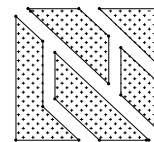


STANDARD DETAILS  
FOR 2" CONCRETE COVER

T-WALL®  
RETAINING WALL SYSTEM

DESIGNER



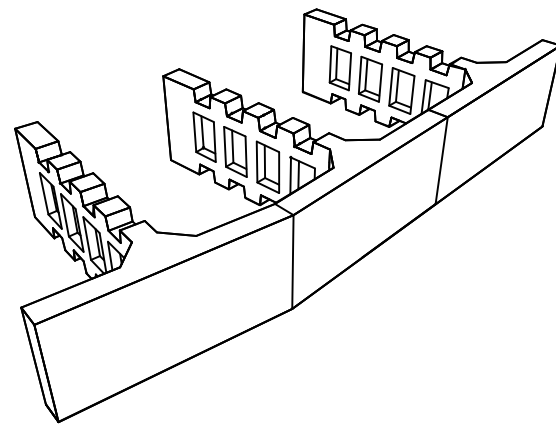
THE NEEL COMPANY

8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

PRECASTER

OLDCASTLE PRECAST, INC.

11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992



MISCELLANEOUS NOTES:

- DESIGNER:  
THE NEEL COMPANY  
8328-D TRAFORD LANE  
SPRINGFIELD, VA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859
- PRECASTER:  
OLDCASTLE PRECAST INC.  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992
- MATERIALS SUPPLIED BY PRECASTER:  
-PRECAST T-WALL UNITS  
-PRECAST SHEAR KEYS  
-HORIZONTAL JOINT MATERIAL  
-VERTICAL JOINT MATERIAL AND ADHESIVE  
-SHEAR KEY JOINT MATERIAL

DESIGN NOTES:

- DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINING WALL VOLUME, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO SPEC SECTION 548 - RETAINING WALL SYSTEMS.
- SOIL PARAMETERS:  
-SEE WALL CONTROL DRAWINGS FOR SOIL CHARACTERISTICS OF FOUNDATION MATERIAL TO BE USED IN THE DESIGN OF THE WALL SYSTEM. THE CONTRACTOR SHALL PROVIDE SOIL DESIGN PARAMETERS FOR BACKFILL MATERIAL BASED ON THE ACTUAL SOIL CHARACTERISTICS UTILIZED AT THE SITE. THE VALUE OF  $\phi$ ,  $c$  AND  $\gamma$  SHALL BE PROVIDED IN THE SHOP DRAWINGS
- FACTORS OF SAFETY:  
-OVERTURNING - 2.0  
-SLIDING - 1.5  
-INTERNAL PULLOUT - 1.5  
-BEARING CAPACITY - 2.5  
-OVERALL STABILITY - 1.5
- THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE NEEL COMPANY IS RESPONSIBLE FOR INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY DESIGN, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF OTHERS.
- PANELS WITH CANTILEVERED (EXTENDED) FACE SHALL ONLY BE USED TO AVOID OBSTRUCTIONS AS APPROVED ON THE SHOP DRAWINGS.

MATERIALS NOTES:

- PRECAST CONCRETE:  
-PRECAST T-WALL UNITS - PER SPEC SECTION 548  
-PRECAST SHEAR KEYS - PER SPEC SECTION 548
- C.I.P. CONCRETE:  
-C.I.P. LEVELING PAD - PER SPEC SECTION 548  
-OTHER C.I.P. CONCRETE - PER SPEC SECTION 548
- REINFORCING STEEL:  
-PER SPEC SECTION 548
- JOINT MATERIAL:  
-HORIZONTAL JOINT FILLER:  
-1/2" x 4" x 5'-0"  
-PREFORMED EPDM  
-DUROMETER: 80 - 90  
-VERTICAL JOINT COVER:  
-TENSAR DC4205 OR EQUAL  
-12" WIDE x HEIGHT OF JOINT  
-GEOCOMPOSITE MEETING REQUIREMENTS OF SPEC SECTION 548  
-SHEAR KEY WRAP:  
-1/4" x 8" x 24"  
-AVI ASTRO-FOAM AF-250
- BACKFILL:  
-PER SPEC SECTION 548

CONSTRUCTION NOTES:

- ALL CONSTRUCTION PROCEDURES SHALL COMPLY WITH SPEC SECTION 548 AND THE "T-WALL CONSTRUCTION MANUAL" (PROVIDED BY THE NEEL COMPANY OR OLDCASTLE PRECAST, INC). IN THE EVENT OF A DISCREPANCY BETWEEN THE SPEC AND THE "T-WALL CONSTRUCTION MANUAL", THE SPEC SHALL CONTROL.
- FOR LOCATION AND ALIGNMENT OF T-WALL STRUCTURE, SEE RETAINING WALL CONTROL PLANS.
- T-WALL STRUCTURES ON CURVES SHALL BE BUILT IN CHORDS AS SHOWN IN THE T-WALL DESIGN DRAWINGS.
- IF MANHOLES OR DROP INLETS ARE PRESENT, THEY SHALL BE LOCATED AS SHOWN IN THE T-WALL DESIGN DRAWINGS.
- IF PILES ARE LOCATED WITHIN THE RETAINING WALL VOLUME, THEY SHALL BE DRIVEN BEFORE CONSTRUCTION OF THE T-WALL STRUCTURE.
- T-WALL UNITS SHALL BE PLACED ONE ROW AT A TIME, AND BACKFILLED BEFORE PLACEMENT OF THE NEXT ROW.
- IF A STRUCTURE EXCEEDS 20' IN HEIGHT, THE FINISH GRADE AT THE FACE OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS 20' IN HEIGHT.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER DRAINAGE IN THE VICINITY OF THE WALL DURING CONSTRUCTION. STORMWATER RUNOFF SHALL BE COLLECTED AND DISCHARGED AWAY FROM THE WALL AND THE RETAINING WALL VOLUME.

DESIGNER:



THE NEEL COMPANY

8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
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PRECASTER:


OLDCASTLE PRECAST, INC.

11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

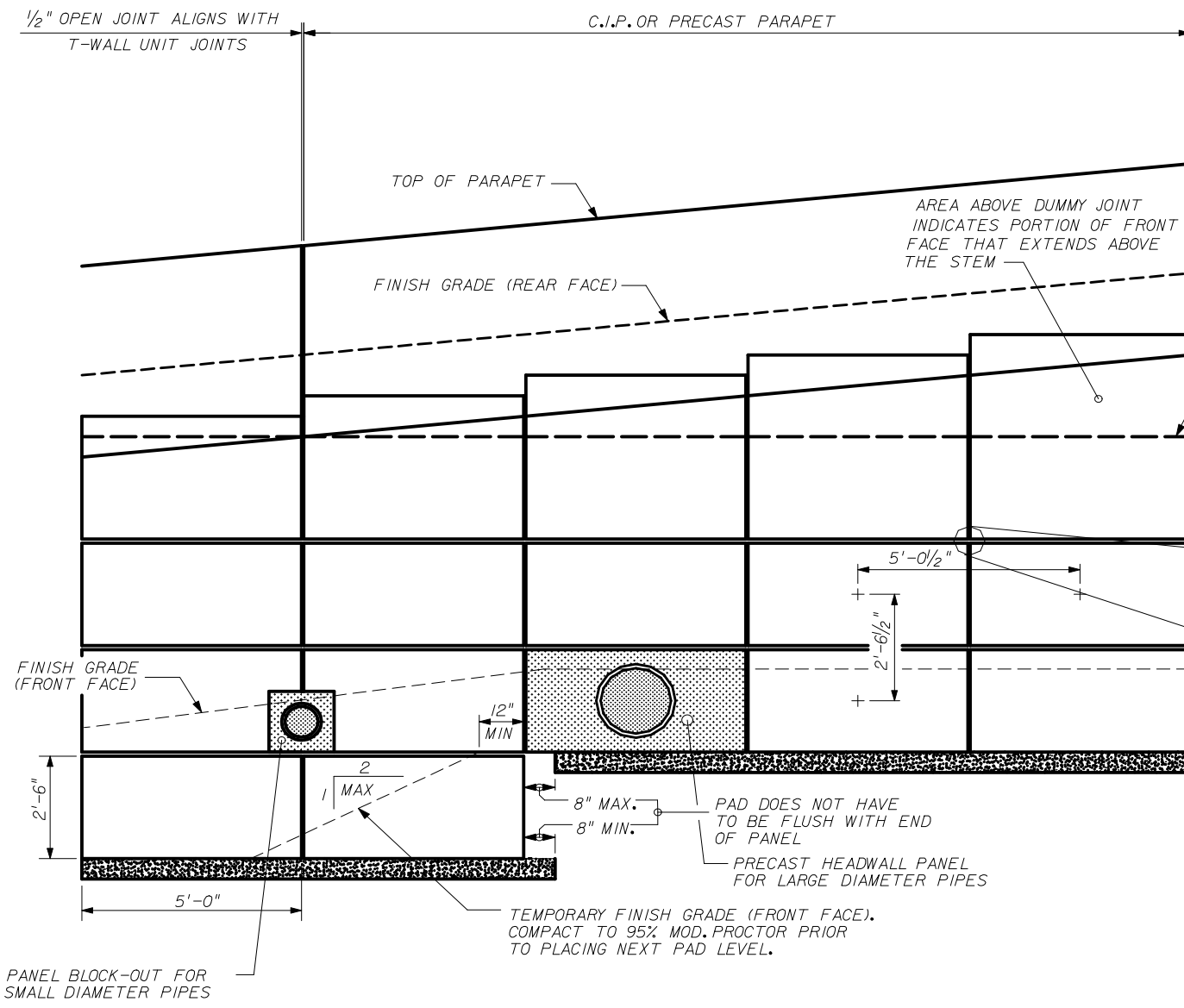
THIS SYSTEM SHALL BE USED IN MODERATELY OR SLIGHTLY AGGRESSIVE ENVIRONMENTS.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

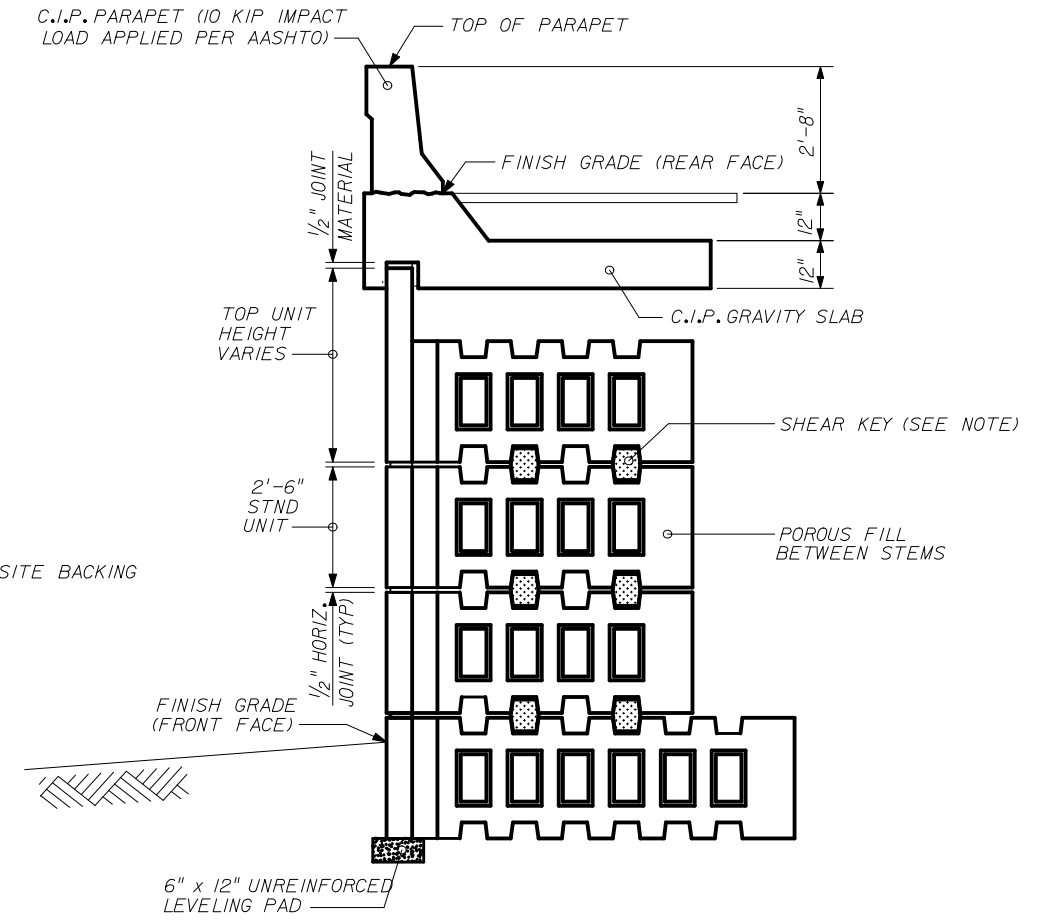
RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)

Names	Dates	Approved By		
Designed By	..JMC..	10/01/98	 State Structures Design Engineer	
Drawn By	..CBA..	10/01/98		
Checked By	..JMC..	10/01/98		
Revision		Sheet No.	Index No.	
00		1 of 21	5011	

\*\*\*\*\*DGN SPECIFICATION\*\*\*\*\*  
\*\*\*\*\*SYTIME\*\*\*\*\*



**PART ELEVATION SHOWING TYPICAL DETAILS**  
(NO SCALE)



**SECTION SHOWING TYPICAL DETAILS**  
(NOT ALL DETAILS APPLY TO EACH WALL)

NOTE: ALL EXTENDED FACE TOP UNITS REQUIRE A MINIMUM OF TWO SHEAR KEYS. ALL OTHER UNITS ARE AS SHOWN BELOW.

- TOP UNITS - 2 SHEAR KEYS
- 6' STEM - 2 SHEAR KEYS
- 8' STEM - 2 SHEAR KEYS
- 10' STEM - 2 SHEAR KEYS
- 12' STEM - 2 SHEAR KEYS
- 14' STEM - 3 SHEAR KEYS
- 16' STEM - 3 SHEAR KEYS

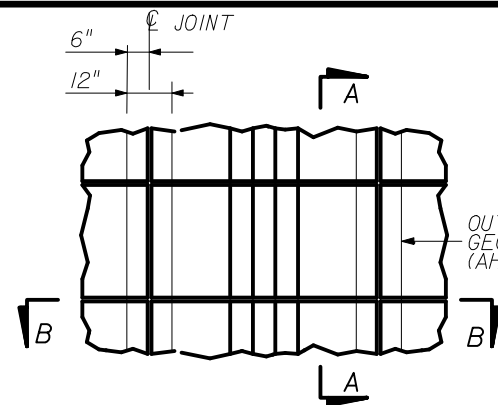
DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: 1703 913-7858  
FX: 1703 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103RD STREET  
JACKSONVILLE, FL 32210  
PH: 1904 778-2990  
FX: 1904 778-2992

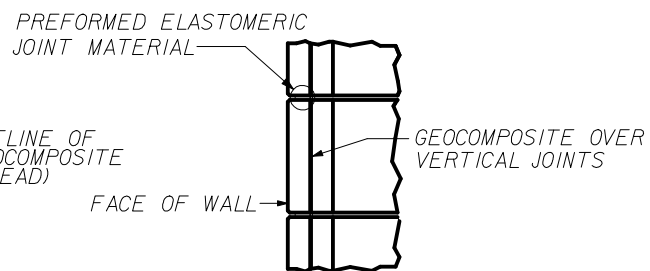
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

**RETAINING WALL SYSTEM**  
**THE NEEL COMPANY T-WALL**  
**(2" COVER)**

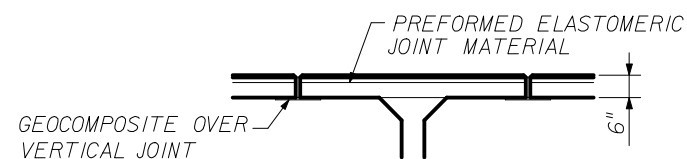
Names	Dates	Approved By		
Designed By	JMC	10/01/98	 State Structures Design Engineer	
Drawn By	CAA	10/01/98		
Checked By	JMC	10/01/98	Revision	Sheet No.
			00	2 of 21
				5011



PART ELEVATION - REAR FACE



PART SECTION A-A

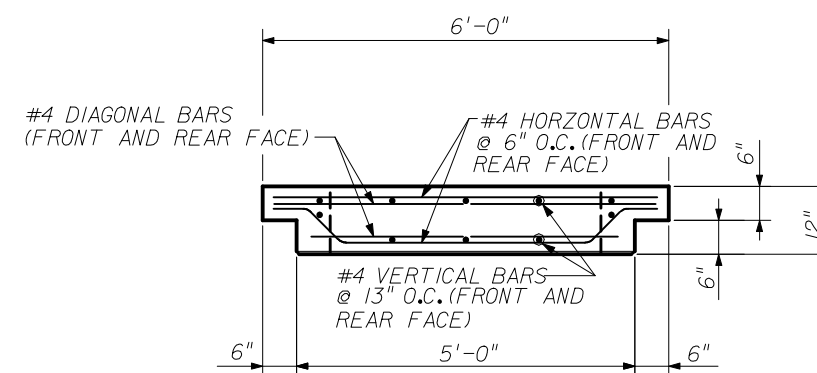
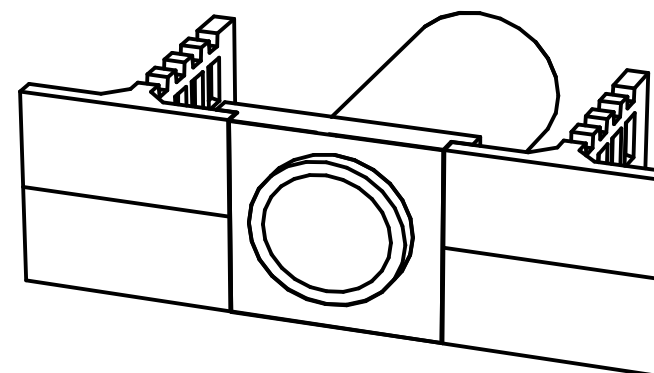


PART SECTION B-B

JOINT MATERIAL DETAILS

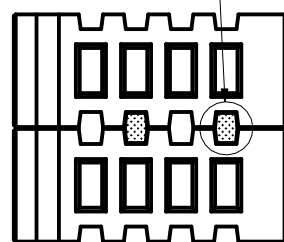
NOTES:

1. HORIZONTAL JOINT:  
1/2" x 4" x 5'-0" PREFORMED ELASTOMERIC JOINT MATERIAL
2. VERTICAL JOINT:  
1/2" SPACE  
12" WIDE GEOCOMPOSITE BACKING, CENTERED ABOUT JOINT CENTERLINE.



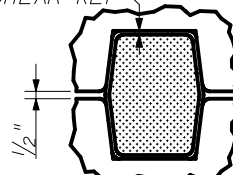
PLAN

SHEAR KEY WRAPPED IN JOINT MATERIAL. SEE DETAILS THIS SHEET.

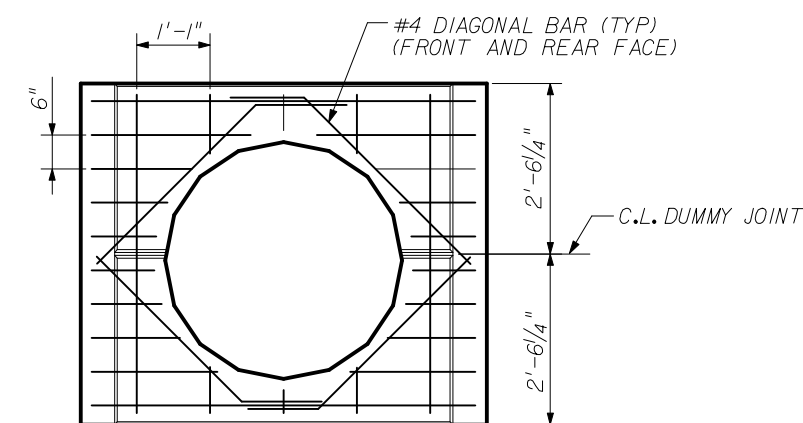


PART SECTION

1/4" JOINT MATERIAL ALL AROUND SHEAR KEY



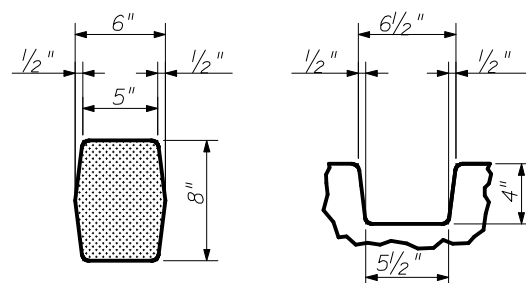
SHEAR KEY / JOINT MATERIAL ARRANGEMENT



ELEVATION (FRONT FACE)  
PRECAST HEADWALL PANEL FOR LARGE DIAMETER PIPES

NOTES:

1. SHEAR KEY JOINT MATERIAL:  
MINIMUM OF ONE 1/4" x 8" x 24" PIECE OF AVI ASTRO-FOAM AF-250 PER SHEAR KEY.
2. JOINT MATERIAL MAY BE ADDED OR REMOVED TO AID IN SHIMMING AND ALIGNING, HOWEVER SHEAR KEY MUST FIT SNUG IN THE SHEAR KEY BLOCKOUT WHEN UNIT IS IN ITS FINAL POSITION.
3. MINIMUM OF 2 SHEAR KEYS REQUIRED PER UNIT. SEE NOTES ON SHEET 2 OF 21, 'TYPICAL DETAILS (1)'



SHEAR KEY DIMENSIONS

SHEAR KEY BLOCKOUT DIM'S

SHEAR KEY DETAILS

DESIGNER:



THE NEEL COMPANY  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
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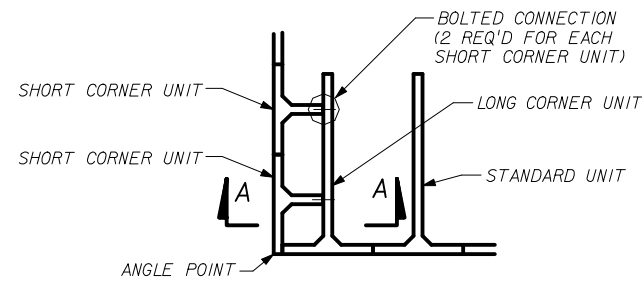
PRECASTER:

OLDCASTLE PRECAST, INC  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

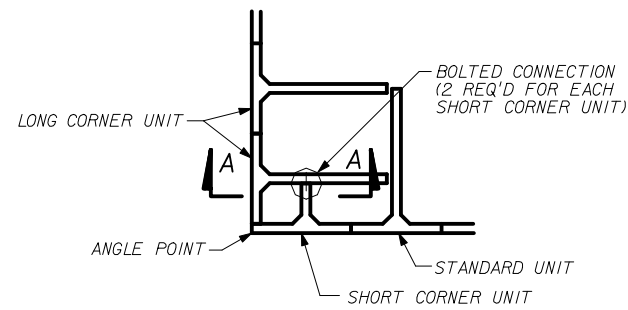
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)

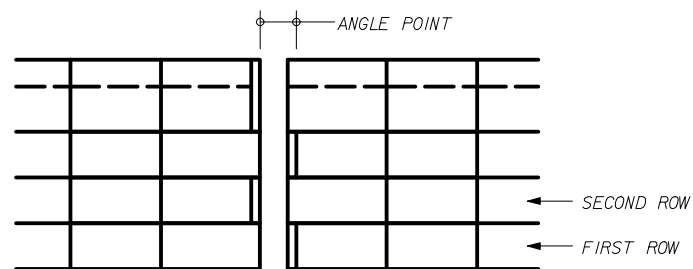
Names	Dates	Approved By				
Designed By	JMC	10/01/98	 State Structures Design Engineer			
Drawn By	CAA	10/01/98				
Checked By	JMC	10/01/98			Revision	Sheet No.
					00	3 of 21
				Index No.		
				5011		



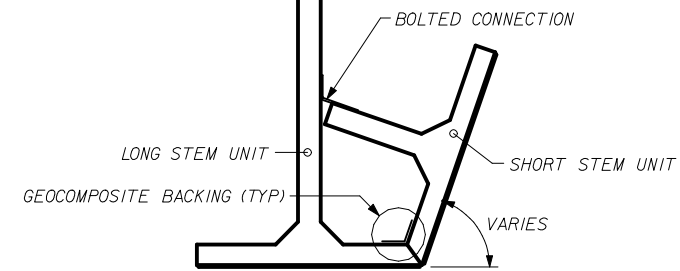
PART PLAN - FIRST ROW



PART PLAN - SECOND ROW

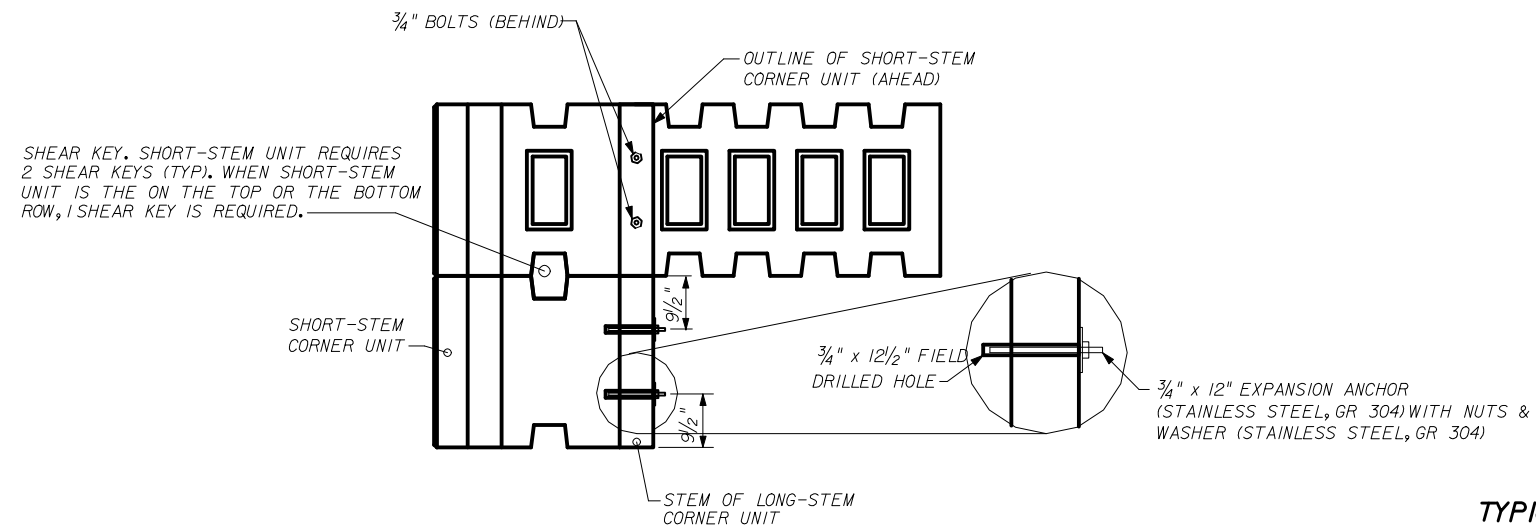


PART ELEVATION



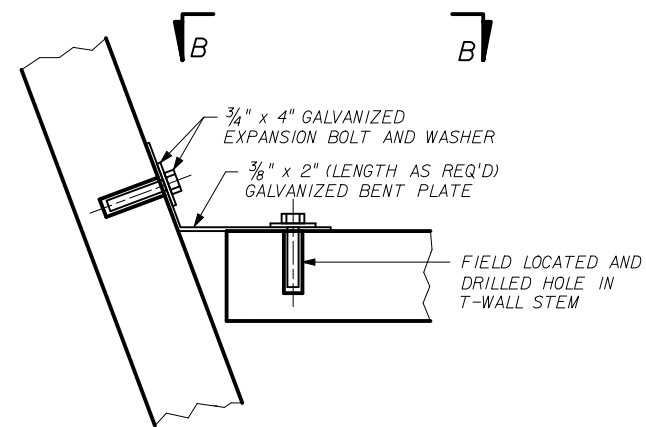
PART PLAN - ANGLE > 90°

SHORT AND LONG STEMS ALTERNATE PER 90° CORNER DETAIL



TYPICAL CORNER UNIT ARRANGEMENT

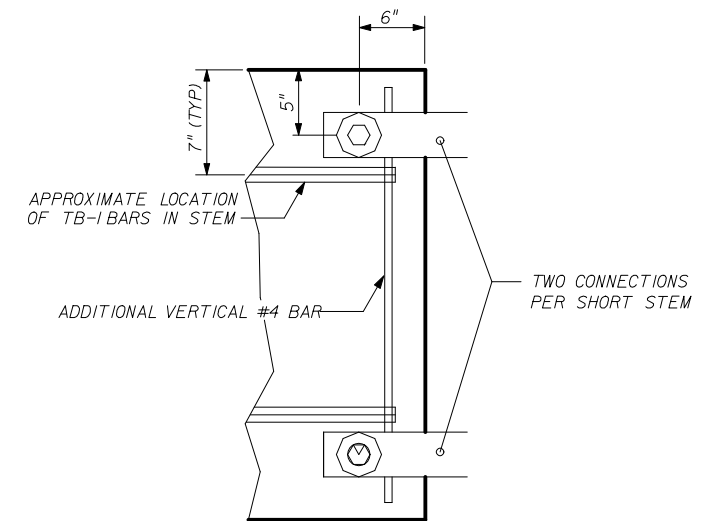
STEM LENGTHS VARY - SEE SPECIFIC ELEVATIONS FOR PROPER UNITS  
NO SCALE



TYPICAL BOLTED CONNECTION FOR ANGLE POINTS > 90°

TYPICAL ANGLE POINT DETAIL

NO SCALE




VIEW B-B

DESIGNER:  
 THE NEEL COMPANY  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
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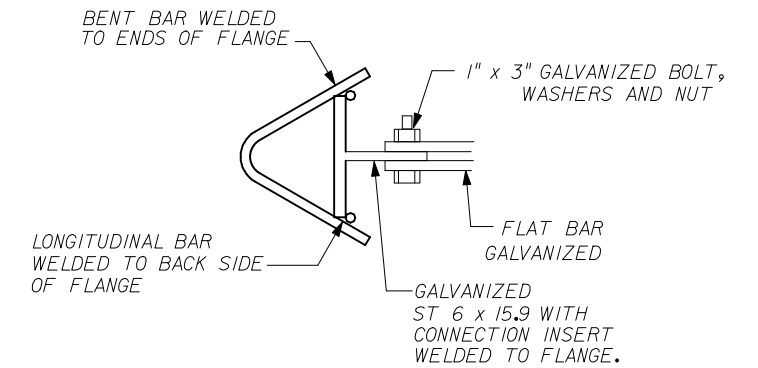
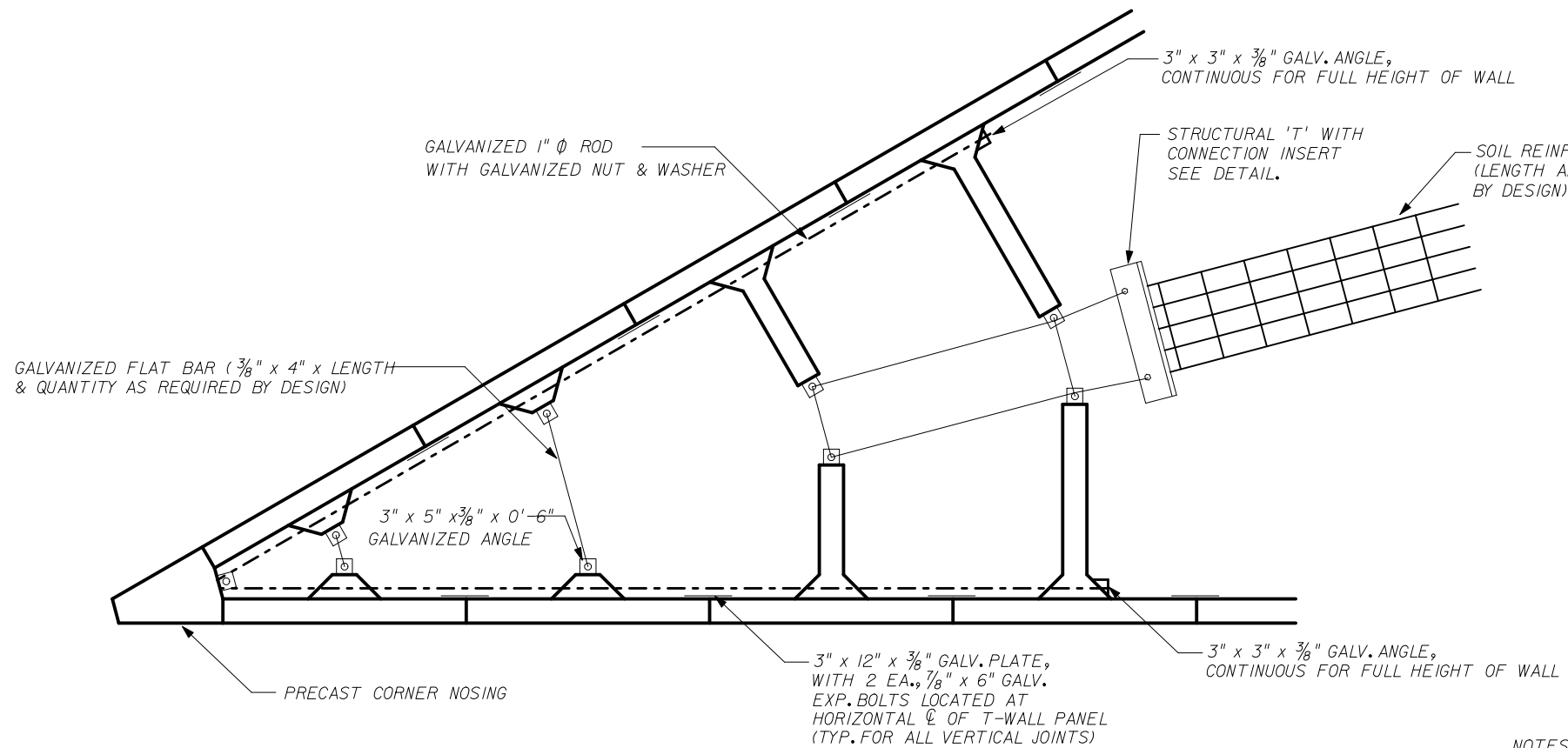
PRECASTER:  
OLDCASTLE PRECAST, INC  
11649 103RD STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)

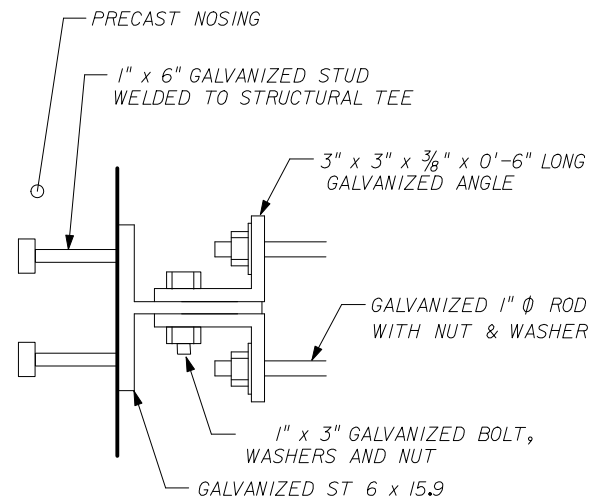
Names	Dates	Approved By		
Designed By	JMC	10/01/98	 State Structures Design Engineer	
Drawn By	CAA	10/01/98		
Checked By	JMC	10/01/98		
Revision	00	4 of 21		

\*\*\*\*\*DGN SPECIFICATION\*\*\*\*\*  
\*\*\*\*\*SYTIME\*\*\*\*\*



SOIL GRID CONNECTION DETAIL  
SEVERE ACUTE CORNERS

PART PLAN  
SEVERE ACUTE ANGLE DETAIL  
ANGLE 45° OR LESS



ROD/NOSING CONNECTION DETAIL


NOTES:

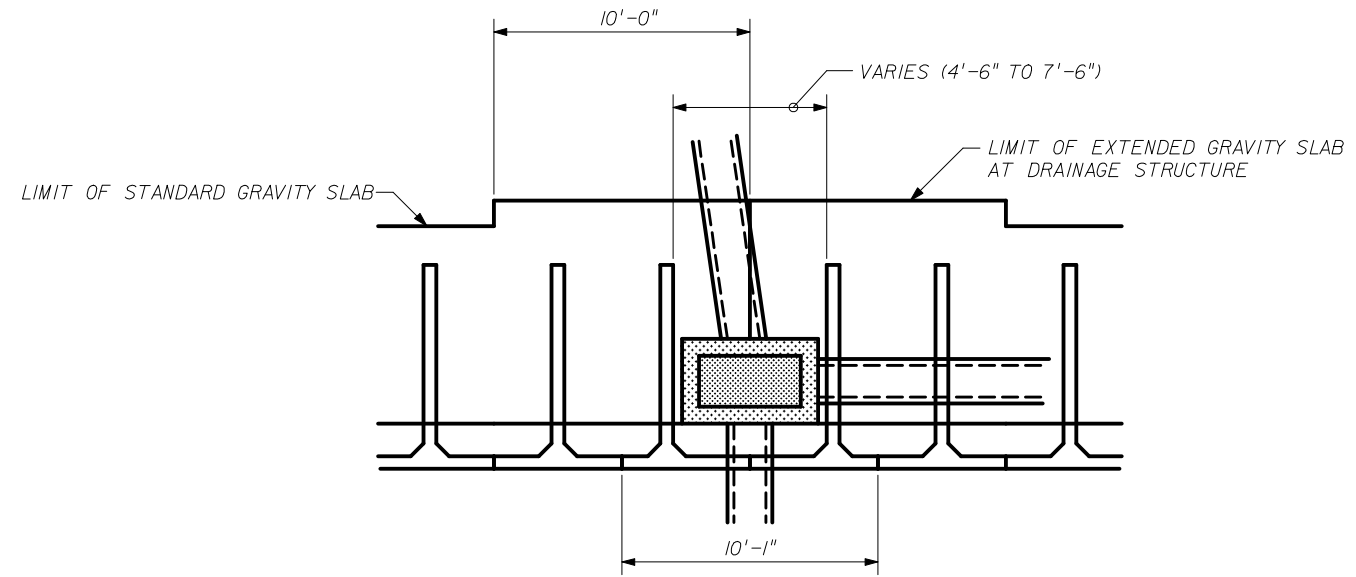
1. SOIL GRID TO BE DESIGNED FOR PULLOUT & TENSION. QUANTITY AND LENGTH OF GRIDS TO BE AS REQUIRED BY DESIGN.
2. CONNECTION INSERT:
  - PER SPEC SECTION 548
  - WIIWIRE
  - WELDED PER ASTM A185 PRIOR TO GALVANIZATION
3. LOCKING BAR:
  - PER SPEC SECTION 548
4. SOIL REINFORCEMENT GRIDS:
  - PER SPEC SECTION 548
  - WIIWELDED WIRE GRIDS:
    - 5 LONGITUDINAL WIRES @ 6" O.C., LENGTH AS REQUIRED BY DESIGN
    - 24" LONG TRANSVERSE BARS AT 6" OR 12" O.C., AS REQUIRED BY DESIGN
  - SOIL GRID LENGTHS SHOWN ON T-WALL DESIGN DRAWINGS ARE NOMINAL LENGTHS AS REQUIRED BY DESIGN CALCULATIONS. DUE TO MANUFACTURING TOLERANCES, ACTUAL GRID LENGTHS MAY BE LONGER.

DESIGNER:  

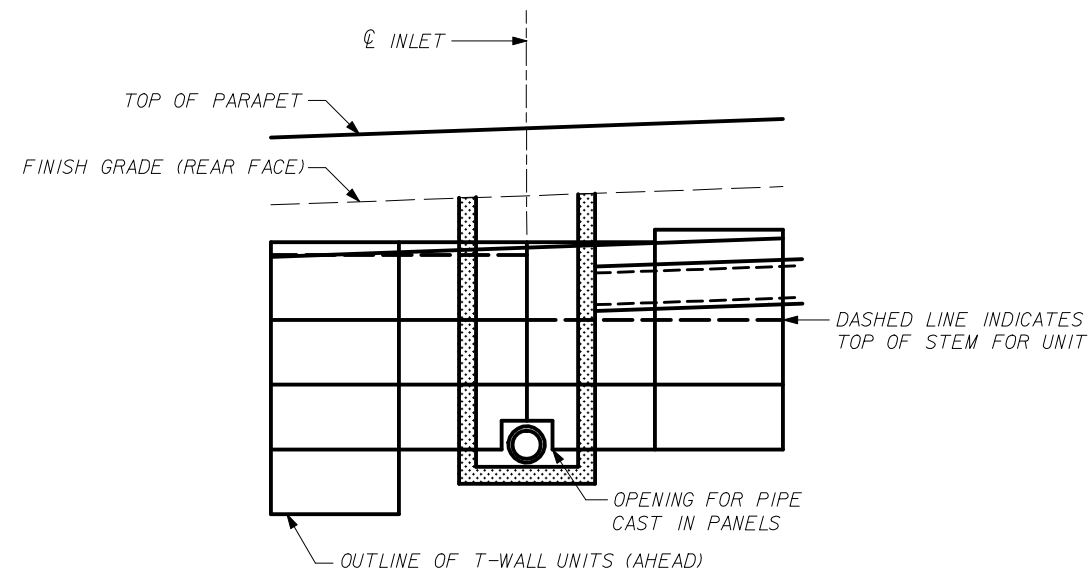
**THE NEEL COMPANY**  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 Ph: (703) 913-7858  
 Fx: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
 11643 103RD STREET  
 JACKSONVILLE, FL 32210  
 Ph: (904) 778-2990  
 Fx: (703) 913-7859

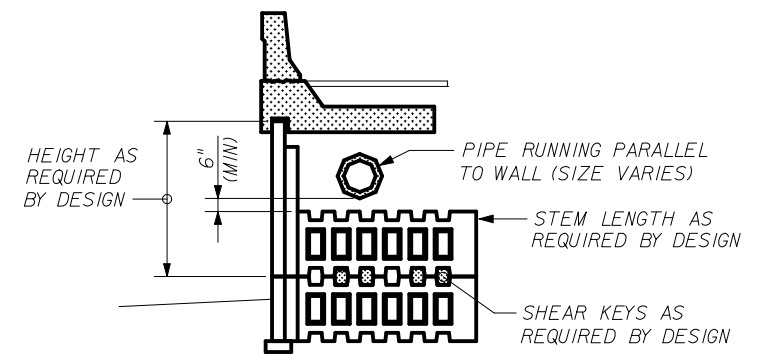
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
Names	Dates	Approved By 		
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No. Index No.
Checked By	JMC	10/01/98	00	5 of 21 5011



PART PLAN



PART ELEVATION (FRONT FACE)



SECTION  
(SHOWING PIPE PARALLEL TO WALL)

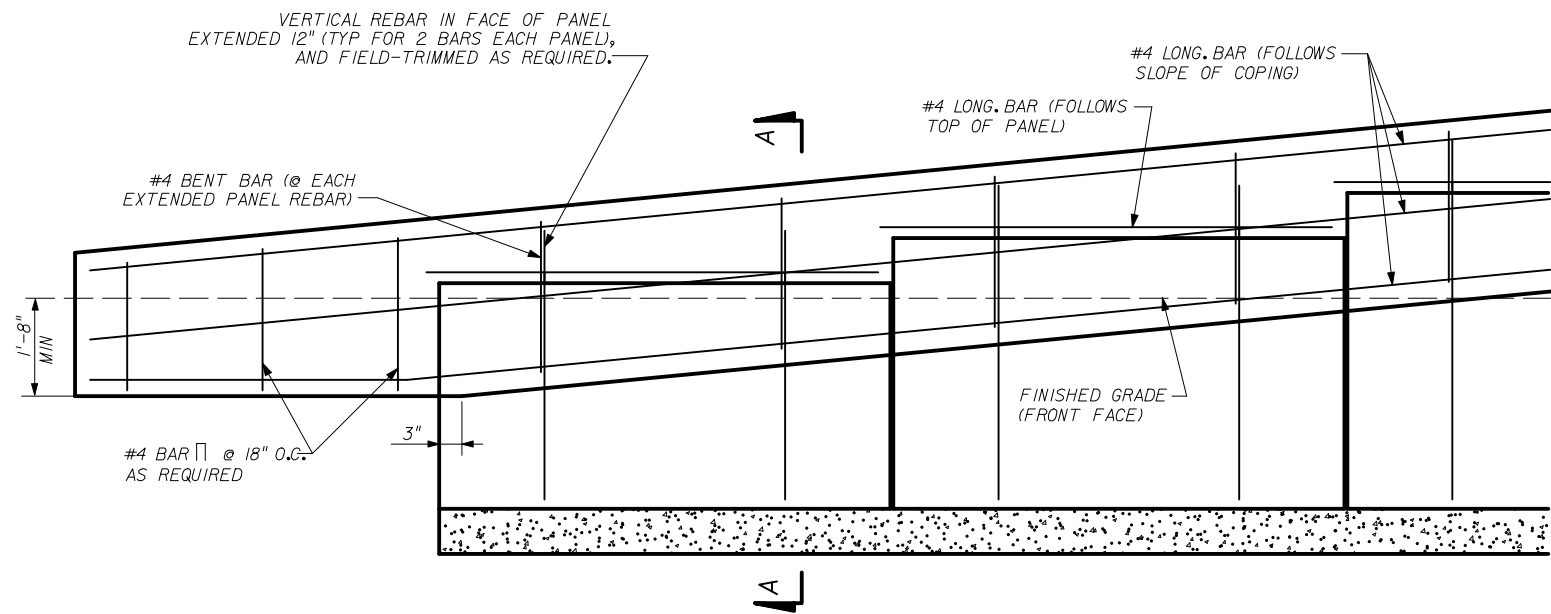
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)

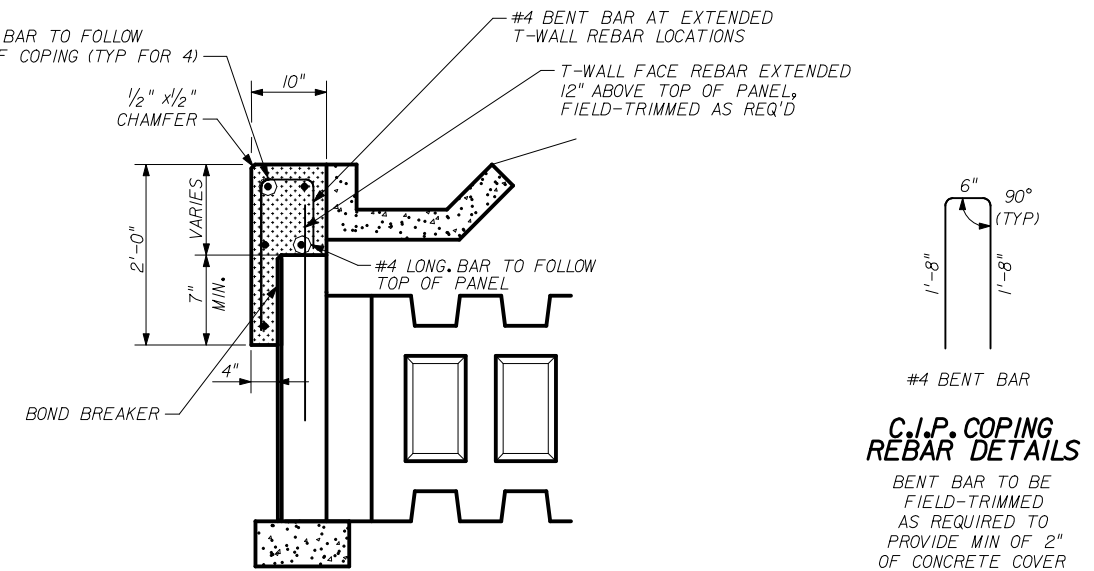
Names		Dates		Approved By		
Designed By	JMC	10/01/98	 State Structures Design Engineer			
Drawn By	CAA	10/01/98	Revision	Sheet No.	Index No.	
Checked By	JMC	10/01/98	00	6 of 21	5011	

DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

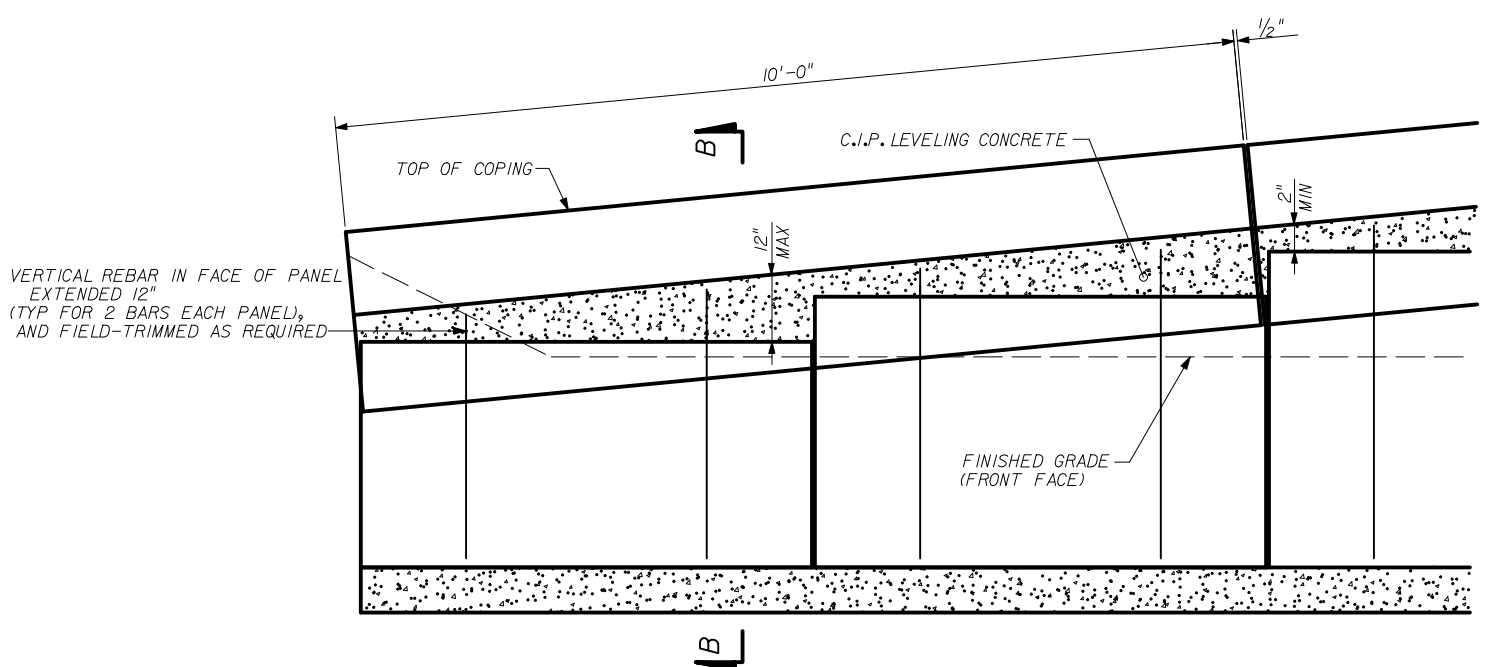
PRECASTER:  
**OLDCASTLE PRECAST, INC.**  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992



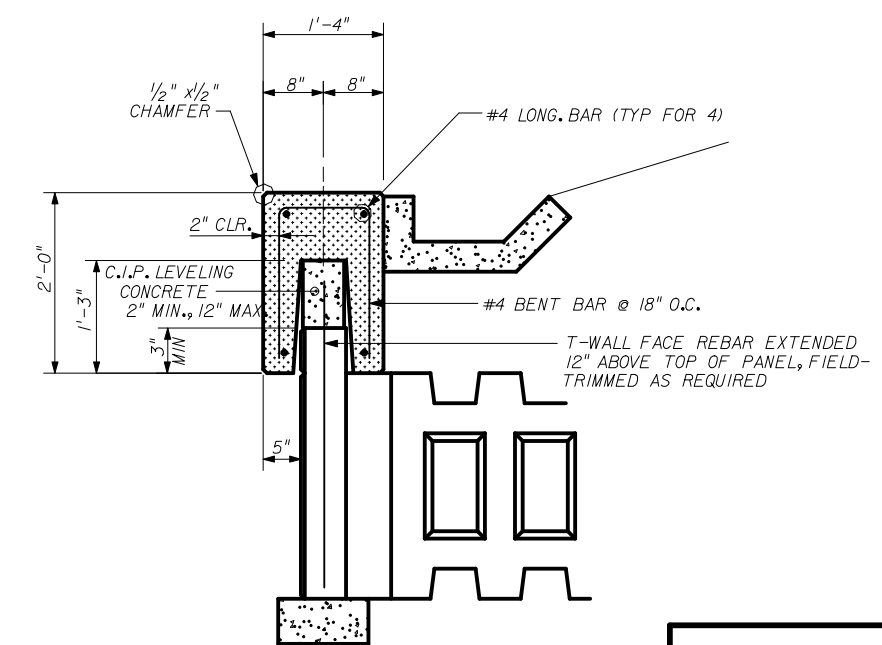
C.I.P. COPING TREATMENT AT BEGINNING/END OF WALLS



SECTION A-A  
C.I.P. COPING

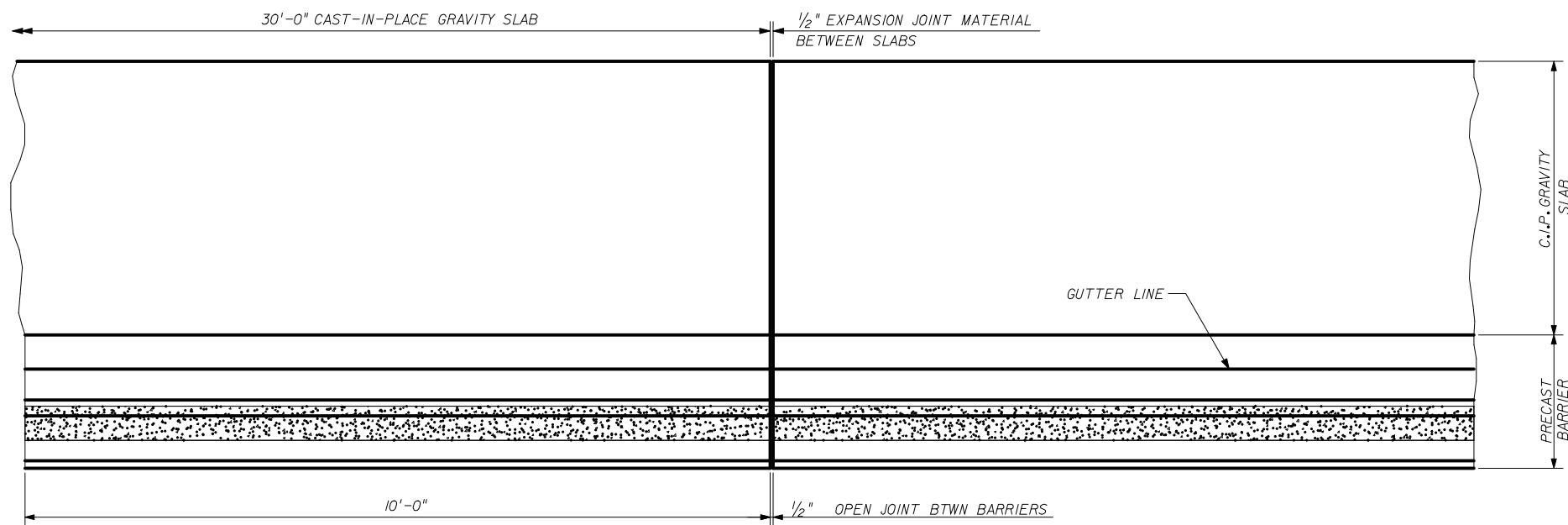


PRECAST COPING - PART ELEVATION

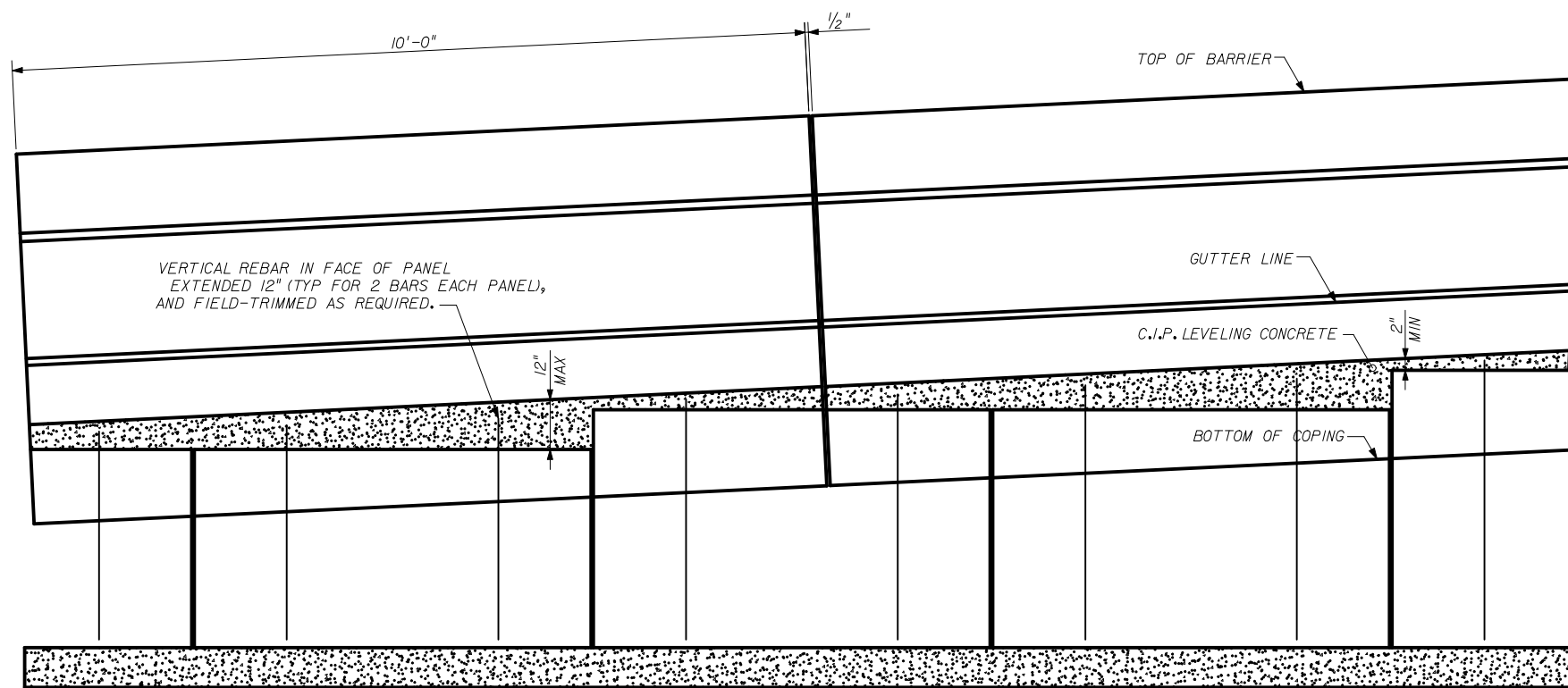


SECTION B-B  
PRECAST COPING

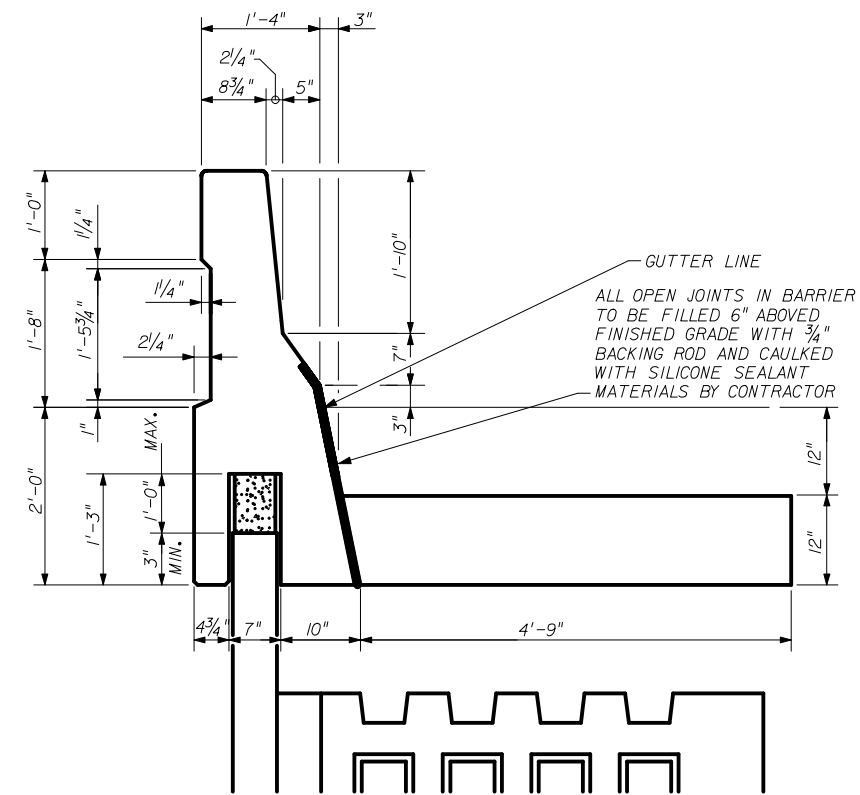
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
Names	Dates	Approved By <i>W. J. [Signature]</i>		
Designed By JMC	10/01/98	State Structures Design Engineer		
Drawn By CAA	10/01/98	Revision	Sheet No.	Index No.
Checked By JMC	10/01/98	00	7 of 21	5011



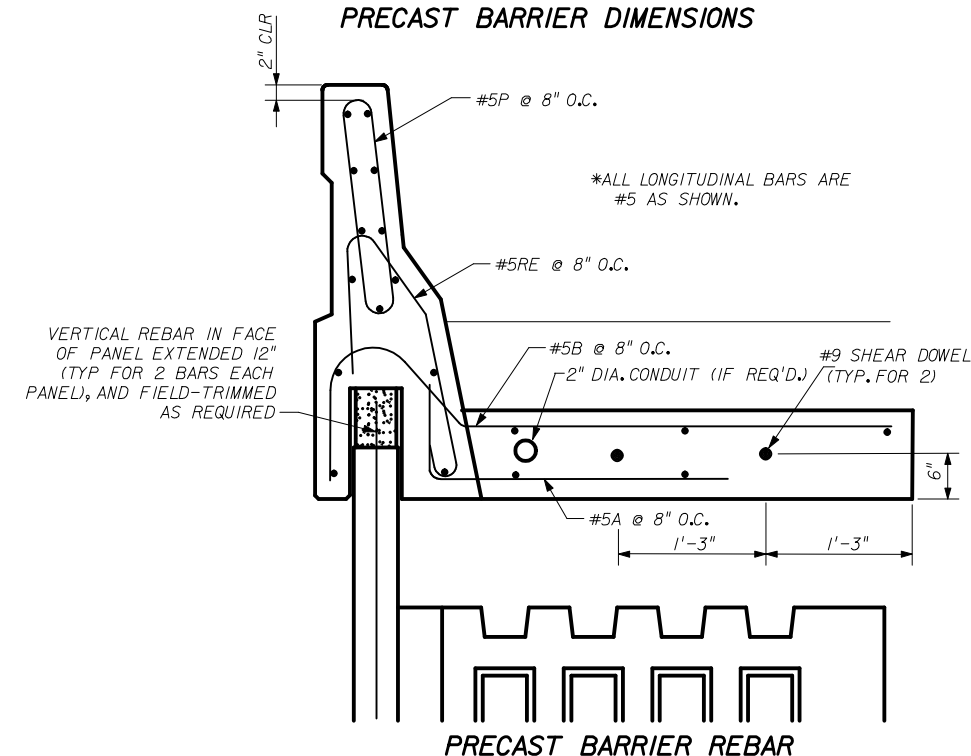
PART PLAN - PRECAST BARRIER



PART ELEVATION - PRECAST BARRIER



PRECAST BARRIER DIMENSIONS




PRECAST BARRIER REBAR

DESIGNER:  
 **THE NEEL COMPANY**  
 8328-O TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 PH: (703) 913-7858  
 FX: (703) 913-7859

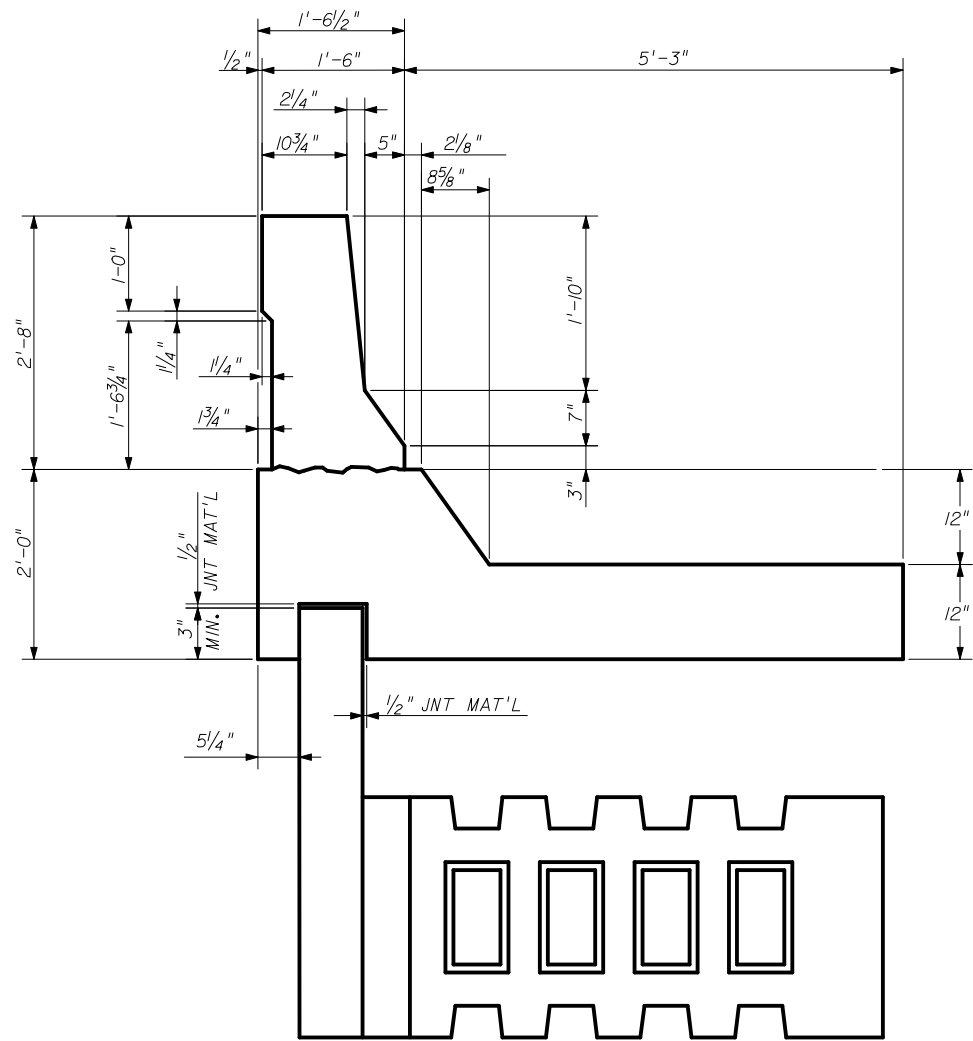
PRECASTER:  
**OLDCASTLE PRECAST, INC.**  
 11643 103RD STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
 FX: (904) 778-2992

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

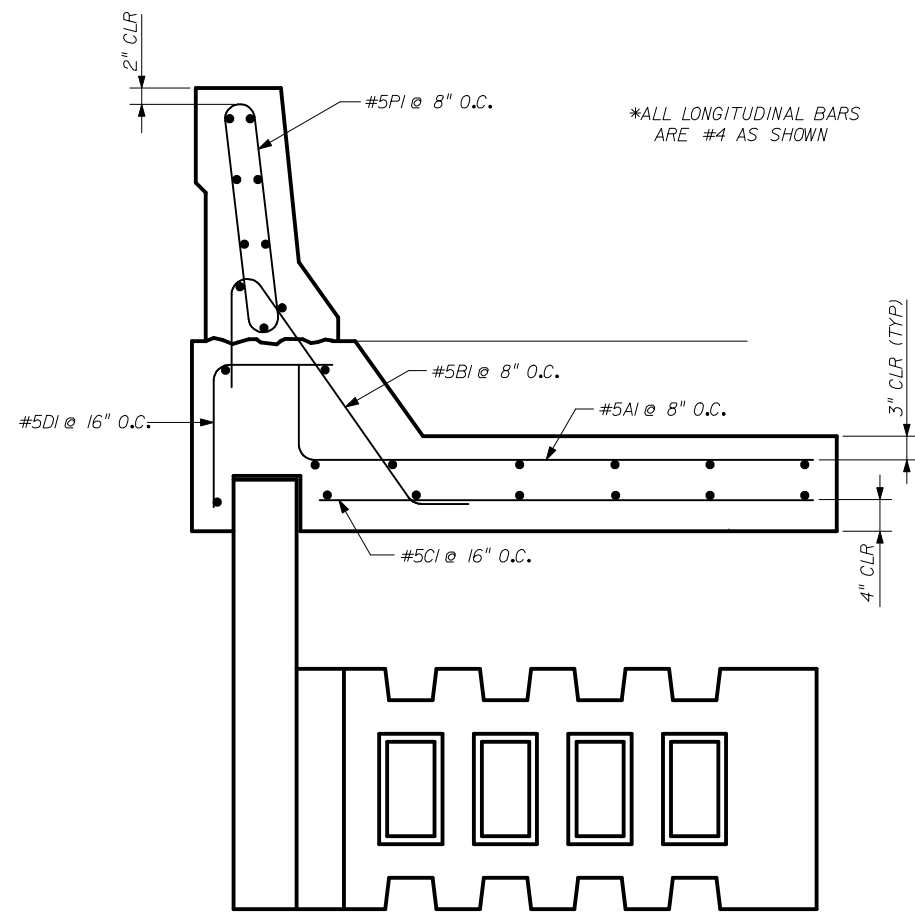
RETAINING WALL SYSTEM  
 THE NEEL COMPANY T-WALL  
 (2" COVER)

Names	Dates	Approved By		
Designed By JMC	10/01/98	 State Structures Design Engineer		
Drawn By CAA	10/01/98			
Checked By JMC	10/01/98	Revision	Sheet No.	Index No.
		00	8 of 21	5011

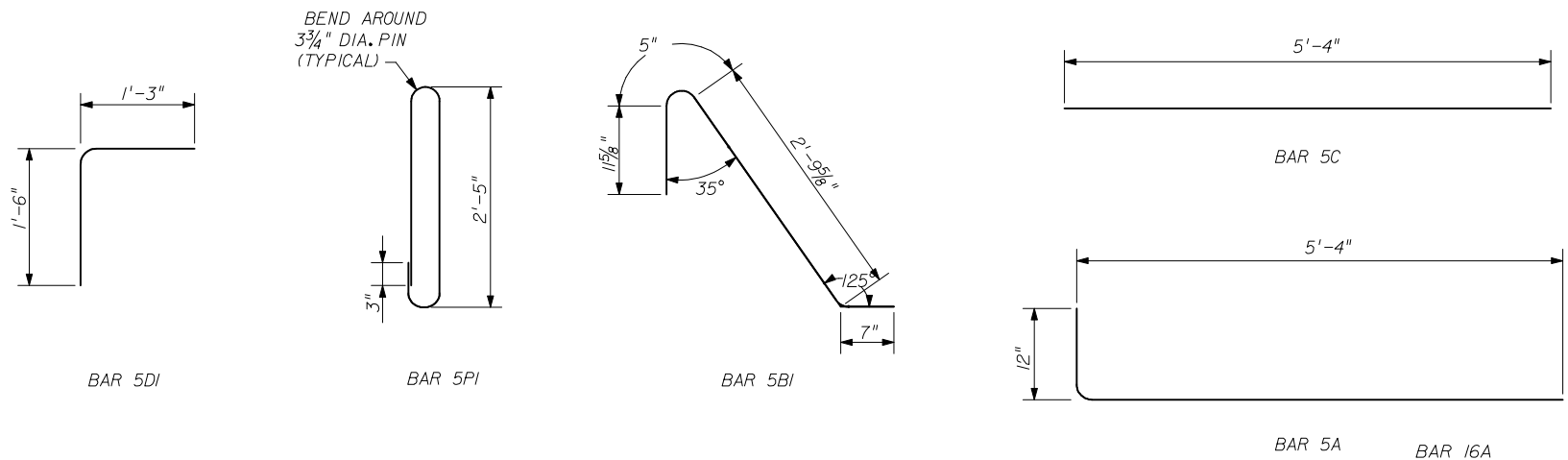




C.I.P. BARRIER AND C.I.P. JUNCTION SLAB DIMENSIONS




C.I.P. BARRIER AND C.I.P. JUNCTION SLAB REBAR

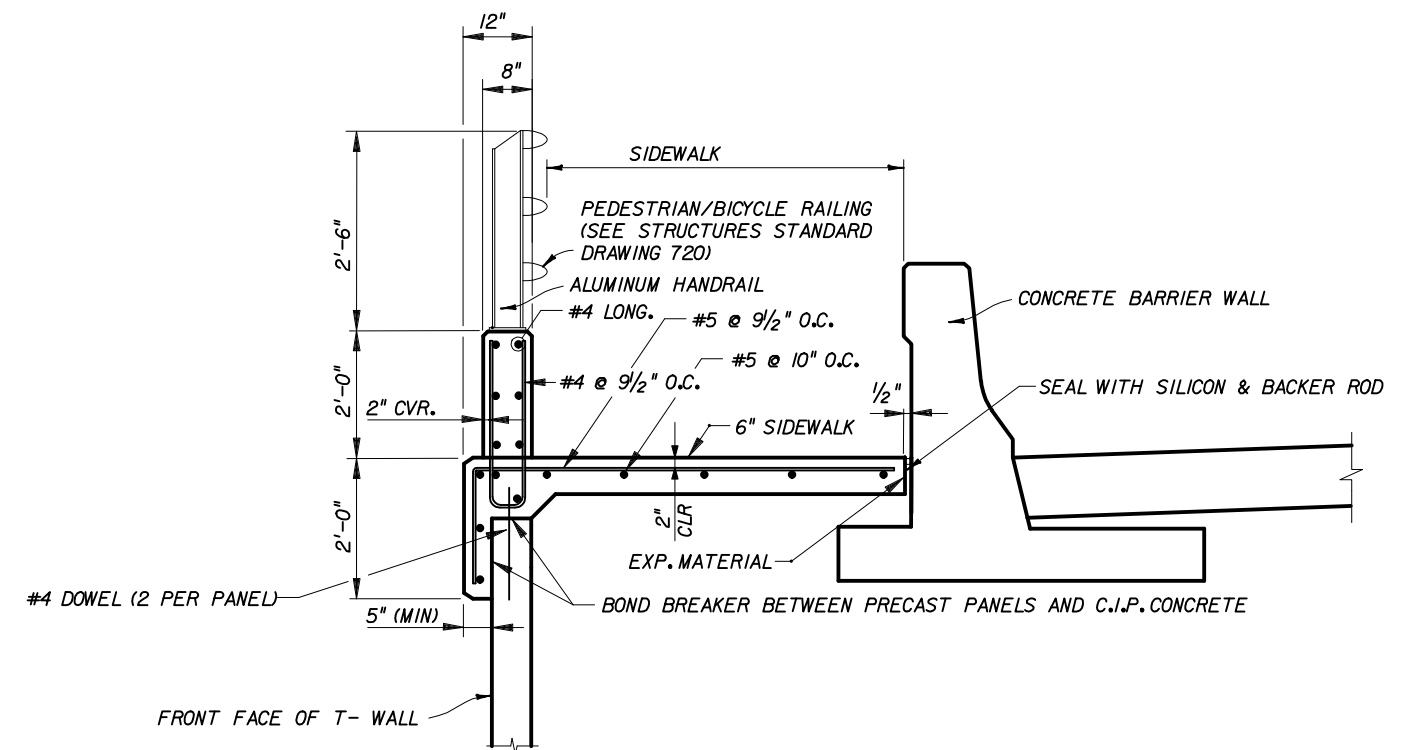


C.I.P. BARRIER REBAR DETAILS

DESIGNER:  
 THE NEEL COMPANY  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 PH: (703) 913-7858  
 FX: (703) 913-7859

PRECASTER:  
 OLDCASTLE PRECAST, INC  
 11643 103rd STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
 FX: (904) 778-2992

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
	Names	Dates	Approved By 	
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No. Index No.
Checked By	JMC	10/01/98	00	9 of 21 5011



C.I.P. PARAPET DETAIL W/ HANDRAIL

DESIGNER:



**THE NEEL COMPANY**  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 PH: (703) 913-7855  
 FX: (703) 913-7859

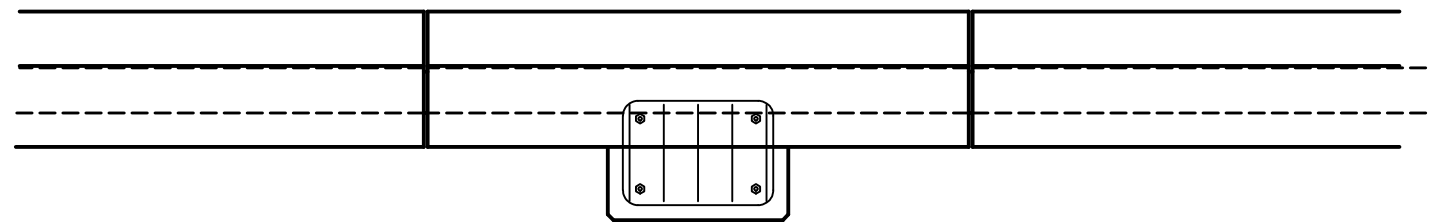
PRECASTER:

**OLDCASTLE PRECAST, INC**  
 11643 103rd STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
 FX: (904) 778-2992

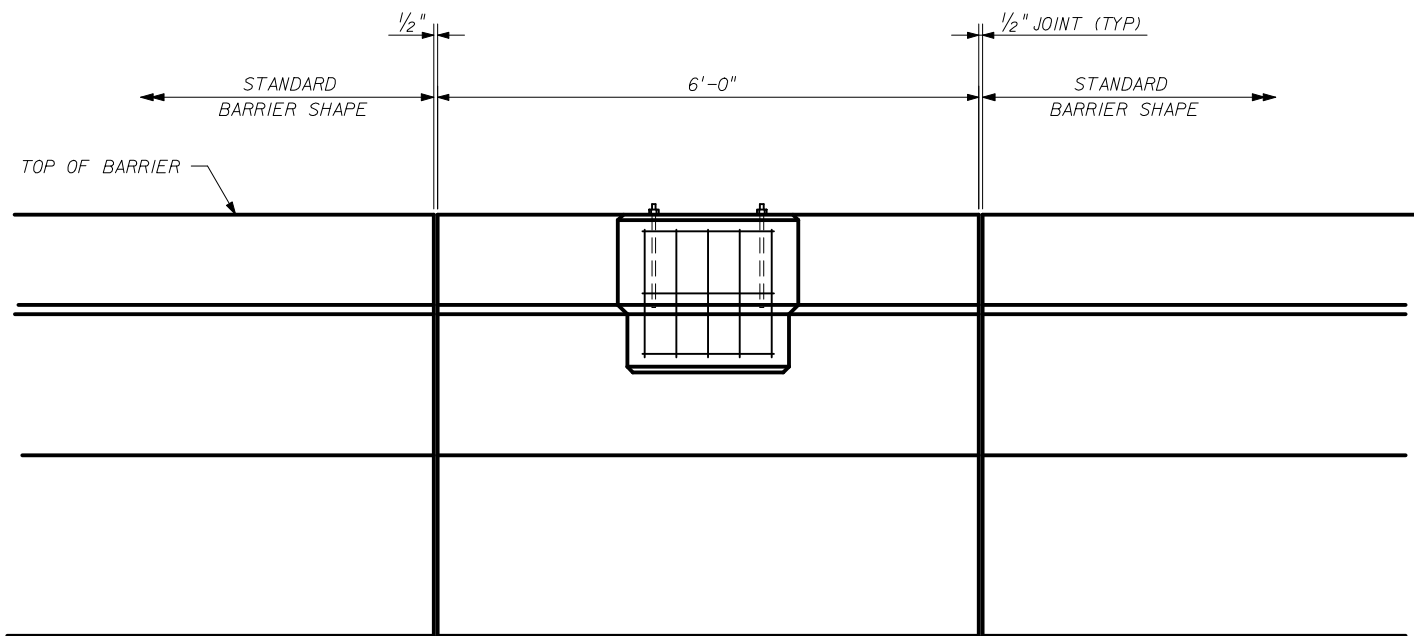
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM  
 THE NEEL COMPANY T-WALL  
 (2" COVER)

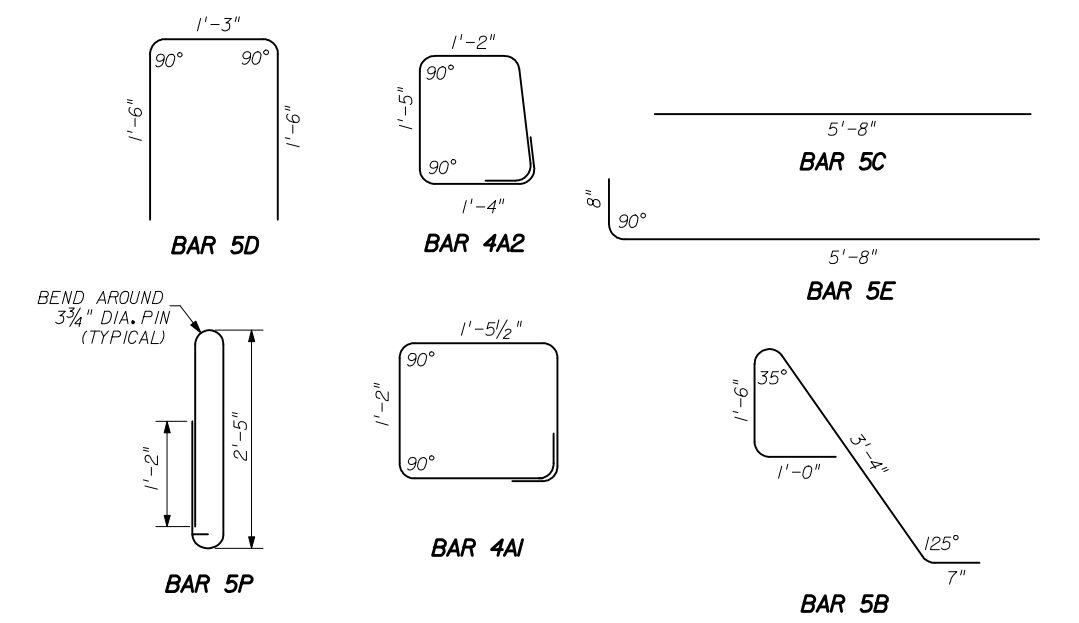
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Designed By	JMC	10/01/98	 State Structures Design Engineer			
Drawn By	CAA	10/01/98				
Checked By	JMC	10/01/98	Revision	Sheet No.	Index No.	
			00	10 of 21	5011	



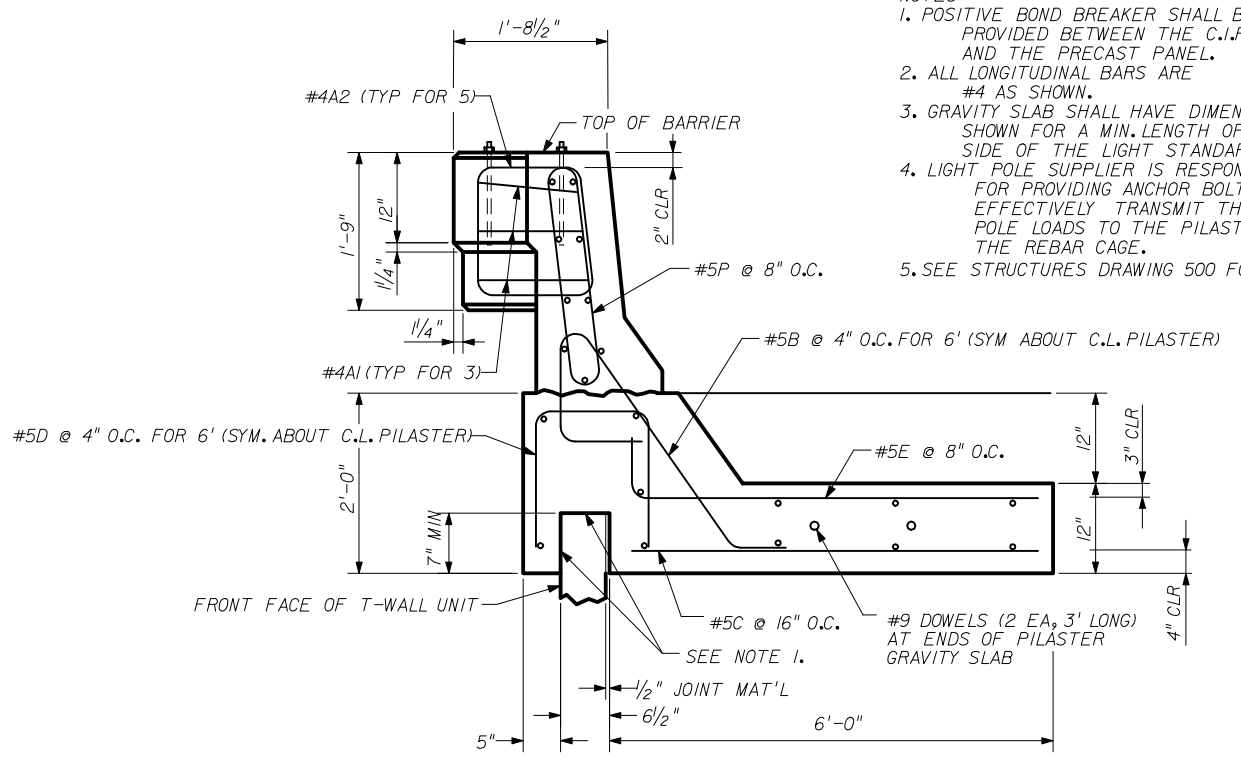
C.I.P. LIGHT STANDARD BARRIER - PART PLAN WITH REBAR  
(BARRIER AND GRAVITY SLAB REBAR OMITTED FOR CLARITY)



C.I.P. LIGHT STANDARD BARRIER - PART ELEVATION  
(BARRIER AND GRAVITY SLAB REBAR OMITTED FOR CLARITY)



C.I.P. LIGHT STANDARD BARRIER REBAR DETAILS



C.I.P. LIGHT STANDARD BARRIER - PART SECTION WITH REBAR

- NOTES
1. POSITIVE BOND BREAKER SHALL BE PROVIDED BETWEEN THE C.I.P. CONC. AND THE PRECAST PANEL.
  2. ALL LONGITUDINAL BARS ARE #4 AS SHOWN.
  3. GRAVITY SLAB SHALL HAVE DIMENSIONS SHOWN FOR A MIN. LENGTH OF 10'-0" EITHER SIDE OF THE LIGHT STANDARD BARRIER.
  4. LIGHT POLE SUPPLIER IS RESPONSIBLE FOR PROVIDING ANCHOR BOLTS THAT EFFECTIVELY TRANSMIT THE LIGHT POLE LOADS TO THE PILASTER AND FIT THE REBAR CAGE.
  5. SEE STRUCTURES DRAWING 500 FOR ADDITIONAL DETAILS.

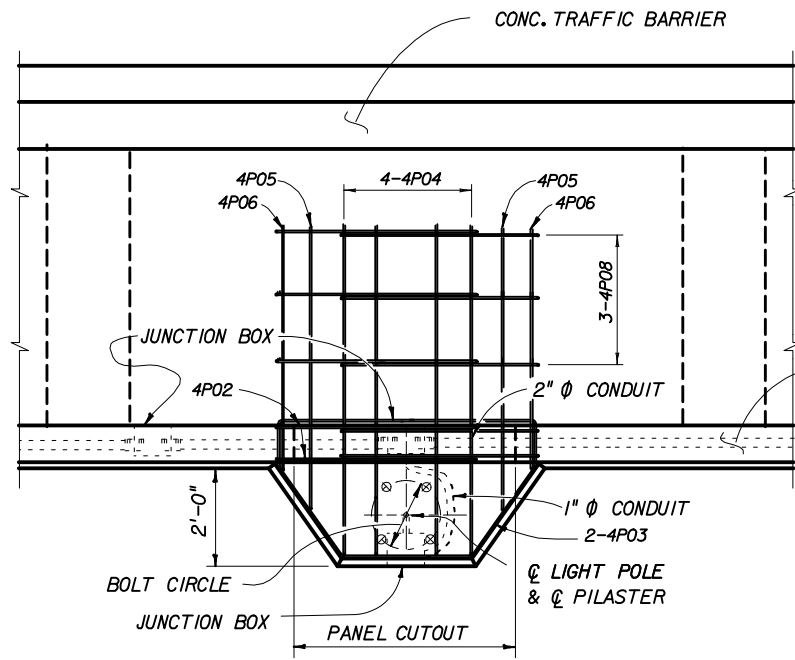
DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
Ph: (703) 913-7858  
Fx: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
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Fx: (904) 778-2992

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)

Names	Dates	Approved By		
Designed By	JMC	10/01/98	 State Structures Design Engineer	
Drawn By	CAA	10/01/98		
Checked By	JMC	10/01/98	Revision	00
			Sheet No.	11 of 21
			Index No.	5011



**NOTES**

- ADDITIONAL CONCRETE AND REINFORCING STEEL REQUIRED FOR THE CONSTRUCTION OF THE PILASTER SHALL MEET THE SAME REQUIREMENTS AS THAT OF THE PARAPET WALL.
- TOP OF PILASTER SHALL BE FINISHED TO A TRULY LEVEL AREA.
- LIGHT POLE PILASTER IS DESIGNED TO RESIST WORKING LOADS (IN ANY DIRECTION) FROM THE LIGHT POLE APPLIED AT THE TOP OF THE PILASTER AS FOLLOWS:
 

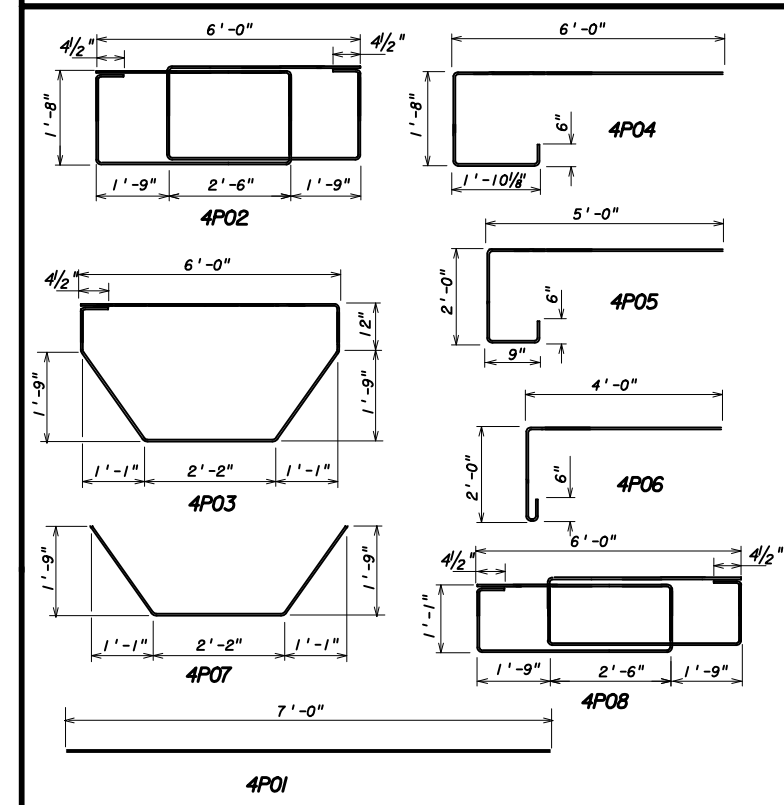
LONGITUDINAL MOMENT	=	30,000 FT. POUND
TRANSVERSE MOMENT	=	6,000 FT. POUND
LONGITUDINAL SHEAR	=	1,000 POUND
TRANSVERSE SHEAR	=	200 POUND
TORSION	=	3,000 FT. POUNDS
AXIAL	=	400 POUNDS

IF THE LIGHT POLE PROVIDED APPLIES LOADS THAT ARE IN EXCESS OF THOSE SHOWN ABOVE, THE CONTRACTOR SHALL REDESIGN THE PILASTER AND SUBMIT HIS DESIGN TO THE DEPARTMENT FOR REVIEW. THE CONTRACTOR'S REDESIGN SHALL BE PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA, AND QUALIFIED TO PERFORM THE WORK.

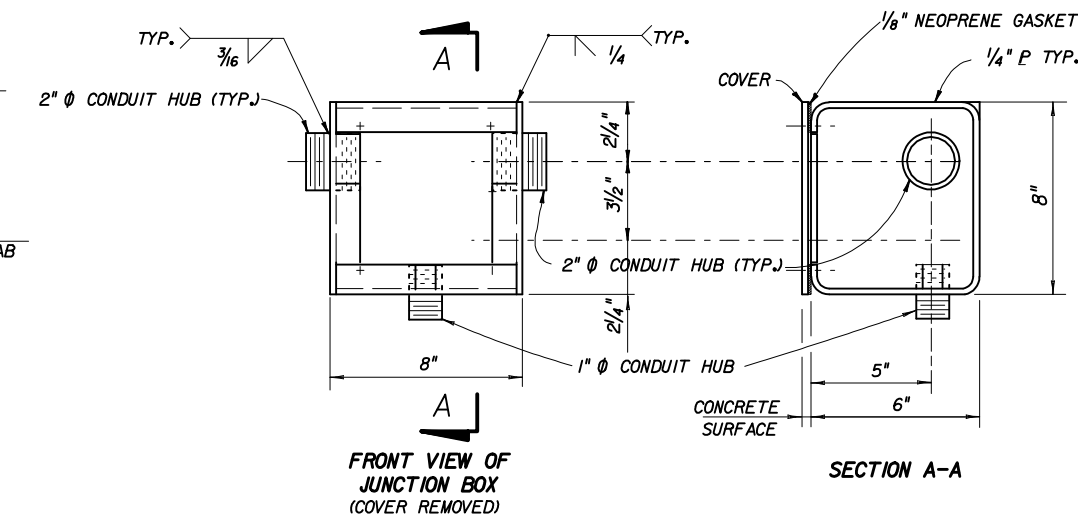
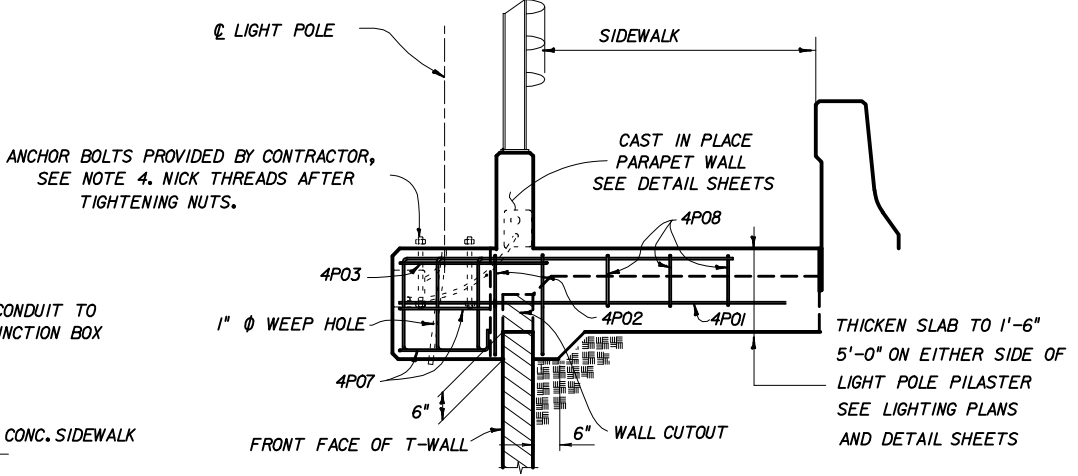
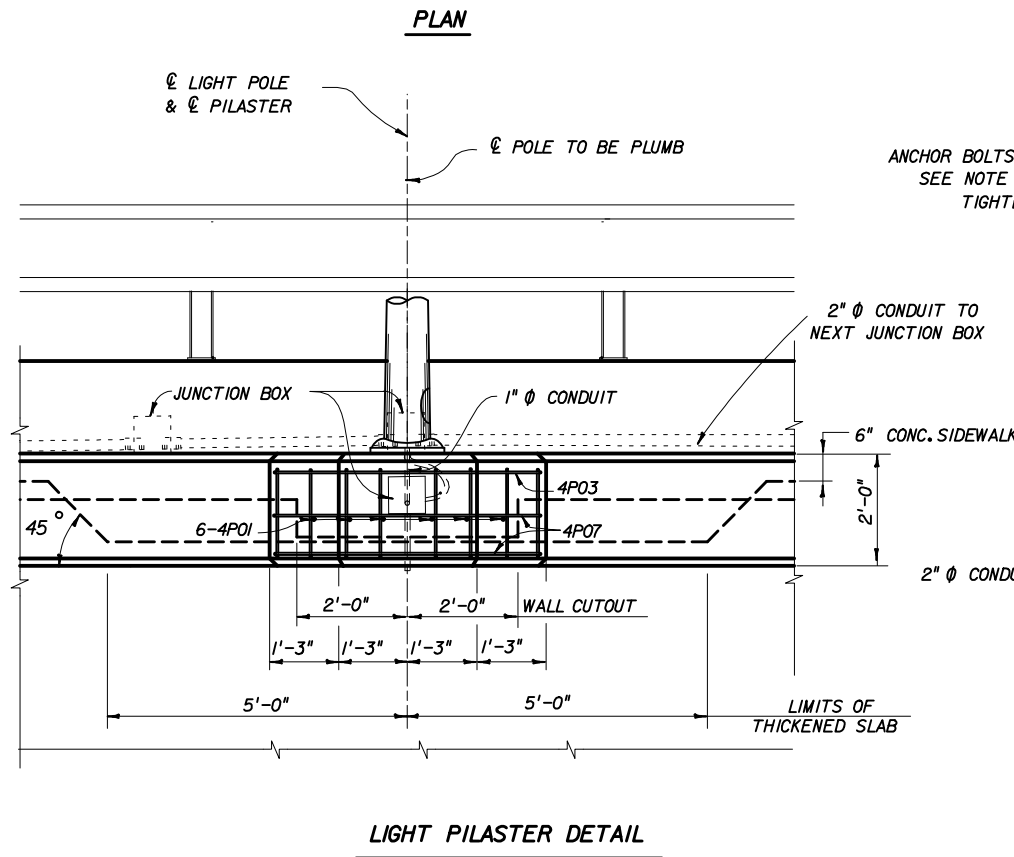
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANCHOR BOLTS THAT EFFECTIVELY TRANSMIT THE LIGHT POLE LOADS TO THE PILASTER AND THAT FIT THE REINFORCING CAGE. CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DEPARTMENT FOR REVIEW AND APPROVAL SHOWING THAT THESE REQUIREMENTS HAVE BEEN MET PRIOR TO CONSTRUCTION.

- STEEL FOR JUNCTION BOXES SHALL CONFORM WITH ASTM-A36. THE BOXES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. IN LIEU OF STEEL BOXES THE CONTRACTOR MAY SUBMIT FOR APPROVAL MOLDED P.V.C. BOXES (SCHEDULE 80).
- ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL OR SCHEDULE 80 P.V.C.
- THE COST OF ANCHOR BOLTS SHALL BE INCLUDED IN THE BID PRICE FOR LIGHT POLES.
- PAYMENT: THE COST OF ALL LABOR, CONCRETE AND REINFORCING STEEL REQUIRED FOR THE CONSTRUCTION OF THE PILASTERS AND ALL CONDUITS, EXPANSION COUPLINGS, JUNCTION BOXES AND MISCELLANEOUS HARDWARE REQUIRED FOR COMPLETION OF THE ELECTRICAL INSTALLATION WITHIN THE LIMITS SHOWN ON THIS SHEET, SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE FOR THE MSE WALLS.

**BAR BENDING DIAGRAMS**



BILL OF REINFORCING STEEL			
MARK	SIZE	NO. REQ'D	LENGTH
4P01	4	6	7'-0"
4P02	4	2	24'-5"
4P03	4	1	14'-9"
4P04	4	4	9'-8"
4P05	4	2	7'-11"
4P06	4	2	6'-2"
4P07	4	2	6'-4"
4P08	4	3	22'-1"

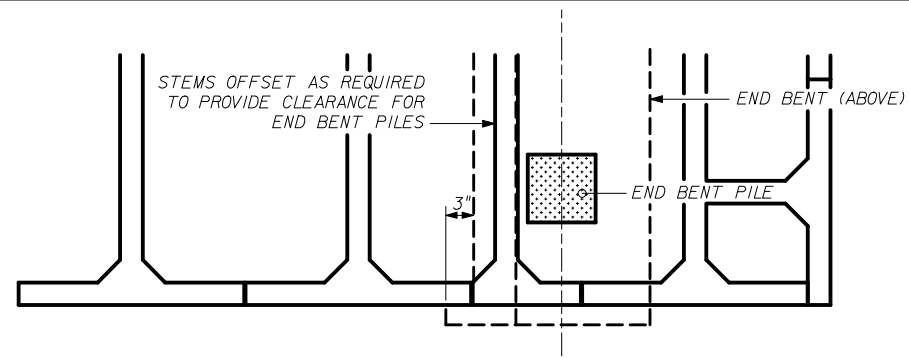


DESIGNER: **THE NEEL COMPANY**  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
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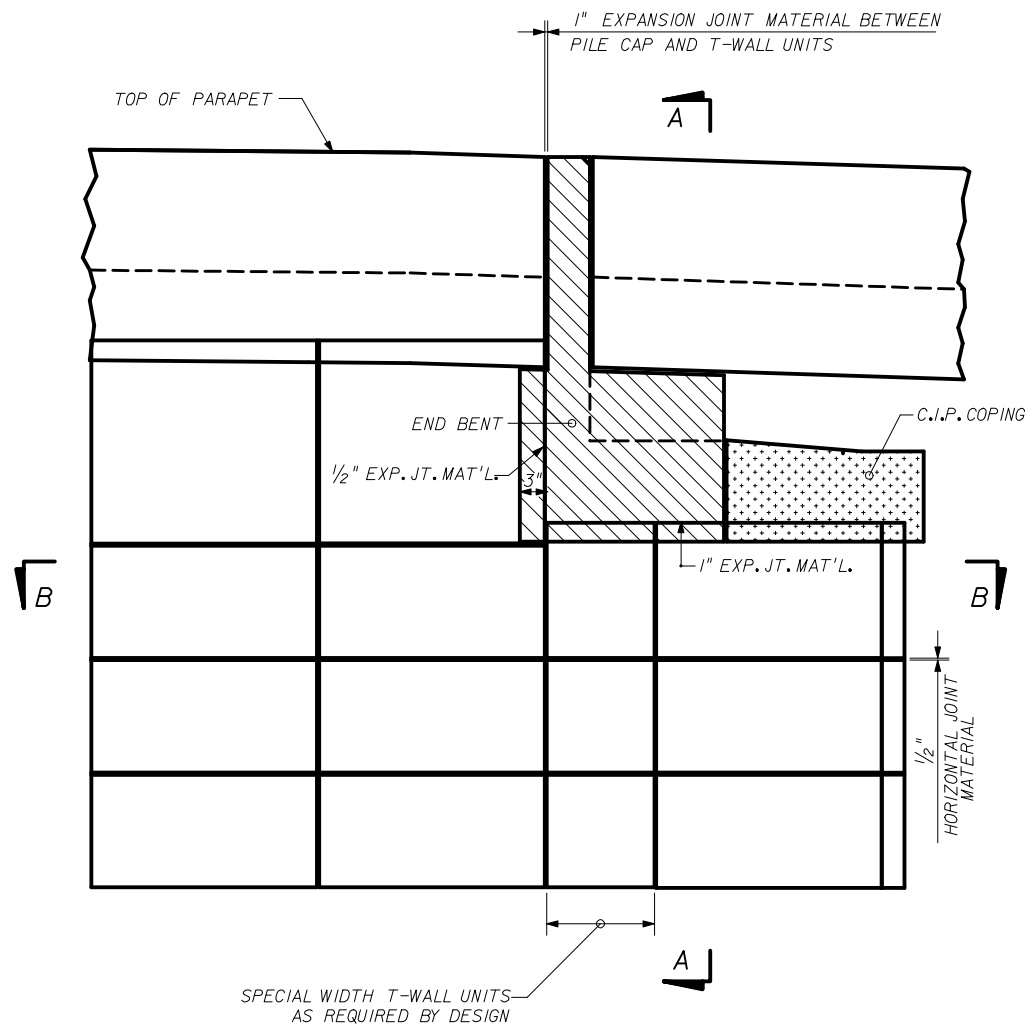
PRECASTER: **OLDCASTLE PRECAST, INC.**  
 11643 103rd STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
 FX: (904) 778-2992

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**RETAINING WALL SYSTEM  
 THE NEEL COMPANY T-WALL  
 (2" COVER)**

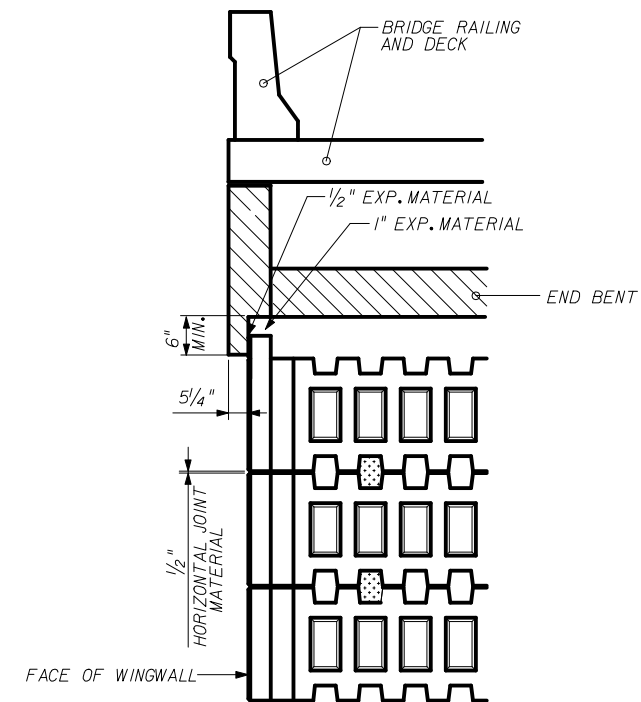
Names	Dates	Approved By			
Designed By	JMC	10/01/98	State Structures Design Engineer		
Drawn By	CAA	10/01/98			
Checked By	JMC	10/01/98			
Revision	00	Sheet No.			12 of 21



**SECTION B-B**  
STEM / END BENT PILE INTERFACE

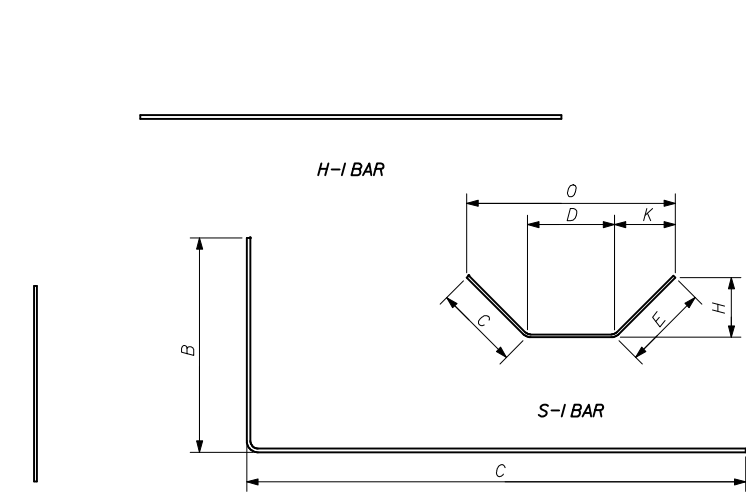


**PART ELEVATION SHOWING**  
WINGWALL / END BENT INTERFACE



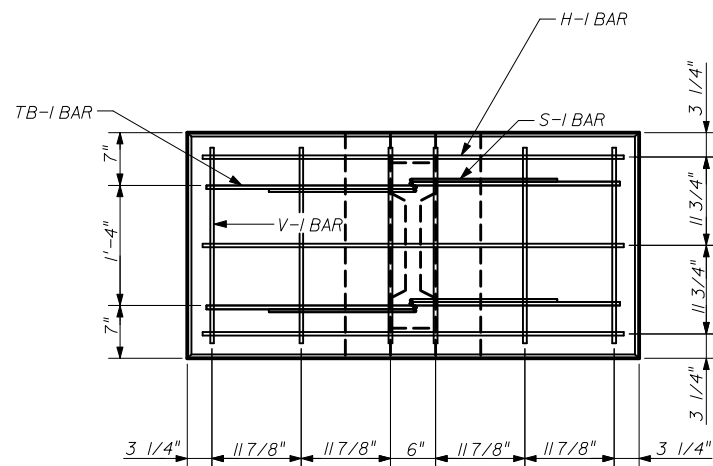
**SECTION A-A**  
SECTION THRU PILE CAP

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
Designed By	JMC	10/01/98	Approved By <i>W. J. [Signature]</i> State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No. Index No.
Checked By	JMC	10/01/98	00	13 of 21 5011



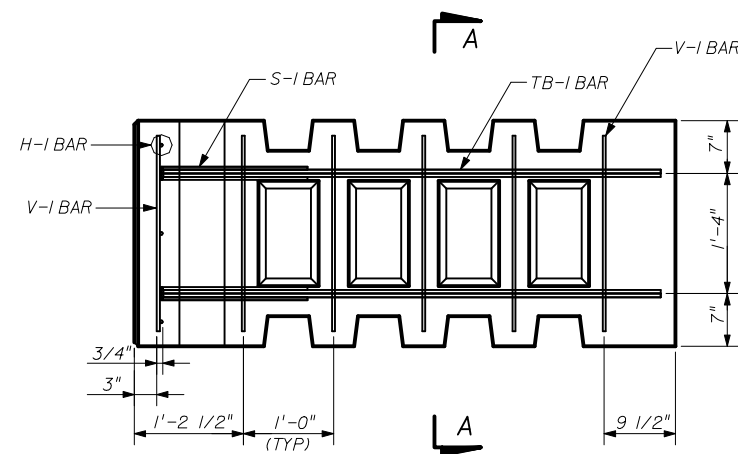
V-I BAR

TB-I BAR

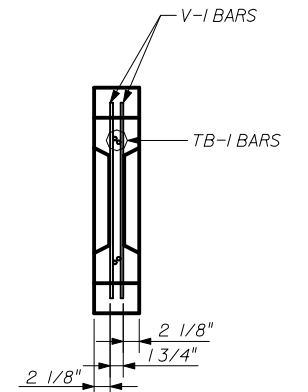


FRONT VIEW

(V-I BARS IN STEM OMITTED FOR CLARITY)



SIDE VIEW



SECTION A-A

REBAR SCHEDULE - 2.5 x 5.0 x 04 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	12	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	5'-8 1/2"	2'-3 1/2"	3'-6 1/2"						90	

REBAR SCHEDULE - 2.5 x 5.0 x 06 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	16	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

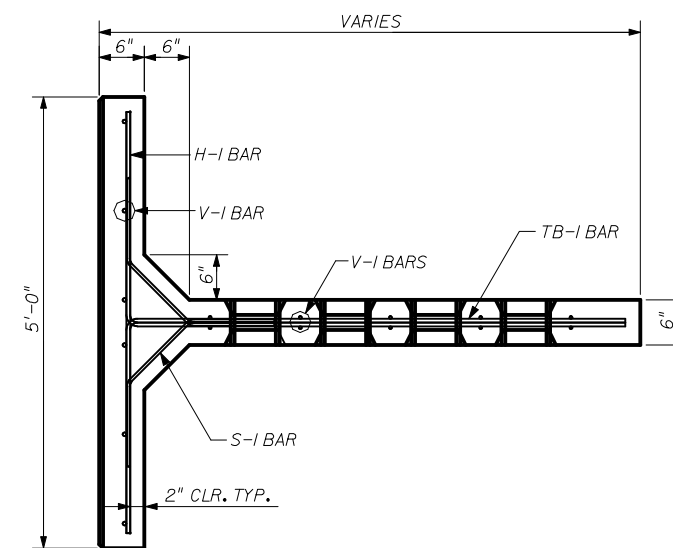
REBAR SCHEDULE - 2.5 x 5.0 x 08 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	20	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 2.5 x 5.0 x 10 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	24	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	11'-8 1/2"	2'-3 1/2"	9'-6 1/2"						90	

REBAR SCHEDULE - 2.5 x 5.0 x 12 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	26	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	13'-8 1/2"	2'-3 1/2"	11'-6 1/2"						90	

REBAR SCHEDULE - 2.5 x 5.0 x 14 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	32	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	15'-8 1/2"	2'-3 1/2"	13'-6 1/2"						90	

REBAR SCHEDULE - 2.5 x 5.0 x 16 STD UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	3	4	-	4'-6"								-	
V-I	36	3	-	2'-0"								-	
S-I	4	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	4	4	17	17'-8 1/2"	2'-3 1/2"	15'-6 1/2"						90	



TOP VIEW


REINFORCING STEEL - STANDARD UNITS

DESIGNER:  

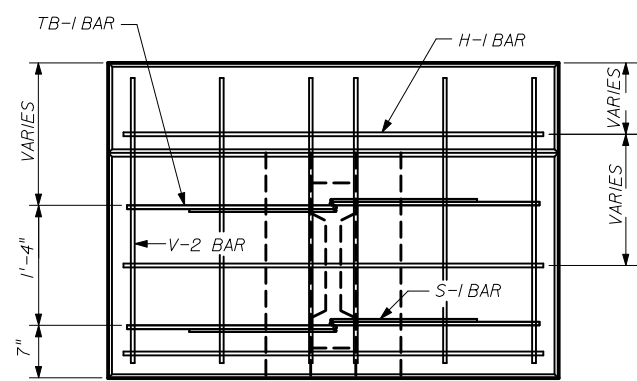
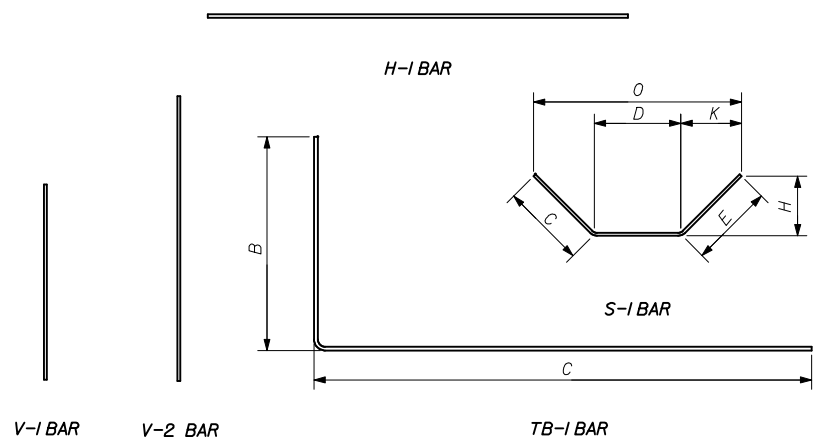
**THE NEEL COMPANY**  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 PH: (703) 913-7858  
 FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
 11643 103RD STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
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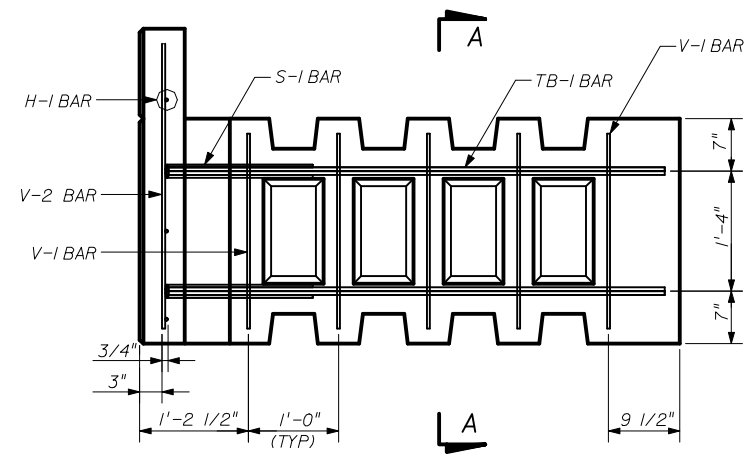
NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)				
Names	Dates	Approved By 		
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No.
Checked By	JMC	10/01/98	00	14 of 21
				5011

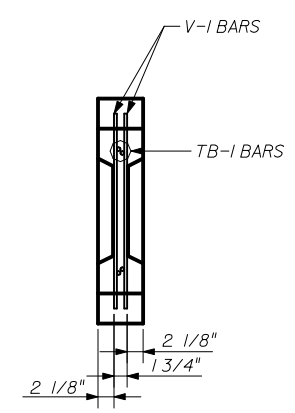
\*\*\*\*\*DGN SPECIFICATION\*\*\*\*\*  
 \*\*\*\*\*SYTIME\*\*\*\*\*



**FRONT VIEW**  
(V-1 BARS IN STEM OMITTED FOR CLARITY)



**SIDE VIEW**



**SECTION A-A**

REBAR SCHEDULE - 3.0 x 5.0 x 04 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	4	4	-	4'-6"									
V-1	6	3	-	2'-0"									
V-2	6	5	-	2'-6"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	5'-8 1/2"	2'-3 1/2"	3'-6 1/2"						90	

REBAR SCHEDULE - 3.0 x 5.0 x 06 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	4	4	-	4'-6"									
V-1	10	3	-	2'-0"									
V-2	6	5	-	2'-6"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 3.5 x 5.0 x 04 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	5	4	-	4'-6"									
V-1	6	3	-	2'-0"									
V-2	6	5	-	3'-0"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	5'-8 1/2"	2'-3 1/2"	3'-6 1/2"						90	

REBAR SCHEDULE - 3.5 x 5.0 x 06 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	5	4	-	4'-6"									
V-1	10	3	-	2'-0"									
V-2	6	5	-	3'-0"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 4.0 x 5.0 x 04 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	5	4	-	4'-6"									
V-1	6	3	-	2'-0"									
V-2	6	5	-	3'-6"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	5'-8 1/2"	2'-3 1/2"	3'-6 1/2"						90	

REBAR SCHEDULE - 4.0 x 5.0 x 06 TOP UNIT

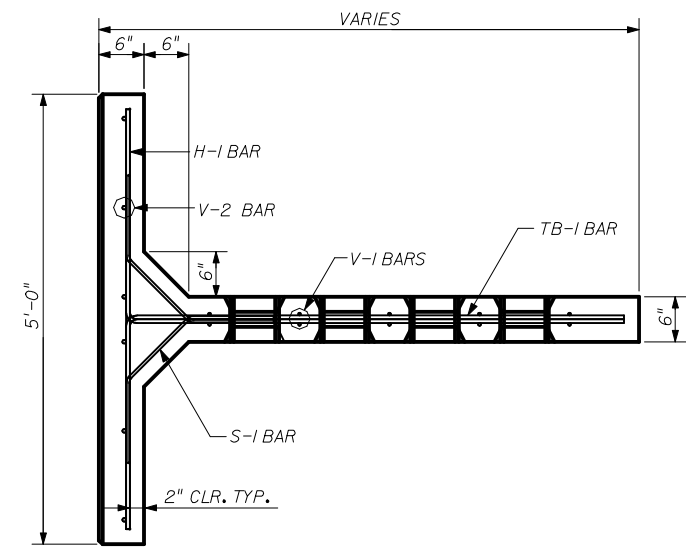
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H-1	5	4	-	4'-6"									
V-1	10	3	-	2'-0"									
V-2	6	5	-	3'-6"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 4.5 x 5.0 x 06 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	6	4	-	4'-6"									
V-1	6	3	-	2'-0"									
V-2	6	5	-	4'-0"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 06 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	6	4	-	4'-6"									
V-1	10	3	-	2'-0"									
V-2	6	5	-	4'-6"									
S-1	4	3	3	2'-9 1/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	4	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	



**TOP VIEW**

**REINFORCING STEEL - TOP UNITS (I)**

DESIGNER:  
**THE NEEL COMPANY**  
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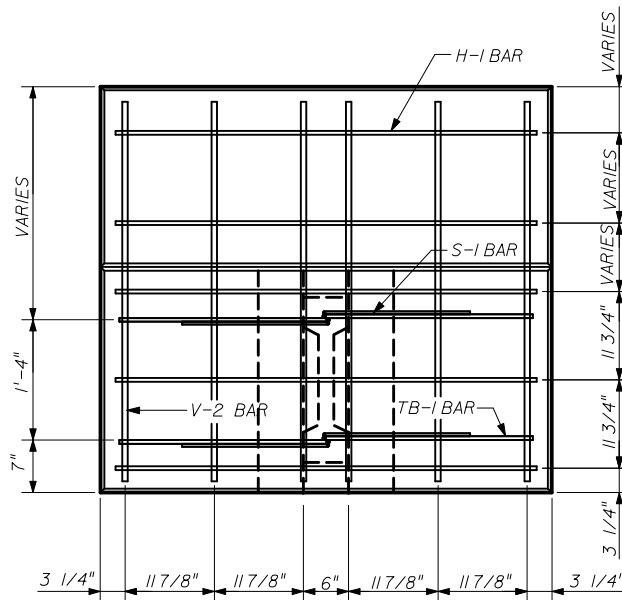
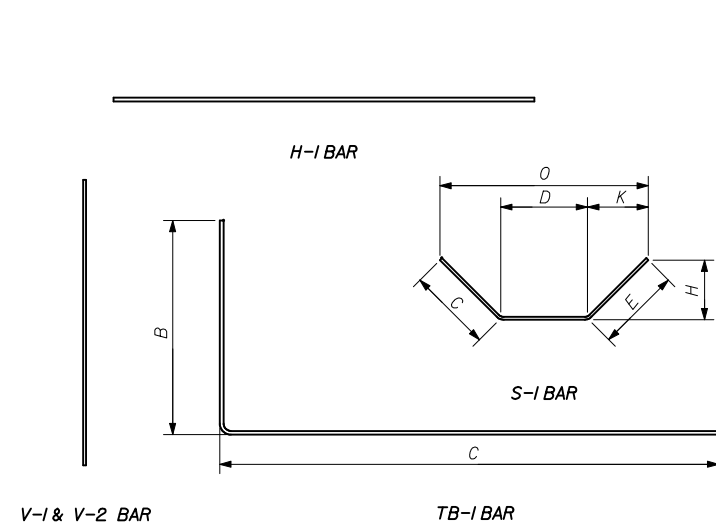
PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

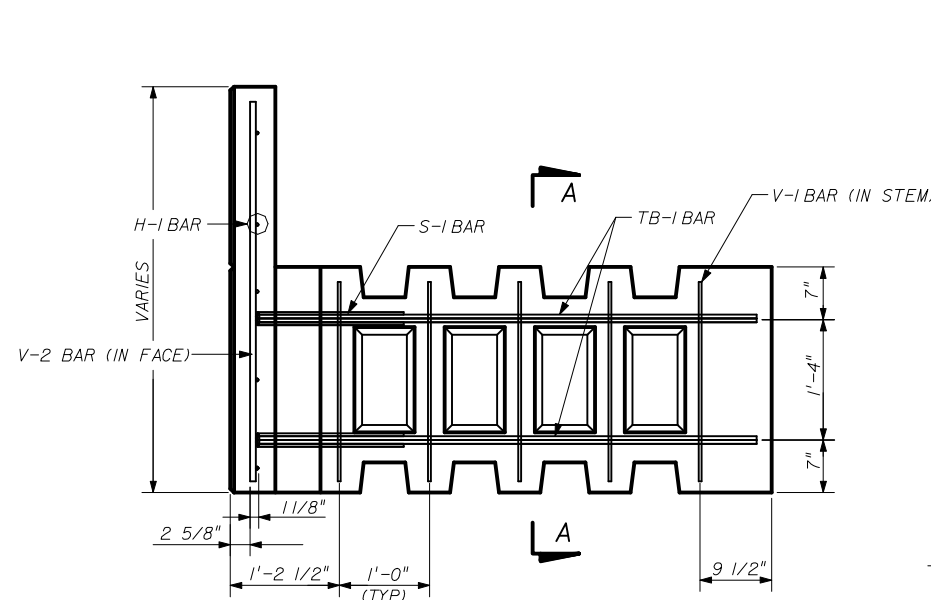
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

**RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)**

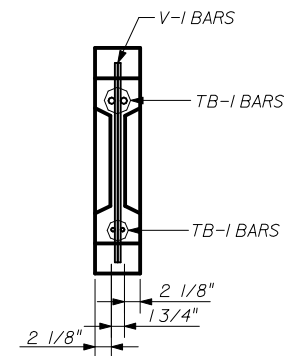
Names	Dates	Approved By
Designed By JMC	10/01/98	 State Structures Design Engineer
Drawn By CAA	10/01/98	
Checked By JMC	10/01/98	
Revision	Sheet No.	Index No.
00	15 of 21	5011



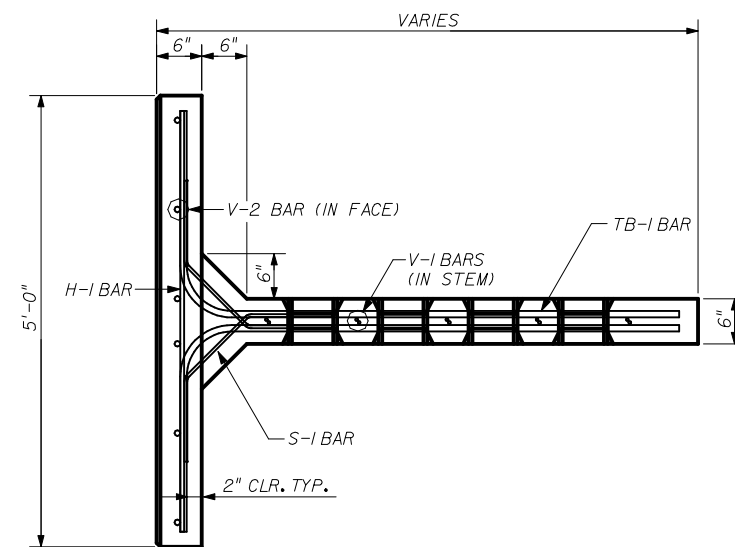
**FRONT VIEW**  
(V-1 BARS IN STEM OMITTED FOR CLARITY)



**SIDE VIEW**



**SECTION A-A**



**TOP VIEW**  
**REINFORCING STEEL -TOP UNITS (II)**

THESE UNITS WILL ONLY BE USED BY APPROVAL OF THE F.D.O.T. STRUCTURES DESIGN OFFICE ON A PROJECT BY PROJECT BASIS.

REBAR SCHEDULE - 5.5 x 5.0 x 08 TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	6	4	-	4'-6"								-	
V-1	14	3	-	2'-0"								-	
V-2	6	6	-	5'-0"								-	
S-1	4	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	4	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 6.0 x 5.0 x 08 TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	7	4	-	4'-6"								-	
V-1	14	3	-	2'-0"								-	
V-2	6	6	-	5'-6"								-	
S-1	4	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	4	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 6.5 x 5.0 x 08 TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	7	4	-	4'-6"								-	
V-1	14	3	-	2'-0"								-	
V-2	6	6	-	6'-0"								-	
S-1	4	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	4	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 7.0 x 5.0 x 08 TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"								-	
V-1	14	3	-	2'-0"								-	
V-2	6	6	-	6'-6"								-	
S-1	4	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	4	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

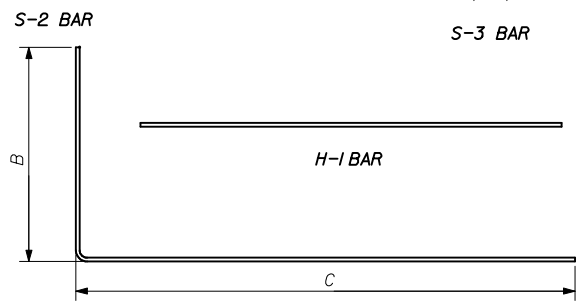
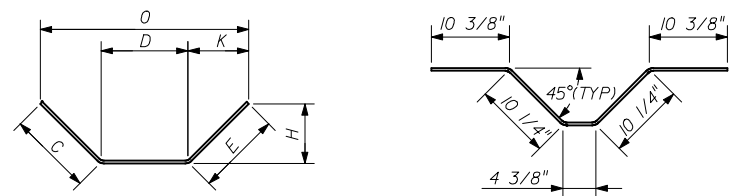
DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)				
Names	Dates	Approved By		
Designed By	JMC	10/01/98	 State Structures Design Engineer	
Drawn By	CAA	10/01/98		
Checked By	JMC	10/01/98	Revision	Sheet No.
			00	16 of 21
				5011





V-1, V-2 & V-3 BAR

TB-1 BAR

REBAR SCHEDULE - 7.5 x 5.0 x 10 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	18	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	6'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	8	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 7/8"						90	

REBAR SCHEDULE - 8.0 x 5.0 x 10 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	18	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	6'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	9	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 7/8"						90	

REBAR SCHEDULE - 8.5 x 5.0 x 10 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	18	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	7'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	10	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 7/8"						90	

REBAR SCHEDULE - 9.0 x 5.0 x 12 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	22	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	7'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	11	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	13'-7 1/8"	2'-2 1/4"	11'-6 7/8"						90	

REBAR SCHEDULE - 9.5 x 5.0 x 12 TOP UNIT

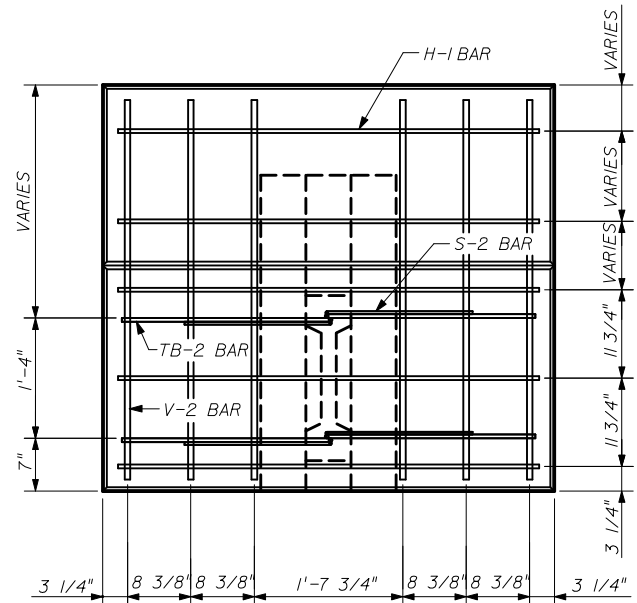
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	22	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	8'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	12	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	13'-7 1/8"	2'-2 1/4"	11'-6 7/8"						90	

REBAR SCHEDULE - 10.0 x 5.0 x 12 TOP UNIT

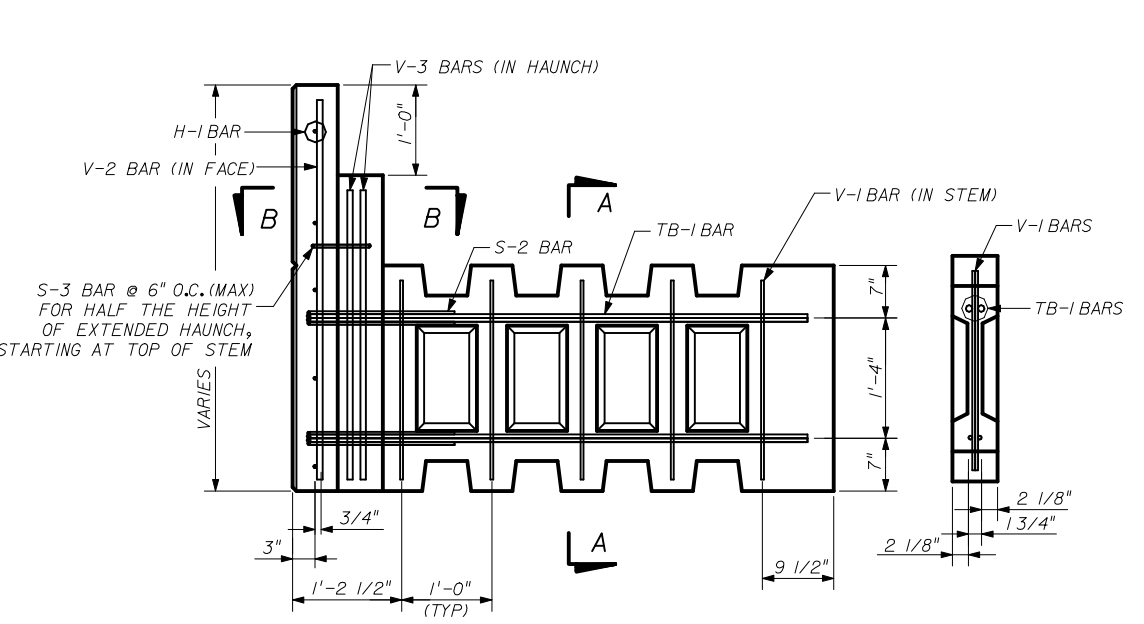
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	22	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	8'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	13	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	13'-7 1/8"	2'-2 1/4"	11'-6 7/8"						90	

REBAR SCHEDULE - 10.5 x 5.0 x 12 TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"									
V-1	22	3	-	2'-0"									
V-2	6	6	-	7'-0"									
V-3	4	6	-	9'-0"									
S-2	4	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	14	3	3	3'-3 3/8"									SEE BENDING DTL
TB-1	4	7	17	13'-7 1/8"	2'-2 1/4"	11'-6 7/8"						90	

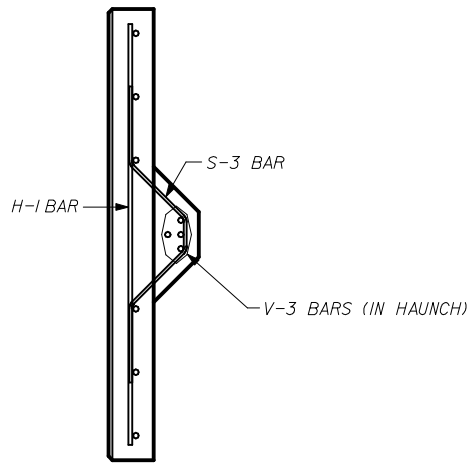


FRONT VIEW  
(V-1 BARS IN STEM AND V-3 BARS IN HAUNCH OMITTED FOR CLARITY)

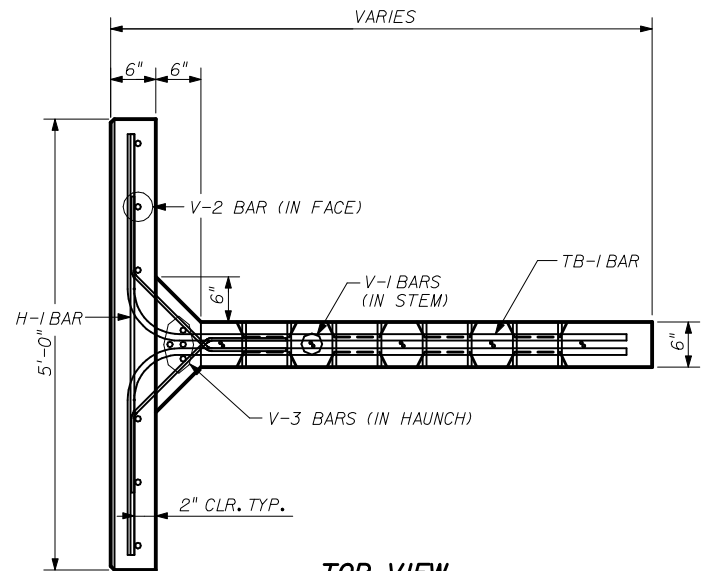


SIDE VIEW

SECTION A-A



SECTION B-B



TOP VIEW  
S-3 BARS IN EXTENDED HAUNCH 1. ALL UNITS ON THIS SHEET WILL ONLY BE USED BY APPROVAL OF THE F.D.O.T. STRUCTURES DESIGN OFFICE ON A PROJECT BY PROJECT BASIS.  
REINFORCING STEEL - TOP UNITS (III)

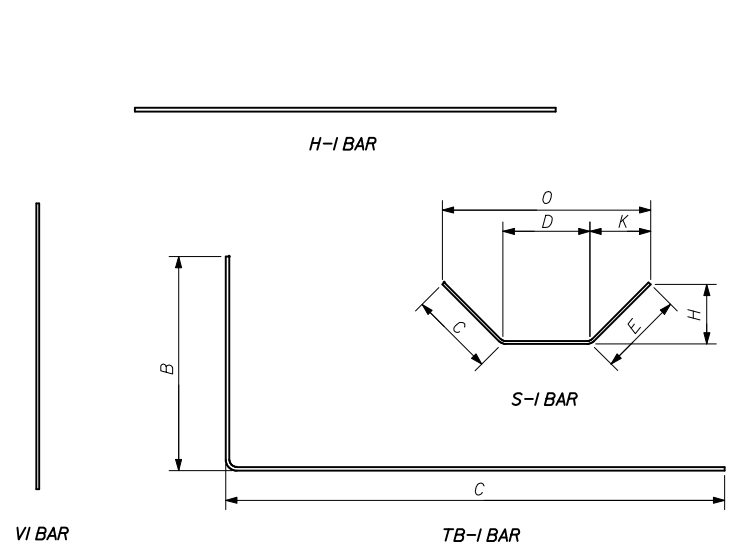
DESIGNER:  
**THE NEEL COMPANY**  
8326-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103RD STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)				
Names	Dates	Approved By <i>W. J. [Signature]</i>		
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No.
Checked By	JMC	10/01/98	00	17 of 21
				5011

\*\*\*\*\*DGN SPECIFICATION\*\*\*\*\*  
\*\*\*\*\*SYTIME\*\*\*\*\*



REBAR SCHEDULE - 5.0 x 5.0 x 04 DBL UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	6	4	-	4'-6"								-	
V-I	12	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	5'-8 1/2"	2'-3 1/2"	3'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 06 DBL UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	6	4	-	4'-6"								-	
V-I	16	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 08 DBL UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	6	4	-	4'-6"								-	
V-I	20	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 10 DBL UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	6	4	-	4'-6"								-	
V-I	24	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	11'-8 1/2"	2'-3 1/2"	9'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 12 DBL UNIT

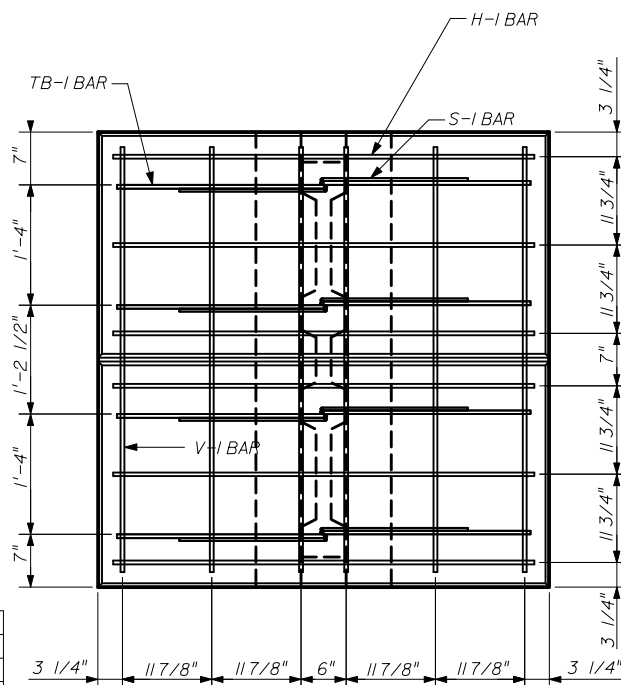
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H-I	6	4	-	4'-6"								-	
V-I	26	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	13'-8 1/2"	2'-3 1/2"	11'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 14 DBL UNIT

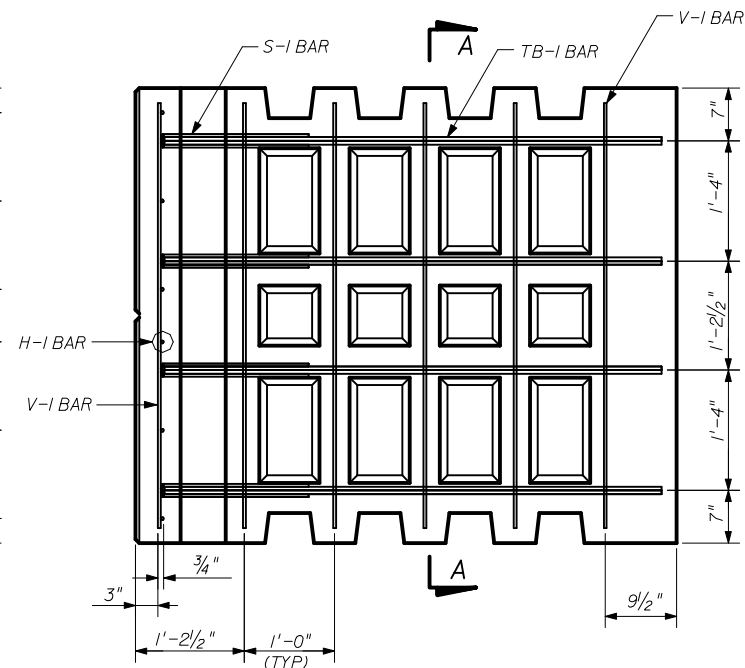
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H-I	6	4	-	4'-6"								-	
V-I	32	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	15'-8 1/2"	2'-3 1/2"	15'-6 1/2"						90	

REBAR SCHEDULE - 5.0 x 5.0 x 16 DBL UNIT

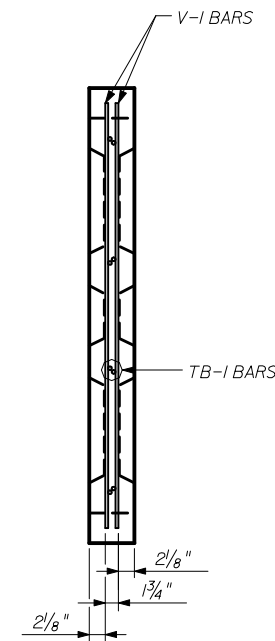
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-I	6	4	-	4'-6"								-	
V-I	36	3	-	4'-6"								-	
S-I	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-I	8	4	17	17'-8 1/2"	2'-3 1/2"	15'-6 1/2"						90	



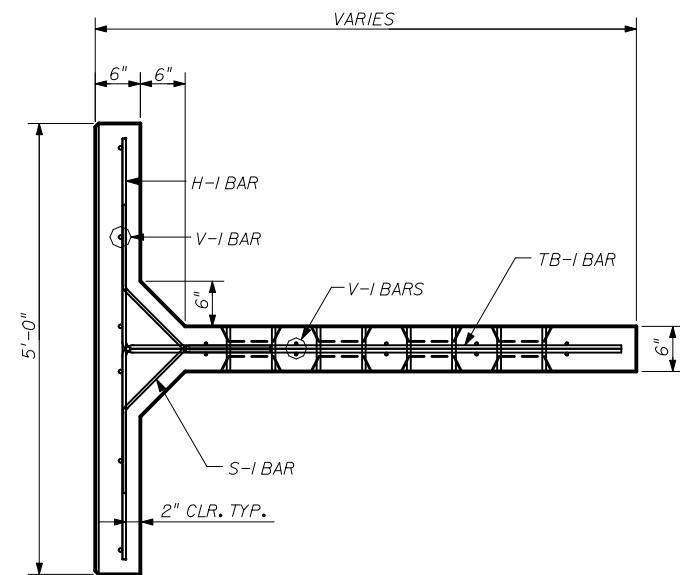
**FRONT VIEW**  
(V-I BARS IN STEM OMITTED FOR CLARITY)



**SIDE VIEW**



**SECTION A-A**



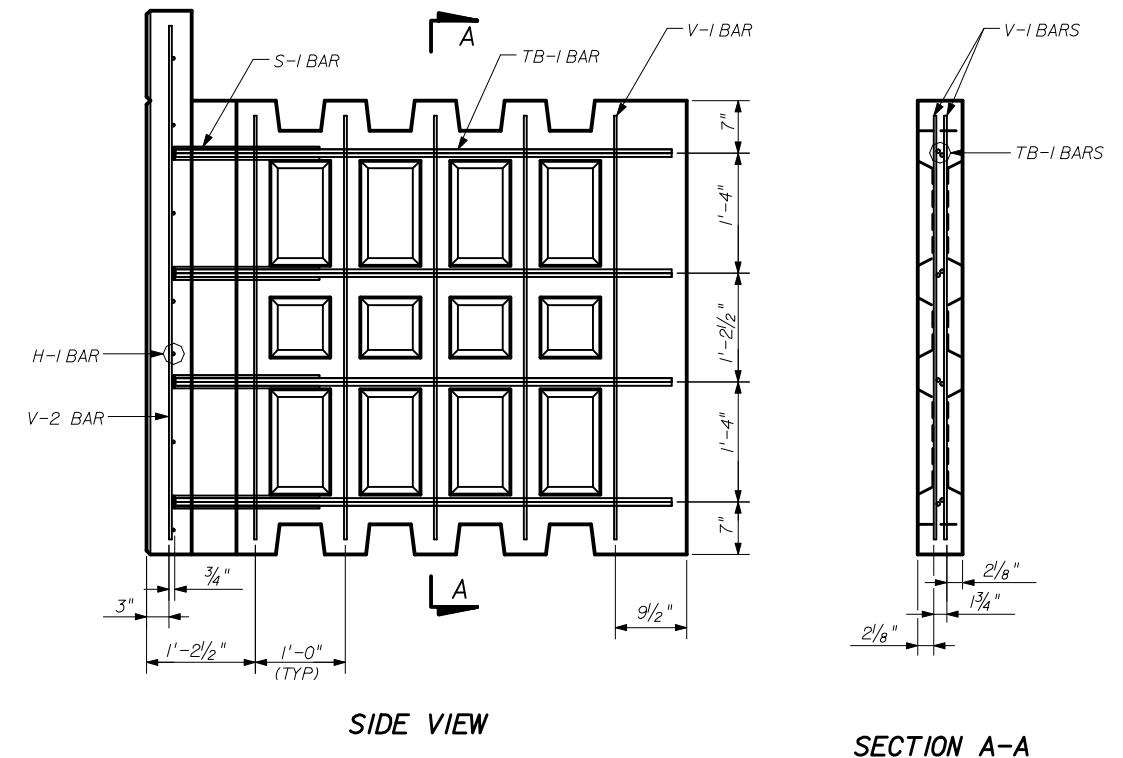
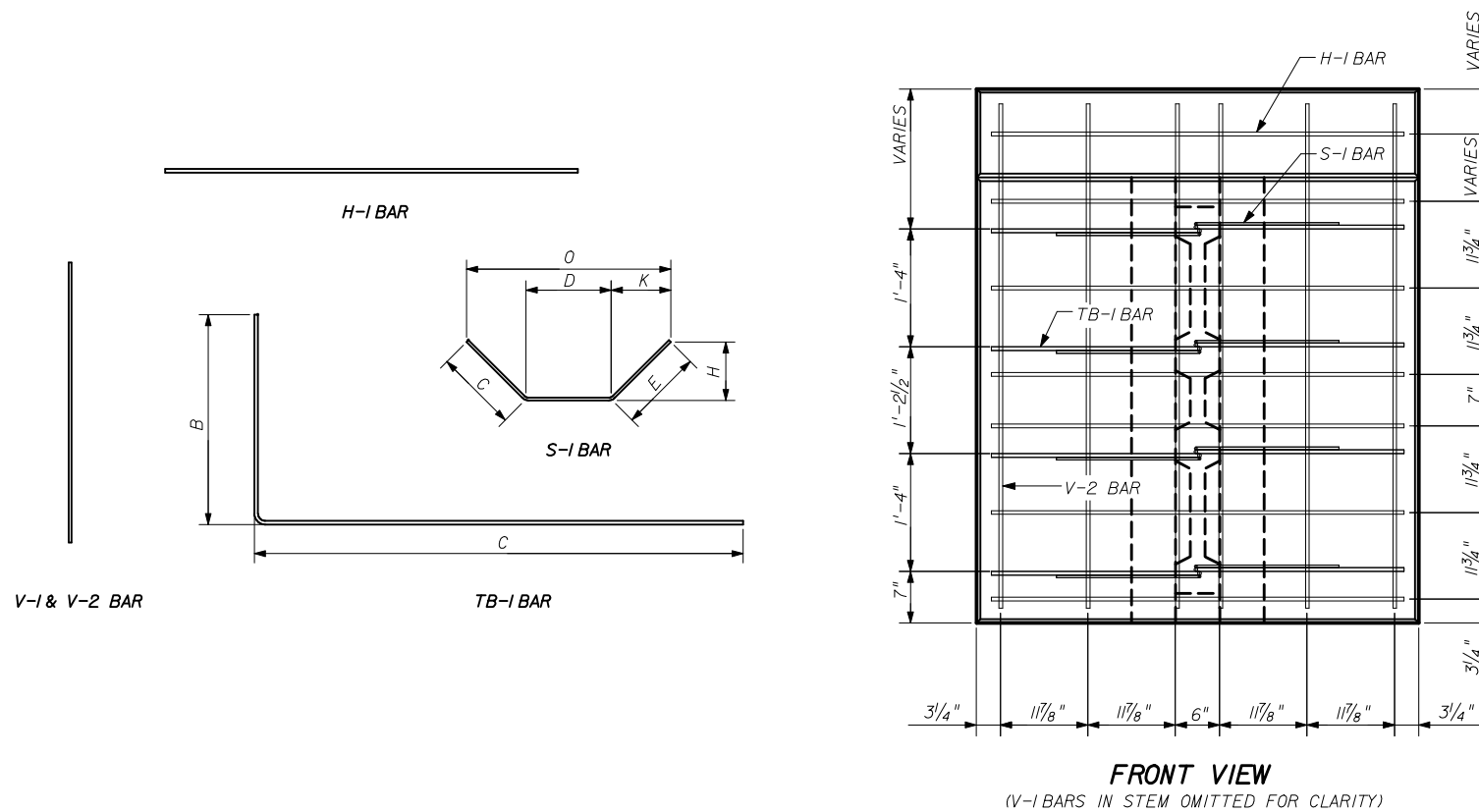
**TOP VIEW**  
**REINFORCING STEEL -DOUBLE UNITS**

DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103rd STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM</b>				
<b>THE NEEL COMPANY T-WALL</b>				
<b>(2" COVER)</b>				
Names	Dates	Approved By <i>W. J. [Signature]</i>		
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No.
Checked By	JMC	10/01/98	00	18 of 21
				5011



REBAR SCHEDULE - 5.5 x 5.0 x 06 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	6	4	-	4'-6"								-	
V-1	10	3	-	4'-6"								-	
V-2	6	5	-	5'-0"								-	
S-1	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	8	5	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 6.0 x 5.0 x 06 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	7	4	-	4'-6"								-	
V-1	10	3	-	4'-6"								-	
V-2	6	5	-	5'-6"								-	
S-1	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	8	5	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 6.5 x 5.0 x 06 DBL TOP UNIT

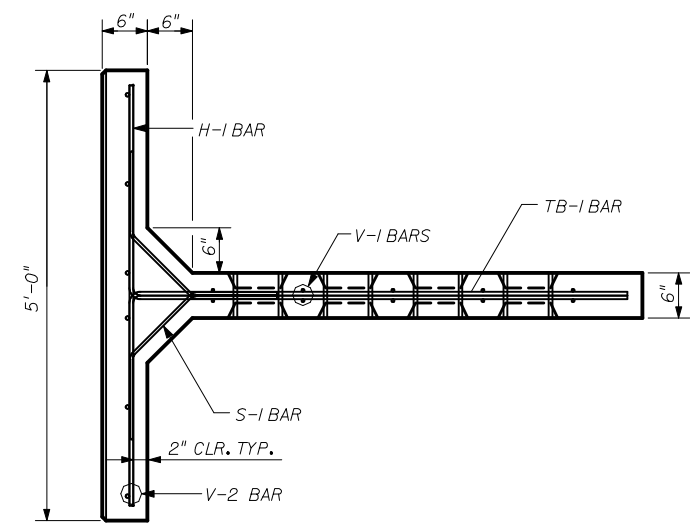
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	7	4	-	4'-6"								-	
V-1	10	3	-	4'-6"								-	
V-2	6	5	-	6'-0"								-	
S-1	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	8	5	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 7.0 x 5.0 x 06 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"								-	
V-1	10	3	-	4'-6"								-	
V-2	6	5	-	6'-6"								-	
S-1	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	8	5	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	

REBAR SCHEDULE - 7.5 x 5.0 x 06 DBL TOP UNIT

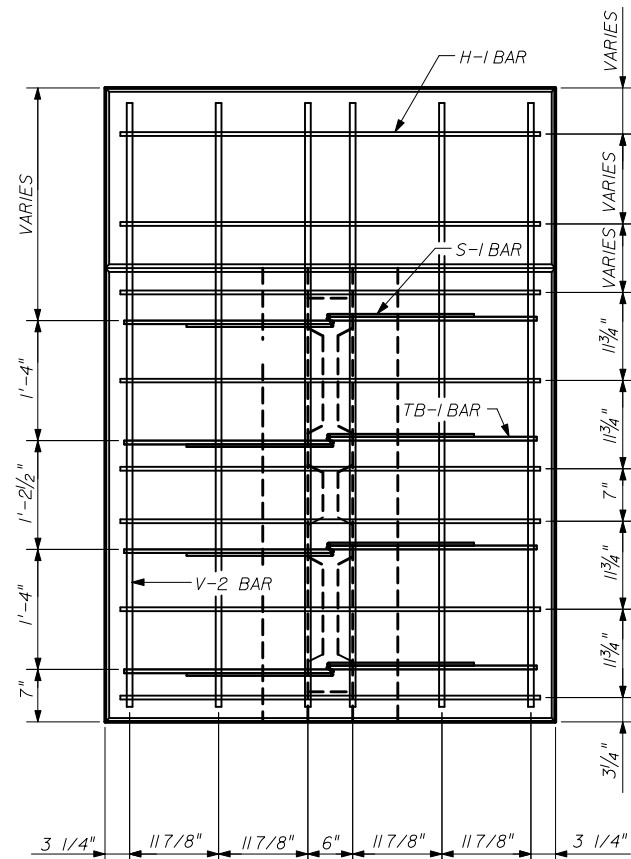
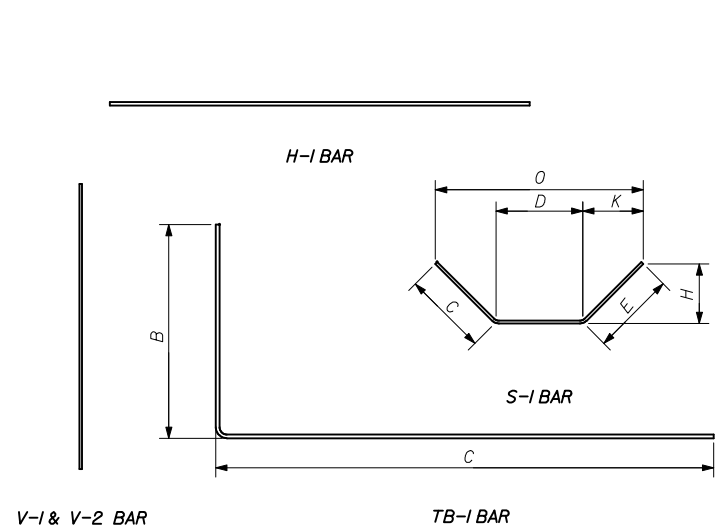
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	8	4	-	4'-6"								-	
V-1	10	3	-	4'-6"								-	
V-2	6	5	-	7'-0"								-	
S-1	8	3	3	2'-9 7/8"		11 1/4"	11 1/4"	11 1/4"	8"	8"	2'-3 3/4"	45	
TB-1	8	5	17	7'-8 1/2"	2'-3 1/2"	5'-6 1/2"						90	



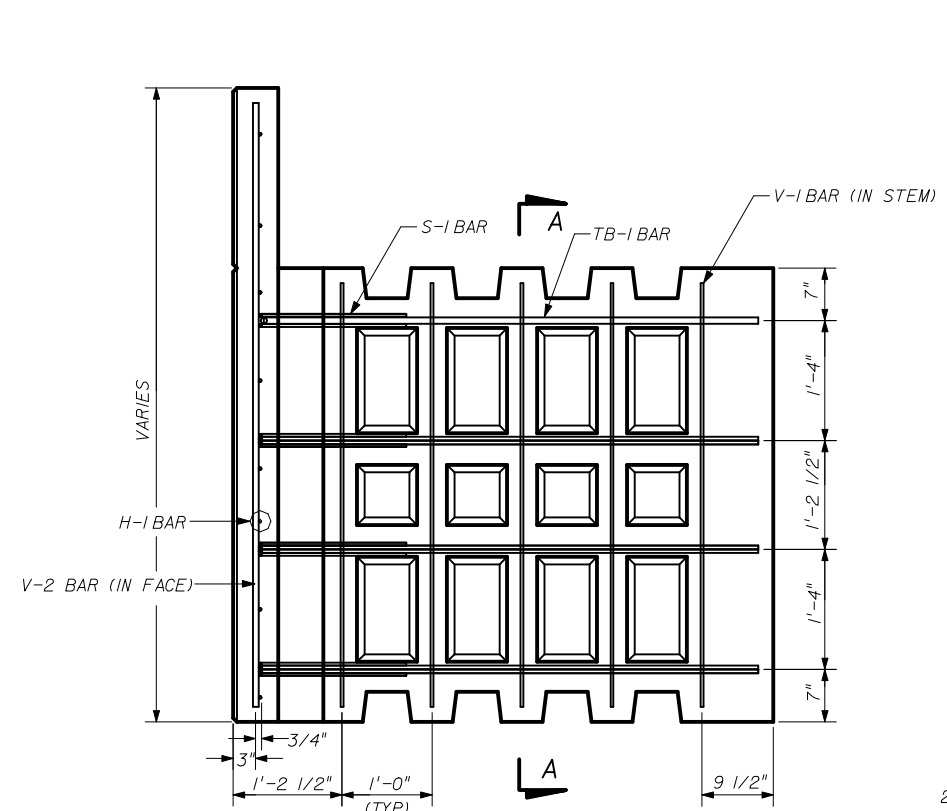
DESIGNER:  
**THE NEEL COMPANY**  
 8328-D TRAFORD LANE  
 SPRINGFIELD, VIRGINIA 22152  
 PH: (703) 913-7858  
 FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC.**  
 11643 103RD STREET  
 JACKSONVILLE, FL 32210  
 PH: (904) 778-2990  
 FX: (904) 778-2992

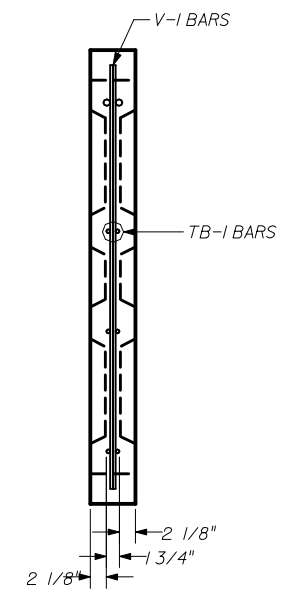
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
	Names	Dates	Approved By	
Designed By	JMC	10/01/98	State Structures Design Engineer	
Drawn By	CAA	10/01/98	Revision	Sheet No. Index No.
Checked By	JMC	10/01/98	00	19 of 21 5011



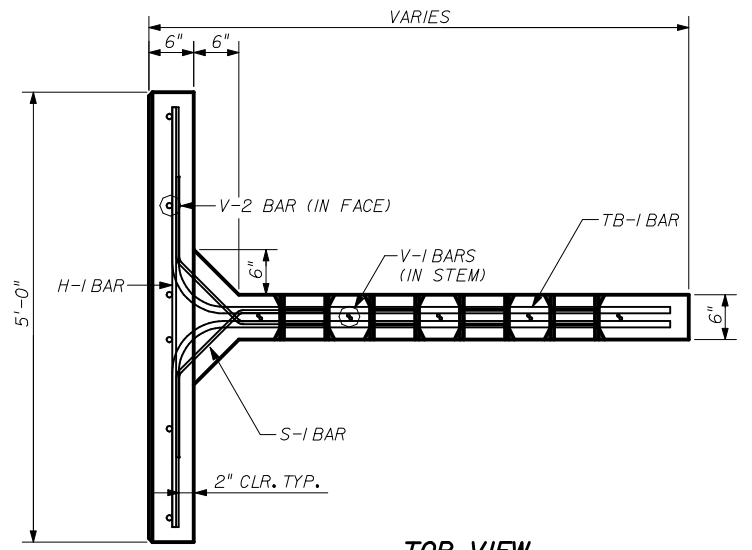
**FRONT VIEW**  
(V-1 BARS IN OMITTED FOR CLARITY)



**SIDE VIEW**



**SECTION A-A**



**TOP VIEW**  
**REINFORCING STEEL - DOUBLE TOP UNITS (II)**

REBAR SCHEDULE - 8.0 x 5.0 x 08 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	9	4	-	4'-6"								-	
V-1	14	3	-	4'-6"								-	
V-2	6	6	-	7'-6"								-	
S-1	8	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	8	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 8.5 x 5.0 x 08 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	9	4	-	4'-6"								-	
V-1	14	3	-	4'-6"								-	
V-2	6	6	-	8'-0"								-	
S-1	8	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	8	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 9.0 x 5.0 x 08 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	10	4	-	4'-6"								-	
V-1	14	3	-	4'-6"								-	
V-2	6	6	-	8'-6"								-	
S-1	8	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	8	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

REBAR SCHEDULE - 9.5 x 5.0 x 08 DBL TOP UNIT

MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	10	4	-	4'-6"								-	
V-1	14	3	-	4'-6"								-	
V-2	6	6	-	9'-0"								-	
S-1	8	3	3	2'-9"		9"	1'-3"	9"	5 3/8"	5 3/8"	2'-1 3/4"	45	
TB-1	8	6	17	9'-8 1/2"	2'-3 1/2"	7'-6 1/2"						90	

THESE TWO UNITS WILL ONLY BE USED BY APPROVAL OF THE F.D.O.T. STRUCTURES DESIGN OFFICE ON A PROJECT BY PROJECT BASIS.

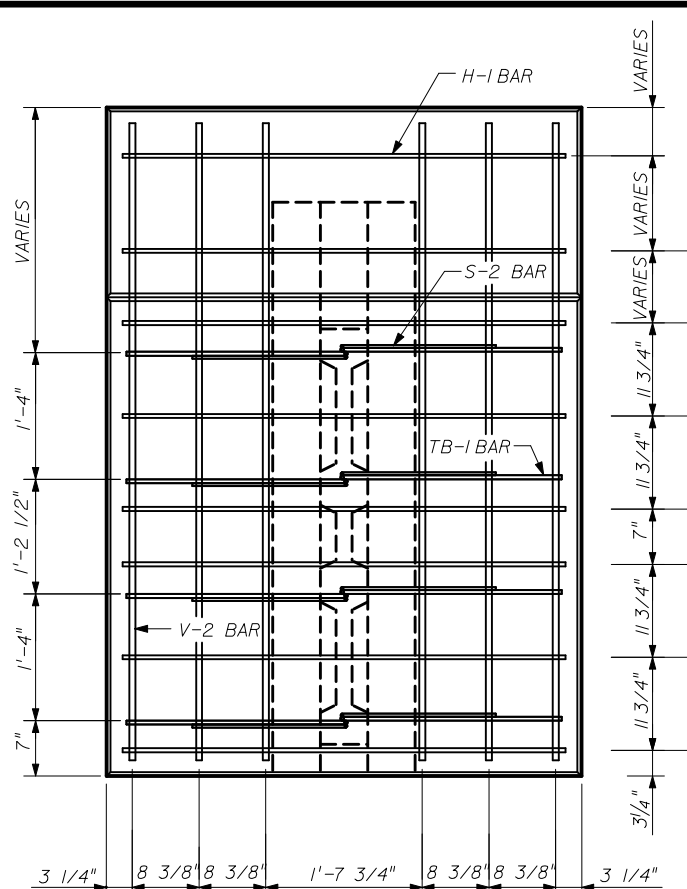
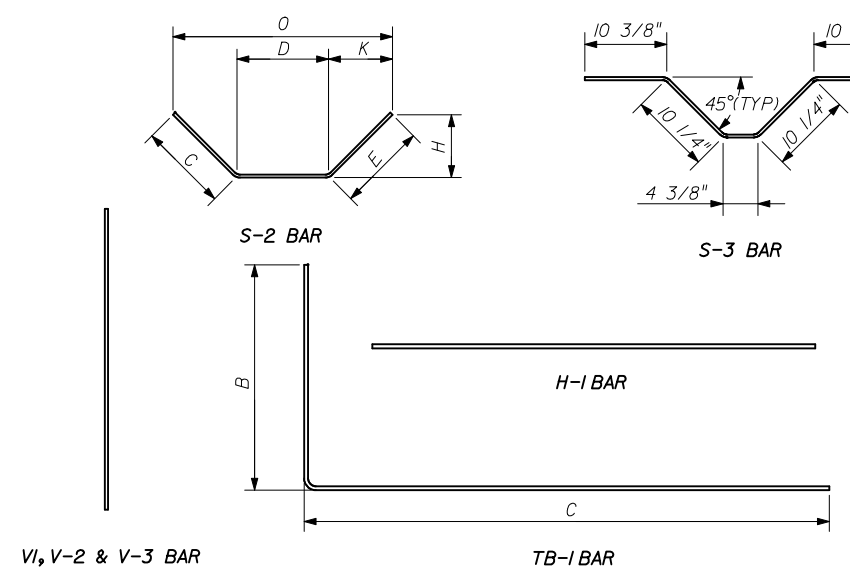
DESIGNER:  
**THE NEEL COMPANY**  
8328-D TRAFORD LANE  
SPRINGFIELD, VIRGINIA 22152  
PH: (703) 913-7858  
FX: (703) 913-7859

PRECASTER:  
**OLDCASTLE PRECAST, INC**  
11643 103RD STREET  
JACKSONVILLE, FL 32210  
PH: (904) 778-2990  
FX: (904) 778-2992

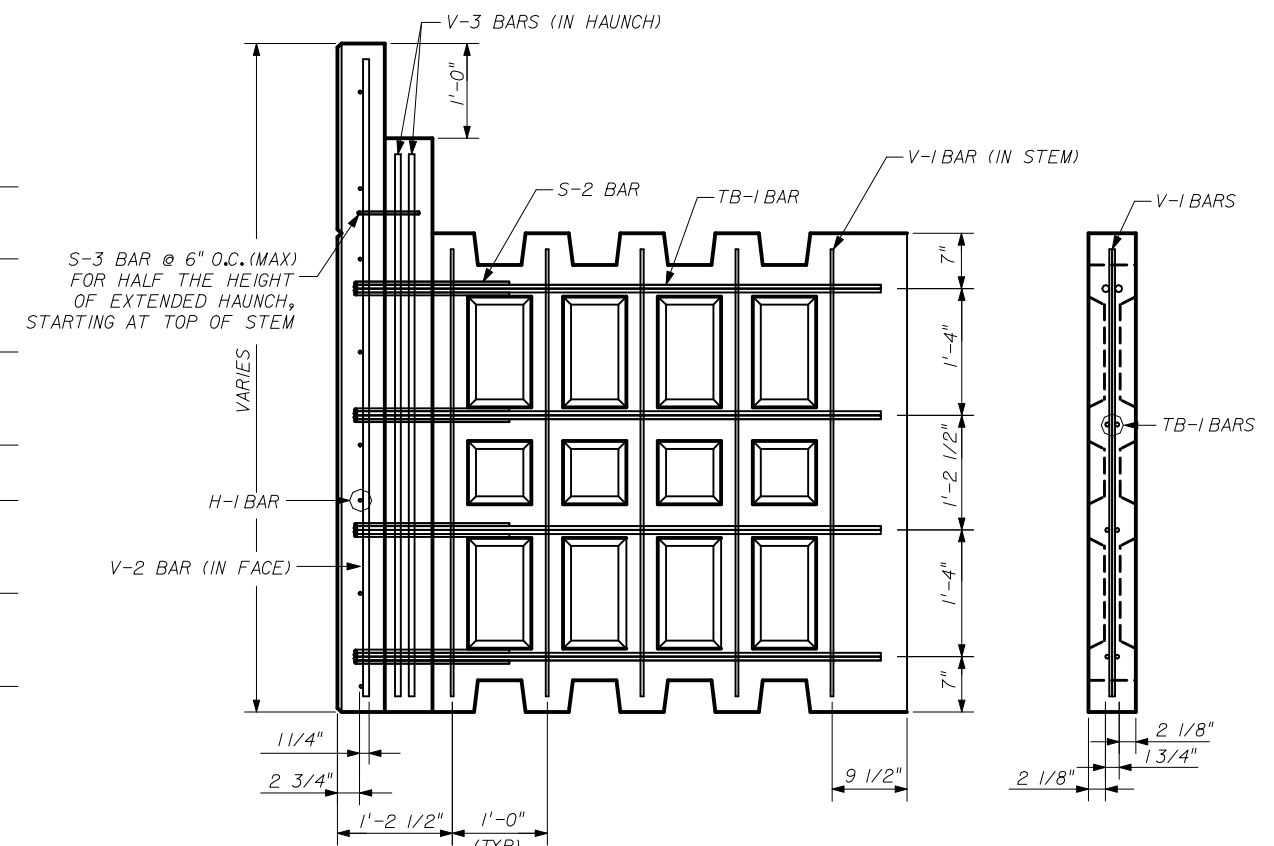
NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
<b>RETAINING WALL SYSTEM THE NEEL COMPANY T-WALL (2" COVER)</b>				
Names	Dates	Approved By <i>W. J. [Signature]</i>		
Designed By JMC	10/10/98	State Structures Design Engineer		
Drawn By CAA	10/10/98	Revision	Sheet No.	Index No.
Checked By JMC	10/10/98	00	20 of 21	5011

\*\*\*\*\*DGN SPECIFICATION\*\*\*\*\*  
\*\*\*\*\*SYTIME\*\*\*\*\*

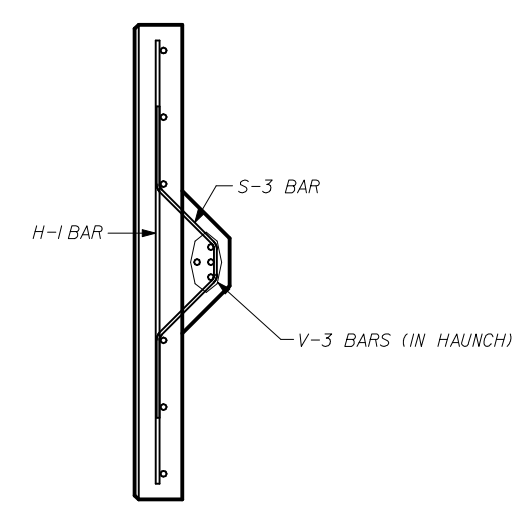


**FRONT VIEW**  
(V-1 BARS IN STEM AND V-3 BARS IN HAUNCH OMITTED FOR CLARITY)

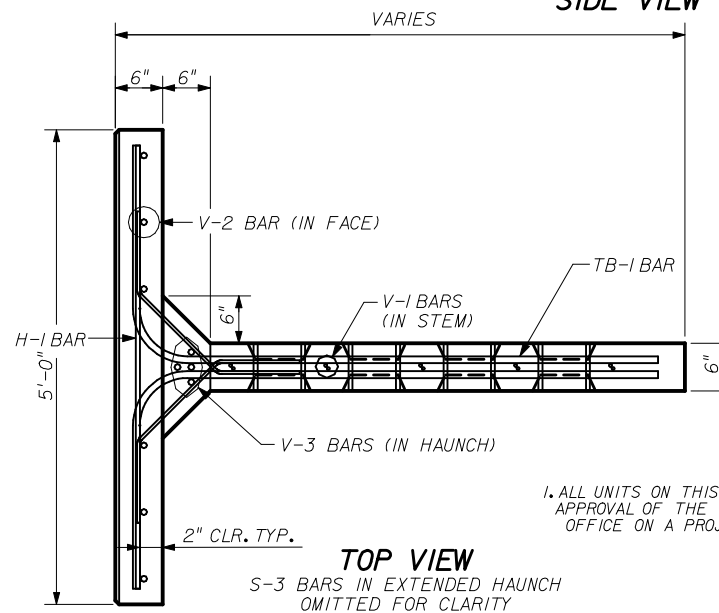


**SIDE VIEW**

**SECTION A-A**



**SECTION B-B**



**TOP VIEW**  
S-3 BARS IN EXTENDED HAUNCH OMITTED FOR CLARITY  
**REINFORCING STEEL - DOUBLE TOP UNITS (III)**

1. ALL UNITS ON THIS SHEET WILL ONLY BE USED BY APPROVAL OF THE F.D.O.T. STRUCTURES DESIGN OFFICE ON A PROJECT BY PROJECT BASIS.

REBAR SCHEDULE - 10.0 x 5.0 x 10 DBL TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	11	4	-	4'-6"								-	
V-1	18	3	-	4'-6"								-	
V-2	6	6	-	9'-6"								-	
V-3	4	6	-	8'-6"								-	
S-2	8	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	8	3	3	3'-3 5/8"								-	SEE BENDING DTL
TB-1	8	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 1/8"						90	

REBAR SCHEDULE - 10.5 x 5.0 x 10 DBL TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	11	4	-	4'-6"								-	
V-1	18	3	-	4'-6"								-	
V-2	6	6	-	10'-0"								-	
V-3	4	6	-	9'-0"								-	
S-2	8	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	9	3	3	3'-3 5/8"								-	SEE BENDING DTL
TB-1	8	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 1/8"						90	

REBAR SCHEDULE - 11.0 x 5.0 x 10 DBL TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	12	4	-	4'-6"								-	
V-1	18	3	-	4'-6"								-	
V-2	6	6	-	10'-6"								-	
V-3	4	6	-	9'-6"								-	
S-2	8	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	10	3	3	3'-3 5/8"								-	SEE BENDING DTL
TB-1	8	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 1/8"						90	

REBAR SCHEDULE - 11.5 x 5.0 x 10 DBL TOP UNIT													
MARK	QNTY	SIZE	TYPE	LGTH	B	C	D	E	H	K	O	ANGLE	REMARKS
H-1	12	4	-	4'-6"								-	
V-1	18	3	-	4'-6"								-	
V-2	6	6	-	11'-0"								-	
V-3	4	6	-	10'-0"								-	
S-2	8	3	3	2'-10"		10 3/8"	1'-2 3/8"	10 3/8"	7 1/2"	7 1/2"	2'-5"	45	
S-3	11	3	3	3'-3 5/8"								-	SEE BENDING DTL
TB-1	8	7	17	11'-7 1/8"	2'-2 1/4"	9'-6 1/8"						90	


**DESIGNER:**  
 **THE NEEL COMPANY**  
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NOTE: ALL STEEL REINFORCING BARS SHALL HAVE 2" MIN. CONCRETE COVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

**RETAINING WALL SYSTEM  
THE NEEL COMPANY T-WALL  
(2" COVER)**

Names	Dates	Approved By		
Designed By	JMC	10/01/98		
Drawn By	CAA	10/01/98		
Checked By	JMC	10/01/98		
Revision	00	21 of 21		

\*\*\*\*\*DGNSPECIFICATION\*\*\*\*\*  
\*\*\*\*\*SYTIME\*\*\*\*\*