



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

Matthew G. Bevin
Governor

Greg Thomas
Secretary

December 5, 2016

CALL NO. 102
CONTRACT ID NO. 161061
ADDENDUM # 2

Subject: Ohio County, NHPP 0031 (011)
Letting December 9, 2016

- (1) Revised - Front Sheet
- (2) Revised - Completion Date - Page 4 of 407
- (3) Revised - Typical Section - Page 22 of 407
- (4) Revised - Pavement Summary - Page 24 of 407
- (5) Revised - Pavement Areas - Page 25 of 407
- (6) Revised - Guardrail Summary - Pages 67-68 of 407
- (7) Revised - Base Failure Repair Details - Page 128 of 407
- (8) Revised - Traffic Control Plan - Page 132 of 407
- (9) Revised - Special Note for Fixed Completion Date - Page 164 of 407
- (10) Revised - Special Note - Pages 200-201 of 407
- (11) Revised - Drawing Replace Seal - Pages 225 & 232 of 407
- (12) Revised - Bid Items - Pages 402-407 of 407

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

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

Sincerely,

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

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

RM:ks
Enclosures



An Equal Opportunity Employer M/F/D



CALL NO. 102

CONTRACT ID. 161061

OHIO COUNTY

FED/STATE PROJECT NUMBER NHPP 0031 (011)

DESCRIPTION WILLIAM NATCHER PARKWAY(PW-9007)

WORK TYPE JPC PAVEMENT REPAIRS - DIAMOND GRINDING

PRIMARY COMPLETION DATE 11/1/2017

LETTING DATE: December 09,2016

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME December 09,2016. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 10.50%

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

ADMINISTRATIVE DISTRICT - 02

REVISED ADDENDUM #2: 12-5-16

CONTRACT ID - 161061

NHPP 0031 (011)

COUNTY - OHIO

PCN - DE09290071661

NHPP 0031 (011)

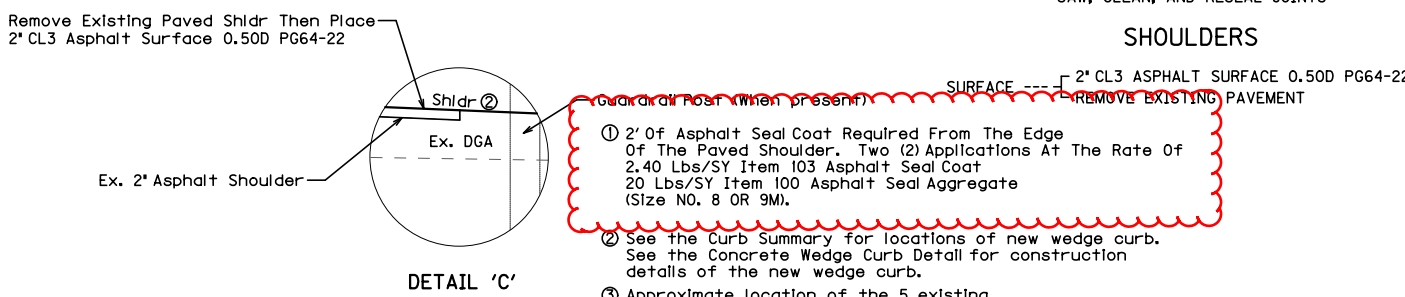
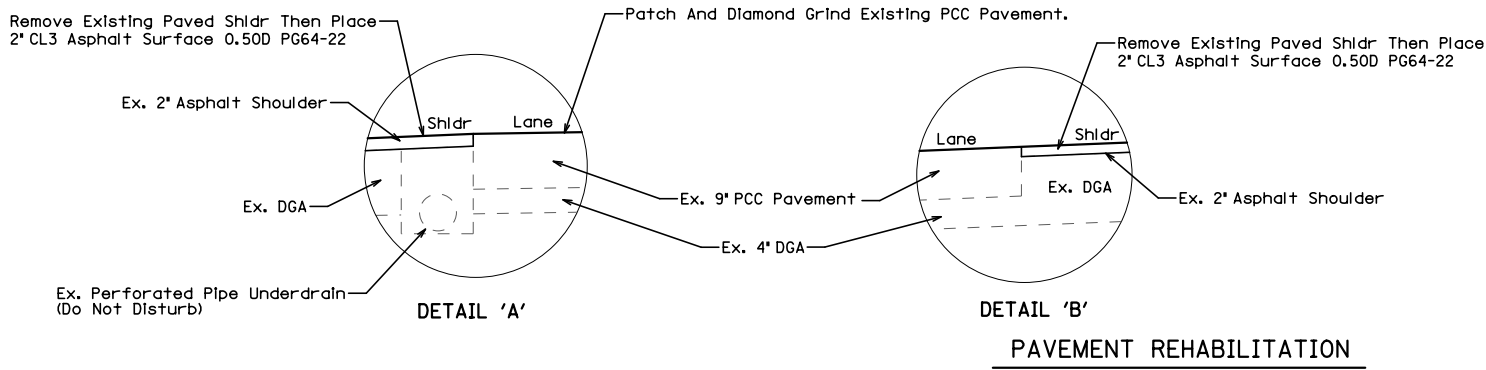
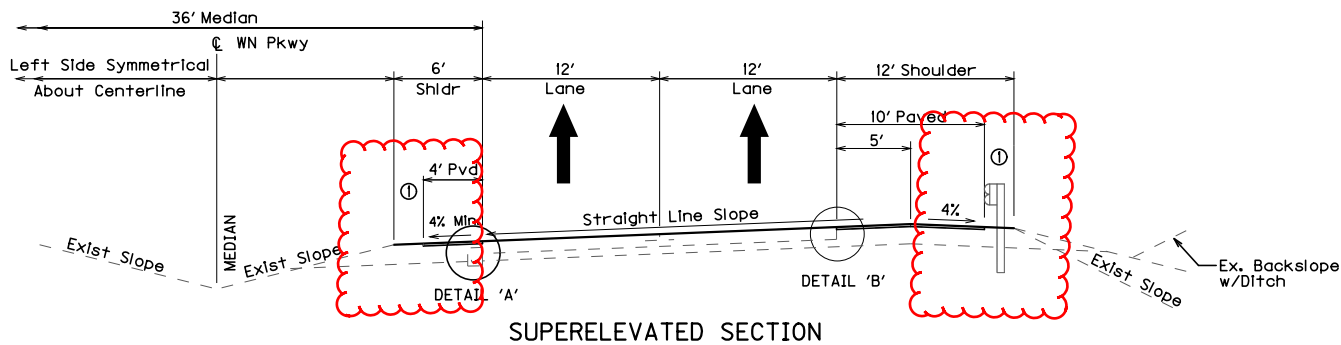
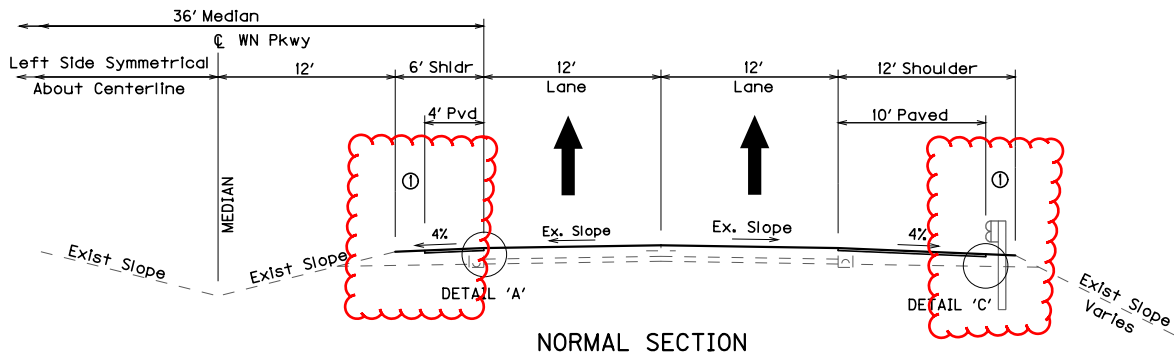
WILLIAM NATCHER PARKWAY(PW-9007) REPAIR AND DIAMOND GRIND PAVEMENT ON WILLIAM NATCHER
PARKWAY(PW-9007) FROM THE BUTLER COUNTY LINE MP 37.143 TO JUST SOUTHEAST OF KY-69(EXIT 50) MP
49.795.JPC PAVEMENT REPAIRS - DIAMOND GRINDING SYP NO. 02-02089.00.
GEOGRAPHIC COORDINATES LATITUDE 37:23:04.00 LONGITUDE 86:48:33.00

COMPLETION DATE(S):

COMPLETED BY 11/01/2017

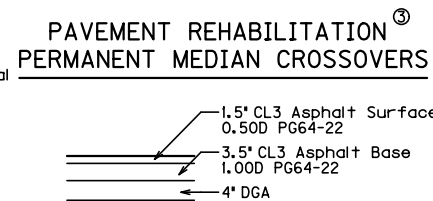
APPLIES TO ENTIRE CONTRACT

TYPICAL SECTIONS



- ① 2" of Asphalt Seal Coat Required From The Edge Of The Paved Shoulder. Two (2) Applications At The Rate Of 2.40 Lbs/SY Item 103 Asphalt Seal Coat 20 Lbs/SY Item 100 Asphalt Seal Aggregate (Size NO. 8 OR 9M).
- ② See the Curb Summary for locations of new wedge curb. See the Concrete Wedge Curb Detail for construction details of the new wedge curb.
- ③ Approximate location of the 5 existing permanent median crossovers:
Sta 2980+05
Sta 3042+11
Sta 3150+40
Sta 3257+22
Sta 3413+92
Regrading Of Existing Crossover Material Will Be Incidental To The Project.

Notes:
Patch And Diamond Grind PCC Pavement Prior To Shoulder Pavement Replacement
Install Shoulders To 4% Slope In Tangent Sections, Match Existing (4% min.) Slopes In Transitions and Superelevated Sections, Except
See The Base Failure Repairs Detail Sheet For Details On Repair Of Base Failures. (Locations to be determined by the Engineer)



NOTE: EXISTING PAVEMENT INFORMATION SHOWN TAKEN FROM PREVIOUS PLANS

Not To Scale

WILLIAM NATCHER PARKWAY (WN 9007) PAVEMENT REHABILITATION
OHIO COUNTY ITEM NO. 2-2089.00

PAVEMENT SUMMARY						
ITEM CODE	ITEM	UNIT	NATCHER PARKWAY NORTHBOUND	NATCHER PARKWAY SOUTHBOUND	TOTAL	
1	DGA	(1)(2) TON	3,637	3,419	7,190	
78	CRUSHED AGGREGATE SIZE NO 2	(3)(4) TON	240	240	980	
100	ASPHALT SEAL AGGREGATE	(5) TON	632.6	594.6	1227.2	
103	ASPHALT SEAL COAT	(6) TON	75.9	71.4	147.3	
214	CL3 ASPH BASE 1.00D PG64-22	(7)(8) TON	1182	1164	2458	
312	CL3 ASPH SURF 0.50D PG64-22	(3)(9) TON	11,417	11,249	22,714	
1000	PERFORATED PIPE - 4 INCH	(3) LF	360	360	720	
1028	PERFORATED PIPE HEADWALL TY3-4 INCH	(3)(10) EACH	15	15	30	
2058	REMOVE PCC PAVEMENT	(11) SY	29,174	26,747	55,921	
2060	PCC PAVEMENT DIAMOND GRINDING	SY	183,830	183,819	367,649	
2073	JPC PAVEMENT-9 IN	(11) SY	29,174	26,747	55,921	
2091	REMOVE PAVEMENT	(13) SY	105,327	103,774	209,101	
2599	FABRIC - GEOTEXTILE TYPE IV	(3)(12) SY	405	405	810	
3383	PVC PIPE - 4 INCH	(3) LF	375	375	750	

NOTES:

- (1) Estimated at 115 pounds per square yard per inch depth and/or at 2.07 tons per cubic yard.
- (2) Included in the total is 134 tons for 4" of DGA for the 5 Permanent Median Crossovers.
- (3) For Base Failure Repairs - To be used as directed by the Engineer. Item No. 78 quantity includes 1 ton for each "Perforated Pipe Headwall TY3-4 Inch". ~~The No. 2 crushed stone is to be placed in and around perforated pipe headwall per Std. Dwg. RDP-010-09. See the Base Failure Repair Details Sheet and the PVC Pipe Outlet Details Sheet. These are estimated quantities. Actual quantities to be determined by the Engineer during construction.~~
- (4) ~~An additional 500 tons has been included for repair of eroded slopes as directed by the Engineer.~~
- (5) Estimated at 20 pounds per square yard per application with two applications required.
- (6) Estimated at 2.4 pounds per square yard per application with two applications required.
- (7) Estimated at 110 pounds per square yard per inch depth.
- (8) Included in the total is 112 tons for 3.5" base course for the 5 Permanent Median Crossovers.
- (9) Included in the total is 48 tons for 1.5" surface course for the 5 Permanent Median Crossovers.
- (10) Contractor to verify headwall type required based on fill slope at each location prior to ordering headwalls.
- (11) Quantity carried forward from the Concrete Pavement Repair Summary.
- (12) Carried forward to the General Summary.
- (13) For removing shoulder pavement. Milling will be an acceptable method of pavement removal.

WILLIAM NATCHER PARKWAY (WN 9007) PAVEMENT REHABILITATION
OHIO COUNTY ITEM NO. 2-2089.00

PAVEMENT AREAS			
ITEM	NATCHER PARKWAY NORTHBOUND	NATCHER PARKWAY SOUTHBOUND	TOTAL
	SQUARE YARDS		
PCC PAVEMENT DIAMOND GRINDING	183,830	183,819	367,649
2" CL3 ASPH SURF 0.50D PG64-22	99,186	97,725	196,911
1.5" CL3 ASPH SURF 0.50D PG64-22 (1)(2)	6,141	6,049	12,773
3.5" CL3 ASPH BASE 1.00D PG64-22 (1)(2)	6,141	6,049	12,773
REMOVE PCC PAVEMENT	29,174	26,747	55,921
JPC PAVEMENT-9 INCH	29,174	26,747	55,921
DGA (2)(3)	31,629	29,729	61,942
ASPHALT SEAL AGGREGATE (4)	31,629	29,729	61,359
ASPHALT SEAL COAT (4)	31,629	29,729	61,359

NOTES:

- (1) For MOT Shoulder Strengthening. See Maintenance of Traffic Typical Sections and Traffic Control Plan.
- (2) Included in total is 588 SY for Permanent Median Crossovers.
- (3) Estimated as 2 inches deep, 2 feet wide along the inside and outside shoulders for repair of low spots and eroded areas.
- (4) Area for one application shown.

LOCATION		GUARDRAIL SUMMARY											Note	
		ITEM												
		21802EN ①	2352	2363	2365	2367	2369	2381 ②	2387	2397	2929	1982 ③		1983 ③
BEGIN	END	GUARDRAIL STEEL W BEAM S FACE (7 FT POST)	GUARDRAIL STEEL W BEAM-D FACE	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A	CRASH CUSHION TYPE IX-A	GUARDRAIL END TREATMENT TYPE 1	GUARDRAIL END TREATMENT TYPE 2A	REMOVE GUARDRAIL	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A-1	TEMP GUARDRAIL	CRASH CUSHION TYPE IX	DELINEATOR FOR GUARDRAIL-WHITE	DELINEATOR FOR GUARDRAIL-YELLOW	
(ROADWAY)	(STA)	LF			EACH			LF	EACH	LF		EACH		
NB OUTSIDE														
	2768+05.0	2770+05.0	200.0					200.0				4		Tie into Existing
	2772+57.2	2792+09.3	1900.0				1	1	1952.1			39		
	2794+03.2	2801+06.2	650.0					703.0				14		
	2815+66.7	2824+26.9	812.5					860.2				17		
	2832+80.3	2850+25.0	1700.0					1744.7				35		
	2870+35.6	2873+13.5	225.0					277.9				6		
	2877+62.4	2883+78.0	562.5					615.6				12		
	2894+52.2	2905+79.7	1075.0					1127.6				23		
	2921+95.2	2934+99.2	1250.0					1304.0				26		
	2951+55.8	2954+11.0	200.0					255.2				5		
	2960+46.1	2966+29.7	537.5					583.6				12		
	2997+23.6	3004+77.3	700.0					753.8				15		
	3007+73.8	3012+76.9	450.0					503.1				10		
	3026+53.1	3036+09.3	900.0					956.2				19		
	3047+87.1	3055+03.3	662.5					716.3				14		
	3062+69.5	3082+20.3	1900.0					1950.8				39		Ends on Ramp E Starts on Ramp A
	3093+07.2	3096+60.1	300.0					352.8				7		
	3101+19.0	3104+47.8	275.0					328.8				7		
	3114+35.6	3129+44.7	1462.5					1509.1				30		
	3133+66.0	3139+69.2	550.0					603.3				12		
	3141+96.9	3148+12.9	562.5					616.0				12		
	3159+94.3	3179+72.6	1925.0					1978.3				40		
	3192+93.9	3200+72.0	725.0					778.1				16		
	3216+50.0	3228+15.7	1112.5		1			1165.7				23		
	3230+65.4	3242+81.4	1212.5		1			1216.0	1			24		
	3244+25.8	3248+04.4	375.0					378.6	1			8		
	3265+95.2	3268+35.5	187.5		1			240.3				5		
	3270+76.0	3277+23.9	650.0					647.8	1			13		
	3288+70.8	3297+73.9	850.0					903.1				18		
	3300+98.0	3326+86.0	2537.5					2588.1				52		
	3332+48.9	3342+02.1	900.0					953.2				19		
	3391+17.4	3393+98.2	225.0					280.8				6		
	3439+21.1	3442+99.2	375.0					378.1				8		Tie into existing
NB INSIDE														
	2871+79.8	2872+38.2						58.4			1		1	@ KY 505
	2872+78.5	2873+38.1						59.6			1		1	@ KY 505
	2952+75.1	2953+34.2						59.1			1		1	@ Cromwell Rd
	2953+75.0	2954+34.5						59.5			1		1	@ Cromwell Rd
	3075+66.4	3078+29.6	212.5					263.2					4	
	3094+59.1	3095+18.3						59.2			1		1	@ WKP
	3096+40.4	3096+99.5						59.1			1		1	@ WKP
	3112+57.2	3115+09.3	200.0					252.2					4	
	3225+35.5	3228+19.3	100.0	137.5	1			263.7					3	
	3230+64.4	3232+64.4			1					200			4	(4)
	3230+64.4	3231+01.9	37.5					37.5	1					
	3239+97.1	3242+78.7	100.0	137.5	1			281.5					5	
	3244+20.6	3246+20.6			1					200			4	(4)
	3244+20.6	3244+58.1	37.5					37.5	1					
	3265+79.2	3268+60.4	100.0	157.5	1			281.2					5	
	3270+96.1	3272+96.1			1					200			4	(4)
	3316+63.7	3319+23.8						59.1			1		1	@ Maples Rd
	3319+63.9	3320+23.3						59.4			1		1	@ Maples Rd
SB INSIDE														
	3077+56.9	3080+46.6	237.5					289.6					5	
	3114+47.3	3117+00.8	200.0					293.5					4	
	3226+28.4	3228+28.4			1					200			4	(4)
	3230+73.5	3233+57.1	100.0	137.5	1			283.6					5	
	3240+86.6	3242+86.6			1					200			4	(4)
	3244+20.6	3244+66.4	100.0	137.5	1			281.5					5	
	3266+99.2	3268+99.2			1					200			4	(4)
	3274+35.6	3275+29.9	100.0	137.5	1			146.3					5	

GUARDRAIL SUMMARY														
LOCATION	BEGIN	END	ITEM											Note
			21802EN ① GUARDRAIL STEEL W BEAM S FACE (7 FT POST)	2352 GUARDRAIL STEEL W BEAM-D FACE	2363 GUARDRAIL CONNECTOR TO BRIDGE END TYPE A	2365 CRASH CUSHION TYPE IX-A	2367 GUARDRAIL END TREATMENT TYPE 1	2369 GUARDRAIL END TREATMENT TYPE 2A	2381 ② REMOVE GUARDRAIL	2387 GUARDRAIL CONNECTOR TO BRIDGE END TYPE A-1	2397 TEMP GUARDRAIL	2929 CRASH CUSHION TYPE IX	1982 ③ DELINEATOR FOR GUARDRAIL-WHITE	
(ROADWAY)	(STA)		LF		EACH			LF	EACH	LF		EACH		
SB OUTSIDE														
	2776+01.2	2791+54.4	1500.0					1	1	1553.2			31	
	2796+00.8	2800+28.8	375.0					1	1	428.0			9	
	2815+99.5	2822+30.7	575.0					1	1	631.2			13	
	2838+48.3	2849+43.6	1050.0					1	1	1095.3			22	
	2870+49.4	2874+89.7	387.5					1	1	440.3			9	
	2880+77.0	2887+04.9	575.0					1	1	627.9			13	
	2896+68.9	2907+23.0	1000.0					1	1	1054.1			21	
	2921+50.1	2941+26.3	1925.0					1	1	1976.2			40	
	2947+21.9	2949+98.7	225.0					1	1	276.8			6	
	2952+89.3	2956+75.2	337.5					1	1	385.9			8	
	2959+55.2	2969+52.5	950.0					1	1	997.3			20	
	3000+98.7	3006+02.0	450.0					1	1	503.3			10	
	3010+24.9	3014+03.6	325.0					1	1	378.7			8	
	3027+21.3	3038+72.3	1100.0					1	1	1151.0			23	
	3049+69.8	3057+24.4	700.0					1	1	754.6			15	
	3064+21.4	3076+43.5	1175.0					1	1	1222.0			25	
	3095+00.0	3098+52.5	300.0					1	1	352.5			7	
	3114+41.5	3123+48.4	862.5					1	1	906.9			18	
	3126+94.3	3130+59.9	312.5					1	1	365.6			7	
	3135+23.8	3141+51.4	575.0					1	1	627.6			13	
	3144+18.8	3146+96.2	225.0					1	1	277.4			6	
	3167+79.2	3183+07.5	1475.0					1	1	1528.3			31	
	3191+47.6	3196+76.4	475.0					1	1	528.8			11	
	3199+33.5	3204+36.9	450.0					1	1	503.4			10	
	3220+74.4	3228+27.0	750.0						1	752.6	1		15	
	3230+77.1	3242+81.3	1200.0		1					1204.2	1		24	
	3244+25.9	3247+29.3	250.0		1					303.4			6	
	3267+18.1	3269+22.0	200.0						1	203.9	1		4	
	3271+62.3	3284+60.4	1250.0		1					1298.1			26	
	3290+71.3	3313+23.8	2200.0					1	1	2252.5			45	
	3319+22.7	3348+99.3	2925.0					1	1	2976.6			60	
	3392+09.7	3400+32.4	775.0					1	1	822.7			17	
	3439+99.8	3443+07.5	262.5						1	307.7			5	
TOTALS			56612.5	825	18	6	67	66	61327	8	1200	8	1192	57

NOTES:

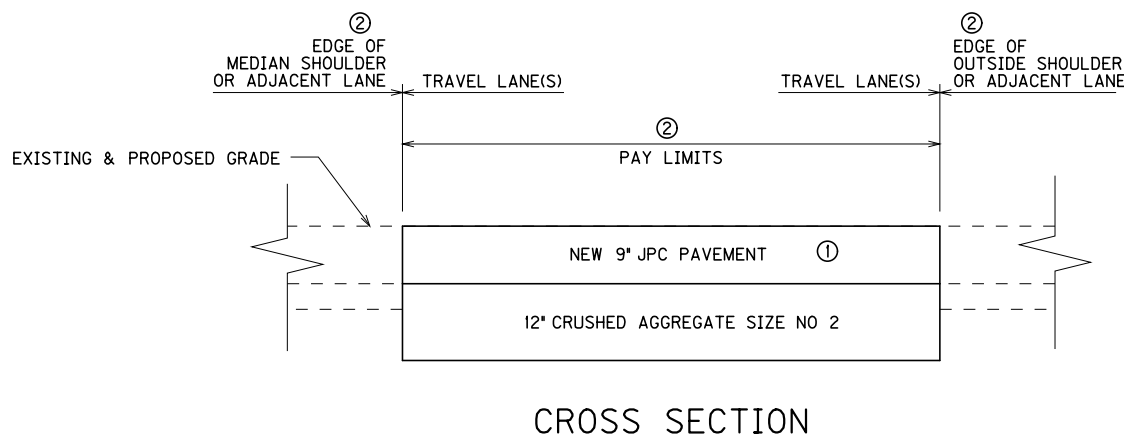
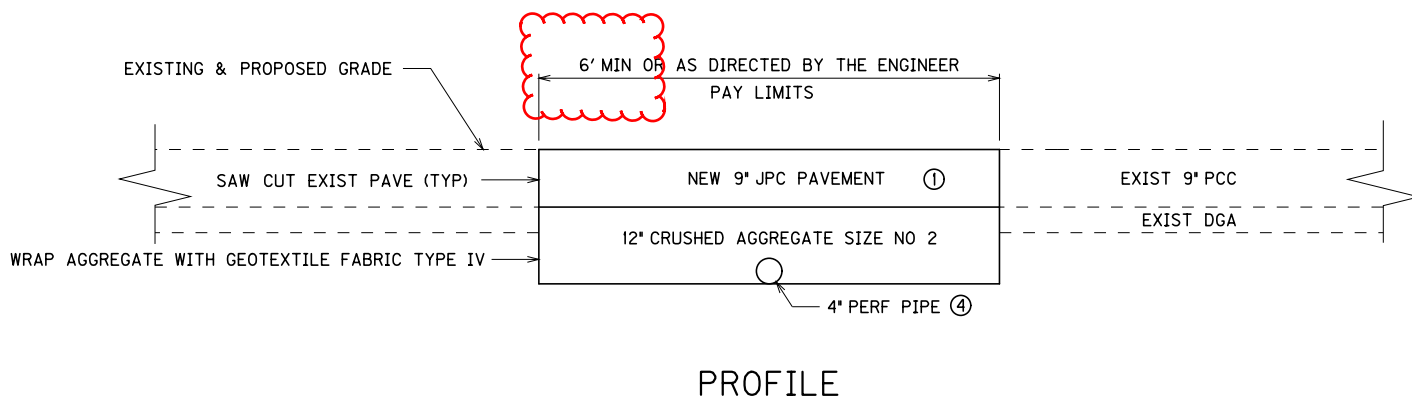
1. Contrary to the standard drawing, guardrail posts shall be 7 feet in length.

2. Salvage existing material as per Section 719.03.07, except that the Contractor shall deliver existing salvaged guardrail system materials to the Guardrail and Sign Center at 1224 Wilkinson Blvd. in Frankfort, Kentucky. Contact the Lot Supervisor at (502) 564-8187 to schedule delivery of the material. Deliver the material between the hours of 8:00 AM and 3:30 PM, eastern time, Monday through Friday. The "Guardrail Delivery Verification Sheet" shown on the following page of this proposal must be completed at the job site and provided to the Guardrail and Sign Center representative when the salvaged material is delivered.

3. Estimated at 50' spacing.

4. For MOT at bridge end locations without existing guardrail. Removal of temporary guardrail and their end treatments will be incidental to the 'Maintain & Control Traffic' bid item.

BASE FAILURE REPAIR DETAILS



- ① Removal of the existing PCC pavement will be paid by Item No. 2058 Remove PCC Pavement. Installation of the JPC pavement will be paid for by Item No. 2073 JPC Pavement-9 IN. It is expected all base failure repairs will be in PCC replacement areas already included in the 'Concrete Pavement Repair Summary' but the Contractor will be paid for any additional replacement areas required for base failure repairs at the same unit price bid for these two items.
- ② The Engineer will determine if the base failure repair is needed in only one, or both, of the travelled lanes at each location.
- ③ Perforated Pipe Headwalls will only be installed where the PVC pipe does not outlet behind guardrail. Only Perforated Pipe Headwall TY3-4 Inch is being bid, but the actual type required is to be field verified and approved by the Engineer prior to ordering and installation.
- ④ See the PVC Pipe Outlet Detail sheet included on the next page in this proposal.

NOTES:

The locations of the Base Failure areas to be repaired as shown on this page will be determined by the Engineer in the field. It is expected these areas are already included in the 'Concrete Pavement Repair Summary'. The Contractor will be paid for any additional base failure repair areas not shown in this summary at the same unit price bid for Item No. 2058 Remove PCC Pavement and Item No. 2073 JPC Pavement-9 IN. These areas will have a wet subgrade unless the Engineer specifies otherwise. Before removal of the existing material, saw cuts shall be made in sound concrete pavement to each side of the area to be repaired no closer than four feet to an existing joint. The Engineer will determine the actual location of the saw cut. All base failure repairs are to be completed before the asphalt shoulders are resurfaced.

In addition to the two bid items mentioned above, additional payment at the unit bid price will be paid for the following items when base failure repairs are required:

- ④ Crushed Aggregate Size No. 2 (Ton)
Fabric - Geotextile Type IV (SY)
Perforated Pipe - 4 Inch (LF)
- ④ PVC Pipe - 4 Inch (LF)
- ③④ Perforated Pipe Headwall TY3-4 Inch (Each)

See the Paving Summary for estimated quantities.

**TRAFFIC CONTROL PLAN
OHIO COUNTY
NATCHER PARKWAY (WN 9007)
ITEM NO. 2-2089.00**

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

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2012 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". All lane closures used on the Project will be in compliance with the appropriate Standard Drawings or current MUTCD standards.

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 the current MUTCD.

Reduce the speed limit in work areas to 60 miles per hour 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. Payment for the signs will be at the unit bid price for Temporary Signs. Any relocation or covering of the signs will be incidental to Maintain and Control Traffic.

If night work is required on this project, obtain approval from the Engineer for the method of lighting prior to its use.

PROJECT PHASING & CONSTRUCTION PROCEDURES

This project has a fixed completion date of November 1, 2017. See the special note for Fixed Completion Date and Liquidated Damages.

Liquidated damages will be assessed when the minimum number of lanes is not maintained at the

**Special Note for Fixed Completion Date
And Liquidated Damages
Natcher Parkway
Ohio County
Item No. 2-2089.00**

Contrary to Section 108.09, Liquidated Damages of \$15,000 per calendar day will be assessed for each day or fraction thereof work remains uncompleted beyond the Specified Completion Date. This project has a Fixed Completion Date of November 1, 2017.

The KY 505 bridge over the Natcher Parkway (B1) and the Cromwell Road bridge over the Natcher Parkway (B2) are to have bridge work performed on them as shown in the Proposal. The Contractor will be allowed to reduce traffic across these bridges to one lane using temporary traffic signals to complete all proposed work for thirty (30) calendar days for each bridge. If either bridge is not open to normal two way traffic by the time specified, Liquidated Damages of \$5,000 per day will be assessed until the bridge is opened to two way traffic.

The Davis Road bridge over the Natcher Parkway (B3) is to have bridge work performed on it as shown in the Proposal. The Contractor will be allowed to reduce traffic across this bridge to one lane using temporary traffic signals to complete all proposed work for fourteen (14) calendar days. If the bridge is not open to normal two way traffic by the time specified, Liquidated Damages of \$5,000 per day will be assessed until the bridge is opened to two way traffic.

The disincentives shown above will still be in effect after the Fixed Completion Date and will be charged in addition to the \$15,000 per calendar day if warranted. The contractor is expected to make every effort to complete the work in order to open the overpass bridges to two lane traffic within the specified timeframe and complete the project by the Fixed Completion Date specified above.

Contrary to Section 108.09 of the Standard Specifications, **the disincentive fees will be charged during those periods when seasonal limitations of the Contract prohibit the Contractor from working on a controlling item or operation. This includes the months from December through March.**

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

SPECIAL NOTE FOR REPLACING COMPRESSION SEAL IN EXISTING EXPANSION JOINT

1. **DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing compression seal; (3) Install new pre-compressed horizontal expansion joint system; (4) Maintain and control traffic; and (5) Any other work specified as part of this contract.

2. **MATERIALS.**

2.1. Pre-Compressed Horizontal Expansion Joint System. It shall have a cellular, or micro-cell, polyurethane foam impregnated with a hydrophobic acrylic emulsion, or a hydrophobic polymer. The polyurethane foam external facing shall be factory coated and cured with highway-grade, fuel resistant silicone or a highway-grade elastomeric coating at a width greater than the maximum joint expansion.

3. **CONSTRUCTION.**

3.1. Remove Existing Materials. Remove the existing compression seal as shown on the attached sketches. Remove debris and/or expansion joint filler as directed by the Engineer. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Seal Replacement".

3.2. Blast Clean Armored Edges. Blast clean all areas of existing armored edges until free of all laitance and deleterious substances immediately prior to the placement of the Compression Seal.

3.3. Pre-Compressed Horizontal Expansion Joint System. System shall be supplied in pre-compressed sticks for easy installation. System shall be installed in accordance with manufacturer's recommendations concerning approved adhesives, welds between sticks and appurtenances, and adhesion to concrete deck or armored edges. Joint seal is to be installed ½" recessed from the surface. The joint system used shall be equivalent to the joint system manufactured by *EMSEAL Joint Systems, Ltd.*

3.4. Shop Plans. Shop plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

4. **MEASUREMENT**

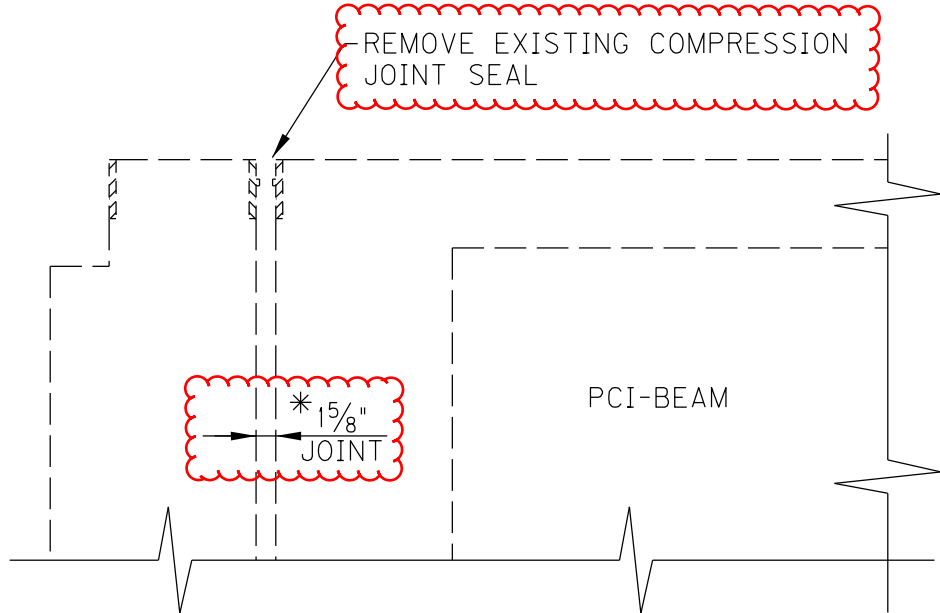
4.1. Expansion Joint Seal Replacement - The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.

5. PAYMENT.

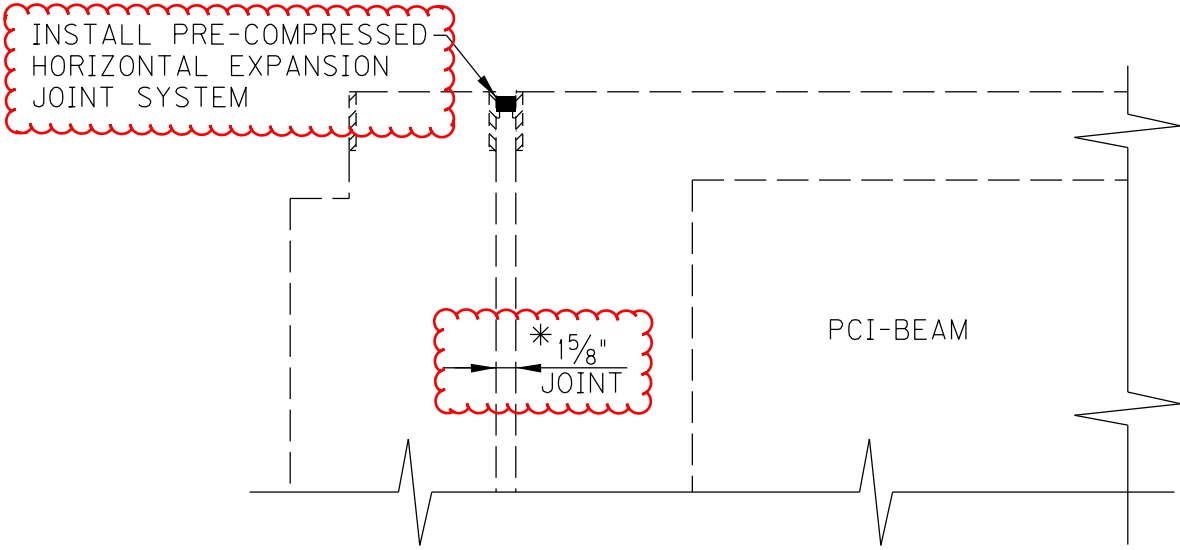
5.1. Expansion Joint Seal Replacement - The Department will make payment at the contract unit price per linear feet under the bid item #23386EC "JOINT SEAL REPLACEMENT" for full compensation for removing specified existing materials, furnishing and installing the pre-compressed horizontal expansion joint system, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.

The Department will consider payment as full compensation for all work required by these notes and the attached detail drawings.

REPLACE SEAL @ BRIDGE END



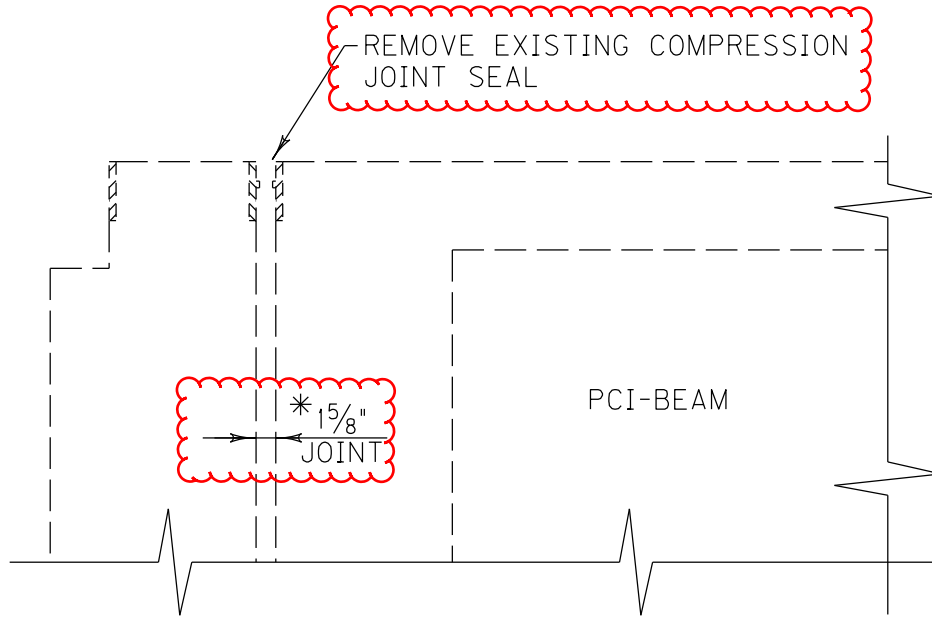
EXISTING SECTION



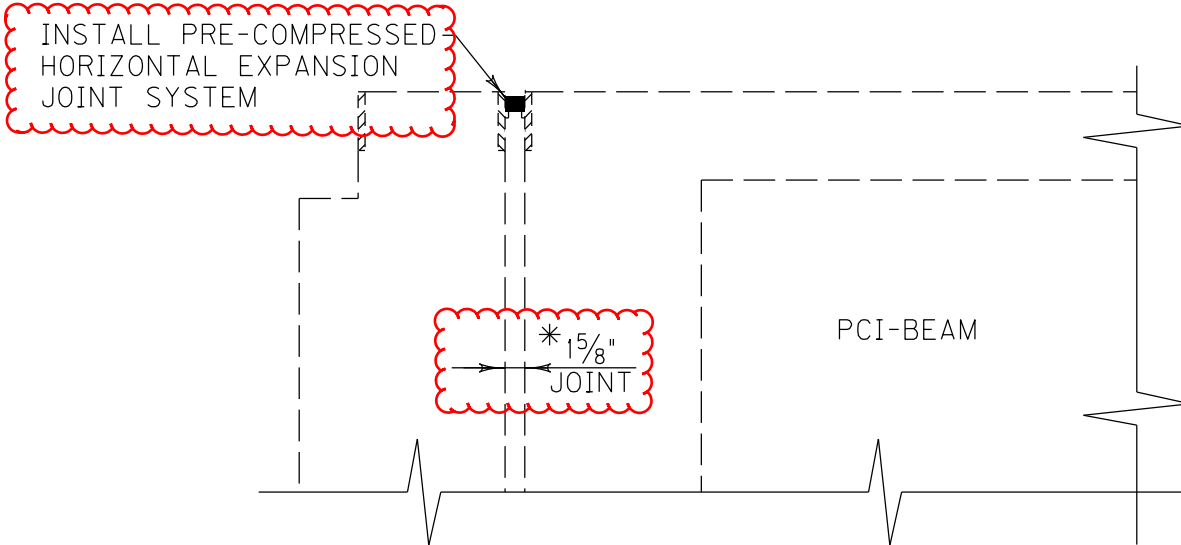
PROPOSED SECTION

*CONTRACTOR TO VERIFY SIZE.

REPLACE SEAL @ BRIDGE END



EXISTING SECTION



PROPOSED SECTION

*CONTRACTOR TO VERIFY SIZE.

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Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	7,190.00	TON		\$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2	980.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	1,227.20	TON		\$	
0040	00103		ASPHALT SEAL COAT	147.30	TON		\$	
0050	00214		CL3 ASPH BASE 1.00D PG64-22	2,458.00	TON		\$	
0060	00312		CL3 ASPH SURF 0.50D PG64-22	22,714.00	TON		\$	
0070	01000		PERFORATED PIPE-4 IN	720.00	LF		\$	
0080	01028		PERF PIPE HEADWALL TY 3-4 IN	30.00	EACH		\$	
0090	02058		REMOVE PCC PAVEMENT	55,921.00	SQYD		\$	
0100	02060		PCC PAVEMENT DIAMOND GRINDING	367,649.00	SQYD		\$	
0110	02073		JPC PAVEMENT-9 IN	55,921.00	SQYD		\$	
0120	02091		REMOVE PAVEMENT	209,101.00	SQYD		\$	
0130	02115		SAW-CLEAN-RESEAL TVERSE JOINT	65,065.00	LF		\$	
0140	02116		SAW-CLEAN-RESEAL LONGIT JOINT	135,552.00	LF		\$	
0150	03383		PVC PIPE-4 IN	750.00	LF		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0400	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE (REVISED: 12-5-16)	1,192.00	EACH		\$	
0410	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	57.00	EACH		\$	
0420	01984		DELINEATOR FOR BARRIER - WHITE	23.00	EACH		\$	
0430	01985		DELINEATOR FOR BARRIER - YELLOW	23.00	EACH		\$	
0440	02014		BARRICADE-TYPE III	20.00	EACH		\$	
0450	02352		GUARDRAIL-STEEL W BEAM-D FACE	825.00	LF		\$	
0460	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A (REVISED: 12-5-16)	18.00	EACH		\$	
0470	02365		CRASH CUSHION TYPE IX-A	6.00	EACH		\$	
0480	02367		GUARDRAIL END TREATMENT TYPE 1 (REVISED: 12-5-16)	67.00	EACH		\$	
0490	02369		GUARDRAIL END TREATMENT TYPE 2A	66.00	EACH		\$	
0500	02381		REMOVE GUARDRAIL	61,327.00	LF		\$	
0510	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	8.00	EACH		\$	
0515	02397		TEMP GUARDRAIL (ADDED: 12-5-16)	1,200.00	LF		\$	
0520	02562		TEMPORARY SIGNS	2,000.00	SQFT		\$	
0530	02575		DITCHING AND SHOULDERING	67,776.00	LF		\$	
0540	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0550	02671		PORTABLE CHANGEABLE MESSAGE SIGN	6.00	EACH		\$	
0560	02696		SHOULDER RUMBLE STRIPS-SAWED	266,576.00	LF		\$	
0570	02726		STAKING	1.00	LS		\$	
0580	02775		ARROW PANEL	4.00	EACH		\$	
0590	02929		CRASH CUSHION TYPE IX	8.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0600	03225		TUBULAR MARKERS	847.00	EACH		\$	
0610	04933		TEMP SIGNAL 2 PHASE	6.00	EACH		\$	
0620	05950		EROSION CONTROL BLANKET	85,000.00	SQYD		\$	
0630	05985		SEEDING AND PROTECTION	40,000.00	SQYD		\$	
0640	06401		FLEXIBLE DELINEATOR POST-M/W	417.00	EACH		\$	
0650	06511		PAVE STRIPING-TEMP PAINT-6 IN	448,800.00	LF		\$	
0660	06515		PAVE STRIPING-PERM PAINT-6 IN	304,992.00	LF		\$	
0670	06517		PAVE STRIPING-PERM PAINT-12 IN	2,420.00	LF		\$	
0680	06549		PAVE STRIPING-TEMP REM TAPE-B	10,000.00	LF		\$	
0690	06550		PAVE STRIPING-TEMP REM TAPE-W	10,000.00	LF		\$	
0700	06551		PAVE STRIPING-TEMP REM TAPE-Y	10,000.00	LF		\$	
0710	06600		REMOVE PAVEMENT MARKER TYPE V	1,936.00	EACH		\$	
0720	10020NS		FUEL ADJUSTMENT	25,829.00	DOLL	\$1.00	\$	\$25,829.00
0730	10030NS		ASPHALT ADJUSTMENT	45,311.00	DOLL	\$1.00	\$	\$45,311.00
0740	20099ES842		PAVE MARK TEMP PAINT STOP BAR	72.00	LF		\$	
0750	20409ED		SLIP RAMP NO.1	1.00	LS		\$	
0760	20409ED		SLIP RAMP NO.2	1.00	LS		\$	
0770	20409ED		SLIP RAMP NO.3	1.00	LS		\$	
0780	20409ED		SLIP RAMP NO.4	1.00	LS		\$	
0790	20467NS112		RELOCATE TUBULAR MARKER	847.00	EACH		\$	
0800	20545ND		TEMP MEDIAN CROSSOVER	8.00	EACH		\$	
0810	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	56,612.50	LF		\$	
0820	22664EN		WATER BLASTING EXISTING STRIPE	316,325.00	LF		\$	
0830	22883EN		CONCRETE WEDGE CURB	17,454.00	LF		\$	
0840	23143ED		KPDES PERMIT AND TEMP EROSION CONTROL	1.00	LS		\$	
0850	24489EC		INLAID PAVEMENT MARKER	1,936.00	EACH		\$	
0860	24640ED		OBJECT MARKER TYPE 1	2.00	EACH		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0870	00461		CULVERT PIPE-15 IN	112.00	LF		\$	
0880	00462		CULVERT PIPE-18 IN	72.00	LF		\$	
0890	00464		CULVERT PIPE-24 IN	40.00	LF		\$	
0900	00466		CULVERT PIPE-30 IN	8.00	LF		\$	
0910	01202		PIPE CULVERT HEADWALL-15 IN	15.00	EACH		\$	
0920	01204		PIPE CULVERT HEADWALL-18 IN	8.00	EACH		\$	
0930	01208		PIPE CULVERT HEADWALL-24 IN	7.00	EACH		\$	
0940	01210		PIPE CULVERT HEADWALL-30 IN	1.00	EACH		\$	
0950	01432		SLOPED BOX OUTLET TYPE 1-15 IN	2.00	EACH		\$	
0960	01433		SLOPED BOX OUTLET TYPE 1-18 IN	6.00	EACH		\$	
0970	01434		SLOPED BOX OUTLET TYPE 1-24 IN	1.00	EACH		\$	
0980	01690		FLUME INLET TYPE 1	2.00	EACH		\$	
0990	01691		FLUME INLET TYPE 2	33.00	EACH		\$	
1000	01708		RECONSTRUCT CATCH BASIN	3.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1010	01718		REMOVE INLET FLUME INLET	32.00	EACH		\$	
1020	01719		ADJUST INLET	10.00	EACH		\$	
1030	01845		ISLAND INTEGRAL CURB	138.90	LF		\$	
1040	02165		REMOVE PAVED DITCH	18,854.00	SQYD		\$	
1050	02483		CHANNEL LINING CLASS II	10,794.00	TON		\$	
1060	02484		CHANNEL LINING CLASS III	1,209.00	TON		\$	
1070	02599		FABRIC-GEOTEXTILE TYPE IV	22,861.00	SQYD		\$	
1080	03260		CLEAN ROADWAY DRAINS	10.00	EACH		\$	

Section: 0004 - BRIDGE-#1 092B0069N

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1090	03300		ELIMINATE TRANSVERSE JOINT 092B00069N	54.30	LF		\$	
1100	03304		BRIDGE OVERLAY APPROACH PAVEMENT 092B00069N	289.00	SQYD		\$	
1110	08504		EPOXY SAND SLURRY 092B00069N	211.00	SQYD		\$	
1120	08526		CONC CLASS M FULL DEPTH PATCH 092B00069N	5.00	CUYD		\$	
1130	08534		CONCRETE OVERLAY-LATEX 092B00069N	23.80	CUYD		\$	
1140	08549		BLAST CLEANING 092B00069N	842.00	SQYD		\$	
1150	08551		MACHINE PREP OF SLAB 092B00069N	684.00	SQYD		\$	
1160	24094EC		PARTIAL DEPTH PATCHING 092B00069N	7.10	CUYD		\$	

Section: 0005 - BRIDGE-#2 092B0070N

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1170	03300		ELIMINATE TRANSVERSE JOINT 092B00070N	61.10	LF		\$	
1180	03304		BRIDGE OVERLAY APPROACH PAVEMENT 092B00070N	289.00	SQYD		\$	
1190	08504		EPOXY SAND SLURRY 092B00070N	239.00	SQYD		\$	
1200	08526		CONC CLASS M FULL DEPTH PATCH 092B00070N	5.00	CUYD		\$	
1210	08534		CONCRETE OVERLAY-LATEX 092B00070N	26.90	CUYD		\$	
1220	08549		BLAST CLEANING 092B00070N	954.00	SQYD		\$	
1230	08551		MACHINE PREP OF SLAB 092B00070N	775.00	SQYD		\$	
1240	24094EC		PARTIAL DEPTH PATCHING 092B00070N	8.10	CUYD		\$	

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Section: 0006 - BRIDGE-#3 092B0074N

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1250	03300		ELIMINATE TRANSVERSE JOINT 092B00074N	57.40	LF		\$	

Section: 0007 - BRIDGE-#4 092B0075L

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1260	02998		MASONRY COATING 092B00075L	235.00	SQYD		\$	
1270	08504		EPOXY SAND SLURRY 092B00075L	103.00	SQYD		\$	
1280	23032EN		BRIDGE BARRIER RETROFIT 092B00075L	545.00	LF		\$	
1290	23386EC		JOINT SEAL REPLACEMENT 092B00075L	62.50	LF		\$	

Section: 0008 - BRIDGE-#5 092B0075R

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1300	02998		MASONRY COATING 092B00075R	235.00	SQYD		\$	
1310	08504		EPOXY SAND SLURRY 092B00075R	103.00	SQYD		\$	
1320	23032EN		BRIDGE BARRIER RETROFIT 092B00075R	545.00	LF		\$	
1330	23386EC		JOINT SEAL REPLACEMENT 092B00075R	62.50	LF		\$	

Section: 0009 - BRIDGE-#6 092B0076L

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1340	02998		MASONRY COATING 092B00076L	136.00	SQYD		\$	
1350	03300		ELIMINATE TRANSVERSE JOINT 092B00076L	78.00	LF		\$	
1360	08504		EPOXY SAND SLURRY 092B00076L	59.00	SQYD		\$	
1370	23032EN		BRIDGE BARRIER RETROFIT 092B00076L	313.00	LF		\$	

Section: 0010 - BRIDGE-#7 092B0076R

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0160	02998		MASONRY COATING 092B00076R	136.00	SQYD		\$	
0170	03300		ELIMINATE TRANSVERSE JOINT 092B00076R	78.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0180	08504		EPOXY SAND SLURRY 092B00076R	59.00	SQYD		\$	
0190	23032EN		BRIDGE BARRIER RETROFIT 092B00076R	313.00	LF		\$	

Section: 0011 - BRIDGE-#8 092B0060L

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0200	02998		MASONRY COATING 092B00060L	216.00	SQYD		\$	
0210	03300		ELIMINATE TRANSVERSE JOINT 092B00060L	83.40	LF		\$	
0220	08504		EPOXY SAND SLURRY 092B00060L	98.00	SQYD		\$	
0230	08510		REM EPOXY BIT FOREIGN OVERLAY 092B00060L	782.00	SQYD		\$	
0240	08526		CONC CLASS M FULL DEPTH PATCH 092B00060L	5.00	CUYD		\$	
0250	08534		CONCRETE OVERLAY-LATEX 092B00060L	43.50	CUYD		\$	
0260	08549		BLAST CLEANING 092B00060L	933.00	SQYD		\$	
0270	23032EN		BRIDGE BARRIER RETROFIT 092B00060L	504.10	LF		\$	
0280	24094EC		PARTIAL DEPTH PATCHING 092B00060L	13.20	CUYD		\$	

Section: 0012 - BRIDGE-#9 092B0060R

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0290	02998		MASONRY COATING 092B00060R	216.00	SQYD		\$	
0300	03300		ELIMINATE TRANSVERSE JOINT 092B00060R	83.40	LF		\$	
0310	08504		EPOXY SAND SLURRY 092B00060R	98.00	SQYD		\$	
0320	08510		REM EPOXY BIT FOREIGN OVERLAY 092B00060R	782.00	SQYD		\$	
0330	08526		CONC CLASS M FULL DEPTH PATCH 092B00060R	5.00	CUYD		\$	
0340	08534		CONCRETE OVERLAY-LATEX 092B00060R	43.50	CUYD		\$	
0350	08549		BLAST CLEANING 092B00060R	933.00	SQYD		\$	
0360	23032EN		BRIDGE BARRIER RETROFIT 092B00060R	504.10	LF		\$	
0370	24094EC		PARTIAL DEPTH PATCHING 092B00060R	13.20	CUYD		\$	

Section: 0013 - DEMOBILIZATION &/OR MOBILIZATION

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0380	02568		MOBILIZATION	1.00	LS		\$	
0390	02569		DEMOBILIZATION	1.00	LS		\$	