Engineer, the Railroad will be immediately notified. Railroad, at its sole discretion, shall have the right to immediately require all Contractor operations to be ceased and determine what corrective action is required. Any corrective action required by the Railroad or performed by the Railroad including the monitoring of corrective action of the Contractor will be at project expense.

C. Storage of Materials and Equipment:

1. Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights-of-way of the Railroad without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.
2. All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

D. Cleanup:

1. Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights-of-way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said rights-of-way in a neat condition satisfactory to the Railroad Engineer or his authorized representative.

6. DAMAGES:

- A. The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by Railroad traffic.
- B. Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

7. FLAGGING SERVICES:

A. Requirements:

1. Flagging services will not be provided until the Contractor's insurance has been reviewed & approved by the Railroad.
2. Under the terms of the agreement between the Department and the Railroad, the Railroad has sole authority to determine the need for flagging required to protect its operations. In general, the requirements of such services will be whenever the Contractor's personnel or equipment are or are likely to be, working on the Railroad's right-of-way, or across, over, adjacent to, or under a track, or when such work has disturbed or is likely to disturb a Railroad structure or the Railroad roadbed or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging.
3. Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three (3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad's authorized representative or performs work that has not been scheduled with the Railroad's authorized representative, a flagman or flagmen may be required full time until the project has been completed.
4. For Projects exceeding 30 days of construction, Contractor shall provide the flagmen a small work area with a desk/counter and chair within the field/site trailer, including the use of bathroom facilities, where the flagman can check in/out with the Project, as well as to the flagman's home terminal. The work area should provide access to two (2) electrical outlets for recharging radio(s), and a laptop computer; and have the ability to print off needed documentation and orders as needed at the field/site trailer. This should aid in maximizing the flagman's time and efficiency on the Project.

B. Scheduling and Notification:

1. The Contractor's work requiring Railroad flagging should be scheduled to limit the presence of a flagman at the site to a maximum of 50 hours per week. The Contractor shall receive Railroad approval of work schedules requiring a flagman's presence in excess of 40 hours per week.
2. Not later than the time that approval is initially requested to begin work on Railroad right-of-way, Contractor shall furnish to the Railroad and the Sponsor a schedule for all work required to complete the portion of the project within Railroad right-of-way and arrange for a job site meeting between the Contractor, the Sponsor, and the Railroad's authorized representative. Flagman or Flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.
3. The Contractor will be required to give the Railroad representative at least 10 working days of advance written notice of intent to begin work within Railroad right-of-way in accordance with this special provision. Once begun, when such work is then suspended at any time, or for any reason, the Contractor will be required to give the Railroad representative at least 3 working days of advance notice before resuming work on Railroad right-of-way.

Such notices shall include sufficient details of the proposed work to enable the Railroad representative to determine if flagging will be required. If such notice is

in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally, it shall be confirmed in writing with copy to the Engineer. If flagging is required, no work shall be undertaken until the flagman, or flagmen are present at the job site. It may take up to 30 days to obtain flagging initially from the Railroad.

When flagging begins, the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and cannot be called for on a spot basis. If flagging becomes unnecessary and is suspended, it may take up to 30 days to again obtain from the Railroad. Due to Railroad labor agreements, it is necessary to give 5 working days' notice before flagging service may be discontinued and responsibility for payment stopped.

4. If, after the flagman is assigned to the project site, an emergency arises that requires the flagman's presence elsewhere, then the Contractor shall delay work on Railroad right-of-way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Sponsor or Railroad.

C. Payment:

1. The Department will be responsible for paying the Railroad directly for any and all costs of flagging which may be required to accomplish the construction.
2. The estimated cost of flagging is the current rate per day based on a 10-hour work day. This cost includes the base pay for the flagman, overhead, and includes a per diem charge for travel expenses, meals and lodging. The charge to the Department by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.
3. Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1 and 1/2 times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2 and 1/2 times the normal rate.
4. Railroad work involved in preparing and handling bills will also be charged to the Department. Charges to the Department by the Railroad shall be in accordance with applicable provisions of Subchapter B, Part 140, Subpart I and Subchapter G, Part 646, Subpart B of the Federal-Aid Policy Guide issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging costs are provided for information only and are not binding in any way.

D. Verification:

1. Railroad's flagman will electronically enter flagging time via Railroad's electronic billing system. Any complaints concerning flagging must be resolved in a timely manner. If the need for flagging is questioned, please contact the Railroad Engineer.

All verbal complaints will be confirmed in writing by the Contractor within 5 working days with a copy to the Department's Engineer. Address all written correspondence electronically to Railroad Engineer.

2. The Railroad flagman assigned to the project will be responsible for notifying the Department Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Department's Engineer will document such notification in the project records.

When requested, the Department's Engineer will also sign the flagman's diary showing daily time spent and activity at the project site.

8. COOPERATION AND DELAYS:

- A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.
- B. No charge or claim of the Contractor against either the Sponsor or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic or for any delays due to compliance with these special provisions.

9. TRAINMAN'S WALKWAYS:

- A. Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 10 feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each work day. If there is any excavation near the walkway, a handrail, with 10'-0" minimum clearance from centerline of track, shall be placed and must conform to AREMA and/or FRA standards.

10. GUIDELINES FOR PERSONNEL ON RAILROAD RIGHT-OF-WAY:

- A. The Contractor and/or the Department's personnel authorized to perform work on Railroad's property as specified in Section 2 above are not required to complete Norfolk Southern Roadway Worker Protection Training; However the Contractor and the Department's personnel must be familiar with Norfolk Southern's standard operating rules and guidelines, should conduct themselves accordingly, and may be removed from the property for failure to follow these guidelines.
- B. All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip-on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots or boots cinched up with straps which fit snugly about the ankle are adequate. Wearing of safety boots is strongly recommended. In the vicinity of at-grade crossings, it is strongly recommended that reflective vests be worn.

- C. No one is allowed within 25' of the centerline of track without specific authorization from the flagman.
- D. All persons working near track while train is passing are to lookout for dragging bands, chains and protruding or shifted cargo.
- E. No one is allowed to cross tracks without specific authorization from the flagman.
- F. All welders and cutting torches working within 25' of track must stop when train is passing.
- G. No steel tape or chain will be allowed to cross or touch rails without permission from the Railroad.

11. GUIDELINES FOR EQUIPMENT ON RAILROAD RIGHT-OF-WAY:

- A. No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15' of centerline of track without specific permission from Railroad official and flagman.
- B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.
- C. All employees will stay with their machines when crane or boom equipment is pointed toward track.
- D. All cranes and boom equipment under load will stop work while train is passing (including pile driving).
- E. Swinging loads must be secured to prevent movement while train is passing.
- F. No loads will be suspended above a moving train.
- G. No equipment will be allowed within 25' of centerline of track without specific authorization of the flagman.
- H. Trucks, tractors or any equipment will not touch ballast line without specific permission from Railroad official and flagman. Orange construction fencing may be required as directed.
- I. No equipment or load movement within 25' or above a standing train or Railroad equipment without specific authorization of the flagman.
- J. All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.
- K. All equipment, loads and cables are prohibited from touching rails.
- L. While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.

- M. No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.
- N. All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.
- O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.
- P. Prior to performing any crane operations, the Contractor shall establish a single point of contact for the Railroad flagman to remain in communication with at all times. Person must also be in direct contact with the individual(s) directing the crane operation(s).

12. INSURANCE:

- A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to carry insurance of the following kinds and amounts:
 - 1. a. Commercial General Liability Insurance having a combined single limit of not less than \$2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured, and shall include a severability of interests provision.
 - b. Automobile Liability Insurance with a combined single limit of not less than \$1,000,000 each occurrence for injury to or death of persons and damage to or loss or destruction of property. Said policy or policies shall be endorsed to name Railroad specified in item A.2.c. below both as the certificate holder and as an additional insured and shall include a severability of interests provision.
 - 2. Railroad Protective Liability Insurance having a combined single limit of not less than \$2,000,000 each occurrence and \$6,000,000 in the aggregate applying separately to each annual period.
If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of \$5,000,000 each occurrence and \$10,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

The standards for the Railroad Protective Liability Insurance are as follows:

- a. The insurer must be rated A- or better by A.M. Best Railroad, Inc.
NOTE: NS does not accept from insurers Chartis (AIG or Affiliated Company including Lexington Insurance Company), Hudson Group or Liberty or Affiliated Company, American Contractors Insurance Company and Erie Insurance Company including Erie Insurance Exchange and Erie Indemnity Company.
- b. The policy must be written using one of the following combinations of Insurance Services Office ("ISO") Railroad Protective Liability Insurance Form Numbers:

- (1) CG 00 35 01 96 and CG 28 31 10 93; or
- (2) CG 00 35 07 98 and CG 28 31 07 98; or
- (3) CG 00 35 10 01; or
- (4) CG 00 35 12 04; or
- (5) CG 00 35 12 07; or
- (6) CG 00 35 04 13.

c. The named insured shall read:

(As named in the Project Agreement with Project Sponsor)
Three Commercial Place
Norfolk, Virginia 23510-2191
Attn: S. W. Dickerson Risk Management

(NOTE: Norfolk Southern does not share coverage on RRPL with any other entity on this policy)

- d. The description of operations must appear on the Declarations, must match the project description in this agreement, and must include the appropriate Sponsor project and contract identification numbers.
- e. The job location must appear on the Declarations and must include the city, state, and appropriate highway name/number. **NOTE: Do not include any references to milepost, valuation station, or mile marker on the insurance policy.**
- f. The name and address of the prime Contractor must appear on the Declarations.
- g. The name and address of the Sponsor must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."
- h. Endorsements/forms that are **required** are:
 - (1) Physical Damage to Property Amendment
 - (2) Terrorism Risk Insurance Act (TRIA) coverage must be included.
- i. Other endorsements/forms that will be accepted are:
 - (1) Broad Form Nuclear Exclusion – Form IL 00 21
 - (2) 30-day Advance Notice of Non-renewal or cancellation
 - (3) Required State Cancellation Endorsement
 - (4) Quick Reference or Index Form CL/IL 240
- j. Endorsements/forms that are NOT acceptable are:
 - (1) Any Pollution Exclusion Endorsement except CG 28 31
 - (2) Any Punitive or Exemplary Damages Exclusion

- (3) Known injury or Damage Exclusion form CG 00 59
- (4) Any Common Policy Conditions form
- (5) An Endorsement that limits or excludes Professional Liability coverage
- (6) A Non-Cumulation of Liability or Pyramiding of Limits Endorsement
- (7) An Endorsement that excludes TRIA coverage
- (8) A Sole Agent Endorsement
- (9) Any type of deductible endorsement or amendment
- (10) Any other endorsement/form not specifically authorized in item no. 2.h above.

- B. If any part of the work is sublet, similar insurance, and evidence thereof as specified in A.1 above, shall be provided by or on behalf of the subcontractor to cover its operations on Railroad's right of way.
- C. All insurance required under the preceding subsection A shall be underwritten by insurers and be of such form and content, as may be acceptable to the Company. Prior to entry on Railroad right-of-way, the original Railroad Protective Liability Insurance Policy shall be submitted by the Prime Contractor to the Sponsor at the address below for its review and transmittal to the Railroad. In addition, certificates of insurance evidencing the Prime Contractor's and any subcontractors' Commercial General Liability Insurance shall be issued to the Railroad and the Sponsor at the addresses below, and forwarded to the Department for its review and transmittal to the Railroad. The certificates of insurance shall state that the insurance coverage will not be suspended, voided, canceled, or reduced in coverage or limits without (30) days advance written notice to Railroad and the Sponsor. No work will be permitted by Railroad on its right-of-way until it has reviewed and approved the evidence of insurance required herein.

SPONSOR:

RAILROAD:

Risk Management
Norfolk Southern Railway Company
Three Commercial Place
Norfolk, Virginia 23510-2191

- D. The insurance required herein shall in no way serve to limit the liability of Sponsor or its Contractors under the terms of this agreement.
- E. Insurance Submission Procedures
 - 1. Railroad will only accept initial insurance submissions via US Mail or Overnight carrier to the address noted in C above. Railroad will NOT accept initial insurance submissions via email or faxes. **Please provide point of contact information with the submission including a phone number and email address.**
 - 2. Railroad requires the following two (2) forms of insurance in the initial insurance submission to be submitted under a cover letter providing details of the project and contact information:
 - a. The full original or certified true countersigned copy of the railroad protective liability insurance policy in its entirety inclusive of all

declarations, schedule of forms and endorsements along with the policy forms and endorsements.

- b. The Contractor's commercial general, automobile, and workers' compensation liability insurance certificate of liability insurance evidencing a combined single limit of a minimum of \$2M per occurrence of general and \$1M per occurrence of automobile liability insurance naming Norfolk Southern Railway Company, Three Commercial Place, Norfolk, VA 23510 as the certificate holder and as an additional insured on both the general and automobile liability insurance policy.
3. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

13. FAILURE TO COMPLY:

- A. In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions:
 1. The Railroad Engineer may require that the Contractor vacate Railroad property.
 2. The Sponsor's Engineer may withhold all monies due the Contractor on monthly statements.
- B. Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Sponsor's Engineer.

14. PAYMENT FOR COST OF COMPLIANCE:

- A. No separate payment will be made for any extra cost incurred on account of compliance with these special provisions. All such costs shall be included in prices bid for other items of the work as specified in the payment items.

End of Norfolk Southern Special Provisions for Protection of Railway Interests
RESURFACING ONLY

Project Number: 180156

To the Director of the Ohio Department of Transportation: The undersigned, having full knowledge of the site, plans and specifications for the following improvement and the conditions of this proposal, hereby agrees to furnish all services, labor, materials, and equipment necessary to complete the entire project, according to the plans, specifications and completion dates, and to accept the unit prices specified below for each item as full compensation for the work in this proposal.

Date Set for Completion: **8/31/2018**

Unit Price Contract

FOR IMPROVING VARIOUS SECTIONS IN THE CITY OF SPRINGFIELD, OF BETHEL, GERMAN, MOOREFIELD, AND SPRINGFIELD TOWNSHIPS, OF CLARK COUNTY, OF OHIO, IN ACCORDANCE WITH PLANS AND SPECIFICATIONS BY REMOVING AND REPLACING THE WEARING COURSE WITH FINE GRADED POLYMER ASPHALT ON TWO ROUTES AND PERFORMING ALL OTHER INCIDENTAL WORK. PROJECT ALSO INCLUDES MINOR STRUCTURE WORK AND SOME BRIDGE DECK SEALING ON STRUCTURES ON US ROUTE 68.

Project Length: 12.1 Miles

Work Length: 12.1 Miles

Pavement Width: Varies

Project Number: 180156

Section 0001 ROADWAY

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0001		202E23010	PAVEMENT REMOVED, ASPHALT (WT: NR)	NR	SY	127.000
0002		202E23500	WEARING COURSE REMOVED (WT: NR)	NR	SY	1,902.000
0003		203E10000	EXCAVATION (WT: 06)	06	CY	253.000
0004		690E50350	SPECIAL - MAILBOX REMOVED AND RESET (WT: NR)	NR	EACH	3.000

Section 0002 PAVEMENT

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0005		253E01001	PAVEMENT REPAIR, AS PER PLAN (WT: 16)	16	SY	1,100.000
0006		301E46000	ASPHALT CONCRETE BASE, PG64-22 (WT: 10)	10	CY	127.000
0007		301E46001	ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN (WT: 10)	10	CY	15.000
0008		304E20000	AGGREGATE BASE (WT: 09)	09	CY	127.000
0009		407E20000	NON-TRACKING TACK COAT (WT: 10)	10	GAL	45,305.000
0010		424E12000	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B (WT: 10)	10	CY	14,807.000
0011		617E10100	COMPACTED AGGREGATE (WT: 06)	06	CY	1,446.000
0012		618E40600	RUMBLE STRIPS, (ASPHALT CONCRETE) (WT: NR)	NR	MILE	35.800
0013		897E01010	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A 1" (WT: 13)	13	SY	466,831.000
0014		897E01010	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, 1/2" (WT: 13)	13	SY	61,259.000
0015		897E02001	PATCHING PLANED SURFACE, AS PER PLAN (WT: 13)	13	SY	300.000

Section 0003 WATER WORK

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0016		638E10800	VALVE BOX ADJUSTED TO GRADE (WT: 35)	35	EACH	6.000

Section 0004 TRAFFIC CONTROL

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0017		621E00100	RPM (WT: 41)	41	EACH	1,580.000
0018		621E54000	RAISED PAVEMENT MARKER REMOVED (WT: NR)	NR	EACH	1,580.000
0019		630E03100	GROUND MOUNTED SUPPORT, NO. 3 POST (WT: 42)	42	FT	66.000
0020		630E85100	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION (WT: 42)	42	EACH	4.000
0021		630E86002	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL (WT: NR)	NR	EACH	4.000
0022		644E00104	EDGE LINE, 6" (WT: 45)	45	MILE	47.540
0023		644E00204	LANE LINE, 6" (WT: 45)	45	MILE	19.980

Project Number: 180156

0024		644E00300	CENTER LINE (WT: 45)	45	MILE	2.420
0025		644E00400	CHANNELIZING LINE, 8" (WT: 45)	45	FT	190.000
0026		644E00404	CHANNELIZING LINE, 12" (WT: 45)	45	FT	14,030.000
0027		644E00500	STOP LINE (WT: 45)	45	FT	380.000
0028		644E00700	TRANSVERSE/DIAGONAL LINE (WT: 45)	45	FT	190.000
0029		644E00900	ISLAND MARKING (WT: 45)	45	SF	35.000
0030		644E01000	RAILROAD SYMBOL MARKING (WT: 45)	45	EACH	4.000
0031		644E01110	SCHOOL SYMBOL MARKING, 96" (WT: 45)	45	EACH	2.000
0032		644E01300	LANE ARROW (WT: 45)	45	EACH	10.000
0033		644E01510	DOTTED LINE, 6" (WT: 45)	45	FT	9,629.000
0034		644E01520	DOTTED LINE, 12" (WT: 45)	45	FT	1,082.000

Section 0005 TRAFFIC SIGNALS

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0035		632E90500	SIGNALIZATION, MISC.:UNLASH AND RELASH MESSENGER WIRE (WT: 44)	44	FT	1,095.000
0036		809E69000	ADVANCE RADAR DETECTION (WT: 55)	55	EACH	10.000
0037		809E69110	STOP-BAR AND ADVANCE RADAR DETECTION (WT: 55)	55	EACH	12.000

Section 0006 MAINTENANCE OF TRAFFIC

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0038		614E11110	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE (WT: 39)	39	HOURL	500.000
0039		614E12460	WORK ZONE MARKING SIGN (WT: 39)	39	EACH	32.000
0040		614E20560	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT (WT: 39)	39	MILE	39.960
0041		614E21550	WORK ZONE CENTER LINE, CLASS III, 642 PAINT (WT: 39)	39	MILE	4.840
0042		614E22360	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT (WT: 39)	39	MILE	85.960
0043		614E23680	WORK ZONE CHANNELIZING LINE, CLASS III, 8", 642 PAINT (WT: 39)	39	FT	380.000
0044		614E23690	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT (WT: 39)	39	FT	28,060.000
0045		614E24610	WORK ZONE DOTTED LINE, CLASS III, 642 PAINT, 12" (WT: 39)	39	FT	2,164.000
0046		614E24610	WORK ZONE DOTTED LINE, CLASS III, 642 PAINT, 6" (WT: 39)	39	FT	19,258.000
0047		614E26610	WORK ZONE STOP LINE, CLASS III, 642 PAINT (WT: 39)	39	FT	760.000
0048		614E32210	WORK ZONE RAILROAD SYMBOL MARKING, CLASS III, 642 PAINT (WT: 39)	39	EACH	8.000

Section 0007 STRUCTURE REPAIR (CLA-68-0574R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0049		519E12300	PATCHING CONCRETE BRIDGE DECK - TYPE B (WT: 29)	29	SY	17.000

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Section 0008 STRUCTURE REPAIR (CLA-68-0741L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0050		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	1,353.000

Section 0009 STRUCTURE REPAIR (CLA-68-0741R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0051		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	1,353.000

Section 0010 STRUCTURE REPAIR (CLA-68-0776L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0052		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	2,576.000

Section 0011 STRUCTURE REPAIR (CLA-68-0776R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0053		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	2,028.000

Section 0012 STRUCTURE REPAIR (CLA-68-0831L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0054		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	918.000

Section 0013 STRUCTURE REPAIR (CLA-68-0831R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0055		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	918.000

Section 0014 STRUCTURE REPAIR (CLA-68-1138L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0056		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	322.000

Section 0015 STRUCTURE REPAIR (CLA-68-1138R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0057		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	322.000

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Section 0016 STRUCTURE REPAIR (CLA-68-1274L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0058		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	485.000

Section 0017 STRUCTURE REPAIR (CLA-68-1274R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0059		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	577.000

Section 0018 STRUCTURE REPAIR (CLA-68-1309L)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0060		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	513.000
0061		516E31001	JOINT SEALER, AS PER PLAN (WT: 27)	27	FT	3.000
0062		519E12300	PATCHING CONCRETE BRIDGE DECK - TYPE B (WT: 29)	29	SY	2.000

Section 0019 STRUCTURE REPAIR (CLA-68-1309R)

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0063		512E73500	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN (WT: 29)	29	SY	513.000

Section 0020 INCIDENTALS

Line	Alt	Item Code	Item Description	WT	Unit	Quantity
0064		100E00300	PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE (WT: NR)	NR	LS	1.000
0065		103E05000	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND (WT: NR)	NR	LS	1.000
0066		614E11000	MAINTAINING TRAFFIC (WT: 39)	39	LS	1.000
0067		624E10000	MOBILIZATION (WT: NR)	NR	LS	1.000