



**PROPOSED**


WS WS WS WS WATER SERVICE


8W 8W 8W 8" WATER MAIN


ENT FOUND  
UND


 VALVE


 HYDRANT

 REDUCER

 C.S. CURB STOP

 FITTINGS - CAP

 FITTINGS - TEE

 WELL TO BE ABANDONED

**verdantas**

186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL. 603-314-0820

STEVEN H. LEWANDOWSKI, P.E.

04-28-2025

STATE: NH

*Steven H. Lewandowski*

P.E. #18446

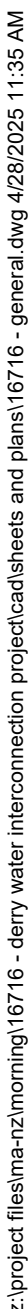


CHK'D BY	DESIGNED BY
SHL	RKM
04-28-2025	DRAWN BY
	JTL
	CHECKED BY
	SHL
	PROJECT NO.
	16716

No.	REVISION ISSUED FOR BIDDING
1	
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**DERRY-ROCKINGHAM-NEW HAMPSHIRE  
WATER MAIN INTERCONNECTION AND  
DISTRIBUTION SYSTEM IMPROVEMENTS  
MORNINGSIDE DRIVE WATER ASSOCIATION  
COVER SHEET**

APPLICATION NO.	
DATE	03-24-2025
SCALE	1" = 100'
SHEET	<b>G-1</b>





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GENERAL NOTES

1.

THE CONTRACTOR IS REFERRED TO SPECIAL CONDITIONS OF THE SPECIFICATIONS REGARDING COORDINATION WITH OTHERS, INCLUDING RESPONSIBILITIES AND RELATED COSTS.
2.

EXISTING UTILITIES ARE SHOWN BASED ON INFORMATION AVAILABLE. LOCATIONS ARE NOT BASED ON A FIELD SURVEY. FIELD LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR MAY NEED TEST PIT IN ORDER TO DETERMINE THE LOCATION OF EXISTING UTILITIES. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY UTILITY DAMAGE SHALL BE PROMPTLY AND FULLY RESTORED TO THE SATISFACTION OF THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
3.

ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
4.

IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTIFICATION TO THE UTILITY, RESPECTIVELY. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
5.

WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6.

CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN A MANNER CONSISTENT WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), N.H.D.O.T. STANDARDS, OR AS REQUIRED BY OWNER.
7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION. ALL DISTURBED EARTH SURFACES ARE TO BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL IS TO BE IN A MANNER THAT WILL MINIMIZE EROSION. MATERIALS AND METHODS USED FOR TEMPORARY EROSION CONTROL SHALL BE AS SPECIFIED BY THE "NEW HAMPSHIRE STORMWATER MANUAL" PREPARED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
8.

COMPACTION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 33 23 23.23. ANY SETTLEMENT OCCURRING WITHIN ONE YEAR OF SUBSTANTIAL COMPLETION OF THE PROJECT WILL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
9.

OPEN TRENCHES IN THE ROADWAY MUST BE BACKFILLED AT THE END OF THE WORKDAY, UNLESS PERMISSION IS GIVEN IN WRITING BY THE OWNER.
10.

CONTRACTOR SHALL CONTROL DUST TO A TOLERABLE LIMIT. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH AND DEBRIS ON PUBLIC STREETS OUTSIDE THE PROJECT AREA. STREETS OPENED TO THE PUBLIC SHALL BE KEPT SWEEPED AND FREE OF DEBRIS EACH DAY AT THE BEGINNING AND END OF WORK DAY. CROSS STREETS THAT BOUND THE PROJECT AREA WILL BE SWEEPED AT LEAST ONCE EACH WEEK OR AS DIRECTED BY THE ENGINEER.
11.

ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH RIPRAP, SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE DETAILED IN THE PLANS OR PERMIT CONDITIONS.
12.

THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
13.

THE CONTRACTOR IS TO TAKE SPECIAL CARE NOT TO DAMAGE TREES WITHIN THE CONSTRUCTION AREA UNLESS THEY ARE NOTED TO BE REMOVED.
14.

LIMITS OF WORK IN EXISTING DRIVES AS SHOWN ON THE PLANS ARE APPROXIMATE. ACTUAL LIMITS OF WORK ARE TO BE DETERMINED IN THE FIELD BASED ON THESE DRAWINGS AND AS APPROVED BY THE ENGINEER.
15.

EXISTING SIGNS IMPACTED BY THIS PROJECT SHALL BE RESET AT NO ADDITIONAL COST TO THE OWNER. PLACEMENT SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD OR RELEVANT TOWN REQUIREMENTS.
16.

PROPOSED HYDRANTS SHALL BE INSTALLED AT A MINIMUM OF 8 FEET FROM EDGE OF PAVEMENT.
17.

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THE TOWN'S EXISTING INFRASTRUCTURE AND OTHER UTILITIES FROM DAMAGE DURING LEDGE EXCAVATION.
18.

ALL DUCTILE IRON WATER MAIN, VALVES AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT PROTECTION WRAP (POLY WRAP). REFER TO SPEC SECTION 33 14 00.

SURVEY NOTES

1.

PARCEL DATA SHOWN ON THESE DRAWINGS IS DERIVED FROM THE NEW HAMPSHIRE GEODATA PORTAL.
2.

THIS SURVEY IS SUBJECT TO FACTS AS AN ACCURATE TITLE SEARCH MIGHT DISCLOSE.
3.

THIS SURVEY IS SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.
4.

THIS PLAN DOES NOT SHOW ANY WETLANDS OR WETLANDS BUFFERS THAT MAY EXIST ON OR NEAR THE SUBJECT PROPERTY.
5.

THE CERTIFICATION SHOWN IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

CIVIL DEMOLITION NOTES

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND HIS DEWATERING OPERATIONS.

SITE GRADING NOTES

1.

ALL VEGETATED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITIONS THAN FOUND PRIOR TO THE BEGINNING OF CONSTRUCTION. BEFORE FINAL COMPLETION OF THE PROPOSED WORK, ALL ROADWAY, SLOPES, DITCHES AND BERMS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
2.

ALL ROAD AND PARKING AREA SURFACES SHALL PITCH 1/4 INCH PER FOOT MINIMUM UNLESS OTHERWISE NOTED.
3.

WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.

WELL ABANDONMENT NOTES

1.

WELLS ARE TO BE DECOMMISSIONED BY A LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH THE NEW HAMPSHIRE WATER WELL BOARD RULES WE 604.

WELL NO.	CASING DIAMETER (INCHES)	DEPTH (FEET)
1	6	500
2	6	500

SITE LAYOUT NOTES

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS. THE ENGINEER WILL PROVIDE TWO POINTS THAT DEFINE THE HORIZONTAL CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTNG ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY HIS OPERATIONS. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF NEW HAMPSHIRE, AT NO ADDITIONAL COST TO THE OWNER.
3.

THE ENGINEER SHALL PROVIDE THE NECESSARY HORIZONTAL CONTROL POINTS FOR THE CONTRACTOR AND THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THIS INFORMATION THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATION REFERENCE INFORMATION PRIOR TO USE IN CONSTRUCTION.
4.

ELECTRONIC FILES OF ENGINEER'S DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL CONTRACTOR AFTER CONTRACT AWARD FOR LAYOUT OF THE PROPOSED WORK. ALL LAYOUT INFORMATION PROVIDED ON THE SEALED COPIES OF THE CONTRACT DRAWINGS SHALL PREVAIL IN CASE OF DISCREPANCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE WORK BASED ON EXISTING CONTROL POINTS PROVIDED BY THE ENGINEER AND ITS CONSULTANTS. ANY DISCREPANCIES FOUND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

TRAFFIC CONTROL NOTES

1.

CONTRACTOR'S RESPONSIBILITY:

1.1.

DEVELOP A PROJECT SPECIFIC CONTROL PLAN THAT MEETS THE REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY LOCAL AND STATE REQUIREMENTS. PROPOSED TRAFFIC CONTROL PLAN SHALL INDICATE SIGNS/LOCATIONS TO BE USED. TRAFFIC CONTROL PLAN SHALL BE SUBMITTED AND APPROVED BY THE TOWN OF DERRY. REMIT FEES AND PROVIDED SURETIES IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF DERRY. THE CONTROL PLAN SHALL BE APPROVED PRIOR TO ANY CONSTRUCTION.
- 1.2.

PROVIDE ALL MATERIALS AND PERFORM ALL WORK NECESSARY TO COMPLETELY REGULATE TRAFFIC IN THE AREA OF WORK.
- 1.3.

PERFORM ALL WORK IN SUCH A MATTER AS TO PROVIDE SAFE PASSAGE AT ALL TIMES FOR THE PUBLIC AND WITHIN A MINIMUM OF OBSTRUCTION TO TRAFFIC.
- 1.4.

DO NOT CLOSE ROADS OR STREETS TO PASSAGE OF THE PUBLIC WITHOUT THE PERMISSION OF THE PROPER AUTHORITIES.
- 1.5.

THE CONTRACTOR'S DESIGNATED TRAFFIC CONTROL REPRESENTATIVE SHALL RESPOND TO ALL TRAFFIC SAFETY COMPLAINTS AND BE AVAILABLE TO DIRECT TRAFFIC CONTROL SUBCONTRACTORS THE ENTIRE TIME WORK IS OCCURRING ON SITE. IF THE DESIGNATED REPRESENTATIVE IS NOT ON SITE FOR A PERIOD, ANOTHER ON SITE REPRESENTATIVE SHALL BE DESIGNATED BY THE CONTRACTOR FOR THAT PERIOD.
2.

CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND PAY FEES TO MUNICIPALITY DIRECTLY FOR POLICE DETAIL DURING WORK PERFORMED IN MUNICIPALITY RIGHTS-OF-WAY.
3.

FLAGGERS SHALL BE CERTIFIED BY THE ATSSA (AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION) OR A COMPARABLE ORGANIZATION. FLAGGERS MUST PROVIDE PROOF OF CERTIFICATION UPON REQUEST. FLAGGING ORGANIZATIONS SHOULD PROVIDE COPIES, UP FRONT, OF THEIR EMPLOYEE CERTIFICATIONS WITH OTHER SUBMITTALS.
4.

FLAGGERS MUST BE EQUIPPED WITH PPE, TRAFFIC CONTROL SIGNAGE, FLAGS, BARRIERS, BARRICADES AND ANY OTHER REQUIRED MUTCD DEVICES FOR TRAFFIC CONTROL PURPOSES. FLAGGERS MUST BE PROVIDED WITH APPROPRIATE BREAKS FOR LUNCH, RELIEF FROM WEATHER CONDITIONS, AND OTHER NECESSITIES.
5.

THE WORK HOUR SCHEDULE SHALL BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
6.

SIGNAGE SHALL BE IN ACCORDANCE WITH THE DRAWINGS OR AS APPROVED BY THE MUNICIPAL POLICE DEPARTMENT, THE MUNICIPAL PUBLIC WORKS DEPARTMENT, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7.

PROVIDE, IDENTIFY AND MAINTAIN SUITABLE DETOURS WHEN THE PROJECT, OR ANY PART THEREOF, IS CLOSED TO PUBLIC TRAVEL.
8.

WHEN THE CLOSED PART OF THE PROJECT IS REOPENED, RESTORE THE DETOUR AREA AND ANY OTHER DISTURBED AREAS TO THE ORIGINAL CONDITION.
9.

WHENEVER A TRAVELED WAY IS CLOSED, PERFORM THE WORK IN SUCH A MANNER THAT LOCAL TRAVEL, RESIDENTS AND BUSINESSES IN THE VICINITY OF THE WORK WILL BE INCONVENIENCED AS LITTLE AS POSSIBLE.
10.

ALLOW ACCESS TO RESIDENTS AND ABUTTING LAND OWNERS ALONG THE PROJECT TO DRIVEWAYS AND OTHER NORMAL OUTLETS FROM THEIR PROPERTY.
11.

CONTRACTOR SHALL FACILITATE THE PASSAGE OF SCHOOL BUSES AND PROVIDE SAFE ACCESS TO ALL SCHOOL BUS STOPS, AND NOTIFY THE POLICE CHIEF, FIRE CHIEF, AND SCHOOL SUPERINTENDENT AT LEAST 72-HOURS IN ADVANCE WHERE THE CONTRACTOR INTENDS TO WORK AND THE LOCATION OF ALL DETOURS.

PIPELINE NOTES

1.

PROVIDE 2 INCH RIGID INSULATION WHERE DIRECTED BY OWNER OR ENGINEER. TYPICAL INSULATION INSTALLATION IS OVER SEWER AND WATER MAINS WHEN COVER IS LESS THAN 5'-0".
2.

MINIMUM DEPTH OF COVER FOR WATER MAIN SHALL BE 5'-0". PIPE RESTRAINT FOR WATER MAINS; ALL BENDS, TEES, REDUCERS, HYDRANTS, AND PLUGS SHALL BE RESTRAINED BY USING WEDGE ACTION RETAINER GLANDS OR GRIP RINGS. ALL DUCTILE IRON PIPE SHALL BE FULLY RESTRAINED JOINT PIPE AND A WORKING PRESSURE OF AT LEAST 350 PSI.
3.

A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE WATER MAIN AND STORM DRAINAGE PIPES SHALL BE MAINTAINED. 2 INCH RIGID INSULATION SHALL BE PROVIDED WHEN THE SEPARATION IS LESS THAN 18 INCHES.
4.

THE LOCATIONS OF ALL EXISTING DRAINS, SEWERS, WATER MAINS, POWER LINES, TELEPHONE CABLES AND OTHER UTILITIES ARE APPROXIMATE ONLY. FIELD LOCATIONS SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO STARTING THE WORK.
5.

WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
6.

ANY UNDERGROUND STRUCTURES, CABLES, AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATIONS SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURES, CABLES, AND PIPELINES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNERS OF THE STRUCTURES, CABLES, AND PIPELINES.
7.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE WATER IMPROVEMENTS. LAYOUT SHALL BE REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER. THE NEW WATER VALVES MUST BE LOCATED WITHIN THE RIGHTS-OF-WAY SHOWN ON THE DRAWINGS.
8.

TEST PRESSURES FOR THE COMBINATION PRESSURE AND LEAKAGE TESTS SHALL BE 200 PSI (MINIMUM). TEST DURATION SHALL BE ONE HOUR.
9.

BELOW GRADE UTILITY INFORMATION IS BASED ON RECORD DRAWINGS. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN.
10.

ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED. AT NO ADDITIONAL COST TO THE OWNER THE CONTRACTOR SHALL REPAIR OR COORDINATE WITH THE RESPECTIVE UTILITY ON DAMAGE TO EXISTING UTILITIES.
11.

REMOVAL OF LEDGE SHALL BE BY MECHANICAL METHODS. BLASTING OF LEDGE IS PROHIBITED.
12.

ALL CONSTRUCTION SHALL CONFORM TO DERRY WATER DEPARTMENT SPECIFICATIONS AND CONSTRUCTION STANDARDS.

verdantas

186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL: 603-314-0820

STEVEN H. LEWANDOWSKI, P.E.

STATE OF NEW HAMPSHIRE - PROFESSIONAL ENGINEER  
STEVEN H. LEWANDOWSKI  
No. 18446  
LICENSED

04-28-2025

STATE: NH

DESIGNED BY

RKM

DRAWN BY

JTL

CHECKED BY

SHL

PROJECT NO.

16716

CHK'D BY

DATE

SHL

04-28-2025

REVISION

1

ISSUED FOR BIDDING

NO.

1

DERRY~ROCKINGHAM~NEW HAMPSHIRE

WATER MAIN INTERCONNECTION AND  
DISTRIBUTION SYSTEM IMPROVEMENTS

MORNINGSIDE DRIVE WATER ASSOCIATION

NOTES

APPLICATION NO.

DATE

03-24-2025

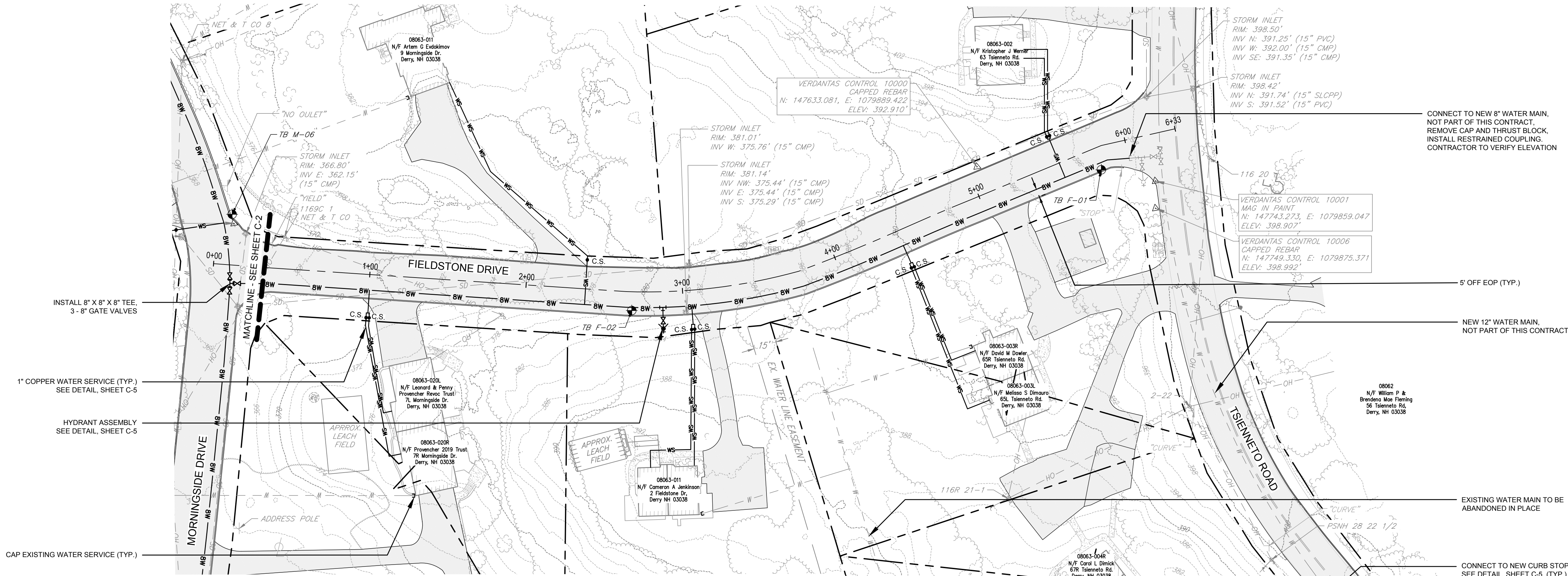
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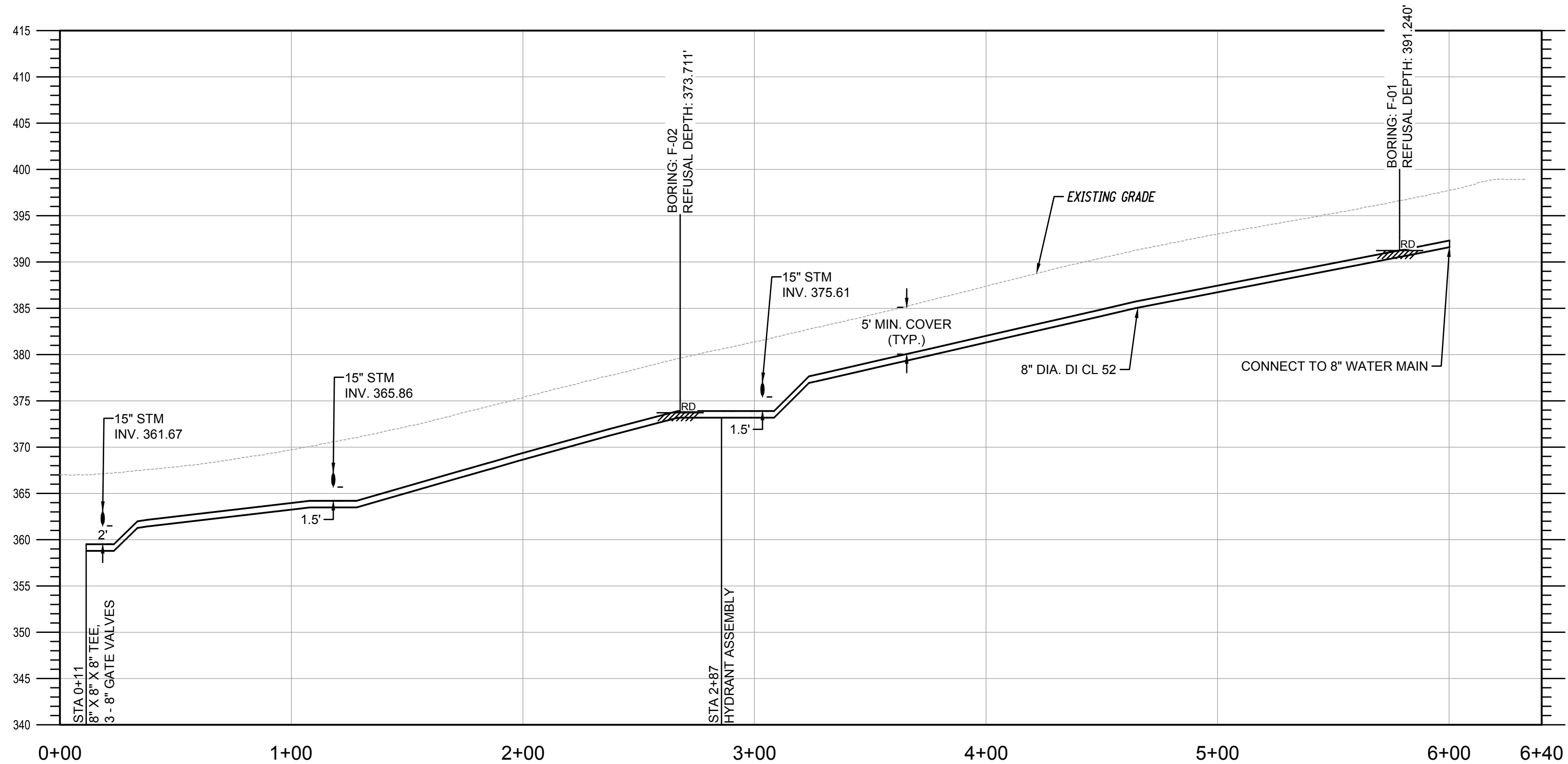
SHEET

G-2

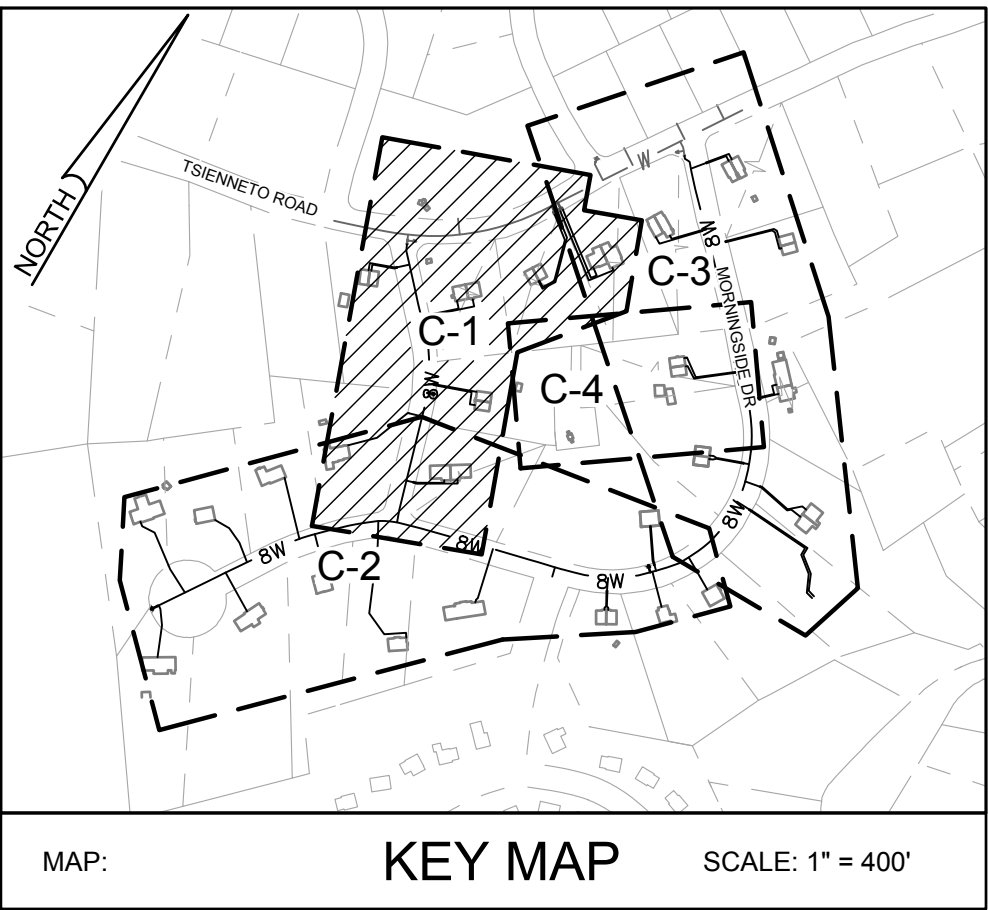




PLAN: FIELDSTONE DR - STA 0+00 TO STA 6+33  
SCALE: 1" = 40'



PROFILE: FIELDSTONE DR - STA 0+00 TO 6+33  
SCALE: HORZ: 1" = 40'  
VERT: 1" = 10'



verdantas

186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL: 603-314-0820

STEVEN H. LEWANDOWSKI, P.E.

04-28-2025

STATE OF NEW HAMPSHIRE  
PROFESSIONAL ENGINEER  
LICENSE NO. 18448

STATE: NH

DESIGNED BY  
RKM

DRAWN BY  
JTL

CHECKED BY  
SHL

PROJECT NO.  
16716

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DATE  
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REVISION  
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DERRY~ROCKINGHAM~NEW HAMPSHIRE

WATER MAIN INTERCONNECTION AND  
DISTRIBUTION SYSTEM IMPROVEMENTS

MORNINGSIDE DRIVE WATER ASSOCIATION

PLAN AND PROFILE

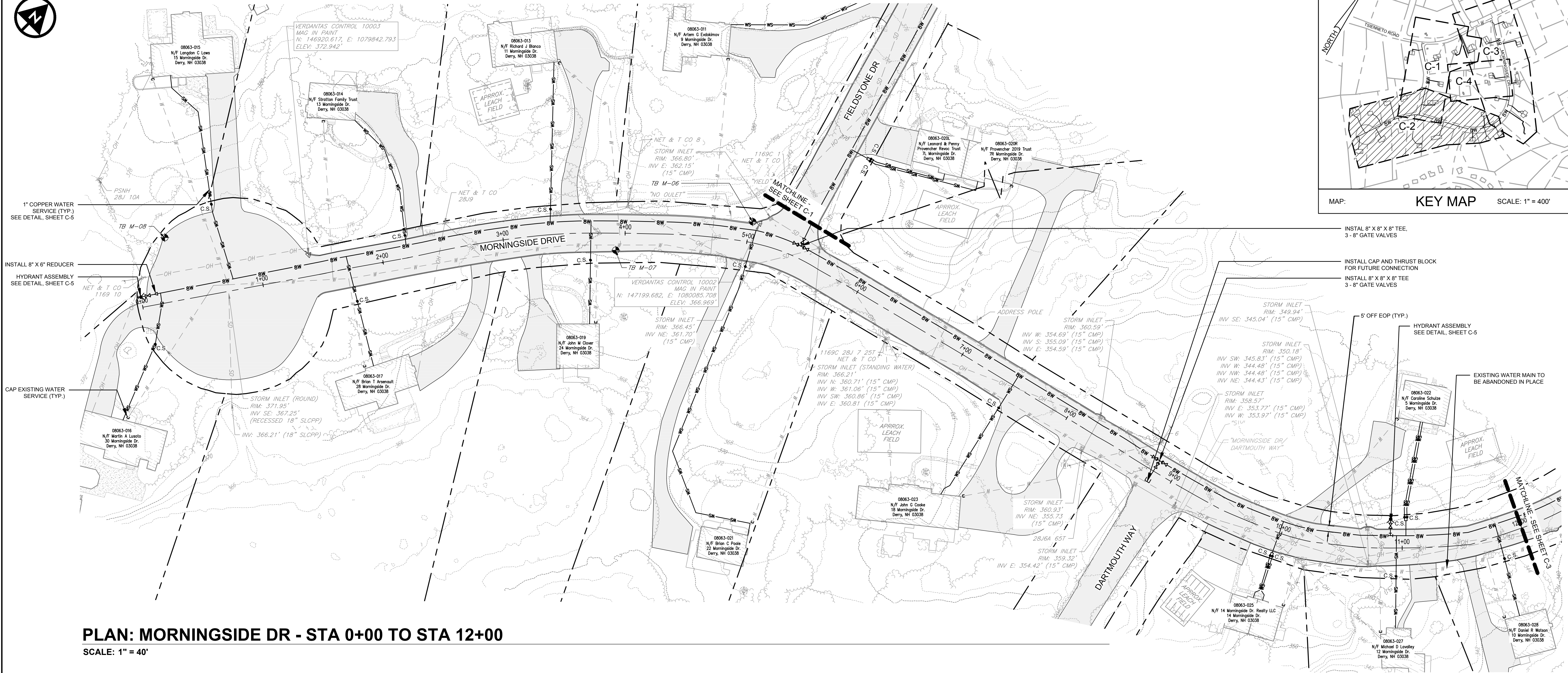
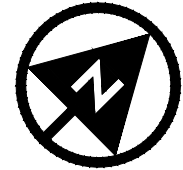
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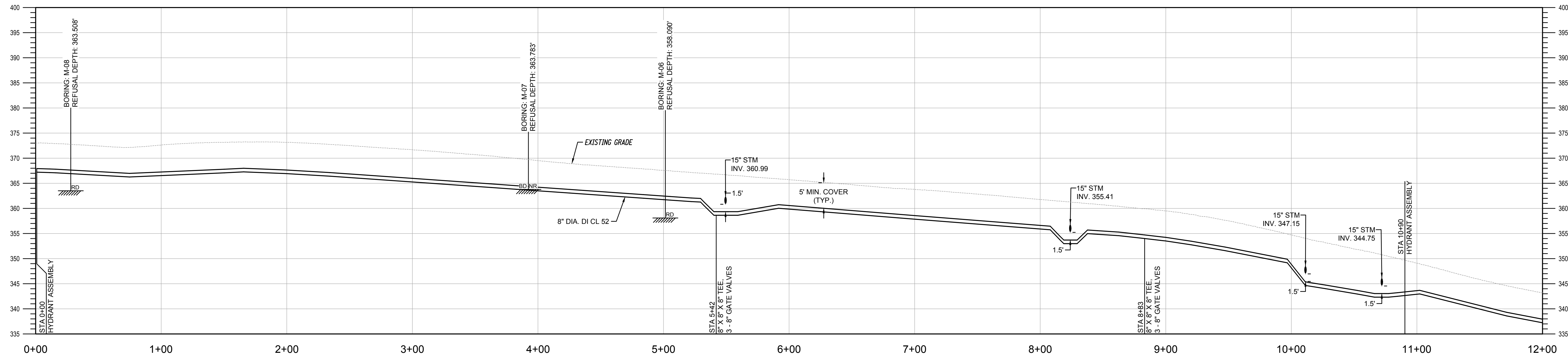
SCALE  
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SHEET  
C-1

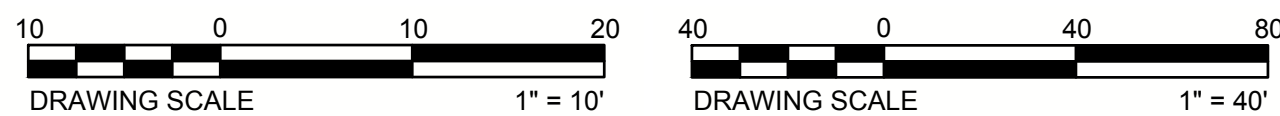




PLAN: MORNINGSIDE DR - STA 0+00 TO STA 12+00  
SCALE: 1" = 40'



PROFILE: MORNINGSIDE DR - STA 0+00 TO 12+00  
SCALE: HORIZ: 1" = 40'  
VERT: 1" = 10'



verdantas

186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL: 603-314-0820

STEVEN H. LEWANDOWSKI, P.E.

DESIGNED BY

CHK'D BY

DATE

REVISION

ISSUED FOR BIDDING

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DERRY~ROCKINGHAM~NEW HAMPSHIRE  
WATER MAIN INTERCONNECTION AND  
DISTRIBUTION SYSTEM IMPROVEMENTS  
MORNINGSIDE DRIVE WATER ASSOCIATION  
PLAN AND PROFILE

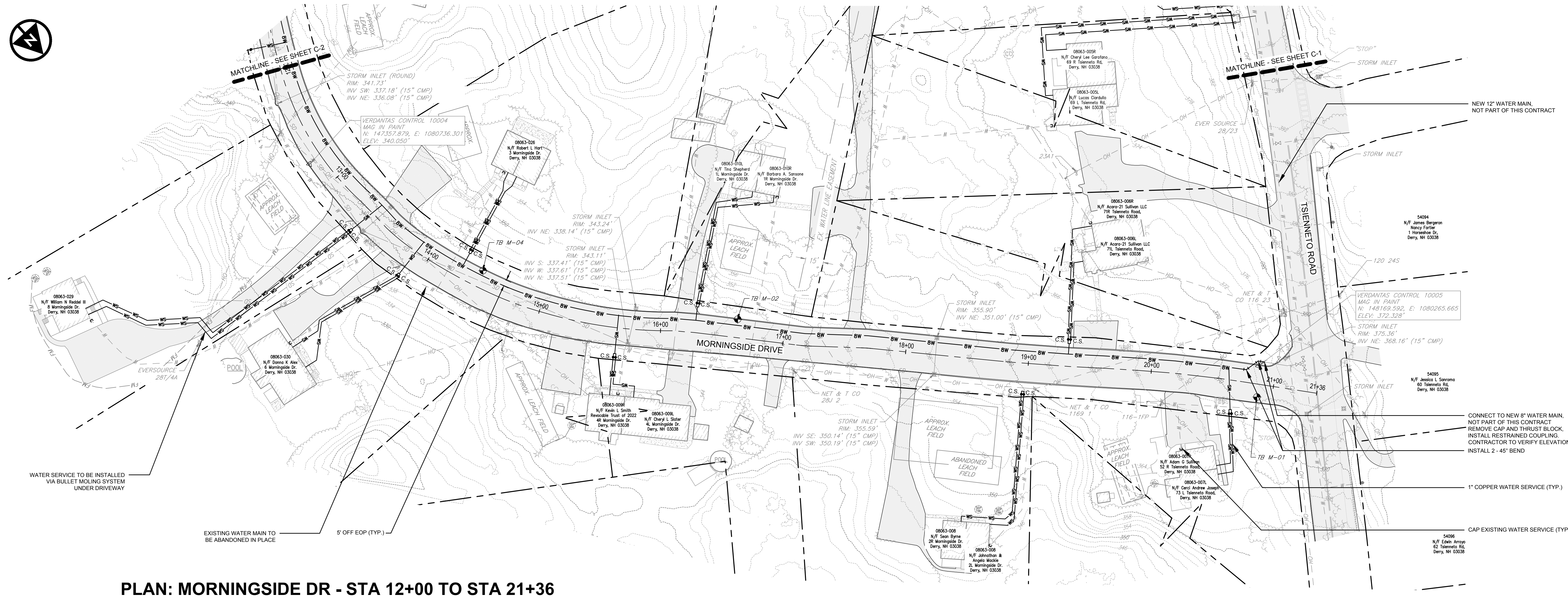
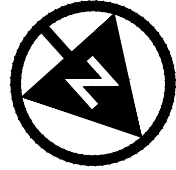
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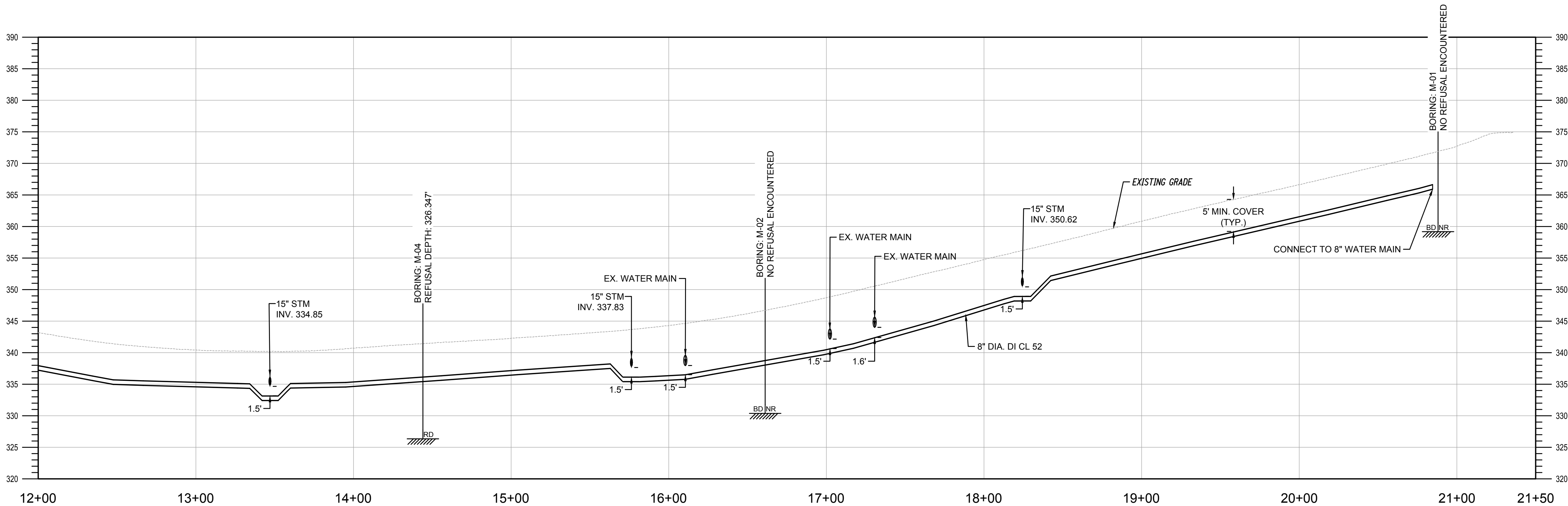
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1" = 40'

SHEET  
C-2

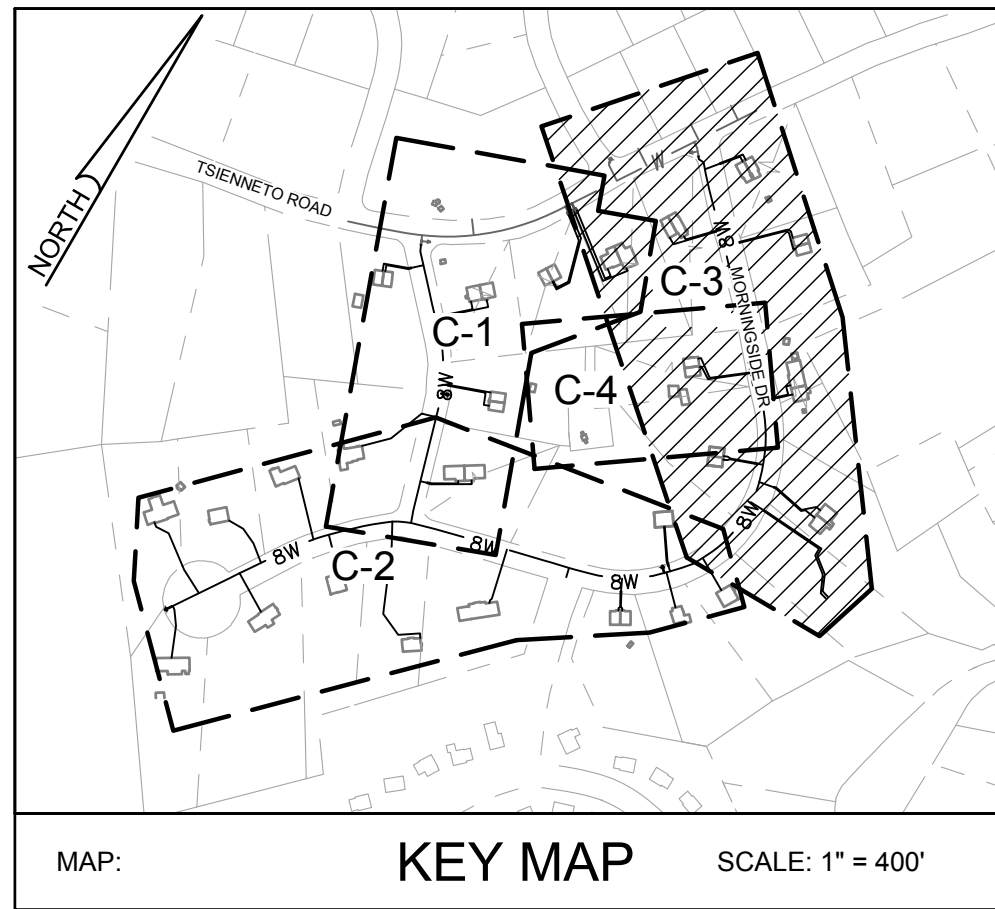




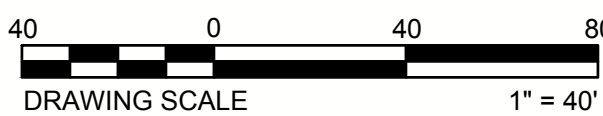
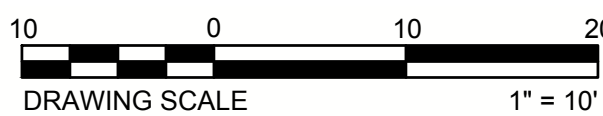
PLAN: MORNINGSIDE DR - STA 12+00 TO STA 21+36  
SCALE: 1" = 40'



PROFILE: MORNINGSIDE DR - STA 12+00 TO 21+36  
SCALE: HORZ: 1" = 40'  
VERT: 1" = 10'



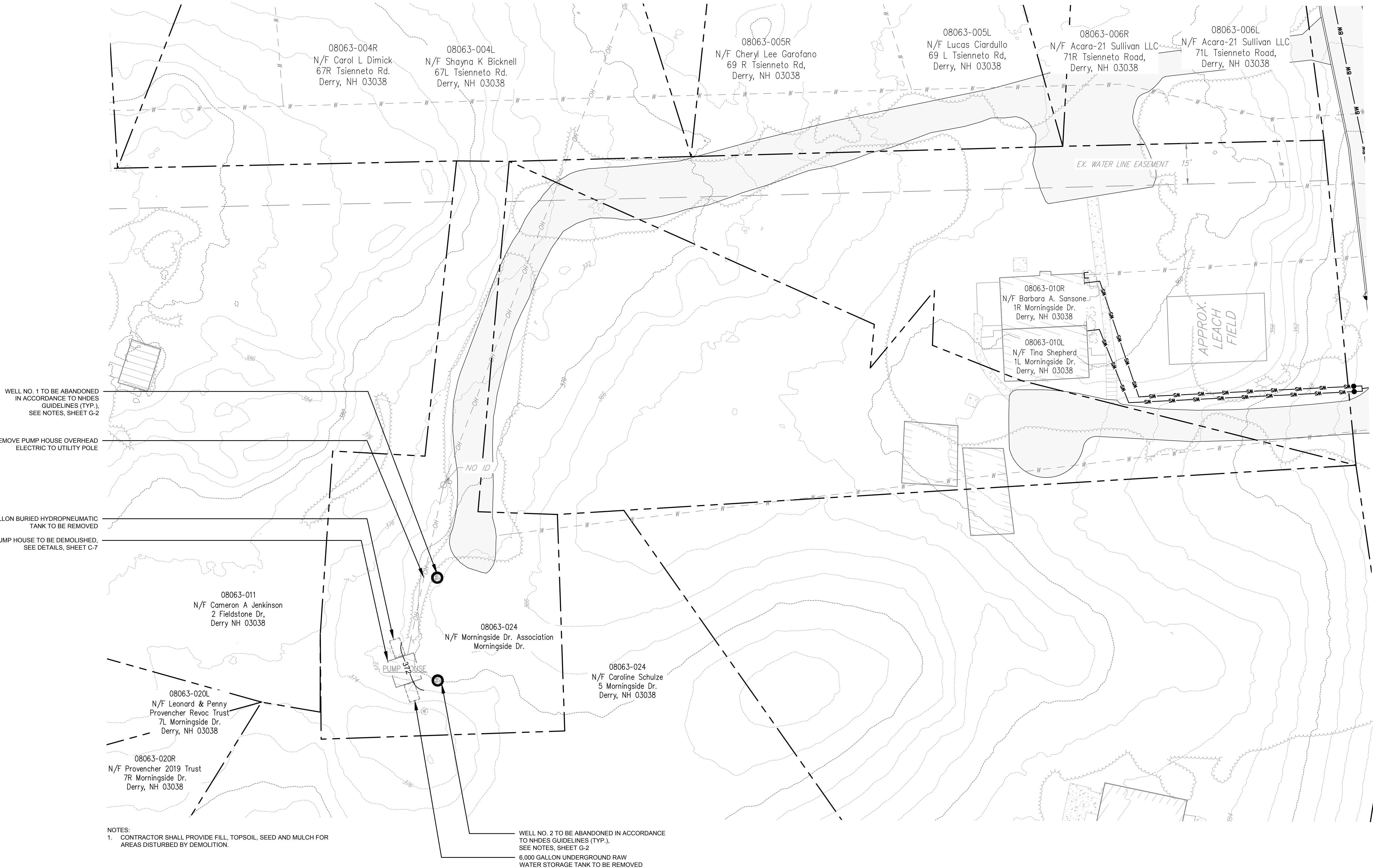
KEY MAP  
SCALE: 1" = 400'







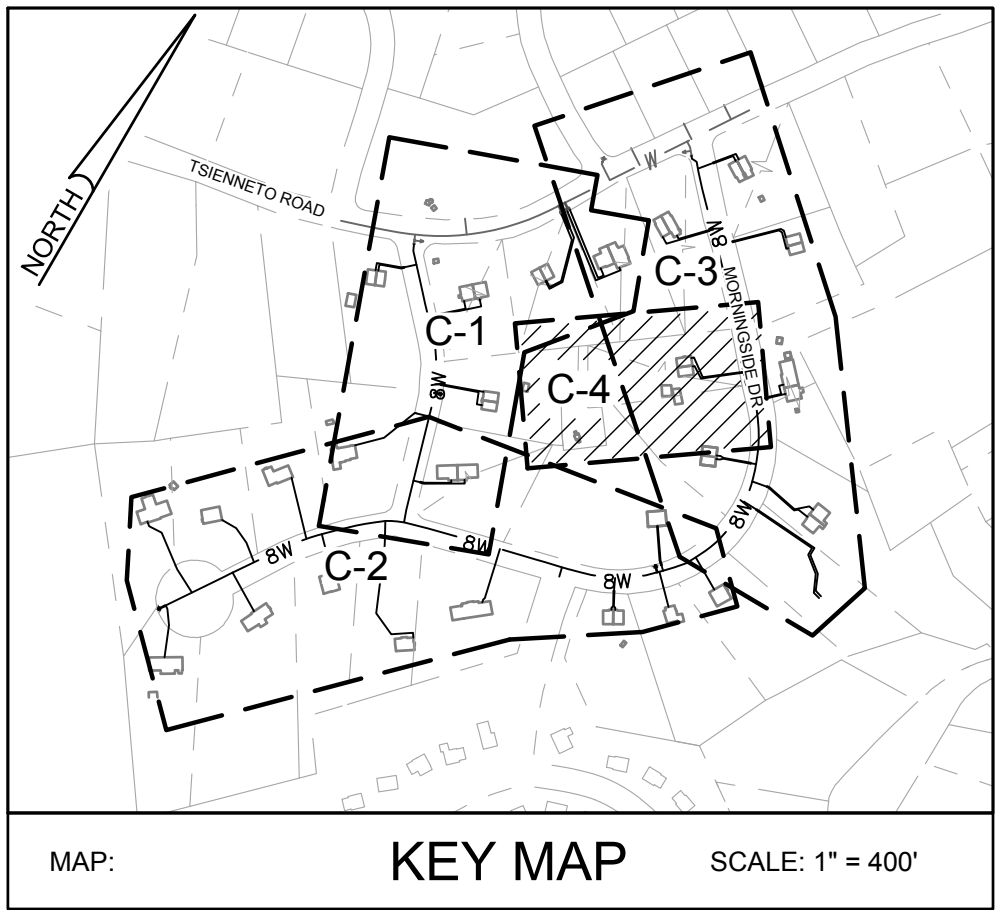
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- NOTES:
- CONTRACTOR SHALL PROVIDE FILL, TOPSOIL, SEED AND MULCH FOR AREAS DISTURBED BY DEMOLITION.
  - WELL NO. 1 TO BE ABANDONED IN ACCORDANCE TO NHDES GUIDELINES (TYP.). SEE NOTES, SHEET G-2
  - WELL NO. 2 TO BE ABANDONED IN ACCORDANCE TO NHDES GUIDELINES (TYP.). SEE NOTES, SHEET G-2
  - 6,000 GALLON UNDERGROUND RAW WATER STORAGE TANK TO BE REMOVED

## PLAN: EXISTING PUMP HOUSE

SCALE: 1" = 20'



MAP: KEY MAP SCALE: 1" = 400'

DRAWING SCALE 1" = 20'

## DERRY~ROCKINGHAM~NEW HAMPSHIRE WATER MAIN INTERCONNECTION AND DISTRIBUTION SYSTEM IMPROVEMENTS MORNINGSIDE DRIVE WATER ASSOCIATION PUMP HOUSE DEMO PLAN

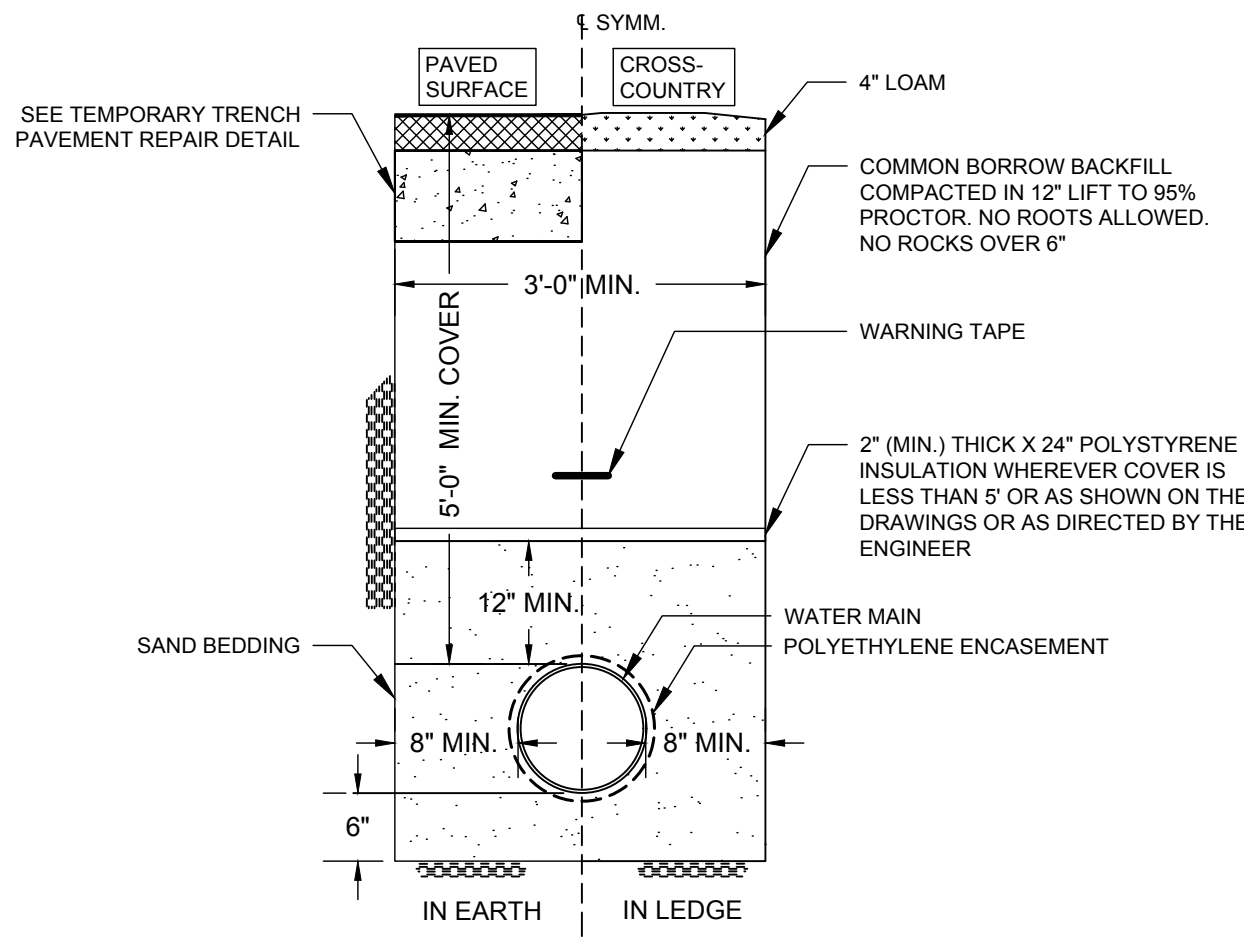
APPLICATION NO.	
DATE	03-24-2025
SCALE	1" = 20'
SHEET	C-4

DESIGNED BY	CHK'D BY	REVISION	No.
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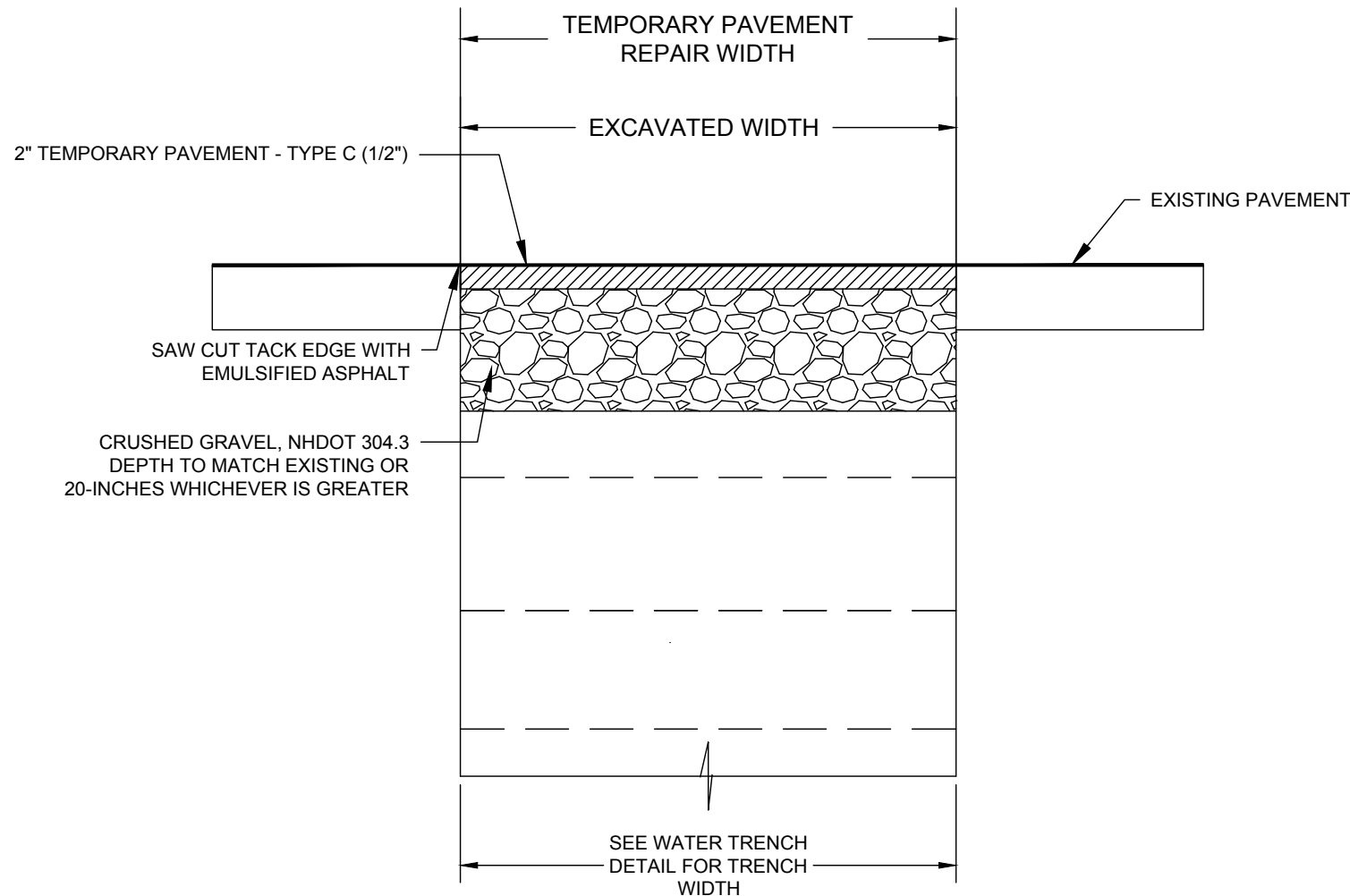
STEVEN H. LEWANDOWSKI, P.E.  
NEW HAMPSHIRE  
REGISTERED PROFESSIONAL ENGINEER  
No. 18448  
STATE: NH  
P.E. #18448  
04-28-2025

verdantas  
186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL: 603-314-0820



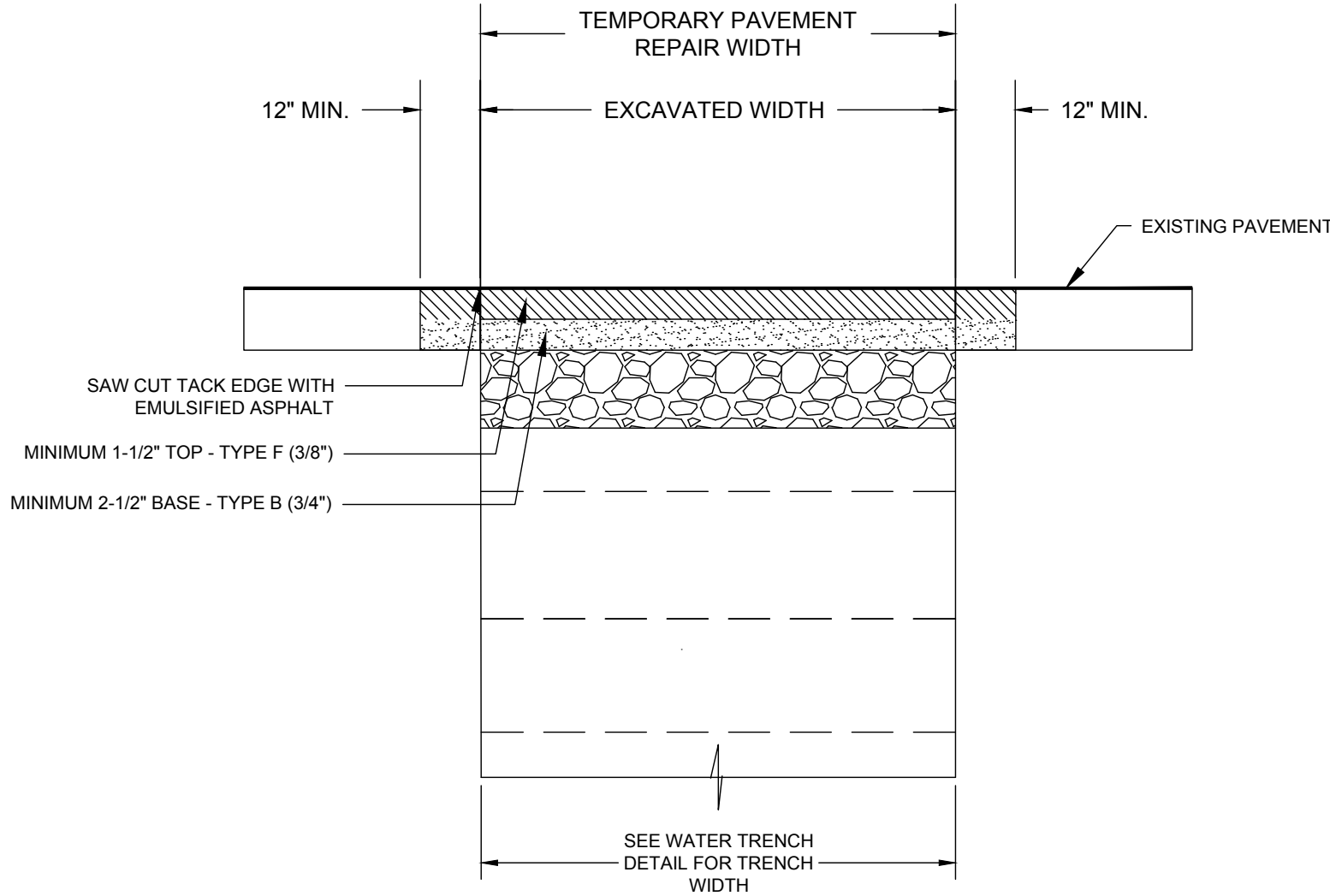


WATER TRENCH DETAIL  
NO SCALE



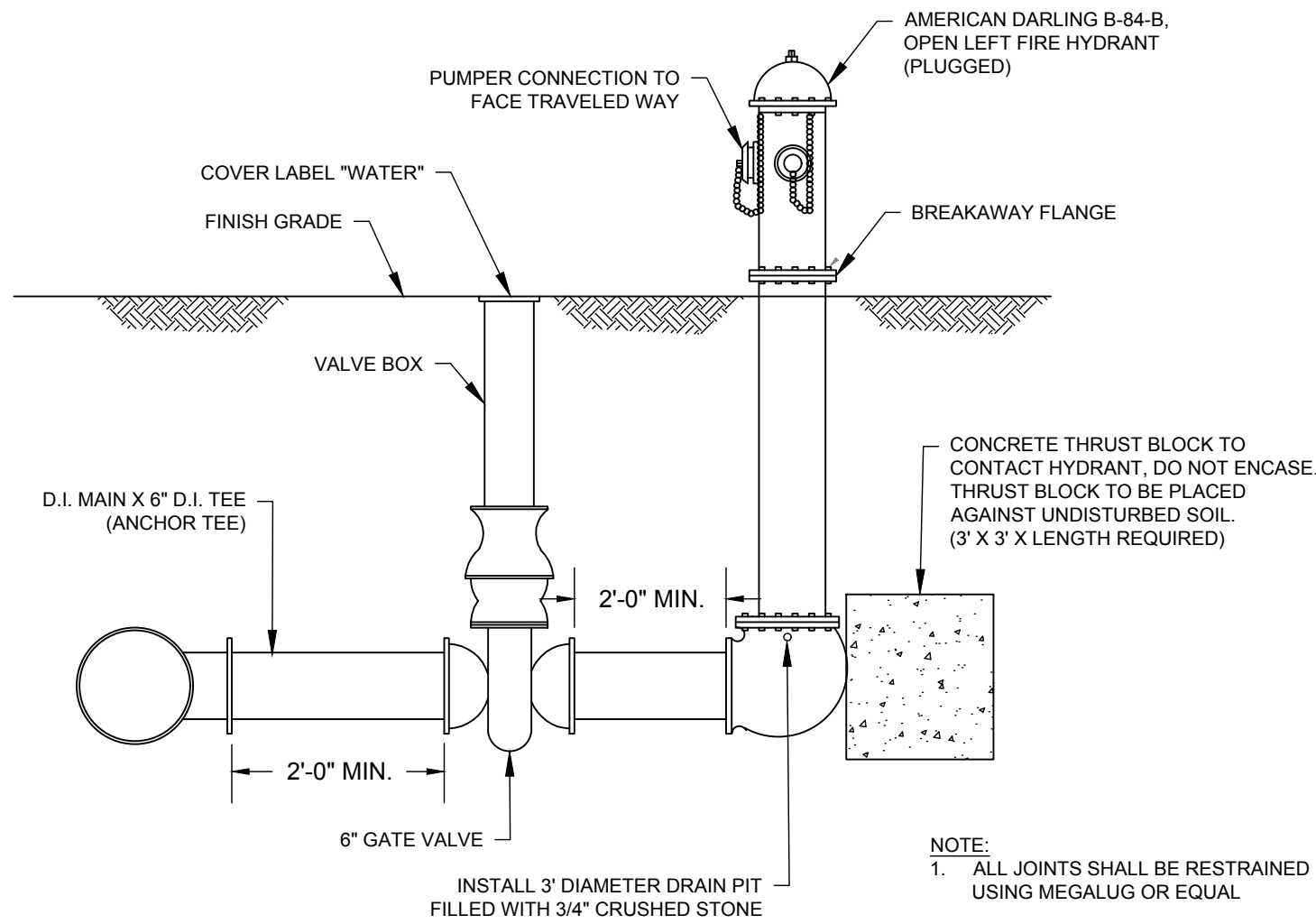
- NOTES:
- TRENCHES SHALL BE RESTORED AT THE END OF EACH DAY WITH NHDOT 304.3 CRUSHED GRAVEL, COMPACTED AND GRADED LEVEL WITH EXISTING ASPHALT SURFACE. TEMPORARY TRENCHES MUST BE MAINTAINED ON A DAILY BASIS, INCLUDING DUST CONTROL, AS APPROVED BY THE ENGINEER AND DERRY ROAD AGENT.
  - TEMPORARY TRENCH PATCH MUST BE PLACED ON ALL DISTURBED ROADWAYS BY THE END OF THE DAY ON FRIDAY OF EACH WEEK.
  - A MINIMUM TWO (2) INCHES OF BITUMINOUS PAVEMENT SHALL BE PLACED AND MAINTAINED BY THE CONTRACTOR FOR A MINIMUM OF 60 DAYS FOLLOWING EXCAVATION AND BACKFILL.

TEMPORARY TRENCH PAVEMENT REPAIR  
NO SCALE

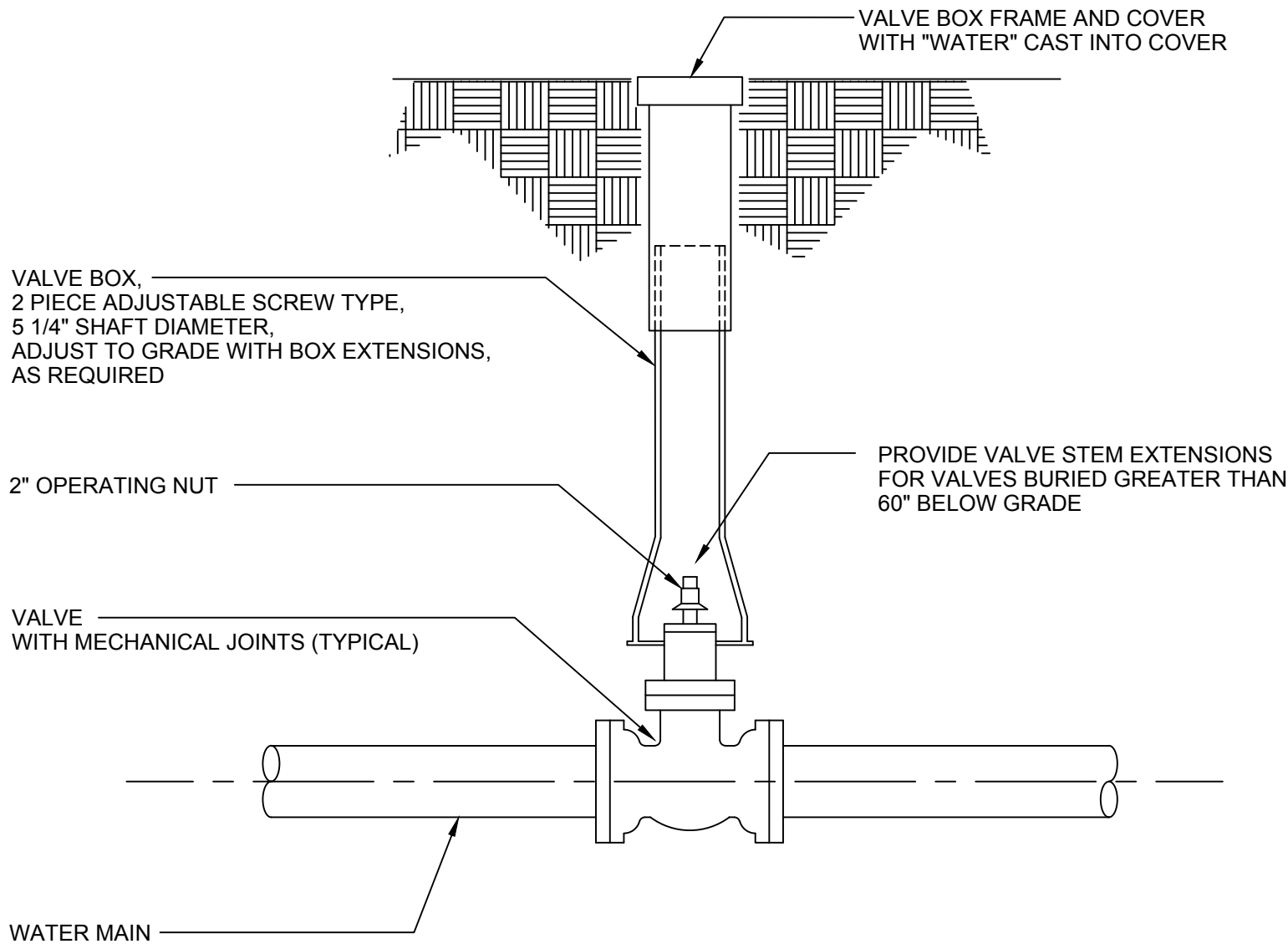


- NOTES:
- AFTER MINIMUM 60 DAYS OF TEMPORARY TRENCH PATCH, PERMANENT TRENCH PAVEMENT REPAIR MAY BE COMPLETED.

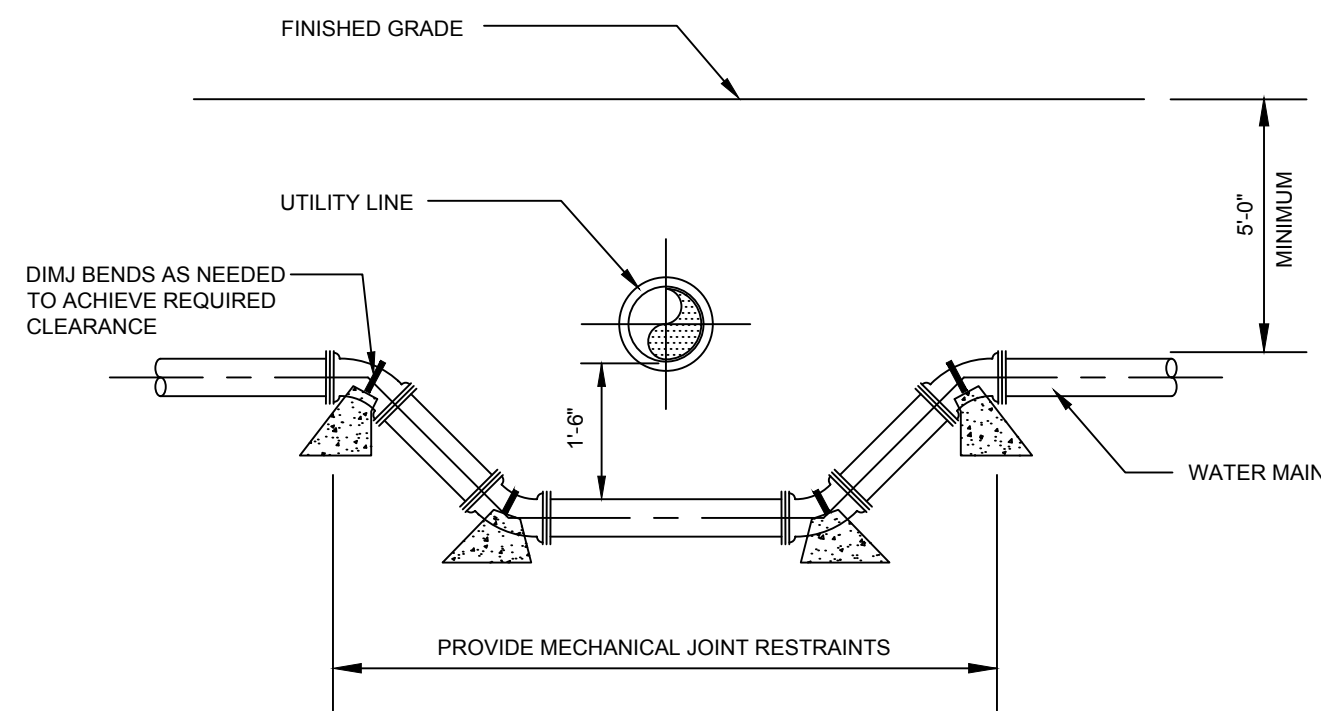
PERMANENT TRENCH PAVEMENT REPAIR  
NO SCALE



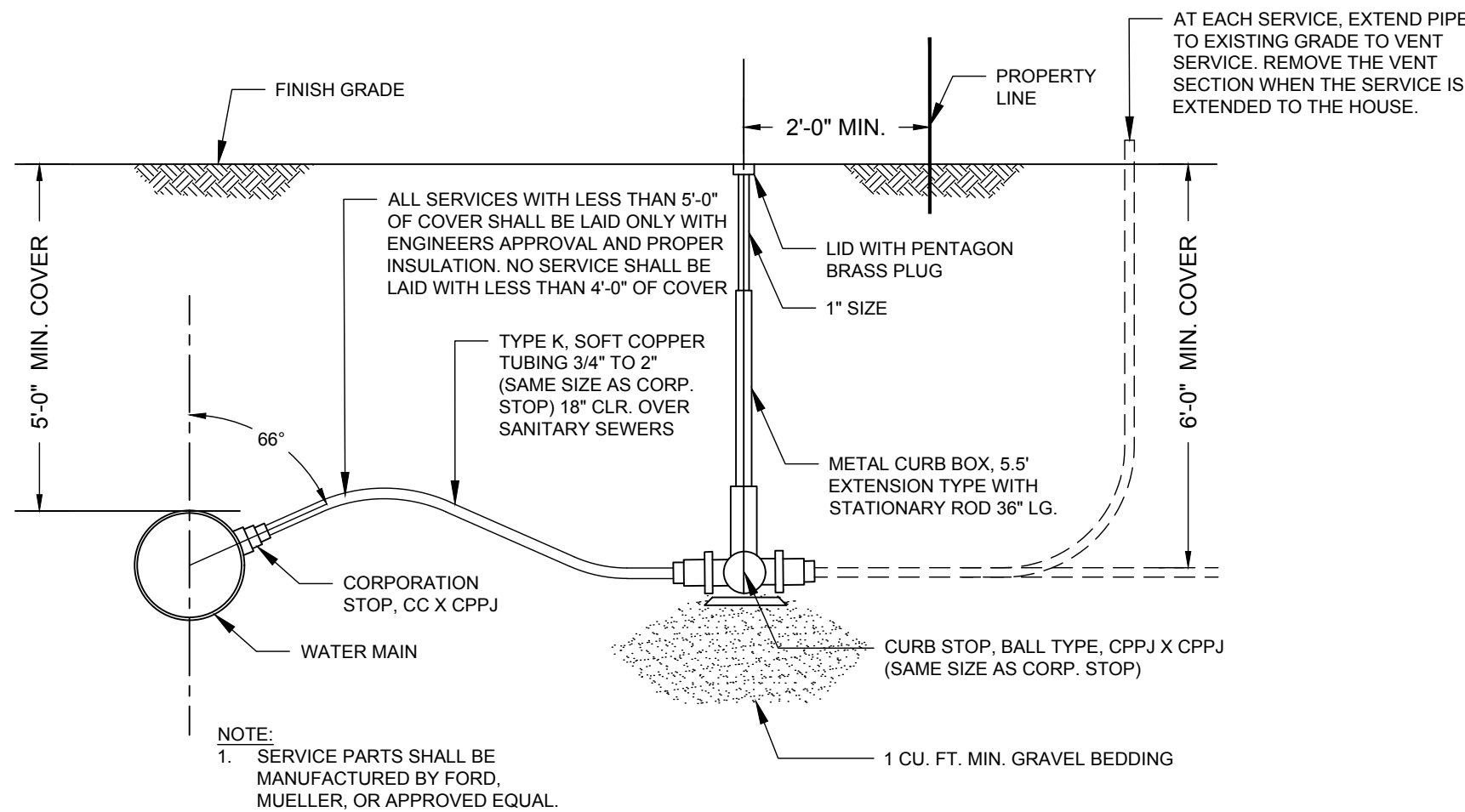
HYDRANT CONNECTION DETAIL  
NO SCALE



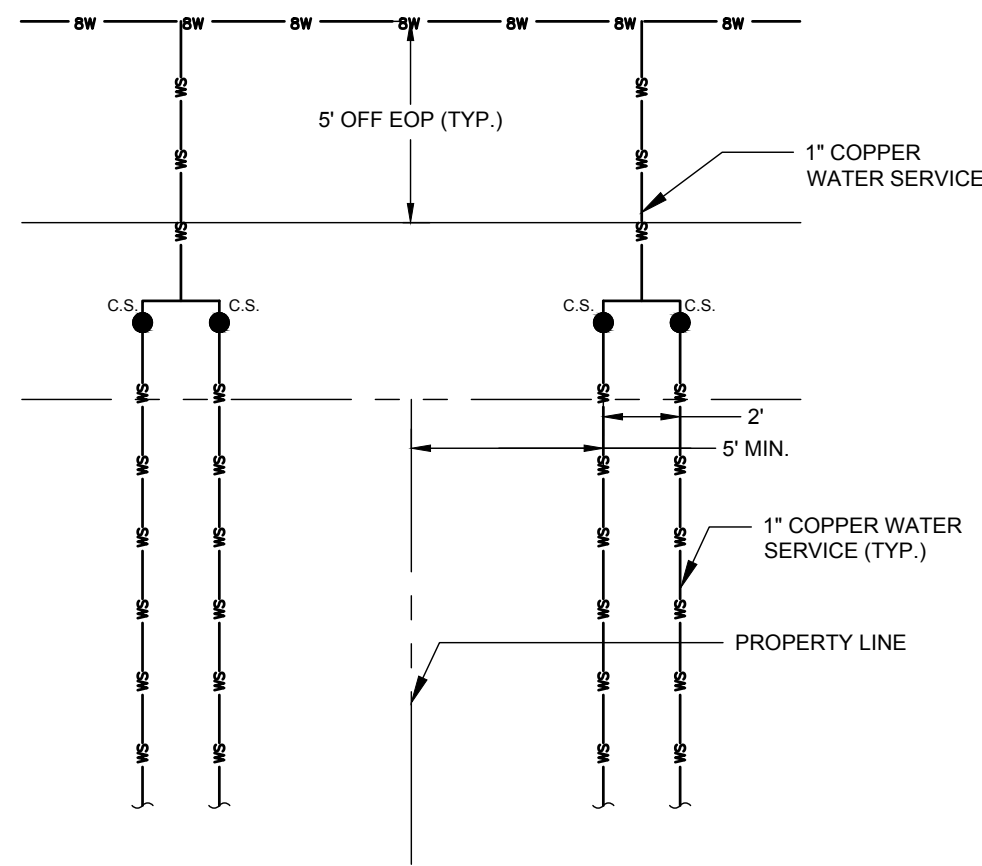
VALVE BOX DETAIL  
NO SCALE



WATER MAIN CROSSING UTILITY DETAIL  
NO SCALE



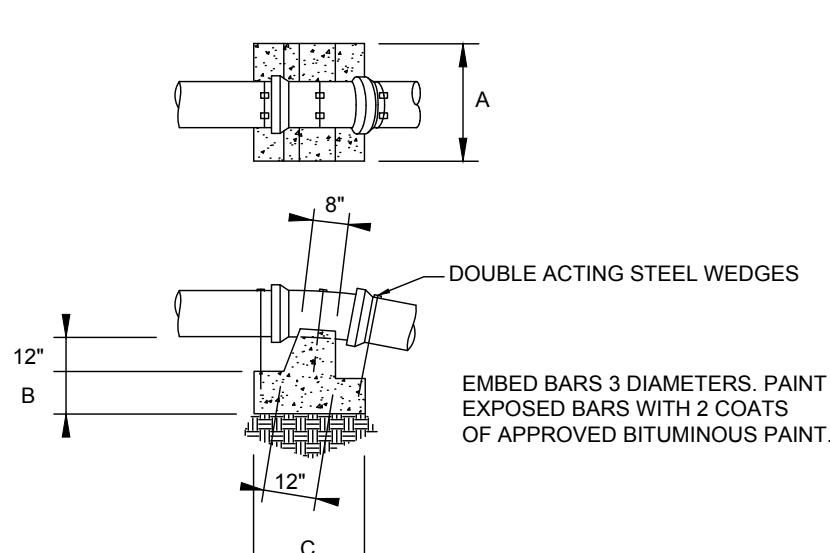
SERVICE CONNECTION DETAIL  
NO SCALE



DUPLEX PROPERTY CURB STOP ARRANGEMENT DETAIL  
NO SCALE



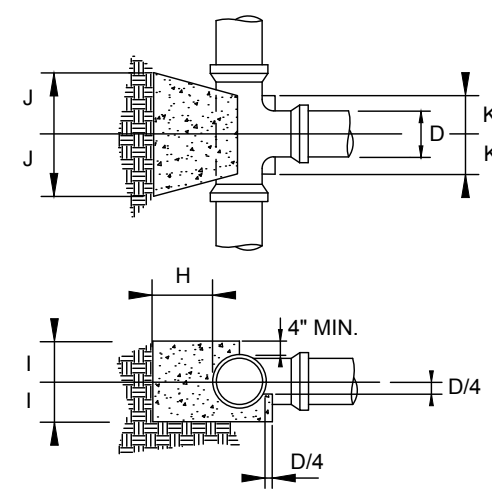
Z:\project\file\main\ext\morn16716 - derry water interconnection project\cadd\sheet and plans\16716 - details.dwg 4/24/2025 4:39 PM



BUTTRSS FOR VERTICAL BENDS												
BEND	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"
1/32	A	18"	18"	17"	36"							
	B	15"	21"	15"	24"							
	C	24"	30"	33"	36"							
1/16	A	24"	40"	44"	48"	39"	48"	54"	60"			
	B	21"	27"	30"	30"	30"	30"	36"	36"			
	C	30"	36"	48"	48"	30"	48"	54"	54"			
1/8	A	30"	36"	48"	54"	54"	66"	72"	84"			
	B	30"	33"	36"	42"	36"	42"	48"	54"			
	C	36"	48"	54"	57"	54"	66"	72"	84"			
1/4	A					48"	48"	48"	48"			
	B					48"	48"	54"	60"			
	C					72"	50"	120"	120"			

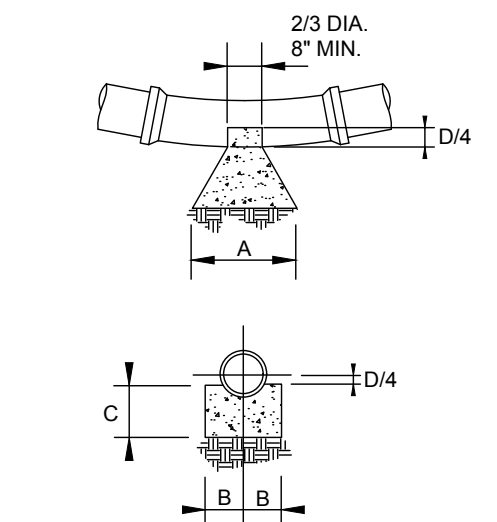
SIZE	1/32	1/16	1/8
12"	2-#4	2-#4	2-#4
18"	2-#4	2-#4	2-#4
24"	2-#4	2-#4	2-#4
30"	2-#4	2-#4	2-#4
36"	2-#4	2-#4	2-#4
42"	2-#4	2-#4	2-#4
48"	2-#4	2-#4	2-#4
54"	2-#4	2-#4	2-#4
60"	2-#4	2-#4	2-#4
66"	2-#4	2-#4	2-#4
72"	2-#4	2-#4	2-#4
78"	2-#4	2-#4	2-#4

ANCHORAGE & CONCRETE BUTTRESSES FOR VERTICAL BENDS  
NO SCALE



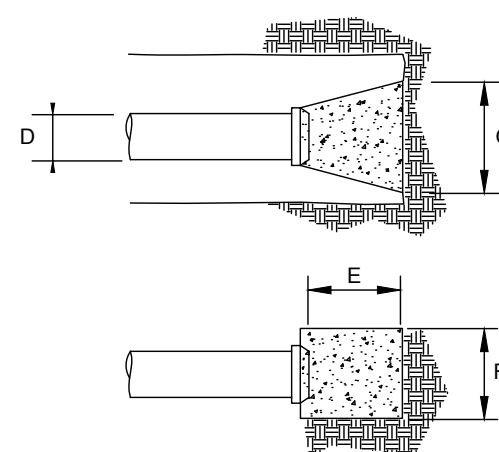
BUTTRSS FOR TEES												
PIPE DIA	D	0"-6"	6"	8"	10"	12"	14"	16"	18"	24"	30"	36"
H	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
I	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
J	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
K	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"

CONCRETE BUTTRESSES FOR HORIZONTAL & VERTICAL TEES  
NO SCALE



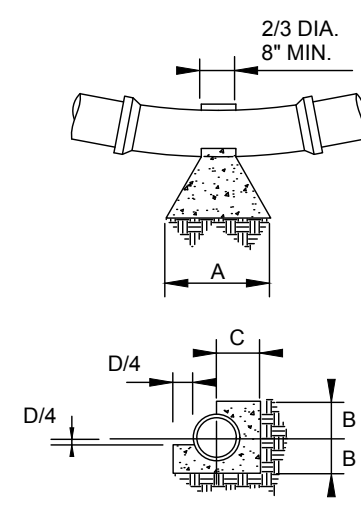
BUTTRSS FOR VERTICAL BENDS												
BEND	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"
1/64	A					20"	24"	30"	36"			
	B					10"	12"	15"	18"			
	C					10"	12"	13"	14"			
1/32	A	6"	8"	10"	10"	16"	20"	24"	30"	36"		
	B	7"	8"	9"	10"	15"	14"	16"	18"	19"	24"	
	C	7"	7"	8"	8"	9"	10"	12"	13"	14"		
1/16	A	9"	10"	18"	21"	27"	36"	42"	50"	64"		
	B	7"	7"	8"	10"	12"	14"	16"	18"	19"	24"	
	C	7"	7"	8"	8"	9"	10"	12"	13"	14"		
1/8	A	15"	20"	25"	30"	40"	50"	60"	75"	90"		
	B	7"	8"	9"	11"	15"	18"	21"	27"	30"		
	C	7"	8"	10"	11"	15"	18"	21"	27"	30"		

CONCRETE BUTTRESSES FOR VERTICAL BENDS  
NO SCALE



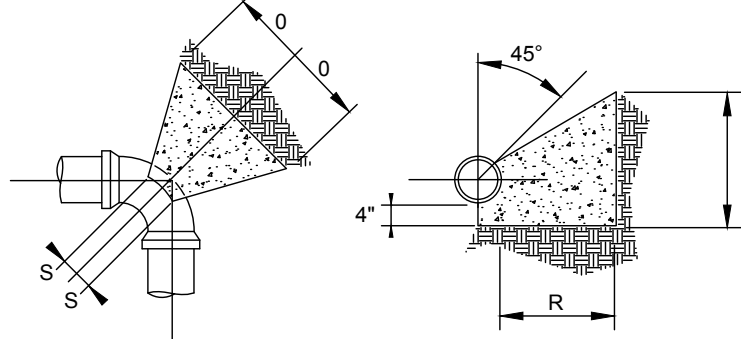
BUTTRSS FOR CAPS												
PIPE DIA	D	0"	6"	8"	10"	12"	14"	16"	18"	24"	30"	36"
H	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
I	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
J	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"
K	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"

CONCRETE BUTTRESSES FOR CAPS  
NO SCALE



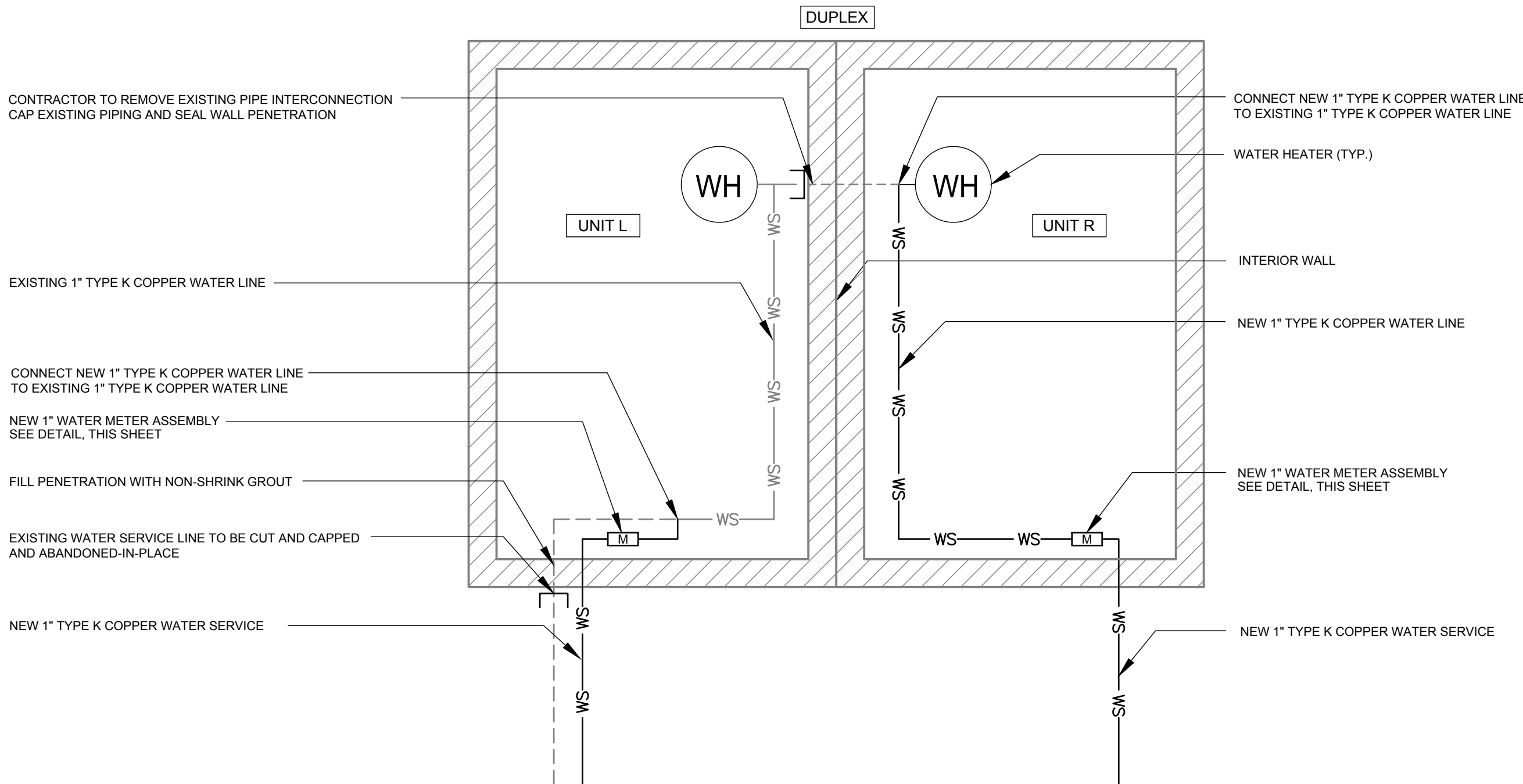
BUTTRSS FOR HORIZONTAL BENDS												
BEND	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"
1/64	A					20"	24"	30"	36"			
	B					10"	12"	15"	18"			
	C					10"	12"	13"	14"			
1/32	A	6"	8"	10"	10"	16"	20"	24"	30"	36"		
	B	7"	8"	9"	10"	15"	14"	16"	18"	19"	24"	
	C	7"	7"	8"	8"	9"	10"	12"	13"	14"		
1/16	A	9"	10"	18"	21"	27"	36"	42"	50"	64"		
	B	7"	7"	8"	10"	12"	14"	16"	18"	19"	24"	
	C	7"	7"	8"	8"	9"	10"	12"	13"	14"		
1/8	A	15"	20"	25"	30"	40"	50"	60"	75"	90"		
	B	7"	8"	9"	11"	15"	18"	21"	27"	30"		
	C	7"	8"	10"	11"	15"	18"	21"	27"	30"		

CONCRETE BUTTRESSES FOR HORIZONTAL BENDS  
NO SCALE



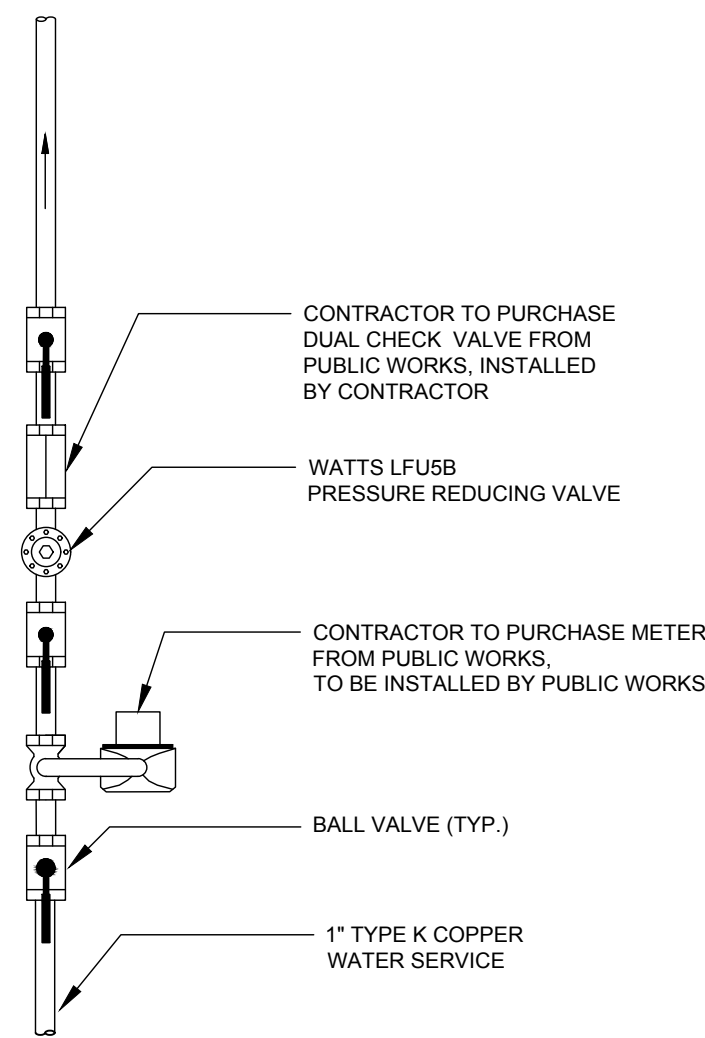
BUTTRASSES FOR HORIZ. 90° BENDS				
PIPE SIZE	D	P	R	S
6" OR LESS	12"	14"	20"	5"
8"	16"	18"	19"	6"
10"	18"	25"	19"	6"
12"	20"	30"	19"	7"
14"	20"	30"	20"	9"
16"	25"	36"	25"	10"
18"	31"	42"	23"	12"
20"	34"	46"	30"	12"
24"	46"	48"	33"	10"
30"	60"	60"	36"	14"
36"	72"	72"	40"	14"

CONCRETE BUTTRESSES FOR HORIZONTAL 90° BENDS  
NO SCALE

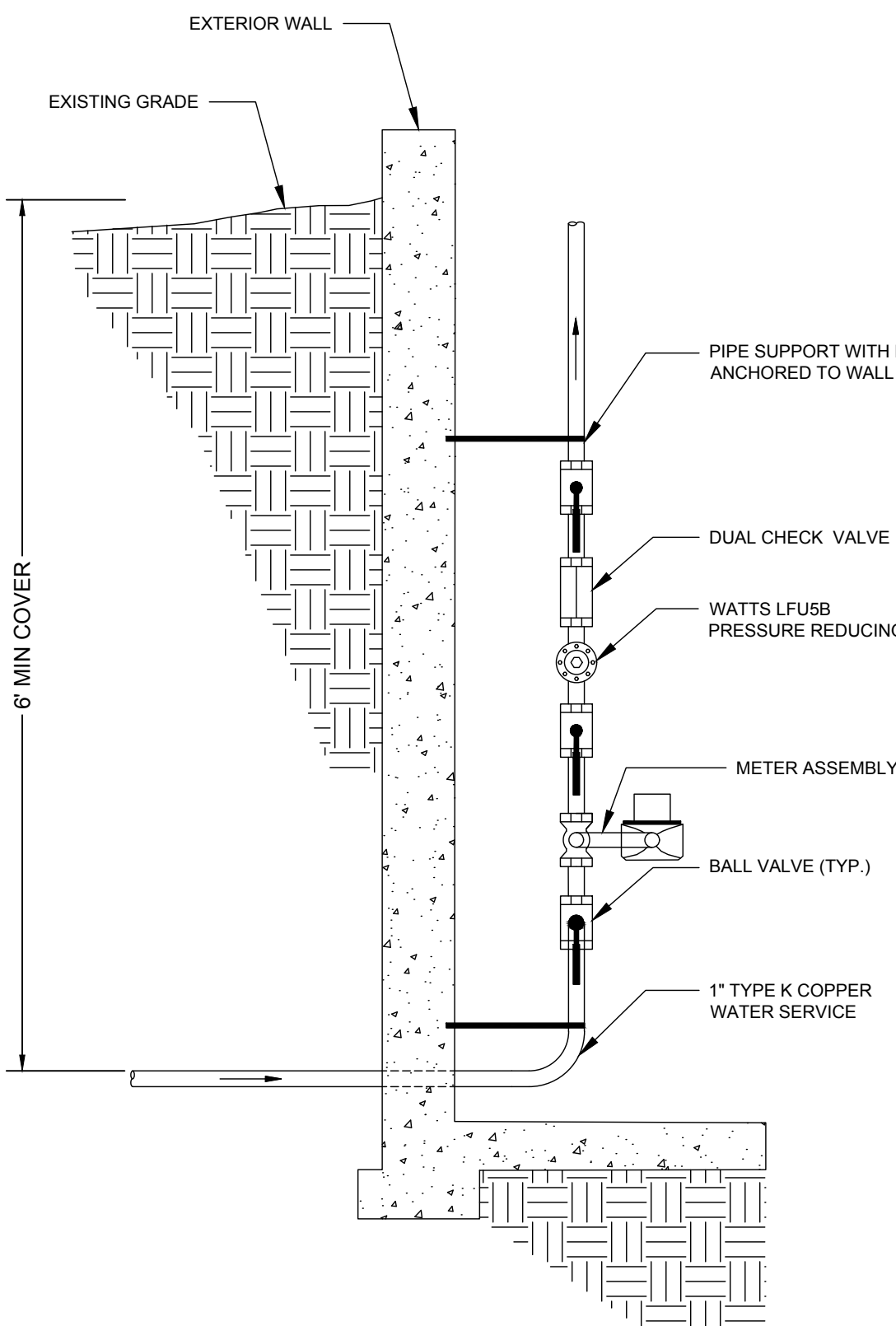


- NOTES:
- EXISTING DUPLEX UNITS ARE SERVED BY A SINGLE WATER SERVICE FROM THE STREET. CONTRACTOR IS TO ISOLATE EACH DUPLEX AND INSTALL NEW WATER SERVICE WITH METER FOR EACH DUPLEX UNIT IN ACCORDANCE WITH LOCAL PLUMBING CODES.

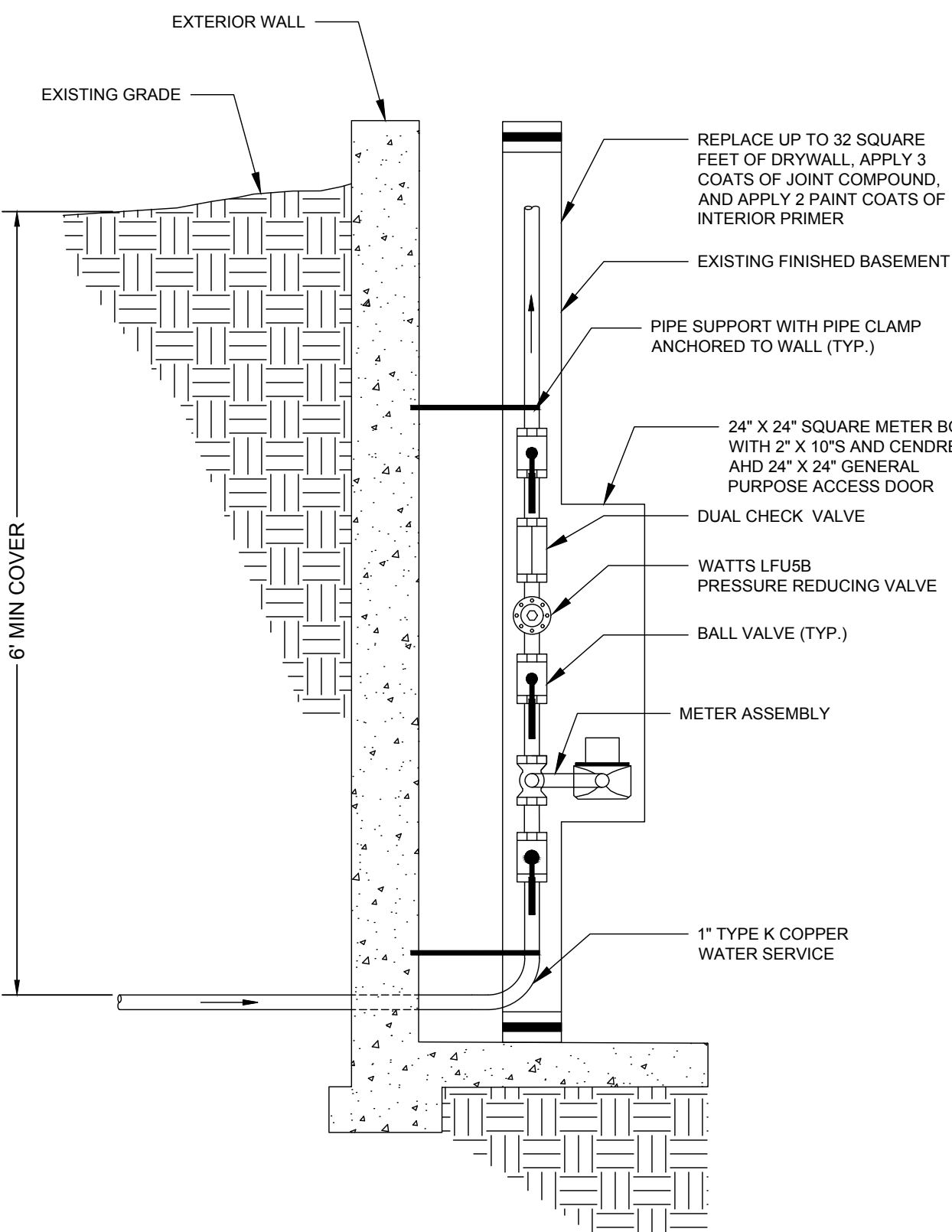
TYPICAL DUPLEX WATER SERVICE DETAIL  
NO SCALE



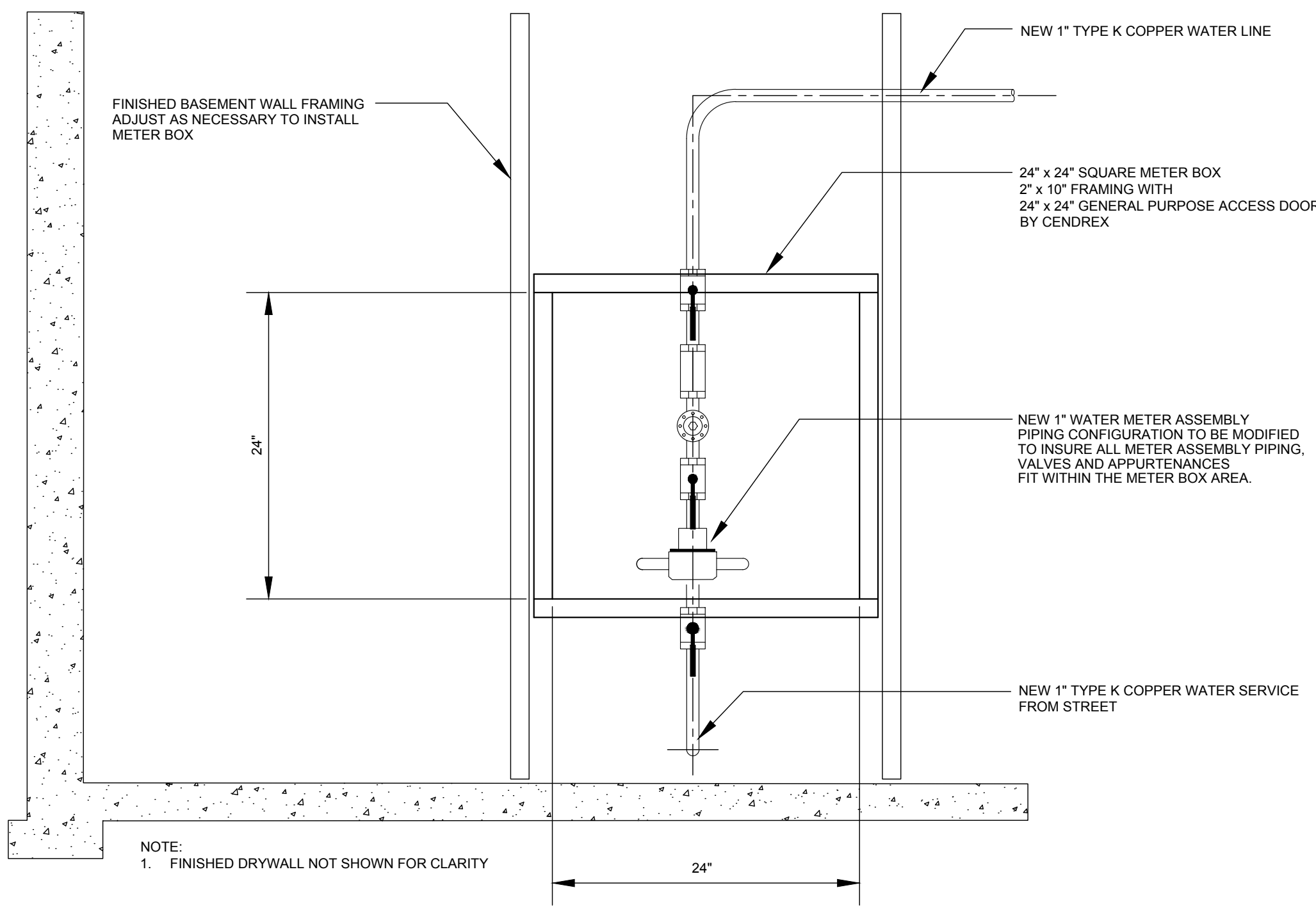
1" WATER METER DETAIL  
NO SCALE



SCENARIO 1 - UNFINISHED BASEMENT DETAIL  
NO SCALE



SCENARIO 2 - FINISHED BASEMENT DETAIL  
NO SCALE



verdantas

186 GRANITE STREET, 3RD FLOOR, SUITE A  
MANCHESTER, NH 03101  
TEL: 603-314-0820

STEVEN H. LEWANDOWSKI, P.E.

NEW HAMPSHIRE - RESIDENTIAL  
NEW HAMPSHIRE - COMMERCIAL  
NEW HAMPSHIRE - INDUSTRIAL  
NEW HAMPSHIRE - PROFESSIONAL  
NEW HAMPSHIRE - AGENCY  
NEW HAMPSHIRE - GENERAL  
NEW HAMPSHIRE - SPECIALTY

NO. 18448  
LICENSED PROFESSIONAL ENGINEER  
STATE OF NH

04-28-2025

DESIGNED BY  
RKM

DRAWN BY  
JTL

CHECKED BY  
SHL

PROJECT NO.  
16716

CHK'D BY  
SHL

DATE  
04-28-2025

REVISION  
1 ISSUED FOR BIDDING

No.  
1

DERRY~ROCKINGHAM~NEW HAMPSHIRE  
WATER MAIN INTERCONNECTION AND  
DISTRIBUTION SYSTEM IMPROVEMENTS  
MORNINGSIDE DRIVE WATER ASSOCIATION  
DETAILS

APPLICATION NO.

DATE  
03-24-2025

SCALE  
AS NOTED

SHEET  
C-6



