CALL NO. 331

CONTRACT ID. 211046

WOLFE COUNTY

FED/STATE PROJECT NUMBER FD04 119 9000 036-046

DESCRIPTION BERT T. COMBS MOUNTAIN PARKWAY (PW-9000)

WORK TYPE ASPHALT REHAB INTERSTATE/PARKWAY

PRIMARY COMPLETION DATE 8/1/2022

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.

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 10

CONTRACT ID - 211046

FD04 119 9000 036-046

COUNTY - WOLFE

PCN - DE11990002146
FD04 119 9000 036-046

BERT T. COMBS MOUNTAIN PARKWAY (PW-9000) (MP 36.000) ADDRESS PAVEMENT CONDITION OF BERT T. COMBS MOUNTAIN PARKWAY IN BOTH DIRECTIONS FROM MP 36.000 TO MP 45.800 (MP 45.800), A DISTANCE OF 09.80 MILES.ASPHALT REHAB INTERSTATE/PARKWAY SYP NO. 10-20009.00.

GEOGRAPHIC COORDINATES LATITUDE 37:47:11.00 LONGITUDE 83:38:54.00

COMPLETION DATE(S):

COMPLETED BY 08/01/2022 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.

April 30, 2018

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

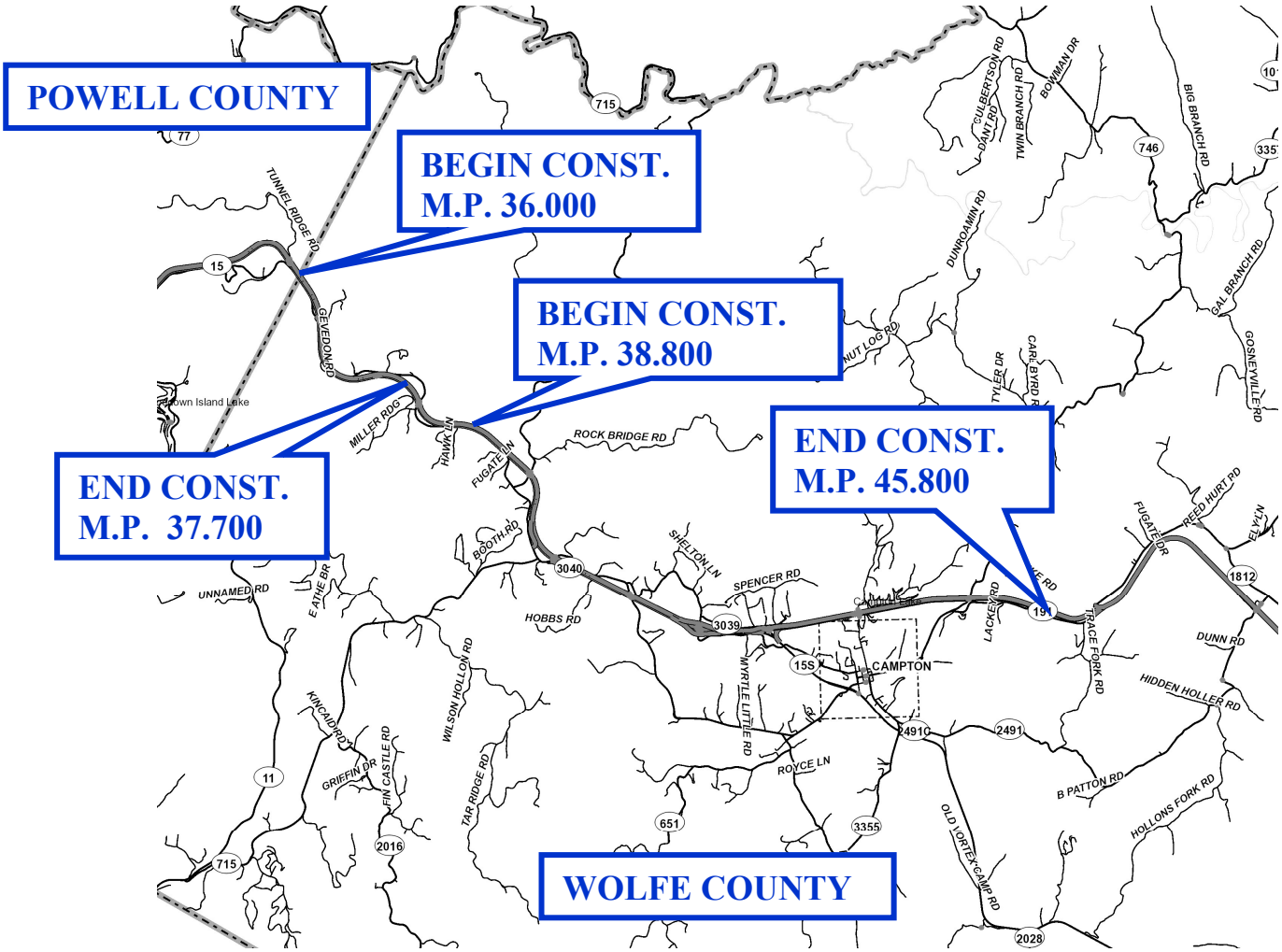
The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of $1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all 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.



COUNTY: WOLFE

ITEM NUMBER: 10-20009

CONSTRUCTION NUMBER: FD04 119 9000 036-046

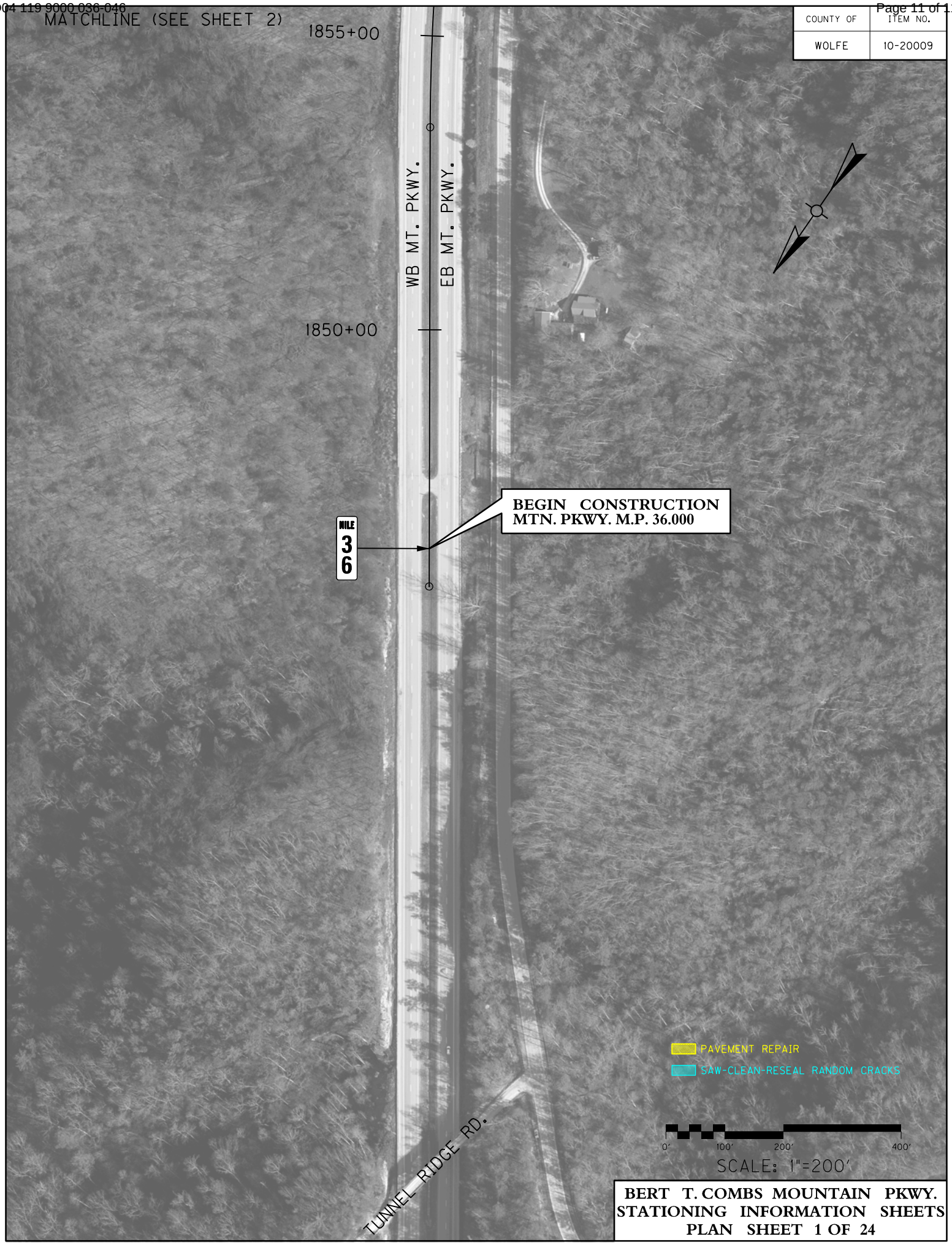
LETTING DATE: October 22, 2021

RECOMMENDED BY: _____ DATE: _____
Project Manager

PLAN APPROVED BY: _____ DATE: _____
State Highway Engineer

FHWA APPROVED BY: _____ DATE: _____

COUNTY OF	ITEM NO.
WOLFE	10-20009



BERT T. COMBS MOUNTAIN PKWY.
STATIONING INFORMATION SHEETS
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BERT T. COMBS MOUNTAIN PKWY.
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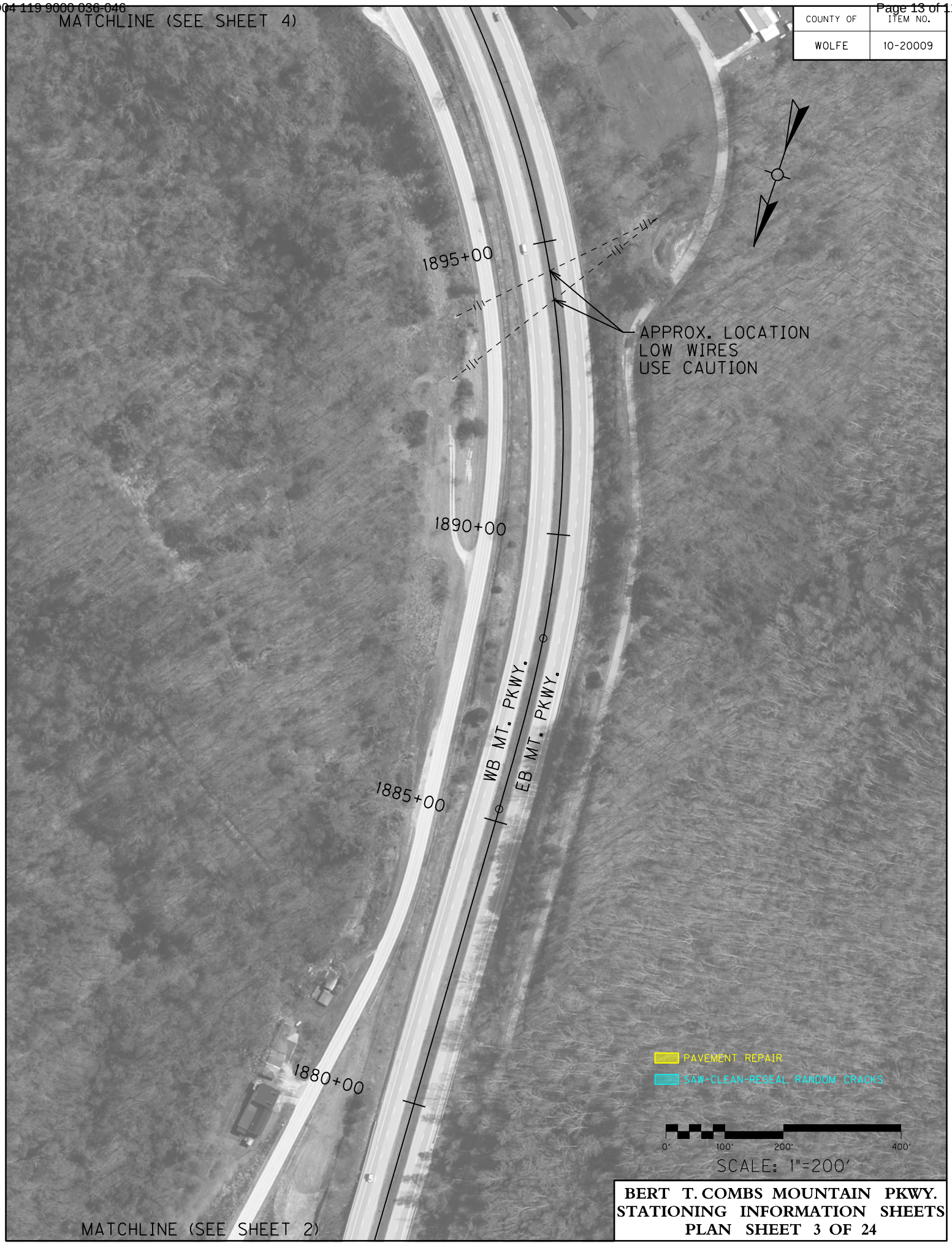

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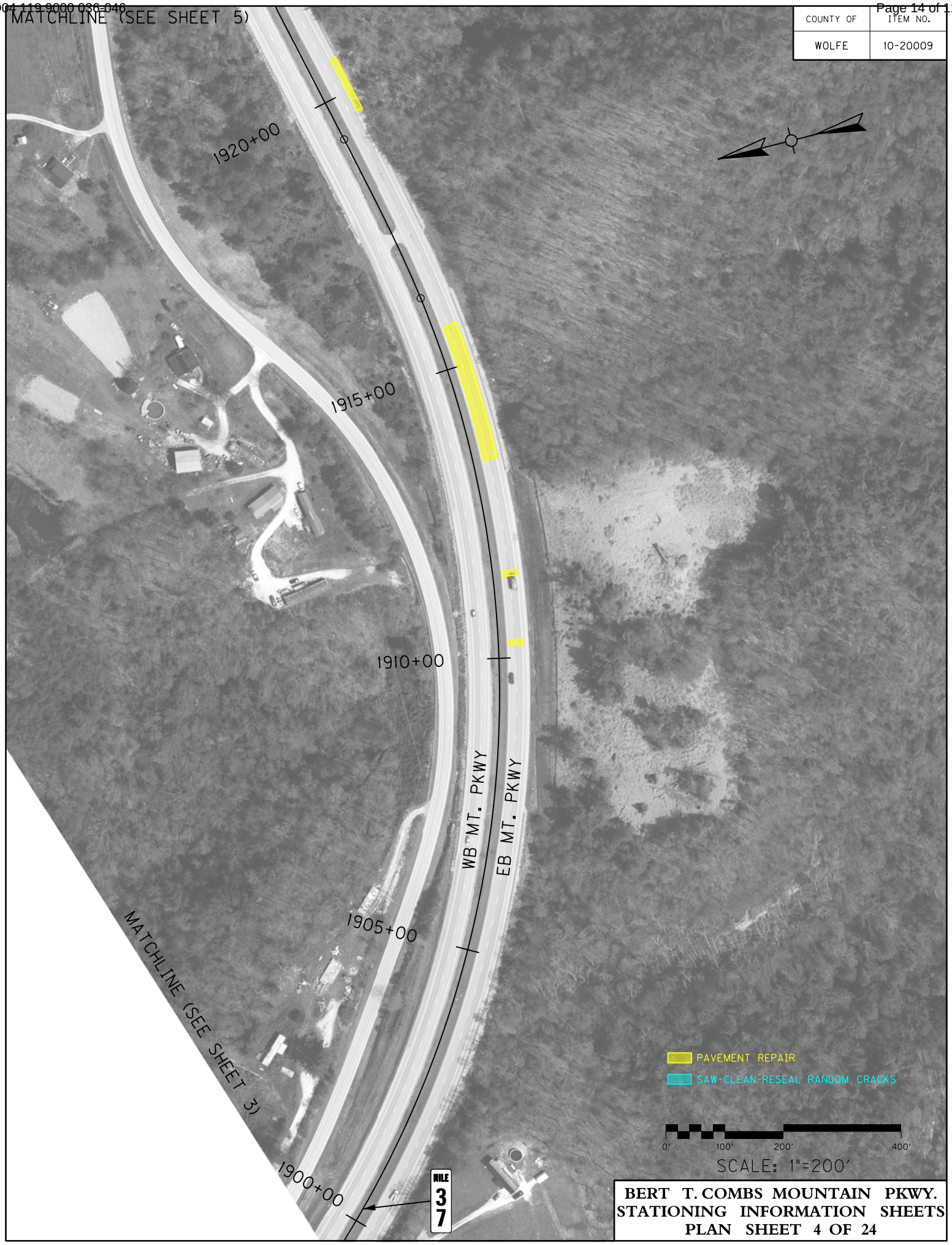

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BERT T. COMBS MOUNTAIN PKWY.
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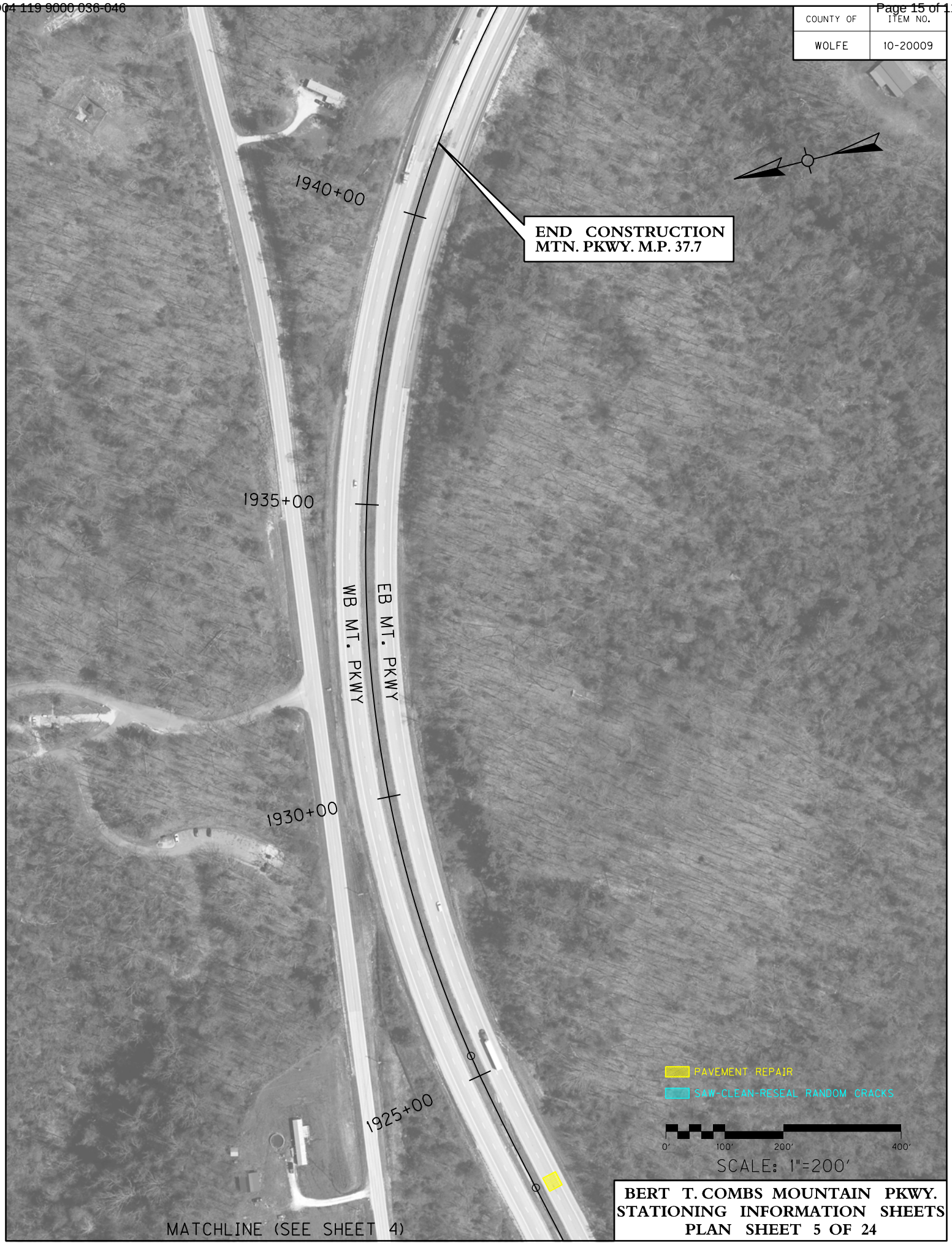

BERT T. COMBS MOUNTAIN PKWY.
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BERT T. COMBS MOUNTAIN PKWY.
STATIONING INFORMATION SHEETS
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BERT T. COMBS MOUNTAIN PKWY.
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BERT T. COMBS MOUNTAIN PKWY.
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BERT T. COMBS MOUNTAIN PKWY.
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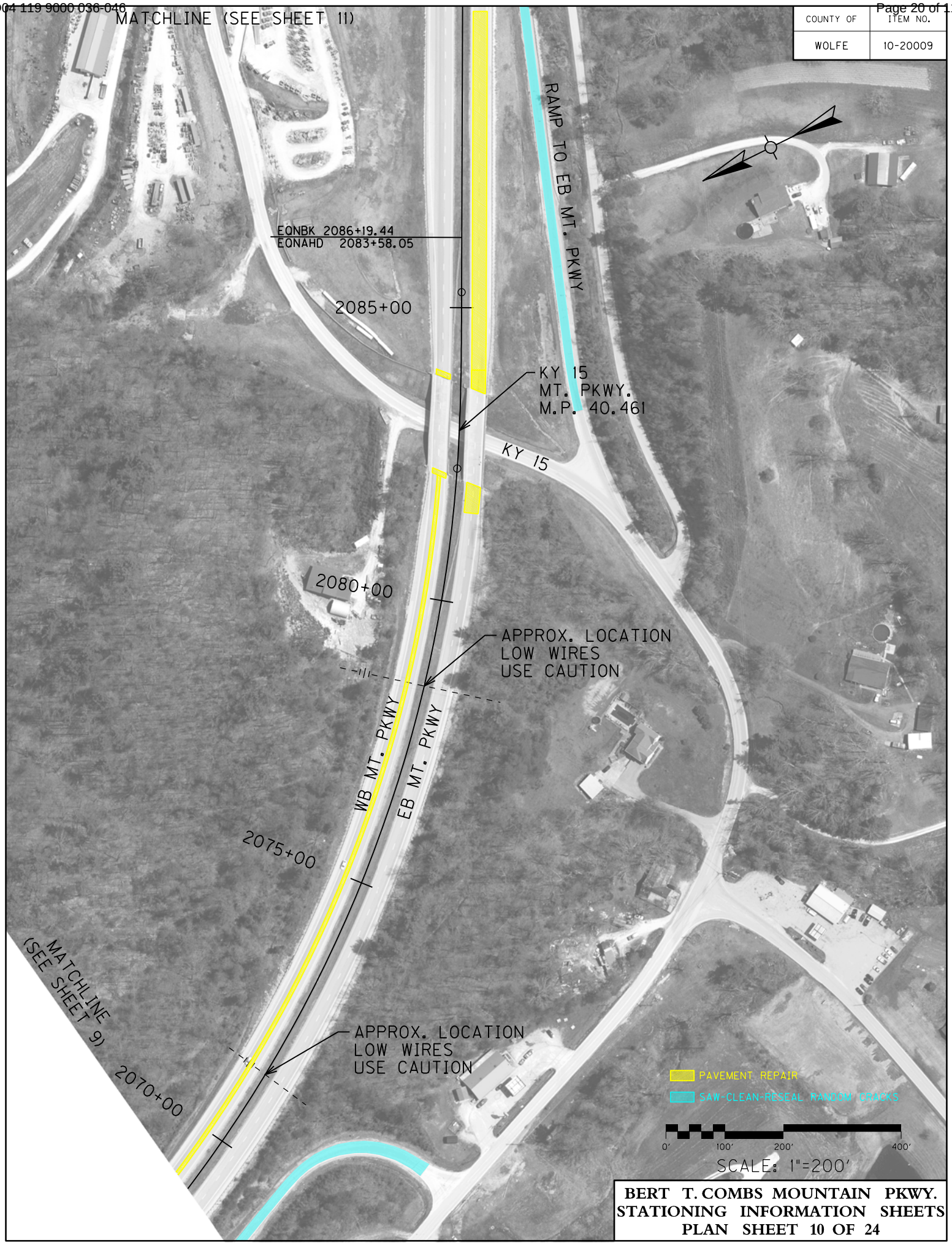
WOLFE	10-20009



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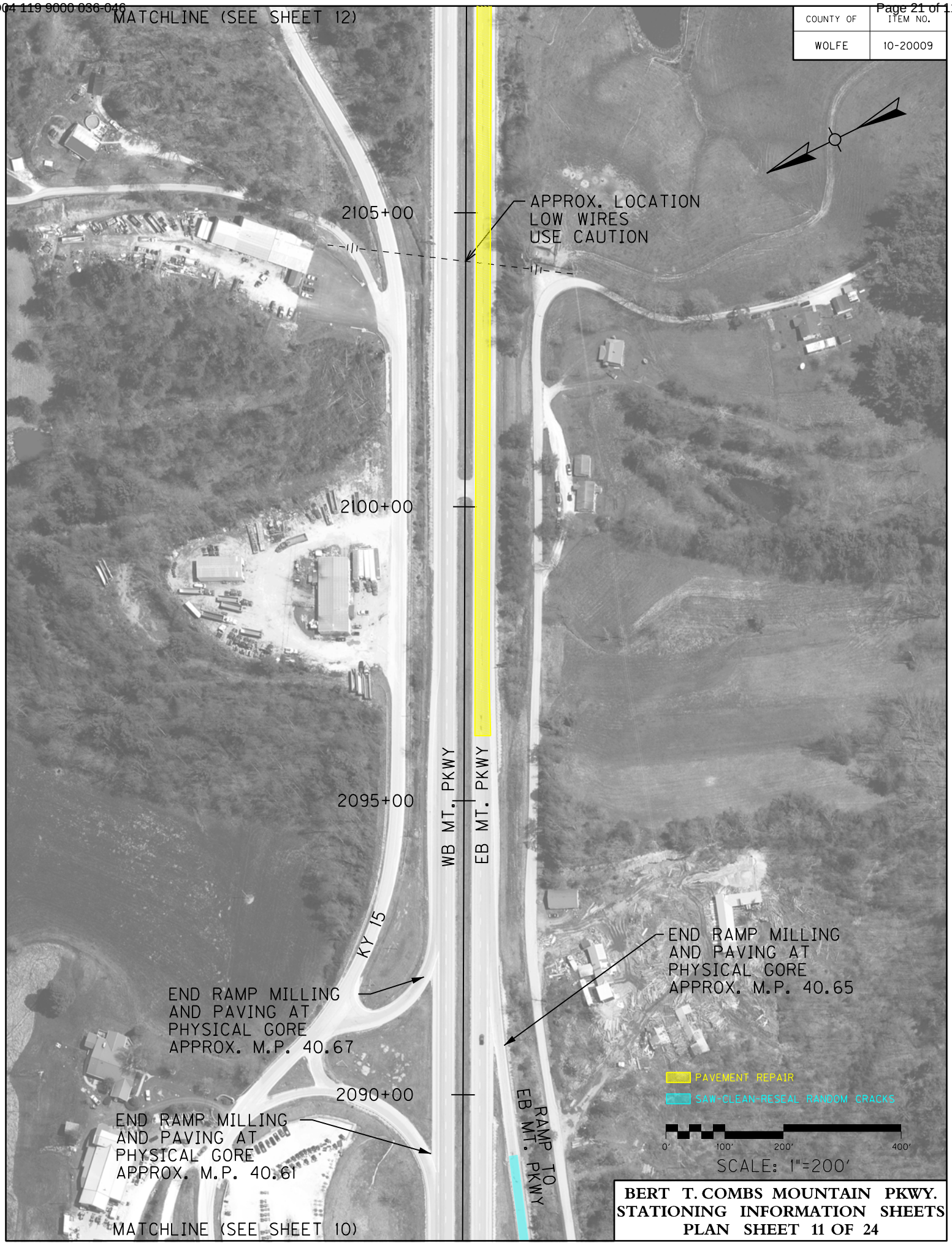

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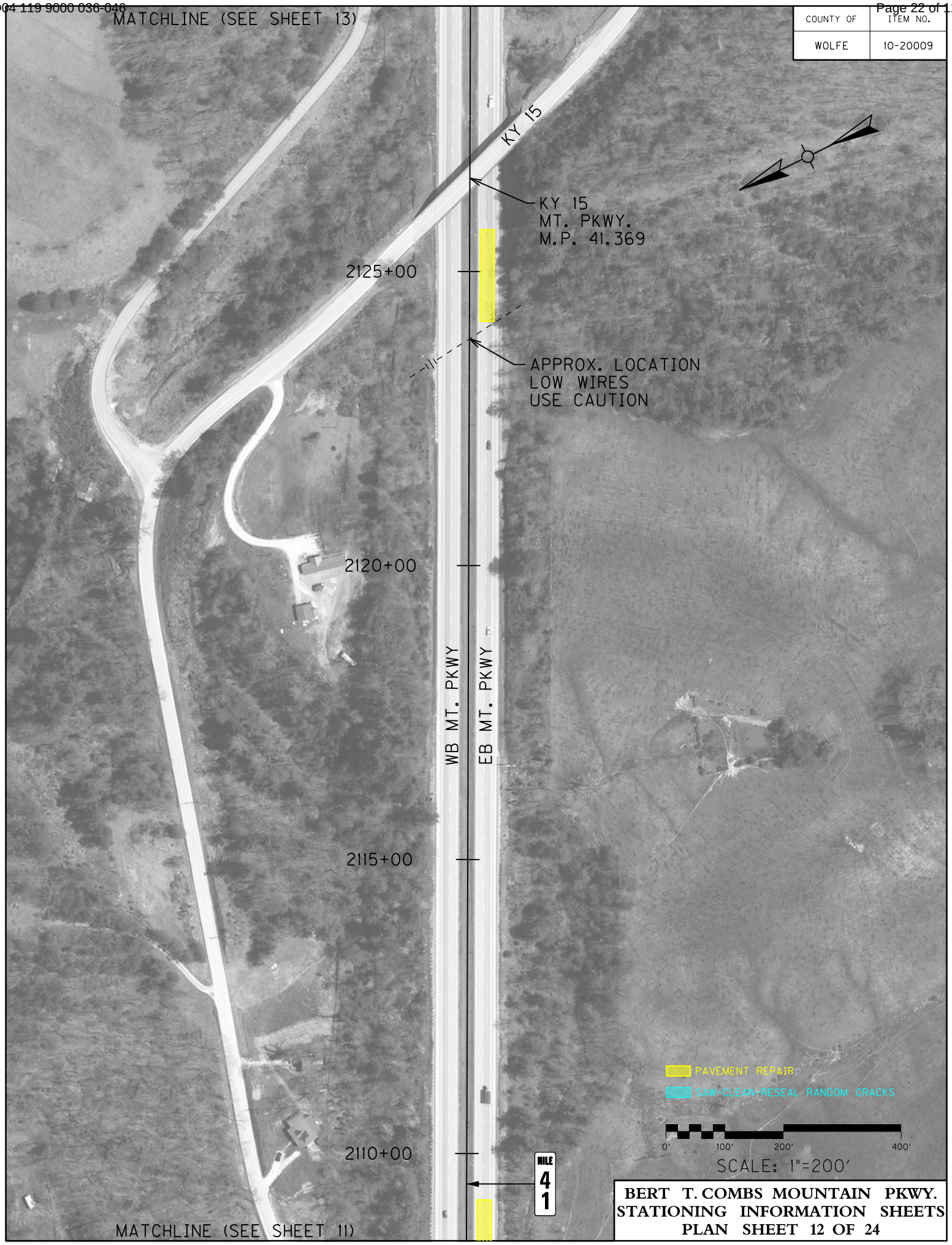

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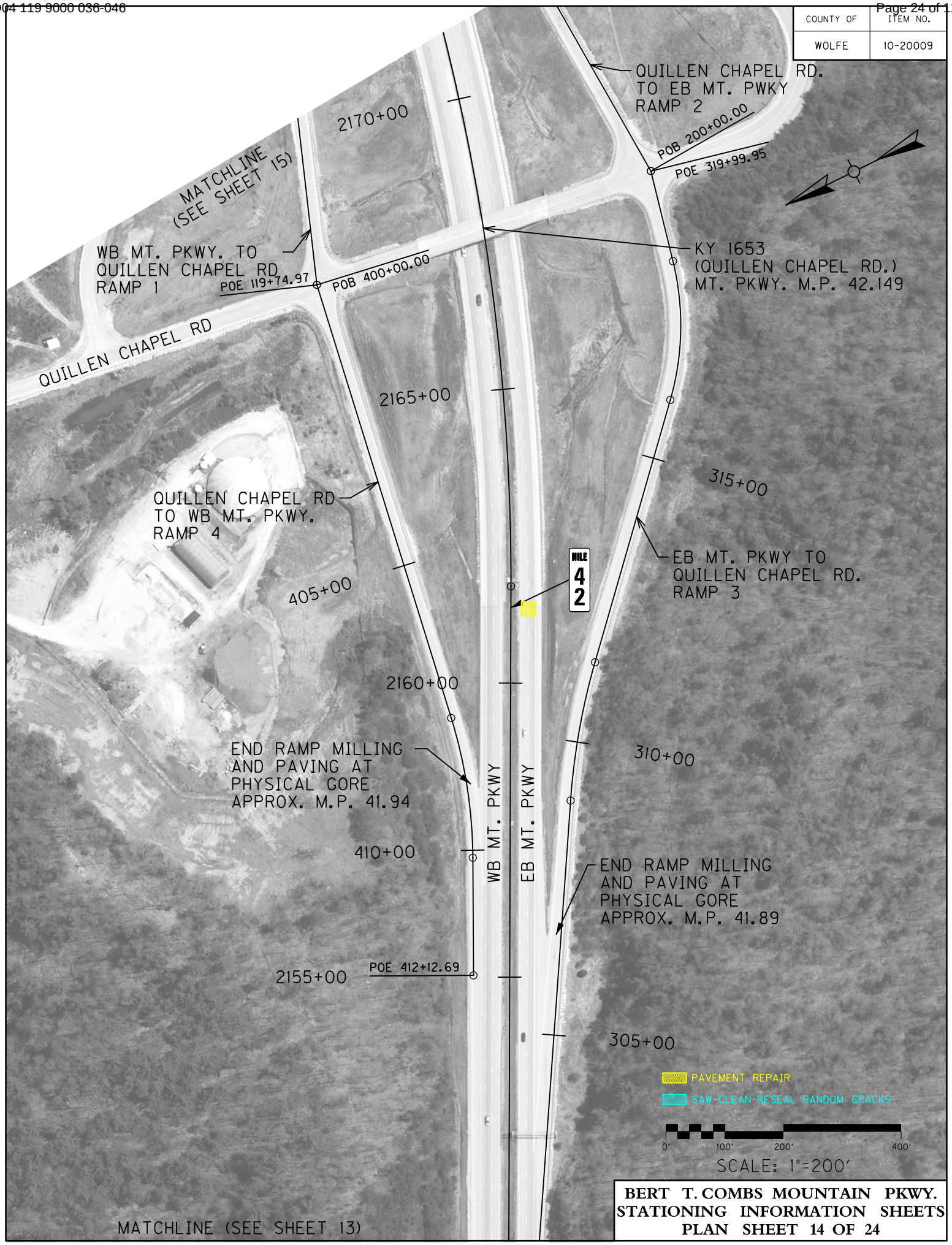

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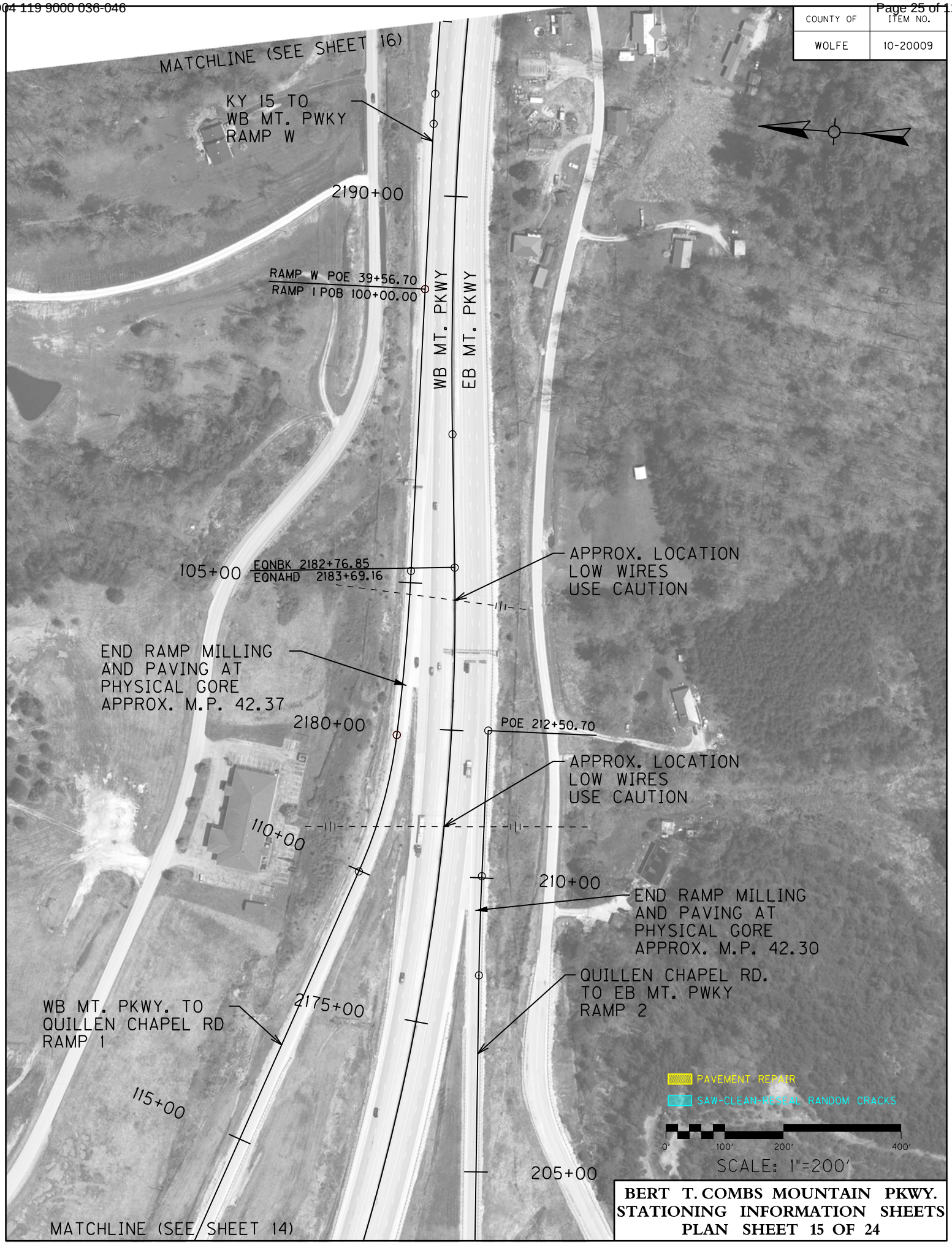

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BERT T. COMBS MOUNTAIN PKWY.
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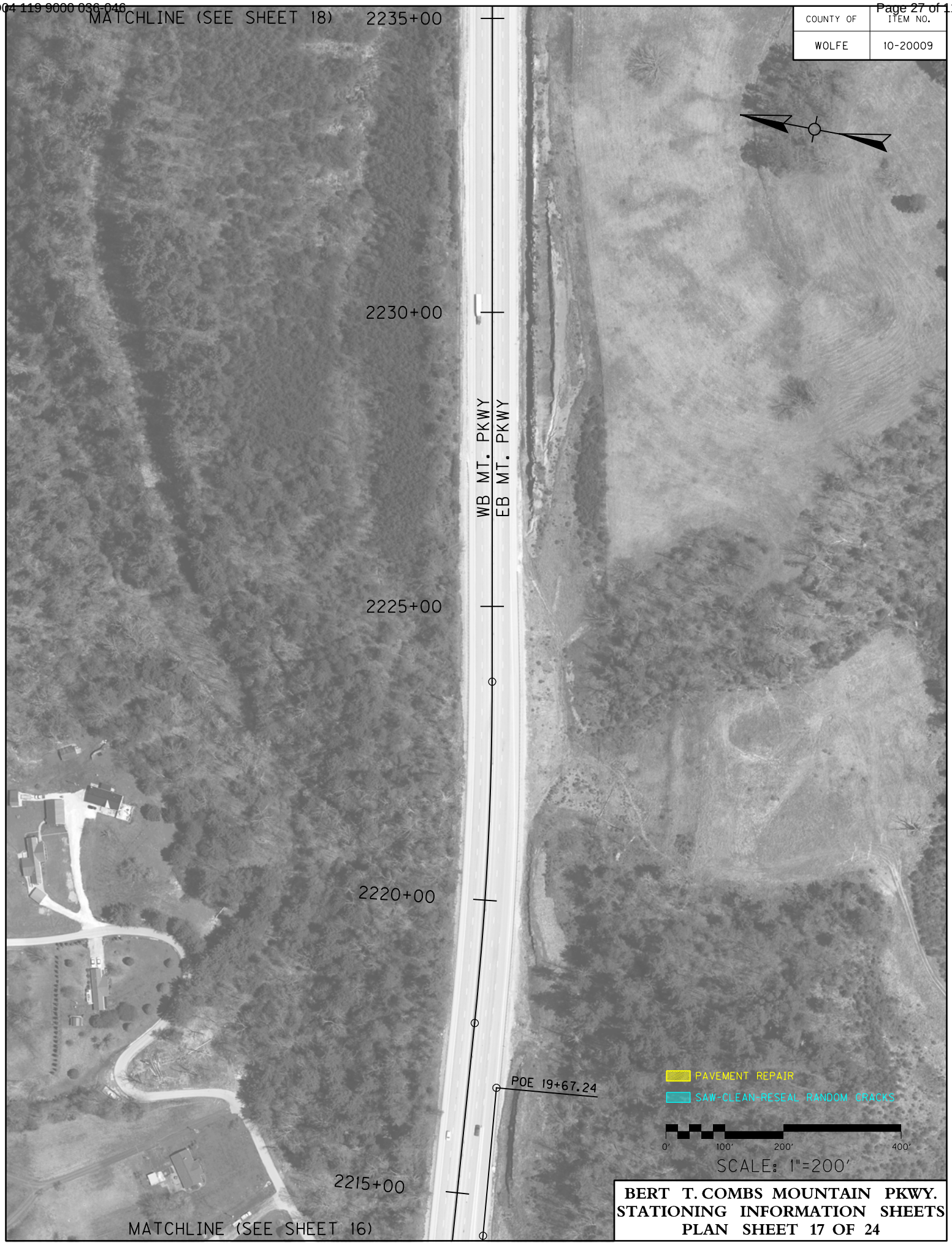

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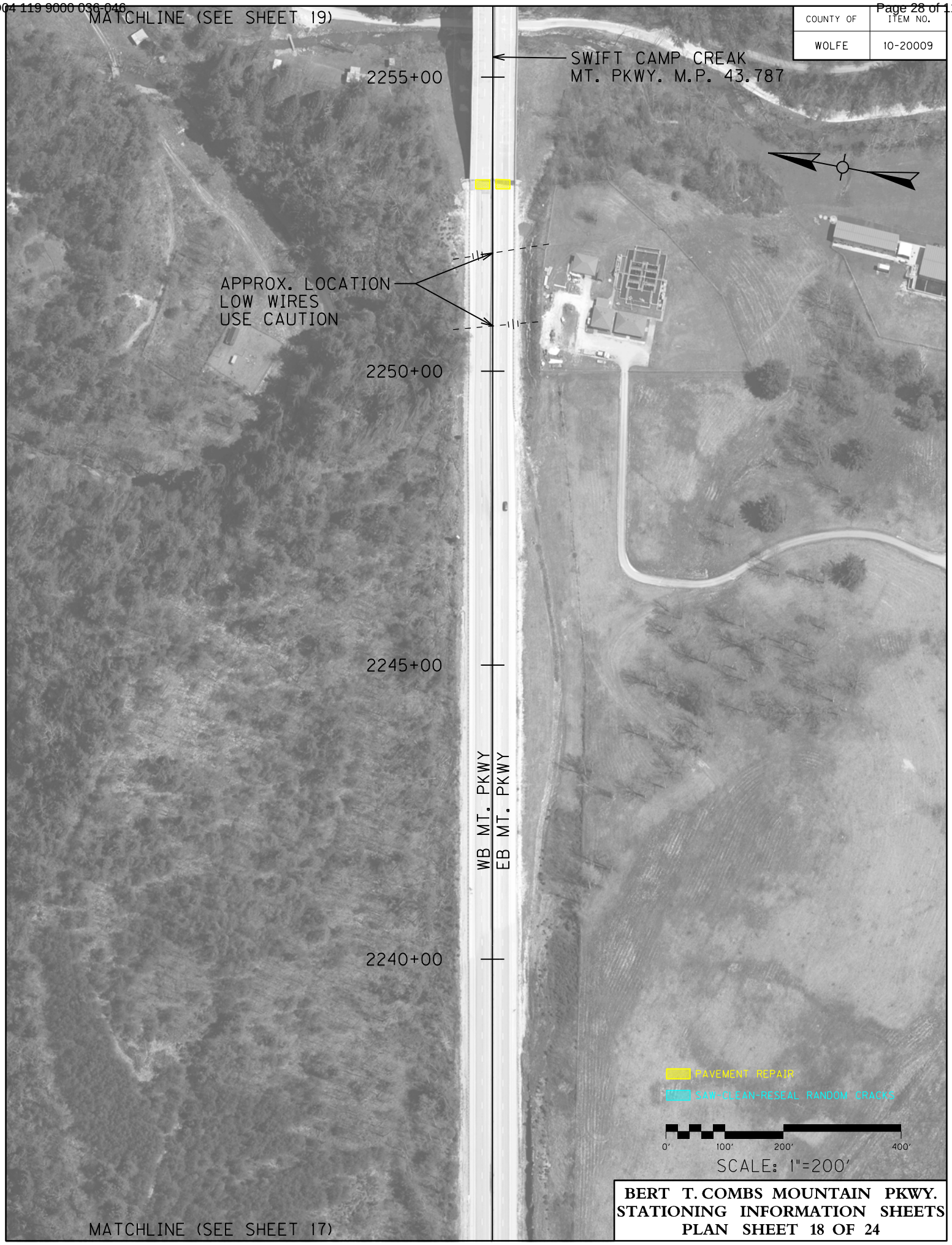

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BERT T. COMBS MOUNTAIN PKWY.
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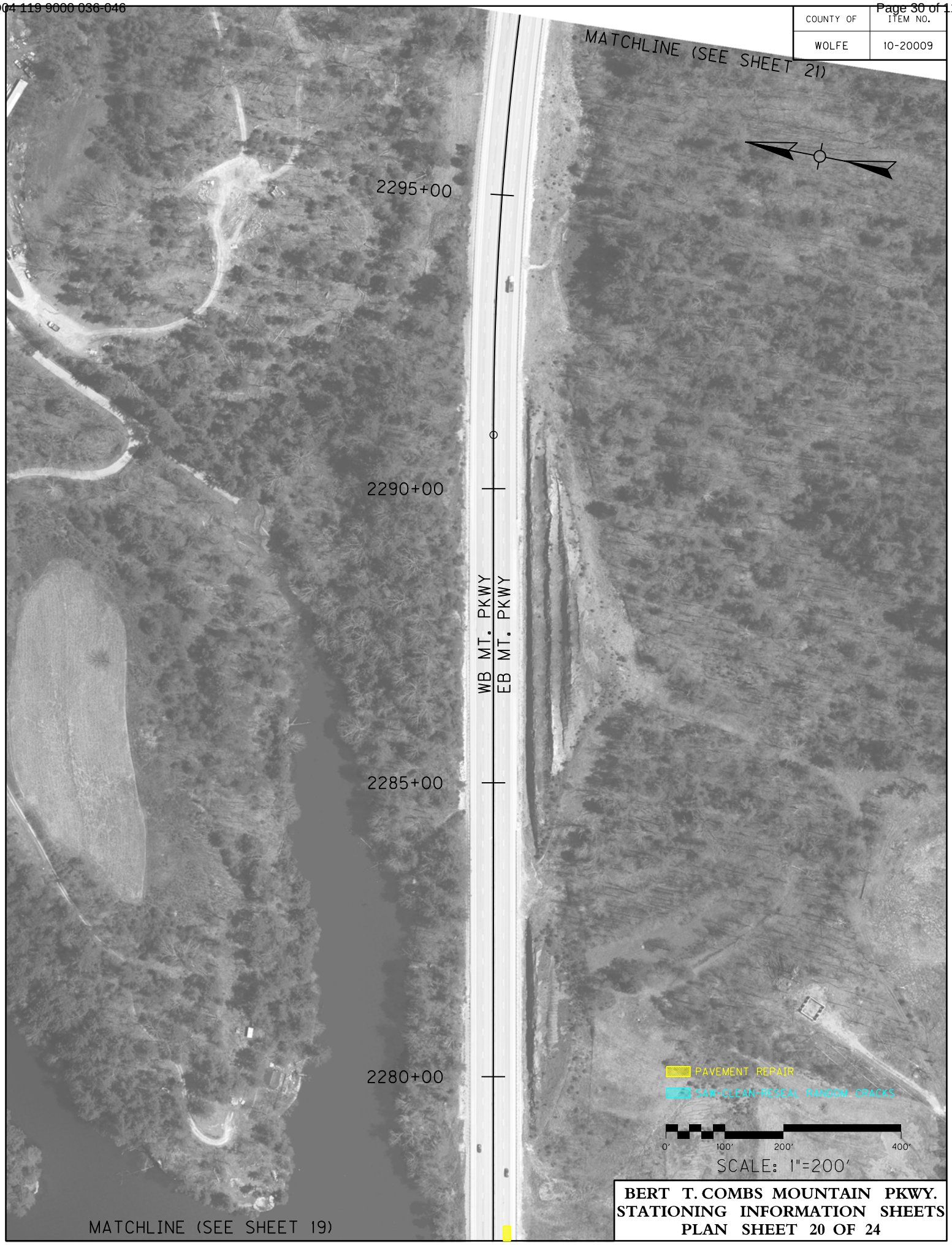

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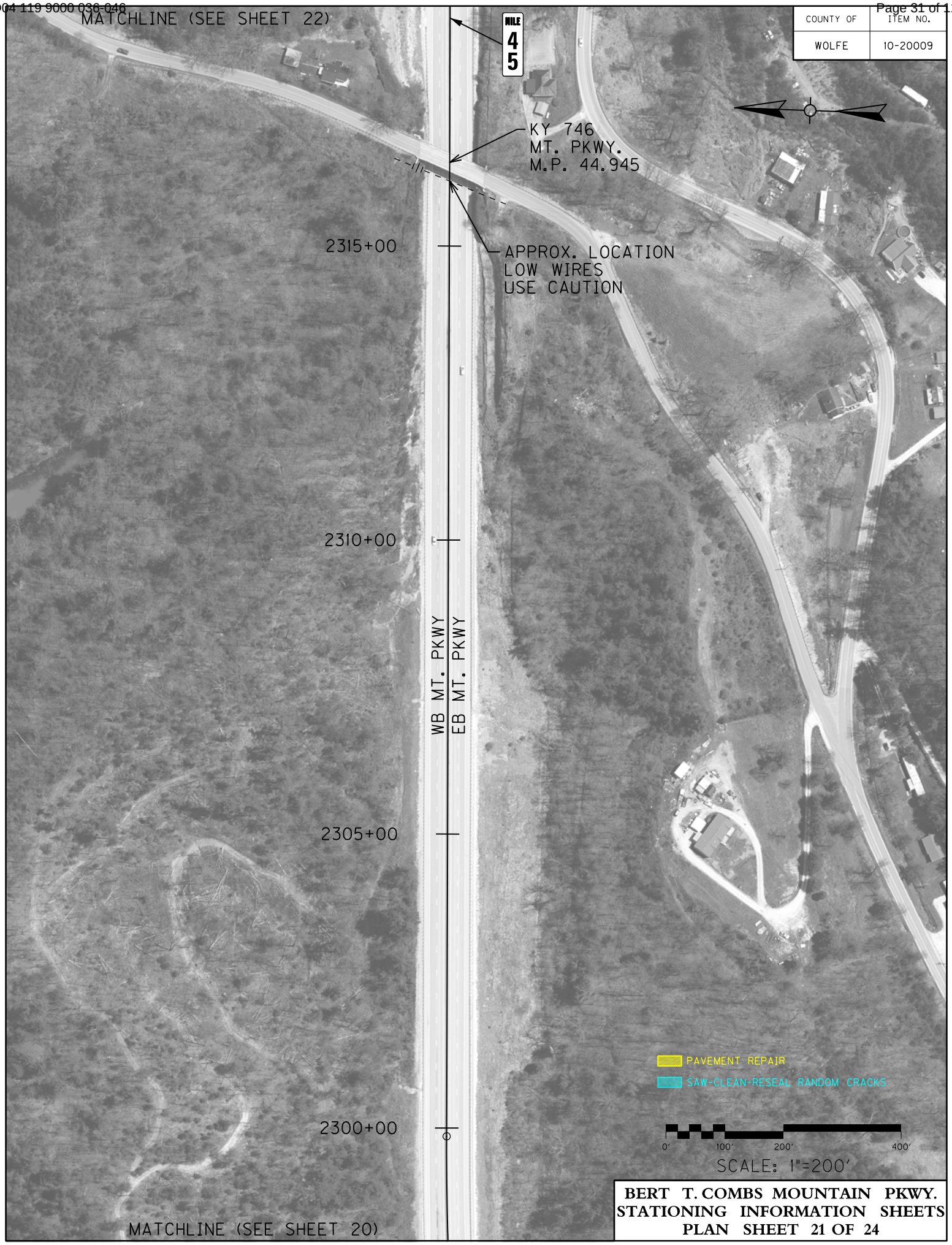

COUNTY OF	ITEM NO.
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BERT T. COMBS MOUNTAIN PKWY.
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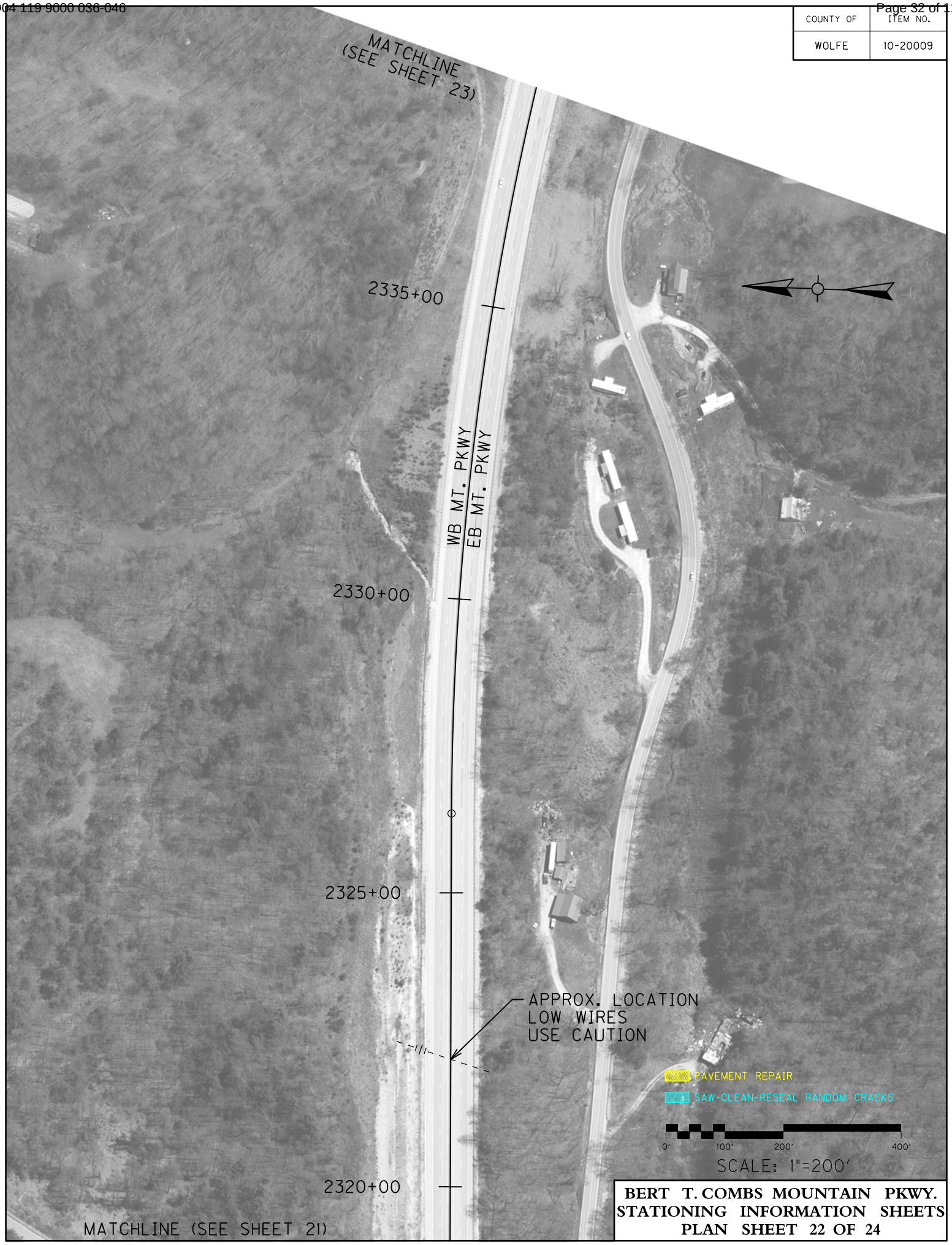

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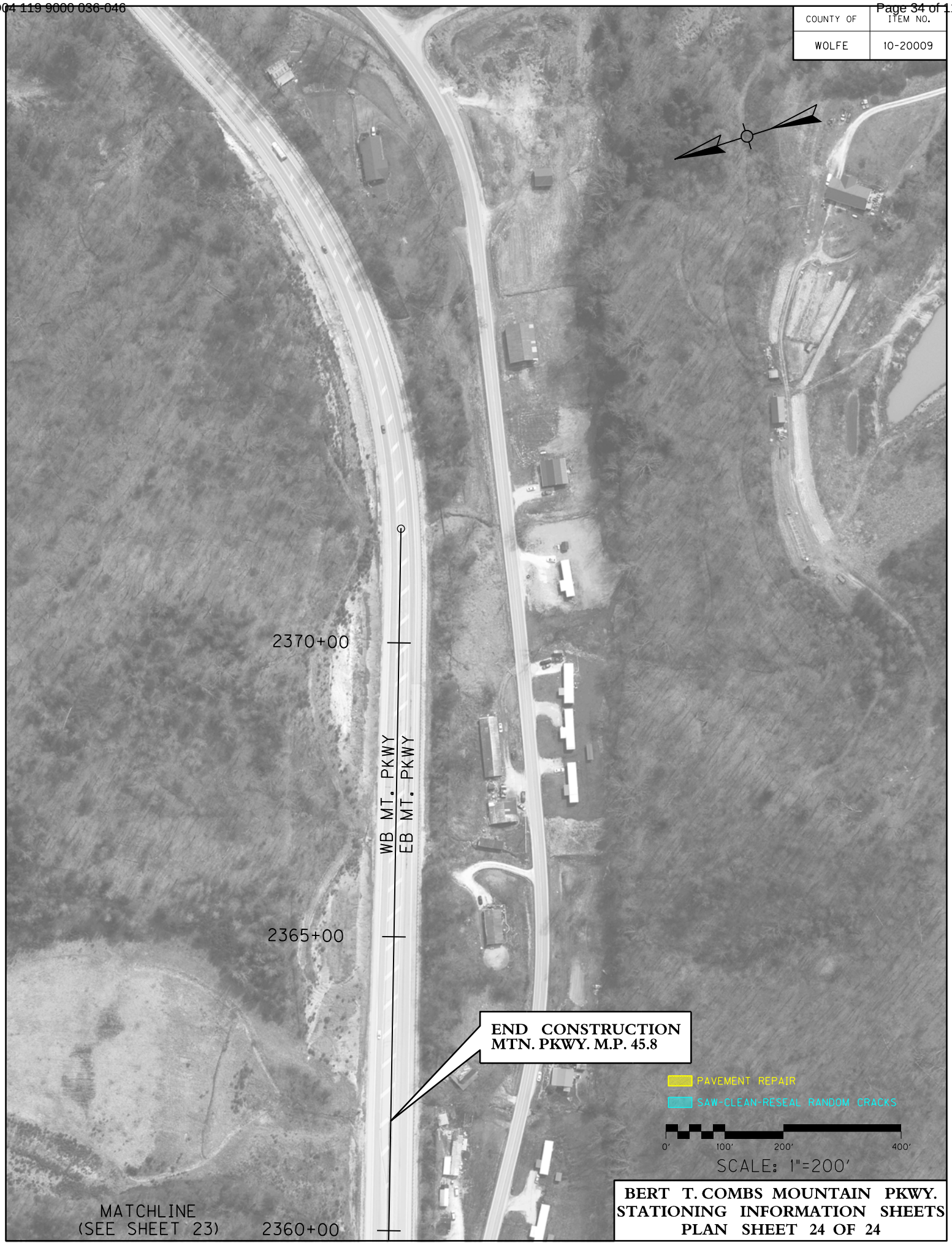

BERT T. COMBS MOUNTAIN PKWY.
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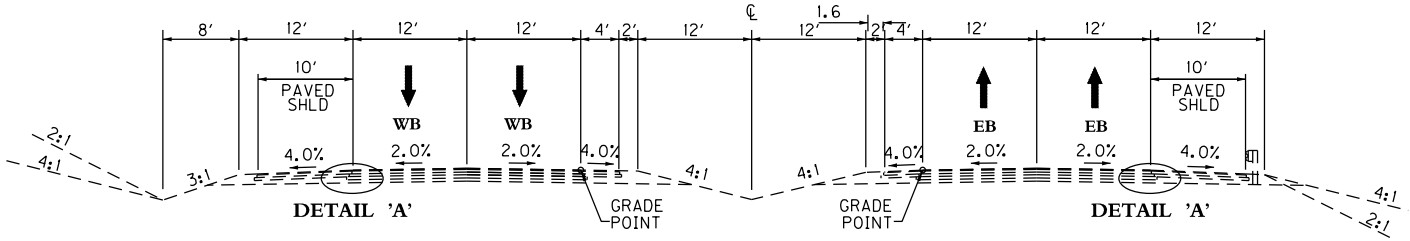
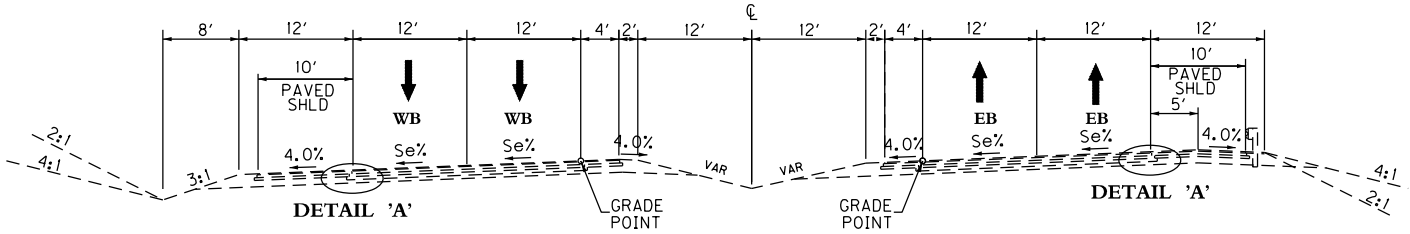
COUNTY OF	ITEM NO.
WOLFE	10-20009

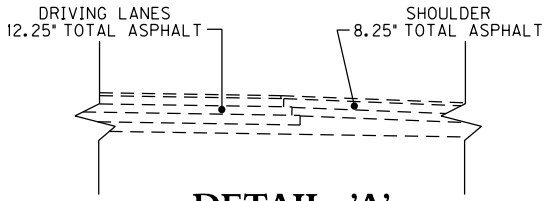
EXISTING TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY
M.P. 36.000 TO M.P. 37.700
M.P. 38.800 TO MP 42.149



NORMAL SECTION
(4 LANE)



SUPERELEVATED SECTION
(4 LANE)



DETAIL 'A'

NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.
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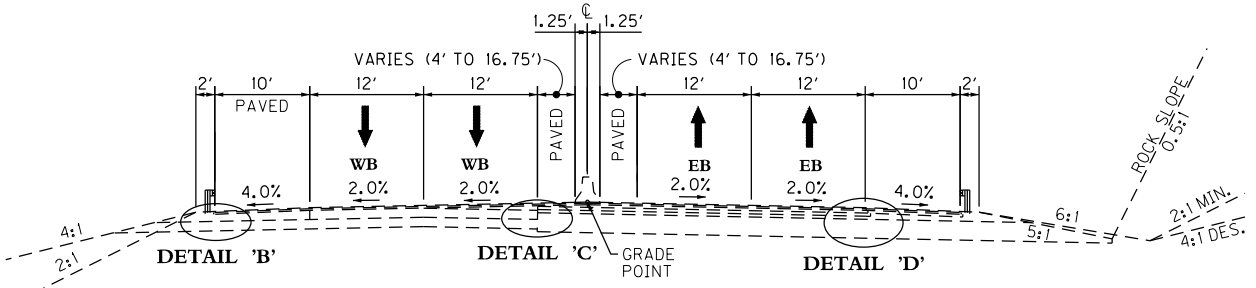
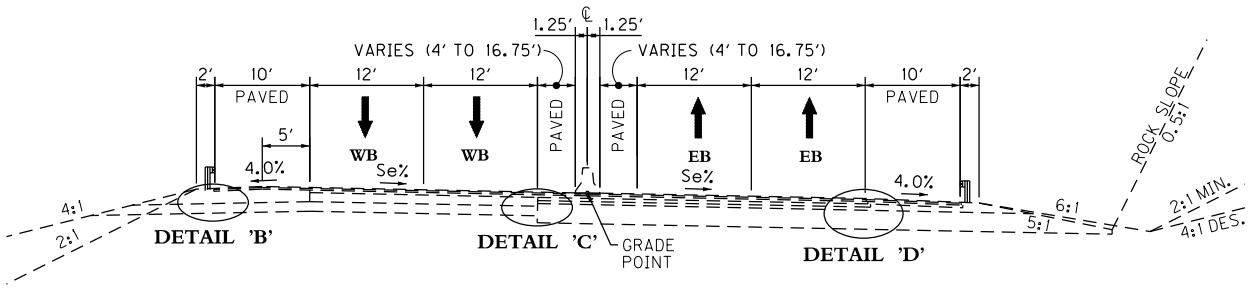
EXISTING TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY

MP 42.149 TO M.P. 44.898



NORMAL SECTION
(4 LANE WITH BARRIER WALL)



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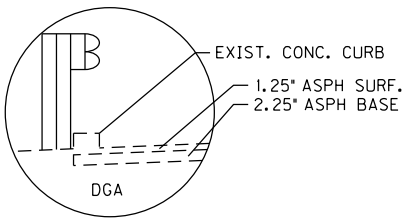
(4 LANE WITH BARRIER WALL)



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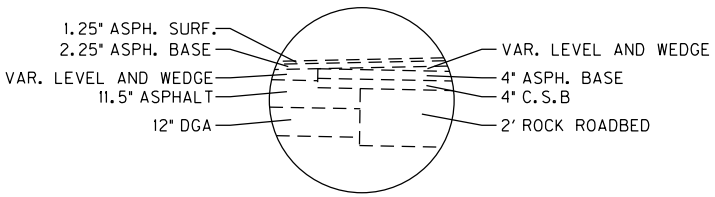

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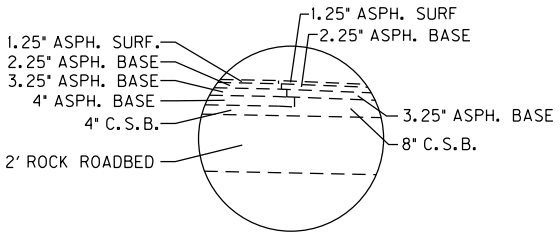


DETAIL 'D'

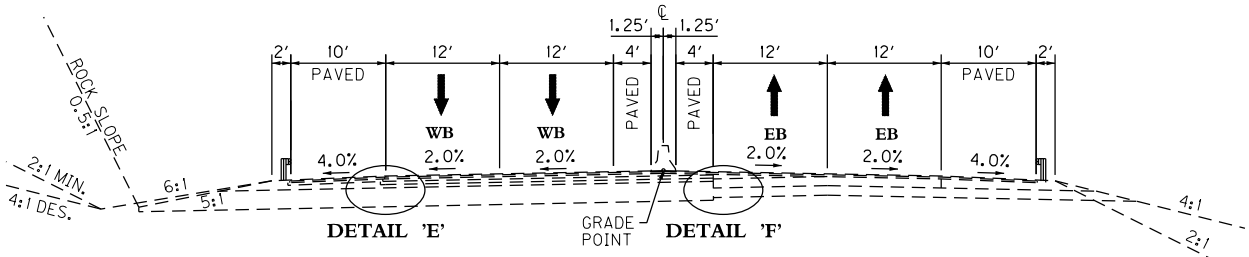
NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.
WOLFE	10-20009

EXISTING TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY

M.P. 44.898 TO M.P. 45.800



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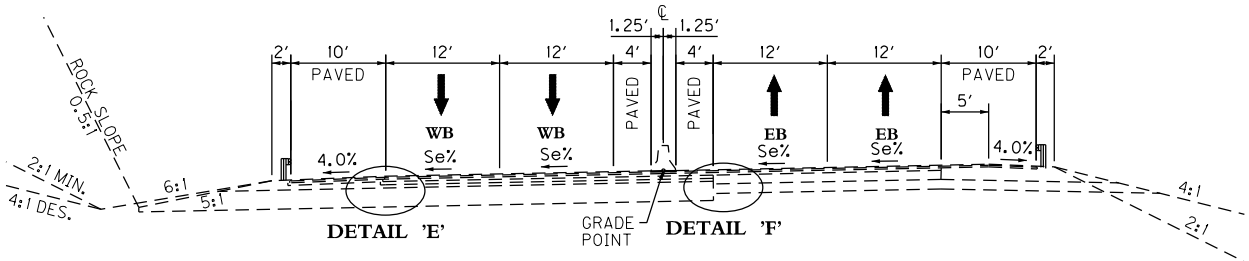
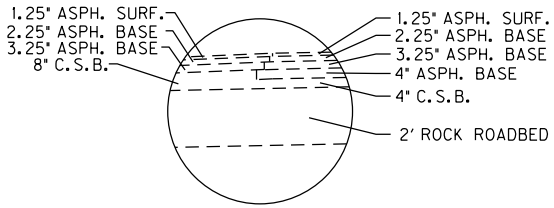
(4 LANE WITH BARRIER WALL)



SUPERELEVATED SECTION
(4 LANE WITH BARRIER WALL)



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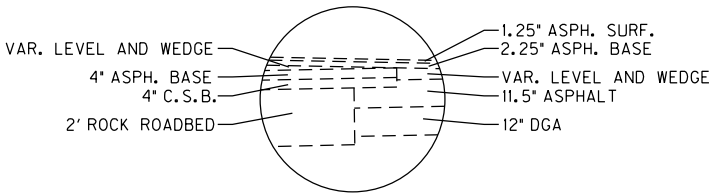

DETAIL 'F'

NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.
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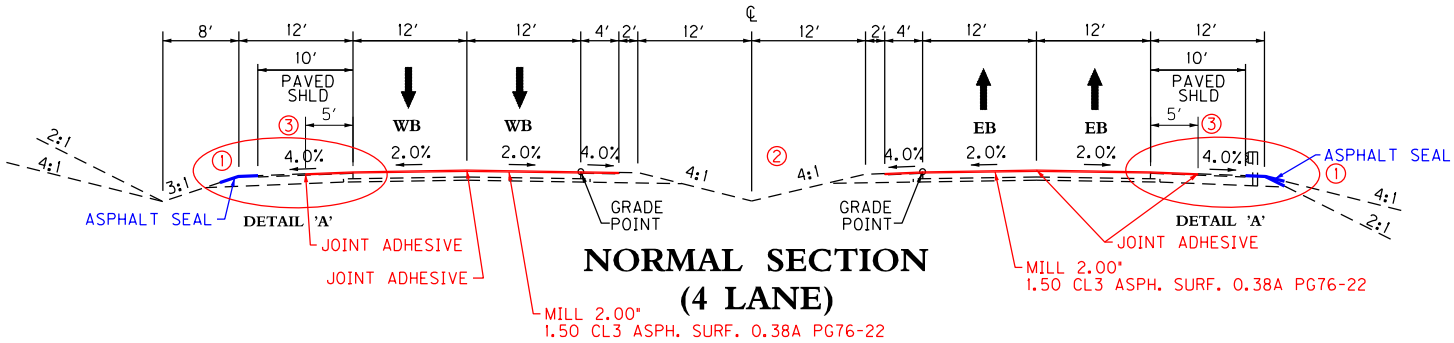
PROPOSED TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY
M.P. 36.000 TO M.P. 37.700



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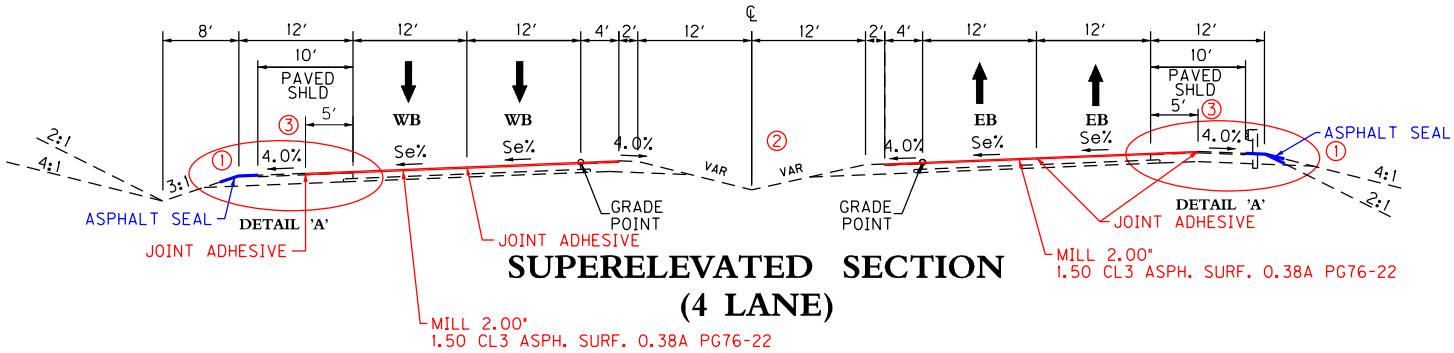
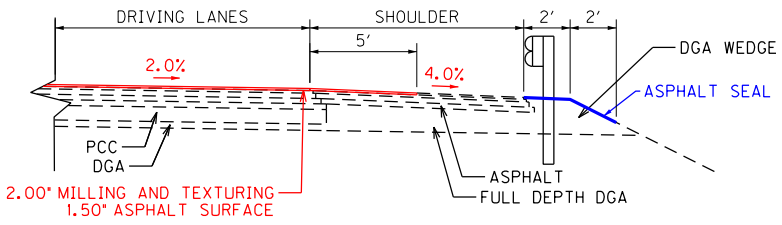


SUPERELEVATED SECTION (4 LANE)



DETAIL 'A'

PAVEMENT REHABILITATION

DRIVING LANES AND SHOULDERS

2.0" ASPHALT MILLING
SURFACE -- 1.50" CL3 ASPHALT SURFACE 0.38A PG76-22

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF THE OUTSIDE PAVED SHOULDER TO A POINT 2′ DOWN THE DITCH OR FILL SLOPE, TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

② MILL AND RESURFACE EXISTING PAVED U-TURNS

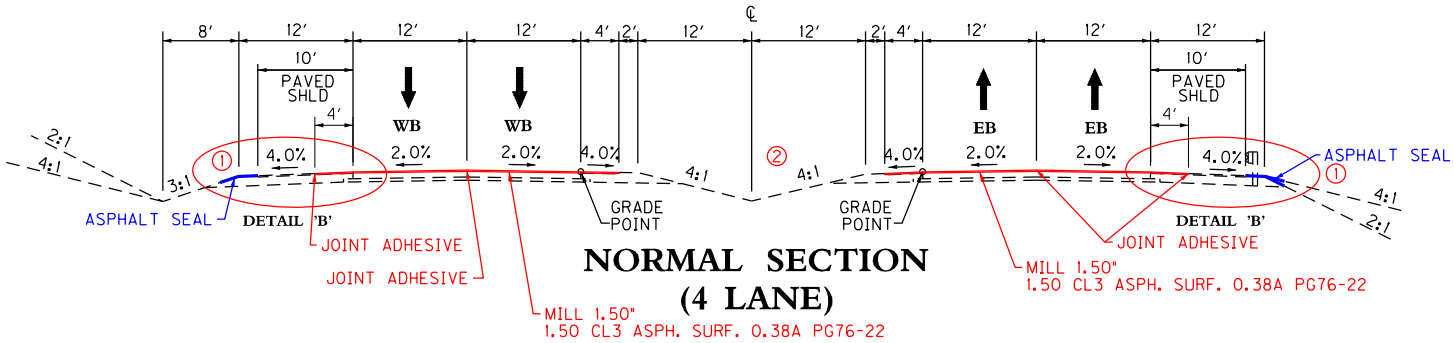
③ ASPHALT SURFACE ON THE OUTSIDE SHOULDER SHALL BE FINISHED LEVEL WITH THE REMAINING UNMILLED SURFACE.

NOT TO SCALE

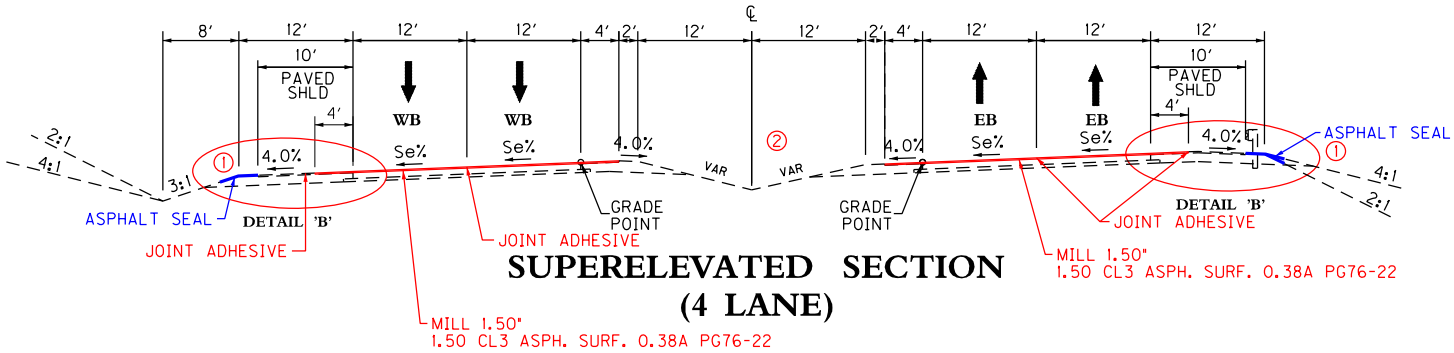
KY 9000
MOUNTAIN PARKWAY
PROPOSED TYPICAL SECTIONS

COUNTY OF	ITEM NO.
WOLFE	10-20009

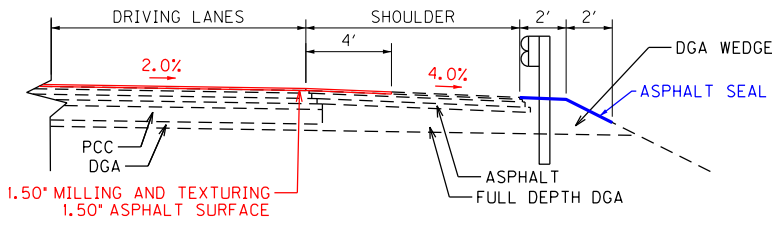
PROPOSED TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY
M.P. 38.800 TO MP 42.149



NORMAL SECTION (4 LANE)



SUPERELEVATED SECTION (4 LANE)



DETAIL 'B'

PAVEMENT REHABILITATION

DRIVING LANES AND SHOULDERS

1.50" ASPHALT MILLING
SURFACE -- 1.50" CL3 ASPHALT SURFACE 0.38A PG76-22

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF THE OUTSIDE PAVED SHOULDER TO A POINT 2′ DOWN THE DITCH OR FILL SLOPE, TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

② MILL AND RESURFACE EXISTING PAVED U-TURNS

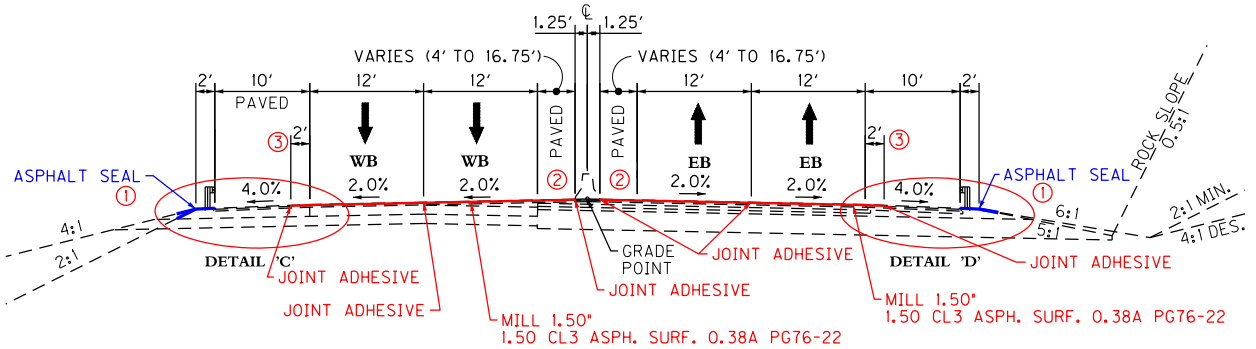
NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
PROPOSED TYPICAL SECTIONS

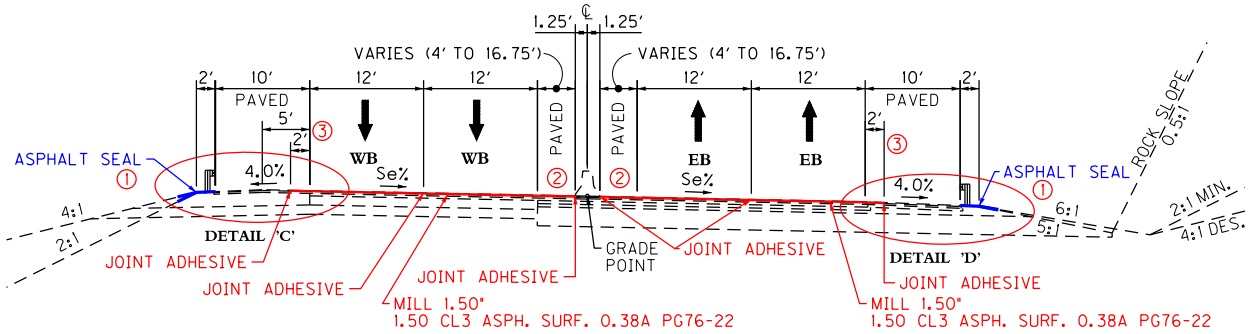
COUNTY OF	ITEM NO.
WOLFE	10-20009

PROPOSED TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY

MP 42.149 TO M.P. 44.898



NORMAL SECTION
(4 LANE WITH BARRIER WALL)

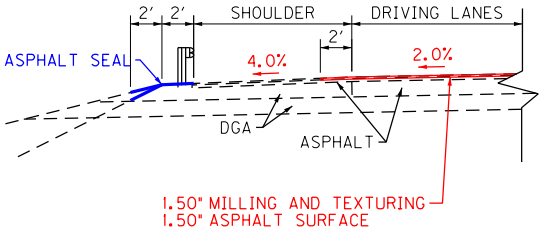


SUPERELEVATED SECTION
(4 LANE WITH BARRIER WALL)

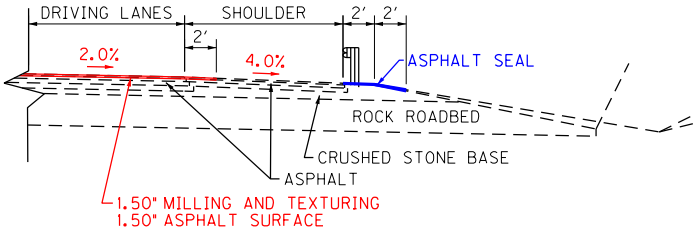
PAVEMENT REHABILITATION

DRIVING LANES AND SHOULDERS

1.50" ASPHALT MILLING
SURFACE -- 1.50" CL3 ASPHALT SURFACE 0.38A PG76-22



DETAIL 'C'



DETAIL 'D'

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF THE OUTSIDE PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

② MILL AND RESURFACE TO FACE OF EXISTING BARRIER WALL.

③ DO NOT MILL OUT EXISTING RUMBLE STRIPS ON THE OUTSIDE SHOULDER. ADJUST AS DIRECTED BY THE ENGINEER.

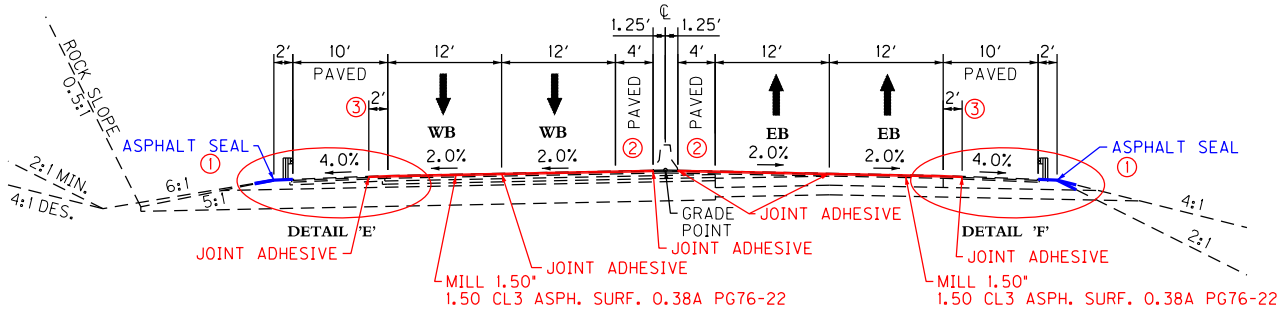
NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
EXISTING TYPICAL SECTIONS

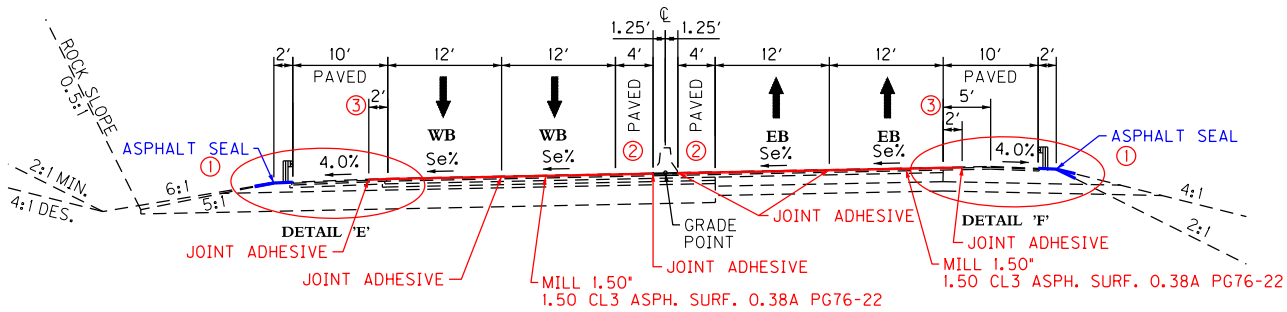
COUNTY OF	ITEM NO.
WOLFE	10-20009

PROPOSED TYPICAL SECTIONS
KY 9000 MOUNTAIN PARKWAY

M.P. 44.898 TO M.P. 45.800



NORMAL SECTION
(4 LANE WITH BARRIER WALL)

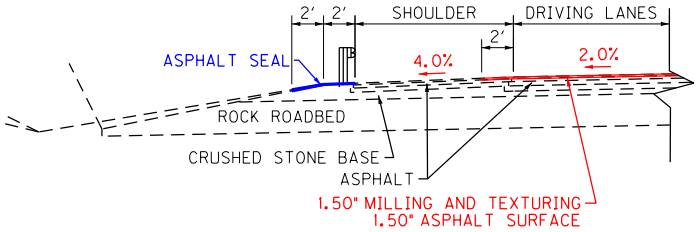


SUPERELEVATED SECTION
(4 LANE WITH BARRIER WALL)

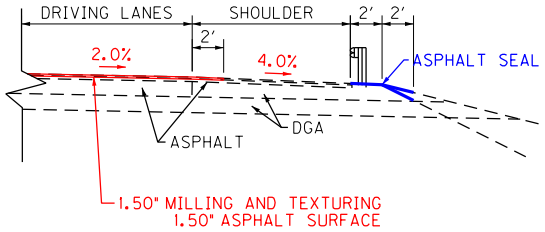
PAVEMENT REHABILITATION

DRIVING LANES AND SHOULDERS

1.50" ASPHALT MILLING
SURFACE -- 1.50" CL3 ASPHALT SURFACE 0.38A PG76-22



DETAIL 'E'



DETAIL 'F'

① ASPHALT SEAL IS REQUIRED FROM OUTSIDE EDGE OF THE OUTSIDE PAVED SHOULDER TO A POINT 2' DOWN THE DITCH OR FILL SLOPE. TWO APPLICATIONS OF THE FOLLOWING:

ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

② MILL AND RESURFACE TO FACE OF EXISTING BARRIER WALL.

③ DO NOT MILL OUT EXISTING RUMBLE STRIPS ON THE OUTSIDE SHOULDER. ADJUST AS DIRECTED BY THE ENGINEER.

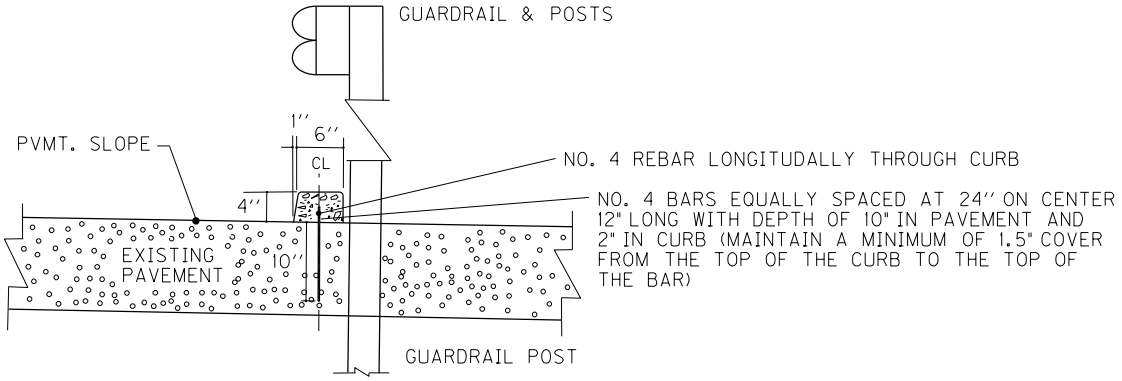
NOT TO SCALE

KY 9000
MOUNTAIN PARKWAY
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.
WOLFE	10-20009

CROSS SECTION VIEW

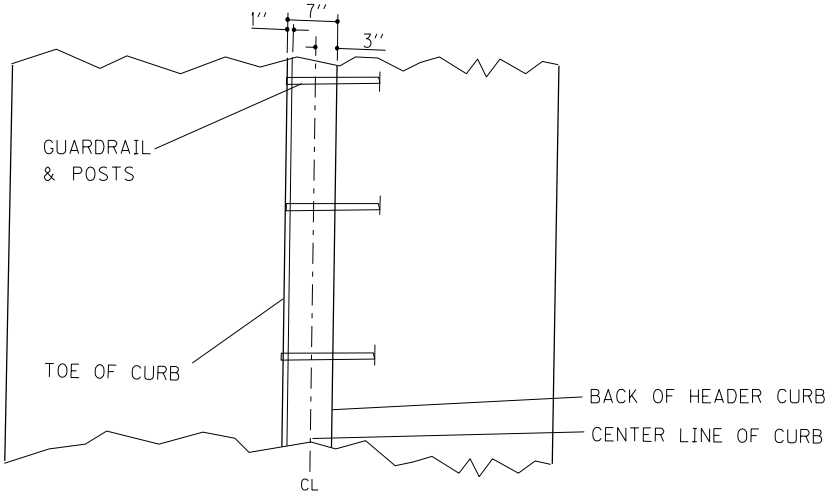
CONCRETE WEDGE CURB



NOT TO SCALE

PLAN VIEW

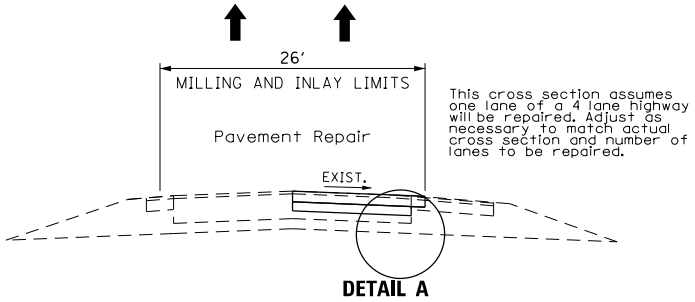
CONCRETE WEDGE CURB



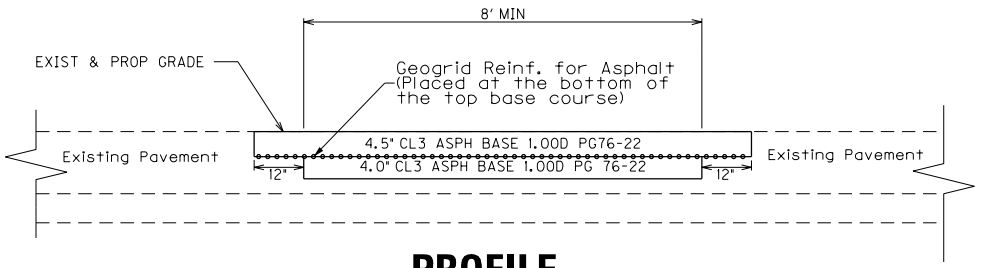
NOT TO SCALE

DETAIL SHEET

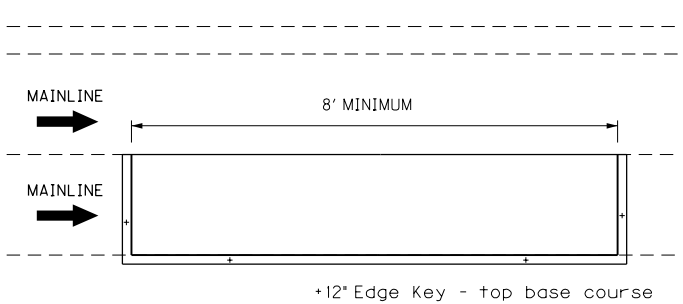
PAVEMENT REPAIR DETAIL



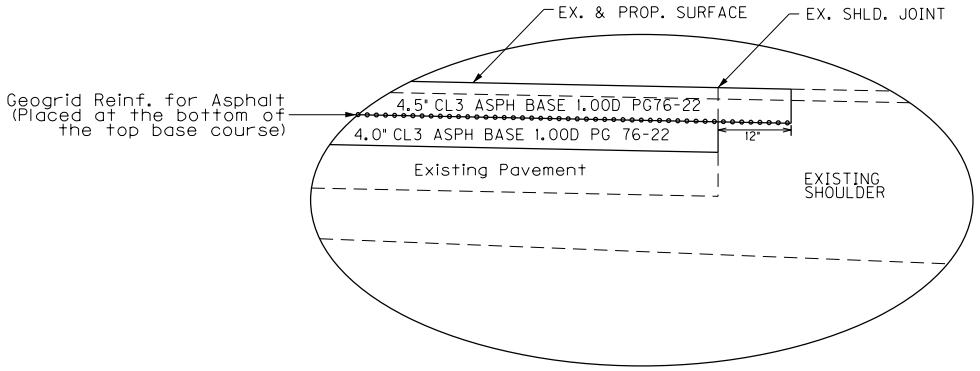
CROSS SECTION



PROFILE



PLAN VIEW



DETAIL A

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.
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. Before resurfacing, open repaired area to traffic for a minimum of 14 days. Monitor pavement for settlement during this 14+ days and repair by leveling and wedging, as approved by the Engineer, until placement of final surface course.
5. The item REMOVE PAVEMENT includes removal of all asphalt to the required depth.
6. Perform typical mill and inlay operations with resurfacing items subject to payment as part of the resurfacing operation.

* QUANTITIES TO BID

02091	REMOVE PAVEMENT	SQ.YD.
00110	GEOGRID REINF FOR ASPHALT	SQ.YD.
0216	CL3 ASPH BASE 1.00D PG76-22	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.

NOT TO SCALE

MOUNTAIN PARKWAY PAVEMENT REHABILITATION
WOLFE COUNTY
ITEM NO. 10-20009
GENERAL SUMMARY

ITEM NUMBER	ITEM		QUANTITY	UNIT
1	DGA BASE	(1)	1,534	TON
78	CRUSHED AGGREGATE SIZE NO. 2		1	TON
100	ASPHALT SEAL AGGREGATE		817	TON
103	ASPHALT SEAL COAT		98	TON
20263ED	GEOGRID REINFORCEMENT(ASPHALT)		11,051	SQYD
194	LEVELING AND WEDGING PG76-22	(2)	500	TON
216	CL 3 ASPH BASE 1.00D PG76-22		5,168	TON
336	CL3 ASPH SURF 0.38A PG76-22		28,321	TON
461	CULVERT PIPE 15 INCH		12	LIN FT
464	CULVERT PIPE 24 INCH		12	LIN FT
1001	PERFORATED PIPE - 6 INCH		20	LIN FT
1011	NON-PERFORATED PIPE - 6 INCH		10	LIN FT
1029	PERF PIPE HEADWALL TYPE 3 - 6 INCH		1	EACH
1202	PIPE CULVERT HEADWALL - 15 INCH		2	EACH
1208	PIPE CULVERT HEADWALL - 24 INCH		1	EACH
1310	REMOVE PIPE		24	LIN FT
1434	SLOPED BOX OUTLET TYPE 1 - 24 INCH		1	EACH
1690	FLUME INLET TYPE 1		1	EACH
1691	FLUME INLET TYPE 2		15	EACH
1982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE		258	EACH
1983	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW		8	EACH
1986	DELINEATOR FOR BARRIER WALL-B/Y	(4)	278	EACH
2091	REMOVE PAVEMENT		11,051	SQYD
2200	ROADWAY EXCAVATION		150	CU YD
2220	FLOWABLE FILL		10	CU YD
2237	DITCHING		45,936	LIN FT
2363	CONNECTOR TO BRIDGE END TYPE A		4	EACH
2367	END TREATMENT TYPE 1		10	EACH
2369	END TREATMENT TYPE 2A		18	EACH
2381	REMOVE GUARDRAIL		20,762.5	LIN FT
2387	CONNECTOR TO BRIDGE END TYPE A-1		4	EACH
2391	END TREATMENT TYPE 4A		8	EACH
2483	CHANNEL LINING CLASS II		110	TON
2484	CHANNEL LINING CLASS III	(9)	225	TON
2562	TEMPORARY SIGNS		2,500	SQ FT
2565	OBJECT MARKER TYPE 2		4	EACH
2568	MOBILIZATION		1	LUMP SUM
2569	DEMOBILIZATION		1	LUMP SUM
2625	REMOVE HEADWALL		4	EACH
2650	MAINTAIN AND CONTROL TRAFFIC		1	LUMP SUM
2671	PORTABLE CHANGEABLE MESSAGE SIGN		3	EACH
2676	MOBILIZATION FOR MILLING & TEXTURING		1	LUMP SUM
2677	ASPHALT PAVE MILLING AND TEXTURING	(3)(8)	30,246	TON
2775	ARROW PANEL		2	EACH
2929	CRASH CUSHION TYPE IX		2	EACH
5950	EROSION CONTROL BLANKET	(6)	20,416	SQ YD

MOUNTAIN PARKWAY PAVEMENT REHABILITATION
WOLFE COUNTY
ITEM NO. 10-20009
GENERAL SUMMARY

ITEM NUMBER	ITEM		QUANTITY	UNIT
6412	STEEL POST MILE MARKERS		18	EACH
6511	PAVEMENT STRIPING-TEMP PAINT - 6 INCH		182,842	LIN FT
6542	PAVE STRIPING THERMO - 6 INCH WHITE		114,473	LIN FT
6543	PAVE STRIPING THERMO - 6 INCH YELLOW		91,664	LIN FT
6546	PAVE STRIPING THERMO - 12 INCH WHITE		5,206	LIN FT
6556	PAVE STRIPING-DUR TY 1-6 IN W		1,380	LIN FT
6557	PAVE STRIPING-DUR TY 1-6 IN Y		1,102	LIN FT
6611	INLAID PAVEMENT MARKER-MY		476	EACH
6613	INLAID PAVEMENT MARKER-B W/R		1,409	EACH
24679ED	PAVE MARK THERMO CHEVRON		3,640	SQ FT
24683ED	PAVE MARKING-THERMO DOTTED LANE EXTEN		1,222	LIN FT
10020NS	FUEL ADJUSTMENT		52,127	DOLLARS
10030NS	ASPHALT ADJUSTMENT		130,929	DOLLARS
20366NN	REPLACE GRATE		5	EACH
20071EC	JOINT ADHESIVE		222,299	LF
20191ED	OBJECT MARKER TYPE 3		18	EACH
20411ED	LAW ENFORCEMENT OFFICER		200	HOUR
21173EC	SAW-CLEAN-RESEAL RANDOM CRACKS	(5)	2,052	LIN FT
21802EN	GUARDRAIL - STEEL W BEAM S-FACE (7FT POST)		19,862.5	LIN FT
22883EN	CONCRETE WEDGE CURB	(7)	10,220	LIN FT
23954EC	REMOVE EXISTING WEDGE CURB		4,630	LIN FT
24640ED	OBJECT MARKER TYPE 1		2	EACH
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING		121	TON
20362ES403	SHOULDER RUMBLE STRIPS-SAWED		109,824	LIN FT
20432ES112	REMOVE CRASH CUSHION		2	EACH
26136EC	PORTABLE QUEUE WARNING ALERT SYSTEM		6	MONTH
26137EC	QUEUE WARNING PCMS		24	MONTH
26138EC	QUEUE WARNING PORTABLE RADAR SENSORS		24	MONTH
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT		3,085,401	SQFT

(1) To be used as directed by the Engineer at guardrail end treatments.

(2) To be used for slope correction, repairing dips, shoulders and any other pavement anomalies as directed by the Engineer

(3) Mill 2.0 inches from MP 36.00 to MP 37.70 and mill 1.5 inches from MP 38.80 to MP 45.80.

(4) Delineators for barrier wall are to be installed along the top of the existing barrier wall.

(5) To be used as directed by the Engineer at E.B. Mountain Parkway exit no. 40 to repair cracks in the existing concrete.

(6) To be used as directed by the Engineer in ditching areas.

(7) Includes 4,630 LF from the guardrail summary and 5590 LF from the drainage summary

(8) Removal of existing pavement markers is to be considered incidental to Asphalt Pave Milling and Texturing.

(9) Fabric-Geotextile class 2 is to be considered incidental to the channel lining.

NOTE: Quantities from all summaries have been carried over and included in this General Summary

PAVEMENT SUMMARY
MOUNTAIN PARKWAY - WOLFE COUNTY
MP 36.000 TO MP 37.700 AND MP 38.800 TO MP 45.800
ITEM NO. 10-20009
PAVING AREAS

ITEM		TOTAL
MOUNTAIN PARKWAY DRIVING LANES	**LF**	**SQYD**
JOINT ADHESIVE	222299	
ASPHALT MATERIAL FOR TACK NON-TRACKING		262489
1.5" CL3 ASPH SURF 0.38A PG76-22		262489
MOUNTAIN PARKWAY SHOULDERS		
ASPHALT MATERIAL FOR TACK NON-TRACKING		80260
1.5" CL3 ASPH SURF 0.38A PG76-22		80260
MOUNTAIN PARKWAY MEDIAN U-TURNS		
ASPHALT MATERIAL FOR TACK NON-TRACKING		531
1.5" CL3 ASPH SURF 0.38A PG76-22		531
ASPHALT SEAL AGGREGATE		40832
ASPHALT SEAL COAT		40832
SHOULDER RUMBLE STRIPS-SAWED	109824	
ASPHALT PAVE MILLING AND TEXTURING		**SQYD**
1.5" ASPHALT PAVE MILLING AND TEXTURING		273283
2.0" ASPHALT PAVE MILLLING AND TEXTURING		69997

PAVING SUMMARY

	CODE	ITEM	UNITS	TOTAL
3	100	ASPHALT SEAL AGGREGATE	TON	817
4	103	ASPHALT SEAL COAT	TON	98
5	110	GEOGRID REINF. FOR ASPHALT	SQ. YD.	11051
1, 5	216	CL 3 ASPH BASE 1.00D PG76-22	TON	5168
1	336	CL3 ASPH SURF 0.38A PG76-22	TON	28321
5	2091	REMOVE PAVEMENT	SQ. YD.	11051
	2677	ASPHALT PAVE MILLING AND TEXTURING	TON	30246
2	24970EC	ASPHALT MATERIAL FOR TACK-NON TRACKING	TON	121
	20362ES403	SHOULDER RUMBLE STRIPS-SAWED	LF	109824
	20071EC	JOINT ADHESIVE	LF	222299

NOTES

(1) ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH

(2) ASPHALT MATERIAL FOR TACK-NONTRACKING ESTIMATED AT 0.70 LBS. PER SQ. YD

(3) TWO APPLICATIONS OF ASPHALT SEAL AGGREGATE ESTIMATED AT 20LB / SY.

(4) TWO APPLICATIONS OF ASPHALT SEAL COAT ESTIMATED AT 2.4 LB / SY.

(5) FOR ASPHALT PAVEMENT REPAIRS. TO BE USED AS DIRECTED BY THE ENGINEER.

QUANTITIES HAVE BEEN CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY

MOUNTAIN PARKWAY PAVEMENT REHABILITATION
WOLFE COUNTY
MP 36.000 TO MP 37.700 AND MP 38.800 TO MP 45.800
ITEM NO. 10-20009
ASPHALT PAVEMENT REPAIRS

BEGIN M.P.	END M.P.	DIRECTION	INSIDE SHOULDER	LANE #1	CENTER PAVEMENT JOINT 6' WIDE	LANE #2	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	PAVEMENT REPAIR (SQ YD)
EASTBOUND MOUNTAIN PARKWAY									
36.32	36.34	E.B.					X	1142	127
36.46	36.46	E.B.		X		X		360	40
37.07	37.08	E.B.				X		245	27
37.19	37.19	E.B.		X		X		245	27
37.25	37.29	E.B.		X		X		5750	639
37.37	37.39	E.B.					X	997	111
37.43	37.43	E.B.		X		X		600	67
39.07	39.08	E.B.		X		X		600	67
39.72	39.73	E.B.		X		X		944	105
40.40	40.41	E.B.		X		X		1159	129
40.43	40.56	E.B.		X		X		15494	1722
40.75	40.99	E.B.		X		X		31599	3511
41.28	41.31	E.B.		X		X		3747	416
42.00	42.00	E.B.		X		X		576	64
43.78	43.78	E.B.		X		X		380	42
43.85	43.86	E.B.		X		X		360	40
44.21	44.22	E.B.				X		300	33
WESTBOUND MOUNTAIN PARKWAY									
39.42	40.41	W.B.			X			33787	3754
40.41	40.41	W.B.		X		X		203	23
40.44	40.44	W.B.		X		X		205	23
43.78	43.78	W.B.		X		X		376	42
43.85	43.86	W.B.		X		X		376	42
TOTAL								**99445**	**11051**

Lane numbers begin with the left most driving lane (lane #1 and increase as you move right into the right most lane. Note that shoulders were noted directly. (Each Direction Separately)

Approximate pavement repair locations are listed in this proposal. The Engineer will determine the exact location and type of repair at the time of construction.

Note: Quantities are carried over to the General Summary

GUARDRAIL SUMMARY
WOLFE COUNTY
MOUNTAIN PARKWAY M.P. 36.000 TO M.P. 37.700 AND M.P. 38.800 TO M.P. 45.800
Item No. 10-20009

Location	SIDE	BEGIN MP	END MP	DGA (1)	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	CONCRETE WEDGE CURB	GUARDRAIL - STEEL W BEAM S-FACE (7FT POST)	REMOVE GUARDRAIL (*)	CONNECTOR TO BRIDGE END TY A	END TREATMENT TYPE 1	END TREATMENT TYPE 2A	CONNECTOR TO BRIDGE END TY A-1	END TREATMENT TYPE 4A	OBJECT MARKER TYPE 2	CRASH CUSHION TYPE IX	OBJECT MARKER TYPE 3	OBJECT MARKER TYPE 1	REMOVE CRASH CUSHION	COMMENTS
Units				TON	EACH	EACH		LIN. FT.												
Item Number				1	1982	1983	22883EN	21802EN	2381	2363	2367	2369	2387	2391	2565	2929	20191ED	24640ED	20432ES112	
MT. PKWY.	RT	36.01	36.05		3			200	200			1								TIE TO EXIST. GUARDRAIL
MT. PKWY.	RT	36.03	36.05				70													
MT. PKWY.	RT	36.17	36.28	87	11			512.5	562.5		1	1					1			
MT. PKWY.	RT	36.22	36.27				260													
MT. PKWY.	RT	36.45	36.59		15			712.5	712.5											TIE TO EXIST. GUARDRAIL
MT. PKWY.	MEDIAN	36.45	36.45													1		1	1	
MT. PKWY.	MEDIAN	36.49	36.49													1		1	1	
MT. PKWY.	RT	36.49	36.55				315													
MT. PKWY.	LT	37.12	37.26	87	15			687.5	737.5		1	1					1			
MT. PKWY.	LT	37.12	37.13				72													
MT. PKWY.	LT	37.13	37.22				431													
MT. PKWY.	RT	37.32	37.41	87	5			387.5	437.5		1	1					1			
MT. PKWY.	LT	37.33	37.45	87	7			575	625		1	1					1			
MT. PKWY.	RT	39.64	39.75	87	11			512.5	562.5		1	1					1			
MT. PKWY.	RT	40.37			5		25	200	200	1					1					
MT. PKWY.	LT	40.21	40.41		22		25	1062.5	1062.5			1	1							
MT. PKWY.	RT	40.43	40.47		3		25	200	200				1							TIE TO EXIST. GUARDRAIL
MT. PKWY.	LT	40.44	40.48		3		25	200	200	1					1					TIE TO EXIST. GUARDRAIL
MT. PKWY.	RT	40.44	40.46	83		2		62.5	112.5			1		1			1			REPLACE EXIST. E.T. LT. EXIT 40 RAMP TO EB MT. PKWY
MT. PKWY.	RT	40.44	40.54	83	6			450	500			1		1			1			REPLACE EXIST. E.T. RT. EXIT 40 RAMP TO EB MT. PKWY TIE TO EXIST. GUARDRAIL
MT. PKWY.	RT	40.55	40.65	83	3			200	250			1		1			1			REPLACE EXIST. TY 7 E.T. RT EXIT 40 RAMP TO EB MT. PKWY
MT. PKWY.	LT	40.80	41.15	87	19			1787.5	1837.5		1	1					1			
MT. PKWY.	MEDIAN	41.79	41.83	83		3		162.5	212.5			1		1			1			
MT. PKWY.	MEDIAN	41.83	41.86	83		3		150	200			1		1			1			
MT. PKWY.	LT	43.24	43.29	83	3			187.5	237.5					1			1			TIE TO EXIST. GUARDRAIL
MT. PKWY.	LT	43.45	43.78		18		25	1737.5	1737.5			1	1							
MT. PKWY.	RT	43.68	43.76	83	5		25	375	425	1				1	1		1			
MT. PKWY.	LT	43.75	43.76				56													
MT. PKWY.	RT	43.83	43.87		3		25	200	200				1							TIE TO EXIST. GUARDRAIL
MT. PKWY.	LT	43.83	43.87		3		25	200	200	1					1					TIE TO EXIST. GUARDRAIL
MT. PKWY.	LT	43.98	44.85		47			4612.5	4612.5											TIE TO EXIST. GUARDRAIL
MT. PKWY.	RT	43.98	44.03	87	3			187.5	237.5		1	1					1			
MT. PKWY.	LT	44.01	44.03				55													
MT. PKWY.	RT	44.02	44.02				40													
MT. PKWY.	RT	44.06	44.12	87	4			250	300		1	1					1			
MT. PKWY.	LT	44.08	44.10				125													
MT. PKWY.	RT	44.10	44.11				70													
MT. PKWY.	LT	44.15	44.25				480													
MT. PKWY.	RT	44.18	44.34	87	9			800	850		1	1					1			
MT. PKWY.	RT	44.22	44.24				130													
MT. PKWY.	LT	44.29	44.36				330													
MT. PKWY.	RT	44.32	44.34				100													
MT. PKWY.	RT	44.44	44.87	87	23			2187.5	2237.5		1						1			TIE TO EXIST. GUARDRAIL
MT. PKWY.	LT	44.48	44.53				276													
MT. PKWY.	RT	44.49	44.53				180													
MT. PKWY.	RT	44.53	44.68				790													
MT. PKWY.	LT	44.58	44.59				50													
MT. PKWY.	LT	44.66	44.70				205													
MT. PKWY.	RT	44.78	44.83				255													
MT. PKWY.	LT	44.78	44.81				140													
MT. PKWY.	LT	45.50	45.71	83	12			1062.5	1112.5			1		1			1			
PROJECT TOTALS				1534	258	8	4630	19,862.5	20,762.5	4	10	18	4	8	4	2	18	2	2	

Note (*): Quantity includes removal of guardrail with end treatments
(1) For Shoulder Improvements at Guardrail End Treatments
(2) In areas where guardrail is being replaced and is to be connected to existing guardrail at a lower existing height, there will be a 200' transition from the existing height to the proposed height of the guardrail.
(3) All quantities carried over and included in the General Summary.

MOUNTAIN PARKWAY
WOLFE COUNTY
PAVEMENT REHABILITATION, M.P. 36.000 TO M.P. 37.700 AND M.P. 38.800 to M.P. 45.800
ITEM NO. 10-20009
DRAINAGE SUMMARY

LOCATION	BEGIN MILE POST	END MILE POST	CLEAN INLET/OUTLET (1)	CRUSHED AGGRAGATE SIZE NO. 2	CULVERT PIPE 15 INCH	CULVERT PIPE 24 INCH	PERFORATED PIPE - 6 INCH	NON-PERFORATED PIPE - 6 INCH	PERF PIPE HEADWALL TYPE 3 - 6 INCH	PIPE CULVERT HEADWALL 15 INCH	PIPE CULVERT HEADWALL 24 INCH	SLOPED BOX OUTLET TYPE 1 - 24 INCH	REMOVE PIPE	FLOWABLE FILL	FLUME INLET TYPE 1	FLUME INLET TYPE 2	ROADWAY EXCAVATION	CHANNEL LINING CLASS II	CHANNEL LINING CLASS III (2)	REMOVE HEADWALL	CONCRETE WEDGE CURB	REPLACE GRATE	COMMENTS
ITEM NUMBER			---	78	461	464	1001	1011	1029	1202	1208	1434	1310	2220	1690	1691	2200	2483	2484	2625	22883EN	20366NM	
UNIT			---	TON	LF	LF	LF	LF	EACH	EACH	EACH	EACH	LF	CU YD	EACH	EACH	CU YD	TON	TON	EACH	LF	EACH	
EASTBOUND																							
RT	36.37	36.37	1																				PIPE HEADWALL
RT	36.67	36.67																2					WASHOUT AT DITCH END
RT	36.94	36.94	1																				PIPE HEADWALL
RT	37.07	37.09																2					WASHOUT AT HEADWALL
RT	37.26	37.28	1																				PIPE HEADWALL
RT	37.47	37.47		1			20	10	1														REPLACE BROKEN HEADWALL
RT	37.52	37.52	1																				PIPE HEADWALL
RT	37.56	37.56	1																				PIPE HEADWALL
RT	37.58	37.58	1																				PIPE HEADWALL
RT	37.61	37.61	1																				PIPE HEADWALL
RT	39.11	39.11	1																				PIPE HEADWALL
RT	39.03	39.03	1																				PIPE HEADWALL
RT	39.26	39.26	1																				PIPE HEADWALL
RT	39.30	39.30	1															2					PIPE HEADWALL
RT	39.33	39.33	1															2					PIPE HEADWALL
RT	39.33	39.33	1																				PIPE HEADWALL
RT	39.46	39.46	1																				PIPE HEADWALL
RT	39.51	39.51	1																				PIPE HEADWALL
RT	39.55	39.55	1															1					PIPE HEADWALL
RT	39.65	39.74														2					500		
RT	39.68	39.68	1																				PIPE HEADWALL
RT	39.71	39.71	1																				PIPE HEADWALL
RT	40.08	40.08			4					1			4					5		1			PIPE HEADWALL
RT	40.42	40.42	1																				PIPE HEADWALL
RT	40.55	40.55	1																				PIPE HEADWALL
RT	40.60	40.60	1																				PIPE HEADWALL
RT	40.74	40.74	1															2					PIPE HEADWALL
RT	40.76	40.76	1																				PIPE HEADWALL
RT	41.52	41.52	1															5					PIPE HEADWALL
RT	41.60	41.60	1															2					PIPE HEADWALL
RT	42.08	42.08	1																				PIPE HEADWALL
RT	42.09	42.09	1																				PIPE HEADWALL
RT	42.09	42.09	1																				PIPE HEADWALL
RT	42.17	42.17																5					WASHOUT AT PIPE HEADWALL
RT	42.39	42.39																5					WASHOUT IN DITCH
RT	42.91	42.91	1															5					WASHOUT AT PIPE HEADWALL
RT	44.67	44.67				4						1	4					20		1			
RT	44.77	44.77	1															10					WASHOUT AT PIPE HEADWALL
WESTBOUND																							
LT	36.02	36.02	1																				PIPE HEADWALL
LT	36.13	36.13	1																				PIPE HEADWALL
MED	36.49	36.49																				1	PIPE HEADWALL
LT	36.50	36.50	1																				PIPE HEADWALL
LT	36.51	36.51	1																				PIPE HEADWALL
LT	36.54	36.54	1																				PIPE HEADWALL
LT	36.58	36.58	1																				PIPE HEADWALL
LT	36.58	36.58	1																				PIPE HEADWALL
MED	37.15	37.15																				1	DBI
MED	37.33	37.33																				1	PIPE HEADWALL
LT	37.37	37.37	1																				PIPE HEADWALL
LT	37.37	37.41															150		225				SLIDE REPAIR
LT	37.33	37.44														2					540		
LT	37.38	37.38																2					WASHOUT AT DITCH END
LT	37.45	37.45	1																				PIPE HEADWALL
LT	38.97	38.97	1																				PIPE HEADWALL
LT	39.11	39.11			8					1			8					10		1			PIPE HEADWALL
LT	39.35	39.35				8					1		8					20		1			PIPE HEADWALL
LT	39.45	39.45	1																				PIPE HEADWALL
LT	39.66	39.66	1																				PIPE HEADWALL
LT	40.21	40.40													1	3					905		
LT	40.40	40.40	1																				PIPE HEADWALL
MED	40.46	40.46																				1	PIPE HEADWALL
LT	40.48	40.48	1															3					PIPE HEADWALL
LT	40.60	40.60	1																				DBI

MOUNTAIN PARKWAY
WOLFE COUNTY
PAVEMENT REHABILITATION, M.P. 36.000 TO M.P. 37.700 AND M.P. 38.800 to M.P. 45.800
ITEM NO. 10-20009
DRAINAGE SUMMARY

LOCATION	BEGIN MILE POST	END MILE POST	CLEAN INLET/OUTLET (1)	CRUSHED AGGRAGATE SIZE NO. 2	CULVERT PIPE 15 INCH	CULVERT PIPE 24 INCH	PERFORATED PIPE - 6 INCH	NON-PERFORATED PIPE - 6 INCH	PERF PIPE HEADWALL TYPE 3 - 6 INCH	PIPE CULVERT HEADWALL 15 INCH	PIPE CULVERT HEADWALL 24 INCH	SLOPED BOX OUTLET TYPE 1 - 24 INCH	REMOVE PIPE	FLOWABLE FILL	FLUME INLET TYPE 1	FLUME INLET TYPE 2	ROADWAY EXCAVATION	CHANNEL LINING CLASS II	CHANNEL LINING CLASS III (2)	REMOVE HEADWALL	CONCRETE WEDGE CURB	REPLACE GRATE	COMMENTS
ITEM NUMBER			---	78	461	464	1001	1011	1029	1202	1208	1434	1310	2220	1690	1691	2200	2483	2484	2625	22883EN	20366NM	
UNIT			---	TON	LF	LF	LF	LF	EACH	EACH	EACH	EACH	LF	CU YD	EACH	EACH	CU YD	TON	TON	EACH	LF	EACH	
LT	40.80	41.14																			1,765		
LT	40.83	40.83	1																				PIPE HEADWALL
LT	40.89	40.89	1																				PIPE HEADWALL
LT	41.13	41.13	1																				PIPE HEADWALL
MED	41.25	41.25												10									DBI WASHOUT
MED	41.31	41.31																				1	PIPE HEADWALL
LT	41.35	41.35	1																				PIPE HEADWALL
LT	41.40	41.40	1																				PIPE HEADWALL
LT	42.02	42.02	1																				PIPE HEADWALL
LT	43.45	43.64														4					910		
LT	43.84	43.84	1																				PIPE HEADWALL
LT	43.91	43.91	1																				PIPE HEADWALL
LT	44.02	44.02	1															2					PIPE HEADWALL
LT	44.68	44.68																5					PIPE HEADWALL
LT	45.51	45.51																					PIPE HEADWALL
LT	45.50	45.70														4					970		PIPE HEADWALL
PROJECT TOTAL			54	1	12	12	20	10	1	2	1	1	24	10	1	15	150	110	225	4	5,590	5	

(1) - CLEAN INLET/OUTLET IS INCIDENTAL TO DITCHING
(2) - FABRIC-GEOTEXTILE CLASS 2 IS INCIDENTAL TO THE CHANNEL LINING
NOTE - ALL QUANTITIES ARE CARRIED OVER AND INCLUDED IN THE GENERAL SUMMARY.

KY 9000 MOUNTAIN PARKWAY, WOLFE COUNTY
MILEPOST 36.0 T0 37.7
MILEPOST 38.8 TO 45.8
FD04 119 9000 036-046
Item No. 10-20009

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

I. DESCRIPTION

Perform all work in accordance with the Department's 2019 Standard Specifications, Supplemental Specifications, any 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) Remove and replace Guardrail and Guardrail End treatments at the locations listed and/or as directed by the Engineer; (3) Inlaid pavement markers; (4) Asphalt Pavement Milling and Texturing; (5) Asphalt Surface and Asphalt Base at locations listed and/or as directed by the Engineer; and (6) 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. **Dense Graded Aggregate.** Crushed Stone Base may not be furnished in lieu of DGA.

C. **Pavement Markings - 6 inch Thermoplastic.** Use 6-inch Thermoplastic markings for permanent striping on asphalt.

D. **Pavement Markings - 12 inch Thermoplastic.** Use 12-inch Thermoplastic markings for permanent striping on ramp gores.

E. **Pavement Markings - 6 inch Durable Type-1.** Use 6-inch Durable Type 1 markings for permanent striping on bridge Decks.

F. **Crushed Aggregate Size No. 2.** Crushed Aggregate Size No. 2 will be limestone

G. **Channel Lining Class II and Class III**. Channel lining will be limestone and is to be placed in areas where existing concrete ditches are to be removed and in eroded areas as directed by the Engineer. Fabric-Geotextile Class 2 will not be measured for payment, but will be considered incidental to the channel lining.

H. **Erosion Control Blanket.** Erosion control blanket is to be placed in all ditching areas when ditching is complete, on slope stabilization areas, or as directed by the Engineer. Use Seed Mixture No. 1

III. CONSTRUCTION METHODS

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

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, temporary and permanent erosion and pollution control; and all incidentals. Site preparation will be only as approved or directed by the Engineer. Other than the bid items listed, no direct payment will be made for site preparation, but will be incidental to the other items of work.

C. **Channel Lining.** Place channel lining as directed by the Engineer.

D. **Disposal of Waste.** Dispose of all cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor at no additional cost to the Department. 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 the disposal of waste and debris from the project or obtaining the necessary permits, but will be incidental to the other items of the work.

E. **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 Mixture No. 1. These items are incidental to other items in the contract.

F. **Guardrail.** Remove and replace guardrail and guardrail End Treatments listed in this proposal and/or as directed by the Engineer. Guardrail, End Treatments and Terminal Sections are listed by mile points and quantities are approximate only. Actual locations will be determined by the Engineer at the time of construction. Grade and reshape shoulders to proper template for new End Treatment. Utilize DGA for embankment when required for new end treatments. Remove any existing guardrail with a lane closure in place.

Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area. To minimize safety hazards, guardrail removal is to be performed at the latest practical time prior to initiating the paving operation in an area and re-installation is to begin within 5 calendar days from the time that the final base course is completed and shall be pursued until completion. If guardrail installation is not started within 5 calendar days after paving operations ends, Liquated Damages will be charged as outlined in Section 108 of the 2019 Standard Specifications.

The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle Center in in Frankfort, KY (502-564-8187) between the hours of 8:00AM and 3:00PM, Monday through Friday and shall be neatly stacked in accordance with section 719.03.07 of the standard specifications. There is a guardrail delivery verification sheet which must be completed. The Contractor, Engineer, and Central Sign/Guardrail Center representative must all sign off on this sheet before payment may be made.

G. **Pavement Striping and Pavement Markers.** Permanent striping will be in accordance with Section 112 and Section 714, except that:

(1). Striping will be 6" in width on the driving lanes and 12” in width on the ramp gores.
(2). Permanent striping configuration will be in place before a lane is opened to traffic; and
(3). Permanent striping will be 6” Thermoplastic markings on asphalt , 12” Thermoplastic markings on ramp gores, and 6” Durable Type 1 Marking on Bridge Decks.

H. **On-Site Inspection.** 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; 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.

IV. METHOD OF MEASUREMENT

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

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. **Dense Graded Aggregate.** DGA will be used for guardrail end treatments and slope repair.

D. **Inlaid Pavement Markers and Permanent Striping.** 6" Thermoplastic Striping and 6" Durable Type 1 Striping is measured per linear foot. See Traffic Control Plan. Inlaid Pavement Markers are measured as each.

E. **Erosion Control Blanket.** Erosion Control Blanket is measured by square yard and is to be used in ditching areas and slope stabilization areas as directed by the Engineer.

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.

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

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. **Dense Grade Aggregate.** See Section 302 of the Standard Specifications.

D. **Permanent Striping.** See Special Notes and Traffic Control Plan.

NOTES APPLICABLE TO PROJECT
PAVEMENT REHABILITATION
KY 9000 MOUNTAIN PARKWAY, WOLFE COUNTY
MILEPOST 36.0 TO 37.7
MILEPOST 38.8 TO 45.8
FD04 119 9000 036-046
Item No. 10-20009

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1. 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 specified in the Proposal.

2. The contractor is to be advised locations of low wires may exist. The following locations are approximate:

M.P. 36.43	M.P. 40.84	M.P. 43.73
M.P. 36.88	M.P. 41.27	M.P. 43.75
M.P. 36.89	M.P. 42.32	M.P. 43.88
M.P. 39.56	M.P. 42.40	M.P. 44.95
M.P. 40.20	M.P. 42.71	M.P. 45.06
M.P. 40.34	M.P. 43.03	M.P. 45.66

   CAUTION: Other 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.

3. Guardrail, End Treatments, and Terminal Sections to be replaced are listed by mileposts. Exact placement to be approved by the Engineer on construction.

4. A quantity of Channel Lining Class II AND Class III has been included to be applied to eroded areas around drainage outlets and for some of the areas that are to be ditched. The actual limits of ditching and/or channel lining shall be as directed and/or approved by the Engineer. Fabric-Geotextile Class 2 will not be measured for payment and will be considered incidental to the channel lining.

5. All "green" milepost signs shall be replaced with this project. Payment for these signs will be made by "each" for the bid item "Steel Post Mile Markers". Any new signs damaged during construction will be replaced at the contractor's expense.

6. Any roadway signs that are damaged during construction are to be replaced at the contractor's expense.

7. Any light poles that are damaged during construction are to be replaced at the contractor's expense.

8. The existing edge drain system is to be preserved. Care should be taken when the asphalt is removed and replaced, any edge drains damaged during these activities will be replaced at the contractor's expense.

9. Several areas throughout the project have fill slopes that are beginning to fail or slip due to poor drainage. These areas shall be ditched as directed by the Engineer. The degrading slopes shall be regraded and dressed as directed by the Engineer. Payment for this work will be measured by linear foot of "ditching" and square yard of "erosion control blanket".

10. Ditching is included with this project. The contractor shall remove all debris from ditches, including boulders and brush. The contractor shall remove all loose rock and brush up to and including the first bench cut in the existing rock cuts or as directed by the engineer. Ditching is paid per length of the project and will include all ditches.

11. A quantity of "flowable fill" is provided to fill locations on the project that have erosion under the existing pavement or other structures. These and any other areas with similar erosion issues shall be filled with "flowable fill" as directed by the Engineer. Payment for this work shall be per cubic yard of "flowable fill" and will be based on quantities measured by the field Engineer. Any form work required to contain the "flowable fill" will be considered incidental to this item of work.

12. The drainage summary lists locations where the existing grates have been dislodged from their proper position. The contractor will be required to "re-set" the existing grates. "Resetting Grates" will be considered incidental to the bid item "Ditching". Grates that have been damaged and will need to be replaced and will be paid for under the bid item "Replace Grate" and will be paid for by "each". The "Replace Grate" bid item will be paid one each per headwall but may include multiple grate segments.

13. The cleaning of existing pipe culvert inlets and outlets 36 inches or less in diameter and perforated pipe headwalls are incidental to the bid item for "Ditching" in accordance with Section 209.03.01 of the 2019 Edition of the Standard Specifications for Road and Bridge Construction. There is a list of locations that have been identified to be cleaned. This list may not be complete and therefore there may be additional outlets which require cleaning. The Engineer will determine any additional outlets to be cleaned.

14. Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications. Delineators shall be placed in accordance with Section 3F of the M.U.T.C.D.

15. Option A compaction and Category A ride-ability shall be utilized with this project.

16. The drainage summary includes locations where Concrete Wedge Curbs are to be placed at guardrail locations to reduce shoulder and foreslope washouts. Flume inlets are to be constructed on the shoulders and foreslopes in these locations. The actual limits of the concrete wedge curb and the locations of the flume inlets are to be determined by the Engineer.

17. There is a summary of pavement repair locations. The Engineer will determine the ultimate locations that will be repaired based upon the condition of the pavement at the time the repairs are accomplished. The repair locations listed may be lengthened, shortened, or eliminated completely if the conditions are such that modification of the locations would be deemed desirable by the Department.

18. All mainline outside shoulders are to receive two applications of asphalt seal coat. The width of the asphalt seal may vary throughout the project. The actual width shall be as directed by the Engineer. Quantities of Asphalt Seal Coat and Asphalt Seal Aggregate are included in the General Summary.

19. A quantity of "Saw-Clean-Reseal Random Cracks" has been included to repair cracks in the existing concrete pavement on the ramps at Exit No. 40. The exact location and length of the repairs shall be as directed by the Engineer.

20. Existing paved median U-turns are to be milled and paved with this project.

21. **CAUTION:** Underground utilities are present in areas where reconstruction will occur with this project. The contractor must call BUD (1-800-752-6007 to reach KY 811) before any construction activity begins. See Special note for BUD for more details.

22. This project is considered a Significant Project.

TRAFFIC CONTROL PLAN
WOLFE COUNTY
MOUNTAIN PKWY
FD04 119 9000 036-046
Item No. 10-20009

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2019 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 the current MUTCD.

Reduce the speed limit in work areas to 55 miles per hour and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the “WARNING FINE DOUBLED IN WORK ZONE” signs will be dual mounted. At the end of the work zone, the “END DOUBLE FINE” signs will be dual mounted as well. All double fines signs shall include the supplemental “WHEN WORKERS ARE PRESENT” sign and be in effect at any time workers are present. Payment for the signs will be at the unit bid price for signs erected. Any relocation or covering of signs will be incidental to Maintain and Control Traffic.

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

PROJECT PHASING & CONSTRUCTION PROCEDURES

The Contractor shall maintain a minimum of one lane in each direction of Mountain Parkway at all times, unless otherwise directed by the Engineer. The maximum allowable length for one-lane closures shall be limited to 5 miles at all times.

No work will be permitted the following days:

November 25-28, 2021	Thanksgiving Weekend
December 24-26, 2021	Christmas Weekend
December 31, 2021-January 2, 2022	New Year's Weekend
May 28-30, 2022	Memorial Day Weekend
July 2-5, 2022	Independence Day
September 2-5, 2022	Labor Day Weekend

Additional dates with no work or no lane closures permitted may be specified by the Engineer.

NOTE: Other projects may be occurring in the area at the same time. Coordination with area projects shall be maintained to minimize disruption to the travelling public.

All pavement edge transitions must be smooth and level before opening both lanes up to traffic. A lane closure must be in place during all times that pavement edge drop-offs are present (see Pavement Edge Drop-off note).

The Engineer will determine exact locations and types of pavement repair, if any, at the time of construction. Once removal of pavement at a repair location has begun, work continuously within the parameters outlined above to complete the work and eliminate the "hole". Place Type III Barricades immediately in front of pavement removal areas. Type III Barricades will not be measured for payment but will be considered incidental to Maintain and Control Traffic. Once pavement removal at a site has begun, full depth replacement must be completed within the time a lane closure is allowed. A quantity of "LEVELING & WEDGING PG76-22" has been included to allow for any pavement repairs that may be needed.

Note that lane shifts are required throughout the project. See the Exhibits for lane locations and widths. Stripe according to the MUTCD.

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes. Any other work not requiring traffic lane widths to be restricted due to barrels or equipment encroaching into the interior lanes can be done during the remaining hours when all lanes of traffic must be maintained. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time. Once pavement milling at a site has begun, pavement must be completed within the time a lane

closure is allowed. Liquidated Damages, at the rate specified per hour in the "Special Note for Fixed Completion Date and Liquidated Damages", will be assessed for each hour the existing number of lanes is not maintained.

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

SHOULDER PREPARATION AND RESTORATION

Prior to placing any lane closure that requires shifting traffic onto existing shoulders, patch and remove any foreign debris on the shoulders as directed by the Engineer. Remove failed materials and perform additional patching as directed by the Engineer during the time the shoulder is used as a travel lane. All work required for shoulder preparation and restoration is incidental to Maintenance of Traffic, except for the asphalt patching, which will be paid at the contract unit bid price for "LEVELING & WEDGING PG76-22".

CONSTRUCTION PHASING

PHASE I – Mill and Resurface Outside Lane and Outside Shoulder

Shift traffic as directed by the Engineer to the inside driving lane. Close the outside driving lane and shoulder to traffic. Mill existing pavement and resurface on the outside lane and the outside shoulder as shown or directed by the Engineer. Once the pavement has been removed, the Contractor must work continuously until the pavement has been replaced back to existing grade. Perform all roadside work during Phase I.

PHASE II – Mill and Resurface Inside Lane and Shoulder

Shift traffic as directed by the Engineer to the outside driving lane. Close the inside driving lane and shoulder to traffic. Mill existing pavement and resurface on the inside lane and shoulder as shown or directed by the Engineer. Once the pavement has been removed, the Contractor must work continuously until the pavement has been replaced back to existing grade. Perform all median work during Phase II.

PHASE III – Permanent Striping

Place permanent striping and markers throughout the project utilizing temporary lane closures like the above described closures used for milling and paving. Access to all entrance and exit ramps is to be maintained at all times unless otherwise directed by the Engineer.

LANE/SHOULDER CLOSURES

Lane closures for this project will be set up from milepost 36.0 to milepost 45.80 including the section from milepost 37.7 to milepost 38.8 where no work is proposed. Any deviation from this scheme shall be approved by the Engineer. Contrary to section 112, lane and shoulder closures will **NOT** be measured for payment, but are considered incidental to "Maintain and Control Traffic," lump sum.

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 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILES, SLOWED/STOPPED TRAFFIC AHEAD. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to section 112, Individual signs will be 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.

A quantity of signs has been included for lane shifts, "Roadwork Ahead" signs on entrance ramps, and extra Double Fine signs and Speed Limit signs between interchanges to be paid only once no matter how many times they are moved or relocated.

FLASHING ARROWS

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

PORTABLE CHANGEABLE MESSAGE SIGNS

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

BARRELS

Barrels are to be used for channelization or delineation and will be incidental to "MAINTAIN AND CONTROL TRAFFIC" according to Section 112.04.01. Replacements for damaged barrels directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment. No type of traffic cones of any type will be acceptable for delineation purposes or as a replacement for barrels.

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

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

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

1. Temporary and permanent striping will be 6" in width.
2. If the contractor's operations or phasing requires temporary markings which must be subsequently removed from the ultimate pavement, an approved removable lane tape will be used. However, removable tape will be measured and paid as Pavement Striping-Temporary-Paint 6”.
3. Edge lines will be required for temporary striping.
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.
5. Place permanent striping on pavement within the project limits.
6. Permanent striping will be Thermoplastic Striping.

Should the Contractor change the existing striping pattern, the Contractor is to restripe the roadway back to its original configuration within the time allotted for a lane closure.

PAVEMENT EDGE DROP-OFFS

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

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

Less than 2” – Protect with a lane closure.

2” to 4” – Protect with a lane closure. Place barrels, vertical panels, or barricades every 50 feet. Traffic cones may not be used in place of barrels, panels, and barricades at any time. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope, when work is not active in the drop-off area. Place Type III

Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

Greater than 4" – Pavement Repair areas – In areas where pavement is to be removed, work should proceed continuously so that traffic is exposed to a drop-off for the minimum amount of time necessary to bring the pavement back up to existing grade. Barrel spacing should be 20 feet and appropriate lighting should be utilized to illuminate the area during nighttime operations.

Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

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

TRAFFIC COORDINATOR

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

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate Portable Changeable Message Signs as 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.

LAW ENFORCEMENT OFFICERS (LEO'S)

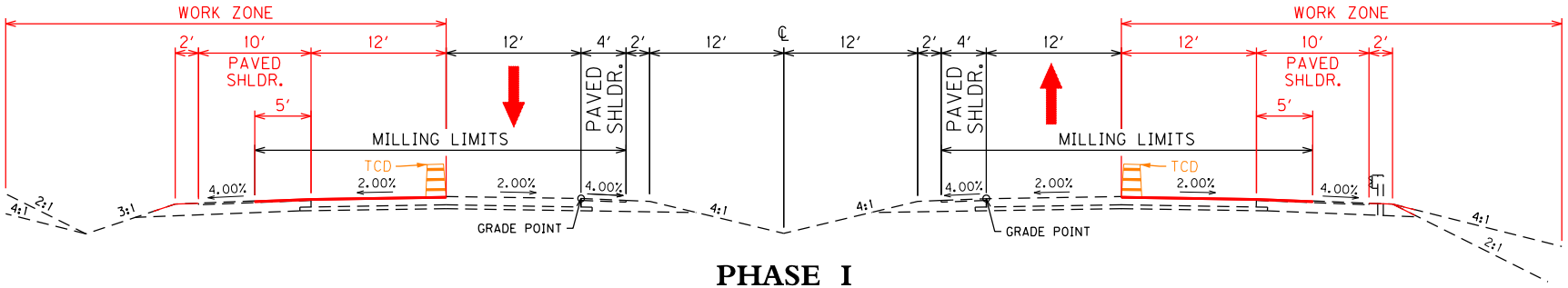
Police support shall be a unit consisting of an off-duty police officer from any police force agency having lawful jurisdiction and a police car equipped with externally mounted flashing blue lights. Officers may be asked to issue citations for traffic violations but will be considered incidental to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

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' VEHICLES

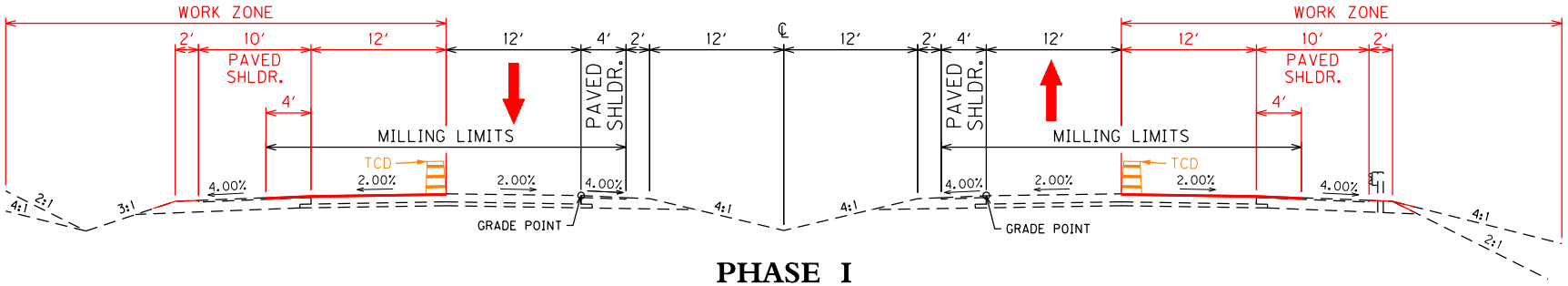
Do not use or allow employees to use median crossovers at any time. In all phases of construction, change vehicular direction of travel only at interchanges.

COUNTY OF	ITEM NO.
WOLFE	10-20009

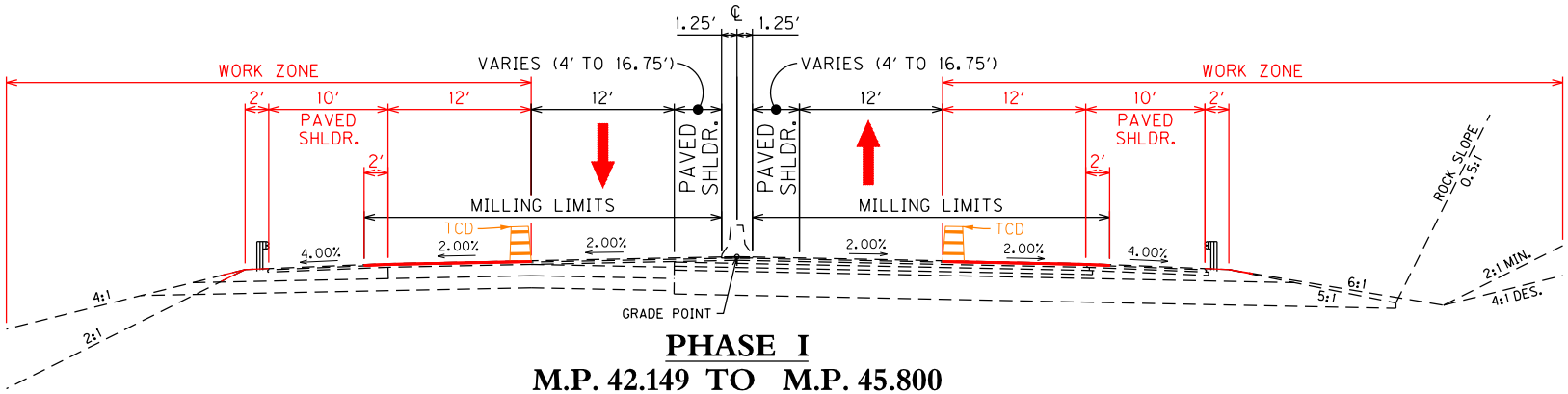
MOUNTAIN PARKWAY
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS



PHASE I
M.P. 36.000 TO M.P. 37.700



PHASE I
M.P. 38.800 TO M.P. 42.149



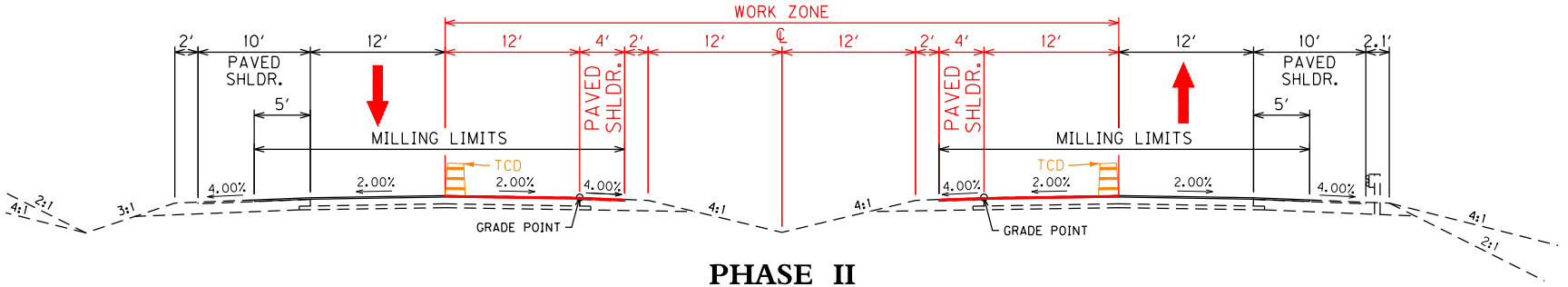
PHASE I
M.P. 42.149 TO M.P. 45.800

NOT TO SCALE

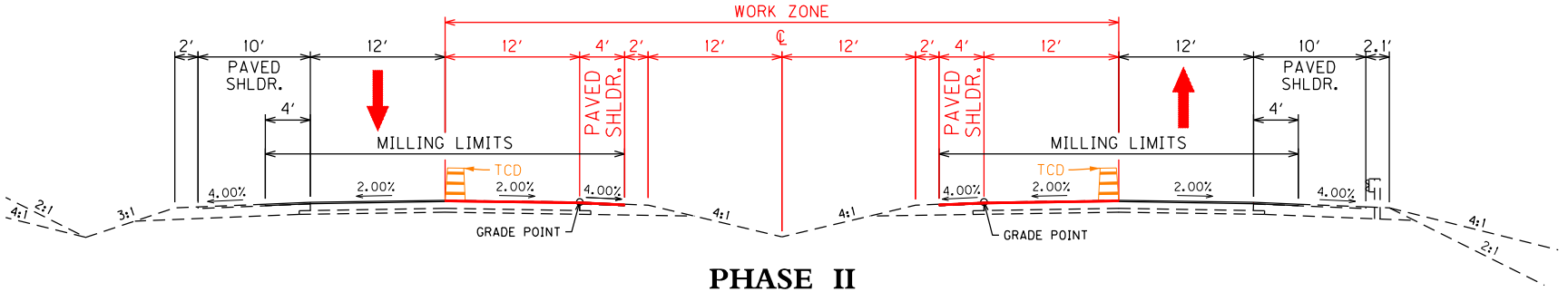
MOUNTAIN PARKWAY
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
WOLFE	10-20009 10-20010

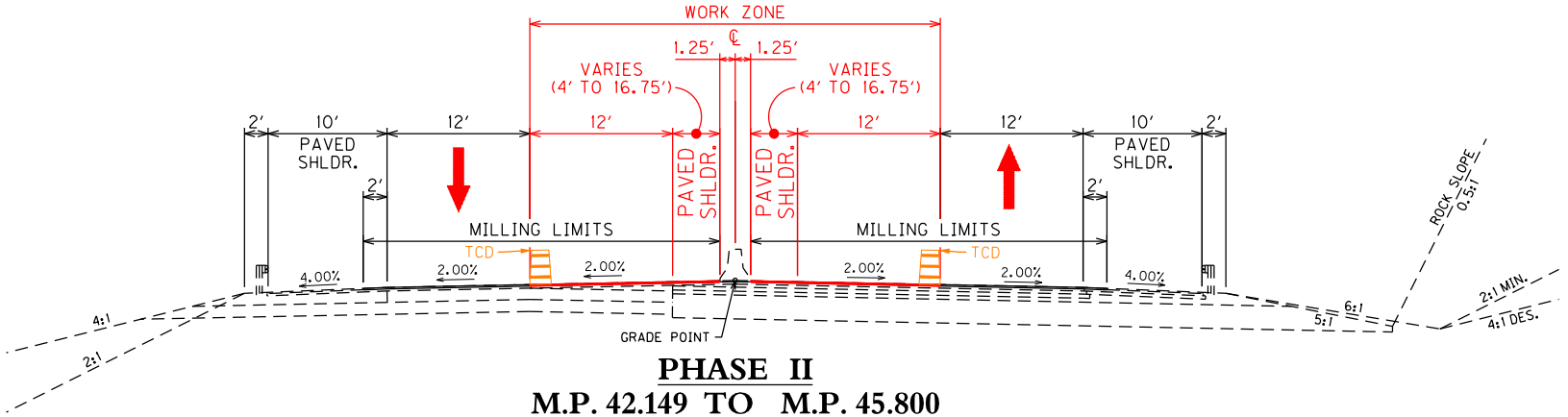
MOUNTAIN PARKWAY
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS



PHASE II
M.P. 36.000 TO M.P. 37.700



PHASE II
M.P. 38.800 TO M.P. 42.149



PHASE II
M.P. 42.149 TO M.P. 45.800

NOT TO SCALE

MOUNTAIN PARKWAY
TYPICAL SECTIONS

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.

3. Active Sepia List

Sepia No.	Drawing Name
006	Inlaid Pavement Marker Arrangements Multi-Lane Roadways
007	Inlaid Pavement Marker Arrangements Multi-Lane Roadways
008	Inlaid Pavement Marker Arrangements Multi-Lane Roadways
011	Inlaid Pavement Marker Arrangement Exit Gore And Off-Ramp
012	Inlaid Pavement Marker Arrangement For Parallel Deceleration Lane
013	Inlaid Pavement Marker Arrangement 0n-Ramp With Tapered Acceleration Lane
014	Inlaid Pavement Marker Arrangement 0n-Ramp With Parallel Acceleration Lane

4. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

RBB-002	Guardrail Bridge End Drainage Twin Structures
RBB-003	Layout of Guardrail at Twin Structures (Depressed Median)
RBB-010	Guardrail Transition from Normal Shoulder to Narrow Bridge
RBC-002	Guardrail Connector to Bridge End Type A Components
RBC-100	Guardrail Connector to Concrete Median Barrier End
RBC-003	Guardrail Connector to Bridge end Type A and A-1 Components
RBC-005	Guardrail Connector to Bridge End Type A
RBC-006	Guardrail Connector to Bridge End Type A-1
RBE-205	Crash Cushion Type IX-A
RBI-001	Typical Guardrail Installations
RBI-002	Typical Guardrail Installations
RBI-003	Installation of Guardrail End Treatment Type 2A
RBI-004	Installation of Guardrail End Treatment Type 1
RBI-005	Guardrail Installation at Bridge Columns
RBI-006	Guardrail Installation at Sign Supports
RBI-007	Crash Cushion Type IX Installation at Median Piers (Depressed median)
RBM-020	Delineators for Concrete Barriers
RBR-001	Steel Beam Guardrail (“W” Beam)
RBR-005	Guardrail Components
RBR-010	Guardrail Terminal Sections
RBR-015	Guardrail Posts
RBR-016	Guardrail Posts
RBR-020	Guardrail End Treatment Type 1
RBR-025	Guardrail End Treatment Type 2A
RBR-035	Guardrail End Treatment Type 4A
RBR-055	Delineators for Guardrail
RBR-060	Delineators at Narrow Shoulder Bridges
RDB-001	Drop Box Inlet Type 1
RDB-002	Drop Box Inlet Type 2
RDB-100	Sloped Box Outlet Type 1
RDB-101	Grates for Sloped Box Outlet Type 1

RDD-020	Flume Inlet Type 1
RDD-021	Flume Inlet Type 2
RDD-040	Channel Lining Class II and III
RDH-110	Pipe Culvert Headwalls 0° Skew
RDI-001	Culvert, Entrance & Storm Sewer Pipe Types and Cover Heights (12” – 24” Pipe)
RDI-020	Pipe Bedding for Culverts, Entrance and Storm Sewer Pipe
RDI-021	Pipe Bedding for Culverts, Entrance, and Storm Sewer Reinforced Conc. Pipe
RDI-025	Pipe Bedding Trench Condition
RDI-026	Pipe Bedding Trench Condition Reinforced Conc. Pipe
RDI-040	Erosion Control Blanket Slope Installation
RDP-001	Perforated Pipe Types and Cover Heights
RDP-005	Perforated Pipe for Subgrade Drainage on Two-lane (Class 2) and Multi-Lane Roads
RDP-006	Perforated Pipe Underdrains (longitudinal and Transverse)
RDP-010	Perforated Pipe Headwalls
RGS-002	Superelevation for Multilane Pavement
RGX-001	Miscellaneous Standards Part I
TPM-165	Shoulder & Edge Line Rumble Strip Details
TPM-170	Flexible Delineator Post Arrangements for Horizontal Curves
TPM-171	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-202	Typical Exit Ramp Markings for Interstates and Parkways
TPM-204	Typical markings for Gore Areas
TPR-115	Shoulder and Edgeline Rumble Strip Placement Details
TPR-130	Rumble Strip Details Multi-Lane Roadways and Ramps
TTC-115	Lane Closure Multi-Lane Highway Case I
TTC-120	Lane Closure Multi-Lane Highway Case II
TTC-125	Double Lane Closure
TTC-135	Shoulder Closure
TTC-155	Temporary Pavement Marker Arrangements for Construction Zones
TTC-160	Temporary Pavement Marker Arrangements for Lane Closures
TTD-120	Work Zone Speed Limit and Double Fine Signs
TTD-125	Pavement Condition Warning Signs
TTD-130	Speed Zone Signing for Work Zones
TTS-110	Mobile Operation for Paint Striping Case III
TTS-115	Mobile Operation for Paint Striping Case IV
TTS-120	Mobile Operation for Durable Striping Case I
TTS-125	Mobile Operation for Durable Striping Case II

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

Special Note	Portable Changeable Message Signs
Special Note	Longitudinal Joint Adhesive
Special Note	Guardrail Delivery Verification Sheet
Special Note	Typical Section Dimensions *attached*
Special Note	Before You Dig *attached*
Special Note	Fixed Completion Date and Liquidated Damages *attached*
Special Note	Asphalt Milling and Texturing *attached*
Special Note	Experimental KYCT and Hamburg Testing *attached*
Special Note	Non-Tracking Tack Coat *attached*
Special Note	Portable Queue warning alert system *attached*

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
MOUNTAIN PARKWAY

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 unless specified elsewhere in the Proposal.

SPECIAL NOTE FOR BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before –U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

Special Note for Fixed Completion Date and Liquidated Damages Wolfe County Item No. 10-20009

No work will be permitted on this project before April 15, 2022 without the approval of the Engineer. The specified completion date for this project is August 01, 2022.

Liquidated Damages will be as specified in Section 108.09 of the standard specifications.

If work is delayed by inclement weather, the minimum work required to allow removal of the lane closure, as directed by the Engineer, shall be resumed immediately as soon as weather permits or the Department will begin to assess Liquidated Damages as specified herein.

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

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

Special Note For:
Asphalt Milling and Texturing
Wolfe Co. Item No. 10-20009

Begin paving operations immediately after the commencement of the asphalt milling operations. Continue paving operations continuously until completed. Do not allow public traffic to drive on the milled surface. If paving operations are not begun within this time, liquidated damages will be assessed at the rate prescribed by Section 108.09 of the current Standard Specifications until paving operations are begun.

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 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)
10-20009.00/10-20010.00	Wolfe	FD04 119 9009 036-046	

PROJECT DESCRIPTION

ADDRESS PAVEMENT OF BERT T. COMBS MOUNTAIN PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 36 TO 45.8

☒ **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 11:15:19 -04'00'
Date		Date	8/26/2021
Right of Way Director		**FHWA**	
Printed Name		Printed Name	
Signature	2021.08.26 11:41:57 -04'00'	Signature	
Date		Date	

UTILITIES AND RAIL CERTIFICATION NOTE

Wolfe County
No federal number available
FD04 119 9000 036-046
Mile point: 36.0 TO 45.8
ADDRESS PAVEMENT CONDITION OF BERT T. COMBS MOUNTAIN PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 36 TO MILEPOINT 45.8. (2020CCR) (COMBINED W/ 10-20010)
ITEM NUMBER: 10-20009.00 / 10-20010.00

PROJECT NOTES ON UTILITIES

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

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

Jefferson Gas Transmission - Natural Gas

Mountain Telephone Cooperative - Telephone

Licking Valley RECC - Electric

Crystal Broadband Networks - CATV

City of Campton - Water

Placeholder to Start Project - Communication

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

Wolfe County
No federal number available
FD04 119 9000 036-046
Mile point: 36.0 TO 45.8
ADDRESS PAVEMENT CONDITION OF BERT T. COMBS MOUNTAIN PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 36 TO MILEPOINT 45.8. (2020CCR) (COMBINED W/ 10-20010)
ITEM NUMBER: 10-20009.00 / 10-20010.00

Not Applicable

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

Wolfe County
No federal number available
FD04 119 9000 036-046
Mile point: 36.0 TO 45.8
ADDRESS PAVEMENT CONDITION OF BERT T. COMBS MOUNTAIN PARKWAY BOTH DIRECTION(S) FROM MILEPOINT 36 TO MILEPOINT 45.8. (2020CCR) (COMBINED W/ 10-20010)
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UTILITIES AND RAIL CERTIFICATION NOTE

Wolfe County
No federal number available
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Mile point: 36.0 TO 45.8
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ITEM NUMBER: 10-20009.00 / 10-20010.00

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
City of Campton - Water	PO Box 35 Campton KY 41301	Katherine May	6066683574	denarice870@yahoo.com
Crystal Broadband Networks - CATV	PO Box 580 Clay City KY 40312	Kevin Gibson	8773190328	kgibson@crystalbn.com
Jefferson Gas Transmission - Natural Gas	P.O. Box 35 Winchester KY 40392	Jack Banks	6066930084	jbanks@jeffersongas.com
Licking Valley RECC - Electric	271 Main Street West Liberty Ky 41472	Wes McKinney	6067433179	wesm@lvrecc.com
Mountain Telephone Cooperative - Telephone	P.O. Box 399 West Liberty KY 41472	Steve Gullett	6067433121	sgullett@mountaintelephone.com
Placeholder to Start Project - Communication	200 Mero Street Frankfort Ky 40622	Jennifer McCleve	5027824944	jennifer.mccleve@ky.gov

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

1I

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

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SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.

2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ^{o} F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's 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 random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. 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 Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.

5. PAYMENT. The Department will pay for the Pavement Joint Adhesive 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.

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Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s)			3.0-3.4	2.5-2.9	2.0-2.4	≤1.9
ASTM D 3236	4.0-10.0	3.5-10.5	10.6-11.0	11.1-11.5	11.6-12.0	≥ 12.1
Cone Penetration, 77 ° F			54-56	51-53	48-50	≤ 47
ASTM D 5329	60-100	57-103	104-106	107-109	110-112	≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code	Pay Item	Pay Unit
20071EC	Joint Adhesive	Linear Foot

May 7, 2014

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

PROPOSAL BID ITEMS

211046

Report Date 9/23/21

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00078		CRUSHED AGGREGATE SIZE NO 2	1.00	TON		$	
0020	00100		ASPHALT SEAL AGGREGATE	817.00	TON		$	
0030	00103		ASPHALT SEAL COAT	98.00	TON		$	
0040	00194		LEVELING & WEDGING PG76-22	500.00	TON		$	
0050	00216		CL3 ASPH BASE 1.00D PG76-22	5,168.00	TON		$	
0060	00336		CL3 ASPH SURF 0.38A PG76-22	28,321.00	TON		$	
0070	02091		REMOVE PAVEMENT	11,051.00	SQYD		$	
0080	02200		ROADWAY EXCAVATION	150.00	CUYD		$	
0090	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		$	
0100	02677		ASPHALT PAVE MILLING & TEXTURING	30,246.00	TON		$	
0110	20071EC		JOINT ADHESIVE	222,299.00	LF		$	
0120	20263ED		GEOGRID REINFORCEMENT ASPHALT	11,051.00	SQYD		$	
0130	20362ES403		SHOULDER RUMBLE STRIPS-SAWED	109,824.00	LF		$	
0140	21173EC		SAW-CLEAN-RESEAL RANDOM CRACKS	2,052.00	LF		$	
0150	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	121.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0160	00001		DGA BASE	1,534.00	TON		$	
0170	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	258.00	EACH		$	
0180	01983		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL YELLOW	8.00	EACH		$	
0190	01986		DELINEATOR FOR BARRIER WALL-B/Y	278.00	EACH		$	
0200	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH		$	
0210	02367		GUARDRAIL END TREATMENT TYPE 1	10.00	EACH		$	
0220	02369		GUARDRAIL END TREATMENT TYPE 2A	18.00	EACH		$	
0230	02381		REMOVE GUARDRAIL	20,762.50	LF		$	
0240	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	4.00	EACH		$	
0250	02391		GUARDRAIL END TREATMENT TYPE 4A	8.00	EACH		$	
0260	02562		TEMPORARY SIGNS	2,500.00	SQFT		$	
0270	02565		OBJECT MARKER TYPE 2	4.00	EACH		$	
0280	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0290	02671		PORTABLE CHANGEABLE MESSAGE SIGN	3.00	EACH		$	
0300	02775		ARROW PANEL	2.00	EACH		$	
0310	02929		CRASH CUSHION TYPE IX	2.00	EACH		$	
0320	06412		STEEL POST MILE MARKERS	18.00	EACH		$	
0330	06511		PAVE STRIPING-TEMP PAINT-6 IN	182,842.00	LF		$	
0340	06542		PAVE STRIPING-THERMO-6 IN W	114,473.00	LF		$	
0350	06543		PAVE STRIPING-THERMO-6 IN Y	91,664.00	LF		$	
0360	06546		PAVE STRIPING-THERMO-12 IN W	5,206.00	LF		$	
0370	06556		PAVE STRIPING-DUR TY 1-6 IN W	1,380.00	LF		$	

211046

PROPOSAL BID ITEMS

Report Date 9/23/21

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0380	06557		PAVE STRIPING-DUR TY 1-6 IN Y	1,102.00	LF		$	
0390	06611		INLAID PAVEMENT MARKER-MY	476.00	EACH		$	
0400	06613		INLAID PAVEMENT MARKER-B W/R	1,409.00	EACH		$	
0410	10020NS		FUEL ADJUSTMENT	52,127.00	DOLL	$1.00	$	$52,127.00
0420	10030NS		ASPHALT ADJUSTMENT	130,929.00	DOLL	$1.00	$	$130,929.00
0430	20191ED		OBJECT MARKER TY 3	18.00	EACH		$	
0440	20411ED		LAW ENFORCEMENT OFFICER	200.00	HOUR		$	
0450	20432ES112		REMOVE CRASH CUSHION	2.00	EACH		$	
0460	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	19,862.50	LF		$	
0470	22883EN		CONCRETE WEDGE CURB	10,220.00	LF		$	
0480	23954EC		REMOVE EXISTING WEDGE CURB	4,630.00	LF		$	
0490	24640ED		OBJECT MARKER TYPE 1	2.00	EACH		$	
0500	24679ED		PAVE MARK THERMO CHEVRON	3,640.00	SQFT		$	
0510	24683ED		PAVE MARKING-THERMO DOTTED LANE EXTEN	1,222.00	LF		$	
0520	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	3,085,401.00	SF		$	
0530	26136EC		PORTABLE QUEUE WARNING ALERT SYSTEM	6.00	MONT		$	
0540	26137EC		QUEUE WARNING PCMS	24.00	MONT		$	
0550	26138EC		QUEUE WARNING PORTABLE RADAR SENSORS	24.00	MONT		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0560	00461		CULVERT PIPE-15 IN	12.00	LF		$	
0570	00464		CULVERT PIPE-24 IN	12.00	LF		$	
0580	01001		PERFORATED PIPE-6 IN	20.00	LF		$	
0590	01011		NON-PERFORATED PIPE-6 IN	10.00	LF		$	
0600	01029		PERF PIPE HEADWALL TY 3-6 IN	1.00	EACH		$	
0610	01202		PIPE CULVERT HEADWALL-15 IN	2.00	EACH		$	
0620	01208		PIPE CULVERT HEADWALL-24 IN	1.00	EACH		$	
0630	01310		REMOVE PIPE	24.00	LF		$	
0640	01434		SLOPED BOX OUTLET TYPE 1-24 IN	1.00	EACH		$	
0650	01690		FLUME INLET TYPE 1	1.00	EACH		$	
0660	01691		FLUME INLET TYPE 2	15.00	EACH		$	
0670	02220		FLOWABLE FILL	10.00	CUYD		$	
0680	02237		DITCHING	45,936.00	LF		$	
0690	02483		CHANNEL LINING CLASS II	110.00	TON		$	
0700	02484		CHANNEL LINING CLASS III	225.00	TON		$	
0710	02625		REMOVE HEADWALL	4.00	EACH		$	
0720	05950		EROSION CONTROL BLANKET	20,416.00	SQYD		$	
0730	20366NN		REPLACE GRATE	5.00	EACH		$	

Section: 0004 - DEMOBILIZATION AND/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0740	02568		MOBILIZATION	1.00	LS		$	

PROPOSAL BID ITEMS

211046

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0750	**02569**		**DEMOBILIZATION**	**1.00**	**LS**		**$**	