



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

March 22, 2023

CALL NO. 100
CONTRACT ID NO. 231013
ADDENDUM # 2

Subject: Boone County, NHPP 2759 (139)
Letting March 23, 2023

- (1) Revised - General Summary - Pages 42-43 of 244
- (2) Revised - Traffic Control Plan - Pages 97-106 of 244
- (3) Revised - Proposal Bid Items - Pages 242-244 of 244

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

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

Sincerely,

Rachel Mills,

A handwritten signature in black ink that reads "Rachel Mills".

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

RM:mr
Enclosures

**I-275 PAVEMENT REHABILITATION
BOONE COUNTY
ITEM NUMBER: 6-20006
GENERAL SUMMARY**

ITEM NUMBER	ITEM		QUANTITY	UNIT
1	DGA BASE	(1)	4,604	TON
78	CRUSHED AGGREGATE SIZE NO. 2	(2)	100	TON
100	ASPHALT SEAL AGGREGATE	(6)	851	TON
103	ASPHALT SEAL COAT	(6)	102	TON
193	ASPHALT SCRATCH COURSE PG76-22		118	TON
216	CL3 ASPH BASE 1.00D PG76-22		704	TON
336	CL3 ASPH SURF 0.38A PG76-22		5,980	TON
522	STORM SEWER PIPE-18 IN		135	LF
529	STORM SEWER PIPE-42 IN		8	LF
1432	SLOPED BOX OUTLET TYPE 1-15 INCH		1	EACH
1646	JUNCTION BOX-42 IN		1	EACH
1982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE		486	EACH
1983	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW		10	EACH
2058	REMOVE PCC PAVEMENT		5,573	SQ YD
2060	PCC PAVEMENT DIAMOND GRINDING		300,901	SQ YD
2069	JPC PAVEMENT - 10 IN	(5)	34	SQ YD
2070	JPC PAVEMENT - 12 IN	(5)	19	SQ YD
2073	JPC PAVEMENT - 9 IN	(5)	5,520	SQ YD
2115	SAW-CLEAN-RESEAL TRANSVERSE JOINT		198,434	LF
2116	SAW-CLEAN-RESEAL LONGITUDINAL JOINT		248,043	LF
2165	REMOVE PAVED DITCH		138	SQ YD
2220	FLOWABLE FILL		3	CU YD
2352	GUARDRAIL STEEL BEAM D-FACE (7 FT POST)		275	LF
2360	GUARDRAIL TERMINAL SECTION NO. 1		2	EACH
2363	GUARDRAIL CONNECTOR TO BRIDGE END TY A		4	EACH
2365	CRASH CUSHION TYPE IX-A		2	EACH
2367	GUARDRAIL END TREATMENT TYPE 1		31	EACH
2369	GUARDRAIL END TREATMENT TYPE 2A		33	EACH
2381	REMOVE GUARDRAIL		26,125.0	LF
2387	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1		2	EACH
2391	GUARDRAIL END TREATMENT TYPE 4A		1	EACH
2483	CHANNEL LINING CLASS II		64	TON
2484	CHANNEL LINING CLASS III	(3)	546	TON
2568	MOBILIZATION		1	LS
2569	DEMobilIZATION		1	LS
2575	DITCHING AND SHOULDERING		29,927	LF
2604	FABRIC-GEOTEXTILE CLASS 1A	(9)	500	SQYD
2650	MAINTAIN AND CONTROL TRAFFIC		1	LS
2671	PORTABLE CHANGEABLE MESSAGE SIGN		8	EACH
2676	MOBILIZATION FOR MILLING & TEXTURING		1	LS
2677	ASPHALT PAVE MILLING AND TEXTURING		6,803	TON
2775	ARROW PANEL		4	EACH
2929	CRASH CUSHION TYPE IX		10	EACH
5950	EROSION CONTROL BLANKET	(7)	13,301	SQ YD
6401	FLEXIBLE DELINEATOR POST-M/W		760	EACH
6404	FLEXIBLE DELINEATOR POST-M/Y		321	EACH
6542	PAVE STRIPING-THERMO-6 IN W		21,521	LF
6543	PAVE STRIPING-THERMO-6 IN Y		17,834	LF
6546	PAVE STRIPING-THERMO-12 IN W		2,405	LF
6556	PAVE STRIPING-DUR TY 1 - 6 INCH W		86,553	LF
6557	PAVE STRIPING-DUR TY 1 - 6 INCH Y		60,104	LF
6560	PAVE STRIPING-DUR TY 1 - 12 INCH W		4,360	LF
6568	PAVE MARKING-THERMO STOP BAR-24 IN		165	LF
6574	PAVE MARKING-THERMO CURVE ARROW		20	EACH
6576	PAVE MARKING-THERMO ONLY		5	EACH
6600	REMOVE PAVEMENT MARKER TYPE V	(4)	1,685	EACH
6613	INLAID PAVEMENT MARKER - B W/R		1,685	EACH

**I-275 PAVEMENT REHABILITATION
BOONE COUNTY
ITEM NUMBER: 6-20006
GENERAL SUMMARY**

ITEM NUMBER	ITEM		QUANTITY	UNIT
6614	INLAID PAVEMENT MARKER - B Y/R		225	EACH
10020NS	FUEL ADJUSTMENT		10,131	DOLLARS
10030NS	ASPHALT ADJUSTMENT		16,387	DOLLARS
20071EC	JOINT ADHESIVE		69,016	LF
20191ED	OBJECT MARKER TYPE 3		32	EACH
20362ES403	SHOULDER RUMBLE STRIPS SAWED	(8)	40,639	LF
20366NN	REPLACE GRATE		3	EACH
20411ED	LAW ENFORCEMENT OFFICER		1,000	HOURL
20432ES112	REMOVE CRASH CUSHION		12	EACH
21173EC	SAW-CLEAN-RESEAL RANDOM CRACKS	(5)	5,643	LF
21802EN	GUARDRAIL - STEEL W BEAM S-FACE (7 FT POST)		24,250.0	LF
22883EN	CONCRETE WEDGE CURB		6,267	LF
23229EC	HIGH FRICTION SURFACE TREATMENT		1,963	SQ YD
23845EC	SAW & SEAL ASPHALT JOINT		22,204	LF
23970NC	RESET GRATE		2	EACH
24640ED	OBJECT MARKER TYPE 1		12	EACH
24679ED	PAVE MARK THERMO CHEVRON		3,724	SQ FT
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING		29	TON
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT		729,036	SQFT
24997EC	PARTIAL DEPTH PATCHING-POLYMER MOD	(5)	1,466	CU FT
25010EC	GEOCOMPOSITE REINFORCEMENT FOR ASPHALT		4,264	SQ YD
25075EC	QUEUE PROTECTION VEHICLE		300	HOURL
25117EC	FURNISH QUEUE PROTECTION VEHICLES		6	MONTH
26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM		6	MONTH
26137EC	QUEUE WARNING PCMS		36	MONTH
26138EC	QUEUE WARNING PORTABLE RADAR SENSORS		36	MONTH

- NOTE: QUANTITIES FOR ALL ROADWAY SUMMARY SHEETS HAVE BEEN CARRIED OVER AND INCLUDED IN THIS GENERAL SUMMARY INCLUDES 2,780 TONS FROM THE GUARDRAIL SUMMARY, 389 TONS FROM THE DRAINAGE SUMMARY, AND 1,435 TONS FOR RAMP SHOULDERS.
- (1) INCLUDES 2,780 TONS FROM THE GUARDRAIL SUMMARY, 389 TONS FROM THE DRAINAGE SUMMARY, AND 1,435 TONS FOR RAMP SHOULDERS.
 - (2) TO BE USED AS DIRECTED BY THE ENGINEER FOR FULL DEPTH CONCRETE REPAIRS.
 - (3) ANY EXCAVATION AND FABRIC-GEOTEXTILE CLASS 2 IS INCIDENTAL TO THE CHANNEL LINING.
 - (4) THE PARTIAL DEPTH PATCHES FOR HOLES LEFT BY THE REMOVAL OF EXISTING PAVEMENT MARKERS WILL BE CONSIDERED INCIDENTAL TO THE BID ITEM REMOVE PAVEMENT MARKER TYPE V.
 - (5) INCLUDES AN ADDITIONAL 25% FOR CONTINUING PAVEMENT DETERIORATION.
 - (6) QUANTITY IS INCLUDED FOR THE OUTSIDE SHOULDERS ONLY FOR MAINLINE, AND BOTH SHOULDER ON THE RAMPS.
 - (7) TO BE USED AS DIRECTED BY THE ENGINEER FOR SLOPE AND DITCH REPAIRS.
 - (8) TO BE CONSTRUCTED ON RAMP SHOULDERS AS DIRECTED BY THE ENGINEER.
 - (9) TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT REPAIRS.

**TRAFFIC CONTROL PLAN
DIAMOND GRINDING REHABILITATION
I-275 BOONE COUNTY
ITEM NO. 6-20006**

**THIS PROJECT IS A FULLY
CONTROLLED ACCESS HIGHWAY**

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the Standard Specifications and the Standard Drawings, current editions. All items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". This includes, but is not limited to, temporary concrete barrier wall, temporary crash cushions, temporary striping, water blasting, temporary signs and channelizing devices.

All lane closures used on the Project will be in compliance with the appropriate Standard Drawings and the Manual on Uniform Traffic Control Devices (MUTCD), current edition. Do NOT use cones for lane closures or shoulder closures.

Concrete Barrier Wall, Type 9T shall be required for each work area in accordance with Standard Drawing TTC-120 and in accordance with the Temporary Barrier Wall Layout detail. Provide one side mounted barrier wall delineator per each section of barrier. See Standard Drawing RBM-020 for types. No direct payment will be allowed for delineators. To the satisfaction of the Engineer, extend the barrier wall out of the clear zone. If Barrier wall is not extended out of the clear zone to the satisfaction of the Engineer, provide crash cushions/end treatments for the barrier wall. Barrier wall and crash cushions shall be in accordance with the Temporary Barrier Wall Layout detail included in the Proposal as well as the current editions of the Standard Drawings and MUTCD.

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like-new condition at the beginning of the work and maintained in like-new condition until completion of the work. Traffic Control Devices will conform to current MUTCD.

Reduce the speed limit in work areas to 55 miles per hour (Interchange ramps may be reduced to 35mph) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "WARNING FINE DOUBLED IN WORK ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINE" signs will be dual mounted as well. Remove or cover the signs when the highway work zone does not have workers present for more than a two-hour period of time. All signs shall be placed as directed and/or approved by the Engineer. Payment for the signs will be at the unit bid price for "Signs" erected. Any relocation or covering of the signs will be incidental to "Maintain and Control

Traffic”.

Night work is allowed on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

PROJECT PHASING & CONSTRUCTION PROCEDURES

No lane closures will be allowed during the following days/hours:

April 7 - 9, 2023	Easter Weekend
May 27 - 29, 2023	Memorial Day Weekend
July 1 - 4, 2023	Independence Day Weekend
September 1 - 4, 2023	Labor Day Weekend
November 23 - 26, 2023	Thanksgiving Weekend

In the event construction extends past the specified contract completion date, additional dates restricting lane closures may apply; the Department will determine these dates.

Traffic may be reduced to one lane in each direction during the following times:

- Weeknights from 9 PM until 5 AM the following morning
- Weekends from 9 PM Friday night until 5 AM the following Monday morning

The Contractor shall maintain a **minimum of two lanes** traffic in each direction at all other times, unless otherwise directed by the Engineer.

Use only one lane closure in each direction of travel at the same time during the hours specified. Lane closures may only be in the active work area. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Use a lane closure all times work is being performed in the lane or adjacent shoulder. Remove existing striping by water blasting. Remove edge lines throughout the project as directed and/or approved by the Engineer. Paint temporary edge lines through the lane closure. Payment for water blasting existing striping and temporary paint will be incidental to the bid item “Maintain and Control Traffic”.

Approximate full depth pavement repair locations are listed in the proposal. The Engineer will determine the exact location at the time of construction. Once removal of pavement at a particular repair location has begun, work continuously within the parameters outlined above to complete the work and eliminate the “hole”. Place Type III Barricades immediately in front of each pavement removal area, until the new JPC Pavement achieves 3000PSI compressive strength. Payment for Type III Barricades will be considered incidental to the bid item “Maintain and Control Traffic”.

The Contractor will only be allowed to have traffic utilizing a portion of the shoulders as a driving lane while work is ongoing. If the Contractor suspends work for more than seven (7) consecutive days for any reason, traffic shall be placed back in the original lane configuration,

with all lanes operational. These traffic shifts, due to non-working days, shall be considered incidental to the bid item, "Maintain and Control Traffic." The Department reserves the right to place traffic into its original configuration at any time.

Access to all ramps at interchanges on the project shall be maintained at all times unless otherwise noted or directed by the Engineer.

Note that Lane shifts are required throughout the project. See the Maintenance of Traffic Typical Sections for lane locations and widths. Stripe according to the MUTCD.

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes. Maintain at least 3 feet of lateral clearance between the traveled lanes and any drop off resulting from pavement removal. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods or if the project is not completed by the fixed completion date. Once pavement removal at a site has begun, full depth replacement must be completed within the time a lane closure is allowed.

The Contractor must notify the Engineer at least fourteen (14) days prior to beginning construction in either direction.

SHOULDER PREPARATION AND RESTORATION

Shoulders used as temporary roadways will be inspected by the Engineer and if deemed necessary by the Engineer, repaired with Asphalt Mixture for Level & Wedging, as directed, prior to opening to traffic. Patch and remove any foreign debris on the shoulders, as directed by the Engineer. Removal of failed materials and additional patching shall be performed by the Contractor, as directed by the Engineer, during the time the shoulder is used as a travel lane.

The stabilized shoulders are to be inspected and low spots refilled to the satisfaction of the Engineer prior to placing traffic on the shoulders. Daytime shoulder closures will be permitted to repair the stabilized shoulders. Install delineators for the existing guardrail and bridges before shifting traffic onto the shoulders. All materials and labor required for shoulder preparation and restoration is incidental to the bid item for "Maintain and Control Traffic".

I-275 PHASE I - JPC PAVEMENT REMOVAL AND REPLACEMENT, OUTSIDE LANE, HALF OF MIDDLE LANE, AND OUTSIDE SHOULDER

Utilize a lane closure and shift I-275 traffic to the inside lane and inside shoulder during removal and construction of the outside lane, half of the middle lane and the outside shoulder. Remove the JPC pavement, prepare the subbase if necessary, pour the new JPC Pavement. Remove all existing Type V pavement markers in the outside lanes and patch the residual hole. Complete any other miscellaneous patching in the specified lane as directed by the Engineer. Complete any roadside work including guardrail installation.

All work should be completed during the time allotted unless otherwise directed by the Engineer. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE I – ASPHALT RAMPS 1.50” MILLING AND SURFACING

Utilizing partial-width lane closures, perform asphalt pavement repairs, milling, and surfacing of the ramps. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Complete any roadside work including guardrail installation. All work should be completed during the time allotted unless otherwise directed by the Engineer. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE II – JPC PAVEMENT REMOVAL AND REPLACEMENT, HALF OF MIDDLE LANE, INSIDE LANE AND INSIDE SHOULDER

Utilize a lane closure and shift I-275 traffic to the outside lane, and outside shoulder during removal and construction of the inside lane, half of the middle lane, and the inside shoulder. Remove the JPC pavement, prepare the subbase if necessary and pour the new JPC Pavement. Remove all existing Type V pavement markers in the inside lanes and patch the residual hole. Complete any other miscellaneous patching in the specified lanes as directed by the Engineer. Complete any median work, including construction of the new pipe and junction box at approx. sta. 694+66 to sta. 696+04. All work should be completed during the time allotted. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE III – DIAMOND GRIND, OUTSIDE LANE, AND HALF OF THE MIDDLE LANE

Utilize a lane closure and shift I-275 traffic to the inside lane and inside shoulder during diamond grinding of the outside lane, half of the middle lane, and the outside shoulder. Diamond Grind the JPC Pavement when strength is achieved using appropriate lane configurations. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will not be permitted during the days and hours specified. Lane closures will be shortened, reduced to a shoulder closure, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Limit the length of the lane closure to no more than can be completed during the specified time period.

Diamond Grind the full lane width when strength is achieved. The diamond grinding area will also include at least four feet of the outside shoulder to allow for surface water

runoff from the pavement. The diamond grind area is to include that portion of all ramps to the point where they diverge from the mainline pavement (ramp gore). The diamond grind area will not include bridge decks. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE IV – DIAMOND GRIND, INSIDE LANE AND HALF OF MIDDLE LANE

Utilize a lane closure and shift I-275 traffic to the outside lane and outside shoulder during diamond grinding of the inside lane, half of the middle lane, and inside shoulder. Diamond Grind the JPC Pavement when strength is achieved using appropriate lane configurations. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will not be permitted during the days and hours specified. Lane closures will be shortened, reduced to a shoulder closure, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Limit the length of the lane closure to no more than can be completed during the specified time period.

Diamond Grind the full lane width when strength is achieved. The diamond grinding area will also include at least four feet of the inside shoulder to allow for surface water runoff from the pavement. The diamond grind area will not include bridge decks. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE V – SAW AND SEAL JOINTS

Saw and seal the concrete pavement. Seal the joints between the mainline driving lanes and shoulders using appropriate lane configurations, as directed by the Engineer. Close one lane, only in the direction of work, using drums and flashing arrows in accordance with the Standard Drawings and these notes. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will not be permitted during the days and hours specified. Lane closures will be shortened, reduced to a shoulder closure, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE VI – DATA ACQUISITION STATIONS

Construct Data Acquisition Stations. Close one lane, only in the direction of work, using drums and flashing arrows in accordance with the Standard Drawings and these notes. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will not be permitted during the days and hours specified. Lane closures will be shortened, reduced to a shoulder closure, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

I-275 PHASE VII - PLACE PERMANENT STRIPING & PAVEMENT MARKERS

After all other work is completed, place permanent striping and pavement markers. Mobile operations may be utilized. In addition to newly paved areas, place permanent striping on bridge decks within the project limits. Place permanent striping in accordance with the current edition of the MUTCD. Refer to the sepias for Inlaid Pavement Markers for placement.

LANE CLOSURES

Limit the lengths of lane closures to only that needed for actual operations in accordance with the phasing specified herein, or as directed by the Engineer. Contrary to Section 112, lane closures will **NOT** be measured for payment, but are considered incidental to “Maintain and Control Traffic”.

RAMP CLOSURES, LANE CLOSURES AND LANE SHIFTS

In the existing two-lane section of Eastbound I-275 from approximate Sta. 410+00 to approximate Sta. 442+00, traffic may be reduced to one lane for one weekend only as approved by the Engineer for full depth pavement repairs. All work should be completed during the time allotted unless otherwise directed by the Engineer. Please refer to the “Special Note for Fixed Completion Date and Liquidated damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

All ramp access is to be maintained except when the ramp is closed. All lane closures, lane shifts, and tapers shall be in accordance with the standard drawings or the Manual of Uniform Traffic Control Devices (MUTCD). Any ramp closure, lane closure or lane shift must be approved by the Engineer prior to the closure or lane shift. The Contractor must notify the Engineer as least five (5) days prior to any proposed closure or traffic pattern shift. The contractor will be allowed to close the ramp listed for one weekend.

The following ramp will need to be closed to complete the proposed repairs on the respective ramp:

I-275 / KY 212 Interchange

WB I-275 to SB KY 212 exit ramp

Only one ramp closure will be allowed at any one time throughout the project with the Engineer's approval. Ramp closures shall be completed on weekends during times of adjacent lane closures on the mainline. Once pavement removal at a ramp site has begun, all pavement repairs, guardrail work, sawing and sealing all joints and random cracks, and repairing the DGA portion of the shoulders where specified for that particular ramp must be completed and restriped within the time a ramp closure is allowed. Liquidated Damages, at the rate specified per hour in the "Special Note for Fixed Completion Date and Liquidated Damages", will be assessed for each hour beyond the specified time a ramp closure is permitted. Detour signing plan exhibits are attached for each ramp closure. The sign locations shown on the exhibits are approximate. The location and type of sign used shall be as directed or approved by the Engineer prior to any ramp closure. All messages to be used on Portable Changeable Message Signs shall be approved by the Engineer prior to any ramp or lane closure.

Contrary to Section 112, ramp/lane closures will **NOT** be measured for payment but are considered incidental to "Maintain and Control Traffic".

Detours will **NOT** be measured for payment but are considered incidental to "Maintain and Control Traffic"

SIGNS

Additional traffic control signs in addition to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted TRUCKS USE LEFT/RIGHT LANE, LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILES, LEFT/RIGHT LANE CLOSED 3 MILES, SLOWED/STOPPED TRAFFIC AHEAD. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to Section 112, Individual signs will be considered incidental to "Maintain and Control Traffic" Lump Sum. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

FLASHING ARROWS

Provide flashing arrow panels in advance of or on the project at locations to be determined by the Engineer. The arrow panels shall be in operation for the entire duration of the lane closure. In the event of damage or mechanical failure, immediately repair or replace the arrow panels. The Department will measure for payment the maximum number of arrow panels in concurrent use at the same time on a single day on all sections of the contract. Individual arrow panels will be measured only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. Replacements for damaged arrow panels directed by the Engineer to be replaced due to poor condition will not be measured for payment. The

Department **WILL NOT** take possession of the signs upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs (PCMS) in advance of or on the project at locations to be determined by the Engineer. The Engineer will designate the locations and messages to be provided. Unless directed otherwise by the Engineer, use messages and abbreviations according to the Policy for the Use and Placement of Changeable Message Signs. The PCMS shall be in operation at all times. In the event of damage or mechanical failure, immediately repair or replace the PCMS. The Department will measure for payment the maximum number of signs in concurrent use at the same time on a single day on all sections of the contract. Individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. Replacements for damaged signs directed by the Engineer to be replaced due to poor condition or readability will not be measured for payment. PCMS will remain the property of the Contractor after construction is complete.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved Truck Mounted Attenuators (TMA) in advance of work areas not protected by temporary concrete barrier wall, when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details of the TMA installations will be approved by the Engineer. Truck Mounted Attenuators will not be measured for payment, but are incidental to "Maintain and Control Traffic". The Department will **NOT** take possession of the TMAs upon completion of the work.

PAVEMENT MARKINGS

If lane closures are in place during nighttime hours, remove or cover the lenses of raised pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing and replacing or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic".

Place temporary and permanent striping in accordance with Section 112 and 714, except that:

1. Temporary and permanent striping will be 6" in width (ramp gore striping will be 12")
2. If the contractor's operations or phasing requires temporary markings which must be subsequently removed from the ultimate pavement, an approved removable lane tape will be used; however payment for the removable tape will be incidental to "Maintain and Control Traffic".
3. Edge lines will be required for temporary striping
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.

5. Place permanent striping on bridge decks and pavement within the project limits.
6. Permanent striping will be Thermoplastic markings on the asphalt ramps, and Durable Type I Markings on concrete and bridge decks.

Voids created from removing the raised pavement markers are to be filled prior to allowing traffic on them. The partial depth patching material is to be used to fill the voids. The patching material and all work involved in patching the voids created by removing the existing pavement markers are incidental to the pavement marker removal bid item. See 'Special Note For Removing Existing Type V Raised Pavement Markers On Portland Cement Pavement'.

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with temporary barrier walls, barrels, vertical panels, or barricades as shown on the Standard Drawings.

A pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1 ½". Place warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual posting on both sides of the traveled way shall be required. Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:

Less than 2" – Protect with a lane closure.

2" to 4.00" – Protect with a lane closure. Place barrels, vertical panels, or barricades every 50 feet. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope, when work is not active in the drop-off area. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

Greater than 4.00" – Full Depth Concrete Repair areas – In areas where pavement is to be removed, protect the area with a lane closure utilizing temporary concrete barrier wall. Appropriate lighting should be utilized to illuminate the area during nighttime operations.

Guardrail Installation – Guardrail will be removed at the last practical moment and replaced as soon as the placement of asphalt in an area requiring guardrail is complete. All areas from which guardrail is removed shall be protected by a shoulder closure or other method approved by the Engineer until the new guardrail is installed.

TRAFFIC COORDINATOR

The I-275 rehabilitation is classified as a Significant Project.

Designate an employee to be traffic coordinator. The designated Traffic Coordinator shall meet the requirements described in Section 112.03.12 of the Department's Standard Specifications. The Traffic Coordinator will inspect the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and a telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate Portable Changeable Message Signs as needed. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

COORDINATION OF WORK

The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. One known project is construction on Mineola Pike which will result in a two-week closure of Mineola Pike. The Contractor will coordinate the work on this project with the work of the other contractors. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

LAW ENFORCEMENT OFFICERS (LEO'S)

Police support shall be a unit consisting of an off-duty police officer from any police force agency having lawful jurisdiction and a police car equipped with externally mounted flashing blue lights. Officers may be asked to issue citations for traffic violations, but will be considered incidental to the contract unit bid price for "Law Enforcement Officer". No additional compensation will be provided. The officers will be placed at the discretion of the Engineer. Police support will be measured and paid on a per hour basis for each officer and police vehicle.

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Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	4,604.00	TON		\$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2 (REVISED 3-22-23)	100.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	851.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	102.00	TON		\$	
0050	00193		ASPHALT SCRATCH COURSE PG76-22	118.00	TON		\$	
0060	00216		CL3 ASPH BASE 1.00D PG76-22	704.00	TON		\$	
0070	00336		CL3 ASPH SURF 0.38A PG76-22	5,980.00	TON		\$	
0080	02058		REMOVE PCC PAVEMENT	5,573.00	SQYD		\$	
0090	02060		PCC PAVEMENT DIAMOND GRINDING	300,901.00	SQYD		\$	
0100	02069		JPC PAVEMENT-10 IN	34.00	SQYD		\$	
0110	02070		JPC PAVEMENT-12 IN	19.00	SQYD		\$	
0120	02073		JPC PAVEMENT-9 IN	5,520.00	SQYD		\$	
0130	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0140	02677		ASPHALT PAVE MILLING & TEXTURING	6,803.00	TON		\$	
0150	20071EC		JOINT ADHESIVE	69,016.00	LF		\$	
0160	23229EC		HIGH FRICTION SURFACE TREATMENT	1,963.00	SQYD		\$	
0170	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	29.00	TON		\$	
0180	24997EC		PARTIAL DEPTH PATCHING-POLYMER MOD	1,466.00	CUFT		\$	
0190	25010EC		GEOCOMPOSITE REINFORCEMENT FOR ASPHALT	4,264.00	SQYD		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0200	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	486.00	EACH		\$	
0210	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	10.00	EACH		\$	
0250	02115		SAW-CLEAN-RESEAL TVERSE JOINT	198,434.00	LF		\$	
0260	02116		SAW-CLEAN-RESEAL LONGIT JOINT	248,043.00	LF		\$	
0270	02352		GUARDRAIL-STEEL W BEAM-D FACE	275.00	LF		\$	
0280	02360		GUARDRAIL TERMINAL SECTION NO 1	2.00	EACH		\$	
0290	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH		\$	
0300	02365		CRASH CUSHION TYPE IX-A	2.00	EACH		\$	
0310	02367		GUARDRAIL END TREATMENT TYPE 1	31.00	EACH		\$	
0320	02369		GUARDRAIL END TREATMENT TYPE 2A	33.00	EACH		\$	
0330	02381		REMOVE GUARDRAIL	26,125.00	LF		\$	
0340	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	2.00	EACH		\$	
0350	02391		GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH		\$	
0360	02483		CHANNEL LINING CLASS II	64.00	TON		\$	
0370	02484		CHANNEL LINING CLASS III	546.00	TON		\$	
0390	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0400	02671		PORTABLE CHANGEABLE MESSAGE SIGN	8.00	EACH		\$	
0410	02775		ARROW PANEL	4.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0420	02929		CRASH CUSHION TYPE IX	10.00	EACH		\$	
0440	06401		FLEXIBLE DELINEATOR POST-M/W	760.00	EACH		\$	
0450	06404		FLEXIBLE DELINEATOR POST-M/Y	321.00	EACH		\$	
0470	06542		PAVE STRIPING-THERMO-6 IN W	21,521.00	LF		\$	
0480	06543		PAVE STRIPING-THERMO-6 IN Y	17,834.00	LF		\$	
0490	06546		PAVE STRIPING-THERMO-12 IN W	2,405.00	LF		\$	
0500	06556		PAVE STRIPING-DUR TY 1-6 IN W	86,553.00	LF		\$	
0510	06557		PAVE STRIPING-DUR TY 1-6 IN Y	60,104.00	LF		\$	
0520	06560		PAVE STRIPING-DUR TY 1-12 IN W	4,360.00	LF		\$	
0530	06568		PAVE MARKING-THERMO STOP BAR-24IN	165.00	LF		\$	
0540	06574		PAVE MARKING-THERMO CURV ARROW	20.00	EACH		\$	
0550	06576		PAVE MARKING-THERMO ONLY	5.00	EACH		\$	
0560	06600		REMOVE PAVEMENT MARKER TYPE V	1,685.00	EACH		\$	
0570	06613		INLAID PAVEMENT MARKER-B W/R	1,685.00	EACH		\$	
0580	06614		INLAID PAVEMENT MARKER-B Y/R	225.00	EACH		\$	
0600	10020NS		FUEL ADJUSTMENT	10,130.00	DOLL	\$1.00	\$	\$10,130.00
0610	10030NS		ASPHALT ADJUSTMENT	16,387.00	DOLL	\$1.00	\$	\$16,387.00
0620	20191ED		OBJECT MARKER TY 3	32.00	EACH		\$	
0630	20362ES403		SHOULDER RUMBLE STRIPS-SAWED	40,639.00	LF		\$	
0640	20411ED		LAW ENFORCEMENT OFFICER	1,000.00	HOURL		\$	
0650	20432ES112		REMOVE CRASH CUSHION	12.00	EACH		\$	
0660	21173EC		SAW-CLEAN-RESEAL RANDOM CRACKS	5,643.00	LF		\$	
0670	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	24,250.00	LF		\$	
0690	22883EN		CONCRETE WEDGE CURB	6,267.00	LF		\$	
0710	23845EC		SAW AND SEAL ASPHALT JOINT	22,204.00	LF		\$	
0720	24640ED		OBJECT MARKER TYPE 1	12.00	EACH		\$	
0730	24679ED		PAVE MARK THERMO CHEVRON	3,724.00	SQFT		\$	
0740	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	729,036.00	SF		\$	
0750	25075EC		QUEUE PROTECTION VEHICLE	300.00	HOURL		\$	
0760	25117EC		FURNISH QUEUE PROTECTION VEHICLES	6.00	MONT		\$	
0770	26136EC		PORTABLE QUEUE WARNING ALERT SYSTEM	6.00	MONT		\$	
0780	26137EC		QUEUE WARNING PCMS	36.00	MONT		\$	
0790	26138EC		QUEUE WARNING PORTABLE RADAR SENSORS	36.00	MONT		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0800	00522		STORM SEWER PIPE-18 IN	135.00	LF		\$	
0810	00529		STORM SEWER PIPE-42 IN	8.00	LF		\$	
0880	01432		SLOPED BOX OUTLET TYPE 1-15 IN	1.00	EACH		\$	
0890	01646		JUNCTION BOX-42 IN	1.00	EACH		\$	
0900	02165		REMOVE PAVED DITCH	138.00	SQYD		\$	
0910	02220		FLOWABLE FILL	3.00	CUYD		\$	
0920	02575		DITCHING AND SHOULDERING	29,927.00	LF		\$	
0930	02604		FABRIC-GEOTEXTILE CLASS 1A	500.00	SQYD		\$	
0940	05950		EROSION CONTROL BLANKET	13,301.00	SQYD		\$	
0950	20366NN		REPLACE GRATE	3.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0960	23970NC		RESET GRATE	2.00	EACH		\$	

Section: 0004 - TRAFFIC LOOPS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0970	04793		CONDUIT-1 1/4 IN	320.00	LF		\$	
0980	04795		CONDUIT-2 IN	100.00	LF		\$	
0990	04820		TRENCHING AND BACKFILLING	380.00	LF		\$	
1000	04829		PIEZOELECTRIC SENSOR	22.00	EACH		\$	
1010	04830		LOOP WIRE	10,100.00	LF		\$	
1020	04895		LOOP SAW SLOT AND FILL	2,080.00	LF		\$	
1030	20359NN		GALVANIZED STEEL CABINET	8.00	EACH		\$	
1040	20360ES818		WOOD POST	16.00	EACH		\$	
1050	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	8.00	EACH		\$	

Section: 0005 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1060	02568		MOBILIZATION	1.00	LS		\$	
1070	02569		DEMOBILIZATION	1.00	LS		\$	