BRISTOL WEST WATERLINE REPLACEMENT PROJECT

BRISTOL, VERMONT

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DETAILS

C3.1 **DETAILS**

CONSTRUCTION/GENERAL NOTES

GENERAL NOTES:

- SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION
- THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. PROPERTY LINE INFORMATION IS APPROXIMATE AND BASED ON EXISTING TAX MAP INFORMATION. RIGHT OF WAY WIDTHS PROVIDED BY LAROSE SURVEYS
- ENGINEERING SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.
- 4. UTILITY POLES WITH NEED TO BE SUPPORTED AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING,
- 5. EXISTING TREES WILL REQUIRE TRIMMING AND/OR REMOVAL FOR WATER LINE AND SERVICE LINE INSTALLATION. FIELD CONDITIONS MAY DICTATE TRIMMING/REMOVAL AND MAY NOT BE NOTED IN ALL LOCATIONS ON PLANS.

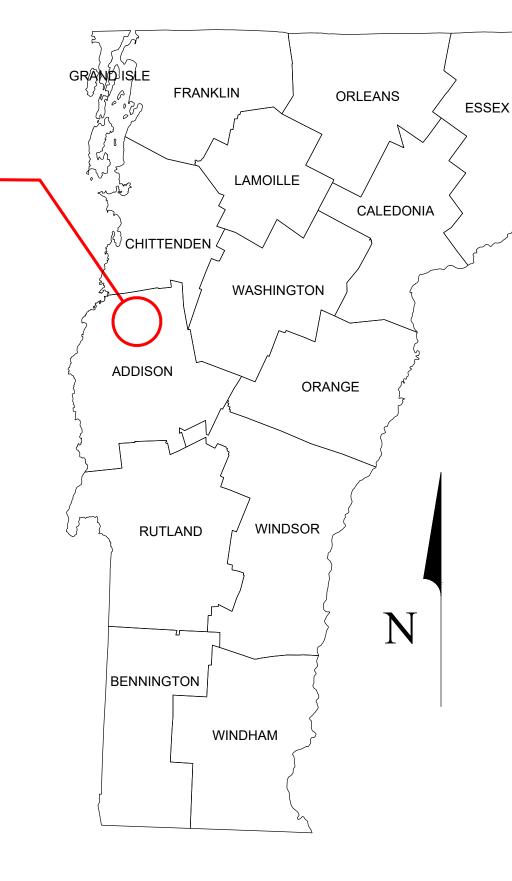
PLAN REFERENCES:

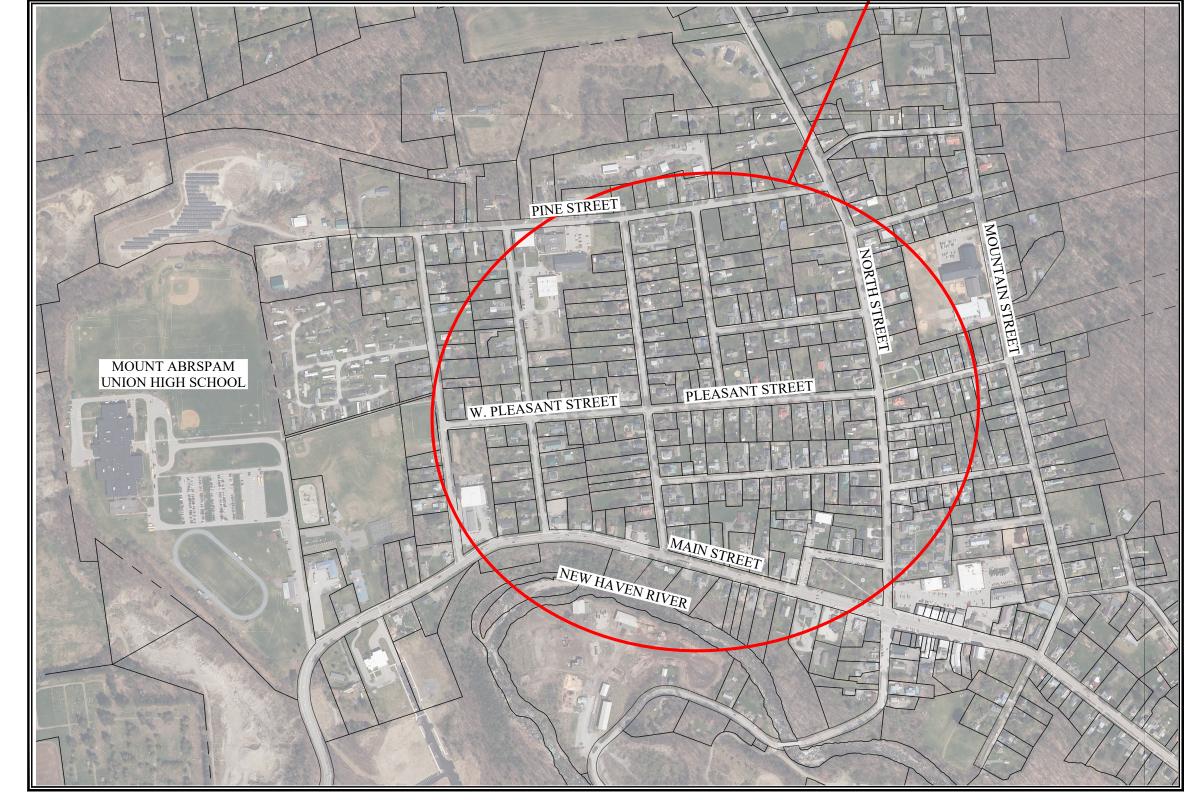
- NORTH STREET STORMWATER IMPROVEMENTS, BRISTOL, VERMONT RECORD DRAWINGS, PREPARED BY GREEN MOUNTAIN ENGINEERING, DATED 10/28/10.
- 2. WEST STREET & LOVERS LANE INFRASTRUCTURE IMPROVEMENTS, BRISTOL, VERMONT - RECORD DRAWINGS, PREPARED BY GREEN MOUNTAIN ENGINEERING, DATED 11/14/18.
- WATER SERVICE CONNECTION PARK STREET STUB, BRISTOL VILLAGE CO-HOUSING, PREPARED BY GROVER ENGINEERING, DATED JANUARY 16, 2017
- 4. SIGNAL PROJECT HES 021-1 (28), SHEETS 12, 13, 19, 29, PREPARED BY STANTEC
- 5. VILLAGE OF BRISTOL SEWER/STORMWATER/WATER SYSTEM PLANS, PREPARED BY GREEN MOUNTAIN ENGINEERING, REVISION DATE APRIL 10, 2006.

DWSRF LOAN NUMBER: RF3-553-2.0 VTM JOB NO. 22-1.3

AUGUST, 2024

PROJECT LOCATION: -BRISTOL, VT



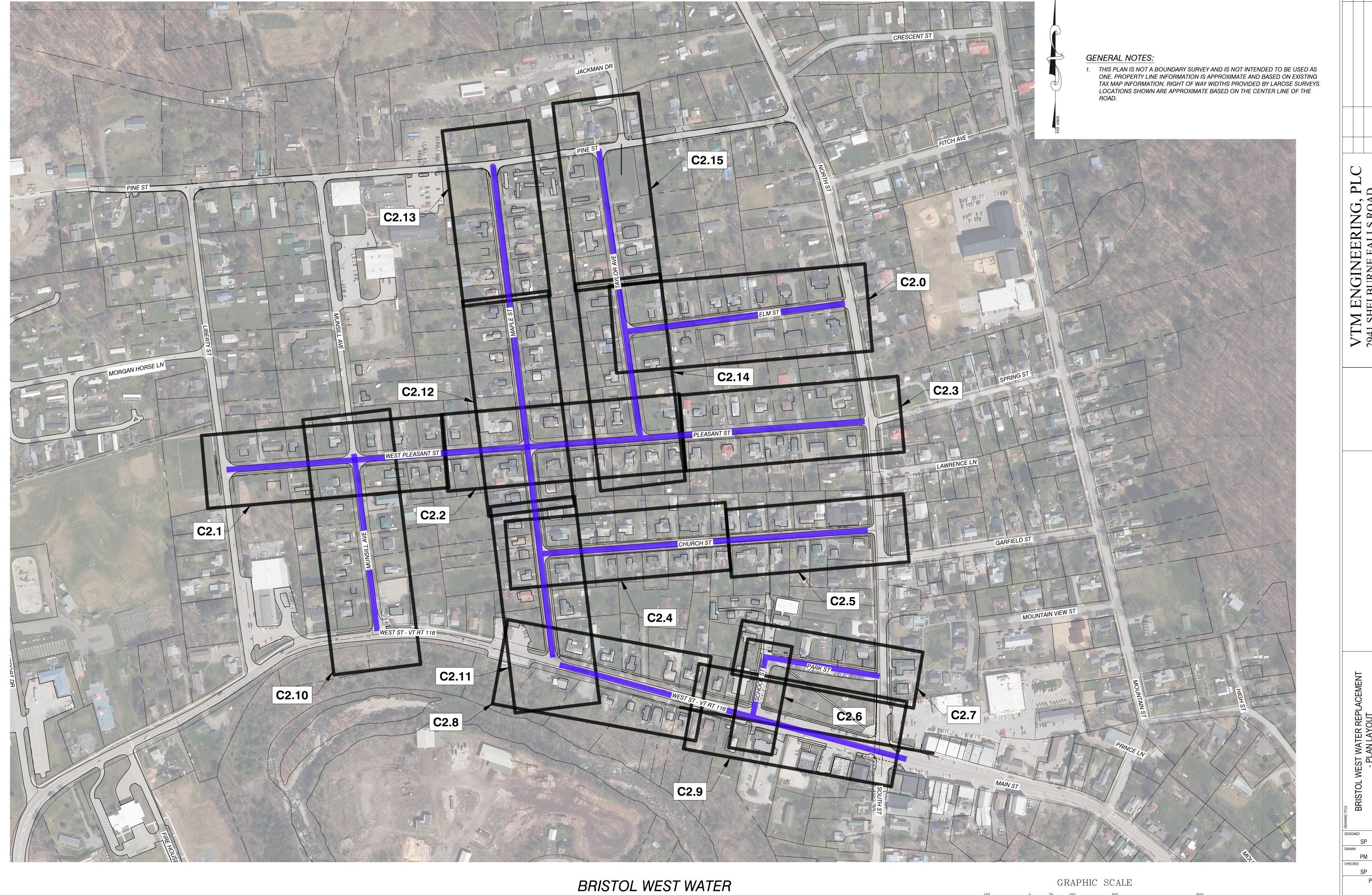


LOCATION MAP - BRISTOL, VERMONT $1'' = \pm 500'$

90% REVIEW PLANS

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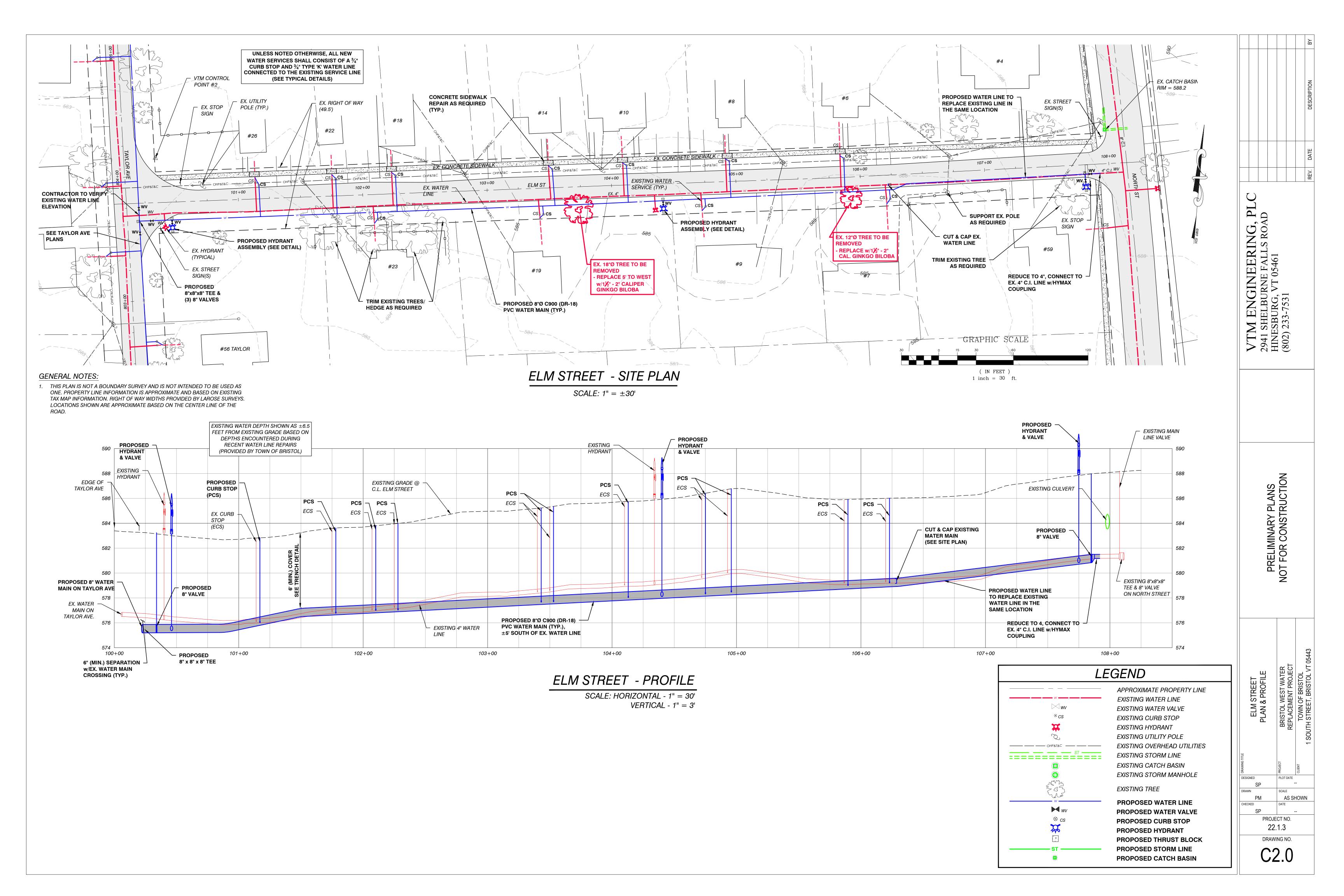
PM PROJECT NO. 22.1.3 DRAWING NO.

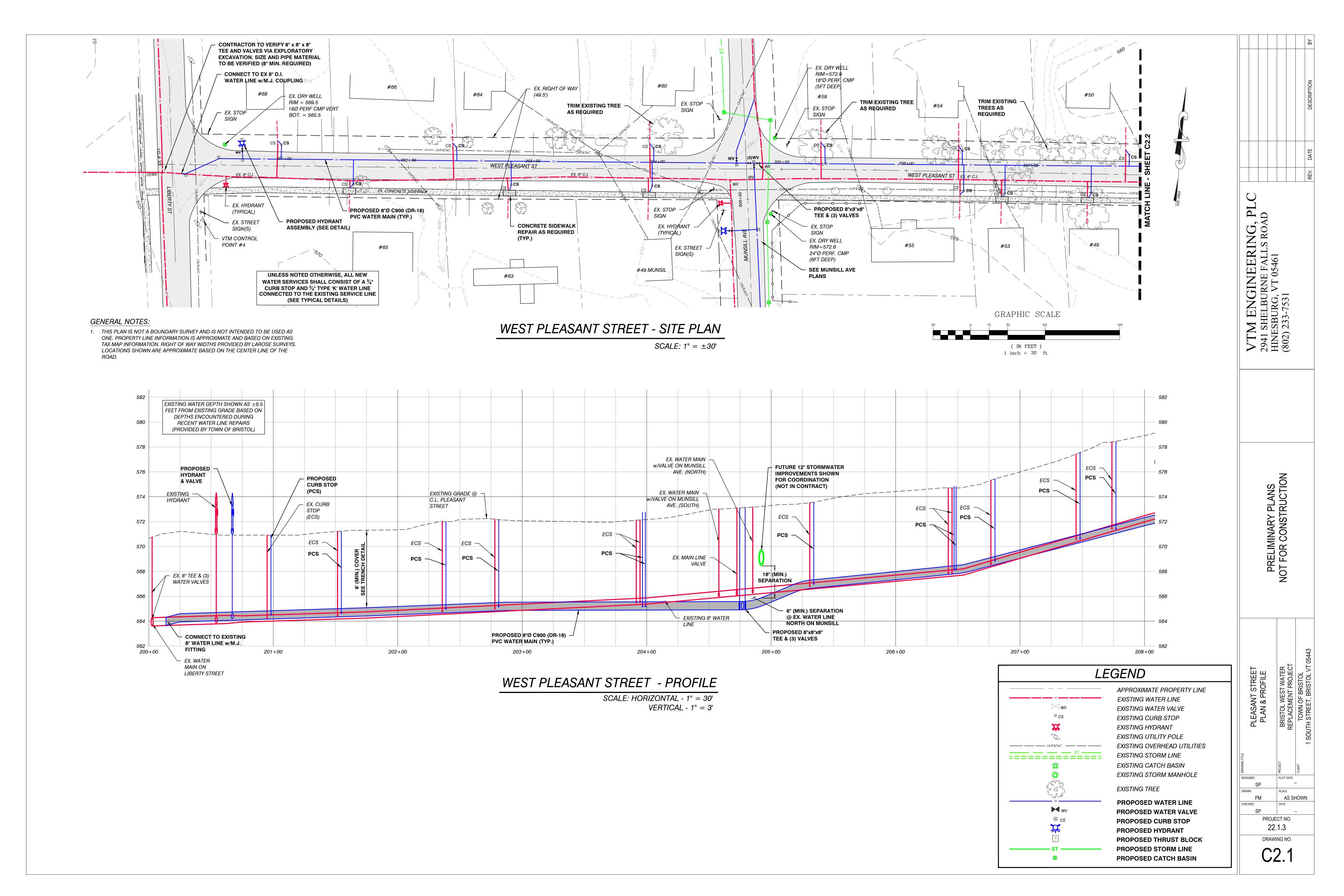


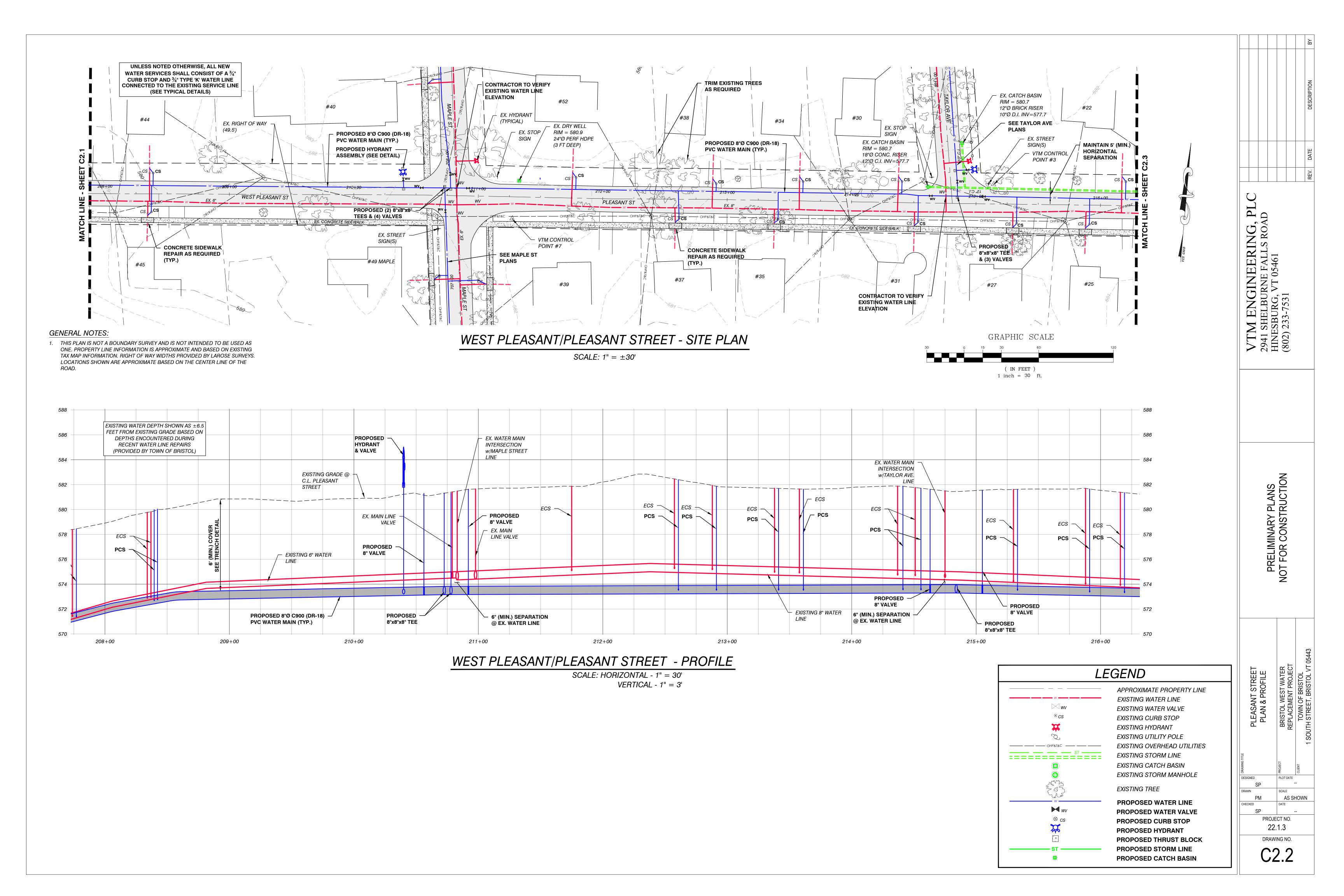
REPLACEMENT - PLAN LAYOUT SCALE: 1" = 150'

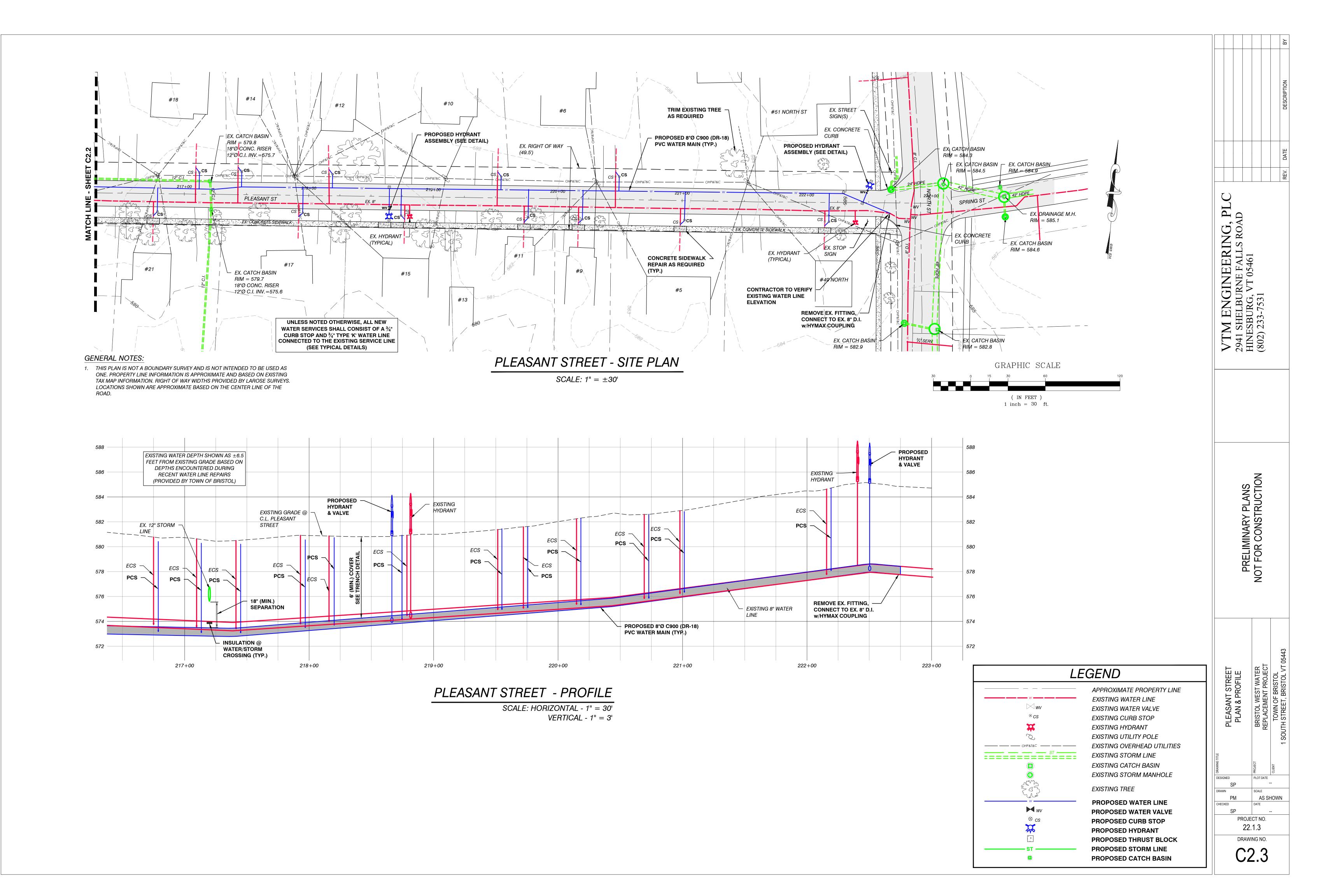
(IN FEET) 1 inch = 150 ft.

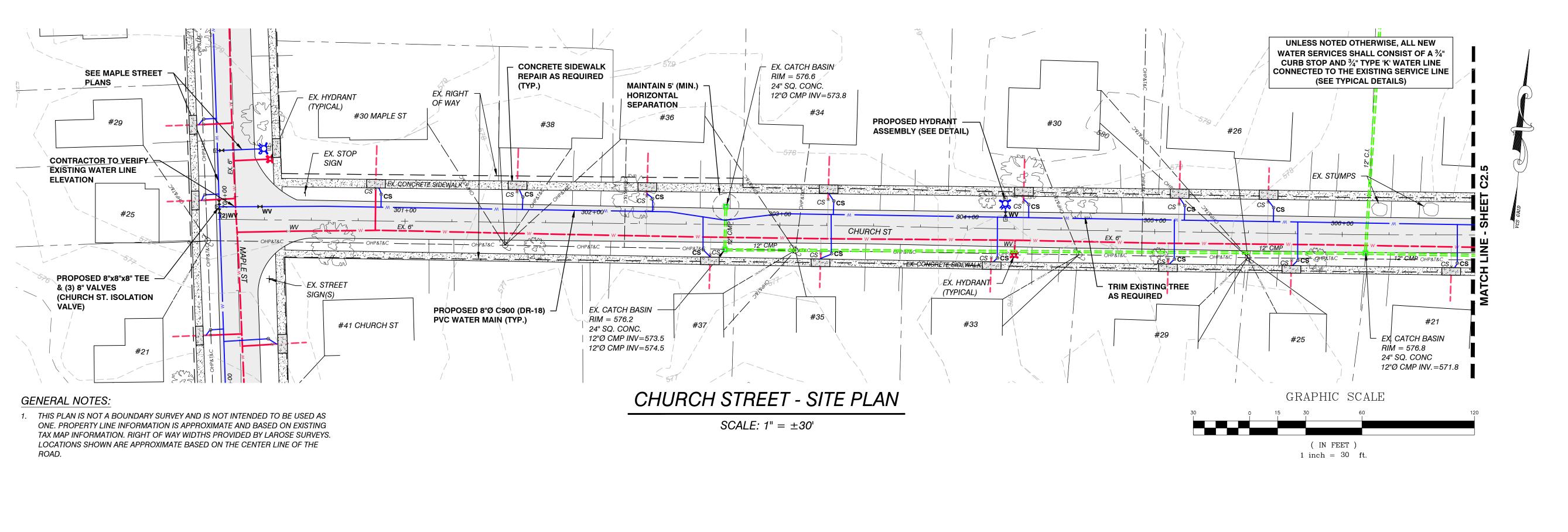
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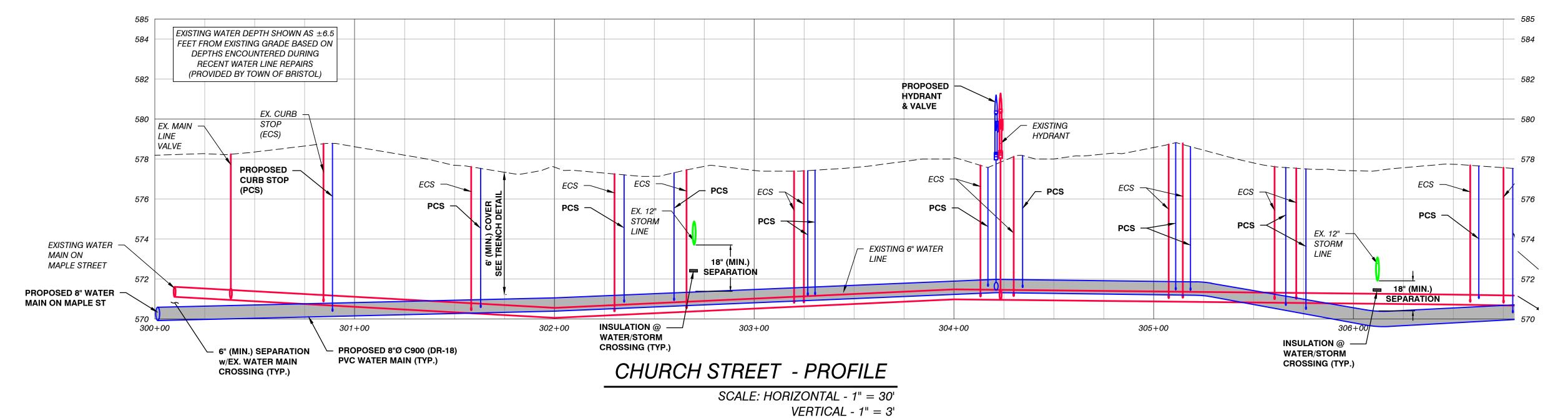












LEGEND APPROXIMATE PROPERTY LINE EXISTING WATER LINE EXISTING WATER VALVE ⊗ cs EXISTING CURB STOP EXISTING HYDRANT EXISTING UTILITY POLE EXISTING OVERHEAD UTILITIES EXISTING STORM LINE EXISTING CATCH BASIN EXISTING STORM MANHOLE EXISTING TREE PROPOSED WATER LINE WV WV **PROPOSED WATER VALVE** PROPOSED CURB STOP PROPOSED HYDRANT PROPOSED THRUST BLOCK PROPOSED STORM LINE PROPOSED CATCH BASIN

CHURCH STREET
PLAN & PROFILE
PLAN & PROFILE

PLAN & PROFILE

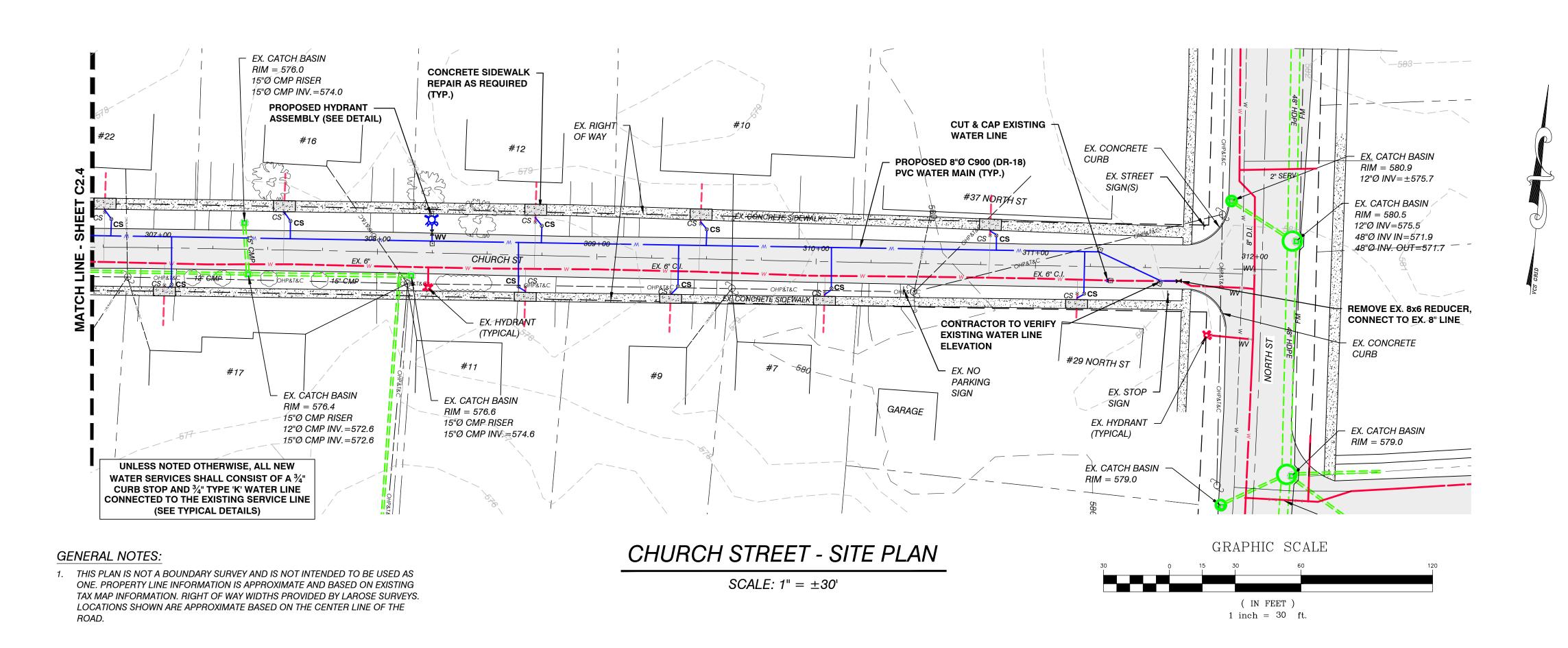
PRELIMINARY PLANS

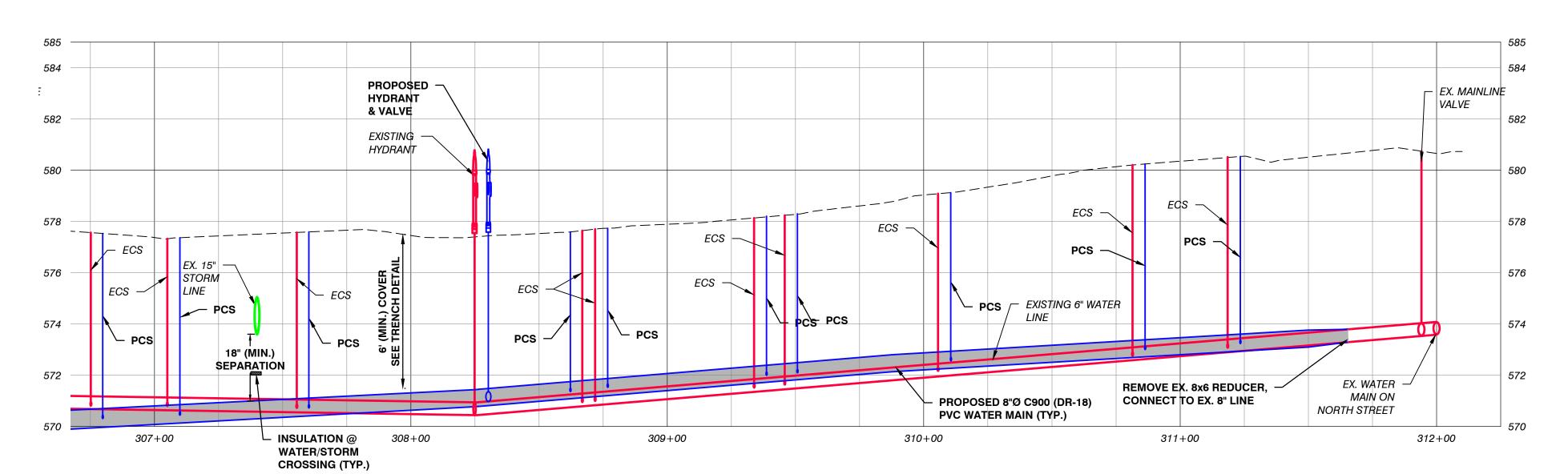
ON TOWN OF BRISTOL WEST WATER

NOT FOR CONSTRUCTION

1 SOUTH STREET, BRISTOL VT 05443

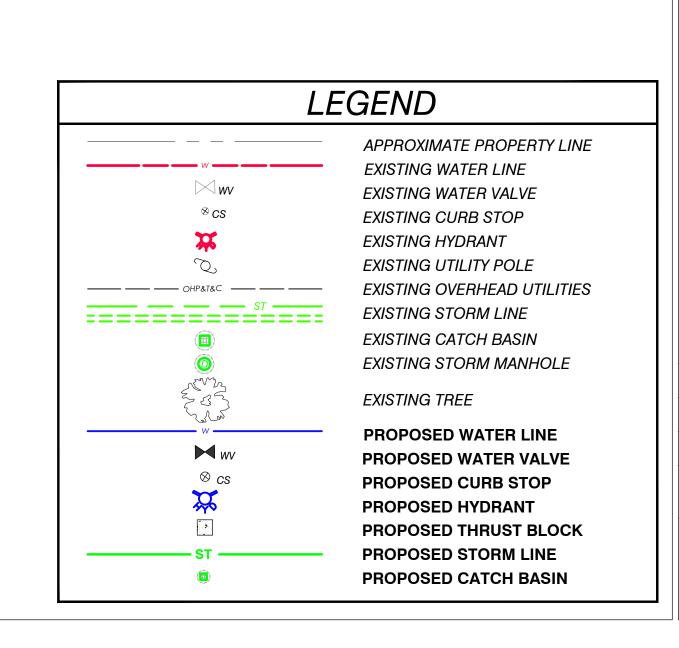
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CHURCH STREET - PROFILE

SCALE: HORIZONTAL - 1" = 30' VERTICAL - 1" = 3'



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> PRELIMINARY PLANS NOT FOR CONSTRUCTION

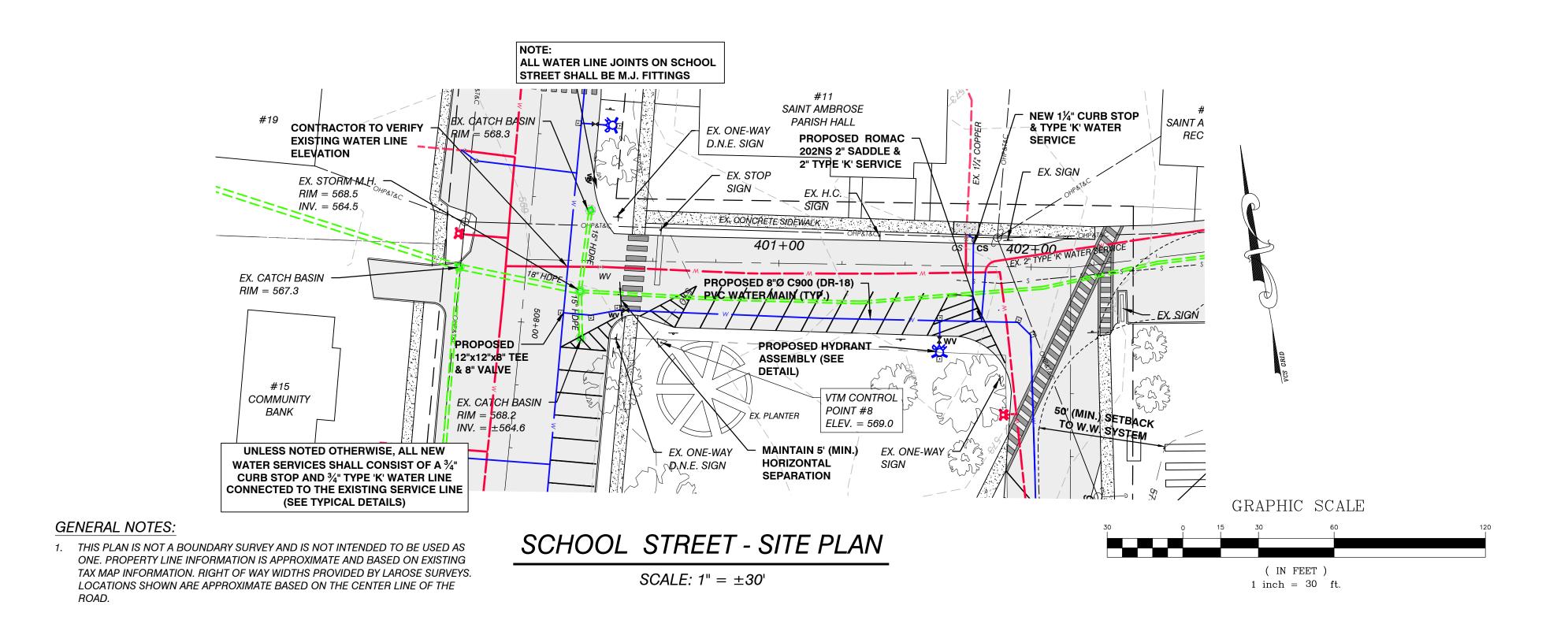
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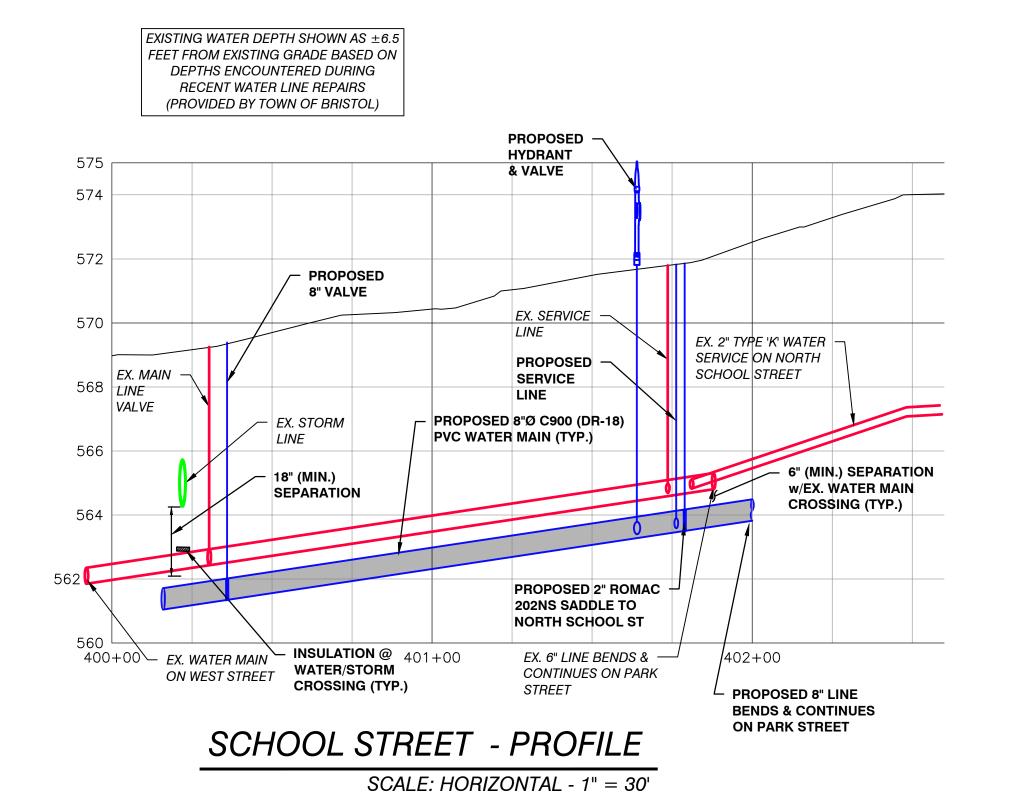
AS SHOWN

PROJECT NO.

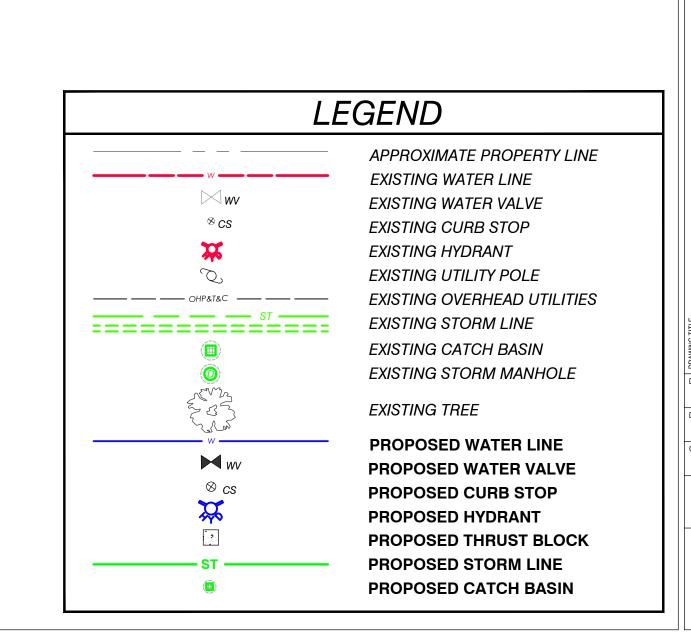
22.1.3

DRAWING NO.





VERTICAL - 1" = 3'



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PRELIMINARY PLANS NOT FOR CONSTRUCTION

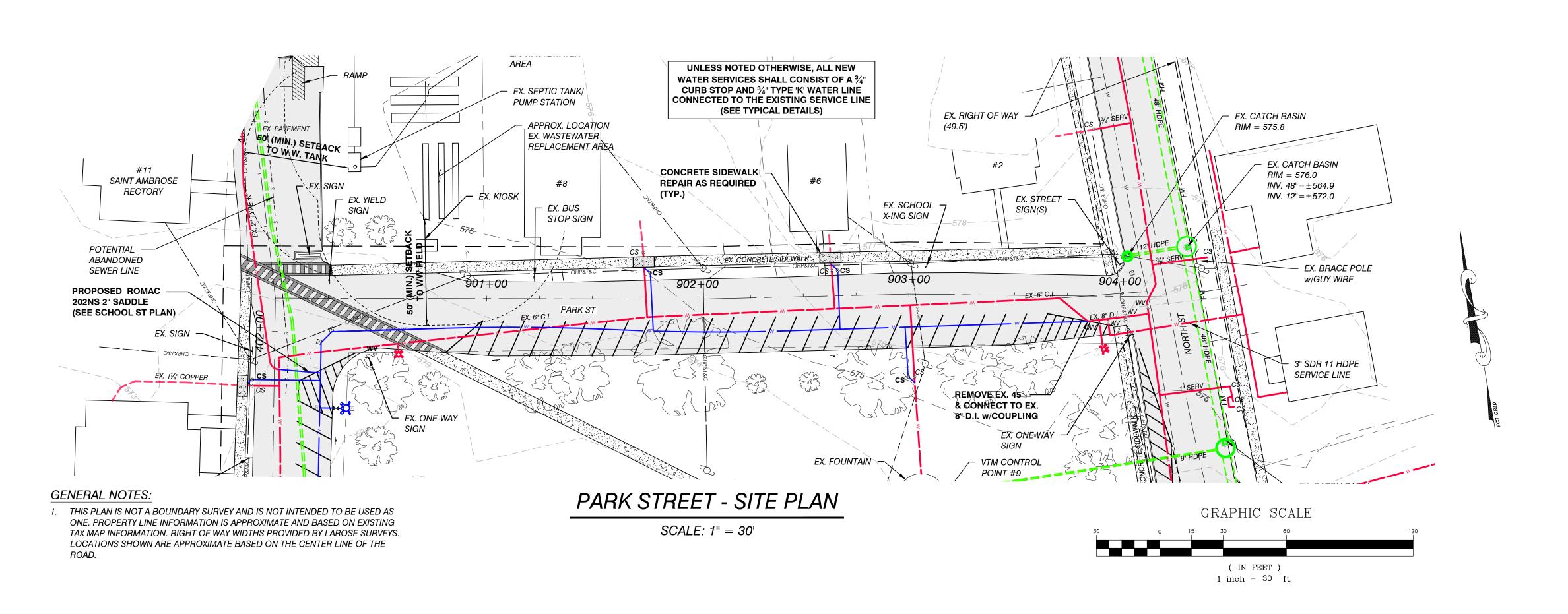
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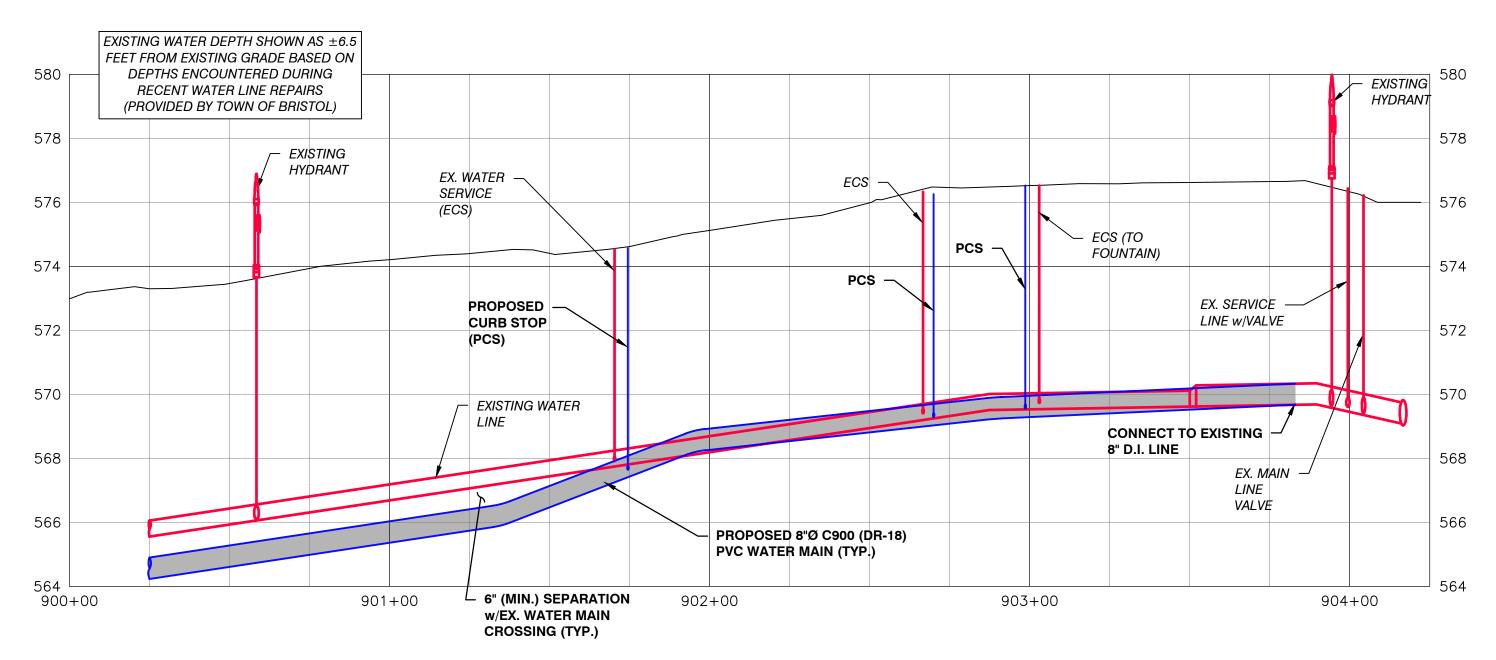
AS SHOWN

PROJECT NO.

22.1.3

DRAWING NO.





PARK STREET - PROFILE

SCALE: HORIZONTAL - 1" = 30' VERTICAL - 1" = 3'

LE	EGEND
	APPROXIMATE PROPERTY LINE
w	EXISTING WATER LINE
wv	EXISTING WATER VALVE
⊗ cs	EXISTING CURB STOP
**	EXISTING HYDRANT
Q	EXISTING UTILITY POLE
OHP&T&C	EXISTING OVERHEAD UTILITIES
	EXISTING STORM LINE
(iii)	EXISTING CATCH BASIN
<u></u>	EXISTING STORM MANHOLE
	EXISTING TREE
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	PROPOSED WATER LINE
<b>₩</b> wv	PROPOSED WATER VALVE
⊗ cs	PROPOSED CURB STOP
$\overline{\mathbf{x}}$	PROPOSED HYDRANT
>	PROPOSED THRUST BLOCK
st	PROPOSED STORM LINE
<u>(iii)</u>	PROPOSED CATCH BASIN

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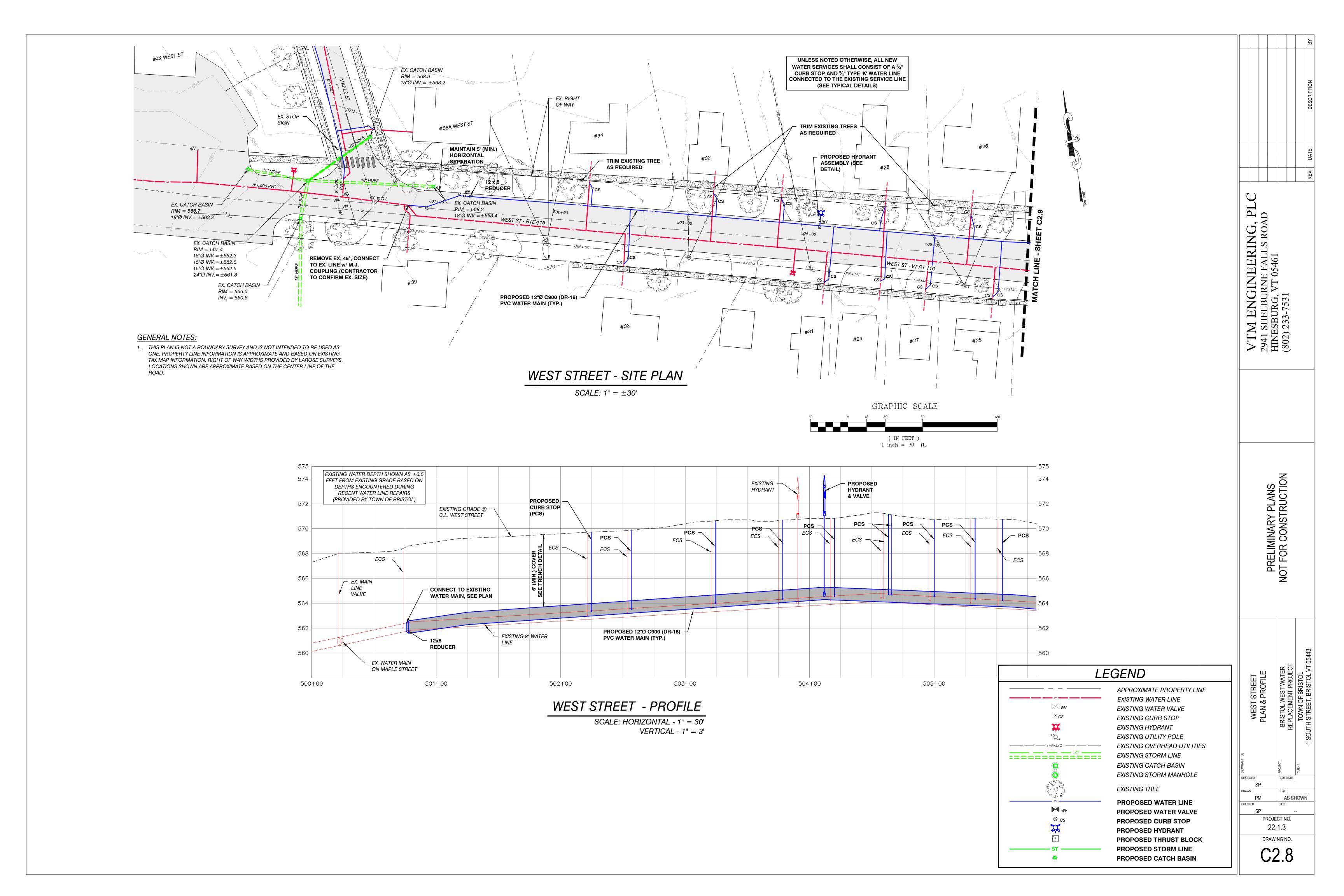
> PRELIMINARY PLANS NOT FOR CONSTRUCTION

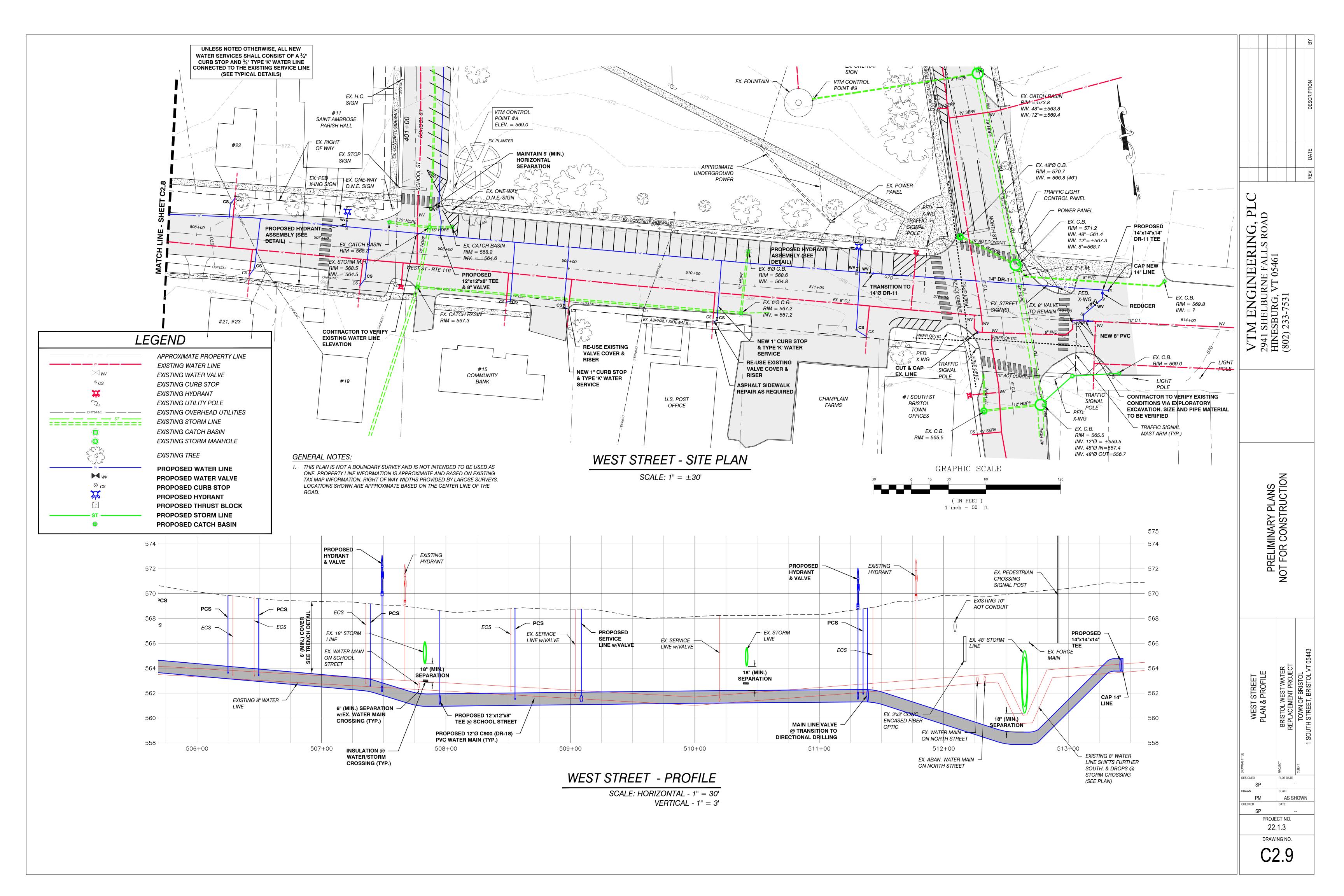
> > AS SHOWN

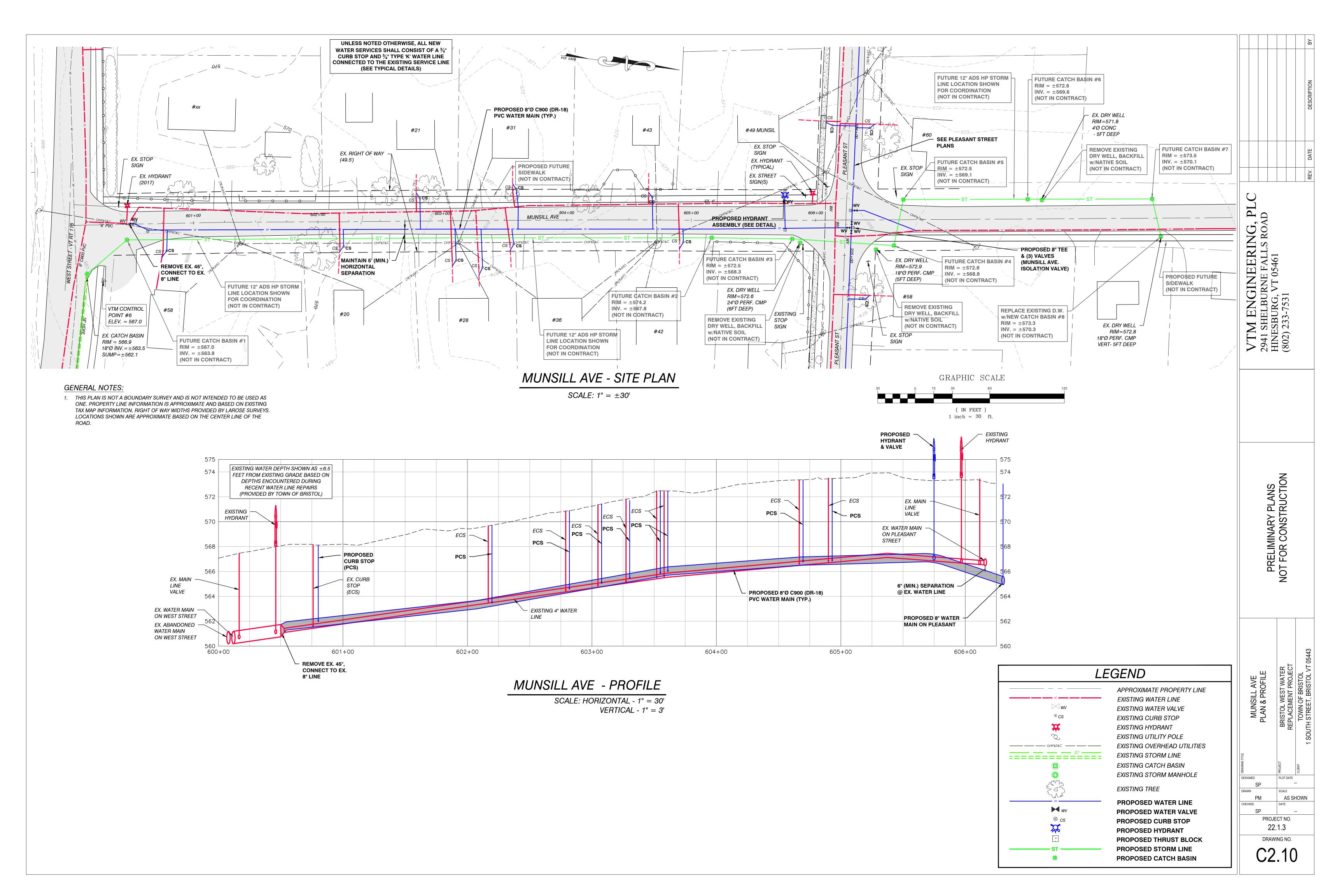
PROJECT NO. **22.1.3** 

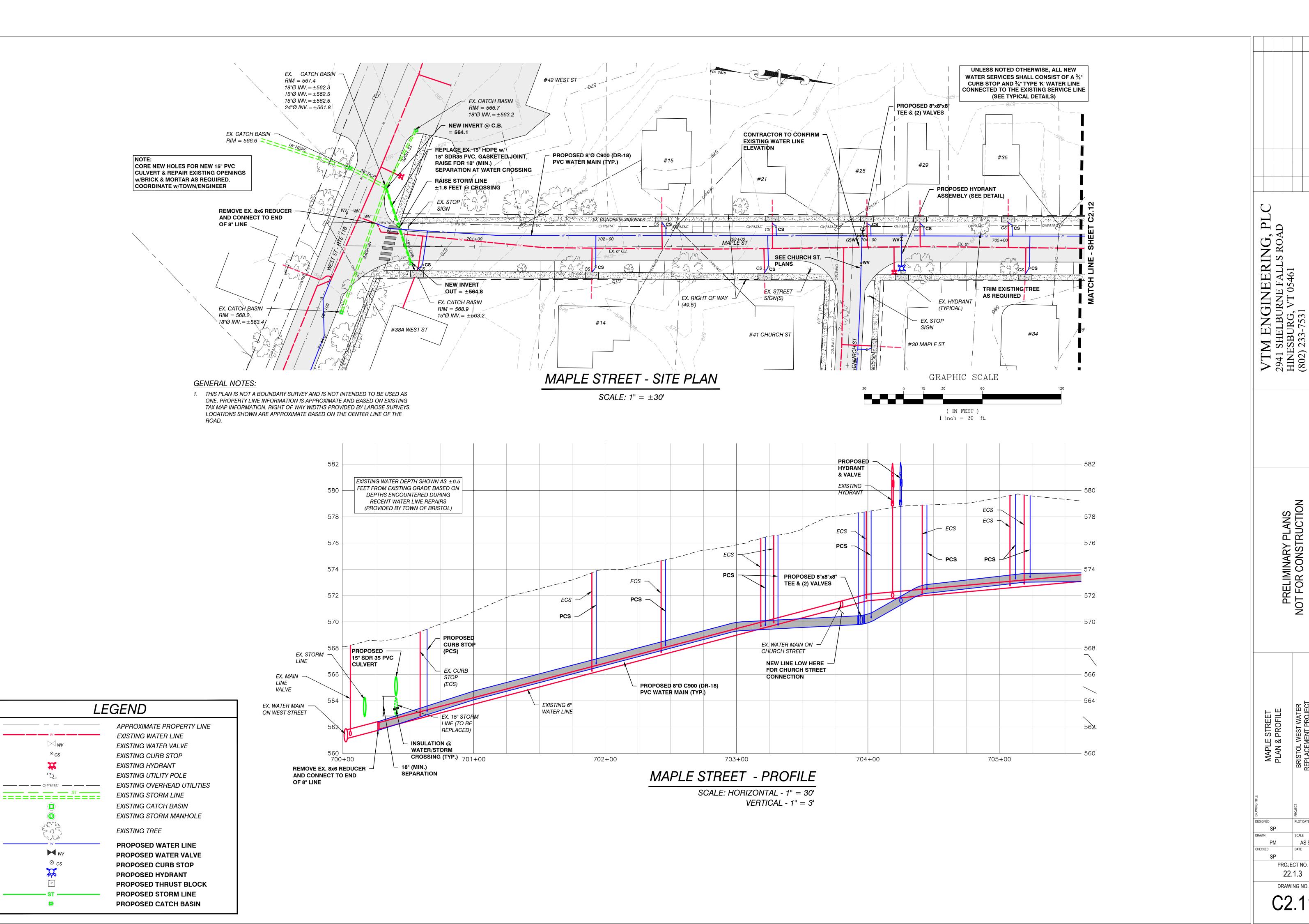
DRAWING NO.

PM







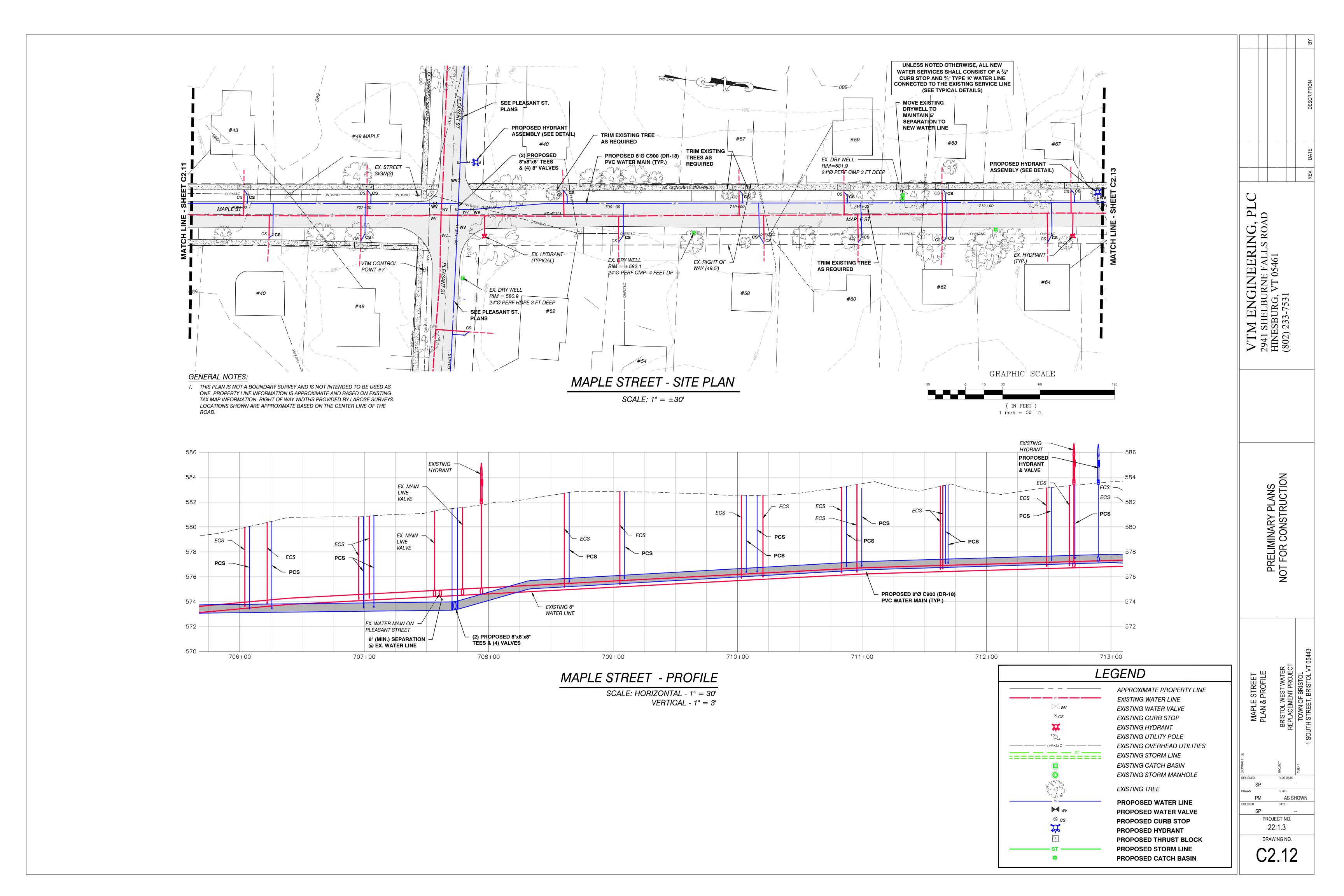


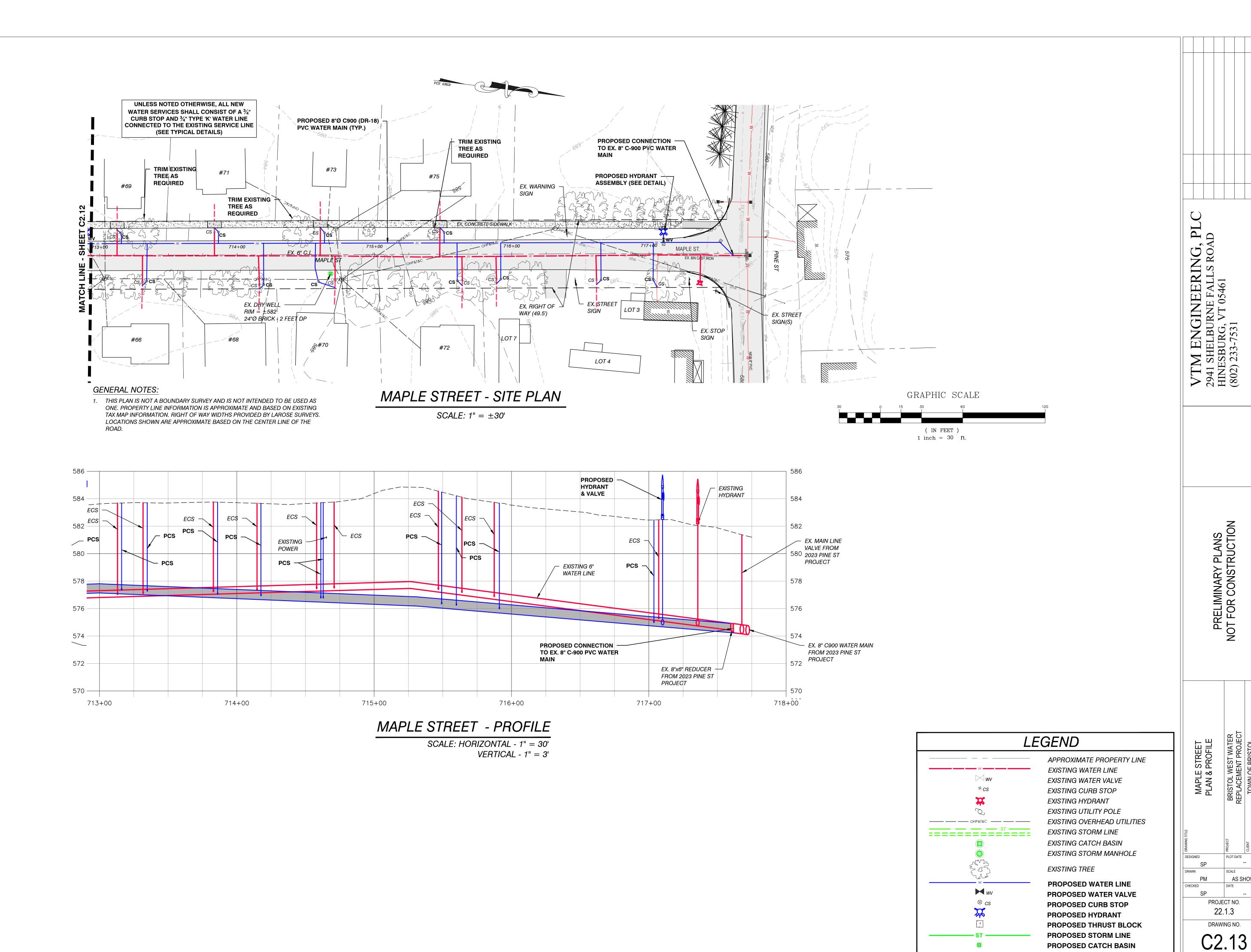
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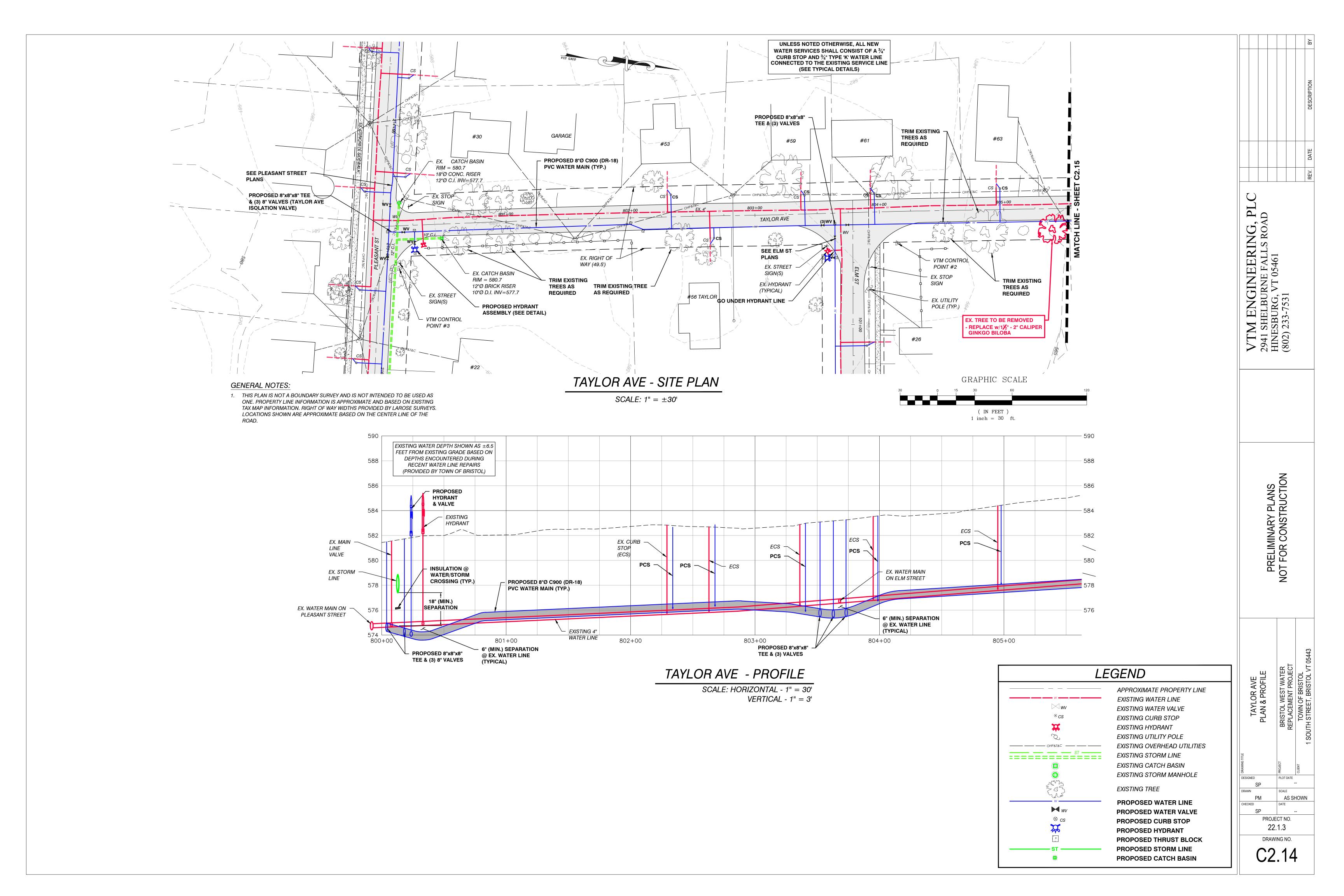
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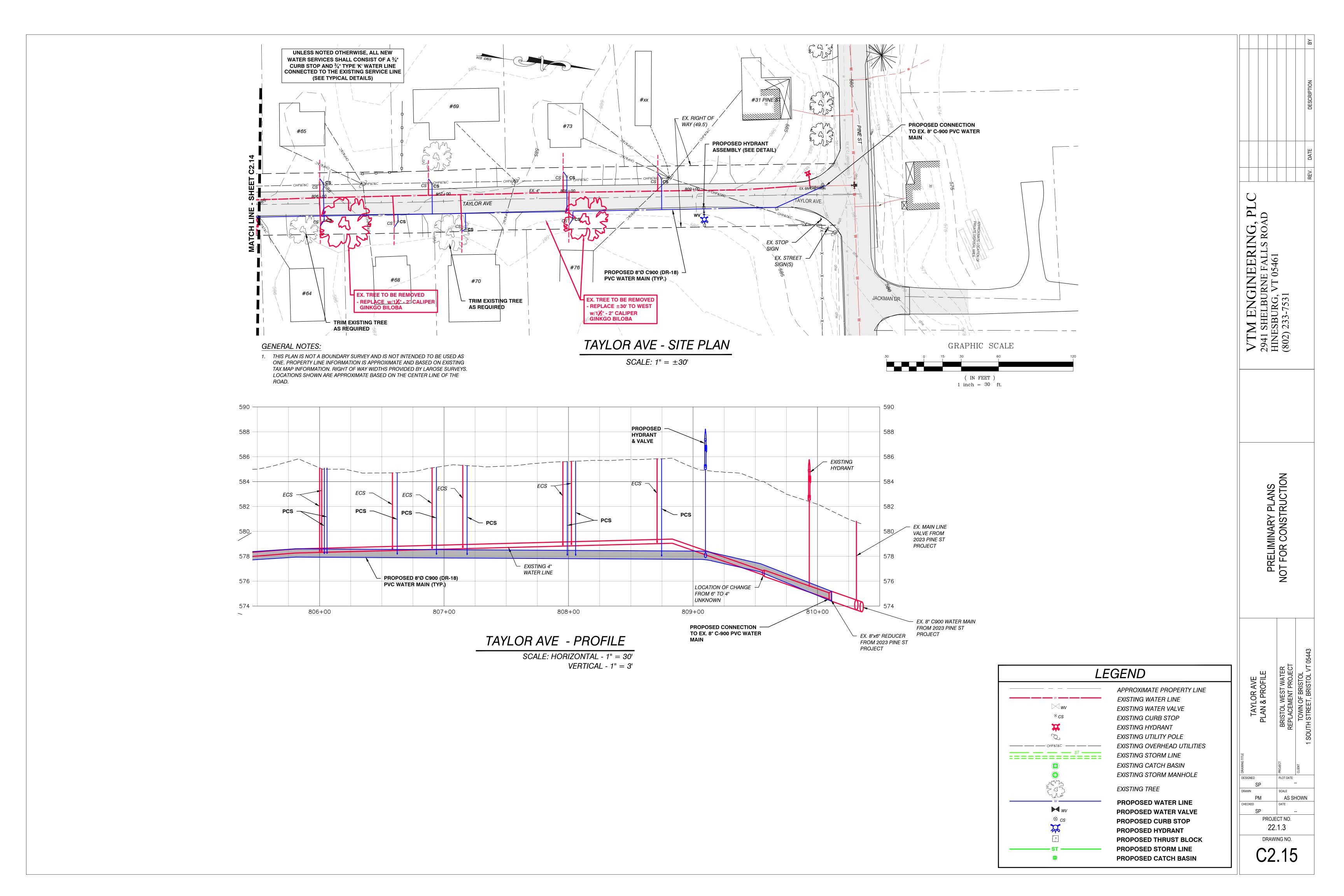
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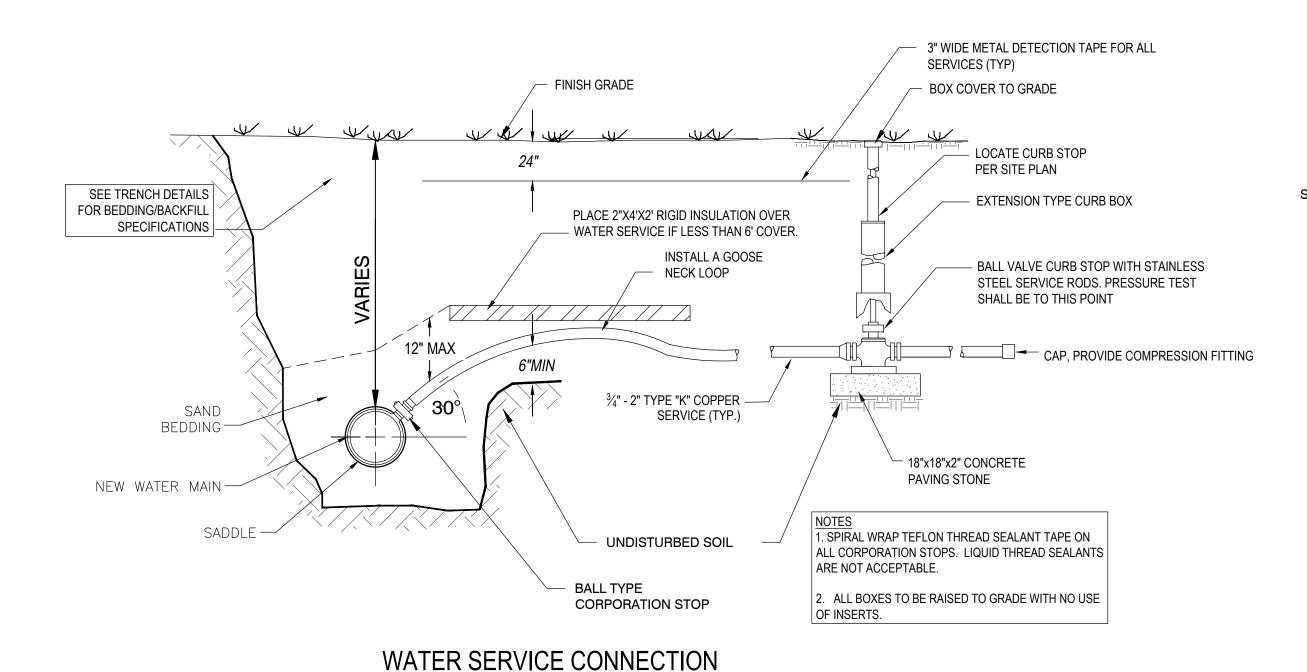




AS SHOWN







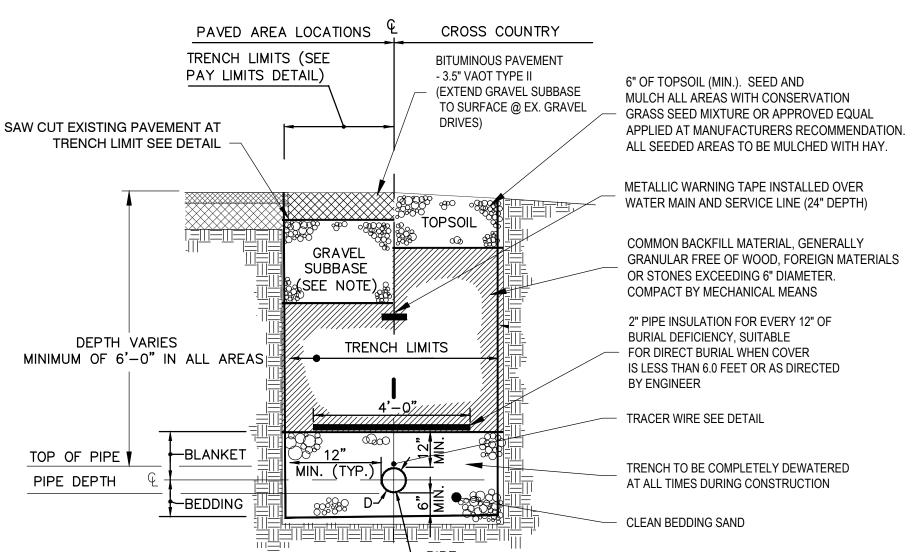
# (2) #4 REBAR AROUND FITTING UNDISTURBED SOIL -(TIE DOWN) RECOMPACTED SOIL TO UNDISTURBED SOIL -RESIST HORIZONTAL FORCE VERTICAL BEND MECHANICAL JOINT RESTRAINTS -HORIZONTAL BEND REQUIRED FOR JOINTS WITHIN 20' OF TEES (TYPICAL) -UNDISTURBED SOIL CONCRETE BEARING FACE AGAINST UNDISTURBED EARTH H (TYP. FOR ALL BLOCKS) **≺** B ──► SECTION A-A HORIZONTAL TEE

NOT TO SCALE

### TYPICAL BEARING THRUST BLOCK DETAILS AND SECTION SCALE: NONE

1. ALL THRUST BLOCKS SHALL BE CLASS "B" CONCRETE, SEE SPEC. SECTION 03300 2. CONCRETE SHALL BE PLACED SO AS NOT TO HAMPER THE FUTURE REMOVAL OF A FITTING. 3. WRAP FITTINGS IN (2) LAYERS POLYETHYLENE PLASTIC SHEET PRIOR TO FORMING AND POURING THRUST BLOCK.

Dense sandy gravel and		Horizontal 11.25° Bend ¹			Horizontal 22.5° Bend ¹			Horizontal 45° Bend ¹		Horizontal 90° Bend ¹		Tees and Dead Ends ¹ , ²		Valves	Reducers			
oneo candivaravol and		Α	H (ft)	B(ft)	Α	H(ft)	B(ft)	Α	H (ft)	B(ft)	Α	H (ft)	B(ft)	Α	H (ft)	B(ft)		
Jones candivaraval and E	6	0.50	1.0	1.0	0.97	1.0	1.0	1.80	1.00	1.8	2.54	1.00	2.5	2.54	1.00	2.5		
ravel, cemented sands	8	0.88	1.0 1.0 1.73 1.0 1.7 3.20 1.00 3.2 4.52 2.00 2.3	4.52	2.00	2.3	]											
g avoi, comonica canac	12	1.98	1.0	2.0	3.89	1.0	3.9	7.19	1.50	4.8	10.17	2.00	5.1	10.17	2.00	5.1		
Dense course sands, sandy clays, very stiff silt	6	0.57	1.0	1.0	1.11	1.0	1.1	2.06	1.00	2.1	2.91	1.00	2.9	2.91	1.00	2.9		
	8	1.01	1.0	1.0	1.98	1.0	2.0	3.65	1.00	3.7	5.17	1.50	3.4	5.17	1.50	3.4		
andy draye, very earn ent	12	2.27	1.0	2.3	4.45	1.5	3.0	8.22	2.00	4.1	11.63	2.00	5.8	11.63	2.00	5.8	See Mechanical	See Mechani
	6	0.99	1.0	1.0	1.95	1.0	1.9	3.60	1.00	3.6	5.09	1.50	3.4	5.09	1.50	3.4	Joint Restraint Table	t Joint Restrai
Medium dense sands, firm to stiff clays and silts	8	1.76	1.0	1.8	3.46	1.0	3.5	6.39	1.50	4.3	9.04	2.00	4.5	9.04	2.00	4.5		
	12	3.97	1.5	2.6	7.79	1.5	5.2	14.39	2.50	5.8	20.35	3.00	6.8	20.35	3.00	6.8		
Loose sands, firm clays, alluvial fills	6	1.24	1.0	1.2	2.43	1.0	2.4	4.50	1.50	3.0	6.36	1.50	4.2	6.36	1.50	4.2		
	8	2.21	1.0	2.2	4.33	1.5	2.9	7.99	2.00	4.0	11.30	2.00	5.7	11.30	2.00	5.7	-	
	12	4.96	1.5	3.3	9.73	2.0	4.9	17.98	3.00	6.0	25.43	3.00	8.5	25.43	3.00	8.5		
	6																•	•
Uncompacted fill, peat, soft clays	8 Unsuitable bearing material for thrust block use. Use Mechanical restraints (see mechan							echanical	chanical restraint table)									



#### WATER MAIN & SERVICE TRENCH NOT TO SCALE

#### NOTES (UNLESS OTHERWISE SPECIFIED ON THESE DRAWINGS):

- 1. COMMON BACKFILL MATERIAL SHALL BE NATIVE MATERIAL CONTAINING NO STONES GREATER THAN SIX INCHES IN DIAMETER, SHALL BE FREE OF ORGANIC MATTER, TOPSOIL, PEAT, MUCK, AND PAVEMENT OR OTHER UNSUITABLE MATERIAL. ALL MATERIAL TO BE PLACED IN 12" MAX. LIFTS COMPACTED BEFORE PLACING NEXT LIFT. BACKFILL DESIGNATED "COMPACTED" MEANS 90% MODIFIED PROCTOR. FILL PLACED BELOW AND AROUND PIPES MUST ALSO
- 2. GRAVEL SUBBASE MATERIAL SHALL MEET VAOT 704.05 SPECIFICATIONS OR ENGINEER APPROVED EQUAL. MATERIAL SHALL BE PLACED IN 12" MAX. COMPACTED LIFTS.
- 3. BEDDING MATERIAL BEDDING SHALL PROVIDE FIRM, UNIFORM SUPPORT OVER LENGTH OF PIPE. BEDDING SHALL BE CLEAN SAND AND MEET PIPE EMBEDMENT SPECIFICATIONS AS NOTED IN CONTRACT SPECIFICATIONS.
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE REFILL WITH BEDDING MATERIALS (SEE NOTE 5.) SUITABLE MATERIAL IN ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SHALL BE NATURAL MATERIALS EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED BEDROCK MATERIAL AND ALL

ROCKS OVER SIX INCHES OR ANY MATERIALS WHICH DETERMINED BY THE ENGINEER, WILL NOT PROVIDE

- SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITIONS 6. SHEETING IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 12" ABOVE THE TOP OF THE PIPE. WHERE THE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST5 FEET BELOW
- 7. CONTRACTOR TO PROVIDE NECESSARY GRADATION TESTS OF ALL MATERIALS FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 8. IF ROADWAY FABRIC IS PRESENT, CUT BACK SUBBASE TO PROVIDE PROPER MANUFACTURERS RECOMMENDED LAP JOINT. FABRIC TO BE MIRAFI 500X OR APPROVED EQUAL.

FINISH GRADE, BUT NOT LESS THAN 12" ABOVE THE TOP OF THE PIPE.

# Minimum mechanically restrained pipe length when used in Lui of thrust block (8" C-900 PVC)

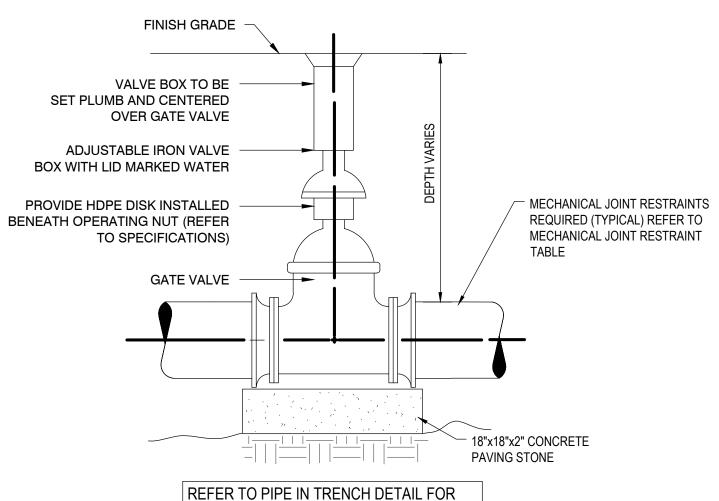
	¹ Minimum Restraint Length						
Restraint	4'	5'	6'				
	Bury Depth	Bury Depth	Bury Depth				
11.25 Bend	3	2	2				
22.5 Bend	5	4	3				
45 Bend	9	7	6				
90 Bend	21	17	15				
Valve	63	51	40				
Dead End	63	51	40				
Tee ¹	20	20	20				
Reducer 8" to 6"	27	22	18				
Reducer 8" to 4"	46	37	31				

1. All pipe joints within 20' of mainline tees shall contain mechanical joint restraints regardless of thrust block usage.

### Minimum mechanically restrained pipe length when used in Lui of thrust block (12" C-900 PVC)

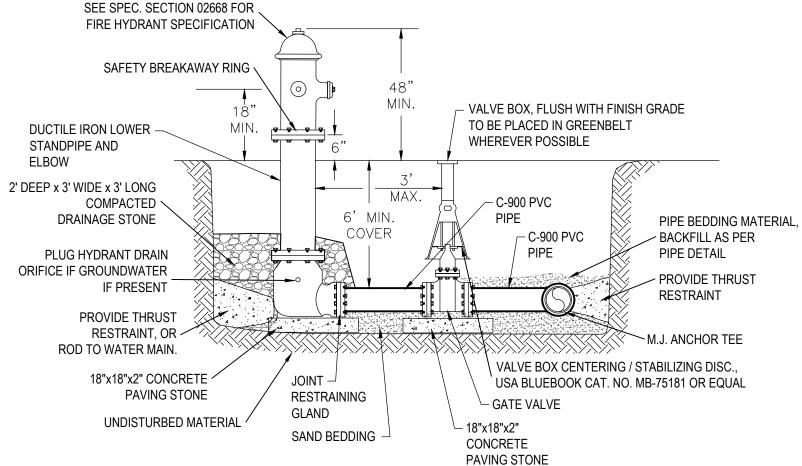
	¹ Minimum Restraint Length					
Restraint	4'	5'	6'			
	Bury Depth	Bury Depth	Bury Depth			
11.25 Bend	4	3	2			
22.5 Bend	6	5	4			
45 Bend	13	10	9			
90 Bend	30	24	21			
Valve	90	73	60			
Dead End	90	73	60			
Tee ¹	20	20	20			
Reducer 12" to 8"	48	39	33			
Reducer 12" to 6"	66	53	45			

1. All pipe joints within 20' of mainline tees shall contain mechanical joint restraints regardless of thrust block usage.



# GATE VALVE DETAIL NOT TO SCALE

BEDDING AND BACKFILL REQUIREMENTS

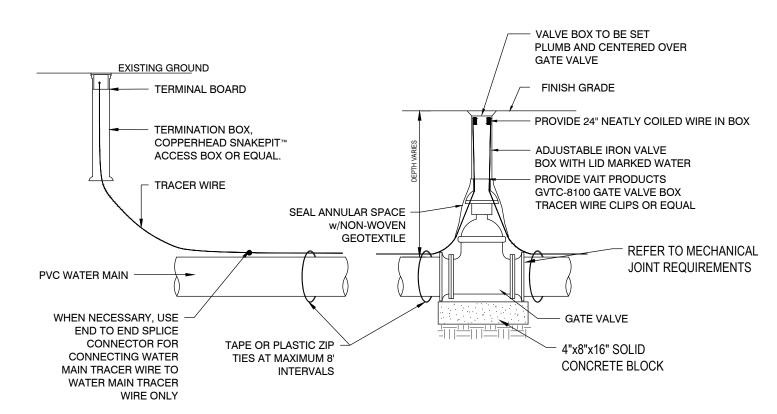


### TYPICAL HYDRANT ASSEMBLY DETAIL

### SCALE: NONE

NOTES:

- HYDRANT SHALL BE FULLY EXPOSED, OPEN LEFT, AND HAVE (2) 21/2" NTS HOSE CONNECTIONS AND
- (1) 4" PUMPER CONNECTION. SEE SPECIFICATIONS FOR ADDITIONAL INFO. ALL BRANCH PIPING AND FITTINGS SHALL BE MECHANICAL JOINT.
- HYDRANTS SHALL HAVE THE DRAIN PLUGGED IF GROUNDWATER IS FOUND TO BE PRESENT AT PROPOSED HYDRANT LOCATION.

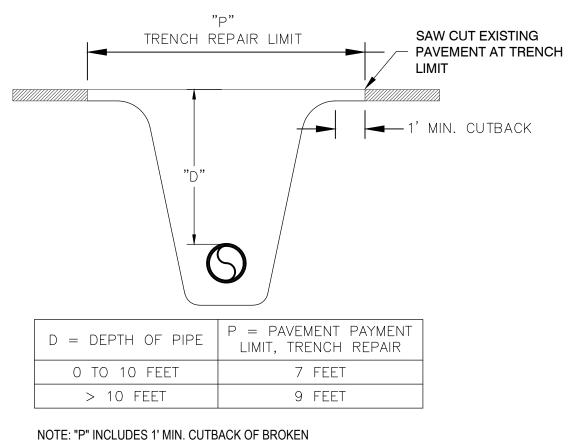


## TRACER WIRE FOR WATER MAINS DETAIL SCALE: NONE

# NOTES

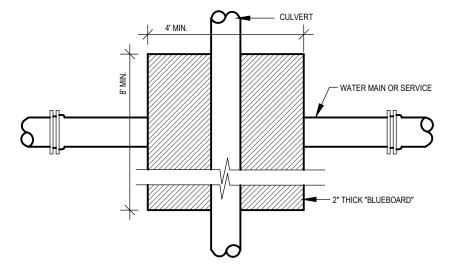
- FOR OPEN CUT INSTALLATION, TRACER WIRE IS TO BE #12 AWG SOLID COPPER WITH 30 MIL BLUE HMWPE INSULATION. 3" WIDE METALLIC WARNING TAPE INSTALLED OVER WATER MAIN (24" DEPTH) AND SERVICE LINE (12" DEPTH) PER
- FOR PVC WATER MAIN PIPE, TRACER WIRE IS TO RUN ALONG TOP OF AND BE SECURED TO WATER MAIN PIPE WITH PLASTIC STRAPS OR TAPE PLACED AT MAXIMUM 8 FEET INTERVALS.
- AT WATER VALVES TRACER WIRE IS TO RUN ALONG THE SIDE OF THE VALVE OR WHERE SPECIFIED RUN UP BOTH SIDES OF THE VALVE BOX WITH VAIT PRODUCTS GVTC-8100 GATE VALVE BOX TRACER WIRE CLIPS OR APPROVED
- TRACER WIRE IS TO BE CONNECTED TO TERMINATION BOX INSTALLED ADJACENT TO END POINTS OF NEW PVC WATER MAIN WHERE NECESSARY.

VTM ENGINEERING, 2941 SHELBURNE FALLS ROAI HINESBURG, VT 05461 (802) 233-7531 PRELIMINARY PLANS NOT FOR CONSTRUCTION PM AS SHOWN PROJECT NO. 22.1.3 DRAWING NO.

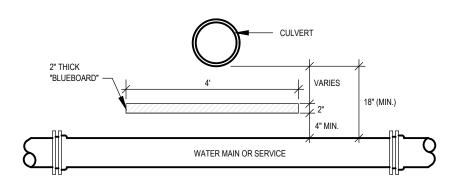


PAVEMENT ON EACH SIDE OF TRENCH

#### PAVEMENT PAYMENT LIMITS DETAIL SCALE: NONE

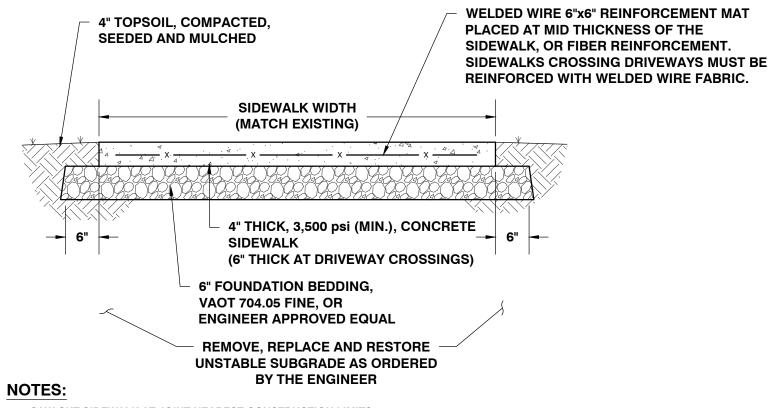


PLAN-WATER MAIN OR SERVICE INSULATION NOT TO SCALE



SECTION-WATER MAIN OR SERVICE INSULATION

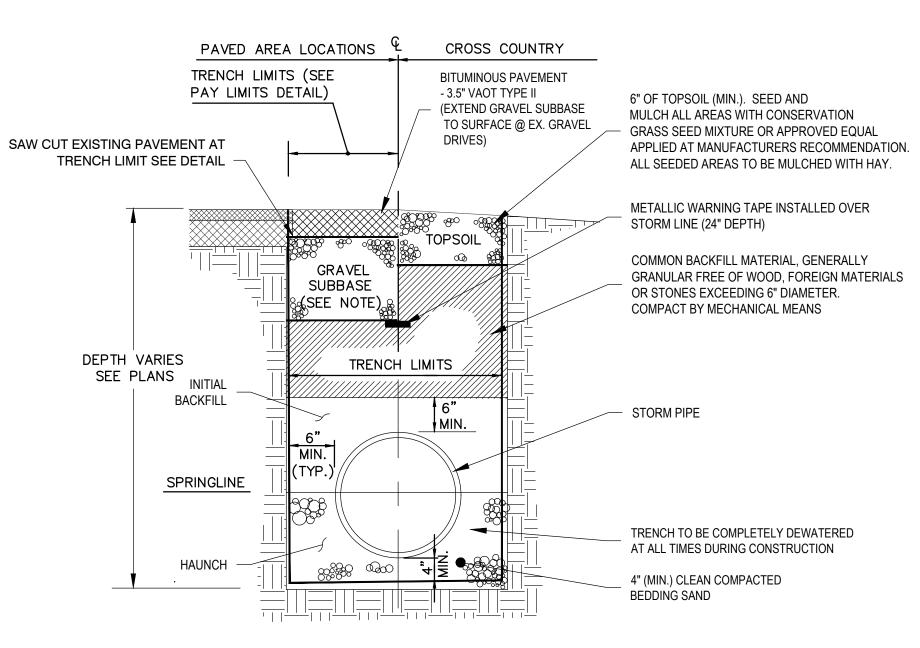
NOT TO SCALE



# 1. SAW CUT SIDEWALK AT JOINT NEAREST CONSTRUCTION LIMITS.

- 2. PLACE 1/2" PRE-MOLDED BITUMINOUS IMPREGNATED FELT EXPANSION JOINT MATERIAL, FULL WIDTH AND DEPTH OF WALK, BETWEEN NEW AND EXISTING WALKS.
- 3. THE GRAVEL OR STONE BASE SHALL BE PLACED ON A WELL GRADED AND COMPACTED SUBGRADE. THE
- GRAVEL OR STONE BASE SHALL BE THOROUGHLY COMPACTED. 4. ALL EXPOSED SURFACES SHALL BE BROOMED AND EDGES FINISHED WITH A  $\frac{1}{4}$ " RADIUS EDGING TOOL. THE
- FINISHED CONCRETE SURFACE SHALL BE TREATED WITH A CLEAR, NON YELLOWING CURING COMPOUND. 5. NO CONCRETE SHALL BE PLACED UNLESS THE AMBIENT AIR AND BASE MATERIAL SURFACE TEMPERATURE IS
- **ABOVE 40 DEGREES.**
- 6. ALL WORK SHALL CONFORM TO ADA REQUIREMENTS.

# **CONCRETE SIDEWALK** REPLACEMENT DETAIL

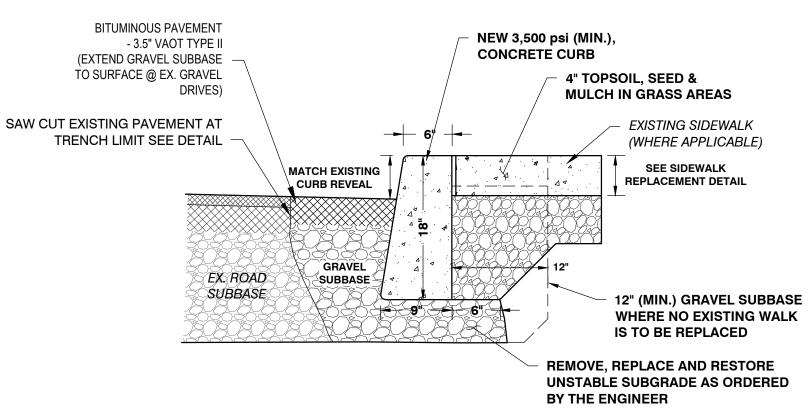


#### STORM TRENCH NOT TO SCALE

#### NOTES (UNLESS OTHERWISE SPECIFIED ON THESE DRAWINGS):

PRIOR TO CONSTRUCTION.

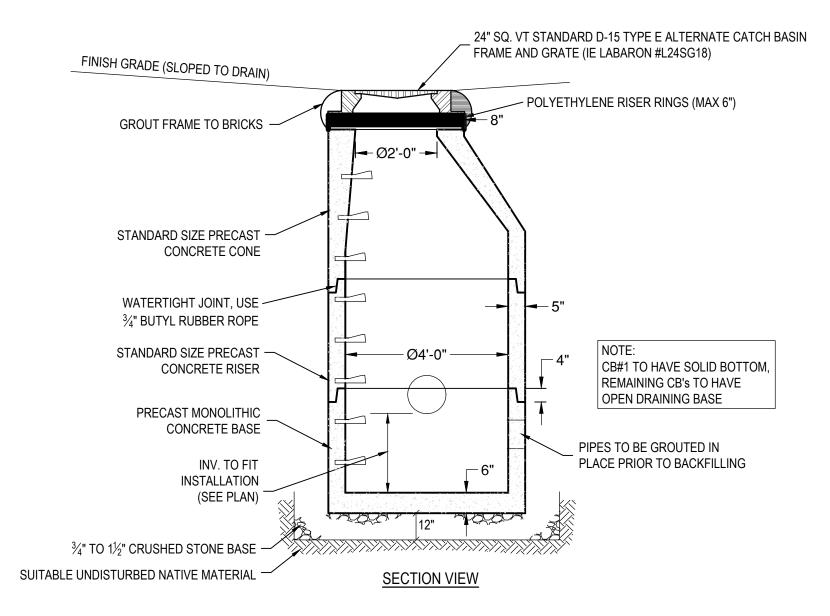
- 1. COMMON BACKFILL MATERIAL SHALL BE NATIVE MATERIAL CONTAINING NO STONES GREATER THAN SIX INCHES IN DIAMETER, SHALL BE FREE OF ORGANIC MATTER, TOPSOIL, PEAT, MUCK, AND PAVEMENT OR OTHER UNSUITABLE MATERIAL. ALL MATERIAL TO BE PLACED IN 12" MAX. LIFTS COMPACTED BEFORE PLACING NEXT LIFT. BACKFILL DESIGNATED "COMPACTED" MEANS 90% MODIFIED PROCTOR. FILL PLACED BELOW AND AROUND PIPES MUST ALSO
- 2. GRAVEL SUBBASE MATERIAL SHALL MEET VAOT 704.05 SPECIFICATIONS OR ENGINEER APPROVED EQUAL. MATERIAL SHALL BE PLACED IN 12" MAX. COMPACTED LIFTS.
- 3. BEDDING MATERIAL BEDDING SHALL PROVIDE FIRM, UNIFORM SUPPORT OVER LENGTH OF PIPE. BEDDING SHALL BE CLEAN SAND AND MEET PIPE EMBEDMENT SPECIFICATIONS AS NOTED IN CONTRACT SPECIFICATIONS.
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE REFILL WITH BEDDING MATERIALS (SEE NOTE 5.) SUITABLE MATERIAL IN ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SHALL BE NATURAL MATERIALS EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED BEDROCK MATERIAL AND ALL
- ROCKS OVER SIX INCHES OR ANY MATERIALS WHICH DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITIONS SHEETING IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER I SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 12" ABOVE THE TOP OF THE PIPE. WHERE THE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST5 FEET BELOW
- FINISH GRADE, BUT NOT LESS THAN 12" ABOVE THE TOP OF THE PIPE. 7. CONTRACTOR TO PROVIDE NECESSARY GRADATION TESTS OF ALL MATERIALS FOR APPROVAL BY THE ENGINEER
- 8. IF ROADWAY FABRIC IS PRESENT, CUT BACK SUBBASE TO PROVIDE PROPER MANUFACTURERS RECOMMENDED LAP JOINT. FABRIC TO BE MIRAFI 500X OR APPROVED EQUAL.



### **NOTES:**

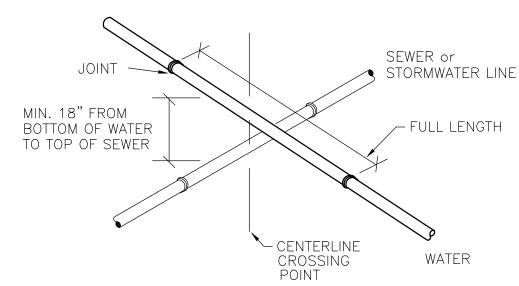
- 1. SAW CUT CURB/REMOVE EXISTING CURB AT JOINT NEAREST
- CONSTRUCTION LIMITS. 2. THE GRAVEL OR STONE BASE SHALL BE PLACED ON A WELL GRADED
- AND COMPACTED SUBGRADE. THE GRAVEL OR STONE BASE SHALL BE THOROUGHLY COMPACTED.
- 3. NO CONCRETE SHALL BE PLACED UNLESS THE AMBIENT AIR AND BASE
- MATERIAL SURFACE TEMPERATURE IS ABOVE 40 DEGREES. 4. ALL WORK SHALL CONFORM TO ADA REQUIREMENTS.

# CONCRETE CURB REPLACEMENT DETAIL



PRECAST STRUCTURES PER S.D. IRELAND PRE-CAST (OR EQUAL) CONCRETE SHALL BE 4000 PSI AT 28 DAYS PRECAST DESIGN SHALL BE SUITABLE FOR H-20 LOADING EACH SECTION TO HAVE LIFTING HOLES CAST IN. LIFTING HOLES TO BE FILLED WITH WATER PLUG AFTER INSTALLATION EACH SECTION TO BE LABELED WITH C.B. DESIGNATION

#### TYPICAL CATCH BASIN NOT TO SCALE



- 1. NEW WATER MAINS SHALL BE LAID AT LEAST 10' FROM EXISTING SEWER LINES WHEN RUNNING PARALLEL AND AT SAME ELEVATION.
- 2. WHERE A NEW WATER MAIN CROSSES OVER AN EXISTING SEWER LINE THERE WILL BE A MINIMUM VERTICAL SEPARATION DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER AND THE OUTSIDE OF THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO AS BOTH JOINTS ARE AS FAR FROM THE SEWER AS POSSIBLE.
- 3. WHERE A NEW WATER MAIN CROSSES UNDER AN EXISTING SEWER LINE THERE WILL BE A MINIMUM VERTICAL SEPARATION DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER AND THE OUTSIDE OF THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO AS BOTH JOINTS ARE AS FAR FROM THE SEWER AS POSSIBLE. BOTH JOINTS OF THE CROSSING WATER LINE SECTION SHALL BE CONCRETE ENCASED AND THE SEWER PROPERLY SUPPORTED.

WASTEWATER or WATER/STORMWATER

NG, PLC				
ROAD				
	REV.	DATE	DESCRIPTION	ВУ

VTM ENGINEERIN 2941 SHELBURNE FALLS R HINESBURG, VT 05461 (802) 233-7531

PRELIMINARY PLANS NOT FOR CONSTRUCTION

AS SHOWN PM PROJECT NO. 22.1.3 DRAWING NO.

#### **CONSTRUCTION NOTES**

#### 1. TRAFFIC CONTROL

UNIFORM TRAFFIC CONTROL SHALL BE PROVIDED FOR THE DURATION OF THE PROJECT.

#### SCHEDULE & PHASING PLAN

WITHIN 7 DAYS OF BID AWARD, SELECTED CONTRACTOR SHALL PROVIDE ENGINEER AND OWNER WITH A PROPOSED PROJECT SCHEDULE AND A PHASING PLAN FOR REVIEW. SCHEDULE SHALL BE REFLECTIVE OF THE TIMELINES OUTLINED IN THE SPECIFICATIONS. ENGINEER AND OWNER SHALL PROMPTLY REVIEW AND PROVIDE FEEDBACK TO THE CONTRACTOR. ENGINEER SHALL HAVE SOLE AUTHORITY TO ACCEPT OR REJECT THE CONTRACTORS PHASING PLAN OR RECOMMEND CHANGES/MODIFICATIONS.

#### TRAFFIC CONTROL PLAN

WITHIN 14 DAYS OF PROJECT, AWARD SELECTED CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN FOR THE FIRST PHASE OF CONSTRUCTION FOR REVIEW BY ENGINEER. ALL TRAFFIC CONTROL FEATURES SHALL MEET CURRENT MUTCD STANDARDS. SELECTED CONTRACTOR SHALL PROVIDE ENGINEER WITH PROPOSED TRAFFIC CONTROL PLANS FOR EACH NEW PHASE OF CONSTRUCTION AT LEAST 7 DAYS IN ADVANCE OF EACH NEW PHASE. TRAFFIC CONTROL PLANS SHALL CONSIDER IMPACTS ON WORKERS SAFETY, THE TRAVELING PUBLIC, EMERGENCY SERVICES, SCHOOL BUSSES, PARKING FOR RESIDENTS AND COMMERCIAL CUSTOMERS, ETC. ENGINEER SHALL PROMPTLY REVIEW EACH PLAN AND PROVIDE FEEDBACK TO THE CONTRACTOR. ENGINEER SHALL HAVE SOLE AUTHORITY TO ACCEPT OR REJECT SUCH PLANS AND REQUIRE MODIFICATIONS TO ENSURE THAT ACCOMMODATIONS ARE MADE TO ADEQUATELY ADDRESS 3RD PARTY NEEDS. SUCH REVIEW IS NOT A SAFETY REVIEW, IT IS ONLY INTENDED TO ENSURE THAT IMPACTS TO OUTSIDE 3RD PARTIES ARE CONSIDERED (SUCH AS PARKING) AND IS NOT INTENDED TO NOR DOES IT RELIEVE THE CONTRACTOR FOR COMPLETE RESPONSIBILITY FOR SAFETY. THE CONTRACTOR SHALL PROVIDE A REPRESENTATIVE TO ATTEND A PUBLIC MEETING WITH THE OWNER AND ENGINEER TO PRESENT PLANS AND DISCUSS ALL 3RD/ PARTY CONCERNS IN ADVANCE OF THE WORK.

- UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY, THOSE SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE ENGINEER, OWNER, AND REPRESENTATIVES OF THE WATER DEPARTMENT, TELEPHONE COMPANY, ELECTRIC COMPANY, GAS COMPANY, SEWER DEPARTMENT, AND ANY OTHER UTILITIES THAT MAY BE INVOLVED WITH THE CONSTRUCTION PROJECT TO COORDINATE THE MARKING, AND TIMING OF DISRUPTIONS OF VARIOUS UTILITIES. IF ANY, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS, ELEVATIONS, OR CONFLICTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR REPAIR OF ANY SUCH DAMAGE AS QUICKLY AS POSSIBLE AT HIS/HER OWN EXPENSE. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF REPAIR MATERIALS AND PIPE ON THE JOB SITE AT ALL TIMES IN ORDER TO MINIMIZE THE INCONVENIENCE CAUSED BY SUCH
- ONCE ABANDONED, THE CONTRACTOR SHALL PERMANENTLY PLUG ALL EXISTING WATER LINES, PLUGS SHALL BE INSTALLED AT THE POINT WHERE THEY ARE DISCONNECTED UNLESS THEY ARE TO REMAIN IN SERVICE. ABANDONED VALVE RISERS AND CURB STOP EXTENSIONS SHALL BE REMOVED TO THE TOP OF THE PIPE. THIS WORK SHALL
- BE CONSIDERED INCIDENTAL TO THE CONTRACT. ABANDONED FIRE HYDRANTS AND ASSOCIATED PIPING SHALL BE REMOVED TO A DEPTH OF 5 FEET BELOW GRADE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

#### 3. WATER UTILITY CONSTRUCTION

- THE CONTRACTOR SHALL USE ONLY DESIGNATED BENCH MARKS FOR REFERENCE ELEVATIONS. WHICH SHALL BE PROVIDED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- ADDITIONAL FITTINGS & BENDS AS NECESSARY SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST IN ORDER TO FURNISH A COMPLETE & FUNCTIONAL SYSTEM.
- EXISTING WATER MAINS ARE UNDER PRESSURE. THE CONTRACTOR IS ADVISED TO TAKE PRECAUTIONS TO AVOID DAMAGE OR "BLOW OUT" OF EXISTING WATER MAINS FROM THE SIDES OF THE TRENCHES DURING CONSTRUCTION. HAND EXCAVATION AS WELL AS TEMPORARY SHEETING AND BRACING MAY BE REQUIRED.
- THE CONTRACTOR SHALL INSTALL A MECHANICAL PLUG IN THE END OF THE PIPE AT THE COMPLETION OF EACH WORK DAY TO SEAL IT FROM WATER AND SOIL.
- ALL BURIED WATER PIPE SHALL BE PVC AWWA C-900 DR-18 (6"-12"Ø) PUSH ON TYPE JOINT UNLESS OTHERWISE NOTED. ALL FITTINGS AND APPURTENANCES SHALL BE MECHANICAL JOINT WITH MEGA-LUG OR EQUAL RETAINER GLANDS UNLESS OTHERWISE NOTED, AS PER SPECIFICATIONS.
- THRUST RESTRAINTS SHALL BE PROVIDED FOR ALL WATERLINE TEES & BENDS, AS OUTLINED ON THRUST RESTRAINT
- CONTRACTOR SHALL FULLY STAKE OR INDELIBLY MARK EACH SECTION OF LINE TO BE CONSTRUCTED STAKING SHALL CONSIST OF A WITNESS MARK AT EACH 50' STATION. AT EACH BEND LOCATION. AT EACH ACCESSORY (HYDRANT, AIR RELEASE, GATE VALVE, BLOW OFF, MANHOLE, CATCH BASIN, ETC...) STAKING SHALL BE COMPLETED AT LEAST 1000' AHEAD OF ANY CONSTRUCTION CREW AT ANY TIME AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH ASSISTANCE FROM THE ENGINEER AND THE OWNER.
- ASBESTOS-CEMENT (AC) PIPE IS CONSIDERED A HAZARDOUS SUBSTANCE. THE CONTRACTOR IS RESPONSIBLE FOR a.) TAKING THE PROPER PRECAUTIONS ASSOCIATED WITH WORKING WITH AC PIPE,
  - b.) ANY WORK WITH ASBESTOS CEMENT PIPE MUST COMPLY WITH ALL APPLICABLE VRAC, VOSHA, STATE OF VERMONT, AND OSHA REQUIREMENTS c.) AC PIPE SHALL BE ABANDONED IN PLACE WHEREVER POSSIBLE. WHERE ABANDONMENT IN PLACE IS NOT POSSIBLE,
- ALL AC PIPE REMOVED FROM THE PROJECT SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO OWNER

### 4. SITE WORK

- EXISTING FENCES. FLOWERS, BUSHES, TREES, MAILBOXES, SIGNS, CATCH BASINS, CULVERT HEADWALLS, ETC., REMOVED BY THE CONTRACTOR SHALL BE REPLACED TO AT LEAST THEIR ORIGINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR RECORDING PRE-CONSTRUCTION CONDITIONS BY USE OF PHOTOGRAPHS, VIDEO TAPES, AND OTHER METHODS. THE COST OF THIS PRE-CONSTRUCTION DOCUMENTATION SHALL BE CONSIDERED INCIDENTAL TO THE
- SOME MAILBOXES AND SIGNS ARE NOT SHOWN ALONG PROJECT ROUTE FOR REASONS OF CLARITY. IF REMOVED TO
- FACILITATE CONSTRUCTION, THE CONTRACTOR SHALL RESET ALL MAILBOXES AND SIGNS AS SOON AS POSSIBLE. THE CONTRACTOR SHOULD NOTE SPECIAL CONDITIONS IN THE SPECIFICATIONS REGARDING TREES, PLANTS, SHRUBS,
- GRASS TURF, TREE ROOT FERTILIZATION, TIME LIMITATIONS, AND OTHER RELATED REQUIREMENTS. TREES LOCATED WITHIN THE R.O.W OR ANY CONSTRUCTION EASEMENT LIMIT SHALL NOT BE TRIMMED, DAMAGED, OR
- DESTROYED WITHOUT PERMISSION FROM THE PROPERTY OWNER ON A LOCATION BY LOCATION BASIS.
- THE CONTRACTOR SHALL ENTER INTO ONLY WRITTEN AGREEMENTS AS TO STAGING AREAS AND STORAGE AREAS. A COPY OF THE AGREEMENT SHALL BE PROVIDED TO THE OWNER PRIOR TO THE USE OF THE SITE OR AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HOLDING UTILITY POLES AS NECESSARY. COSTS FOR WORKING NEAR AND AROUND UTILITY POLES SHALL BE PART OF THE UNIT PRICE BID FOR STORM DRAINS. CONTRACTOR SHALL COORDINATE ALL UTILITY POLE HOLDING WITH THE POLE OWNER (UTILITY). ALL WORK SHALL BE IN CONFORMANCE WITH THE UTILITY COMPANY REQUIREMENTS.

# RECORD DRAWINGS

- A. ALL BURIED UTILITIES ENCOUNTERED SHALL BE DOCUMENTED WITH DEPTH AND THREE (3) TIES AND SHOWN BY THE CONTRACTOR ON RECORD DRAWINGS.
- B. ALL NEW VALVES, FITTINGS, CURB STOPS, CORPORATION STOPS, WYES, AND SEWER CONNECTIONS SHALL BE DOCUMENTED WITH THREE (3) TIIES AND SHOWN BY THE CONTRACTOR ON THE RECORD DRAWINGS. THESE TIES SHALL IMMEDIATELY BE PROVIDED TO THE ENGINEER.

### CONNECTIONS TO EXISTING SYSTEM

- A. ALL WATER SERVICES ARE TO BE REPLACED WITH NEW SERVICES TO THE RIGHT-OF-WAY AND A NEW WATER CURB STOP INSTALLED. CONTRACTOR IS RESPONSIBLE TO MAKE FINAL CONNECTION TO EXISTING
- SERVICES AT THE R.O.W. ONCE THE NEW SYSTEM IS INSTALLED, TESTED, DISINFECTED, AND ACCEPTED. EXISTING WATER SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION. THE NEW WATER SYSTEM SHALL BE TESTED, INSPECTED, CHLORINATED, AND ITS USE AUTHORIZED PRIOR TO TRANSFERRING SERVICE TO
- THE NEW SYSTEM. NO FLOW SHALL BE ALLOWED IN THE NEW SYSTEM UNTIL AUTHORIZED BY THE OWNER. CONTRACTOR IS TO INSTALL ALL NEW GATE VALVES AT CONNECTIONS TO EXISTING WATER SYSTEM. FINAL CONNECTIONS TO THE EXISTING SYSTEM AS WELL AS CUTTING, CAPPING AND ABANDONMENT OF SECTIONS OF THE EXISTING SYSTEM SHALL BE DONE AFTER THE NEW SYSTEM IS ACCEPTED. FINAL CONNECTIONS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS.

### 7. SAFETY AND PROTECTION

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PROTECTION TO PREVENT DAMAGE, INJURY, OR LOSS TO:
  - a.) ALL EMPLOYEES ON THE WORK SITE AND OTHER PERSONS WHO MAY BE AFFECTED THEREBY b.) ALL THE WORK AND ALL MATERIALS OR EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON, OR OFF, THE SITE AND
  - c.) OTHER PROPERTIES AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES, AND UTILITIES NOT DESIGNATED FOR REMOVAL, RELOCATION. OR REPLACEMENT IN THE COURSE OF CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STANDARDS (SPECIFICALLY INCLUDING OSHA, VOSHA, AND ANY OTHER STATE ADOPTED OSHA PROGRAM), LAWS, ORDINANCES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS, AND SHALL ERECT AND MAINTAIN ALL NECESSARY SAFEGUARDS FOR SUCH SAFETY AND PROTECTION. CONTRACTOR SHALL NOTIFY OWNERS OF ADJACENT PROPERTY AND UTILITIES WHEN EXCAVATION OF THE WORK MAY AFFECT THEM.
- CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR THE SAFETY AND PROTECTION OF THE WORK SHALL CONTINUE UNTIL SUCH TIME AS THE WORK IS COMPLETED AND ACCEPTED BY THE OWNER.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE" AT 1-888-344-7233 PRIOR TO EXCAVATING IN CONSTRUCTION AREAS IN ORDER TO LOCATE BURIED UTILITIES.

#### **EROSION CONTROL & CONSTRUCTION SEQUENCE**

- EROSION CONTROL SHALL BE PROVIDED AS NECESSARY BY THE CONTRACTOR. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE VERMONT STATE STANDARDS AND SPECIFICATIONS LISTED BELOW. PREVENTATIVE EROSION CONTROL AND MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND ALL DISTURBED AREAS ARE TO BE IMMEDIATELY
- SILT FENCE AND SNOW FENCE SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION. THESE AREAS ARE CONSIDERED TO HAVE THE HIGHEST POTENTIAL FOR EROSION DUE TO THE PROXIMITY TO WETLANDS OR STREAMS. RESTORATIONS (TOPSOIL, MATTING, RAKING, SEED, FERTILIZER, AND MULCH) MEASURES IN THESE AREAS ARE CRITICAL AND SHALL BE COMPLETED WITHIN 48 HOURS OF
- FINAL GRADING. IN NO CASE SHALL WORK BE DONE IN THESE AREAS BETWEEN OCTOBER 15TH AND MAY 1ST. CONSTRUCTION SHALL PROCEED AREA BY AREA TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND COMPLETION OF GRADING, SEEDING AND MULCHING. THIS PROCEDURE IS INTENDED TO EXPOSE THE SMALLEST PRACTICAL LAND AREA AT ANY
- PARTICULAR ATTENTION SHALL BE GIVEN TO MAINTAINING THE STABILITY OF DOWN GRADIENT AREAS AND RUNOFF CONTROL WHERE POSSIBLE, ALWAYS AVOID CONCENTRATION OF STORM WATER RUNOFF
- ANY SOILS TEMPORARILY EXPOSED LONGER THAN SEVEN (7) DAYS OR IN ADVANCE OF PREDICTED LARGE STORMS SHALL BE
- ALL EXISTING INLETS AND INLETS INSTALLED DURING CONSTRUCTION SHALL BE PROTECTED FROM EROSION VIA A "DROP-IN" FILTER BAG PRODUCT (ADS FLEXSTORM OR EQUAL) AND SHALL BE REGULARLY MONITORED AND MAINTAINED/REPLACED THROUGHOUT CONSTRUCTION TO INSURE PROPER PERFORMANCE.
- UPON COMPLETION OF CONSTRUCTION AND ONCE ALL PERMANENT VEGETATIVE COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED.
- CONSTRUCTION SHALL BE CONDUCTED IN ACCORDANCE WITH THE VERMONT EROSION PREVENTION AND SEDIMENT CONTROL FIELD GUIDE AND THE LOW RISK SITE HANDBOOK FOR EROSION CONTROL AND SEDIMENT PREVENTION.
- SEE SPECIFICATIONS FOR MORE INFORMATION. REGULARLY SCHEDULED COMMERCIAL SWEEPING OF THE ENTIRE PROJECT AREA SHALL BE CONDUCTED (NOT TO EXCEED WEEKLY)

- CONTRACTOR SHALL PERFORM ALL WORK WITHIN EASEMENT LIMITS AND/OR RIGHTS-OF-WAY AS SHOWN ON THE PLANS EXCEPT WHERE TEMPORARY CONSTRUCTION EASEMENTS AND OTHER LEGAL AGREEMENTS ALLOW.
- TOPOGRAPHICAL SURVEY OBTAINED FROM GREEN MOUNTAIN ENGINEERING. PROPERTY LINES, RIGHTS-OF-WAY, AND EASEMENT LIMITS ARE SHOWN FOR CONSTRUCTION PURPOSES AND ARE NOT TO BE CONSTRUED AS BOUNDARY SURVEY INFORMATION. THIS IS NOT A BOUNDARY SURVEY AND VTM ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. RIGHTS-OF-WAY, PROPERTY LINES, AND EASEMENT BOUNDARIES ARE APPROXIMATE ONLY.

#### 10. TREE AND LANDSCAPING TRIMMING AND SHAPING

- ALL TREE AND LANDSCAPING TRIMMING AND/OR REMOVAL SHALL BE DONE UNDER THE SUPERVISION AND DIRECTION OF AN
- EXPERIENCED CERTIFIED ARBORIST OR LICENSED FORESTER.
- ALL DEBRIS, BRANCHES, MULCH AND LOOSE VEGETATION GENERATED DURING THE WORK ACTIVITIES SHALL BE COLLECTED AND PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR. ALL DISTURBED AREAS SHALL BE LEFT IN A CONDITION COMPARABLE TO THAT WHICH EXISTED PRIOR TO THE WORK.
- CONTRACTOR SHALL COORDINATE ALL TRIMMING AND REMOVAL ACTIVITIES WITH THE ENGINEER. ALL STUMPS REMAINING AFTER THE REMOVAL OF A TREE SHALL BE REMOVED BY GRINDING. STUMPS SHALL BE GROUND TO A
- MINIMUM DEPTH OF 6" BELOW GRADE. THE VOID REMAINING FROM GRINDING SHALL BE BACKFILLED WITH TOPSOIL AND SEEDED/MULCHED AS NECESSARY.

#### 11. PRESSURE TESTING, FLUSHING, DISINFECTION, BACTERIOLOGICAL SAMPLING

AND MORE FREQUENTLY IF NECESSARY OR AS DIRECTED BY THE ENGINEER.

- PRIOR TO PLACEMENT INTO OPERATION, THE NEWLY CONSTRUCTED PORTIONS OF THE WATER SYSTEM SHALL BE PRESSURE
  - TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600. FOLLOWING PRESSURE TESTING, THE NEWLY CONSTRUCTED PORTIONS OF THE WATER SYSTEM SHALL BE FLUSHED, PRESSURE TESTED, DISINFECTED, AND FLUSHED AGAIN. AFTER THIS PROCEDURE, AT LEAST TWO BACTERIOLOGICAL SAMPLES WILL BE COLLECTED FROM REPRESENTATIVE SAMPLE POINTS, COLLECTED AT LEAST 16 HOURS APART, OR 15 MINUTES APART AFTER AT LEAST A 16 HOUR REST PERIOD AS PER AWWA STANDARD C651. THE SAMPLES SHALL BE SENT TO A VERMONT DEPARTMENT OF

#### 12. MECHANICAL CONNECTIONS

- ALL BELOW GRADE CONNECTIONS SHALL BE MADE USING FLUOROCARBON TEE-BOLTS AND NUTS (BLUE BOLTS) OR STAINLESS STEEL. FLUOROCARBON BOLTS AND NUTS SHALL BE MANUFACTURED WITH HIGH STRENGTH LOW ALLOY STEEL MEETING THE
- SPECIFICATIONS OF AWWA C111/A21.111 ALL ABOVE GRADE CONNECTIONS (SUCH AS FIRE HYDRANTS) SHALL BE MADE USING STAINLESS STEEL BOLTS.
- ALL BELOW GRADE BOLTED CONNECTIONS SHALL BE WRAPPED WITH 6-MIL (MINIMUM THICKNESS) POLY WRAP. POLY WRAP SHALLE
- MECHANICAL JOINT (MJ) FITTINGS ARE REQUIRED FOR ALL TEES, REDUCERS AND MAINLINE VALVES. REFER TO MECHANICALLY RESTRAINED JOINT TABLES.

### NOTES:

TOPOGRAPHIC AND EXISTING FEATURES INFORMATION OBTAINED FROM FIELD SURVEYS AND REFERENCE PLANS.

HEALTH CERTIFIED LABORATORY FOR A TOTAL COLIFORM/E. COLI (ENZYME SUBSTRATE) TEST.

- THE VERTICAL DATUM IS NAD87. THE HORIZONTAL DATUM IS NAD83
- EXISTING GAS LINE LOCATIONS ARE APPROXIMATE UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY. THOSE SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE ENGINEER, OWNER AND REPRESENTATIVES OF THE WATER DEPARTMENT, TELEPHONE COMPANY, ELECTRIC COMPANY, GAS COMPANY, SEWER DEPARTMENT, AND ANY OTHER UTILITIES THAT MAY BE INVOLVED WITH THE CONSTRUCTION PROJECT TO COORDINATE THE MARKING, AND TIMING OF DISRUPTIONS OF VARIOUS UTILITIES,
- IF ANY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING UTILITY LOCATIONS AND ELEVATIONS. CONTRACTOR TO PROVIDE PROPOSED SEQUENCE OF CONSTRUCTION WITHIN 10 DAYS OF PROJECT AWARD. ALL EXISTING WSO'S (CURB STOPS) AND GATE VALVES SHALL BE TURNED OFF AND CURB BOXES / VALVE BOXES REMOVED UPON
- CONSTRUCTION COMPLETION. FILL AND REPAIR ALL CAVITIES LEFT AFTER BOX REMOVAL. CURB STOPS SHALL ALSO HAVE RODS REMOVED OR CUT @ VALVE PRIOR TO ABANDONMENT.
- PROPOSED WATER MAIN PIPE SHALL BE C900 PVC, DR 21.
- ALL WATER MAIN CURVES / DEFLECTIONS SHALL BE MIN. 500' RADIUS (12" WATER MAIN) OR PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND POTABLE WATER PIPES ON PARALLEL RUNS. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE BETWEEN ALL SANITARY SEWER AND POTABLE WATER PIPES AT CROSSINGS - SEE CROSSING DETAIL. MAINTAIN 5' HORIZONTAL CLEARANCE BETWEEN ALL STORM SEWER AND POTABLE WATER PIPES.
- 10. CONTRACTOR TO PROVIDE, INSTALL, AND MAINTAIN INLET FILTER UNITS ON ALL INLETS THROUGHOUT PROJECT. FILTER UNITS TO BE INSTALLED ON EXISTING INLETS PRIOR TO DISTURBANCE AND AT TIME OF INSTALLATION. INLET FILTER TO BE ADS FLEXSTORM, OR EQUAL -
- 11. ALL EXISTING PIPES TO BE DECOMMISSIONED AND ABANDONED WHICH ARE LEFT IN PLACE SHALL BE CAPPED / PLUGGED.
- 12. PRESSURIZED NATURAL GAS MAINS EXIST WITHIN THE PROJECT EXTENTS. CLOSE COORDINATION WITH NATURAL GAS PROVIDER IS REQUIRED TO PREVENT ACCIDENTAL IMPACTS.
- 13. ASSUME MINIMUM ONE LANE TRAFFIC AT ALL TIMES DURING CONSTRUCTION
- 14. SEE DETAILS AND SPECIFICATIONS FOR MORE INFORMATION.

/TM ENGINEERING, 941 SHELBURNE FALLS ROA INNESBURG, VT 05461 802) 233-7531 IMINARY R CONST PRELI OT FOF

CONSTRUCTION/GENERAL NOTES	BRISTOL WEST WATER REPLACEMENT PROJECT	TOWN OF BRISTOL 1 SOUTH STREET, BRISTOL VT 05443
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