

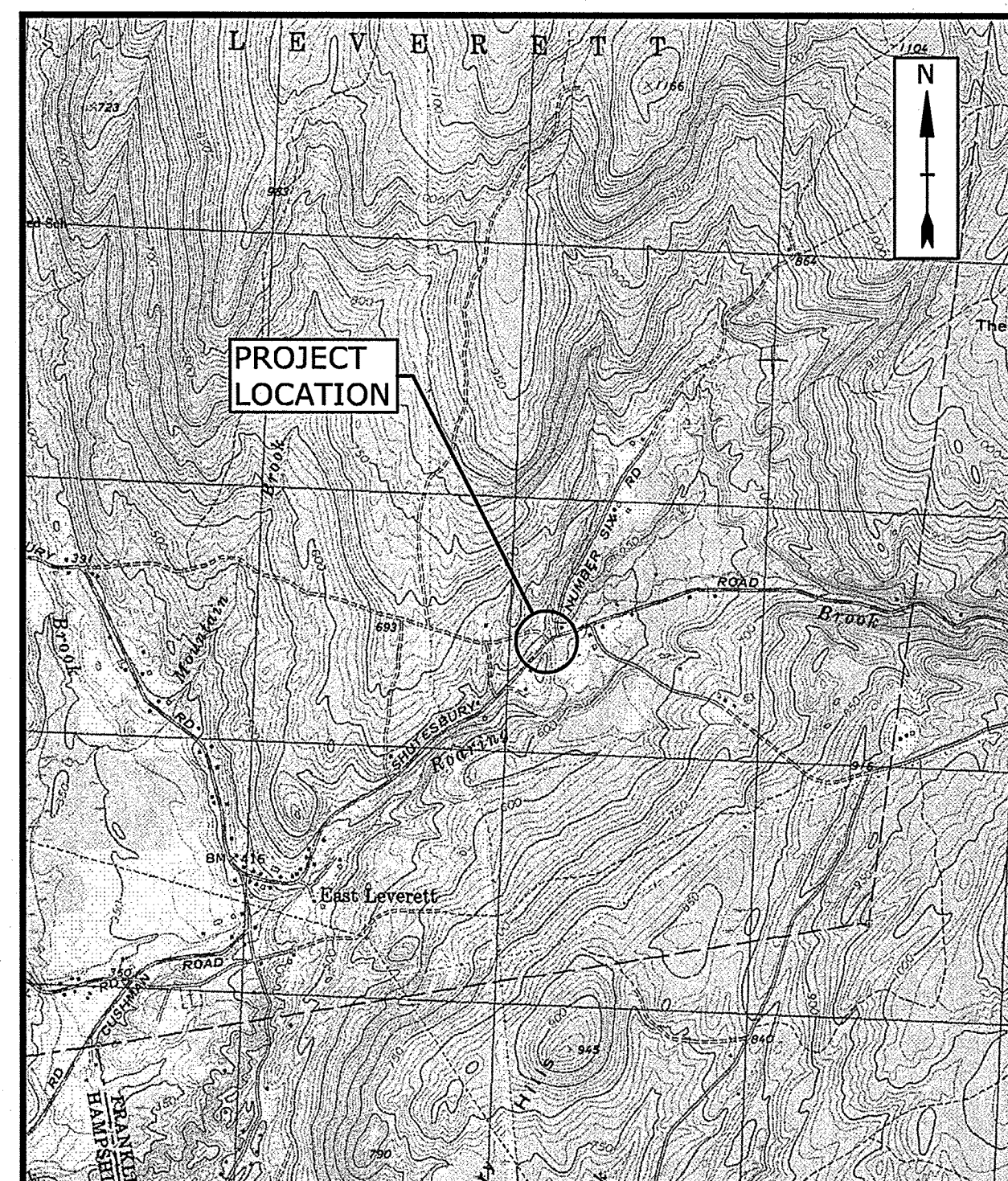
# TOWN OF LEVERETT, MASSACHUSETTS

## SHUTESBURY ROAD

### CULVERT REPLACEMENT PROJECT

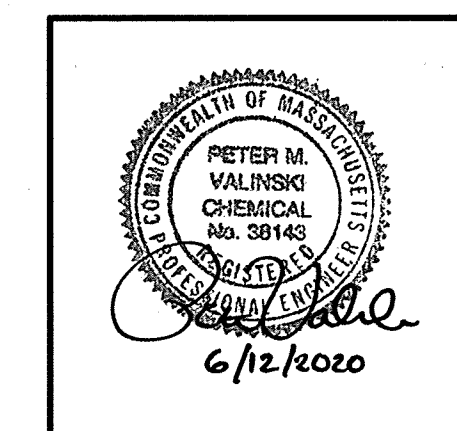
#### JUNE 2020

LIST OF DRAWINGS	
SHEET NO.	SHEET TITLE
G-001	COVER
G-002	LEGEND, ABBREVIATIONS AND GENERAL NOTES
C-101	EXISTING CONDITIONS PLAN
C-102	PROPOSED CONDITIONS PLAN
C-103	PROPOSED CONDITIONS PROFILE
C-104	WATER AND EROSION CONTROL DETAILS, ROADWAY AND CULVERT DETAILS
C-105	TEMPORARY TRAFFIC CONTROL

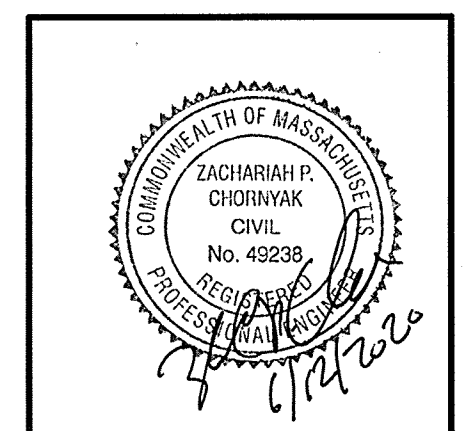


LOCATION MAP  
SCALE: 1"=2000'

PREPARED BY:  
**Tighe&Bond**



PETER M. VALINSKI, PE



ZACHARIAH P. CHORNYAK, PE

PREPARED FOR:  
TOWN OF LEVERETT

MARJORIE MCGINNIS, TOWN ADMINISTRATOR


**COMPLETE SET 7 SHEETS**

1. **THE BASE PLAN PREPARED BY NORTHEAST SURVEY CONSULTANTS, INC. ON JANUARY 6, 2020. EXISTING PROPERTY LINES ARE BASED ON AN ASSESSORS PLAN, AND ARE APPROXIMATE AND FOR ORIENTATION PURPOSES ONLY.**
2. **THE HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). THE VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). BOTH WERE DERIVED FROM RTK GPS OBSERVATIONS TAKEN ON SITE.**
3. **BOLD TEXT AND LINES INDICATE PROPOSED WORK. LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.**
4. **SOIL BORINGS WERE ADVANCED BY SEABOARD DRILLING, INC. ON 12/23/2019.**
4. **WETLAND RESOURCE AREAS WERE DELINEATED BY TIGHE & BOND ON 4/01/2020.**
5. **NOTIFY "DIGSAFE" AT 1-888-344-7233 TO ARRANGE FOR MARKING OUT EXISTING UNDERGROUND UTILITIES AT LEAST 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) PRIOR TO BEGINNING EXCAVATION AT ANY GIVEN LOCATION UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE ALLOWED TO START ANY KIND OF EXCAVATION WORK PRIOR TO OBTAINING ALL THE NECESSARY INFORMATION REGARDING THE LOCATION OF UNDERGROUND UTILITIES AT THE SITE. ACCOMPLISH ALL EXCAVATION SO THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED DURING EXCAVATION OPERATIONS. REPAIR ANY EXISTING PIPE OR UTILITY DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.**
6. **THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE LOCATION OF EXISTING UTILITIES. THE ENGINEER AND OWNER MAKE NO GUARANTEE AS TO THE UNDERGROUND CONDITIONS THAT MAY BE ENCOUNTERED.**
7. **FIELD MEASURE TO VERIFY EXISTING AND CONTRACT INTERFACE DIMENSIONS, LOCATIONS, AND OTHER CONDITIONS.**
8. **TEST PITS TO LOCATE EXISTING UTILITIES ARE STRONGLY ENCOURAGED AND MAY BE ORDERED BY THE ENGINEER.**
9. **IF CHANGES TO THE DESIGN ARE PROPOSED, THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE OWNER/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION (MAY REQUIRE PERMIT MODIFICATIONS OR NEW FORMAT(S)).**
10. **NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.**
11. **STORE FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE FROM THE SITE TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.**
12. **IMMEDIATELY REPORT SPILLS OF OIL AND/OR HAZARDOUS MATERIALS (OHM) TO THE MASSDEP.**
13. **PROVIDE A SUFFICIENT SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS, SUCH AS BOOMS OR BLANKETS, AT THE CONSTRUCTION SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS.**
14. **FURNISH AND INSTALL TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR TRAFFIC THROUGH THE WORK AREA OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA.**
15. **MAKE NECESSARY ARRANGEMENTS TO PERFORM ANY WORK NEAR THE OVERHEAD UTILITIES PRIOR TO THE START OF CONSTRUCTION.**

1. RESTORE ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE LIMITS OF WORK TO ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
2. ALL PAVEMENT DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. PROTECT SURFACE FEATURES (E.G., WALLS, FENCES, MAIL BOXES, SIGNS, SIDEWALKS, CURBING, STAIRS, WALKWAYS, TREES, ETC.) FROM DAMAGE DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY SUPPORTS, WHEN APPROPRIATE.
4. IF REMOVAL OF SURFACE FEATURES IS REQUIRED IN ORDER TO PERFORM THE PROPOSED WORK, REMOVE THOSE SITE FEATURES ONLY UPON APPROVAL OF ENGINEER. REPLACE ALL REMOVED SITE FEATURES; NEW ITEMS SHALL BE EQUAL OR BETTER IN QUALITY AND CONDITION TO THE ITEMS REMOVED.
5. EXISTING SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED BY A LAND SURVEYOR LICENSED IN MASSACHUSETTS AT NO ADDITIONAL COST TO THE OWNER.
6. REPAIR DISTURBED PAVED SURFACES AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.

EXISTING	NEW
	EDGE OF PAVEMENT
	GRAVEL DRIVE
	FENCE
	STORM DRAIN
	APPROXIMATE PROPERTY LINE
	OVERHEAD UTILITY LINES
	TREELINE
	THALWEG
	GUARDRAIL
	INDEX CONTOUR
	INTERMEDIATE CONTOUR
	CONTROL POINT
	BORING
345.4	PROFILE ELEVATIONS
	CATCH BASIN
	UTILITY POLE
	GUY WIRE
	SIGN
	PIPE OUTLET
	TEMPORARY COFFER DAM
	STONE HEADWALL
	EROSION CONTROL BARRIERS
	SURVEYED EDGE OF WATER (JANUARY 2020)
	MEAN ANNUAL HIGH WATER (MAHW)
	TOP OF BANK/ORDINARY HIGH WATER (OHW)
	VEGETATED WETLANDS LIMIT
	100-FOOT BUFFER ZONE
	TEMPORARY BENCH MARK
	RIPRAP
	TREE

APPROX	APPROXIMATE
BIT	BITUMINOUS
BWV	BORDERING VEGETATIVE WETLANDS
CFS	CUBIC FEET PER SECOND
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
D	DIAMETER
DPW	DEPARTMENT OF PUBLIC WORKS
ELY/ELEV	ELEVATION
EXIST	EXISTING
FIN	FINISHED
'	FEET/FOOT
"	INCH
HDPE	HIGH DENSITY POLYETHYLENE
H	HEIGHT
HMA	HOT MIX ASPHALT
INV	INVERT ELEVATION
IP	IRON PIN
L	LENGTH
LF	LINEAR FEET
MASSDEP	MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
N/C	NOW/FORMERLY
O.C.	ON CENTER
OE	OVERHEAD ELECTRIC
PROP	PROPOSED
RD	ROAD
SF	SQUARE FEET
STA	SURVEY STATION
T	TOP
TBM	TEMPORARY BENCH MARK
TYP	TYPICAL
UP	UTILITY POLE
W	WIDTH



# Shutesbury Road Culvert Replacement Project

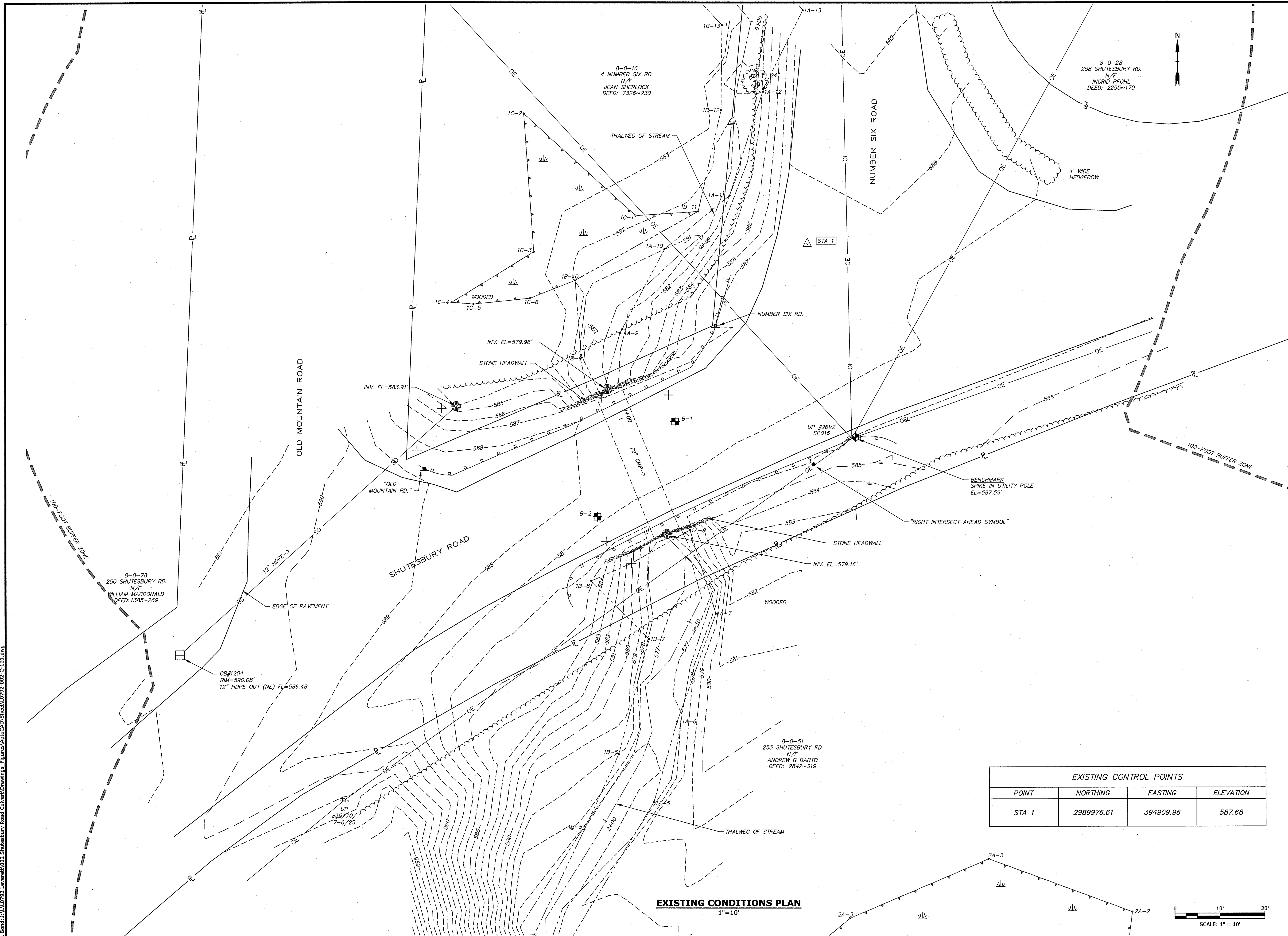

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DATE:	06/01/2020	
FILE:	L0792-002-G-002.dwg	
DRAWN BY:		
CHECKED:	DJP	
APPROVED:	PMV, ZPC	

SCALE: NO SCALE

**G-002**  
SHEET 2 OF 7

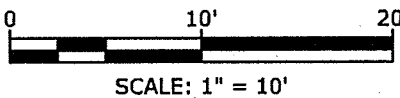


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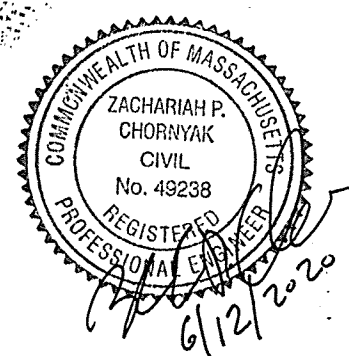
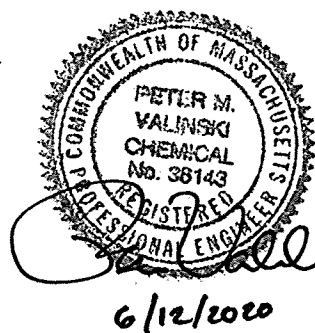


**EXISTING CONDITIONS PLAN**  
1"=10'

EXISTING CONTROL POINTS			
POINT	NORTHING	EASTING	ELEVATION
STA 1	2989976.61	394909.96	587.68



**Tighe & Bond**



**Town of  
Leverett**

**Shutesbury Road  
Culvert  
Replacement  
Project**

**Leverett,  
Massachusetts**

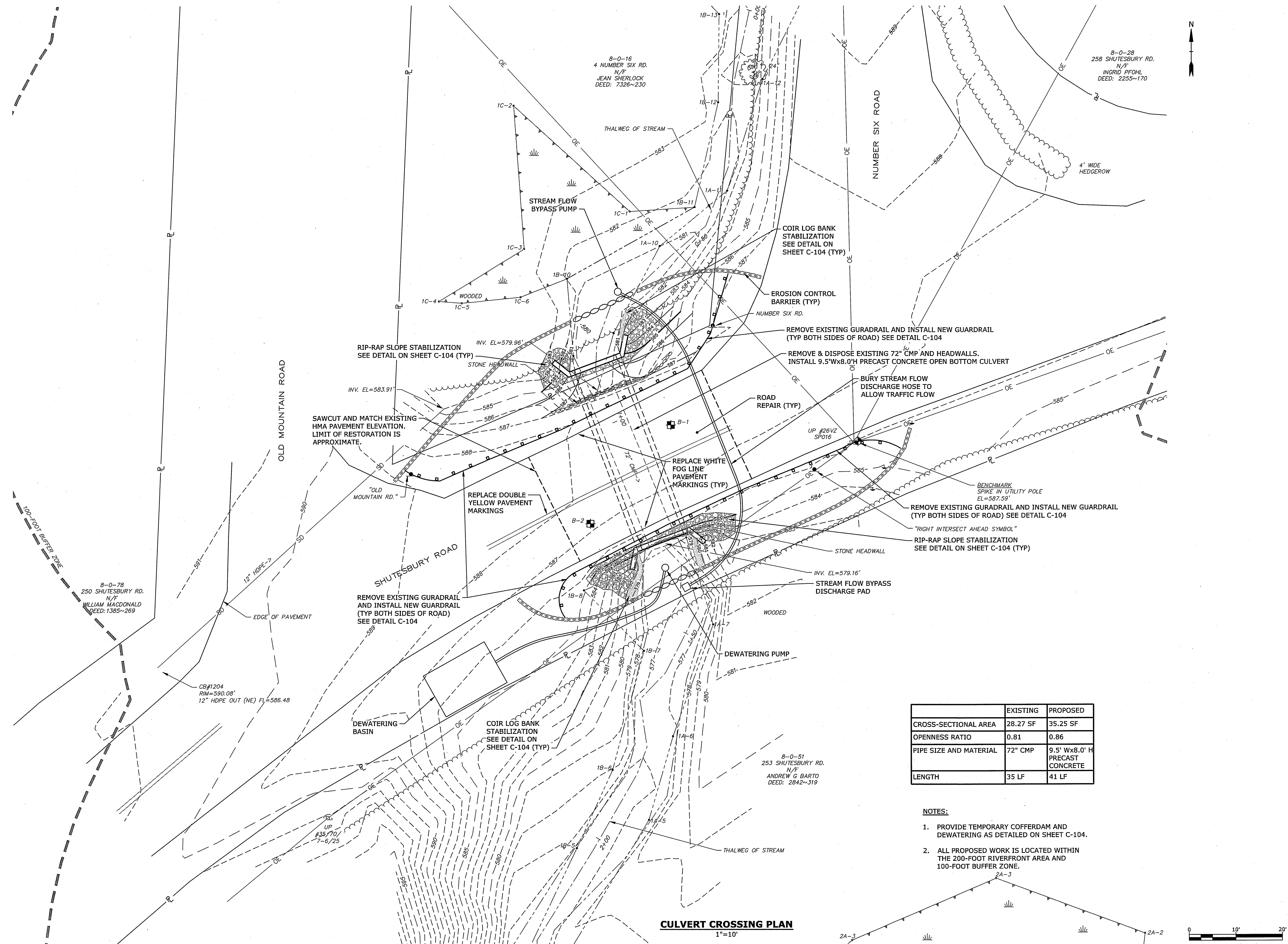
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DATE:	06/01/2020	
FILE:	L0792-002-C-101.dwg	
DRAWN BY:	TMP	
CHECKED:	DJP	
APPROVED:	PMV, ZPC	

**EXISTING CONDITIONS  
PLAN**

SCALE: 1"=10'

**C-101**  
SHEET 3 OF 7

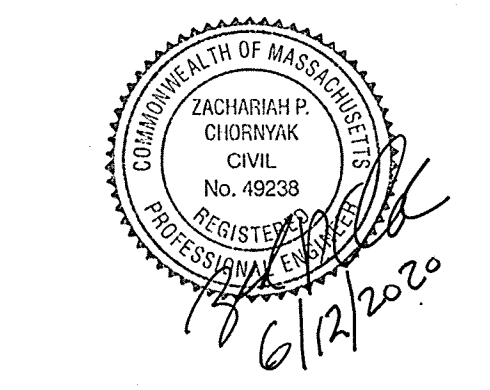
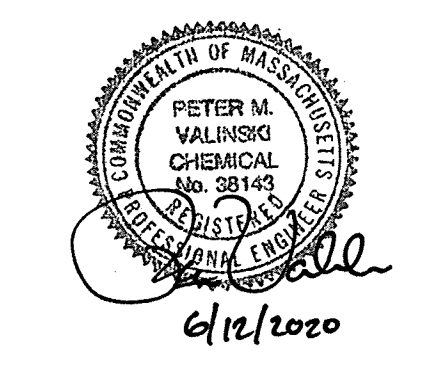
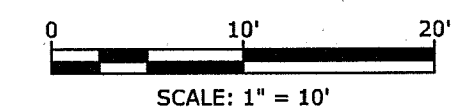
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 Tighe & Bond: 11/0792/002 Shutesbury Road Culvert Drawings Figures AutoCAD Sheet L0792-002-C-102.dwg



**CULVERT CROSSING PLAN**  
 1"=10'

	EXISTING	PROPOSED
CROSS-SECTIONAL AREA	28.27 SF	35.25 SF
OPENNESS RATIO	0.81	0.86
PIPE SIZE AND MATERIAL	72" CMP	9.5' Wx8.0' H PRECAST CONCRETE
LENGTH	35 LF	41 LF

- NOTES:**
1. PROVIDE TEMPORARY COFFERDAM AND DEWATERING AS DETAILED ON SHEET C-104.
  2. ALL PROPOSED WORK IS LOCATED WITHIN THE 200-FOOT RIVERFRONT AREA AND 100-FOOT BUFFER ZONE.



**Town of  
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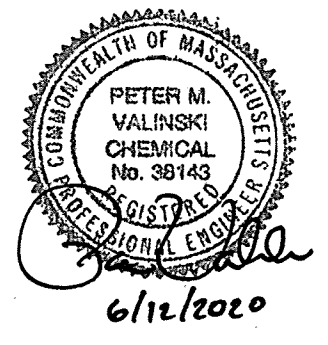
Leverett,  
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DATE:	06/01/2020	
FILE:	L0792-002-C-102.dwg	
DRAWN BY:	TMP	
CHECKED:	DJP	
APPROVED:	PMV, ZFC	

**PROPOSED CONDITIONS  
PLAN**

SCALE: 1"=10'

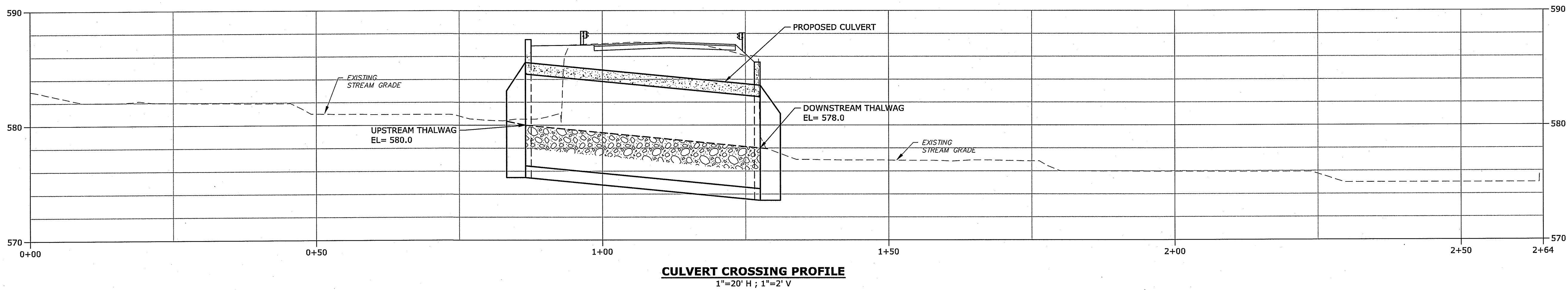
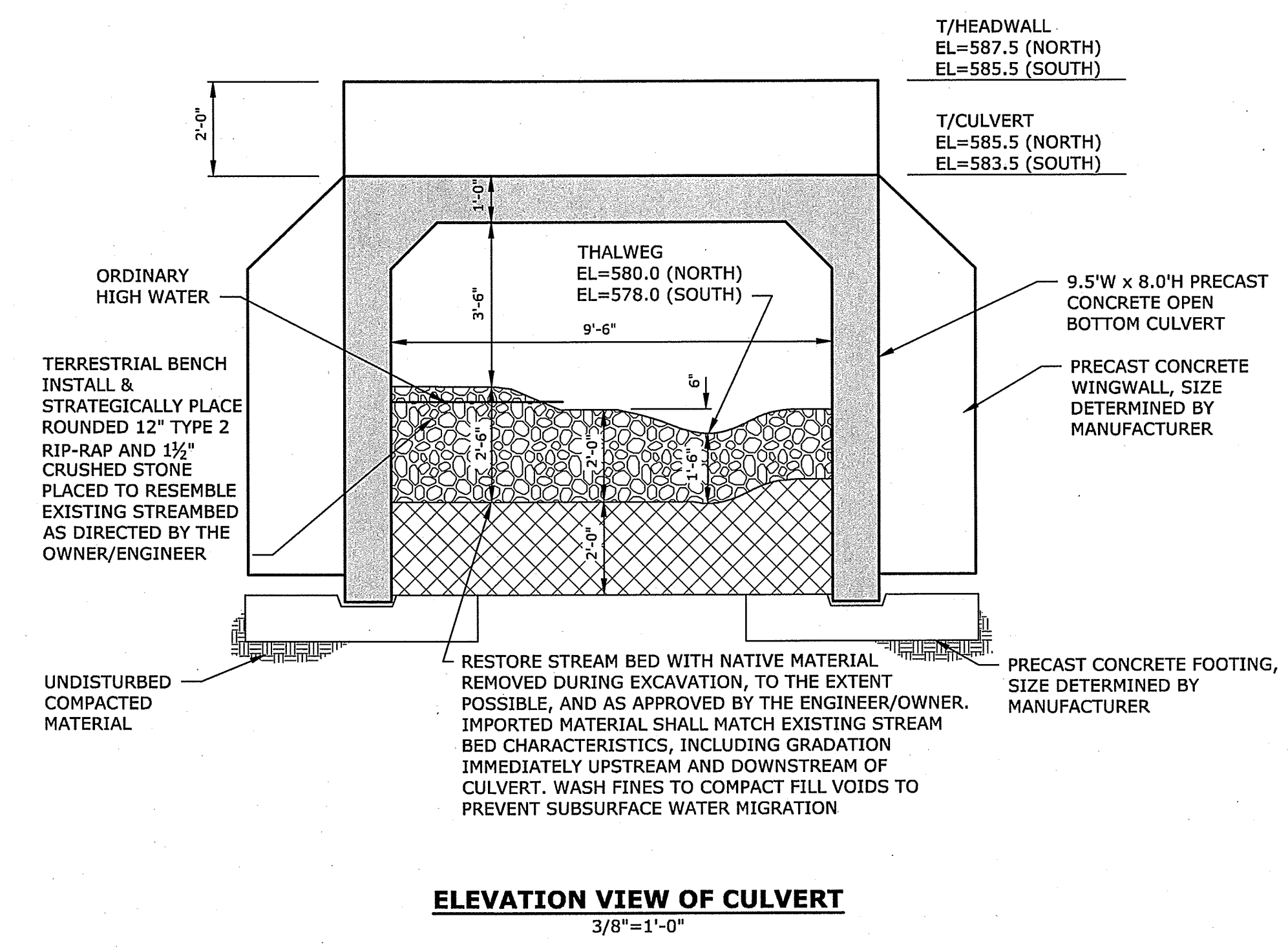
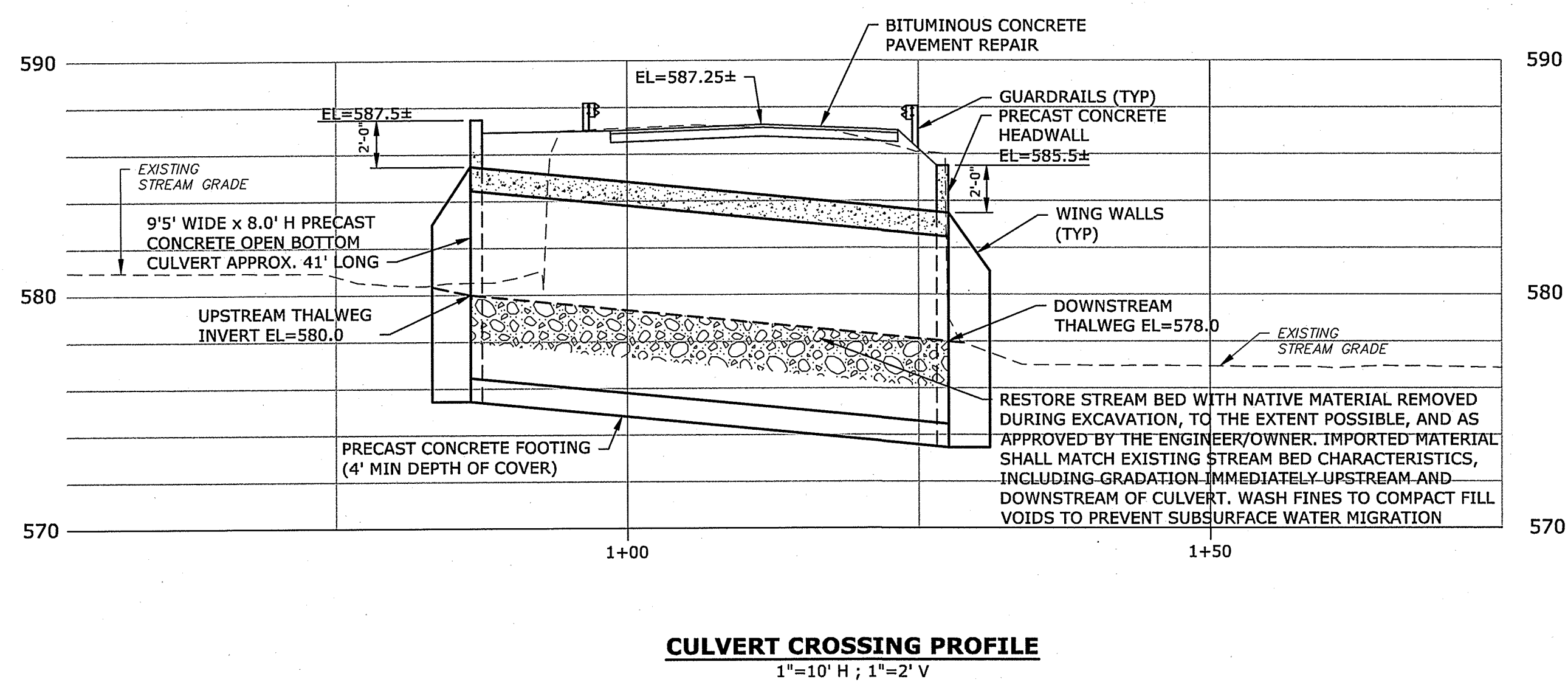




**Town of  
Leverett**

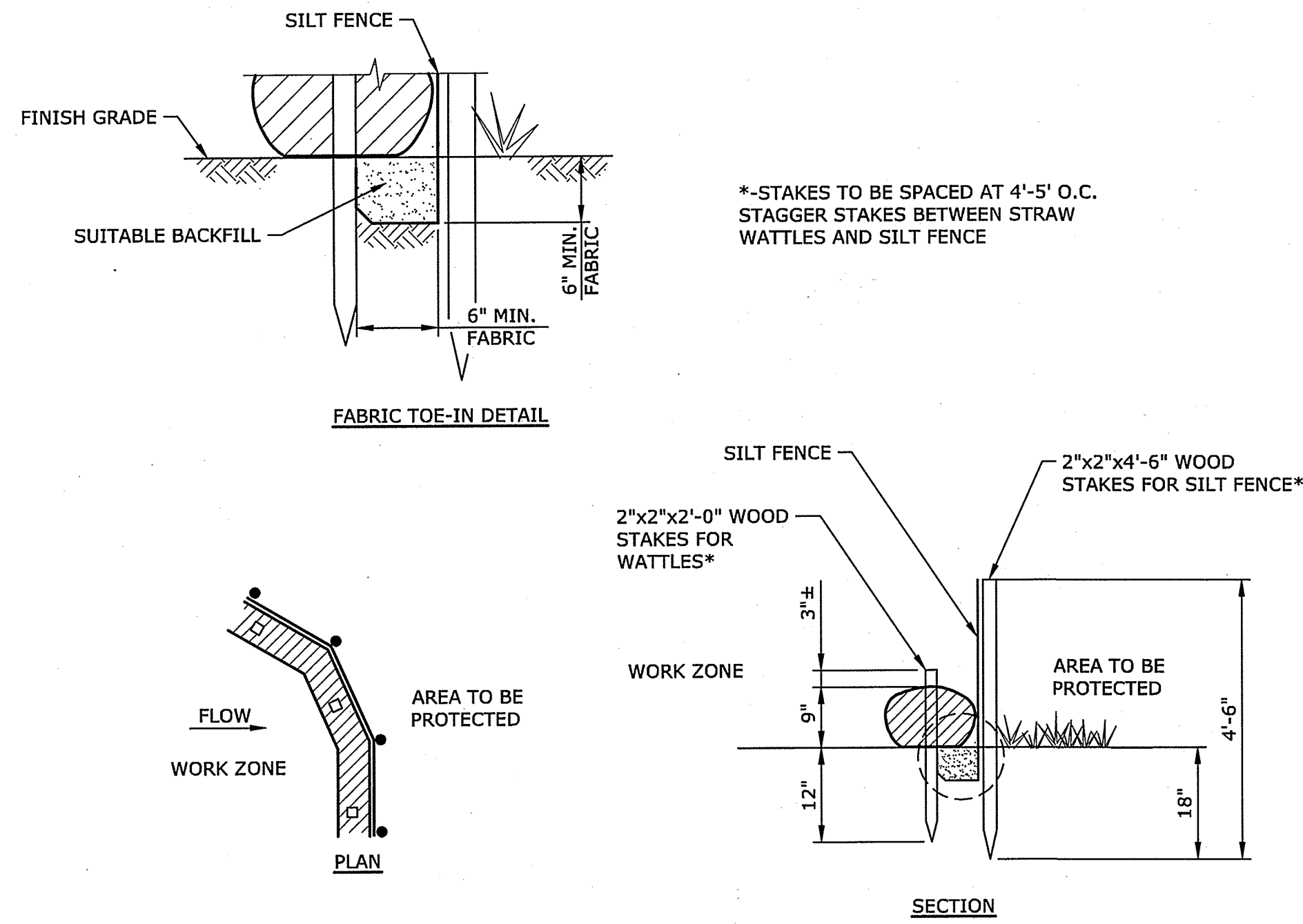
Shutesbury Road  
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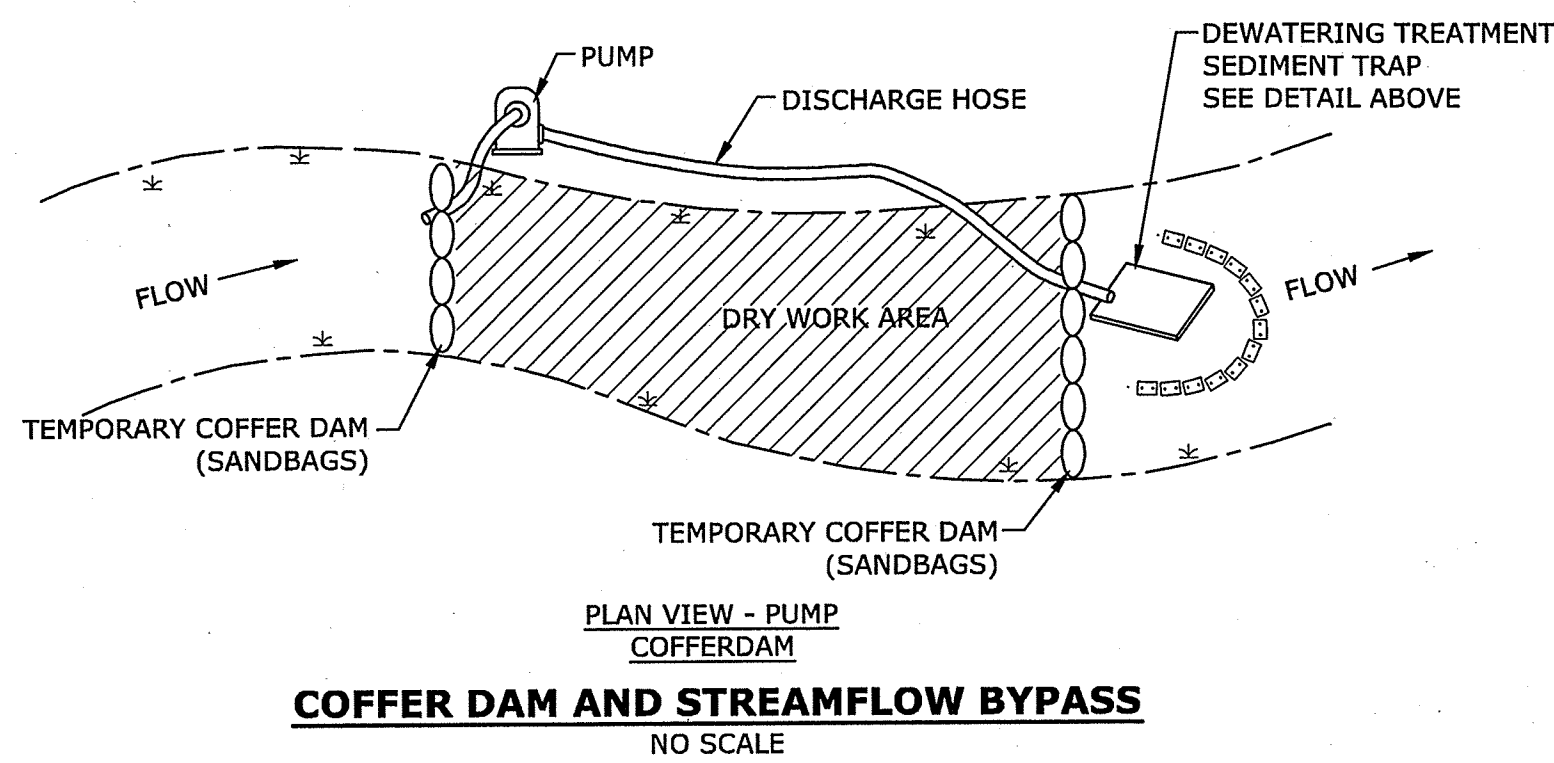



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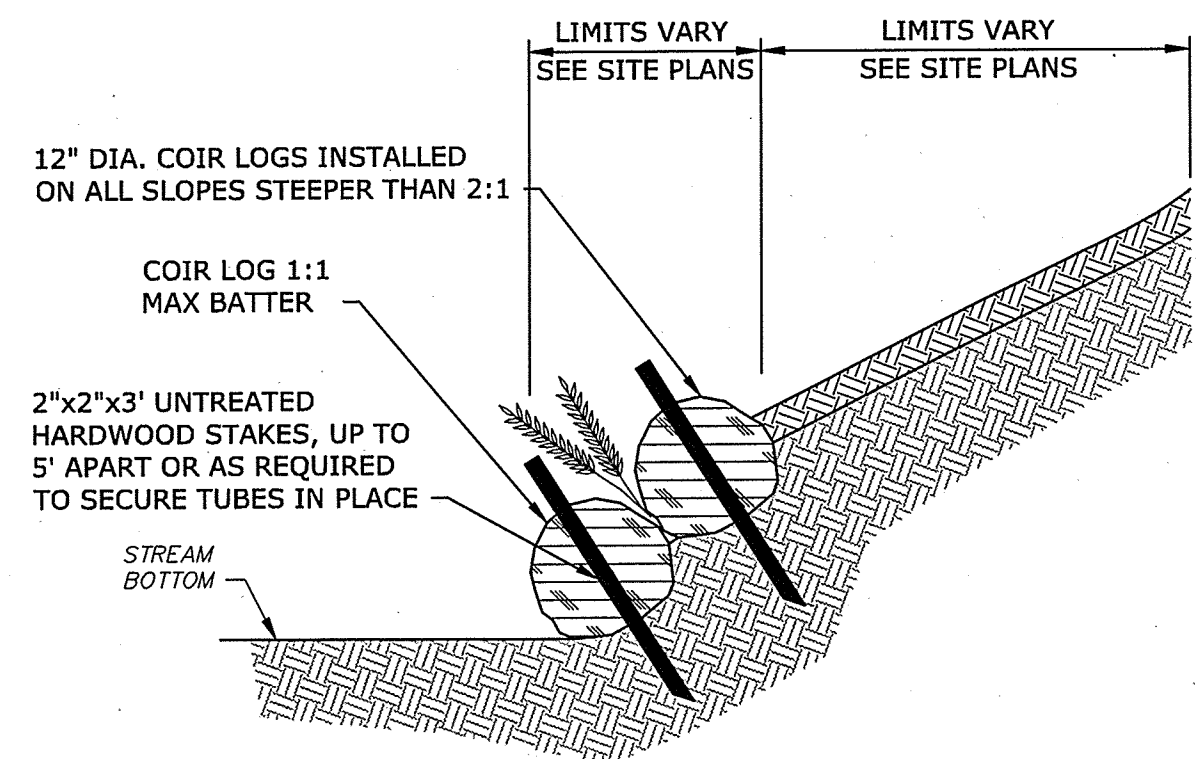
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 Plotted On: Jun 12, 2020 - 10:29am By: TWP  
 Tighe & Bond: J:\L0792 Shutesbury Road Culvert\Drawings - Figures\AutoCAD\Sheet\0792-002-DTLS.dwg



**STRAW WATTLE & SILTATION FENCE**  
 NO SCALE

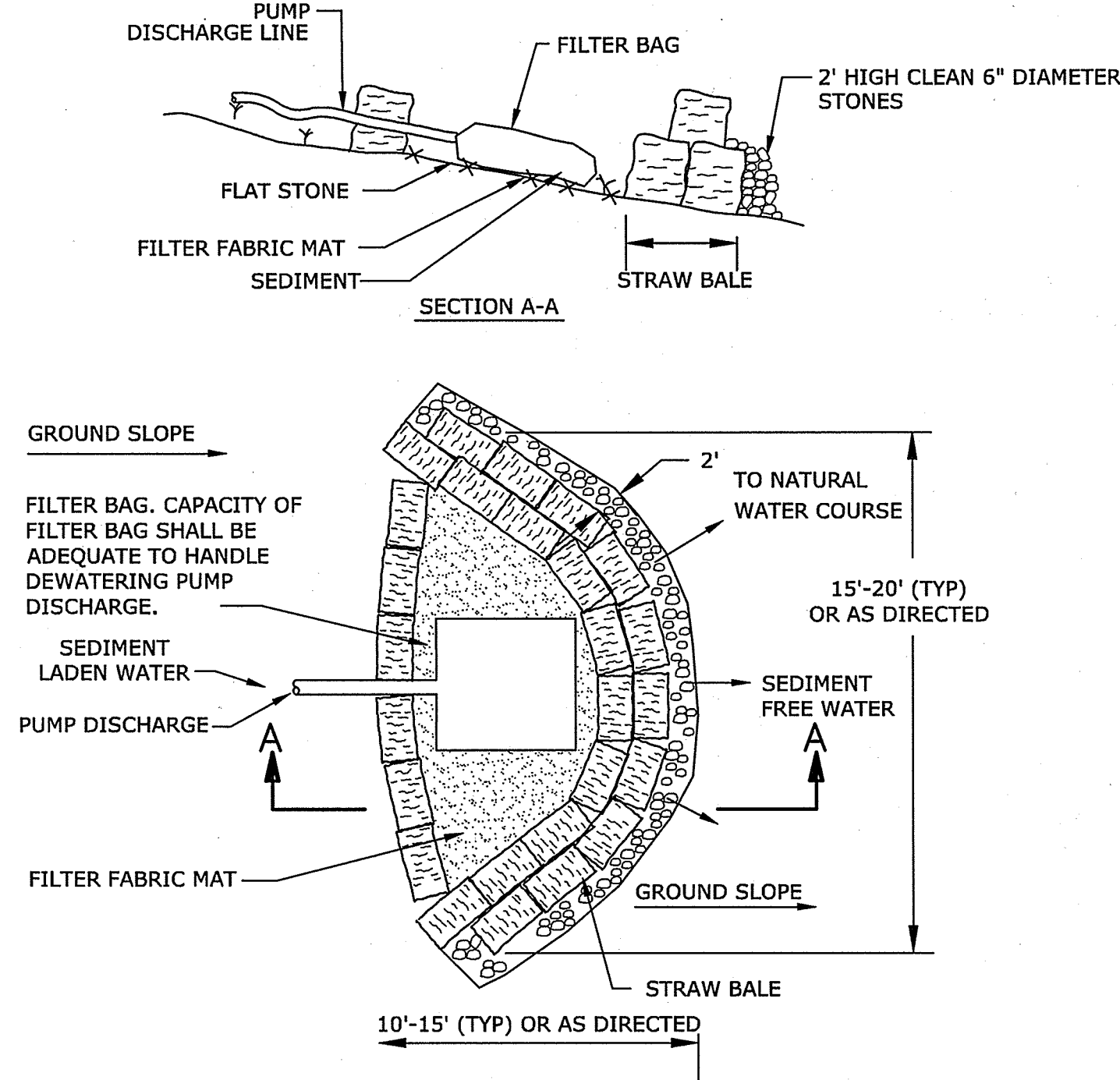


**COFFER DAM AND STREAMFLOW BYPASS**  
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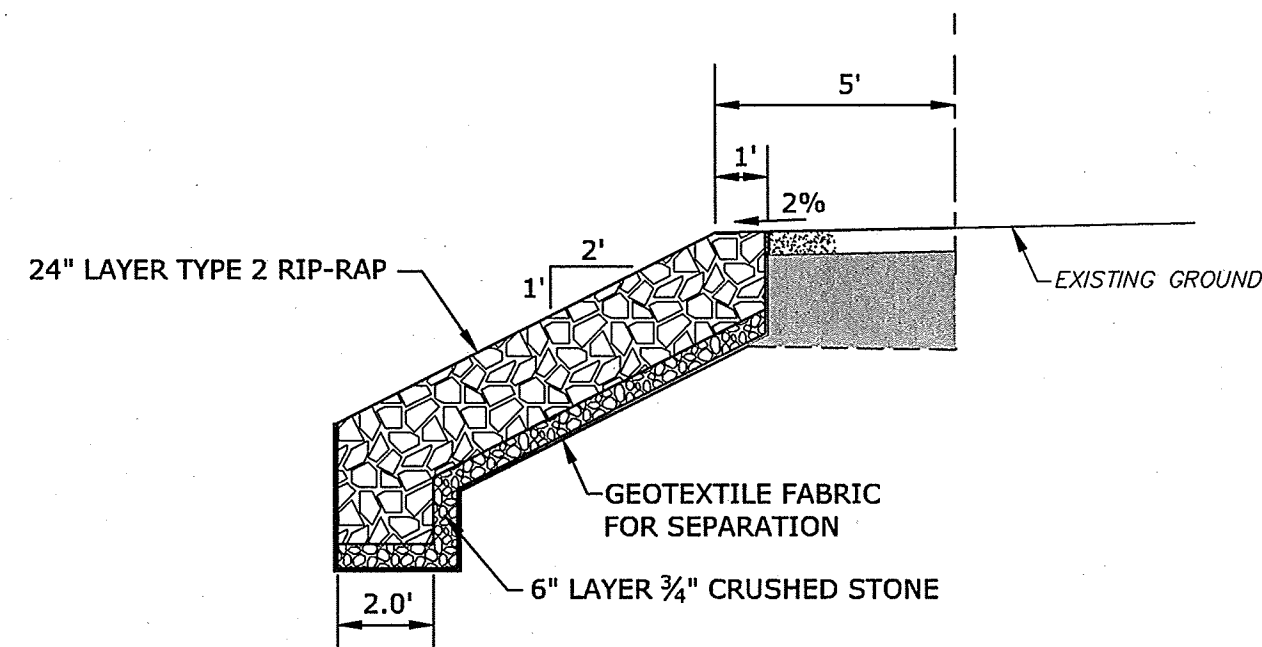


- NOTES:  
 1. DETAIL SHOWN DIAGRAMATICALLY. STABILIZATION IMPROVEMENTS TO BE INSTALLED PER SITE PLAN GRADING.  
 2. SLOPE AREAS  
 SLOPES STEEPER THAN 2:1:  
 COIR LOGS AND LIVE STAKINGS  
 SLOPES FLATTER THAN 2:1:  
 4" LOAM BORROW, FINISH WITH HYDROSEED AND BONDED FIBER MATRIX.

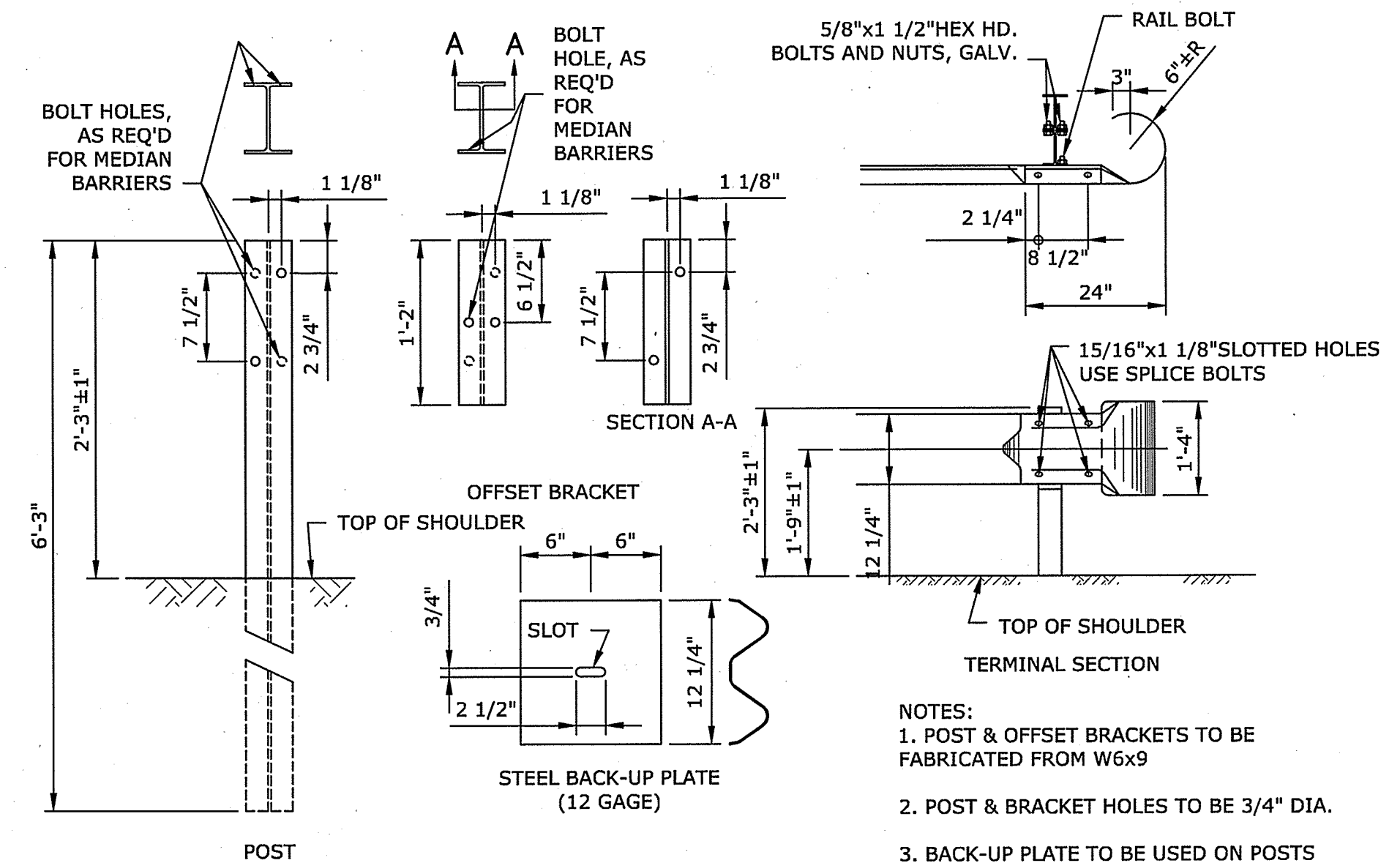
**BANK STABILIZATION**  
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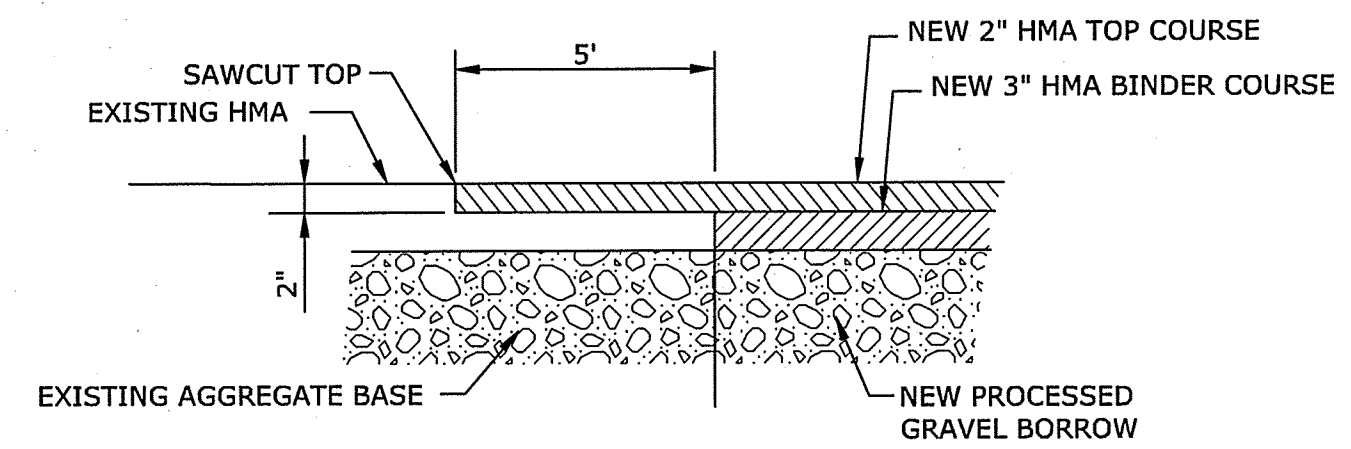
**DEWATERING TREATMENT SEDIMENT TRAP**  
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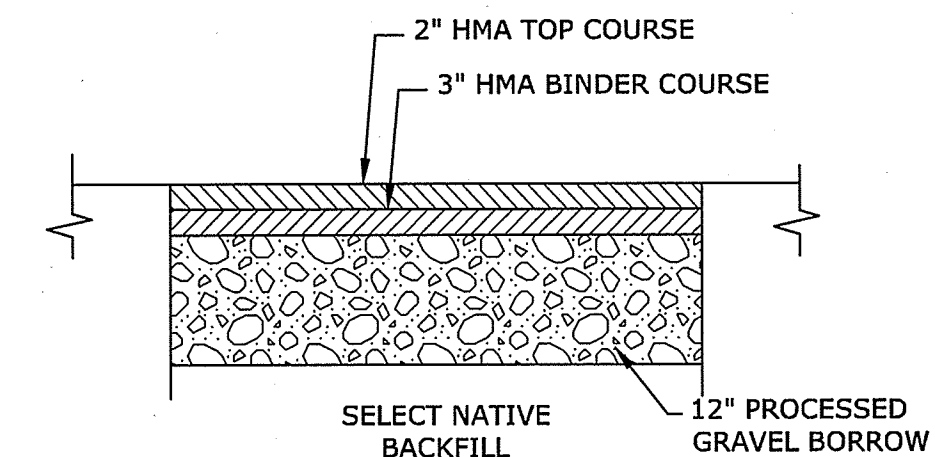
**RIPRAP SLOPE**  
**TYPICAL SECTION**  
 NOT TO SCALE



**STEEL BEAM HIGHWAY GUARD TYPE SS - W RAIL**  
**POST & OFFSET BRACKET DETAILS**  
 NO SCALE



**TYPICAL BUTT JOINT**  
**TO EXISTING PAVEMENT**  
 NO SCALE



**PERMANENT ROADWAY REPAIR**  
 NO SCALE

Tighe & Bond

COMMONWEALTH OF MASSACHUSETTS  
 PETER M. VALMORIO  
 CHEMICAL  
 No. 38143  
 6/12/2020

COMMONWEALTH OF MASSACHUSETTS  
 ZACHARIAH P. CHORNYAK  
 CIVIL  
 No. 49238  
 6/12/2020

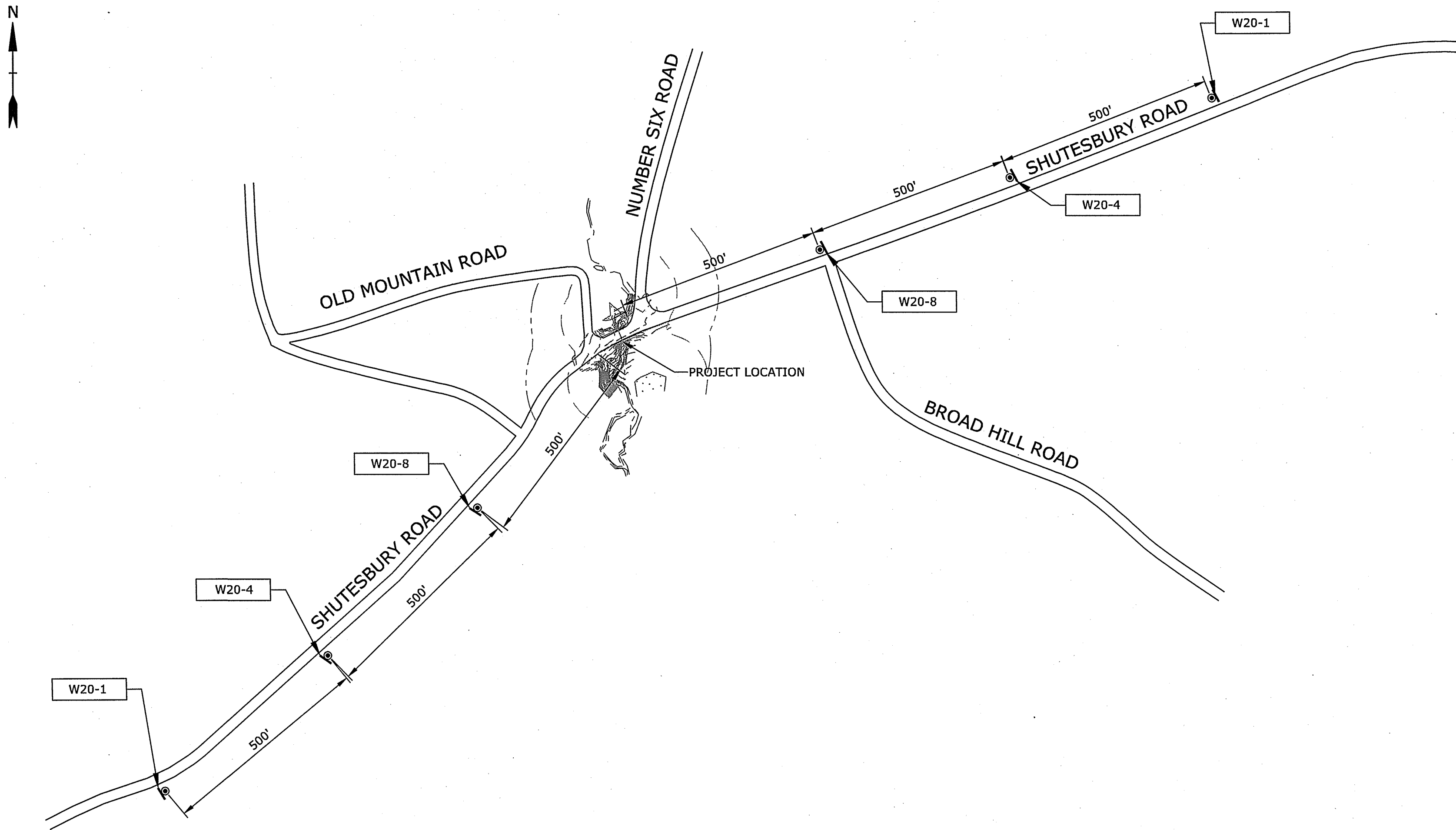
Town of  
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Leverett,  
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DATE:		06/01/2020
FILE:		L0792-002-DTLS.dwg
DRAWN BY:		TMP
CHECKED:		DJP
APPROVED:		PMV, ZPC
WATER AND EROSION CONTROL DETAILS, ROADWAY AND CULVERT DETAILS		
SCALE:		NO SCALE
C-104 SHEET 6 OF 7		

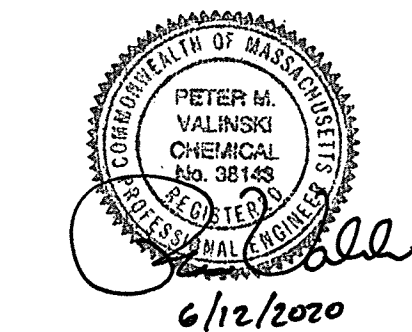
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ADVANCE WARNING SIGN &  
 TRAFFIC PLAN  
 1" = 200'

IDENTIFICATION NUMBER	SIZE OF SIGN (IN)		TEXT	NUMBER OF SIGNS REQUIRED	AREA IN SQ. FT.
	WIDTH	HEIGHT			
W20-1	48	48	ROAD CONSTRUCTION 1500 FT	2	32
W20-4	48	48	ONE LANE ROAD AHEAD	2	32
W20-8	48	48	POLICE OFFICER AHEAD	2	32
TOTAL =				6	96

- TEMPORARY TRAFFIC CONTROL NOTES:
- TEMPORARY FENCING AND BARRIERS SHALL BE DEPLOYED ON SITE DURING THE ROADWAY CLOSURE TO PREVENT ACCESS TO THE CROSSING.
  - ALTERNATIVE ONE WAY TRAFFIC SHALL BE MAINTAINED DURING THE WORK.
  - ALL SIGNAGE SHALL BE PLACED PRIOR TO THE START OF CONSTRUCTION AND REMOVED IMMEDIATELY FOLLOWING COMPLETION OF THE WORK.
  - PLACEMENT OF SIGNS SHALL BE COORDINATED WITH THE ENGINEER AND THE LOCAL POLICE DEPARTMENT (LEVERETT, MASSACHUSETTS).



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