CALL NO. 330

CONTRACT ID. 211047

PERRY COUNTY

FED/STATE PROJECT NUMBER FD04 097 9006 055-058

DESCRIPTION HAL ROGERS PARKWAY(PW-9006)

WORK TYPE ASPHALT REHAB INTERSTATE/PARKWAY

PRIMARY COMPLETION DATE 7/1/2022

LETTING DATE: October 22,2021

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME October 22,2021. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

TABLE OF CONTENTS

PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 10

CONTRACT ID - 211047

FD04 097 9006 055-058

COUNTY - PERRY

PCN - DE09790062147
FD04 097 9006 055-058

HAL ROGERS PARKWAY(PW-9006) (MP 56.100) ADDRESS PAVEMENT CONDITION OF HAL ROGERS DANIEL BOONE PARKWAY IN BOTH DIRECTIONS FROM MP 56.100 TO MP 57.185 (MP 57.185), A DISTANCE OF 01.09 MILES.ASPHALT REHAB INTERSTATE/PARKWAY SYP NO. 10-20002.00.

GEOGRAPHIC COORDINATES LATITUDE 37:15:46.00 LONGITUDE 83:14:54.00

COMPLETION DATE(S):

COMPLETED BY 07/01/2022 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

DGA BASE FOR SHOULDERS

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

INCIDENTAL SURFACING

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

FUEL AND ASPHALT PAY ADJUSTMENT

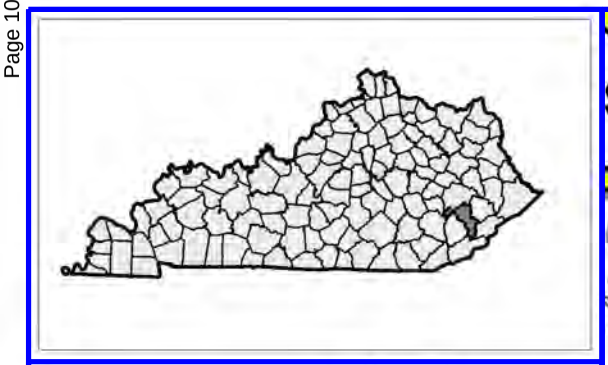
The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of $1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.

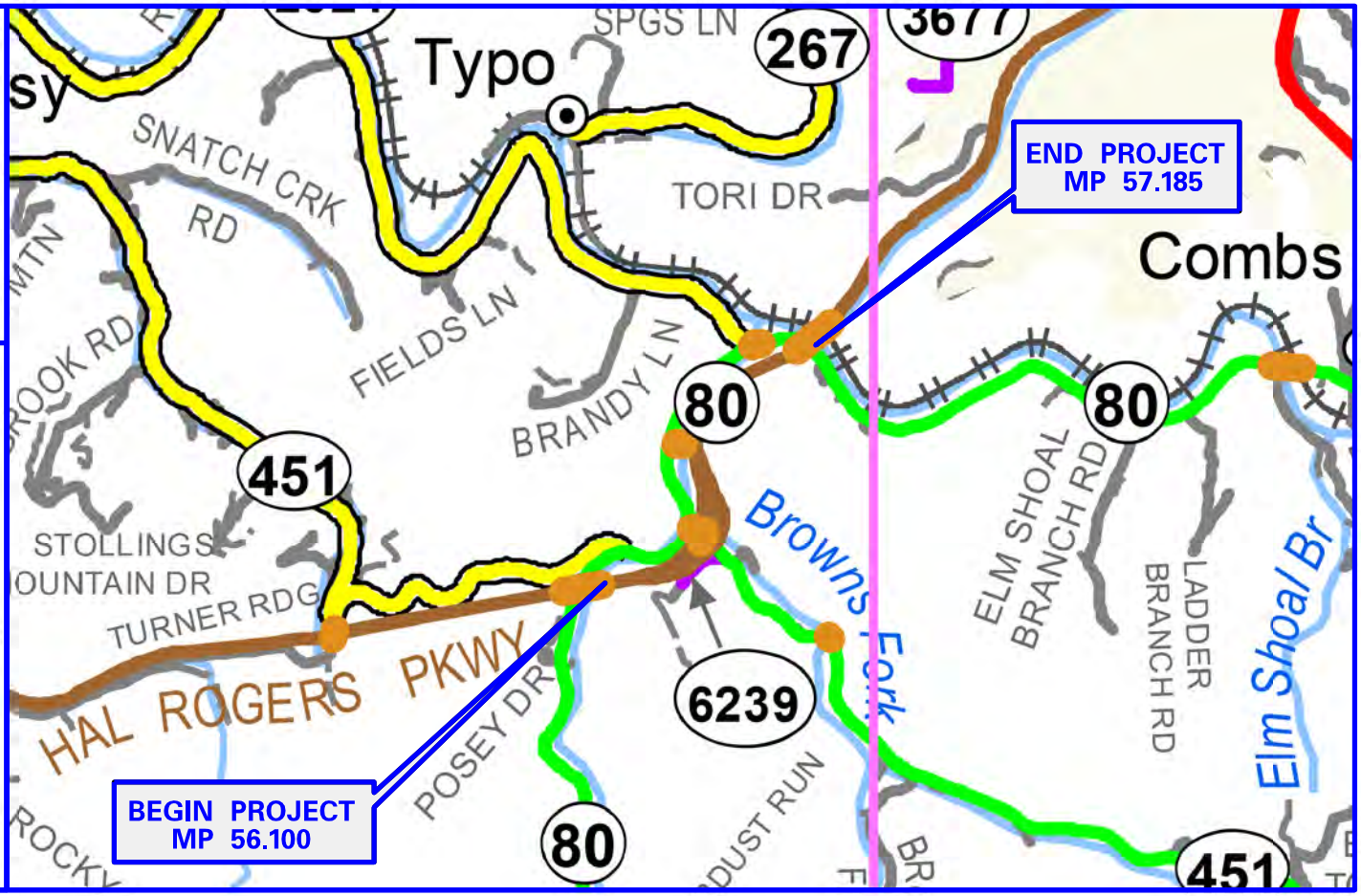
ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

OPTION A

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.





PROJECT NUMBER: FD04 097 9006 055–058

ITEM NUMBER: 10–20002 **LETTING DATE:** OCTOBER 22, 2021

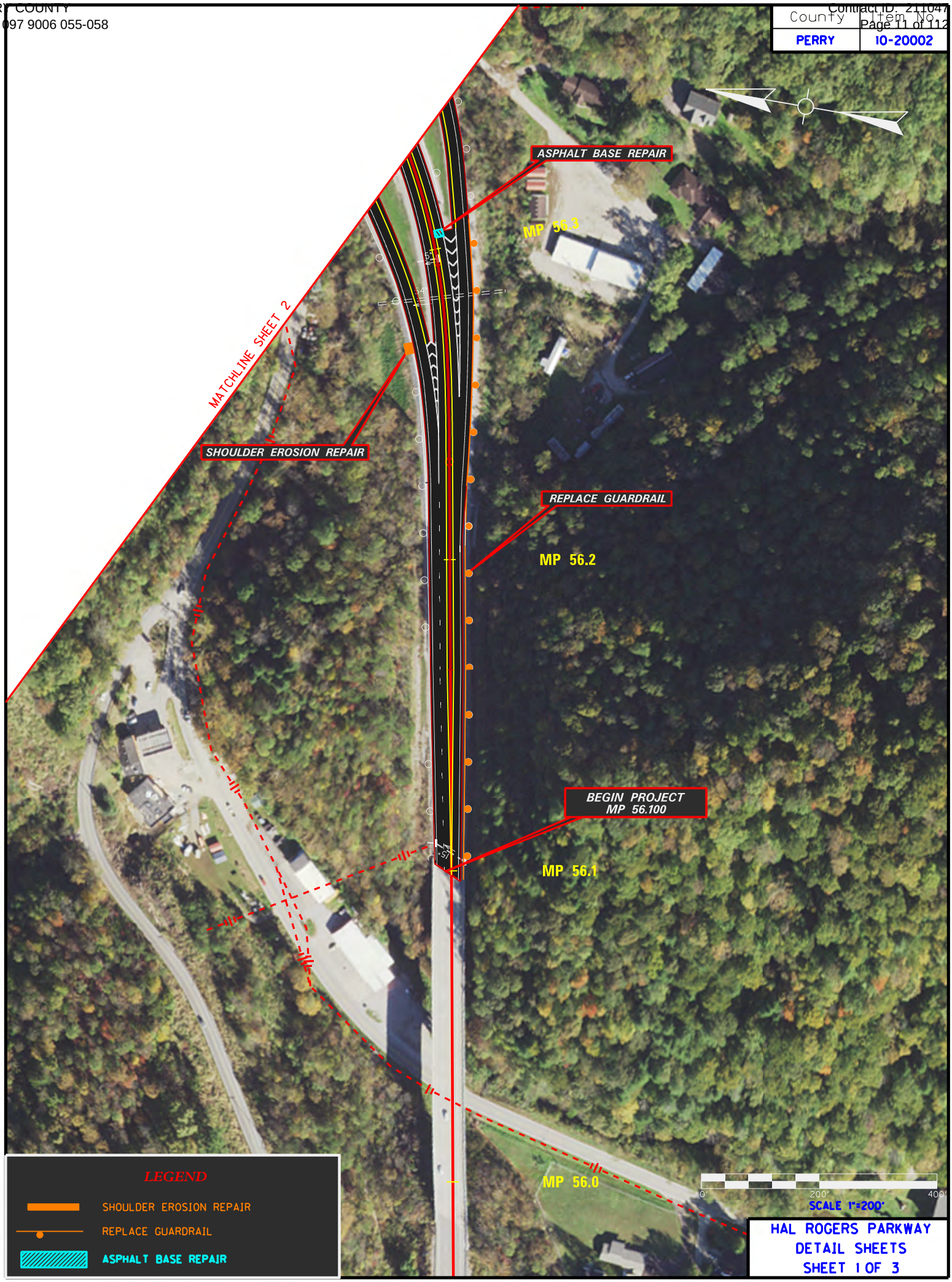
RECOMMENDED BY: ANDRE JOHANNES, P.E. **DATE:** _____
Project Manager

PLAN APPROVED BY: _____ **DATE:** _____
State Highway Engineer

FHWA APPROVED BY: _____ **DATE:** _____

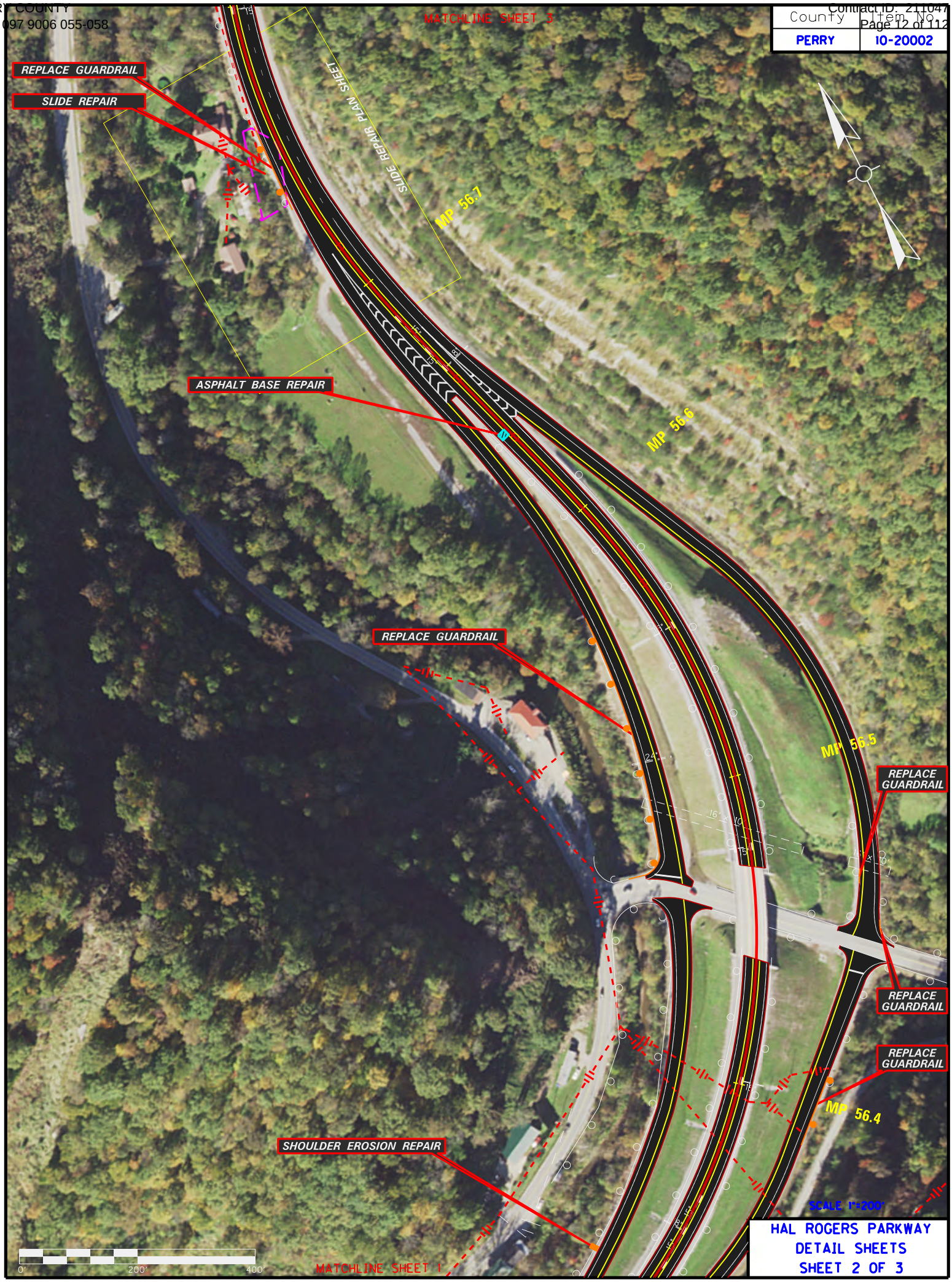
3 HMB Circle, U.S. 460
Frankfort, KY 40601
502-695-9800

County	Item No.
PERRY	10-20002



HAL ROGERS PARKWAY
DETAIL SHEETS
SHEET 1 OF 3

County	Item No.
PERRY	10-20002



HAL ROGERS PARKWAY
DETAIL SHEETS
SHEET 2 OF 3

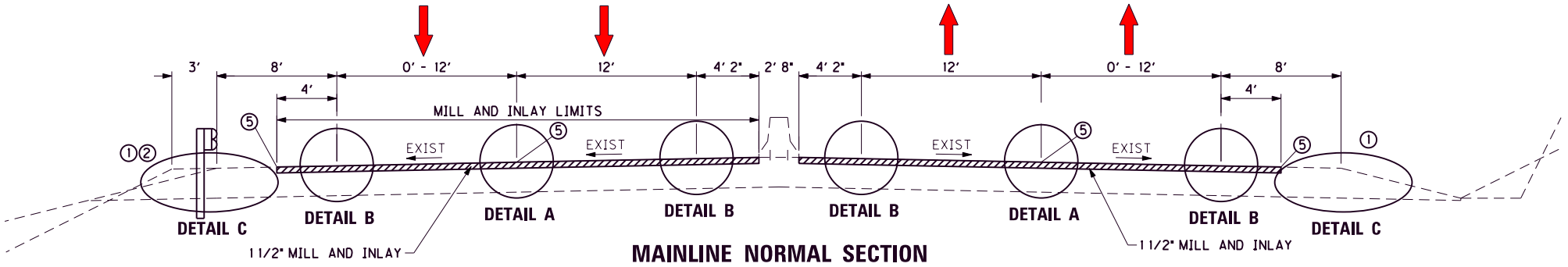
County	Item No.
PERRY	10-20002

HAL ROGERS PARKWAY
DETAIL SHEETS
SHEET 3 OF 3

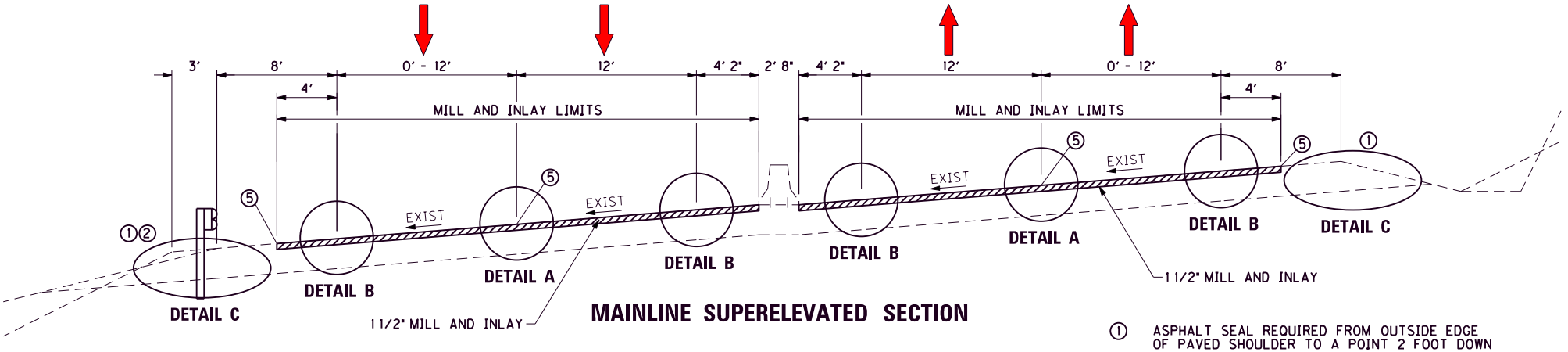
TYPICAL SECTION

HR 9006 – HAL ROGERS PARKWAY

County	Item No.	Sheet
PERRY	10-20002	-



MAINLINE NORMAL SECTION



MAINLINE SUPERELEVATED SECTION

SURFACING SCHEDULE ④

MAINLINE AND SHOULDER

ASPHALT PAVEMENT MILLING AND TEXTURING.....1 1/2" DEPTH
LEVELING AND WEDGING PG64-22.....AS NEEDED ③
CL3 ASPH SURFACE 0.38A PG64-22.....1 1/2" DEPTH

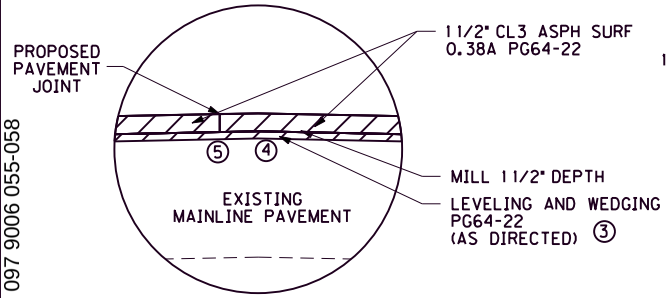
① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.

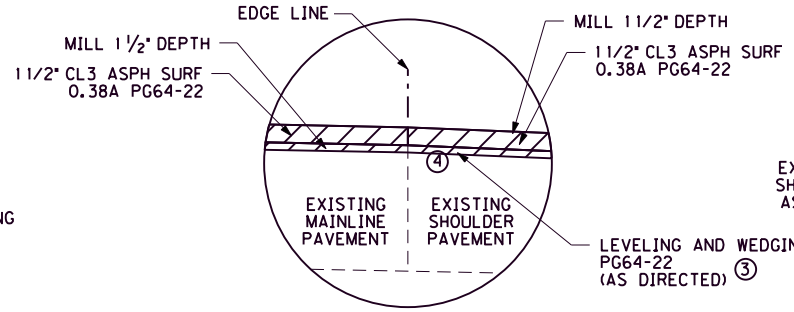
② EXISTING SHOULDER WIDENED 3' WHERE GUARDRAIL IS PRESENT. USE 7' POSTS.

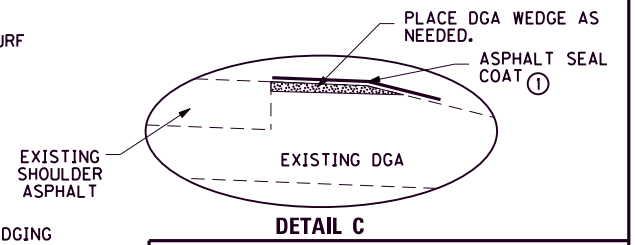
③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES

④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH CONCRETE.

⑤ JOINT ADHESIVE (SURFACE ONLY)







NOT TO SCALE

HAL ROGERS PARKWAY
HR 9006
TYPICAL SECTIONS

TYPICAL SECTION

HR 9006 – HAL ROGERS PARKWAY
INTERCHANGE RAMPS

County	Item No.	Sheet
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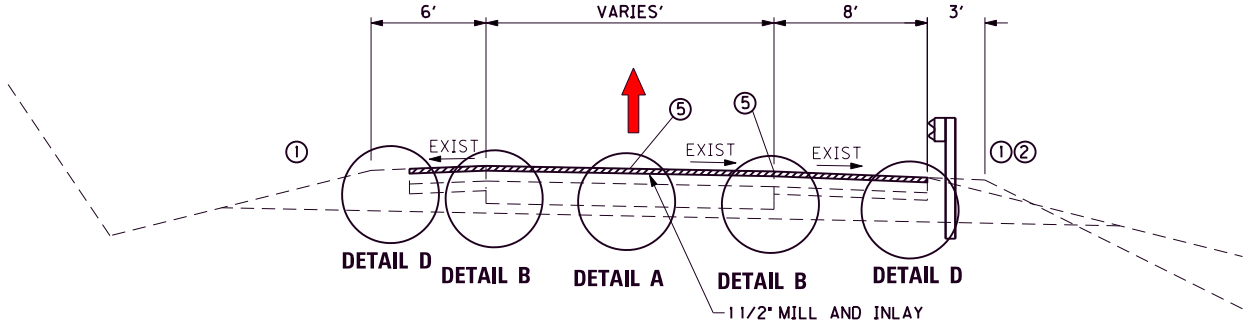
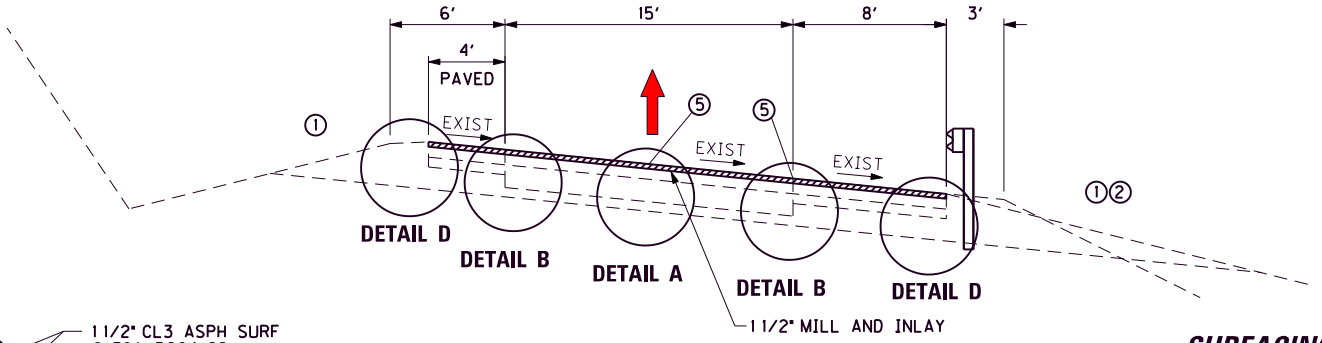
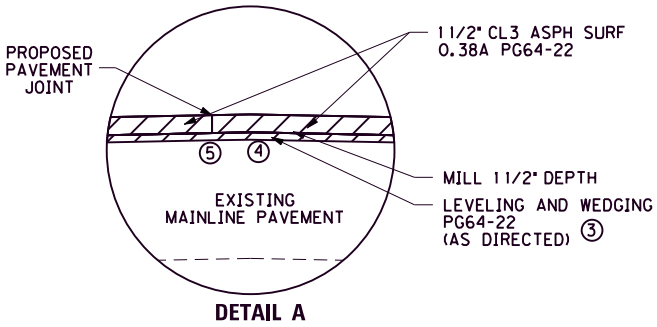


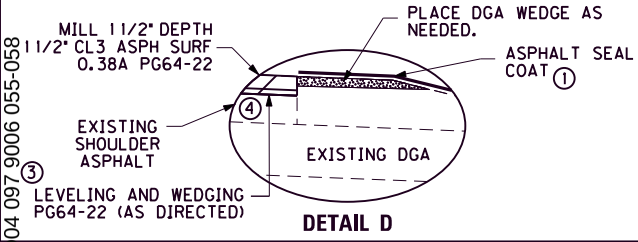
RAMP NORMAL SECTION



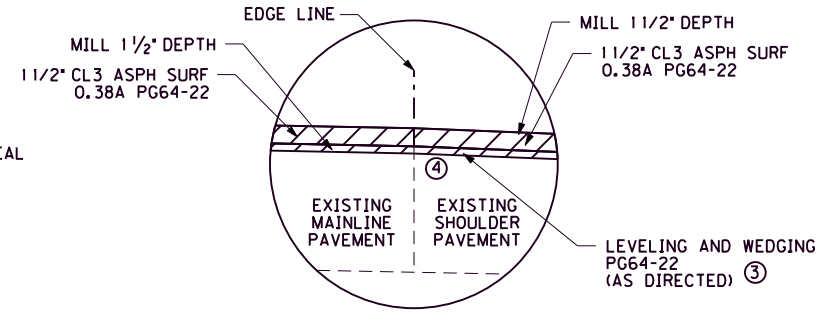
RAMP SUPERELEVATED



DETAIL A



DETAIL D



DETAIL B

SURFACING SCHEDULE ④

RAMP TRAFFIC LANES AND SHOULDER

ASPHALT PAVEMENT MILLING AND TEXTURING.....11/2" DEPTH
LEVELING AND WEDGING PG64-22.....AS NEEDED ③
CL3 ASPH SURFACE 0.38A PG64-22.....11/2" DEPTH

① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.

② EXISTING SHOULDER WIDENED 3' WHERE GUARDRAIL IS PRESENT. USE 7' POSTS.

③ TO BE USED AS DIRECTED BY THE ENGINEER FOR PAVEMENT IRREGULARITIES

④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH CONCRETE.

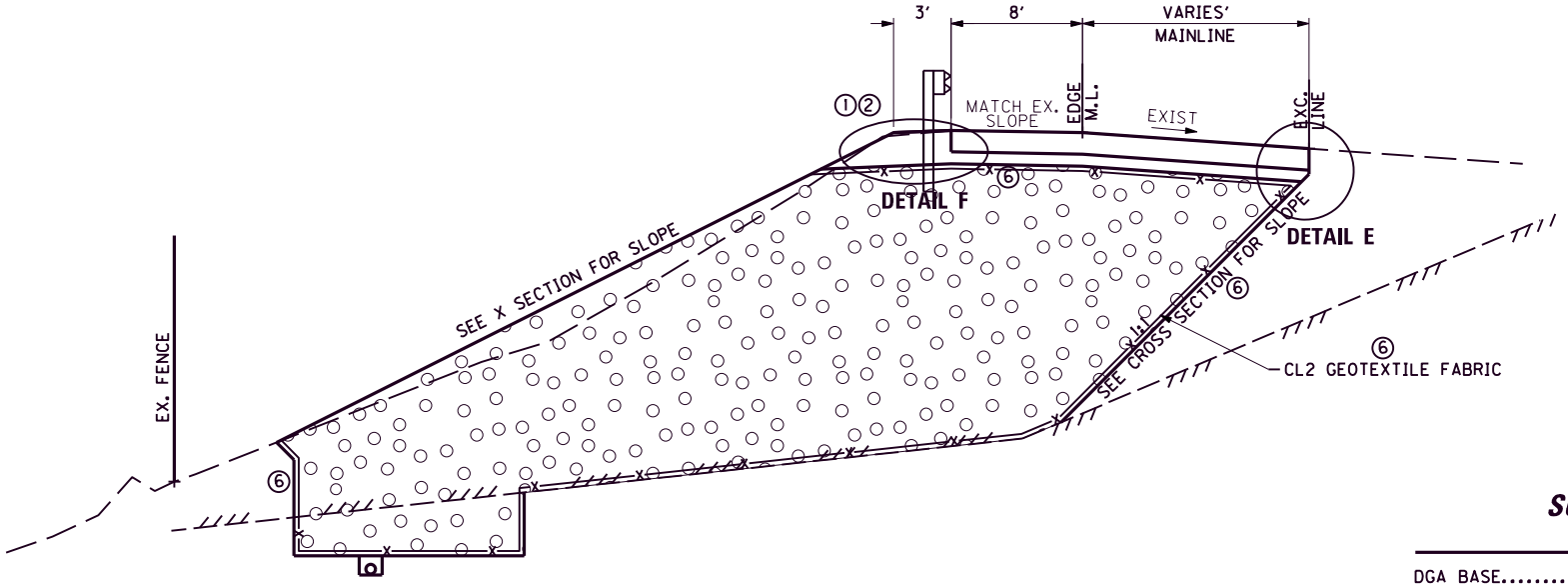
⑤ JOINT ADHESIVE (SURFACE ONLY)

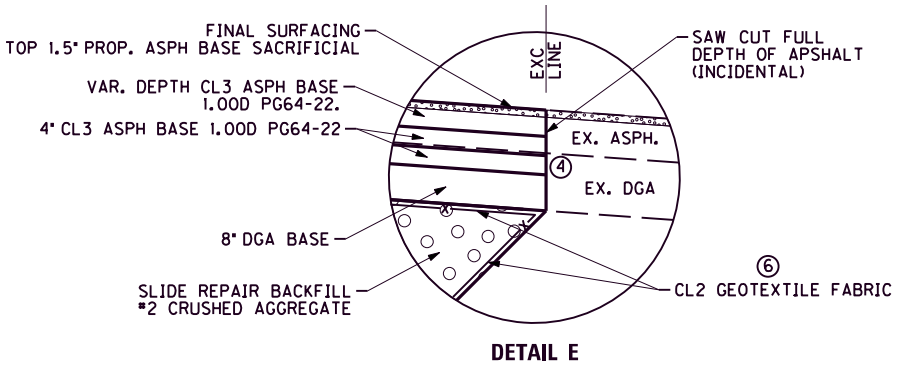
NOT TO SCALE

HAL ROGERS PARKWAY
HR 9006
TYPICAL SECTIONS

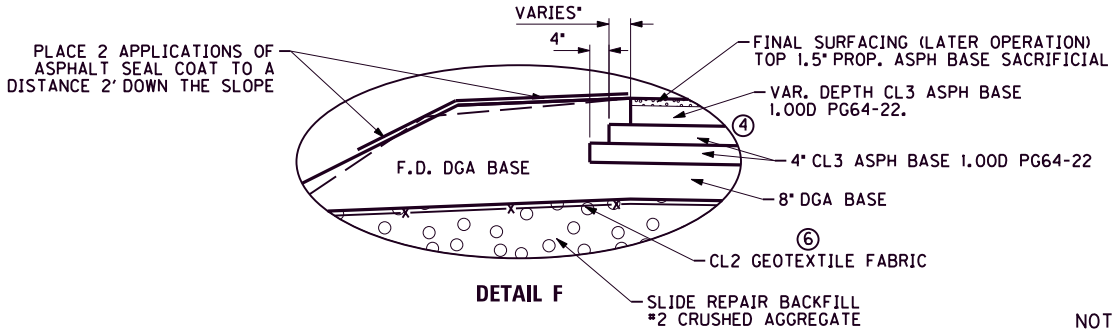
TYPICAL SECTION
HR 9006 – HAL ROGERS PARKWAY
SLIDE REPAIR

County	Item No.	Sheet
PERRY	10-20002	-





DETAIL E



DETAIL F

SURFACING SCHEDULE ④

SLIDE REPAIR

DGA BASE	8" DEPTH
CL3 ASPH BASE 1.00D PG64-22	4" DEPTH
CL3 ASPH BASE 1.00D PG64-22	4" DEPTH
CL3 ASPH BASE 1.00D PG64-22	AS NEEDED

NOTE: MODIFY LAYERS AND LIFT THICKNESSES AS DIRECTED BY THE ENGINEER TO MATCH EXISTING PAVEMENT SURFACE ELEVATION.

FINAL SURFACING TO BE MILLED AND INLAID AS SEPARATE LATER OPERATION. TOP 1 1/2" OF ASPHALT BASE WILL BE CONSIDERED SACRIFICIAL.

① ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE (Where Applicable). TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT ..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.

② EXISTING SHOULDER WIDENED 3' WHERE GUARDRAIL IS PRESENT. USE 7' POSTS.

④ APPLY ASPHALT MATERIAL FOR TACK AT A RATE OF 0.7 LBS/SY BETWEEN EACH LAYER OF ASPH CONCRETE.

⑥ APPLY CL2 GEOTEXTILE FABRIC AT THE INTERFACE OF #2 STONE BACKFILL AND ALL FINE MATERIALS INCLUDING SOIL AND DGA BASE. FABRIC MAY BE OMITTED IN AREAS IF SOLID ROCK IS ENCOUNTERED.

NOT TO SCALE

HAL ROGERS PARKWAY
HR 9006
TYPICAL SECTIONS

HAL ROGERS PARKWAY
PERRY COUNTY
ITEM NO. 10-20002 , PAVEMENT REHABILITIATION
MILEPOINT 56.100 TO 57.185
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
00001	DGA BASE (1)	TON	482
00100	ASPHALT SEAL AGGREGATE (1)	TON	46
00103	ASPHALT SEAL COAT (1)	TON	6
00190	LEVELING & WEDGING PG64-22 (1)	TON	456
00214	CL3 ASPH BASE 1.00D PG64-22 (1)	TON	521
02676	MOBILIZATION FOR MILL & TEXT (1)	LS	1
02677	ASPHALT PAVE MILLING & TEXTURING (1)	TON	4,422
02696	SHOULDER RUMBLE STRIPS (1)	LF	18,058
22906ES403	CL3 ASPH SURF 0.38A PG64-22 (1)	TON	3,706
20071EC	JOINT ADHESIVE (1)	LF	25,678
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING (1)	TON	19
01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE (2)	EACH	45
02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A (2)	EACH	3
02367	GUARDRAIL END TREATMENT TYPE 1 (2)	EACH	5
02381	REMOVE GUARDRAIL (2)	LF	2,400
20191ED	OBJECT MARKER TY 3 (2)	EACH	5
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST) (2)	LF	2,150
02159	TEMP DITCH	LF	2,615
02160	CLEAN TEMP DITCH	LF	1,307
02703	SILT TRAP TYPE A	EACH	1
02704	SILT TRAP TYPE B	EACH	1
02705	SILT TRAP TYPE C	EACH	1
02706	CLEAN SILT TRAP TYPE A	EACH	1
02707	CLEAN SILT TRAP TYPE B	EACH	1
02708	CLEAN SILT TRAP TYPE C	EACH	1
02575	DITCHING AND SHOULDERING	LF	5,229
05950	EROSION CONTROL BLANKET	SQYD	4,840
05952	TEMP MULCH	SQYD	3,227
05953	TEMP SEEDING AND PROTECTION	SQYD	2,420
05963	INITIAL FERTILIZER	TON	0.30
05964	MAINTENANCE FERTILIZER	TON	0.2
05985	SEEDING AND PROTECTION	SQYD	4,840
05992	AGRICULTURAL LIMESTONE	TON	3
40030	TEMPORARY SILT FENCE	LF	2,615
01984	DELINEATOR FOR BARRIER - WHITE	EACH	97

(1) CARRIED OVER FROM PAVING SUMMARY.
(2) CARRIED OVER FROM GUARDRAIL SUMMARY.

HAL ROGERS PARKWAY
PERRY COUNTY
ITEM NO. 10-20002 , PAVEMENT REHABILITIATION
MILEPOINT 56.100 TO 57.185
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
01986	DELINEATOR FOR BARRIER WALL-B/Y	EACH	97
02562	TEMPORARY SIGNS	SQFT	1,000
02650	MAINTAIN & CONTROL TRAFFIC	LS	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	36,166
06513	PAVE STRIPING-TEMP PAINT-12 IN	LF	2,200
06549	PAVE STRIPING-TEMP REM TAPE-B	LF	1,050
06550	PAVE STRIPING-TEMP REM TAPE-W	LF	600
06551	PAVE STRIPING-TEMP REM TAPE-Y	LF	975
06578	PAVE MARKING-THERMO MERGE ARROW	EACH	3
06588	PAVEMENT MARKER TY IVA-BY TEMP	EACH	261
26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM	MONTH	6
26137EC	QUEUE WARNING PCMS	MONTH	24
26138EC	QUEUE WARNING PORTABLE RADAR SENSORS	MONTH	24
06403	FLEXIBLE DELINEATOR POST-B/W	EACH	300
06404	FLEXIBLE DELINEATOR POST-M/Y	EACH	76
06542	PAVE STRIPING-THERMO-6 IN W	LF	15,550
06543	PAVE STRIPING-THERMO-6 IN Y	LF	14,950
06546	PAVE STRIPING-THERMO-12 IN W	LF	2,276
06556	PAVE STRIPING-DUR TY 1-6 IN W	LF	316
06557	PAVE STRIPING-DUR TY 1-6 IN Y	LF	316
06568	PAVE MARKING-THERMO STOP BAR-24IN	LF	71
20458ES403	CENTERLINE RUMBLE STRIPS	LF	985
06610	INLAID PAVEMENT MARKER-MW	EACH	23
06611	INLAID PAVEMENT MARKER-MY	EACH	121
06612	INLAID PAVEMENT MARKER-BY	EACH	38
06613	INLAID PAVEMENT MARKER-B W/R	EACH	57
06614	INLAID PAVEMENT MARKER-B Y/R	EACH	48
24679ED	PAVE MARK THERMO CHEVRON	SQFT	1,248
02565	OBJECT MARKER TYPE 2	EACH	2
06410	STEEL POST TYPE 1	LF	14
02484	CHANNEL LINING CLASS III	TON	100
00078	CRUSHED AGGREGATE SIZE NO 2 ③	TON	3,252
02200	ROADWAY EXCAVATION ④	CUYD	2,178
02603	FABRIC-GEOTEXTILE CLASS 2 ④	SQYD	1,201
01000	PERFORATED PIPE-4 IN ④	LF	140
01010	NON-PERFORATED PIPE-4 IN ④	LF	10
01020	PERF PIPE HEADWALL TY 1-4 IN ④	EACH	1
02726	STAKING	LS	1

③ INCLUDES 15 TONS FOR SHOULDER EROSION REPAIR AND 3,237 TONS FOR SLIDE REPAIR.

④ FOR SLIDE REPAIR.

HAL ROGERS PARKWAY
PERRY COUNTY
ITEM NO. 10-20002 , PAVEMENT REHABILITIATION
MILEPOINT 56.100 TO 57.185
GENERAL SUMMARY

ITEM NUMBER	ITEM	UNIT	QUANTITY
02568	MOBILIZATION	LS	1
02569	DEMOBILIZATION	LS	1
10020NS	FUEL ADJUSTMENT	DOLL	7,289
10030NS	ASPHALT ADJUSTMENT	DOLL	18,309
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT	404,334

HAL ROGERS PARKWAY
PERRY COUNTY
ITEM NO. 10-20002 , PAVEMENT REHABILITIATION
MILEPOINT 56.100 TO 57.185
PAVING SUMMARY

PAVING AREAS (SY)

ITEM	TOTAL	ITEM	TOTAL
MAINLINE AND MAINLINE SHOULDERS		SHOULDERS	
1 1/2" ASPHALT PAVE MILLING AND TEXT.	27,950	ASPHALT SEAL AGGREGATE	2,324
1 1/2" CL3 ASPH SURF 0.38A PG64-22	27,950	ASPHALT SEAL COAT	2,324
RAMP DRIVING LANE AND SHOULDERS			
1 1/2" ASPHALT PAVE MILLING AND TEXT.	16,976		
1 1/2" CL3 ASPH SURF 0.38A PG64-22	16,976		

PAVING SUMMARY

ITEM CODE	ITEM		UNIT	QUANTITY
00001	DGA BASE	(1)	TON	482
00100	ASPHALT SEAL AGGREGATE	(6)	TON	46
00103	ASPHALT SEAL COAT	(7)	TON	6
00190	LEVELING & WEDGING PG64-22	(2)	TON	456
00214	CL3 ASPH BASE 1.00D PG64-22	(3)	TON	521
02676	MOBILIZATION FOR MILL & TEXT		LS	1
02677	ASPHALT PAVE MILLING & TEXTURING	(4)	TON	4,422
02696	SHOULDER RUMBLE STRIPS		LF	18,058
22906ES403	CL3 ASPH SURF 0.38A PG64-22		TON	3,706
20071EC	JOINT ADHESIVE		LF	25,678
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	(5)	TON	19
				-
				-
				-
				-

(1) INCLUDES 377 TONS FOR SLIDE REPAIR, 5 TONS FOR SHOULDER EROSION REPAIR, AND 100 TONS TO BE USED AS DIRECTED FOR SHOULDER DROPOFFS.

(2) 150 TONS TO BE USED AS DIRECTED BY THE ENGINEER AND 306 TONS FOR RUMBLE STRIP ERADICATION.

(3) INCLUDES 111 TONS FOR SLIDE REPAIR AND 410 TONS FOR ASPHALT BASE REPAIRS.

(4) INCLUDES 410 TONS FOR ASPHALT BASE REPAIRS AND 306 TONS FOR RUMBLE STRIP ERADICATION.

(5) BASED ON APPLICATION RATE OF 0.7 LBS/SY.

(6) BASED ON COVERAGE OF 50% OF SHOULDERS AND BASED ON 2 APPLICATION OF 20 LBS/SY

(7) BASED ON COVERAGE OF 50% OF SHOULDERS AND BASED ON 2 APPLICATIONS OF 2.4 LBS/SY

ALL ITEMS CARRIED OVER TO GENERAL SUMMARY ASPHALT MIXES CALC. BASED ON 110 LBS/SY/IN

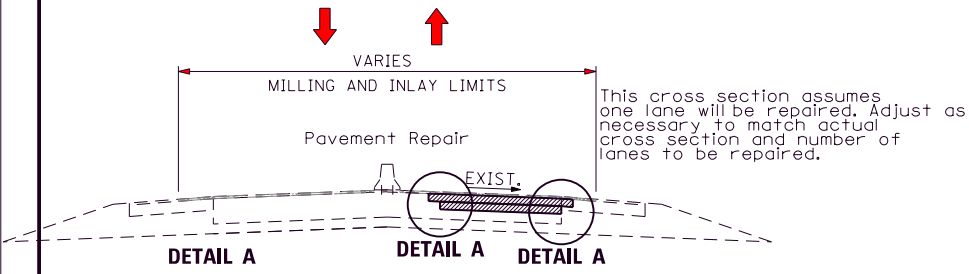
HAL ROGERS PARKWAY
PERRY COUNTY
ITEM NO. 10-20002 , PAVEMENT REHABILITIATION
MILEPOINT 56.100 TO 57.185
GUARDRAIL SUMMARY

POINT NUMBERS	FROM MILEPOST	TO MILEPOST	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	GUARDRAIL CONNECTOR TO BRIDGE END TY A	GUARDRAIL END TREATMENT TYPE 1	REMOVE GUARDRAIL	OBJECT MARKER TY 3	G/R STEEL W BEAM-S FACE (7 FT POST)						DESCRIPTION
ITEM CODE			01987	02363	02367	02381	20191ED	21802EN						
UNIT			EACH	EACH	EACH	LF	EACH	LF						
	56.097	56.307	23	1		1,112.5		1112.5						E.B. OUTSIDE SHOULDER
	56.386	56.408	2		1	125	1	75						E.B. OFF RAMP, OUTSIDE SHOULDER
	56.448	56.452	1			25		25						E.B. ON RAMP, OUTSIDE SHOULDER
	56.462	56.467	1			25		25						E.B. ON RAMP, INSIDE SHOULDER
	56.476	56.571	9		1	500	1	450						W.B. OFF RAMP, OUTSIDE SHOULDER
	56.733	56.761	2		1	150	1	100						W.B. SLIDE REPAIR
	57.016	57.018	1			25		25						W.B. OUTSIDE SHOULDER
	57.146	57.182	3	1	1	200	1	150						E.B. OUTSIDE SHOULDER
	57.148	57.182	3	1	1	187.5	1	137.5						W.B. OUTSIDE SHOULDER
						50		50						SHOULDER EROSION REPAIR DETAIL
PROJECT TOTAL			45	3	5	2,400	5	2,150						

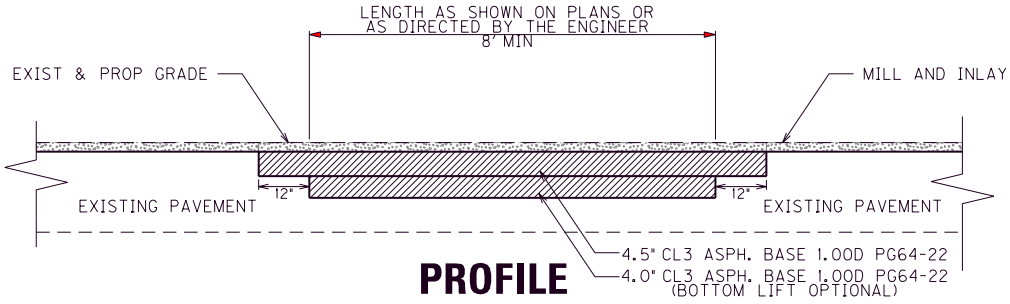
ALL ITEMS CARRIED OVER TO GENERAL SUMMARY.

County	Item No.	Sheet
PERRY	10-20002	

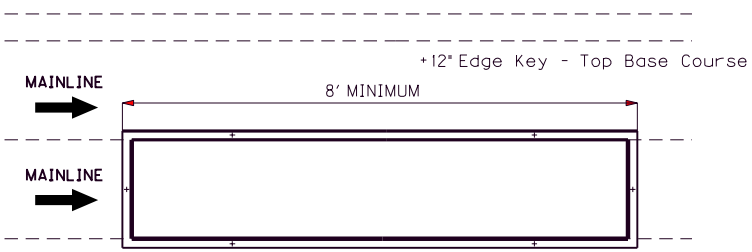
HR 9006
ASPHALT BASE REPAIR DETAIL
PERRY COUNTY



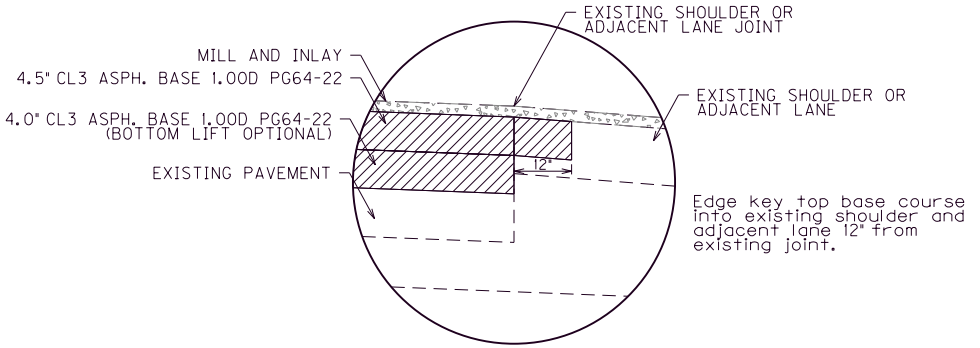
CROSS SECTION



PROFILE



PLAN VIEW



DETAIL A

BID ITEM

*	2677	ASPHALT PAVE MILLING AND TEXTURING	410 TONS
*	214	CL3 ASPH BASE 1.00D PG64-22	410 TONS

* Only items listed will be considered for payment and will considered full compensation for the work required. Any other items of work not listed for payment will be considered incidental to other items of work.

Asph base course class and binder grade to be chosen by designer based on current asphalt warrants and/or to remain consistent with mainline asphalt surface used on the project.

* (CARRIED ON PAVING SUMMARY)

NOT TO SCALE

NOTES

1. Caution: Existing concrete pavement may exist below the asphalt pavement.
2. Pavement repairs shall be performed at locations selected by and as directed by the Engineer. The Engineer will assess, select, and mark areas for treatment. The full lane width will be removed and replaced. The Engineer may elect to perform repairs on one lane or multiple lanes. The Engineer may elect to only remove and replace the top lift of base. An edge key 12" into existing pavement is required for the top course of base. For estimate purposes, quantities were estimated based on 4.5" thicknesses with additional quantity added to be used on an increase of 400 tons to be used for additional depth repairs or additional locations.
3. Complete pavement repair operations in one continuous operation or protect with barrier wall. Do not leave an unprotected hole with no workers present. If barrier wall must be used for pavement repairs, it will be considered incidental to other items of work and not be considered for payment.
4. The item ASPHALT PAVE MILLING AND TEXTURING includes removal of all asphalt to the required depth.
5. Perform typical mill and inlay operations with resurfacing items subject to payment as part of the resurfacing operation.

HAL ROGERS PARKWAY
ASPHALT BASE REPAIR DETAIL

County	Item No.	Sheet
PERRY	10-20002	

BEGIN MP	END MP	DB 9006						LENGTH (FT)	WIDTH (FT)	THICKNESS (IN)	AREA (SY)	QUANITY (TONS)
		EASTBOUND			WESTBOUND							
		RAMP	LANE 2	LANE 1	LANE 1	LANE 2	RAMP					
56.304	56.306			X				12	14	4.5	19	5
56.634	56.636				X			12	14	4.5	19	5
											TO BE USED AS DIRECTED BY ENGINEER	400
											TOTAL	410

NOTE: ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY AND PAVING SUMMARY

NOTE: ADDITIONAL QUANTITIES OF MILLING AND TEXTURING AND ASPHALT BASE HAVE BEEN ESTABLISHED TO BE USED AT THE DISCRETION OF THE ENGINEER IF PAVEMENT CONDITIONS DETERIORATE BEFORE CONSTRUCTION BEGINS.

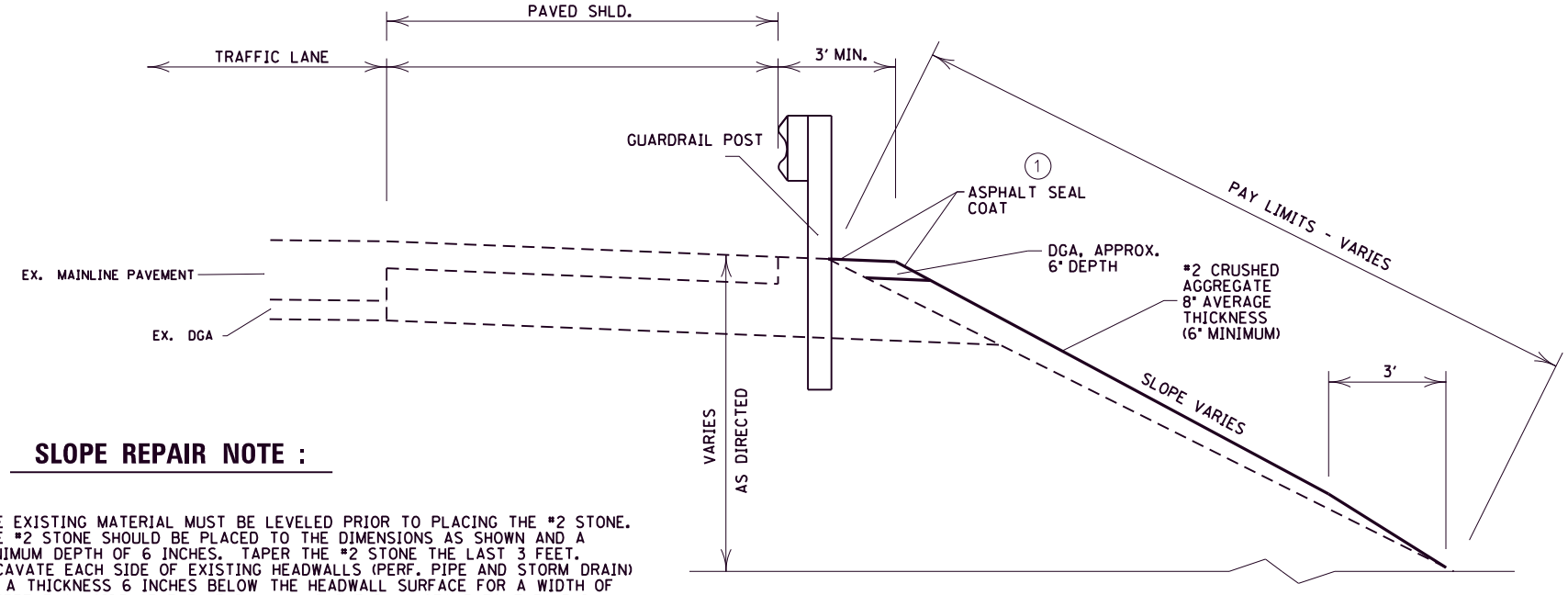
THESE DISCRETIONARY QUANTITIES MAY ALSO BE USED TO MILL AND INLAY TO REPAIR POTENTIAL FAILURES THAT COULD OCCUR IN THE PAVED SHOULDERS DUE TO APPLICATION OF TRAFFIC TO THE SHOULDERS. IN THIS CASE THE CONTRACTOR MAY BE REQUIRED TO CONDUCT THIS MILLING AND INLAY OPERATION OF BASE TO REPAIR PAVEMENT TO RESTORE THE SHOULDER AT DAMAGED LOCATIONS IN ORDER TO MAINTAIN TRAFFIC ON THE SHOULDER. ANY REMAINING DAMAGED SHOULDER PAVEMENT THAT EXISTS PRIOR TO PLACEMENT OF THE FINAL ASPHALT SURFACE WILL BE MILLED AND INLAID WITH A 3" DEPTH OF ASPHALT BASE. AFTER THE TYPICAL 1.5" MILLING DEPTH IS COMPLETED. ALL REPAIRED SHOULDER LOCATIONS WILL REQUIRE A FINAL ASPHALT SURFACE LAYER REGARDLESS OF WHETHER REPAIRED INSIDE OR OUTSIDE THE TYPICAL 4' WIDTH OF SHOULDER SURFACING.

NOT TO SCALE

HAL ROGERS PARKWAY ASPHALT BASE REPAIR DETAIL

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	

SHOULDER EROSION REPAIR DETAIL



SLOPE REPAIR NOTE :

THE EXISTING MATERIAL MUST BE LEVELED PRIOR TO PLACING THE #2 STONE. THE #2 STONE SHOULD BE PLACED TO THE DIMENSIONS AS SHOWN AND A MINIMUM DEPTH OF 6 INCHES. TAPER THE #2 STONE THE LAST 3 FEET. EXCAVATE EACH SIDE OF EXISTING HEADWALLS (PERF. PIPE AND STORM DRAIN) TO A THICKNESS 6 INCHES BELOW THE HEADWALL SURFACE FOR A WIDTH OF 5 FEET EACH SIDE OF THE HEADWALL AND BLEND #2 STONE TO THE HEADWALL WINGS. DISPOSE OF EXCESS MATERIAL OFF THE PROJECT.

THE BID ITEM "CRUSHED AGGREGATE SIZE NO 2" INCLUDES ALL LABOR AND EQUIPMENT NECESSARY TO GRADE THE EXISTING SLOPE AND CAP THE SLOPE WITH A MINIMUM OF 6 INCHES OF #2 STONE.

EXTEND THE REPAIRS ONLY THROUGH THE WASH AREA. DO NOT DISTURB AREAS WITH ESTABLISHED VEGETATION.

REMOVE GUARDRAIL WHERE NECESSARY TO PERFORM SHOULDER REPAIRS. PIN ENDS DOWN TO ELIMINATE EXPOSURE TO BLUNT ENDS AND PLACE TRAFFIC DRUMS ON SHOULDER AT 20' SPACING UNTIL GUARDRAIL IS RE-ESTABLISHED. QUANTITIES HAVE BEEN ESTABLISHED FOR PAYMENT OF GUARDRAIL REMOVAL AND INSTALLATION OF NEW RAIL FOR AREAS NOT RECEIVING NEW GUARDRAIL DUE TO DAMAGE.

BID ITEM

*	0078	CRUSHED AGGREGATE NO. 2	15	TONS
**	2381	REMOVE GUARDRAIL	50	LF
**	21802EN	GUARDRAIL STEEL W BEAM-S FACE	50	LF
***	0001	DGA BASE	5	TONS

ASPHALT SEAL COAT QUANTITIES ESTABLISHED IN THE PAVING SUMMARY

LOCATIONS:

	BEGIN MP	END MP	LENGTH	CRUSHED AGG.	DGA	GUARDRAIL
W.B. OUT. SHLD	56.267	56.271	20'	10	3	25
W.B. OUT. SHLD	56.328	56.330	10	5	2	25
TOTAL:			30	15	5	50

THE ENGINEER MAY INCLUDE ADDITIONAL LOCATIONS AND ADDITIONAL QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

(1) ASPHALT SEAL REQUIRED FROM OUTSIDE EDGE OF PAVED SHOULDER TO A POINT 2 FOOT DOWN THE DITCH OR FILL SLOPE OR BOTTOM OF DGA LAYER. TWO APPLICATIONS OF THE FOLLOWING :
ASPHALT SEAL COAT..... 2.4 lbs. / S.Y.
ASPHALT SEAL AGGREGATE ..... 20 lbs. / S.Y.

* (CARRIED ON GENERAL SUMMARY)
** (CARRIED ON GUARDRAIL SUMMARY)
*** (CARRIED ON PAVING SUMMARY)

NOT TO SCALE

HR 9006
HAL ROGERS PARKWAY
SLOPE REPAIR DETAIL

County	Item No.	Sheet
PERRY	10-20002	-

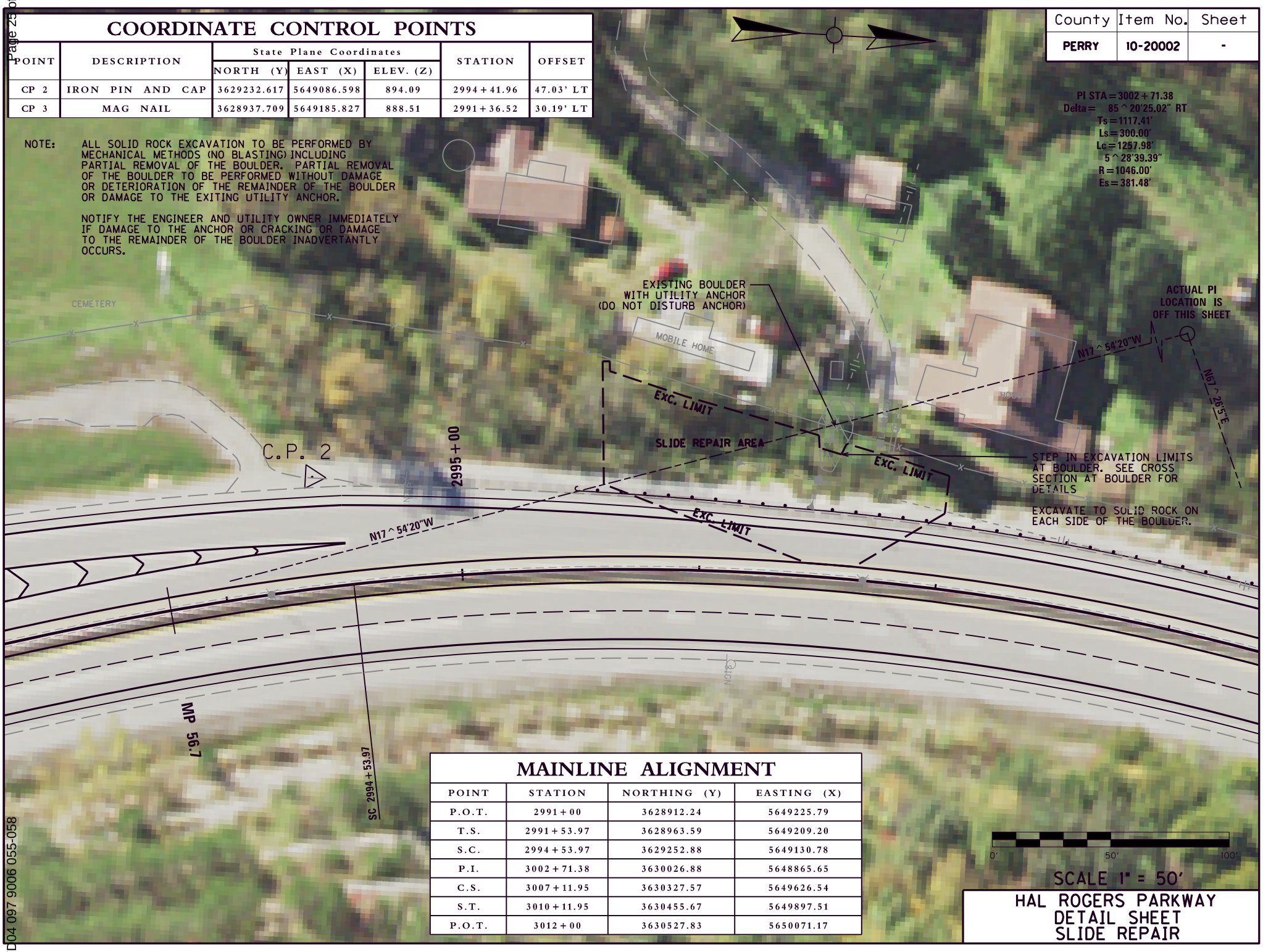
COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
CP 2	IRON PIN AND CAP	3629232.617	5649086.598	894.09	2994+41.96	47.03' LT
CP 3	MAG NAIL	3628937.709	5649185.827	888.51	2991+36.52	30.19' LT

NOTE: ALL SOLID ROCK EXCAVATION TO BE PERFORMED BY MECHANICAL METHODS (NO BLASTING) INCLUDING PARTIAL REMOVAL OF THE BOULDER. PARTIAL REMOVAL OF THE BOULDER TO BE PERFORMED WITHOUT DAMAGE OR DETERIORATION OF THE REMAINDER OF THE BOULDER OR DAMAGE TO THE EXITING UTILITY ANCHOR.

NOTIFY THE ENGINEER AND UTILITY OWNER IMMEDIATELY IF DAMAGE TO THE ANCHOR OR CRACKING OR DAMAGE TO THE REMAINDER OF THE BOULDER INADVERTANTLY OCCURS.

PI STA = 3002+71.38
Delta = 85^20'25.02" RT
Ts = 1117.41'
Ls = 300.00'
Lc = 1257.98'
5^28'39.39"
R = 1046.00'
Es = 381.48'

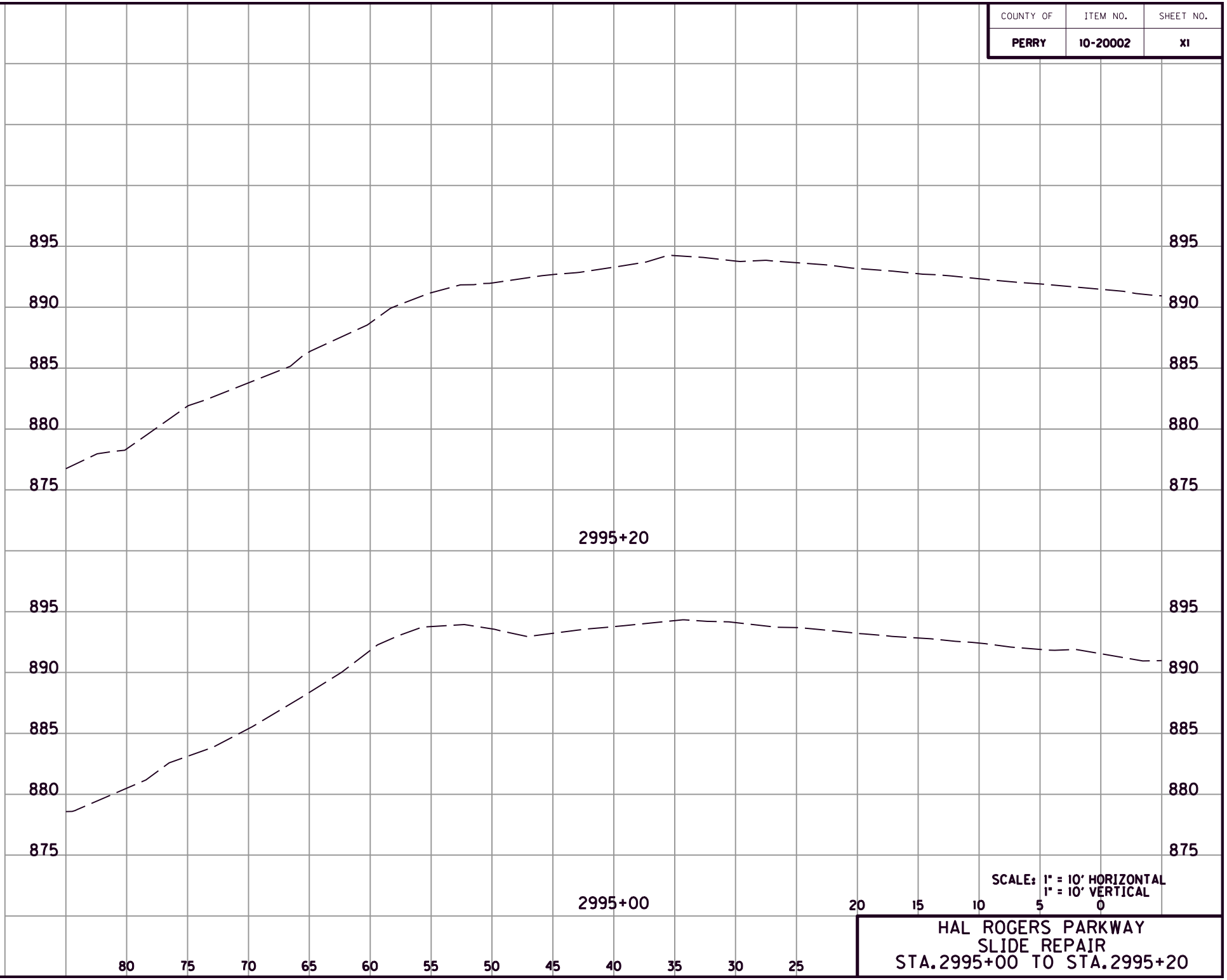


MAINLINE ALIGNMENT

POINT	STATION	NORTHING (Y)	EASTING (X)
P.O.T.	2991+00	3628912.24	5649225.79
T.S.	2991+53.97	3628963.59	5649209.20
S.C.	2994+53.97	3629252.88	5649130.78
P.I.	3002+71.38	3630026.88	5648865.65
C.S.	3007+11.95	3630327.57	5649626.54
S.T.	3010+11.95	3630455.67	5649897.51
P.O.T.	3012+00	3630527.83	5650071.17

HAL ROGERS PARKWAY
DETAIL SHEET
SLIDE REPAIR

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X1



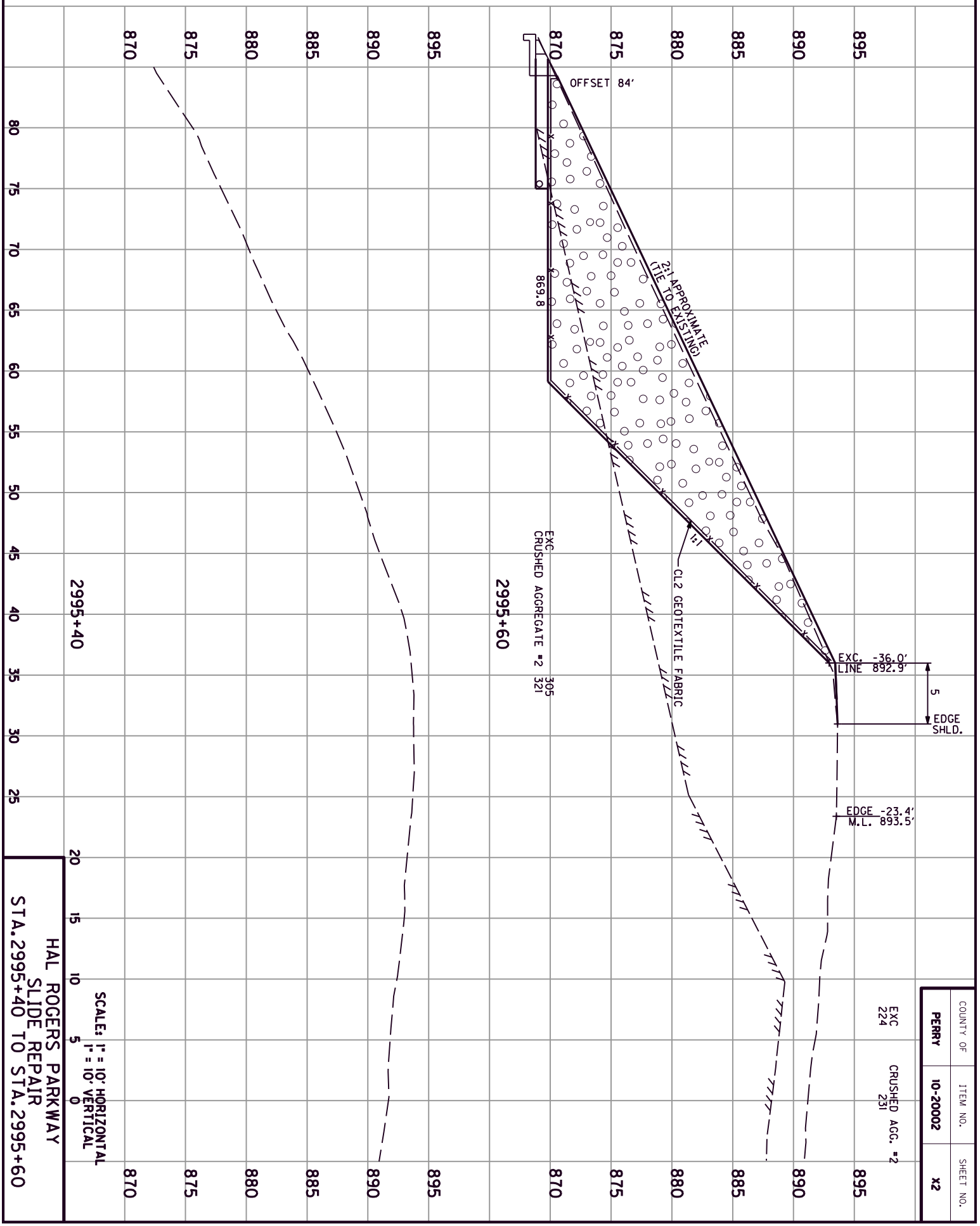
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

HAL ROGERS PARKWAY
SLIDE REPAIR
STA.2995+00 TO STA.2995+20

FILE NAME: G:\ENGR\HDI365.09 PERRY\CADD\PLAN\SLIDE X SECT.DGN
USER: phoward
DATE PLOTTED: September 11, 2021
E-SHEET NAME:
MicroStation v8.11.9.459

PERRY COUNTY
FD04 097 9000 055-058

MicroStation v8.11.9.459	E-SHEET NAME:	USER: phoward DATE PLOTTED: September 11, 2021	FILE NAME: G:\ENGR\HD1365.09 PERRY\CAD\PLAN\SLIDE X SECT.DGN

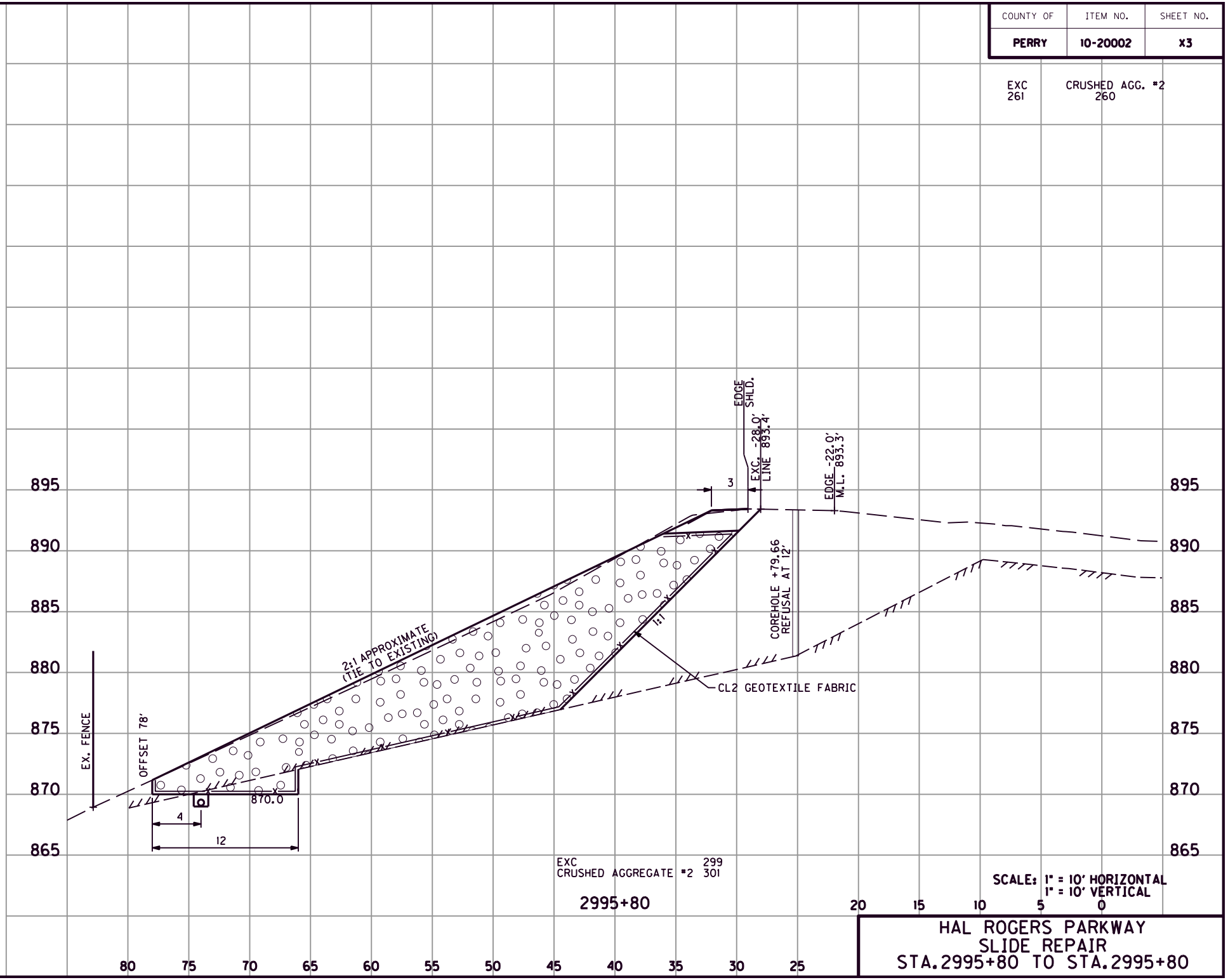


COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X2

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

HAL ROGERS PARKWAY
SLIDE REPAIR
STA.2995+40 TO STA.2995+60

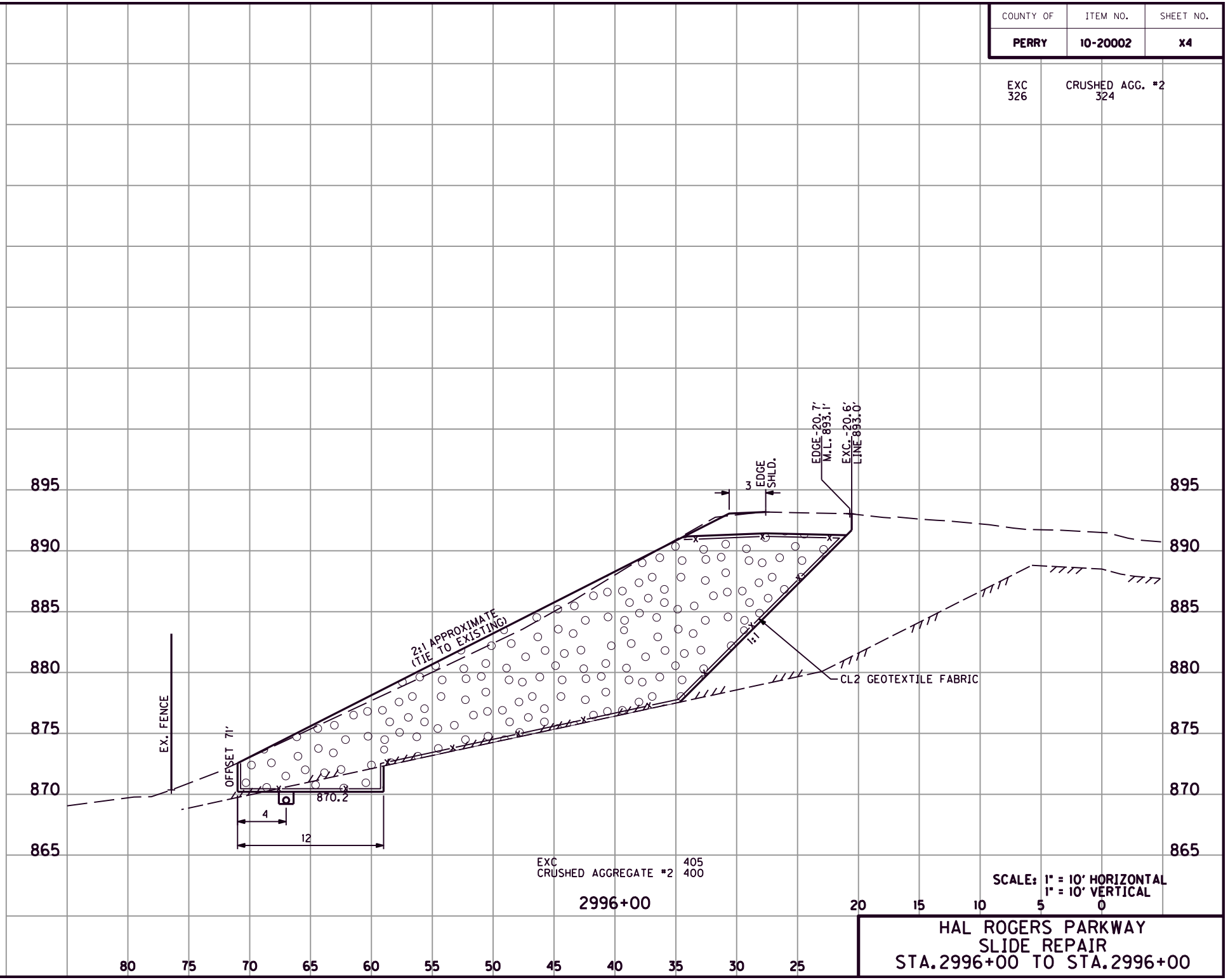
COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X3



HAL ROGERS PARKWAY
SLIDE REPAIR
STA. 2995+80 TO STA. 2995+80

PERRY COUNTY
FD04 097 9000 055-058
MicroStation v8.11.9.459
E-SHEET NAME:
USER: phoward
DATE PLOTTED: September 11, 2021
FILE NAME: G:\ENGR\HD1365.09 PERRY\CADD\PLAN\SLIDE X SECT.DGN

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X4



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

HAL ROGERS PARKWAY
SLIDE REPAIR
STA. 2996+00 TO STA. 2996+00

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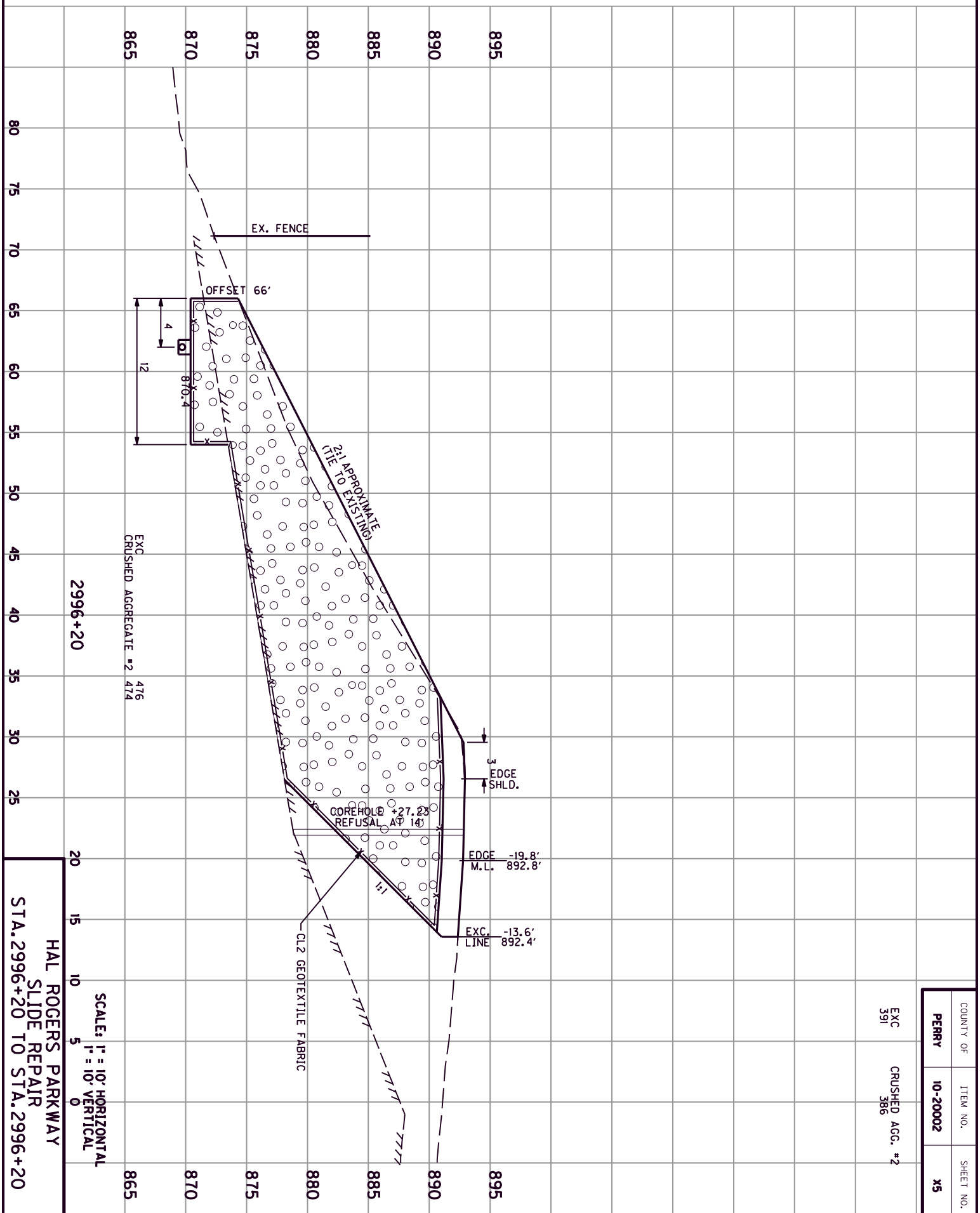


HAL ROGERS PARKWAY
SLIDE REPAIR
STA.2996+20 TO STA.2996+20

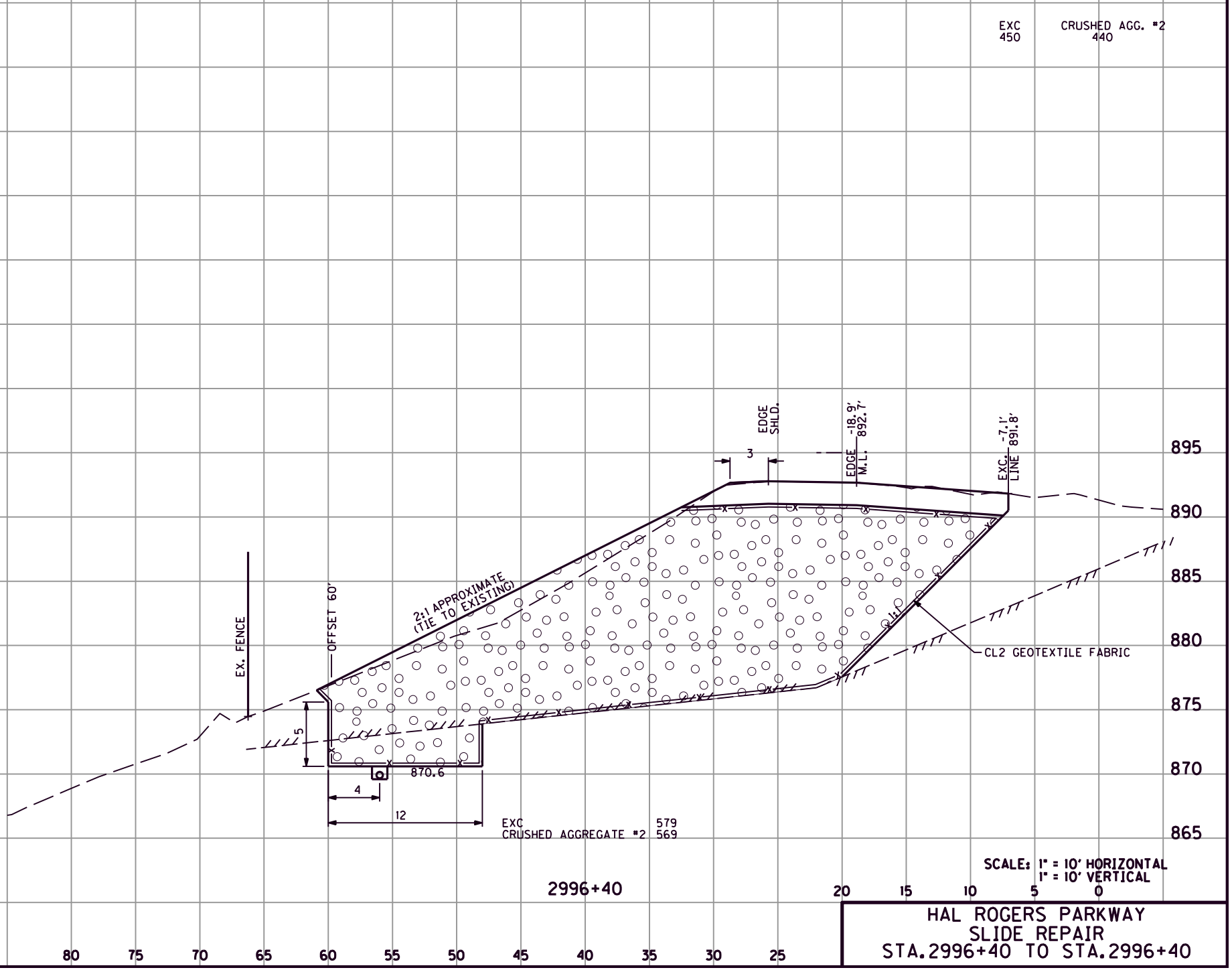
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

EXC
391

CRUSHED AGG. #2
386

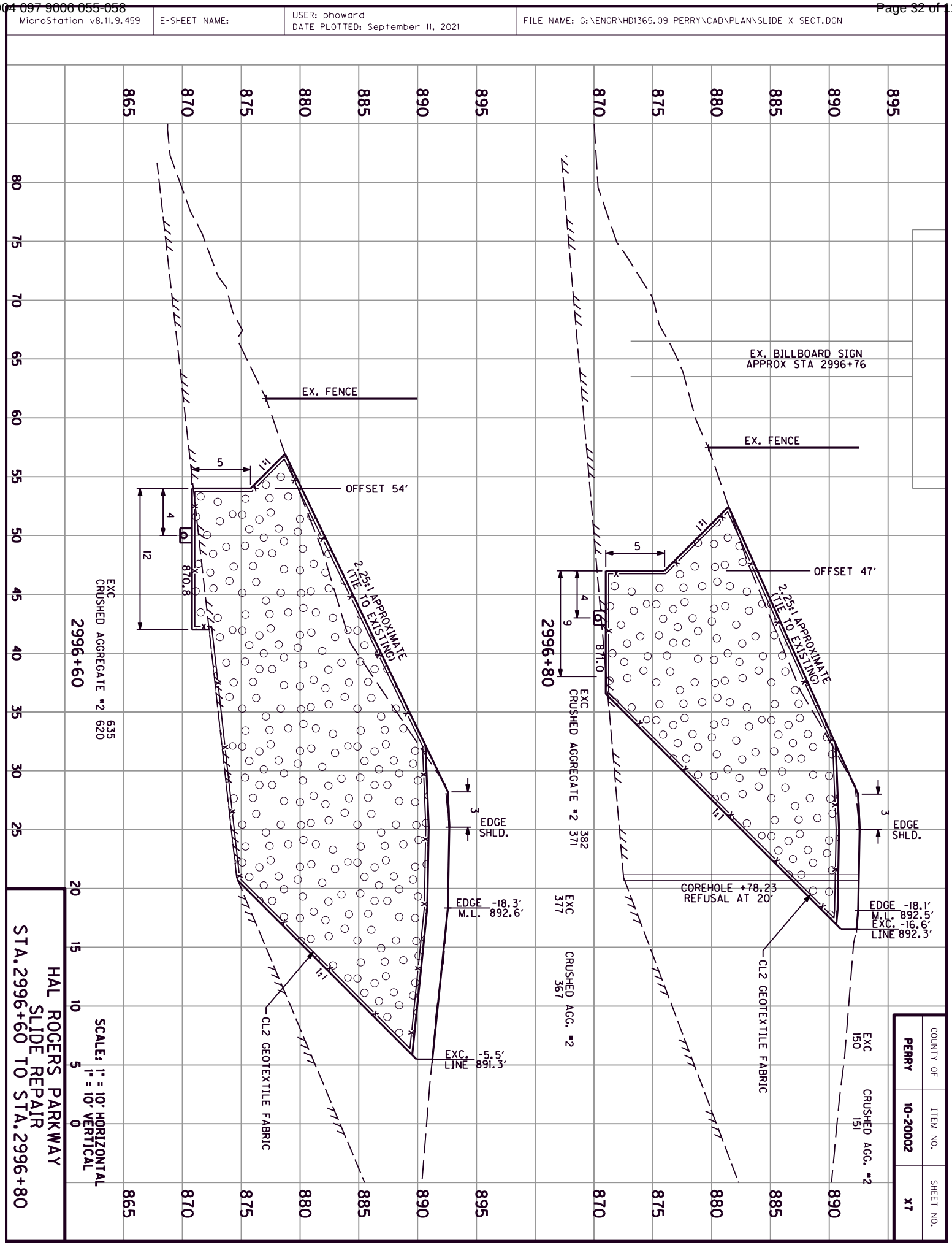
COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X5

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X6



HAL ROGERS PARKWAY
SLIDE REPAIR
STA. 2996+40 TO STA. 2996+40

MicroStation v8.11.9.459 | E-SHEET NAME: | USER: phoward | DATE PLOTTED: September 11, 2021 | FILE NAME: G:\ENGR\HD1365.09 PERRY\CAD\PLAN\SLIDE X SECT.DGN



HAL ROGERS PARKWAY
SLIDE REPAIR
STA. 2996+60 TO STA. 2996+80

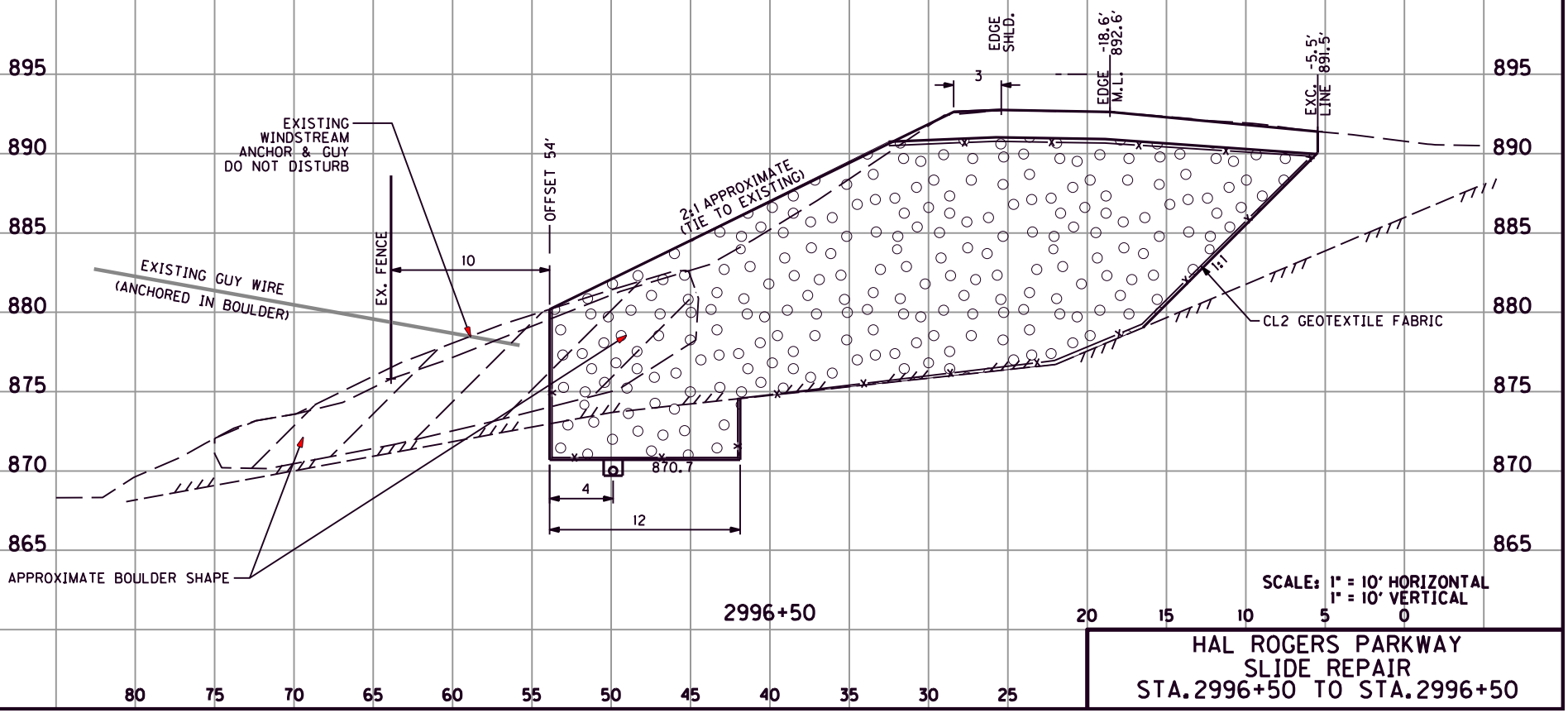
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X7

COUNTY OF	ITEM NO.	SHEET NO.
PERRY	10-20002	X6A

NOTE: BOULDER LOCATION AND SHAPE ARE APPROXIMATED. ACTUAL SIZE AND PRECISE LOCATION IS UNKNOWN. EXCAVATE TO THE APPROXIMATE DIMENSIONS SHOWN AS DIRECTED OR AS MODIFIED BY THE ENGINEER. USE MECHANICAL METHODS TO REMOVE PORTION OF THE BOULDER SHOWN. DO NOT DISTURB THE REMAINDER OF BOULDER OR THE EXISTING UTILITY ANCHOR. NOTIFY THE ENGINEER IMMEDIATELY AND NOTIFY THE UTILITY OWNERS IMMEDIATELY SHOULD THE BOULDER CRACK OR BREAK OUTSIDE THE LIMITS OF EXCAVATION SHOWN.

STEP IN THE EXCAVATION LIMITS ONLY AT THE BOULDER LOCATION. EXCAVATE TO BEDROCK AROUND THE BOULDER ON EACH SIDE TO THE FULL LIMITS SHOWN.

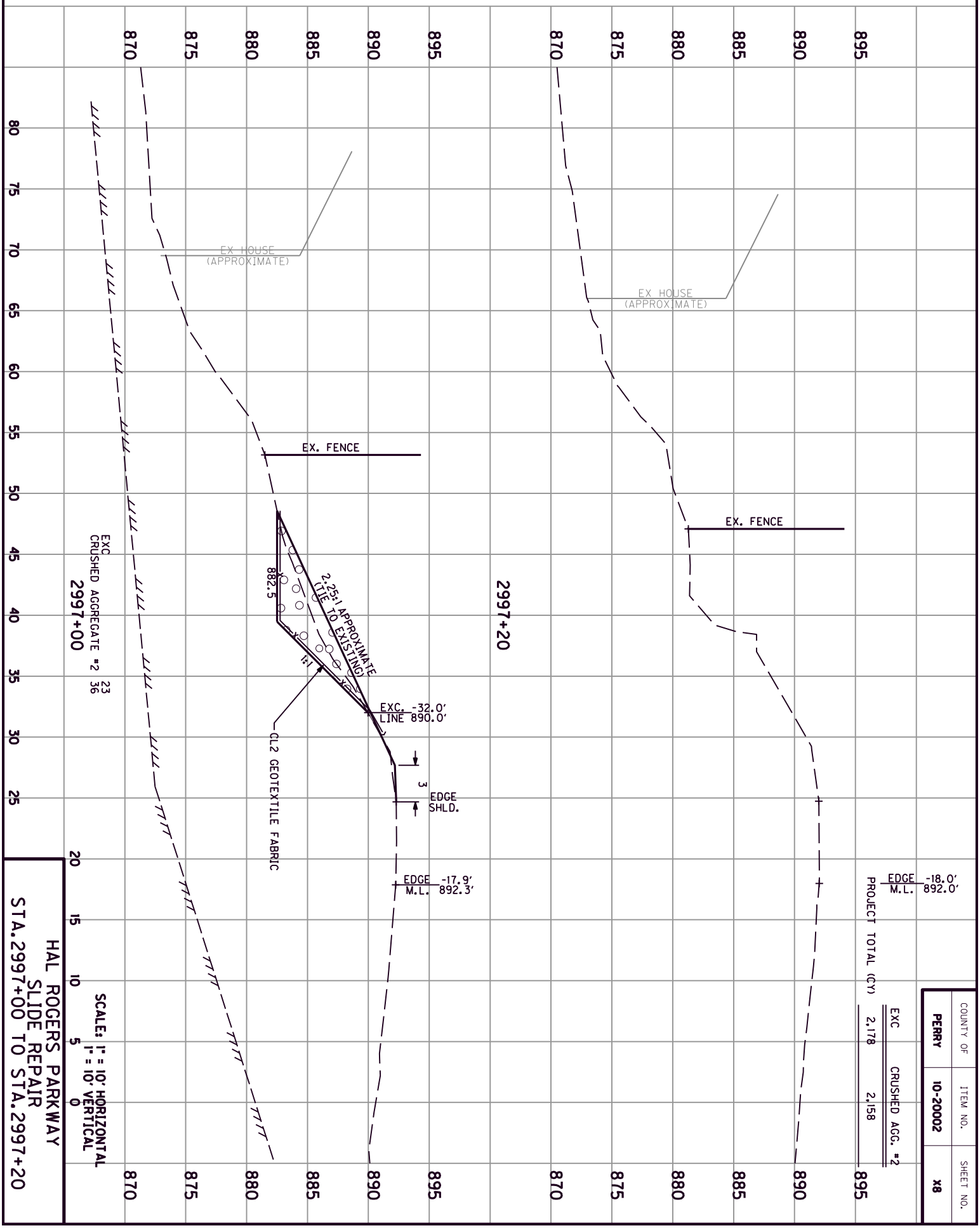


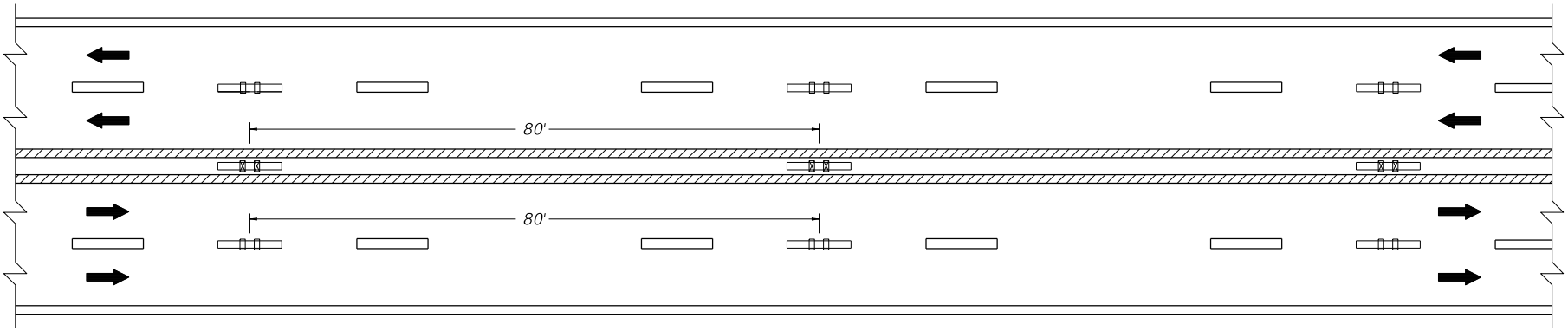
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

HAL ROGERS PARKWAY SLIDE REPAIR STA.2996+50 TO STA.2996+50

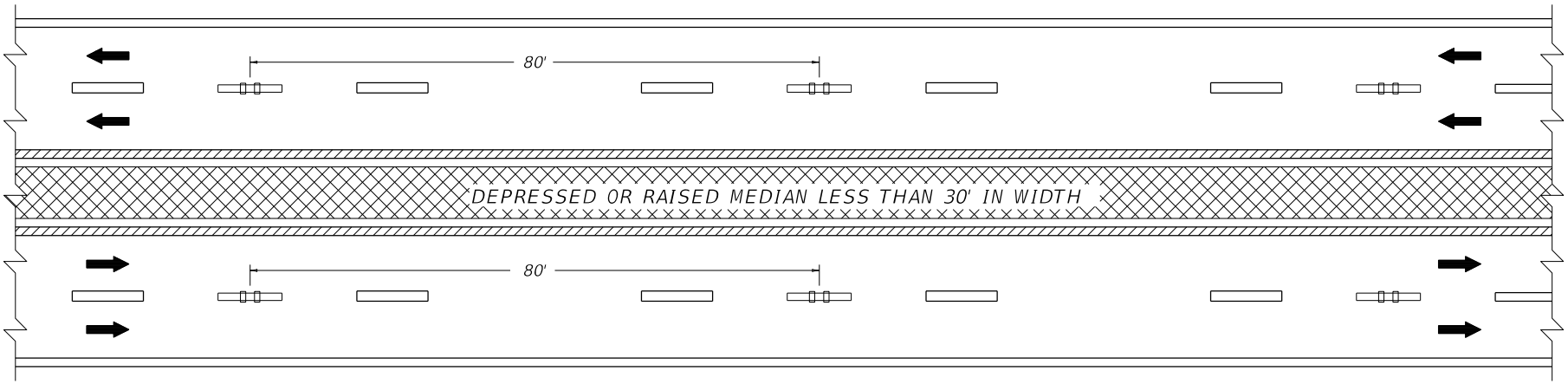
PERRY COUNTY
FD04 097 9000 055-058
MicroStation v8.11.9.459
E-SHEET NAME:
USER: phoward
DATE PLOTTED: September 11, 2021
FILE NAME: G:\ENGR\HD1365.09 PERRY\CADD\PLAN\SLIDE X SECT.DGN

MicroStation v8.11.9.459 | E-SHEET NAME: | USER: phoward | DATE PLOTTED: September 11, 2021 | FILE NAME: G:\ENGR\HD1365.09 PERRY\CAD\PLAN\SLIDE X SECT.DGN





ARRANGEMENT "A" (UNDIVIDED HIGHWAY)



ARRANGEMENT "B" (DIVIDED HIGHWAY WITH DEPRESSED OR RAISED MEDIAN LESS THAN 30' IN WIDTH)

~ NOTES ~

1. MARKERS INSTALLED WITH DOUBLE YELLOW CENTERLINES SHOULD BE PLACED BETWEEN THE TWO LINES.
2. MARKERS INSTALLED ALONG LANE LINES SHOULD BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
3. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
4. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.

BID ITEMS	UNIT TO BID
06610 - INLAID PAVEMENT MARKER - MW	EACH
06612 - INLAID PAVEMENT MARKER - BY	EACH

LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- MONO-DIRECTIONAL PAVEMENT MARKER (WHITE)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)
- DEPRESSED OR RAISED MEDIAN

DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

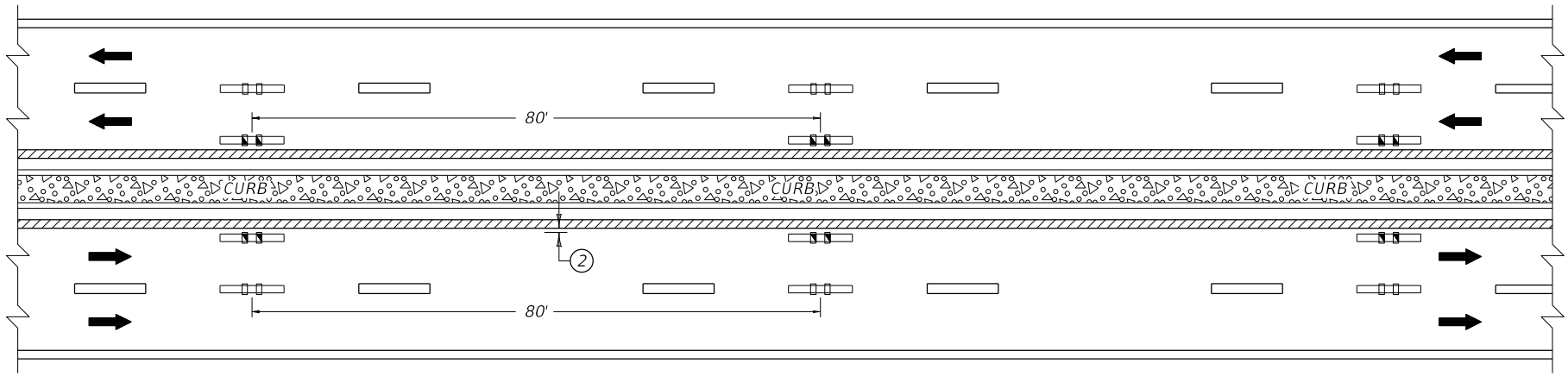
INLAID PAVEMENT MARKER
ARRANGEMENTS
MULTI-LANE ROADWAYS

SUBMITTED _____ DIVISION DIRECTOR

06-09-21
DATE

006

PERRY COUNTY
FD04 097 9006 055-058



ARRANGEMENT "E" (DIVIDED HIGHWAY WITH CURB WITHIN 8' OF DRIVING LANE)

~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
4. MARKERS SHALL BE INSTALLED AT 40' SPACING ALONG SOLID WHITE AUXILIARY LANES. MARKER COLOR SHALL MATCH THE MARKERS INSTALLED ALONG THE WHITE LANE LINES.

BID ITEMS	UNIT TO BID
06610 - INLAID PAVEMENT MARKER - MW	EACH
06611 - INLAID PAVEMENT MARKER - MY	EACH

LEGEND

- MONO-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- MONO-DIRECTIONAL PAVEMENT MARKER (WHITE)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

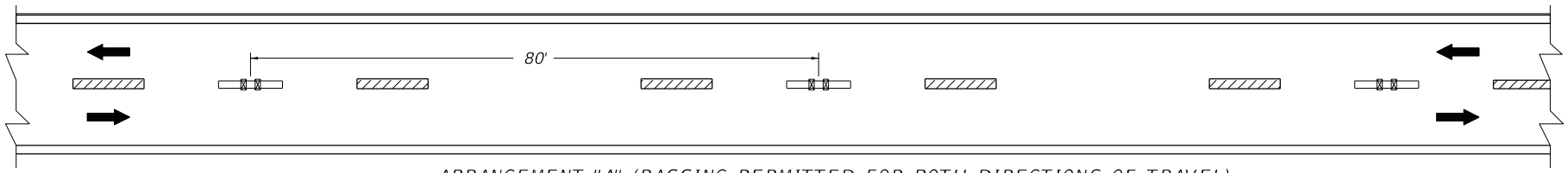
DRAWING NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

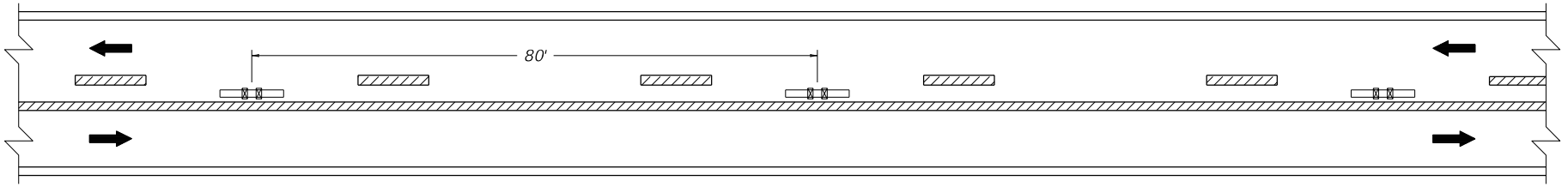
INLAID PAVEMENT MARKER
ARRANGEMENTS
MULTI-LANE ROADWAYS

SUBMITTED _____ 06-09-21
DIVISION DIRECTOR DATE

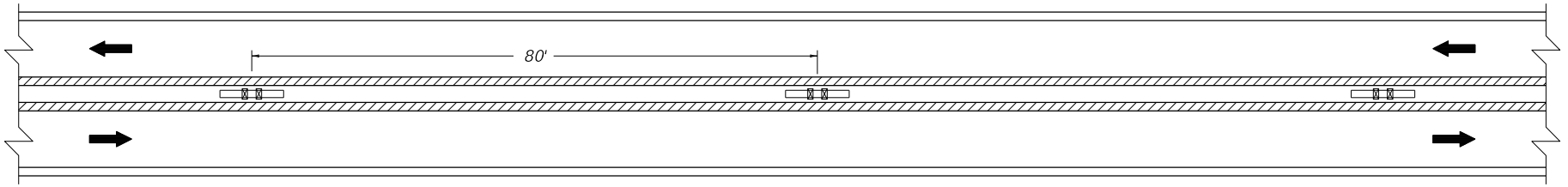
008



ARRANGEMENT "A" (PASSING PERMITTED FOR BOTH DIRECTIONS OF TRAVEL)



ARRANGEMENT "B" (PASSING PERMITTED FOR ONE DIRECTION OF TRAVEL)



ARRANGEMENT "C" (PASSING PROHIBITED FOR BOTH DIRECTIONS OF TRAVEL)

~ NOTES ~

1. MARKERS INSTALLED ALONG DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.
2. MARKERS INSTALLED WITH DOUBLE YELLOW CENTERLINES SHALL BE PLACED BETWEEN THE TWO LINES.
3. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS	UNIT TO BID
06612 - INLAID PAVEMENT MARKER - BY	EACH

LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

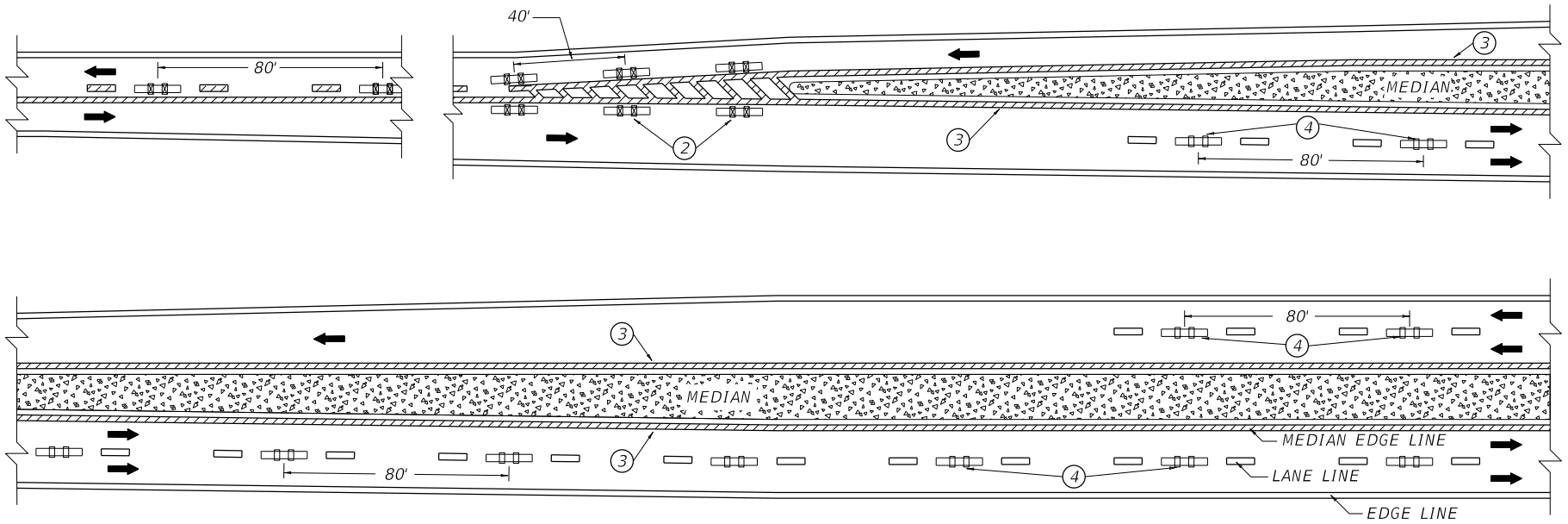
KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENTS
TWO-LANE, TWO-WAY ROADWAYS

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

009

PERRY COUNTY
FD04 097 9006 055-058



TWO LANE TO FOUR LANE PAVEMENT TRANSITIONS

LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW)
- MONO-DIRECTIONAL PAVEMENT MARKER (WHITE) (4)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES OR DASHED YELLOW CENTERLINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. MARKERS MAY BE REQUIRED ALONG THE MEDIAN EDGE LINES DEPENDING ON TYPE AND WIDTH OF MEDIAN. SEE TPM-100, TPM-105 , AND TPM-110 FOR GUIDANCE.
4. IF MEDIAN WIDTH IS GREATER THAN OR EQUAL TO 30', BI-DIRECTIONAL (WHITE-RED) MARKERS SHALL BE USED ALONG THE LANE LINES IN LIEU OF MONO-DIRECTIONAL (WHITE) MARKERS.
5. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS	UNIT TO BID
06610 - INLAID PAVEMENT MARKER - MW	EACH
06612 - INLAID PAVEMENT MARKER - BY	EACH

DRAWING NOT TO SCALE

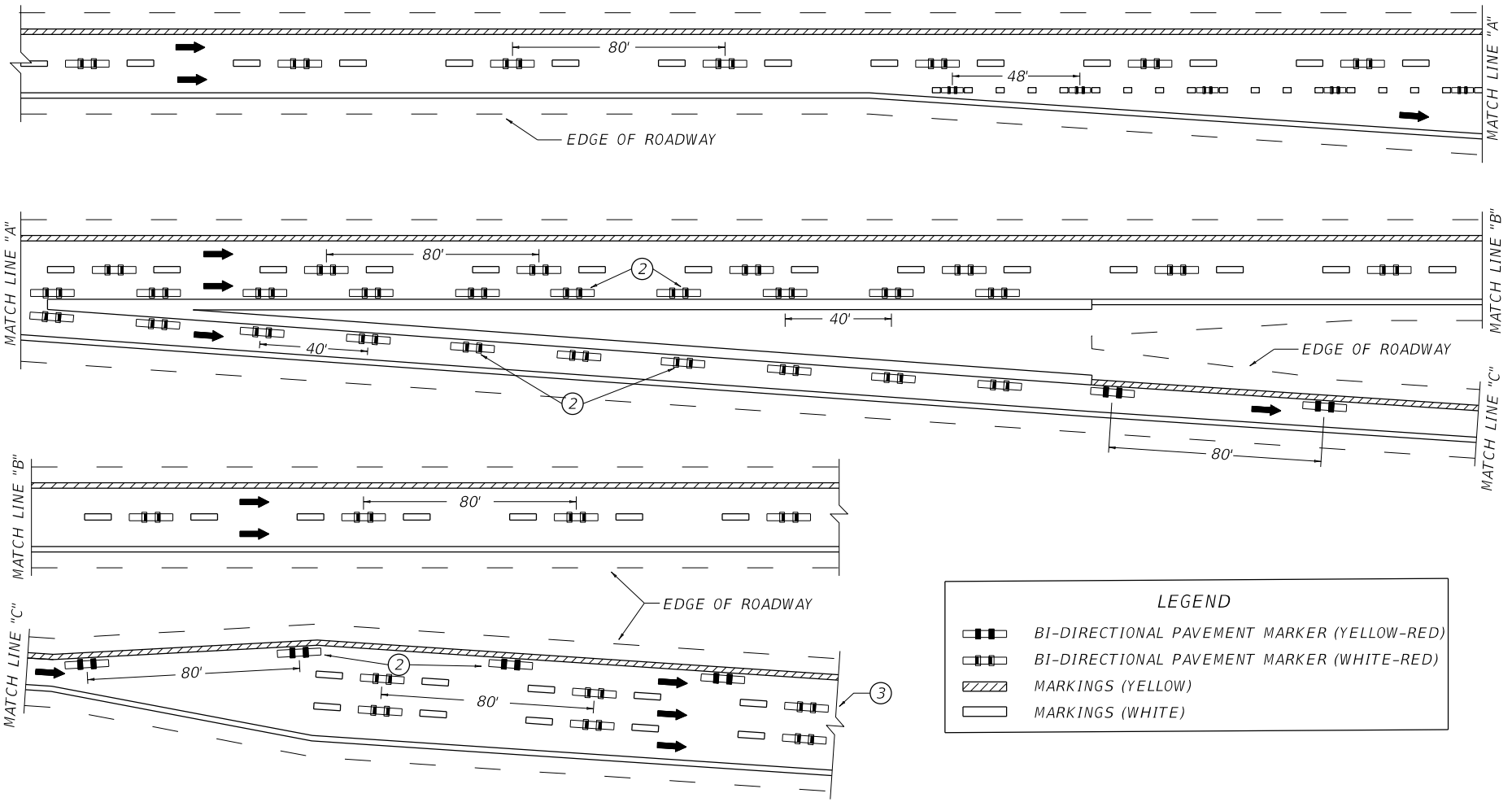
USE WITH CUR. STD. DWGS.
TPM-100 TPM-105 TPM-110

KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENT
TWO-LANE TO FOUR-LANE TRANSITIONS

SUBMITTED _____ DIVISION DIRECTOR
06-09-21 DATE

010



~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. MARKERS SHALL BE CONTINUED ALONG THE ENTIRE LENGTH OF THE RAMP UNTIL THE INTERSECTION WITH THE CROSS-STREET.
4. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS	UNIT TO BID
06613 - INLAID PAVEMENT MARKER - B-W/R	EACH
06614 - INLAID PAVEMENT MARKER - B-Y/R	EACH

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG. TPM-201

KENTUCKY
DEPARTMENT OF HIGHWAYS

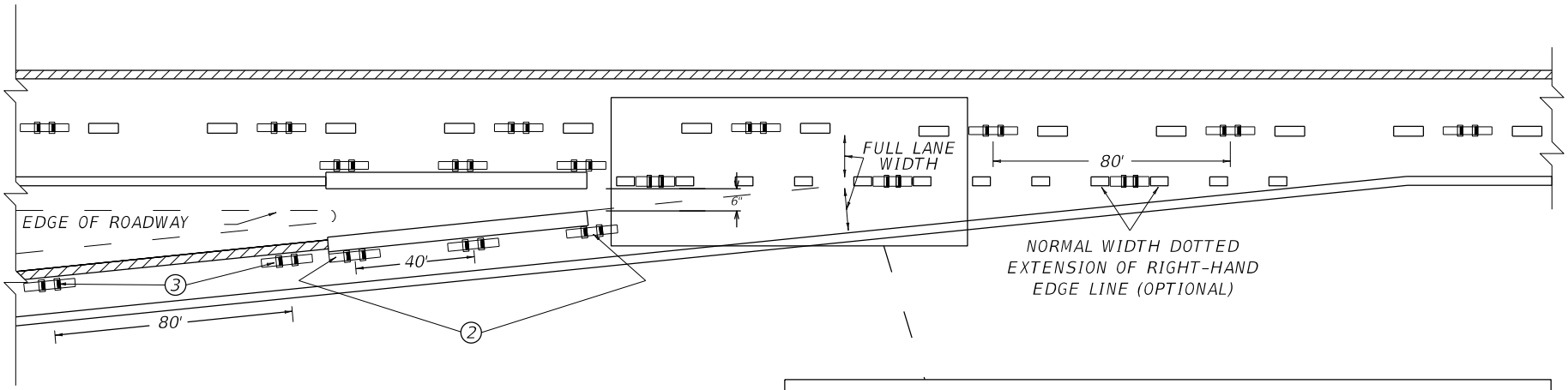
INLAID PAVEMENT MARKER ARRANGEMENT
EXIT GORE AND OFF-RAMP

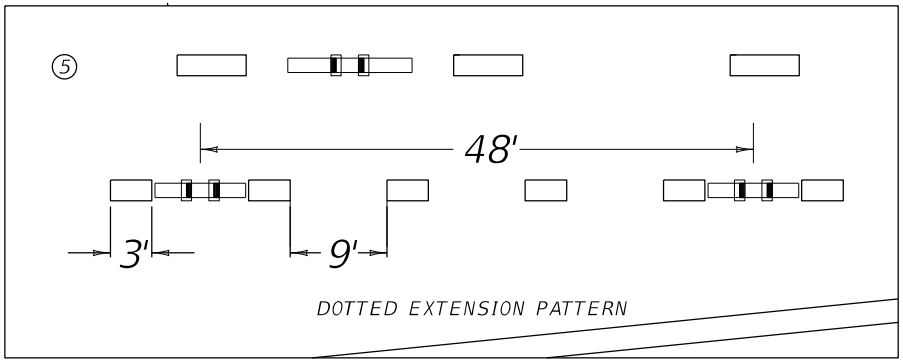
SUBMITTED _____ DIVISION DIRECTOR

06-09-21 DATE

011

PERRY COUNTY
FD04 097 9006 055-058





LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW-RED)
- BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
4. ON TWO-LANE, TWO-WAY HIGHWAYS, MARKERS INSTALLED ALONG GORE MARKINGS SHALL BE MONO-DIRECTIONAL (WHITE).
5. IF DOTTED EXTENSIONS ARE USED IN THE TAPERED ACCELERATION LANE, MARKERS SHALL BE INSTALLED AS DEPICTED.
6. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.

BID ITEMS	UNIT TO BID
06613 - INLAID PAVEMENT MARKER - B-W/R	EACH
06614 - INLAID PAVEMENT MARKER - B-Y/R	EACH

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWG. TPM-200

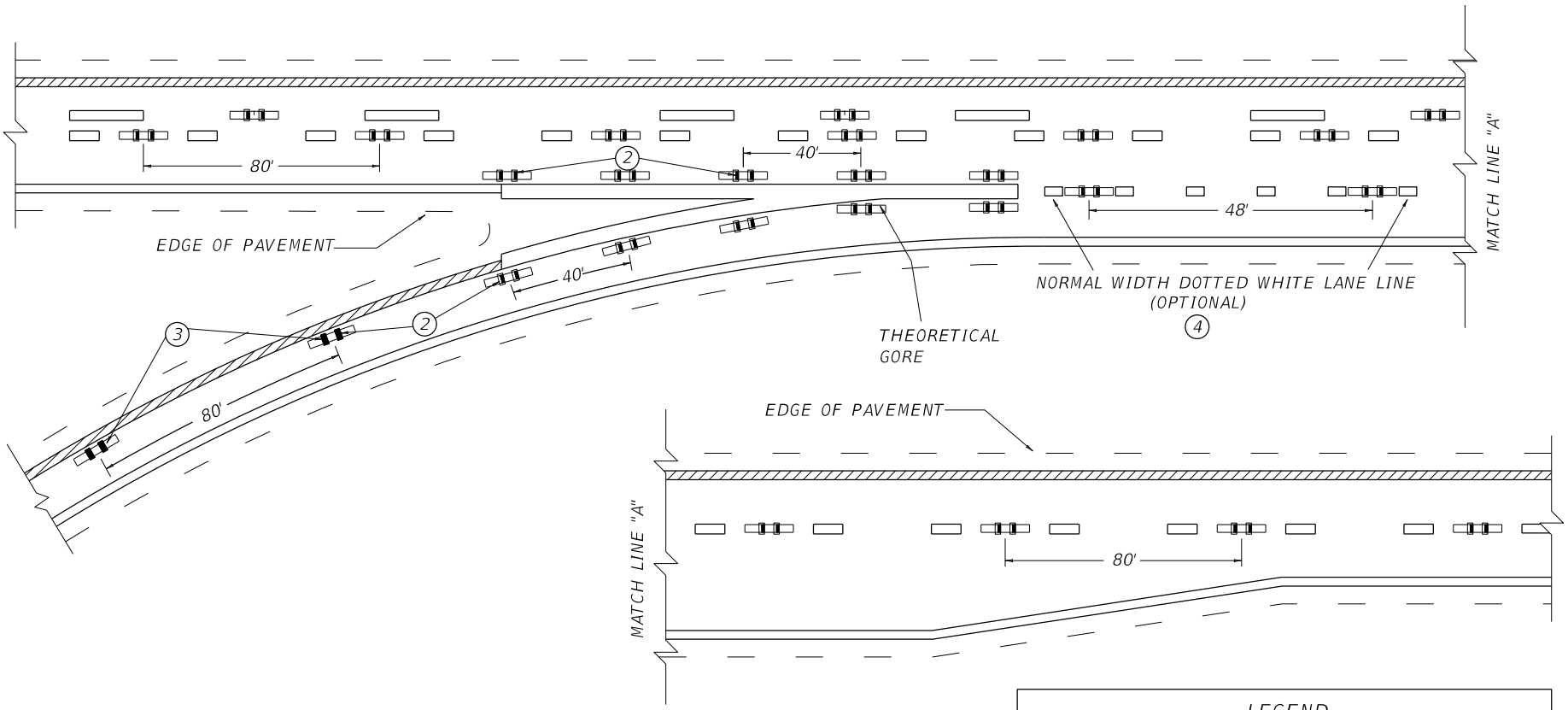
KENTUCKY DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH TAPERED ACCELERATION LANE

SUBMITTED _____ DIVISION DIRECTOR

06-09-21 DATE

013



LEGEND

- BI-DIRECTIONAL PAVEMENT MARKER (YELLOW-RED)
- BI-DIRECTIONAL PAVEMENT MARKER (WHITE-RED)
- MARKINGS (YELLOW)
- MARKINGS (WHITE)

~ NOTES ~

1. MARKERS INSTALLED ALONG LANE LINES SHALL BE PLACED BETWEEN AND IN LINE WITH THE SKIPS.
2. MARKERS INSTALLED ALONG EDGE LINES SHALL BE PLACED SO THAT THE NEAR EDGE OF THE GROOVE IS NO MORE THAN 1" FROM THE NEAR EDGE OF THE LINE.
3. BI-DIRECTIONAL (YELLOW-RED) MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE YELLOW EDGE LINE FROM THE INTERSECTION OF THE CROSS-STREET TO THE BEGINNING OF THE GORE AREA.
4. IF DOTTED EXTENSIONS ARE USED IN THE TAPERED ACCELERATION LANE, MARKERS SHALL BE INSTALLED AS DEPICTED.
5. MARKERS SHALL NOT BE INSTALLED ON TOP OF THE PAVEMENT JOINT. OFFSET MARKERS A MINIMUM OF 2" FROM THE PAVEMENT JOINT. ENSURE THAT THE FINISHED LINE OF MARKERS IS STRAIGHT WITH MINIMAL LATERAL DEVIATION. MARKERS MAY BE ELIMINATED OR PLACEMENT ADJUSTED AT THE DISCRETION OF THE ENGINEER.
6. THE NORMAL WIDTH DOTTED WHITE LANE LINE SHALL EXTEND FOR AT LEAST HALF THE LENGTH OF THE FULL-WIDTH ACCELERATION LANE PLUS TAPER MEASURED FROM THE THEORETICAL GORE.

BID ITEMS AND UNIT TO BID

INLAID PAVEMENT MARKER (B-W/R, B-Y/R, BY, MW, MY)	EACH

DRAWING NOT TO SCALE
USE WITH CUR. STD. DWG.
TPM-200

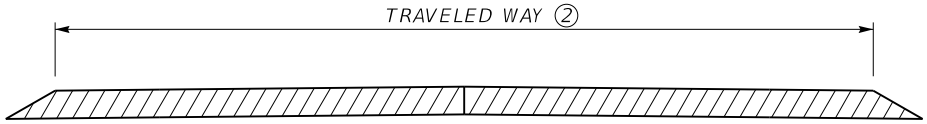
KENTUCKY
DEPARTMENT OF HIGHWAYS

INLAID PAVEMENT MARKER ARRANGEMENT ON-RAMP WITH PARALLEL ACCELERATION LANE

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

014

PERRY COUNTY
FD04 097 9006 055-058



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

TRAVELED WAY (2)	TYPE OF PAVEMENT STRIPING	NON-STATE PRIMARY ROUTES				STATE PRIMARY ROUTES	
		< 1000 ADT		>= 1000 ADT		ANY ADT	
		WIDTH	MATERIAL	WIDTH	MATERIAL	WIDTH	MATERIAL*
< 16' (4)	EDGELINE STRIPES ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
16' TO < 20'	EDGELINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
>=20' (3)	CENTERLINE AND EDGELINE STRIPES	4" (5)	PAINT	6"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)

*OTHER DURABLE NON-WATERBORNE MARKINGS MAY BE USED WITH APPROVAL FROM THE DIVISION OF TRAFFIC OPERATIONS.

~ NOTES ~

1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.

(2) THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.

(3) ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGELINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS THAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGELINE RUMBLE STRIPS AS DETAILED ON TPR-120 .

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON TPR-125.

(4) EDGELINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.

(5) EDGELINES MAY BE OMITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.

6. EDGELINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGELINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MPH OR GREATER.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS.
TPR-120 & TPR-125

KENTUCKY
DEPARTMENT OF HIGHWAYS

PAVEMENT STRIPING
DETAILS FOR TWO LANE
TWO WAY ROADWAYS

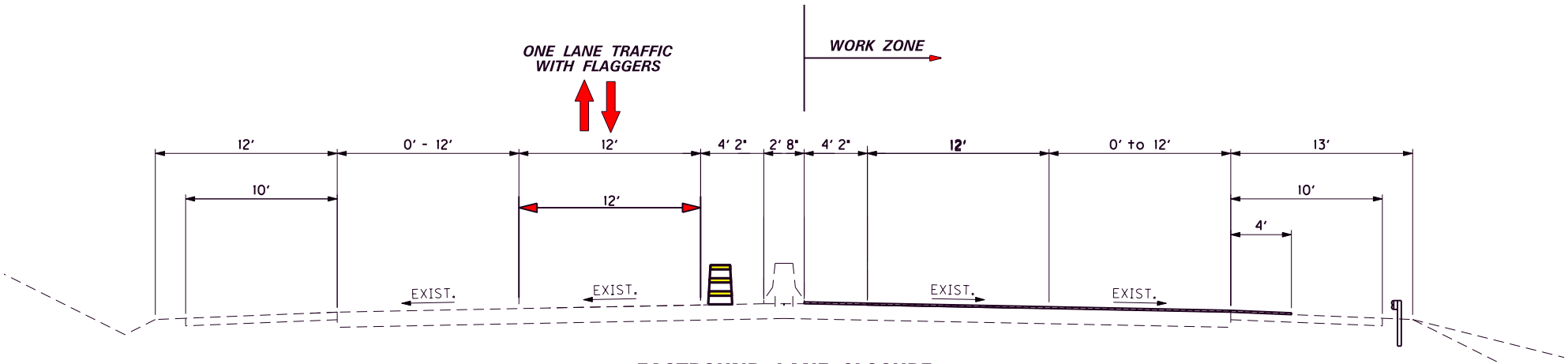
SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

017

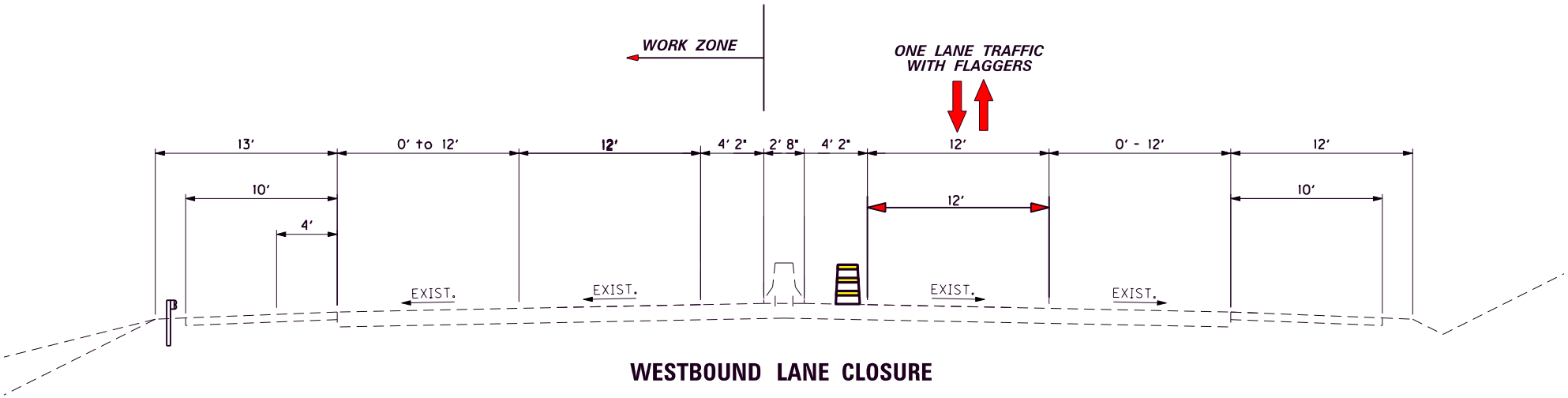
MAINTENANCE OF TRAFFIC

HR 9006 – HAL ROGERS PARKWAY
CONSTRUCTION WITH PILOT CAR AND FLAGGING OPERATIONS ALL PHASES

County	Item No.	Sheet
PERRY	10-20002	-



EASTBOUND LANE CLOSURE



WESTBOUND LANE CLOSURE

① MAKE PROVISION FOR PASSAGE OF WIDE LOADS

CONSTRUCT THIS PHASE

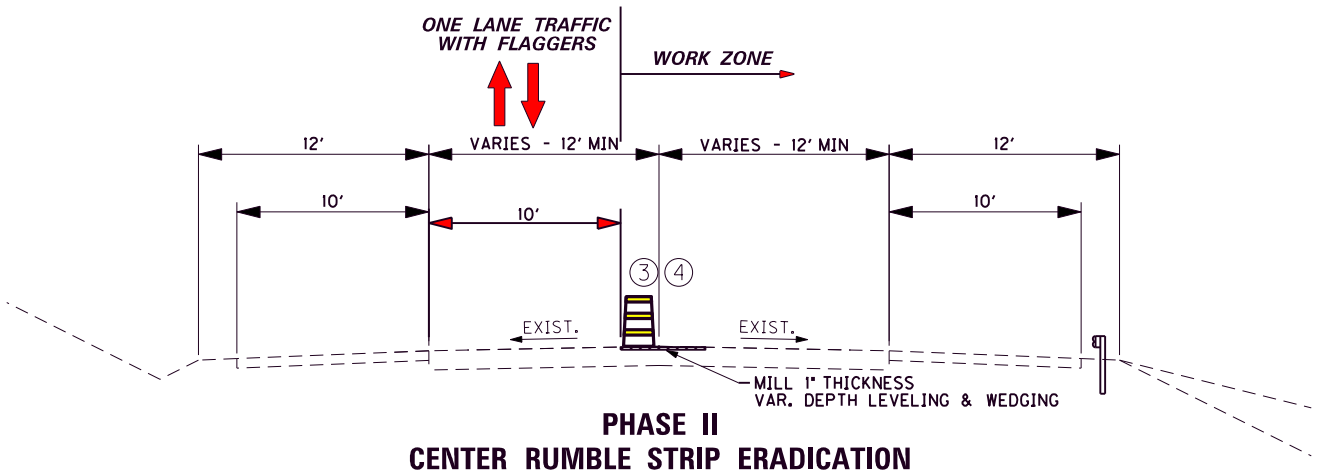
NOT TO SCALE

HAL ROGERS PARKWAY
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

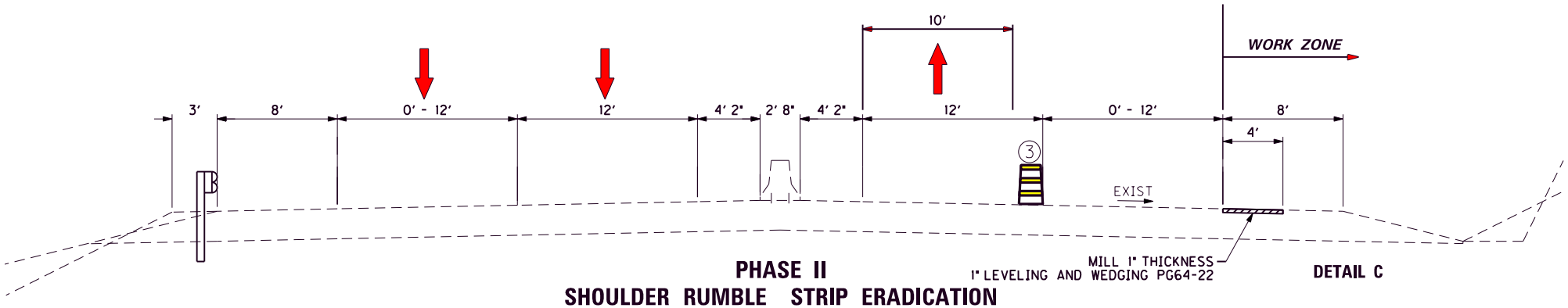
MAINTENANCE OF TRAFFIC

KY 9006 – HAL ROGERS PARKWAY

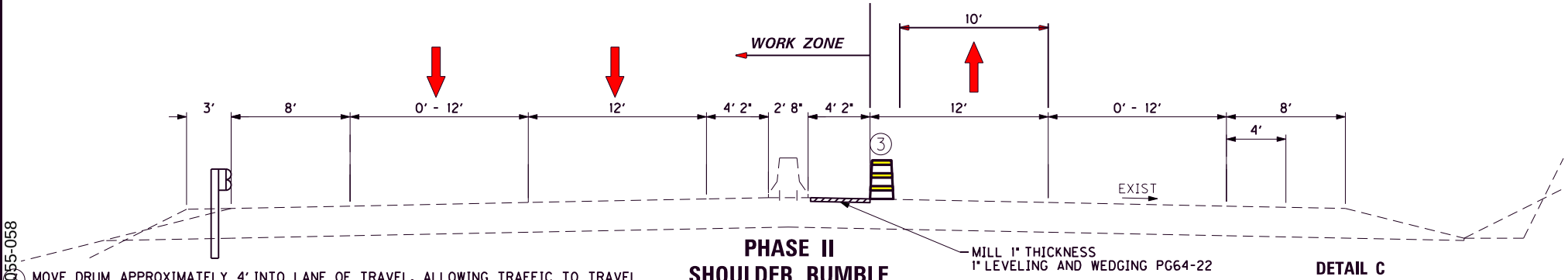
County	Item No.	Sheet
PERRY	10-20002	-



PHASE II
CENTER RUMBLE STRIP ERADICATION



PHASE II
SHOULDER RUMBLE STRIP ERADICATION



PHASE II
SHOULDER RUMBLE STRIP ERADICATION

(3) MOVE DRUM APPROXIMATELY 4' INTO LANE OF TRAVEL, ALLOWING TRAFFIC TO TRAVEL PARTIALLY ON SHOULDER ONLY IN THE IMMEDIATE VICINITY OF THE MILLING OR PAVING OPERATION. RESTORE DRUM TO POSITION AS SHOWN AS SOON AS MILLING IS COMPLETED, AND AS SOON AS LEVELING AND WEDGING COMPACTION IS COMPLETED.

(4) ALLOW TRAFFIC TO TEMPORARILY CROSS THE MILLED SURFACE TO MAINTAIN TRAFFIC UNTIL LEVELING AND WEDGING CAN BE PLACED. COMPLETE LEVELING AND WEDGING AS SOON AS POSSIBLE AND WITHIN THE SAME SHIFT AS THE MILLING OPERATION.

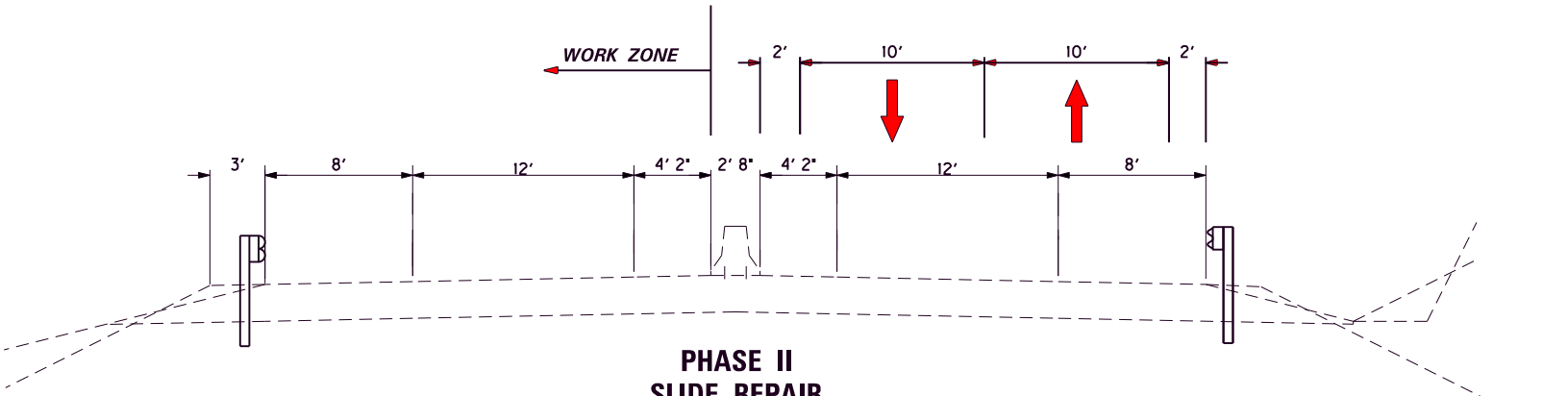
CONSTRUCT THIS PHASE ▨ NOT TO SCALE

HAL ROGERS PARKWAY MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

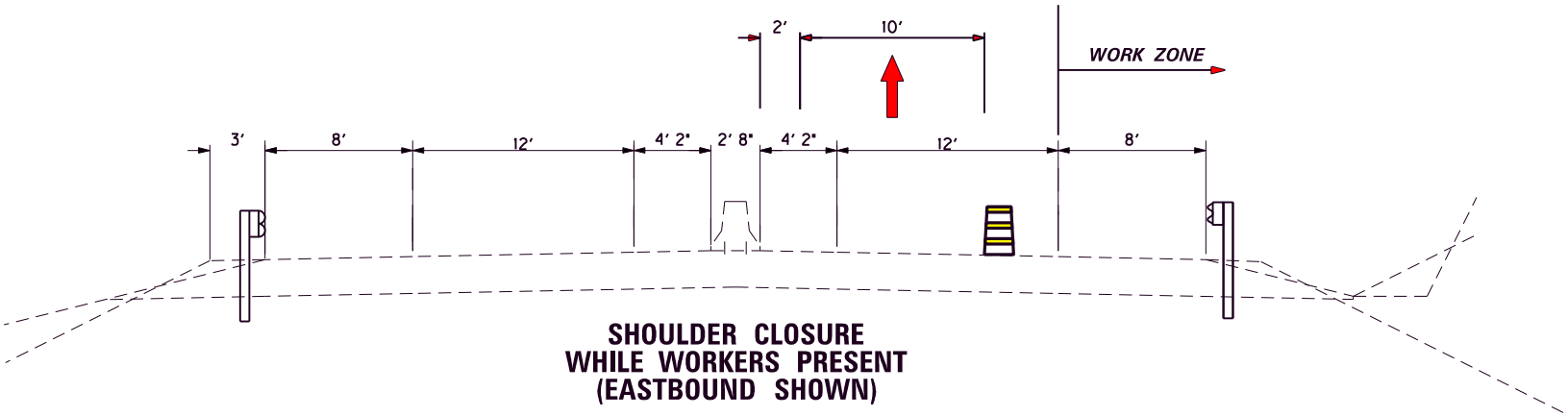
MAINTENANCE OF TRAFFIC

KY 9006 – HAL ROGERS PARKWAY

County	Item No.	Sheet
PERRY	10-20002	-



PHASE II
SLIDE REPAIR

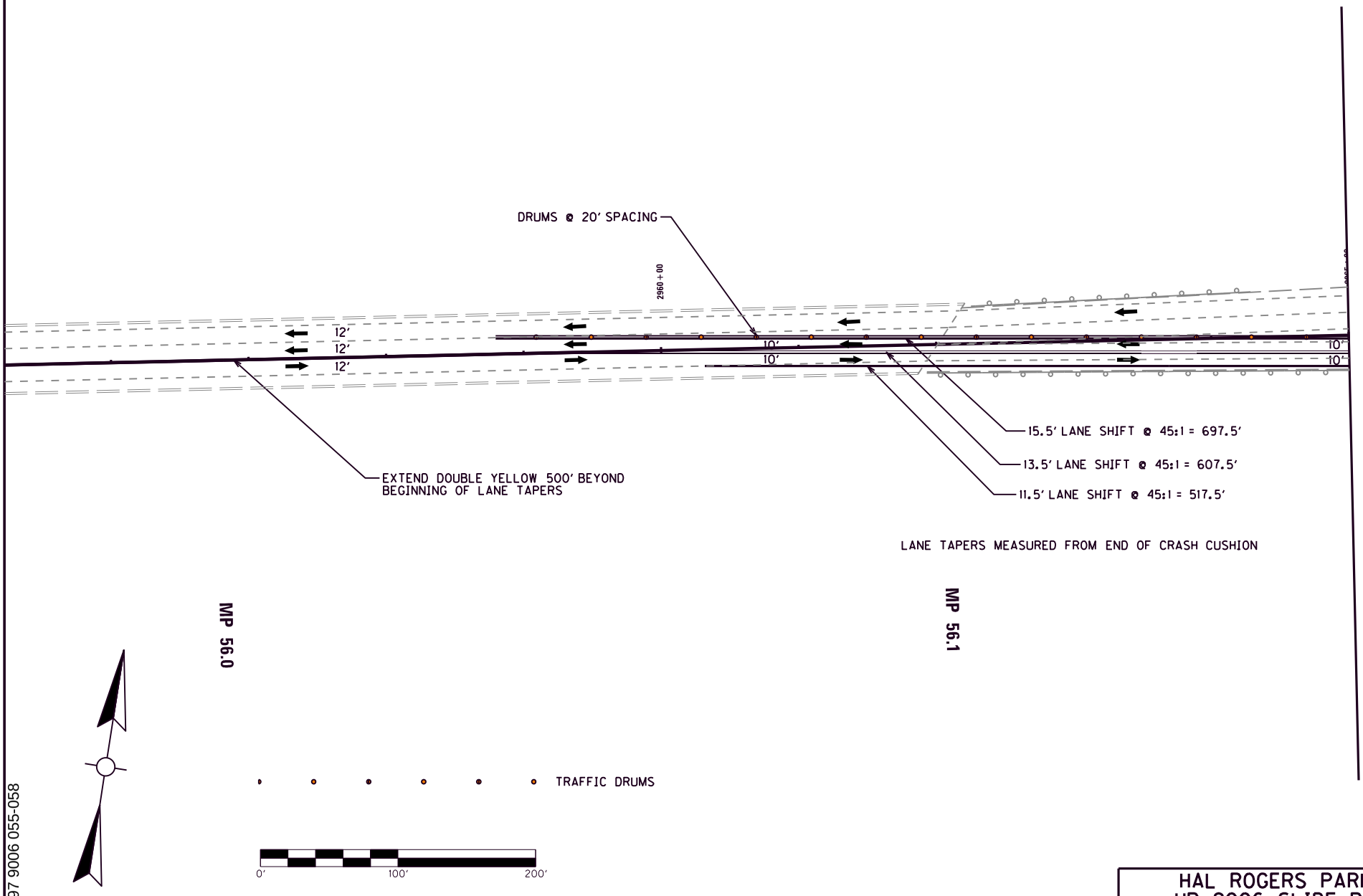


SHOULDER CLOSURE
WHILE WORKERS PRESENT
(EASTBOUND SHOWN)

NOT TO SCALE

HAL ROGERS PARKWAY
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

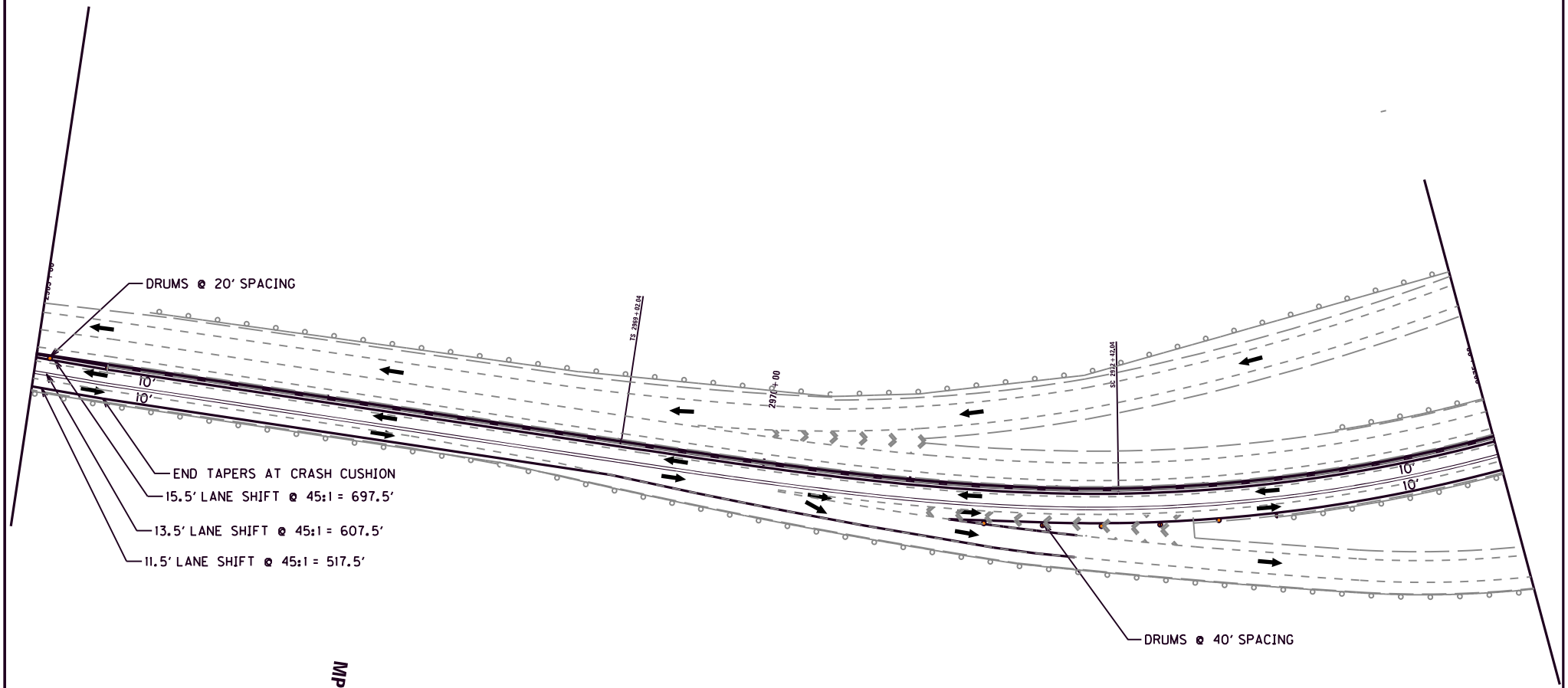
County	Item No.	Sheet
PERRY	10-20002	-

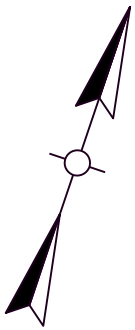


SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

County	Item No.	Sheet
PERRY	10-20002	-

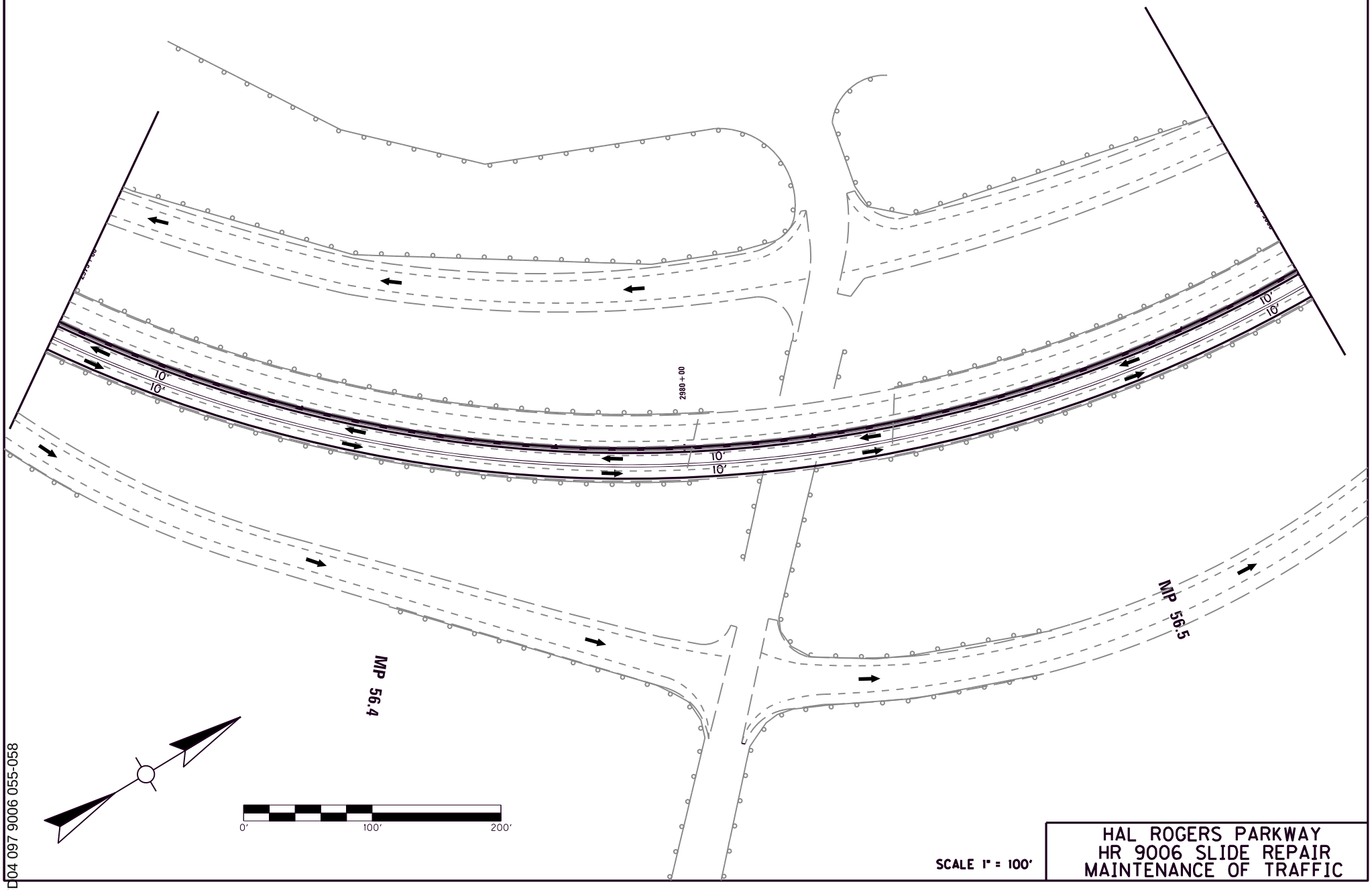




SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

County	Item No.	Sheet
PERRY	10-20002	-

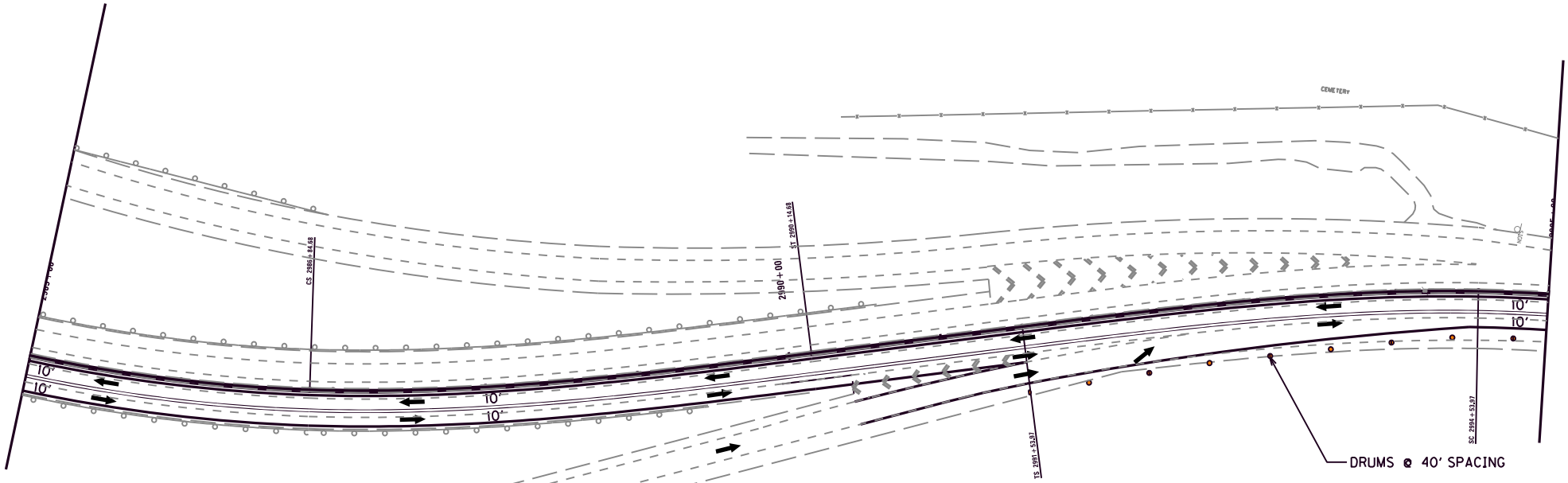


SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

PERRY COUNTY
FD04 097 9006 055-058

County	Item No.	Sheet
PERRY	10-20002	-



MP 56.6

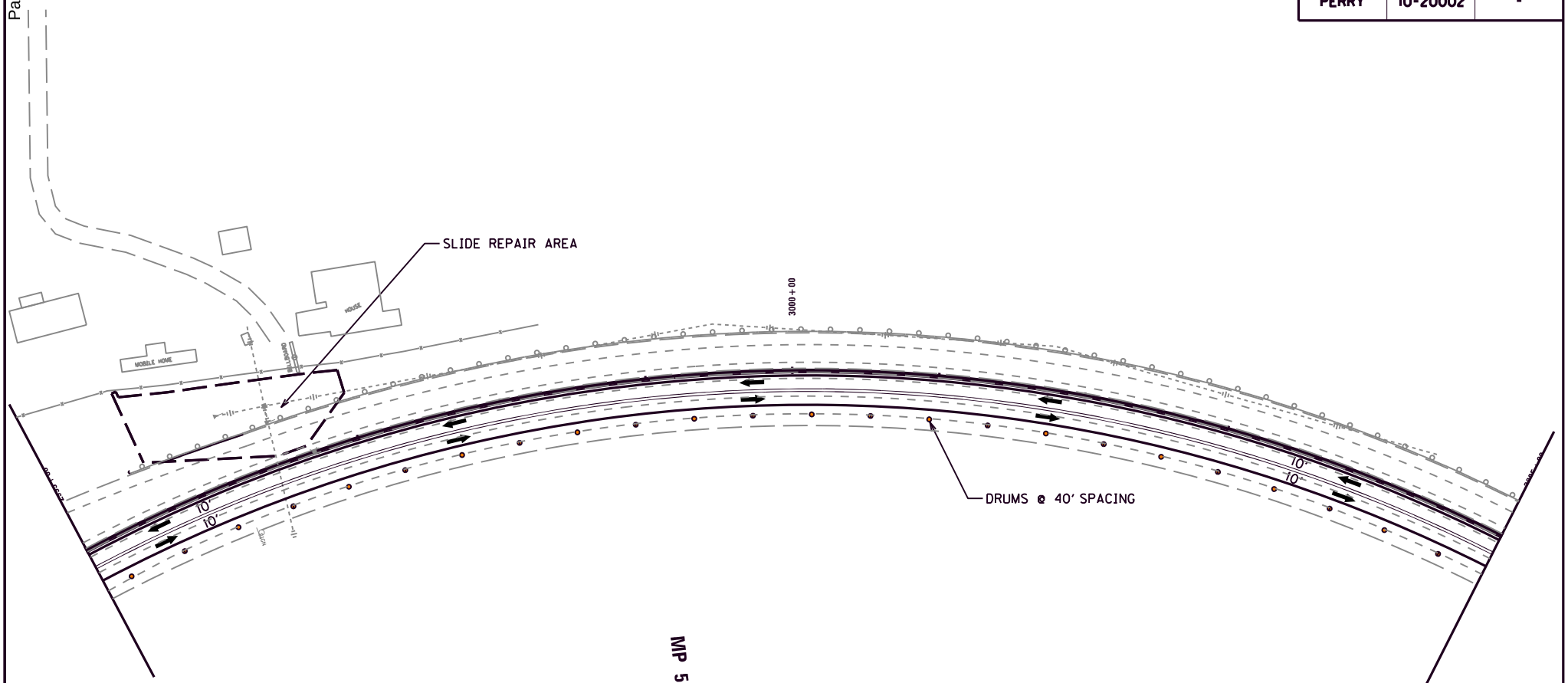
MP 56.7

0' 100' 200'

SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

County	Item No.	Sheet
PERRY	10-20002	-

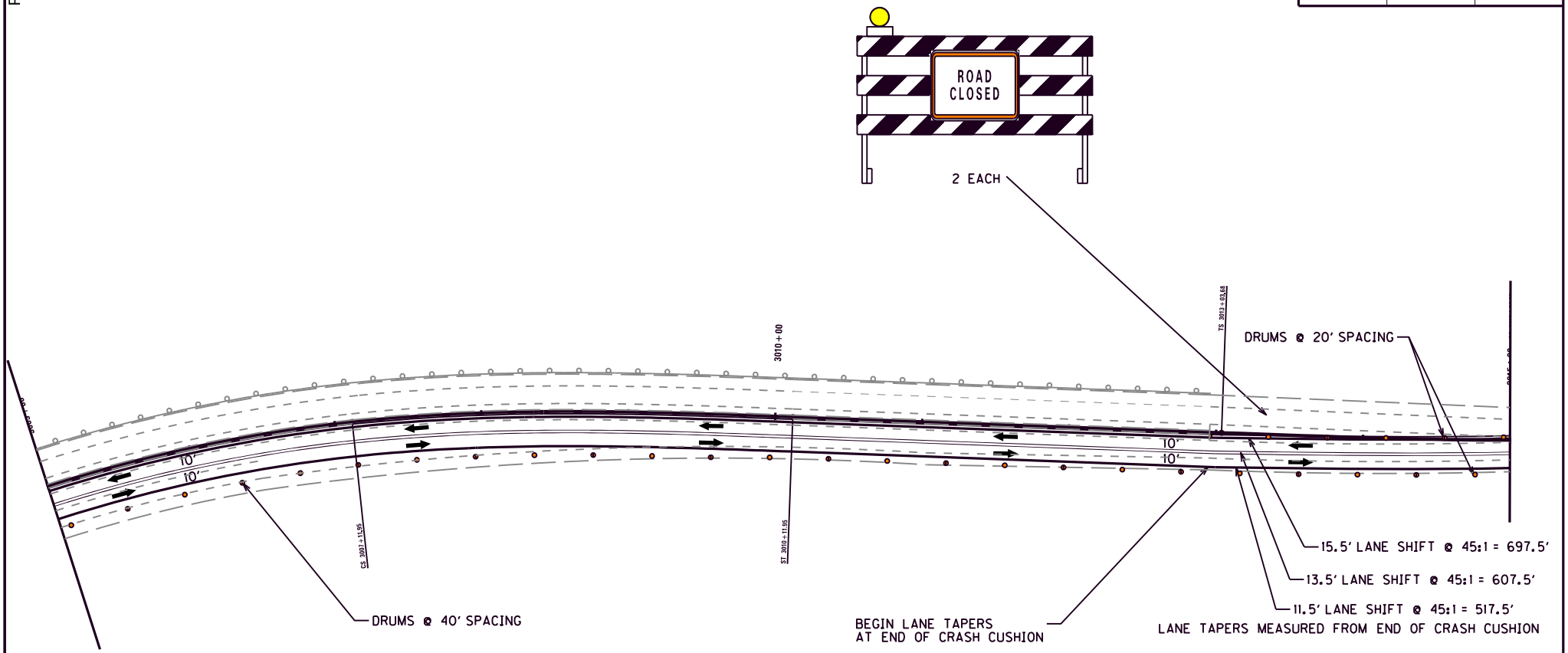


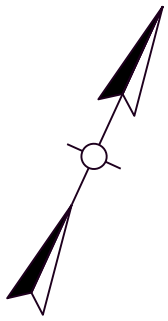
SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

PERRY COUNTY
FD04 097 9006 055-058

County	Item No.	Sheet
PERRY	10-20002	-

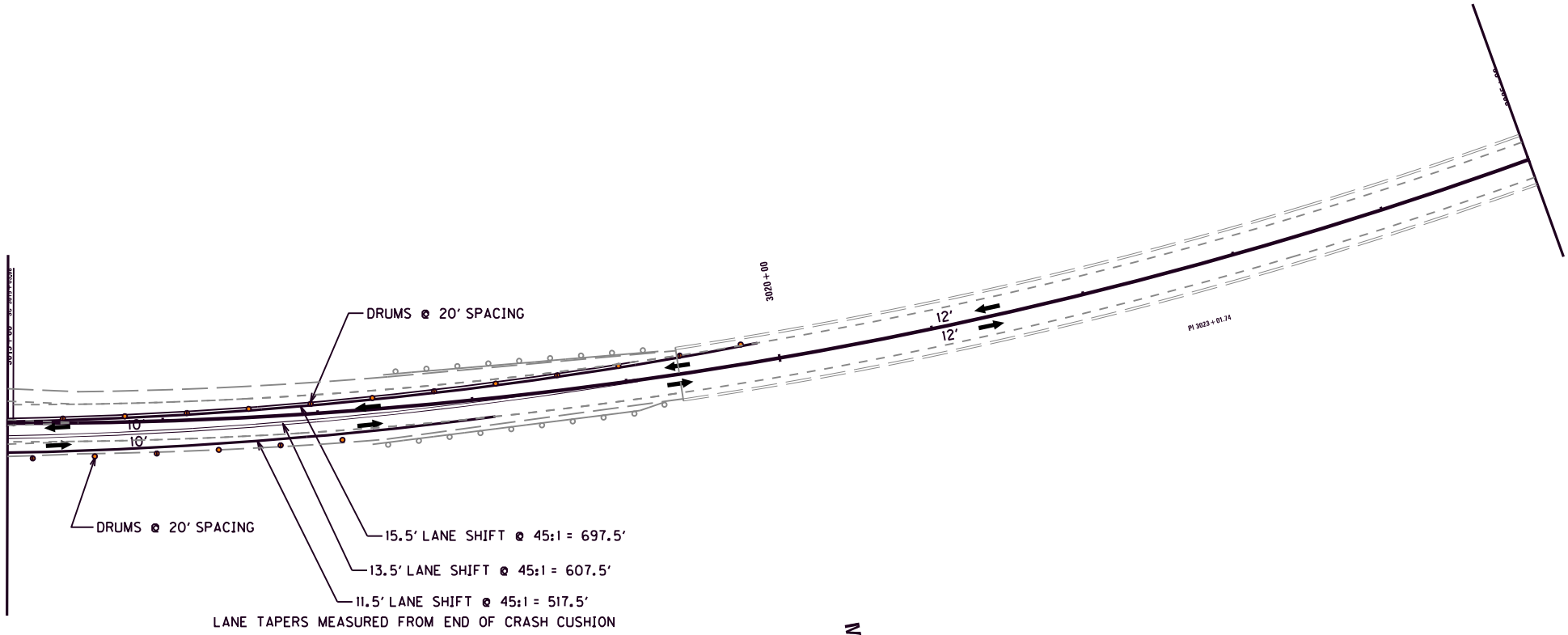


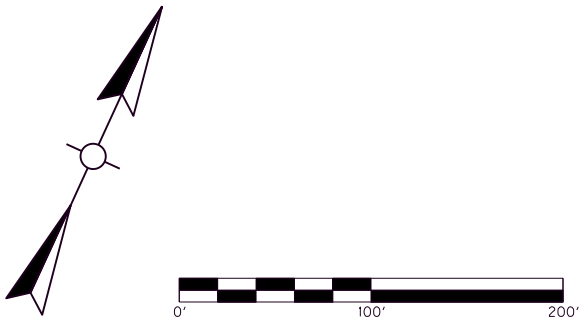


SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

County	Item No.	Sheet
PERRY	10-20002	-





SCALE 1" = 100'

HAL ROGERS PARKWAY
HR 9006 SLIDE REPAIR
MAINTENANCE OF TRAFFIC

TRAFFIC CONTROL PLAN
PERRY COUNTY
HR 9006
FD04 026 9006 055-058
Item No. 10-20002

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, “Maintain and Control Traffic” shall be in accordance with the 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. Do NOT use cones for lane closures or shoulder closures.

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 45 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 “BEGIN DOUBLE FINES ZONE” signs will be dual mounted. At the end of the work zone, the “END DOUBLE FINES ZONE” signs will be dual mounted as well. Remove or cover the signs or turn off flashers 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 or operation of flashers will be incidental to “Maintain and Control Traffic”, lump sum.

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

PROJECT PHASING & CONSTRUCTION PROCEDURES

Maintain a minimum of two lanes of traffic open (one per direction of travel), except traffic may be reduced to one lane during times of expected low traffic volumes as listed for most activities. Traffic may be reduced to one lane for daytime operations for all items of work on the project.

Reduction of traffic to one lane and ramp closures will **NOT** be allowed on the project during the following days and times, unless otherwise approved by the Engineer:

Thanksgiving Weekend	6:00 am Nov 25, 2021 – 7:00 pm Nov 28, 2021
Christmas	6:00 am Dec 24,2021 – 7:00 pm Dec 26, 2021
New Years	6:00 am Dec 31, 2021 – 7:00 pm Jan 2, 2022
Easter Weekend	6:00 am Apr 15, 2022 – 7:00 pm Apr 17, 2022
Memorial Day	6:00 am May 27, 2022 – 10:00 pm May 30, 2022
Independence Day	6:00 am Jul 1, 2022 – 10:00 pm Jul 4, 2022
Labor Day	6:00 am Sep 2, 2022 – 10:00 pm Sep 5, 2022
Black Gold Festival	6:00 am Thursday – 12:00 am Sunday date TBD
Thanksgiving Weekend	6:00 am Nov 24, 2022 – 7:00 pm Nov 27, 2022

Traffic shall NOT be reduced to one lane during the following times.

Monday – Sunday 6:00 am – 8:30 am

Note: In the event that traffic backups reach an unacceptable level, the days and hours of allowable single lane traffic may be modified by the Cabinet.

See Special Note for Fixed Completion Date and Liquidated Damages for penalties associated with an occurrence of reduction of traffic to one lane and/or ramp closures during unauthorized times.

One ramp closure per ramp will be allowed for the Exit 56 off-ramps. The westbound off-ramp and westbound lane will be allowed to be closed for 14 Calendar Days for slide repair activities and for milling and inlaying of the final asphalt surface course. Access to the Exit 56 westbound off-ramp must be restored and westbound lane opened by midnight of the 14th Calendar Day of establishment of the diversion (12:00 am the following day). The eastbound off-ramp may be closed for 1 – 4 hour period for placement of final asphalt surfacing only. The eastbound off-ramp closure must be between the hours of 8:30 am and 3:00 pm of the chosen day of closure. Access to all ramps must be maintained by half width construction and short-term lane shifts except for the closure times allowed herein. Access to both eastbound and westbound on-ramps will be maintained at all times. Ramp closures will not be allowed during above listed holiday times and dates. Only one ramp closure will be allowed for each interchange off-ramp.

Do not begin work on the project prior to April 1, 2022.

SHOULDER PREPARATION AND RESTORATION

Traffic may be shifted onto shoulders temporarily in the immediate vicinity of milling or paving operations. Restore traffic to the mainline travel lanes as soon as practical after completion of the milling or paving operation in the local area.

Application of traffic to shoulders will be required while westbound traffic is diverted to the south side of the median barrier for slide repair activities and final asphalt surfacing of the westbound lanes. Inspect shoulders prior to application of traffic and make repairs as directed by the engineer. Monitor shoulder conditions periodically during the life of the project for damages. Monitor shoulder conditions daily when traffic is applied to shoulders and make repairs necessary for maintenance of the pavement for maintenance of traffic as directed by the engineer. Repair shoulder pavement by placement of Leveling and Wedging over the damaged area or mill and inlay a depth of asphalt base if deemed necessary by the engineer.

Prior to placement of the final asphalt surface course, inspect shoulders for unrepaired damaged locations in the diversion area. Repair damaged shoulder pavement by milling and inlaying the damaged areas with asphalt base to the depths prescribed by the engineer. Conduct these repairs, after completion of the typical 1 ½" milling and texturing of the eastbound lanes, matching the asphalt base layer used for repairs to the adjacent milled surface. Place final asphalt surfacing over all asphalt base used for shoulder repairs, regardless of whether they are within the typical 4' width of outside shoulder resurfacing.

Discretionary quantities of Asphalt Pave Milling and Texturing, Leveling and Wedging PG64-22, and CL3 Asph Base 1.00D PG64-22 have been established for the purposes of repairing damaged shoulder pavement. Only the tonnages of established pay items used will be measured for payment for these repairs and no additional payment will be made for additional mobilizations of equipment, additional Mobilization for Milling and Texturing, additional Maintain and Control Traffic or other items of work required to compete the repairs.

LANE WIDTH

The minimum clear lane width will be 10 feet. Restore lanes to 12 feet width as soon as practical. Make provisions for the passage of wide loads up to 16'. Use a lane closure all times when work is performed in the lane or adjacent shoulder.

SPEED LIMIT REDUCTIONS AND DOUBLE FINE ZONES

Reduce speed limit to 45 MPH during the project. Restore speed limits to 55 MPH during expected periods of inactivity greater than 7 days.

Utilize double fine zone signs in strict accordance with Standard Drawing TTD-120-03.

Project Phasing:

The contractor must notify the Engineer at least seven (7) days prior to the beginning of each construction phase in either direction.

PHASE I

In this phase, using pilot car and flaggers when reduction of traffic to one lane is required, complete all activities possible outside the shoulders, including but not limited to, ditching and shouldering, erosion repairs, and channel lining.

PHASE II

Use Portable Changeable Message Signs (PCMS) to notify the public for a period of 2 weeks prior of the proposed closure of the westbound off ramp of Exit 56. Position signs at locations directed by the engineer.

In this phase, using pilot car and flaggers when reduction of traffic to one lane is required, perform asphalt milling and leveling and wedging to remove the existing centerline rumble strips and remove the eastbound shoulder rumble strips. Place leveling and wedging to restore the pavement surface that has been milled to prepare for the proposed traffic diversion.

Reconfigure striping to introduce traffic to the proposed diversion. See Slide Repair Maintenance of Traffic detail sheets. Reduce lane widths to 10’ by use of 45:1 lane tapers. Use 45:1 lane shifts to shift traffic 2-way to the south side of the concrete median barrier, closing the existing westbound lanes and closing the westbound interchange off-ramp. Maintain traffic on the westbound on-ramp.

Use PCMS signs to advise traffic to seek an alternate route for the closure of the eastbound Exit 56 off-ramp. A signed detour will not be established. Position PCMS at locations directed by the engineer.

Complete slide repairs and restore asphalt base in the slide repair area.

Complete milling and inlay of the final surface course for the westbound lanes, westbound ramps and all westbound shoulders. Complete paving of the westbound lanes and shoulder at the project ends by use of pilot car and flaggers during times of allowable lane closures.

DGA shoulder wedge, guardrail repairs, asphalt seal coat, erosion repairs, and other operations of work may be performed during this phase at the contractor's discretion, provided that traffic can be restored to the westbound lane and westbound off-ramp within the duration allowed. See Project Phasing & Construction Procedures above for limits of the duration that the westbound off-ramp and westbound lane may be closed.

Restore traffic to its original configuration.

PHASE III

Using pilot car and flaggers, complete milling of the eastbound lanes, eastbound shoulders, and eastbound ramps and eastbound ramp shoulders. Place temporary striping and restore traffic to its original configuration.

Using pilot car and flaggers, complete final surfacing of the eastbound lanes, eastbound shoulders, and eastbound ramps and eastbound ramp shoulders.

PHASE IV

In this phase, using pilot car and flaggers when reduction of traffic to one lane is required, complete all remaining items of work, including but not limited to rumble strips, delineators, pavement markers and any remaining final pavement markings, and any final cleanup operations.

LANE CLOSURES

Contrary to Section 112.04.17, Lane closures, whether long term or short term, will not be measured for payment and will be considered incidental to the bid item "Maintain and Control Traffic".

A pilot car must be employed at any time a lane closure is in place that requires flagging. The pilot car will be considered incidental to Maintain and Control Traffic.

Do not leave lane closures in place during non-working hours or prohibited periods.

Make immediate provisions for the passage of school buses, ambulances, and other emergency vehicles on an official run. Coordinate flagging of wide loads with the permittee's traffic control personnel.

Long term lane closures are not expected to be employed on this project. If the contractor's operations warrant the use of a long term lane closure, any cost of temporary removable lane tape, temporary striping and removal of temporary striping will be considered to be at the contractor's expense.

See "PROJECT PHASING AND CONSTRUCTION PROCEDURES" above for restrictions to times that traffic may be reduced to one lane.

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 LEFT/RIGHT LANE CLOSED or ONE LANE TRAFFIC 1 MILE, LEFT/RIGHT LANE CLOSED or ONE LANE TRAFFIC 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE or ONE LANE TRAFFIC, SLOWED/STOPPED TRAFFIC AHEAD, KEEP LEFT/RIGHT. 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 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 or signs directed to be replaced by the Engineer due to poor legibility or reflectivity will not be measured for payment.

Contrary to Section 112, only long-term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic

GUARDRAIL

Quantities have been established for replacement of damaged guardrail and non-standard guardrail. Compact DGA in post holes resulting from removal of existing posts prior to installation of new posts. Payment will be allowed for DGA used for backfilling post holes.

Guardrail removal and reinstallation for purposes of access of work sites will be at the contractor's expense unless a quantity of guardrail removal and installation of new guardrail is established for the item of work requiring access.

A lane closure or shoulder closure will be required at all times guardrail is not in place. All blunt ends will be eliminated by removal of additional posts and pinning the blunt end to the ground and covering the end with soil or DGA. Maintain drums at 40' spacing in any area in which guardrail has been removed until such time it is replaced.

Restore all guardrail and end treatments within 7 days of removal of the existing guardrail.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide portable changeable message signs (PCMS) in advance of and within the project at locations to be determined by the Engineer. PCMS being bid independently of the Queue Warning System shall be used as directed by the engineer. The PCMS will be in operation at all times. In the event of damage or mechanical/electrical failure, the contractor will repair or replace the PCMS immediately. PCMS will be paid for once, no matter how many times they are moved or relocated. The Department **WILL NOT** take possession of the signs upon completion of the work.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved truck mounted attenuators (TMA) in advance of work areas 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 shall be approved by the Engineer. TMA will not be measured for payment, but are incidental to "Maintain and Control Traffic," Lump Sum. The Department **WILL NOT** take possession of the TMAs upon completion of the work.

PAVEMENT MARKINGS

Remove or cover the lenses of 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 or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic," lump sum.

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

1. Temporary striping will be 6" in width.
2. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.
3. Permanent striping will be extruded thermoplastic markings for applications on asphalt pavement and durable type 1 tape for concrete surfaces.

PAVEMENT EDGE DROP-OFFS

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

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" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time.

Greater than 4" - Positive separation or Wedge with 3:1 or flatter slope required. If there is 8 feet or more distance between the edge of pavement and drop-off, bridge panels or traffic drums will be placed every 50 feet throughout the drop-off area. Payment for CSB or DGA used for wedging will be allowed.

Temporary Conditions – For temporary conditions, drop-off areas greater than 4", and less than 8' from the edge of traveled way, may be protected by drums at 50' spacing provided work is pursued continually until the drop-off is eliminated, during daylight hours or with the utilization of adequate lighting to illuminate the area during nighttime operations.

TRAFFIC COORDINATOR

Designate an employee to be traffic coordinator. The designated Traffic Coordinator must meet the requirements of section 112.03.12 of the 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 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 boards as queue lengths change. 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. 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 conduct U-turns on the project. Do not allow contractor vehicles to travel against the normal flow of traffic.

In accordance with Section 112.03.03 of the Specifications, place all construction equipment and materials outside the clear zone, beyond the ditch, behind guardrail or off the existing right of way when not in use.

WIDE LOADS

Wide load detours will not be established on this project. Provide for passage of wide loads up to 16 feet while work is active on the project. Wide loads may use a portion of the shoulder to allow for passage. Temporarily shift traffic drums to allow for passage of wide loads when necessary.

Notify the engineer 2 weeks prior to diverting westbound traffic to the eastbound lanes 2-way. The engineer will notify MVE Permitting that wide loads will be allowed to pass through the diversion, but the trucking company will be required to provide traffic control to stop traffic and escort the wide load through the diversion. Wide load permit holders will also be required to coordinate the closure with the highway contractor when highway work is active and may be required to wait until contractor equipment is situated in a position to allow the wide load to pass.

BARRICADE-TYPE III

Place Barricade-Type III as shown on the drawings or as required by MUTCD and Standard Drawings. Also, place Barricade-Type III in advance of Asphalt Base Repair locations until such time that the repair areas are backfilled with asphalt base. No direct measurement or payment will be made for Barricade-Type III.

HR 9006
Perry County
FD04 097 9006 055-058
Item No. 10-20002
MP 56.100 TO MP 57.185

THIS PROJECT IS A PARTIALLY CONTROLLED ACCESS HIGHWAY

I. DESCRIPTION

Perform all work in accordance with the Department's 2019 Standard Specifications, Supplemental Specifications, Applicable Special Provisions, and Applicable Standard and Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

(1) Maintain and Control Traffic; (2) Guardrail Replacement; (3) Slide Repairs (4) Asphalt Pavement and Milling and Texturing; (5) Pavement Markers and Markings; (6) Erosion Repairs and Grading Slopes; (7) Ditching and Shouldering; and (8) All other work specified as part of this contract.

II. MATERIALS

Except as specified in these notes or on the drawings, all materials will be according to the Standard Specifications and applicable Special Provisions and Special Notes. The Department will sample and test all materials according to Department's Sampling Manual and the Contractor will have the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

A. **Maintain and Control Traffic.** See Traffic Control Plan.

B. **Pavement Markings -6 inch.** Permanent striping will be extruded thermoplastic markings on asphalt surfaces and durable type 1 tape on concrete surfaces in accordance with Section 714 of the Specifications.

C. **Channel Lining Class II & III.** Channel lining will be limestone and is to be placed at pipe outlets, ditch repair and eroded locations as directed by the Engineer.

D. **Guardrail Posts.** Contrary to the Standard Drawings, use 7’ posts for all new guardrail posts to be installed on the project.

E. **Asphalt Material for Tack Non-Tracking.** Use Asphalt Material for Tack Non-Tracking. See Special Note for Asphalt Material for Tack Non-Tracking.

F. **Weighing of Project Materials.** See Special Note for HMA Electronic Delivery Management System (HMA e-ticketing). Additionally, HMA Electronic Delivery Management System (e-ticketing) will be required for ticket requirements for **all materials** delivered and/or paid by weight, including but not limited to milling and texturing, asphalt mixes, aggregate, and aggregate bases.

G. **Portable Queue Warning Alert System.** See Special Note for Portable Queue Warning Alert System.

III. CONSTRUCTION METHODS

A. **Maintain and Control Traffic.** See Traffic Control Plan. Use waterblasting methods only for striping removal when necessary in lieu of abrasive or other methods. Take all necessary precautions to avoid permanent damage to final asphalt surfacing courses when removing temporary striping and adjust waterblasting process if necessary.

B. **Site Preparation.** Be responsible for all site preparation. Do not disturb existing signs. This item will include, but is not limited to, incidental excavation and backfilling; removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; shoulder preparation and restoration; and all incidentals. Site preparation will be only as approved or directed by the Engineer.

C. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor. The contractor will be responsible for obtaining any necessary permits for this work. Temporary openings in the right of way fence for direct access to waste sites off the right of way or for access to other public roads will not be allowed. No separate payment will be made for obtaining the necessary permits but will be incidental to the other items of the work. Disposal of existing cuttings and brush shall adhere to Section 202 of the current Standard Specifications.

D. **Final Dressing, Clean Up, and Seeding and Protection.** After all work is completed, completely remove all debris from the job site. Perform Class A Final Dressing on all disturbed areas. Sow disturbed earthen areas with Seed Mixtures No. I & III and use erosion control blanket in lieu of “Seeding and Protection” in all seeding applications except as directed by the engineer. Install erosion control blanket in all ditching areas not receiving aggregate channel lining.

E. **Guardrail.** See Traffic Control Plan for construction methods, phasing, and duration that guardrail may be removed prior to installation of the new guardrail. Verify type of end treatments to be installed prior to ordering of materials.

F. **Guardrail Bridge End Connector Type A.** Construct Guardrail Bridge End Connector Type A's in accordance with the applicable Standard Drawings to the fullest extent possible. Minor adjustment to the vertical location of the end shoe may be required. If adjustments in the location of the end shoe, and/or any other elements of the end treatment are required, provide a smooth transition to the standard installation as soon as is practical.

G. **Pavement Striping and Inlaid Pavement Markers.** Permanent striping will be in accordance with Section 112 for temporary striping, and Section 714 for Thermoplastic Markings and Durable Type 1 Markings, except that:

(1). Striping will be 6" in width.
(2). Permanent striping or temporary pavement markings will be in place before a lane is opened to traffic.
(3). Permanent Pavement Markers shall be installed per Sepias 006, 008, 009, 010, 011, 013, and 014. Use mono-directional white markers for truck climbing lanes.

H. **On-Site Inspection.** In accordance with section 102.06, each Contractor submitting a bid for this work will make a thorough inspection of the site prior to submitting a bid and will thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

I. **Caution:** Information shown on the drawings and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusions as to the conditions encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information above.

J. **Utility Clearance.** It is not anticipated that utility facilities will need to be relocated and/or adjusted except for the existing pole and guy wires in the slide repair area; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities.

K. **Asphalt Pave Milling & Texturing.** See Special Note for Asphalt Milling and Texturing.

L. **Pave Striping-Temp Rem Tape.** Temporary pavement markings and masking of existing striping will be required on pavements or bridge decks that are outside the limits of the pavement resurfacing limits. Use Pave Striping-Temp Rem Tape-B

on the pavement/bridge decks that are outside the paving limits to mask lines that are not in accordance with the current traffic phasing. Use Pave Striping-Temp Rem Tape-W or -Y on the pavement/bridge decks that are outside the paving limits for temporary striping.

Use waterblasting methods to remove striping that is not in accordance with the current traffic phasing within the limits of the project that will be resurfaced. Use Pave Striping-Temp Paint 6" within the limits of the project that will be resurfaced.

M. **DGA Shoulder Wedge.** Place DGA wedge on the DGA shoulder and shape to restore typical cross slopes and to eliminate pavement edge drop-offs.

N. **Asphalt Material for Tack Non-Tracking.** See Special Note for Asphalt Material for Tack Non-Tracking.

O. **Weighing of Project Materials.** See Special Note for HMA Electronic Delivery Management System (HMA e-ticketing). Additionally, HMA Electronic Delivery Management System (e-ticketing) will be required for ticket requirements for **all materials** delivered and/or paid by weight, including but not limited to milling and texturing, asphalt mixes, aggregate, and aggregate bases.

P. **Portable Queue Warning Alert System.** See Special Note for Portable Queue Warning Alert System.

IV. METHOD OF MEASUREMENT

A. **Maintain and Control Traffic.** See Traffic Control Plan. Only the bid items listed will be measured for payment. No measurement or payment for striping removal or removal or covering of existing pavement marker lenses will be made and will be considered incidental to "Maintain and Control Traffic".

B. **Site Preparation.** Other than the bid items listed, site preparation will not be measured for payment, but will be incidental to the other items of work.

C. **Erosion Control.** Erosion control items will be measured and paid in accordance with the Standard Specifications for Road and Bridge Construction. No direct measurement for seeding in locations that erosion control blanket is used will be made as the seeding is incidental to the erosion control blanket in accordance with the specifications.

D. **Clearing and Grubbing.** No direct measurement of "Clearing and Grubbing" will be made as clearing of vegetation and debris, sod, or obstructions will be considered as part of "Site Preparation".

E. **Pavement Markers Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.

F. **Temporary Striping.** In accordance with the Specifications, temporary striping placed on final asphalt surface courses used as an interim marking and prior to placement of the final pavement markings will not be measured for payment.

G. **Asphalt Material for Tack Non-Tracking.** See Special Note for Asphalt Material for Tack Non-Tracking.

H. **Weighing of Project Materials.** See Special Note for HMA Electronic Delivery Management System (HMA e-ticketing). Additionally, HMA Electronic Delivery Management System (e-ticketing) will be required for ticket requirements for **all materials** delivered and/or paid by weight, including but not limited to milling and texturing, asphalt mixes, aggregate, and aggregate bases.

I. **Portable Queue Warning Alert System.** See Special Note for Portable Queue Warning Alert System.

V. BASIS OF PAYMENT

No direct payment will be made other than for the bid items listed. All other items required to complete the construction will be incidental to the bid items listed. Existing signs damaged by the Contractor will be replaced by the Contractor at his expense. Payment will be made in accordance with the KYTC Standard Specifications, current edition with supplemental specifications and current Standard Drawings unless otherwise specified herein.

A. **Maintain and Control Traffic.** See Traffic Control Plan. A pilot car is required for this project for use any time a lane closure requiring flagger is in place and will be considered incidental to Maintain and Control Traffic.

B. **Site Preparation.** Other than the bid items listed, no direct payment will be allowed for site preparation, but will be incidental to the other items of work.

C. **Clearing and Grubbing.** No direct payment of “Clearing and Grubbing” will be made as clearing of vegetation and debris, sod, or obstructions will be considered as part of “Site Preparation”.

D. **Pavement Marker Removal.** No direct payment will be made for the removal of the existing pavement markers prior to the milling operation and shall be considered incidental to milling and texturing.

E. **Lane Closures.** Contrary to Section 112, lane closures will not be measured for payment but will be incidental to the bid item “Maintain and Control Traffic”. Arrow boards, portable message boards, and signs shall be paid for one time regardless of how many times they are moved. Only signs intended to be left in place for more than 3 days will be measured for payment.

F. **Ditching and Shouldering.** In accordance with Section 209 of the Standard Specifications, the bid item "Ditching and shouldering" includes ditching on both sides of the roadway for the entire length of the project. Cleaning of all drainage structures, including perforated pipe headwalls and pipe structures 36 inches in diameter or less is also included in this bid item.

G. **Waterblasting Striping Removal.** Waterblasting Striping Removal will be required for all striping removal applications and will be considered incidental to "Maintain and Control Traffic" in accordance with Section 112.04 of the Specifications.

H. **Fabric-Geotextile Class 2.** No direct measurement or payment will be made for Fabric-Geotextile Class 2 used in conjunction with the placement of channel lining in channel lined ditches. Only applications of Fabric-Geotextile Class 2 with established contract quantities will be measured and paid in accordance with the Standard Specifications.

I. **Temporary Striping.** In accordance with the Specifications, temporary striping placed on final asphalt surface courses used as an interim marking and prior to placement of the final pavement markings will not be measured for payment.

J. **Roadway Excavation, Borrow Excavation and Embankment in Place.** A quantity of Roadway Excavation has been established and will be measured for payment in accordance with the Specifications for the proposed slide repair near W.B. mile point 56.75. See cross sections.

Only slide repair excavation will be measured for payment. Any other grading, excavation or embankment required to complete any other repairs on the project will be considered incidental to the item of work requiring the repair.

K. **Clearing and Grubbing.** No direct payment will be made for "Clearing and Grubbing.

L. **Guardrail.** Temporary removal and reinstallation of guardrail may be allowed for access to a work area, however the removal and reinstallation of guardrail for these applications will be at the contractor's expense. Only locations that quantities have been established for guardrail removal and new installation items will be measured for payment.

M. **DGA Wedge.** Removal of sod or debris, removal of excess DGA shoulder material if necessary, and preparation of the existing shoulder for additional DGA or for Asphalt Seal Coat, will be considered incidental to the Asphalt Seal Coat. DGA required to fill existing guardrail post holes will be measured for payment.

N. **Guardrail Bridge End Connector Type A.** Payment for the end connector will be made in accordance with the specifications. No additional payment will be made for minor modifications or transitions required to fit the existing barrier or drainage structures.

O. **Barricade-Type III.** Contrary to the Specifications, no direct payment will be made for Barricade-Type III and will be considered incidental to Maintain and Control Traffic.

P. **Asphalt Material for Tack Non-Tracking.** See Special Note for Asphalt Material for Tack Non-Tracking.

Q. **Weighing of Project Materials.** See Special Note for HMA Electronic Delivery Management System (HMA e-ticketing). Additionally, HMA Electronic Delivery Management System (e-ticketing) will be required for ticket requirements for **all materials** delivered and/or paid by weight, including but not limited to milling and texturing, asphalt mixes, aggregate, and aggregate bases.

R. **Utility Coordination.** No direct measurement or payment will be made for activities required to obtain relocation of existing utilities in the slide repair area or other locations if required.

S. **Portable Queue Warning Alert System.** See Special Note for Portable Queue Warning Alert System.

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MP 56.100 TO MP 57.185

This project is intended to provide a thin mill and inlay to provide a new mainline riding surface through the length of the project.

The dimensions shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless otherwise specified in the Proposal.

1. Unless otherwise directed by the engineer, the contractor is to use extreme care to ensure that cross slopes of mainline pavements are not altered from the original cross slope. Conduct operations and monitor results to ensure the original cross slope is restored unless otherwise directed by the engineer. The engineer reserves the right to direct the contractor to monitor cross slopes to restore crown in tangent sections, and/or restore original design cross slopes in curves.

2. The contractor is to be advised of the locations of overhead utility wires on the project. The following locations are approximate:

   Mile 56.38 Mile 56.40 Mile 57.18

CAUTION: Other overhead utility locations may exist. These and all other utilities should be avoided on this project. If any utility is impacted, it will be the contractor's responsibility to contact the affected utility and cover any costs associated with the impact.

An existing utility pole and guys are present in the slide repair location. The contractor will be required to work with the owner of the facility to temporarily relocate the facility until the slide repair is complete. The facility owner may replace the facilities in their original location upon completion of the slide repair if necessary.

3. The contractor is advised that the planned locations of work established by milepoints are referenced from the Kentucky Transportation Cabinet's Official Route Log. The existing reference markers may not correspond to the established work locations.

4. Quantities of guardrail removal and installation of new guardrail have been established for replacement of damaged and non-standard guardrail on the project. The contractor will place traffic drums on 40' spacing in the areas removed. Complete the removal of an entire string of guardrail by the end of the day's shift if practical. For temporary conditions in which only a portion of the string of guardrail is removed or a portion of new guardrail is constructed, remove

additional posts and pin down exposed blunt ends and cover with DGA or soil until such time that the remainder of the guardrail is removed. Hang guardrail daily on all new posts driven. Do not leave exposed posts, either existing or new.

Either a lane closure or shoulder closure shall be in place at any time that a section of guardrail is not in place. If the contractor chooses to remove guardrail for access to other areas of work, such as drainage structure work, etc., removal and reinstallation of guardrail for those access points will be at the contractor's expense and all temporary measures required for removal and replacement will be met.

5. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle center at 1224 Wilkinson Blvd in Frankfort, KY. Contact Section Supervisor at (502) 564-8187 to schedule the delivery of material. Deliver the material between the hours of 8:00AM and 3:30PM, Monday through Friday. There is a Guardrail Delivery Verification Sheet which must be completed and signed by the Contractor, Engineer and a representative of the Central Sign Shop and Recycle Center. A copy of this sheet is included elsewhere in the proposal.

6. Flexible Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications, and be placed in accordance with Section 3D of the M.U.T.C.D., current edition and current Standard Drawing.

7. This project requires the use of a Material Transfer Vehicle. In accordance with Section A of 403.03.05.

8. The speed limit on the project will be reduced to 45 mph while lane closures are in place. Any time work is suspended (duration greater than 7 days) the speed limit will revert back to 55 mph. Also, double fine signs are set up in the project to be installed while workers are present in the work zone.

9. Quantities of Channel Lining Class III have been included to be used in eroded areas around pipe inlet/outlets or in ditches to be repaired as directed and/or approved by the Engineer. The actual limits of the channel lining will be as directed and/or approved by the Engineer. Geotextile Fabric Class 2, as outlined in Section 214 of the Standard Specifications, will not be measured for payment and will be considered incidental to channel lining.

10. The contractor is to take care not to damage any existing roadway signs. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense in accordance with section 105.08 of the standard specifications. Any signs encountered that requires removal to perform the work must be stored in a covered building, protected from damage and reinstalled after completion of the work. Removal and re-installation of the signs will be considered incidental to other items of work.

11. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter are incidental to the bid item for "Ditching and Shouldering" in accordance with Section 209 of the 2019 Edition of the Standard Specifications for Road and Bridge Construction. This includes the cleaning of existing perforated pipe headwalls. Cleaning of all drainage structures and perforated pipe headwalls will be required whether or not they are identified on the plan sheets. Locations of existing drainage structures and perforated pipe headwalls are for informational purposes only and are not to be considered to consist of all possible structures. Reinstall any existing grates that are present but not in place on the drainage structure, incidental to “Ditching and Shouldering”.

12. Quantities of Asphalt Seal Coat and Seal Aggregate, and DGA base have been established to wedge and eliminate greater than 1 inch drop offs. The intent is to provide a DGA wedge to eliminate dropoff situations and to re-establish the typical stone shoulder width where needed and where practical to do so.

13. Coordinate activities of any adjacent contracts with this contract. The engineer will decide the relative priority concerning phasing and maintenance of traffic when conflicts arise with projects in close proximity with this project.

14. A quantity of Crushed Aggregate #2 has been established to repair erosion of slopes below the shoulders. Slope erosion is to be reshaped and an application of approximately 8” depth Crushed Aggregate #2 placed to armor the slope. The engineer will determine areas to receive this treatment and reserves the right to increase quantities, decrease quantities, or eliminate this item of work. All work required to gain access, remove rills by reshaping the slope in preparation for placement of the stone will be considered incidental to the payment of the item Crushed Aggregate #2.

15. A quantity of Leveling & Wedging has been established for restoration of the pavement riding surface after milling to remove rumble strips, see typical sections. Obtain prior approval from the engineer for methods of placement of the leveling and wedging to ensure efficient use. Leveling & Wedging is also to be used for profile, cross slope corrections, and to eliminate any rutting as directed by the engineer, prior to placement of the final asphalt surfacing course. Leveling and Wedging may also be used to perform minor repairs to damaged pavements for maintaining traffic on shoulders.

16. Cross sections are included for slide repairs at westbound mile point 56.75. Excavate to the limits shown or as directed to the engineer and place CL2 Geotextile Fabric and #2 stone backfill as soon as practical to prevent additional failure adjacent the slide. The contractor will be responsible for obtaining a waste site, obtaining agreements, and request KYTC approval for the waste site. The contractor will be required to contact the owner of the existing utility pole within the slide repair area and work with the owner to relocate the utility during construction. No delay claim related to facility relocation will be entertained.

REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019.

2. FHWA Manual on Uniform Traffic Control Devices – 2009 Edition.

3. Kentucky Department of Highways Standard Drawings, Current Edition, as applicable:

RBB-010-06	GUARDRAIL TRANSITION FROM NORMAL SHOULDER TO NARROW BRIDGE
RBC-002-04	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A COMPONENTS
RBC -003-09	GUARDRAIL CONNECTOR TO BRIDGE END TYPA A AND A-1 COMPONENTS
RBC-005-01	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A
RBC-005N	GUARDRAIL CONNECTOR TO BRIDGE END TYPE A NOTES
RBI-001-12	TYPICAL GUARDRAIL INSTALLATIONS
RBI-002-07	TYPICAL GUARDRAIL INSTALLATIONS
RBI-004-06	INSTALLATION OF GUARDRAIL END TREATMENT 1
RBM-020-09	DELINEATORS FOR CONCRETE BARRIERS
RBR-001-13	STEEL BEAM GUARDRAIL (“W’ BEAM)
RBR-005-11	GUARDRAIL COMPONENTS
RBR-010-06	GUARDRAIL TERMINAL SECTIONS
RBR-015-06	STEEL GUARDRAIL POSTS
RBR-018	GUARDRAIL SYSTEM TRANSITION
RBR-020-07	GUARDRAIL END TREATMENT TYPE 1
RBR-055-01	DELINEATORS FOR GUARDRAIL
RBR-060	DELINEATORS AT NARROW SHOULDER BRIDGES
RDD-040-05	CHANNEL LINING CLASS II AND III
RDI-040-01	EROSION CONTROL BLANKET SLOPE INSTALLATION
RDI-041-01	EROSION CONTROL BLANKET CHANNEL INSTALLATION
RDP-001-06	PERFORATED PIPE TYPES AND COVER HEIGHTS
RDP-010-09	PERFORATED PIPE HEADWALLS
RDX-210-03	TEMPORARY SILT FENCE
RDX-220-05	SILT TRAP - TYPE A
RDX-225-01	SILT TRAP - TYPE B
RDX-230-01	SILT TRAP - TYPE C
RGS-001-07	CURVE WIDENING AND SUPERELEVATION TRANSITIONS
RGX-001-06	MISCELLANEOUS STANDARDS
TPM-170-01	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR HORIZONTAL CURVES
TPM-171-01	FLEXIBLE DELINEATOR POST ARRANGEMENTS FOR INTERCHANGE RAMPS AND CROSSOVERS
TPM-200	TYPICAL ENTRANCE RAMP MARKINGS FOR INTERSTATES AND PARKWAYS
TPM-201	TYPICAL EXIT RAMP MARKINGS FOR INTERSTATES AND PARKWAYS
TPM-204	TYPICAL MARKINGS FOR GORE AREAS
TPR-100	CENTERLINE RUMBLE STRIPS PLACEMENT DETAILS
TPR-110	CENTERLINE RUMBLE STRIPS 6 INCH STRIPING
TPR-115	SHOULDER & EDGELINE RUMBLE STRIP PLACEMENT DETAILS

TPR-125	SHOULDER RUMBLE STRIP DETAILS TWO LANE ROADWAYS
TPR-130	RUMBLE STRIP DETAILS MULTI-LANE ROADWAYS AND RAMPS
TTC-100-05	LANE CLOSURE TWO LANE HIGHWAY
TTC-135-03	SHOULDER CLOSURE
TTD-120-03	DOUBLE FINE ZONE SIGNS
TTC-150-04	ROAD CLOSURE WITH DIVERSION
TTC-155-02	TEMPORARY PAVEMENT MARKER ARRANGEMENTS FOR CONSTRUCTION ZONES
TTD-125-03	PAVEMENT CONDITION WARNING SIGNS
TTD-130	SPEED ZONE SIGNING FOR WORK ZONES
TTS-100-02	MOBILE OPERATION FOR PAINT STRIPING CASE I
TTS-105-02	MOBILE OPERATION FOR PAINT STRIPING CASE II
TTS-130-02	MOBILE OPERATION FOR DURABLE STRIPING CASE III
TTS-135-02	MOBILE OPERATION FOR DURABLE STRIPING CASE IV

4. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019, Including - Supplemental Specifications, as applicable:

Special Note	Typical Section Dimensions *attached*
Special Note	Portable Changeable Message Signs *attached*
Special Note	Before You Dig *attached*
Special Note	Fixed Completion Date and Liquidated Damages *attached*
General Note	Asphalt Pavement Ride Quality (Cat A) *attached*
General Note	Compaction of Asphalt Mixtures (Option A) *attached*
Special Note	Asphalt Milling and Texturing *attached*
Special Note	Guardrail Delivery Verification Sheet *attached*
Special Note	Special Note for Experimental KYCT and Hamburg Testing *attached*
Special Note	Special Note for Non-Tracking Tack Coat *attached*
Special Note	Special Note for HMA Electronic Delivery Management System *attached*
Special Note	Special Note for Queue Warning Alert System

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

HR 9006
PERRY COUNTY
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The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened or narrowed **EXCEPT** where specified elsewhere in the Proposal.

SPECIAL NOTE FOR BEFORE YOU DIG

HR 9006
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Call 1-800-752-6007 toll free a minimum of two and no more than ten business days prior to excavation for information on the location of existing under-ground utilities which subscribe to the before-u-dig (BUD) service. Coordinate excavation with all utility owners, including those who do not subscribe to BUD.

Special Note for Fixed Completion Date and

Liquidated Damages

HR 9006
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No work may be performed on the project until April 1, 2022.

Liquidated Damages in the amount specified in the Standard Specifications, per calendar day, will be assessed for each day work remains incomplete beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of July 1, 2022.

Additionally, a penalty will be charged for each hour that an unauthorized lane closure is in place. A penalty of $500 per hour, will be assessed for the first hour, or portion of an hour, and all successive hours that an unauthorized lane closure is in place on the project. An unauthorized lane closure is defined as an occurrence when traffic is reduced to one lane during times and dates prohibited in the Maintenance of Traffic plan.

Additionally, a penalty will be charged for each hour that an unauthorized ramp closure is in place. A penalty of $500 per hour, will be assessed for the first hour or portion of an hour, and all successive hours that an unauthorized ramp closure is in place on the project. A penalty of $500 per hour, will also be assessed for the first hour or portion of an hour that the westbound lane is closed, and 2-way traffic is traveling on the proposed diversion for a duration exceeding the allowed duration. An unauthorized ramp closure is defined as an occurrence that access to a ramp is restricted that is not in compliance with the guidelines established in the Maintenance of Traffic plan.

See the Maintenance of Traffic plan for details for times and dates that lane closures that reduce traffic to one lane are prohibited. See Maintenance of Traffic plan for details for times and dates and durations allowed for interchange off ramp closures.

Liquidated Damages and other penalties, including penalties for lane closures that reduce traffic to one lane during unauthorized days and times, and penalties for exceeding the specified allowable duration of interchange off ramp closures will be applied cumulatively and concurrently.

Contrary to Section 108, liquidated damages and other penalties will be charged during the months of December through March and charged for each Calendar Day any work remains incomplete regardless of seasonal, temperature, or weather limitations.

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

HR 9006
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Conduct milling operations to remove the centerline rumble strip and remove shoulder rumble strips for the proposed traffic diversion. The contractor is to minimize the duration that traffic will be required to travel on milled surfaces.

Mill to remove rumble strips and place asphalt leveling and wedging to restore the pavement surface prior to placing traffic on the proposed diversion. Plan daily production to only mill to remove rumble strips the length that can be leveled by the end of each day's shift.

Milling and inlay of the westbound lanes and westbound interchange ramps will be conducted during the westbound closures which westbound traffic is diverted to the eastbound lanes, two-way. Westbound on-ramp traffic will be allowed to travel on milled surfaces. Traffic will be allowed to travel on milled surfaces eastbound for the mainline and ramps. The contractor will be allowed to perform all eastbound milling prior to beginning final surfacing operations. Begin final surfacing operations within 3 Calendar Days of completion of the milling and texturing operations where traffic will be required to travel on the milled surface.

The Contractor will take possession and dispose of the millings at a location off the right of way.

Removal of the existing pavement markers prior to the milling operation is considered incidental to the bid item "Asphalt Pavement Milling and Texturing".

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the Hamburg test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability of the bituminous mixes. Additionally, the data will help the Department to create future performance based specifications which will include the KYCT and Hamburg test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recordation capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

2.2 Water Baths. One or more water baths will be required that can maintain a temperature of 77^{o} +/- 1.8^{o} F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

2.3 Hamburg Wheel Track Testing. The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

2.4 Gyratory Molds. Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

2.5 Ovens. Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

2.6 Department Equipment. The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

3.0 Testing Requirements

3.1 Acceptance Testing. Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

3.2 KYCT Testing. Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.2.1 KYCT Frequency. Obtain an adequate sample of hot mix asphalt to insure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation will be required one per sublot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

3.2.2 Number of Specimens and Conditioning. Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, fabricate a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance to KM 64-411. KYCT mix design specimens shall be short-term conditioned for four hours at compaction temperature in accordance to KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours at compaction temperature in accordance to KM 64-411. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned in a 77 °F water bath for 30 minutes +/- 5 minutes. To insure confidence and reliability of the test results provided by KYCT testing and Hamburg testing, reheating of the asphalt mixture is prohibited.

3.2.3 Record Times. For each sublot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one hour specimen cool down time as required in accordance to The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

3.2.4 File Name. As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format; “CID_Approved Mix Number_Lot Number_Sublot Number_ Date”

3.3 Hamburg Testing. Perform the rut resistance analysis (Hamburg) in accordance to AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.3.1 Hamburg Testing Frequency. Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the Hamburg specimens.

3.3.2 Record Times. Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

3.3.3 File Name. Save the Excel spreadsheet with the following file name; "Hamburg_CID_Approved Mix Number_Lot Number_Sublot Number_Date" and upload the file into the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

5.0 KYCT Video Demonstration

https://www.youtube.com/watch?v=84j0bM45-hg&feature=youtu.be

6.0 Payment

Any additional labor and testing equipment that is required to fabricate and test the KYCT and Hamburg specimens shall be considered to be incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 3, 2019

SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. DESCRIPTION AND USEAGE. This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can "break" within 15 minutes under conditions listed in 3.2.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ˚ F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue[1], %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ˚ F	20 max.	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ˚ C	1.0 min.	AASHTO T 315
Softening Point, ˚ F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

[1] Bring sample to 212 ˚F over a 10-15 minute period. Maintain 212 ˚F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

2.2. Equipment. Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 ˚F and 180 ˚F. Do not exceed 180 ˚F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14" and 18" from the roadway.

2.3. Personnel. Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Ensure the roadway temperature is a minimum of 40 ˚F and rising during the application of the tack. This material is not suitable for use in colder temperatures. Prior to applying the tack, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 ˚F. After initial heating to between 170 – 180 ˚F, the material may be sprayed between 165 ˚F and 180 ˚F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. If full coverage is not achieved, material application rate may be increased to ensure full coverage. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tacks certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the adhesive. The Department will consider all such items incidental to the non-tracking tack.

5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer’s lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ˚ F	20 – 100	19 - 102	17 - 18 103 - 105	15 - 16 106 - 107	14 108 - 109	≤13 ≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F	20 max.	≤ 21	22 - 23	24 - 25	26 - 27	≥ 28
Original Dynamic Shear (G*/sin δ), 82 ˚ C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, º F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

Code	Pay Item	Pay Unit
24970EC	Asphalt Material for Tack Non-Tracking	Ton

January 28, 2020

SPECIAL NOTE FOR HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM
(HMA e-Ticketing)

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction current edition.

1.0 DESCRIPTION. Incorporate a GPS Fleet Management System for all HMA delivered to the project in order to monitor, track, and report loads of HMA during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Submit to the Engineer for approval, no fewer than 30 days prior to HMA placement activities, a GPS fleet management system supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain equipment.

Provide operator settings, user manuals, training videos, and required viewing/export software for review. Provide equipment that will meet the following:

1. A wireless fleet management or GPS device that is capable of tracking all delivery trucks (both company-owned and third-party) must be installed on all trucks and equipment (dump trucks, belly dumps, side-load dumps, transfer vehicles, pavers, or any other trucks/vehicles) used to transfer and incorporate HMA into the project. KYTC personnel shall have the ability to access Real Time monitoring through the use of a mobile device such as an iPad, smartphone, etc.

2. The fleet management system shall be fully integrated with the Contractor's Load Read-Out scale system at the HMA plant site.

3. The fleet management system shall have the ability to measure and track vehicles and their contents (weights and material types) continuously from the plant site to the project site. The system shall have internal battery backup capabilities due to loss of power, and have the ability to store data if GPS connectivity is lost and transmit that same data when unit re-establishes connectivity. To be considered continuous, no two data points shall be more than 60 seconds apart unless the vehicle is stopped. Duration of stop time for any reason shall be recorded.

3.0 CONSTRUCTION. Provide the Engineer with the manufacturer's specifications and all required documentation for data access at the pre-construction conference.

A. Construction Requirements

1. Install and operate equipment in accordance with the manufacturer's specifications.

2. Verify the GPS is working within the requirements of this Special Note.

B. Data Deliverables

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during paving operations.

1. Real-time Continuous Data Items

Provide the Engineer access to a GIS map-based data viewer which displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - UniqueTruck ID
  - Truck status
    - Time At Source
    - Time At Destination
    - Time At Paver
    - Time At Scale
    - Time to and from plant/job
    - Time Stopped with Engine Running
  - Time of last transmission
  - Location (Latitude and Longitude in decimal degrees to nearest 0.0000001) every 60 seconds
  - Description of Material being transported (i.e. asphalt base, asphalt surface)
  - Mix Design Number
  - Net Weight of material being transported to the nearest 0.01 ton
  - Running Daily Total of Net Weight of material being transported to nearest 0.01 ton.
  - Project Number

- Scale Location
- Project Location
- Point of Delivery (i.e. paver)

2. Daily Summary

The following summary information shall be provided to the Engineer electronically within 4 hours of beginning operations on the next working day

- For each Material
  - List of Individual Loads
    - Contractor Name
    - Project Number
    - Unique Truck ID
    - Net Weight For Payment (nearest 0.01 tons)
    - Date
    - Mix Temperature at Time of Loading, Fahrenheit (to be key entered by plant)
    - Time Loaded
    - Time Unloaded
    - Delivery Location (Latitude/Longitude in decimal degrees to nearest 0.0000001)
- For each Bid Item
    - Total Quantity for Payment (nearest 0.01 tons)

4.0 MEASUREMENT. The Department will **NOT** measure the HMA electronic delivery management system for payment.

5.0 PAYMENT. No direct payment will be made for HMA Electronic Delivery Management System, and will be considered incidental to the item of work requiring weight tickets.

Special Note for Portable Queue Warning Alert System

1.0 Description

This item shall consist of furnishing, installing, relocating, operating, servicing, and removing various components of a portable, quickly deployable, real-time automated ITS queue warning alert system (PQWAS), in accordance with the standard specifications and this special provision. The Contractor shall also provide the maintenance of the complete system for the duration of the project or as directed by the Project Engineer. The Department is willing to look at different technologies (i.e. allow the use of crowd sourcing data to be used in lieu of the portable radar sensors). Any changes to the below requirements must be submitted and approved by the Engineer.

2.0 Materials

Materials shall be in accordance as follows:

All materials used shall meet the manufacturer's specifications and recommendations.

All PQWAS materials installed on the project shall be provided by the Contractor in excellent quality condition, shall be corrosion resistant and in strict accordance with all of the details shown within Contractor's Plans approved by KYTC. The Contractor shall maintain an adequate inventory of parts and replacement units to support maintenance and repair of the PQWAS. Pre-deployment is a condition of the system's acceptance and is based on the successful performance demonstration for a (5) day continuous period in accordance to this specification and as set forth in the plans. Ensure compliance to all FCC and Department specifications.

The Contractor shall maintain this system and shall be locally available to service and maintain system components, move portable devices as necessary and respond to emergency situations. The Contractor has oversight responsibility for directing placement of devices in the project area. The Contractor is to be accessible seven (7) days a week and twenty-four (24) hours a day while the system is deployed. The Contractor shall provide contact information for the system's coordinator and others responsible for maintenance of the system prior to installation of the system. Furnish a System Coordinator for monitoring the PQWAS throughout all periods of deployment.

A. General Capabilities and Performance Requirements

1. Overall PQWAS capabilities and performance requirements include the following:
   a. Furnish a system capable of providing advance traffic information to motorists when there is a queueing of traffic due to congestion resulting from lane reductions, emergency events or other conditions. The condition-responsive notification to the motorist occurs with the use of Portable Changeable Message Signs (PCMS) in accordance to the below capabilities and performance requirements, activated through real-time traffic data collected downstream of the PCMS locations. This equipment must

be a packaged system, pre-programmed and operates as a stand-alone PQWAS meeting this specification. Conditions might exist that require relocation of the portable sensors at any given time, the sensors shall be portable and shall not require re-calibration in the field for fast deployments. Due to the potential need to replace damaged sensors or to change the position of one or more sensors at any given time, sensors must be interchangeable and relocatable by an unskilled laborer. The system must continue to function if as many as half the sensors fail to function.

b. Provide a PQWAS that consists of the following field equipment: portable radar sensors and portable changeable message signs (PCMS). Provide a system capable of withstanding inclement weather conditions while continuing to provide adequate battery power. The portable radar sensor battery, in a stand-alone state and without a solar panel for recharging, shall be capable of keeping power and capable of sending data for (10) consecutive days or longer. The system shall notify drivers of real-time queue events via specifically placed PCMS units up stream of the work zone. All predetermined/preprogrammed messages are to be approved by KYTC. The number and location of portable radar sensors and PCMS units shall be as directed by the Project Engineer. The decision to deploy or relocate field equipment is made by the Project Engineer and instrumented through the System Coordinator. The decision for equipment removal is made by the Project Engineer after work is complete. The sensors and PCMS units shall be identifiable via global positioning system (GPS) and shall contain an accelerometer to detect and alert of unauthorized movement.
c. The portable radar sensor shall be capable of collecting traffic speed data. The processed data is used to remotely control PCMS units to display user definable, Engineer approved and locally stored messages. The message trigger state thresholds for slow and stopped speeds shall be user configurable and revisable in less than {1) hour from the Project Engineer's request. Weekly Traffic Data Reports shall be presented to the Project Engineer and shall include speed data per sensor location, travel times, and queue lengths in graphical and numerical formats. In the event the Project Engineer requires a report, other than a weekly report, for any reason; then the Contractor shall provide report within (48) hours of request. Unlimited data reports shall be included within price of system. Sensors shall require no calibration adjustments in the field. Sensor should begin transmitting data within (30) seconds of being turned on. Satellite (SAT) communications will be required when cellular service does not provide continuous communications. Contractor shall identify the most trustworthy cellular provider within the project area.
d. Data shall be accessible through a website and the Contractor shall provide a username and password for protection. The website shall be accessible seven (7) days a week and twenty - four (24) hours a day. The website shall provide historical & real-time data in graphical and numerical formats and shall have the capability of being integrated within the Department's Traffic Management Center (if requested). The website should be compatible to most hand held devices. Data shall be saved on the manufacturer's network for up to (5) years from the deployment date of system and shall be provided at the request

of the Department at any time within the (5) year window. The use of the website shall be included within the price of system.

e. Warning Alerts: queue events, low battery voltage warnings, sensor movement alerts, high and low speed alerts shall be provided via cellular text messaging and/or via email messaging at the request of select Contractor personnel and KYTC officials.

f. The PQWAS system shall have the capabilities to provide alternate route messaging on specifically placed portable changeable message units and/or fixed Variable Message Systems (VMS). The intent of this service is to provide alternate route messaging to motorists before entering the project limits from all directions and giving them appropriate time to adjust their routes. Alternative routes shall be predefined and approved by KYTC. Additional PCMS units may be required for alternate route messaging and will be as per Section 5.0 of this note. KYTC's Traffic Management Center will provide detour messages via fixed VMS units during the term of the project.

B. Portable Radar Sensor Capabilities and Performance Requirements

The PQWAS shall include portable radar sensors (PRD) to monitor and detect queue events.

1. The Radar Sensor shall be FHWA accepted to meet NCHRP 350 test requirements
2. The Radar Sensor shall be locatable at all times via an internal Global Positioning System (GPS) and shall be capable of Cellular or SAT Communications.
3. The Radar Sensor shall have a dry-cell battery capable of powering the system for (10) consecutive days or longer
4. The Radar sensor shall be K-Band technology and have a line of sight up to 200 linear feet without obstruction
5. The Radar sensor shall have the ability to be charged in the field through adaptable solar recharging technology in the case the sensor is utilized for more than 10 consecutive days

C. PCMS Capabilities and Performance Requirements

The PQWAS shall include portable changeable message signs (PCMS) designated to relay automated messaging of queue events, alternate route messages, and caution for the work area defined by the project limits. PCMS placements shall meet the requirements set forth by the Cabinet in each direction of the National Highway System (NHS).

1. The PCMS unit shall be a Full Matrix 24 rows x 50 columns and shall be capable of l line, 2line or 3 line messages
2. The PCMS unit shall be legible from a distance over twelve hundred feet (1200')
3. The height and size of characters shall be 18" to 58"
4. The PCMS shall be capable of storing up to 199 pre-programmed messages and up to 199 user-defined messages
5. The PCMS shall have a weather tight control cabinet with back lit LCD handheld controller.
6. The PCMS shall utilize a hydraulic lift to raise the unit to display height
7. The PCMS unit shall include solar recharging ports to allow for recharging of the portable radar sensors when they are not deployed.
8. The PCMS shall be NTCIP compliant and shall have an active Modem with active cellular service.

9. The user shall have the ability to communicate and override the PCMS remotely in the event of an emergency, Amber Alert, etc.
10. The PCMS unit shall have a docking station to include safety rails that allow a commercial safety strap to tie down the portable radar sensors while in transport. The docking station shall hold-up to (4) sensors safely and securely at all times

3.0 Construction Requirements

All communication costs include cellular telephone services, FCC licensing, wireless data networks, satellite and internet subscription charges, and battery charging and maintenance. Additional to these requirements, the Contractor shall assume all responsibility for any and all damaged equipment due to crashes, vandalism, and adverse weather that may occur during the contract period.

The PQWAS shall operate continuously (24 hours/ 7 Days) when deployed on the project. The system is in a constant "data collection" mode when deployed. The Contractor shall provide technical support for the PQWAS for all periods of operation.

In the event communication is lost with any component of the PQWAS, provide a means and staff to manually program a PCMS message. If communication is lost for more the 10 consecutive minutes, the system shall revert to a fail-safe ROADWORK/# MILES/AHEAD message displayed on the PCMS units until communication is restored.

System Operator, local control function and remote management operation must be password protected.

The PQWAS shall be capable of acquiring traffic information and selecting messages automatically without operator intervention after system utilization. The lag time between changes in threshold ranges and the posting of the appropriate PCMS message(s) shall be no greater than (60) seconds. The system operation and accuracy must not be appreciably degraded by inclement weather or degraded visibility conditions including precipitation, fog, darkness, excessive dust, and road debris.

The system shall be capable of storing ad-hoc messages created by the System Coordinator and logging this action when overriding any default or automatic advisory message.

The PQWAS communication system shall incorporate an error detection/correction mechanism to insure the integrity of all traffic conditions data and motorists information messages. Any required configuration of the PQWAS communication system shall be performed automatically during system initialization.

The system's acceptance is based on the successful performance demonstration of PQWAS for a (5) day continuous period in accordance to this specification and as set forth in the plans.
Ensure compliance to all FCC and Department specifications.

4.0 Equipment Maintenance.

Maintain system components in good working condition at all times. Repair or replace damaged or malfunctioning components, at no cost to the Department, as soon as possible and within (12) hours of notification by the Engineer. Periodically clean PCMS units if necessary.

5.0 Measurement. The Department will measure each item below in Months. For partial months the Department will pay in 0.25 increments based on the number of calendar days in the below table.

Partial Month Payment Schedule

Days	Increment
0-7 days	0.25
8-14 days	0.50
15-21 days	0.75
22-31 days	1.00

5.1 Portable Queue Warning Alert System includes cellular (SAT communications will be required if cellular is not available), all supporting field equipment, website, and unlimited data reports accessible by the Engineer. It will be measured by the number of months authorized by the Engineer for use on the project.

5.2 Queue Warning PCMS will be measured by each individual unit multiplied by the number of months authorized by the Engineer for use on the project.

5.3 Queue Warning Portable Radar Sensors will be measured by each individual unit multiplied by the number of months authorized by the Engineer for use on the project. Queue Warning Portable Radar Sensors will not be measured for payment if the Contractor utilizes a system operating on crowd sourcing data. Crowd sourcing data systems will only be allowed as approved by the engineer and will be considered incidental to Portable Queue Warning Alert System.

6.0 Payment.

Code	Pay Item	Pay Unit
26136EC	Portable Queue Warning Alert System	Month
26137EC	Queue Warning PCMS	Month
26138EC	Queue Warning Portable Radar Sensors	Month

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

☒ Original ☐ Re-Certification

RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
10-20002.00	Perry	FD04 097 9006 056-058	

PROJECT DESCRIPTION

ADDRESS PAVEMENT OF HAL ROGERS PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 56.100 TO MILEPOINT 57.185

☒ **No Additional Right of Way Required**

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

☐ **Condition # 1 (Additional Right of Way Required and Cleared)**

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

☐ **Condition # 2 (Additional Right of Way Required with Exception)**

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

☐ **Condition # 3 (Additional Right of Way Required with Exception)**

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

Total Number of Parcels on Project		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			

Notes/ Comments (Text is limited. Use additional sheet if necessary.)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Edgar Raleigh II
Signature		Signature	2021.08.26 11:10:26 -04'00'
Date		Date	8/26/2021
Right of Way Director		**FHWA**	
Printed Name		Printed Name	
Signature	2021.08.26 11:48:37 -04'00'	Signature	
Date		Date	

UTILITIES AND RAIL CERTIFICATION NOTE

Perry County
No federal number available
No state project number available
Mile point: 55.966 TO 57.166
ADDRESS PAVEMENT CONDITION OF HAL ROGERS DANIEL BOONE PARKWAY BOTH DIRECTION(S)
FROM MILEPOINT 55.966 TO MILEPOINT 57.166
ITEM NUMBER: 10-20002.00

PROJECT NOTES ON UTILITIES

AEP will be adjusting facilities before project letting. Windstream will re guy on AEP anchor. Should be completed by 10-30-21.

NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

Diversified Gas - Natural Gas

American Electric Power - Electric

Perry County Water and Sewer - Sewer

Windstream- Tele

City of Hazard - Water

TVS - CATV

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

UTILITIES AND RAIL CERTIFICATION NOTE

Perry County
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Mile point: 55.966 TO 57.166
ADDRESS PAVEMENT CONDITION OF HAL ROGERS DANIEL BOONE PARKWAY BOTH DIRECTION(S)
FROM MILEPOINT 55.966 TO MILEPOINT 57.166
ITEM NUMBER: 10-20002.00

AEP will be adjusting facilities at slip location before project letting. Windstream will re-guy on AEP anchor.

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Not Applicable

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

Not Applicable

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ **No Rail Involvement** ☐ **Rail Involved** ☐ **Rail Adjacent**

Form Revised 6/24/16

UTILITIES AND RAIL CERTIFICATION NOTE

Perry County
No federal number available
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UTILITIES AND RAIL CERTIFICATION NOTE

Perry County
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FROM MILEPOINT 55.966 TO MILEPOINT 57.166
ITEM NUMBER: 10-20002.00

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
American Electric Power - Electric	32222 Kevin lane Ashland KY 41701	Glen Combs	6069291462	rlcanfield@aep.com
City of Hazard - Water	700 Main Street Hazard Ky 41702	Derrick Hall	6064363171	Derrick.hall@hazardky.gov
Diversified Gas - Natural Gas	100 Diversified Way Pikeville KY 41501	Darrel Smith	3308968510	DLLSmith@dgoc.com
Perry County Water and Sewer - Sewer	P.O. Box 249 Vicco Ky 41773	Scott Alexander	6064762414	salexander40@yahoo.com
Placeholder to Start Project - Communication	200 Mero Street Frankfort Ky 40622	Jennifer McCleve	5027824944	jennifer.mccleve@ky.gov
TVS - CATV	P.O. Box 1410 Hindman KY 41822	Freddie Williams	6067859500	f.williams@tgtel.com

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor: _____**

Section Engineer: _____ **District & County: _____**

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

****Required Signatures before Leaving Project Site***

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

****Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)***

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020.*

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:

http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

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SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

1.0 DESCRIPTION. Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

2.0 MATERIALS.

2.1 General. Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

2.2 Sign and Controls. All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

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12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

2.3 Power.

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

3.0 CONSTRUCTION. Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

5.0 PAYMENT. The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

211047

PROPOSAL BID ITEMS

Report Date 9/22/21

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	482.00	TON		$	
0020	00100		ASPHALT SEAL AGGREGATE	46.00	TON		$	
0030	00103		ASPHALT SEAL COAT	6.00	TON		$	
0040	00190		LEVELING & WEDGING PG64-22	456.00	TON		$	
0050	00214		CL3 ASPH BASE 1.00D PG64-22	521.00	TON		$	
0060	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0070	02677		ASPHALT PAVE MILLING & TEXTURING	4,422.00	TON		$	
0080	02696		SHOULDER RUMBLE STRIPS	18,058.00	LF		$	
0090	20071EC		JOINT ADHESIVE	25,678.00	LF		$	
0100	22906ES403		CL3 ASPH SURF 0.38A PG64-22	3,706.00	TON		$	
0110	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	19.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0120	00078		CRUSHED AGGREGATE SIZE NO 2	3,252.00	TON		$	
0130	01000		PERFORATED PIPE-4 IN	140.00	LF		$	
0140	01010		NON-PERFORATED PIPE-4 IN	10.00	LF		$	
0150	01020		PERF PIPE HEADWALL TY 1-4 IN	1.00	EACH		$	
0160	01984		DELINEATOR FOR BARRIER - WHITE	97.00	EACH		$	
0170	01986		DELINEATOR FOR BARRIER WALL-B/Y	97.00	EACH		$	
0180	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	45.00	EACH		$	
0190	02159		TEMP DITCH	2,615.00	LF		$	
0200	02160		CLEAN TEMP DITCH	1,307.00	LF		$	
0210	02200		ROADWAY EXCAVATION	2,178.00	CUYD		$	
0220	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	3.00	EACH		$	
0230	02367		GUARDRAIL END TREATMENT TYPE 1	5.00	EACH		$	
0240	02381		REMOVE GUARDRAIL	2,400.00	LF		$	
0250	02484		CHANNEL LINING CLASS III	100.00	TON		$	
0260	02562		TEMPORARY SIGNS	1,000.00	SQFT		$	
0270	02565		OBJECT MARKER TYPE 2	2.00	EACH		$	
0280	02575		DITCHING AND SHOULDERING	5,229.00	LF		$	
0290	02603		FABRIC-GEOTEXTILE CLASS 2	1,201.00	SQYD		$	
0300	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0310	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		$	
0320	02703		SILT TRAP TYPE A	1.00	EACH		$	
0330	02704		SILT TRAP TYPE B	1.00	EACH		$	
0340	02705		SILT TRAP TYPE C	1.00	EACH		$	
0350	02706		CLEAN SILT TRAP TYPE A	1.00	EACH		$	
0360	02707		CLEAN SILT TRAP TYPE B	1.00	EACH		$	
0370	02708		CLEAN SILT TRAP TYPE C	1.00	EACH		$	
0380	02726		STAKING	1.00	LS		$	
0390	05950		EROSION CONTROL BLANKET	4,840.00	SQYD		$	
0400	05952		TEMP MULCH	3,227.00	SQYD		$	

211047

PROPOSAL BID ITEMS

Report Date 9/22/21

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	05953		TEMP SEEDING AND PROTECTION	2,420.00	SQYD		$	
0420	05963		INITIAL FERTILIZER	.30	TON		$	
0430	05964		MAINTENANCE FERTILIZER	.20	TON		$	
0440	05985		SEEDING AND PROTECTION	4,840.00	SQYD		$	
0450	05992		AGRICULTURAL LIMESTONE	3.00	TON		$	
0460	06403		FLEXIBLE DELINEATOR POST-B/W	300.00	EACH		$	
0470	06404		FLEXIBLE DELINEATOR POST-M/Y	76.00	EACH		$	
0480	06410		STEEL POST TYPE 1	14.00	LF		$	
0490	06511		PAVE STRIPING-TEMP PAINT-6 IN	36,166.00	LF		$	
0500	06513		PAVE STRIPING-TEMP PAINT-12 IN	2,200.00	LF		$	
0510	06542		PAVE STRIPING-THERMO-6 IN W	15,550.00	LF		$	
0520	06543		PAVE STRIPING-THERMO-6 IN Y	14,950.00	LF		$	
0530	06546		PAVE STRIPING-THERMO-12 IN W	2,276.00	LF		$	
0540	06549		PAVE STRIPING-TEMP REM TAPE-B	1,050.00	LF		$	
0550	06550		PAVE STRIPING-TEMP REM TAPE-W	600.00	LF		$	
0560	06551		PAVE STRIPING-TEMP REM TAPE-Y	975.00	LF		$	
0570	06556		PAVE STRIPING-DUR TY 1-6 IN W	316.00	LF		$	
0580	06557		PAVE STRIPING-DUR TY 1-6 IN Y	316.00	LF		$	
0590	06568		PAVE MARKING-THERMO STOP BAR-24IN	71.00	LF		$	
0600	06578		PAVE MARKING-THERMO MERGE ARROW	3.00	EACH		$	
0610	06588		PAVEMENT MARKER TY IVA-BY TEMP	261.00	EACH		$	
0620	06610		INLAID PAVEMENT MARKER-MW	23.00	EACH		$	
0630	06611		INLAID PAVEMENT MARKER-MY	121.00	EACH		$	
0640	06612		INLAID PAVEMENT MARKER-BY	38.00	EACH		$	
0650	06613		INLAID PAVEMENT MARKER-B W/R	57.00	EACH		$	
0660	06614		INLAID PAVEMENT MARKER-B Y/R	48.00	EACH		$	
0670	10020NS		FUEL ADJUSTMENT	7,289.00	DOLL	$1.00	$	$7,289.00
0680	10030NS		ASPHALT ADJUSTMENT	18,309.00	DOLL	$1.00	$	$18,309.00
0690	20191ED		OBJECT MARKER TY 3	5.00	EACH		$	
0700	20458ES403		CENTERLINE RUMBLE STRIPS	985.00	LF		$	
0710	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	2,150.00	LF		$	
0720	24679ED		PAVE MARK THERMO CHEVRON	1,248.00	SQFT		$	
0730	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	404,334.00	SF		$	
0740	26136EC		PORTABLE QUEUE WARNING ALERT SYSTEM	6.00	MONT		$	
0750	26137EC		QUEUE WARNING PCMS	24.00	MONT		$	
0760	26138EC		QUEUE WARNING PORTABLE RADAR SENSORS	24.00	MONT		$	
0770	40030		TEMPORARY SILT FENCE	2,615.00	LF		$	

Section: 0003 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0780	02568		MOBILIZATION	1.00	LS		$	
0790	02569		DEMOBILIZATION	1.00	LS		$	