

CITY OF WICHITA, KANSAS
 MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
STORM WATER SEWER NO. 443

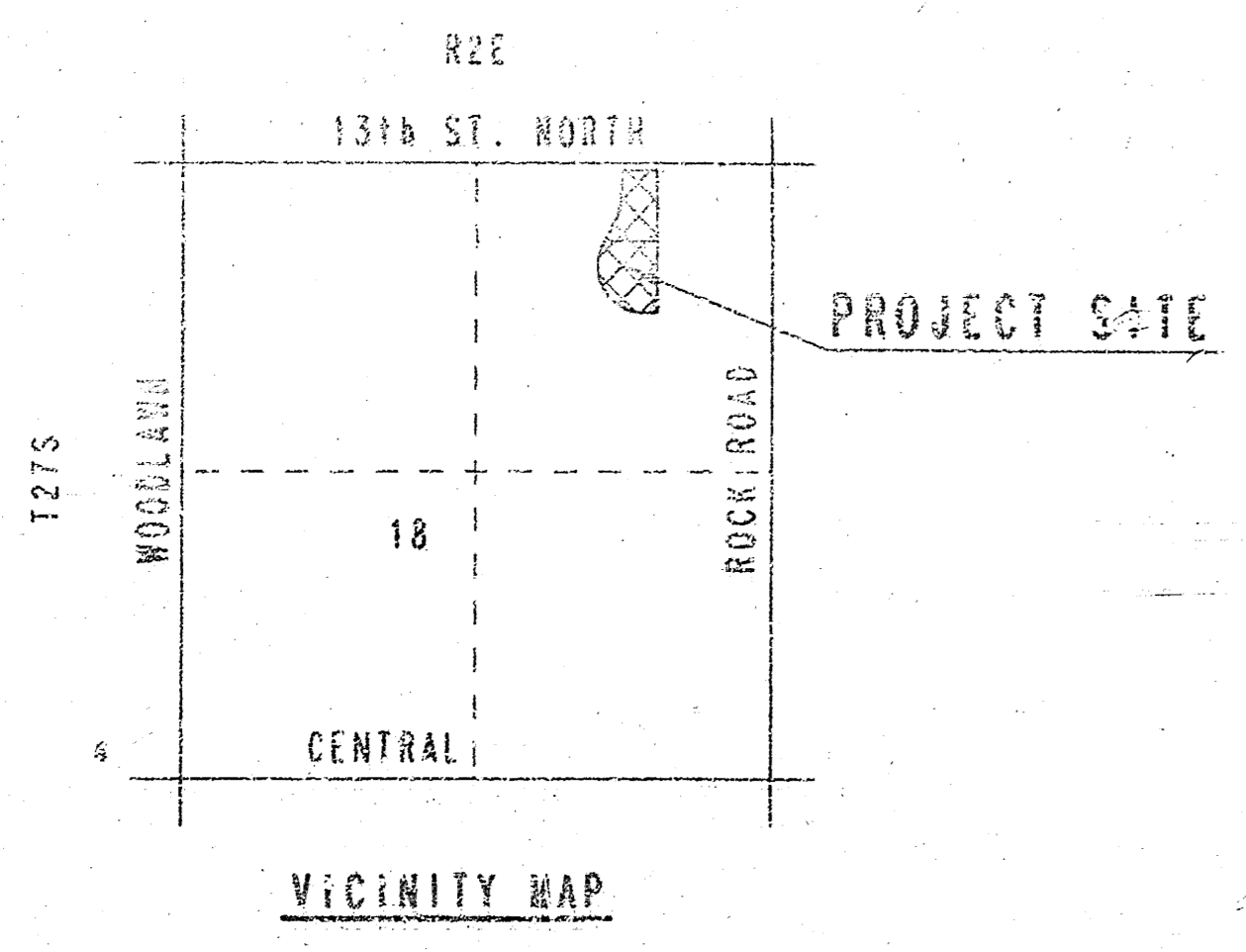
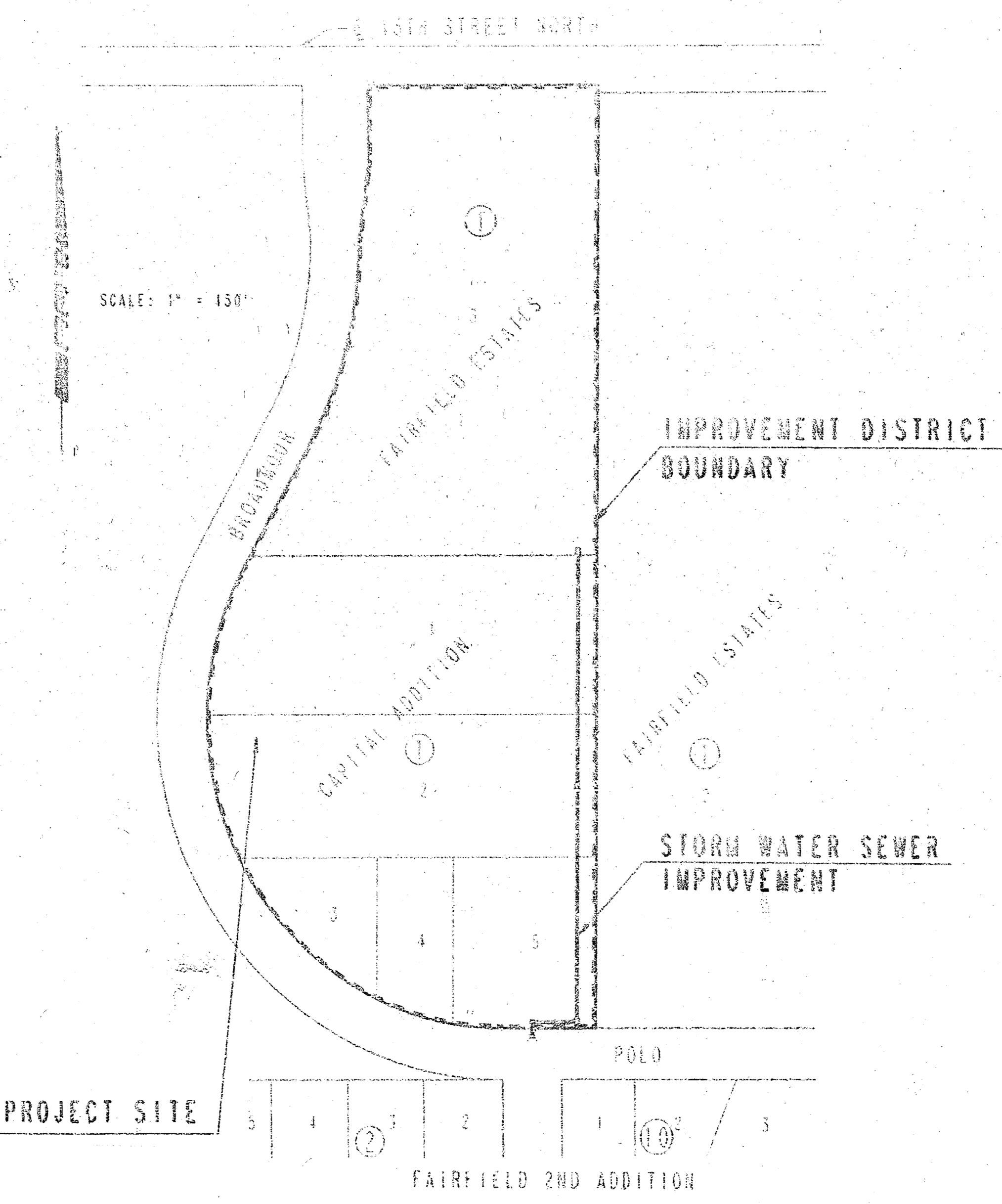
SHEET NO.	TOTAL SHEETS
1	3

INDEX OF SHEETS

1.	TITLE SHEET
2.	PLANS
3.	STORM SEWER PLAN AND PROFILE
4.	SOIL PROTECTION DETAILS
5.	AREA UNDER DETAILS
6.	MANHOLE DETAILS
7.	MANHOLE FRAMES AND COVER DETAILS

IN
CAPITAL ADDITION
 CITY OF WICHITA PROJECT NO. 469-76-245-82271-000-000-001
 INDEX NO. 750612

PROJECT SURVEY CONTROL
 BM - CHIS #11 SE COR. CORN INLET,
 NORTH SIDE, POLD W 1/2 BRADWOOD
 EXTENDED NORTH. ELEV. #186.53



GENERAL NOTES

UNDERSOUPD 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 T-EIR 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 3'-11" DEPTH WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.

TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'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 BELOW.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PRONE 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 GEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

BIDDER SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO BIDDING.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY EIGHT (48) HOUR ADVANCE NOTICE INCLUDING WEEKENDS AND HOLIDAYS PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A DEDICATED LOCATION SERVICE, AT (816) 297-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: PEOPLES NATURAL GAS, A.C.N.F. GAS, H.C.M.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 LINES. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY LINES WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH LINES SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

THE CONTRACTOR SHALL PREVENT ANY DERRIS FROM ENTERING THE STORM SEWER DURING CONSTRUCTION.

UPON COMPLETION OF THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED DURING CONSTRUCTION USING 6-31 FESCUE. ALL SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO CURRENT CITY OF WICHITA STANDARD SPECIFICATIONS (SUBSIDIARY).

DRAWING NO. 12-55101 LITH. ON SHEET 11
 CENTER CROSSING
 NOTATION: M.B.C.
 DATE LAST WORKED ON: MAR. 23, 1995
 DAN CROOK

BOOKED
 8-7-95
 MCB
 D-262



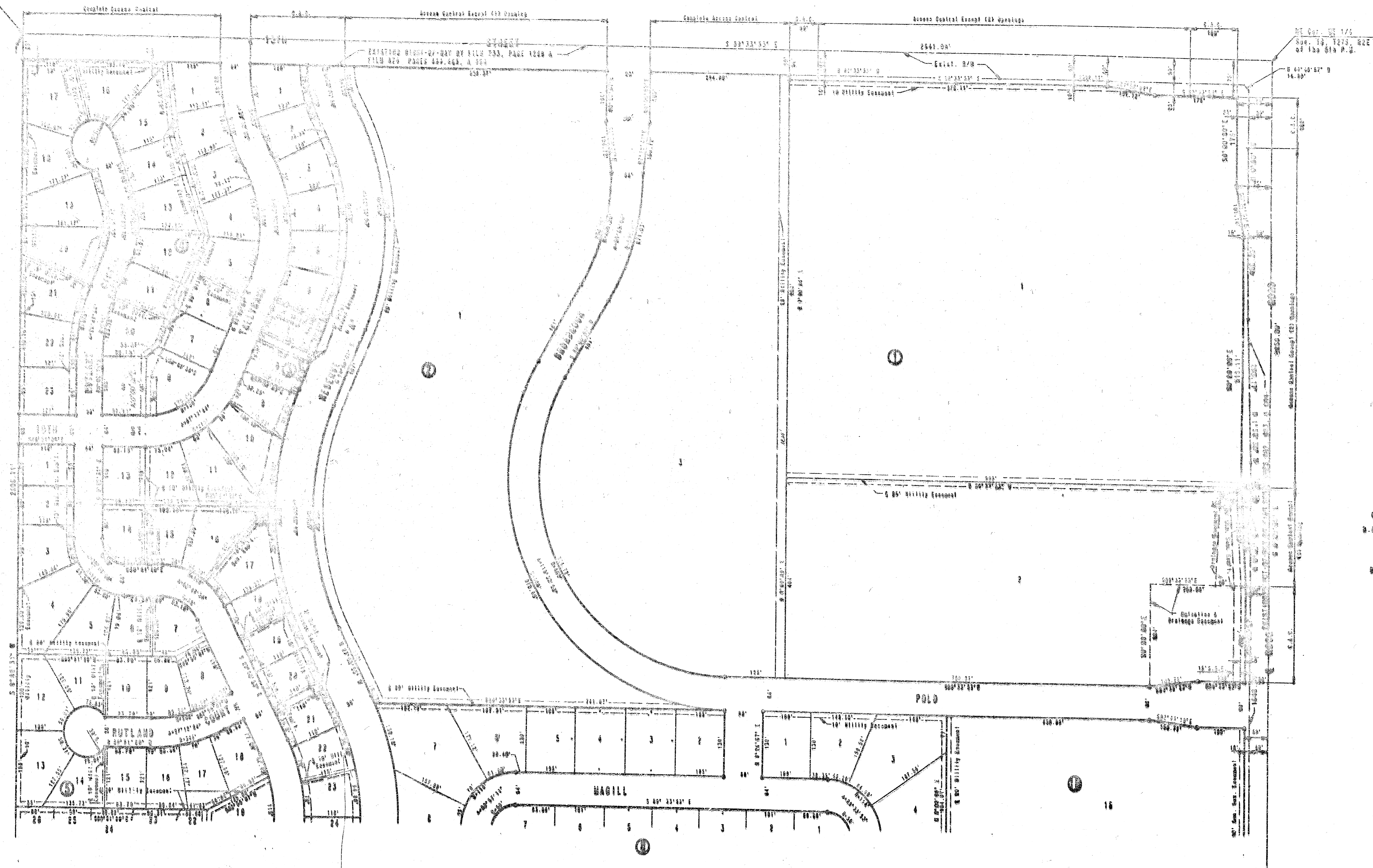
APRIL 1995
 PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

416-11

FAIRFIELD ESTATES

WICHITA, SEDGWICK COUNTY, KANSAS

77-110-10-1-1
200-10-1-1-1
200-10-1-1-1

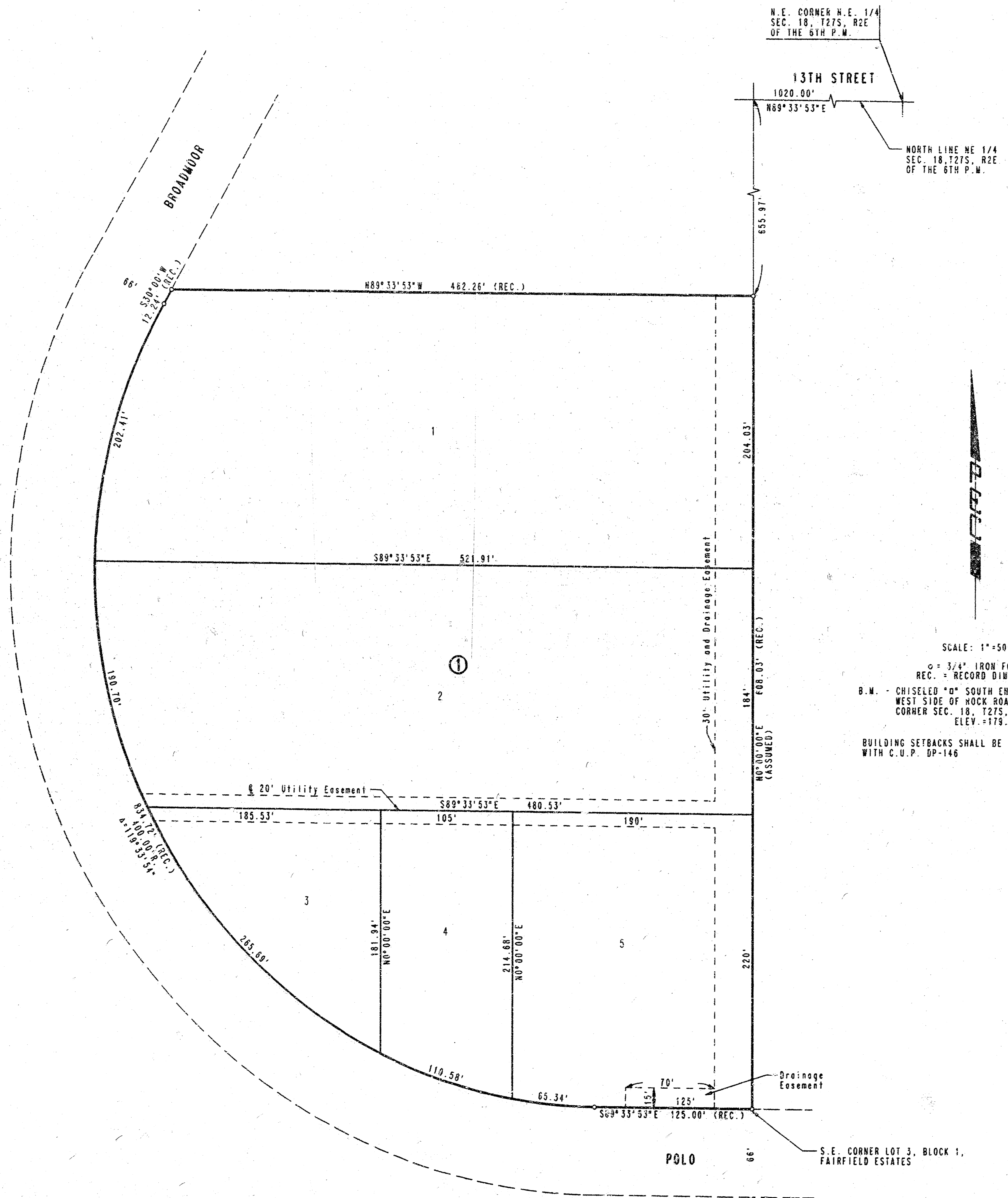


SCALE: 1" = 100'
 1" = 100' 0.00'
 C.A.C. - COMPLETE ACCESS CONTROL
 B.M. - CHIS. 4" x 4" 100' 0.00'
 100' 0.00' 100' 0.00' 100' 0.00'
 100' 0.00' 100' 0.00' 100' 0.00'
 100' 0.00' 100' 0.00' 100' 0.00'
 100' 0.00' 100' 0.00' 100' 0.00'

11 11 2112

CAPITAL ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO. 688-76-745-62271-000-000-001	SHEET NO. 3	TOTAL SHEETS 9
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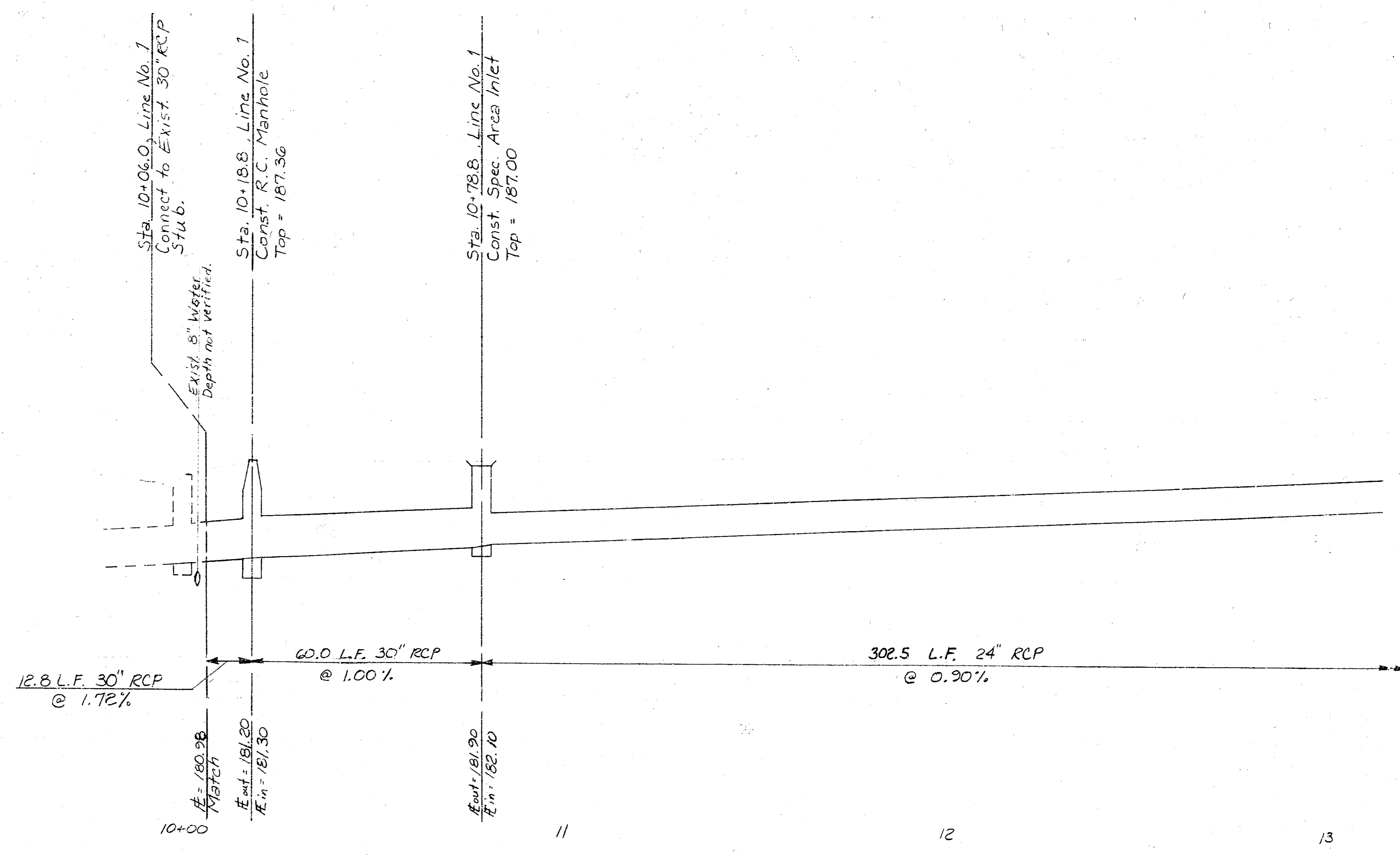
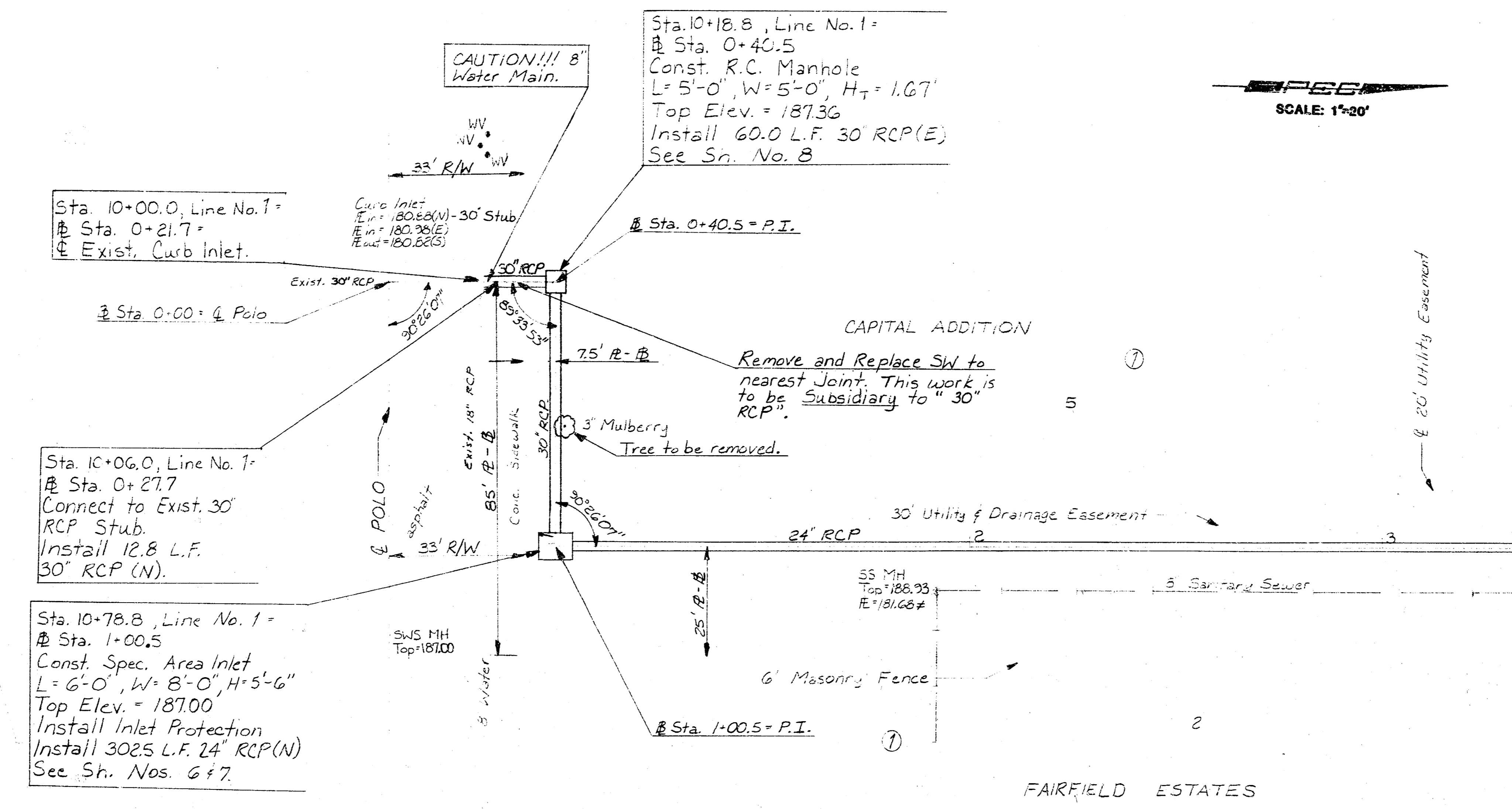
SCALE: 1"=50'
 ○ = 3/4" IRON FOUND
 REC. = RECORD DIMENSION
 B.M. = CHISELED "0" SOUTH END CURB RETURN
 WEST SIDE OF WOCK ROAD AT EAST 1/4
 CORNER SEC. 18, T27S, R2E
 ELEV. +179.18 CITY DATUM
 BUILDING SETBACKS SHALL BE IN ACCORDANCE
 WITH C.U.P. DP-146

CAPITAL ADDITION SWS 443	
PLAT	
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS	
Designed by	Checked by
Drawn by DEP, BJS	Date APR, 1995 Job No. 32-95101

DRAWING MADE 32-95101 WITH CH. CAP. ADD
 LOCATION BY FILED
 BAR BROOK

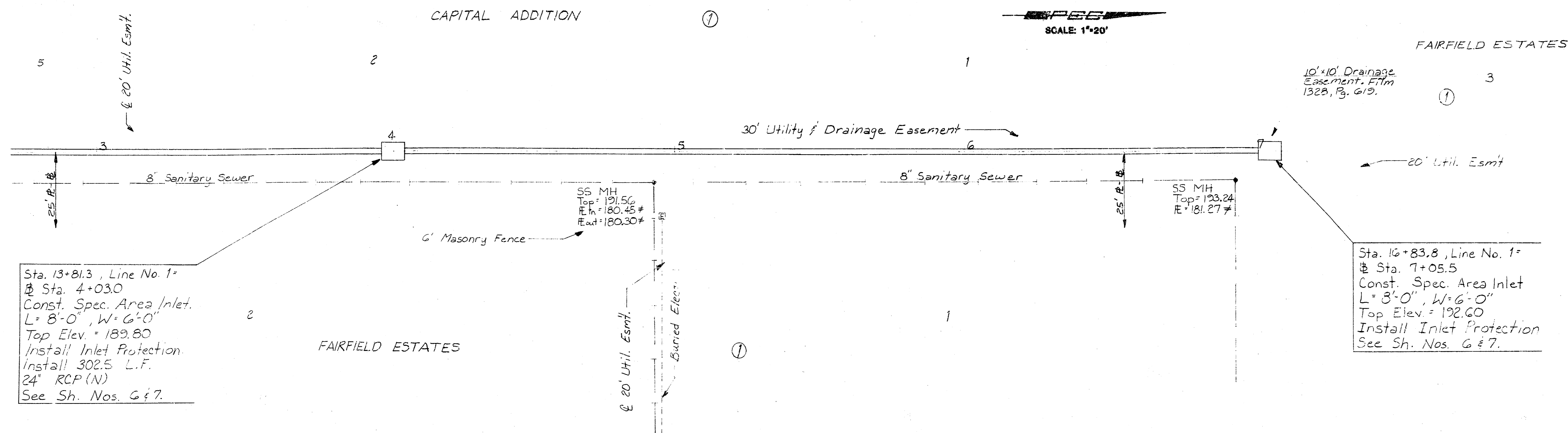
6002617

PROJECT NO.	SHEET NO.	TOTAL SHEETS
468-76-245-62271-000-000-001	4	9



* Not Field Verified.

PROJECT NO. 468-76-245-82271-000-000-001	SHEET NO. 5	TOTAL SHEETS 9
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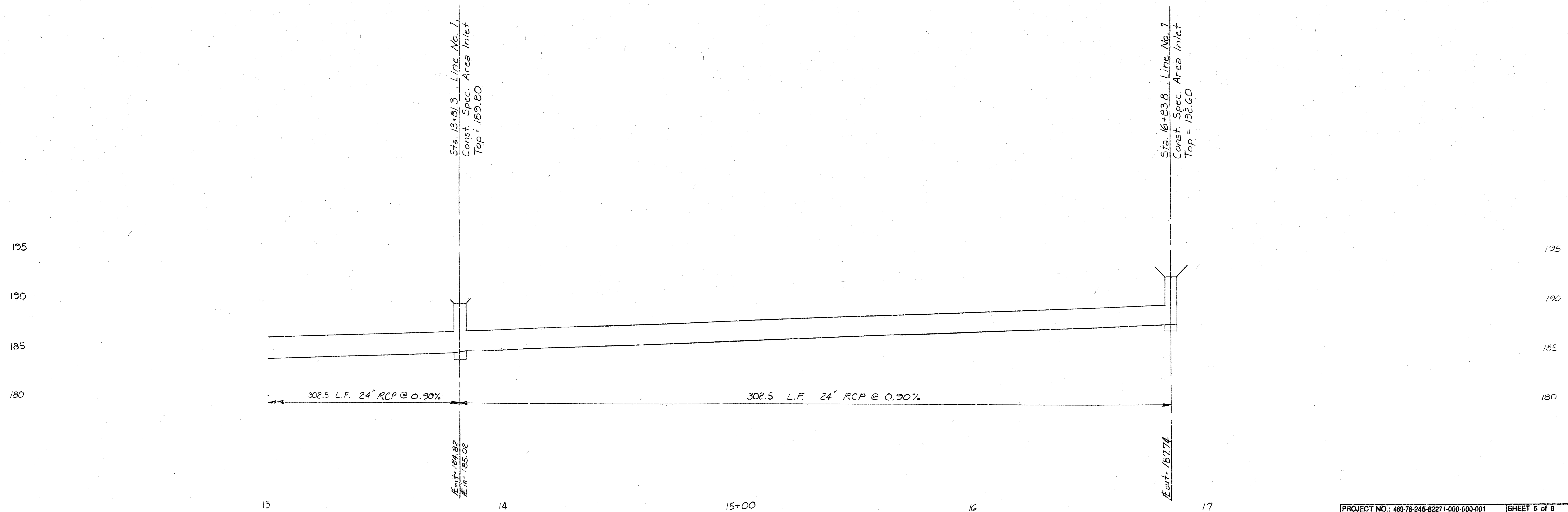
Sta. 13+81.3, Line No. 1
 @ Sta. 4+03.0
 Const. Spec. Area Inlet
 L=8'-0", W=6'-0"
 Top Elev. = 182.80
 Install Inlet Protection
 Install 302.5 L.F.
 24" RCP(N)
 See Sh. Nos. 6 & 7.

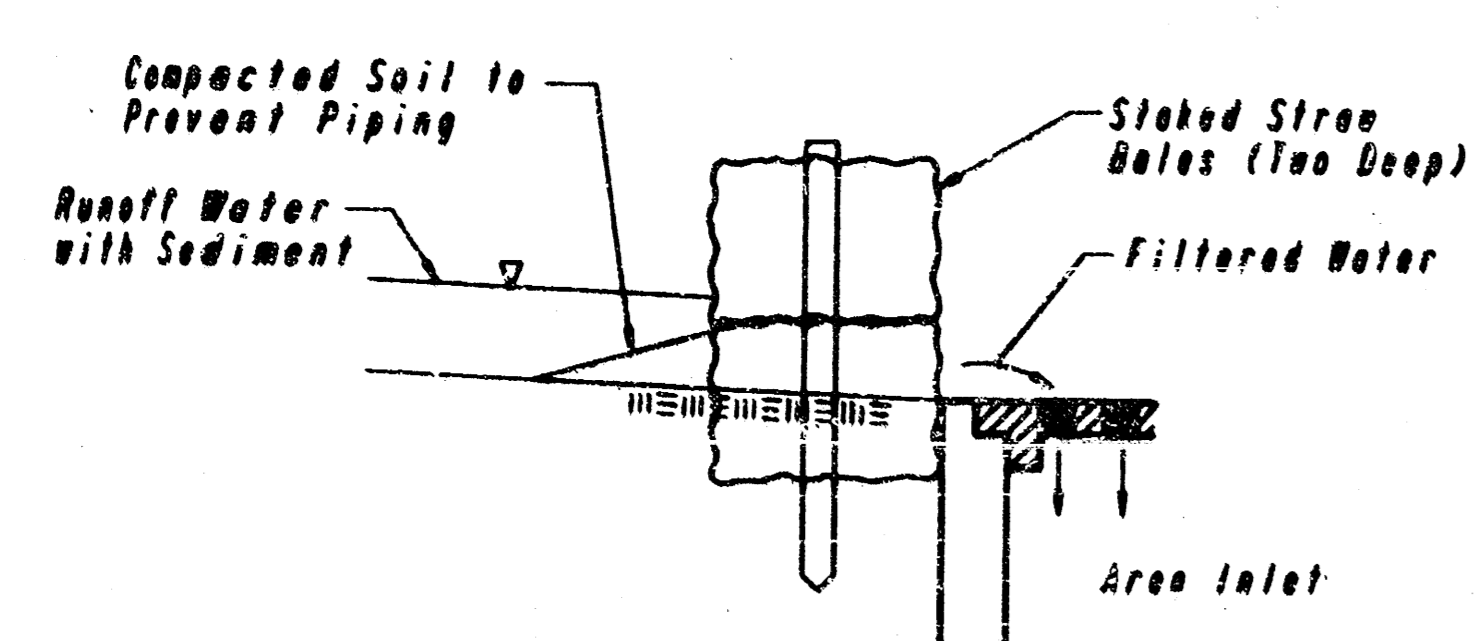
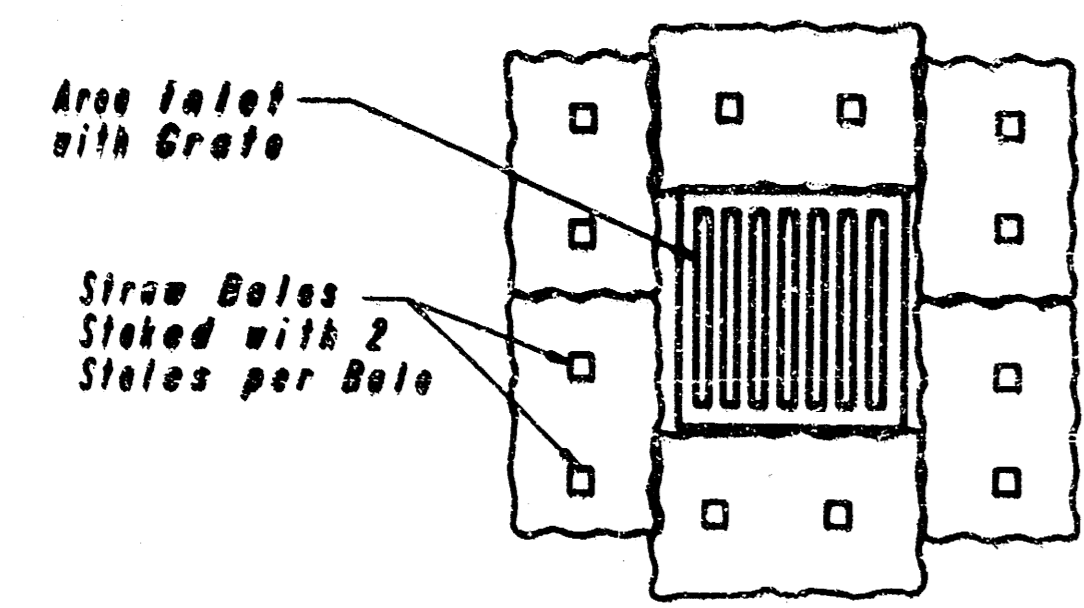
FAIRFIELD ESTATES

10'x10' Drainage Easement, FTM 132B, P3, G19.

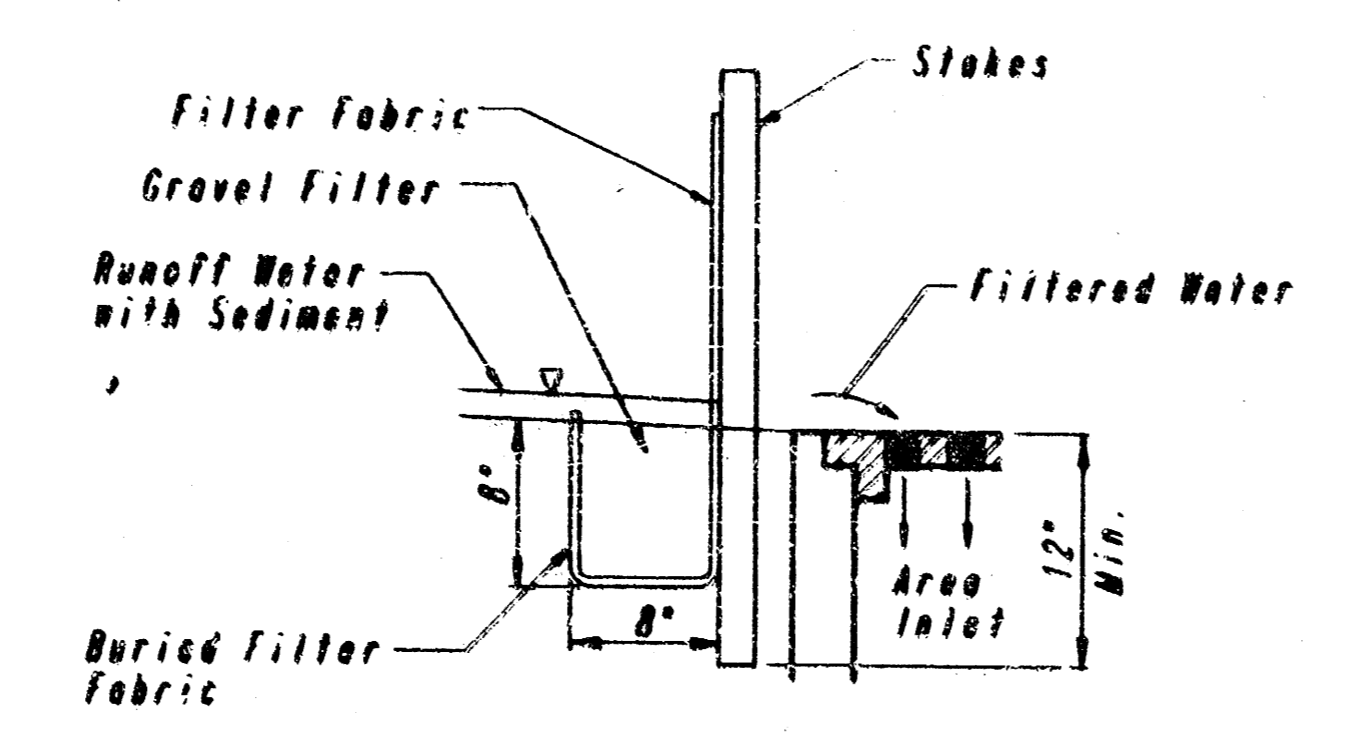
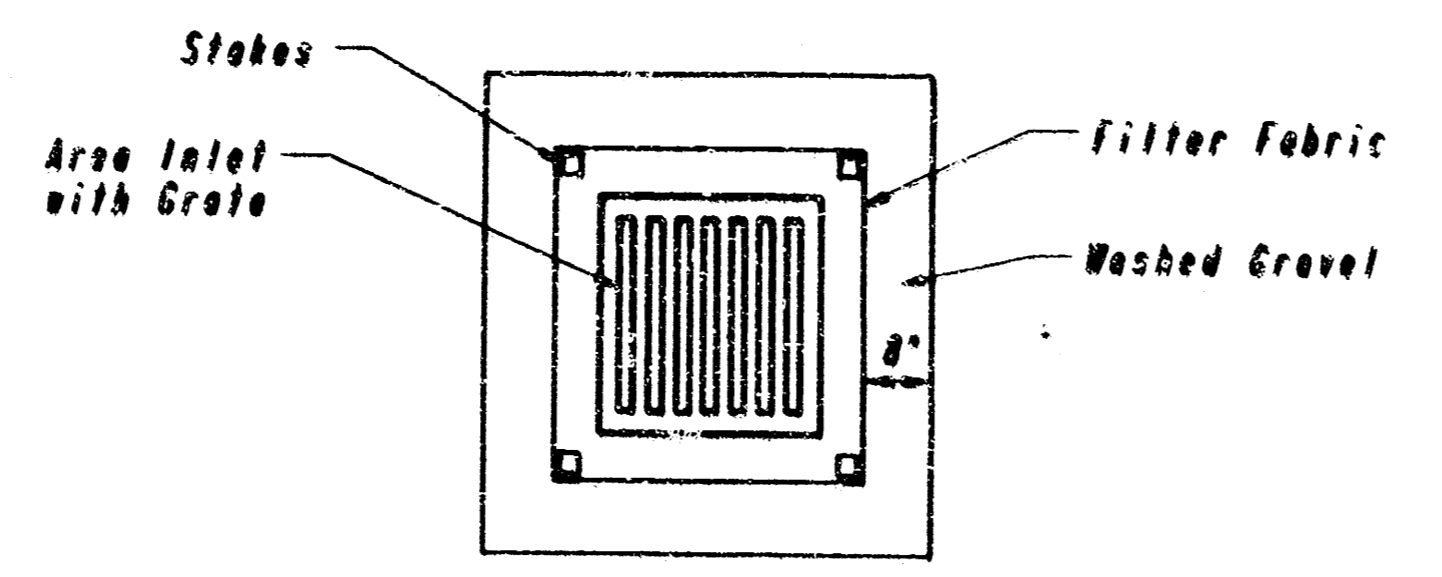
Sta. 16+83.8, Line No. 1
 @ Sta. 7+05.5
 Const. Spec. Area Inlet
 L=8'-0", W=6'-0"
 Top Elev. = 192.60
 Install Inlet Protection
 See Sh. Nos. 6 & 7.

≠ Not Field Verified

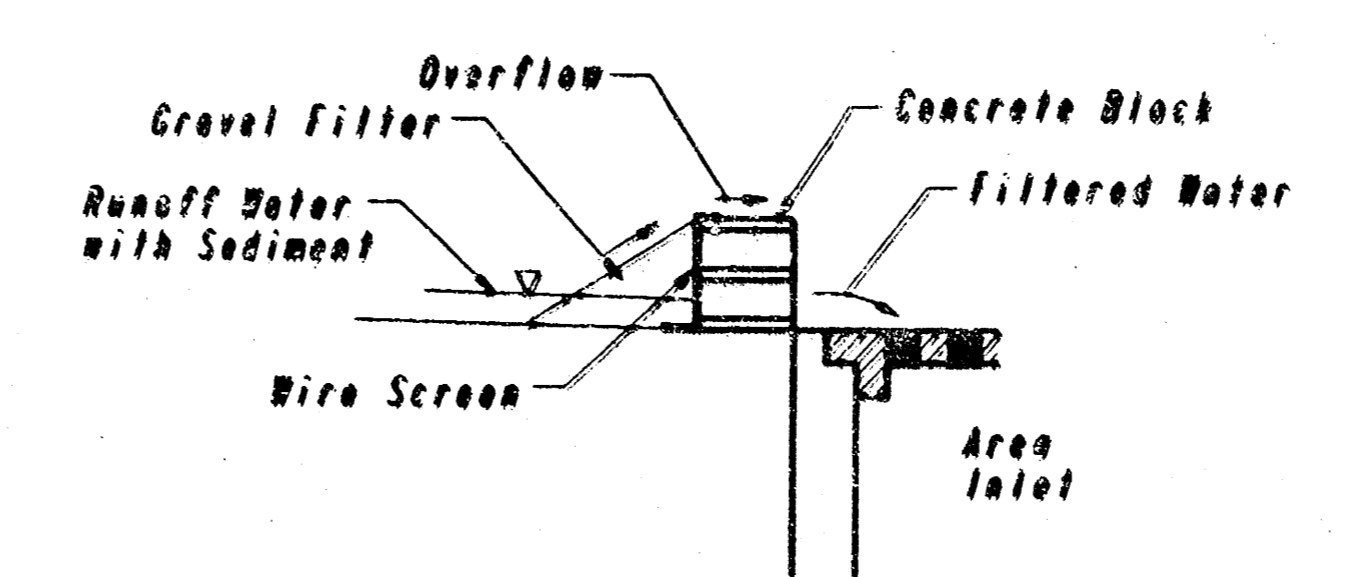
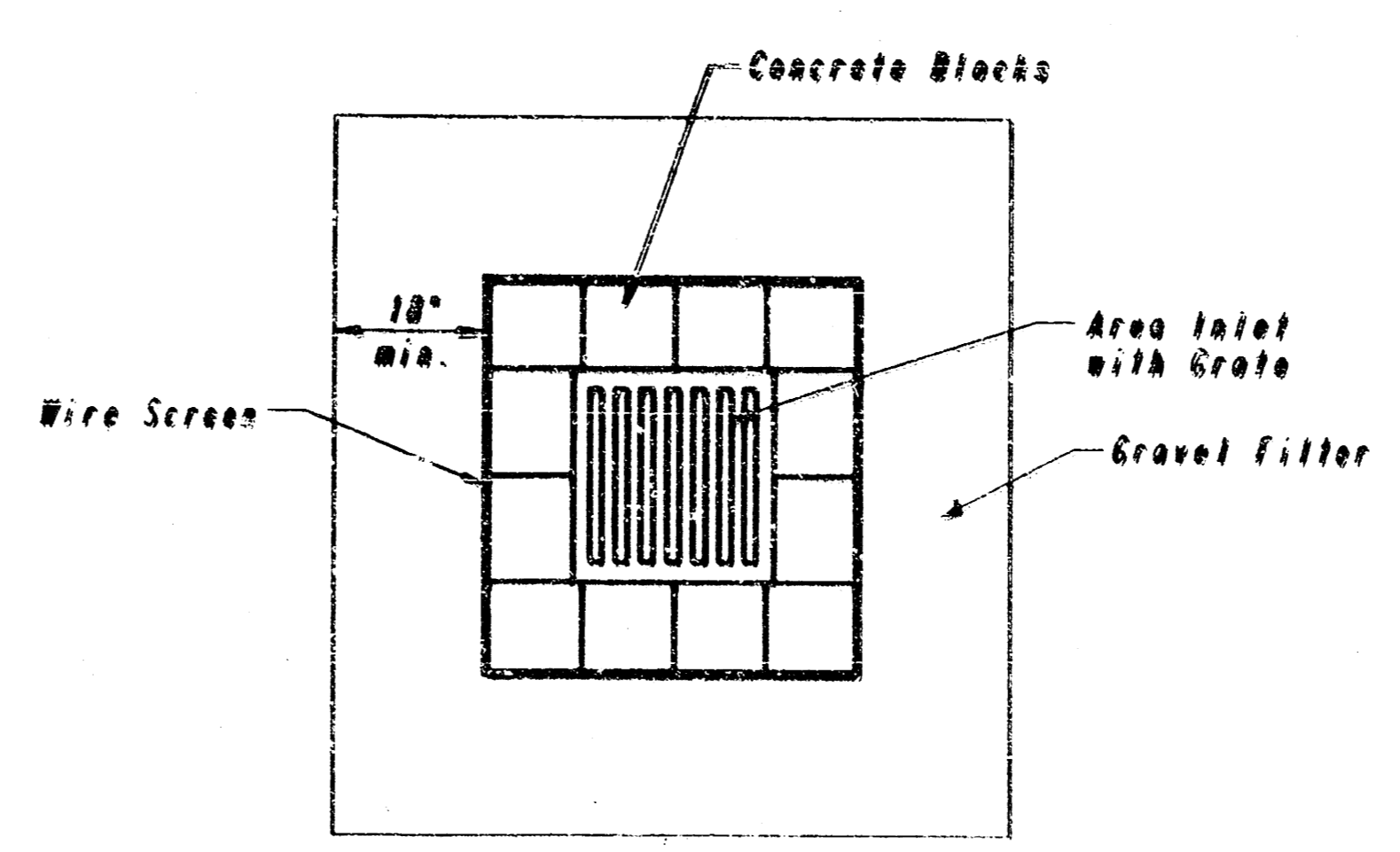




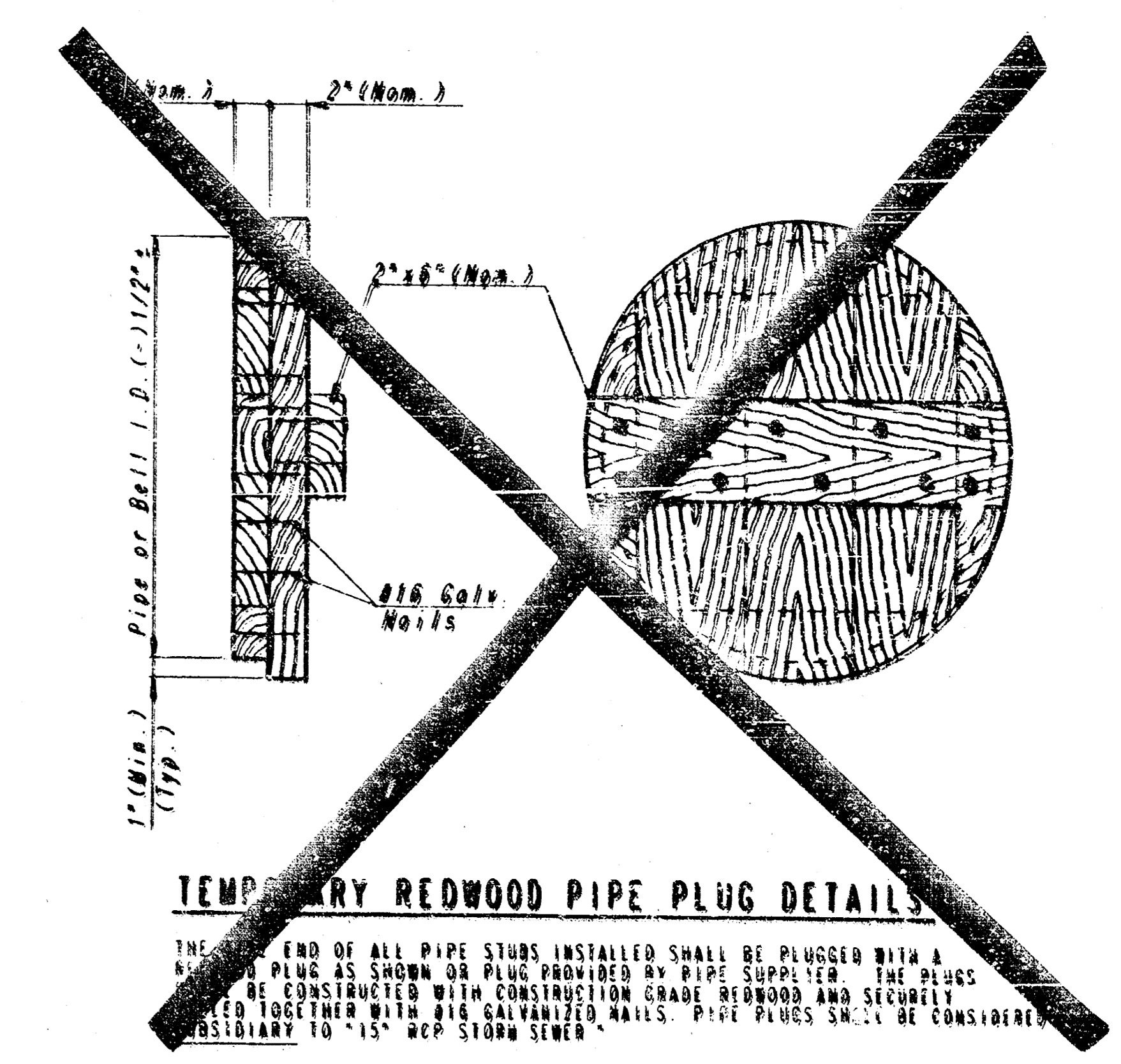
**AREA INLET PROTECTION
STRAW BALES**



**AREA INLET PROTECTION
FILTER FABRIC**



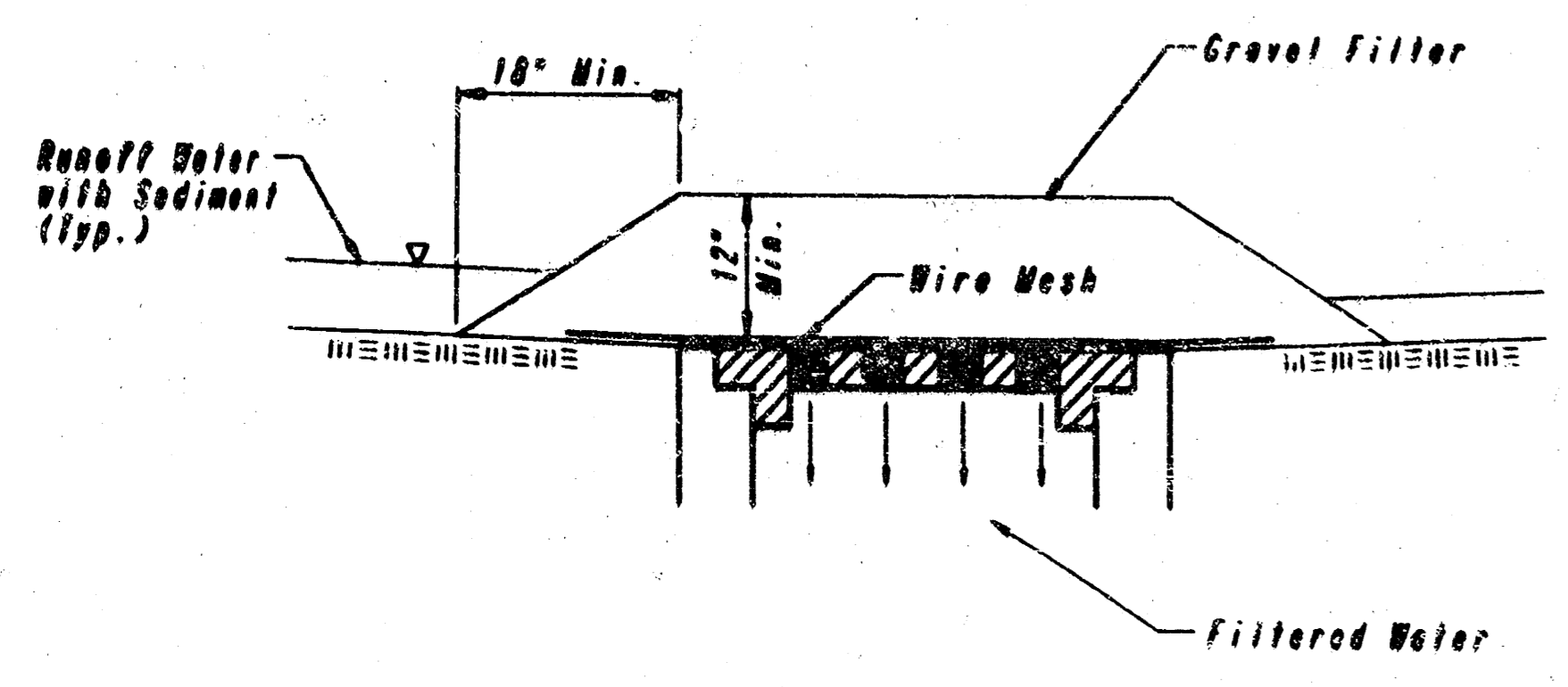
**AREA INLET PROTECTION
BLOCK AND GRAVEL FILTER**



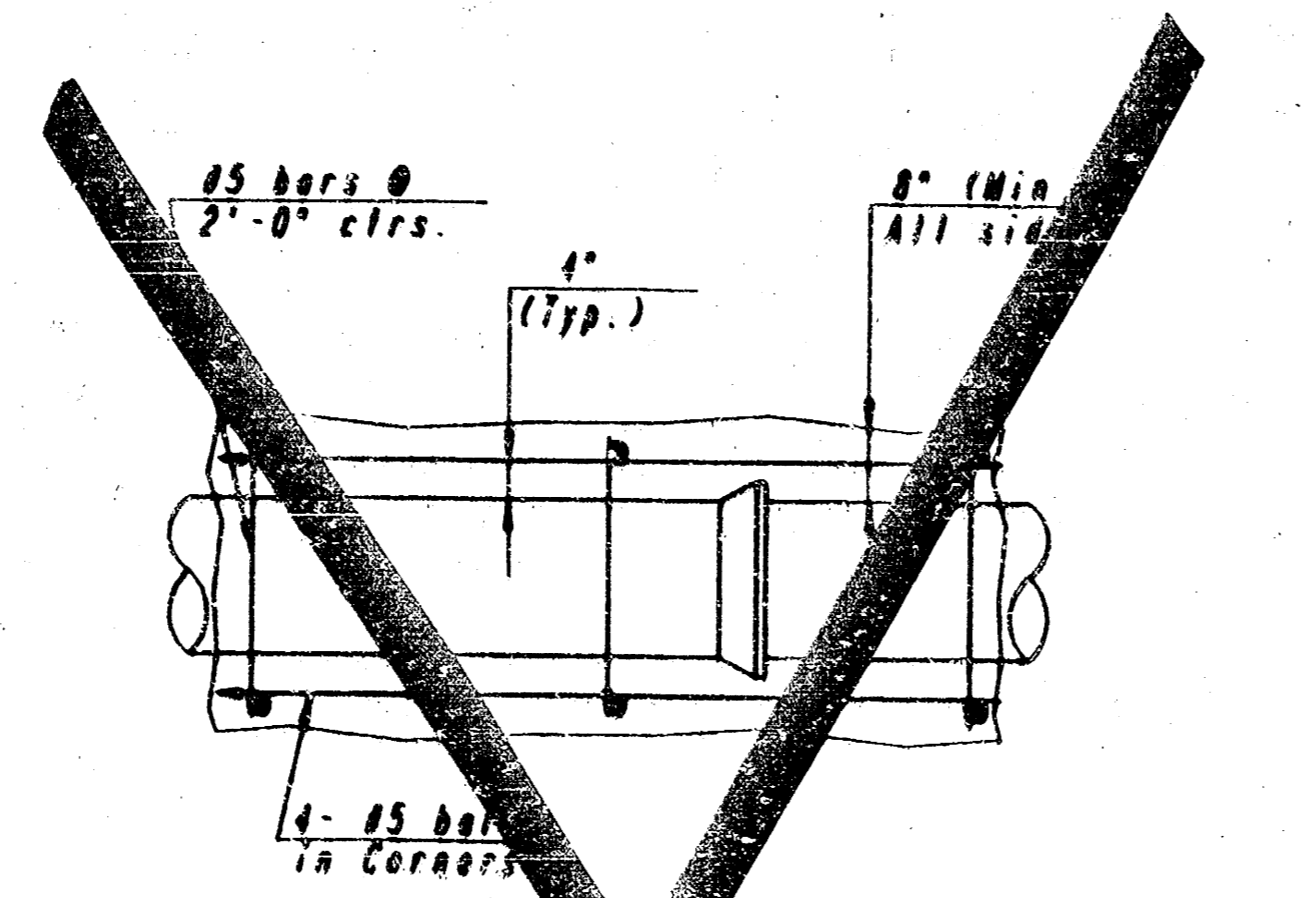
TEMPORARY REDWOOD PIPE PLUG DETAILS

THE END OF ALL PIPE STUBS INSTALLED SHALL BE PLUGGED WITH A REDWOOD PIPE PLUG AS SHOWN OR PLUG PROVIDED BY PIPE SUPPLIER. THE PLUGS SHALL BE CONSTRUCTED WITH CONSTRUCTION GRADE REDWOOD AND SECURELY FASTENED TOGETHER WITH #16 GALVANIZED NAILS. PIPE PLUGS SHALL BE CONSIDERED SUBSIDIARY TO "15" RCP STORM SEWER."

DATE	BY
DATE CHECKED	BY
DATE REVISION	BY
DATE APPROVED	BY



**AREA INLET PROTECTION
GRAVEL AND WIRE MESH**



ENCASUREMENT DETAIL

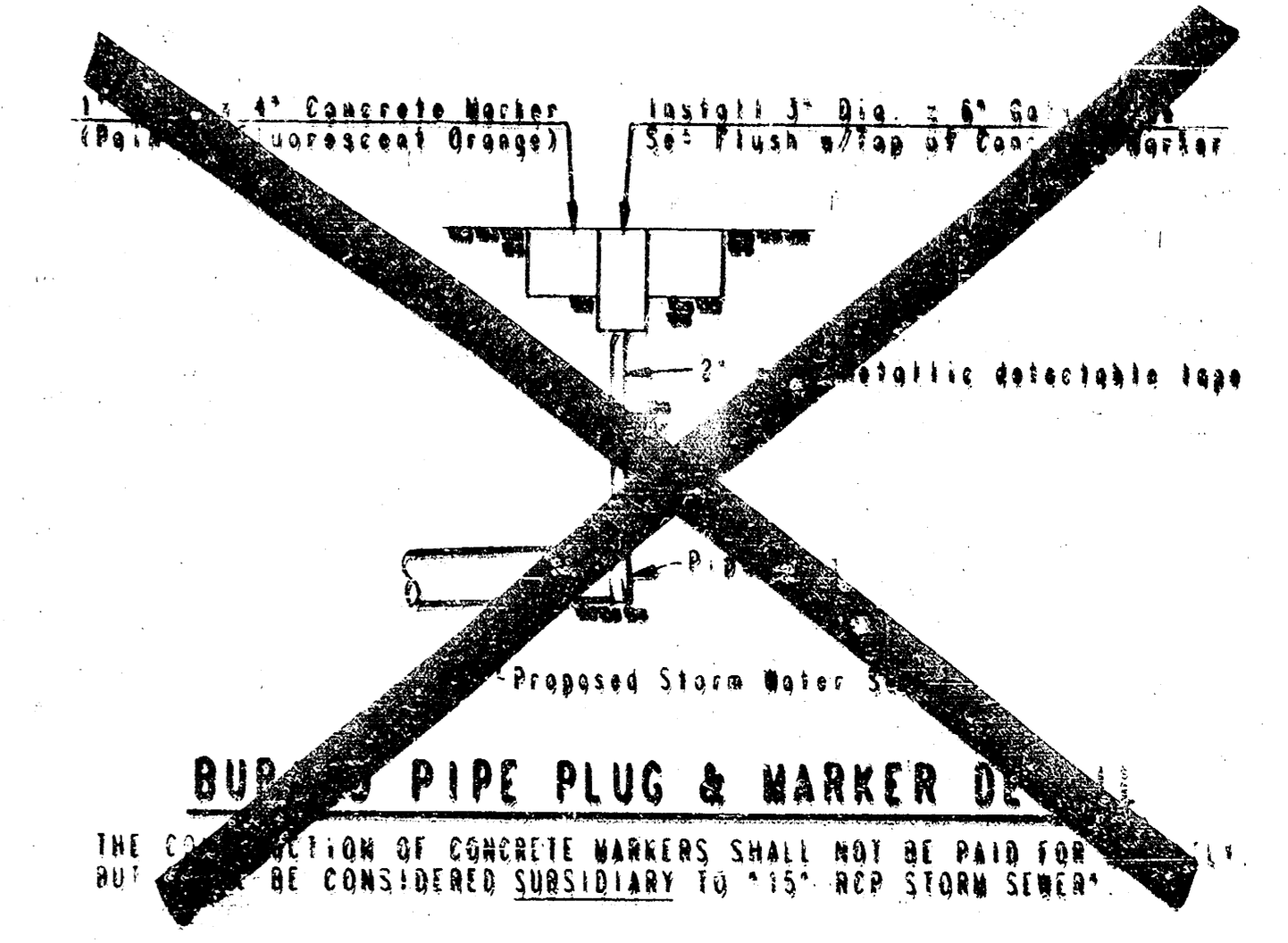
REINFORCED CONCRETE ENCASUREMENT SHALL BE CONSIDERED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE CONTRACTOR'S OPTION, CLASS A CONCRETE (OR MIX USED IN CONCRETE) PAYMENT MAY BE USED THROUGHOUT. REINFORCED CONCRETE ENCASUREMENT SHALL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE "15" RCP STORM WATER SEWER.

- 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, WILL 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	TRAVIRA 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.

- BALES USED FOR INLET PROTECTION MAY BE EITHER HAY OR STRAW, PROVIDED THEY ARE SOUND AND INTACT.
- INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PREVENT 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 DEVELOPER.
- MEASUREMENT AND PAYMENT: THE ITEM "INLET PROTECTION" SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR EACH INLET LOCATION PROTECTED REGARDLESS OF METHOD SELECTED BY THE CONTRACTOR. SAID PRICE SHALL BE CONSIDERED FULL COMPENSATION FOR EXCAVATION, COMPACTION, BACKFILL, SEDIMENT, AND DEBRIS REMOVAL AND DISPOSAL, AND ALL LABOR, MATERIALS, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. RECONSTRUCTION OF INLET PROTECTION INSTALLATION DUE TO DAMAGE BY WIND, FLOOD, FIRE, ETC. OR DUE TO ACTIONS BY THE CONTRACTOR OR OTHERS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.



BURIED PIPE PLUG & MARKER DETAIL

THE CONSTRUCTION OF CONCRETE MARKERS SHALL NOT BE PAID FOR BUT SHALL BE CONSIDERED SUBSIDIARY TO "15" RCP STORM SEWER."
 NOTE: INLET PROTECTION FOR TYPE 18-2000 INLET AND FOR 8-12" MANHOLE BY-PRODUCTS SHALL BE THE SAME AS FOR AREA INLETS.

DRAWING NAME: 15-2000-2 SED/CRD
 LOCATION: 15-2000-2
 CENTER COORDINATES:
 ROTATION ANGLE:
 DATE LAST MODIFIED: MAR. 3, 1995
 BAR CODE

ADAPTED FROM: VIRGINIA SOIL AND WATER CONSERVATION COMMISSION, 1985 AND DRAINAGE CRITERIA MANUAL, DENVER URBAN DRAINAGE AND FLOOD CONTROL DISTRICT 9-1-82

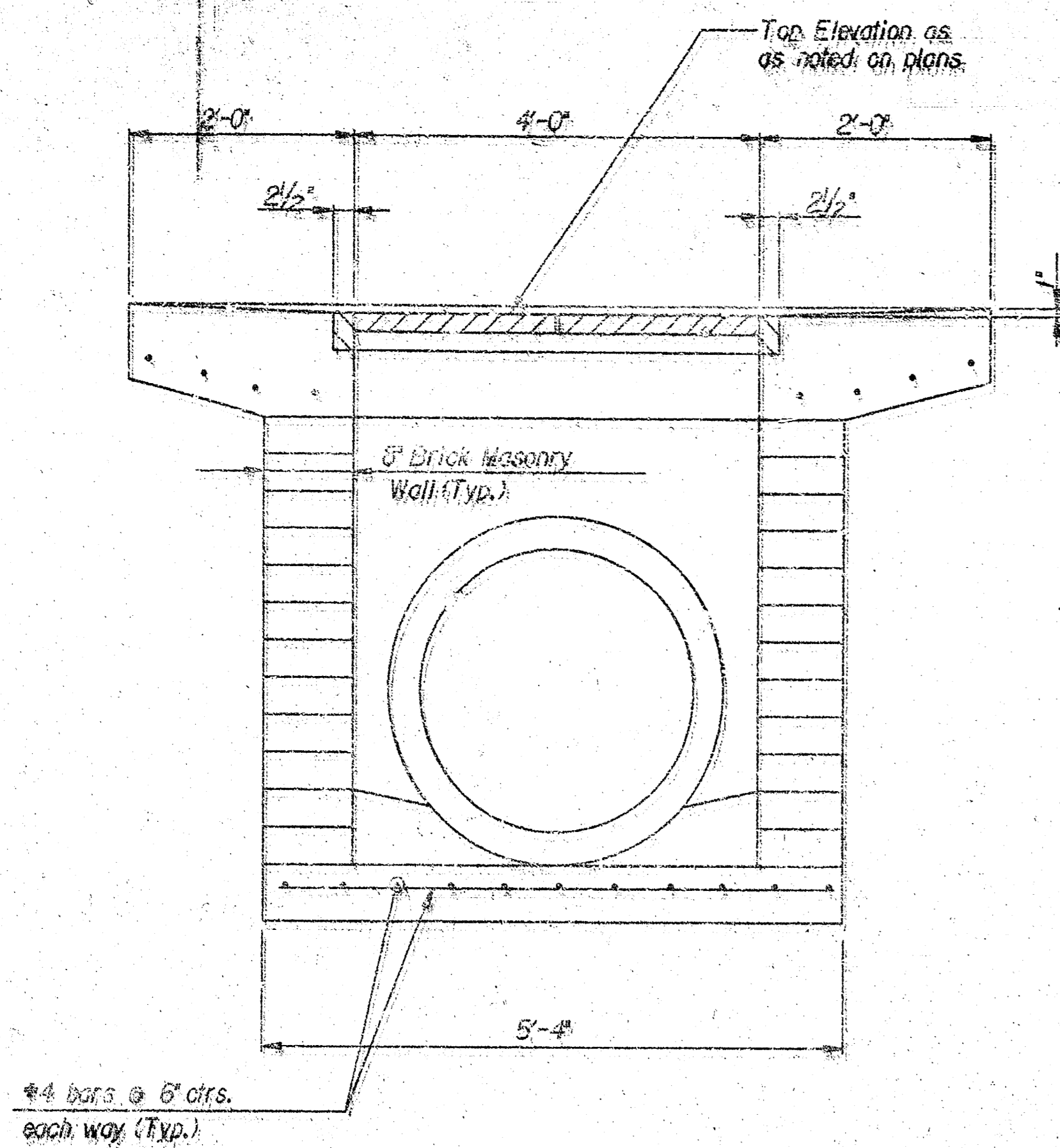
CAPITAL ADDITION
 SWG NO. 449

**INLET PROTECTION
 DETAILS**

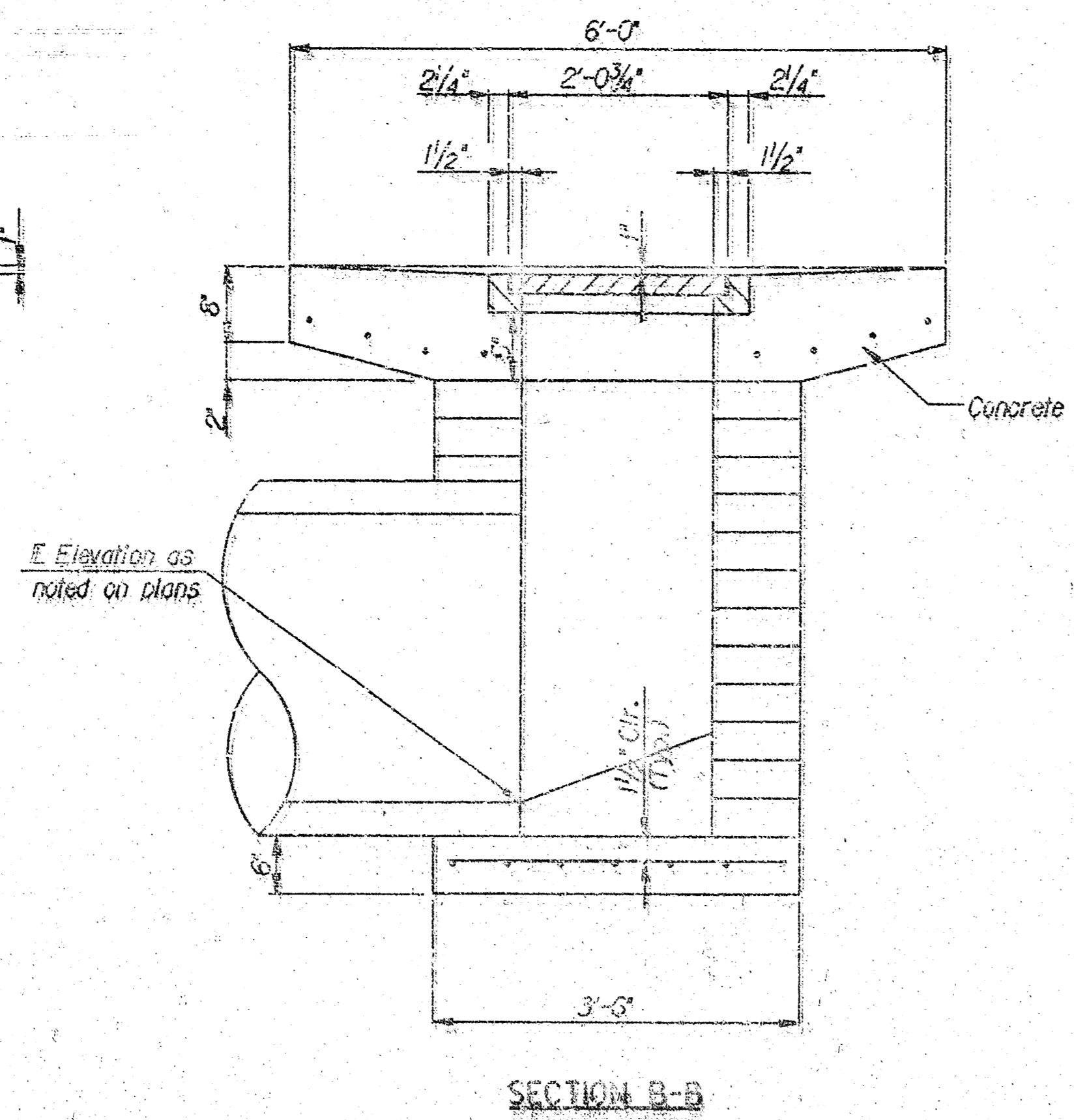
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

Designed by: MBB	Checked by:
Drawn by: DEP, RJS	Date: APR. 1, 1995 Job No. 66101

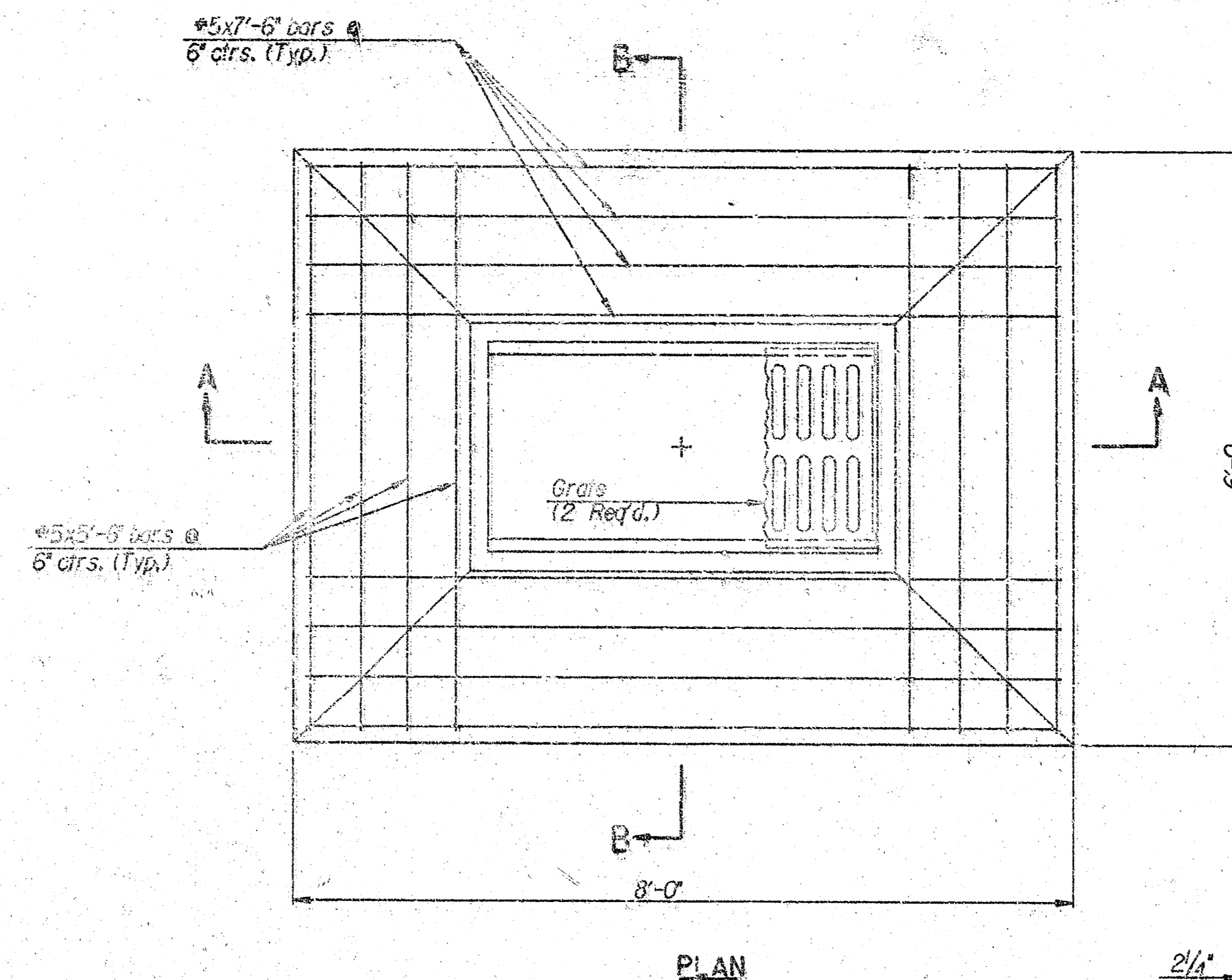
PROJECT NO.	SHEET NO.	TOTAL SHEETS
468-76-245-822(1)-000-000-001	7	8



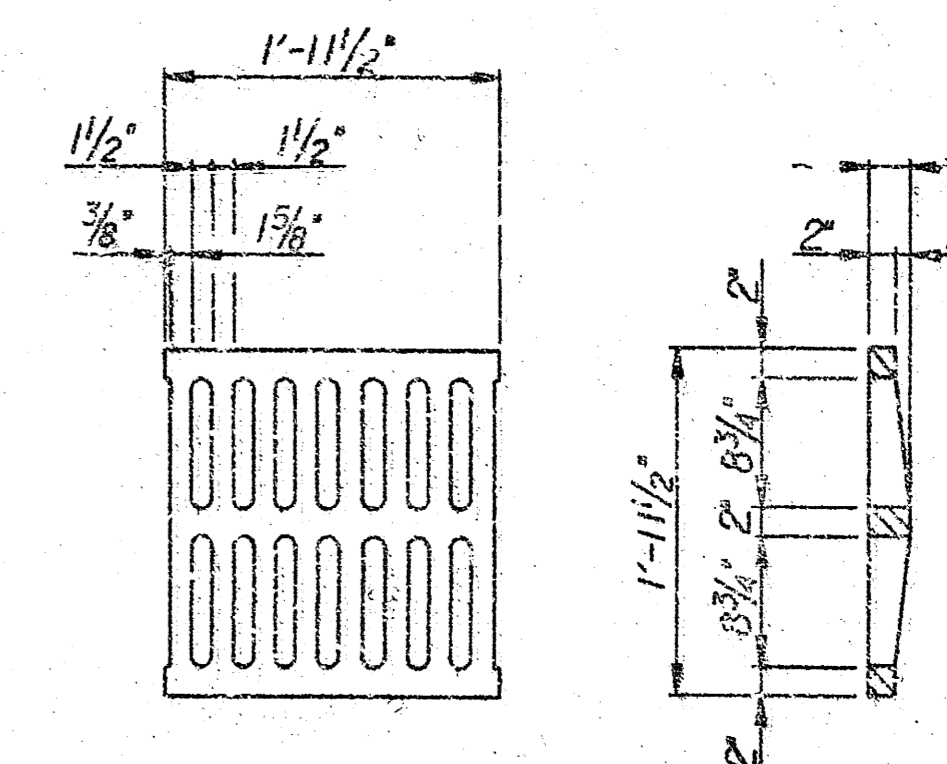
SECTION A-A



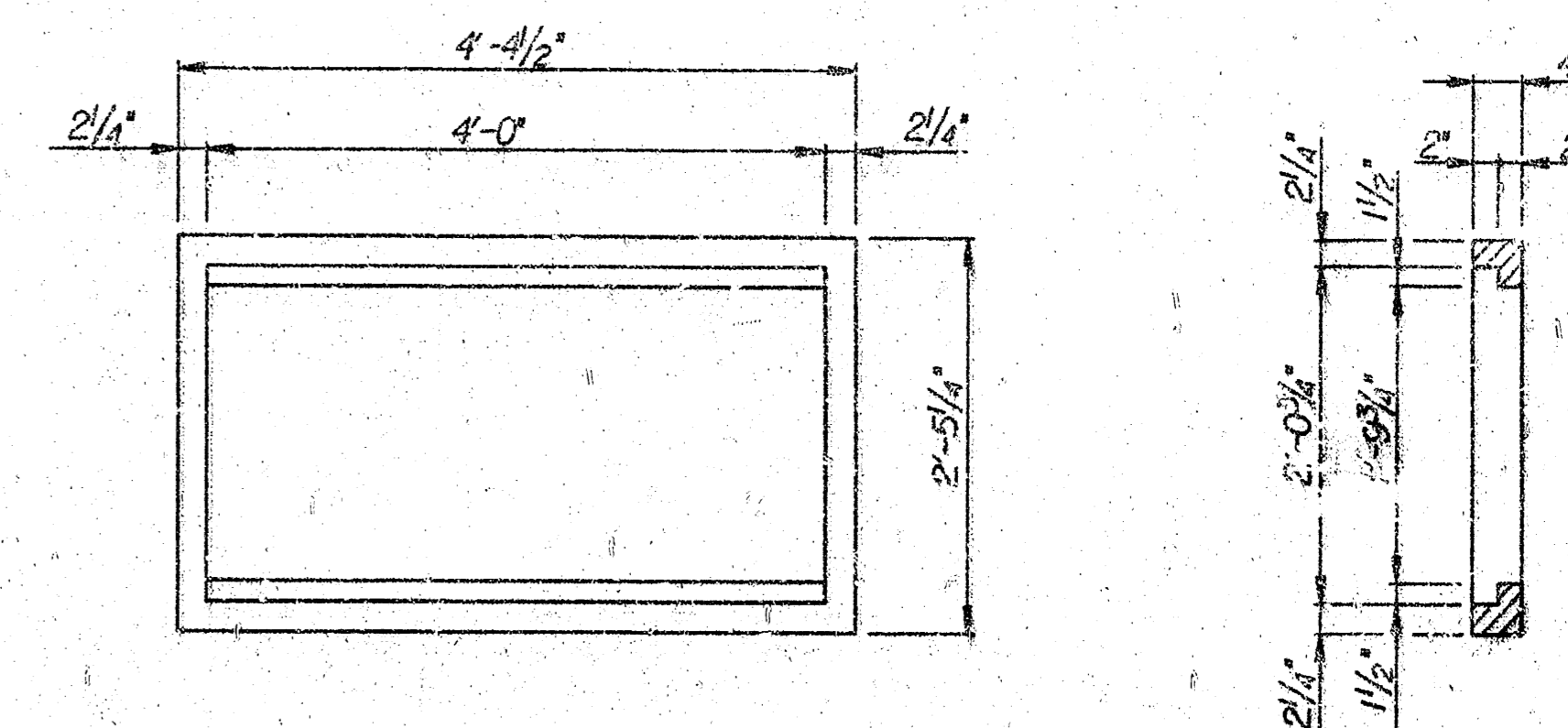
SECTION B-B



PLAN

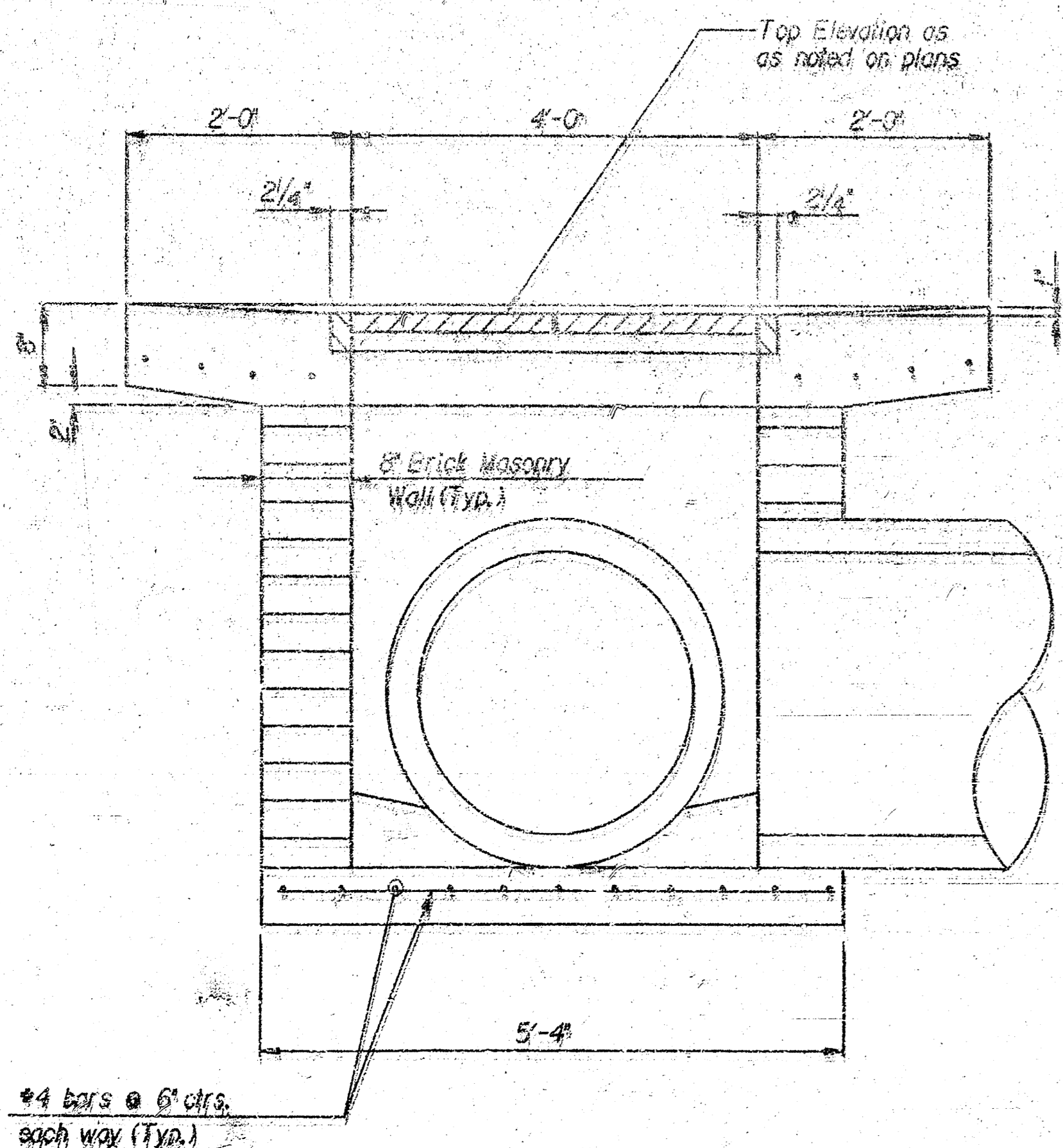


GRATE DETAIL
(Wt. -100 lbs.)
(2 Required)

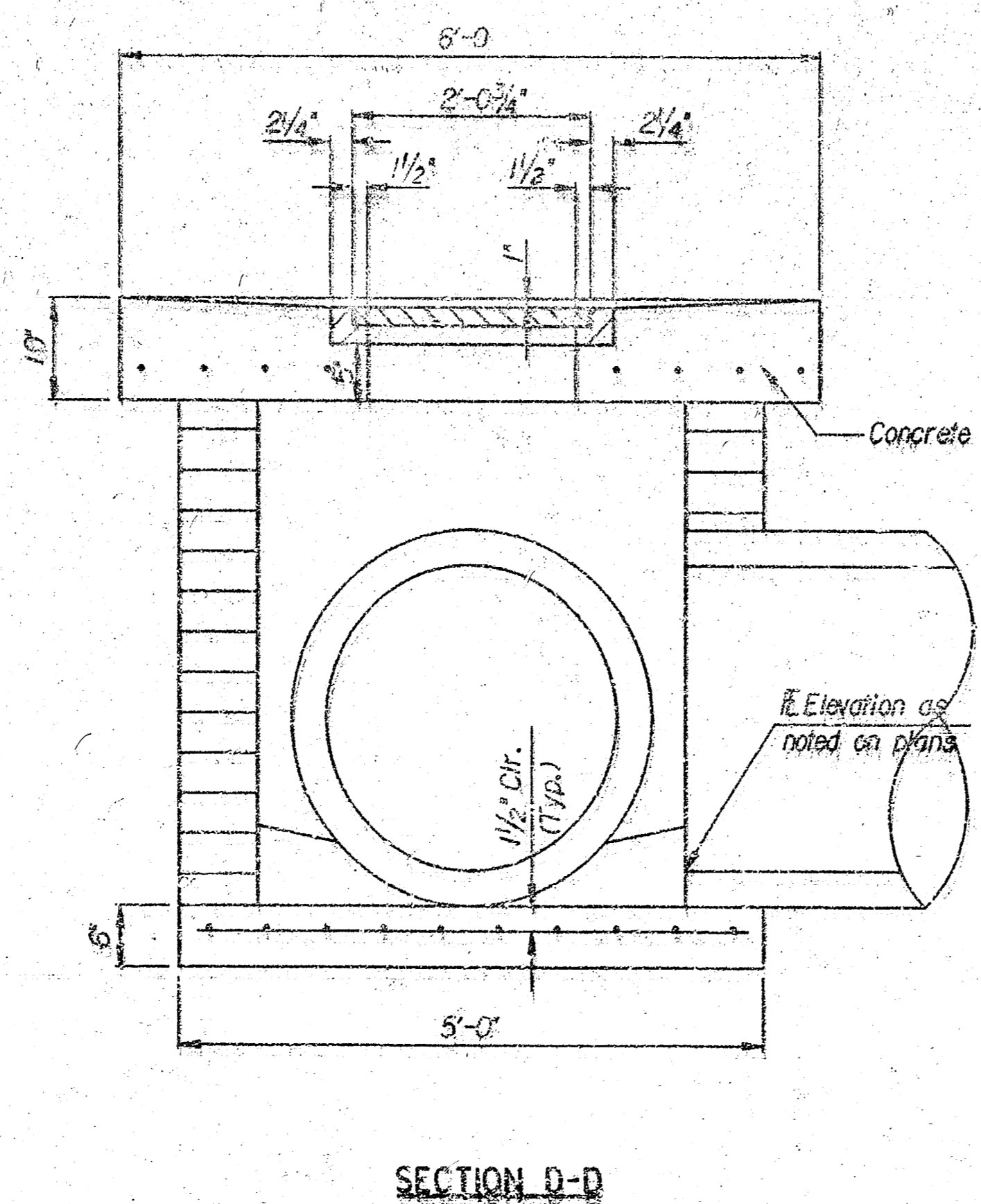


FRAME DETAIL
(Wt. -460 lbs.)

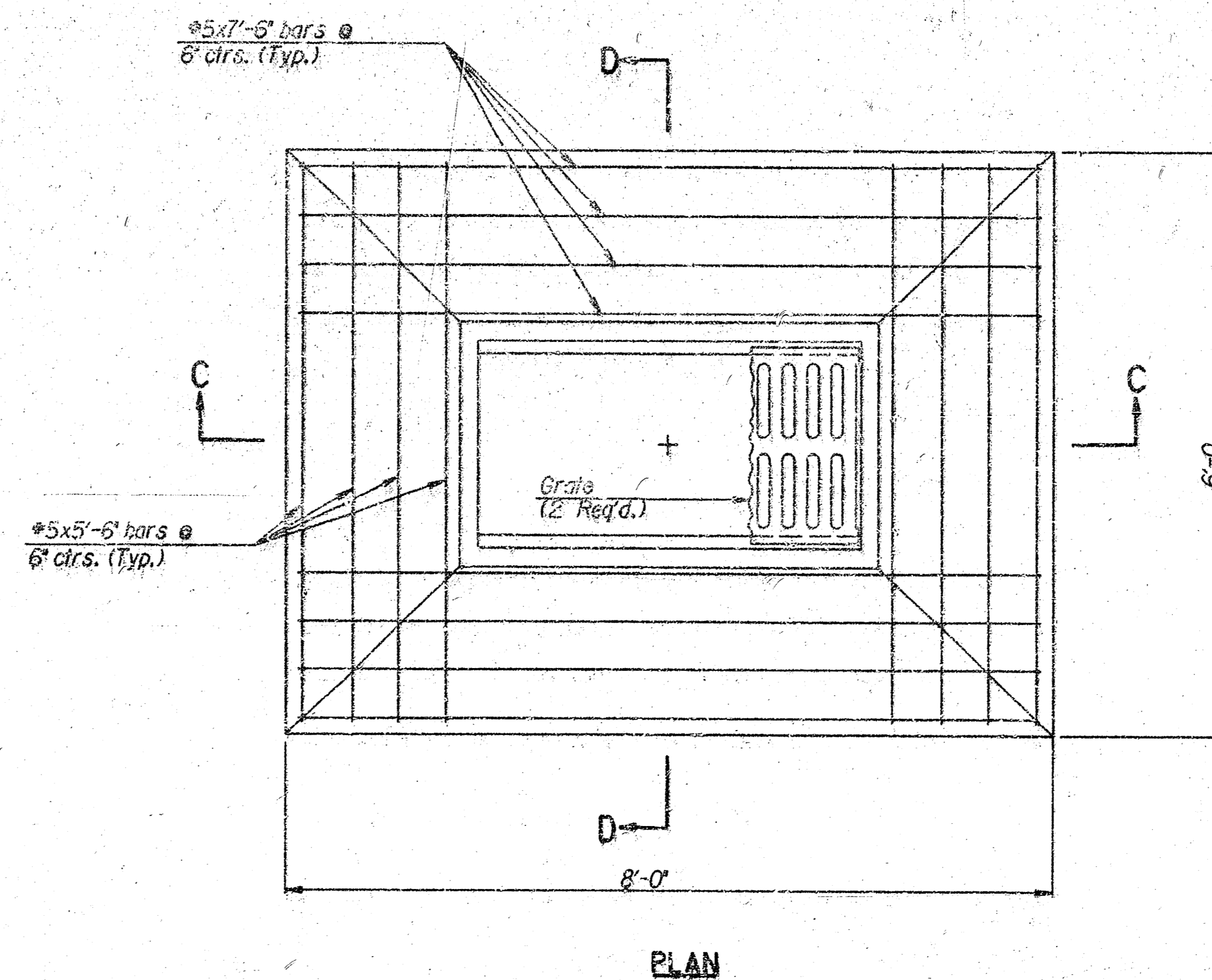
STANDARD AREA INLET



SECTION C-C



SECTION D-D



PLAN

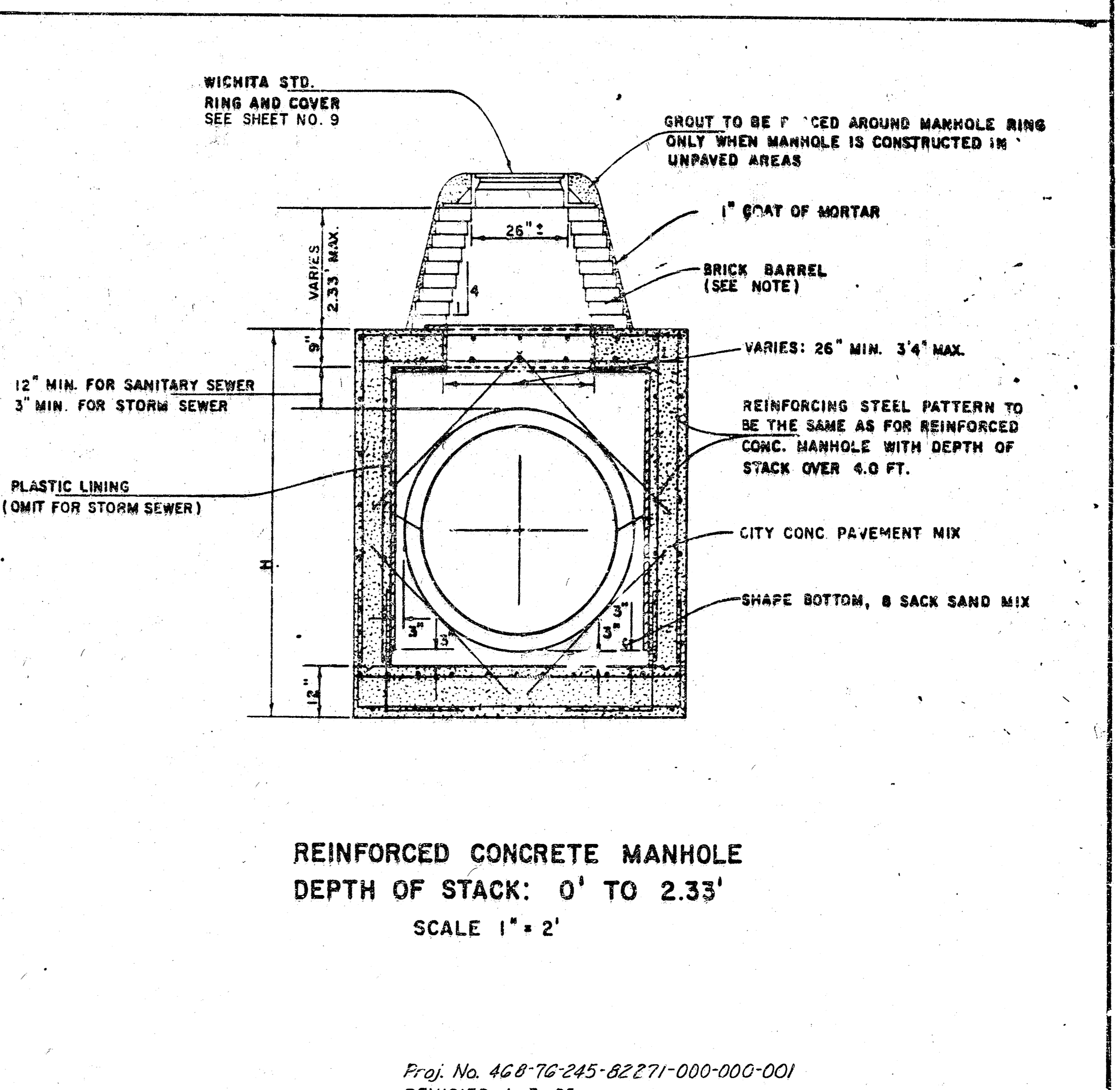
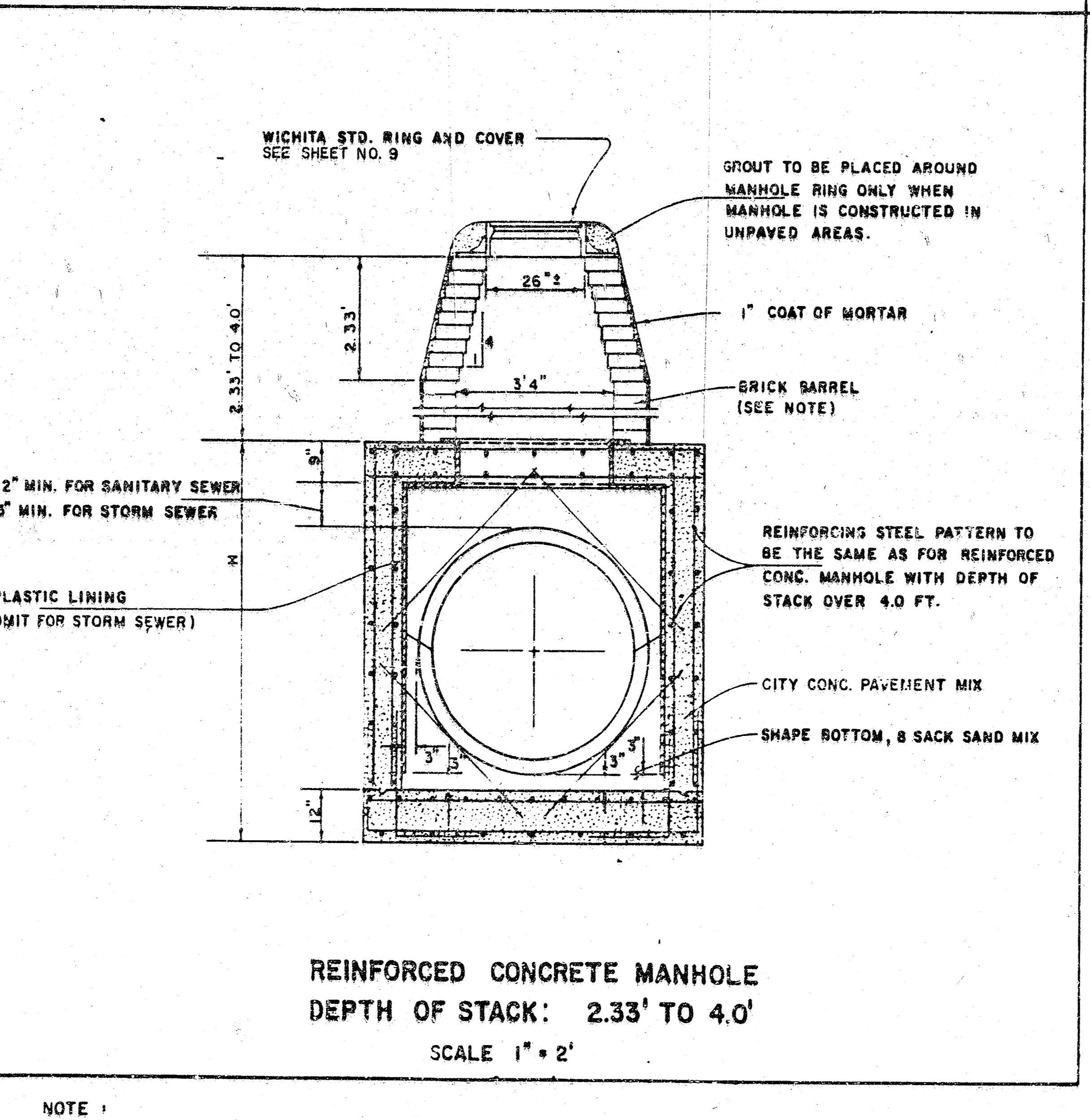
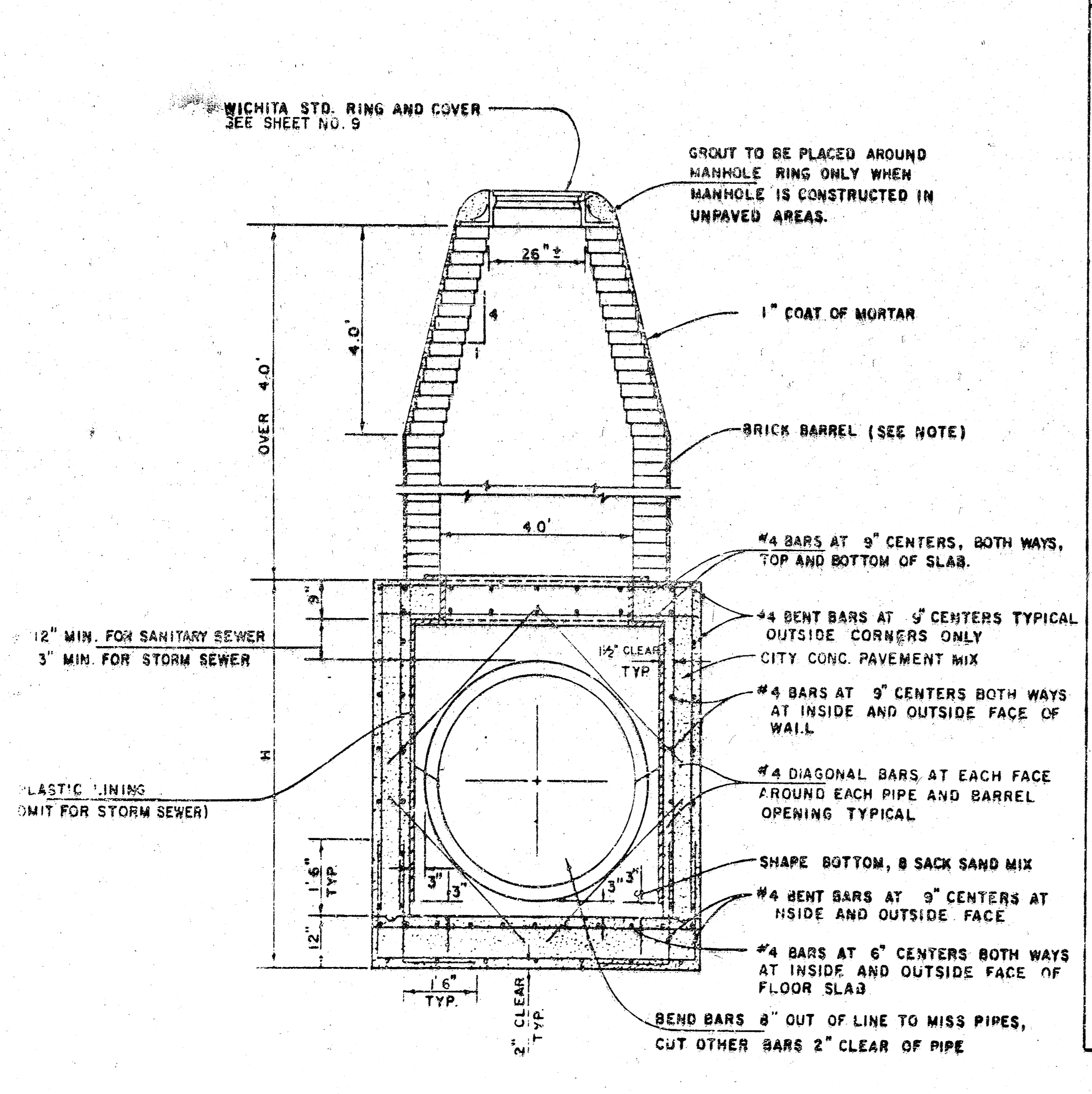
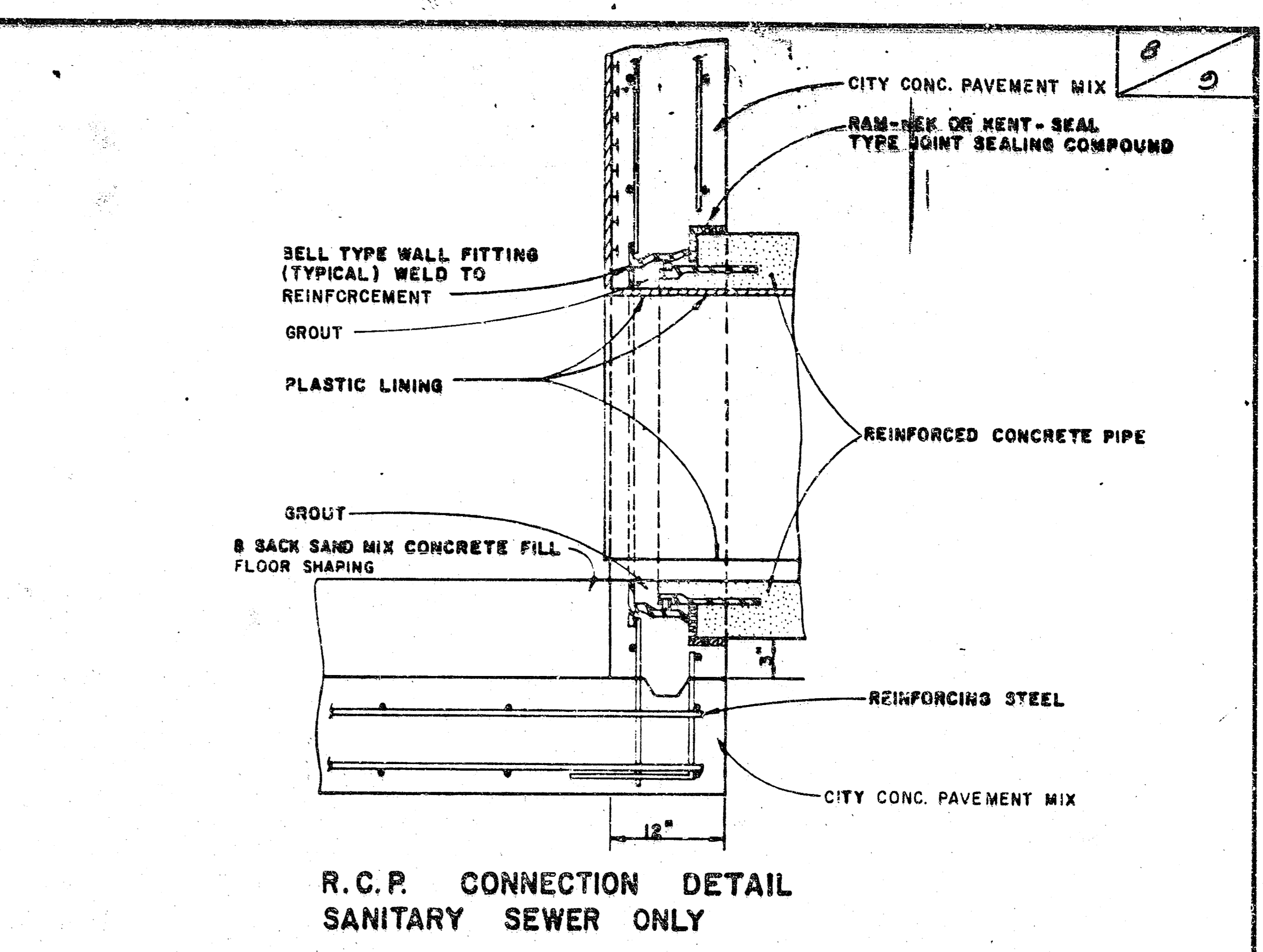
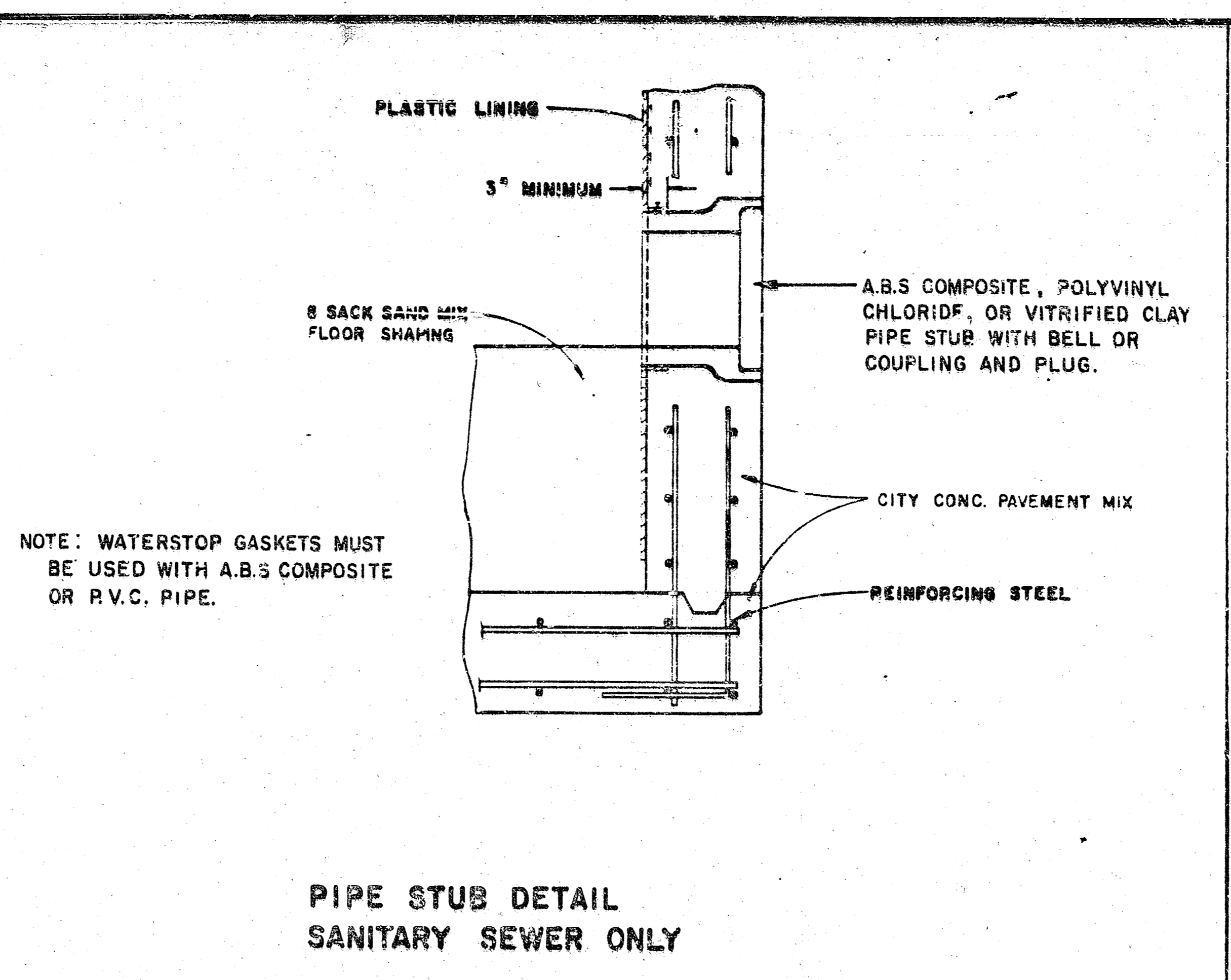
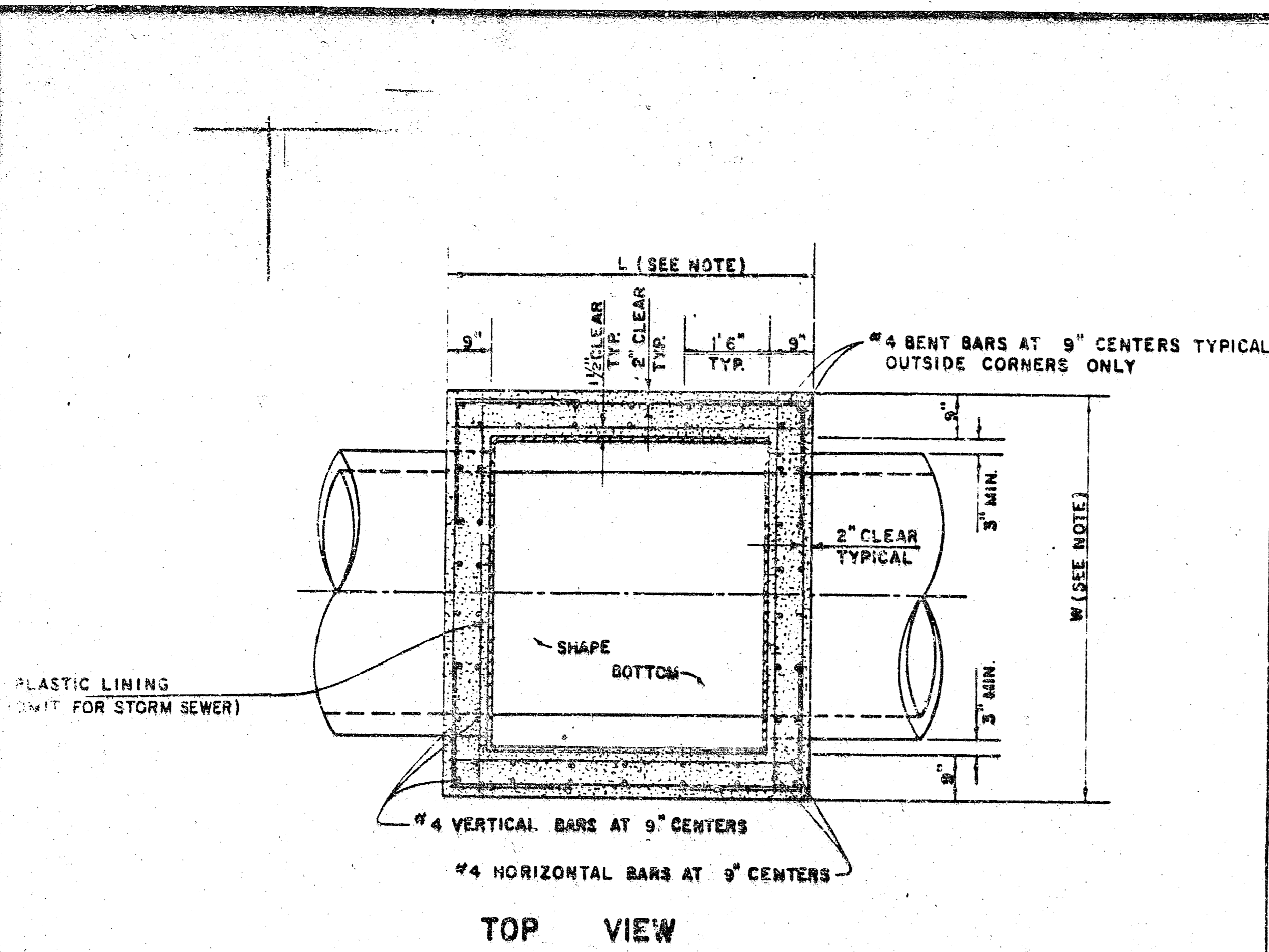
SPECIAL AREA INLET

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 EFFECTS.
- CONSTRUCTION REQUIREMENTS AND MATERIALS FOR MASONRY WALLS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
- INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (8 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.
- AREA INLETS (STANDARD AND SPECIAL) SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH. THIS SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING, MATERIALS, LABOR, CONNECTION TO EXISTING STRUCTURES (IF REQUIRED), EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- PIPES ENTERING EXISTING STRUCTURE SHALL BE CENTERED ON INSIDE FACE OF WALL.

CAPITAL ADDITION SWS NO. 443			
AREA INLET DETAILS			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. INCORPORATED RICHIA, KANSAS			
Designed by	MWB, GDD	Checked by	
Drawn by	DEP	Date	APR., 1995 Job No. 95101

usr/ushv/dgn/dalagw/inletd1.dgn
date: 04/28/95
dwg: to: dar crank



NOTE 1
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.

Proj. No. 468-76-245-82271-000-000-001
REVISED 1-7-85

**STANDARD DETAILS
REINFORCED CONCRETE MANHOLES
CITY OF WICHITA
FEBRUARY 1984**

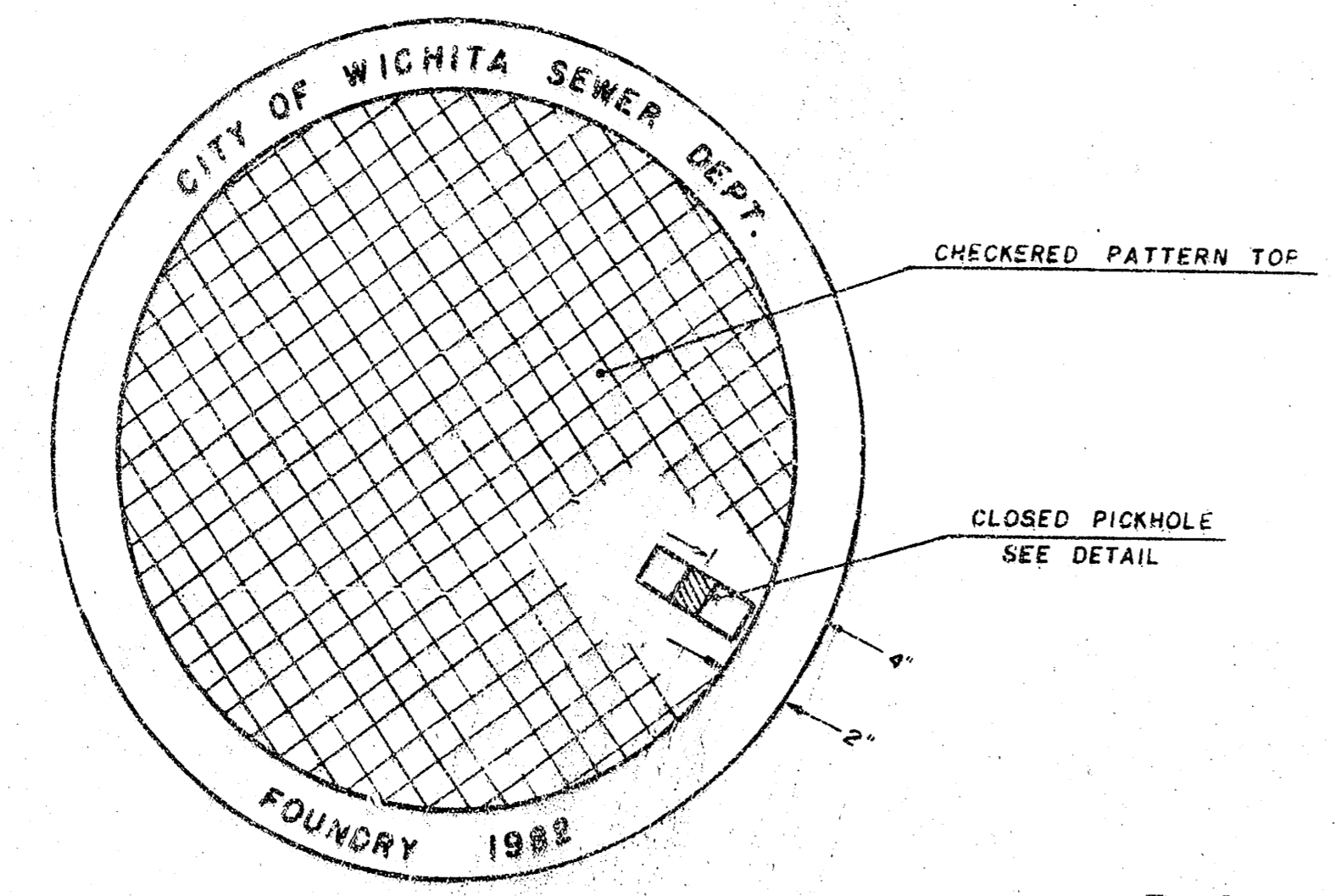
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

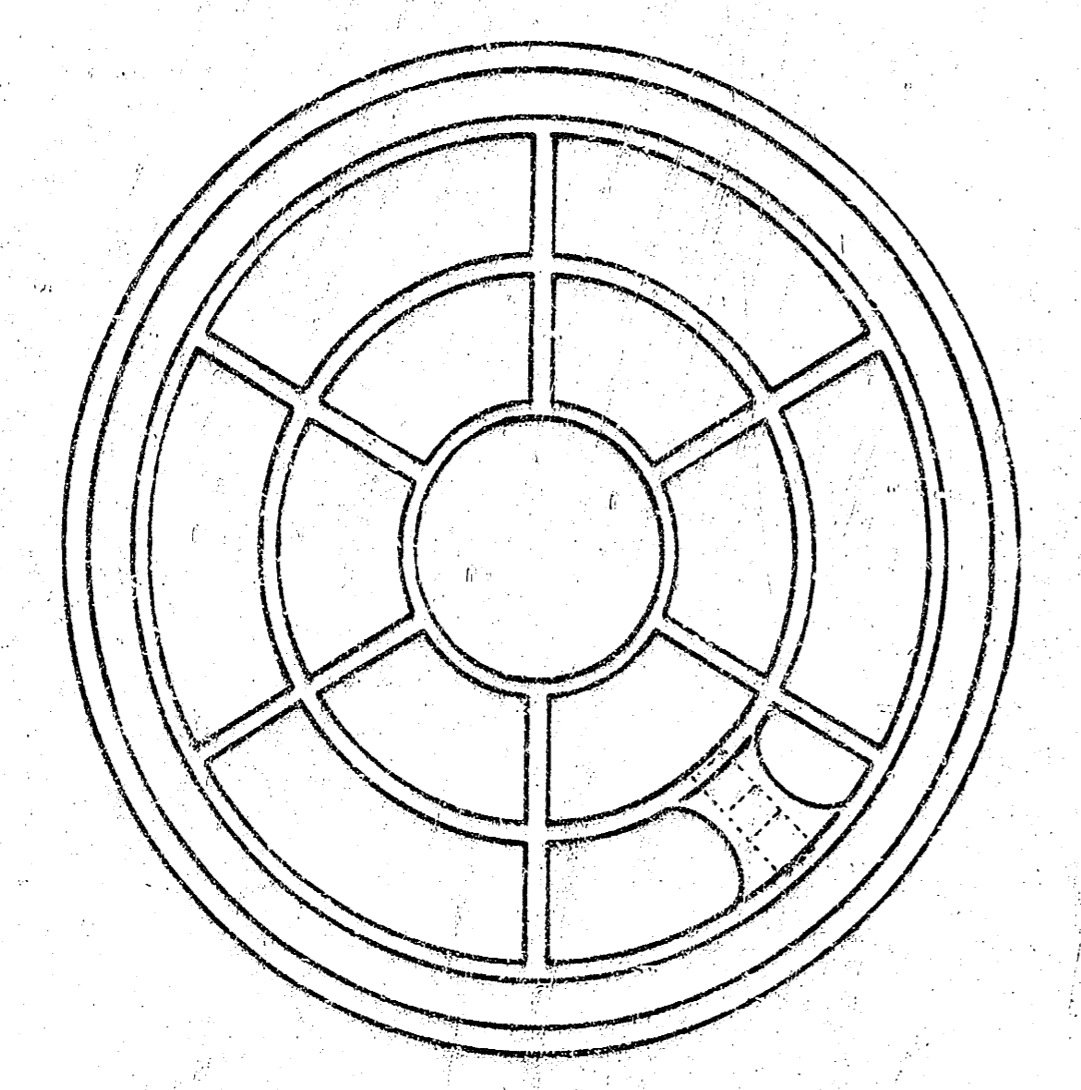
BY

City of Wichita, Kansas

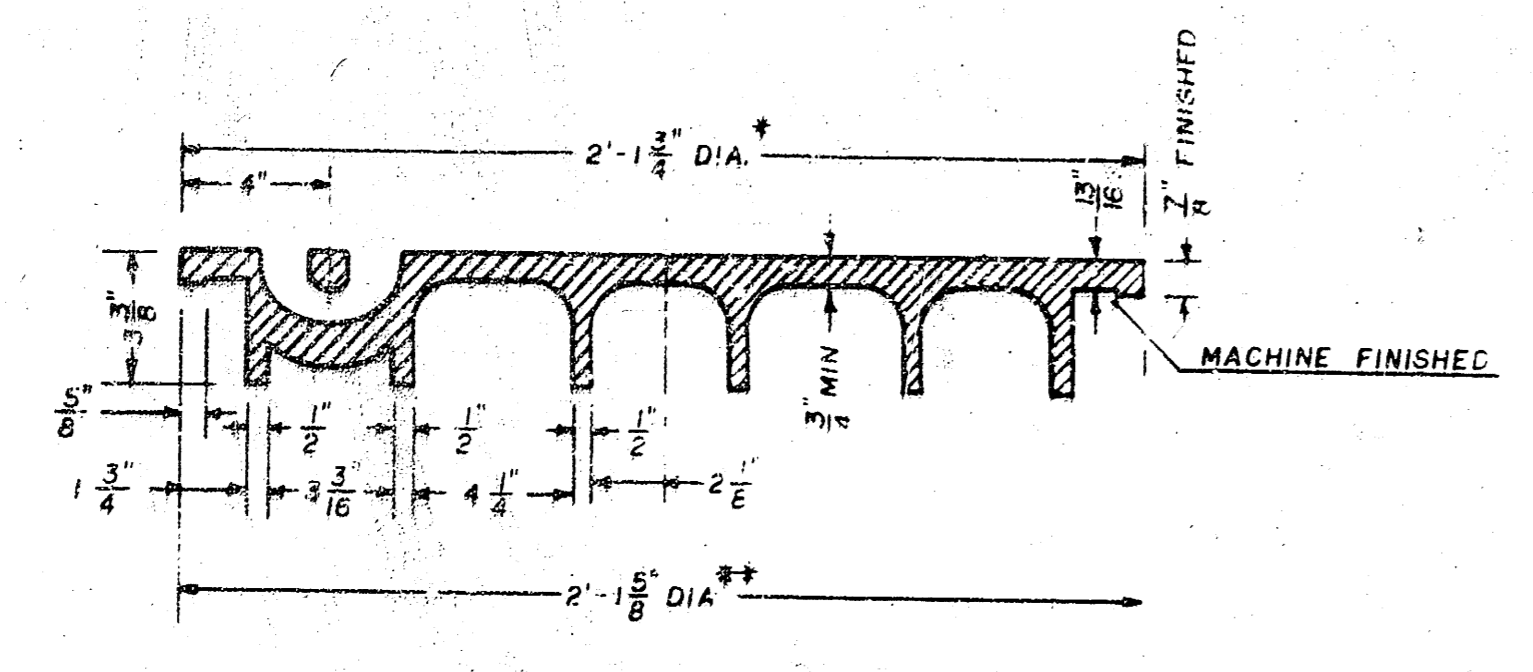
MANHOLE COVER
Weight: 180 Lbs.



TOP VIEW



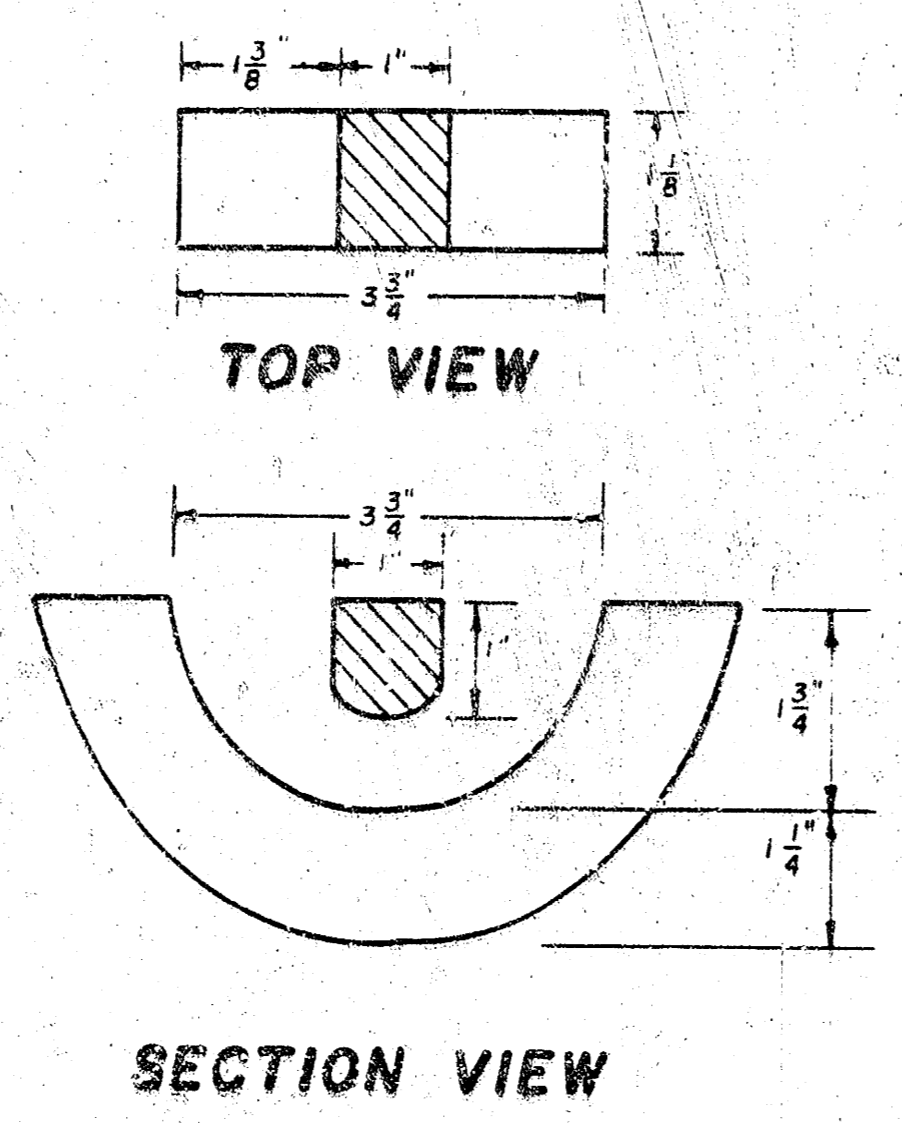
BOTTOM VIEW



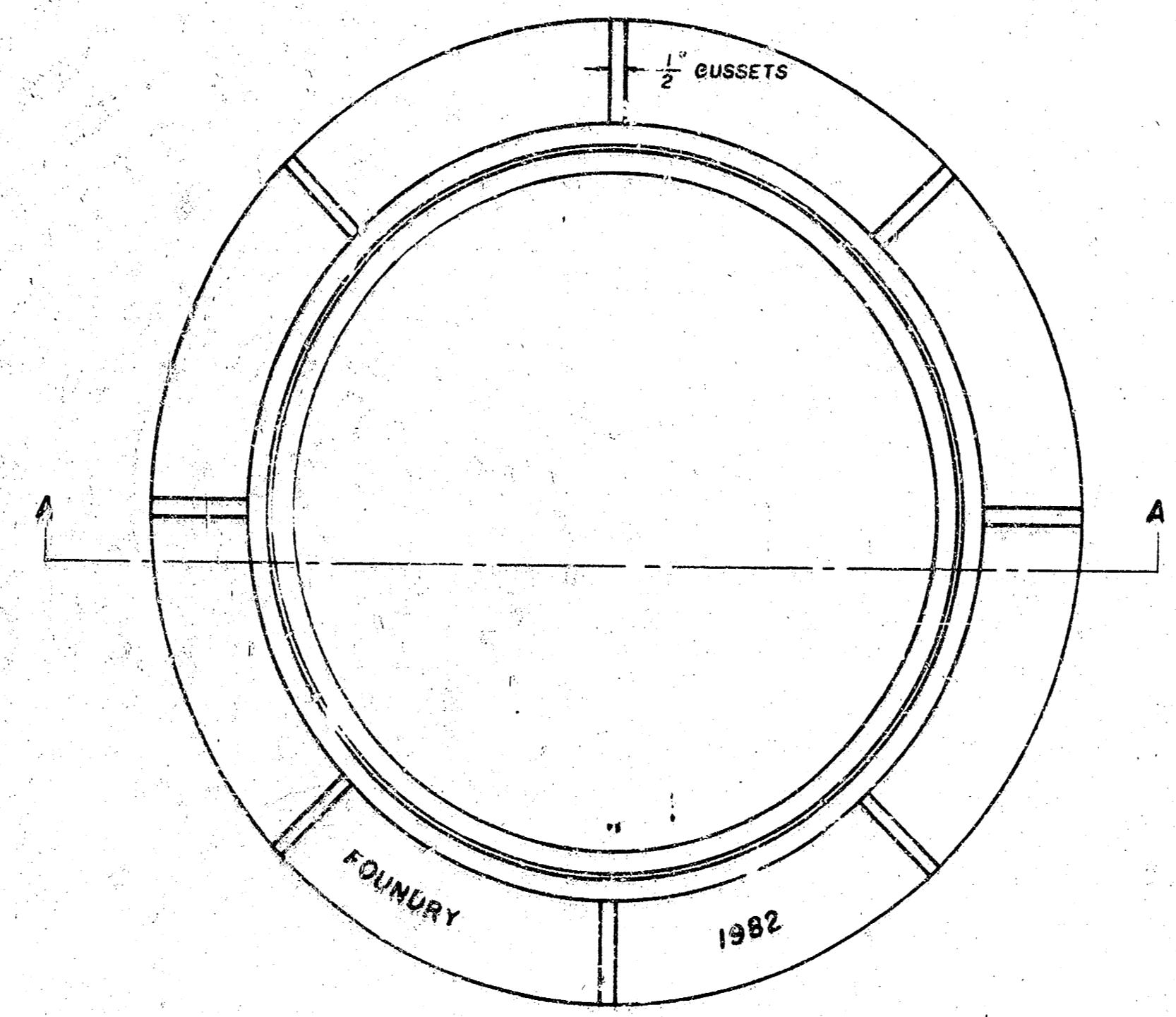
SECTION VIEW

* OUTSIDE DIA. TOP OF COVER
** OUTSIDE DIA. BOTTOM OF COVER

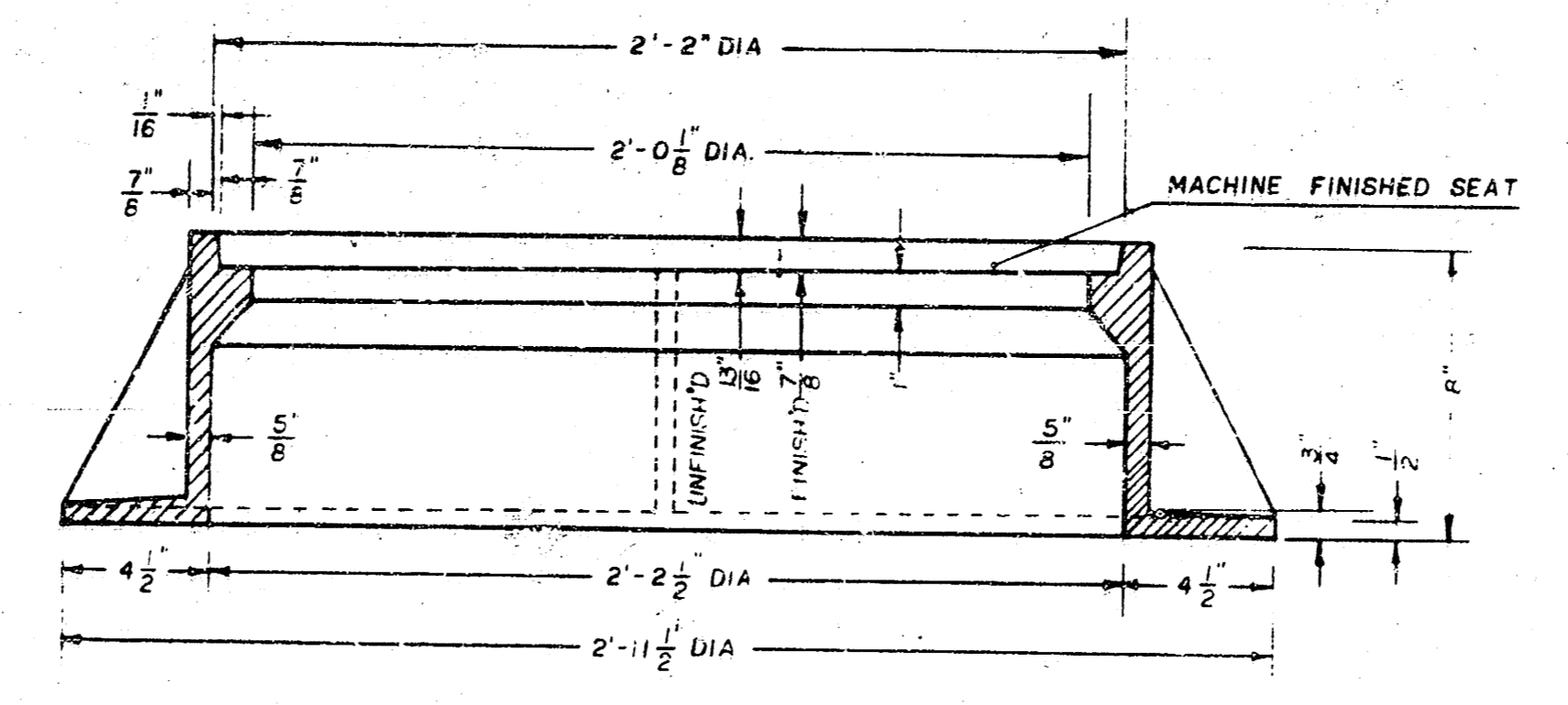
PICKHOLE DETAIL



MANHOLE FRAME
Weight: 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

- MANHOLE 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.
- MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
- THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
- THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.