

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER, OR ADJACENT TO, THE WORK AREA.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

EXISTING PLANS

EXISTING PLANS ENTITLED PAU/DEF-24-12.30/0.00 MAY BE INSPECTED IN THE ODOT DISTRICT 1 OFFICE IN LIMA.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. (PREVIOUS CONSTRUCTION PLANS, PROJECT NO.24336, SHOWING THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 1 OFFICE). PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY (WITH A UNIFORM THICKNESS OF 7.25 INCHES IN AREAS OF CRACK AND SEAT. THE OVERLAY ADDED TO MAINLINE U.S. 24 BRIDGES WILL BE A UNIFORM THICKNESS OF 3 INCHES.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

SEEDING AND MULCHING

SEEDING AND MULCHING CALCULATIONS		
659	SOIL ANALYSIS TEST (42577)(1/10000)	5 EA
659	REPAIR SEEDING AND MULCHING (383577)(5/100)	19,179 SY
659	INTER-SEEDING (383577)(5/100)	19,179 SY
659	COMMERCIAL FERTILIZER (402756)(9)(1/1000)(30)(1/2000)	54.37 TON
659	LIME (383577)(1/4840)	79.25 ACRES
659	WATER (2)(383577)(9)(1/1000)(300)(1/1000)	2071 MGAL
659	MOWING MAINLINE: (L=56000'xW=112')(4)(1/1000) RAMPS: (A=603000)(4)(1/1000)	27,500 MSF
651	TOPSOIL STOCKPILED (383577)(4" DEPTH/36) - 5013 CY	37607 CY
652	PLACING STOCKPILED TOPSOIL (383577)(4" DEPTH/36) - 5013 CY	37607 CY
TOTALS CARRIED TO GENERAL SUMMARY		

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

THE QUANTITY FOR MOWING IS BASED ON PERFORMING THE FOLLOWING OPERATION TWO (2) TIMES PER SEASON: MOW THE ENTIRE MEDIAN AND 30' OFF THE OUTSIDE SHOULDERS IN BOTH DIRECTIONS WITHIN THE PROJECT LIMITS. ALSO MOW 30' OFF THE OUTSIDE SHOULDERS ON THE RAMPS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

TEMPORARY SEDIMENT AND EROSION CONTROL

THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK:

ITEM 832, EROSION CONTROL = 100,000 EACH

ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN
ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN
ITEM 606 - GUARDRAIL, BARRIER DESIGN, TYPE MGS, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 606, THESE ITEMS REQUIRE STEEL POSTS AND COMPOSITE OR POLYMER ALTERNATIVE BLOCKOUTS. THE BLOCKOUTS SHALL BE FROM THE APPROVED PRODUCTS LIST THAT IS MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING AND INSTALLED PER CMS 606 AND ALL PERTINENT STANDARD DRAWINGS. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING STEEL POSTS AND APPROVED ALTERNATIVE MGS BLOCKOUTS SHALL BE INCLUDED IN THE UNIT BIDS FOR ITEM 606, GUARDRAIL, TYPE MGS, AS PER PLAN, ITEM 606, GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN AND ITEM 606, GUARDRAIL, BARRIER DESIGN, TYPE MGS, AS PER PLAN.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 606 AND STANDARD CONSTRUCTION DRAWING MGS-3.1, THIS ITEM REQUIRES THE USE OF STEEL POSTS. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING STEEL POSTS SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 606, MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1

ITEM 606 - IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR,

TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIPS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 670, SLOPE EROSION PROTECTION 45,111 SY
 ITEM 659, TOPSOIL 5013 CY

ITEM 659 - TOPSOIL

THE FOLLOWING QUANTITY IS PROVIDED TO BE USED IN AREAS WHERE THE EXISTING TOPSOIL IS DEEMED USABLE FOR VEGETATION GROWTH BY THE ENGINEER:

ITEM 659, TOPSOIL 2500 CY

ENVIRONMENTAL COMMITMENT

1. THE CONTRACTOR SHALL NOT DISCHARGE TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND TO THE MAUMEE RIVER, ITS TRIBUTARIES, OR DRAINAGE WAYS. IF REFUELING OF IMMOBILE EQUIPMENT IS NECESSARY WITHIN THE FLOODPLAIN OR NEAR ANY TRIBUTARY DRAINAGE WAYS, DITCHES, OR STREAM, THE CONTRACTOR SHALL PROVIDE SECONDARY CONTAINMENT WITH ENOUGH CAPACITY TO COMPLETELY CONTAIN AND COLLECT ALL POTENTIAL LIQUID WASTES IN THE EVENT OF A SPILL.

2. ANY AND ALL CONSTRUCTION DEBRIS, EARTHEN DEBRIS, EXCESS ASPHALT OR CONCRETE, WOOD DEBRIS FROM CLEARING, EXCESS FILL MATERIAL, AND TRASH SHOULD BE DISPOSED OF AT AN APPROVED UPLAND SITE OR LAND FILL ABOVE THE FEMA 100-YEAR FLOOD ELEVATIONS. DISPOSAL OF ANY SUCH MATERIALS WITHIN 1000 FEET OF THE MAUMEE RIVER IS PROHIBITED.

3. THE CONTRACTOR SHALL KEEP ALL IDLE EQUIPMENT, FUELS LUBRICANTS, AND ANY STORAGE FOR/OF POTENTIALLY TOXIC OR HAZARDOUS MATERIALS OUT OF THE FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA AND NOT WITHIN 1000 FEET OF THE MAUMEE RIVER.

4. IN ACCORDANCE WITH ORC 3750.06, REPORTABLE SPILLS MUST BE REPORTED TO THE LOCAL FIRE DEPARTMENT AND THE OHIO SPILL LINE (1-800-282-9378).

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

DESIGN AGENCY



DESIGNER

MJS

REVIEWER

MJM 10-13-23

PROJECT ID

117367

SHEET TOTAL

P.20 258


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SHEET NUM.																PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
20	23	24	25	26	28A	38	40	41	41A	188	189	195	248	252	256	01/NHS/04	EXT	TOTAL				
ROADWAY																						
LS						33,323										LS	201	11000	LS		CLEARING AND GRUBBING	
						887										33,323	202	23000	33,323	SY	PAVEMENT REMOVED	
						561										887	202	23500	887	SY	WEARING COURSE REMOVED	
																561	202	30600	561	SY	CONCRETE MEDIAN REMOVED	
								18,312.5	3,680							3,680	202	32000	3,680	FT	CURB REMOVED	
																18,312.5	202	38001	18,312.5	FT	GUARDRAIL REMOVED, AS PER PLAN	21
								2,200								2,200	202	38201	2,200	FT	GUARDRAIL REMOVED FOR REUSE, AS PER PLAN	21
								175								175	202	38301	175	FT	GUARDRAIL REMOVED, BARRIER DESIGN, AS PER PLAN	21
								1								1	202	42010	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
								15								15	202	42040	15	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
								16								16	202	42050	16	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B	
								21								21	202	47000	21	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
								2								2	202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
						45										45	203	10000	45	CY	EXCAVATION	
						34,063										34,063	203	20000	34,063	CY	EMBANKMENT	
								225								225	606	15051	225	FT	GUARDRAIL, TYPE MGS, AS PER PLAN	20
								18,050								18,050	606	15101	18,050	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS, AS PER PLAN	20
								175								175	606	15551	175	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS, AS PER PLAN	20
								2,200								2,200	606	16561	2,200	FT	GUARDRAIL REBUILT, TYPE MGS WITH LONG POSTS, AS PER PLAN	21
								16								16	606	26050	16	EACH	ANCHOR ASSEMBLY, MGS TYPE B (MASH 2016)	
								1								1	606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
								15								15	606	26550	15	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
								11								11	606	35003	11	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1, AS PER PLAN	20
								9								9	606	35103	9	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2, AS PER PLAN	20
								1								1	606	35010	1	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1	
								2								2	606	60012	2	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
																LS	623	50000	LS		PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
																LS	623	51000	LS		POST CONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
								116								116	626	00110	116	EACH	BARRIER REFLECTOR, TYPE 2 (ONE WAY)	
								169								169	626	00110	169	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
EROSION CONTROL																						
																37,607	651	10000	37,607	CY	TOPSOIL STOCKPILED	
																37,607	652	10000	37,607	CY	PLACING STOCKPILED TOPSOIL	
																5	659	00100	5	EACH	SOIL ANALYSIS TEST	
																7,513	659	00300	7,513	CY	TOPSOIL	
																383,577	659	10000	383,577	SY	SEEDING AND MULCHING	
																19,179	659	14000	19,179	SY	REPAIR SEEDING AND MULCHING	
																19,179	659	15000	19,179	SY	INTER-SEEDING	
																54.37	659	20000	54.37	TON	COMMERCIAL FERTILIZER	
																79.25	659	31000	79.25	ACRE	LIME	
																2,071	659	35000	2,071	MGAL	WATER	
																27,500	659	40000	27,500	MSF	MOWING	
																45,111	670	00500	45,111	SY	SLOPE EROSION PROTECTION	
																LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
																LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
																LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
																100,000	832	30000	100,000	EACH	EROSION CONTROL	
DRAINAGE																						
									10							10	611	98630	10	EACH	CATCH BASIN ADJUSTED TO GRADE	
									5							5	611	98631	5	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	21
PAVEMENT																						
						65,544										65,544	302	56000	65,544	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						13,740										13,740	304	20000	13,740	CY	AGGREGATE BASE	
						487,062										487,062	321	17501	487,062	SY	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN	21
						29,224										29,224	407	13900	29,224	GAL	TACK COAT, 702.13	
						65,085										65,085	407	20000	65,085	GAL	NON-TRACKING TACK COAT	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER
MJS

REVIEWER
MJM 10-13-23

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SHEET TOTAL
P.33 258

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SHEET NUM.																PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
21	23	24	25	26	28A	38	40	41	41A	188	189	195	248	252	256	01/NHS/04	EXT	TOTAL				
PAVEMENT																						
						343 30,712 25,297 21,889										343 30,712 25,297 21,889	441 442 442 442	70300 00100 10080 10300	343 30,712 25,297 21,889	CY CY CY CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) ANTI-SEGREGATION EQUIPMENT ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
						160			2,933							160 2,933	609 609	72100 24510	160 2,933	CY FT	CONCRETE MEDIAN CURB, TYPE 4-C	
									857							857	609	98000	857	FT	CURB, MISC.:(TYPE 4-A RETROFIT APPROACH SLABS)	176
									747							747	609	98000	747	FT	CURB, MISC.:(TYPE 4-A RETROFIT CRACK AND SEAT)	176
																4,093 209,238	617 618	10101 40100	4,093 209,238	CY FT	COMPACTED AGGREGATE, AS PER PLAN RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	21A
500																500	SPECIAL	69098700	500	CY	PATCHING CRACKED AND SEATED SURFACE	21
TRAFFIC CONTROL																						
											159					159	620	00500	159	EACH	DELINEATOR, POST GROUND MOUNTED	
											159					159	620	31200	159	EACH	REMOVAL OF DELINEATOR	
										1,945						1,945	621	00100	1,945	EACH	RPM	
										1,922						1,922	621	54000	1,922	EACH	RAISED PAVEMENT MARKER REMOVED	
												4,012				4,012	630	03100	4,012	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
												202				202	630	08004	202	FT	ONE WAY SUPPORT, NO. 3 POST	
												172				172	630	08600	172	EACH	SIGN POST REFLECTOR	
												2,093				2,093	630	81101	2,093	SF	SIGN ERECTED, FLAT SHEET, AS PER PLAN	177
												266				266	630	84900	266	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
												334				334	630	86002	334	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
												0.3				0.3	642	00104	0.3	MILE	EDGE LINE, 6", TYPE 1	
												0.54				0.54	642	00300	0.54	MILE	CENTER LINE, TYPE 1	
												458				458	644	00400	458	FT	CHANNELIZING LINE, 8"	
												1,047				1,047	644	00404	1,047	FT	CHANNELIZING LINE, 12"	
												298				298	644	00500	298	FT	STOP LINE	
												1,140				1,140	644	00700	1,140	FT	TRANSVERSE/DIAGONAL LINE	
												21				21	644	01000	21	EACH	RAILROAD SYMBOL MARKING	
												36				36	644	01300	36	EACH	LANE ARROW	
												48.45				48.45	807	14010	48.45	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
												21.21				21.21	807	14110	21.21	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
												14,506				14,506	807	14310	14,506	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
												4,346				4,346	807	14410	4,346	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
												66.58				66.58	850	10010	66.58	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
												2.15				2.15	850	10030	2.15	MILE	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
STRUCTURE OVER 20 FOOT SPAN (PAU-24-13.51 L & R)																						
													84			84	407	13900	84	GAL	TACK COAT, 702.13	
													84			84	407	20000	84	GAL	NON-TRACKING TACK COAT	
													168			168	512	10100	168	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
													1,394			1,394	512	10301	1,394	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN	248
													40			40	512	10600	40	FT	CONCRETE REPAIR BY EPOXY INJECTION	
													168			168	512	74000	168	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
													896			896	512	74500	896	FT	REMOVAL OF EXISTING PAVEMENT MARKING	
													20			20	843	50000	20	SF	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	
													94			94	846	00110	94	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	
													116			116	856	10000	116	CY	BRIDGE DECK WATERPROOFING ASPHALT CONCRETE	
STRUCTURE OVER 20 FOOT SPAN (DEF-24-1.68 L & R)																						
																86	407	13900	86	GAL	TACK COAT, 702.13	
																86	407	20000	86	GAL	NON-TRACKING TACK COAT	
																174	512	10100	174	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
																1,439	512	10301	1,439	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN	252
																40	512	10600	40	FT	CONCRETE REPAIR BY EPOXY INJECTION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER: MJS
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 SHEET TOTAL: P.34 / 258

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PAVEMENT							202	302	304	321	407	441	442	609	617	618															
LOCATION	STATION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DXW/9	CADD GENERATED AREA	PAVEMENT REMOVED	CONCRETE MEDIAN REMOVED	ASPHALT CONCRETE BASE, PG64-22, (449) T = 4"	ASPHALT CONCRETE BASE, PG64-22, (449) T = 11"	AGGREGATE BASE T = 3"	AGGREGATE BASE T = VAR.	AGGREGATE BASE T = 7.25"	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN T = 12.5"	TACK COAT, 702.13 0.06 GAL/SY	NON-TRACKING TACK COAT 0.06 GAL/SY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = 1.75"	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = VAR.	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) T = 1.5"	ANTI-SEGREGATION EQUIPMENT T=1.5"	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) T = 1.75"	ANTI-SEGREGATION EQUIPMENT T=1.75"	CONCRETE MEDIAN	COMPACTED AGGREGATE, AS PER PLAN T = 3"	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) CY						
																										FROM	TO	FT	FT	SY	SY
COUNTY ROAD AT-GRADE INTERSECTIONS WITH U.S.24	COUNTY ROAD 115					3546.64			394.07				74.15	3546.64	212.80	425.60			147.78	147.78	172.41	172.41									
	1470+72.60					345.25										31.07	13.31	10.58	14.39												
						350.94										31.58	13.53	10.76	14.62												
	COUNTY ROAD 232					3666.86			407.43				69.67	3666.86	220.01	440.02			152.79	152.79	178.25	178.25									
	1556+50.00					349.12										31.42	13.46	10.70	14.55												
						434.06										39.07	16.73	13.30	18.09												
	COUNTY ROAD 133					3530.68			392.30				69.67	3530.68	211.84	423.68			147.11	147.11	171.63	171.63									
	1580+82.20					315.09										28.36	12.15	9.66	13.13												
						350.80										31.57	13.52	10.75	14.62												
	COUNTY ROAD 143					3527.91			391.99				69.67	3527.91	211.67	423.35			147.00	147.00	171.50	171.50									
	1694+55.89					324.89										29.24	12.53	9.96	13.54												
						346.88										31.22	13.37	10.63	14.45												
SUBTOTALS FROM THIS SHEET									1585.79			283.17	14272.09	856.33	1966.18	108.61	86.35	712.05	594.67	693.78	693.78										
SUBTOTALS FROM SHEET 37							5017.86	561.00	4634.59	1577.14	46.75	538.34	1196.68	40677.62	2440.66	5784.53			1903.98	1443.63	2221.31	1684.23	159.73	302.82							
SUBTOTALS FROM SHEET 36							28305.62		48847.88	8898.20		2538.99	9135.70	432112.19	25926.73	57334.17	82.61	65.68	19273.36	12166.77	22381.42	14128.78		3790.46	209237.90						
TOTALS CARRIED TO THE GENERAL SUMMARY							33323	561	65544			13740	487062	29224	65085	343	21889	14205	25297	16507	160	4093	209238								

SHEET	LOCATION	SIDE	202
			WEARING COURSE REMOVED
			SY
64	C.R. 115	North	60
		South	60
71	C.R. 232	North	73
		South	55
73	C.R. 133	North	55
		South	40
82	C.R. 143	North	55
		South	45
103	U.S.24	EB	222
103	U.S.24	WB	222
TOTAL CARRIED TO THE GENERAL SUMMARY			887

PAVEMENT CALCULATIONS - AT-GRADE INTERSECTIONS

DESIGN AGENCY



DESIGNER
MJS

REVIEWER

MJM 10-13-23

PROJECT ID




117367

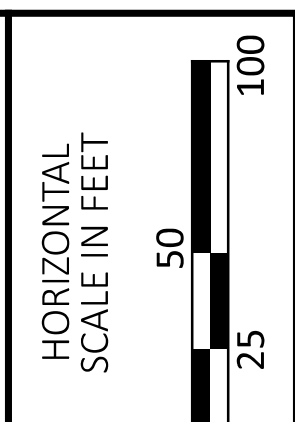
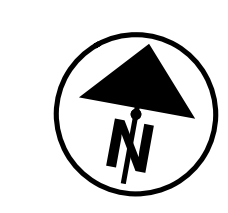
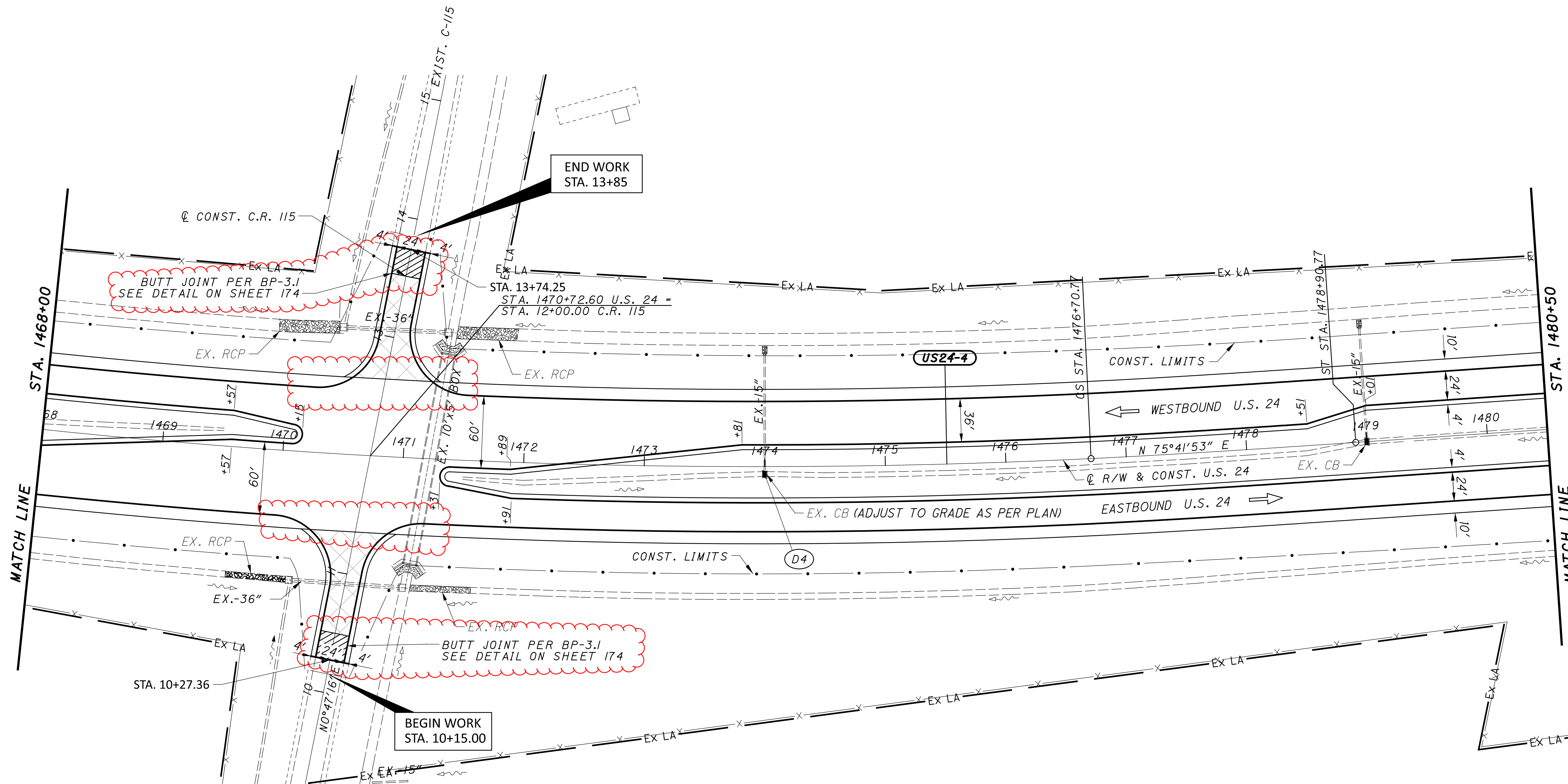
SHEET TOTAL

P.38 | 258

CURVE US24-4
 P.I. Sta = 1472+14.86
 $\Delta = 11^\circ 21' 23''$ (LT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $Ls = 220.00'$
 $Theta = 1^\circ 06' 00''$
 $LT = 146.67'$
 $ST = 73.34'$
 $x = 219.99'$
 $y = 1.41'$
 $k = 110.00'$
 $p = 0.35'$
 $\Delta c = 9^\circ 09' 23''$ (LT)
 $Lc = 915.63'$
 $Ts = 679.72'$
 $Es = 28.61'$
 $eMAX = 0.036$

LEGEND:

-  - PAVEMENT REPLACEMENT
-  - TOTAL CARRIED FROM ADJACENT SHEET
-  - PAVEMENT TRANSITION SEE SHEETS 174, 175



PLAN - U.S. 24
STA. 1468+00 TO STA. 1480+50




CROSS REFERENCES	
SHEET NO.	DESCRIPTION
130-137	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET

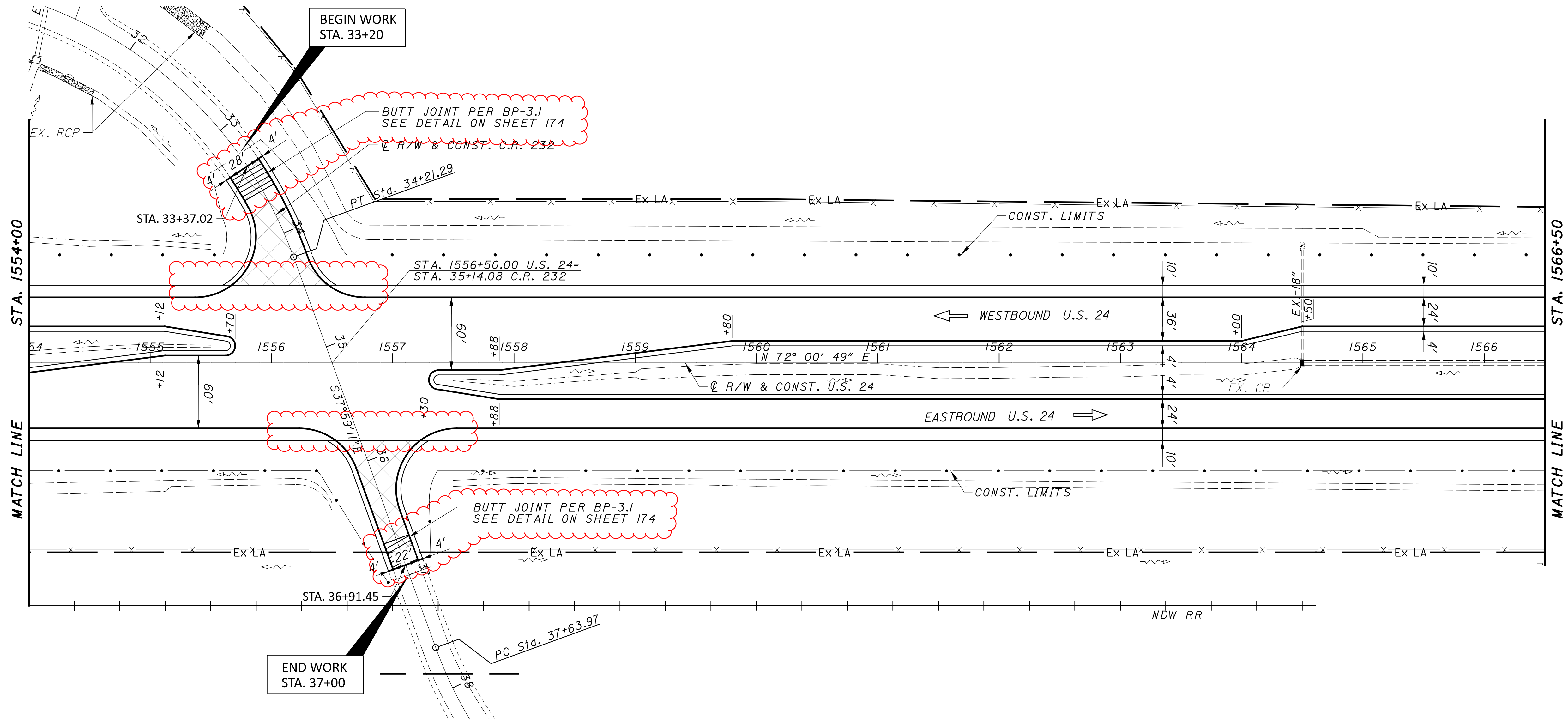
DESIGN AGENCY



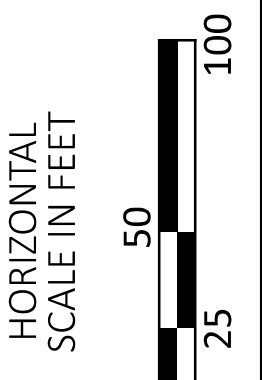
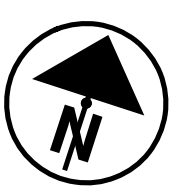
DESIGNER
MJS
 REVIEWER
MJM 10-13-23
 PROJECT ID
117367
 SHEET TOTAL
P.64 258

LEGEND:

-  - PAVEMENT REPLACEMENT
-  - TOTAL CARRIED FROM ADJACENT SHEET
-  - PAVEMENT TRANSITION SEE SHEETS 174, 175



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
142-148	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET



PLAN - U.S. 24
 STA. 1554+00 TO STA. 1566+50

DESIGN AGENCY







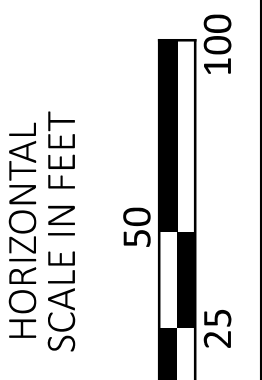
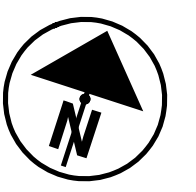
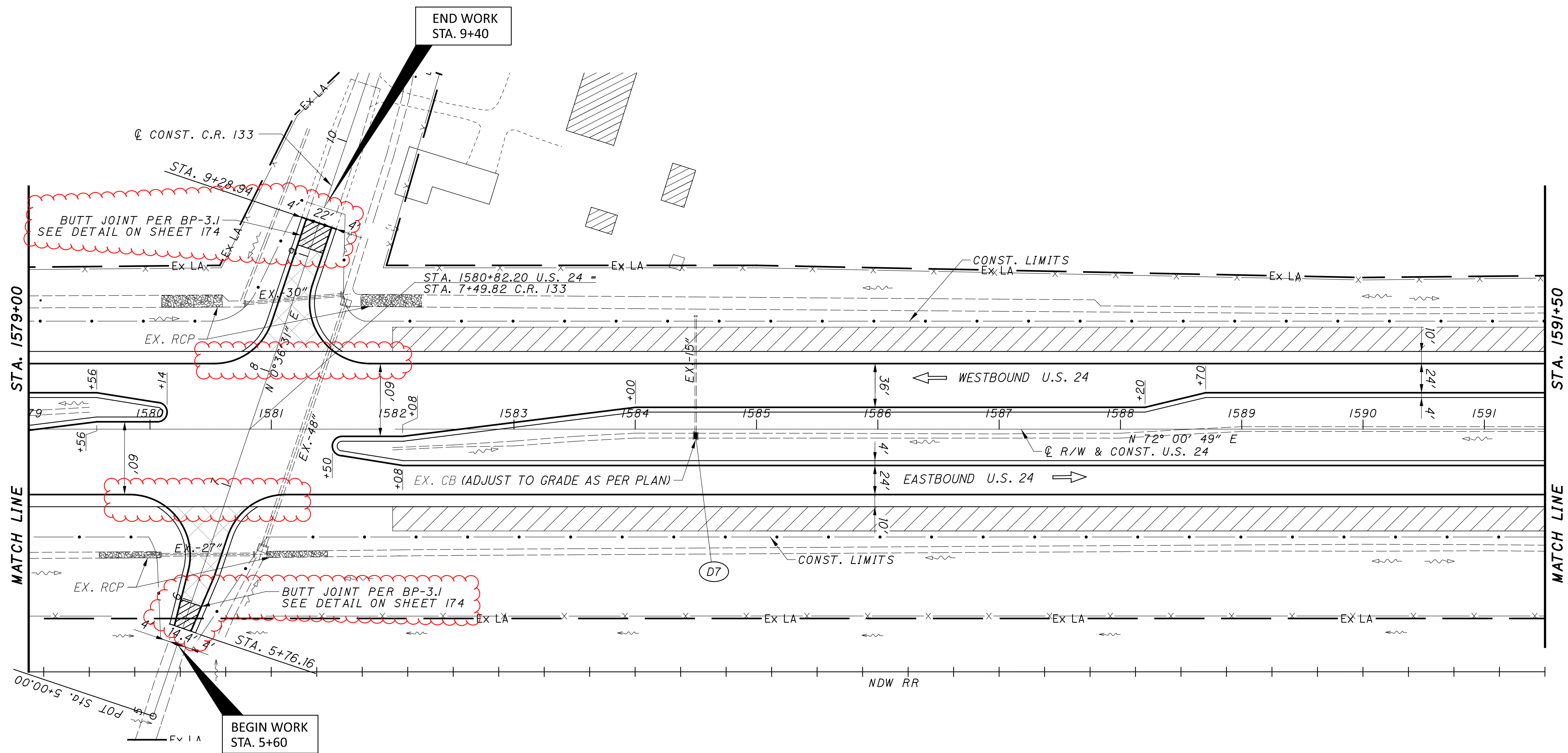
DESIGNER
 MJS

REVIEWER
 MJM

PROJECT ID
 117367

SHEET TOTAL
 P.71 | 258

- LEGEND:**
-  - PAVEMENT REPLACEMENT
 -  - TOTAL CARRIED FROM ADJACENT SHEET
 -  - VEGETATED FILTER STRIP (VFS)
 -  - PAVEMENT TRANSITION SEE SHEETS 174, 175



PLAN - U.S. 24
 STA. 1579+00 TO STA. 1591+50

CROSS REFERENCES	
SHEET No.	DESCRIPTION
153-158	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET

DESIGN AGENCY




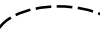
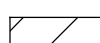

DESIGNER
MJS

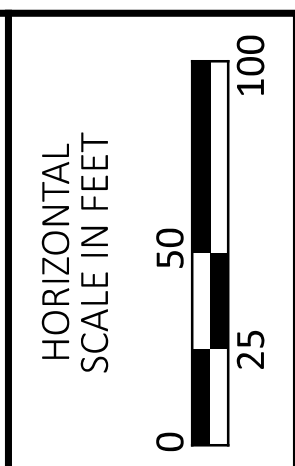
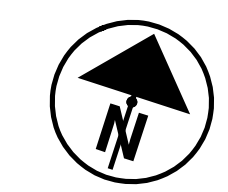
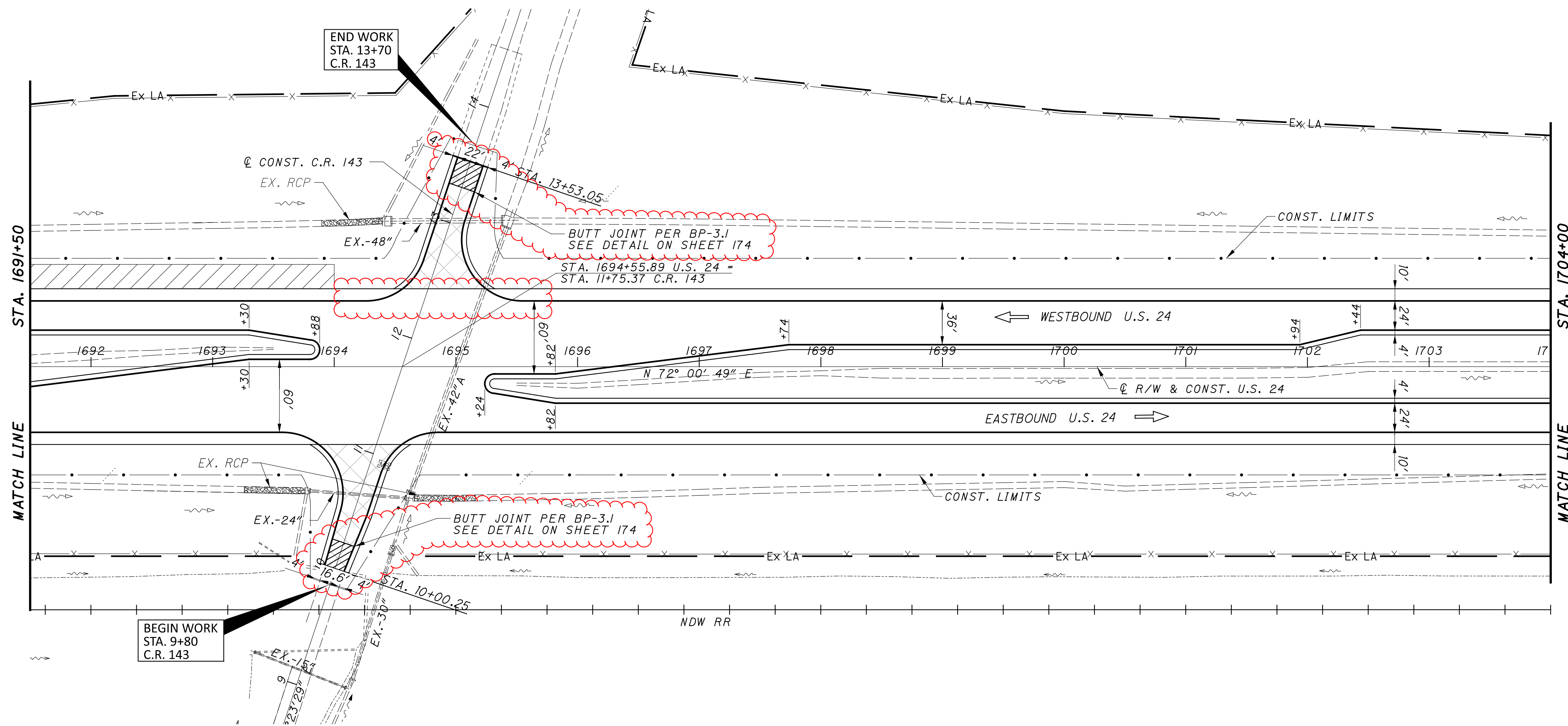
REVIEWER
MJM 10-13-23

PROJECT ID
117367

SHEET TOTAL
P.73 258

LEGEND:

-  - PAVEMENT REPLACEMENT
-  - TOTAL CARRIED FROM ADJACENT SHEET
-  - VEGETATED FILTER STRIP (VFS)
-  - PAVEMENT TRANSITION SEE SHEETS 174, 175



PLAN - U.S. 24
 STA. 1691+50 TO STA. 1704+00

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
162-169	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET

DESIGN AGENCY

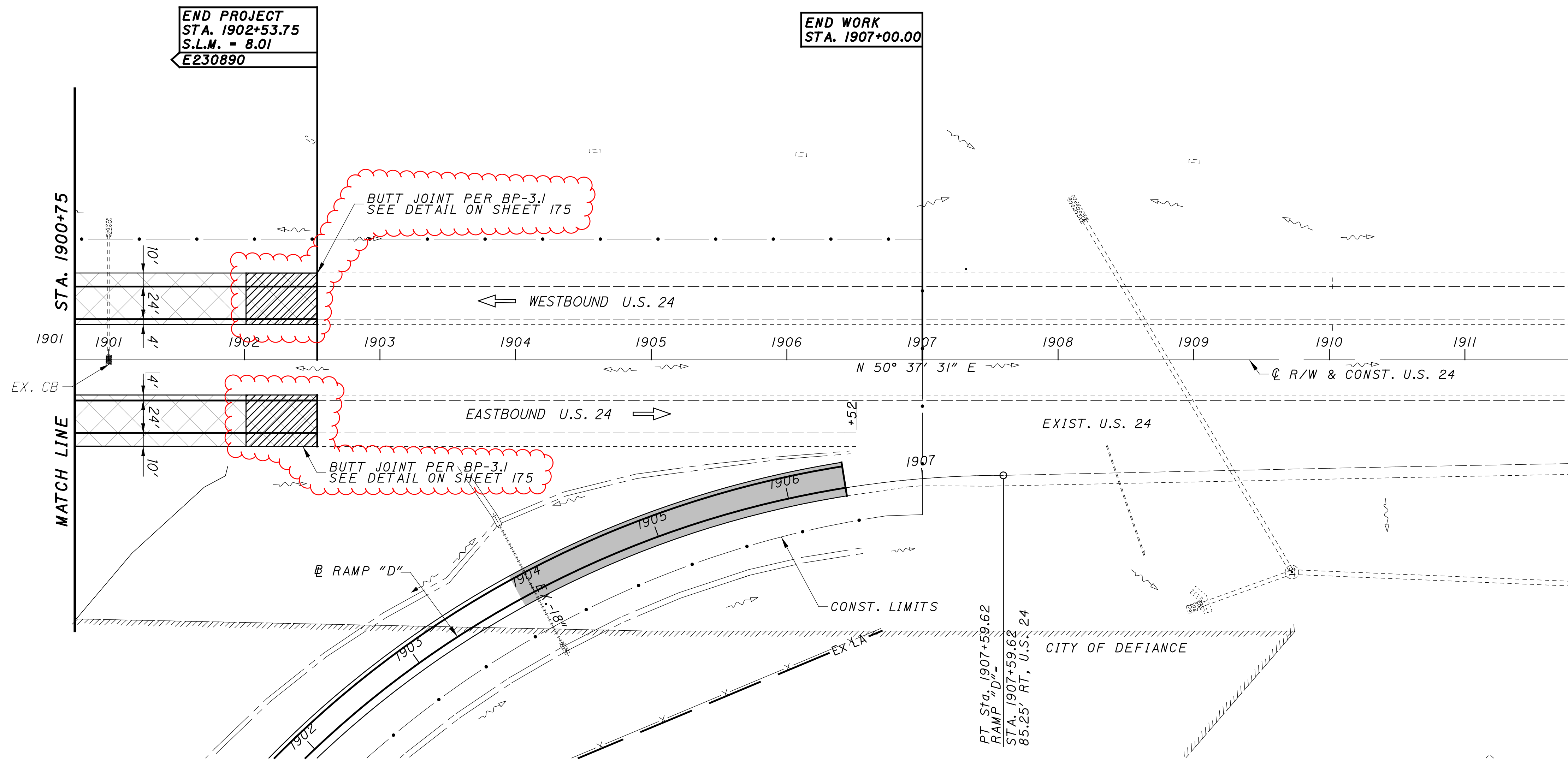


DESIGNER
 MJS

REVIEWER
 MJM 10-13-23

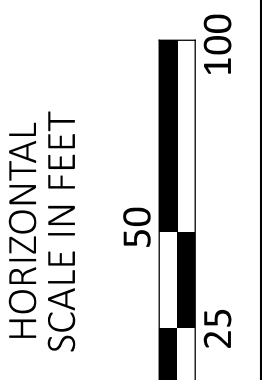
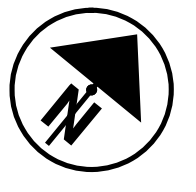
PROJECT ID
 117367

SHEET TOTAL
 P.82 258



- LEGEND:**
- PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET
 - PAVEMENT TRANSITION SEE SHEETS 174, 175

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET



PLAN - U.S. 24
STA. 1900+75 TO END WORK

DESIGN AGENCY	
DESIGNER	MJS
REVIEWER	MJM
PROJECT ID	10-13-23
	117367
SHEET	TOTAL
P.103	258