

MAH-18-17.20

CURVE NO. 1 DATA
 $\Delta = 43^\circ 47' 40''$
 $D = 5^\circ 30'$
 $R = 1041.74'$
 $L = 400'$
 $S = 117.00'$
 $T = 162.04'$
 $E = 67.65'$

CURVE NO. 2 DATA
 $\Delta = 54^\circ 44' 10''$
 $D = 5^\circ 30'$
 $R = 1041.74'$
 $L = 400'$
 $S = 117.00'$
 $T = 162.04'$
 $E = 67.65'$

CURVE NO. 3 DATA
 $\Delta = 60^\circ 43' 08''$
 $D = 5^\circ 30'$
 $R = 1041.74'$
 $L = 400'$
 $S = 117.00'$
 $T = 162.04'$
 $E = 67.65'$

CURVE NO. 4 DATA
 $\Delta = 74^\circ 52' 50''$
 $D = 5^\circ 30'$
 $R = 1041.74'$
 $L = 400'$
 $S = 117.00'$
 $T = 162.04'$
 $E = 67.65'$

CURVE NO. 5 DATA
 $\Delta = 53^\circ 29' 28''$
 $D = 5^\circ 30'$
 $R = 1041.74'$
 $L = 400'$
 $S = 117.00'$
 $T = 162.04'$
 $E = 67.65'$

LEGEND

- EXPRESSWAY CONSTRUCTION, FEDERAL PARTICIPATION
- CITY STREET IMPROVEMENT, 100% CITY
- FUTURE EXPRESSWAY

MICROFILMED
SEP 19 1965

GENERAL PLAN

1,421.86' RADIUS



DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED 9-1-57, TOGETHER WITH CURRENT REVISIONS THEREOF.

EXCAVATION QUANTITY: INCLUDES THE REMOVAL OF MATERIAL BETWEEN THE SURFACE OF THE EXISTING GROUND LINE AND THE BOTTOM OF THE FOOTINGS.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
ROH.	LNB		D.S.	DHC		

REINFORCING STEEL LIST

CURVE IV - RAMP "L"	
D.C.	4° 00' 00"
Δ	11° 21' 36"
R.	1432.39'
T.	142.47'
E.	7.07'
L.	242.00'
P.C.	STA. 5+99.47
P.T.	STA. 8+83.47

IDENT.	N° REQ.	LENGTH	WEIGHT	SHR.	IDENT.	N° REQ.	LENGTH	WEIGHT	SHR.	IDENT.	N° REQ.	LENGTH	WEIGHT	SHR.	IDENT.	N° REQ.	LENGTH	WEIGHT	SHR.	IDENT.	N° REQ.	LENGTH	WEIGHT	SHR.				
501	10	27'-6"	287	ST.	512	2	4'-9"	10	ST.	521	2	6'-6"	14	ST.	SER. OF 26 BARS	VARIES 4'-0" @ 2 1/2" INC.		343	ST.	704	87	15'-4"	2726	BT.	REPLACEMENT BARS			
502	21	5'-7"	111	BT.	SER. OF 10 BARS	VARIES 13'-0" @ 6 3/8" INC.		114	ST.	SER. OF 3 BARS	VARIES 21'-6 3/8" @ 6 3/8" INC.		67	ST.	SER. OF 26 BARS	VARIES 11'-7 3/4" @ 2 1/2" INC.		560	ST.	705	20	6'-9"	276	BT.	501	1	5'-6"	ST.
503	21	5'-7"	78	BT.	513	2	23'-0"	48	ST.	522	8	22'-6"	188	ST.	SER. OF 10 BARS	VARIES 13'-0" @ 6 3/8" INC.		162	ST.	706	51	8'-3"	840	BT.	601	1	6'-0"	ST.
504	48	29'-8"	1486	ST.	514	2	12'-0"	25	ST.					601	23	7'-8"	245	BT.	707	52	11'-3"	1196	ST.	701	1	6'-3"	ST.	
505	35	32'-4"	1180	ST.	515	2	20'-0"	42	ST.	516	1	SET OF 10 BARS	VARIES 13'-0" @ 6 3/8" INC.		602	36	11'-10"	640	BT.					801	1	6'-6"	ST.	
506	3	4'-8"	15	BT.	517	2	10'-0"	428	ST.	518	41	10'-0"	428	ST.	SER. OF 21 BARS	VARIES 4'-0" @ 11-7" @ 2 1/2" INC.		291	BT.					1001	1	7'-2"	ST.	
507	11	32'-0"	73	ST.	519	1	SET OF 10 BARS	VARIES 17'-4 3/8" @ 6 3/8" INC.	209	ST.	SER. OF 24 BARS	VARIES 5'-6" @ 2 1/2" INC.		322	ST.	701	23	8'-10"	415	BT.								
508	15	5'-4"	37	BT.	520	2	18'-0"	39	ST.						702	38	14'-2"	1101	BT.									
509	7	4'-10"	35	BT.											703	48	9'-10"	945	BT.	TOTAL WEIGHT: 22,010 #								
SER. OF 11 BARS		VARIES 3'-10 3/8" @ 5 1/2" INC.	71	ST.																								

NOTE: BAR SIZE IS INDICATED IN THE BAR IDENT. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE 701 IS A #7 BAR AND 1014 IS A #10 SIZE BAR.

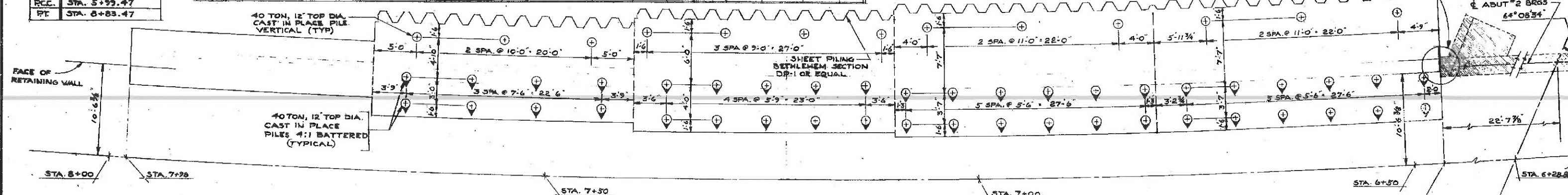
FED. RD.	STATE	PROJECT
	OHIO	

313
492

MAH-18-17.20

WATERPROOFING TYPE "B" INCLUDED IN BRIDGE QUANTITIES

PERFORMED EXPANSION JOINT STRIP



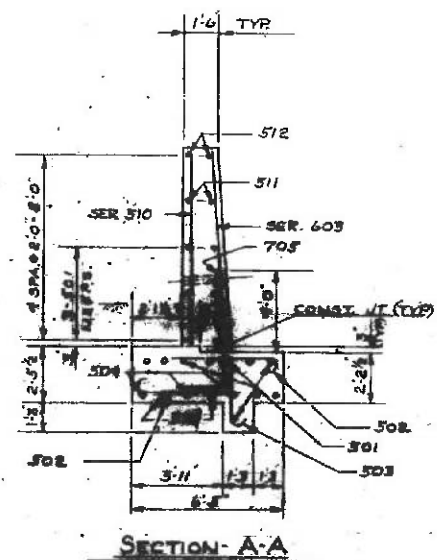
LOCATION & PILE PLAN

5-11 7/10-8	SER. 603
5-10	705
7-4	706
9-0	801
11-7	1001
6-8	1002
10-8	1003

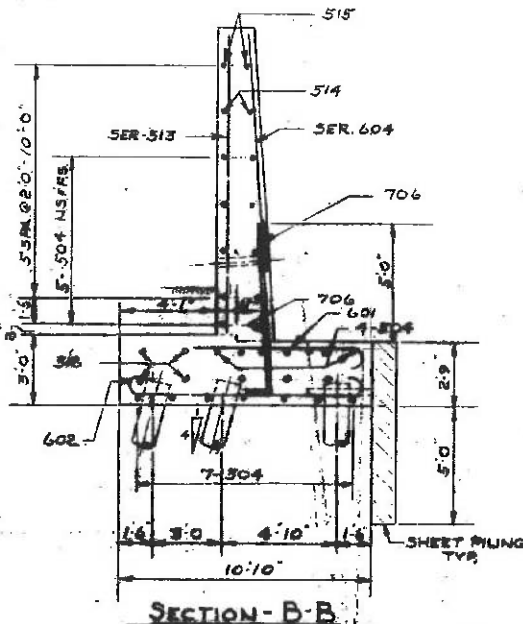
502	4'-6"	7
503	3'-0"	7
601	7'-0"	8
701	8'-0"	10
703	9'-0"	10

2'-0"	6	2'-0"	506
2'-1"	11	2'-1"	508
2'-0"	8	2'-0"	509

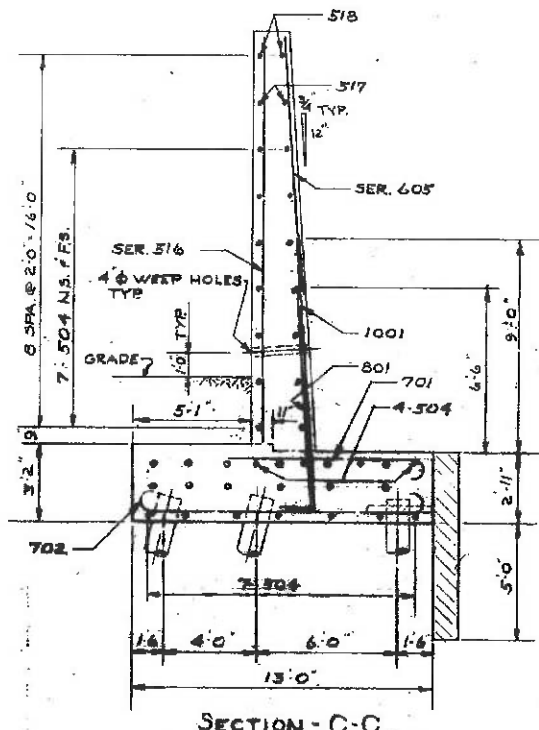
8	10'-6"	8	602
10	12'-6"	10	702
10	13'-8"	10	704



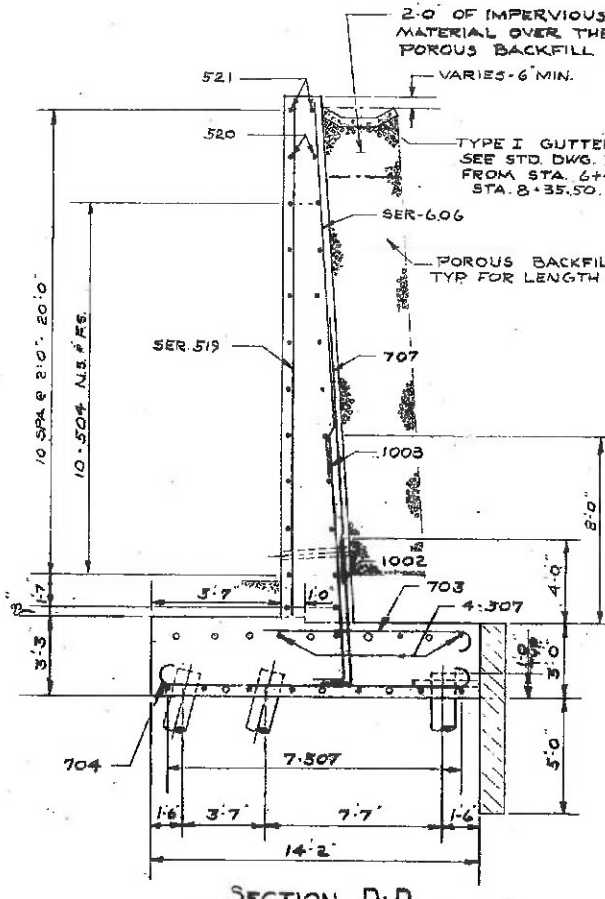
SECTION A-A



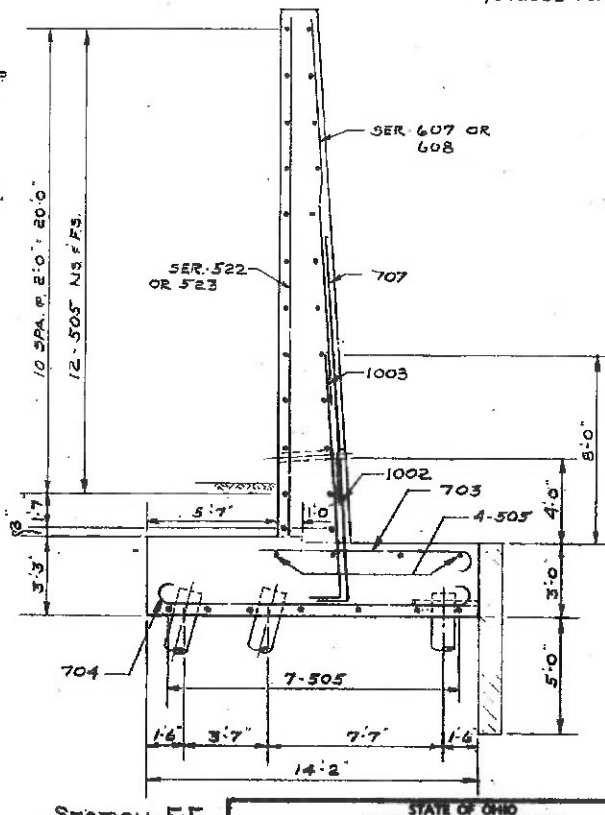
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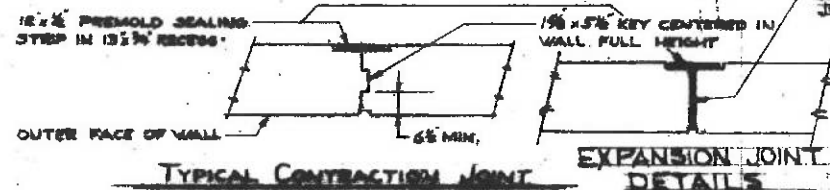
SECTION C-C



SECTION D-D



SECTION E-E



THICKNESS OF PRECAST EXPANSION JOINT FILLER

ESTIMATED PILE LENGTH = 20'
FOR SHEET PILING ANCHORAGE DETAIL SEE SHEET NO. 3/6

ITEM	UNIT	DESCRIPTION	TOTAL	ITEM	UNIT	DESCRIPTION	TOTAL
E-1	CY	UNCLASSIFIED EXCAVATION	276	E-3	LN	WATERPROOFING (PREMIUM) SEALING STRIP	65
E-2	SG. FT.	SG. FT. SHEET PILING LEFT IN PLACE 2 1/2" W/	783	S-4	LBS	REINFORCING STEEL	22,010
E-2	LUMP	COFFERDAM CRIBS (SHIELDING)	LUMP	S-5	SG. FT.	PRECAST EXPANSION JOINT FILLER	84
S-1	CY	CLASS "2" CONCRETE FOOTINGS	198	S-6	LUMP	FIRST TEST PILE	LUMP
S-1	CY	CLASS "2" CONCRETE WALL	179	S-7	LN	IN-CAST-IN-PLACE REINFORCED CONCRETE PILE	1100
				S-8	CY	POROUS BACKFILL	183

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

DESIGNED BY: HUGH & ASSOCIATES AND ROBERT J. SCHRAMM
CONSULTING ENGINEERS
3800 MARKET ST. YOUNGSTOWN, OHIO

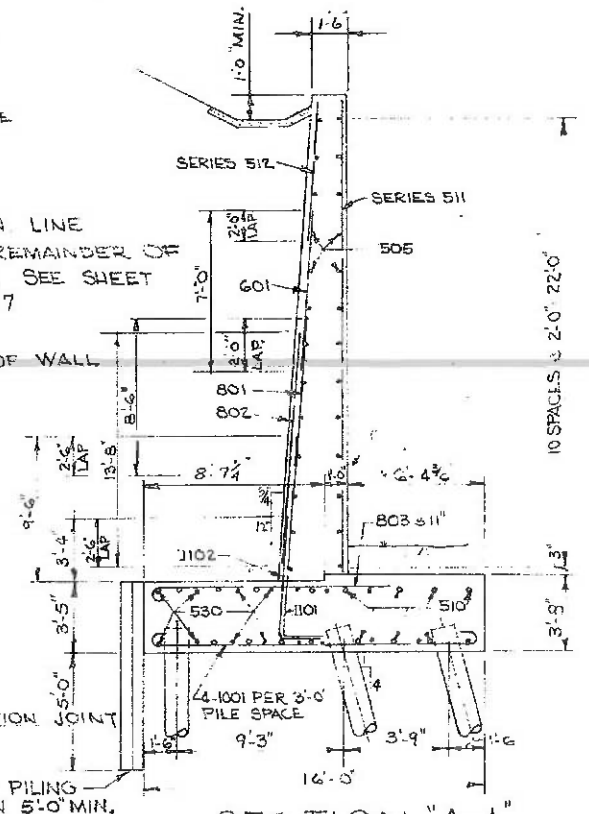
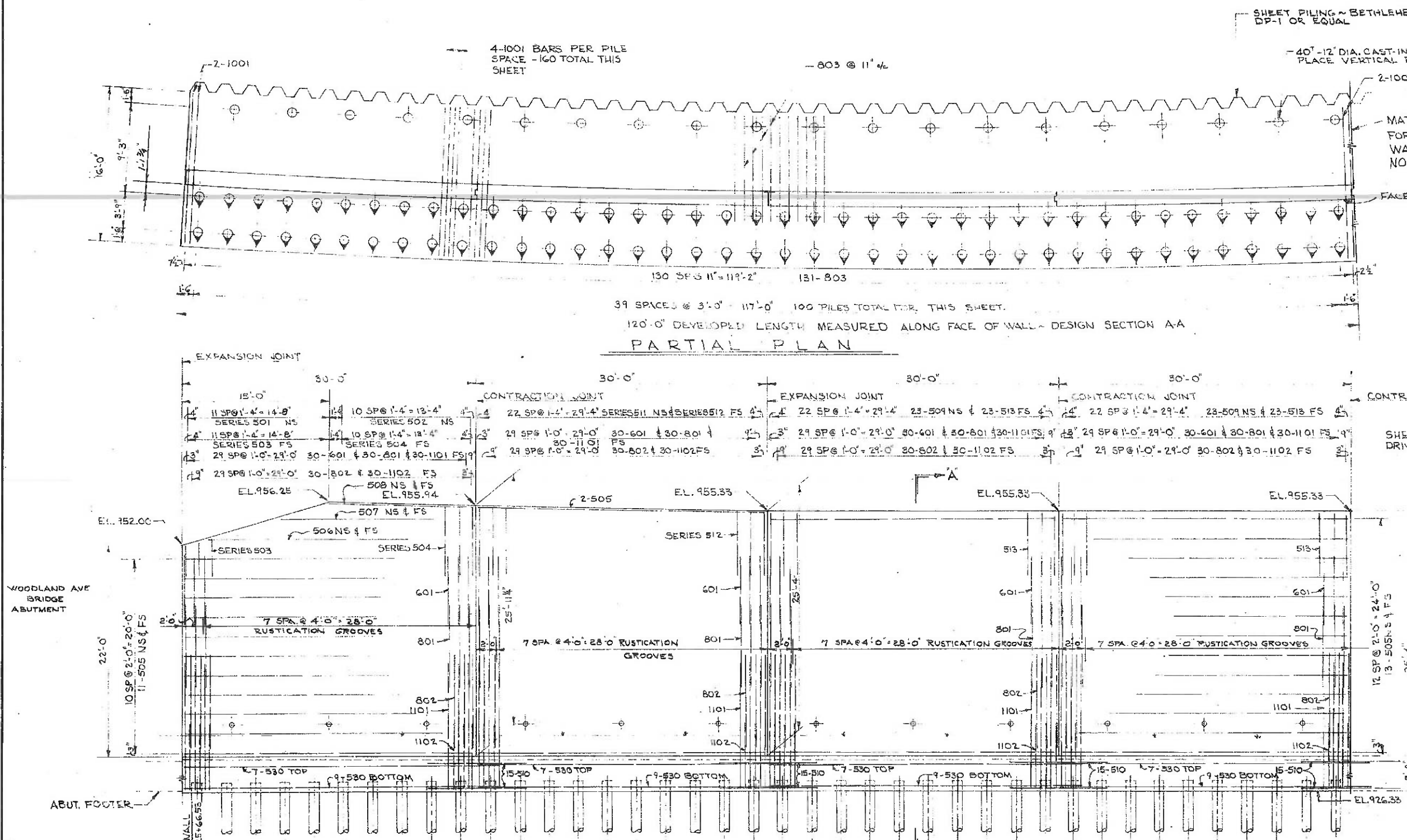
RETAINING WALL ALONG RAMP "L"

YOUNGSTOWN, MAHONING COUNTY

STA. 6+28.88 To STA. 7+98.00

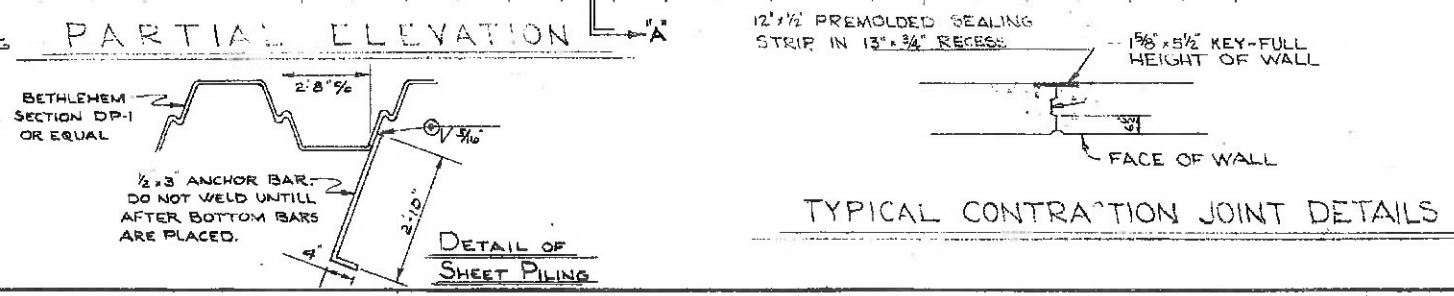
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	BY
DMH	UNP		D.S.	DHC		

NOTES
DESIGN SPECIFICATIONS: THE WALL CONFORMS TO THE REQUIREMENTS OF DESIGN SPECIFICATION FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED 9-1-57, TOGETHER WITH CURRENT REVISIONS THEREOF.
LOCATION AND GEOMETRIC PLAN IS ON SHEET NO.



SCHEDULE OF QUANTITIES			
ITEM	UNIT	DESCRIPTION	QUANTITY
E-2	CU.YDS.	UNCLASSIFIED EXCAVATION	4,430
E-2	SQ.FT.	STL. SHEET PILING, LEFT-IN-PLACE	3,186
E-2	LUMP	COFFERDAMS CRIBS, # SHEETING	LUMP
S-1	CU.YDS.	CLASS 'E' CONCRETE-FOOTERS	748
S-1	CU.YDS.	CLASS 'E' CONCRETE-WALLS	804
S-3	LIN.FT.	WATERPROOFING 12" W/	335
S-4	LBS	PREMOULDED SEALING STRIP	
S-4	LBS	REINFORCING STEEL	135,171
S-9	SQ.FT.	1" PREFORMED EXPANSION JOINT FILLER	317
S-16	LUMP	FIRST TEST PILE	LUMP
S-18	UN.FT.	12" CAST-IN-PLACE REW-FORCED CONC. PILES	7050
S-29	CU.YDS.	POROUS BACKFILL	598

ESTIMATED PILE LENGTH 25'-0"



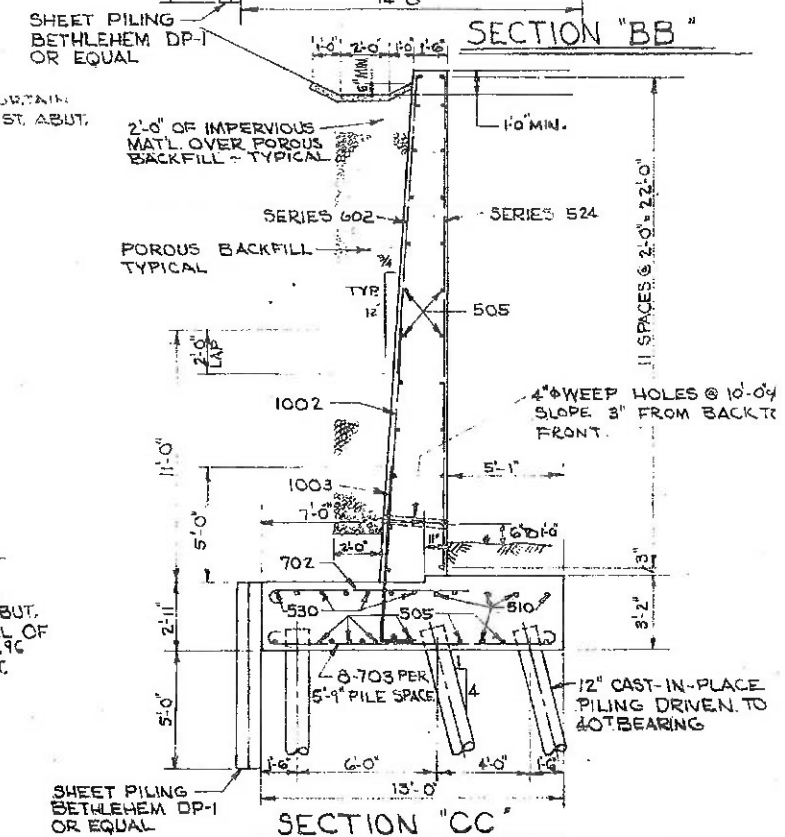
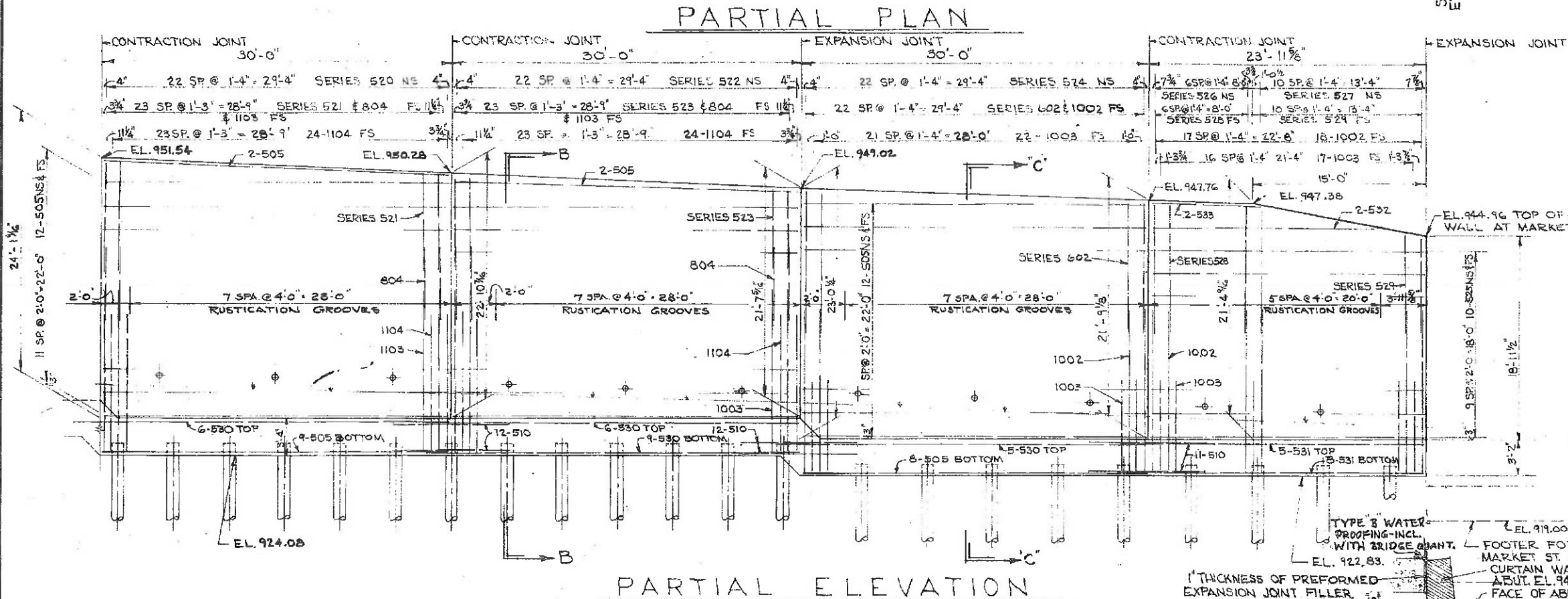
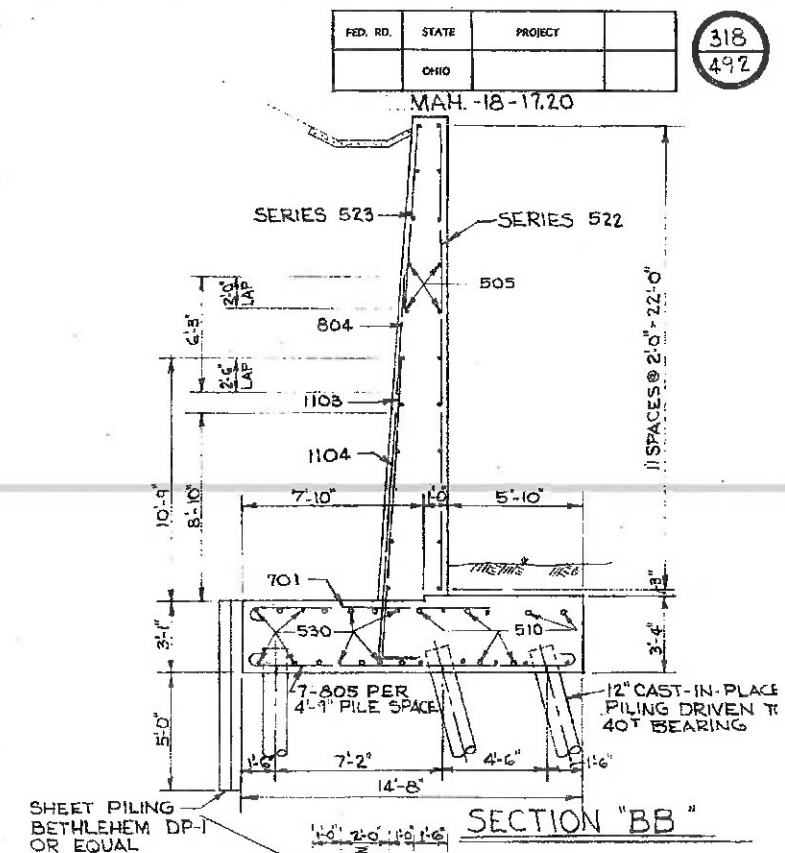
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHOMER
CONSULTING ENGINEERS
3600 MARKET ST. YOUNGSTOWN, OHIO

RETAINING WALL
ALONG RAMP 'T'

PLAN AND ELEVATION
YOUNGSTOWN MAHONING COUNTY
STA. 1025+66.53 TO STA. 1029+72.77

DESIGNED	D.S.	DRAWN	D.S.	TRACED	CHC.	CHECKED	CHC.	REVIEWED	DATE	REVISED
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~ REINFORCING										SCHEDULE ~									
MARK	NO. REQ'S	LENGTH	WEIGHT	SHAPE	MARK	NO. REQ'S	LENGTH	WEIGHT	SHAPE	MARK	NO. REQ'S	LENGTH	WEIGHT	SHAPE	MARK	NO. REQ'S	LENGTH	WEIGHT	SHAPE
SERIES 501	1-SET OF 12	FROM 22'-0" TO 26'-0" INCR. OF 4"	300	ST	SERIES 516	1-SET OF 23	FROM 28'-6" TO 24'-10" INCR. OF 3"	580	ST	531	13	26'-0"	353	ST	804	48	6'-8"	801	ST
SERIES 502	1-SET OF 11	FROM 25'-8" TO 24'-0" INCR. OF 3"	296	ST	SERIES 517	1-SET OF 23	FROM 5'-0" TO 0'-10" INCR. OF 3"	148	ST	532	2	19'-0"	40	ST	805	88	16'-0"	3760	BT
SERIES 503	1-SET OF 12	FROM 3'-4" TO 7'-4" INCR. OF 4"	72	ST	SERIES 518	1-SET OF 23	FROM 22'-2" TO 23'-6" INCR. OF 3"	546	ST	533	2	9'-0"	19	ST					
SERIES 504	1-SET OF 11	FROM 7'-5" TO 7'-9" INCR. OF 3"	87	ST	SERIES 519	1-SET OF 23	FROM 4'-2" TO 5'-6" INCR. OF 3"	116	ST										
505	337	29'-8"	10,429	ST	SERIES 520	1-SET OF 23	FROM 22'-6" TO 23'-10" INCR. OF 3"	356	ST						1001	360	18'-4"	28,400	BT
506	2	27'-0"	56	ST	SERIES 521	1-SET OF 24	FROM 10'-7" TO 11'-10" INCR. OF 3"	201	ST						1002	41	14'-7"	2573	BT
507	2	20'-0"	42	ST	SERIES 522	1-SET OF 23	FROM 21'-3" TO 22'-7" INCR. OF 3"	526	ST	601	270	7'-0"	2840	ST	1003	59	8'-7"	1441	BT
508	2	14'-8"	30	ST	SERIES 523	1-SET OF 24	FROM 9'-4" TO 10'-7" INCR. OF 3"	250	ST	602	1-SET OF 23	FROM 13'-0" TO 14'-3" INCR. OF 3"	471	ST					
509	92	25'-1"	2407	ST	SERIES 524	1-SET OF 23	FROM 21'-6" TO 22'-10" INCR. OF 3"	532	ST	701	60	10'-8"	1308	BT					
510	167	10'-0"	1742	ST	525	20	23'-8"	445	ST	702	54	9'-9"	1076	BT	1101	270	13'-8"	19605	BT
SERIES 511	1-SET OF 23	FROM 25'-1" TO 25'-8" INCR. OF 3"	609	ST	SERIES 526	1-SET OF 7	FROM 21'-1" TO 21'-6" INCR. OF 3"	135	ST	703	76	14'-2"	2201	BT	1102	270	7'-6"	10,759	BT
SERIES 512	1-SET OF 23	FROM 6'-6" TO 7'-2" INCR. OF 3"	164	ST	SERIES 527	1-SET OF 11	FROM 18'-8" TO 21'-1" INCR. OF 2"	228	ST						1103	48	14'-8"	3740	BT
513	92	6'-7"	632	ST	SERIES 528	1-SET OF 11	FROM 12'-7" TO 13'-0" INCR. OF 3"	94	ST	801	270	8'-6"	6128	ST	1104	48	12'-7"	3209	BT
SERIES 514	1-SET OF 23	FROM 24'-10" TO 26'-1" INCR. OF 3"	611	ST	SERIES 529	1-SET OF 11	FROM 10'-2" TO 11'-1" INCR. OF 2"	131	ST	802	270	13'-8"	9853	ST					
SERIES 515	1-SET OF 23	FROM 4'-0" TO 8'-1" INCR. OF 3"	179	ST	530	156	32'-0"	5207	ST	803	294	11'-7"	9093	BT	TOTAL REINFORCING STEEL				135171

REPLACEMENT BARS			
MARK	NO OF	LENGTH	SWAY
RE501	2	5'-6"	ST
RE601	1	6'-0"	ST
RE701	1	6'-3"	ST
RE801	2	6'-6"	ST
RE901	2	7'-2"	ST
RE101	2	7'-6"	ST

RETAINING WALL
ALONG RAMP "N"
PLAN AND ELEVATION

YOUNGSTOWN MAHONING COUNTY
STA. 1025+66.53 TO STA. 1029+72.77

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISI
D.S.	D.S.		D.H.S.			

ESTIMATED QUANTITIES	
ITEM NO.	DESCRIPTION
E-2	3990 C.Y. UNCLASSIFIED EXCAVATION
S-1	496 " CLASS "E" CONCRETE - FOOTINGS
S-1	528 " " "E" " - ABOVE FOOTER
E-2	LUMP LUMP COFFERDAMS, CRIBS, SHEETING
S-3	322 LUM. WATERPROOFING 12" PREMOLDED SEALING STRIP
S-4	67267 LBS. REINFORCING STEEL
S-5	176 SQ. FT. 1" PREFORMED EXP. JT. FILLER
S-16	LUMP SUM FIRST TEST PILE
S-18	2175 LUM. CAST-IN-PLACE REINFORCED CONCRETE PILE
S-18	411 LUM. CORRUGATED SHEET PILING
E-2	3240 SQ. FT. STL. SHEET PILING, LEFT IN PLACE 32" / FT.

ESTIMATED PILE LENGTH 15'-0"

DETAIL OF THIS WALL ON SHEET 316

GENERAL NOTES:

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED SEPTEMBER 1, 1957 TOGETHER WITH CURRENT REVISIONS THEREOF.

EXCAVATION QUANTITY: INCLUDES THE REMOVAL OF MATERIAL BETWEEN THE SURFACE OF THE EXISTING GROUND LINE AND THE BOTTOM OF THE FOOTINGS.

MAIN LINE CURVE DATA

$\Delta = 53^\circ 49' 25''$
 $R = 496.45'$
 $L = 586.06'$
 $D_c = 45' 00''$
 $L_s = 400'$
 $T_e = 708.91'$
 $E_s = 128.51'$

CURVE DATA - RAMP "K"

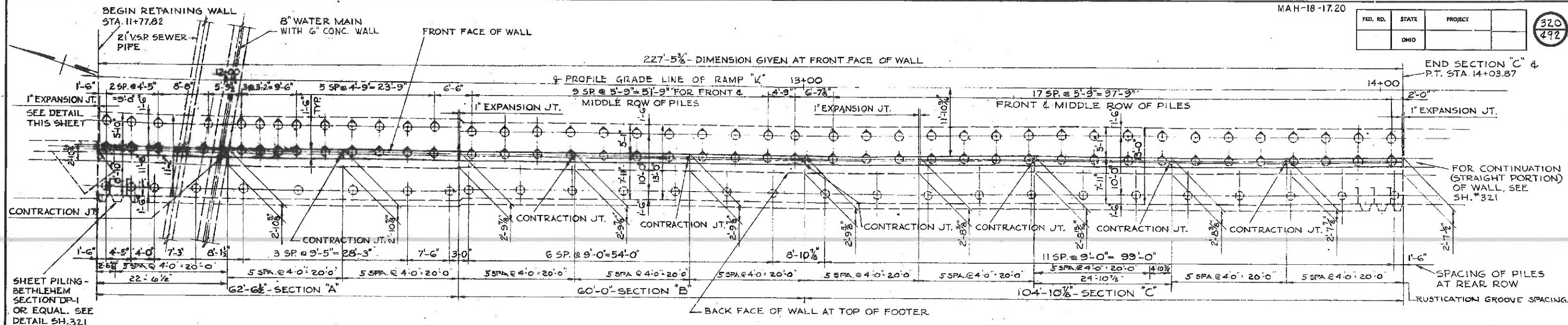
$\Delta = 20^\circ 15' 30''$
 $R = 1,409.86'$
 $L = 675.00'$
 $T = 341.06'$
 $E_s = 30.21'$
 $D_c = 3' 00' 00''$

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
BEISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHÖME
CONSULTING ENGINEERS
3600 MARKET ST. YOUNGSTOWN, OHIO

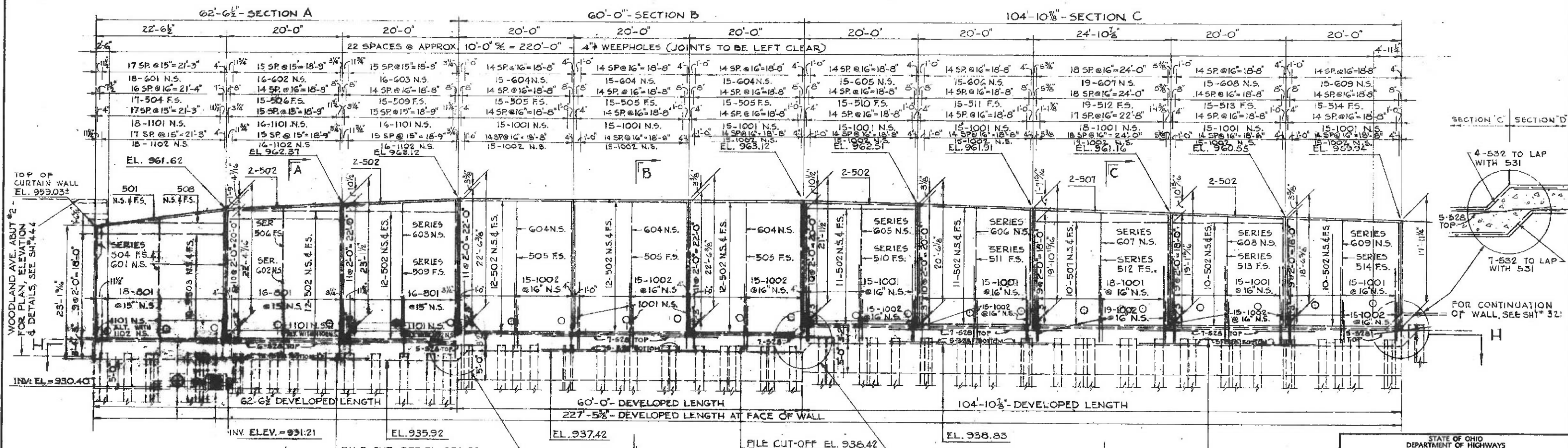
RETAINING WALL ALONG RAMP "K"

LOCATION PLAN
YOUNGSTOWN, MAHONING COUNTY
STA. 11+77.82 TO STA. 15+81.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISE
D.S. & R.H.	F.S.S.					



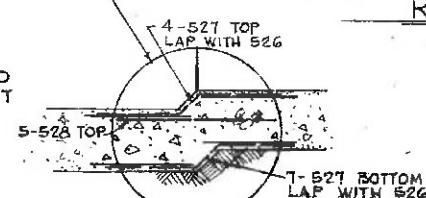
LOCATION AND PILING PLAN OF RETAINING WALL



DETAIL OF CONTRACTION JOINT

12" x 1/2" PREMOLDED SEALING STRIP IN 13" x 3/4" RECESS

15" x 5 1/2" KEY-CENTERED IN WALL FULL HEIGHT



REAR ELEVATION

EXPOSED FACE OR FRONT

EXPANSION JOINT DETAILS

1" THICKNESS OF PREFORMED EXPANSION JOINT FILLER

12" x 1/2" PREMOLDED SEALING STRIP IN 13" x 3/4" RECESS

WOODLAND AVE. ABUT. NO. 2

RETAINING WALL

6" x 1/2" PREMOLDED SEALING STRIP IN 6 1/2" x 3/4" RECESS

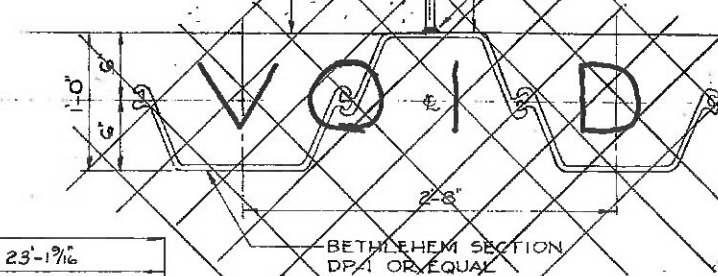
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BRISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHOMER
CONSULTING ENGINEERS
3600 MARKET ST.
YOUNGSTOWN, OHIO

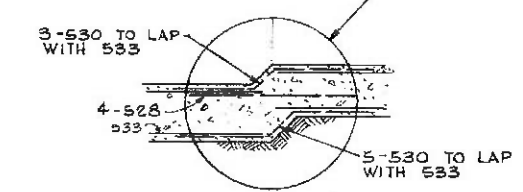
RETAINING WALL
ALONG RAMP 'K'
PLAN & ELEVATION
YOUNGSTOWN, MAHONING COUNTY
STA. 11+77.82 TO STA. 15+81.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
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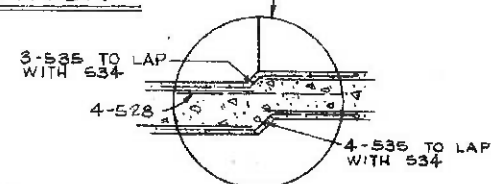
MAH-18-17.20



LOCATION AND PILING PLAN OF RETAINING WALL



REAR ELEVATION

- DETAIL OF RUSTICATION GROOVE

DETAIL OF SHEET PILING
(SEE DETAIL SHEET 316)

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

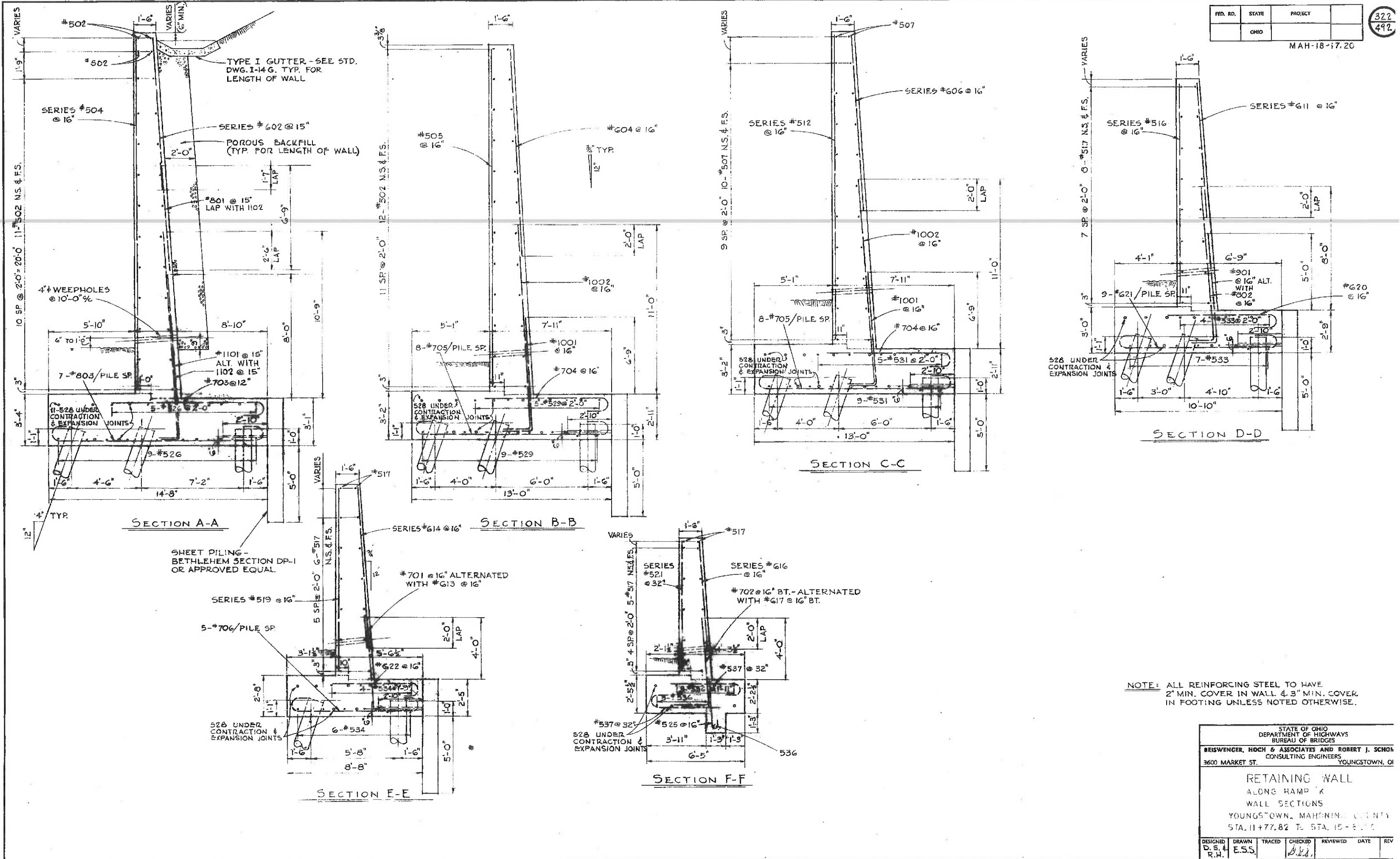
BEISWENGER, NOCH & ASSOCIATES AND ROBERT J. SCHOM
CONSULTING ENGINEERS

3600 MARKET ST. YOUNGSTOWN, OH

RETAINING WALL
ALONG RAMP "K"
PLAN & ELEVATION

YOUNGSTOWN, MAHONING COUNTY
STA. 11+77.82 To STA. 15+81.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REV
R.H.	E.S.S.		A.G.			



FED. RD.	STATE	PROJECT
	OHIO	

MAH-18-17.20

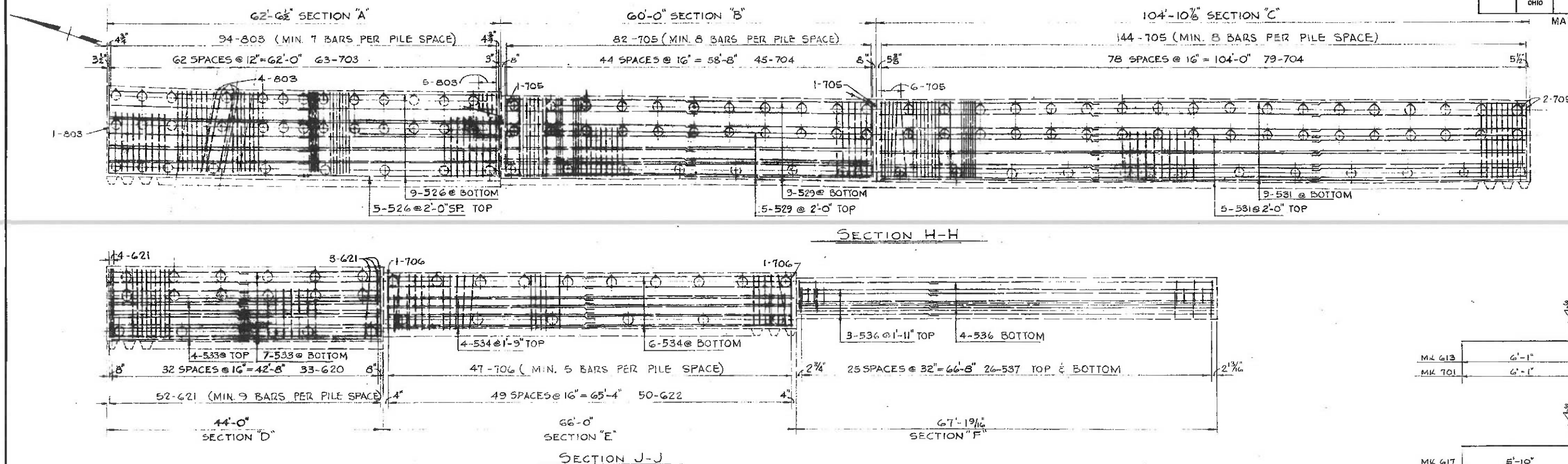
322
492

NOTE: ALL REINFORCING STEEL TO HAVE 2" MIN. COVER IN WALL & 3" MIN. COVER IN FOOTING UNLESS NOTED OTHERWISE.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
REISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHON
CONSULTING ENGINEERS
3600 MARKET ST. YOUNGSTOWN, OH

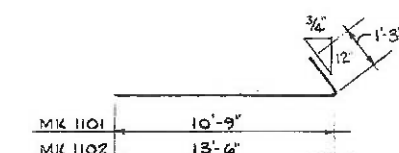
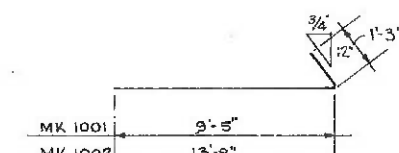
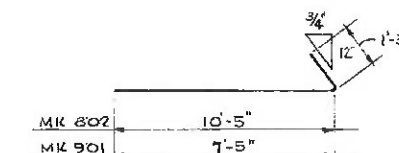
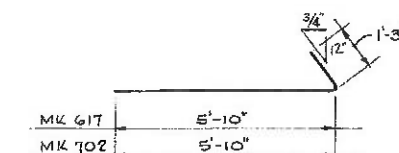
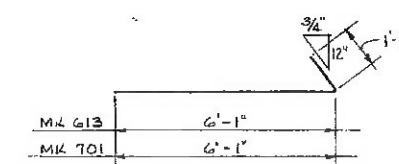
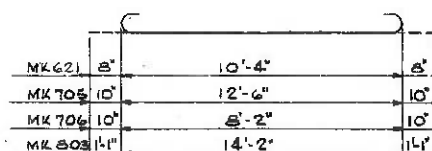
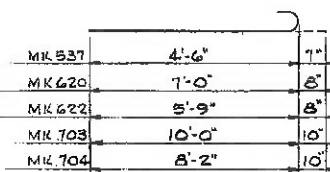
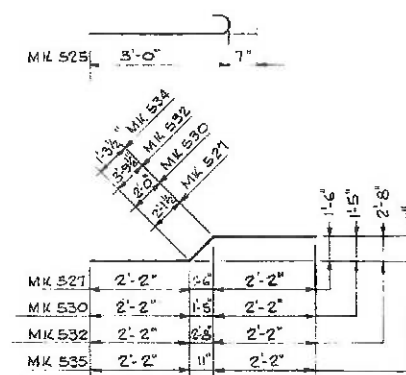
RETAINING WALL
ALONG RAMP 'K
WALL SECTIONS
YOUNGSTOWN, MAHONING COUNTY
STA. 11+77.82 TO STA. 15+81.00

DESIGNED D.S. & R.H.	DRAWN ESS	TRACED D.S.	CHECKED D.S.	REVIEWED DATE	REV
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REINFORCING STEEL SCHEDULE

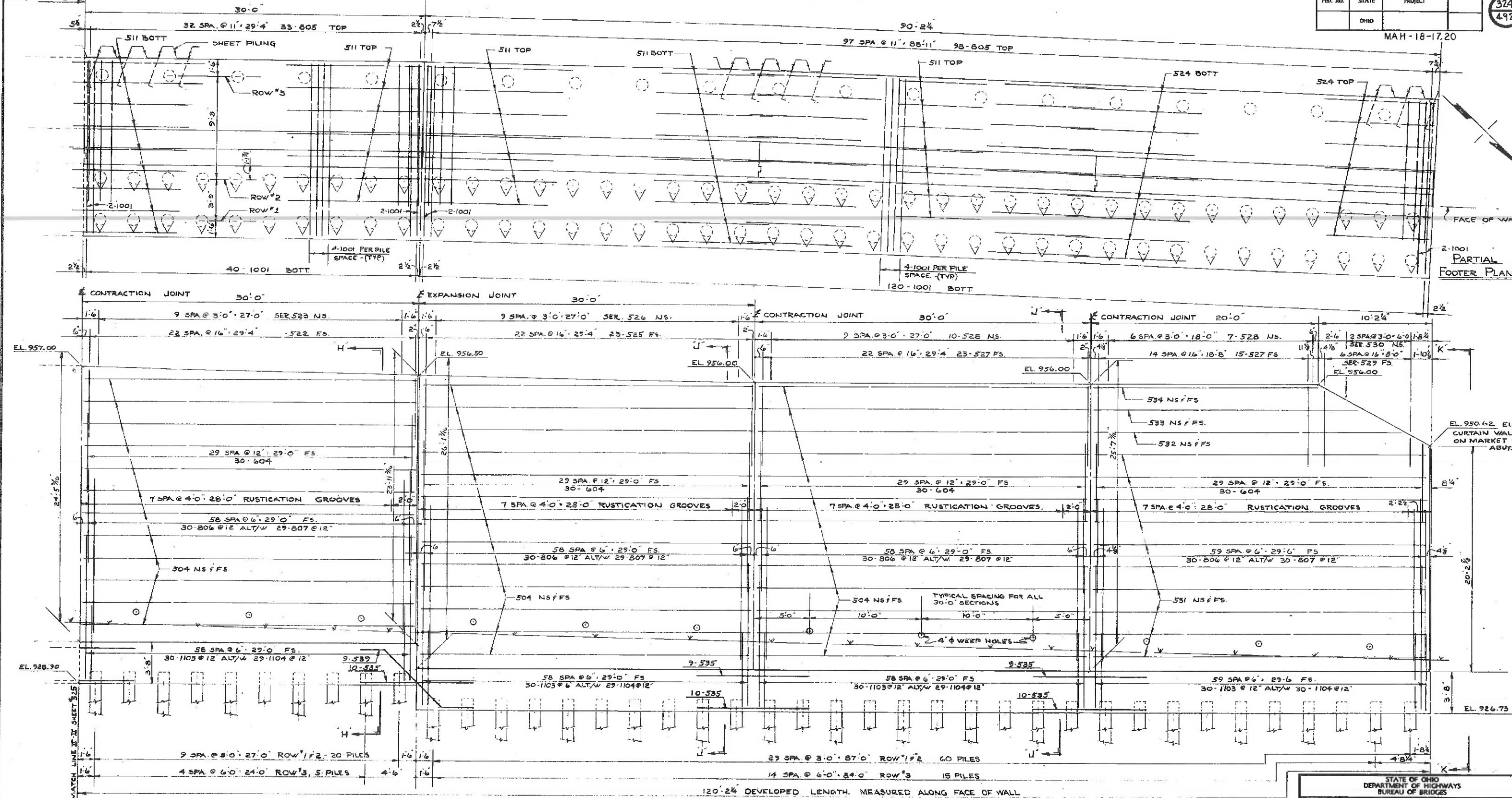
MARK	NO. OF BARS REQ'D	LENGTH	WEIGHT	SHAPE	MARK	NO. OF BARS REQ'D	LENGTH	WEIGHT	SHAPE	MARK	NO. OF BARS REQ'D	LENGTH	WEIGHT	SHAPE	MARK	NO. OF BARS REQ'D	LENGTH	WEIGHT	SHAPE
501	2	22'-4"	48	ST	SERIES 523	1 SET OF 9 BARS	FROM 7'-8" TO 7'-0" INCR. OF 1"	69	ST	SERIES 610	1 SET OF 17 BARS	FROM 9'-6" TO 8'-10" INCR. OF 1/2"	234	ST	803	94	16'-4"	4098	BT
502	212	19'-8"	4348	ST	524	8	22'-9"	190	ST	SERIES 611	1 SET OF 17 BARS	FROM 8'-10" TO 8'-2" INCR. OF 1/2"	217	ST					
503	20	22'-2"	462	ST	525	51	3'-7"	191	BT	SERIES 612	1 SET OF 17 BARS	FROM 11'-0" TO 10'-4" INCR. OF 1/2"	212	ST	901	32	8'-6"	925	BT
SERIES 504	1 SET OF 17 BARS	FROM 19'-7" TO 22'-2" INCR. OF 1 1/8"	370	ST	526	28	32'-4"	944	ST	613	48	7'-3"	523	BT					
505	45	22'-4"	1048	ST	527	11	6'-5"	76	BT	SERIES 614	1 SET OF 17 BARS	FROM 10'-4" TO 9'-8" INCR. OF 1/2"	255	ST					
SERIES 506	1 SET OF 15 BARS	FROM 22'-2" TO 22'-11" INCR. OF 5/8"	353	ST	528	158	10'-0"	1648	ST	615	1 SET OF 17 BARS	FROM 9'-8" TO 9'-2" INCR. OF 1/2"	238	ST	1001	123	10'-6"	5557	BT
507	22	24'-6"	542	ST	529	28	31'-0"	905	ST	SERIES 616	1 SET OF 17 BARS	FROM 7'-3" TO 6'-7" INCR. OF 1/2"	177	ST	1002	124	14'-9"	7870	BT
508	2	15'-0"	31	ST	530	22	6'-4"	145	BT	617	45	7'-0"	515	BT					
SERIES 509	1 SET OF 15 BARS	FROM 22'-11" TO 23'-8" INCR. OF 9/8"	364	ST	531	42	36'-0"	1577	ST	SERIES 618	1 SET OF 17 BARS	FROM 6'-7" TO 5'-11" INCR. OF 1/2"	160	ST					
SERIES 510	1 SET OF 15 BARS	FROM 20'-11" TO 20'-4" INCR. OF 1/2"	323	ST	532	11	8'-1"	93	BT	619	1 SET OF 18 BARS	FROM 5'-11" TO 5'-3" INCR. OF 1/2"	151	ST					
SERIES 511	1 SET OF 15 BARS	FROM 20'-4" TO 19'-9" INCR. OF 1/2"	313	ST	533	22	22'-8"	520	ST	620	33	7'-8"	380	BT					
SERIES 512	1 SET OF 19 BARS	FROM 19'-9" TO 19'-0" INCR. OF 1/2"	383	ST	534	20	33'-8"	702	ST	621	52	11'-8"	911	BT					
SERIES 513	1 SET OF 15 BARS	FROM 18'-11" TO 18'-4" INCR. OF 1/2"	292	ST	535	1	5'-7"	41	BT	622	50	6'-5"	482	BT					
SERIES 514	1 SET OF 15 BARS	FROM 18'-4" TO 17'-9" INCR. OF 1/2"	282	ST	536	14	34'-2"	499	ST										
SERIES 515	1 SET OF 17 BARS	FROM 14'-6" TO 14'-6" INCR. OF 1/2"	243	ST	537	52	5'-1"	276	BT										
SERIES 516	1 SET OF 17 BARS	FROM 14'-6" TO 13'-10" INCR. OF 1/2"	252	ST	SERIES 601	1 SET OF 18 BARS	FROM 6'-5" TO 9'-0" INCR. OF 19/16"	208	ST										
517	98	21'-8"	2215	ST	SERIES 602	1 SET OF 16 BARS	FROM 9'-0" TO 9'-9" INCR. OF 9/16"	225	ST	701	51	7'-3"	756	BT					
SERIES 518	1 SET OF 17 BARS	FROM 12'-9" TO 12'-1" INCR. OF 1/2"	220	ST	SERIES 603	1 SET OF 16 BARS	FROM 9'-9" TO 10'-6" INCR. OF 5/8"	243	ST	702	52	7'-0"	744	BT					
SERIES 519	1 SET OF 17 BARS	FROM 12'-1" TO 11'-5" INCR. OF 1/2"	208	ST	604	45	13'-7"	918	ST	703	63	10'-10"	1395	BT					
SERIES 520	1 SET OF 17 BARS	FROM 11'-5" TO 10'-9" INCR. OF 1/2"	196	ST	SERIES 605	1 SET OF 15 BARS	FROM 12'-2" TO 11'-7" INCR. OF 1/2"	268	ST	704	124	9'-0"	2281	BT					
SERIES 521	1 SET OF 9 BARS	FROM 9'-0" TO 8'-4" INCR. OF 1"	81	ST	SERIES 606	1 SET OF 15 BARS	FROM 11'-7" TO 11'-0" INCR. OF 1/2"	254	ST	705	226	14'-2"	6545	BT					
SERIES 522	1 SET OF 9 BARS	FROM 8'-4" TO 7'-8" INCR. OF 1"	75	ST	SERIES 607	1 SET OF 19 BARS	FROM 11'-0" TO 10'-3" INCR. OF 1/2"	303	ST	706	47	9'-10"	944	BT					
					SERIES 608	1 SET OF 15 BARS	FROM 10'-3" TO 9'-5" INCR. OF 1/2"	224	ST										
					SERIES 609	1 SET OF 15 BARS	FROM 9'-7" TO 9'-0" INCR. OF 1/2"	210	ST	801	50	6'-9"	901	ST					
										802	34	11'-6"	1044	BT					



STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
BEISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHOMER
CONSULTING ENGINEERS
3600 MARKET ST. YOUNGSTOWN, OHIO

RETAINING WALL
ALONG RAMP "K"
REINFORCING SCHEDULE
YOUNGSTOWN, MAHONING COUNTY.
STA. 11+77.82 TO STA. 15+81.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.R.	E.S.S.		D.R.			



- PARTIAL ELEVATION -

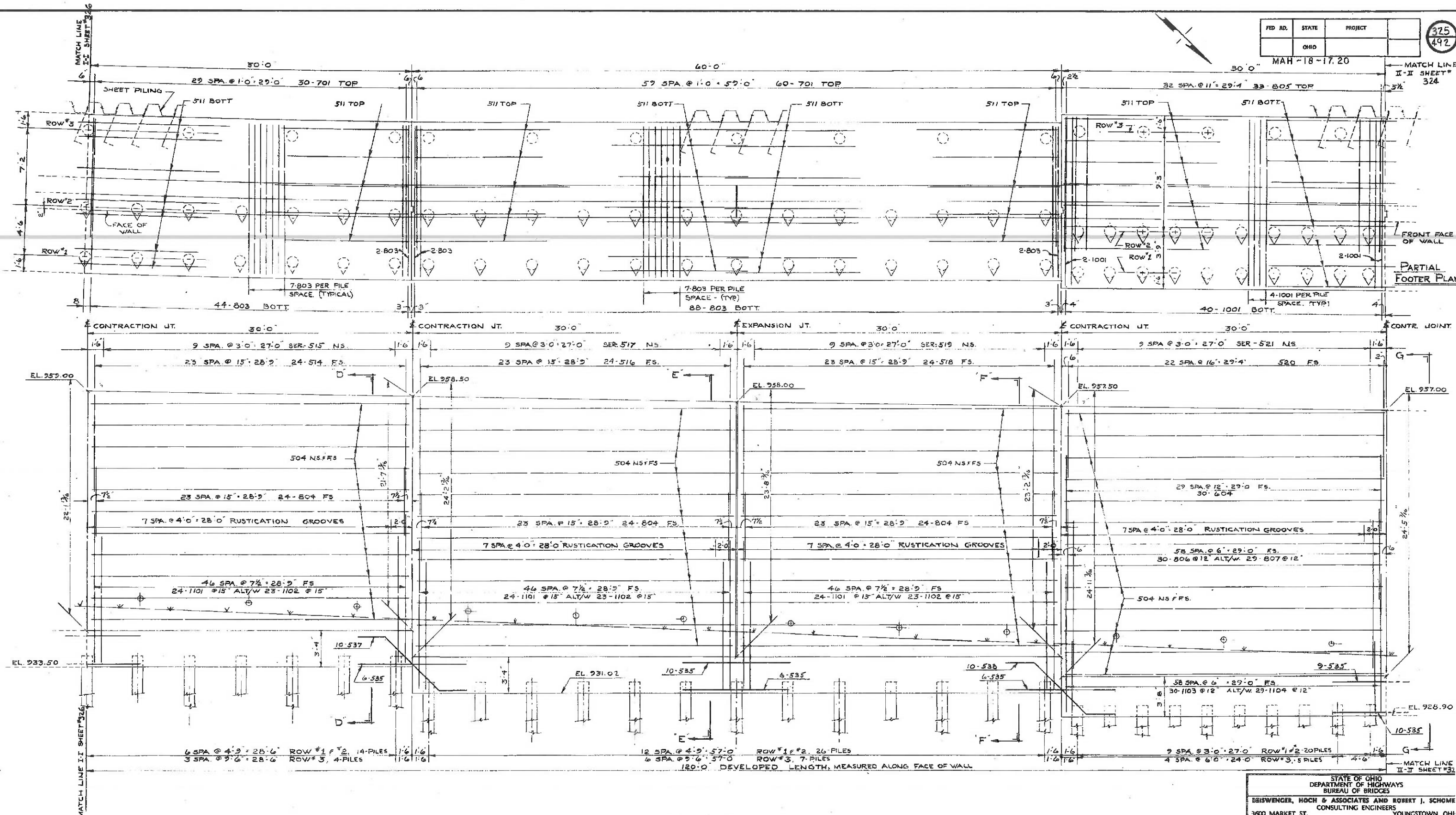
QUANTITIES TABLE							
ITEM NO.	UNIT	DESCRIPTION	QUANTITY	ITEM NO.	UNIT	DESCRIPTION	QUANTITY
E-2	CU.YDS.	UNCLASSIFIED EXCAVATION	3.296	S-9	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER	209
E-2	SQ. FT.	STL. SHEET PILING LEFT IN PLACE 32" PER 50' FT. INCLUDING ANCHORS	2733	S-16	LUMP	FIRST TEST PILE	LUMP
E-2	LUMP	COFFERDAMS, CRIBS & SHEETING	LUMP	S-18	LIN. FT.	12" CAST-IN-PLACE REINFORCED CONCRETE PILE	5725
S-1	CU. YDS.	CLASS 'E' CONCRETE, FOOTERS	641				
S-1	CU. YDS.	CLASS 'E' CONCRETE, WALLS	603				
S-3	LIN. FT.	WATERPROOFING PREMOULDED SEALING STRIP 12"x6"	249				
S-4	LBS.	REINFORCING STEEL	99.271	S-29	CU. YDS.	POREOUS BACKFILL	610

STATE OF OHIO
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RETAINING WALL
ALONG RAMP "M"
PLAN & ELEVATION
YOUNGSTOWN, MAHONING COUNTY
STA. 5+83.03 TO STA. 9+07.87

DESIGNED ROWF D.S.	DRAWN LJP	TRACED	CHECKED D.S.	REVIEWED	DATE	REVIS
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ESTIMATED PILE LENGTH - 25'-0"

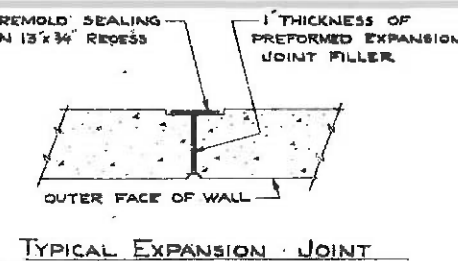
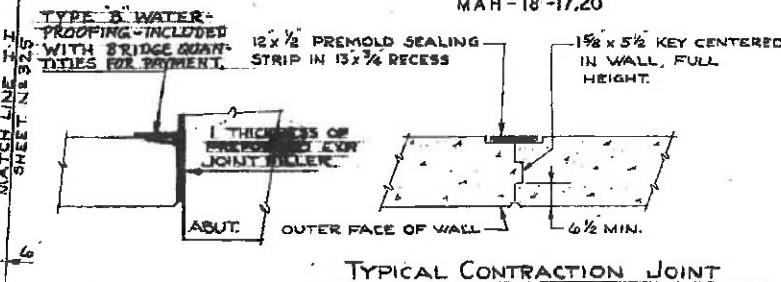
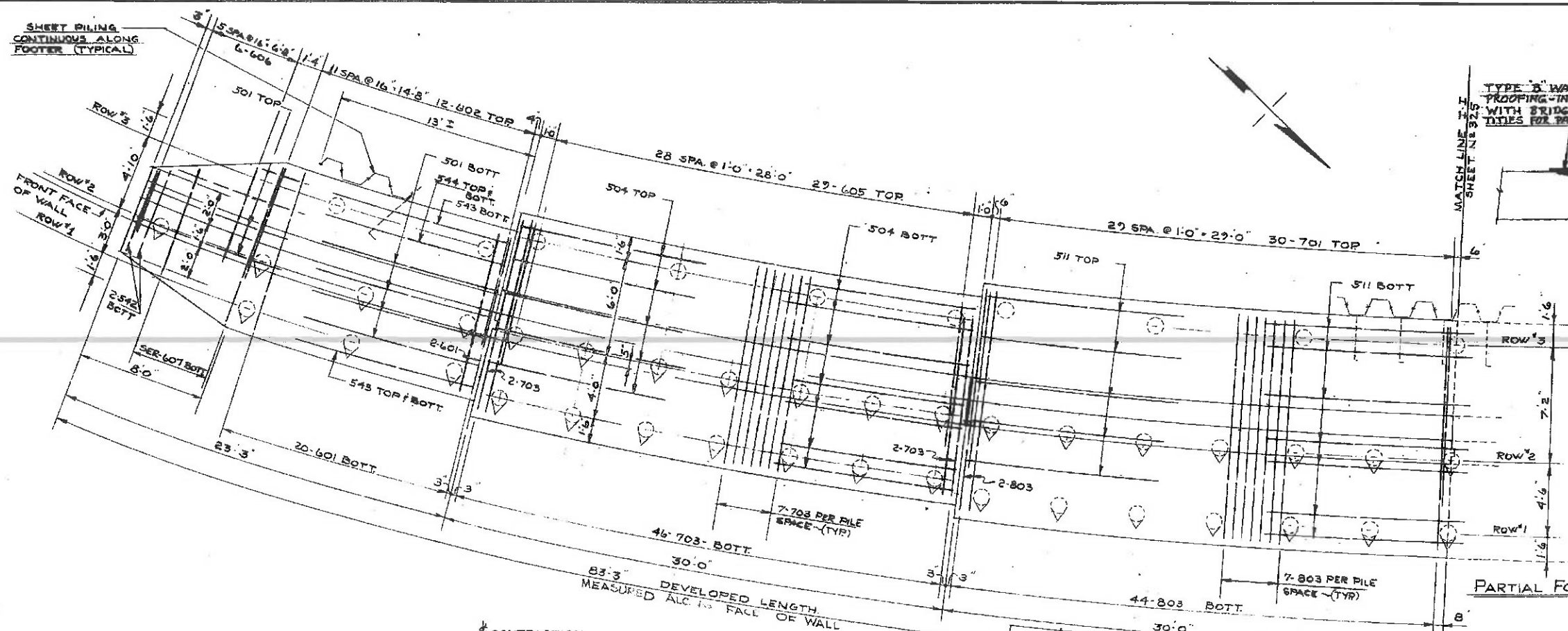


PARTIAL ELEVATION

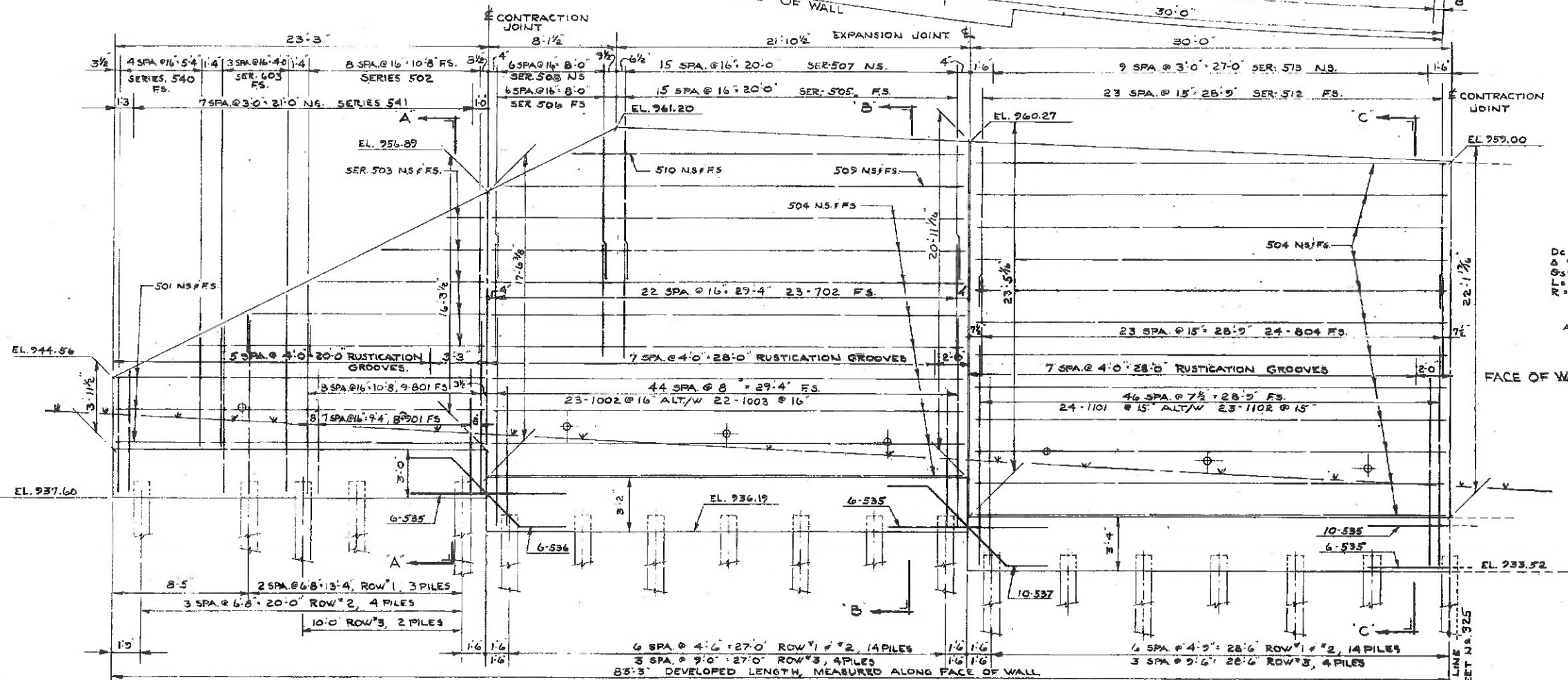
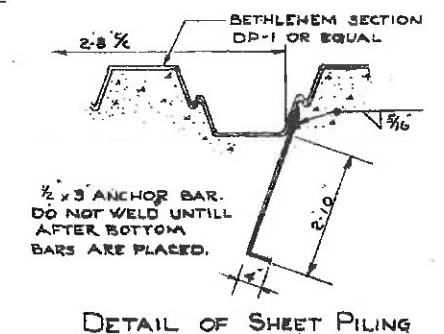
STATE OF OHIO
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RETAINING WALL
ALONG RAMP "M"
PLAN & ELEVATION
YOUNGSTOWN, MAHONING COUNTY
STA. 5+83.03 To STA. 9+07.87

DESIGNED RDH	DRAWN JNP	TRACED	CHECKED DS.	REVIEWED	DATE	REVISE
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PARTIAL FOOTER PLAN



PARTIAL ELEVATION

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
REISWENGER, HOCH & ASSOCIATES AND ROBERT J. SCHOMER
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**RETAINING WALL
ALONG RAMP M
PLAN & ELEVATION**
YOUNGSTOWN, MAHONING COUNTY
STA. 5+83.03 TO STA. 9+07.87

DESIGNED RDH/D.S.	DRAWN LNP	TRACED	CHECKED D.S.	REVIEWED	DATE	REVISED
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