

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

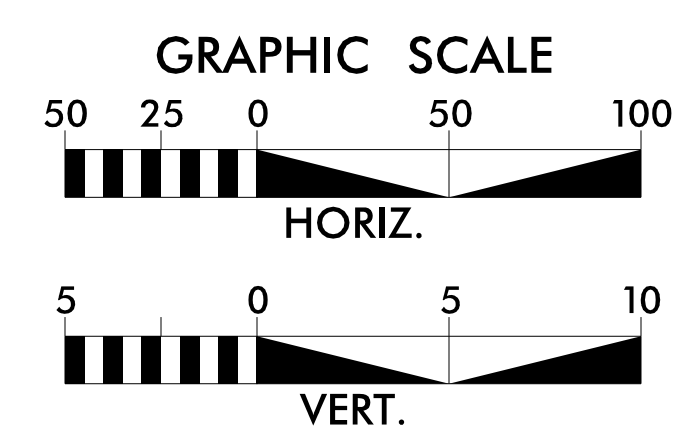
**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

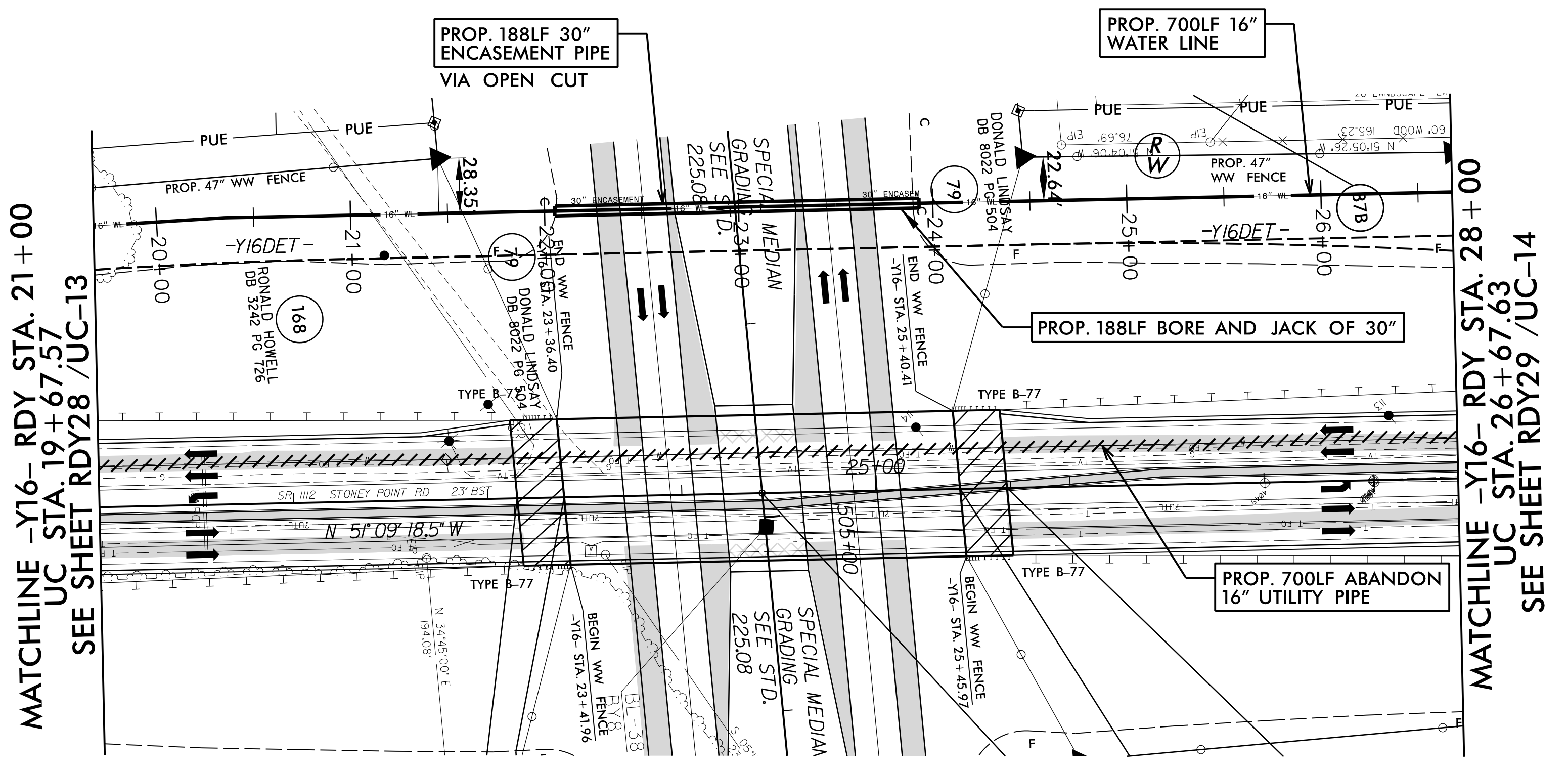
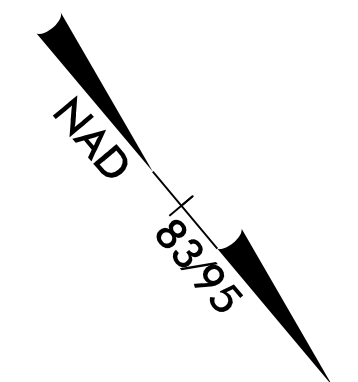


250 WYOMING ROAD
SUITE 110
RALEIGH, NC 27601
PHONE: 919.881.8889
NC CCA No. F4602

PROJECT REFERENCE NO. U-2519BA	SHEET NO. UC-9
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



UTILITY CONSTRUCTION

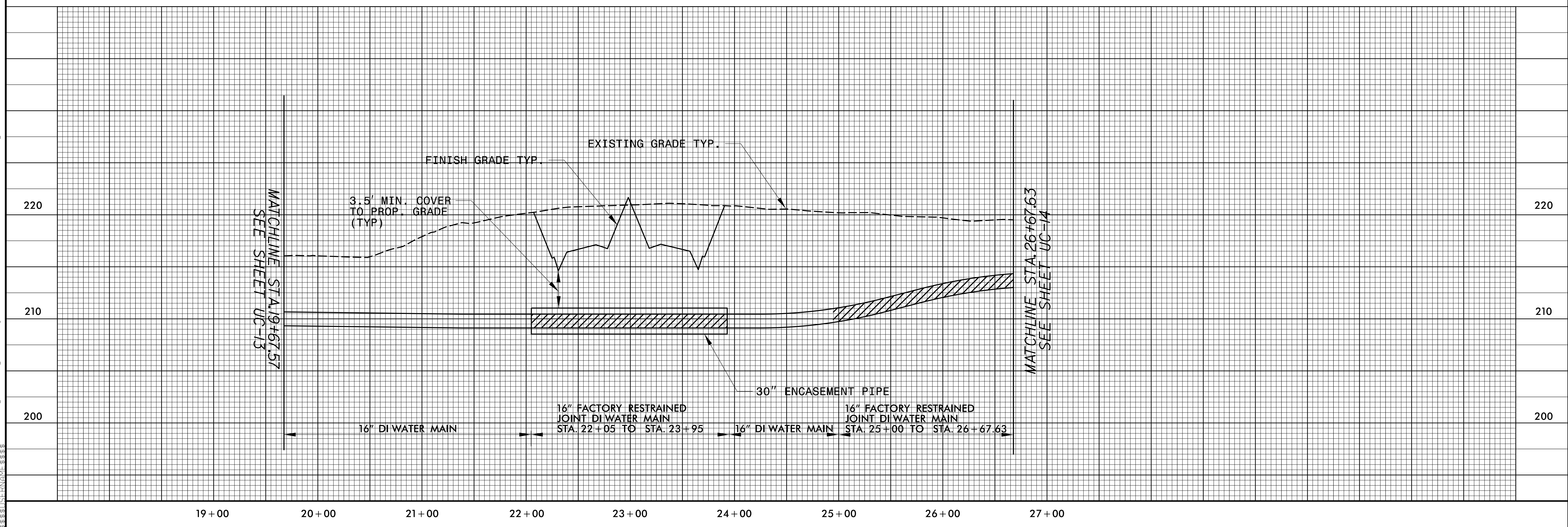


MATCHLINE -Y16- RDY STA. 21+00
UC STA. 19+67.57
SEE SHEET RDY28 /UC-13

MATCHLINE -Y16- RDY STA. 28+00
UC STA. 26+67.63
SEE SHEET RDY29 /UC-14

NOTE:
PRIOR TO COMMENCING ANY WORK ON ANY TRENCHLESS INSTALLATION ON THIS PROJECT, PROVIDE A DESIGN FOR THE TRENCHLESS INSTALLATION CERTIFIED BY AN ENGINEER LICENSED BY THE STATE OF NORTH CAROLINA, AS REQUIRED BY SUBARTICLE 1550-3(B) OF THE STANDARD SPECIFICATIONS.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 500 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



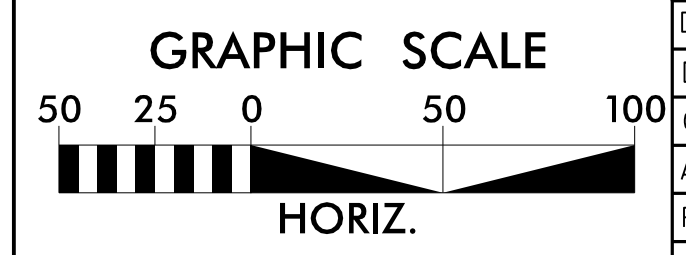
MATCHLINE STA. 19+67.57
SEE SHEET UC-13

MATCHLINE STA. 26+67.63
SEE SHEET UC-14

C:\Users\jrb\OneDrive\Documents\Projects\RDY18\UC-9_PSH.dgn
 22 MAR 2022 08:08
 16:00
 16:00
 16:00



PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-10
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	



NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1160 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

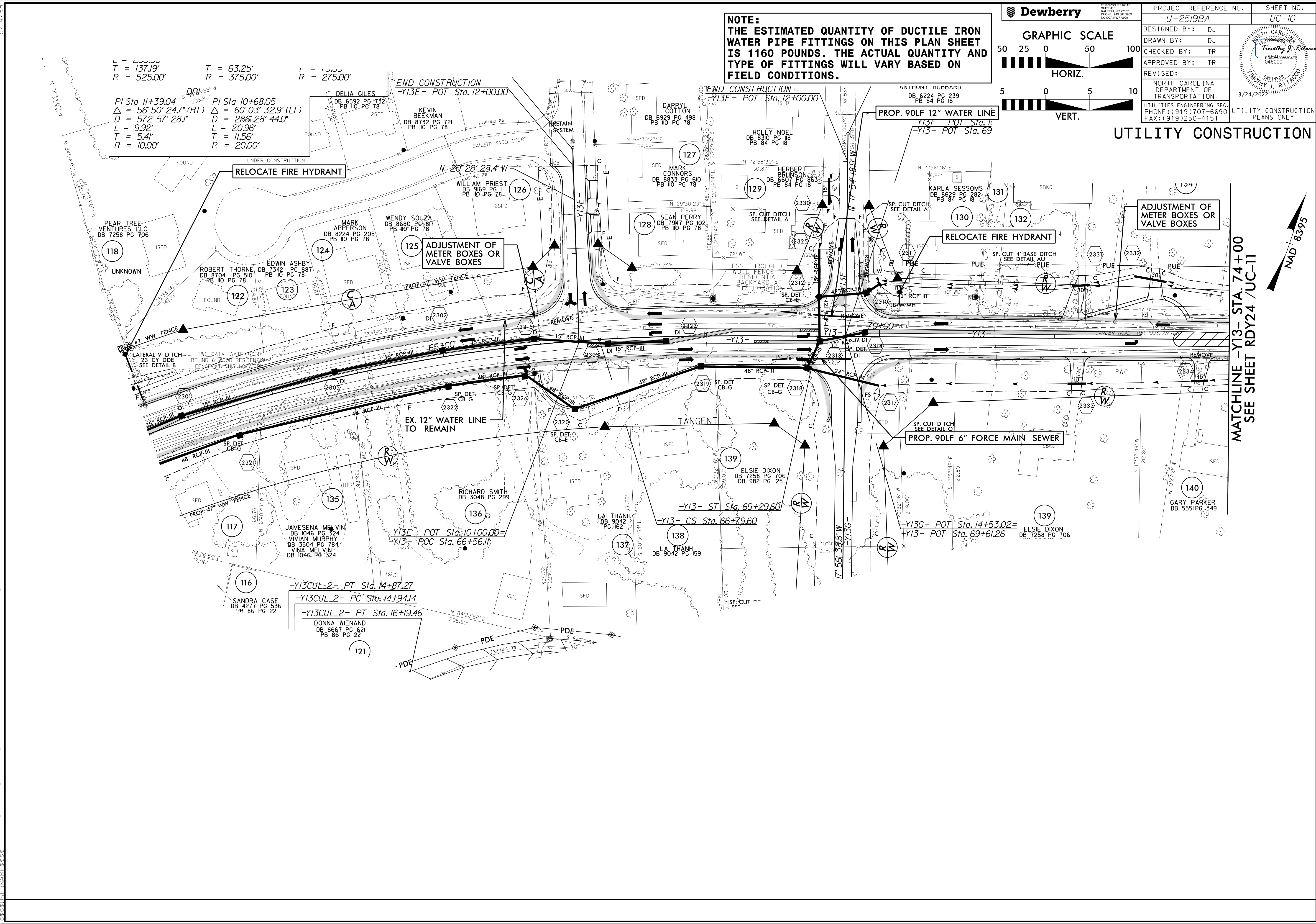
$L = 200.00'$
 $T = 137.19'$
 $R = 525.00'$

$T = 63.25'$
 $R = 375.00'$

$L = 100.00'$
 $T = 11.56'$
 $R = 275.00'$

$PI\ Sta\ 11+39.04$
 $\Delta = 56^\circ 50' 24.7'' (RT)$
 $D = 572' 57.28''$
 $L = 9.92'$
 $T = 5.41'$
 $R = 10.00'$

$PI\ Sta\ 10+68.05$
 $\Delta = 60^\circ 03' 32.9'' (LT)$
 $D = 286' 28.44''$
 $L = 20.96'$
 $T = 11.56'$
 $R = 20.00'$

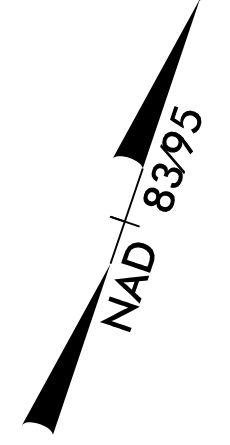
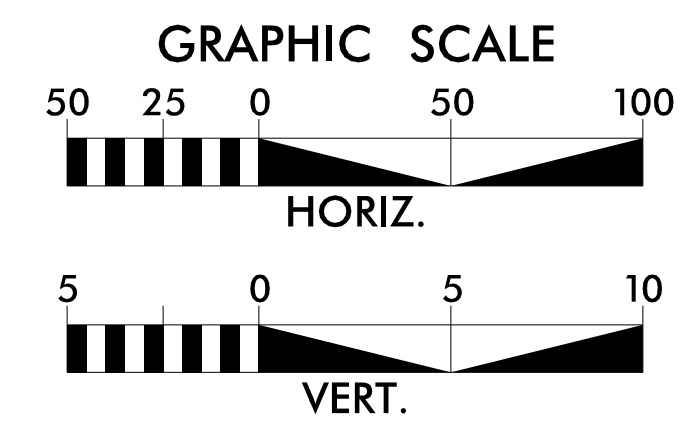


5/14/2022
 C:\Users\jritacco\OneDrive\Documents\Projects\RDY23\UC-10_PSH.dgn
 22:14:22
 2022-05-14 10:45:25
 2022-05-14 10:45:25
 2022-05-14 10:45:25



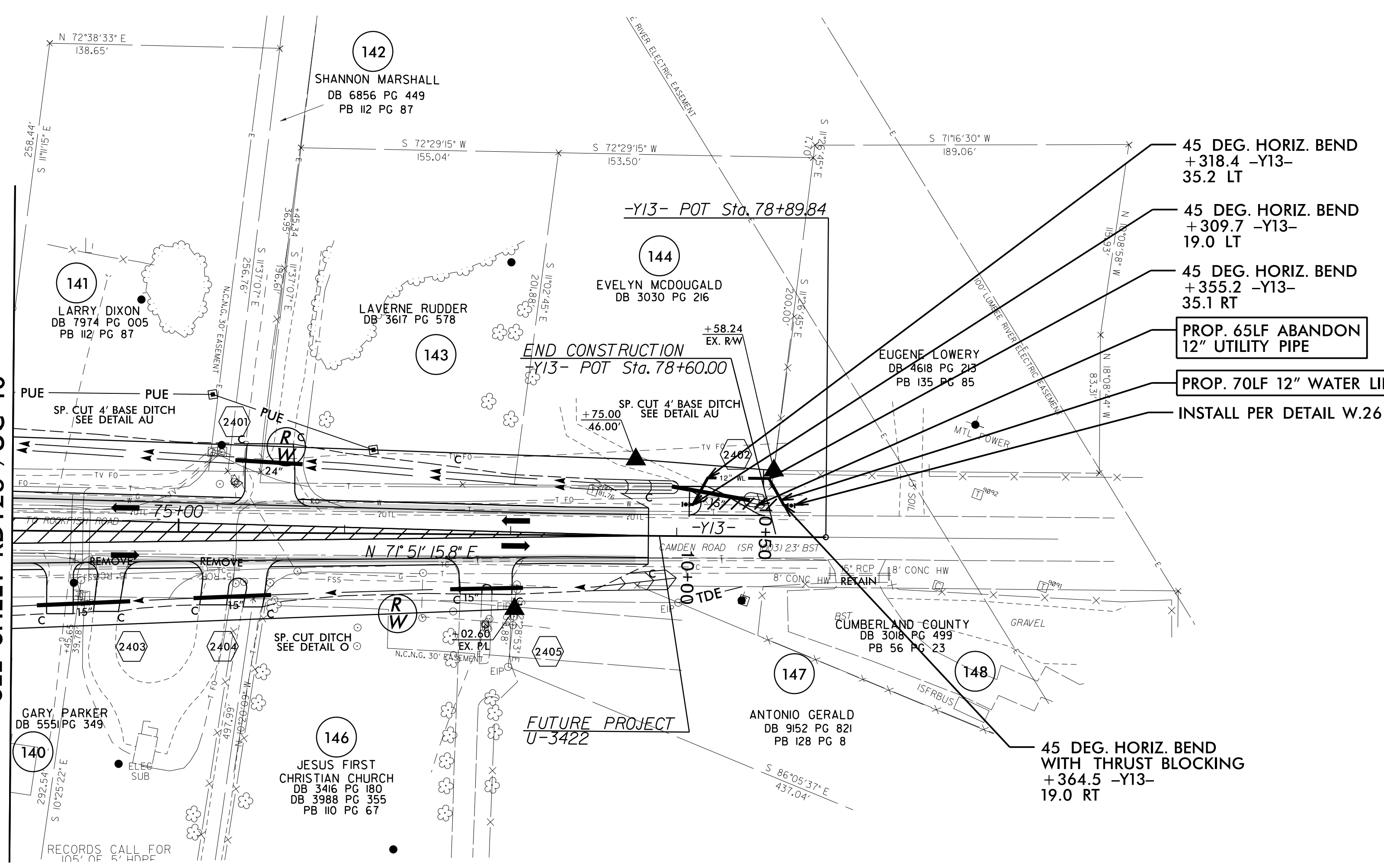
255 W. GOLF COURSE ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 919.889.8889
NC COUNCIL #28002

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-11
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

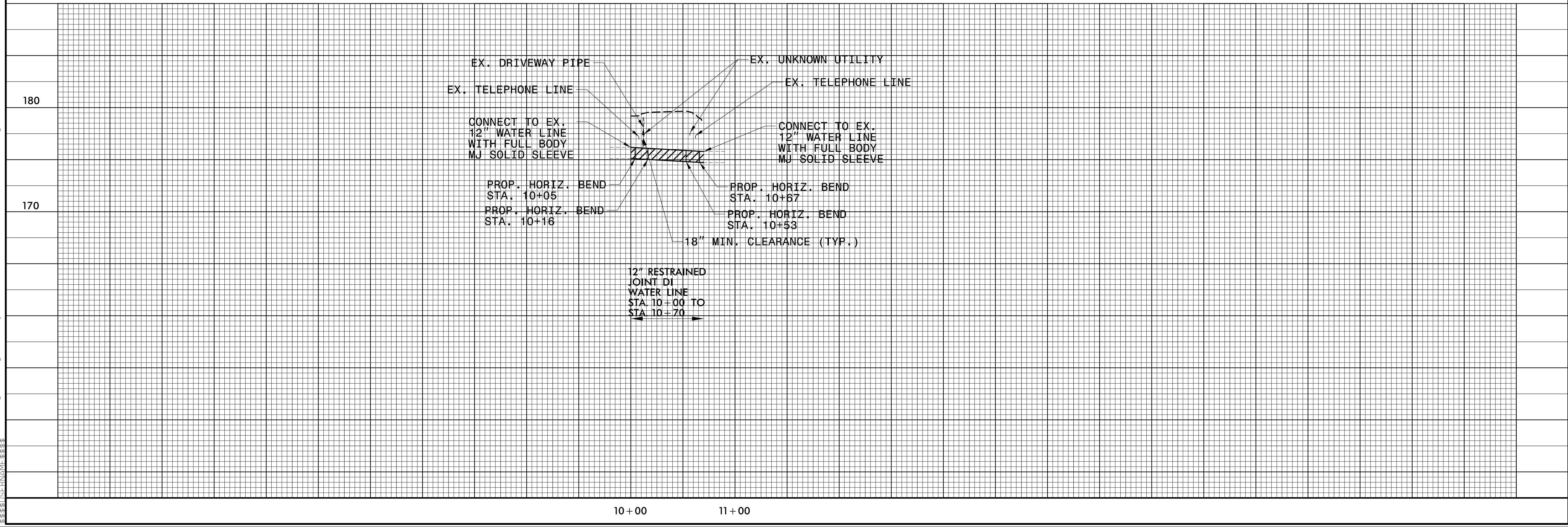


UTILITY CONSTRUCTION

MATCHLINE -Y13- STA. 74+00
SEE SHEET RDY23 /UC-10



NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1200 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



5/14/2022

C:\Users\jritacco\OneDrive\Engineering\UC\Pro\047_U2519BA_UT_RDY24_UC-11_PSH.dgn

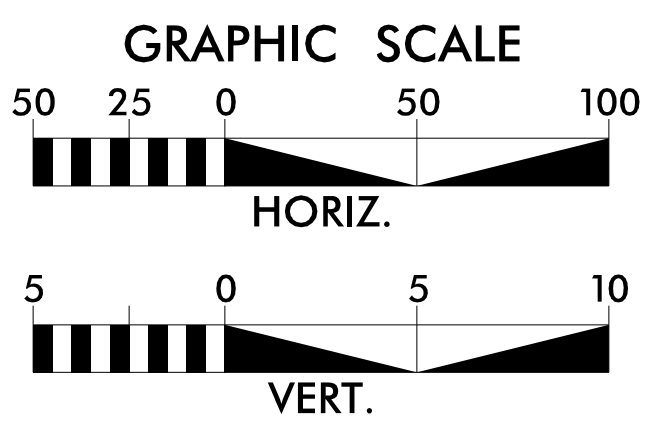
10+00 11+00



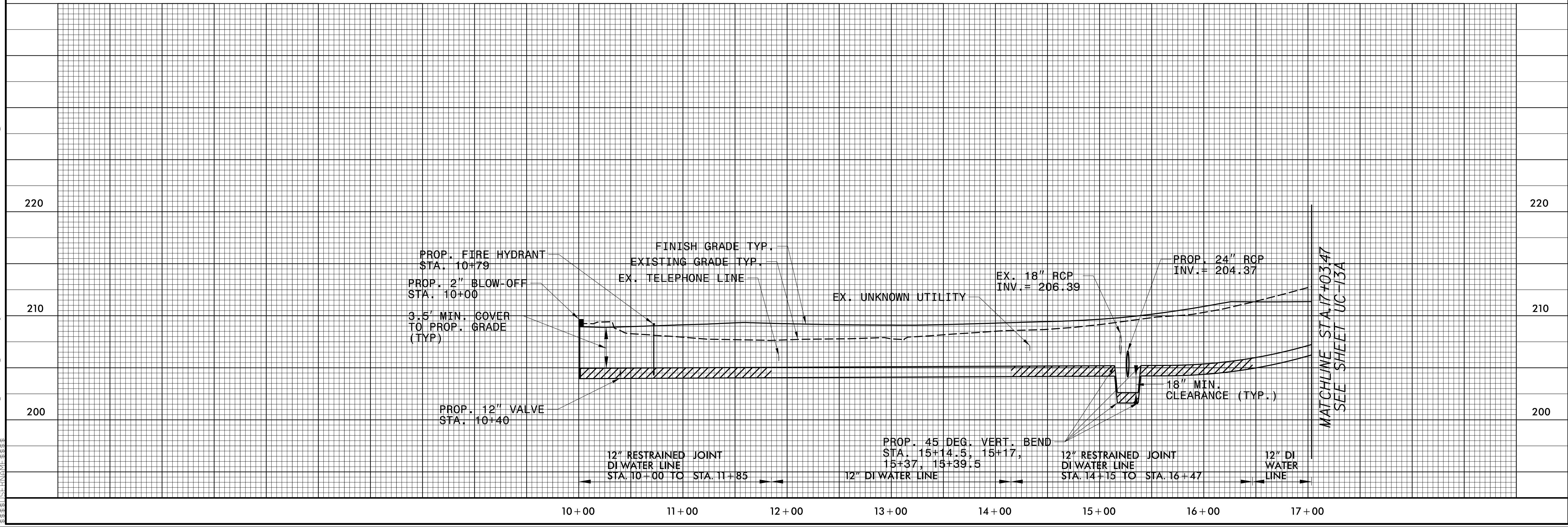
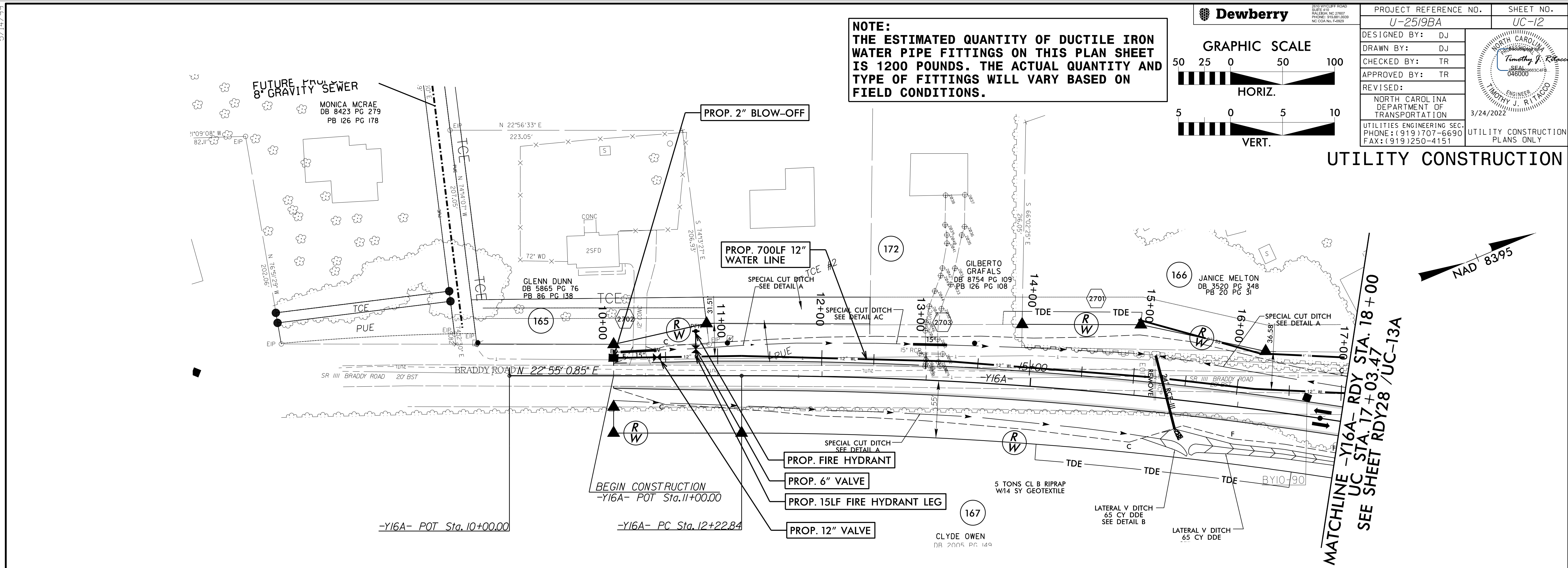
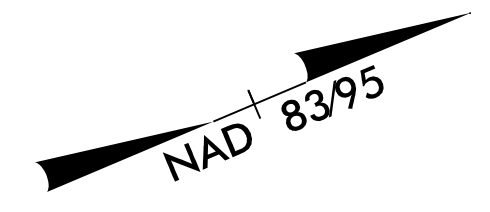
2519 BRADY ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.881.9889
NC COLA No. F4802

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-12
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1200 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



UTILITY CONSTRUCTION



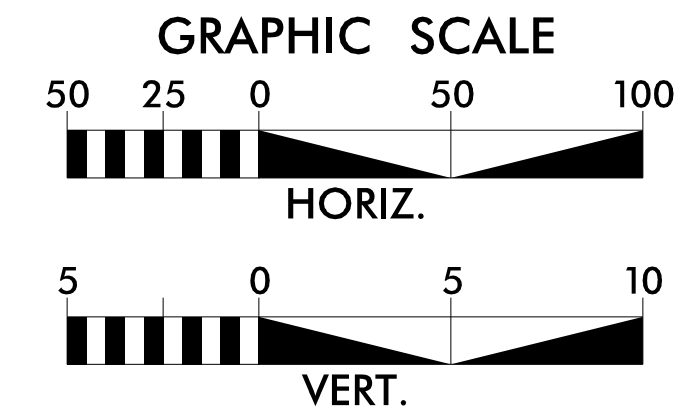
MATCHLINE -Y16A- RDY STA. 18+00
 UC STA. 17+03.47
 SEE SHEET RDY28 /UC-13A

5/14/99

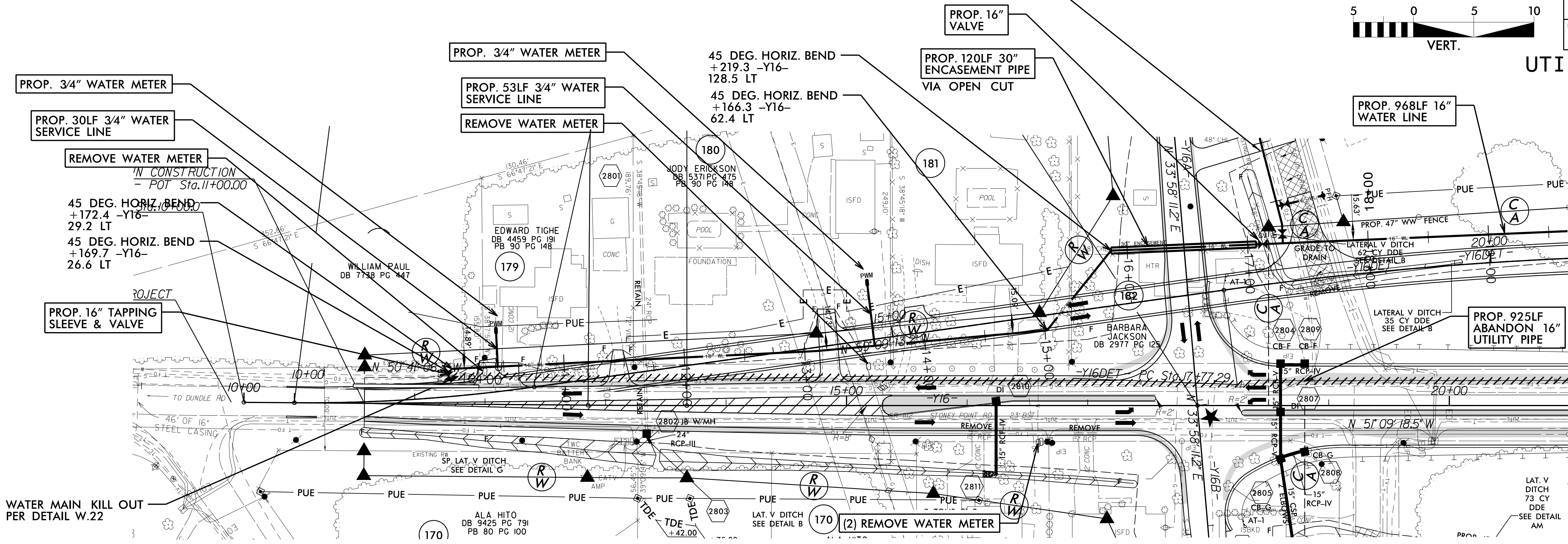
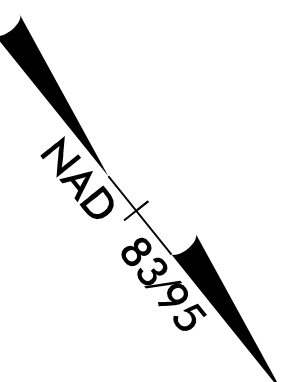
NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2000 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



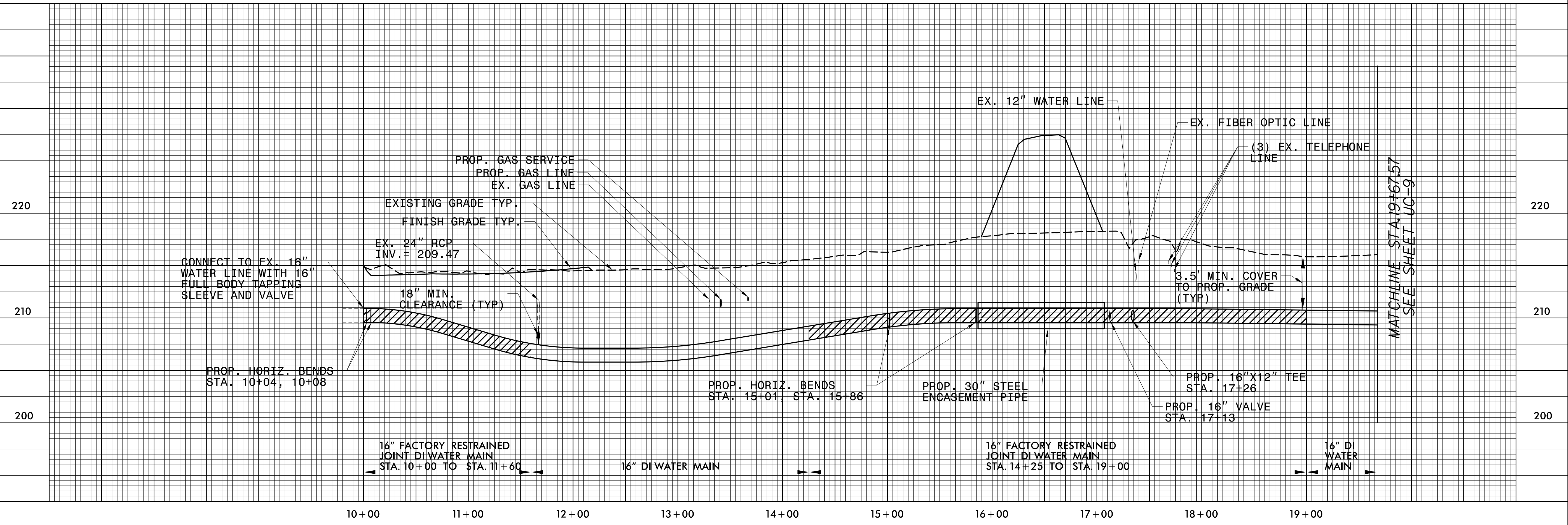
PROJECT REFERENCE NO. U-2519BA	SHEET NO. UC-13
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
UTILITY CONSTRUCTION PLANS ONLY	



UTILITY CONSTRUCTION

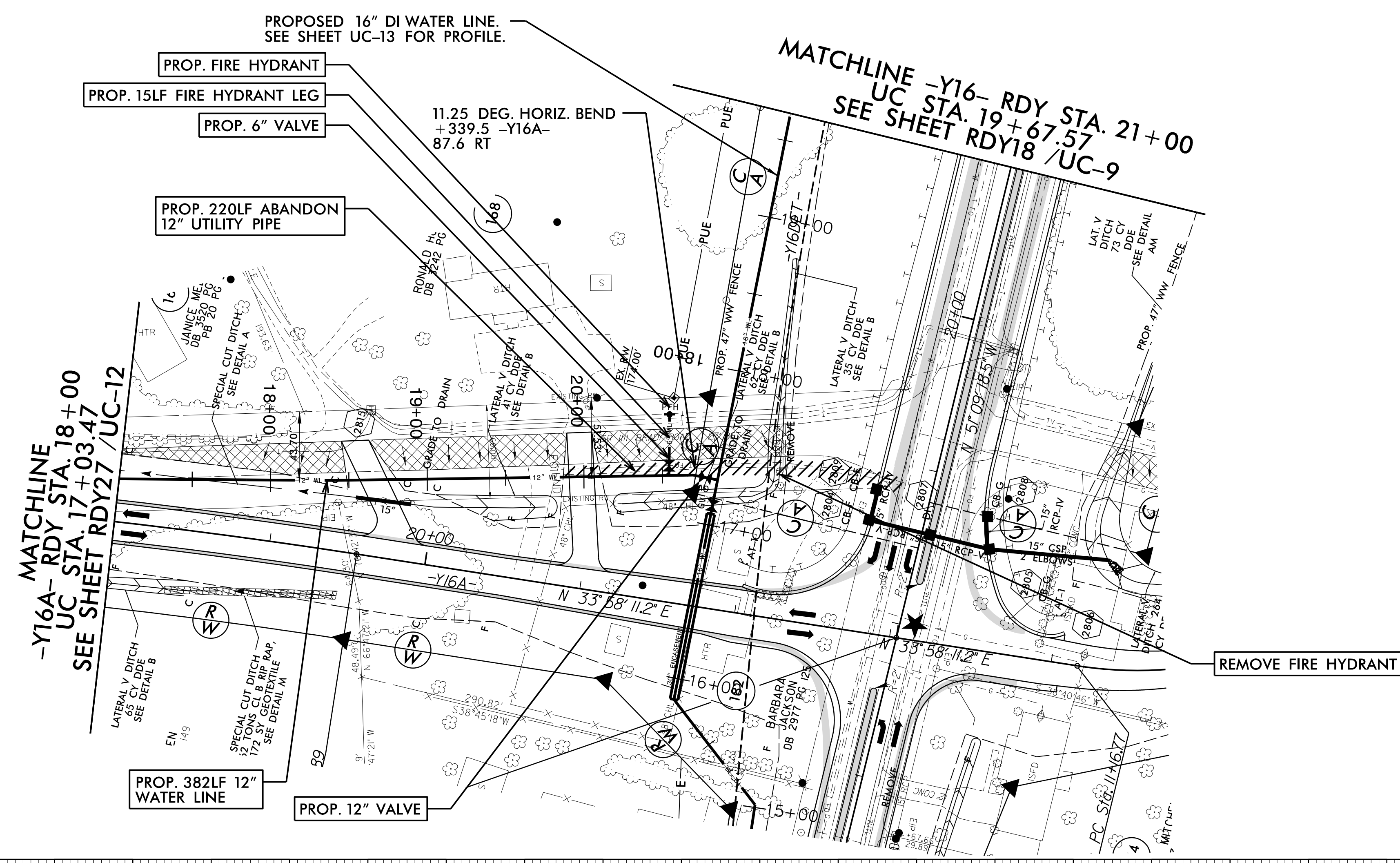
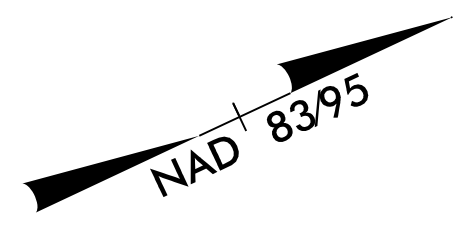


MATCHLINE -Y16- RDY STA. 21+00
UC STA. 19+67.57
SEE SHEET RDY18 /UC-9



2:\MAPS\2002\1513\1\res\Engineering\UC\Pro\280\051\U2519BA_UT_RDY28_UC-13_PSH.dgn

5/14/99



Dewberry

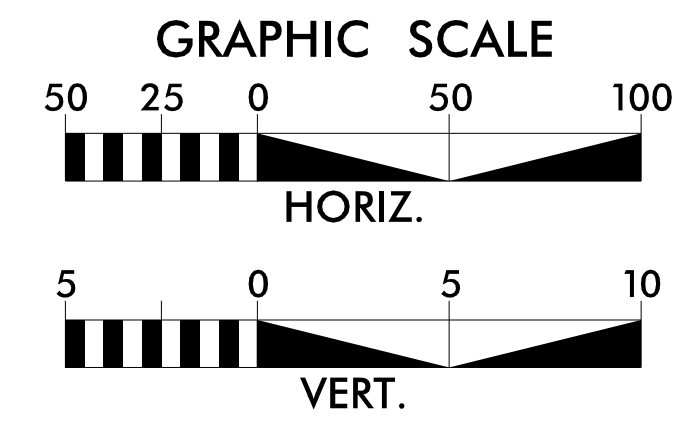
PROJECT REFERENCE NO. **U-2519BA** SHEET NO. **UC-13A**

DESIGNED BY: DJ
 DRAWN BY: DJ
 CHECKED BY: TR
 APPROVED BY: TR
 REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 3/24/2022

UTILITY ENGINEERING SEC.
 PHONE: (919) 707-6690
 FAX: (919) 250-4151

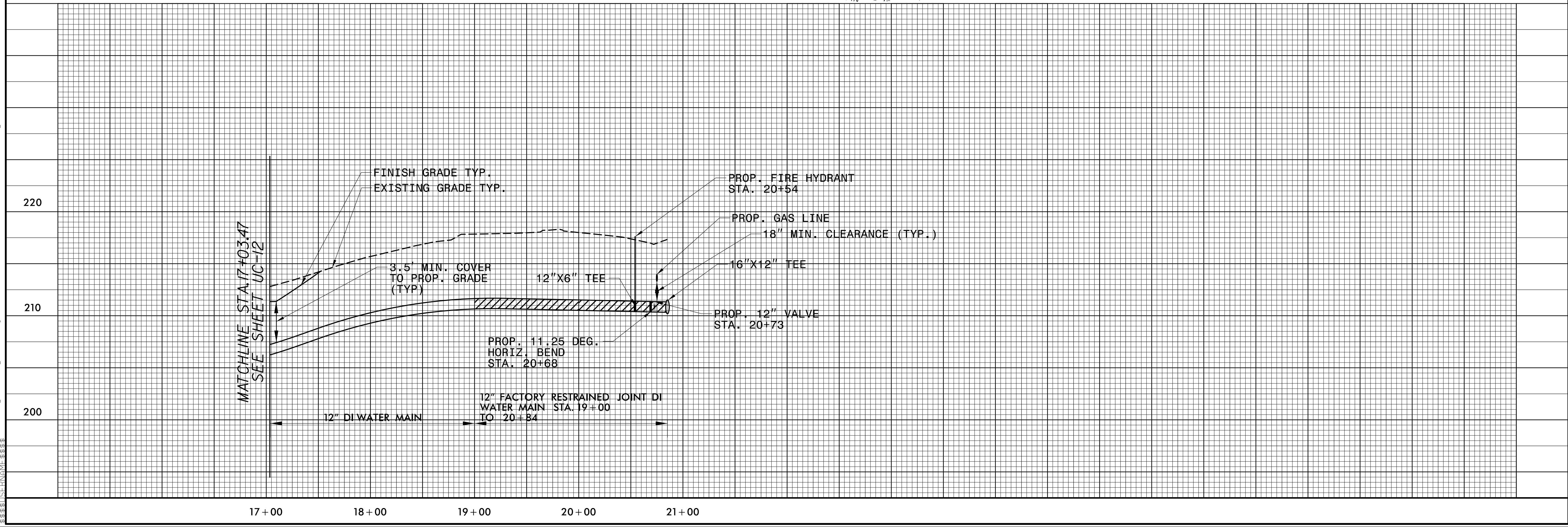
UTILITY CONSTRUCTION PLANS ONLY



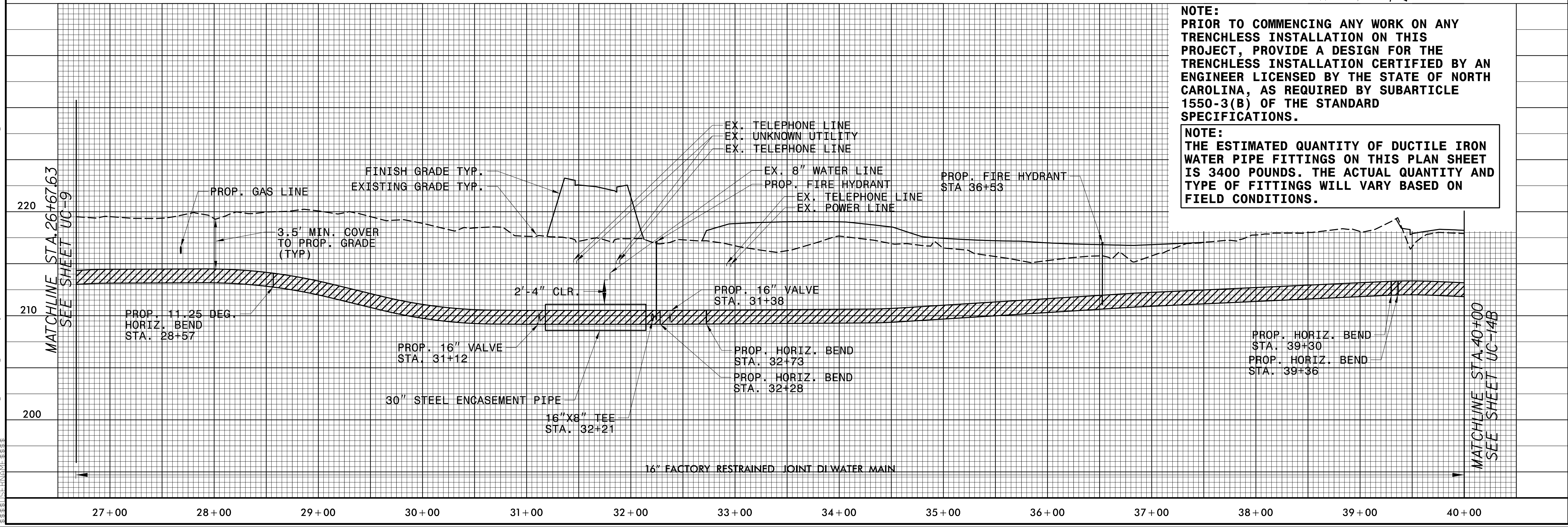
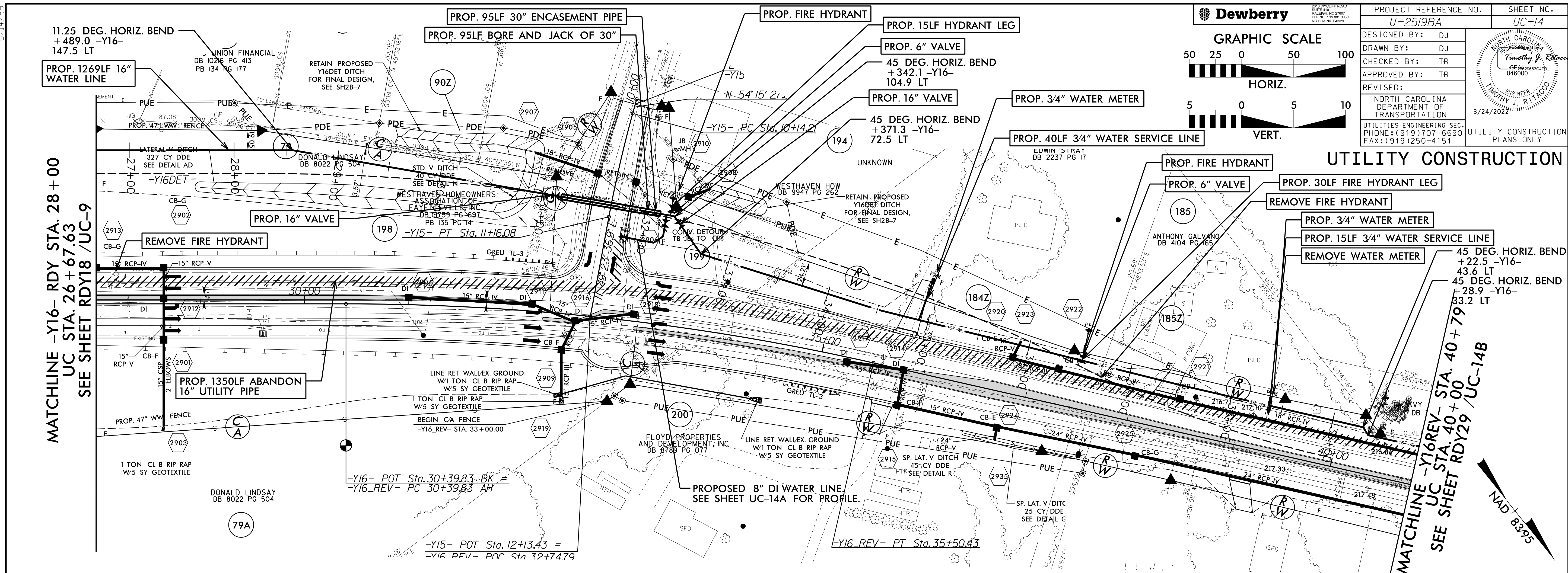
UTILITY CONSTRUCTION

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

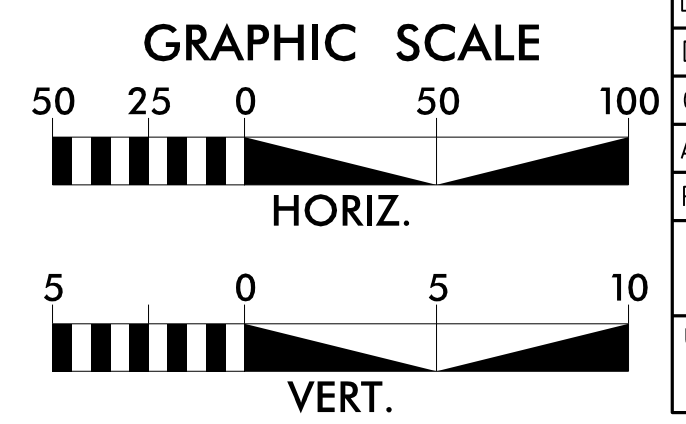
NOTE:
 THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1200 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



I:\MAR_2022\1516\AD\City\Utilities\Engineering\UC\Proj\280_053_U2519BA_UT_RDY28_UC-13A_PSH.dgn
 3/24/2022 15:16
 3/24/2022 15:16
 3/24/2022 15:16

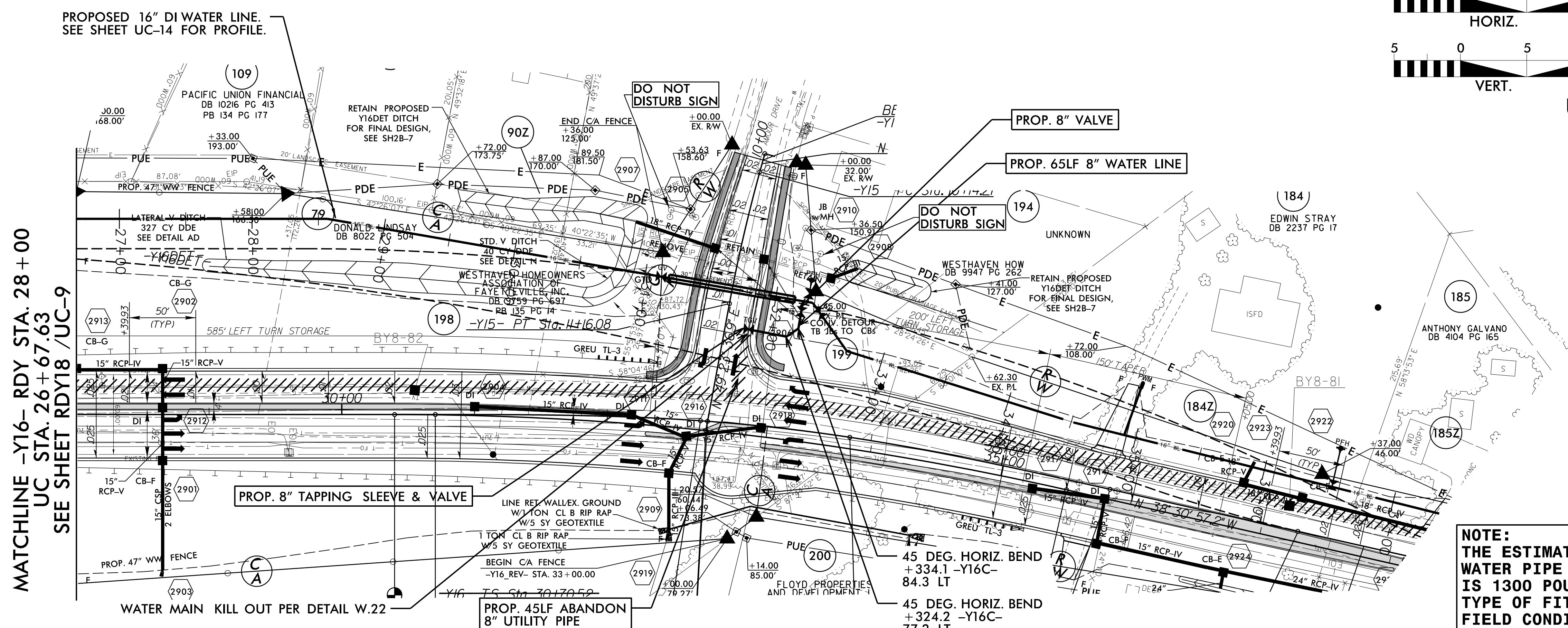
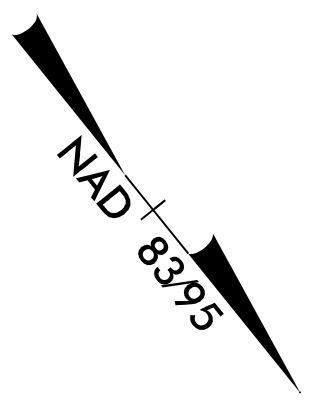


5/14/2022
 2:\MAPS\2022\1516\1516\Utilities\Engineering\UC\Proj\055_U2519BA_UT_RDY29_UC-14_PSH.dgn
 1516
 1516
 1516



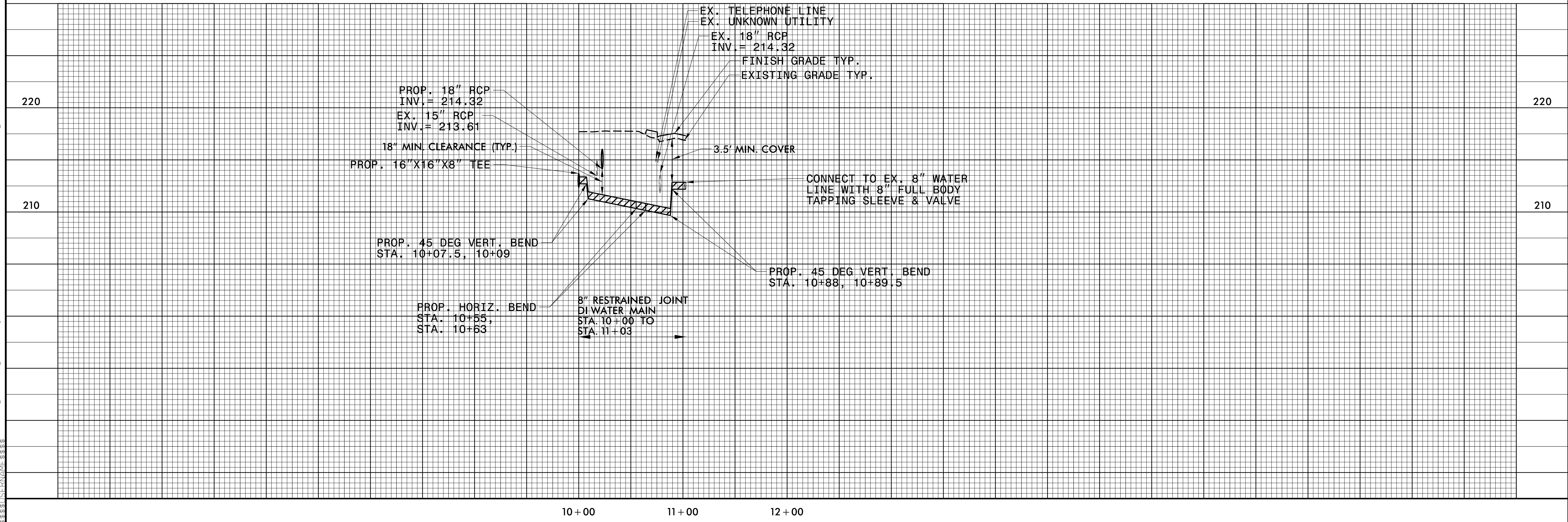
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



MATCHLINE -Y16- RDY STA. 28+00
UC STA. 26+67.63
SEE SHEET RDY18 /UC-9

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1300 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



I:\MAR_2002\1518\AD_Civil\Utilities\Engineering\UC\Proj\280_057_U2519BA_UT_RDY29_UC-14A_PSH.dgn
 3/24/2022 15:18
 3/24/2022 15:18
 3/24/2022 15:18

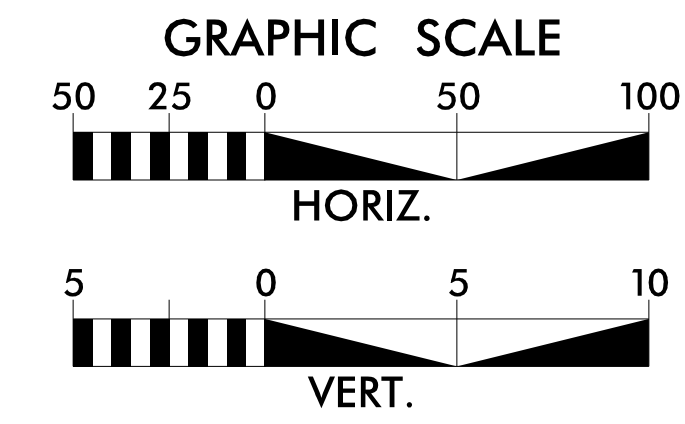
5/14/2022

\\MAR-2022\1519\AD\City\Utilities\Engineering\UC\Proj\280_059_U2519BA_UT_RDY29_UC-14B_PSH.dgn

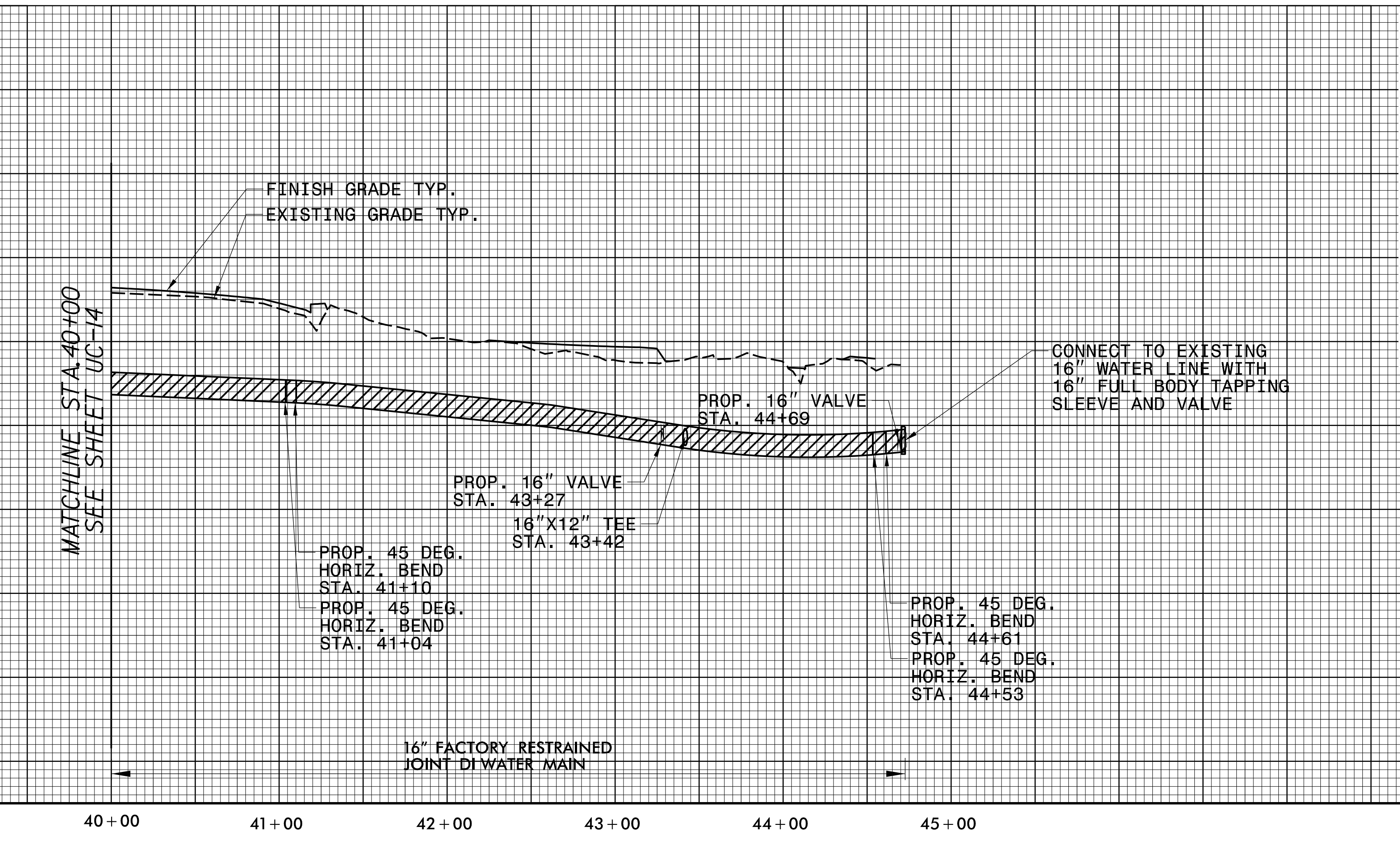
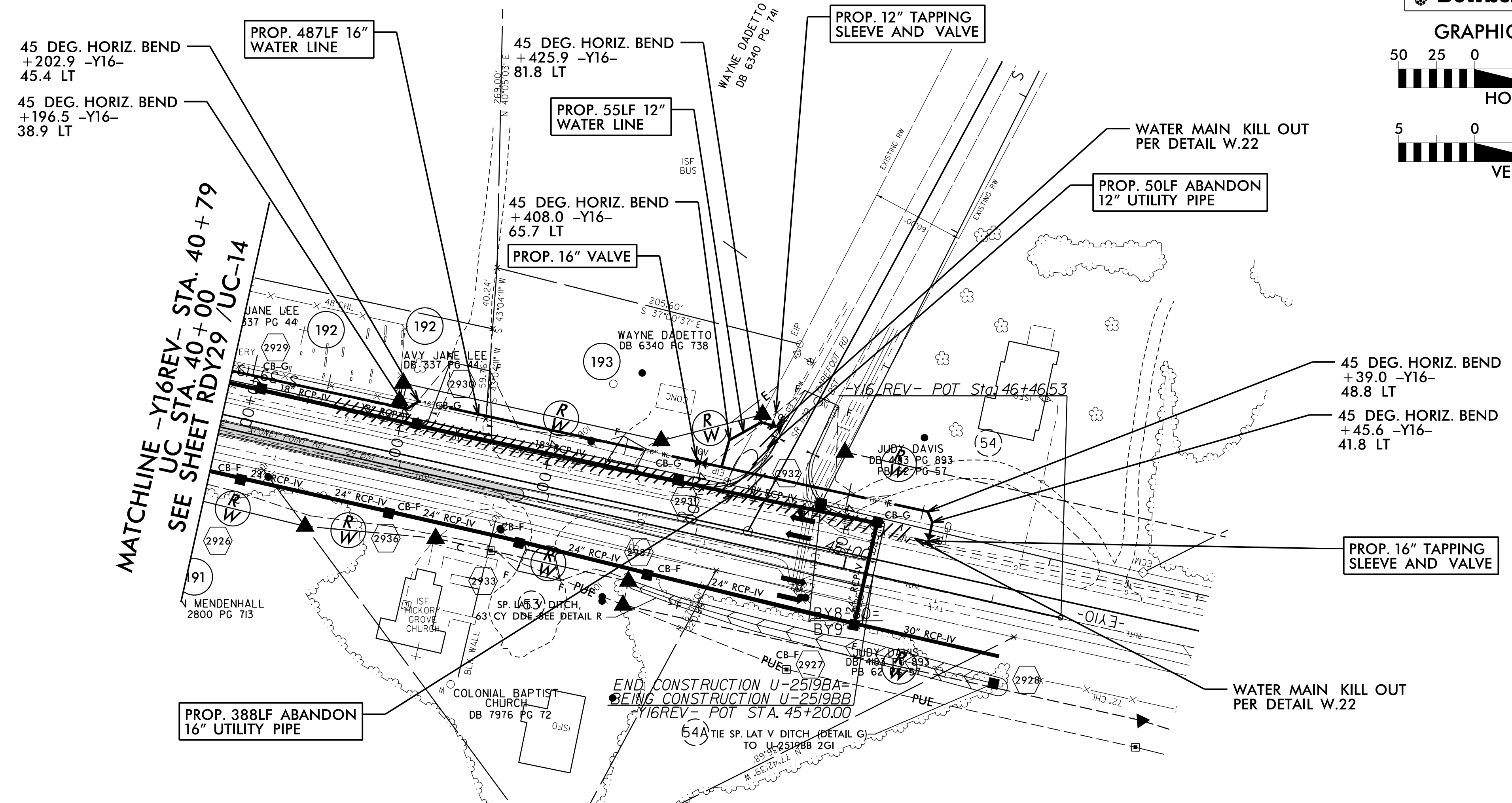
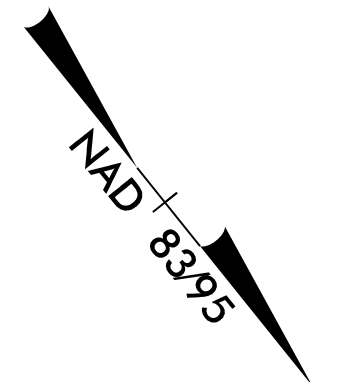


2500 WILLOW ROAD
SUITE 110
RALEIGH, NC 27607
PHONE: 919.891.8889
NC CCA No. F4802

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-14B
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
3/24/2022	
UTILITY ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	



UTILITY CONSTRUCTION



NOTE:
PRIOR TO COMMENCING ANY WORK ON ANY TRENCHLESS INSTALLATION ON THIS PROJECT, PROVIDE A DESIGN FOR THE TRENCHLESS INSTALLATION CERTIFIED BY AN ENGINEER LICENSED BY THE STATE OF NORTH CAROLINA, AS REQUIRED BY SUBARTICLE 1550-3(B) OF THE STANDARD SPECIFICATIONS.

NOTE:
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 2000 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

220

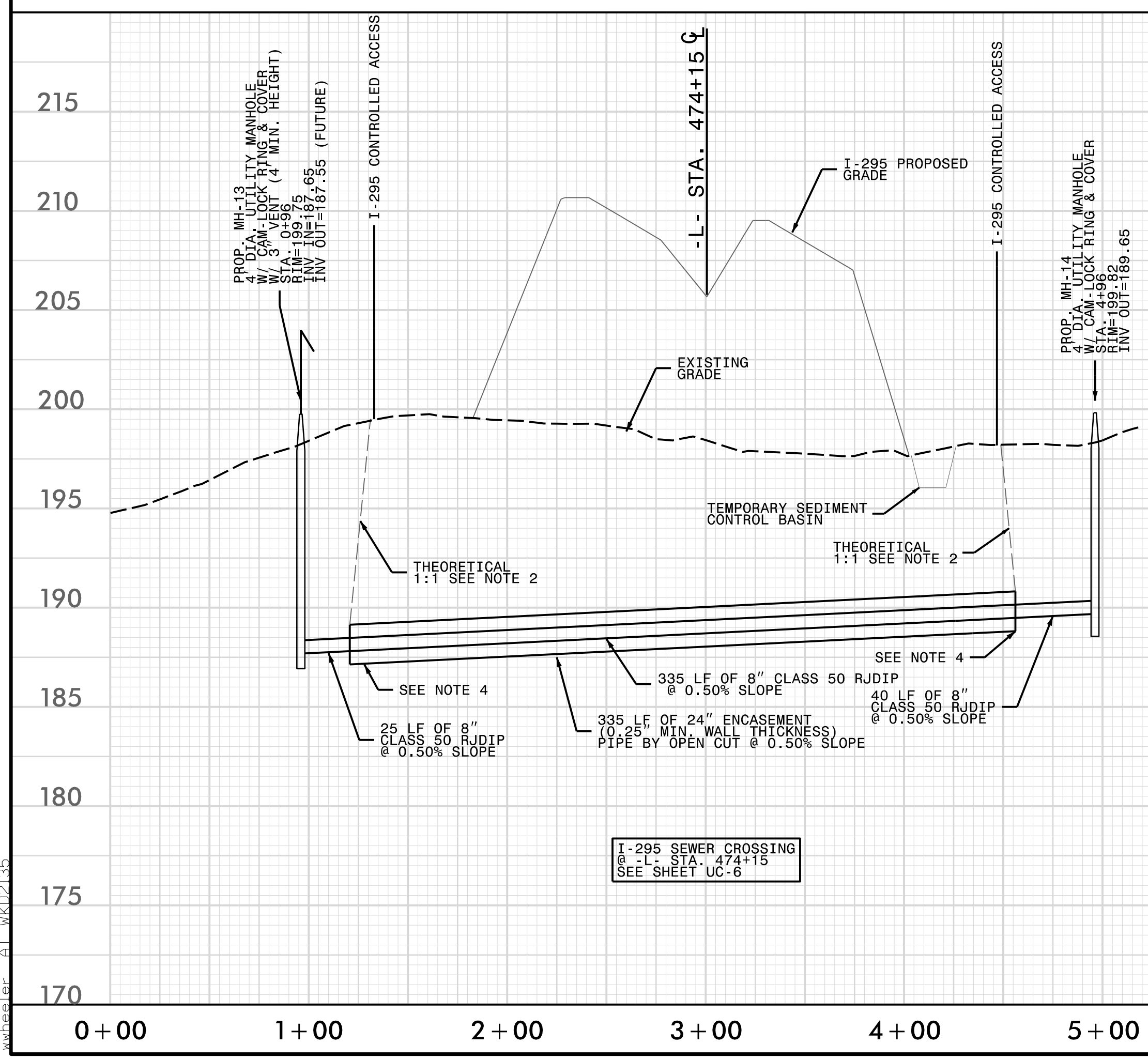
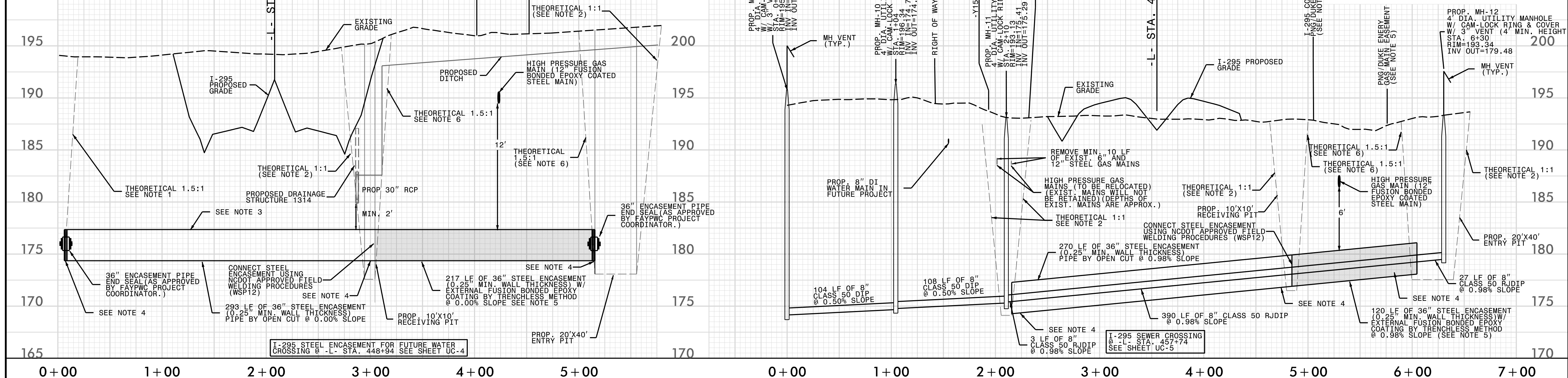
210

200

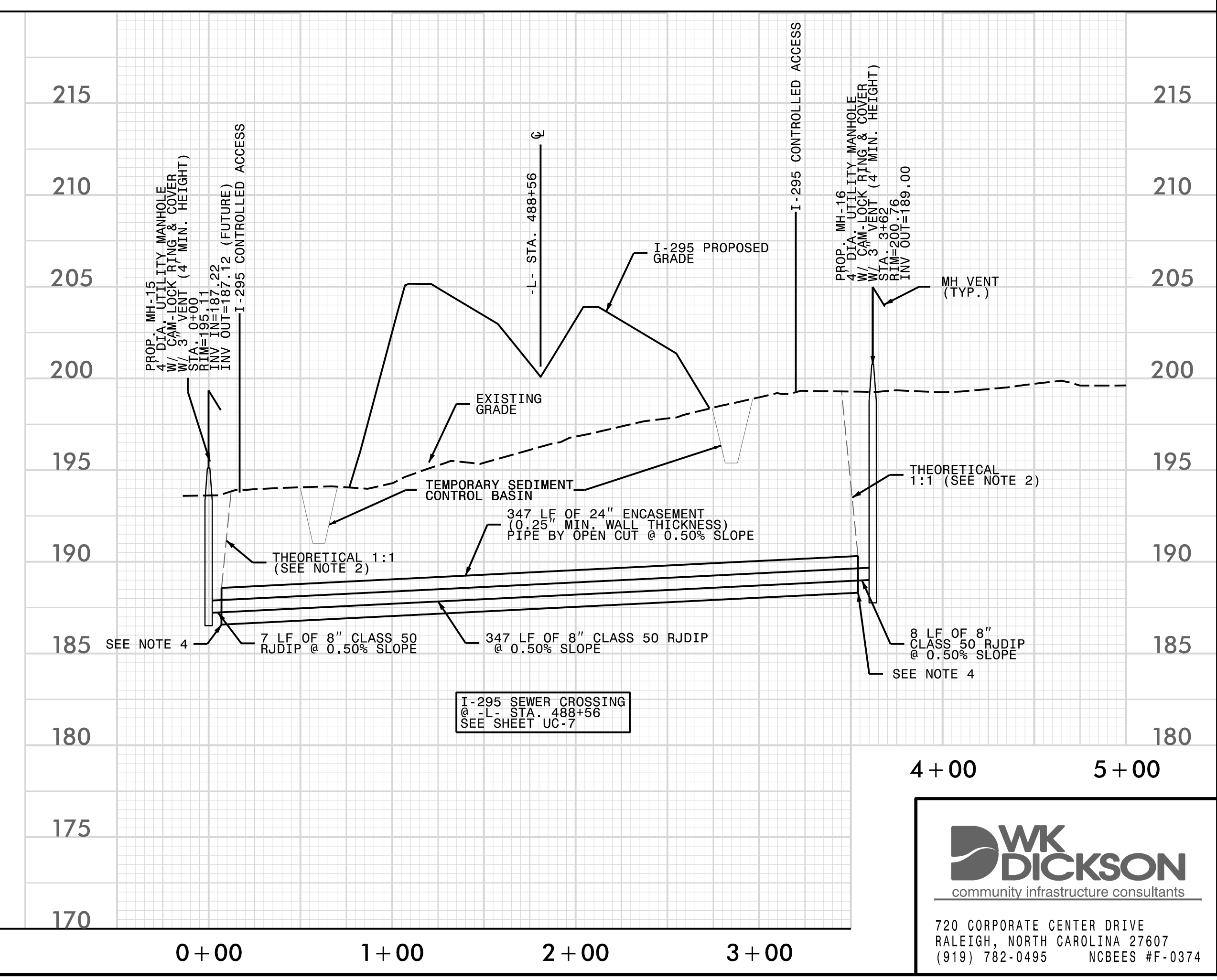
5/28/24
 22-MAR-2022 16:22
 C:\Users\Public\Documents\Fayetteville Public Works Commission\2018000800RA - Area 32\CADD\Microstation\U2519-BA\Utilities\U2519BA_UC_pfl1.dgn
 25:16:13
 25:16:13

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-15
DESIGNED BY: VR	
DRAWN BY: WJW	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



- UTILITY PROFILE NOTES:
- 1.5:1 THEORETICAL SHOWN FOR CLARITY OF FUTURE RETRIEVAL OF ENCASUREMENT END TO THREAD FUTURE WATER MAIN. ENCASUREMENT IS TO BE INSTALLED SO FUTURE RECOVERY MITIGATES ANY EXCAVATION OR RE-ENCROACHMENT INTO NCDOT'S CONTROLLED ACCESS RIGHT OF WAY AND PNG'S EASEMENT.
 - 1.1 THEORETICAL SHOWN FOR CLARITY OF FUTURE RETRIEVAL OF ENCASUREMENT END IF UTILITY OWNER NEEDED TO REMOVE SEWER OR WATER MAIN.
 - 36" STEEL ENCASUREMENT SHALL BE MADE DORMANT FOR FUTURE USE OF A 12" RJDIP PRESSURE CLASS 350 WATER MAIN.
 - CONTRACTOR SHALL COORDINATE WITH FAYPWC COORDINATOR TO SCHEDULE AS-BUILT SURVEY OF ENCASUREMENT ENDS PRIOR TO SEALING ENDS AND BACKFILLING ACCESS PITS. MINIMUM 3 BUSINESS DAYS NOTICE SHALL BE REQUIRED.
 - CONTRACTOR SHALL ABIDE BY ALL TERMS AND CONDITIONS OF THE PNG/DUKE ENERGY'S APPROVAL OF THE ENCROACHMENT OF THE STEEL ENCASUREMENT IN THEIR EASEMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PNG/DUKE ENERGY RIGHT OF WAY AGENT AN OBSERVATION HOLE THAT ALLOWS THEIR EXISTING GAS MAIN TO BE OBSERVED WHILE THE STEEL ENCASUREMENT IS JACKED UNDER THE GAS MAIN. THE OBSERVATION HOLE SHOULD BE VACUUM EXCAVATED TO NO LOWER THAN THE BOTTOM OF THE MAIN. THE HOLE SHALL BE BACKFILLED AND TAMPED IN ACCORDANCE WITH PNG/DUKE ENERGY RIGHT OF WAY AGENT INSTRUCTIONS.
 - 1.5:1 THEORETICAL SHOWN FOR CLARITY THAT EXCAVATION PITS FOR TRENCHLESS INSTALLATION OF ENCASUREMENT UNDER PNG'S TRANSMISSION GAS MAIN ARE SET SUFFICIENTLY FROM EDGE OF EASEMENT AND DO NOT INTERFERE WITH EASEMENT AND OR GAS MAIN OPERATION.
 - NOT ALL PROPOSED UTILITIES THAT RUN PARALLEL ARE SHOWN IN THE PROFILES FOR SIMPLICITY OF THE SANITARY SEWER AND WATER DRAWINGS. EXISTING AND PROPOSED UTILITIES THAT ARE NOT SHOWN MAY INCLUDE TELEPHONE, ELECTRIC, CABLE, FIBER OPTIC, ETC.




 community infrastructure consultants
 720 CORPORATE CENTER DRIVE
 RALEIGH, NORTH CAROLINA 27607
 (919) 782-0495 NCBES #F-0374

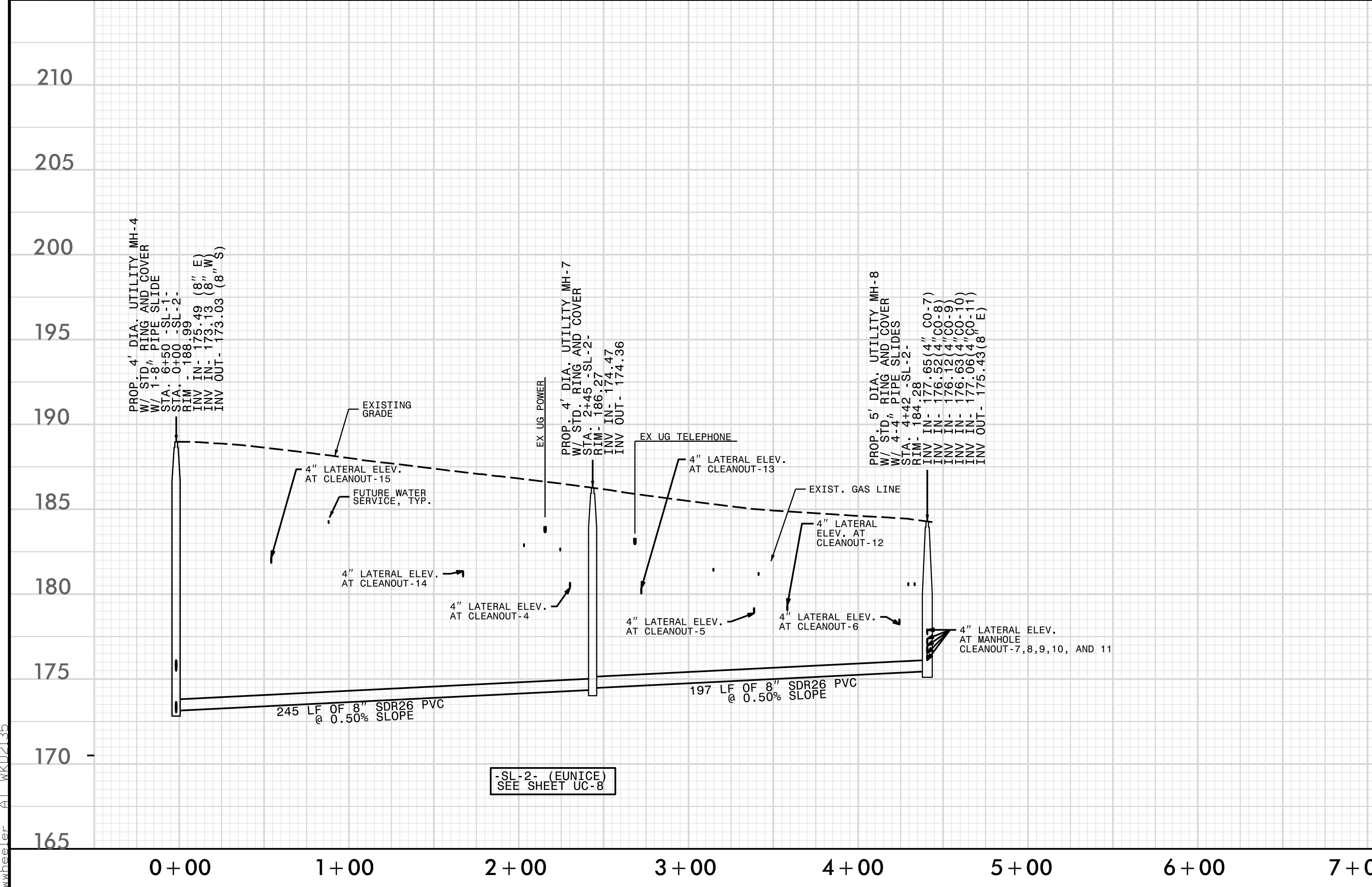
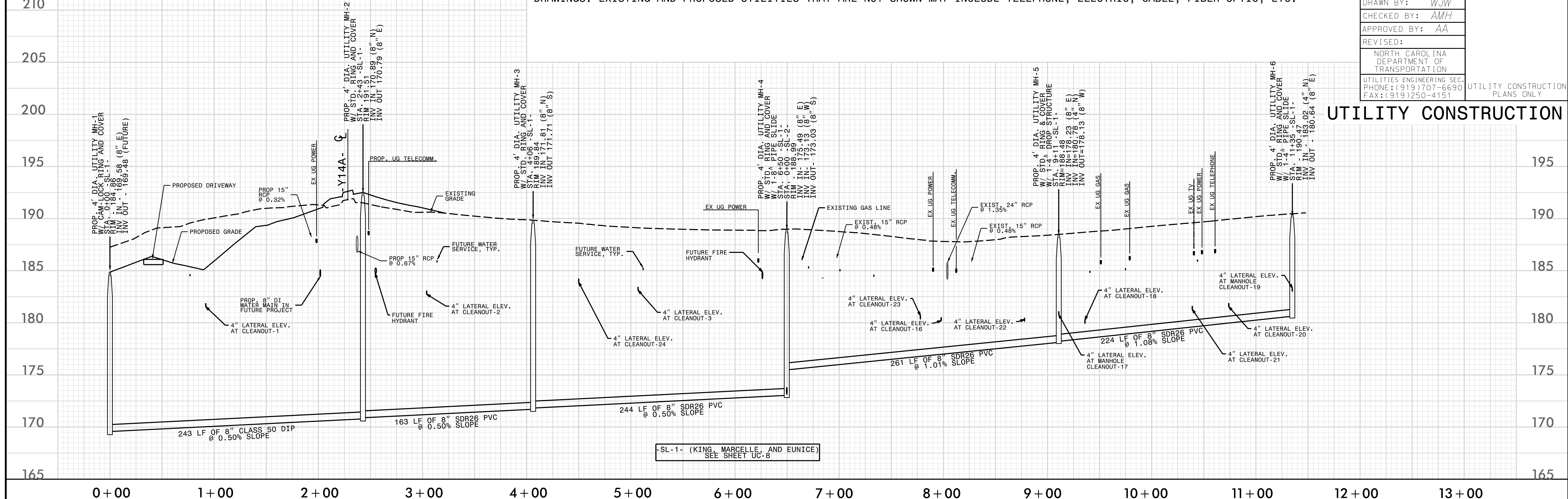
5/28/24 22-MAR-2022 12:42 C:\Program Files\Foxit Software\Foxit Reader\Foxit Reader.exe - Area 32\CADD\Microstation\U2519-BA\Utilities\U2519BA_UC.plt - Maurice.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-16
DESIGNED BY: VR	UTILITY CONSTRUCTION PLANS ONLY
DRAWN BY: WJW	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY PROFILE NOTES:

1. NOT ALL PROPOSED UTILITIES THAT RUN PARALLEL ARE SHOWN IN THE PROFILES FOR SIMPLICITY OF THE SANITARY SEWER AND WATER DRAWINGS. EXISTING AND PROPOSED UTILITIES THAT ARE NOT SHOWN MAY INCLUDE TELEPHONE, ELECTRIC, CABLE, FIBER OPTIC, ETC.

UTILITY CONSTRUCTION

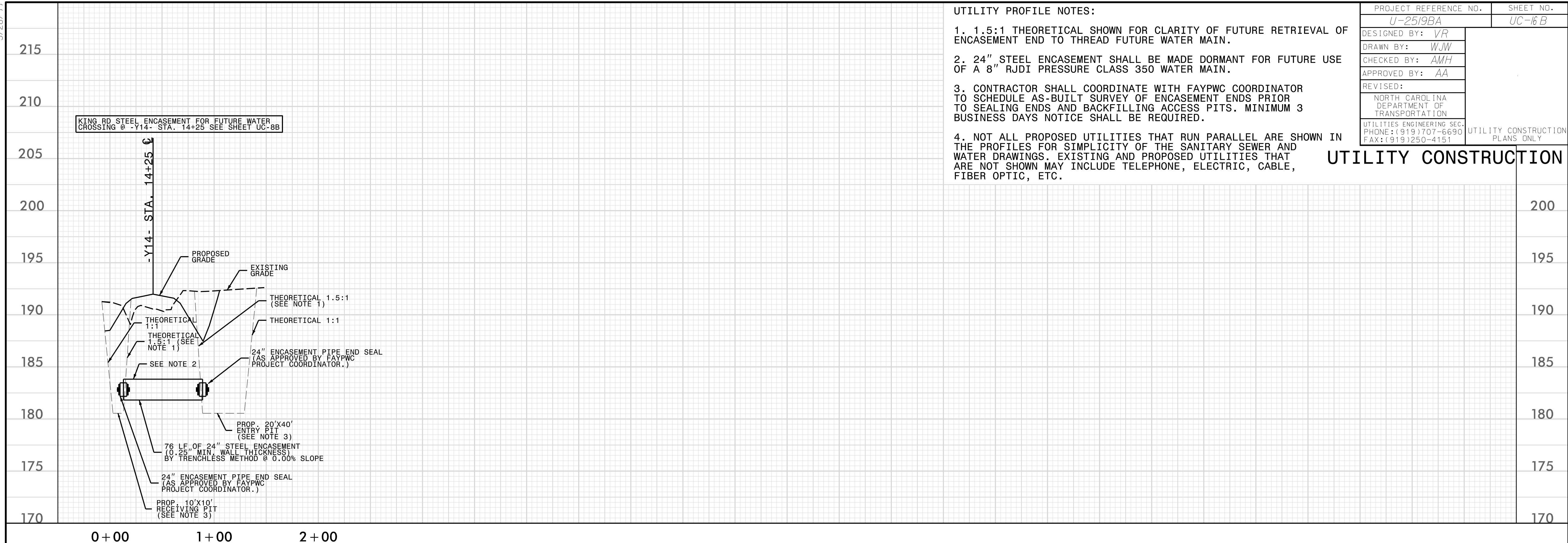


Prop Cleanout No.	Alignment	Street Address	Station	Station Offset	Rim Elev	Invert	Depth At Cleanout	Material
CO-1	SL-1	8674 King Rd.	0+92	11.18 L	189.77	181.77	8.00	DIP
CO-2	SL-1	8664 King Rd.	3+04	43.48 L	190.63	183.63	7.00	PVC
CO-3	SL-1	7703 Eunice Dr.	5+07	45.79 L	191.04	184.04	7.00	PVC
CO-4	SL-2	7705 Eunice Dr.	2+32	30.63 L	188.00	181.00	7.00	PVC
CO-5	SL-2	7707 Eunice Dr.	3+38	27.36 L	186.45	179.45	7.00	PVC
CO-6	SL-2	7711 Eunice Dr.	4+26	44.94 L	186.13	179.13	7.00	DIP
CO-7	SL-2	7717 Eunice Dr.	4+50	45.50 L	185.47	178.47	7.00	DIP
CO-8	SL-2	7725 Eunice Dr.	4+88	20.74 L	184.44	177.44	7.00	DIP
CO-9	SL-2	7729 Eunice Dr.	4+93	1.40 R	184.06	177.06	7.00	DIP
CO-10	SL-2	7728 Eunice Dr.	4+82	36.29 R	184.60	177.60	7.00	DIP
CO-11	SL-2	7724 Eunice Dr.	4+64	45.57 R	185.06	178.06	7.00	DIP
CO-12	SL-2	7718 Eunice Dr.	3+60	26.70 R	186.57	179.57	7.00	PVC
CO-13	SL-2	7712 Eunice Dr.	2+74	26.66 R	187.57	180.57	7.00	PVC
CO-14	SL-2	7706 Eunice Dr.	1+69	25.96 R	188.56	181.56	7.00	PVC
CO-15	SL-2	7702 Eunice Dr.	0+56	25.20 R	189.35	182.35	7.00	PVC
CO-16	SL-1	7630 Eunice Dr.	7+98	25.03 L	188.71	180.71	8.00	PVC
CO-17	SL-1	7626 Eunice Dr.	9+11	25.18 L	188.28	181.28	7.00	PVC
CO-18	SL-1	7622 Eunice Dr.	9+36	25.20 L	188.45	180.45	8.00	PVC
CO-19	SL-1	7618 Eunice Dr.	11+35	25.43 L	190.53	183.53	7.00	PVC
CO-20	SL-1	7617 Eunice Dr.	10+74	31.56 R	191.19	182.19	9.00	PVC
CO-21	SL-1	7619 Eunice Dr.	10+39	31.62 R	190.92	181.92	9.00	PVC
CO-22	SL-1	7621 Eunice Dr.	8+78	31.88 R	189.79	180.79	9.00	PVC
CO-23	SL-1	7623 Eunice Dr.	7+78	32.07 R	190.00	181.00	9.00	PVC
CO-24	SL-1	0 Eunice Dr.	4+50	11.82 R	190.14	184.14	6.00	PVC

720 CORPORATE CENTER DRIVE
 RALEIGH, NORTH CAROLINA 27607
 (919) 782-0495 NCBES #F-0374

5/28/99

22-MAR-2002 12:42
C:\Program Files\Autodesk\AutoCAD 2002\Projects\2002\20020313\20020313.dgn
32\CADD\Microstation\U2519-BA\Utilities\U2519BA_UC.plt



UTILITY PROFILE NOTES:

1. 1.5:1 THEORETICAL SHOWN FOR CLARITY OF FUTURE RETRIEVAL OF ENCASUREMENT END TO THREAD FUTURE WATER MAIN.
2. 24" STEEL ENCASUREMENT SHALL BE MADE DORMANT FOR FUTURE USE OF A 8" RJD1 PRESSURE CLASS 350 WATER MAIN.
3. CONTRACTOR SHALL COORDINATE WITH FAYPWC COORDINATOR TO SCHEDULE AS-BUILT SURVEY OF ENCASUREMENT ENDS PRIOR TO SEALING ENDS AND BACKFILLING ACCESS PITS. MINIMUM 3 BUSINESS DAYS NOTICE SHALL BE REQUIRED.
4. NOT ALL PROPOSED UTILITIES THAT RUN PARALLEL ARE SHOWN IN THE PROFILES FOR SIMPLICITY OF THE SANITARY SEWER AND WATER DRAWINGS. EXISTING AND PROPOSED UTILITIES THAT ARE NOT SHOWN MAY INCLUDE TELEPHONE, ELECTRIC, CABLE, FIBER OPTIC, ETC.

PROJECT REFERENCE NO. U-2519BA	SHEET NO. UC-16B
DESIGNED BY: VR	
DRAWN BY: WJW	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



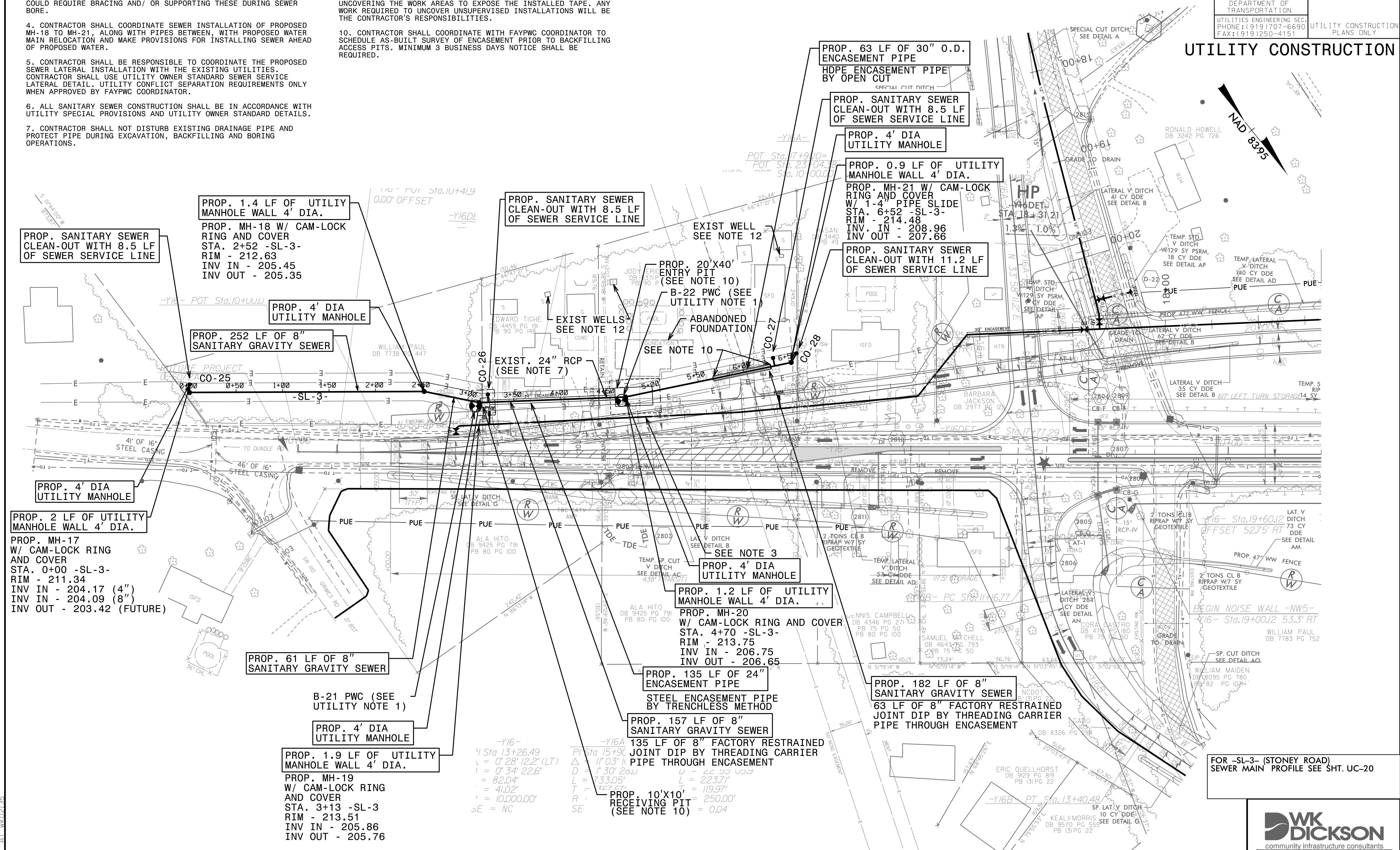
PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-17
DESIGNED BY: VR	
DRAWN BY: WJM	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

- UTILITY NOTE:**
1. B-# PWC REFERENCES SUPPLEMENTAL GEOTECHNICAL ENGINEERING DATA RETRIEVED TO ASSIST BIDDERS IN DEFINING EXISTING SOIL CONDITIONS.
 2. FOR PROPOSED CLEANOUT INFORMATION SEE CLEANOUT STRUCTURE TABLE REFER TO SHEET UC-20.
 3. CONTRACTOR SHALL PROTECT PROPOSED WATER AND GAS MAINS DURING BORING OPERATIONS. ACTUAL INSTALLED LOCATIONS MAY DIFFER AND COULD REQUIRE BRACING AND/ OR SUPPORTING THESE DURING SEWER BORE.
 4. CONTRACTOR SHALL COORDINATE SEWER INSTALLATION OF PROPOSED MH-18 TO MH-21, ALONG WITH PIPES BETWEEN, WITH PROPOSED WATER MAIN RELOCATION AND MAKE PROVISIONS FOR INSTALLING SEWER AHEAD OF PROPOSED WATER.
 5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PROPOSED SEWER LATERAL INSTALLATION WITH THE EXISTING UTILITIES. CONTRACTOR SHALL USE UTILITY OWNER STANDARD SEWER SERVICE LATERAL DETAIL. UTILITY CONFLICT SEPARATION REQUIREMENTS ONLY WHEN APPROVED BY FAYPWC COORDINATOR.
 6. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH UTILITY SPECIAL PROVISIONS AND UTILITY OWNER STANDARD DETAILS.
 7. CONTRACTOR SHALL NOT DISTURB EXISTING DRAINAGE PIPE AND PROTECT PIPE DURING EXCAVATION, BACKFILLING AND BORING OPERATIONS.

- UTILITY NOTE CONT:**
8. THE PROPOSED LATERAL INSTALLATION WILL ENTAIL A DORMANT SEWER TAPE WRAPPED AROUND THE TAIL PIECE AND UP THE CLEAN OUT STACK UNDER SUPERVISION FROM FAYPWC COORDINATOR. FAYPWC COORDINATOR WILL PROVIDE DORMANT SEWER WARNING TAPE FOR CONTRACTOR'S INSTALLATION.
 9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH FAYPWC COORDINATOR TO OBSERVE DORMANT SEWER TAPE INSTALLATION. FAILURE TO DO SO MAY RESULT IN CONTRACTOR UNCOVERING THE WORK AREAS TO EXPOSE THE INSTALLED TAPE. ANY WORK REQUIRED TO UNCOVER UNSUPERVISED INSTALLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITIES.
 10. CONTRACTOR SHALL COORDINATE WITH FAYPWC COORDINATOR TO SCHEDULE AS-BUILT SURVEY OF ENCASEMENT PRIOR TO BACKFILLING ACCESS PITS. MINIMUM 3 BUSINESS DAYS NOTICE SHALL BE REQUIRED.

- UTILITY NOTE CONT:**
12. THE 3 EXISTING WELLS, LOCATED ON PLAN, ARE OUTSIDE THE 100 FOOT WELL RADIUS OF INFLUENCE AND WILL NOT BE DISTURBED BY PROPOSED SEWER.
 13. ALL GRAVITY SEWER PIPE SHALL BE CLASS 50 DIP UNLESS NOTED OTHERWISE.



FOR -SL-3- (STONEY ROAD) SEWER MAIN PROFILE SEE SHT. UC-20

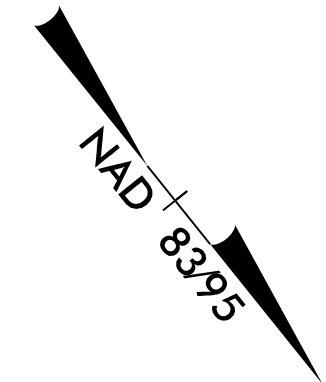


community infrastructure consultants
720 CORPORATE CENTER DRIVE
RALEIGH, NORTH CAROLINA 27607
(919) 782-0495 NCBES #F-0374

22-MAR-2022 12:42
 C:\Projects\Environmental\Fayetteville Public Works Commission\2018020800RA - Area_32\CADD\Microstation\U2519-BA\Utilities\U2519BA_UC_psh17_east.dgn
 8/17/99

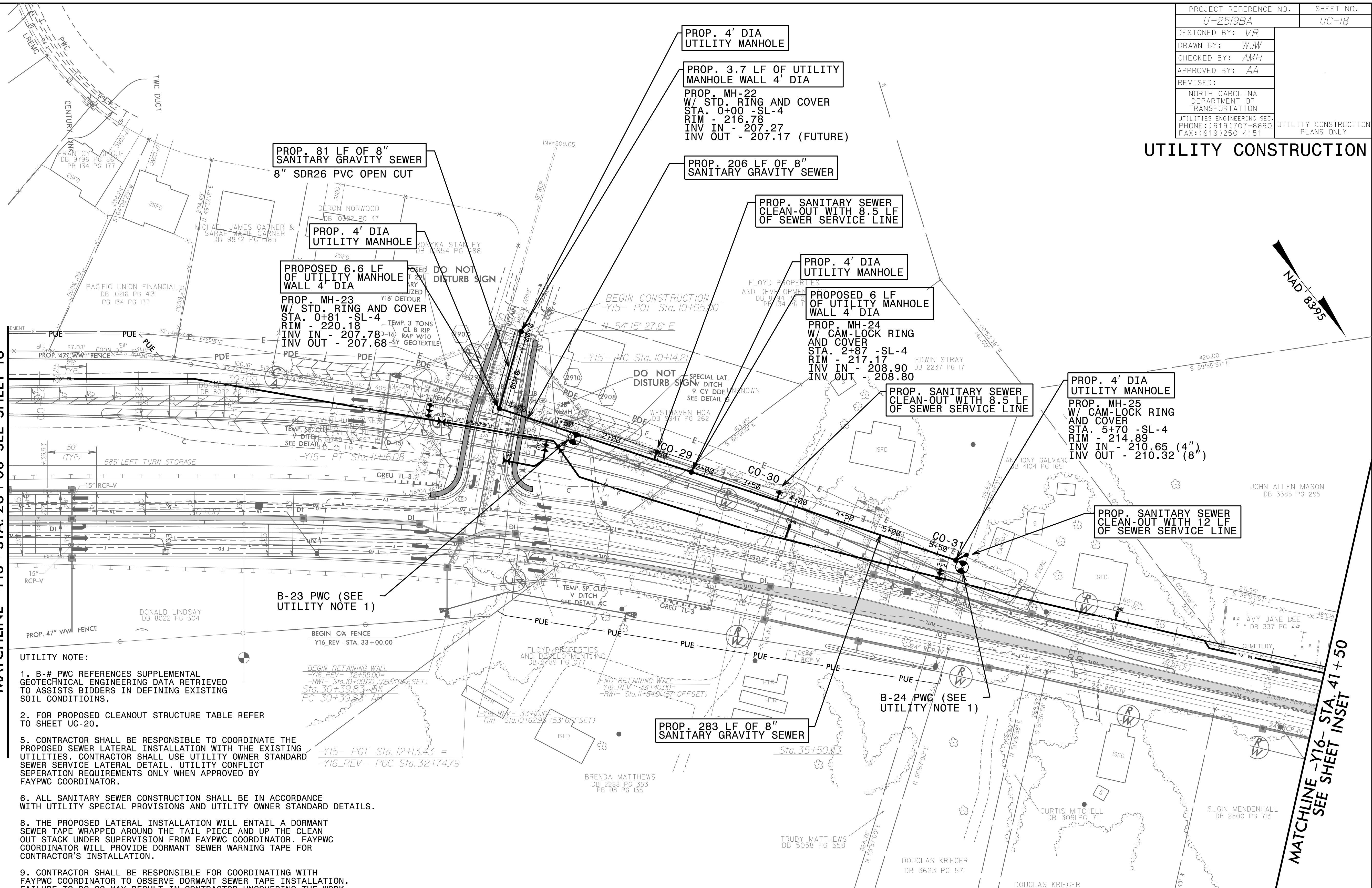
PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-18
DESIGNED BY: VR	
DRAWN BY: WJM	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



MATCHLINE -Y16- STA. 28+00 SEE SHEET 18

MATCHLINE -Y16- STA. 41+50 SEE SHEET INSET



- UTILITY NOTE:**
1. B-# PWC REFERENCES SUPPLEMENTAL GEOTECHNICAL ENGINEERING DATA RETRIEVED TO ASSISTS BIDDERS IN DEFINING EXISTING SOIL CONDITIONS.
 2. FOR PROPOSED CLEANOUT STRUCTURE TABLE REFER TO SHEET UC-20.
 5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE PROPOSED SEWER LATERAL INSTALLATION WITH THE EXISTING UTILITIES. CONTRACTOR SHALL USE UTILITY OWNER STANDARD SEWER SERVICE LATERAL DETAIL. UTILITY CONFLICT SEPERATION REQUIREMENTS ONLY WHEN APPROVED BY FAYPWC COORDINATOR.
 6. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH UTILITY SPECIAL PROVISIONS AND UTILITY OWNER STANDARD DETAILS.
 8. THE PROPOSED LATERAL INSTALLATION WILL ENTAIL A DORMANT SEWER TAPE WRAPPED AROUND THE TAIL PIECE AND UP THE CLEAN OUT STACK UNDER SUPERVISION FROM FAYPWC COORDINATOR. FAYPWC COORDINATOR WILL PROVIDE DORMANT SEWER WARNING TAPE FOR CONTRACTOR'S INSTALLATION.
 9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH FAYPWC COORDINATOR TO OBSERVE DORMANT SEWER TAPE INSTALLATION. FAILURE TO DO SO MAY RESULT IN CONTRACTOR UNCOVERING THE WORK AREAS TO EXPOSE THE INSTALLED TAPE. ANY WORK REQUIRED TO UNCOVER UNSUPERVISED INSTALLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITIES.

-Y15-		-Y16-		-Y16_REV-	
PI Sta 10+65.18	PI Sta 32+03.89	PI Sta 33+27.18	PI Sta 34+50.47	PI Sta 40+83.61	PI Sta 52+96.21
$\Delta = 4' 51'' 50.7''$ (LT)	$\Delta_s = 4' 02'' 05.7''$	$\Delta = 4' 34'' 16.9''$ (RT)	$\Delta_s = 4' 02'' 05.7''$	$\Delta = 0' 07'' 56.0''$ (LT)	$\Delta = 12' 46'' 33.7''$ (RT)
D = 4' 46'' 28.7"	Ls = 200.00'	D = 4' 02'' 05.7"	Ls = 200.00'	D = 0' 03'' 25.3"	D = 2' 36'' 07.9"
L = 101.87'	L = 133.37'	L = 113.25'	LT = 133.37'	L = 230.76'	L = 510.58'
T = 50.97'	ST = 66.70'	T = 56.65'	ST = 66.70'	T = 117.38'	T = 256.88'
R = 1,200.00'		R = 1,420.00'	SE = 0.06	R = 100,000.00'	R = 2,290.00'

FOR -SL-4- (STONEY ROAD) SEWER MAIN PROFILE SEE SHT. UC-20



720 CORPORATE CENTER DRIVE
RALEIGH, NORTH CAROLINA 27607
(919) 782-0495 NCBEES #F-0374

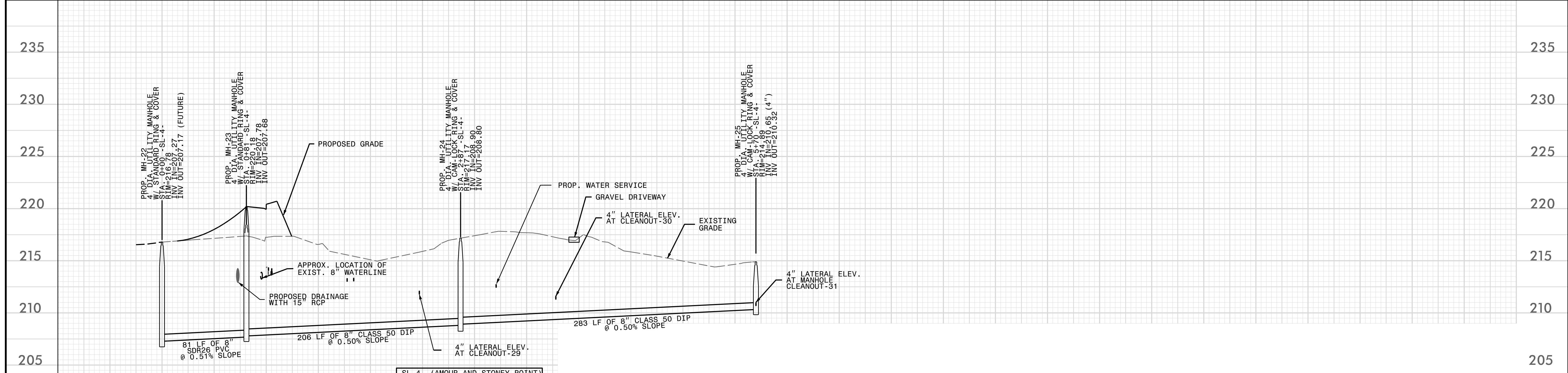
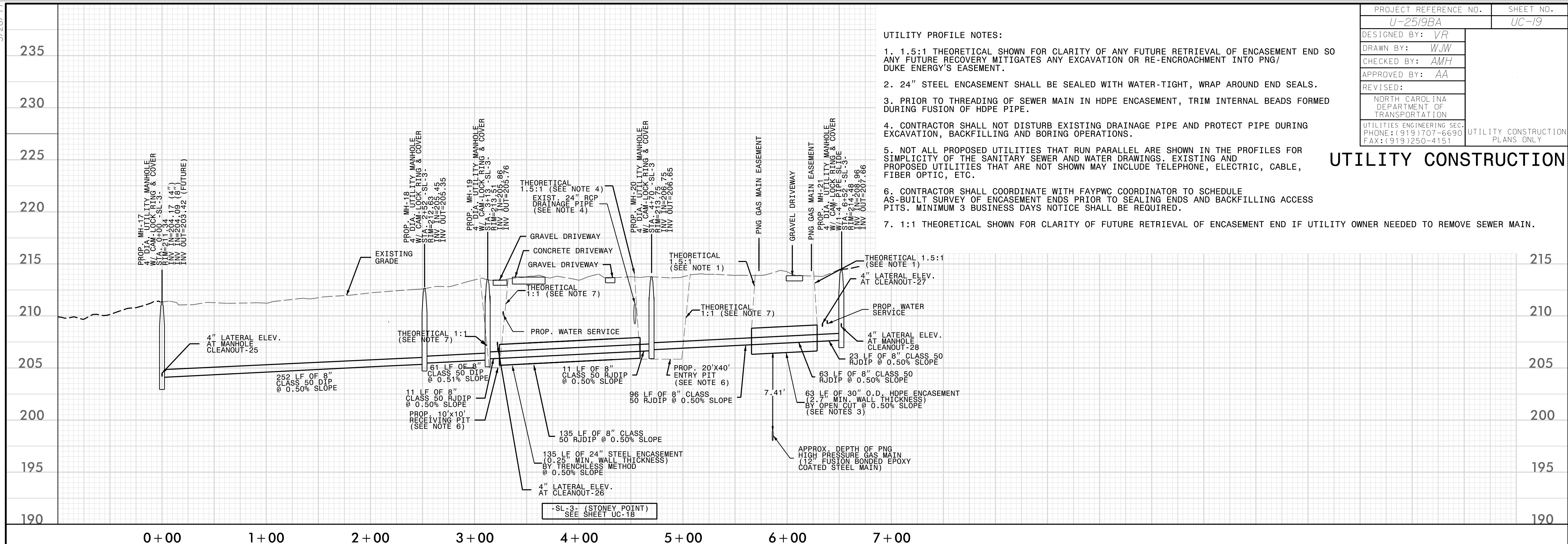
8/17/99
25:MAR-2022 12:42
C:\Projects\1\Information\Public Works Commission\2018\00000000RA - Area_32\CADD\Microstation\U2519-BA\Utilities\U2519BA_UC_psh18_north.dgn
w:\wheel\c...

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	UC-19
DESIGNED BY: VR	UTILITY CONSTRUCTION PLANS ONLY
DRAWN BY: WJW	
CHECKED BY: AMH	
APPROVED BY: AA	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

UTILITY CONSTRUCTION

UTILITY PROFILE NOTES:

1. 1.5:1 THEORETICAL SHOWN FOR CLARITY OF ANY FUTURE RETRIEVAL OF ENCASUREMENT END SO ANY FUTURE RECOVERY MITIGATES ANY EXCAVATION OR RE-ENCROACHMENT INTO PNG/ DUKE ENERGY'S EASEMENT.
2. 24" STEEL ENCASUREMENT SHALL BE SEALED WITH WATER-TIGHT, WRAP AROUND END SEALS.
3. PRIOR TO THREADING OF SEWER MAIN IN HDPE ENCASUREMENT, TRIM INTERNAL BEADS FORMED DURING FUSION OF HDPE PIPE.
4. CONTRACTOR SHALL NOT DISTURB EXISTING DRAINAGE PIPE AND PROTECT PIPE DURING EXCAVATION, BACKFILLING AND BORING OPERATIONS.
5. NOT ALL PROPOSED UTILITIES THAT RUN PARALLEL ARE SHOWN IN THE PROFILES FOR SIMPLICITY OF THE SANITARY SEWER AND WATER DRAWINGS. EXISTING AND PROPOSED UTILITIES THAT ARE NOT SHOWN MAY INCLUDE TELEPHONE, ELECTRIC, CABLE, FIBER OPTIC, ETC.
6. CONTRACTOR SHALL COORDINATE WITH FAYPWC COORDINATOR TO SCHEDULE AS-BUILT SURVEY OF ENCASUREMENT ENDS PRIOR TO SEALING ENDS AND BACKFILLING ACCESS PITS. MINIMUM 3 BUSINESS DAYS NOTICE SHALL BE REQUIRED.
7. 1:1 THEORETICAL SHOWN FOR CLARITY OF FUTURE RETRIEVAL OF ENCASUREMENT END IF UTILITY OWNER NEEDED TO REMOVE SEWER MAIN.



Prop Cleanout No.	Alignment	Street Address	Station	Station Offset	Rim Elev	Invert	Depth At Cleanout	Material
CO-25	SL-3	0 Rockfish Rd.	0+00	8.50 L	211.34	204.34	7.00	DIP
CO-26	SL-3	7755 Stoney Point Rd.	3+22	8.30 L	213.35	207.35	6.00	DIP
CO-27	SL-3	7763 Stoney Point Rd.	6+34	8.63 L	214.16	208.16	6.00	DIP
CO-28	SL-3	7767 Stoney Point Rd	6+59	8.45 L	215.18	209.18	6.00	DIP
CO-29	SL-4	3304 Amour Dr.	2+47	8.50 L	216.95	211.95	5.00	DIP
CO-30	SL-4	8009 Stoney Point Rd.	3+78	8.50 L	217.44	211.44	6.00	DIP
CO-31	SL-4	8035 Stoney Point Rd.	5+79	8.50 L	214.89	210.89	4.00	DIP

WK DICKSON
community infrastructure consultants

720 CORPORATE CENTER DRIVE
RALEIGH, NORTH CAROLINA 27607
(919) 782-0495 NCBES #F-0374

5/28/99
22-MAR-2002 12:42
C:\Projects\2519BA\U-2519BA\UC-19.dgn
C:\Projects\2519BA\U-2519BA\UC-19.dgn
C:\Projects\2519BA\U-2519BA\UC-19.dgn
C:\Projects\2519BA\U-2519BA\UC-19.dgn

09_08/2019

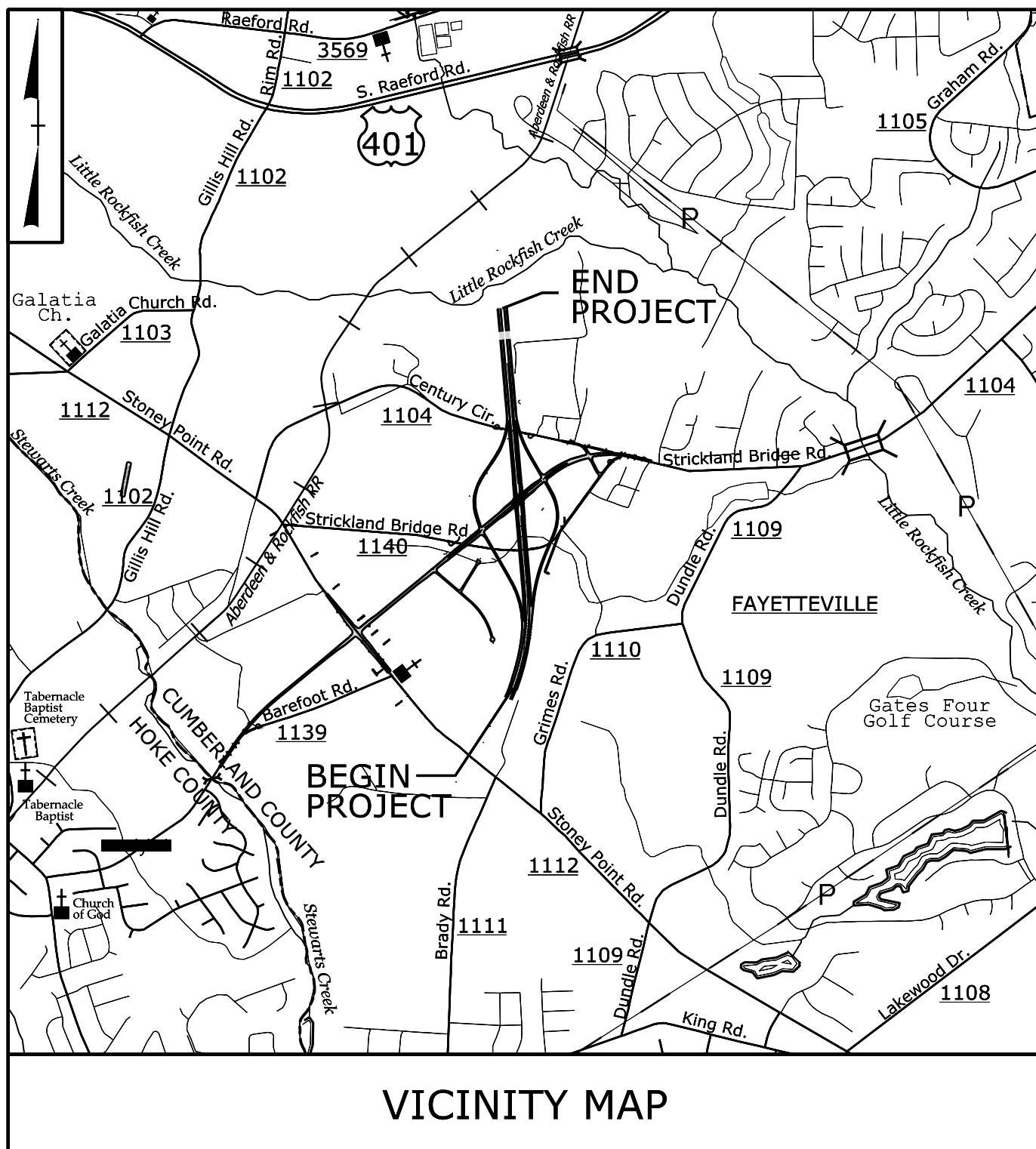
T.I.P. NO.	SHEET NO.
U-2519BB	UC-1

TIP PROJECT: U-2519BB

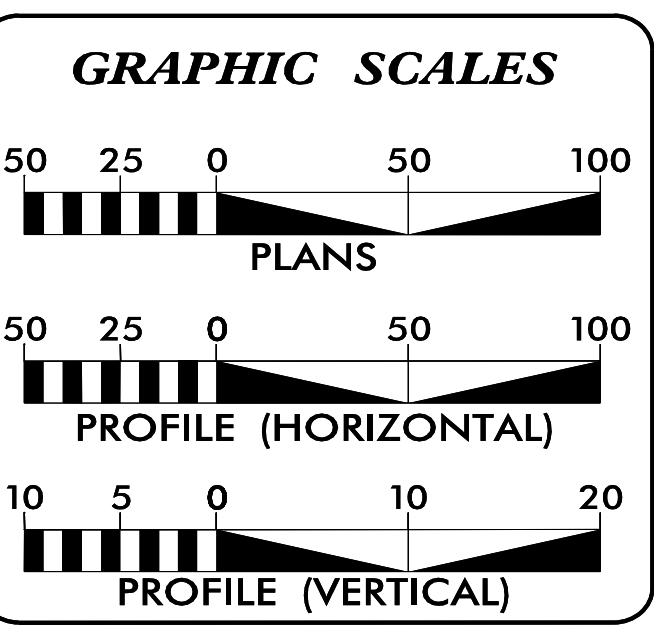
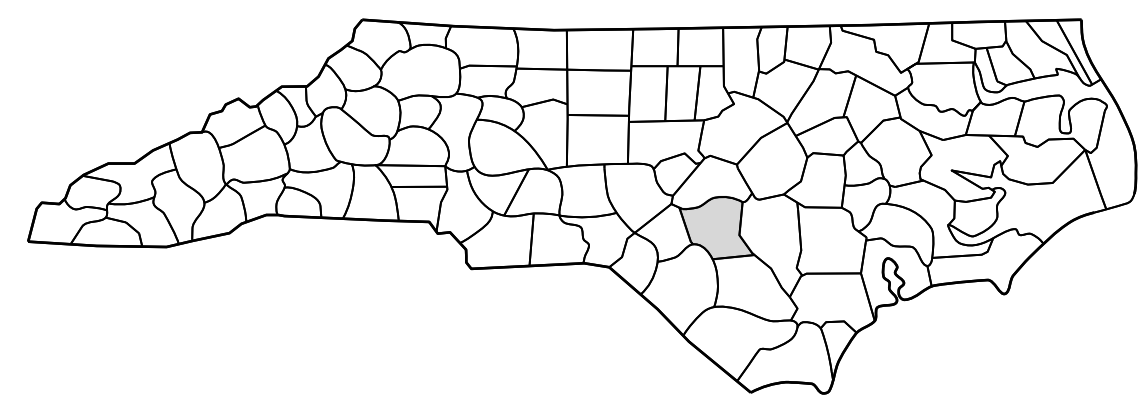
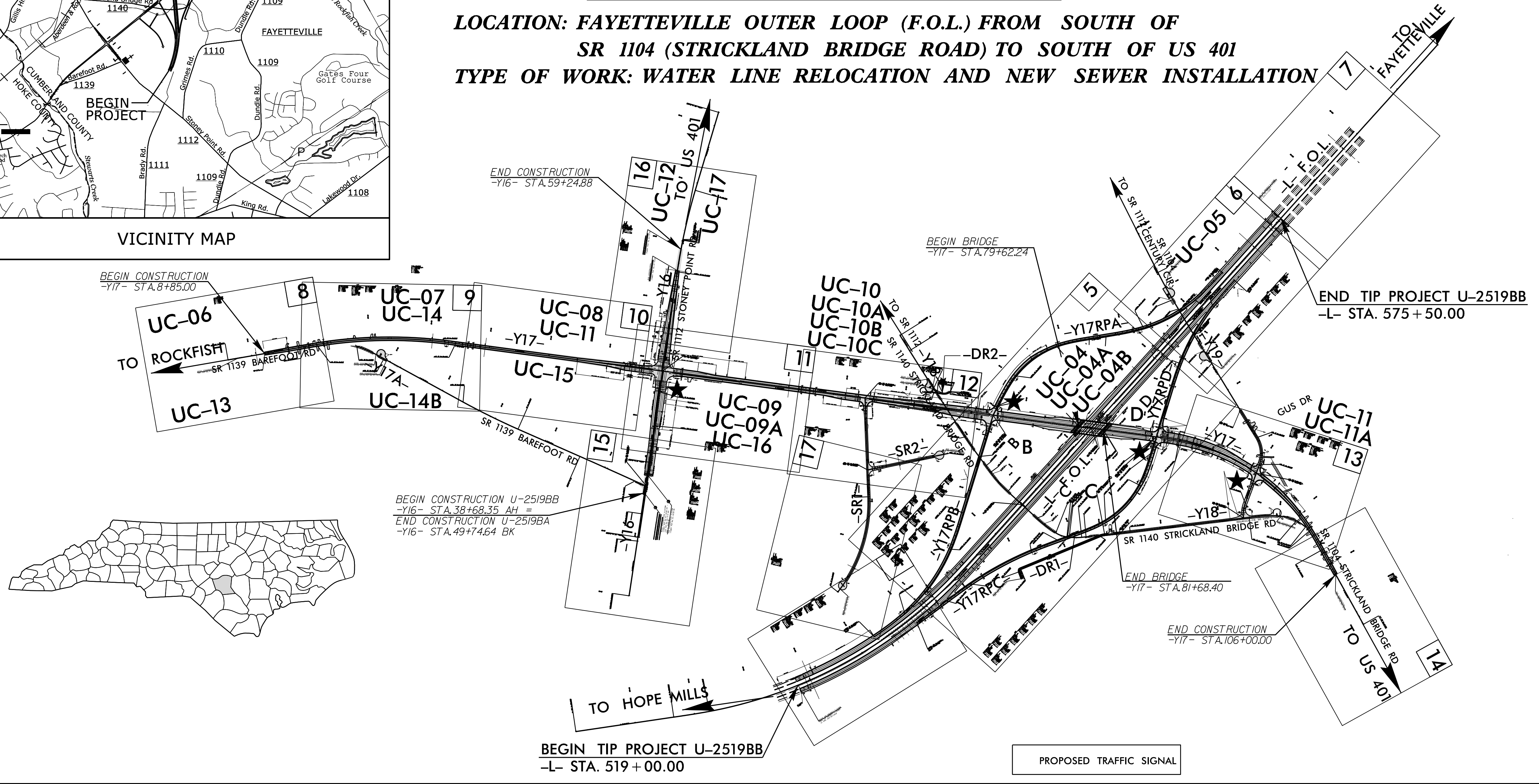
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
CUMBERLAND COUNTY

LOCATION: FAYETTEVILLE OUTER LOOP (F.O.L.) FROM SOUTH OF SR 1104 (STRICKLAND BRIDGE ROAD) TO SOUTH OF US 401
TYPE OF WORK: WATER LINE RELOCATION AND NEW SEWER INSTALLATION



VICINITY MAP



SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-3A THRU UC-3J	DETAILS
UC-04 THRU UC-19	UTILITY CONSTRUCTION PLAN AND PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT	
(A) WATER, FAYETTEVILLE PUBLIC WORKS COMMISSION (FAYPWC)	
(B) SEWER, FAYETTEVILLE PUBLIC WORKS COMMISSION (FAYPWC)	

PREPARED IN THE OFFICE OF
CONSULTANT INFO
2610 WYCLIFF ROAD, SUITE 410
RALEIGH, NC 27607
919.881.9939
NCBELS: NO. F-0929

Dewberry
WK DICKSON
community infrastructure consultants

TIMOTHY RITACCO, P.E. CONSULTANT CONTACT #1
DUSTIN JAMES CONSULTANT CONTACT #2
KATHRYN KNAPP, E.I. CONSULTANT CONTACT #3

SEAL
NORTH CAROLINA
TIMOTHY J. RITACCO
ENGINEER
4/11/2022

DIVISION OF HIGHWAYS UTILITIES UNIT
1555 MAIL SERVICES CENTER
RALEIGH, NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

NABIL HAMDAN UTILITIES REGIONAL ENGINEER
KELVIN MARTIN EI UTILITIES ENGINEER
TANGA SAMPSON UTILITIES AREA COORDINATOR
KELVIN MARTIN EI UTILITIES COORDINATOR

01-APR-2022 09:25
P:\50086344_50086348 - 2519BB\CAD\Civil\U-2519BB\Utilities\Engineering\UC\Proj\280_50_U2519BB_UT_TSH_UC01_PSH.dgn
\$\$\$\$\$SERNAME\$\$\$\$\$

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

04/06/15

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	①23
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Existing Historic Property Boundary	-HPB-
Known Contamination Area: Soil	-x-x-x-x-
Potential Contamination Area: Soil	-x-x-x-x-
Known Contamination Area: Water	-x-x-x-x-
Potential Contamination Area: Water	-x-x-x-x-
Contaminated Site: Known or Potential	☠ ☢

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	⌵
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	-JS-
Buffer Zone 1	-BZ 1-
Buffer Zone 2	-BZ 2-
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	⬇
Proposed Lateral, Tail, Head Ditch	→
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	○ R/W
Proposed Right of Way Line with Iron Pin and Cap Marker	○ R/W ▲
Proposed Right of Way Line with Concrete or Granite RW Marker	▲ R/W
Proposed Control of Access Line with Concrete C/A Marker	○ C/A
Existing Control of Access	○ C/A
Proposed Control of Access	○ C/A
Existing Easement Line	-E-
Proposed Temporary Construction Easement	-E-
Proposed Temporary Drainage Easement	-TDE-
Proposed Permanent Drainage Easement	-PDE-
Proposed Permanent Drainage / Utility Easement	-DUE-
Proposed Permanent Utility Easement	-PUE-
Proposed Temporary Utility Easement	-TUE-
Proposed Aerial Utility Easement	-AUE-
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	○ CR
Existing Metal Guardrail	-T-T-T-
Proposed Guardrail	-T-T-T-
Existing Cable Guiderail	-P-P-P-
Proposed Cable Guiderail	-P-P-P-
Equality Symbol	⊕
Pavement Removal	⊗

VEGETATION:

Single Tree	☀
Single Shrub	☀
Hedge	~~~~~
Woods Line	~~~~~

Orchard	☀ ☀ ☀ ☀
Vineyard	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	□ CONC
Bridge Wing Wall, Head Wall and End Wall	┌ CONC WW ┐
MINOR:	
Head and End Wall	┌ CONC HW ┐
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○ S
Storm Sewer	-S-

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○ P
Power Line Tower	□
Power Transformer	⊗
U/G Power Cable Hand Hole	○
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	-----P-----
U/G Power Line LOS C (S.U.E.*)	-----P-----
U/G Power Line LOS D (S.U.E.*)	-----P-----

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	○ T
Telephone Pedestal	□
Telephone Cell Tower	⌵
U/G Telephone Cable Hand Hole	○ TH
U/G Telephone Cable LOS B (S.U.E.*)	-----T-----
U/G Telephone Cable LOS C (S.U.E.*)	-----T-----
U/G Telephone Cable LOS D (S.U.E.*)	-----T-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----TC-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----TC-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----TC-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----TFD-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----TFD-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----TFD-----

WATER:

Water Manhole	○ W
Water Meter	○
Water Valve	⊗
Water Hydrant	○
U/G Water Line LOS B (S.U.E.*)	-----W-----
U/G Water Line LOS C (S.U.E.*)	-----W-----
U/G Water Line LOS D (S.U.E.*)	-----W-----
Above Ground Water Line	-----A/G Water-----

TV:

TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	○ TH
U/G TV Cable LOS B (S.U.E.*)	-----TV-----
U/G TV Cable LOS C (S.U.E.*)	-----TV-----
U/G TV Cable LOS D (S.U.E.*)	-----TV-----
U/G Fiber Optic Cable LOS B (S.U.E.*)	-----TV FO-----
U/G Fiber Optic Cable LOS C (S.U.E.*)	-----TV FO-----
U/G Fiber Optic Cable LOS D (S.U.E.*)	-----TV FO-----

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	-----G-----
U/G Gas Line LOS C (S.U.E.*)	-----G-----
U/G Gas Line LOS D (S.U.E.*)	-----G-----
Above Ground Gas Line	-----A/G Gas-----

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----SS-----
Above Ground Sanitary Sewer	-----A/G Sanitary Sewer-----
SS Forced Main Line LOS B (S.U.E.*)	-----FSS-----
SS Forced Main Line LOS C (S.U.E.*)	-----FSS-----
SS Forced Main Line LOS D (S.U.E.*)	-----FSS-----

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line LOS B (S.U.E.*)	-----TUUL-----
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	□ UST
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	○
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

5/14/99

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY CUMBERLAND COUNTY, NCDOT, FAYETTEVILLE PUBLIC WORKS COMMISSION, AND NC DEMLR LAND QUALITY SECTION TWO WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION.
2. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL EASEMENTS, THE NCDOT ENCROACHMENT AGREEMENT, NCDOT DRIVEWAY PERMITS, NC DEMLR SEDIMENTATION AND EROSION CONTROL PERMIT, AND FAYETTEVILLE PUBLIC WORKS COMMISSION PERMITS ON THE JOB SITE AT ALL TIMES.
3. CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL CONFORM TO FAYETTEVILLE PUBLIC WORKS COMMISSION DEPARTMENT OF UTILITIES STANDARDS AND NCDOT STANDARD SPECIFICATIONS, LATEST EDITION.
4. STATIONING ON DRAWINGS IS SHOWN FOR REFERENCE ONLY AND MAY NOT REPRESENT EXACT LENGTHS.
5. ALL CONCRETE SHALL BE 3,000 PSI STRENGTH (28 DAY), UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT WORK REQUIRED TO PROPERLY CONSTRUCT THE WORK.
7. CONTRACTOR SHALL MAKE EVERY EFFORT TO SAVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. PROPERTY IRONS, MONUMENTS, AND OTHER PERMANENT POINTS OF REFERENCE DAMAGED OR DESTROYED BY THE CONTRACTOR SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
8. THE UNDERGROUND UTILITIES INDICATED ON THE PLANS HAVE BEEN TAKEN FROM INFORMATION MADE AVAILABLE FROM THE VARIOUS UTILITY OWNERS. THIS INFORMATION IS NOT INCLUSIVE OF ALL EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR IS ADVISED THAT ADDITIONAL UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE UTILITY INFORMATION SHEET. BE ADVISED THAT THE UNDERGROUND UTILITIES AND CABLES COULD CONFLICT WITH THE WATER AND SEWER MAIN CONSTRUCTION. ALL REALIGNMENTS SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL MINIMIZE PLACEMENT OF EXCAVATION MATERIAL ON ROAD DURING CONSTRUCTION. ALL ROADS SHALL BE CLEANED DAILY.
10. CONTRACTOR SHALL INSTALL MEASURES AS NECESSARY DURING CONSTRUCTION FOR SEDIMENTATION AND EROSION CONTROL.
11. CONTRACTOR SHALL COORDINATE WITH PWC FOR ANY DISRUPTIONS OF WATER SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RECONNECTING OF DISTURBED UTILITY SERVICES ENCOUNTERED WITHIN 8 HOURS OF INTERRUPTED SERVICE. CONTRACTOR SHALL NOTIFY USERS 24 HOURS PRIOR TO POSSIBLE INTERRUPTIONS OF SERVICE.
12. WATER AND SEWER MAINS SHALL HAVE 36" MINIMUM COVER. GREATER DEPTHS MAY BE REQUIRED TO AVOID CONFLICTS WITH CULVERT CROSSINGS, UTILITIES, AND OTHER STRUCTURES.
13. THE CONTRACTOR SHALL PROVIDE THRUST BLOCKING OR MECHANICALLY RESTRAINED JOINTS AT BENDS, TEES, AND PLUGS PER THE DETAILS SHOWN ON THE DRAWINGS.
14. ALL FITTINGS ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL FITTINGS NECESSARY TO COMPLETE THE WORK.
15. THE CONTRACTOR SHALL RESEED THE DISTURBED AREAS WITH THE EXISTING TYPE OF GRASS. THE CONTRACTOR SHALL CONFIRM THE TYPE OF GRASS WITH THE ADJACENT PROPERTY OWNER. IN AREAS WHERE THE TYPE OF GRASS IS UNKNOWN, THE SEED SCHEDULE SHALL BE USED.

16. THE CONTRACTOR SHALL RESTORE THE DISTURBED AREA TO THE EXISTING GRADE UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

17. THE CONTRACTOR SHALL REPAIR ALL DRIVEWAYS AND DRIVEWAY CULVERTS PAVED OR UNPAVED, TO EXISTING OR BETTER CONDITIONS IF DISTURBED DURING CONSTRUCTION. ACCESS TO EACH RESIDENCE AND BUSINESS SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL REPAIR DRIVEWAYS AND DRIVEWAY CULVERTS WITHIN ONE WEEK OF DISTURBANCE.

18. FOR ALL DRIVEWAYS, BOTH PUBLIC OR PRIVATE, THE CONTRACTOR SHALL USE LIKE GRAVEL OR STONE FOR REPAIR AND/OR REPLACEMENT.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES IF REQUIRED DURING INSTALLATION OF NEW WORK. THERE SHALL BE NO ADDITIONAL OR SEPARATE PAY ITEM FOR THIS WORK UNLESS SPECIFICALLY CALLED OUT IN THE BID FORM.

20. CONTRACTOR SHALL RESTORE/REPLACE ALL SIGNS, MAILBOXES, ETC. ENCOUNTERED TO OWNER'S SATISFACTION WITHIN 4 HOURS OF DISTURBANCE.

21. ALL STORM WATER CULVERTS MAY NOT BE SHOWN ON THE DRAWINGS. LOCATION AND LENGTH OF SHOWN CULVERTS ARE APPROXIMATE. ACTUAL LOCATION, LENGTH, AND DIAMETER MAY VARY.

ALIGNMENT	COMMON NAME
SR 1	NEW RESIDENTIAL CAL-DE-SAC CONNECTION
SR2	NEW RESIDENTIAL CAL-DE-SAC CONNECTION
Y16	SR 1112 STONEY POINT ROAD
Y16REV	SR 1112 STONEY POINT ROAD
Y17A	EXISTING SR 1139 BAREFOOT ROAD
Y17RPA	Y17 RAMP A
Y17RPB	Y17 RAMP B
Y17RPC	Y17 RAMP C
Y17RPD	Y17 RAMP D
Y17	NEW ROAD TYING INTO SR 1139 BAREFOOT ROAD
Y17	SR 1104 STRICKLAND BRIDGE ROAD
Y18	SR 1140 STRICKLAND BRIDGE ROAD
Y19	SR 1104 CENTURY CIRCLE



255 WYOMING ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.881.2889
NC COUN. #4602

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-2A
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	
	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

STANDARD ABBREVIATIONS

DESCRIPTION	ABBREVIATION
MAXIMUM	MAX. MAX.
MINIMUM	MIN. MIN.
TYPICAL	TYP. TYP.
EDGE OF PAVEMENT	EOP, E.O.P.
RIGHT-OF-WAY	R/W
CORRUGATED METAL PIPE	CMP
REINFORCED CONCRETE PIPE	RCP
EXISTING	EX.
NORTH CAROLINA	NC, N.C.
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	NCDOT
DUCTILE IRON PIPE	DIP, D.I.P.
STATE ROAD	SR, S.R.
STAINLESS STEEL	S.S.
MAINTAINED LIMITS	ML, M.L.
POLYVINYL CHLORIDE	PVC, P.V.C.
BELOW LAND SURFACE	BLS

NOTE:

1. THE STANDARD LEGEND AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR GENERAL USE THROUGHOUT THESE DRAWINGS.

STANDARD LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER LINE	— W — W —	— 10" WL —
SEWER LINE	— FSS — FSS —	— 8" FSS —
SILT FENCE		-----
RIGHT-OF-WAY (OR PROPERTY LINE)	— (R/W) —	
GRAVEL DRIVE	—————	
WATTLE		⊞⊞
LIMITS OF DISTURBANCE		—————
PROPERTY LINE	-----	



CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES LOCATED WITHIN PROJECT AREA. CALL NORTH CAROLINA 811 AT 811 OR 1-800-632-4949

D:\C:\Users\jritacco\OneDrive\Engineering\UC\Proc\2800_505_U2519BB_UT_NOTES_02_PSH.dgn 26 MAR 2022 05:28

5/14/99

C:\Users\jrt\OneDrive\Engineering\UC\Proj\2519BB_507_U2519BB_UT_NOTES_UC03_PSH.dgn
25 MAY 2022 05:28
UC03_PSH.dgn



255 WYCKOFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.2800
NC CCA No. F2602

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

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 2018.
2. THE EXISTING UTILITIES BELONG TO FAYETTEVILLE PUBLIC WORKS COMMISSION (FAYPWC). CONTACT IS ALAN RIDDLE, PE AND CAN BE REACHED AT (910) 223-4785.
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION.
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. 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 OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS 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 ADDITIONAL COST TO THE DEPARTMENT.
7. 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.
8. 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.
9. 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.

PROJECT SPECIFIC NOTES:

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

UTILITY CONSTRUCTION

PROJECT TYPICAL DETAILS



2500 W. JEFFERSON ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.881.8889
NC COLA NO. 54802

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3B
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

- ALL WATER MAINS, LATERALS AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE FOR ALL WATER OUTAGES.
- CONSTRUCTION STAKING IS REQUIRED FOR ALL PWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A NC PLS. SHALL BE PROVIDED TO THE PWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR PWC WATER AND SEWER UTILITIES.
- CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION ON PWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.
- ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS PRIOR TO PLACING INTO SERVICE.
- CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYETTEVILLE PWC PROJECT COORDINATOR.
- CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE PWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH PWC STANDARDS. CONTRACTOR SHALL NOT OPERATE PWC WATER MAIN VALVES WITHOUT PWC APPROVAL AND SHALL COORDINATE ALL VALVE CLOSINGS WITH PWC.
- THE CONTRACTOR SHALL NOT USE HOUSE HOSE BIBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THRU RESIDENT'S METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENT'S PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOGGED SCREENS, ETC.
- TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
 - INSTALL, TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED 18" INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY PWC.
 - TRANSFER EXISTING METER TO NEW METER BOX AND TIE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE UTILIZING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
 - AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH PWC DETAILS.
 - CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.
- CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY CUTTING THE SERVICE AT THE MAIN, PLUGGING THE CORPORATION, AND TURNING OFF THE CORPORATION AT THE METER BOX, THE ABANDONED SERVICE IS TO BE CUT OR CRIMPED, AND BURIED A MINIMUM OF 3 FEET BELOW GRADE.
- ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH PWC REQUIREMENTS.
- ALL WORK ON PWC WATER UTILITIES (MAINS, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON PWC WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH PWC REQUIREMENTS.

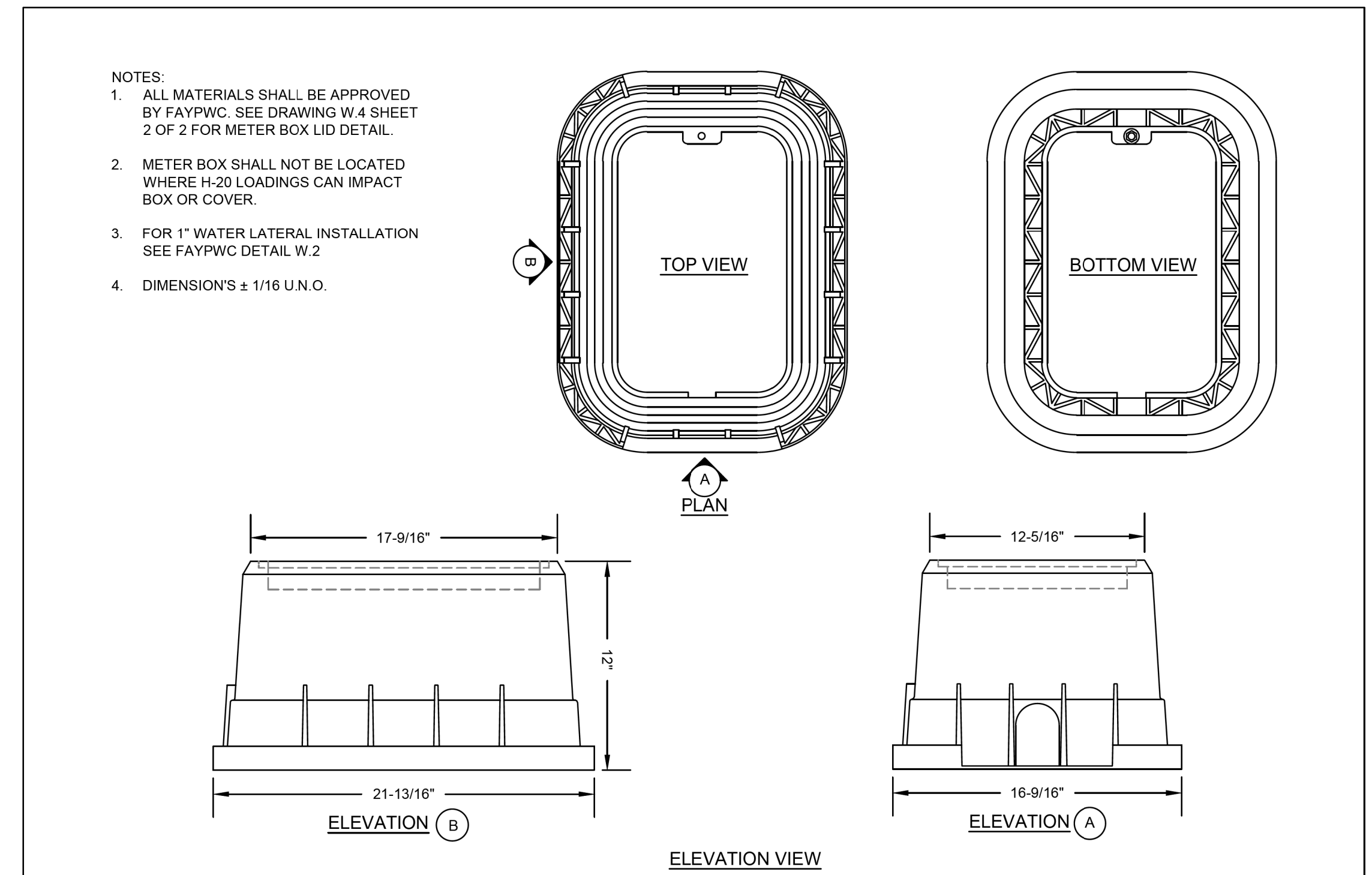
- WATER OUTAGES:** THE CONTRACTOR SHALL SCHEDULE A COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY PLANNED WATER OUTAGE. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY NOTICES BEING ISSUED. ADDITIONALLY, THE CONTRACTOR SHALL LOCATE VERTICALLY AND HORIZONTALLY ANY UTILITIES WITHIN THE WORK AREA, IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS. THE LOCATIONS OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PENDING WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE PURPOSE OF THIS COORDINATION MEETING IS TO ENSURE THAT THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PENDING OUTAGE, VERIFY THAT THERE ARE NO UTILITY CONFLICTS THAT WILL PREVENT THE WORK FROM BEING COMPLETED, ALL EQUIPMENT IS IN GOOD WORKING ORDER, ALL EQUIPMENT IS FUNCTIONAL, ALL MATERIALS ARE ON SITE, ALL NECESSARY TOOLS ARE ON SITE, DISCUSS ANY NECESSARY CONTINGENCY PLANS, AND ANY OTHER ITEMS NECESSARY TO ENSURE THAT THE FAYETTEVILLE PUBLIC WORKS COMMISSION HAS CONFIDENCE THAT THE WORK CAN BE ACCOMPLISHED WITHIN THE GIVEN TIME PERIOD. SHOULD, FOR ANY REASON, THE FAYETTEVILLE PUBLIC WORKS COMMISSION DEEM THAT THE CONTRACTOR IS NOT PREPARED FOR THE PROPOSED OUTAGE, THE OUTAGE NOTIFICATIONS WILL NOT BE DISTRIBUTED AND THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. THE FAYETTEVILLE PUBLIC WORKS COMMISSION WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR OF THIS DECISION. ONCE THE WATER OUTAGE NOTIFICATIONS HAVE BEEN ISSUED, A FOLLOW-UP COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER SHALL BE HELD A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED THE PURPOSE OF THIS MEETING IS TO VERIFY THAT THE CONTRACTOR IS PREPARED TO PROCEED WITH THE OUTAGE, AND THAT ALL EQUIPMENT, MATERIALS, TOOLS, AND ALL OTHER INCIDENTALS ARE ON THE PROJECT SITE AND FUNCTIONING. IF FOR ANY REASON THE FAYETTEVILLE PUBLIC WORKS COMMISSION DEEMS THAT THE CONTRACTOR IS NOT PREPARED, THE OUTAGE SHALL BE POSTPONED AND ALL CUSTOMERS IMMEDIATELY NOTIFIED OF THE CANCELLATION. THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY.

WATER UTILITY NOTES			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.1	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	07/01/16	ADDED NOTE 6
	DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		2	01/01/18	ADDED NOTES 6, 8	
				3	06/01/21	ADDED NOTES 1-7 AND RENUMBERED	

W1-WATER-UTILITY-NOTES.dwg

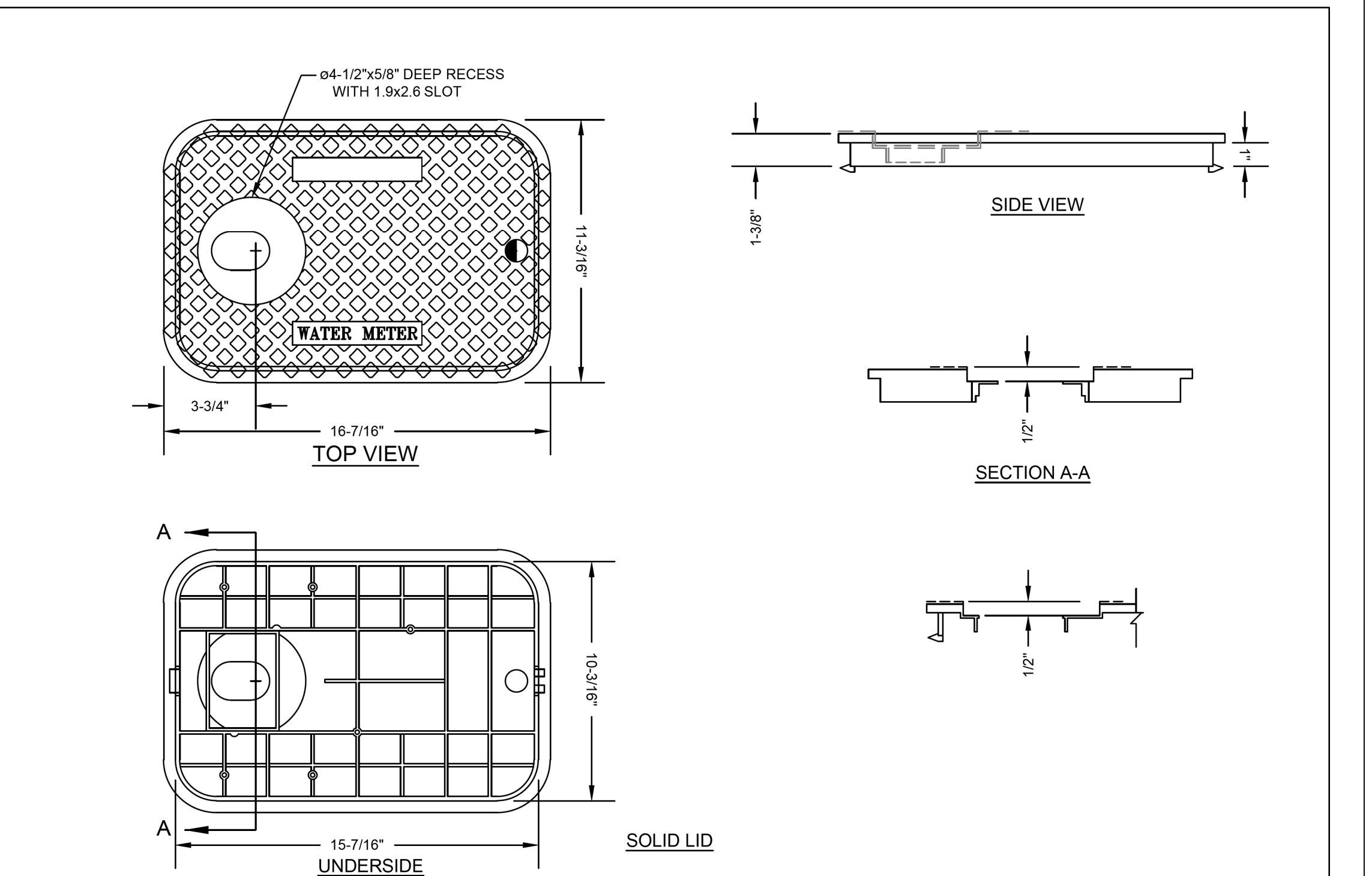
WATER UTILITY NOTES			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.1	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	07/01/16	ADDED NOTE 6
	DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		2	01/01/18	ADDED NOTES 6, 8	
				3	06/01/21	ADDED NOTES 1-7 AND RENUMBERED	

W1-WATER-UTILITY-NOTES.dwg



1-INCH METER BOX DETAILS N.T.S.			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.4	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	03/10	CHANGED BOX DIMENSIONS
	DATE: JAN. 01, 2022	APPROVED BY: M.M.M.					

W4-1IN-METERBOX.dwg



1-INCH METER BOX LID N.T.S.			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.4	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	07/07	REVISED LID
	DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		1	03/10	CHANGED BOX AND LID DIMENSIONS	
				2	01/15	REVISED LID	

W4-1IN-METERBOX.dwg

5/14/2022 11:41 AM C:\Users\jrt\OneDrive\Engineering\UC\Projects\280_511_U2519BB_UJ_DTL_UC3C_PSH.dgn

PROJECT TYPICAL DETAILS



2500 W. JEFF ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.881.8889
NC COLA NO. 24802

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3C
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

1-INCH COMPOSITE METER BOX & COVER
N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION
FAYETTEVILLE, N.C.

WATER RESOURCES DEPARTMENT

NO.	DATE	REVISION
1	03/10	CHANGED BOX & LID DIMENSIONS
2	12/15	REPLACED CI BOX w/COMPOSITE BOX

SHEET NO. 1 OF 2
DWG. NO. W.4B
DATE: JAN. 01, 2022
DWG. BY: FAYPWC
APPROVED BY: M.M.M.

NOTES:
1. ALL MATERIALS SHALL BE APPROVED BY FAYPWC.
2. FOR 1" WATER LATERAL INSTALLATION SEE FAYPWC DETAIL W.2 OR W.24, AS APPLICABLE.
3. COMPOSITE METER BOX TO BE USED IN PAVED AND/OR TRAFFIC AREAS.
4. COMPOSITE METER BOX SHALL BE RATED FOR INCIDENTAL TRAFFIC.

W4B-METERBOX-LID.dwg

1-INCH COMPOSITE METER BOX & COVER
N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION
FAYETTEVILLE, N.C.

WATER RESOURCES DEPARTMENT

NO.	DATE	REVISION
1	12/15	REPLACED CI BOX WITH COMPOSITE BOX

SHEET NO. 2 OF 2
DWG. NO. W.4B
DATE: JAN. 01, 2022
DWG. BY: FAYPWC
APPROVED BY: M.M.M.

W4B-METERBOX-LID.dwg

GATE VALVE
N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION
FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	6/06	ADDED NOTE NO. 9
2	7/09	CLARIFIED NOTES

SHEET NO. 1 OF 1
DWG. NO. W.6
DATE: JAN. 01, 2022
DWG. BY: FAYPWC
APPROVED BY: M.M.M.

NOTES:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH FAYPWC STANDARDS.
2. RESILIENT WEDGE GATE VALVE SHALL BE AS MANUFACTURED BY MUELLER CORP., AMERICAN DARLING OR CLOW CORP.
3. ALL VALVES SHALL HAVE 2" SQUARE OPERATING NUT AND SHALL OPEN COUNTERCLOCKWISE.
4. VALVE BODY, BONNET, AND GATE SHALL BE IN ACCORDANCE WITH AWWA C-509/C-515 AND NSF61.
5. VALVE BODY AND BONNET SHALL BE COATED ON ALL INTERIOR AND EXTERIOR SURFACES WITH A FUSION BONDED EPOXY IN ACCORDANCE WITH AWWA C-550-90.
6. ALL VALVES 24" AND SMALLER SHALL HAVE A SAFE WORKING PRESSURE OF 250PSI.
7. SEE VALVE BOX DETAIL FOR ADDITIONAL INFORMATION.
8. SEE VALVE BOX PROTECTOR RING DETAIL FOR ADDITIONAL INFORMATION.
9. VALVE BOX SECTIONS ARE REQUIRED. THE USE OF PIPE IN LIEU OF VALVE BOX SECTIONS SHALL NOT BE PERMITTED.

W6-GATEVALVE.dwg

VALVE BOX
N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION
FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	07/09	ADDED NOTES 7, 8, AND CLARIFIED NOTES
2	01/14	REVISED NOTES 1, 4, 6

SHEET NO. 1 OF 1
DWG. NO. W.7
DATE: JAN. 01, 2022
DWG. BY: FAYPWC
APPROVED BY: M.M.M.

NOTES:
1. VALVE BOX SHALL BE 3 PART SLIP-TYPE MANUFACTURED BY SIGMA CORPORATION (VB-462), TYLER UNION (6855 SERIES), STAR PIPE PRODUCTS (VB-0004), OR APPROVED EQUAL.
2. VALVE BOX SHALL BE 3-PIECE CLOSE GRAINED CAST IRON SLIP-TYPE VALVE BOX WITH A MINIMUM THICKNESS OF 3/16".
3. VALVE BOX SHALL HAVE RAISED LETTERS "WATER" CAST INTO COVER.
4. VALVE BOX SHALL HAVE 3/8" HOLE DRILLED IN TOP SECTION THRU WHICH A 1/4"x1-1/2" GALVANIZED BOLT SHALL BE USED TO SECURE A MINIMUM 12 GAUGE, SINGLE STRAND, COATED COPPER OR COPPER CLAD STEEL TRACER WIRE FOR NON-FERROUS PIPE. A 1/2" WASHER SHALL BE USED BETWEEN NUT AND INSIDE OF BOX. TIGHTEN HAND TIGHT.
5. SCREW TYPE VALVE BOXES ARE NOT ACCEPTABLE.
6. DIMENSIONS SHOWN VARY BASED UPON THE MANUFACTURER. ACTUAL DIMENSIONS SHALL BE APPROVED BY FAYPWC.
7. VALVE BOX SECTIONS ARE REQUIRED. THE USE OF PIPE IN LIEU OF VALVE BOX SECTIONS SHALL NOT BE PERMITTED.
8. TRACING WIRE SHALL BE INSTALLED OUTSIDE OF BOX.
9. REFER TO FAYPWC DETAIL W.6 FOR INSTALLATION REQUIREMENTS.

W7-VALVEBOX.dwg

PROJECT TYPICAL DETAILS

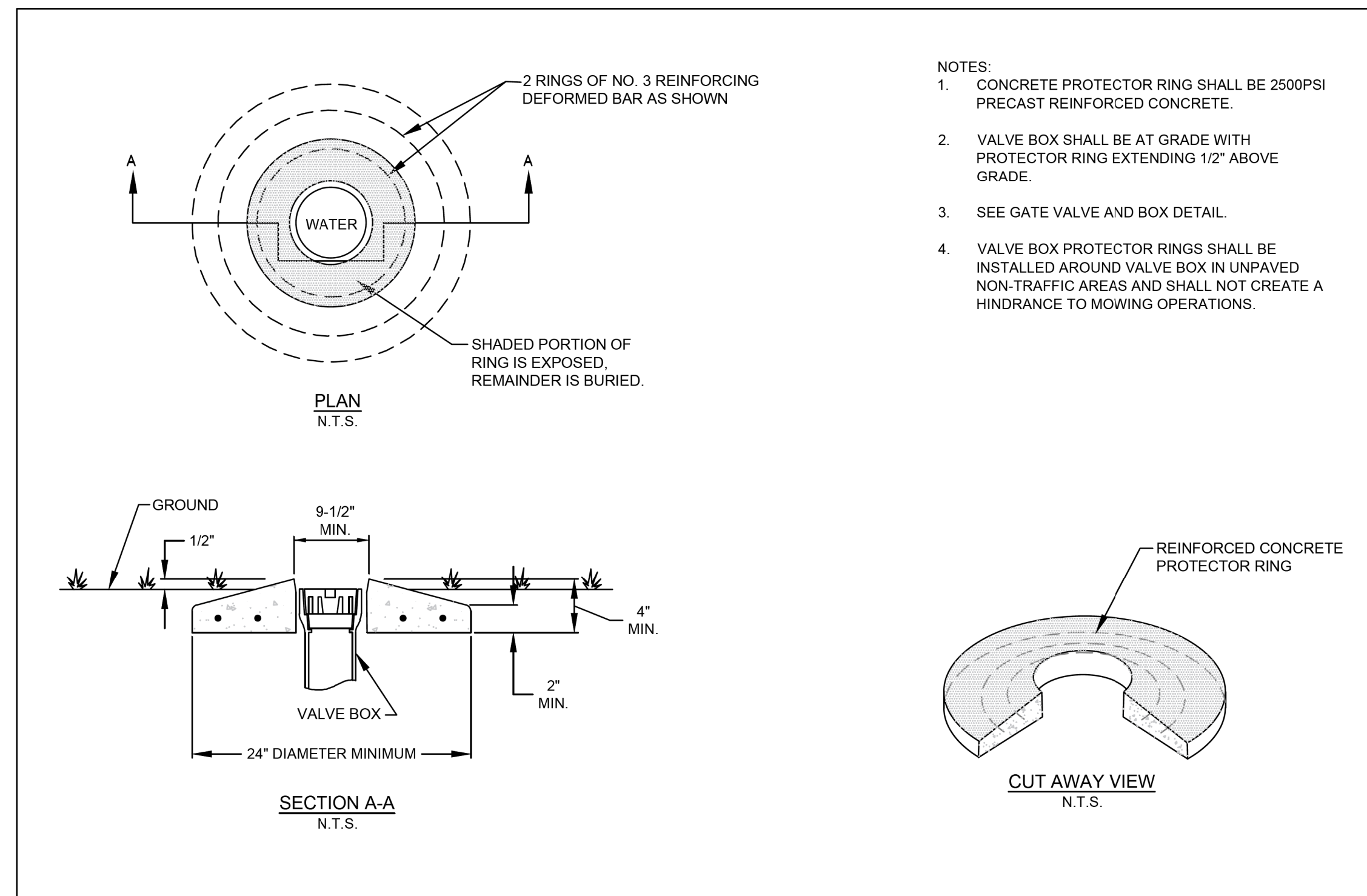


855 WITTEFF ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.891.8889
NC CONTRACTOR LICENSE
046000

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3D
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

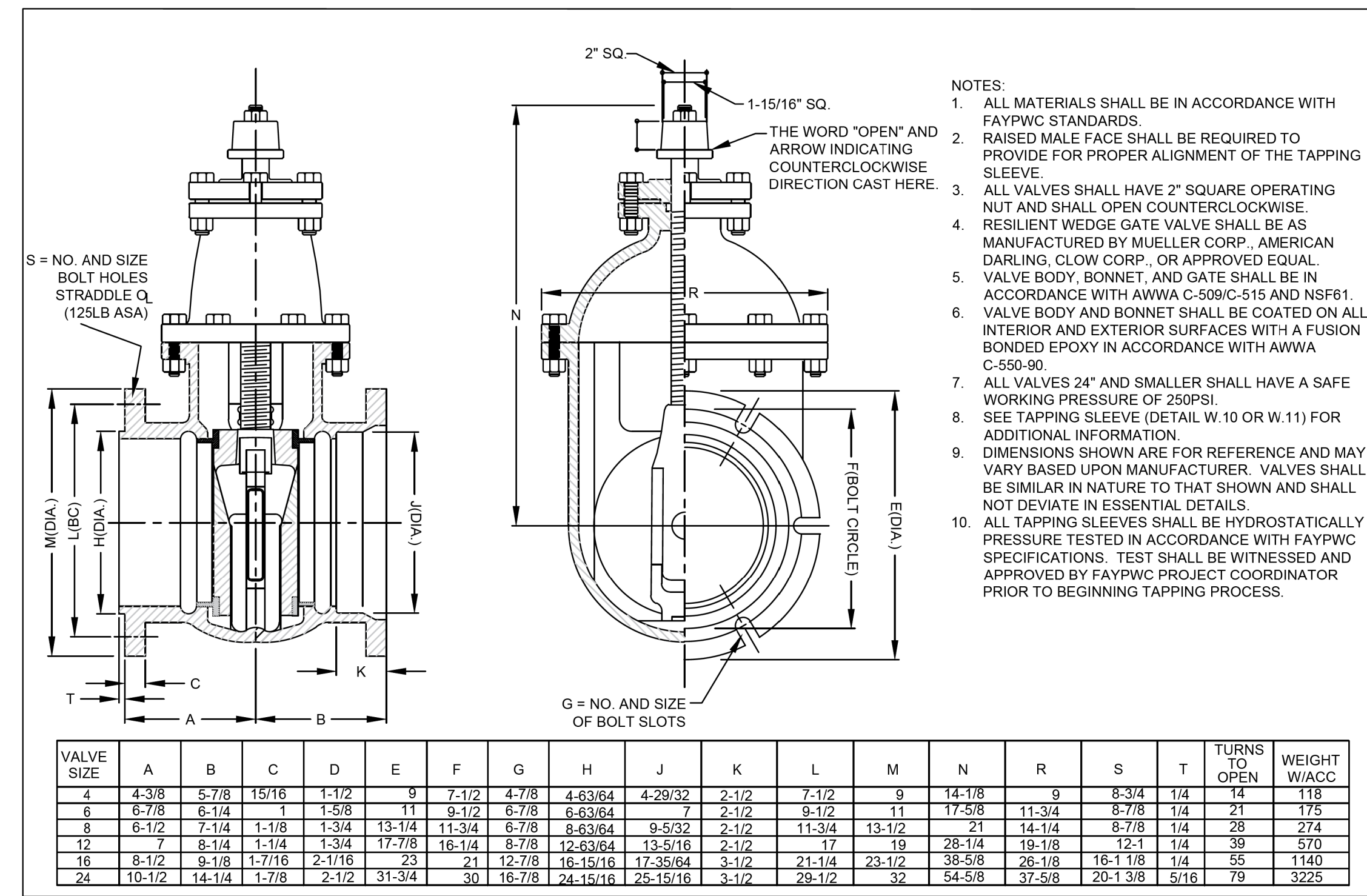
NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.



- NOTES:
- CONCRETE PROTECTOR RING SHALL BE 2500PSI PRECAST REINFORCED CONCRETE.
 - VALVE BOX SHALL BE AT GRADE WITH PROTECTOR RING EXTENDING 1/2" ABOVE GRADE.
 - SEE GATE VALVE AND BOX DETAIL.
 - VALVE BOX PROTECTOR RINGS SHALL BE INSTALLED AROUND VALVE BOX IN UNPAVED NON-TRAFFIC AREAS AND SHALL NOT CREATE A HINDRANCE TO MOWING OPERATIONS.

VALVE BOX PROTECTOR RING N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.8 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT				

W8-CONC-PROTECTOR-RING.dwg

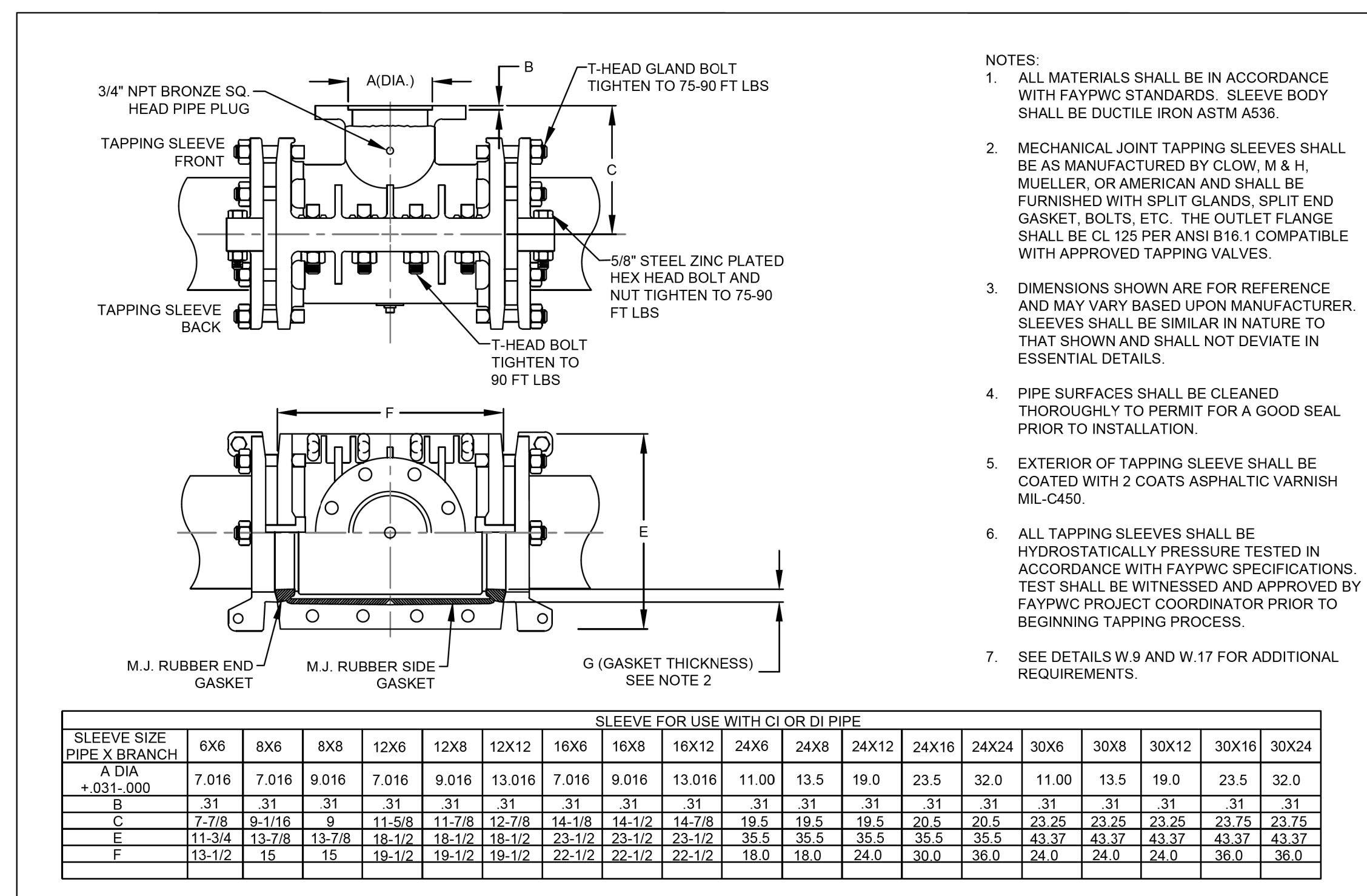


- NOTES:
- ALL MATERIALS SHALL BE IN ACCORDANCE WITH FAYPWC STANDARDS.
 - RAISED MALE FACE SHALL BE REQUIRED TO PROVIDE FOR PROPER ALIGNMENT OF THE TAPPING SLEEVE.
 - ALL VALVES SHALL HAVE 2" SQUARE OPERATING NUT AND SHALL OPEN COUNTERCLOCKWISE.
 - RESILIENT WEDGE GATE VALVE SHALL BE AS MANUFACTURED BY MUELLER CORP., AMERICAN DARLING, CLOW CORP., OR APPROVED EQUAL.
 - VALVE BODY, BONNET, AND GATE SHALL BE IN ACCORDANCE WITH AWWA C-509/C-515 AND NSF61.
 - VALVE BODY AND BONNET SHALL BE COATED ON ALL INTERIOR AND EXTERIOR SURFACES WITH A FUSION BONDED EPOXY IN ACCORDANCE WITH AWWA C-550-90.
 - ALL VALVES 24" AND SMALLER SHALL HAVE A SAFE WORKING PRESSURE OF 250PSI.
 - SEE TAPPING SLEEVE (DETAIL W.10 OR W.11) FOR ADDITIONAL INFORMATION.
 - DIMENSIONS SHOWN ARE FOR REFERENCE AND MAY VARY BASED UPON MANUFACTURER. VALVES SHALL BE SIMILAR IN NATURE TO THAT SHOWN AND SHALL NOT DEVIATE IN ESSENTIAL DETAILS.
 - ALL TAPPING SLEEVES SHALL BE HYDROSTATICALLY PRESSURE TESTED IN ACCORDANCE WITH FAYPWC SPECIFICATIONS. TEST SHALL BE WITNESSED AND APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO BEGINNING TAPPING PROCESS.

VALVE SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	R	S	T	URNS TO OPEN	WEIGHT W/ACC
4	4-3/8	5-7/8	15/16	1-1/2	9	7-1/2	4-7/8	4-63/64	4-29/32	2-1/2	7-1/2	9	14-1/8	9	8-3/4	1/4	14	118
6	6-7/8	6-1/4	1	1-5/8	11	9-1/2	6-7/8	6-63/64	7	2-1/2	9-1/2	11	17-5/8	11-3/4	8-7/8	1/4	21	175
8	6-1/2	7-1/4	1-1/8	1-3/4	13-1/4	11-3/4	6-7/8	8-63/64	9-5/32	2-1/2	11-3/4	13-1/2	21	14-1/4	8-7/8	1/4	28	274
12	7	8-1/4	1-1/4	1-3/4	17-7/8	16-1/4	8-7/8	12-63/64	13-5/16	2-1/2	17	19	28-1/4	19-1/8	12-1	1/4	39	570
16	8-1/2	9-1/8	1-7/16	2-1/16	23	21	12-7/8	16-15/16	17-35/64	3-1/2	21-1/4	23-1/2	38-5/8	28-1/8	18-1 1/8	1/4	55	1140
24	10-1/2	14-1/4	1-7/8	2-1/2	31-3/4	30	16-7/8	24-15/16	25-15/16	3-1/2	29-1/2	32	54-5/8	40-1/8	20-1 3/8	5/16	79	3225

TAPPING VALVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.9 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT				

W9-M.J.-TAPPING-VALVE.dwg

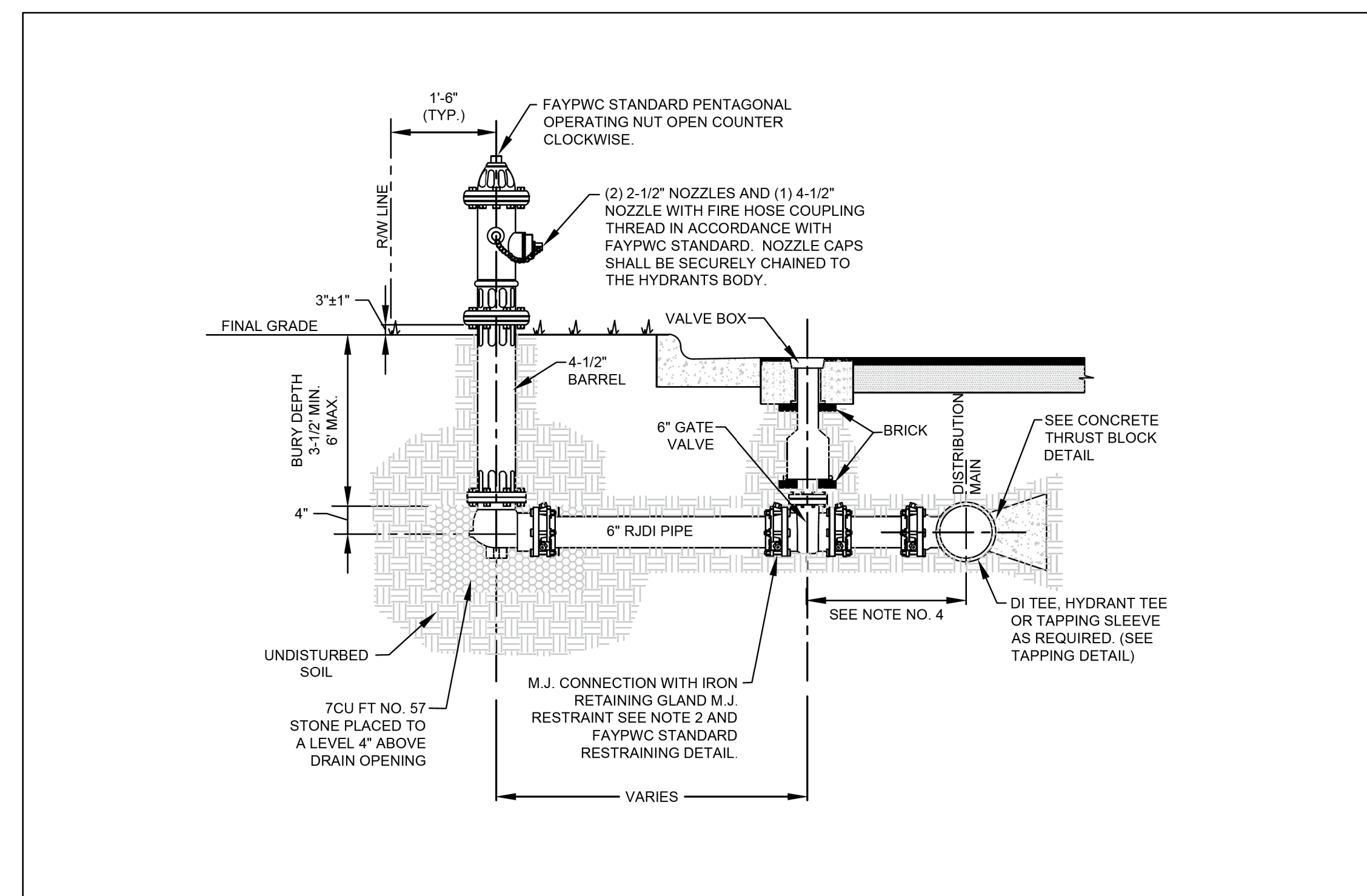


- NOTES:
- ALL MATERIALS SHALL BE IN ACCORDANCE WITH FAYPWC STANDARDS. SLEEVE BODY SHALL BE DUCTILE IRON ASTM A536.
 - MECHANICAL JOINT TAPPING SLEEVES SHALL BE AS MANUFACTURED BY CLOW, M & H, MUELLER, OR AMERICAN AND SHALL BE FURNISHED WITH SPLIT GLANDS, SPLIT END GASKET, BOLTS, ETC. THE OUTLET FLANGE SHALL BE CL 125 PER ANSI B16.1 COMPATIBLE WITH APPROVED TAPPING VALVES.
 - DIMENSIONS SHOWN ARE FOR REFERENCE AND MAY VARY BASED UPON MANUFACTURER. SLEEVES SHALL BE SIMILAR IN NATURE TO THAT SHOWN AND SHALL NOT DEVIATE IN ESSENTIAL DETAILS.
 - PIPE SURFACES SHALL BE CLEANED THOROUGHLY TO PERMIT FOR A GOOD SEAL PRIOR TO INSTALLATION.
 - EXTERIOR OF TAPPING SLEEVE SHALL BE COATED WITH 2 COATS ASPHALTIC VARNISH MIL-C450.
 - ALL TAPPING SLEEVES SHALL BE HYDROSTATICALLY PRESSURE TESTED IN ACCORDANCE WITH FAYPWC SPECIFICATIONS. TEST SHALL BE WITNESSED AND APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO BEGINNING TAPPING PROCESS.
 - SEE DETAILS W.9 AND W.17 FOR ADDITIONAL REQUIREMENTS.

SLEEVE SIZE PIPE X BRANCH	6X6	8X6	8X8	12X6	12X8	12X12	16X6	16X8	16X12	24X6	24X8	24X12	24X16	24X24	30X6	30X8	30X12	30X16	30X24
A DIA +.031-.000	7.016	7.016	9.016	7.016	9.016	13.016	7.016	9.016	13.016	11.00	13.5	19.0	23.5	32.0	11.00	13.5	19.0	23.5	32.0
B	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31
C	7-7/8	9-1/16	9	11-5/8	11-7/8	12-7/8	14-1/8	14-1/2	14-7/8	19.5	19.5	20.5	20.5	23.25	23.25	23.25	23.25	23.75	23.75
E	11-3/4	13-7/8	13-7/8	18-1/2	18-1/2	18-1/2	23-1/2	23-1/2	23-1/2	35.5	35.5	35.5	35.5	43.37	43.37	43.37	43.37	43.37	43.37
F	13-1/2	15	15	19-1/2	19-1/2	19-1/2	22-1/2	22-1/2	22-1/2	18.0	18.0	24.0	30.0	38.0	24.0	24.0	24.0	38.0	38.0

DUCTILE IRON TAPPING SLEEVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.10 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT				

W10-M.J.-TAPPING-SLEEVE.dwg



FIRE HYDRANT AND VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.13 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT				

W13-FHCC.dwg

24-MAR-2022 11:47
 C:\Users\m11111\OneDrive\Documents\Projects\2022\513_U2519BB_UT_DTL_UC3D_PSH.dgn
 D:\C:\Users\m11111\OneDrive\Documents\Projects\2022\513_U2519BB_UT_DTL_UC3D_PSH.dgn

PROJECT TYPICAL DETAILS



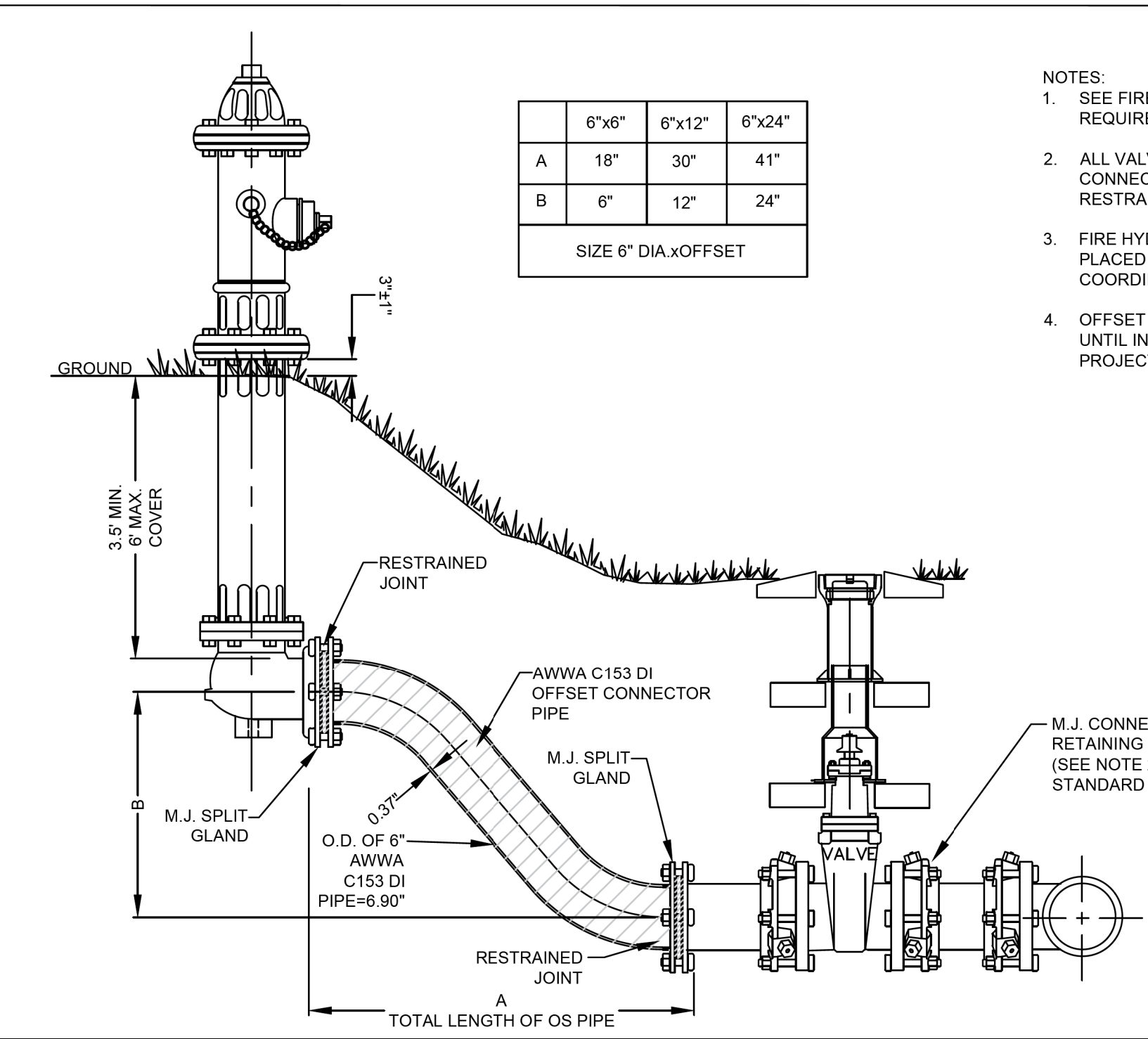
2500 W. OFFSHORE ROAD
 SUITE 110
 FAYETTEVILLE, NC 28404
 PHONE: 910.499.3889
 NC COLA No. F-0002

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3E
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NOTE:
 ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

- NOTES:
- FIRE HYDRANT SHALL BE MODELS MANUFACTURED BY MUELLER CO. (CENTURIAN), AMERICAN VALVE AND HYDRANT CO. (MODEL MARK 73), CLOW MEDALLION OR APPROVED EQUAL.
 - ALL VALVES AND HYDRANTS SHALL HAVE M.J. CONNECTIONS WITH IRON RETAINING GLAND M.J. RESTRAINT.
 - HYDRANT VALVE SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE MAIN, BUT DO NOT PLACE VALVE IN PROPOSED OR EXISTING CURB AND GUTTER. IF THE STREET IS SOIL AND NO PAVING IS TO BE DONE AT THIS TIME, THE LOCATION OF THE VALVE IS TO BE DETERMINED BY THE PWC PROJECT COORDINATOR.
 - HYDRANT BRANCH SHALL NOT BE BACK FILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
 - GATE VALVE AND BOX SHALL BE IN ACCORDANCE WITH FAYPWC STANDARD DETAIL.
 - HYDRANT EXTENSIONS AND/OR OFFSETS SHALL BE APPROVED BY FAYPWC PROJECT COORDINATOR.
 - FIRE HYDRANT CONNECTIONS TO EXISTING WATER MAINS SHALL BE MADE USING A TAPPING SLEEVE AND VALVE BY WET TAP CONNECTION. THE TAPPING SLEEVE AND VALVE SHALL BE HYDROSTATICALLY TESTED PRIOR TO STARTING THE TAP IN THE PRESENCE OF THE FAYPWC PROJECT COORDINATOR.
 - THE PROPOSED LOCATION MAY BE RELOCATED BY THE FAYPWC PROJECT COORDINATOR IF CONFLICTS EXIST (IE: GAS SERVICES, UGE, TELEPHONE, ETC.).
 - THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING WATER MAIN MATERIAL, SIZE, AND DEPTH FOR EACH FIRE HYDRANT LOCATION PRIOR TO ORDERING MATERIALS. THE CONTRACTOR WILL BE REQUIRED TO SUPPLY VARIOUS LENGTHS OF BARRELS AND HYDRANT EXTENSIONS (NO MORE THAN ONE HYDRANT EXTENSION MAY BE USED PER HYDRANT). ADDITIONAL FITTINGS AND/OR HYDRANT EXTENSIONS OR OFFSET CONNECTORS MAY BE REQUIRED TO MAINTAIN PROPER COVER AS APPROVED BY THE FAYPWC PROJECT COORDINATOR.
 - CONTRACTOR SHALL NOTIFY THE APPROPRIATE FIRE DEPARTMENT OF OUT OF SERVICE FIRE HYDRANTS PRIOR TO CONSTRUCTION.
 - FIRE HYDRANT SHALL BE FIELD PAINTED IN ACCORDANCE WITH FAYPWC STANDARDS, BEFORE PROJECT IS ACCEPTED. HYDRANTS SHALL BE PAINTED WITH A GREEN BONNET AND YELLOW BODY. PAINT SHALL BE IN ACCORDANCE WITH FAYPWC REQUIREMENTS. THE CONTRACTOR SHALL PAINT ALL EXPOSED EXTERIOR FIRE HYDRANT SURFACES PRIOR TO FINAL ACCEPTANCE BY FAYPWC. ALL PAINTING SHALL BE DONE IN STRICT ACCORDANCE WITH THE PAINT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE SATISFACTORY TO THE FAYPWC.
 - PROTECTIVE COVERING SHALL BE UTILIZED, AS NECESSARY FOR PROTECTION OF ADJACENT AREAS, EQUIPMENT, SHRUBBERY, OR OTHER ITEMS. AFTER PAINTING IS COMPLETE, THE ENTIRE AREA SHALL BE THOROUGHLY CLEANED UP.
 - ALL PAINT MATERIALS SHALL BE IN THE ORIGINAL SEALED CONTAINERS BEARING THE MANUFACTURER'S NAME.
 - WHERE NECESSARY, THINNING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AND AS APPROVED BY FAYPWC.
 - ALL SURFACES TO BE PAINTED SHALL BE CLEAN AND DRY.
 - THE BONNET OF THE FIRE HYDRANT SHALL BE PAINTED A DARK GREEN, UTILIZING AN ALKYD OR POLYURETHANE ENAMEL, WITH A FINAL DRY MIL THICKNESS OF 4 TO 6 MILS. MULTIPLE COATS MAY BE NECESSARY TO ACHIEVE THE FINAL REQUIRED DRY MIL THICKNESS. THE PAINT SHALL BE FOREST GREEN. SAMPLES SHALL BE SUBMITTED TO FAYPWC.
 - THE REMAINDER OF THE FIRE HYDRANT SHALL BE PAINTED SAFETY YELLOW, UTILIZING AN ALKYD OR POLYURETHANE ENAMEL, WITH A FINAL DRY MIL THICKNESS OF 4 TO 6 MILS. MULTIPLE COATS MAY BE NECESSARY TO ACHIEVE THE FINAL REQUIRED DRY MIL THICKNESS. THE PAINT SHALL BE YELLOW. SAMPLES SHALL BE SUBMITTED TO FAYPWC.



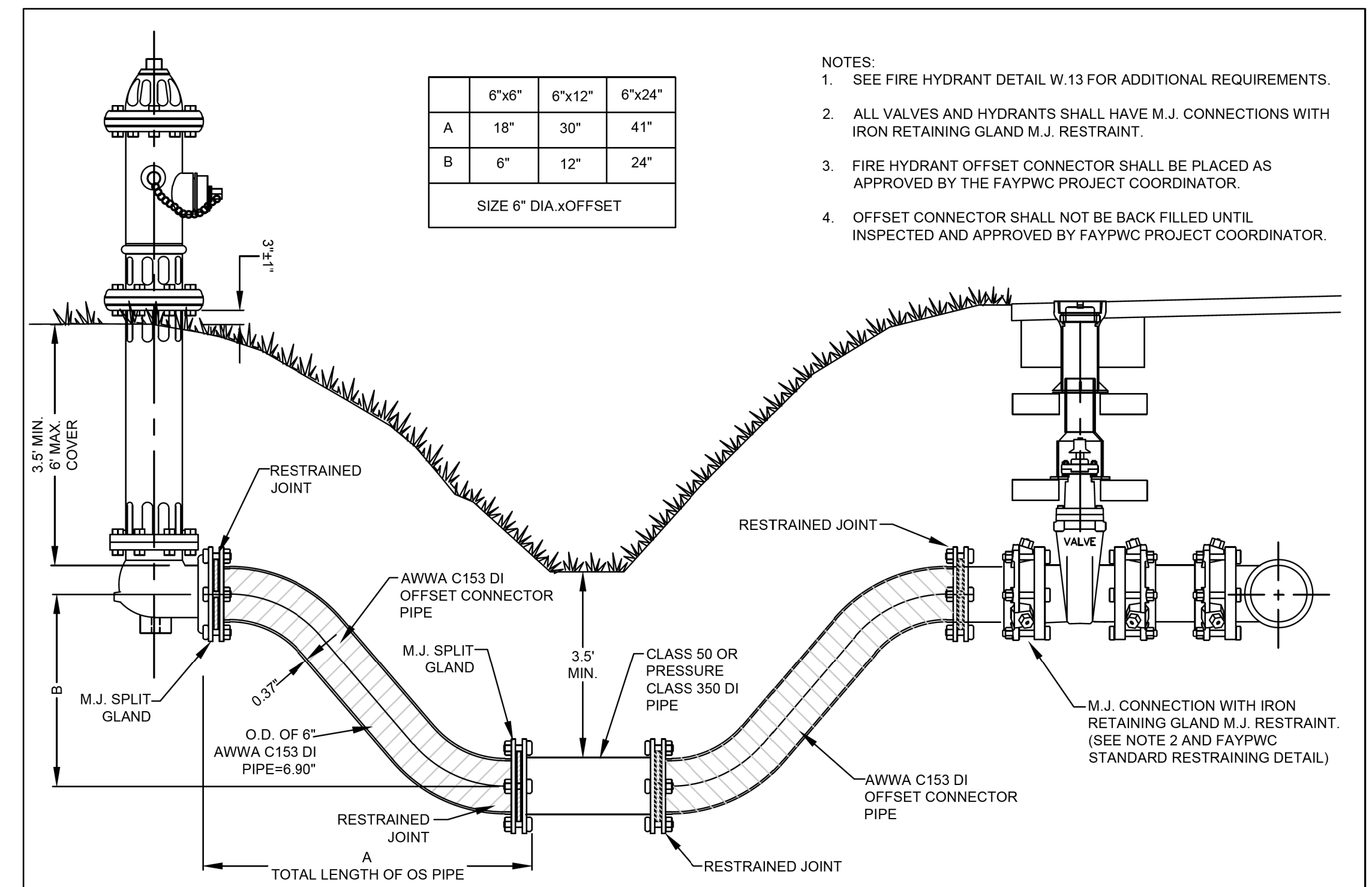
- NOTES:
- SEE FIRE HYDRANT DETAIL W.13 FOR ADDITIONAL REQUIREMENTS.
 - ALL VALVES AND HYDRANTS SHALL HAVE M.J. CONNECTIONS WITH IRON RETAINING GLAND M.J. RESTRAINT.
 - FIRE HYDRANT OFFSET CONNECTOR SHALL BE PLACED AS APPROVED BY THE FAYPWC PROJECT COORDINATOR.
 - OFFSET CONNECTOR SHALL NOT BE BACK FILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.

FIRE HYDRANT AND VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.13 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	10/23/03	REVISED NOTE NO. 4
					2	07/01/09	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
					3	07/01/16	REVISED NOTES

W13-FHCC.dwg

RESTRAINED JOINT FIRE HYDRANT OFFSET CONNECTOR (STEEP BANK) N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.14 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	07/09	REVISED NOTES 1, 2, AND 3

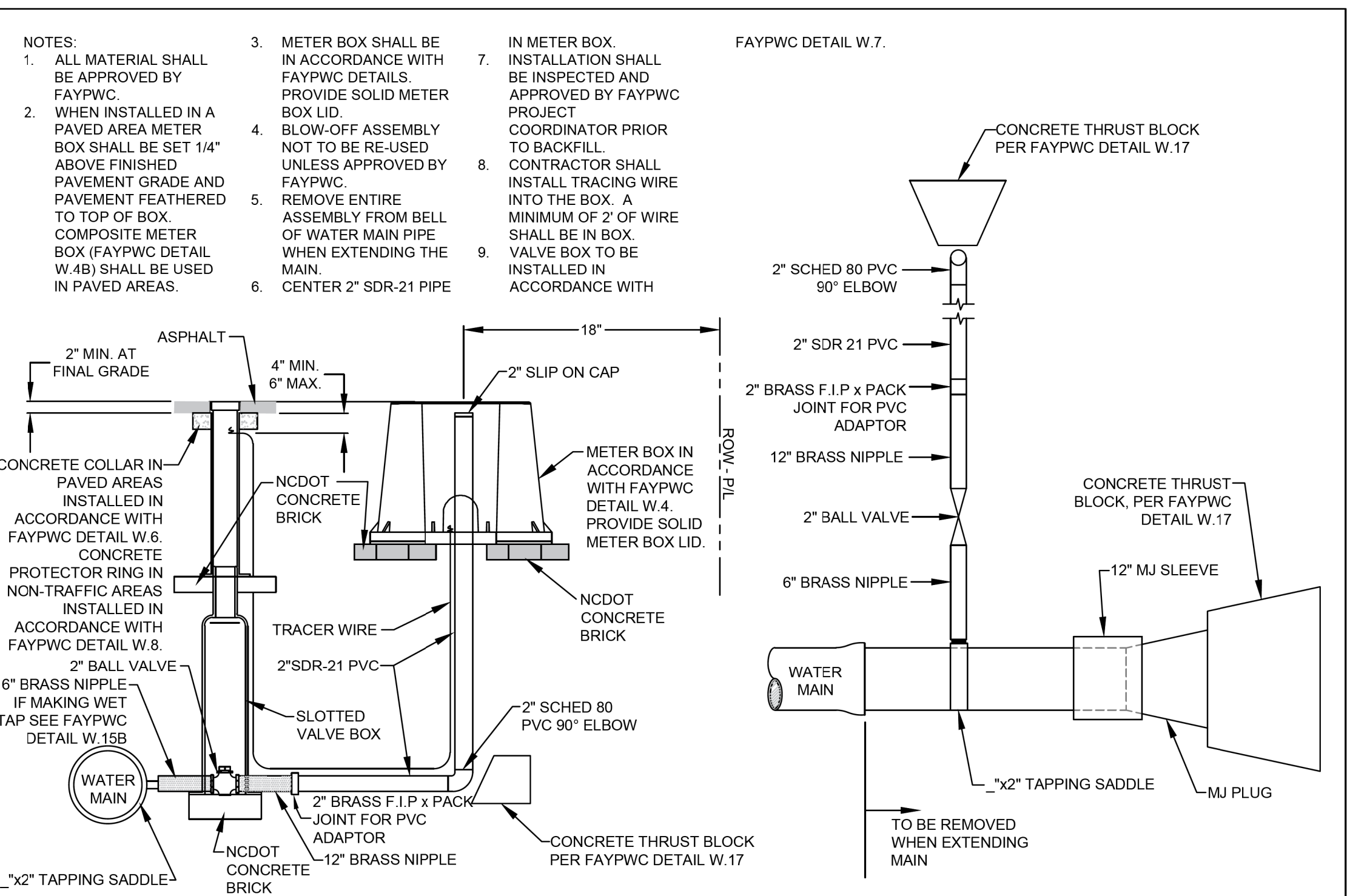
W14-FH-OFFSET.dwg



- NOTES:
- SEE FIRE HYDRANT DETAIL W.13 FOR ADDITIONAL REQUIREMENTS.
 - ALL VALVES AND HYDRANTS SHALL HAVE M.J. CONNECTIONS WITH IRON RETAINING GLAND M.J. RESTRAINT.
 - FIRE HYDRANT OFFSET CONNECTOR SHALL BE PLACED AS APPROVED BY THE FAYPWC PROJECT COORDINATOR.
 - OFFSET CONNECTOR SHALL NOT BE BACK FILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.

RESTRAINED JOINT FIRE HYDRANT OFFSET CONNECTOR AT DITCH N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.14 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	01/05	ADDED NOTES
					2	07/09	REVISED NOTES 1, 2, AND 3

W14-FH-OFFSET.dwg



2" BLOW OFF N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.15 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	08/06	CHANGED FITTINGS TO SCHED 80
					2	11/06	REVISED CONFIGURATION
					3	07/17	REVISED NOTES

W15-2-BLOWOFF.dwg

5/14/2022

PROJECT TYPICAL DETAILS

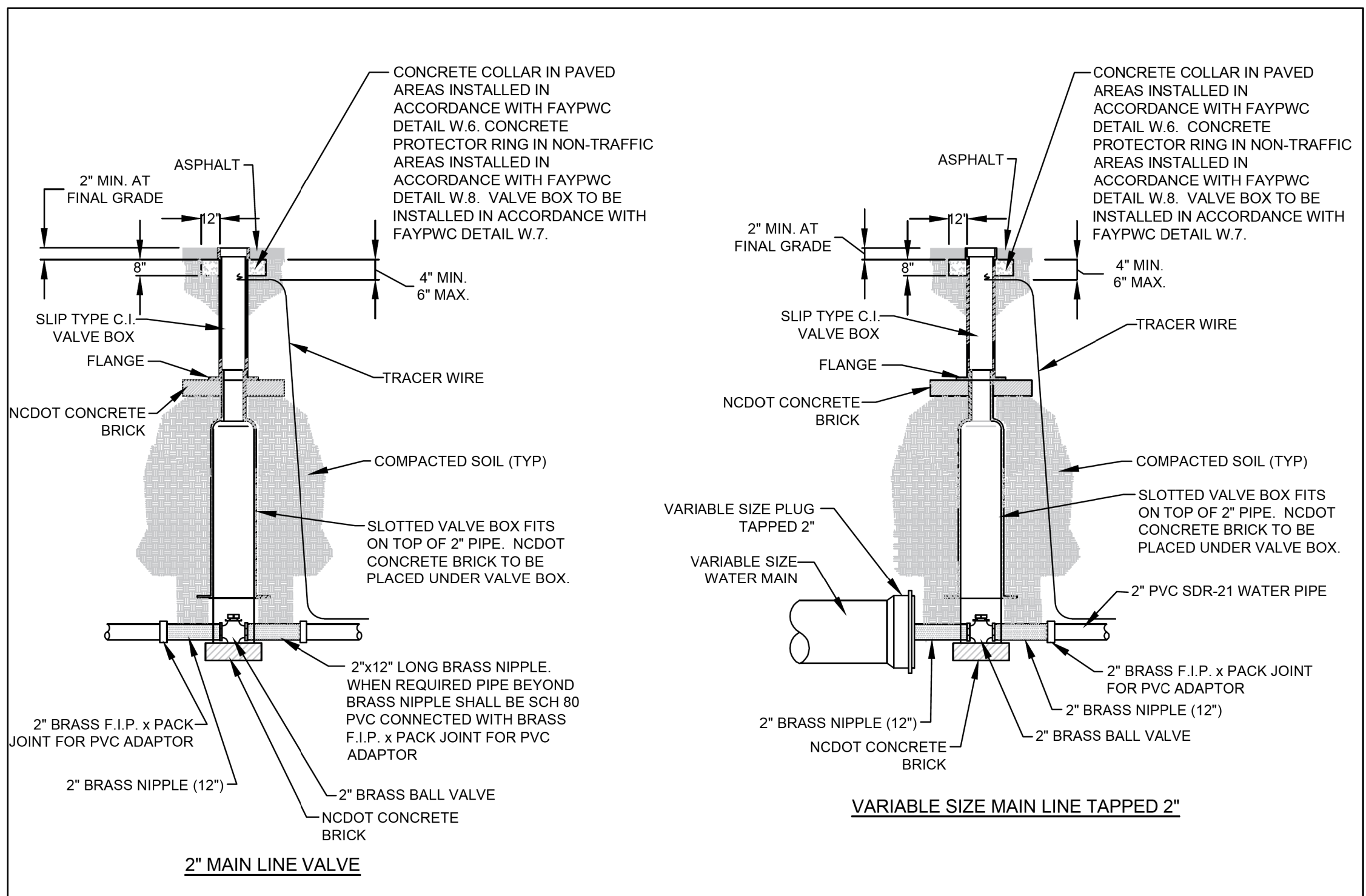


2550 WYFF ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.891.9999
NC COLA No. F-0002

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3F
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

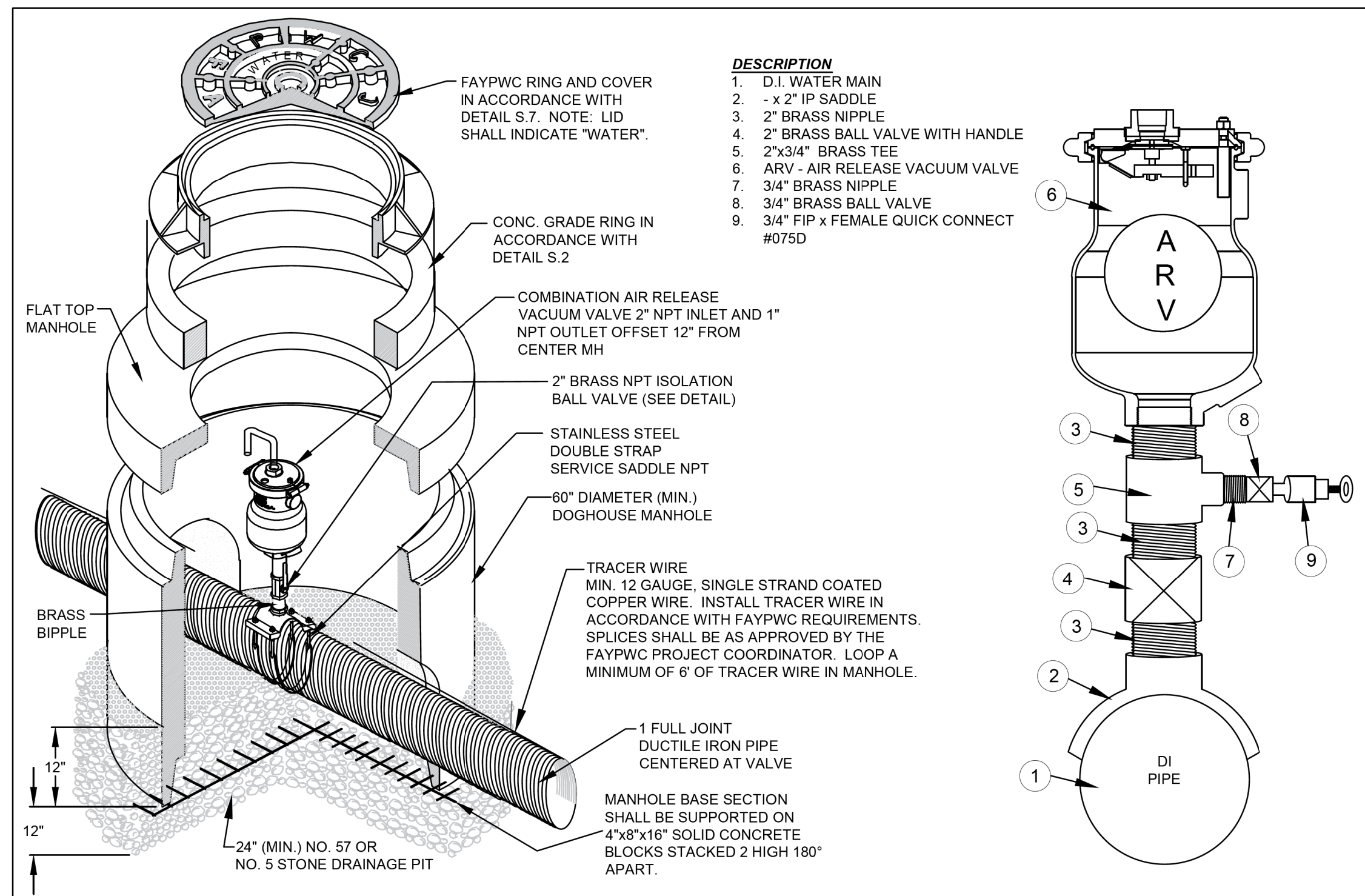
UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.



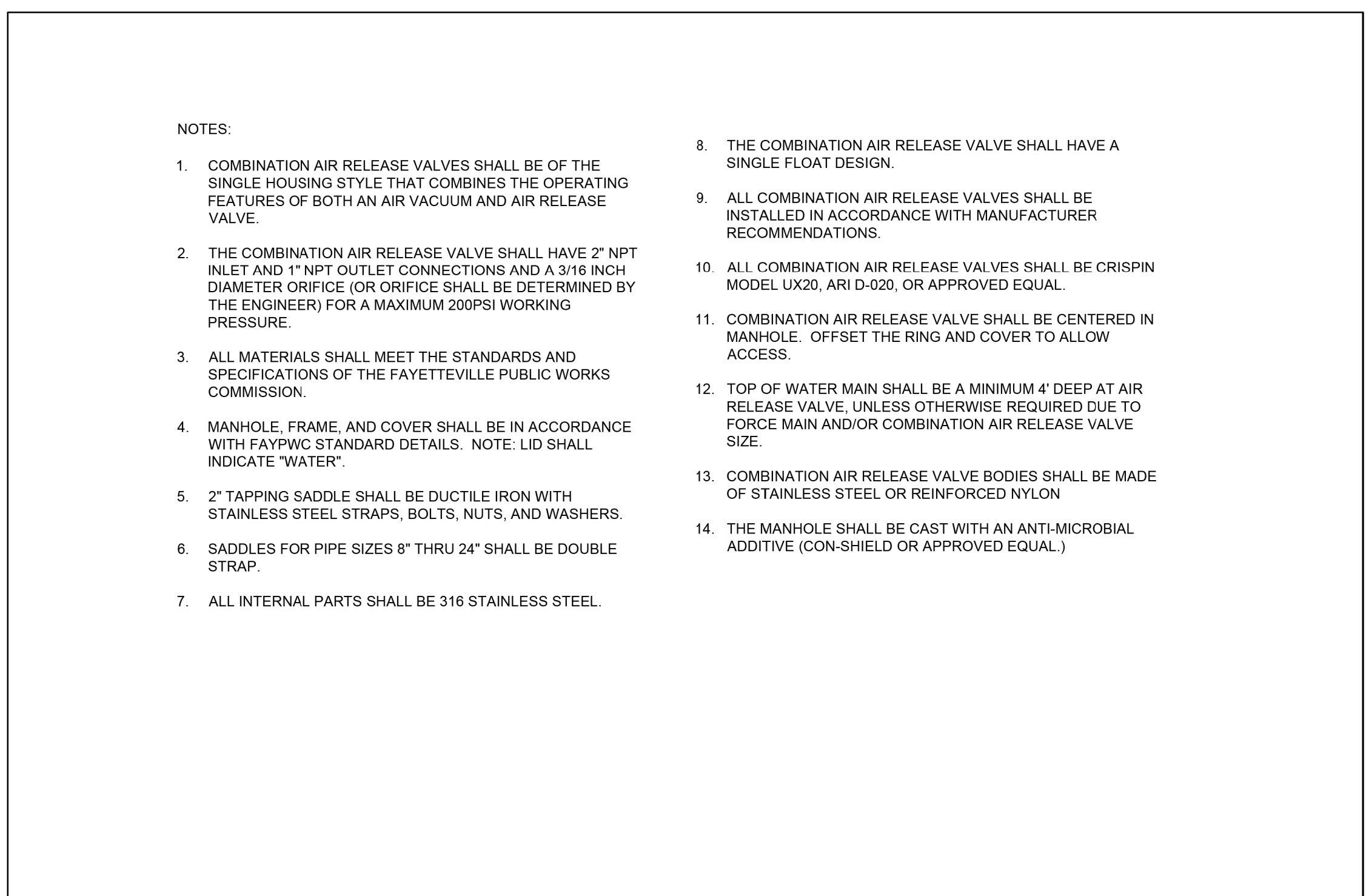
2" VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.15A DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	06/06	ADDED NOTE ON CONCRETE COLLAR
					2	07/17	UPDATED NOTES

W15A-2-VALVE-INSTALLATION.dwg



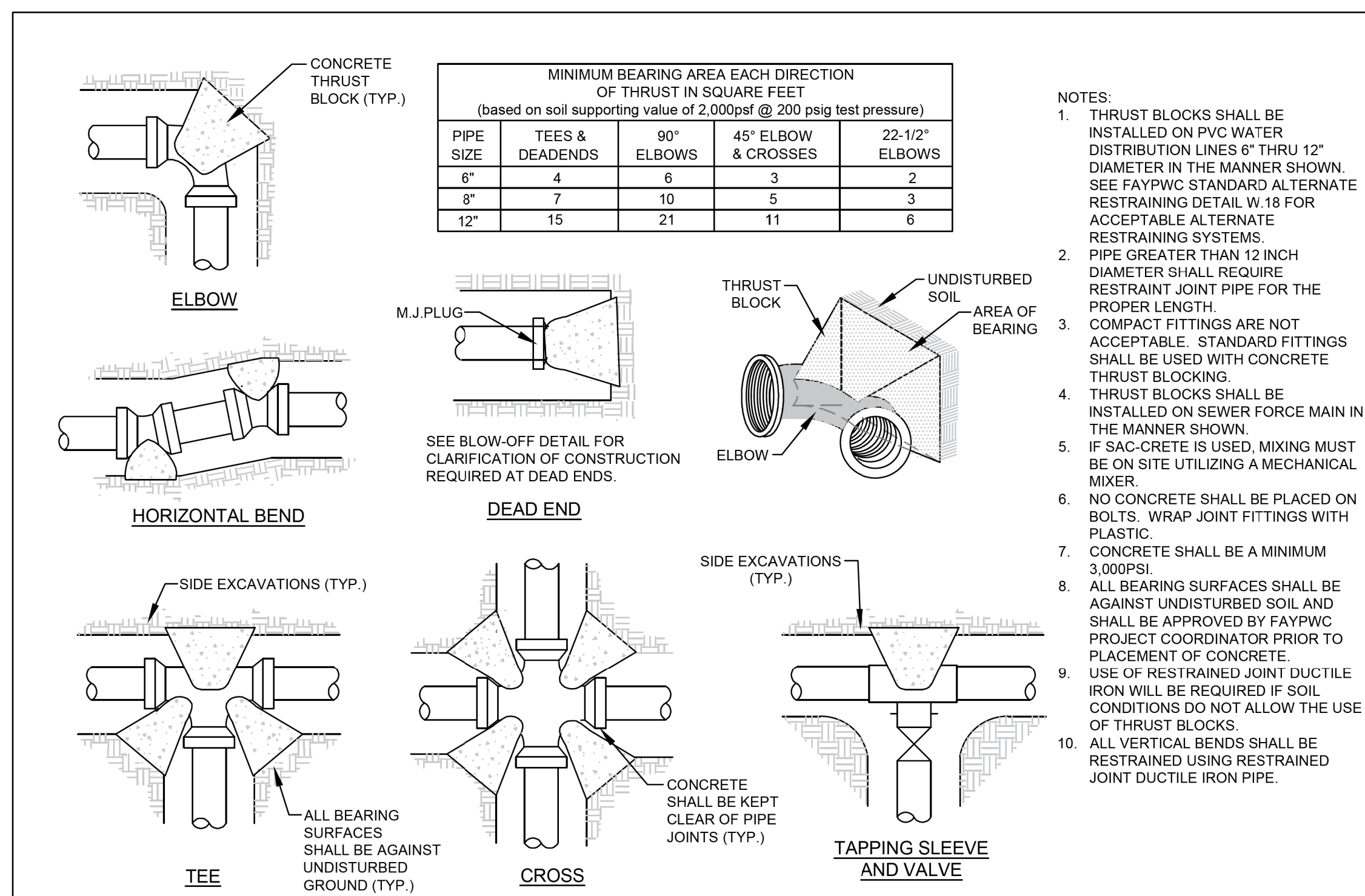
COMBINATION AIR RELEASE VACUUM VALVE (WATER SERVICE) N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. W.16 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	07/09	REVISED NOTES 3 AND 5, ADD NOTE 7
					2	01/13	UPDATED NOTES, ADDED TRACER WIRE

W16-AIR-RELEASE-VALVE.dwg



COMBINATION AIR RELEASE VACUUM VALVE (WATER SERVICE) N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. W.16 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	01/13	ADDED NOTE 16, REVISED NOTES
					2	07/16	DELETED NOTES 3, 16

W16-AIR-RELEASE-VALVE.dwg



CONCRETE THRUST BLOCK DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.			NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. W.17 DATE: JAN. 01, 2022	DWG. BY: FAYPWC APPROVED BY: M.M.M.	WATER RESOURCES ENGINEERING DEPARTMENT		1	09/05	REVISED TABLE
					2	02/07	ADDED NOTES 9 AND 10
					3	07/13	ADDED TAPPING SLEEVE AND VALVE DETAIL

W17-THRUSTBLOCK.dwg

24-MAE-2022-1143
 D:\C:\Users\m1\OneDrive\Engineering\UC\Proj\2519BB_UT_DTL_UC3F_PSH.dgn

5/14/2019

PROJECT TYPICAL DETAILS

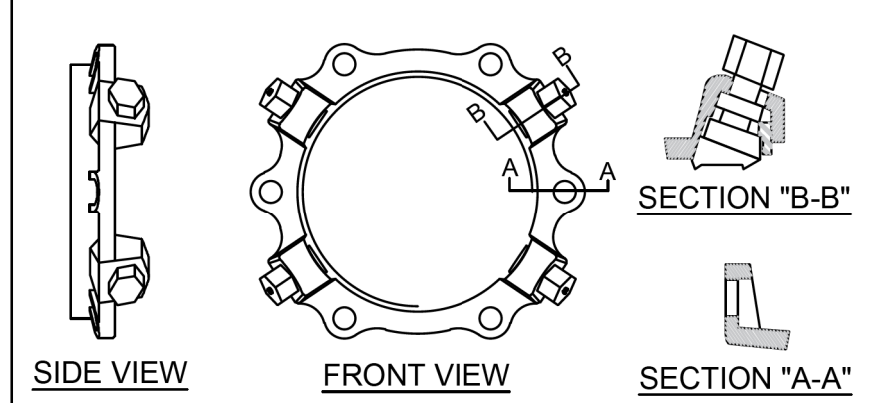


3500 W. BUFF ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.881.9889
NC CONTRACTOR #048000

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3G
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	3/24/2020
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

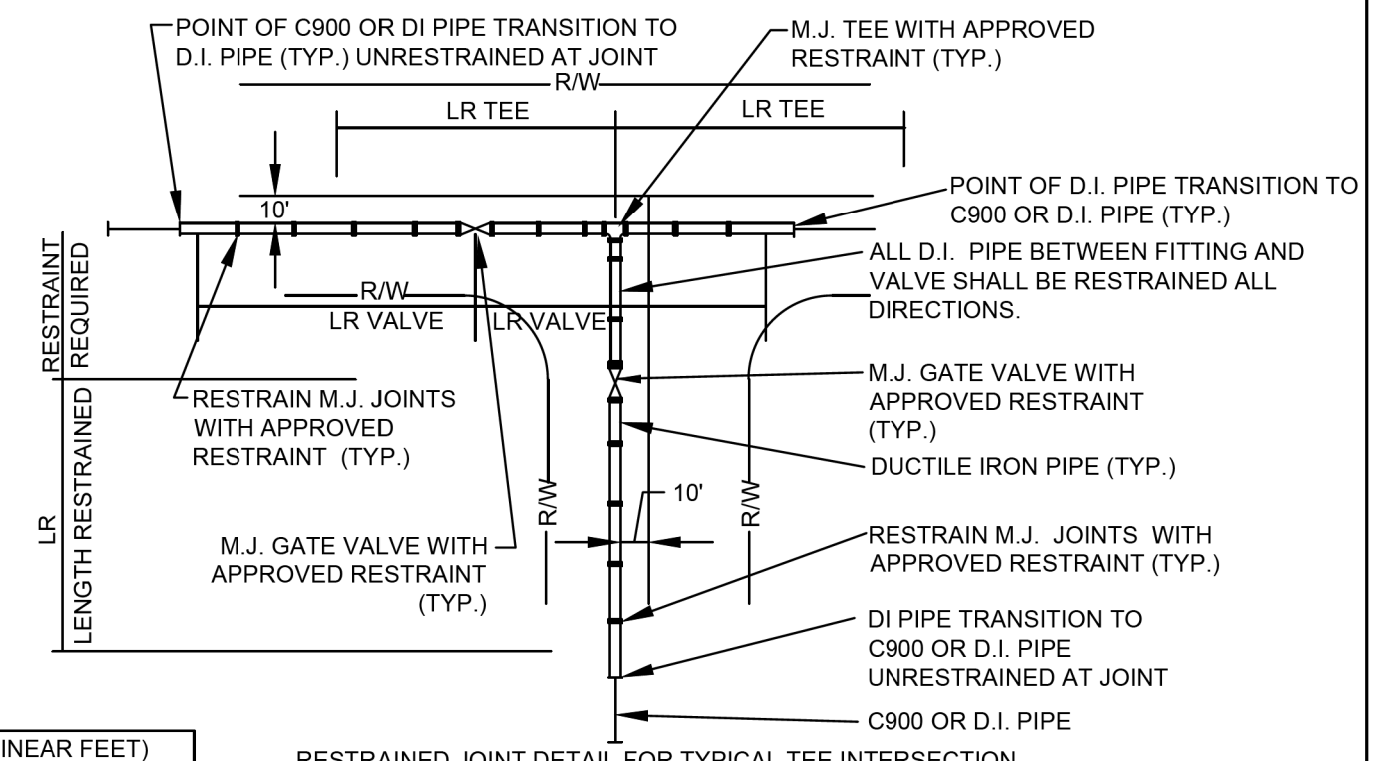
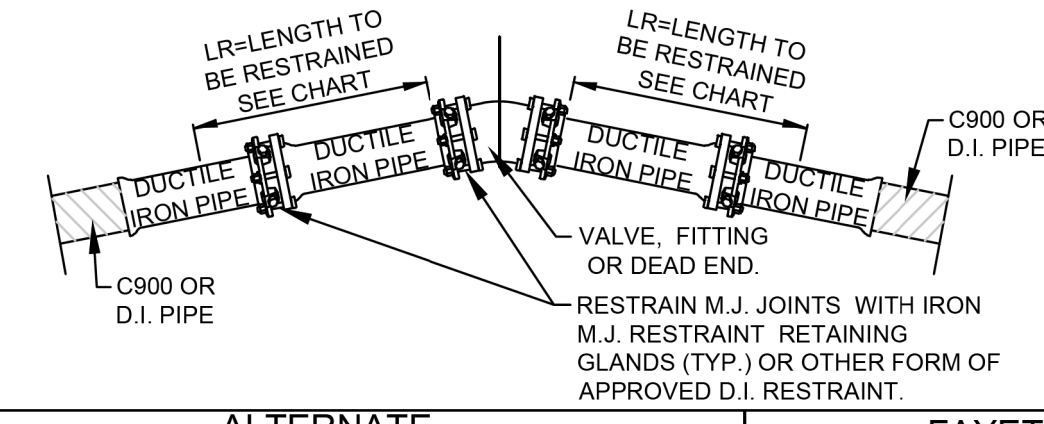


NOMINAL PIPE SIZE	WEDGES QUANTITY	BOLTS QUANTITY	PRESS RATING
6"	3	6	350
8"	4	6	350
12"	8	8	350

8" SIZE SHOWN 6" AND 12" SIMILAR IRON RETAINING GLAND M.J. RESTRAINT

LR (MIN. LENGTH OF RESTRAINT EACH DIRECTION OF THRUST IN LINEAR FEET)
Based on 200 psig pressure, Safety Factor of 2.0:1, BARE DI PIPE AND ML Soil, 3.5' cover
Chart does not apply to pipes wrapped in polyethylene wrap

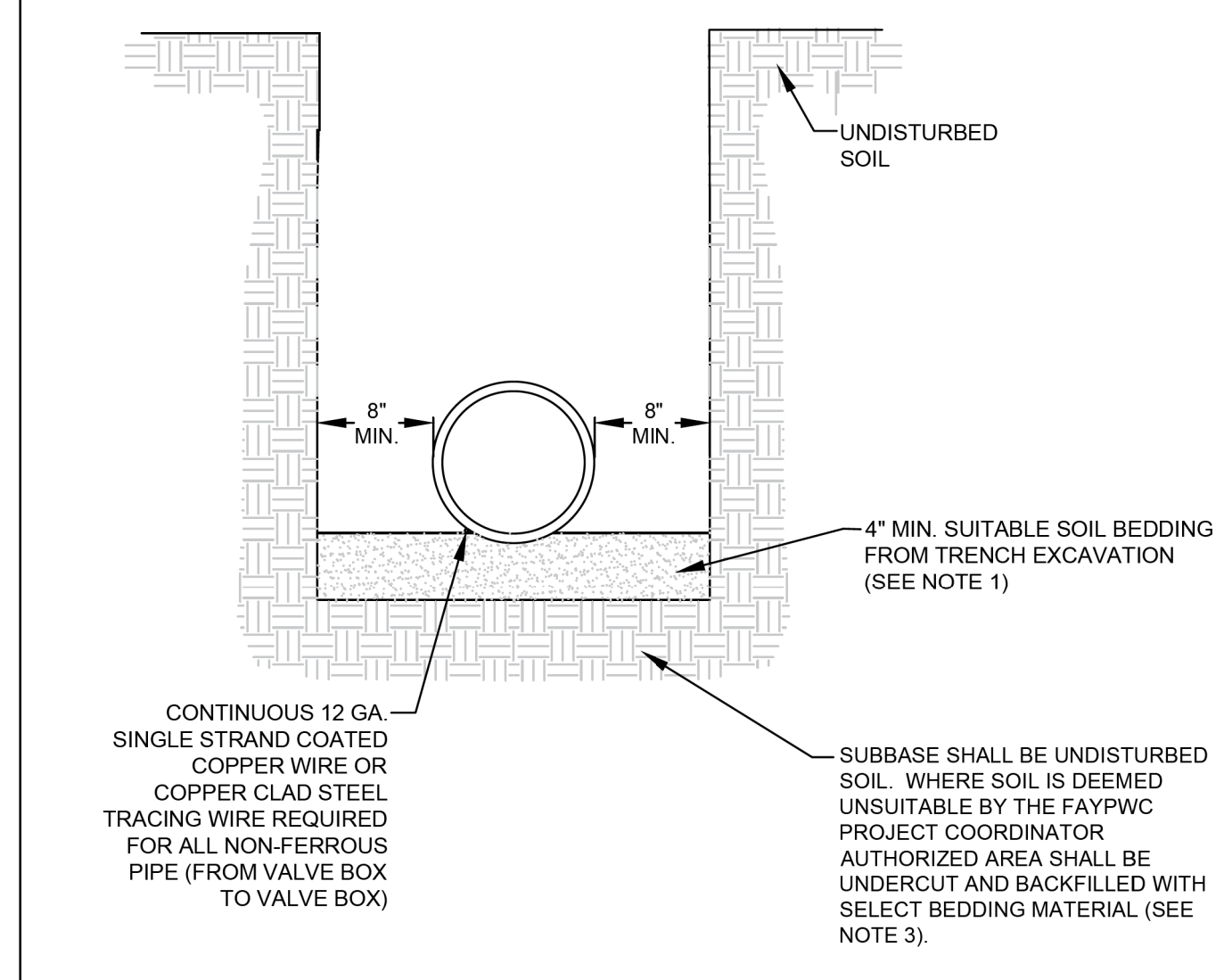
PIPE SIZE	VALVES DEAD ENDS TEES	90° ELBOWS	45° ELBOW & CROSSES	22-1/2° ELBOWS	REDUCER
6"	55'	31'	13'	7'	8"x2" 6'
8"	72'	40'	17'	8'	8"x6" 30'
12"	102'	57'	24'	12'	12"x8" 54'



- RESTRAINED JOINT DETAIL FOR TYPICAL TEE INTERSECTION 4-WAY INTERSECTION SIMILARLY RESTRAINED
- NOTES:
- THRUST RESTRAINT SHALL BE INSTALLED ON DUCTILE IRON WATER DISTRIBUTION LINES 6" THRU 12" DIAMETER IN THE MANNER SHOWN. SEE FAYPWC STANDARD THRUST BLOCK DETAIL W.17 FOR PVC RESTRAINT.
 - IRON RETAINING GLAND M.J. RESTRAINT OR OTHER FORMS OF IRON RESTRAINT SHALL NOT BE USED ON PVC PIPE.
 - PIPE GREATER THAN 12 INCH DIAMETER SHALL REQUIRE RESTRAINED JOINT PIPE FOR THE PROPER LENGTH.
 - COMPACT FITTINGS ARE ACCEPTABLE FOR USE WITH IRON RETAINING GLAND M.J. RESTRAINT AND OTHER FORMS OF D.I. RESTRAINT.
 - THE MINIMUM LENGTH OF RESTRAINT INDICATED SHALL REQUIRE ALL JOINTS WITHIN THE LR DISTANCE TO BE RESTRAINED.
 - RESTRAINT SYSTEM SHALL BE INSPECTED AND APPROVED BY FAYPWC PRIOR TO BACKFILLING.
 - RESTRAINT SYSTEMS MAY VARY BASED UPON THE ENGINEER'S DESIGN AS SHOWN ON THE PLAN AND PROFILE SHEETS.
 - GRIPPER RING AND FIELD LOK GASKETS ARE AN ACCEPTABLE METHOD OF RESTRAINT ON DUCTILE IRON PIPE ONLY.

ALTERNATE RESTRAINT DETAIL (DUCTILE IRON PIPE ONLY) N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1		DWG. NO. W.18		1		11/16/07
DWG. BY: FAYPWC		APPROVED BY: M.M.M.		REVISED TABLE, ADDED NOTE 8		
DATE: JAN. 01, 2022		WATER RESOURCES ENGINEERING DEPARTMENT				

W18-RESTRAINT-DETAIL.dwg

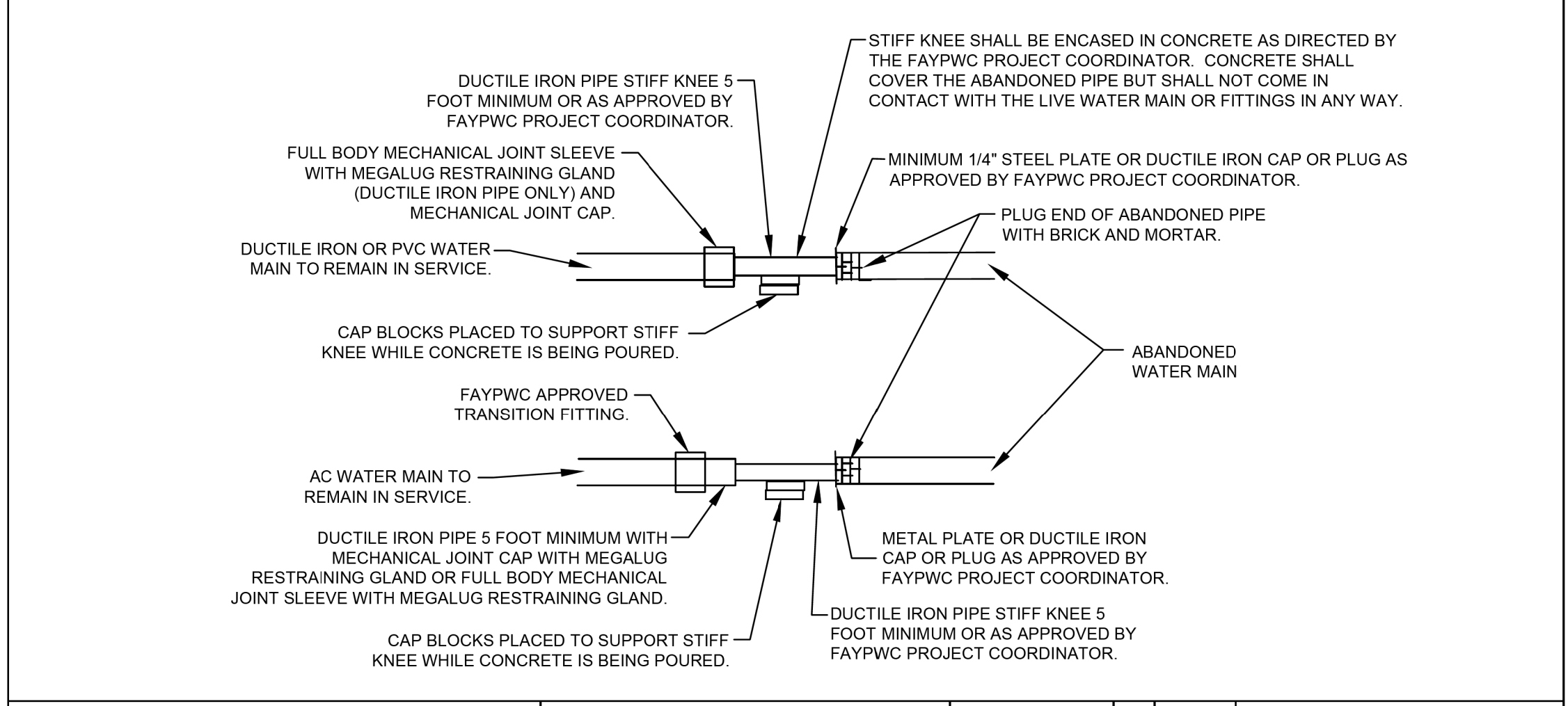


- NOTES:
- SUITABLE SOIL BEDDING IS DEFINED AS "NATIVE" SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH.
 - SUITABLE BEDDING MATERIAL SHALL EXTEND TO UNDISTURBED TRENCH WALLS.
 - IF GROUND CONDITIONS WARRANT, IT MAY BE NECESSARY TO BED DUCTILE IRON WATER MAINS IN SELECT BEDDING MATERIAL (NO. 5 OR NO. 57 STONE) TO THE SPRINGLINE OF THE PIPE. SUCH INSTALLATION SHALL BE AS DIRECTED BY THE FAYPWC PROJECT COORDINATOR.

WATER MAIN BEDDING DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1		DWG. NO. W.19		1		01/01/17
DWG. BY: FAYPWC		APPROVED BY: M.M.M.		REVISED NOTES		
DATE: JAN. 01, 2022		WATER RESOURCES ENGINEERING DEPARTMENT		2 07/01/13 REVISED NOTE RE: TRACER WIRE		

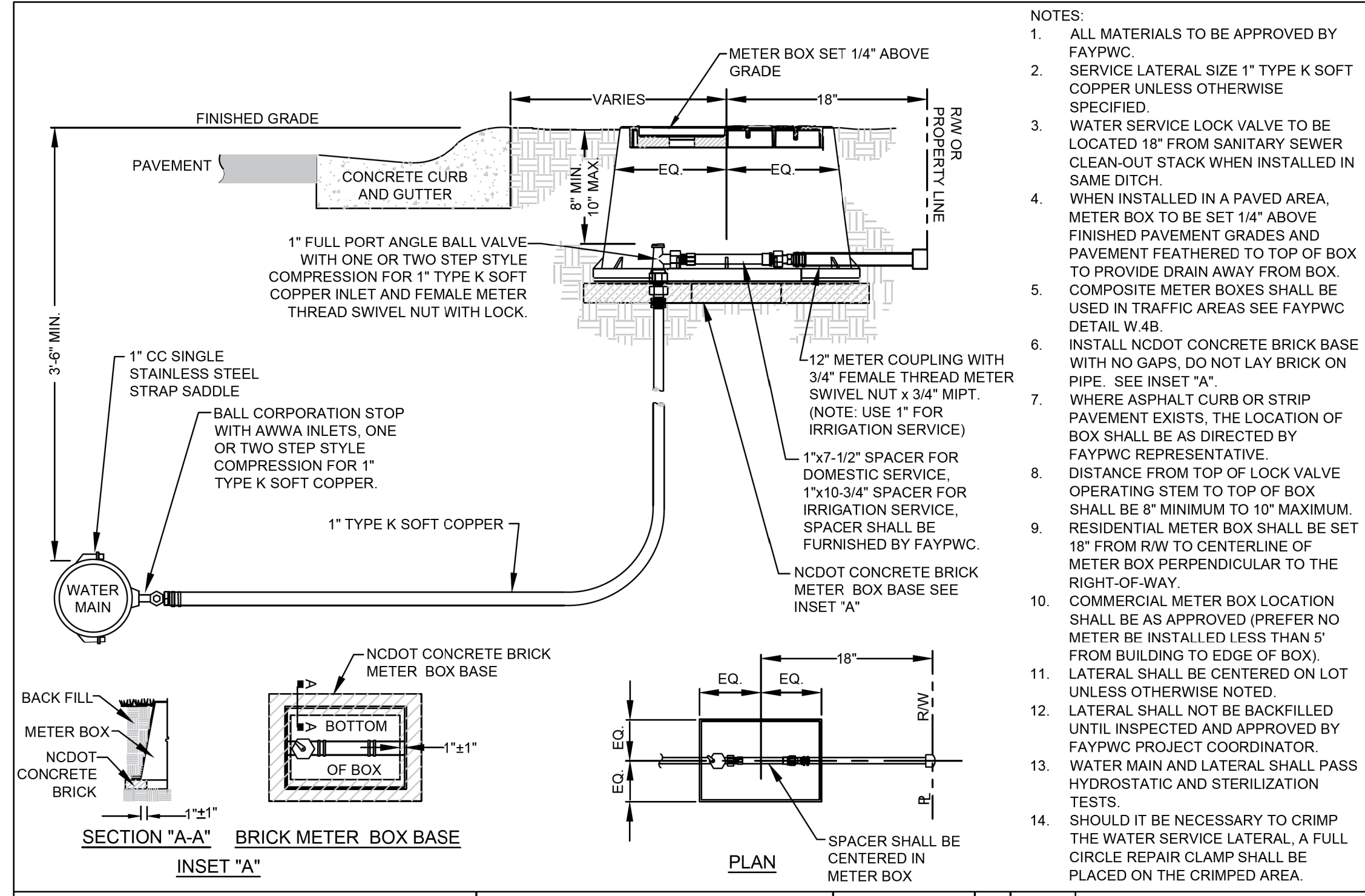
W19-WATER-BEDDING.dwg

- NOTES:
- KILL OUT SHALL BE DONE A MINIMUM OF 5 FEET FROM ANY FITTING ON THE EXISTING WATER MAIN THAT IS TO REMAIN IN SERVICE.
 - IRON PIPE SHALL BE 4" DIAMETER FOR MAINS 12" OR LESS. UTILIZE 8" PIPE OR LARGER AS DIRECTED BY THE FAYPWC PROJECT COORDINATOR FOR ALL MAINS LARGER THAN 12".
 - ALLOW CONCRETE TO SET-UP PRIOR TO PLACING BACKFILL.
 - VOLUME OF CONCRETE FOR THRUST BLOCK SHALL BE IN ACCORDANCE WITH FAYPWC STANDARD DETAIL W.17.
 - ALL OUTAGES SHALL BE COORDINATED WITH THE FAYPWC PROJECT COORDINATOR.
 - PIPE SHALL BE GROUT FILLED OR REMOVED IN ACCORDANCE WITH NCDOT SPECIFICATIONS WHEN LOCATED IN THE STATE RIGHT-OF-WAY. ALL OTHER INSTANCES SHALL BE IN ACCORDANCE WITH FAYPWC SPECIFICATIONS.



WATER MAIN KILL-OUT N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1		DWG. NO. W.22		1		
DWG. BY: FAYPWC		APPROVED BY: M.M.M.				
DATE: JAN. 01, 2022		WATER RESOURCES ENGINEERING DEPARTMENT				

W22-WATERMAIN-KILLOUT.dwg



- NOTES:
- ALL MATERIALS TO BE APPROVED BY FAYPWC.
 - SERVICE LATERAL SIZE 1" TYPE K SOFT COPPER UNLESS OTHERWISE SPECIFIED.
 - WATER SERVICE LOCK VALVE TO BE LOCATED 18" FROM SANITARY SEWER CLEAN-OUT STACK WHEN INSTALLED IN SAME DITCH.
 - WHEN INSTALLED IN A PAVED AREA, METER BOX TO BE SET 1/4" ABOVE FINISHED PAVEMENT GRADES AND PAVEMENT FEATHERED TO TOP OF BOX TO PROVIDE DRAIN AWAY FROM BOX. COMPOSITE METER BOXES SHALL BE USED IN TRAFFIC AREAS SEE FAYPWC DETAIL W.4B.
 - INSTALL NCDOT CONCRETE BRICK BASE WITH NO GAPS. DO NOT LAY BRICK ON PIPE. SEE INSET "A".
 - WHERE ASPHALT CURB OR STRIP PAVEMENT EXISTS, THE LOCATION OF BOX SHALL BE AS DIRECTED BY FAYPWC REPRESENTATIVE.
 - DISTANCE FROM TOP OF LOCK VALVE OPERATING STEM TO TOP OF BOX SHALL BE 8" MINIMUM TO 10" MAXIMUM. RESIDENTIAL METER BOX SHALL BE SET 18" FROM RW TO CENTERLINE OF METER BOX PERPENDICULAR TO THE RIGHT-OF-WAY.
 - COMMERCIAL METER BOX LOCATION SHALL BE AS APPROVED (PREFER NO METER BE INSTALLED LESS THAN 5' FROM BUILDING TO EDGE OF BOX).
 - LATERAL SHALL BE CENTERED ON LOT UNLESS OTHERWISE NOTED.
 - LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
 - WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC AND STERILIZATION TESTS.
 - SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.

1" COPPER WATER SERVICE LATERAL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1		DWG. NO. W.24		2		09/05
DWG. BY: FAYPWC		APPROVED BY: M.M.M.		3		07/06
DATE: JAN. 01, 2022		WATER RESOURCES ENGINEERING DEPARTMENT		4 07/17 RESIZED NOTES		

W24-COPPER-SERVICE-LATERAL.dwg

24-May-2022 11:44
 C:\Users\m1141\OneDrive\Engineering\UC\Proj\2519_U2519BB_UT_DTL\UC-3G_PSH.dgn
 3/24/2020

PROJECT TYPICAL DETAILS

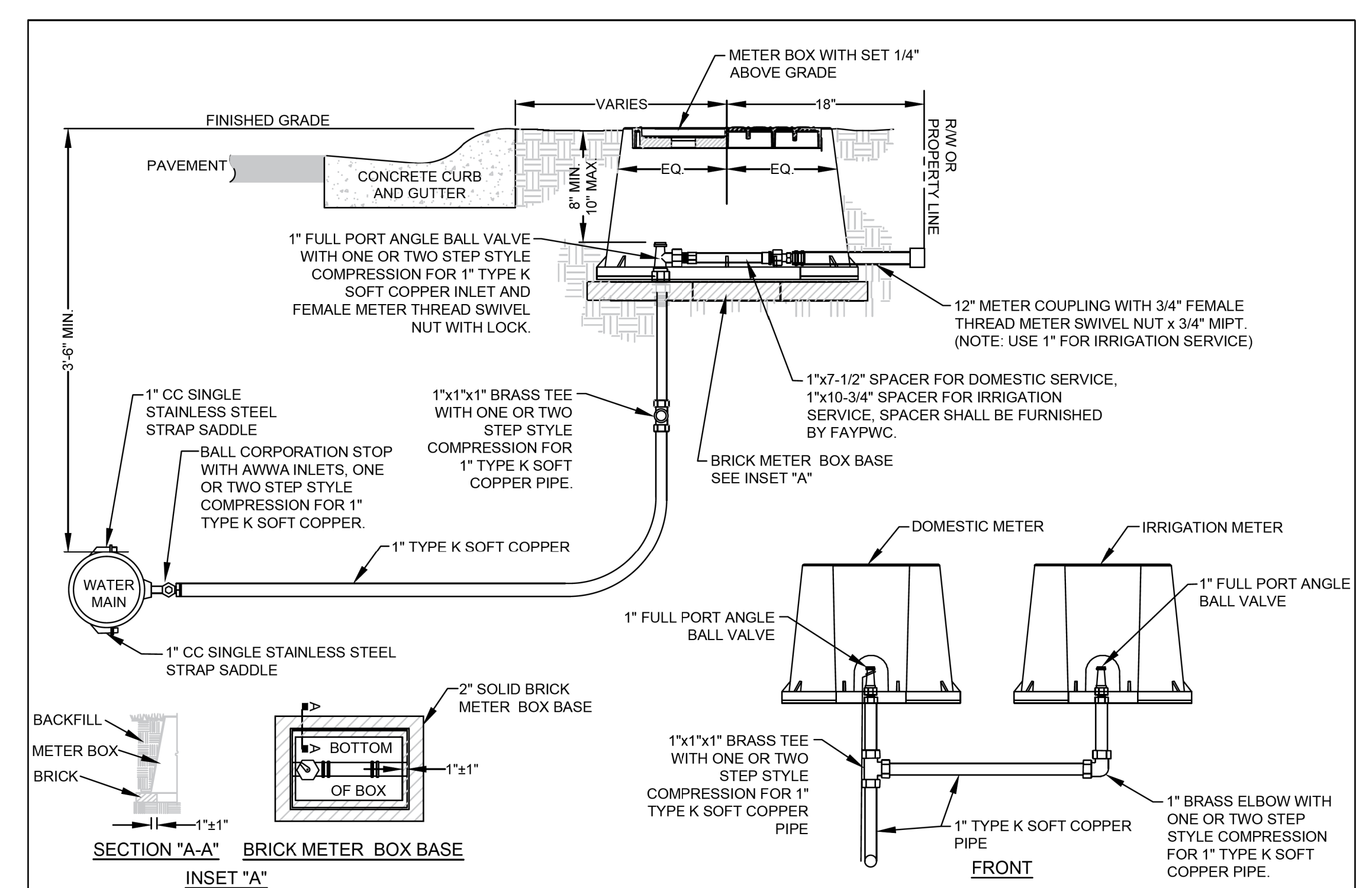


2550 WOODBURN ROAD
SUITE 110
FAYETTEVILLE, NC 28404
PHONE: 910.499.3899
NC COLA # 42602

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3H
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	
	3/24/2022
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

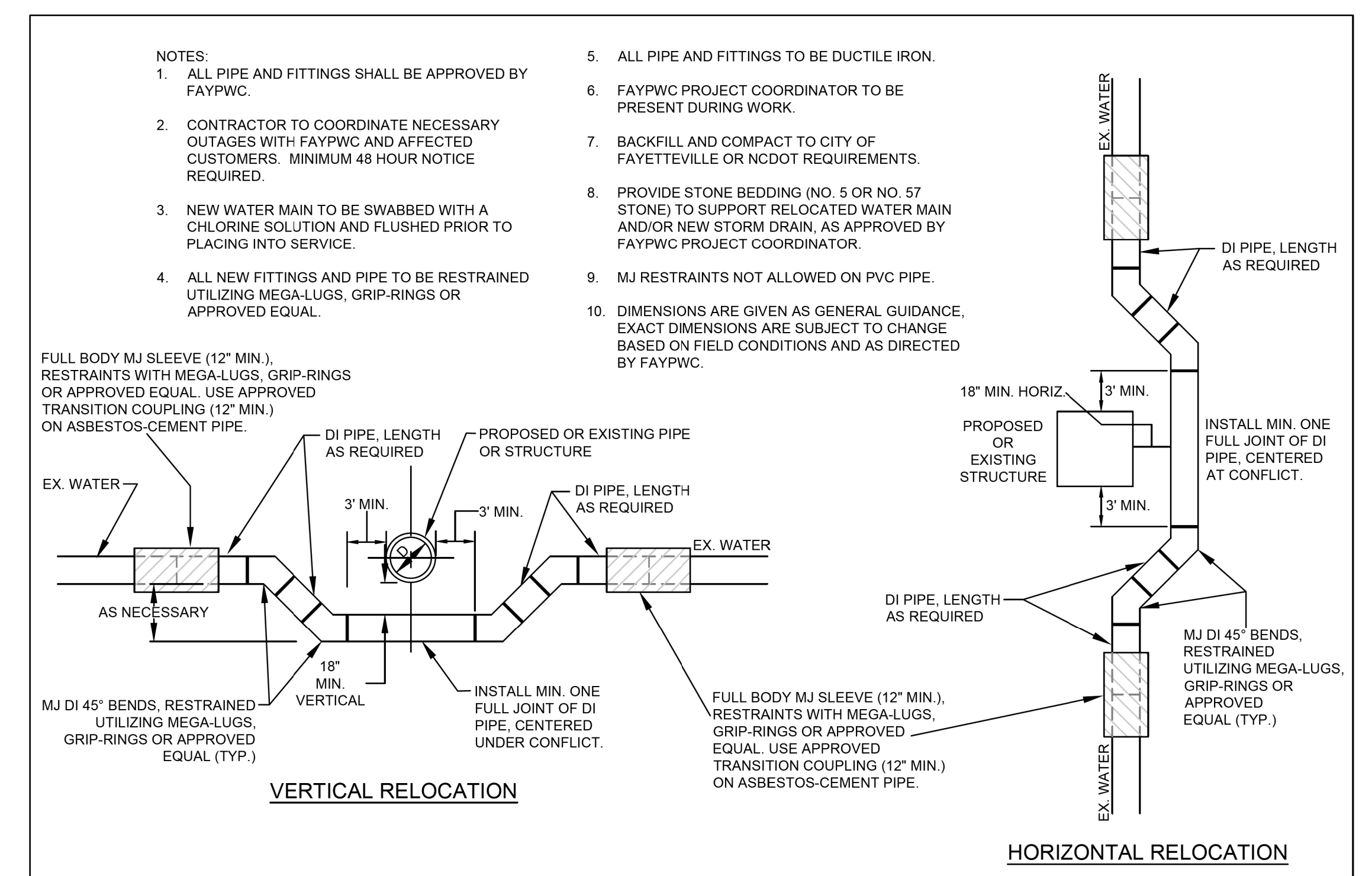


- NOTES:
- ALL MATERIALS TO BE APPROVED BY FAYPWC.
 - SERVICE LATERAL SIZE 1" TYPE K SOFT COPPER PIPE UNLESS OTHERWISE SPECIFIED.
 - WATER SERVICE LOCK VALVE TO BE LOCATED 18" FROM SANITARY SEWER CLEANOUT STACK WHEN INSTALLED IN SAME DITCH
 - WHEN INSTALLED IN A PAVED AREA, METER BOX TO BE SET 1/4" ABOVE FINISHED PAVEMENT GRADES AND PAVEMENT FEATHERED TO TOP OF BOX TO PROVIDE DRAIN AWAY FROM BOX.
 - COMPOSITE METER BOXES SHALL BE USED IN TRAFFIC AREAS (SEE PWC DETAIL W 4B)
 - INSTALL NCDOT CONCRETE BRICK BASE WITH NO GAPS, DO NOT LAY BRICK ON PIPE. SEE INSET "A".
 - WHERE ASPHALT CURB OR STRIP PAVEMENT EXIST, THE LOCATION OF BOX SHALL BE AS DIRECTED BY FAYPWC REPRESENTATIVE.

- DISTANCE FROM TOP OF LOCK VALVE OPERATING STEM TO TOP OF BOX SHALL BE 8" MINIMUM TO 10" MAXIMUM.
- RESIDENTIAL METER BOX SHALL BE SET 18" FROM RIGHT-OF-WAY TO CENTERLINE OF METER BOX PERPENDICULAR TO THE RIGHT-OF-WAY.
- COMMERCIAL METER BOX LOCATION SHALL BE AS APPROVED (PREFER NO METER BE INSTALLED LESS THAN 5' FROM BUILDING TO EDGE OF BOX).
- LATERAL SHALL BE CENTERED ON LOT UNLESS OTHERWISE NOTED.
- LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
- WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC AND STERILIZATION TESTS.
- SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.

1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION	
				1 05/05 VALVE CHANGE	
				2 09/05 VALVE CHANGE, ADD NOTE 17	
				3 07/06 ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2	
SHEET NO. 1 OF 2	DWG. NO. W.25	DWG. BY: FAYPWC	FAYETTEVILLE PUBLIC WORKS COMMISSION WATER RESOURCES ENGINEERING DEPARTMENT		
DATE: JAN. 01, 2022	APPROVED BY: M.M.M.				

NOTES FOR 1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION	
				1 07/06 ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2	
				2 07/17 REVISED NOTES	
SHEET NO. 2 OF 2	DWG. NO. W.25	DWG. BY: FAYPWC	FAYETTEVILLE PUBLIC WORKS COMMISSION WATER RESOURCES ENGINEERING DEPARTMENT		
DATE: JAN. 01, 2022	APPROVED BY: M.M.M.				



- NOTES:
- ALL PIPE AND FITTINGS SHALL BE APPROVED BY FAYPWC.
 - CONTRACTOR TO COORDINATE NECESSARY OUTAGES WITH FAYPWC AND AFFECTED CUSTOMERS. MINIMUM 48 HOUR NOTICE REQUIRED.
 - NEW WATER MAIN TO BE SWABBED WITH A CHLORINE SOLUTION AND FLUSHED PRIOR TO PLACING INTO SERVICE.
 - ALL NEW FITTINGS AND PIPE TO BE RESTRAINED UTILIZING MEGA-LUGS, GRIP-RINGS, OR APPROVED EQUAL.
 - ALL PIPES TO BE DUCTILE IRON.
 - FAYPWC PROJECT COORDINATOR TO BE PRESENT DURING WORK.
 - BACKFILL AND COMPACT IN ACCORDANCE WITH THE APPLICABLE AGENCY REQUIREMENTS.
 - PROVIDE STONE BEDDING (NO. 5 OR NO. 57 STONE) TO SUPPORT RELOCATED WATER MAIN, AS APPROVED BY FAYPWC PROJECT COORDINATOR.

- MJ RESTRAINTS ARE NOT ALLOWED ON PVC PIPE.
- DIMENSIONS ARE GIVEN AS GENERAL GUIDANCE, EXACT DIMENSIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND AS DIRECTED BY FAYPWC.
- ALL MATERIALS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF FAYPWC.
- PIPE REPAIR SHALL EXHIBIT STRAIGHT HORIZONTAL AND VERTICAL ALIGNMENT. DEFLECTIONS OF HORIZONTAL AND VERTICAL ALIGNMENT ARE NOT ACCEPTABLE.
- THERE SHALL BE NO MORE THAN 1/4" SPACE BETWEEN THE EXISTING WATER MAIN AND THE REPLACEMENT PIPE AT EACH END.
- DAMAGED SECTION SHALL BE CUT OUT WITHOUT DAMAGING THE PIPE TO REMAIN.
- PIPE REPAIRS ON MATERIALS OTHER THAN SHOWN, SHALL BE AS DIRECTED BY FAYPWC.
- THE MINIMUM LENGTH OF REPAIR SHALL BE 5 FEET, UNLESS OTHERWISE DIRECTED BY FAYPWC.

PIPE RELOCATION DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION	
				1 01/12 REVISED NOTES, ADDED HORIZONTAL RELOCATION	
SHEET NO. 1 OF 1	DWG. NO.: W.26	DWG. BY: FAYPWC	FAYETTEVILLE PUBLIC WORKS COMMISSION WATER RESOURCES ENGINEERING DEPARTMENT		
DATE: JAN. 01, 2022	APPROVED BY: M.M.M.				

PIPE REPAIR DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION	
SHEET NO. 1 OF 1	DWG. NO.: W.31	DWG. BY: FAYPWC	FAYETTEVILLE PUBLIC WORKS COMMISSION WATER RESOURCES ENGINEERING DEPARTMENT		
DATE: JAN. 01, 2022	APPROVED BY: M.M.M.				

24-MAY-2022 11:45
 D:\C:\Users\jrt\OneDrive\Engineering\ng\UC\Proj\2501_521_U2519BB_UT_DTL\UC-3H_PSH.dgn

PROJECT TYPICAL DETAILS



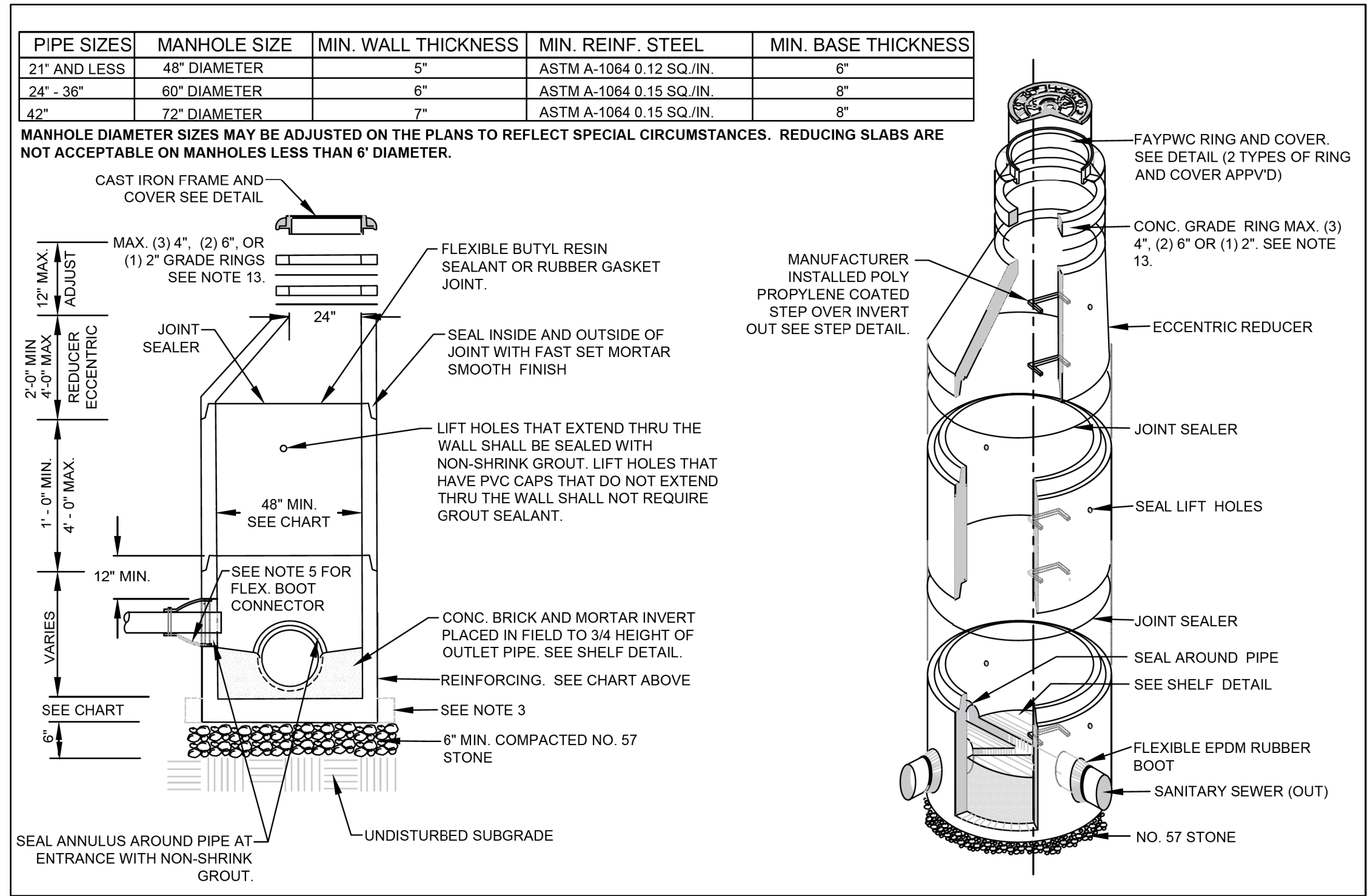
2500 W. HOFF ROAD
SUITE 110
RALEIGH, NC 27607
PHONE: 919.891.8889
NC COLA #24002

PROJECT REFERENCE NO.	SHEET NO.
U-2519BB	UC-3J
DESIGNED BY: DJ	
DRAWN BY: DJ	
CHECKED BY: TR	
APPROVED BY: TR	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NOTE:
ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.

- ALL SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONSTRUCTION STAKING IS REQUIRED FOR ALL FAYPWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A NC PLS, SHALL BE PROVIDED TO THE FAYPWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR FAYPWC WATER AND SEWER UTILITIES.
- CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION ON FAYPWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.
- ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS PRIOR TO PLACING INTO SERVICE.
- CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYETTEVILLE FAYPWC PROJECT COORDINATOR.
- ALL DUCTILE IRON PIPE IN SANITARY SEWER SERVICE SHALL HAVE AN INTERIOR LINING OF CERAMIC EPOXY.
- ALL NEW MANHOLES ARE TO BE VACUUM-TESTED IN ACCORDANCE WITH FAYETTEVILLE FAYPWC STANDARDS.
- CONTRACTOR SHALL REPAIR ALL SEWER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY REPORT ALL SEWER MAIN AND LATERAL BREAKS TO THE FAYPWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH FAYPWC STANDARDS.
- TRANSFER OF SEWER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
 - INSTALL AND TEST NEW MAINS, MANHOLES, AND LATERALS. CLEANOUTS SHALL BE INSTALLED 18" INSIDE R/W UNLESS OTHERWISE DIRECTED BY PWC.
 - CONNECT EXISTING PLUMBING TO NEW LATERAL UTILIZING THE NECESSARY FITTINGS AS DIRECTED BY FAYPWC.
 - AFTER ALL SERVICES HAVE BEEN TRANSFERRED TO THE NEW MAIN, THE EXISTING SEWER SYSTEM SHALL BE ABANDONED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING SEWER SERVICES THAT WILL NOT BE UTILIZED BY UNCOVERING THE EXISTING LATERAL AT THE MAIN, CUT AND PLUG AT BOTH ENDS, REMOVE THE EXISTING CLEANOUT AND COMBINATION, AND PLUG THE TAP OR TEE AT THE MAIN. FOR LATERALS THAT CONNECT TO A MANHOLE AND ARE TO BE ABANDONED ("KILLED-OUT"), THE LATERAL SHALL BE REMOVED FROM THE MANHOLE AND THE REMAINING VOID IN THE MANHOLE SHALL BE FILLED WITH BLOCK AND MORTAR.
- SEWER PLUGS SHALL BE INSTALLED TO ELIMINATE ANY DEBRIS OR OTHER MATERIAL FROM ENTERING THE ACTIVE SEWER SYSTEM. UPON ACCEPTANCE OF THE NEW SEWER SYSTEM, THE CONTRACTOR SHALL CLEAN THE NEW MAINS, REMOVE ALL DEBRIS, AND THEN REMOVE THE PLUG.
- ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
- ALL WORK ON FAYPWC SEWER UTILITIES (MAIN, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON FAYPWC SEWER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH FAYPWC REQUIREMENTS.



GENERAL NOTES SANITARY SEWER UTILITY			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 1	DWG. NO. S.1	DWG. BY: FAYPWC DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		1	07/16	ADDED NOTE 6
WATER RESOURCES ENGINEERING DEPARTMENT					2	01/18	ADDED NOTES 5, 8
				3	06/21	ADDED NOTES 1-8 AND RENUMBERED	

S1-SEWER-NOTES.dwg

STANDARD MANHOLE N.T.S.			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. S.2	DWG. BY: FAYPWC DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		1	02/07	CREATED S.2A ADDED NOTES 13-17
WATER RESOURCES ENGINEERING DEPARTMENT					2	07/13	ADDED SHEET 2 OF 2

S2-STANDARD-MANHOLE.dwg

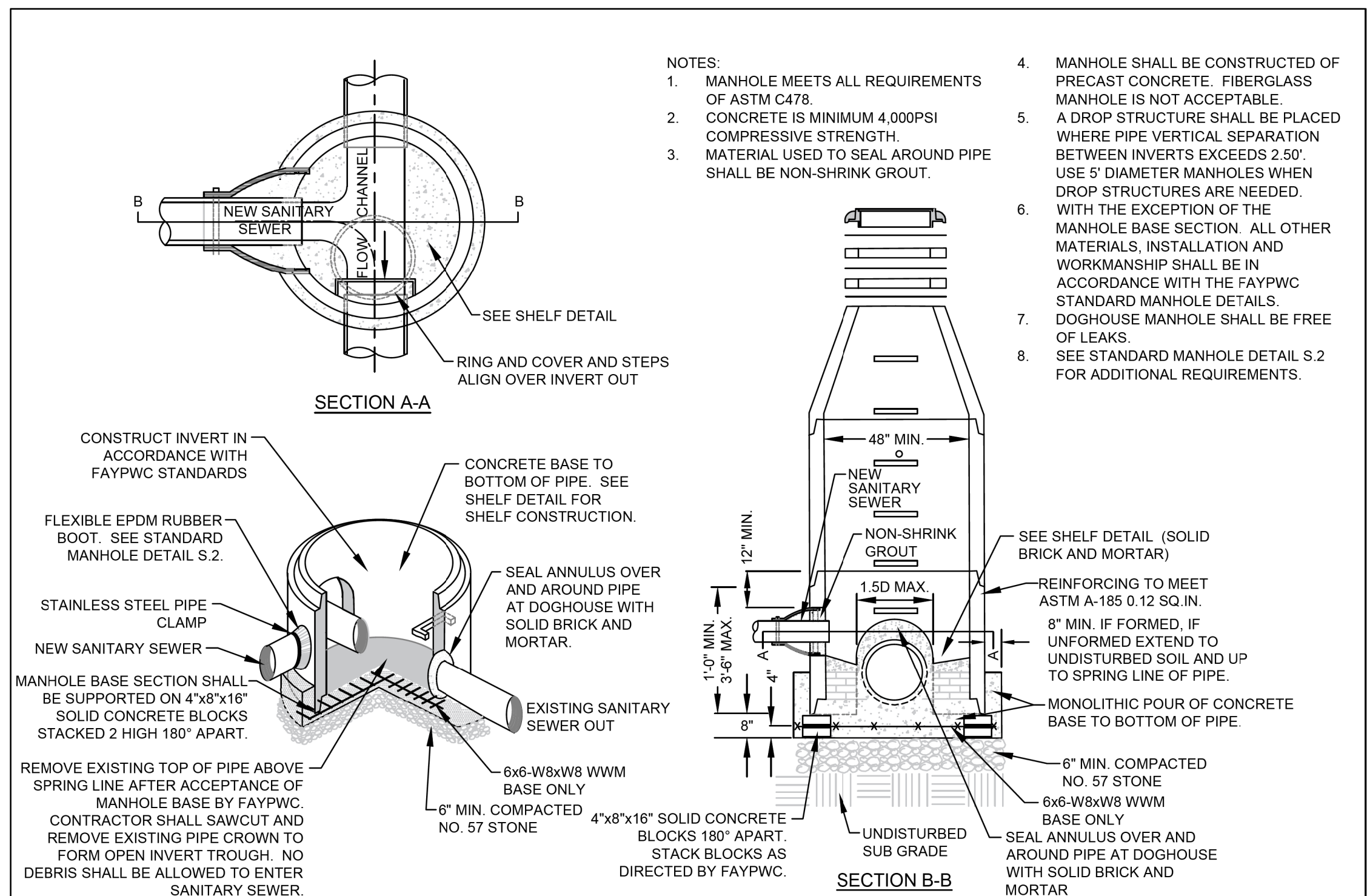
- NOTES:
- PRECAST REINFORCED CONCRETE MANHOLES SHALL BE IN ACCORDANCE WITH ASTM C-478.
 - MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000PSI.
 - MANHOLES GREATER THAN 12' DEPTH SHALL HAVE MINIMUM 6" EXTENDED BASE.
 - FLEXIBLE BUTYL RESIN JOINT SEALANT SHALL BE IN ACCORDANCE WITH ASTM C990. RUBBER GASKET JOINTS SHALL BE IN ACCORDANCE WITH ASTM C-443.
 - FLEXIBLE EPDM RUBBER BOOT CONNECTORS SHALL BE IN ACCORDANCE WITH ASTM C923. INSTALLED BY MANUFACTURER WITH STAINLESS STEEL COMPRESSION RING AND TAKE-UP CLAMP. CONNECTION TO MAIN SHALL BE BY CONTRACTOR WITH STAINLESS STEEL PIPE CLAMP.
 - CONNECTIONS TO EXISTING MANHOLES SHALL BE BY CORING MANHOLE AND FIELD INSTALLING A FLEXIBLE EPDM RUBBER BOOT CONNECTOR. DO NOT ALLOW DEBRIS TO ENTER SYSTEM.
 - MORTAR SHALL BE QUICK SETTING, NON-SHRINK GROUT MIXED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - MANHOLE STEPS SHALL BE IN ACCORDANCE WITH ASTM C478 AND OSHA REGULATIONS. ALIGN STEPS WITH INVERT OUT.
 - PRECAST INVERTS ARE NOT ALLOWED.
 - VERTICAL DROPS BETWEEN THE INFLOW PIPES AND OUTFLOW PIPES SHALL REQUIRE THE FOLLOWING:
 - GREATER THAN 2.5' SEE DROP STRUCTURE DETAIL (MIN. 5' DIAMETER MH REQUIRED).
 - LESS THAN 2.5' SEE PIPE SLIDE DETAIL.
 - AN ECCENTRIC CONE SHALL BE UTILIZED ON ALL MANHOLES, UNLESS OTHERWISE APPROVED BY FAYPWC.
 - INVERT ON PLANS IS TO MANHOLE CENTERLINE.
 - CONCRETE GRADE RINGS SHALL NOT BE USED FOR ABOVE GRADE ADJUSTMENTS (IE: OUTFALL AREAS). USE OF GRADE RINGS ARE ALLOWABLE IN YARD AREAS AND PAVEMENT, WHERE THE RING AND COVER ARE AT GROUND LEVEL.
 - THE MINIMUM SLOPE ACROSS THE INVERT OF THE MANHOLE SHALL BE 1%, UNLESS OTHERWISE APPROVED BY FAYPWC. STANDING WATER IN INVERT OF MANHOLE IS NOT ACCEPTABLE.
 - THE EXTERIOR MANHOLE RISER JOINTS, INCLUDING THE JOINT AT THE CONE, SHALL BE SEALED ON THE OUTSIDE BY AN APPROVED JOINT WRAP. THE WRAP SHALL BE IN ACCORDANCE WITH FAYPWC SPECIFICATIONS.
 - MANHOLE BOOT FOR 4-INCH LATERALS, SHOULD IT BE NECESSARY TO INSTALL A 4-INCH LATERAL INTO A MANHOLE, THE RUBBER BOOT THAT THE LATERAL IS INSERTED INTO SHALL BE SECURELY FASTENED TO THE CORE HOLE BY UTILIZING A STAINLESS STEEL BAND THAT IS TIGHTENED USING A JACK OR A TORQUE WRENCH (DIRECT DRIVE). BOTH STANDARD SIZE AND STEP DOWN BOOTS ARE ALLOWED. THE TORQUE WRENCH SHALL BE SUPPLIED BY THE MANUFACTURER. NO OTHER TYPE BANDS OR METHOD OF SECURING THE BOOT TO THE MANHOLE SHALL BE ACCEPTED.

FOR FOUR (4) INCH SDR 26 LATERALS, THE PIPE OUTSIDE DIAMETER RANGE OF THE BOOT SHALL BE 3.5-INCHES TO 4.25-INCHES.

FOR FOUR (4) INCH DUCTILE IRON LATERALS, THE PIPE OUTSIDE DIAMETER RANGE OF THE BOOT SHALL EITHER BE AS FOR VC OR 4.25-INCHES TO 4.81-INCHES.

IN ALL CASES, THE BOOT SHALL BE TIGHTENED ON THE LATERAL BY MEANS OF A SINGLE STAINLESS STEEL STRAP.

THE LATERAL INVERT SHALL BE AT THE TOP OF THE SHELF.
 - NO MORE THAN 4, FOUR-INCH LATERALS OR 3, SIX-INCH LATERALS SHALL ENTER A 4' DIAMETER TERMINAL MANHOLE. NO MORE THAN 2 LATERALS (REGARDLESS OF SIZE) SHALL ENTER ALL OTHER 4' DIAMETER MANHOLES. ALL LATERALS SHALL HAVE AN INDIVIDUAL TROUGH. 5' DIAMETER MANHOLES SHALL BE USED IF THE ABOVE CONDITIONS ARE NOT MET.
 - NO MORE THAN 5 LATERALS SHALL ENTER A 5' DIAMETER MANHOLE.
 - USE OF TEE-WYES ON LATERALS IS NOT ALLOWED.
 - ALL MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH FAYPWC STANDARDS.



STANDARD MANHOLE			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 2 OF 2	DWG. NO. S.2	DWG. BY: FAYPWC DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		1	01/08	CREATED DETAIL, ADDED NOTES 14-20
WATER RESOURCES ENGINEERING DEPARTMENT					2	07/13	REVISED NOTES 9, 10, 11, 15. CONVERTED TO S.2 SHEET 2 OF 2
				3	01/01/19	REVISED NOTES 10, 18	

S2-STANDARD-MANHOLE.dwg

DOGHOUSE MANHOLE (MANS 15" OR LESS) N.T.S.			FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
SHEET NO. 1 OF 2	DWG. NO. S.3	DWG. BY: FAYPWC DATE: JAN. 01, 2022	APPROVED BY: M.M.M.		1	07/16	ADDED SHEET 2
WATER RESOURCES ENGINEERING DEPARTMENT					2	11/25/08	MADE CHANGES TO NOTES

S3-DOGHOUSE-MH.dwg

C:\Users\jribeca\OneDrive\Engineering\UC\Proj\280_523_U2519BB_UT_DTL_UC3J_PSH.dgn