

**GENERAL NOTES**

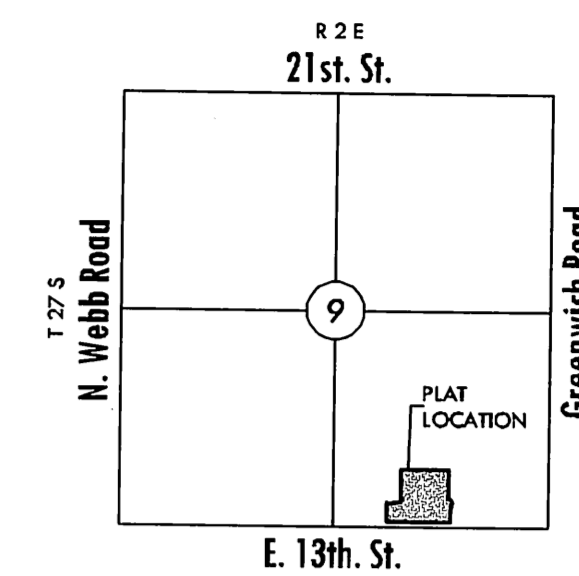
- UNLESS SHOWN OR OTHERWISE STATED ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS.
- THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.
- ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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.
- TREES TO BE REMOVED ARE MARKED  $\otimes$ . ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED.
- CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF CONSTRUCTION SCHEDULING.
- EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES TO STARTING ANY EXCAVATION AS FOLLOWS:  
 KANSAS ONE-CALL 800-344-7233  
 OR 687-2470 (LOCAL WICHITA)  
 THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:  
 COX COMMUNICATIONS (CABLE) 262-0661  
 WESTAR (ELECTRIC) 383-8600  
 KANSAS GAS SERVICE (GAS) 832-3101  
 SBC (TELEPHONE) 800-870-8390  
 CITY OF WICHITA WATER & SEWER 262-6000
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. 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.
- CONTRACTOR TO COORDINATE WORK WITH OTHER UTILITY AND/OR PAVING CONTRACTORS ON SITE.
- CONTRACTOR SHALL RESEED AND MULCH ALL DISTURBED AREAS. COST SHALL BE CONSIDERED SUBSIDIARY TO SITE RESTORATION. SEE SHEET
- DEVELOPER FOR THIS PROJECT IS:  
 LEGEND SENIOR LIVING  
 8415 E. 21st ST. N., SUITE 100  
 WICHITA, KS, 67206  
 CONTACT - TIM BUCHANAN  
 (316) 616-6288
- CONTRACTOR TO REFER TO SWPPP FILED ON SITE FOR EROSION/SEDIMENT CONTROL.

PRIVATE STORM WATER SEWER PLANS FOR  
**GREENWICH OFFICE PARK  
 SECOND ADDITION**  
 PROJECT NO. 0005PPD

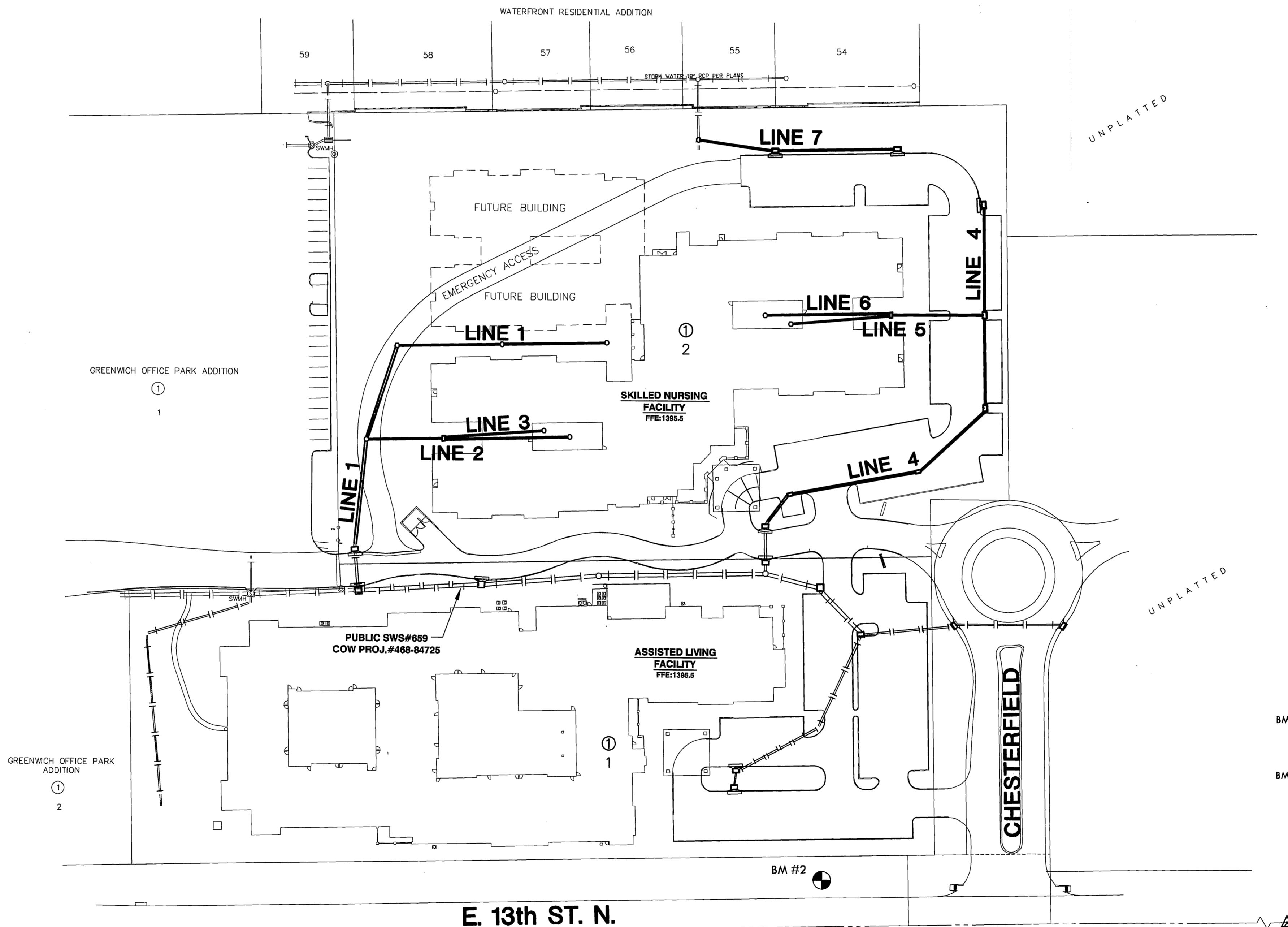
THE CITY OF WICHITA, KANSAS  
 JAMES L. ARMOUR, CITY ENGINEER  
 OCA NO. 607861

**AS BUILT PLANS**

Contractor: Mies  
 Inspector: Don Eddingfield, Baughman Co.  
 pdf's by: KEK 6/27/11



**VICINITY MAP**  
 No Scale



**INDEX TO DRAWINGS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-5	DETAILS
6	LINE 1
7	LINES 2-3
8	LINE 4
9	LINES 5-6
10	LINE 7

**BENCHMARKS**

- BM#1 " " on top of curb at N. end of 2nd island N. of 13th St. N. on Veranda, 461' N. of 13th St. & centerline Veranda. Elev. = 1387.03 NAVD 88
- BM#2 Railroad spike in N. side of power pole, 930' E. of centerline Veranda & 39' N. of centerline 13th St. N. Elev. = 1399.01 NAVD 88

**APPROVED AS NOTED  
 BY CITY ENGINEER OF WICHITA,  
 BY WICHITA WATER & SEWER DEPARTMENT**

Storm Water  
 (Public Works)

**NOTE TO CONTRACTORS**

**Public Property:**

Inspection and testing for the storm water sewer 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 Professional Engineer licensed in the state of Kansas. No work shall be performed in dedicated easements or public rights-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer. All construction and materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

**MKEC**  
 ENGINEERING  
 CONSULTANTS, INC.  
 411 N. WEBB ROAD  
 WICHITA, K.S. 67206  
 316-684-9600

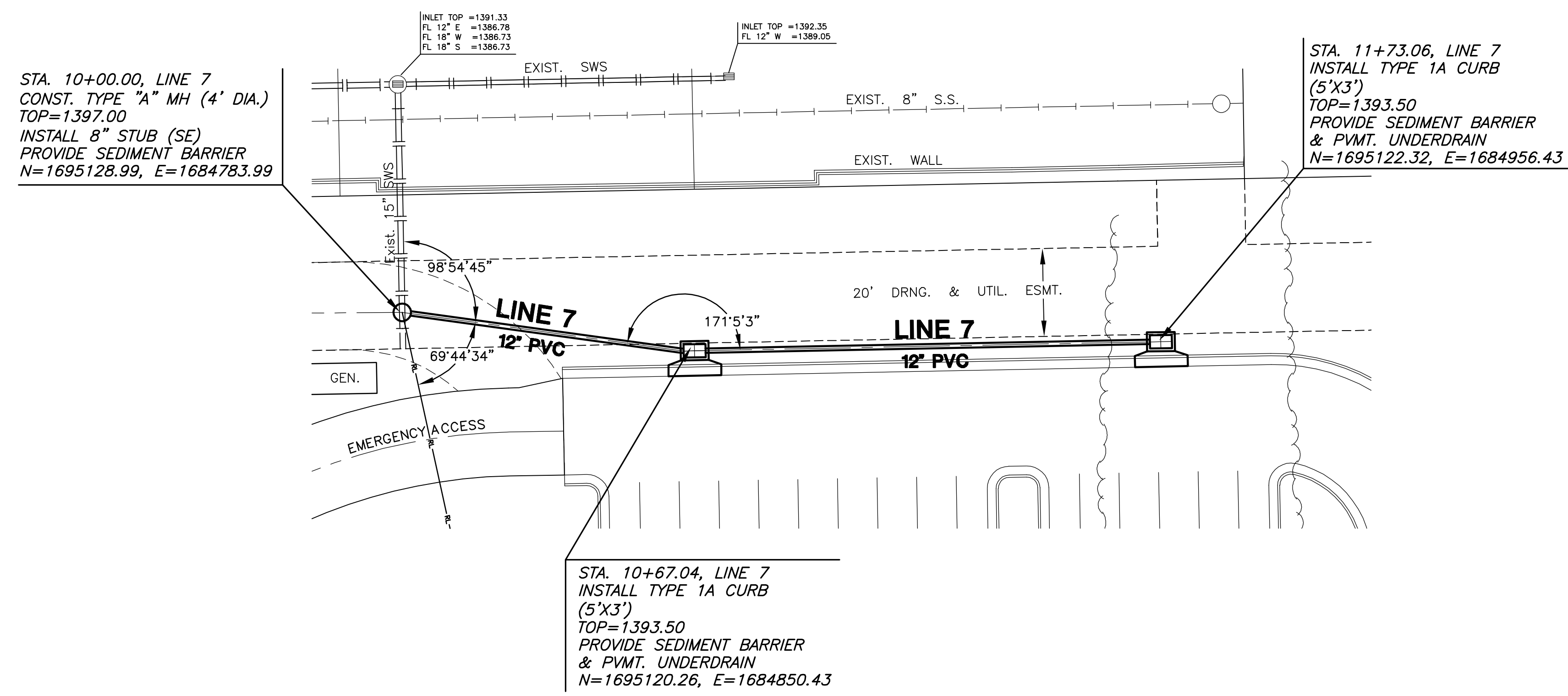
**STORM WATER SEWER PLANS FOR  
 GREENWICH OFFICE PARK  
 SECOND ADDITION**

**TITLE SHEET**  
 SHEET TITLE  
 PROJECT NUMBER  
 0005PPD

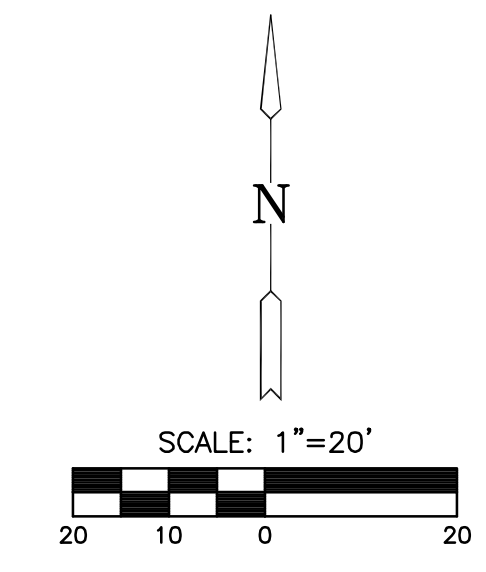
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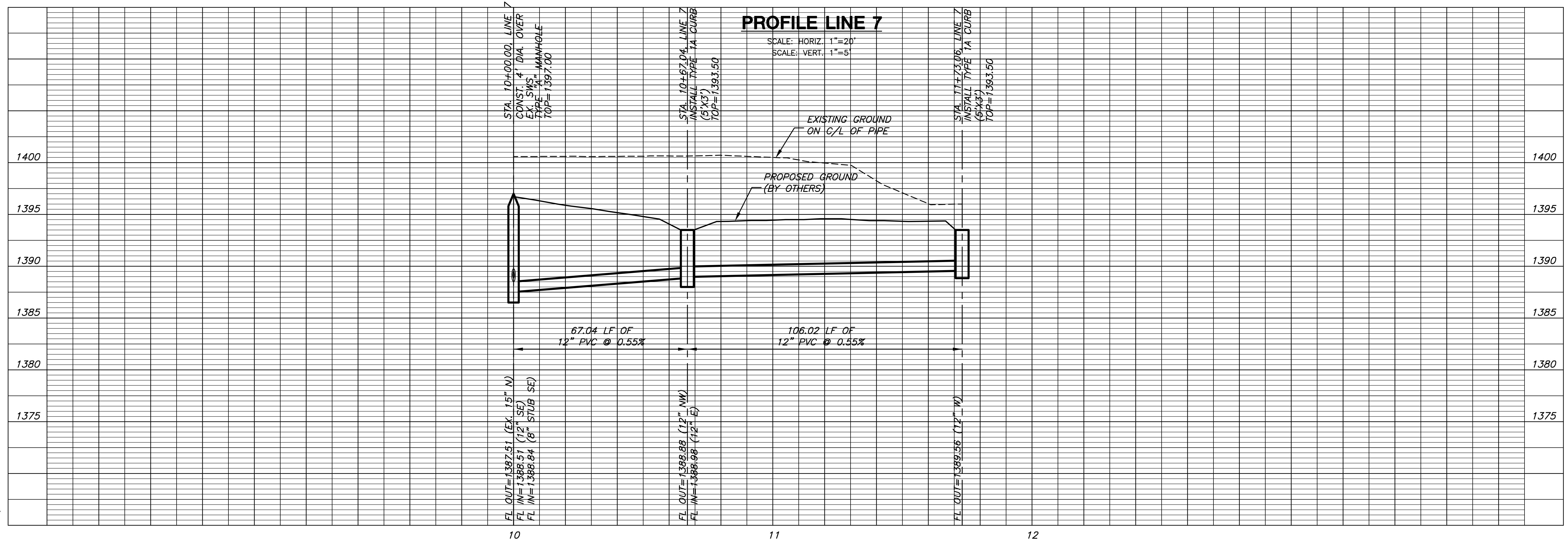
SHEET NO.  
 1 of 10



**PLAN LINE 7**



**PROFILE LINE 7**



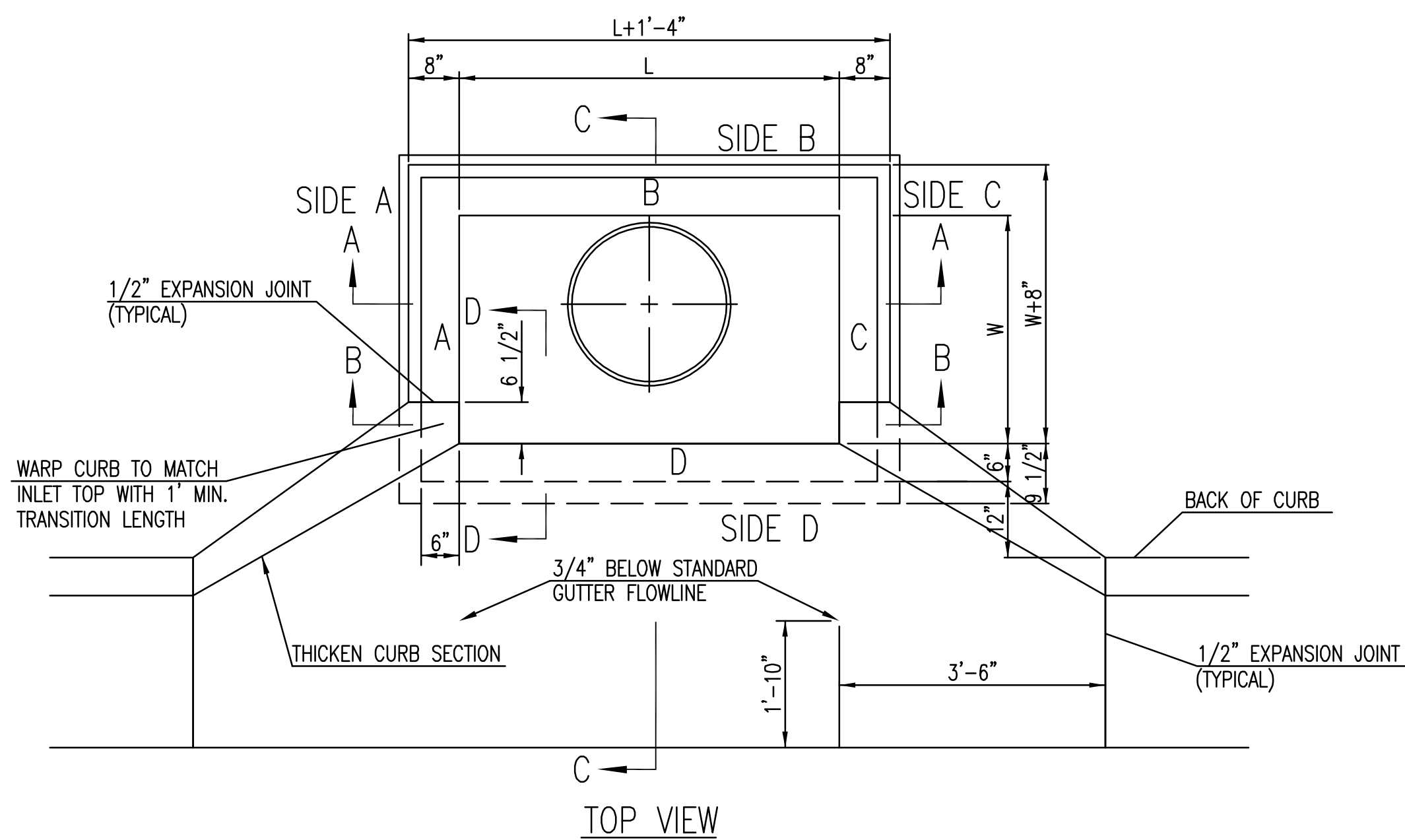
**STORM WATER SEWER PLANS FOR  
GREENWICH OFFICE PARK  
SECOND ADDITION**

**LINE 7**  
SHEET TITLE  
005PPD  
PROJECT NUMBER

JTC / DM / DFL  
DESIGNED / DRAWN / CHECKED

ISSUED  
February 2011  
REVISED

SHEET NO.  
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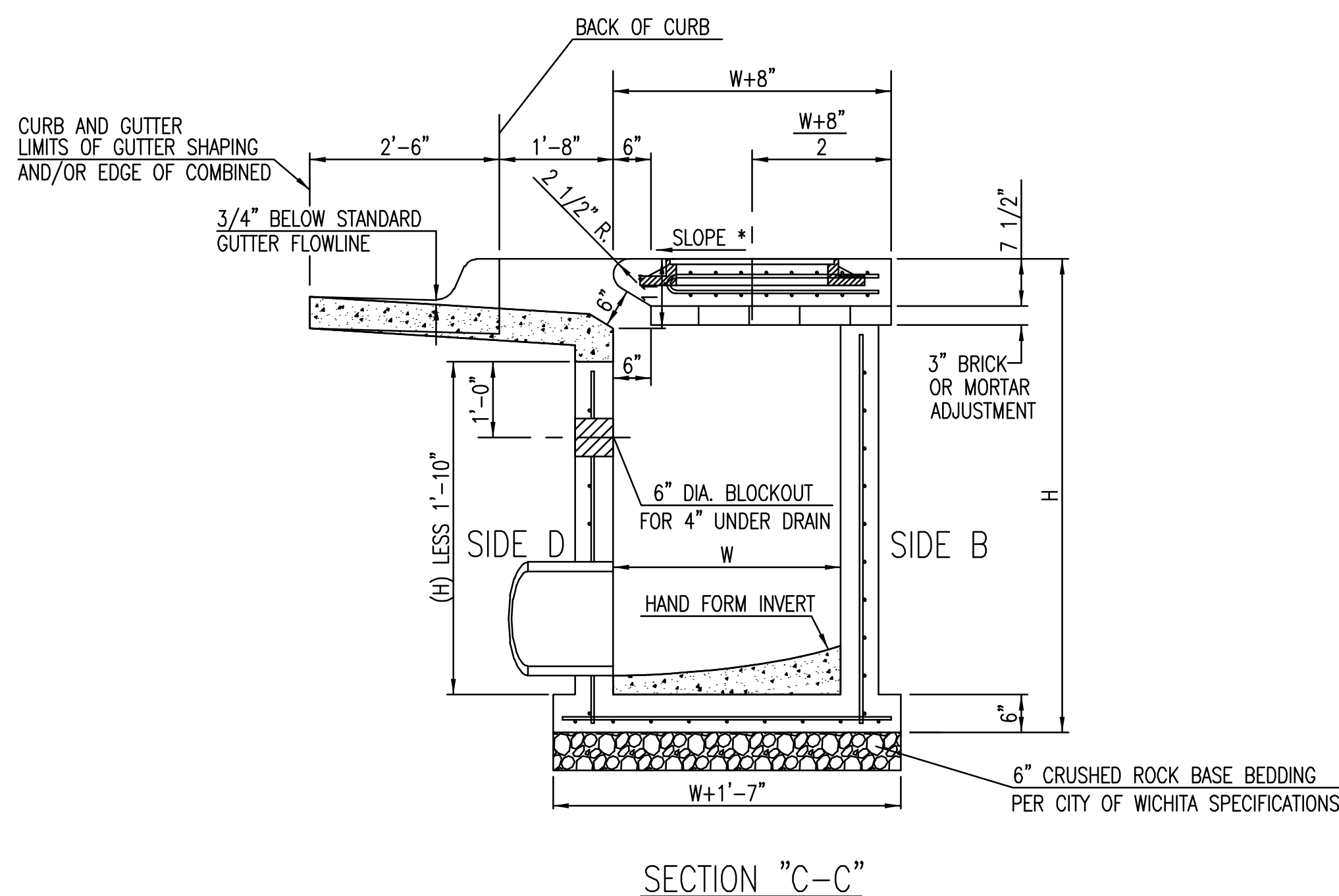
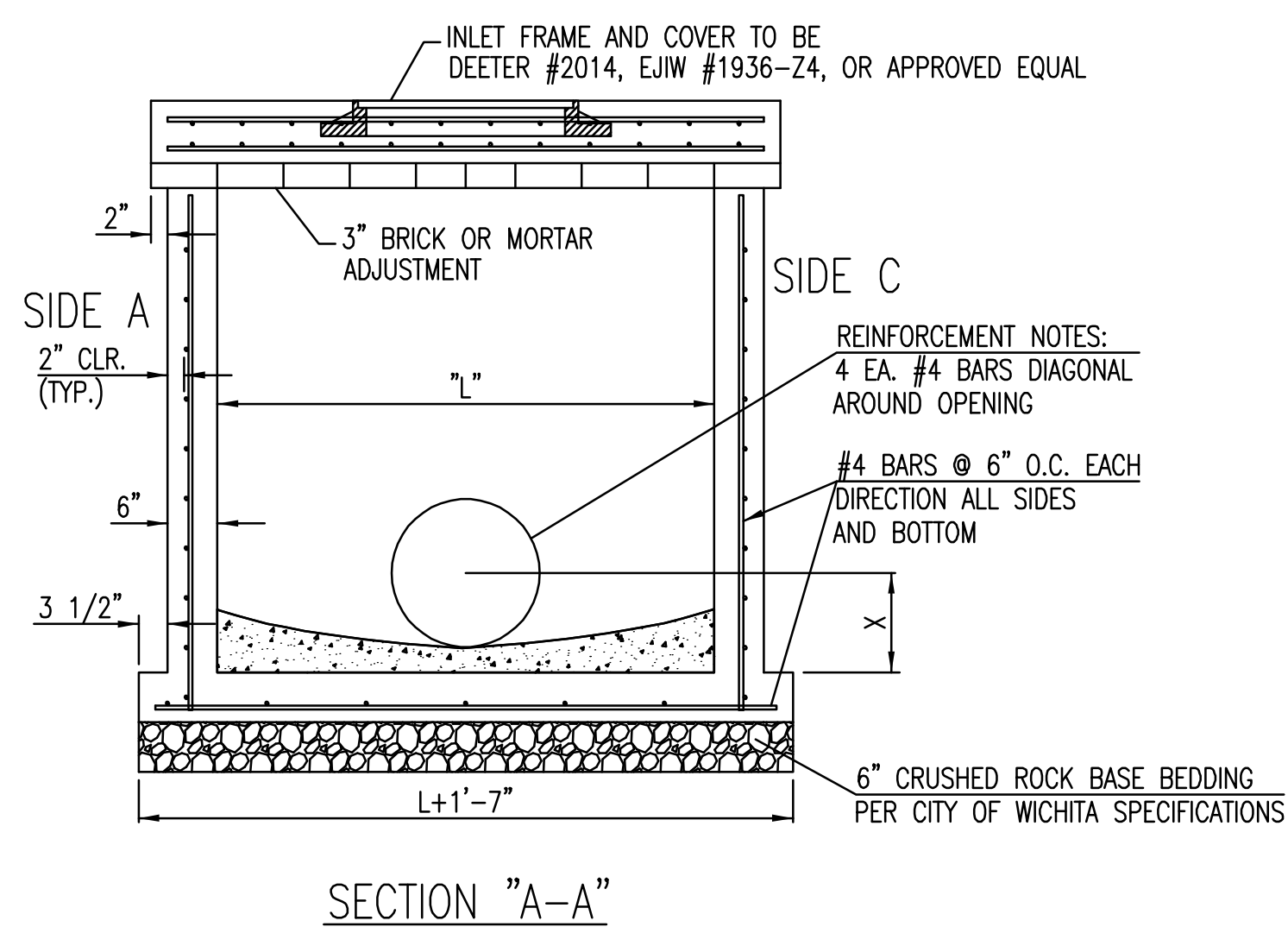
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

W	PRE-CAST TOP SIZE			PIPE DIA.**
	WIDTH	LENGTH	TOP	
3'-0"	W+8"	L+1'-4"	7 1/2"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	7 1/2"	24" & 30"
5'-0"	W+8"	L+1'-4"	7 1/2"	36" & 42"
6'-0"	W+8"	L+1'-4"	7 1/2"	48" & 54"
7'-0"	W+8"	L+1'-4"	7 1/2"	60" & 66"

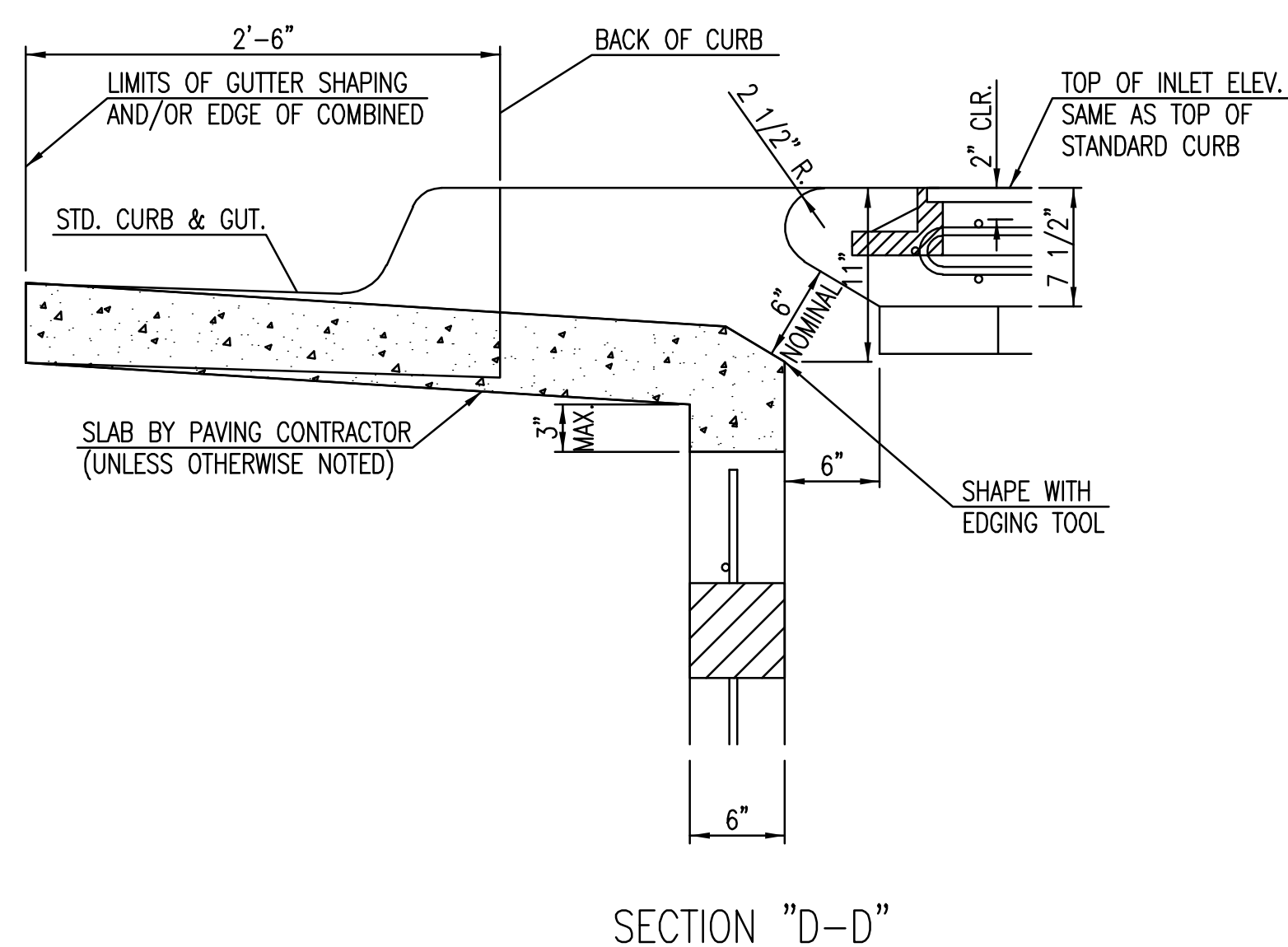
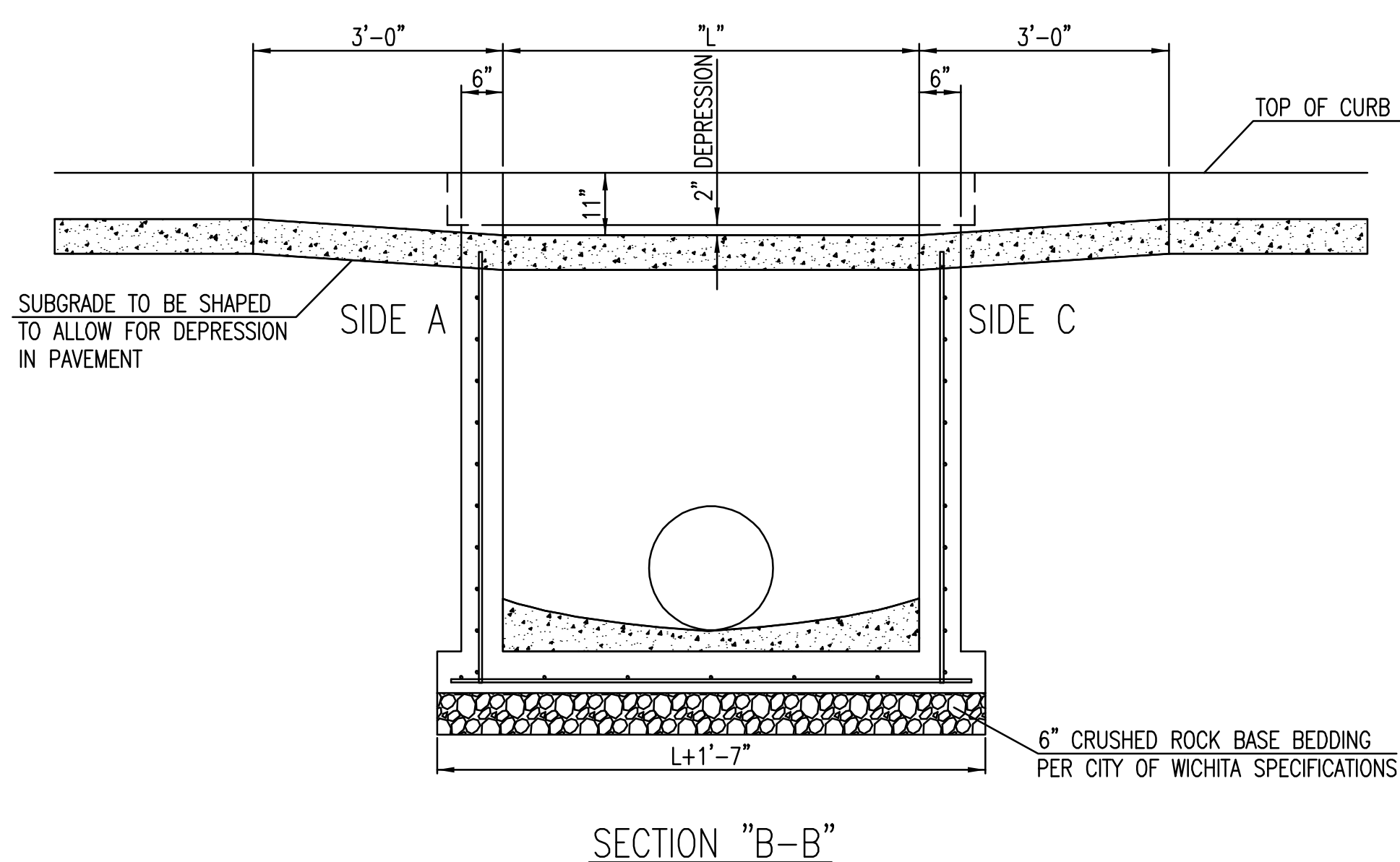
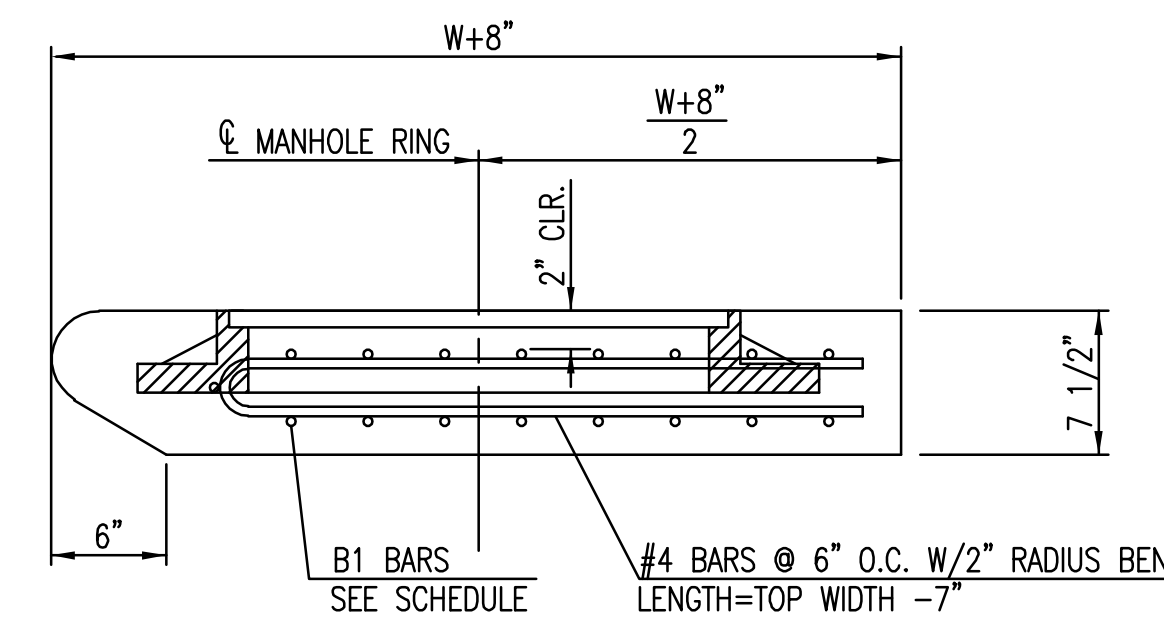
\*\* FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

1. 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.
2. 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.
3. 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.
4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
5. INLET FRAME AND COVER TO BE DEETER #2014, EJIW #1936-Z4, OR APPROVED EQUAL, SEE SW-303.
6. 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.



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

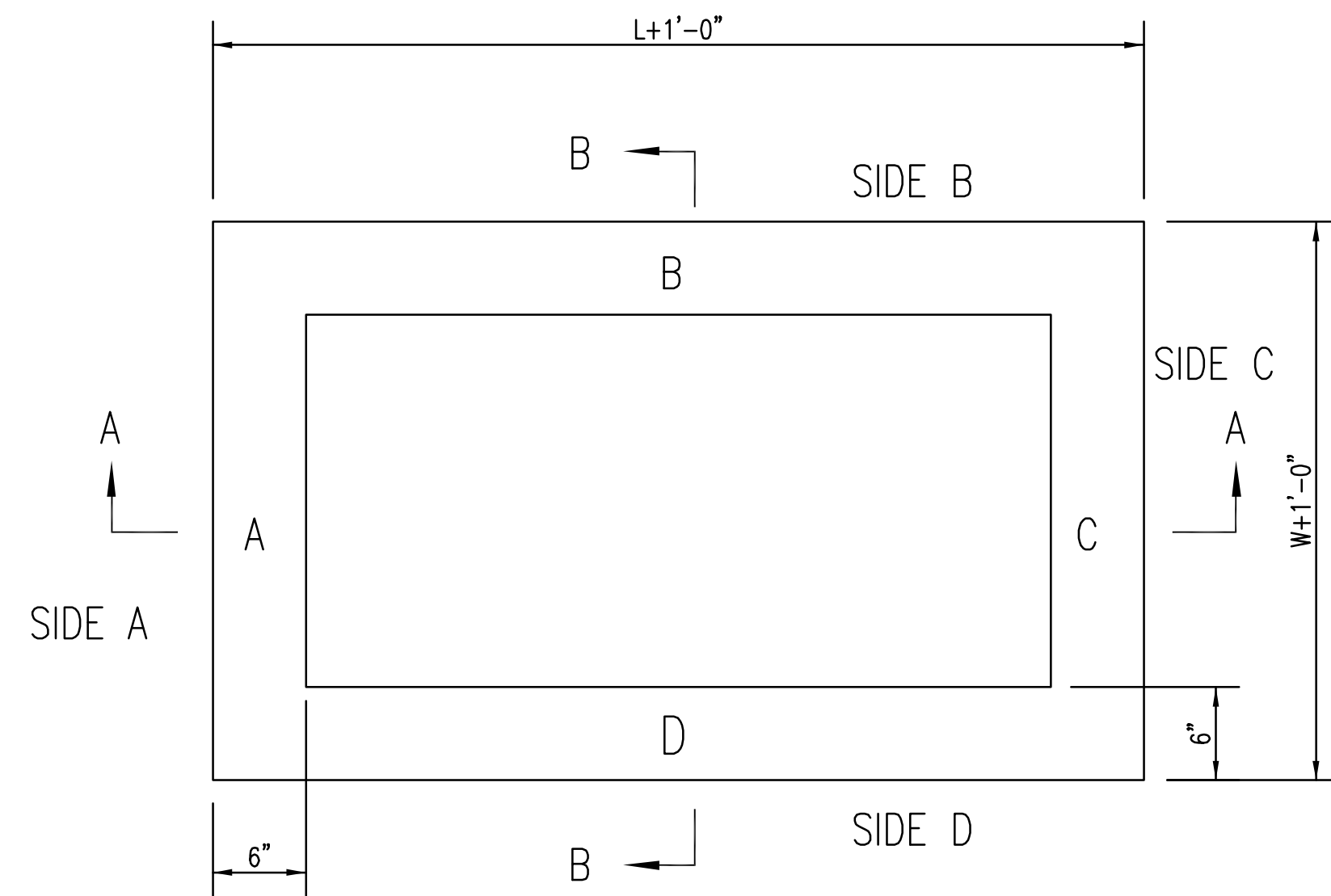


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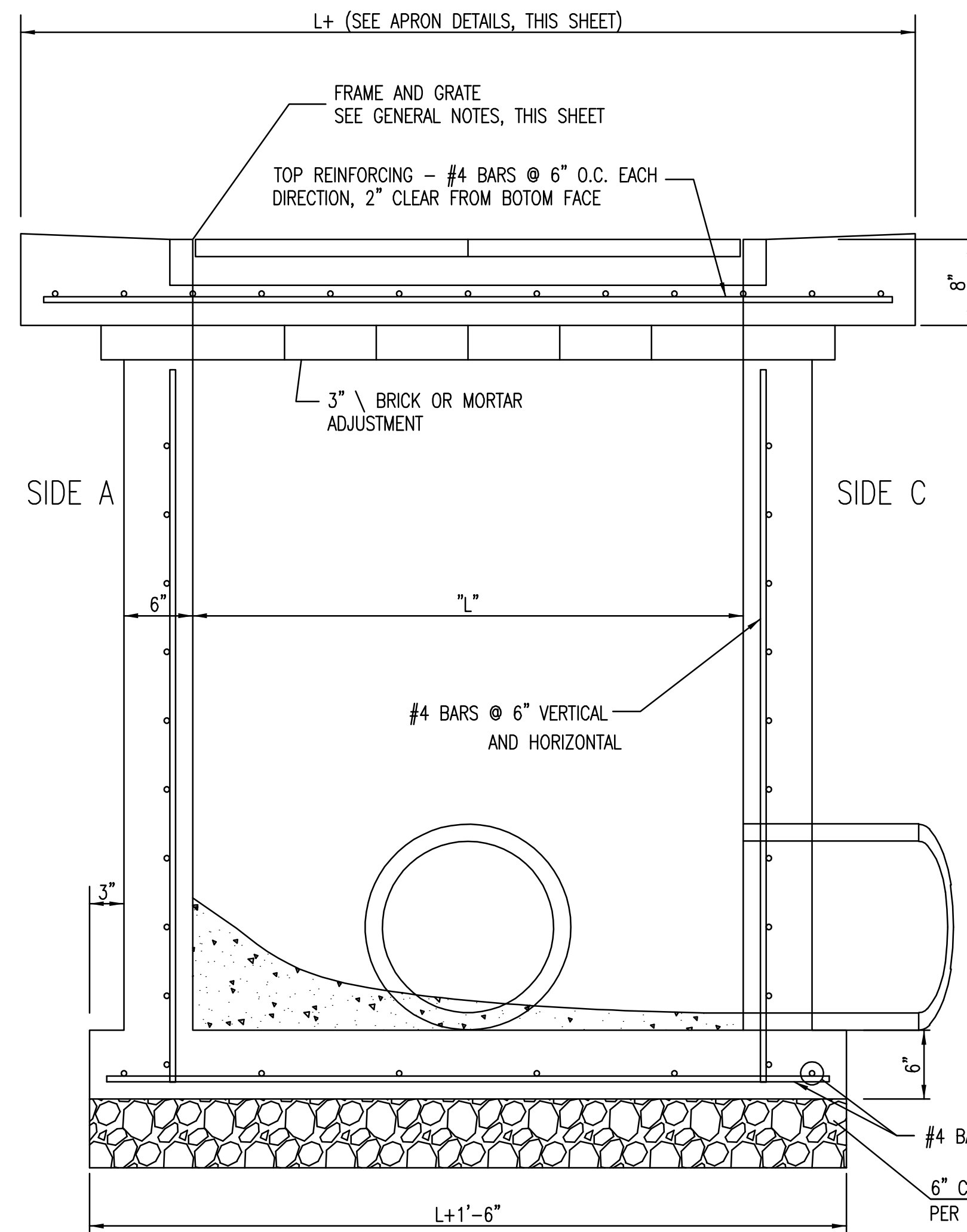


<b>STANDARD TYPE 1A CURB INLET</b> 5'-0" OR 10'-0" OPENING		
CITY ENGINEER <b>JAMES L. ARMOUR, P.E., L.S.</b>		
PROJECT NUMBER 0005PPD	OCA NUMBER 607861	DATE 2/2011
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN DRAWN SHEET <b>2 of 10</b>

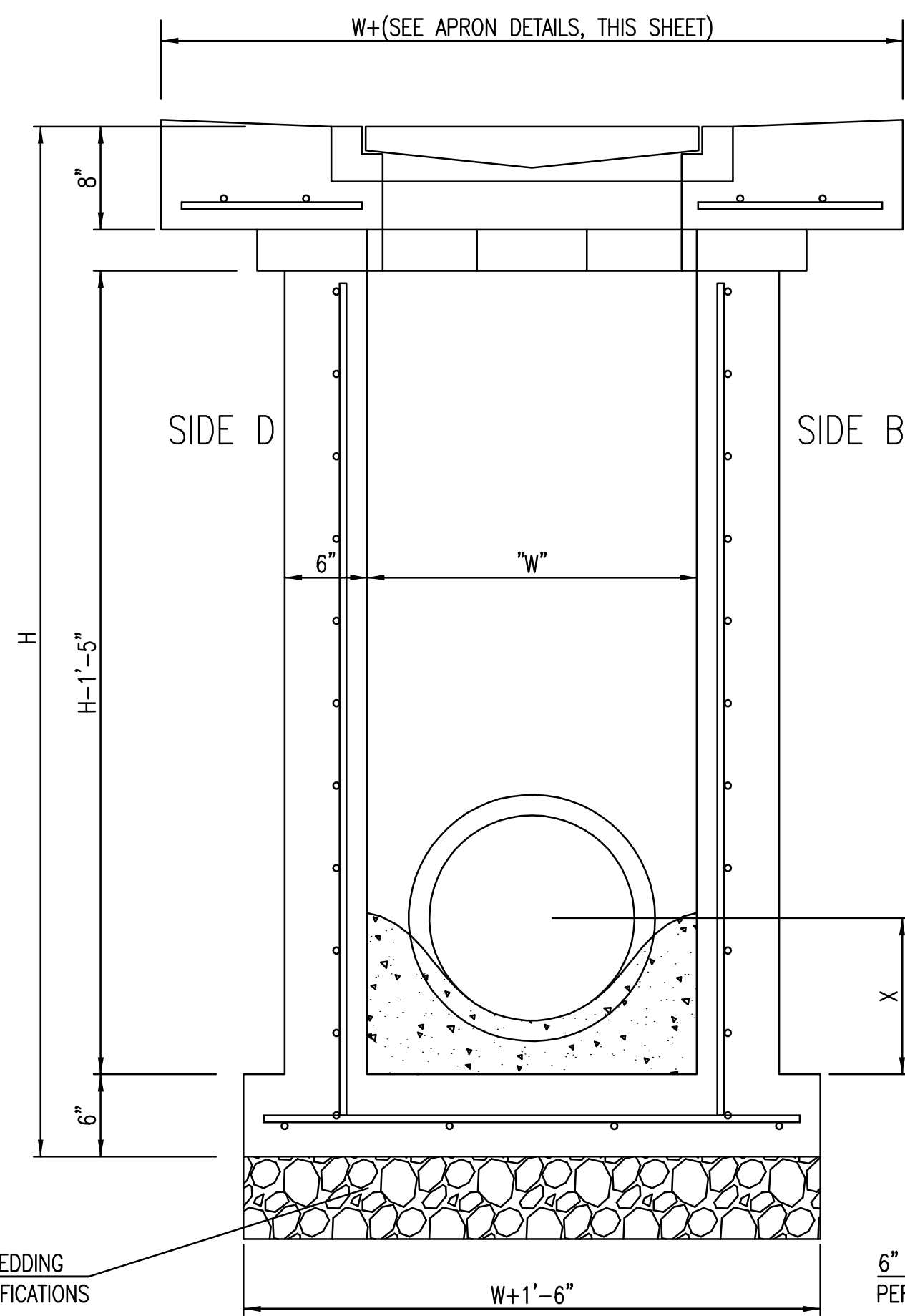
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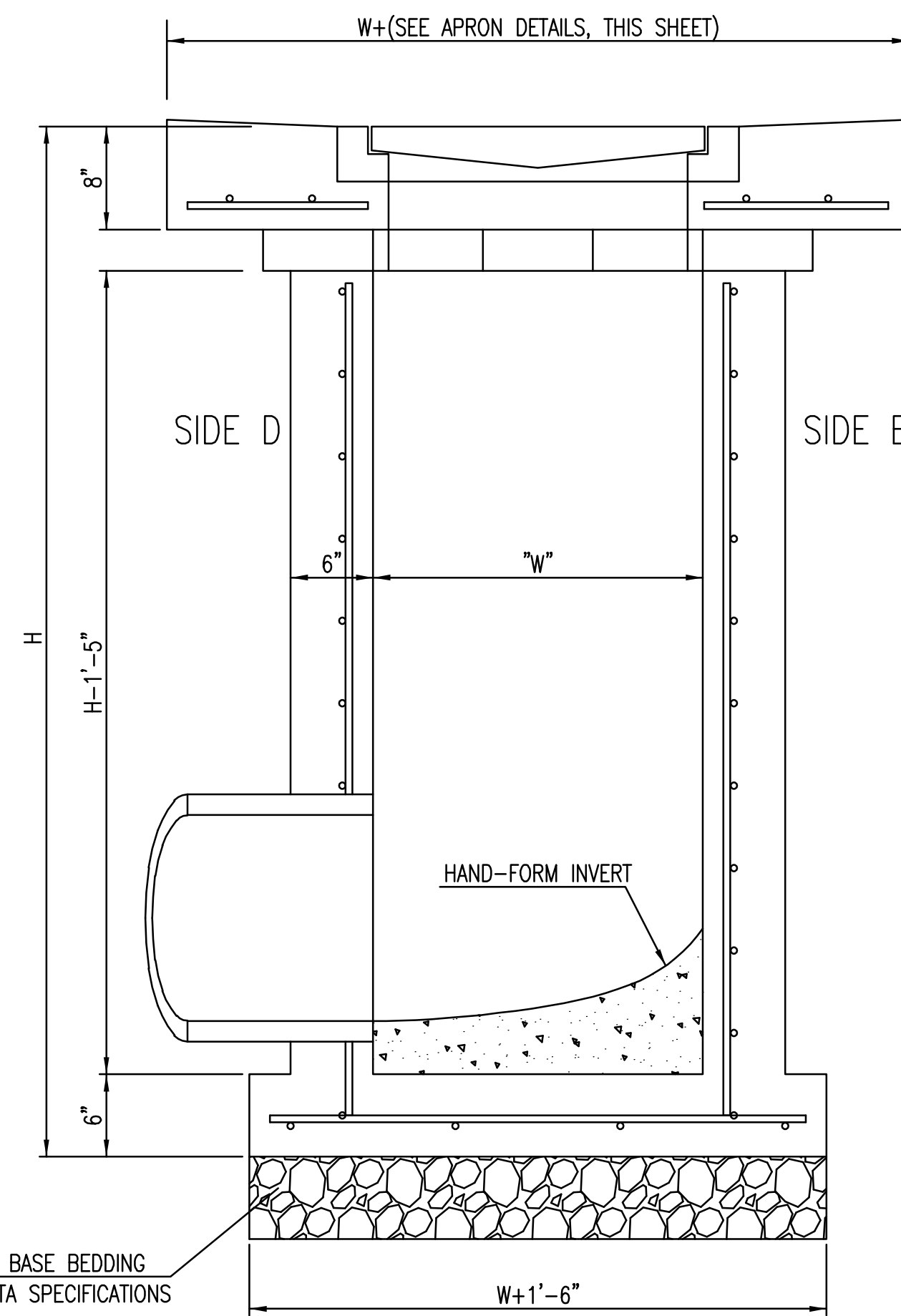
TOP VIEW



SECTION "A-A"



SECTION "B-B"  
END OUTLET



SECTION "B-B"  
SIDE OUTLET

FLUSH STYLE TOP  
NO APRON

9" APRON

18" APRON

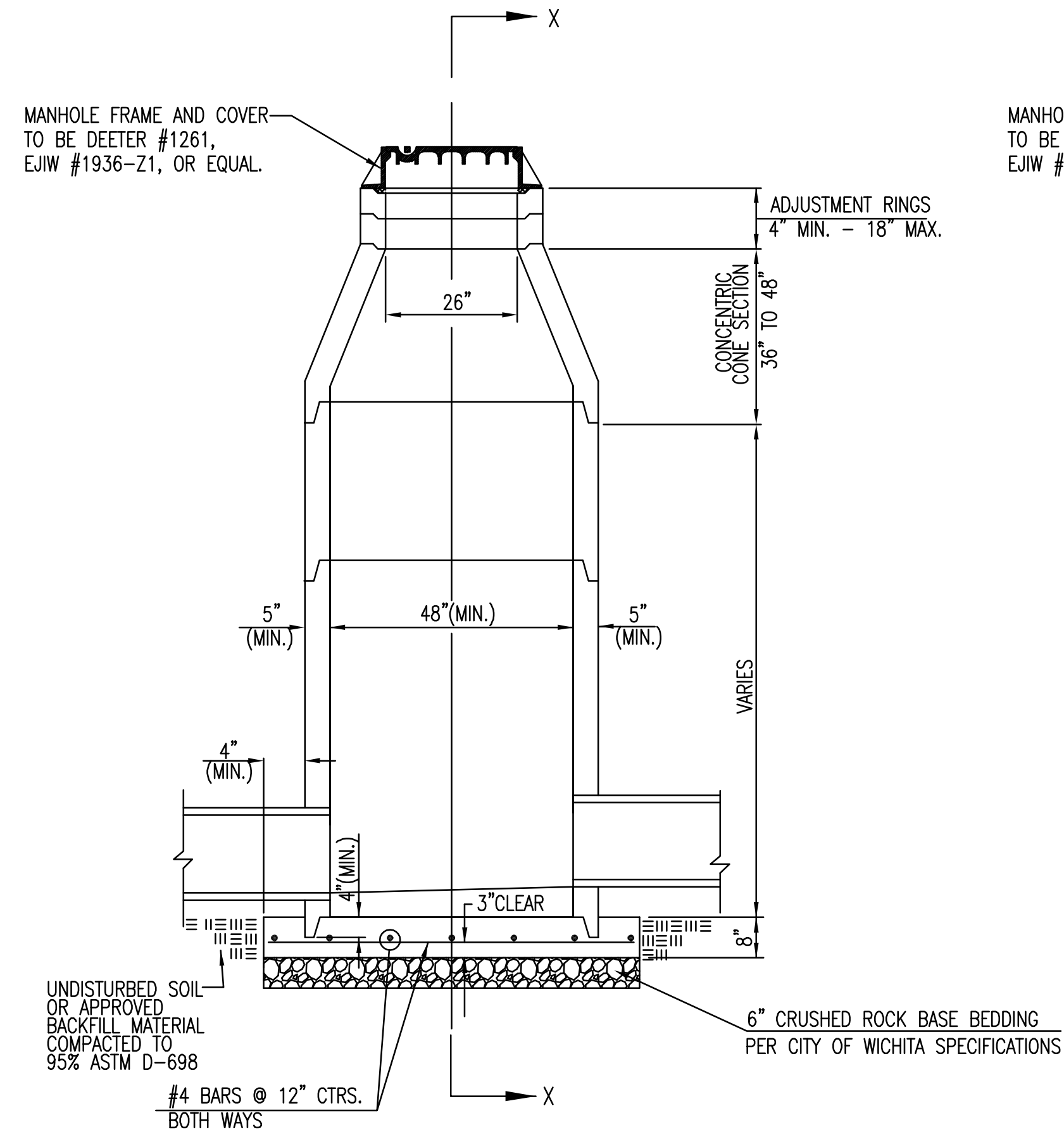
\* APRON TO EXTEND ON ALL 4 SIDES OF INLET.  
DESIGNER TO DESIGNATE APRON SIZE.

GENERAL NOTES

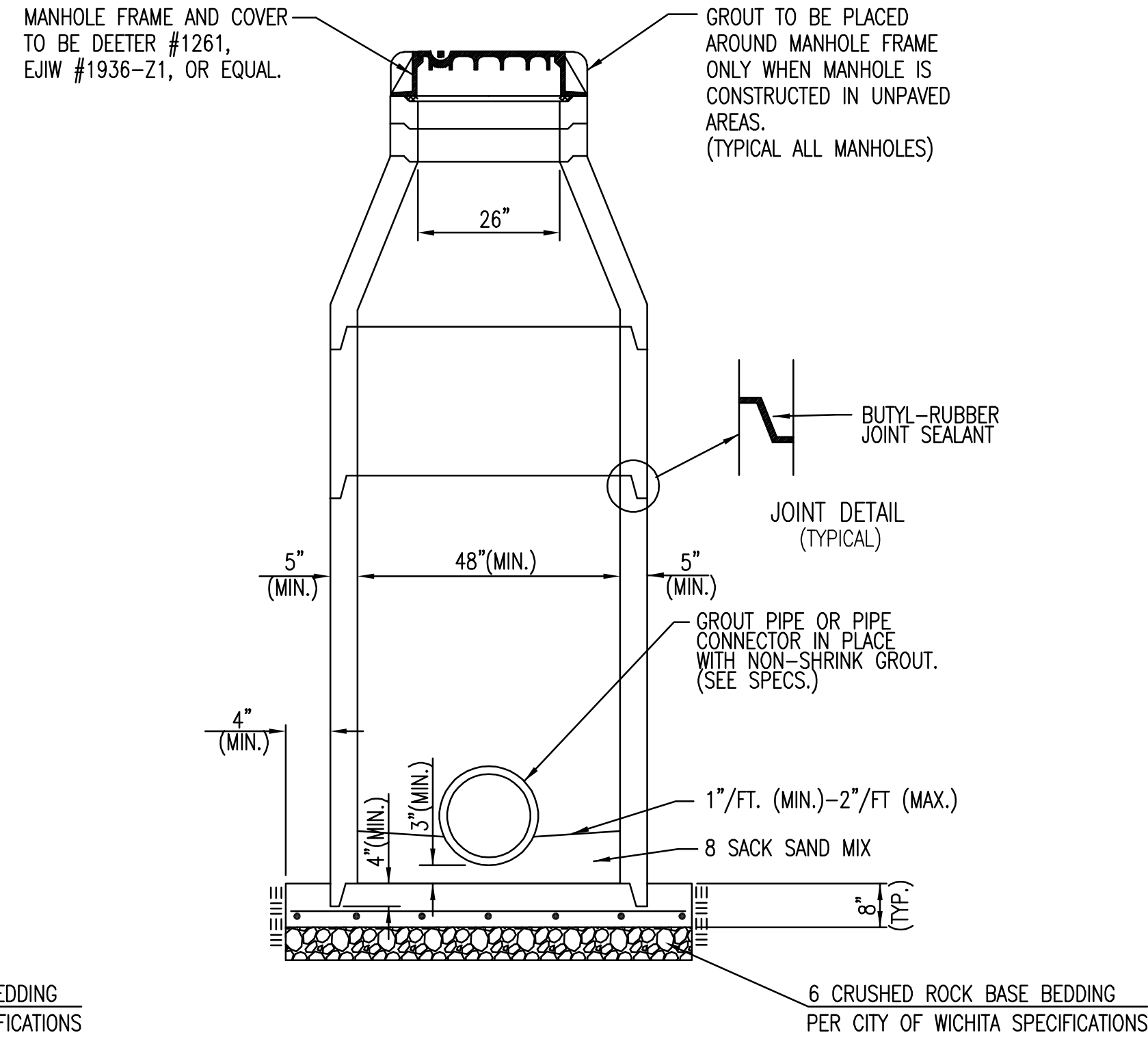
- GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE 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 GRATE TO BE DEETER #2433, EJIW #5391-Z1 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 Z3 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
- 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.



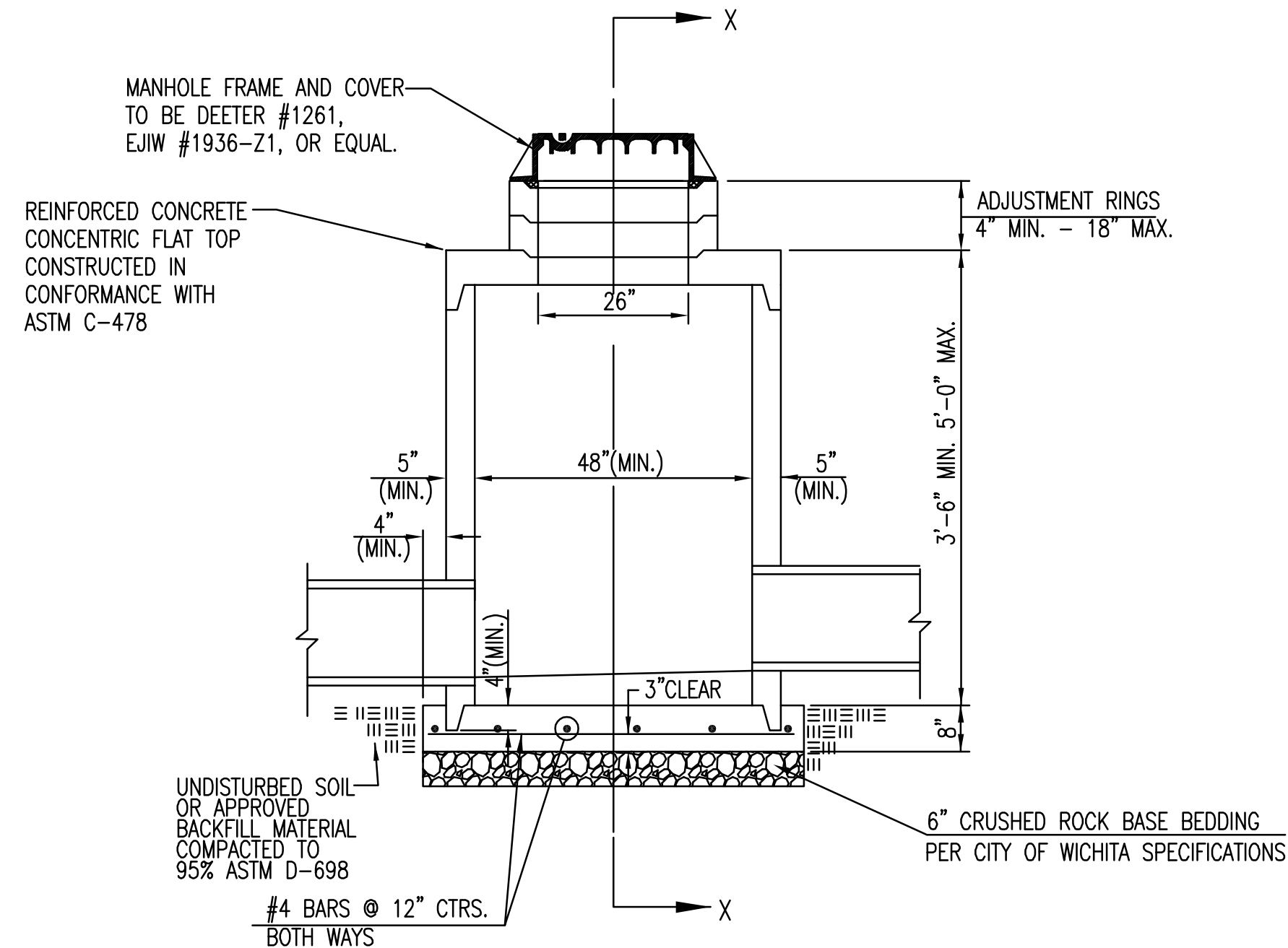
<b>SINGLE/DOUBLE DROP INLET</b>		
CITY ENGINEER <b>JAMES L. ARMOUR, P.E., L.S.</b>		
PROJECT NUMBER 0005PPD	OCA NUMBER 607861	DATE 2/2011
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN DRAWN SHEET <b>3 of 10</b>



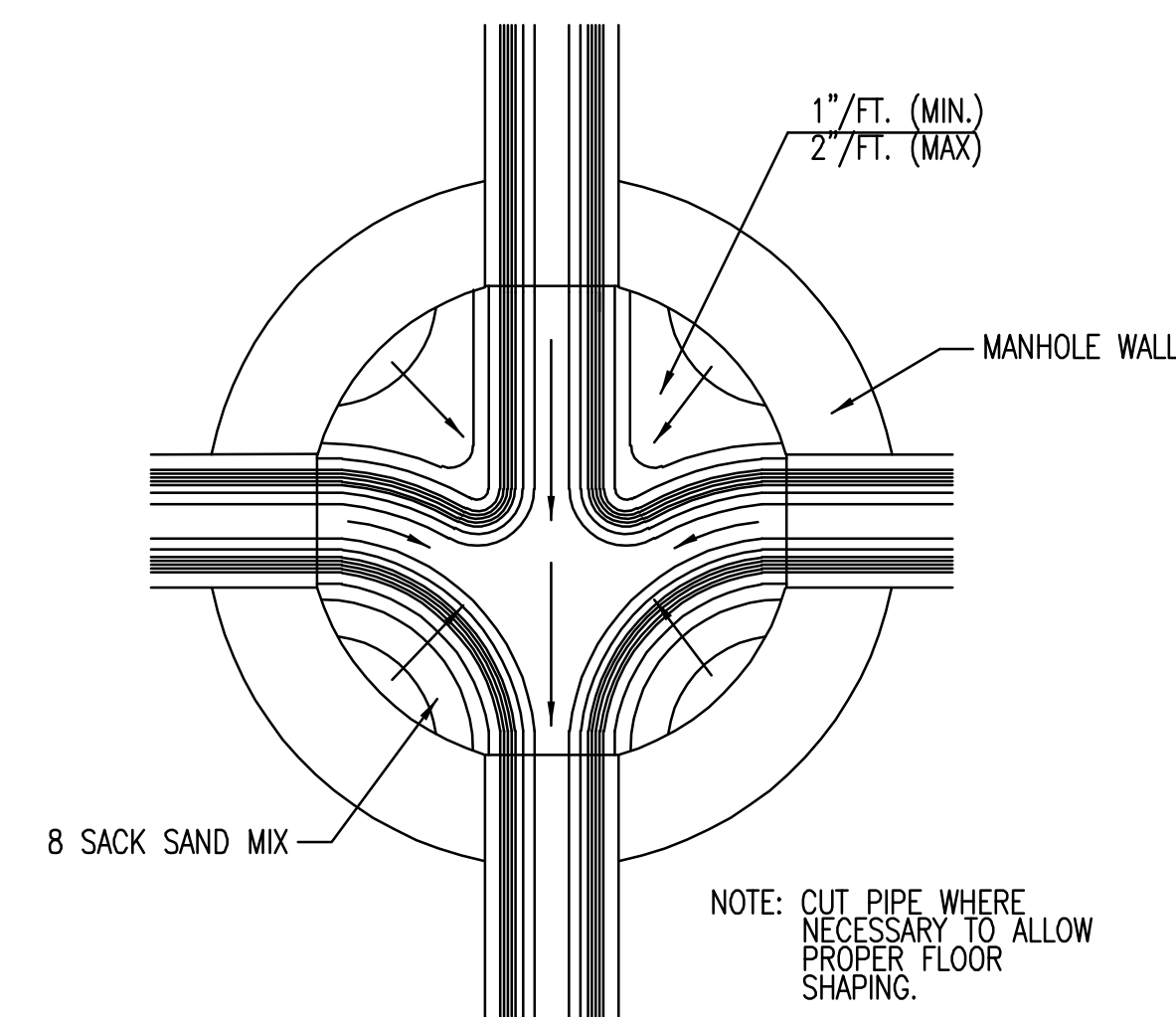
PRECAST STANDARD MANHOLE TYPE "A"



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, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

CITY OF WICHITA  
PUBLIC WORKS & UTILITIES  
ENGINEERING DIVISION

<b>PRECAST CONCRETE MANHOLE (STORM SEWER)</b>		
CITY ENGINEER <b>JAMES L. ARMOUR, P.E., L.S.</b>		
PROJECT NUMBER 0005PPD	OCA NUMBER 607861	DATE 2/2011
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN DRAWN SHEET <b>4 of 10</b>



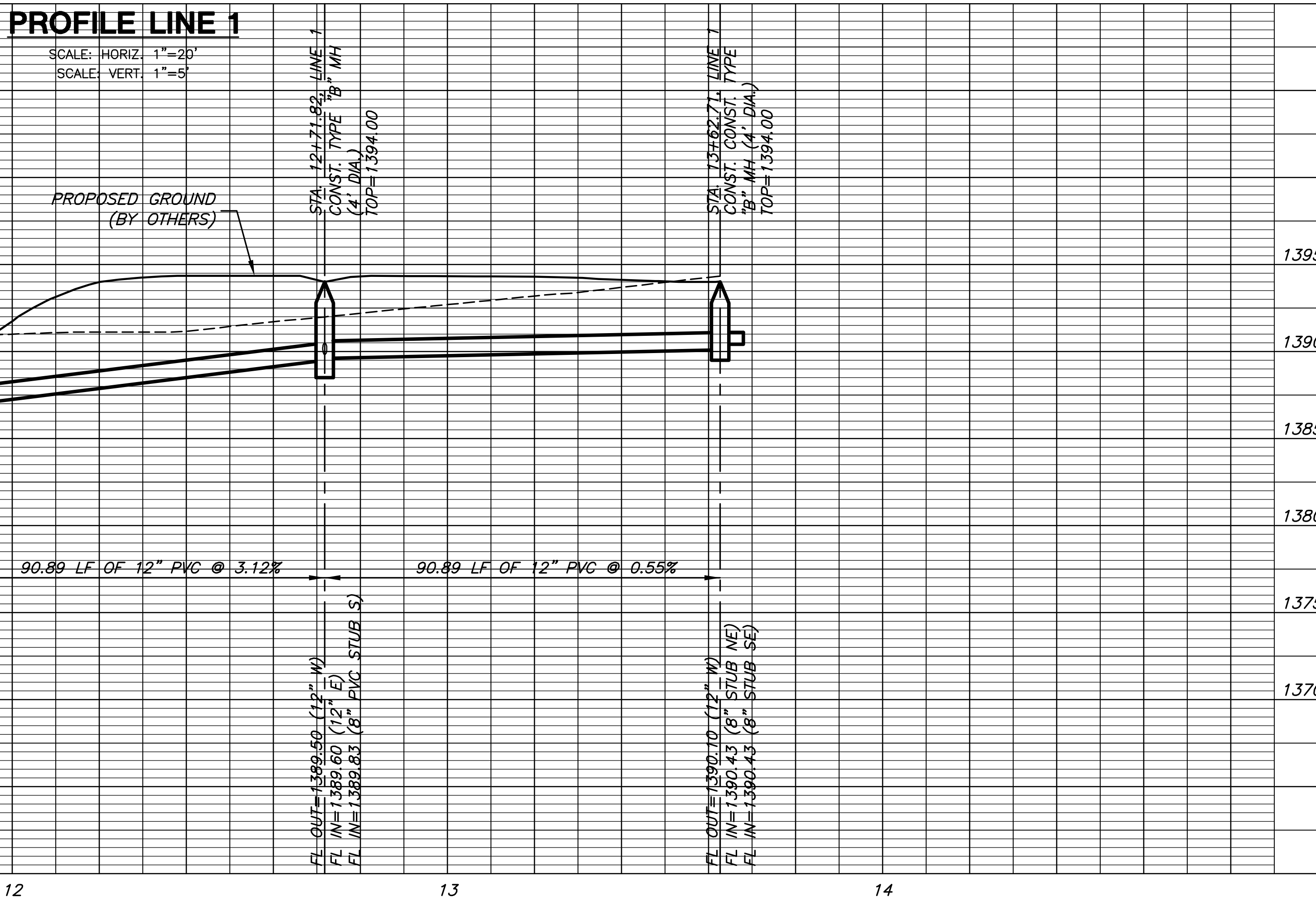
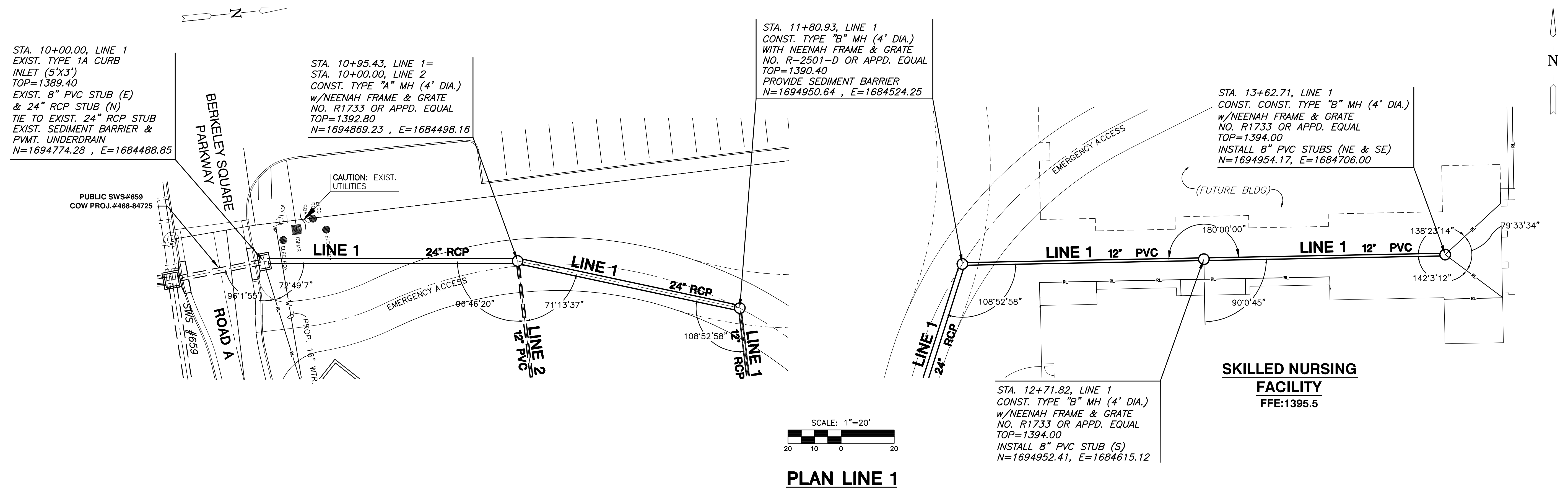
**STORM WATER SEWER PLANS FOR  
GREENWICH OFFICE PARK  
SECOND ADDITION**

**LINE 1**  
SHEET TITLE  
005PPD  
PROJECT NUMBER

JTC / DM / DFL  
DESIGNED / DRAWN / CHECKED

ISSUED  
February 2011  
REVISED

SHEET NO.  
**6 of 10**



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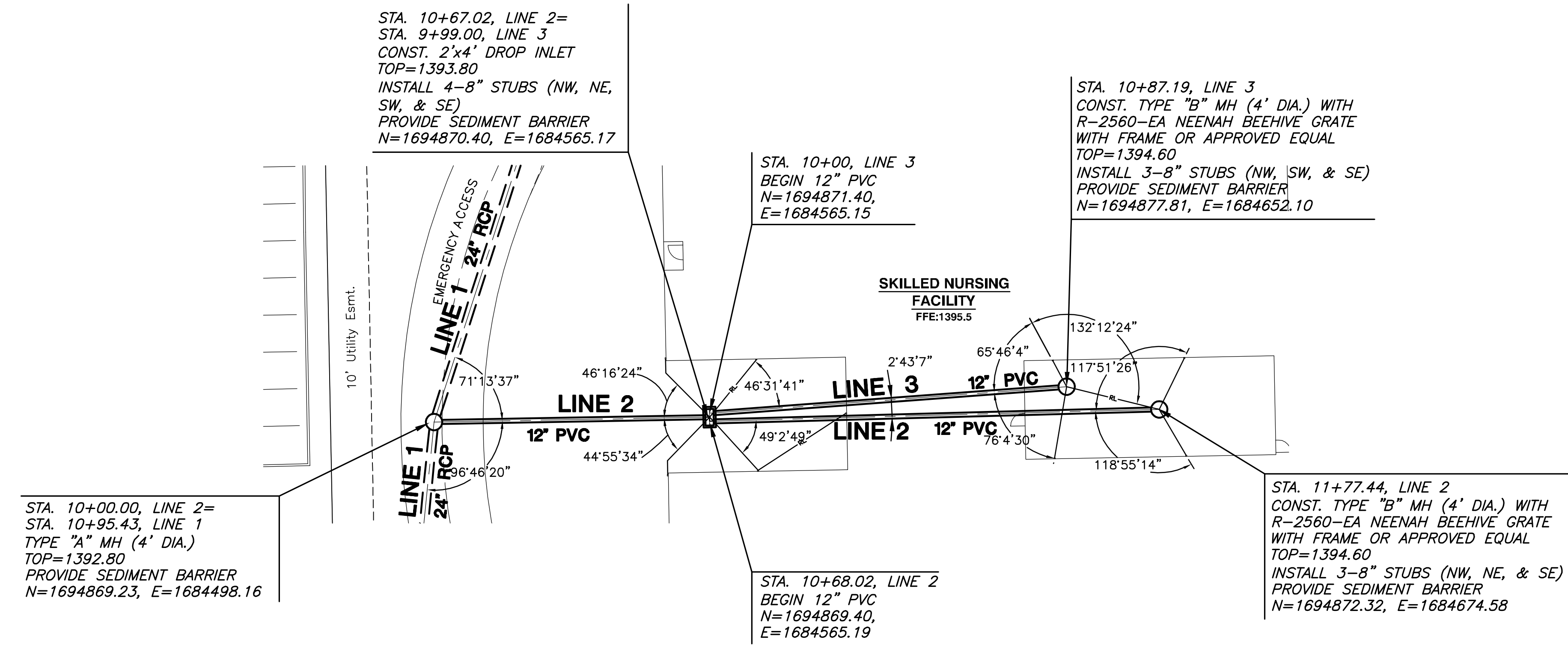
STORM WATER SEWER PLANS FOR  
**GREENWICH OFFICE PARK**  
SECOND ADDITION

**LINES 2 & 3**  
SHEET TITLE  
005PPD  
PROJECT NUMBER

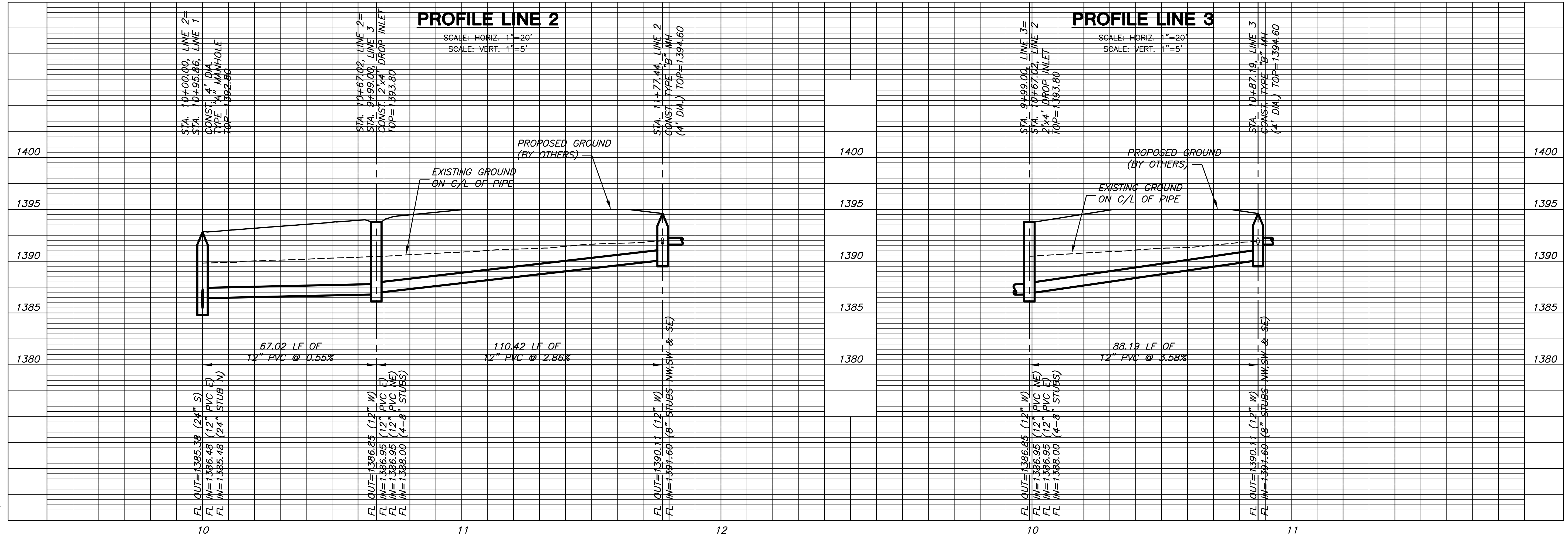
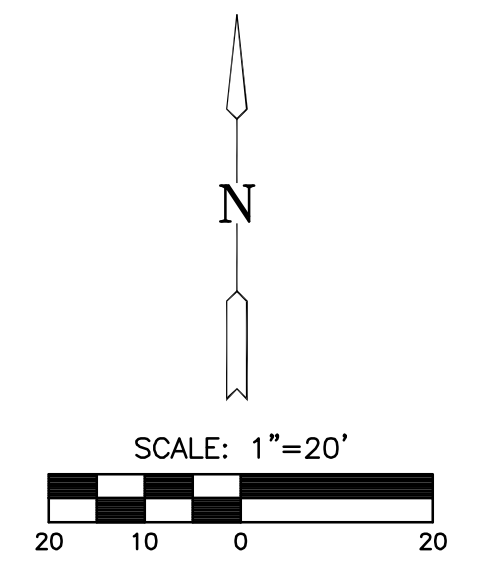
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February 2011  
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SHEET NO.  
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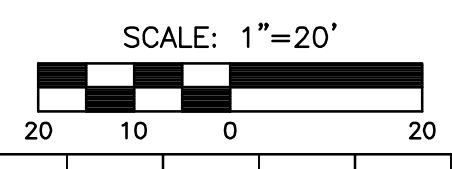
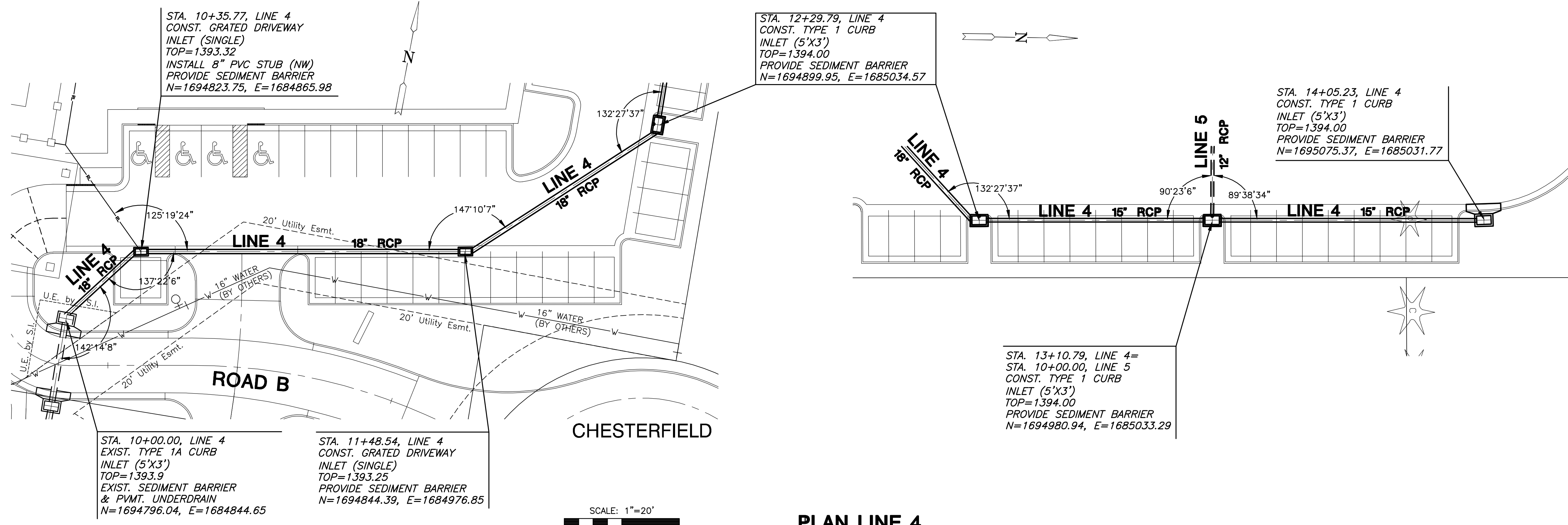


PLAN LINE 2 & 3

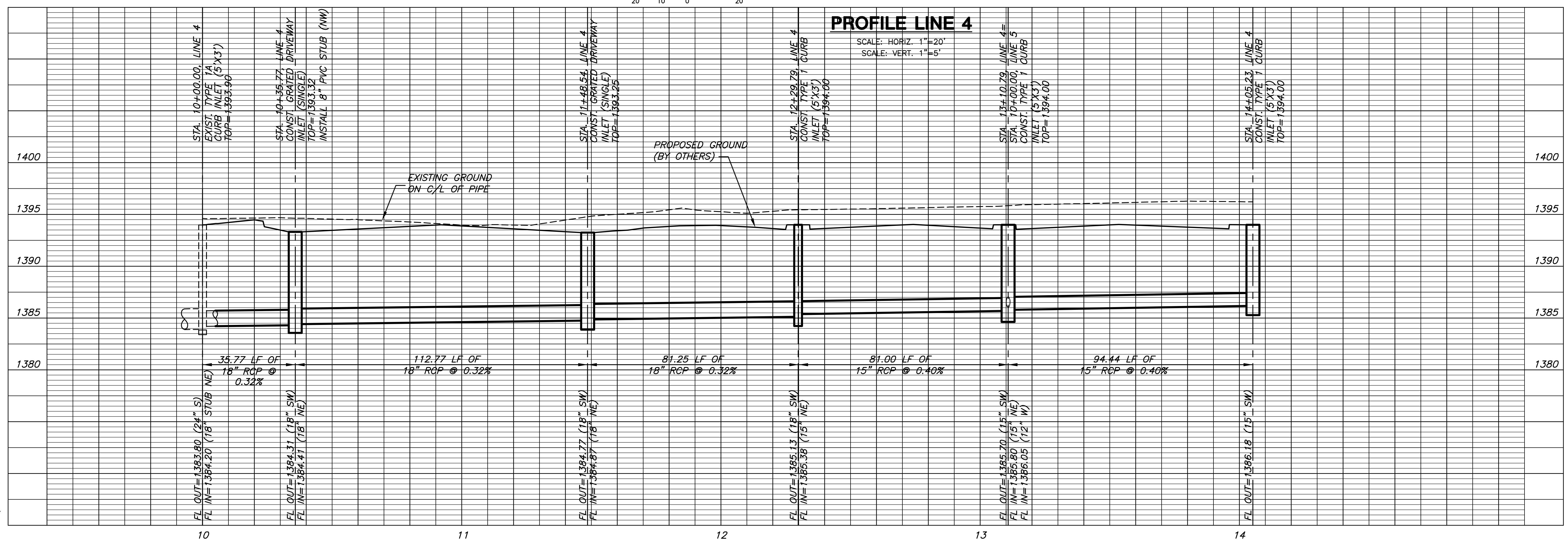


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**PLAN LINE 4**



**PROFILE LINE 4**

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**STORM WATER SEWER PLANS FOR  
GREENWICH OFFICE PARK  
SECOND ADDITION**

**LINE 4**  
SHEET TITLE  
005PPD  
PROJECT NUMBER

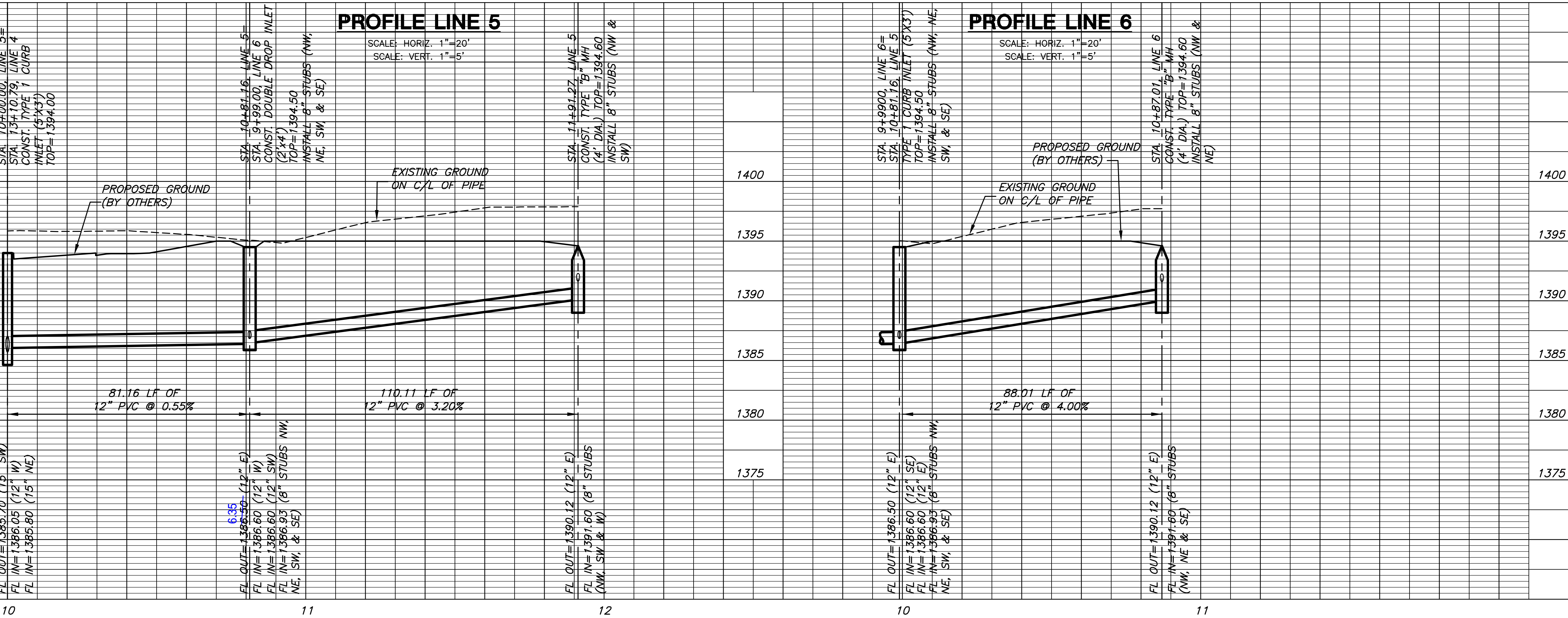
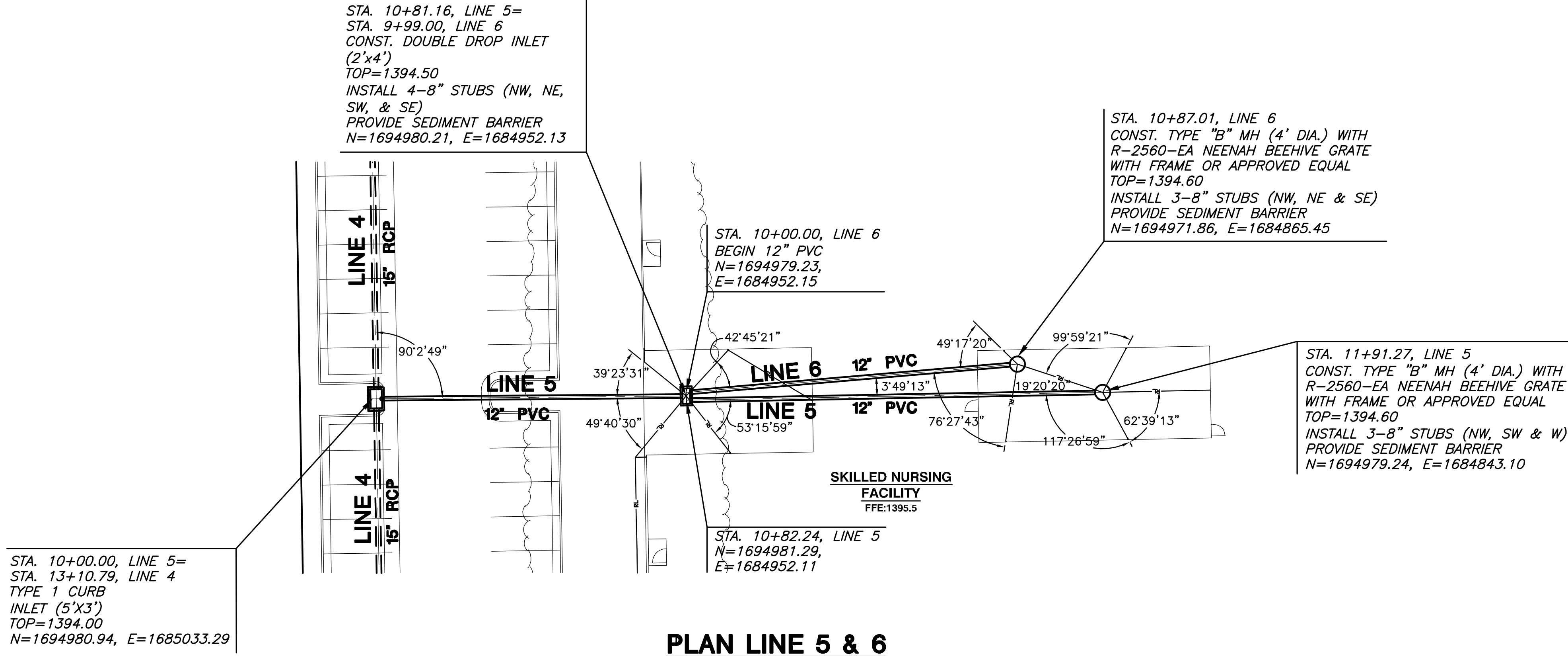
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February 2011

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SHEET NO.  
**8 of 10**

**STORM WATER SEWER PLANS FOR  
GREENWICH OFFICE PARK  
SECOND ADDITION**



**LINES 5 & 6**  
SHEET TITLE  
005PPD  
PROJECT NUMBER

JTC / LES / DFL  
DESIGNED DRAWN CHECKED

ISSUED  
February 2011

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SHEET NO.  
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