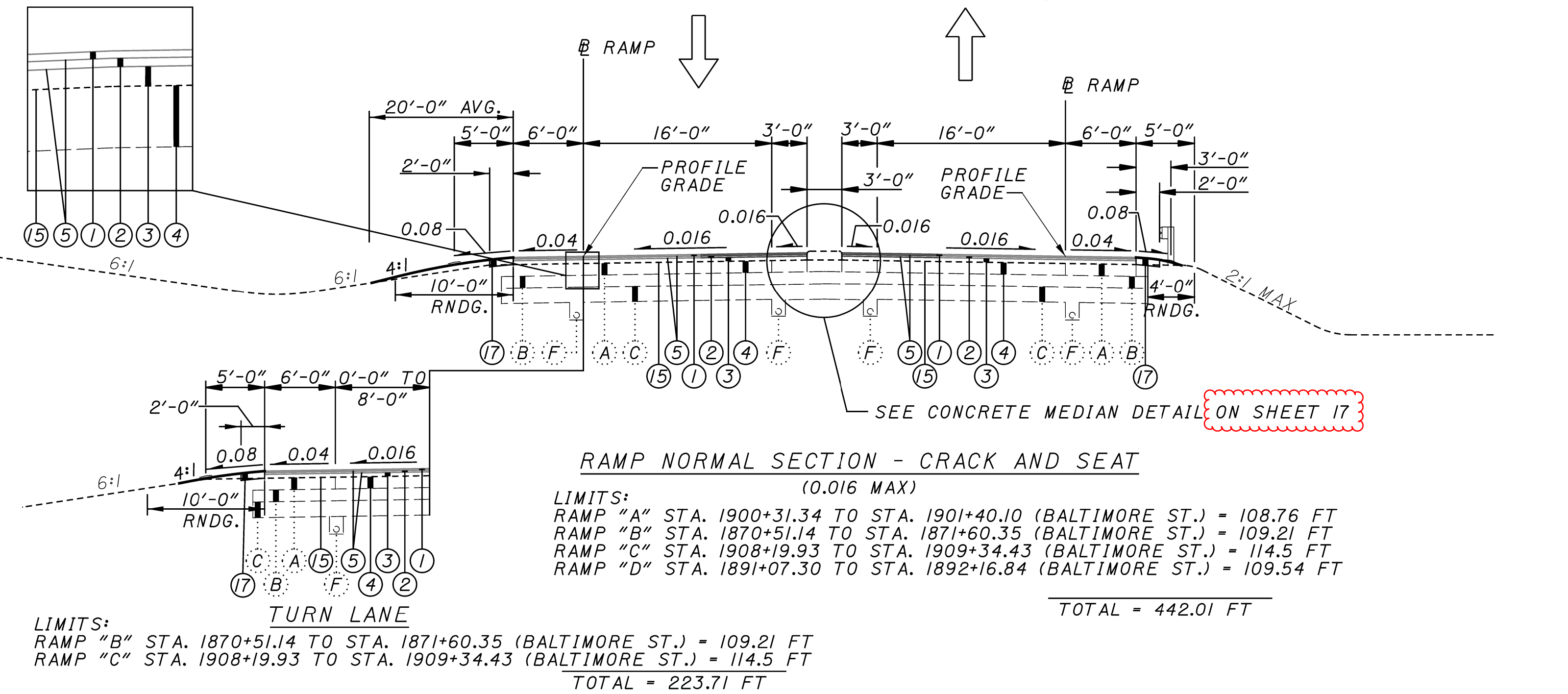
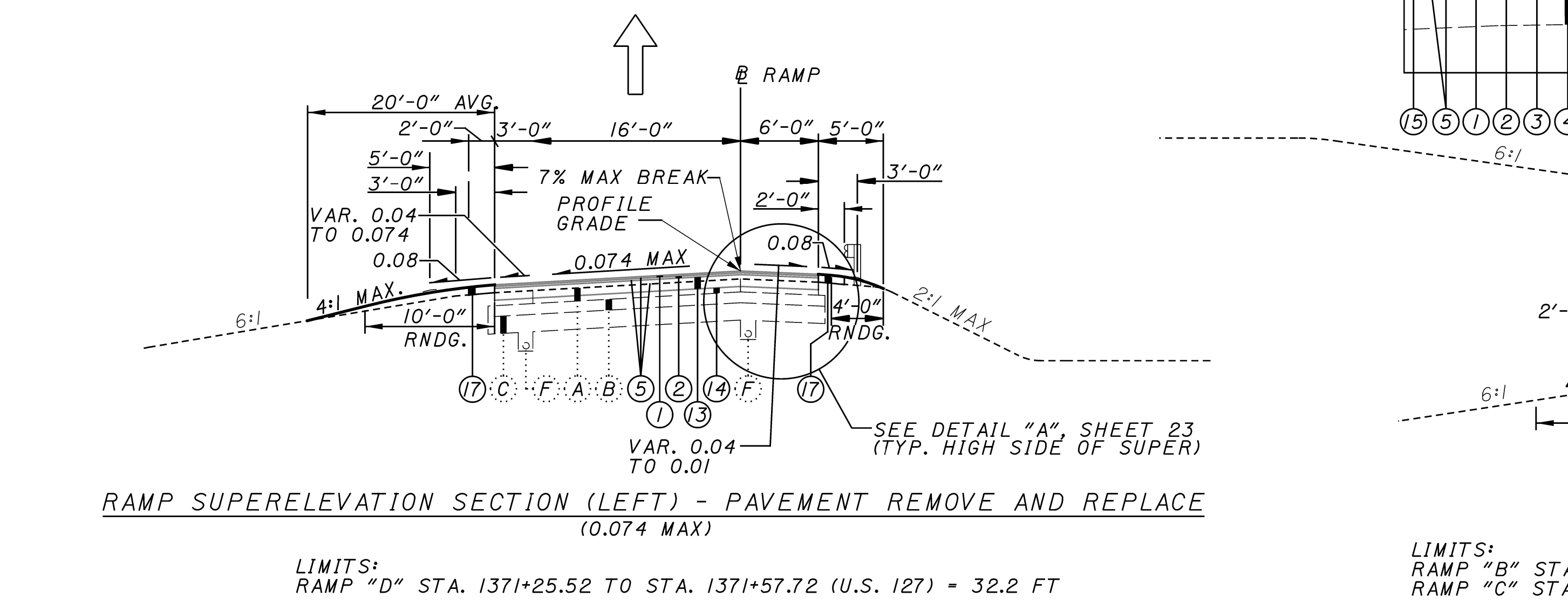
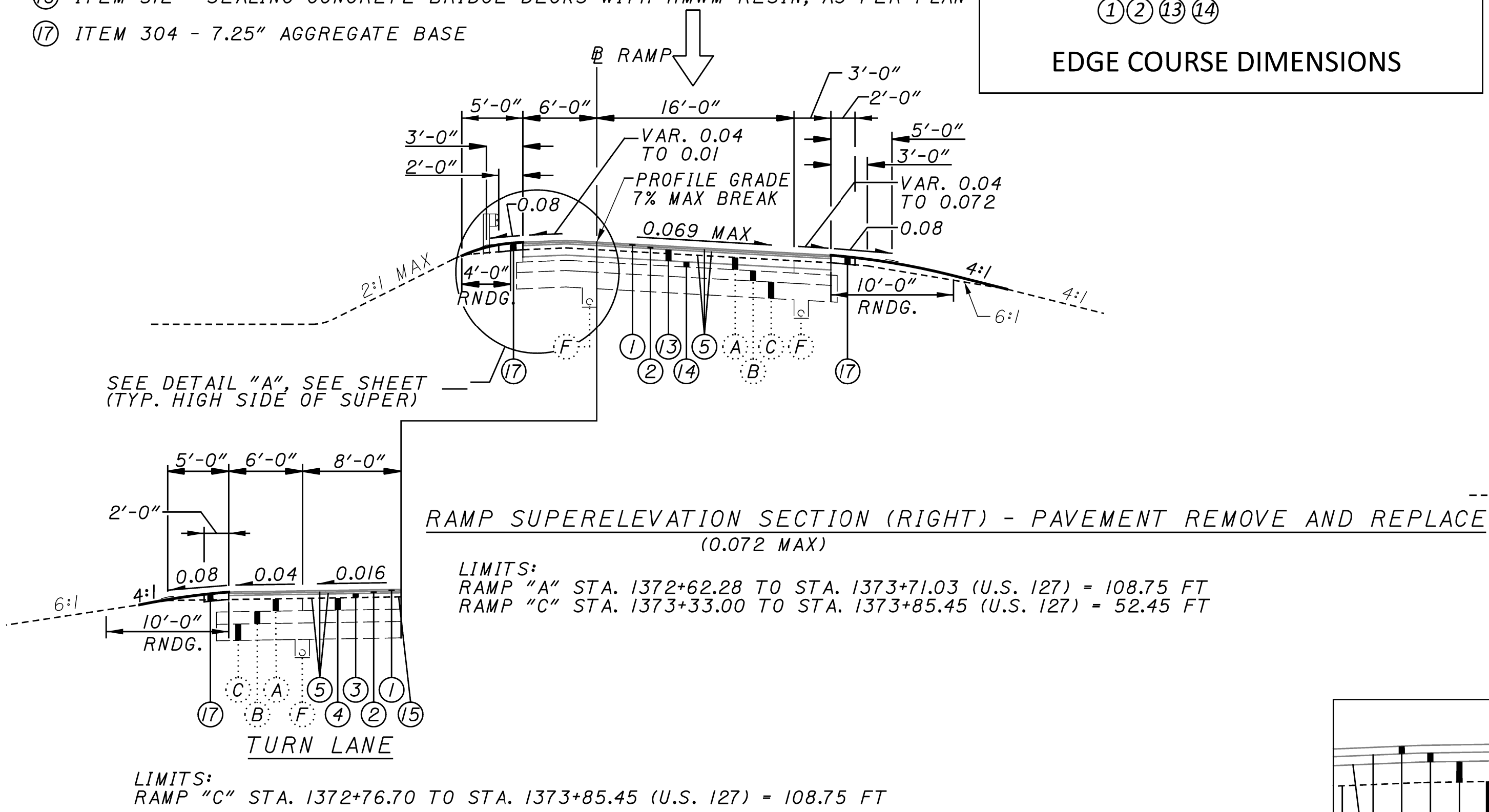
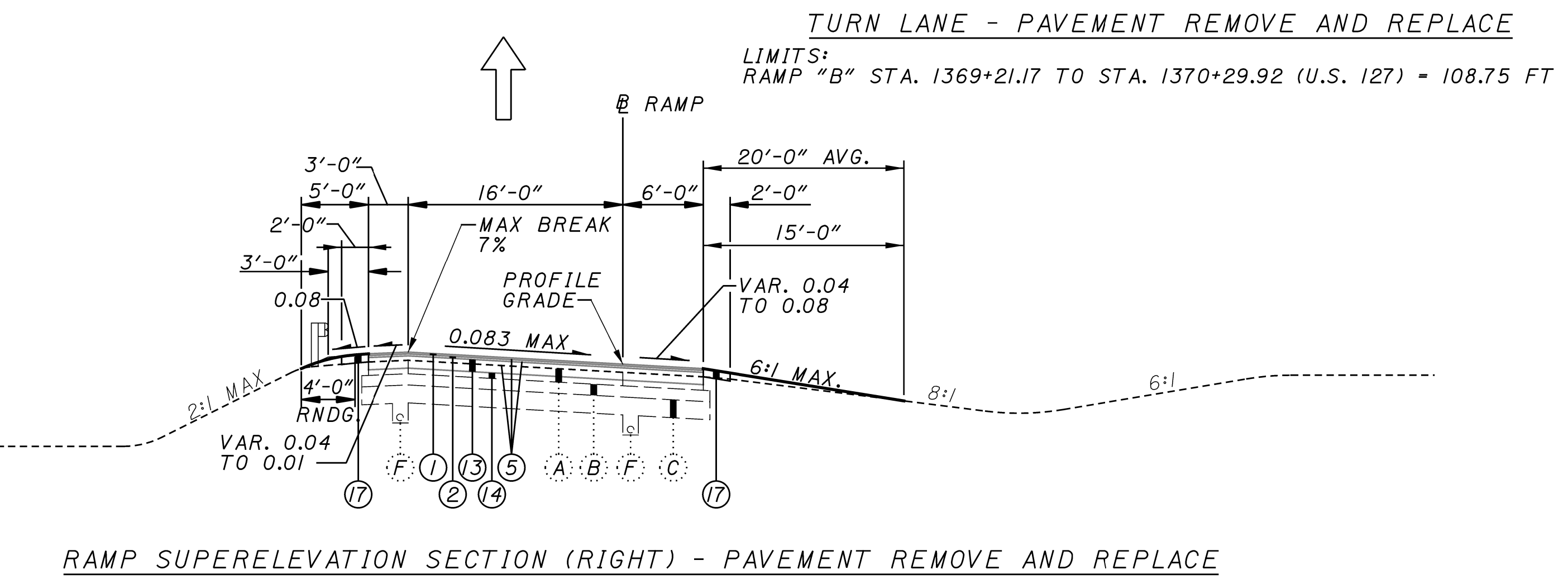
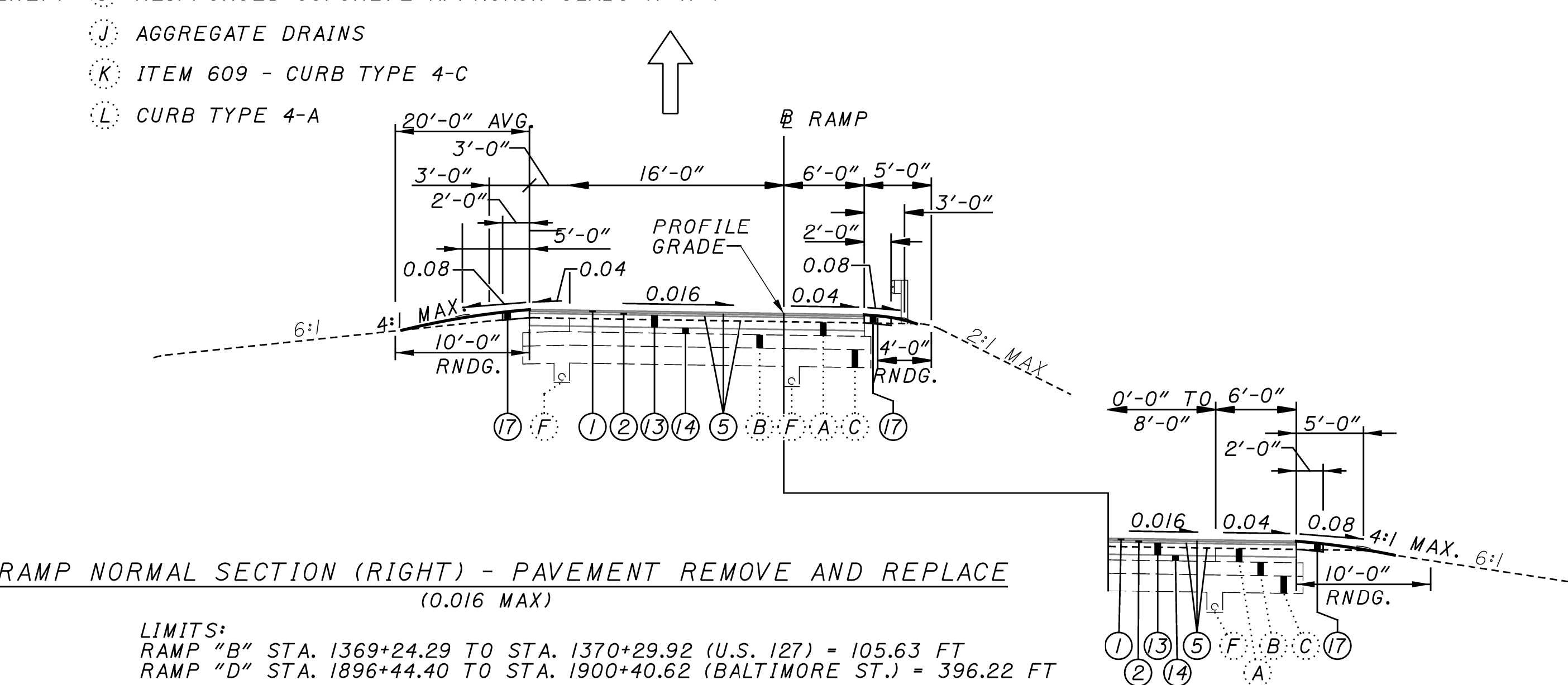
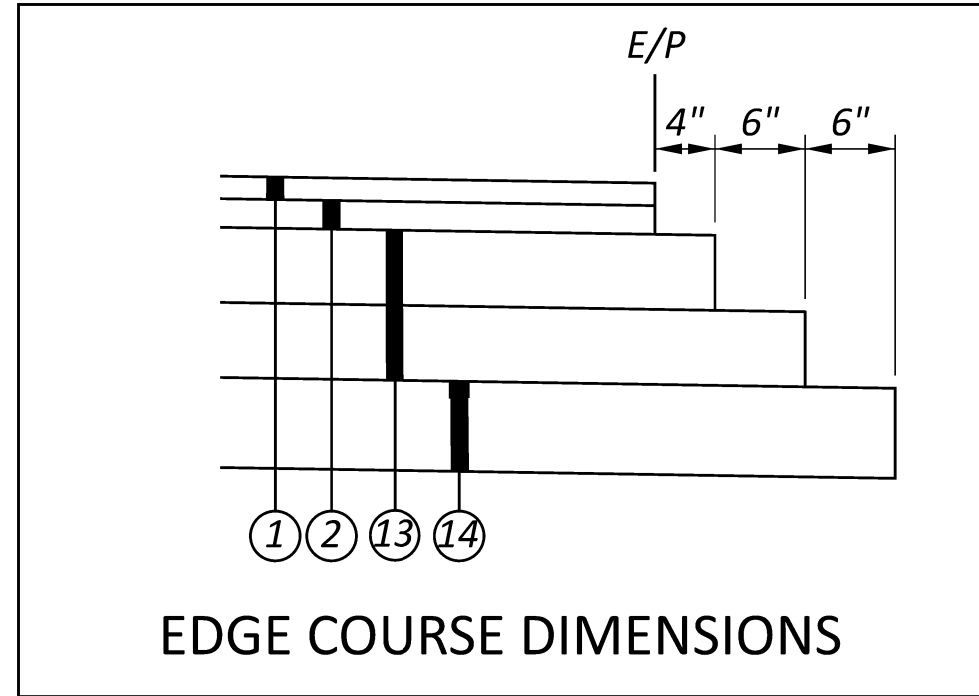


PROPOSED PAVEMENT LEGEND

- ① ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (447)
- ② ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5mm, TYPE A (446)
- ③ ITEM 302 - 4" ASPHALT CONCRETE BASE, PG64-22, (449)
- ④ ITEM 321 - 12.5" CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT
- ⑤ ITEM 407 - NON-TRACKING TACK COAT
- ⑥ ITEM 856 - 1.5" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE
- ⑦ ITEM 609 - CURB, MISC.: TYPE 4-A RETROFIT
- ⑧ ITEM 609 - CURB, TYPE 4-C
- ⑨ ITEM 202 - CURB REMOVED
- ⑩ ITEM 609 - CONCRETE MEDIAN
- ⑪ ITEM 202 - CONCRETE MEDIAN REMOVED
- ⑫ ITEM 304 - 3" AGGREGATE BASE
- ⑬ ITEM 302 - 11" ASPHALT CONCRETE BASE COURSE, PG64-22, (449)
- ⑭ ITEM 304 - VARIABLE THICKNESS AGGREGATE BASE
- ⑮ ITEM 407 - TACK COAT, 702.13
- ⑯ ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN
- ⑰ ITEM 304 - 7.25" AGGREGATE BASE

EXISTING PAVEMENT LEGEND

- Ⓐ 12½" PORTLAND CEMENT CONCRETE PAVEMENT
- Ⓑ ITEM 304 - 6" AGGREGATE BASE
- Ⓒ LIME STABILIZED SUBGRADE (T=16")
- Ⓓ 7" ASPHALT CONCRETE
- Ⓔ 8" ASPHALT CONCRETE
- Ⓕ 6" SHALLOW PIPE UNDERDRAIN
- Ⓖ 4" BASE PIPE UNDERDRAIN
- Ⓗ 8" AGGREGATE BASE
- Ⓘ REINFORCED CONCRETE APPROACH SLABS (T=17")
- Ⓝ AGGREGATE DRAINS
- Ⓚ ITEM 609 - CURB TYPE 4-C
- Ⓛ CURB TYPE 4-A



TYPICAL SECTIONS

PAU/DEF-24-12.30/0.00

MODEL: Sheet: PAPER: 34x22 (in.) DATE: 1/22/2024 TIME: 12:28:59 PM USER: Rmooney
pw:\ohodot-pw-bentley.com\ohodot-pw-02\Documents\01 Active Projects\District 01\PAU\117367\400-Engineering\Roadway\Sheets\117367_GY011.dgn

DESIGN AGENCY

DESIGNER: MJS
REVIEWER: MJM
PROJECT ID: 10-13-23
SHEET: 117367
TOTAL: 258

PERSONAL PROTECTION EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS XXIV AND XXXIV OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY & HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: NOVEMBER 1, 2018 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

[HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/POLICIES/220-006\(SP\).PDF](http://www.dot.state.oh.us/policy/policiesandsops/policies/220-006(sp).pdf)

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:.

XXIV. HEAD PROTECTION (HARD HATS)

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2009 TYPE 1, CLASS E-G REQUIREMENTS.

XXXIV. SAFETY APPAREL AND VEST (HIGH VISIBILITY)

ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBILITY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS II OR CLASS III REQUIREMENTS OF THE ANSI/ISEA 107-2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND ACCESSORIES."

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III APPROVED RAIN SUIT, JACKET OR OTHER APPAREL WITHOUT A SAFETY VEST OVER IT.

ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN**ITEM 202 - GUARDRAIL REMOVED, BARRIER DESIGN, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF 202, THIS ITEM INCLUDES THE REMOVAL OF ANY ANCHOR ASSEMBLIES, BRIDGE TERMINAL ASSEMBLIES, AND ANY CONCRETE ENCASED POSTS. THE CONCRETE AND ALL GUARDRAIL COMPONENTS SHALL BE DISPOSED OF IN ACCORDANCE WITH C&MS 202.

ALL HOLES REMAINING AFTER THE REMOVAL OF GUARDRAIL POSTS AND THE REMOVAL OF ANY CONCRETE ENCASED POSTS SHALL BE FILLED IN ACCORDANCE WITH 202.02 OF THE C&MS. FILL MATERIAL MUST MEET THE SPECIFICATIONS OF C&MS 703.11 AND MUST MEET THE APPROVAL OF THE ENGINEER PRIOR TO ITS USE. ALL HOLES SHALL BE FILLED AND THOROUGHLY COMPACTED TO THE SATISFACTION OF THE ENGINEER PRIOR TO THE CONTRACTOR PERFORMING THE RESHAPING UNDER GUARDRAIL WORK. PAYMENT FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 202, GUARDRAIL REMOVED, BARRIER DESIGN, AS PER PLAN.

ITEM 202 - GUARDRAIL REMOVED FOR REUSE, AS PER PLAN

THIS ITEM IS USED TO SALVAGE GUARDRAIL COMPONENTS OF RECENTLY INSTALLED MGS GUARDRAIL. CAREFULLY DISMANTLE THE GUARDRAIL SYSTEM AND STORE SALVAGED COMPONENTS IN THE CONTRACTOR'S STAGING AREA. POTENTIAL COMPONENTS TO BE SALVAGED INCLUDE W-BEAM PANELS AND PLASTIC OR COMPOSITE BLOCKOUTS. SALVAGED COMPONENTS TO BE REUSED SHALL BE AT THE APPROVAL OF THE ENGINEER.

THIS PAY ITEM ALSO INCLUDES THE REMOVAL AND DISPOSAL OF THE EXISTING STANDARD LENGTH POSTS. THE POSTS NEED TO BE REPLACED WITH LONG POSTS WHEN THE GUARDRAIL IS RE-ERECTED.

ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED IN ACCORDANCE WITH 202.02 OF THE C&MS. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. FILL MATERIAL MUST MEET THE SPECIFICATION OF C&MS 703.11 AND MUST MEET THE APPROVAL OF THE ENGINEER PRIOR TO ITS USE. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER PRIOR TO THE CONTRACTOR PERFORMING THE SHOULDER EMBANKMENT WORK.

PAYMENT FOR THE ABOVE SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 202-GUARDRAIL, REMOVED FOR REUSE, AS PER PLAN.

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

THIS ITEM IS USED TO REBUILD EXISTING GUARDRAIL USING SALVAGED GUARDRAIL COMPONENTS. THIS ITEM ALSO INCLUDES FURNISHING NEW LONG POSTS FOR USE WITH THE REBUILT GUARDRAIL. THE NEW LONG POSTS SHALL BE STEEL POSTS. THE CONTRACTOR SHALL ALSO FURNISH NEW BOLTS, WASHERS, AND INCIDENTAL HARDWARE NECESSARY TO COMPLETE THE GUARDRAIL.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, GUARDRAIL REBUILT, TYPE MGS WITH LONG POSTS, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL SECTION OF MGS GUARDRAIL.

ITEM 321 - CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 321, THE DEPARTMENT WILL PERIODICALLY REQUIRE THE CONTRACTOR TO OBTAIN PAVEMENT CORE SAMPLES TO ENSURE THAT THE CRACKING IS REFLECTED THROUGH THE FULL DEPTH OF THE CONCRETE. THE DEPARTMENT EXPECTS TO REQUIRE FROM ONE UP TO TEN CORES PER DAY.

THE COST OF THE CORE SAMPLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 321 - CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN. THIS PRICE INCLUDES THE COST FOR MATERIAL, EQUIPMENT, LABOR AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS ITEM AS NOTED ABOVE.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B (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.

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.

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

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

COORDINATION OF CONTRACTORS

SINCE THE MAINTENANCE OF TRAFFIC AND WORK ON THIS PROJECT MAY OVERLAP OTHER PROJECTS, IT IS ESSENTIAL THAT EACH CONTRACTOR CONDUCT THEIR WORK AN COOPERATE WITH EACH OTHER IN SUCH A MANNER AS NOT TO HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY THE OTHER CONTRACTOR.

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 611, THIS ITEM ALSO INCLUDES THE REMOVAL AND REPLACEMENT OF A CONCRETE APRON. REMOVAL OF THE EXISTING CONCRETE APRON SHOULD BE IN ACCORDANCE WITH C&MS 202. NOTE THAT THERE ARE EXISTING ANCHORS CONNECTING THE APRON TO THE BASIN. AFTER ADJUSTING THE HEIGHT OF THE CATCH BASIN, INSTALL NEW CONCRETE APRONS WITH CUTOFF WALLS PER C&MS 601.04.D AND STANDARD CONSTRUCTION DRAWING CB-8.

ALL MATERIALS, LABOR, EQUIPMENT & INCIDENTAL REQUIRED TO REMOVE AND REPLACE THE CONCRETE APRON SHALL BE INCLUDED IN THE UNIT BID PER EACH FOR ITEM 611 CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 21A OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING ON THIS PROJECT:

PROJECT CONTROL

POSITIONING METHOD: ODOT REAL TIME NETWORK (2011) AND DIFFERENTIAL LEVELING
MONUMENT TYPE: VARIOUS

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011 ADJ, EPOCH 2010.0)
ELLIPSOID: GRS 80
MAP PROJECTION: LAMBERT CONFORMAL CONIC 2 STANDARD PARALLEL
COORDINATE SYSTEM: OHIO STATE PLANE CO-ORDINATE SYSTEM OF 1983, NORTH ZONE
COMBINED SCALE FACTOR: 1.00008827 (AS TAKEN FROM PREVIOUS PLAN PAU/DEF-24-12.30/0.00 (PID 24336)
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

BASIS OF BEARINGS: BEARINGS ARE BASED ON GRID NORTH OF THE OHIO STATE PLANE CO-ORDINATE SYSTEM OF 1983 - NORTH ZONE, NAD 83 (ODOT RTN, 2011 ADJ., EPOCH 2010.0)

BASIS OF EXISTING CENTERLINE OF R/W AND THE R/W LIMITS:

THE CENTERLINE OF RIGHT OF WAY AND RIGHT OF WAY LIMITS WERE ESTABLISHED USING THE FOLLOWING OHIO DEPARTMENT OF TRANSPORTATION PLANS: "PAU/DEF-24-0.00/0.00 CENTERLINE SURVEY" PID 18904 DATED 9/24/2004; AND "PAU/DEF-24-12.30/0.00 R/W PLANS" PID 24336 DATED CIRCA 2006 AS FOUND ON FILE AT THE OHIO DEPARTMENT OF TRANSPORTATION-DISTRICT ONE OFFICE AT LIMA, OHIO.

ESTABLISHMENT OF C/L OF R/W STATIONING:

THE STATIONING OF U.S. 24 WAS ESTABLISHED BY ACCEPTING A CONCRETE MONUMENT FOUND AS BEING C/L OF R/W STATION 1355+00.00 PER SAID "PAU/DEF-24-0.00/0.00" CENTERLINE SURVEY (PID 18904).

EXISTING PLAN FEATURES NOTE:

ALL EXISTING FEATURES AND DATA SHOWN ON THE SCHEMATIC AND PLAN DETAIL SHEETS ARE NOT BASED ON A CURRENT FIELD SURVEY. ALL ITEMS ON THESE SHEETS HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION PLANS FOR THE U.S. 24 CORRIDOR (PAU/DEF-24-12.30/0.00, PID 24336, COMPLETED CIRCA 1999-2006).

DESIGN AGENCY



DESIGNER

MJS

REVIEWER

MJM 10-13-23

PROJECT ID


117367

SHEET TOTAL

P.21 258


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						34,522										LS	201	11000	LS		CLEARING AND GRUBBING	
						561										34,522	202	23000	34,522	SY	PAVEMENT REMOVED	
																561	202	30600	561	SY	CONCRETE MEDIAN REMOVED	
																3,680	202	32000	3,680	FT	CURB REMOVED	
								18,312.5	3,680							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																						
5																5	659	00100	5	EACH	SOIL ANALYSIS TEST	
42,577																42,577	659	00300	42,577	CY	TOPSOIL	
383,577																383,577	659	10000	383,577	SY	SEEDING AND MULCHING	
19,179																19,179	659	14000	19,179	SY	REPAIR SEEDING AND MULCHING	
19,179																19,179	659	15000	19,179	SY	INTER-SEEDING	
54.37																54.37	659	20000	54.37	TON	COMMERCIAL FERTILIZER	
79.25																79.25	659	31000	79.25	ACRE	LIME	
2,071.32																2,071.32	659	35000	2,071.32	MGAL	WATER	
4,560,993																4,560,993	659	40000	4,560,993	MSF	MOWING	
45,111																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																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																						
						65,033										65,033	302	56000	65,033	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
						13,872										13,872	304	20000	13,872	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	
						64,915										64,915	407	20000	64,915	GAL	NON-TRACKING TACK COAT	

GENERAL SUMMARY

DESIGN AGENCY

 DESIGNER: MJS
 REVIEWER: MJM 10-13-23
 PROJECT ID: 117367
 SHEET TOTAL: P.33 | 258

LOCATION	PAVEMENT						202		302		304			321	407		441		442		609	618				
	STATION		SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=D*W/9 SY	CADD GENERATED AREA SY	PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	ASPHALT CONCRETE BASE, PG64-22, (449) T = 4" CY	ASPHALT CONCRETE BASE, PG64-22, (449) T = 11" CY	AGGREGATE BASE T = 3" CY	AGGREGATE BASE T = VAR. CY	AGGREGATE BASE T = 7.25" CY	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN T = 12.5" SY	TACK COAT, 702.13 0.06 GAL/SY GAL	NON-TRACKING TACK COAT 0.06 GAL/SY GAL	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = 1.75" CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = VAR. CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) T = 1.5" CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) T = 1.75" CY	CONCRETE MEDIAN CY	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT			
	FROM	TO																								
U.S. 24	1350+00.00	1353+50.00	LT	350.00	38.00	1477.78	1477.78																700.00			
	1350+00.00	1353+50.00	RT	350.00	38.00	1477.78	1477.78																700.00			
	1353+50.00	1365+90.00	LT	1240.00	38.00	5235.56			581.73					85.34	5235.56	314.13	628.27							2480.00		
	1353+50.00	1365+90.00	RT	1240.00	38.00	5235.56			581.73					75.19	5235.56	314.13	628.27							2480.00		
	1365+90.00	1375+90.00	LT	1000.00	38.00	4222.22	4222.22																	2000.00		
	1365+90.00	1375+90.00	RT	1000.00	38.00	4222.22	4222.22																	2000.00		
	1375+90.00	1411+58.89	LT	3568.89	38.00	15068.65									283.64	15068.65	904.12	1808.24							7137.78	
	1375+90.00	1412+49.09	RT	3659.09	38.00	15449.49									249.24	15449.49	926.97	1853.94							7318.18	
	1411+58.89	1414+81.10	LT	322.21	38.00	1360.44	1360.44																		644.42	
	1412+49.09	1415+62.10	RT	313.01	38.00	1321.60	1321.60																			626.02
		1414+00.00	LT				55.67	55.67																		
			RT				52.00	52.00																		
	1416+30.48	1419+47.47	LT	316.99	38.00	1338.40	1338.40																			633.98
	1417+11.48	1420+54.19	RT	342.71	38.00	1447.00	1447.00																			685.42
	1419+47.47	1802+77.61	LT	38330.14	38.00	161838.37				17982.04					3253.02	161838.37	9710.30	19420.60								72033.28
	1420+54.19	1802+51.03	RT	38196.84	38.00	161275.55				17919.51					3240.91	161275.55	9676.53	19353.07								71780.68
	1802+77.61	1805+82.93	LT	305.32	38.00	1289.13	1289.13																			610.64
	1802+51.03	1805+43.95	RT	292.92	38.00	1236.77	1236.77																			585.84
	1807+54.21	1810+64.01	LT	309.80	38.00	1308.04	1308.04																			619.60
	1807+07.75	1810+21.22	RT	313.47	38.00	1323.54	1323.54																			626.94
		1807+00.00	LT				46.89	46.89																		
			RT				43.00	43.00																		
	1810+64.01	1875+31.16	LT	6467.15	38.00	27305.74				3033.97					532.48	27305.74	1638.34	3276.69								12672.30
	1810+21.22	1876+13.35	RT	6592.13	38.00	27833.44				3092.60					578.40	27833.44	1670.01	3340.01								12922.26
	1875+31.16	1878+97.29	LT	366.13	38.00	1545.88	1545.88																			732.26
	1876+13.35	1879+81.13	RT	367.78	38.00	1552.85	1552.85																			735.56
	1881+95.41	1885+21.56	LT	326.15	38.00	1377.08	1377.08																			652.30
	1882+79.28	1886+53.88	RT	374.60	38.00	1581.64	1581.64																			749.20
		1880+00.00					4.73	4.73																		
							20.95	20.95																		
1885+21.56	1901+11.78	LT	1590.22	38.00	6714.26				746.03					106.53	6714.26	402.86	805.71								3180.44	
1886+53.88	1901+11.78	RT	1457.90	38.00	6155.58				683.95					94.69	6155.58	369.33	738.67								2915.80	
1901+11.78	1902+53.75	LT	141.97	38.00	599.43	599.43																			283.94	
1901+11.78	1902+53.75	RT	141.97	38.00	599.43	599.43																			283.94	
SUBTOTALS CARRIED TO SHEET 38							29504.47		48012.47	9275.76		2668.18	9138.40	432112.19	25926.73	57164.27			19234.03	22439.70			208790.78			


PAVEMENT CALCULATIONS - MAINLINE

DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
 117367
 SHEET TOTAL
 P.36 258

LOCATION	PAVEMENT						202		302		304		321		407		441		442		609	618	
	STATION		SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=D*W/9 SY	CADD GENERATED AREA SY	PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	ASPHALT CONCRETE BASE, PG64+22, (449) CY	ASPHALT CONCRETE BASE, PG64+22, (449) CY	AGGREGATE BASE CY	AGGREGATE BASE CY	AGGREGATE BASE CY	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN SY	TACK COAT, 702.13 GAL	NON-TRACKING TACK COAT GAL	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) CY	CONCRETE MEDIAN CY	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT
	FROM	TO																					
U.S. 127	RAMP A																						
	1350+00.00	1353+50.00		350.00	16.73	650.61	650.61			205.73	70.73	15.66				117.11			27.11	31.63			
	1353+50.00	1359+21.00							185.26			25.54	1667.36		100.04	200.08			69.47	81.05			
	1359+21.00	1372+62.28		1341.28	25.00	3725.78			413.98			120.05	3725.78		223.55	447.09			155.24	181.11			
	1372+62.28	1373+71.03					420.61	420.61		133.30	45.95	10.80				75.71			17.53	20.45			
	RAMP B																						
	1354+28.00	1362+75.00					1431.08			159.01			40.25	1431.08	85.86	171.73			59.63	69.57			
	1362+75.00	1367+40.00		465.00	25.00	1291.67			143.52			41.62	1291.67	77.50	155.00				53.82	62.79			
	1367+40.00	1369+21.17					645.07		71.67			16.29	645.07	38.70	77.41				26.88	31.36			
	1369+21.17	1370+29.92					435.18	435.18		137.50	47.23	10.23				78.33			18.13	21.15			
	RAMP C																						
	1372+76.70	1373+85.45					456.02	456.02			143.89	49.35	10.29			82.08			19.00	22.17			
	1373+85.45	1375+77.50					680.75		75.64			17.19	680.75	40.85	81.69				28.36	33.09			
	1375+77.50	1384+24.00		846.50	25.00	2351.39			261.27			75.77	2351.39	141.08	282.17				97.97	114.30			
	1384+24.00	1392+72.00					1433.53		159.28			37.56	1433.53	86.01	172.02				59.73	69.69			
	RAMP D																						
1370+48.97	1371+57.72					417.97	417.97			132.59	45.76	11.03			75.23			17.42	20.32				
1371+57.72	1383+75.00		1217.28	25.00	3381.33			375.70			108.95	3381.33	202.88	405.76				140.89	164.37				
1383+75.00	1401+20.00					3007.62		334.18			75.39	3007.62	180.46	360.91				125.32	146.20				
BALTIMORE ST.	RAMP A																						
	1881+80.88	1883+04.52				375.81	375.81			118.20	40.38	7.61			67.65			15.66	18.27				
	1883+04.52	1900+31.34		1726.82	25.00	4796.72			532.97			77.28	4796.72	287.80	575.61			199.86	233.17				
	1900+31.34	1901+40.10				324.02	324.02			101.42	34.45	5.47			58.32			13.50	15.75				
	RAMP B																						
	1870+51.14	1871+60.35				422.91	422.91			131.67	44.43	5.53			76.12			17.62	20.56				
	1871+60.35	1891+82.00		2021.65	25.00	5615.69	231.15		649.65			128.29	5846.84	350.81	701.62			243.62	284.22				
	1891+82.00	1900+29.00				1431.09			159.01			37.98	1431.09	85.87	171.73			59.63	69.57				
	RAMP C																						
	1887+53.00	1895+54.00				1292.08			143.56			35.57	1292.08	77.53	155.05				53.84	62.81			
	1895+54.00	1908+19.93		1265.93	25.00	3516.47	184.42		411.21			94.52	3700.90	222.05	444.11			154.20	179.90				
	1908+19.93	1909+34.43				448.54	448.54			139.62	47.10	5.81			80.74			18.69	21.80				
	RAMP D																						
	1891+07.30	1892+16.77				361.33	361.33			112.80	38.19	5.42			65.04			15.06	17.56				
	1892+16.77	1903+89.11		1172.34	25.00	3256.50			361.83			104.93	3256.50	195.39	390.78			135.69	158.30				
	1903+89.11	1906+42.86		253.75	25.00	704.86		704.86		220.40	74.76	22.71			126.88			29.37	34.26				
U.S. 24	MEDIANS																						
	1429+00.00					368.95			40.99		24.47	368.95	22.14	44.27				15.37	17.94				
	1827+00.00					368.95			40.99		24.47	368.95	22.14	44.27				15.37	17.94				
BALTIMORE ST.	CONCRETE MEDIAN ON RAMP A & B																				111.52		
	1889+25.00	1901+00.00		1175.00	3.00	391.67		391.67	43.52		32.64												
CONCRETE MEDIAN ON RAMP C & D																					48.21		
1891+37.00	1896+45.00		508.00	3.00	169.33			169.33	18.81		14.11												
SUBTOTALS CARRIED TO SHEET 38							5017.86	561.00	4582.07	1577.14	46.75	538.34	1196.68	40677.62	2440.66	5784.53			1903.98	2221.31	159.73		

PAVEMENT CALCULATIONS - RAMPS

DESIGN AGENCY



DESIGNER
MJS


REVIEWER
MJM

PROJECT ID
117367

SHEET TOTAL
P.37 | 258

LOCATION	PAVEMENT						202		302		304		321		407		441		442		609	618	
	STATION		SIDE	DISTANCE (D) FT	AVERAGE WIDTH (W) FT	SURFACE AREA (A) A=DxW/9 SY	CADD GENERATED AREA SY	PAVEMENT REMOVED SY	CONCRETE MEDIAN REMOVED SY	ASPHALT CONCRETE BASE, PG64-22, (449) T = 4" CY	ASPHALT CONCRETE BASE, PG64-22, (449) T = 11" CY	AGGREGATE BASE T = 3" CY	AGGREGATE BASE T = VAR. CY	AGGREGATE BASE T = 7.25" CY	CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT, AS PER PLAN T = 12.5" SY	TACK COAT, 702.13 0.06 GAL/SY GAL	NON-TRACKING TACK COAT 0.06 GAL/SY GAL	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = 1.75" CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) T = VAR. CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447) T = 1.5" CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446) T = 1.75" CY	CONCRETE MEDIAN CY	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) FT
	FROM	TO																					
COUNTY ROAD AT-GRADE INTERSECTIONS WITH U.S.24	COUNTY ROAD 115 1470+72.60					3546.64			394.07					74.15	3546.64	212.80	425.60			147.78	172.41		
						345.25											31.07	13.31	10.58	14.39			
						350.94											31.58	13.53	10.76	14.62			
	COUNTY ROAD 232 1556+50.00					3666.86			407.43					69.67	3666.86	220.01	440.02			152.79	178.25		
						349.12											31.42	13.46	10.70	14.55			
						434.06											39.07	16.73	13.30	18.09			
	COUNTY ROAD 133 1580+82.20					3530.68			392.30					69.67	3530.68	211.84	423.68			147.11	171.63		
						315.09											28.36	12.15	9.66	13.13			
						350.80											31.57	13.52	10.75	14.62			
	COUNTY ROAD 143 1694+55.89					3527.91			391.99					69.67	3527.91	211.67	423.35			147.00	171.50		
						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	693.78			
SUBTOTALS FROM SHEET 37							5017.86	561.00	4582.07	1577.14	46.75	538.34	1196.68	40677.62	2440.66	5784.53			1903.98	2221.31	159.73		
SUBTOTALS FROM SHEET 36							29504.47		48012.47	9275.76		2668.18	9138.40	432112.19	25926.73	57164.27			19234.03	22439.70		208790.78	
TOTALS CARRIED TO THE GENERAL SUMMARY							34522	561	65033			13872		487062	29224	64915	195	21850	25355	160	208791		

PAVEMENT CALCULATIONS - AT-GRADE INTERSECTIONS

DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
 117367
 SHEET TOTAL
 P.38 | 258

REF. NO.	SHEET NO.	STATION		SIDE (IN DIRECTION OF TRAVEL)	202	609	609	609
		FROM	TO		CURB REMOVED	CURB, TYPE 4-C	CURB, MISC.: TYPE 4-A RETROFIT APPROACH SLABS	CURB, MISC.: TYPE 4-A RETROFIT CRACK AND SEAT
					FT	FT	FT	FT
U.S. 24 EASTBOUND								
C1	57	1414+80.00	1415+72.93	RT	92.9	92.9		
C2	57	1415+72.93	1416+10.78	RT			37.9	
C3	57	1414+80.00	1415+35.13	LT	55.1	55.1		
C4	57	1415+35.13	1415+72.53	LT			37.4	
C5	57	1417+01.06	1417+38.45	RT			37.4	
C6	57	1417+38.45	1417+95.06	RT	56.6	56.6		
C7	57	1416+62.80	1417+00.65	LT			37.9	
C8	57	1417+00.65	1417+12.58	LT	11.9	11.9		
C18	92	1805+11.22	1805+34.15	RT	22.9	22.9		
C19	92	1805+34.15	1805+70.85	RT			36.7	
C20	92	1805+30.00	1805+52.60	LT	22.6	22.6		
C21	92	1805+52.60	1805+90.17	LT			37.6	
C22	92	1806+61.59	1806+97.02	RT			35.4	
C23	92	1806+97.02	1810+50.00	RT	353.0	353.0		
C24	92	1806+82.84	1807+18.39	LT			35.6	
C25	92	1807+18.39	1807+70.05	LT	51.7	51.7		
C34	100	1879+98.40	1880+28.15	RT			29.8	
C35	100	1879+63.88	1879+93.24	LT			29.4	
C36	100	1882+68.11	1883+05.69	RT			37.6	
C37	100	1883+05.69	1884+02.82	RT	97.1	97.1		
C38	100	1882+32.18	1882+62.05	LT			29.9	
U.S. 24 WESTBOUND								
C9	57	1414+80.00	1414+91.93	LT	11.9	11.9		
C10	57	1414+91.93	1415+29.78	LT			37.9	
C11	57	1414+03.52	1414+54.13	RT	50.6	50.6		
C12	57	1414+54.13	1414+91.52	RT			37.4	
C13	57	1416+20.05	1416+57.45	LT			37.4	
C14	57	1416+57.45	1417+12.58	LT	55.1	55.1		
C15	57	1415+81.80	1416+19.65	RT			37.9	
C16	57	1416+19.65	1419+47.47	RT	327.8	327.8		
C17	59	1419+47.47	1426+94.50	RT	747.0			747.0
C26	92	1805+30.00	1805+74.41	LT	44.4	44.4		
C27	92	1805+74.41	1806+12.53	LT			38.1	
C28	92	1805+30.00	1805+94.18	RT	64.2	64.2		
C29	92	1805+94.18	1806+33.25	RT			39.1	
C30	92	1807+06.82	1807+43.69	LT			36.9	
C31	92	1807+43.69	1807+70.04	LT	26.4	26.4		
C32	92	1807+29.33	1807+66.64	RT			37.3	
C33	92	1807+66.64	1808+01.80	RT	35.2	35.2		
C39	100	1879+26.57	1879+56.33	LT			29.8	
C40	98,100	1872+54.00	1878+61.18	RT	607.2	607.2		
C41	100	1878+61.18	1878+98.21	RT			37.0	
C42	100	1881+94.76	1882+24.03	LT			29.3	
C43	100	1881+36.58	1881+73.68	RT			37.1	
C44	100	1881+73.68	1881+86.16	RT	12.5	12.5		
RAMP SR424 B								
C45	116	1883+05.50	1892+44.50	RT	934.0	934.0		
TOTALS CARRIED TO GENERAL SUMMARY					3680	2933	857	747

REF. NO.	SHEET NO.	STATION	611	611
			CATCH BASIN ADJUSTED TO GRADE	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN
			EACH	EACH
D1	59	1418+50.00	1	
D2	59	1424+50.00	1	
D3	63	1467+50.00		1
D4	64	1474+00.00		1
D5	70	1551+50.00		1
D6	72	1577+50.00		1
D7	73	1584+50.00		1
D8	92	1808+00.00	1	
D9	92	1810+50.00	1	
D10	98	1876+50.00	1	
D11	100	1882+00.00	1	
D12	100	1884+00.00	1	
D13	115	1873+50.00	1	
D14	115	1877+50.00	1	
D15	116	1884+25.00	1	
TOTALS CARRIED TO GENERAL SUMMARY			10	5

SUBSUMMARY

DESIGN AGENCY



DESIGNER
MJS

REVIEWER

MJM 10-13-23



PROJECT ID

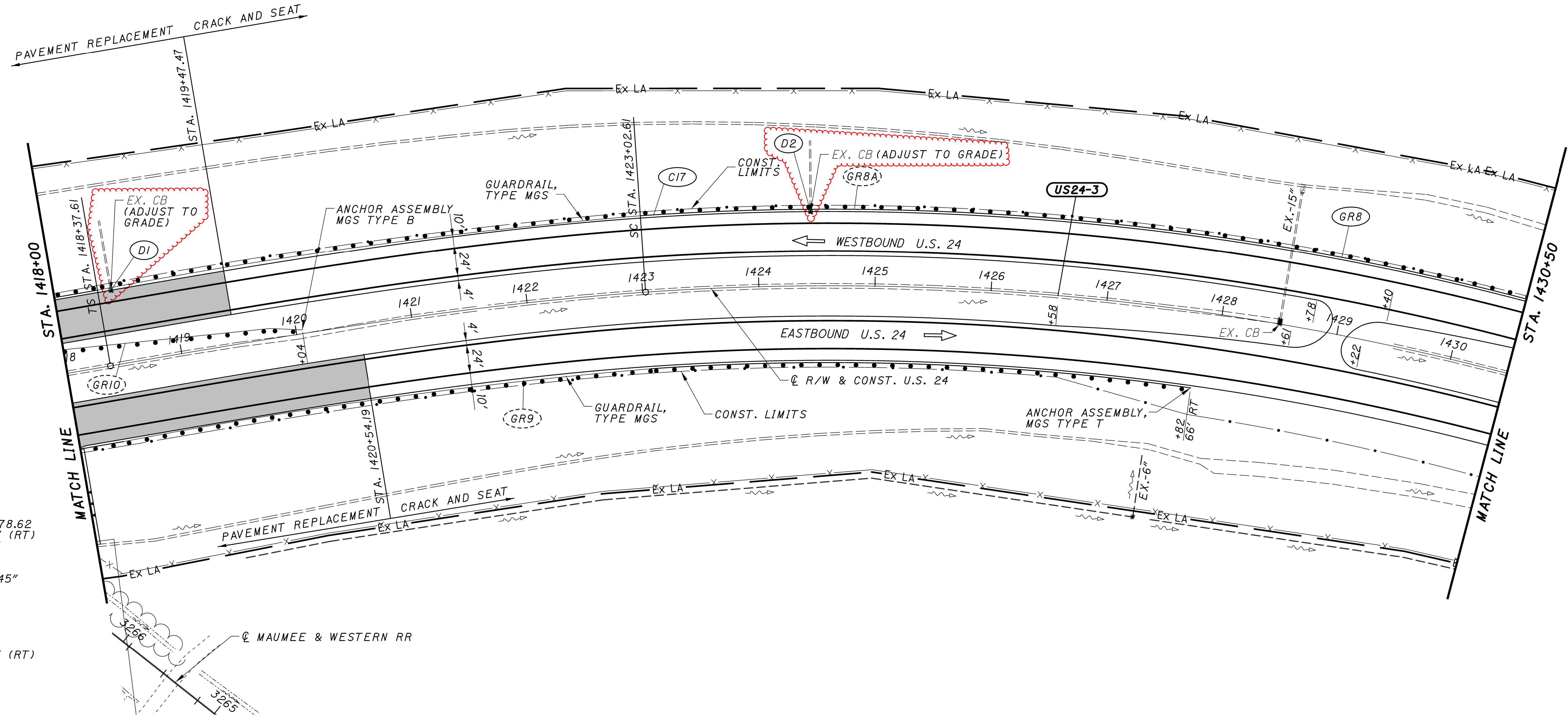
117367

SHEET TOTAL

P.41A 258

CURVE US24-3
 P.I. Sta = 1434+78.62
 D = 63° 03' 48" (RT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Dc = 51° 26' 18" (RT)
 Lc = 2,057.53'
 Ts = 1,641.01'
 Es = 401.61'
 eMAX = 0.077

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
122-123	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET



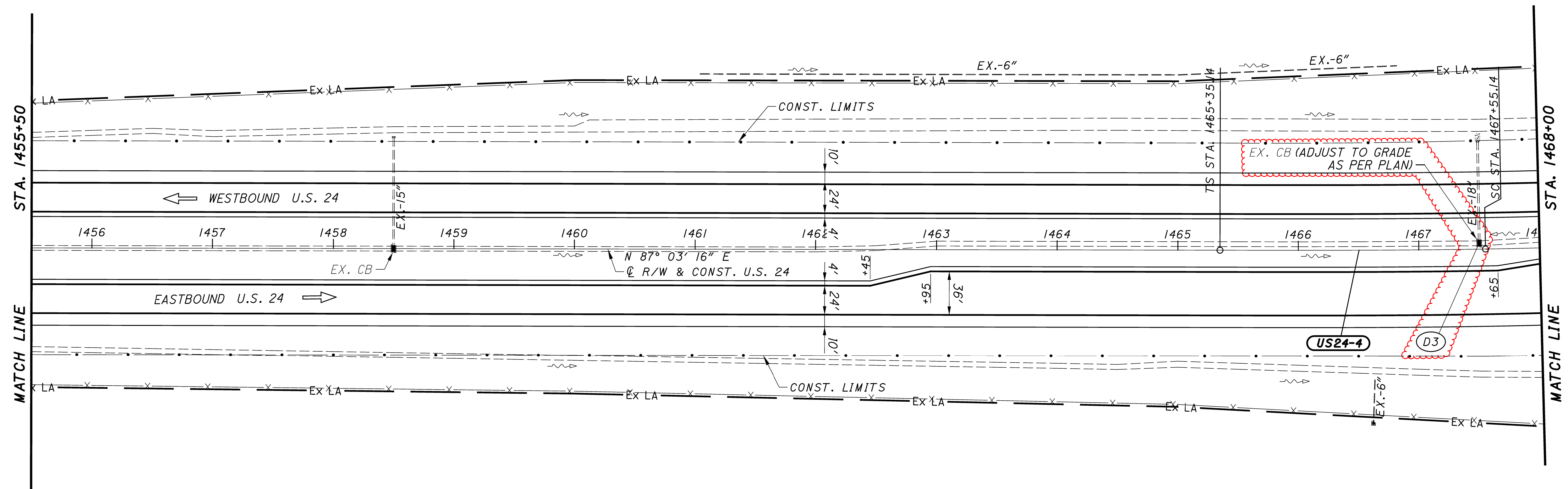
PLAN - U.S. 24
 STA. 1418+00 TO STA. 1430+50

DESIGN AGENCY



DESIGNER
MJS
 REVIEWER
MJM 10-13-23
 PROJECT ID
117367
 SHEET TOTAL
 P.59 | 258

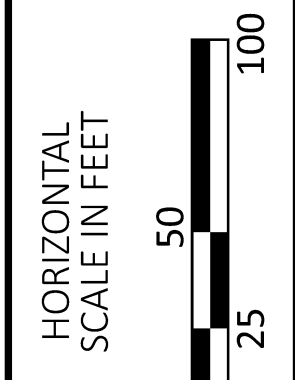
CURVE US24-4
 P.I. Sta = 1472+14.86
 $\Delta = 11^\circ 21' 23''$ (LT)
 $Dc = 1^\circ 00' 00''$
 $R = 5,729.58'$
 $Ls = 220.00'$
 $Theta = 1^\circ 06' 00''$
 $LT = 146.67'$
 $ST = 73.34'$
 $x = 219.99'$
 $y = 1.41'$
 $k = 110.00'$
 $p = 0.35'$
 $\Delta c = 9^\circ 09' 23''$ (LT)
 $Lc = 915.63'$
 $Ts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



LEGEND:

 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
126-129	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET






PLAN - U.S. 24
 STA. 1455+50 TO STA. 1468+00

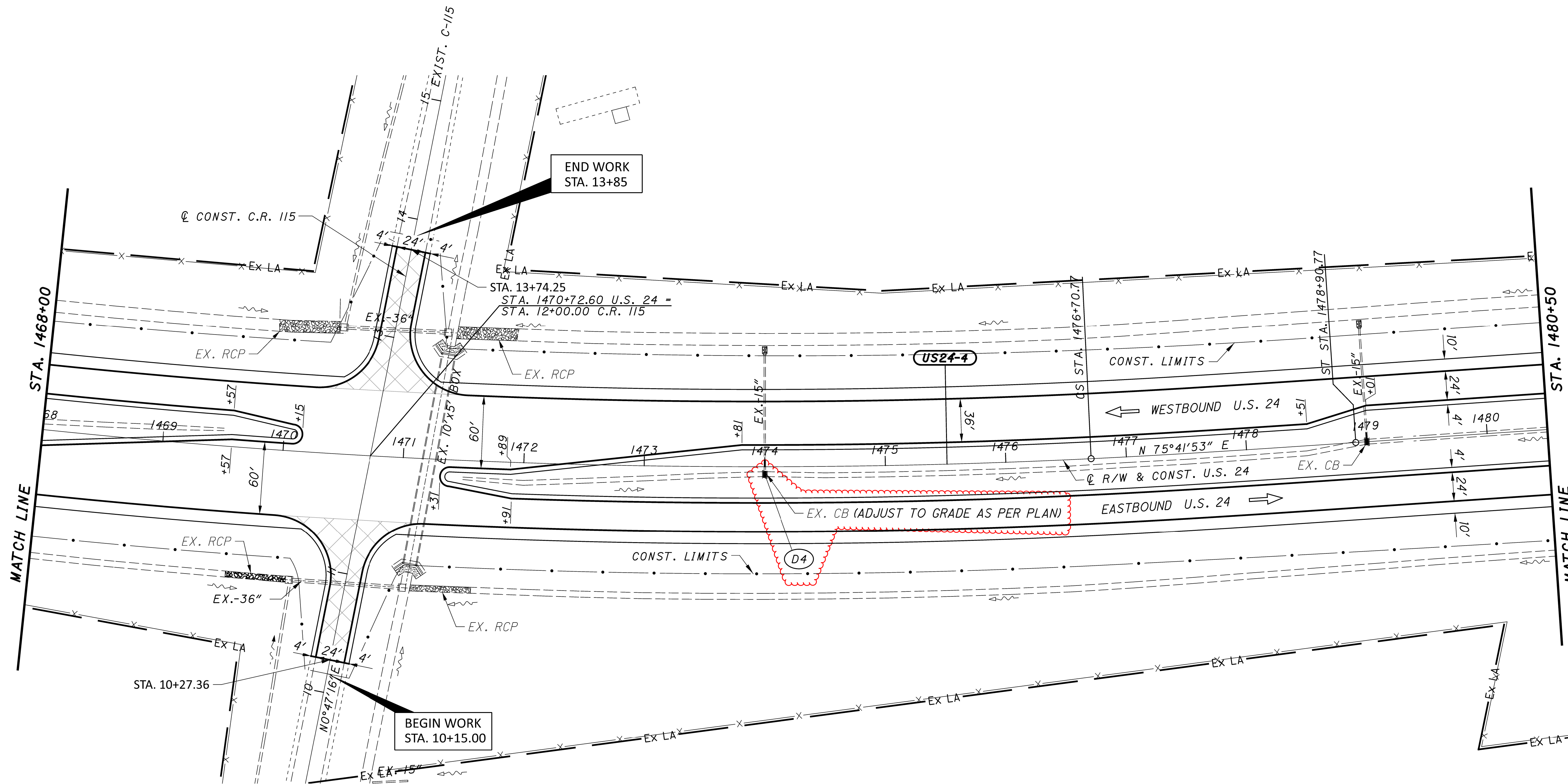
DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
 117367
 SHEET TOTAL
 P.63 258

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

LEGEND:

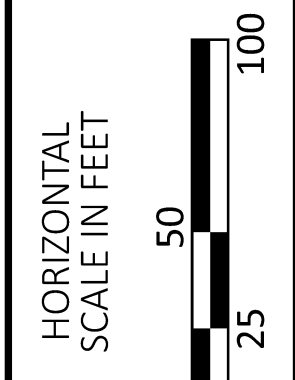
-  - PAVEMENT REPLACEMENT
-  - TOTAL CARRIED FROM ADJACENT SHEET
-  - PAVEMENT TRANSITION SEE SHEETS 174, 175



END WORK
 STA. 13+85


BEGIN WORK
 STA. 10+15.00

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



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

DESIGN AGENCY


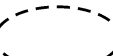


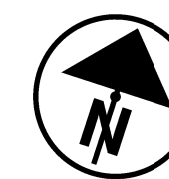
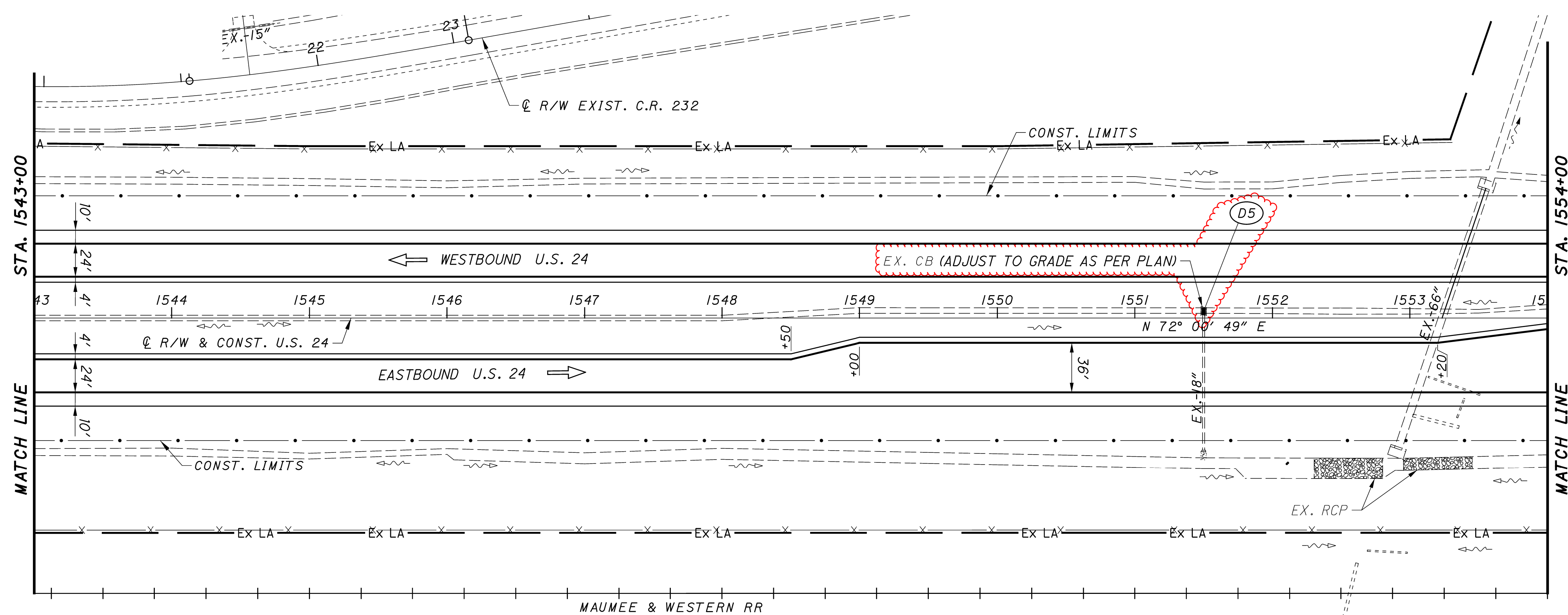
DESIGNER
 MJS

REVIEWER
 MJM 10-13-23

PROJECT ID
 117367

SHEET TOTAL
 P.64 258

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET



PLAN - U.S. 24
 STA. 1543+00 TO STA. 1554+00

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
138-141	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET

DESIGN AGENCY



DESIGNER

MJS

REVIEWER



MJM 10-13-23

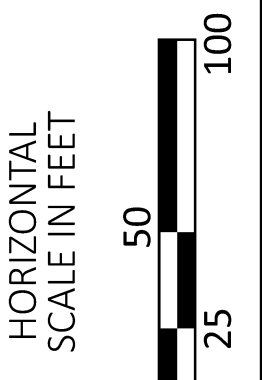
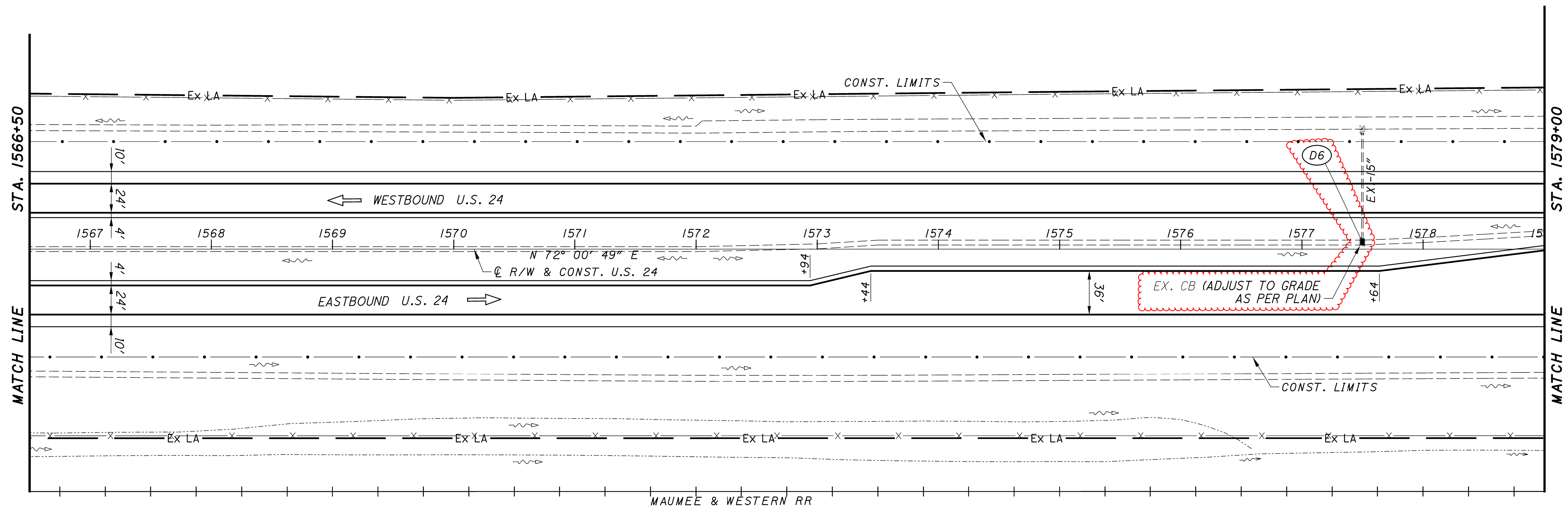
PROJECT ID

117367

SHEET TOTAL

P.70 258

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET







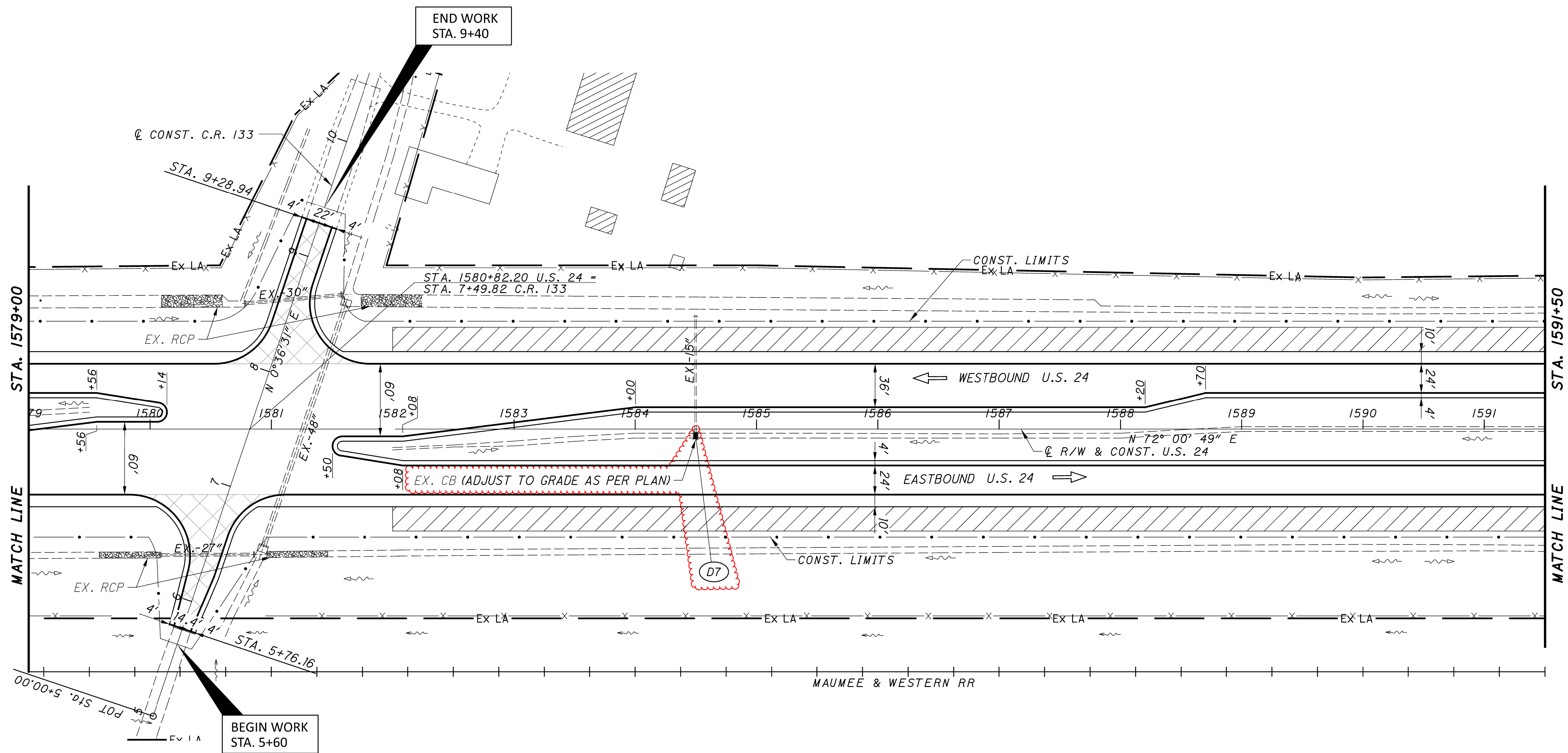
PLAN - U.S. 24
 STA. 1566+50 TO STA. 1579+00

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
149-152	CROSS SECTIONS
9-19	TYPICAL SECTIONS
170-173	SUPERELEVATION TABLE
41	ESTIMATED QUANTITY SHEET

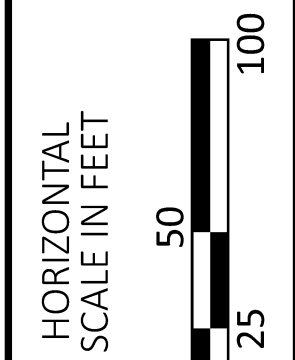
DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
 117367
 SHEET TOTAL
 P.72 258

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



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



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

DESIGN AGENCY



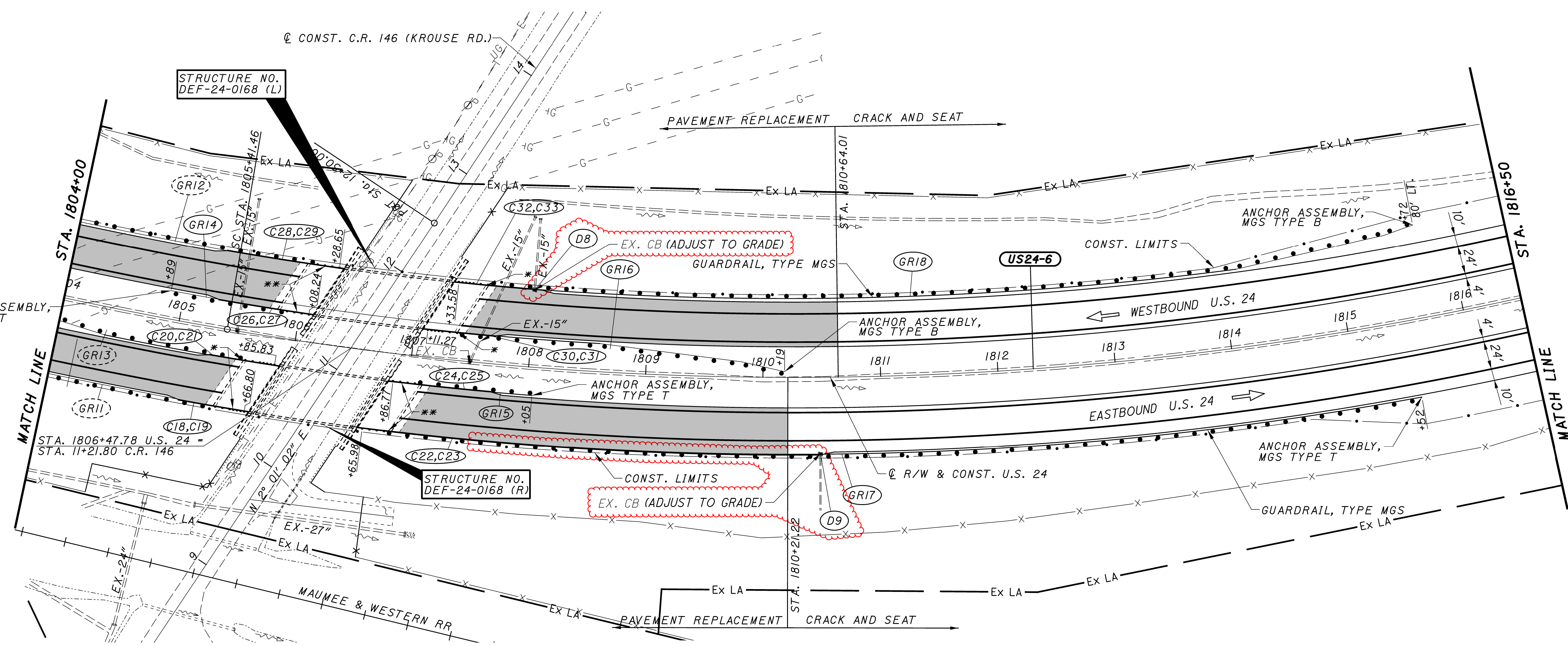
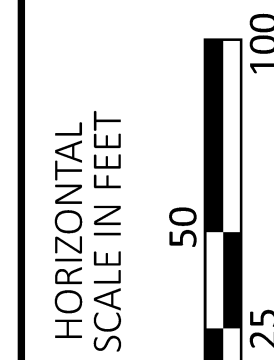
DESIGNER
 MJS

REVIEWER
 MJM 10-13-23

PROJECT ID
 117367

SHEET TOTAL
 P.73 258

CURVE US24-6
 P.I. Sta = 1813+84.53
 D = 39° 59' 04" (LT)
 Dc = 2° 00' 00"
 R = 2,864.79'
 Ls = 400.00'
 Theta = 4° 00' 00"
 LT = 266.73'
 ST = 133.40'
 x = 399.81'
 y = 9.31'
 k = 199.97'
 p = 2.33'
 Dc = 31° 59' 04" (LT)
 Lc = 1,599.22'
 Ts = 1,243.07'
 Es = 186.18'
 eMAX = 0.066



- * MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
- ** MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET

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

PLAN - U.S. 24
 STA. 1804+00 TO STA. 1816+50


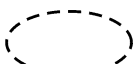
DESIGN AGENCY

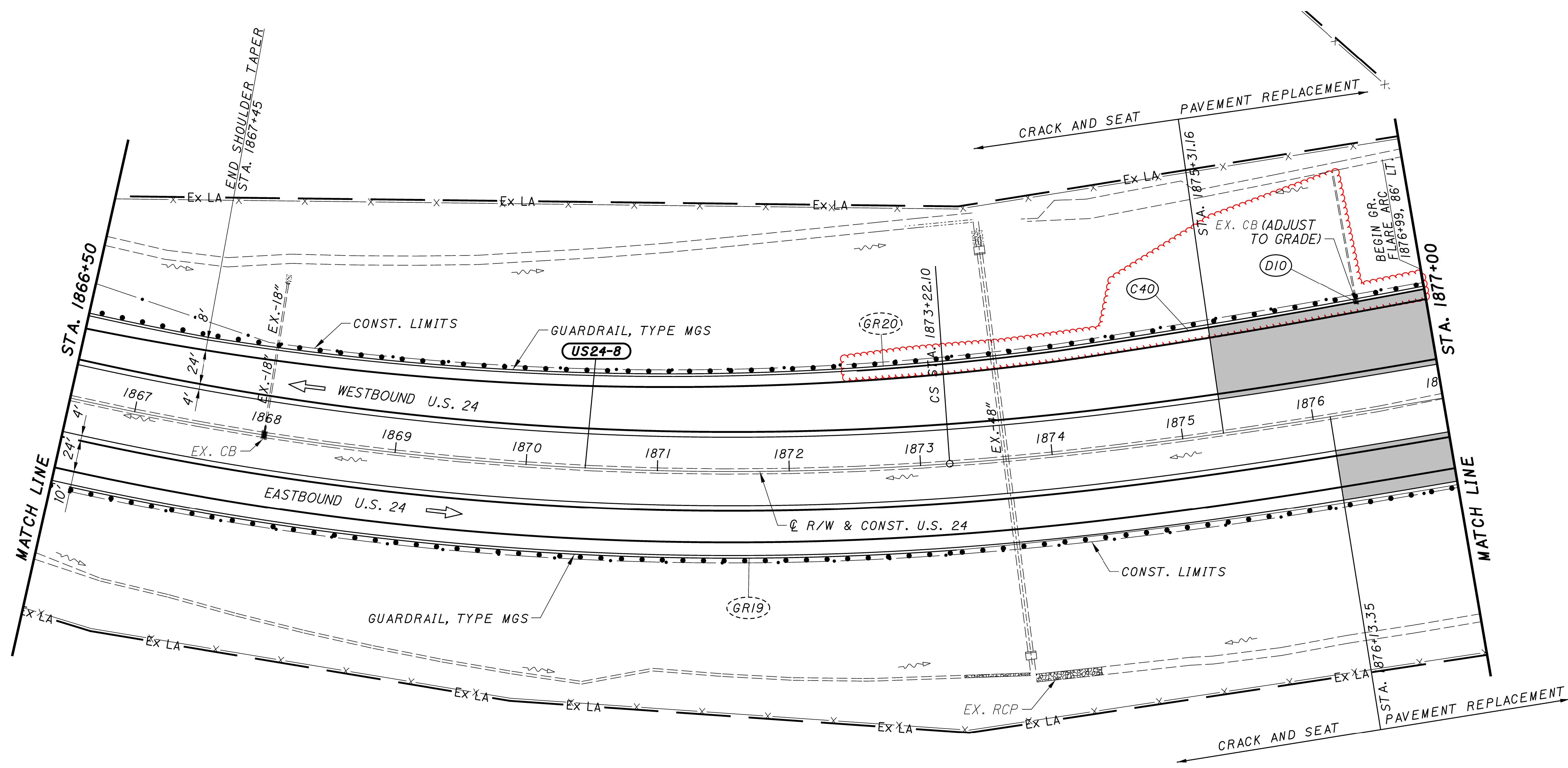
DESIGNER
 MJS

REVIEWER
 MJM 10-13-23

PROJECT ID
 117367

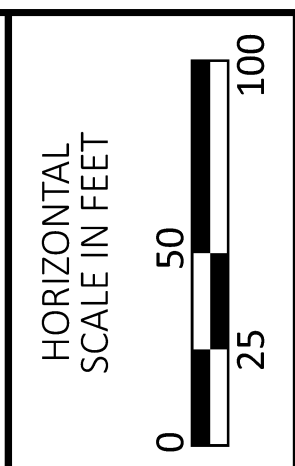
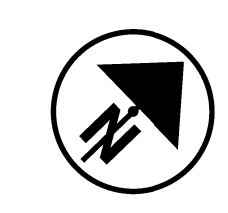
SHEET TOTAL
 P.92 258

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET



CURVE US24-8
 P.I. Sta = 1868+77.95
 D = 35° 01' 23" (LT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Dc = 23° 23' 53" (LT)
 Lc = 935.92'
 Ts = 956.78'
 Es = 115.49'
 eMAX = 0.077

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



PLAN - U.S. 24
STA. 1866+50 TO STA. 1877+00

DESIGN AGENCY



DESIGNER
MJS

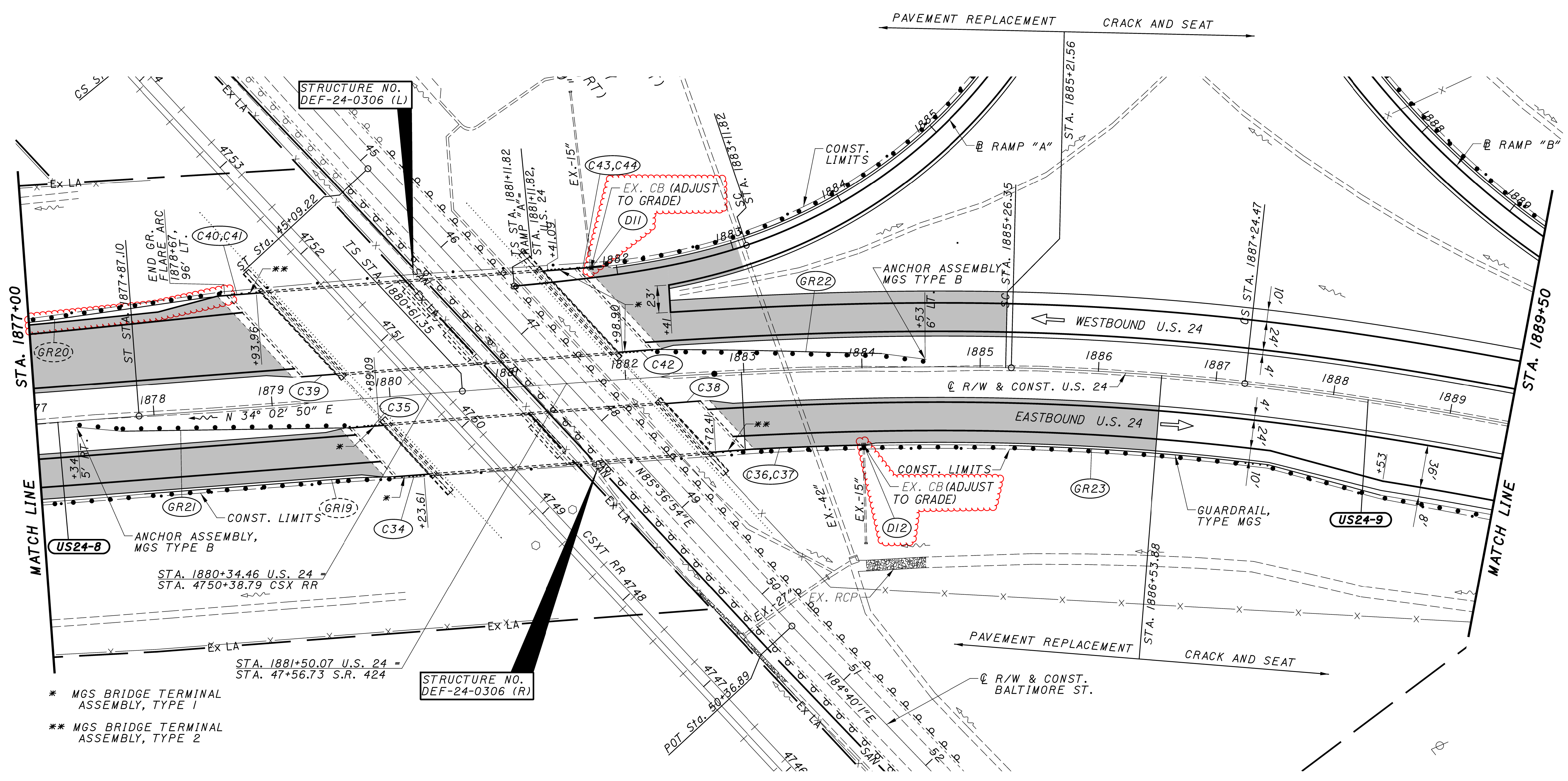
REVIEWER
MJM

PROJECT ID
10-13-23
117367

SHEET TOTAL
P.98 | **258**

CURVE US24-8
 P.I. Sta = 1868+77.95
 D = 35° 01' 23" (LT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Dc = 23° 23' 53" (LT)
 Lc = 935.92'
 Ts = 956.78'
 Es = 115.49'
 eMAX = 0.077

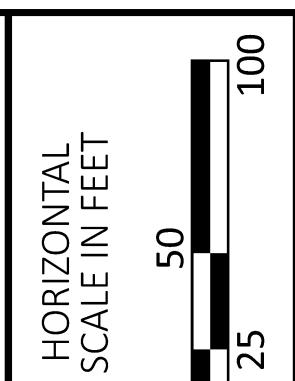
CURVE US24-9
 P.I. Sta = 1886+28.24
 D = 16° 34' 41" (RT)
 Dc = 2° 30' 00"
 R = 2,291.83'
 Ls = 465.00'
 Theta = 5° 48' 45"
 LT = 310.17'
 ST = 155.15'
 x = 464.52'
 y = 15.71'
 k = 232.42'
 p = 3.93'
 Dc = 4° 57' 11" (RT)
 Lc = 198.12'
 Ts = 566.89'
 Es = 28.17'
 eMAX = 0.077



- * MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
- ** MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2

LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET

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



PLAN - U.S. 24
 STA. 1877+00 TO STA. 1889+50

DESIGN AGENCY

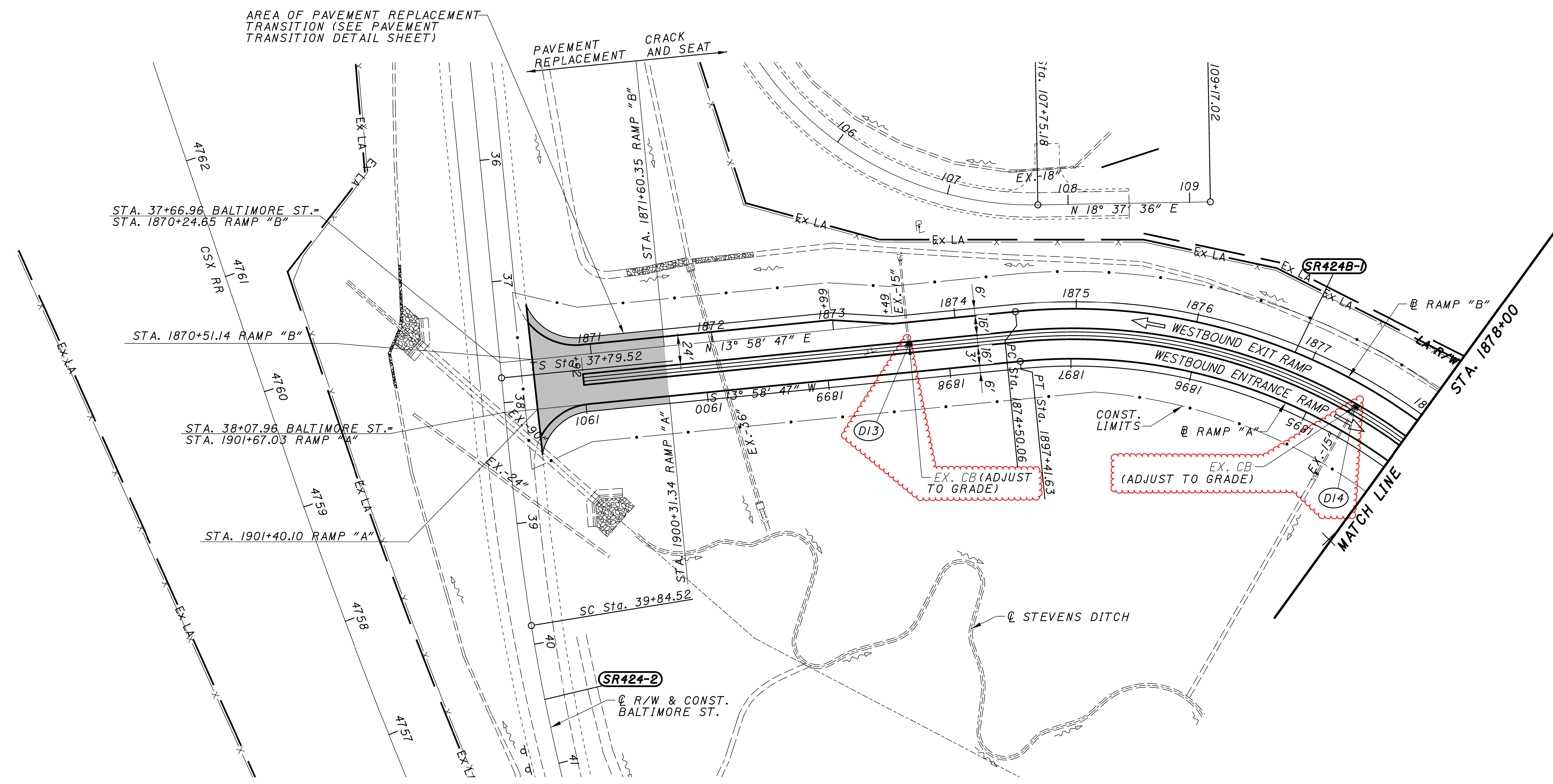
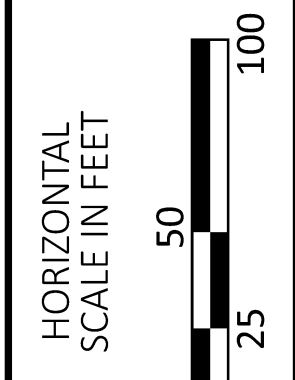
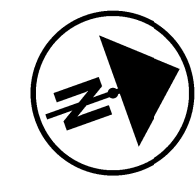
DESIGNER
 MJS

REVIEWER
 MJM 10-13-23

PROJECT ID
 117367

SHEET TOTAL
 P.100 258

CURVE SR424B-1
 P.I. Sta = 1879+47.24
 D = 91° 44' 32" (RT)
 Dc = 11° 52' 48"
 R = 482.29'
 T = 497.18'
 L = 772.24'
 E = 210.38'
 eMAX = 0.058



LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET



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

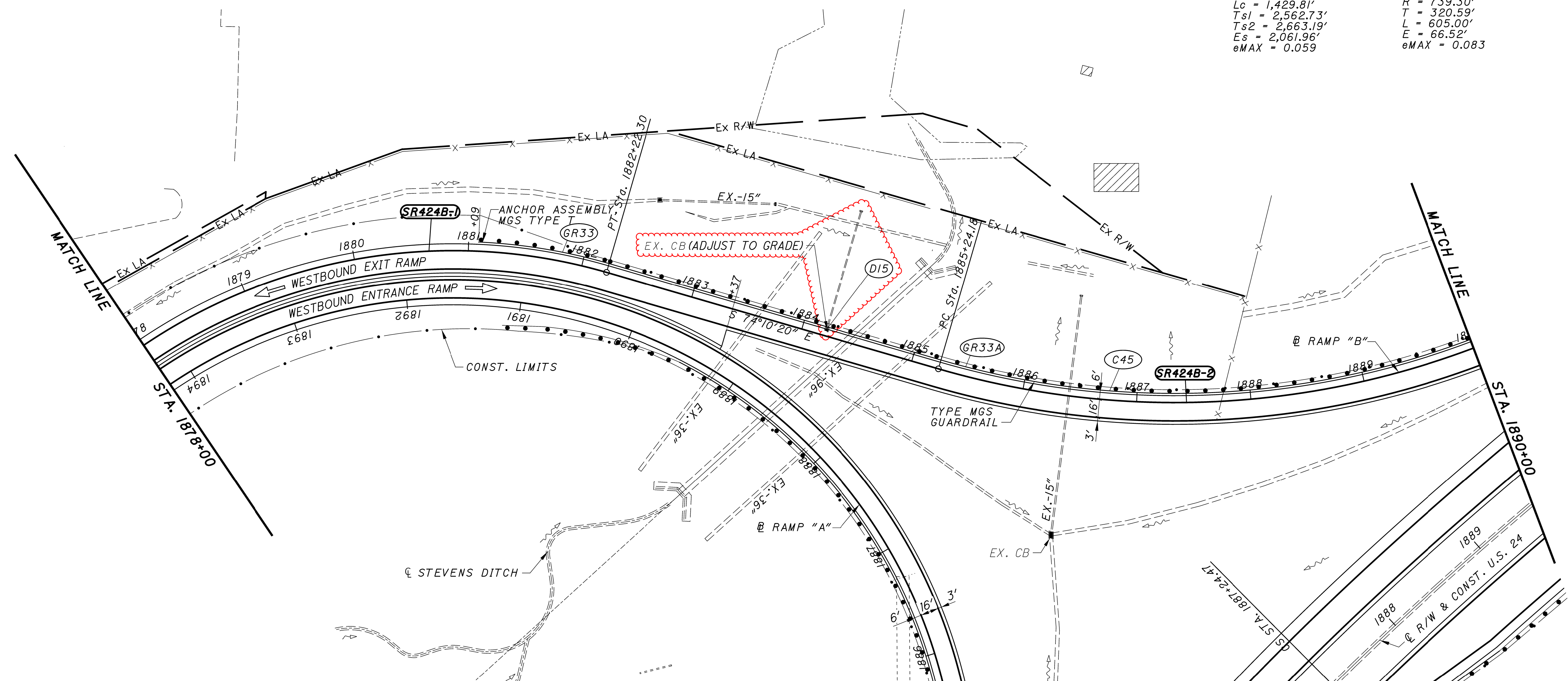
PLAN - BALTIMORE ST. RAMP "B"
STA. 1870+25.73 TO STA. 1878+00

DESIGN AGENCY



DESIGNER
MJS
 REVIEWER
MJM 10-13-23
 PROJECT ID
117367
 SHEET TOTAL
 P.115 | 258

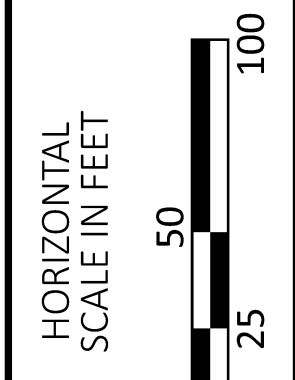
LEGEND:
 - PAVEMENT REPLACEMENT
 - TOTAL CARRIED FROM ADJACENT SHEET



CURVE SR424A-1
 P.I. Sta = 1906+74.55
 D = 198° 52' 30" (LT)
 Dc = 13° 00' 00"
 R = 440.74'
 Lsl = 200.00'
 Theta = 13° 00' 00"
 LT1 = 133.69'
 ST1 = 67.00'
 xl = 198.97'
 yl = 15.07'
 kl = 99.83'
 pl = 3.77'
 Lc = 1,429.81'
 Tsl = 2,562.73'
 Ts2 = 2,663.19'
 Es = 2,061.96'
 eMAX = 0.059


CURVE SR424B-1
 P.I. Sta = 1879+47.24
 D = 91° 44' 32" (RT)
 Dc = 11° 52' 48"
 R = 482.29'
 T = 497.18'
 L = 772.24'
 E = 210.38'
 eMAX = 0.058

CURVE SR424B-2
 P.I. Sta = 1888+44.78
 D = 46° 53' 15" (LT)
 Dc = 7° 45' 00"
 R = 739.30'
 T = 320.59'
 L = 605.00'
 E = 66.52'
 eMAX = 0.083

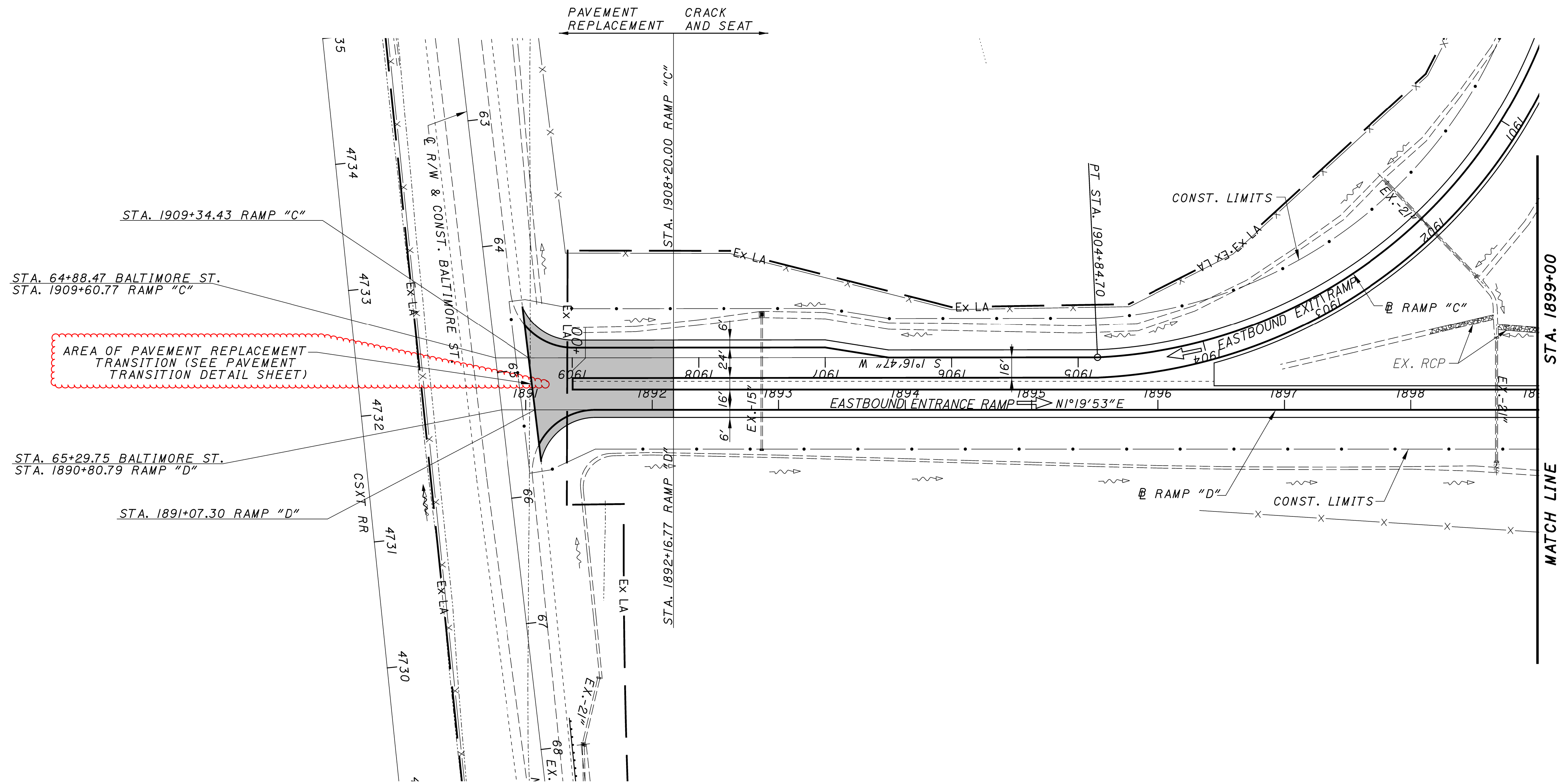


PLAN - BALTIMORE ST. RAMP "B"
 STA. 1878+00 TO STA. 1890+00

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

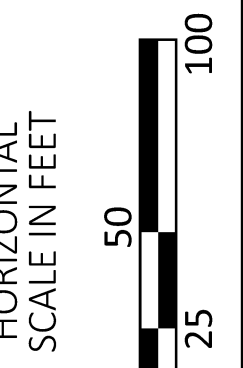
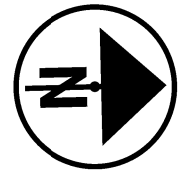
DESIGN AGENCY

 DESIGNER: MJS
 REVIEWER: MJM
 PROJECT ID: 117367
 SHEET TOTAL: P.116 | 258

CURVE SR424C-2
 P.I. Sta = 1902+74.66
 D = 105° 13' 08" (RT)
 Dc = 14° 24' 14"
 R = 397.78'
 T = 520.45'
 L = 730.49'
 E = 257.28'
 eMAX = 0.060



LEGEND:
 [Grey Shaded Area] - PAVEMENT REPLACEMENT
 [Red Dashed Line] - TOTAL CARRIED FROM ADJACENT SHEET

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



PLAN - BALTIMORE ST. RAMP "D"
 STA. 1890+80.79 TO STA. 1899+00

DESIGN AGENCY



DESIGNER

MJS

REVIEWER

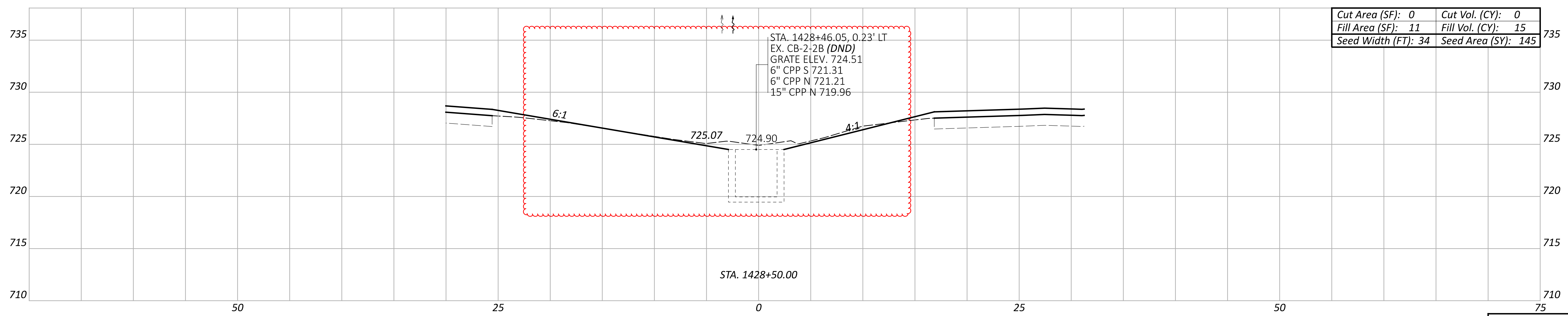
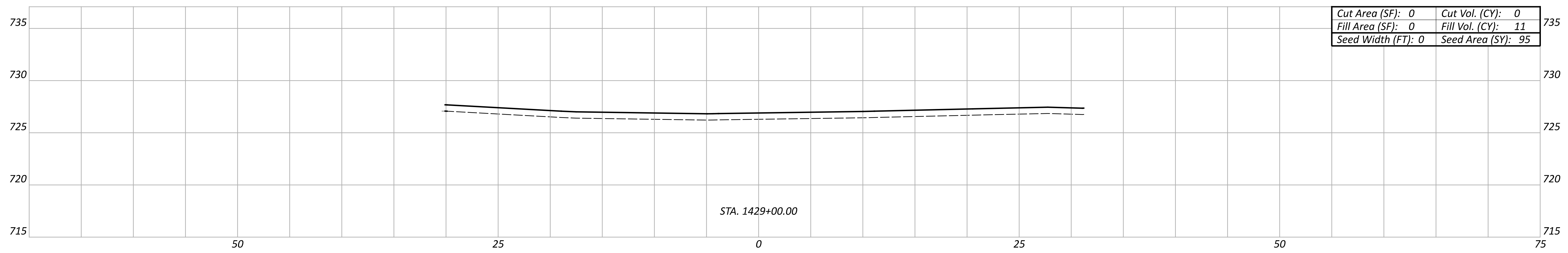
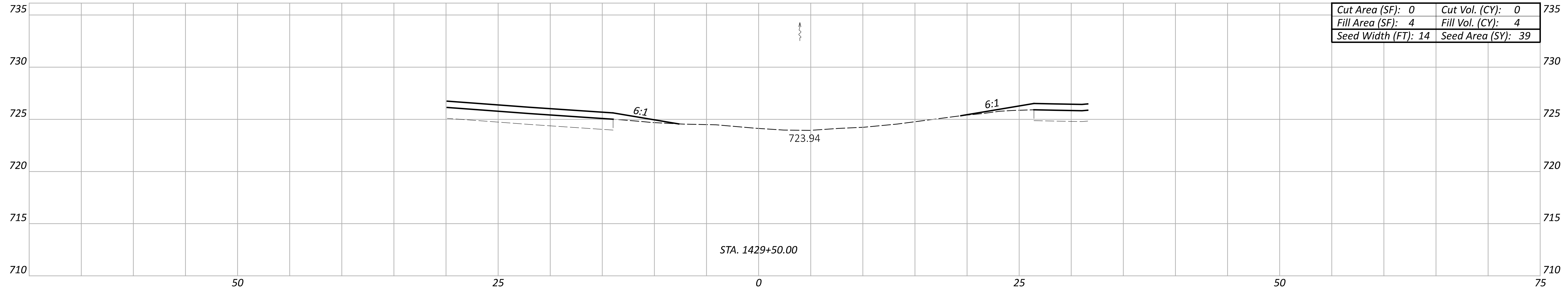
MJM 10-13-23

PROJECT ID

117367


SHEET TOTAL

P.120 258

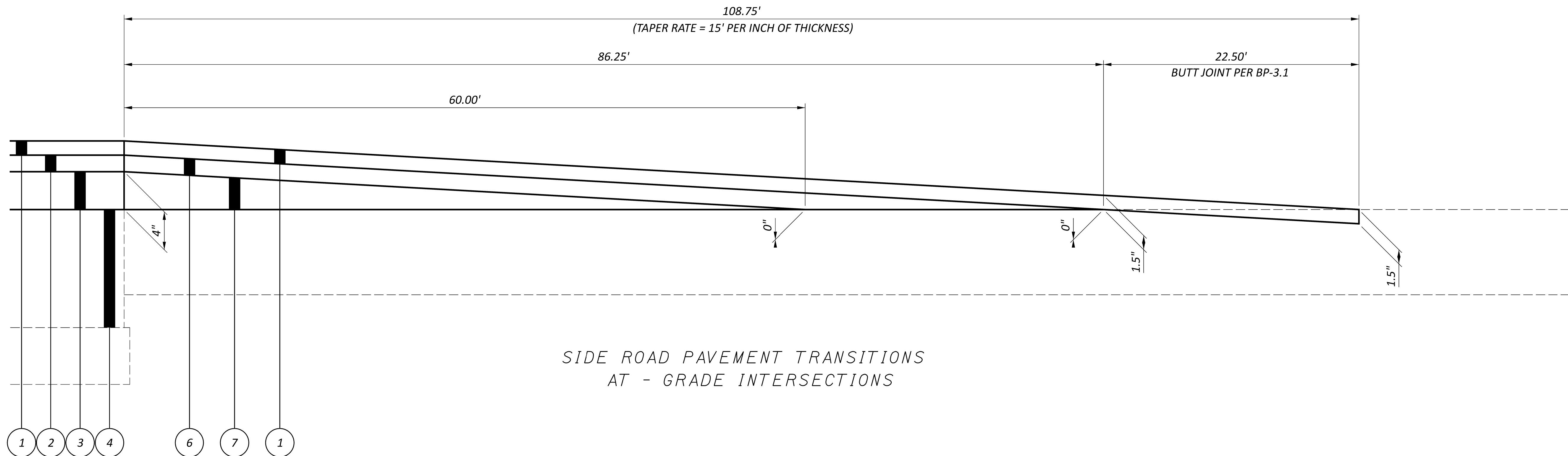


STA. 1428+46.05, 0.23' LT
 EX. CB-2-2B (DND)
 GRATE ELEV. 724.51
 6" CPP S 721.31
 6" CPP N 721.21
 15" CPP N 719.96

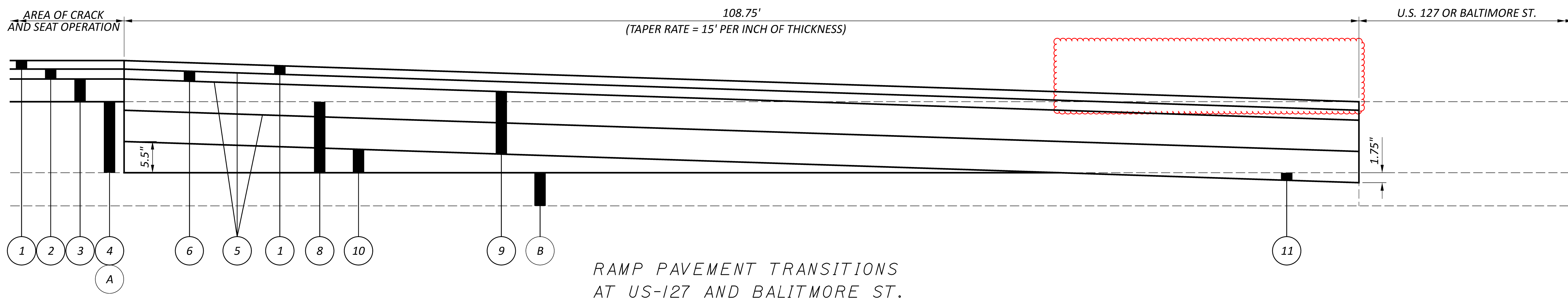
U.S. 24 - CROSS SECTIONS (EMERGENCY TURNAROUND) (MEDIAN AT C.R. 115)
 STA. 1428+50.00 TO STA. 1429+50.00

DESIGN AGENCY

 DESIGNER
 MJS
 REVIEWER
 MJM 10-13-23
 PROJECT ID
 117367

Sheet Totals			TOTAL	
Seeding	Cut	Fill	SHEET	TOTAL
279	0	30	P.123	258



SIDE ROAD PAVEMENT TRANSITIONS
 AT - GRADE INTERSECTIONS

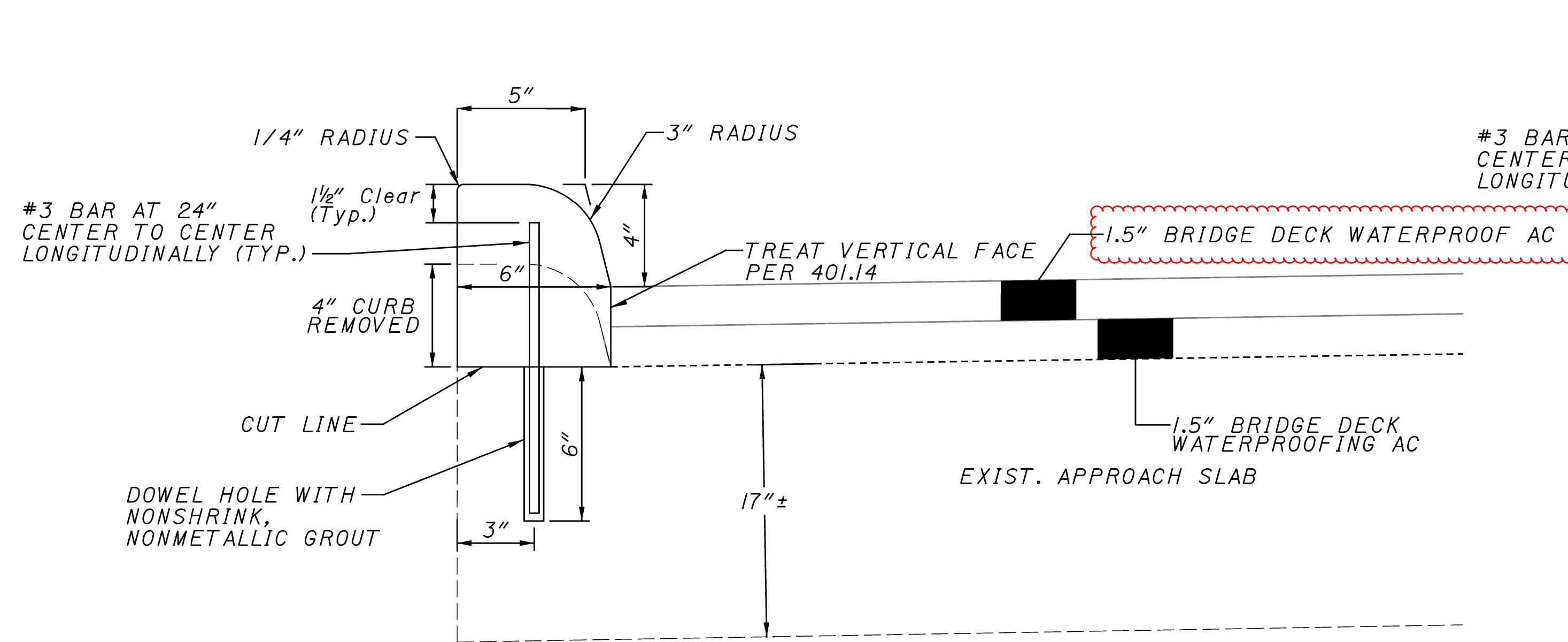


RAMP PAVEMENT TRANSITIONS
 AT US-127 AND BALITMORE ST.

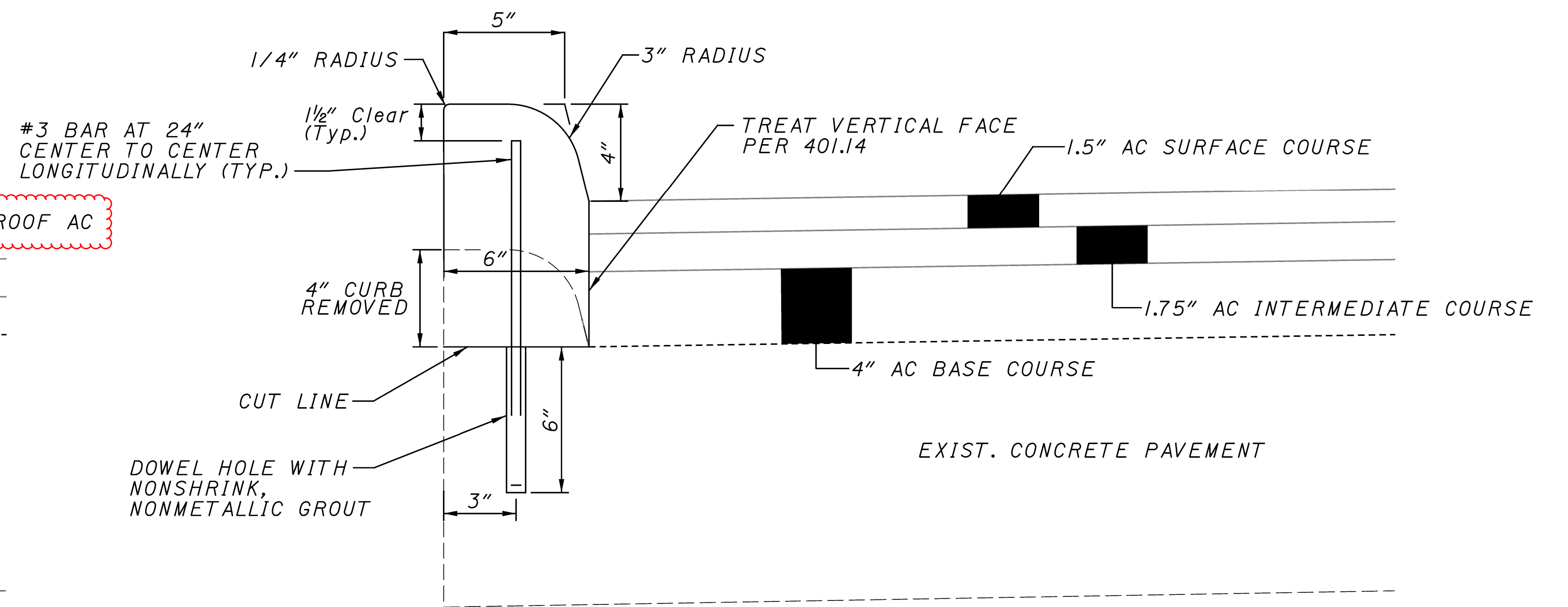
- 1 ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (447)
- 2 ITEM 442 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5mm, TYPE A (446)
- 3 ITEM 302 - 4" ASPHALT CONCRETE BASE, PG64-22, (449)
- 4 ITEM 321 - 12.5" CRACKING AND SEATING NON-REINFORCED CONCRETE PAVEMENT
- 5 ITEM 407 - NON-TRACKING TACK COAT
- 6 ITEM 441 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
- 7 ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (T = VARIES 4" TO 0")

- 8 ITEM 202 - PAVEMENT REMOVED
- 9 ITEM 302 - 11" ASPHALT CONCRETE BASE COURSE, PG64-22, (449)
- 10 ITEM 304 - AGGREGATE BASE (T = VARIES 5.5" TO 0")
- 11 ITEM 202 - AGGREGATE BASE REMOVED (T = VARIES 0" TO 1.75")

- EXISTING LEGEND
- A ± 12.5" NON-REINFORCED CONCRETE
 - B ± 6" AGGREGATE BASE

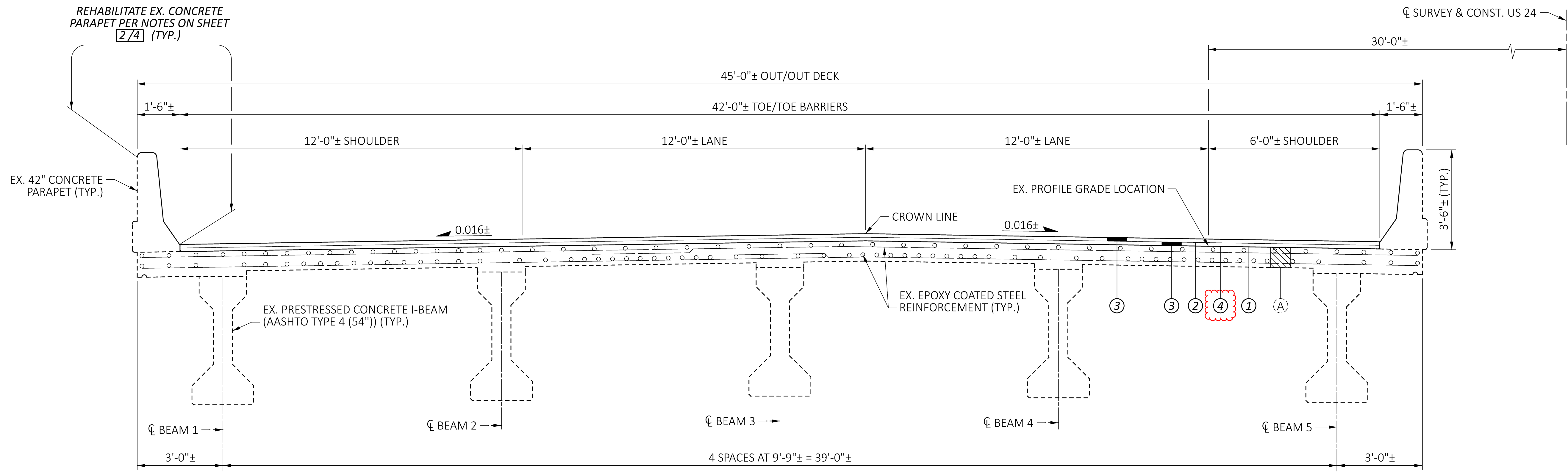


ITEM 609 - CURB, MISC.: TYPE
 4-A RETROFIT APPROACH SLABS

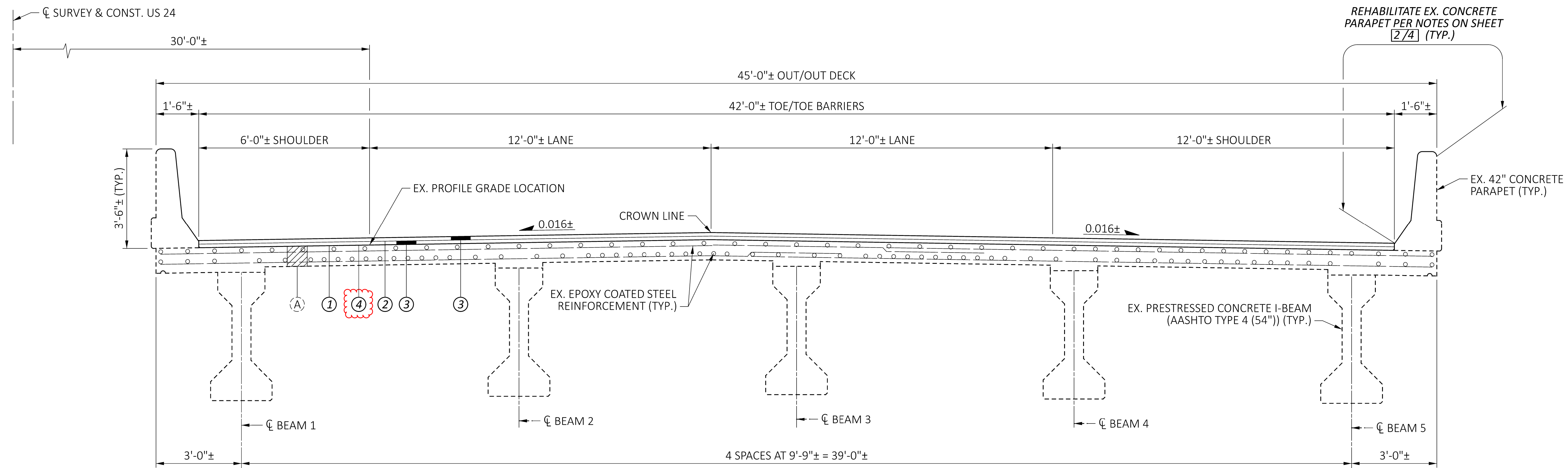


ITEM 609 - CURB, MISC.: TYPE
 4-A RETROFIT CRACK AND SEAT





TRANSVERSE SECTION - WESTBOUND - SFN 6300294 (LT)



TRANSVERSE SECTION - EASTBOUND - SFN 6300308 (RT)

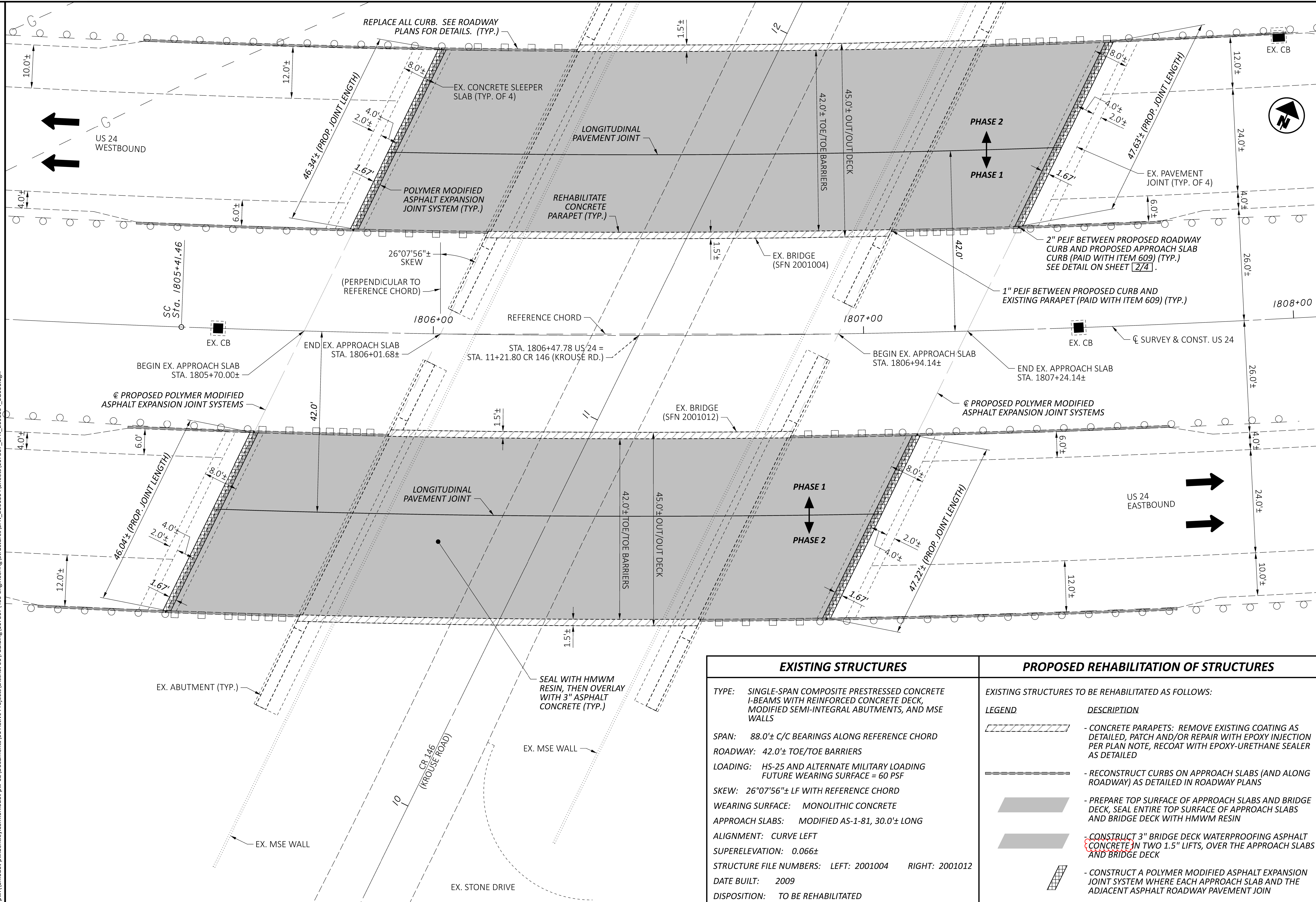
LEGEND:

- (A) 8 1/2"± EXISTING CONCRETE DECK THICKNESS
- ① ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN
- ② ITEM 407 - NON-TRACKING TACK COAT
- ③ ITEM 856 - 1 1/2" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE
- ④ ITEM 407 - TACK COAT, 702.13

SFN	6300294 (LT)
SFN	6300308 (RT)
DESIGN AGENCY	



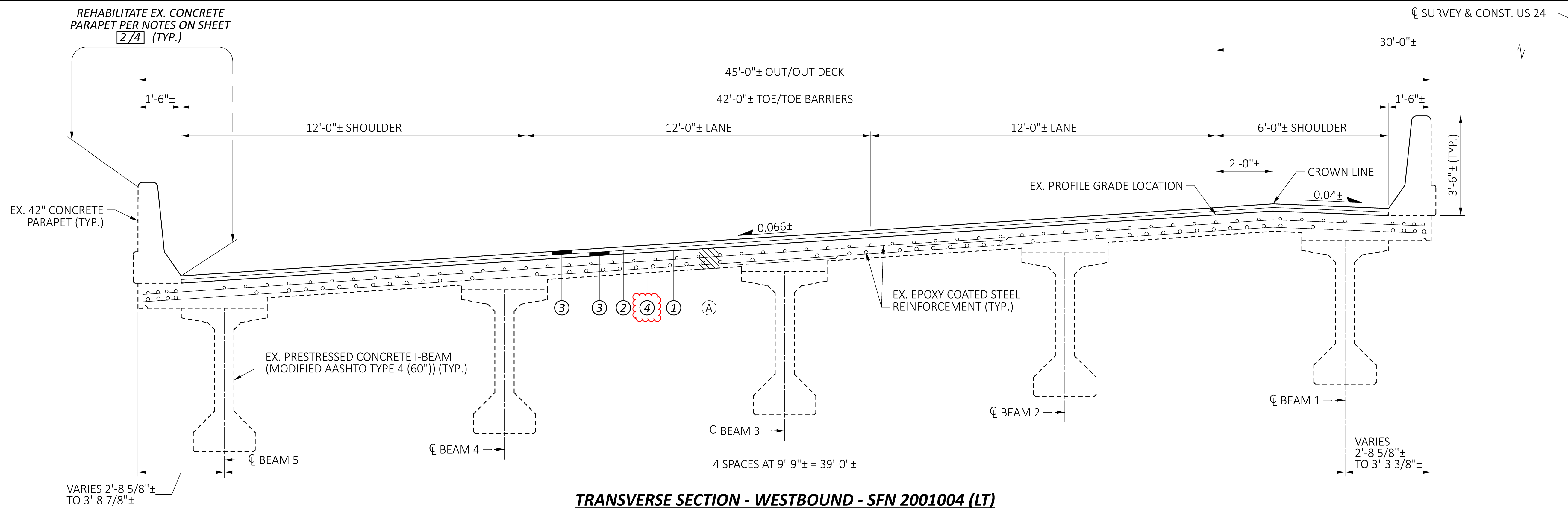
DESIGNER	CHECKER
RTH	MJS
REVIEWER	
MJM	10-13-23
PROJECT ID	
117367	
SUBSET	TOTAL
4	4
SHEET	
TOTAL	
P.250	258



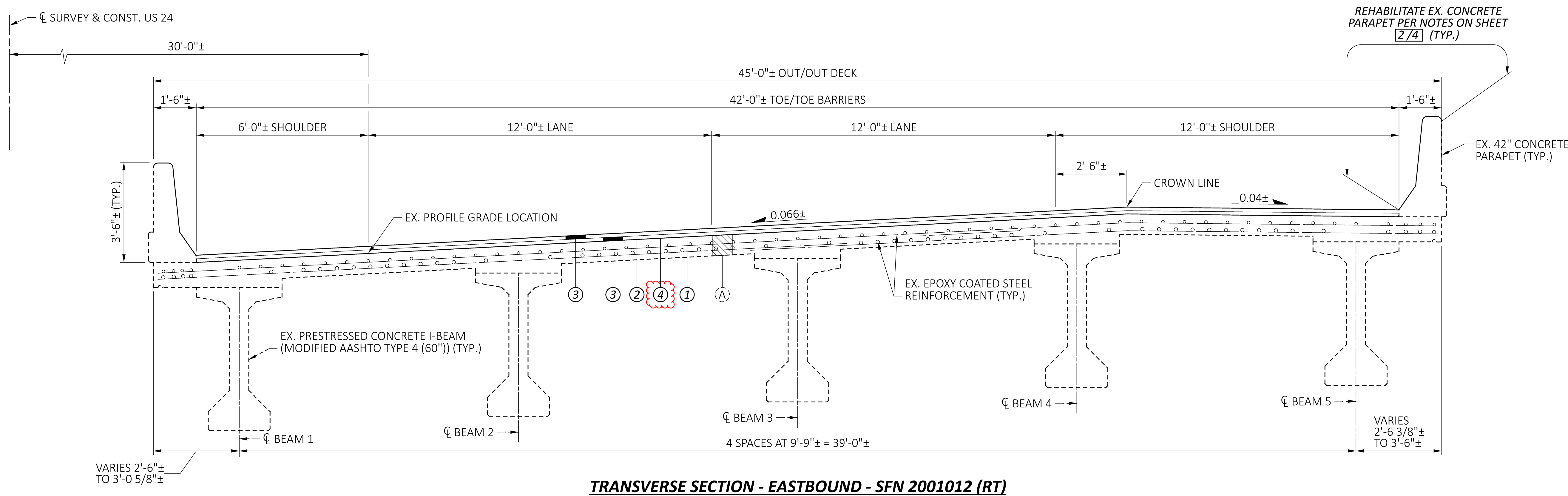
GENERAL PLAN
 BRIDGE NO. DEF-00024-01.680 L & R
 US 24 OVER CR 146 (KROUSE ROAD)

EXISTING STRUCTURES		PROPOSED REHABILITATION OF STRUCTURES	
<p>TYPE: SINGLE-SPAN COMPOSITE PRESTRESSED CONCRETE I-BEAMS WITH REINFORCED CONCRETE DECK, MODIFIED SEMI-INTEGRAL ABUTMENTS, AND MSE WALLS</p> <p>SPAN: 88.0'± C/C BEARINGS ALONG REFERENCE CHORD</p> <p>ROADWAY: 42.0'± TOE/TOE BARRIERS</p> <p>LOADING: HS-25 AND ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE = 60 PSF</p> <p>SKEW: 26°07'56"± LF WITH REFERENCE CHORD</p> <p>WEARING SURFACE: MONOLITHIC CONCRETE</p> <p>APPROACH SLABS: MODIFIED AS-1-81, 30.0'± LONG</p> <p>ALIGNMENT: CURVE LEFT</p> <p>SUPERELEVATION: 0.066±</p> <p>STRUCTURE FILE NUMBERS: LEFT: 2001004 RIGHT: 2001012</p> <p>DATE BUILT: 2009</p> <p>DISPOSITION: TO BE REHABILITATED</p>		<p>EXISTING STRUCTURES TO BE REHABILITATED AS FOLLOWS:</p> <p>LEGEND</p> <p> - CONCRETE PARAPETS: REMOVE EXISTING COATING AS DETAILED, PATCH AND/OR REPAIR WITH EPOXY INJECTION PER PLAN NOTE, RECOAT WITH EPOXY-URETHANE SEALER AS DETAILED</p> <p> - RECONSTRUCT CURBS ON APPROACH SLABS (AND ALONG ROADWAY) AS DETAILED IN ROADWAY PLANS</p> <p> - PREPARE TOP SURFACE OF APPROACH SLABS AND BRIDGE DECK, SEAL ENTIRE TOP SURFACE OF APPROACH SLABS AND BRIDGE DECK WITH HMWM RESIN</p> <p> - CONSTRUCT 3" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE IN TWO 1.5" LIFTS, OVER THE APPROACH SLABS AND BRIDGE DECK</p> <p> - CONSTRUCT A POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM WHERE EACH APPROACH SLAB AND THE ADJACENT ASPHALT ROADWAY PAVEMENT JOIN</p>	

SFN	2001004 (LT)
SFN	2001012 (RT)
DESIGN AGENCY	
DESIGNER	RTH
CHECKER	MJS
REVIEWER	MJM
PROJECT ID	117367
SUBSET	1
TOTAL	4
SHEET	P.251
TOTAL	258



TRANSVERSE SECTION - WESTBOUND - SFN 2001004 (LT)



TRANSVERSE SECTION - EASTBOUND - SFN 2001012 (RT)

LEGEND:

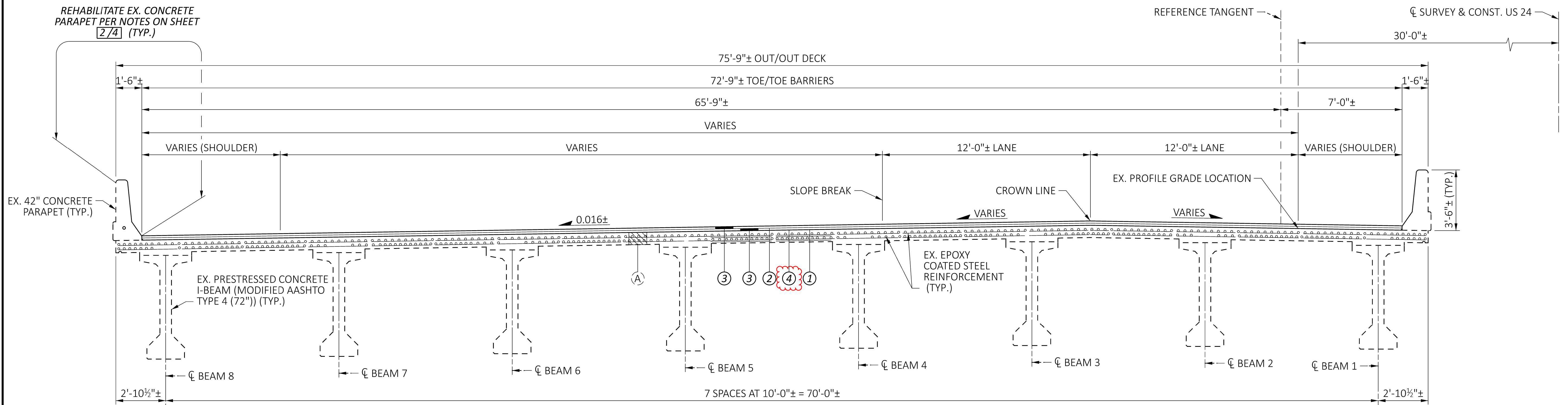
- (A) 8 1/2"± EXISTING CONCRETE DECK THICKNESS
- ① ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN
- ② ITEM 407 - NON-TRACKING TACK COAT
- ③ ITEM 856 - 1 1/2" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE
- ④ ITEM 407 - TACK COAT, 702.13

SUPERSTRUCTURE DETAILS (TRANSVERSE SECTIONS)
 BRIDGE NO. DEF-00024-01.680 L & R
 US 24 OVER CR 146 (KROUSE ROAD)

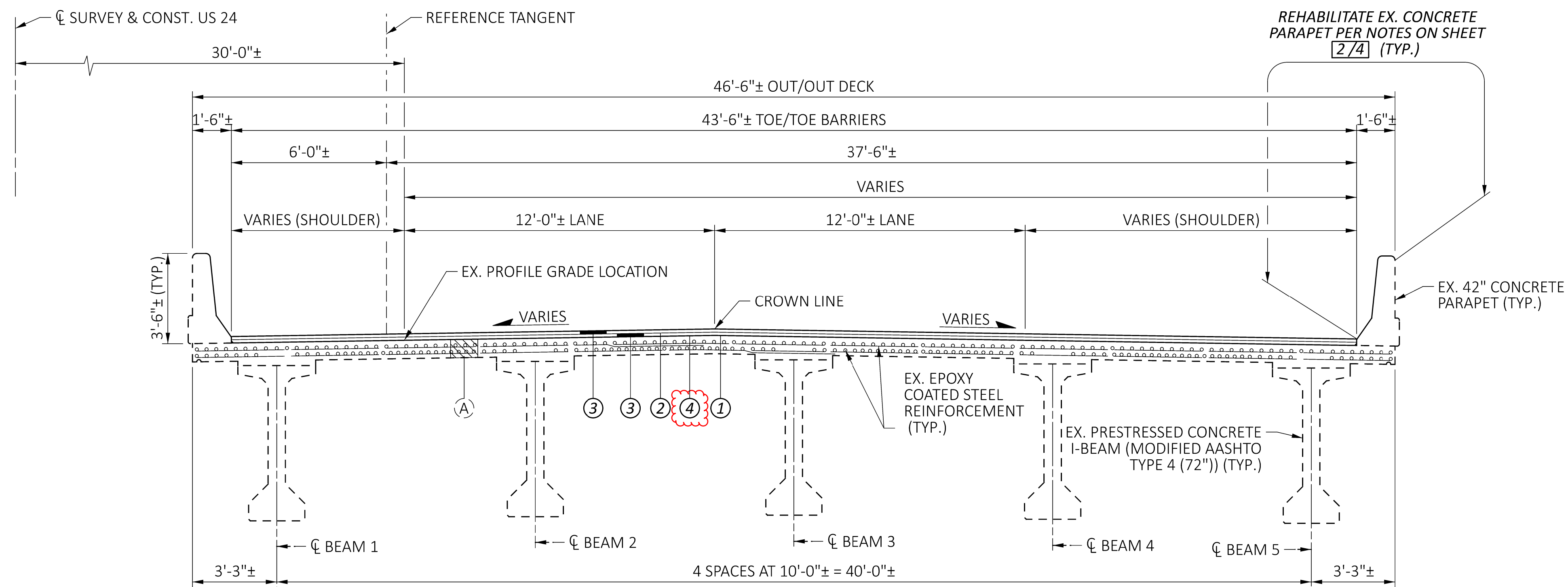
SFN	2001004 (LT)
SFN	2001012 (RT)
DESIGN AGENCY	



DESIGNER	CHECKER
RTH	MJS
REVIEWER	
MJM	10-13-23
PROJECT ID	
117367	
SUBSET	TOTAL
4	4
SHEET	
TOTAL	
P.254	258



TRANSVERSE SECTION - WESTBOUND - SFN 2001039 (LT)



TRANSVERSE SECTION - EASTBOUND - SFN 2001047 (RT)

LEGEND:

- (A) 8 1/2"± EXISTING CONCRETE DECK THICKNESS
- ① ITEM 512 - SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN
- ② ITEM 407 - NON-TRACKING TACK COAT
- ③ ITEM 856 - 1 1/2" BRIDGE DECK WATERPROOFING ASPHALT CONCRETE
- ④ ITEM 407 - TACK COAT, 702.13

SUPERSTRUCTURE DETAILS (TRANSVERSE SECTIONS)
BRIDGE NO. DEF-00024-03.090 L & R
US 24 OVER RAILROAD AND CR 424 (BALTIMORE STREET)

SFN	2001039 (LT)
SFN	2001047 (RT)
DESIGN AGENCY	



DESIGNER	CHECKER
RTH	MJS
REVIEWER	
MJM 10-13-23	
PROJECT ID	
117367	
SUBSET	TOTAL
4	4
SHEET	TOTAL
P.258	258