

STORM WATER DRAIN To Serve WICHITA REGIONAL FIRE TRAINING ADDITION 0062 PPD O.C.A. 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

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

| | |
|-----------------------------------|----------------|
| Cox Communications | 260-7204 |
| Kansas Gas Service | 888-482-4950 |
| 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 (11) days advance notice prior to start of construction.

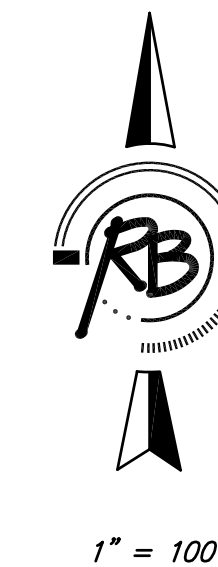
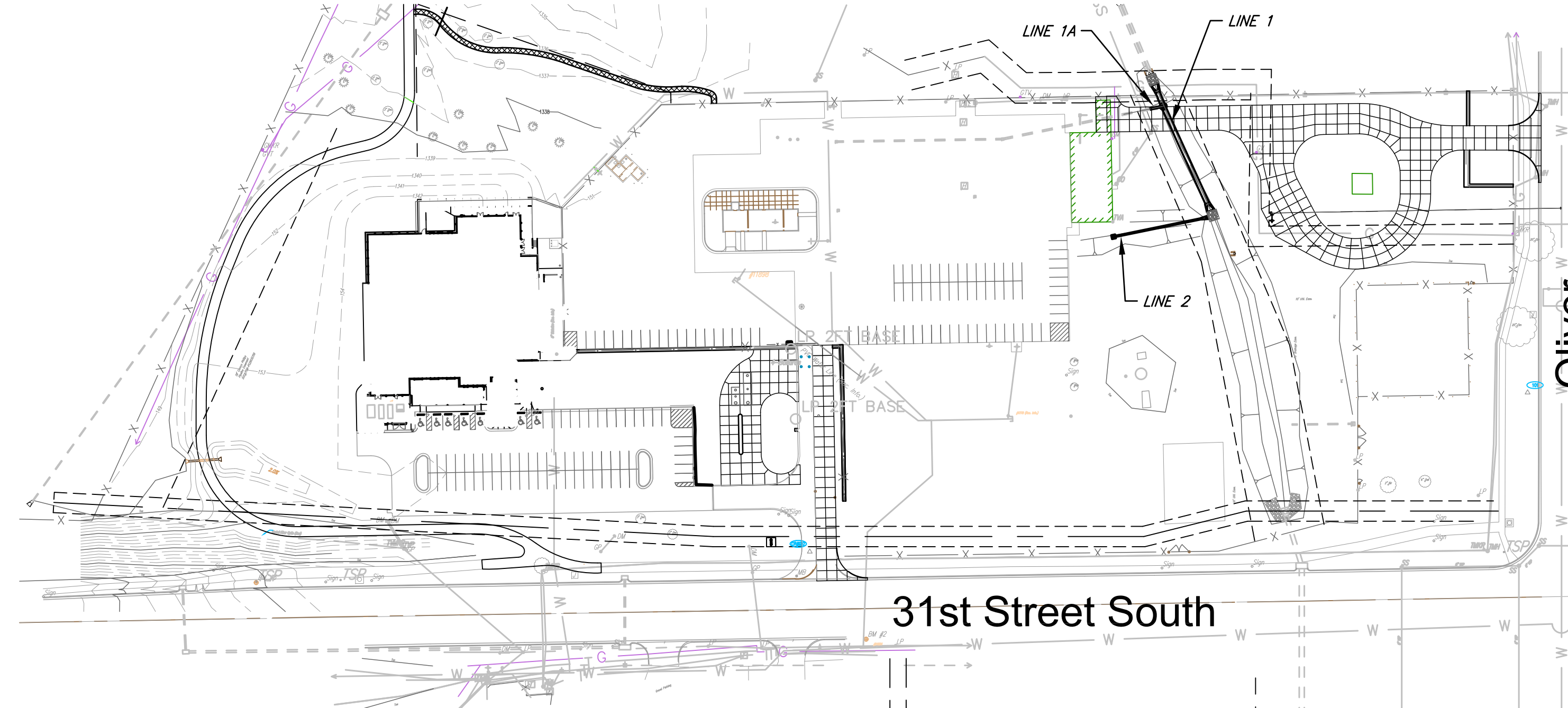
BENCH MARKS

BENCH MARK #1: COW Benchmark Disc in Traffic Signal Base on SE corner of intersection of Oliver and 31st St. South Elev. 1352.35 NGVD

BENCH MARK #2: COW Benchmark Disc in Traffic Signal Base on N side of 31st St. South at W line of Turnpike Drive Elev. 1353.45 NGVD

INDEX OF SHEETS

1. TITLE SHEET
2. SWS PLAN/PROFILE
3. WATER QUALITY TREATMENT AREA PLAN
4. DROP INLET DETAIL
5. MANHOLE DETAIL

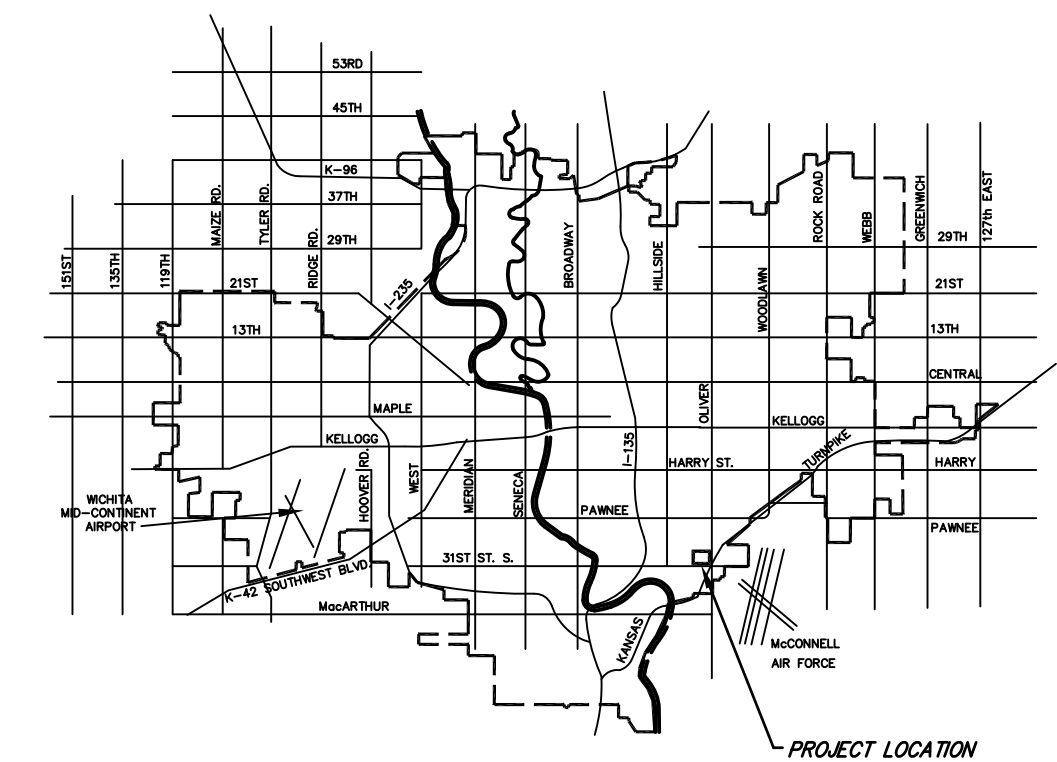


APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Engineering *Johann Kallman 9-4-12*
Stormwater *StC-RK 9-12-12*

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.



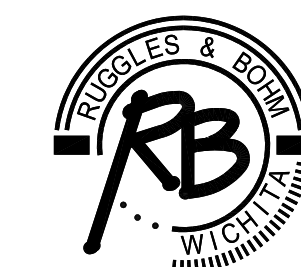
VICINITY MAP

AS-BUILT 1-13-2014
Contractor: Pearson Excavating, Inc.
Superintendent: Dan Clevenger
Inspector: Tony Young (Ruggles & Bohm, P.A.)

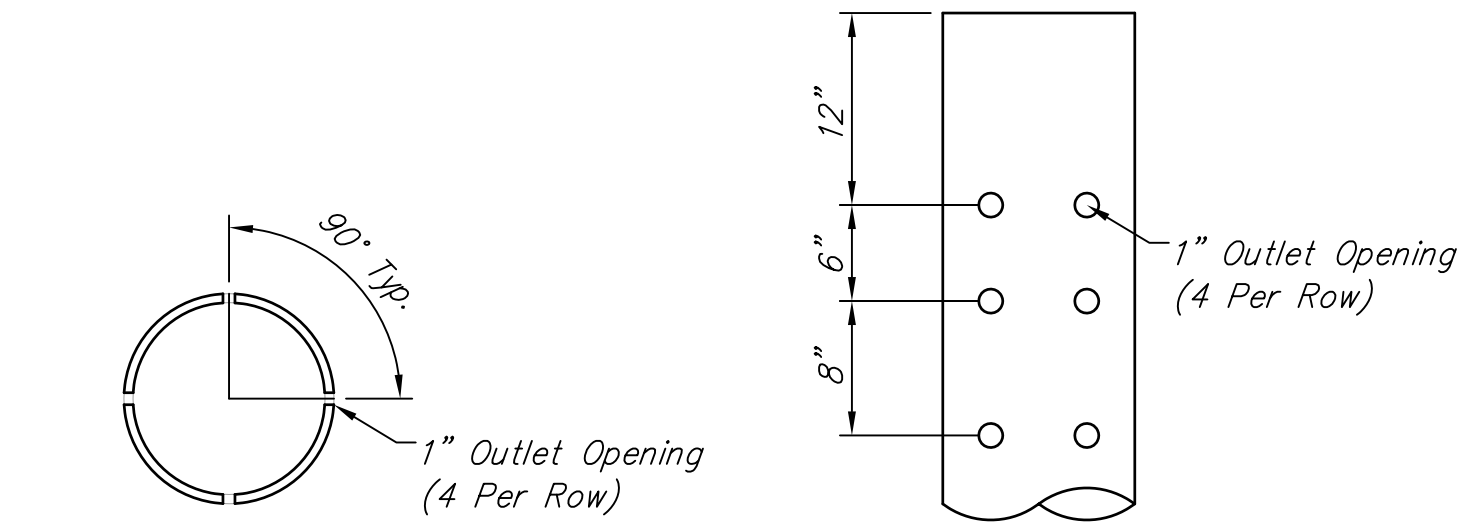
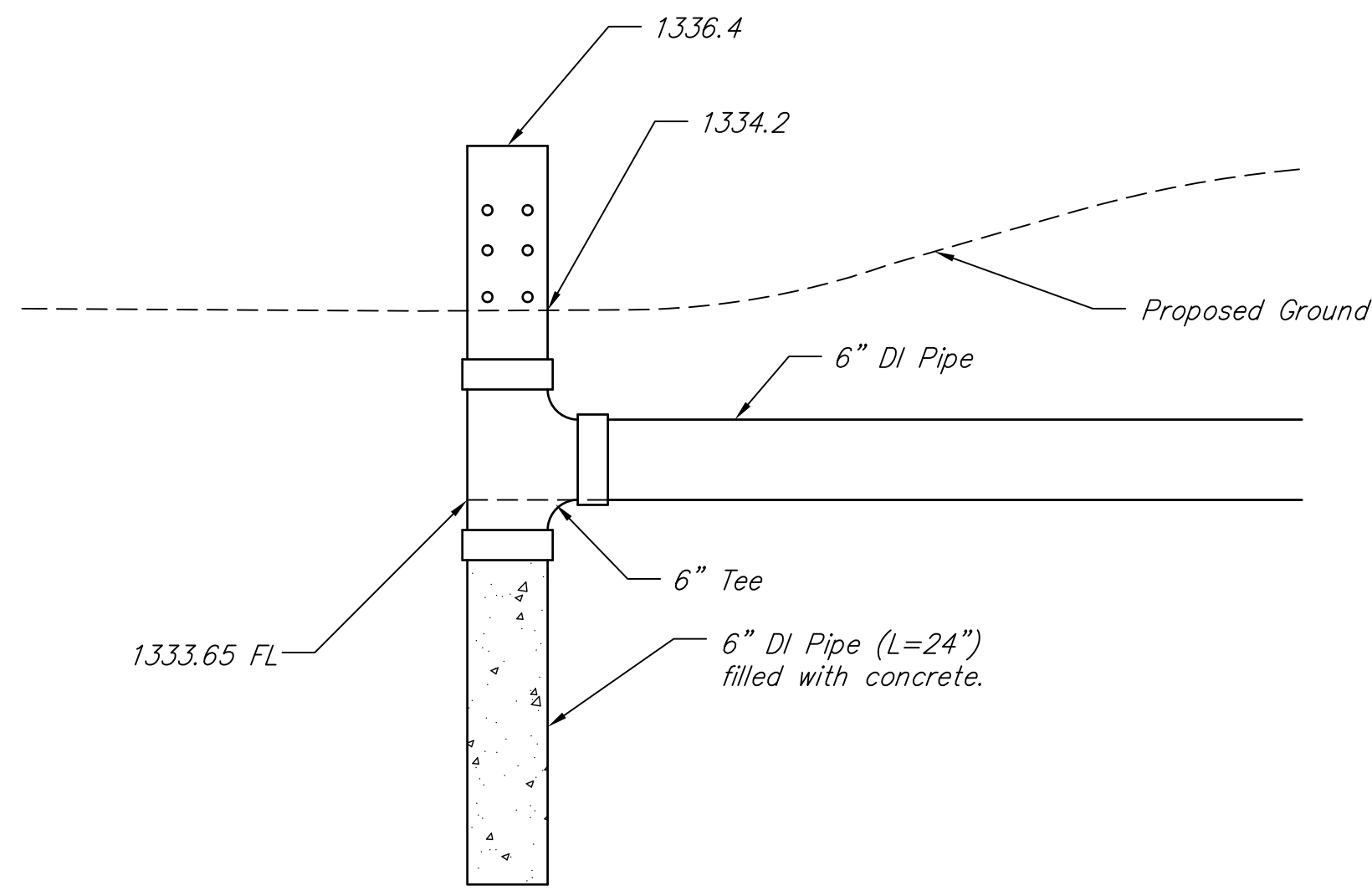
IMPROVEMENT DISTRICT



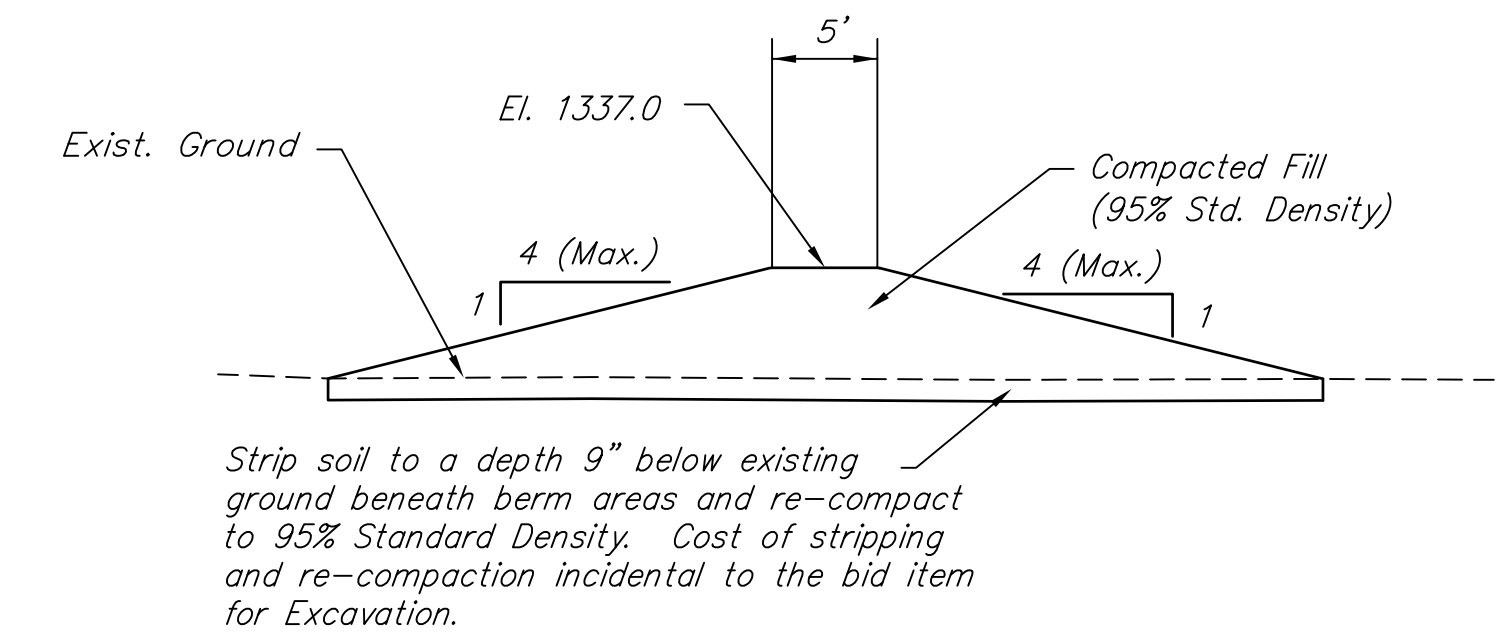
**CITY OF WICHITA, KANSAS
JAMES ARMOUR, P.E. - CITY ENGINEER**



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

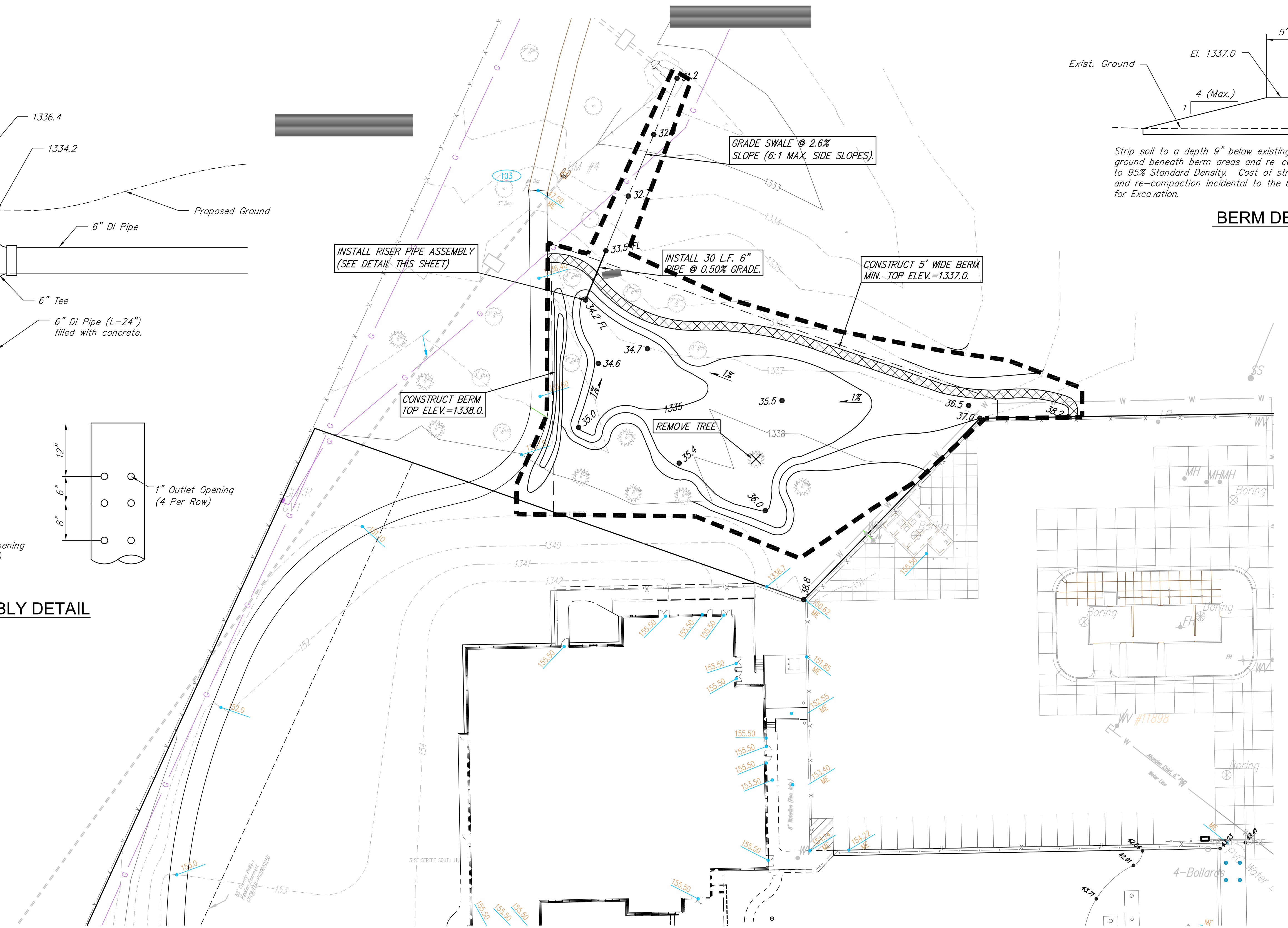
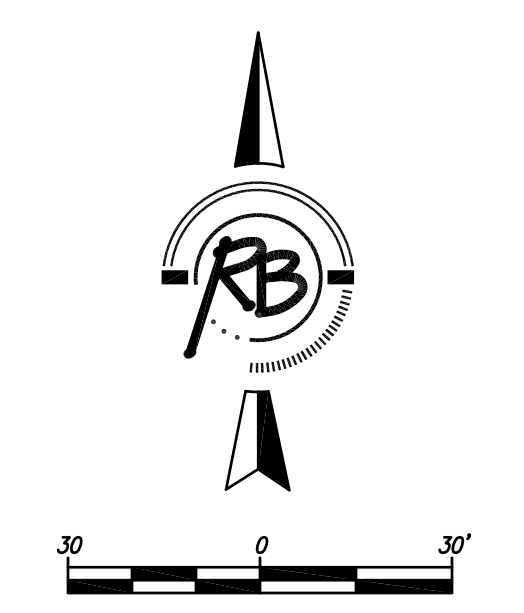


RISER PIPE ASSEMBLY DETAIL



Strip soil to a depth 9" below existing ground beneath berm areas and re-compact to 95% Standard Density. Cost of stripping and re-compaction incidental to the bid item for Excavation.

BERM DETAIL



WATER QUALITY STORAGE

| ELEVATION | AREA | STORAGE BELOW |
|--------------|-------|-----------------|
| 1334.2 | 0 | 0 |
| 1335.0 | 2654 | 1061 |
| 1336.0 | 9967 | 6311 |
| 1336.4 | 14254 | 4844 |
| TOTAL | | 12216 cf |

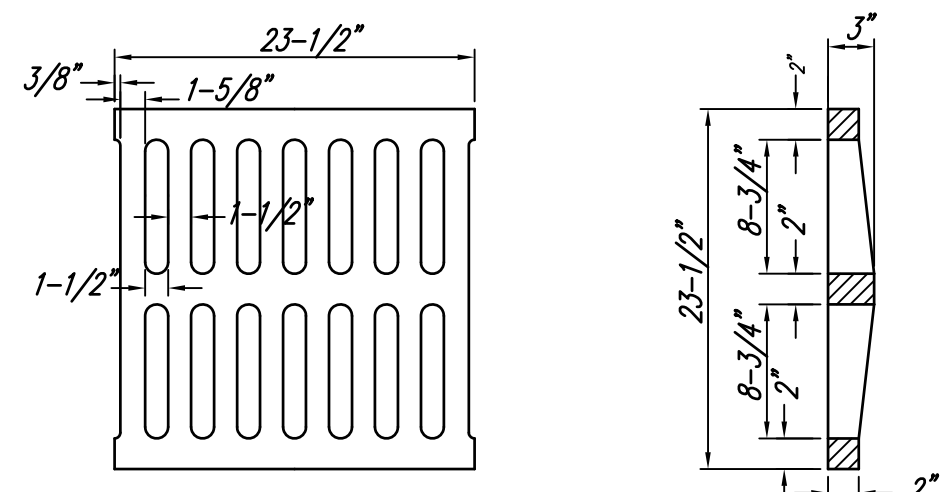
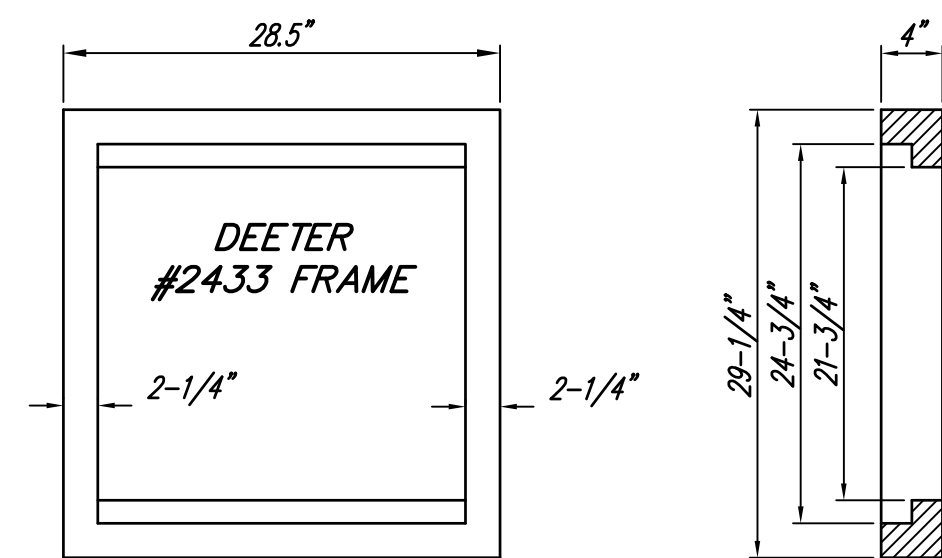
11326 Required
(from supporting documents)

AS-BUILT 1-13-2014
Contractor: Pearson Excavating, Inc.
Superintendent: Dan Clevenger
Inspector: Tony Young (Ruggles & Bohm, P.A.)

- NOTES:**
- 1) MAXIMUM SLOPE FOR GRADING SHALL BE 4:1.
 - 2) WASTE EXCESS DIRT IN BERMS AS DIRECTED BY THE OWNER.
 - 3) NO GRADING TO BE DONE WITHIN 5' OF EXISTING TREES.

**WICHITA FIRE TRAINING CENTER
WATER QUALITY TREATMENT AREA
WICHITA, KANSAS**

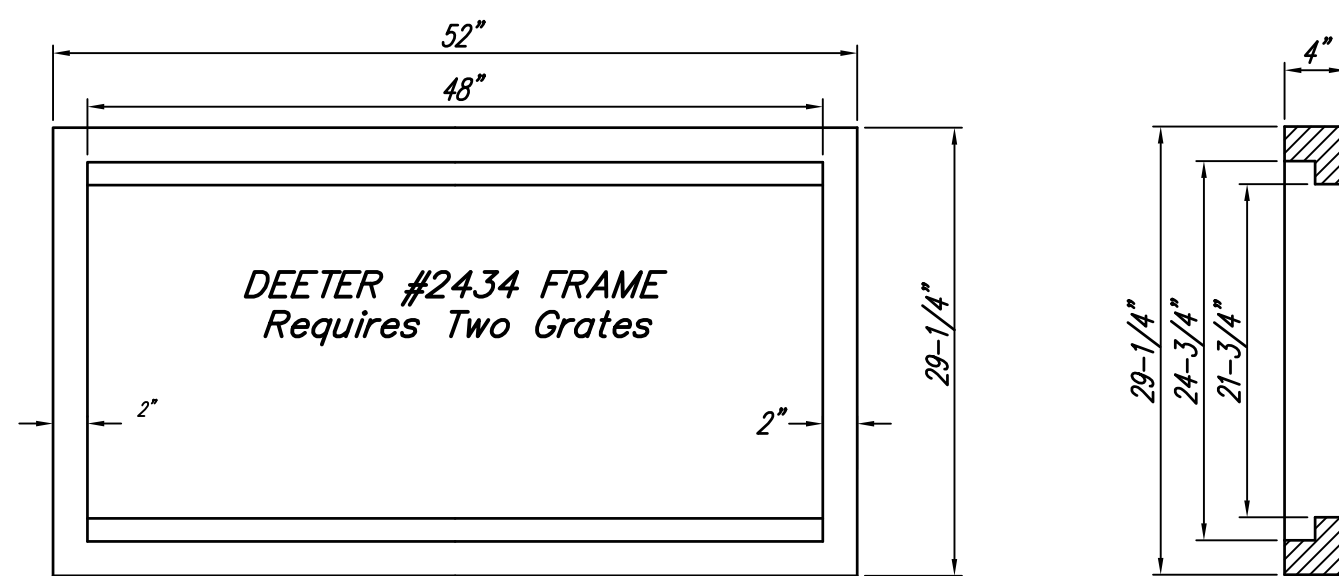
| | | | |
|----------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|
| | RUGGLES & BOHM | ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE GOVERNMENT | DATE Aug. 27, 2012 |
| | 924 NORTH MAIN WICHITA, KANSAS 67208 P (316) 264-8008 F (316) 264-4621 WWW.RBKANSAS.COM | PROJECT NUMBER 0062 PPD | RB JOB NO. 3849E |
| DRAWING FILE revised base {WQ Plan} | | | DESIGN KWL DRAWN MP/KWL REVIEW SHEET 3 OF 5 |



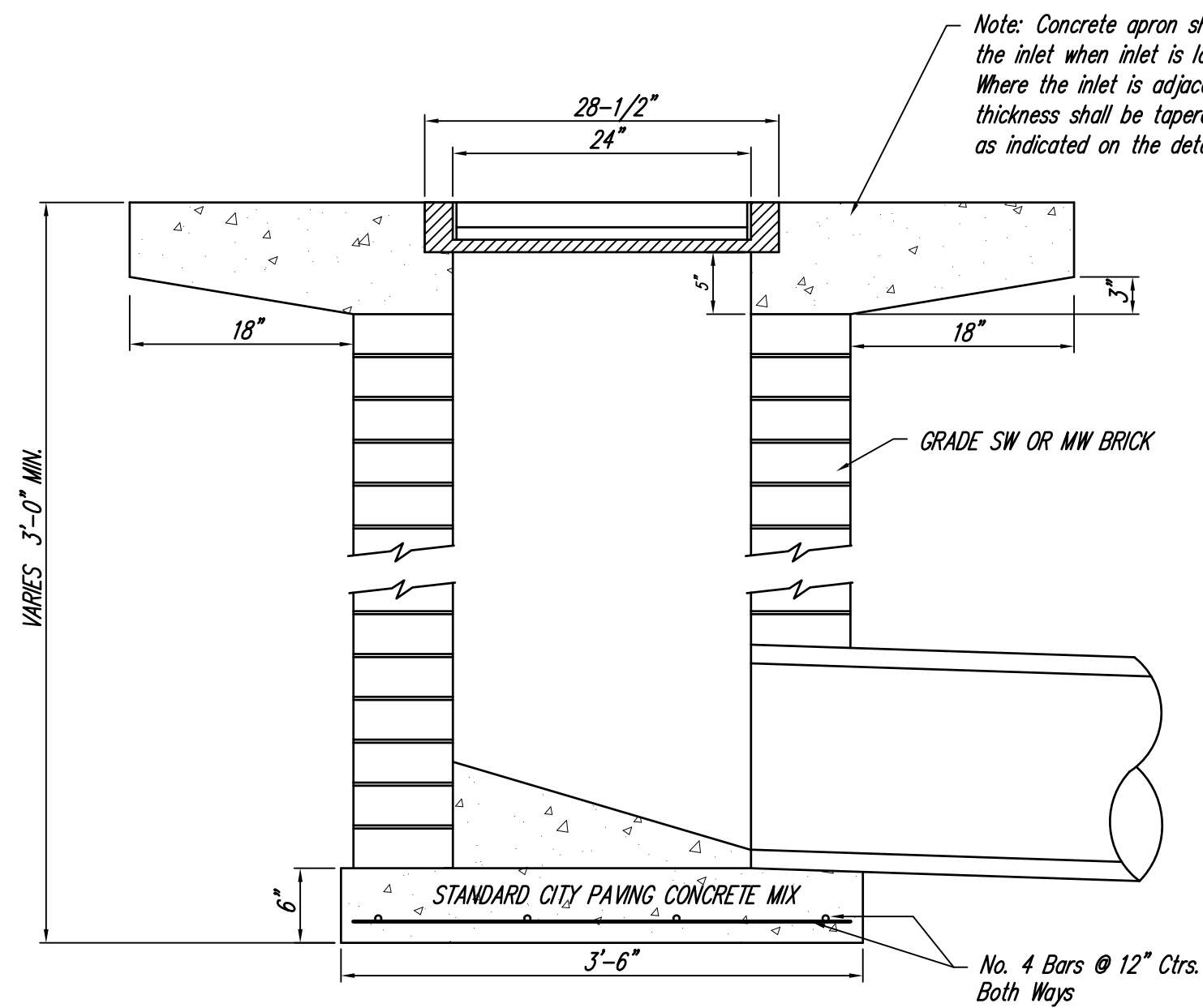
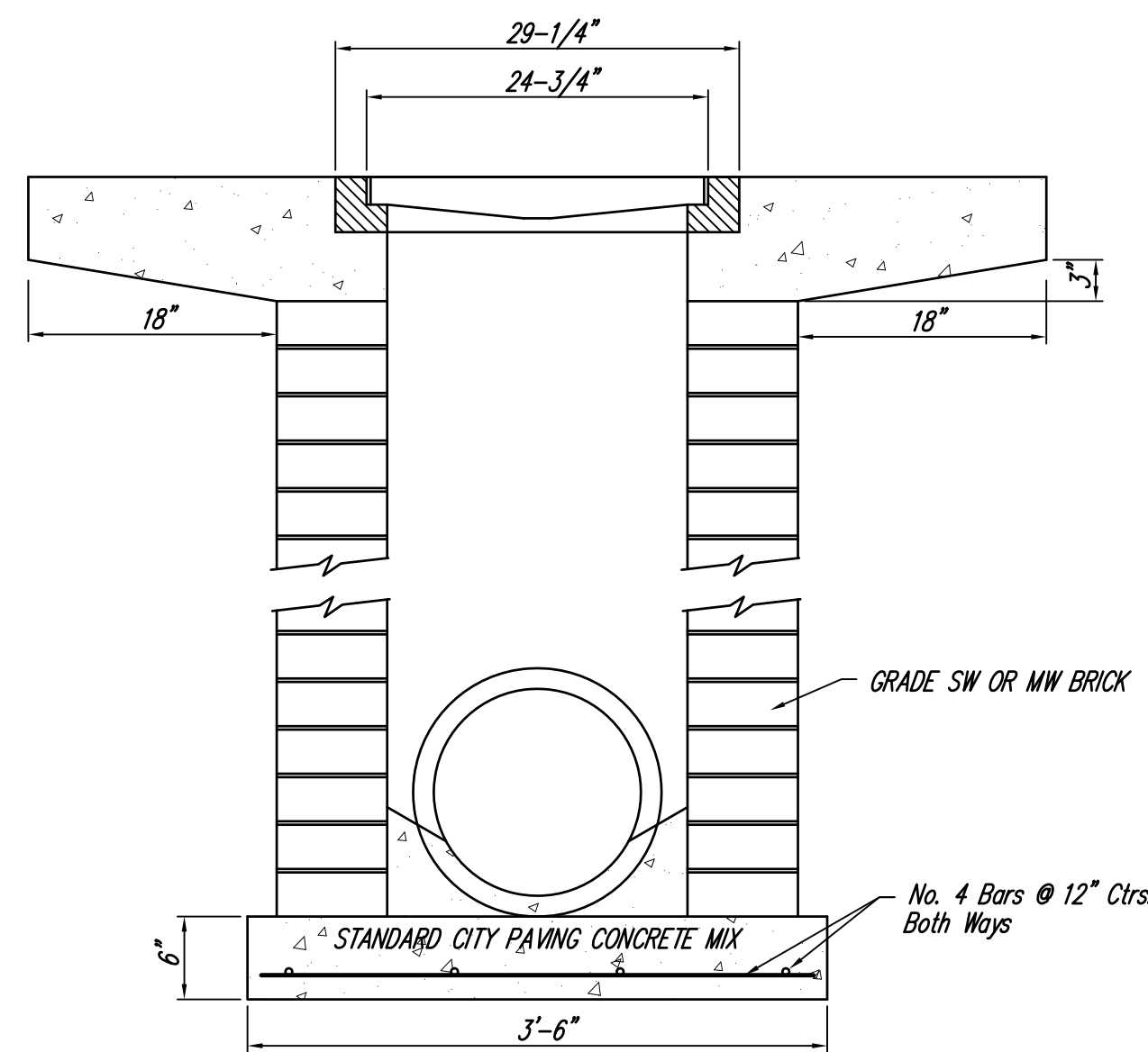
DEETER #2433 GRATE

24" x 24" Frame and Grate Detail

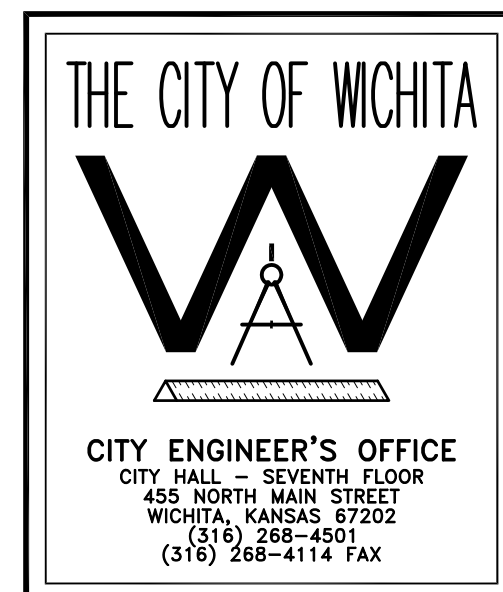
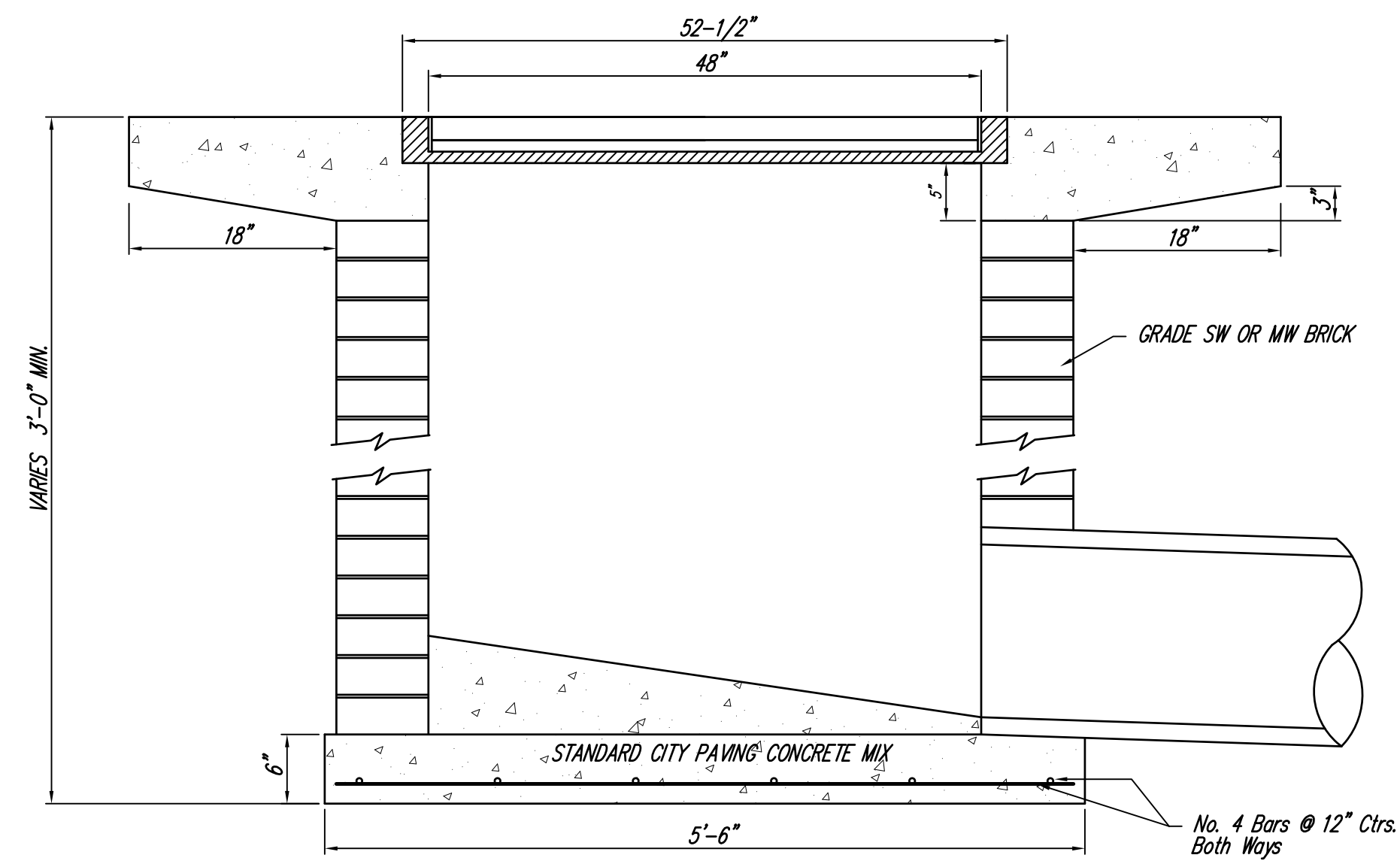
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.



Double 24" x 24" Frame Detail



Note: Concrete apron shall be constructed around the inlet when inlet is located in an unpaved area. Where the inlet is adjacent to pavement, the pavement thickness shall be tapered to the inlet in 18 inches as indicated on the detail.

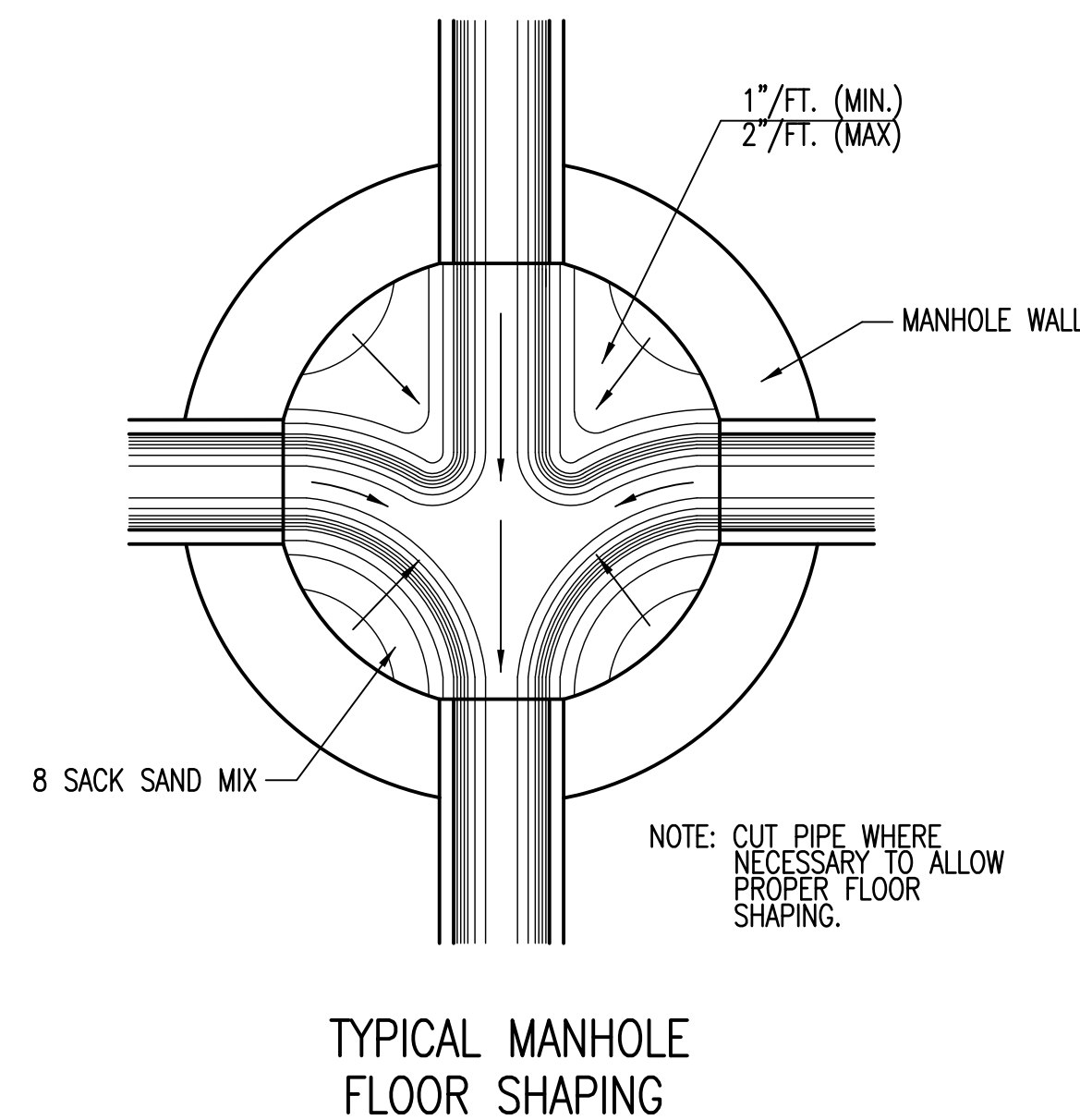
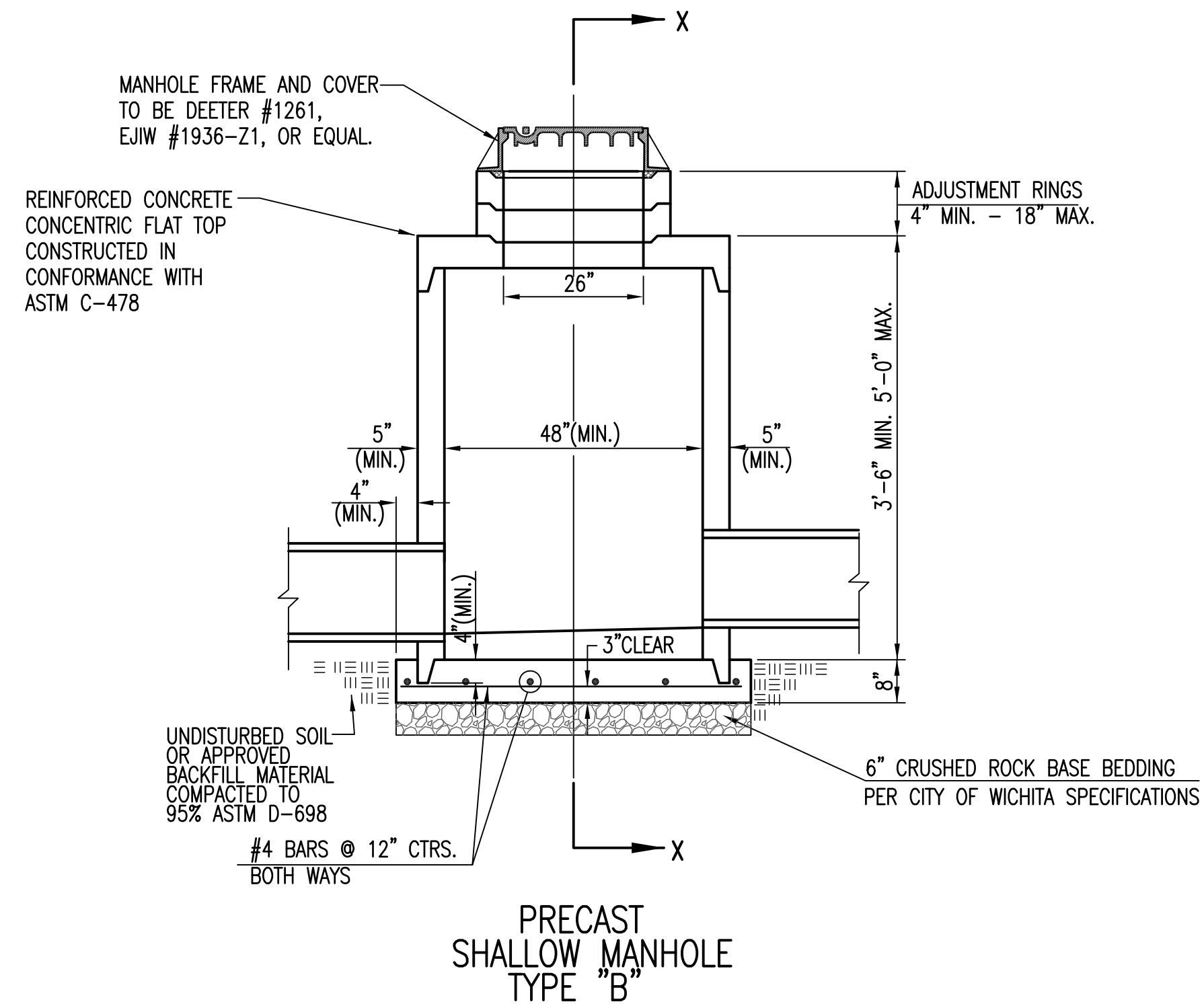
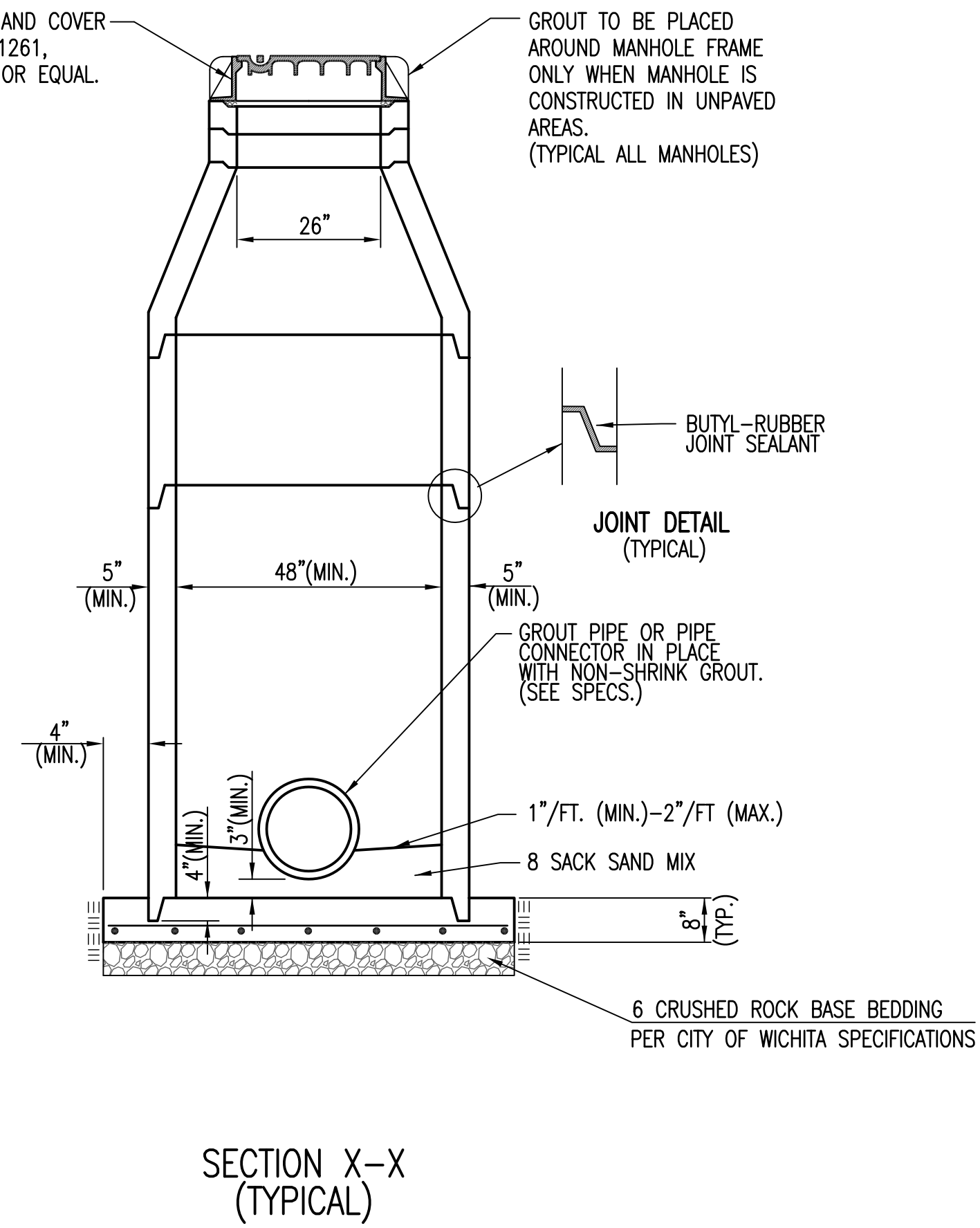
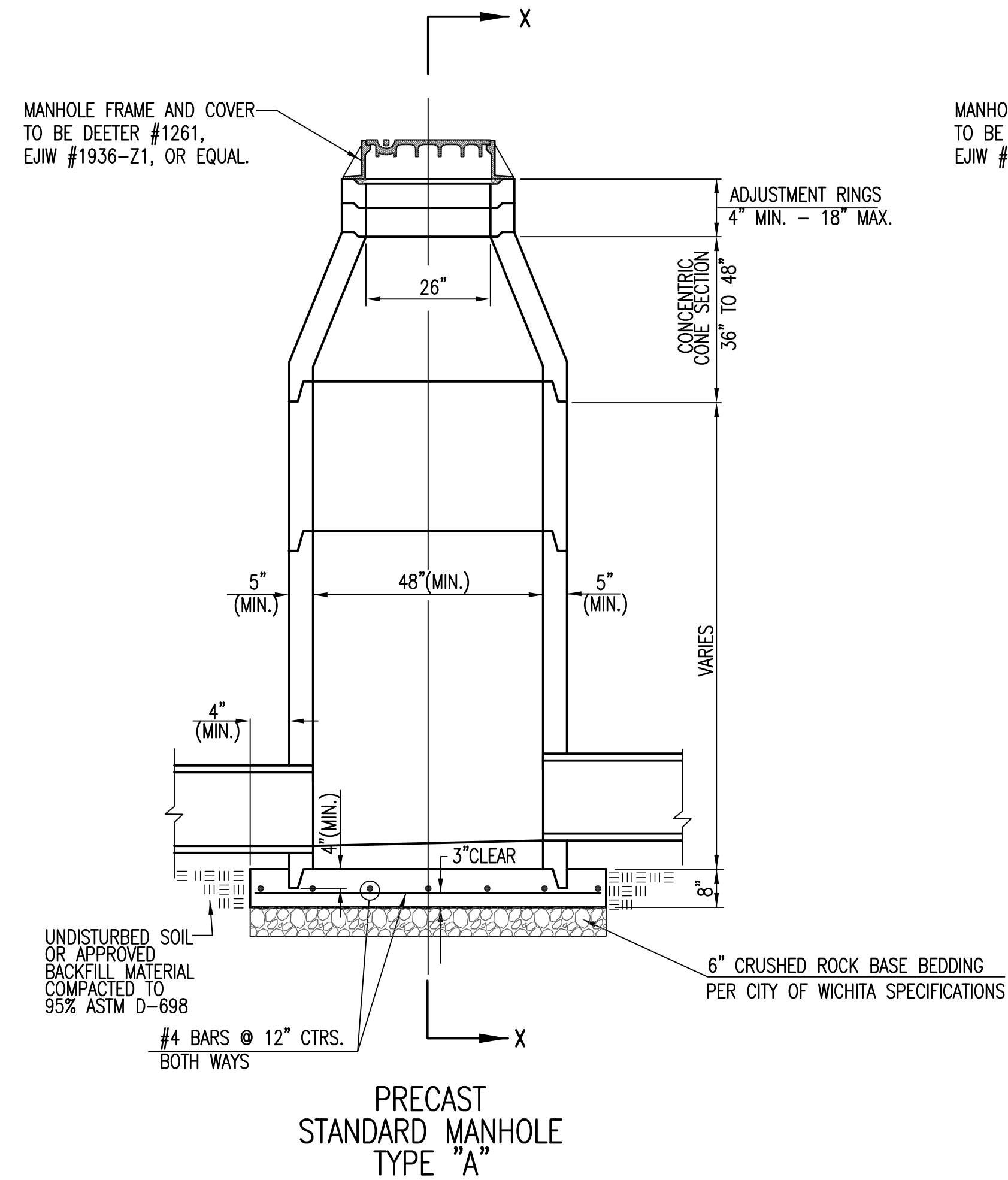


CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

DROP INLET
2'x2' / 2'x4'

PROJECT NUMBER OCA #

DATE MAR 96 SHEET 4 OF 5



GENERAL NOTES

- IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
- STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
- ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
- CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
- MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
- MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
- THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
- MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

**PRECAST CONCRETE
MANHOLE
(STORM SEWER)**

CITY ENGINEER
Gary Janzen, P.E.

| | | |
|----------------------------------------------------------------------------------------------------|------------|---------|
| PROJECT NUMBER | OCA NUMBER | DATE |
| | | 11/2010 |
| CITY ENGINEER'S OFFICE | DESIGN | DRAWN |
| CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | SHEET |
| | | 5 of 5 |