

**RELOCATION OF SANITARY SEWER AT
FRIENDS UNIVERSITY
SANITARY SEWER #8**

Project Number
468-76-245-82684-000-000-001

Index Code
621540

CITY OF WICHITA, KANSAS
Michael E. Lindebak, City Engineer

General Notes

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas "one-call" 687-2470

The Contractor must notify the following in case of an emergency:

Cablevision	262-4270
or	263-2061
K.G.E. Gas Service Company	383-8630
Kansas Gas & Electric Company	383-8600
Peoples Natural Gas Company	942-7600
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071

2. 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 locations, 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.

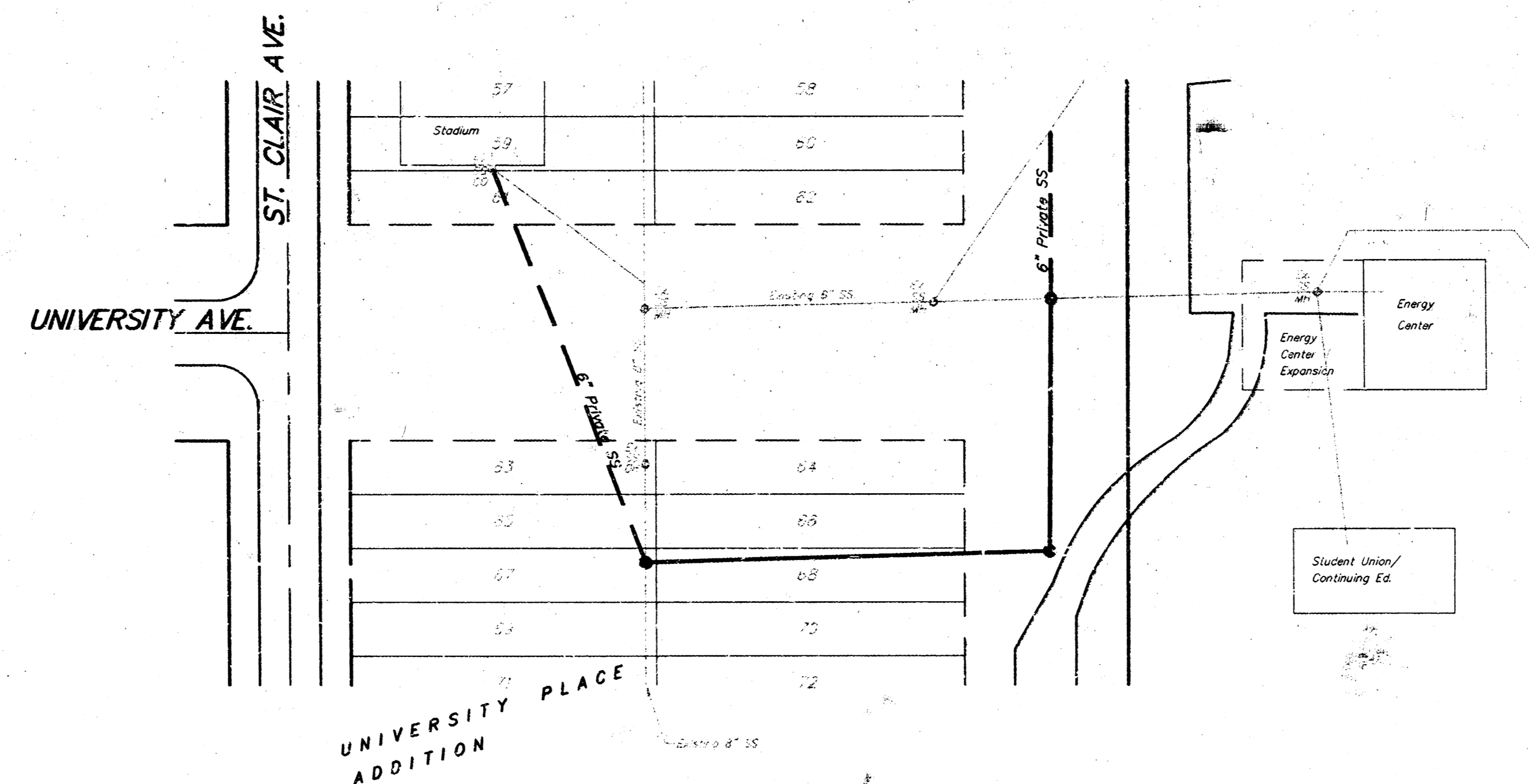
3. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

4. All disturbed areas are to be seeded as follows: (To be Subsidiary to Site Clearing & Restoration)
SEED--Bluegrass Blend--(50% Merit Bluegrass, 15% Fairfax Bluegrass, 15% Huntsville Bluegrass, and Omni Rye Grass.)

5. Rubble from the removal of miscellaneous structures and excess excavation which is to be used shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. 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 wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

6. Properties within the project limits may have underground sprinkler systems in public right-of-way which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction of the project. The Contractor will be required to salvage all sprinkler heads and/or valves and give such materials to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the lump sum bid item "Site Clearing & Restoration".

7. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Contractor to contact Paul Winchester (261-5837) at Friends University. Contractor to coordinate construction so there is no disruption to Friends University activities.



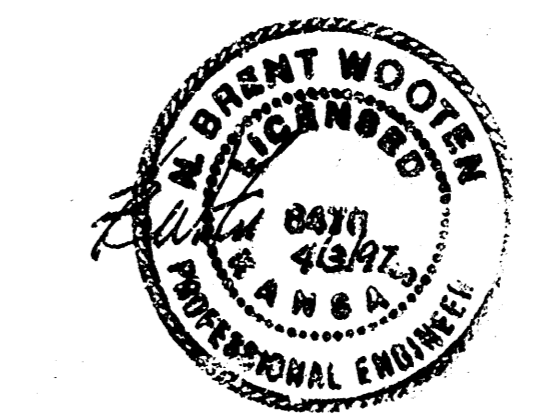
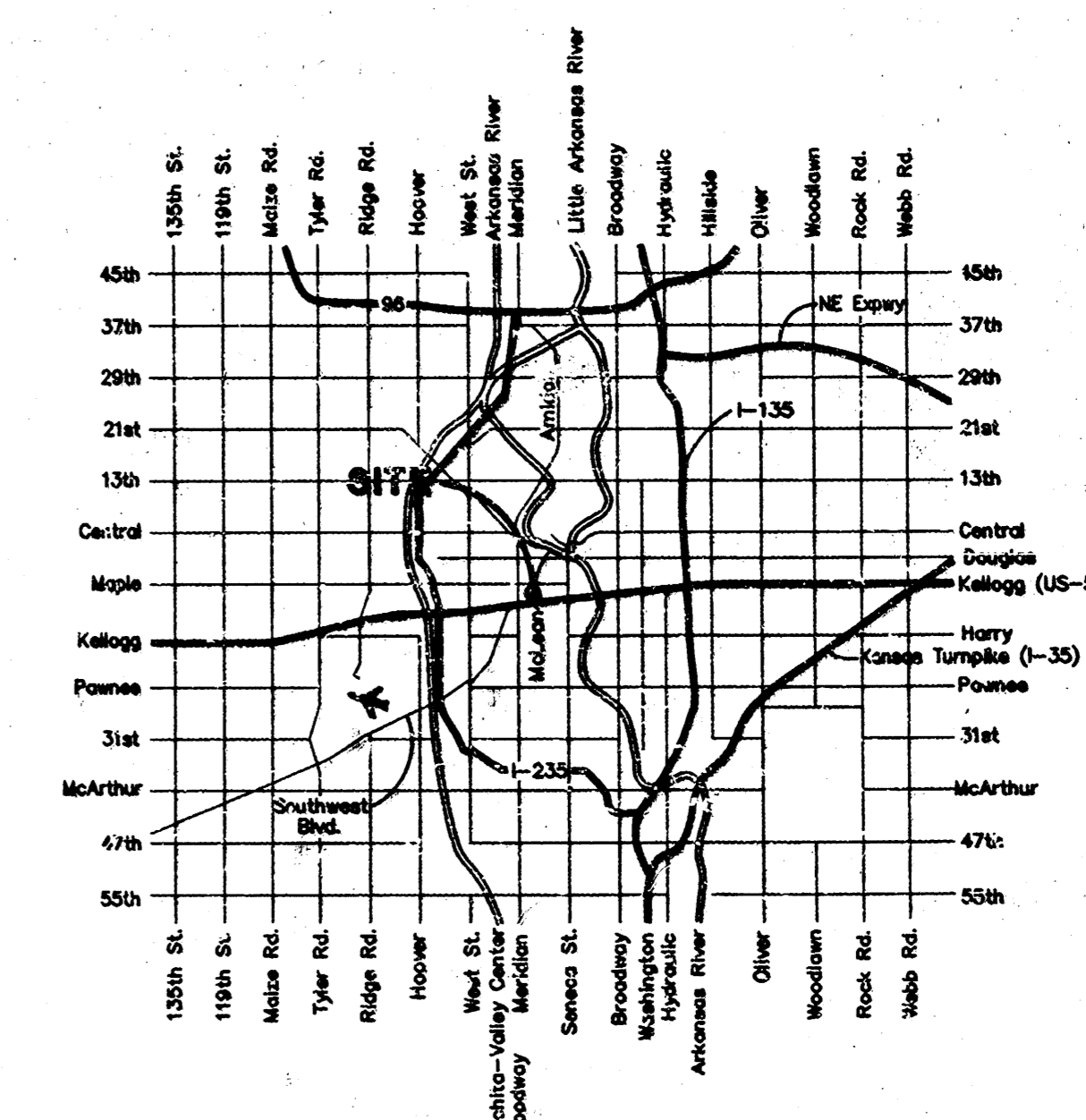
Benchmarks:

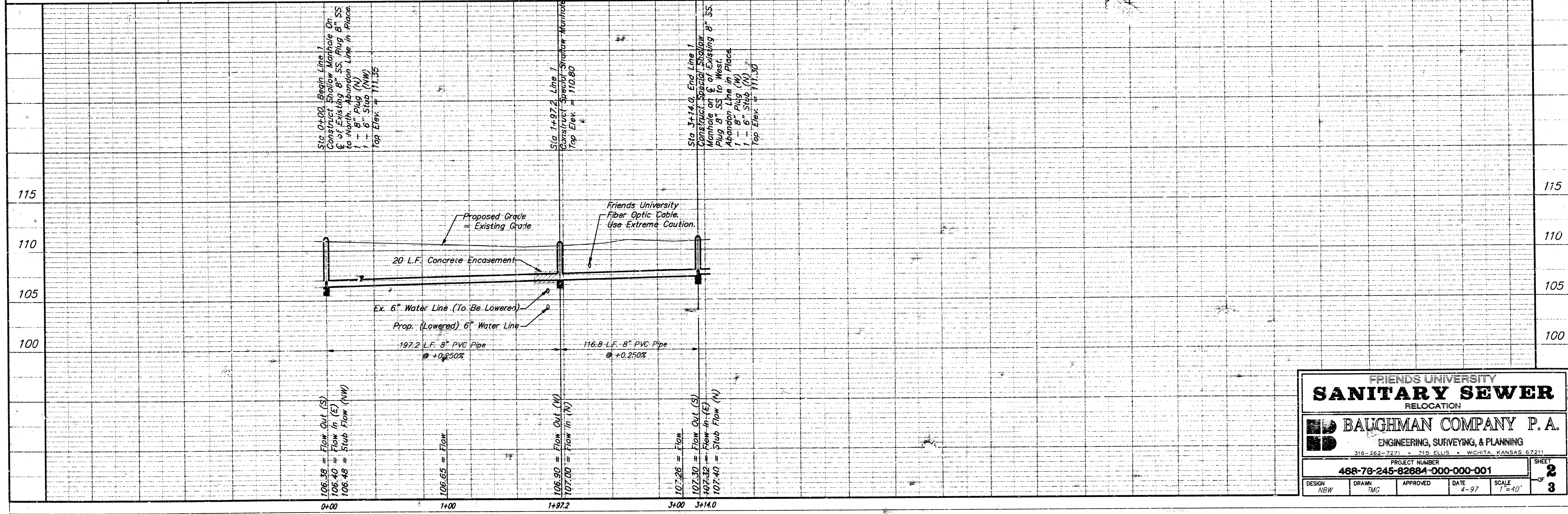
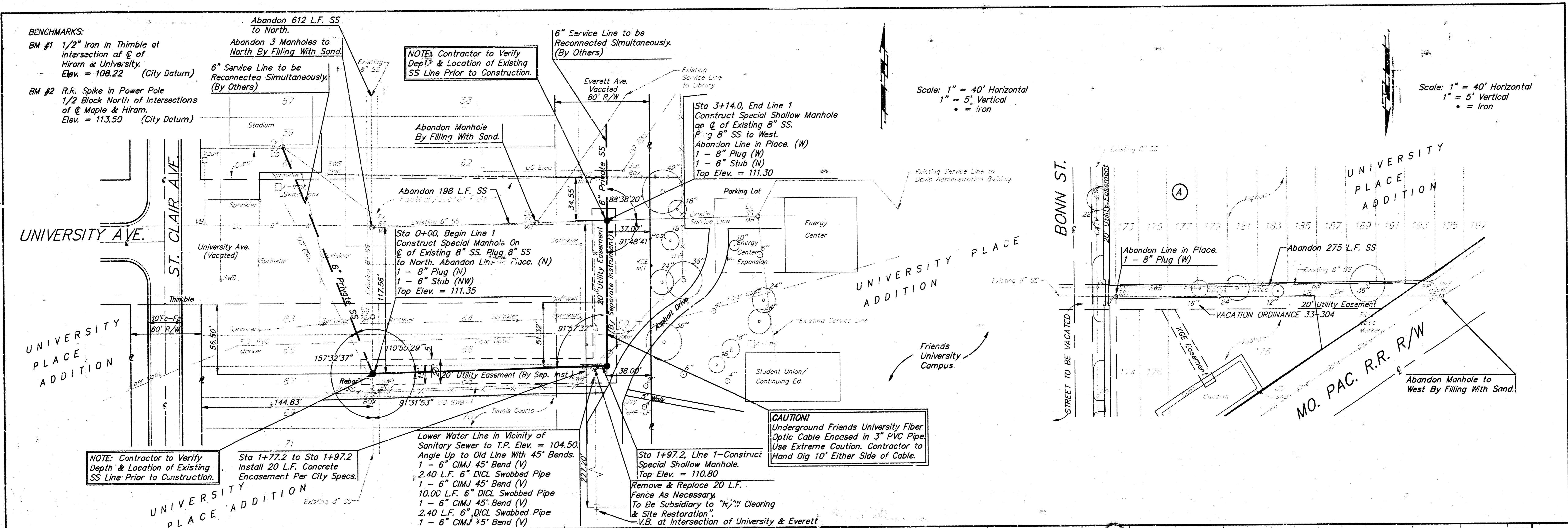
BM #1 1/2" iron in Thimble at Intersection of Q of Hiram & University. Elev. = 108.22 (City Datum)
BM #2 R.R. Spike in Power Pole 1/2 Block North of Intersections of Q Maple & Hiram. Elev. = 113.50 (City Datum)

Index:

- 1 Title Sheet
- 2 Line 1
- 3 Standard Manhole Detail

Booked 9-16-97
N-268
RDL





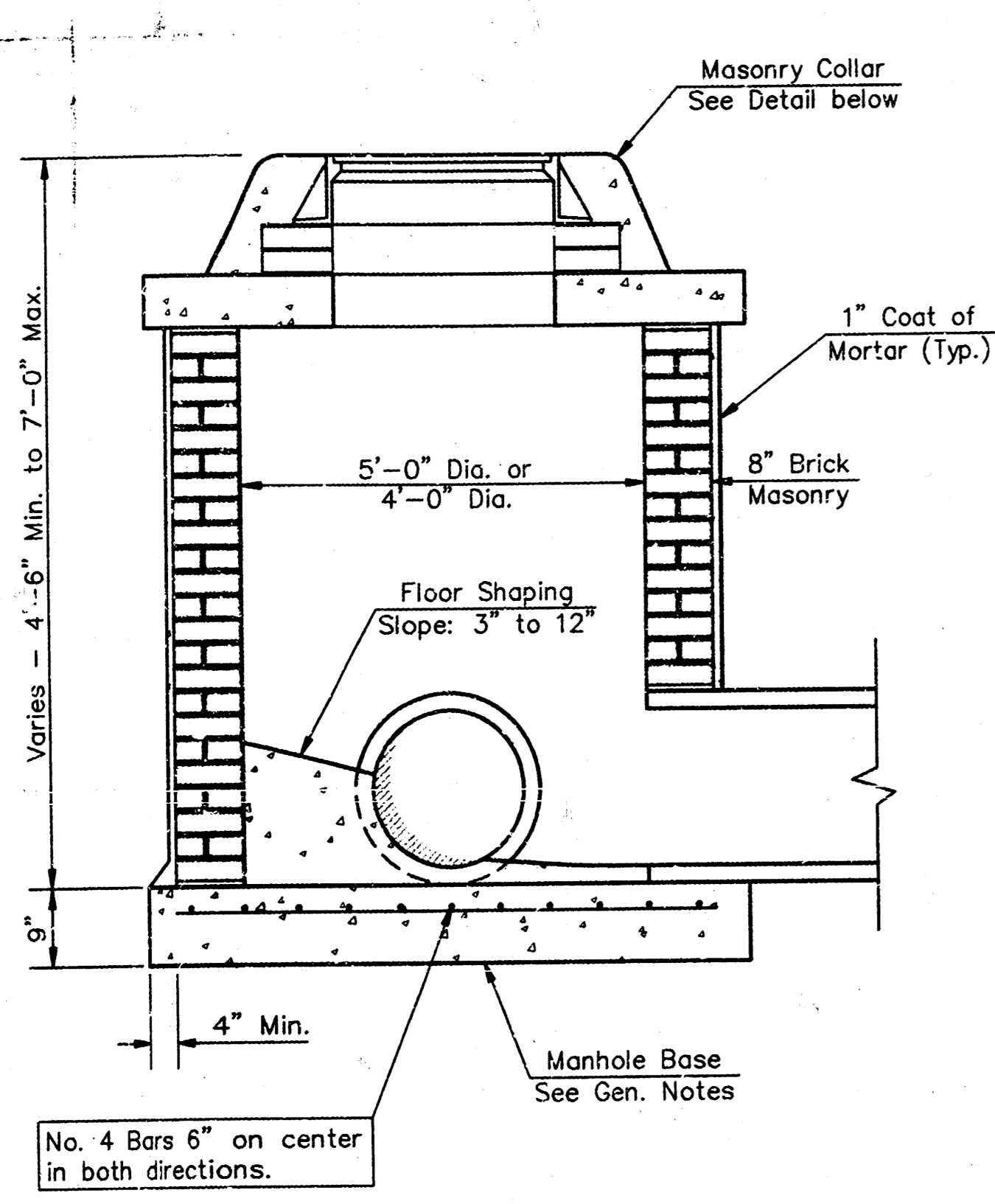
**FRIENDS UNIVERSITY
 SANITARY SEWER
 RELOCATION**

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-2271 • 215 ELLIS • WICHITA, KANSAS 67211

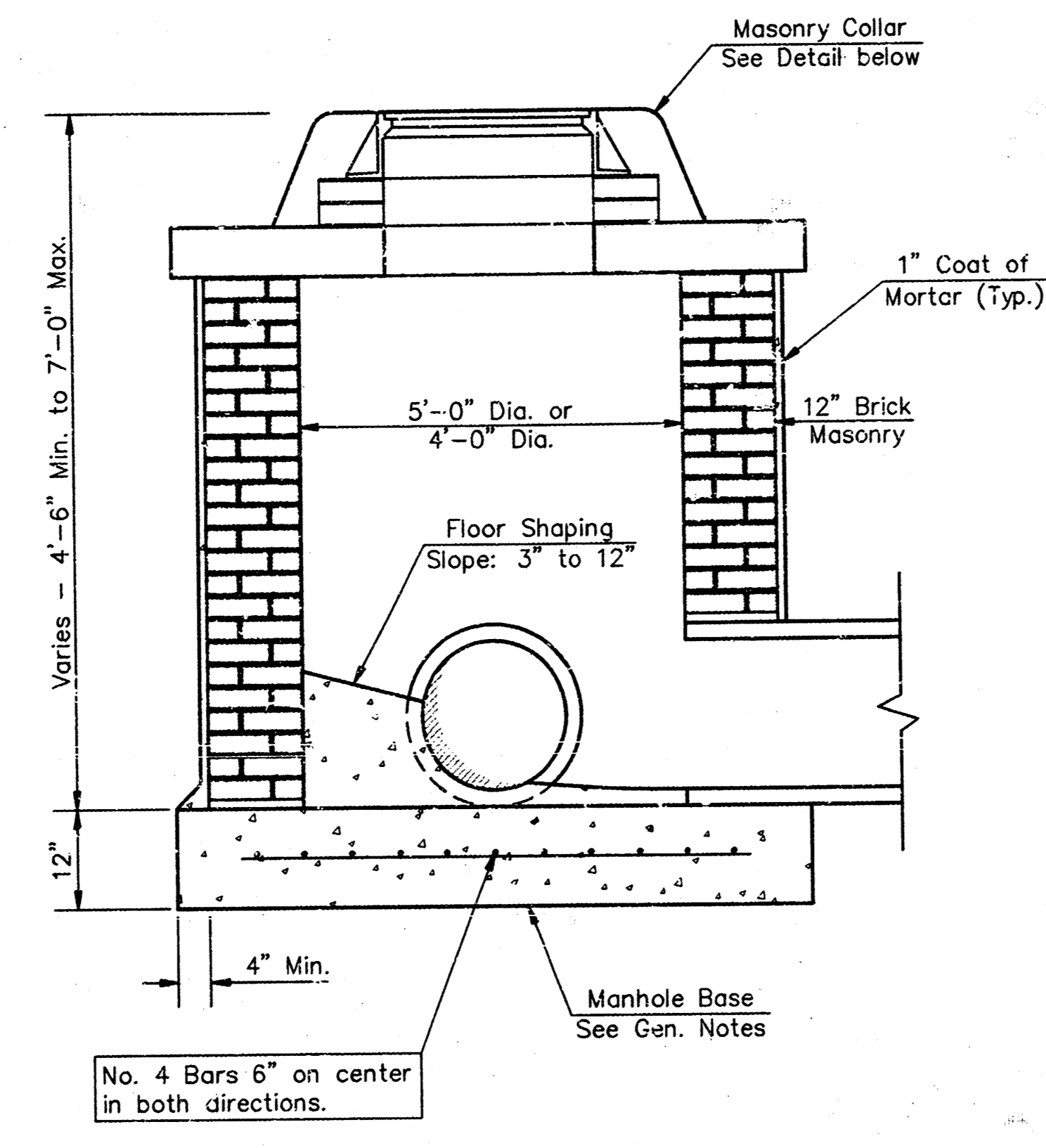
PROJECT NUMBER
468-78-245-82684-000-000-001

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
NBW	TMC		4-97	1"=40'	2 OF 3

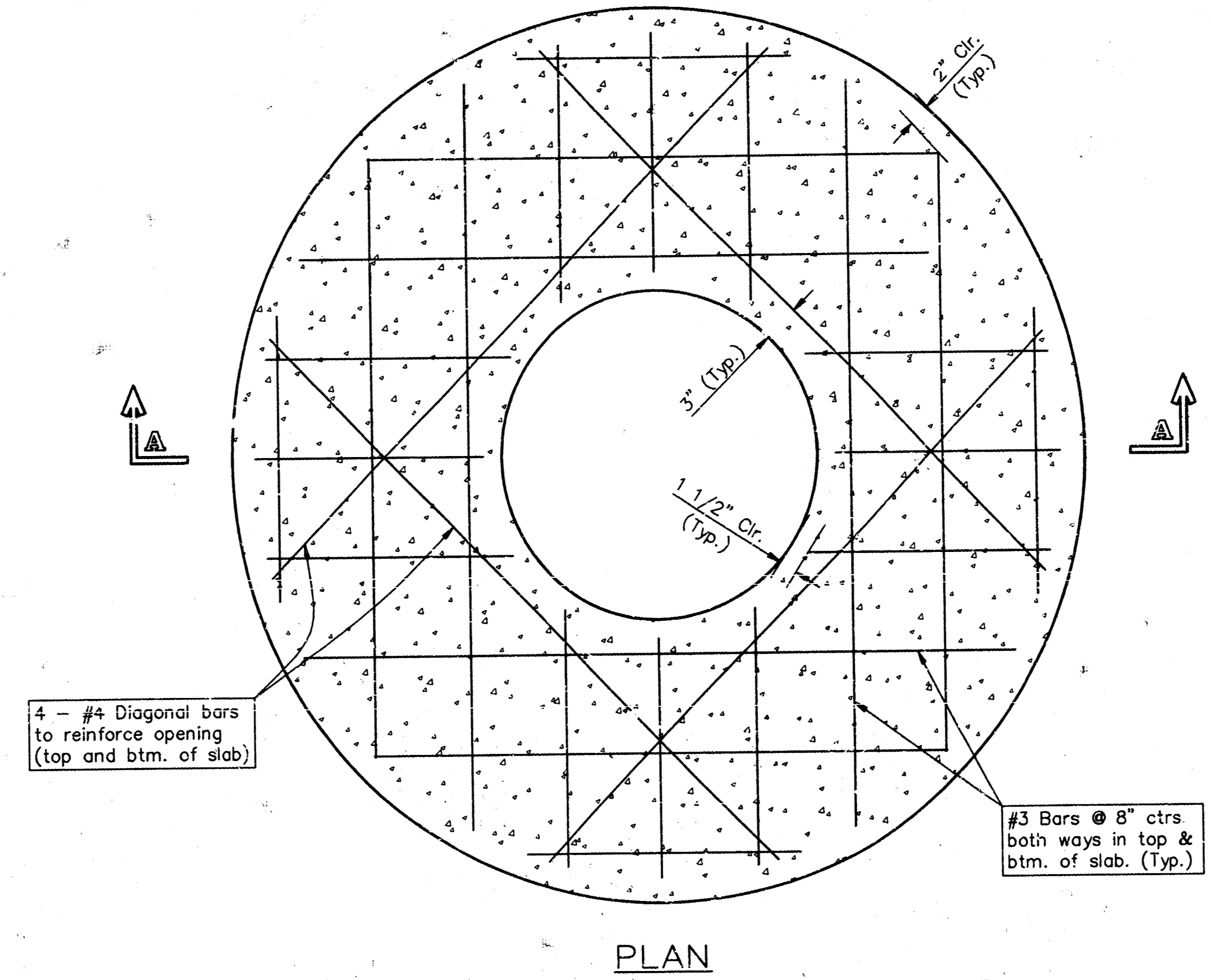
90-CIP-4-EGG
 FRIENDS UST



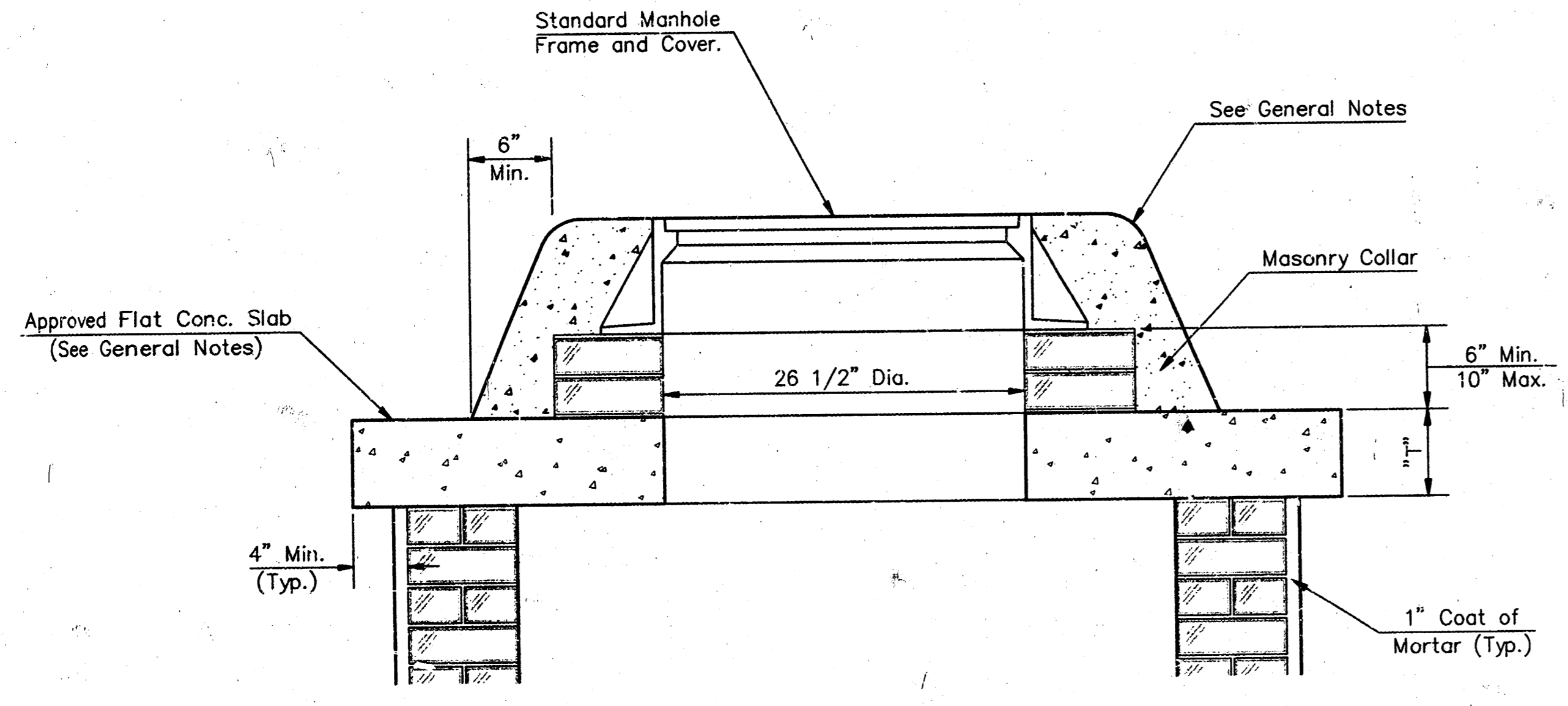
SHALLOW TYPE "A" MANHOLE



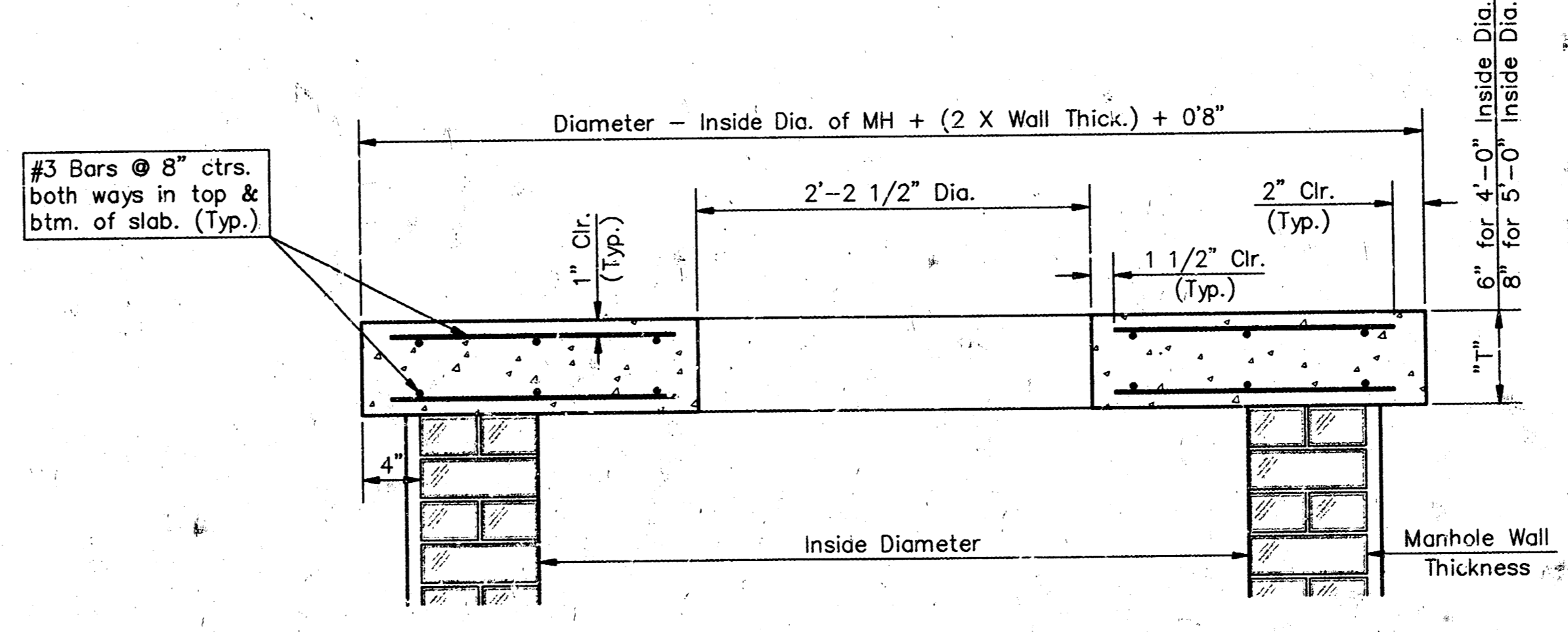
SHALLOW TYPE "B" MANHOLE



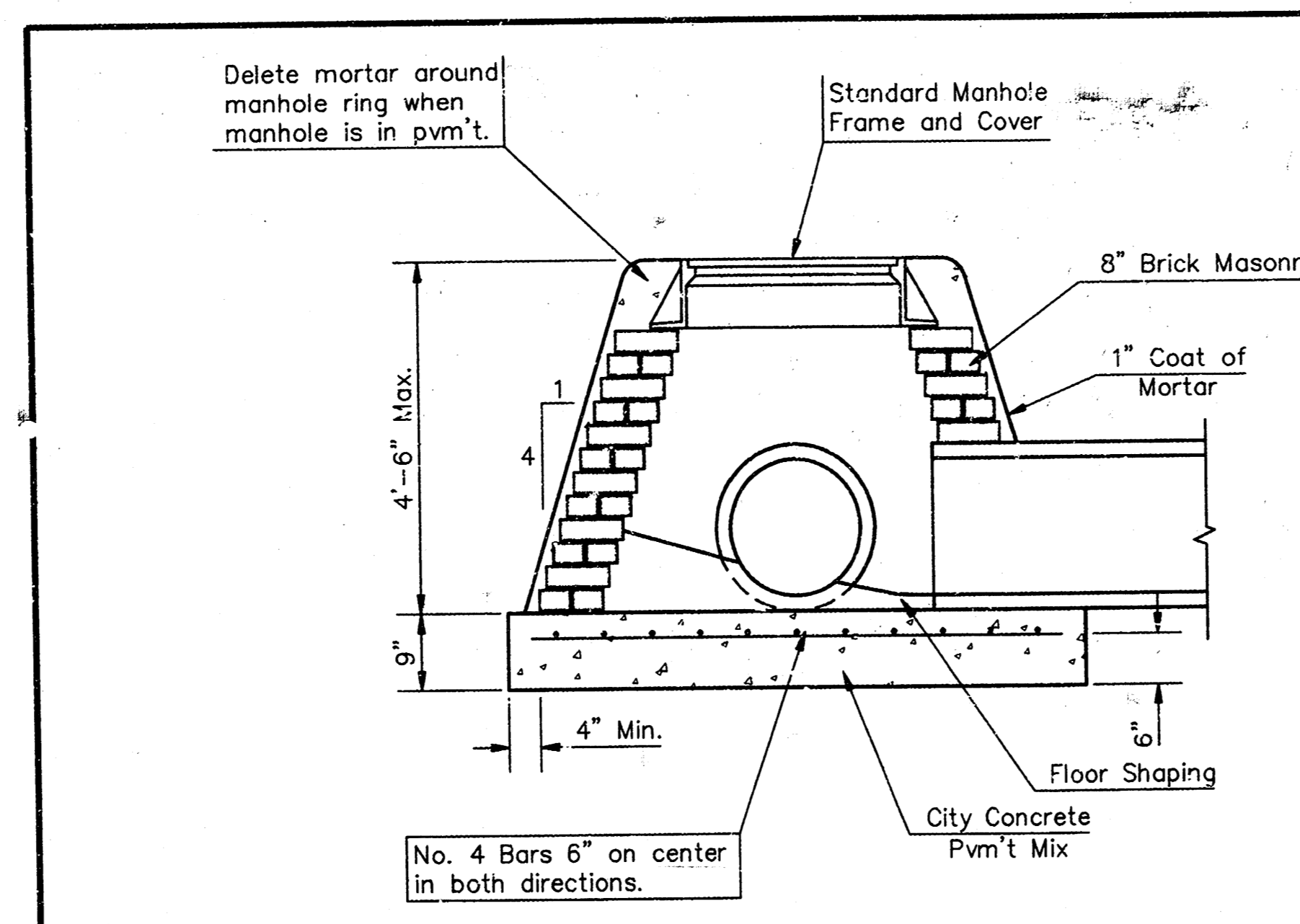
PLAN



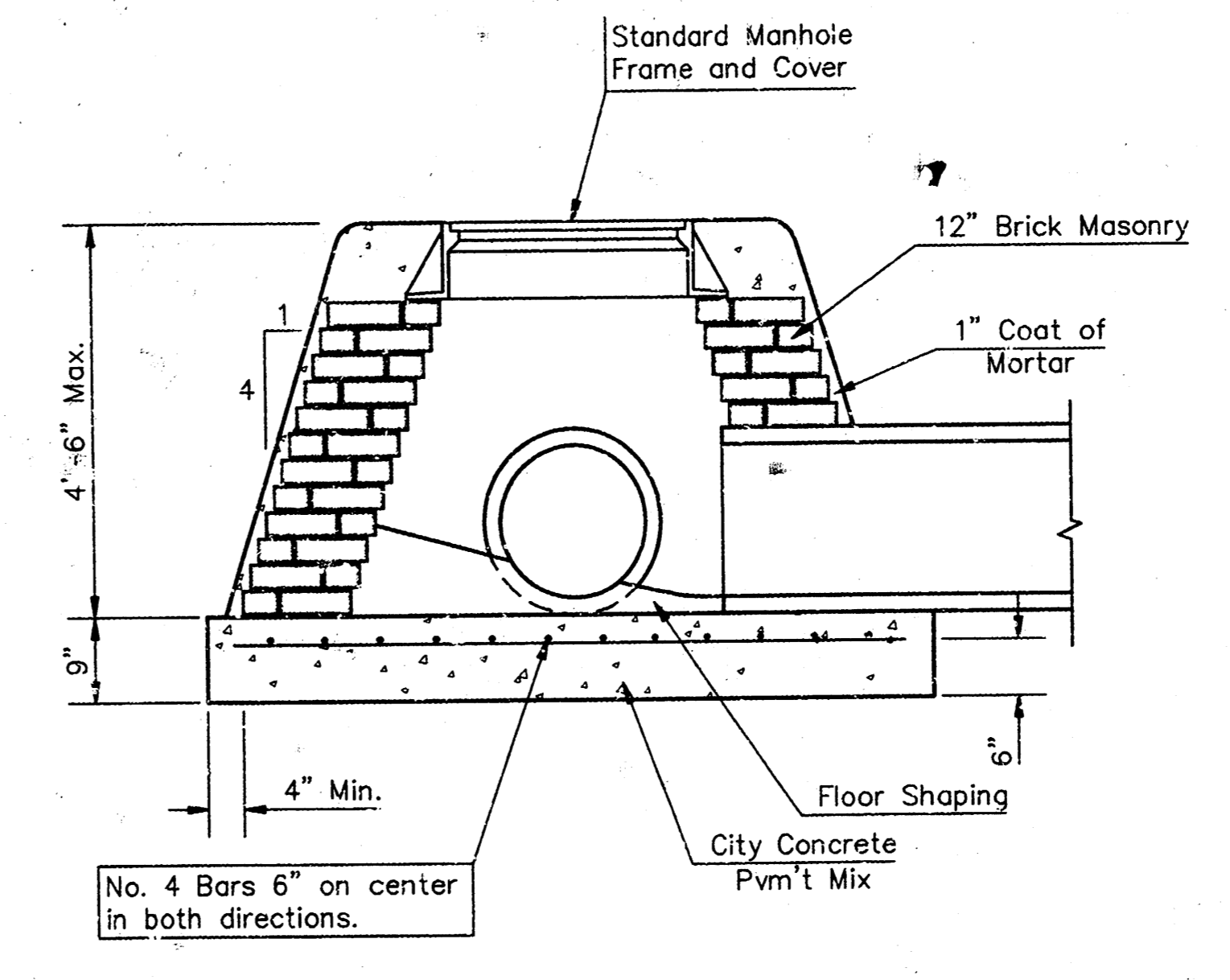
MASONRY COLLAR DETAIL



SECTION A-A
FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5". Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

CITY OF WICHITA, KANSAS
STD. SHALLOW MANHOLES
 TYPE "A" AND TYPE "B"

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-7273 • 315 ELLIS • WICHITA, KANSAS 67213

PROJECT NUMBER: _____ SHEET: **3** OF **3**

DESIGN: C.O.W. DRAWN: Staff APPROVED: _____ DATE: 4-97 SCALE: NONE