

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS
PRIVATE PROJECT NO. 1164PPS(607861)

SANITARY SEWERS _____
STORM SEWERS VRH 9/28/00
DRIVEWAY APPROACHES _____
WATER MAINS _____
PAVING _____

[illegible]

OWN EXPENSE.
BOOKED
5-31-02
MCG
D-4081C-2.3

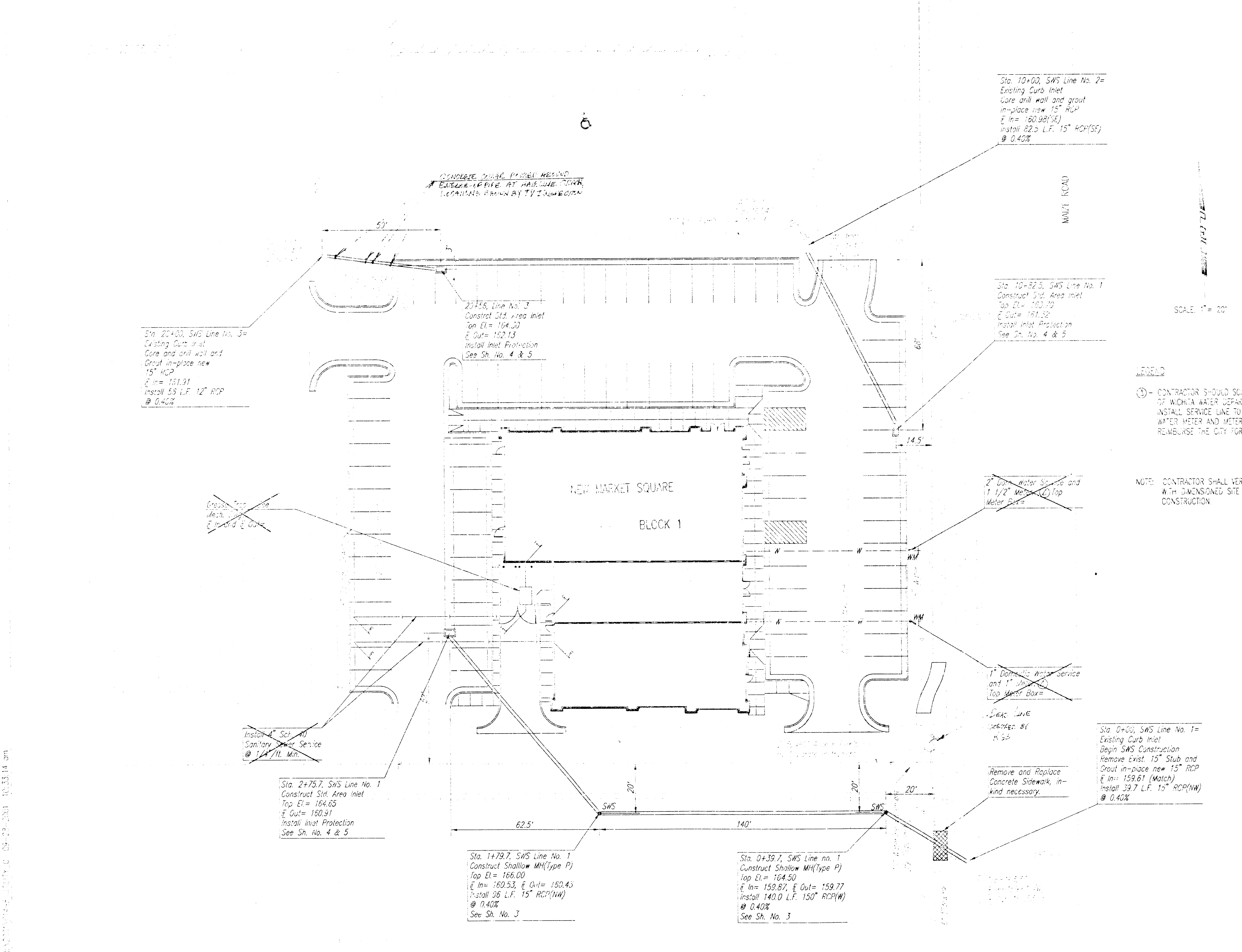


Professional Engineering Consultants, P.A.
303 S. TOPEKA • WICHITA, KANSAS 67202
316-262-2691 • FAX 316-262-3003

Designed by	DRC	Checked by	
Drawn by	SAD	Date	SEPT 2001
		Job No.	0149

AS-BUILT 12/13/01 HOF 4/16/02

10-31-14 10:31:14 am



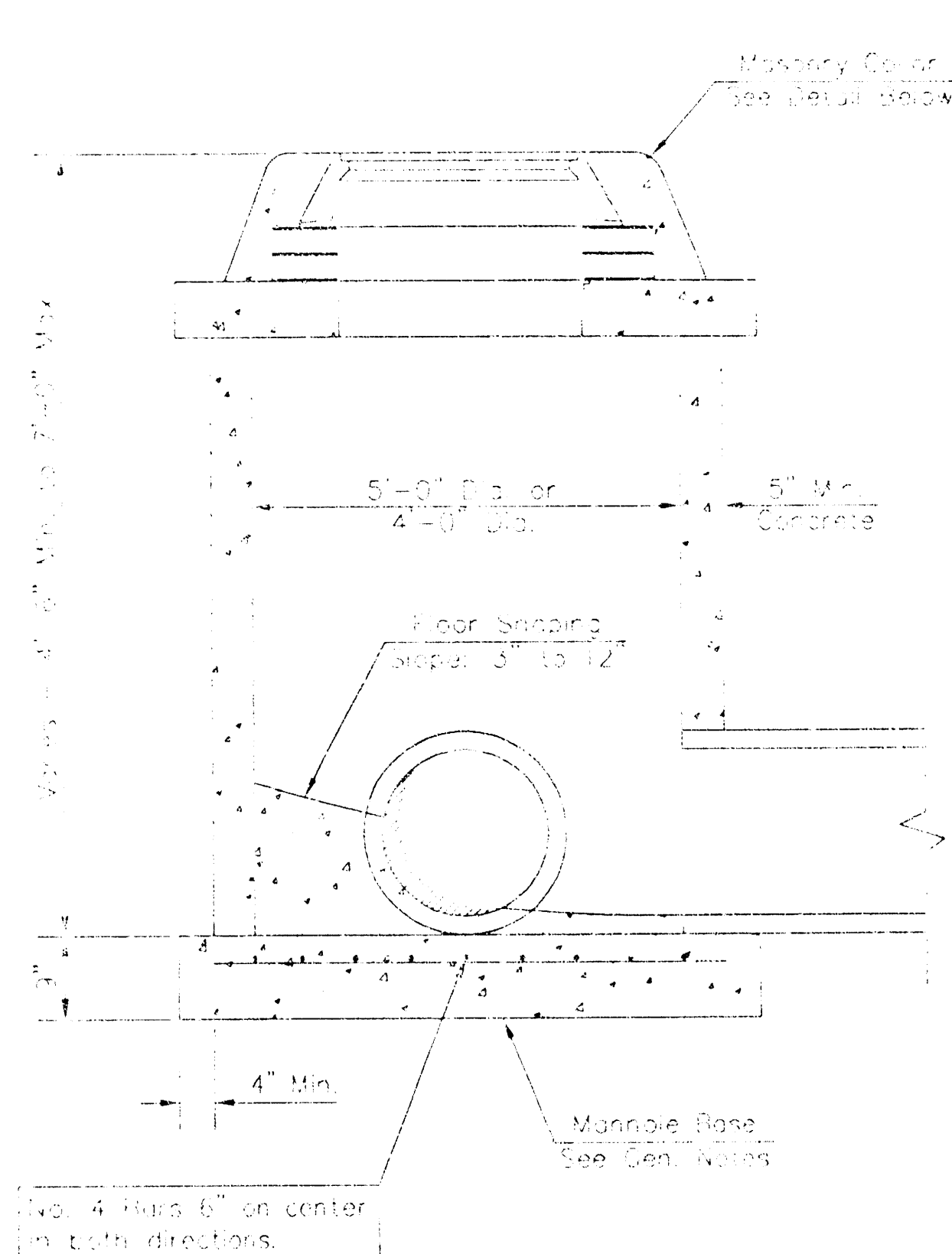
LEGEND
① - CONTRACTOR SHOULD SCHEDULE WITH THE CITY OF WICHITA WATER DEPARTMENT TO TAP THE MAIN, INSTALL SERVICE LINE TO METER, AND SET THE WATER METER AND METER BOX. CONTRACTOR SHALL REIMBURSE THE CITY FOR ALL COST FOR THIS WORK.

NOTE: CONTRACTOR SHALL VERIFY ALL INLET LOCATIONS WITH DIMENSIONED SITE PLAN PRIOR TO BEGINNING CONSTRUCTION.

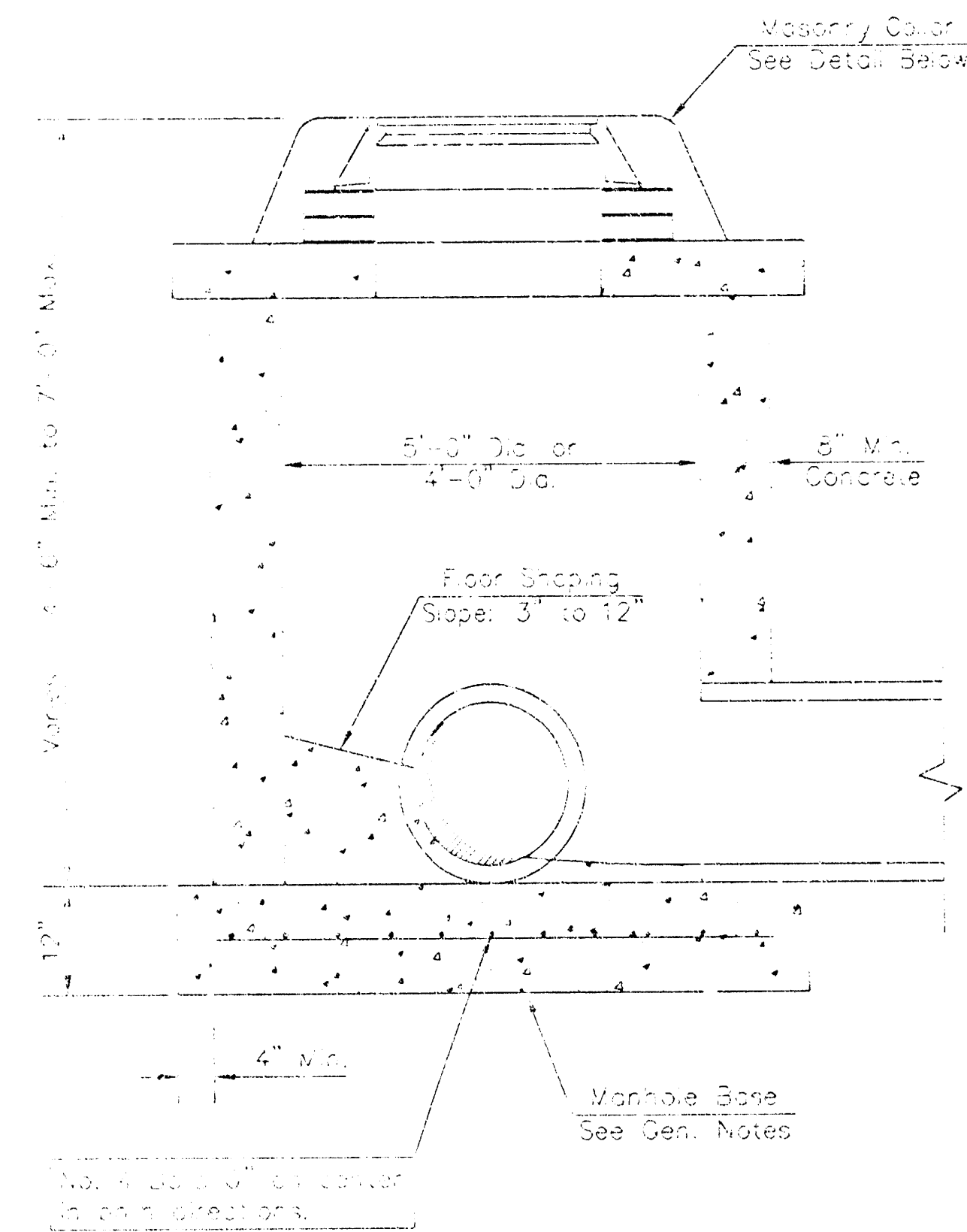
NEW MARKET SQUARE
UTILITY PLAN
LOT 2, BLOCK 1

DESIGNED BY: DRC
DRAWN BY: SAC
CHECKED BY: SAC
DATE: SEPT. 2007
JOB NO. 01498

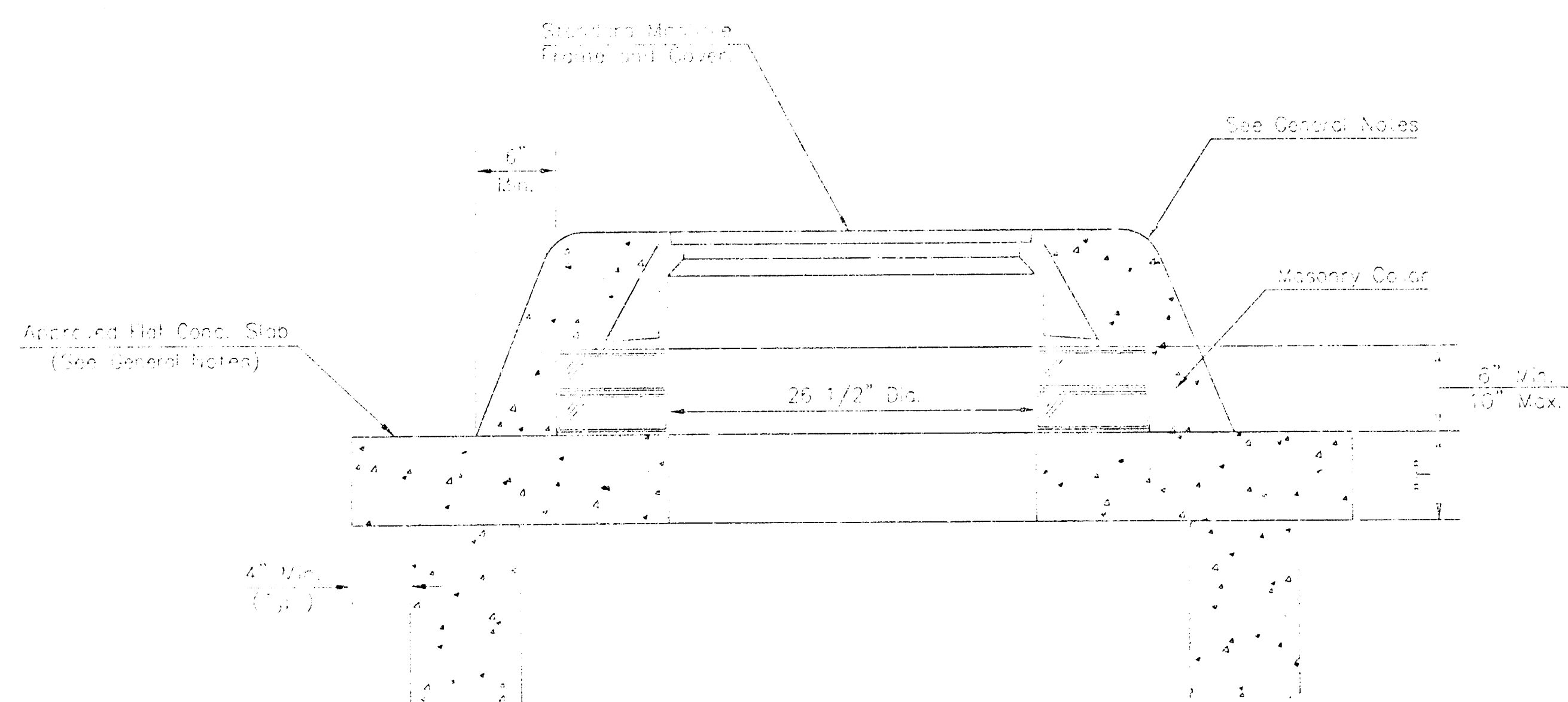
PROFESSIONAL ENGINEER
SUSAN TOPSKA-UNION, A KANSAS LICENSED PROFESSIONAL ENGINEER
316-262-0997 • FAX 316-262-3333



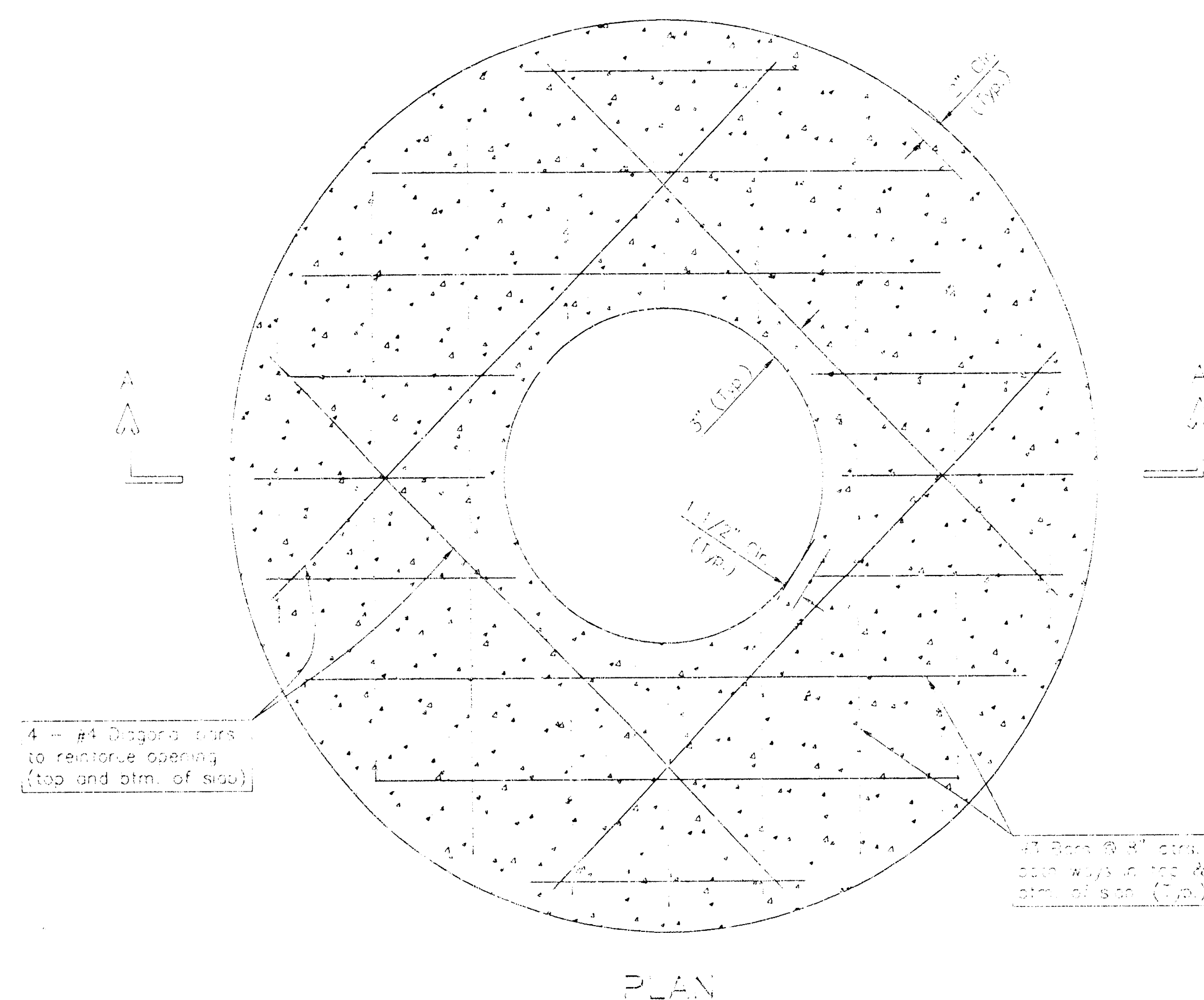
SHALLOW TYPE "P" MANHOLE



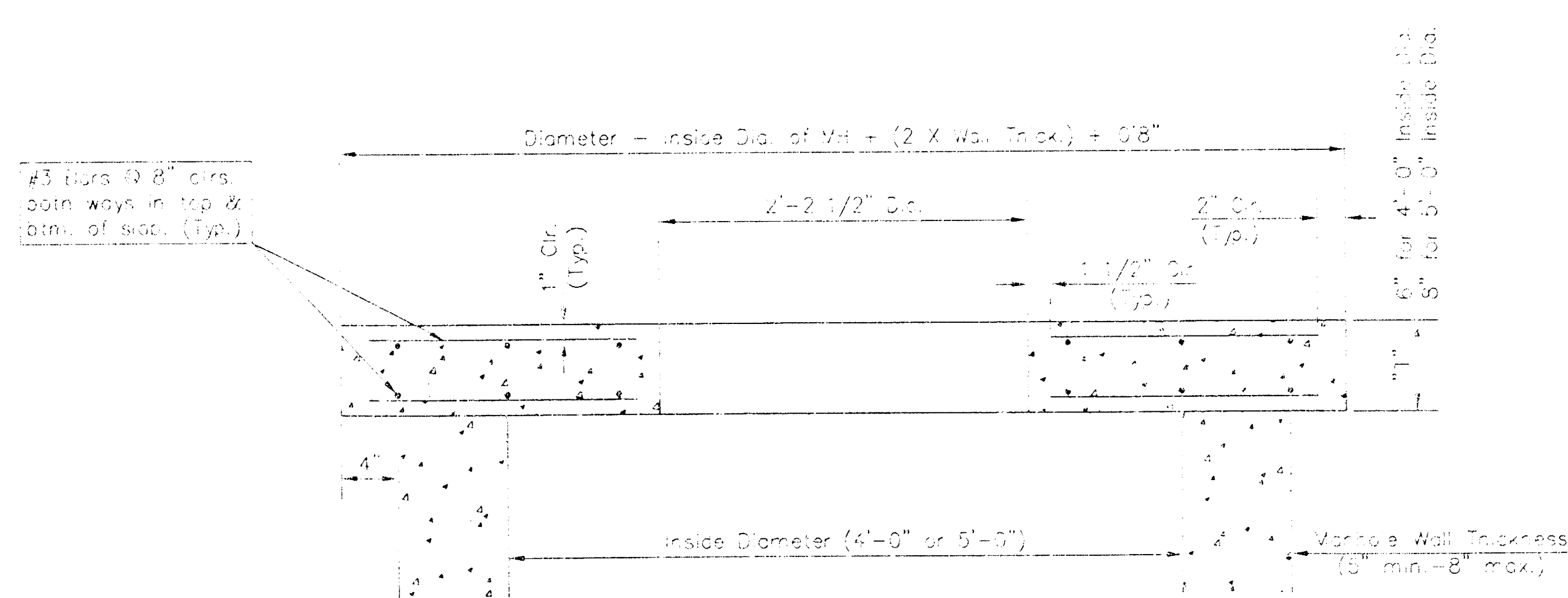
SHALLOW TYPE "C" MANHOLE



MASONRY COLLAR DETAIL



PLAN



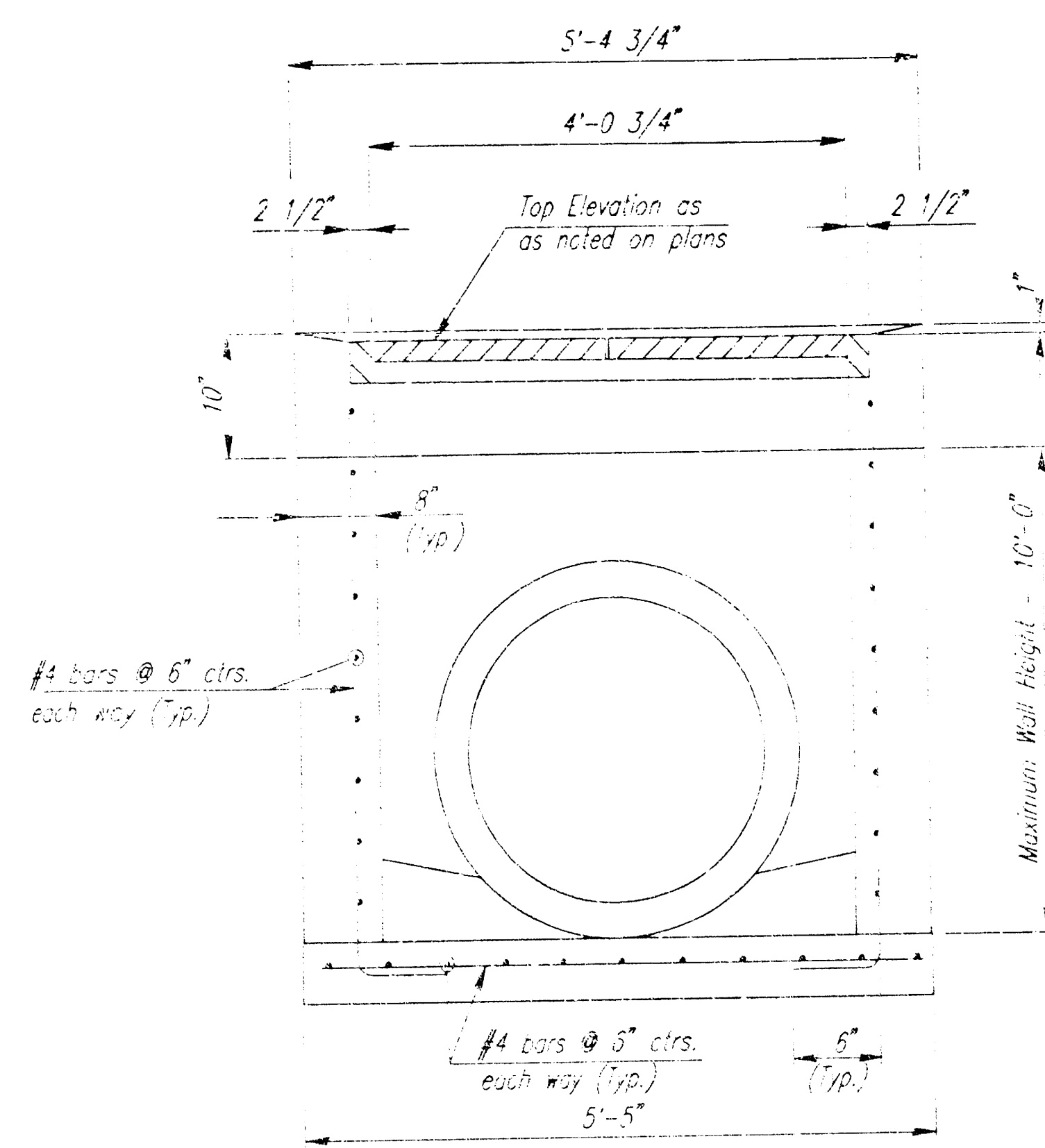
SECTION A-A

FLAT CONCRETE SLAB DETAILS

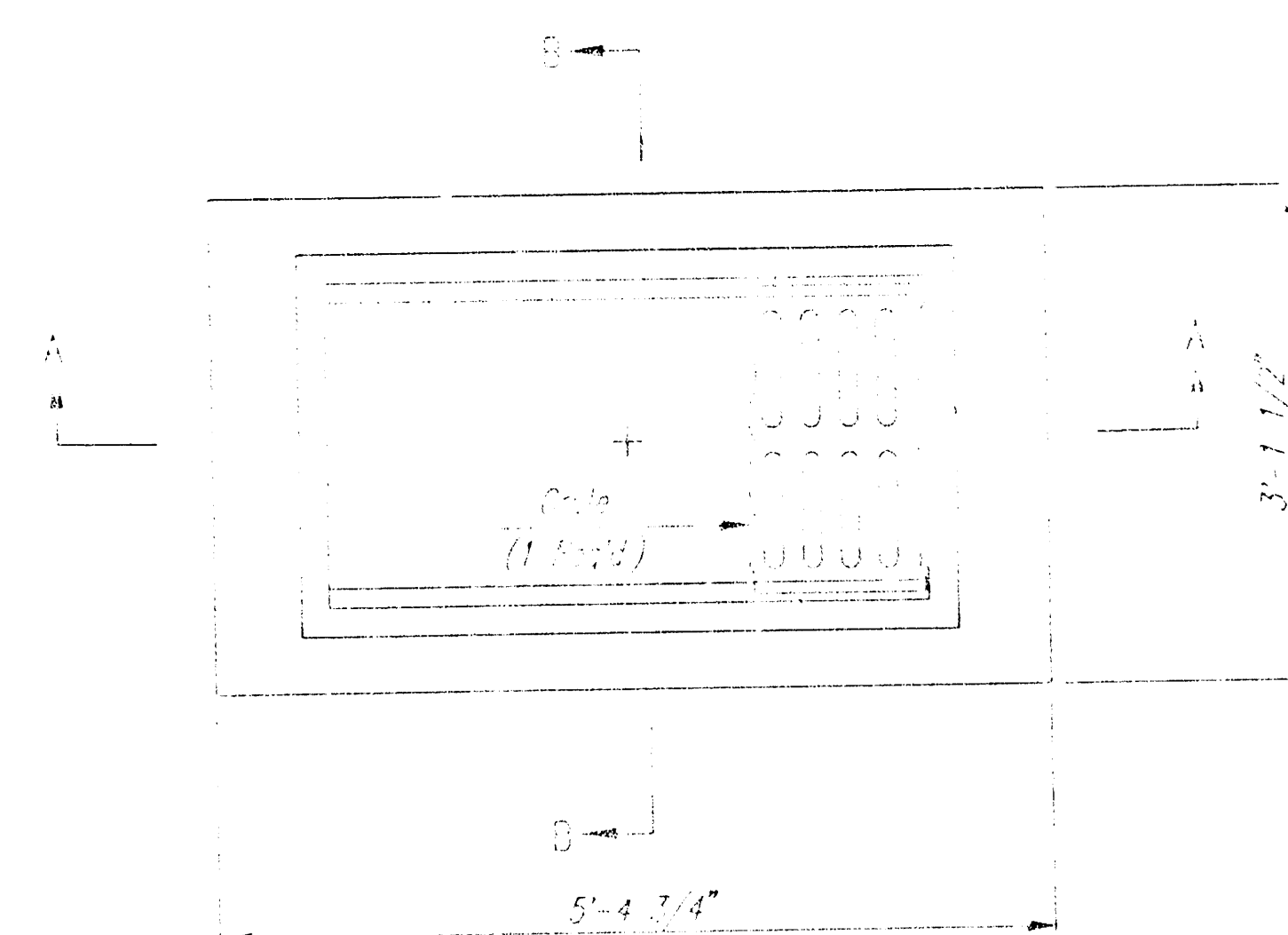
GENERAL NOTES

1. Material used in masonry construction shall conform to the requirements of the American Institute of Concrete Construction (AICC) and the American Institute of Steel Construction (AISC). Concrete shall be placed in the manhole bases and shall conform to the requirements of the American Institute of Concrete Construction (AICC) and the American Institute of Steel Construction (AISC). Concrete shall be placed in the manhole bases and shall conform to the requirements of the American Institute of Concrete Construction (AICC) and the American Institute of Steel Construction (AISC).
2. Reinforcing steel shall be installed in the manhole bases and shall conform to the requirements of the American Institute of Steel Construction (AISC). Reinforcing steel shall be installed in the manhole bases and shall conform to the requirements of the American Institute of Steel Construction (AISC). Reinforcing steel shall be installed in the manhole bases and shall conform to the requirements of the American Institute of Steel Construction (AISC).
3. The floors of all manholes shall be sloped with a minimum of 3" to 12" slope in all directions. The floors of all manholes shall be sloped with a minimum of 3" to 12" slope in all directions. The floors of all manholes shall be sloped with a minimum of 3" to 12" slope in all directions.
4. Pipes installed within the excavation shall be supported by the manhole walls. Pipes installed within the excavation shall be supported by the manhole walls. Pipes installed within the excavation shall be supported by the manhole walls.
5. Manhole cover openings and manhole frames shall conform to the requirements of the American Institute of Steel Construction (AISC). Manhole cover openings and manhole frames shall conform to the requirements of the American Institute of Steel Construction (AISC). Manhole cover openings and manhole frames shall conform to the requirements of the American Institute of Steel Construction (AISC).
6. The crown of inflowing pipes shall never be less than 6" above the crown of the outflowing pipe.
7. Standard shallow manholes type "P" and "C" shall be used for all manholes. Standard shallow manholes type "P" and "C" shall be used for all manholes. Standard shallow manholes type "P" and "C" shall be used for all manholes.
8. All work used in manhole construction shall conform to the requirements of the American Institute of Steel Construction (AISC). All work used in manhole construction shall conform to the requirements of the American Institute of Steel Construction (AISC). All work used in manhole construction shall conform to the requirements of the American Institute of Steel Construction (AISC).

THE CITY OF WICHITA		SHALLOW MANHOLES	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 333 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4551 (316) 268-4114 FAX		TYPE 'P' & 'C'	
M. E. LINDEBAK P.E. - CITY ENGINEER		PROJECT NUMBER 472-8XXXX	
DATE MAR 96		SHEET 3 OF 3	



SECTION A-A



PLAN

GENERAL NOTES- AREA INLETS

CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. ALL EXPOSED SURFACES SHALL BE FINISHED TO A SMOOTH CAST AND CUR.

REINFORCING STEEL SHALL BE GRADE 60, ASTM A615.

ALL ENTRANCES SHALL BE FINISHED TO A SMOOTH CAST AND CUR. ALL ENTRANCES SHALL BE FINISHED TO A SMOOTH CAST AND CUR.

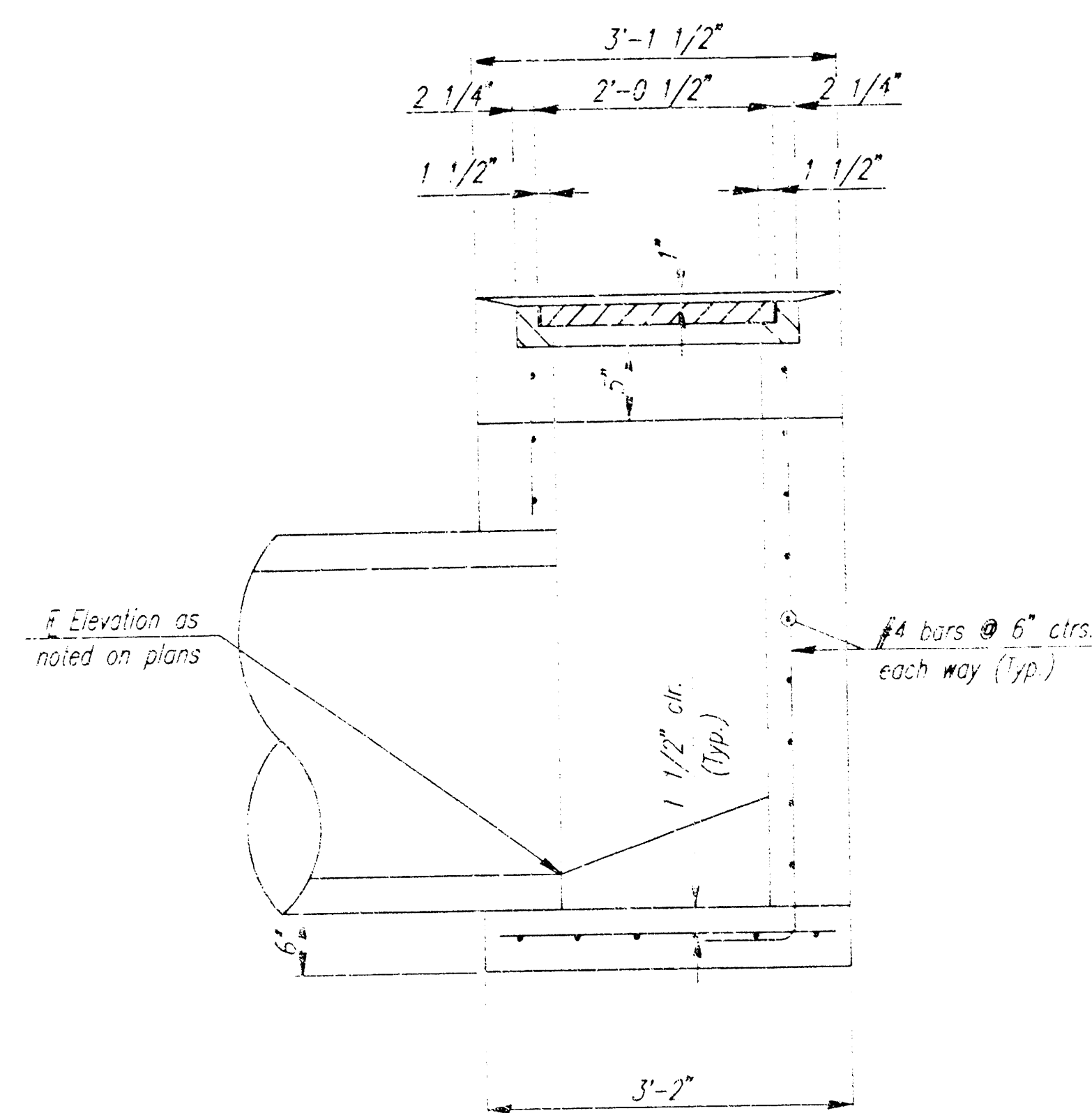
ALL ENTRANCES SHALL BE MANUFACTURED USING DOUBLE IRON. THE INLET SHALL BE 2'-0\"/>

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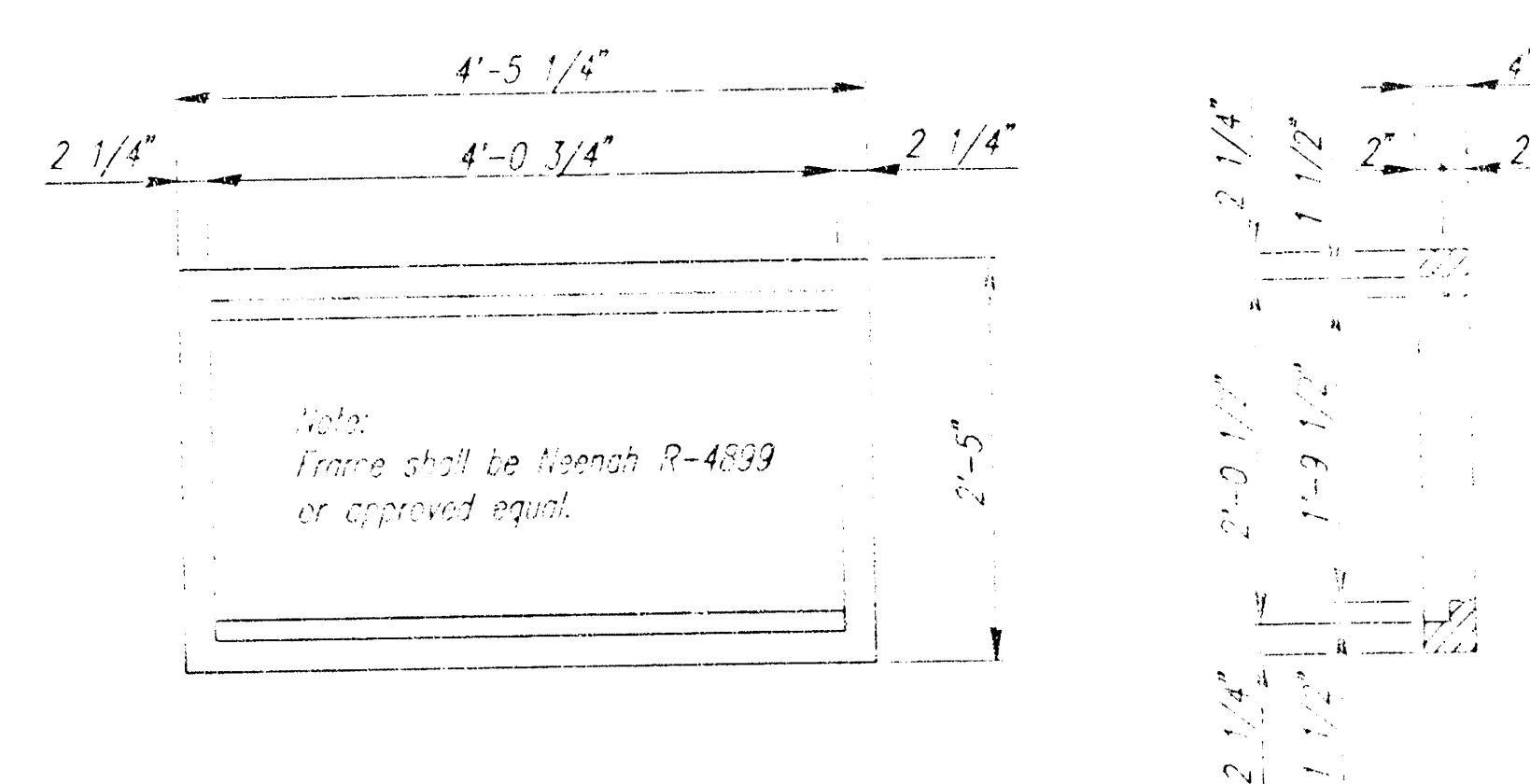
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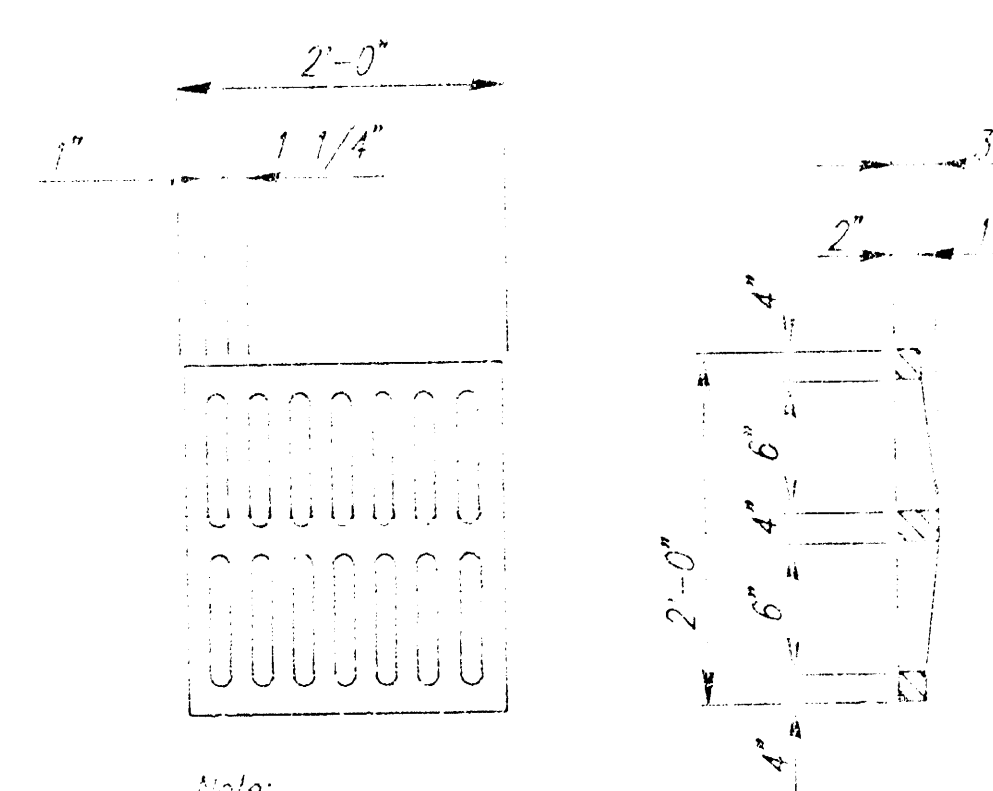


SECTION B-B



FRAME DETAIL
(4'-5 1/2\"/>

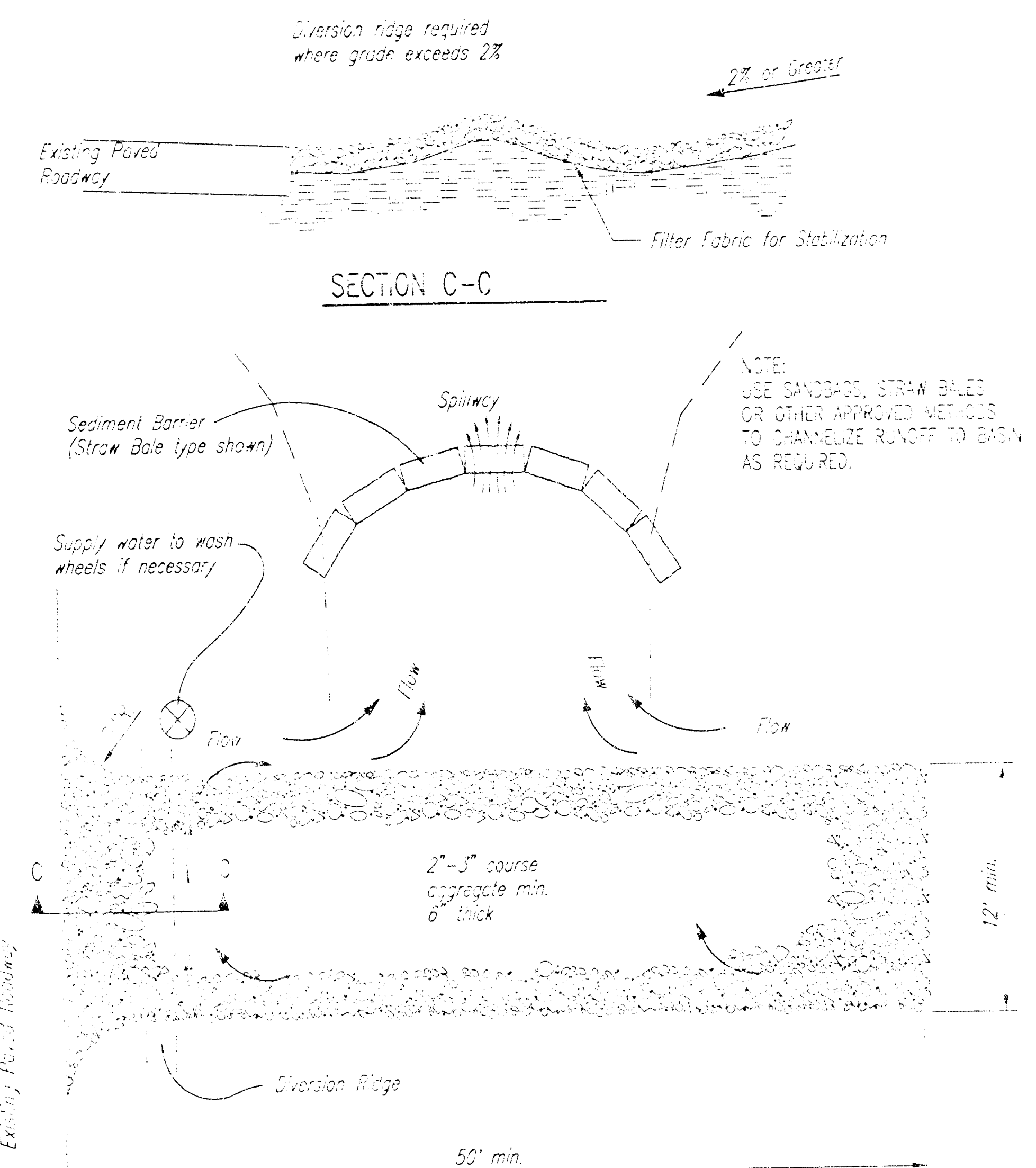
Note:
Frame to mate with 2' Neenah R-4626 Grates or approved equal.



Note:
Grate shall be Neenah R-4626 or approved equal.

GRATE DETAIL
(2' Required)

STANDARD AREA INLET (2'X4')



STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, RESURFACING OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN ATTACHED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER ORIGIN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

MISCELLANEOUS DETAILS

Professional Engineering Consultants, L.P. 303 S. TOPEKA • WICHITA, KANSAS 67202 316 262 2691 • FAX 316 262 3003	
Designed by: GRC Drawn by: SAG	Checked by: Date: SEPT. 2001 Job No. 01458



Material Specification:

Silt fence fabric should conform to the ASTM D2875 96 silt fence specification. The wire or polypropylene backing used to help support the silt fence fabric should conform to the ASTM D2875 96 silt fence specification.

The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.

The material used to frame the tops of the posts should be 1" by 4" boards.

Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a slit fence drop inlet barrier in a location where it is unlikely to be overtopped. Water should flow through slit fence, not over it. Slit fence barriers for area inlets

When flow is frequently overtopped,

When used as a barrier for area inlets, slit fence fabric and posts must be supported at the top by a wooden frame.

When a slit fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide. Drive posts to a depth of at least 18" around the perimeter of the area inlet. The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between the corner posts. Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening.

Attach the wire or polymer-mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails.

Roll out a continuous length of slit fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Use all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of slit fence fabric should remain exposed.

Attach the slit fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

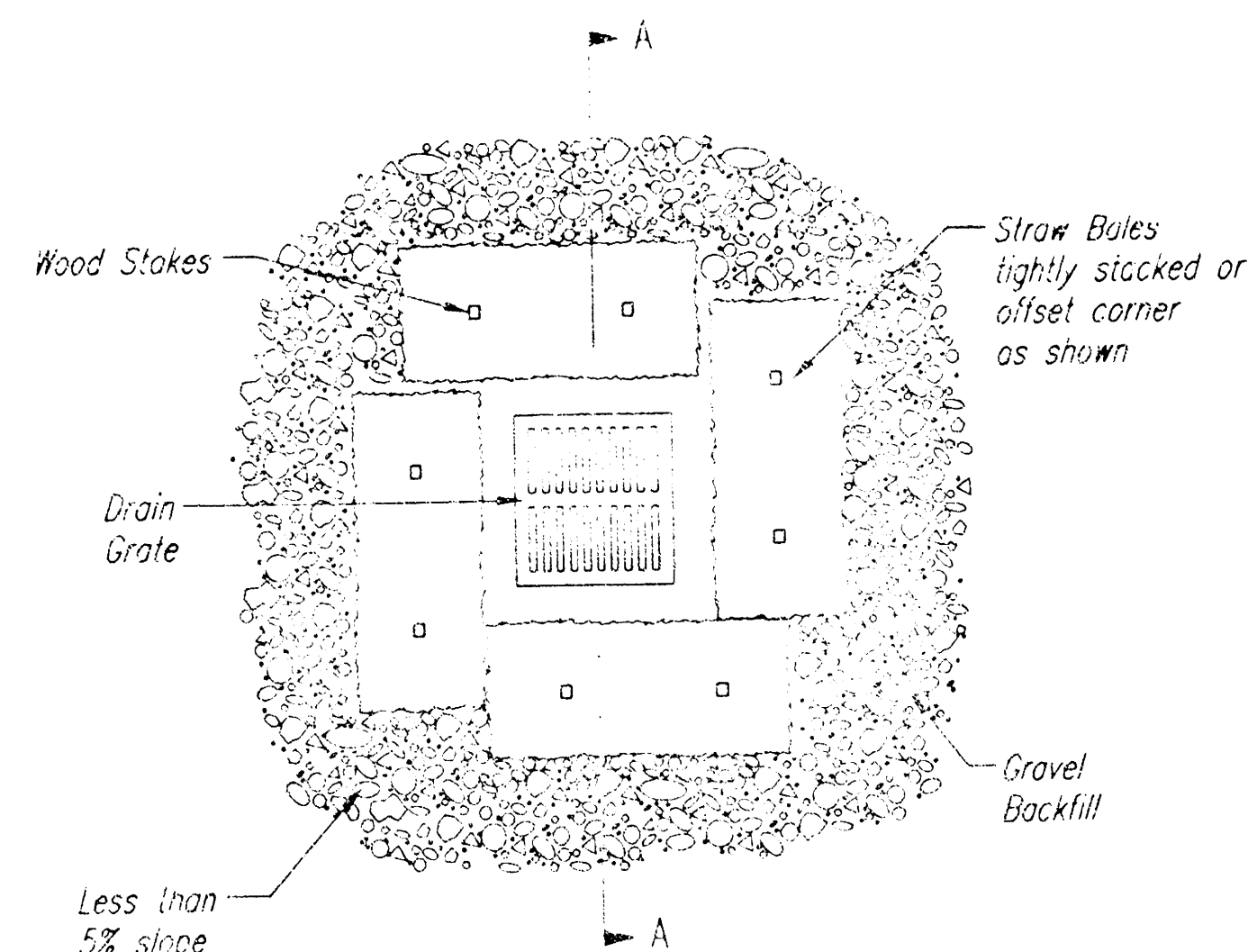
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for a day in-net over it. Place a silt fence barrier for a day in-net in a position where it is unlikely to be overtopped. Silt fence barrier for a day in-net often fail when repeatedly overtopped. Do not place posts on the outside of the silt fence barrier for a day in-net. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will not go and fail. Do not install silt fence barrier for a day in-net by stretching the top of the posts. The corner posts and end posts are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

Silt fence barrier for area inlets should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow under the silt fence?
- Does the silt fence sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the area inlet barrier?



STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specifications

The stakes used to anchor the boes should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long.

Picement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet. When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a 36" wide width.

Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends.

Stakes should be driven at least 12" into the ground.

Since the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep.

Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may seep onto the roadway causing a hazardous condition.

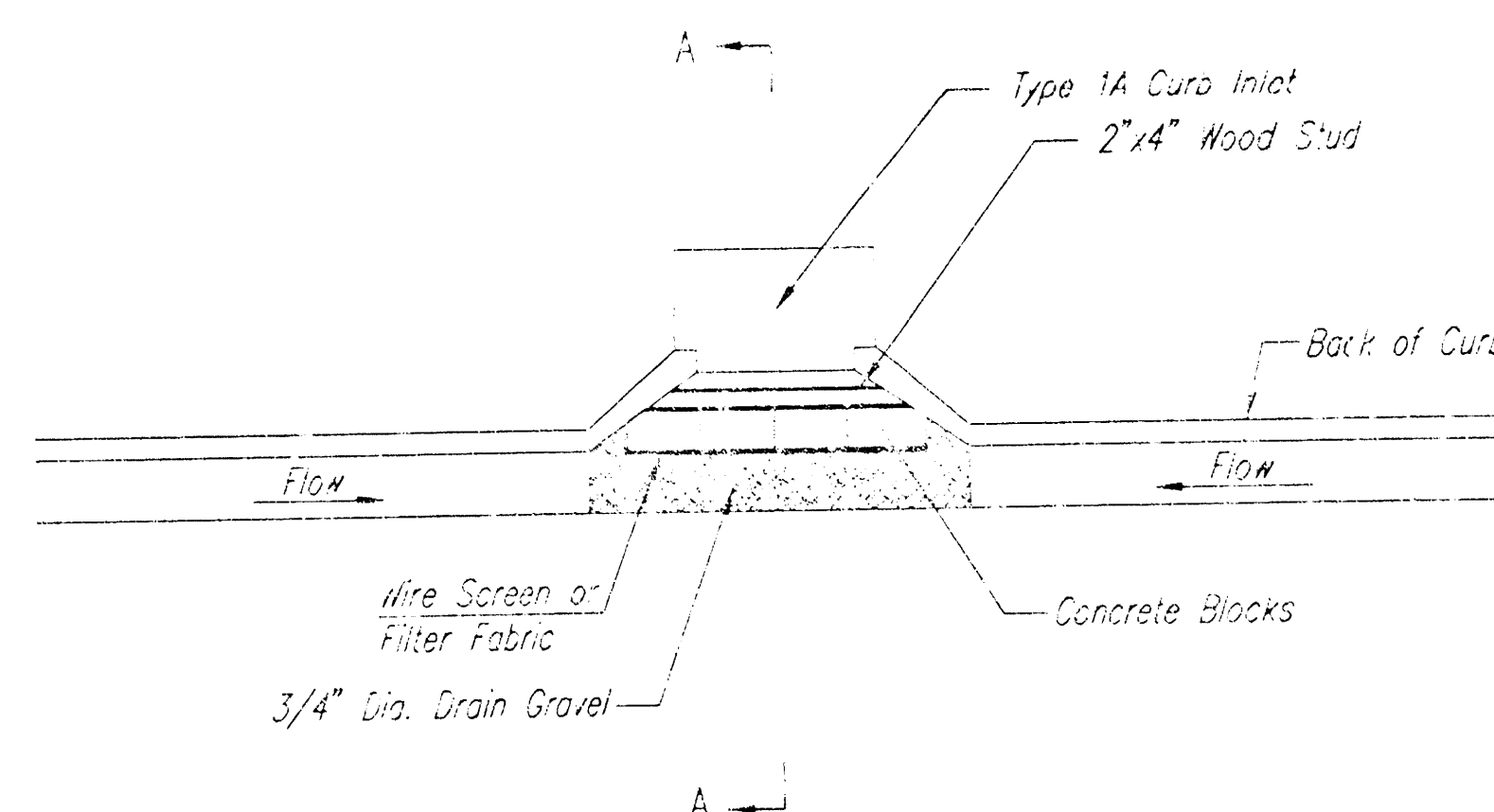
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overlapping water to flow directly into the inlet instead of onto nearby soil causing scour. Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting boies?
Are any boies dislodged?
Are boies decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?



CURE INLET GRAVEL FILTERS

(INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

Instructions for installing:

STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2"x4" board as shown.

STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.

STEP 3: Place 1/2" to 1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.

STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent clogging.

Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.