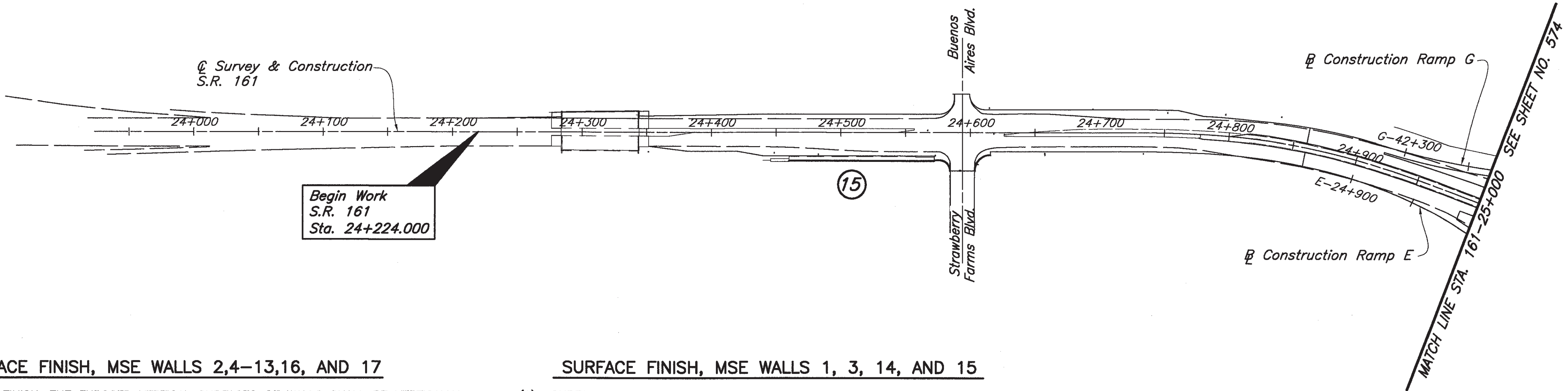




DEPTH, METERS	SAMPLE NO.	SAMPLES	SAMPLING EFFORT	HAND PENE- TROMETER	MOISTURE CONTENT	LIQUID LIMIT	PLASTIC LIMIT	TYPE: 85mm I.D. Hollow-stem Auger					LOCATION: Sta. B42+239,	
								50mm O.D. Split-barrel Sampler					1m Lt. of CL	
								NXM Core Barrel					of Ramp "B"	
COMPLETION DEPTH: 13.26m								ELEVATION: 256.64+/-		DATE: 9/14/98				
				kPa	%	%	%	AGG.	C.S.	F.S.	SILT	CLAY	DESCRIPTION	
0													TOPSOIL - 520 MILLIMETERS	
1	1	7 1/13		430+									Very-stiff to hard brown mottled with gray silty clay, some fine to coarse sand, trace fine gravel, few roots and iron oxide stains near top of stratum.	
2	2	3 5/6		285-430	22	39	23	6	8	15	71			
3	3	5 8/11		430+									A-6b(10)	
4	4	5 8/10		430+	14	25	16						Very-stiff to hard gray clayey silt, some fine to coarse sand, trace fine to coarse gravel, few sand lenses and desiccated near top of stratum.	
5	5	5 4/13		430+										
6	6	4 8/10		430+										
7	7	1 1/8		430+										
8	8	3 3/4		240-430+									Est. A-4a	
9	9	2 6/8						14	13	43	30		Medium-dense becoming dense gray fine to coarse sand, trace to little fine to coarse gravel, some becoming trace clayey silt, few shale fragments below 10.9m.	
10	10	6 1/12												
11	11	1 7/40												
12	12	NXM REC		RQD									A-3a(0)	
13	12	85%		61%									Soft to medium-hard gray shale, nearly horizontally bedded, contains many horizontal fractures along bedding planes, contains few diagonal fractures, core pieces 13mm to 210mm.	
14														
15													- Water encountered at 6.9m.	
WATER LEVEL: 3.81m														
WATER NOTE: After coring														
DATE: 09/14/98														

MSE Wall No.	Allowable Bearing Pressure (kPa)	Design Bearing Pressure (kPa)
1n	245	70
2n	345	140
3n	215	165
4n	475	120
4p	715	230
5n	430	110
5p	610	305
6n	530	130
6p	370	250
7n	120	120
7p	365	225
8n	165	65
9n	395	100
9p	505	280
10n	360	320
10p	245	245
11n	360	320
11n2	245	185
11p	360	335
12n	715	170
12p1	275	270
12p2	800	240
13n	565	140
13p	630	210
14n	345	105
15n	150	75
16n	245	175
16p	370	250
17n	275	75
17p	245	235



SURFACE FINISH, MSE WALLS 2,4-13,16, AND 17

- (A) SURFACE FINISH: THE EXPOSED VERTICAL SURFACES OF WALLS SHALL BE VERTICALLY STRIATED AS INDICATED IN THE "ELEVATION" VIEWS SHOWN ON SHEET 1162/1469 OF FRA-161-25.900, PART 1. SURFACE FINISH AND GROUT CLEANING SHALL CONFORM WITH 511.15.
- (B) STRIATIONS SHALL BE OBTAINED BY THE USE OF APPROVED FORM LINERS. STRIATIONS SHOWN ARE "SYMONS" TRAPAZOIDAL DEEP RIB. SIMILAR STRIATIONS BY OTHER MANUFACTURERS MAY BE USED SUBJECT TO THE APPROVAL OF THE DIRECTOR.
- (C) SHOP DRAWINGS OF FORMS SHOWING LINERS AND INSERTS ARE REQUIRED. THESE DRAWINGS SHALL BE SPECIFIC WITH RESPECT TO THE DIMENSIONS OF INSERTS FOR PANEL BOUNDARIES AND JOINT RUSTICATIONS (WOOD STRIPS).
- (D) VIBRATION: CARE SHALL BE TAKEN TO ENSURE PROPER DISTRIBUTION OF CONCRETE ALONG STRIATED SURFACES WITHOUT ADVERSELY AFFECTING THE INTEGRITY OF THE FORM LINERS AND INSERTS. EVERY EFFORT SHALL BE MADE TO PRODUCE A SURFACE FREE FROM AIR BUBBLES, CAVITIES AND HONEYCOMB SPOTS AND OTHER IMPERFECTIONS TO OBIATE THE NEED FOR SUBSEQUENT GROUT CLEANING.
- (E) WHERE THE WALL IS NOT TALL ENOUGH TO MERIT A FORM LINER, ONLY A SEALER COAT IS TO BE USED.
- (F) PAYMENT FOR SURFACE FINISH, SEALING, AND WHERE REQUIRED, GROUT CLEANING SHALL BE INCLUDED IN THE COST OF ITEM 610.

SURFACE FINISH, MSE WALLS 1, 3, 14, AND 15

- (A) SURFACE FINISH: THE EXPOSED VERTICAL SURFACES OF WALLS SHALL BE ASHLAR STONE AS INDICATED IN THE "ELEVATION" VIEWS SHOWN ON SHEET 1162A/1469 OF FRA-161-25.900, PART 1. SURFACE FINISH AND GROUT CLEANING SHALL CONFORM WITH 511.15.
- (B) ASHLAR STONE PATTERN SHALL BE OBTAINED BY THE USE OF APPROVED FORM LINERS.
- (C) SHOP DRAWINGS OF FORMS SHOWING LINERS AND INSERTS ARE REQUIRED. THESE DRAWINGS SHALL BE SPECIFIC WITH RESPECT TO THE DIMENSIONS OF INSERTS FOR PANEL BOUNDARIES AND JOINT RUSTICATIONS (WOOD STRIPS).
- (D) VIBRATION: CARE SHALL BE TAKEN TO ENSURE PROPER DISTRIBUTION OF CONCRETE ALONG STRIATED SURFACES WITHOUT ADVERSELY AFFECTING THE INTEGRITY OF THE FORM LINERS AND INSERTS. EVERY EFFORT SHALL BE MADE TO PRODUCE A SURFACE FREE FROM AIR BUBBLES, CAVITIES AND HONEYCOMB SPOTS AND OTHER IMPERFECTIONS TO OBIATE THE NEED FOR SUBSEQUENT GROUT CLEANING.
- (E) WHERE THE WALL IS NOT TALL ENOUGH TO MERIT A FORM LINER, ONLY A SEALER COAT IS TO BE USED.
- (F) PAYMENT FOR SURFACE FINISH, SEALING, AND WHERE REQUIRED, GROUT CLEANING SHALL BE INCLUDED IN THE COST OF ITEM 610.

ITEM 864 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):
THE COLOR OF THE EPOXY-URETHANE SEALANT SHALL BE FEDERAL COLOR NO. 17778 (LIGHT NEUTRAL) ON BOTH THE HIGHWAY AND RESIDENTIAL SIDES FOR ALL MSE WALLS EXCEPT FOR WALLS 14 & 15. MSE WALLS 14 & 15 SHALL BE SEALED WITH FEDERAL COLOR NO. 17778 (LIGHT NEUTRAL) ON THE HIGHWAY SIDE, AND FEDERAL COLOR NO. 10324 (DARK NEUTRAL) ON THE RESIDENTIAL SIDE.

ITEM SPECIAL - REINFORCED EARTH WALL, OR
ITEM SPECIAL - RETAINED EARTH WALL, OR
ITEM SPECIAL - MSE PLUS RETAINING WALL, OR
ITEM SPECIAL - RETAINING WALL, MISC.: ARES
RETAINING WALL BY TENSAR

THIS ITEM SHALL INCLUDE BUT NOT BE LIMITED TO THE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE PRECAST WALL PANELS, THE CONCRETE LEVELING PAD, THE CONCRETE COPINGS (INCLUDING SLEEPER SLAB), THE SELECT GRANULAR EMBANKMENT FILL, UNCLASSIFIED EXCAVATIONS, AND SEALING OF CONCRETE SURFACES.

DESIGN A - REINFORCED EARTH WALLS

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 1
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 2
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 3
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 4
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 5
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 6
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 7
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 8
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 9
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 10
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 11
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 12
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 13
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 14
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 15
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 16
SPECIAL	610 13600	LUMP	LUMP	REINFORCED EARTH WALLS, WALL 17

DESIGN B - FOSTER GEOTECHNICAL RETAINED EARTH WALLS

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 1
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 2
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 3
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 4
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 5
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 6
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 7
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 8
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 9
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 10
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 11
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 12
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 13
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 14
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 15
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 16
SPECIAL	610 13800	LUMP	LUMP	RETAINED EARTH WALLS, WALL 17

DESIGN C - MSE PLUS RETAINING WALLS

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 1
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 2
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 3
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 4
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 5
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 6
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 7
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 8
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 9
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 10
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 11
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 12
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 13
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 14
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 15
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 16
SPECIAL	610 14200	LUMP	LUMP	MSE PLUS RETAINING WALL, WALL 17

DESIGN D - ARES RETAINING WALLS BY TENSAR

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 1
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 2
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 3
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 4
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 5
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 6
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 7
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 8
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 9
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 10
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 11
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 12
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 13
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 14
SPECIAL	610 14000	LUMP	LUMP	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 15
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 16
SPECIAL	610 14000	*	*	LS SPECIAL - A.R.E.S. RETAINING WALL, WALL 17

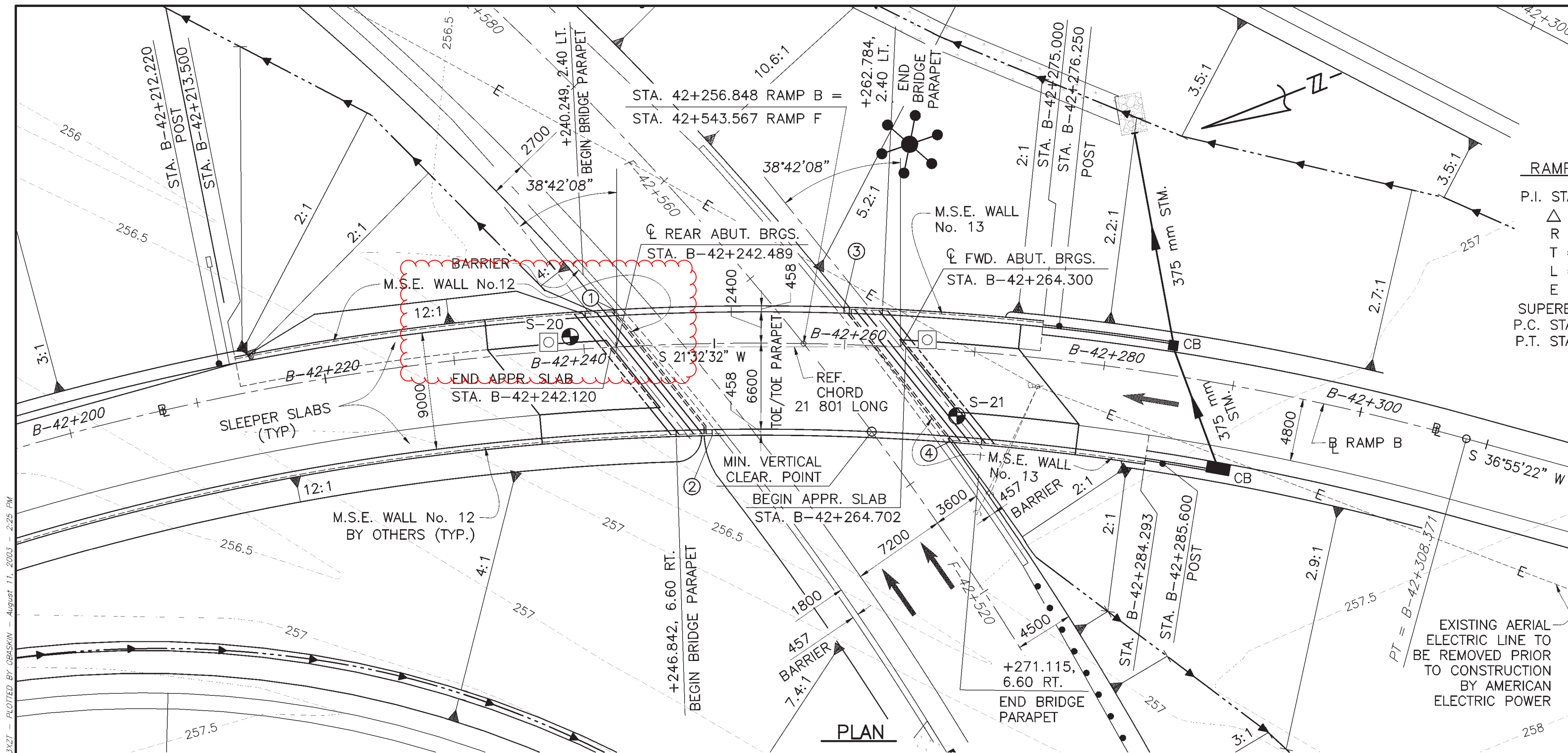
NOTES:

MSE WALLS LOCATED AT BRIDGE ABUTMENTS WERE ANALYZED BY TAKING A SECTION BOTH PARALLEL (P) TO THE CENTERLINE OF THE ROAD AND NORMAL (N) TO THE CENTERLINE OF THE ROAD. DESIGN SECTION TAKEN AT HIGHEST POINT OF WALL.

DESIGN BEARING VALUES WILL VARY BASED ON THE WALL HEIGHT AND UNIT WEIGHT OF THE SOIL USED WITHIN THE MSE WALL REINFORCED ZONE.

* DESIGN D IS NOT ALLOWED TO BE BID ON WALLS THAT SUPPORT BRIDGE ABUTMENTS WITHOUT PILES. ONLY DESIGN A, B, AND C CAN BE BID FOR THESE WALLS.

Q:\PROJECT\505049\DWG\CEWA 4-23-07\198-113\BRIDGE PLAN\BRIDGE-K-422421.BRD-K-501.DWG - 4 XREFS: 12563XPU 12563XEU 12563XEC 12563XCT - PLOTTED BY CBA5KIM - August 11, 2003 2:25 PM



NOTE : EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

RAMP B CURVE DATA	
P.I. STA. =	B-42+434.934
Δ =	144° 42' 28" RT.
R =	204.800 m
T =	643.811 m
L =	517.248 m
E =	470.800 m
SUPERELEVATION =	0.060
P.C. STA. =	B-41+791.123
P.T. STA. =	B-42+308.371

RAMP F CURVE DATA	
P.I. STA. =	F-42+873.504
Δ =	149° 38' 42" RT.
R =	250.000 m
T =	921.584 m
L =	652.950 m
E =	704.891 m
SUPERELEVATION =	0.060
P.C. STA. =	F-41+951.919
P.T. STA. =	F-42+604.869

M.S.E. WALL CORNER TURNING POINTS

- ① STA. B-42+242.448, 2.735 LT.
- ② STA. B-42+249.718, 6.935 RT.
- ③ STA. B-42+259.870, 2.735 LT.
- ④ STA. B-42+268.583, 6.935 RT.

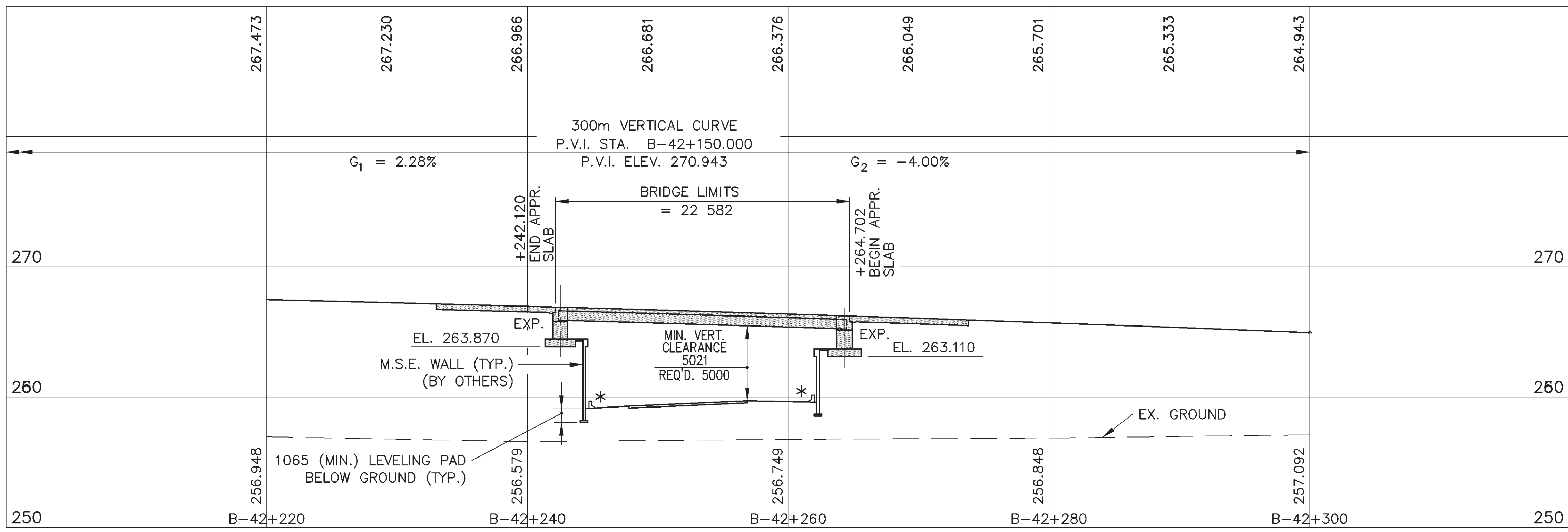
* FACE OF WALL SET 1560 PARALLEL TO $\angle$ BEARINGS. REMOVE HEEL OF TYPE D CONCRETE BARRIER AT MSE WALLS AS NEEDED.

BENCHMARK:

BRASS PLATE ON SOUTH SIDE OF EAST ABUTMENT OF S.R. 161 BRIDGE OVER I-270, 7.47M SOUTH OF CENTERLINE OF EASTBOUND LANES OF S.R. 161. ELEVATION: 261.585

- ⊕ = BORING LOCATIONS
- ⊙ = PROPOSED SETTLEMENT PLATFORM LOCATION. SEE SHEET 43 FOR NOTES AND DETAILS.

NOTE : ALL DIMENSIONS ARE IN MILLIMETERS. STATIONS AND ELEVATIONS ARE IN METERS.



PROFILE ALONG $\angle$ OF SURVEY AND CONSTRUCTION

B-42+239 SHALE ELEV. 245.12±
B-42+269 SHALE ELEV. 247.22±

TRAFFIC

	2000	2020
ADT	7020	10970
ADTT	350	550

PROPOSED STRUCTURE

TYPE: SINGLE SPAN COMPOSITE(A572M, PAINTED) STEEL BEAM WITH CONCRETE DECK AND SEMI-INTEGRAL ABUTMENT ON SPREAD FOOTINGS ON MSE WALLS.
SPAN: 21 801 (REFERENCE CHORD) C/C ABUTMENT BEARINGS
SKEW: 38°-42°-08" RT. FWD.(FROM REF. CHORD)
ALIGNMENT: 204.800 m RADIUS CURVE TO RT.
ROADWAY: 9000 T/T PARAPET
DESIGN LOADING: MS22.5, CASE II AND THE ALTERNATE MILITARY LOADING
WEARING SURFACE: MONOLITHIC CONCRETE
SUPERELEVATION : 0.06
APPROACH SLABS: AS-1-81M (9150 LONG) T=425
LAT. N 40° 04' 53" LONG. W 82° 54' 22"



EVANS, MECHWART, HAMELTON & TILTON, INC.
170 MILL STREET
CANANDA, OHIO 43230

DATE
CUS 03/14/02
STRUCTURE FILE NUMBER
2512386

DRAWN
DDW
DESIGNED
HEM
CHECKED
GT

FRANKLIN COUNTY
STA. B-42+242.120
STA. B-42+264.702

SITE PLAN
BRIDGE NO. FRA-270-49252
RAMP B OVER RAMP F

FRA 270-40.260

1/14
926
1039

\\COMDATA\HIGHWAY\PROJECT\SS05049\DWG\CEWA 4-23-07\08-11\3 BRIDGE PLANS\BRIDGE-K-42242\BRDK-S03.DWG -- 2 PREPS: BRDK-J24 12503J2T -- PLOTTED BY DVANCE -- November 17, 2003 -- 12:08 PM

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-81	DATED (REVISED)	07-19-02
BR-1	DATED (REVISED)	07-19-02
GSD-1-96	DATED (REVISED)	07-19-02
SICD-1-96	DATED (REVISED)	07-19-02

AND TO SUPPLEMENTAL SPECIFICATIONS:

841	DATED	04-19-02
864	DATED	07-11-00
894	DATED	10-18-02
898	DATED	01-17-03

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

DESIGN LOADING --	MS22.5 CASE II AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE (FWS) OF 2.87 KPA
CONCRETE CLASS HP --	COMPRESSIVE STRENGTH 31.0 MPA (SUPERSTRUCTURE)
CONCRETE CLASS QSC1 --	COMPRESSIVE STRENGTH 27.5 MPA (SUBSTRUCTURE)
REINFORCING STEEL --	ASTM A615M OR A996M GRADE 420 -- UNIT STRESS 420 MPA.
STRUCTURAL STEEL --	ASTM A572/A709 GRADE 50 YIELD STRENGTH 350 MPA

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL, 65 MM CONCRETE COVER, CLASS HP CONCRETE, AND TREATING OF CONCRETE SURFACES.

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25 MM THICK.

FOUNDATION BEARING PRESSURE: THE ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 0.204 MPA. THE ALLOWABLE BEARING PRESSURE IS 0.240 MPA.

ITEM 898, QC/QA CONCRETE, CLASS QSC1, SUBSTRUCTURE, AS PER PLAN:
IN ADDITION TO THE REQUIREMENTS OF ITEM 898, REFERENCE MONUMENTS SHALL BE INSTALLED IN EACH ABUTMENT SPREAD FOOTING. EACH SPREAD FOOTING SHALL HAVE TWO REFERENCE MONUMENTS INSTALLED, ONE AT EACH END OF THE FOOTING. THE REFERENCE MONUMENTS SHALL CONSIST OF A 25 MM, OR LARGER, EPOXY COATED REBAR. IT SHALL BE EMBEDDED INTO THE FOOTING AT LEAST 150 MM AND EXTEND VERTICALLY 100 TO 150 MM ABOVE THE TOP OF THE FOOTING. A 150 MM DIAMETER, SCHEDULE 40, PLASTIC PIPE SHALL BE INSTALLED AROUND THE REFERENCE MONUMENT; SHALL BE VERTICAL; AND THE TOP OF THE PIPE SHALL BE AT THE FINISHED GRADE. THE PIPE SHALL HAVE A REMOVABLE, SCHEDULE 40, PLASTIC CAP. THE PIPE SHALL BE CENTERED ON THE REFERENCE MONUMENT. THE BOTTOM OF THE PIPE SHALL BE PERMANENTLY ATTACHED TO THE TOP OF THE FOOTING.

GENERAL NOTES

THE BELOW TABLES SHALL BE COMPLETED FOR EACH INSTALLED REFERENCE MONUMENT

Project Number FRA-270-40.260	Maximum Bearing Pressure 0.204 MPa	
Bridge Number FRA-270-49252	Structure File Number 2512386	
Forward Abutment	Left Monument	Right Monument
After footing concrete is placed		
Before placement of superstructure members		
Before deck placement		
After deck placement		
Project completed		
Benchmark location		

Project Number FRA-270-40.260	Maximum Bearing Pressure 0.204 MPa	
Bridge Number FRA-270-49252	Structure File Number 2512386	
Forward Abutment	Left Monument	Right Monument
After footing concrete is placed		
Before placement of superstructure members		
Before deck placement		
After deck placement		
Project completed		
Benchmark location		

THE CONTRACTOR SHALL ESTABLISH A BENCHMARK FOR DETERMINING ELEVATIONS FOR THE ABOVE TABLE. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES.

COMPLETED TABLES SHALL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS AND A COPY SHALL BE SENT TO THE OFFICE OF STRUCTURAL ENGINEERING.

THE ABUTMENTS CAN ONLY BE CONSTRUCTED AFTER 90% CONSOLIDATION OF THE EXISTING SOILS HAVE BEEN ACHIEVED WITH A MINIMUM WAITING PERIOD OF 30 DAYS AFTER THE MSE WALLS HAVE BEEN CONSTRUCTED TO THE LIMITS SHOWN ON THE PLANS.

UTILITY LINES: THE UTILITY(IES) SHALL BORE ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN THE TOP COAT COLOR SHALL BE NEW ALBANY GREEN. THE CUSTOM COLOR SHALL MATCH SHERWIN WILLIAM'S NEW ALBANY GREEN (N.A.G.-4322). APPROVAL OF THE FINAL CUSTOM COLOR (NEW ALBANY GREEN) SHALL BE OBTAINED FROM ODOT. THE PAINT SUPPLIER MUST SUBMIT A 305MM X 305MM PAINT SAMPLE CARD BEFORE APPROVAL.

ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:

INSTALL A 1 METER WIDE NEOPRENE SHEET AT LOCATIONS SHOWN IN THE PLANS. SECURE THE NEOPRENE SHEETING TO THE CONCRETE WITH 32 MM X 3 MM (LENGTH X SHANK DIAMETER) GALVANIZED BUTTON HEAD SPIKES THROUGH A 25 MM OUTSIDE DIAMETER, 3 MM GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 225 MM. USE OF OTHER SIMILAR GALVANIZED DEVICES, WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 150± MM, FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 150± MM, FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 150 MM, CENTER TO CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHALL COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAP LENGTHS OF THE HORIZONTAL STRIPS THAT ARE NOT VULCANIZED OR ADHESIVE BONDED, SHALL BE AT LEAST 0.3 METER IN LENGTH, OR 150 MM IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

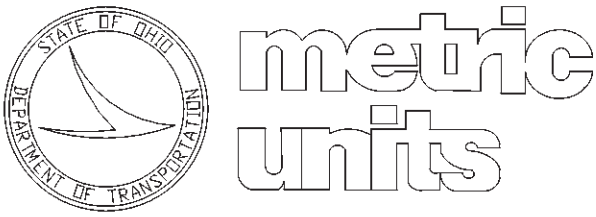
THE NEOPRENE SHEETING SHALL BE 2.5 MM THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E. I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, MM	D751	2.5 ± 0.25
BREAKING STRENGTH, GRAB, N, MINIMUM (LONG. X TRANS.)	D751	3130 X 3130
ADHESIVE STRIP, 25 MM WIDE X 50 MM LONG, N, MINIMUM	D751	27
BURST STRENGTH, MPA, MINIMUM	D751	9.65
HEAT AGING, 70 HR, 100°C, 180° BEND WITHOUT CRACKING	D2136	NO CRACKING OF COATING
LOW TEMP. BRITTLINESS, 1 HR, -40°C, BEND AROUND 6 MM MANDREL	D2136	NO CRACKING OF COATING

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THE TOTAL LENGTH OF JOINT TO BE SEALED BY THE NUMBER OF METERS.

BASIS OF PAYMENT: THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

ITEM 864, SEALING OF CONCRETE SURFACES, (EPOXY-URETHANE): THE COLOR OF THE EPOXY-URETHANE SEALANT SHALL BE FEDERAL COLOR NO. 17778 (LIGHT NEUTRAL)



SS
CONSULTING ENGINEERS & SURVEYORS, INC.
EVANS, MECHWART, HAMLETON & TILTON, INC.
170 MILL STREET
CANAAN, OHIO 43230

DATE
03/14/02
REVIEWED
CUS
STRUCTURE FILE NUMBER
2512386

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GENERAL NOTES
BRIDGE NO. FRA-270-49252
RAMP B OVER RAMP F

FRA 270-40.260

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