



Structure ID: QL3 HW (5)

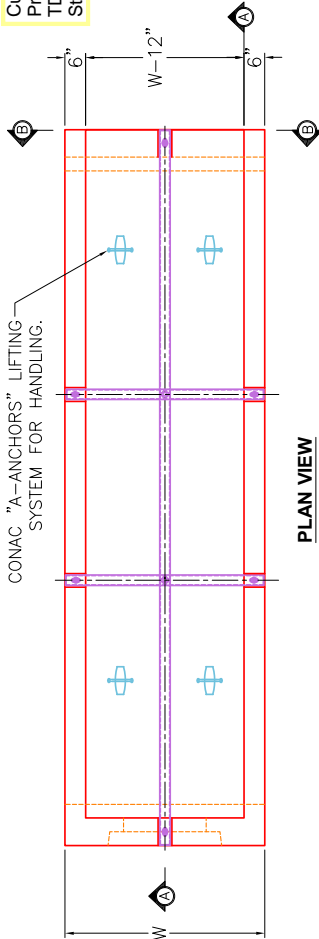
P1 HWTDOT3-1TU36

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

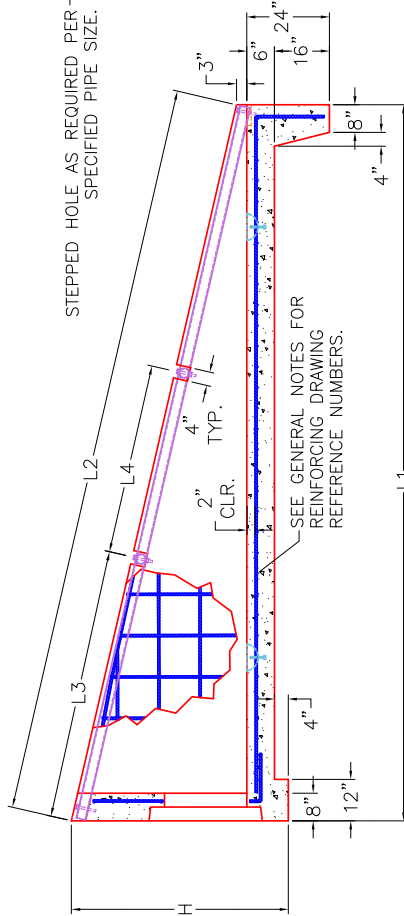
GENERAL NOTES

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

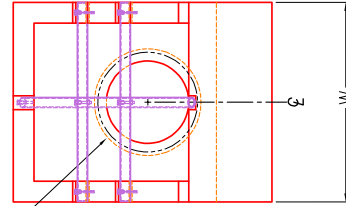
Customer: Rinker Underground
 Project: TDOT EW's
 TDOT PIN#: 207036.00
 State Project#: 79LPLM-F3-034



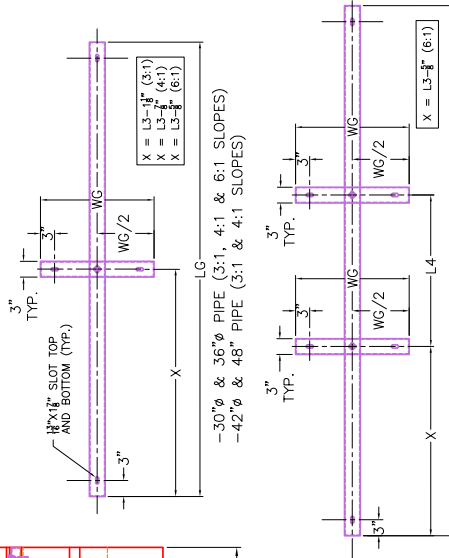
PLAN VIEW



SECTION A-A



ELEVATION B-B



STEEL PIPE GRATE PLAN VIEWS

(SEE D-PE-99 FOR MOUNTING STEEL GRATES)
 *Pipe grates supplied by others

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 4:1

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS					GRATE DISPLACEMENT DIMENSIONS					STRUCT. STEEL		WEIGHT	
	H	W	L1	L2	L3	L4	L5	L6	L7	L8	LBS.	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	8'-0"	8'-3"	N/A	N/A	N/A	N/A	N/A	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	N/A	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	N/A	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	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	N/A	N/A	N/A	N/A	12,058
42"	5'-6"	5'-3"	18'-0"	18'-3"	9'-2"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15,073
48"	6'-1"	5'-10"	20'-4"	20'-11"	10'-3"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18,910

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 3:1

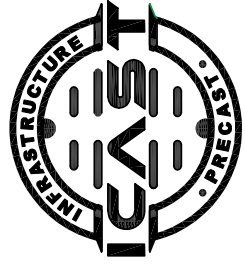
PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS					GRATE DISPLACEMENT DIMENSIONS					STRUCT. STEEL		WEIGHT	
	H	W	L1	L2	L3	L4	L5	L6	L7	L8	LBS.	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	6'-0"	6'-3"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,819
18"	3'-2"	2'-11"	6'-8"	7'-0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,406
24"	3'-9"	3'-6"	8'-5"	8'-10"	N/A	N/A	N/A	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	N/A	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	N/A	N/A	N/A	N/A	N/A	9,513
42"	5'-6"	5'-3"	13'-8"	14'-4"	7'-4"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11,862
48"	6'-1"	5'-10"	15'-5"	16'-3"	7'-4"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14,838

DIMENSIONS & QUANTITIES FOR ONE ENDWALL 6:1

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS					GRATE DISPLACEMENT DIMENSIONS					STRUCT. STEEL		WEIGHT	
	H	W	L1	L2	L3	L4	L5	L6	L7	L8	LBS.	LBS.	LBS.	LBS.
15"	2'-11"	2'-8"	11'-2"	11'-3"	N/A	N/A	N/A	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	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	N/A	N/A	N/A	8,848
30"	4'-5"	4'-1"	20'-2"	20'-3"	10'-1"	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	17,186
42"	5'-6"	5'-3"	26'-8"	27'-0"	14'-3"	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	27,092

STEEL PIPE GRATE DIMENSIONS

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



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
 SCALE: NTS

WEB: WWW.ICASTING.COM