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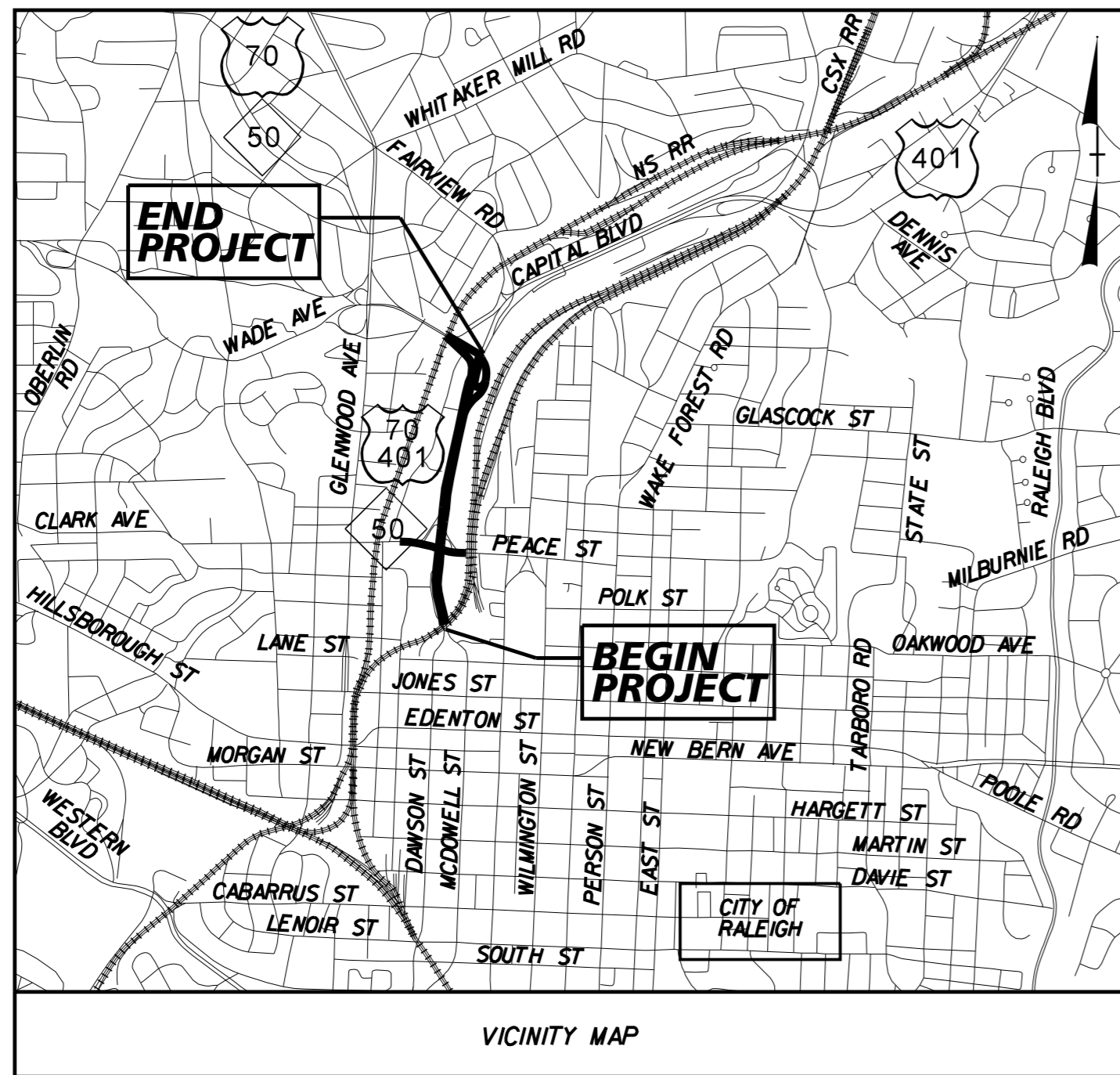
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

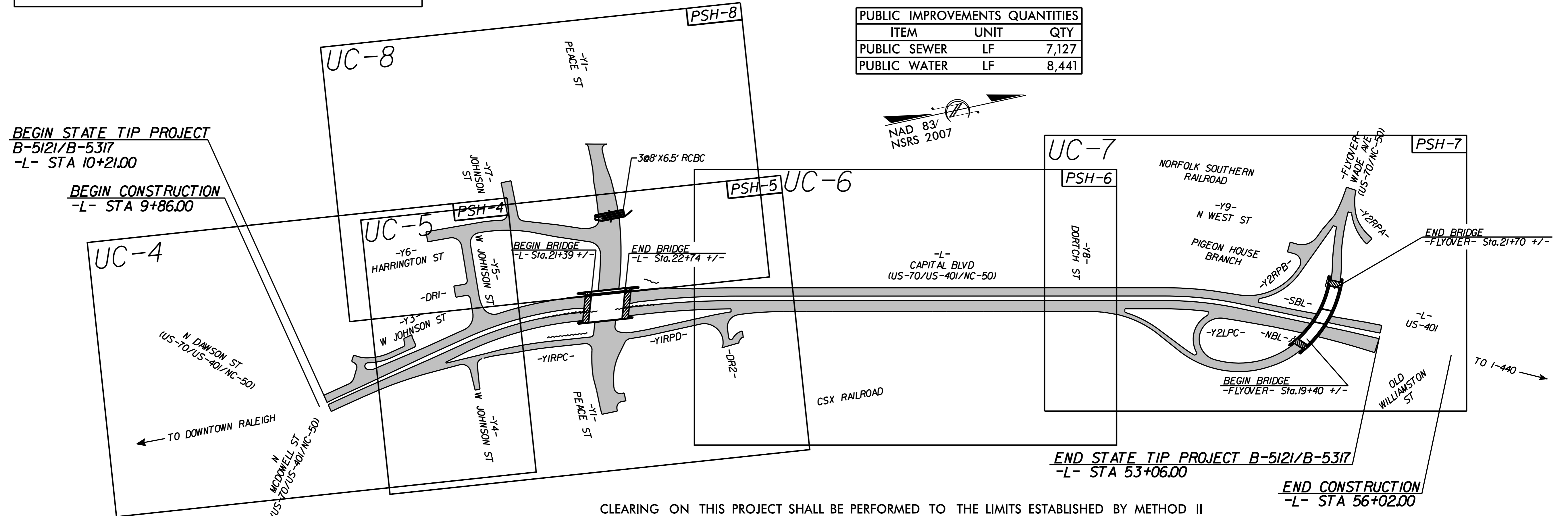
UTILITY CONSTRUCTION PLANS WAKE COUNTY

LOCATION: BRIDGE NO. 227 ON US-70/US-401/NC-50 (CAPITAL BLVD.) OVER PEACE ST. AND BRIDGE NO. 213 ON US-70/NC-50 (WADE AVE.) OVER US 401 (CAPITAL BLVD.)

TYPE OF WORK: UTILITY RELOCATIONS

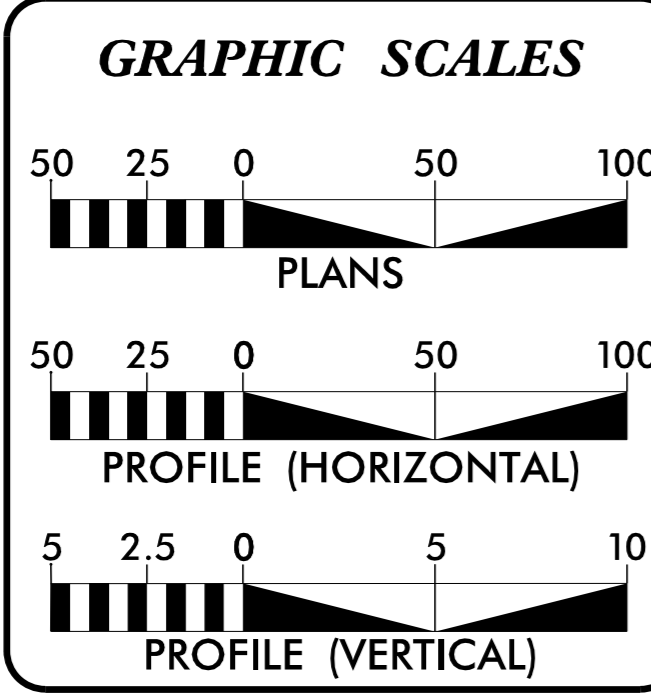


PUBLIC IMPROVEMENTS QUANTITIES		
ITEM	UNIT	QTY
PUBLIC SEWER	LF	7,127
PUBLIC WATER	LF	8,441



CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF RALEIGH

CONTRACT: TIP PROJECT: B-5121 / B-5317



SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3G	DETAILS
UC-4 THRU UC-8	UTILITY CONSTRUCTION SHEETS
UC-9 THRU UC-16	PROFILE SHEETS

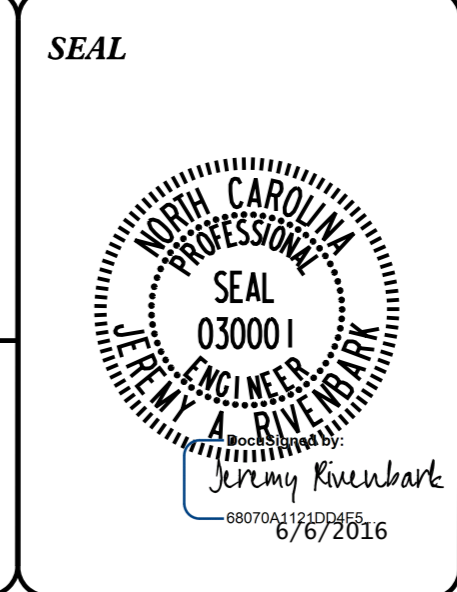
WATER AND SEWER OWNERS ON PROJECT

(1) WATER: CITY OF RALEIGH
(2) SEWER: CITY OF RALEIGH

PLANS PREPARED FOR THE NCDOT BY:

Kimley » Horn

Jeremy A. Rivenbark, P.E. UTILITIES PROJECT ENGINEER
Daniel G. Bula, EIT UTILITIES PROJECT DESIGNER



PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES UNIT
UTILITIES ENGINEERING

1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
James S. McKee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
Jamshid Hafshejani UTILITIES PROJECT DESIGNER

6/6/2016 K:\RAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC-Proj\B5121-B5317-ut_1sh_uc01_psh.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	
Water Meter	
Relocate Water Meter	
Remove Water Meter	
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

NOTE
PAY ITEM

EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

*For Existing Utilities
Utility Line Drawn from Record (Type as Shown)
Designated Utility Line (Type as Shown)

REVISIONS

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2/2/2016
REV: 2/1/2012

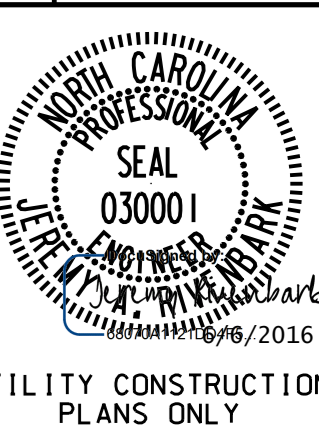
UTILITY CONSTRUCTION

Kimley Horn
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P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO. SHEET NO.
 B-5121 / B-5317 UC-3

DESIGNED BY: DGB
 DRAWN BY: JGB
 CHECKED BY: JRP
 APPROVED BY: JAR
 REVISED:
 NORTH CAROLINA
 DEPARTMENT OF
 TRANSPORTATION
 UTILITIES ENGINEERING SEC.
 PHONE: (919) 707-6690
 FAX: (919) 250-4151



UTILITY CONSTRUCTION
 PLANS ONLY

UTILITY CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

CITY OF RALEIGH

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____

PUBLIC

WATER DISTRIBUTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____

AUTHORIZATION TO CONSTRUCT _____

DATE _____

PUBLIC

SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____

AUTHORIZATION TO CONSTRUCT _____

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2012.

2. THE CITY OF RALEIGH OWN AND OPERATE THE EXISTING WATER AND SEWER UTILITIES.

3. ALL WATER LINES ARE TO BE INSTALLED IN COMPLIANCE WITH THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES ARE TO BE INSTALLED IN COMPLIANCE WITH THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.

4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.

5. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPROTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.

7. THE DRAWINGS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITONAL COST TO THE DEPARTMENT.

8. PRIOR TO PLACEMENT OF PROPOSED SANITARY GRAVITY SEWER THE CONTRACTOR SHALL LOCATE ALL EXISTING SEWER SERVICE LATERALS (DEPTH AND PIPE DIAMETER) AND NOTIFY THE RESIDENT ENGINEER IF THERE ARE COMPLICATIONS WITH CONNECTING TO THE PROPOSED SANITARY GRAVITY SEWER. THE CONTRACTOR'S COST FOR ALL WORK ASSOCIATED WITH SEWER SERVICES, IS INCIDENTAL TO SEWER SERVICE PAYMENT ITEM.

9. PRIOR TO PLACEMENT OF PROPOSED WATERLINE THE CONTRACTOR SHALL LOCATE ALL EXISTING WATER SERVICE LATERALS (DEPTH AND PIPE DIAMETER) AND NOTIFY THE RESIDENT ENGINEER IF THERE ARE COMPLICATIONS WITH CONNECTING TO THE PROPOSED WATERLINE. THE CONTRACTOR'S COST FOR ALL WORK ASSOCIATED WITH WATER SERVICES, IS INCIDENTAL TO WATER SERVICE PAYMENT ITEM.

10. THE CONTRACTOR SHALL COORDINATE (INCLUDING SEQUENCE) THE INSTALLATION OF WATER AND SEWER IMPROVEMENTS WITH OTHER WORK INCLUDING GRADING, RETAINING WALL PLACEMENT, BRIDGE WORK, ETC. TO AVOID DAMAGE TO THE UTILITIES.

11. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

12. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, "SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

13. THE CONTRACTOR SHALL REFER TO THE "UTILITIES BY OTHERS" PLANS FOR PROPOSED GAS, TELECOMMUNICATION, AND POWER UTILITY RELOCATIONS.

PROJECT SPECIFIC NOTES:

1. ALL PROPOSED WATER LINE 2" IN DIAMETER SHALL BE COPPER PIPE. ALL PROPOSED WATER LINE 4"-12" IN DIAMETER SHALL BE DI (DUCTILE IRON PUSH-ON) PC 350 PIPE, UNLESS SPECIFIED TO BE RESTRAINED JOINT PIPE AND/OR SPECIAL THICKNESS CLASS AS SHOWN ON THE PLAN/PROFILE. ALL PROPOSED WATER LINE 16" IN DIAMETER AND LARGER SHALL BE DI (DUCTILE IRON PUSH-ON) PC 250 PIPE, UNLESS SPECIFIED TO BE RESTRAINED JOINT PIPE AND/OR SPECIAL THICKNESS CLASS AS SHOWN ON THE PLAN/PROFILE.

2. ALL PROPOSED GRAVITY SEWER LINES 12" IN DIAMETER AND SMALLER SHALL BE PROTECTO 401 LINED DI (DUCTILE IRON PUSH-ON) PC 350 PIPE UNLESS OTHERWISE SPECIFIED. ALL PROPOSED GRAVITY SEWER LINES 16" IN DIAMETER AND GREATER SHALL BE PROTECTO 401 LINED DI (DUCTILE IRON PUSH-ON) PC 250 PIPE, UNLESS OTHERWISE SPECIFIED. ALL PROPOSED GRAVITY SEWER 30" IN DIAMETER AND GREATER SHALL BE FIBERGLASS REINFORCED PIPE STIFFNESS CLASS SN 72 INSTALLED IN ACCORDANCE WITH DETAIL 0222132 UNLESS OTHERWISE SPECIFIED.

3. ALL VALVES 16 INCHES AND SMALLER SHALL BE 250 PSI RESILIENT SEAT GATE VALVES. ALL VALVES LARGER THAN 16 INCHES SHALL BE CLASS 150B BUTTERFLY VALVES, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

4. ALL WATER METERS TO BE RELOCATED OR RECONNECTED ARE 5/8" DIAMETER SERVICES UNLESS OTHERWISE DENOTED ON THE PLANS.

5. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE BORING AND JACKING DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.

6. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

REVISIONS

K:\RAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC\Proj\B5121_B5317_d1_notes.dgn

6/6/2016

PROJECT TYPICAL DETAILS

Kimley»Horn
 P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-3A
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISIONS:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

CITY OF RALEIGH

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

STORMWATER _____

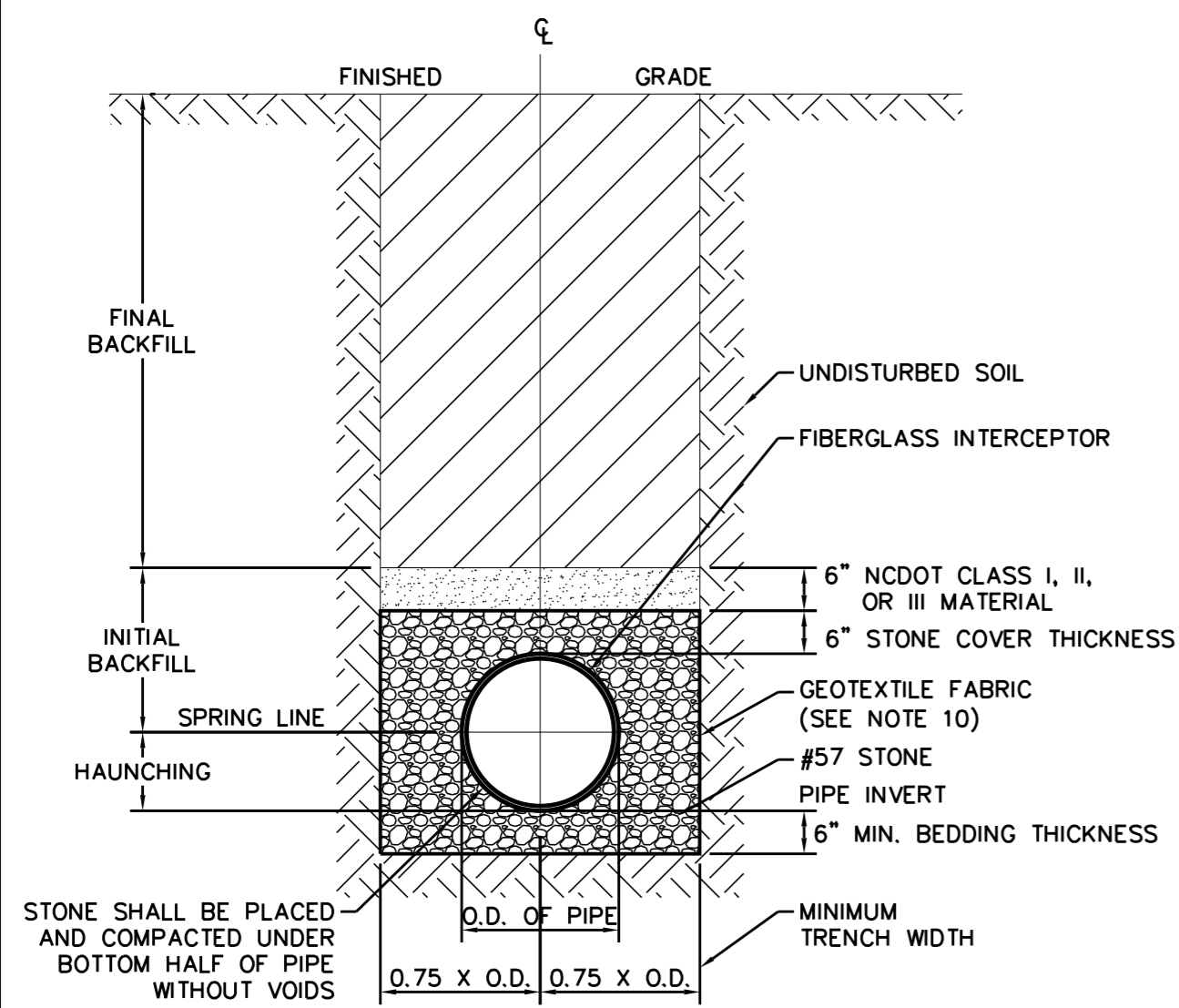
PLANNING _____

FIRE _____

URBAN FORESTRY _____

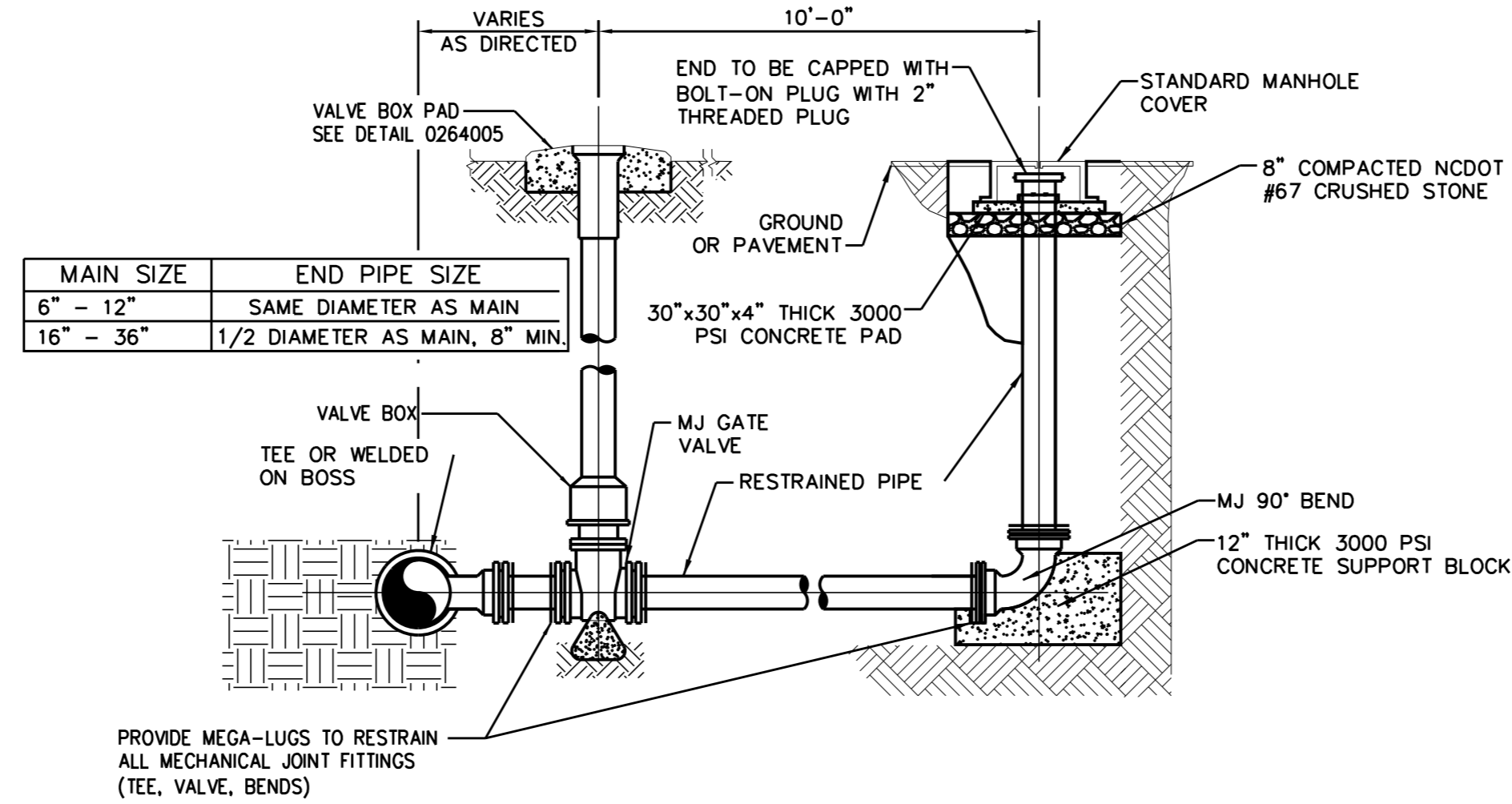
NOTE: ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

UTILITY CONSTRUCTION

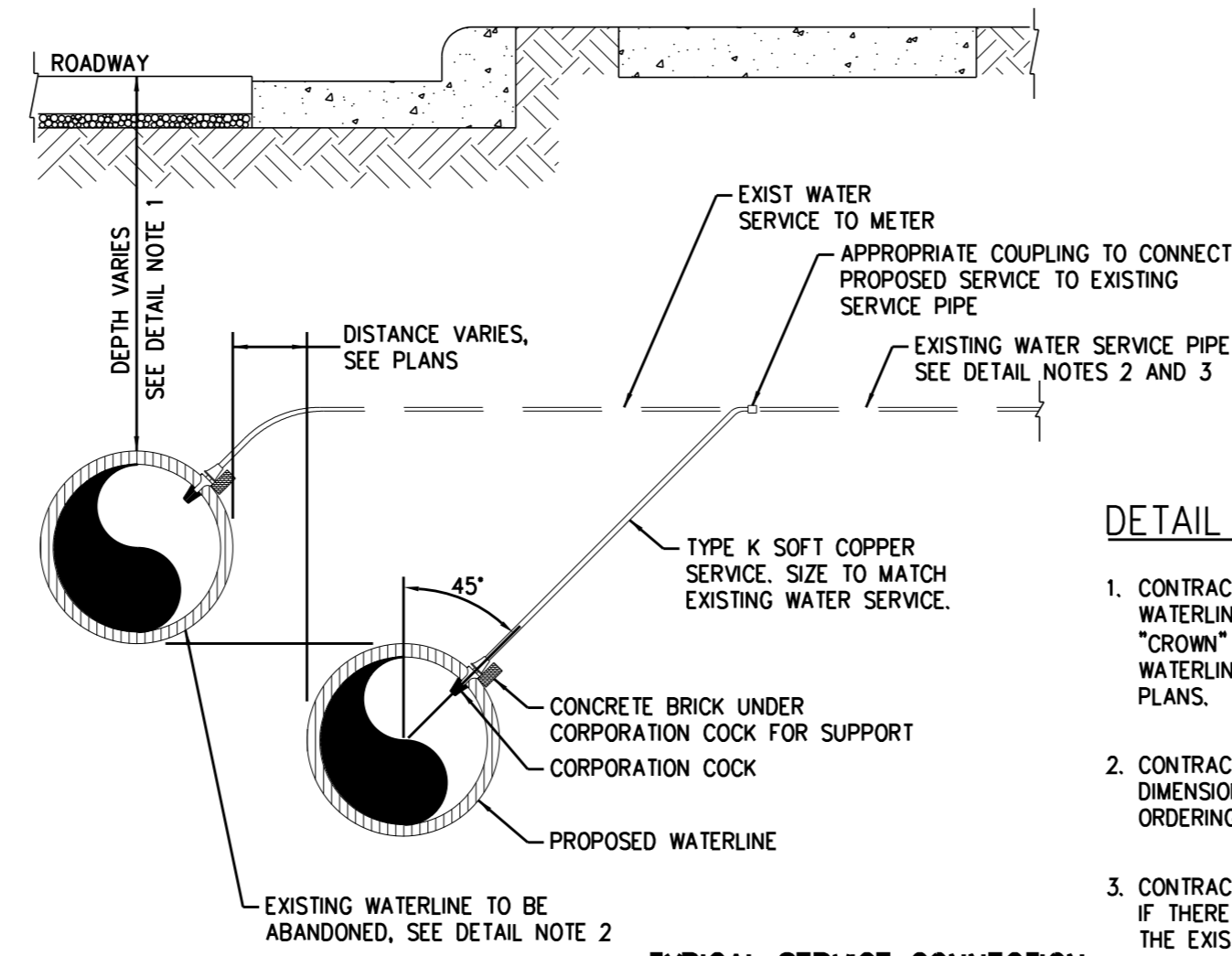
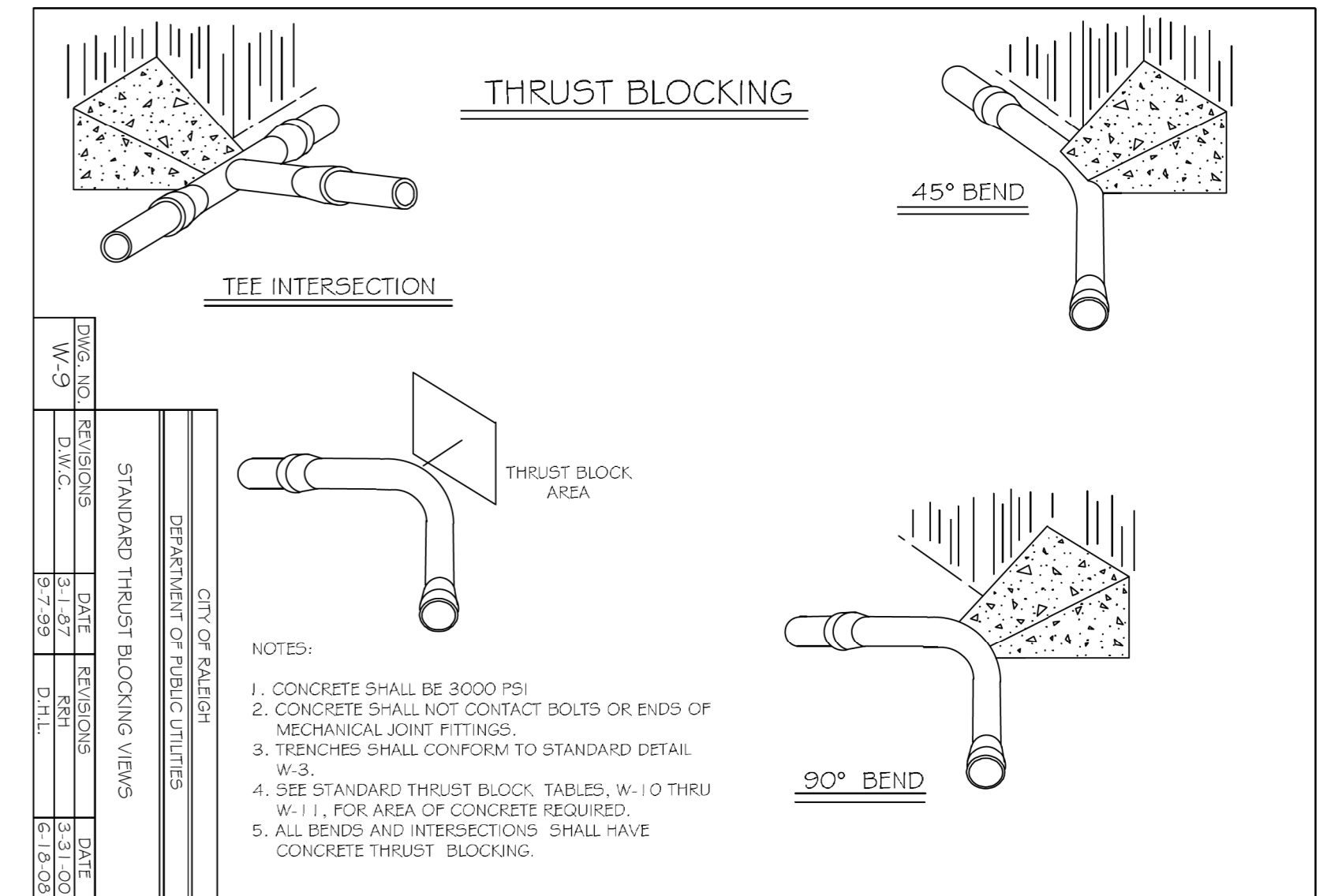


- NOTES:
- TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 - NO ROCKS OR BOULDERS 2" OR LARGER TO BE USED IN INITIAL BACKFILL AND NONE 6" OR LARGER IN FINAL BACKFILL.
 - FINAL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
 - BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.
 - TOTAL TRENCH WIDTH SHALL BE A MINIMUM OF 1.5X O.D. OF PIPE.
 - ACHIEVE 90% COMPACTION IN BEDDING, HAUNCHING AND INITIAL BACKFILL. SEE TECHNICAL SPECIFICATION SECTION 02315 FOR COMPACTION REQUIREMENTS IN FINAL BACKFILL.
 - IF IN EASEMENT 4" TOPSOIL, AND 12" CLEAN SELECT FILL MAY BE REQUIRED AT THE TOP OF TRENCH BACKFILL.
 - CONTRACTOR SHALL UTILIZE METHODS NECESSARY TO MAINTAIN A FULL 6" OF STONE OVER THE PIPE FOLLOWING EXTRACTION OF TRENCH BOX AND/OR SHEETING.
 - CONTRACTOR SHALL ENSURE PIPE COUPLINGS/JOINTS ARE NOT DEFLECTED WHEN TWO PIPES ARE JOINED.
 - THE STONE BEDDING SHALL BE FULLY ENCLOSED IN A GEOTEXTILE FABRIC WRAP. THE INTERCEPTOR ALIGNMENT SHALL BE ASSUMED TO REQUIRE GEOTEXTILE FABRIC FOR THE LENGTH OF THE PROPOSED INTERCEPTOR. FABRIC SHALL MEET OR EXCEED REQUIREMENTS FOR NCDOT GEOTEXTILE TYPE 4.

FIBERGLASS REINFORCED PIPE TRENCH DETAIL
0222132



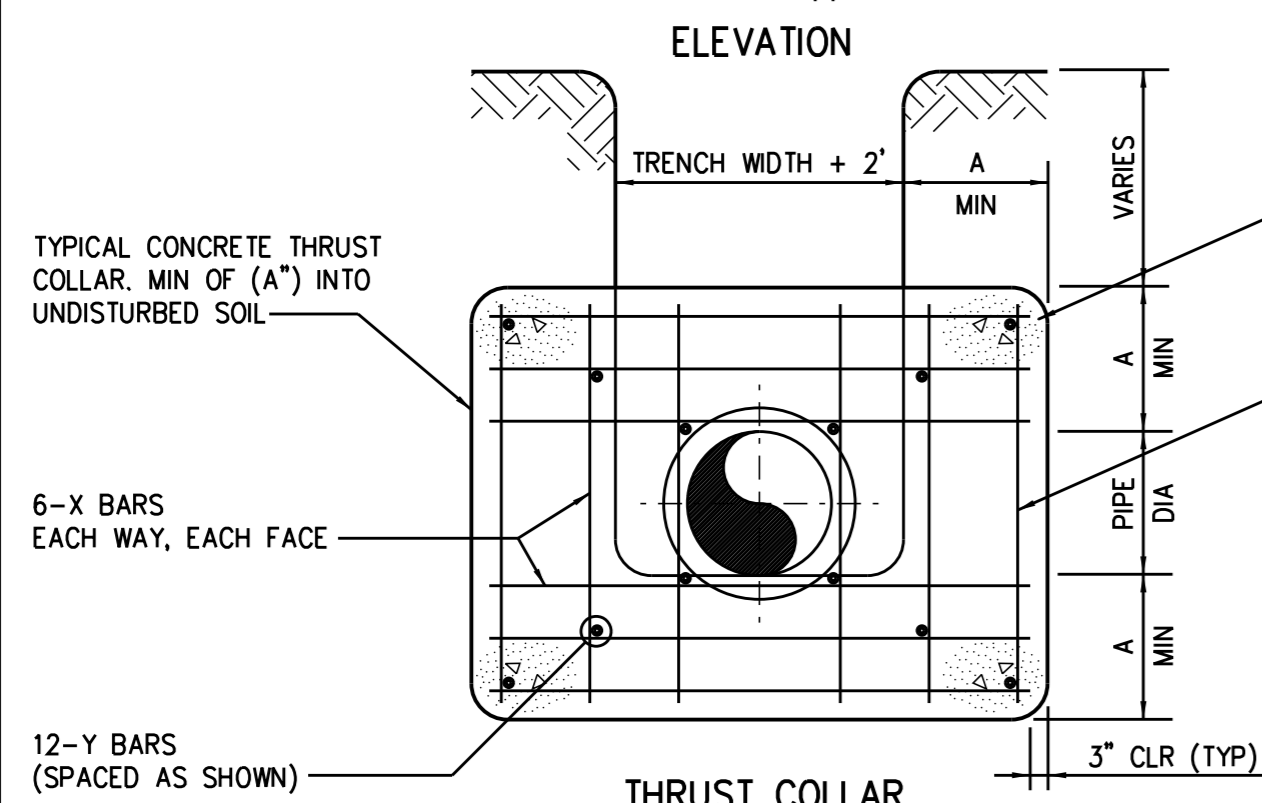
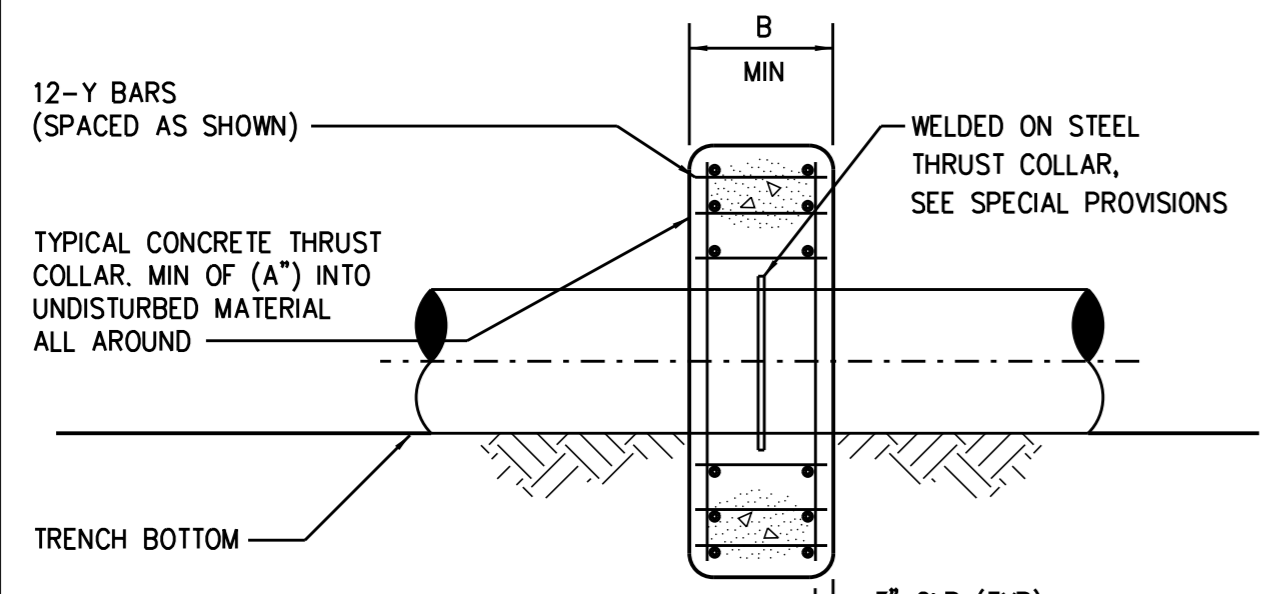
TEMPORARY WATERLINE BLOW OFF ASSEMBLY
0271304



DETAIL NOTES:

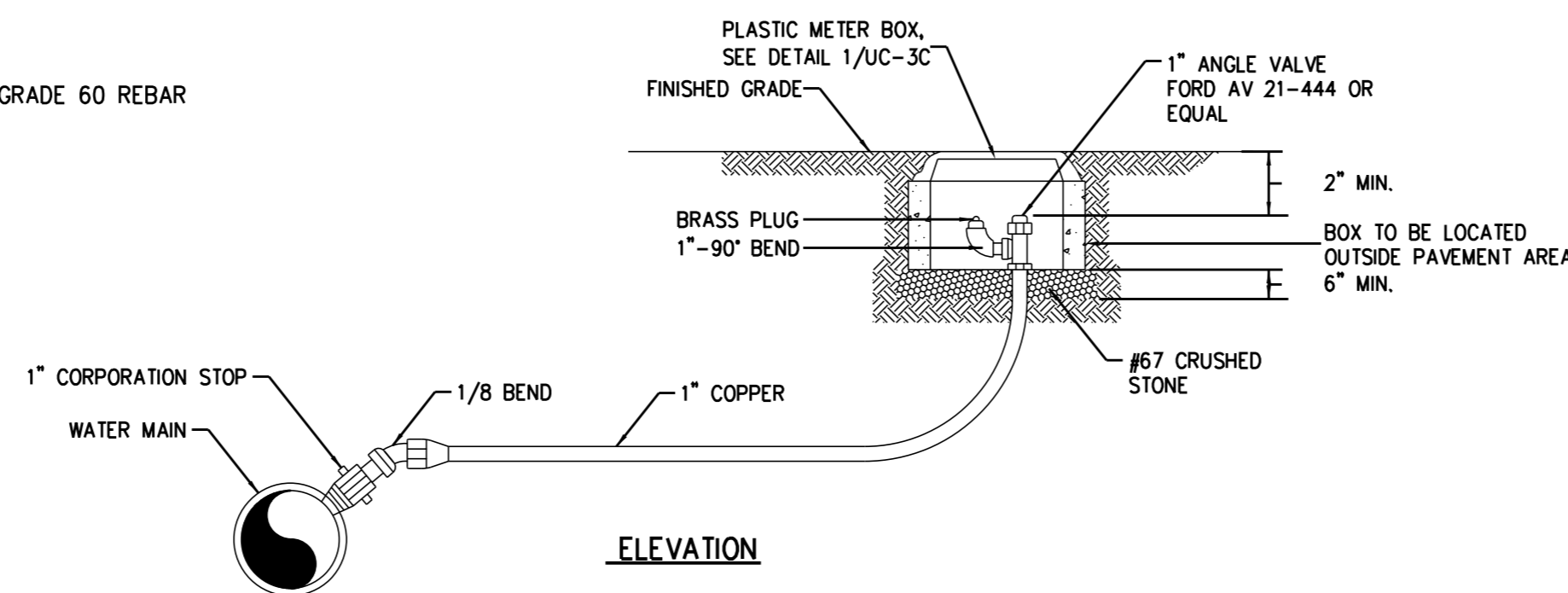
- CONTRACTOR SHALL VERIFY DEPTH OF EXISTING WATERLINE AND LOCATE PROPOSED WATERLINE "CROWN" AT THE "INVERT" OF THE EXISTING WATERLINE, UNLESS OTHERWISE SHOWN ON THE PLANS.
- CONTRACTOR SHALL VERIFY EXACT MATERIALS AND DIMENSIONS OF EXISTING WATER SERVICES PRIOR TO ORDERING MATERIALS.
- CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER IF THERE ARE COMPLICATIONS WITH CONNECTING TO THE EXISTING WATERLINE.

TYPICAL SERVICE CONNECTION
0260121



PIPE SIZE	X BARS	Y BARS	A	B
4" - 36"	#5	#5	1'-4"	1'-7"
42" & >	#6	#6	1'-8"	1'-9"

0222119R



DISINFECTION AND SAMPLING POINT
0271303R

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS BASED ON TEST PRESSURE OF 200 P.S.I.										
ALL AREAS GIVEN IN SQUARE FEET.										
PIPE SIZE AND DEGREE OF BEND	SPRINKLER FOUNDATIONS	NON-REINFORCED CLAY-ROCK LIFT	SOFT TESTS (CLAY, SAND)	LEAD LIFT (GRAVEL) / COARSE SAND	3000 LB/FT ² (PRG-CLAY-PLATE)	SAND 3000 LB/FT ² (PRG-CLAY-PLATE)	SAND 3000 LB/FT ² (PRG-CLAY-PLATE)	SAND 3000 LB/FT ² (PRG-CLAY-PLATE)	SOIL LOAD (PRG-CLAY-PLATE)	BACK-FLOOR TO 1000 LB/FT ²
6"										
11 1/4°	1,108	1	1	1	1	1	1	2	1	
22 1/2°	2,207	1	2	2	1	1	1	3	1	
45°	4,328	2	3	3	1	1	2	5	1	
90°	7,996	2	4	5	1	1	2	8	1	
PLUG	5,655	2	3	4	1	1	2	6	1	
8"										
11 1/4°	1,970	1	1	2	1	1	1	2	1	
22 1/2°	3,922	1	2	3	1	1	1	4	1	
45°	7,694	2	4	5	1	1	2	8	1	
90°	14,215	4	8	9	2	2	4	15	2	
PLUG	10,053	3	5	6	2	2	3	10	1	
12"										
11 1/4°	4,433	2	3	3	1	1	2	5	1	
22 1/2°	8,826	3	5	6	2	2	3	9	1	
45°	17,312	5	9	11	3	3	5	18	2	
90°	31,993	8	16	19	4	4	8	32	4	
PLUG	22,619	6	12	14	3	3	6	23	3	
16"										
11 1/4°	7,801	2	4	5	1	1	2	8	1	
22 1/2°	15,691	4	8	10	2	2	4	16	2	
45°	30,779	8	16	19	4	4	8	31	4	
90°	56,861	15	29	35	8	8	15	57	6	
PLUG	40,213	10	21	25	5	5	10	41	5	

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

USE 6" - 90 BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES			
THRUST BLOCKING DESIGN QUANTITY TABLE			
DWG. NO.	REVISIONS	DATE	DATE
W-10	D.W.C.	6-23-99	

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-3B
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISER:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.	UTILITY CONSTRUCTION PLANS ONLY
PHONE: (919) 707-6690	
FAX: (919) 250-4151	

UTILITY CONSTRUCTION

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CITY OF RALEIGH

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TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

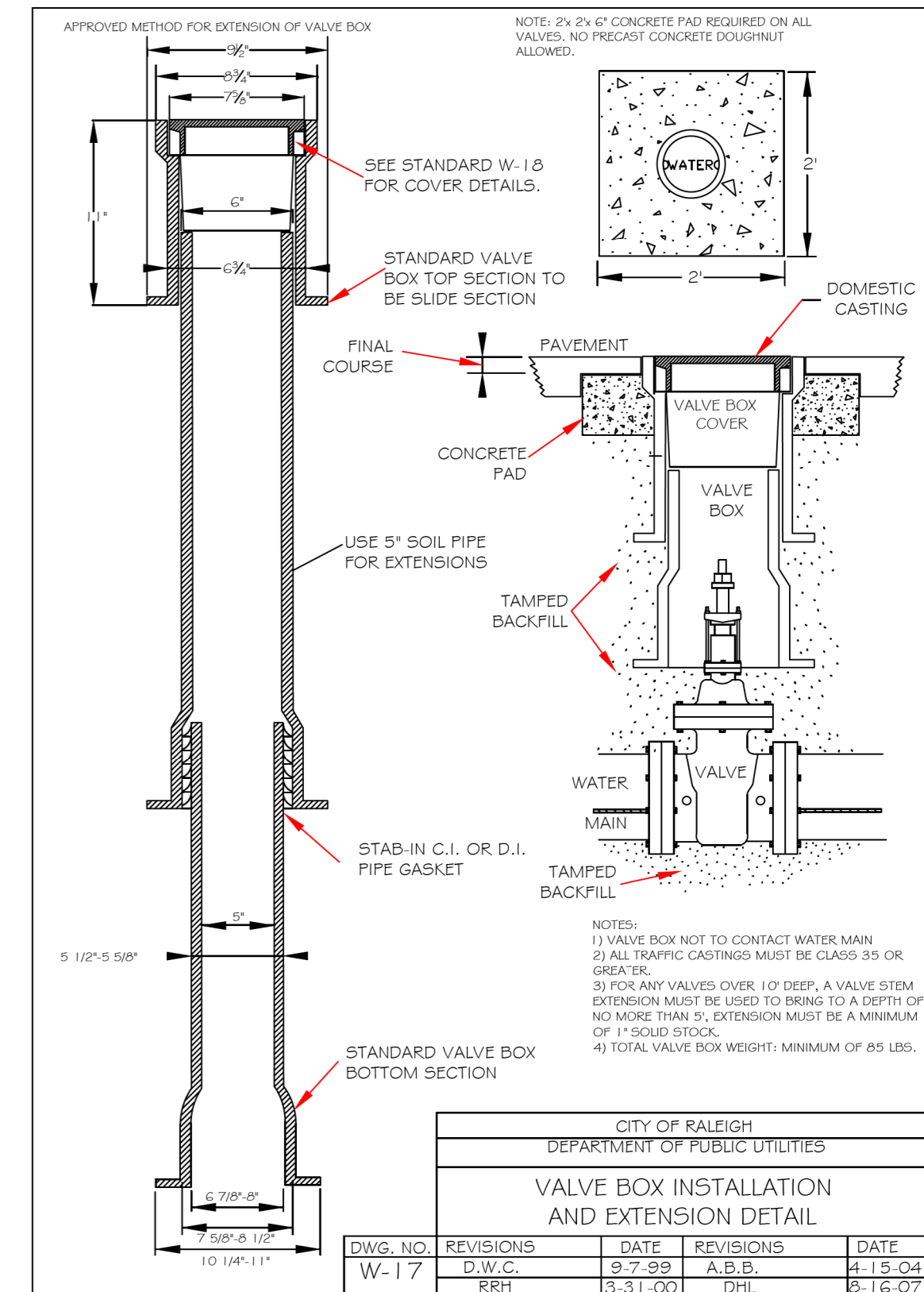
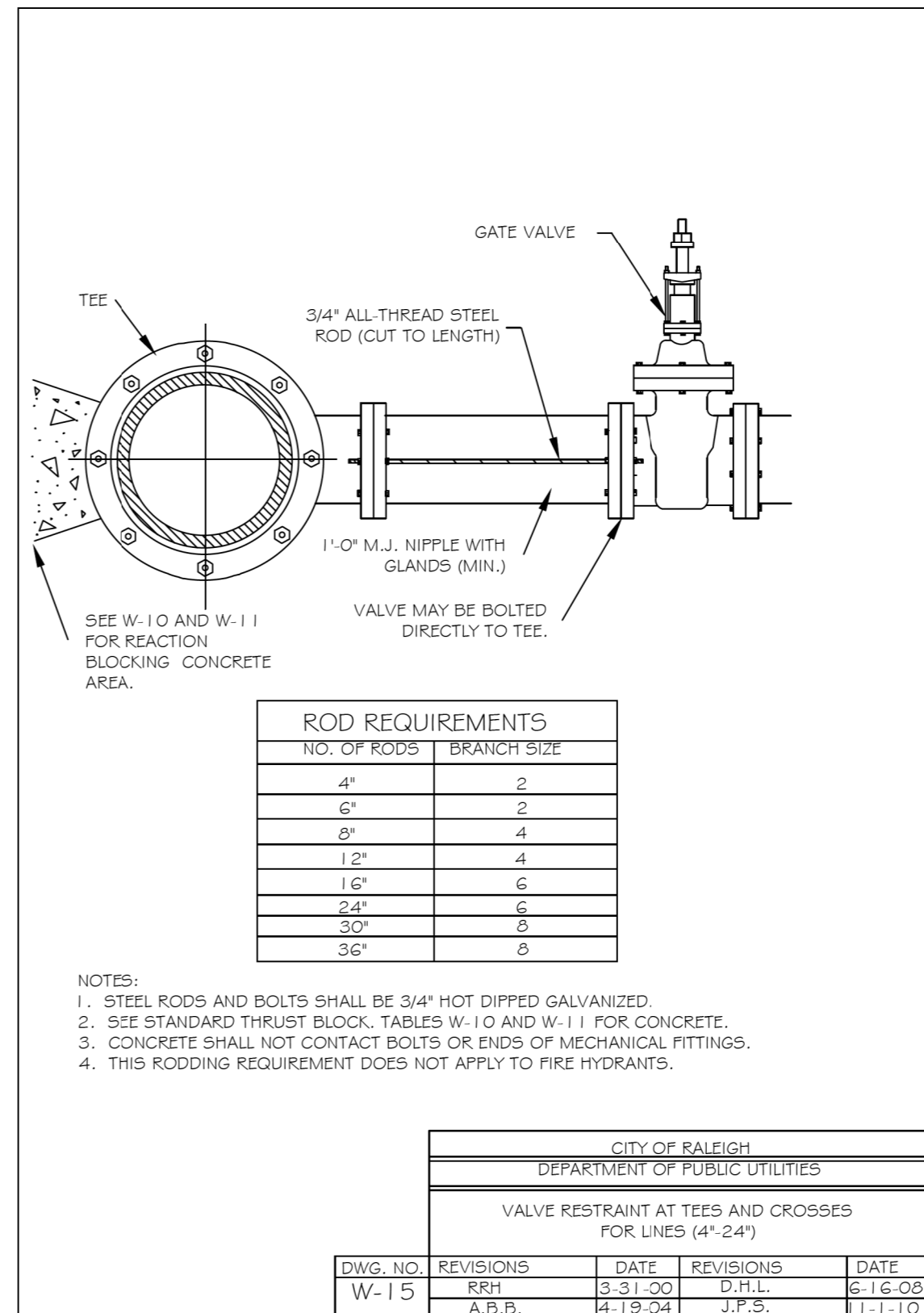
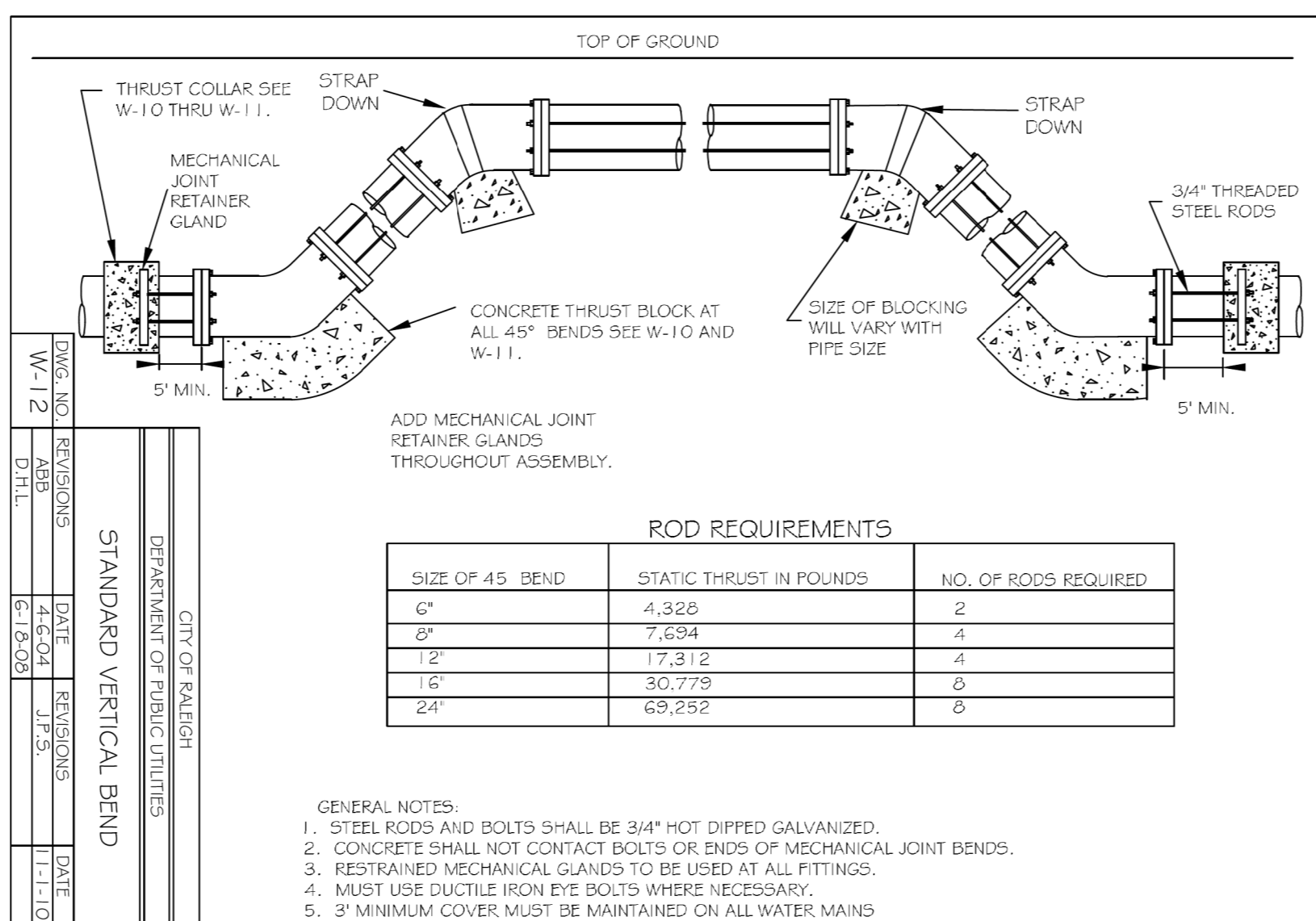
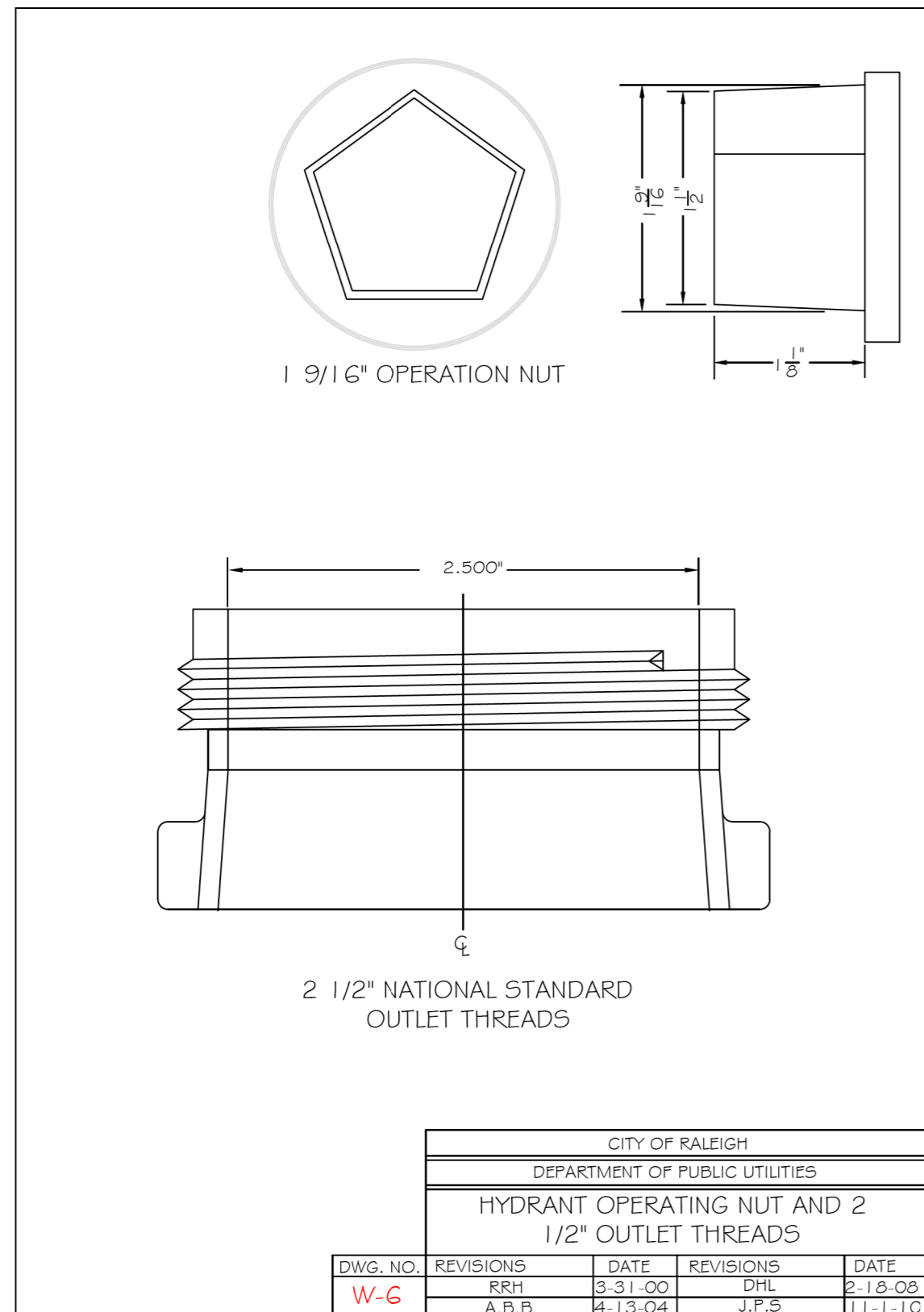
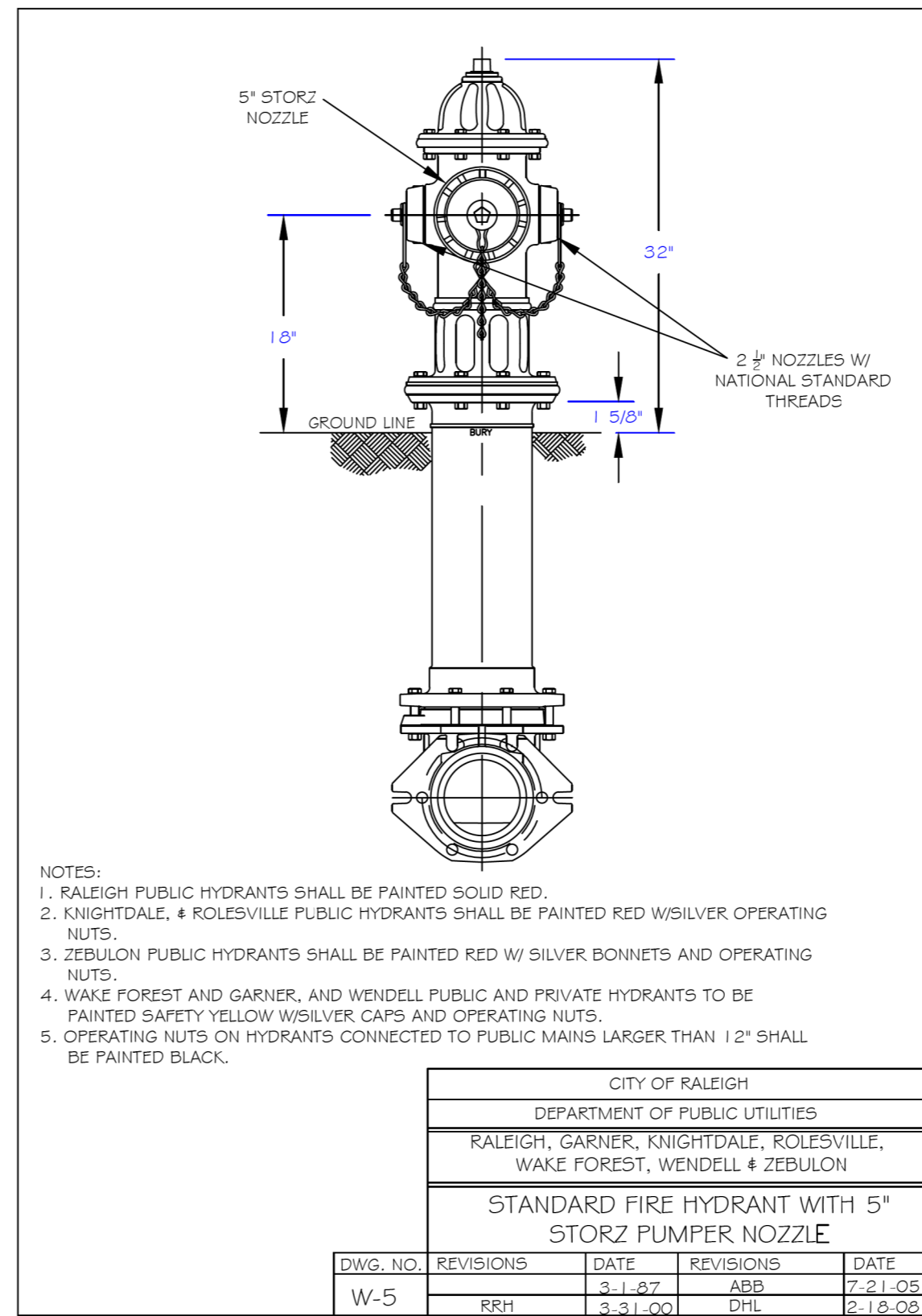
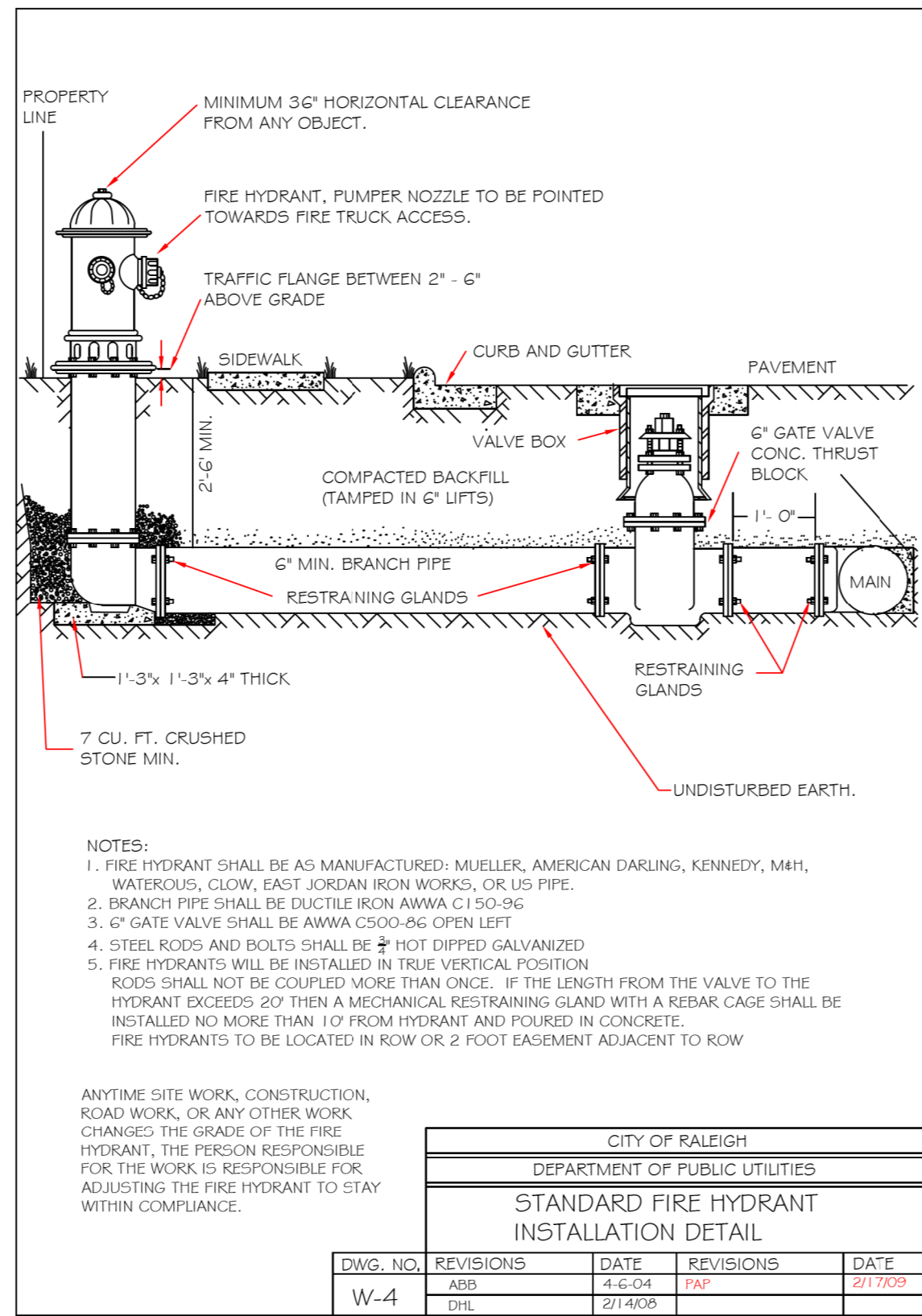
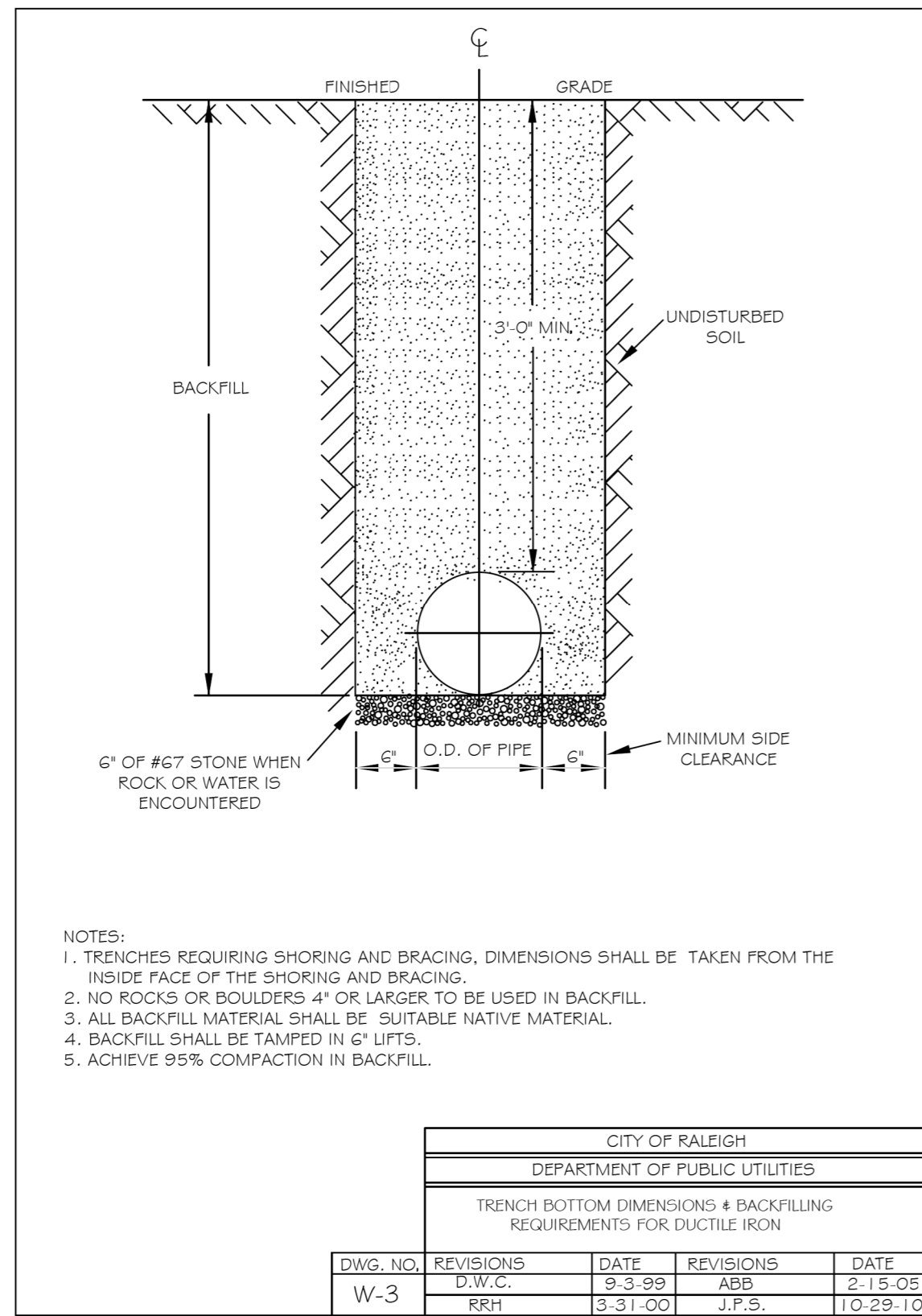
STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____

REVISIONS



UTILITY CONSTRUCTION

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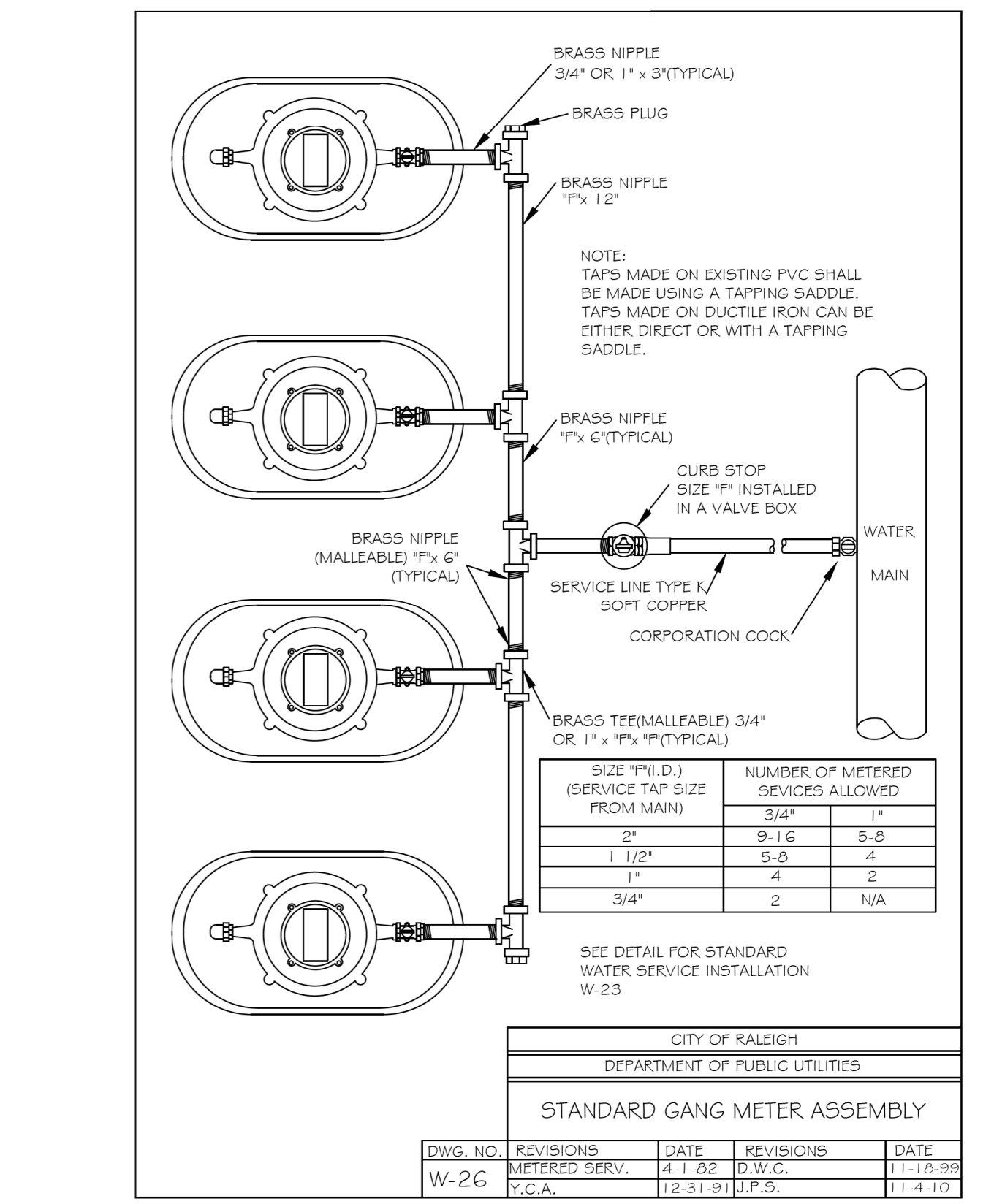
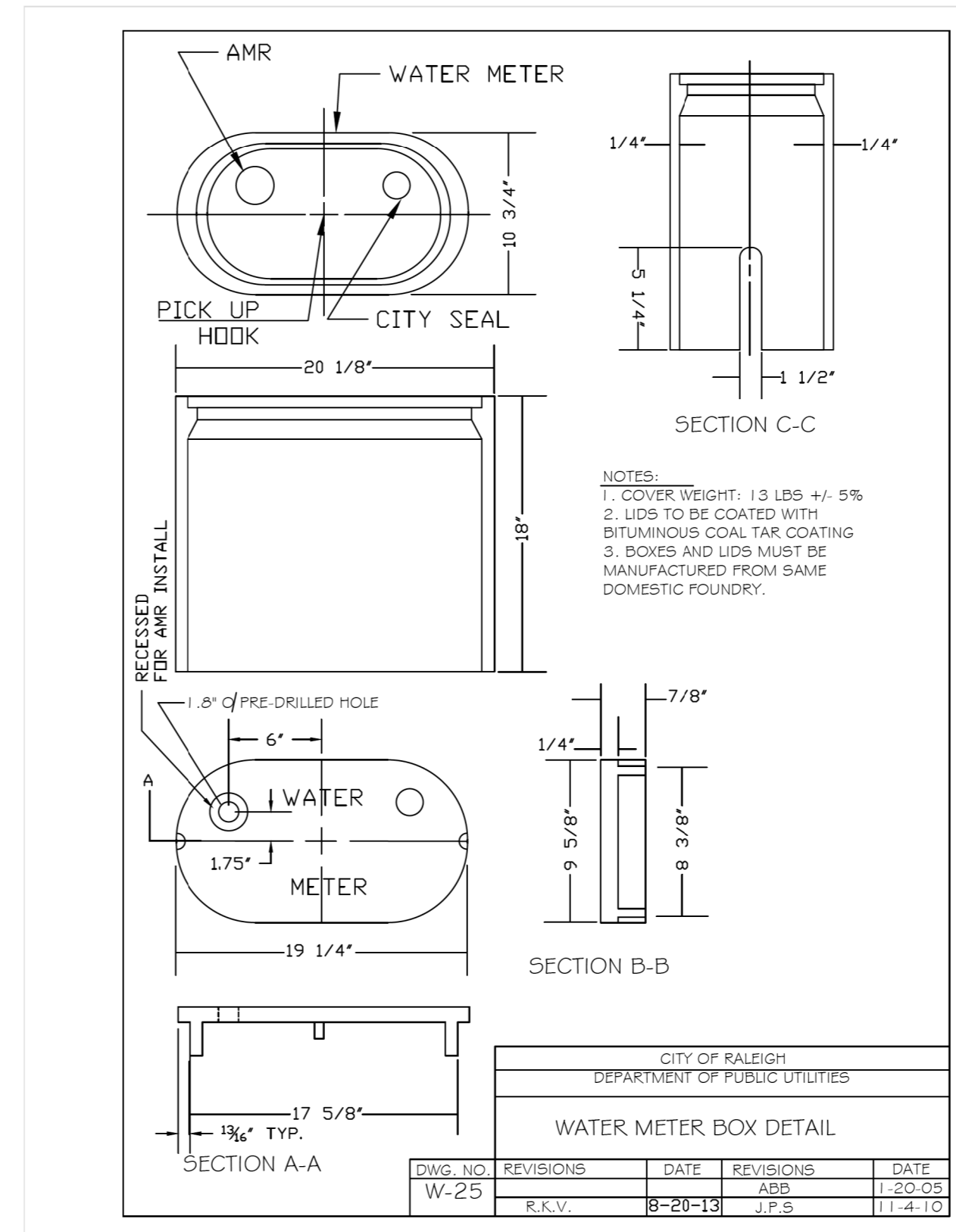
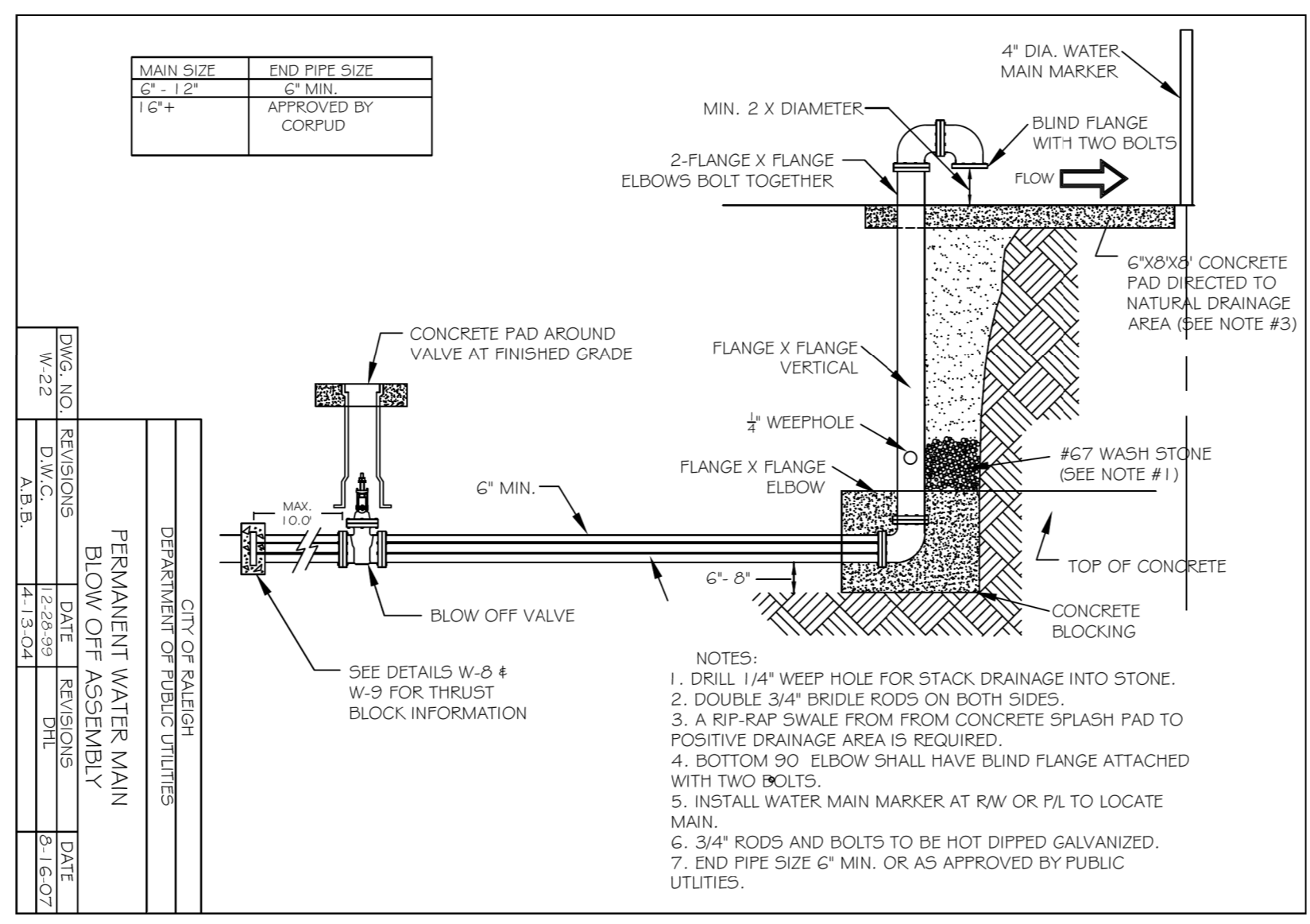
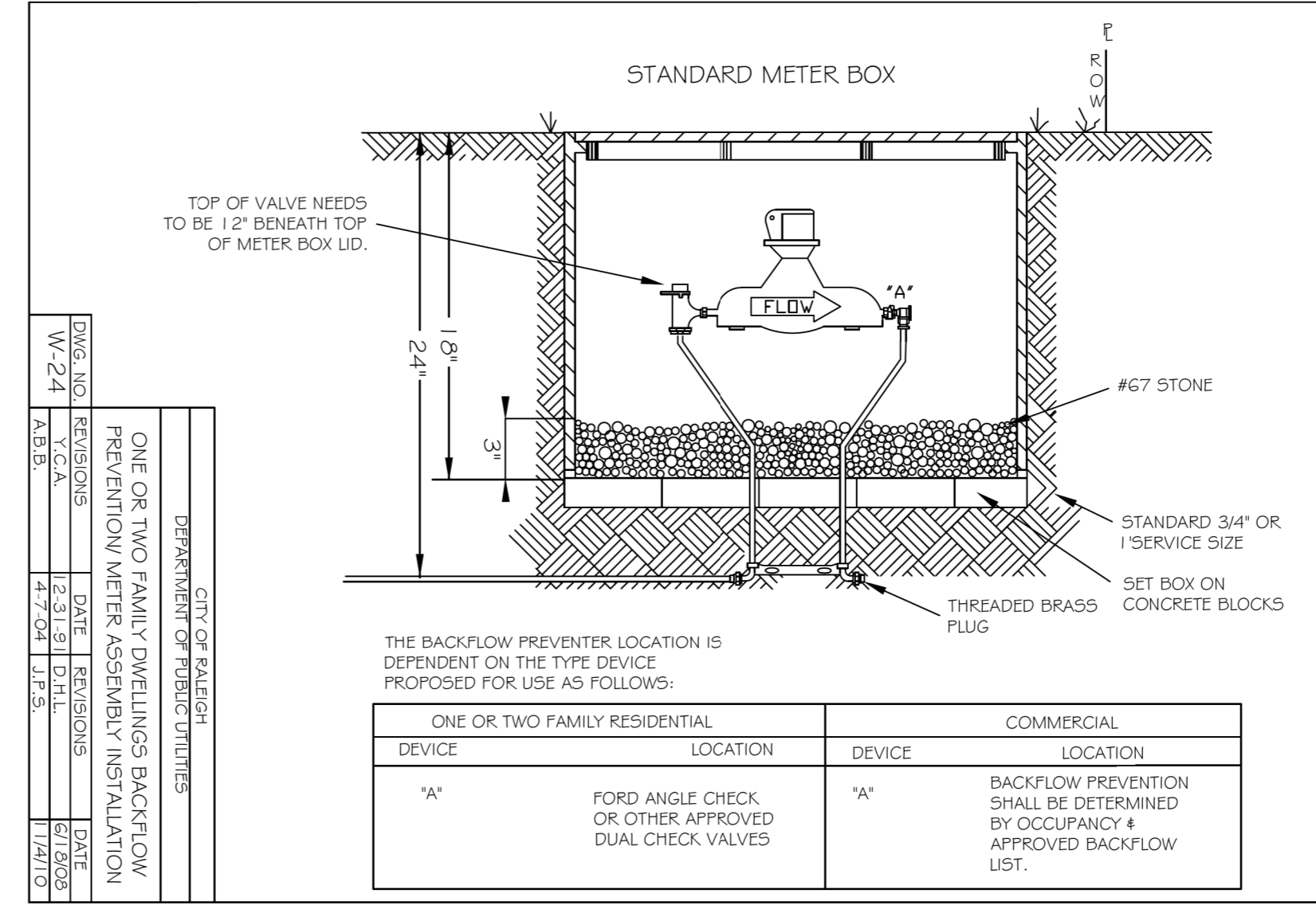
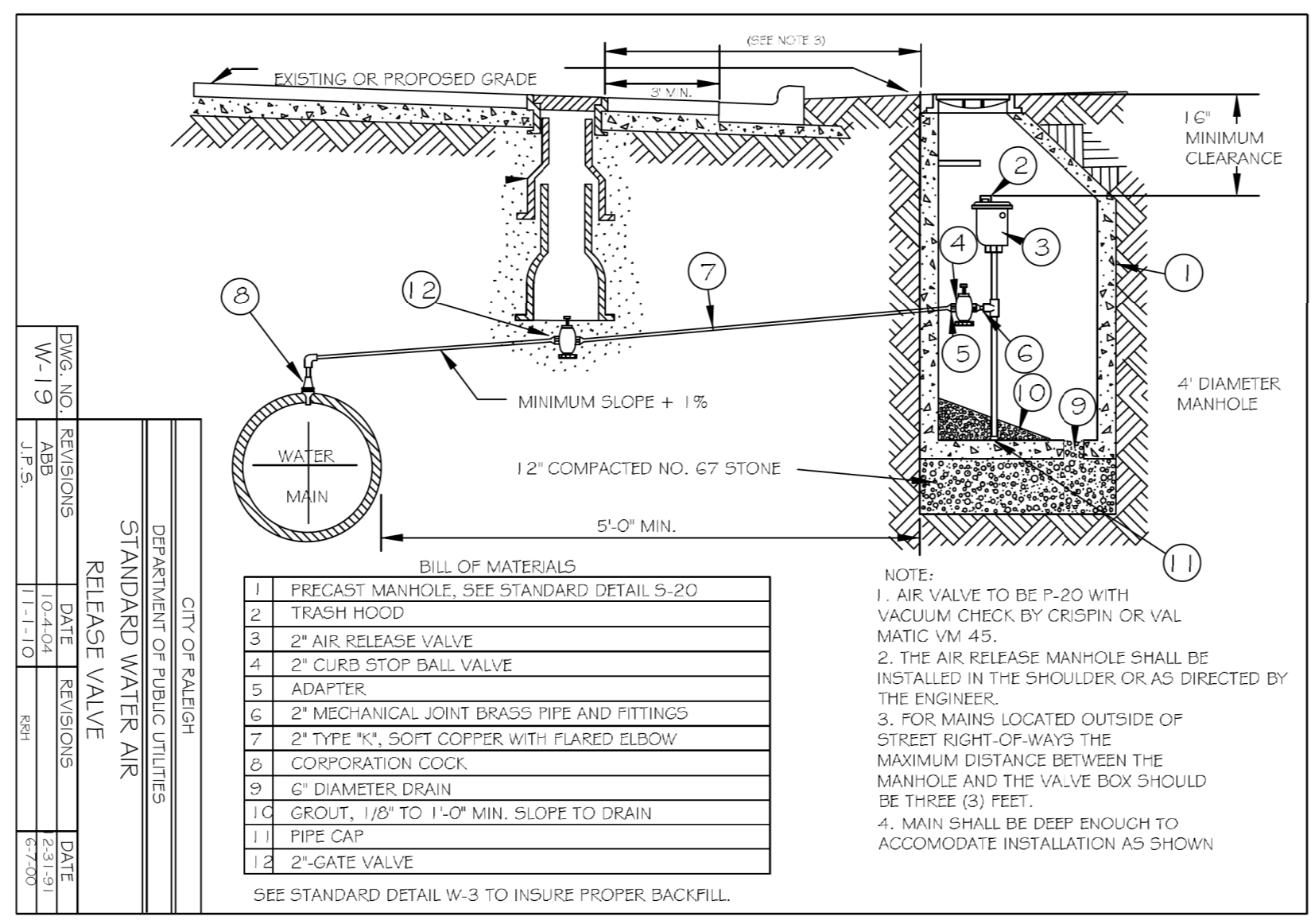
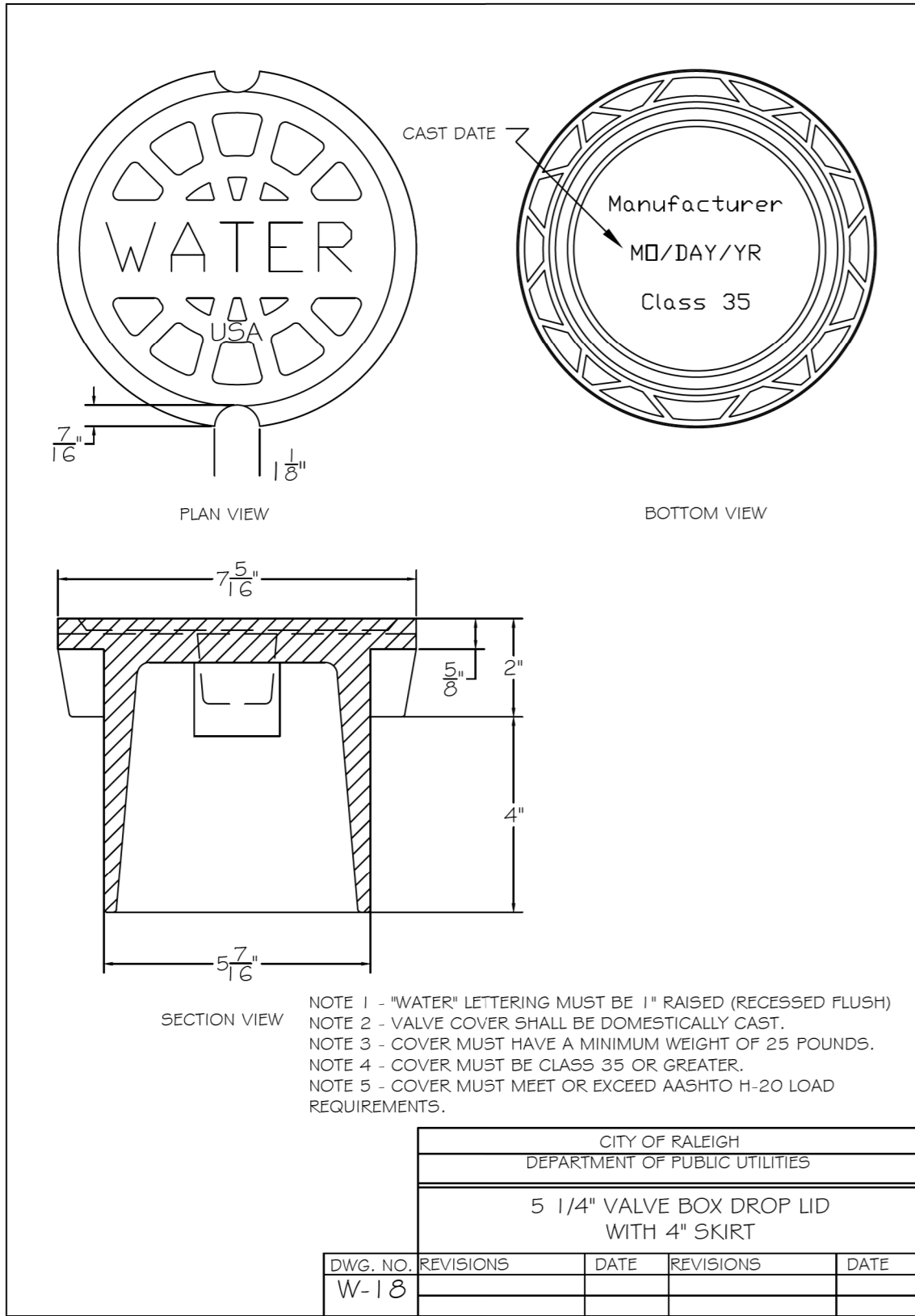
PUBLIC UTILITIES _____

STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____



REVISIONS

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UTILITY CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

CITY OF RALEIGH

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

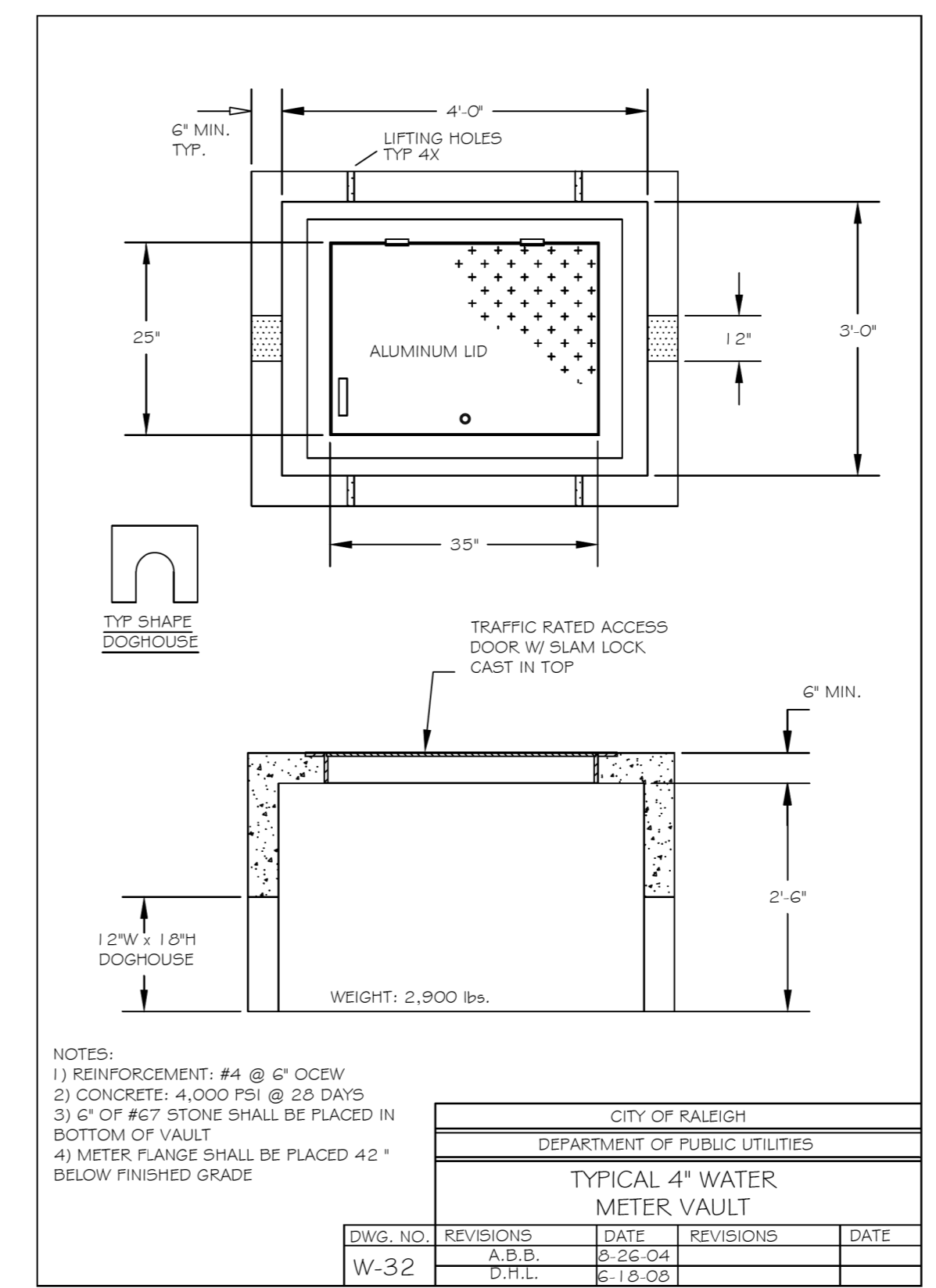
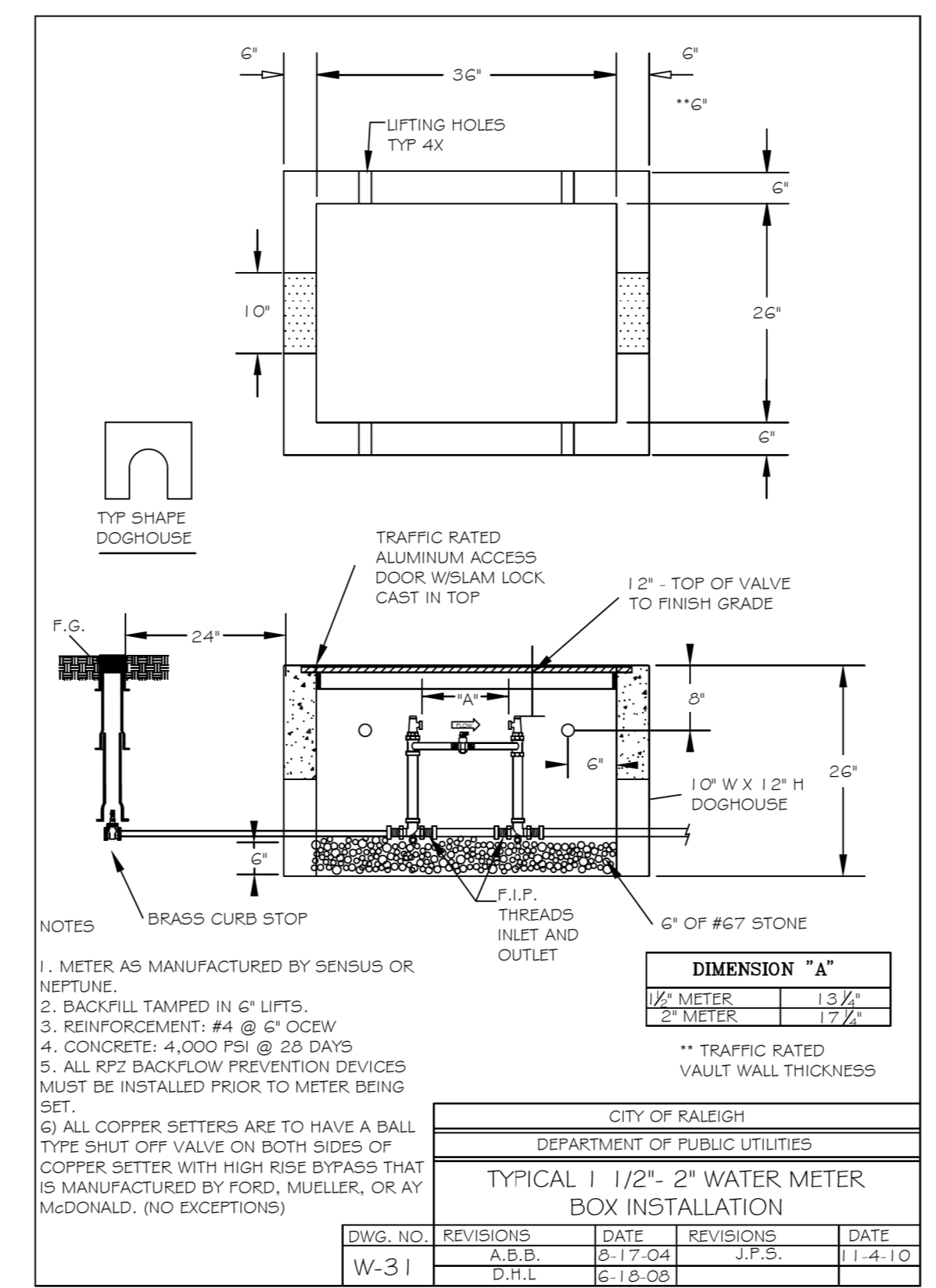
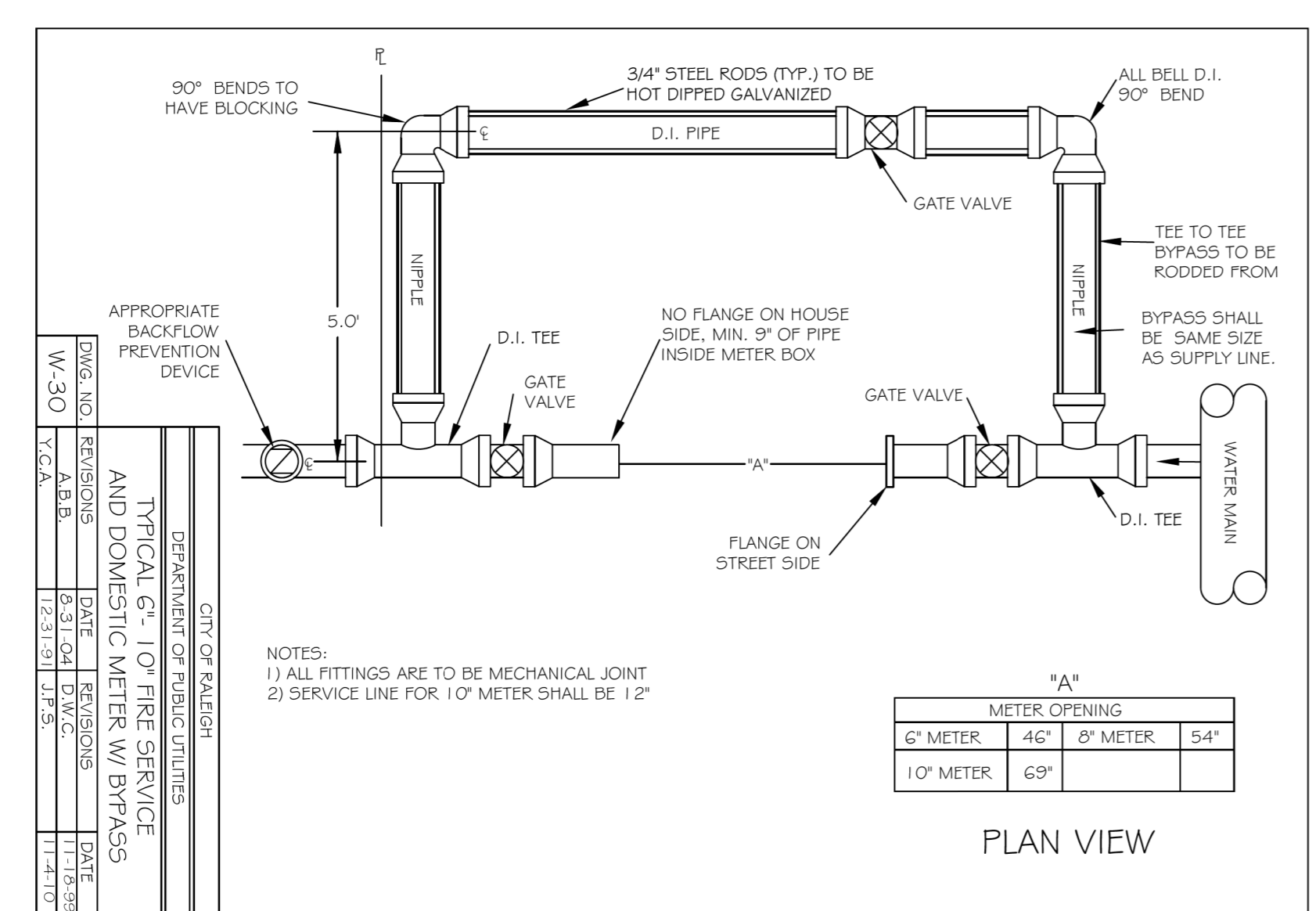
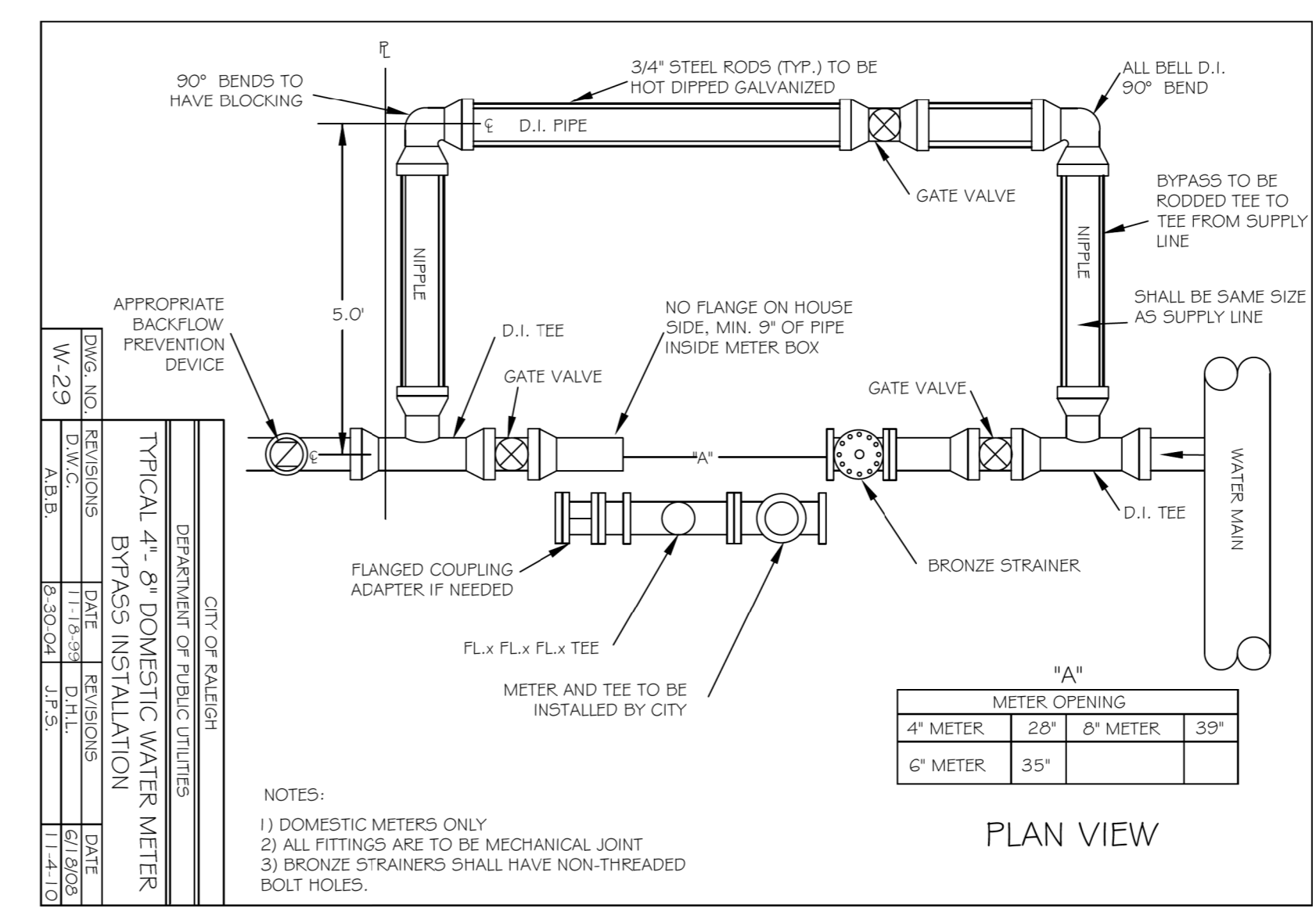
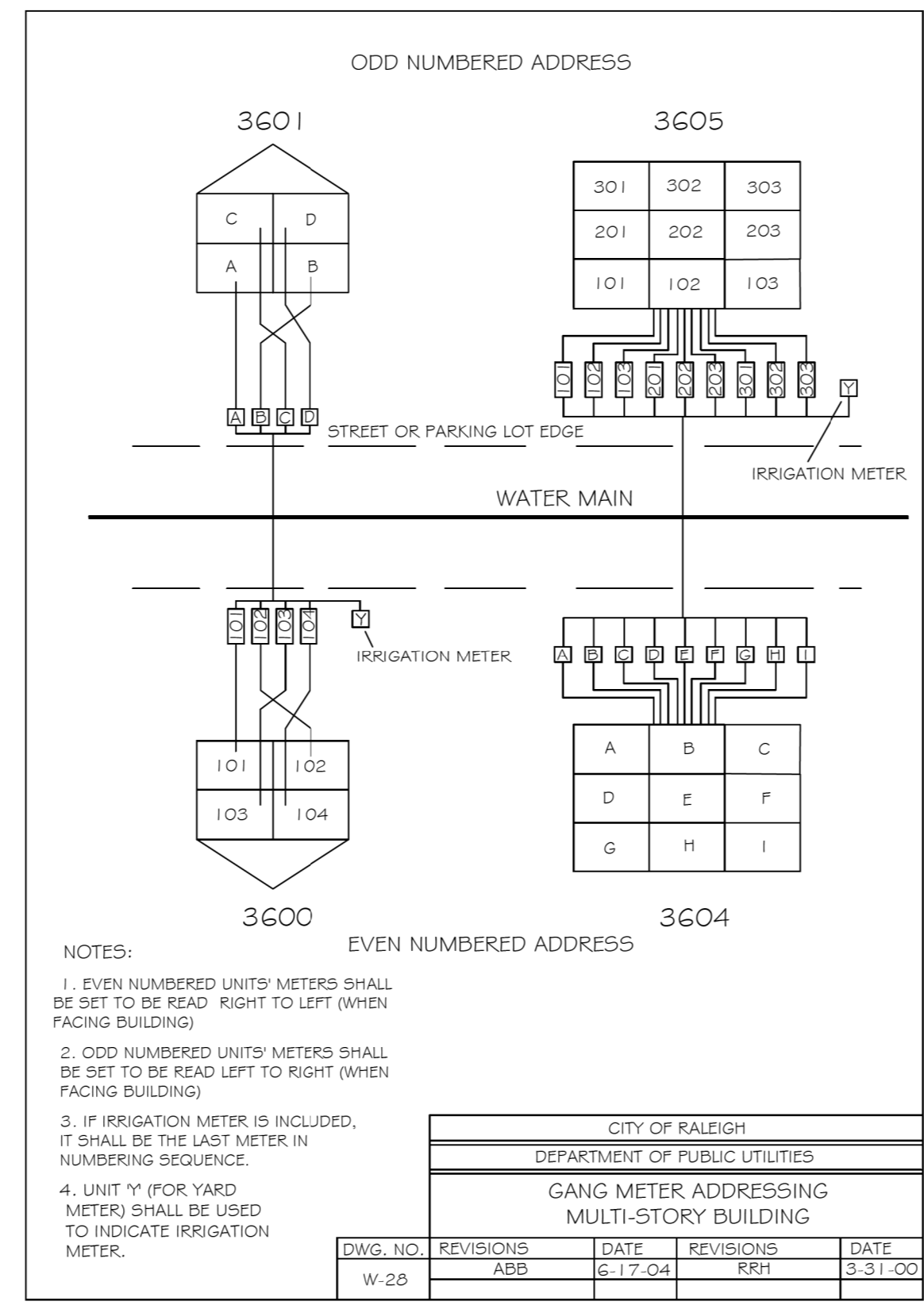
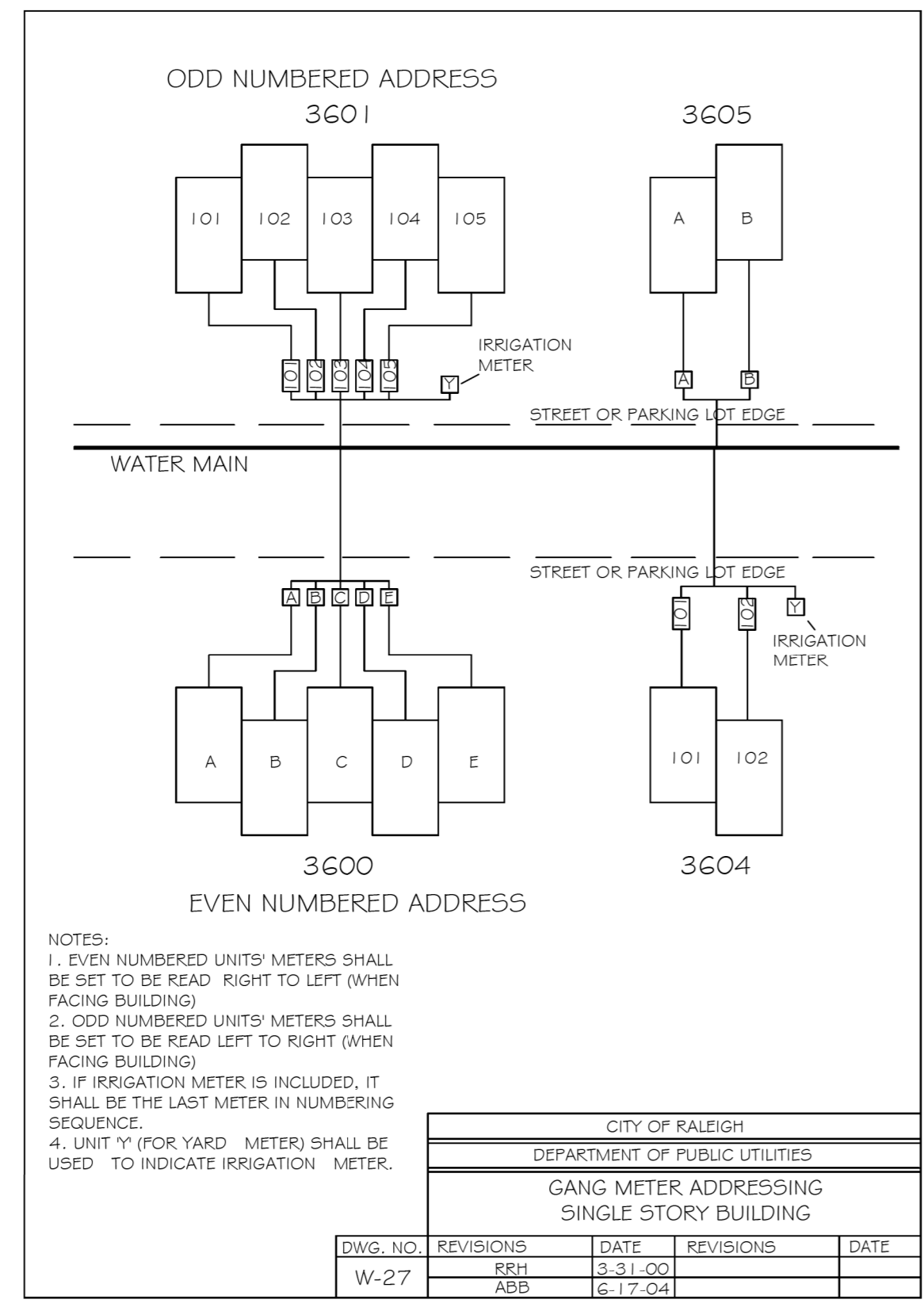
STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____

REVISIONS



2/11/2016 K:\PAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC\Pro\B5121_B5317_uc_dtl_uc03a_psh.dgn

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-3E
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

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CITY OF RALEIGH

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TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

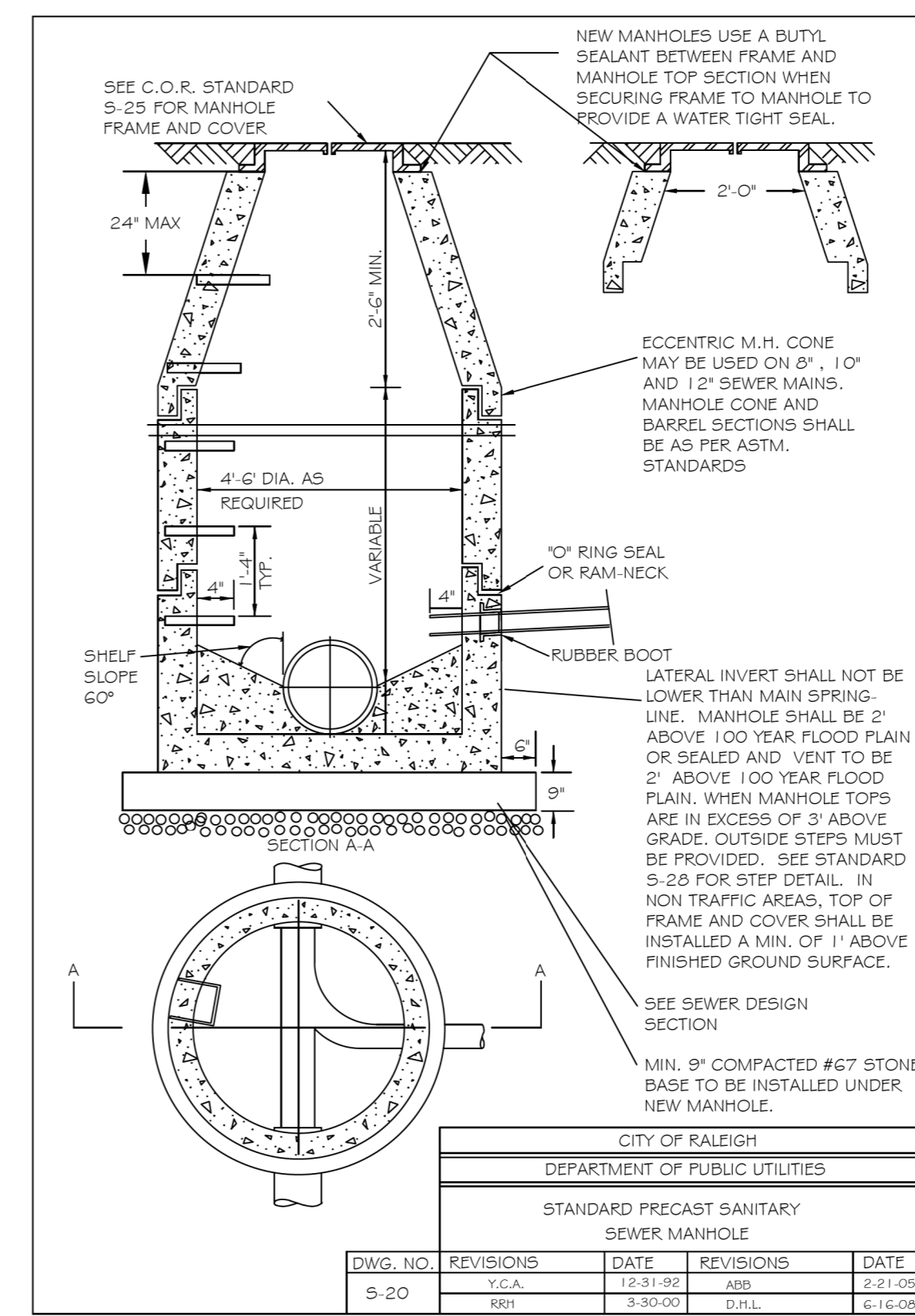
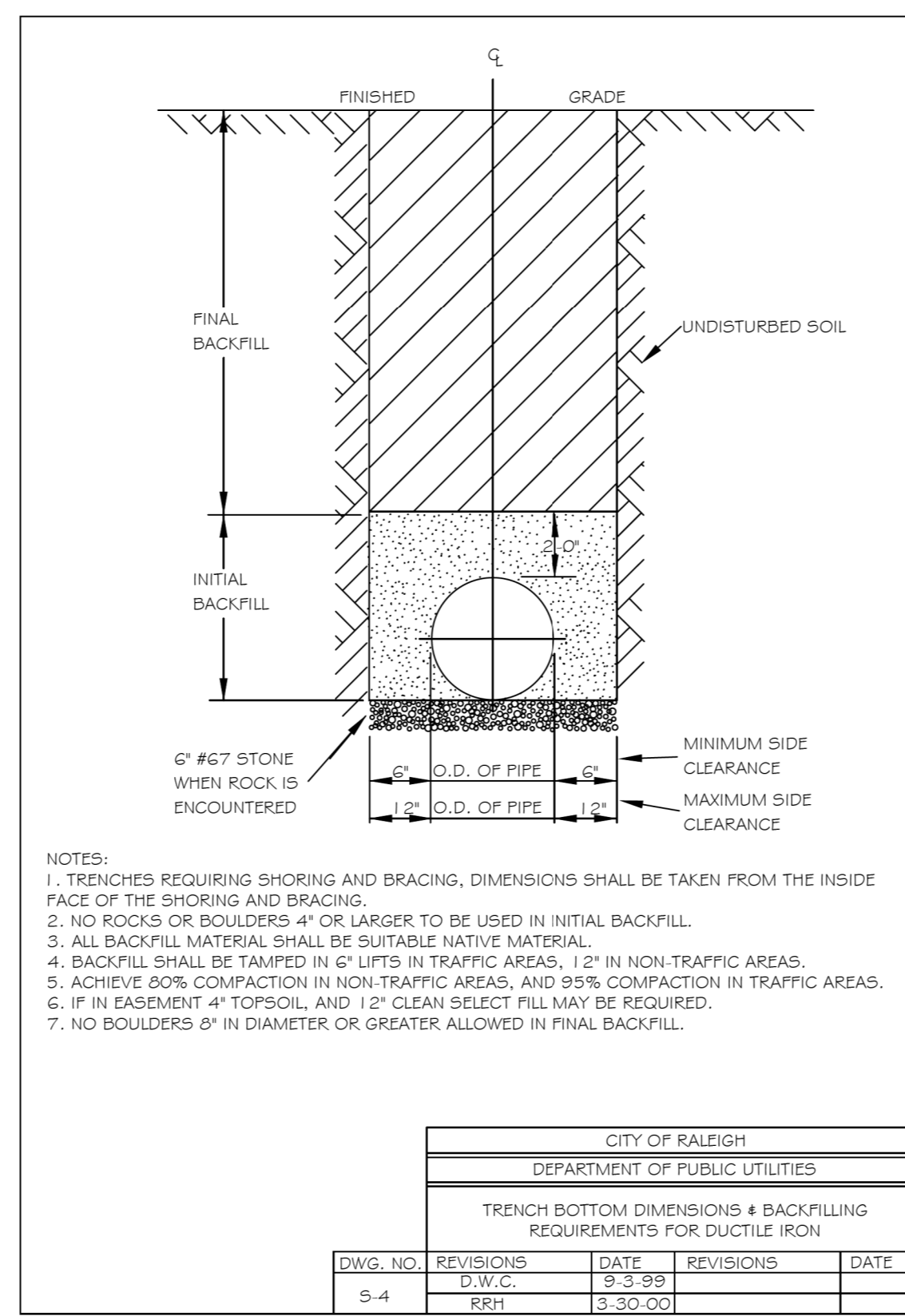
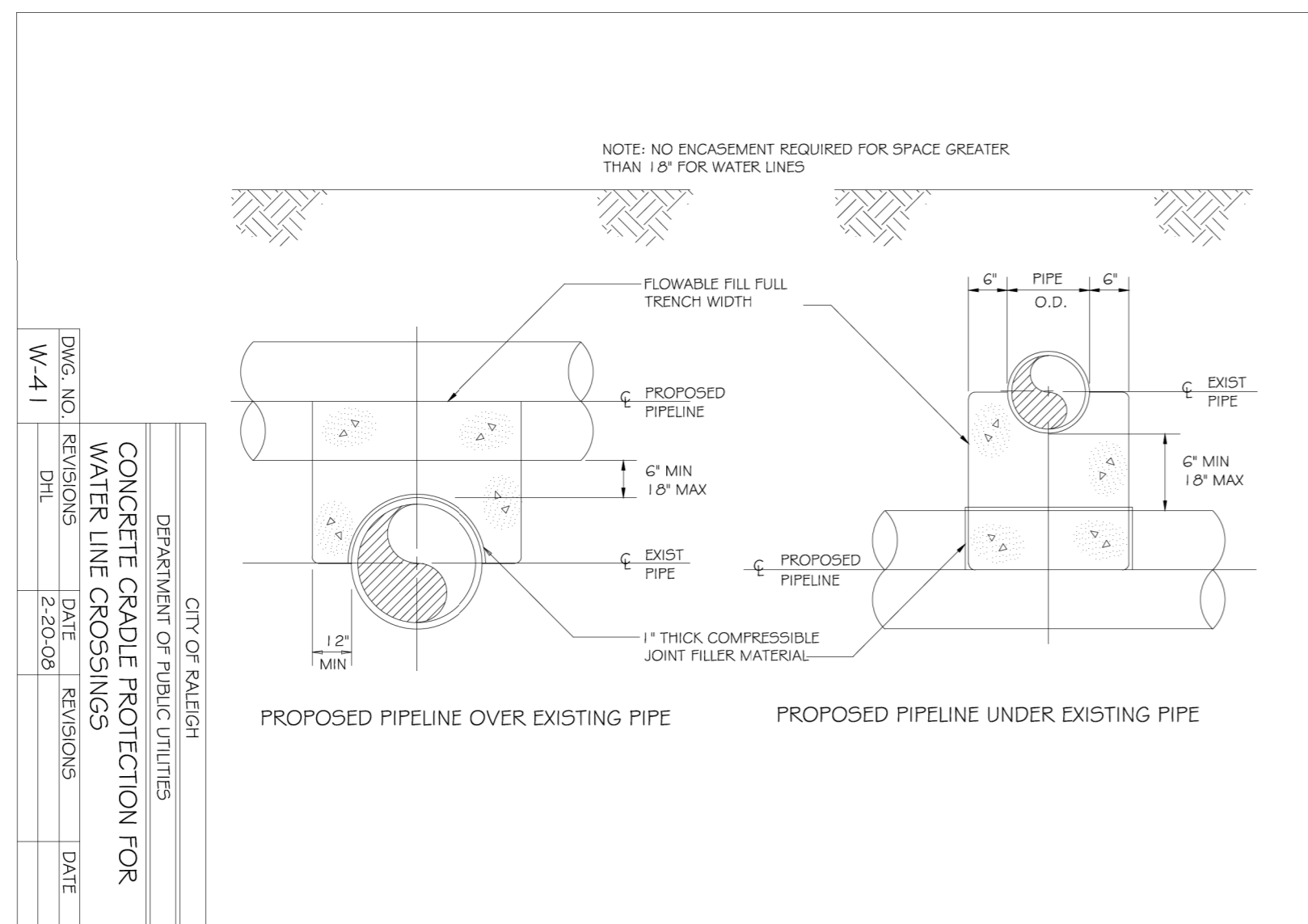
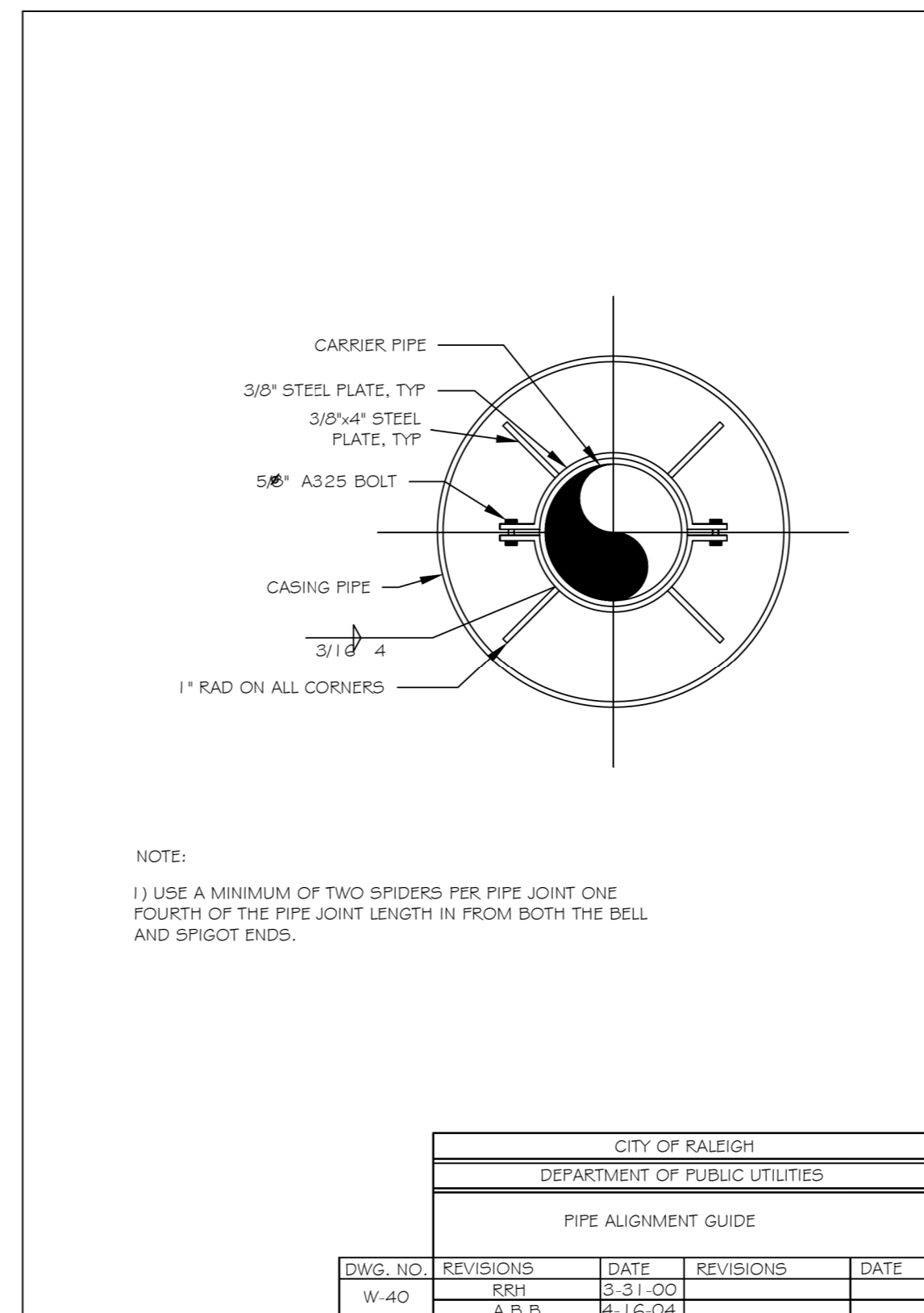
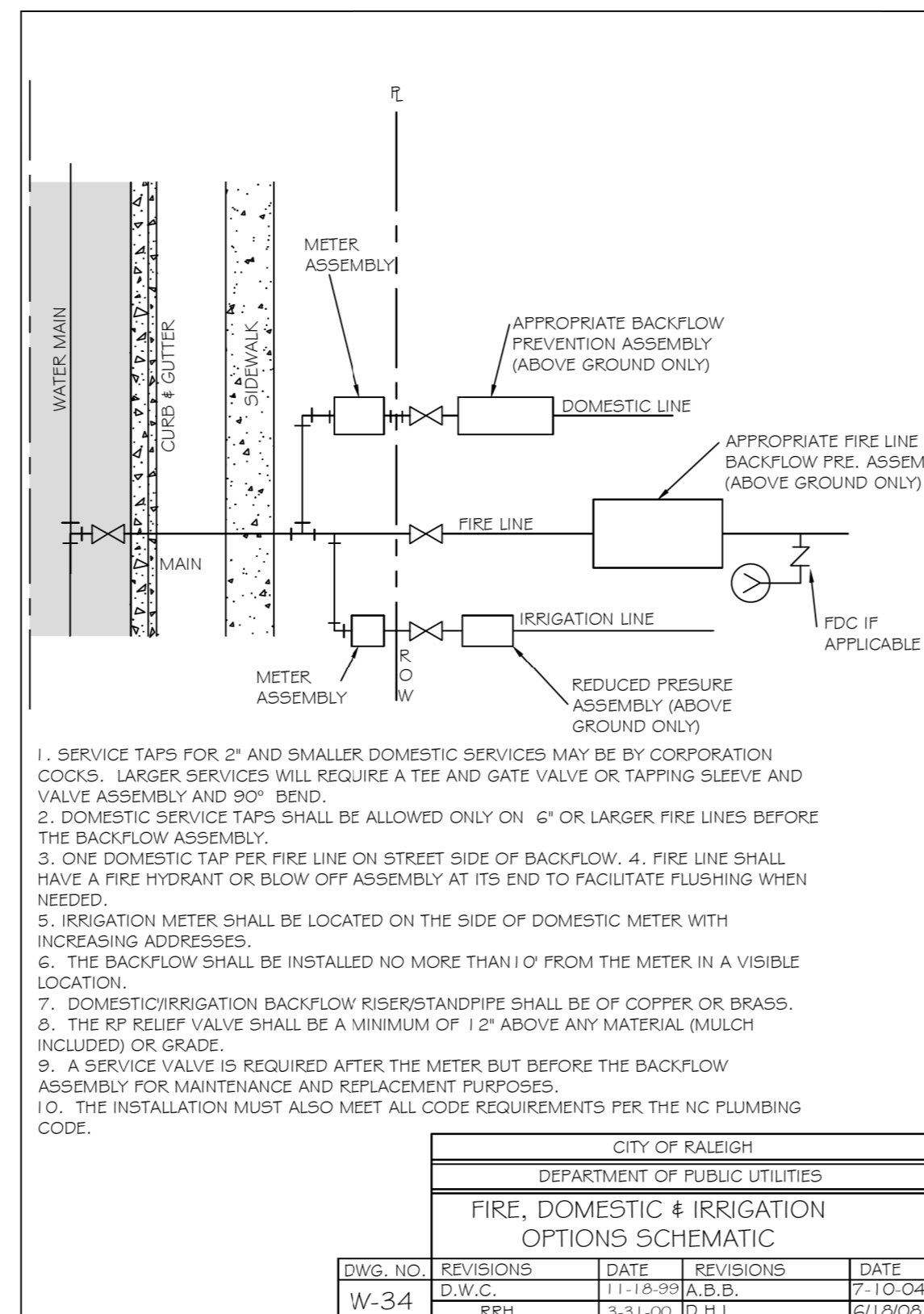
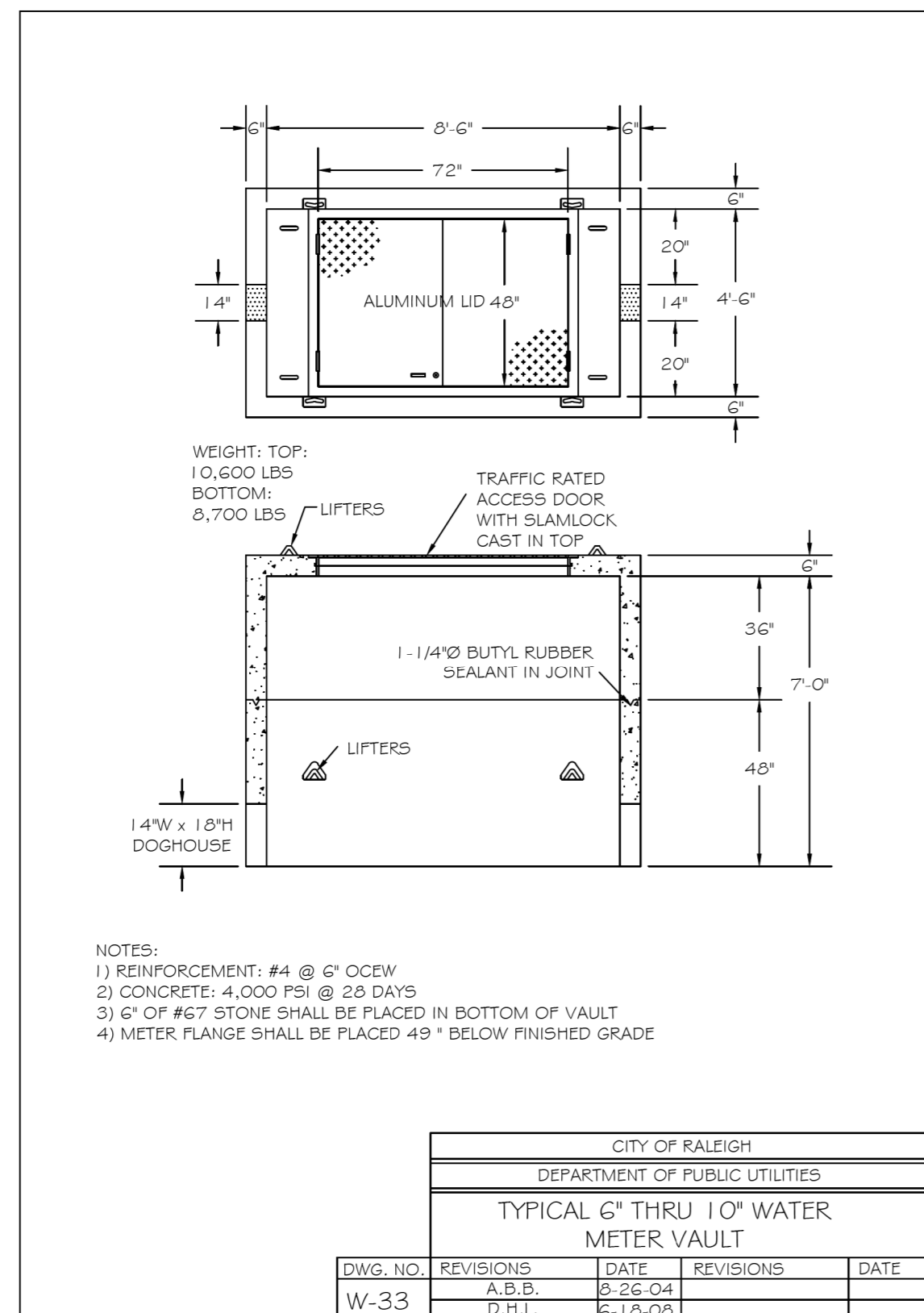
STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____

REVISIONS



2/11/2016 K:\PAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC\Pro\B5121_B5317_uc_dtl_uc03a_psh.dgn

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-3F
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

CITY OF RALEIGH

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TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

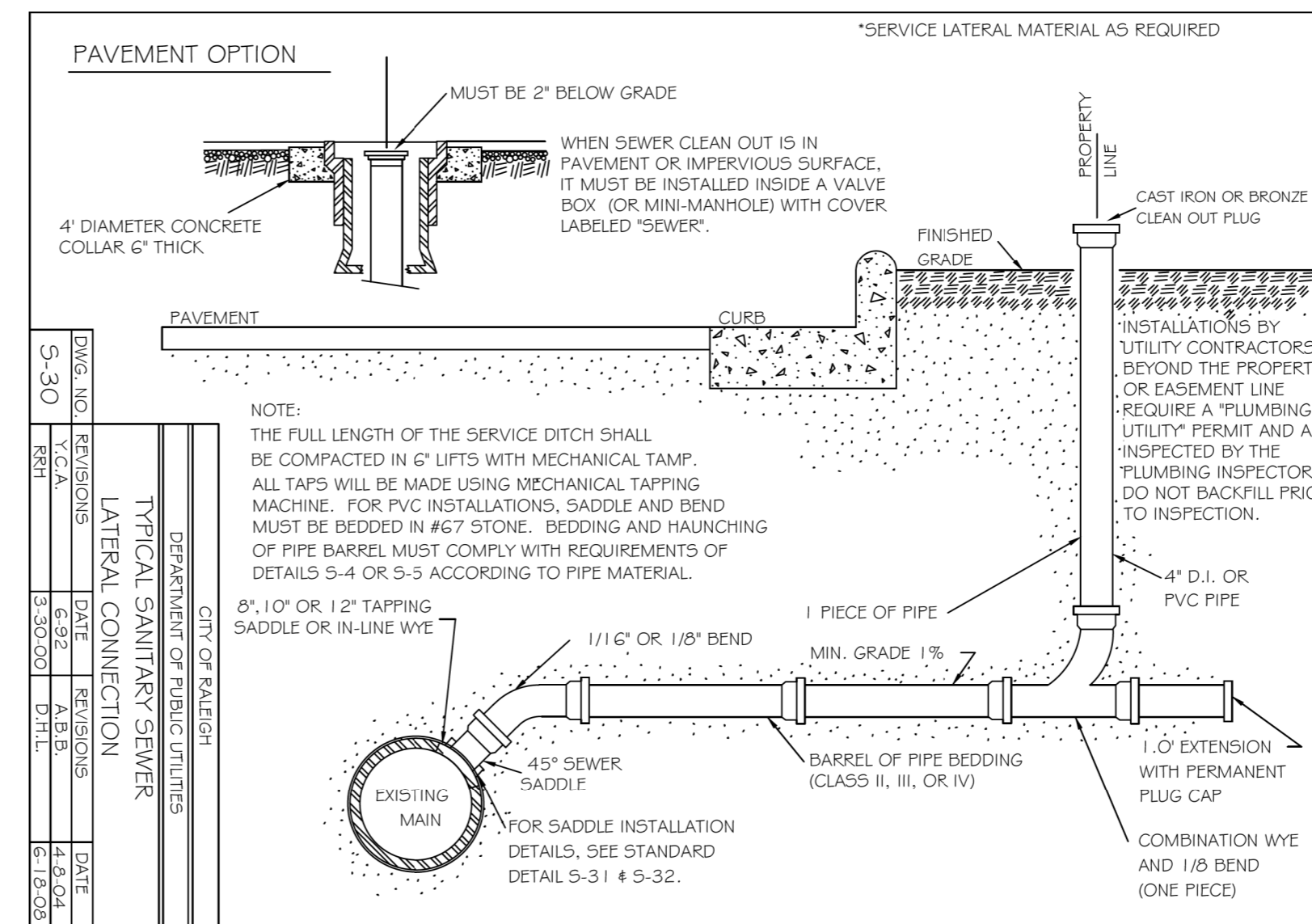
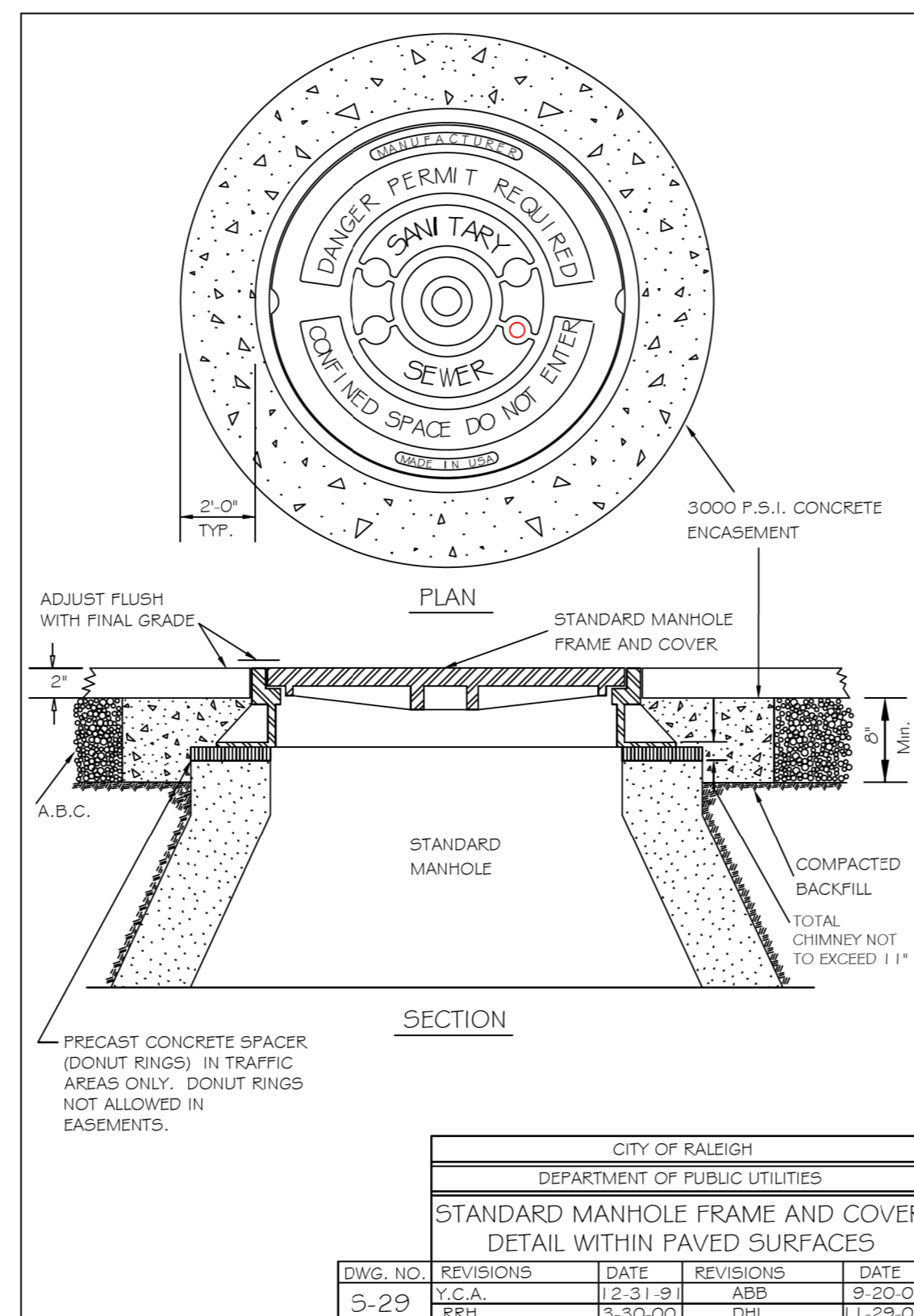
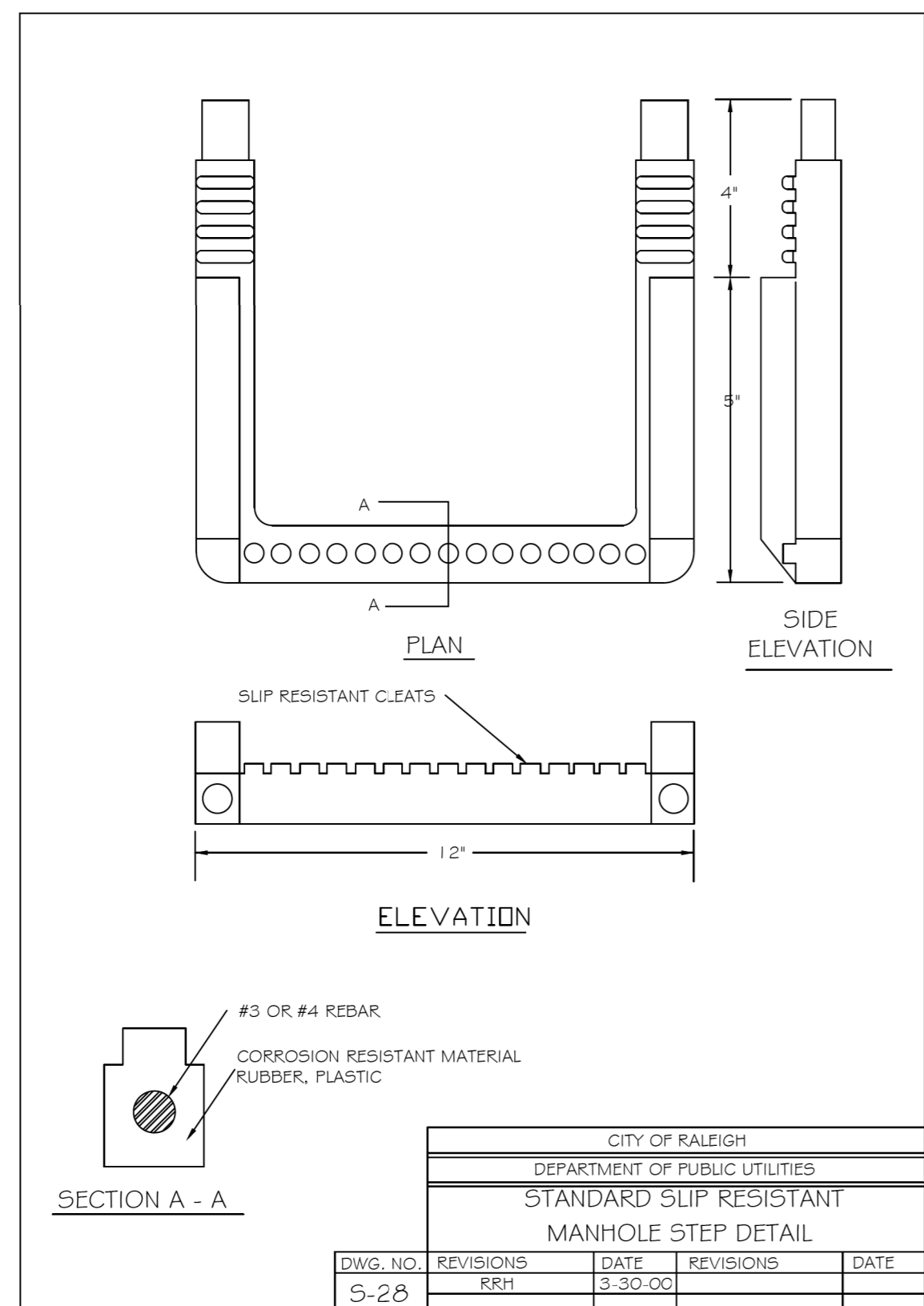
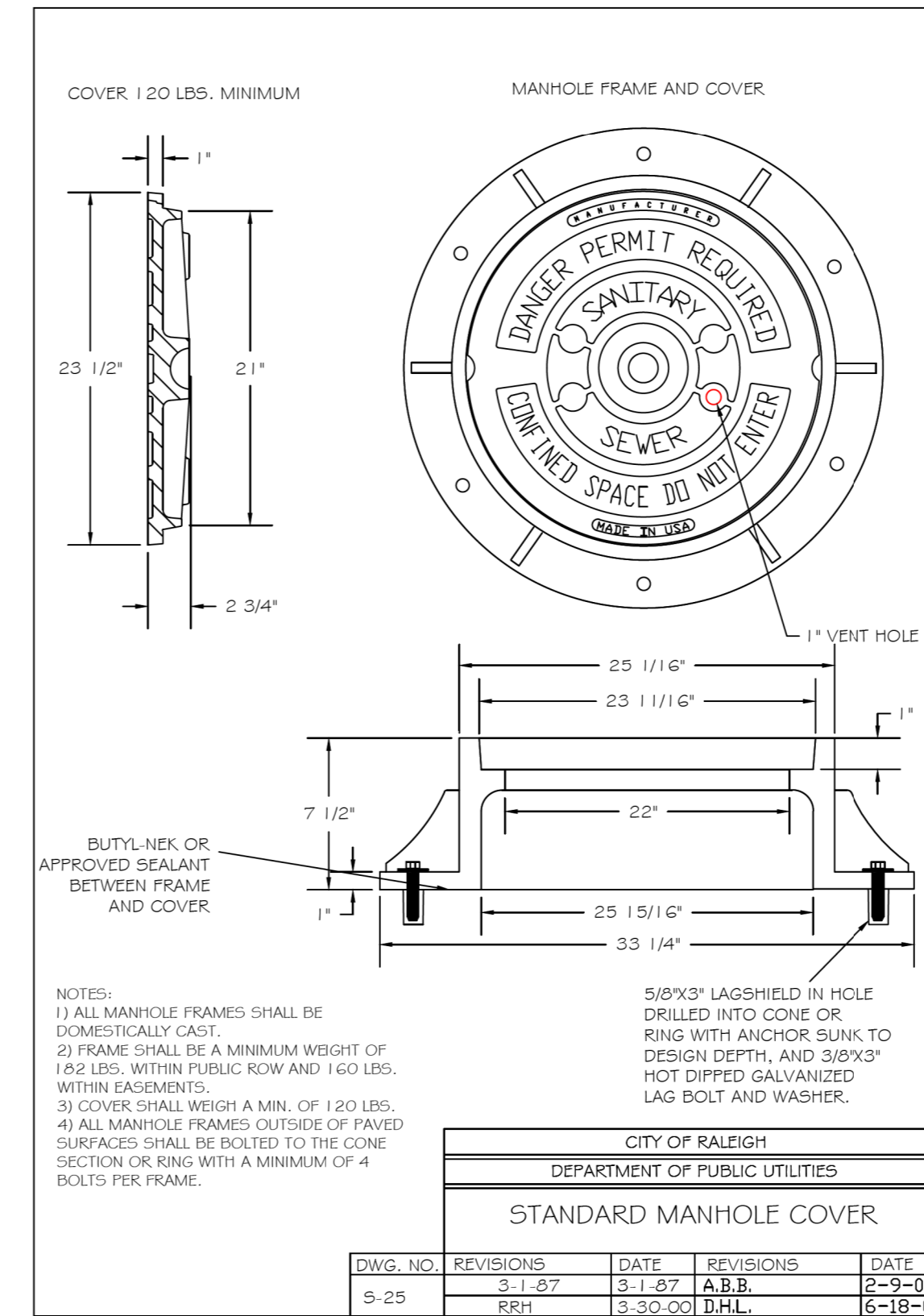
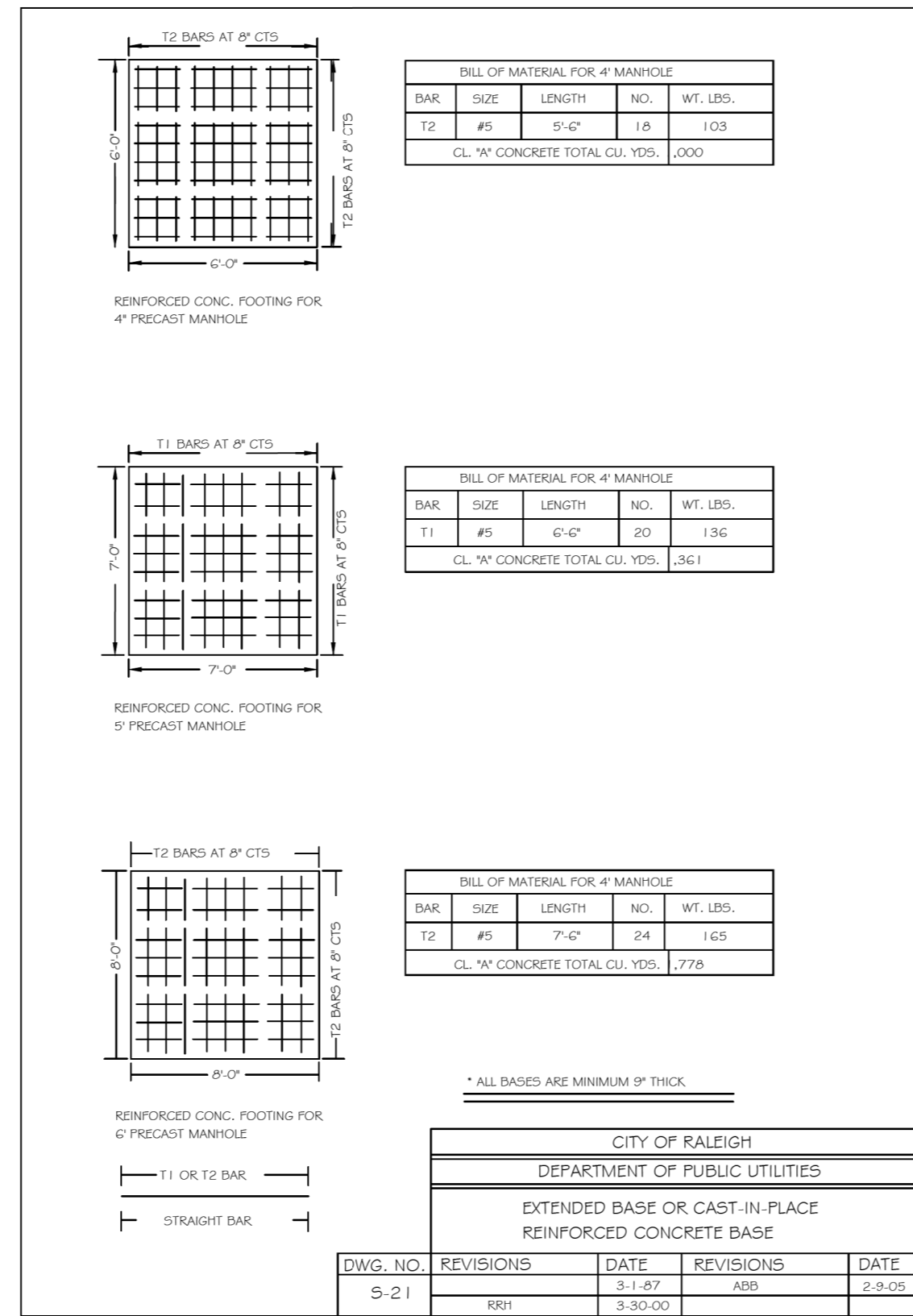
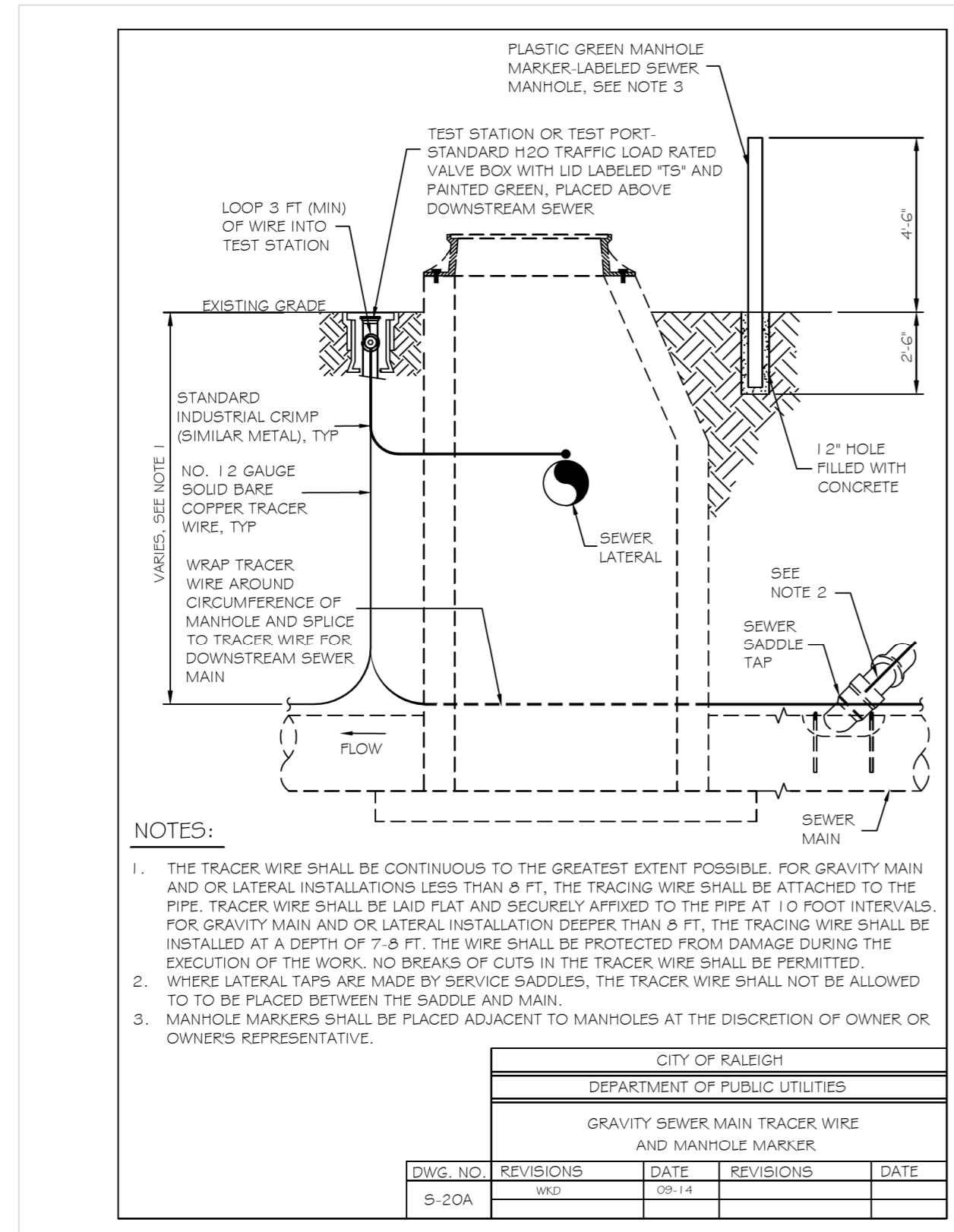
STORMWATER _____

PLANNING _____

FIRE _____

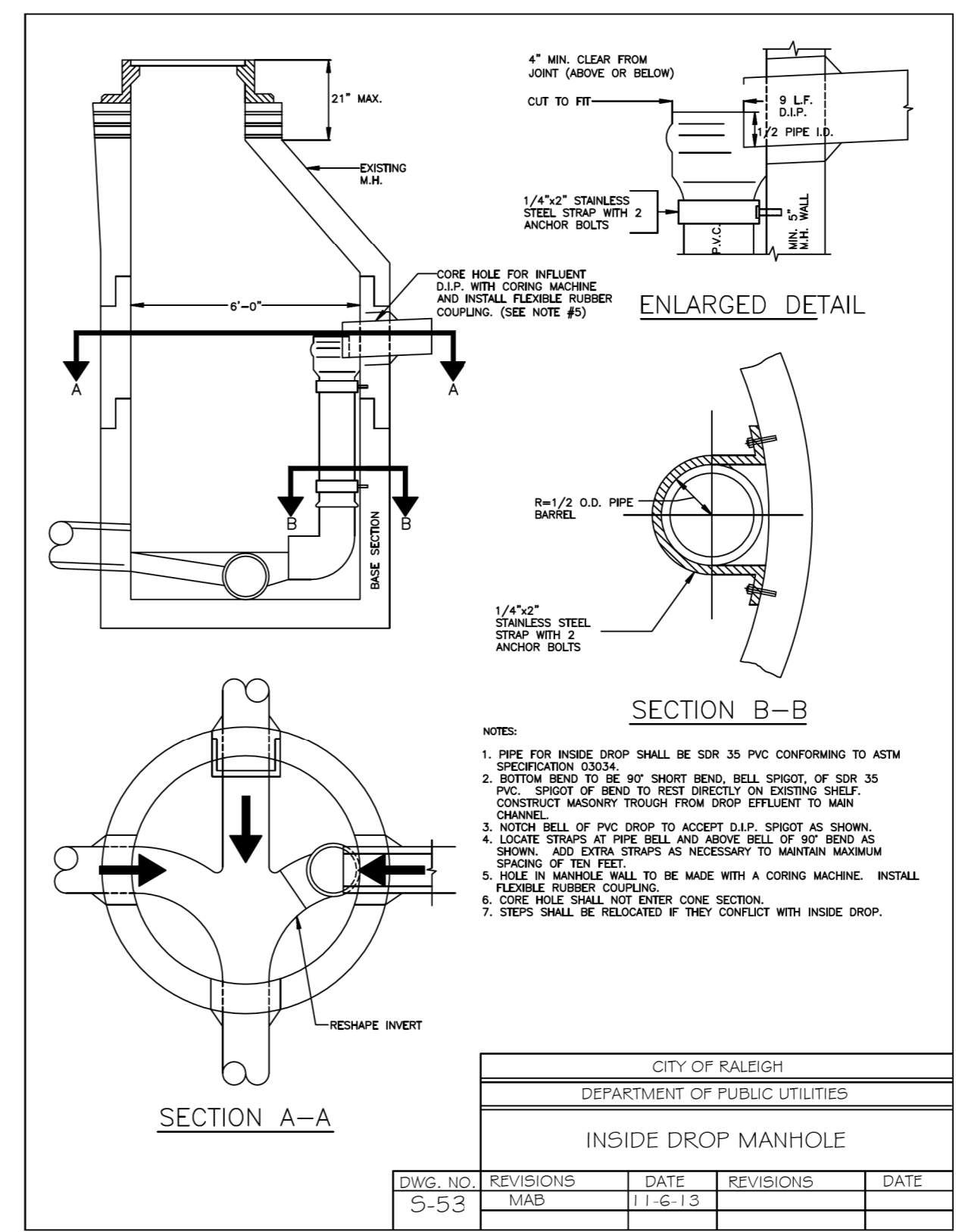
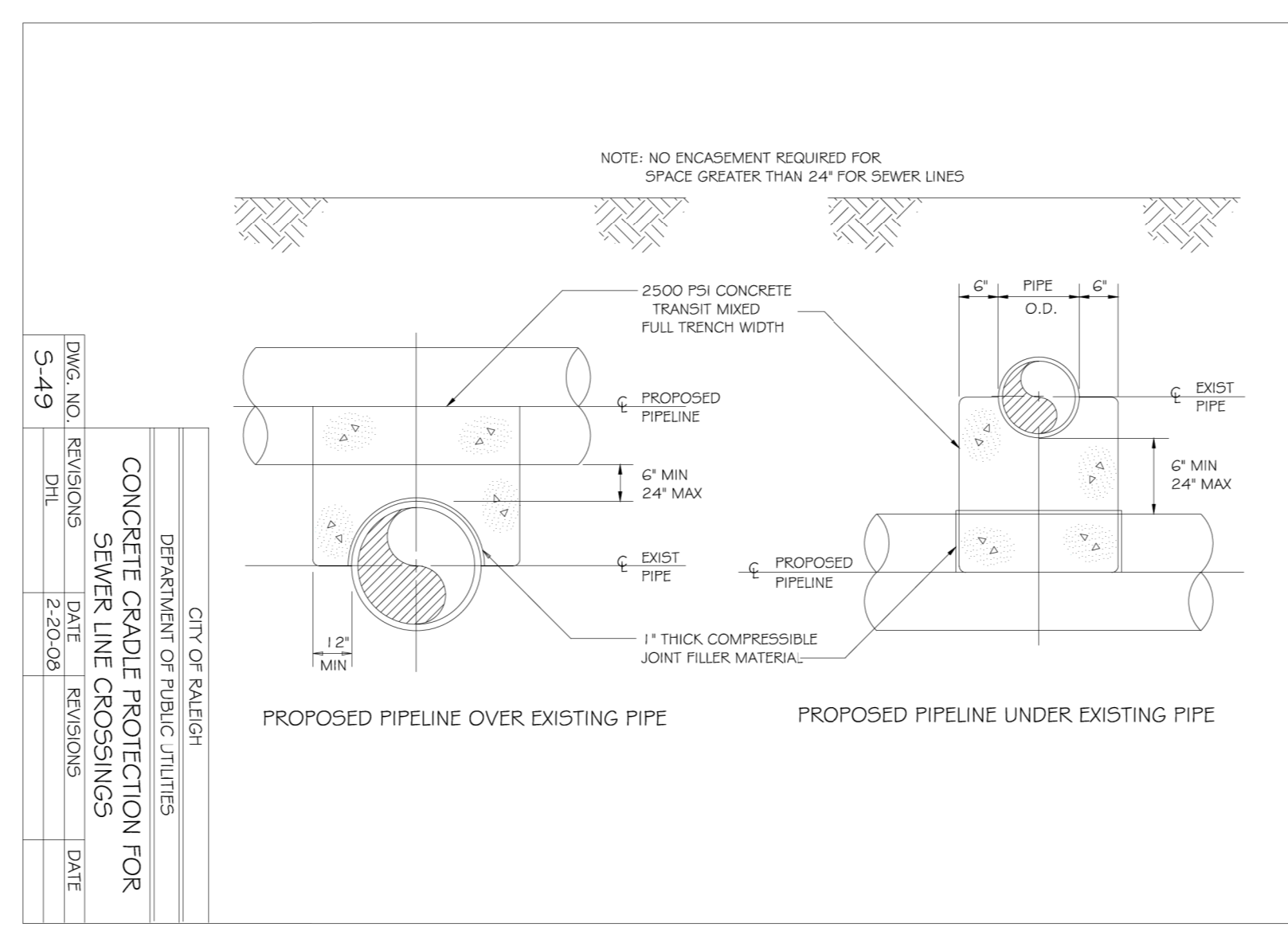
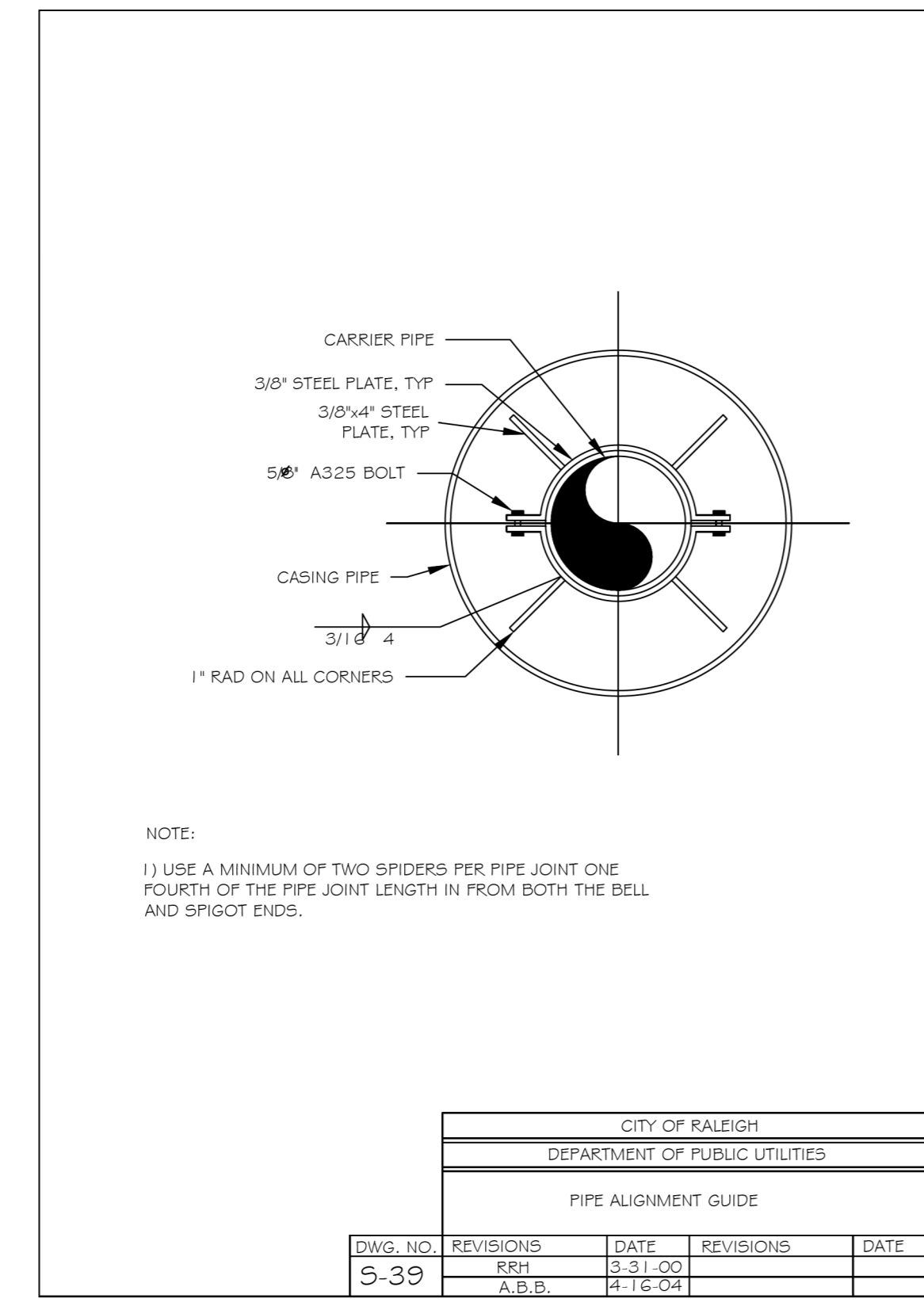
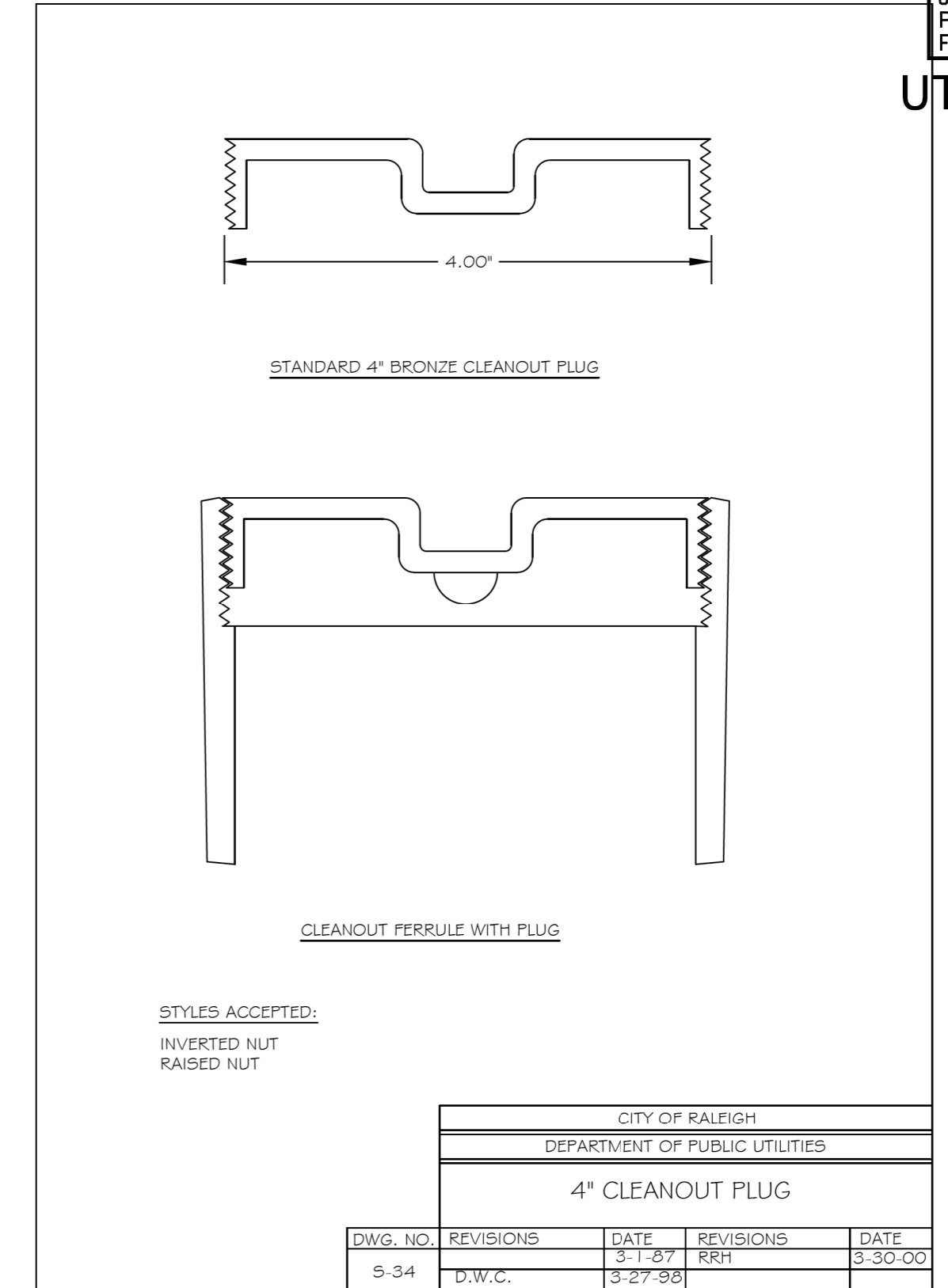
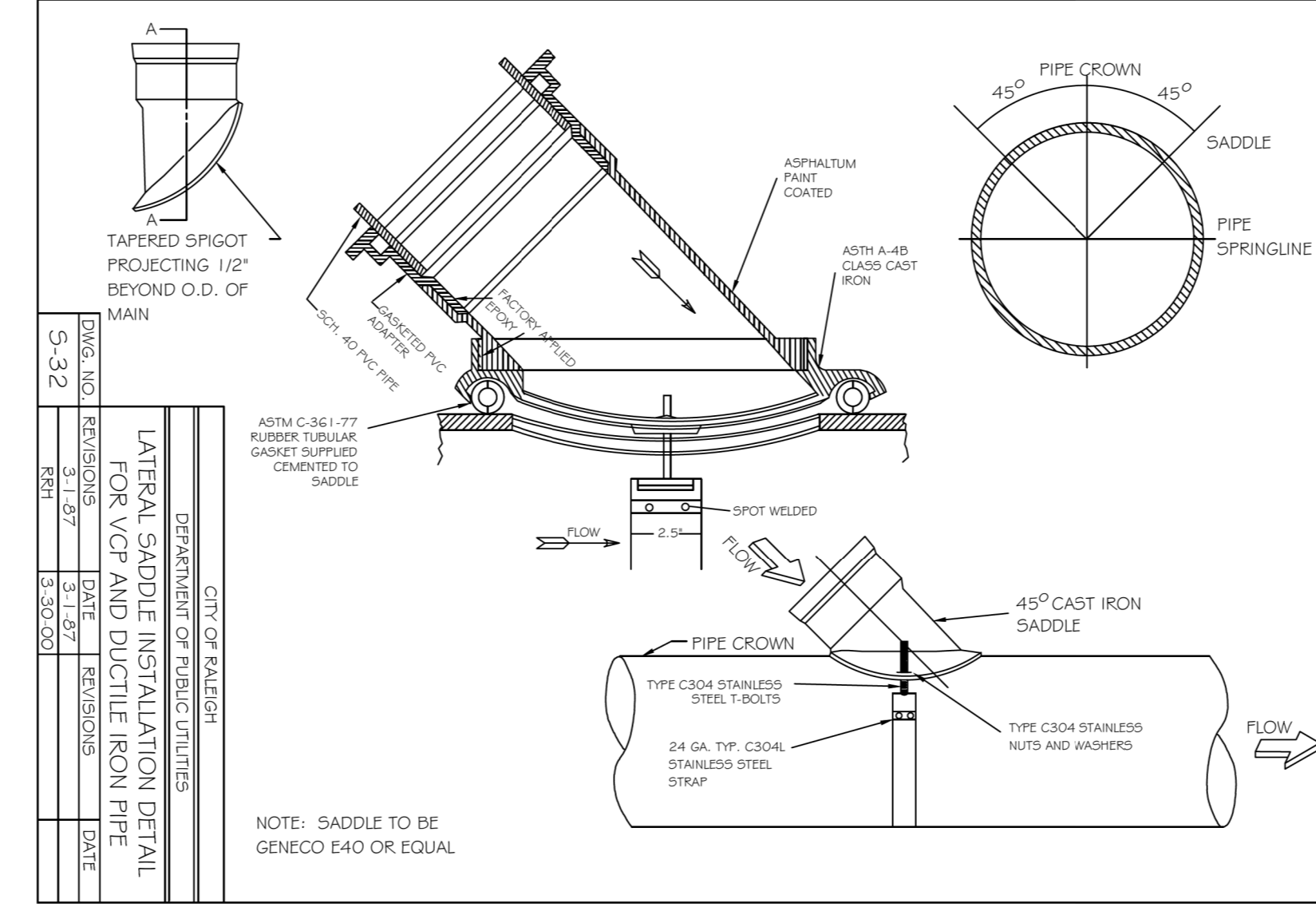
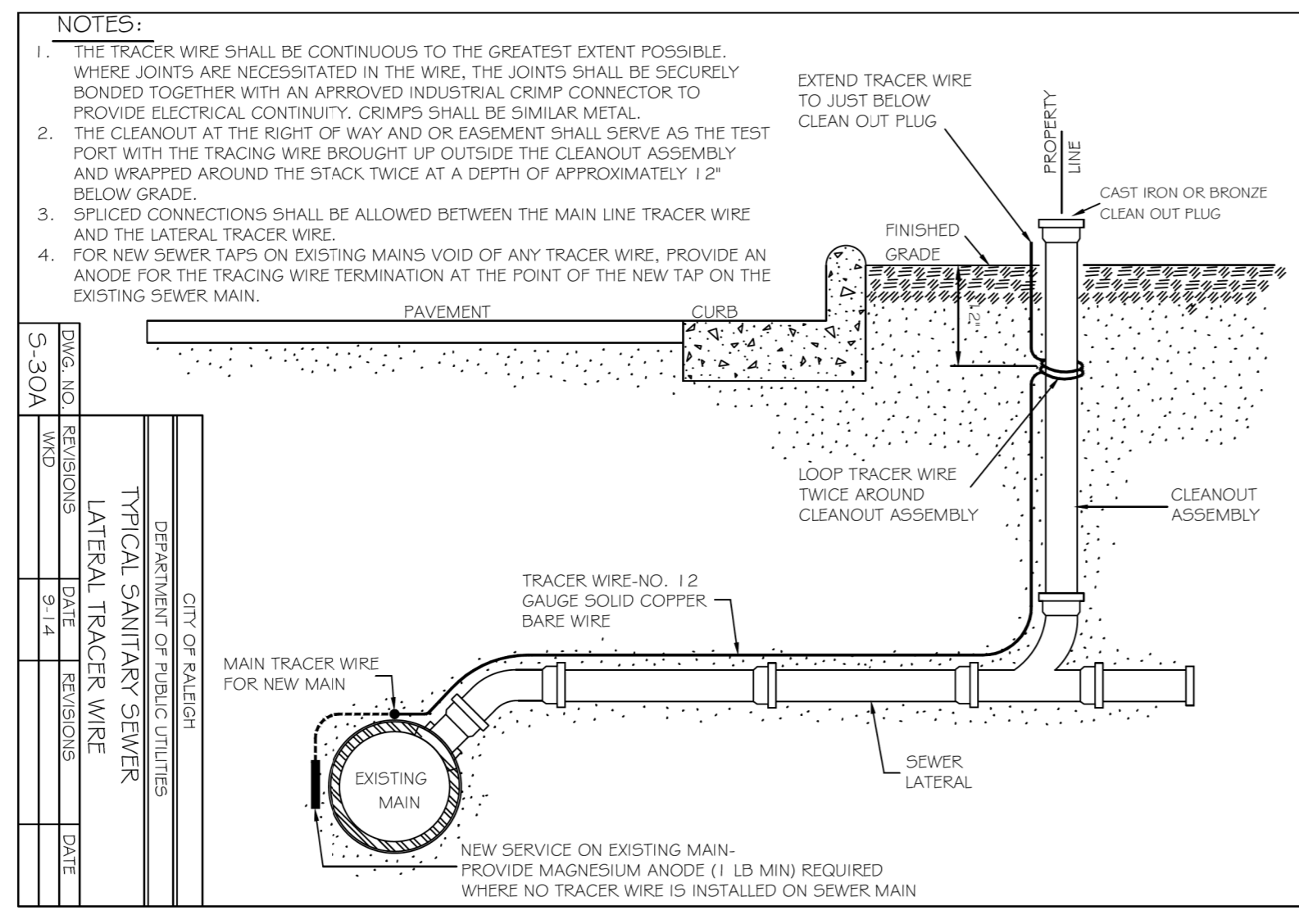
URBAN FORESTRY _____

REVISIONS



PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-3G
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151

UTILITY CONSTRUCTION



REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-4
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

NAD 83/NSRS 2007

- 3 RALEIGH DEVL. LLC
DB 12835 - PG 2740
BM 1960 - PG 241
- 4 WILLIAM L. CARTER
DB 6339 - PG 820
BM 1979 - PG 560
- 5 WILLIAM L. CARTER, JR
DB 4382 - PG 9
- 6 ED. CHARITABLE DVLPMTS
PROJ. INC
DB 7559 - PG 768

QUANTITY TOTALS	
RELOCATE FIRE HYDRANT:	1
RELOCATE WATER METER:	2
RECONNECT WATER METER:	2
SANITARY SEWER CLEAN-OUT:	4

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC
WATER DISTRIBUTION / EXTENSION SYSTEM
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

PUBLIC
SEWER COLLECTION / EXTENSION SYSTEM
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

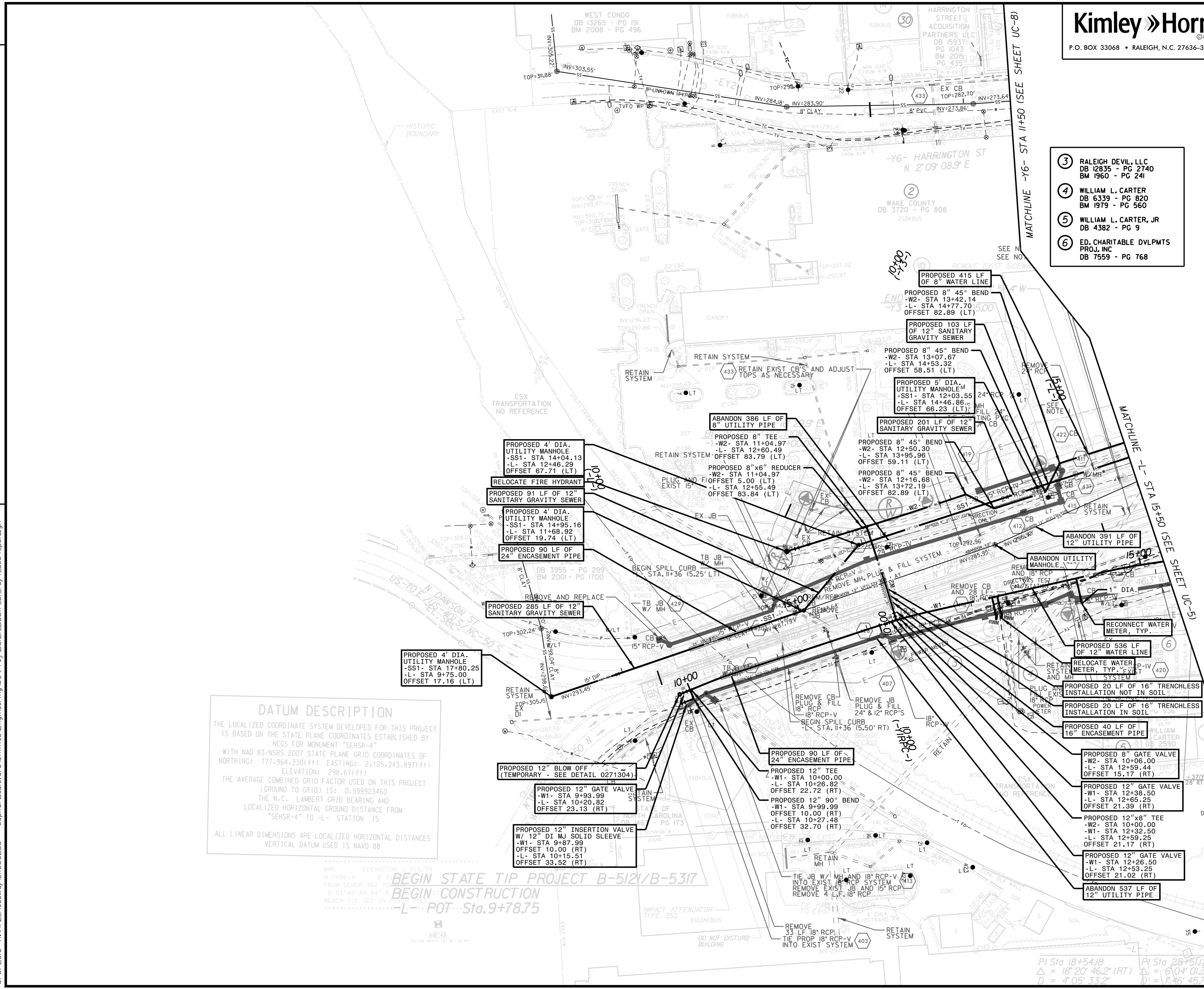
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.
TRANSPORTATION SERVICES _____
PUBLIC UTILITIES _____
STORMWATER _____
PLANNING _____
FIRE _____
URBAN FORESTRY _____

REVISIONS

DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "SEHSR-4" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 777,964.330(±±) EASTING: 2,125,243.897(±±) ELEVATION: 298.67(±±)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999923460
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SEHSR-4" TO L- STATION IS
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

BEGIN STATE TIP PROJECT B-5121/B-5317
BEGIN CONSTRUCTION
L- POT Sta. 9+78.75

6/8/2016 K:\RAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC-Proj\B5121-B5317-ut_rty4_uc04_uc04_pst\tdgn



PROJECT REFERENCE NO.	B-5121 / B-5317	SHEET NO.	UC-5
DESIGNED BY:	DGB		
DRAWN BY:	JGB		
CHECKED BY:	JRP		
APPROVED BY:	JAR		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITIES ENGINEERING SECTION	
PHONE: (919) 707-6690		FAX: (919) 250-4151	
		UTILITY CONSTRUCTION PLANS ONLY	

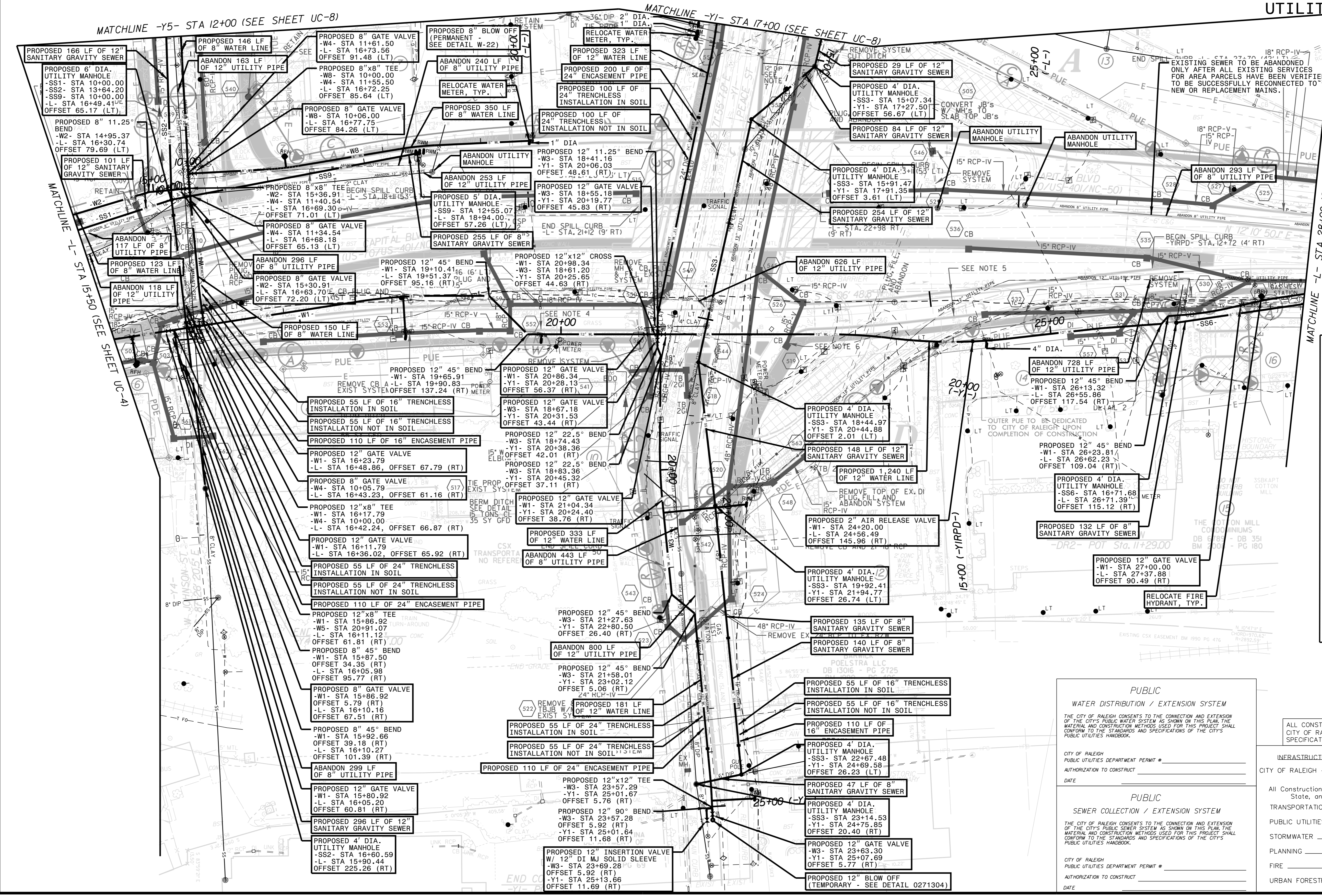
QUANTITY TOTALS

RELOCATE FIRE HYDRANT: 3
 RELOCATE WATER METER: 12
 SANITARY SEWER CLEAN-OUT: 15

NAD 83/NSRS 2007

UTILITY CONSTRUCTION

REVISIONS



- ② WAKE COUNTY
DB 12835 - PG 2740
BM 1960 - PG 241
- ⑦ ARCHIE LINWOOD SUCCESSOR KING TRUSTEE
DB 262 PG UNKNOWN
- ⑧ MCC OUTDOOR LLC
DB 11239 - PG 2535
- ⑨ ARCHIE LINWOOD SUCCESSOR KING TRUSTEE
DB 5369 - PG 541
- ⑩ MORRIS COMMUNICATIONS CORP.
DB 3521 - PG 669
DB 13727 - PG 2236
- ⑪ MARGIE MARIE FULLER
DB 10559 - PG 1762
- ⑫ MCKNITT & ASSOCIATES LLC
DB 8614 - PG 460
DB 2008 - PG 180
- ⑬ CITY OF RALEIGH
DB 12531 - PG 472
DB 2007 - PG 117
BM 1959 - PG 116
- ⑭ STATE OF NORTH CAROLINA NO DEED REF
BM 2008 - PG 180
- ⑮ 622 CAPITAL LLC
DB 14601 - DB 1647

PUBLIC
 WATER DISTRIBUTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

PUBLIC
 SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL
 CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

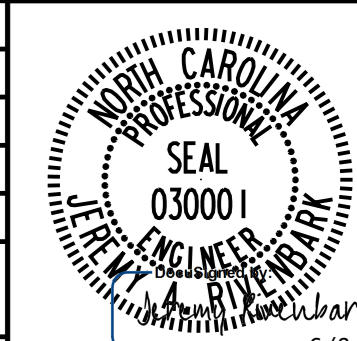
TRANSPORTATION SERVICES _____
 PUBLIC UTILITIES _____
 STORMWATER _____
 PLANNING _____
 FIRE _____
 URBAN FORESTRY _____

QUANTITY TOTALS	
PROPOSED FIRE HYDRANT:	1
RELOCATE FIRE HYDRANT:	2
RECONNECT FIRE HYDRANT:	1
RELOCATE WATER METER:	13
SANITARY SEWER CLEAN-OUT:	7

Kimley Horn

P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-6

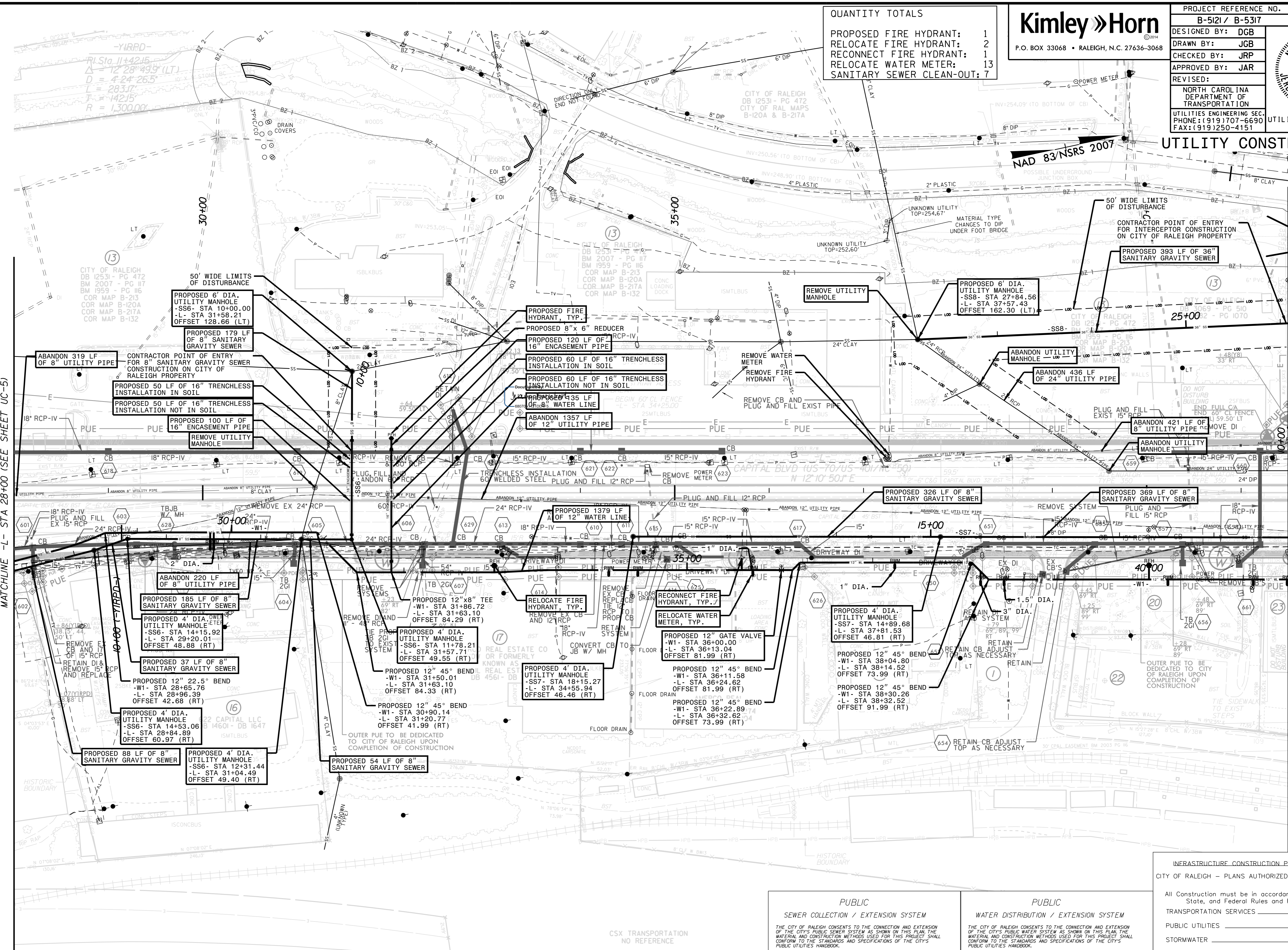


DESIGNED BY: DGB	UTILITY CONSTRUCTION
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

REVISIONS

MATCHLINE -L- STA 28+00 (SEE SHEET UC-5)

MATCHLINE -L- STA 41+50 (SEE SHEET UC-7)



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$PI\ STA\ 15+79.37$
 $\Delta = 18\ 33\ 14.0\ (RT)$
 $D = 8\ 48\ 53.0$

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC

SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

PUBLIC

WATER DISTRIBUTION / EXTENSION SYSTEM

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CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

STORMWATER _____

PLANNING _____

FIRE _____

URBAN FORESTRY _____

PROJECT REFERENCE NO.	B-5121 / B-5317	SHEET NO.	UC-7
DESIGNED BY:	DGB		
DRAWN BY:	JGB		
CHECKED BY:	JRP		
APPROVED BY:	JAR		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

UTILITY CONSTRUCTION

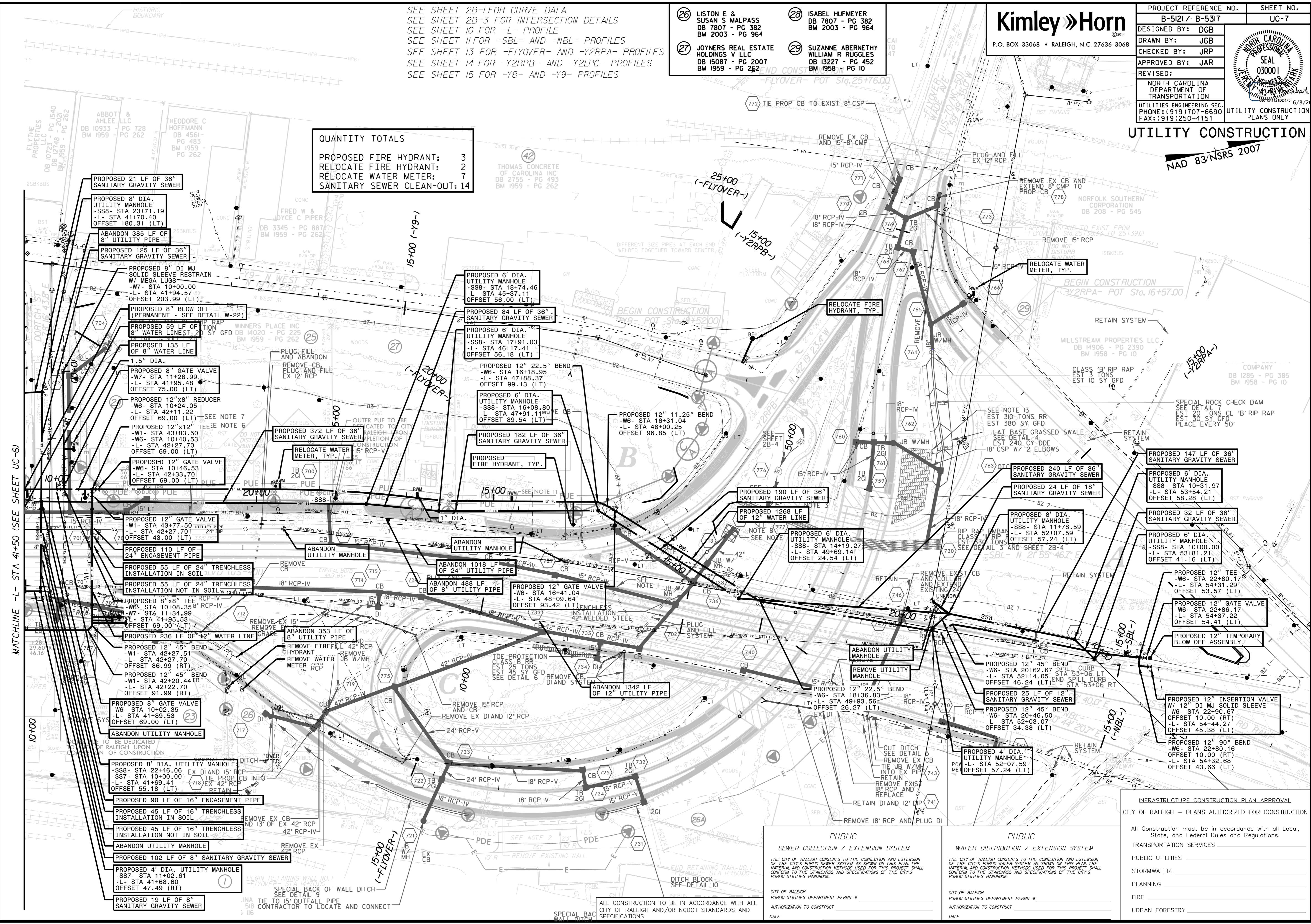
NAD 83/NSRS 2007

SEE SHEET 2B-1 FOR CURVE DATA
 SEE SHEET 2B-3 FOR INTERSECTION DETAILS
 SEE SHEET 10 FOR -L- PROFILE
 SEE SHEET 11 FOR -SBL- AND -NBL- PROFILES
 SEE SHEET 13 FOR -FLYOVER- AND -Y2RPA- PROFILES
 SEE SHEET 14 FOR -Y2RPB- AND -Y2LPC- PROFILES
 SEE SHEET 15 FOR -Y8- AND -Y9- PROFILES

- 26 LISTON E & SUSAN S MALPASS DB 7807 - PG 382 BM 2003 - PG 964
- 27 JOYNERS REAL ESTATE HOLDINGS V LLC DB 15087 - PG 2007 BM 1959 - PG 262
- 28 ISABEL HUFMEYER DB 7807 - PG 382 BM 2003 - PG 964
- 29 SUZANNE ABERNETHY WILLIAM R RUGGLES DB 13227 - PG 452 BM 1958 - PG 10

QUANTITY TOTALS

PROPOSED FIRE HYDRANT:	3
RELOCATE FIRE HYDRANT:	2
RELOCATE WATER METER:	7
SANITARY SEWER CLEAN-OUT:	14



REVISIONS

MATCHLINE -L- STA 41+50 (SEE SHEET UC-6)

PUBLIC SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT
 DATE _____

PUBLIC WATER DISTRIBUTION / EXTENSION SYSTEM

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CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT
 DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

STORMWATER _____

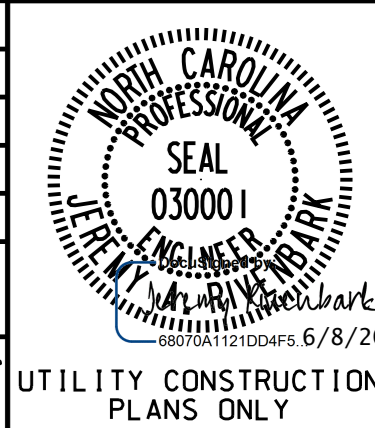
PLANNING _____

FIRE _____

URBAN FORESTRY _____

6/8/2016 K:\PAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC\Pro\B5121_B5317_Uf_rdy_uc07_psd.dgn

DESIGNED BY: DGB
DRAWN BY: JGB
CHECKED BY: JRP
APPROVED BY: JAR
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151



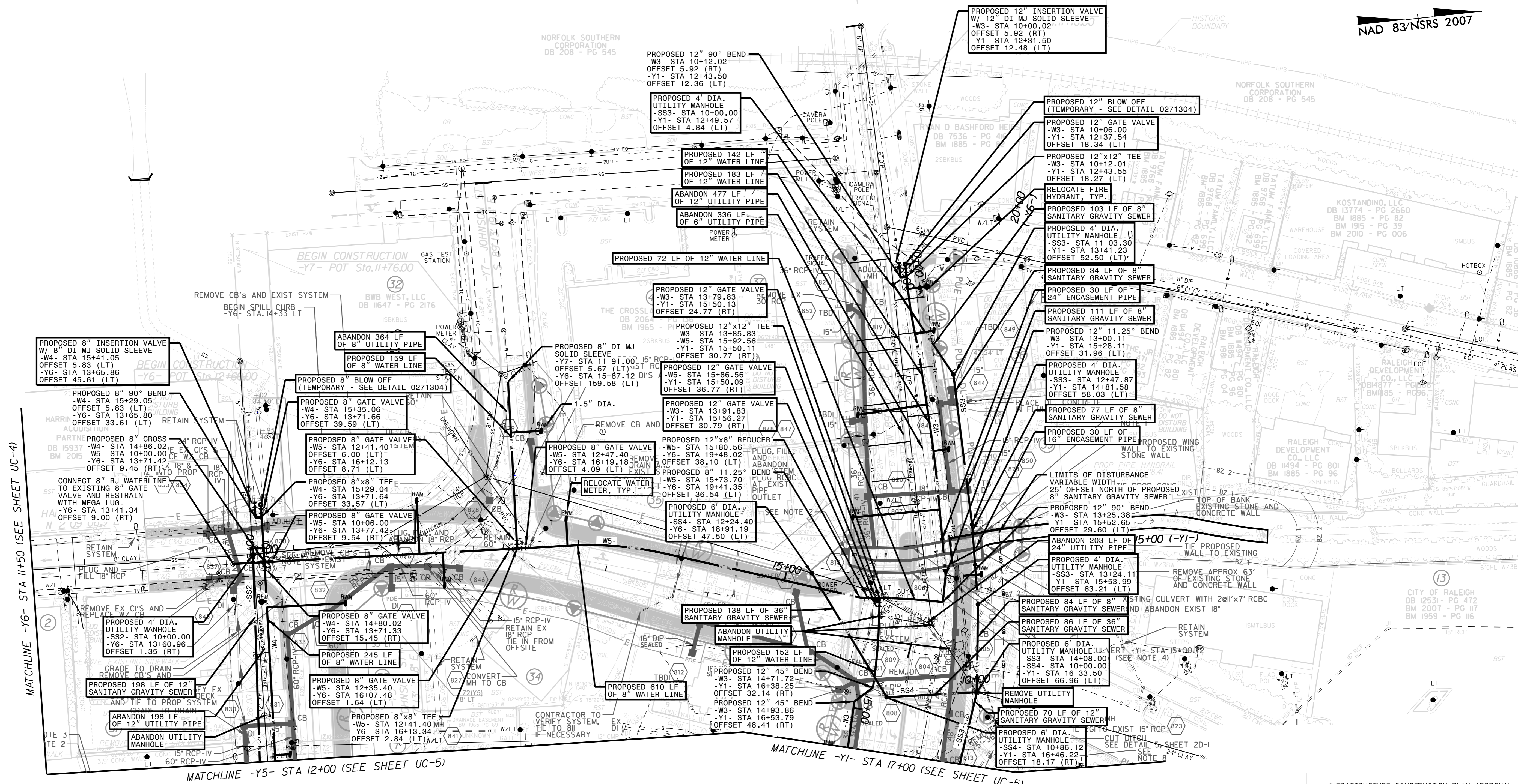
UTILITY CONSTRUCTION

NAD 83/NSRS 2007

QUANTITY TOTALS

RELOCATE FIRE HYDRANT:	2
RELOCATE WATER METER:	11
SANITARY SEWER CLEAN-OUT:	20

33 HESTER & HESTER DB 8181 - PG 1853 BM 1885 - PG 104	36 EDWIN E FLYTHE, JR DB 3726 - PG 580 BM 1885 - PG 82 BM 1977 - PG 393	39 JAMES H ANDERSON CO DB 5940 - PG 289 BM 1993 - PG 1441
34 MANN FAMILY PROPERTIES OF RALEIGH DB 1802 - PG 1658	37 RICHARD GARDNER DB 8613 - PG 2425	41 ARCHIE LINWOOD KING SUCCESSOR TRUSTEE DB 5369 - PG 541 BM 1947 - PG 73
35 CHAUCCER INVESTMENTS INC DB 13332 - PG 957 BM 1997 - PG 799	38 MARGARET ALTMAN MANN DB 2989 - PG 318	



MATCHLINE -Y6- STA 11+50 (SEE SHEET UC-4)

MATCHLINE -Y5- STA 12+00 (SEE SHEET UC-5)

MATCHLINE -Y1- STA 17+00 (SEE SHEET UC-5)

REVISIONS

6/8/2016 K:\PAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC-Pro\B5121_B5317_uc08_psh.dgn

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NC DOT STANDARDS AND SPECIFICATIONS.

PUBLIC
SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

PUBLIC
WATER DISTRIBUTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL

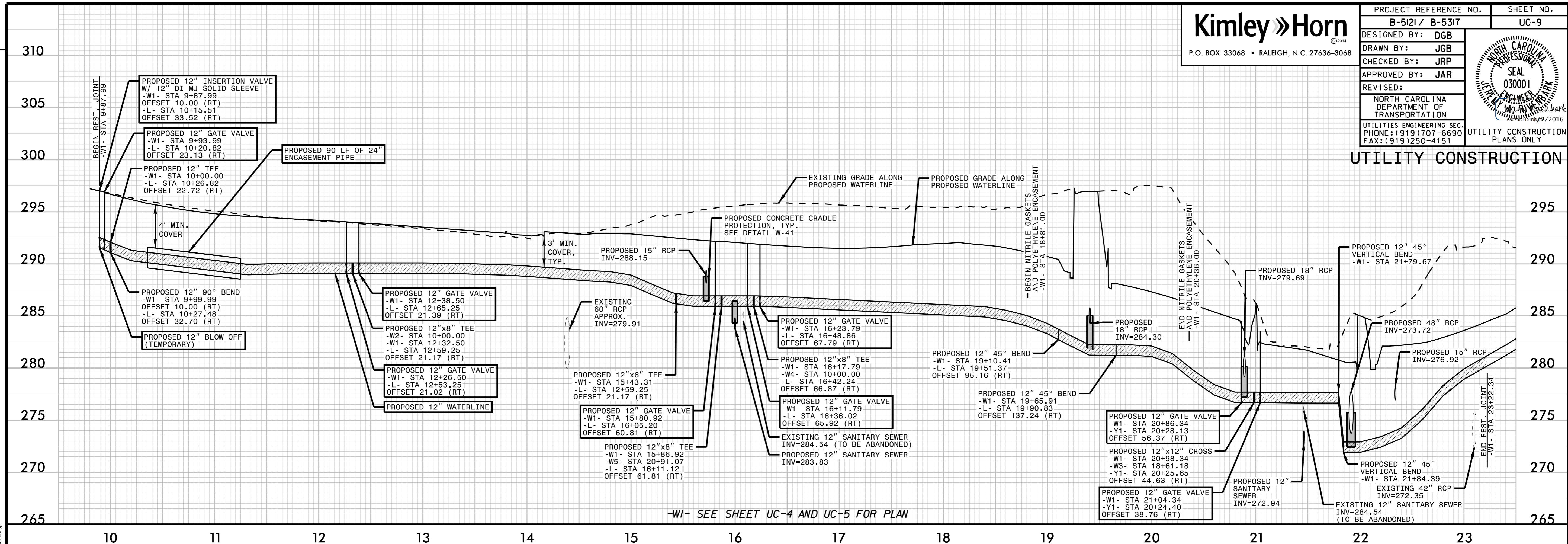
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	_____
TRANSPORTATION SERVICES	_____
PUBLIC UTILITIES	_____
STORMWATER	_____
PLANNING	_____
FIRE	_____
URBAN FORESTRY	_____

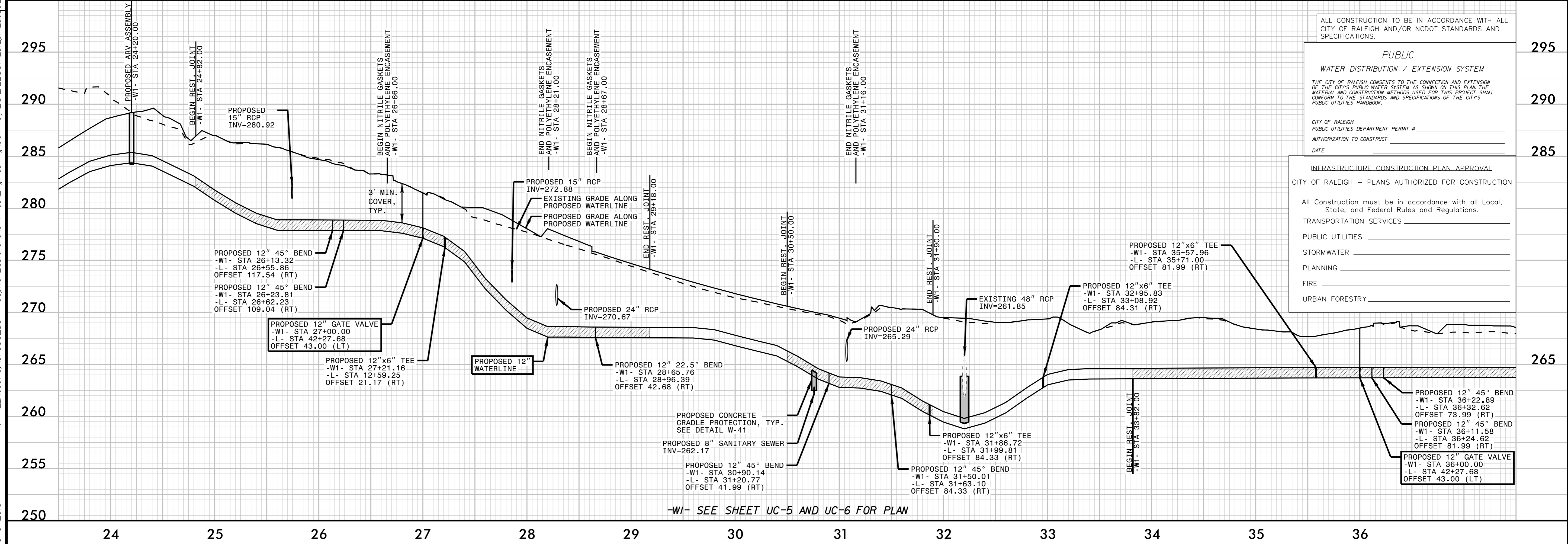
PROJECT REFERENCE NO.	B-5121 / B-5317	SHEET NO.	UC-9
DESIGNED BY:	DGB		
DRAWN BY:	JGB		
CHECKED BY:	JRP		
APPROVED BY:	JAR		
REVISIONS:		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC.		UTILITY CONSTRUCTION PLANS ONLY	
PHONE: (919) 707-6690		FAX: (919) 250-4151	

UTILITY CONSTRUCTION

REVISIONS



-WI- SEE SHEET UC-4 AND UC-5 FOR PLAN



-WI- SEE SHEET UC-5 AND UC-6 FOR PLAN

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC WATER DISTRIBUTION / EXTENSION SYSTEM
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

TRANSPORTATION SERVICES _____

PUBLIC UTILITIES _____

STORMWATER _____

PLANNING _____

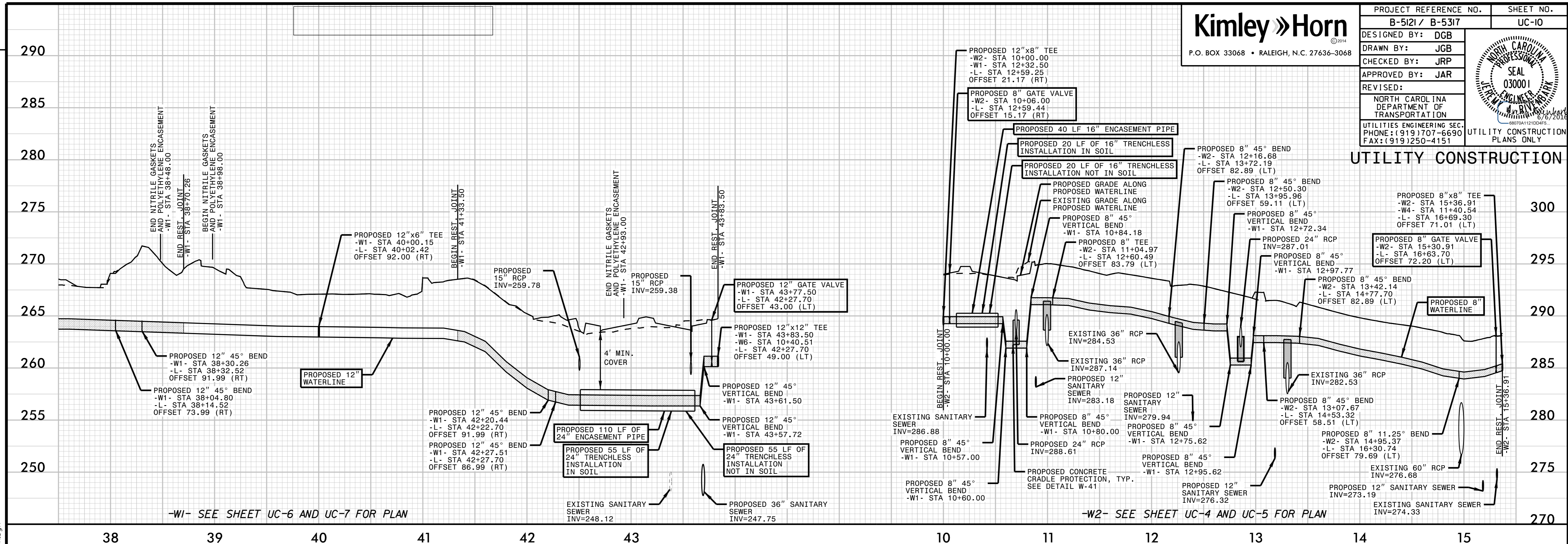
FIRE _____

URBAN FORESTRY _____

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PROJECT REFERENCE NO.	B-5121 / B-5317	SHEET NO.	UC-10
DESIGNED BY:	DGB		
DRAWN BY:	JGB		
CHECKED BY:	JRP		
APPROVED BY:	JAR		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151			

UTILITY CONSTRUCTION



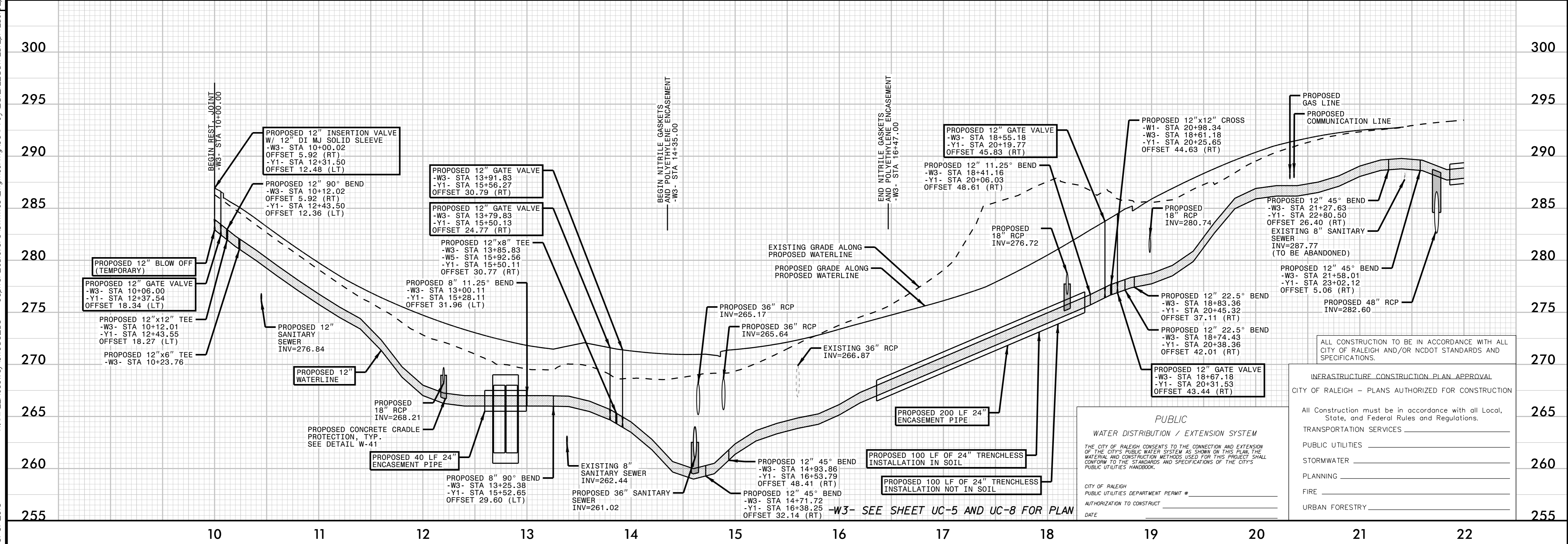
-W1- SEE SHEET UC-6 AND UC-7 FOR PLAN

-W2- SEE SHEET UC-4 AND UC-5 FOR PLAN

-W3- SEE SHEET UC-5 AND UC-8 FOR PLAN

REVISIONS

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6/6/2016



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	
TRANSPORTATION SERVICES	
PUBLIC UTILITIES	
STORMWATER	
PLANNING	
FIRE	
URBAN FORESTRY	

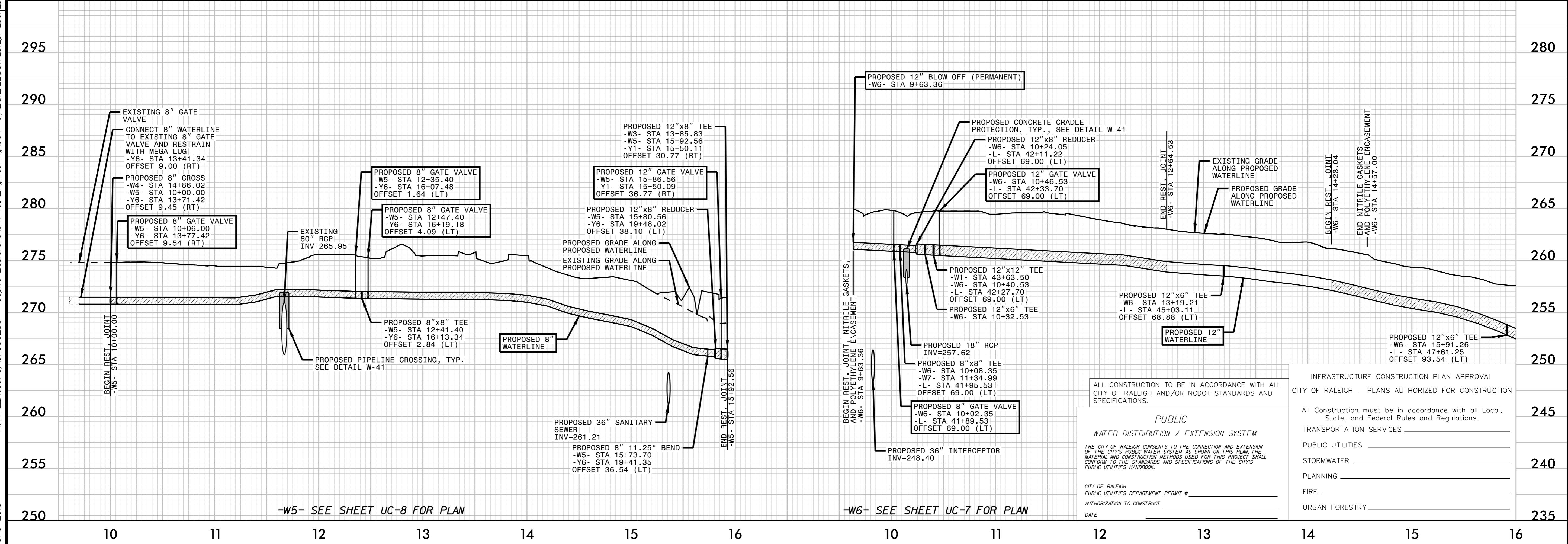
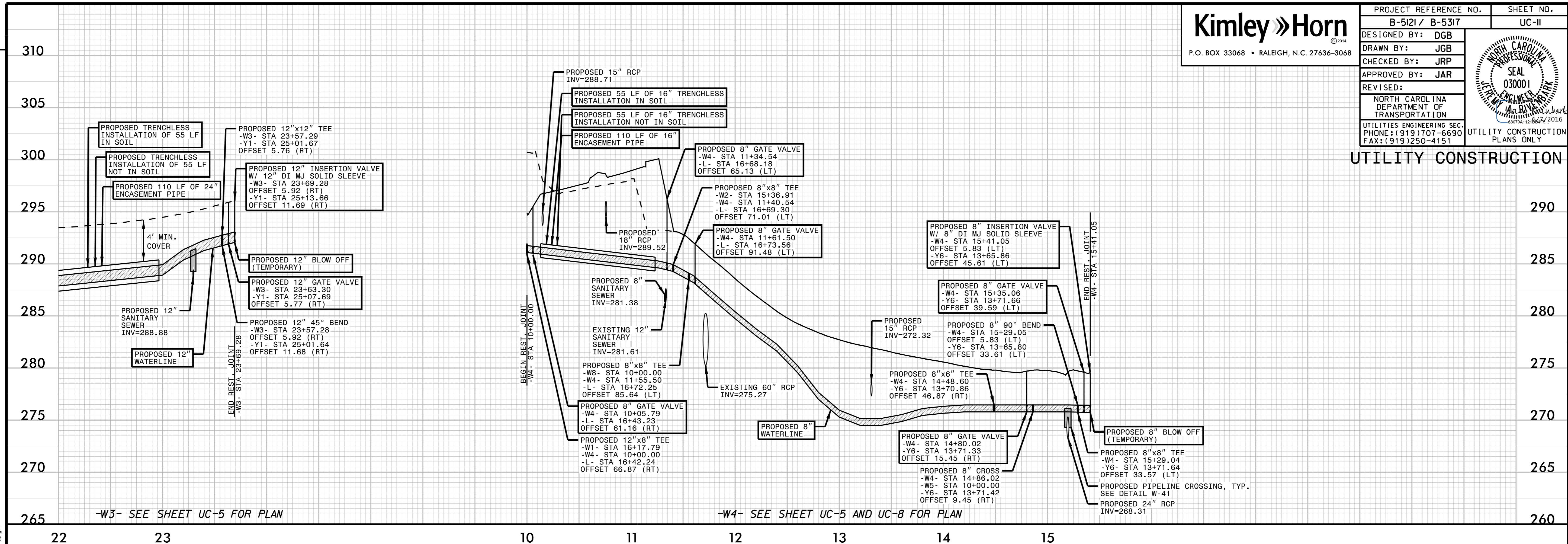
PUBLIC
WATER DISTRIBUTION / EXTENSION SYSTEM
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-II
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

REVISIONS
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 6/6/2016



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC
 WATER DISTRIBUTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

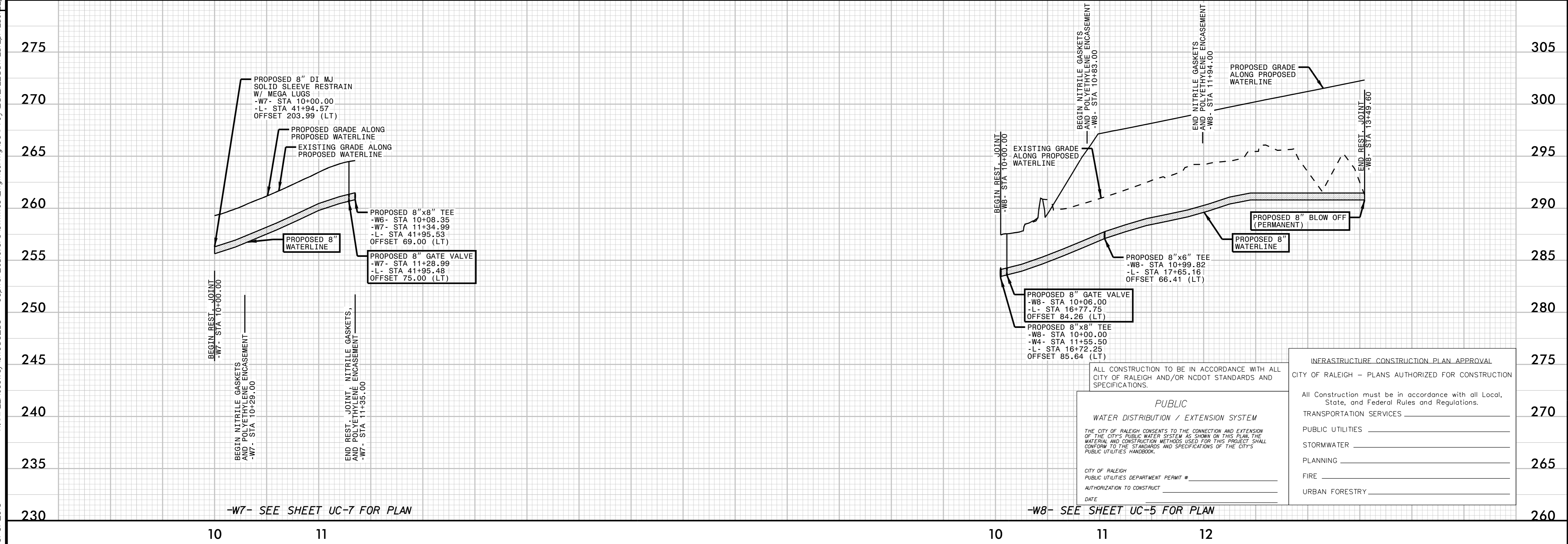
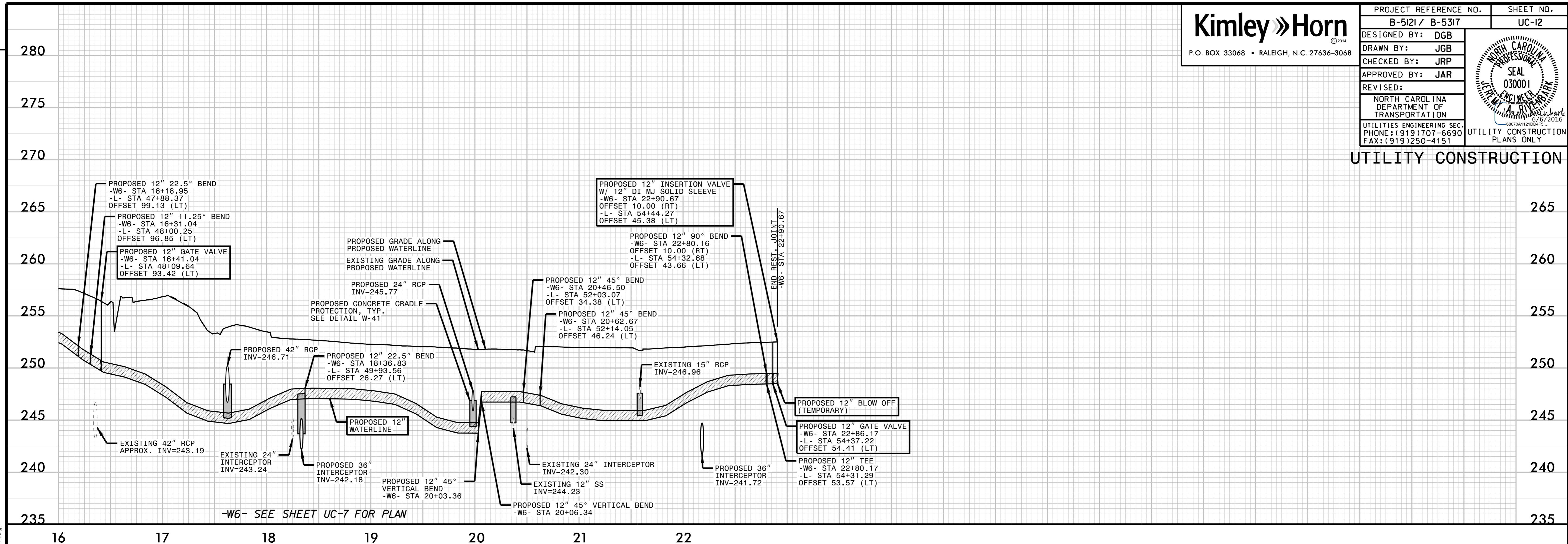
CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL	
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION	
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	
TRANSPORTATION SERVICES	_____
PUBLIC UTILITIES	_____
STORMWATER	_____
PLANNING	_____
FIRE	_____
URBAN FORESTRY	_____

PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-12
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

REVISIONS



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC
 WATER DISTRIBUTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

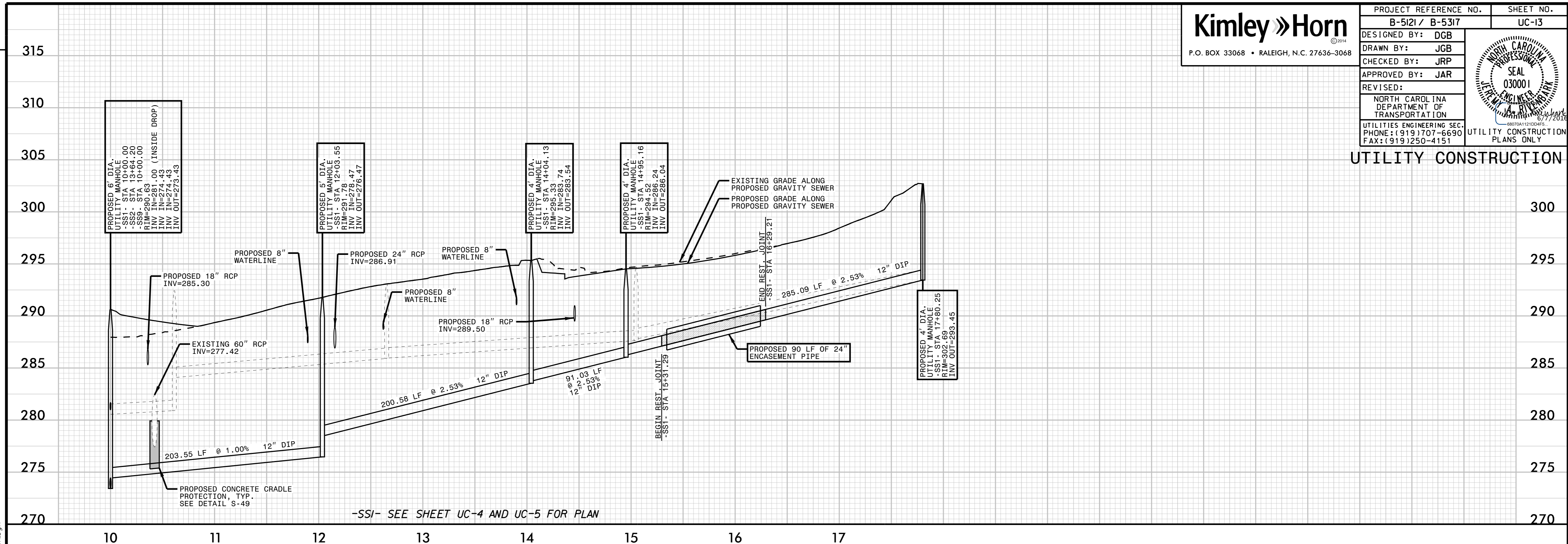
INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL	
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION	
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	
TRANSPORTATION SERVICES	270
PUBLIC UTILITIES	
STORMWATER	265
FIRE	
URBAN FORESTRY	260

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6/6/2016

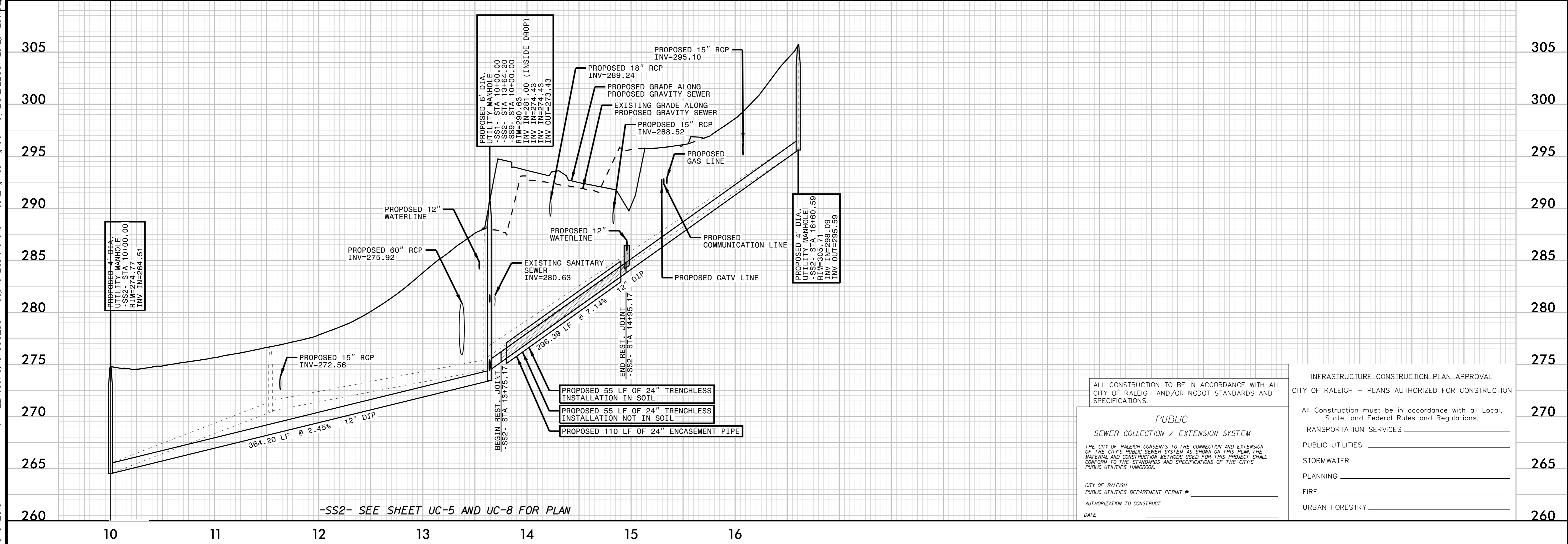
PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-13
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.	UTILITY CONSTRUCTION PLANS ONLY
PHONE: (919) 707-6690	
FAX: (919) 250-4151	

UTILITY CONSTRUCTION

REVISIONS



-SS1- SEE SHEET UC-4 AND UC-5 FOR PLAN



-SS2- SEE SHEET UC-5 AND UC-8 FOR PLAN

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC

SEWER COLLECTION / EXTENSION SYSTEM

THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

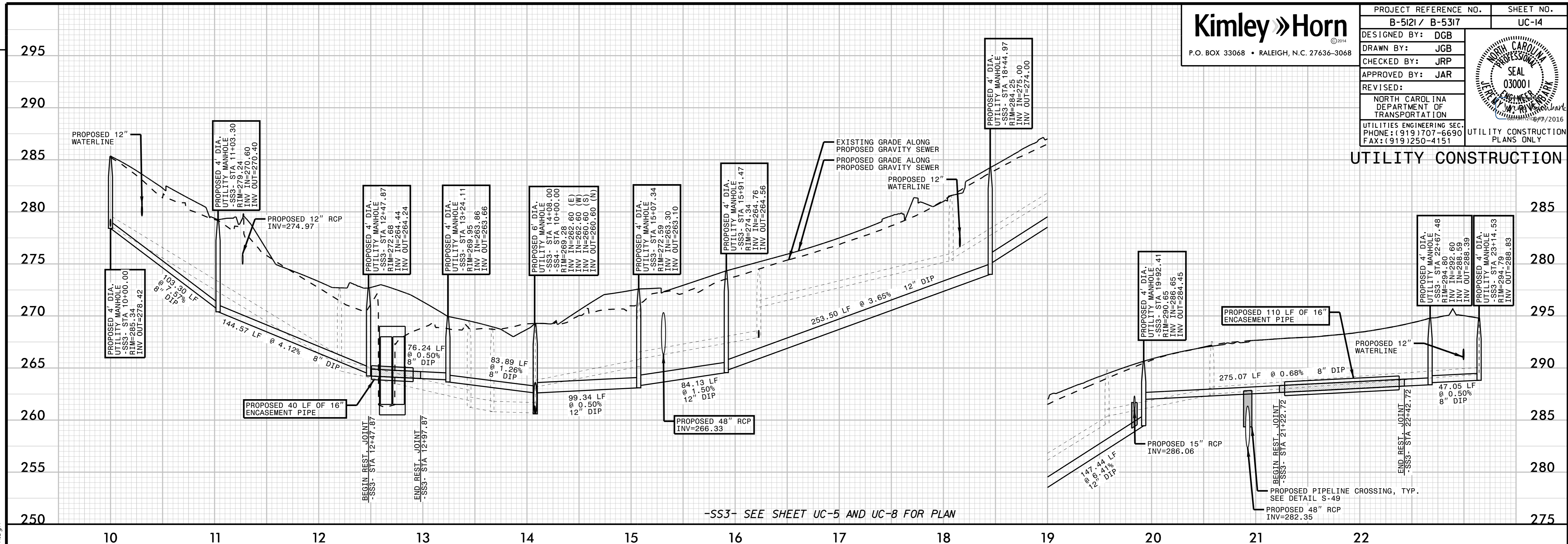
INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL	
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION	
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	270
TRANSPORTATION SERVICES _____	
PUBLIC UTILITIES _____	
STORMWATER _____	265
PLANNING _____	
FIRE _____	
URBAN FORESTRY _____	260

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PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-14
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

REVISIONS



-SS3- SEE SHEET UC-5 AND UC-8 FOR PLAN



-SS4- SEE SHEET UC-8 FOR PLAN

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.


PUBLIC
SEWER COLLECTION / EXTENSION SYSTEM

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CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

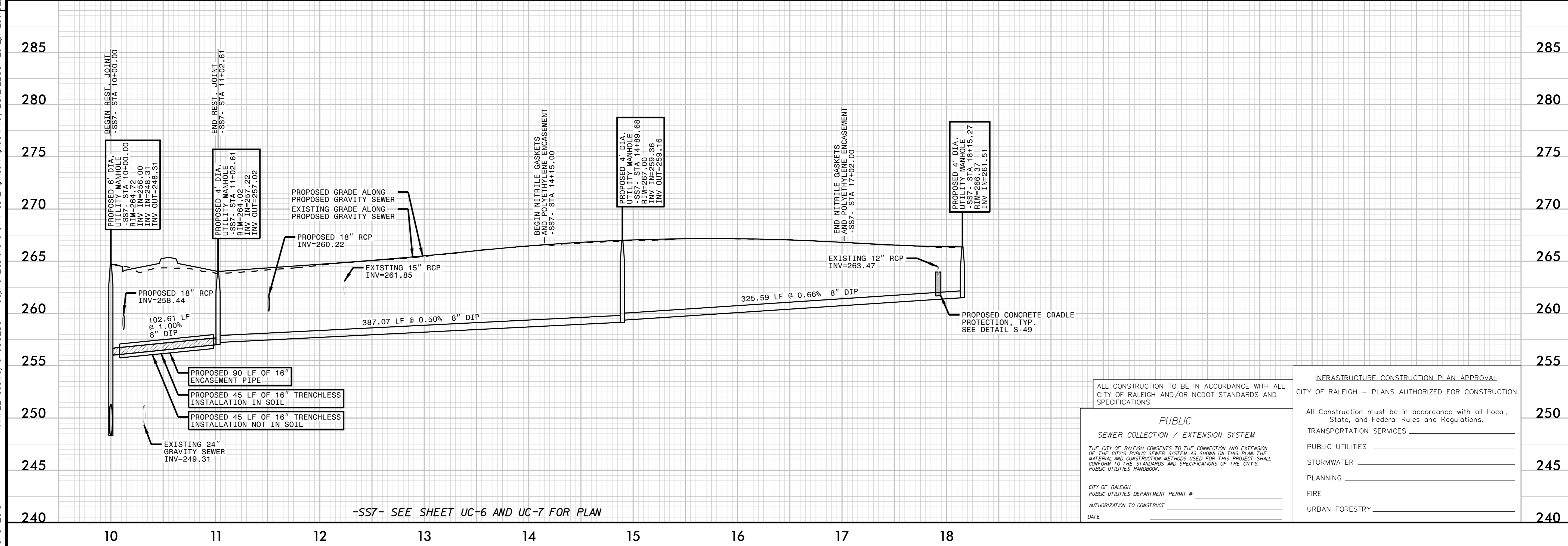
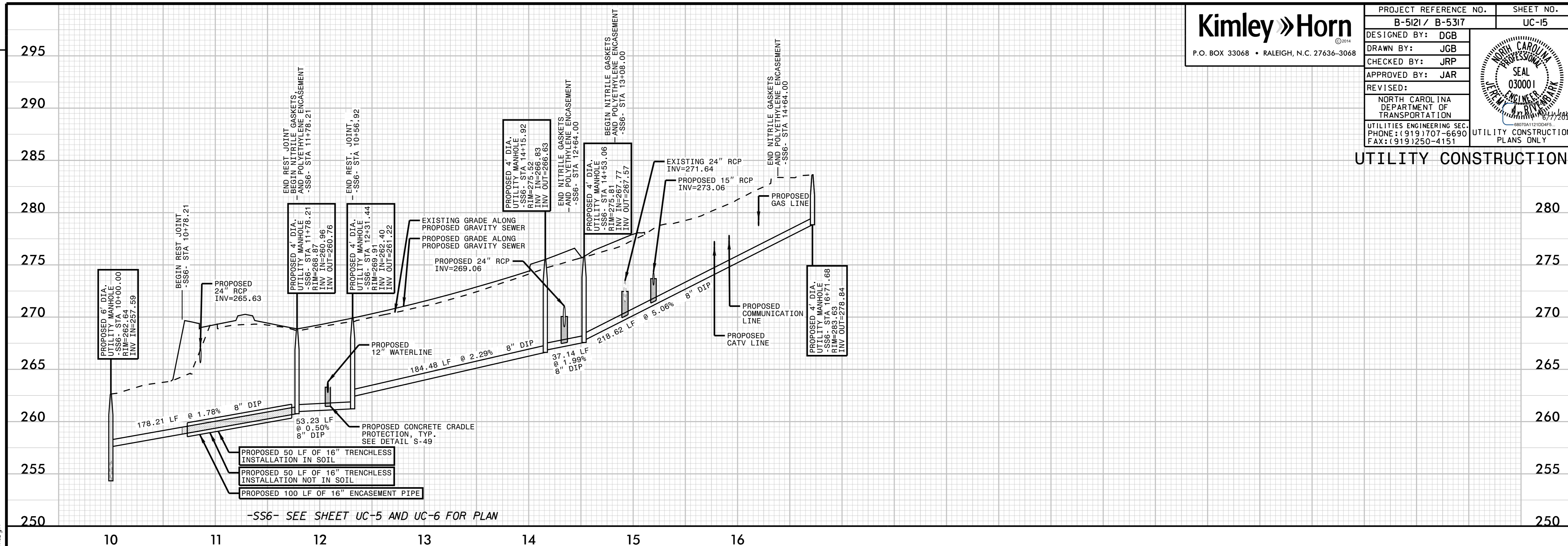
INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL	
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION	
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	260
TRANSPORTATION SERVICES _____	
PUBLIC UTILITIES _____	255
STORMWATER _____	
PLANNING _____	255
FIRE _____	
URBAN FORESTRY _____	250

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PROJECT REFERENCE NO.	SHEET NO.
B-5121 / B-5317	UC-15
DESIGNED BY: DGB	
DRAWN BY: JGB	
CHECKED BY: JRP	
APPROVED BY: JAR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC.	UTILITY CONSTRUCTION
PHONE: (919) 707-6690	PLANS ONLY
FAX: (919) 250-4151	

UTILITY CONSTRUCTION

REVISIONS



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC

SEWER COLLECTION / EXTENSION SYSTEM

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CITY OF RALEIGH
PUBLIC UTILITIES DEPARTMENT PERMIT # _____
AUTHORIZATION TO CONSTRUCT _____
DATE _____

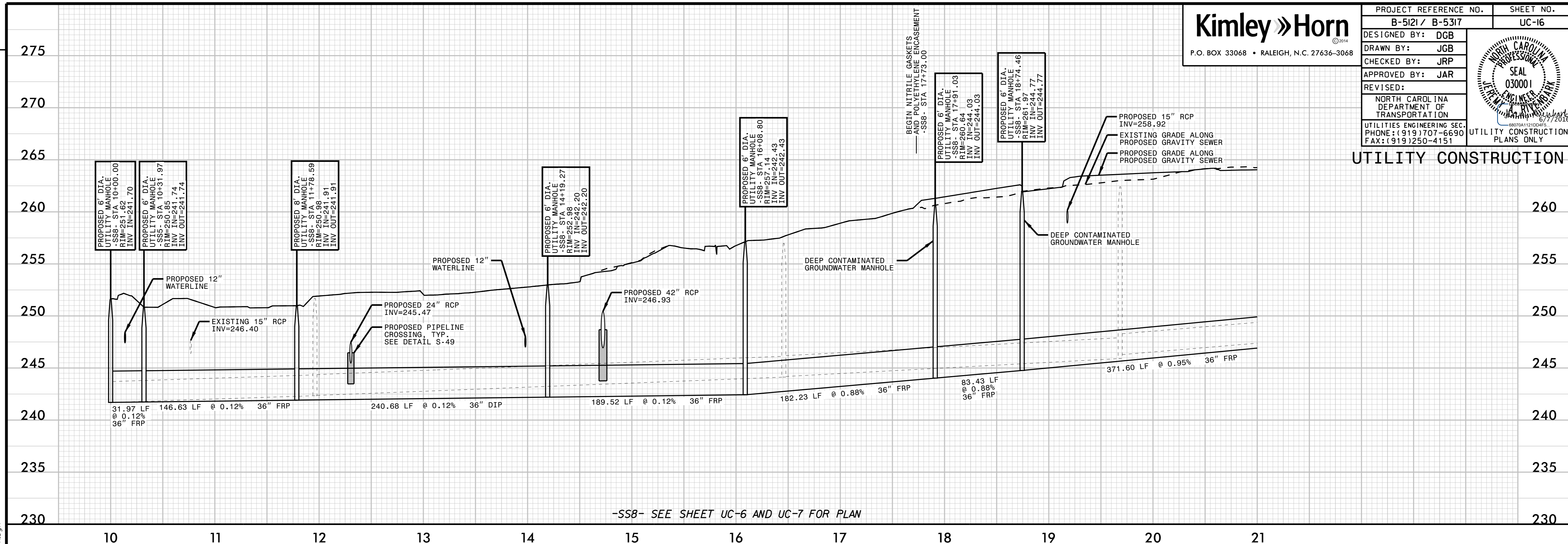
INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL	
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION	
All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	250
TRANSPORTATION SERVICES _____	
PUBLIC UTILITIES _____	
STORMWATER _____	245
PLANNING _____	
FIRE _____	
URBAN FORESTRY _____	240

K:\RAL_Roadway\01036256 - Capital Boulevard\Utilities\Engineering\UC\Proj\B5121_B5317-ut_pl_uc15.dgn 6/6/2016

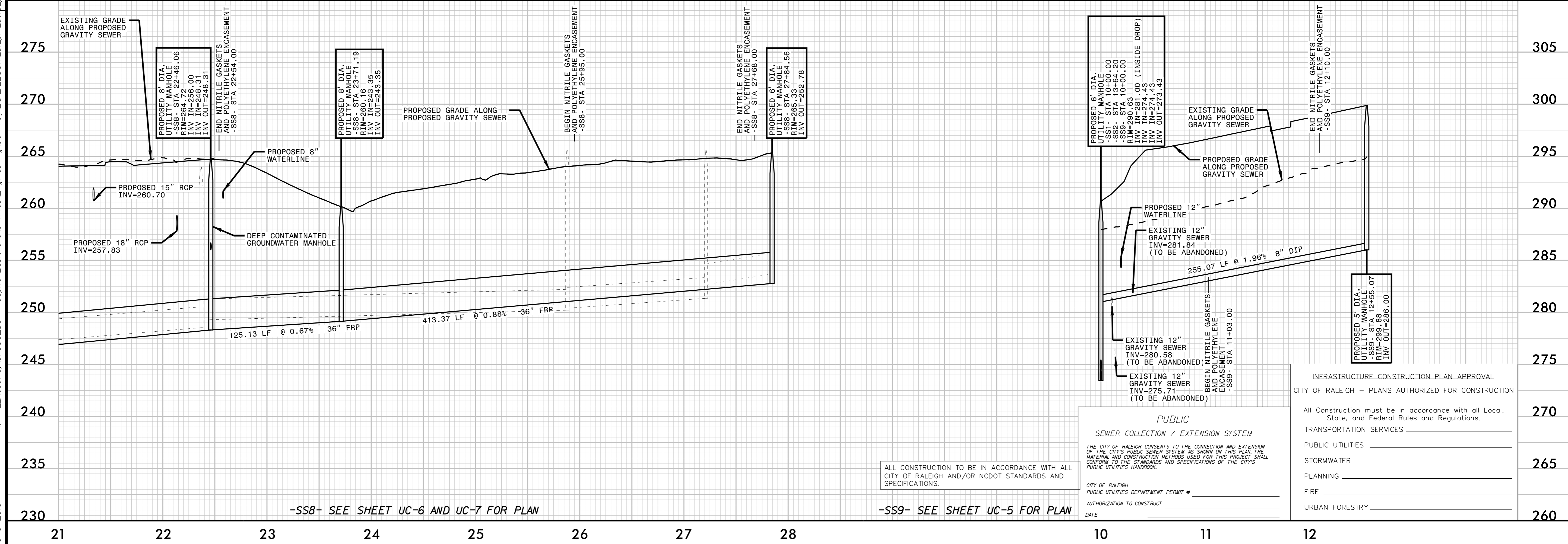
PROJECT REFERENCE NO.	B-512 / B-5317	SHEET NO.	UC-16
DESIGNED BY:	DGB		
DRAWN BY:	JGB		
CHECKED BY:	JRP		
APPROVED BY:	JAR		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151			

UTILITY CONSTRUCTION

REVISIONS



-SS8- SEE SHEET UC-6 AND UC-7 FOR PLAN



-SS8- SEE SHEET UC-6 AND UC-7 FOR PLAN

-SS9- SEE SHEET UC-5 FOR PLAN

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PUBLIC
 SEWER COLLECTION / EXTENSION SYSTEM

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CITY OF RALEIGH
 PUBLIC UTILITIES DEPARTMENT PERMIT # _____
 AUTHORIZATION TO CONSTRUCT _____
 DATE _____

INFRASTRUCTURE CONSTRUCTION PLAN APPROVAL
 CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.	270
TRANSPORTATION SERVICES	
PUBLIC UTILITIES	
STORMWATER	265
PLANNING	
FIRE	
URBAN FORESTRY	260

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