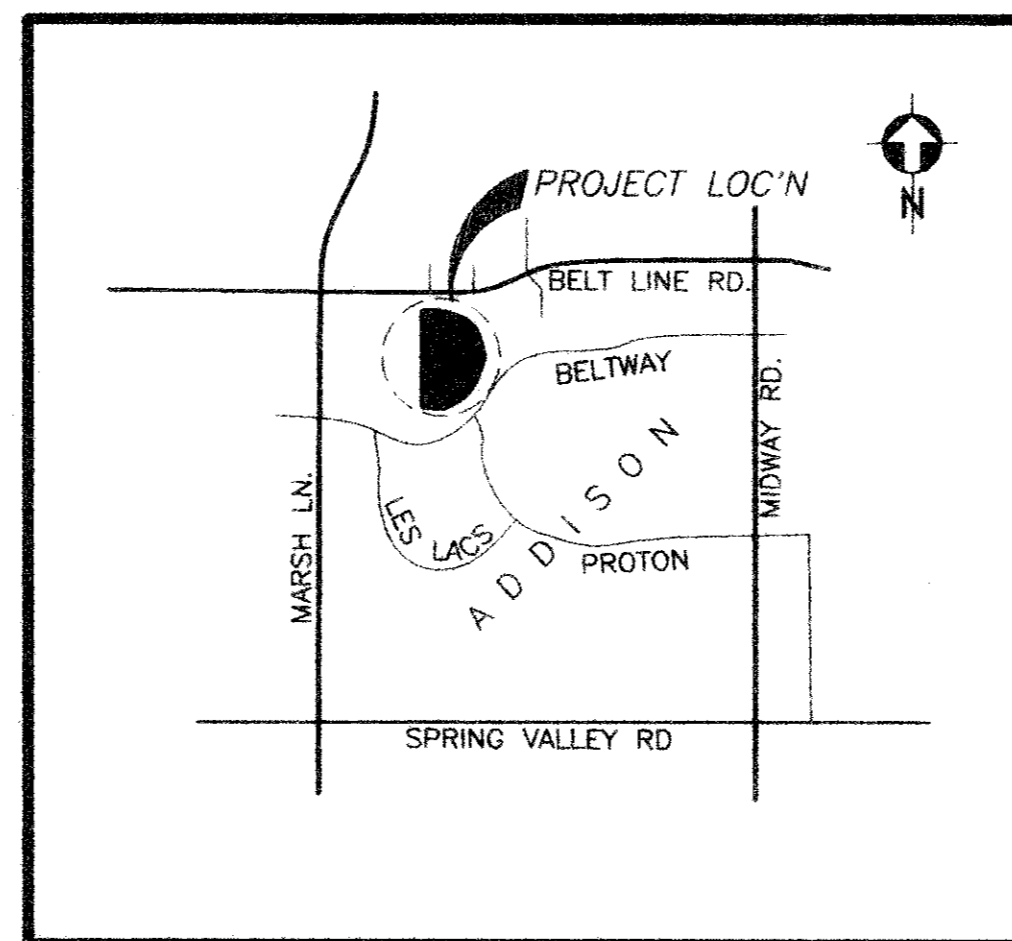


SITework PLANS FOR COMP USA ADDISON, TEXAS

COMP USA THE COMPUTER SUPERSTORE

SHEET INDEX

C-1	FINAL PLAT
C-2	FINAL PLAT
C-3	DIMENSION CONTROL PLAN
C-4	PAVING PLAN
C-5	WATER & SANITARY SEWER PLAN
C-6	GRADING PLAN
C-7	DRAINAGE PLAN
C-8	GENERAL NOTES
C-9	DRAINAGE AREA MAP
C-9A	HYDRAULIC COMPUTATIONS
C-10	STORM SEWER PROFILES
C-11	STORM SEWER PROFILES
C-12	SANITARY SEWER PROFILES
C-13	EROSION CONTROL PLAN
SD-1	STORM MANHOLES & STORM SEWER
SD-2	SANITARY SEWER MANHOLES & CONNECTIONS
SD-2A	SANITARY SEWER LATERALS AND CLEANOUTS
SD-3	CURB INLETS
SD-4	GRATE INLET - DROP INLET
SD-5	FIRE HYDRANTS PULL BOXES & VALVES
SD-5A	THRUST BLOCKS
SD-6	EMBEDMENT
SD-7	SCREEN WALL



VICINITY MAP

N.T.S.

*JRB
6-10-94*

OWNER:
ADDISON INVESTORS
131 FALLS STREET STE. 201
GREENVILLE, SOUTH CAROLINA 29601
1-800-504-0046

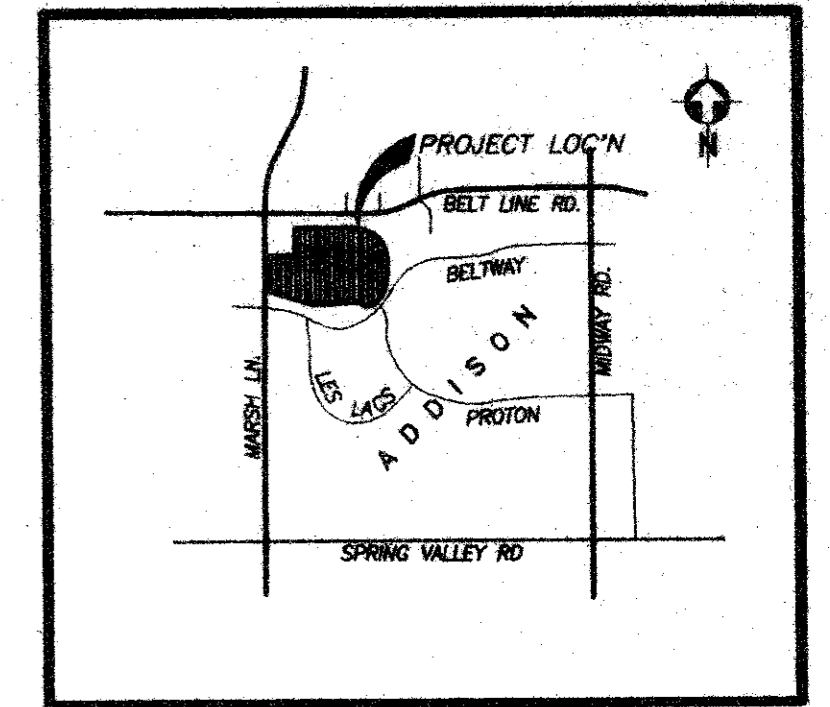
PROJECT ARCHITECT:
ENVIROPLAN
8235 DOUGLAS AVE. STE 300
DALLAS, TEXAS 75234
(214) 692-0851

ENGINEER:
LAWRENCE A. CATES & ASSOCIATES, INC.
14200 MIDWAY ROAD, SUITE 122
DALLAS, TEXAS 75244
(214) 385-2272

C:\DWG\1994\5\COVER.dwg, 26 JUN 94, 15:36:55, 1994

ADDISON TOWN CENTER PH II 3800-3850 BELT LINE B20-9
Comp USA DRAINAGE + SITE PLAN

B20-9



VICINITY MAP
N.T.S.

LINE TABLE

L1	N 04°43'48" W	36.58'
L2	S 89°00'26" E	10.00'
L3	S 00°59'34" W	346.57'
L4	S 89°00'26" E	130.96'
L5	N 89°00'26" W	130.96'
L6	S 00°59'34" W	69.91'
L7	S 04°43'48" E	36.58'
L8	N 00°59'34" W	191.81'
L9	N 17°53'37" E	10.45'
L10	S 89°00'26" W	100.00'
L11	S 89°00'26" W	108.00'
L12	S 89°00'26" W	142.58'
L13	N 82°43'48" W	100.60'
L14	S 89°00'26" W	28.09'
L15	N 88°53'15" E	48.88'
L16	N 01°08'45" E	10.00'
L17	S 17°53'37" E	25.00'
L18	S 27°04'06" W	53.70'
L19	N 27°04'06" W	53.70'
L20	N 88°52'54" W	26.10'
L21	S 89°03'54" E	27.73'
L22	S 85°27'35" W	20.51'
L23	N 00°58'06" E	44.29'
L24	N 00°58'06" E	18.00'
L25	N 04°32'25" W	4.58'
L26	S 89°00'26" E	20.04'
L27	S 49°26'50" W	15.00'
L28	N 40°33'10" E	68.10'
L29	S 89°00'26" W	22.75'
L30	S 27°27'23" E	1.48'
L31	N 45°59'34" E	37.49'
L32	N 27°27'23" E	12.30'
L33	S 80°56'06" E	11.78'
L34	S 80°56'06" W	11.52'
L35	S 00°56'06" W	40.27'
L36	S 89°03'54" E	15.00'

THE LINE HEREON LABELED "APPROX. LIMITS FULLY DEVELOPED CONDITIONS 100 YEAR FLOOD PLAIN" IS BASED ON HYDRAULIC MODELING PERFORMED BY O'BRIEN ENGINEERING, ASSUMING A CONDITION OF ULTIMATE DEVELOPMENT THROUGHOUT THE WATERSHED. THE HYDROLOGIC AND HYDRAULIC MODELS ARE ON FILE WITH THE TOWN OF ADDISON. (PER ORIGINAL PLAT, VOL. 93237, PG. 3840)

REPLAT
LOTS 3A, 3B, 3C-1 & 4R-1
ADDISON TOWN CENTER

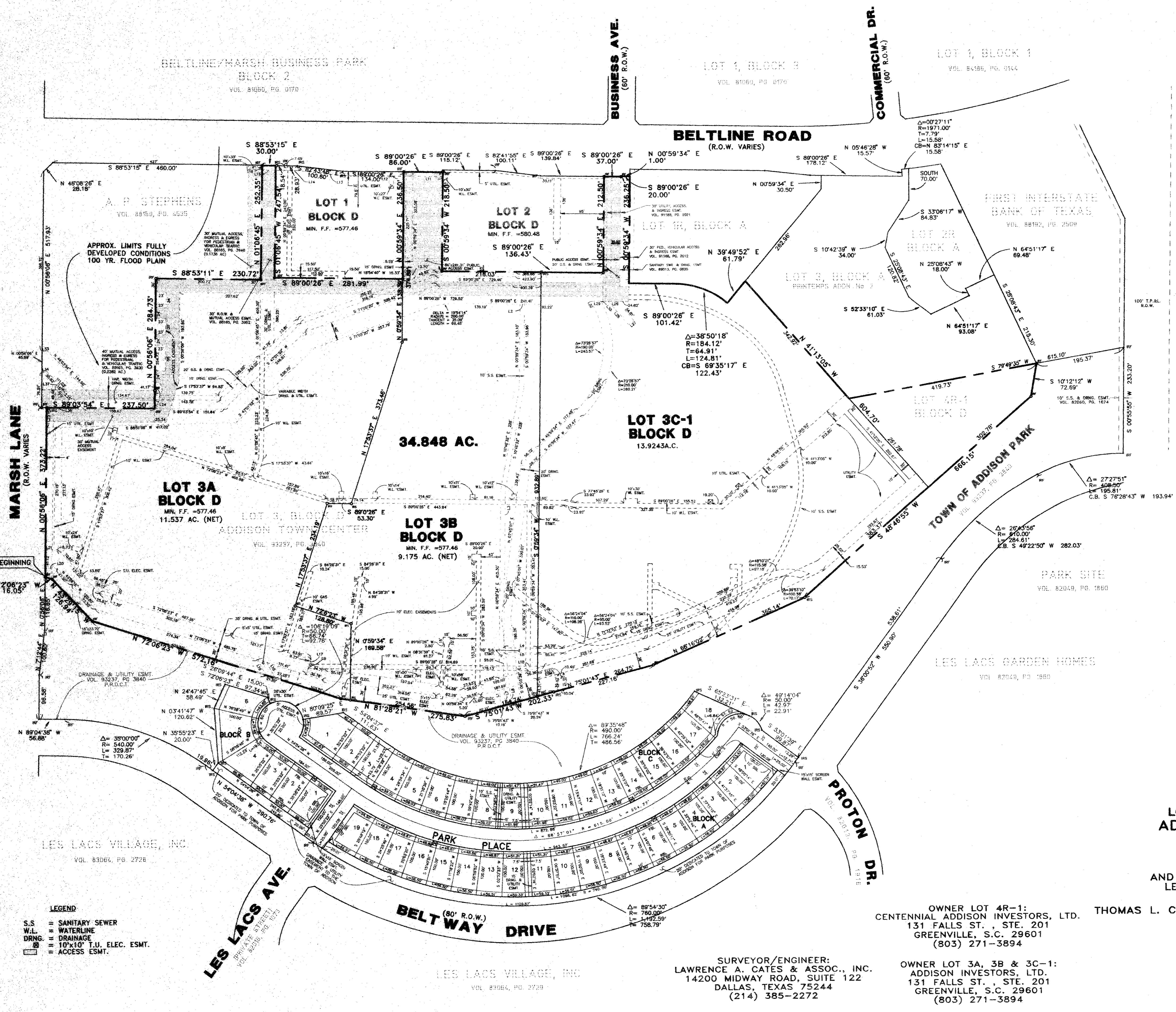
A REPLAT OF
LOTS 3 & 4, BLOCK D
ADDISON TOWN CENTER
AND A PART OF THE REMAINDER OF
LES LACS PLAZA SUBDIVISION
BEING IN THE
TOWN OF ADDISON, ABSTRACT NO. 273
DALLAS COUNTY, TEXAS

OWNER LOT 4R-1:
CENTENNIAL ADDISON INVESTORS, LTD.
131 FALLS ST., STE. 201
GREENVILLE, S.C. 29601
(803) 271-3894

OWNER LOT 3A, 3B & 3C-1:
ADDISON INVESTORS, LTD.
131 FALLS ST., STE. 201
GREENVILLE, S.C. 29601
(803) 271-3894

SURVEYOR/ENGINEER:
LAWRENCE A. CATES & ASSOC., INC.
14200 MIDWAY ROAD, SUITE 122
DALLAS, TEXAS 75244
(214) 385-2272

JAN. 24, 1994

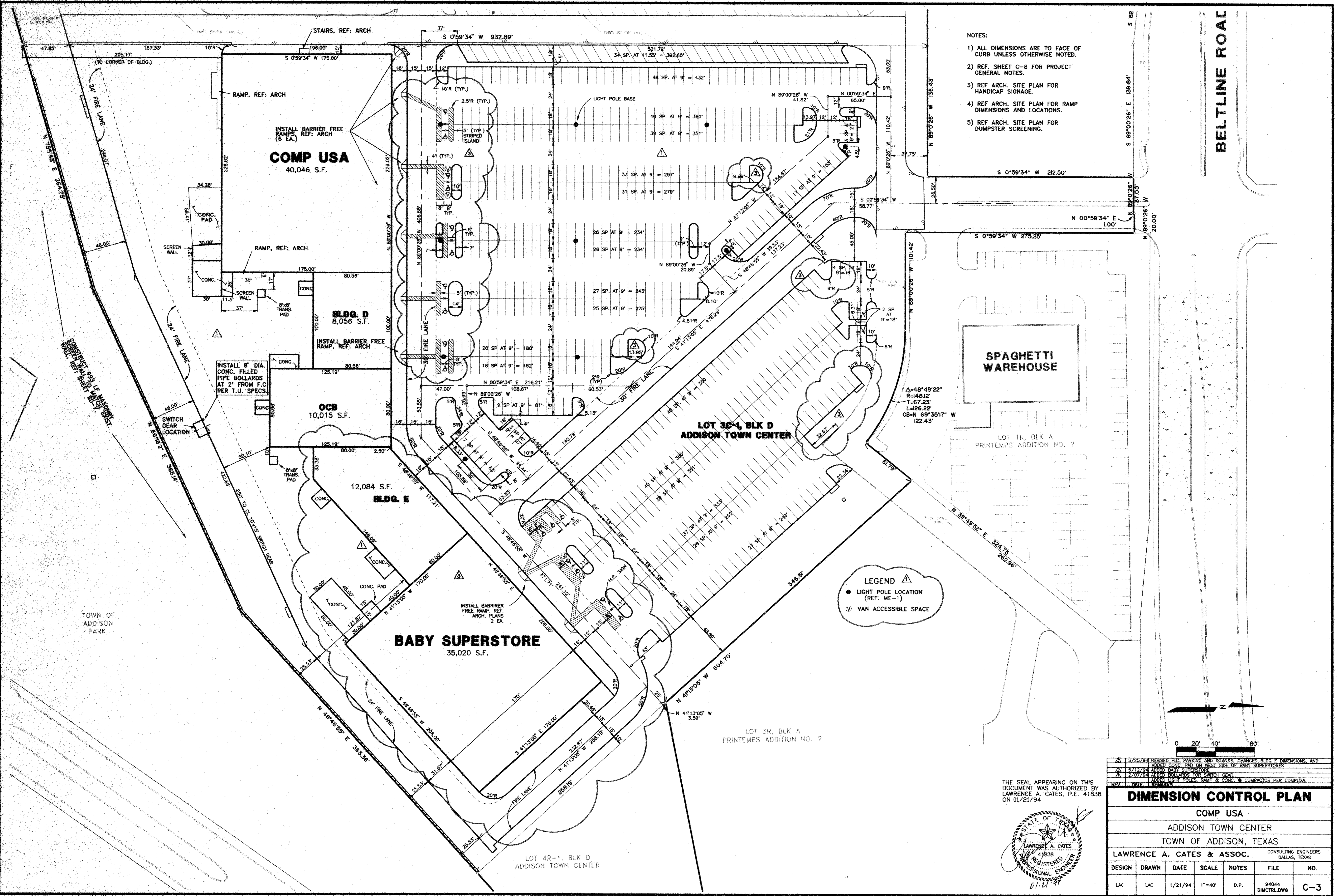


LEGEND
S.S. SANITARY SEWER
W.L. WATERLINE
DRNG. DRAINAGE
10'x10' T.U. ELEC. ESMT.
ACCESS ESMT.

LES LACS VILLAGE, INC.
VOL. 83064, PG. 272B

LES LACS VILLAGE, INC.
VOL. 83064, PG. 272B

© 1994 LAWRENCE A. CATES & ASSOCIATES, INC.



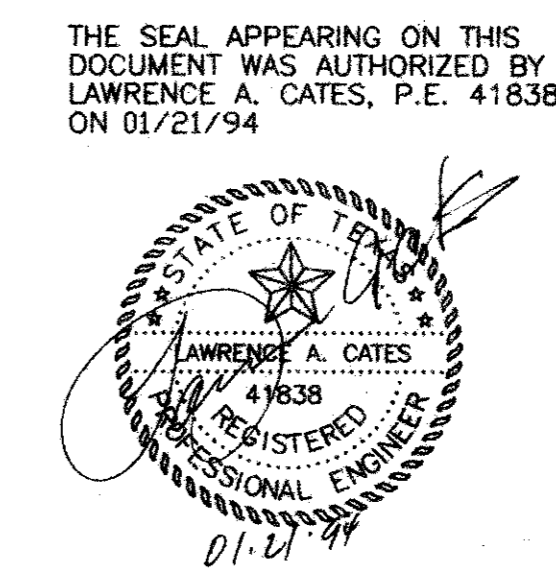
- NOTES:
- 1) ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - 2) REF. SHEET C-8 FOR PROJECT GENERAL NOTES.
 - 3) REF ARCH. SITE PLAN FOR HANDICAP SIGNAGE.
 - 4) REF ARCH. SITE PLAN FOR RAMP DIMENSIONS AND LOCATIONS.
 - 5) REF ARCH. SITE PLAN FOR DUMPSTER SCREENING.

LEGEND

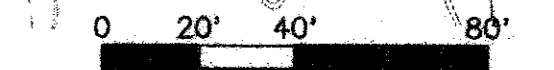
- LIGHT POLE LOCATION (REF. ME-1)
- ⊕ VAN ACCESSIBLE SPACE

REV.	DATE	DESCRIPTION
1	5/25/94	REVISED H.C. PARKING AND ISLANDS, CHANGED BLDG E DIMENSIONS, AND ADDED CONC. PAD ON WEST SIDE OF BABY SUPERSTORE
2	5/17/94	ADDED BABY SUPERSTORE
3	7/07/94	ADDED BOLLARDS FOR SWITCH GEAR
4	10/21/94	ADDED LIGHT POLES, RAMP & CONC. COMPACTOR PER COMPUSA

DIMENSION CONTROL PLAN						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.					CONSULTING ENGINEERS DALLAS, TEXAS	
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	1/21/94	1"=40'	D.P.	94044 DIMCTRL.DWG	C-3

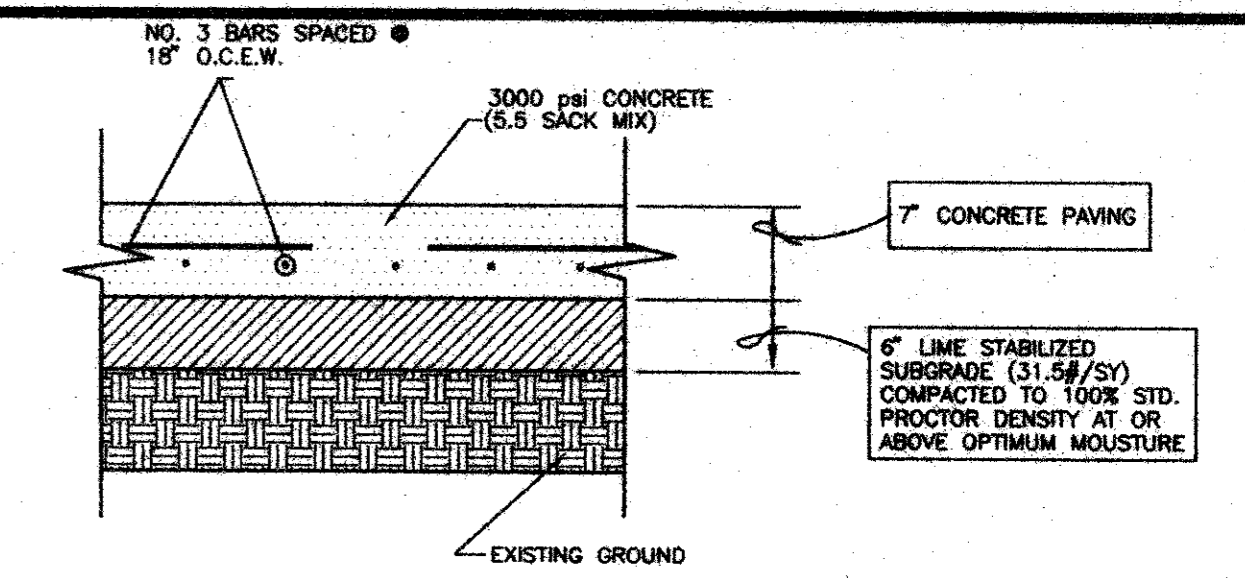
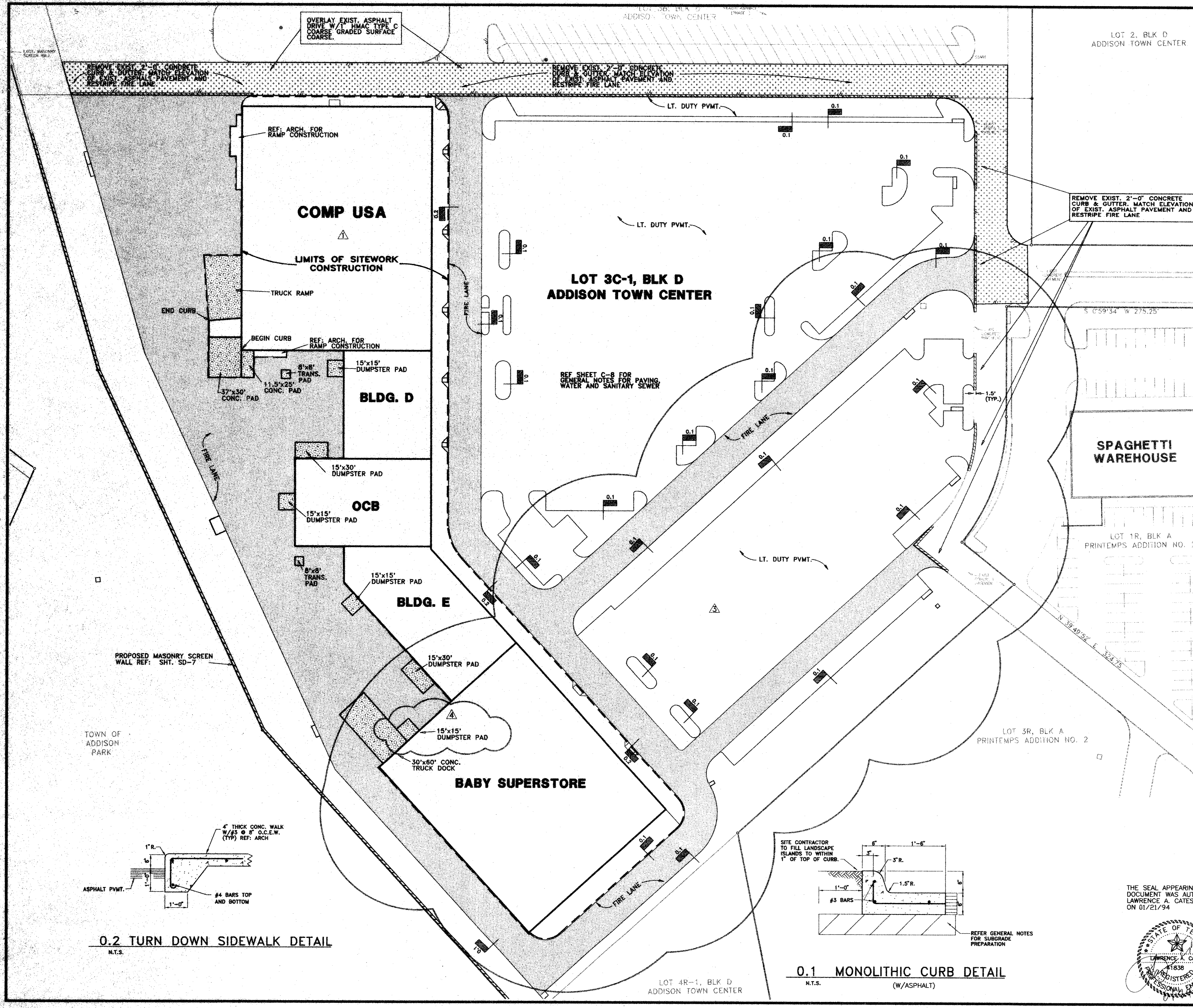


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LAWRENCE A. CATES, P.E. 41838 ON 01/21/94

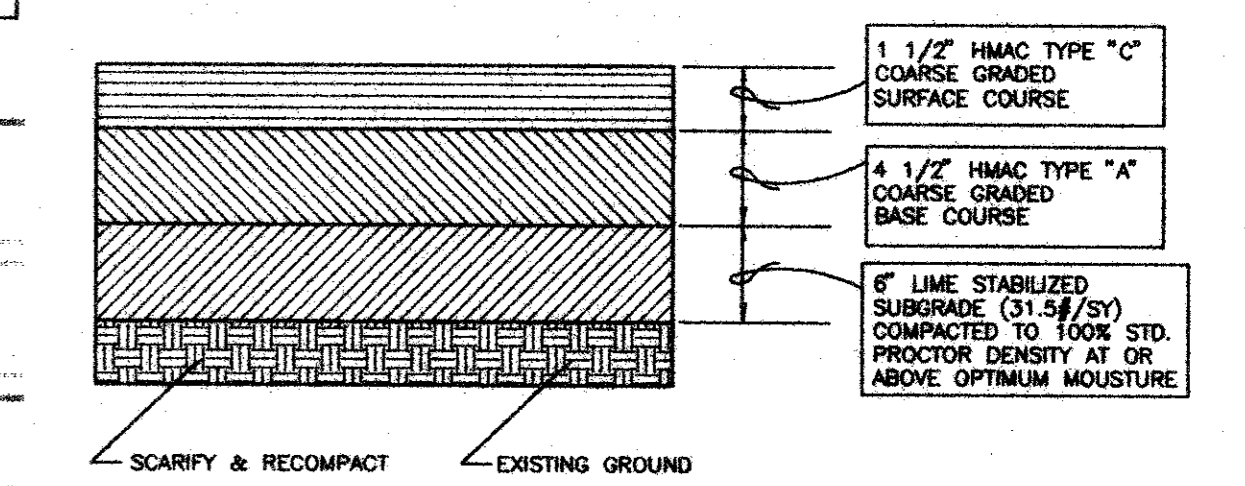


BELTLINE ROAL

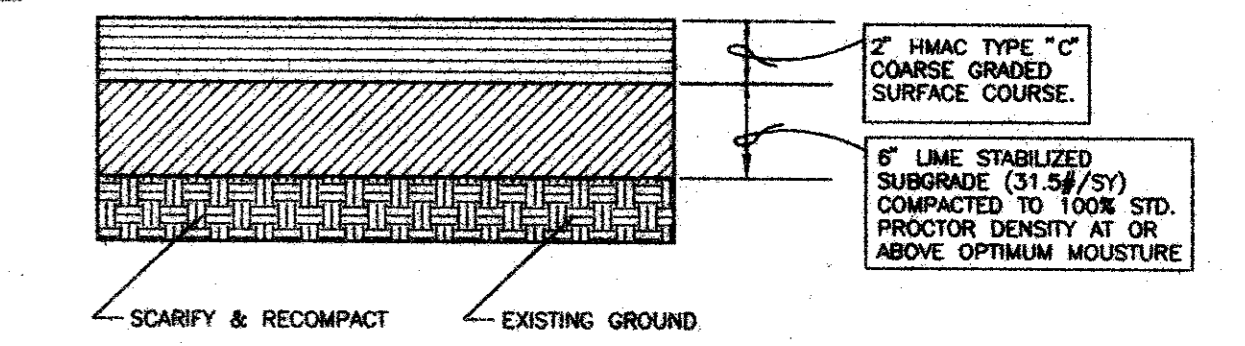
C:\DWG94\44\9-DIMCTR Thu Jun 9 09:58:54 1994



CONCRETE PAVEMENT SECTION
(TRUCK DOCKS & DUMPSTER PADS)
N.T.S.



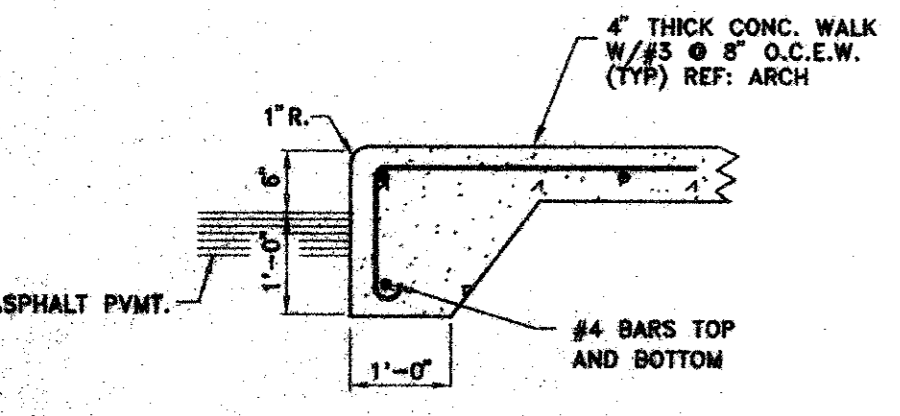
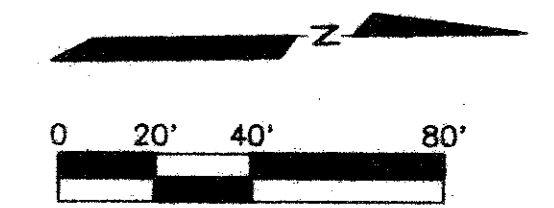
HEAVY DUTY ASPHALT PAVEMENT SECTION
N.T.S.



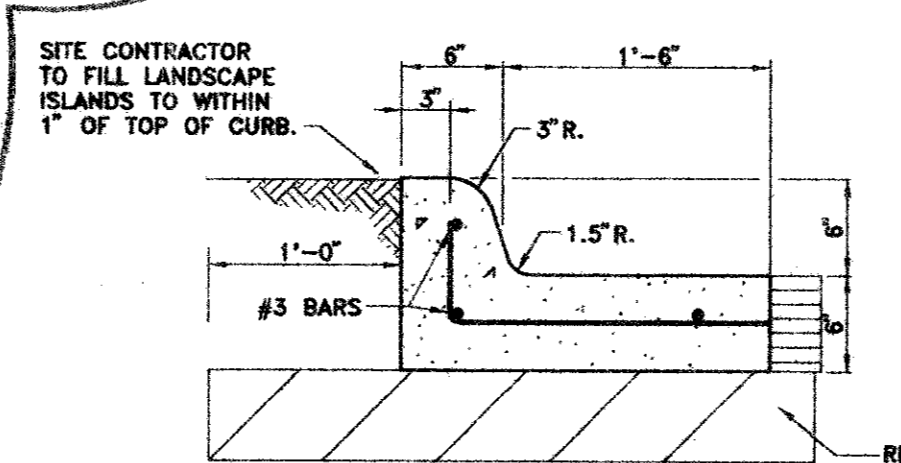
LIGHT DUTY ASPHALT PAVEMENT SECTION
N.T.S.

LEGEND

- REMOVE EXISTING PAVEMENT
- HEAVY DUTY ASPHALT PAVING
- LIGHT DUTY ASPHALT PAVING
- 7" REINF. CONCRETE PAVING
- 1" ASPHALT OVERLAY

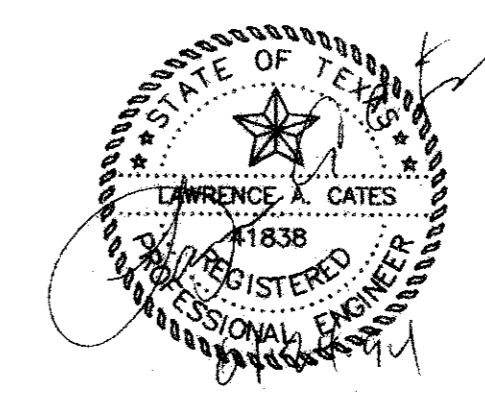


0.2 TURN DOWN SIDEWALK DETAIL
N.T.S.



0.1 MONOLITHIC CURB DETAIL
N.T.S. (W/ASPHALT)

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LAWRENCE A. CATES, P.E. 41838 ON 01/21/94



REV	12/07/94	REV. LIMITS OF SITE CONSTR. ADDED CONC. PAD @ COMPUSA SE CORNER
REV	12/07/94	REV. ASP. OVERLAY
REV	2/24/94	ADDED 1\"/>

PAVING PLAN						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC. CONSULTING ENGINEERS DALLAS, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	1/21/94	1"=40'	D.P.	93059 PAVPLAN.DWG	C-4

C:\DMS\940448-PAVPLAN Thu Jan 19 11:18:12 1994

COMP USA
F.F. 589.00

LOT 3C-1, BLK D

BLDG. D
F.F. 591.00

OCB
F.F. 591.00

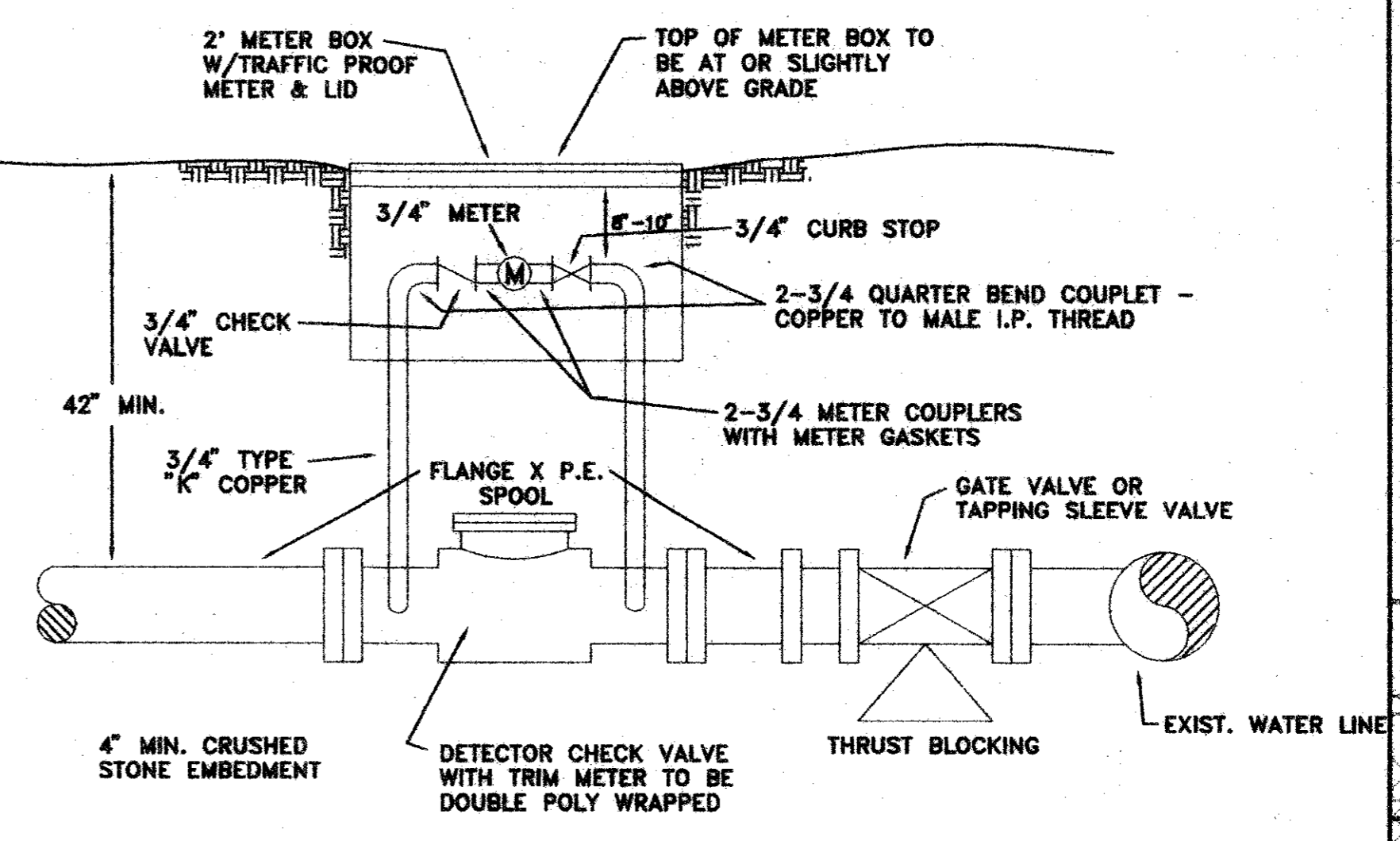
BLDG. E
F.F. 591.00

BABY SUPERSTORE
F.F. 593.00

SPAGHETTI WAREHOUSE

LOT 1R, BLK A
PRINTemps ADDITION NO. 2

DETECTOR CHECK DETAIL
N.T.S.

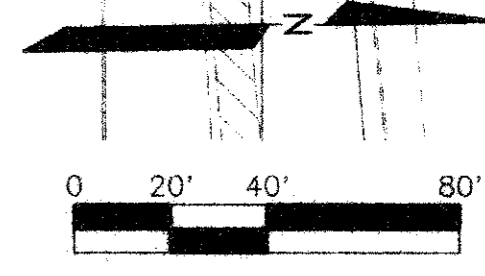


REF. SHEET C-8 FOR GENERAL WATER & SANITARY SEWER NOTES

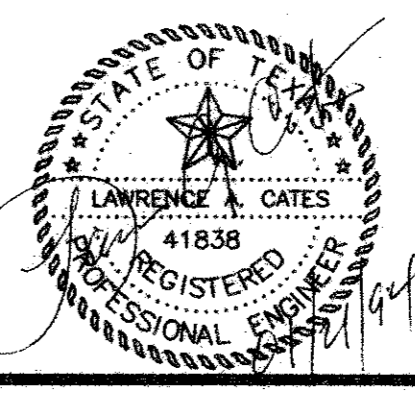
LOT 3R, BLK A
PRINTemps ADDITION NO. 2

COORDINATES

Table with columns: No., NORTHING, EASTING, DESC. containing coordinate data for various points.

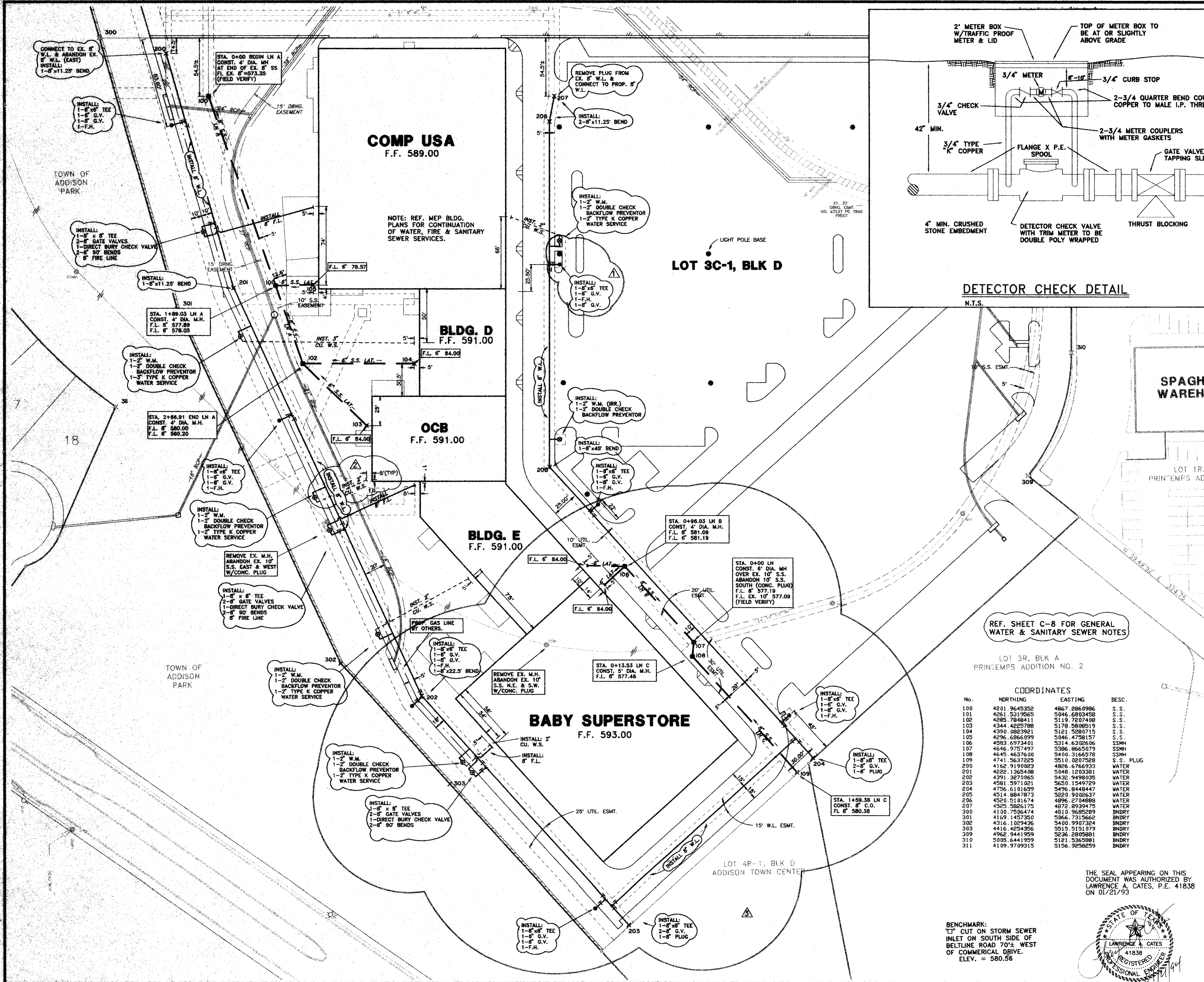


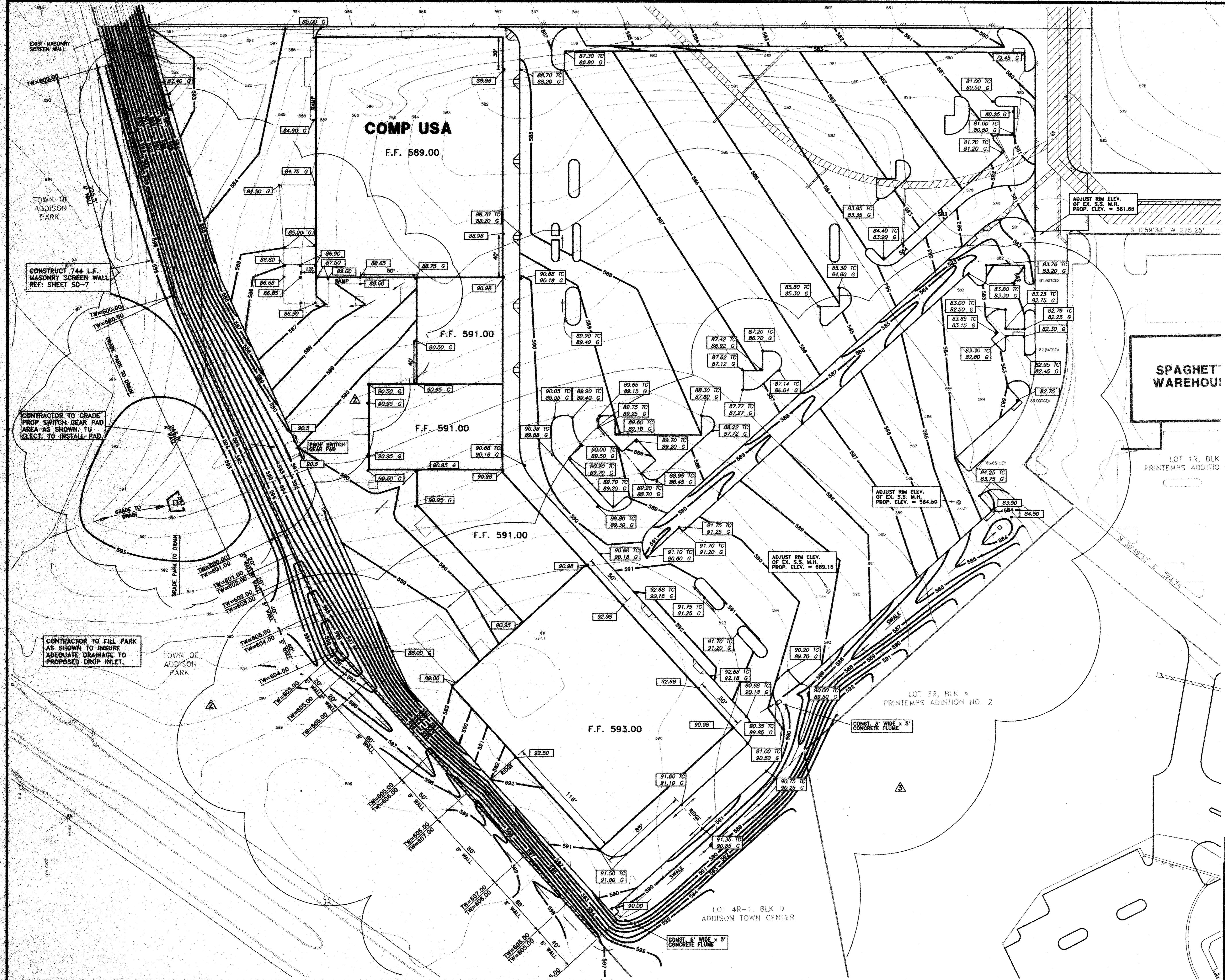
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LAWRENCE A. CATES, P.E. 41838 ON 01/21/93



BENCHMARK: 'T' CUT ON STORM SEWER INLET ON SOUTH SIDE OF BELTLINE ROAD 70'± WEST OF COMMERCIAL DRIVE. ELEV. = 580.56

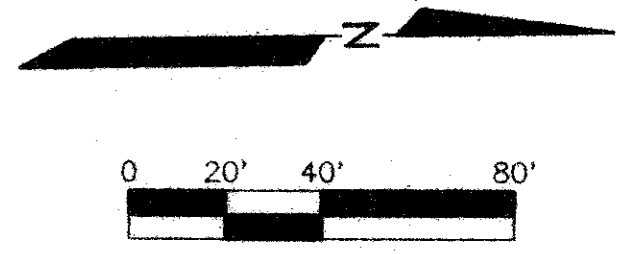
Project information block including title 'WATER & SANITARY SEWER PLAN', owner 'COMP USA', location 'ADDISON TOWN CENTER', and design details.





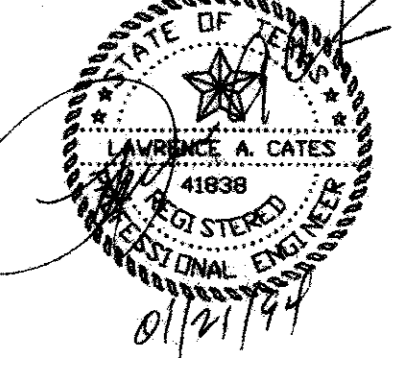
- GENERAL EARTHWORK NOTES**
 REFER TO GEOTECHNICAL REPORT PREPARED BY REED ENG. GROUP.
- CLEAR AND GRUB EXISTING VEGETATION AND TREE ROOTS TO A MAXIMUM DIAMETER OF 1 INCH. STOCKPILED SOIL MAY BE USED FOR LANDSCAPE BERMS.
 - SCARIFY EXPOSED SUBGRADE WHICH WILL UNDERLY FILL TO A MINIMUM DEPTH OF 6 INCHES. ADJUST MOISTURE AS REQUIRED, THEN RECOMPACT TO A UNIFORM DENSITY OF 95 PERCENT OF MAXIMUM ASTM D-698 (STANDARD PROCTOR) DENSITY. COMPACTED MOISTURE SHALL BE BETWEEN +2 AND +6 PERCENTAGE POINTS OF OPTIMUM MOISTURE.
 - PLACE FILL IN MAXIMUM 8 INCH LOOSE LIFTS, ADJUST MOISTURE AS REQUIRED AND COMPACT TO THE DENSITY AND MOISTURE STATED ABOVE.
 - IF THE FILL LIFT FAILS DUE TO INADEQUATE MOISTURE, THE LIFT SHALL BE SCARIFIED, WETTED OR DRIED ACCORDINGLY, AND RECOMPACTED.
 - CONTINUE PLACEMENT OF ON-SITE CLAY FILL TO GRADES SHOWN ON THE PLANS.
 - CAP BUILDING PADS WITH A MINIMUM OF TWO FEET OF WEATHERED LIMESTONE COMPACTED TO A MINIMUM OF 95% ASTM D-698.
 - IN-PLACE DENSITY AND MOISTURE TESTS TO BE TAKEN BY THE GEOTECHNICAL ENGINEER DESIGNATED BY THE OWNER AT A RATE OF MINIMUM ONE TEST PER 5,000 S.F. PER LIFT IN THE BUILDING AREA AND ONE TEST PER LIFT PER 10,000 S.F. IN PAVED AREAS. UTILITY TRENCHES TO BE TESTED AT A MINIMUM RATE OF ONE TEST PER LIFT PER 250 LINEAR FEET, OR FRACTION THEREOF.

NOTE:
 EXISTING CONTOURS SHOWN ON PARKING AREA ON LOT 3R WERE TAKEN FROM EXISTING CONSTRUCTION PLANS. ELEVATIONS OF EXISTING PAVEMENT SHOULD BE FIELD VERIFIED.



BENCHMARK:
 "C" CUT ON STORM SEWER INLET ON SOUTH SIDE OF BELTLINE ROAD 70' WEST OF COMMERCIAL DRIVE. ELEV. = 580.56

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LAWRENCE A. CATES, P.E. 41838 ON 01/21/94



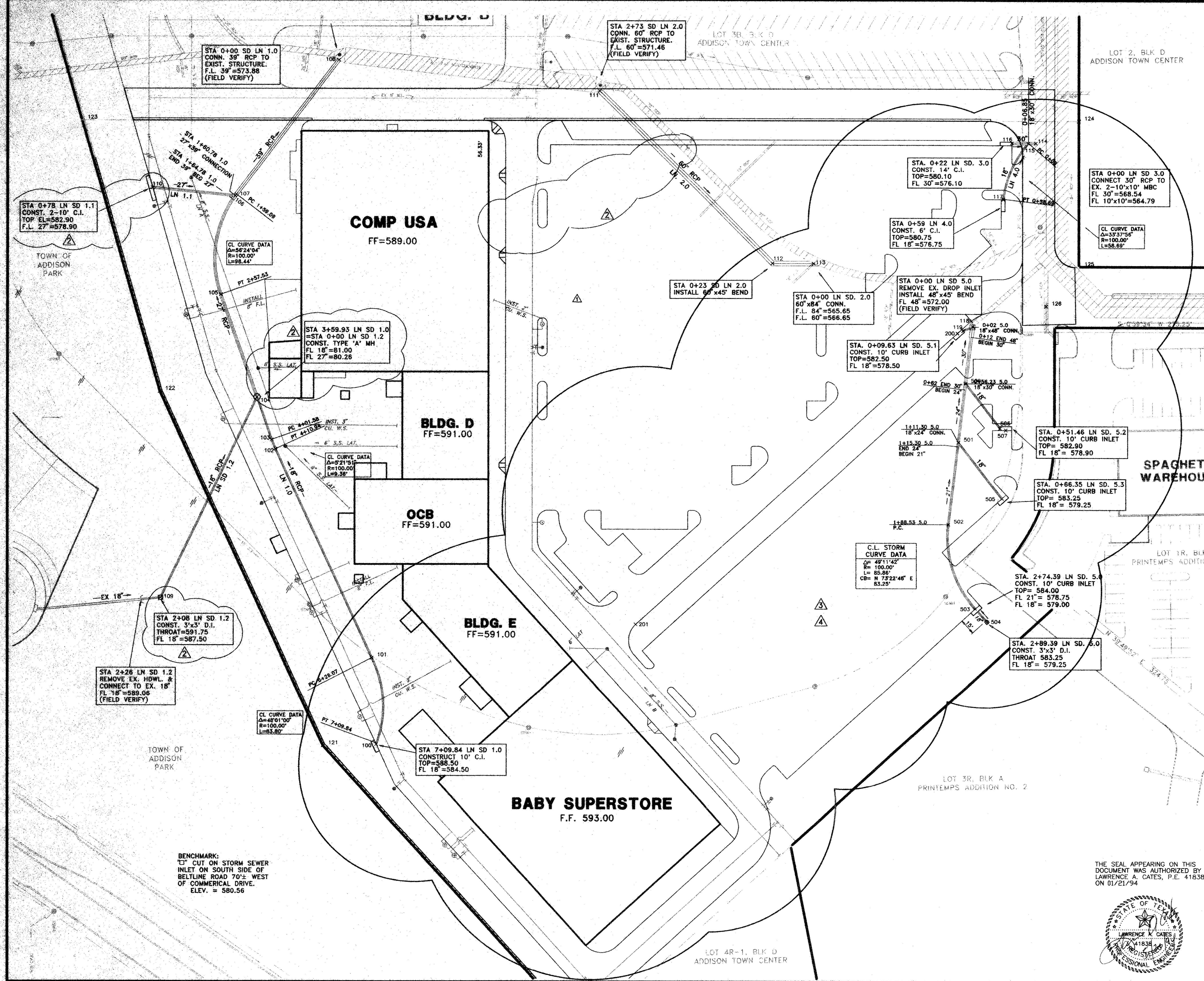
- 5/12/94 ADDED BABY SUPERSTORE, REVISED ISLANDS & GRADES FRONT OF COMP USA
- 2/07/94 REGRADE PARK AREA @ SE CORNER COMPUSA, REV COMPACTION TO 95%
- 2/02/94 ADDED EARTHWORK GENERAL NOTES
- REV DATE REVISIONS

GRADING PLAN						
COMP USA						
ADDISON TOWN CENTER						
CITY OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.						CONSULTING ENGINEERS DALLAS, TEXAS
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	01/21/94	1"=40'	D.P.	94044 B-GRDPLN.DWG	C-6

H:\DWG\94044\B-GRDPLN.TWJ 9 10 34:55 1994

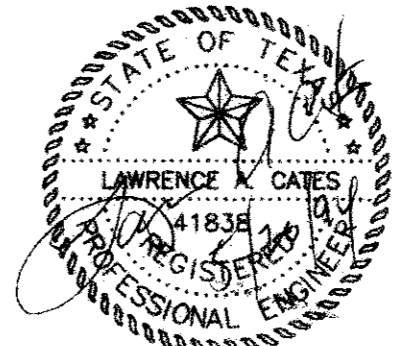
DRAINAGE COORDINATES

PNT No.	NORTHING	EASTING	DESCRIPTION
100	4366.0687948	5400.3456811	PT
101	4363.0564909	5318.9544772	PC
102	4276.4689375	5122.0081438	PT
103	4273.1073569	5113.2740207	PC
104	4269.9825290	5073.7470685	STM. M.H.
105	4227.7136508	4976.5855726	PT
106	4242.8276387	4884.7811849	PC
107	4243.8524586	4883.4417104	27x39 CONN.
108	4341.8682716	4758.1340749	0+00 LN 1.0
109	4166.6607530	5259.8517001	3'x3' D.I.
110	4165.7294536	4875.8952958	2-10' C.I.
111	4585.4751419	4791.4148702	2+73 LN 2.0
112	4744.2553698	4955.7951383	60x45' BEND
113	4782.8376473	4956.4637296	0+00 LN 2.0
114	4993.8282556	4847.2619963	0+00 LN 3.0
115	4985.8292030	4847.1292386	0+00 LN 4.0
116	4970.4342920	4846.8310335	14' C.I. (LN 3.0)
117	4961.4813332	4899.8946656	6' C.I. (LN 4.0)
118	4930.6915804	5018.5467943	C.I. EX. D.I.
119	4921.7143483	5022.0354277	8' C.I. (LN 5.0)
120	4316.1029436	5400.9907324	BNDRY PNT
121	4169.1457350	5068.7315662	BNDRY PNT
122	4100.7506474	4810.9685289	BNDRY PNT
123	5033.5014349	4827.1316919	BNDRY PNT
124	5031.1376734	4963.5397862	BNDRY PNT
125	4999.9989234	5000.0007670	BNDRY PNT
200	4916.4240891	5024.3431665	C.I. INLET
201	4610.6089602	5292.2349205	CURB RETURN
500	4923.0282988	5071.9445965	RCP
501	4915.5664712	5126.4828233	RCP
502	4904.8494665	5202.9653831	RCP
503	4928.6606881	5282.7355572	C.I. INLET
504	4939.5329890	5295.1469662	CENTER D.I.
505	4955.5206460	5179.4594151	C.I. INLET
506	4954.7706177	5113.7933061	RCP
507	4960.2394715	5115.6383352	C.I. INLET



BENCHMARK:
 'T' CUT ON STORM SEWER
 INLET ON SOUTH SIDE OF
 BELTLINE ROAD 70'± WEST
 OF COMMERCIAL DRIVE.
 ELEV. = 580.56

THE SEAL APPEARING ON THIS
 DOCUMENT WAS AUTHORIZED BY
 LAWRENCE A. CATES, P.E. 41838
 ON 01/21/94



5/12/94	ADDED BABY STORE
5/02/94	ADDED DRAINAGE COORDINATES
2/07/94	REMOVE ROOF DRAIN SYSTEM, DEL 21" & 24", ADD 18" & 27"
1/28/94	REV. THIRT ELEV. OF DROP INLET, ADD TYPE A MH, UP SIZE 12" CI TO 20" CI
1/28/94	ADDED 1" DRAIN TO CHOPPY
1/28/94	REV. DRAIN TO CHOPPY

DRAINAGE PLAN						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.						CONSULTING ENGINEERS
						DALLAS, TEXAS
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC		1"=40'	D.P.	94044 B-DRAIN.DWG	C-7

C:\DMS5\94044\B-DRAIN.DWG Plot May 16 10:49:23 1994

SANITARY SEWER GENERAL NOTES

- ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE TOWN OF ADDISON STANDARD SPECIFICATIONS.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSING.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER, ENGINEER OR HIS REPRESENTATIVE AND TOWN REPRESENTATIVE REGARDING AND DEVIATIONS FROM THESE PLANS.
- CONTRACTOR SHALL MAINTAIN ONE SET OF RECORD DRAWINGS (AS BUILT) ON SITE WHICH WILL BE SUBMITTED TO THE ENGINEER UPON COMPLETION OF THIS PROJECT. THE LOCATION OF FINAL SEWER SERVICE LOCATIONS WILL BE SHOWN.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT; ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, SEWER LATERALS, WATER SERVICE, ETC.
- THE CONTRACTOR SHALL SET UTILITIES TO PROPER LINE AND GRADE PRIOR TO THE PLACING OF PERMANENT PAVEMENT.
- SANITARY SEWER PIPE SHALL CONFORM TO TOWN SPECIFICATIONS AND SHALL BE MANUFACTURED FROM ONE OF THE FOLLOWING MATERIALS:

a. Polyvinyl/Chloride (PVC)	Diameter
ASTM D 3034 SDR 35	4" - 15"
(SEE NOTE 13)	
- SANITARY SEWER PIPE MUST BE KEPT CLEAR OF BROKEN CONCRETE, DIRT OR ANY OTHER DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.
- ALL SANITARY SEWER MAINS ARE TO HAVE 1'-21" JOINT CENTERED ON EITHER SIDE OF WATER MAINS WHERE CROSSING OCCUR.
- CONTRACTOR SHALL TIE A 1" WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36" OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB IN ACCORDANCE WITH THE STANDARD TOWN SPECIFICATIONS.
- THE CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE TOWN TO RUN 1 YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE SYSTEM BY THE TOWN OF ADDISON.
- ALL SANITARY SEWER LATERALS SHALL BE SIZED AND LOCATED AS SHOWN.
- ALL SANITARY SEWER LINES IN EXCESS OF 10 FEET DEPTH WILL BE SDR 26.
- ALL MANHOLES WILL BE INSTALLED WITH INSERTS.

WATER LINE GENERAL NOTES

- ALL WORK AND MATERIALS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR TOWN OF ADDISON.
- BASE BID - ALL 6", 8", 10" AND 12" WATER MAINS SHALL BE PVC AWWA C900, DR 18, CLASS 150 WATER PIPE. FOR PVC SERVICE TAPPING SADDLES SHALL BE USED.
- ALL WATER MAINS SHALL HAVE MINIMUM COVER AS FOLLOWS: 6", 8", 10", AND 12" - 48" BELOW FINISHED PAVEMENT GRADE, OR 60" BELOW EXISTING OR FINISHED GRADE IN UNPAVED AREAS, OR AS REQUIRED TO CLEAR OTHER UTILITIES.
- EXTEND WATER DEADHEADS AND SANITARY SEWER LATERALS BEYOND PROPOSED CURB AS SHOWN ON THE WATER PLAN.
- FIRE HYDRANTS TO BE TOWN OF ADDISON APPROVED (MUELLER CENTURION)
- VALVES TO BE TOWN OF ADDISON APPROVED.
- THE WATER METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION WILL BE MARKED ON THE PAVEMENT OR CURB, WITH A BLUE DOT BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS."
- THE CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE TOWN TO RUN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF THE SYSTEM BY THE TOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "RECORD DRAWING" PLANS TO THE ENGINEER SHOWING THE LOCATION OF WATER SERVICES AND VALVES.
- FIRE HYDRANTS SHALL BE PAINTED AS PER TOWN OF ADDISON STANDARDS AND SPECIFICATIONS AND LOCATED IN A PROTECTED AREA WITH 6" CURB OR BOLLARDS.
- STEAMER NOZZLES ON FIRE HYDRANTS SHALL BE 18" ABOVE THE TOP OF THE CURB ON FINISHED GRADE, AND SHALL FACE THE CENTER OF THE FIRE LANE OR STREET. FIRE HYDRANTS SHALL USUALLY BE LOCATED FOUR (4) FEET, BUT NOT LESS THAN TWO (2) FEET NOR MORE THAN SIX (6) FEET, BEHIND THE CURB.
- ALL WATER LINES SHALL BE HYDROSTATICALLY TESTED PER TOWN OF ADDISON STANDARDS AND SPECIFICATIONS.
- ALL WATER LINES SHALL BE STERILIZED PER TOWN OF ADDISON STANDARDS AND SPECIFICATIONS.
- ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS AND PROTECTED BY 6" CURB OR BOLLARDS.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THAT NECESSARY CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO THE CONSTRUCTION OF ANY SUCH CROSSING. IT IS THE CONTRACTORS RESPONSIBILITY TO INVESTIGATE AS TO WHETHER ADDITIONAL FACILITIES EXIST.
- UTILITY TRENCHES SHALL BE BACKFILLED WITH MATERIAL PER TOWN OF ADDISON SPECIFICATIONS (95% STANDARD PROCTOR DENSITY).
- ANCHOR FITTINGS SHALL BE USED TO ATTACH FIRE HYDRANTS.
- ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC., MUST BE ADJUSTED TO PROPER LINE AND GRADE BY CONTRACTOR AFTER PLACEMENT OR PERMANENT PAVING.
- A NO. 12 PLASTIC COATED WIRE SHALL BE PLACED IN THE TRENCH OVER ALL WATER LINES. THE WIRE SHALL BE TIED TO ALL VALVES AND FIRE HYDRANTS AND ATTACHED DIRECTLY TO THE TOP OF PIPE AND EXTENDED TO SIX INCHES ABOVE FINISHED GRADE ALONG THE OUTSIDE OF ALL VALVE STACKS AND FIRE HYDRANTS.
- ALL LOCATION DIMENSIONS SHOWN ARE CENTERLINE OF PIPE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH SAFETY DESIGN AND DETAILS AS REQUIRED, AND SHALL SUBMIT ENGINEERED DESIGN.

PAVING GENERAL NOTES

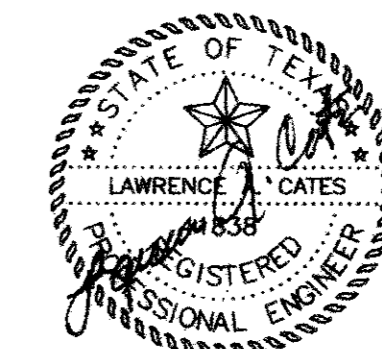
- CONCRETE PAVING FOR TRUCK DOCKS, DUMPSTERS AND CURB & GUTTERS SHALL BE OF THE THICKNESS SHOWN ON THE PLAN AND BE 3,000 PSI CONCRETE AT 28 DAYS WITH A MIXTURE THAT IS MINIMUM OF 5.5 SACKS PER CUBIC YARD AND HAVING A ONE INCH TO FOUR INCH SLUMP AND REINFORCED WITH #3 BARS @ 18" O.C.E.W. REINFORCING SHALL BE SUPPORTED BY CHAIRS AND SPACED AT 16 S.F. MAXIMUM INTERVAL.
- SUBGRADE FOR CONCRETE PAVEMENT SHALL BE SCARIFIED TO A DEPTH OF SIX INCHES (6") AND RECOMPACTED TO 95% STANDARD PROCTOR DENSITY AT 3% ABOVE OPTIMUM MOISTURE CONTENT.
- CONCRETE TO BE FLOAT FINISHED AND CURED FOR A MINIMUM OF 72 HOURS.
- SEALANT MATERIAL TO BE 0A55 ASPHALT OR A RUBBER BASED COMPOUND. SPECIFICATIONS TO BE SUBMITTED TO THE ENGINEER PRIOR TO INSTALLATION.
- HOT MIX ASPHALT CONCRETE (HMAC) SHALL BE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) ITEM 340, TYPE "C" OR TYPE "A" AS SHOWN.
- SUBGRADE FOR HMAC ALTERNATE WILL BE 6" LIME STABILIZED WITH 7% LIME (31.5 LBS PER S.Y.) COMPACTED TO 100% THD 114E OVER SCARIFIED AND RECOMPACTED SUBGRADE.
- BREAKOUTS FOR REMOVAL OF EXISTING PAVEMENT AND CURBS SHALL BE MADE BY SAW CUT WHEN ADJACENT TO PROPOSED PAVING AND/OR CURBS.
- PROPOSED CONCRETE CURBS SHALL MATCH ELEVATION OF EXISTING CURB.
- FIRE LANES SHALL BE MARKED BY SIX INCH (6") WIDE LINES USING RED TRAFFIC PAINT, WITH WORDING "NO PARKING" AND "FIRE LANE" PAINTED ON THE LINES AT INTERVALS OF TWENTY-FIVE FEET (25'). THE LETTERING WILL BE FOUR INCHES (4") HIGH WITH A ONE INCH (1") WIDE STROKE PAINTED WITH WHITE TRAFFIC PAINT.
- ALL PARKING SPACES SHOWN ON PROPOSED CONSTRUCTION SHALL BE MARKED WITH 4 INCH (4") WIDE YELLOW PAINTED PAVEMENT STRIPING. PAINT SHALL BE SHERWIN WILLIAMS SERIES B-29Y2 OR APPROVED ALTERNATE.
- CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS AND MISC. STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. SEE ARCHITECTURAL SITE PLAN FOR VERTICAL HANDICAP SIGNAGE.
- ALL HANDICAP RAMPING, STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT OF 1990.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF ADDISON STANDARD SPECIFICATIONS AND/OR SPECIFICATIONS ESTABLISHED BY THIS PROJECT. THE MOST STRINGENT SHALL APPLY.
- CONTROL JOINTS FOR CONCRETE PVMT. WILL BE PLACED AT 15' O.C.E.W. LEVEL UP SAND COURSE UNDER CONC. PVMT IS NOT ALLOWED.
- CONTRACTOR WILL PROVIDE A TWO (2) YEAR UNCONDITIONAL MAINTENANCE FREE WARRANTY ON PORTLAND CEMENT CONCRETE PAVEMENT AND HOT MIX ASPHALT CONCRETE PAVEMENT.
- ALL CITY FACILITIES (TURN LANES, APPROACHES, STRUCTURES & SIDEWALKS) TO BE 3,600 P.S.I. CONC. @ 28 DAYS.

PROJECT GENERAL NOTES

- ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB UNLESS NOTED OTHERWISE.
- ALL CURBS ARE EITHER 6" INTEGRAL WITH CONCRETE PAVEMENT OR 6" MONOLITHIC WITH ASPHALT PAVEMENT.
- REFERENCE ARCHITECTURAL SITE PLAN OF LAYOUT FOR HANDICAP PARKING AND SIGNAGE.
- PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF ADDISON:
 - A TEXAS REGISTERED PROFESSIONAL ENGINEER SHALL CERTIFY THAT THE PORTION OF THE PROJECT BEING DEDICATED TO ADDISON WAS CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE TOWN OF ADDISON.
 - A ONE (1) YEAR MAINTENANCE BOND IS REQUIRED FOR THE CITY'S PORTION OF THE INFRASTRUCTURE.
 - CONTRACTOR SHALL DEMONSTRATE THAT THE WATER AND SANITARY SEWER SYSTEMS MEET THE PROPER PRESSURE, BACTERIA AND MANDREL TESTS. IN ADDITION, THE OWNER SHALL PROVIDE A VHS FORMAT VIDEO TAPE OF THE SANITARY SEWER.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES TO LOCATE EXISTING FACILITIES. THESE INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:
 - TOWN OF ADDISON
 - LONE STAR GAS
 - SOUTHWESTERN BELL
 - STORER CABLE
 - PLANNED CABLE SYSTEMS
 - TU ELECTRIC
- PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE TOWN OF ADDISON, CONSULTING ENGINEER, CONTRACTOR(S), UTILITY COMPANIES AND ANY OTHER AFFECTED PARTIES. NOTIFY BRUCE ELLIS AT 450-2847 AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
- ANY EXISTING PAVEMENT, CURB(S) AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- LOT PINS SHALL BE IN PLACE DURING CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE. CONCRETE MONUMENTS SHALL BE PLACED ON ALL BOUNDARY CORNERS, BLOCK CORNERS, CURVE POINTS AND ANGLE POINTS IN PUBLIC RIGHT-OF-WAY. CONCRETE MONUMENTS SHALL BE SIX (6) INCHES IN DIAMETER AND TWENTY-FOUR (24) INCHES LONG. A COPPER PIN ONE-FOURTH INCH IN DIAMETER EMBEDDED AT LEAST THREE (3) INCHES IN THE MONUMENT AT THE EXACT INTERSECTION POINT OF THE MONUMENT. THE MONUMENTS SHALL BE SET AT SUCH AN ELEVATION THAT AFTER CONSTRUCTION, THE TOP OF THE MONUMENT WILL NOT BE LESS THAN TWELVE (12) INCHES BELOW THE GROUND SURFACE.
- CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT BY THE TOWN OF ADDISON FOR WORKING WITHIN THE PUBLIC RIGHT-OF-WAY EASEMENTS.
- DURING CONSTRUCTION, THE OWNER SHALL PROVIDE A QUALIFIED GEOTECHNICAL LAB TO PERFORM MATERIALS TESTING DURING THE CONSTRUCTION, AT THE REQUEST OF THE TOWN OF ADDISON.
- THE CONTRACTOR SHALL SUBMIT MATERIAL SHEETS TO THE TOWN OF ADDISON FOR APPROVAL PRIOR TO INCORPORATING MATERIALS INTO THE JOB.

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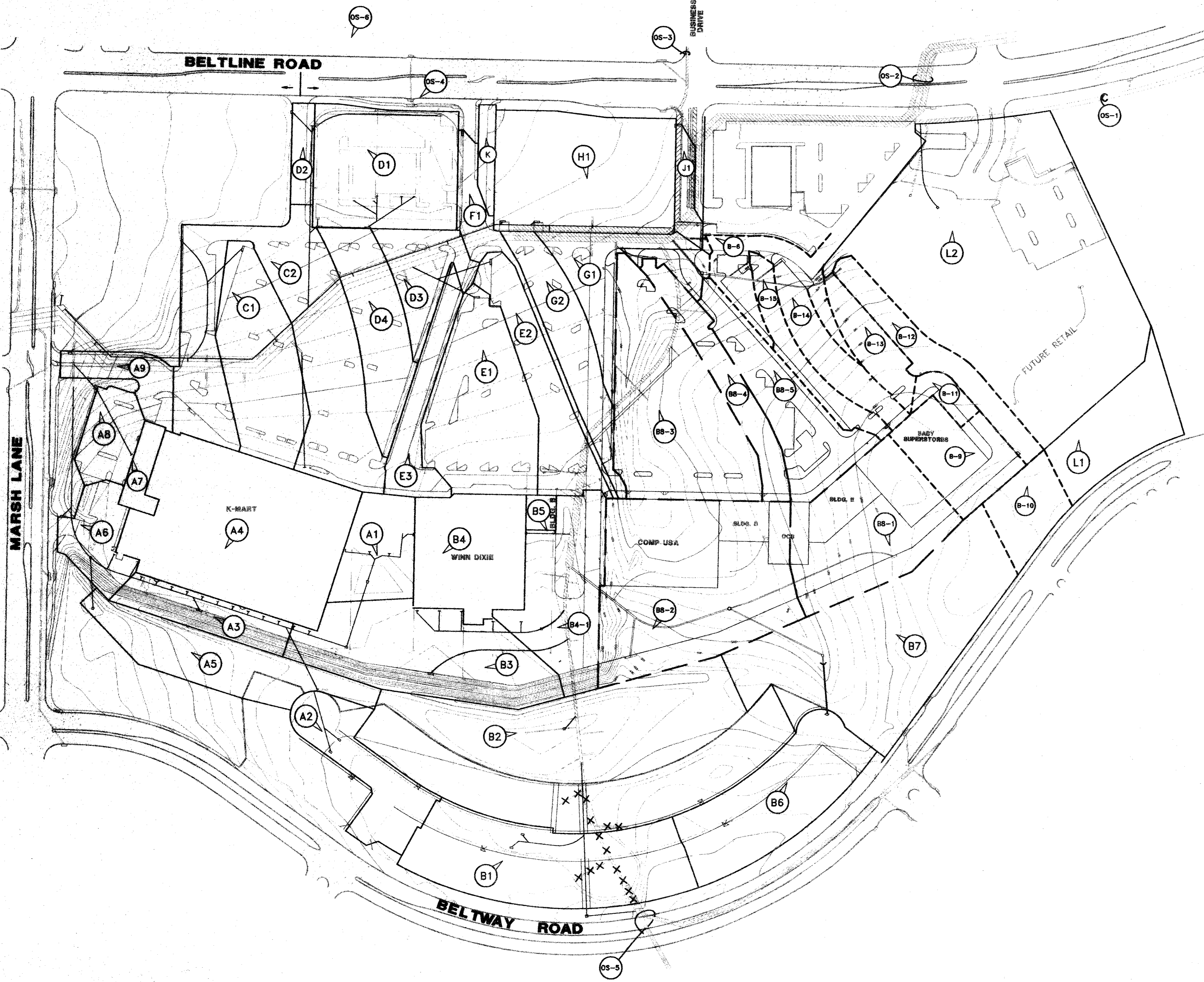
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L.A.C.

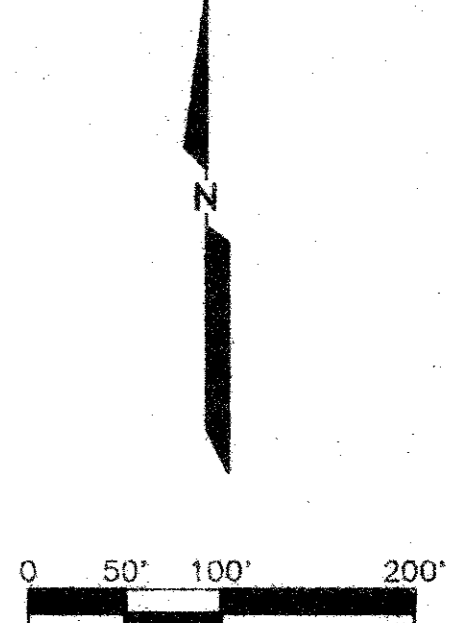
REV	DATE	REMARKS

GENERAL NOTES						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.						CONSULTING ENGINEERS DALLAS, TEXAS
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	1/21/94	1"=1'	D.P.	93059 GENOTES.DWG	C-8



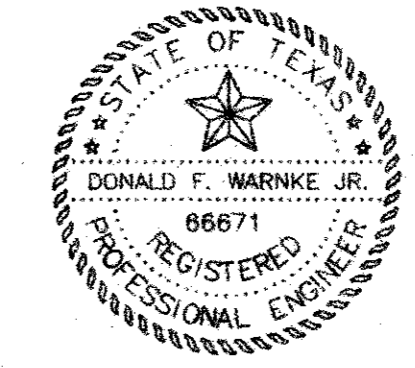
DRAINAGE SUMMARY

AREA	ACRES	C	1100	Q100	REMARKS	
A1	0.88	0.9	8.74	5.35	5.35	INC. ROOF DRAIN-BLDG. A
A2	0.87	0.5	8.74	3.80	9.15	FROM RES. SUBD.
A3	0.56	0.9	8.74	4.40	13.55	TO 10' C.I.
A4	2.69	0.9	8.74	21.13	34.68	KMART ROOF DRAINAGE
A5	1.18	0.4	7.70	3.60	38.28	PARK AREA
A6	0.48	0.9	8.74	3.95	41.93	TO 10' C.I.
A7	0.15	0.9	8.74	1.81	1.81	GARDEN SHOP DRAINAGE
A8	0.44	0.9	8.74	3.46	47.00	TO 6' C.I.
A9	0.36	0.9	8.74	2.85	2.85	TO 6' C.I.
B1	1.96	0.5	8.74	8.56	8.56	FROM SUBD. TO 54"
B2	4.43	0.45	7.70	15.40	13.40	PARK AREA
B3	1.46	0.9	8.74	11.48	11.48	TO 14' C.I.
B4	1.24	0.9	8.74	9.75	9.75	WINN-DIXIE ROOF DRAIN
B4-1	1.84	0.9	8.74	14.75	24.22	6" GRATE INLET
B5	0.10	0.9	8.74	0.79	0.79	BLDG. B ROOF DRAIN
B6	1.44	0.5	8.74	6.29	6.29	FROM SUBD. (6' C.I.)
B7	2.75	0.4	7.70	8.16	14.76	FUTURE PARK TO 3x3 DROP
B8-1	1.51	0.9	8.74	11.88	11.88	TO 10' C.I.
B8-2	2.81	0.9	8.74	22.10	22.10	TO 2X10' CI
B8-3	2.08	0.9	8.74	18.36	18.36	TO 14' C.I.
B8-4	0.63	0.9	8.74	4.97	4.97	TO 6' C.I.
B8-5	1.08	0.9	8.74	8.50	8.50	TO 10' C.I.
B8-6	0.57	0.9	8.74	4.50	4.50	TO EX. 10' C.I.
B-9	0.73	0.90	8.74	5.7	5.7	TO 8' FLUME
B-10	0.48	0.40	7.70	1.5	7.2	TO PROP. SWALE (PARK)
B-11	0.21	0.90	8.74	1.7	8.9	TO 5' FLUME
B-12	0.57	0.90	8.74	4.5	13.4	PROP. SWALE TO 3'x3' D.I.
B-13	0.44	0.90	8.74	3.5	18.9	TO 10' C.I.
B-14	0.57	0.90	8.74	4.5	21.4	TO 10' C.I.
B-15	0.46	0.90	8.74	3.6	28.00	TO 10' C.I.
C1	1.22	0.9	8.74	9.60	9.60	TO 10' C.I.
C2	2.64	0.9	8.74	20.80	30.40	TO 20' C.I.
D1	1.66	0.9	8.74	13.06	13.06	FUTURE LOT 1, BLK D
D2	0.21	0.9	8.74	1.57	14.63	TO 6' C.I.
D3	0.61	0.9	8.74	4.80	4.80	TO 10' C.I.
D4	0.93	0.9	8.74	7.31	26.74	
E1	1.58	0.9	8.74	12.43	12.43	TO 10' C.I.
E2	0.88	0.9	8.74	6.92	6.92	TO 10' C.I.
E3	0.60	0.9	8.74	4.72	11.56	TO 10' C.I.
F1	0.53	0.9	8.74	4.17	4.17	TO 6' C.I.
G1	0.55	0.9	8.74	4.33	4.33	TO 10' C.I.
G2	0.85	0.9	8.74	6.69	6.69	TO 10' C.I.
H1	2.00	0.9	8.74	15.73	15.73	FUTURE LOT 2
J1	0.18	0.9	8.74	1.42	1.42	TO EXIST. INLET
K	0.12	0.9	8.74	0.94	0.94	TO BELT LINE ROAD
L1	0.90	0.45	7.70	3.12	3.12	FUTURE PARK
L2	5.56	0.9	8.74	43.74	46.86	FUTURE RETAIL
OS-1	175.00	0.60	6.8	714	714	FROM 96" RCP
OS-2	414.00	0.80	4.8	1590	1590	FROM AREA N. OF BELT LINE
OS-3	16.73	0.90	7.7	118	118	54" (BUSINESS DR.)
OS-4	01.14	0.90	8.7	9	9	FROM BELT LINE RD.
OS-5	62.00	0.52	7.6	246	245	4" GRATE INLET
OS-6	17.60	0.90	7.7	122	122	54" TO LOW PT. @ BELTLINE

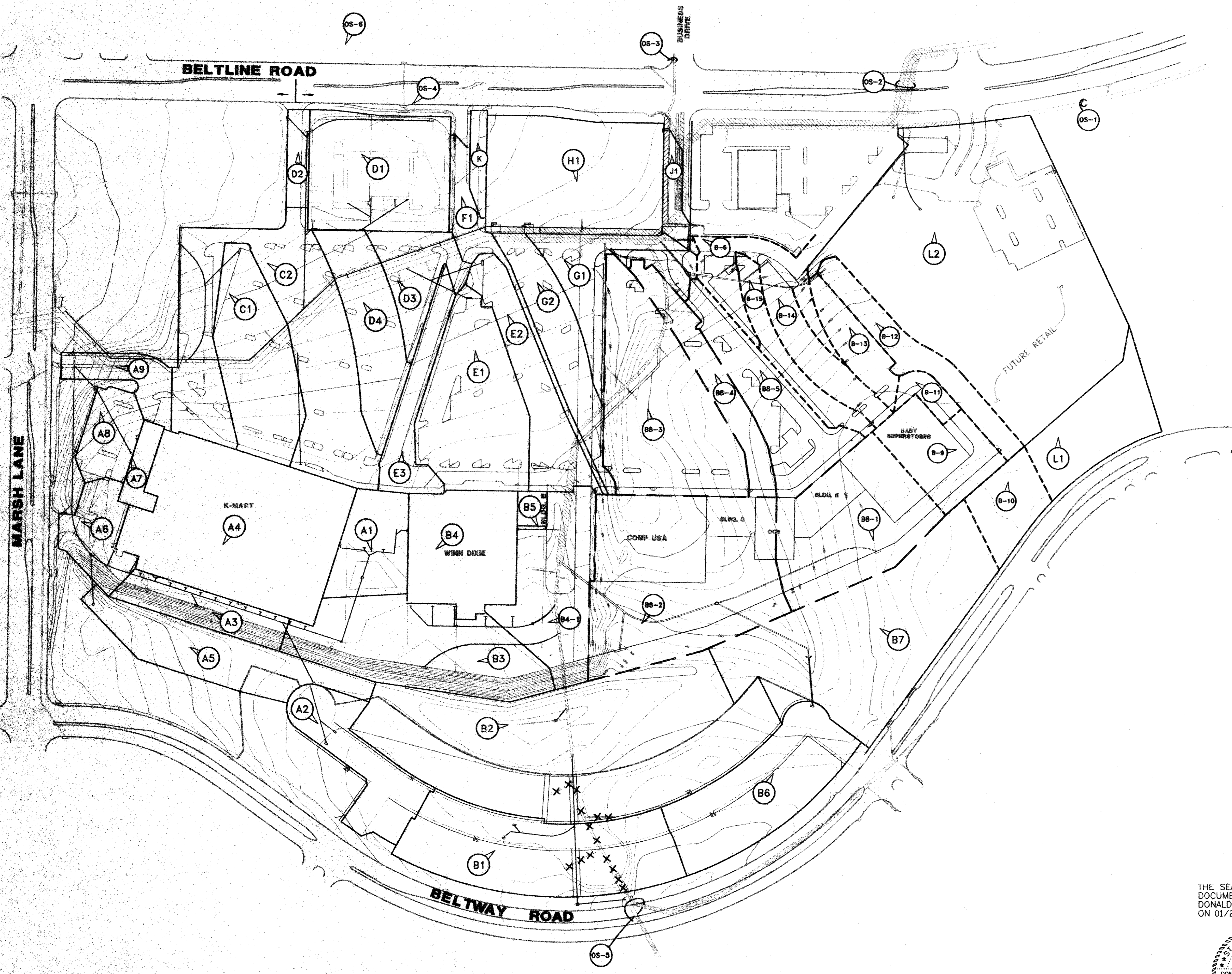


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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DONALD F. WARNKE JR., P.E. 66671 ON 01/21/94

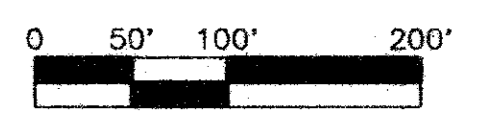


5/12/94 ADDED BABY SUPERSTORES						
DRAINAGE AREA MAP						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.						CONSULTING ENGINEERS DALLAS, TEXAS
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC		1"=100'	D.P.	94044 DRNGMAP.DWG	C-9

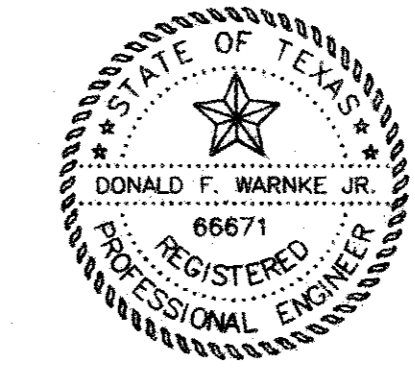


DRAINAGE SUMMARY

AREA	ACRES	C	I100	Q100	REMARKS	
A1	0.68	0.9	8.74	5.35	5.35	INC. ROOF DRAIN-BLDG. A
A2	0.87	0.5	8.74	3.80	9.15	FROM RES. SUBD.
A3	0.56	0.9	8.74	4.40	13.55	TO 10' C.I.
A4	2.69	0.9	8.74	21.13	34.88	KMART ROOF DRAINAGE
A5	1.18	0.4	7.70	3.60	38.28	PARK AREA
A6	0.49	0.9	8.74	3.85	41.93	TO 10' C.I.
A7	0.15	0.9	8.74	1.61	1.61	GARDEN SHOP DRAINAGE
A8	0.44	0.9	8.74	3.46	47.00	TO 6' C.I.
A9	0.36	0.9	8.74	2.83	2.83	TO 6' C.I.
B1	1.96	0.5	8.74	8.56	8.56	FROM SUBD. TO 54"
B2	4.45	0.45	7.70	15.40	15.40	PARK AREA
B3	1.46	0.9	8.74	11.48	11.48	TO 14' C.I.
B4	1.24	0.9	8.74	9.75	9.75	WINN-DIXIE ROOF DRAIN
B4-1	1.84	0.9	8.74	14.75	24.22	6" GRATE INLET
B5	0.10	0.9	8.74	0.79	0.79	BLDG. B ROOF DRAIN
B5	1.44	0.5	8.74	6.29	6.29	FROM SUBD. (6' CI)
B7	2.75	0.4	7.70	8.16	14.76	FUTURE PARK TO 3x3 DROP
B8-1	1.51	0.9	8.74	11.88	11.88	TO 10' CI
B8-2	2.81	0.9	8.74	22.10	22.10	TO 2X10' CI
B8-3	2.08	0.9	8.74	16.36	16.36	TO 14' CI
B8-4	0.83	0.9	8.74	4.97	4.97	TO 6' CI
B8-5	1.08	0.9	8.74	8.50	8.50	TO 10' CI
B8-6	0.57	0.9	8.74	4.50	4.50	TO EX. 10' C.I.
B-9	0.73	0.90	8.74	5.7	5.7	TO 6' FLUME
B-10	0.48	0.40	7.70	1.5	7.2	TO PROP. SWALE (PARK)
B-11	0.21	0.90	8.74	1.7	8.9	TO 5' FLUME
B-12	0.57	0.90	8.74	4.5	13.4	PROP. SWALE TO 3'x3' D.I.
B-13	0.44	0.90	8.74	3.5	16.9	TO 10' C.I.
B-14	0.57	0.90	8.74	4.5	21.4	TO 10' C.I.
B-15	0.46	0.90	8.74	3.6	25.00	TO 10' C.I.
C1	1.22	0.9	8.74	9.60	9.60	TO 10' C.I.
C2	2.64	0.9	8.74	20.80	30.40	TO 20' C.I.
D1	1.66	0.9	8.74	13.06	13.06	FUTURE LOT 1, BLK D
D2	0.21	0.9	8.74	1.57	14.83	TO 6' C.I.
D3	0.61	0.9	8.74	4.80	4.80	TO 10' C.I.
D4	0.93	0.9	8.74	7.31	26.74	
E1	1.58	0.9	8.74	12.43	12.43	TO 10' C.I.
E2	0.88	0.9	8.74	6.92	6.92	TO 10' C.I.
E3	0.60	0.9	8.74	4.72	11.56	TO 10' C.I.
F1	0.53	0.9	8.74	4.17	4.17	TO 6' C.I.
G1	0.55	0.9	8.74	4.33	4.33	TO 10' C.I.
G2	0.85	0.9	8.74	6.69	6.69	TO 10' C.I.
H1	2.00	0.9	8.74	15.73	15.73	FUTURE LOT 2
J1	0.18	0.9	8.74	1.42	1.42	TO EXIST. INLET
K	0.12	0.9	8.74	0.94	0.94	TO BELT LINE ROAD
L1	0.90	0.45	7.70	3.12	3.12	FUTURE PARK
L2	5.56	0.9	8.74	43.74	46.98	FUTURE RETAIL
OS-1	175.00	0.60	6.8	714	714	FROM 96" RCP
OS-2	414.00	0.80	4.8	1590	1590	FROM AREA N. OF BELT LINE
OS-3	16.73	0.90	7.7	116	116	54"(BUSINESS DR.)
OS-4	0.14	0.90	8.7	9	9	FROM BELT LINE RD.
OS-5	62.00	0.52	7.6	246	246	4" GRATE INLET
OS-6	17.60	0.90	7.7	122	122	54" TO LOW PT. @ BELTLINE



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DONALD F. WARNKE JR., P.E. 66671 ON 01/21/94



1 5/12/94 ADDED BABY SUPERSTORES						
REV. DATE						
DRAINAGE AREA MAP						
COMP USA						
ADDISON TOWN CENTER						
TOWN OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.					CONSULTING ENGINEERS DALLAS, TEXAS	
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC		1"=100'	D.P.	94044 DRNGMAP.DWG	C-9

C. LONGS 240441 DRNGMAP - R03 May 28 10:30 1994

HYDRAULIC CALCULATIONS FOR STORM SEWER AND LATERALS

STORM DRAIN CALCULATIONS

Table with columns: RUNOFF COLLECTION POINT, DISTANCE BETWEEN, INCREMENTAL DRAINAGE AREA, TIME AT UPSTREAM, DESIGN STORM FREQUENCY, TIME OF CONCENTRATION, INTENSITY, ACCUMULATED STORM WATER RUNOFF, SLOPE OF HYDRAULIC GRADIENT, SELECTED STORM DRAIN SIZE, VELOCITY IN DRAIN, FLOW TIME IN DRAIN, TIME AT DOWNSTREAM STATION, REMARKS.

STORM DRAIN 1.0

Table with columns: UPSTREAM STATION, DOWNSTREAM STATION, COLLECTION POINTS, AREA No., DRAINAGE AREA, RUNOFF COEFF, INCREMENTAL AREA, CA, TIME AT UPSTREAM, DESIGN STORM FREQUENCY, TIME OF CONCENTRATION, INTENSITY, ACCUMULATED STORM WATER RUNOFF, SLOPE OF HYDRAULIC GRADIENT, SELECTED STORM DRAIN SIZE, VELOCITY IN DRAIN, FLOW TIME IN DRAIN, TIME AT DOWNSTREAM STATION, REMARKS.

HYDRAULIC ANALYSIS OF EXISTING STORM DRAIN SYSTEM

Table with columns: STATION SECTION PIPE DIA., AREA, R, R 2/3, N, Q, VEL FPS, V2/2g, Sf, PIPE LENGTH, PIPE FRICTION, KJ, PIPE BENDS, WYES & MANHOLES, KJ, DIA CHANGE, TOTAL LOSSES, WATER SURFACE, ENERGY GRADIENT, COMMENTS, STATION.

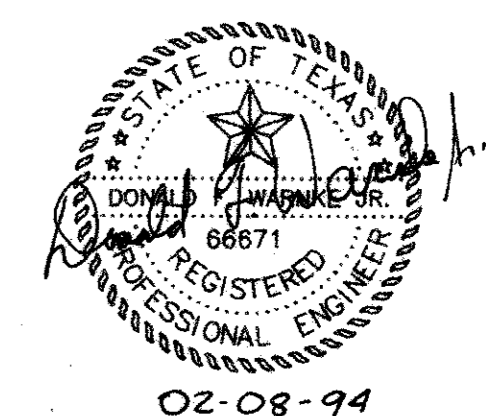
07-Feb-94

COMP USA ADDISON / JOB NO. 93059 / FILE NAME STM1012B

HYDRAULIC CALCULATIONS FOR STORM SEWER AND LATERALS

Table with columns: STATION SECTION PIPE DIA., AREA, R, R 2/3, N, Q, VEL FPS, V2/2g, Sf, PIPE LENGTH, PIPE FRICTION, KJ, PIPE BENDS, WYES & MANHOLES, KJ, DIA CHANGE, TOTAL LOSSES, WATER SURFACE, ENERGY GRADIENT, COMMENTS, STATION.

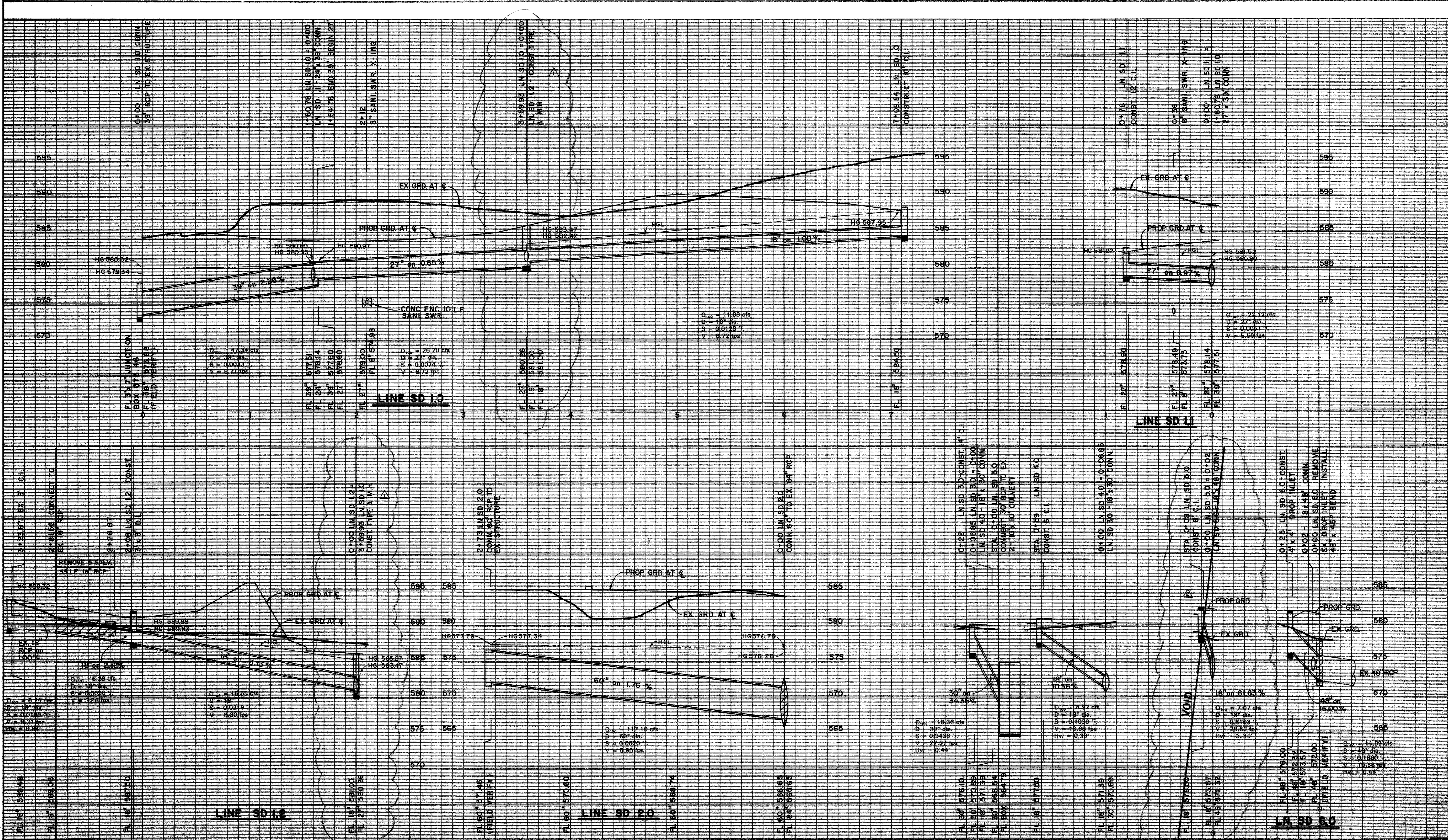
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DONALD F. WARKE JR, P.E. 66671 ON 01/21/94



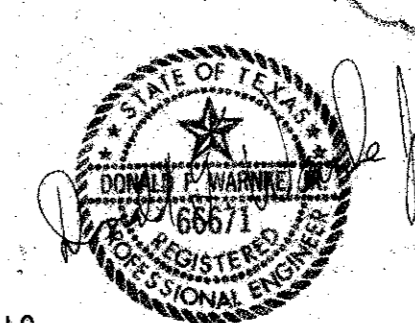
02-08-94

HYDRAULIC CALCULATIONS COMP USA ADDISON TOWN CENTER TOWN OF ADDISON, TEXAS LAWRENCE A. CATES & ASSOC. CONSULTING ENGINEERS DALLAS, TEXAS

C:\OWNS\93059\HYD.CALC Tue Feb 8 10:43:42 1994

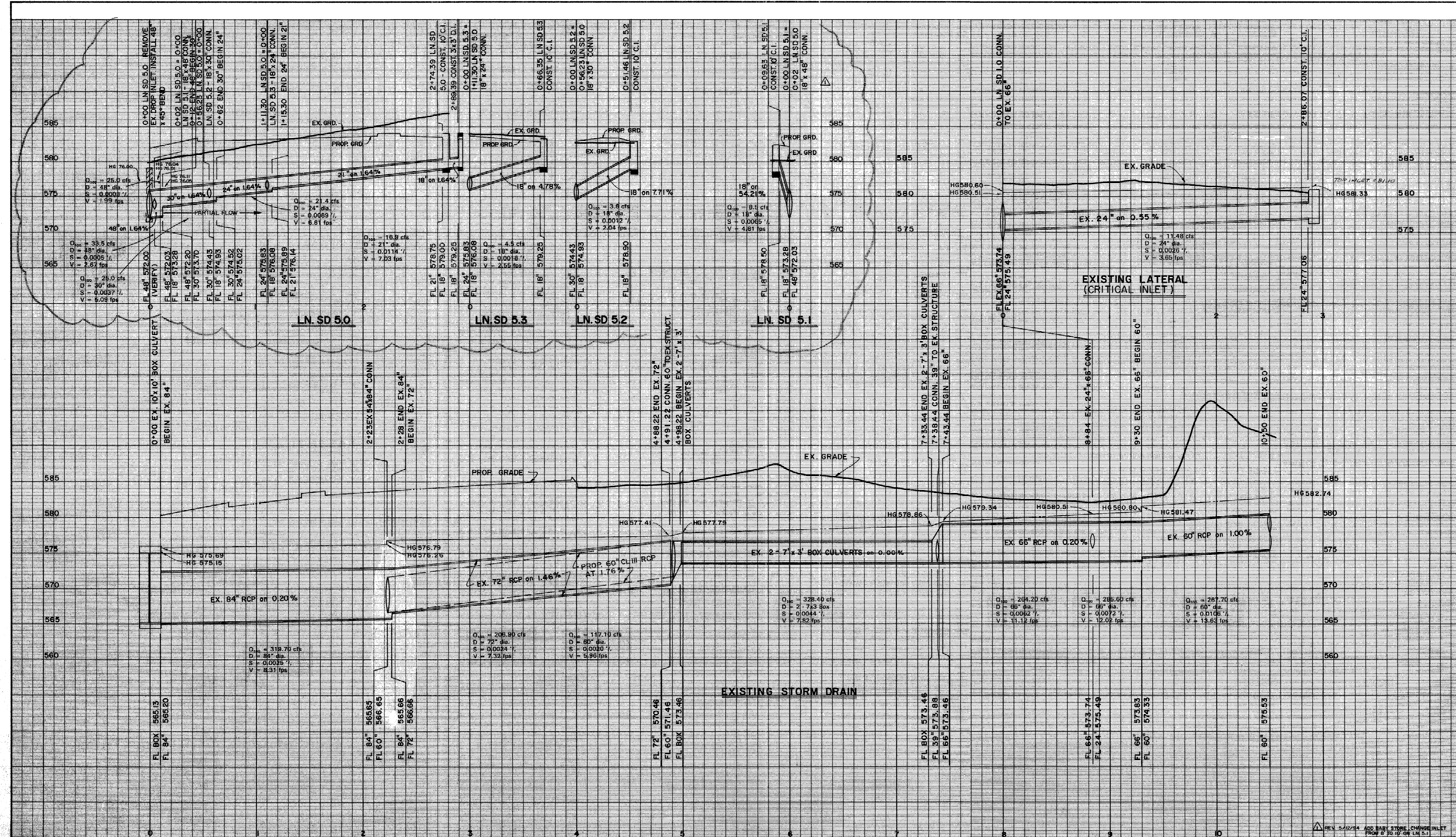


BENCHMARK:
 "1" CUT ON STORM SEWER
 INLET ON SOUTH SIDE OF
 BELTLINE ROAD 70± WEST
 OF COMMERCIAL DRIVE.
 ELEV. = 580.56



REV. 5/12/94 VOID LN 5.0
 REV. 02/07/94 ADDED TYPE A M.H. LN SD 1.0

STORM SEWER PROFILES					
COMP. U.S.A.					
ADDISON TOWN CENTER					
CITY OF ADDISON, TEXAS					
LAWRENCE A. CATES & ASSOC. CONSULTING ENGINEERS DALLAS, TEXAS					
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE NO.
LAC	LAC	01/11/94	H:1"=40' V:1"=6'	D.P.	93059 C-10



STORM SEWER PROFILES

COMP U.S.A.
ADDISON TOWN CENTER
CITY OF ADDISON, TEXAS

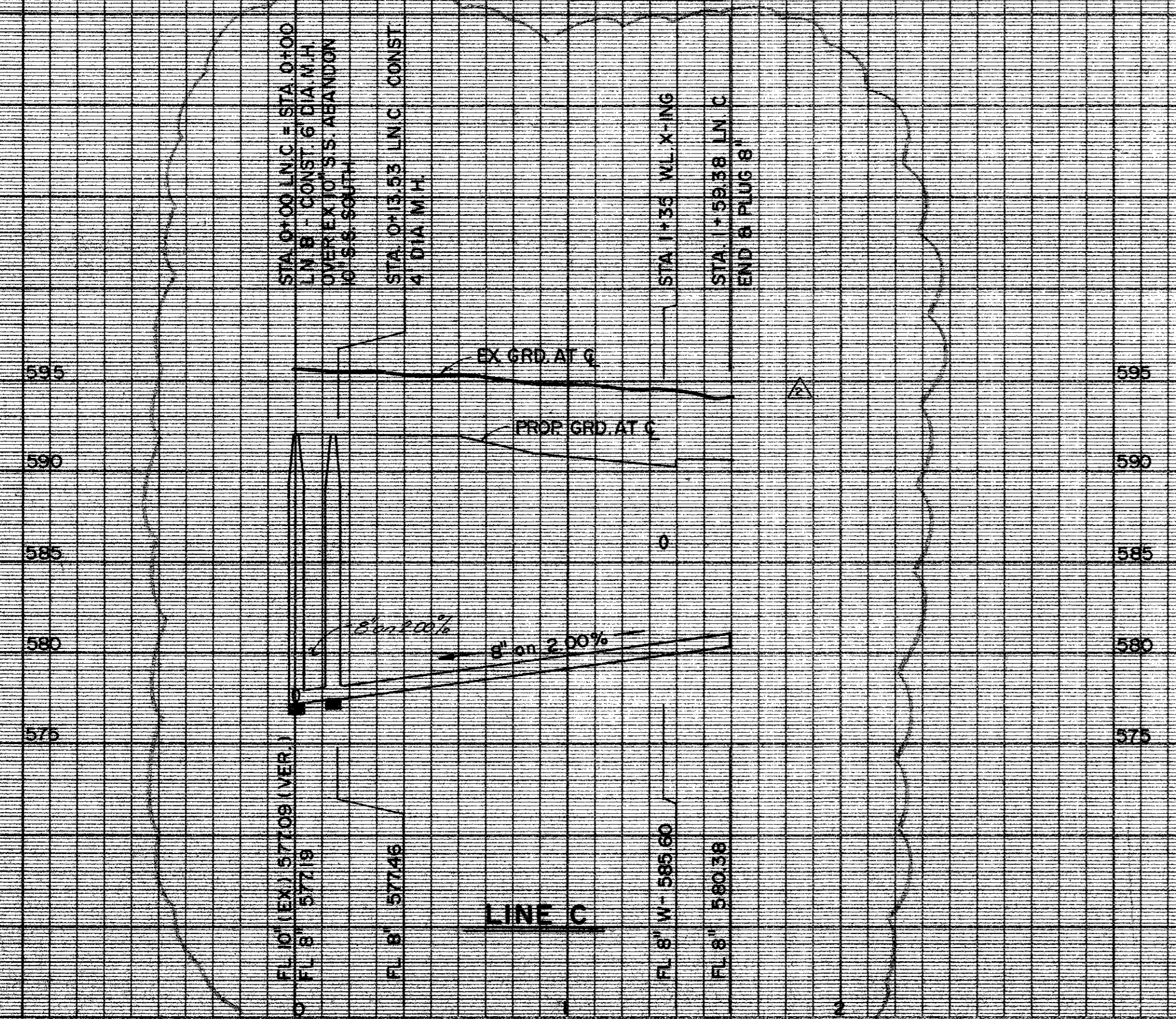
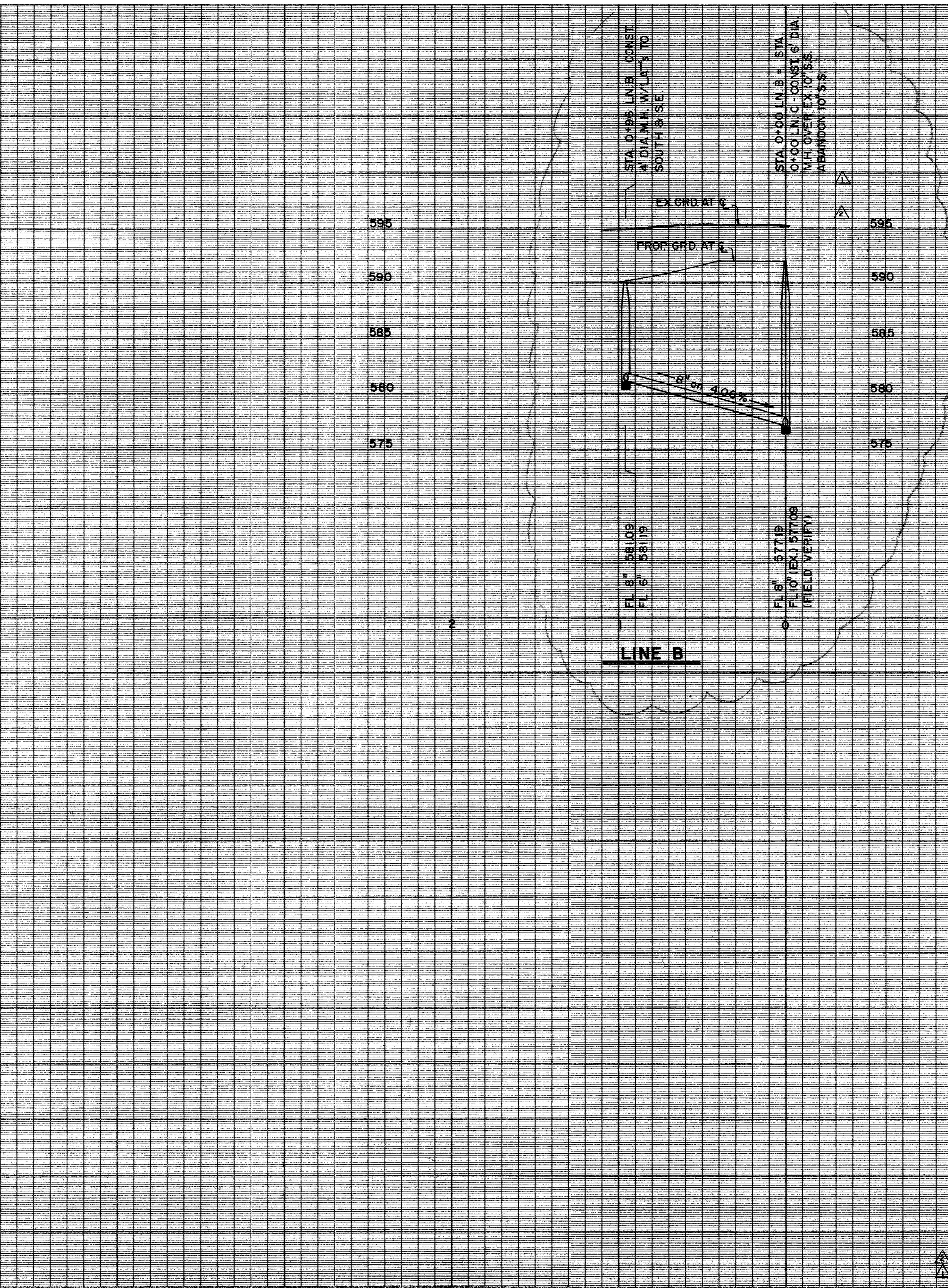
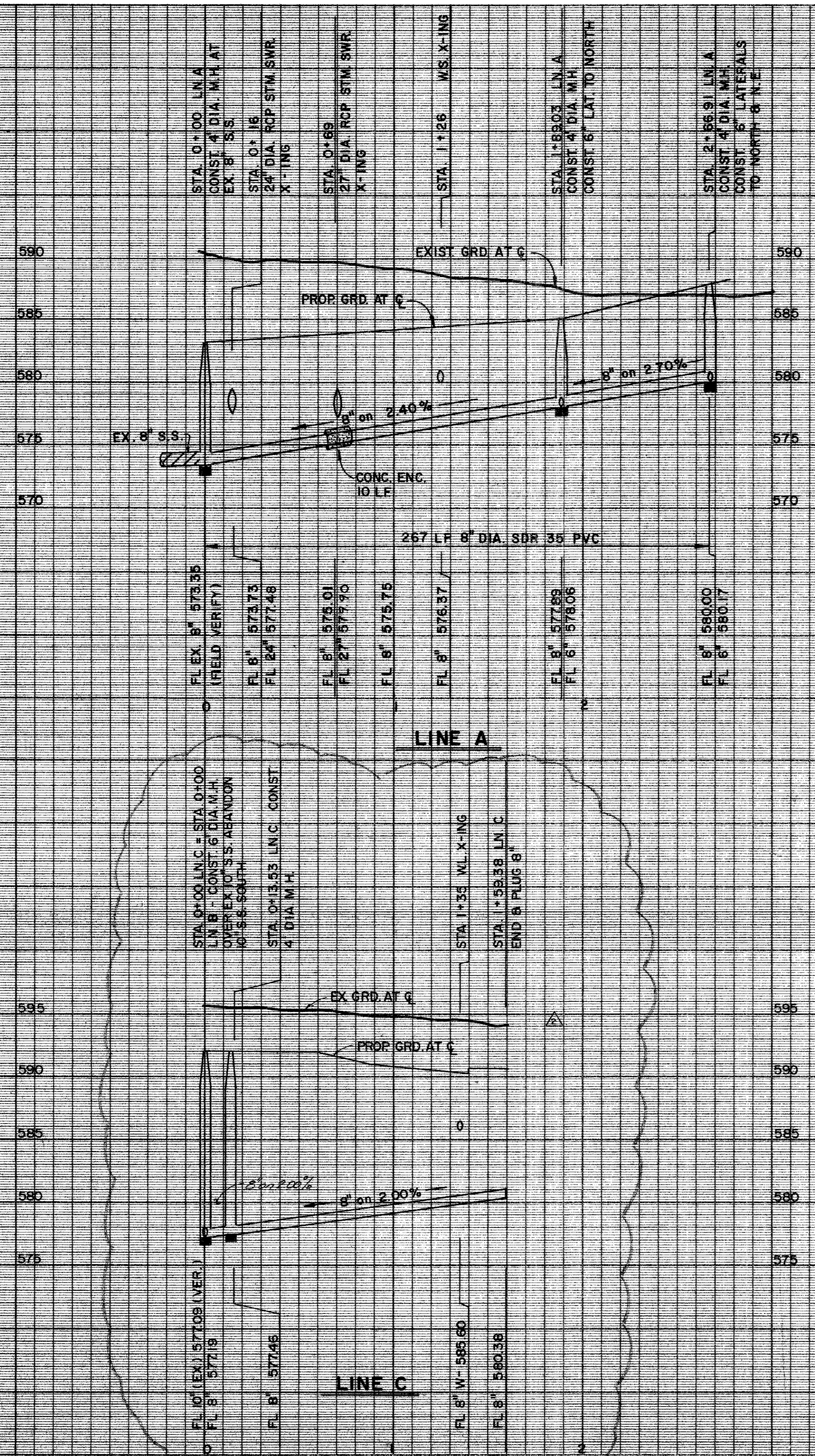
LAWRENCE A. CATES & ASSOC. CONSULTING ENGINEERS
DALLAS, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
DFW	DFW	01/11/94	H:1"=40' V:1"=6'	D.P.	93059	C-11

BENCHMARK:
"C" CUT ON STORM SEWER
INLET ON SOUTH SIDE OF
BELTLINE ROAD 70± WEST
OF COMMERCIAL DRIVE.
ELEV. = 580.56

01-26-94

REV 5/12/94 ADD BABY STONE CHANGE INLET
FROM 8" TO 10" DIA LN 5.1



STA. 0+00 LN A
CONST. 4' DIA. M.H. AT
EX. 8" S.S.
STA. 0+16
24" DIA. RCP STM SWR.
X-11N5
STA. 0+69
27" DIA. RCP STM SWR
X-11N9
STA. 1+26
WS. X-11NG
STA. 1+89.03 LN A
CONST. 4' DIA. M.H.
CONST. 6" LAT. TO NORTH
STA. 2+86.91 LN A
CONST. 4' DIA. M.H.
CONST. 5" LATERALS
TO NORTH & N.E.

STA. 0+00 LN C
LN B - CONST. 6 DIA. M.H.
OVER EX. 10" S.S. ABANDON
10" S.S. SOUTH
STA. 0+13.53 LN C CONST.
4' DIA. M.H.
STA. 1+35
VL. X-11NG
STA. 1+59.38 LN C
END B PLUS 8"

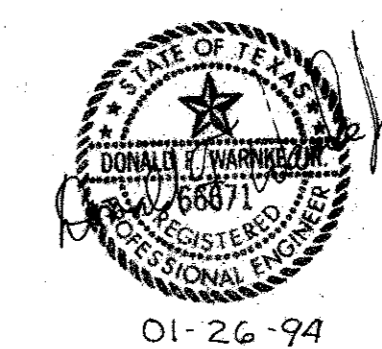
STA. 0+496 LN B CONST.
4' DIA. M.H. W/ LATS TO
SOUTH & S.E.
STA. 0+00 LN B + STA
0+00 LN C - CONST. 6' DIA
M.H. OVER EX. 10" S.S.
ABANDON TO S.S.

FL. EX. 8" 573.35
(FIELD VERIFY)
FL. 8" 573.73
FL. 8" 577.48
FL. 8" 575.01
FL. 2" 577.90
FL. 8" 575.75
FL. 8" 576.37
FL. 8" 577.99
FL. 6" 578.06
FL. 8" 580.00
FL. 6" 580.17

FL. 8" 581.09
FL. 6" 581.19
FL. 8" 577.19
FL. 10" (EX.) 577.08
(FIELD VERIFY)

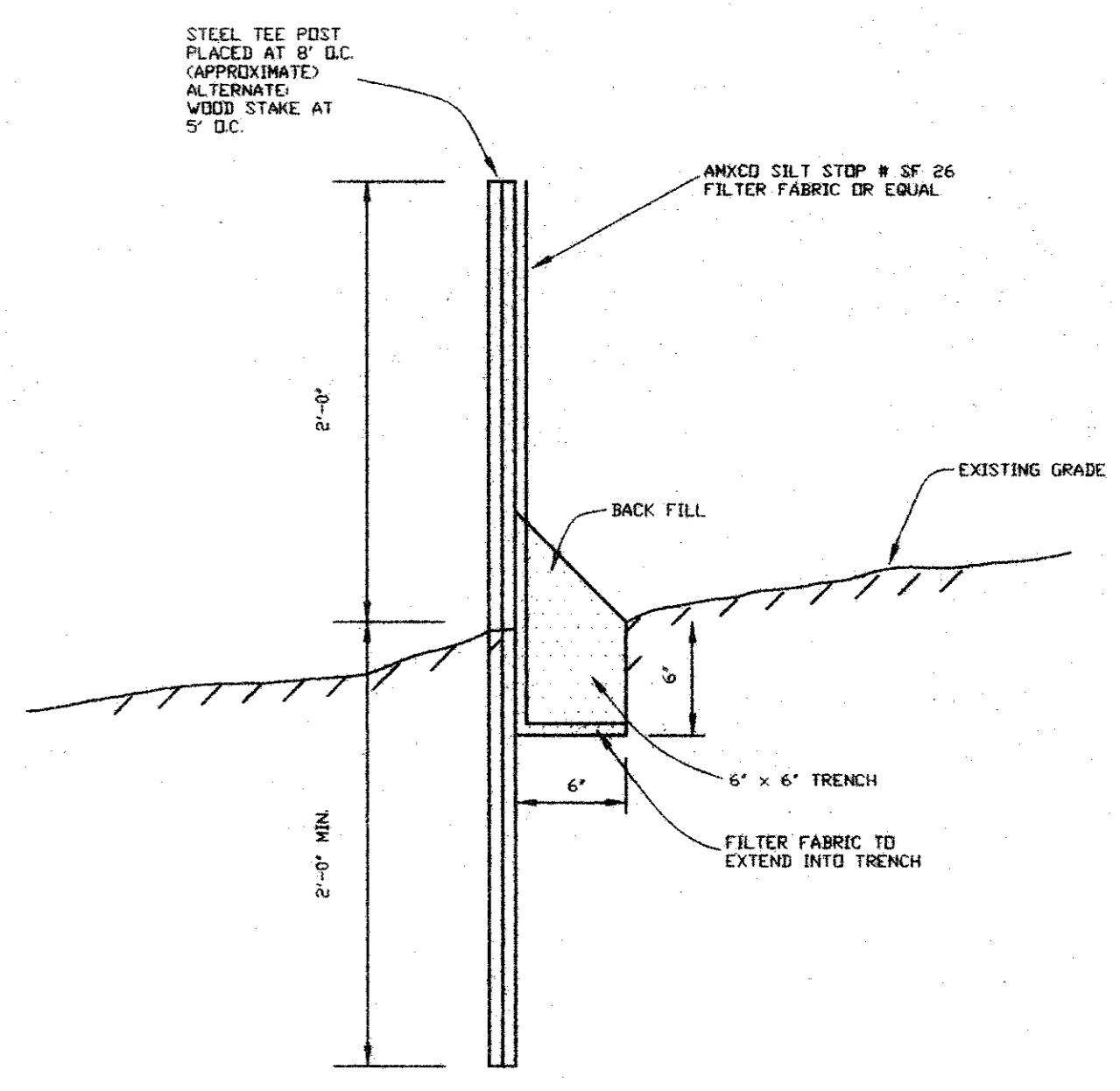
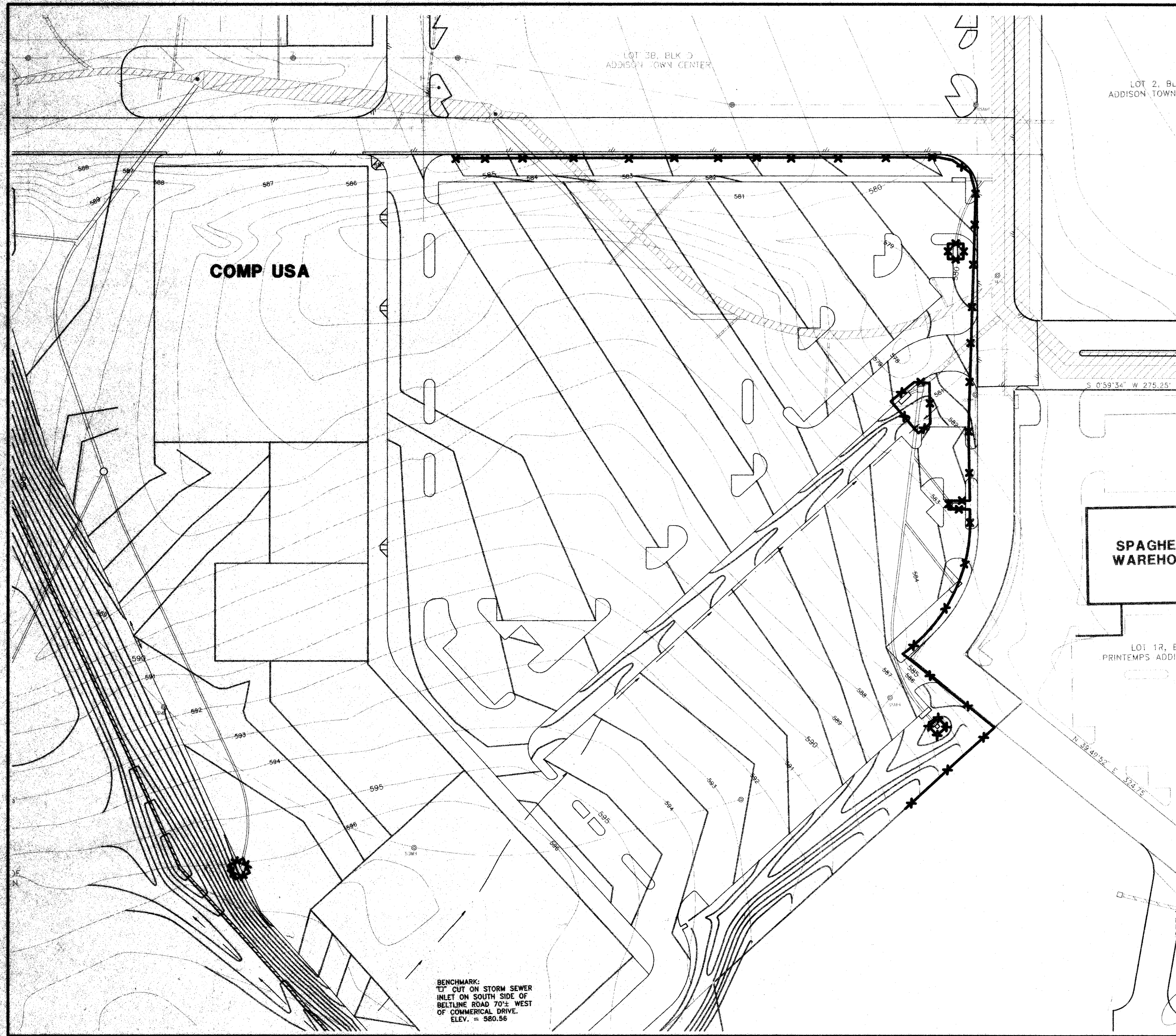
REV. 5/12/94 LN B, ADD LN C
REV. 02/07/94 M.H. TO 6" DIA.

BENCHMARK:
□ CUT ON STORM SEWER
INLET ON SOUTH SIDE OF
BELTLINE ROAD 70± WEST
OF COMMERCIAL DRIVE.
ELEV. = 580.56



01-26-94

SANITARY SEWER PROFILES						
COMP. U.S.A.						
ADDISON TOWN CENTER						
CITY OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC. CONSULTING ENGINEERS DALLAS, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	01/11/94	H:1"=40' V:1"=6'	D.P.	93059	C-12



EROSION CONTROL FENCE
N.T.S.

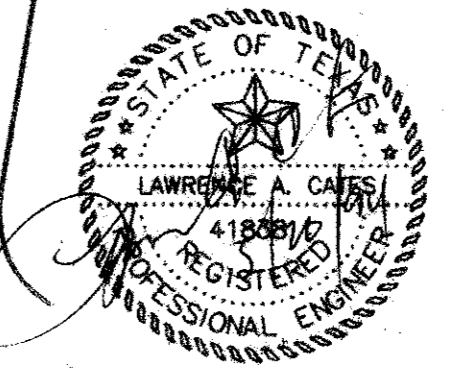


EROSION CONTROL LOCATION

- CONSTRUCTION SEQUENCE
1. OBTAIN GRADING PERMIT.
 2. INSTALL ALL EROSION CONTROL MEASURES AND DEVICES BEFORE CLEARING SITE IF POSSIBLE.
 3. CLEAR SITE.
 4. INSTALL ANY REMAINING CONTROL MEASURES AND DEVICES NOT INSTALLED PRIOR TO SITE CLEARING.
 5. GRADE SITE.
 6. INSTALL ALL UNDERGROUND UTILITIES.
 7. INSTALL PAVEMENT.
 8. RESTORE AND HYDROMULCH WITH BERMUDA GRASS ALL AREAS OUTSIDE CONSTRUCTION LIMITS DISTURBED DURING CONSTRUCTION.
 9. INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES AND DEVICES AFTER EACH RAIN AND FOR THE DURATION OF THE PROJECT.
 10. CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL AS NEEDED OR REQUESTED BY THE ENGINEER OR THE CITY IF PROPOSED EROSION CONTROL PROVES INSUFFICIENT.

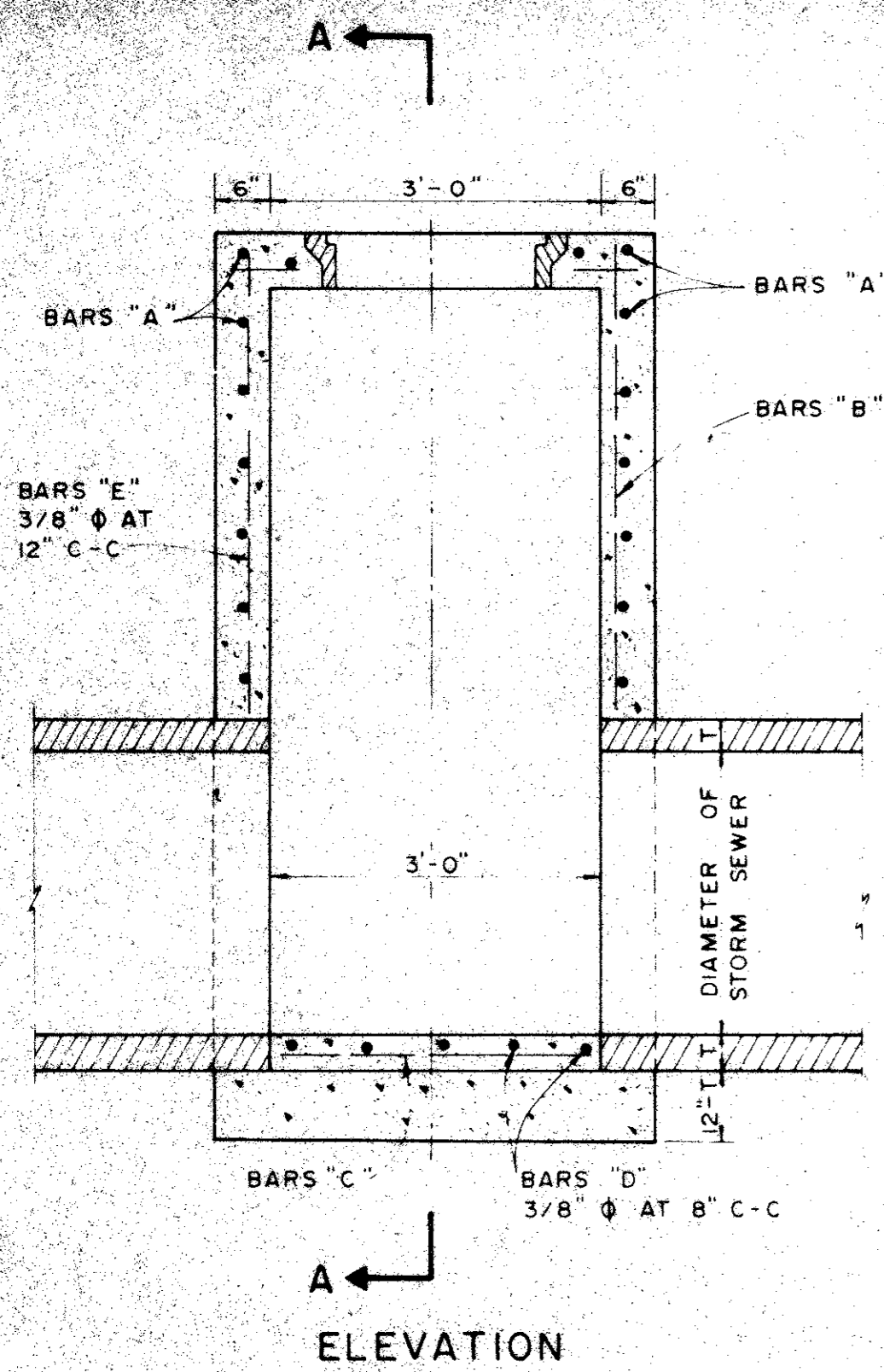
BENCHMARK:
"I" CUT ON STORM SEWER
INLET ON SOUTH SIDE OF
BELTLINE ROAD 70'± WEST
OF COMMERCIAL DRIVE.
ELEV. = 580.56

THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
LAWRENCE A. CATES, P.E. 41838
ON 01/21/94



REV	DATE	REMARKS				
1	5/12/94	ADDED BABY SUPERSTORES				
EROSION CONTROL PLAN						
COMP. U.S.A.						
ADDISON TOWN CENTER						
CITY OF ADDISON, TEXAS						
LAWRENCE A. CATES & ASSOC.		CONSULTING ENGINEERS DALLAS, TEXAS				
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
LAC	LAC	01/21/94	1"=40'	D.P.	94044 B-EROS.DWG	C-13

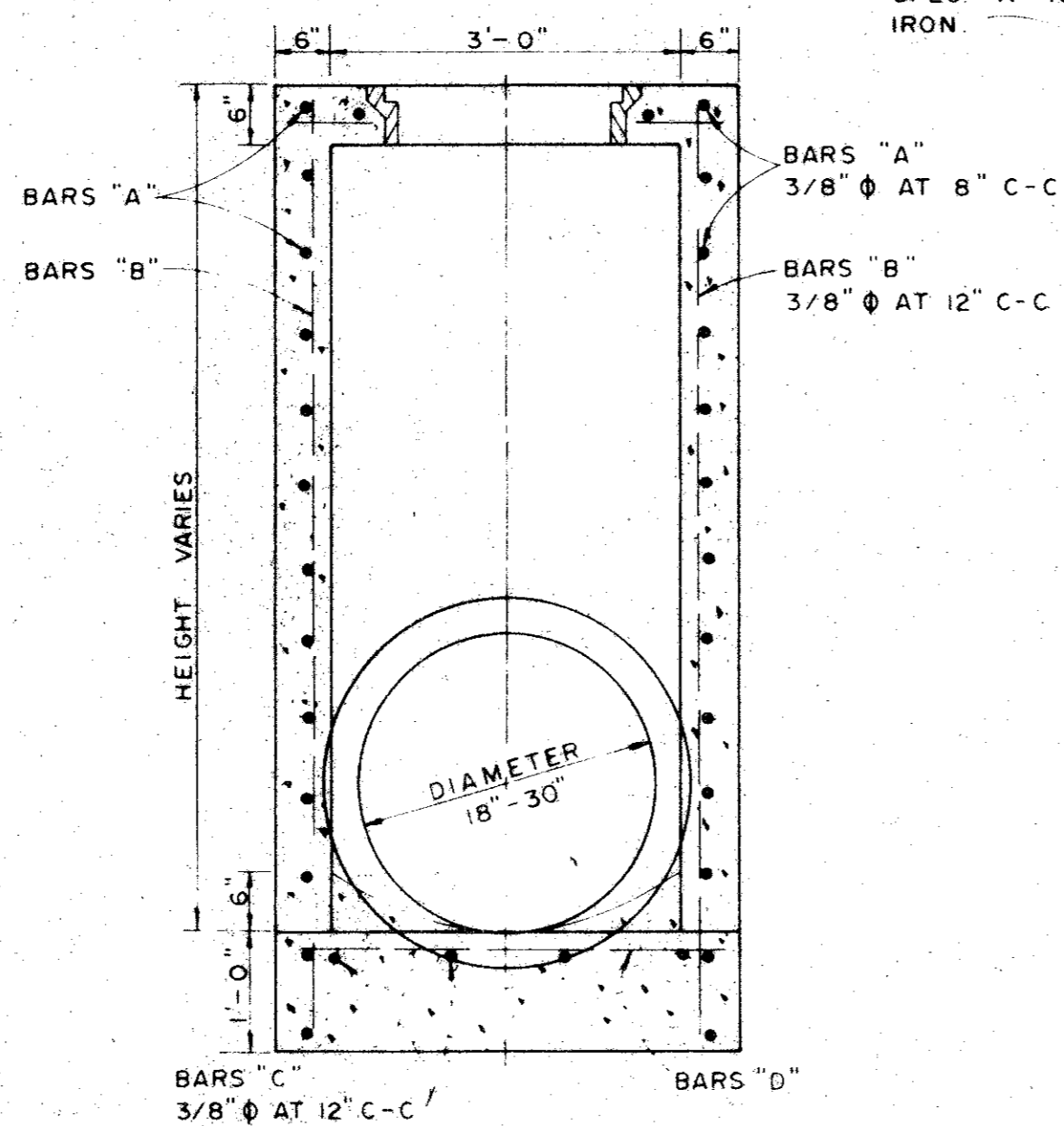
C:\MSOFT\ADDISON\EROS.DWG Thu May 19 11:05:21 1994



ELEVATION

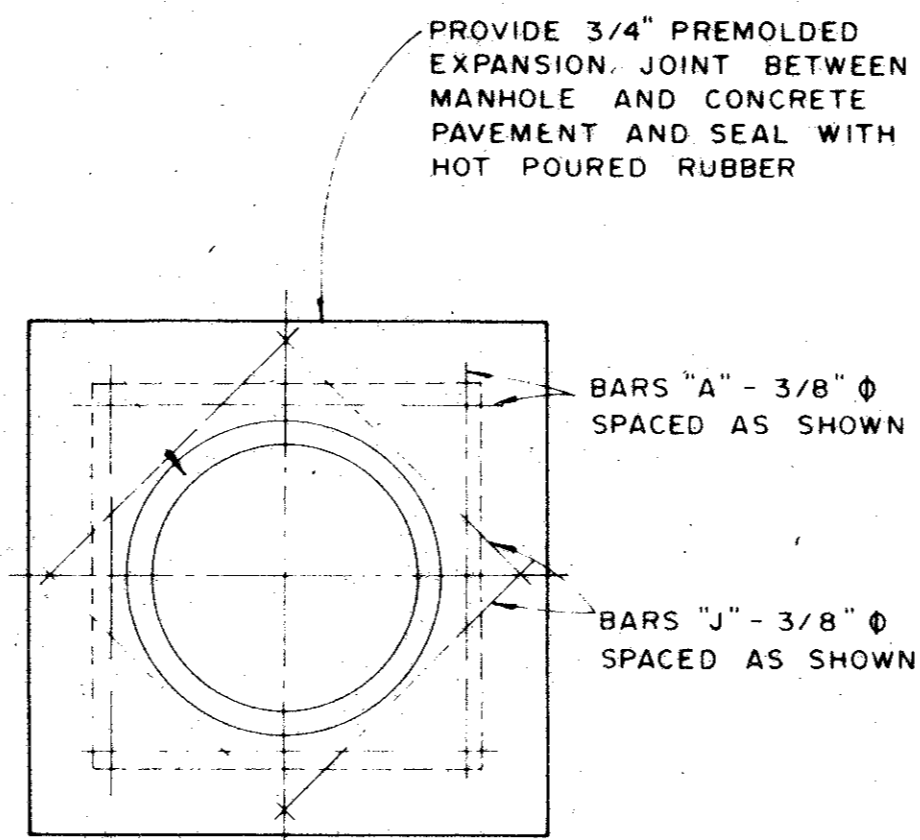
TYPE A STORM SEWER MANHOLE

(FOR PIPE 18" TO 30" IN DIAMETER)



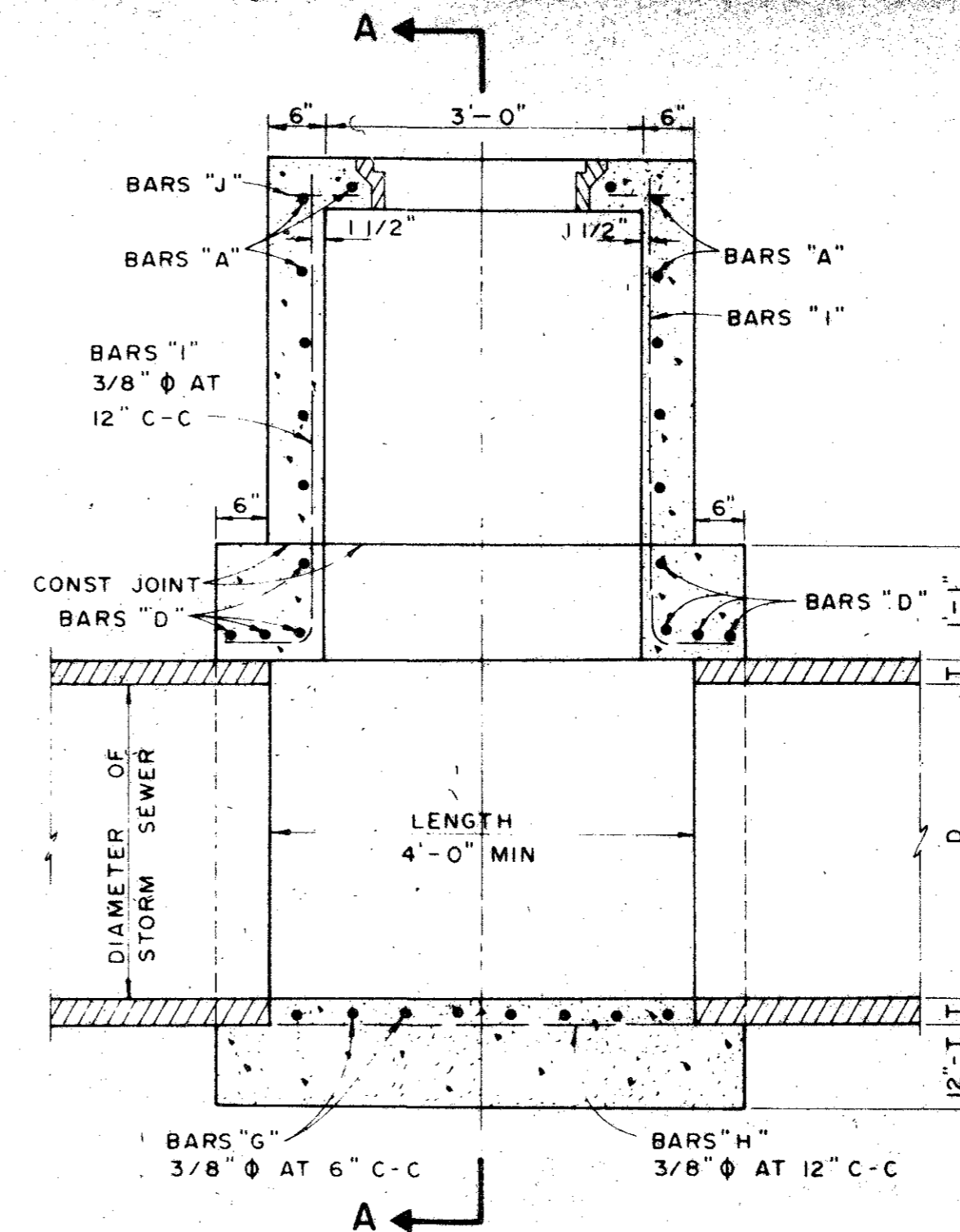
SECTION A-A

NOTE FRAME AND COVER SHALL BE BASS & HAYS PATTERN NO 380-24 OR EQUAL AND SHALL BE OF GRAY CAST IRON CONFORMING TO A.S.T.M SPEC. A-48 FOR CLASS 30 CAST IRON.



TOP PLAN
TYPE A & TYPE B
STORM SEWER MANHOLE

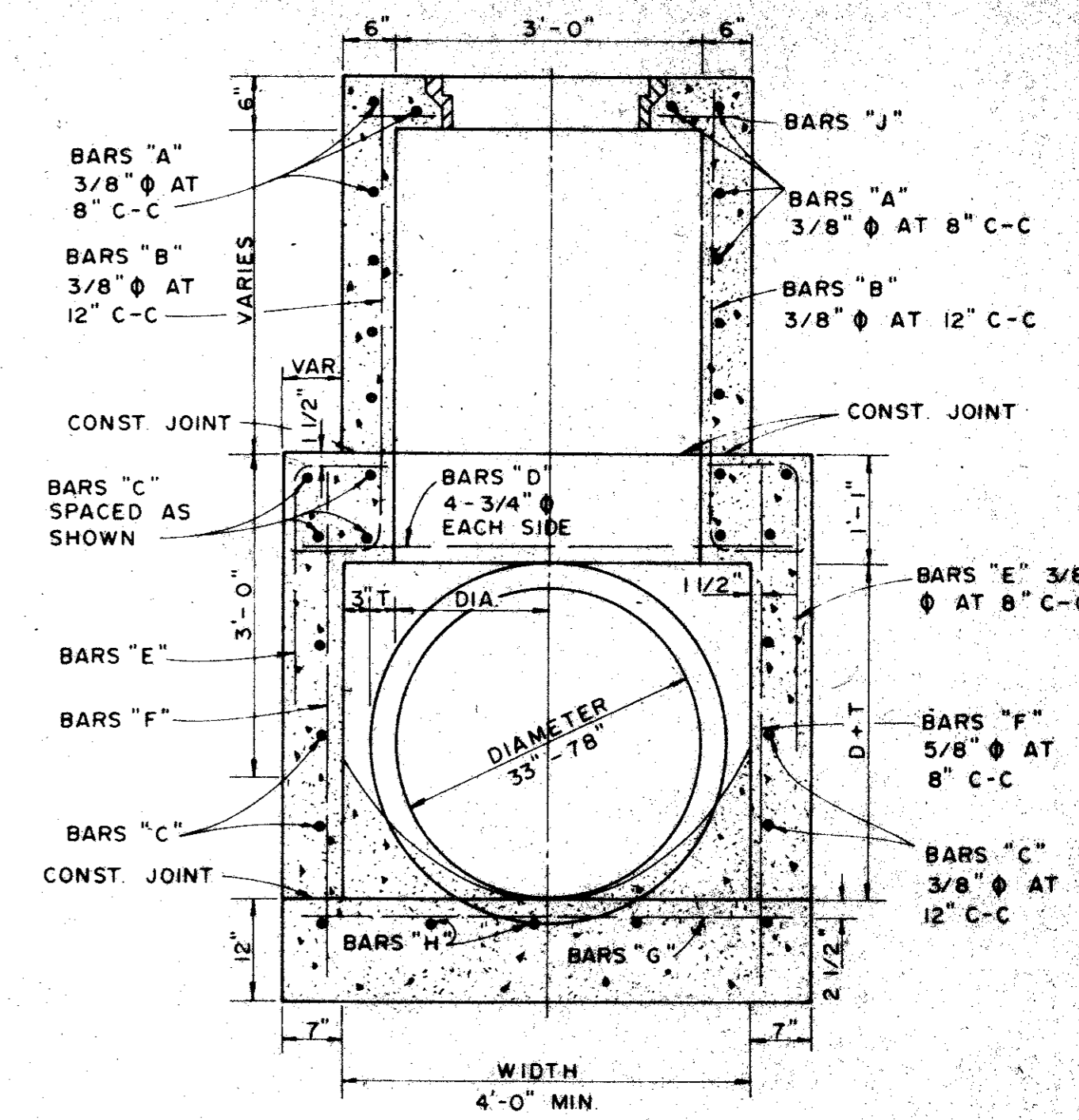
NOTE MAXIMUM PIPE SIZE TO BE USED 78"



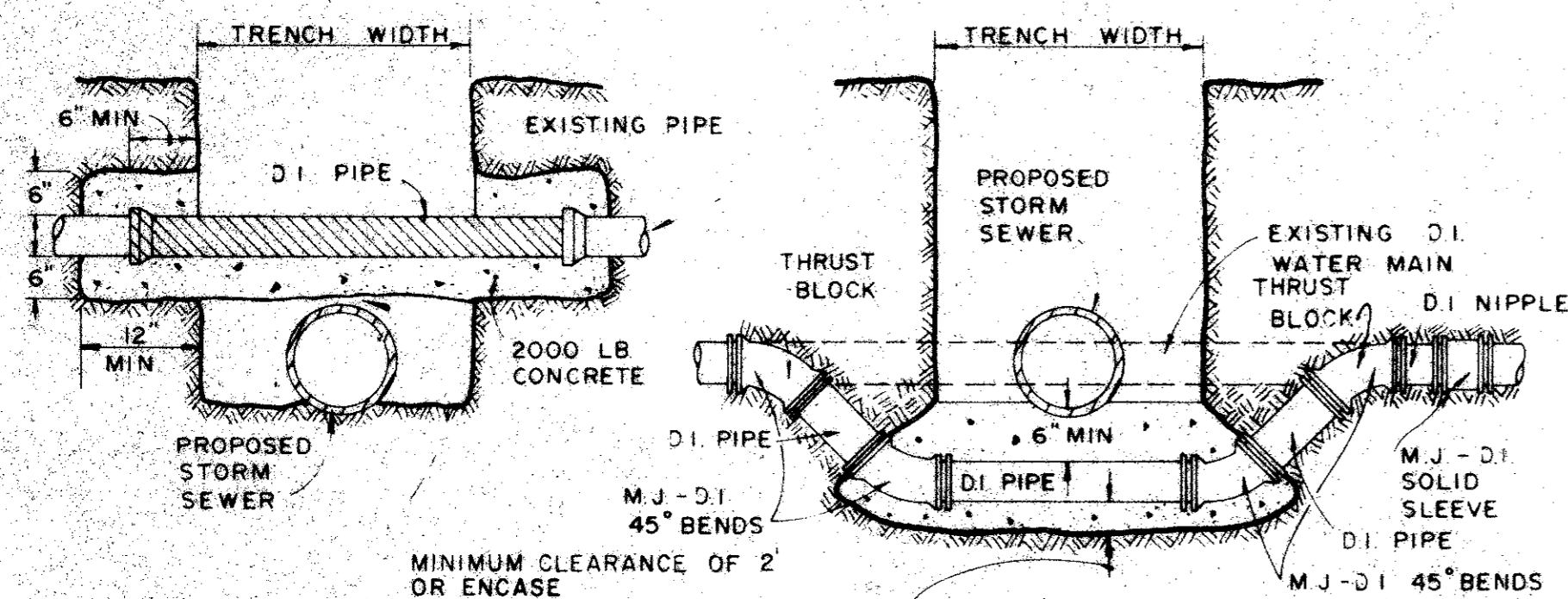
ELEVATION

TYPE B STORM SEWER MANHOLE

(FOR PIPE 33" TO 78" IN DIAMETER)

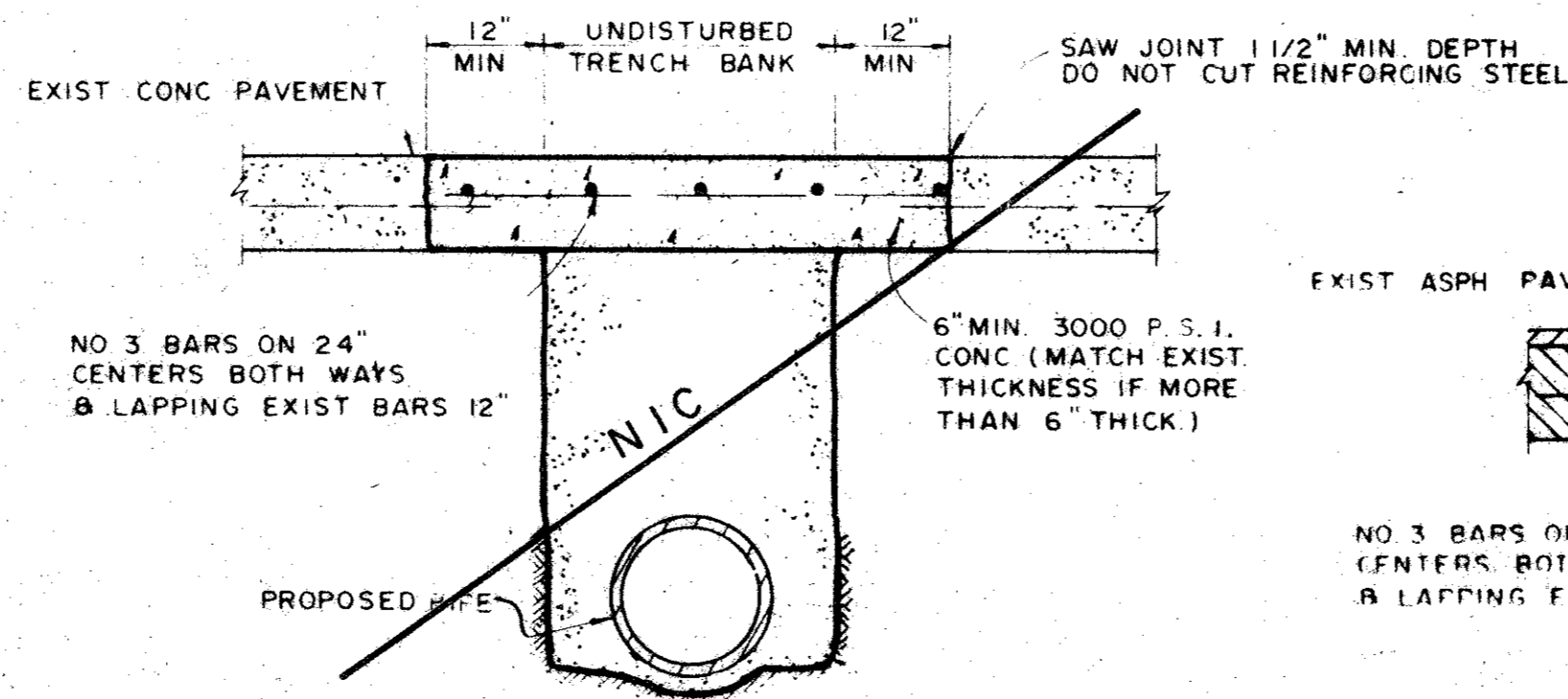


SECTION A-A

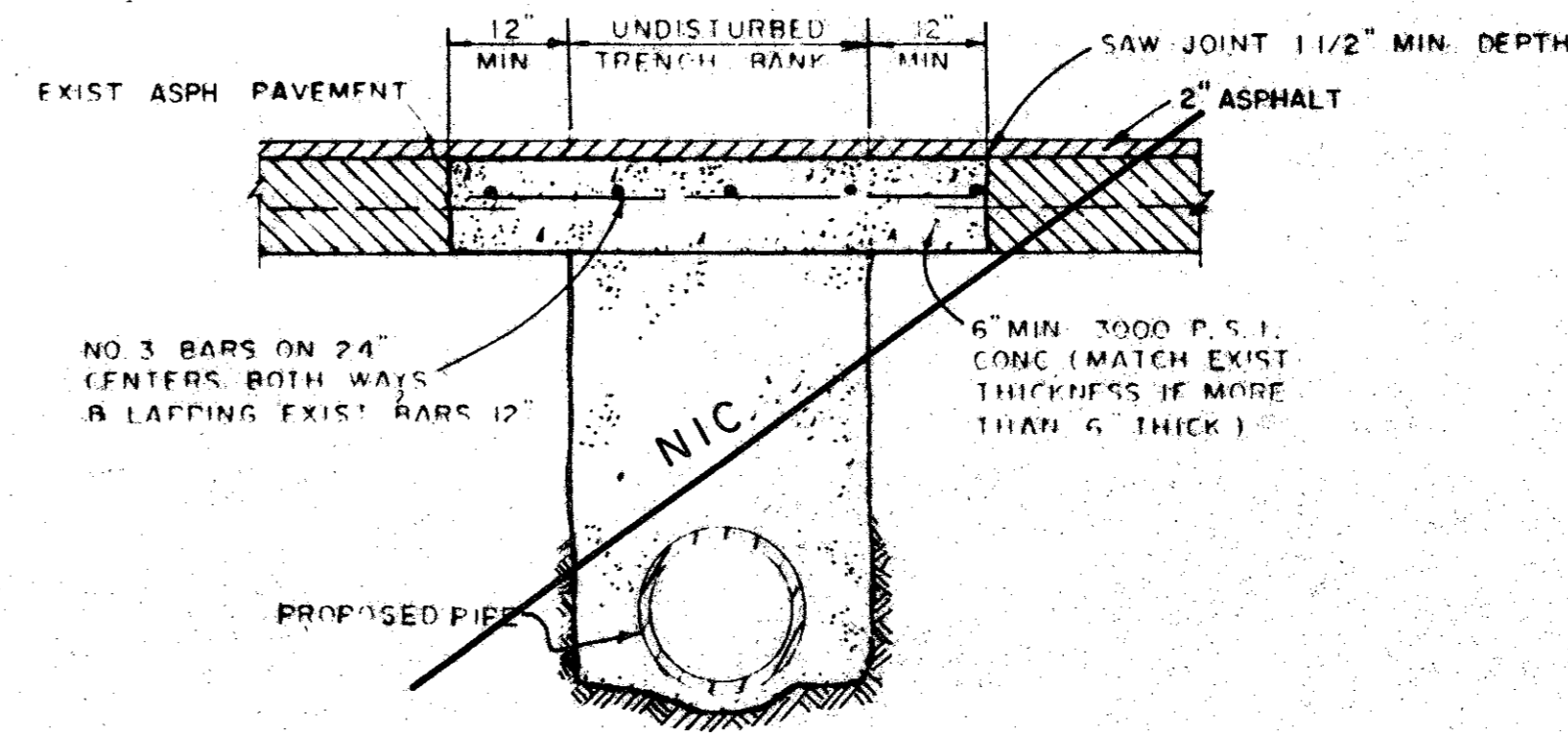


DETAIL OF UTILITY SUPPORT

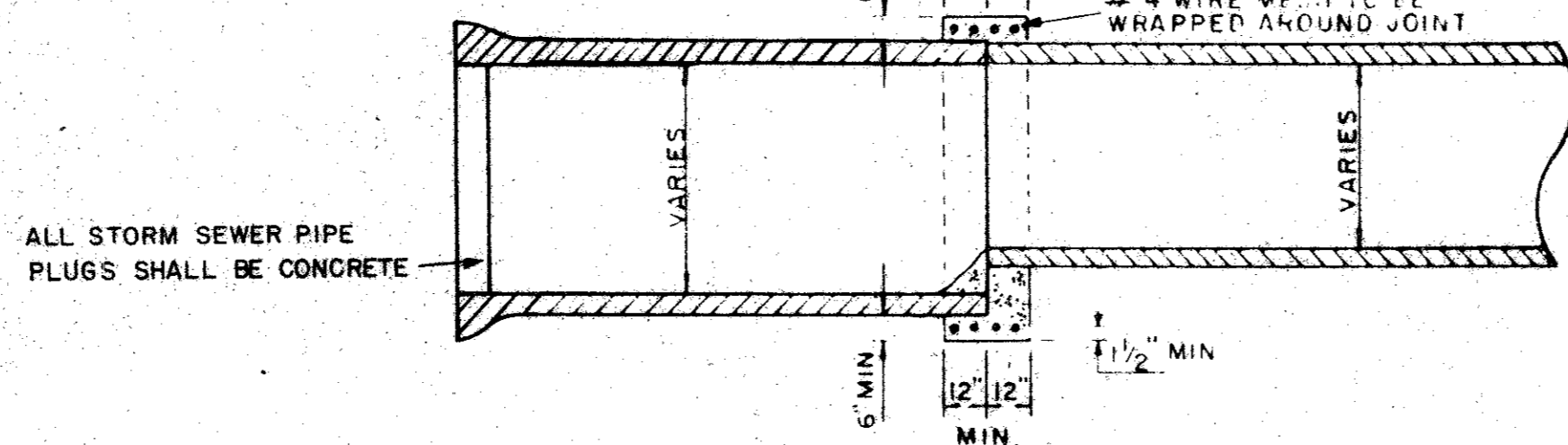
DETAIL FOR WATER MAIN LOWERING



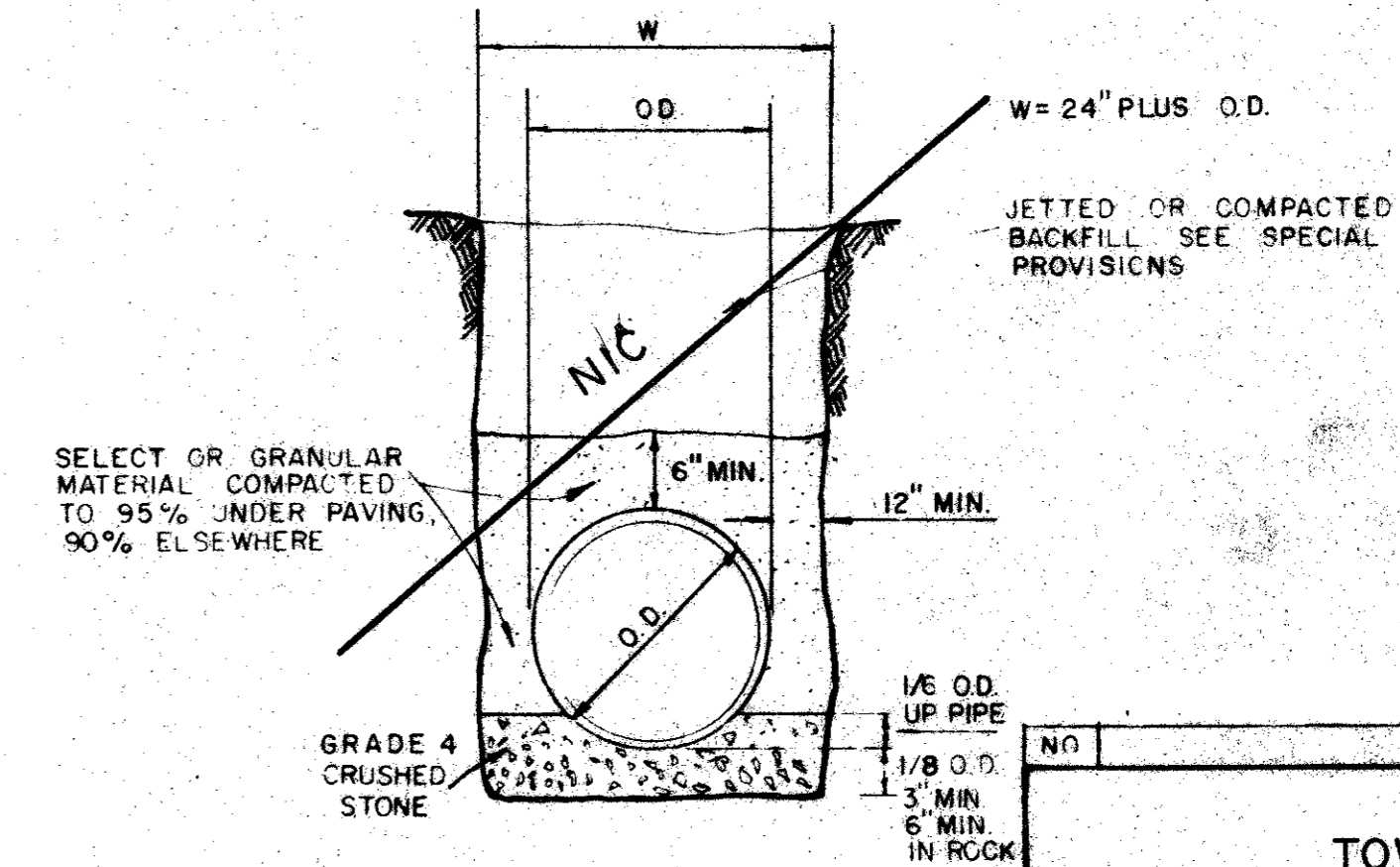
CONCRETE STREET OR DRIVEWAY REPAIR



ASPHALT STREET OR DRIVEWAY REPAIR

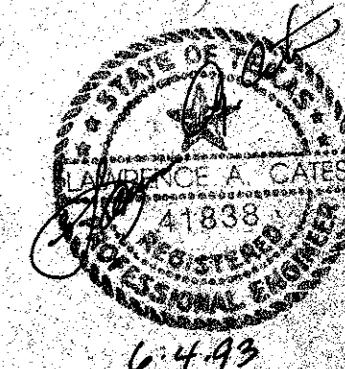


DETAIL OF CONCRETE COLLAR FOR PIPE CONNECTIONS

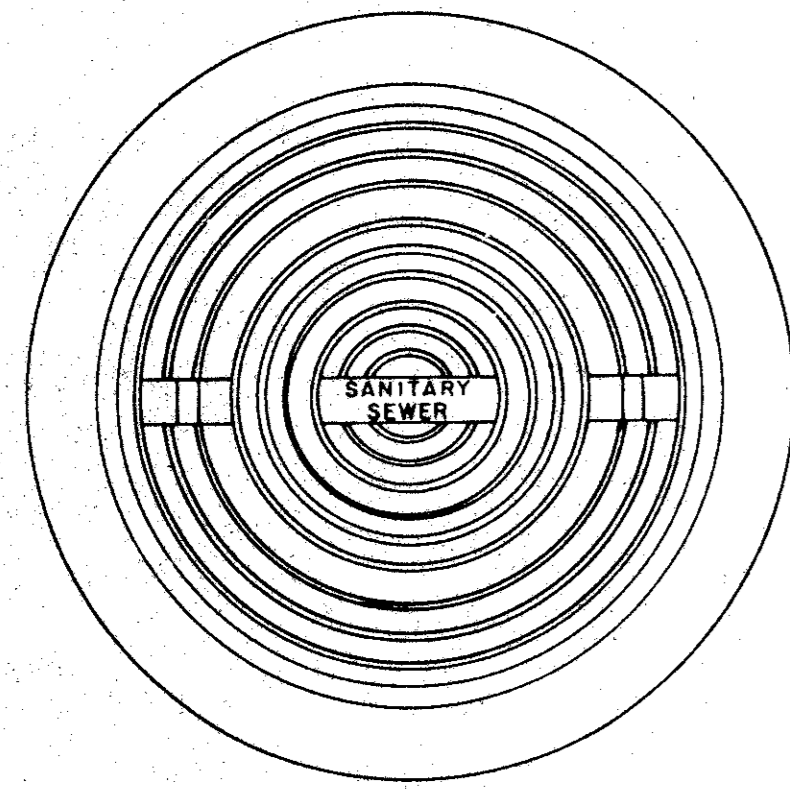


STORM SEWER PIPE BEDDING DETAIL

DEPTH OF TRENCH BELOW PIPE:
3" MIN. FOR 27" PIPE & SMALLER
4" MIN. FOR 30" TO 60" PIPE
6" MIN. FOR 66" PIPE & LARGER

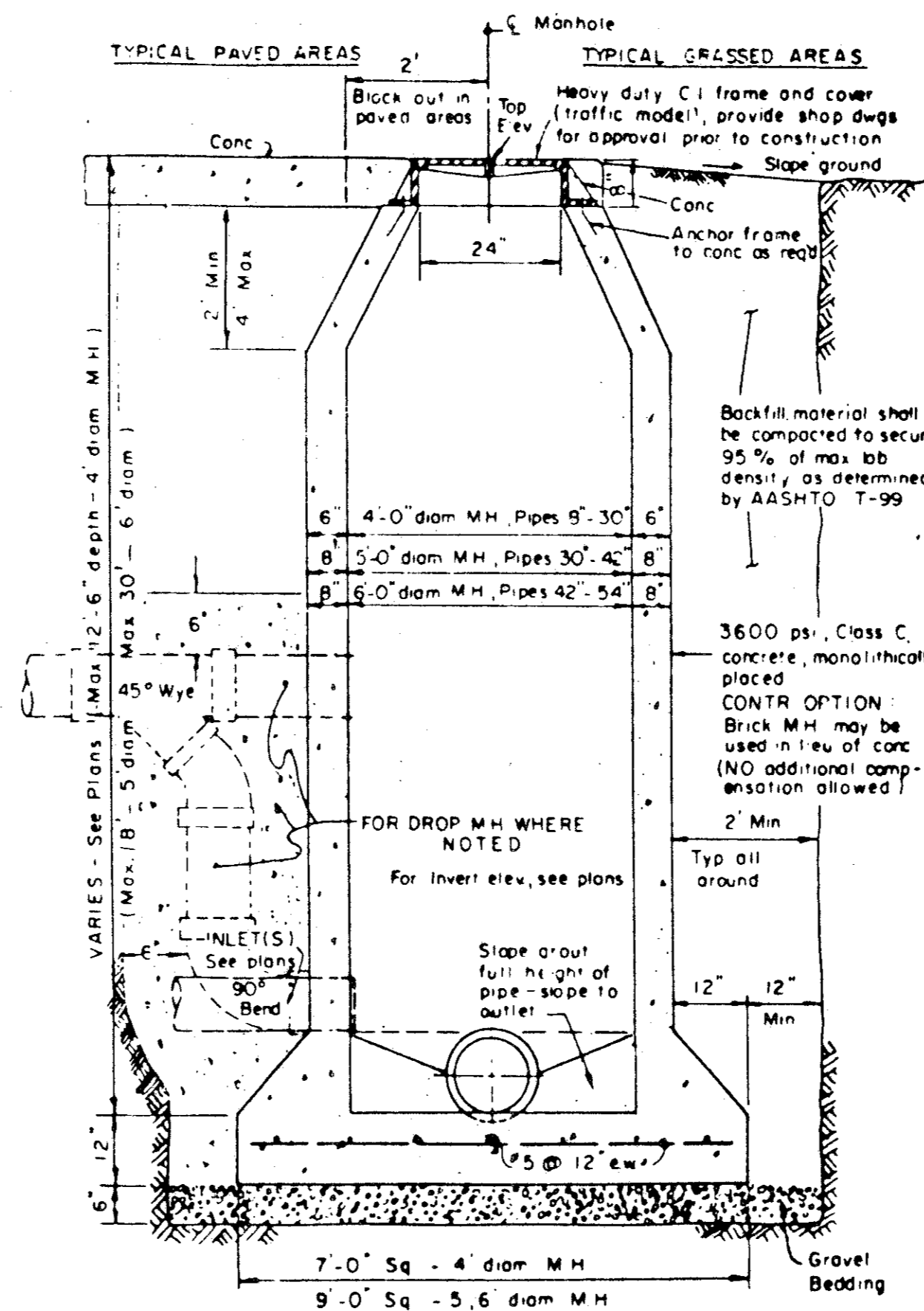
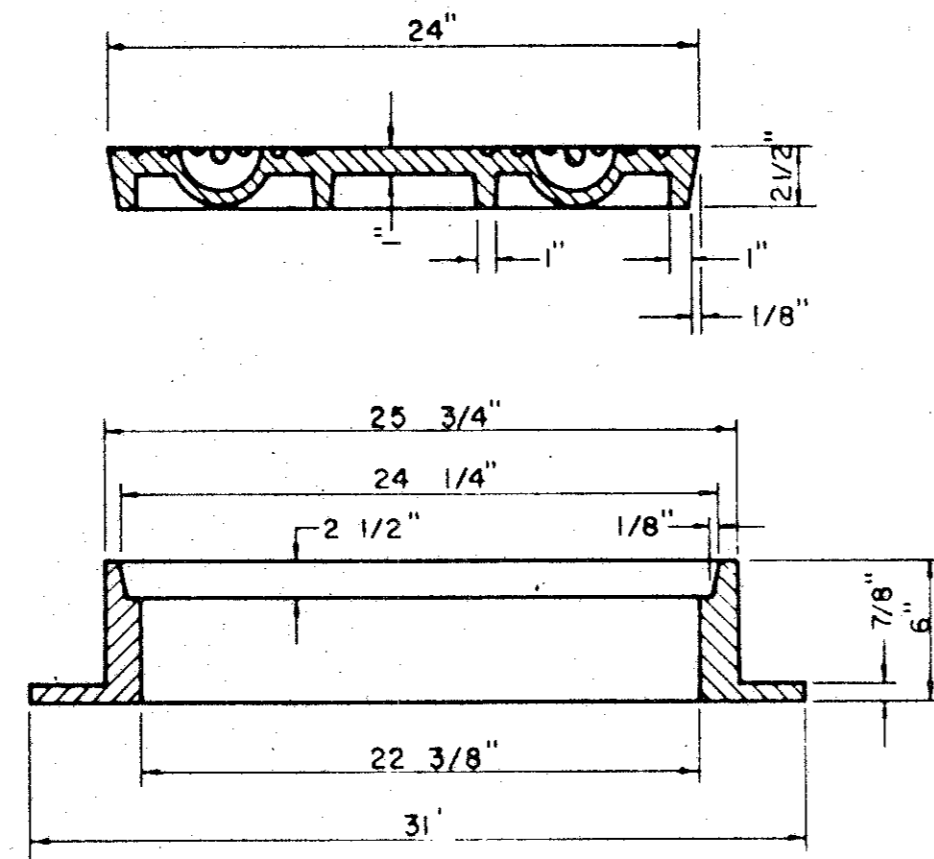


NO.	REVISION	BY	DATE
TOWN OF ADDISON DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS STORM DRAINAGE			
MANHOLES & STORM SEWER			
DATE:		SHEET	SD-1



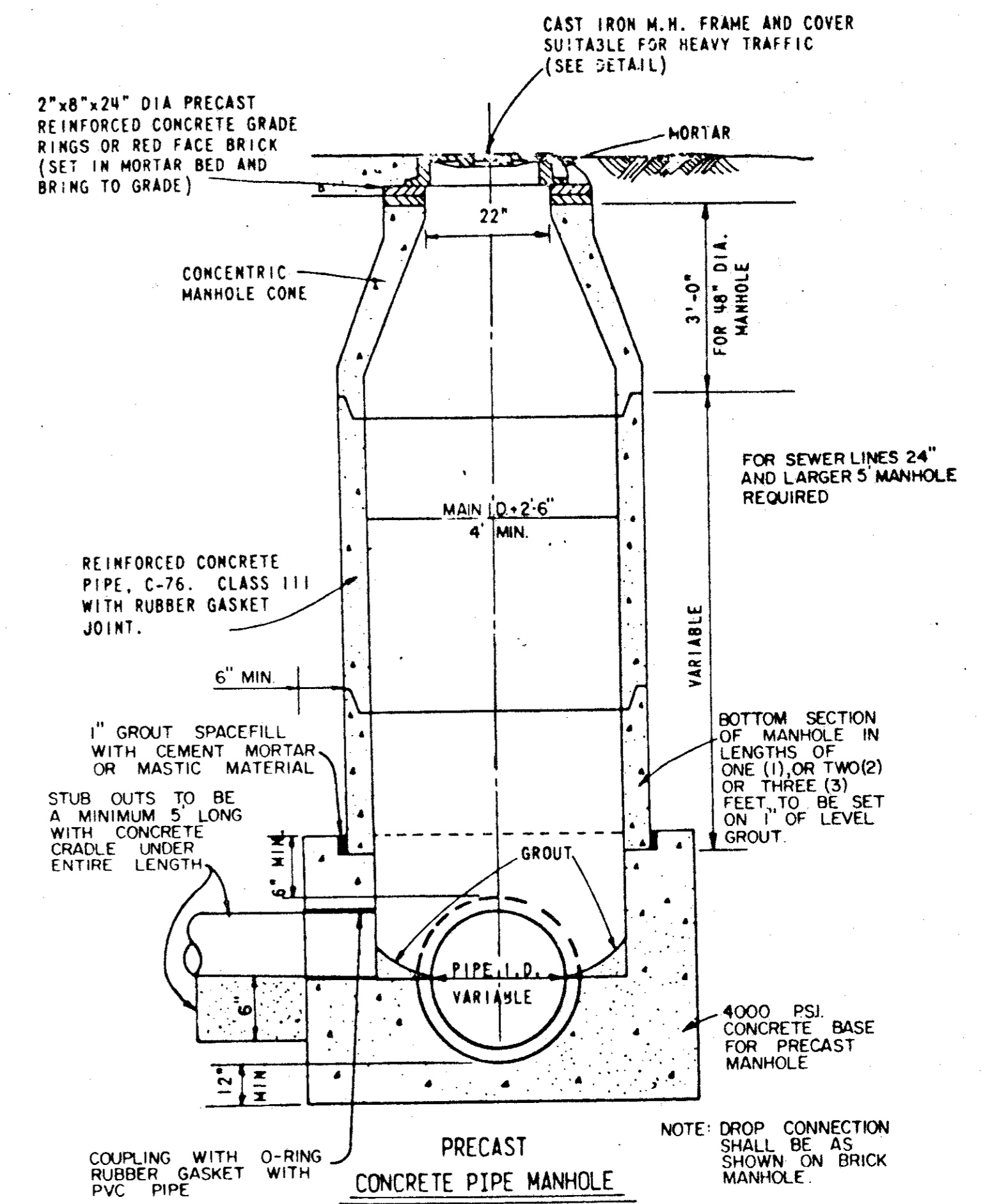
APPROX.
WEIGHT
RING AND COVER
385 LBS.

CAST IRON GRATE AND FRAME DETAIL

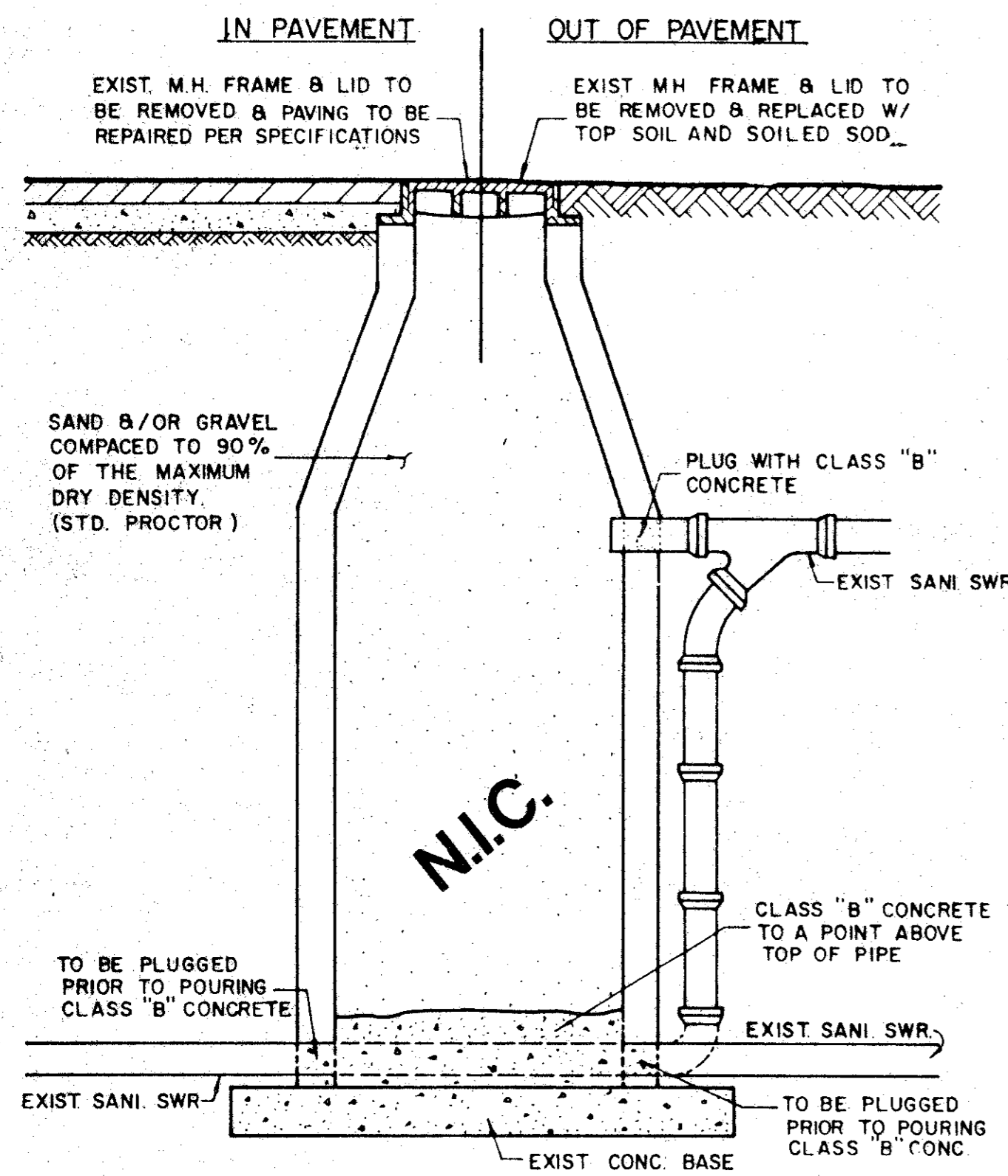


CAST IN PLACE MANHOLE

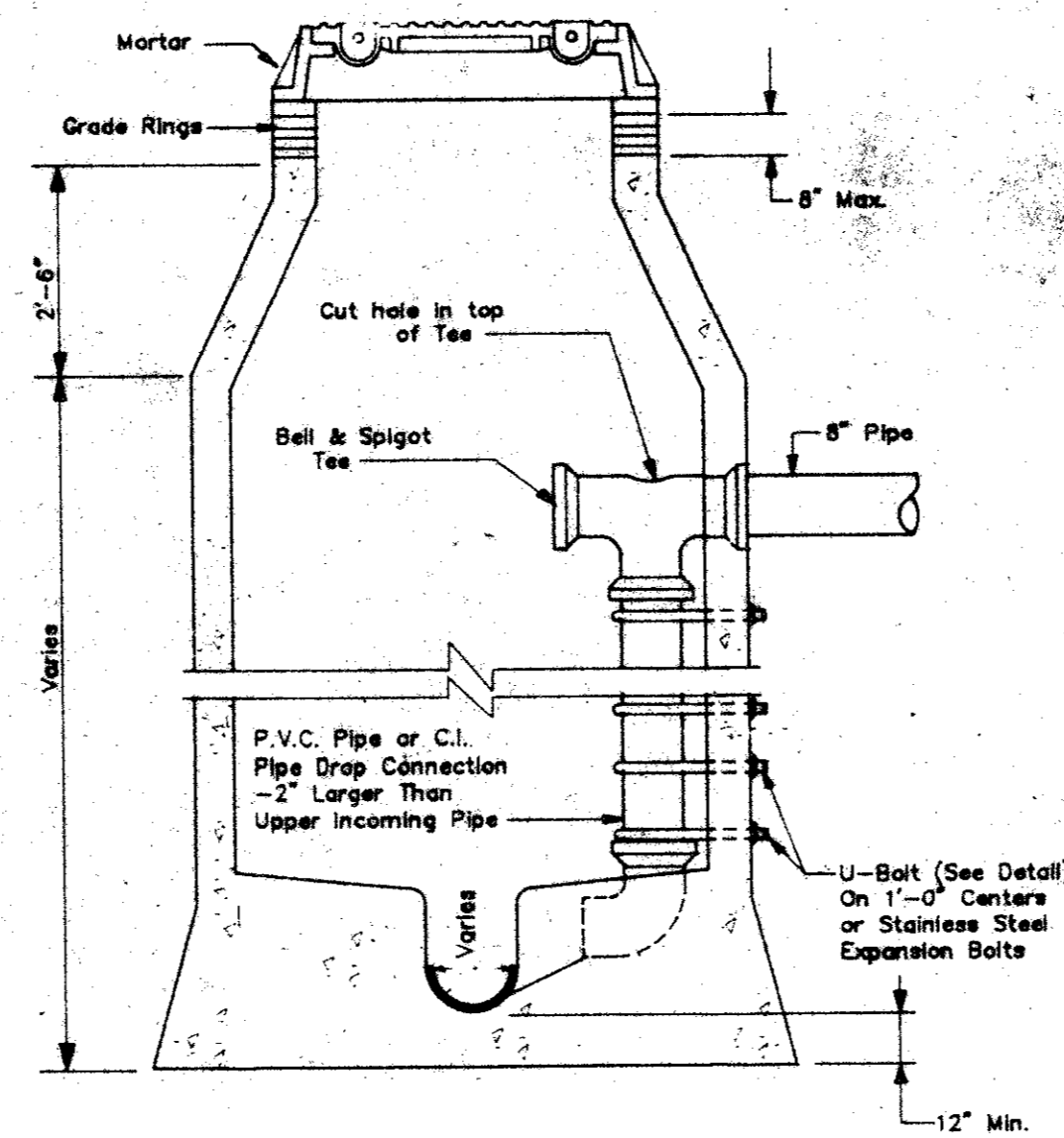
WHERE DROP M.H. IS REQUIRED, USE INSIDE DROP CONNECTION AS PER TOWN OF ADDISON STANDARDS.



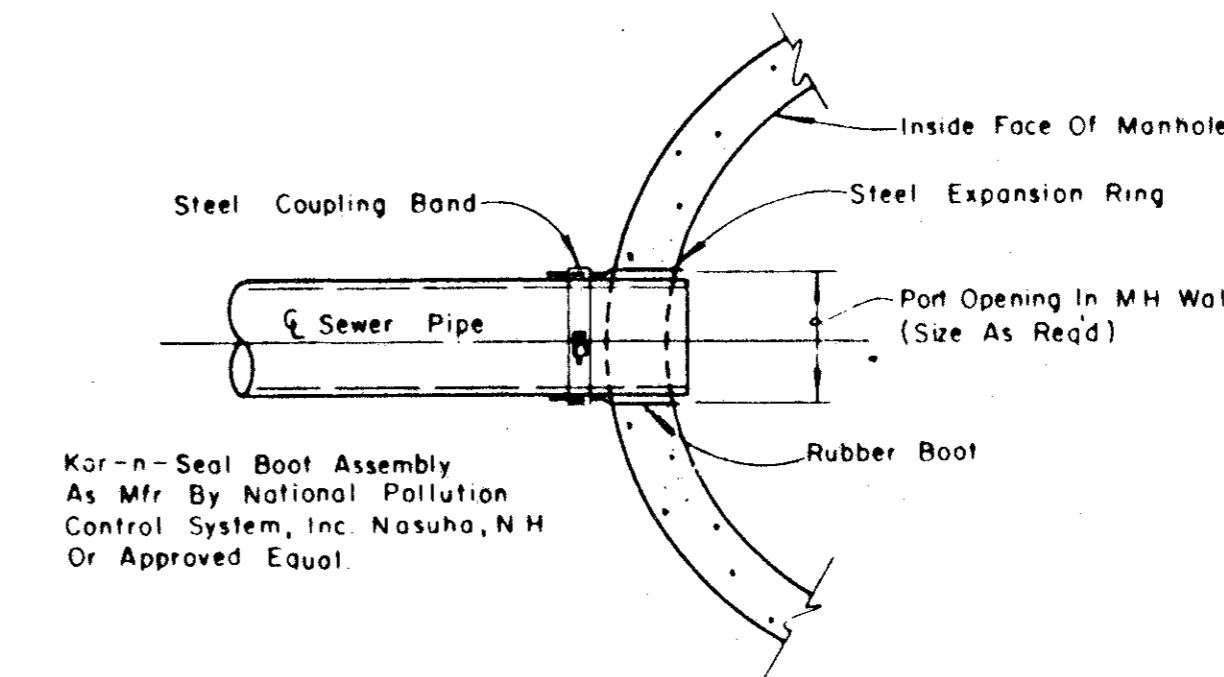
PRECAST MANHOLE



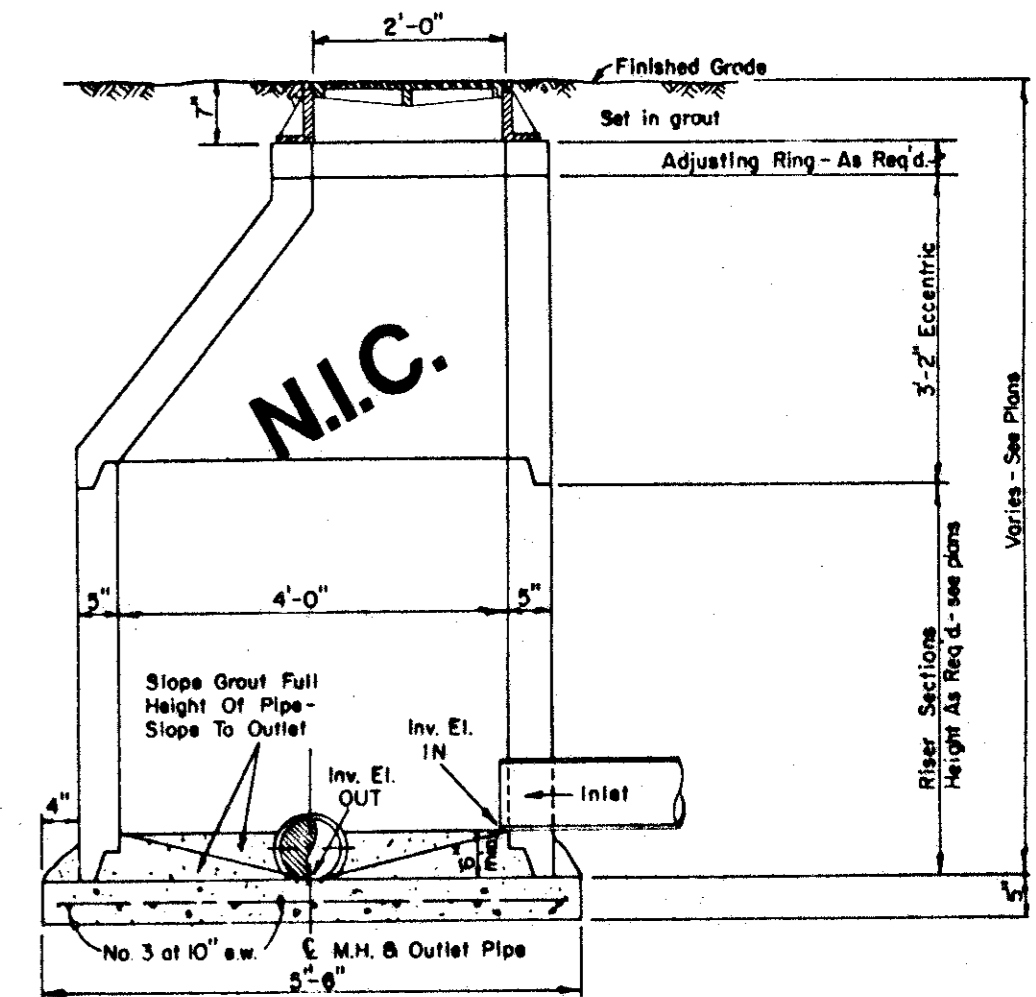
ABANDONMENT OF EXISTING MANHOLE
IN AND OUT OF PAVEMENT



DROP CONNECTIONS FOR
SANITARY SEWER MANHOLES

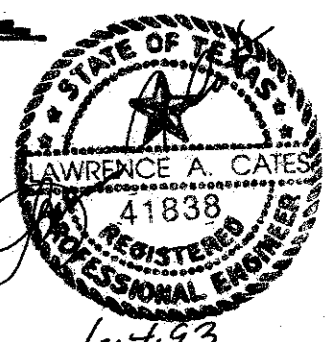


TYPICAL SEWER
CONNECTION AT MANHOLE



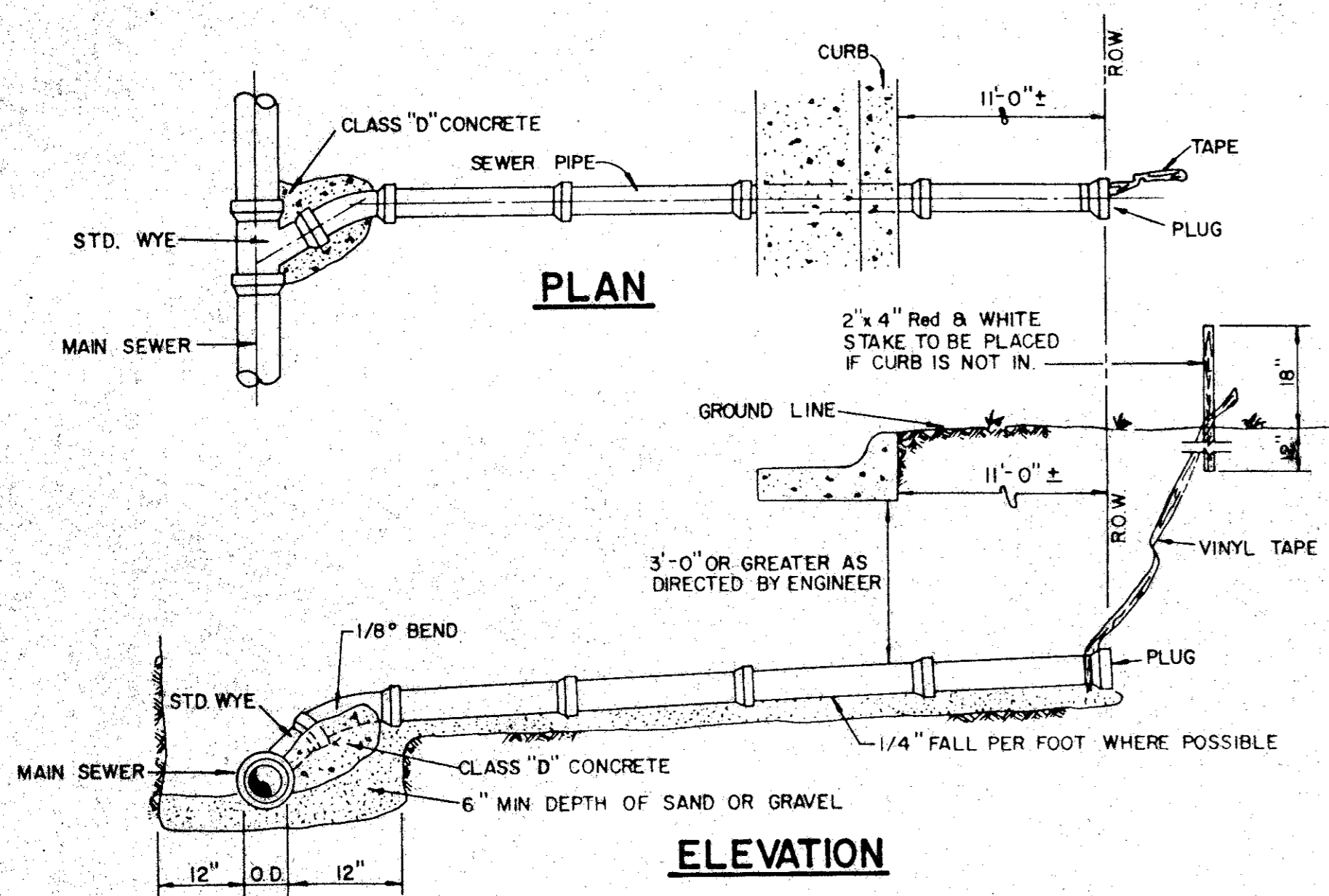
ECCENTRIC MANHOLE DETAIL

NOTE
Contractor To Install Kor-n-Seal Boot Assembly Per
Mfr Recommendations In A Neat And Workman-Like
Manner

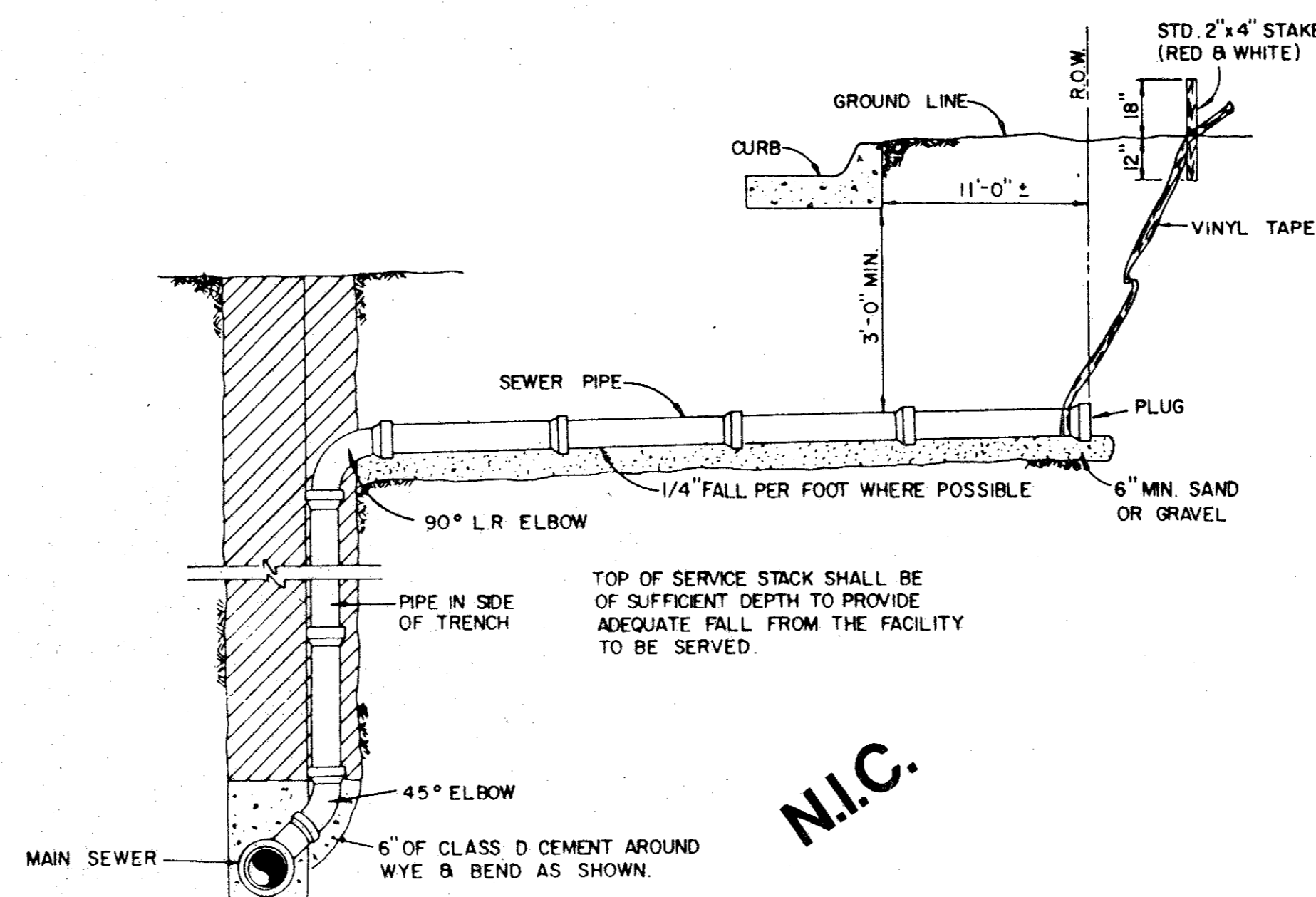


CLASS B Conc. - 2000psi at 28 days (Compressive)

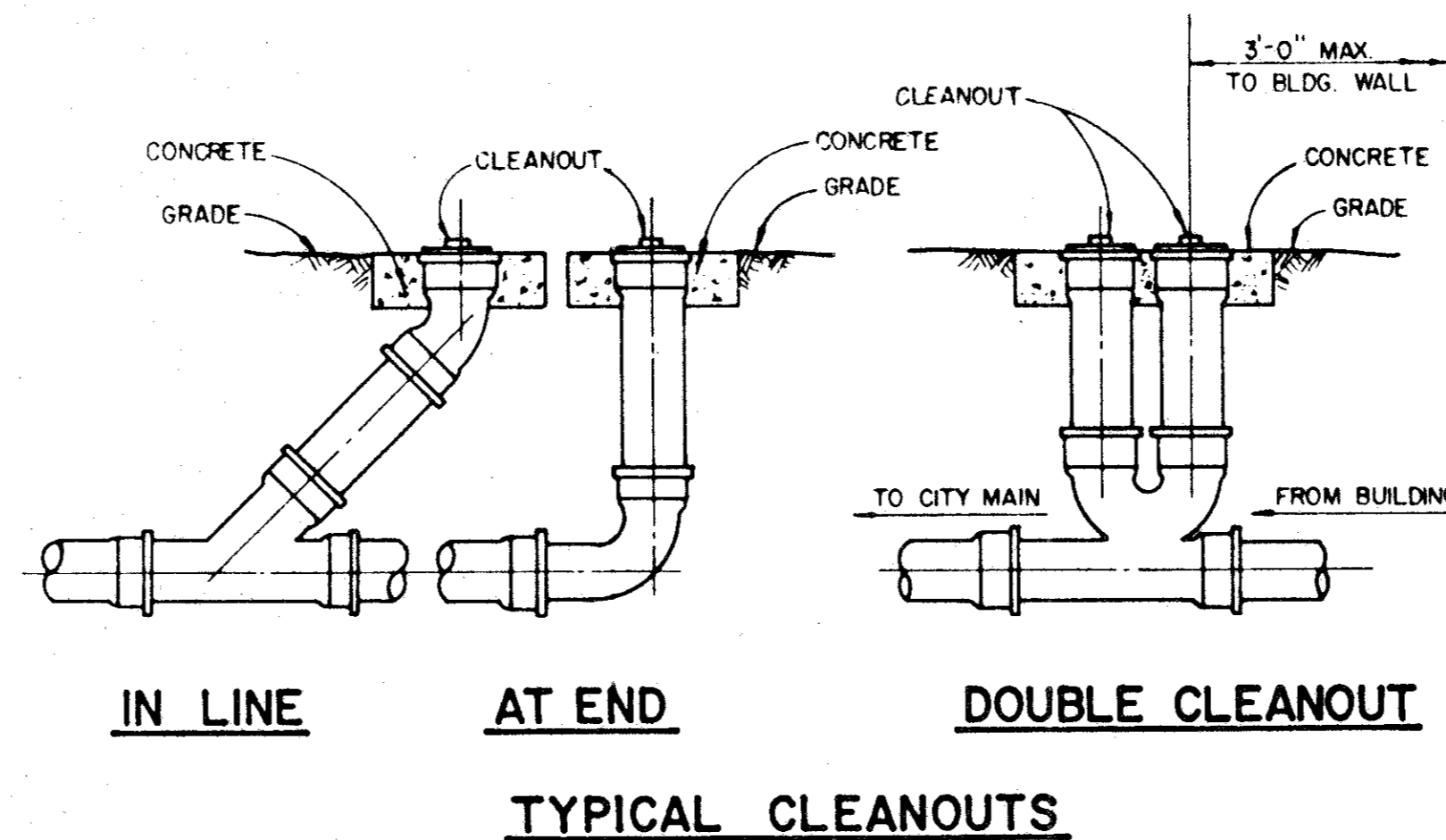
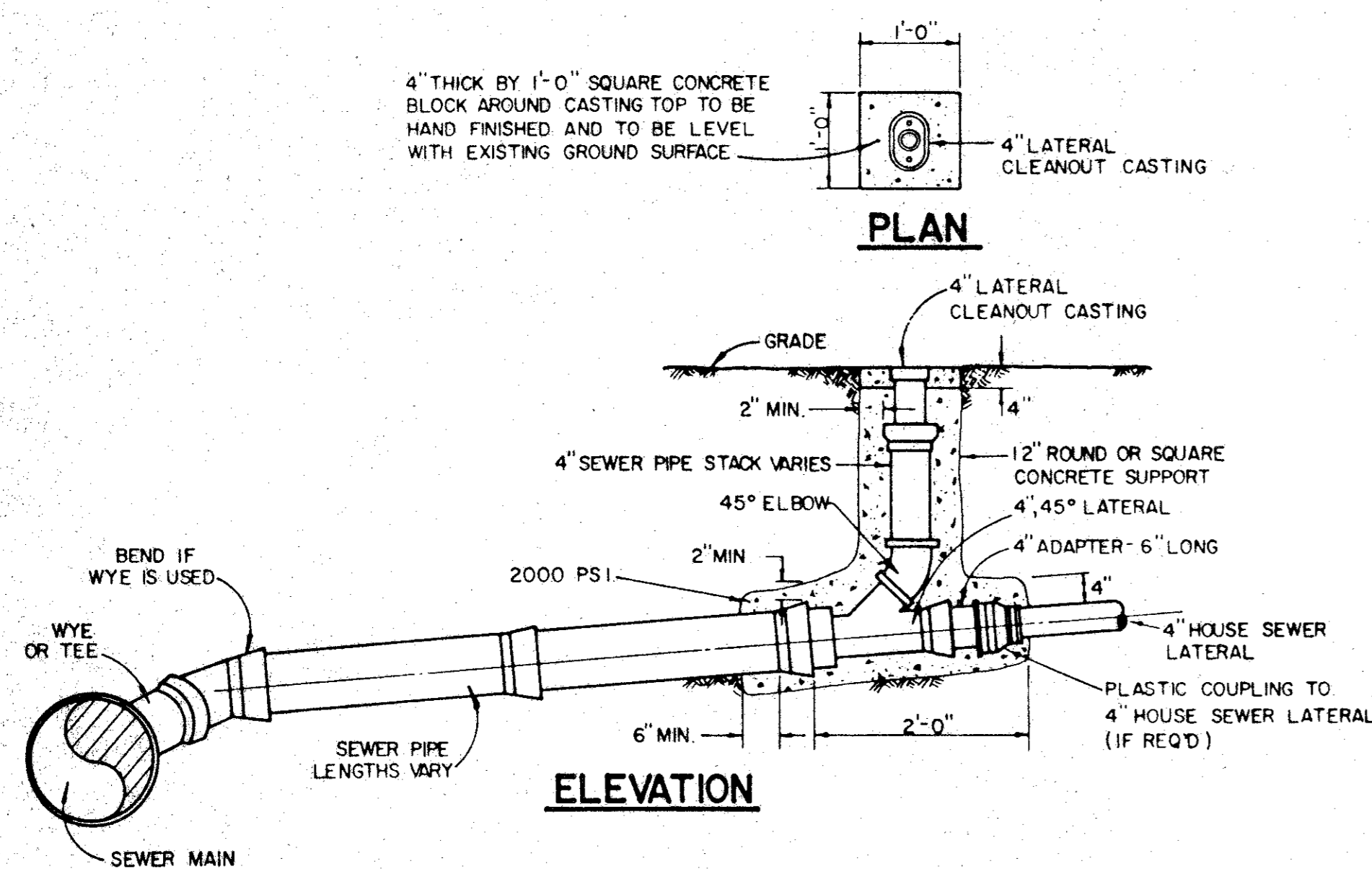
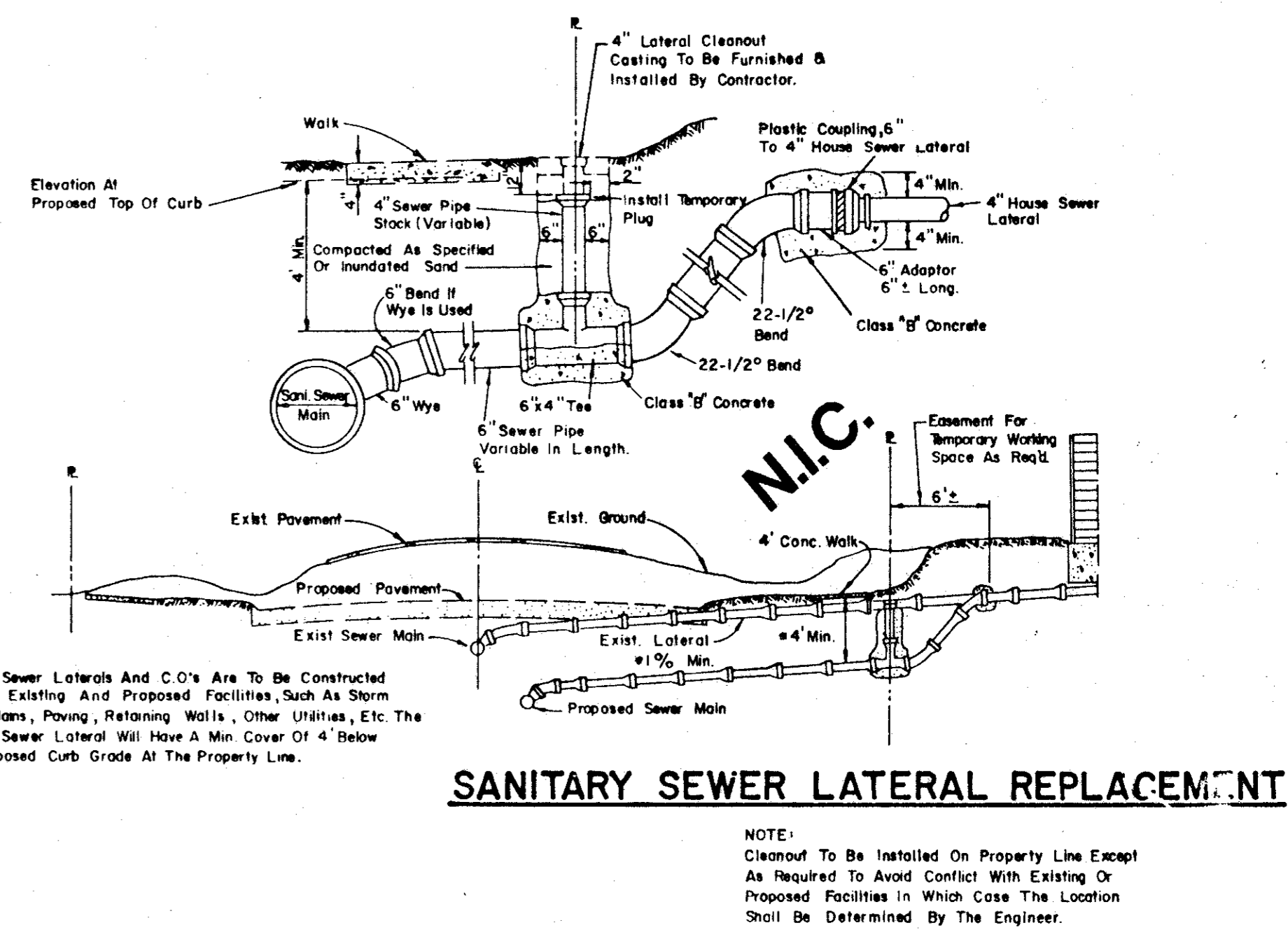
TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS SANITARY SEWER			
MANHOLES AND CONNECTIONS			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet SD-2



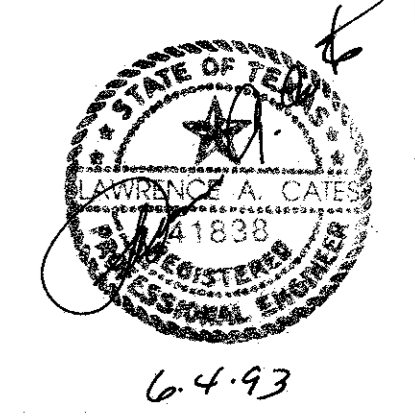
SANITARY SEWER SERVICE CONNECTION



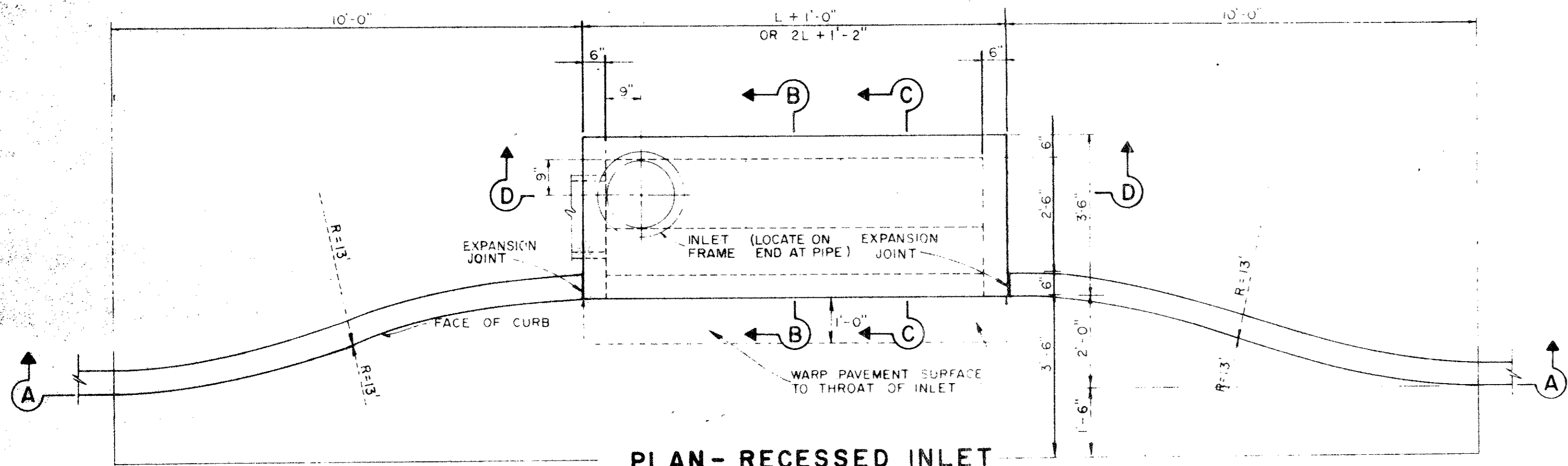
SANITARY SEWER DEEP SERVICE CONNECTION



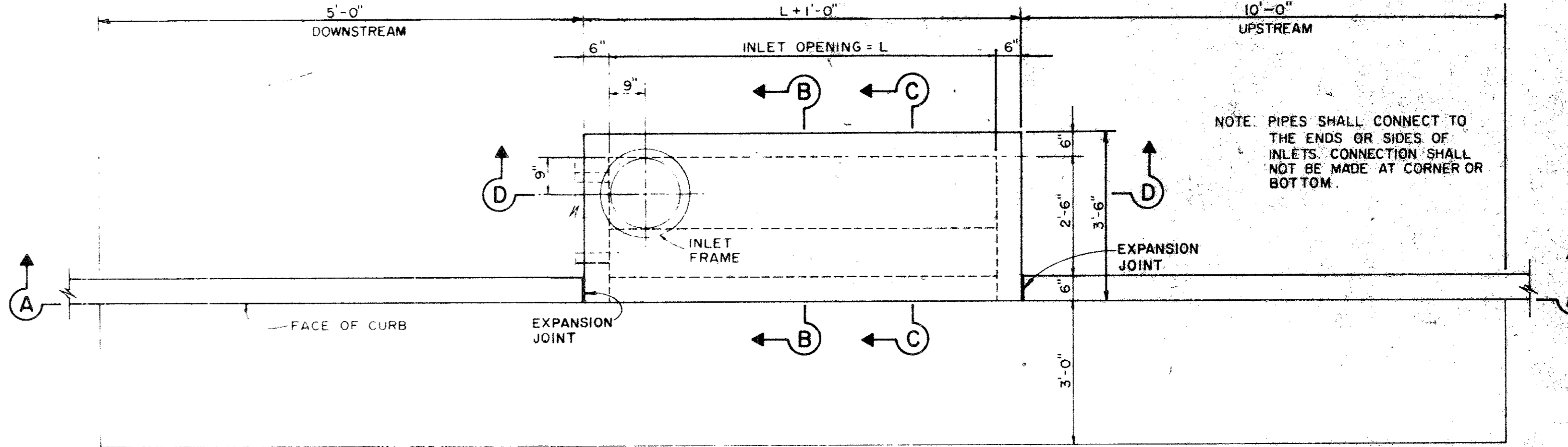
ALL PVC SANITARY SEWER PIPE TO BE SDR 35 WITH INTEGRAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH 4" SERVICE IN RELATION TO THE SANITARY SEWER STATIONING. FIELD TIES ARE TO BE INCLUDED AND RECORDED ON ALUMINIZED SANITARY SEWER TAPE. THIS TAPE, GREEN OR RED IN COLOR IS TO BE ATTACHED TO THE 4" SERVICE AT THE ROW LINE AND BROUGHT TO THE SURFACE TO BE USED AS A PERMANENT MARKER



TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS SANITARY SEWER			
LATERALS AND CLEANOUTS			
Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet SD-2A

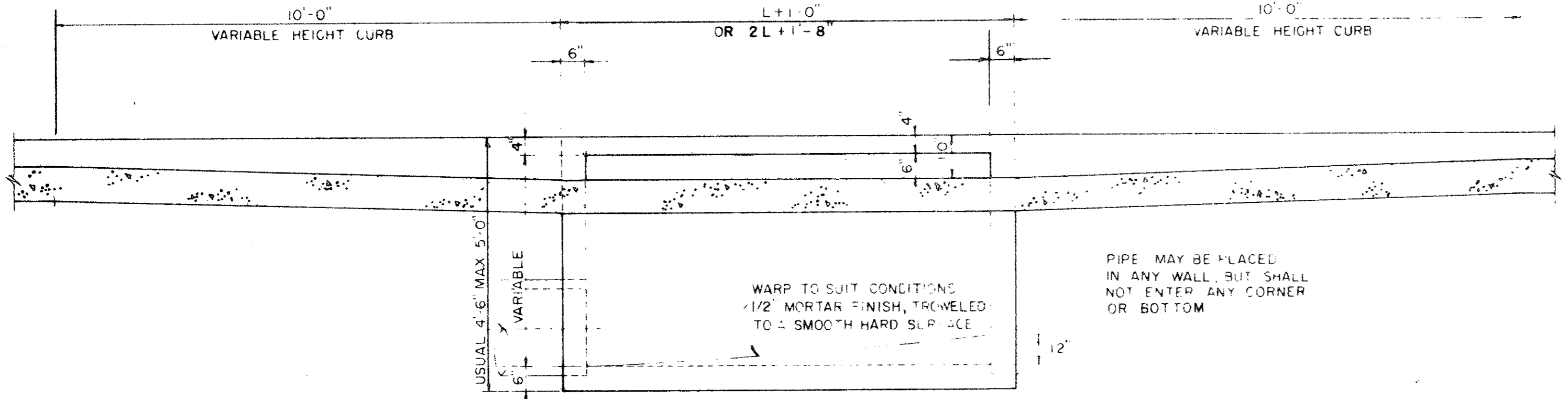


PLAN - RECESSED INLET



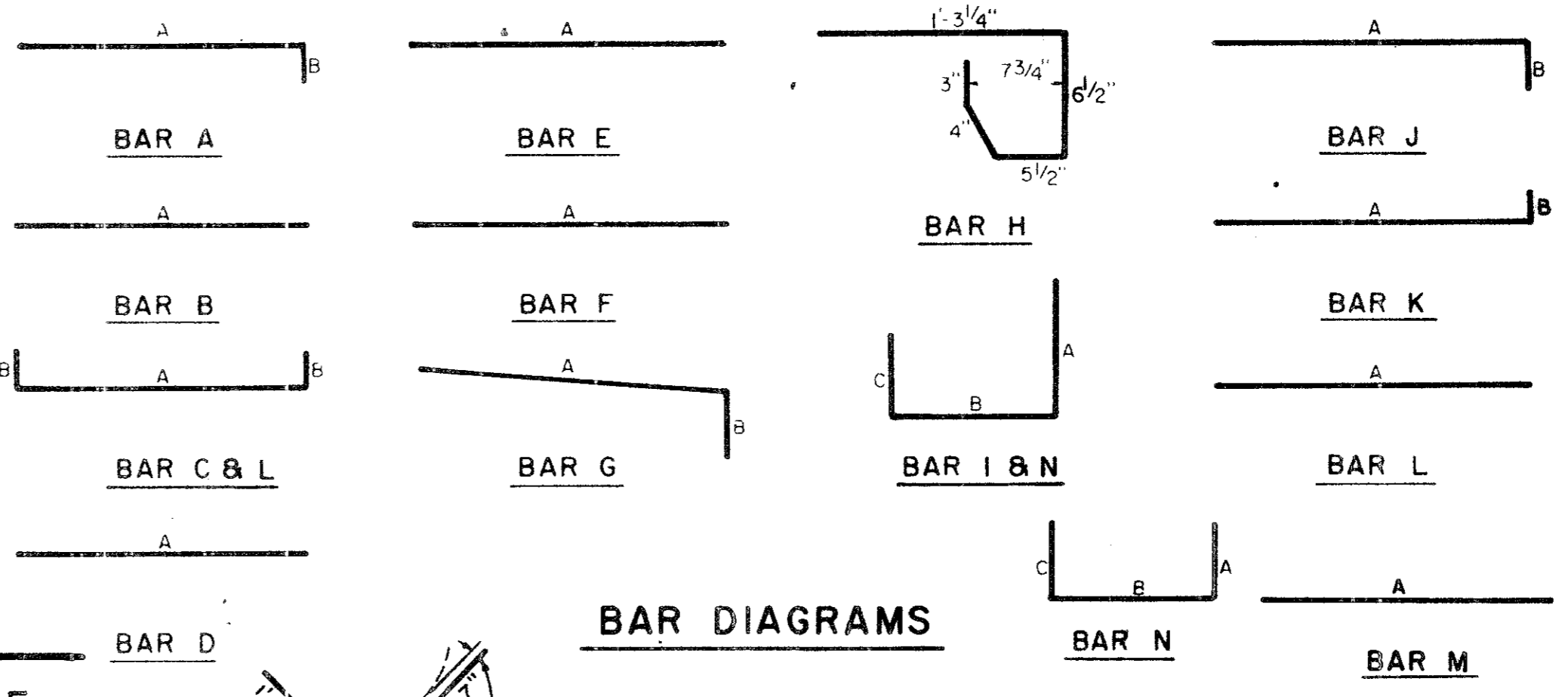
PLAN - STANDARD INLET

NOTE: PIPES SHALL CONNECT TO THE ENDS OR SIDES OF INLETS. CONNECTION SHALL NOT BE MADE AT CORNER OR BOTTOM.



SECTION A-A-RECESSED AND STANDARD INLETS

4, 6, 8 AND 10 FOOT INLETS



BAR DIAGRAMS

REINFORCING STEEL SCHEDULE

DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

INLET LENGTH	BAR TYPE	BAR DIA. (1/8 IN.)	NO. REQ'D	BAR DIMENSIONS		
				A	B	C
4	A	3	6	3'-2"	0'-3"	-
	B	3	1	2'-10"	-	-
	C	4	15	4'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
6	H	3	3	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	9	3'-2"	0'-3"	-
	B	3	1	4'-10"	-	-
	C	4	15	6'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
8	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	3	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	12	3'-2"	0'-3"	-
	B	3	1	6'-10"	-	-
10	C	4	15	8'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	15	*	*	*
	I	4	8	4'-8"	3'-2"	3'-2"
L	4	5	4'-3"	-	-	

* SEE DIAGRAM FOR DIMENSIONS 4, 6, 8 AND 10' INLETS

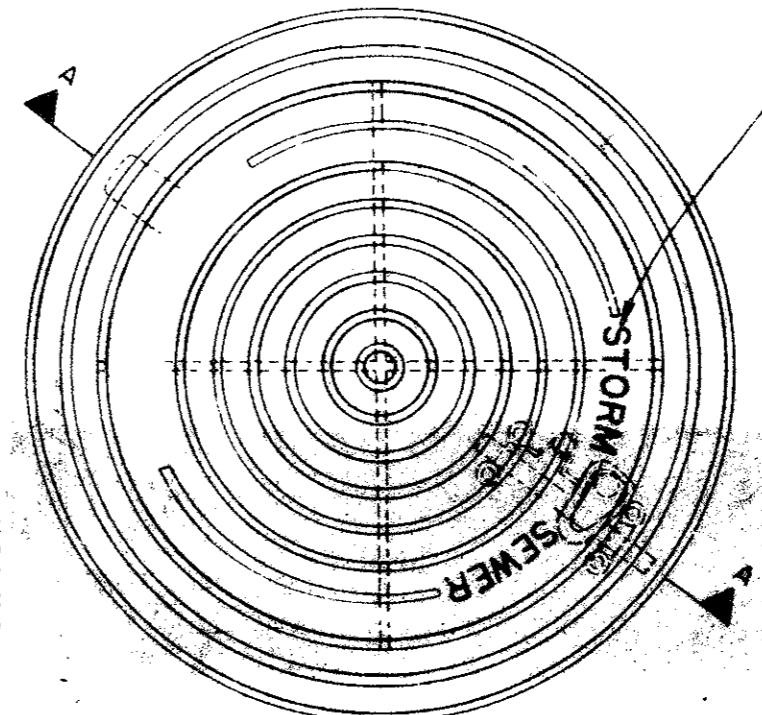
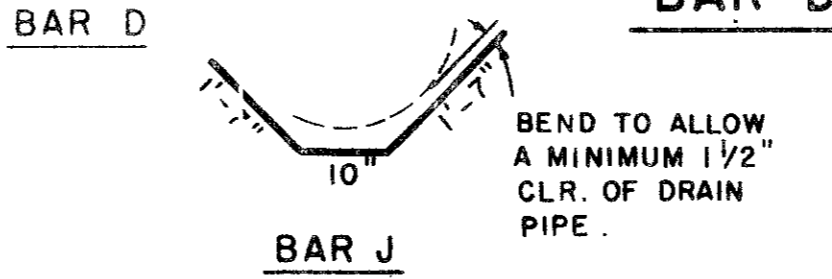
REINFORCING STEEL SCHEDULE

DOUBLE INLETS

DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

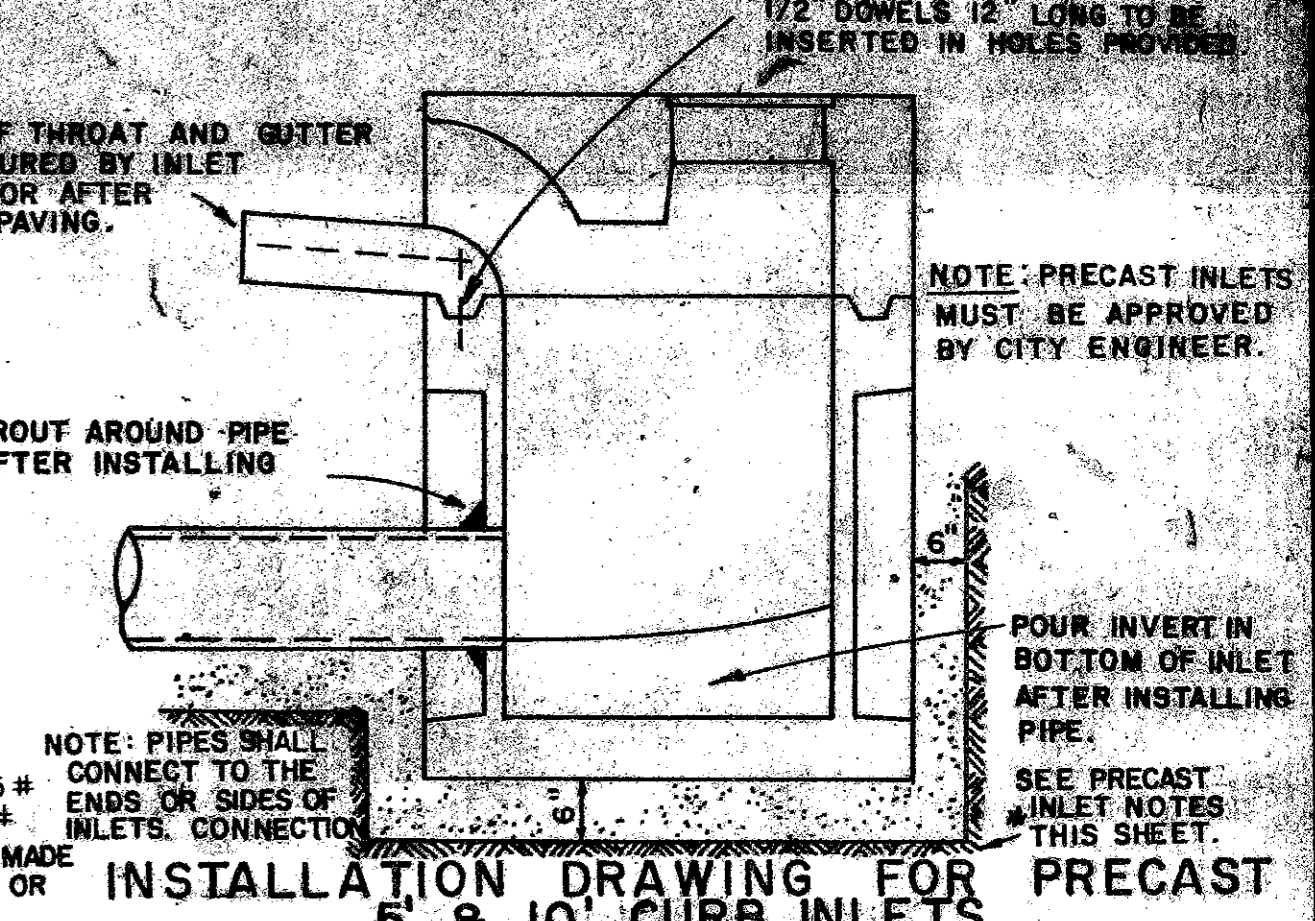
INLET LENGTH	BAR TYPE	BAR DIA. (1/8 IN.)	NO. REQ'D	BAR DIMENSIONS		
				A	B	C
6 FT.	A	3	15	3'-2"	0'-6"	-
	B	3	2	11'-6"	-	-
	C	4	16	13'-4"	0'-6"	-
	D	4	9	4'-8"	-	-
	E	5	6	13'-4"	-	-
	F	4	5	1'-2"	-	-
	G	3	12	2'-0"	1'-3"	-
	H	3	26	*	*	*
	I	4	12	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	-
	L	4	11	3'-2"	0'-6"	-
	M	4	2	3'-0"	4'-8"	-
	N	4	2	4'-8"	3'-2"	4'-8"
7 FT.	A	3	17	3'-2"	0'-6"	-
	B	3	2	13'-6"	-	-
	C	4	16	15'-4"	0'-6"	-
	D	4	9	4'-8"	-	-
	E	5	6	15'-4"	-	-
	F	4	5	1'-2"	-	-
	G	3	15	2'-0"	1'-3"	-
	H	3	32	*	*	*
	I	4	14	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	-
	L	4	11	3'-2"	0'-6"	-
	M	4	2	3'-0"	4'-8"	-
	N	4	2	4'-8"	3'-2"	4'-8"
8 FT.	A	3	19	3'-2"	0'-6"	-
	B	3	2	15'-6"	-	-
	C	4	16	17'-4"	0'-6"	-
	D	4	9	4'-8"	-	-
	E	5	6	17'-4"	-	-
	F	4	5	1'-2"	-	-
	G	3	12	2'-0"	1'-3"	-
	H	3	26	4'-8"	*	*
	I	4	16	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	-
	L	4	11	3'-2"	0'-6"	-
	M	4	2	3'-0"	4'-8"	-
	N	4	2	4'-8"	3'-2"	4'-8"
10 FT.	A	3	23	3'-2"	0'-6"	-
	B	3	2	19'-6"	-	-
	C	4	16	21'-4"	0'-6"	-
	D	4	9	4'-8"	-	-
	E	5	6	21'-4"	-	-
	F	4	5	1'-2"	-	-
	G	3	15	2'-0"	1'-3"	-
	H	3	32	4'-8"	*	*
	I	4	20	4'-8"	3'-2"	3'-2"
	J	5	1	*	*	*
	K	5	6	3'-2"	0'-6"	-
	L	4	11	3'-2"	0'-6"	-
	M	4	2	3'-0"	4'-8"	-
	N	4	2	4'-8"	3'-2"	4'-8"

* SEE DIAGRAM FOR DIMENSIONS
** FIELD CUT AS REQ'D TO ACCOMMODATE DRAIN PIPE.
12', 14', 16 AND 20' INLETS

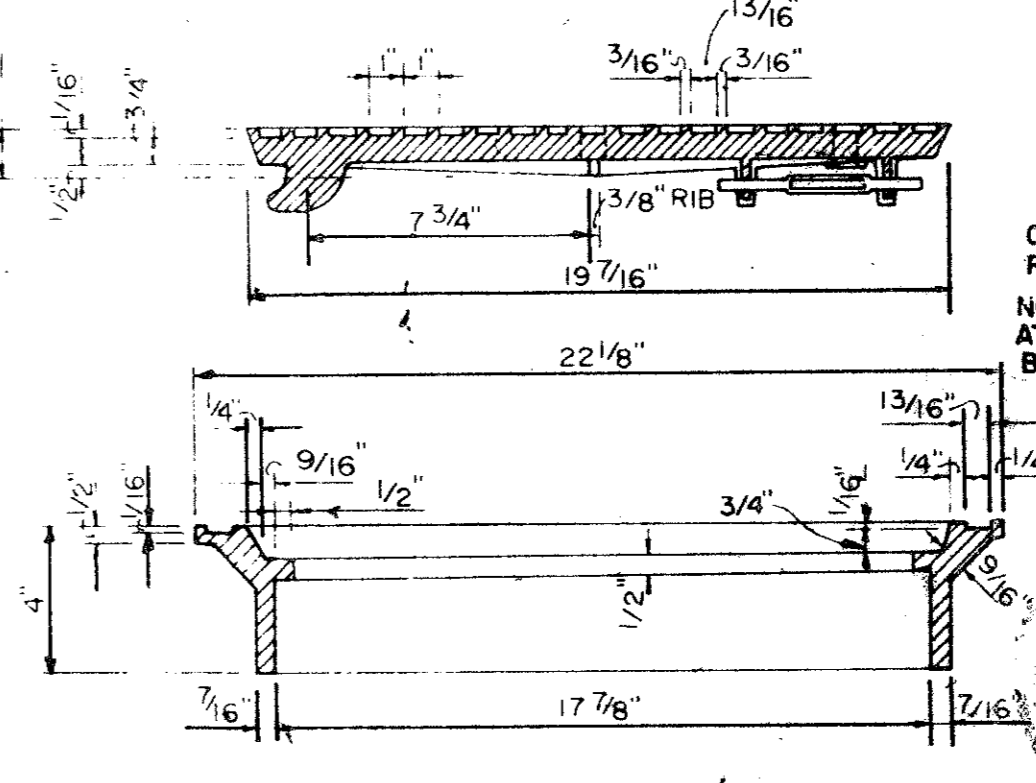


PLAN OF FRAME

- NOTES FOR PRECAST INLET
- THE FLOOR OF THE EXCAVATION MUST PROVIDE FIRM, LEVEL BED FOR THE BASE SECTION TO REST UPON.
 - A MINIMUM OF 6" OF 1" DIAMETER (MAXIMUM) ROCK OR GRAVEL SHALL BE USED TO PREPARE THE BEDDING TO FINAL GRADE OR IN LIEU OF THIS THAT AT LEAST 6% OF 2 SACK CEMENT STABILIZED SAND BE USED TO PREPARE THE BEDDING TO GRADE. CEMENT STABILIZED SAND TO BE ALLOWED TO SET BY KEEPING HOLE PUMPED DRY.
- AFTER CASTING HAS BEEN INSTALLED ON THE LEVEL BEDDING THE BACKFILL MATERIAL, WHICH IS PREPARED AND PLACED IN BOUES, IN ACCORDANCE WITH SPECIFICATIONS AND OTHER DETAILS WHICH SHOULD BE OBTAINED FROM THE CONTRACTOR, SHALL BE COMMENCED IN LIEU OF 30 MORE THAN 12". THE MATERIAL USED FOR BACKFILL SHOULD BE OF A TYPE SUITABLE TO OBTAIN THE DENSITY REQUIREMENTS FOR THE SPECIFIC JOB.

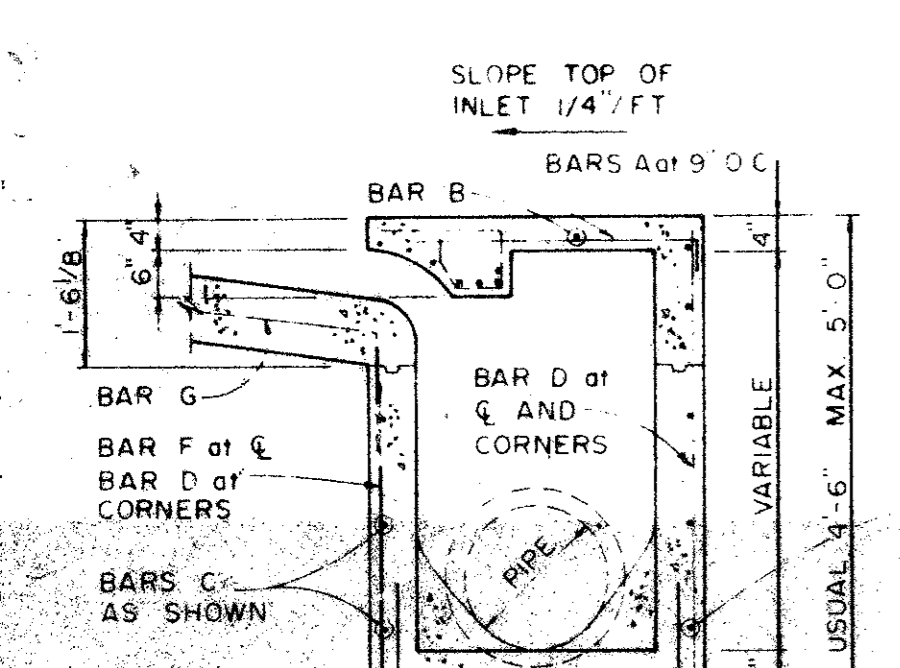


INSTALLATION DRAWING FOR PRECAST 5' & 10' CURB INLETS



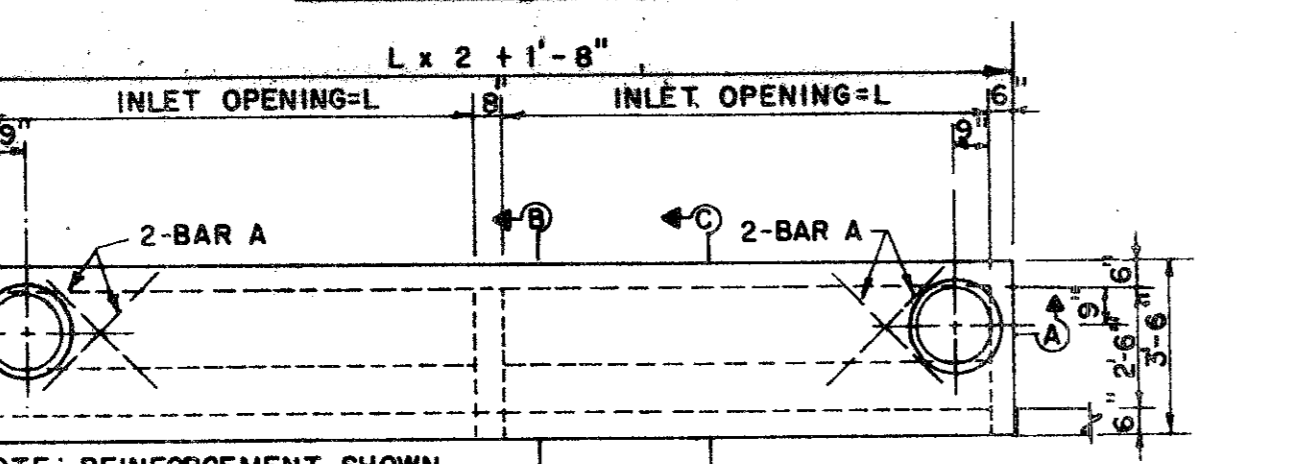
SECTION OF FRAME AND COVER

INLET FRAME AND COVER



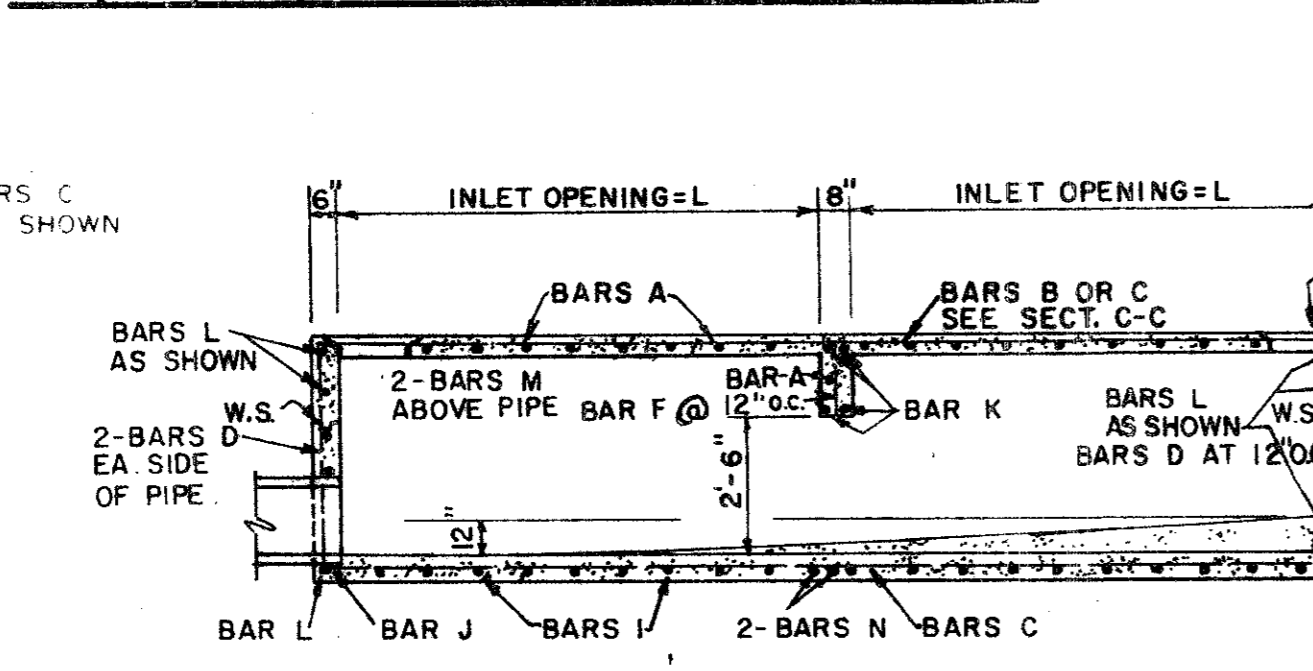
SECTION B-B 4, 6, 8 AND 10 FT. INLETS

12, 14, 16 AND 20 FOOT INLETS

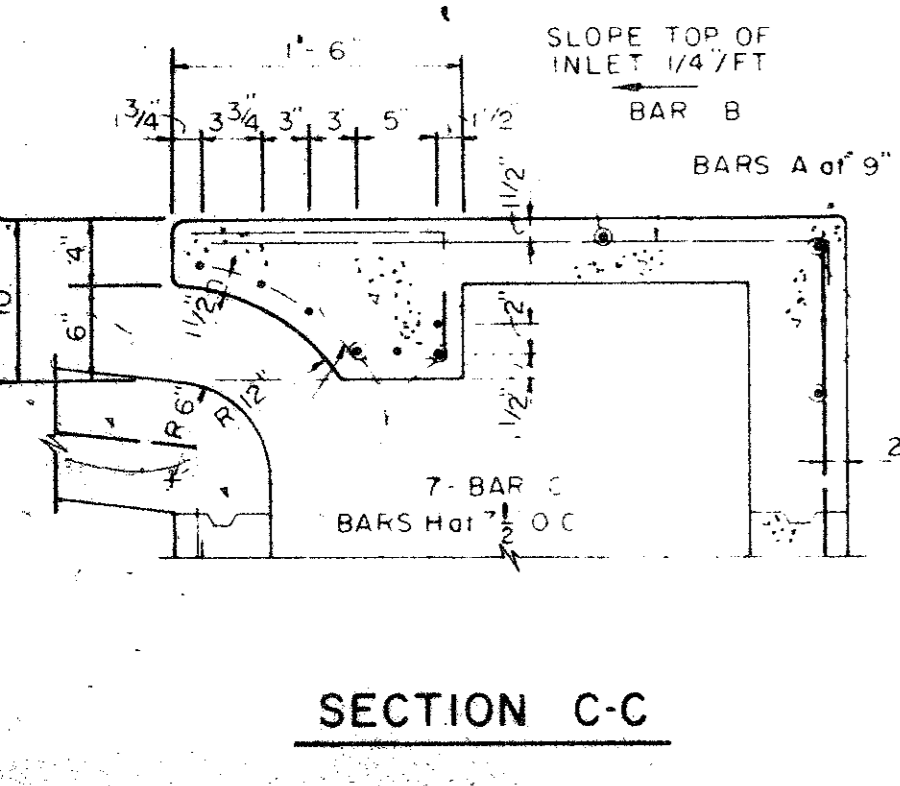


SECTION B-B 12, 14, 16 AND 20 FOOT INLETS

12, 14, 16, AND 20 FOOT INLETS



SECTION A-A 12, 14, 16 AND 20 FOOT INLETS



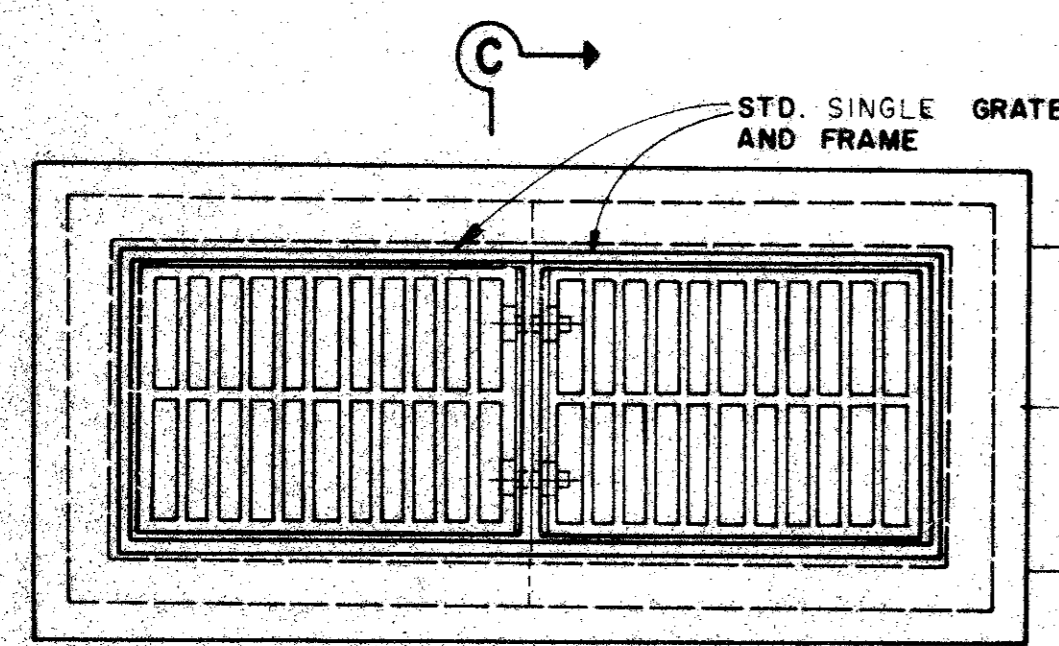
SECTION C-C 4, 6, 8 AND 10 FOOT INLETS

4, 6, 8 AND 10 FOOT INLETS

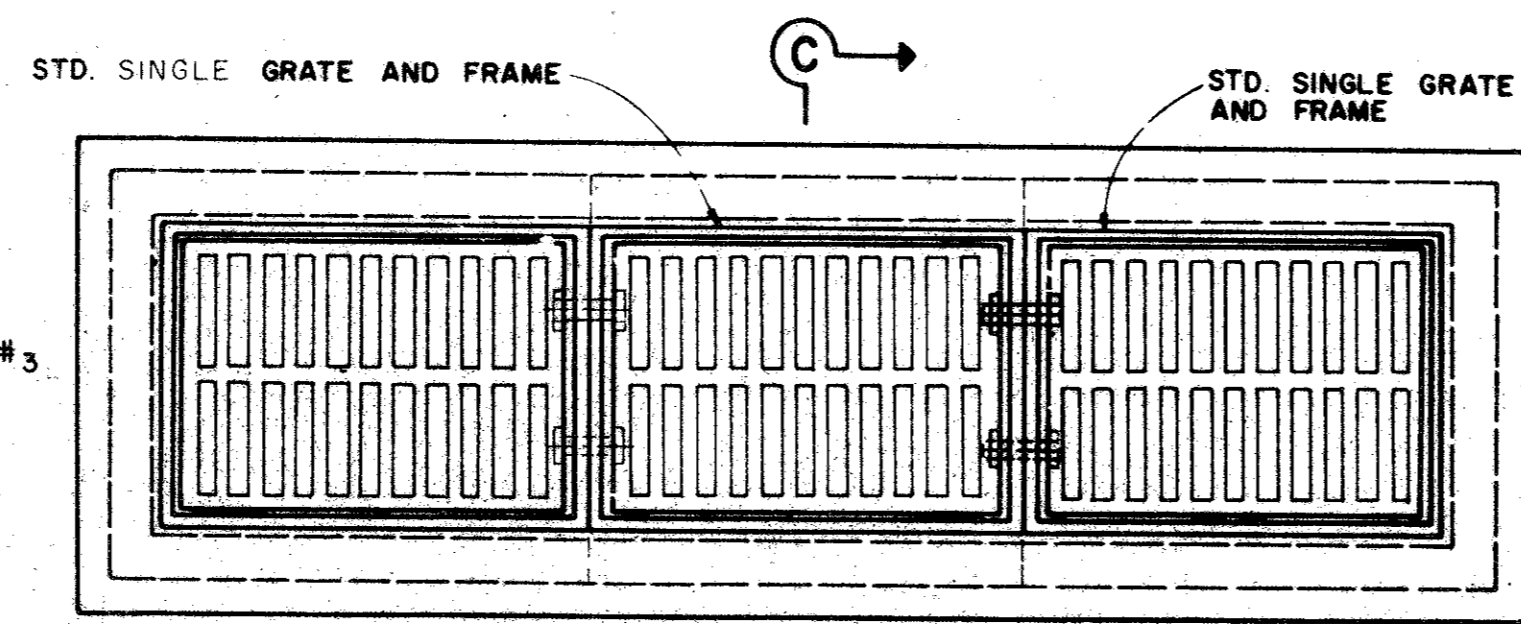
NO.	REVISION	BY	DATE

TOWN OF ADDISON
DEPARTMENT OF ENGINEERING
STANDARD CONSTRUCTION DETAILS
STORM DRAINAGE
CURB INLETS

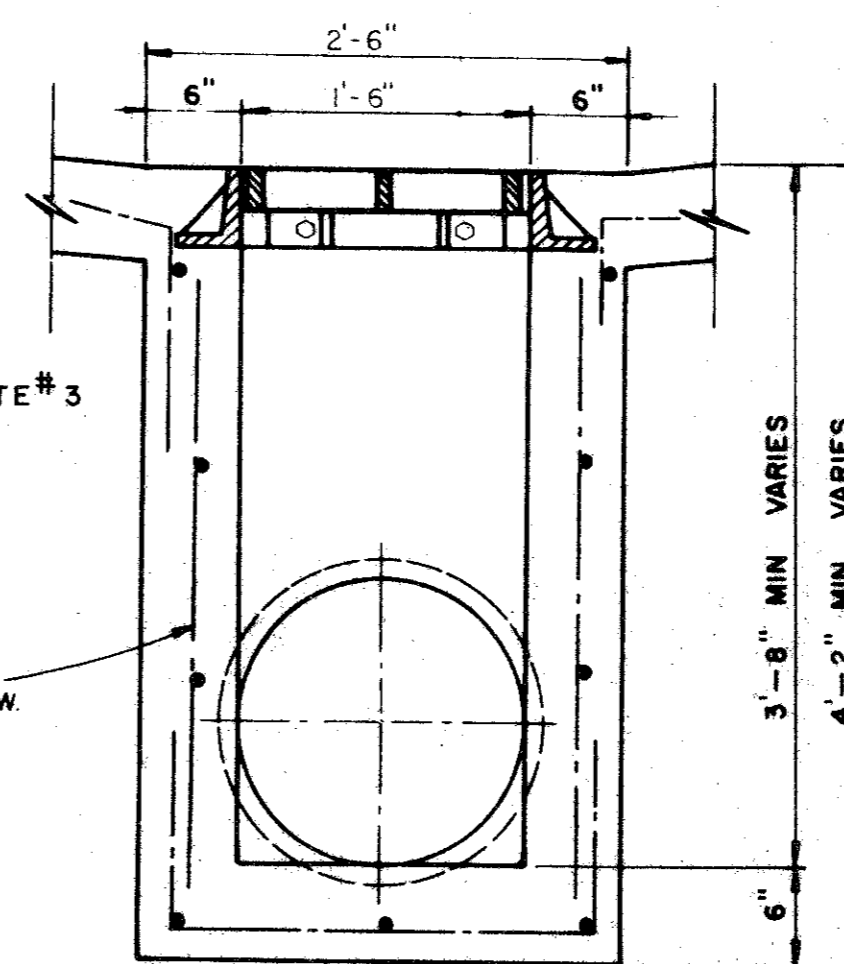
DATE: 6.4.93



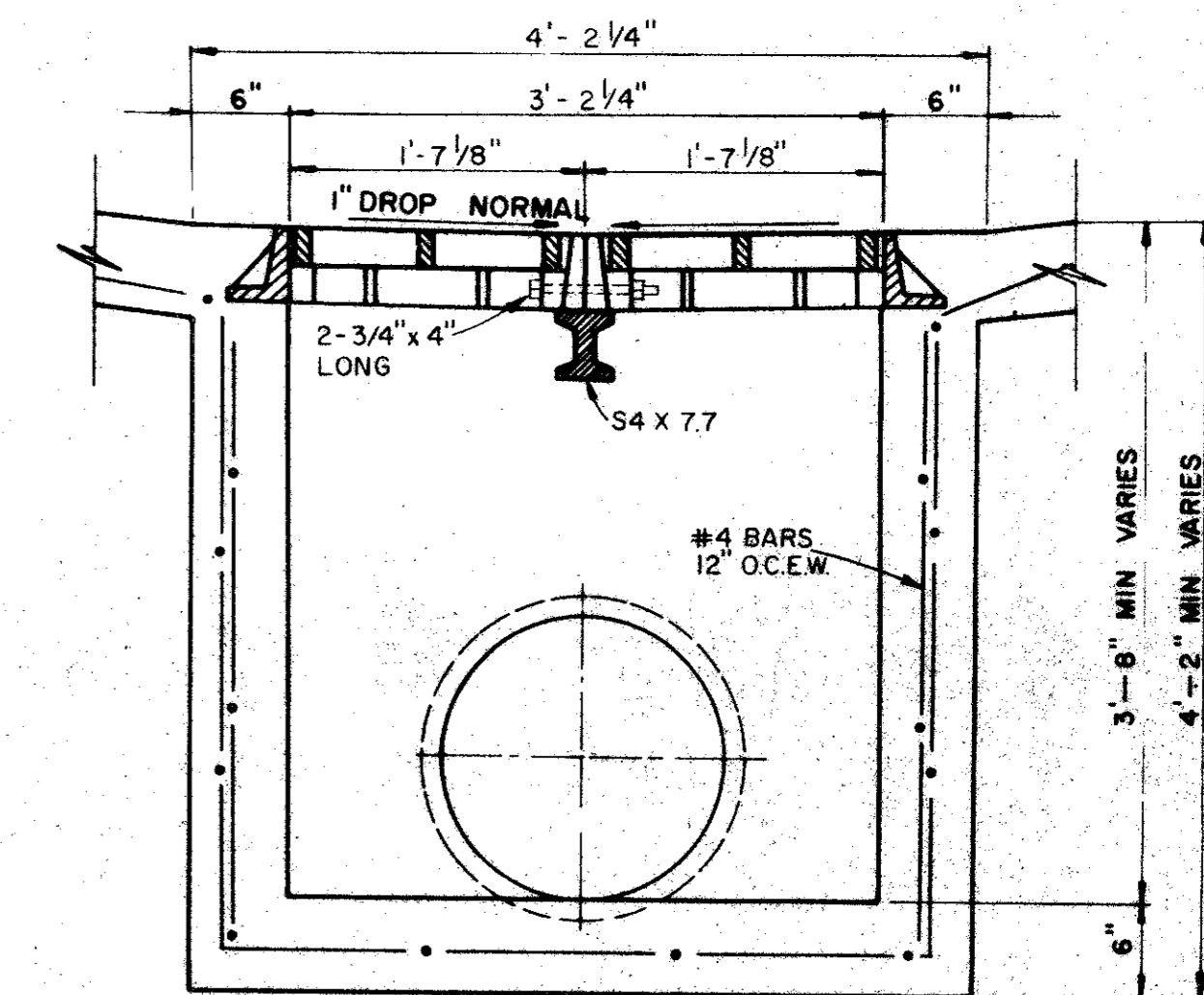
TWO GRATE INLET



THREE GRATE INLET

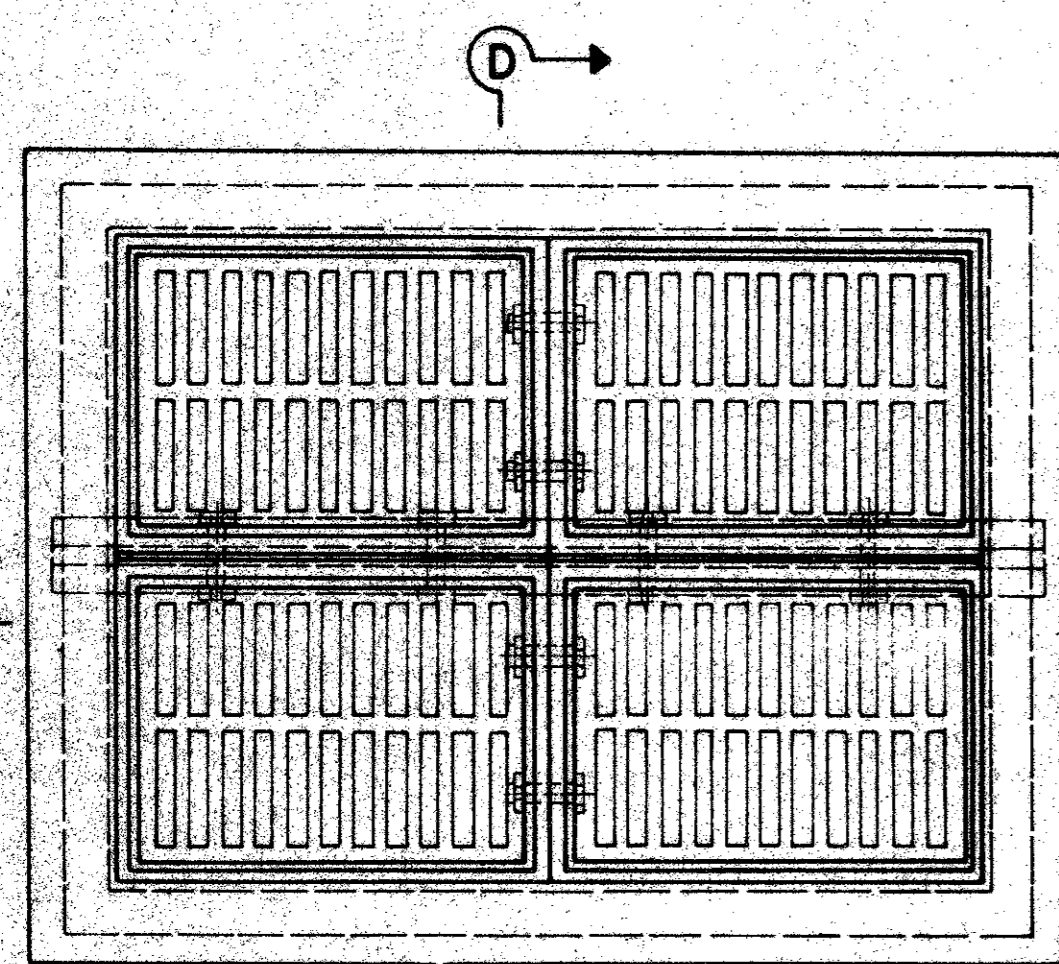


SECTION C-C

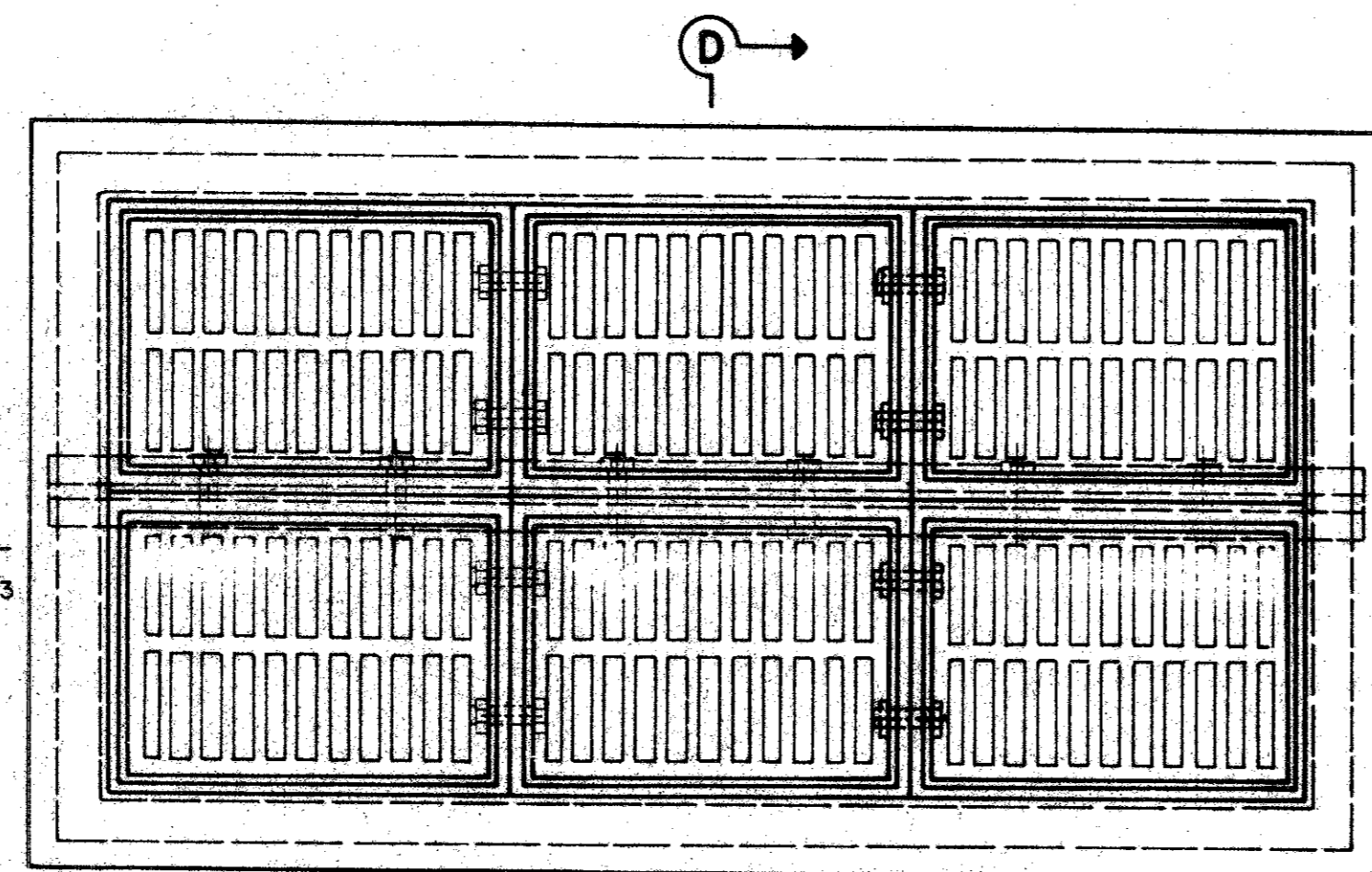


SECTION D-D

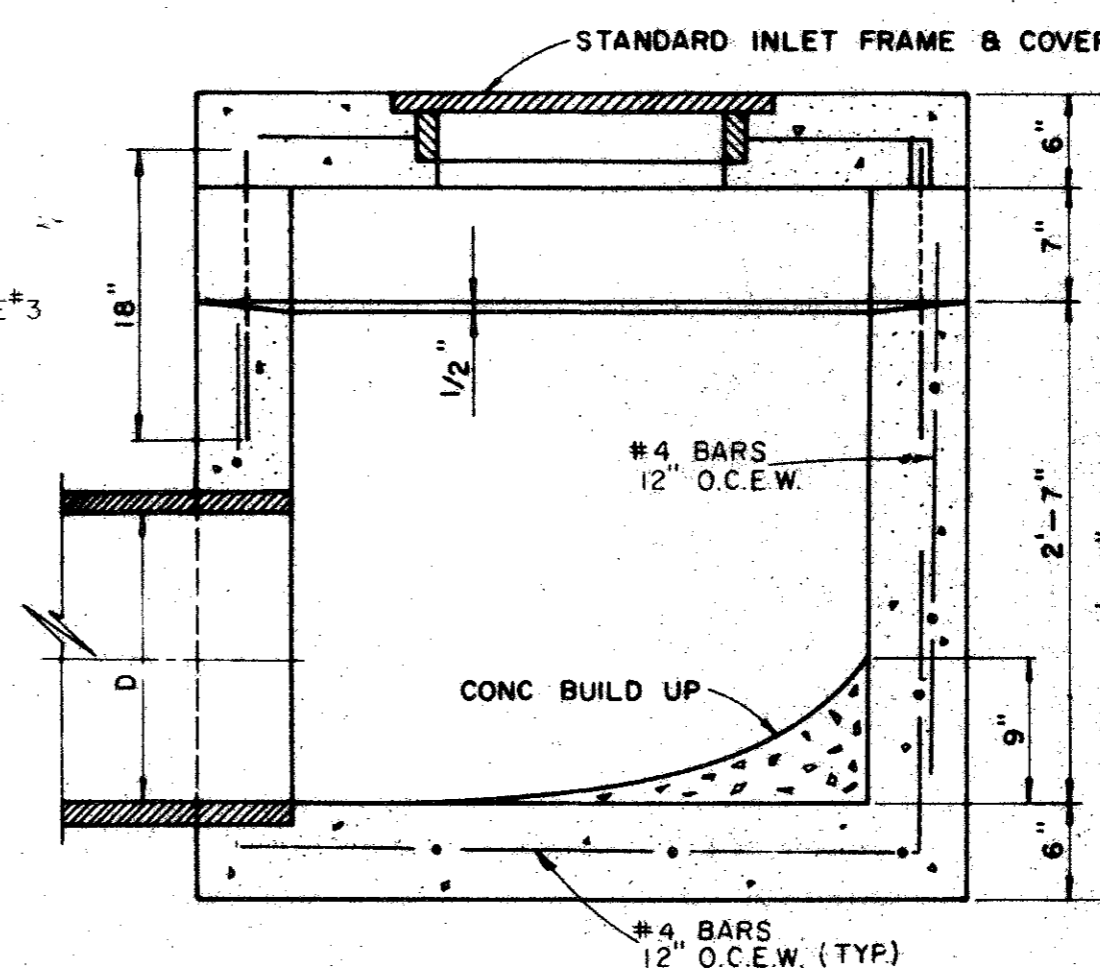
- NOTES**
1. ALL LAPS AND EXTENSIONS OF REINFORCING BARS SHALL BE 36 BAR DIAMETERS UNLESS NOTED OTHERWISE.
 2. TACK WELD GRATES IN PLACE.
 3. PIPE MAY BE PLACED IN ANY WALL, BUT SHALL NOT ENTER ANY CORNER, OR BOTTOM.



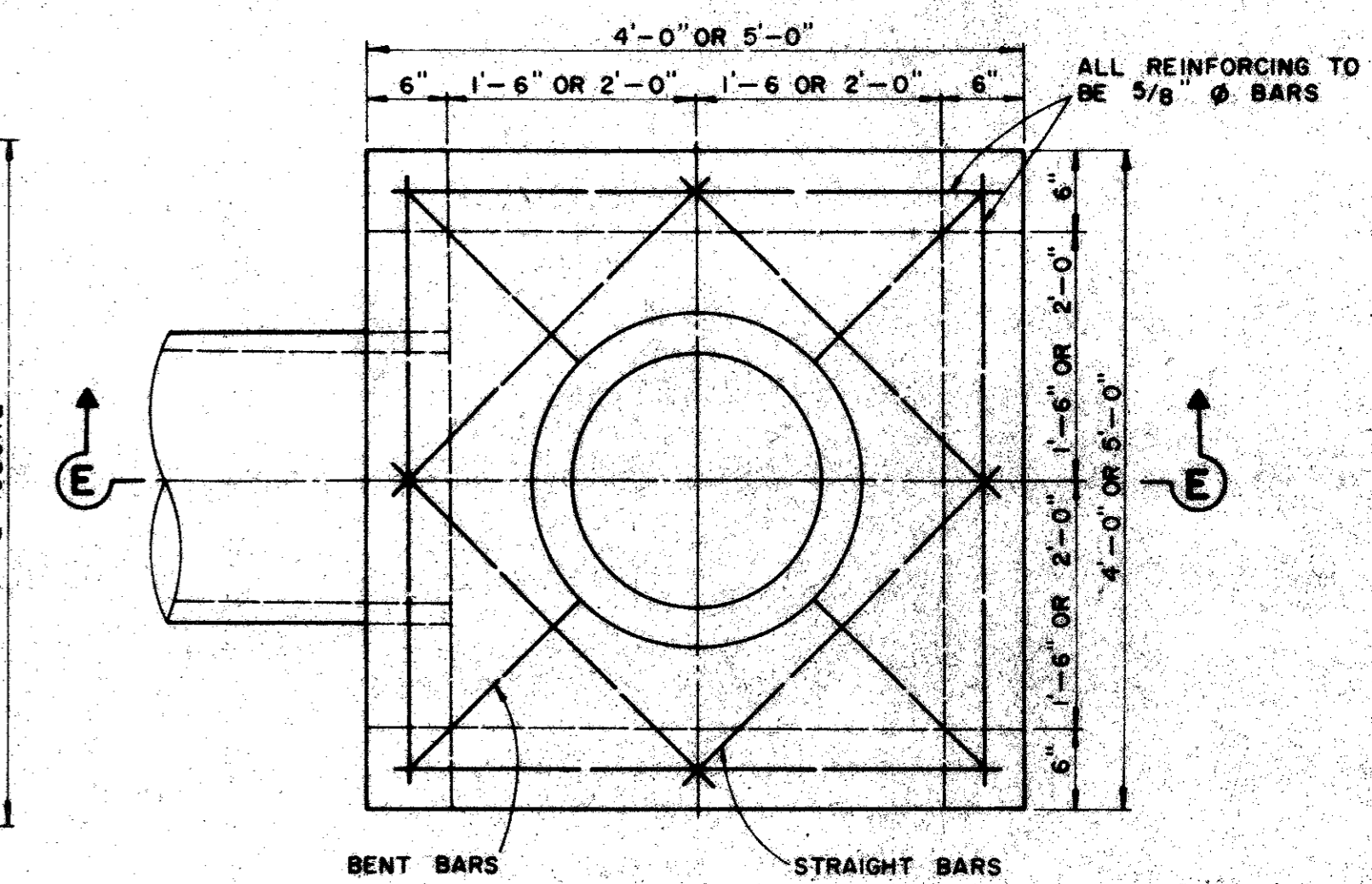
FOUR GRATE INLET



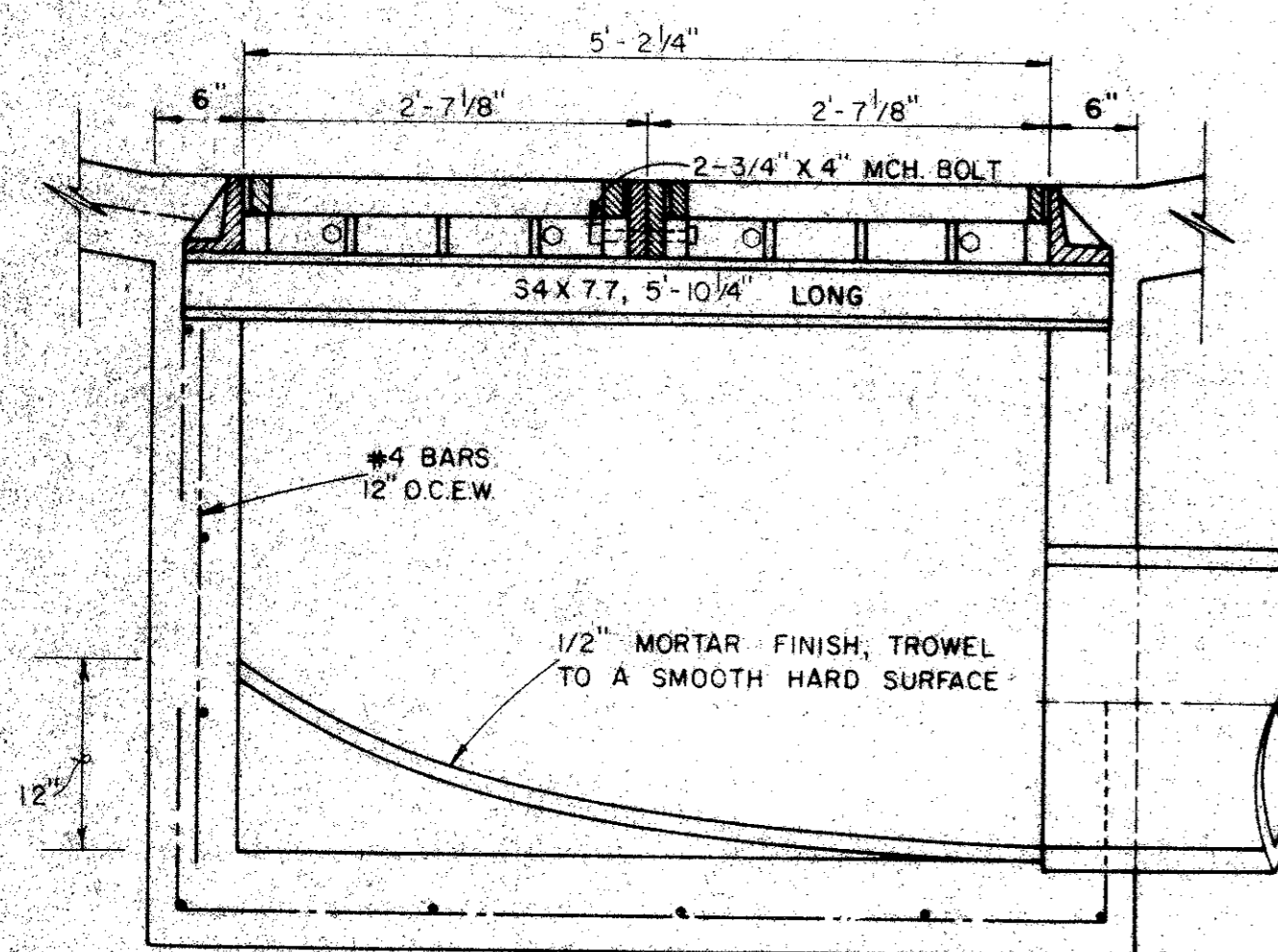
SIX GRATE INLET



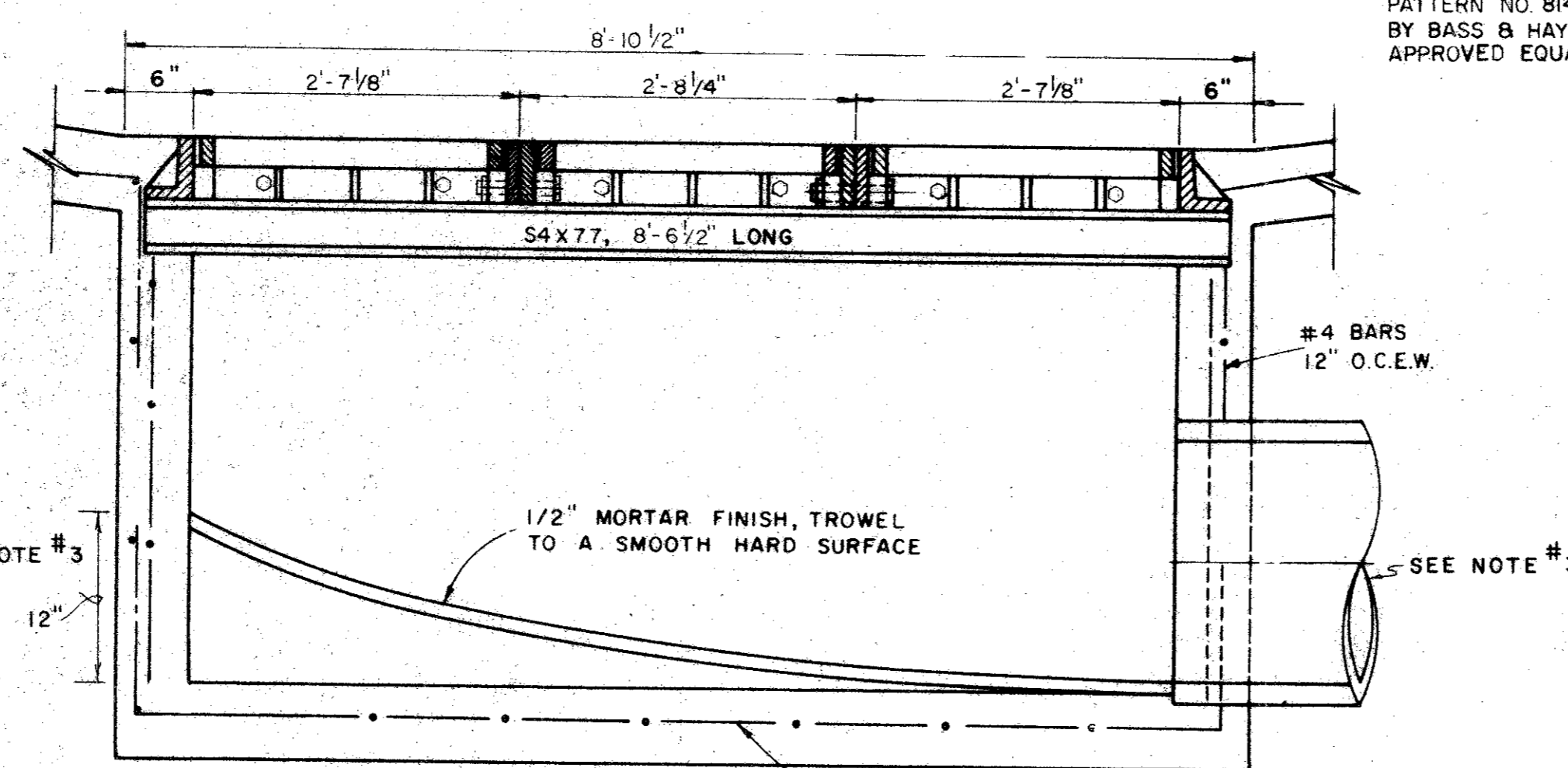
SECTION E-E



PLAN



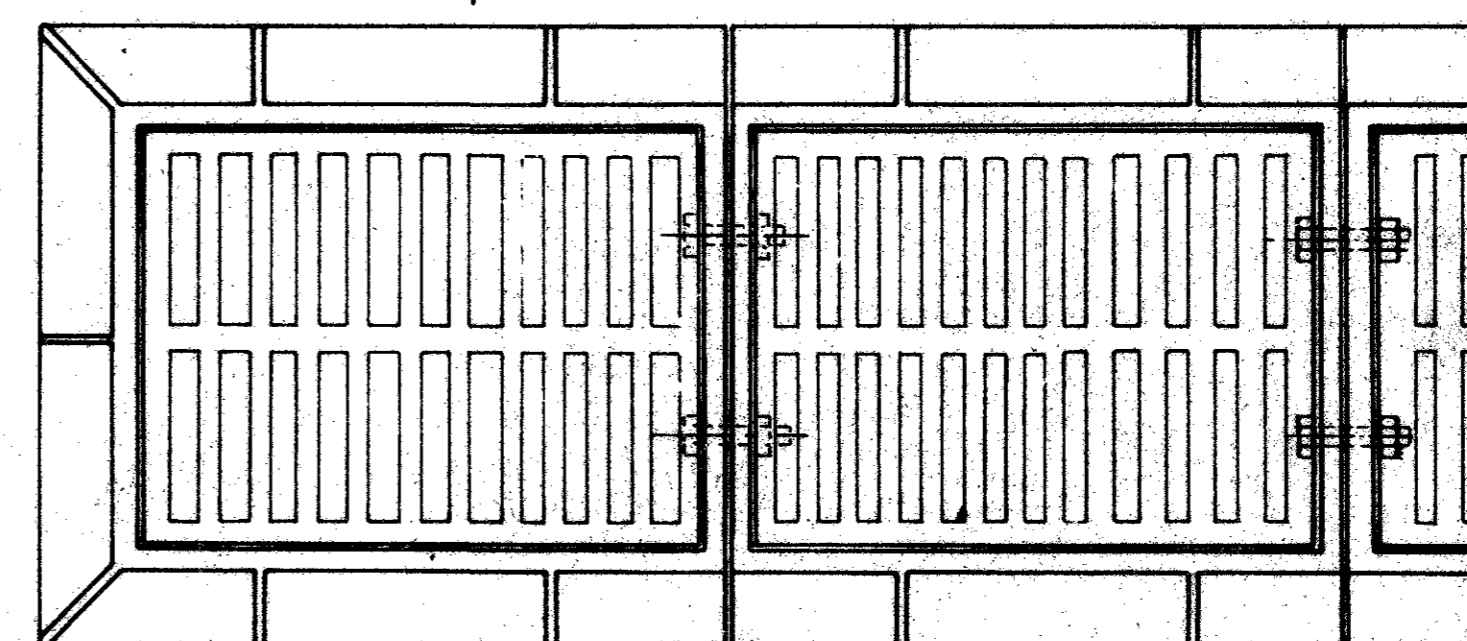
SECTION A-A



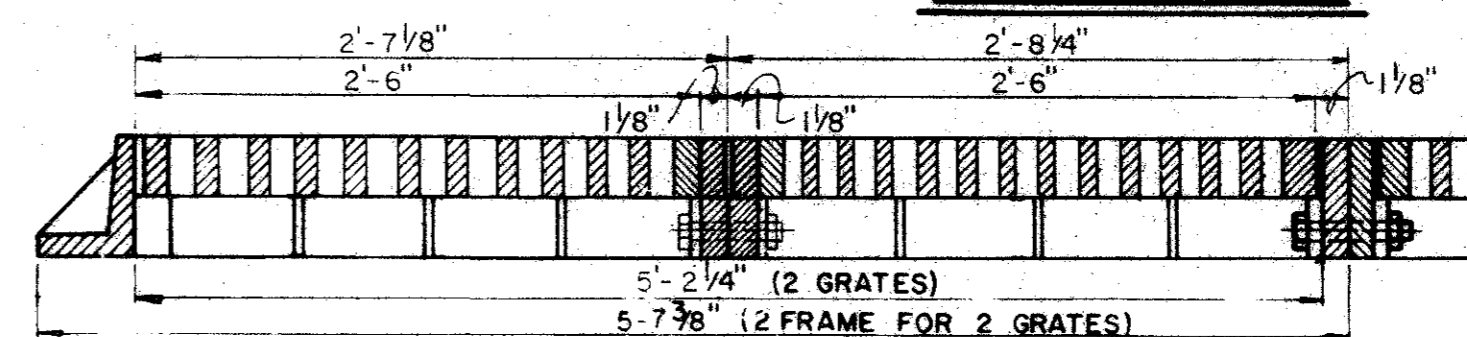
SECTION B-B

NOTE 1: GRATE AND FRAME SHALL BE PATTERN NO. 814 AS MANUFACTURED BY BASS & HAYES FOUNDRY, OR APPROVED EQUAL.

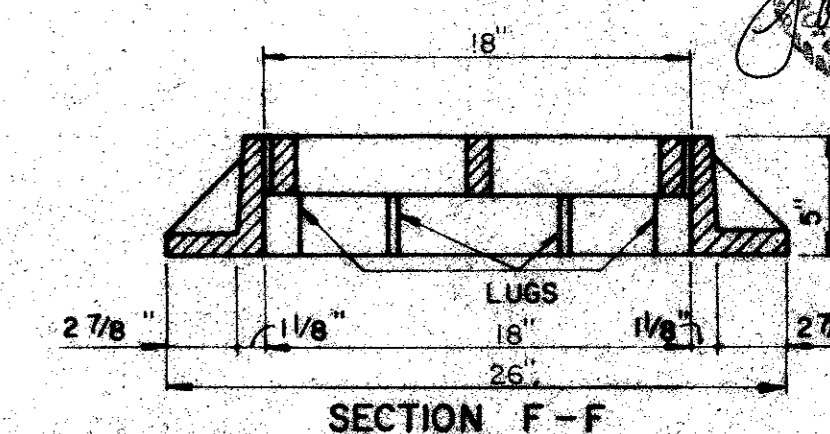
STANDARD DROP INLET



GRATE DETAILS

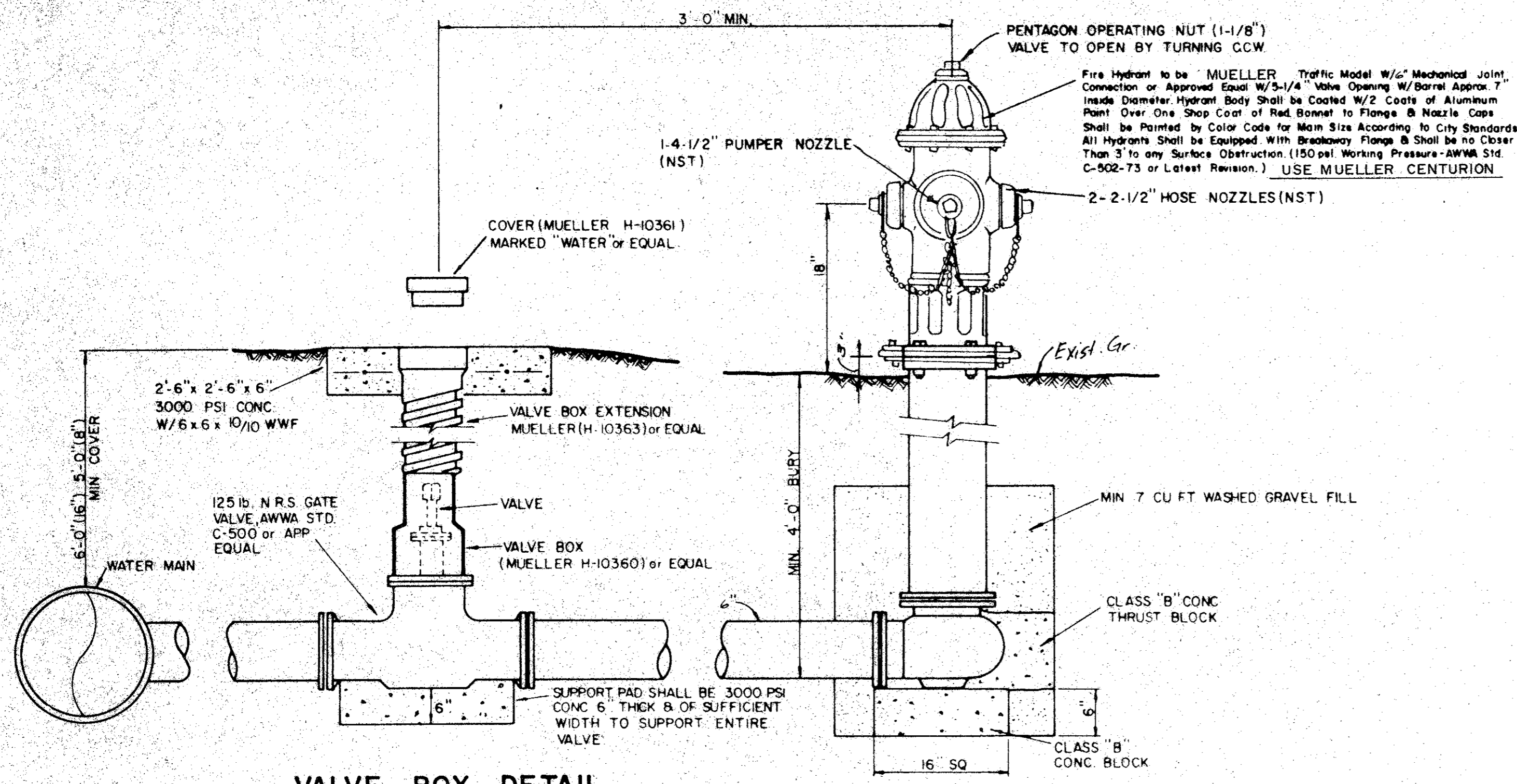


NOTE 2: ALL REINFORCING BAR LAPS AND EXTENSIONS SHALL BE 36 BAR DIAMETER UNLESS NOTED OTHERWISE.



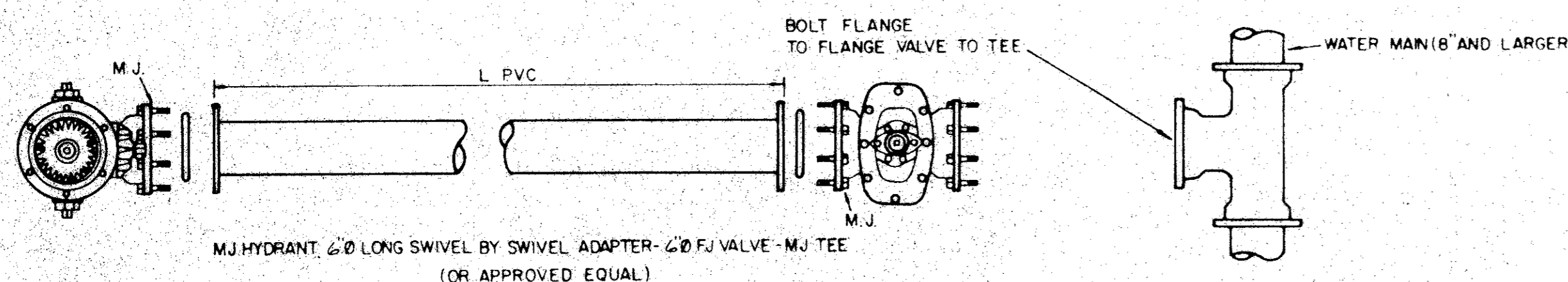
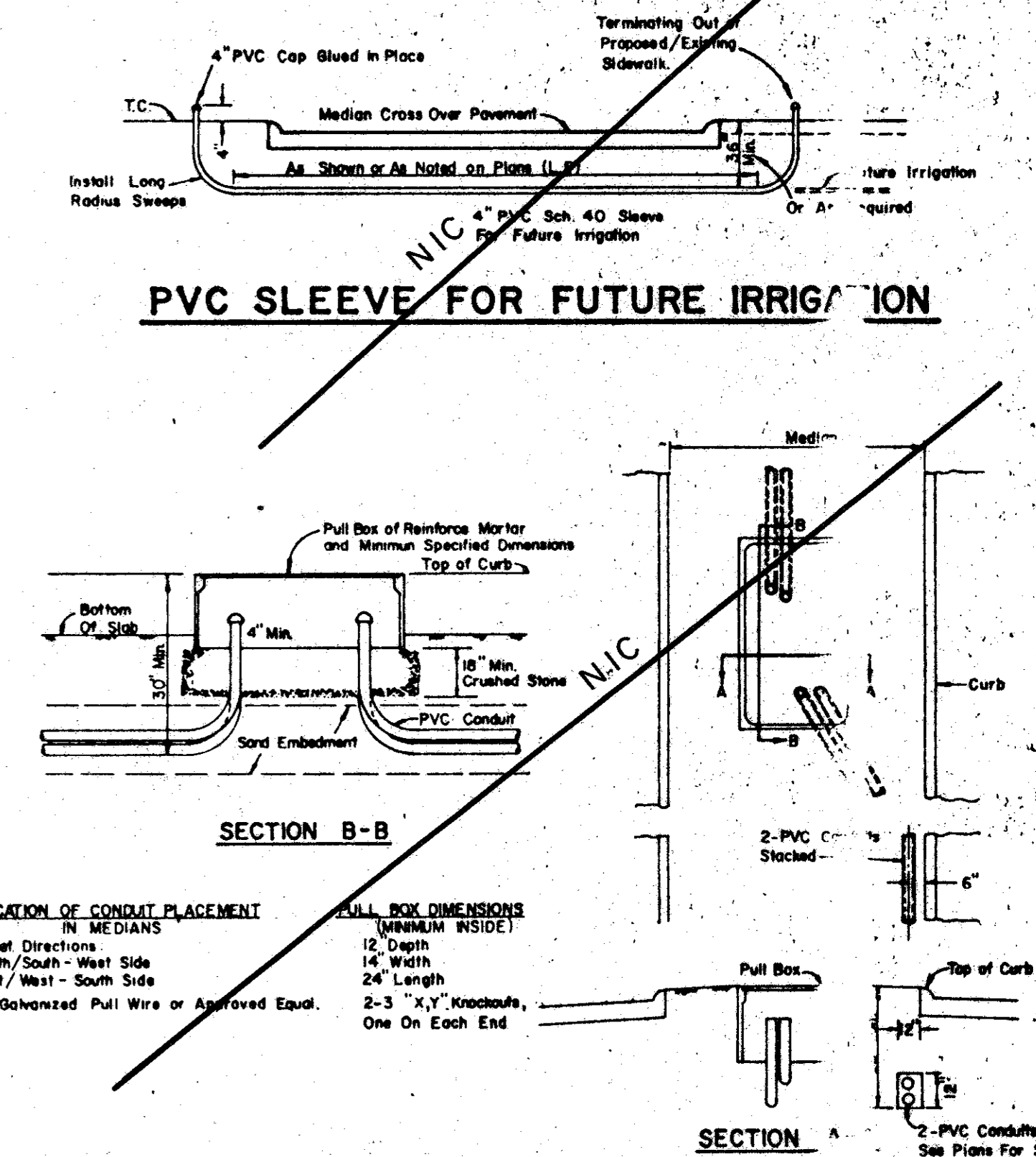
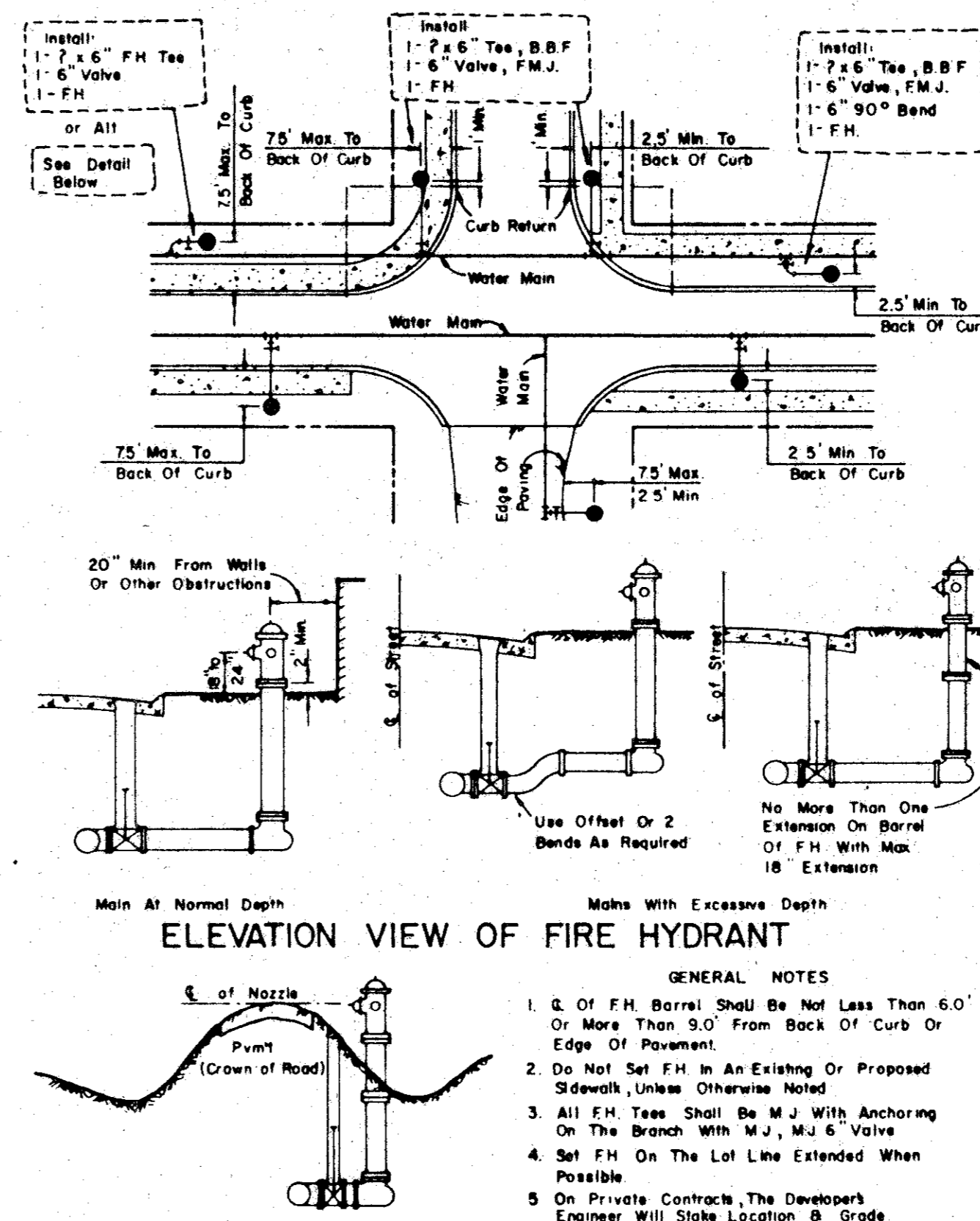
SECTION F-F

NO.	REVISION	BY	DATE
TOWN OF ADDISON DEPARTMENT OF ENGINEERING STANDARD CONSTRUCTION DETAILS STORM DRAINAGE GRATE INLET - DROP INLET			
DATE:			SHEET SD-4

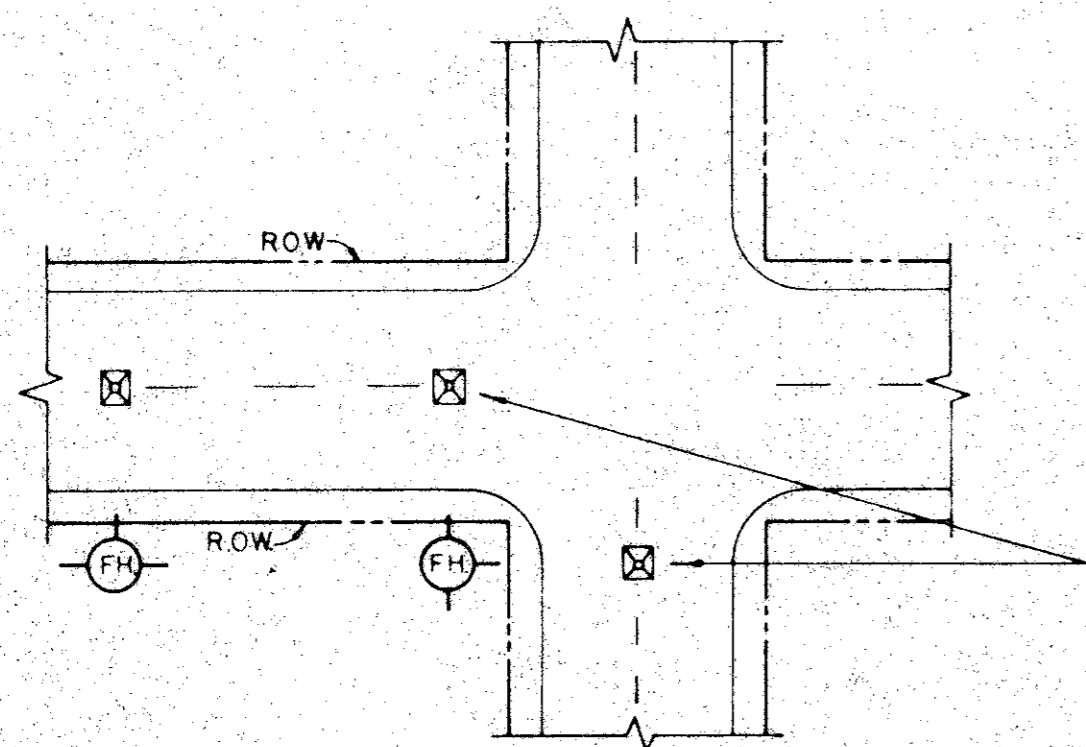
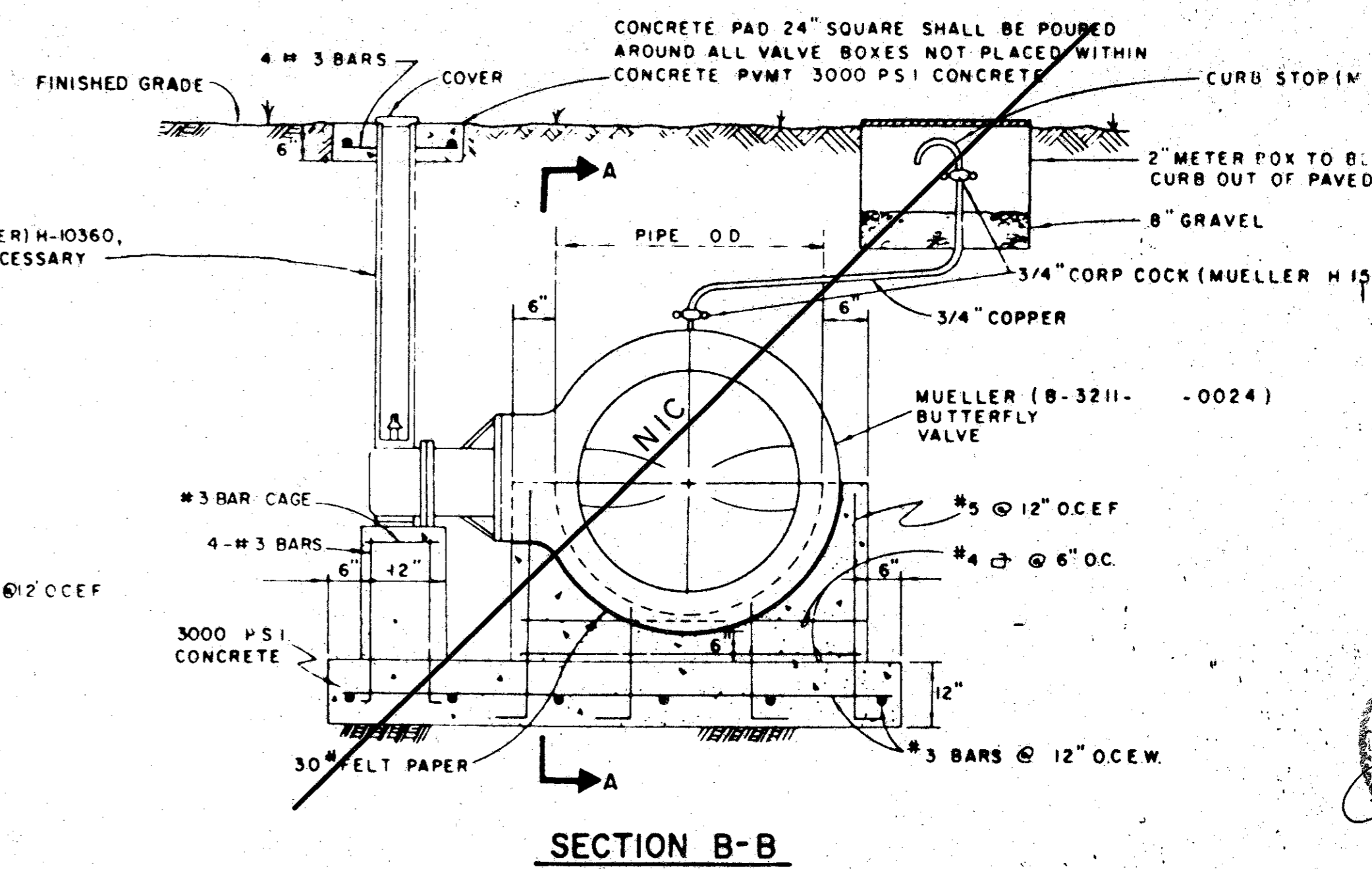
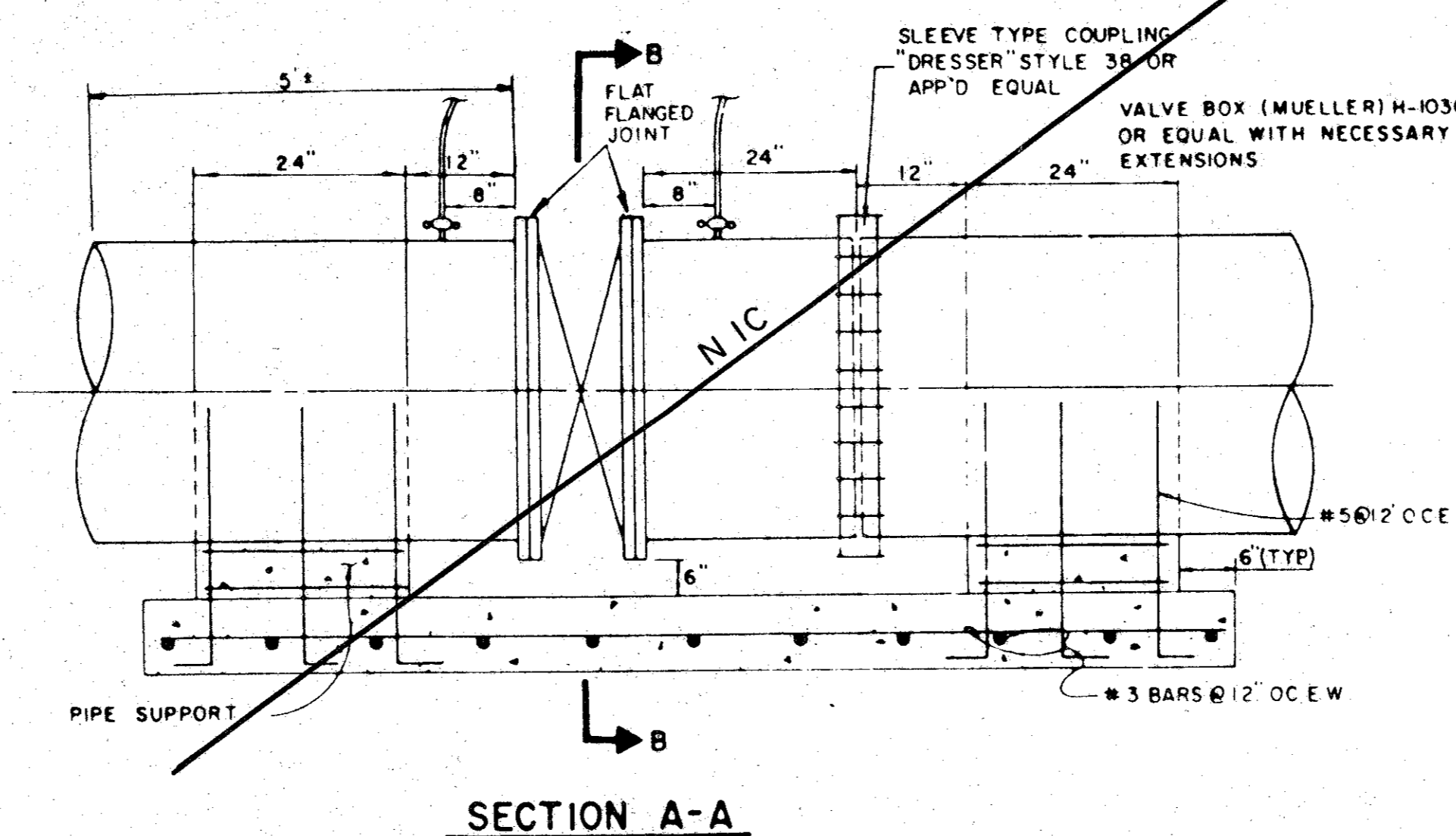


GATE VALVES AND VALVE BOXES.

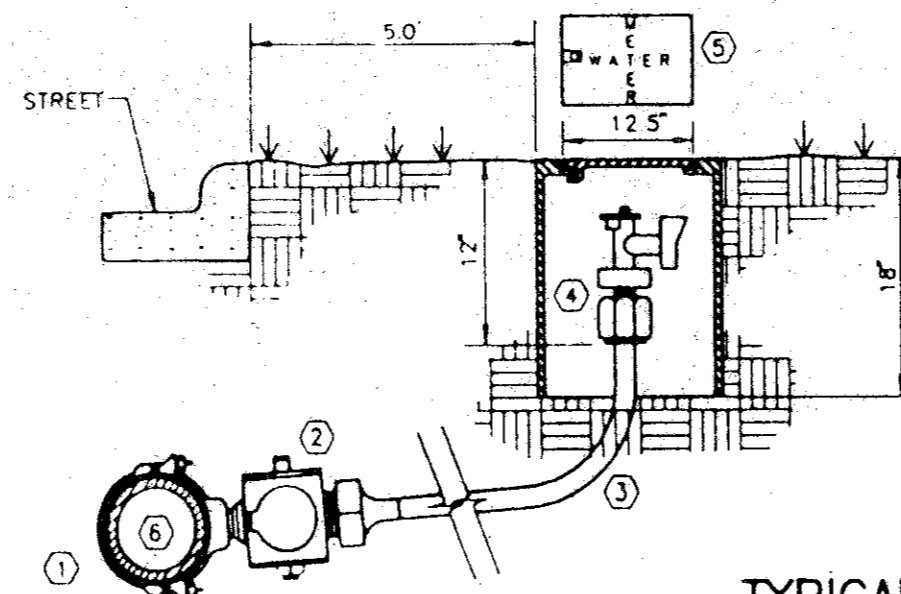
- GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, PARALLEL SEAT TYPE VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.
- VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE. ALL VALVES BURIED IN THE GROUND COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY BE SET FLUSH WITH THE FINISHED GRADE.



TYPICAL FIRE HYDRANT INSTALLATION

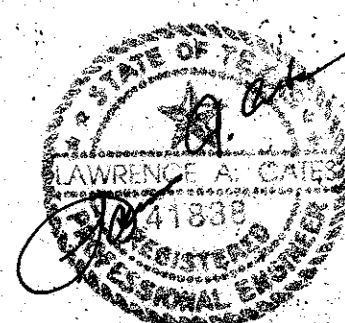


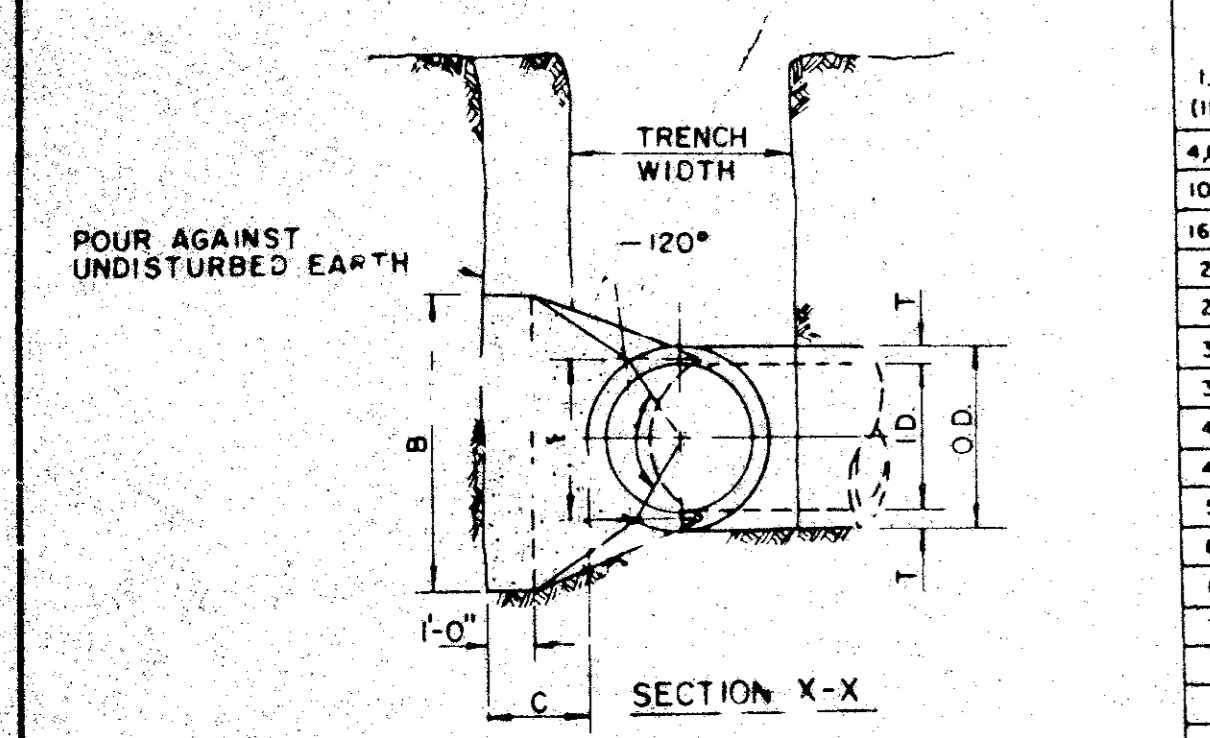
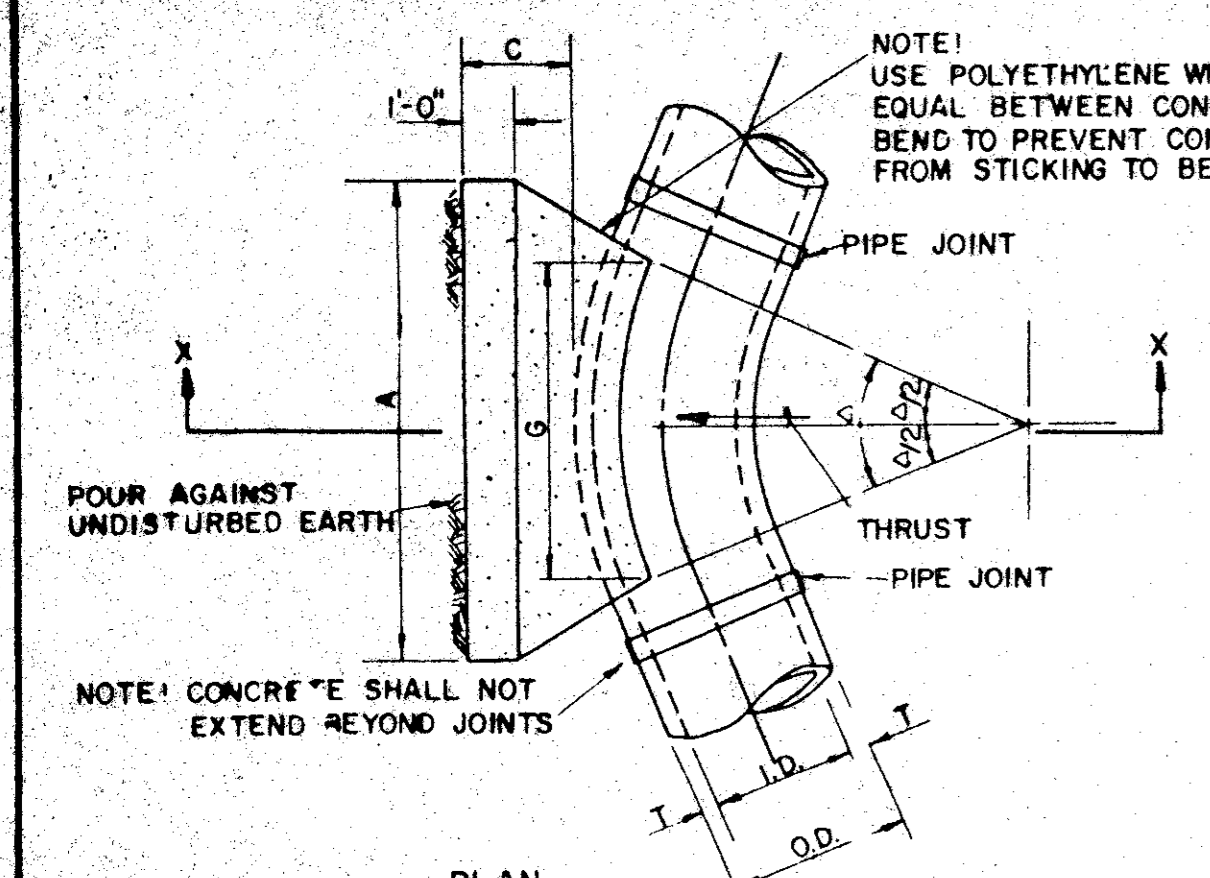
TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION



- DOUBLE STRAP BRONZE SADDLE W/CCW THREADS. MUELLER
- CORPORATION STOP W/CCW THREADS. MUELLER H-1500B COMPRESSION OR H-1500D FLARED.
- 3/4" TYPE "K" SOFT COPPER W/NO SPLICES
- ANGLE STOP W/LOCK WING. MUELLER H-1425B COMPRESSION OR H-1425S FLARED.
- WATER METER BOX (RECTANGULAR SHAPE ONLY) CONCRETE OR METAL SHELL CONSTRUCTION
- WATER MAIN PVC AWWA C900 SDR 14/18 INTEGRAL WALL BELL

TOWN OF ADDISON, TEXAS DEPARTMENT OF ENGINEERING				
STANDARD CONSTRUCTION DETAILS WATER				
FIRE HYDRANTS, PULL BOXES AND VALVES				
Designed -	Drawn -	Date -	Job No. -	
Approved -	Checked -	Scale -	Sheet	SD 5

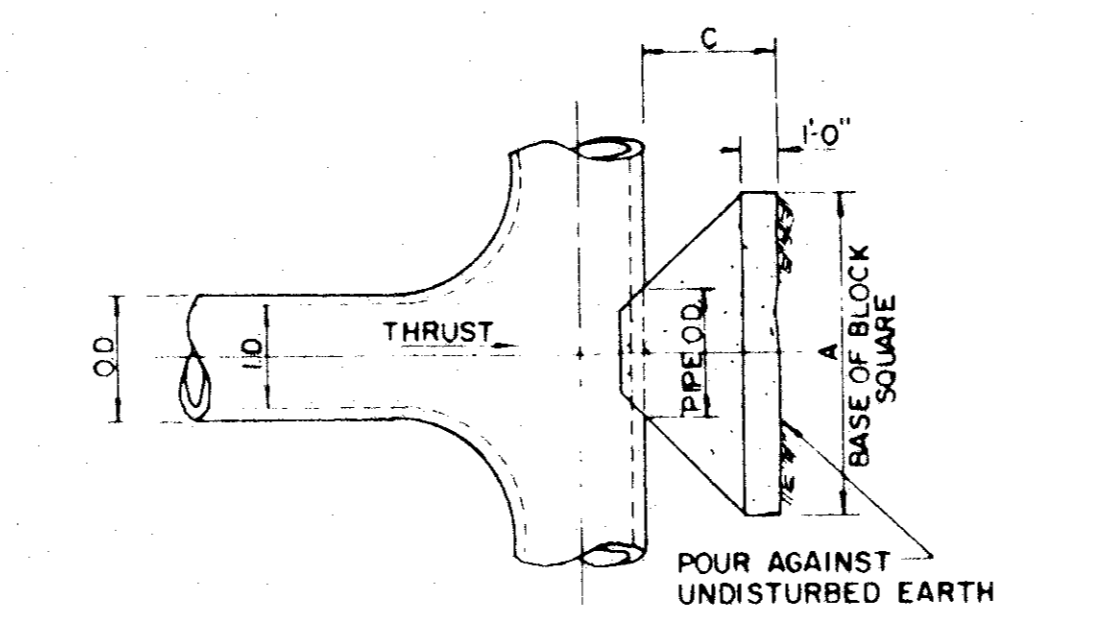
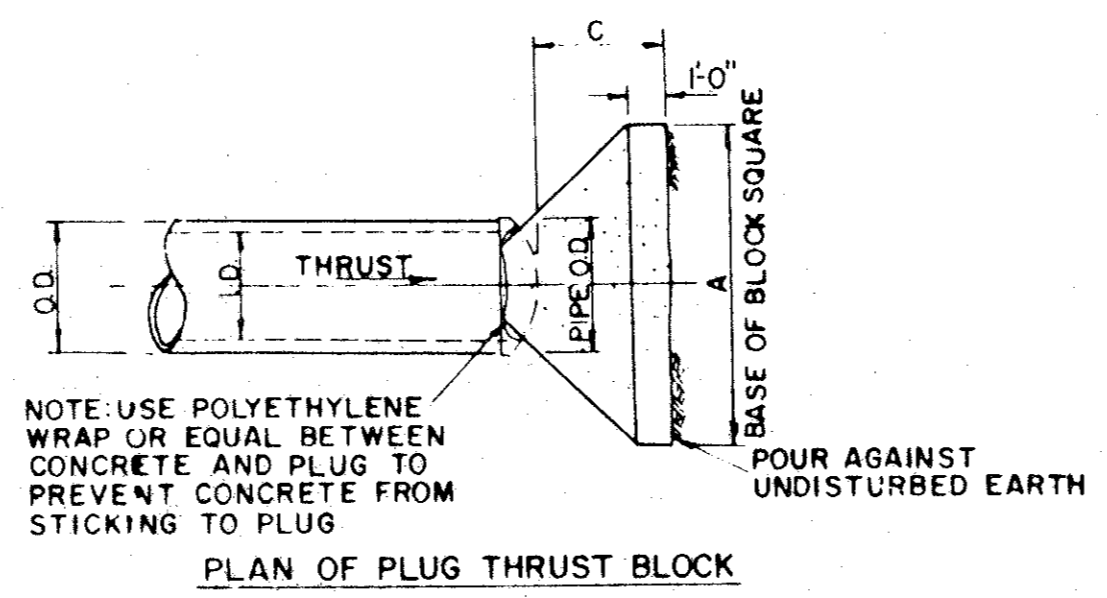
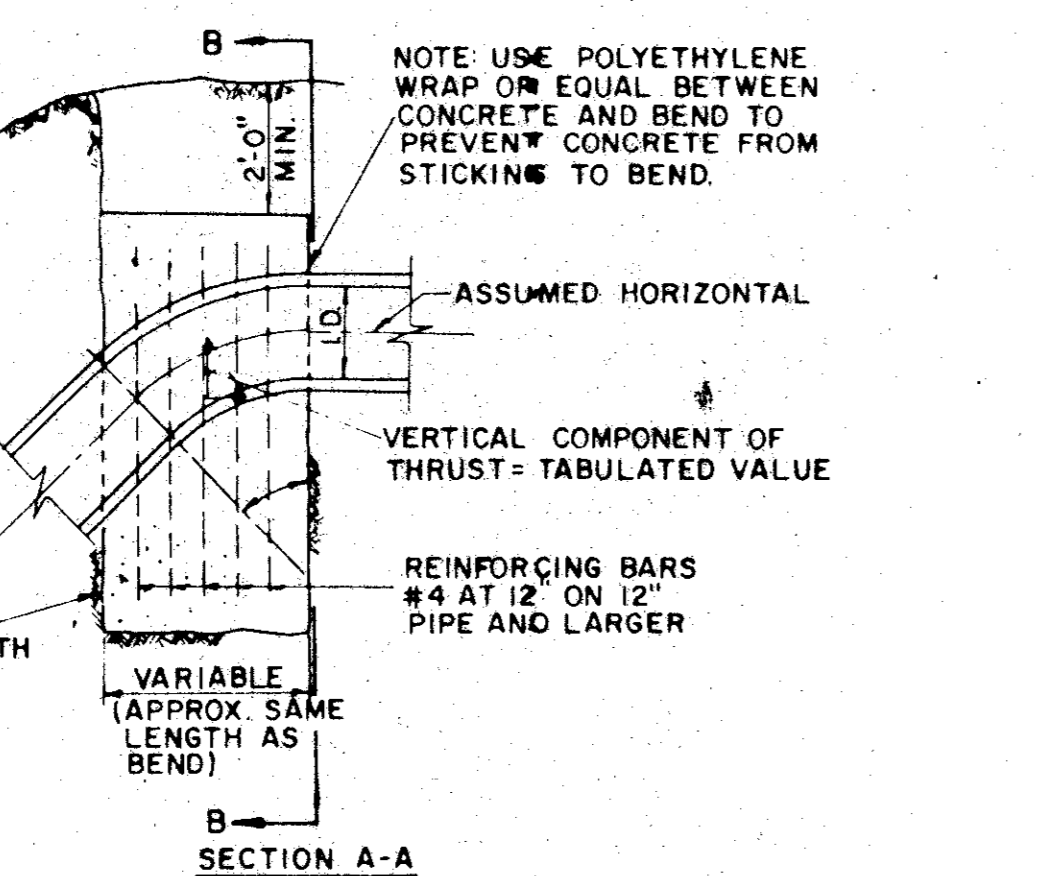
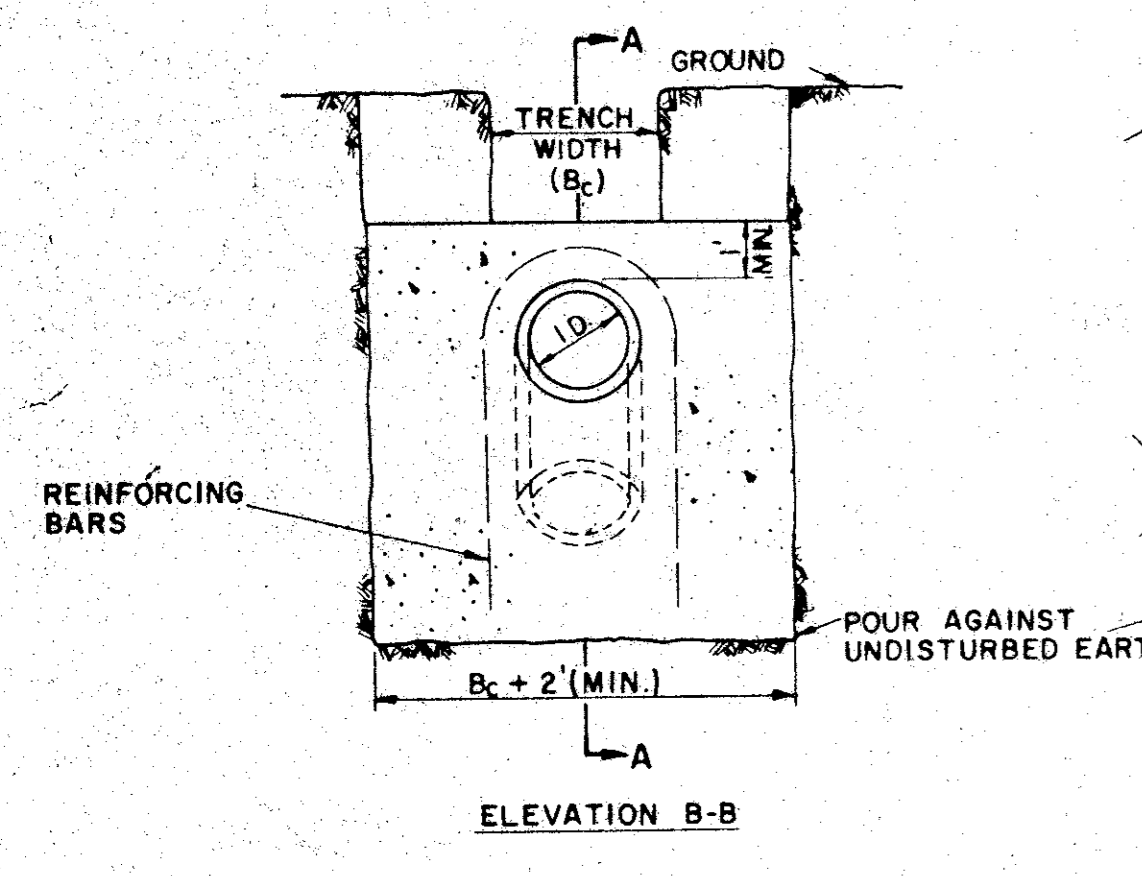




I.D. (IN.)	T (IN.)	C = 11.25"			C = 22.50"			E (FT.)
		A	B	VOL. C.Y.	A	B	VOL. C.Y.	
4.68	0.4	1.5	1.5	0.8				
10.12	0.5	1.5	1.5	1.2				
16.18	0.6	1.5	1.5	1.6				
20	0.7	1.5	1.5	1.8				
24	0.9	1.5	1.5	2.1				
30	2.9	1.5	1.9	2.8				
36	4.5	1.5	2.3	3.5				
42	5.0	1.5	2.6	3.8				
48	5.5	2.0	3.0	4.3				
54	6.0	2.3	3.4	4.8				
60	6.5	2.5	3.8	5.3				
66	6.8	2.8	4.1	5.7				
72	7.5	3.0	4.5	6.3				
78	7.5	3.3	4.9	6.7				
84	8.0	3.5	5.3	7.2				
90	8.5	3.8	5.6	7.7				
96	9.0	4.0	6.0	8.2				

I.D. (IN.)	G (FT.)	THRUST (TONS)	EARTH			ROCK			I.D. (IN.)	G (FT.)	THRUST (TONS)	EARTH			ROCK		
			A	B	VOL. C.Y.	A	B	VOL. C.Y.				A	B	VOL. C.Y.	A	B	VOL. C.Y.
4.68	0.4	1.0	1.0	1.0	0.1	1.0	1.0	0.1	4.68	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10.12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10.12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
16.18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16.18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.5	0.4
24	1.1	8.9	3.0	3.0	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.0	0.3
30	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.2	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.8	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54	4.9	67.0	9.0	8.0	6.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.2	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.3	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	11.0	21.8

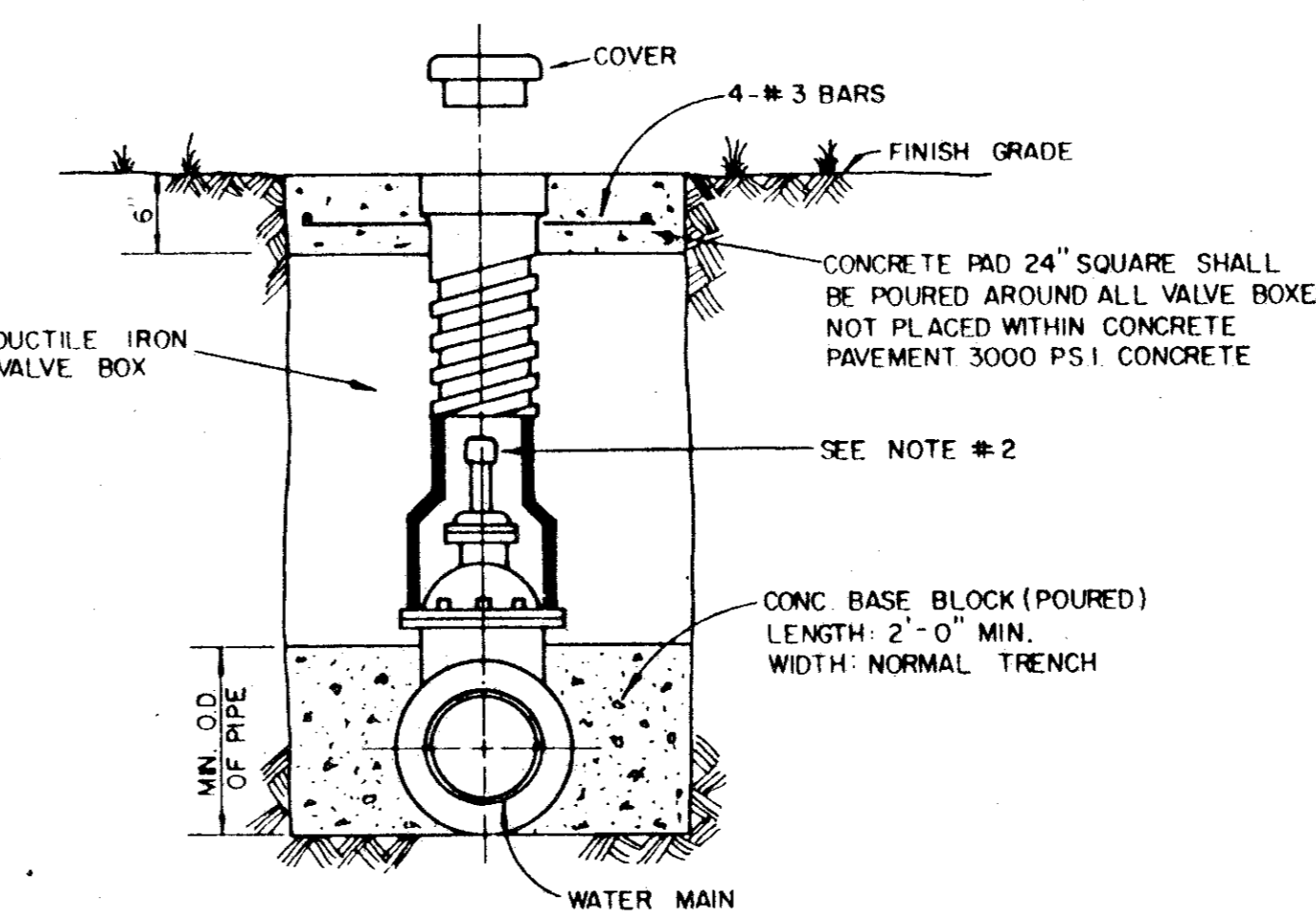
HORIZONTAL BEND THRUST BLOCK



I.D. (IN.)	THRUST (TONS)	EARTH		ROCK		
		C	VOL. C.Y.	A	VOL. C.Y.	
4.68	5.1	1.5	2.5	0.3	2.0	0.2
10.12	11.3	1.5	3.5	0.6	2.5	0.3
16.18	25.5	2.0	5.5	1.6	4.0	0.9
20	31.5	2.0	6.0	1.7	4.0	0.9
24	45.2	2.5	7.0	3.1	5.0	1.7
30	53.0	3.0	7.5	4.1	5.5	2.4
36	76.3	4.0	9.0	7.3	6.5	4.2
42	104.0	4.5	10.5	11.0	7.5	6.2
48	136.0	5.0	12.0	15.6	8.5	8.7
54	172.0	5.5	13.5	21.4	9.5	11.9
60	212.0	6.0	15.0	28.4	10.5	15.7
66	257.0	6.5	16.5	36.8	11.5	20.5
72	305.0	7.5	17.5	47.2	12.5	27.2
78	358.0	8.0	19.0	58.9	13.5	33.7
84	416.0	8.5	20.5	72.3	14.5	41.2
90	477.0	9.0	22.0	87.7	15.5	49.7
96	543.0	9.5	23.5	104.8	16.5	61.0

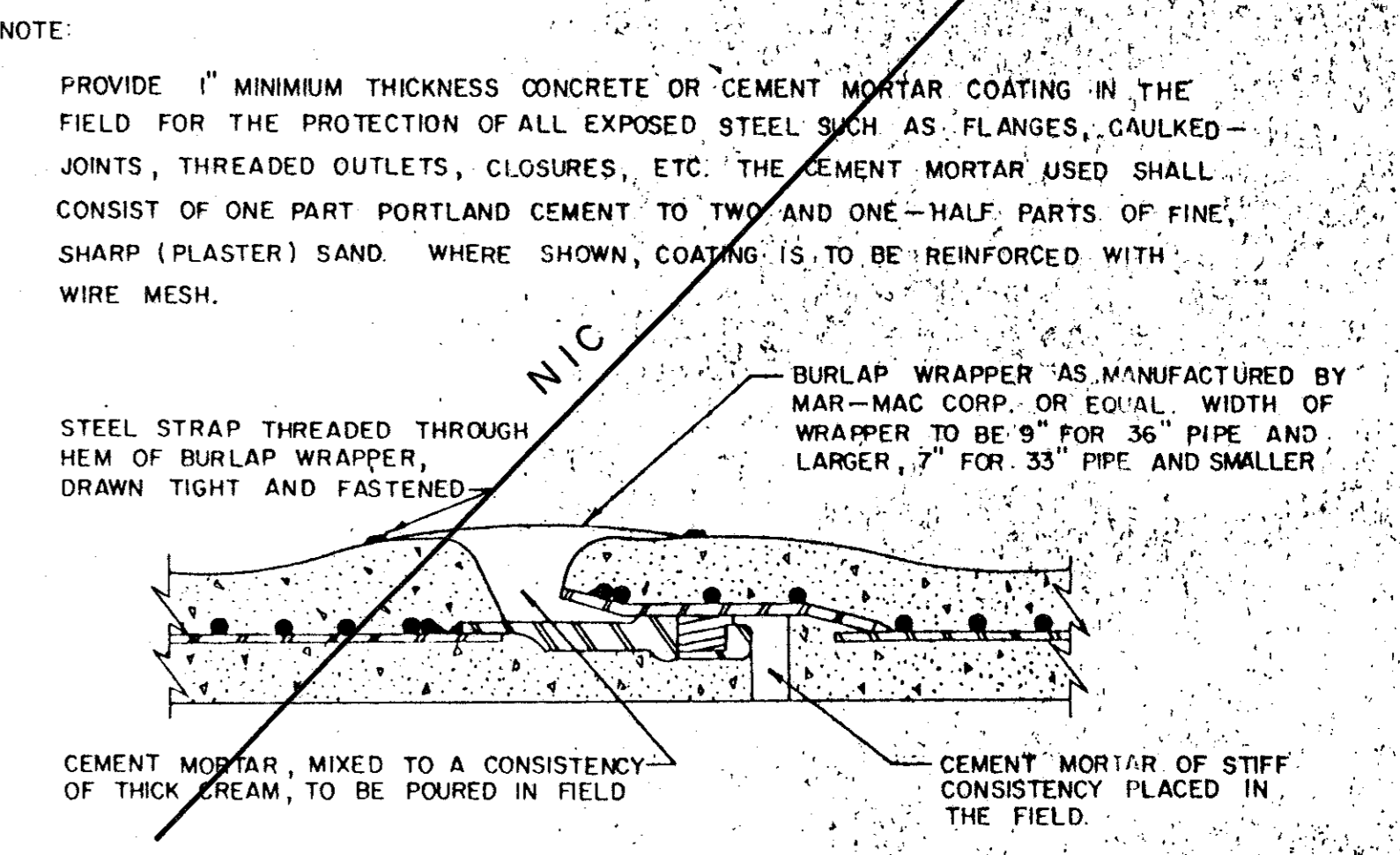
PLUG & TEE THRUST BLOCK

TYPICAL VALVE SETTING AND BOX

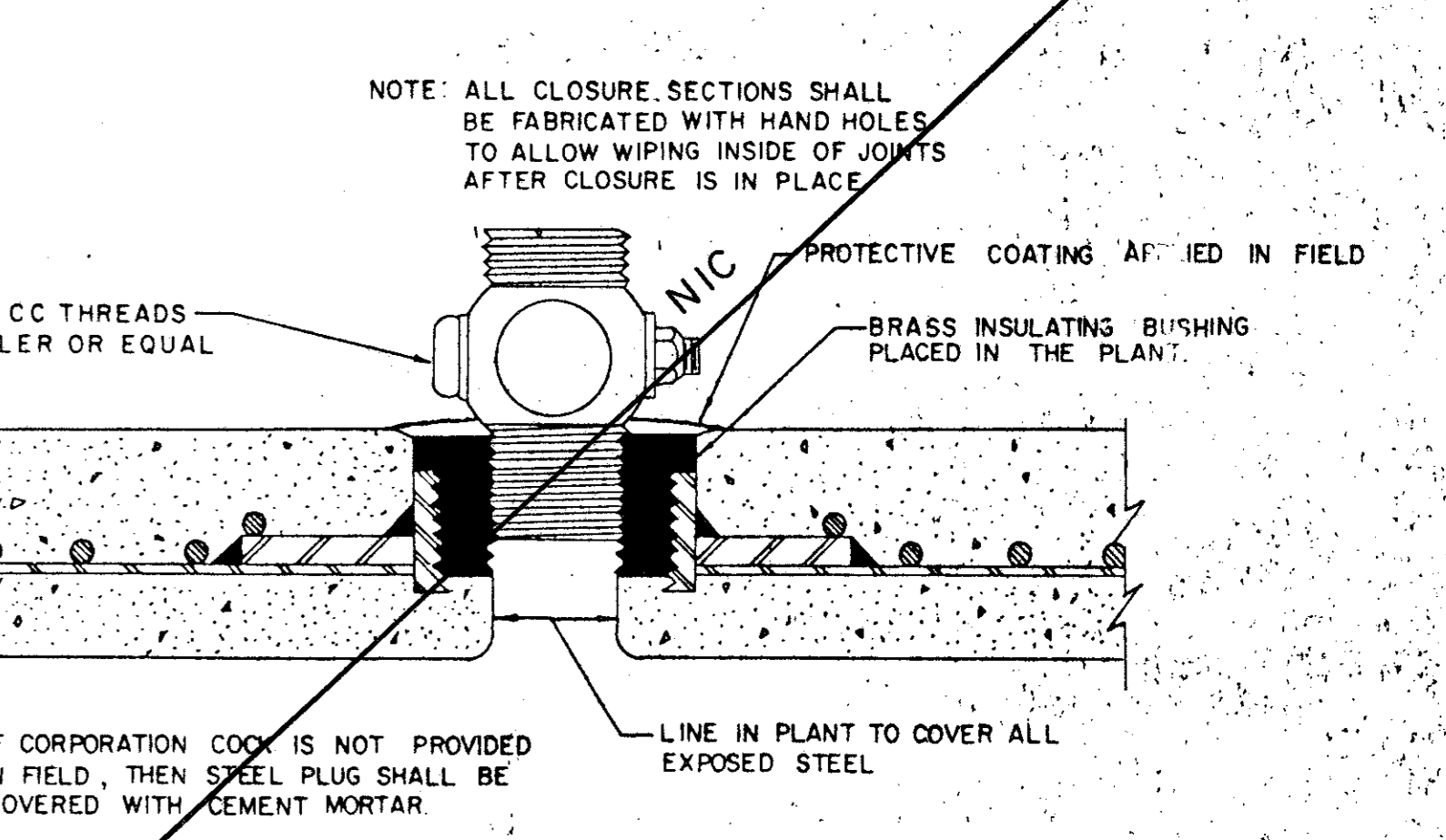


- NOTE:
- GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF ALL VALVES SHALL BE "MUELLER" OR APPROVED EQUAL.
 - A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE THATS OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4" OF VALVE BOX LID MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4'-0" BELL END OF STACK TO BE FITTED OVER VALVE. VALVE AND VALVE STACK IS TO BE POLY WRAPPED.
 - VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK BODY BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.

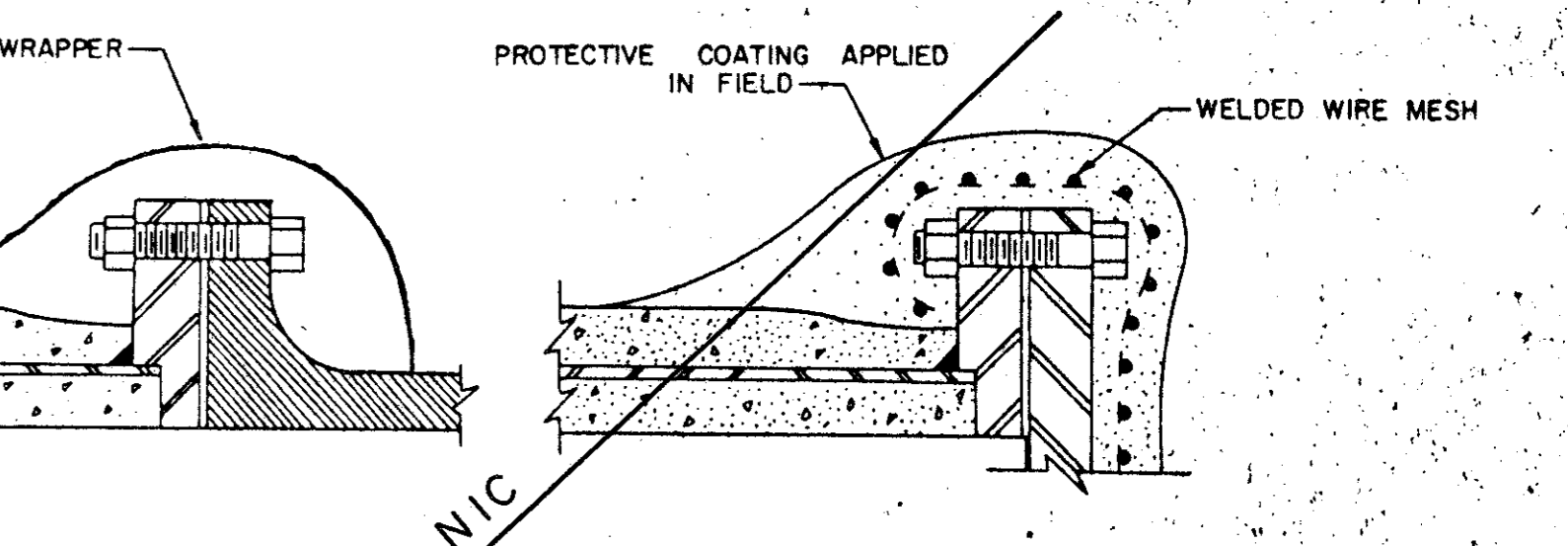
TYPICAL VALVE SETTING AND BOX



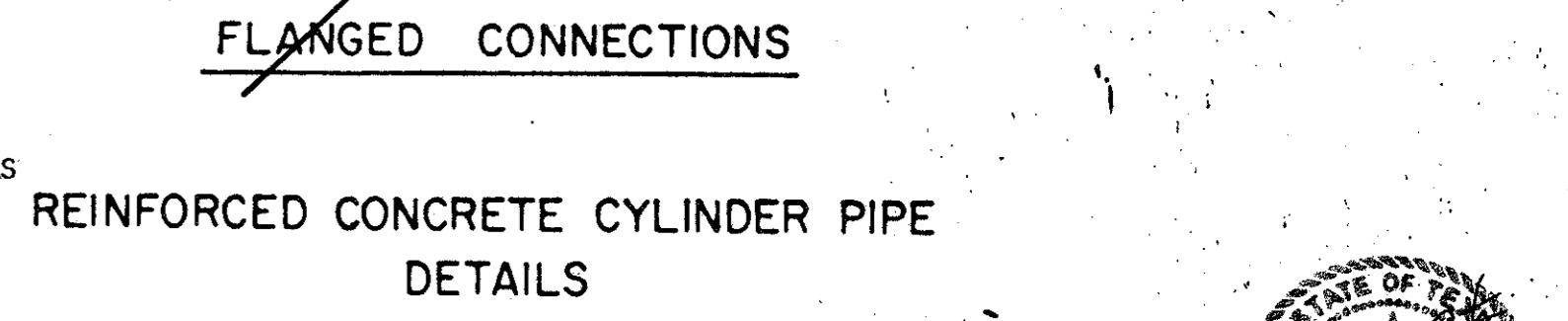
STANDARD RUBBER GASKET JOINT



THREADED CONNECTION



FLANGED CONNECTIONS



STATE OF TEXAS
LAWRENCE A. CADES
41838
PROFESSIONAL ENGINEER

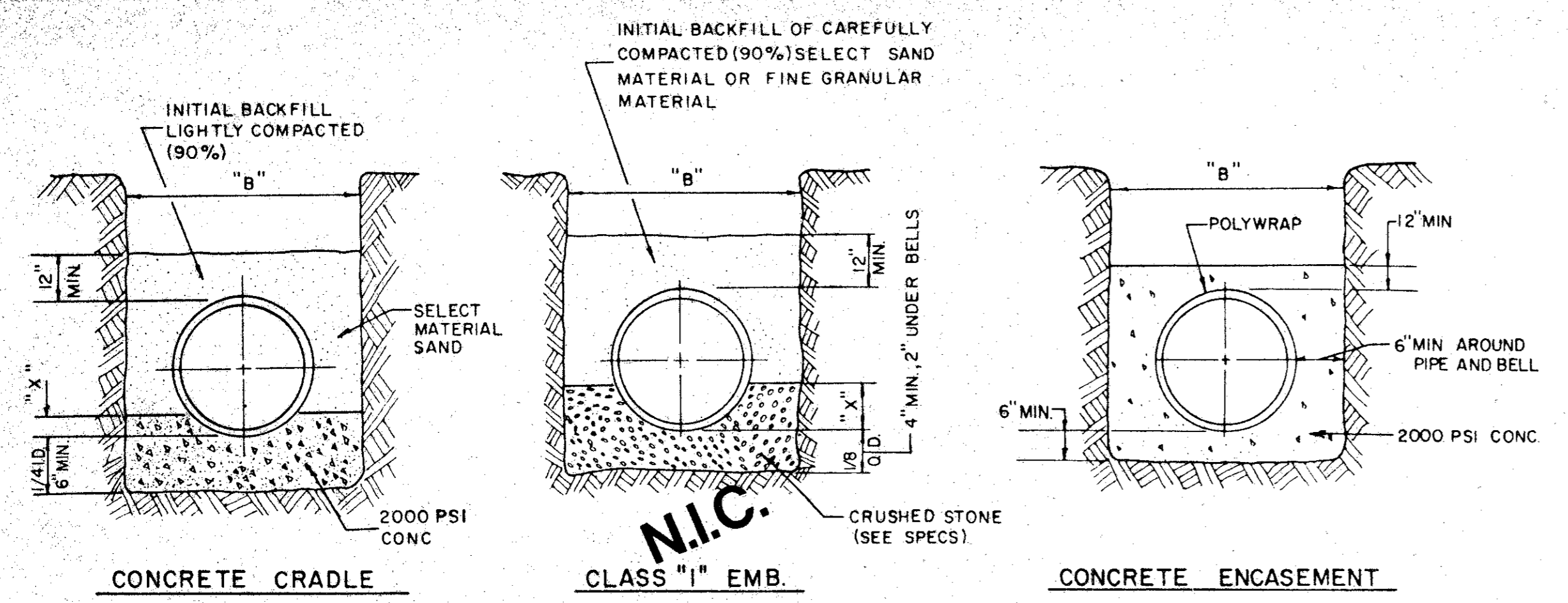
TOWN OF ADDISON, TEXAS
DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS
WATER

THRUST BLOCKS

Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet SD 5A

TYPICAL NATIVE MATERIAL COMPACTED TO:
 95% OPTIMUM MOISTURE 0 TO ±3% UNDER PAVEMENT
 95% OPTIMUM MOISTURE 0 TO ±3% OUTSIDE CURB LINES
 JETTING IS NOT ALLOWED
 BACKFILL TO BE COMPACTED IN 6"± LIFTS

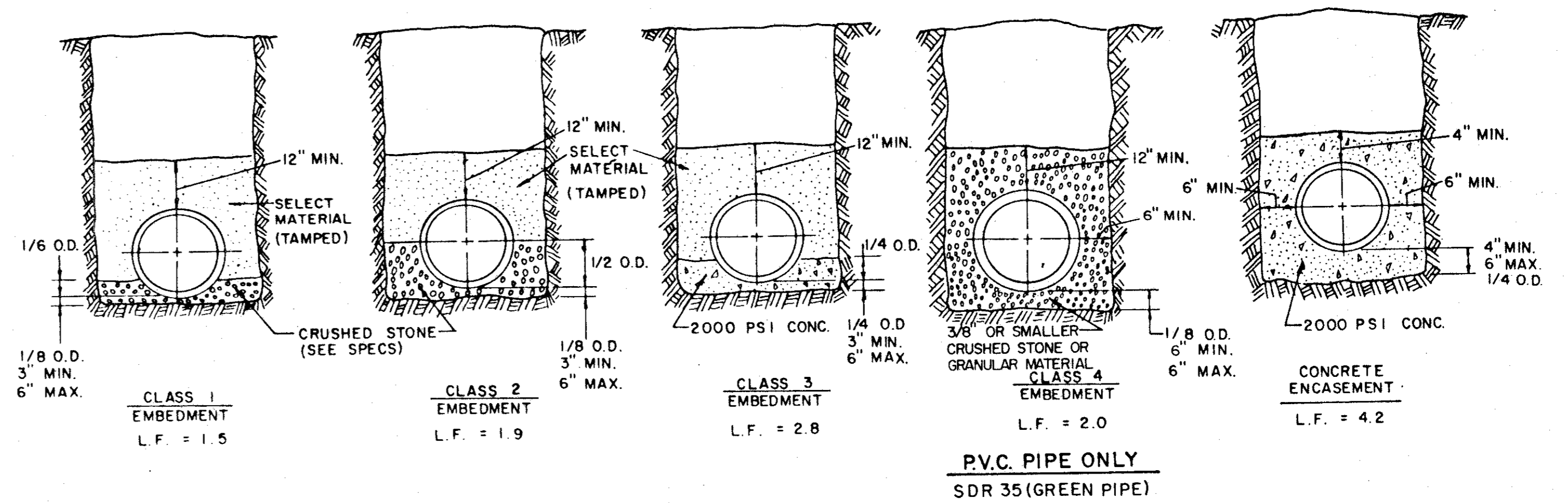


EMBEDMENT DETAILS FOR RCP WATERLINE

TABLE OF QUANTITIES OF MATERIALS IN CUBIC YARDS PER 100 LINEAR FEET

INSIDE DIAMETER OF PIPE	APPROX. OUTSIDE DIAMETER OF PIPE	X IS A MINIMUM DEPTH	TRENCH WIDTH FOR COMPUTATION OF QUANTITIES	CONCRETE		CRUSHED STONE FOR CLASS "1" EMBEDMENT
				FOR EMBEDMENT	FOR ENCASEMENT	
14"	17.25"	2.53"	34"	6.91	16.07	5.16
16"	19.28"	2.84"	36"	7.50	17.76	5.64
18"	21.78"	3.19"	38"	8.11	19.52	6.16
24"	27.75"	4.06"	44"	9.97	24.90	9.28

N.I.C. REINFORCED CONCRETE CYLINDER PIPE



EMBEDMENT DETAILS FOR SANITARY SEWER

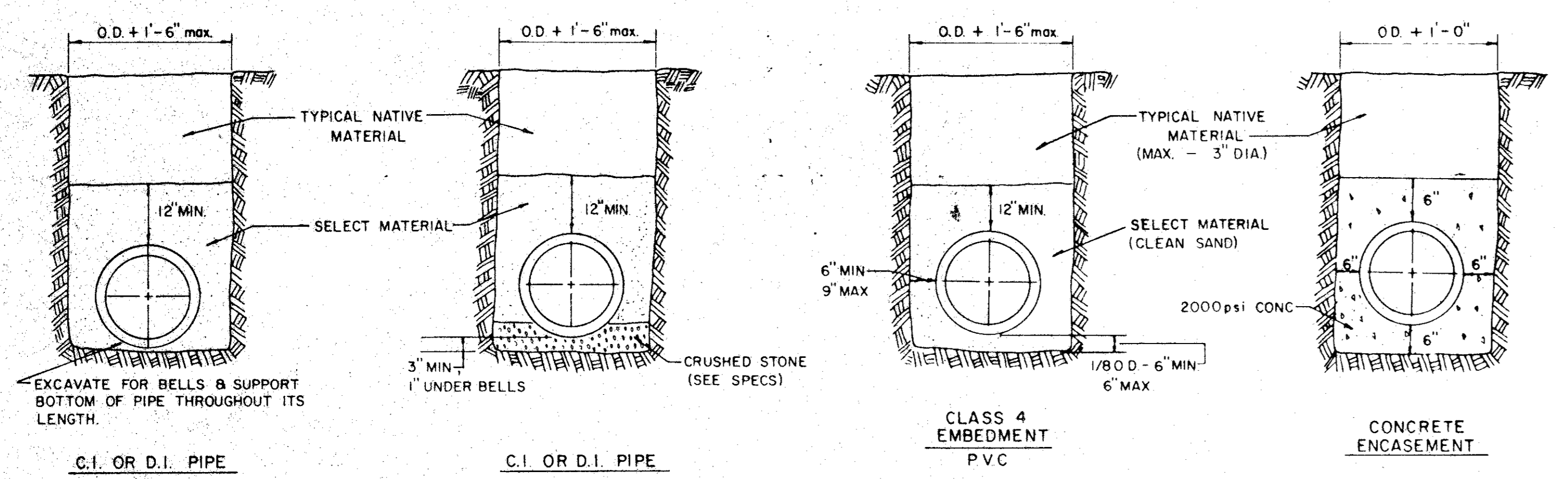
TABLE OF QUANTITIES OF 2000 PSI CONCRETE, GRAVEL OR CRUSHED STONE IN CUBIC YARDS PER 100 LINEAR FEET FOR EACH CLASS EMBEDMENT

TABLE OF QUANTITIES PER 100 LINEAR FEET REINFORCED CONCRETE PIPE

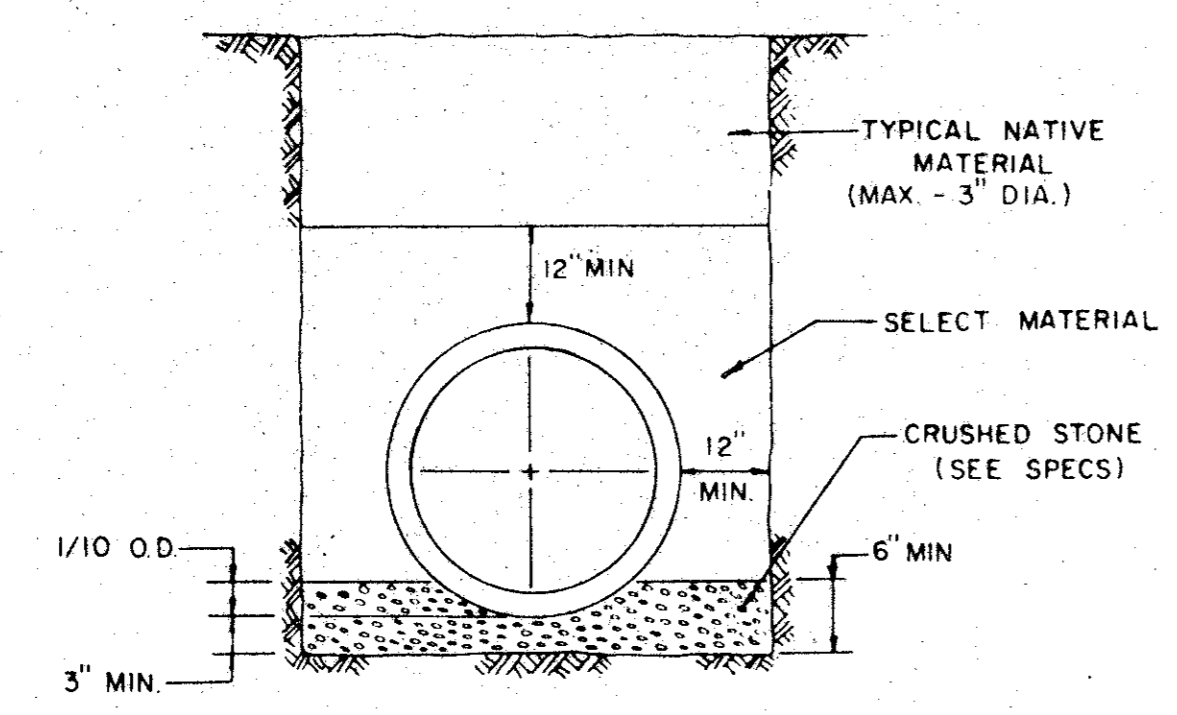
SIZE OF PIPE IN INCHES I.D.	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 1 EMBEDMENT CRUSHED STONE	CLASS 2 EMBEDMENT CRUSHED STONE	CLASS 3 EMBEDMENT CONCRETE	CONCRETE ENCASEMENT
12	16.00	32	2.67	4.1	6.5	4.8	15.8
15	19.50	36	3.00	4.8	7.8	6.4	19.2
18	23.00	39	3.25	5.7	9.2	8.2	21.2
21	26.50	43	3.58	6.9	11.0	10.2	24.9
24	30.00	46	3.83	8.3	13.1	12.4	28.7
27	33.50	51	4.25	10.3	16.1	14.4	32.8
30	37.00	57	4.75	12.7	20.1	17.0	34.8
33	40.50	62	5.17	15.1	23.8	19.3	39.2
36	44.00	67	5.58	18.0	28.6	22.1	43.8

TABLE OF QUANTITIES PER 100 LINEAR FEET-PVC PIPE (IN CUBIC YARDS)

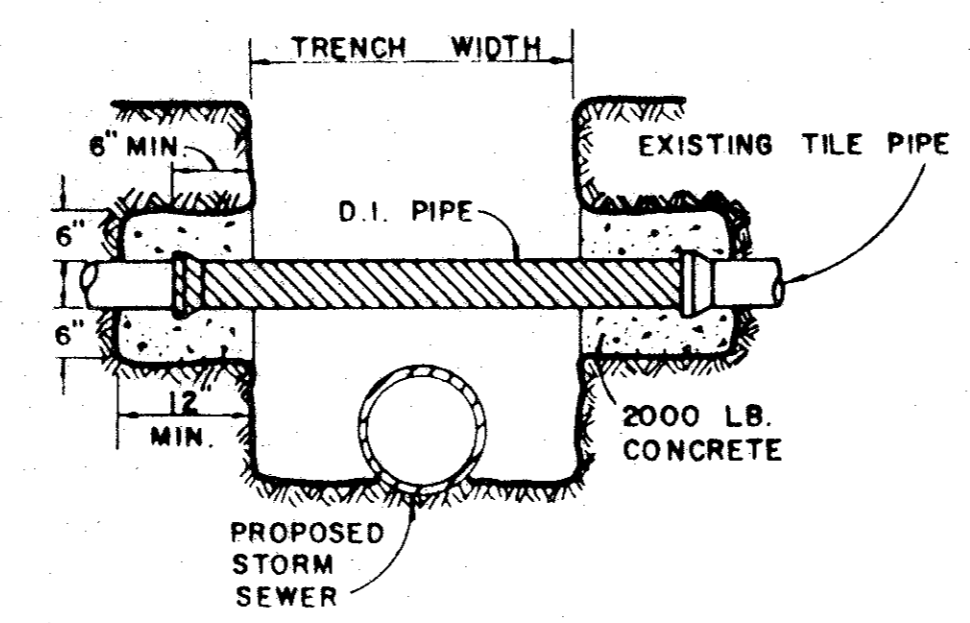
SIZE OF PIPE IN INCHES	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 4 EMBEDMENT CRUSHED STONE	CONCRETE ENCASEMENT
6	6.28	24	2.00	8.0	11.7
8	8.16	24	2.00	8.7	12.4
10	10.20	26	2.18	10.2	14.2
12	12.24	28	2.35	11.7	15.9
16	15.30	31	2.61	14.0	18.8
24		36	3.0		
30		42	3.5		



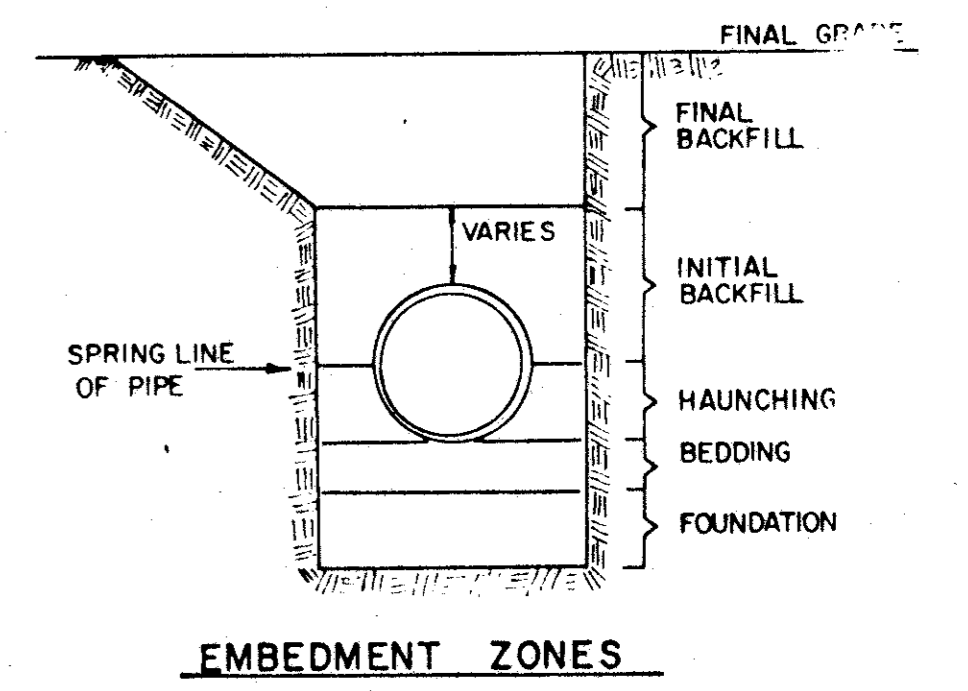
EMBEDMENT DETAILS FOR WATER MAIN



EMBEDMENT DETAIL FOR STORM SEWER



DETAIL OF UTILITY SUPPORT

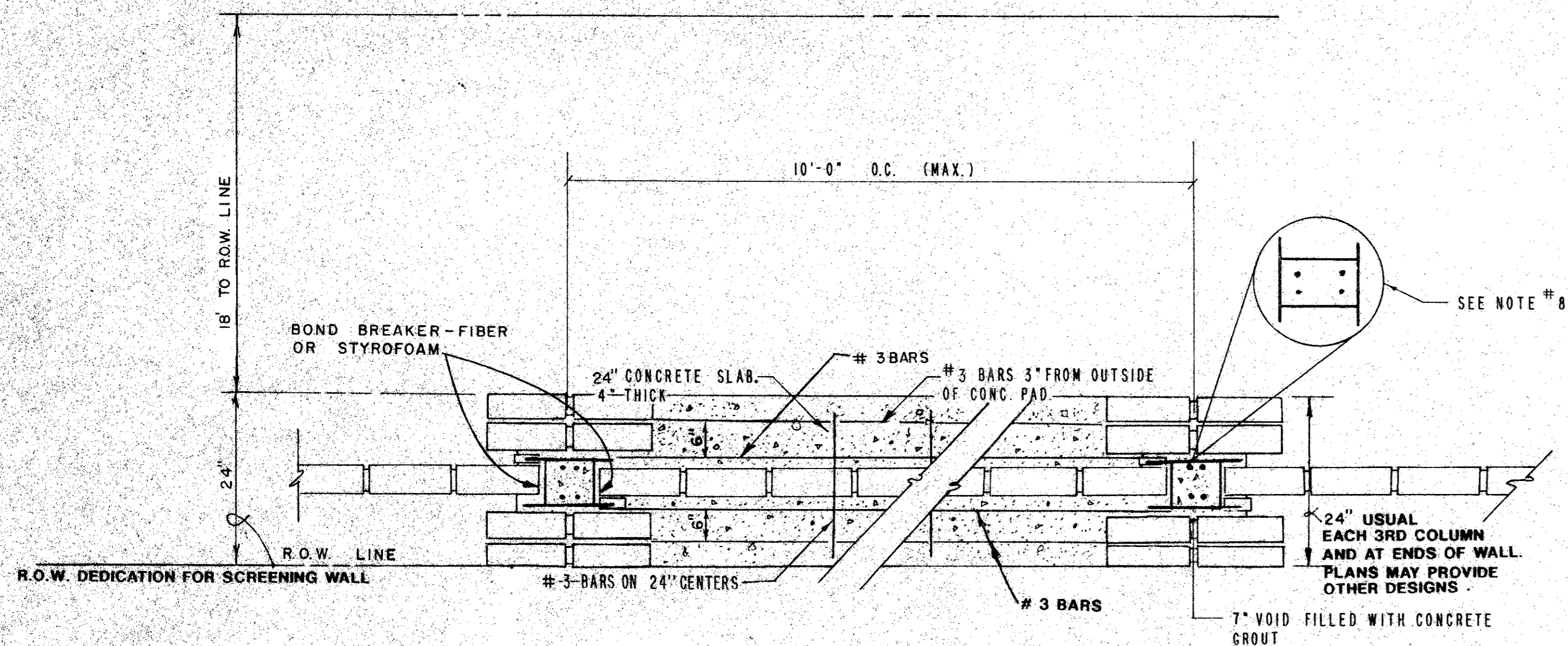


TOWN OF ADDISON, TEXAS
 DEPARTMENT OF ENGINEERING

STANDARD CONSTRUCTION DETAILS

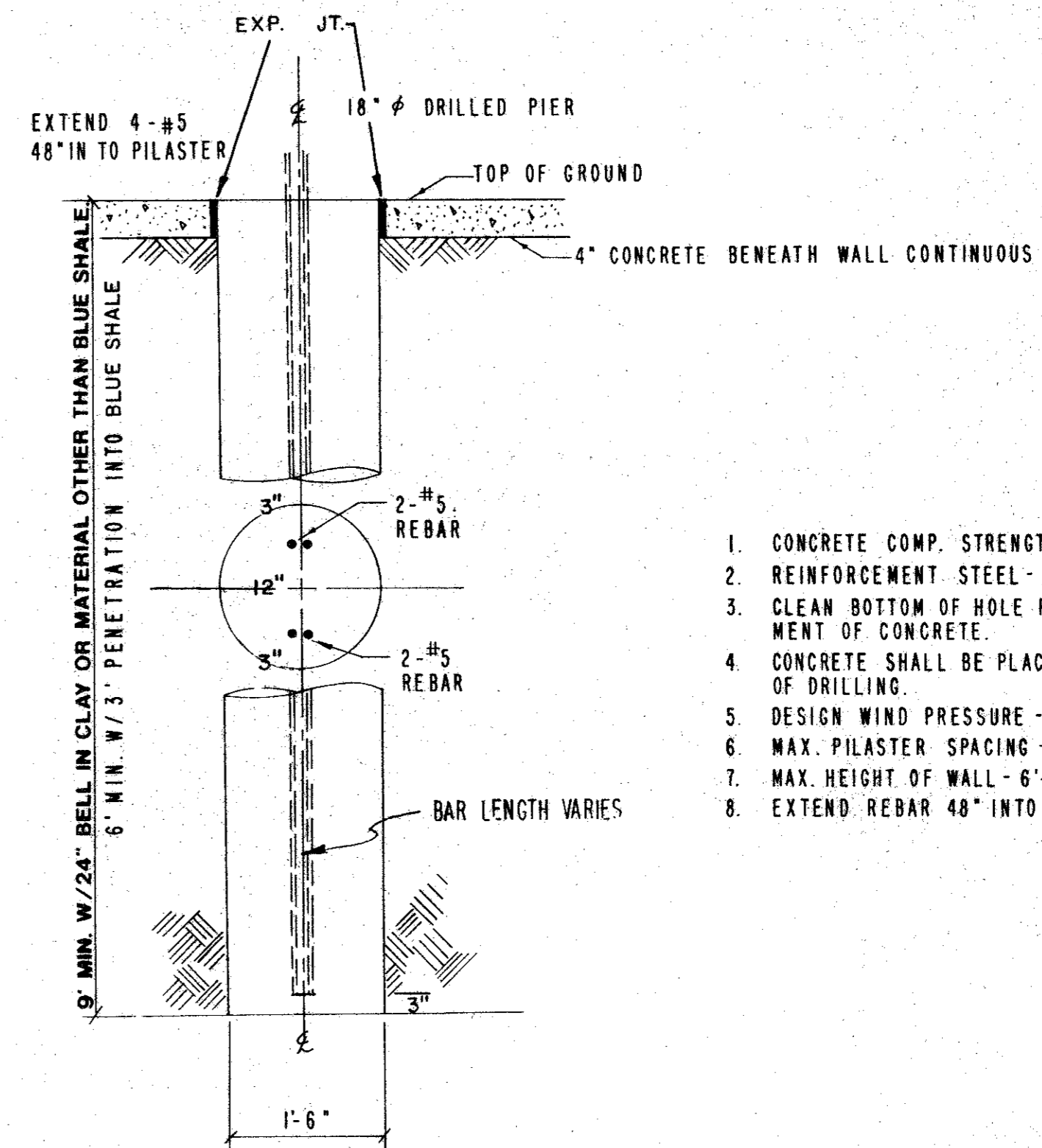
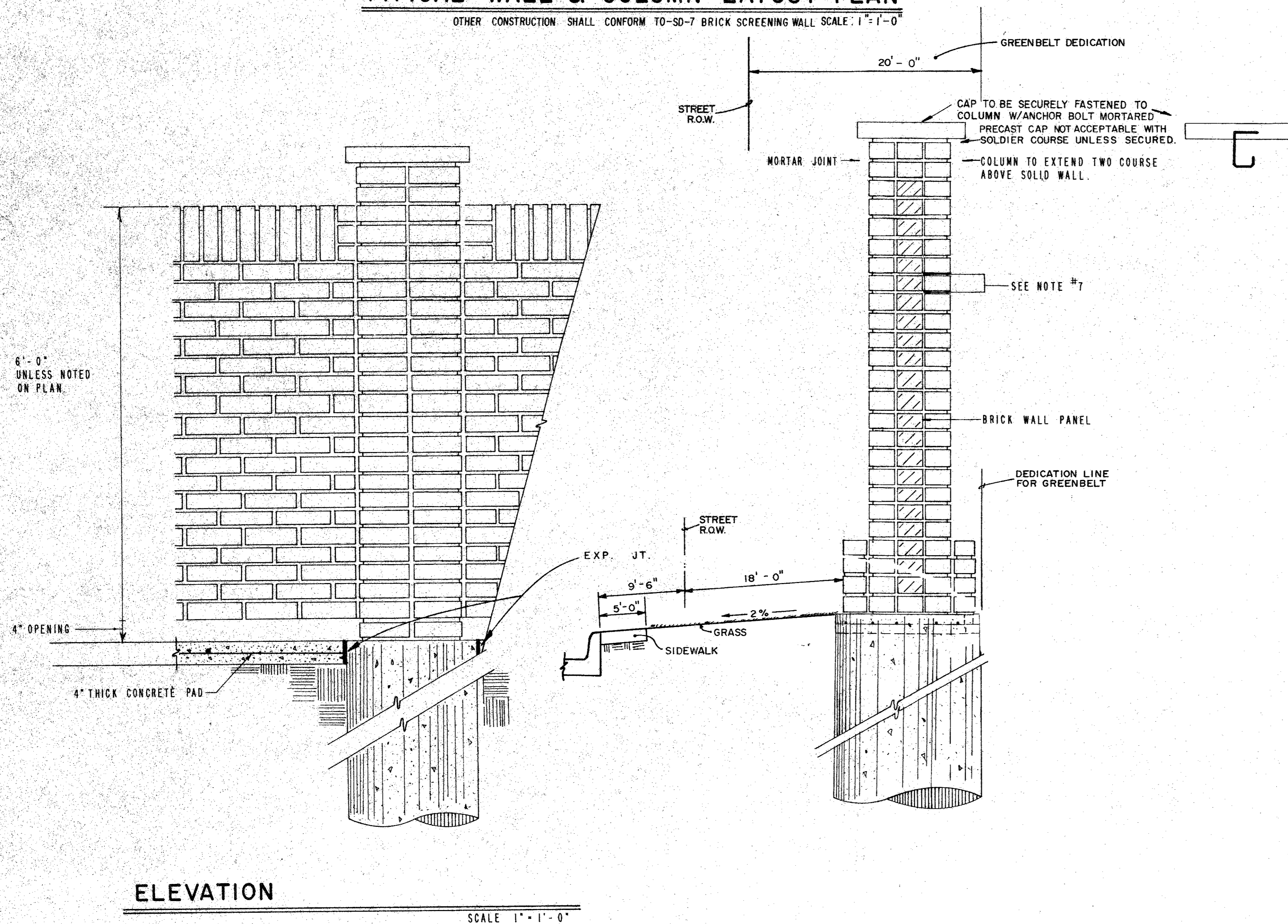
EMBEDMENT DETAILS

Designed -	Drawn -	Date -	Job No. -
Approved -	Checked -	Scale -	Sheet SD 6



TYPICAL WALL & COLUMN LAYOUT PLAN

OTHER CONSTRUCTION SHALL CONFORM TO SD-7 BRICK SCREENING WALL SCALE: 1"=1'-0"



PIER DETAIL

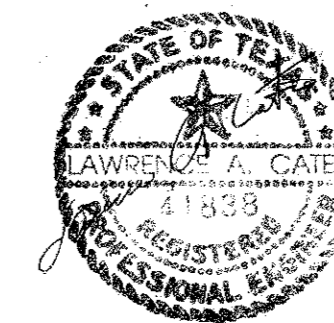
SCALE 3/4" = 1'-0"

1. CONCRETE COMP. STRENGTH - 4000 P.S.I.
2. REINFORCEMENT STEEL - ASTM A615 - GR 60.
3. CLEAN BOTTOM OF HOLE PRIOR TO PLACEMENT OF CONCRETE.
4. CONCRETE SHALL BE PLACED WITHIN 8 HOURS OF DRILLING.
5. DESIGN WIND PRESSURE - 20 PSF.
6. MAX. PLASTER SPACING - 10'-0".
7. MAX. HEIGHT OF WALL - 6'-0".
8. EXTEND REBAR 48" INTO PILASTER AND COLUMN.

NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A-615-GR.60.
3. CONCRETE FOR DRILLED PIERS SHALL BE PLACED WITHIN 8 HOURS OF DRILLING PIER HOLES.
4. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "RECOMMENDED PRACTICE FOR ENGINEERED BRICK MASONRY" -- BRICK INSTITUTE OF AMERICA.
5. USE #9 GAUGE 1-3/4" WIDE GALVANIZED LADDER WIRE TO EXTEND HORIZONTAL IN WALL PANEL DURAWALL CORP. EVERY COURSE.
6. #9 GAUGE WIRE FABRICATED AS SHOWN BETWEEN EACH COURSE OF COLUMN BRICK.
7. THE WALL SHALL BE A MINIMUM OF SIX FEET IN HEIGHT AS MEASURED FROM THE NEAREST ALLEY EDGE OR SIDEWALK GRADE, WHICHEVER IS HIGHER. THE COLOR OF THE WALL SHALL BE LIMITED TO EARTH-TONE COLORS, EXCLUDING GREY, GREEN AND WHITE. THE COLOR OF THE WALL SHALL BE UNIFORM ON EACH SIDE OF A THOROUGHFARE FOR THE ENTIRE LENGTH BETWEEN TWO INTERSECTING TYPE A, B, OR C THOROUGHFARES, UNLESS OTHERWISE APPROVED BY THE ENGINEERING DEPARTMENT. THE FINISH OF THE WALL SHALL BE CONSISTENT ON ALL SURFACES.

NCT STANDARD SPECIFICATIONS NO.	REVISION	S.A.S. BY	DATE
PUBLIC WORKS DEPARTMENT OF ENGINEERING			
STANDARD CONSTRUCTION DETAILS PAVING			
THIN WALL BRICK SCREENING WALL			
APPROVED _____			
DATE: SEPT., 1991		SHEET	SD - 7



May 17, 1993