



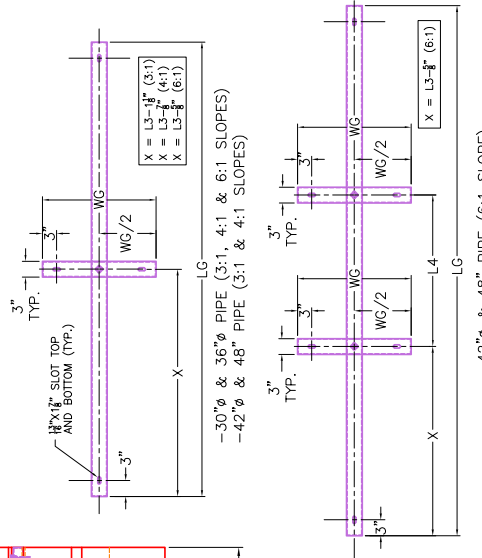
Structure ID: QL1 HW

P1 HWTDOT3-1TU30

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

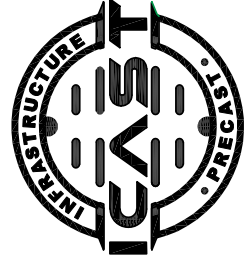
GENERAL NOTES

1. DRAWING TO BE USED FOR ALL 12" THROUGH 48" SIDE DRAIN CONCRETE ENDWALLS.
2. MANUFACTURING, FOR CROSS DRAINS ONLY.
3. CONCRETE: $F_c' = 4,500$ PSI @ 28 DAYS.
4. REINFORCING STEEL: ASTM A615, $F_y = 60,000$ PSI.
5. 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.
6. SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
7. APPROPRIATE SIZING AND LOCATIONS OF THE LIFTING INSERTS WILL BE THE RESPONSIBILITY OF INFRASTRUCTURE PRECAST, INC.
8. LIFTING INSERT POCKETS SHALL BE GROUTED ON SITE BY THE CONTRACTOR AFTER THE ENDWALL IS SET AS PER TDOT REQUIREMENTS.
9. DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.
10. 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".
11. TOE WALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.



STEEL PIPE GRATE PLAN VIEWS
(SEE D-PE-99 FOR MOUNTING STEEL GRATES)

*Pipe grates supplied by others



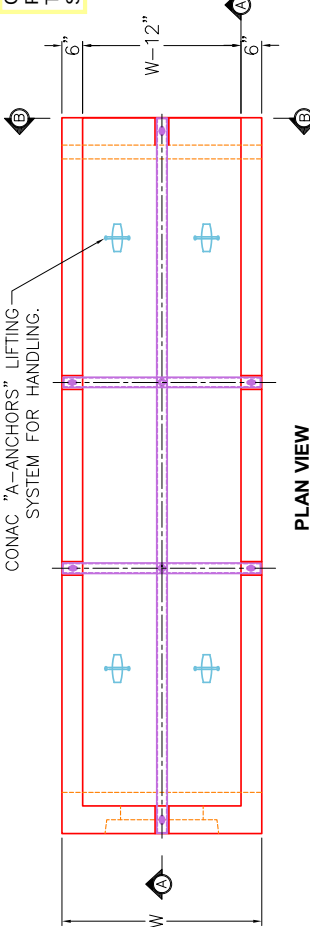
INFRASTRUCTURE PRECAST, INC.
981 WEST 7TH ST., BEAVER DAM, KY. 42320
PHONE: (270) 363-2238, FAX: (270) 298-7424

TDOT TYPE "U" CROSS DRAIN ENDWALL WITH STEEL
PIPE GRATE FOR 15" THROUGH 48" PIPES

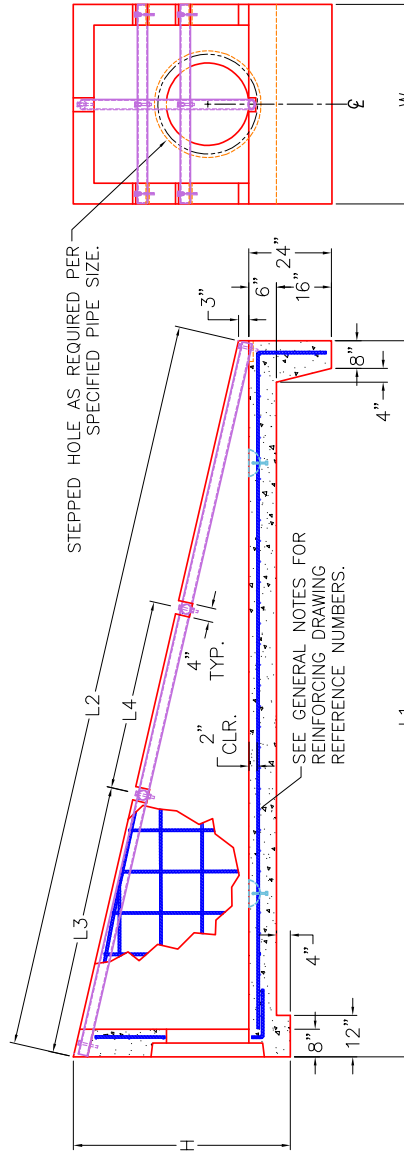
DRAWING NO.: ET-TDOT-202
DATE: 11-24-25
DRAWN BY: N. RICHARDS

REVIEWED BY: J.H. ROSS, PE
SCALE: NTS
WEB: WWW.ICASTINC.COM

Customer: Rinker Underground
Project: TDOT EW's
TDOT PIN#: 207036.00
State Project#: 79LPLM-F3-034



PLAN VIEW



SECTION A-A

ELEVATION B-B

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 4:1									
PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRATE DISPLACEMENT DIMENSIONS				WEIGHT STRUCT. STEEL LBS.
	H	W	L1	L2	L3	L4	L5	L6	
15"	2'-11"	2'-8"	8'-0"	8'-3"	N/A	N/A	N/A	N/A	3,484
18"	3'-2"	2'-11"	8'-8"	8'-11"	N/A	N/A	N/A	N/A	4,228
24"	3'-9"	3'-6"	11'-0"	11'-4"	N/A	N/A	N/A	N/A	6,303
30"	4'-5"	4'-1"	13'-8"	14'-1"	6'-1"	N/A	N/A	N/A	137
36"	5'-0"	4'-8"	16'-0"	16'-3"	8'-2"	N/A	N/A	N/A	160
42"	5'-6"	5'-3"	18'-0"	18'-6"	9'-2"	N/A	N/A	N/A	180
48"	6'-1"	5'-10"	20'-4"	20'-11"	10'-3"	N/A	N/A	N/A	203

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 3:1									
PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRATE DISPLACEMENT DIMENSIONS				WEIGHT STRUCT. STEEL LBS.
	H	W	L1	L2	L3	L4	L5	L6	
15"	2'-11"	2'-8"	6'-0"	6'-3"	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	3,406
24"	3'-9"	3'-6"	8'-10"	8'-13"	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	7,204
36"	5'-0"	4'-8"	12'-2"	12'-9"	6'-4"	N/A	N/A	N/A	132
42"	5'-6"	5'-3"	13'-8"	14'-4"	7'-4"	N/A	N/A	N/A	148
48"	6'-1"	5'-10"	15'-5"	16'-3"	7'-4"	N/A	N/A	N/A	167

STEEL PIPE GRATE DIMENSIONS									
PIPE DIA.	CONCRETE ENDWALL DIMENSIONS				GRATE DISPLACEMENT DIMENSIONS				WEIGHT STRUCT. STEEL LBS.
	H	W	L1	L2	L3	L4	L5	L6	
15"	2'-11"	2'-8"	11'-2"	11'-3"	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	5,833
24"	3'-9"	3'-6"	16'-2"	16'-4"	N/A	N/A	N/A	N/A	8,848
30"	4'-5"	4'-1"	20'-2"	20'-5"	10'-1"	N/A	N/A	N/A	12,880
36"	5'-0"	4'-8"	23'-8"	23'-11"	12'-0"	N/A	N/A	N/A	17,186
42"	5'-6"	5'-3"	26'-8"	27'-0"	14'-1"	N/A	N/A	N/A	21,532
48"	6'-1"	5'-10"	30'-2"	30'-7"	16'-1"	N/A	N/A	N/A	27,092

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 6:1									
PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRATE DISPLACEMENT DIMENSIONS				WEIGHT STRUCT. STEEL LBS.
	H	W	L1	L2	L3	L4	L5	L6	
15"	2'-11"	2'-8"	11'-2"	11'-3"	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	5,833
24"	3'-9"	3'-6"	16'-2"	16'-4"	N/A	N/A	N/A	N/A	8,848
30"	4'-5"	4'-1"	20'-2"	20'-5"	10'-1"	N/A	N/A	N/A	12,880
36"	5'-0"	4'-8"	23'-8"	23'-11"	12'-0"	N/A	N/A	N/A	17,186
42"	5'-6"	5'-3"	26'-8"	27'-0"	14'-1"	N/A	N/A	N/A	21,532
48"	6'-1"	5'-10"	30'-2"	30'-7"	16'-1"	N/A	N/A	N/A	27,092