

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

STORM WATER SEWER EXTENSION

IN

BRADLEY FAIR 2ND ADDITION

CITY OF WICHITA PRIVATE PROJECT NO. 89OPPS (607861)

INDEX OF SHEETS

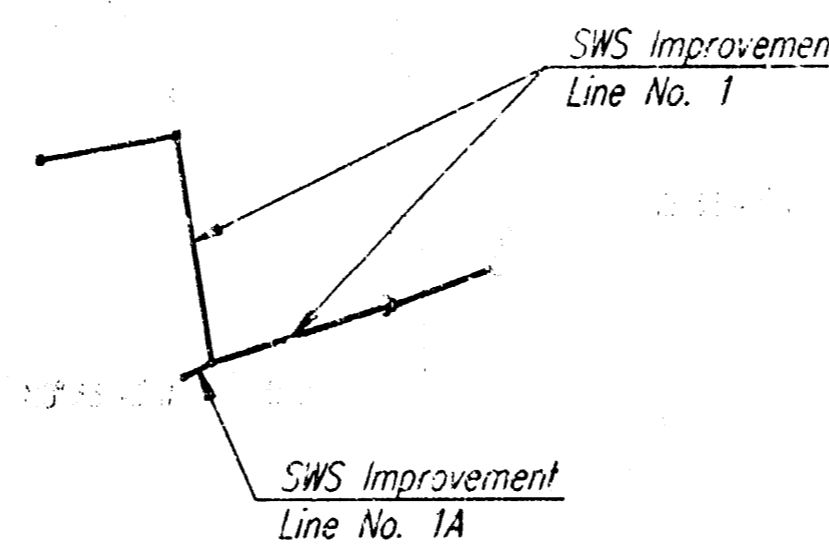
- 1. TITLE
- C-5 SWS PLAN
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- C-8 TYPE 1A CURB INLET
- C-9 STANDARD RC MANHOLE
- C-10 AREA INLET & EROSION CONTROL DETAILS

© 21ST STREET NORTH = SECTION LINE

© ROCK ROAD = SECTION LINE

BRADLEY FAIR PARKWAY

BRADLEY FAIR PARKWAY



Booked
E-3
8/18/03
RDL

FEBRUARY 1999
PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO BIDDING.

TREES AND SHRUBS WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE OWNER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A INQUIRY LOCATION SERVICE, AT (316) 637-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: KGE GAS, PEOPLES NATURAL GAS, K.G.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, MULTIMEDIA CABLEVISION, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED, FERTILIZED, AND MULCHED AS SHOWN ON SHEET C-17, OR AS DIRECTED BY OWNER.

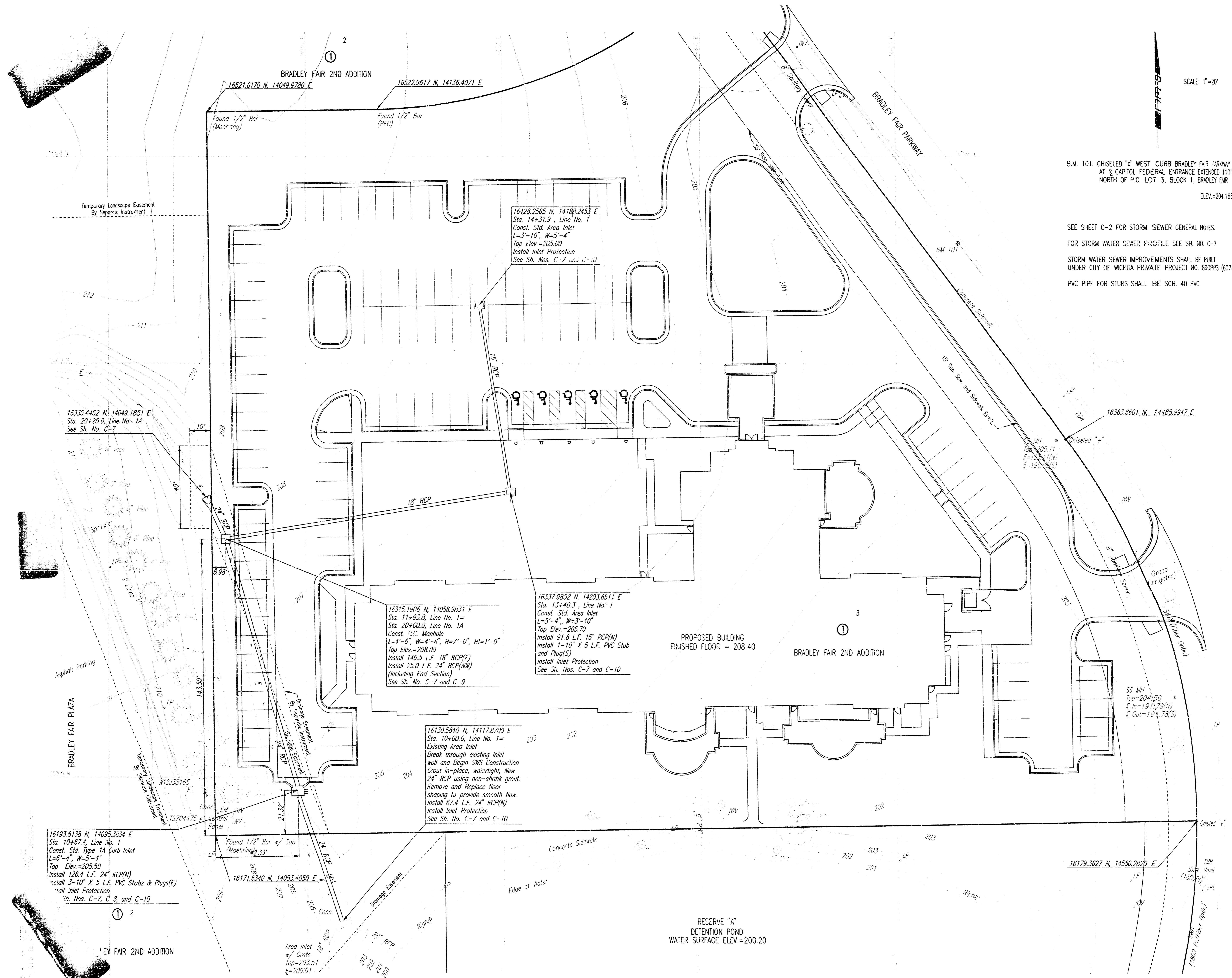
ALL CONSTRUCTION AND MATERIALS FOR STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS _____
STORM SEWERS VRH 3/11/99
DRIVEWAY APPROACHES _____
WATER MAINS _____
PAVING _____

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM CONTRACTED BY THE CONTRACTOR. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR UNTIL SUCH INSPECTION IS ARRANGED FOR AND REQUIRED BIDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY. WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER, IMPROVEMENTS PERFORMED ON THIS PROJECT SHALL NOT BE ACCEPTED BY THE CITY UNTIL ALL APPLICABLE DOCUMENTATION HAS BEEN SUBMITTED TO THE CITY ENGINEER. THIS MAY INCLUDE AS-BUILT DRAWINGS, INSPECTION LOGS, TEST DOCUMENTATION, TV TAPES, AND A CERTIFICATE OF COMPLETION. ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS PROJECT.



SCALE: 1"=20'

B.M. 101: CHISELED "G" WEST CURB BRADLEY FAIR PARKWAY
 AT CAPITOL FEDERAL ENTRANCE EXTENDED 110±
 NORTH OF P.C. LOT 3, BLOCK 1, BRADLEY FAIR
 ELEV.=204.165

SEE SHEET C-2 FOR STORM SEWER GENERAL NOTES.
 FOR STORM WATER SEWER PROFILE: SEE SH. NO. C-7
 STORM WATER SEWER IMPROVEMENTS SHALL BE BUILT
 UNDER CITY OF WICHITA PRIVATE PROJECT NO. 890PPS (607861).
 PVC PIPE FOR STUBS SHALL BE SCH. 40 PVC.

PRINTS ISSUED	
NO.	PURPOSE

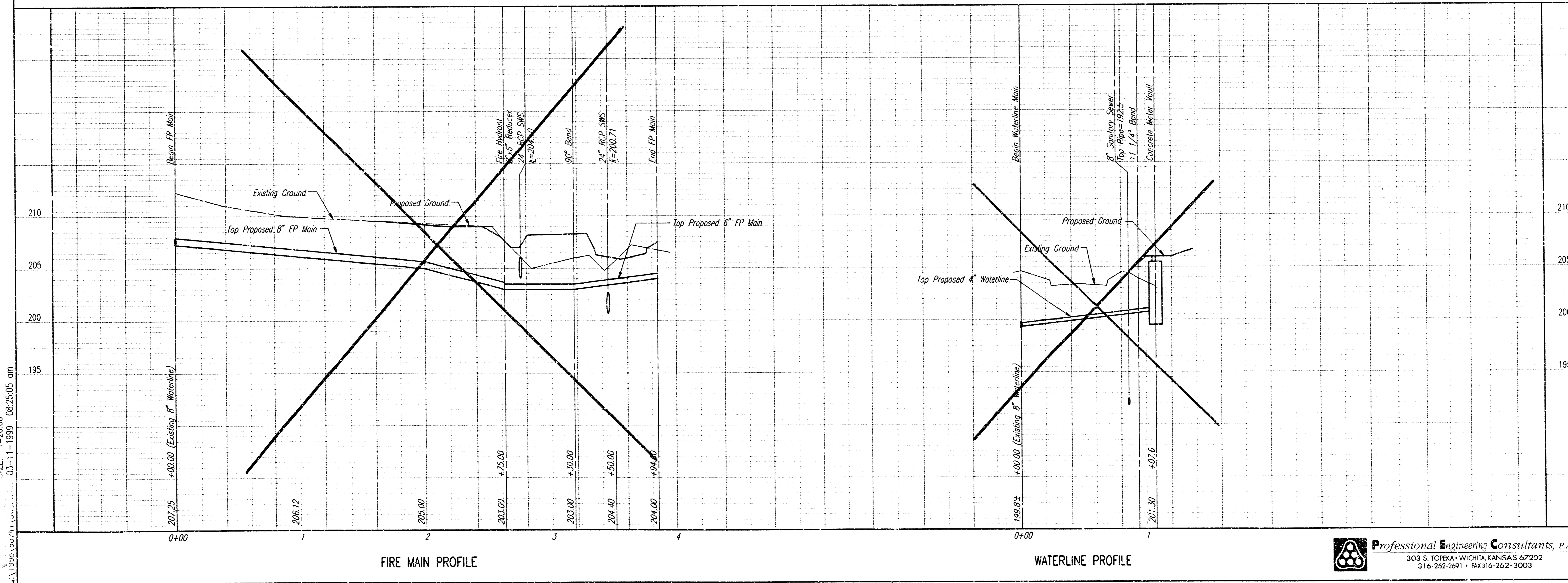
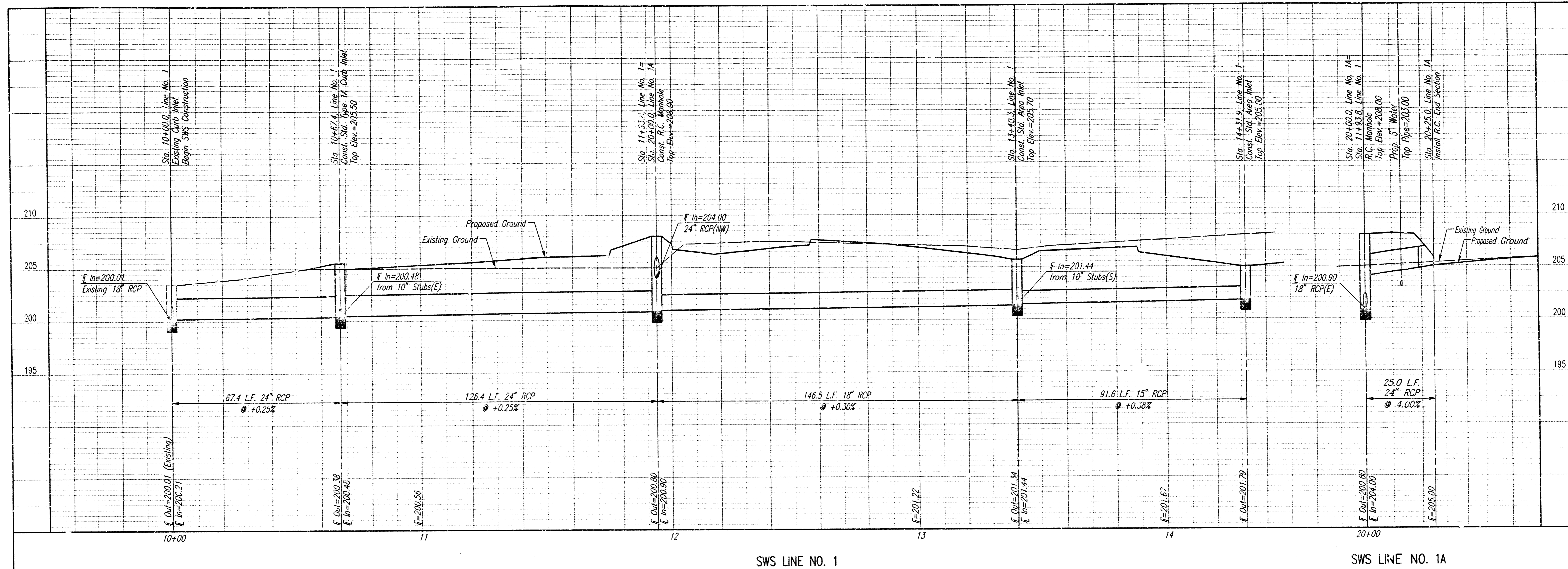
REVISIONS	
NO.	DATE

BROWNING & ASSOCIATES
 ARCHITECTURE / PLANNING
 204 SOUTH LEXU WICHITA, KANSAS 672-1-1
 TEL 1-316-269-9001 FAX 1-316-269-9003

Hilton
 GARDEN INN
 AT
 BRADLEY FAIR
 SECOND ADDITION
 LOT 3
 WICHITA, KANSAS
 PROJECT NO. 98208-193-369

DRAWN	CHECKED
DEP	
SHEET TITLE	
STORM WATER SEWER P	
SHEET NUMBER	
C-5	
OF 20 S	

Professional Engineering Consultants, P.A.
 303 S. TORREKA WICHITA, KANSAS 67202
 316-262-2601 • FAX 316-262-3003



SCALE: 1"=20.00
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PRINTS ISSUED	
NO	PURPOSE

REVISIONS	
NO	DATE

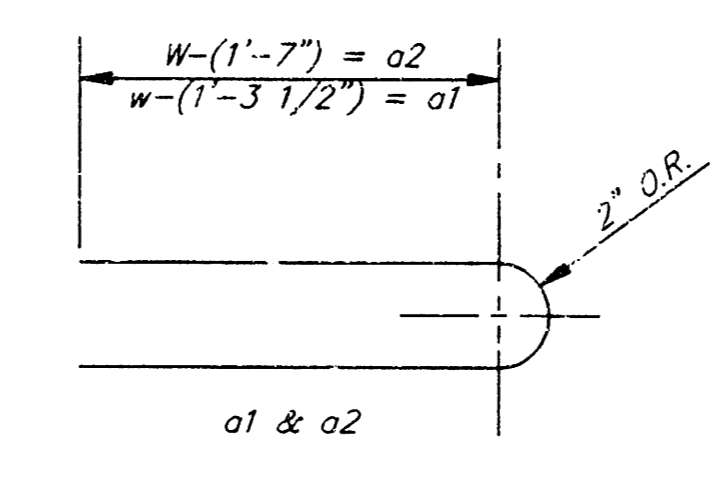
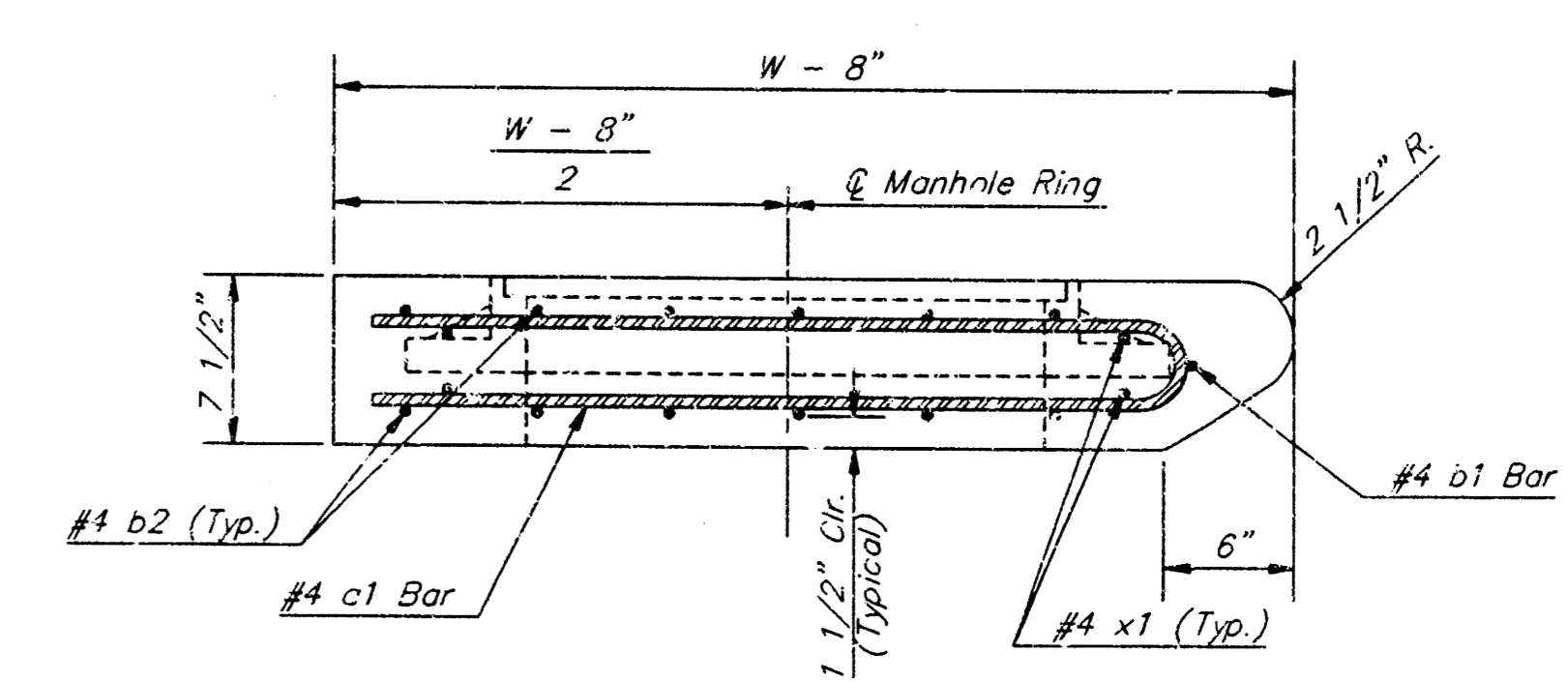
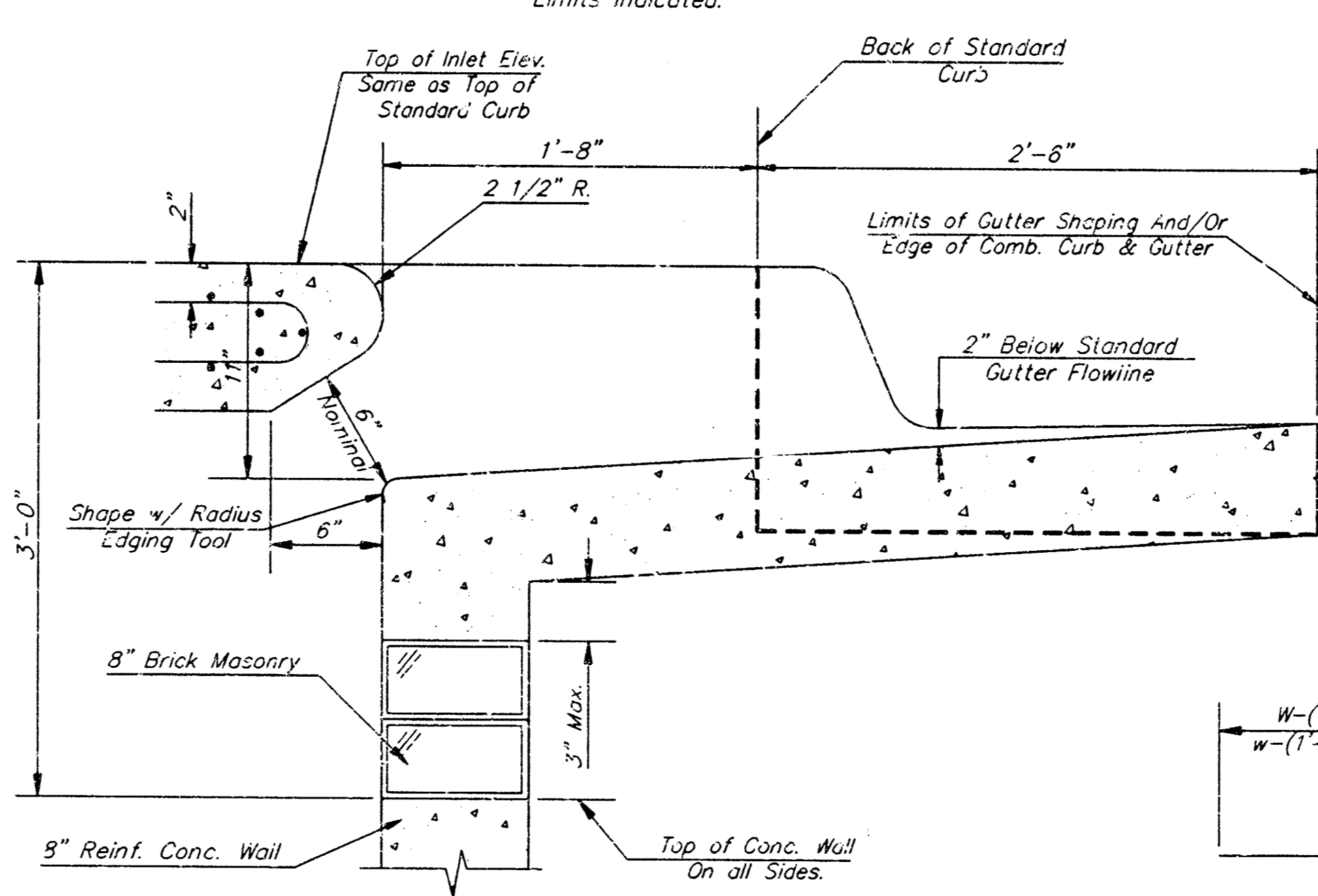
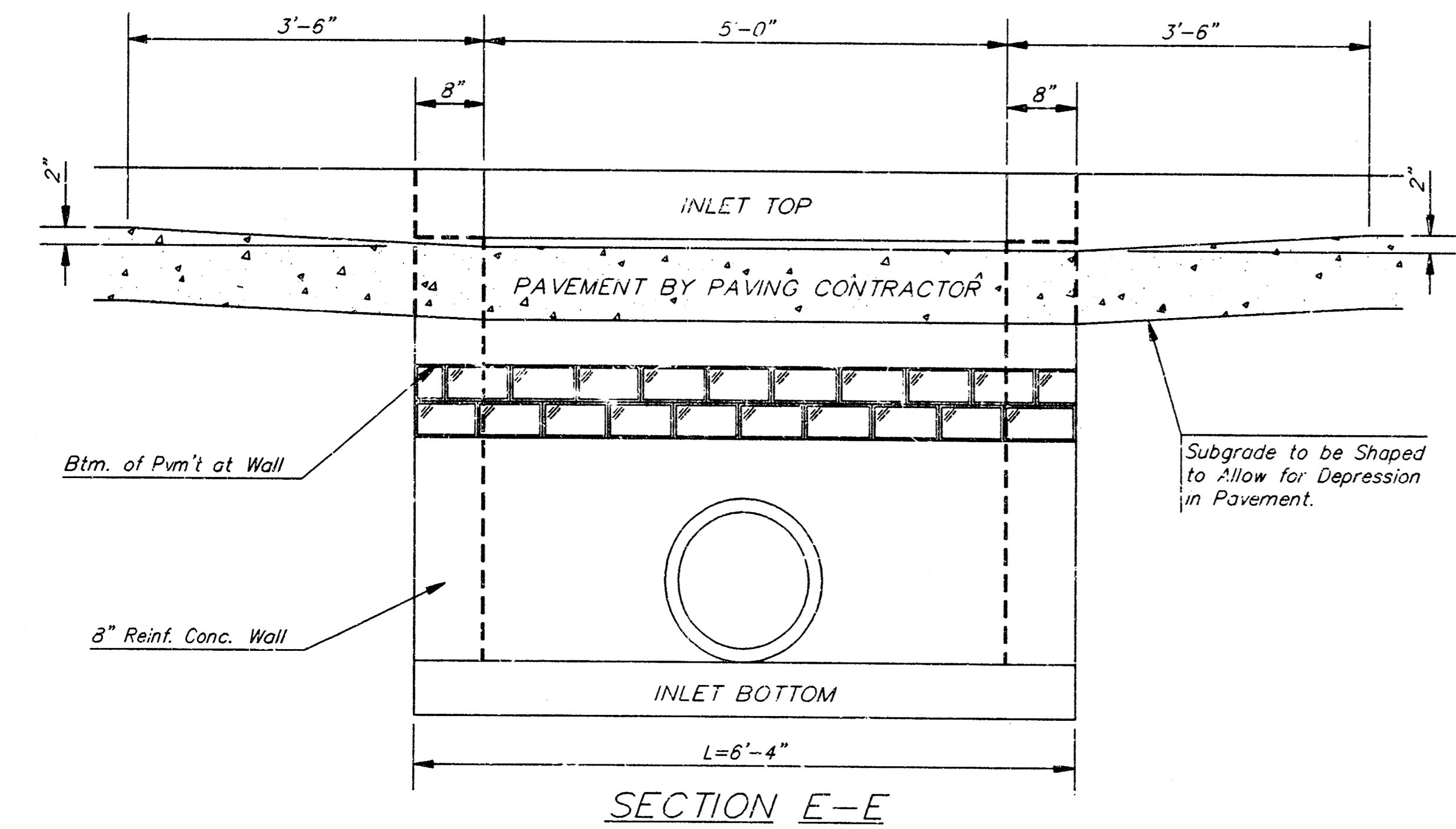
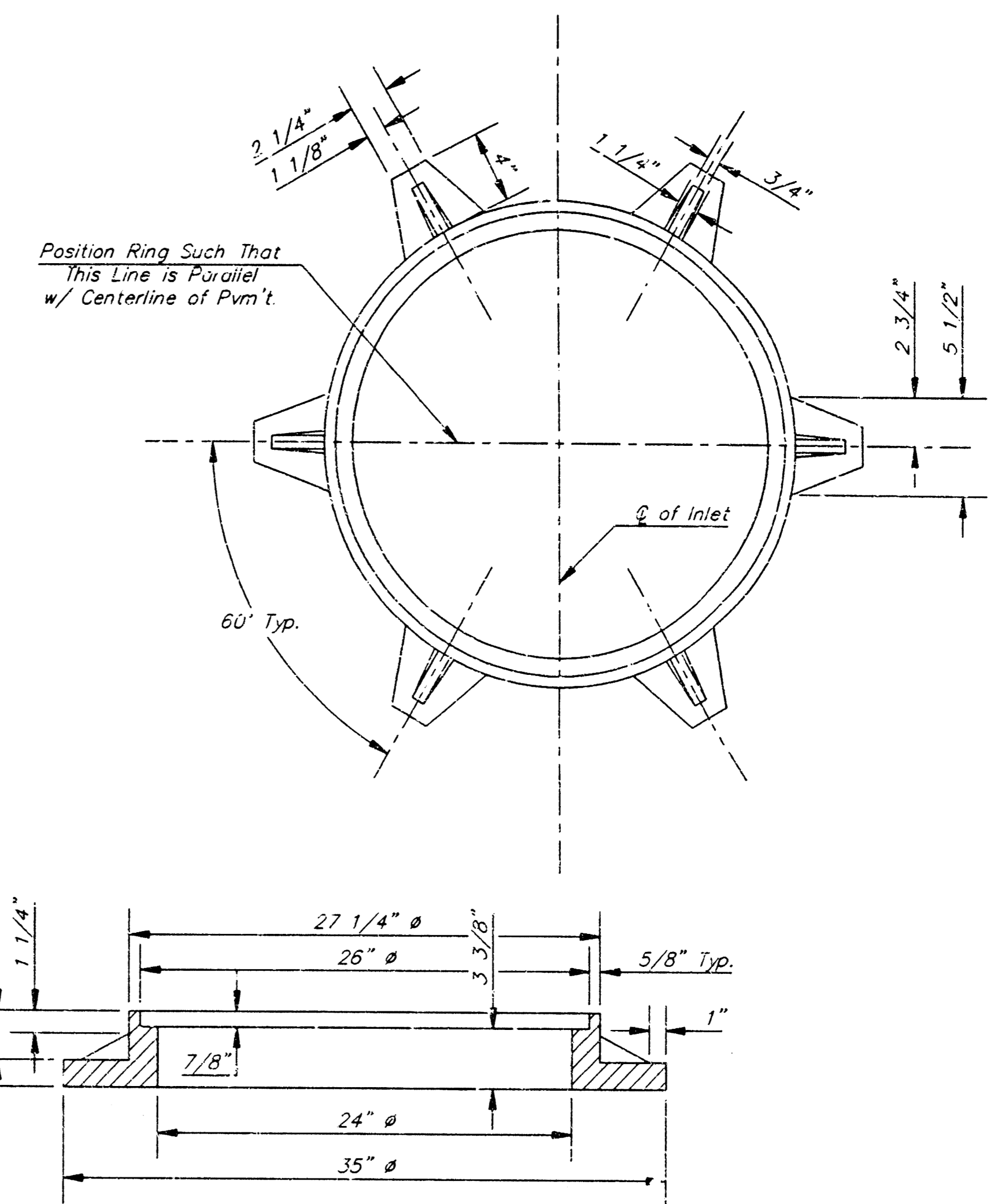
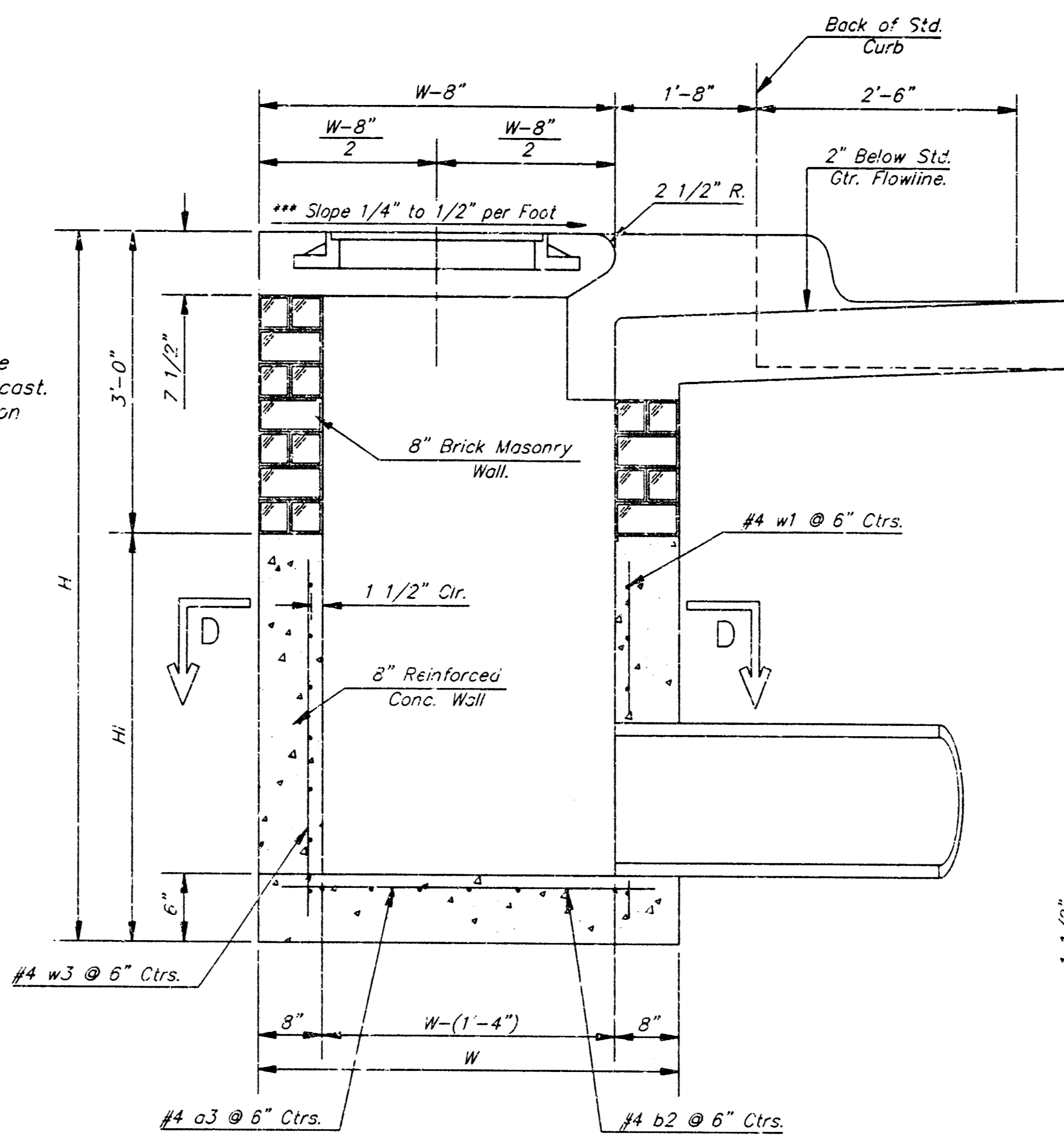
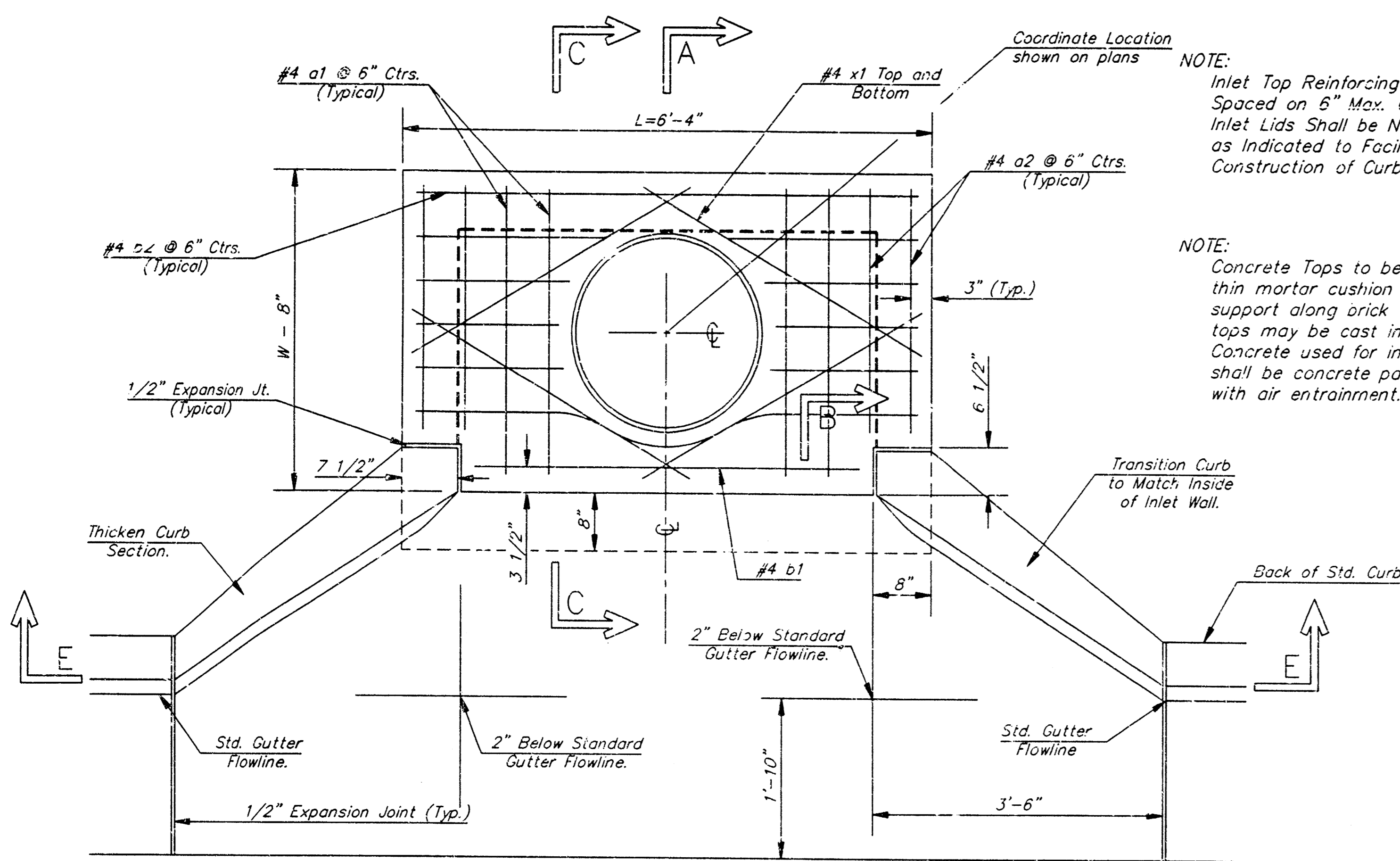
DATE	
NO	ITEM

BROWNING & ASSOCIATES
 ARCHITECTURE / PLANNING
 204 SOUTH LULL WICHITA, KANSAS 67211
 TEL 1-316-269-3001 FAX 1-316-269-3005

Hilton
 GARDEN INN
 AT
 BRADLEY FAIR
 SECOND ADDITION
 LOT 3
 WICHITA, KANSAS
 PROJECT NO. 9808-103-369

DRAWN	CHECKED
DEP	
SHEET TITLE	
UTILITY PROFILES	
SHEET NUMBER	
C-7	
OF 20	

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



PRECAST SLAB AND FLOOR REINFORCING

MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

WALL REINFORCING

MARK	SIZE	W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* Field Bend or Cut Reinforcing as Required for Clearance.

① 4 (H - 12") (H - 21") Rounded down to nearest 0.5"

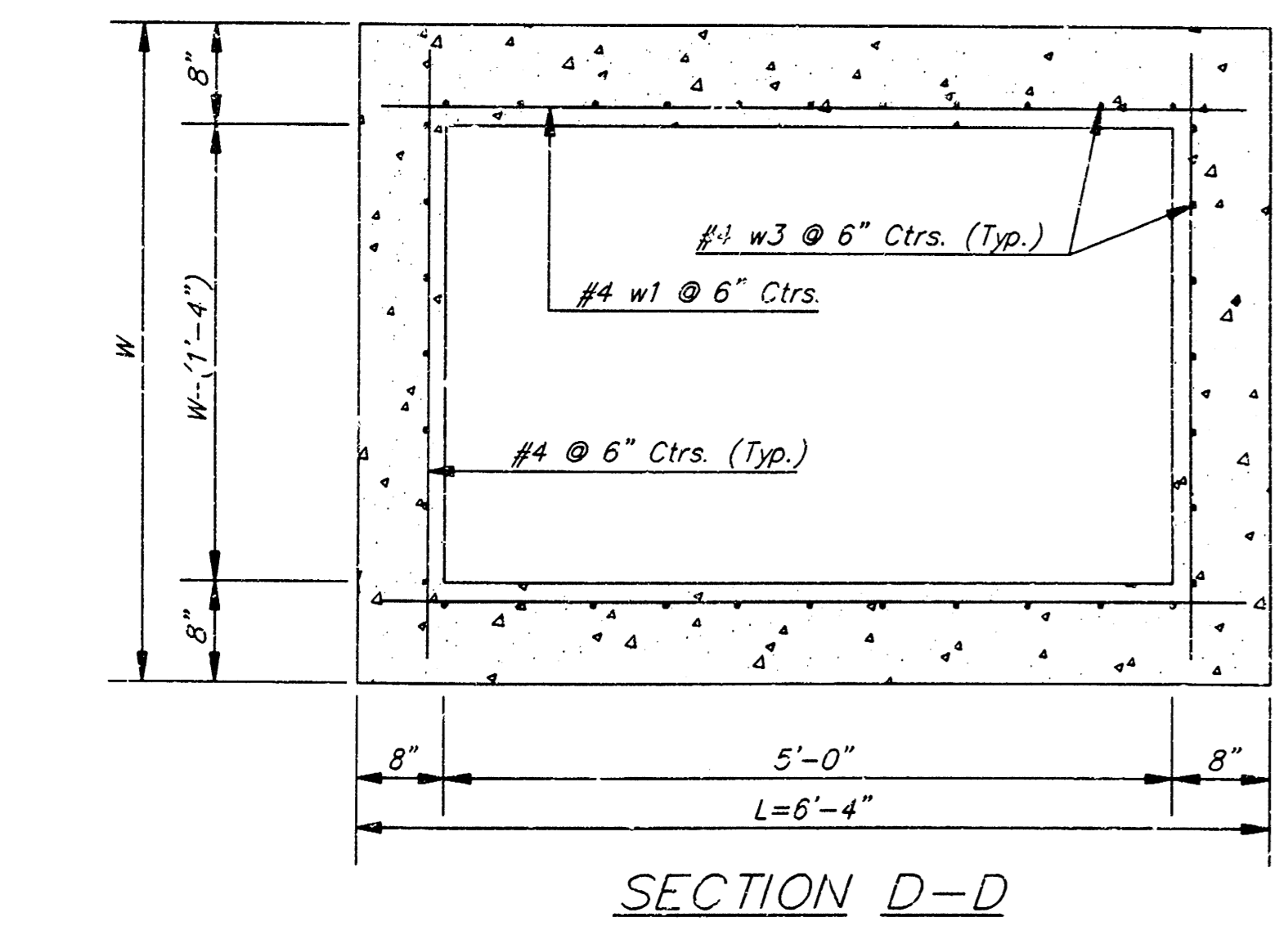
② H - 3"

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.

Additional curb and gutter construction necessary to connect set-back curb to pavement will be paid for at the unit price bid for each inlet hookup.

Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.



NO.	DATE	REVISIONS	ITEM	PURPOSE

BROWNING & ASSOCIATES
ARCHITECTURE / PLANNING
214 SOUTH WASH. AVE. #200
TEL. 1-316-269-0001 FAX 1-316-269-0002



AT
BRADLEY FAIR
SECOND ADDITION
LOT 3
WICHITA, KANSAS

PROJECT NO. 9808-193-36-3

DRAWN	CHECKED
DEP	

SHEET TITLE
**TYPE IA C
INLET**

SHEET NUMBER

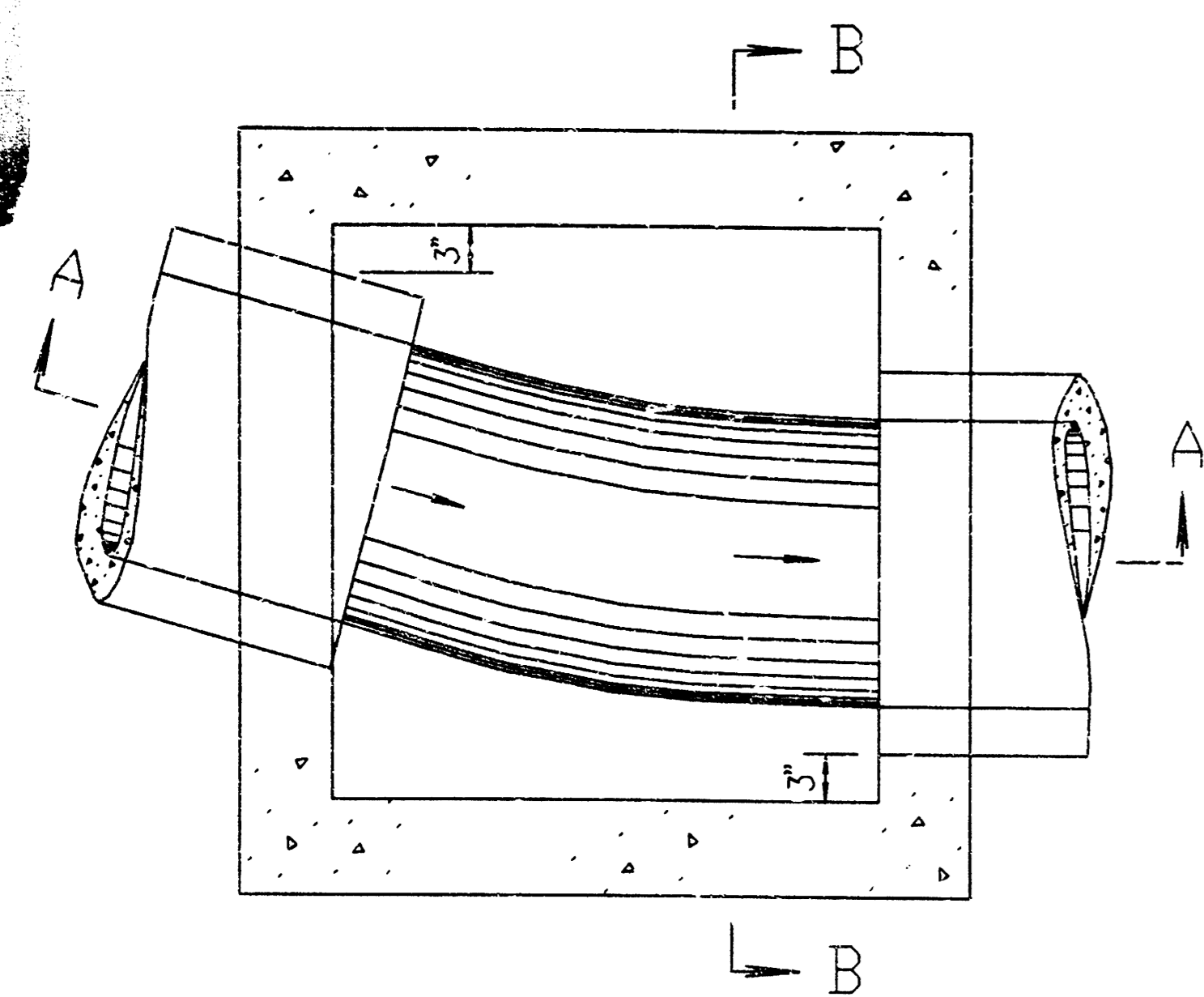
C-8

OF 20

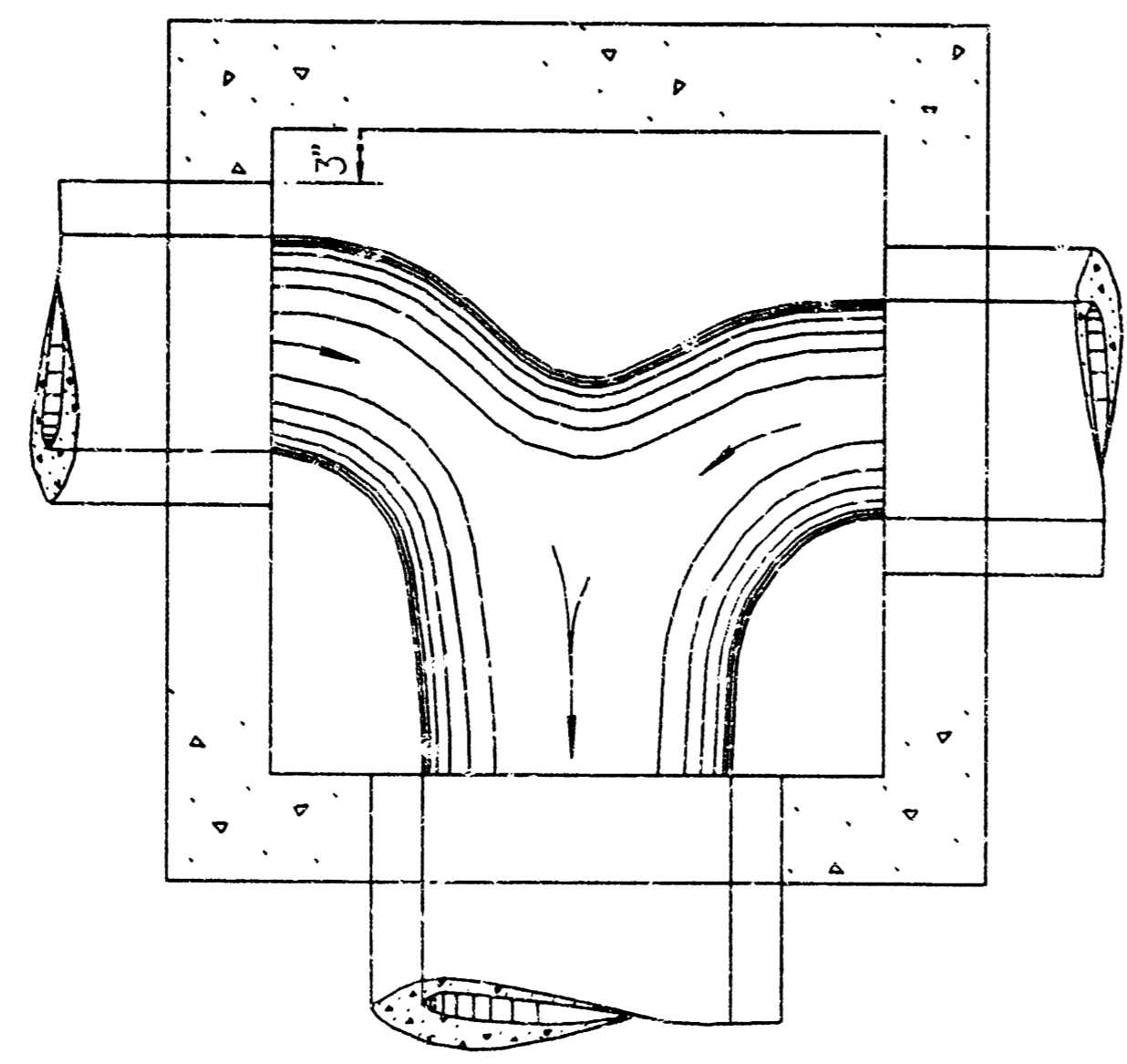
"TAKEN FROM CITY OF WICHITA STANDARD DETAILS"

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

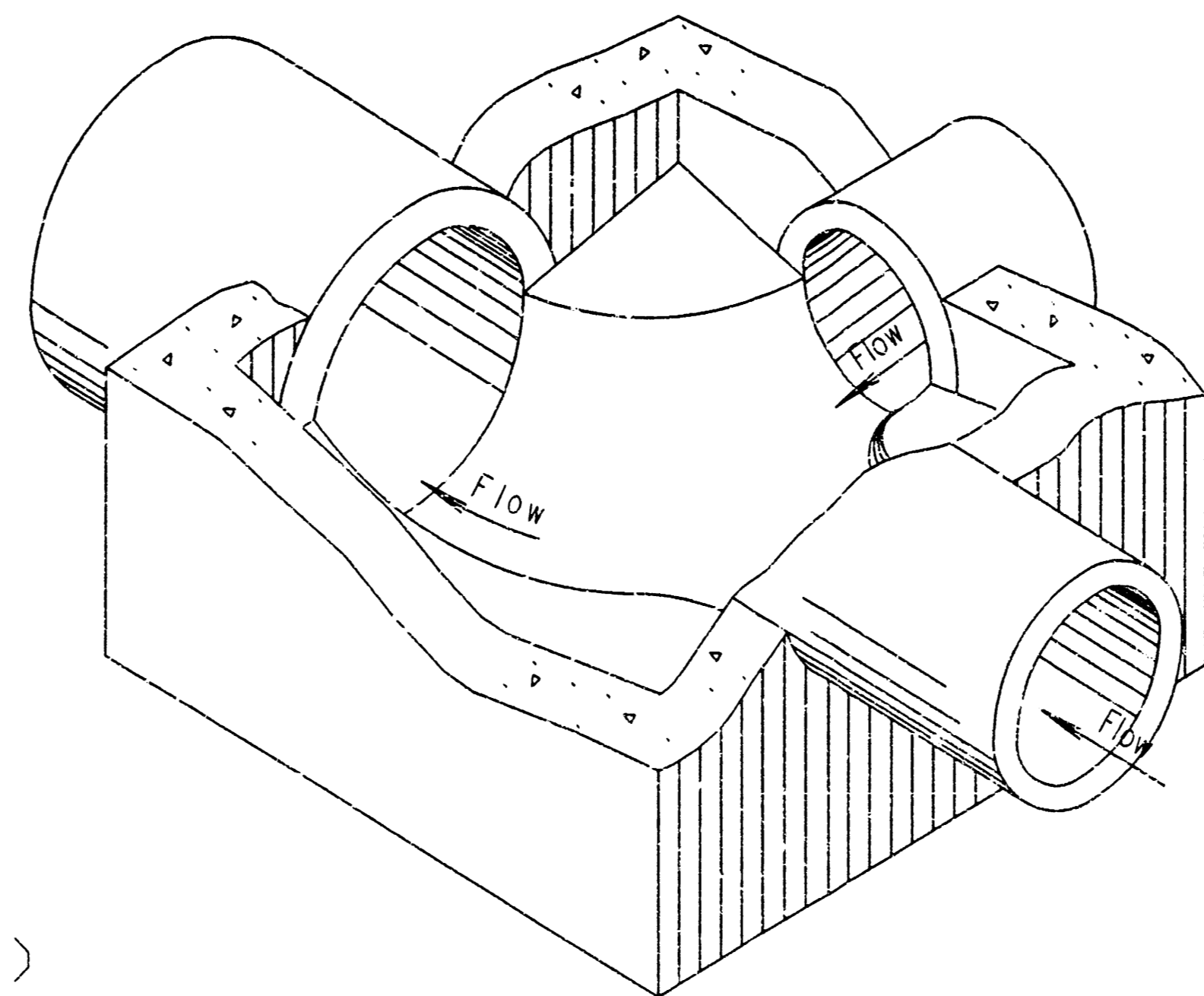
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PLAN - FLOOR (Example I)

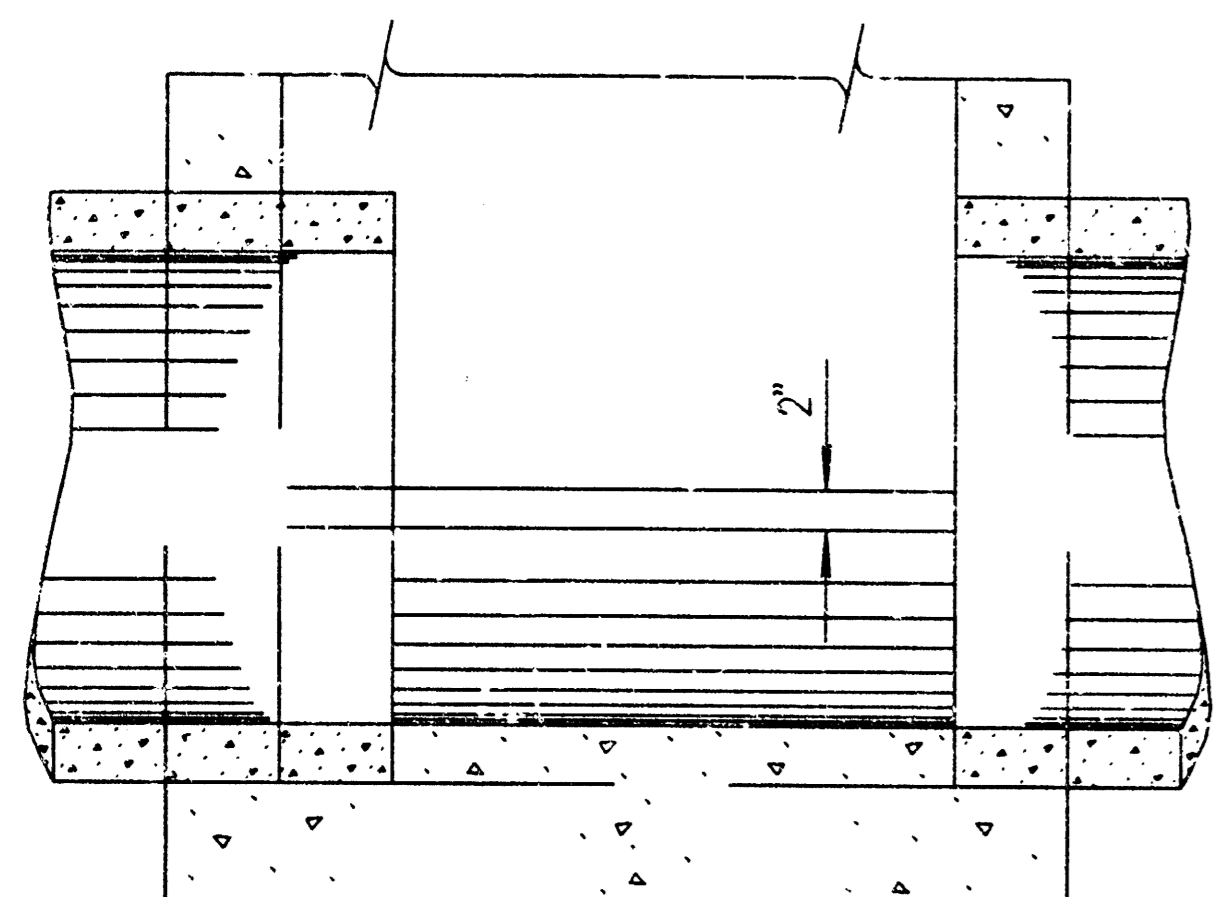


PLAN - FLOOR (Example III)

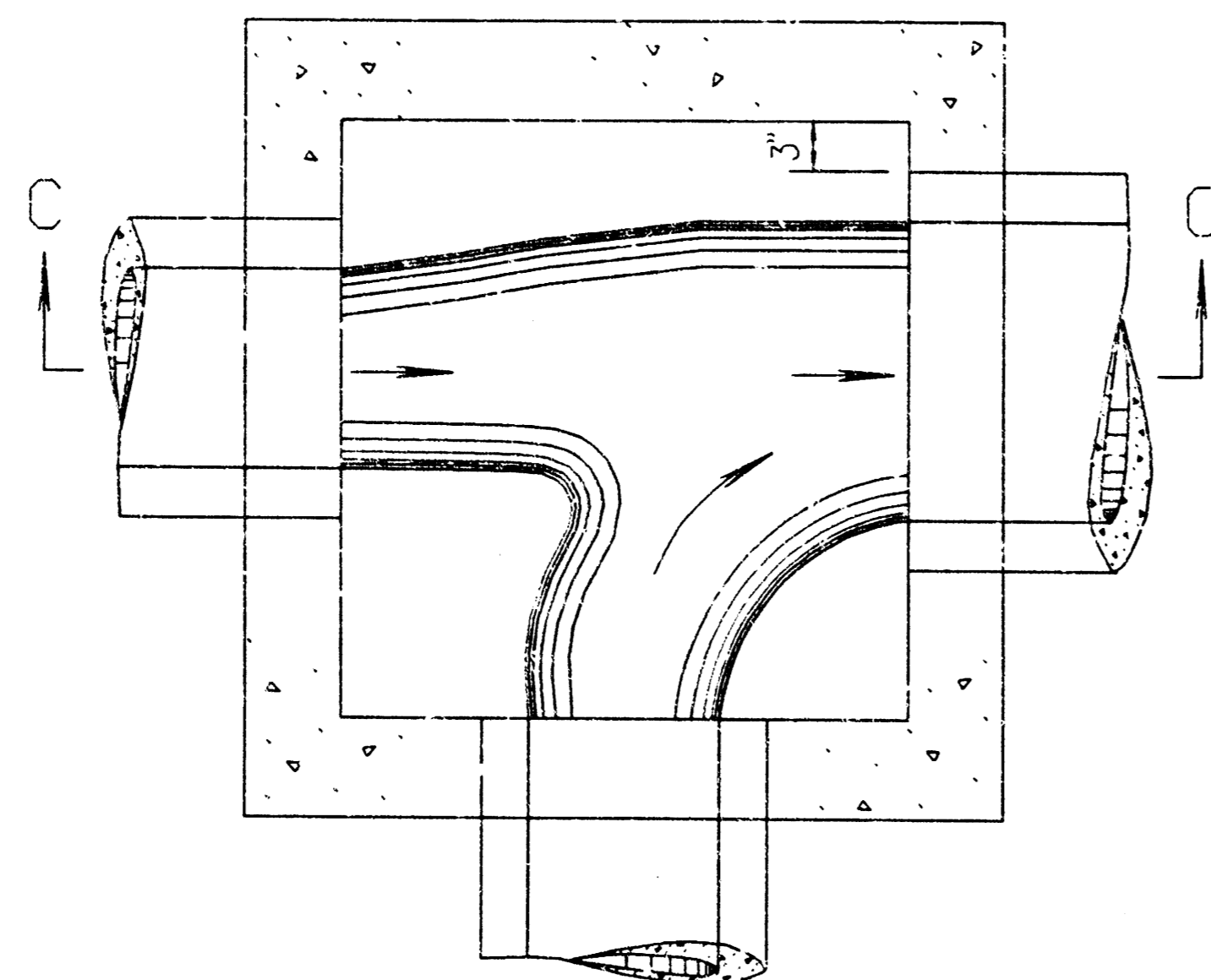


ISOMETRIC VIEW (Example IV)

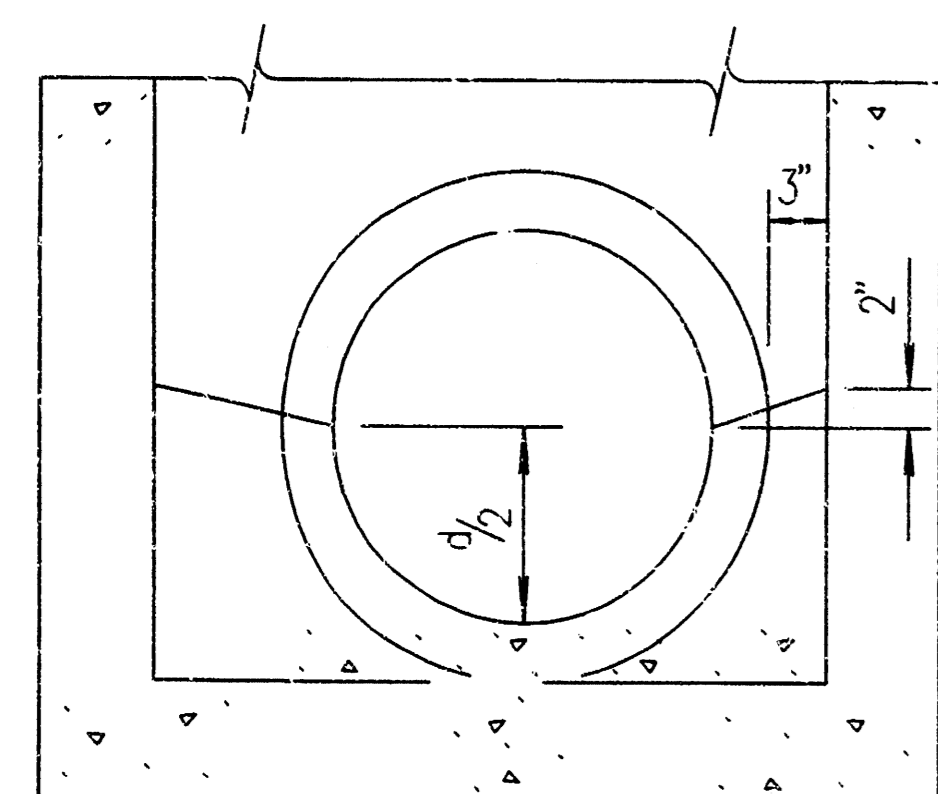
Floor of manhole shall be shaped as shown in the examples to increase hydraulic efficiency.



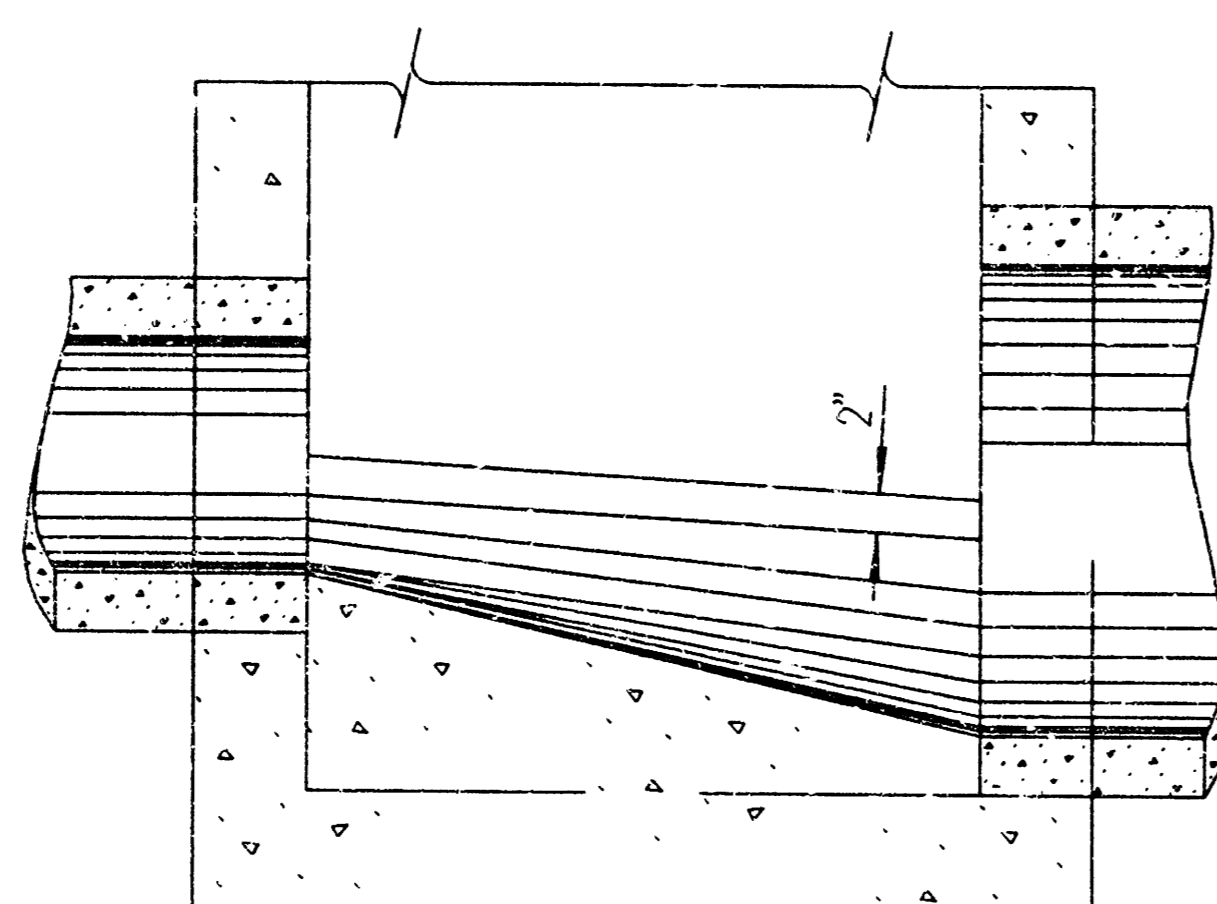
SECTION A-A (Example I)



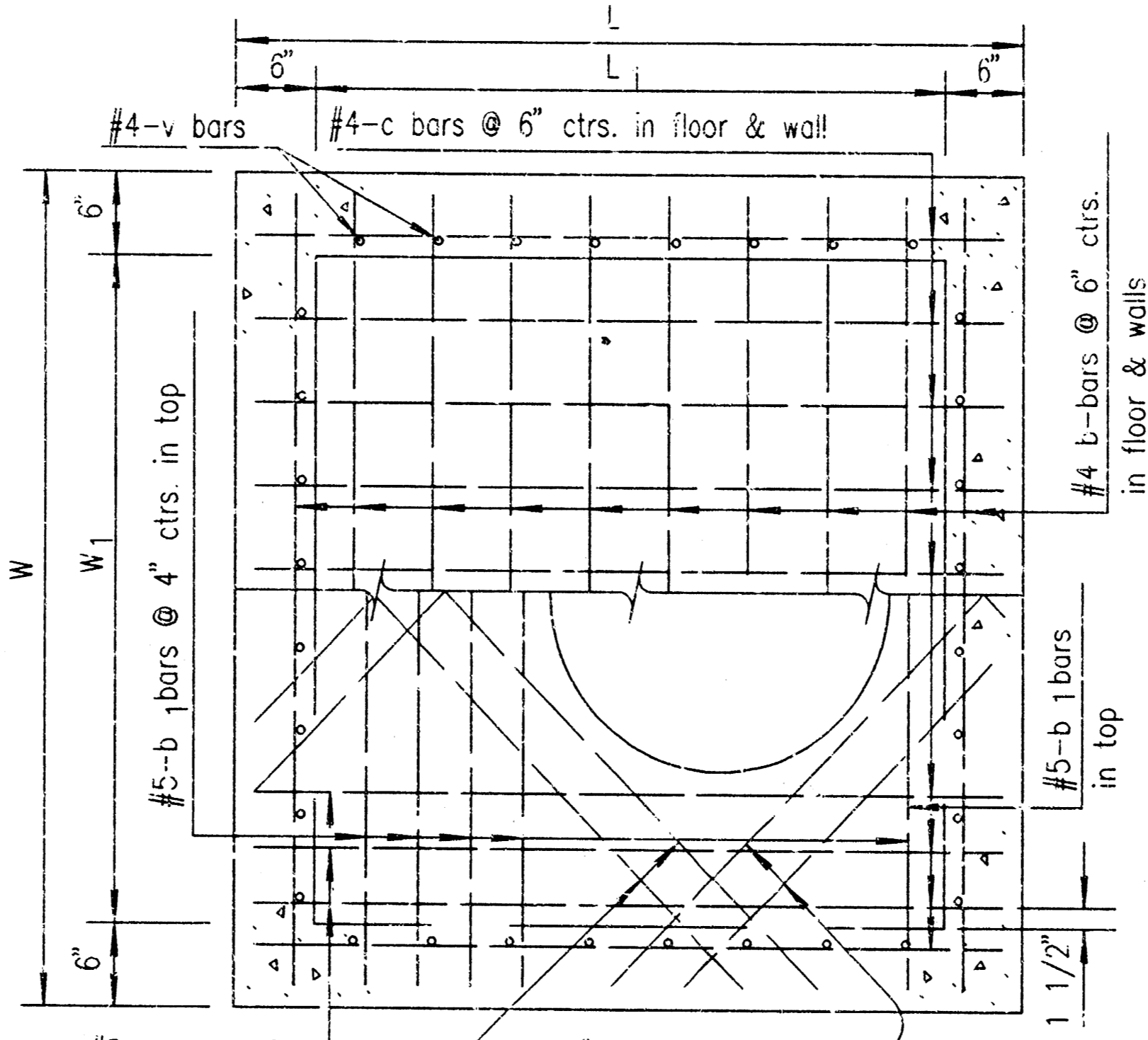
PLAN - FLOOR (Example IV)



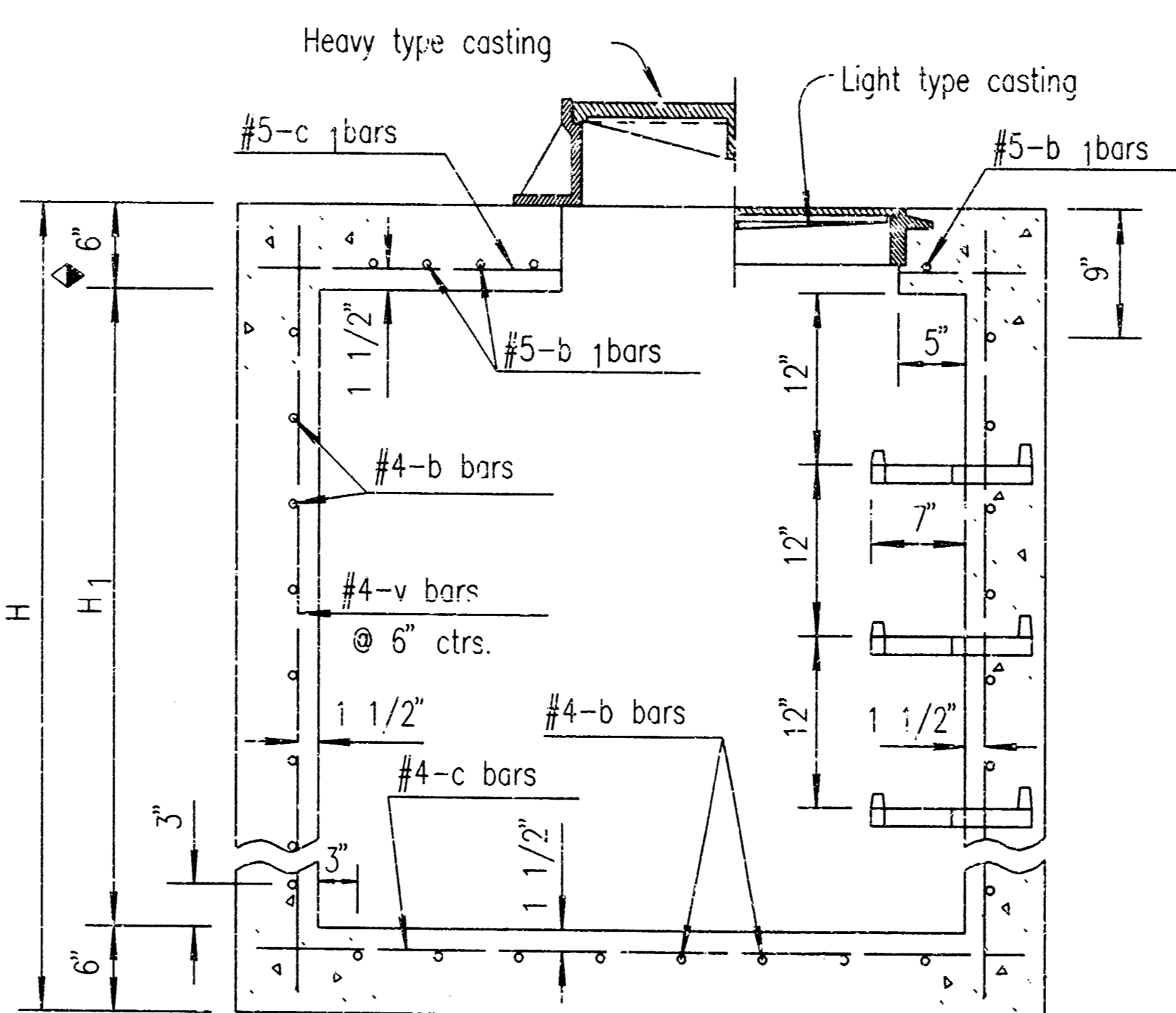
SECTION B-B (Example I)



SECTION C-C (Example IV)



PLAN (Showing top & floor reinf.)



Where dimension "L" or "W" is greater than 6'-0" use 8" slab thickness.

SECTION (Exclusive of floor shaping)

Note: Use Class A Concrete throughout. All exposed edges shall be finished with an edging tool.
 At the contractor's option Class A Concrete (AE) or mix used in concrete pavement may be used throughout.
 In general, pipes will enter and leave manhole at various positions. Where possible bend bars around pipes.
 Floor of manhole shall be shaped as shown in various "EXAMPLES" with unreinforced Class "A" Concrete.
 Manhole opening curb steps, where used, shall be placed to afford easy access to top of shaped invert.
 Top reinforcing bars shall be adjusted accordingly.
 All castings shall be gray iron and shall comply with the KDOT Standard Specifications.
 No deductions in concrete quantities shall be made for pipe openings or additions to concrete quantities shall be made for shaping floor of manholes.
 The top of the manhole shall be sloped slightly to approximately fit the ground line or other condition as directed by the Engineer.
 The Contractor has the option of using precast manholes, as approved by the Architect.
 Manhole Frames and Cover shall be per City of Wichita Standard Specifications.

PRINTS ISSUED		PURPOSE	
NO.	DATE	NO.	DATE
REVISIONS		ITEM	

BROWNING & ASSOCIATES
 ARCHITECTURE / PLANNING
 204 SOUTH LINCOLN WICHITA, KANSAS 67211
 TEL 1-316-269-3001 FAX 1-316-269-3005

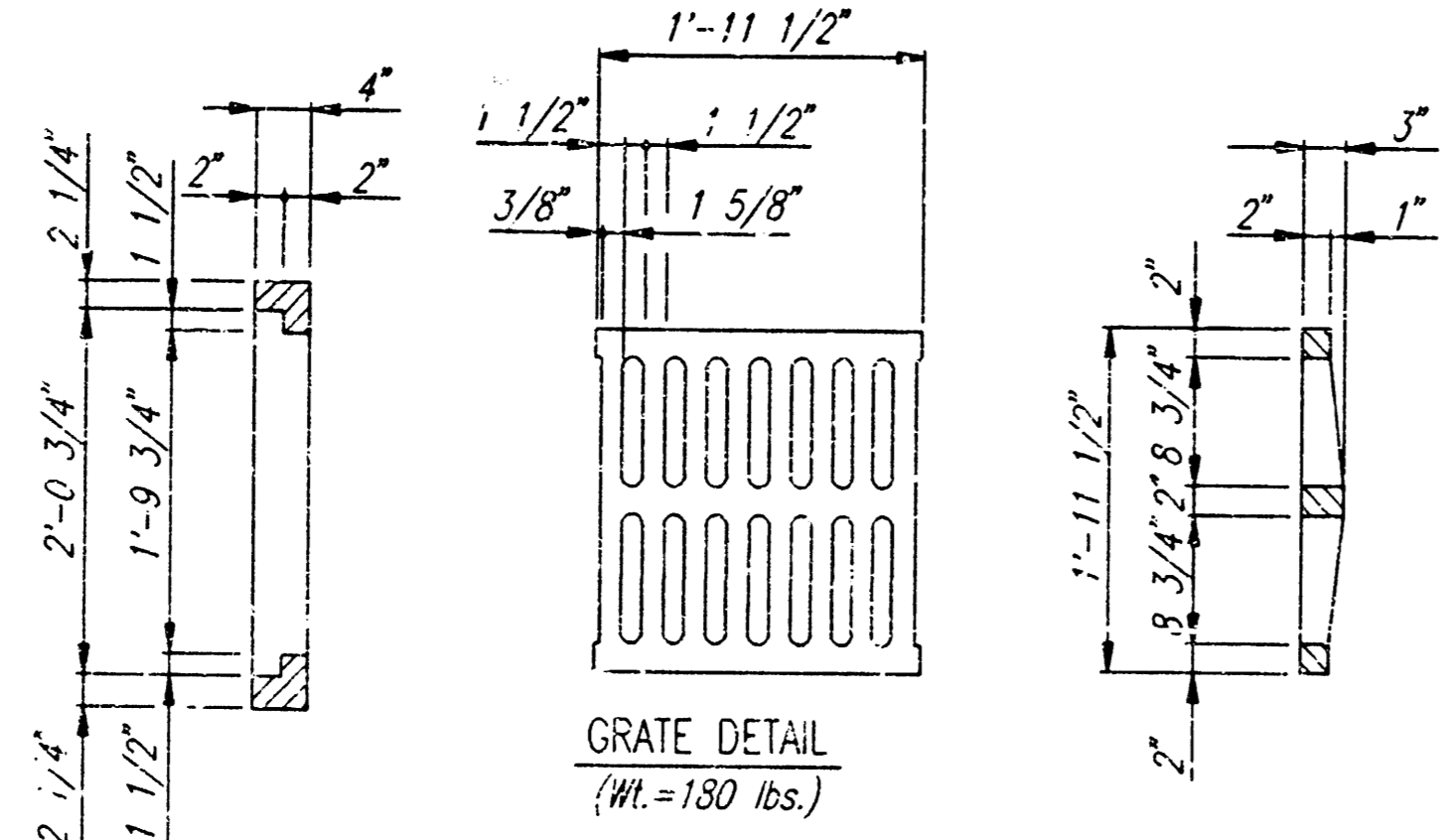
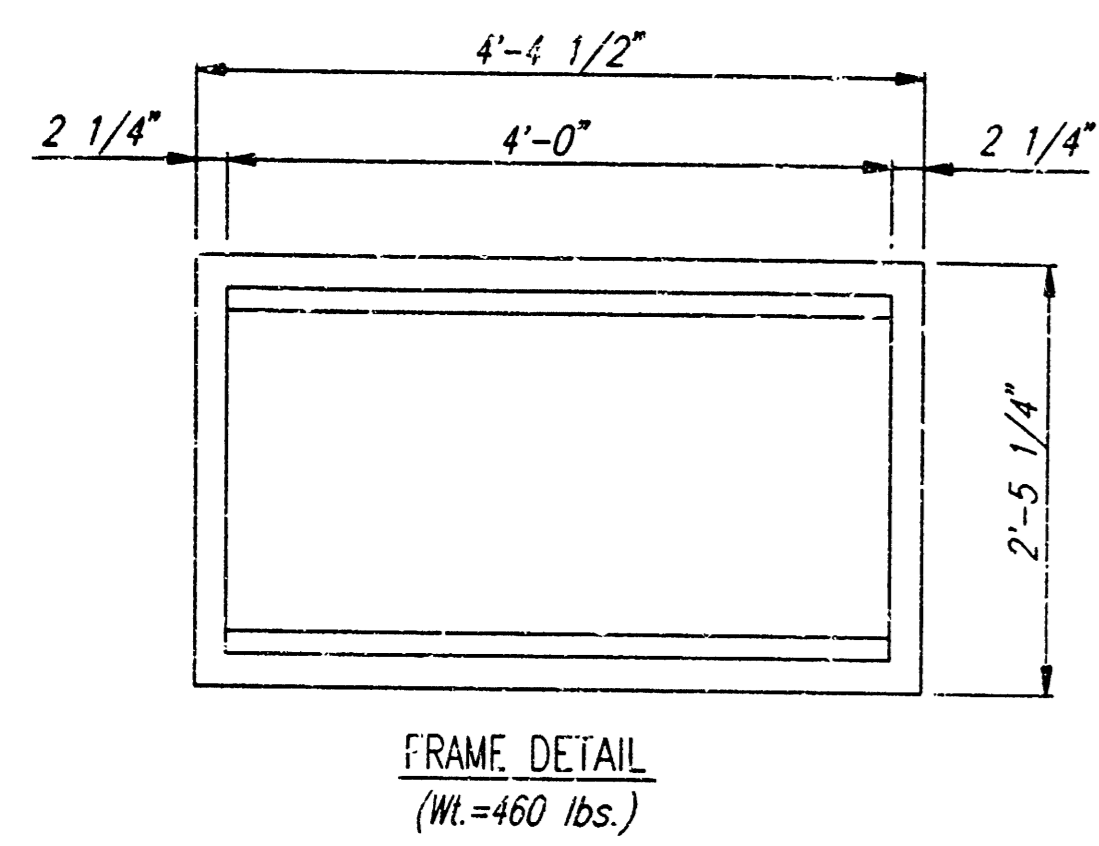
Hilton
 GARDEN INN
 AT
 BRAGLEY FAR
 SECOND ADDITION
 LOT 3
 WICHITA, KANSAS
 PROJECT NO. 9808-193-369

DRAWN	CHECKED
DEP	
SHEET TITLE	
REINFORCE CONCRETE MANHOLE	
SHEET NUMBER	

C-9
 OF 20

1=1.00
 199 083741 cm

"TAKEN FROM KDOT STANDARD DETAILS"



GENERAL NOTES

CONCRETE SHALL BE C.O.W. STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.

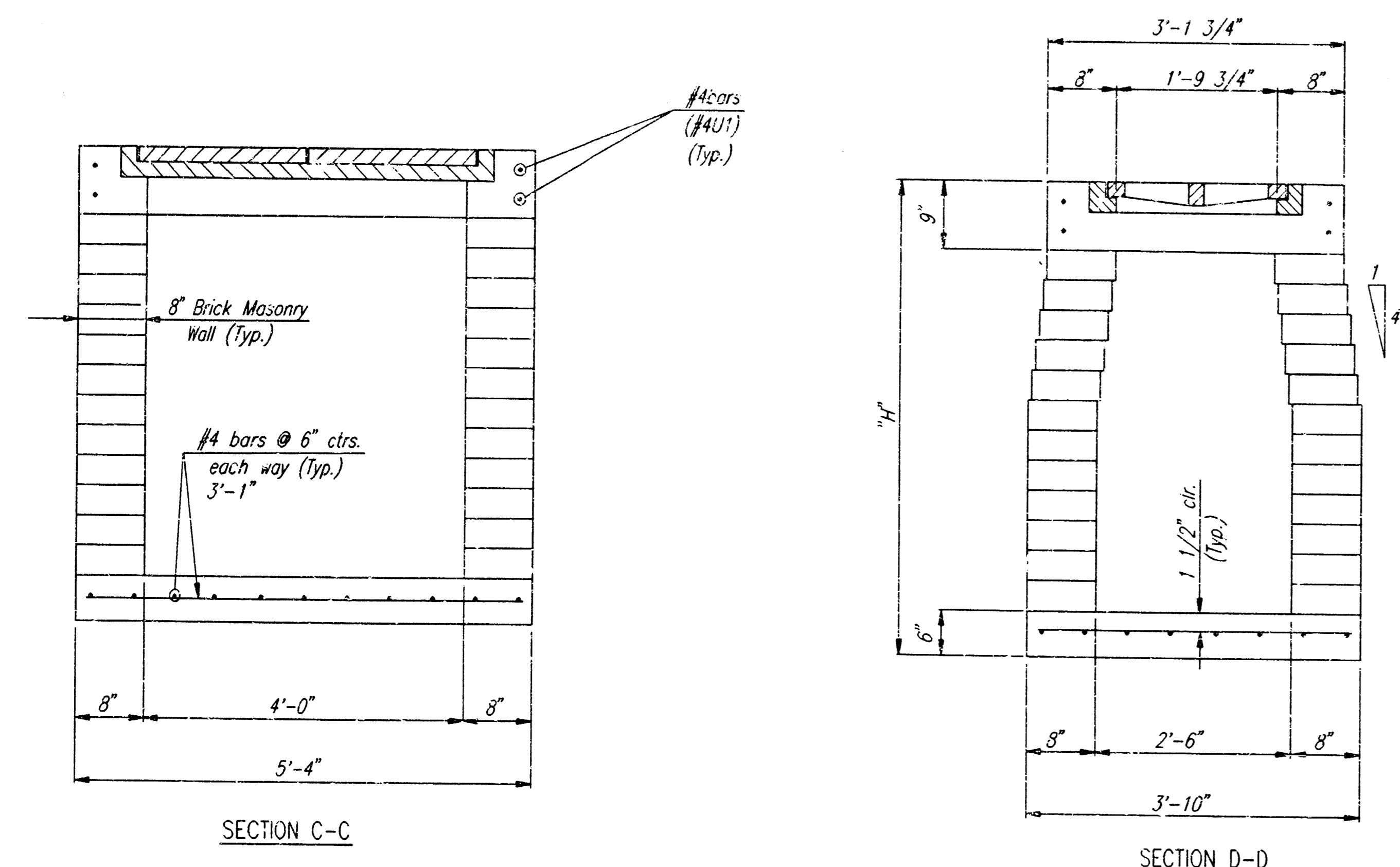
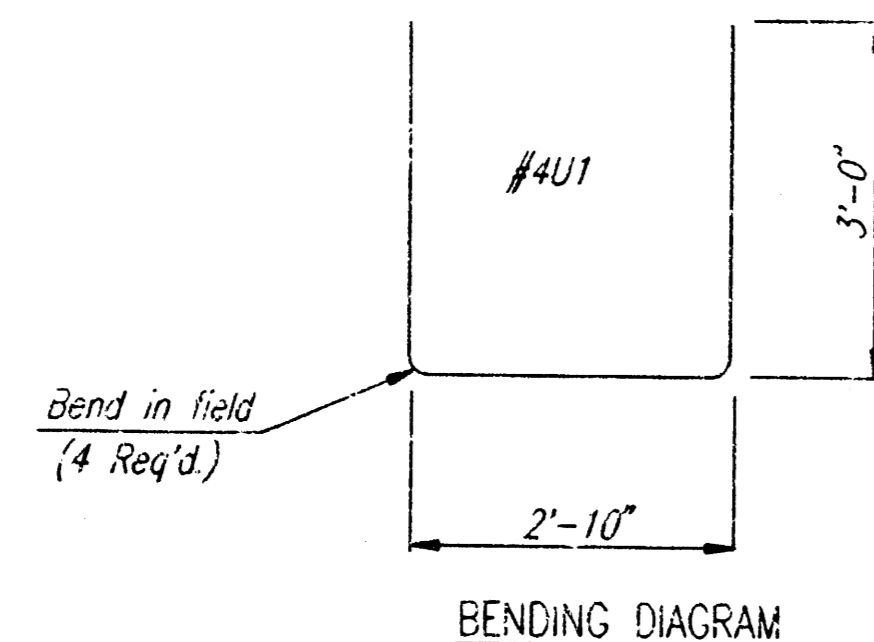
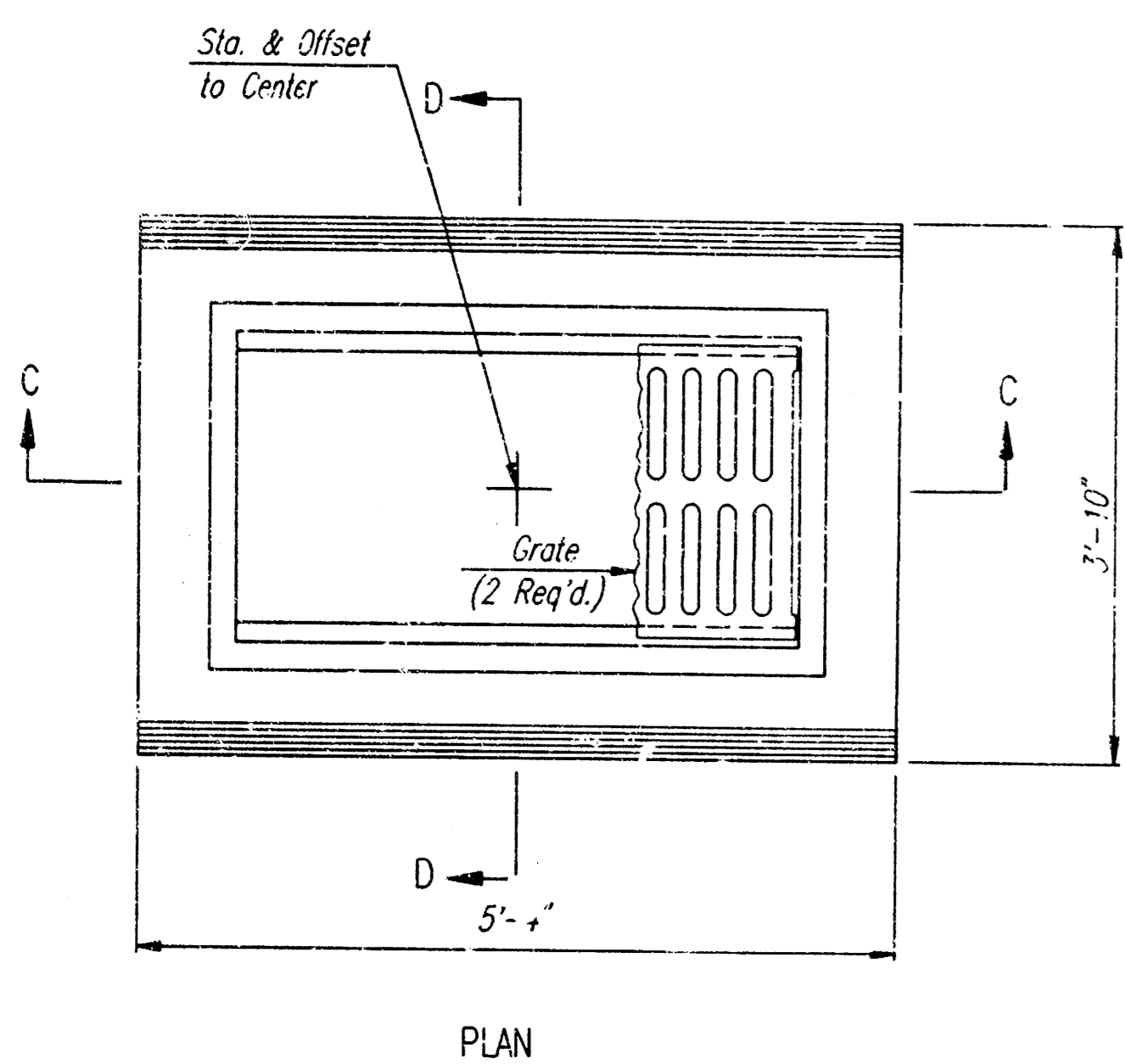
REINFORCING STEEL SHALL BE A MINIMUM GRADE 40, A.S.T.M. A615. ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO THE CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

INLET CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

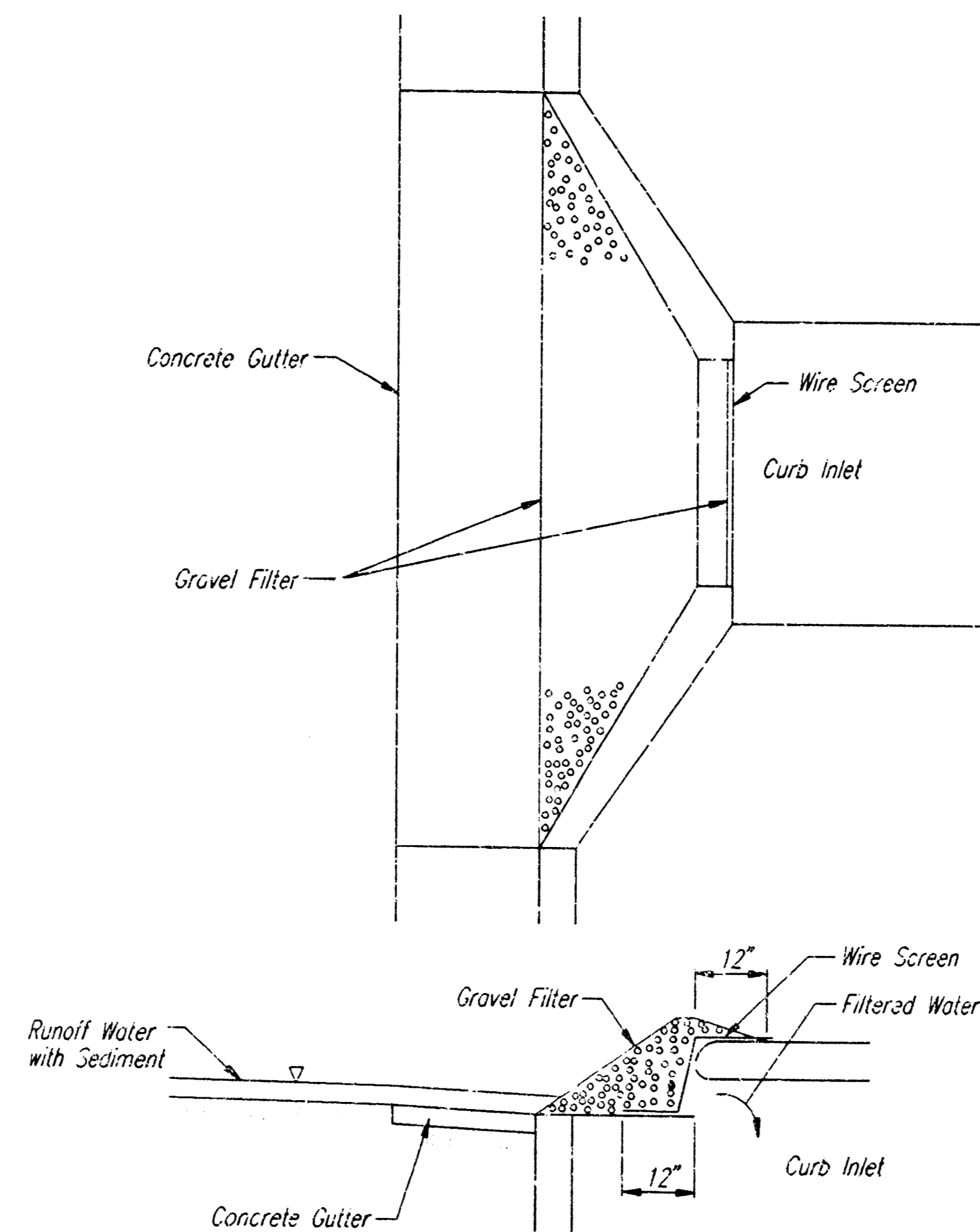
CONSTRUCTION REQUIREMENTS AND MATERIALS FOR MASONRY WALLS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (3 SACK SAND MIX) TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

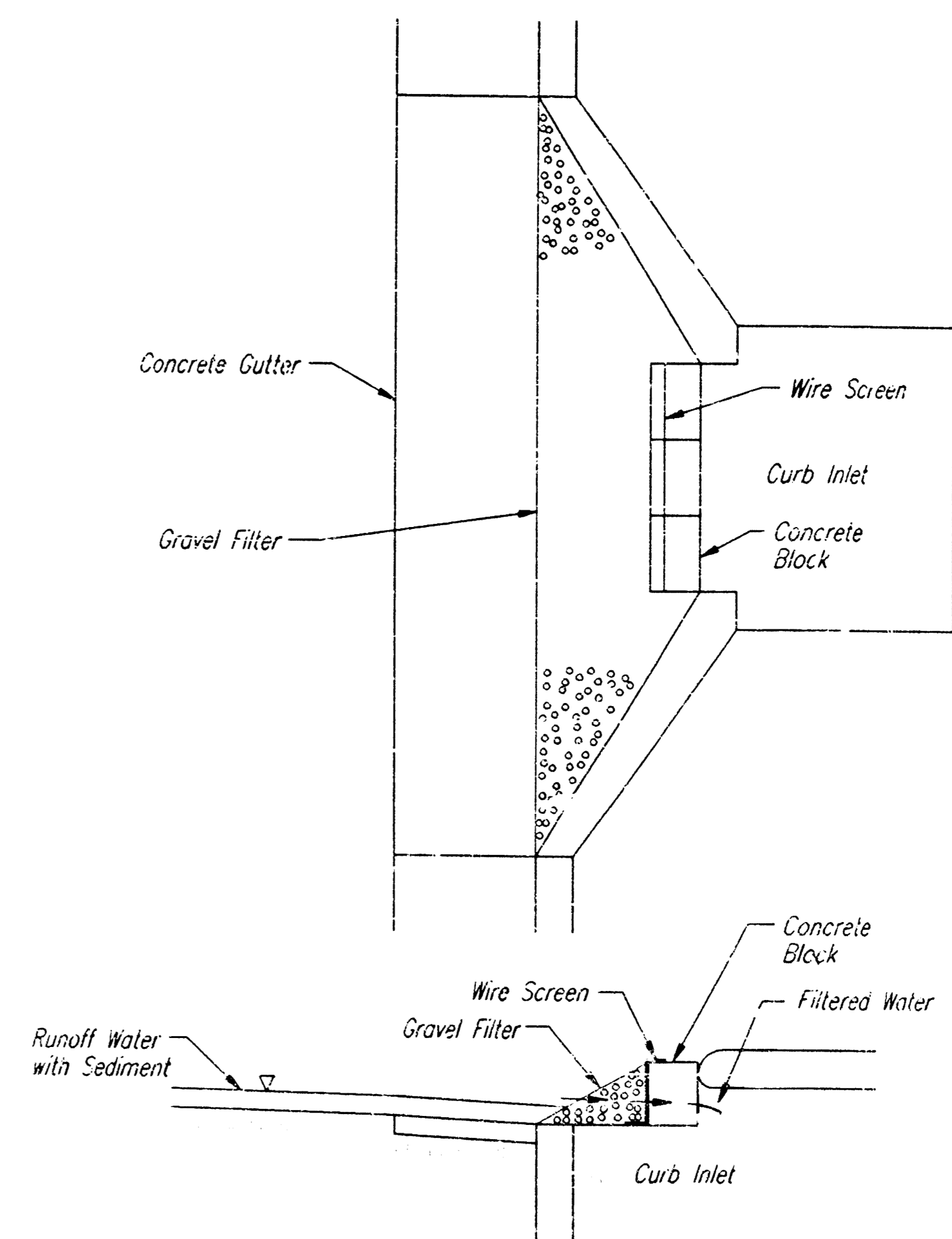
A PRECAST INLET MAY BE USED AT THE CONTRACTOR'S OPTION, WITH APPROVAL OF THE ENGINEER.



AREA INLET



CURB INLET PROTECTION GRAVEL AND WIRE MESH FILTER

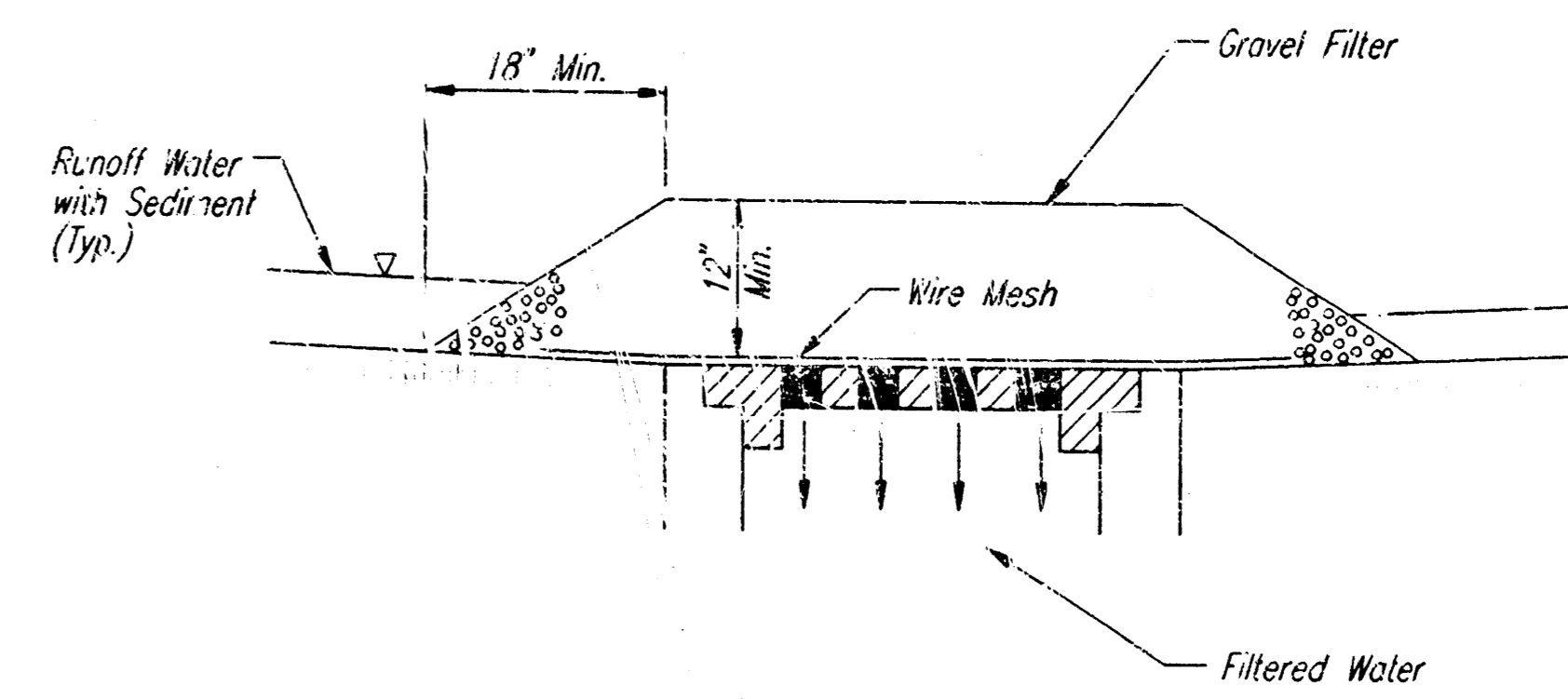


CURB INLET PROTECTION BLOCK AND GRAVEL FILTER

GENERAL NOTES

- INLET PROTECTION**
- INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTOR'S OPTION.
 - GRAVEL FILTER SHALL BE A DURABLE, WELL-GRADED SAND-GRAVEL OR CRUSHED STONE, MAXIMUM 1-1/2 IN. SIZE. AS AN ALTERNATE GRAVEL FILLED BAGS OF BURLAP OR OTHER FABRIC MAY BE USED. WHERE BAGS ARE USED, THE WIRE SCREEN, WHERE SHOWN, MAY BE OMITTED.
 - FILTER FABRIC, WHERE USED, SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:

MIRAFI, INC.	-	100X
HOECHST FIBERS INDUSTRIES	-	TREVIRA 1115
EXXON	-	TYPAR 3301 W
 - MATERIALS SUPPLIED BY THE ABOVE NAMED MANUFACTURERS SHALL BE ACCEPTED UPON VISUAL INSPECTION BY THE ENGINEER. OTHER COMPARABLE MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER.
 - INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PRECLUDE ENTRY OF SEDIMENT INTO THE STORM WATER SEWER SYSTEM DURING CONSTRUCTION OF THE STRUCTURE.
 - REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF INLET PROTECTION INSTALLATIONS SHALL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHENEVER DEBRIS REACHES ONE-THIRD THE BARRIER HEIGHT, OR AS DEEMED NECESSARY BY THE ENGINEER. ULTIMATE REMOVAL AND DISPOSAL OF INLET PROTECTION AND DEBRIS WILL BE PERFORMED BY THE CONTRACTOR.



AREA INLET PROTECTION GRAVEL AND WIRE MESH

PRINTS ISSUED	NO.
PURPOSE	
DATE	
REVISIONS	NO.
ITEM	
DATE	

BROWN & ASSOCIATES
 ARCHITECTURE / PLANNING
 204 SOUTH LULU WICHITA, KANSAS 67211
 TEL: 1-316-269-2001 FAX: 1-316-264-9005

Hilton
 GARDEN INN
 AT
 BRADLEY FAIR
 SECOND AUCTION
 LOT 3
 WICHITA, KANSAS

PROJECT NO. 9808-193-269

DRAWN	CHECKED
DEP	

SHEET TITLE
STD AREA INLET AND CURB INLET PROTECTION

SHEET NUMBER

C-10
 OF 20 SHEETS