

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:

KANSAS ONE-CALL 687-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

| | |
|----------------------------|----------------|
| AT&T | 1-800-246-8464 |
| BLACK HILLS ENERGY | 1-800-694-9989 |
| CITY OF WICHITA WATER | 1-316-268-4555 |
| CITY OF WICHITA SEWER | 1-316-268-4073 |
| CITY OF WICHITA STORMWATER | 1-316-268-4090 |
| TECH OF WICHITA TRAFFIC | 1-316-268-4034 |
| COX COMMUNICATIONS | 1-888-249-3530 |
| KANSAS GAS SERVICE | 1-888-482-4950 |
| WESTAR ENERGY | 1-800-544-4857 |

3. UTILITY SERVICE LINES, POLES, ETC. 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. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

4. 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, IN THE OPINION OF THE ENGINEER, THAT 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 OR 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.

5. 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.

6. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.

7. 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.

8. THE WATER DISTRIBUTION DIVISION 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, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES.

9. THE CONTRACTOR SHALL NOTIFY THE CONSULTANT ENGINEER AND TOM MASON AT 316-268-4574 WITH THE CITY OF WICHITA WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION, STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

10. IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER, BRIAN COON AT TRAFFIC@WICHITA.GOV BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTORS RESPONSIBILITY.

11. ALL ELEVATIONS SHOWN ARE U.S.G.S. DATUM (NAVD 88).

12. ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.

13. A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDING AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUND SHALL BE CONSTRUCTED WITH NEW DEVELOPMENT A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP TO THE MANHOLE.

14. GEOTECHNICAL REPORT AVAILABLE UPON REQUEST.

15. CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPENINGS OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

16. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.

17. CITY MAINTENANCE OF STORM SEWER ENDS AT RIGHT-OF-WAY OR EASEMENT LINE.

18. ANY SIDEWALK, DRIVE APPROACH, OR STREET PAVEMENT REMOVED TO CONSTRUCT PROJECT MUST HAVE A PAVEMENT CUT PERMIT AND BE REPLACED BY THE CITY CONTRACTOR. PERMITS CAN BE OBTAINED BY CALLING 316-268-4501 OR 316-268-4480.

19. THE INSPECTING FIRM SHALL SUBMIT TO THE CITY STORMWATER MAINTENANCE DIVISION A DIGITAL COPY OF THE CCTV INSPECTION OF THE CONDUITS AND STRUCTURES FOLLOWING CONSTRUCTION. THE DIGITAL FILE FORMATION SHALL BE COMPATIBLE WITH THE CITY INPUT TEMPLATE. A COPY OF THE TEMPLATE IS AVAILABLE UPON REQUEST AT 316-268-4090.

20. ALL APPROVED EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE STOCKPILED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. STOCKPILE LOCATIONS SHALL BE AS DIRECTED BY THE OWNER AND IN ACCORDANCE WITH GENERAL NOTE NO. 4 ABOVE.

21. ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION.

22. THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 11 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.

23. THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING STORM WATER SEWER DURING CONSTRUCTION.

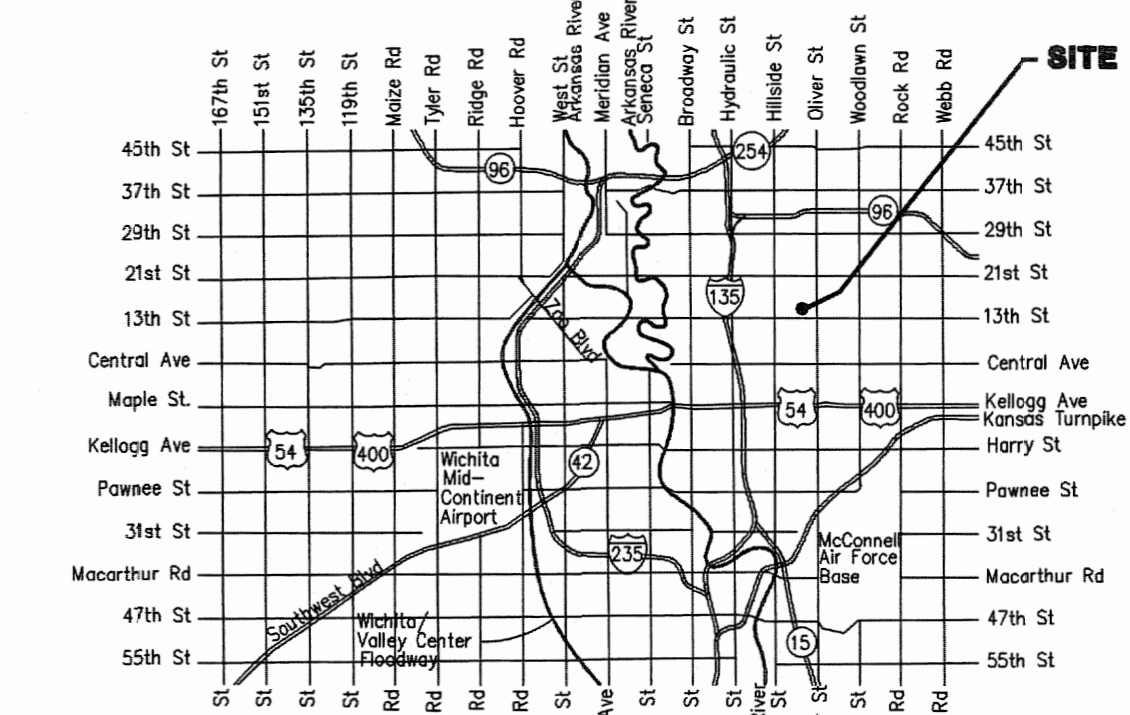
24. THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED. THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED ON THE EROSION CONTROL PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL SHOWN THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE BMP'S DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION.

BENCHMARKS

SEE SHEET NO. C-202 FOR BENCHMARKS AND HORIZONTAL CONTROL.

STORM SEWER IMPROVEMENTS WSU EXPERIENTIAL ENGINEERING BUILDING CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer
Project Number
0303 PPD (607861)



Vicinity Map

SHEET INDEX

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| SHEET NO. C-204 | STORM WATER SEWER LINE NO. 2 |
| SHEET NO. C-205 | STORM WATER SEWER LINE NO. 1 |
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| SHEET NO. C-208 | PRECAST STORM WATER SEWER MANHOLE |
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| SHEET NO. C-210 | STANDARD TYPE 1 CURB INLET |
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| SHEET NO. L-203 | GRADING PLAN |
| SHEET NO. L-204 | GRADING PLAN |
| SHEET NO. L-205 | EROSION CONTROL PLAN |
| SHEET NO. C-502 thru C-506 | EROSION CONTROL DETAILS |

SEE SHEET NO. C-202 FOR KEY MAP.

Stormwater Certification:
New Development or Redevelopment

These construction plans were prepared in accordance with the current Stormwater Management Regulations as set forth in the City of Wichita's Stormwater Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Stormwater Manual.

Disturbed Area = 286,047 SQ.FT. (6.57 ACRES)
Water Quality Treatment: Snout
Downstream Channel Protection: N/A
Detention:
The BMP used for this development is the Snout.

Site detention is provided with additional detention in ponds elsewhere on the overall site.

APPROVED AS NOTED
BY WICHITA PUBLIC WORKS ENGINEERING
AND STORMWATER DIVISION

Engineering *Roberta Zief* 8/10/2015
Stormwater *Joe Hinkle P.E.* 8/7/15

NOTE TO CONTRACTORS

Inspection and testing for this project is 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 in the state of Kansas. No work shall be performed by the Contractor without such inspection nor shall any work be commenced without written authorization by City Engineering. All Construction and Materials shall comply with the current City of Wichita Specifications and Standards and Special Provisions. (on file and available at Wichita.gov).

An approved copy of these plans signed by City staff are required on-site.

| AS BUILTS | |
|---|---|
| Contractor: Utilities Plus 8/30/2016 | Project Inspector: Larry Gann EMILLER ENGINEERING P.A. 117 E. Lewis, Wichita, KS 67202 (316)264-0242 |

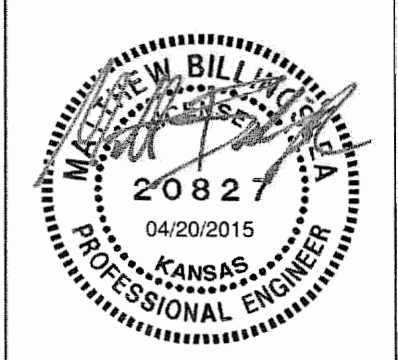
APRIL 2015

PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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316-262-2691 www.pec1.com

wdm
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REVISIONS

| # | ISSUE | DATE |
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PROJECT NUMBERS

State Project # A-1212430
State Work # 14001
PROJECT TYPE
CONSTRUCTION
APPROVED BY

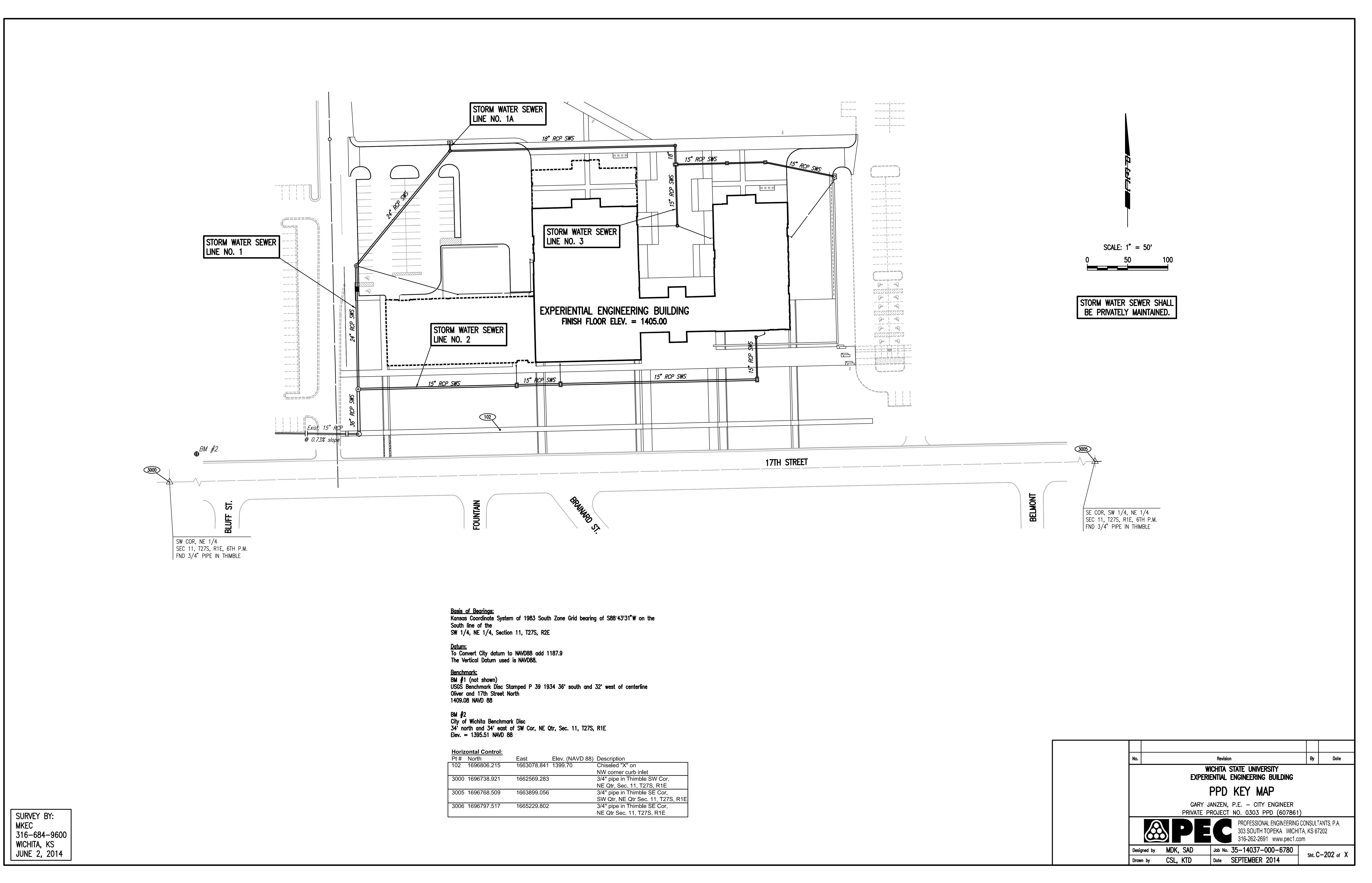
WICHITA STATE UNIVERSITY
FACILITIES PLANNING
WICHITA STATE UNIVERSITY
1845 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
TEL: 316-978-6850

Department of Administration
Office of Facilities & Procurement
Management Design, Construction
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1845 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Drawn By:
PEC

PPD TITLE
A-012430
C-201
ORIGINAL DOCUMENTS

Sheet 04-20-2015, 8:27:08 AM by CSL
 Plot Scale 1/4" = 20'-0" 6/28/14 AM by CSL
 U:\wchsh-civil\2014\14000\14037-000-C-202-PPK KEY MAP



SW COR, NE 1/4
 SEC 11, T27S, R1E, 6TH P.M.
 FND 3/4" PIPE IN THIMBLE

SE COR, SW 1/4, NE 1/4
 SEC 11, T27S, R1E, 6TH P.M.
 FND 3/4" PIPE IN THIMBLE

Basis of Bearings:
 Kansas Coordinate System of 1983 South Zone Grid bearing of S88°43'31"W on the South line of the SW 1/4, NE 1/4, Section 11, T27S, R2E

Datum:
 To Convert City datum to NAVD83 add 1187.9
 The Vertical Datum used is NAVD83.

Benchmarks:
 BM #1 (not shown)
 USGS Benchmark Disc Stamped P 39 1934 36' south and 32' west of centerline Oliver and 17th Street North
 1409.08 NAVD 88

BM #2
 City of Wichita Benchmark Disc
 34' north and 34' east of SW Cor, NE Qtr, Sec. 11, T27S, R1E
 Elev. = 1395.51 NAVD 88

Horizontal Control:

| Pt # | North | East | Elev. (NAVD 88) | Description |
|------|-------------|-------------|-----------------|--|
| 102 | 1696806.215 | 1663078.841 | 1399.70 | Chiseled "X" on NW corner curb inlet |
| 3000 | 1696738.921 | 1662569.283 | | 3/4" pipe in Thimble SW Cor, NE Qtr, Sec. 11, T27S, R1E |
| 3005 | 1696768.509 | 1663899.056 | | 3/4" pipe in Thimble SE Cor, SW Qtr, NE Qtr Sec. 11, T27S, R1E |
| 3006 | 1696797.517 | 1665229.802 | | 3/4" pipe in Thimble SE Cor, NE Qtr Sec. 11, T27S, R1E |

SURVEY BY:
 MKEC
 316-684-9600
 WICHITA, KS
 JUNE 2, 2014

| No. | Revision | By | Date |
|---|----------|---------|-------------------|
| WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING PPD KEY MAP GARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303 PPD (607861) | | | |
| | | | |
| PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2891 www.pec1.com | | | |
| Designed by | MDK, SAD | Job No. | 35-14037-000-6780 |
| Drawn by | CSL, KTD | Date | SEPTEMBER 2014 |
| | | | Sh. C-202 of X |

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REVISIONS

| # | ISSUE | DATE |
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PROJECT NUMBERS
 State Project # A-012430
 State Work # 14037
 PROJECT TYPE
 CONSTRUCTION

APPROVED BY

WICHITA STATE UNIVERSITY
 FACILITIES PLANNING
 WICHITA STATE UNIVERSITY
 1845 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
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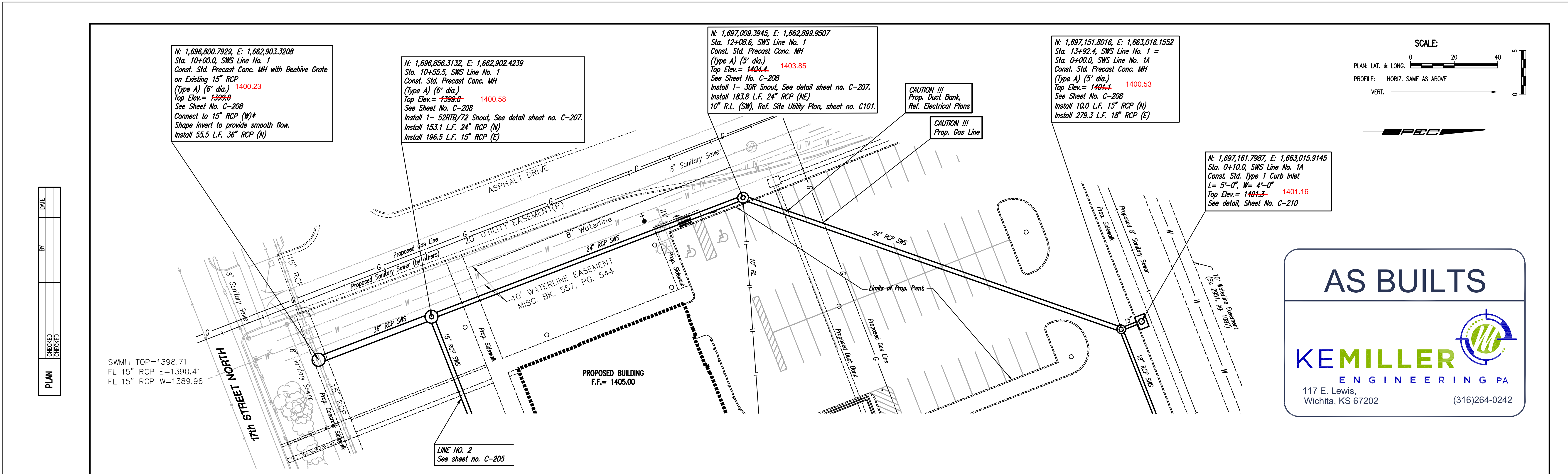
Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIMENTAL ENGINEERING BUILDING
 1845 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023

Drawn By: PEC
 Original Issue Date: April 20, 2015

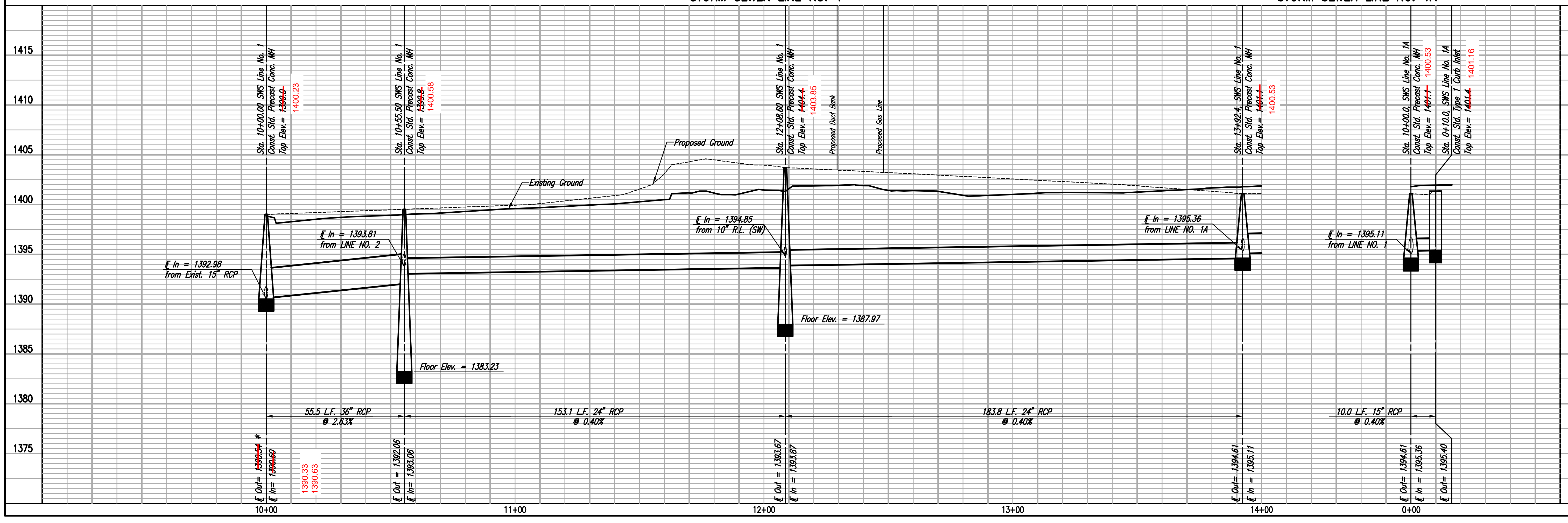
PPD KEY MAP
 A-012430
 C-202
 ORIGINAL CONSTRUCTION DOCUMENTS

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 Proj. Scale 1/4" = 20'-0" (2015) 6:28:24 AM by CSI
 U:\Working-CAD\2014\14000\14037\Site Civil\DWG\14037-000-C-203-STORM WATER SEWER LINE NO. 1 AND LINE NO. 1A



| PLAN | CHECKED | DATE |
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| PROFILE | CHECKED | DATE |
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AS BUILTS

117 E. Lewis,
 Wichita, KS 67202
 (316)264-0242

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|--|--|
| <p style="text-align: center;">STORM SEWER LINE NO. 1</p> <p style="text-align: center;">STORM SEWER LINE NO. 1A</p> | <p style="text-align: center;">WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING LINE NO. 1 AND LINE NO. 1A</p> <p style="text-align: center; font-size: x-small;"> CARY JANZEN, P.E., CITY ENGINEER PRIVATE PROJECT NO. 0303.PPD. (607861) </p> |
| DESIGNED BY: MKK, SKD DRAWN BY: CSL, KTD DATE: SEPTEMBER 2014 | WICHITA STATE UNIVERSITY PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA, WICHITA, KS 67202 316-262-2981 www.pec1.com |

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| # | ISSUE | DATE |
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PROJECT NUMBERS
 State Project # A-012430
 State Project # 14037-000-C-203
 PROJECT TYPE
 CONSTRUCTION

APPROVED BY
 CARY JANZEN, P.E., CITY ENGINEER
 PRIVATE PROJECT NO. 0303.PPD. (607861)

Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
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WICHITA STATE UNIVERSITY
EXPERIMENTAL ENGINEERING BUILDING
 1846 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023

STORM SEWER LINE NO. 1
 AND LINE NO. 1A

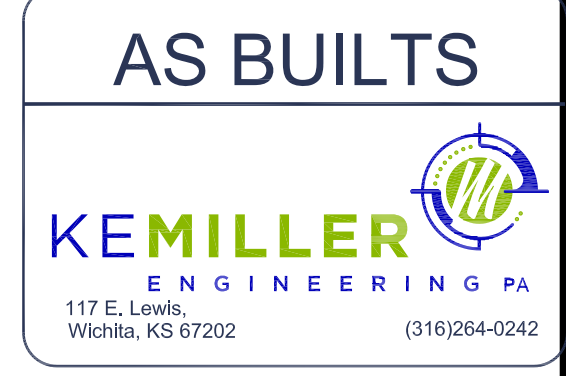
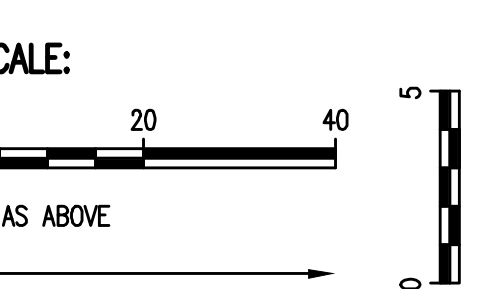
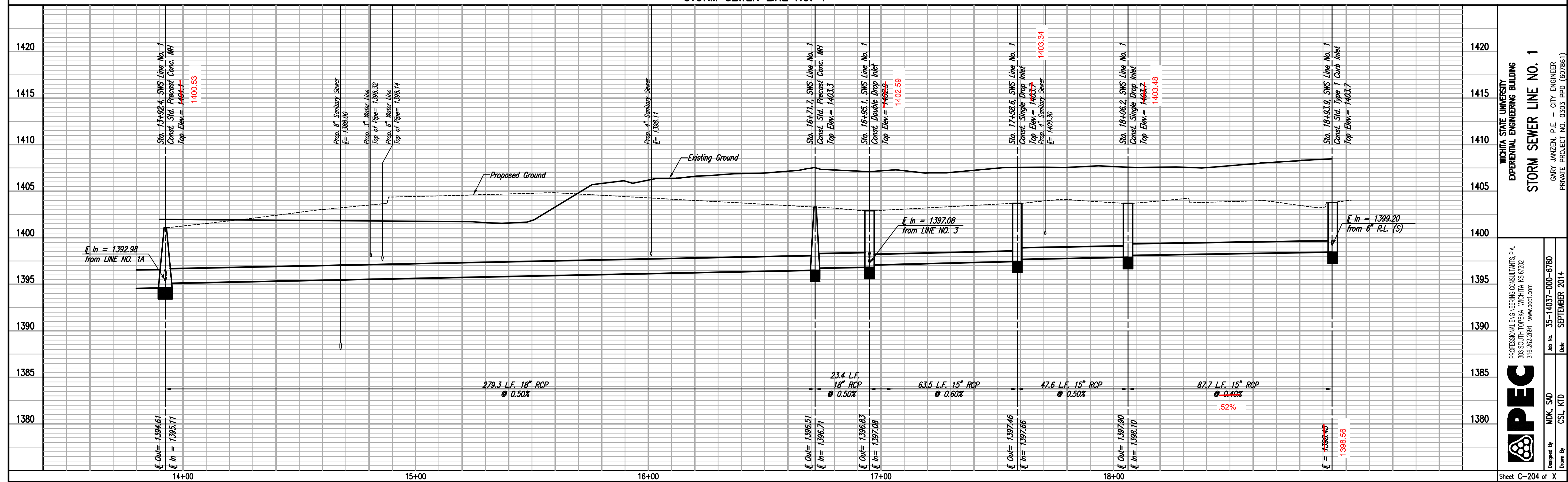
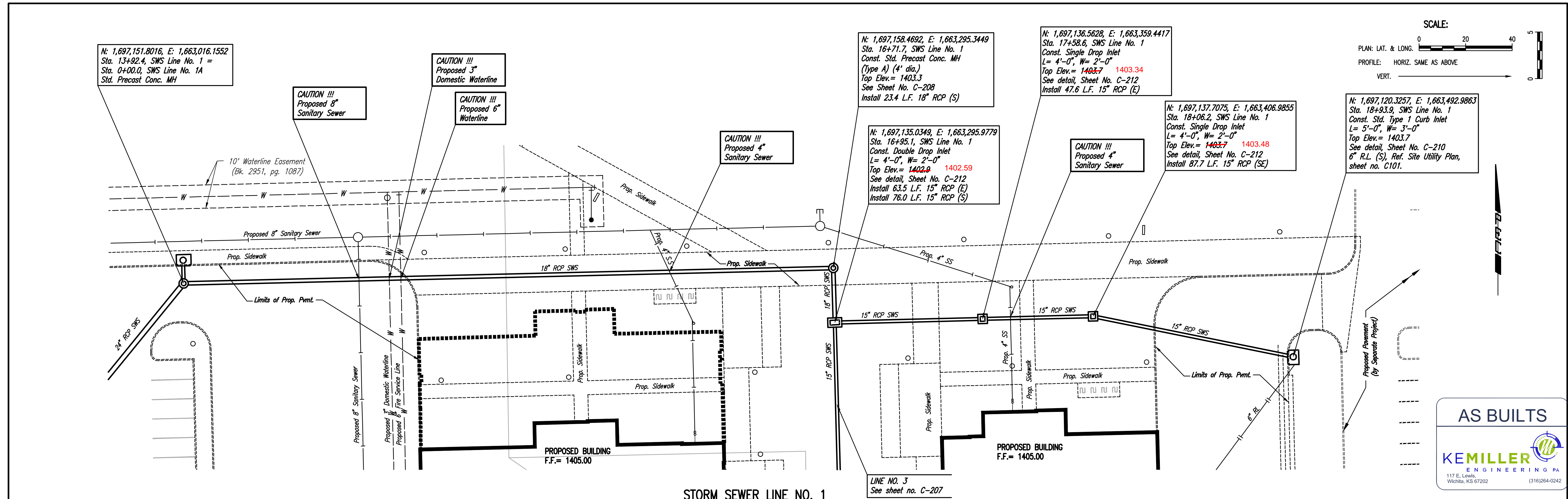
A-012430

C-203

ORIGINAL CONSTRUCTION DOCUMENTS

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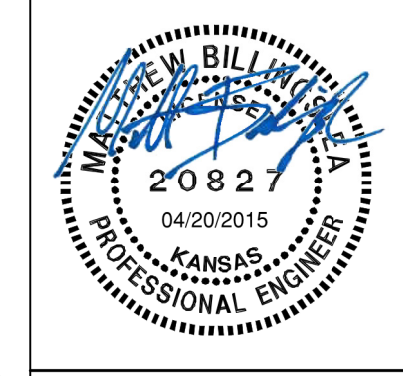
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| WICHITA STATE UNIVERSITY EXPERIENTIAL ENGINEERING BUILDING STORM SEWER LINE NO. 1 | |
| CARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303.PPD. (607861) | |
| PEPC PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA, WICHITA, KS 67202 316-262-2981 www.pepc1.com | Job No. 35-14037-000-6780 Date: SEPTEMBER 2014 |
| Designed By: MJK, SKD Drawn By: CSL, KTD | Sheet C-204 of X |

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| # | ISSUE | DATE |

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|--|-----------------------------------|
| PROJECT NUMBERS State Project # A-012430 State Project # 14037 Project # 14037 | APPROVED BY CARY JANZEN |
| FACILITIES PLANNING WICHITA STATE UNIVERSITY 117 E. LEWIS, WICHITA, KS 67202 TEL: 316.262.2981 | |

Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
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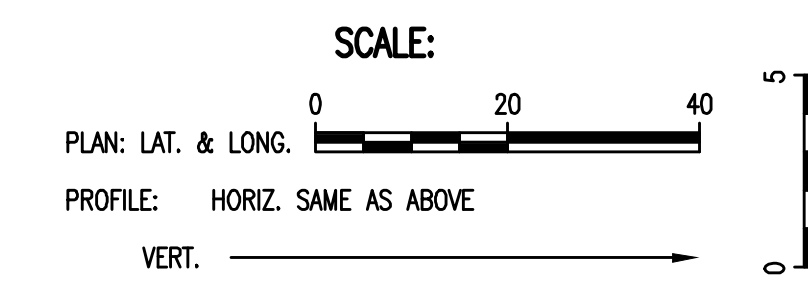
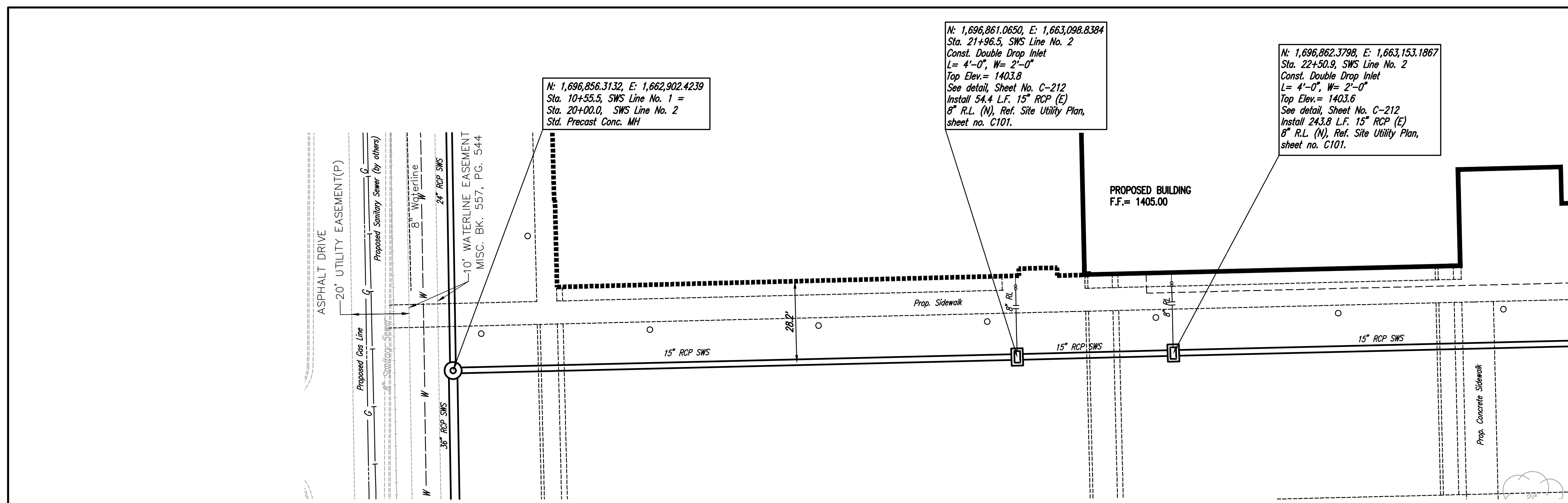
WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
 1846 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023

Drawn By: PEC
 Original Issue Date: April 20, 2015

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|---------------------------------|
| STORM SEWER LINE NO. 1 |
| A-012430 |
| C-204 |
| ORIGINAL CONSTRUCTION DOCUMENTS |

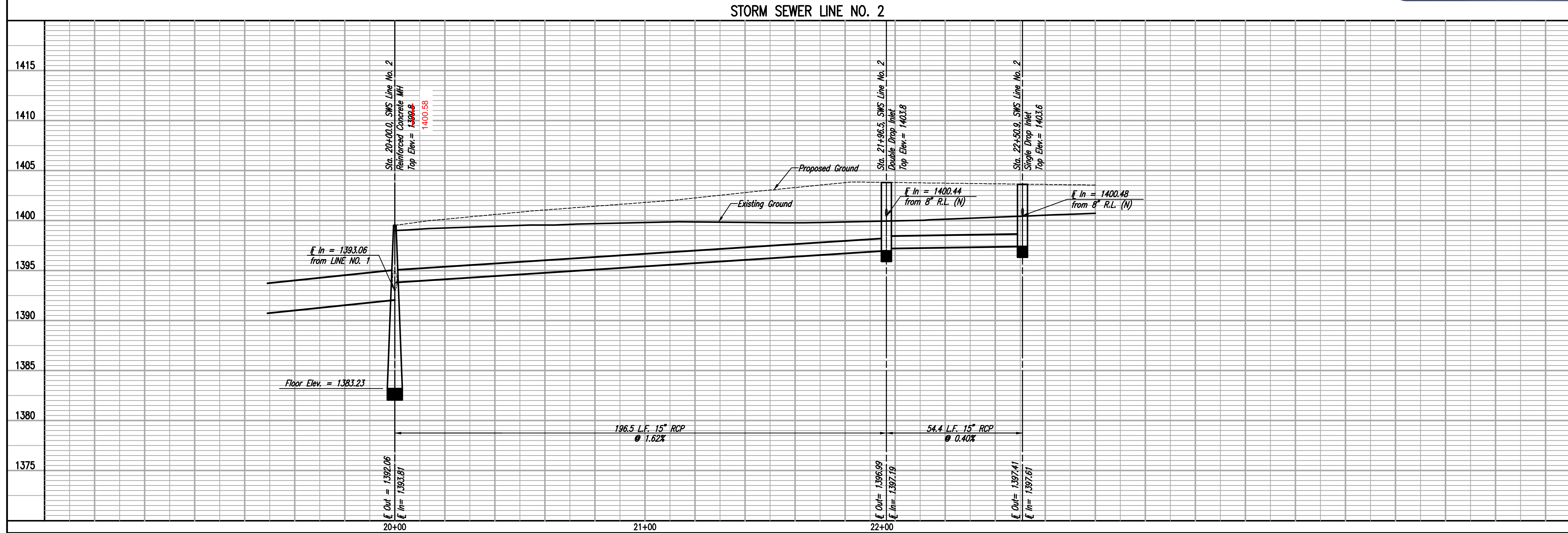
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AS BUILTS

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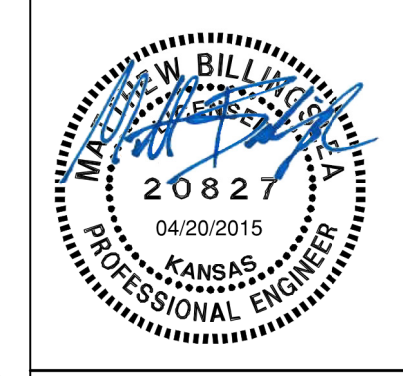


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|---|---|
| WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING STORM SEWER LINE NO. 2 CARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303 PPD (602861) | |
| PEEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA, WICHITA, KS 67202 316-262-2891 www.pec1.com | Job No. 35-14037-000-6780 Date: SEPTEMBER 2014 Drawn By: CSJ, KTD |

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 WICHITA STATE UNIVERSITY
 1845 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 TEL: 316-262-2891

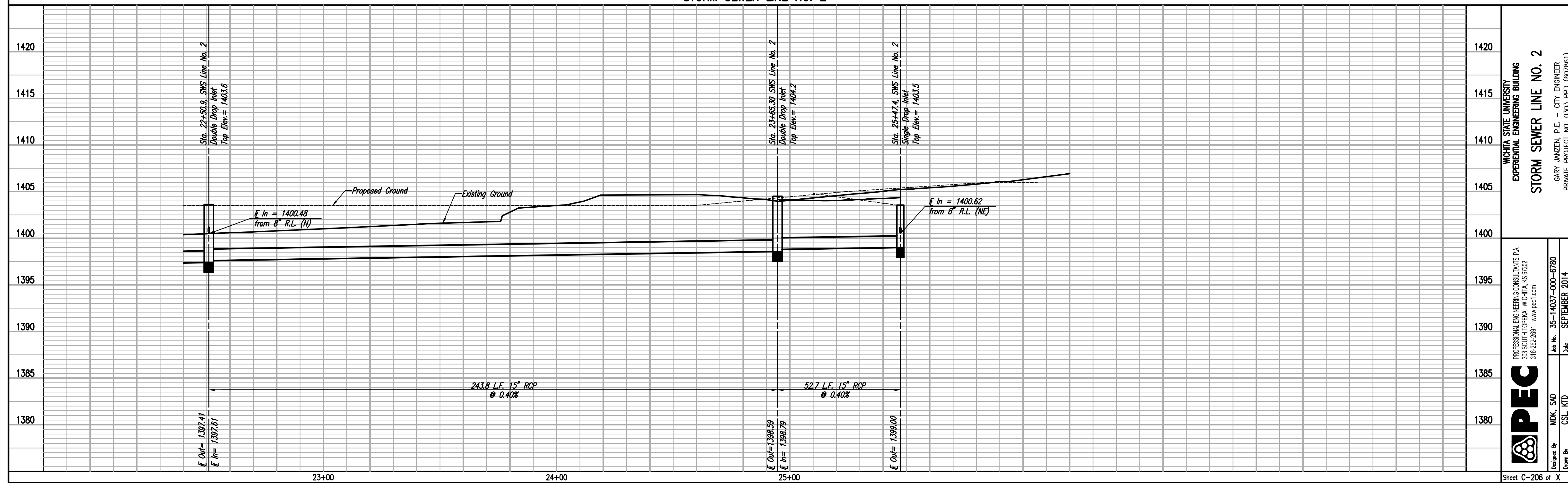
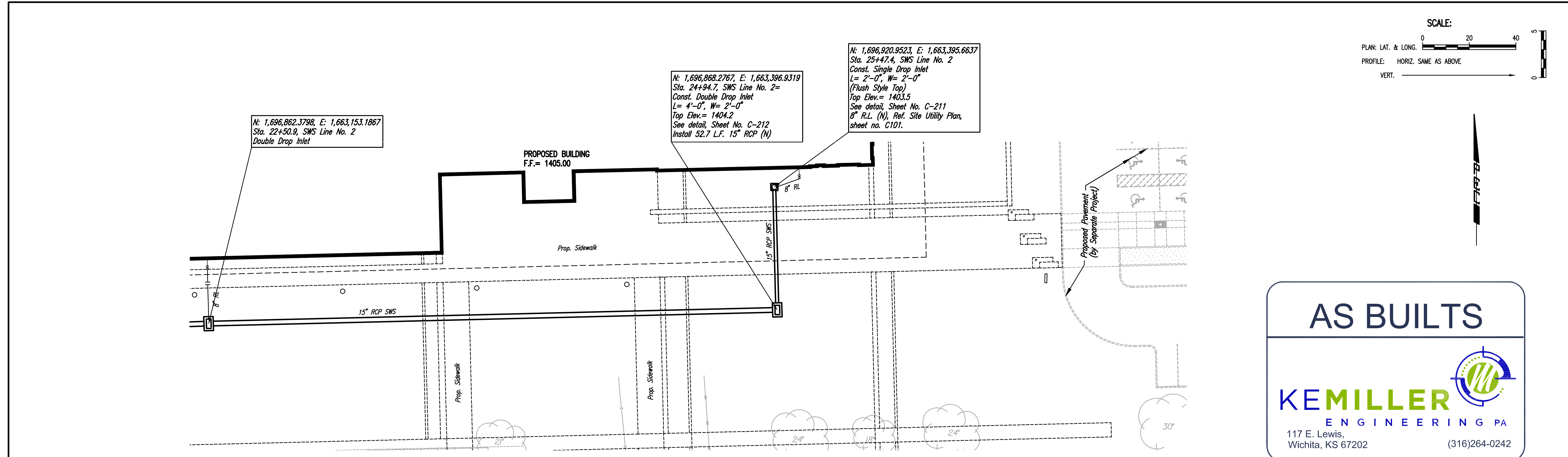
Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

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EXPERIMENTAL ENGINEERING BUILDING
 1845 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 Drawn By: PEC
 Original Issue Date: April 20, 2015

STORM SEWER LINE NO. 2
 A-012430
 C-205
 ORIGINAL CONSTRUCTION DOCUMENTS

| PLAN | CHECKED | DATE |
|------|---------|------|
| | | |

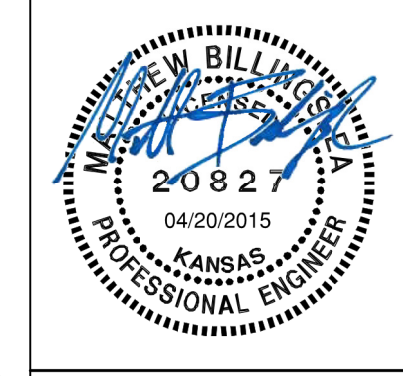
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| | |
|---|--|
| WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING STORM SEWER LINE NO. 2 CARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303.PPD. (607861) | PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 S. SOUTH TOPEKA, WICHITA, KS 67202 316-262-2981 www.pec1.com |
| Design By: MNK, SKD Drawn By: CSL, KTD | Job No. 35-14037-000-6780 Date: SEPTEMBER 2014 |

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| REVISIONS | # | ISSUE | DATE |
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PROJECT NUMBERS
 State Project # A-012430
 State Work # 14037
 PROJECT TYPE
 CONSTRUCTION
 APPROVED BY

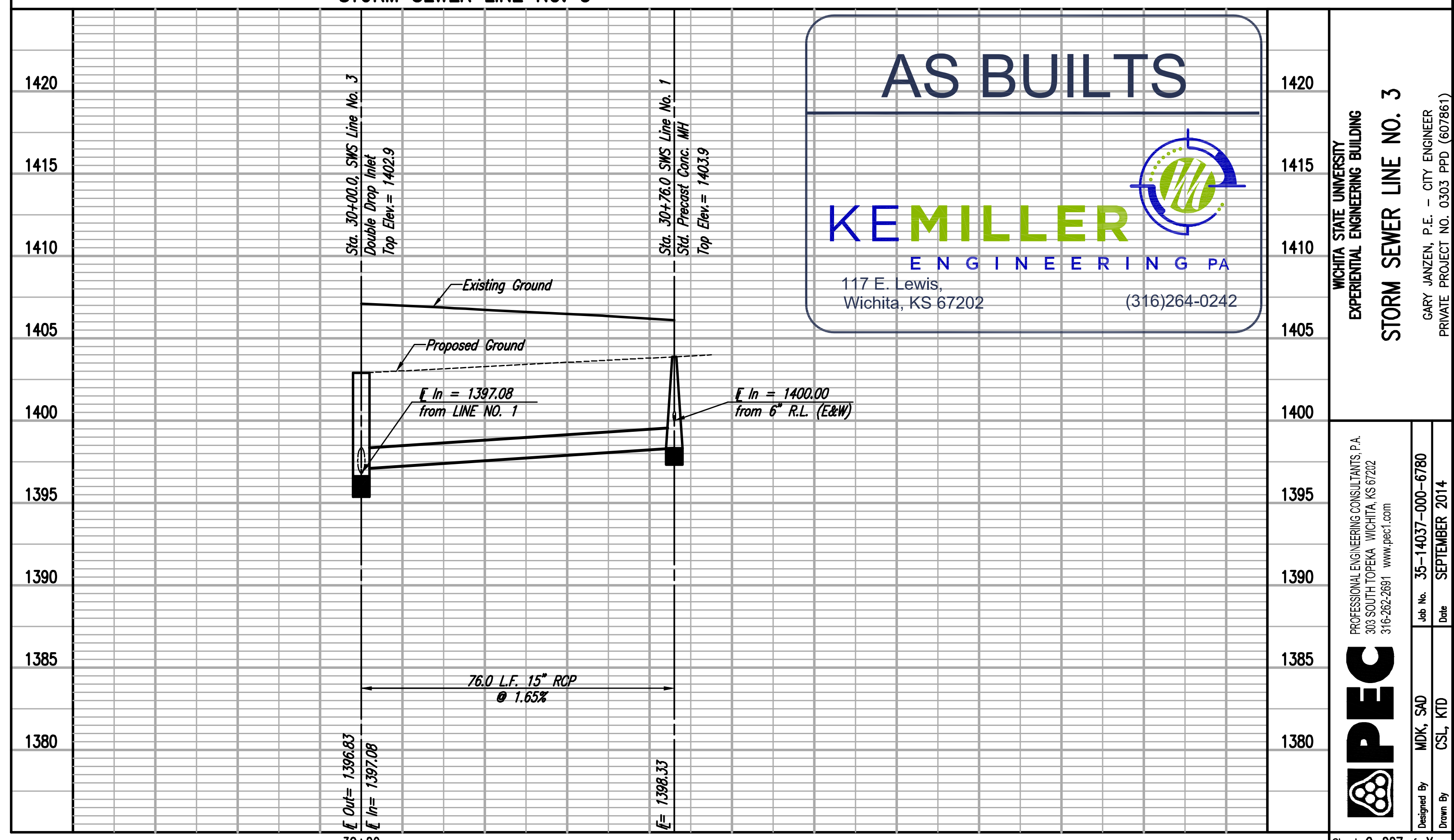
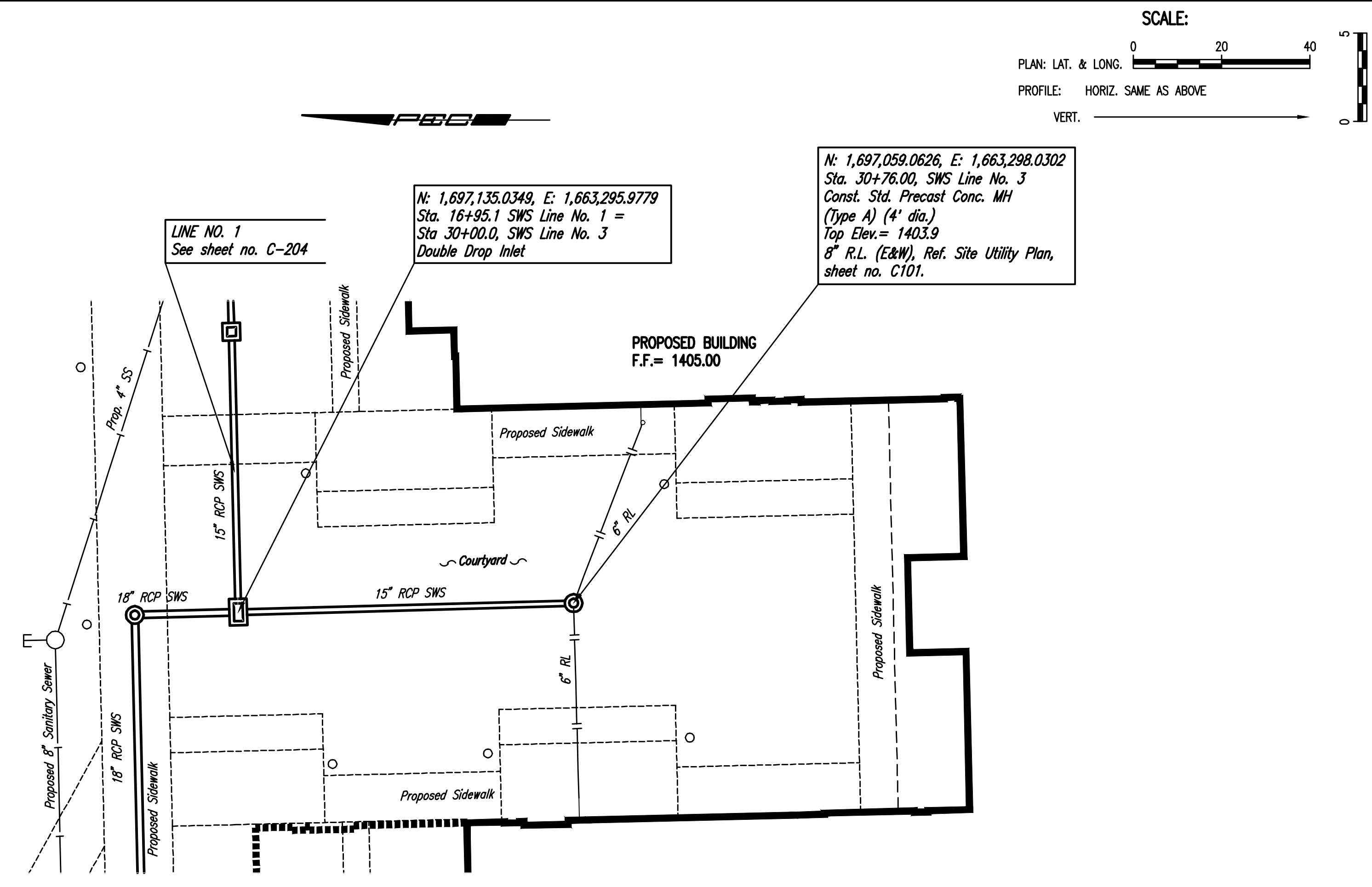
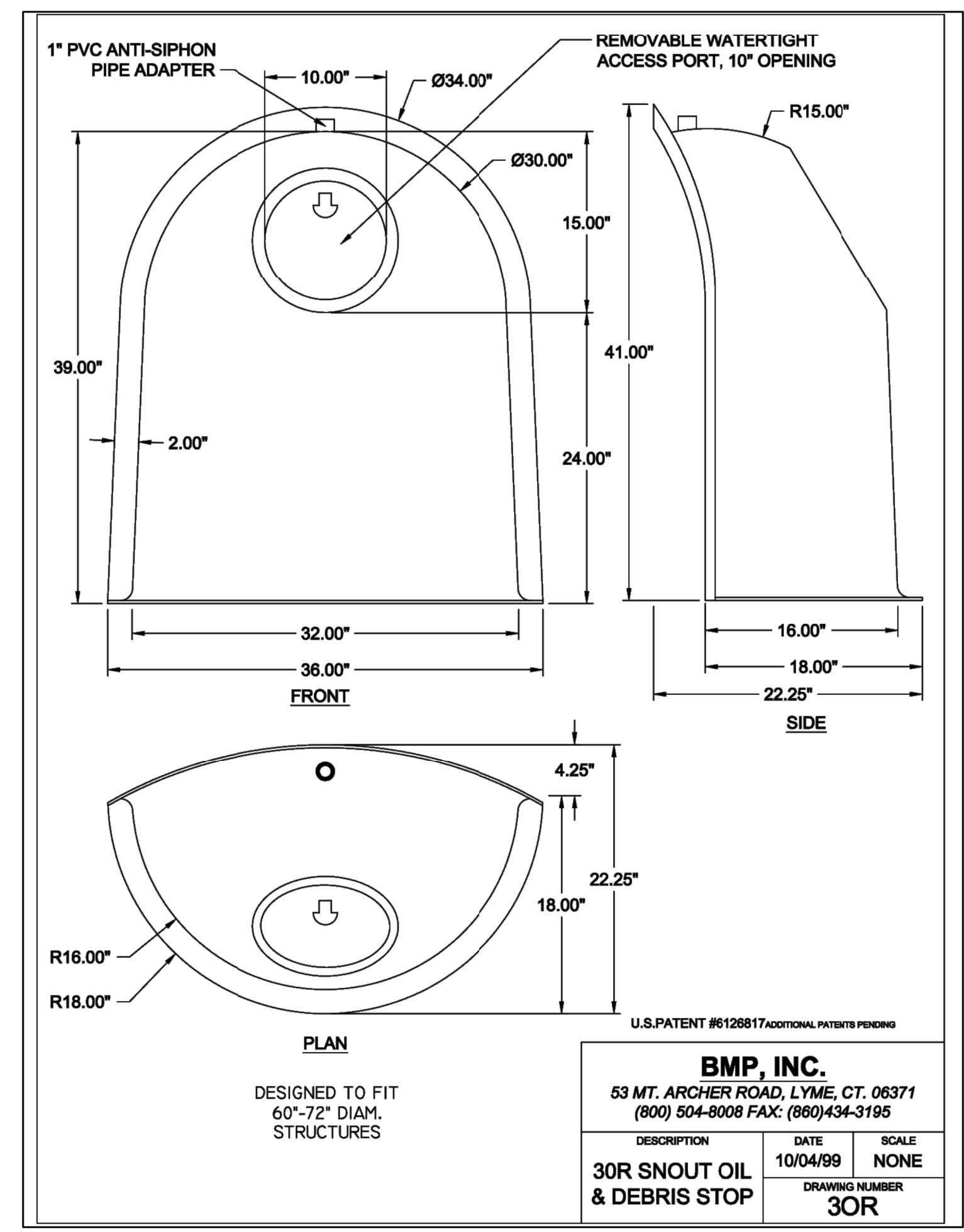
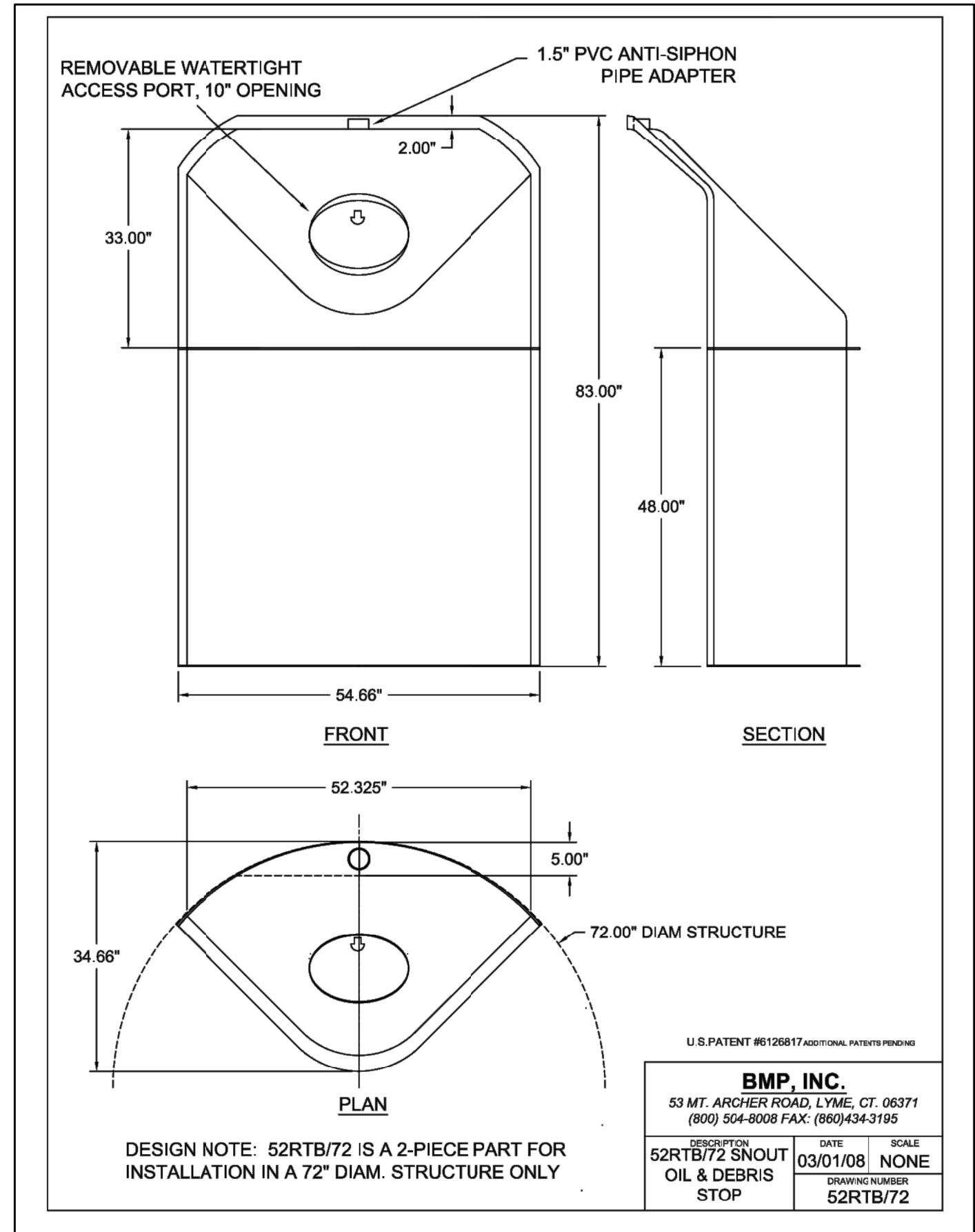
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 Phone 785-296-8899

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STORM SEWER LINE NO. 2
 A-012430
 C-206
 ORIGINAL CONSTRUCTION DOCUMENTS

| | | |
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| PLAN | CHECKED | DATE |
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| PROFILE | CHECKED | DATE |
| | | |



AS BUILTS

KEMILLER ENGINEERING PA
 117 E. Lewis,
 Wichita, KS 67202
 (316)264-0242

| | |
|---|--|
| WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING STORM SEWER LINE NO. 3 | |
| CARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303 PPD (607861) | DESIGNED BY: MDK, SJO DRAWN BY: CSL, KTD DATE: SEPTEMBER 2014 |

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| # | ISSUE | DATE |

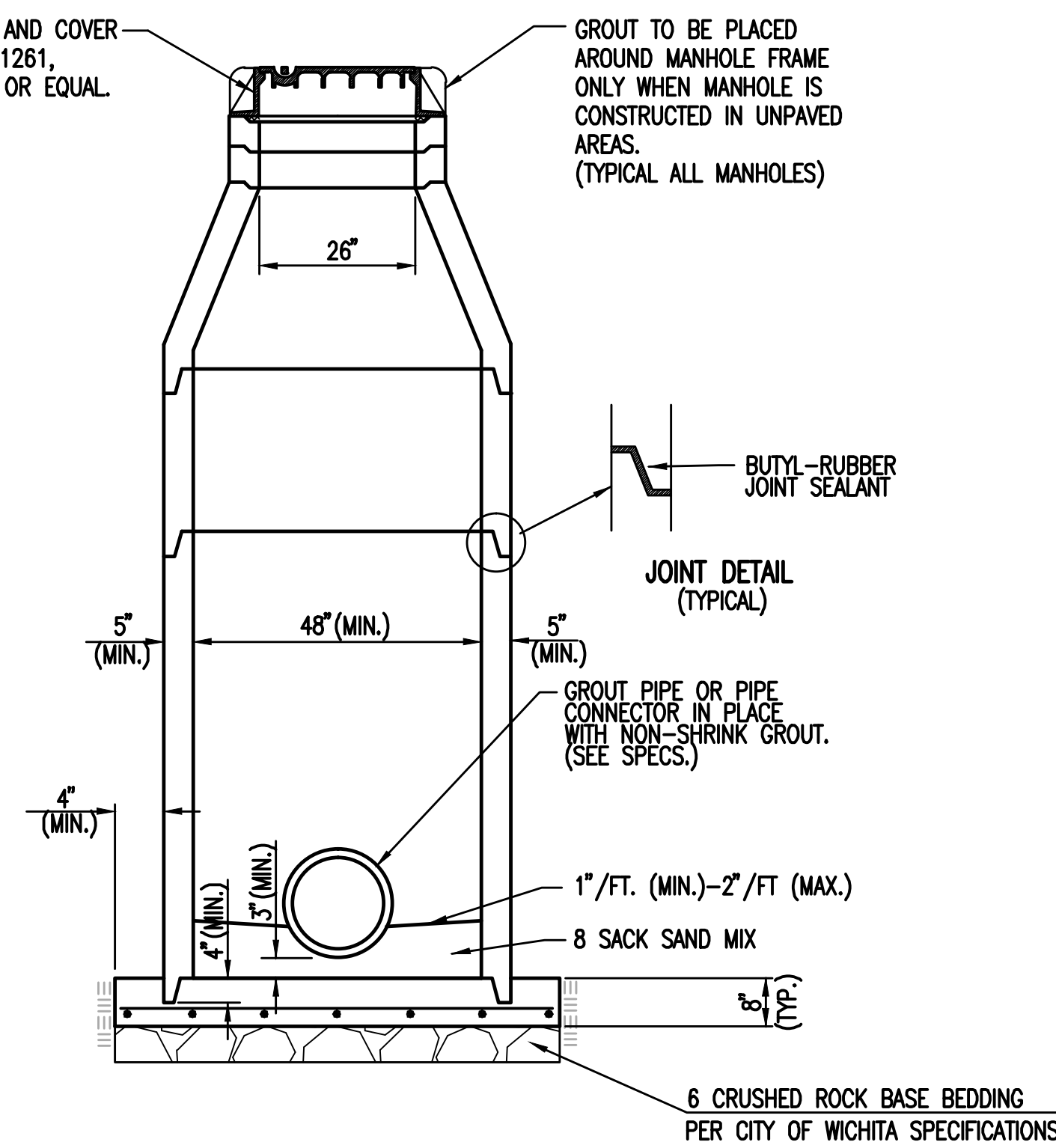
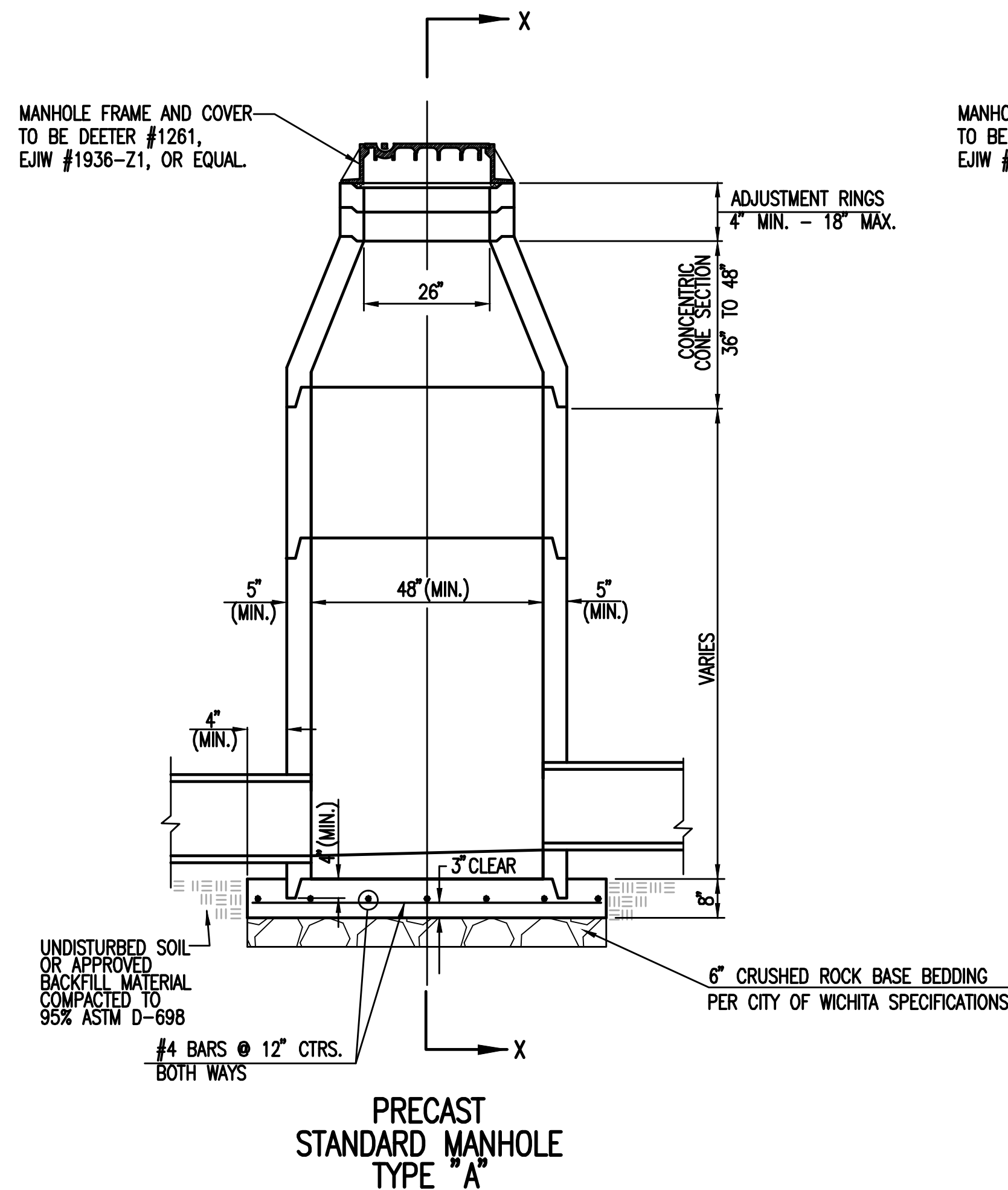
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| PROJECT NUMBERS State Project # A-012430 State Work # 14037 | PROJECT TYPE CONSTRUCTION | APPROVED BY |
|---|------------------------------|-------------|

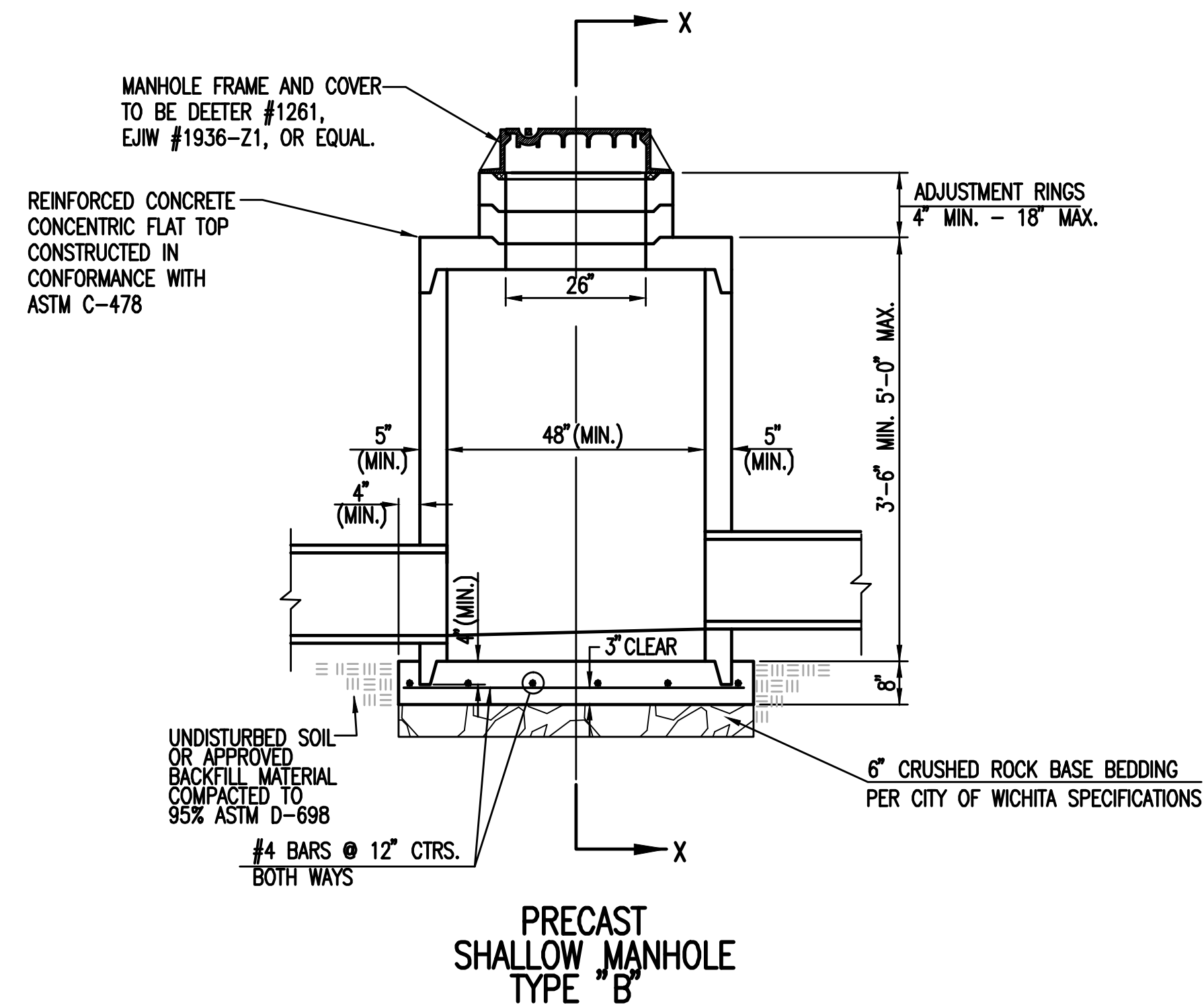
Department of Administration
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 1845 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 Original Issue Date: April 20, 2015
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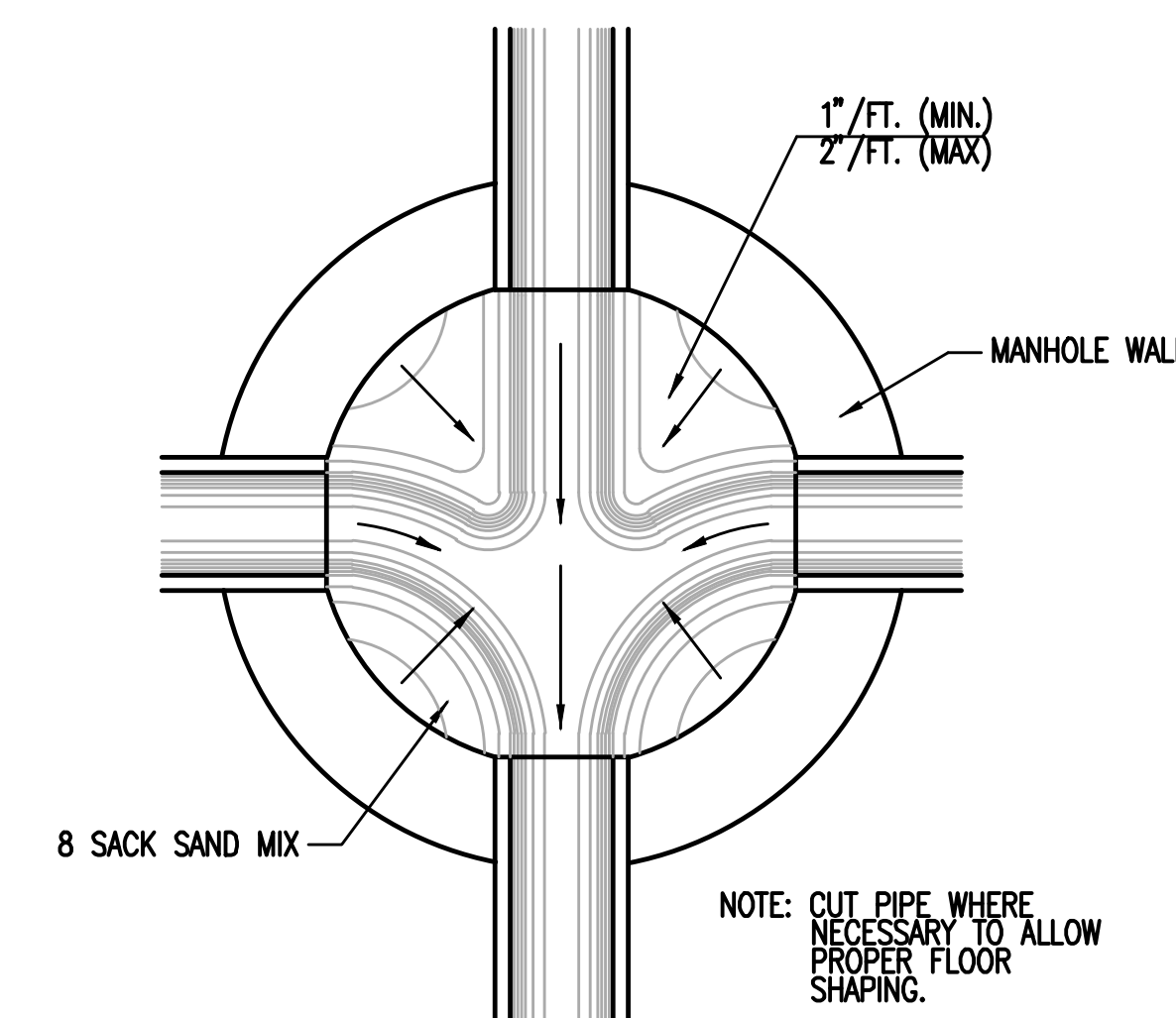
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|---------------------------------|
| STORM SEWER LINE NO. 3 |
| A-012430 |
| C-207 |
| ORIGINAL CONSTRUCTION DOCUMENTS |



SECTION X-X
(TYPICAL)



PRECAST SHALLOW MANHOLE
TYPE B



TYPICAL MANHOLE
FLOOR SHAPING

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, EJM #1936-21, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJM #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJM #12054S, OR APPROVED EQUAL.



| PRECAST CONCRETE MANHOLE (STORM SEWER) | | |
|--|------------------------|--|
| CITY ENGINEER GARY JANZEN, P.E. | | |
| PROJECT NUMBER 0303 PPD | OCA NUMBER (607861) | DATE 11/2010 |
| CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | DESIGN DRAWN SHEET C-208 |

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EXPERIENTIAL ENGINEERING BUILDING
1846 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Drawn By: PEC
Original Issue Date: April 20, 2015

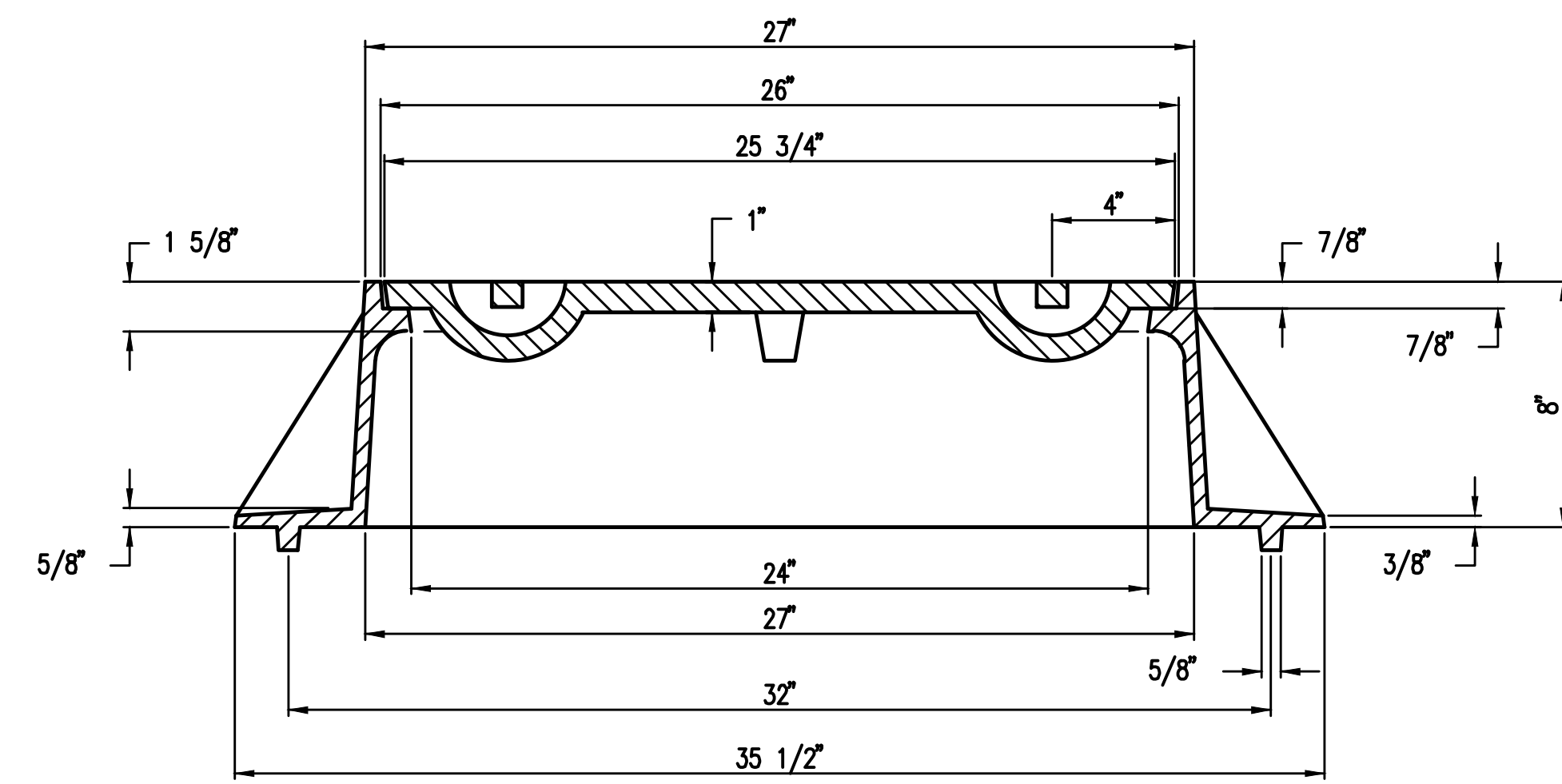
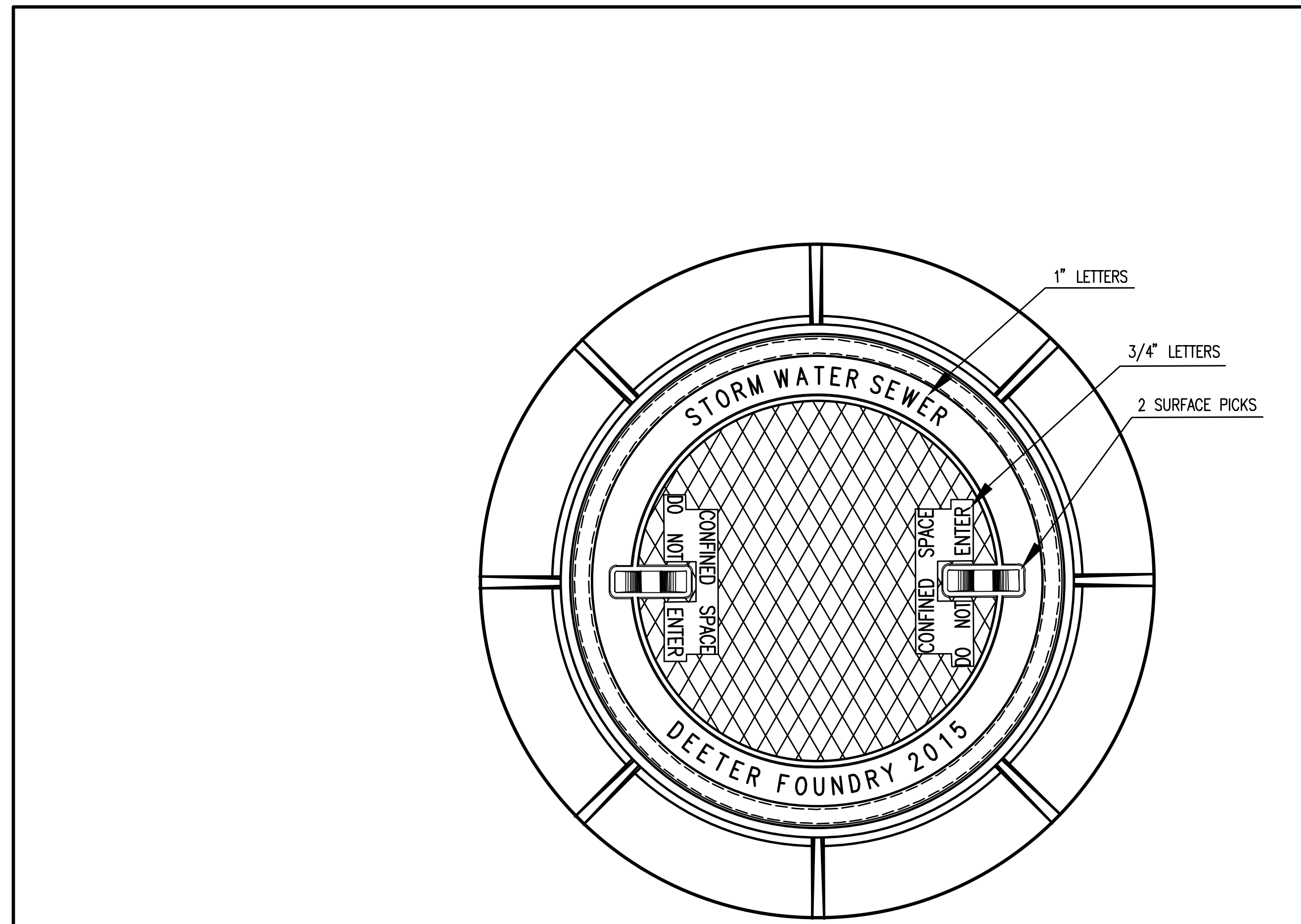
PRECAST STORM SEWER
MANHOLE

A-012430

C-208

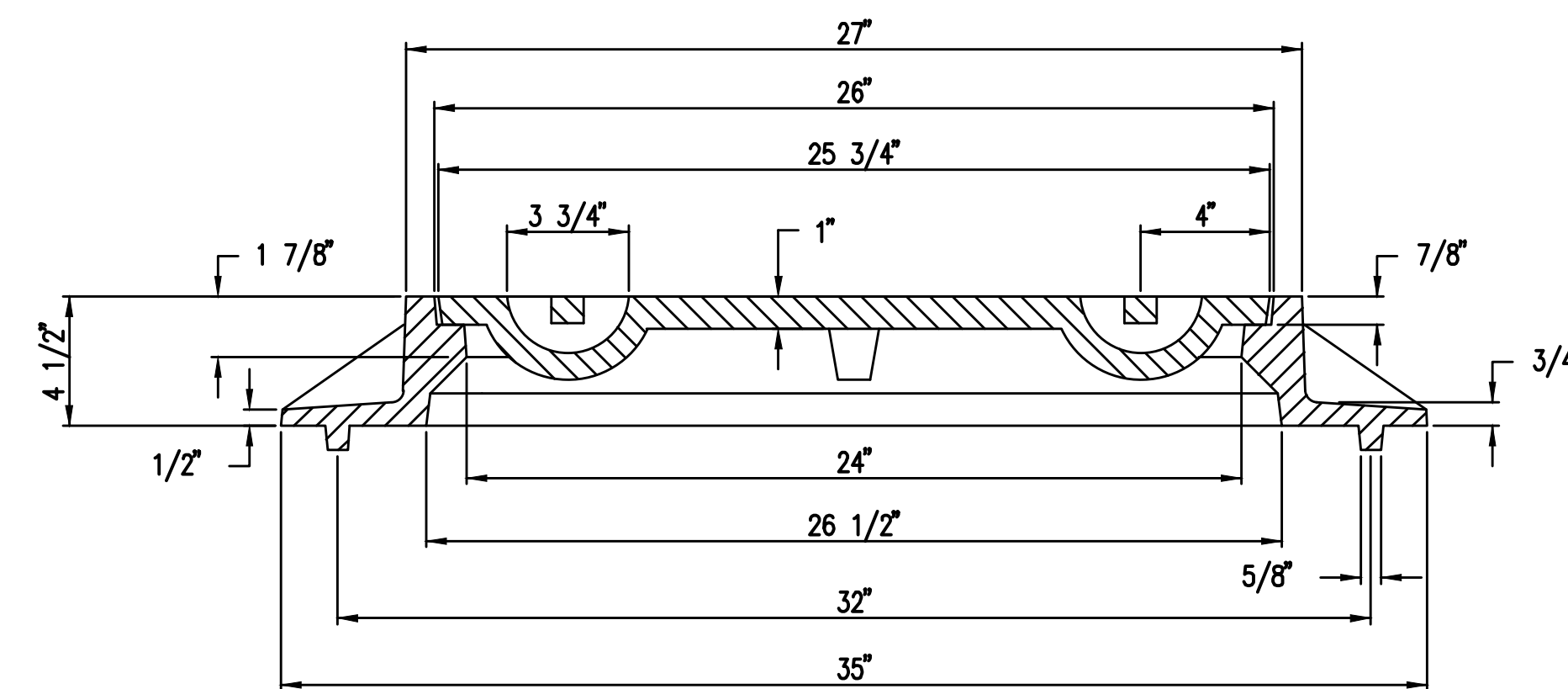
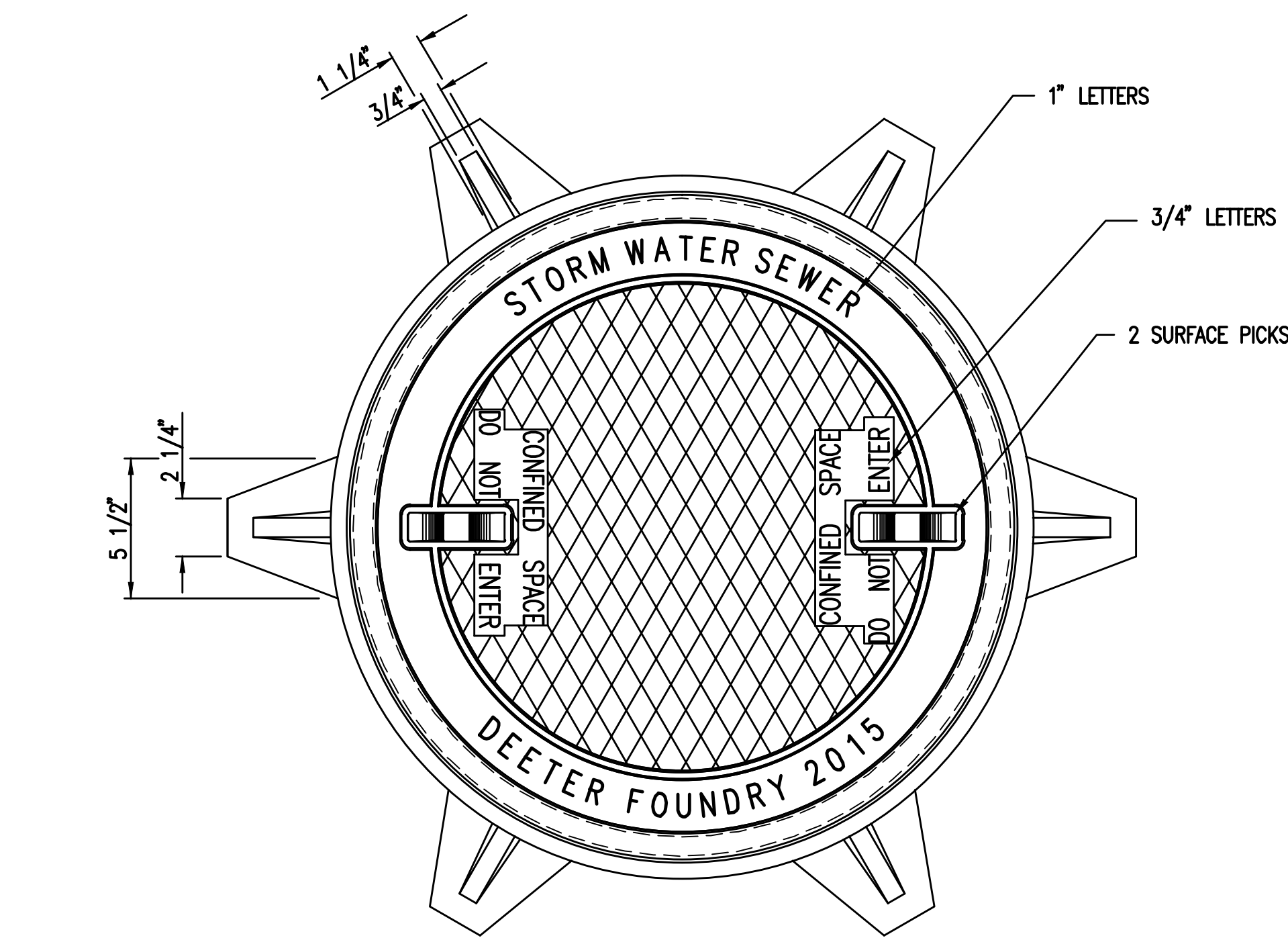
ORIGINAL CONSTRUCTION
DOCUMENTS

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 U:\Webshop-CAD\2014\14000\14037\Site CAD\PPV\14037-000-C-209-MANHOLE FRAME AND COVER -STORM SEWER



MANHOLE FRAME
DEETER #1261 OR EJIW #1936-Z1


- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
 2. COVER TO BE DEETER #1261 OR EJIW #1936A.



INLET FRAME
DEETER #2014 OR EJIW #1936-Z4

- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
 2. NOT TO BE USED UNDER PAVEMENT.
 3. COVER TO BE DEETER #1261 OR EJIW #1936A.

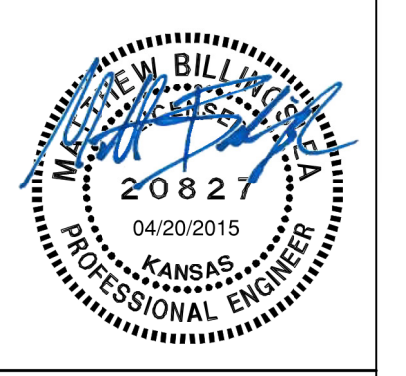
- MANHOLE FRAME AND COVER NOTES**
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 35B, OR BETTER.
 2. CASTINGS ARE TO BE MANUFACTURED TRUE TO PATTERN AND WITH SATISFACTORY FIT OF COMPONENT PARTS. CASTINGS SHALL BE FREE OF DEFECTS AND ALL BURRS SHALL BE GROUND SMOOTH. DIMENSIONS AS DETAILED ON PLAN SHALL NOT DEVIATE BY ± 1/16" PER FOOT.
 3. NO OTHER LETTERING OR MARKINGS OTHER THAN THOSE DETAILED ON PLAN WILL BE PERMITTED ON CASTINGS.
 4. CASTINGS MUST BE DOMESTICALLY MANUFACTURED IN THE UNITED STATES OF AMERICA.
 5. THE FRAMES AND COVERS SHALL BE FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
 6. 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.
 7. THE MANHOLE FRAME SHALL BE FURNISHED WITH AN APPROVED CONTINUOUS T-GASKET GROOVED INTO THE BEARING SURFACE OF THE MANHOLE COVER. THE T-GASKET SHALL BE FACTORY INSTALLED IN THE MANHOLE COVER WITH 100% SILICON SEALANT-DOW CORNING OR EQUAL.

| No. | Revision | By | Date |
|---|----------|---------|-------------------|
| WICHITA STATE UNIVERSITY EXPERIMENTAL ENGINEERING BUILDING MANHOLE FRAME AND COVER (STORM SEWER) GARY JANZEN, P.E. - CITY ENGINEER PRIVATE PROJECT NO. 0303 PPD (607861) | | | |
|  PEC PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com | | | |
| Designed by | MDK, SAD | Job No. | 35-14037-000-6780 |
| Drawn by | CSL, KTD | Date | SEPTEMBER 2014 |
| | | | Sh. C-209 of X |

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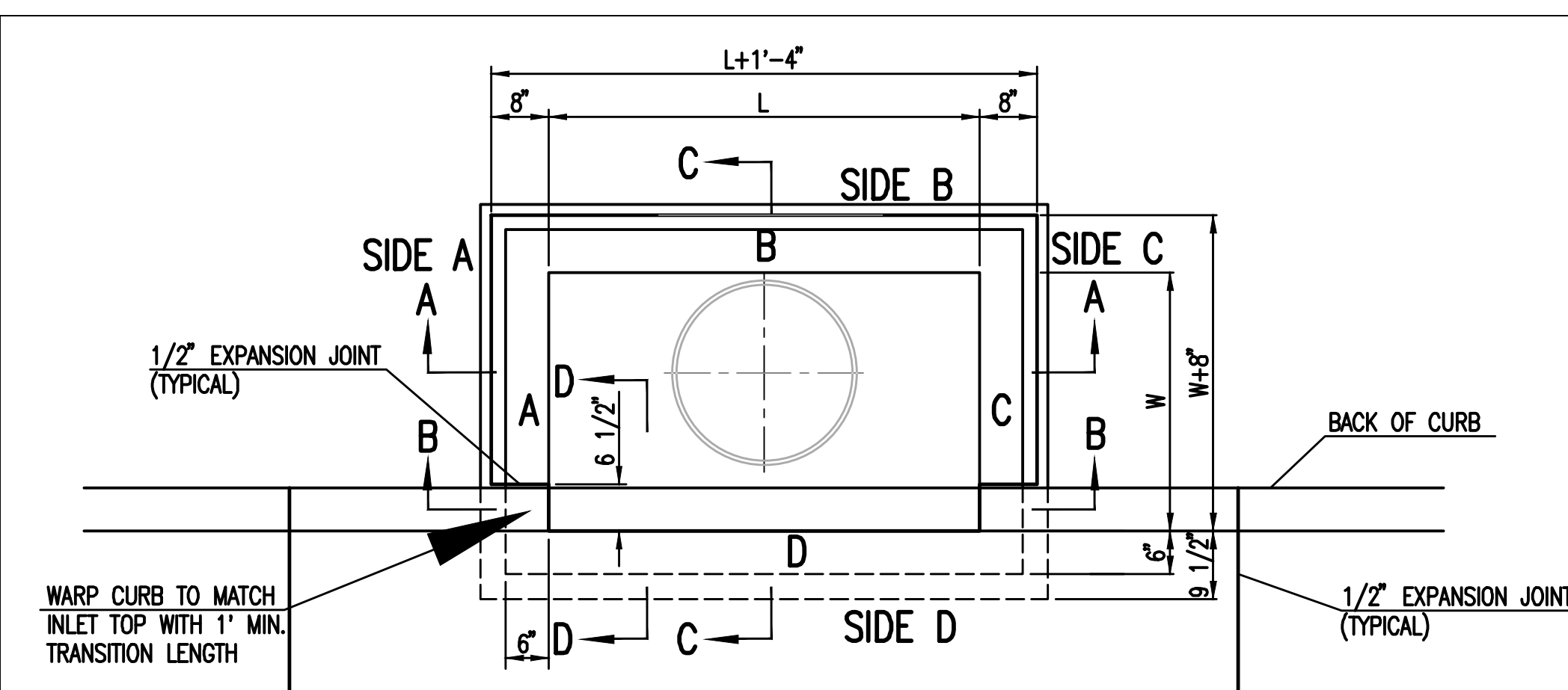
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 FACILITIES PLANNING
 WICHITA STATE UNIVERSITY
 800 SW JACKSON, SUITE 700
 TOPEKA, KANSAS 66612-1216
 PHONE 785-296-8899

PROJECT NUMBERS
 State Project # A-012430
 State Work # 14037
PROJECT TYPE
 CONSTRUCTION
APPROVED BY

Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIMENTAL ENGINEERING BUILDING
 1846 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 Drawn By: PEC
 Original Issue Date: April 20, 2015

MANHOLE FRAME AND COVER (STORM SEWER)
 A-012430
 C-209
 ORIGINAL CONSTRUCTION DOCUMENTS



TOP VIEW

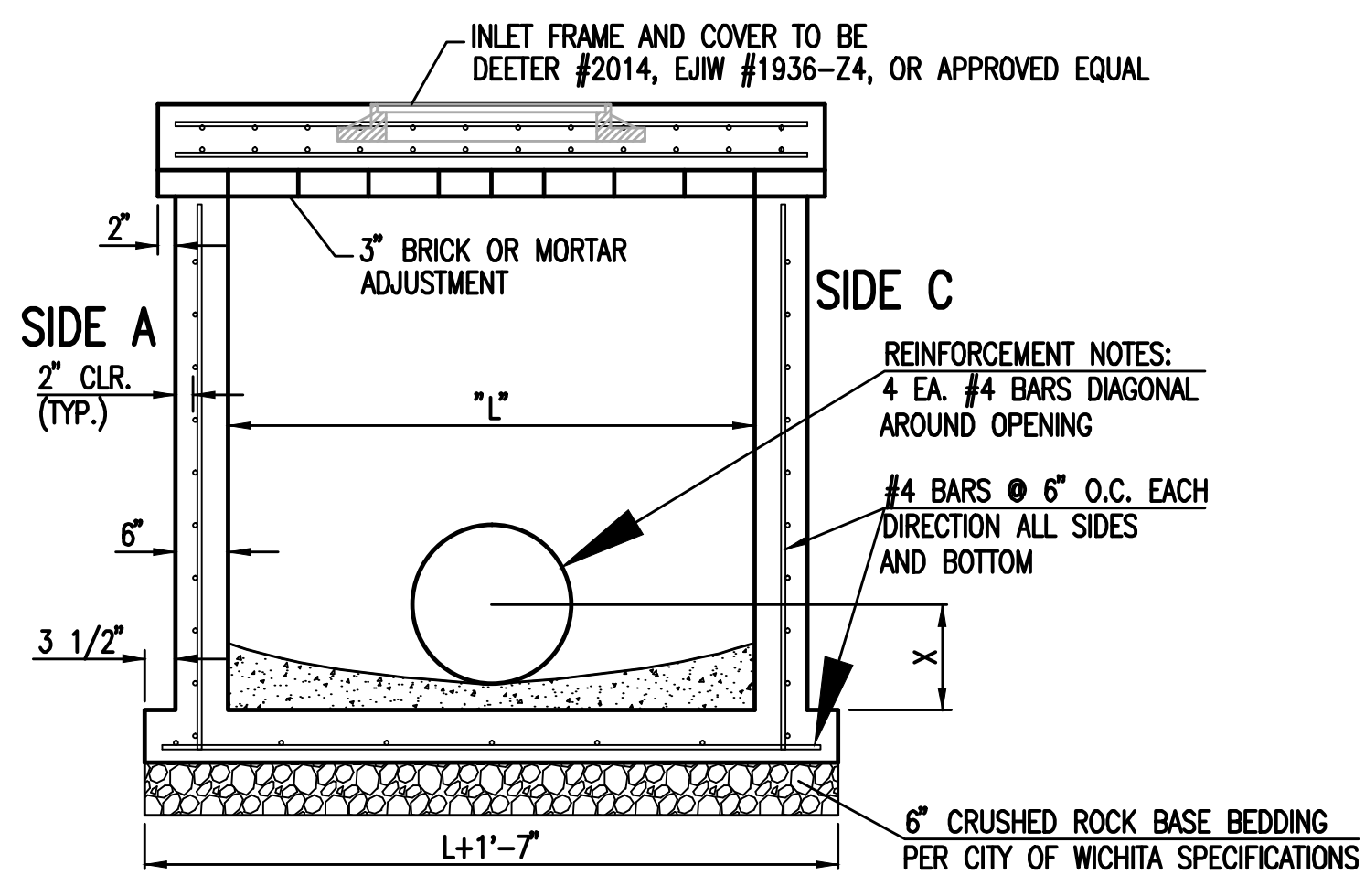
| BAR SCHEDULE | | |
|---------------|---------|---------|
| INLET OPENING | B1 BARS | SPACING |
| 5'-0" | #4 | 4" |
| 10'-0" | #6 | 3.5" |

| PRECAST CURB INLET WIDTHS | | | |
|---------------------------|-------------------|-------------|--------|
| W | PRE-CAST TOP SIZE | PIPE DIA.** | |
| | WIDTH | LENGTH | TOP |
| 3'-0" | W+8" | L+1'-4" | 7 1/2" |
| 4'-0" | W+8" | L+1'-4" | 7 1/2" |
| 5'-0" | W+8" | L+1'-4" | 7 1/2" |
| 6'-0" | W+8" | L+1'-4" | 7 1/2" |
| 7'-0" | W+8" | L+1'-4" | 7 1/2" |

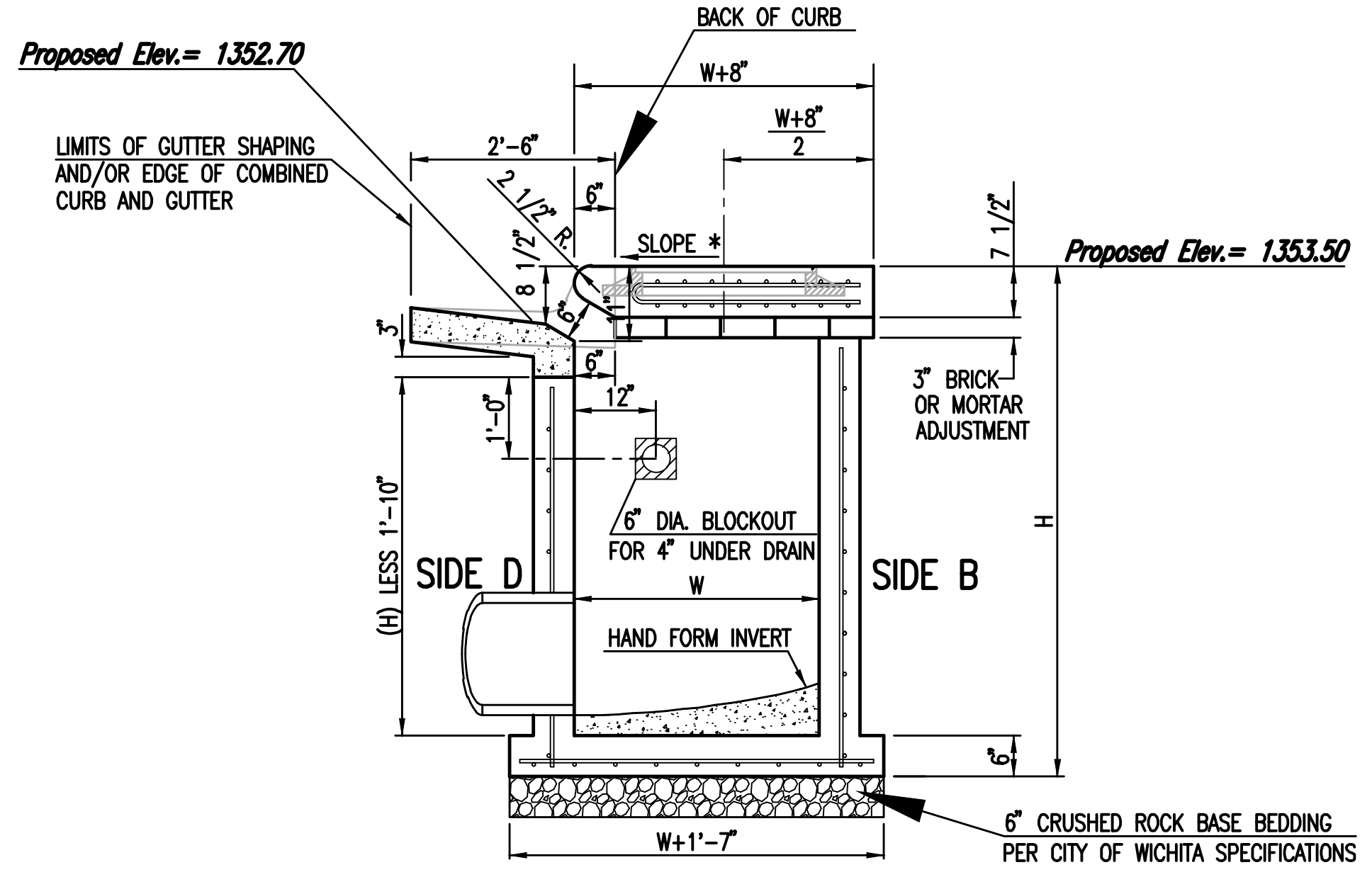
** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

- CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-0" AND H=7'-0" OR LESS.
- INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
- INLET FRAME AND COVER TO BE DEETER #2014, EJM #1936 Z4, OR APPROVED EQUAL.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

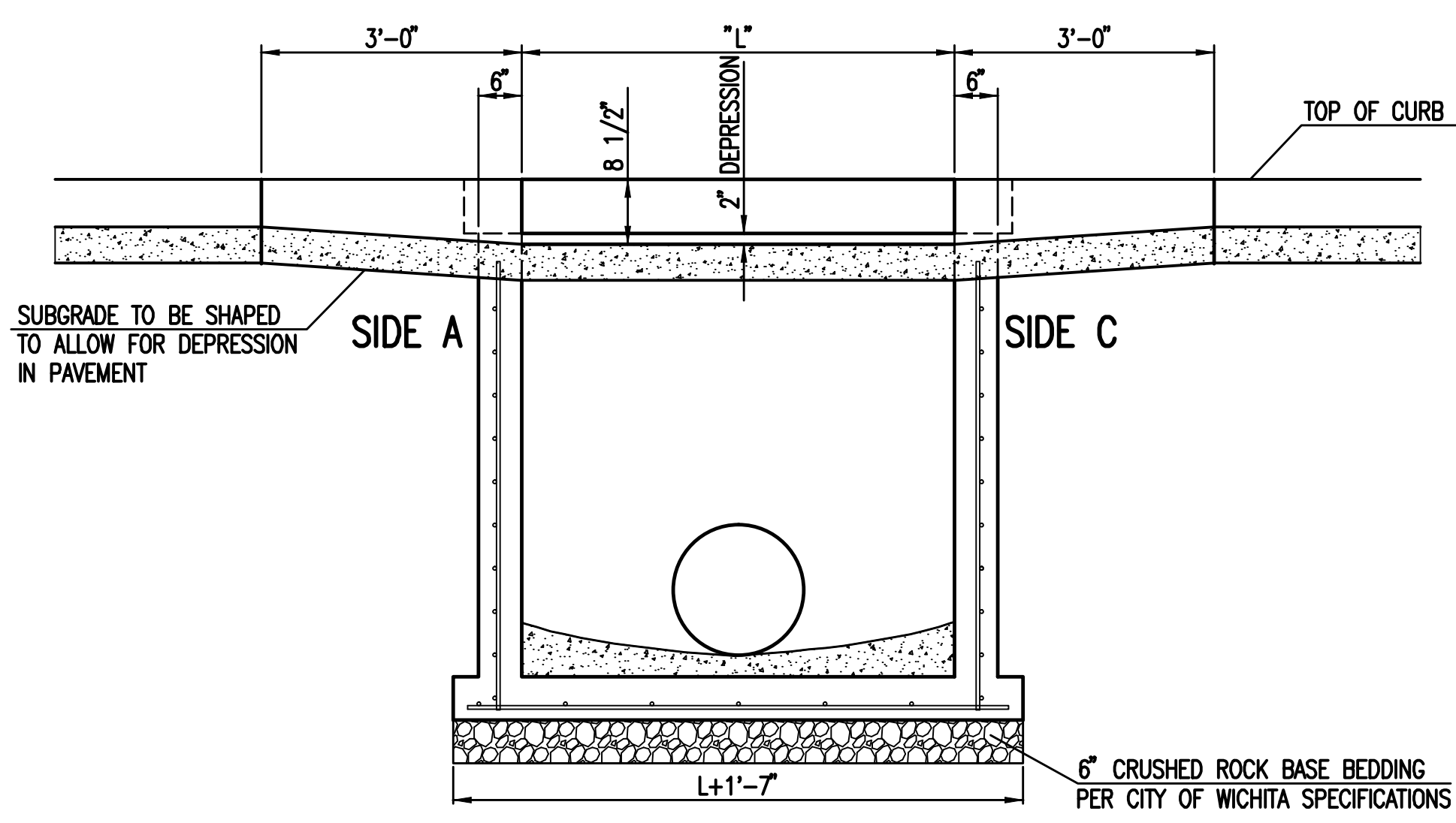
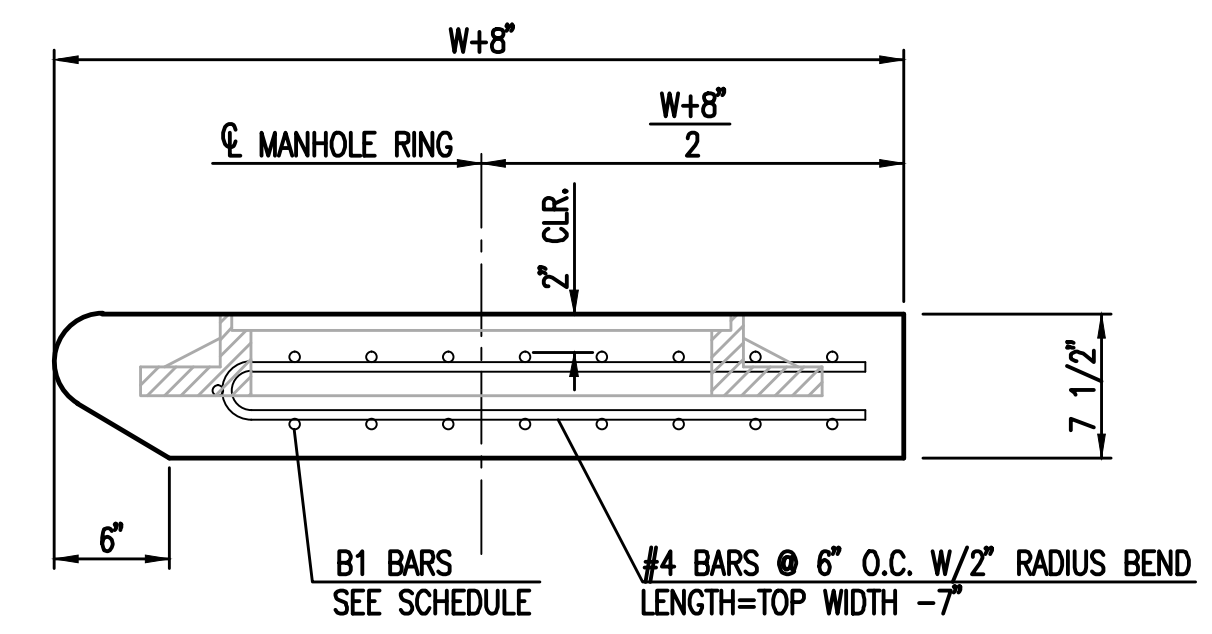


SECTION "A-A"

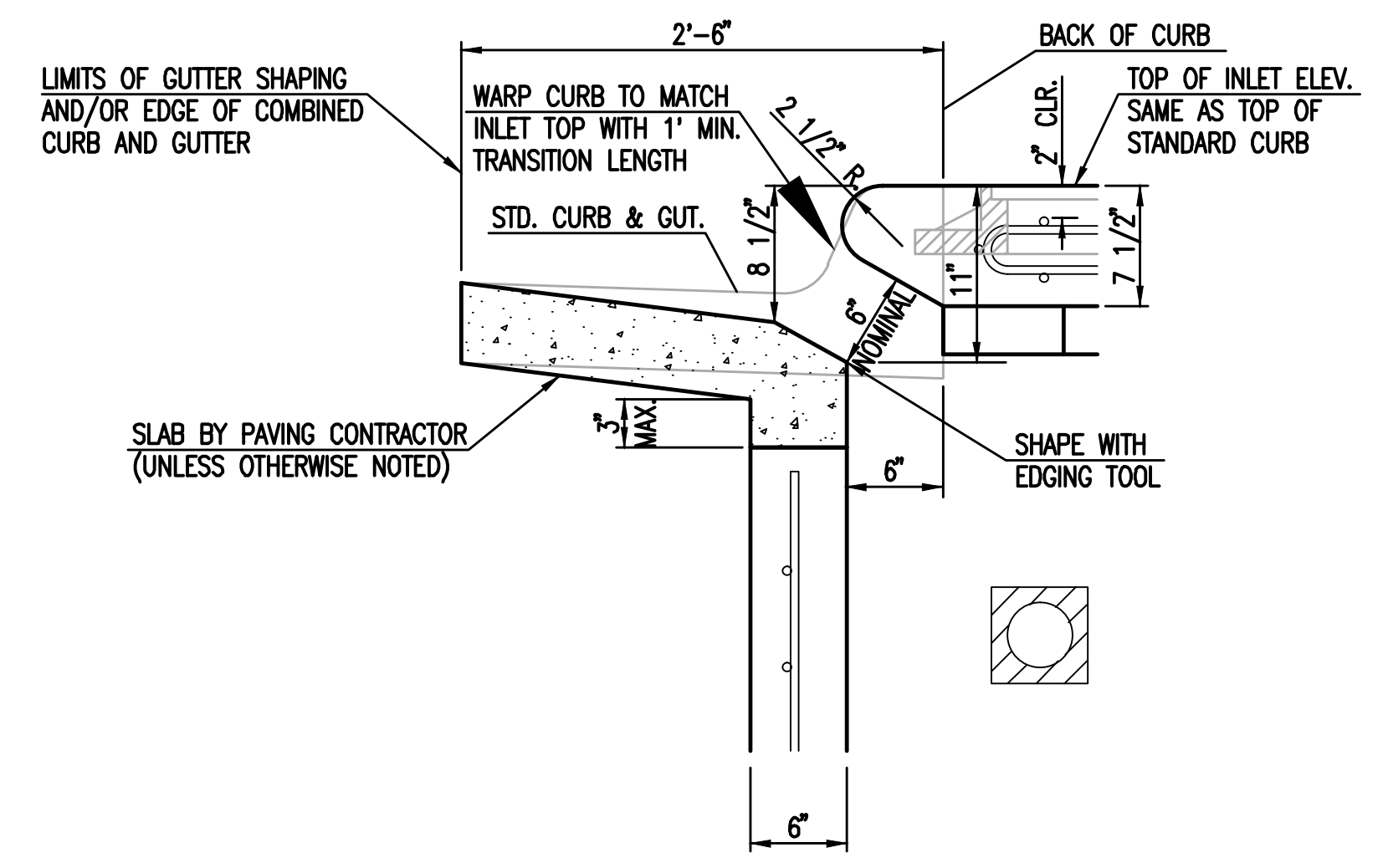


SECTION "C-C"

NOTES:
* SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.



SECTION "B-B"



SECTION "D-D"

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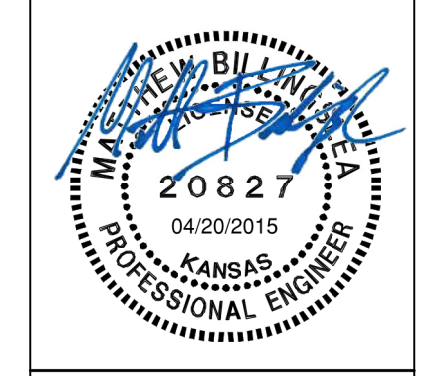


| | | |
|--|------------------------|-----------------------------------|
| STANDARD TYPE 1 CURB INLET 5'-0" OR 10'-0" OPENING | | |
| CITY ENGINEER GARY JANZEN, P.E. | | |
| PROJECT NUMBER 0303 PPD | OCA NUMBER (607861) | DATE 11/2010 |
| CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | DESIGN DRAWN SHEET C-210 |

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 TEL: 316.966.6000

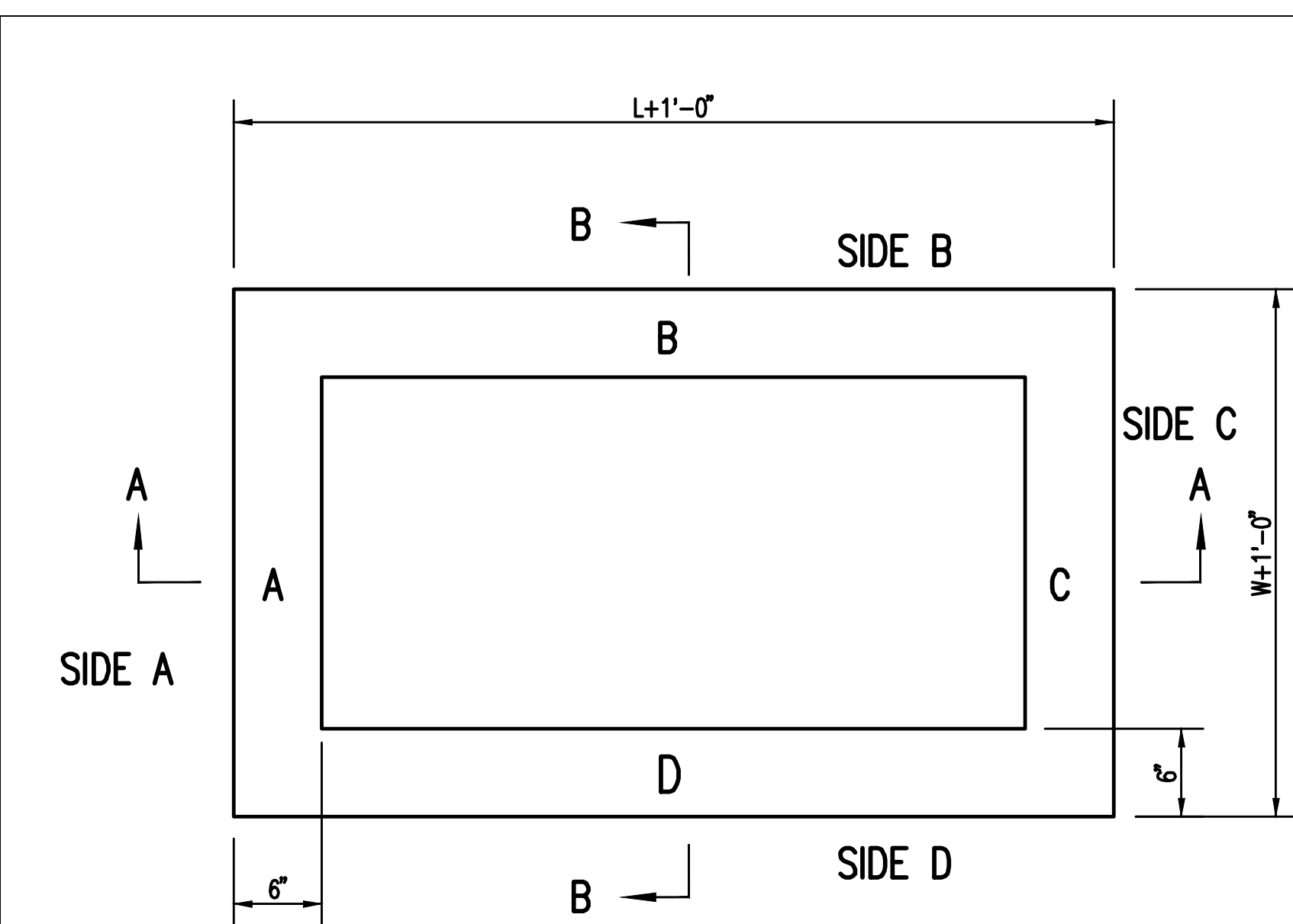
PROJECT NUMBERS
 State Project # A-012430
 State Work # 14037
 PROJECT TYPE
 CONSTRUCTION
 APPROVED BY

Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

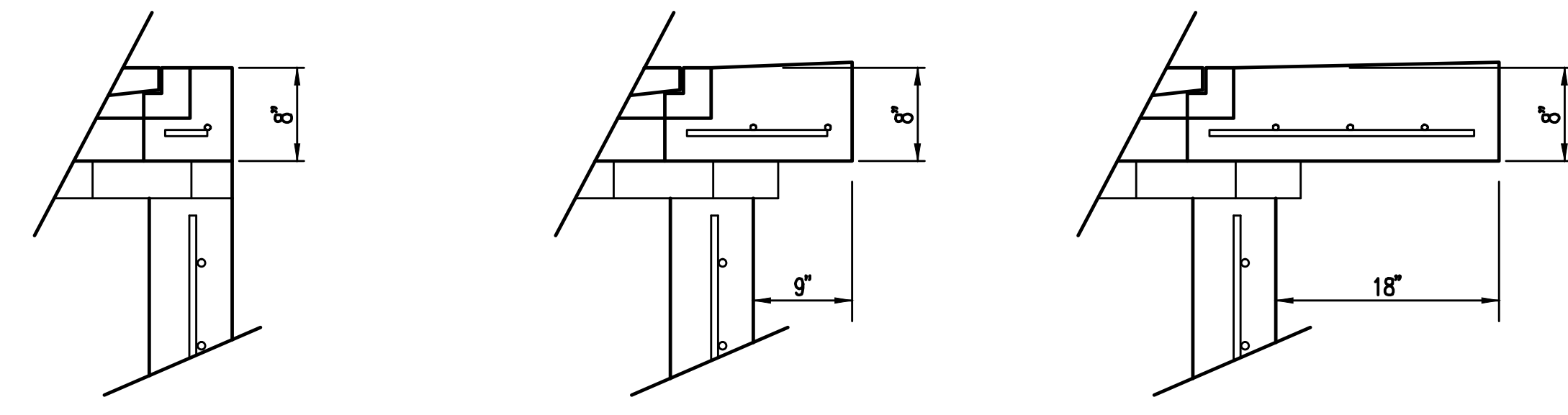
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EXPERIENTIAL ENGINEERING BUILDING
 1846 FAIRBANKS ST.
 WICHITA, KANSAS 67260-0023
 Drawn By: PEC
 Original Issue Date: April 20, 2015

STANDARD TYPE 1 CURB INLET
 A-012430
 C-210
 ORIGINAL CONSTRUCTION DOCUMENTS

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 Rev. 04-20-2015 8:40:15 AM by CSJ
 U:\Wichita-Civil\2014\14000\14037\Site Civil\PPV\14037-000-C-210-STANDARD TYPE 1 CURB INLET



TOP VIEW



FLUSH STYLE TOP NO APRON

9" APRON
* APRON TO EXTEND ON ALL 4 SIDES OF INLET. DESIGNER TO DESIGNATE APRON SIZE.

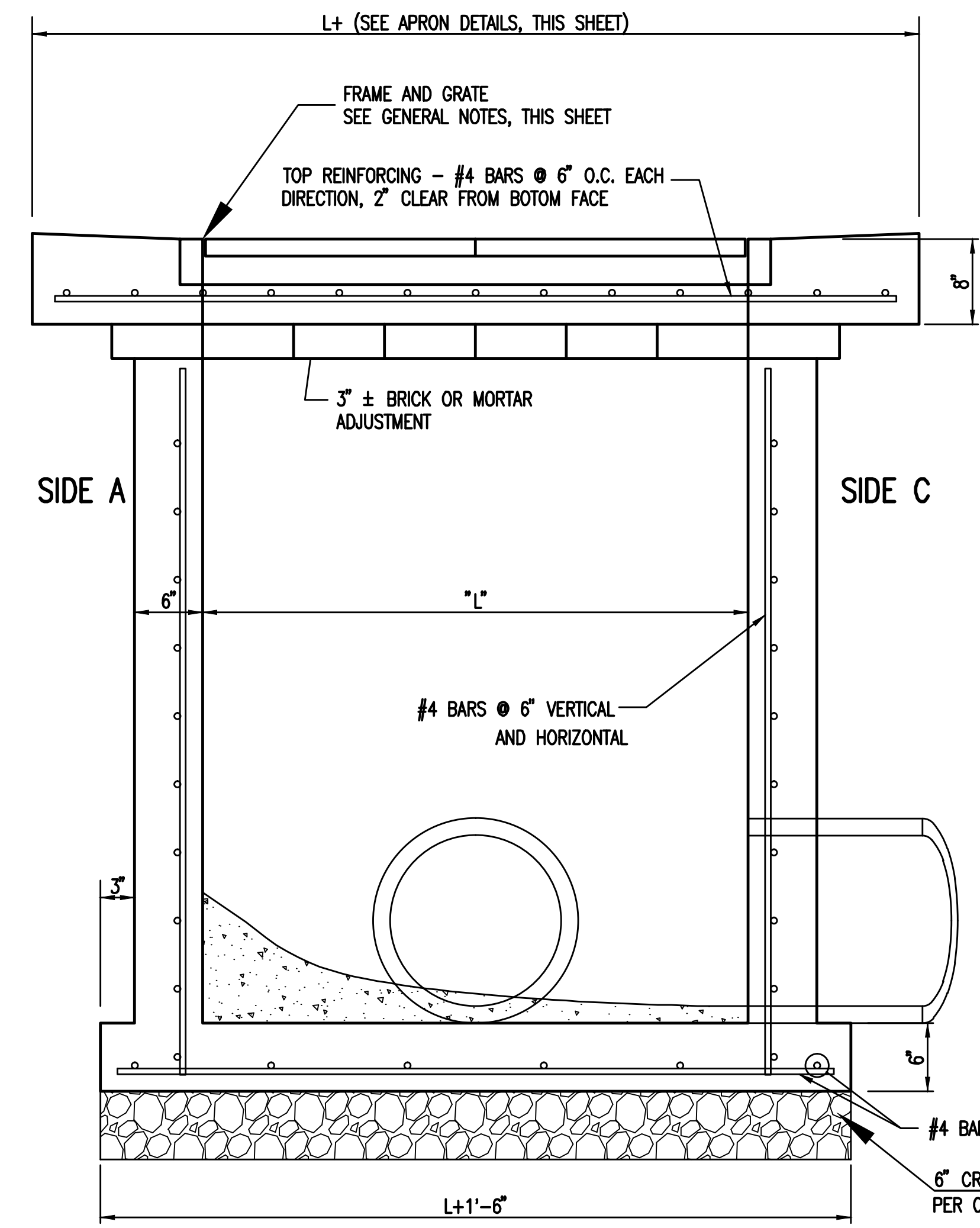
18" APRON

W=2' and L=2' for SINGLE DROP INLET
W=2' and L=4' for DOUBLE DROP INLET

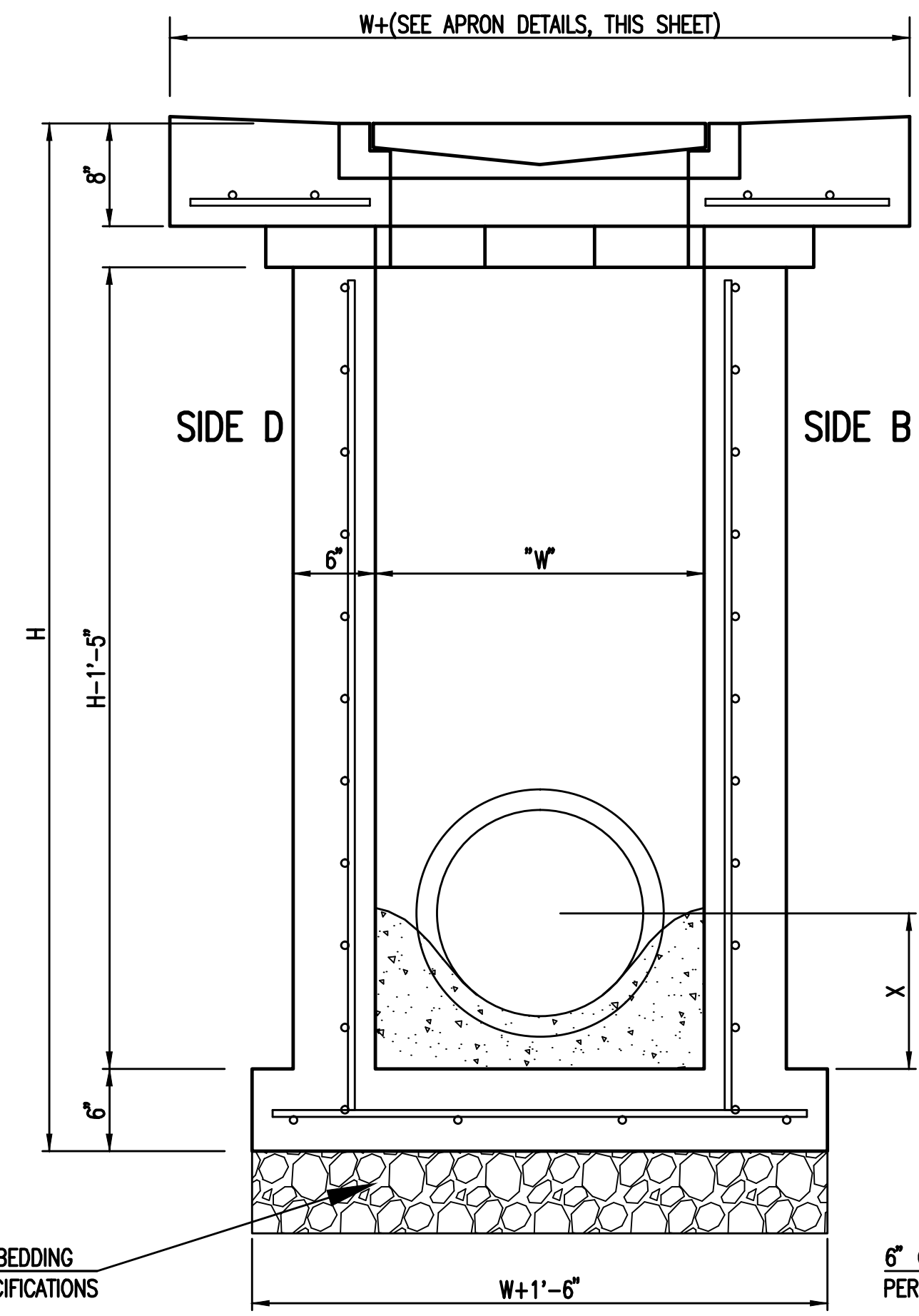
The structure(s) on this detail sheet are designed for HS-20 loading at these specific dimensions only. If larger dimensions are required, the ENGINEER shall provide a project specific structure design for approval by the City Engineer's office.

GENERAL NOTES

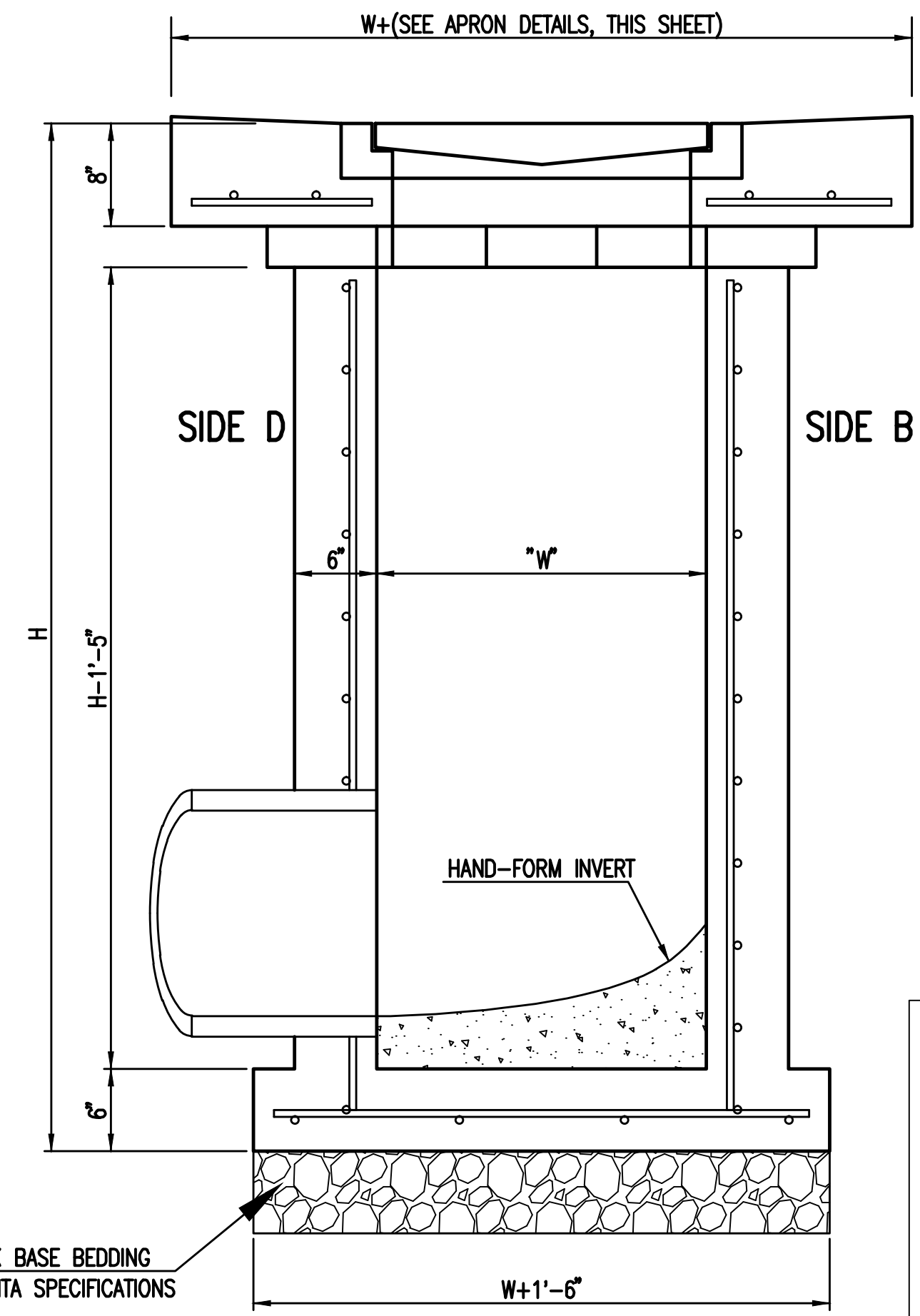
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
4. INLET FRAME AND GRATE TO BE DEETER #2433, EJIW #5391-21 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 23 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
5. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.



SECTION "A-A"



SECTION "B-B"
END OUTLET



SECTION "B-B"
SIDE OUTLET



| | | |
|--|------------------------|-----------------------|
| SINGLE/DOUBLE DROP INLET | | |
| CITY ENGINEER GARY JANZEN, P.E. | | |
| PROJECT NUMBER 0303 PPD | OCA NUMBER (607861) | DATE 05/2011 |
| CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501 | | SHEET C-211 |

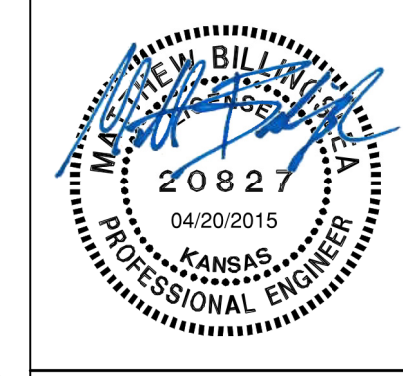
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 Plot: Scale: 1:1 04-20-2015 8:42:27 AM by CSJ
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Saved: 04-20-2015 8:36:08 AM by CSJ
 Plot: Scale: 1:1 04-20-2015 8:42:27 AM by CSJ
 U:\Wichita-Civil\2014\14000\14037\Sht. C-211-SINGLE DOUBLE DROP INLET

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 303 S. Topeka
 Wichita, KS 67202
 T 316.262.2691
 pec1.com



| REVISIONS | | |
|-----------|-------|------|
| # | ISSUE | DATE |

Wichita State University
FACILITIES PLANNING
 WICHITA STATE UNIVERSITY
 1845 FAIRBANKS ST.
 WICHITA, KANSAS 67260-0023
 TEL: 316.985.6800

PROJECT NUMBERS
 State Project # A-012430
 State Work # 14037
 PROJECT TYPE
 CONSTRUCTION
 APPROVED BY

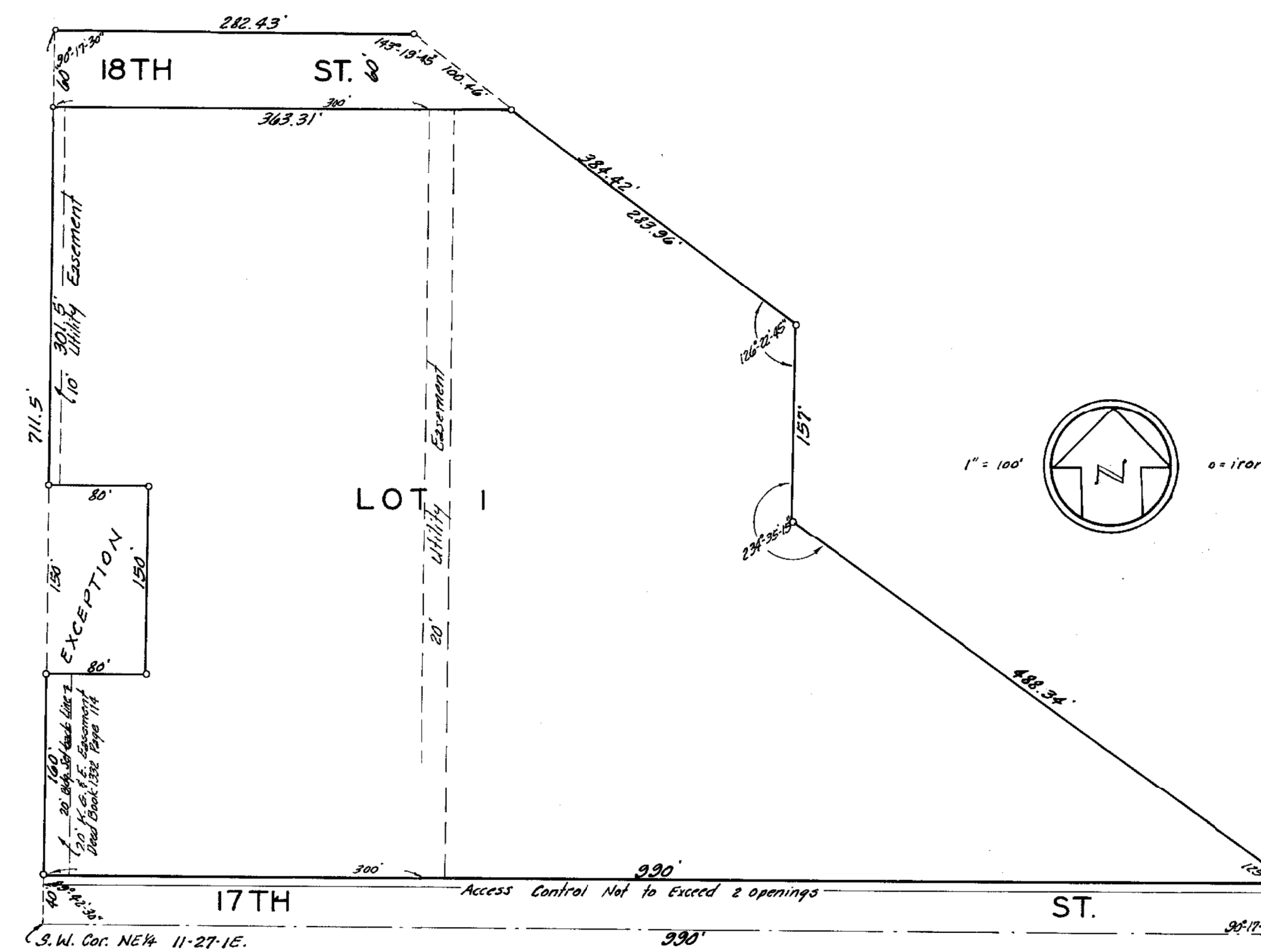
Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
 1845 FAIRBANKS ST.
 WICHITA, KANSAS 67260-0023
 Original Issue Date: April 20, 2015
 Drawn By: PEC

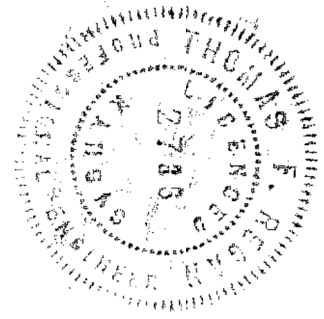
SINGLE DOUBLE
 DROP INLET
 A-012430
 C-211
 ORIGINAL CONSTRUCTION
 DOCUMENTS

SW-201

WHEATSHOCKER ADDITION TO WICHITA, KANSAS.



State of Kansas } S.S. We, Baughman Company, Surveyors in aforesaid county and state
 Sedwick County } do hereby certify that we have surveyed and plotted "WHEATSHOCKER ADDITION"
 to Wichita, Kansas, and that the accompanying plat is a true and correct
 exhibit of the property surveyed, described as follows: Beginning at the S.W. Corner of
 the NE 1/4 of Sec. 11, Twp. 27 S., R. 15 E.; thence north along the west line of said 1/4 section, 711.5 feet; thence
 east parallel with the south line of said 1/4 section, 282.43 feet; thence southeasterly 388.42
 feet to a point which is 592 feet east and 482 feet north of the S.W. Corner
 of said 1/4 section; thence south parallel with the west line of said 1/4 section,
 157 feet; thence southeasterly 488.34 feet to a point 990 feet east and 40 feet
 north of the S.W. Corner of said 1/4 section; thence south parallel with the
 west line of said 1/4 section 40 feet to the south line of said 1/4 section;
 thence west 990 feet to beginning, except the north 150 feet of the south
 350 feet of the west 80 feet thereof.



Baughman Company, Surveyors
 By: Dwight G. Yegor Engineer

wdm
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WICHITA STATE
UNIVERSITY
 FACILITIES PLANNING
 WICHITA STATE UNIVERSITY
 1846 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 TEL: 316.985.8800

PROJECT NUMBERS
 State Project # A-012420
 State Work # 1403
 PROJECT TYPE
 CONSTRUCTION
 APPROVED BY

Department of Administration
 Office of Facilities & Procurement
 Management Design & Construction
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
 1846 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 Original Issue Date:
 April 20, 2015
 Drawn By:
 PEC

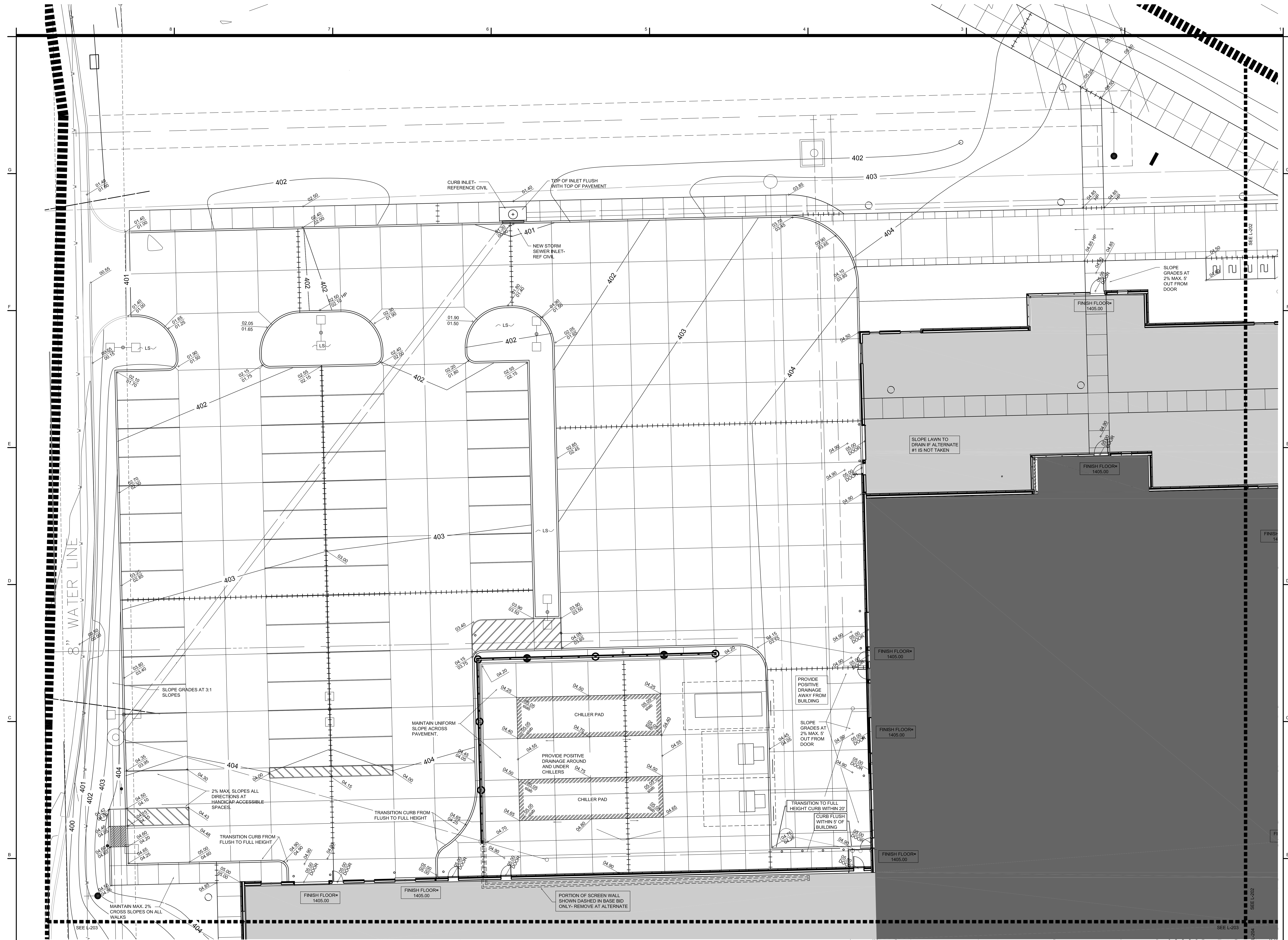
PLAT

A-012430

C-501

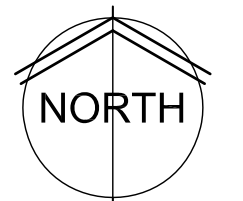
ORIGINAL CONSTRUCTION
 DOCUMENTS

FOR INFORMATION ONLY



SITE GRADING PLAN

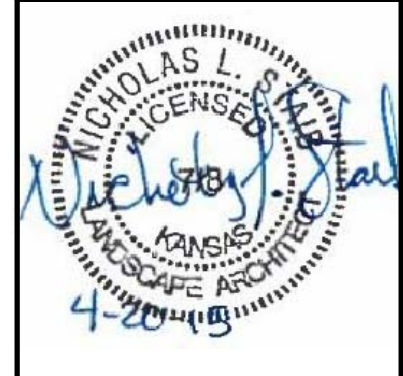
0 5' 10' 20'
SCALE: 1" = 10'



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REVISIONS

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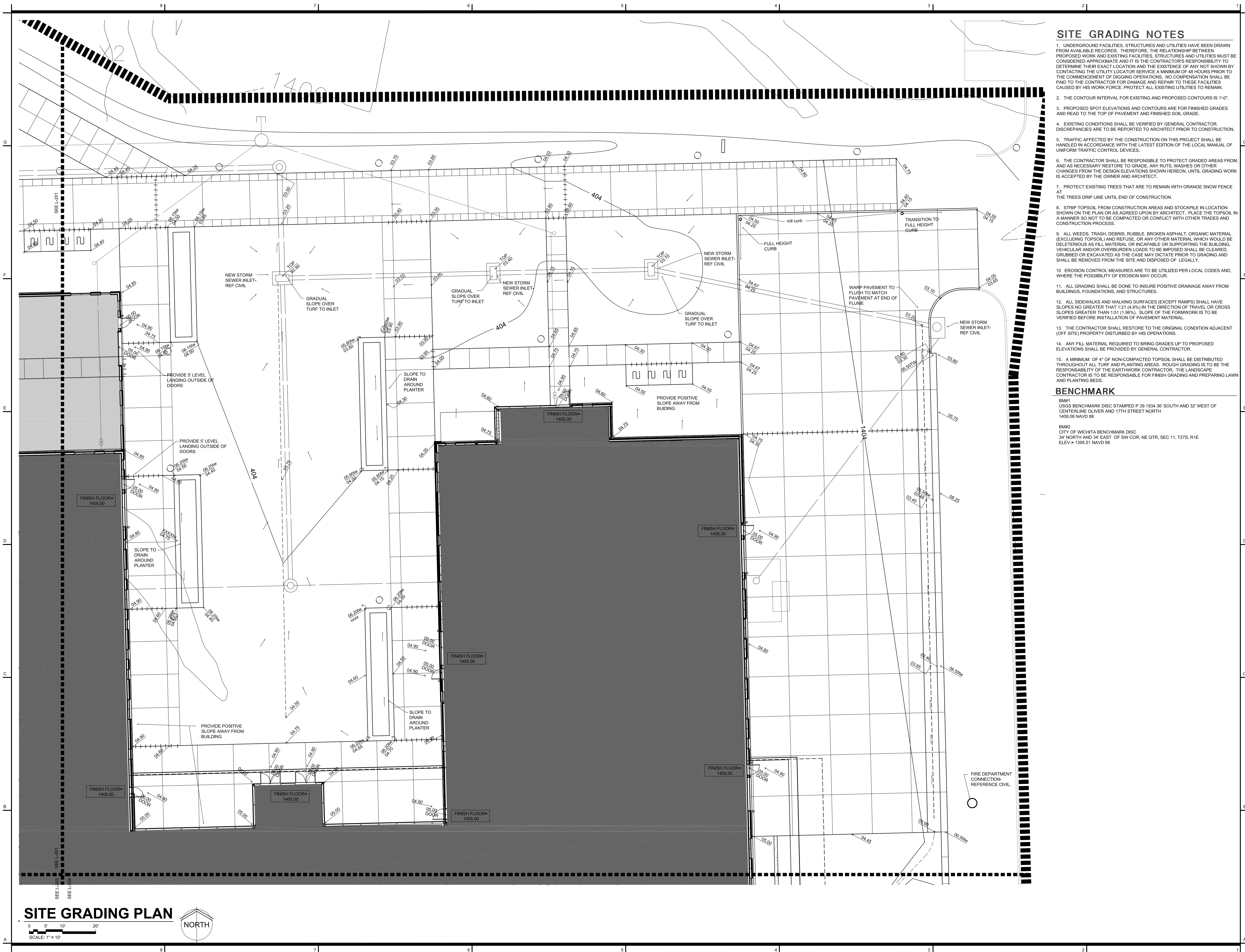
PROJECT NUMBERS
Site Project # - A-012430
State Building # 715000087
WDM # - 1001
PROJECT TYPE
NEW CONSTRUCTION
APPROVED BY

FACILITIES PLANNING
WICHITA STATE UNIVERSITY
Wichita, Kansas 67260
TEL: 316.984.9300

Department of Administration
Office Management, Construction
& Compliance
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone: 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1845 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Original Issue Date:
April 20, 2015
Drawn By:
WDM Architects

SITE GRADING PLAN
A-012430
L-201
ORIGINAL CONTRACT DOCUMENTS



SITE GRADING NOTES

- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXACT LOCATION AND THE EXISTENCE OF ANY NOT SHOWN BY CONTACTING THE UTILITY LOCATOR SERVICE A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF DIGGING OPERATIONS. NO COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE. PROTECT ALL EXISTING UTILITIES TO REMAIN.
- THE CONTOUR INTERVAL FOR EXISTING AND PROPOSED CONTOURS IS 1'-0".
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BENCHMARK

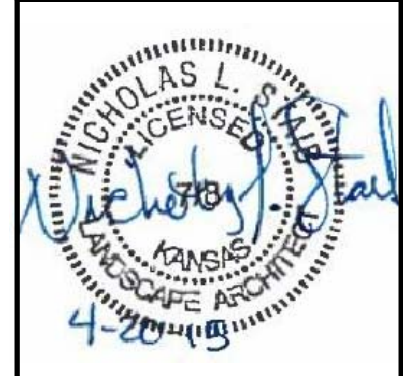
BM#1
USGS BENCHMARK DISC STAMPED P 39 1934 36' SOUTH AND 32' WEST OF CENTERLINE OLIVER AND 17TH STREET NORTH
1409.08 NAVD 88

BM#2
CITY OF WICHITA BENCHMARK DISC
34' NORTH AND 34' EAST OF SW COR. NE QTR. SEC 11, T27S, R1E
ELEV. = 1395.51 NAVD 88

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FACILITIES PLANNING
WICHITA STATE UNIVERSITY
Wichita, Kansas 67260
TEL: 316.949.5850

PROJECT NUMBERS
Site Number # A-012430
State Building # 715000087
WDM # 1-1001
PROJECT TYPE
NEW CONSTRUCTION
APPROVED BY

Department of Administration
Management Design, Construction
& Compliance
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899

WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1845 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Original Issue Date: April 20, 2015
Drawn By: WDM Architects

SITE GRADING PLAN
A-012430
L-202
ORIGINAL CONTRACT DOCUMENTS

SITE GRADING PLAN
SCALE: 1" = 10'
NORTH

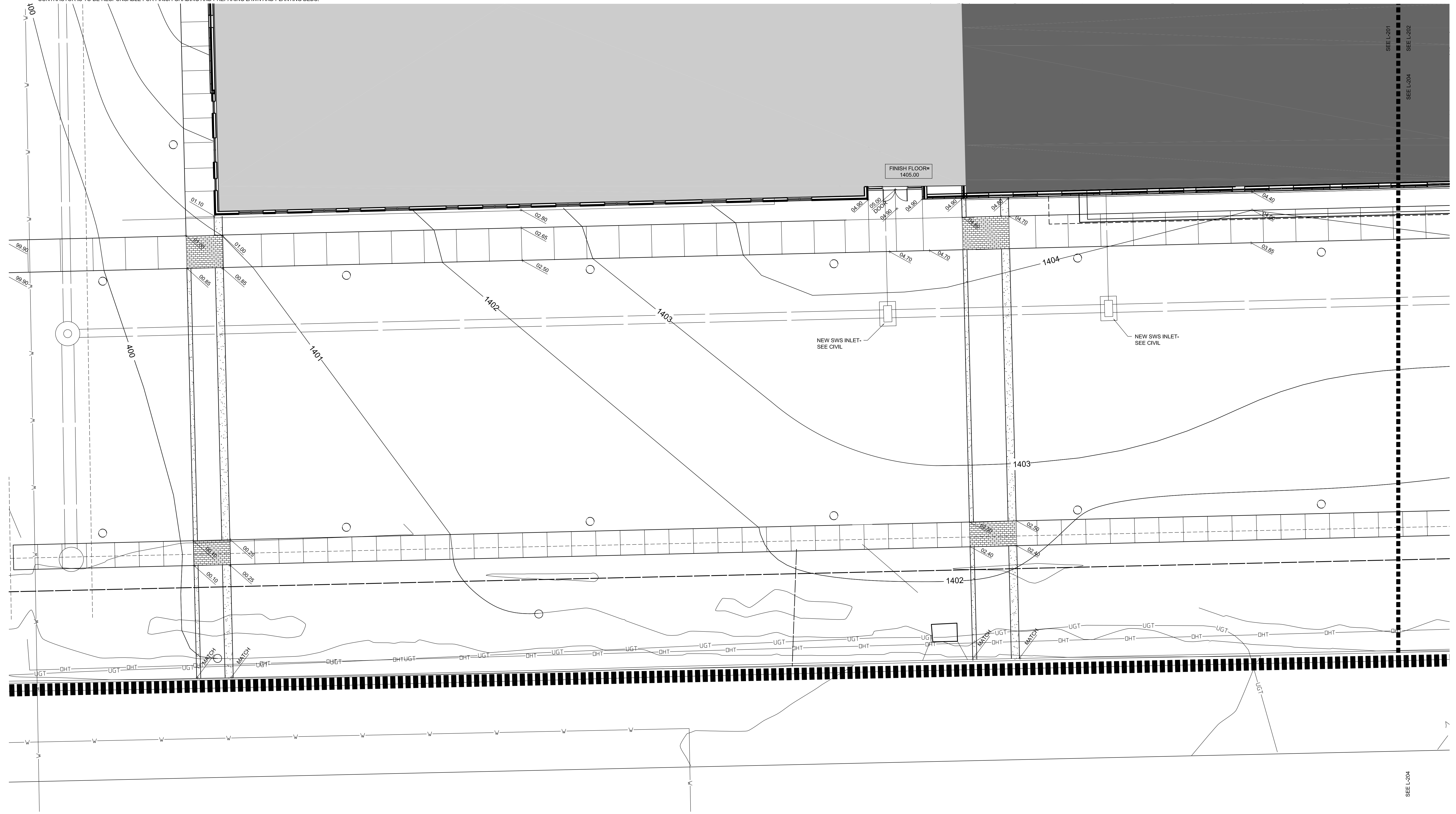
SITE GRADING NOTES

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BENCHMARK

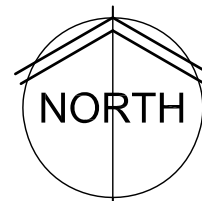
BM#1
USGS BENCHMARK DISC STAMPED P 39 1934 26' SOUTH AND 32' WEST OF CENTERLINE OLIVER AND 17TH STREET NORTH
1409.08 NAVD 88

BM#2
CITY OF WICHITA BENCHMARK DISC
34' NORTH AND 34' EAST OF SW COR, NE QTR, SEC 11, T27S, R1E
ELEV = 1366.51 NAVD 88



SITE GRADING PLAN

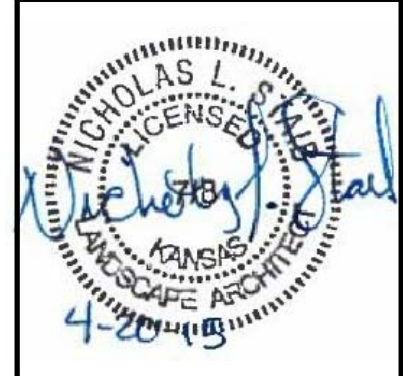
SCALE: 1" = 10'



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| # | ISSUE | DATE |
|---|-------|------|
| | | |

FACILITIES PLANNING
WICHITA STATE UNIVERSITY
Wichita, Kansas 67260
TEL: 316.949.9300

PROJECT NUMBERS
State Project # A-171203
State Building # 715000087
WDM # 1-1001
PROJECT TYPE
NEW CONSTRUCTION
APPROVED BY

Department of Administration
Management Design, Construction
& Compliance
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899

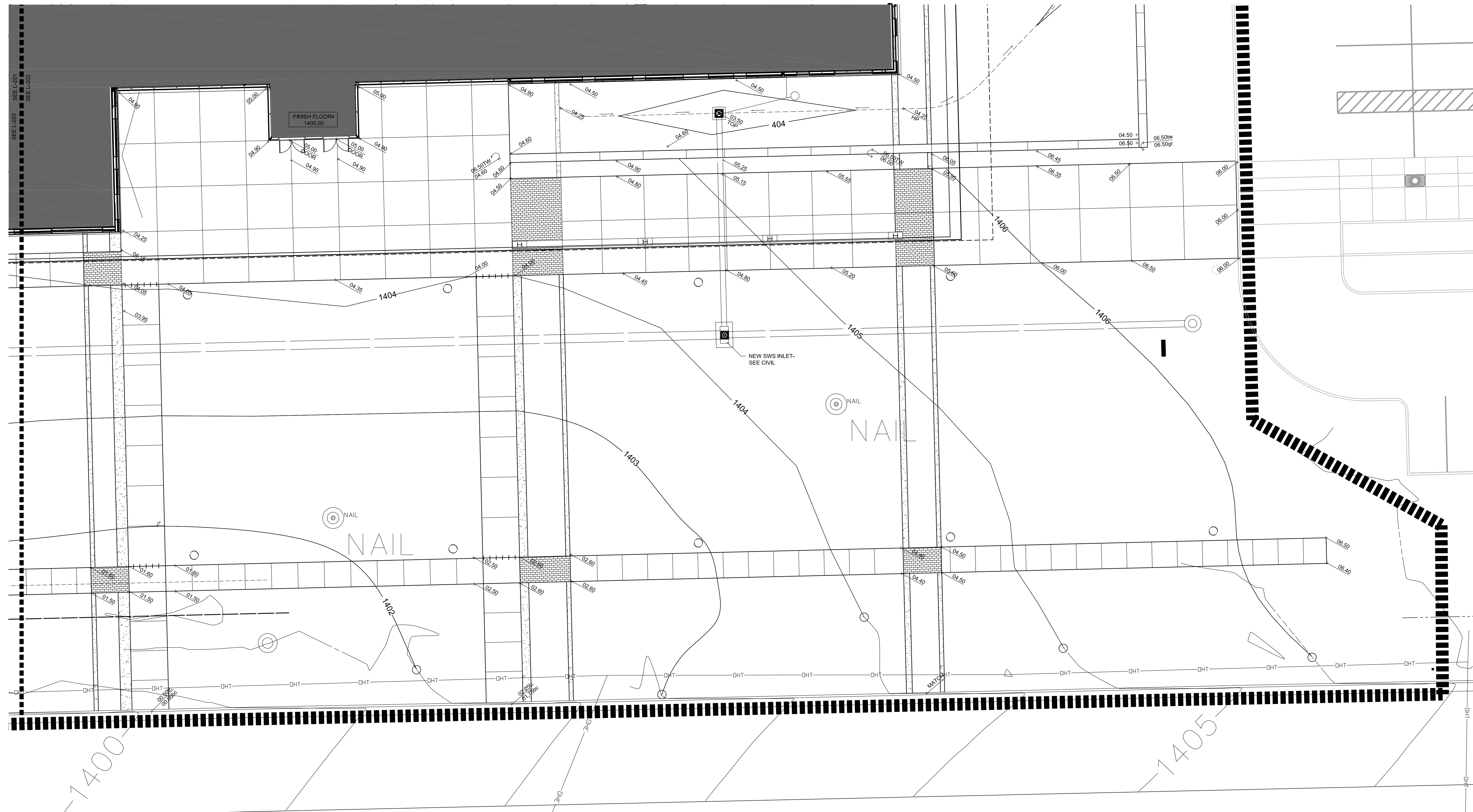
WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1945 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Original Issue Date:
April 20, 2015
Drawn By:
WDM Architects

SITE GRADING PLAN

A-012430

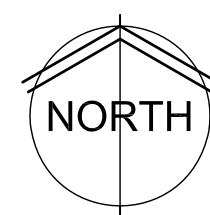
L-203

ORIGINAL CONTRACT DOCUMENTS



SITE GRADING PLAN

0 5' 10' 20'
SCALE: 1" = 10'



SITE GRADING NOTES

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXACT LOCATION AND THE EXISTENCE OF ANY NOT SHOWN BY CONTACTING THE UTILITY LOCATOR SERVICE A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF DIGGING OPERATIONS. NO COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE. PROTECT ALL EXISTING UTILITIES TO REMAIN.
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BENCHMARK

BM#1
USGS BENCHMARK DISC STAMPED P 39 1934 36' SOUTH AND 32' WEST OF CENTERLINE OLIVER AND 17TH STREET NORTH
1405.08 NAVD 83

BM#2
CITY OF WICHITA BENCHMARK DISC
34' NORTH AND 34' EAST OF SW COR, NE QTR, SEC 11, T27S, R1E
ELEV. = 1395.51 NAVD 88



WDM ARCHITECTS P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com



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303 S. Topeka
Wichita, KS 67202
T 316.262.2691
pect.com



REVISIONS

| # | ISSUE | DATE |
|---|-------|------|
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FACILITIES PLANNING
WICHITA STATE UNIVERSITY
WICHITA, KANSAS 67260-0023
TEL: 316.949.9300

PROJECT NUMBERS
State Project # - A-012430
State Building # - 715000087
WDM # - 1-0001
PROJECT TYPE
NEW CONSTRUCTION
APPROVED BY

Department of Administration
City of Wichita
Management Design, Construction
& Compliance
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899

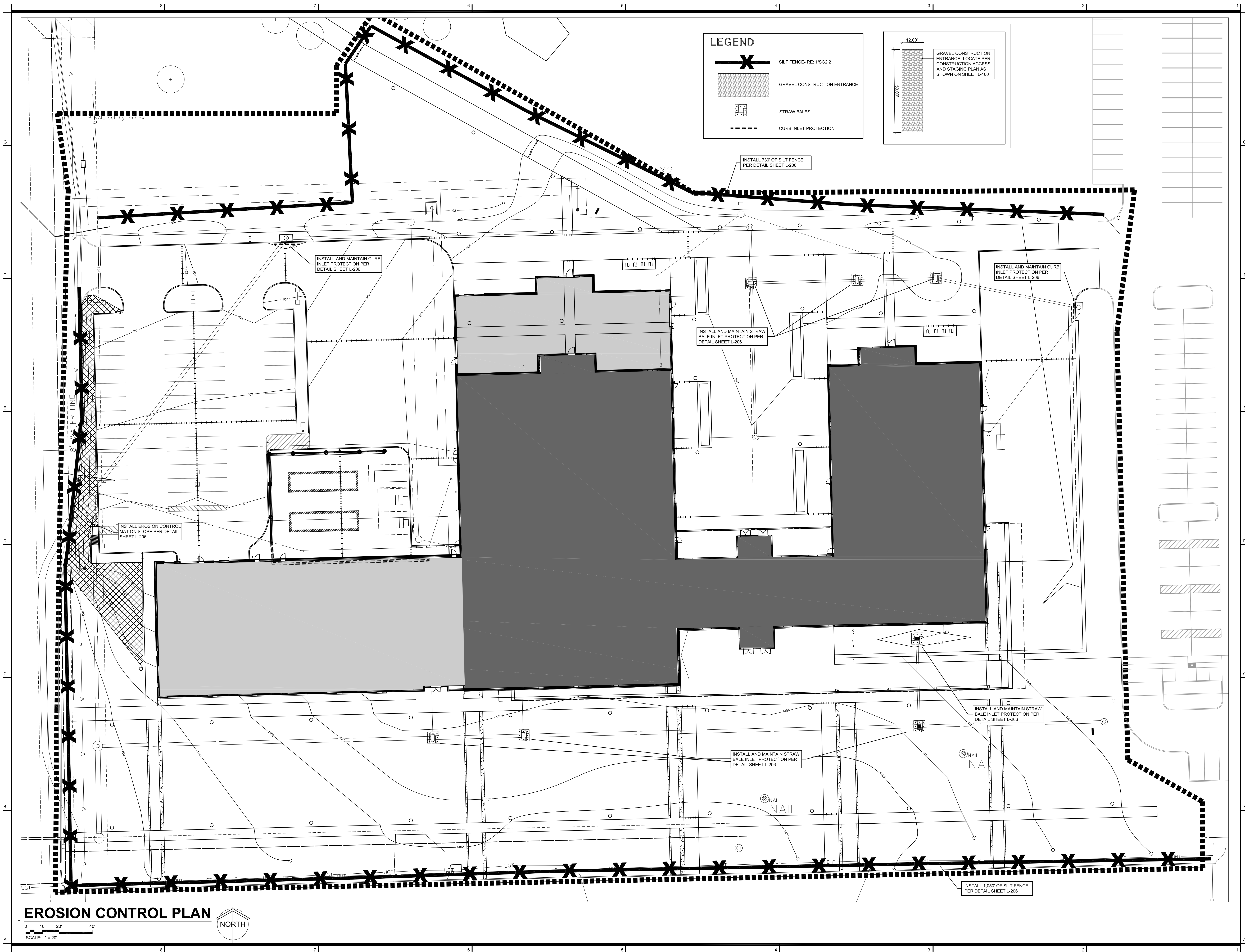
WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1945 FAIRMOUNT ST.
WICHITA, KANSAS 67260-0023
Drawn By: WDM Architects
Original Issue Date: April 20, 2015

SITE GRADING PLAN

A-012430

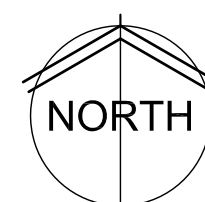
L-204

ORIGINAL CONTRACT DOCUMENTS



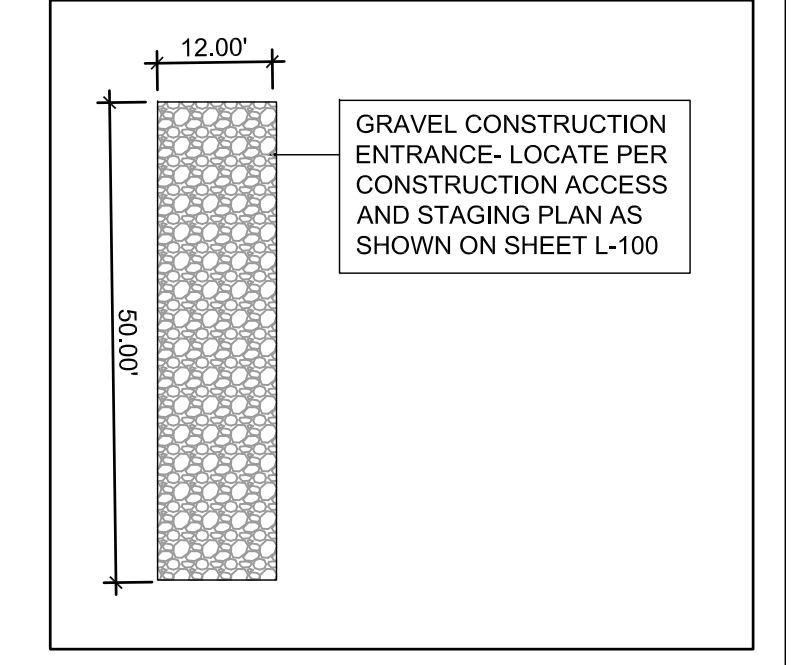
EROSION CONTROL PLAN

SCALE: 1" = 20'



LEGEND

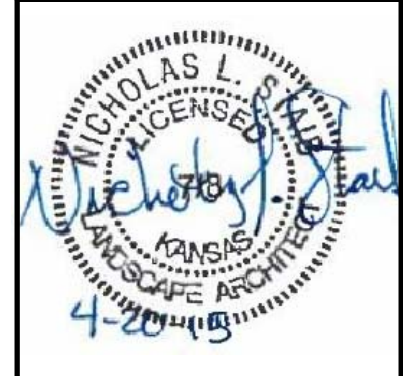
- SILT FENCE- RE: 1/SG2.2
- GRAVEL CONSTRUCTION ENTRANCE
- STRAW BALES
- CURB INLET PROTECTION



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| # | ISSUE | DATE |
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FACILITIES PLANNING
 WICHITA STATE UNIVERSITY
 WICHITA, KANSAS 67260-0023
 TEL: 316.949.5858

PROJECT NUMBERS
 State Project # - A-012430
 State Building # 71500-0087
 WDM # - 1001
PROJECT TYPE
 NEW CONSTRUCTION
APPROVED BY

Department of Administration
 Management, Design, Construction
 & Compliance
 800 SW Jackson, Suite 700
 Topeka, Kansas 66612-1216
 Phone 785-296-8899

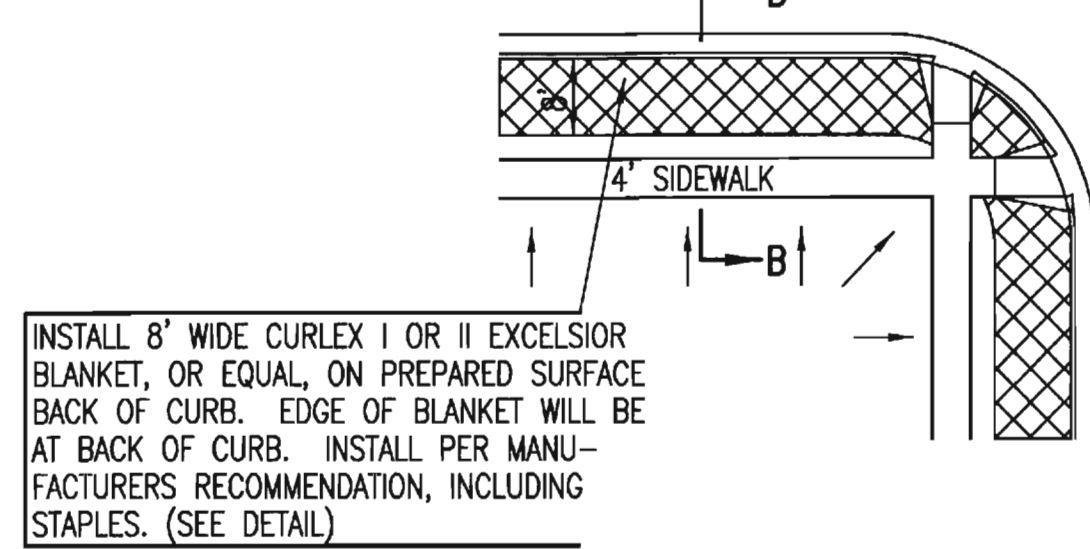
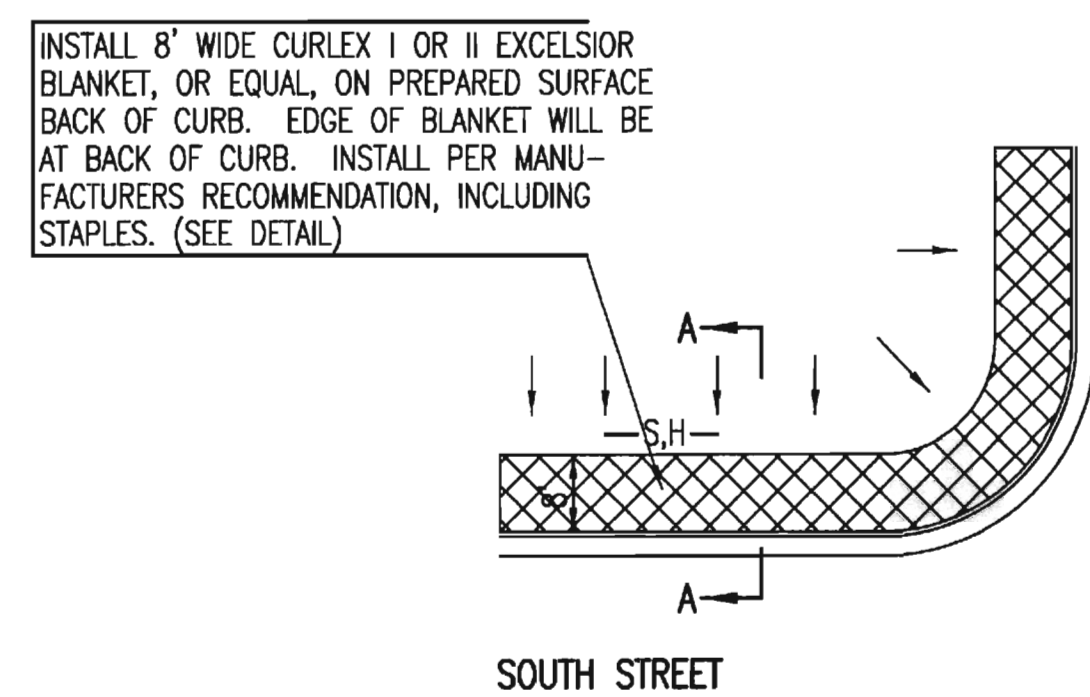
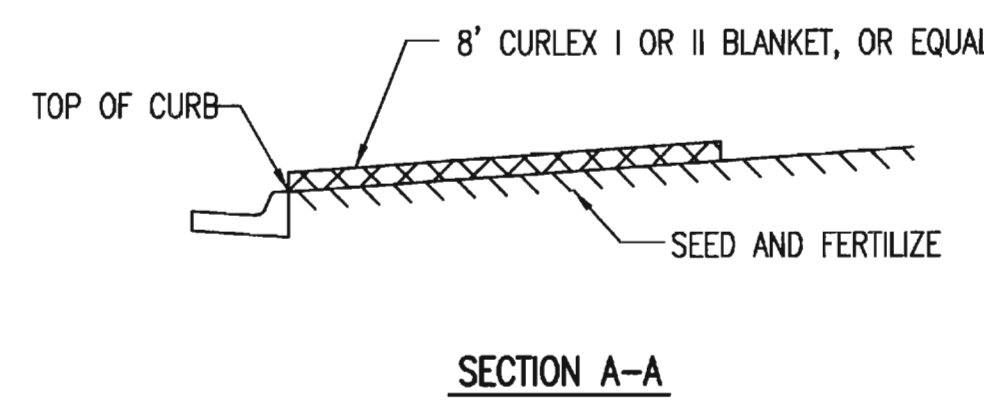
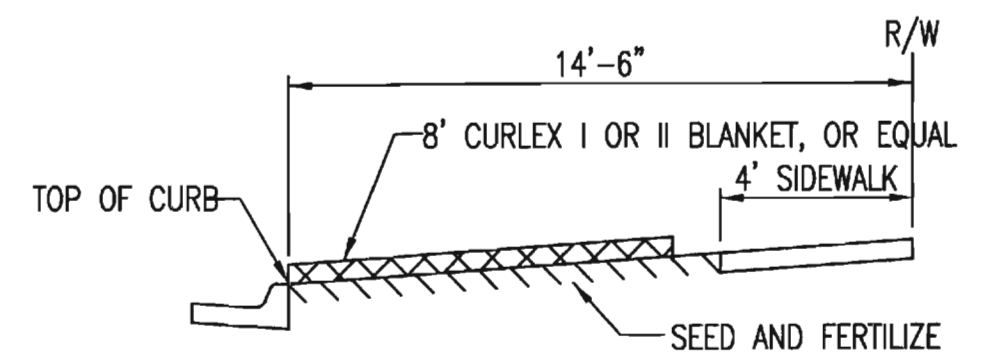
WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
 1945 FAIRMOUNT ST.
 WICHITA, KANSAS 67260-0023
 Original Issue Date:
 April 20, 2015
 Drawn By:
 WDM Architects

EROSION CONTROL PLAN

A-012430

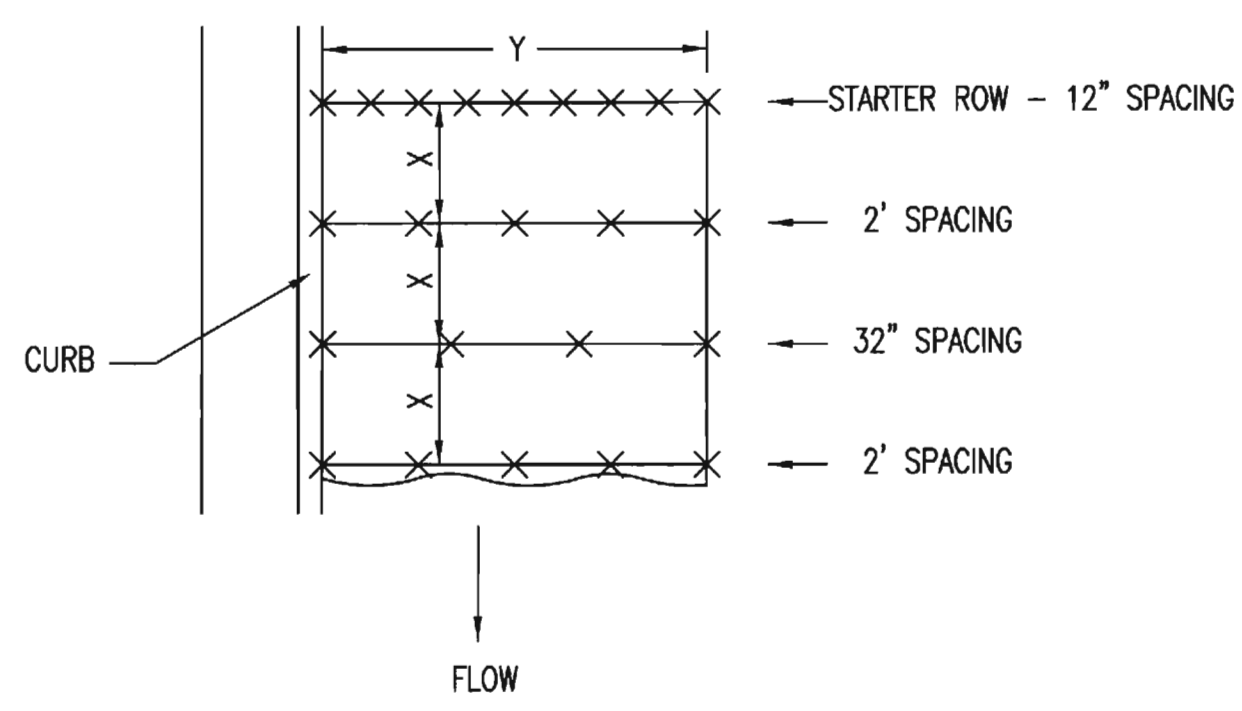
L-205

ORIGINAL CONTRACT DOCUMENTS



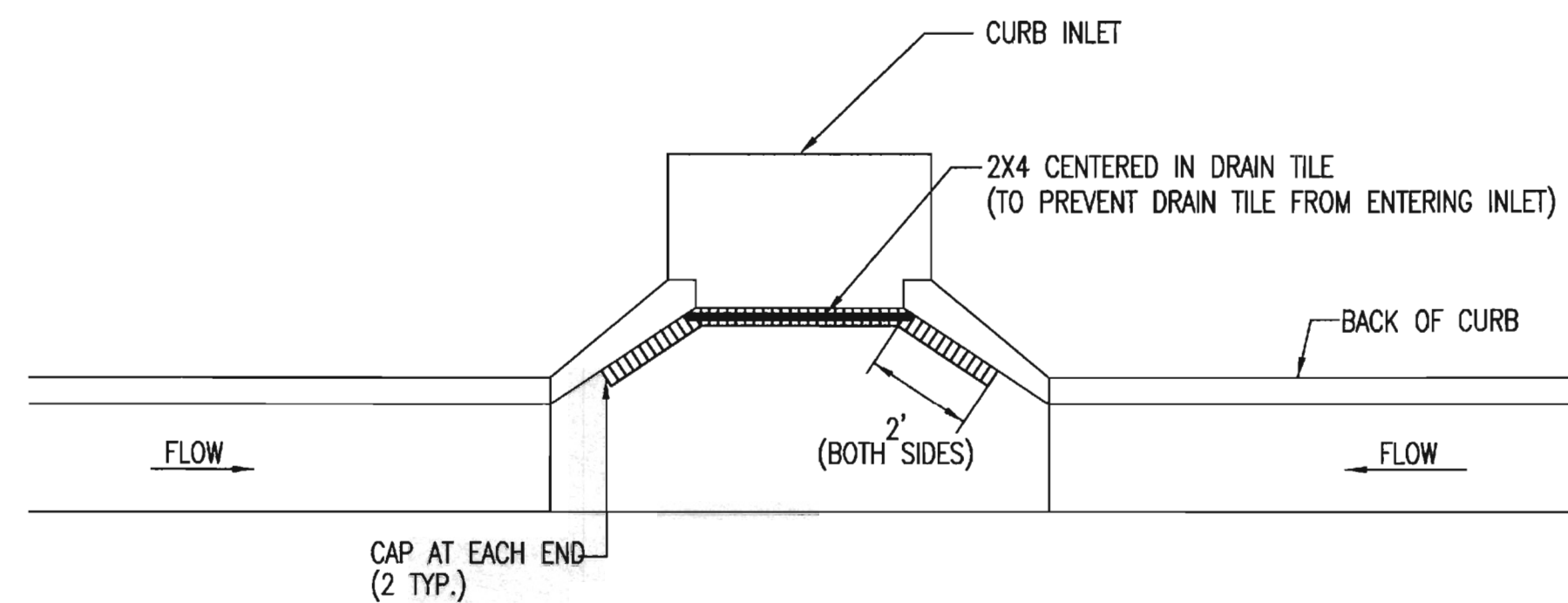
- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
 - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
 - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

BACK OF CURB PROTECTION DETAIL



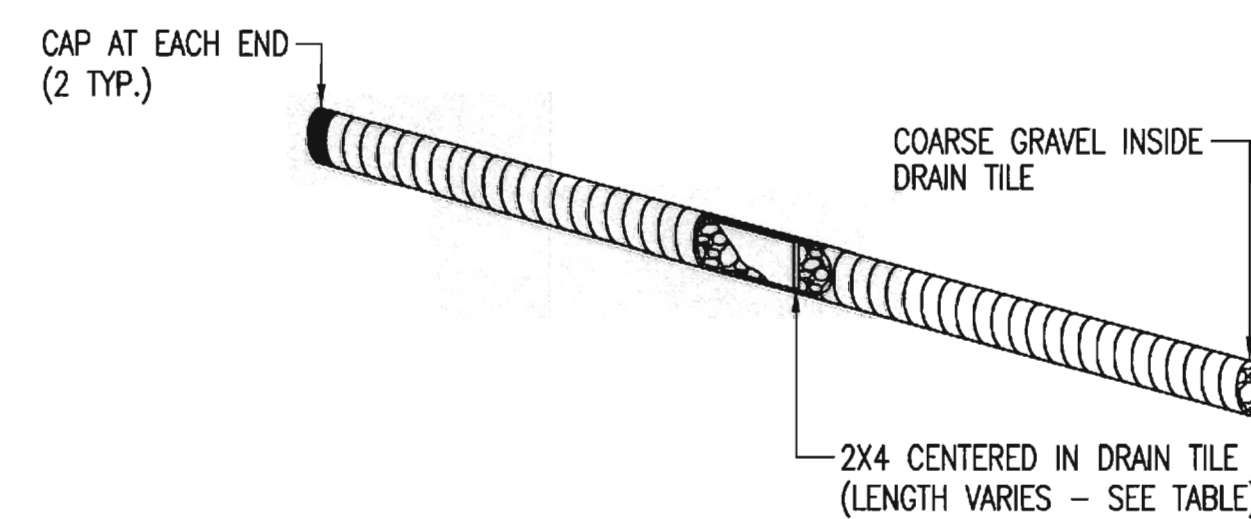
NOTES: USE 6\"/>

DETAILS FOR APPROVED EROSION CONTROL MAT

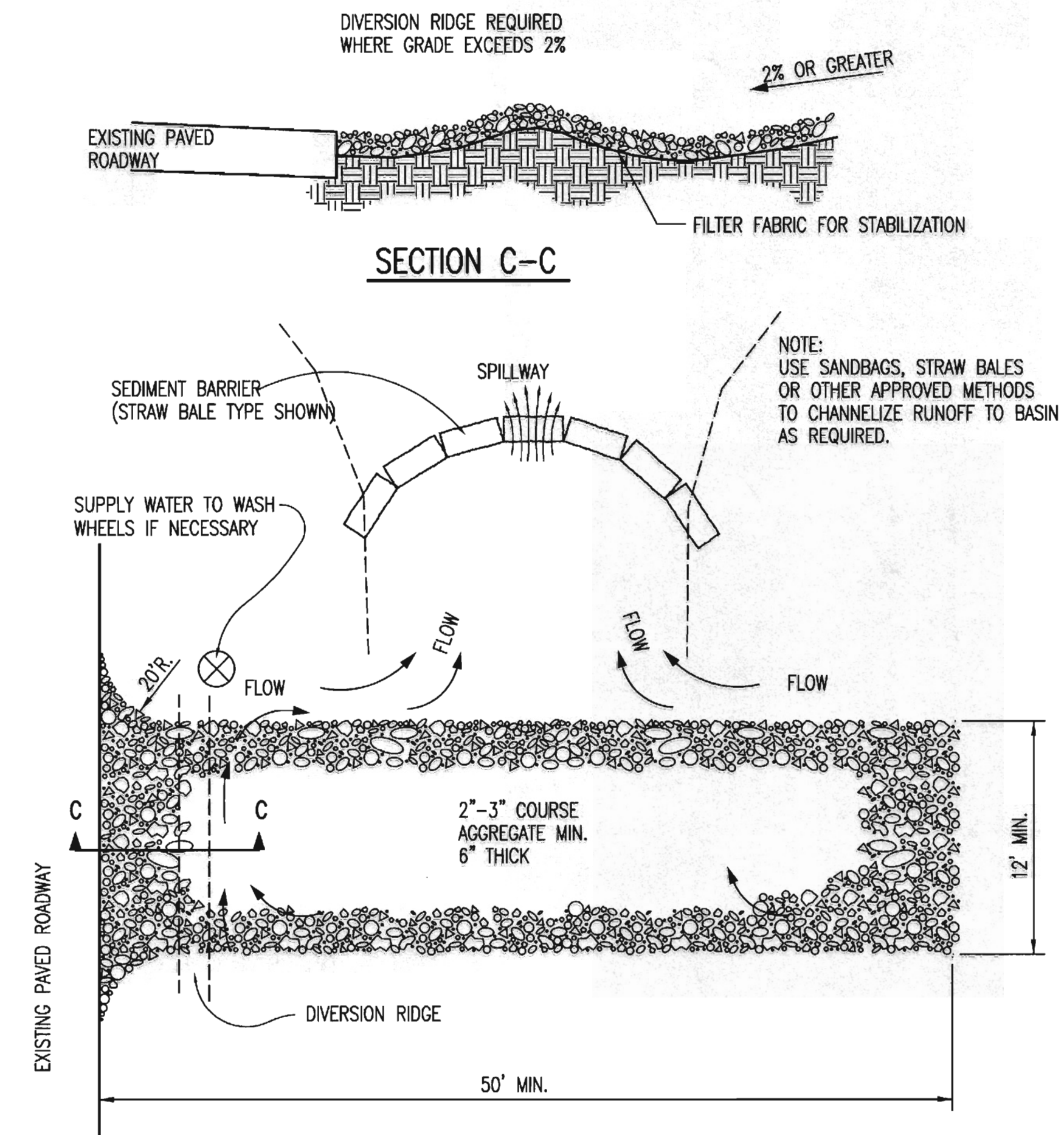


NOTE: PLACE 4\"/>

| 2X4 LENGTH | INLET TYPE | INLET OPENING |
|------------|------------|---------------|
| 5'-6" | 1-A | 5'-0" |
| 10'-6" | 1-A | 10'-0" |
| 15'-6" | 1-A | 15'-0" |

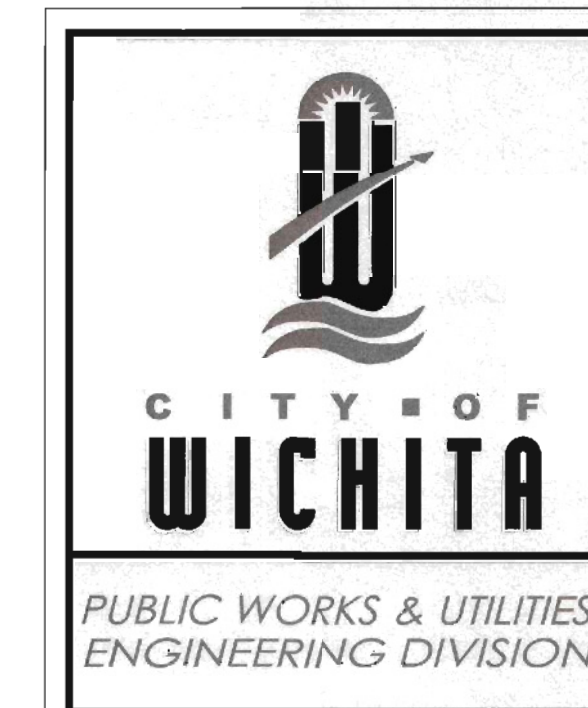


CURB INLET PROTECTION
4\"/>



GENERAL NOTES

- 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, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
- DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, 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.



BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER: _____ OCA NUMBER: _____ DATE: _____

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
C502

REVISION DATE: MAY 2013

SW-501



REVISIONS

| # | ISSUE | DATE |
|---|-------|------|
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TEL: 785-843-8888

PROJECT NUMBERS
State Project # A-012430
State Work # 1403
PROJECT TYPE
CONSTRUCTION

Department of Administration
Office of Facilities & Procurement
Management Design, Construction
800 SW Jackson St., Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899

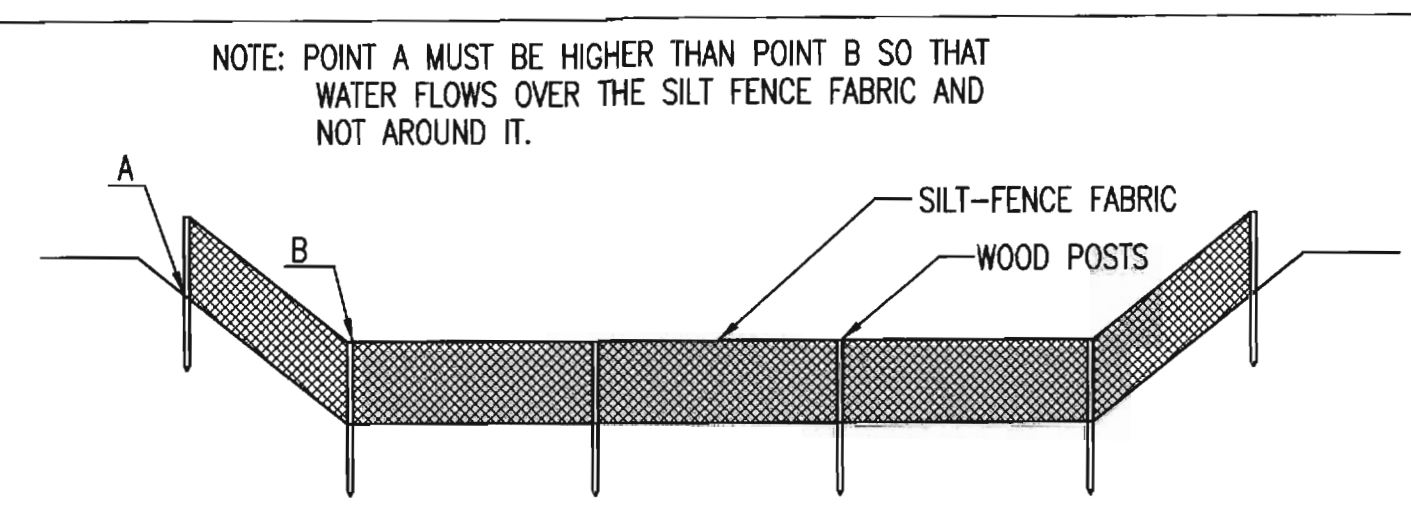
WICHITA STATE UNIVERSITY
EXPERIENTIAL ENGINEERING BUILDING
1845 FAIRMOUNT ST.
WICHITA, KANSAS 67202-0023
Drawn By: PEC
Original Issue Date: April 20, 2015

EROSION CONTROL DETAILS

A-012430

C502

ORIGINAL CONSTRUCTION DOCUMENTS



ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 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. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

| DITCH CHECK GRADE (%) | SPACING CHECKS (FEET) |
|-----------------------|-----------------------|
| 0.5 | 200 |
| 1.0 | 200 |
| 2.0 | 100 |
| 3.0 | 65 |
| 4.0 | 50 |
| 5.0 | 40 |
| 6.0 | 30 |

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSTREAM SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE ON THE UPSLOPE SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSTREAM OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

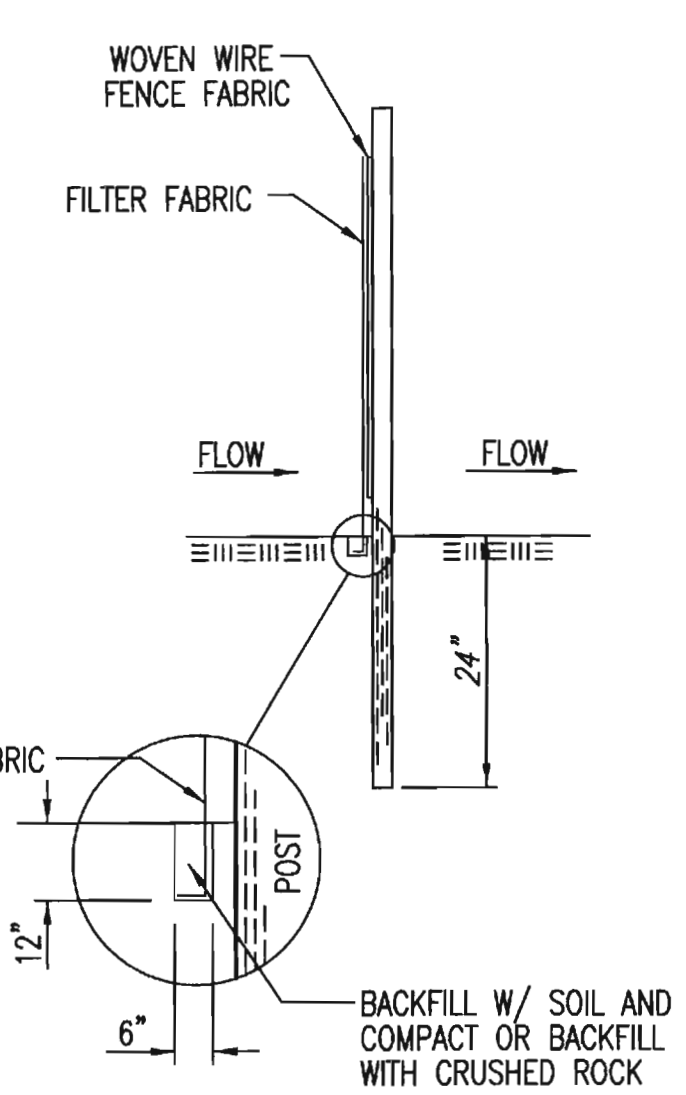
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

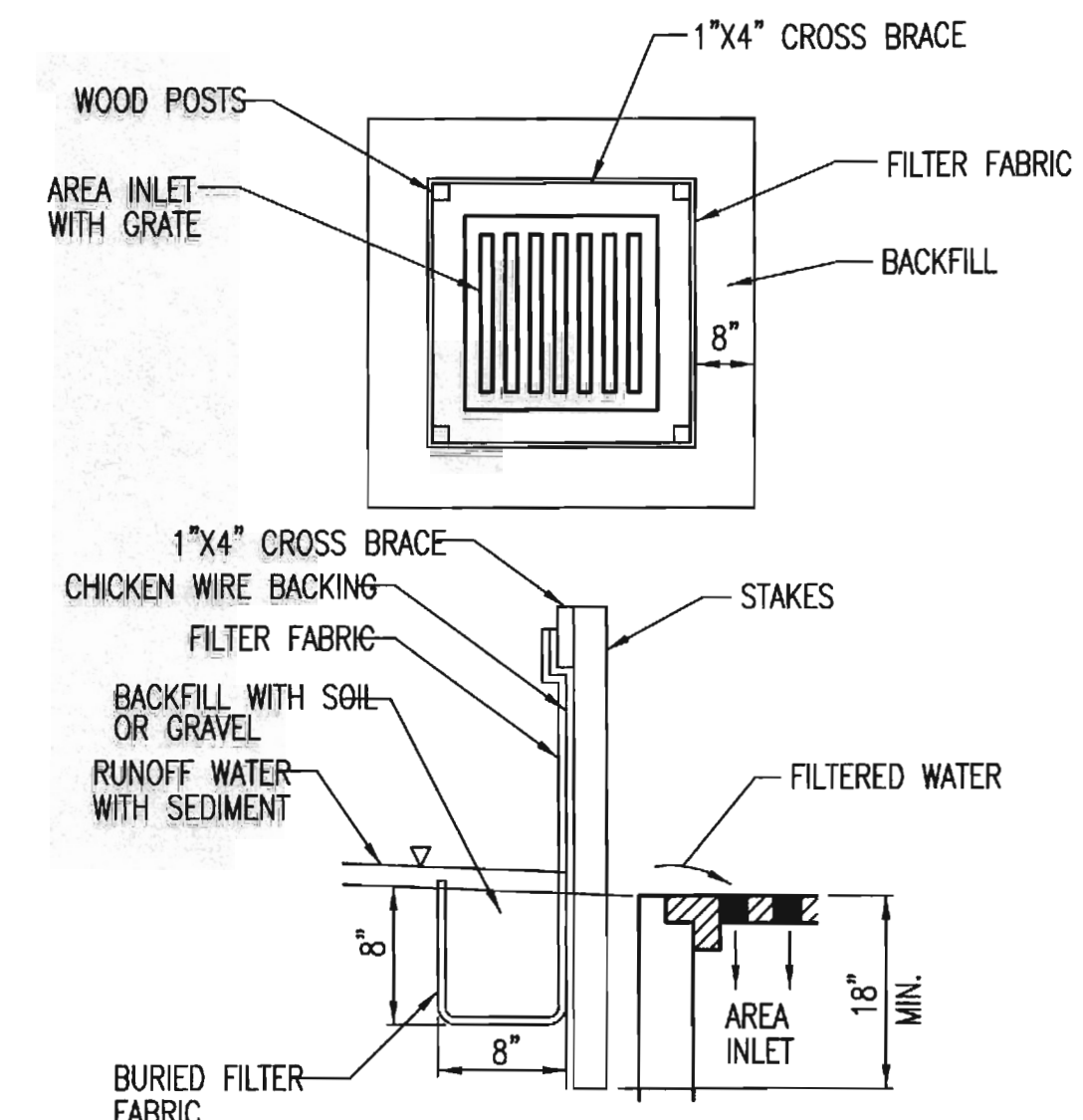
INSPECTION AND MAINTENANCE:

SILT FENCE DITCH CHECKS 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 AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- 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 DITCH CHECK?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 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 SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT 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 THEM. 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 POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT 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. LINE 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 SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT 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.

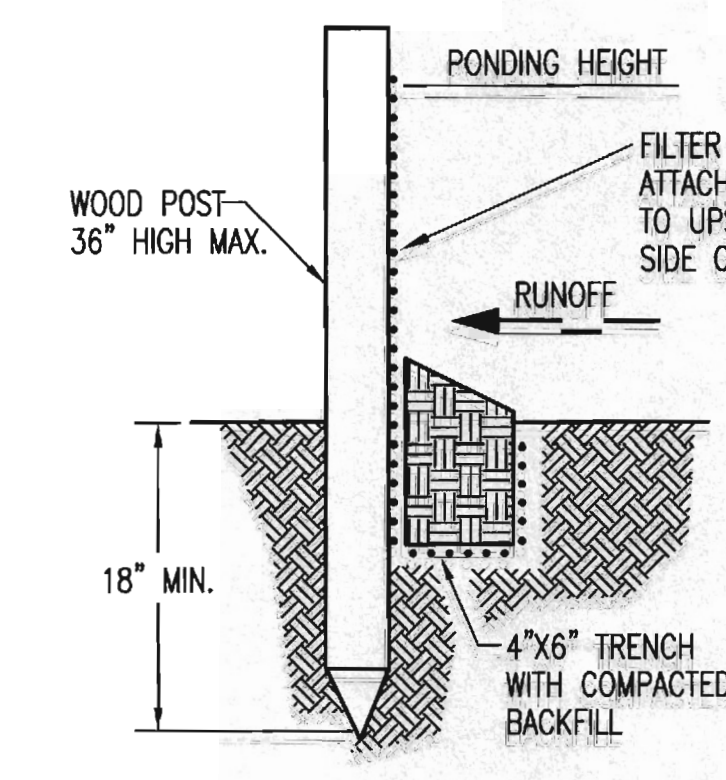
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS 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?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 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. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE 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 SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS 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:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DO THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER: _____ OCA NUMBER: _____ DATE: _____

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
C-503

SW-502

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 File Name: C:\Users\GJanzen\Documents\16257.dwg C:\16257-000-C-503-REVISION CONTROL DETAILS

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REVISIONS

| # | ISSUE | DATE |
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WICHITA STATE UNIVERSITY
FACILITIES PLANNING
WICHITA STATE UNIVERSITY
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PROJECT NUMBERS
State Project # - A-17-1900
State Project # - A-17-1900
WMA # - 1601
PROJECT TYPE
CONSTRUCTION
APPROVED BY

Department of Administration
Office of Facilities & Procurement
Management/Design, Construction
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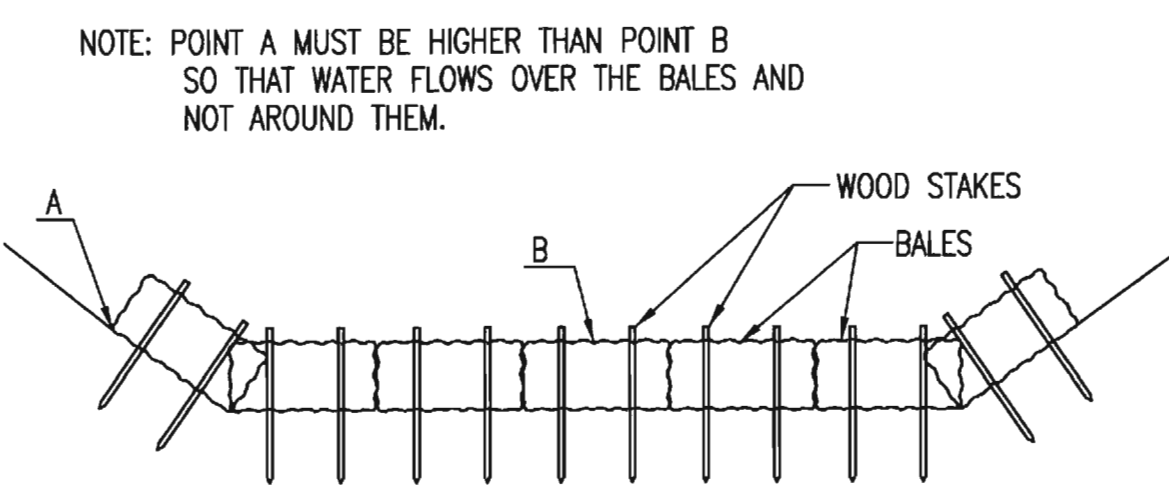
Drawn By: PEC
Original Issue Date: April 21, 2015

EROSION CONTROL DETAILS

A-012430

C-503

ORIGINAL CONSTRUCTION DOCUMENTS



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

| DITCH GRADE (%) | CHECK SPACING (FEET) |
|-----------------|----------------------|
| 0.5 | 200 |
| 1.0 | 200 |
| 2.0 | 100 |
| 3.0 | 65 |
| 4.0 | 50 |
| 5.0 | 40 |
| 6.0 | 30 |

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH-IT WILL BE USED LATER. OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSTREAM SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

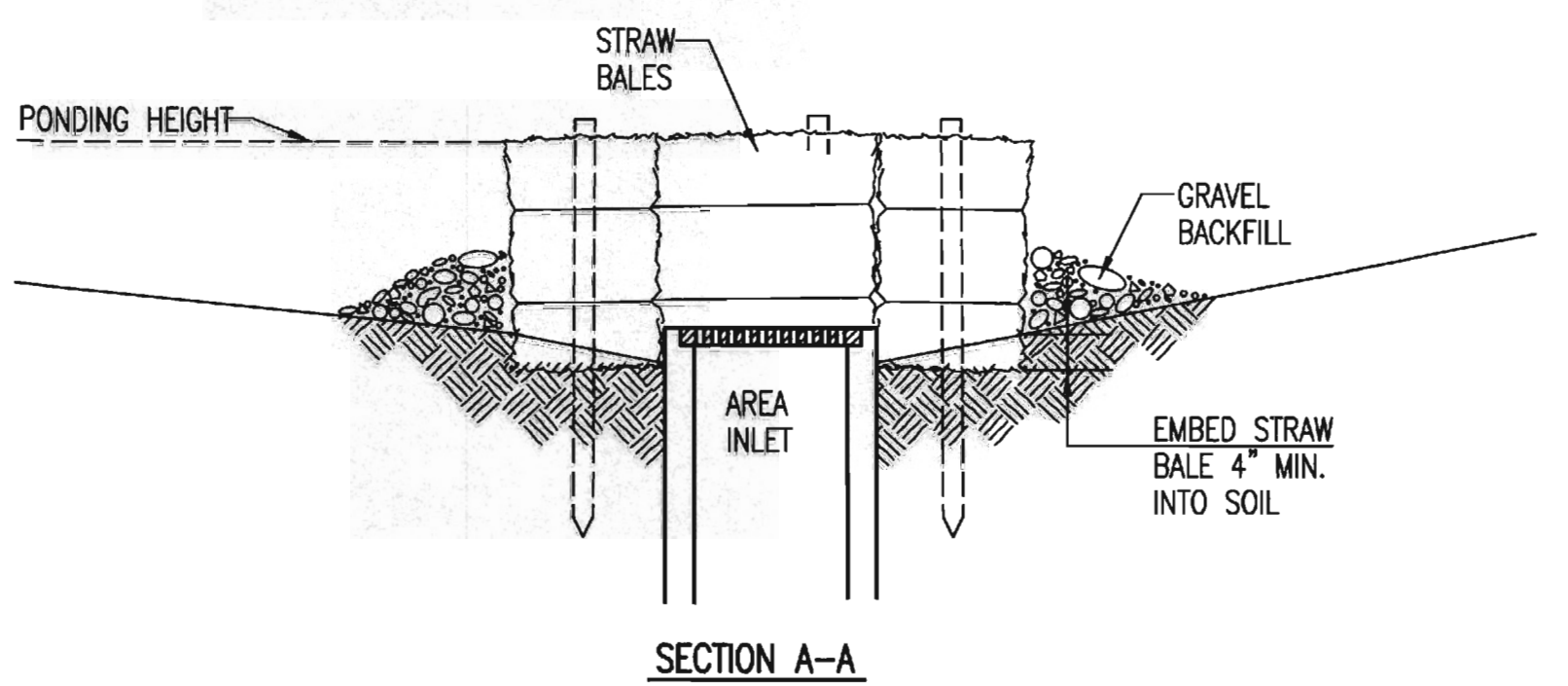
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

INSPECTION AND MAINTENANCE:

BALE DITCH CHECKS 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 AROUND THE DITCH CHECK?
 DOES WATER FLOW UNDER THE DITCH CHECK?
 DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
 ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
 ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
 DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. BALE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

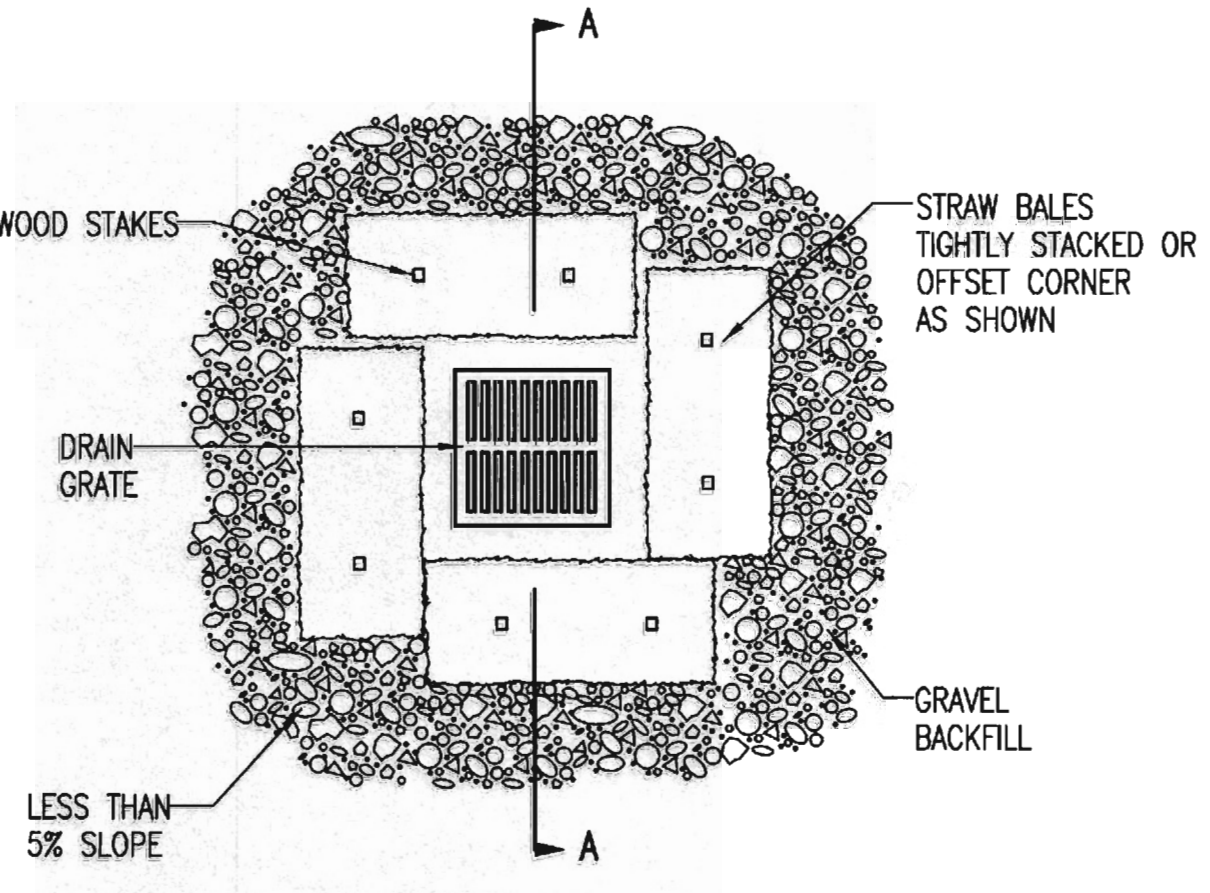
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS. DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE SLOPE 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 SLOPE BARRIERS 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:

ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
 DOES WATER FLOW UNDER THE SLOPE BARRIER?
 DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
 ARE ANY BALES DISLODGED?
 ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
 DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?



STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)

MATERIAL SPECIFICATION:

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

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 DRAMATICALLY 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 BALE'S WIDTH WIDE. 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. ONCE ALL 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 SPREAD 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 OVERTOPPING 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 OF 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 BALES?
 ARE ANY BALES DISLODGED?
 ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
 DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?





CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STRAW BALE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.


PROJECT NUMBER: _____ DCA NUMBER: _____ DATE: _____

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
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(316) 268-4501

REVISION DATE: MAY 2013

SHEET
C-504


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2013
04/20/2015
KANSAS
PROFESSIONAL ENGINEER

REVISIONS

| # | ISSUE | DATE |
|---|-------|------|
| | | |

PROJECT NUMBERS

State Project # A-012430
State Work # 14037
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FACILITIES PLANNING
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Drawn By: PEC
Original Issue Date: April 20, 2015

EROSION CONTROL DETAILS

A-012430

C-504

ORIGINAL CONSTRUCTION DOCUMENTS

REVISIONS

| # | ISSUE | DATE |
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| PROJECT NUMBERS | State Project # A-012430 State Issue # 1000007 |
| APPROVED BY | GARY L. JANZEN PROFESSIONAL ENGINEER |
| PROJECT TYPE | CONSTRUCTION |
| WICHITA STATE UNIVERSITY FACILITIES PLANNING | WICHITA STATE UNIVERSITY 1845 FAIRBANKS ST. WICHITA, KANSAS 67260-0023 TEL: 316.979.8899 |

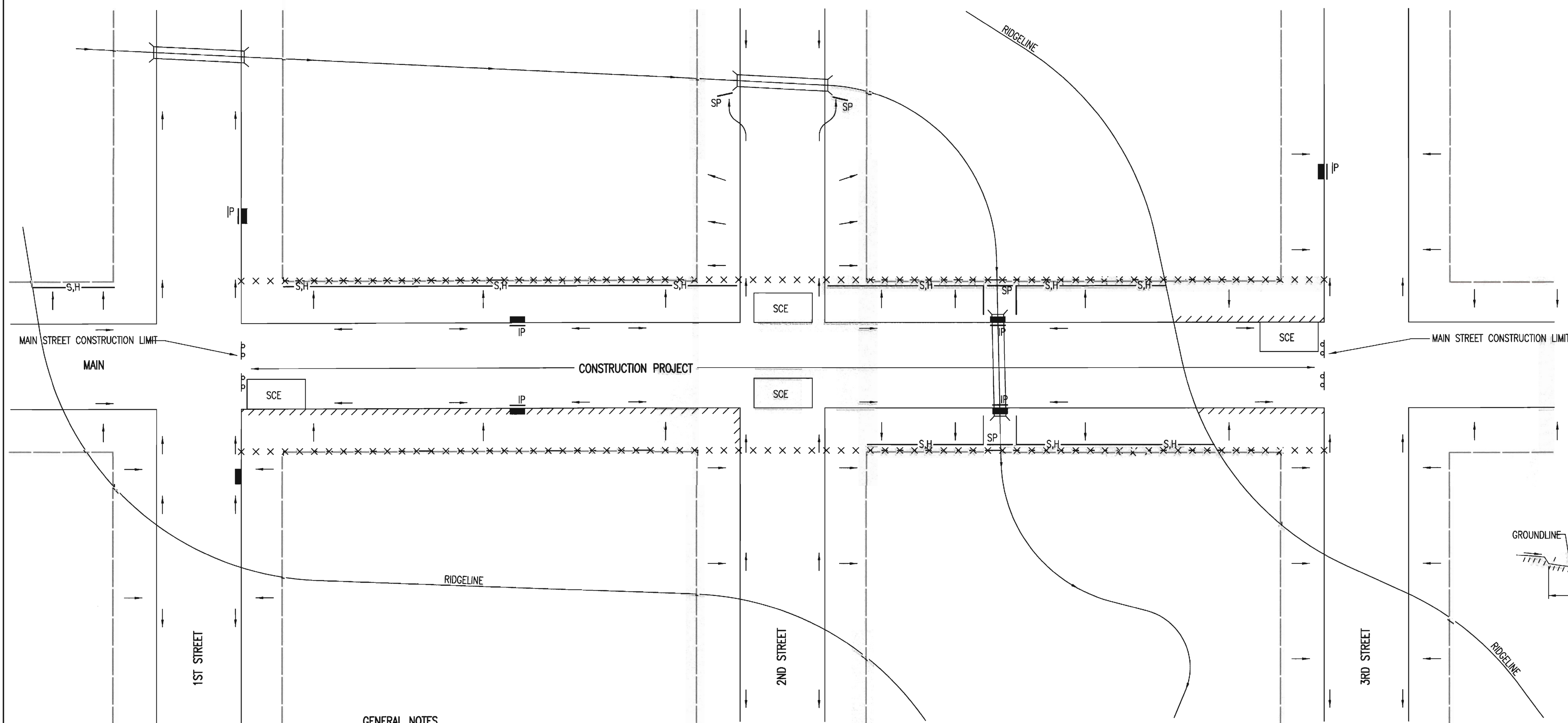
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| Department of Administration Office of Facilities & Procurement Management Design, Construction Compliance Unit, 700 800 SW Topeka, Kansas 66612-1216 Phone 785-296-6899 |
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Original Issue Date: April 20, 2015
Drawn By: PEC

GENERAL NOTES

- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
- IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
- FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
- FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.

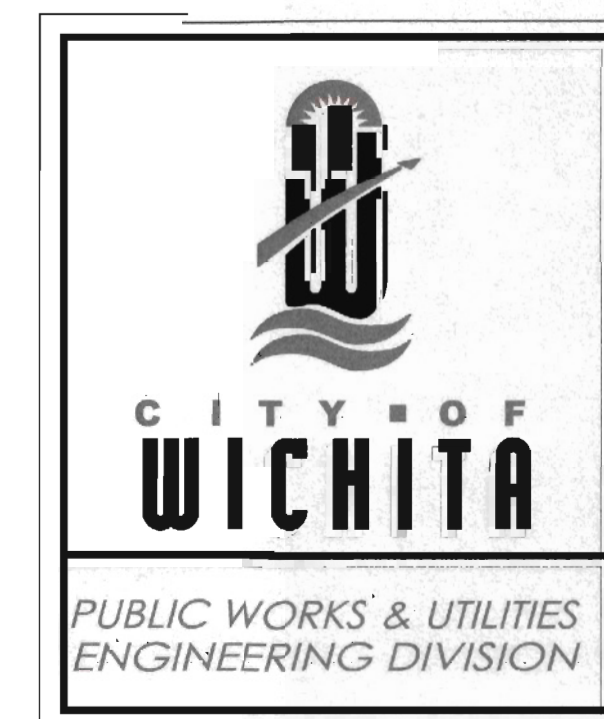


LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- x x x x x R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S.H— SILT FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION

GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWINGS:
 - THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
 - THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMPs MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
 - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
 - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)



REVISION DATE: 2013

STREET IMPROVEMENT PROJECTS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER: _____ LOCAL NUMBER: _____ DATE: _____

CITY ENGINEER'S OFFICE
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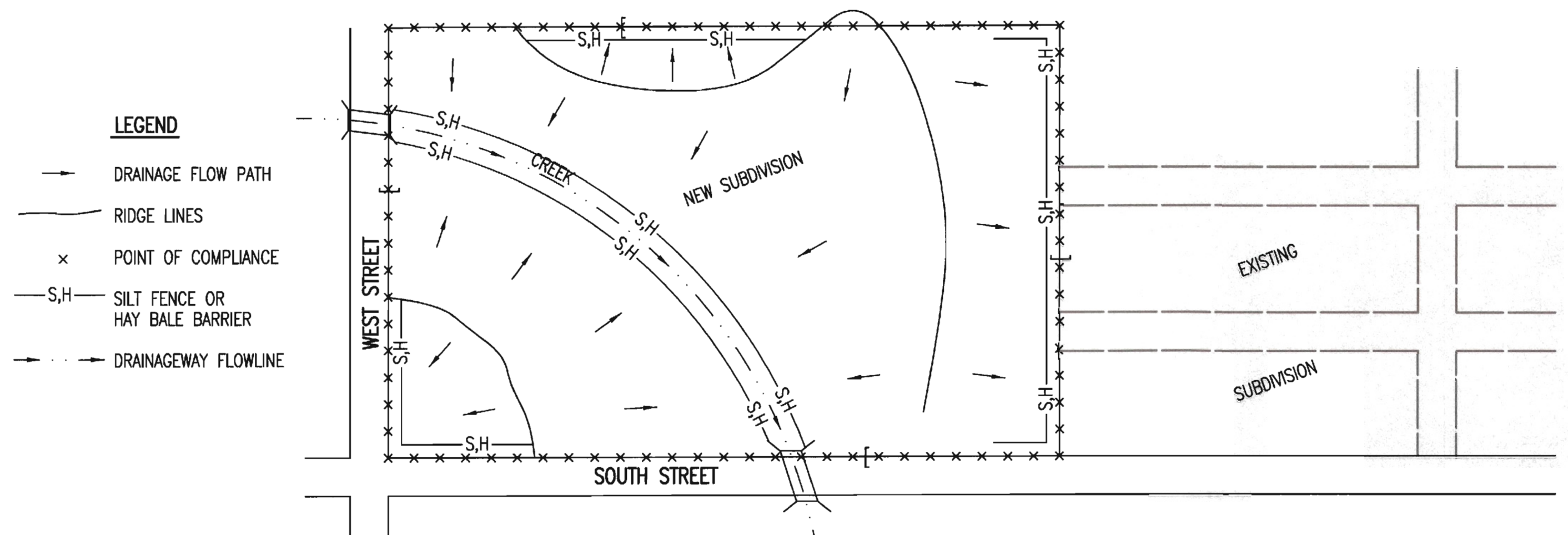
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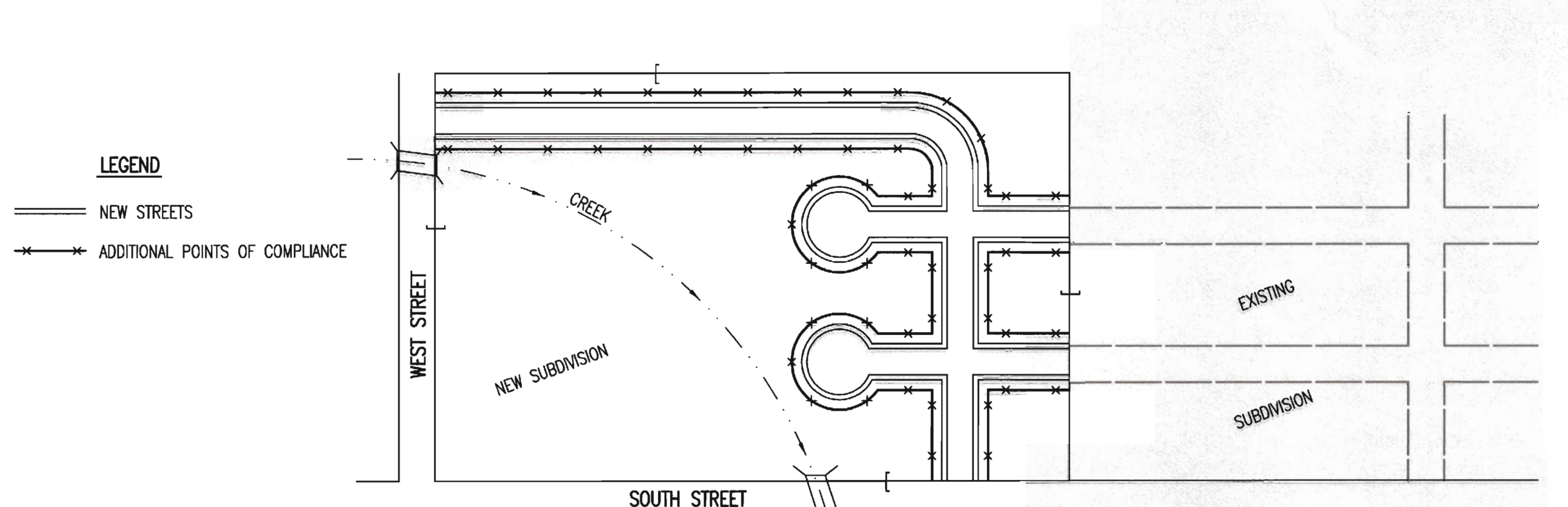
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PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



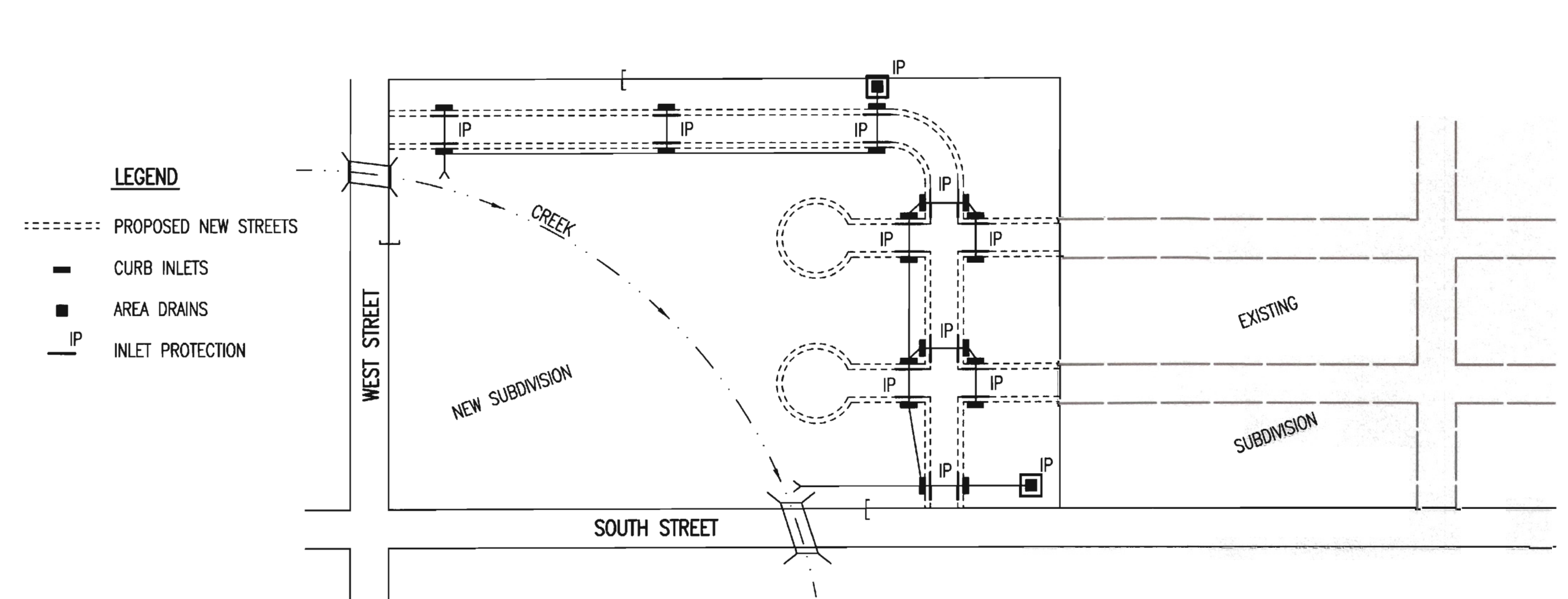
- LEGEND**
- DRAINAGE FLOW PATH
 - RIDGE LINES
 - x POINT OF COMPLIANCE
 - S.H. SILT FENCE OR HAY BALE BARRIER
 - DRAINAGEWAY FLOWLINE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
 - HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
 - SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
 - ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
 - CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
 - UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
 - IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
 - WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 3 – STREET CONSTRUCTION



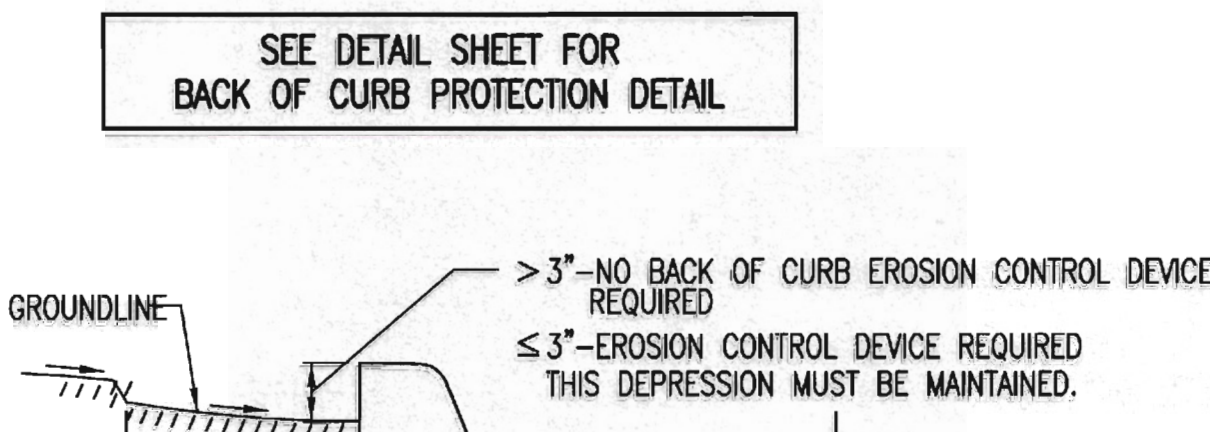
- LEGEND**
- NEW STREETS
 - x ADDITIONAL POINTS OF COMPLIANCE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
 - CURB OPENING INLET PROTECTION:
 - SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
 - NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
 - EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
 - SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
 - THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
 - THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
 - THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOO.

PHASE 2 – INSTALLATION OF STORM SEWER



- LEGEND**
- PROPOSED NEW STREETS
 - CURB INLETS
 - AREA DRAINS
 - IP INLET PROTECTION
- DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
 - AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
 - AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
 - CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
 - THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
 - THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
 - ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
 - ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOO, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

- GENERAL NOTES**
- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
 - THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
 - EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
 - PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
 - THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
 - FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
 - FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
 - THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
 - A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.



CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)

THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS. REVISION DATE: MAY 2013



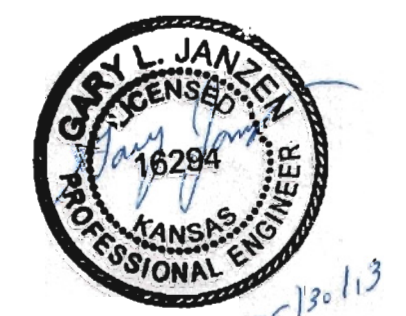
SUBDIVISION DEVELOPMENT PROCESS

CITY ENGINEER
GARY JANZEN, P.E.

| | | |
|----------------|------------|------|
| PROJECT NUMBER | OCA NUMBER | DATE |
| | | |

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SHEET
C-506



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REVISIONS

| # | ISSUE | DATE |
|---|-------|------|
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PROJECT NUMBERS
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State Contract # 18294
WDA # 18294
PROJECT TYPE
CONTRACT # 18294
APPROVED BY

Department of Administration
Office of Facilities & Procurement
Management Design, Construction
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Drawn By: PEC
Original Issue Date: April 20, 2015

EROSION CONTROL DETAILS
A-012430
C-506
ORIGINAL CONSTRUCTION DOCUMENTS

Scale: 1/4" = 1'-0" (1/8" = 1'-0")
Date: 04-17-2015 1:56:50 PM by GSI
Plot Scale: 1/4" = 1'-0" (1/8" = 1'-0")
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