

CITY OF RICHMOND FIRE STATION 21

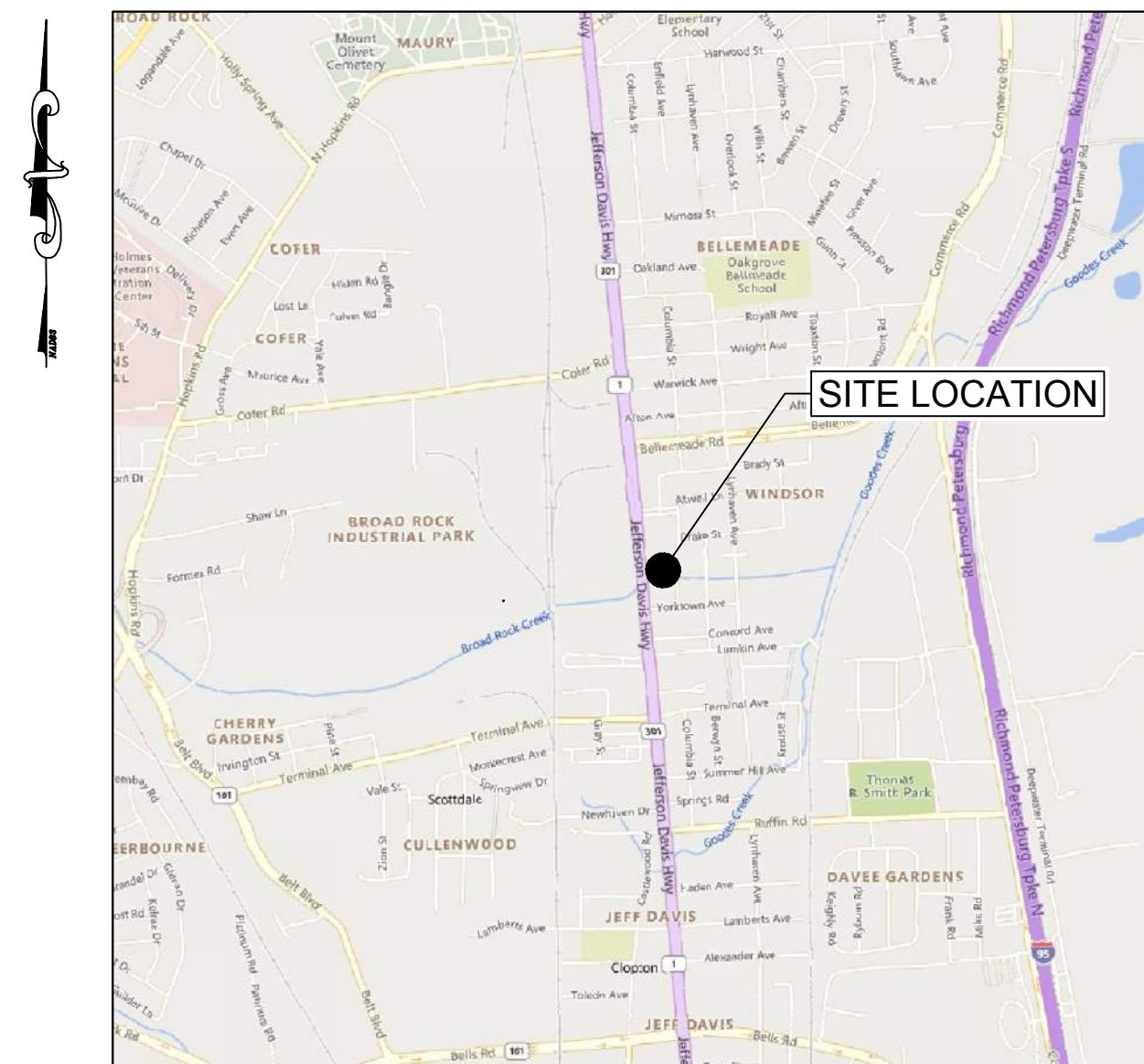
2505 RICHMOND HIGHWAY

BROAD ROCK DISTRICT

CITY OF RICHMOND, VIRGINIA

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VICINITY MAP
SCALE: 1" = 2,000'

PROJECT SUMMARY

ADDRESSES:	2505 RICHMOND HIGHWAY
PARCEL ID's:	S0080275005
ZONING:	B-3 - Business (General Business)
SETBACK REQUIREMENTS:	FRONT YARD - 0 FT SIDE YARD - 0 FT REAR YARD - 20 FT ¹ BASED ON CITY OF RICHMOND ZONING ORDINANCE Sec. 30-438.3
DISTRICT:	BROAD ROCK
EXISTING USE:	FIRE STATION
EXISTING CONDITIONS:	CITY OF RICHMOND UTILITY MAPS; CITY OF RICHMOND GIS; ALTA/NSPS SURVEY BY TIMMONS GROUP DATED MAY 13, 2015
DATUM:	HORIZONTAL DATUM: (NAD83) VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTHZONE (1983)
PROPOSED USE:	FIRE STATION
COMBINED SITE / LOT AREA:	0.505 ACRES (21,990 SQ.FT.)
AREA TO BE DISTURBED:	0.505 ACRES
BUILDING HEIGHT TOTAL GROSS FLOOR AREA:	3 FLOORS TOTAL GROSS FLOOR AREA = ±17,897 SQ.FT.
USABLE OPEN SPACE:	USABLE OPEN SPACE RATIO = [USABLE OPEN SPACE] / [DWELLING USE AREA] ¹ A USABLE OPEN SPACE RATIO OF NOT LESS THAN 0.25 SHALL BE PROVIDED USABLE OPEN SPACE RATIO = [4,437 SQ.FT.] / [10,836 SQ.FT.] = 0.41 ² BASED ON CITY OF RICHMOND ZONING ORDINANCE Sec. 30-438.1-1

LANDSCAPE
TIMMONS GROUP
1001 Boulders Pkwy, Suite 300
Richmond, VA 23225
CONTACT: Scott Wiley, PLA, ASLA
TELEPHONE: 804.200.6424
EMAIL: scott.wiley@timmons.com

ARCHITECT
RRMM ARCHITECTS
1317 Executive Blvd, Suite 200
Chesapeake, VA 23320
CONTACT: Brian Wolf, LEED AP BD+C
TELEPHONE: 757.213.6341
EMAIL: bwolf@rrmm.com

CIVIL ENGINEER
TIMMONS GROUP
1001 Boulders Pkwy, Suite 300
Richmond, VA 23225
CONTACT: Amelia Wehunt, PE
TELEPHONE: 804.200.6544
EMAIL: amelia.wehunt@timmons.com

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PLAN SET DATE - 07/19/2023

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TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

REVISION DESCRIPTION

DATE

DATE

07/19/2023

DRAWN BY

K. UNDERBERG

DESIGNED BY

C. NELSON

CHECKED BY

A. WEHUNT

SCALE

1" = 2000'

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City of Richmond: New Fire Station #21

TIMMONS GROUP

CITY OF RICHMOND FIRE STATION 21

BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA

COVER SHEET

JOB NO.

60040

SHEET NO.

C0.00

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LEGEND

- = Deciduous Tree
- = Drainage Grate Inlet
- = Drainage Manhole
- = Electric Box
- = Electric Guy Wire
- = Electric Light Pole
- = Natural Gas Meter
- = Natural Gas Valve
- = Sanitary Sewer Manhole
- = Sign
- = Utility Pole
- = Water Fire Hydrant
- = Water Meter
- = Water Valve
- = Water Vault
- = Monitoring Well
- = Telephone Manhole
- = Roof Drain / Downspout
- = Bollard
- = Telephone Pedestal
- = Electric Meter
- = Flag Pole
- = Cleanout
- = Utility Manhole

- = Underground Natural Gas Line
- = Underground Water Line
- = Underground Communication Line
- = Underground Power Line
- = Underground Unknown Utility Line or Signal

EOI = End of Information For Underground Utility Line
- Signal Ended At This Location.

OWNER INFORMATION
CITY OF RICHMOND GENERAL SERVICES
PARCEL ID: S0080275005
D.B. 898, PG. 354
#2505 JEFFERSON DAVIS HWY.

TOPOGRAPHIC SURVEY NOTES:

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF M. DWAYNE DUNEVANT, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION, THAT THE ORIGINAL DATA WAS OBTAINED ON THE FOLLOWING DATES: 05-13-2015, 05-18-2015 AND 05-20-2015. THIS PLAT, MAP AND DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

HORIZONTAL DATUM: NAD83 (VA South)

VERTICAL DATUM: NAVD88

DATUM ESTABLISHED BY RTK ON 05-13-2015 (CORRECTIONS FROM RTCM-REF 0577)

Underground Utility Location Notes:

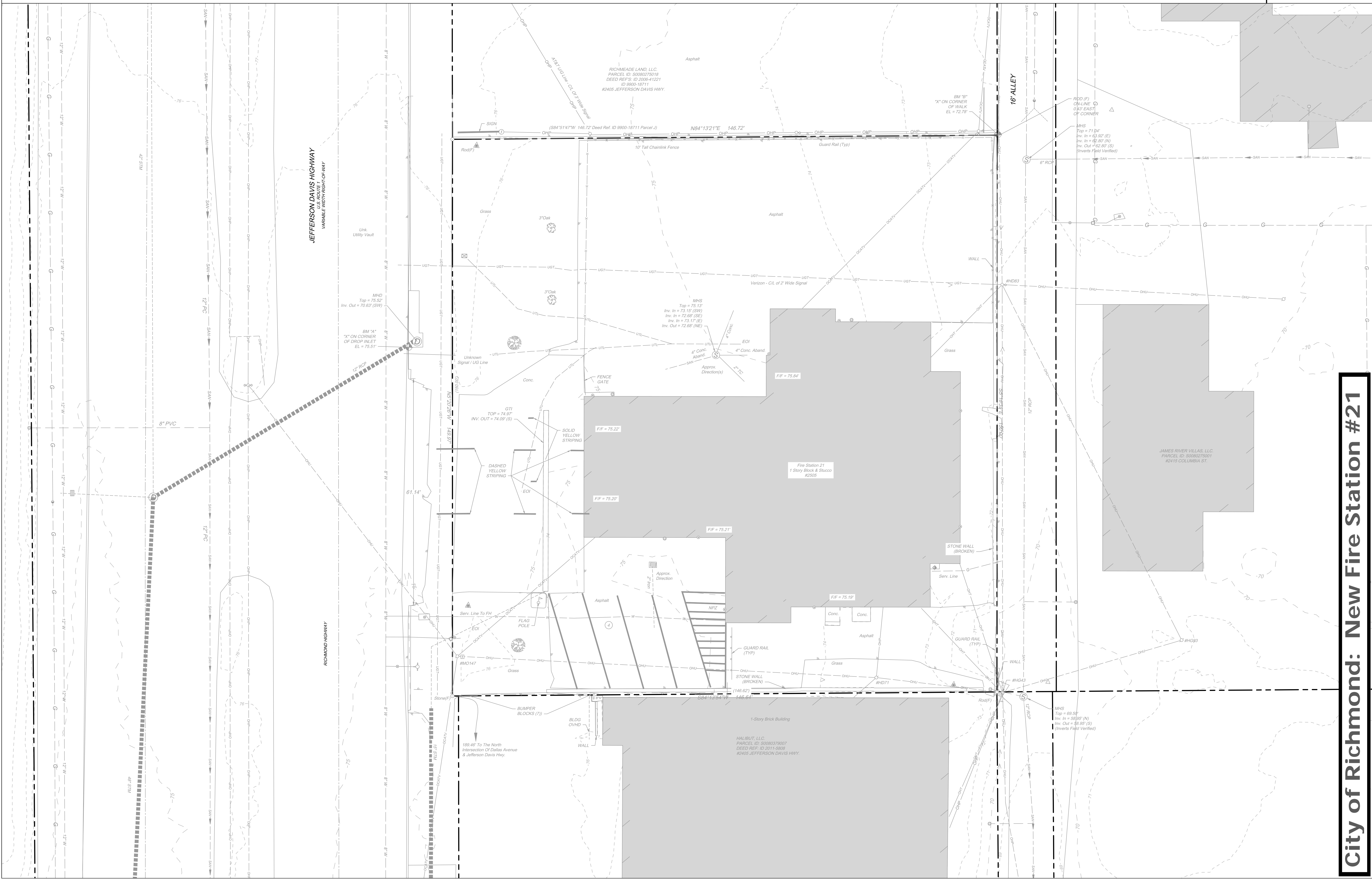
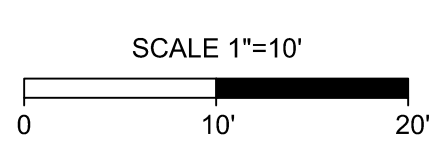
1. There May Be Abandoned Underground Utility Lines In Project Limits.
2. All Sizes and Types of Underground Utility Lines Are Taken From Reference Mapping Or Pre-Existing Miss Utility Markings.

Underground Utility Owners:

- Natural Gas - City Of Richmond
- Waterline - City Of Richmond
- Communication - AT&T
Verizon Communications
- Power - Dominion Power

BOUNDARY NOTES:

- (184.05' Plat) = Denotes Bearings And Distances Of Property Lines From Recorded Deeds and Plats.
- No Title Report Was Provided For This Survey. Easements May Exist That Are Not Shown.



City of Richmond: New Fire Station #21

TIMMONS GROUP

CITY OF RICHMOND FIRE STATION 21
BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA
EXISTING CONDITIONS PLAN

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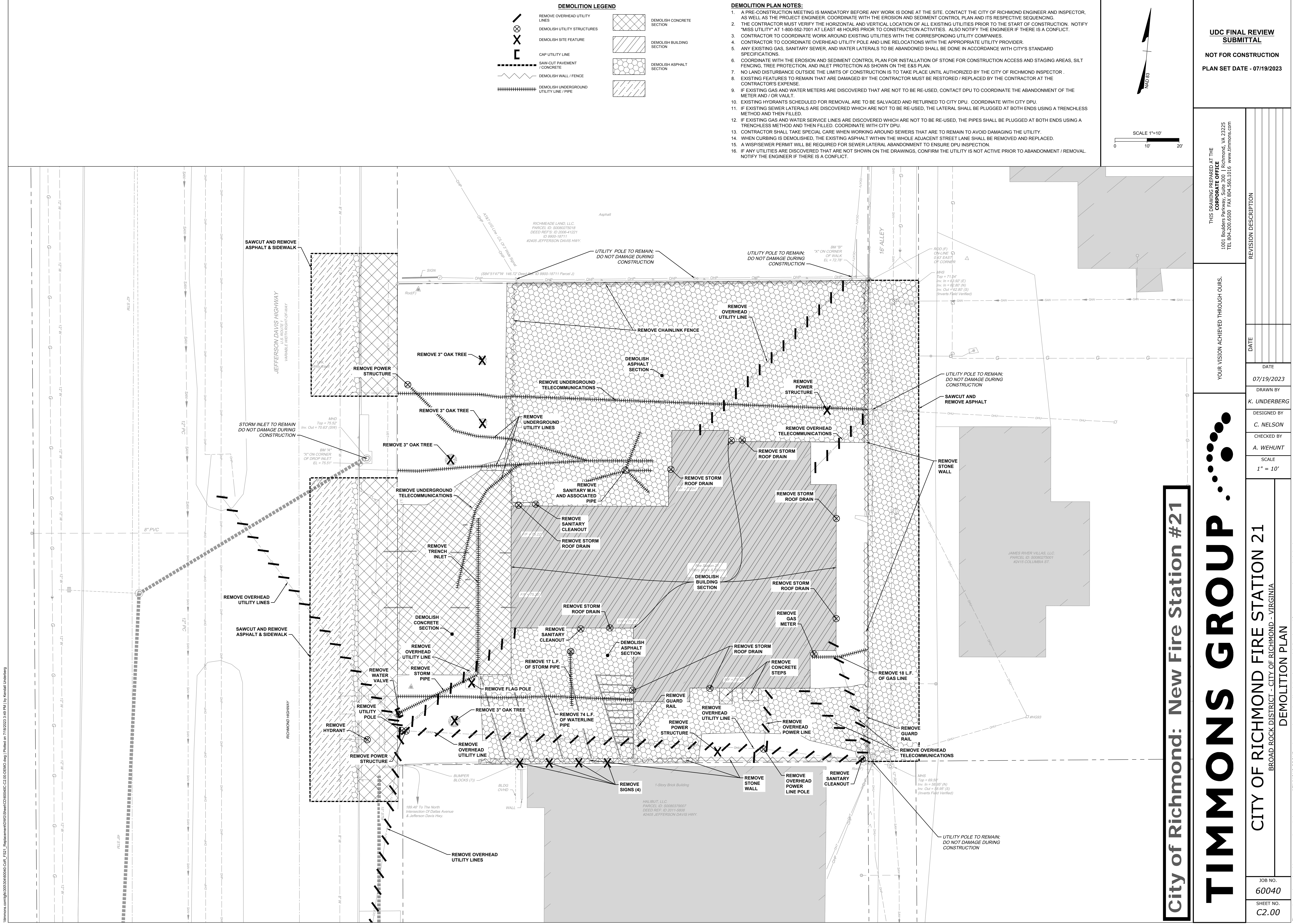
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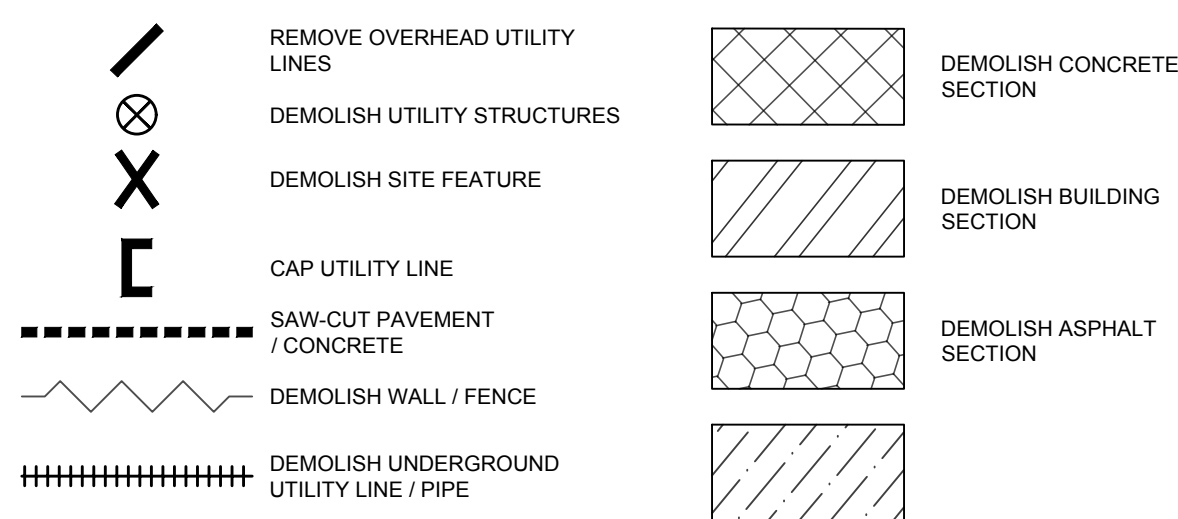
DRAWN BY
K. UNDERBERG
DESIGNED BY
C. NELSON
CHECKED BY
A. WEHUNT
SCALE
1" = 10'

JOB NO.
60040
SHEET NO.
C1.00

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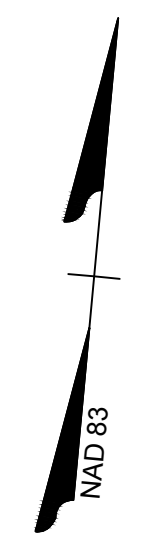
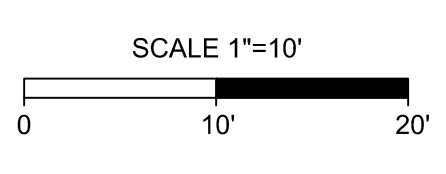


DEMOLITION LEGEND



DEMOLITION PLAN NOTES:

1. A PRE-CONSTRUCTION MEETING IS MANDATORY BEFORE ANY WORK IS DONE AT THE SITE. CONTACT THE CITY OF RICHMOND ENGINEER AND INSPECTOR, AS WELL AS THE PROJECT ENGINEER. COORDINATE WITH THE EROSION AND SEDIMENT CONTROL PLAN AND ITS RESPECTIVE SEQUENCING.
2. THE CONTRACTOR MUST VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. NOTIFY "MISS UTILITY" AT 1-800-552-7001 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ALSO NOTIFY THE ENGINEER IF THERE IS A CONFLICT.
3. CONTRACTOR TO COORDINATE WORK AROUND EXISTING UTILITIES WITH THE CORRESPONDING UTILITY COMPANIES.
4. CONTRACTOR TO COORDINATE OVERHEAD UTILITY POLE AND LINE RELATIONS WITH THE APPROPRIATE UTILITY PROVIDER.
5. ANY EXISTING GAS, SANITARY SEWER, AND WATER LATERALS TO BE ABANDONED SHALL BE DONE IN ACCORDANCE WITH CITY'S STANDARD SPECIFICATIONS.
6. COORDINATE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR INSTALLATION OF STONE FOR CONSTRUCTION ACCESS AND STAGING AREAS, SILT FENCING, TREE PROTECTION, AND INLET PROTECTION AS SHOWN ON THE E&S PLAN.
7. NO LAND DISTURBANCE OUTSIDE THE LIMITS OF CONSTRUCTION IS TO TAKE PLACE UNTIL AUTHORIZED BY THE CITY OF RICHMOND INSPECTOR.
8. EXISTING FEATURES TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR MUST BE RESTORED / REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
9. IF EXISTING GAS AND WATER METERS ARE DISCOVERED THAT ARE NOT TO BE RE-USED, CONTACT DPU TO COORDINATE THE ABANDONMENT OF THE METER AND / OR VAULT.
10. EXISTING HYDRANTS SCHEDULED FOR REMOVAL ARE TO BE SALVAGED AND RETURNED TO CITY DPU. COORDINATE WITH CITY DPU.
11. IF EXISTING SEWER LATERALS ARE DISCOVERED WHICH ARE NOT TO BE RE-USED, THE LATERAL SHALL BE PLUGGED AT BOTH ENDS USING A TRENCHLESS METHOD AND THEN FILLED.
12. IF EXISTING GAS AND WATER SERVICE LINES ARE DISCOVERED WHICH ARE NOT TO BE RE-USED, THE PIPES SHALL BE PLUGGED AT BOTH ENDS USING A TRENCHLESS METHOD AND THEN FILLED. COORDINATE WITH CITY DPU.
13. CONTRACTOR SHALL TAKE SPECIAL CARE WHEN WORKING AROUND SEWERS THAT ARE TO REMAIN TO AVOID DAMAGING THE UTILITY.
14. WHEN CURBING IS DEMOLISHED, THE EXISTING ASPHALT WITHIN THE WHOLE ADJACENT STREET LANE SHALL BE REMOVED AND REPLACED.
15. A WISPERSEWER PERMIT WILL BE REQUIRED FOR SEWER LATERAL ABANDONMENT TO ENSURE DPU INSPECTION.
16. IF ANY UTILITIES ARE DISCOVERED THAT ARE NOT SHOWN ON THE DRAWINGS, CONFIRM THE UTILITY IS NOT ACTIVE PRIOR TO ABANDONMENT / REMOVAL. NOTIFY THE ENGINEER IF THERE IS A CONFLICT.



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07/19/2023	

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K. UNDERBERG

DESIGNED BY
C. NELSON

CHECKED BY
A. WEHUNT

SCALE
1" = 10'

City of Richmond: New Fire Station #21

TIMMONS GROUP

CITY OF RICHMOND FIRE STATION 21
BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA
DEMOLITION PLAN

JOB NO. 60040
SHEET NO. C2.00

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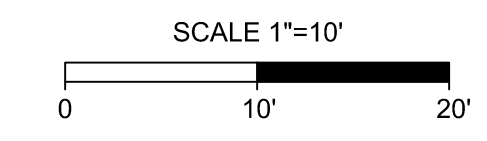
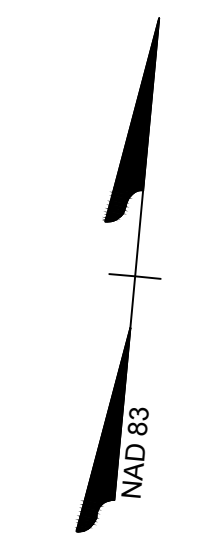
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GENERAL SITE NOTES:

1. REFER TO SITE NOTES AND DETAILS DRAWING C4.10 FOR SITE DETAILS.
2. DIMENSIONS ARE TO FACE OF CURB, UNLESS OTHERWISE NOTED ON PLANS. SIDEWALKS DIRECTLY ADJACENT TO CURB AND GUTTER ARE TO BE MEASURED FROM BACK OF CURB.
3. RESTORE ANY DAMAGED PROPERTY NOT INCLUDED IN DEMOLITION OR REMOVAL TO PRECONSTRUCTION CONDITION OR BETTER.
4. REFER TO ARCHITECTURAL DRAWINGS FOR DESIGN AND DETAILS OF PATIOS AND CONCRETE SIDEWALKS COVERED BY ARCHITECTURAL OVERHANGS.
5. ALL PAVEMENT SAW CUTS ARE TO BE IN NEAT, STRAIGHT LINES. SAW CUTS ARE REQUIRED AT ANY LOCATION WHERE NEW PAVEMENT ADJOINS EXISTING PAVEMENT.
6. ADA AREAS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
7. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER OR GREATER QUALITY OF WORK.
8. ALL BUILDING DIMENSIONS SHOWN ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL BUILDING DIMENSIONS.
9. SIGNAGE IS SHOWN FOR REFERENCE ONLY. ANY SIGN IN EXCESS OF EIGHT (8) SQUARE FEET REQUIRES A PERMIT. PERMIT MUST BE OBTAINED THROUGH BUILDING INSPECTION DEPARTMENT. SIGNAGE CONTINGENT UPON APPROVAL THROUGH SIGN PERMIT REVIEW PROCESS.
10. ALL VDOT STD 002 CURB SHALL HAVE AN EXTRUDED FOOTER.
11. ALL CURB SHOULD BE DOWELED TO ADJACENT CONCRETE SLAB AND CONCRETE TRAVELWAY, AS APPLICABLE.

LAYOUT HATCH LEGEND

- HEAVY DUTY CONCRETE SECTION
- CONCRETE SECTION
- EXTENTS OF BUILDING AT GRADE
- EXTENTS OF BUILDING OVERHEAD
- MILL & OVERLAY SECTION
- LIGHT DUTY ASPHALT PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT SECTION



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SCALE

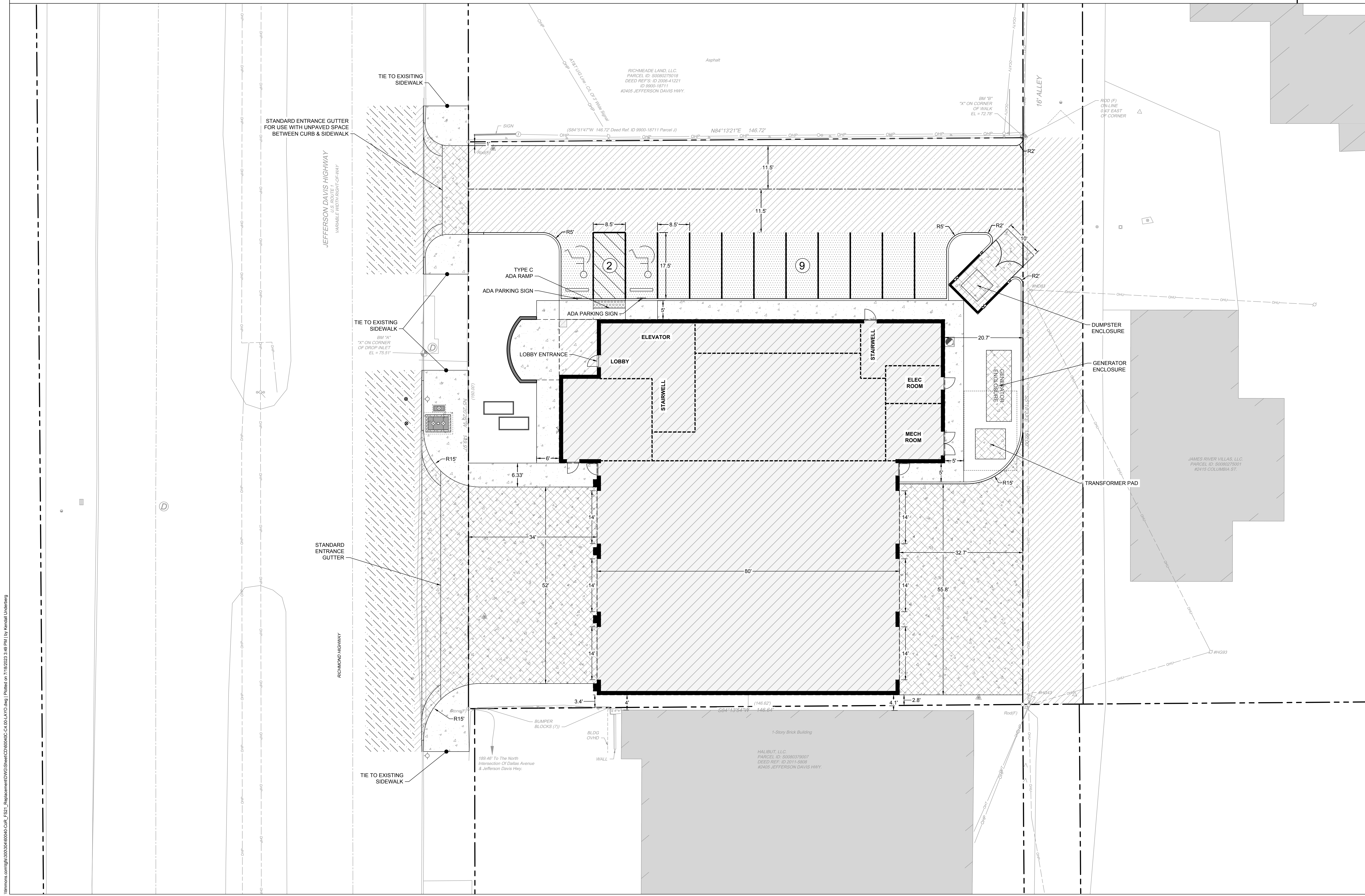
1" = 10'

CITY OF RICHMOND FIRE STATION 21
BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA
SITE LAYOUT PLAN

JOB NO.
60040

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City of Richmond: New Fire Station #21

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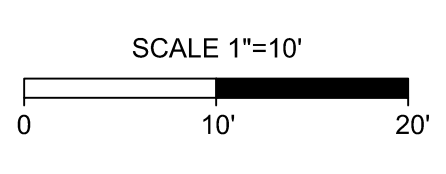
timmons.com/981000460046-CorR_Fire_Station-Utility-Plan-07192023-3.68 PKI | Printed on 7/19/2023 3:48 PM | by Kendall Underberg

GENERAL UTILITY NOTES:

1. ALL WORK IN THE RIGHT-OF-WAY IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT CITY OF RICHMOND STANDARDS FOR EXCAVATION AND RESTORATION.
2. CONTRACTOR SHALL NOTIFY THE DPW INSPECTOR A MINIMUM OF 48 HOURS PRIOR TO THE START OF WORK.
3. ALL UTILITY INSTALLATIONS IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE TO THE MOST RECENT CITY OF RICHMOND WATER DISTRIBUTION SYSTEM AND SANITARY SEWER SYSTEM DESIGN GUIDELINES AND STANDARD SPECIFICATIONS AND DETAILS.
4. ALL UTILITY INSTALLATION ON PRIVATE PROPERTY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE.
5. CONTRACTOR MUST MAINTAIN GOOD EROSION CONTROL AND FLUSHING PROCEDURES.
6. CONTRACTOR IS RESPONSIBLE FOR DAMAGES TO ANY EXISTING UTILITIES THAT ARE TO REMAIN.
7. VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY IF THERE IS A CONFLICT.
8. CONTACT "MISS UTILITY" OF CENTRAL VIRGINIA PRIOR TO THE START OF ANY EXCAVATION TO LOCATE EXISTING UTILITIES. 1-800-552-3120.
9. WATER SERVICE INSTALLATIONS MUST ADHERE TO THE CITY OF RICHMOND CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION PROGRAM.

10. A BACKWATER VALVE SHALL BE INSTALLED ON FIXTURES LOCATED ON A FLOOR LEVEL BELOW THE TOP OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER. IF A FLOOR LEVEL IS ABOVE THE TOP OF THE NEXT UPSTREAM MANHOLE, A BACKWATER VALVE IS NOT REQUIRED. A BACKWATER VALVE SHALL NOT BE INSTALLED ON THE LATERAL UNLESS ALL FLOORS IN THE BUILDING ARE BELOW THE TOP OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER.
11. BACKFLOW PREVENTION ADEQUATE TO PROTECT THE PROPOSED IMPROVEMENTS SHALL BE PROVIDED ON ALL CONNECTIONS TO THE EXISTING PUBLIC SEWER SYSTEMS.
12. EXISTING WATER MAIN MUST REMAIN IN SERVICE TO SERVE ALL EXISTING CITY WATER CUSTOMERS.
13. IF EXISTING WATER OR SEWER LATERALS ARE DISCOVERED DURING CONSTRUCTION THEY MUST BE REMOVED.
14. WATER TAP SERVICE LATERAL, METER AND VAULT TO BE INSTALLED BY CITY DPW.
15. MAINTAIN A MINIMUM OF 3'5" COVER ON ALL WATER SERVICE AND 5'5" MINIMUM ON SANITARY SERVICE LATERALS IN THE RIGHT OF WAY.
16. EXISTING SEWER MAIN MUST BE FREE OF CRACKS, MAJOR DEFECTS, CLOGS OR SEDIMENT BUILDUP AND BE FREE FLOWING PRIOR TO LATERAL TAPS. VERIFY PRIOR TO CONSTRUCTION.
17. RESTORATION OF UTILITY CUTS SHALL BE PER THE CURRENT DPW EXCAVATION AND RESTORATION MANUAL AND ANY UPDATES.

18. ANY DAMAGE OR DEGRADATION TO CITY STREETS AS A RESULT OF DEMOLITION OF CONSTRUCTION WILL REQUIRE THAT THE DEVELOPER REPAIR THE DAMAGE OR REPAVE DAMAGED AREAS IN THEIR ENTIRETY TO DPW STANDARDS.
- PROPOSED UTILITY NOTES:**
21. ALL SANITARY SEWER LATERALS ARE TO BE INSTALLED AT 2.08% MINIMUM, UNLESS OTHERWISE NOTED.
 22. ALL BUILDING FIRE CONNECTIONS SHALL BE DUCTILE IRON PIPE.
 23. ALL BUILDING DOMESTIC WATER CONNECTIONS SHALL BE PVC PIPE ASTM D2241/SDR-21 PRESSURE RATED OR APPROVED LISTED IN THE INTERNATIONAL PLUMBING CODE (IPC 2015) TABLE 605.3.
 24. ALL DOMESTIC WATER SERVICE LINES SHALL BE PVC PIPE ASTM D2241/SDR-21 PRESSURE RATED OR APPROVED LISTED IN THE INTERNATIONAL PLUMBING CODE (IPC 2015) TABLE 605.3.
 25. ALL PROPOSED HYDRANTS SHALL BE A MINIMUM OF 18" ABOVE EXISTING AND PROPOSED CURBING.



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A. WEHUNT
CHECKED BY

N. T.S.
SCALE

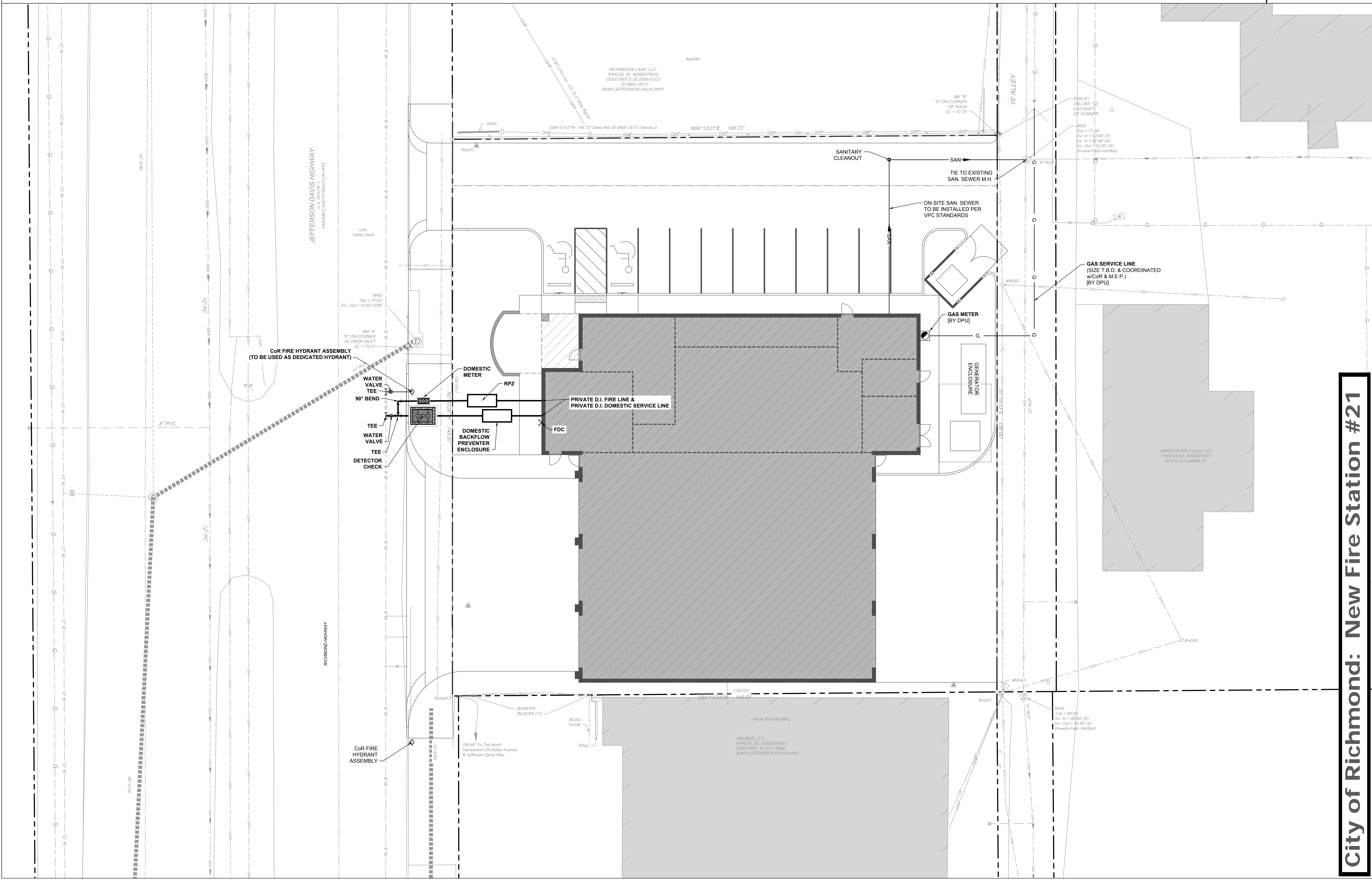
City of Richmond: New Fire Station #21

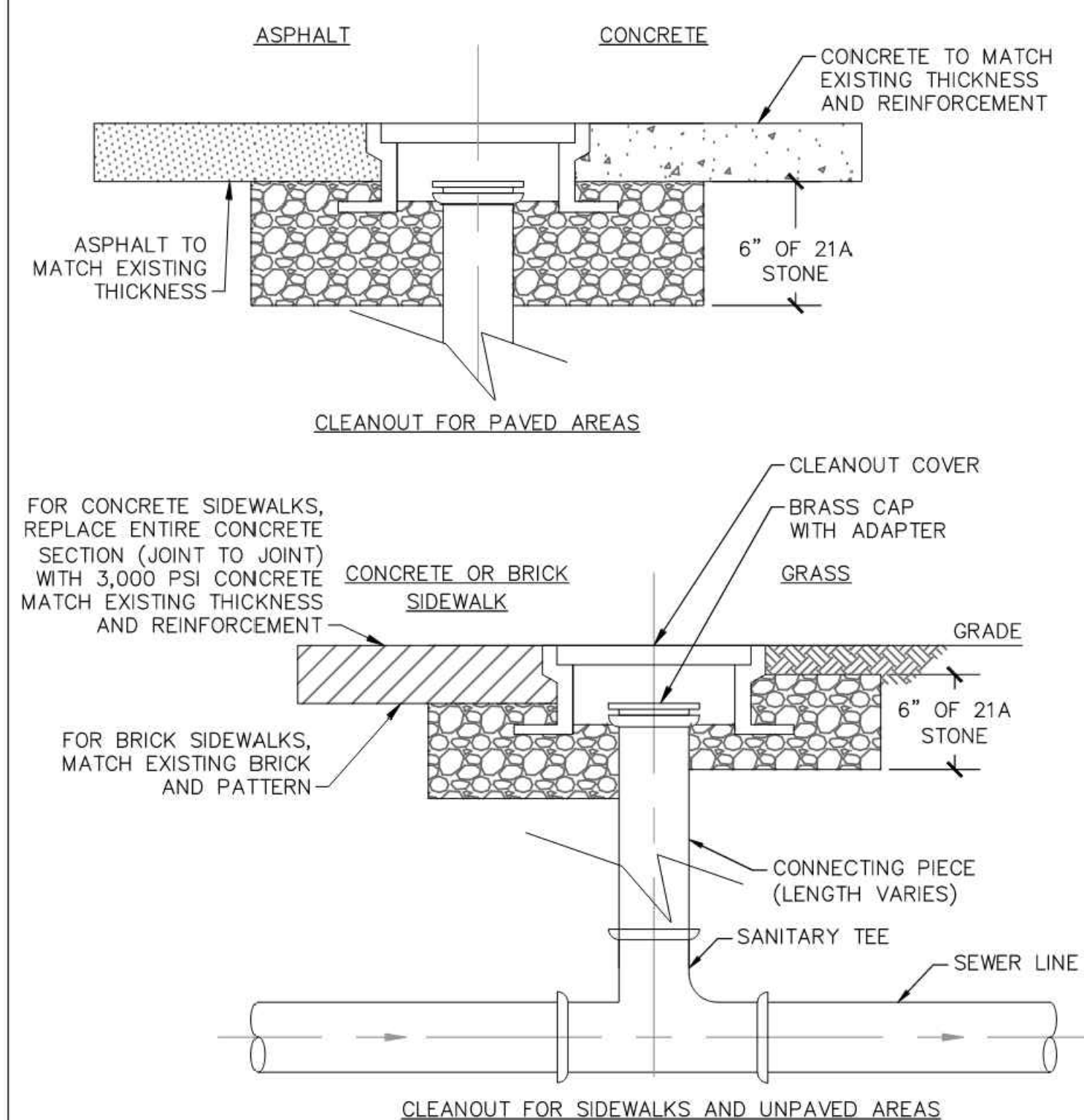
TIMMONS GROUP

CITY OF RICHMOND FIRE STATION 21
BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA
UTILITY PLAN

JOB NO.	60040
SHEET NO.	C7.00

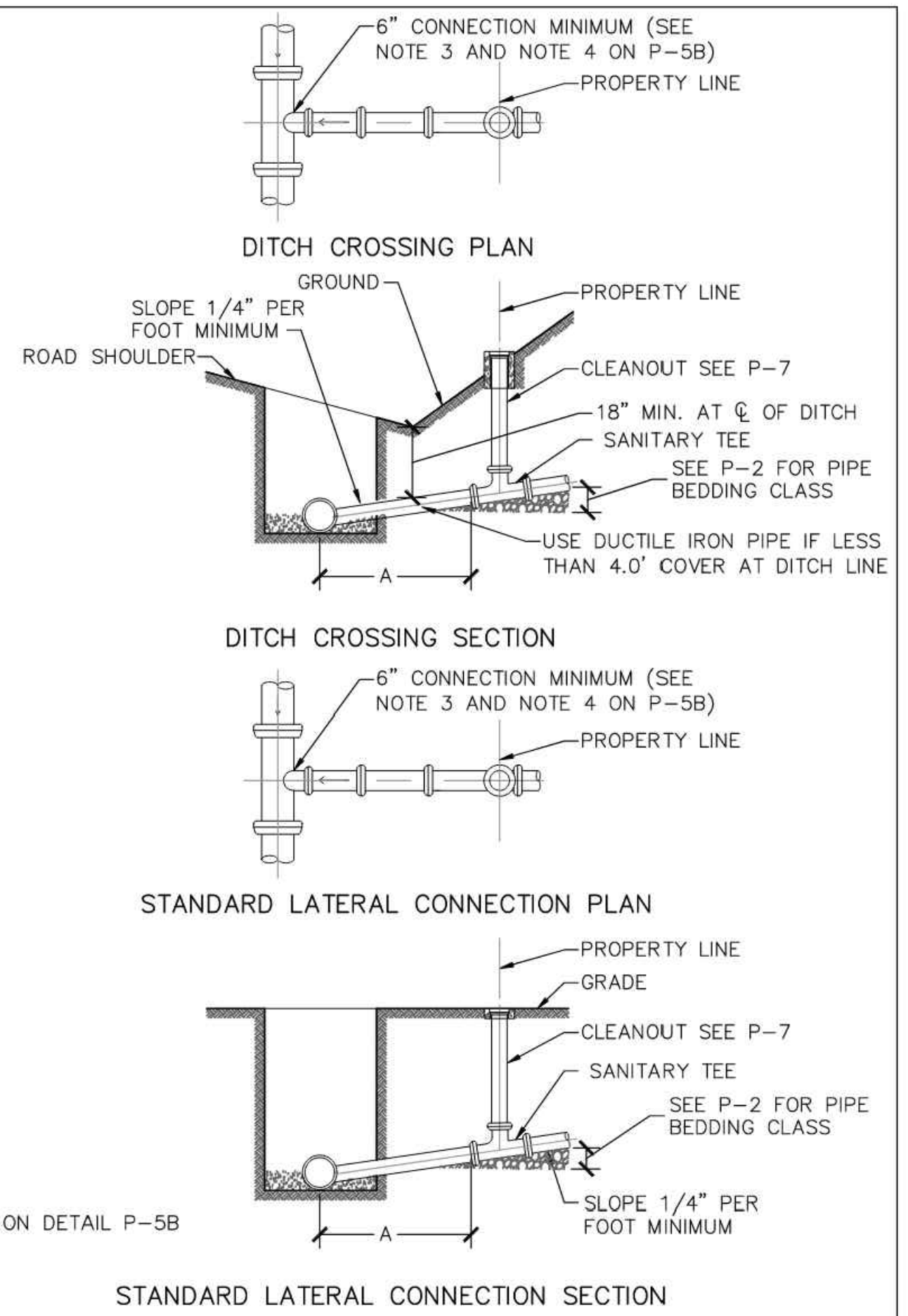
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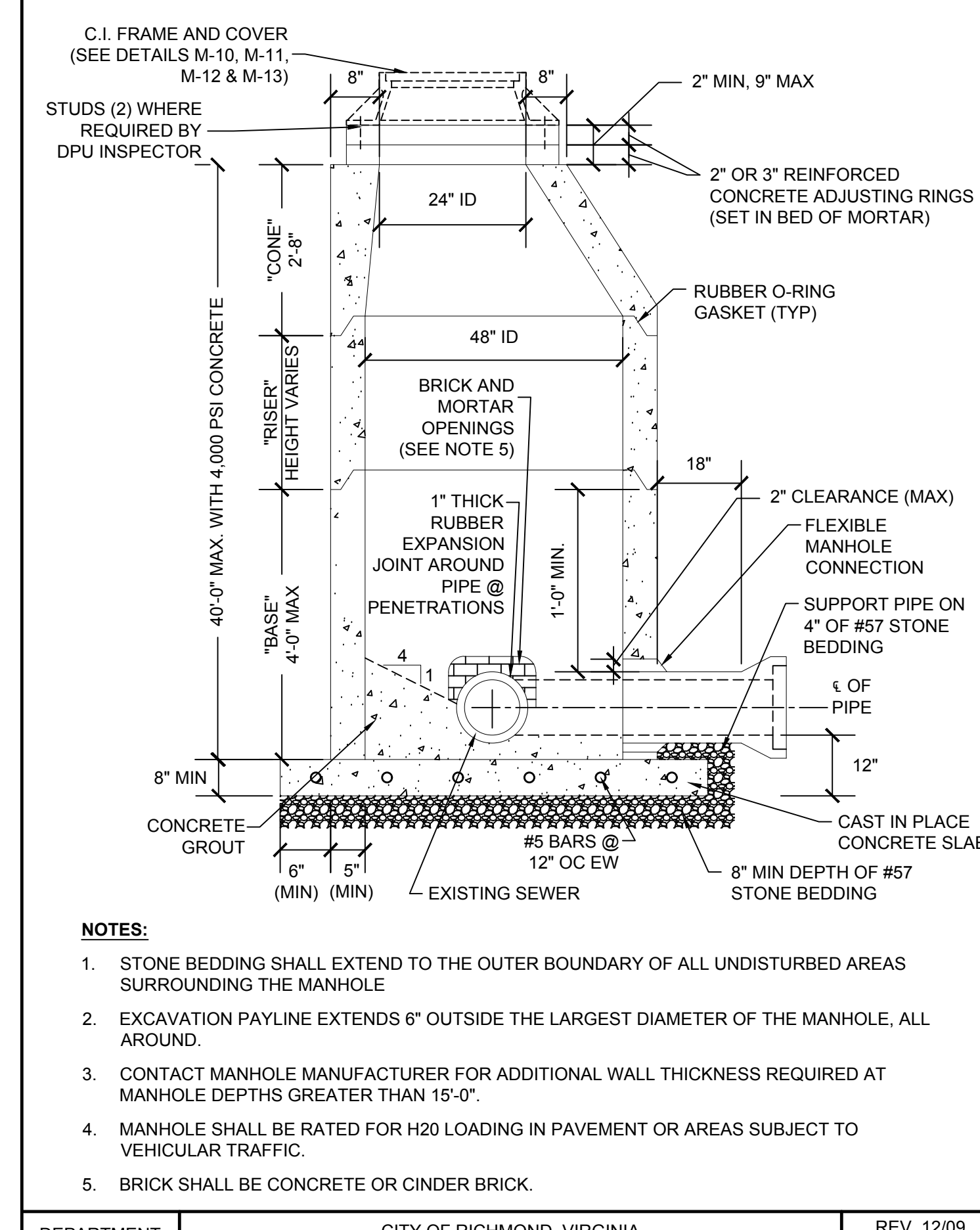
NOTES:
 1. CLEANOUT CAP SHALL BE BRASS.
 2. CLEANOUT SHALL BE 6" OR LARGER UNLESS OTHERWISE APPROVED BY DPU DEPUTY DIRECTOR OR DESIGNEE.
 3. IF CLEANOUT IS IN RIGHT-OF-WAY, PROVIDE A TRAFFIC RATED CLEANOUT FRAME AND COVER.
 4. ENSURE PIPE IS NOT ENCASED IN CONCRETE.

DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA CLEANOUT NOT TO SCALE	REV. 02/18 P-7
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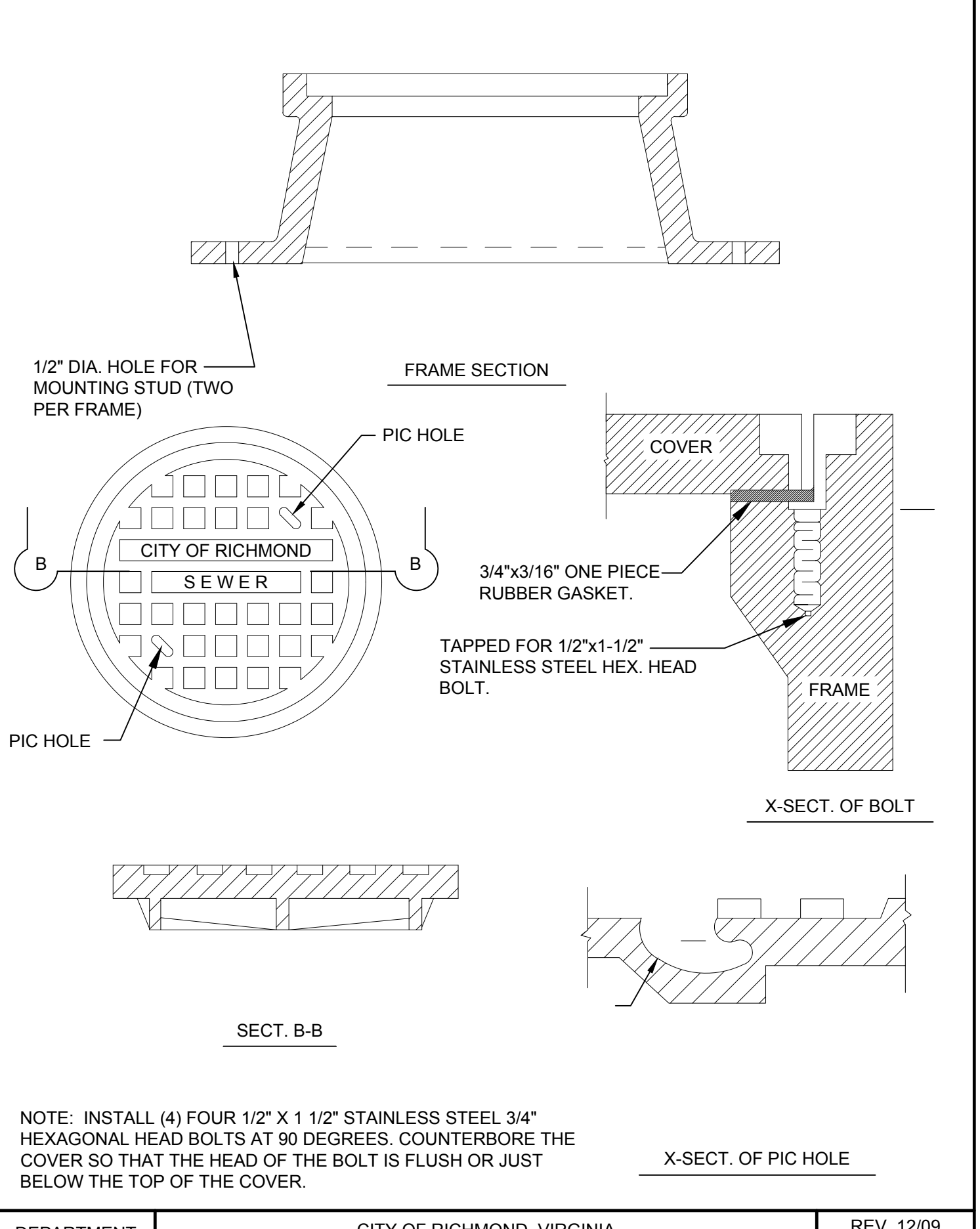


NOTE:
SEE NOTES ON DETAIL P-5B

DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA SEWER LATERAL CONNECTIONS NOT TO SCALE	REV. 02/18 P-5A
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DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA STANDARD DOG-HOUSE MANHOLE NOT TO SCALE	REV. 12/09 M-6
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DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA WATERTIGHT FRAME AND COVER NOT TO SCALE	REV. 12/09 M-13
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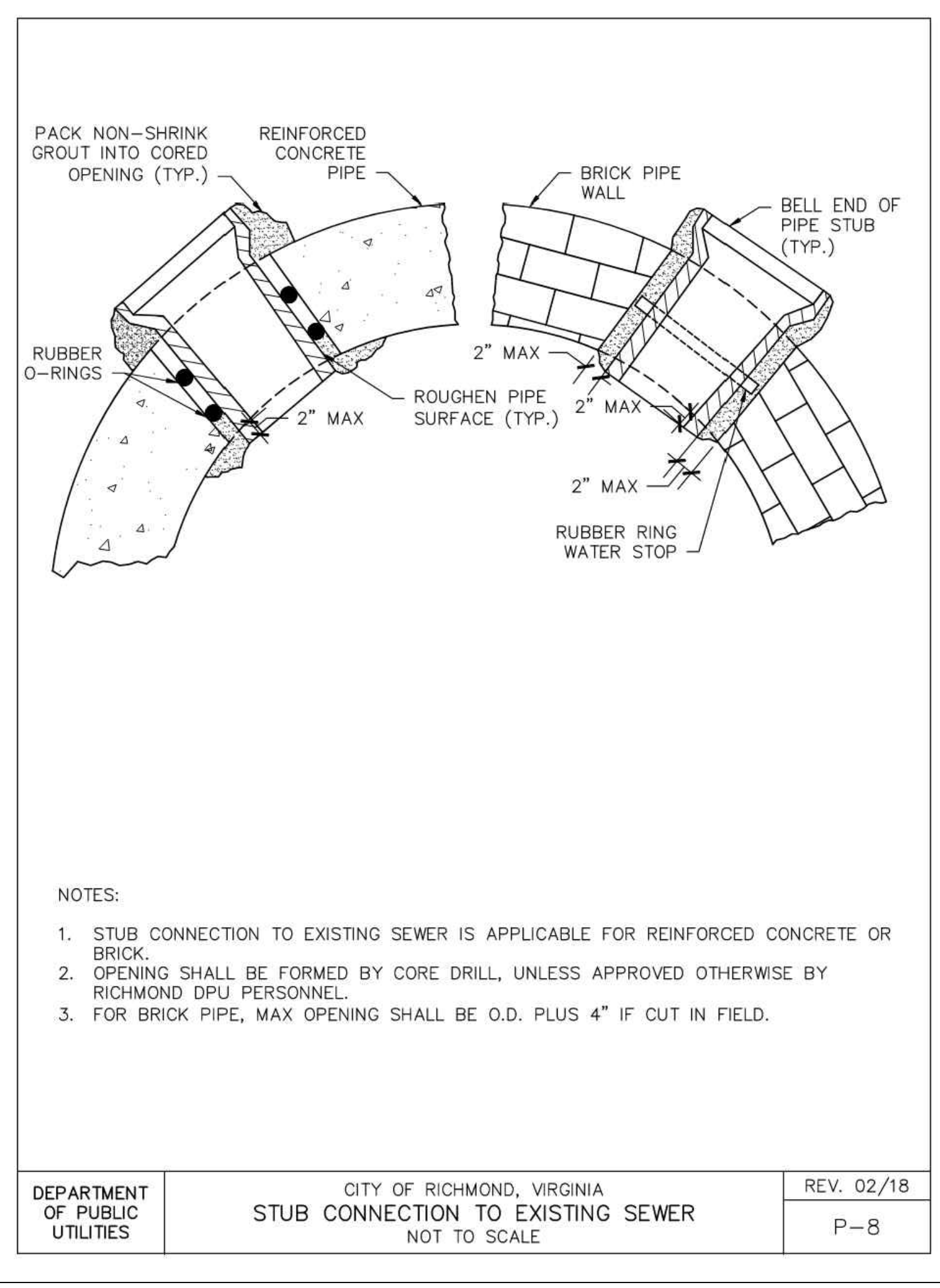
CITY OF RICHMOND DEPARTMENT OF PUBLIC UTILITIES

PROJECT NAME: _____
 NAME, ADDRESS, AND PHONE NUMBER OF OWNER/DEVELOPER: _____
 VIRGINIA REGISTERED PROFESSIONAL ENGINEERS SEAL, SIGNATURE & DATE, AND CONTACT INFORMATION: _____
 VICINITY MAP (SCALE: 1"=2,000' OR LESS): _____
 WATER SYSTEM IS DESIGNED TO PROVIDE ADEQUATE DOMESTIC SERVICE AND FIRE PROTECTION TO THE OWNER'S PROPERTY. _____ DIAMETER LINE IS REQUIRED TO ADEQUATELY SERVE THIS PROJECT IN ACCORDANCE WITH CITY STANDARDS.
 A. AVERAGE DOMESTIC DESIGN FLOW _____ GPM
 B. MAXIMUM DAILY DESIGN FLOW _____ GPM
 C. DESIGN L.S.O. FIRE FLOW _____ GPM
 D. DESIGN FLOW (MAX. DAY + FIRE) _____ GPM
 E. LOWEST RESIDUAL PRESSURE @ DESIGN FLOW _____ PSI

DOMESTIC WATER METER CALCULATIONS (AWWA M-22) & L.S.O. FIRE FLOW CALCULATIONS ARE SHOWN ON PLANS (WHERE APPLICABLE).
 MODELING CALCULATIONS PROVIDED DEMONSTRATING ADEQUACY OF EXISTING WATER SYSTEM AND PROPOSED IMPROVEMENTS TO SERVE PROJECT BASED ON DPU FLOW AND PRESSURE REQUIREMENTS.
 WATER UTILITY PLAN WITH APPROPRIATE APPURTENANCES, CALLOUTS, EXISTING & PROPOSED WATERLINE SIZES/MATERIALS NOTED INCLUDING DIMENSIONS TO RIGHT-OF-WAY AND/OR CURB LINES.
 ALL WATER MAINS 8-INCHES AND LARGER ARE PROFILED WITH MINIMUM RESTRAINED JOINT LENGTHS, MINIMUM COVER, AND CLEARANCES NOTED. WHERE WATER MAINS OF ANY SIZE CROSS OTHER UTILITIES, THE CROSSINGS ARE PROFILED, AND THE MEANS FOR CROSSING AND RESOLVING CONFLICTS ARE CLEARLY SHOWN.
 ANY AND ALL EXISTING WATER AND SEWER CONNECTIONS TO THE PROPERTY ARE SHOWN ON PLANS.
 ADEQUATE PUBLIC RIGHT-OF-WAY OR PUBLIC UTILITY EASEMENTS IDENTIFIED. ALL OFFSITE EASEMENTS OR RIGHT-OF-WAY MUST BE OBTAINED PRIOR TO PLAN APPROVAL, WITH DEED BOOK AND PAGE REFERENCES SHOWN ON THE PLANS.
 DEMOLITION PLAN WITH DPU DEMOLITION RESPONSIBILITY NOTED.
 PROJECT SPECIFIC DPU DETAILS.
 A BACKFLOW PREVENTION DEVICE IS PROVIDED ON DOMESTIC AND FIRE SERVICE CONNECTIONS IN ACCORDANCE WITH PART 1, ARTICLE 3 OF THE COMMONWEALTH OF VIRGINIA STATE BOARD OF HEALTH WATER WORKS REGULATIONS AND THE CITY OF RICHMOND DEPARTMENT OF PUBLIC UTILITIES CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION PROGRAM.
 A LIST OF MATERIAL QUANTITIES USED ON THE PROJECT.
 ALL FIRE HYDRANT LOCATIONS COORDINATED AND APPROVED BY CITY OF RICHMOND FIRE DEPARTMENT.
 DPU CONSTRUCTION NOTES PROVIDED ON PLANS.
 A CONSPICUOUS NOTE STATING "PLANS ARE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, & FEDERAL REGULATIONS".

REVISION 04/02/2020	WATER UTILITY PLAN CHECKLIST	DPU DWG. NO. W-3
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A: WATER DISTRIBUTION STANDARDS UPDATE (DETAILS - 2016) W-3 - WATER UTILITY PLAN CHECKLIST.DWG



NOTES:
 1. STUB CONNECTION TO EXISTING SEWER IS APPLICABLE FOR REINFORCED CONCRETE OR BRICK.
 2. OPENING SHALL BE FORMED BY CORE DRILL, UNLESS APPROVED OTHERWISE BY RICHMOND DPU PERSONNEL.
 3. FOR BRICK PIPE, MAX OPENING SHALL BE O.D. PLUS 4" IF CUT IN FIELD.

DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA STUB CONNECTION TO EXISTING SEWER NOT TO SCALE	REV. 02/18 P-8
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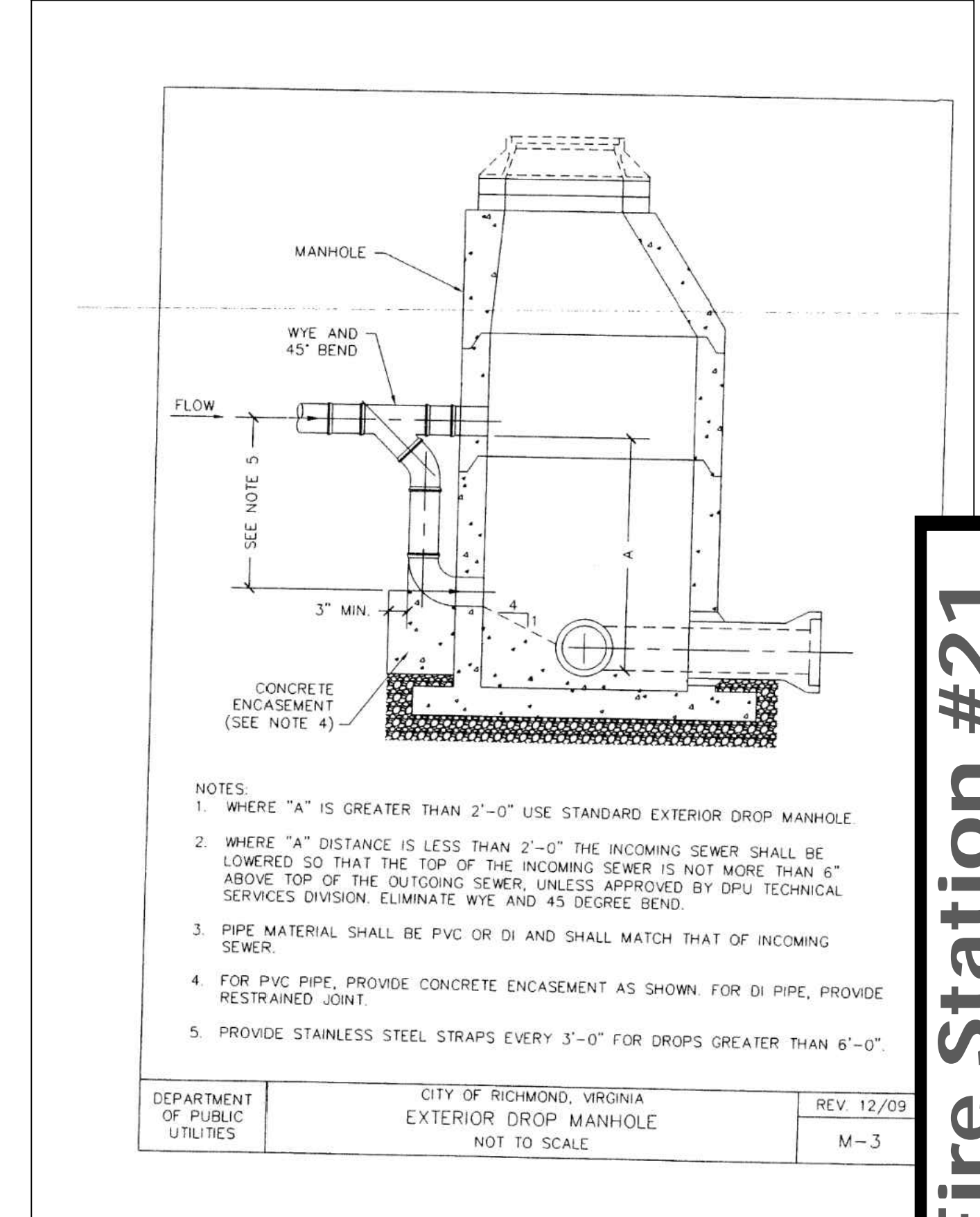
DEPARTMENT OF PUBLIC UTILITIES
RICHMOND, VIRGINIA

ASPHALT FELT OR BOND BREAKER
 3000 PSI CONCRETE
 NEW PIPELINE
 SECTION A-A
 POLAR AGAINST UNDISTURBED EARTH
 PLAN

BEND	DIA.	BUTTRESS FOR HORIZONTAL BENDS								
		DIAMETER (D)								
11 1/4"	A	4"	6"	8"	10"	12"	16"	18"	20"	24"
	B	6"	7"	8"	9"	10"	11"	12"	13"	14"
	C	6"	7"	7"	8"	9"	9"	10"	11"	11"
22 1/2"	A	8"	10"	11"	12"	14"	16"	18"	20"	24"
	B	8"	7"	8"	10"	10"	11"	11"	12"	13"
	C	7"	8"	9"	10"	11"	11"	12"	12"	13"
45"	A	11"	11"	14"	2"	0"	2"	6"	3"	3"
	B	6"	7"	8"	10"	11"	11"	12"	12"	13"
	C	7"	8"	9"	10"	11"	11"	12"	12"	13"
90"	A	11"	10"	2"	3"	3"	3"	9"	0"	8"
	B	7"	8"	9"	11"	11"	11"	12"	12"	13"
	C	11"	0"	1"	6"	1"	6"	1"	9"	2"

NOTES:
 1. BLOCKING DIMENSIONS SHOWN ARE MINIMUMS.
 2. BLOCKING DIMENSIONS ARE BASED ON A STATIC PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF.
 3. WHERE SOIL BEARING CAPACITY IS LESS THAN 2000 PSF, SUBMIT BLOCKING DESIGN CALCULATIONS.
 4. THRUST BLOCKS FOR HORIZONTAL BENDS MAY BE DELETED WITH RESTRAINED JOINTS, THE ENGINEER SHALL CALCULATE LENGTH OF RESTRAINED SECTION.

DATE: 5/28/04	CITY OF RICHMOND, VIRGINIA BUTTRESS FOR HORIZ. BENDS	DPU DWG. NUMBER: M-5
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NOTES:
 1. WHERE "A" IS GREATER THAN 2'-0" USE STANDARD EXTERIOR DROP MANHOLE.
 2. WHERE "A" DISTANCE IS LESS THAN 2'-0" THE INCOMING SEWER SHALL BE LOWERED SO THAT THE TOP OF THE INCOMING SEWER IS NOT MORE THAN 6" ABOVE TOP OF THE OUTGOING SEWER, UNLESS APPROVED BY DPU TECHNICAL SERVICES DIVISION. ELIMINATE WYE AND 45 DEGREE BEND.
 3. PIPE MATERIAL SHALL BE PVC OR DI AND SHALL MATCH THAT OF INCOMING SEWER.
 4. FOR PVC PIPE, PROVIDE CONCRETE ENCASEMENT AS SHOWN FOR DI PIPE, PROVIDE RESTRAINED JOINT.
 5. PROVIDE STAINLESS STEEL STRAPS EVERY 3'-0" FOR DROPS GREATER THAN 6'-0".

DEPARTMENT OF PUBLIC UTILITIES	CITY OF RICHMOND, VIRGINIA EXTERIOR DROP MANHOLE NOT TO SCALE	REV. 12/09 M-3
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UDC FINAL REVIEW
SUBMITTAL
NOT FOR CONSTRUCTION
PLAN SET DATE - 07/19/2023

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804-200-6500 FAX 804-560-1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE: 07/19/2023
 DRAWN BY: K. UNDERBERG
 DESIGNED BY: C. NELSON
 CHECKED BY: A. WEHUNT
 SCALE: N.T.S.

City of Richmond: New Fire Station #21

TIMMONS GROUP

CITY OF RICHMOND FIRE STATION 21
BROAD ROCK DISTRICT - CITY OF RICHMOND - VIRGINIA
UTILITY NOTES & DETAILS

JOB NO.: 60040
SHEET NO.: C7.21

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