

J:\0001\05861\_SUM-77-22.30\Design\Roadway\Sheets\05861\_G0002.dgn Sheet 11/15/2022 2:40:58 PM david-m

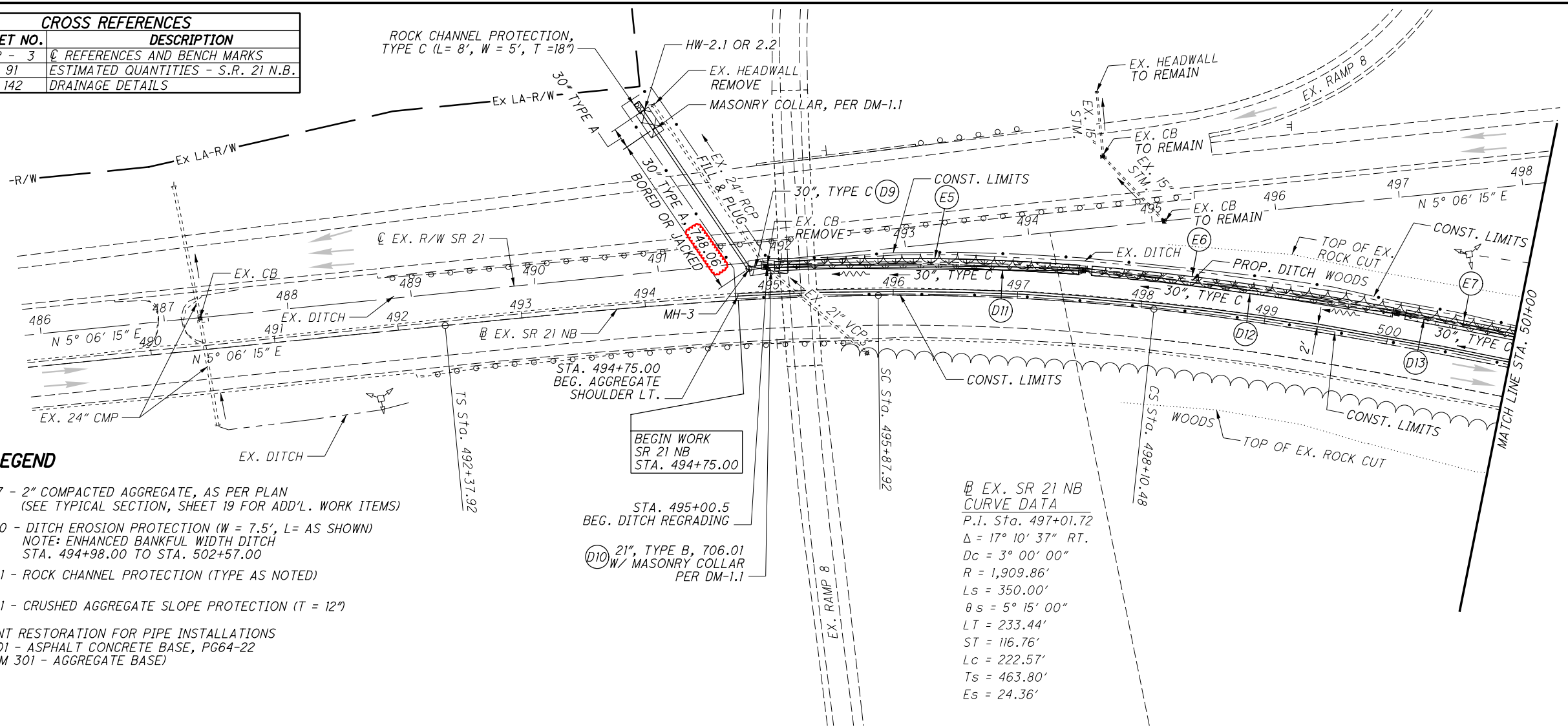
SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
21	22	23	89	90	91	142	145	150	OFFICE CALCS	01/IMS/BR	02/IMS/OT	03/NHS/CV						
						0.6						0.6	602	20000	0.6	CY	<b>DRAINAGE</b> CONCRETE MASONRY	
							1,210			1,210			605	11110	1,210	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, 707.31	
		200					390			590			605	13410	590	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, 707.31	
							1,091			1,091			605	14020	1,091	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, 707.31	
		20					40			60			611	00510	60	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
							127			127			611	00900	127	FT	6" CONDUIT, TYPE B	
				289								289	611	04400	289	FT	12" CONDUIT, TYPE B	
					69							69	611	05900	69	FT	15" CONDUIT, TYPE B	
				4								4	611	05900	4	FT	15" CONDUIT, TYPE B, 706.02	
				8								8	611	05900	8	FT	15" CONDUIT, TYPE B, 707.11	
												14	611	05900	14	FT	15" CONDUIT, TYPE B, 707.33	
					4					4			611	08900	4	FT	21" CONDUIT, TYPE B, 706.01	
					130					130			611	10600	130	FT	24" CONDUIT, TYPE C	
					74					74			611	12100	74	FT	27" CONDUIT, TYPE C	
						17						17	611	13200	17	FT	30" CONDUIT, TYPE A, 706.02	
							1,092			1,092			611	13600	1,092	FT	30" CONDUIT, TYPE C	
								136				136	611	96600	136	FT	CONDUIT, BORED OR JACKED, 30", TYPE A, 748.06	
				1								1	611	98150	1	EACH	CATCH BASIN, NO. 3	
				1								1	611	98300	1	EACH	CATCH BASIN, NO. 5	
					5					5			611	98341	5	EACH	CATCH BASIN, NO. 5A	
					1					1			611	98350	1	EACH	CATCH BASIN, NO. 5A, AS PER PLAN	23
					1							1	611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
					1							1	611	98634	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
					2							2	611	98791	2	EACH	INLET, NO. 3A, AS PER PLAN	23
					1					1			611	99100	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1	
					1							1	611	99155	1	EACH	INLET RECONSTRUCTED TO GRADE, AS PER PLAN	23
					1	1				1		1	611	99574	2	EACH	MANHOLE, NO. 3	
					1							1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
		2								2			611	99710	2	EACH	PRECAST REINFORCED CONCRETE OUTLET	
										1,797			254	01001	1,797	SY	<b>PAVEMENT</b> PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 3" AVG.	21
	23									987			302	56000	1,010	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
	15									826			304	20000	841	CY	AGGREGATE BASE	
										126			407	13900	126	GAL	TACK COAT, 702.13	
108	8									525			407	20000	641	GAL	NON-TRACKING TACK COAT	
										15			408	10001	15	GAL	PRIME COAT, AS PER PLAN	22
										69			441	70801	69	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	22
										236			442	10001	236	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	21
										333			442	10080	333	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
										4			442	22101	4	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG76-22M	21
										50			442	22200	50	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 9.5 MM, TYPE A (449)	
										5			442	22300	5	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (449)	
			484		18					502			609	24510	502	FT	CURB, TYPE 4-C	
										21			617	10101	21	CY	COMPACTED AGGREGATE, AS PER PLAN	21
21										375			617	20000	375	SY	SHOULDER PREPARATION	
								4.45		4.45			618	40600	4.45	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	

GENERAL SUMMARY

SUM-77-22.30

CALCULATED  
DAM  
CHECKED  
DCJ

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
2 - 3	REFERENCES AND BENCH MARKS
91	ESTIMATED QUANTITIES - S.R. 21 N.B.
142	DRAINAGE DETAILS



**LEGEND**

- ITEM 617 - 2" COMPACTED AGGREGATE, AS PER PLAN (SEE TYPICAL SECTION, SHEET 19 FOR ADD'L. WORK ITEMS)
- ITEM 670 - DITCH EROSION PROTECTION (W = 7.5', L = AS SHOWN) NOTE: ENHANCED BANKFUL WIDTH DITCH STA. 494+98.00 TO STA. 502+57.00
- ITEM 601 - ROCK CHANNEL PROTECTION (TYPE AS NOTED)
- ITEM 601 - CRUSHED AGGREGATE SLOPE PROTECTION (T = 12")
- PAVEMENT RESTORATION FOR PIPE INSTALLATIONS (ITEM 301 - ASPHALT CONCRETE BASE, P664-22 AND ITEM 301 - AGGREGATE BASE)

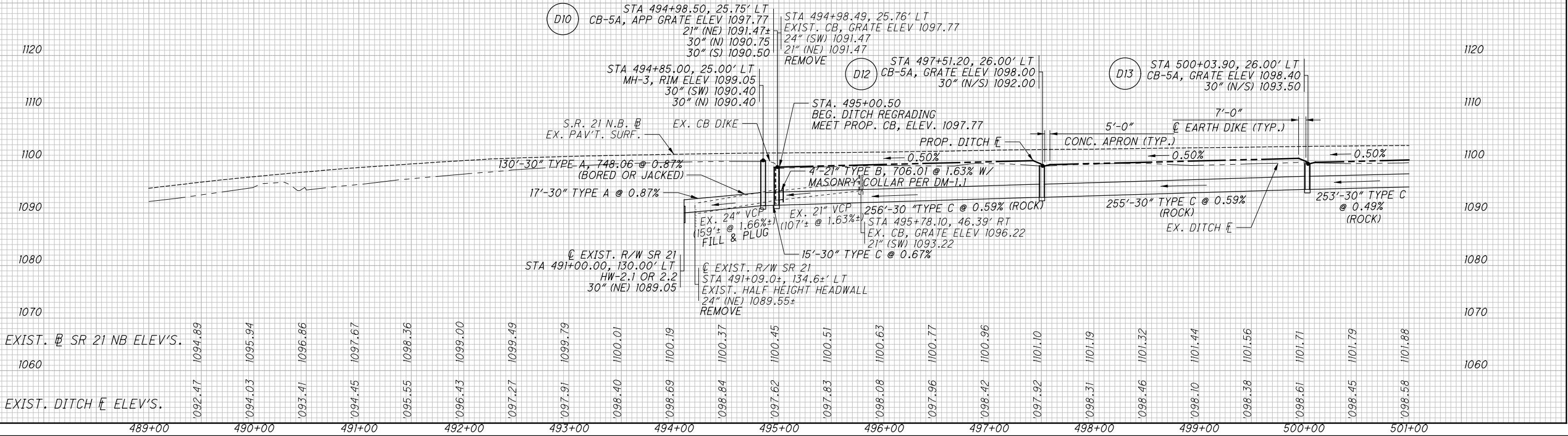
BEGIN WORK  
SR 21 NB  
STA. 494+75.00

STA. 495+00.5  
BEG. DITCH REGRADING

21", TYPE B, 706.01  
W/ MASONRY COLLAR  
PER DM-1.1

EX. SR 21 NB  
CURVE DATA  
P.I. Sta. 497+01.72  
Δ = 17° 10' 37" RT.  
Dc = 3° 00' 00"  
R = 1,909.86'  
θs = 5° 15' 00"  
LT = 233.44'  
ST = 116.76'  
Lc = 222.57'  
Ts = 463.80'  
Es = 24.36'

**PROPOSED DITCH ELEV'S.**



0 50 100  
25  
HORIZONTAL  
SCALE IN FEET

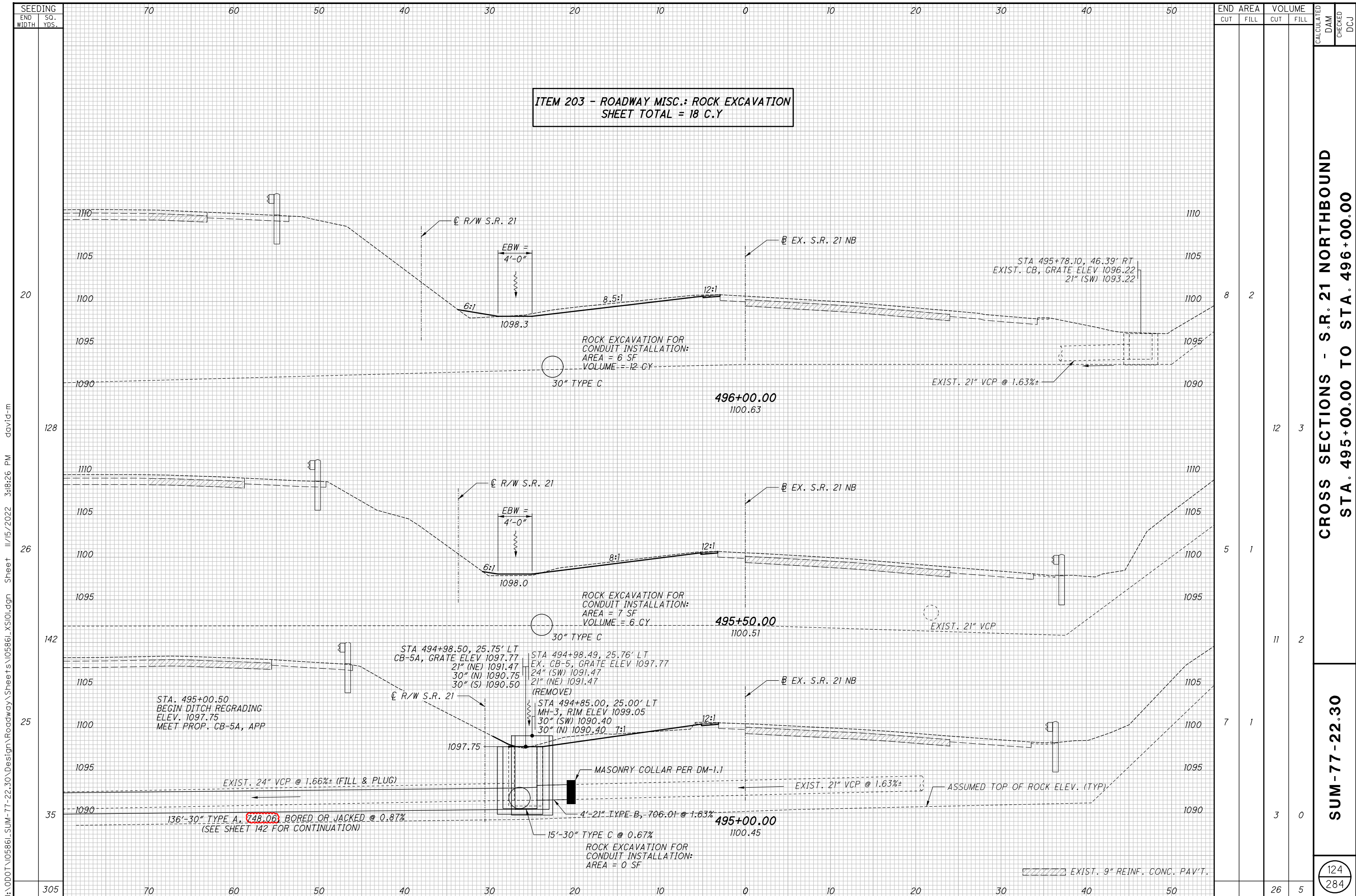
CALCULATED  
DAM  
CHECKED  
DCJ

**PLAN AND PROFILE - S.R. 21 N.B.  
STA. 489+00.00 TO STA. 501+00.00**

**SUM-77-22.30**

113  
284

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**ITEM 203 - ROADWAY MISC.: ROCK EXCAVATION**  
**SHEET TOTAL = 18 C.Y**

**CROSS SECTIONS - S.R. 21 NORTHBOUND**  
**STA. 495+00.00 TO STA. 496+00.00**

**SUM-77-22.30**

END AREA	VOLUME	CALCULATED	CHECKED
8	2		
12	3		
5	1		
11	2		
7	1		
3	0		
26	5		

124  
284

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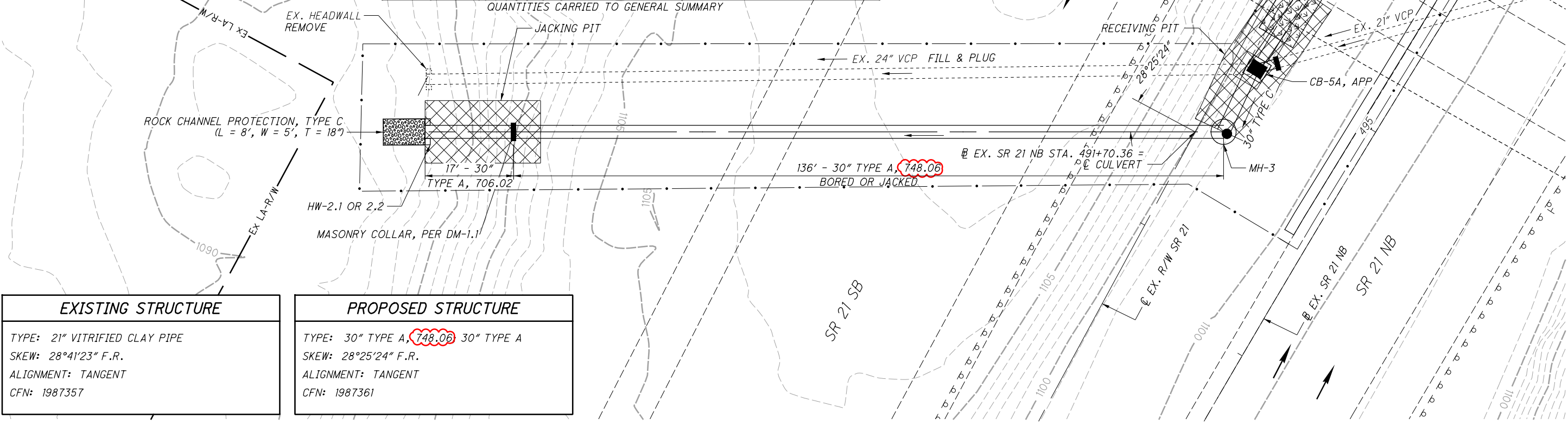
**HYDRAULIC DATA**

DRAINAGE AREA = 14.93 ACRES  
 Q (10) = 29.3 CFS    V (10) = 7.63 FT/S  
 Q (25) = 33.6 CFS    V (25) = 7.63 FT/S  
 DESIGN SERVICE LIFE = 75 YEARS  
 NON-ABRASIVE (LEVEL 1)

**ESTIMATED QUANTITIES (03/NHS/CV)**

ITEM	QTY.	UNIT	DESCRIPTION
202	1	EACH	HEADWALL REMOVED
202	160	FT	SPECIAL - FILL AND PLUG EXISTING CONDUIT
601	7	SY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC
602	0.6	CY	CONCRETE MASONRY
611	17	FT	30" CONDUIT, TYPE A, 706.02
611	136	FT	30" CONDUIT, BORED OR JACKED, 30", TYPE A, 748.06
611	1	EACH	MANHOLE, NO. 3

QUANTITIES CARRIED TO GENERAL SUMMARY

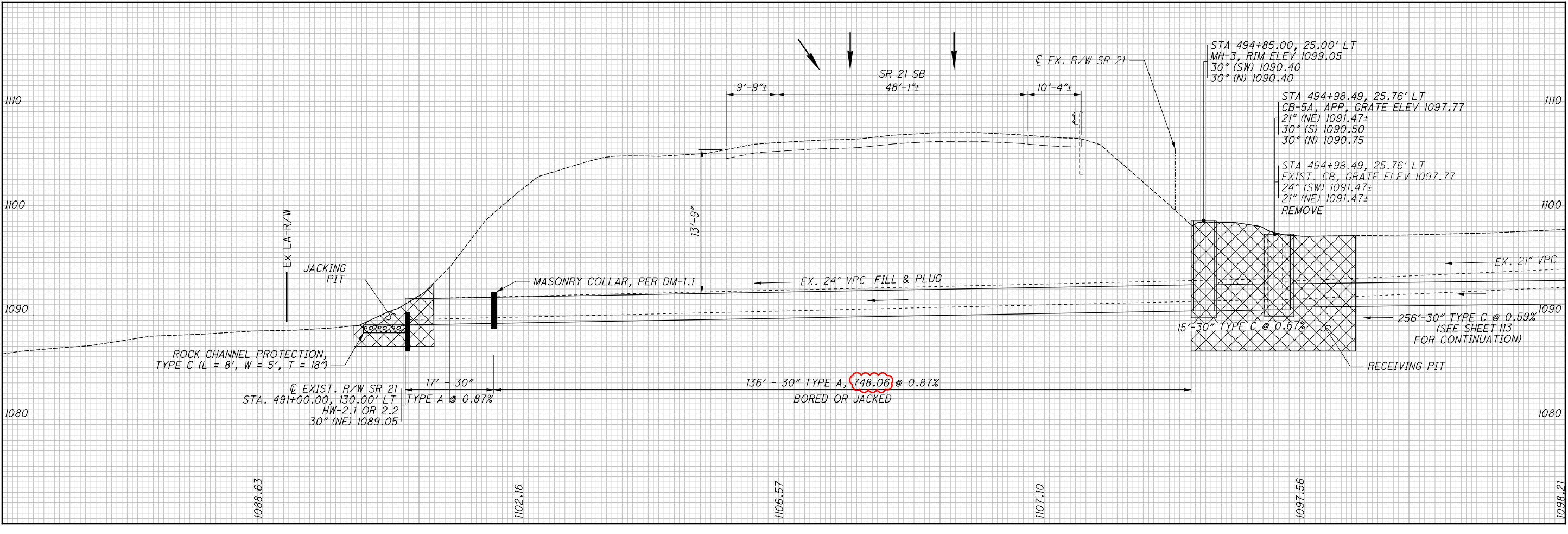


**EXISTING STRUCTURE**

TYPE: 21" VITRIFIED CLAY PIPE  
 SKEW: 28°41'23" F.R.  
 ALIGNMENT: TANGENT  
 CFN: 1987357

**PROPOSED STRUCTURE**

TYPE: 30" TYPE A, 748.06 30" TYPE A  
 SKEW: 28°25'24" F.R.  
 ALIGNMENT: TANGENT  
 CFN: 1987361



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