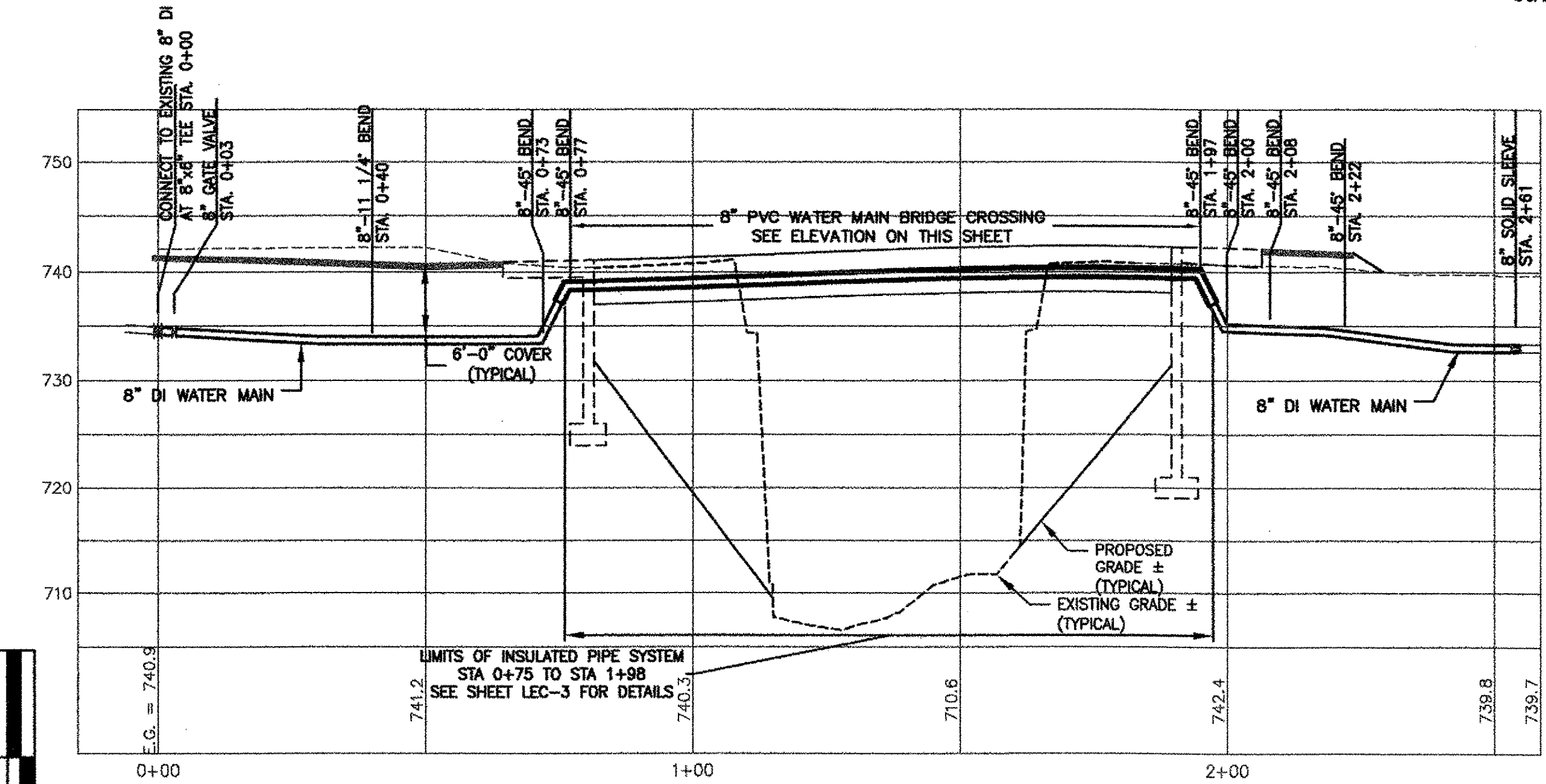


WATER MAIN PLAN
SCALE: 1" = 20'



WATER MAIN PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

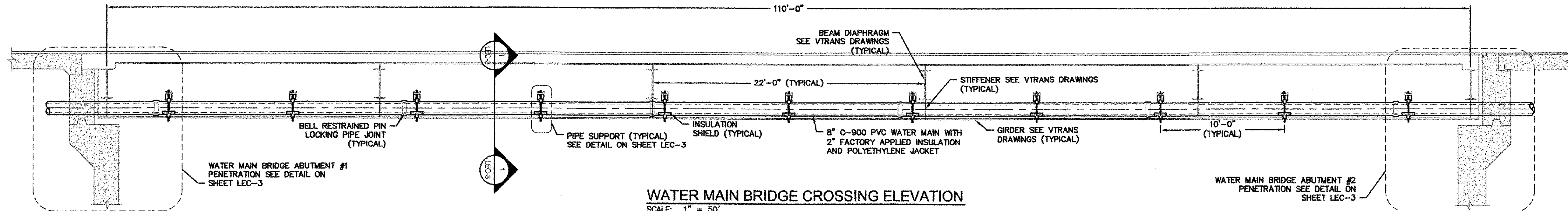


GENERAL NOTES

- THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS PROVIDED ARE DIAGRAMMATIC AND THAT THE CONTRACTOR IS REQUIRED TO PROVIDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. ALL PIPING SHALL BE COMPLETE, INCLUDING CONNECTIONS TO STRUCTURES AND PIPELINES BUILT BY OTHERS.
- TOPOGRAPHIC AND PROPOSED BRIDGE IMPROVEMENTS INFORMATION WERE PROVIDED BY VTRANS DRAWINGS DATED MAY 2, 2003.
- THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH THE VARIOUS UTILITIES IN ORDER TO PREVENT UNNECESSARY DELAY OF WORK OR INTERRUPTION OF SERVICES.
- EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. ALL UTILITIES SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR, NEITHER THE ENGINEER NOR THE OWNER WARRANTS OR GUARANTEES THE CONDITIONS SHOWN ON THE DRAWINGS. CONTRACTOR MUST CONTACT AND COORDINATE WITH "DIG-SAFE" AND THE VILLAGE FOR UTILITY LOCATION MARKINGS.
- DEPTHS OF EXISTING WATER LINES SHOWN ON PROFILES ARE ESTIMATED FROM BEST AVAILABLE INFORMATION AND SHALL BE LOCATED BY CONTRACTOR PRIOR TO STARTING INSTALLATION OF THE WATER MAIN. ADJUSTMENTS TO THE WATER MAIN SHALL BE MADE TO ACCOMMODATE THE EXISTING WATER MAIN.
- NO SINGLE PIECE OF PIPE SHALL BE LAID UNLESS IT IS GENERALLY STRAIGHT AND IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATION SECTION 629.06. THE CENTERLINE OF THE PIPE SHALL NOT DEVIATE FROM A STRAIGHT LINE BETWEEN CENTERS OF THE OPENINGS AT THE ENDS OF THE PIPE BY MORE THAN 1/16" PER FOOT OF PIPE. IF A PIECE OF PIPE CAN NOT MEET THESE REQUIREMENTS IT SHALL BE REJECTED AND REMOVED FROM THE SITE.
- CONTRACTOR SHALL PLUG & SEAL OPEN ENDS OF ALL UTILITIES TO BE ABANDONED.
- CONTRACTOR IS RESPONSIBLE TO NOTIFY VILLAGE WATER SUPERINTENDENT TO SCHEDULE ANY WATER MAIN SHUTDOWN. LOCAL RESIDENTS SHALL BE NOTIFIED IN COOPERATION WITH THE VILLAGE.
- ALL WORK SHALL BE WITHIN THE ROAD RIGHT-OF-WAY, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATION SECTION 629.
- 8" PVC WATER MAIN FOR BRIDGE CROSSING SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA C900 PRESSURE PIPE (4"-12") FOR WATER. PIPE SHALL INCORPORATE AN INTEGRAL BELL RESTRAINED LOCKING JOINT USING EXTERNAL RING AND PIN CONNECTION. EXPANSION AND CONTRACTION OF SYSTEM SHALL BE ACCOUNTED FOR IN PIPE JOINTS.
- PIPE AND FITTINGS SHALL BE THOROUGHLY CLEANED BEFORE INSTALLATION AND SHALL BE KEPT CLEAN DURING THE PROCESS OF CONSTRUCTION. THE CONTRACTOR SHALL PLUG OPEN ENDS OF PIPE TO AVOID CONTAMINATION DURING TIMES WHEN INSTALLATION IS NOT IN PROGRESS, EVEN INCLUDING BUT NOT LIMITED TO MID DAY BREAKS.
- EACH CLASS/TYPE OF PIPE SHALL BE FROM A SINGLE MANUFACTURER AND SHIPPED TO THE SITE IN ITS ORIGINAL PACKAGE WITH MARKINGS TO SHOW QUALITY OF CONTENTS AND BEARING LABELS. INSPECTION OF THE PIPE AND MATERIALS MAY BE MADE BY THE PROJECT REPRESENTATIVE AND SHALL BE SUBJECT TO REJECTION AT ANY TIME ON ACCOUNT OF FAILURE TO MEET SPECIFICATIONS. ANY MATERIALS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- PIPE, WHERE SPECIFIED, SHALL HAVE 2" RIGID POLYURETHANE FOAM INSULATION FACTORY APPLIED BY A VOID FREE INSULATION PROCESS. INSULATION MEET ASTM D1822 DENSITY AND ASTM D2856 FOR CLOSED CELL CONTENT AND PROTECTED BY A POLYETHYLENE OUTER JACKET. INSULATION OF ASSOCIATED JOINTS, FITTINGS AND ACCESSORIES SHALL BE PER MANUFACTURERS RECOMMENDATIONS. PIPE INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATION SECTION 629.15.
- POLYETHYLENE OUTER JACKET SHALL BE UV INHIBITED BLACK, FACTORY APPLIED JACKET WITH ENHANCED COLD CLIMATE HANDLING PROPERTIES. THE JACKET SEALANT SHALL BE BUTYL RUBBER ADHESIVE TO ENSURE POSITIVE ADHESION TO THE FOAM INSULATION AND SHALL BE APPLIED HOT IN TWO COUNTER WOUND AND OVERLAPPING LAYERS. JACKET THICKNESS SHALL BE 50 MILS. SERVICE TEMPERATURE RANGE SHALL BE -30°F TO 180°F FOR INSTALLATION AND -49°F TO 185°F FOR SERVICE.
- PIPES SHALL BE SUPPORT BY PIPE ROLLERS DESIGNED TO ALLOW HORIZONTAL MOVEMENT DUE TO EXPANSION AND CONTRACTION OF THE PIPE. SUPPORTS SHALL EQUALLY DISBURSE THE LOAD OF THE PIPE ACROSS THE BRIDGE SPAN USING THE PARAMETERS THAT AN 8" C900 PVC PIPE WEIGHS 9.1 LBS/FT AND CONTAINS 22.1 LBS/FT OF WATER, FOR SAFETY PURPOSES 35 LBS/FT SHALL BE THE TOTAL DESIGN WEIGHT.
- PIPE ROLLER SYSTEM SHALL BE CAST IRON WITH LOW CARBON STEEL AXLES. ALL BRACKETS FOR SUPPORT OF THE ROLLERS SHALL BE MADE FROM B-A53 STEEL AND BOLTS SHALL BE MADE FROM A325N STEEL. PIPE ROLLER SUPPORT SHALL COMPLY WITH FEDERAL SPECIFICATION A-A-1192A, TYPE 41 AND MANUFACTURERS STANDARDIZATION SOCIETY AP-69, TYPE 41, ROOLS, WASHERS, NUTS, ETC. REQUIRED FOR THE COMPLETE INSTALLATION OF PIPE ROLLER ASSEMBLY SHALL BE PROVIDED BY THE MANUFACTURER. ALL THREADED PARTS SHALL BE ELECTRO-PLATED ZINC PER ASTM B633, ALL OTHER COMPONENTS SHALL BE HOP-DIPPED GALVANIZED PER ASTM D123.

SEQUENCE OF CONSTRUCTION

- INSTALL TAPPING SLEEVE AND VALVE AT ROADWAY STATION 3+10. TEMPORARILY SHUT DOWN EXISTING WATER MAIN TO RELOCATE EXISTING HYDRANT AND INSTALL 8" GATE VALVE AT WATER MAIN STATION 0+03.
- TEMPORARY WATER SHALL BE CONNECTED BY ATTACHING TO EXISTING 6" HYDRANT STUB AFTER THE GATE VALVE. TRANSITION FITTINGS TO HDPE SHALL BE ACCEPTABLE OR BY INSTALLING A 2" CORPORATION WITH A TRANSITION TO 4" HDPE TEMPORARY WATER. TEMPORARY WATER SHALL RECONNECT AT THE EXISTING HYDRANT AT ROADWAY STATION 7+90. CONTRACTOR SHALL SUBMIT A METHOD TO CROSS RIVER CHANNEL WITH TEMPORARY WATER FOR REVIEW AND APPROVAL TO THE OWNER AND ENGINEER. ALL EXPOSED TEMPORARY WATER SHALL BE INSULATED WITH CIRCUMFERENTIAL INSULATION IF TEMPORARY WATER IS TO REMAIN IN SERVICE DURING THE WINTER MONTHS.
- ALL PORTIONS OF TEMPORARY WATER SHALL BE INSTALLED BEFORE ABANDONING EXISTING BRIDGE CROSSING. DISINFECT AND TESTING OF TEMPORARY WATER SHALL BE IN ACCORDANCE WITH ANR WATER SUPPLY DIVISION.
- WATER MAIN AND TEMPORARY WATER MAY BE INSTALLED PRIOR TO OR AFTER ROADWAY RECONSTRUCTION BUT NOT BEFORE ALL CHANNEL BLASTING HAS BEEN COMPLETED.



WATER MAIN BRIDGE CROSSING ELEVATION
SCALE: 1" = 50'

DATE	
NO.	
REVISIONS	
PLAN AND PROFILE 8" WATER MAIN BRIDGE #61, TH #3	
TOWN OF BARTON, VILLAGE OF ORLEANS, VERMONT	
DRAWN: EAE	SCALE: AS SHOWN
CHK'D: NPS	
APP'D: GAL	
DATE: 08/14/06	
LEC-1	
BARTON BRO 1449(29)	
SHEET 44 OF 84	

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