

SHEET NO.	TOTAL SHEETS
1	7

# CITY OF WICHITA, KANSAS

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

# PRIVATE STORM WATER SEWER

## IN BRADLEY FAIR 4TH ADDITION

### CITY OF WICHITA PRIVATE PROJECT NO. 1015PPS (607861)

BOOKED  
4-16-01  
MKG  
D-506

**INDEX OF SHEETS**

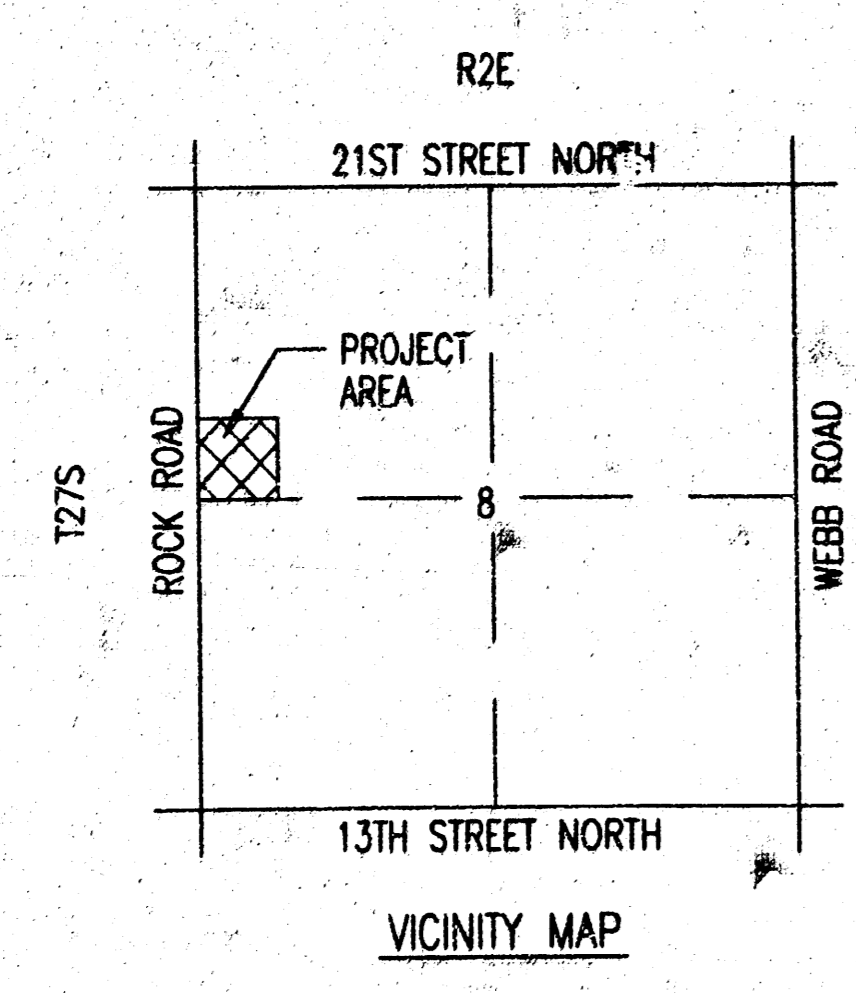
1. TITLE SHEET
2. SWS LINE NO. 1 & LINE NO. 2
3. DETENTION BASIN
4. RC MANHOLE DETAILS
5. MANHOLE FRAME AND COVER
6. STANDARD AREA INLET
7. EROSION CONTROL DETAILS

**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 BONDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY. NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER. IMPROVEMENTS PERFORMED UNDER 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. THE ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS PROJECT.

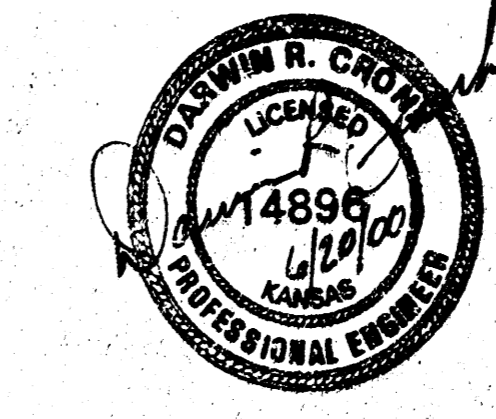
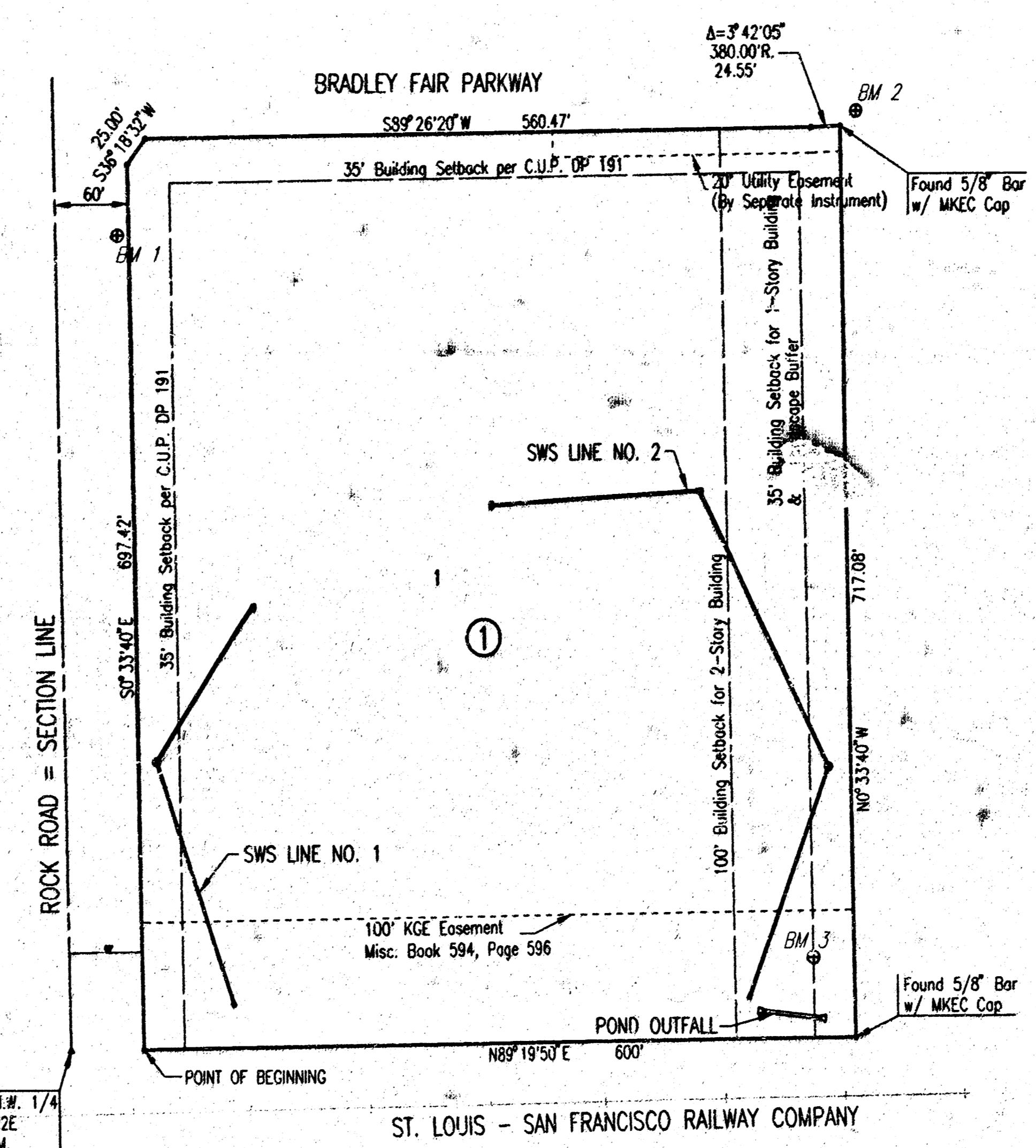
SCALE: 1"=100'

- = 3/4" I.P. WITH PEDESTAL UNLESS OTHERWISE NOTED
- B.M. #1: RAILROAD SPIKE IN WEST FACE OF POWER POLE ON EAST SIDE ROCK ROAD SOUTH OF BRADLEY FAIR. ELEV.=209.22 CITY DATUM
- B.M. #2: CHISELED "I" IN TOP OF CURB SOUTH OF BRADLEY FAIR ST. 600'± EAST OF ROCK ROAD ON THE EAST SIDE OF THE WHEELCHAIR RAMP. ELEV.=204.33'
- B.M. #3: RAILROAD SPIKE IN NORTH FACE OF NORTH POLE TO HIGHLINE "H" STRUCTURE EAST OF ROCK ROAD AND SOUTH OF BRADLEY FAIR ST. ELEV.=196.17



APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA

- SANITARY SEWERS \_\_\_\_\_
- STORM SEWERS VRH 6/20/00
- DRIVEWAY APPROACHES \_\_\_\_\_
- WATER MAINS \_\_\_\_\_
- PAVING \_\_\_\_\_



**RECORD DRAWING**  
*Michael E. Lindebak*  
08 DEC 00

**GENERAL NOTES**

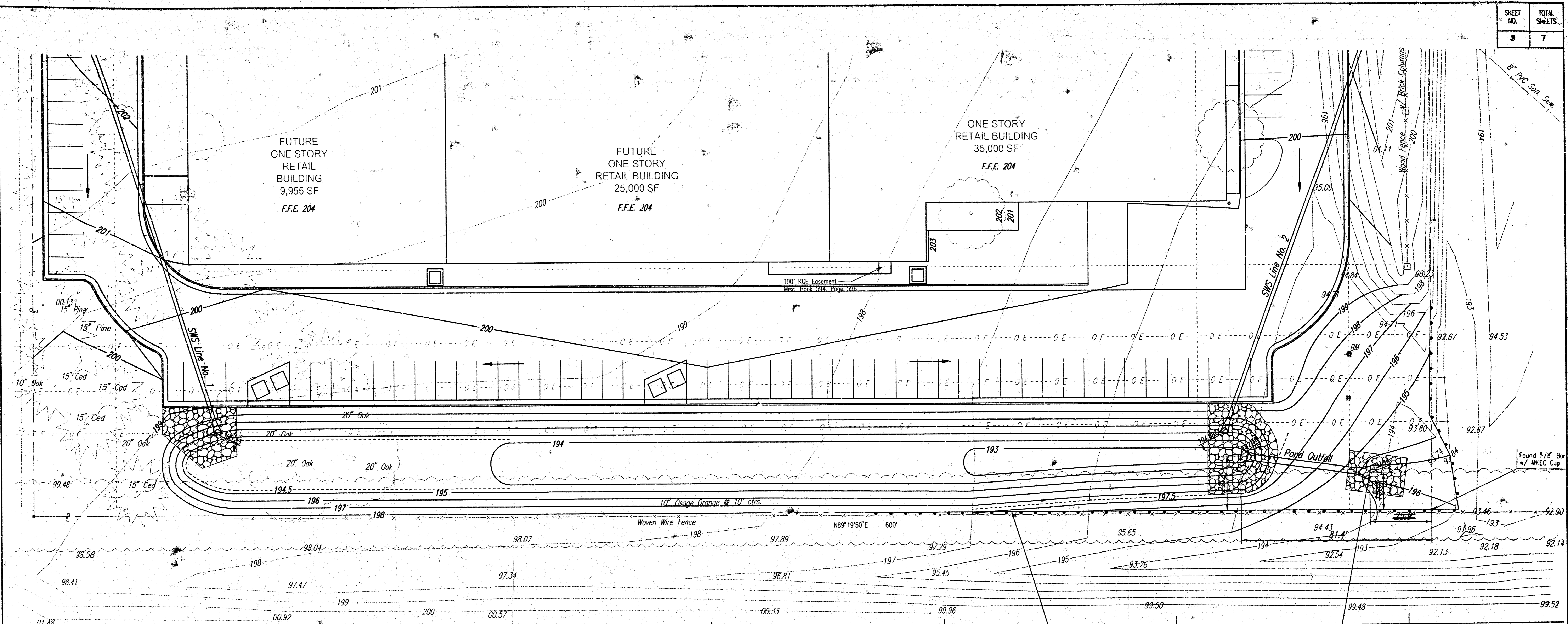
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE 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 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.
- 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 UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.G.S. GAS, PEOPLES NATURAL GAS, K.G.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, COX COMMUNICATIONS, 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 ACCORDING TO CITY OF WICHITA STANDARDS AND SPECIFICATIONS.

JUNE 2000

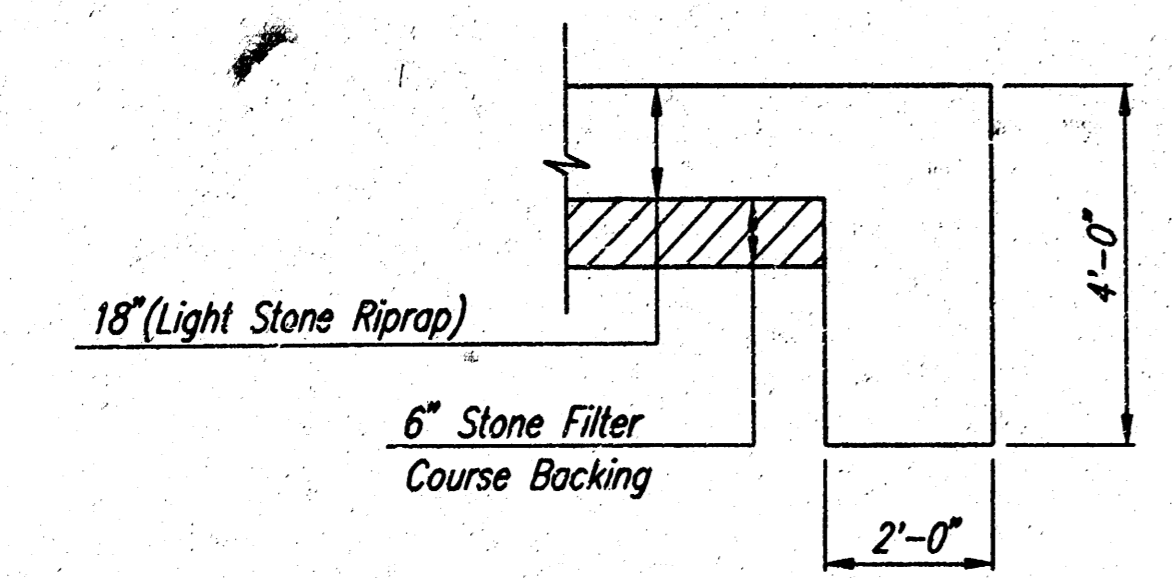
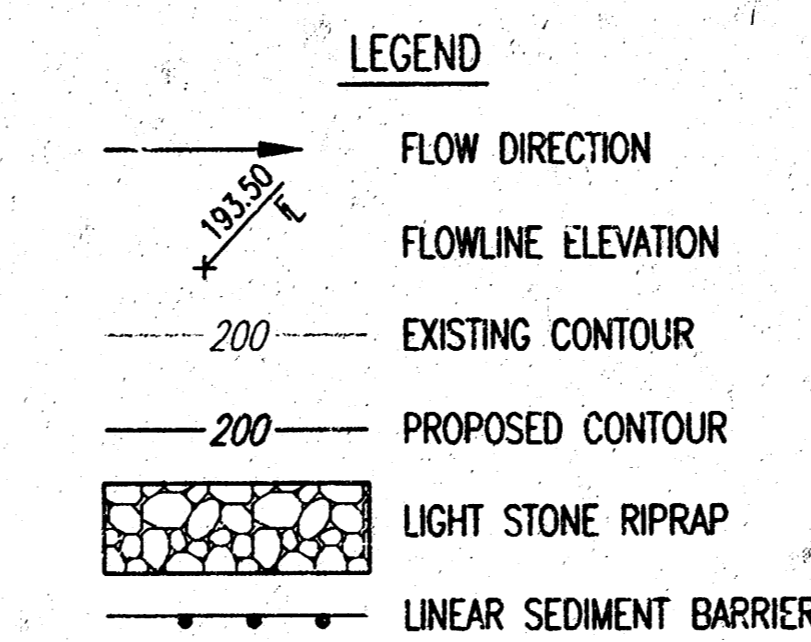
PLANS PREPARED BY  
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
ENGINEERS  
WICHITA, KANSAS



SHEET NO.	TOTAL SHEETS.
3	7



ST. LOUIS - SAN FRANCISCO RAILWAY COMPANY.  
 GO Sta. 0+00.00, Pond Outfall  
 Install 45 L.F. 19"x30" RCPHE(NW)  
 with End Sections  
 Install 45 S.Y. Light Stone Riprap  
 Install 342 L.F. Linear Sediment Barrier. See Storm Water Pollution Prevention Plan for Bradley Fair 4th Addition



- TYPICAL SECTION THRU TOEWALL**  
 NO SCALE
- NOTES**
- ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED.
  - TOEWALLS SHALL BE INSTALLED ALONG ALL EDGES OF STONE RIPRAP.
  - CUTTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

B.M. #3: RAILROAD SPIKE IN NORTH FACE OF NORTH POLE TO HIGHLINE "H" STRUCTURE EAST OF ROCK ROAD AND SOUTH OF BRADLEY FAIR ST. ELEV.=196.17

**RECORD DRAWING**  
*Signature*  
 OF REC. CO.

SCALE: 1" = 20'

BRADLEY FAIR 4TH ADDITION

**DETENTION BASIN**  
 SWS PRIVATE PROJECT NO. 1015PP5 (607861)

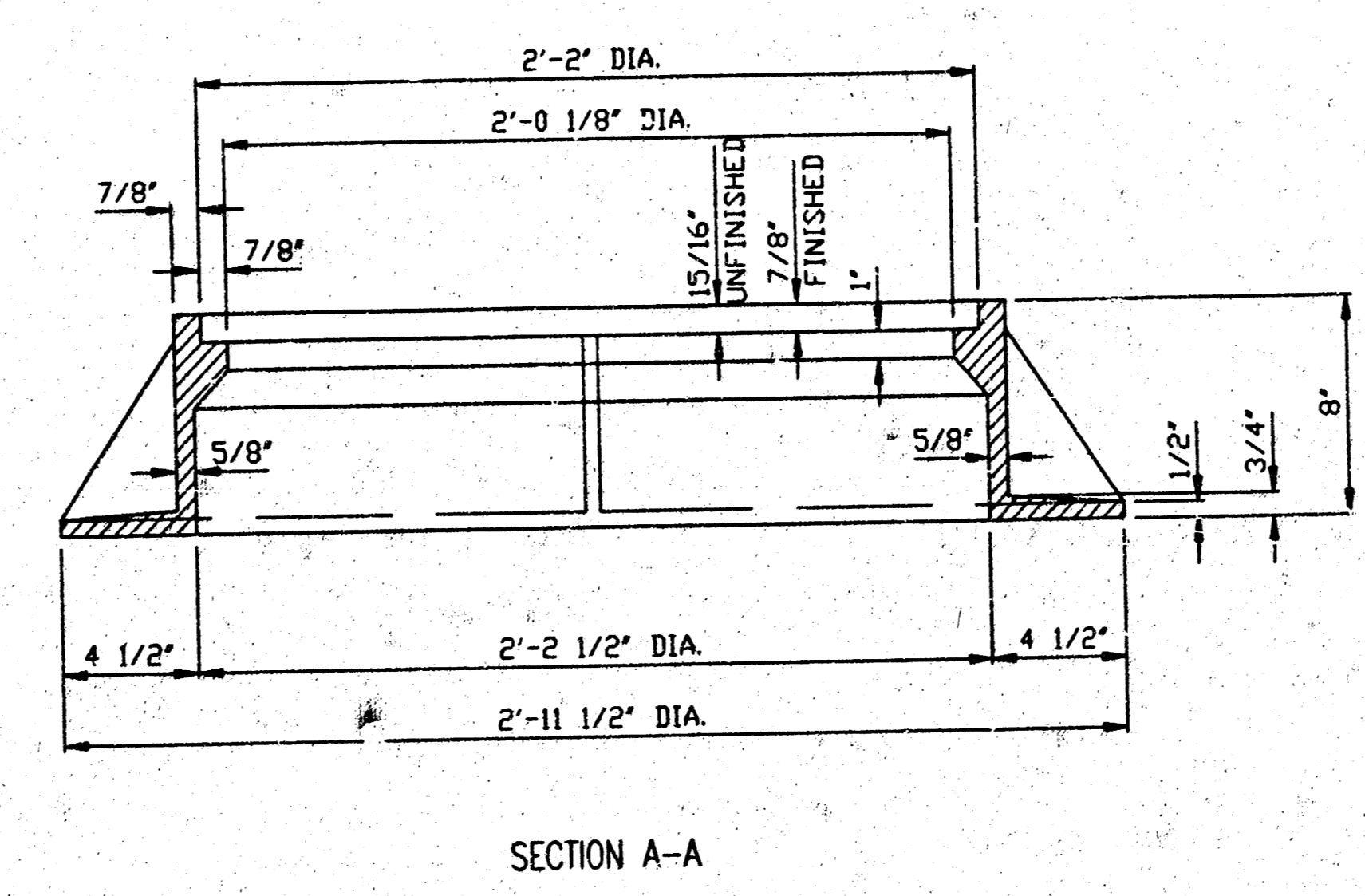
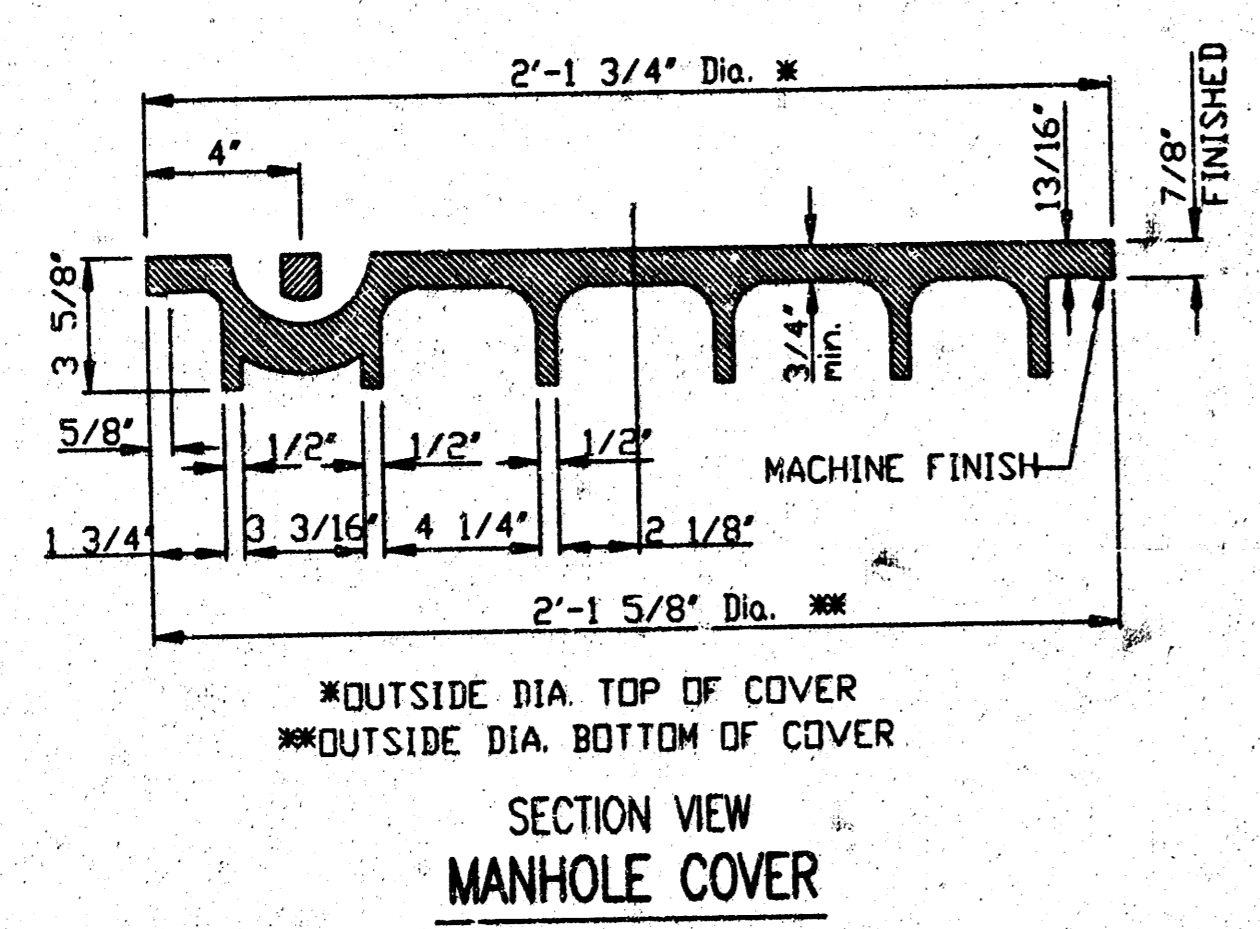
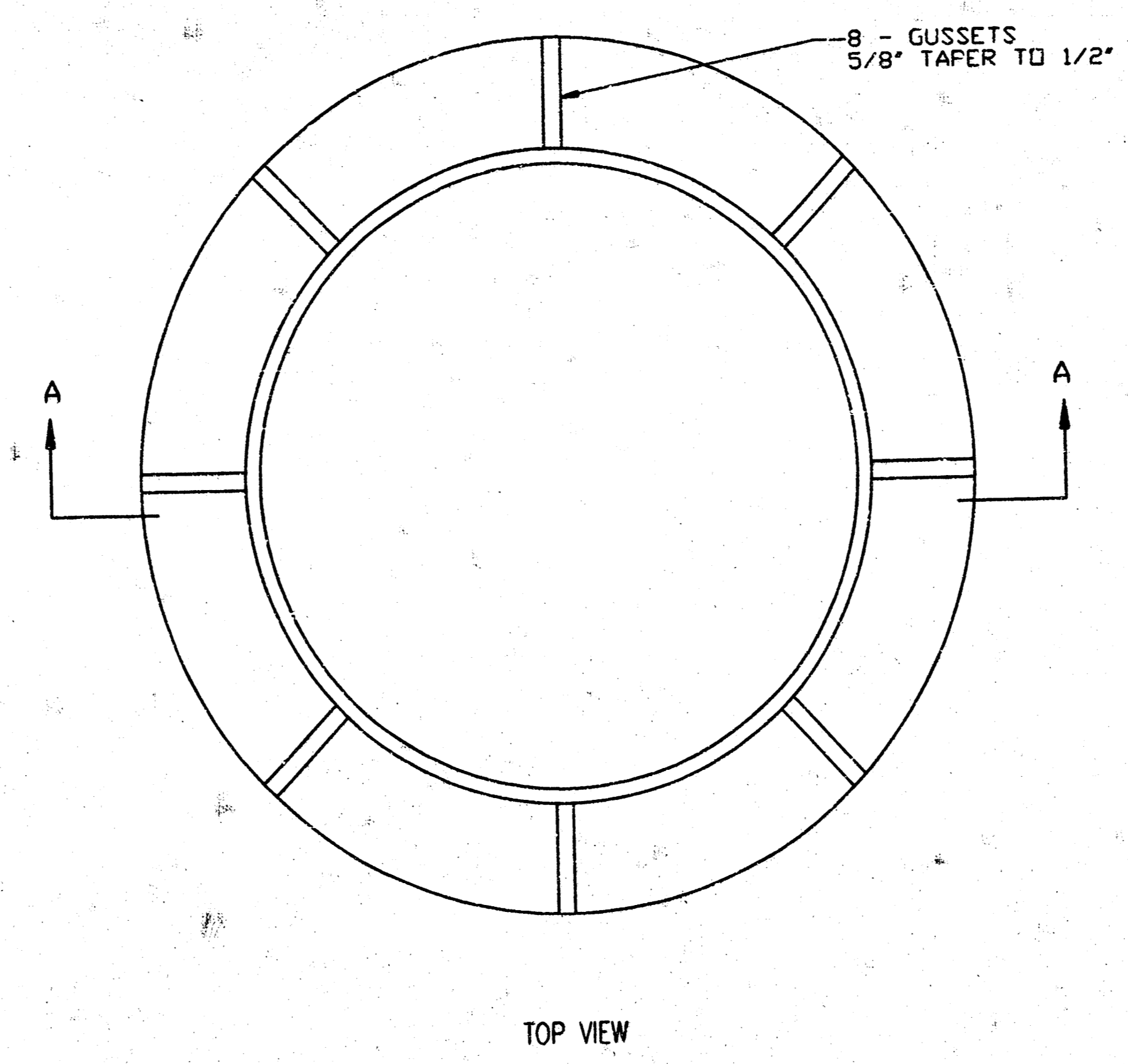
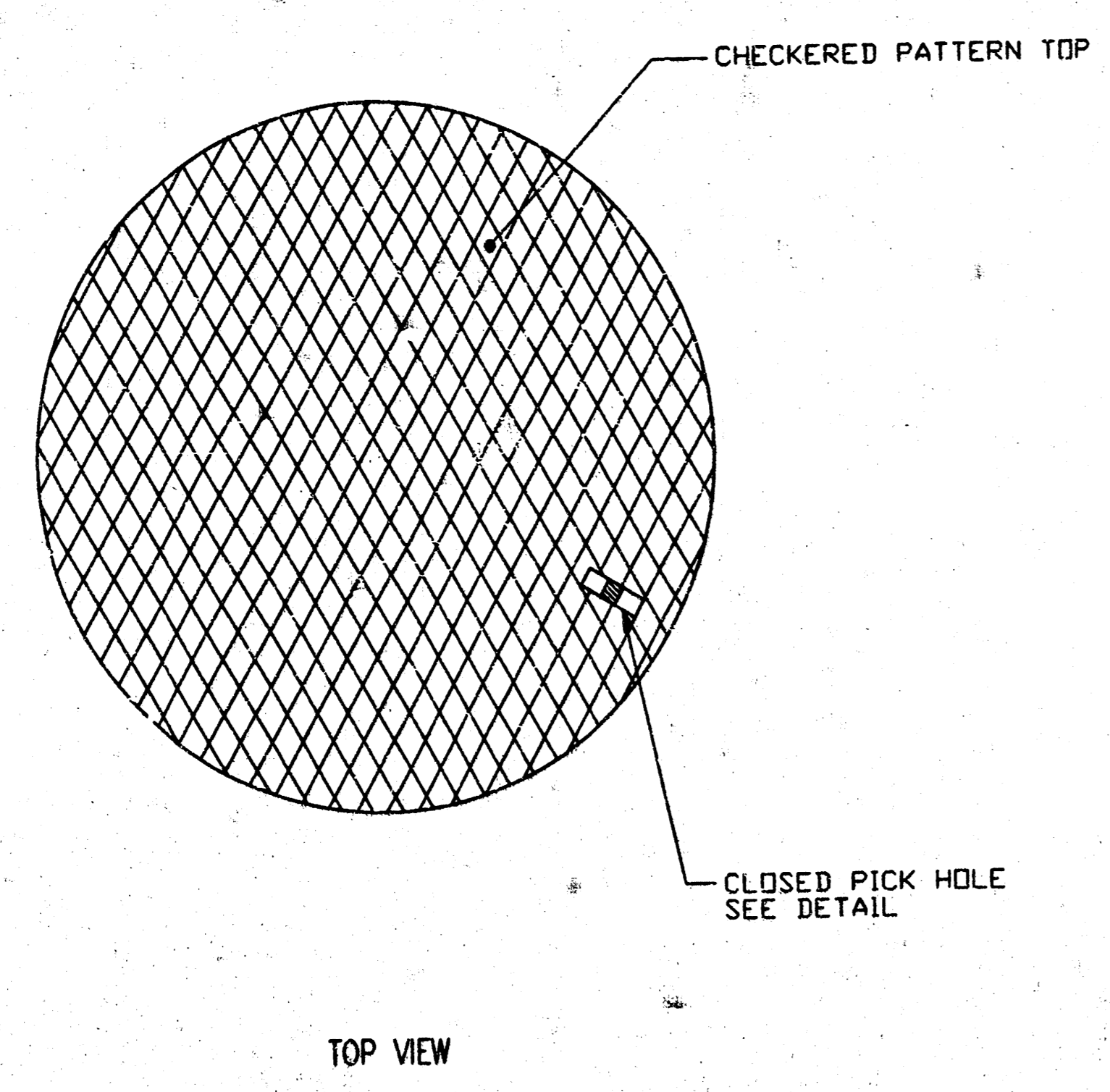
**Professional Engineering Consultants, P.A.**  
 303 S. TOPEKA • WICHITA, KANSAS 67202  
 316-262-2691 • FAX 316-262-3003

Designed by	KER	Checked by	
Drawn by	SAD	Date	JUNE, 2000
		Job No.	00178

DSNR: KER OPER. SAD SCALE: 1"=20.00  
 12/2000/00178 outlet 06-19-2000 #03:08:34 PM

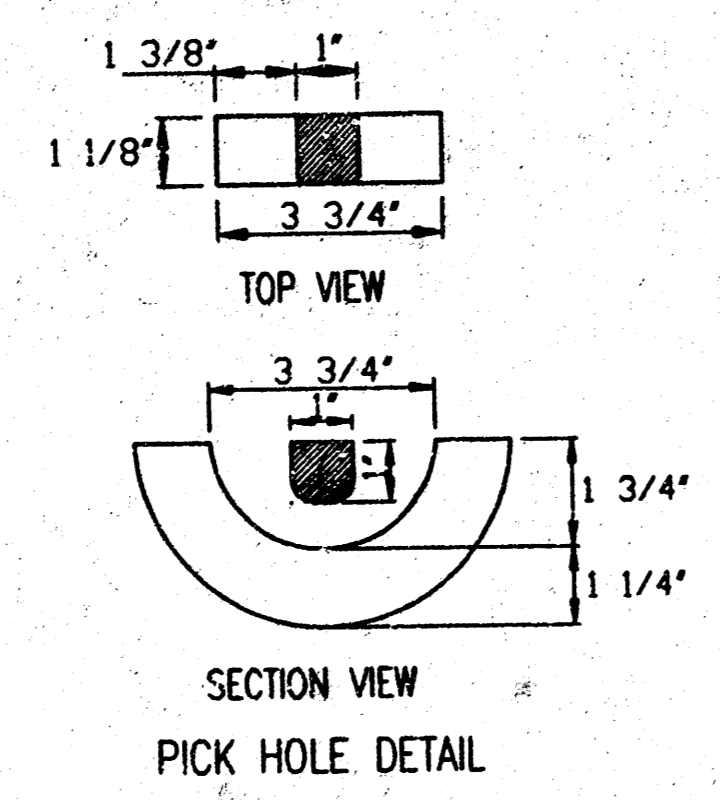


SHEET NO.	TOTAL SHEETS
5	7



CAST IRON MANHOLE FRAME

- MANHOLE FRAME AND COVER NOTES
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 30, OR BETTER.
  2. THE FRAMES AND COVERS SHALL BE OF A NONROCKING TYPE OR WITH MACHINED BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
  3. ALL MANHOLE CASTINGS, REGARDLESS OF TYPE, SHALL BE CONSIDERED SUBSTANTIAL TO THE UNIT PRICES BID FOR THE VARIOUS MANHOLE AND INLET TYPES.
  4. GRIND ALL BURRS SMOOTH, CLEAN THOROUGHLY, THEN APPLY SHOP COAT OF ASPHALT BASE PAINT.
  5. THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. THE ENGINEER SHALL RETAIN THE RIGHT TO REJECT CASTINGS NOT CONFORMING TO THE SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS.



RECORD DRAWING  
*Bradley Fair*  
05 06 00

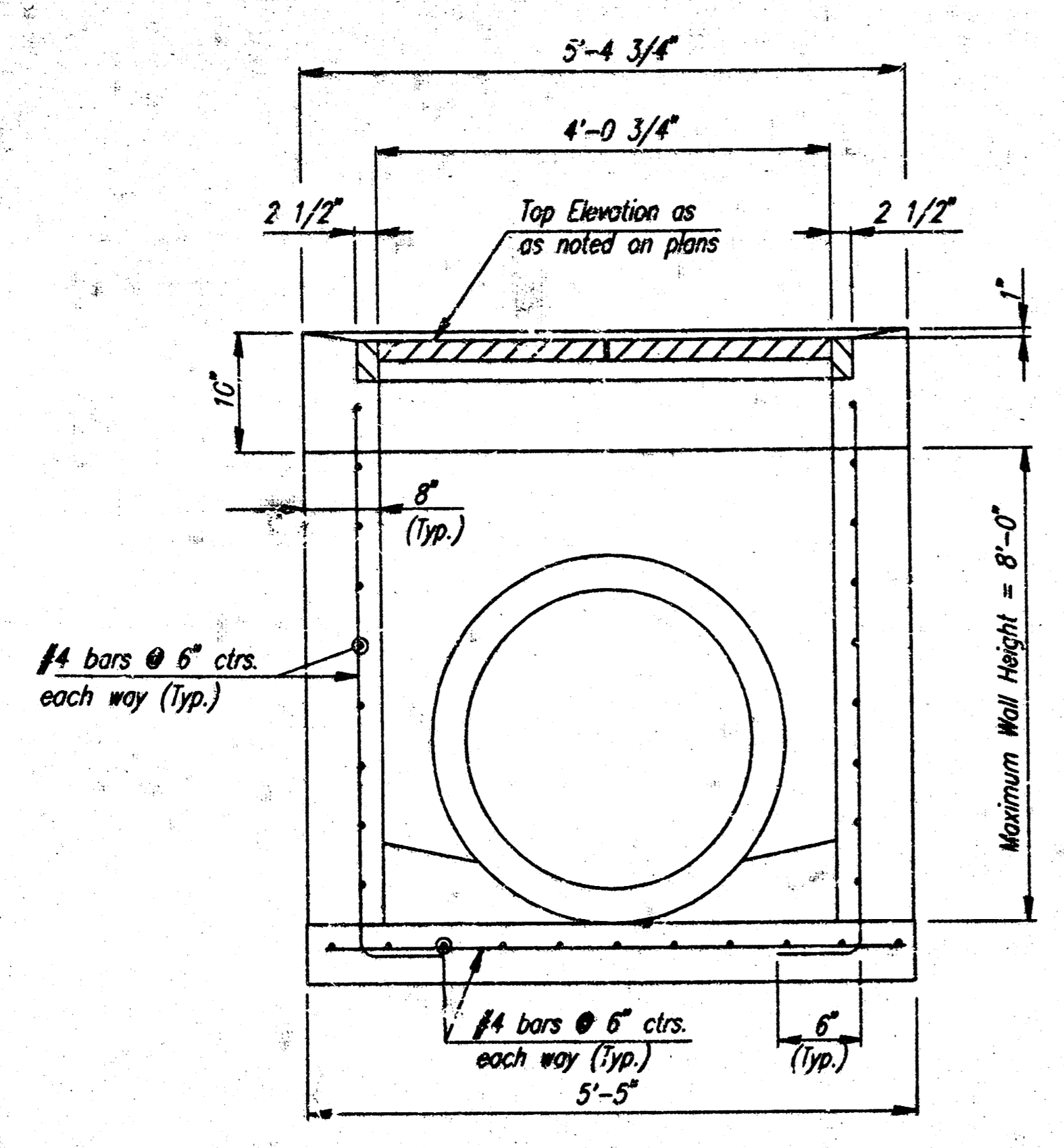
BRADLEY FAIR 4TH ADDITION

MANHOLE FRAME AND COVER

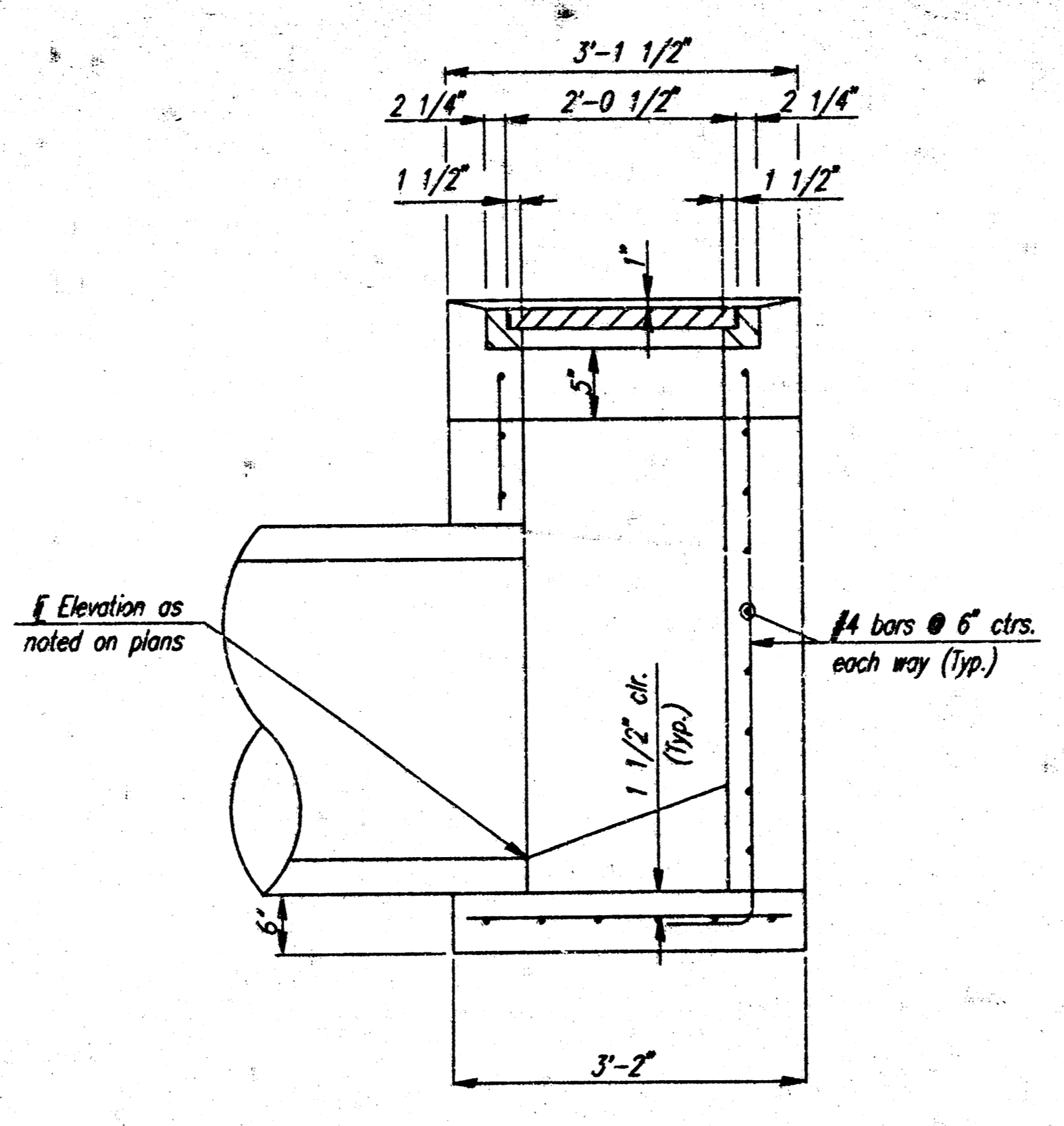
Professional Engineering Consultants, P.A.  
303 S. TOPEKA - WICHITA, KANSAS 67202  
316-262-2691 - FAX 316-262-9003

Designed by BER  
Checked by DEP  
Date JUNE, 2000  
Job No. 00178

SHEET NO.	TOTAL SHEETS
6	7

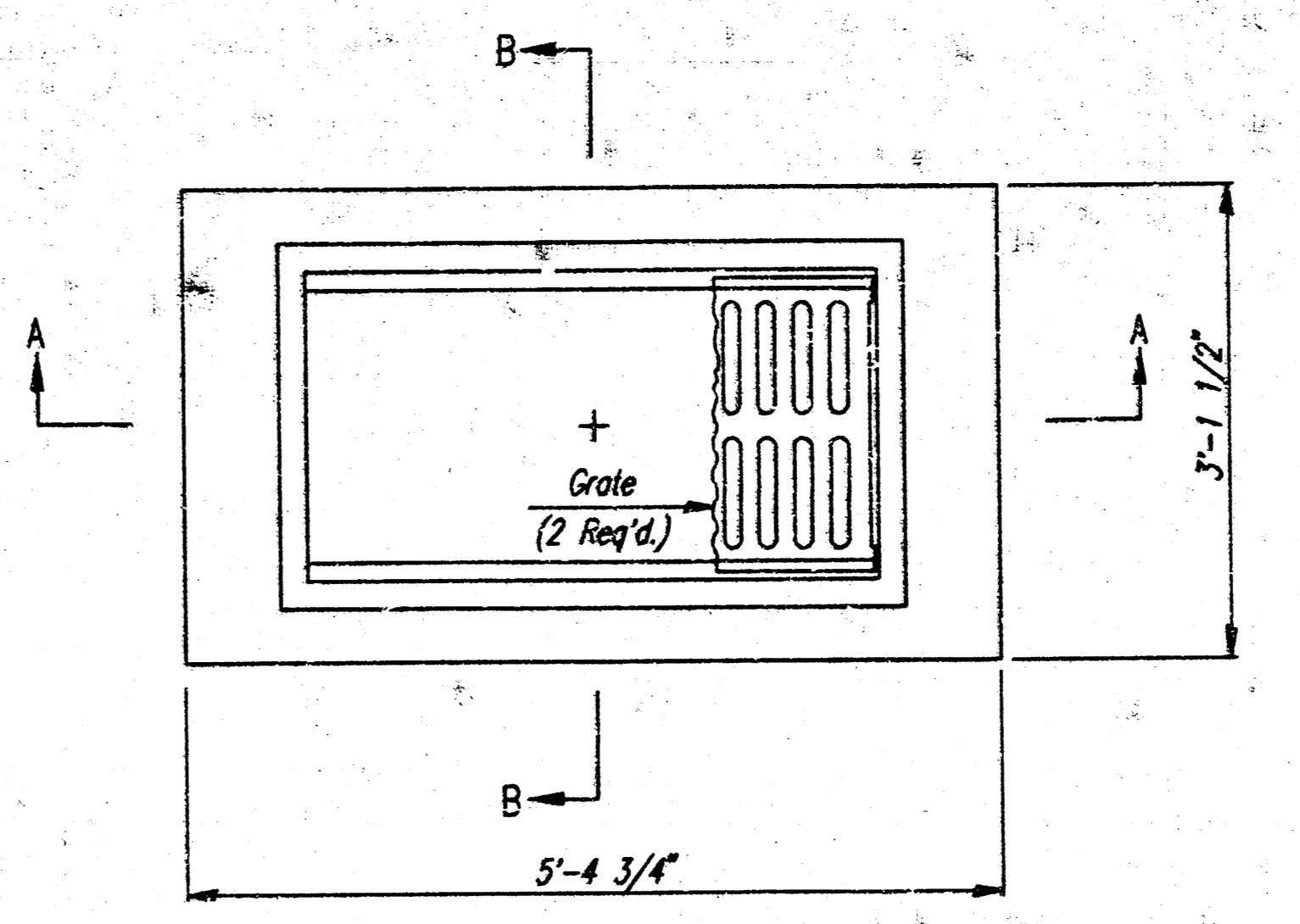


SECTION A-A



SECTION B-B

STANDARD AREA INLET



PLAN

GENERAL NOTES

CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. ALL PIPES SHALL BE FLUSH CUT PRIOR TO BEING CAST INTO WALLS.

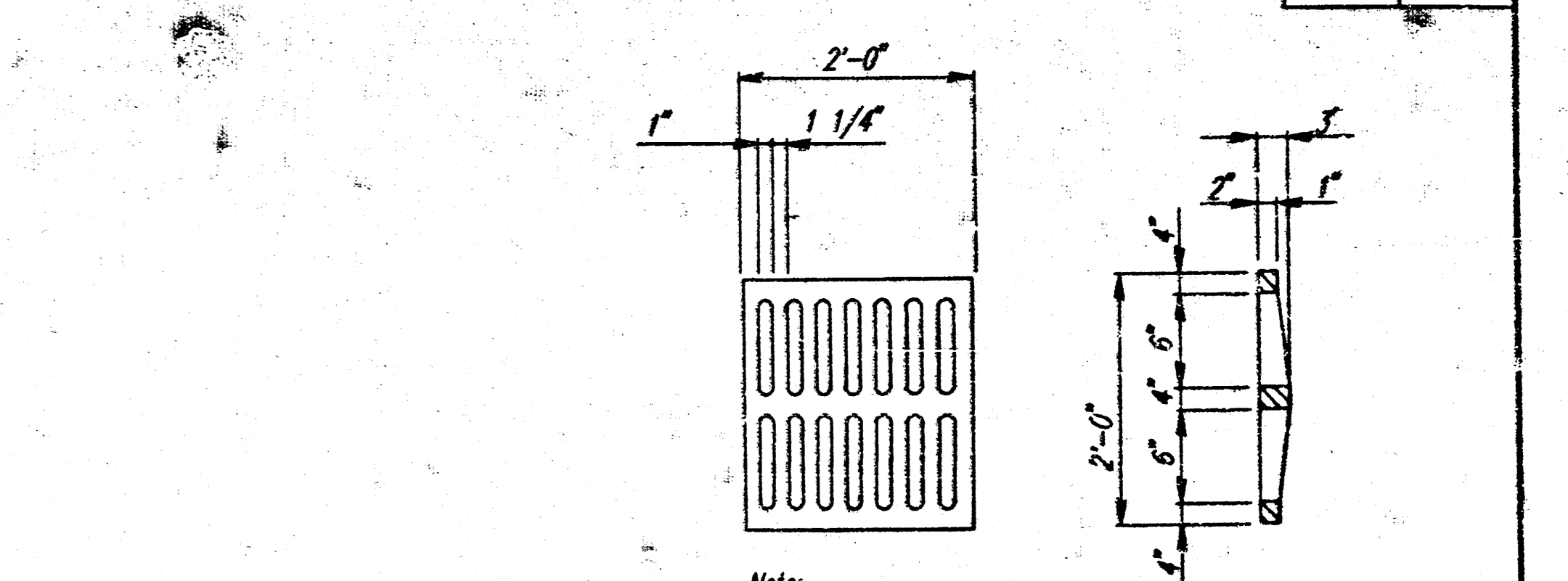
REINFORCING STEEL SHALL BE GRADE 60, A.S.T.M. A615. ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO THE CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

INLET CASTINGS SHALL BE MANUFACTURED USING DUCTILE IRON CONFORMING TO ASTM A536-80 GRADE 65-45-12. 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.

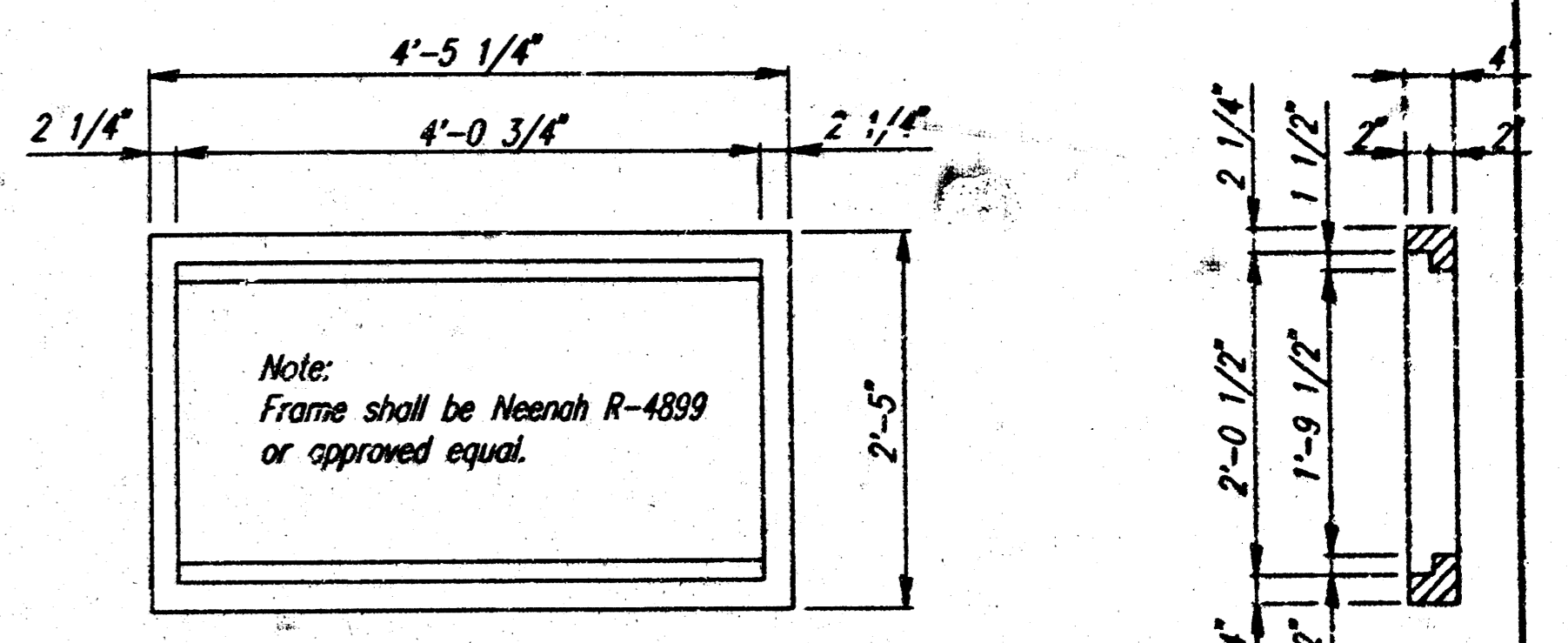
INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (8 SACK SAND MIX) TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

PIPES ENTERING EXISTING STRUCTURE SHALL BE CENTERED ON INSIDE FACE OF WALL.

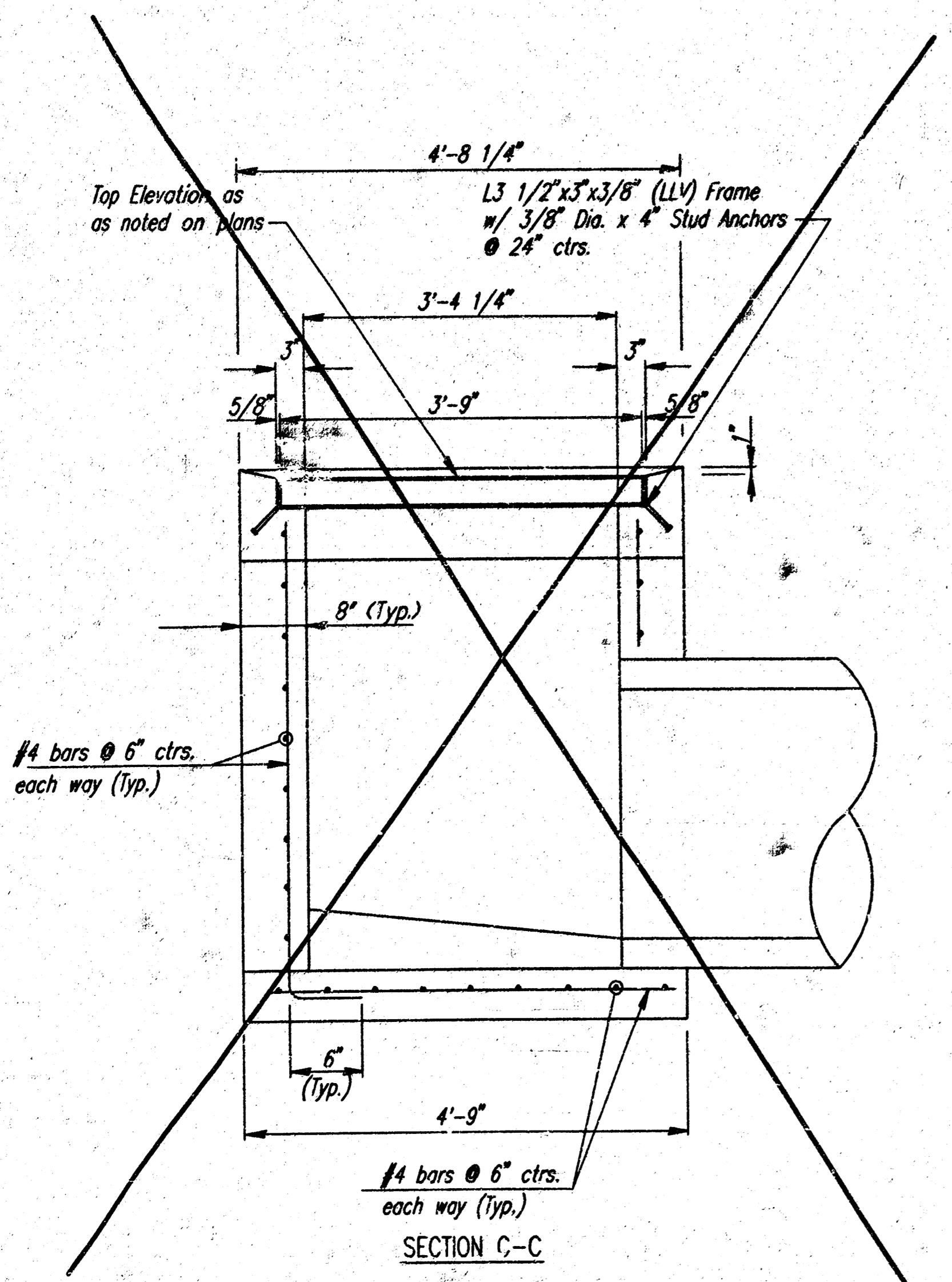
ALL EXPOSED STRUCTURAL STEEL SHALL BE PAINTED WITH A COAT OF INORGANIC ZINC PRIMER AND THEN WITH A TOP COAT OF OR A FIELD COAT OF ORGANIC ZINC. EACH COAT TO BE 3 TO 4 MILS. STRUCTURAL STEEL USED TO FABRICATE THE SPECIAL AREA INLET FRAME SHALL COMPLY WITH A.S.T.M. A36. WELDING SHALL CONFORM TO THE STRUCTURAL WELDING CODE A.W.S.D. D1.1-88.



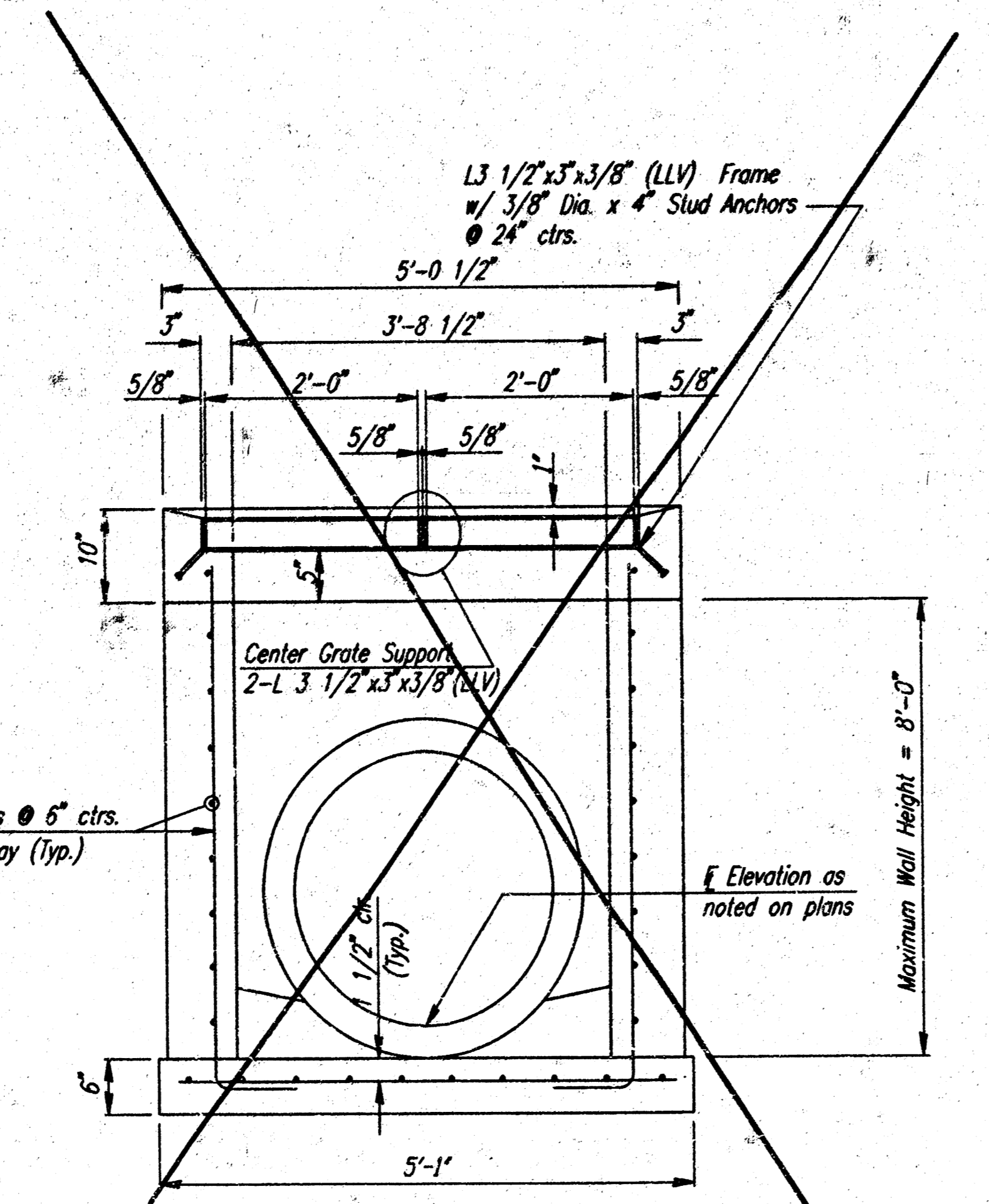
GRATE DETAIL  
(WL=190 lbs.)  
(2 Required)



FRAME DETAIL  
(WL=440 lbs.)  
Note: Frame to mate with 2 Meenah R-4826 Grates or approved equal.

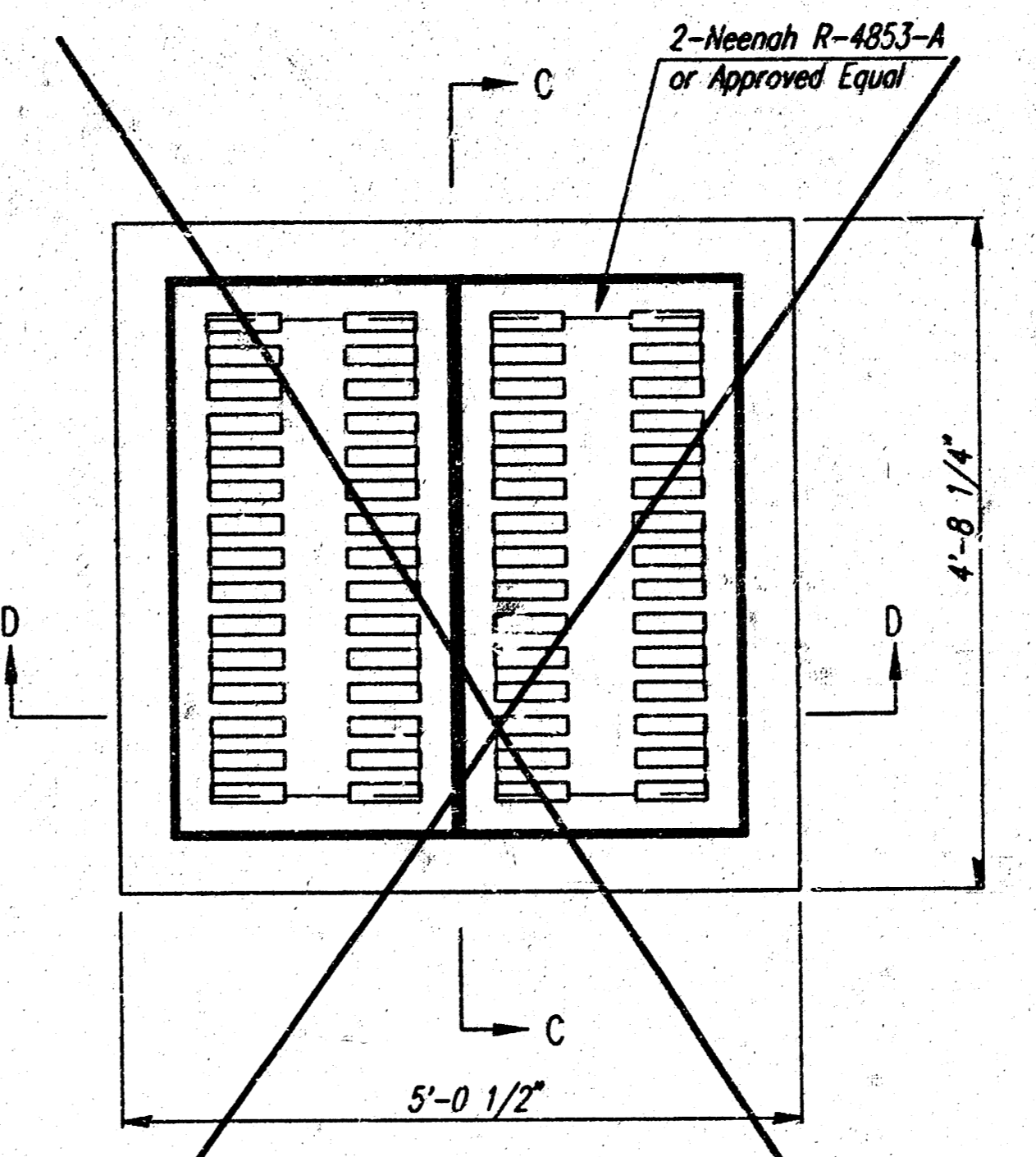


SECTION C-C

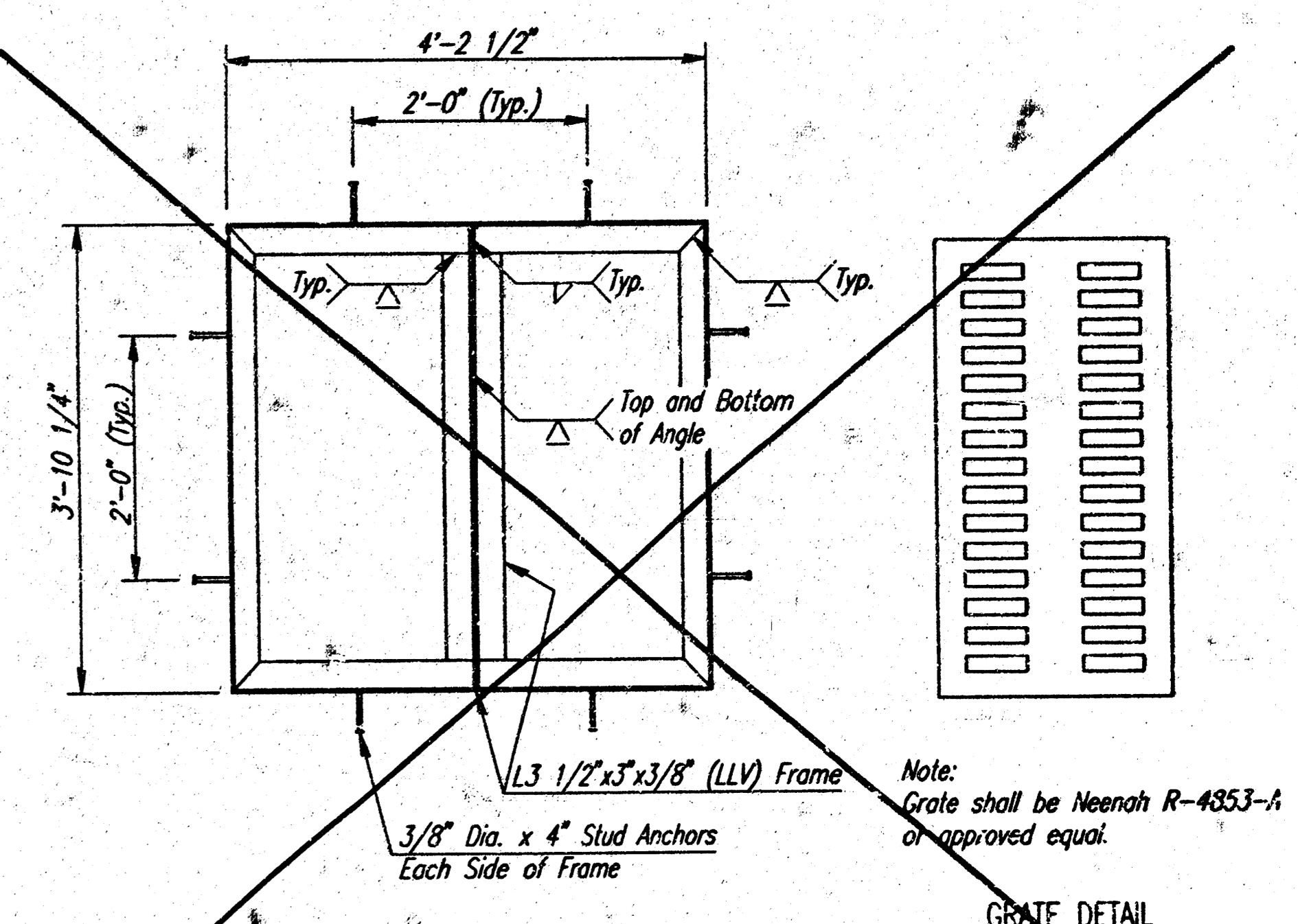


SECTION D-D

SPECIAL AREA INLET



PLAN



FRAME DETAIL  
(For Special Area Inlet)  
Note: Frame to mate with 2 Meenah R-4853-A Grates or approved equal.

GRATE DETAIL  
(WL=380 lbs.)  
(2 Required)

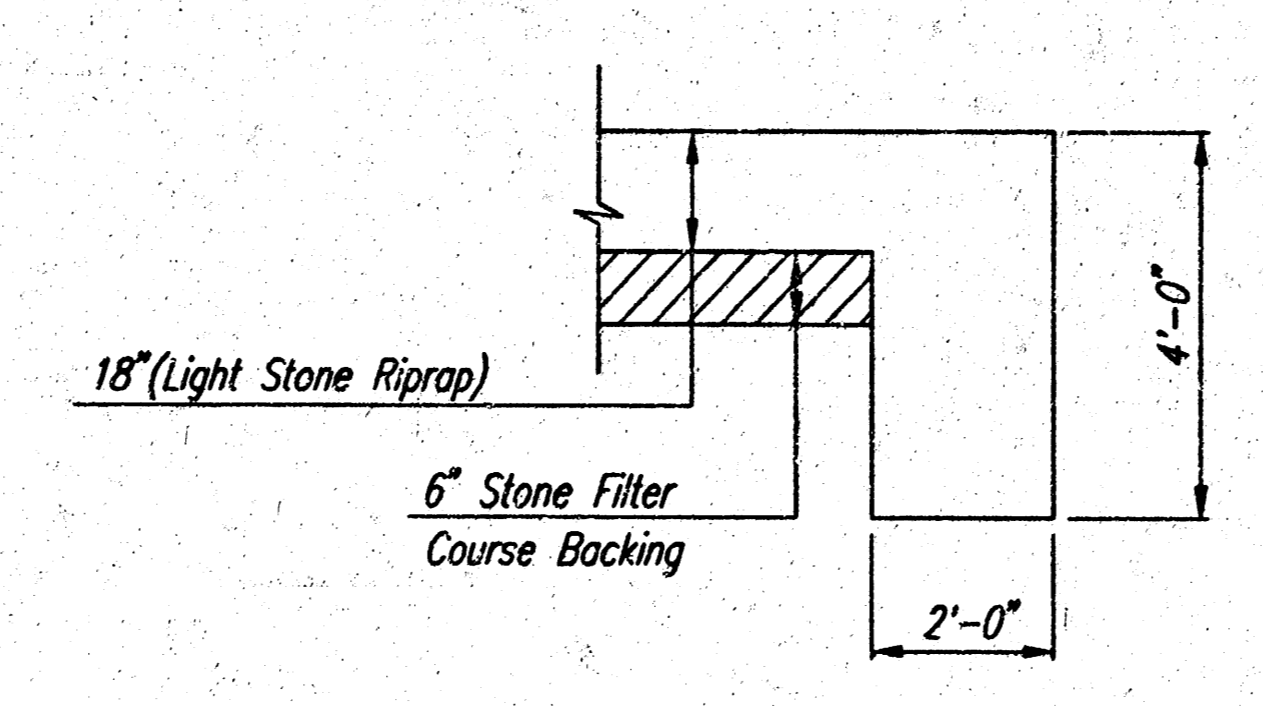
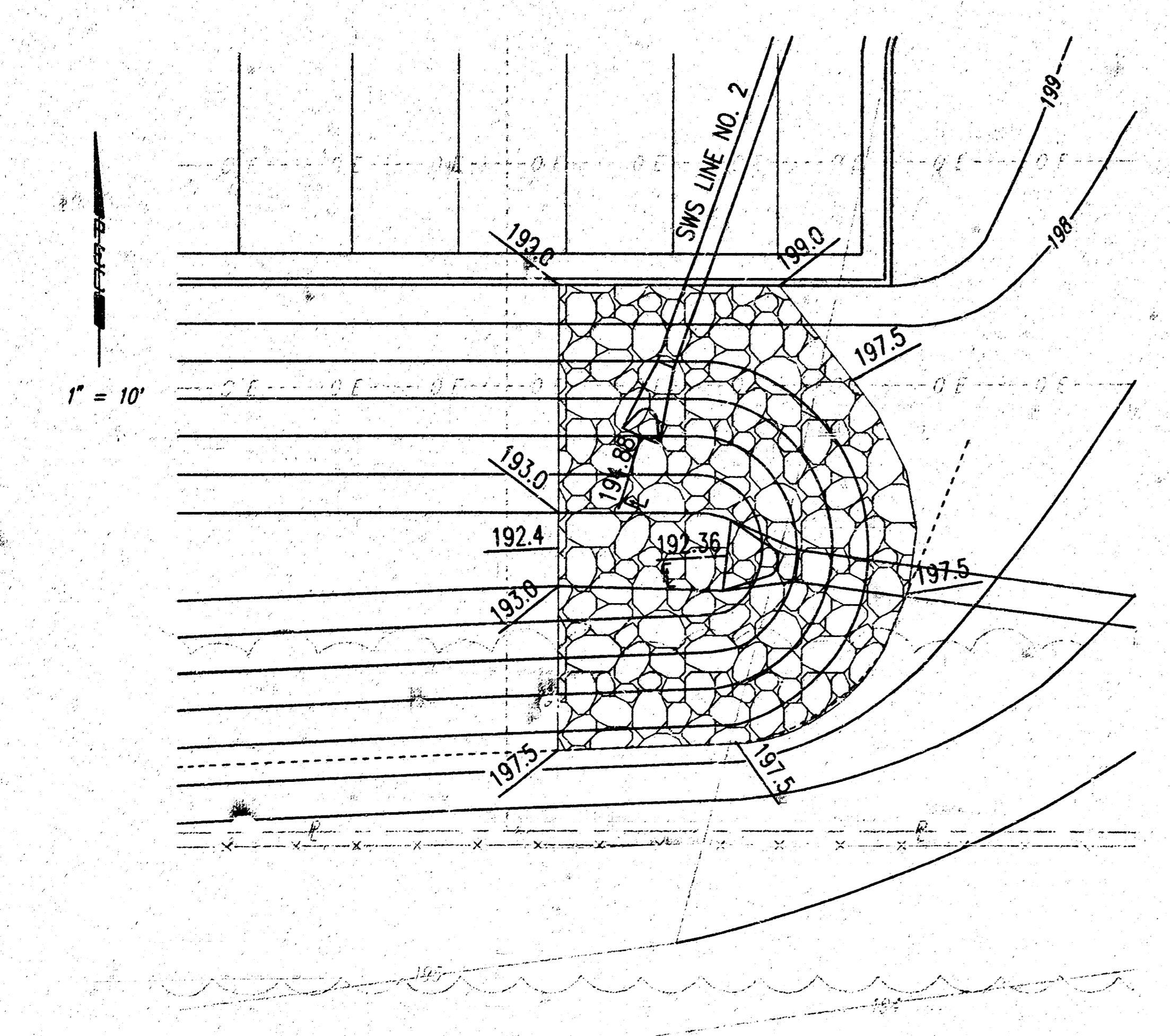
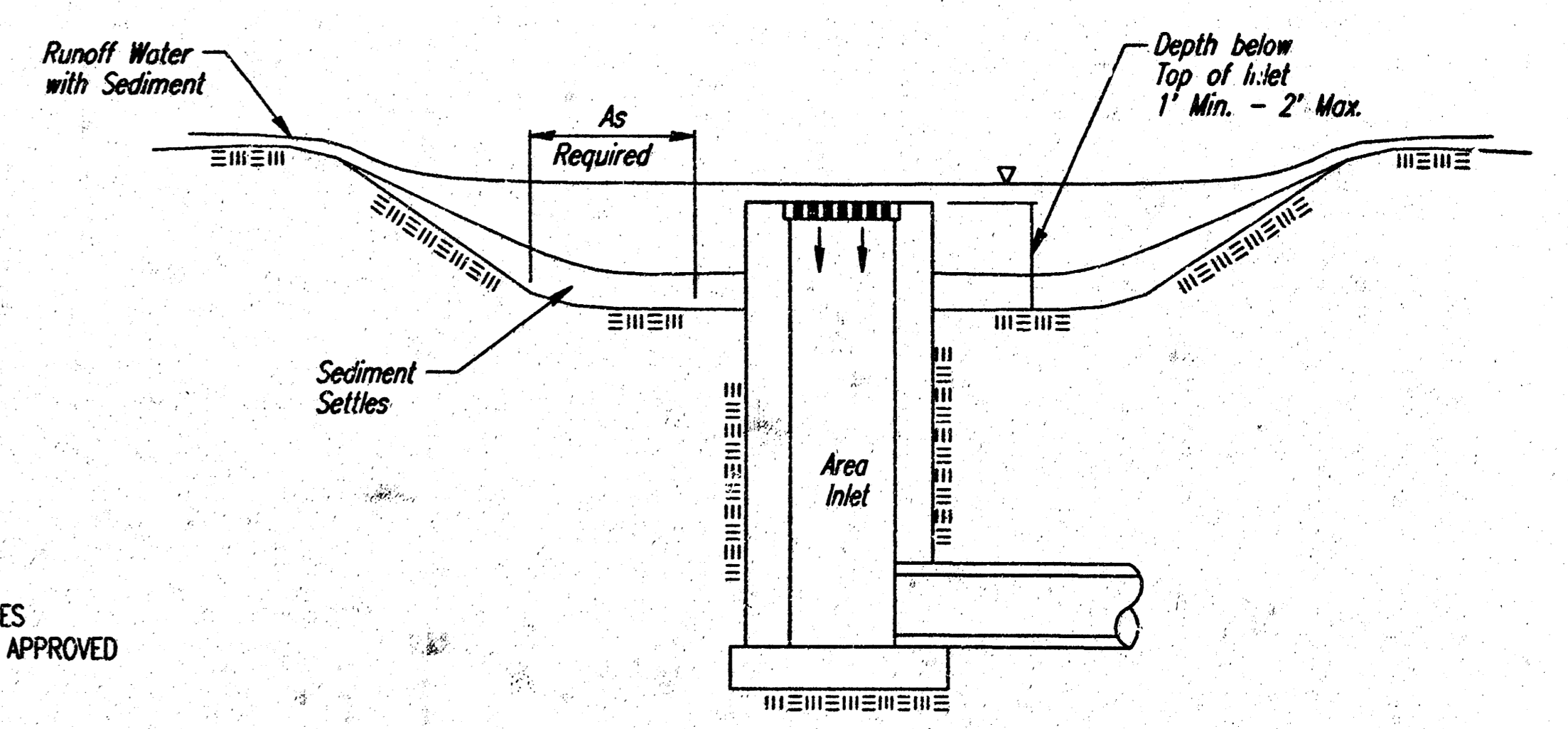
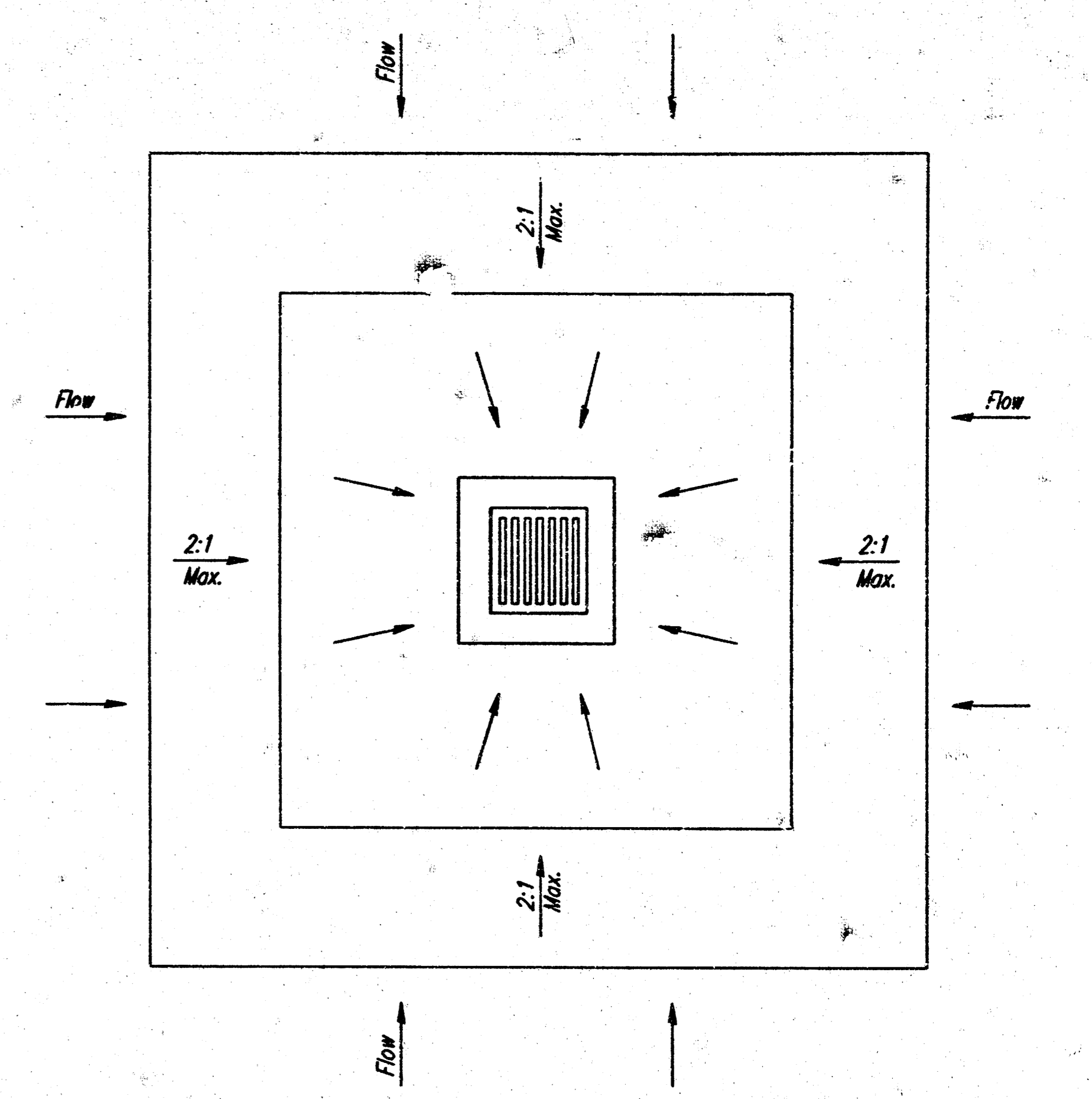
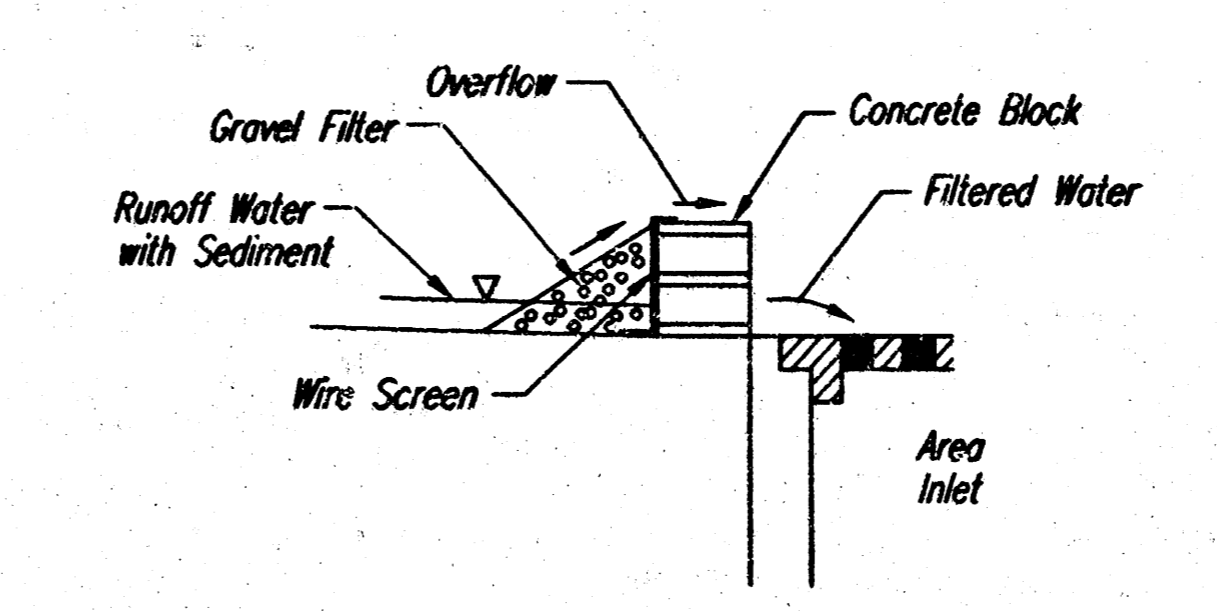
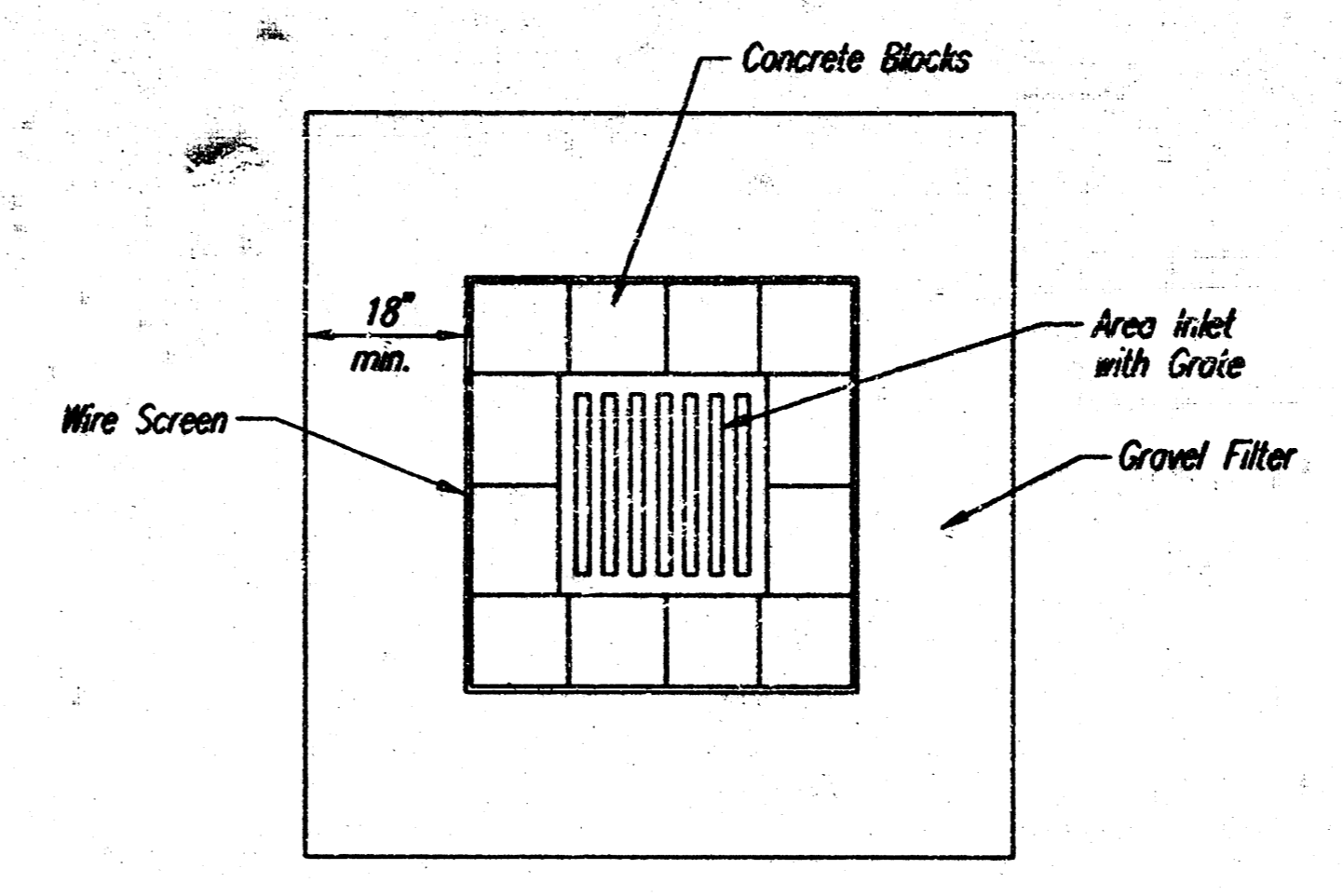
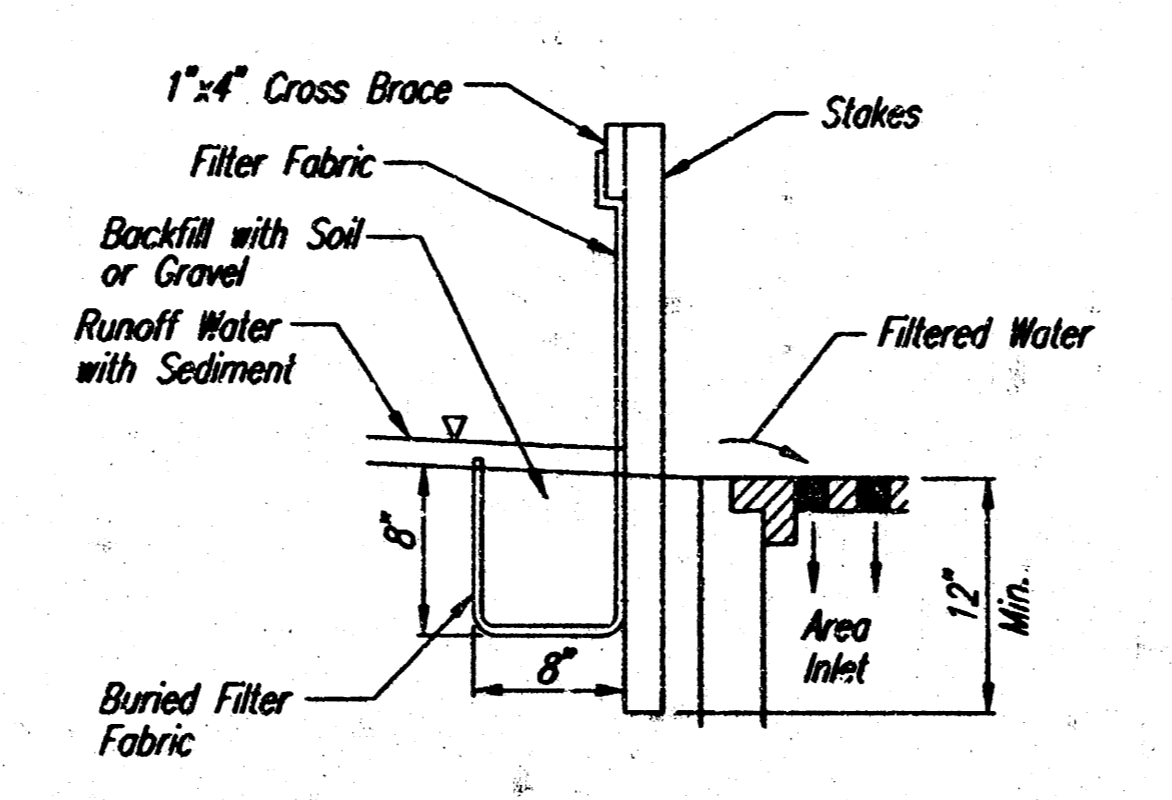
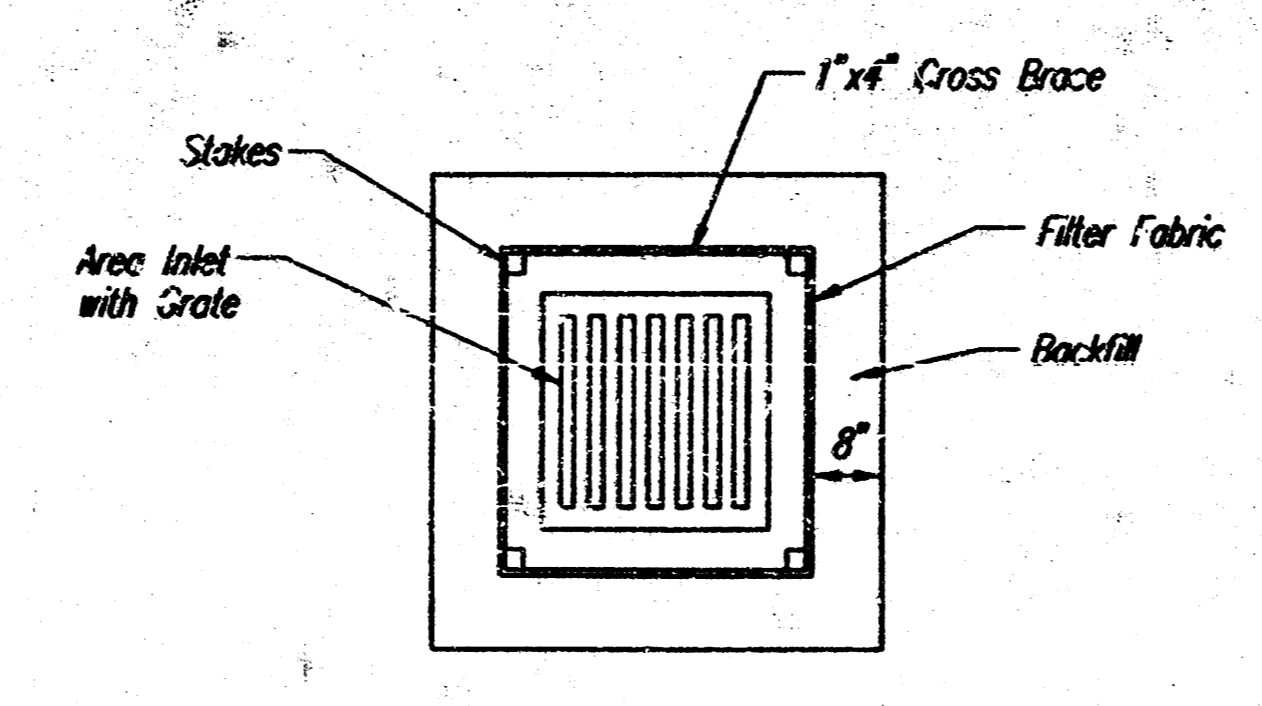
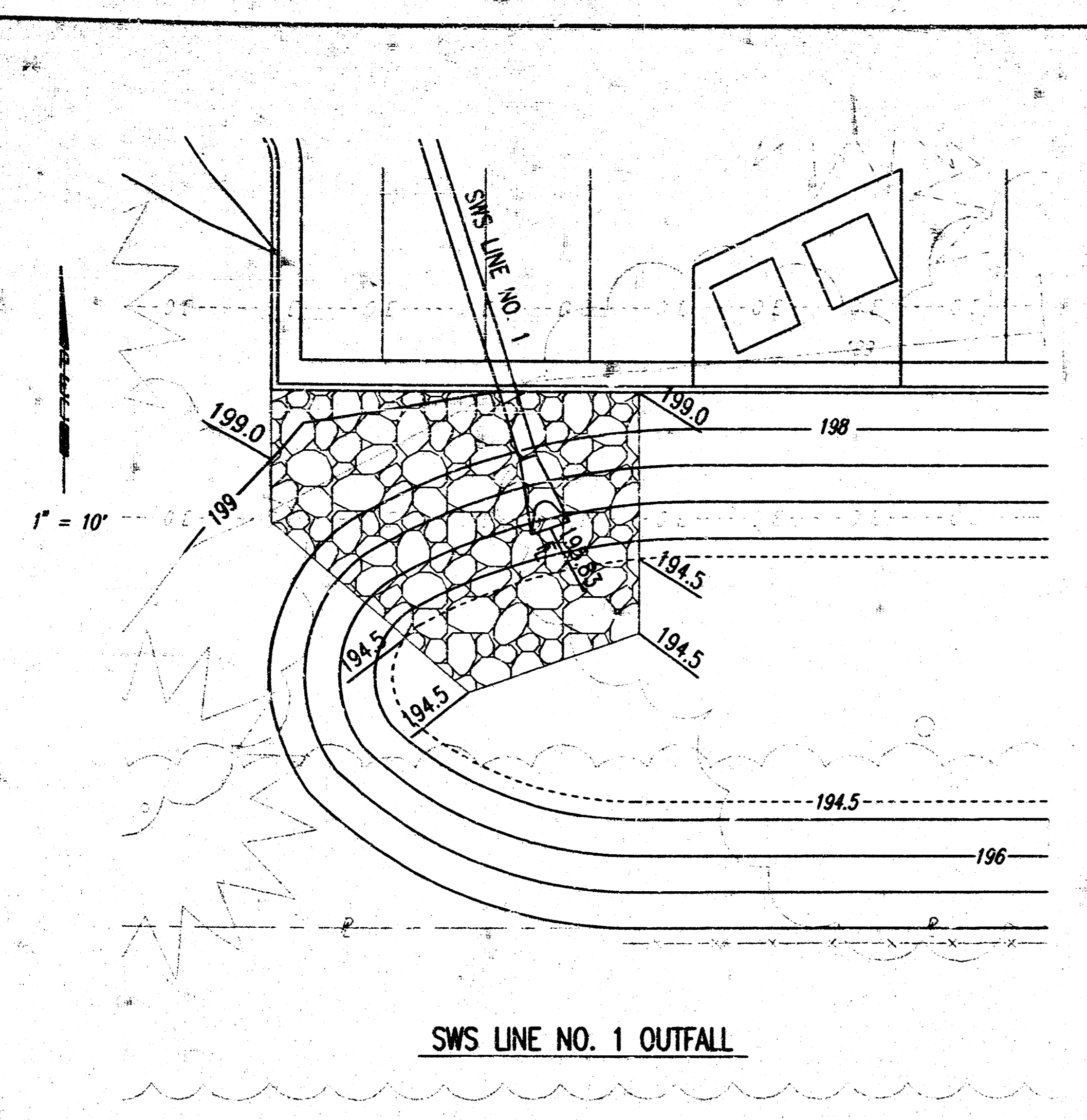
RECORD DRAWING  
*Barthelme*  
05 DEC 00

BRADLEY FAIR 4TH ADDITION

**STANDARD AREA INLET**  
SWS PRIVATE PROJECT NO. 1015PPS (607861)

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

Designed by RWA      Checked by \_\_\_\_\_  
Drawn by DEP      Date JUNE, 2000      Job No. 00178



**TYPICAL SECTION THRU TOEWALL**  
NO SCALE

**NOTES**

- ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED.
- TOEWALLS SHALL BE INSTALLED ALONG ALL EDGES OF STONE RIPRAP.
- GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

**GENERAL NOTES**  
**INLET PROTECTION**

- INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, A KDOT EROSION CONTROL DETAIL OR OTHER ENGINEER APPROVED METHOD, AT THE CONTRACTORS 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 CONTRACTORS AFTER THE SITE HAS BEEN STABILIZED AND VEGETATION HAS 70 PERCENT DENSITY OF UNDISTURBED OR ADJACENT AREAS AT THE SITE.

ADAPTED FROM: VIRGINIA SOIL AND WATER CONSERVATION COMMISSION, 1985 AND DRAINAGE CRITERIA MANUAL, DENVER URBAN DRAINAGE AND FLOOD CONTROL DISTRICT 9-1-92

NOTE: INLET SIZE MAY VARY FROM THAT SHOWN.

**RECORD DRAWING**

*Bradley Fair*  
BRADLEY FAIR 4TH ADDITION

**SEDIMENT AND EROSION CONTROL STANDARD DETAILS AND INLET PROTECTION**

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

Designed by	BER, GDD	Checked by	
Drawn by	DEP, KER	Date	JUNE 2000
		Job No.	00178