

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## ROS-772-10.60

### HUNTINGTON TOWNSHIP ROSS COUNTY

**FEDERAL PROJECT NUMBER**

NON-FEDERAL

**RAILROAD INVOLVEMENT**

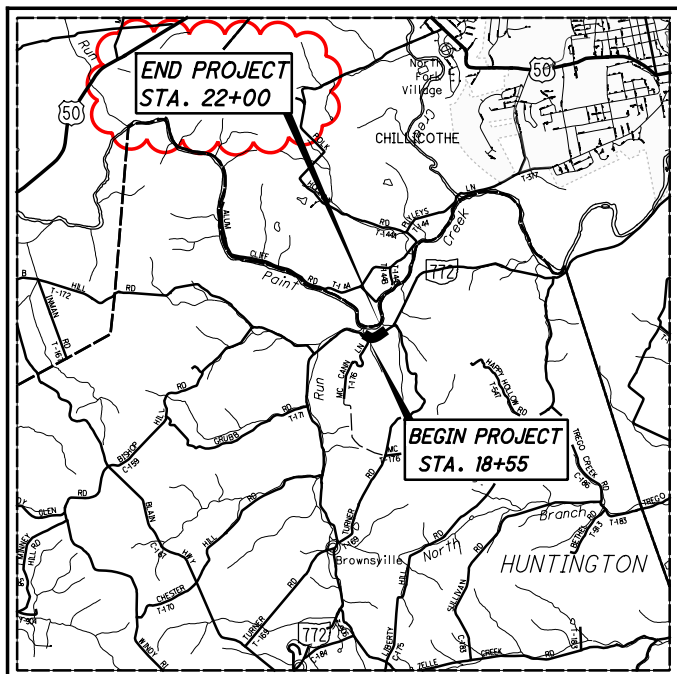
NONE

**PROJECT DESCRIPTION**

REPAIR PROJECT TO CORRECT LANDSLIDE DAMAGE TO THE HIGHWAY, BY MEANS OF DRILLED SHAFT RETAINING WALL ALONG DOWNSLOPE SIDE OF ROADWAY. INCLUDING 289 FT PAVEMENT REPAIR ALONG THE ROADWAY.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: 0.34 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A NOI NOT REQUIRED



**LOCATION MAP**

LATITUDE: N 39°17'35" LONGITUDE: W 83°02'45"



PORTION TO BE IMPROVED	—————	=====
INTERSTATE HIGHWAY	—————	=====
FEDERAL ROUTES	—————	=====
STATE ROUTES	—————	=====
COUNTY & TOWNSHIP ROADS	—————	=====
OTHER ROADS	—————	=====

**DESIGN DESIGNATION**

CURRENT ADT (2019)	-----	1,900
DESIGN YEAR ADT (2039)	-----	2,700
DESIGN HOURLY VOLUME (2020)	-----	243
DIRECTIONAL DISTRIBUTION	-----	50%
TRUCKS (24 HOUR B&C)	-----	5%
DESIGN SPEED	-----	55
LEGAL SPEED	-----	55
DESIGN FUNCTIONAL CLASSIFICATION:		
RURAL MAJOR COLLECTOR		
NHS PROJECT	-----	NO

**DESIGN EXCEPTIONS**

NONE

**ADA DESIGN WAIVERS**

NONE

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

**OHIO 811. 8-1-1. or 1-800-362-2764**  
(Non members must be called directly)

PLAN PREPARED BY:  
BURGESS & NIPLÉ  
525 VINE ST. STE. 1300  
CINCINNATI, OHIO 45202

**INDEX OF SHEETS:**

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ENGINEER'S SEAL:

SIGNED: \_\_\_\_\_  
DATE: \_\_\_\_\_

ENGINEER'S SEAL:

SIGNED: \_\_\_\_\_  
DATE: \_\_\_\_\_

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	1/17/20			800-2019 4/22/22	
DM-1.1	7/17/20	MT-101.60	1/17/20	832	10/19/18
DM-1.2	7/16/21	MT-101.90	7/17/20		
DM-4.4	1/15/16				
		TC-41.20	10/18/13		
HW-2.1	7/20/18	TC-41.30	10/18/13		
HW-2.2	7/20/18	TC-42.20	10/18/13		
		TC-52.10	10/18/13		
CB-2-3	7/16/21	TC-61.30	7/19/19		
		TC-65.10	1/17/14		
MGS-1.1	7/16/21	TC-65.11	7/21/17		
MGS-2.1	1/19/18				
MGS-4.3	1/18/13				

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 5.

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DISTRICT DEPUTY DIRECTOR

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY



DESIGNER

SDC

REVIEWER

SCS 03/01/22

PROJECT ID

115231

SHEET TOTAL

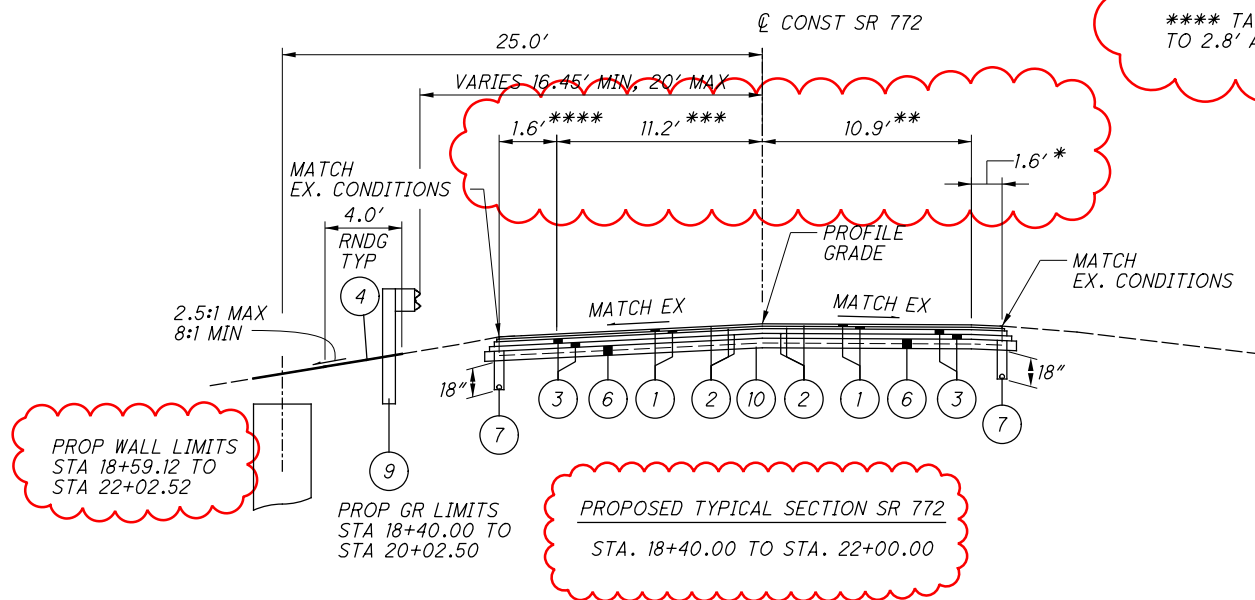
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ROS-772-10.60

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 6/9/2022 TIME: 2:35:10 PM USER: jwright P:\PR97\33115231\400-Engineering\Roadway\Sheets\115231\_GT001.dgn

LEGEND

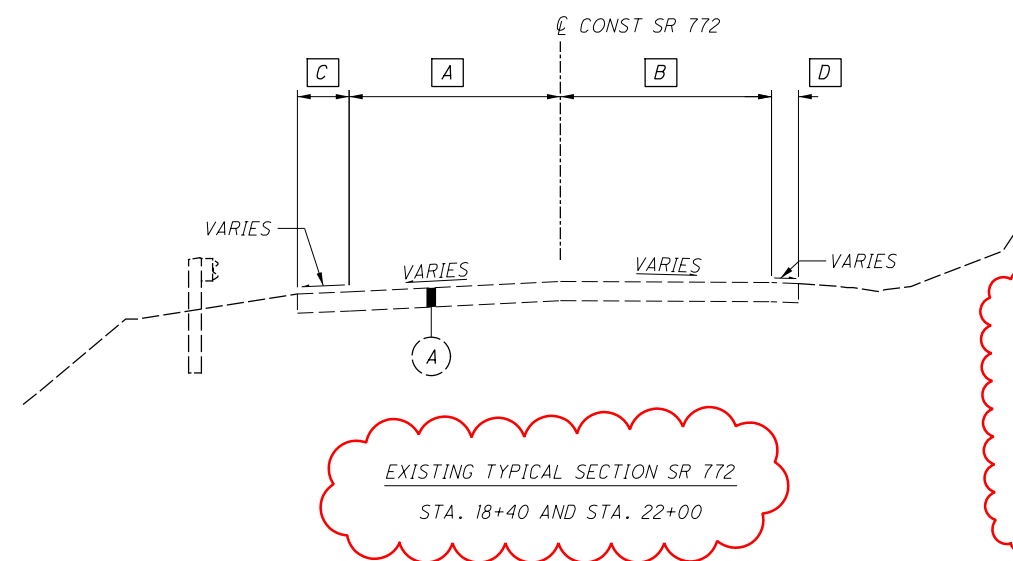
- ① ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG64-22
- ② ITEM 407 - TACK COAT @ 0.075 GAL PER SQ YD
- ③ ITEM 301 - 3" ASPHALT CONCRETE BASE, PG64-22 (449)
- ④ ITEM 659 - SEEDING AND MULCHING, CLASS 1
- ⑤ NOT USED
- ⑥ ITEM 304 - 6" AGGREGATE BASE
- ⑦ ITEM 605 - 6" BASE PIPE UNDERDRAINS
- ⑧ NOT USED
- ⑨ ITEM 606 - GUARDRAIL, TYPE MGS
- ⑩ ITEM 204 - SUBGRADE COMPACTION
- (A) EXISTING PAVEMENT



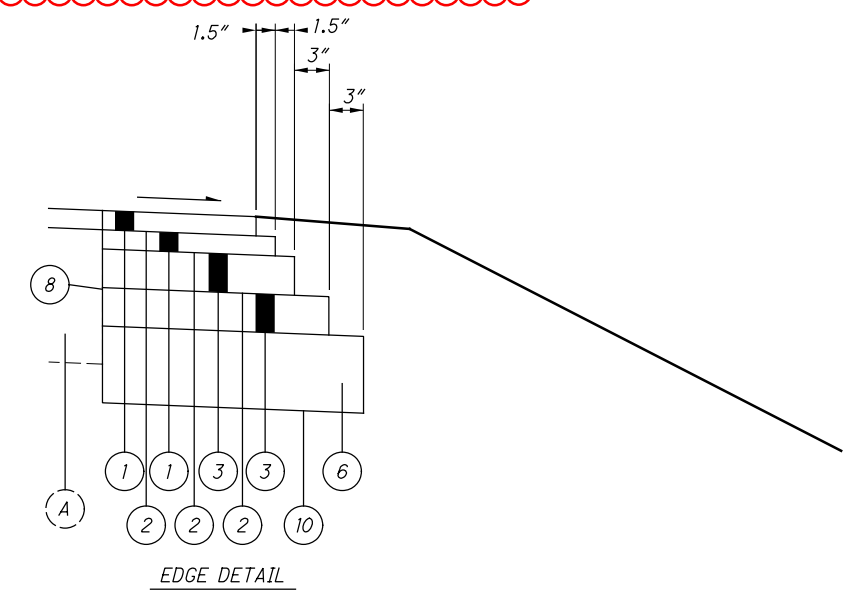
\* TAPER PAVEMENT WIDTH FROM 10.9' AT 21+50 TO 10.3' AT 22+00  
 \*\* TAPER SHOULDER WIDTH FROM 1.6' AT 21+50 TO 2.1' AT 22+00  
 \*\*\* TAPER PAVEMENT WIDTH FROM 11.2' AT 21+00 TO 12.1' AT 22+00  
 \*\*\*\* TAPER SHOULDER WIDTH FROM 1.6' AT 21+00 TO 2.8' AT 22+00

PAVEMENT ELEVATION TABLE

ELEV	OFFSET LT	CL ELEV	STATION	OFFSET RT	ELEV
647.13	12.8	647.64	18+40.00	12.5	647.57
647.11	12.8	647.72	18+50.00	12.5	647.65
647.11	12.8	647.92	18+75.00	12.5	647.91
647.55	12.8	648.19	19+00.00	12.5	648.32
648.12	12.8	648.55	19+25.00	12.5	648.78
648.88	12.8	649.01	19+50.00	12.5	649.14
649.78	12.8	649.55	19+75.00	12.5	649.34
650.45	12.8	650.13	20+00.00	12.5	649.72
650.56	12.8	650.73	20+25.00	12.5	650.34
650.56	12.8	651.11	20+50.00	12.5	651.05
650.73	12.8	651.26	20+75.00	12.5	651.44
650.97	12.8	651.42	21+00.00	12.5	651.37
651.15	13.15	651.65	21+25.00	12.5	651.33
651.26	13.84	651.86	21+50.00	12.5	651.49
651.68	14.36	652.03	21+75.00	12.4	651.69
652.35	14.88	652.46	22+00.00	12.3	652.33



A - 11.2' AT STA. 18+40  
 12.1' AT STA. 22+00  
 B - 10.8' AT STA. 18+40  
 10.3' AT STA. 22+00  
 C - 1.6' AT STA. 18+40  
 2.8' AT STA. 22+00  
 D - 1.7' AT STA. 18+40  
 2.1' AT STA. 22+00



TYPICAL SECTIONS

**ROUNDING**

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

**UTILITIES**

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AMERICAN ELECTRIC POWER (DISTRIBUTION)  
 850 TECH CENTER DRIVE  
 GAHANNA, OHIO 43230  
 MR. CLARKE SAUNDERS  
 614-312-5807

HORIZON CHILLICOTHE TELEPHONE  
 P. O. BOX 480  
 CHILLICOTHE, OHIO 45601  
 MR. JIM MITCHELL  
 740-772-8264

CHARTER COMMUNICATIONS  
 32 ENTERPRISE DRIVE  
 CHILLICOTHE, OHIO 45601  
 MR. JIM DEEDS  
 740-503-2861

ROSS COUNTY WATER COMPANY  
 P.O. BOX 1690  
 CHILLICOTHE, OHIO 45601  
 MR. JUSTIN LANGOLF  
 740-774-4117

**ITEM 202 - REMOVAL MISC.: PILING REMOVED**

THERE IS EXISTING PILING DRIVEN IN THE DOWNHILL SLOPE. THE CONTRACTOR SHALL REMOVE THE EXISTING PILING ONLY AS NEEDED FOR THE CONSTRUCTION OF THE PROPOSED WALL. ANY EXISTING PILING OUTSIDE OF THE EXISTING R/W SHALL BE ABANDONED IN PLACE.

ALL MATERIALS AND LABOR NEEDED TO COMPLETE THE ABOVE WORK, INCLUDING REMOVAL OF ADJACENT GUARDRAIL LAGGING, IF NECESSARY, SHALL BE PAID FOR UNDER ITEM 202, REMOVAL MISC.: PILING REMOVED

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR USE AS DIRECTED BY THE ENGINEER FOR REMOVAL MISC.: PILING REMOVED:

ITEM 202, REMOVAL MISC.: PILING REMOVED 20 EACH

**REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

**SEEDING AND MULCHING**

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

- 659, SEEDING AND MULCHING, CLASS 1 218 SQ. YD.
- 659, REPAIR SEEDING AND MULCHING 11 SQ. YD.
- 659, COMMERCIAL FERTILIZER 0.03 TON
- 659, LIME 0.05 ACRES
- 659, WATER 1 M. GAL.

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.

**ITEM 201 - 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.

**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.

**SURVEYING PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2/6 OF THE RIGHT OF WAY PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: GPS/VRS/CONVENTIONAL  
 MONUMENT TYPE: B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
 GEOID: 12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83(2011)  
 ELLIPSOID: GRS80  
 MAP PROJECTION: LAMBERT CONFROMAL CONIC  
 COORDINATE SYSTEM: OHIO STATE PLANE SOUTH  
 COMBINED SCALE FACTOR: 0.999911568  
 PROJECT ADJUSTMENT FACTOR: 1.00008844  
 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.

**ENDANGERED BAT AND HABITAT REMOVAL**

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

**ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E**

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

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.

**BENCHMARKS & CONTROL COORDINATES**

NAME	COORDINATES		STATION	OFFSET	ELEVATION	DESCRIPTION
	NORTHING	EASTING				
SV7	471678.550	1813588.470	15+49.14	17.47' LT	641.86	IRON PIN
SV5	471525.080	1814120.470	21+06.24	17.95' LT	650.68	IRON PIN
SV4	471379.920	1814517.290	25+26.56	16.25' LT	651.78	IRON PIN

DESIGN AGENCY



DESIGNER

SDC

REVIEWER

SCS 03/01/22

PROJECT ID

115231

SHEET TOTAL

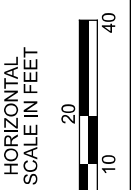
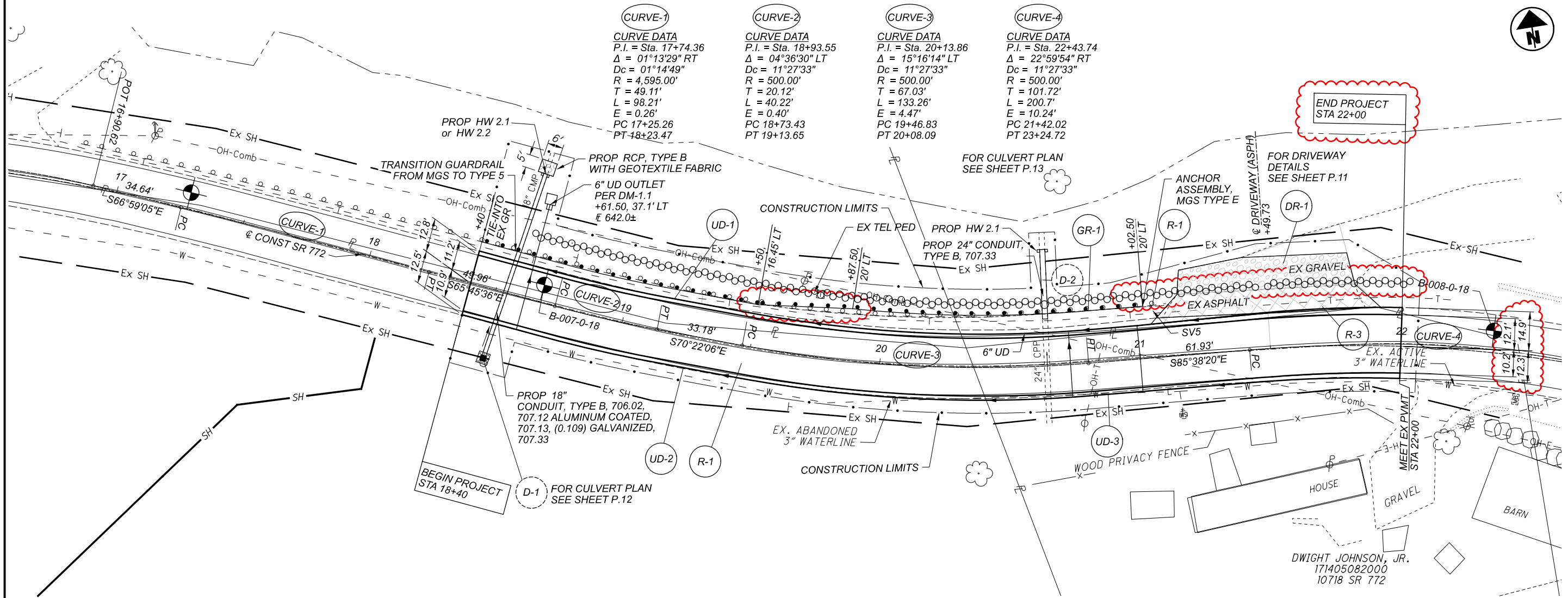
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SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
3	7	10	16	17						01/STR/OT	EXT	TOTAL				SHEET NO.
															<b>ROADWAY</b>	
LS										LS	201	11000	LS		CLEARING AND GRUBBING	
	1,118									1,118	202	23000	1,118	SY	PAVEMENT REMOVED	
	115									115	202	35100	115	FT	PIPE REMOVED, 24" AND UNDER	
	225									225	202	38000	225	FT	GUARDRAIL REMOVED	
	1									1	202	42010	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
	1									1	202	58100	1	EACH	CATCH BASIN REMOVED	
20										20	202	98200	20	FT	REMOVAL MISC.:PILING REMOVED	14
										51	203	10000	51	CY	EXCAVATION	
			51							34	203	20000	34	CY	EMBANKMENT	
			34							1,255	204	10000	1,255	SY	SUBGRADE COMPACTION	
			1,255							213	606	15050	213	FT	GUARDRAIL, TYPE MGS	
			213							1	606	26150	1	EACH	ANCHOR ASSEMBLY, MGS TYPE E, NCHRP 350/MASH 2016	
			1													
															<b>EROSION CONTROL</b>	
										1	601	21050	1	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
										3	601	32104	3	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
218										218	659	00500	218	SY	SEEDING AND MULCHING, CLASS 1	
11										11	659	14000	11	SY	REPAIR SEEDING AND MULCHING	
0.03										0.03	659	20000	0.03	TON	COMMERCIAL FERTILIZER	
										0.05	659	31000	0.05	ACRE	LIME	
0.05										1	659	35000	1	MGAL	WATER	
1										5,000	832	30000	5,000	EACH	EROSION CONTROL	
															<b>DRAINAGE</b>	
										1	602	20000	1	CY	CONCRETE MASONRY	
										736	605	14000	736	FT	6" BASE PIPE UNDERDRAINS	
										75	611	00510	75	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
										73	611	07400	73	FT	18" CONDUIT, TYPE B, 706.02, 707.12 ALUMINUM COATED, 707.13, (0.109) GALVANIZED, 707.33	
										27	611	10400	27	FT	24" CONDUIT, TYPE B, 707.33	
										1	611	98510	1	EACH	CATCH BASIN, NO. 2-3	
										1	611	99710	1	EACH	PRECAST REINFORCED CONCRETE OUTLET	
															<b>PAVEMENT</b>	
										52	252	01500	52	FT	FULL DEPTH PAVEMENT SAWING	
										176	301	56000	176	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
										214	304	20000	214	CY	AGGREGATE BASE	
										236	407	10000	236	GAL	TACK COAT	
										90	441	70000	90	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
															<b>TRAFFIC CONTROL</b>	
										9	621	00100	9	EACH	RPM	
										9	621	54000	9	EACH	RAISED PAVEMENT MARKER REMOVED	
										7	626	00112	7	EACH	BARRIER REFLECTOR, TYPE 3 BIDIRECTIONAL	
										18	630	03100	18	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
										2	630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
										1	630	08600	1	EACH	SIGN POST REFLECTOR	
										1	630	86002	1	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
										0.14	642	00104	0.14	MILE	EDGE LINE, 6", TYPE 1	
										0.07	642	00300	0.07	MILE	CENTER LINE, TYPE 1	
															<b>RETAINING WALLS</b>	
										2,182	507	00400	2,182	FT	STEEL PILES, MISC.:TYPE 1 STEEL BEAM, FURNISHED	14
										1,499	524	94603	1,499	FT	DRILLED SHAFTS, 30" DIAMETER, ABOVE BEDROCK, AS PER PLAN	14
										720	524	94605	720	FT	DRILLED SHAFTS, 30" DIAMETER INTO BEDROCK, AS PER PLAN	14
										1,328	524	95000	1,328	FT	DRILLED SHAFTS, MISC.: PLUG PILE, 30" DIAMETER, UNREINFORCED	14
										15	524	95000	15	FT	DRILLED SHAFTS, MISC.: PLUG PILE, 36" DIAMETER, UNREINFORCED	14
															<b>INCIDENTALS</b>	
										LS	614	11000	LS		MAINTAINING TRAFFIC	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	

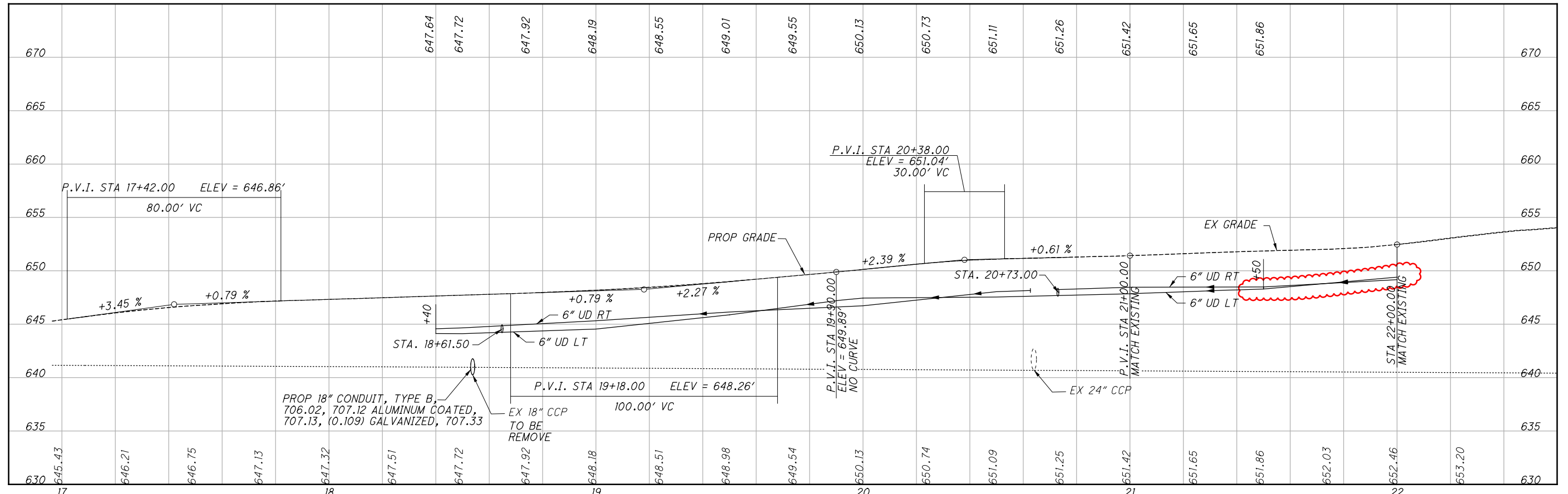


STATION RANGE	TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	204	252			301	304		407		441	441			
							SUBGRADE COMPACTION	FULL DEPTH PAVEMENT SAWING			ASPHALT CONCRETE BASE, PG64-22	AGGREGATE BASE		TACK COAT		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64+22 ML (1-1/2")	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG 64+22 DR (2")			
			FT	FT	SQ YD	SQ YD	SY	FT			CY	CY		GAL		CY	CY			
18+40.00	TO	21+00.00																		
			LT/RT	260.00	25.30	730.89		25.30								30.45				
					25.55	738.11								55.36		30.75				
					25.80	745.33					62.11			55.90						
					26.30	759.78					63.31			56.98						
					26.80	774.22	774.22					129.04								
21+00.00		22+00.00	LT/RT	100.00	26.25	291.61		26.25								12.15				
					26.50	294.39								22.08		12.27				
					26.75	297.17					24.76			22.29						
					27.25	302.72					25.23			22.70						
					27.75	308.28	308.28					51.38								
DR-1		21+49.73	LT				83.91	83.91				13.98					4.67			
							87.65	87.65				19.58								
<b>SUBTOTALS</b>							1254.06	51.55			175.42	213.98		235.31		85.63	4.67			
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>							1255	52			176	214		236		90				

REF NO.	SHEET NO.	STATION TO STATION		202	202	202	202	202	601	602	605	606	606	601	611	611	611	611	611
				PIPE REMOVED, 24" AND UNDER	PAVEMENT REMOVED	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE E	CATCH BASIN REMOVED	TIED CONCRETE BLOCK MAT, TYPE 1	CONCRETE MASONRY	6" BASE PIPE UNDERDRAINS	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	18" CONDUIT, TYPE B, 706.02, 707.12 ALUMINUM COATED, 707.13, (0.109) GALVANIZED, 707.33	24" CONDUIT, TYPE B, 707.33	PRECAST REINFORCED CONCRETE OUTLET	CATCH BASIN, NO. 2-3
			TO	FT	SY	FT	EACH	EACH	SY	CY	FT	FT	EACH	CY	FT	FT	FT	EACH	EACH
R-1	8	18+40.00	LT	21+20.00	LT		225.00	1											
R-2	8	18+40.00		22+00.00															
R-3	8	21+09.84	LT	21+86.36	LT														
GR-1	8	18+40.00	LT	21+02.50	LT							212.50	1						
UD-1	8	18+40.00	LT	22+00.00	LT				1.8		360.00				24.25			1	
UD-2	8	18+40.00	RT	20+62.72	RT						222.72				25.3				
UD-3	8	20+73.00	RT	22+00.00	RT						152.30				25.3				
D-1	12	18+53.78	LT			81.5		1		0.33				2.61		73			1
D-2	13	20+64.17	LT			33				0.46							27		
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>				115	1118	225	1	1	2	1	736	213	1	3	75	73	27	1	1



PLAN AND PROFILE  
 STA 18+55 TO STA 22+00



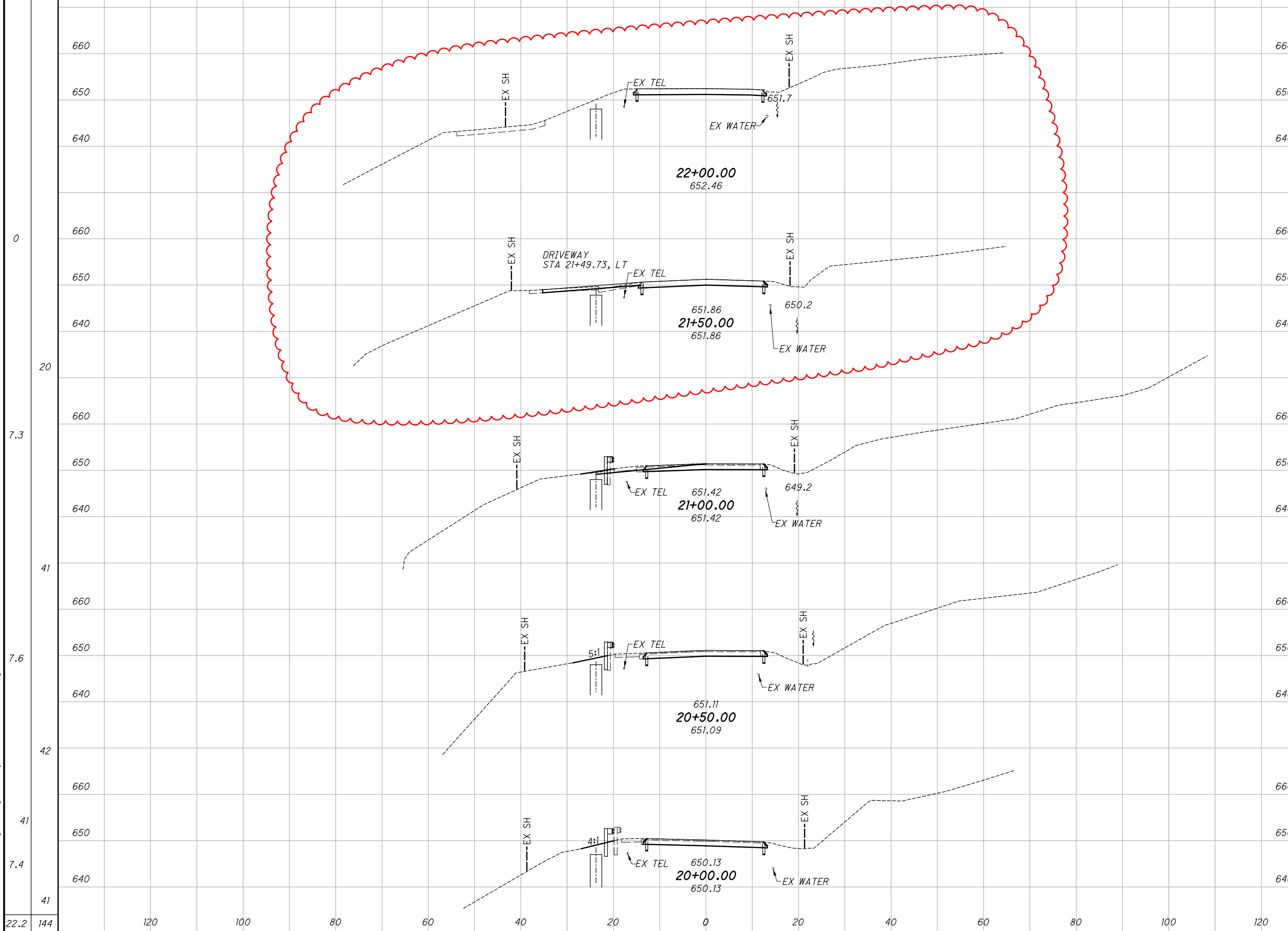
DESIGN AGENCY



DESIGNER	SDC
REVIEWER	SCS 03/01/22
PROJECT ID	115231
SHEET	TOTAL
P.08	17

SEEDING	
END WIDTH	SO. YDS.
218	PROJECT TOTAL

PROJECT TOTAL	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
			51	34



PROJECT TOTAL	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
			51	34
	1.8	0.7		
	21	6		
	20.9	5.6		
	20	6		
	0.9	1.5		
			2	2
	1.1	0.4		
			2	1
	0.9	0.6		
	25.6	8.8	47	16

CROSS SECTIONS - SR 772  
 STA 20+00 TO STA 22+00

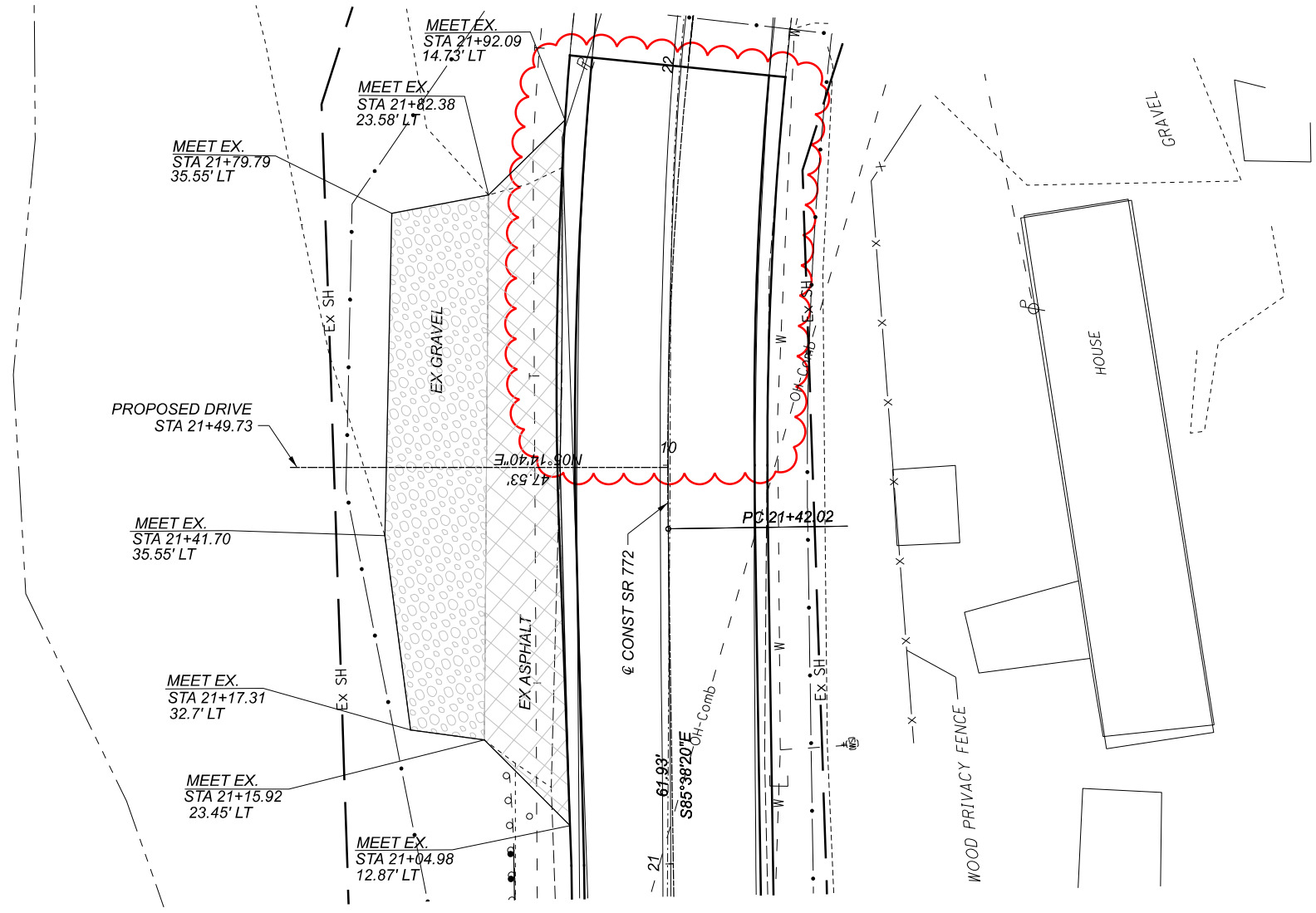
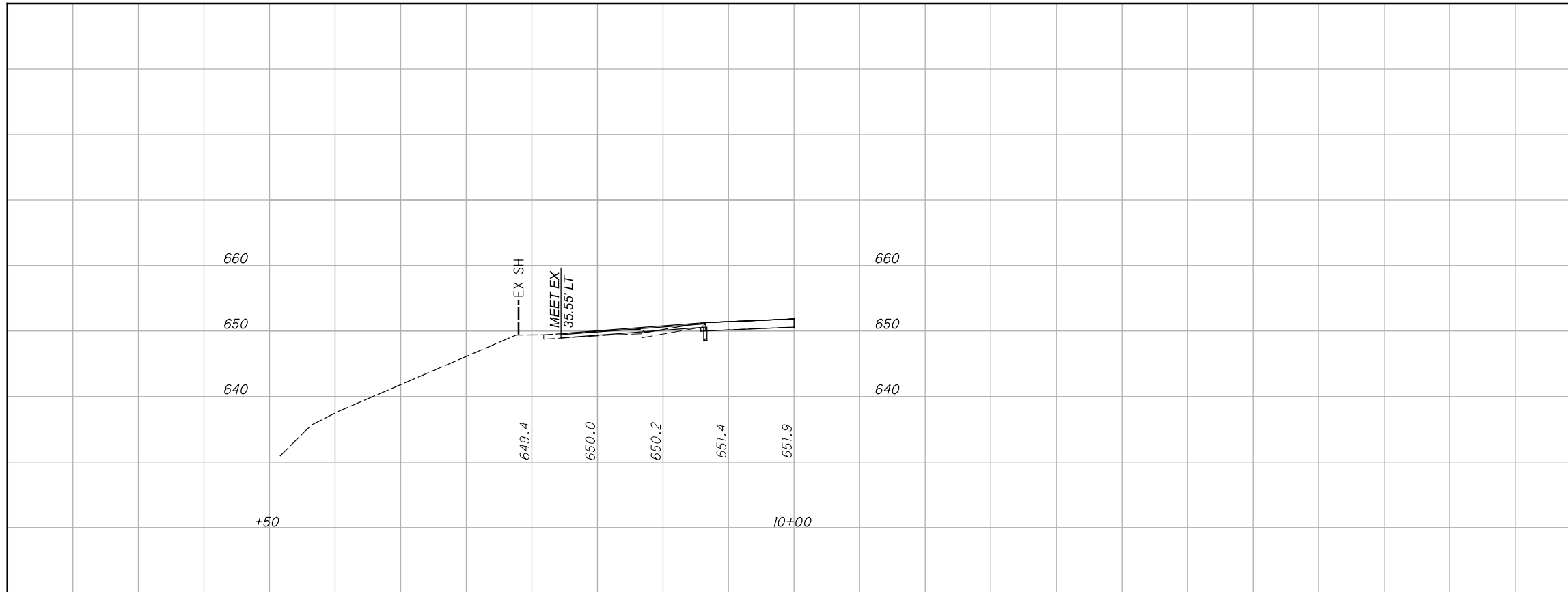
DESIGN AGENCY  
**B&N**  
 burgessniple.com






DESIGNER  
 SDC

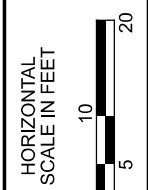
REVIEWER  
 SCS 03/01/22

PROJECT ID  
 115231

SHEET TOTAL  
 P.10 17



- DRIVEWAY DESIGN**
-  2" - 441 AC SURFACE COURSE, TYPE 1, (449), PG64-22
  -  6" - 304 AGGREGATE BASE
  -  204 - SUBGRADE COMPACTION
  -  8" - 304 AGGREGATE BASE
  -  204 - SUBGRADE COMPACTION



DRIVE DETAIL  
 STA 21+49.73 LT

DESIGN AGENCY



DESIGNER	SDC
REVIEWER	SCS 03/01/22
PROJECT ID	115231
SHEET	TOTAL
P.11	17



SHAFT NO.	STATION	OFFSET LEFT	TOP OF DRILLED SHAFT ELEVATION	APPROX. BOTTOM OF DRILLED SHAFT ELEVATION	TOTAL DRILLED SHAFT LENGTH	524	524	524	BEAM SIZE	APPROX. LENGTH OF BEAM
						SHAFT LENGTH BELOW ROCK	SHAFT LENGTH ABOVE ROCK	PLUG PILE LENGTH		
		FT	FT	FT	FT	FT	FT		TYPE	FT
115	21+39.05	25.00	648.50	615.08	33.42	10	23.42		1	32.92
116	21+41.42	23.75	648.50	628.50	20			20		
117	21+43.71	25.00	648.50	615.06	33.44	10	23.44		1	32.94
118	21+45.97	23.75	648.50	628.50	20			20		
119	21+48.24	25.00	648.50	615.04	33.46	10	23.46		1	32.96
120	21+50.50	23.75	648.50	628.50	20			20		
121	21+52.76	25.00	648.50	615.03	33.47	10	23.47		1	32.97
122	21+55.02	23.75	648.50	628.50	20			20		
123	21+57.28	25.00	648.50	615.01	33.49	10	23.49		1	32.99
124	21+59.55	23.75	648.50	628.50	20			20		
125	21+61.81	25.00	648.50	614.99	33.51	10	23.51		1	33.01
126	21+64.07	23.75	648.50	628.50	20			20		
127	21+66.33	25.00	648.50	614.97	33.53	10	23.53		1	33.03
128	21+68.59	23.75	648.50	628.50	20			20		
129	21+70.86	25.00	648.50	614.95	33.55	10	23.55		1	33.05
130	21+73.12	23.75	648.50	628.50	20			20		
131	21+75.38	25.00	648.50	614.93	33.57	10	23.57		1	33.07
132	21+77.64	23.75	648.50	628.50	20			20		
133	21+79.90	25.00	648.50	614.91	33.59	10	23.59		1	33.09
134	21+82.17	23.75	648.50	628.50	20			20		
135	21+84.43	25.00	648.50	614.89	33.61	10	23.61		1	33.11
136	21+86.69	23.75	648.50	628.50	20			20		
137	21+88.95	25.00	648.50	614.88	33.62	10	23.62		1	33.12
138	21+91.21	23.75	648.50	628.50	20			20		
139	21+93.47	25.00	648.50	614.86	33.64	10	23.64		1	33.14
140	21+95.74	23.75	648.50	628.50	20			20		
141	21+98.00	25.00	648.50	614.84	33.66	10	23.66		1	33.16
142	22+00.26	23.75	648.50	628.50	20			20		
143	22+02.52	25.00	648.50	614.82	33.68	10	23.68		1	33.18
SUB TOTAL						150	354	280		
GRAND TOTAL						720	1499	1343		
SUB TOTALS FOR EACH BEAM TYPE									TYPE 1	495.74

	ALT. 1	ALT. 2	ALT. 3	ALT. 4	GRAND TOTAL (FT.)
TYPE 1 BEAM SIZE	W18x143	W18x158	HP16x162	HP16x183	2181.69

DRILLED SHAFT WALL ELEVATIONS

DESIGN AGENCY



DESIGNER

MAB

REVIEWER

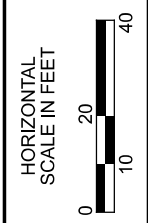
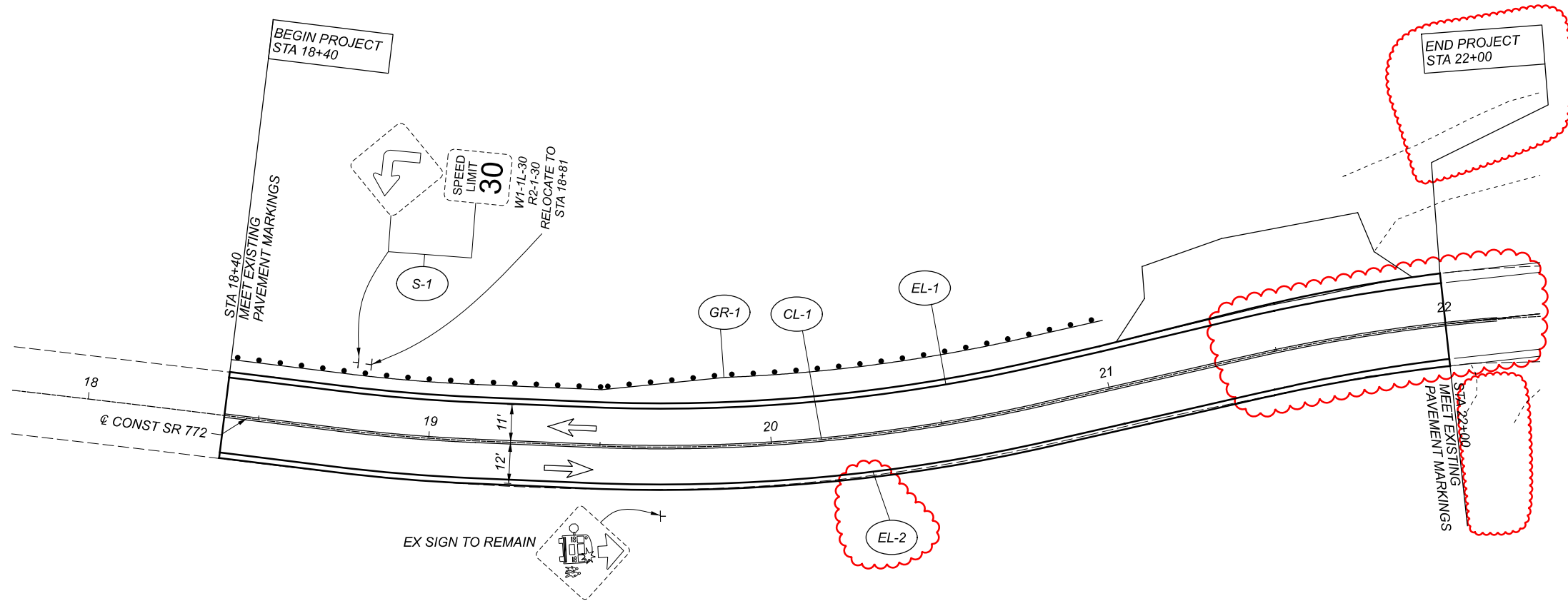
SJA 10/18/21

PROJECT ID

115231

SHEET TOTAL

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SIGNING AND PAVEMENT MARKING PLAN  
 STA 18+55 TO STA 21+50

REF NO.	STATION TO STATION	SIDE	CODE	SIZE (INCHES)	621	621	626		630	630	630	630		642	642
					RPM (YELLOW/YELLOW)	RAISED PAVEMENT MARKER REMOVED	BARRIER REFLECTOR, TYPE 3 BIDIRECTIONAL (POST MOUNTED)		GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN POST REFLECTOR	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		EDGE LINE, 6", TYPE 1	CENTER LINE, TYPE 1
	TO				EACH	EACH	EACH		FT	EACH	EACH	EACH		MILE	MILE
CL-1	18+40.00		22+00.00	CL	9	9									0.071
EL-1	18+40.00		22+00.00	LT										0.068	
EL-2	18+40.00		22+00.00	RT										0.069	
GR-1	18+40.00		21+00.81	LT			7								
S-1	18+77.00		18+81.00	LT					18	1	1	1			
				R2-1-30											
				W1-1L-30											
TOTALS CARRIED TO GENERAL SUMMARY					9	9	7		18	1	2	1		0.136	0.071

- LEGEND**
- CL-# CENTER LINE (DOUBLE YELLOW SOLID)
  - EL-# EDGE LINE