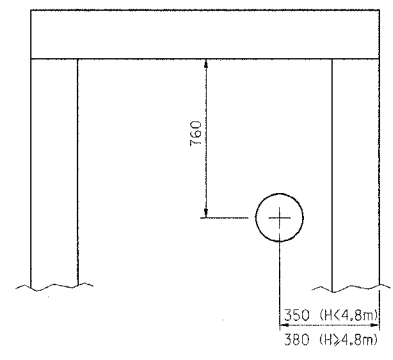
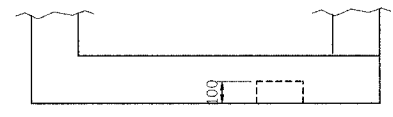


**DRAINAGE STRUCTURE TYPE 3.0m x 0.9m**

TYPE	H METERS	a <sub>1</sub> BARS		b <sub>1</sub> BARS		h <sub>1</sub> BARS		h <sub>2</sub> BARS		h <sub>3</sub> BARS		n <sub>1</sub> BARS		n <sub>2</sub> BARS		v <sub>1</sub> BARS		v <sub>2</sub> BARS										
		SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH						
1	2.4	#15	20	1.2 m	#10	8	3.32 m	#15	16	4.98 m	#15	16	1.8 m	#15	16	3.90 m	#15	32	1.52 m	#10	36	1.09 m	#15	32	2.2 m	#10	34	2.2 m
2	2.6	#15	20	1.2 m	#10	8	3.32 m	#15	18	4.98 m	#15	18	1.8 m	#15	18	3.90 m	#15	32	1.52 m	#10	36	1.09 m	#15	32	2.4 m	#10	34	2.4 m
3	2.7	#15	20	1.2 m	#10	8	3.32 m	#15	18	4.98 m	#15	18	1.8 m	#15	18	3.90 m	#15	32	1.52 m	#10	36	1.09 m	#15	32	2.5 m	#10	34	2.5 m
4	2.9	#15	20	1.2 m	#10	8	3.32 m	#15	20	4.98 m	#15	20	1.8 m	#15	20	3.90 m	#15	32	1.52 m	#10	36	1.09 m	#15	32	2.7 m	#10	34	2.7 m
5	3.0	#15	20	1.2 m	#10	8	3.32 m	#15	20	4.98 m	#15	20	1.8 m	#15	20	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	2.8 m	#10	34	2.8 m
6	3.2	#15	20	1.2 m	#10	8	3.32 m	#15	22	4.98 m	#15	22	1.8 m	#15	22	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	2.9 m	#10	34	2.9 m
7	3.4	#15	20	1.2 m	#10	8	3.32 m	#15	22	4.98 m	#15	22	1.8 m	#15	22	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.1 m	#10	34	3.1 m
8	3.5	#15	20	1.2 m	#10	8	3.32 m	#15	24	4.98 m	#15	24	1.8 m	#15	24	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.2 m	#10	34	3.2 m
9	3.7	#15	20	1.2 m	#10	8	3.32 m	#15	24	4.98 m	#15	24	1.8 m	#15	24	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.4 m	#10	34	3.4 m
10	3.8	#15	20	1.2 m	#10	8	3.32 m	#15	26	4.98 m	#15	26	1.8 m	#15	26	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.6 m	#10	34	3.6 m
11	4.0	#15	20	1.2 m	#10	8	3.32 m	#15	26	4.98 m	#15	26	1.8 m	#15	26	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.7 m	#10	34	3.7 m
12	4.1	#15	20	1.2 m	#10	8	3.32 m	#15	28	4.98 m	#15	28	1.8 m	#15	28	3.90 m	#20	32	1.52 m	#10	36	1.09 m	#20	32	3.9 m	#10	34	3.9 m
13	4.3	#15	20	1.2 m	#10	8	3.32 m	#15	66	4.98 m	#20	28	1.8 m	#20	28	3.90 m	#20	52	1.52 m	#15	36	1.09 m	#20	52	4.0 m	#15	34	4.0 m
14	4.8	#15	20	1.2 m	#10	8	3.32 m	#15	64	4.98 m	#20	32	1.8 m	#20	32	3.90 m	#20	52	1.52 m	#15	36	1.09 m	#20	52	4.6 m	#15	34	4.6 m
15	5.5	#15	20	1.2 m	#10	8	3.32 m	#15	72	4.98 m	#20	36	1.8 m	#20	36	3.90 m	#20	52	1.52 m	#15	36	1.09 m	#20	52	5.3 m	#15	34	5.3 m
16	6.0	#15	20	1.2 m	#10	8	3.32 m	#15	78	4.98 m	#20	40	1.8 m	#20	40	3.90 m	#20	52	1.52 m	#15	36	1.09 m	#20	52	5.9 m	#15	34	5.9 m
17	6.7	#15	20	1.2 m	#10	8	3.32 m	#15	86	4.98 m	#20	44	1.8 m	#20	44	3.90 m	#20	52	1.52 m	#15	36	1.09 m	#20	52	6.5 m	#15	34	6.5 m



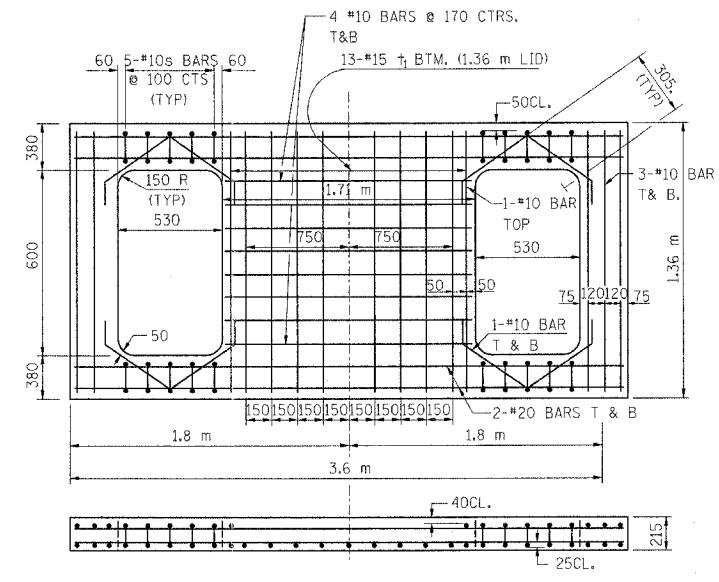
**ELEVATION**



**PLAN**

AS SHOWN  
 PROVIDE ON EACH FACE  
 ONE (1), 100 DEPRESSION  
 FOR USE AS UNDERDRAIN CONNECTIONS.  
 USE 120 DIAMETER FOR 100 P.U.  
 180 DIAMETER FOR 150 P.U.  
 220 DIAMETER FOR 200 P.U.  
 REFER TO PLANS FOR SIZE & LOCATION OF PIPE UNDERDRAINS.

**PIPE UNDERDRAIN CONNECTION DETAIL**



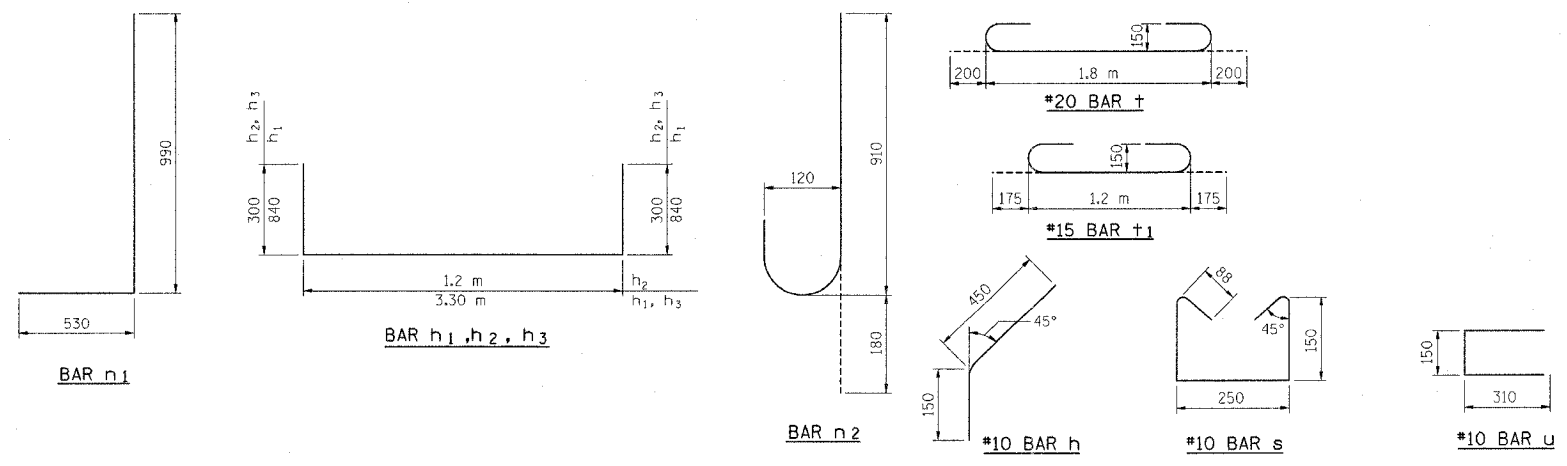
**TYPICAL REINFORCEMENT DETAIL AROUND OPENINGS**

(OPENING > 300)

**NOTES:**

- DRAINAGE STRUCTURES SHALL CONFORM TO I.D.O.T. STANDARD 602101 EXCEPT AS NOTED.
- SEE STANDARD 602701 FOR DETAILS OF CAST IRON STEPS.
- WHEN H > 4.9 m, THE THICKNESS OF WALLS AND BASE SLAB SHALL BE INCREASED TO 230.
- ALL STORM SEWER OPENINGS WILL BE CENTERED ON FACE OF WALL THAT PIPE IS ENTERING.
- FOR LOCATIONS AND ELEVATIONS FOR ALL STORM SEWER CONNECTIONS REFER TO PLAN SCHEDULES.
- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE SHOP DRAWINGS FOR PIPE OPENINGS FOR PIPES ENTERING AT OTHER THAN 90°. FOR BASIS OF PAYMENT REFER TO SPECIAL PROVISIONS.
- ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.
- WHERE THE ADJACENT SHOULDER OR PAVEMENT THICKNESS EXCEEDS THAT OF THE NEW FRAME, THE CONTRACTOR SHALL INSTALL THE CATCH BASIN LID FLUSH OR LOWER THAN THE BOTTOM OF THE ADJACENT SHOULDER OR PAVEMENT AND ADJUST THE FRAME AND LID IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 503 OF THE STANDARD SPECIFICATIONS.
- IN ADDITION TO THE REQUIREMENTS OF ARTICLE 602.15 OF THE STANDARD SPECIFICATIONS, THE CONTRACT UNIT PRICE FOR THE DRAINAGE STRUCTURE SHALL INCLUDE THE SAND CUSHION, ADJUSTING RINGS WHEN REQUIRED AND FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL.

**DD-6**



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. ROUTE 80/94 (INTERSTATE 80/294)  
 DRAINAGE DETAILS V  
 3.0M BY 0.9M, SPECIAL WITH  
 TWO TYPE 20 FRAME AND GRATES  
 SHEET 12 OF 21  
 DATE: JULY 18, 2005  
 DRAWN BY: JWM  
 CHECKED BY: RCH

**McDonough Associates Inc.**  
 Engineers / Architects