



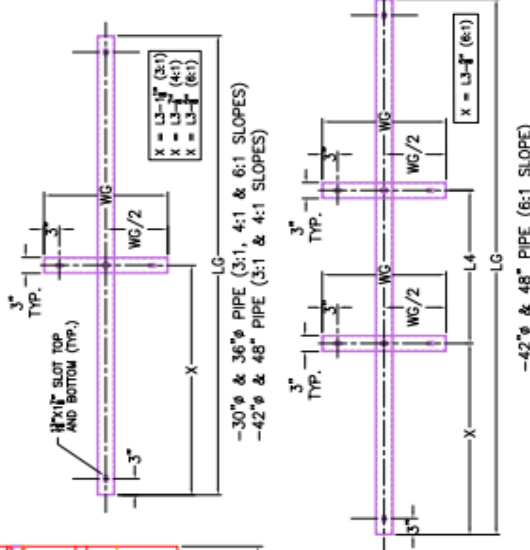
**Structure ID: 118-3 HW**

**P1 HWT DOT3-1TU36**

**36" - HW TDOT 3:1 Type U Cross Drain Endwall F/F**

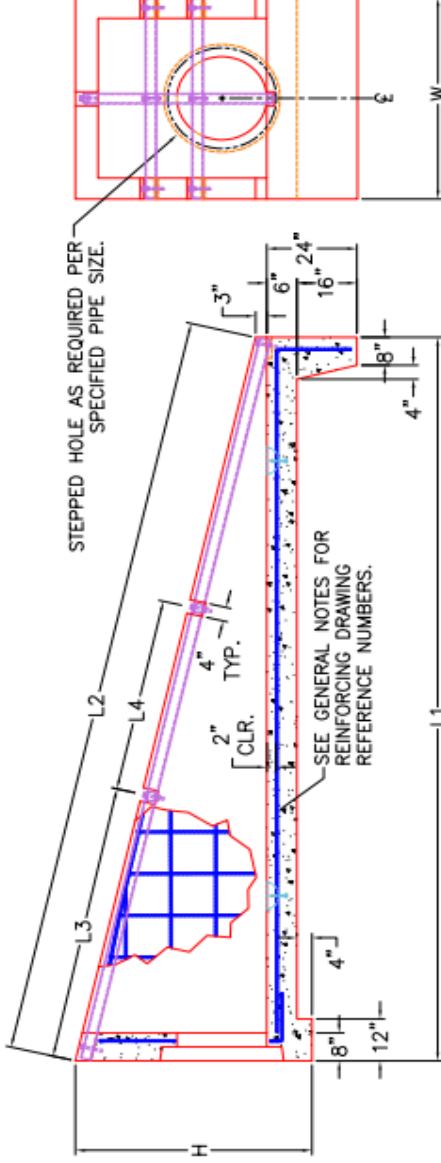
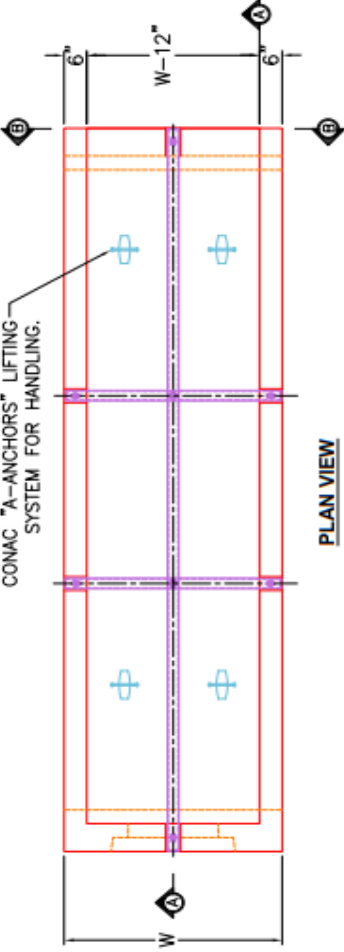
**GENERAL NOTES**

- DRAWING TO BE USED FOR ALL 12" THROUGH 48" SIDE DRAIN CONCRETE ENDWALLS. MANUFACTURING FOR CROSS DRAINS ONLY. CONCRETE:  $f'_c = 4,500$  PSI @ 28 DAYS.
- REINFORCING STEEL: ASTM A615,  $F_y=60,000$  PSI, SEE STD. DWGS. D-PE-15A, D-PE-18, D-PE-24A, D-PE-30A, D-PE-36A, D-PE-42A & D-PE-48A FOR BILL OF STEEL.
- SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
- APPROPRIATE SIZING AND LOCATIONS OF THE LIFTING INSERTS WILL BE THE RESPONSIBILITY OF INFRASTRUCTURE PRECAST, INC.
- LIFTING INSERT POCKETS SHALL BE GROUDED ON SITE BY THE CONTRACTOR AFTER THE ENDWALL IS SET AS PER TDOT REQUIREMENTS.
- DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.
- PIPE OPENINGS FOR HEADWALLS ARE BASED ON REINFORCED CONCRETE PIPE WITH TYPE "B" WALL AS PER AMERICAN CONCRETE PIPE ASSOCIATION (ACPA). OUTSIDE DIAMETER + 3"-4". TOE WALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15'.



**INFRASTRUCTURE PRECAST, INC.**  
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TDOT TYPE "U" CROSS DRAIN ENDWALL WITH STEEL PIPE GRADE FOR 15" THROUGH 48" PIPES  
 DRAWING NO.: ET-TDOT-202  
 DATE: 11-24-25  
 DRAWN BY: N. RICHARDS  
 SCALE: NTS



DIMENSIONS & QUANTITIES FOR ONE ENDWALL 4:1

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRADE DISPLACEMENT DIMENSIONS				STRUCT. STEEL		WEIGHT
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	6'-0"	6'-3"	N/A	N/A	N/A	N/A	N/A	N/A	3,484
18"	3'-2"	2'-11"	6'-8"	8'-11"	N/A	N/A	N/A	N/A	N/A	N/A	4,228
24"	3'-8"	3'-6"	11'-0"	11'-4"	N/A	N/A	N/A	N/A	N/A	N/A	6,303
30"	4'-5"	4'-1"	13'-8"	14'-1"	N/A	N/A	N/A	N/A	N/A	N/A	9,083
36"	5'-0"	4'-8"	16'-0"	16'-3"	8'-2"	N/A	N/A	N/A	N/A	160	12,068
42"	5'-8"	5'-3"	18'-0"	18'-6"	9'-3"	N/A	N/A	N/A	N/A	180	15,073
48"	6'-1"	5'-10"	20'-4"	20'-11"	10'-3"	N/A	N/A	N/A	N/A	203	18,910

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 3:1

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRADE DISPLACEMENT DIMENSIONS				STRUCT. STEEL		WEIGHT
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	6'-0"	6'-3"	N/A	N/A	N/A	N/A	N/A	N/A	2,819
18"	3'-2"	2'-11"	6'-8"	7'-0"	N/A	N/A	N/A	N/A	N/A	N/A	3,406
24"	3'-8"	3'-6"	8'-5"	8'-10"	N/A	N/A	N/A	N/A	N/A	N/A	5,011
30"	4'-5"	4'-1"	10'-5"	10'-11"	5'-2"	N/A	N/A	N/A	N/A	114	7,204
36"	5'-0"	4'-8"	12'-2"	12'-9"	6'-4"	N/A	N/A	N/A	132	9,513	
42"	5'-8"	5'-3"	13'-8"	14'-4"	7'-4"	N/A	N/A	N/A	148	11,862	
48"	6'-1"	5'-10"	15'-5"	16'-3"	7'-8"	N/A	N/A	N/A	167	14,838	

STEEL PIPE GRADE DIMENSIONS

PIPE DIA.	ALL SLOPES			LG	LG	LG
	3:1	4:1	6:1			
30"	4'-1"	10'-10"	14'-0"	20'-4"	20'-4"	20'-4"
36"	4'-8"	12'-6"	16'-5"	23'-11"	23'-11"	23'-11"
42"	5'-3"	14'-3"	18'-4"	26'-11"	26'-11"	26'-11"
48"	5'-10"	16'-1"	20'-10"	30'-0"	30'-0"	30'-0"

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 6:1

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRADE DISPLACEMENT DIMENSIONS				STRUCT. STEEL		WEIGHT
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	11'-2"	11'-3"	N/A	N/A	N/A	N/A	N/A	N/A	4,737
18"	3'-2"	2'-11"	12'-8"	12'-10"	N/A	N/A	N/A	N/A	N/A	N/A	5,833
24"	3'-9"	3'-6"	16'-2"	16'-4"	N/A	N/A	N/A	N/A	N/A	N/A	8,848
30"	4'-5"	4'-1"	20'-2"	20'-8"	10'-1"	N/A	N/A	N/A	186	12,880	
36"	5'-0"	4'-8"	23'-8"	23'-11"	12'-0"	N/A	N/A	N/A	217	17,186	
42"	5'-6"	5'-3"	26'-8"	27'-0"	9'-1"	N/A	N/A	N/A	284	21,532	
48"	6'-1"	5'-10"	30'-2"	30'-7"	10'-0"	N/A	N/A	N/A	320	27,092	

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