

TILDEN AVE., S. BRIDGE ST., COCHRAN RD. WATER DISTRIBUTION IMPROVEMENTS

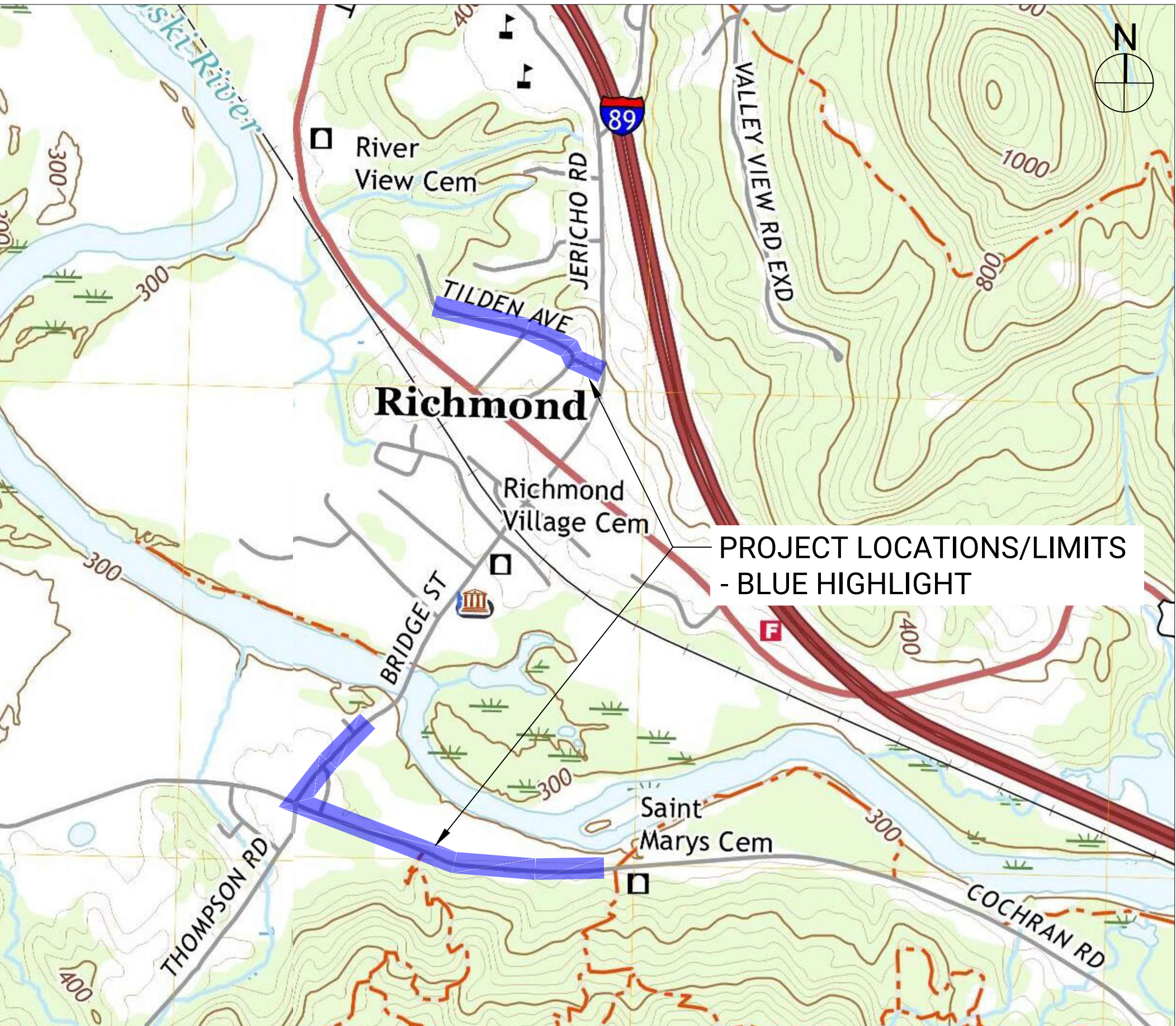
TOWN MANAGER
JOSH ARNESON

SELECTBOARD
JAY FURR, CHAIR
ADAM WOOD, VICE-CHAIR
BARD HILL
DAVID SANDER
CAITLIN FILINS

WATER/SEWER COMMISSION
MORGAN WOLAVER, CHAIR
ERIN FARR, VICE-CHAIR
BARD HILL
JAY FURR
DAVID SANDER

GENERAL & CONSTRUCTION NOTES

- TO CLARIFY THE PLANS, ALL EXISTING SITE FEATURES ARE SHOWN IN lowercase LETTERS AND ALL PROPOSED IMPROVEMENTS ARE SHOWN IN CAPITAL LETTERS.
- THIS PLAN SHOWS APPROXIMATE SITE FEATURES, UTILITIES, TAX MAP BOUNDARY LINES, BUILDINGS, AND OTHER SITE FEATURES BASED ON A SURVEY COMPLETED BY EAST ENGINEERING. ADDITIONAL DEPICTIONS ARE BASED ON INFORMATION FROM THE VERMONT GEODATA PORTAL, OWNER, AND UTILITY COMPANIES. THIS IS NOT A BOUNDARY SURVEY. WATER AND SEWER SERVICES ARE NOT SHOWN ON THE PLANS, HOWEVER, BOTH MUST BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION.
- TECHNICAL SPECIFICATIONS ACCOMPANY THE PLANS AND ARE ESSENTIAL FOR CONSTRUCTION. UNLESS OTHERWISE NOTED, THE TOWN OF RICHMOND PUBLIC IMPROVEMENTS STANDARDS (2016) SHALL BE STRICTLY ADHERED TO.
- ALL TRAFFIC CONTROL EFFORTS SHALL MEET OR EXCEED MUTCD APPLICABLE STANDARDS. ONE LANE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING WORKING HOURS. TWO LANES OF TRAFFIC SHALL BE OPENED AT THE END OF EACH WORKING DAY. TRAFFIC ON BRIDGE STREET CANNOT BE REDUCED TO ONE LANE UNTIL 8:30 A.M. AND MUST BE RETURNED TO TWO LANES BY 3:00 P.M. ALL DRIVEWAYS SHALL MAINTAIN ACCESS AT ALL TIMES.
- JOBSITE SAFETY, SECURITY, MEANS/METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL OSHA/VOSHIA RULES AND REGULATIONS SHALL BE ADHERED TO AT ALL TIMES. AT THE END OF EACH WORKING DAY, ALL TRENCHES SHALL BE TEMPORARILY BACKFILLED OR PLATED.
- ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER. THIS INCLUDES DRIVEWAYS, WALKWAYS, GARDENS, PLANTINGS/VEGETATION/FLOWERS, MAILBOXES, AND YARDS.
- ALL WORK, STORAGE, AND EQUIPMENT SHALL BE MAINTAINED IN THE TOWN ROAD RIGHT-OF-WAY, UNLESS OTHERWISE NOTED BY THE ENGINEER AND TOWN. IF THE CONTRACTOR REQUIRES ADDITIONAL SPACE, THEY MUST OBTAIN AT THEIR OWN COST.
- ALL WASTE ITEMS FROM CONSTRUCTION MUST BE LEGALLY DISPOSED OF - THIS INCLUDES ASBESTOS CEMENT PIPE SECTIONS THAT ARE REMOVED. ASBESTOS CEMENT DISPOSAL MUST ADHERE TO THE STATE OF VERMONT STANDARDS.
- CONTRACTOR IS REQUIRED TO MAINTAIN RECORD DRAWINGS. ALL WATERMAIN FITTINGS AND VALVES SHALL HAVE A MINIMUM OF THREE SWING TIES, CLEARLY MARKED AND MEASURED. AT THE END OF CONSTRUCTION HAND-WRITTEN RECORD DRAWINGS WILL BE GIVEN TO THE ENGINEER FOR DIGITIZING.
- UNFORESEEN SUBSURFACE CONDITIONS SHALL REPORTED TO THE ENGINEER IMMEDIATELY. ENGINEER WILL REVIEW AND PROVIDE DIRECTION TO CONTRACTOR.
- CONTRACTOR SHALL IMPLEMENT EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IN THE DISTURBED AREAS. THIS INCLUDES CATCH BASIN INLET FILTER FABRIC ON ALL CATCH BASINS ADJACENT TO THE WORK AREA.
- NEW MAINS AND SERVICES SHALL HAVE ALL TESTING PROCEDURES PASSING (FLUSHING, PRESSURE/LEAKAGE, CHLORINATION, BACTERIOLOGICAL TESTING) PRIOR TO EXISTING WATER MAINS BEING DECOMMISSIONED. ALL WORK ON THE WATER DISTRIBUTION SYSTEM SHALL BE IN COMPLIANCE WITH AWWA STANDARDS AND THE VERMONT WATER SUPPLY RULE.



TOWN OF RICHMOND, VERMONT
DECEMBER 2022

Sheet List Table	
Sheet	Sheet Title
G-1.0	TITLE PAGE
C-1.0	SITE PLAN/PROFILE - TILDEN AVE
C-1.1	SITE PLAN/PROFILE - TILDEN AVE
C-2.0	SITE PLAN/PROFILE - S. BRIDGE ST
C-3.0	SITE PLAN/PROFILE - COCHRAN RD (WEST)
C-3.1	SITE PLAN/PROFILE - COCHRAN RD (WEST)
C-3.2	SITE PLAN/PROFILE - COCHRAN RD (EAST)
C-4.0	DETAILS
C-4.1	DETAILS

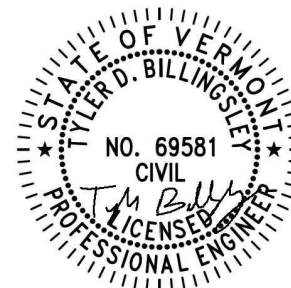
EXISTING LEGEND :	
tel	underground telecom
ohw	overhead wires
w	water main
C/S	curb stop (water shutoff)
ww	sewer main
S	sewer manhole
gas	gas
sd	stormdrain
CB	catch basin
U	utility pole
fence/guardrail	fence/guardrail
sign	sign
trees/vegetation	trees/vegetation
shrub/bush	shrub/bush
conc. sidewalk/pavers	conc. sidewalk/pavers
mb	mailbox
road right-of-way / tax map	road right-of-way / tax map
elevation contour	elevation contour

PROPOSED LEGEND :	
w	WATER MAIN
VALVE	VALVE
NEW SERVICE W/ SIZE*	NEW SERVICE W/ SIZE*
HYDRANT	HYDRANT
EASEMENT	EASEMENT
EXACT LOCATION OF EXISTING CURB STOPS TO BE FIELD LOCATED BY CONTRACTOR. NEW CURB STOP TO BE LOCATED ADJACENT TO EXISTING	

ABBREVIATIONS:	
HDPE	HIGH DENSITY POLYETHYLENE
CONC	CONCRETE
DI	DUCTILE IRON
PVC	POLYVINYL CHLORIDE
CMP	CORRUGATED METAL PIPE
AC	ASBESTOS CEMENT
CI	CAST IRON
SMH	SEWER MANHOLE
CB	CATCH BASIN
SD	STORM DRAIN
VTRANS	VERMONT AGENCY OF TRANSPORTATION
MUTCD	MANUAL ON UN. TRAFFIC CONTROL DEVICES
TYP	TYPICAL
TEMP	TEMPORARY
MIN	MINIMUM
MAX	MAXIMUM
TBR	TO BE REMOVED
TBA	TO BE ABANDONED
APPROX	APPROXIMATE
EL	ELEVATION
ROW	RIGHT-OF-WAY
CTRL	CONTROL POINT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY

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(802) 434-5170

PROJECT:
TILDEN AVE, S. BRIDGE ST., COCHRAN RD.
WATER DISTRIBUTION IMPROVEMENTS

ISSUED FOR:
BID & CONSTRUCTION

ISSUED DATE:
2022-12-14

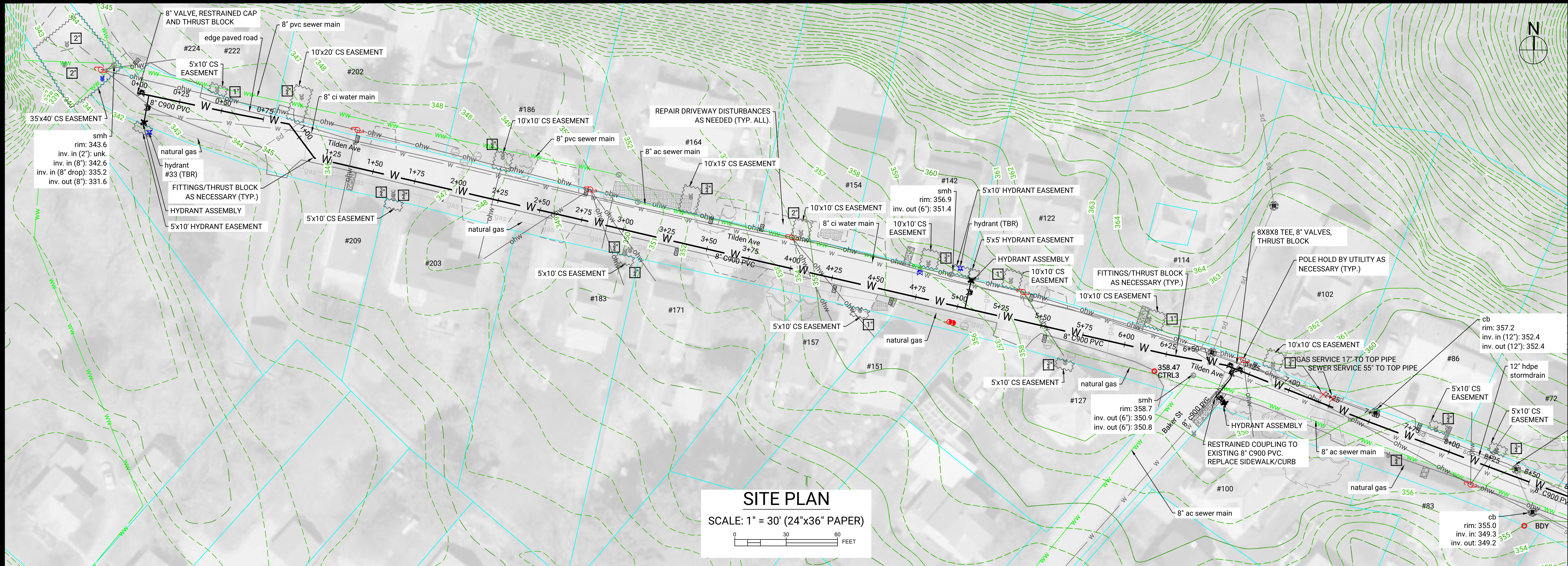
PROJ. #: 006-27

REVISIONS

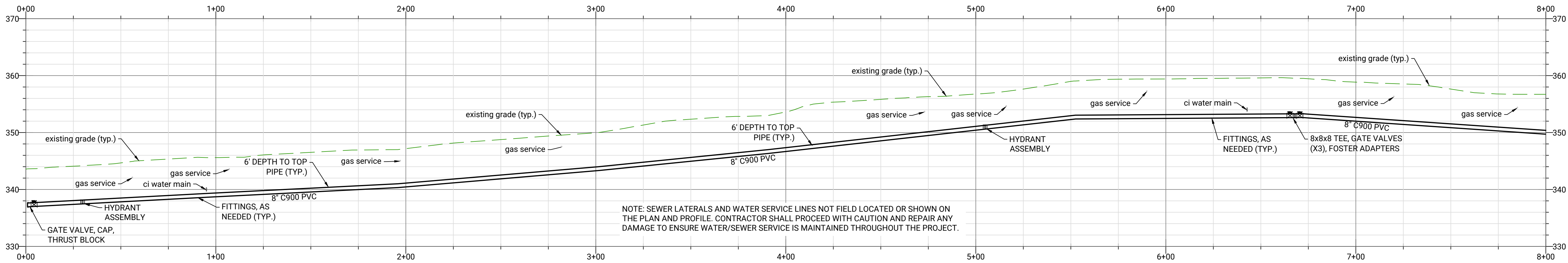
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TITLE SHEET

DRAWING NO:
G-1.0



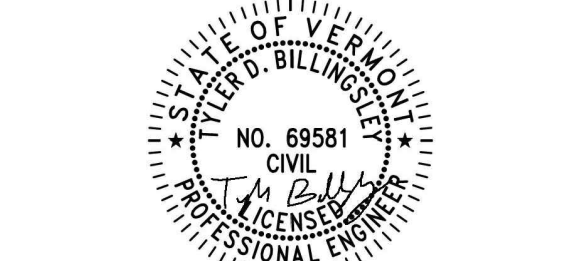
SITE PLAN
SCALE: 1" = 30' (24"x36" PAPER)



SITE PROFILE
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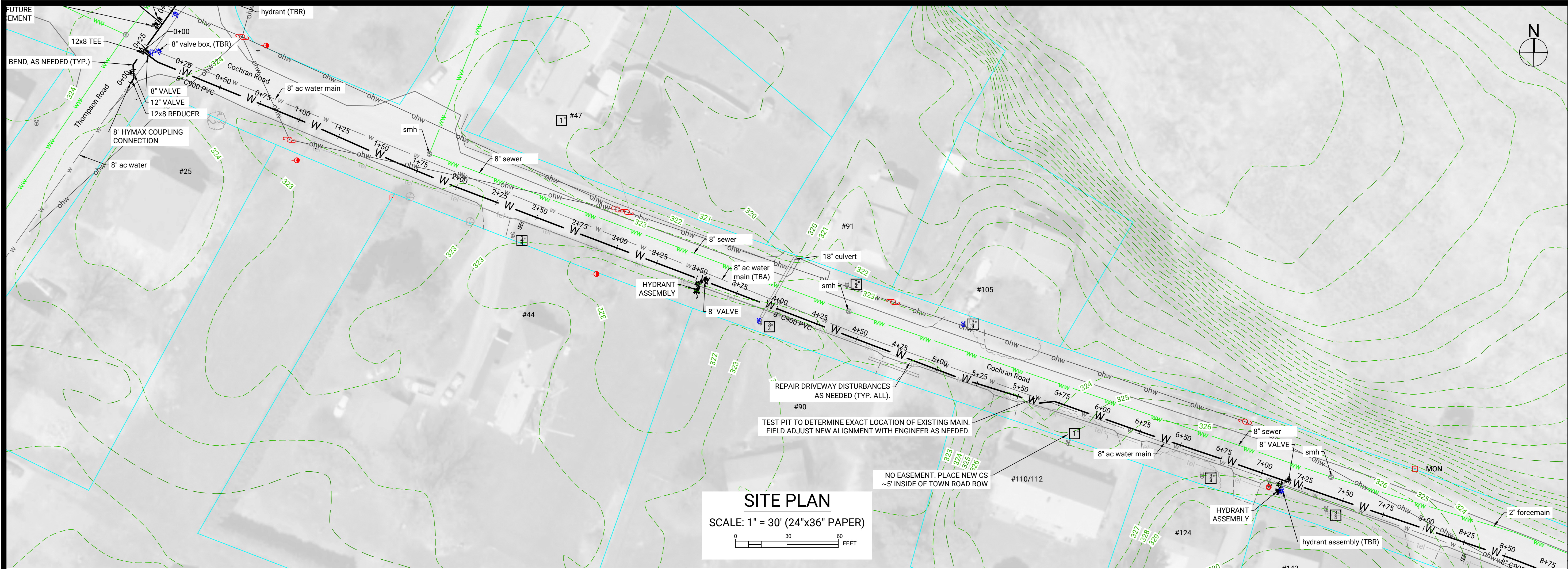
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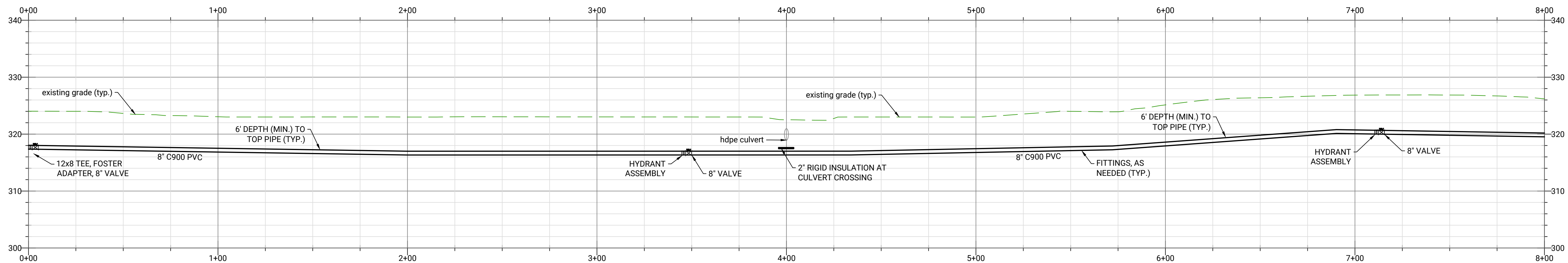
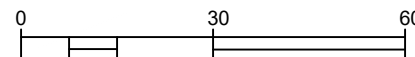
TILDEN AVE. SITE PLAN AND PROFILE

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C-1.0



SITE PLAN

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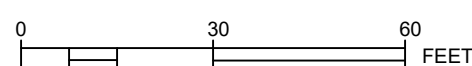


NOTE: SEWER LATERALS AND WATER SERVICE LINES NOT FIELD LOCATED OR SHOWN ON THE PLAN AND PROFILE. CONTRACTOR SHALL PROCEED WITH CAUTION AND REPAIR ANY DAMAGE TO ENSURE WATER/SEWER SERVICE IS MAINTAINED THROUGHOUT THE PROJECT.

SITE PROFILE

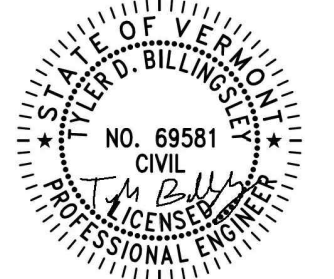
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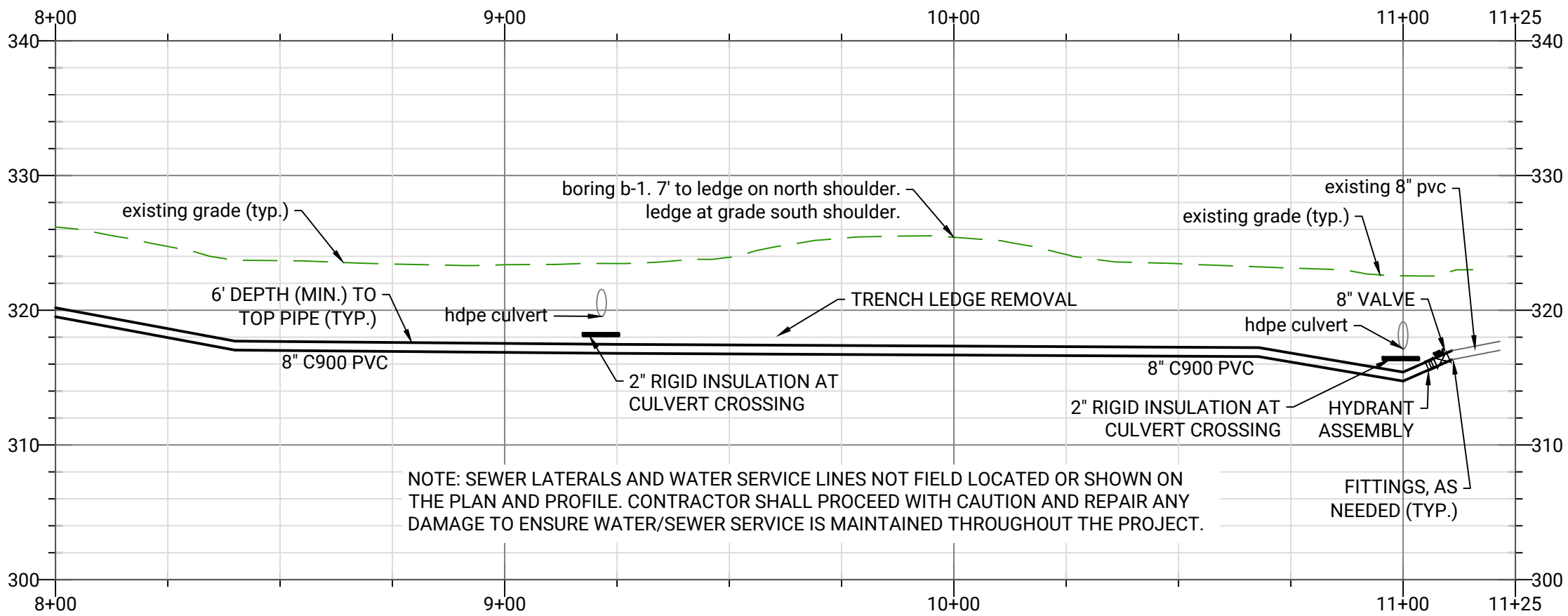
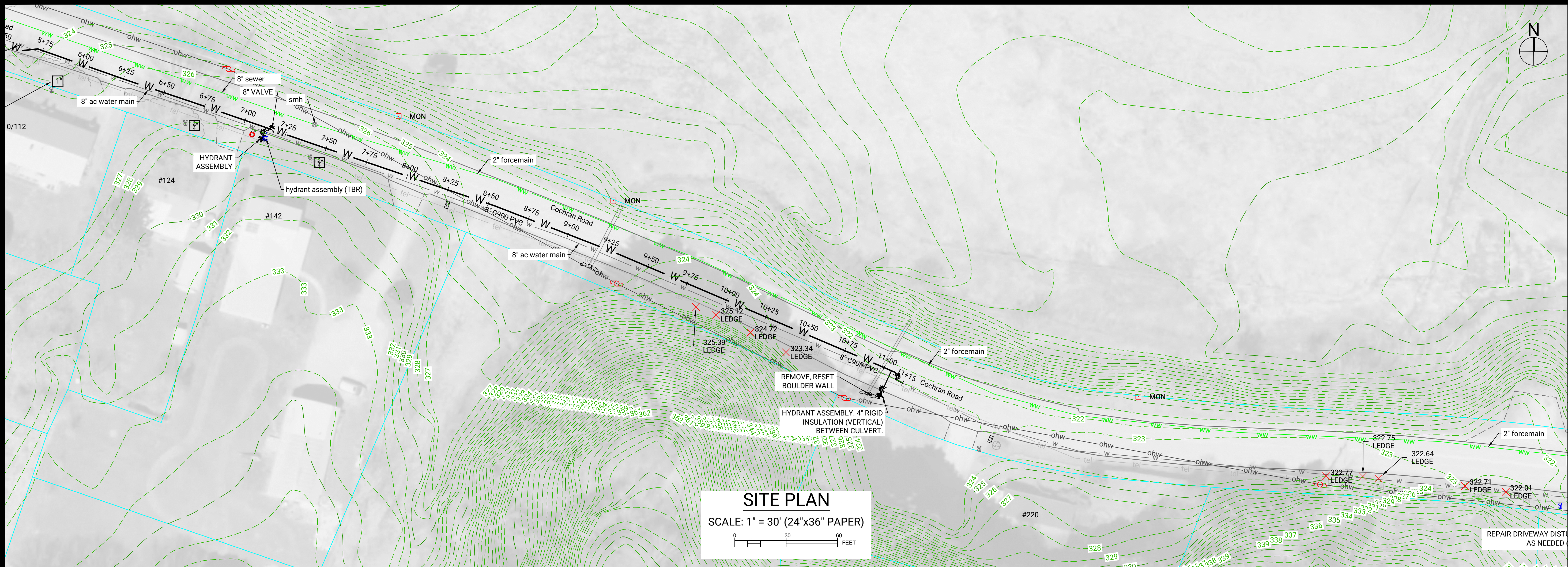
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COCHRAN RD WEST
SITE PLAN AND
PROFILE

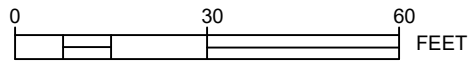
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SITE PROFILE

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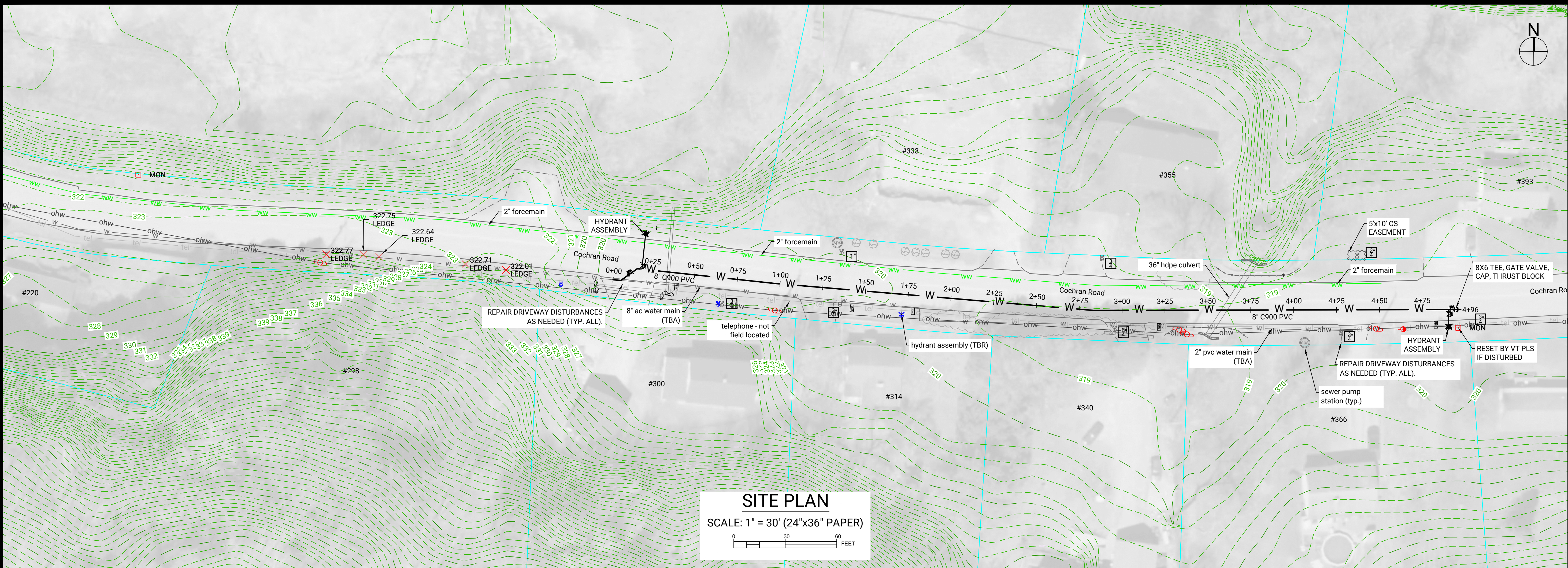
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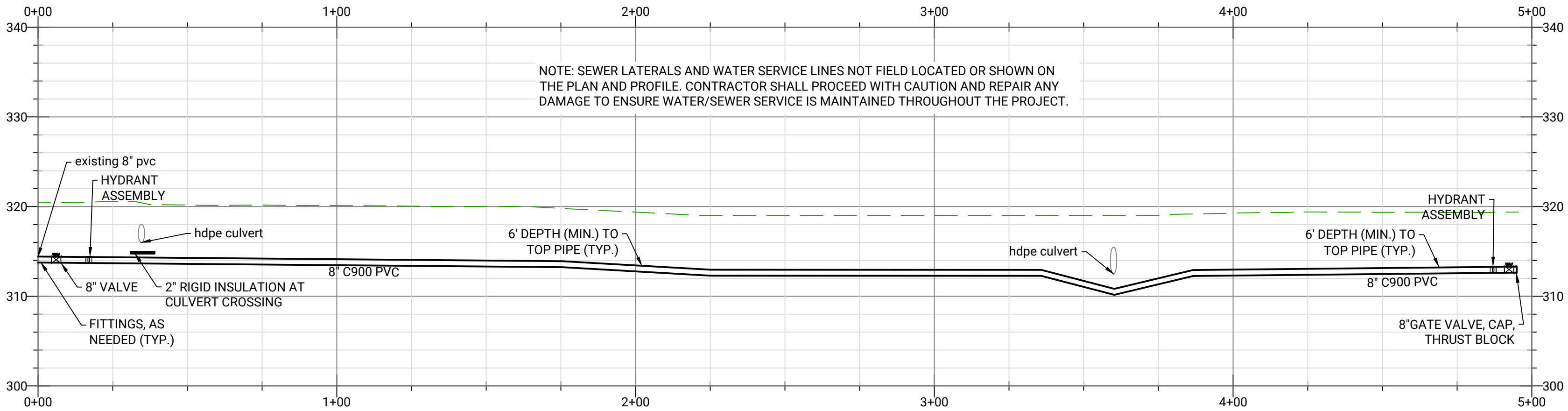
**COCHRAN RD WEST
SITE PLAN AND
PROFILE**

DRAWING NO:

C-3.1



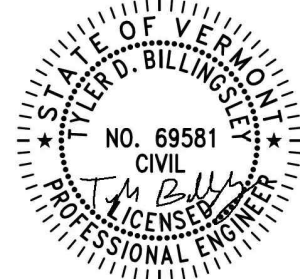
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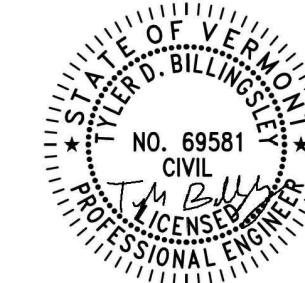
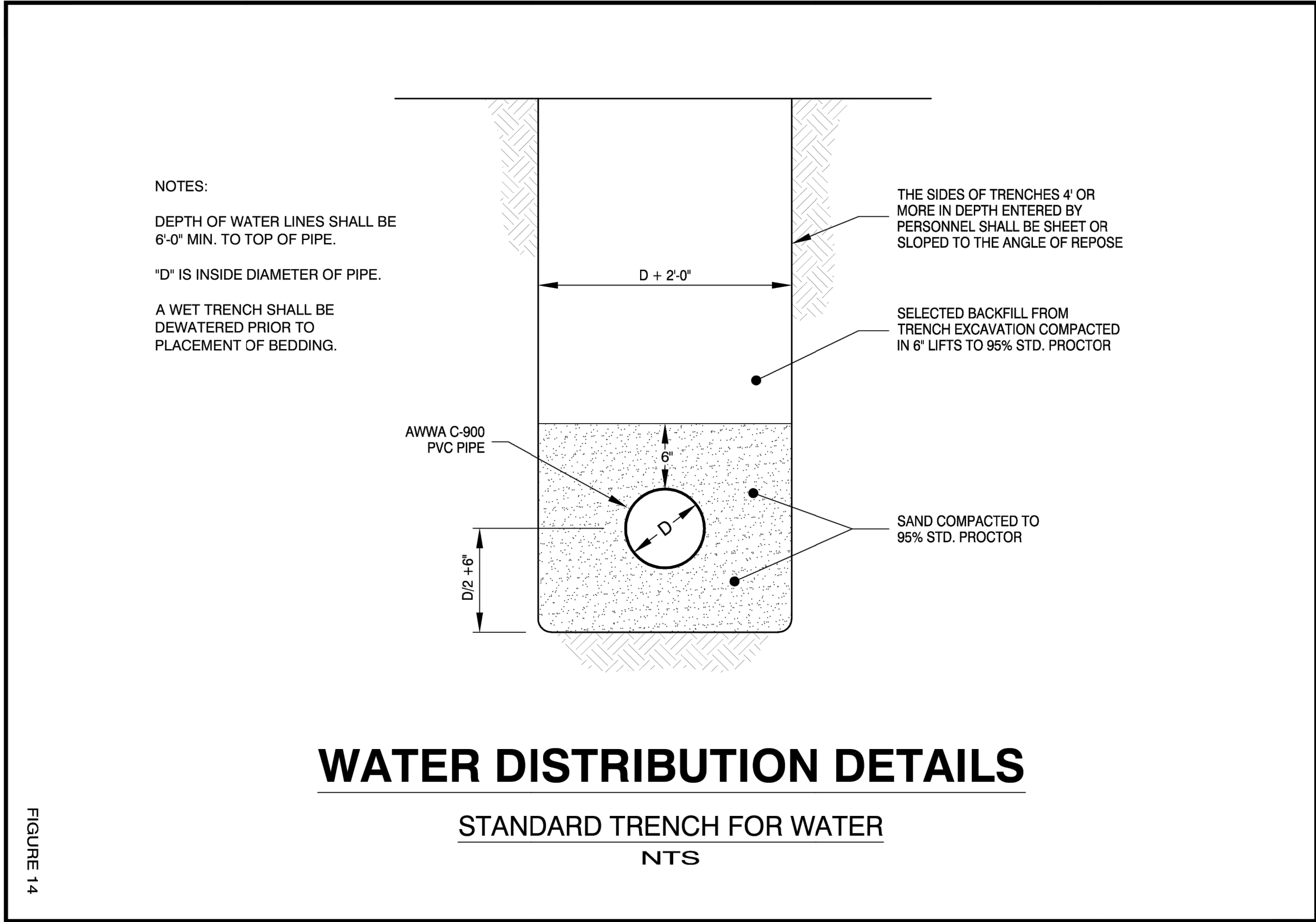
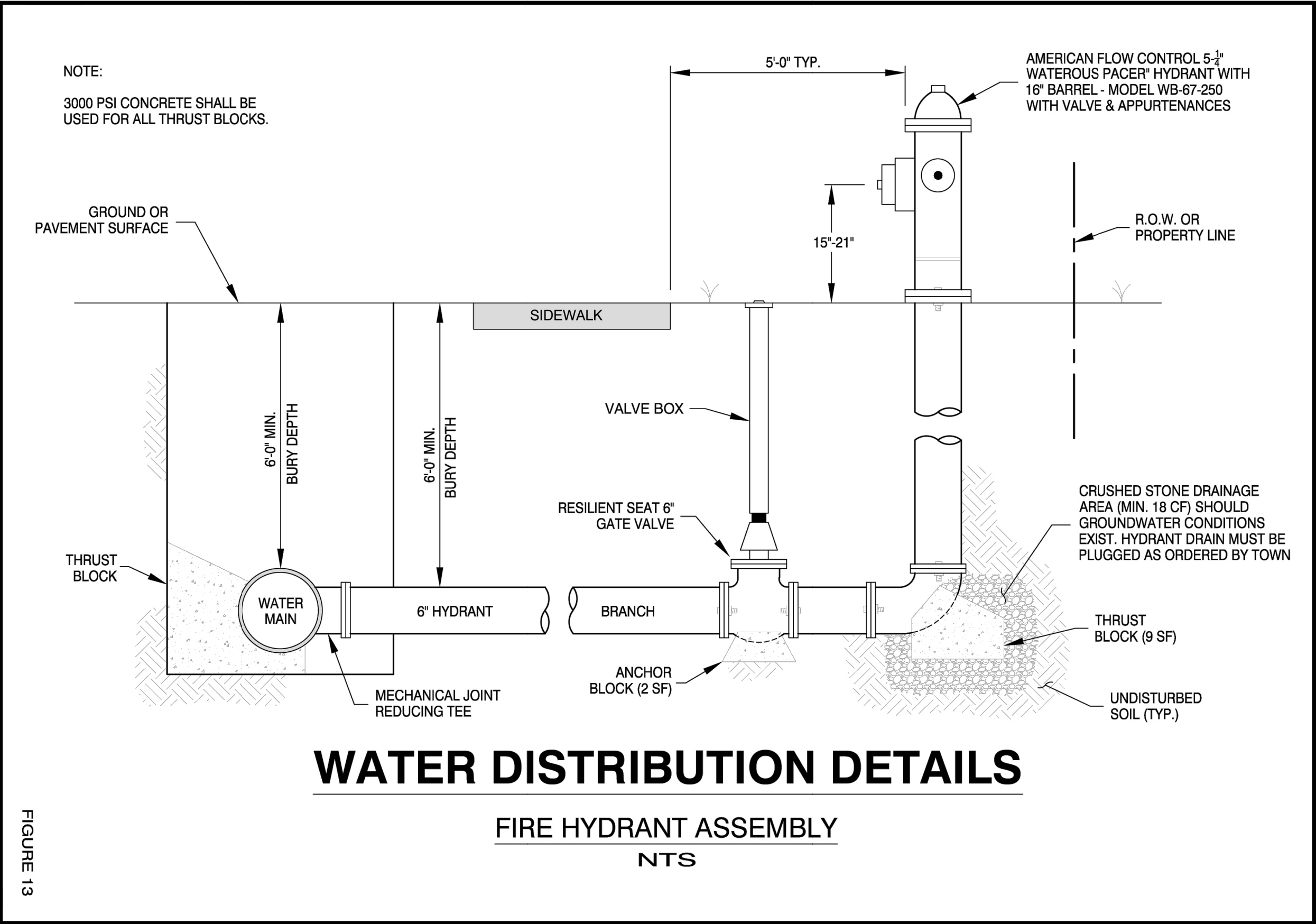
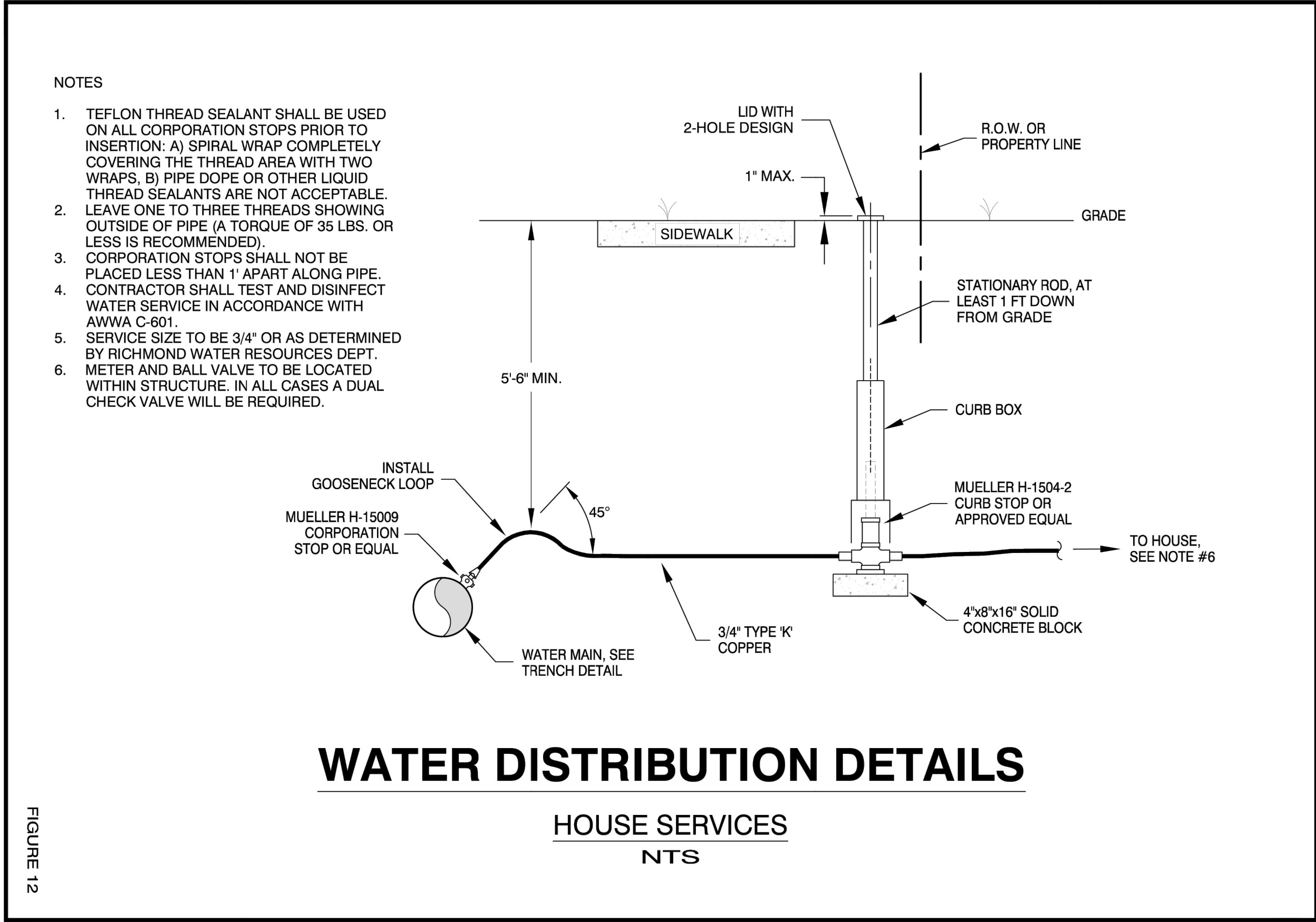
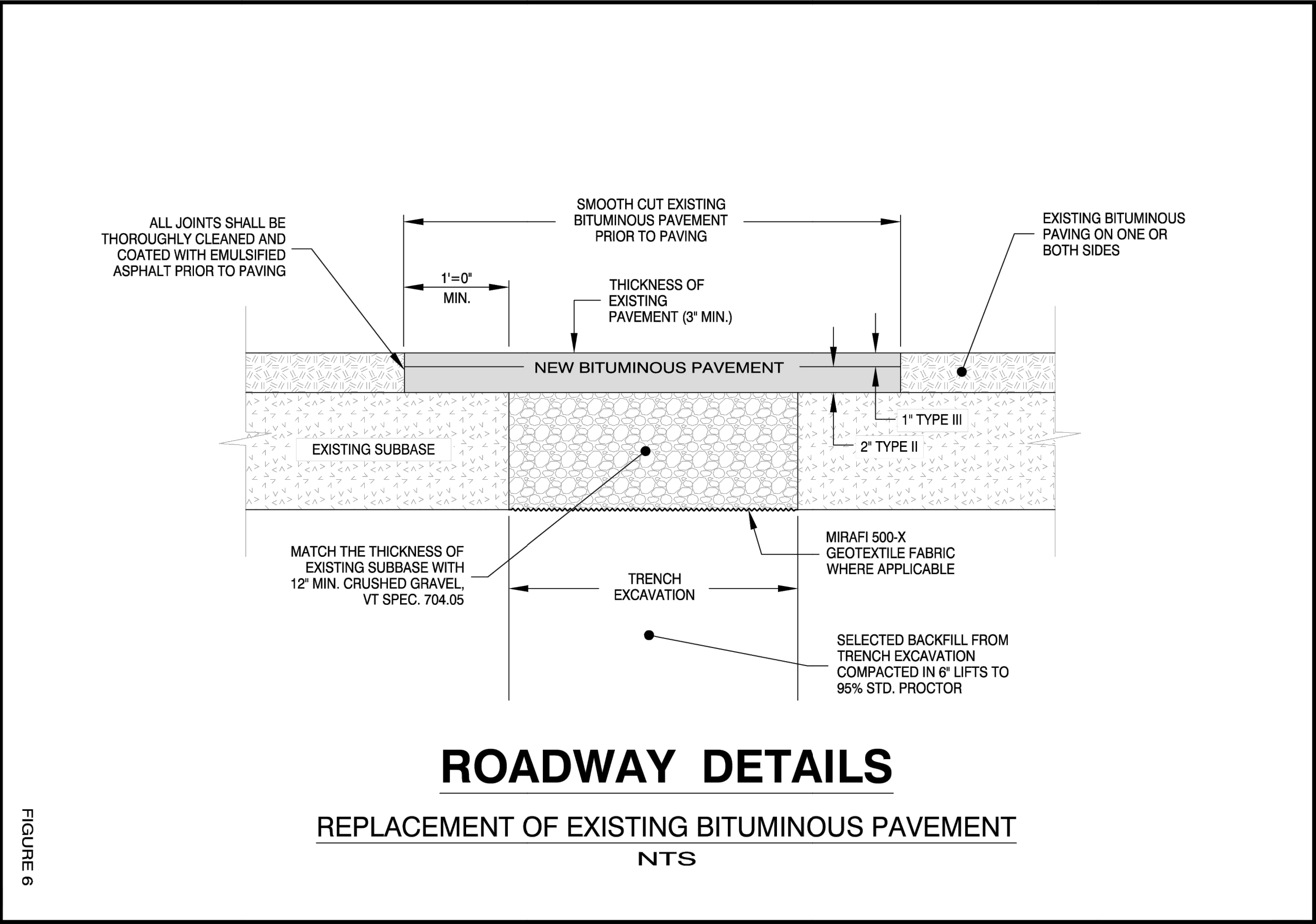
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COCHRAN RD EAST
SITE PLAN AND PROFILE

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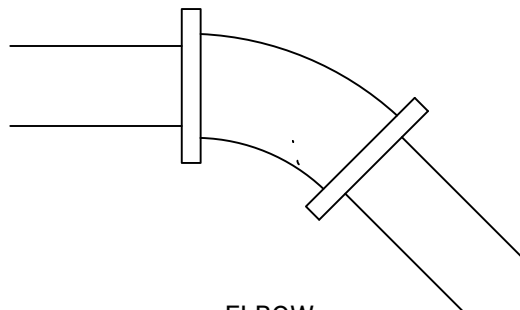
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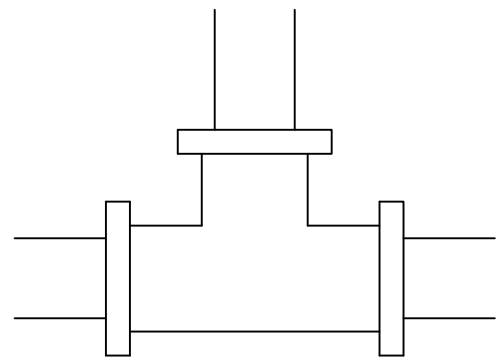
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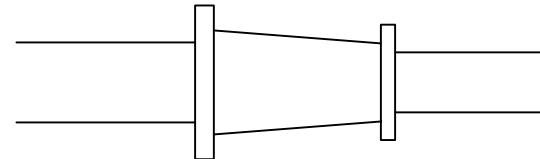
DETAILS

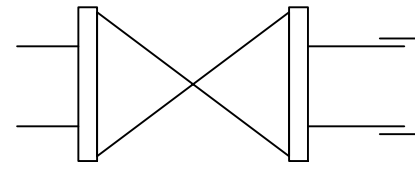
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 <u>ELBOW</u>	LENGTH OF JOINT RESTRAINT (MIN.)					
	ANGLE/DIA.	4"	6"	8"	10"	12"
	22°	5	5	5	10	10
	45°	5	10	10	15	15
	90°	15	20	25	30	35
NOTE:THESE LENGTHS ARE FOR HORIZONTAL AND UP-ELBOWS. FOR DOWN-TURNED ELBOWS, TRIPLE THE LENGTHS ABOVE.						

 <u>TEE</u>	SIZE	BRANCH (FEET)	RUN (FEET)
	4" x 4"	15	10
	6" x 4"	10	10
	6" x 6"	30	10
	8" x 4"	10	10
	8" x 6"	25	10
	8" x 8"	40	10
	12" x 4"	10	10
	12" x 6"	15	10
	12" x 8"	35	10
	12" x 10"	50	10
	12" x 12"	65	10

 <u>REDUCER</u>	SIZE	LARGER DIA SIDE (FEET)
	6" x 4"	20
	8" x 4"	40
	8" x 6"	25
	10" x 4"	50
	10" x 6"	40
	10" x 8"	25
	12" x 4"	65
	12" x 6"	55
		12" x 8"
	12" x 10"	25

 <u>END OF LINE (CAP AND/OR VALVE)</u>	DIA	LENGTH OF JOINT RESTRAINT (MIN.)
	3"	25
	4"	30
	6"	40
	8"	55
	10"	65
	12"	75

- NOTE:
- LENGTHS ABOVE ARE BASED ON DIPRA CALCULATIONS IN GRANULAR SOILS AT 5'+ DEPTH. FOR SIZES/TYPES NOT LISTED ABOVE, CONSULT WITH THE ENGINEER.
 - CONTRACTOR SHALL USE JOINT RESTRAINT IN CONJUNCTION WITH CONCRETE THRUST BLOCKS, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

PIPE JOINT RESTRAINT DETAIL

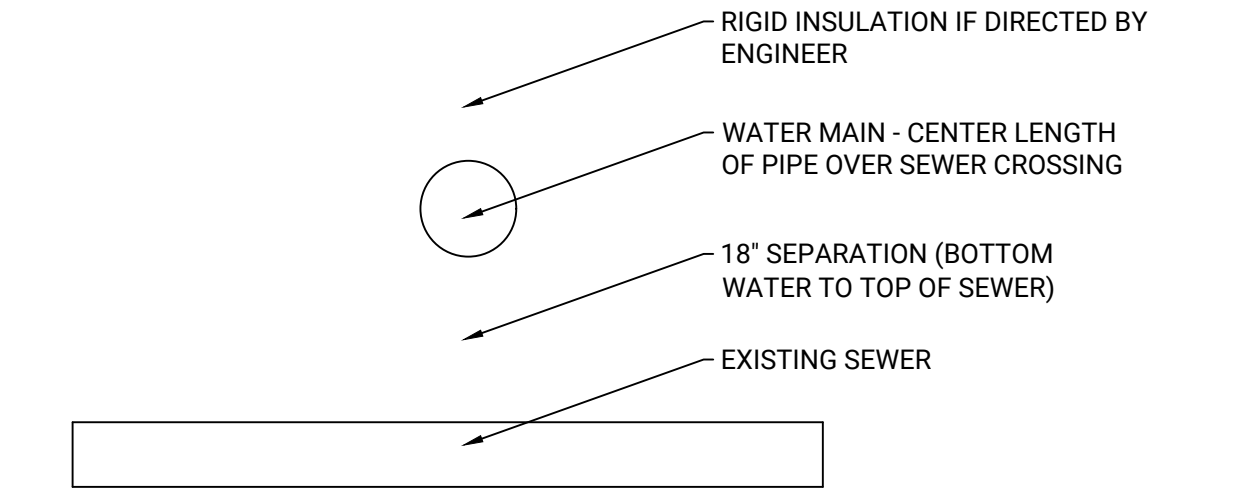
NOT TO SCALE

FITTING DIA.	WELL GRADED GRANULAR MATERIAL - SQUARE FOOTAGE OF BEARING	
22 ELBOW		
4 - 8	4	
10	4	
12	6	
45 ELBOW		
4 - 8	4	
10	6	
12	12	
90 ELBOW		
4 - 8	10	
10	15	
12	20	
TEE OR CAP		
4 - 8	8	
10	10	
12	15	
REDUCER		
8 X 6	6	
10 X 8	6	
12 X 8	12	
12 X 10	15	

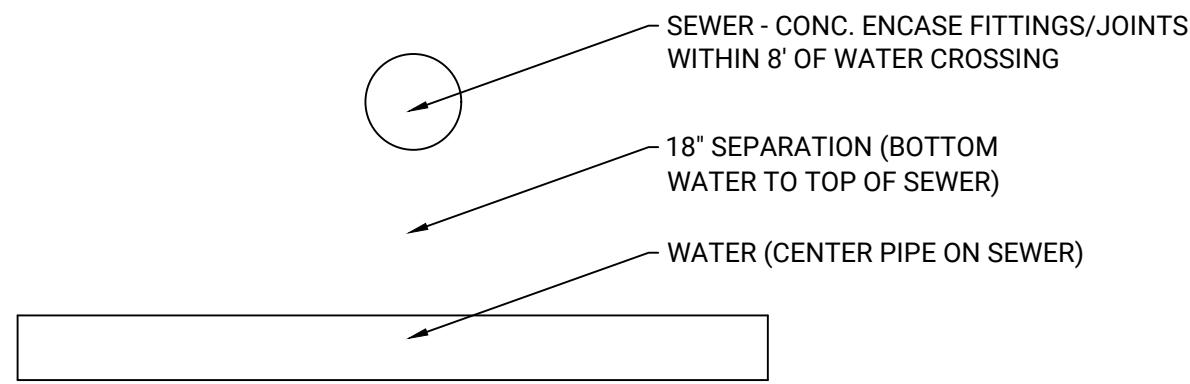
- NOTES:
- FITTING SHALL BE WRAPPED IN POLY SHEETING. DO NOT COVER BOLTS WITH CONCRETE TO ALLOW FOR FUTURE REMOVAL.
 - FOR TRENCH MATERIALS THAT ARE NOT LISTED IN THIS TABLE, CONSULT WITH ENGINEER FOR MIN. BEARING SQUARE FOOTAGE.
 - PRECAST CONCRETE THRUST BLOCKS MAY BE UTILIZED, PENDING REVIEW FROM ENGINEER AND OWNER.

THRUST BLOCK DETAIL

NOT TO SCALE



PREFERRED CROSSING - WATER OVER SEWER

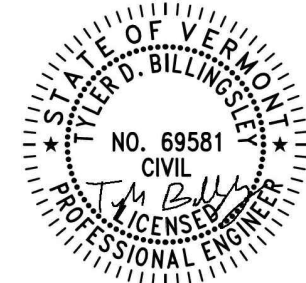


OPTIONAL CROSSING - SEWER OVER WATER

- NOTES:
- HORIZONTAL SEPARATION BETWEEN SEWER AND WATER SHALL BE 10' MIN. HORIZONTAL SEPARATION BETWEEN STORM AND WATER SHALL BE 5' MIN.
 - CONTRACTOR SHALL REVIEW CROSSINGS WITH ENGINEER PRIOR TO ANY DEVIATIONS FROM THIS DETAIL.

WATER/SEWER CROSSING DETAIL

NOT TO SCALE



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DETAILS

DRAWING NO:

C-4.1