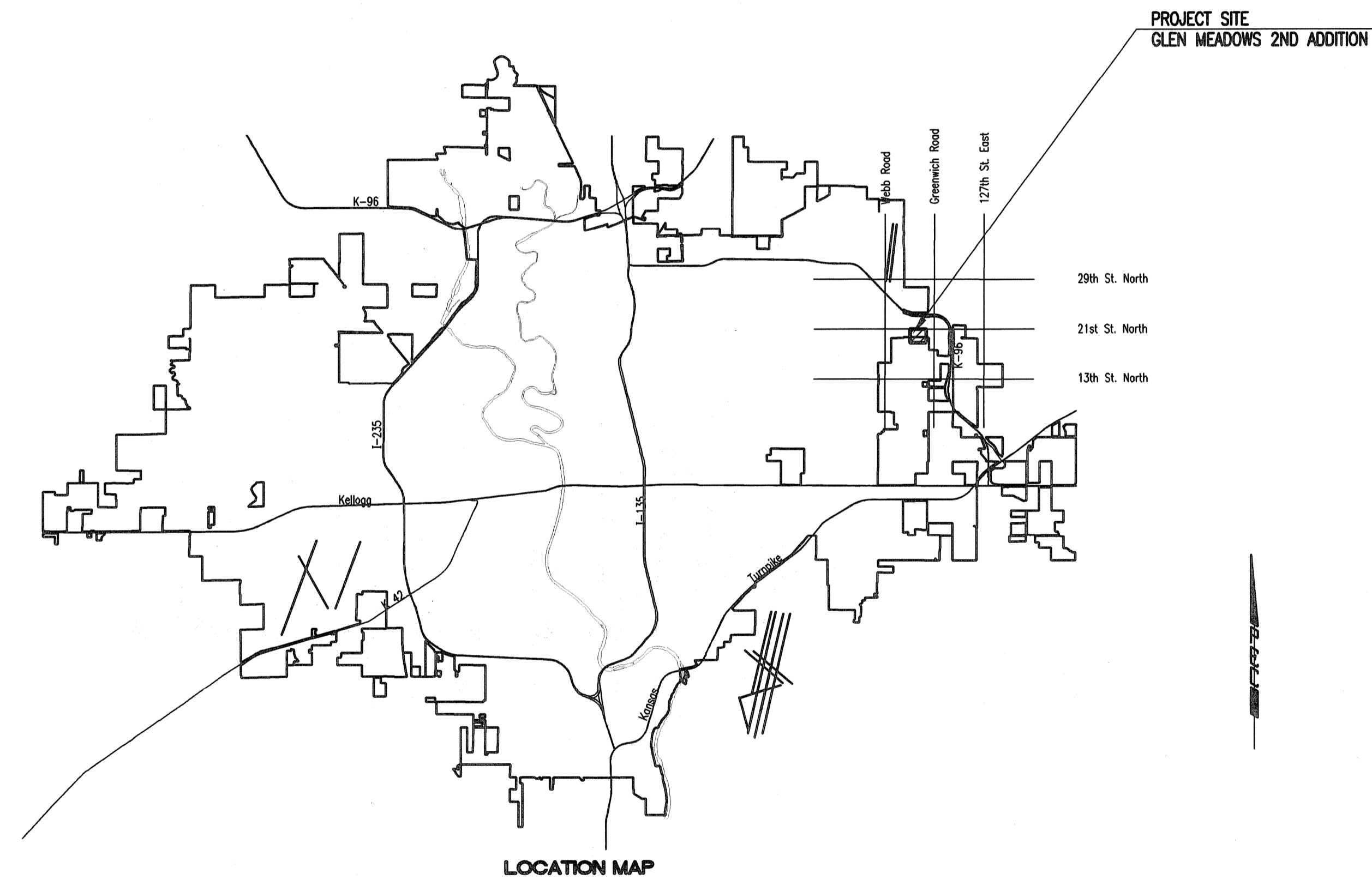


LATERAL 11, MAIN 16 OF THE FOUR MILE CREEK SEWER IN THE CITY OF WICHITA, KANSAS

CITY OF WICHITA PROJECT NO. 468-84633
OCA NO. 744360
GARY JANZEN, P.E. - CITY ENGINEER

B-2 Excavating - Contractor
J. Westhoff - City of Wichita, Field Project Engineer
J. Smith - City of Wichita, Inspector
As-built
Stubs & Risers
Release Date: 10/27/2014
pdf: AProsas 10/28/2014



DEVELOPER CONTACT

MR. DAVID HAMBRICK
SLAWSON COMMERCIAL PROPERTIES
727 N. WACO, SUITE 400
WICHITA, KANSAS 67203
(316) 263-3201

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	KEY MAP AND GENERAL NOTES
SHEET NO. 3	PLAT (GLEN MEADOWS 2ND ADDITION)
SHEET NO. 4	SANITARY SEWER BUBBLE MAP
SHEET NO. 5-8	PLAN/PROFILE
SHEET NO. 9	PRECAST SANITARY SEWER MANHOLE
SHEET NO. 10	MANHOLE FRAME AND COVER DETAILS
SHEET NO. 11	VERTICAL RISER ASSEMBLY SEWR DETAIL
SHEET NO. 12-14	SOIL EROSION BMP DETAILS

CONSTRUCTION SCHEDULE/COORDINATION

THE CONTRACTOR FOR THE FOLLOWING PROJECTS SHALL COORDINATE THEIR EFFORTS SUCH THAT ANY NECESSARY SIMULTANEOUS CONSTRUCTION (INCLUDING PRIVATE PAVING/GRADING IMPROVEMENTS) CAN PROCEED CONCURRENTLY WITHOUT CAUSING UNDUE DELAYS SO THAT CONSTRUCTION CAN BE COMPLETED WITHIN THE TIME FRAME AS NOTED.
THE CONTRACTOR SHALL COMPLETE THE FOLLOWING PUBLIC IMPROVEMENT PROJECTS BY APRIL 25, 2014 UNLESS OTHERWISE INDICATED IN THE PROJECT SPECIAL PROVISIONS.

468-84633 LATERAL 11, MAIN 16 of the FOUR MILE CREEK SEWER
448-90450 WATER DISTRIBUTION SYSTEM
468-84634 STORM WATER DRAIN #359

JANUARY 2014

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS



REGENCY LAKES COMMERCIAL 2ND ADDITION



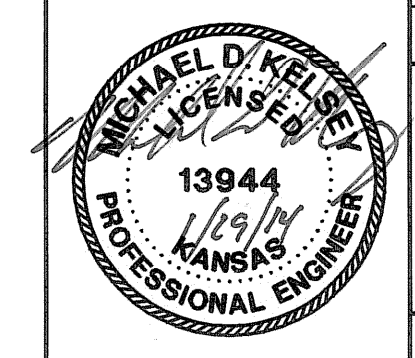
GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
- ALL ELEVATIONS SHOWN ARE NAVD 88.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
 KANSAS ONE-CALL 687-2470 or 811
 THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
 EMERGENCY DISPATCH 911
 COX COMMUNICATIONS 800-778-9140
 KANSAS GAS SERVICE 888-482-4950
 WESTAR ENERGY 800-383-1183
 BLACK HILLS ENERGY 800-694-8989
 AT&T 800-286-8313
 WICHITA WATER UTILITIES (SS AND WL) 262-6000
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 OR 811 TO REQUEST THE LOCAL UTILITY COMPANIES MARK ANY EXISTING LINES WITHIN THE PROJECT AREA.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE DRAWINGS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE DRAWINGS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE DRAWINGS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR THE DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.
- MANHOLES SHALL BE TYPE "P" MANHOLES. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO 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 WILL 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 MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- ALL APPROVED EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE STOCKPILED WITHIN GLEN MEADOWS 2ND ADDITION AT NO ADDITIONAL COST TO THE PROJECT. STOCKPILE LOCATIONS SHALL BE AS DIRECTED BY THE DEVELOPER AND IN ACCORDANCE WITH GENERAL NOTE NO. 10 ABOVE.
- 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
- 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. 10 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER. COSTS FOR TREE/SHRUB REMOVAL AND TRIMMING REGARDLESS OF SIZE SHALL BE CONSIDERED SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE CLEARING".
- THE CONTRACTOR SHALL PREVENT ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJACENT TO THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR IS REQUIRED TO MAINTAIN CONTINUOUS FLOW OF SEWAGE IN EXISTING MAINS AT ALL TIMES.
- THE CONTRACTOR SHALL NOT BURY MANHOLES THAT HAVE RIM ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND AT THE MANHOLE. THE GROUND AROUND SUCH MANHOLES AND ALONG THE SEWER ALIGNMENT SHALL BE BACKFILLED TO THE APPROXIMATE ELEVATION OF THE PROPOSED GROUND ELEVATION SHOWN ON THE PLAN/PROFILE SHEETS. THE CONTRACTOR SHALL PROVIDE DRAINAGE AWAY FROM THESE MANHOLES AND SEWER LINES BY CONSTRUCTION OF TEMPORARY DITCHES OR SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLED BID PRICE FOR MANHOLES OR PIPE.
- THE CONTRACTOR SHALL PROVIDE MOUNDED EARTH AT MANHOLES AND CLEANOUTS THAT HAVE TOP ELEVATIONS GREATER THAN 1 FOOT ABOVE EXISTING GRADE, AS SHOWN ON THE DRAWINGS. COSTS FOR MOUNDED SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID PER EACH FOR MANHOLES.
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS. THE CONTRACTOR SHALL UTILIZE BARRICADES, SIGNS, GUARDS, AND FLAGMEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- WHERE INDICATED IN THE DRAWINGS, THE SANITARY SEWER EXCAVATION SHALL BE SAND FILLED AND FLUSHED (JETTED AND VIBRATED) WITH WATER PER THE REQUIREMENTS LISTED IN THE STANDARD SPECIFICATIONS FOR THE CITY OF WICHITA, UNLESS FLOWABLE FILL OR OTHER IMPROVED BACKFILL MATERIAL IS OTHERWISE SPECIFIED. ALL COSTS FOR SAND FILLING AND FLUSHING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "JETTED SAND BACKFILL".
- EROSION CONTROL (BMP'S)
 EROSION CONTROL MEASURES FOR THE PROJECT WILL BE PERFORMED BY THE PAVING CONTRACTOR. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE PAVING CONTRACTOR AND ENSURE THAT EROSION PROTECTION MEASURES ARE IN PLACE PRIOR TO EXCAVATION FOR INSTALLATION OF THE SANITARY SEWER. SEE PAVING/SWD PLANS FOR ADDITIONAL INFORMATION. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR SHALL ENSURE THAT THE APPROPRIATE EROSION PROTECTION MEASURES ARE IN PLACE. THE PAVING CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION PROTECTION THROUGHOUT THE DURATION OF THE PROJECT. ANY EROSION PROTECTION DAMAGED OR REMOVED AS PART OF THIS CONTRACTORS ACTIVITIES SHALL BE REPLACE/RESET AT THEIR COST.

SCALE: 1" = 150'

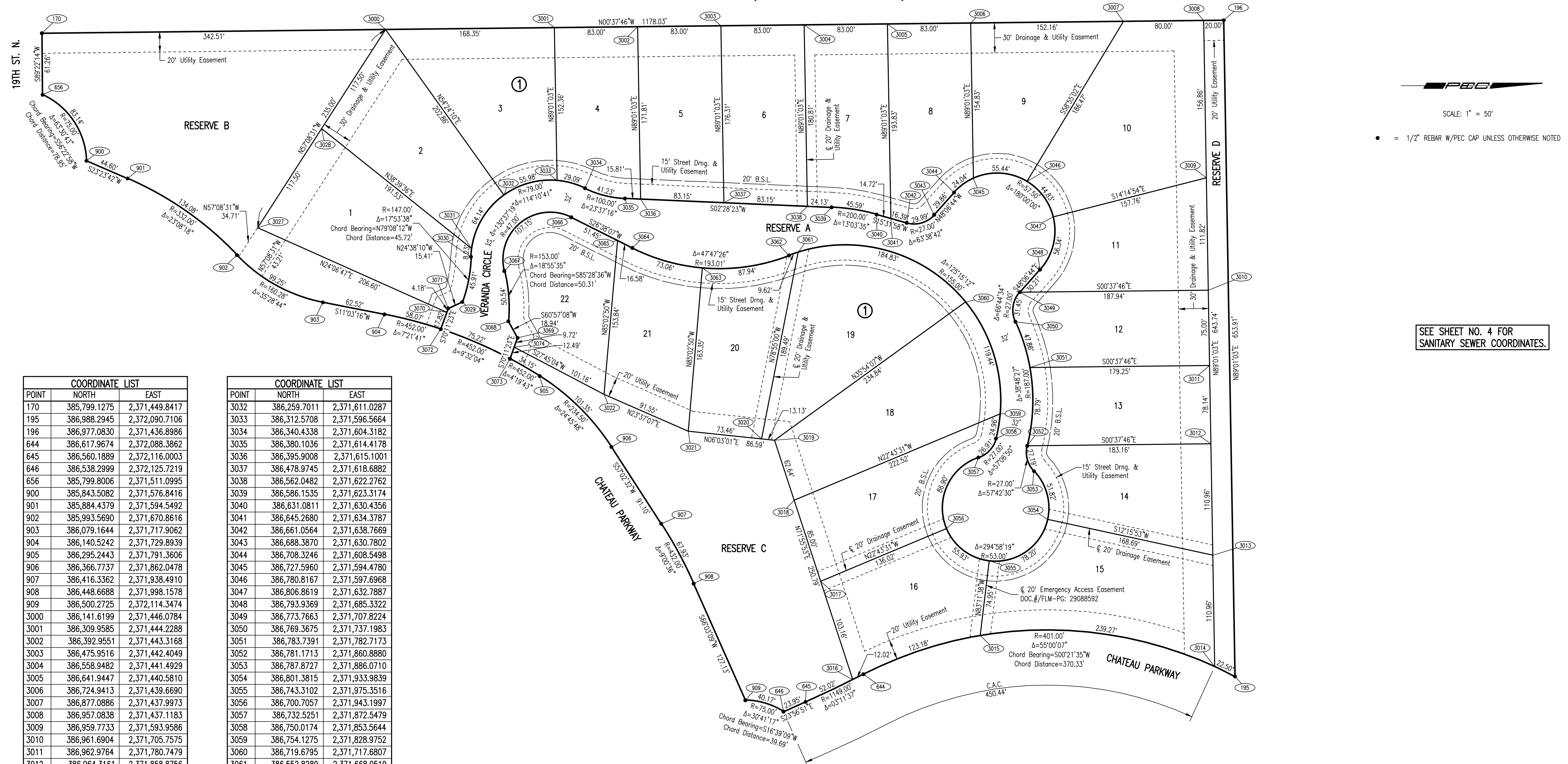
SEE SHEET NO. 3 FOR PLAT COORDINATES.
 SEE SHEET NO. 4 FOR SANITARY SEWER COORDINATES.

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No.	Revision	By	Date
LATERAL 11, MAIN 16 OF THE FOUR MILE CREEK SEWER KEY MAP AND GENERAL NOTES GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84633			
		PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com	
Designed by	CSB, SAD	Job No.	35-13438-000
Drawn by	CSL, JAN	Date	SEPTEMBER 2013
			Sht. 2 of 14

GLEN MEADOWS 2ND ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



POINT	NORTH	EAST
170	385,799.1275	2,371,449.8417
195	386,988.2945	2,372,090.7106
196	386,977.0830	2,371,436.8986
644	386,617.9674	2,372,088.3862
645	386,560.1889	2,372,116.0003
646	386,538.2999	2,372,125.7219
656	385,799.8006	2,371,511.0995
900	385,843.5082	2,371,576.8416
901	385,884.4379	2,371,594.5492
902	385,993.5690	2,371,670.8616
903	386,079.1644	2,371,717.9062
904	386,140.5242	2,371,729.8939
905	386,295.2443	2,371,791.3606
906	386,366.7737	2,371,862.0478
907	386,416.3362	2,371,938.4910
908	386,448.6688	2,371,998.1578
909	386,500.2725	2,372,114.3474
3000	386,141.6199	2,371,446.0784
3001	386,309.9585	2,371,444.2288
3002	386,392.9551	2,371,443.3168
3003	386,475.9516	2,371,442.4049
3004	386,558.9482	2,371,441.4929
3005	386,641.9447	2,371,440.5810
3006	386,724.9413	2,371,439.6690
3007	386,877.0886	2,371,437.9973
3008	386,957.0838	2,371,437.1183
3009	386,959.7733	2,371,593.9586
3010	386,961.6904	2,371,705.7575
3011	386,962.9764	2,371,780.7479
3012	386,964.3161	2,371,858.8756
3013	386,966.2185	2,371,969.8181
3014	386,968.1209	2,372,080.7606
3015	386,734.4274	2,372,049.7772
3016	386,607.2399	2,372,093.8149
3017	386,575.2455	2,371,995.7460
3018	386,548.8823	2,371,914.9377
3019	386,529.4551	2,371,855.3897
3020	386,516.4025	2,371,854.0062
3021	386,443.3480	2,371,846.2630
3022	386,359.4685	2,371,809.5846
3027	386,014.1185	2,371,643.4826
3028	386,077.8692	2,371,544.7805
3029	386,218.1128	2,371,717.5279
3030	386,226.7301	2,371,672.6241
3031	386,227.4323	2,371,664.4318

POINT	NORTH	EAST
3032	386,259.7011	2,371,611.0287
3033	386,312.5708	2,371,596.5664
3034	386,340.4338	2,371,604.3182
3035	386,380.1036	2,371,614.4178
3036	386,395.9008	2,371,615.1001
3037	386,478.9745	2,371,618.6882
3038	386,562.0482	2,371,622.2762
3039	386,586.1535	2,371,623.3174
3040	386,631.0811	2,371,630.4356
3041	386,645.2680	2,371,634.3787
3042	386,661.0564	2,371,638.7669
3043	386,688.3870	2,371,630.7802
3044	386,708.3246	2,371,608.5498
3045	386,727.5960	2,371,594.4780
3046	386,780.8167	2,371,597.6968
3047	386,806.8619	2,371,632.7887
3048	386,793.9369	2,371,685.3322
3049	386,773.7663	2,371,707.8224
3050	386,769.3675	2,371,737.1983
3051	386,783.7391	2,371,782.7173
3052	386,781.1713	2,371,860.8880
3053	386,787.8727	2,371,886.0710
3054	386,801.3815	2,371,933.9839
3055	386,743.3102	2,371,975.3516
3056	386,700.7057	2,371,943.1997
3057	386,732.5251	2,371,872.5479
3058	386,750.0174	2,371,853.5644
3059	386,754.1275	2,371,828.9752
3060	386,719.6795	2,371,717.6807
3061	386,552.8289	2,371,668.0519
3062	386,543.7598	2,371,671.2411
3063	386,457.4508	2,371,683.5234
3064	386,387.5730	2,371,663.7552
3065	386,372.7502	2,371,656.3210
3066	386,326.7566	2,371,633.2537
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3068	386,264.0470	2,371,736.7792
3069	386,273.2408	2,371,753.3327
3070	386,202.6895	2,371,727.8863
3071	386,204.1071	2,371,723.9509
3072	386,196.6490	2,371,744.6548
3073	386,265.7125	2,371,774.2314
3074	386,269.9450	2,371,762.4818

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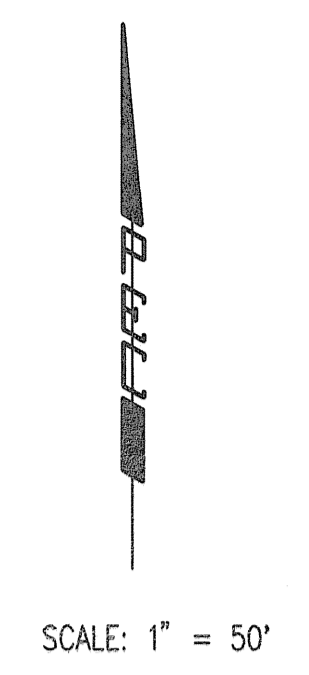
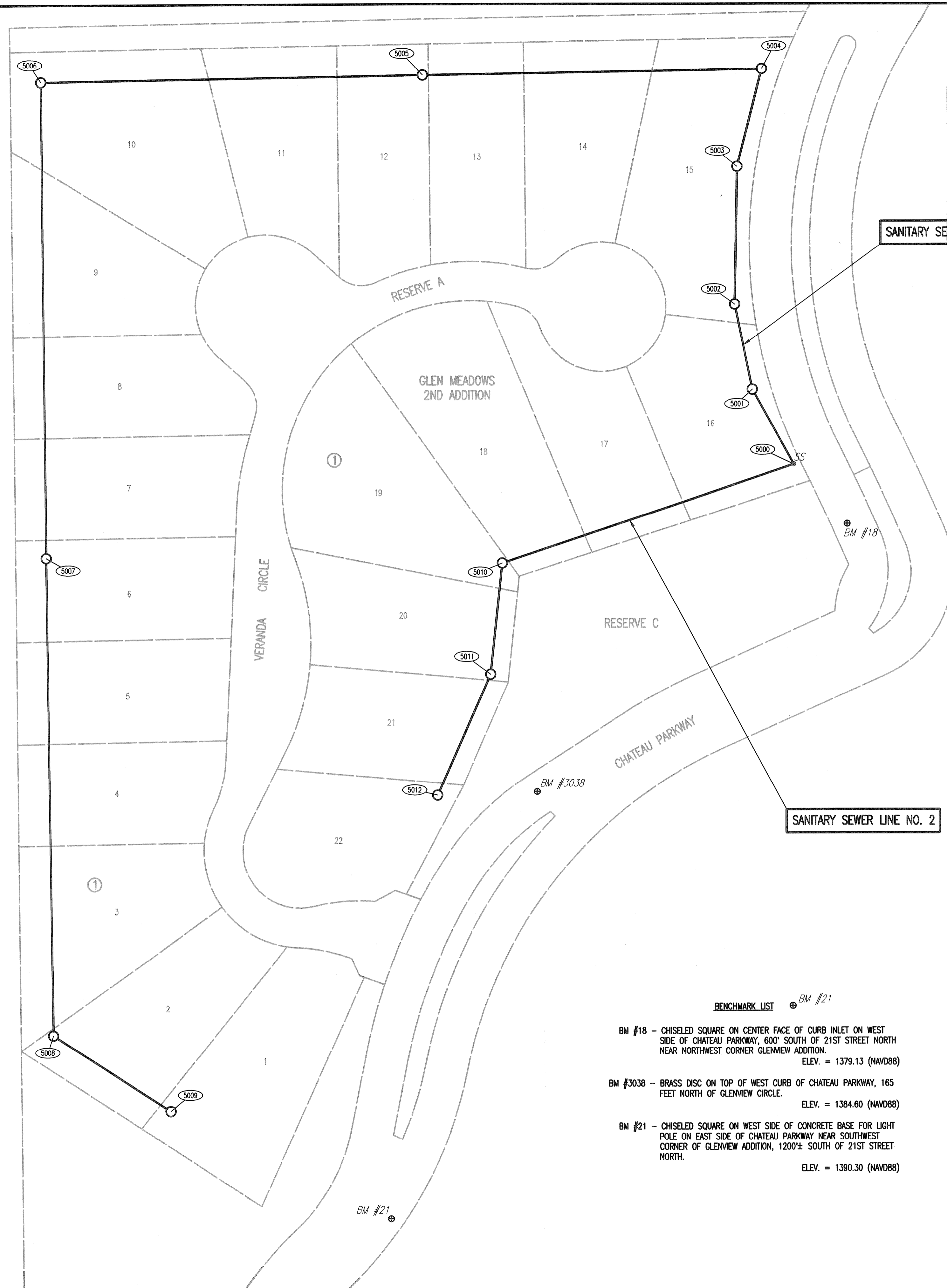
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SCALE: 1" = 50'
 • = 1/2" REBAR W/PEC CAP UNLESS OTHERWISE NOTED

SEE SHEET NO. 4 FOR
SANITARY SEWER COORDINATES.

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No.	Revision	By	Date
LATERAL 11, MAIN 16 OF THE FOUR MILE CREEK SEWER PLAT (GLEN MEADOWS 2ND ADDITION) GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84633			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2891 www.pec1.com			
Designed by	CSB, SAD	Job No.	35-13438-000
Drawn by	CSL, JAN	Date	SEPTEMBER 2013
			Sht. 3 of 14



SANITARY SEWER LINE NO. 1 COORDINATE LIST

POINT	NORTHING	EASTING	STATION	DESCRIPTION
5000	386,620.9530	2,372,080.5770	0+00.0	EXISTING MH
5001	386,681.8512	2,372,046.6274	0+69.7	MH 1
5002	386,751.6369	2,372,032.1566	1+41.0	MH 2
5003	386,863.8503	2,372,034.0203	2+53.2	MH 3
5004	386,942.6606	2,372,054.1292	3+34.6	MH 4
5005	386,937.8917	2,371,776.0232	6+12.7	MH 5
5006	386,932.5135	2,371,462.3898	9+26.4	MH 6
5007	386,544.3774	2,371,466.6545	13+14.5	MH 7
5008	386,154.3486	2,371,472.4492	17+04.6	MH 8
5009	386,092.0379	2,371,568.9218	18+19.5	MH 9

SANITARY SEWER LINE NO. 2 COORDINATE LIST

POINT	NORTHING	EASTING	STATION	DESCRIPTION
5000	386,620.9530	2,372,080.5770	0+00.0	EXISTING MH
5010	386,540.1927	2,371,841.4437	2+52.4	MH 10
5011	386,449.6163	2,371,831.8434	3+43.5	MH 11
5012	386,351.2735	2,371,788.3233	4+51.0	MH 12

5000 = COORDINATE POINT NO.
SEE SHEET NO. 3 FOR PLAT COORDINATES

BENCHMARK LIST

- BM #18 - CHISELED SQUARE ON CENTER FACE OF CURB INLET ON WEST SIDE OF CHATEAU PARKWAY, 600' SOUTH OF 21ST STREET NORTH NEAR NORTHWEST CORNER GLENVIEW ADDITION.
ELEV. = 1379.13 (NAVD88)
- BM #3038 - BRASS DISC ON TOP OF WEST CURB OF CHATEAU PARKWAY, 165 FEET NORTH OF GLENVIEW CIRCLE.
ELEV. = 1384.60 (NAVD88)
- BM #21 - CHISELED SQUARE ON WEST SIDE OF CONCRETE BASE FOR LIGHT POLE ON EAST SIDE OF CHATEAU PARKWAY NEAR SOUTHWEST CORNER OF GLENVIEW ADDITION, 1200'± SOUTH OF 21ST STREET NORTH.
ELEV. = 1390.30 (NAVD88)

No.	Revision	By	Date
	LATERAL 11, MAIN 16 OF THE FOUR MILE CREEK SEWER SANITARY SEWER BUBBLE MAP		
GARY JANZEN, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 468-84633			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. 303 SOUTH TOPEKA WICHITA, KS 67202 316-262-2691 www.pec1.com			
Designed by	CSB, SAD	Job No.	35-13438-000
Drawn by	CSL, JAN	Date	SEPTEMBER 2013

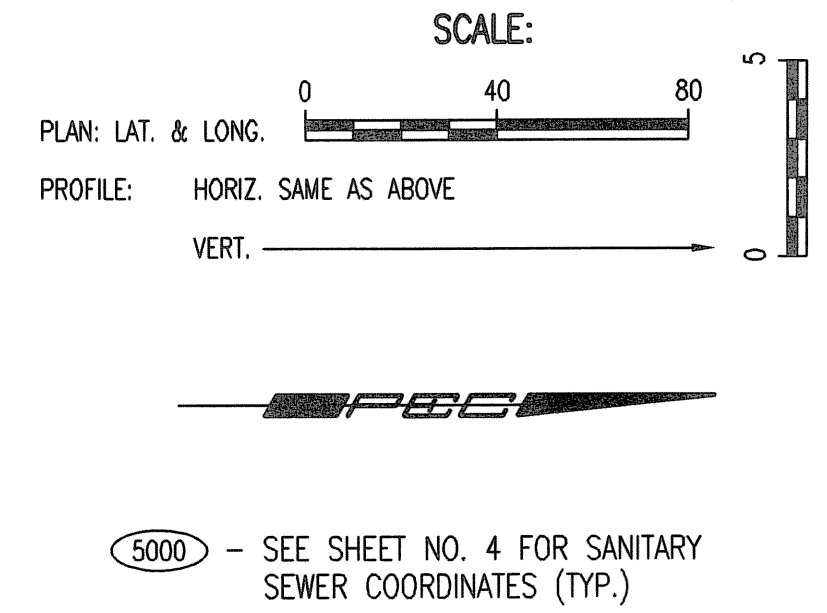
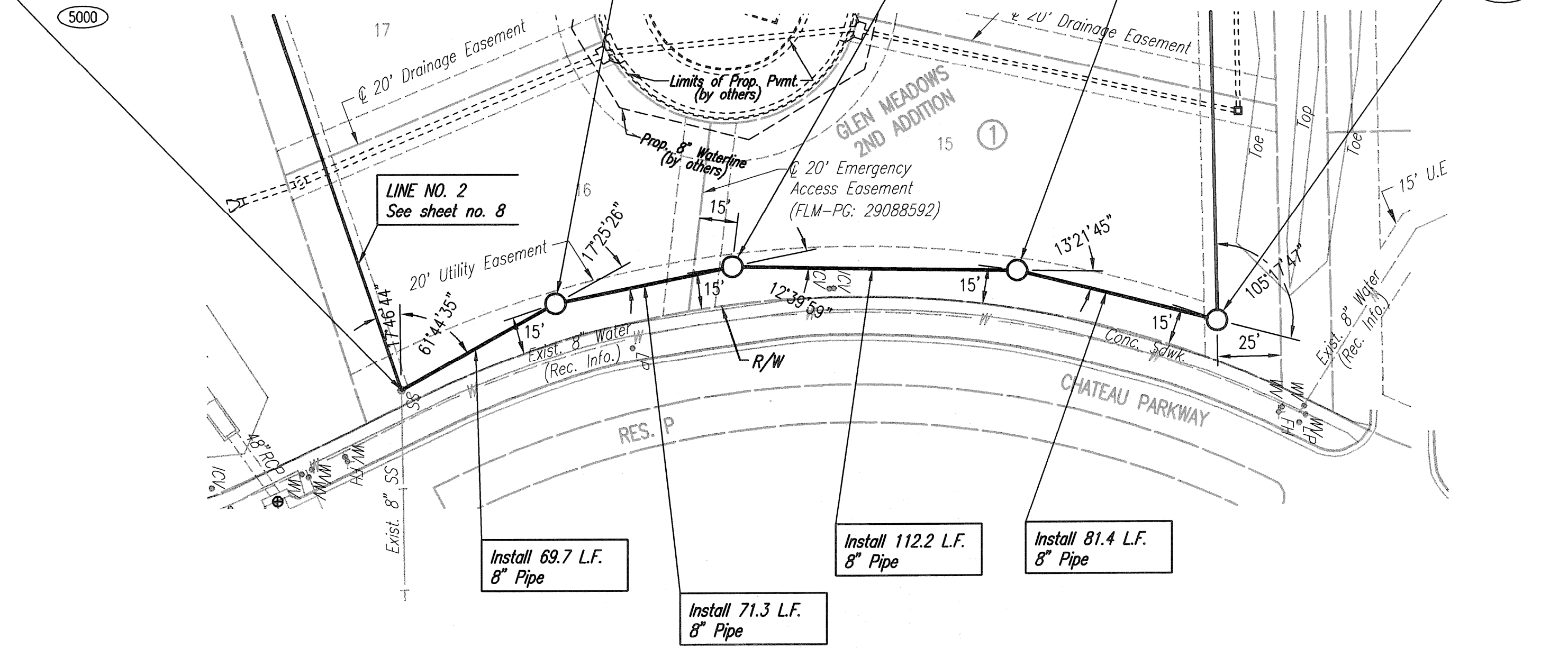
Sht. 4 of 14

PLAN	CHECKED	DATE
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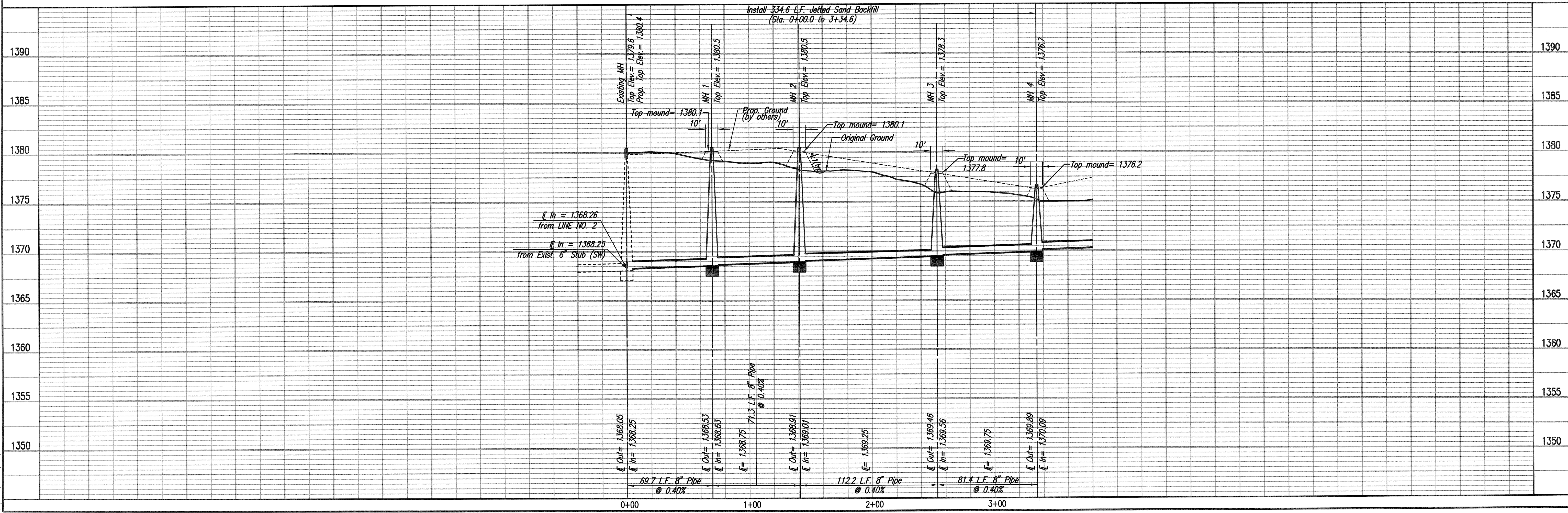
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Sta. 0+00.0
 Core existing concrete MH wall and install New 8" Pipe. Seal new 8" Pipe to MH with an approved waterstop gasket and non-shrink grout. Construct a minimum of 3' Reinforced Concrete Encasement from MH wall. Reshape MH floor to provide smooth flow. This work shall be considered subsidiary to the price bid for pipe in place. Adjust manhole top elevation. Existing Top of Manhole Elev.= 1379.6 Proposed Top of Manhole Elev.= 1380.4 Difference = + 0.80'



SANITARY SEWER LINE NO. 1



Sheet 5 of 14

DESIGNED BY: CSB, SAD
 DRAWN BY: CSJ, JAN
 DATE: SEPTEMBER 2013

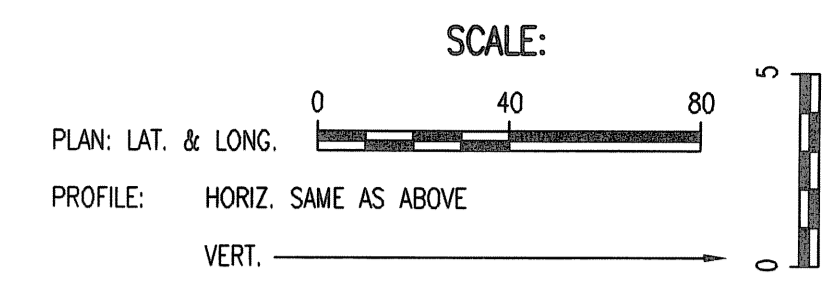
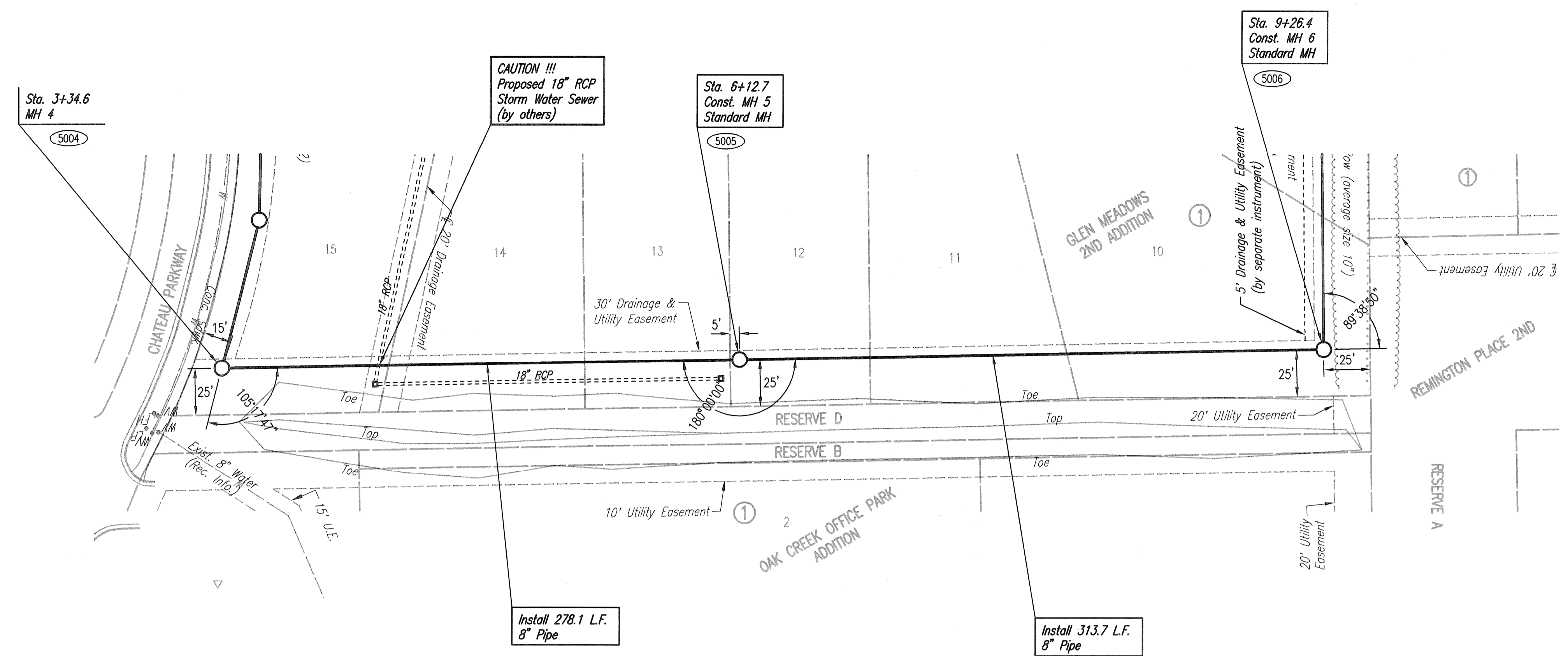
PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-262-2681 www.pec.com

LATERAL 11, MAIN 16
 OF THE FOUR MILE CREEK SEWER
 SANITARY SEWER LINE NO. 1
 GARY JANZEN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84633

PLAN	CHECKED	CHECKED
BY		
DATE		

PROFILE	CHECKED	CHECKED
BY		
DATE		

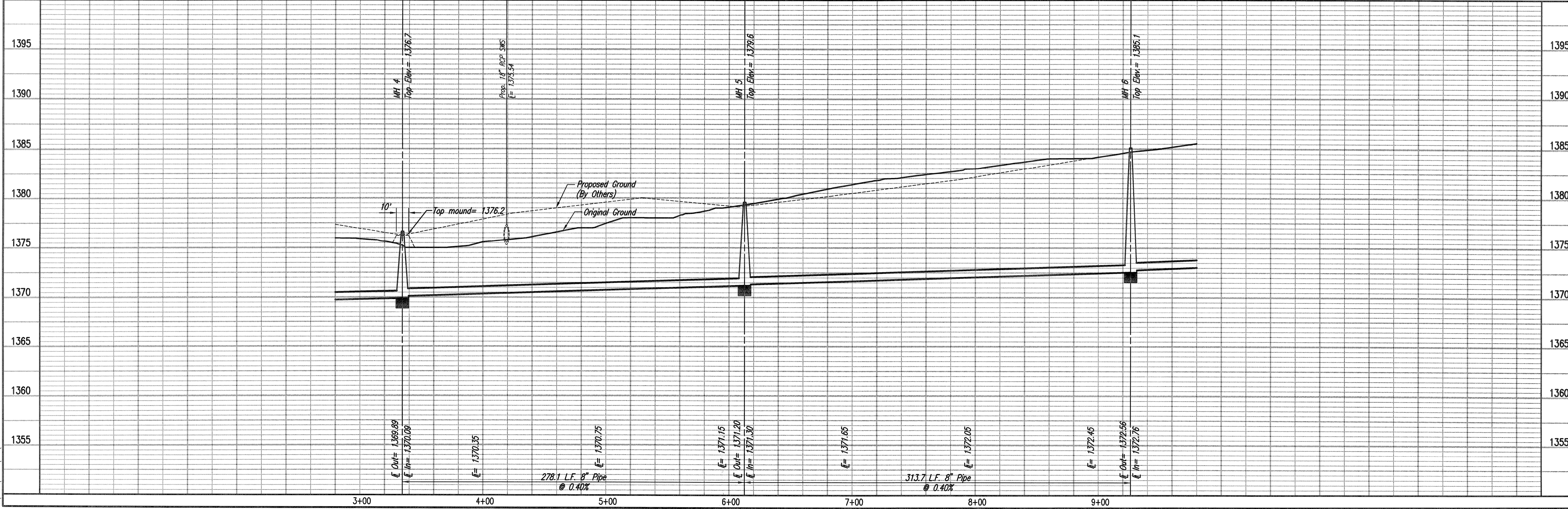
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5000 - SEE SHEET NO. 4 FOR SANITARY SEWER COORDINATES (TYP.)



SANITARY SEWER LINE NO. 1



LATERAL 11 MAIN 16
 OF THE FOUR MILE CREEK SEWER
SANITARY SEWER LINE NO. 1
 GARY JANZEN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84633

IPEC
 PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-262-2881 www.ipec.com

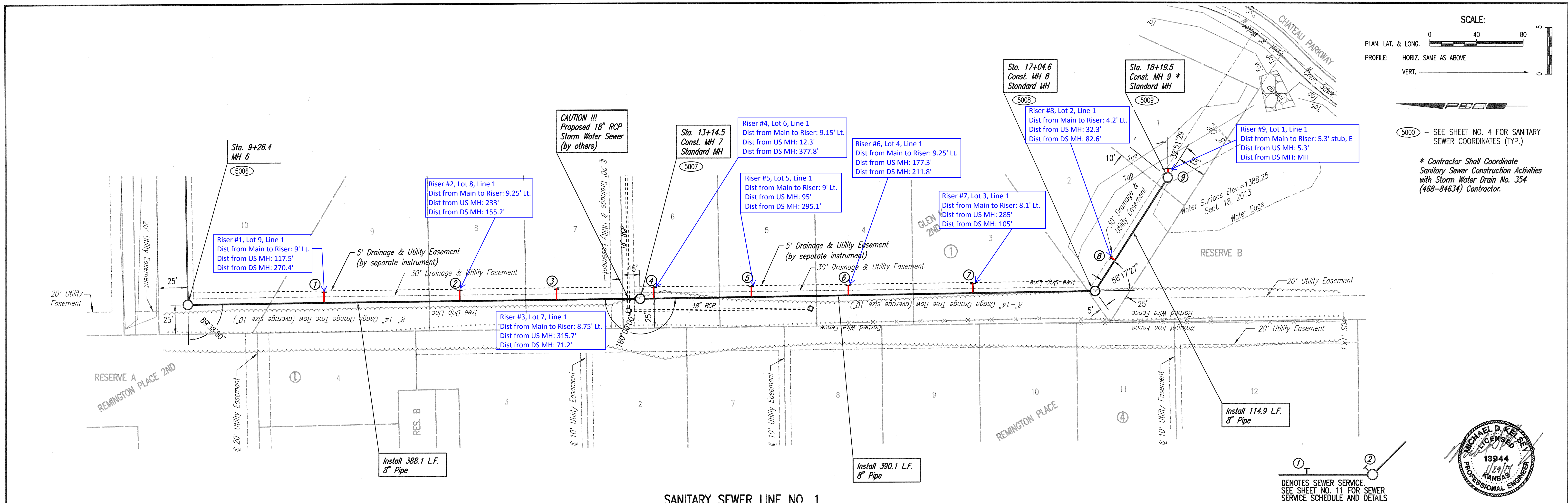
Designed By: CSB, SAO
 Drawn By: CSI, JAN
 Job No.: 35-13438-000-0042
 Date: SEPTEMBER 2013

Sheet 6 of 14

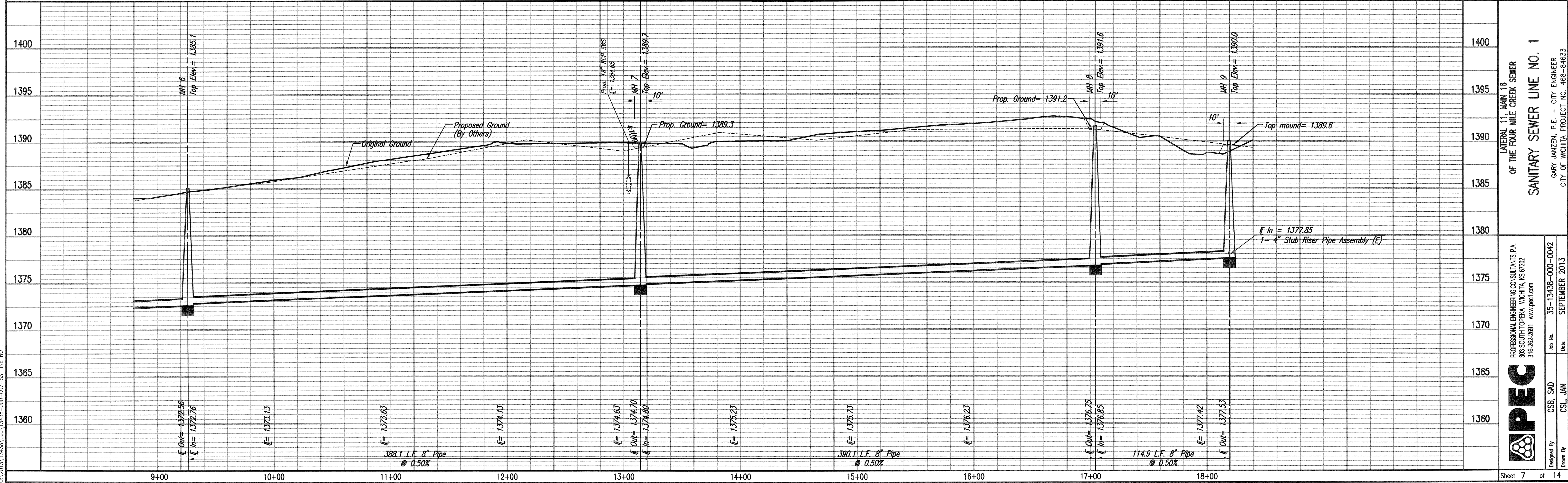
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 2/12/2013 13:45:00(000)13438-000-C01-SS LINE NO 1



SANITARY SEWER LINE NO. 1



LATERAL 11, MAIN 16
 OF THE FOUR MILE CREEK SEWER
SANITARY SEWER LINE NO. 1
 GARY JANZEN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 468-84633

IPEC
 PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-262-2891 www.ipec.com

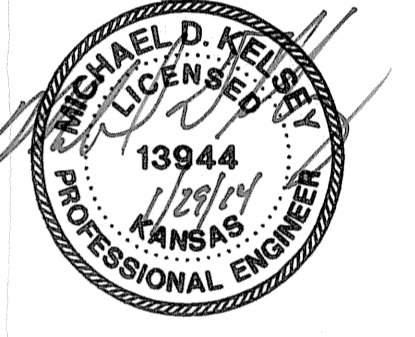
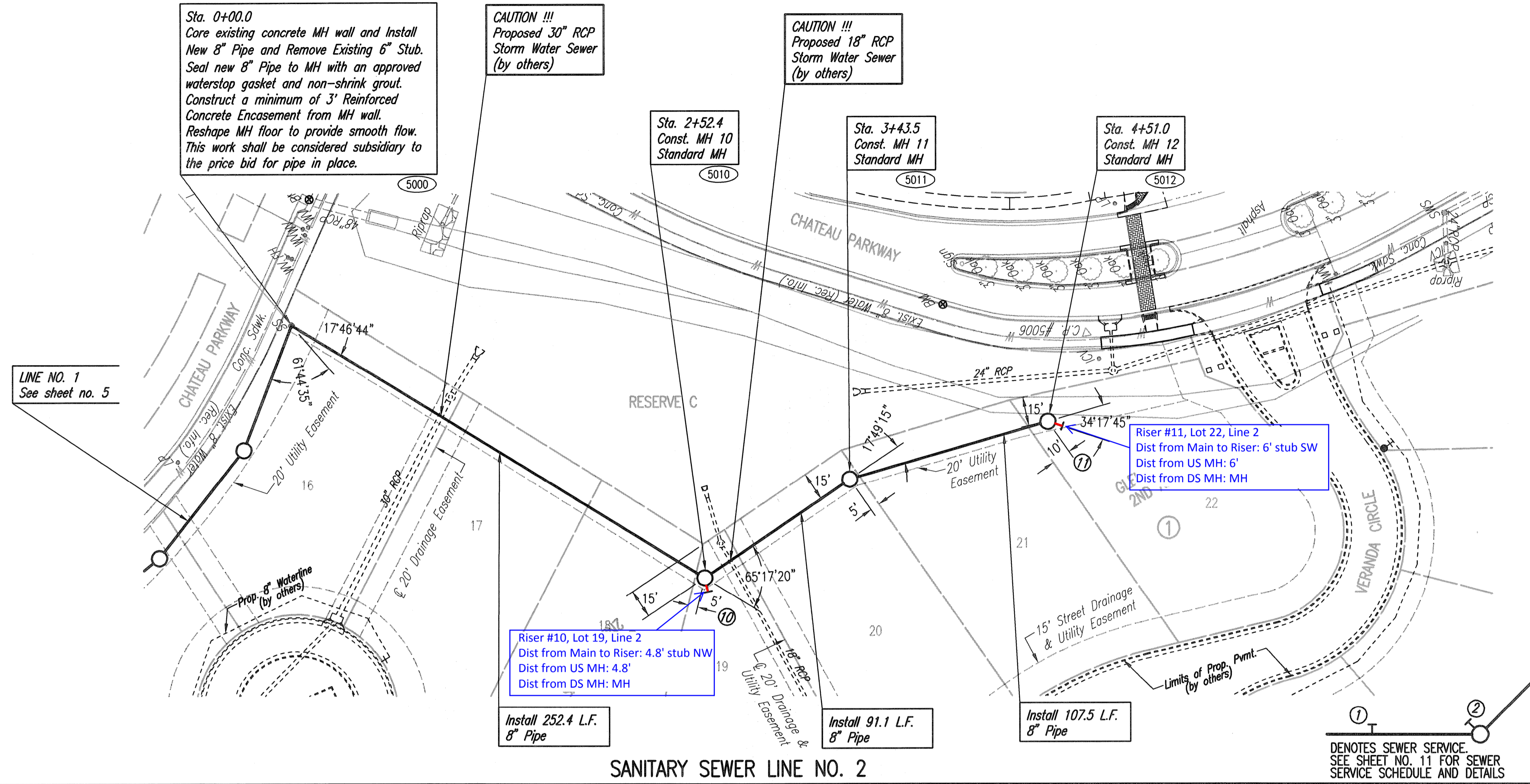
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 Job No.: 35-13438-000-0042
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Sheet 7 of 14

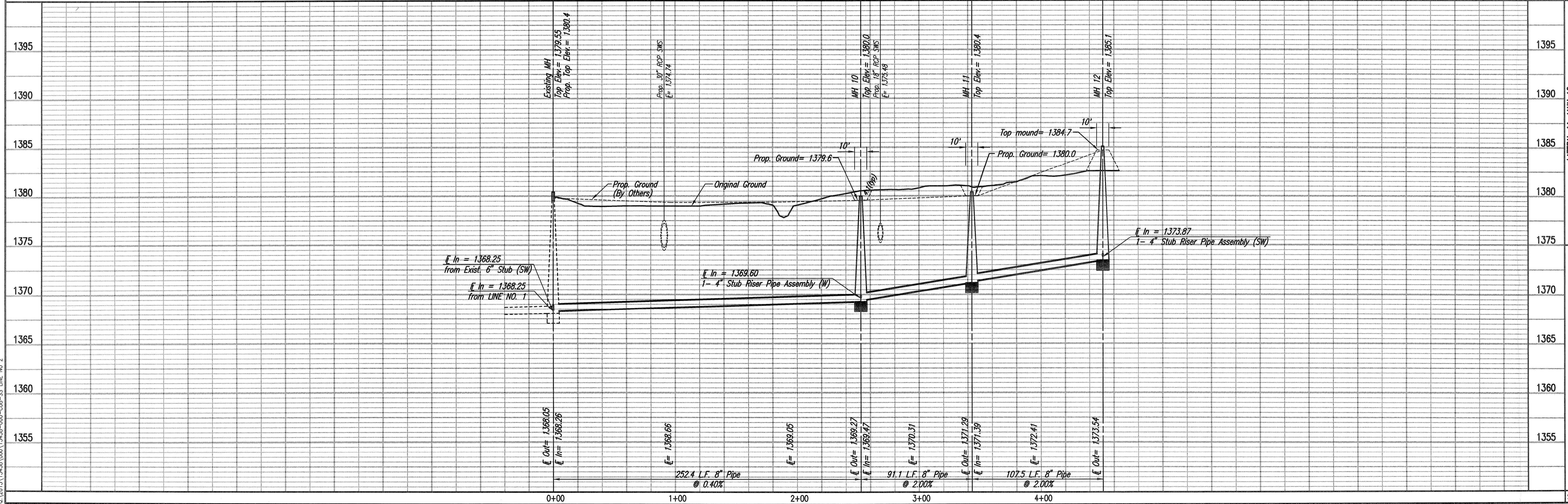
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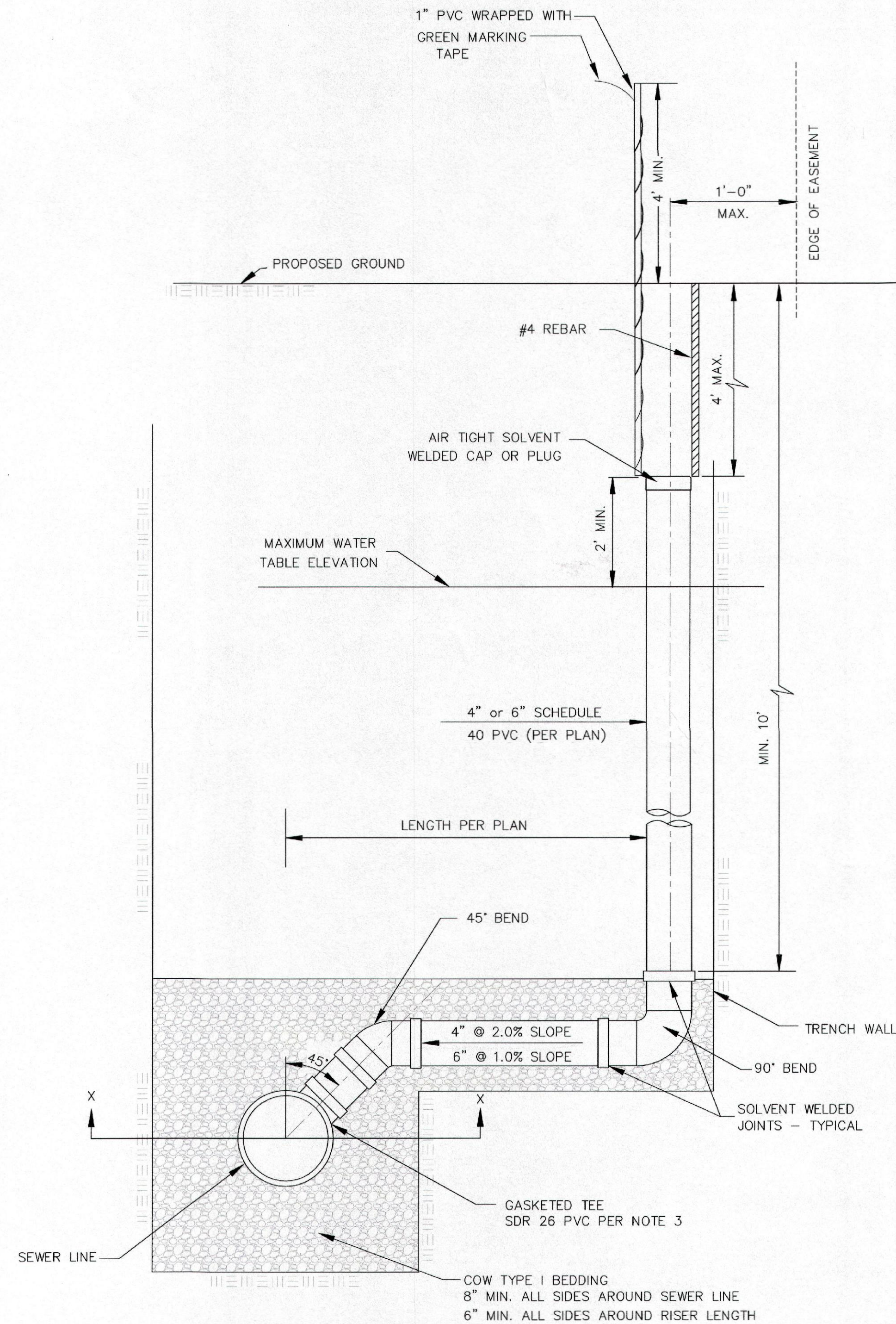
SANITARY SEWER LINE NO. 2



GENERAL NOTES

- APPLICATION. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table, where the sanitary sewer main depth is greater than 12' below the proposed ground elevation, where the main is adjacent to a pond or wherever service lines would have to cross under storm sewer pipe. Installation of risers because of field conditions shall be as approved by the City Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.
- MANHOLE STUB RISERS. Manhole stub risers be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole stub and the flowline of the sanitary sewer line out of the manhole shall not exceed 2' stub. Risers shall be utilized at manholes as indicated in Note 1. Manhole stub riser shall be set such that the top of the stub is not lower than the top of the sanitary sewer line.
- SIZING. Risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers are required because of field conditions, the risers shall be 6" diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers shall be approved by the construction Engineer prior to installation.
- RISER MATERIAL. Risers shall be constructed of Schedule 40 PVC Pipe, meeting the requirement of the latest revision of A.S.T.M.. All pipe joints shall be solvent welded. Full body tee shall be SDR 26 PVC pipe.
- ROCK ENCASUREMENT. Riser connection to clay pipe sanitary sewers shall be rock encased both ways from the riser centerline. The rock encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary sewer mains shall be rock encased one foot each way from the riser centerline. Crushed rock shall conform to ASTM C-33, Gradation No. 67, and shall meet all requirements for Portland Cement Concrete pavement Coarse Aggregate, Section 406.2, City of Wichita Standard Specifications.
- BEDDING. Beyond the limits of the rock encasement, bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
- SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and back filling the riser pie shall be approved by the Construction Engineer.
- PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
- TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation 2' (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
- MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by installing 1" PVC from the top of the riser to a minimum of 4' above the top of finished grade. No. 4 rebar shall be placed centered over the riser from the cap to the existing ground. The 1" PVC pipe shall be wrapped with green colored plastic tape, for the full length above ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
- LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicate the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser in tabular format.
- RISER LOCATION. the riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
- PAYMENT. "Riser Assembly, Vertical " shall be paid for at the contract unit price per each, which shall be full compensation for all pipe, fittings, marking tape, length of backfill, labor, site restoration, and any other items necessary to complete the work.

"Riser Assembly, Manhole Stub" shall be paid for at the contract unit price per each, which shall be full compensation for all labor material and incidentals necessary to complete the work including all pipe, fittings, rock encasement, and all other items as required and listed for "Riser Assembly, Vertical "



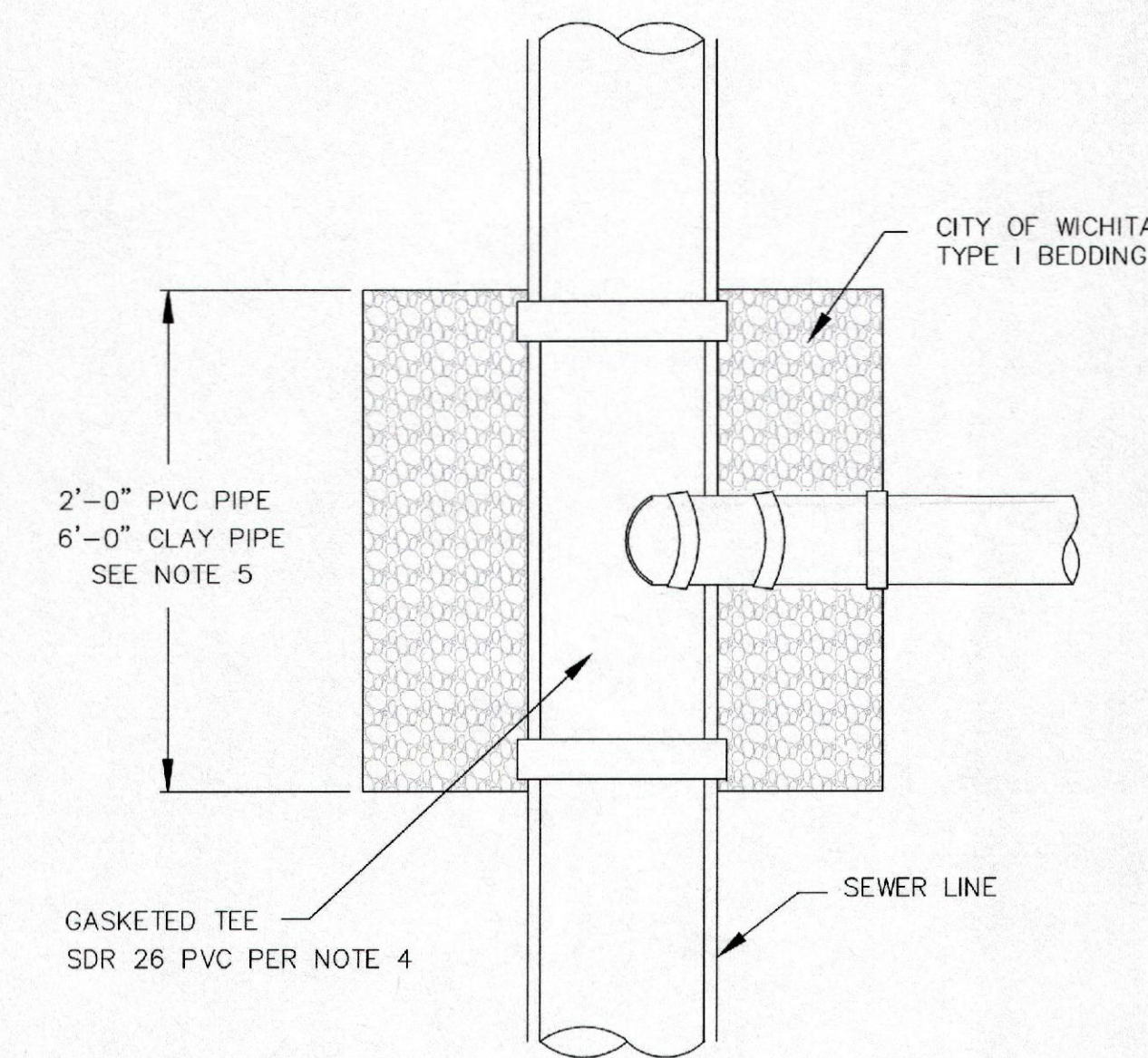
NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

SEWER SERVICE TABLE										
NO.	SIZE	LOCATION			FOR INFORMATION ONLY		RECORD INFORMATION (TO BE COMPLETED BY PROJECT INSPECTOR)		NO.	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" or 6" PIPE		DISTANCE FROM NEAREST MANHOLE		
						VERTICAL	HORIZONTAL	UPSTREAM		DOWNSTREAM
1	8"x4" Riser Pipe Assembly	9	1	1	10+44/Lt.	10'	9'			2
2	8"x4" Riser Pipe Assembly	8	1	1	11+60/Lt.	11'	9'			3
3	8"x4" Riser Pipe Assembly	7	1	1	12+43/Lt.	11'	9'			4
4	8"x4" Riser Pipe Assembly	6	1	1	13+27/Lt.	10'	9'			5
5	8"x4" Riser Pipe Assembly	5	1	1	14+10/Lt.	11'	9'			6
6	8"x4" Riser Pipe Assembly	4	1	1	14+93/Lt.	10'	9'			7
7	8"x4" Riser Pipe Assembly	3	1	1	16+00/Lt.	10'	8'			8
8	8"x4" Riser Pipe Assembly	2	1	1	17+36/Lt.	9'	4'			9
9	4" Stub Riser Pipe Assembly	1	1	1	18+19.5/E	8'	6'			10
10	4" Stub Riser Pipe Assembly	19	1	2	2+52.4/NW	6'	3'			11
11	4" Stub Riser Pipe Assembly	22	1	2	4+51.0/SW	7'	6'			

See plan sheets

- NOTES:
- Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

NOTE: NON SHEAR COUPLING TO BE USED WHEN HOOKING TO CLAY PIPE.



TYPICAL SECTION X-X

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CITY OF WICHITA
 PUBLIC WORKS & UTILITIES
 ENGINEERING DIVISION

VERTICAL RISER ASSEMBLY SEWER DETAIL
 CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER 468-84633	OCA NUMBER 744360	DATE 12/2011
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CITY ENGINEER'S OFFICE
 CITY HALL - SEVENTH FLOOR
 455 NORTH MAIN STREET
 WICHITA, KANSAS 67202-1620
 (316) 268-4501

SHEET
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