



OHIO DEPARTMENT OF TRANSPORTATION

PLANNING & ENGINEERING DEPARTMENT, DISTRICT 4



Project SUM-8-15.75

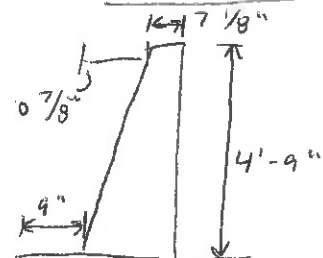
Calc By JF Date _____

Desc Structure Sealing Calcs

Chk By _____ Date _____

PID/PROJ 102330

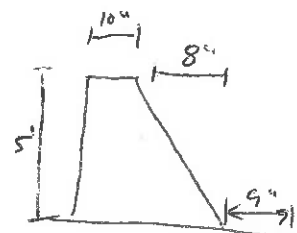
SUM-8-16.358



$$P = \frac{7 \frac{1}{8} + 9 + \sqrt{(7 \frac{1}{8})^2 + (57)^2}}{12} = 6.18'$$

$$SA = P \times L = 6.18 \times 70.08 = \frac{433.05}{9} \quad SF = 48.12 \quad SY$$

RT Parapet SB
LT Parapet NB

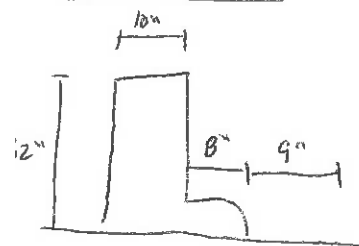


$$P = \frac{10 + 9 + \sqrt{(42)^2 + (8)^2}}{12} = 5.15'$$

$$SA = P \times L = 5.15 \times 70.08 = \frac{360.65}{9} \quad SF = 40.07 \quad SY$$

LT Parapet SB
RT Parapet NB

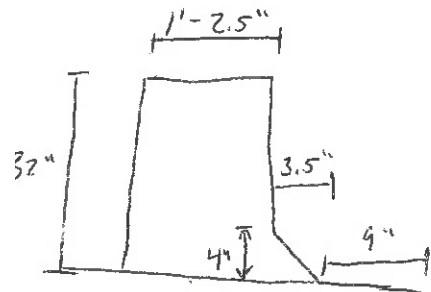
Approach Slabs



$$P = \frac{10 + 9 + 8 + 32}{12} = 4.92'$$

$$SA = P \times L = 4.92 \times 1.5 = \frac{7.38}{9} \quad SF = 0.82 \quad SY$$

Section B-B



$$P = \frac{14.5 + 9 + 28 + \sqrt{3.5^2 + 4^2}}{12} = 4.73'$$

$$SA = P \times L = 4.73 \times 2.5 = \frac{11.84}{9} \quad SF = 1.32 \quad SY$$

Section C-C



OHIO DEPARTMENT OF TRANSPORTATION

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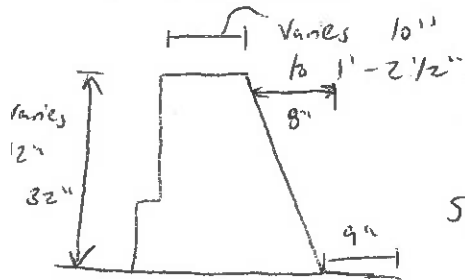
Project **SUM-8-15.75**

Desc **Structure Sealing Calcs**

Calc By **JF** Date _____

Chk By _____ Date _____

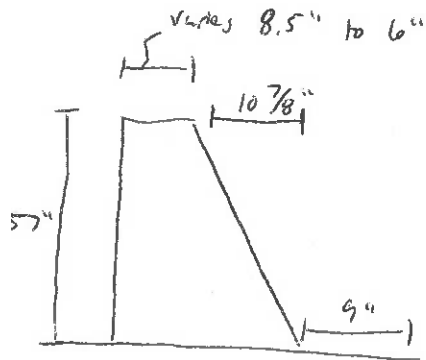
PID/PROJ **102330**



$$P = \frac{\left(\frac{10 + 14.5}{2}\right) + \left(\sqrt{37^2 + 8^2}\right) + 9}{12} = 4.93'$$

$$SA = P \times L = 4.93 \times 10 = \frac{49.27 \text{ SF}}{9} = 5.47 \text{ SY}$$

Section D-D



$$P = \frac{\left(\frac{8.5 + 6}{2}\right) + 9 + \sqrt{57^2 + \left(10 \frac{7}{8}\right)^2}}{12} = 6.17'$$

$$SA = P \times L = 6.17 \times 14 = \frac{86.44 \text{ SF}}{9} = 9.60 \text{ SY}$$

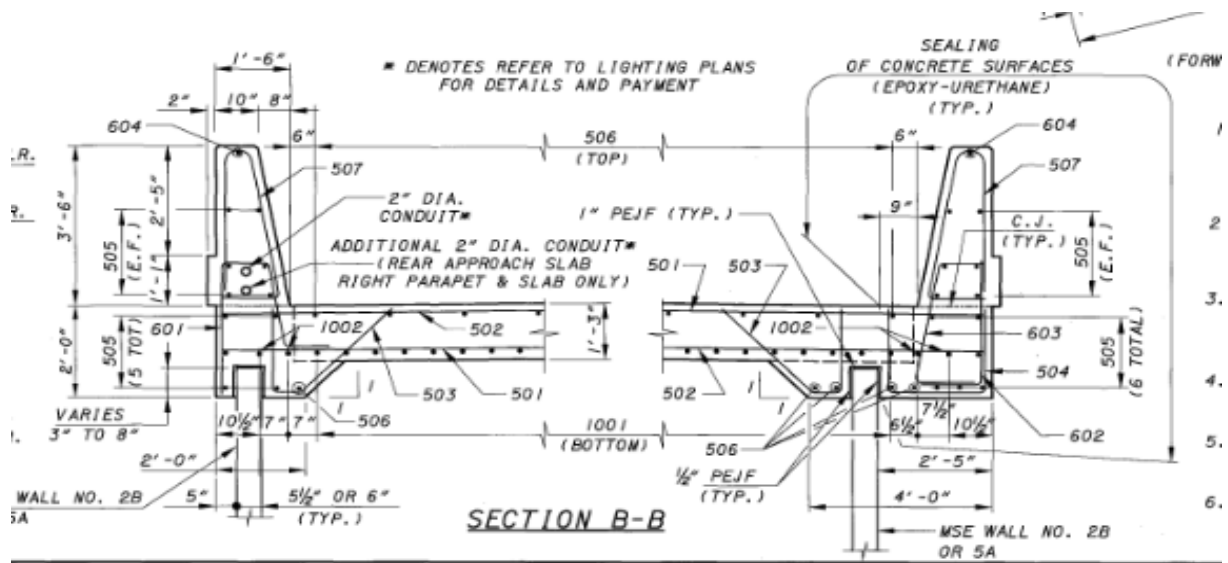
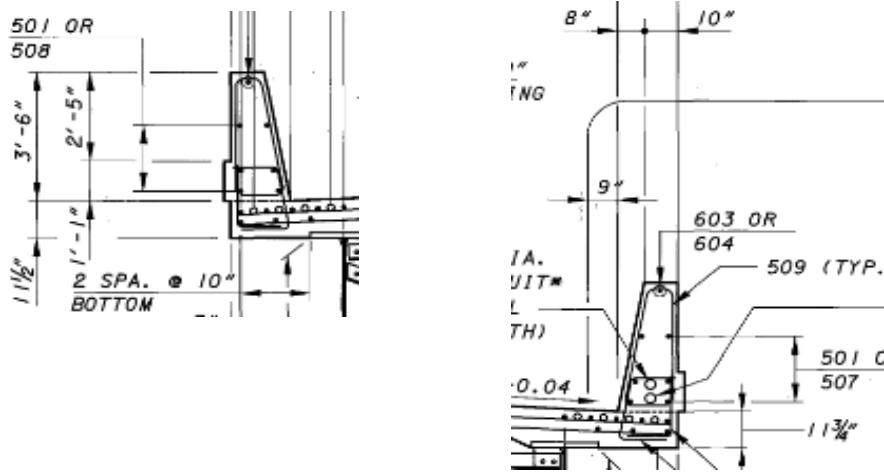
Total for bridge

$$NB \text{ side} = 48.12 + 40.07 + 0.82 + 1.32 + 5.47 + 9.60 = 105.4 \text{ SY}$$

$$SB \text{ side} = NB = 105.4 \text{ SY}$$

$$\text{Total} = 105.4 + 105.4 = \boxed{210.80 \text{ SY}}$$

Section A-A



SECTION A-A

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	950.50	4891.52	543.50
LT	61.76	5.15	950.50	4891.52	543.50
					1087.00

SECTION B-B

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	50.00	257.31	28.59
LT	61.76	5.15	50.00	257.31	28.59
					57.18

TOTAL PARAPETS

1144.19

TRUCK ACCIDENT REPAIR (OUTSIDE FACE OF RIGHT PARAPET ONLY)

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	62.13	5.18	192.00	994.00	110.44
				0.00	0.00
					110.44

TRUCK ACCIDENT REPAIR (PIERS 4 & 5)

SIDE	Diameter	Height (LT)	Height (RT)	AREA (SF)	AREA (SY)
PIER 4	6.00	18.53	20.25	639.61	71.07
PIER 5	6.00	18.21	19.49	710.63	78.96
					150.03

TRUCK ACCIDENT REPAIR (PIER CAPS 4 & 5)

SIDE	TOP AREA (SF)	BOTTOM AREA (SF)	SIDE AREA (SF)	FACE AREA (SF)	AREA (SY)
PIER 4	208.49	172.30	36.00	575.28	110.23
PIER 5	213.75	177.43	44.75	776.48	86.28
					196.50

TOTAL PIERS 346.53

TRUCK ACCIDENT REPAIR (ABUTMENT & MSE WALL)

SIDE	LENGTH	HEIGHT	AREA (SF)	AREA (SY)
ABUT				113.00
MSE	46.17	13.75	634.79	70.53
				183.53

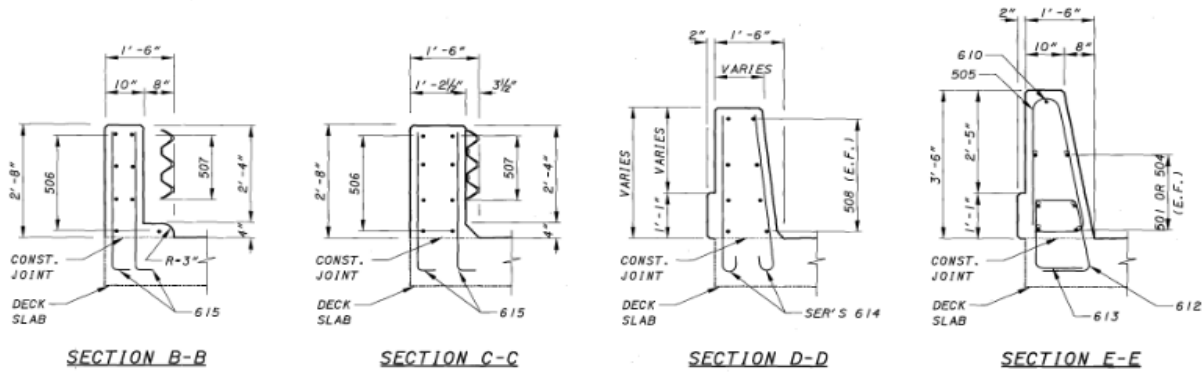
ABUT QUANTITY FROM EX. PLANS

SUM-8-17.720B

SECTION A-A					
SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	770.50	3965.19	440.58
LT	61.76	5.15	770.50	3965.19	440.58
					881.15

SECTION B-B					
SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	50.00	257.31	28.59
LT	61.76	5.15	50.00	257.31	28.59
					57.18

TOTAL 938.33



SECTION B-B

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	91.00	7.58	1.50	22.75	2.53
LT	91.00	7.58	1.50	22.75	2.53
					5.06

SECTION C-C

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	87.50	7.29	2.50	36.46	4.05
LT	87.50	7.29	2.50	36.46	4.05
					8.10

SECTION D-D

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	116.35	9.70	10.00	193.92	21.55
LT	116.35	9.70	10.00	193.92	21.55
					43.09

SECTION E-E

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	122.21	628.92	69.88
LT	61.76	5.15	125.00	643.28	71.48
					141.36

TOTAL PARAPETS **197.61**

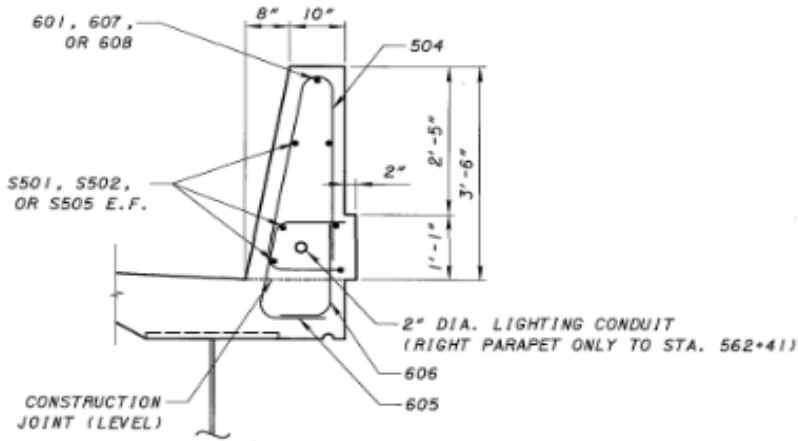
TRUCK ACCIDENT REPAIR (ABUTMENTS)

SIDE	AREA (SF)	AREA (SY)
FWD		82.00
REAR		129.00
		211.00

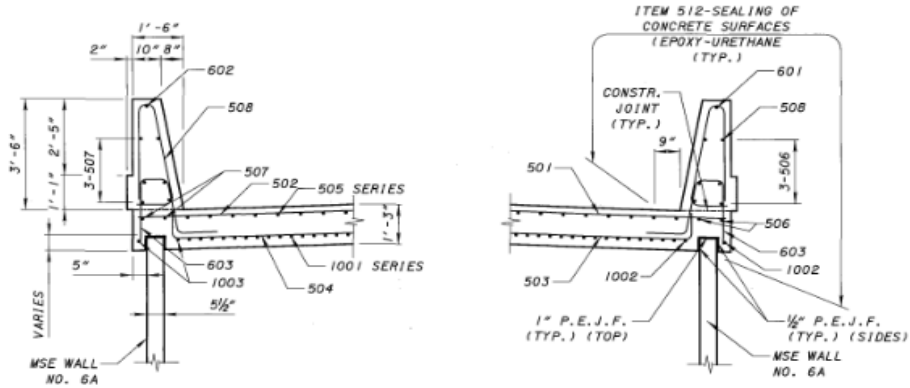
ABUT QUANTITY FROM EX. PLANS

TRUCK ACCIDENT REPAIR (PARAPETS - OUTSIDE FACE)

SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	62.25	5.19	122.21	633.96	70.44
LT	62.25	5.19	125.00	648.44	72.05
					142.49



TYPICAL SECTION



SECTION B-B THRU FORWARD ABUTMENT APPROACH SLAB
(5'-0\"/>

TYPICAL SECTION					
SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	795.50	4093.85	454.87
LT	61.76	5.15	795.50	4093.85	454.87
					909.74

SECTION B-B					
SIDE	PERIMETER (IN)	PERIMETER (FT)	LENGTH (FT)	AREA (SF)	AREA (SY)
RT	61.76	5.15	25.00	257.31	28.59
LT	61.76	5.15	25.00	257.31	28.59
					57.18

TOTAL PARAPETS **966.93**