

# PRIVATE SANITARY SEWER MAIN CONSTRUCTION MCEVOY SEWER LATERAL EXTENSION

PARCELS A & B, LOT 5, BLOCK D,  
MCEVOY ADDITION, SEDWICK COUNTY, KANSAS  
PRIVATE PROJECT NO. 1963 PPS (607861)

## GENERAL NOTES

1. Contractor will be required to provide a minimum advance notice of seventy-two (72) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call 687-2470 or 811

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

Cox Communications 262-0661  
 Kansas Gas Service 888-482-4950  
 Black Hills Energy 1-800-303-0357  
 Westar 383-8600  
 AT&T 1-800-286-8313  
 City of Wichita Water Department 262-6000  
 City of Wichita Sewer Maintenance 262-6000

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 or unless the plans specifically identify a utility to be adjusted by its owner during construction. 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.

3. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted 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.

4. 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 permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.

5. The Contractor shall give all property owners and/or tenants of developed property directly abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

6. The Contractor shall seed, fertilize and mulch all disturbed areas upon completion of construction. Subsidiary to the bid item for "Site Clearing and Restoration".

## INDEX OF SHEETS

- TITLE SHEET
- LINE 1 PLAN/PROFILE
- MANHOLE RING AND COVER DETAILS
- TYPE 'P' MANHOLE DETAIL

BENCHMARK  
 GROSS CUT ON NORTH EDGE OF MANHOLE  
 LID, NORTHWEST CORNER OF LOT 5,  
 BLOCK D MCEVOY ADDITION.  
 Elev. 1341.10 NGVD 88

## COORDINATE CONTROL TABLE

CONTROL NO.	DESCRIPTION	NORTHING	EASTING
①	RB 1/2" F	19930.78	19693.52
②	RB 1/2" F	19932.24	19930.82
③	RB 1/2" F	20115.84	19930.82

APPROVED AS NOTED  
 BY CITY ENGINEER OF WICHITA

Sanitary Sewers Julianne Kallman 3-6-09

Storm Sewers \_\_\_\_\_

Driveway Approaches \_\_\_\_\_

Water Mains \_\_\_\_\_

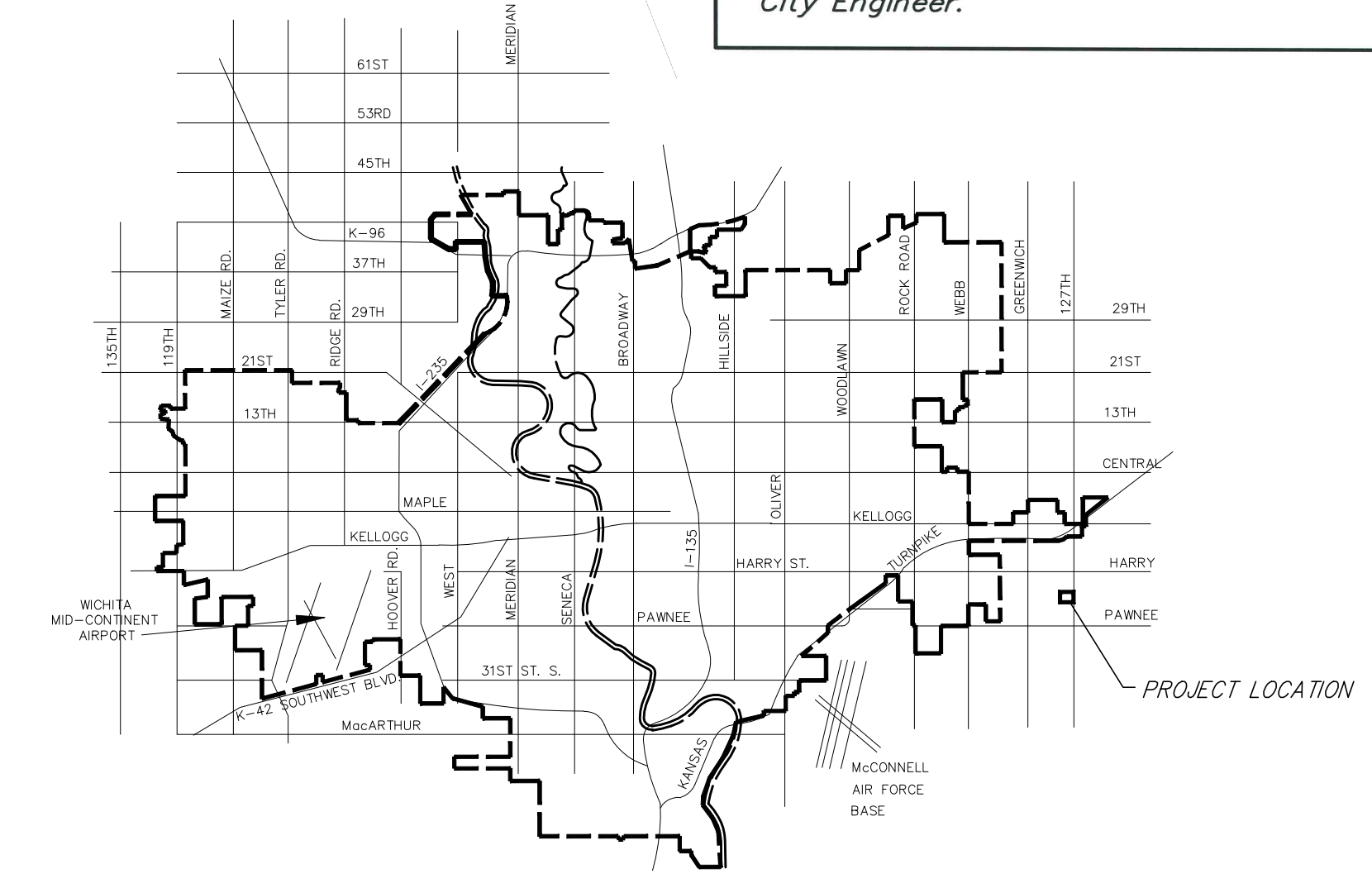
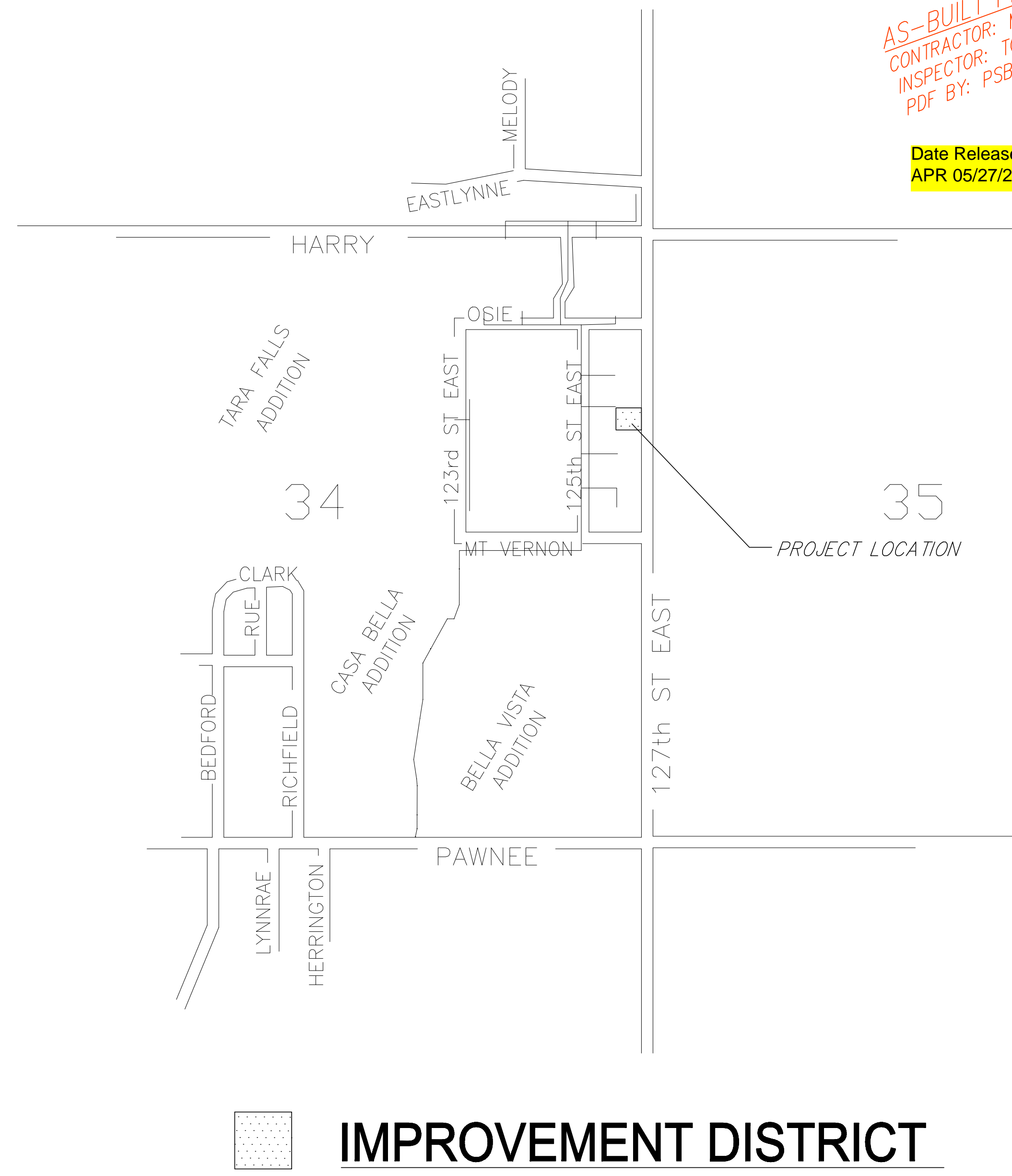
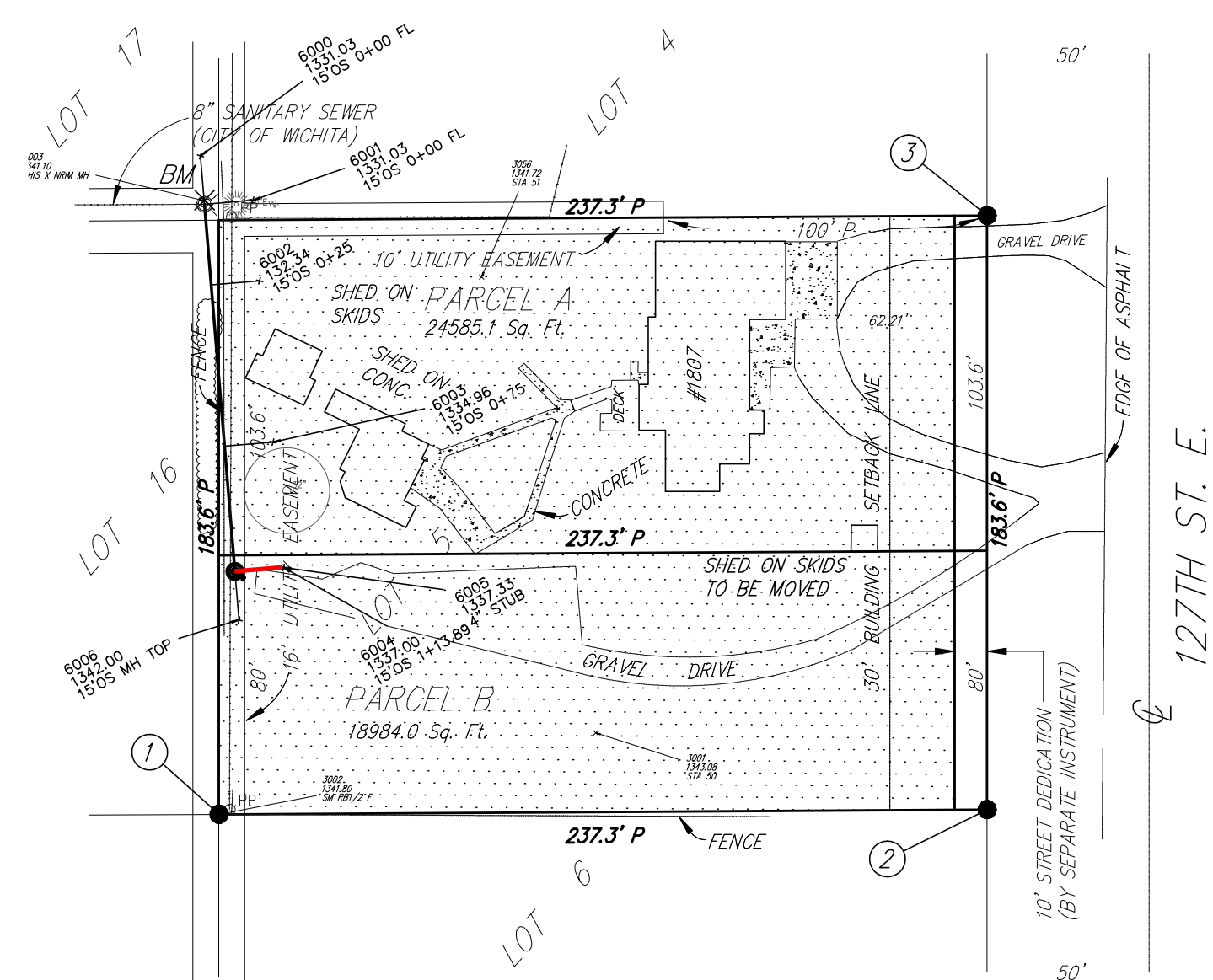
Paving \_\_\_\_\_

## NOTE TO CONTRACTORS

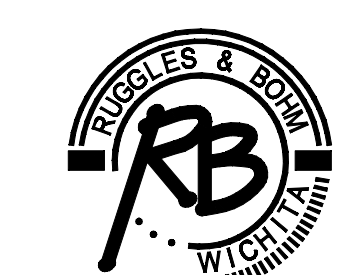
Inspection and testing for this project are to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said Inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.

AS-BUILT PLANS  
 CONTRACTOR: MCCULLOUGH EXCAVATION  
 INSPECTOR: TONY YOUNG, RUGGLES & BOHM P.A.  
 PDF BY: PSB 5-22-09

Date Released: 05/27/2009  
 APR 05/27/2009



CITY OF WICHITA, KANSAS  
**JAMES ARMOUR, P.E. - CITY ENGINEER**

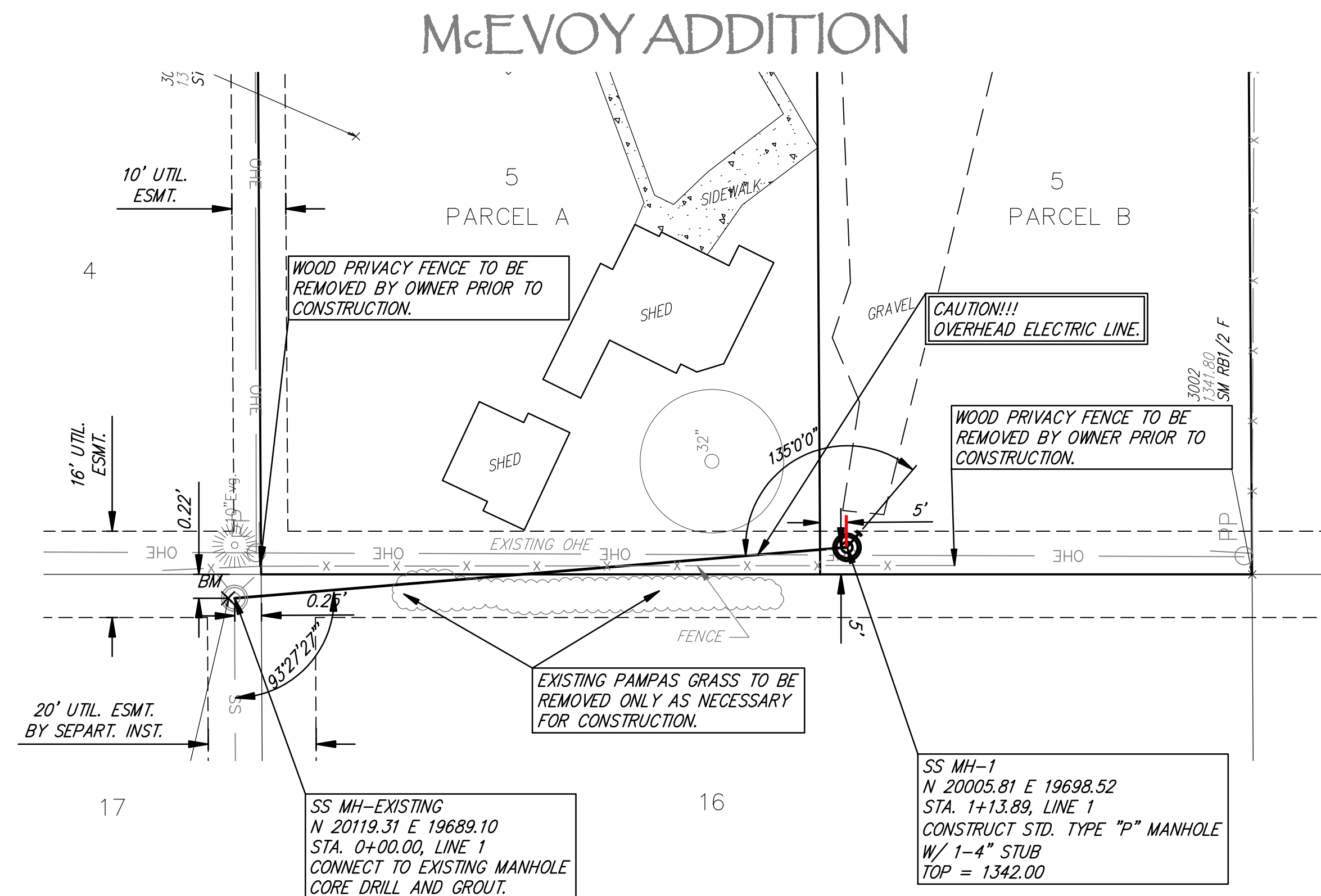


**Ruggles & Bohm, P.A.**  
 Engineering, Surveying, Land Planning  
 924 North Main (316) 264-8008  
 Wichita, Kansas 67203 (316) 264-4621 fax  
 www.rbkansas.com E-mail: info@rbkansas.com

NOTES

- TREES TO BE REMOVED AS REQUIRED FOR CONSTRUCTION, COST SUBSIDIARY TO SITE CLEARING AND RESTORATION.

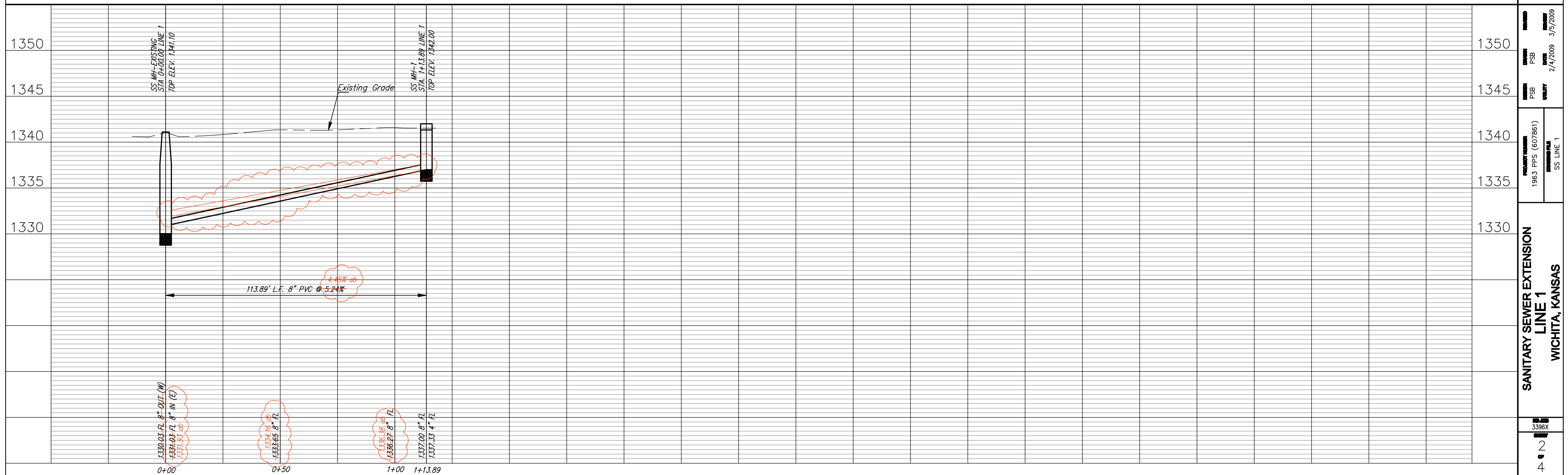
**BENCHMARK**  
 CROSS CUT ON NORTH EDGE OF MANHOLE LID, NORTHWEST CORNER OF LOT 5, BLOCK D MCEVOY ADDITION.  
 Elev. 1341.10 NGVD 88



AS-BUILT PLANS  
 CONTRACTOR: MCCULLOUGH EXCAVATION  
 INSPECTOR: TONY YOUNG, RUGGLES & BOHM P.A.  
 PDF BY: PSB 5-27-09

McEVOY ADDITION

LINE 1



**Ruggles & Bohm, P.A.**  
 Engineering & Surveying  
 1000 N. 10th St., Suite 100  
 Wichita, Kansas 67202  
 Phone: 316-261-1111  
 Fax: 316-261-1112  
 www.rugglesandbohm.com

**PROJECT NUMBER**  
 1963 PPS (607861)  
 SANITARY SEWER EXTENSION  
 LINE 1  
 WICHITA, KANSAS

**DATE**  
 2/4/2009

**BY**  
 PSB

**CHECKED**  
 PSB

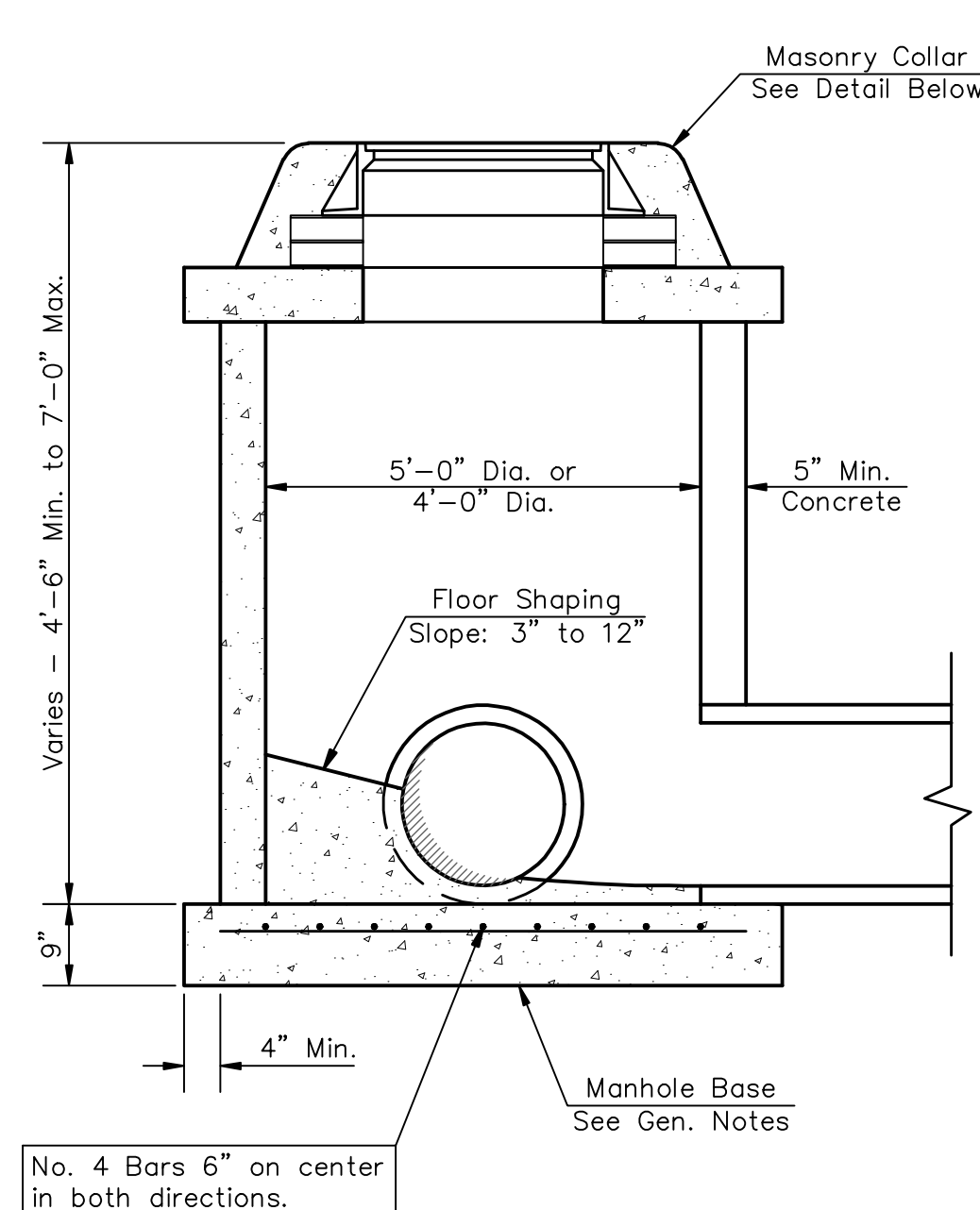
**DATE**  
 3/5/2009

**SCALE**  
 3/8" = 1'-0"

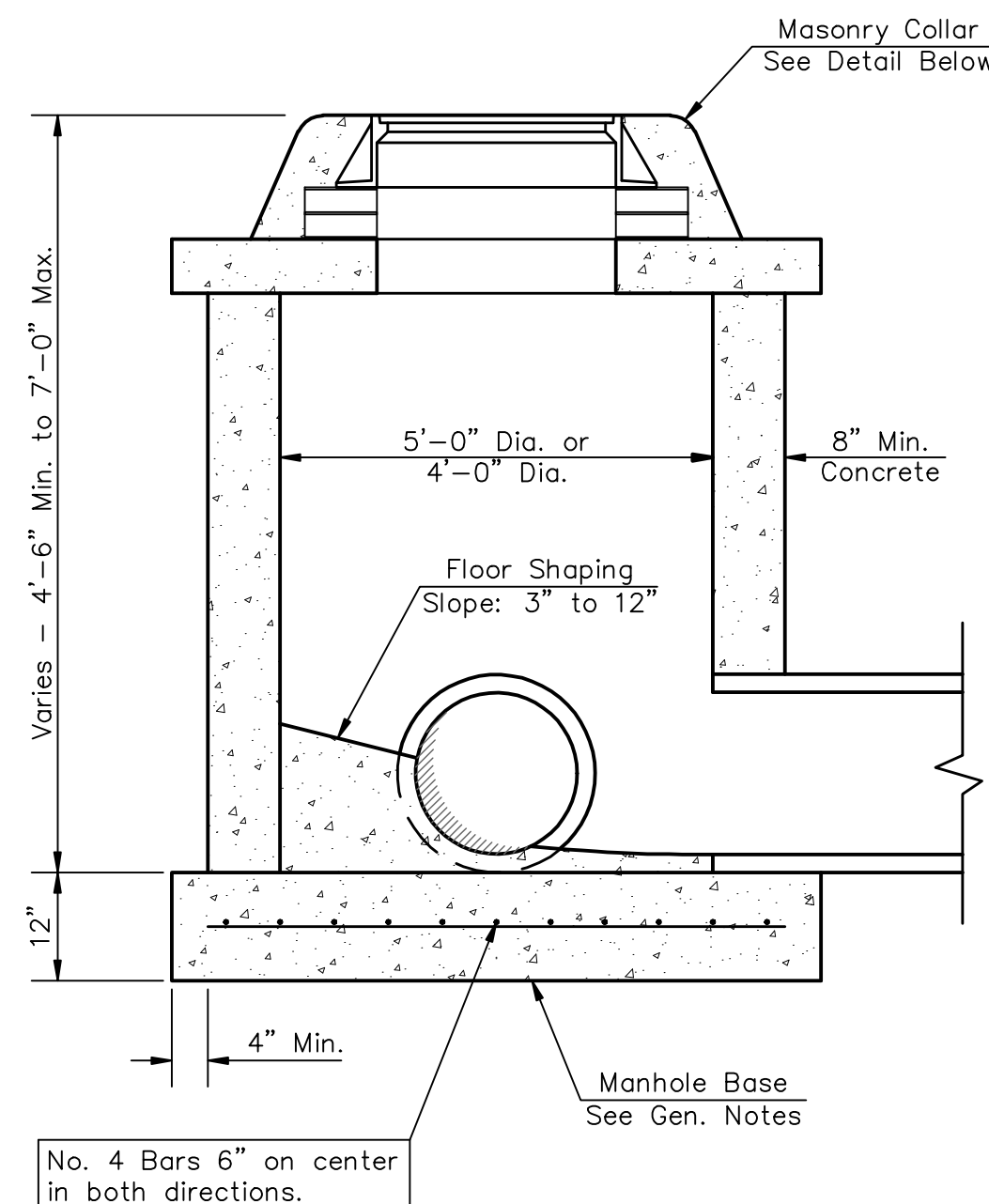
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**2**

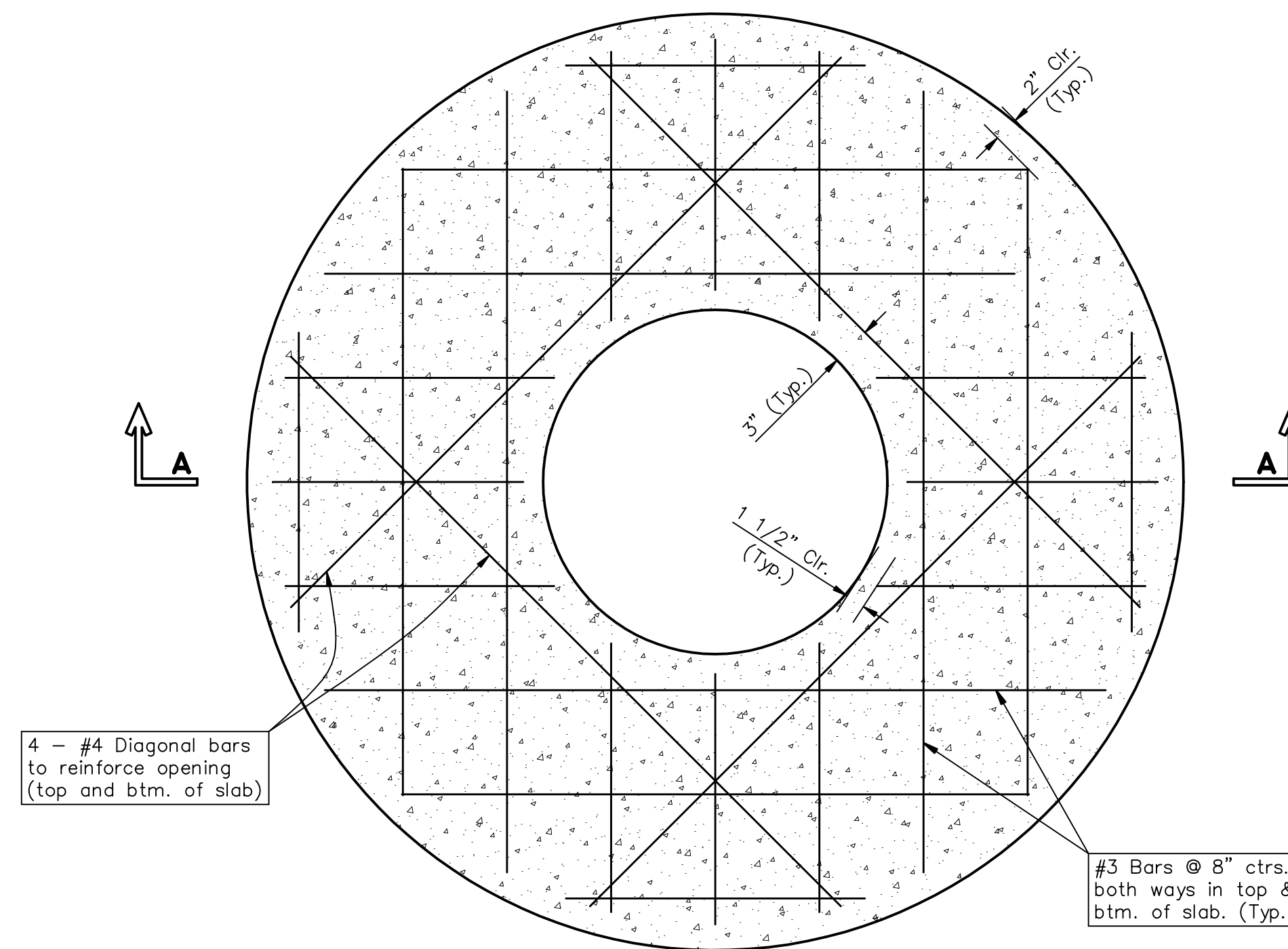
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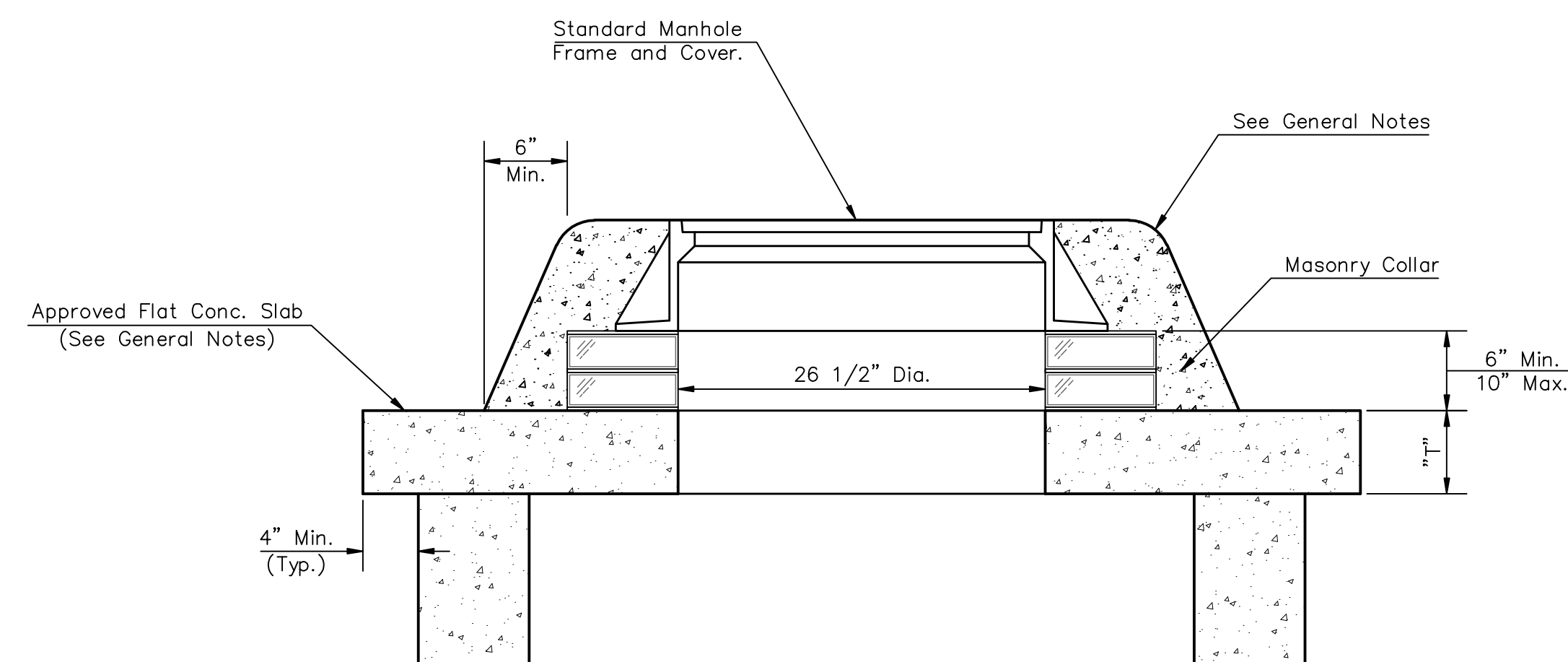
**SHALLOW TYPE "P" MANHOLE**



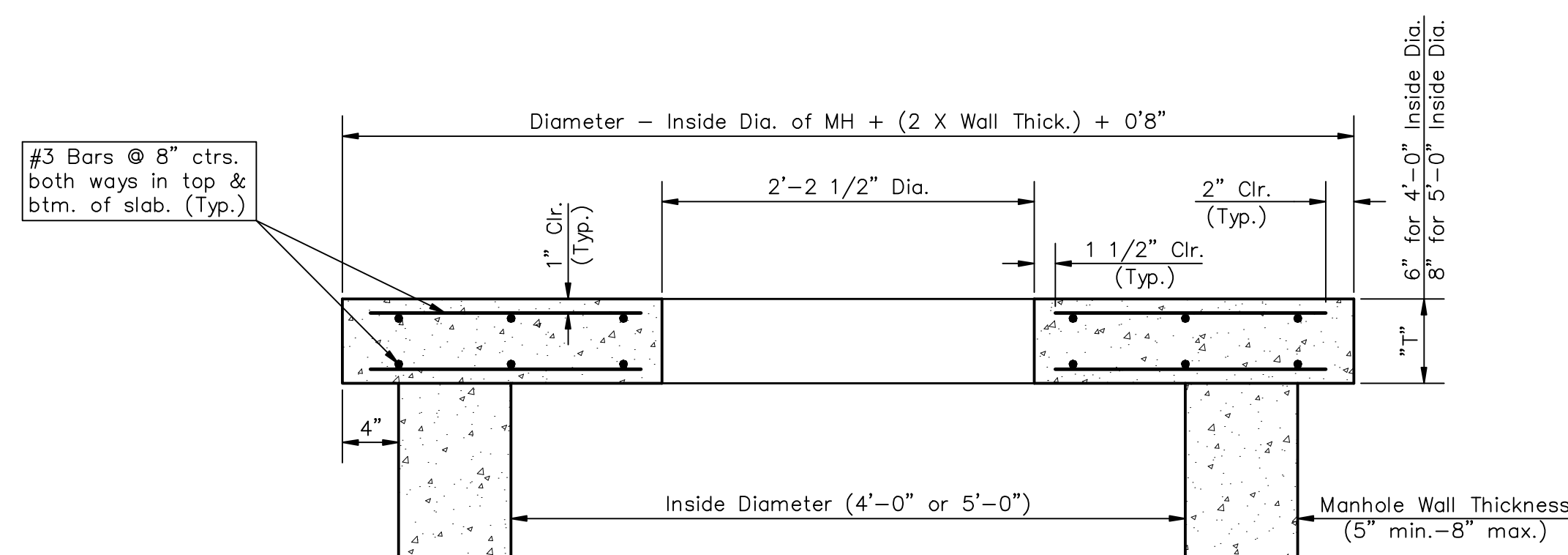
**SHALLOW TYPE "C" MANHOLE**



**PLAN**



**MASONRY COLLAR DETAIL**



**SECTION A-A  
FLAT CONCRETE SLAB DETAILS**

**GENERAL NOTES**

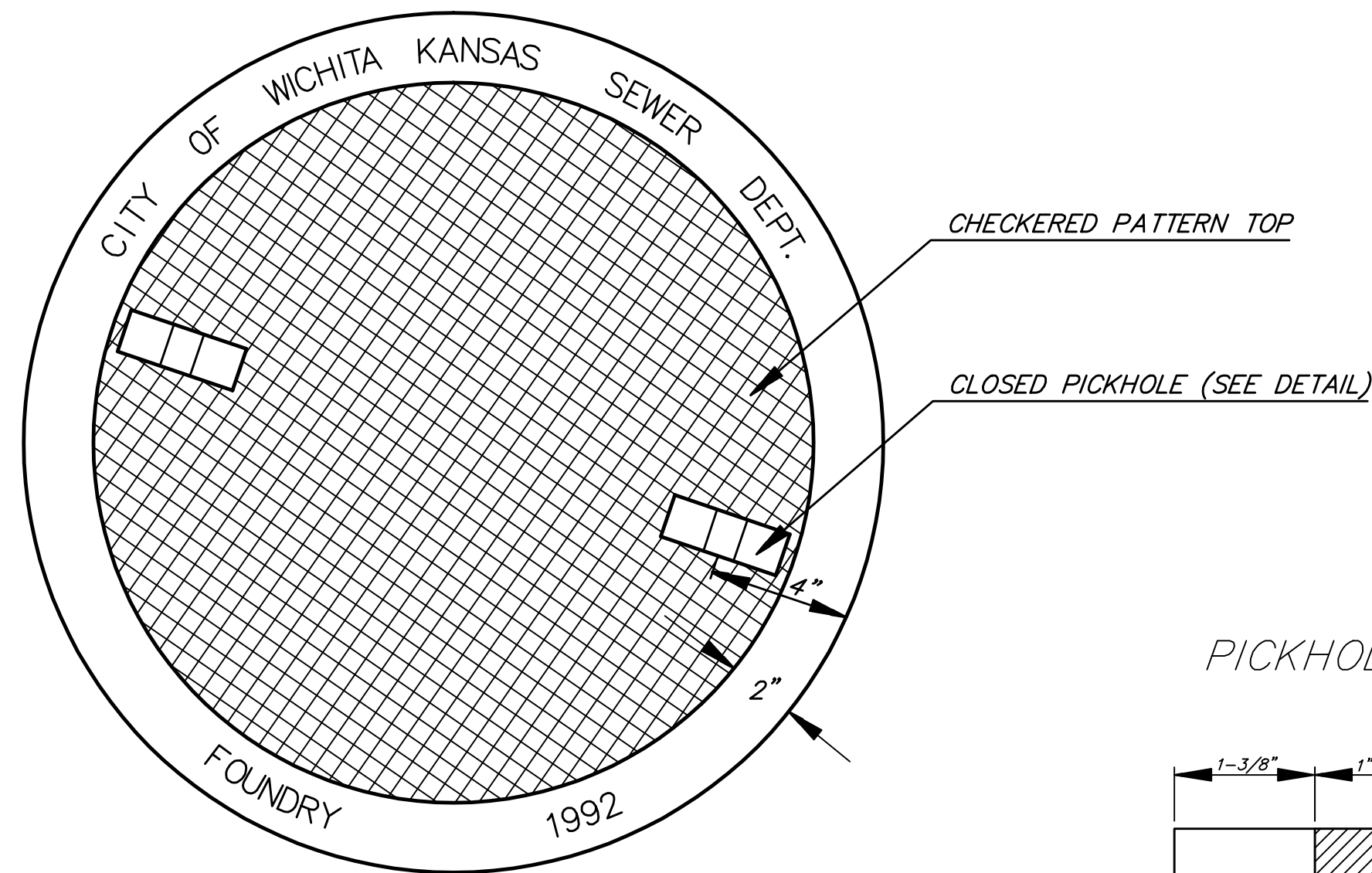
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. 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 "P" and "C" shall be paid for at the unit price bid per each for the type and diameter 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.

<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX</p>	<b>SHALLOW MANHOLES TYPE 'P' AND 'C'</b>	
	JAMES L. ARMOUR P.E. - CITY ENGINEER	
	PROJECT NUMBER <b>1963 PPS (607861)</b>	OCA # -
	DATE <b>2/09</b>	SHEET <b>3</b> OF <b>4</b>

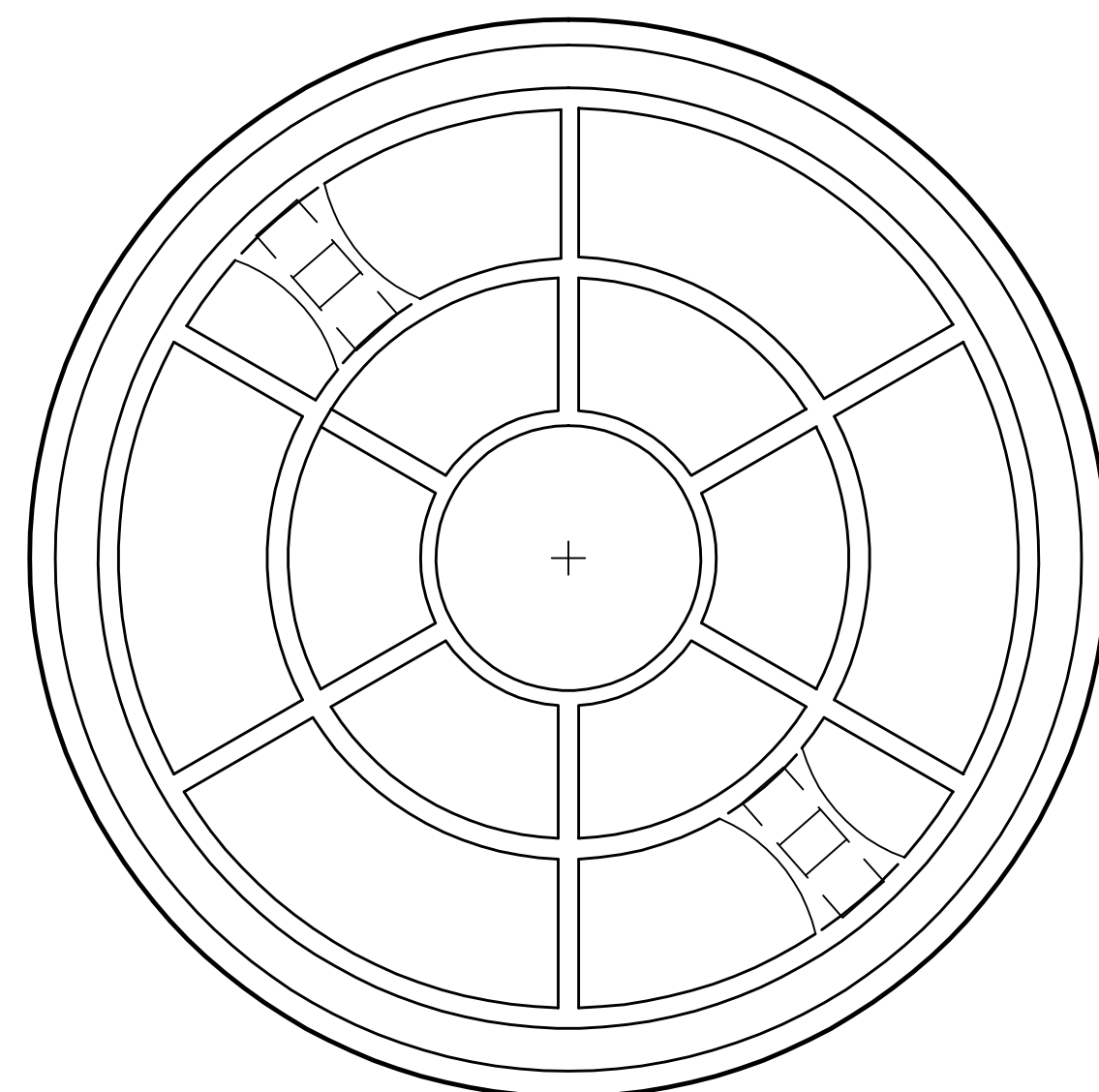
MANHOLE COVER  
Weight = 180 Lbs.

# MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY  
CITY OF WICHITA, KANSAS

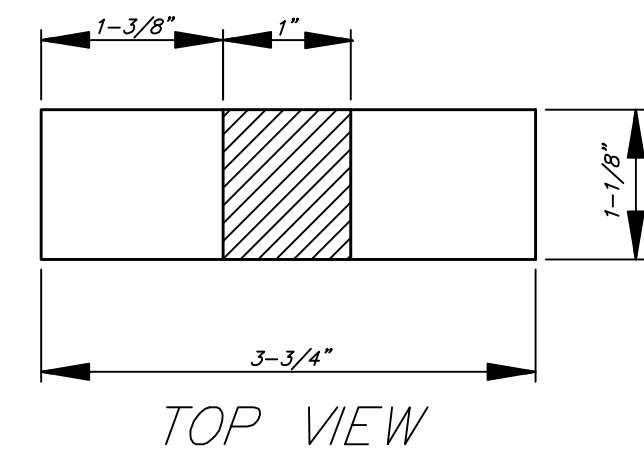


TOP VIEW

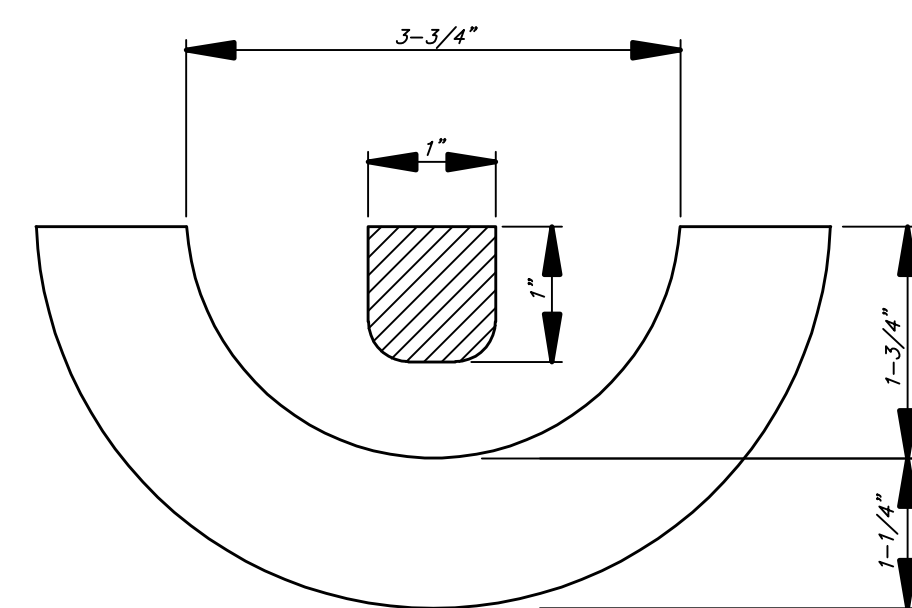


BOTTOM VIEW

PICKHOLE DETAIL

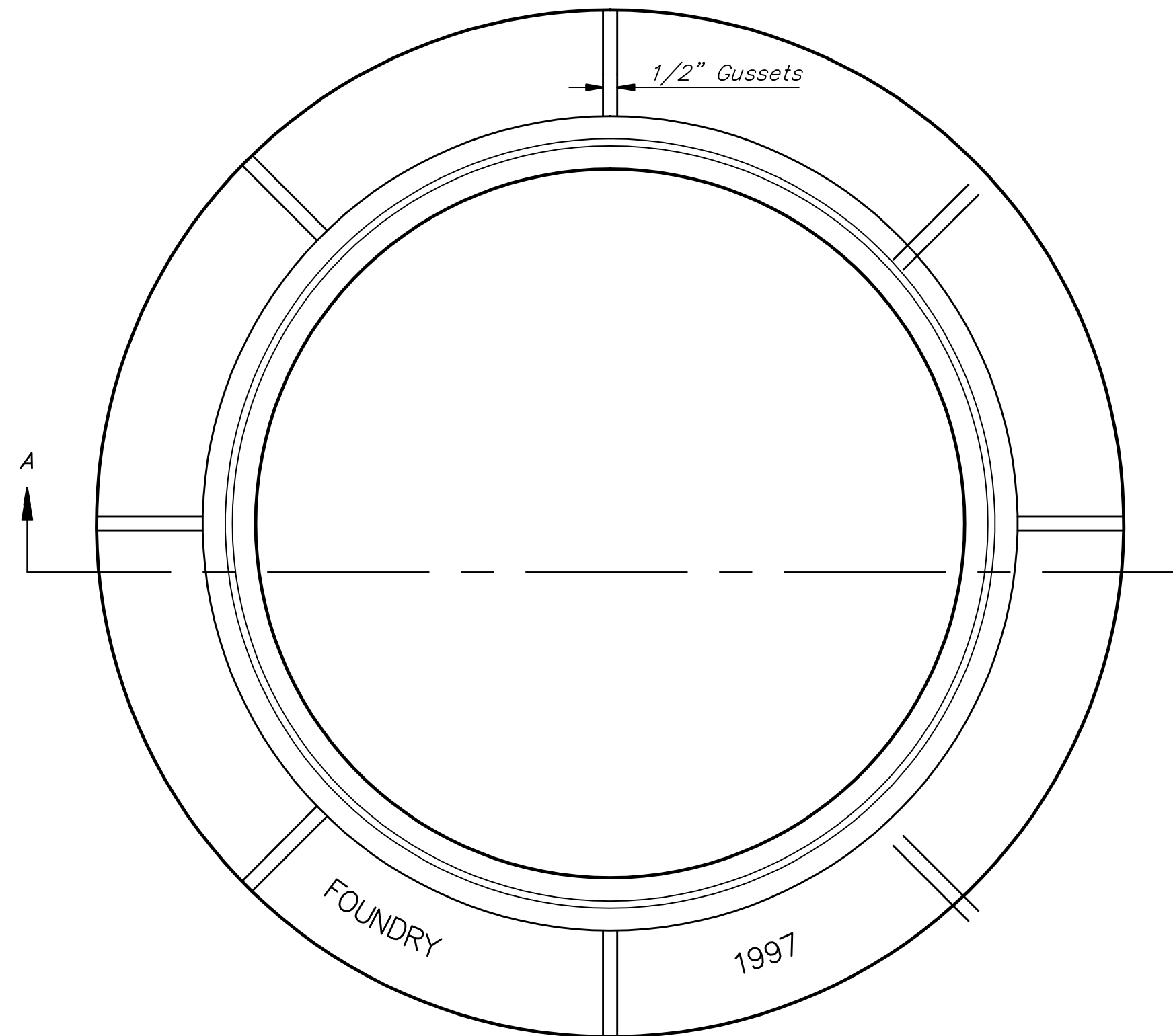


TOP VIEW



SECTION VIEW

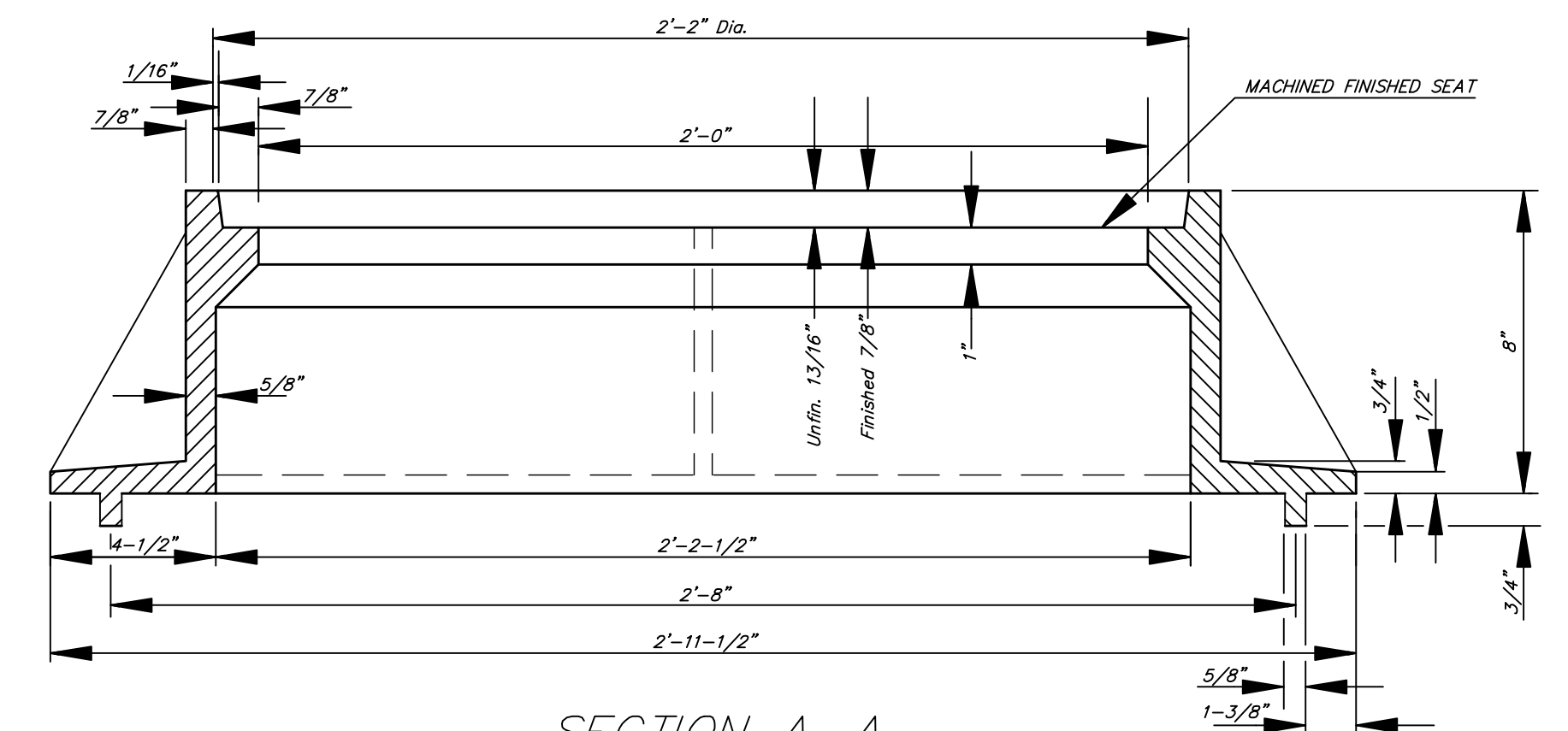
MANHOLE FRAME  
Weight = 240 Lbs.



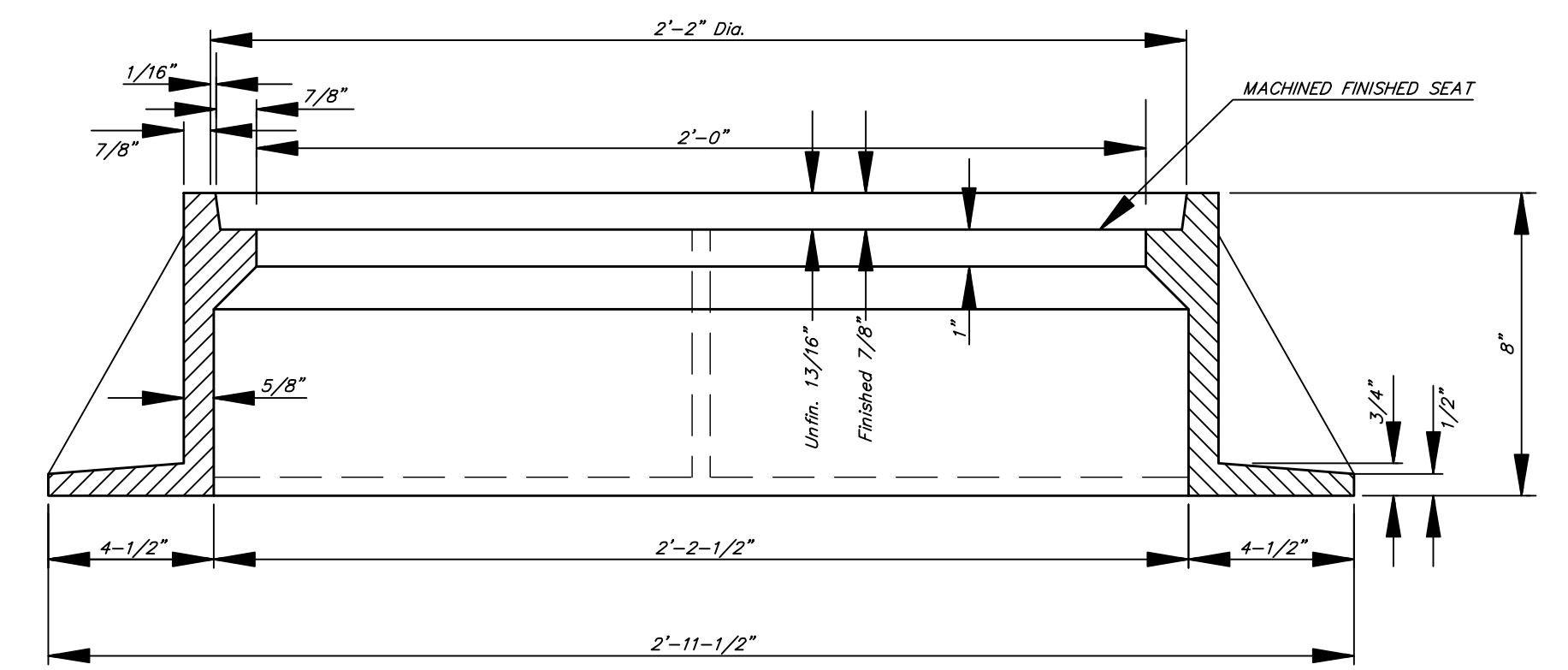
TOP VIEW

GENERAL NOTES

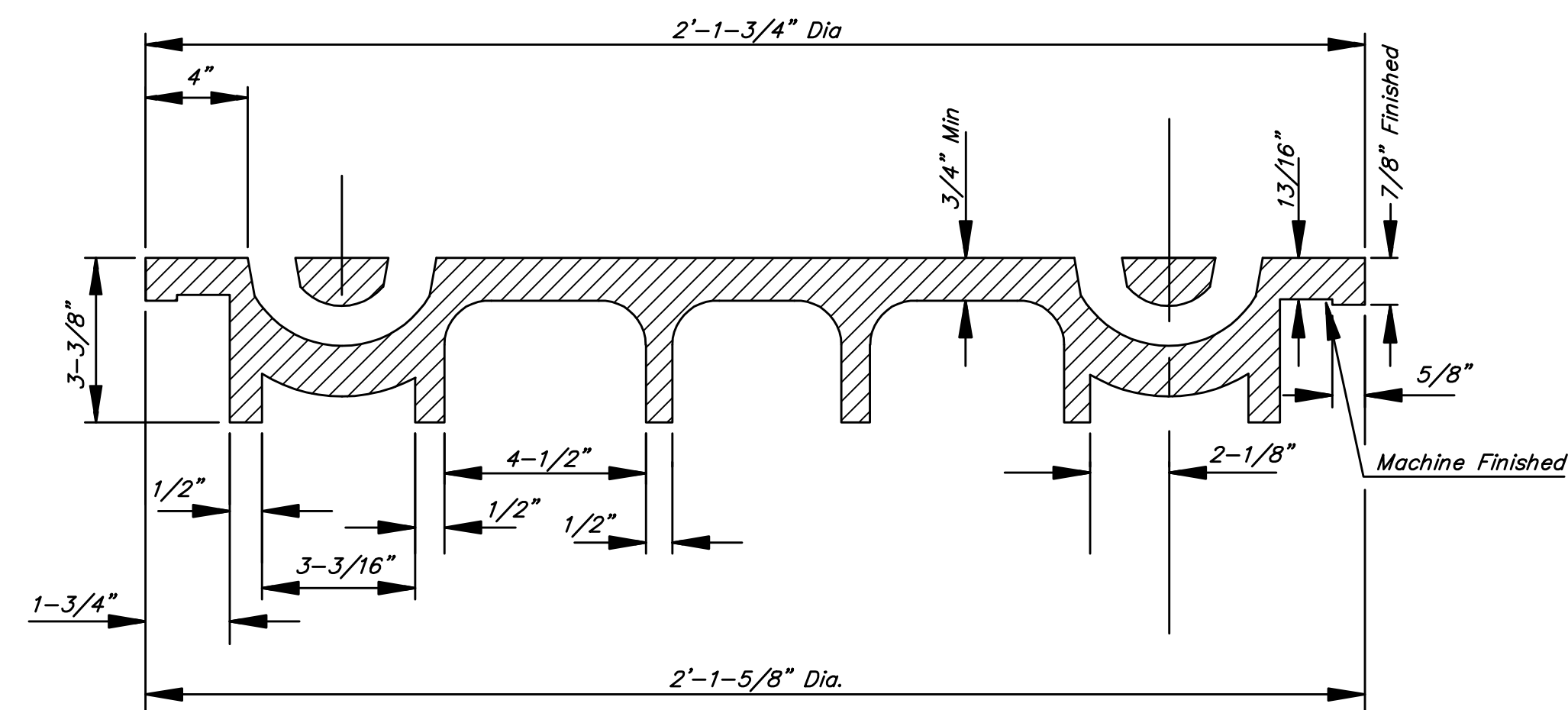
- MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
- MANHOLE CASTINGS SHALL WEIGH A MINIMUM OF 180 POUNDS ON THE SOLID COVER AND 240 POUNDS ON THE MANHOLE RING. THIS IS A TOTAL OF 420 POUNDS ON A RING AND COVER SET. CASTINGS WEIGHING LESS THAN THE MINIMUM SPECIFICATIONS WILL NOT BE ACCEPTED.
- 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 SEATING 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 INCH 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 SURFACE BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.



SECTION A-A  
MUD RING



SECTION A-A



SECTION VIEW

<p>THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX</p>	<b>MANHOLE FRAME AND COVER</b>	
	JAMES L. ARMOUR, P.E., L.S.	
	PROJECT NUMBER <b>1963 PPS (6078761)</b>	OCA # -
	DATE MAR 96	SHEET <b>4</b> OF <b>4</b>