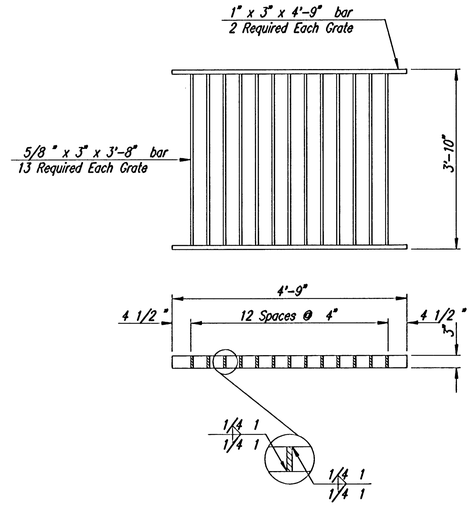
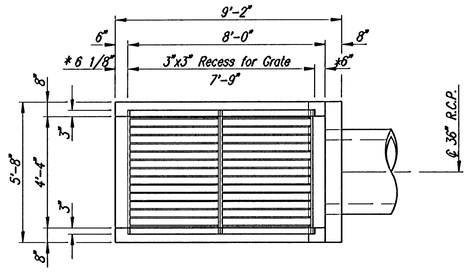
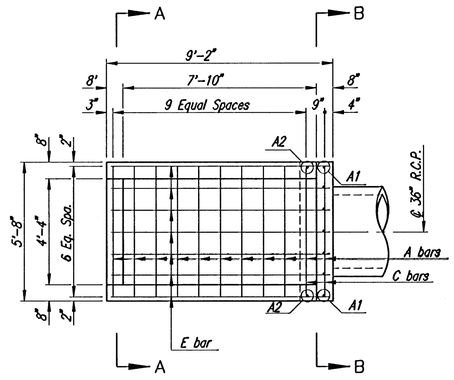


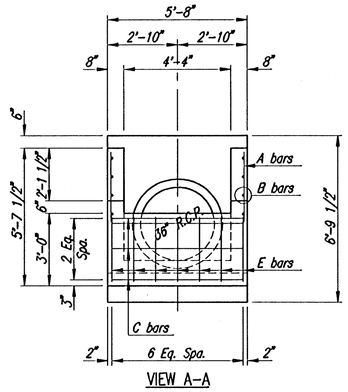
WELDED STRUCTURAL STEEL GRATE
Weight 401 Lbs. Each
(2 Required)



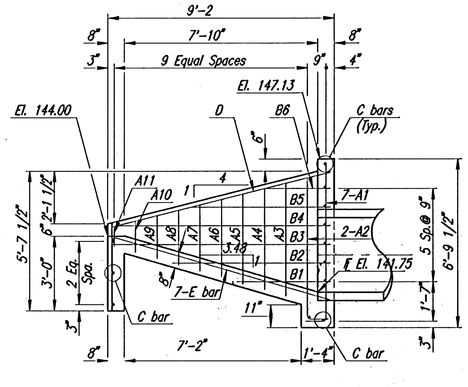
PLAN



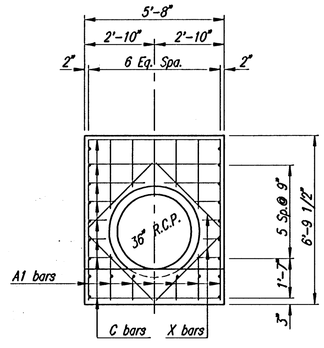
PLAN



VIEW A-A



SECTION



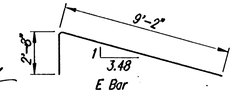
VIEW B-B

RE-BAR SCHEDULE

Mark	Shape	No.	Length	Weight
A1	L	7	7'-2 1/2"	34.72
A2	L	2	6'-6 1/2"	8.74
A3	L	1	14'-3"	9.52
A4	L	1	13'-4"	8.91
A5	L	1	12'-5"	8.29
A6	L	1	11'-6"	7.68
A7	L	1	10'-7"	7.07
A8	L	1	9'-8"	6.57
A9	L	1	8'-9"	5.85
A10	L	1	7'-10"	5.23
A11	L	1	6'-11"	4.62
B1	—	2	3'-9"	5.01
B2	—	2	6'-4 1/2"	8.52
B3	—	2	8'-10"	11.80
B4	—	2	8'-7 1/2"	11.52
B5	—	2	5'-7 1/2"	7.52
B6	—	2	2'-7 1/2"	3.51
C	—	12	5'-4"	42.75
D	—	2	9'-1"	12.14
E	7	7	11'-10"	55.33
X	—	4	3'-8"	9.80

Total Rebars	276	Lbs.
Concrete	3.3	C.Y.
Structural Steel	802	Lbs.

All Concrete Reinforcement to be #4 bars.



BENDING DIAGRAMS

CONCRETE HEADWALL NOTES

CONCRETE: Bevel all exposed edges with a 3/4 " triangular molding or finish with an approved edging tool. Concrete shall have a minimum 28 day compressive strength of 4,000 p.s.i. All pipes shall be flush cut prior to being cast into the headwall.

REINFORCING STEEL: All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted. All clearances shall be 2" unless otherwise noted. All reinforcing steel shall conform to A.S.T.M. designation A615 Grade 60 and shall be epoxy coated.

STRUCTURAL STEEL: All structural steel shall conform to A.S.T.M. designation A36. All structural steel shall be galvanized in accordance with A.S.T.M. designation A123.

PAYMENT: A deduction in concrete quantities has been made for the pipe opening. The "Reinf. Conc. Headwall" shall be paid for at the unit price per each including concrete, reinforcing steel, structural steel, galvanizing, excavation, backfilling and all other miscellaneous materials, labor, tools, equipment and incidentals necessary to complete the work. Quantities shown are for information only.

RECORD DRAWING

No.	Revision	By	Date

AVALON PARK 3RD
STORM WATER DRAIN NO. 264

REINFORCED CONCRETE HEADWALL DETAILS

JAMES L. ARMOUR, P.E.-CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-84011

Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by	BDB, BLB	Job No.	35-05257
Drawn by	BJS	Date	February 2005

Sheet 12A of 35

Saved 09-29-2005, 10:29:56 AM by ----
Plotted 09-29-2005, 10:32:32 AM by BJS
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