

F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	1	15

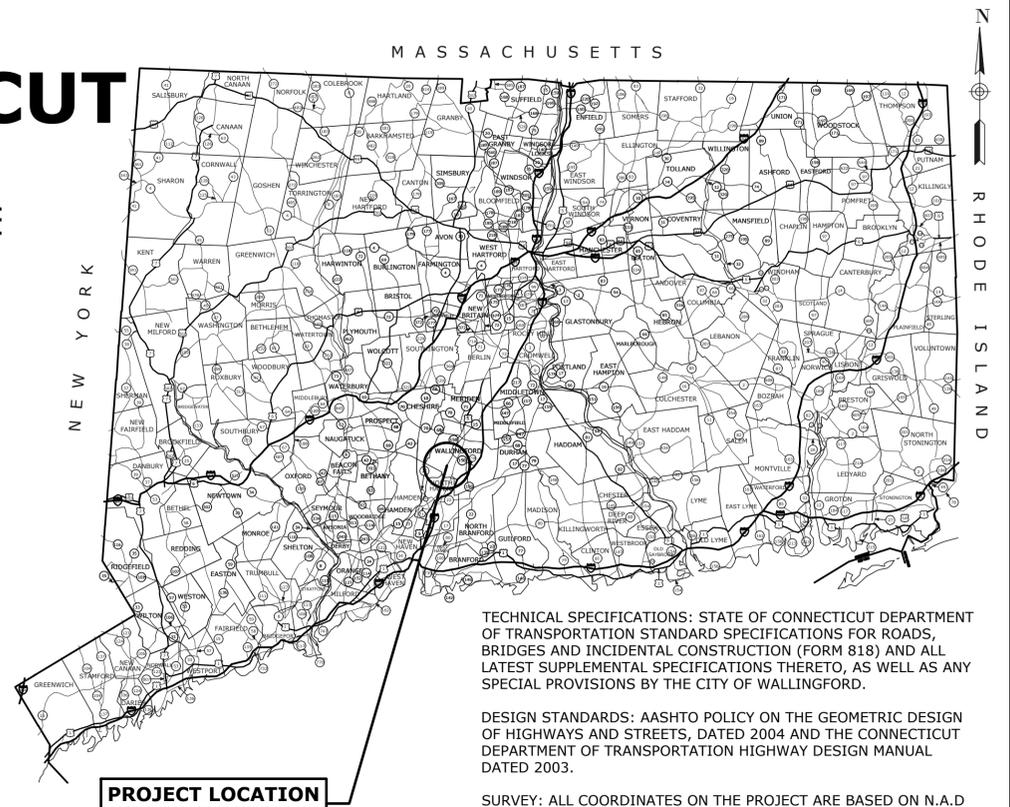
# CITY OF WALLINGFORD, CONNECTICUT

## PLAN FOR REHABILITATION OF SOUTH TURNPIKE ROAD CULVERT OVER MANSION BROOK

BRIDGE #148-028



**LOCATION MAP**  
SCALE: 1" = 500'



TECHNICAL SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION (FORM 818) AND ALL LATEST SUPPLEMENTAL SPECIFICATIONS THERETO, AS WELL AS ANY SPECIAL PROVISIONS BY THE CITY OF WALLINGFORD.

DESIGN STANDARDS: AASHTO POLICY ON THE GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, DATED 2004 AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION HIGHWAY DESIGN MANUAL DATED 2003.

SURVEY: ALL COORDINATES ON THE PROJECT ARE BASED ON N.A.D 83/87. ALL ELEVATIONS ARE BASED ON N.A.V.D 88.

CONNECTICUT DEPARTMENT OF TRANSPORTATION OR CITY OF WALLINGFORD BIDDING AND OTHER INFORMATION AND DOCUMENTS WHICH ARE OBTAINED THROUGH THE INTERNET, WORLD WIDE WEB SITES OR OTHER SOURCES ARE NOT TO BE CONSTRUED TO BE OFFICIAL INFORMATION FOR THE PURPOSES OF BIDDING OR CONDUCTING OTHER BUSINESS WITH THE CITY OF WALLINGFORD.

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE CITY OF WALLINGFORD.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE CITY OF WALLINGFORD TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.

ROAD CLASSIFICATION: URBAN COLLECTOR  
85th PERCENTILE SPEED (Connecticut Counts LLC): 49 MPH  
2016 ADT (Connecticut Counts LLC): 7417 V.P.D.

LIST OF DRAWINGS	
SHEET NO.	TITLE
1	COVER SHEET
2	DETAILED ESTIMATE SHEET
3	EXISTING PLAN AND ELEVATIONS
4	ROADWAY PLAN
5	ROADWAY PROFILE
6	ROADWAY CROSS SECTIONS-1
7	ROADWAY CROSS SECTIONS-2
8	MAINTENANCE AND PROTECTION OF TRAFFIC
9	HANDLING WATER PLANS
10	HANDLING WATER DETAILS
11	EASEMENT MAP
12	EROSION AND SEDIMENTATION CONTROL DETAILS
13	STRUCTURE PLAN AND SECTIONS
14	MISCELLANEOUS DETAILS
15	ROCK VANE DETAILS

DESIGNED BY WMC CONSULTING ENGINEERS

SUBMITTED BY \_\_\_\_\_ DATE \_\_\_\_\_

CITY MANAGER - CITY OF WALLINGFORD

\_\_\_\_\_  
DATE \_\_\_\_\_

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DATE: 11/19/2020

NO.	DATE	DESCRIPTION
<b>REVISIONS</b>		

SUPV.	J.A.C.
DESIGN	K.O.E
DRAWN	N.S.
CHECKED	K.O.E.
DATE	11/19/2020

**WMC**  
CONSULTING ENGINEERS

• WENGELL, McDONNELL & COSTELLO •  
87 HOLMES ROAD  
NEWINGTON, CT 06111  
(860) 667-9624

**PREPARED FOR**  
TOWN OF WALLINGFORD  
45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
COVER SHEET**

D - S. TURNPIKE ROAD -	16032.10	SHEET	1
SIZE PROJECT FILE NAME NUMBER REV. OF			15

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WHEREVER THE PAY UNITS IN THE LEFT COLUMN APPEAR ON THE DETAILED ESTIMATE SHEET, THEY SHALL BE CONSTRUED TO MEAN THE EQUIVALENT PAY UNITS IN THE RIGHT COLUMN ON THE PROPOSAL FORM.

c.y.	C.Y.
l.f.	L.F.
ton	TON
s.y.	S.Y.
lb.	L.B.
s.f.	S.F.
gal.	GAL.
c.f.	C.F.
c.i.	C.I.

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FOR THE CONSTRUCTION OF REHABILITATION OF SOUTH TURNPIKE ROAD CULVERT OVER MANSION BROOK IN THE CITY OF WALLINGFORD, CONNECTICUT

ROADWAY ITEMS																				
ITEM NUMBER	ITEM DESCRIPTION	UNIT	L.S.	C.Y.	C.Y.	L.F.	C.Y.	C.Y.	L.F.	L.F.	S.Y.	MO.	L.S.	HR	EA.	EA.	S.F.	L.S.	L.S.	L.S.
201001	CLEARING AND GRUBBING		1	100	60	180	70	75	50	410	410	3	1	200	24	6	200	1	1	1
0202000	EARTH EXCAVATION																			
202200	CHANNEL EXCAVATION-EARTH																			
0219001	SEDIMENTATION CONTROL SYSTEM																			
0304002	PROCESSED AGGREGATE BASE																			
0703011	INTERMEDIATE RIPRAP																			
0703003	ROCK WEIR																			
0944001	FURNISHING AND PLACING TOPSOIL																			
0950005	TURF ESTABLISHMENT																			
0969062	CONSTRUCTION FIELD OFFICE, MEDIUM																			
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)																			
0970007	TRAFFICPERSON (UNIFORMED FLAGGER)																			
0977001	TRAFFIC CONE																			
1205216	TYPE DE-C7 DELINEATOR																			
1220027	CONSTRUCTION SIGN																			
0971001	MAINTENANCE AND PROTECTION OF TRAFFIC																			
0975002	MOBILIZATION AND PROJECT CLOSEOUT																			
0980001	CONSTRUCTION STAKING																			
TOTAL			1	100	60	180	70	75	50	410	410	3	1	200	24	6	200	1	1	1
TOTAL				100	60	180	70	75	50	410	410	3	1	200	24	6	200	1	1	1

STRUCTURE ITEMS											
ITEM NUMBER	ITEM DESCRIPTION	UNIT	L.S.	L.S.	L.F.	C.Y.	C.Y.	C.F.	L.F.	S.Y.	S.F.
0101002	CONFINED SPACE HEALTH AND SAFETY		1	1	200	40	2	125	200	150	90
204151	HANDLING WATER										
0204001	COFFERDAM AND DEWATERING										
0601000	CLASS "A" CONCRETE										
0601070	CLASS "S" CONCRETE										
0601318	PARITAL DEPTH PATCH										
0601948	CRACK REPAIR										
0651645	CENTRIFUGALLY CAST CEMENTITIOUS LINING										
0653101	CLEAN EXISTING CULVERT - GREATER THAN 42" DIAMTER										
0714050	TEMPORARY EARTH RETAINING SYSTEM										
TOTAL			1	1	200	40	2	125	200	150	90
TOTAL			1	1	200	40	2	125	200	150	90

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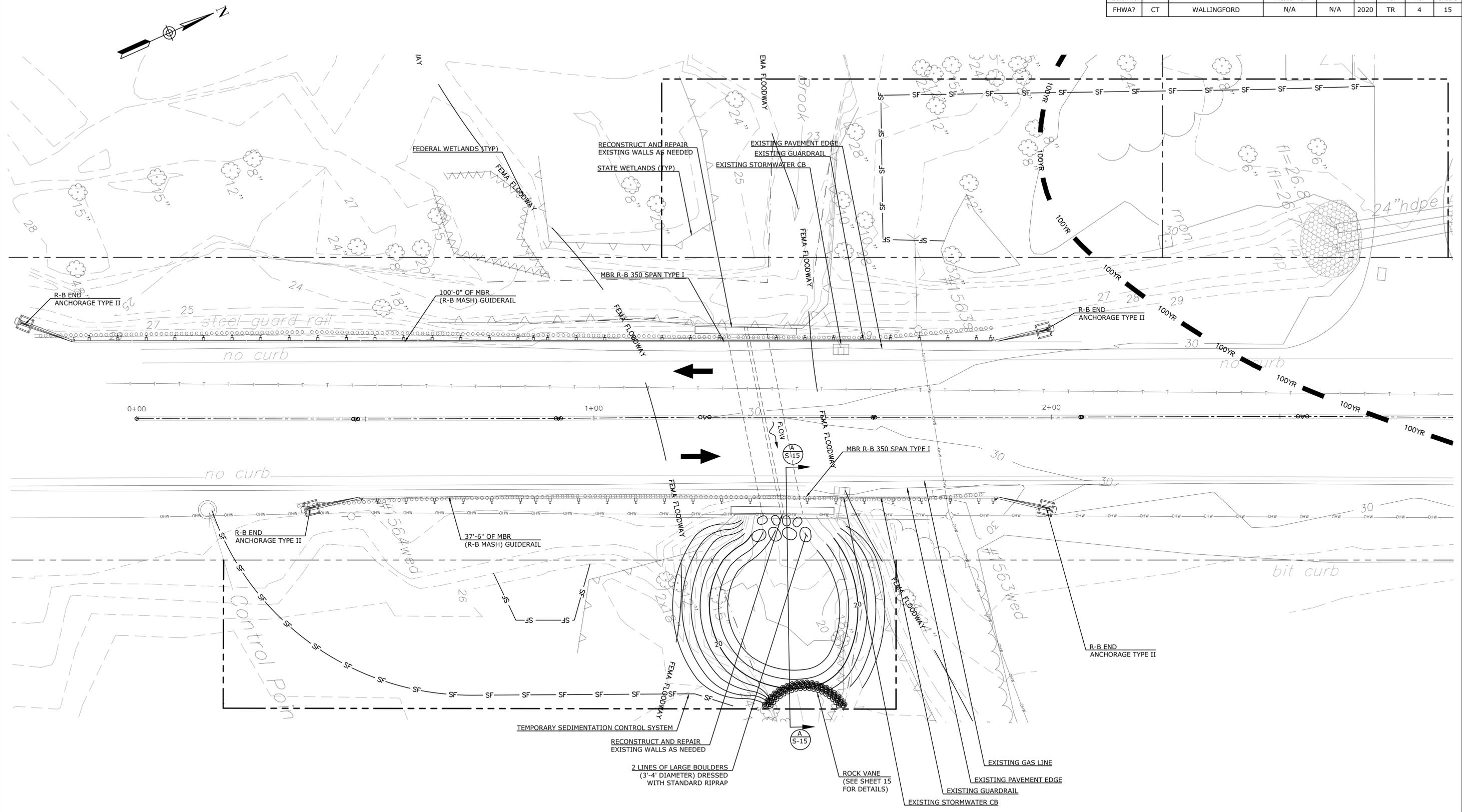
		SUPV.	J.A.C.
		DESIGN	K.O.E
		DRAWN	N.S.
		CHECKED	K.O.E.
NO.	DATE	DESCRIPTION	DATE
			11/19/2020
<b>REVISIONS</b>			



**PREPARED FOR**  
TOWN OF WALLINGFORD  
45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
DETAILED ESTIMATE SHEET

D - S. TURNPIKE ROAD	16032.10	SHEET	2
SIZE PROJECT FILE NAME NUMBER REV.	OF		15



**ROADWAY PLAN**  
SCALE: 1" = 10'-0"

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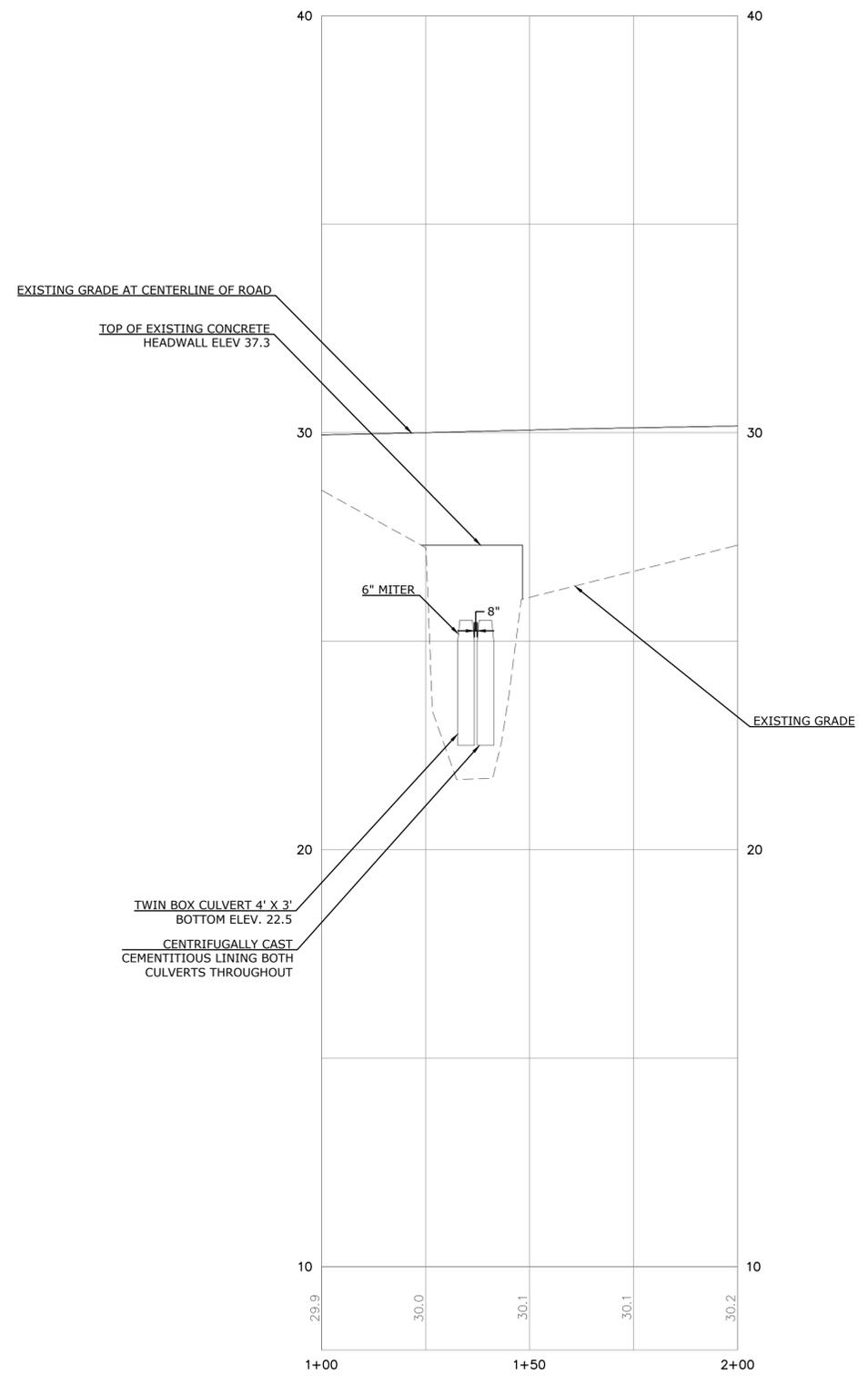
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87 HOLMES ROAD  
NEWINGTON, CT 06111  
(860) 667-9624

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WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
ROADWAY PLAN**

D - S. TURNPIKE ROAD -	16032.10	SHEET	4
SIZE PROJECT FILE NAME NUMBER REV.		OF	15

F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	5	15



**ROADWAY PROFILE**  
**UPSTREAM LOOKING DOWNSTREAM**  
 HORIZONTAL SCALE: 1" = 20'-0"  
 VERTICAL SCALE: 1" = 2'-0"

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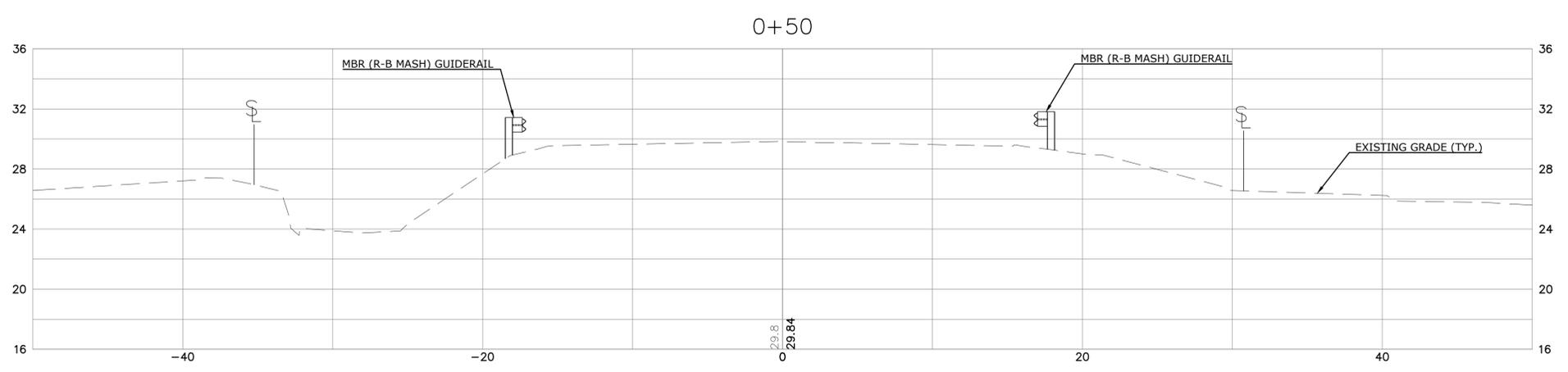
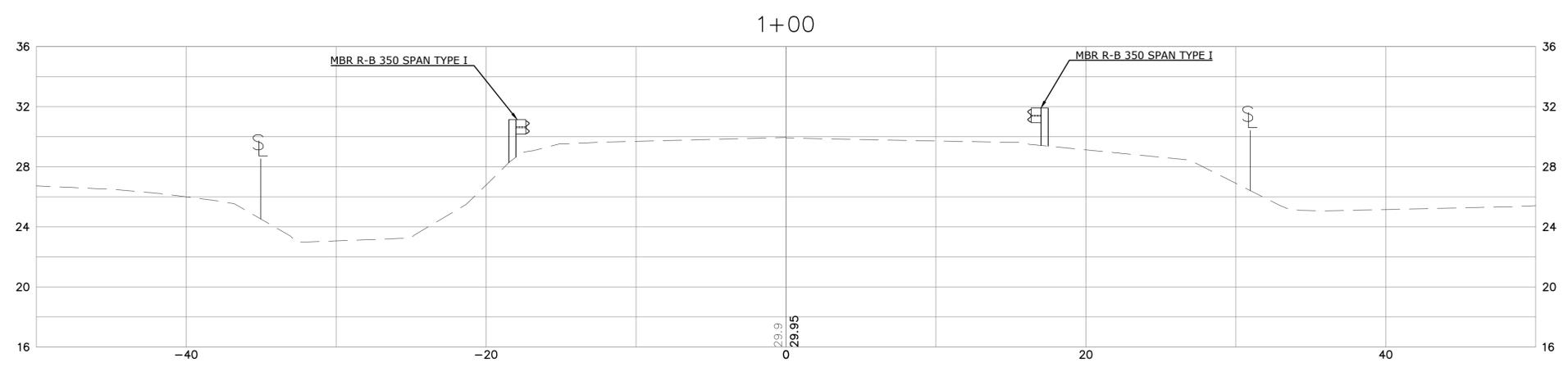
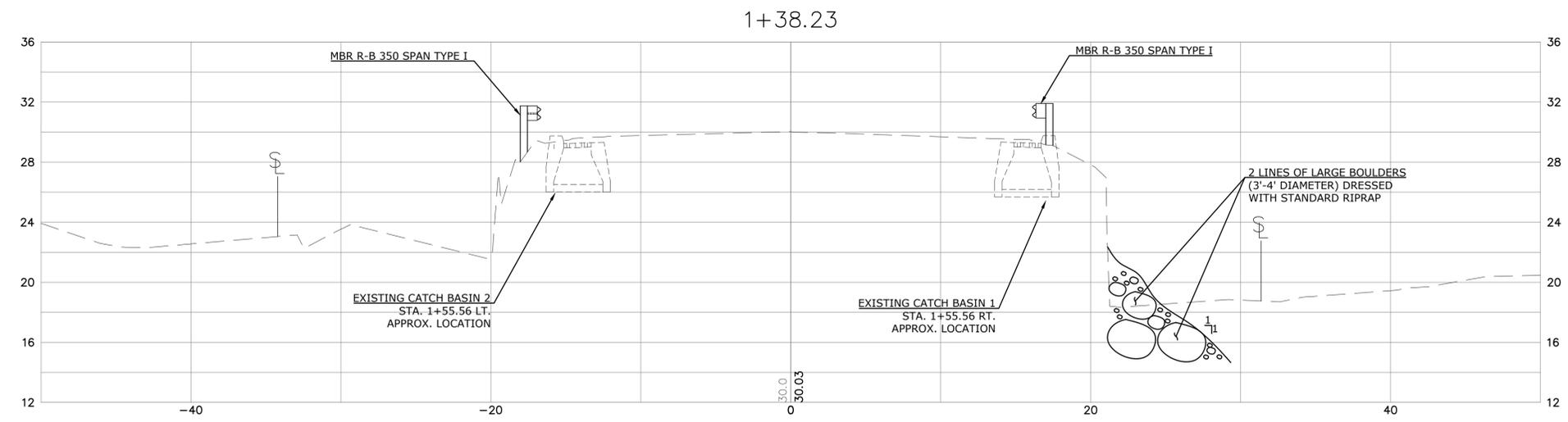
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<b>REHABILITATION OF SOUTH TURNPIKE ROAD          CULVERT OVER MANSION BROOK          ROADWAY PROFILE</b>					SHEET 5
D	- S. TURNPIKE ROAD -	-	16032.10	-	OF 15
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF



37'-6" OF MBR (R-B MASH) GUIDERAIL

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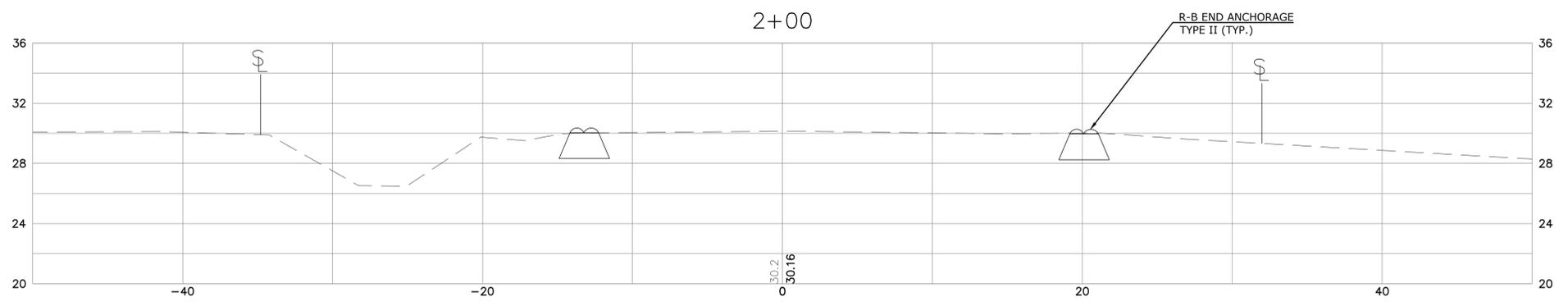
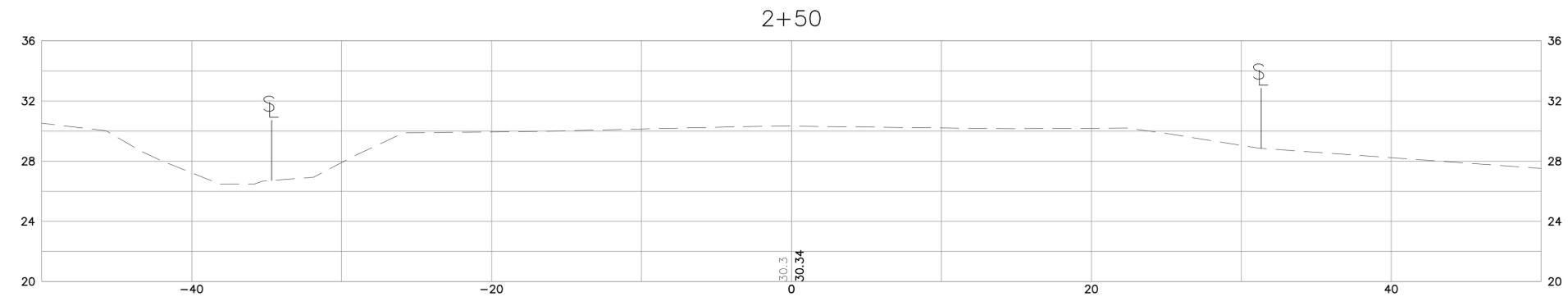
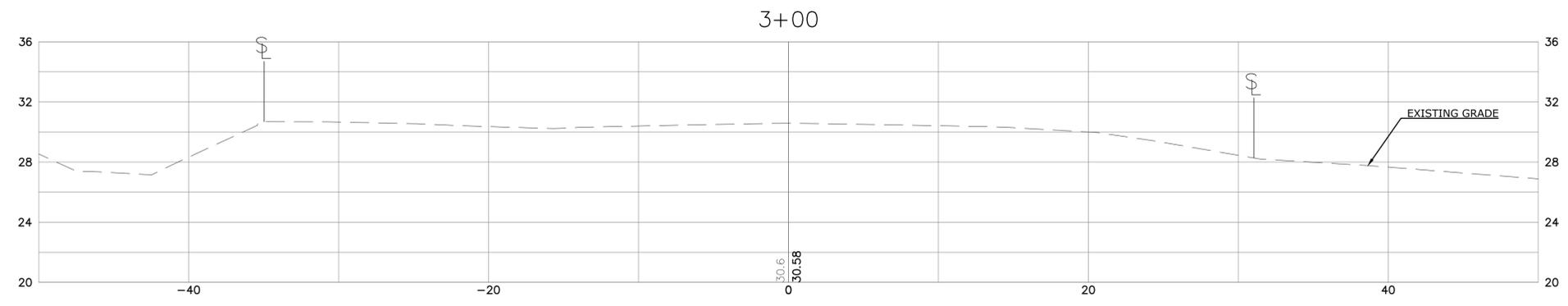
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**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
ROADWAY CROSS SECTION-1**



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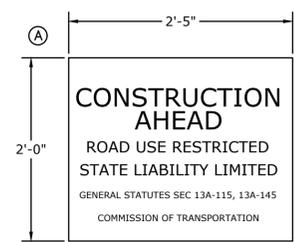
**PREPARED FOR**  
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45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
ROADWAY CROSS SECTION-2**

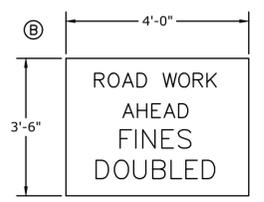
D - S. TURNPIKE ROAD - 16032.10 - SHEET 7  
SIZE PROJECT FILE NAME NUMBER REV. OF 15

### CONSTRUCTION SIGNING

SIGN	CONNDOT	DIMENSION	DESCRIPTION	NO. REQ.'D
A	80-1613	29" X 24"	CONSTRUCTION AHEAD ROAD USE RESTRICTED STATE LIABILITY LIMITED GENERAL STATUTES SEC 13A-115, 13A-145 COMMISSION OF TRANSPORTATION	2
B	31-1906	48" X 42"	ROAD WORK AHEAD FINES DOUBLED	2
C	80-9604	48" X 48"	ROAD WORK AHEAD	2
D	80-9612	48" X 24"	END ROAD WORK	2



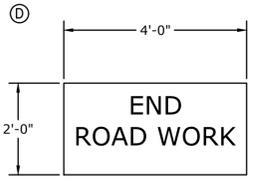
80-1613



31-1906



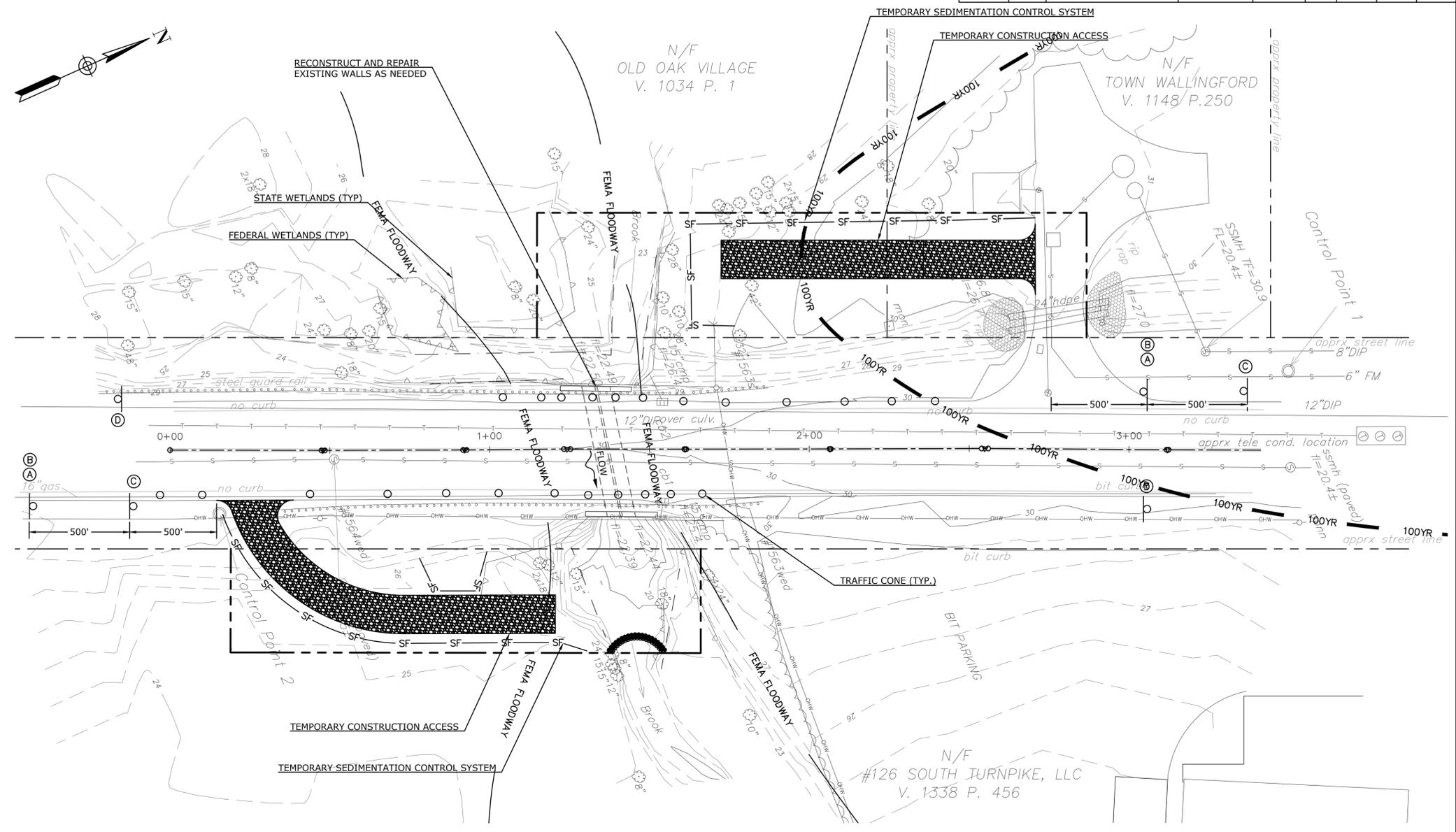
80-9604



80-9612

### SIGN DETAILS

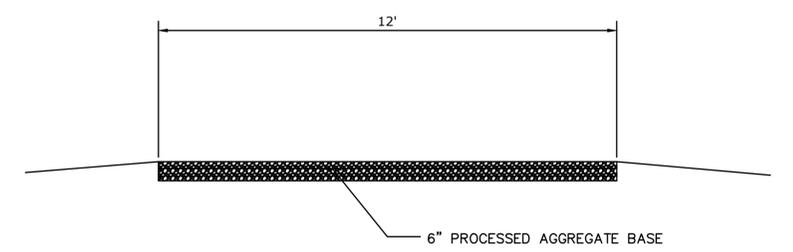
N.T.S.



NOTE: SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE ADJUSTED AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.

### TEMPORARY TRAFFIC SCHEME

SCALE: 1" = 20'-0"



### TEMPORARY ACCESS ROADWAY SECTION

N.T.S.

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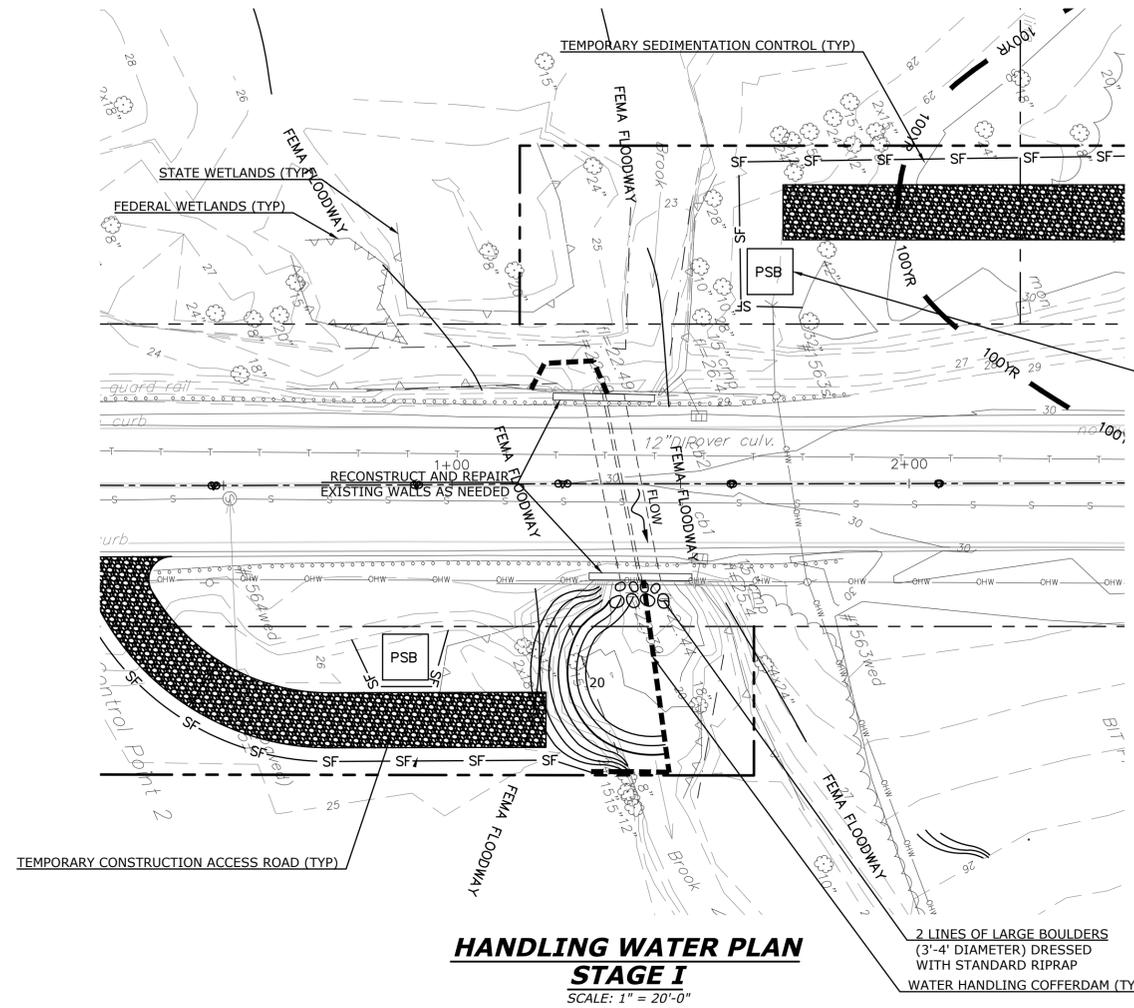
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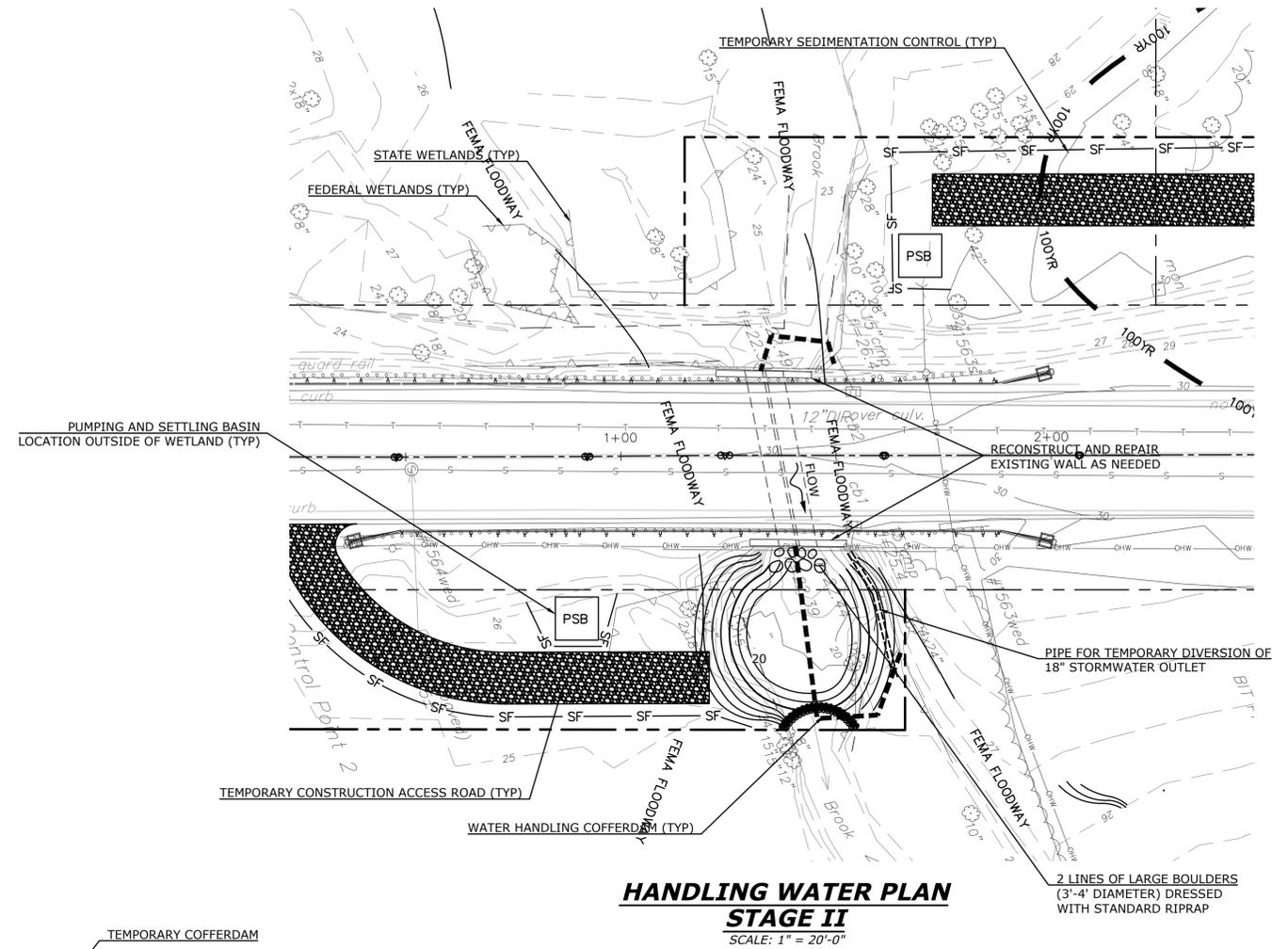
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REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
MAINTENANCE AND PROTECTION OF TRAFFIC

D - S. TURNPIKE ROAD	16032.10	SHEET	8
SIZE PROJECT FILE NAME NUMBER REV.		OF	15



**HANDLING WATER PLAN  
STAGE I**  
SCALE: 1" = 20'-0"



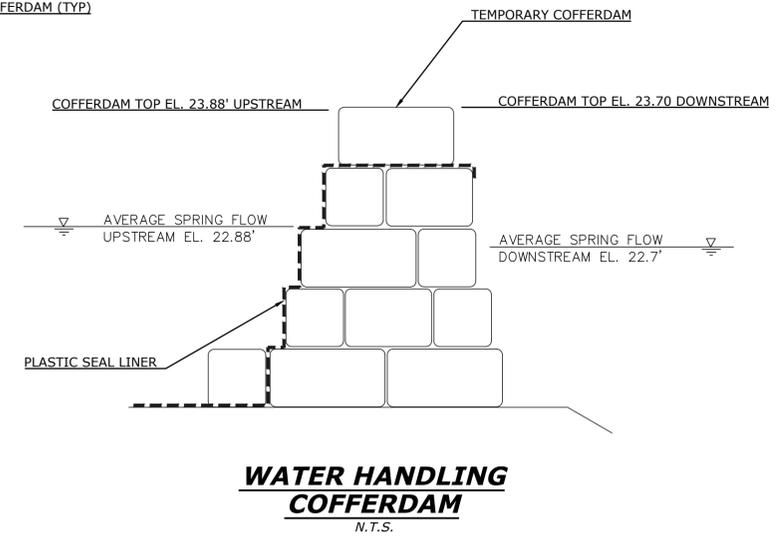
**HANDLING WATER PLAN  
STAGE II**  
SCALE: 1" = 20'-0"

**STAGE I:**

1. MOBILIZE AND INSTALL CONSTRUCTION SIGNS.
2. INSTALL SEDIMENTATION AND EROSION CONTROL.
3. PERFORM NECESSARY CLEANING AND GRUBBING AND INSTALL TEMPORARY ACCESS ROADS.
4. INSTALL TEMPORARY COFFERDAMS AS SHOWN ON THE PLAN
5. RECONSTRUCT AND REPAIR EXISTING SOUTHERLY HALF OF HEADWALLS AND WINGWALLS AS NEEDED.
6. CLEAN SOUTHERLY CULVERT.
7. INSTALL CENTRIFUGALLY CAST CEMENTITIOUS LINING IN SOUTHERLY CULVERT.
8. INSTALL 2 LINES OF LARGE BOULDERS DRESSED WITH STANDARD RIPRAP
9. PERFORM CHANNEL GRADING.
10. REMOVE TEMPORARY COFFERDAMS

**STAGE II:**

1. INSTALL TEMPORARY COFFERDAMS AS SHOWN ON THE PLAN AS WELL AS PIPE FOR DIVERTING STORMWATER AT DOWNSTREAM LOCATION.
2. RECONSTRUCT AND REPAIR EXISTING NORTHERLY HALF OF HEADWALLS AND WINGWALLS AS NEEDED.
3. CLEAN NORTHERLY CULVERT.
4. INSTALL CENTRIFUGALLY CAST CEMENTITIOUS LINING IN NORTHERLY CULVERT.
5. INSTALL 2 LINES OF BIG BOULDERS DRESSED WITH STANDARD RIPRAP
6. REMOVE COFFERDAMS AND WATER DIVERSION PIPE.
7. PERFORM CHANNEL GRADING.
8. REMOVE SEDIMENTATION CONTROL SYSTEMS ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED AND VEGETATION ESTABLISHED.



**WATER HANDLING  
COFFERDAM**  
N.T.S.

TEMPORARY FACILITIES HYDRAULICS	
AVERAGE DAILY FLOW	2 CFS
AVERAGE SPRING FLOW	3 CFS
2 YEAR FREQUENCY DISCHARGE	30 CFS
TEMPORARY DESIGN DISCHARGE	3 CFS
TEMPORARY DESIGN FREQUENCY	AVERAGE SPRING FLOW
TEMPORARY WATER SURFACE ELEVATION UPSTREAM (FEET)	22.88
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM (FEET)	22.70

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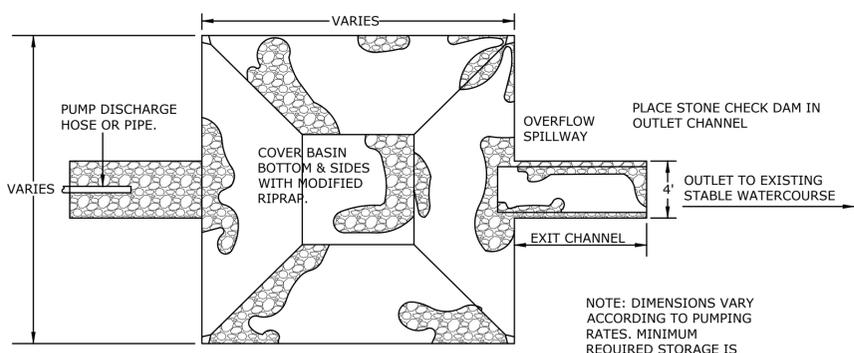
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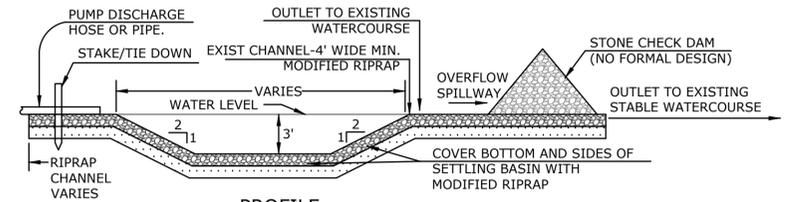
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**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
HANDLING WATER PLANS**



PLAN VIEW

NOTE: DIMENSIONS VARY ACCORDING TO PUMPING RATES. MINIMUM REQUIRED STORAGE IS CALCULATED FROM SPILLWAY WEIR.



PROFILE

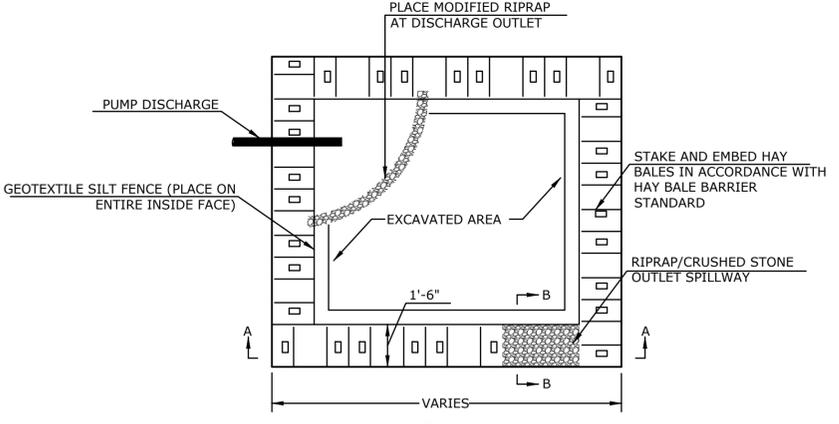
REFER TO PAGE 5-13-7 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

**TYPE III PUMPING SETTLING BASIN**

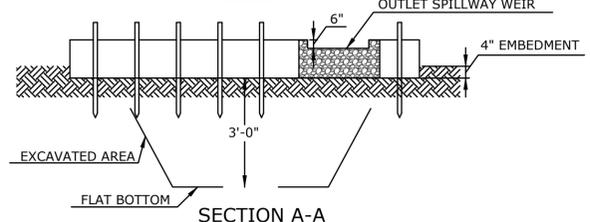
N.T.S.

**PUMPING SETTLING BASIN NOTES:**

1. LOCATION AS DIRECTED BY ENGINEER. REMOVE WHEN PUMPING IS COMPLETED.
2. PUMP DISCHARGE PAD SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE GENERAL WORK.
3. STORAGE VOLUME BASED UPON PUMP DISCHARGE, LARGER PAD DIMENSIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. (MINIMUM REQUIRED STORAGE, CUBIC FEET) = 16 x (PUMP DISCHARGE RATE, GPM)
4. TYPE II PUMPING SETTLING BASIN TO BE USED WHEN THE EXPECTED DURATION OF USE IS LESS THAN 3 MONTHS. TYPE III PUMPING SETTLING BASIN TO BE USED WHEN THE EXPECTED DURATION OF USE IS LONGER THAN 3 MONTHS.
5. SETTLING BASIN AND EXIT CHANNEL TO BE BACKFILLED AT COMPLETION OF WORK. AREA SHALL BE GRADED AND STABILIZED ACCORDING TO PLANS OR AS DIRECTED BY THE ENGINEER.

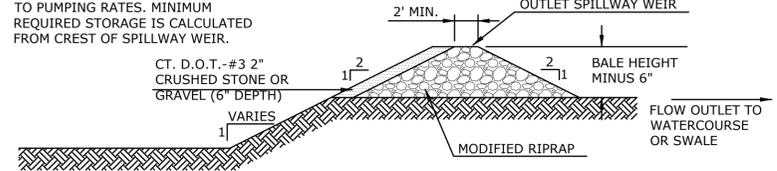


PLAN



SECTION A-A

NOTE: DIMENSIONS VARY ACCORDING TO PUMPING RATES. MINIMUM REQUIRED STORAGE IS CALCULATED FROM CREST OF SPILLWAY WEIR.

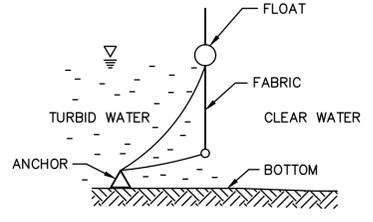


SECTION B-B

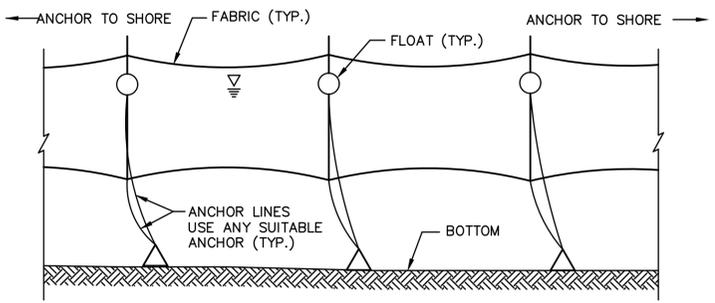
REFER TO PAGE 5-13-7 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

**TYPE II PUMPING SETTLING BASIN**

N.T.S.

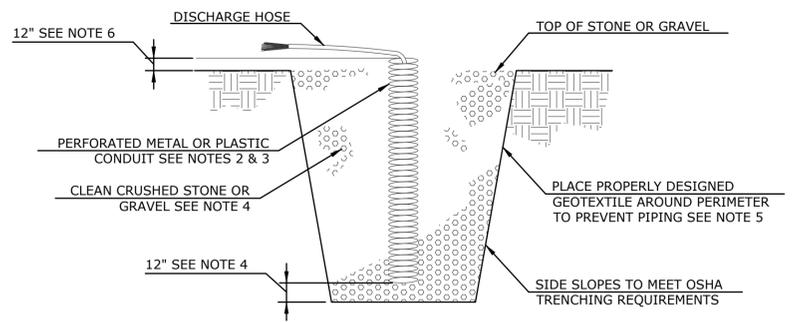


FLOATING SECTION



**TURBIDITY CONTROL CURTAINS**

NOT TO SCALE



REFER TO PAGE 5-13-3 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

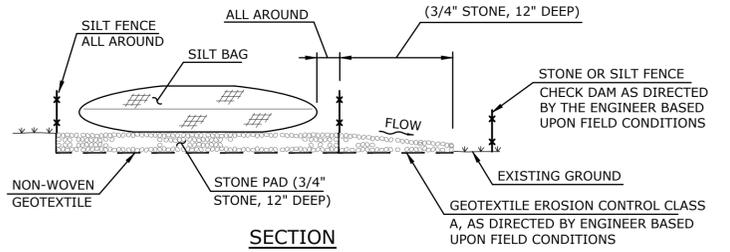
**NOTE:**

1. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
2. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" IN DIAMETER.
4. CRUSHED STONE OR GRAVEL SHALL BE NO SMALLER THAN CT DOT #8 SIZE NOR LARGER THAN CT DOT #3 SIZE. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. IF EXCESSIVE MOVEMENT OF FINE SOIL PARTICLES FROM THE SURROUNDING EXISTING SOILS IS ANTICIPATED, A PROPERLY DESIGNED GEOTEXTILE SHALL BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE OR GRAVEL BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

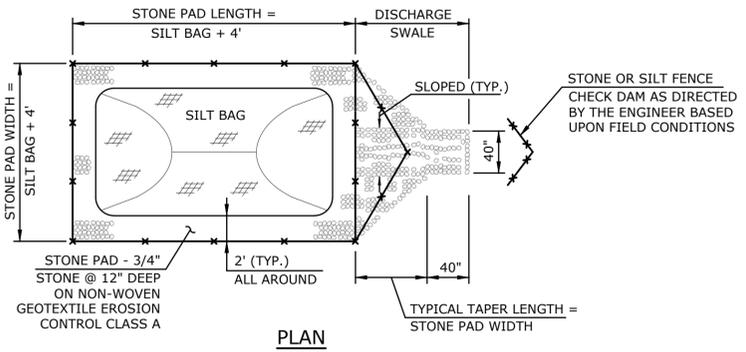
**PUMP INTAKE**

**TYPICAL SECTION OF SUMP PIT**

N.T.S.



SECTION



PLAN

**SILT BAG INSTALLATION**

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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		DRAWN	N.S.
		CHECKED	K.O.E.
		DATE	11/19/2020
NO.	DATE	DESCRIPTION	
<b>REVISIONS</b>			



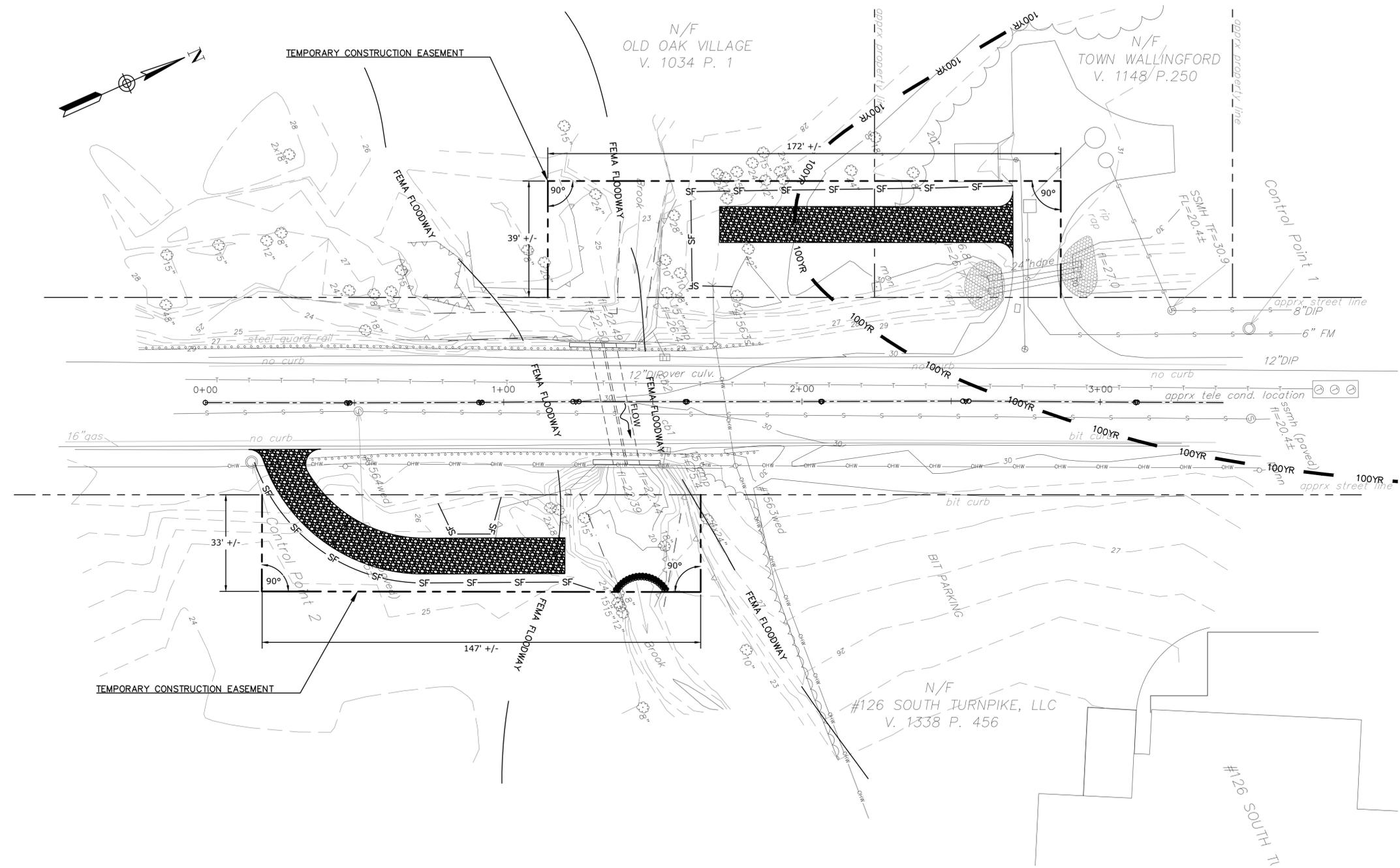
WENGELL, McDONNELL & COSTELLO  
87 HOLMES ROAD  
NEWINGTON, CT 06111  
(860) 667-9624

**PREPARED FOR**  
TOWN OF WALLINGFORD  
45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
HANDLING WATER DETAILS**

D - S. TURNPIKE ROAD -	16032.10	SHEET	10
SIZE PROJECT FILE NAME NUMBER REV.		OF	15

F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	11	15



**EASEMENT MAP**  
SCALE: 1" = 20'-0"

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<b>REVISIONS</b>			

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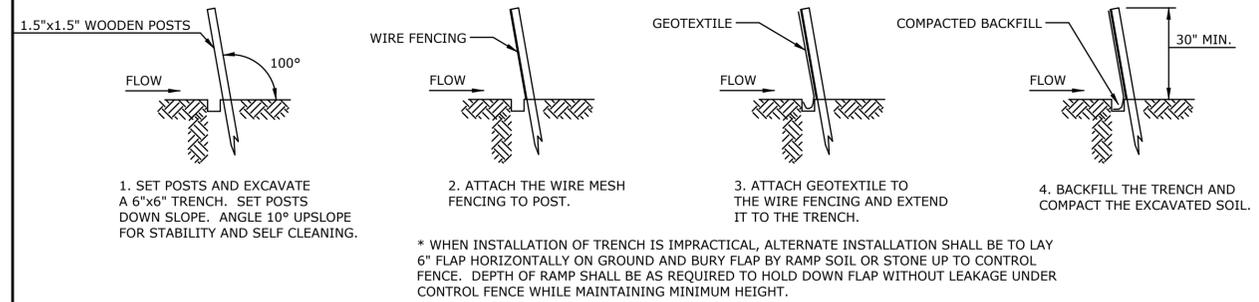
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**PREPARED FOR**  
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45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
EASEMENT MAP**

D - S. TURNPIKE ROAD -	16032.10	SHEET	11
SIZE PROJECT FILE NAME NUMBER REV.		OF	15

F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	12	15

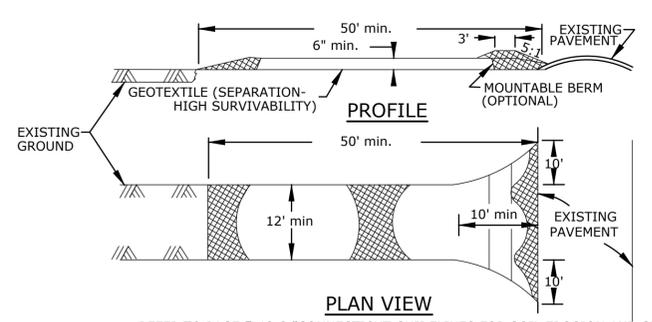


**GEOTEXTILE FENCE SYSTEM**

REFER TO PAGE 5-11-35 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 55 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

**SEDIMENTATION CONTROL SYSTEM INSTALLATION**

N.T.S.



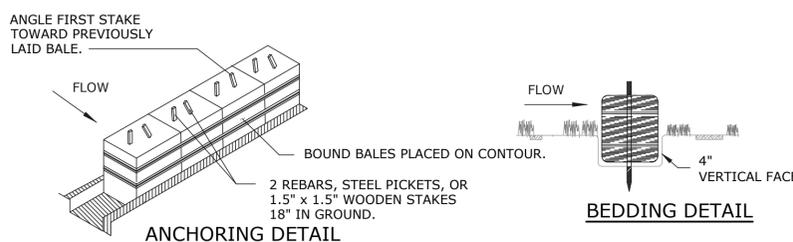
REFER TO PAGE 5-12-2 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 50 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

**CONSTRUCTION SPECIFICATION:**

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 6".
4. WIDTH - 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. GEOTEXTILE WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SETTLING AREA SIZED TO HOLD THE VOLUME OF WATER USED DURING ANY 2-HOUR PERIOD.
9. PERIODIC INSPECTION AND NECESSARY MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.
10. THE COST OF CONSTRUCTING THE STABILIZED CONSTRUCTION ENTRANCE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE GENERAL WORK.

**STABILIZED CONSTRUCTION ENTRANCE**

N.T.S.



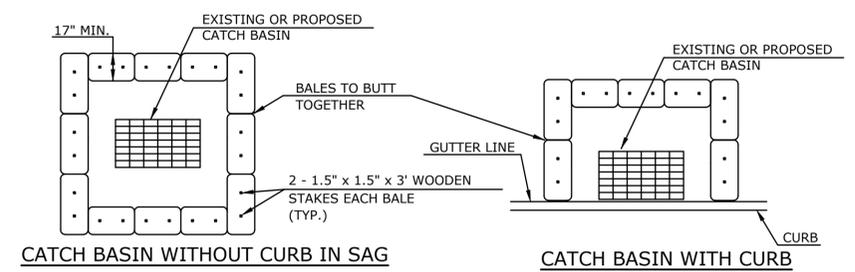
**HAY BALE CONSTRUCTION SPECIFICATIONS:**

1. HAY BALES SHALL BE PLACED AROUND NEWLY INSTALLED CATCH BASINS IN SAGS AND DROP INLETS TO PREVENT SEDIMENTATION AND OTHER DEBRIS FROM ACCUMULATING ON THE GRATE OR IN THE SUMP. HAY BALES SHOULD BE KEPT CLEAN AND FREE OF DEBRIS TO FACILITATE FLOW.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

REFER TO PAGE 5-11-30 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 53 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

**HAY BALE DETAIL**

N.T.S.



REFER TO PAGE 5-11-33 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 40 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

**SEDIMENTATION CONTROL DETAILS**

N.T.S.

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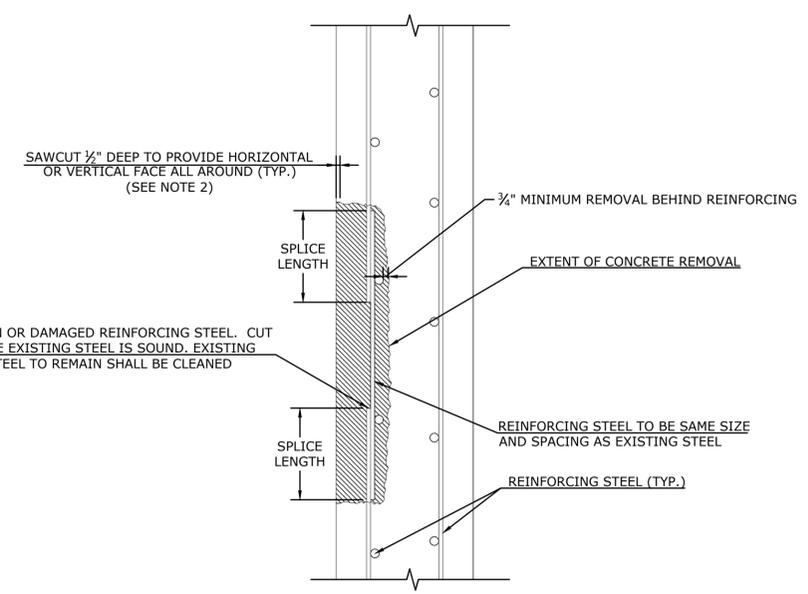
**PREPARED FOR**  
TOWN OF WALLINGFORD  
45 SOUTH MAIN STREET  
WALLINGFORD, CT 06492

**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
EROSION AND SEDIMENTATION CONTROL  
DETAILS**

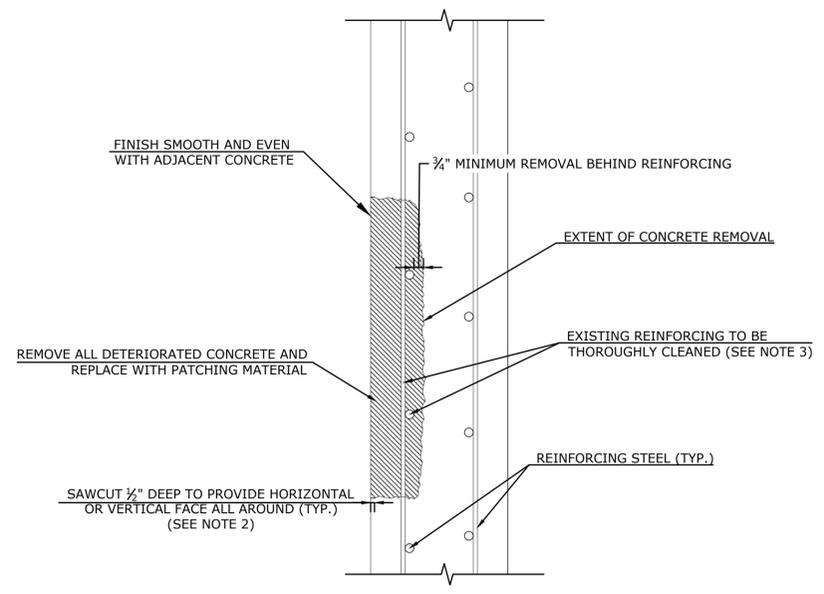
D - S. TURNPIKE ROAD -	16032.10 -	SHEET	12
SIZE	PROJECT	FILE NAME	NUMBER
		REV.	OF



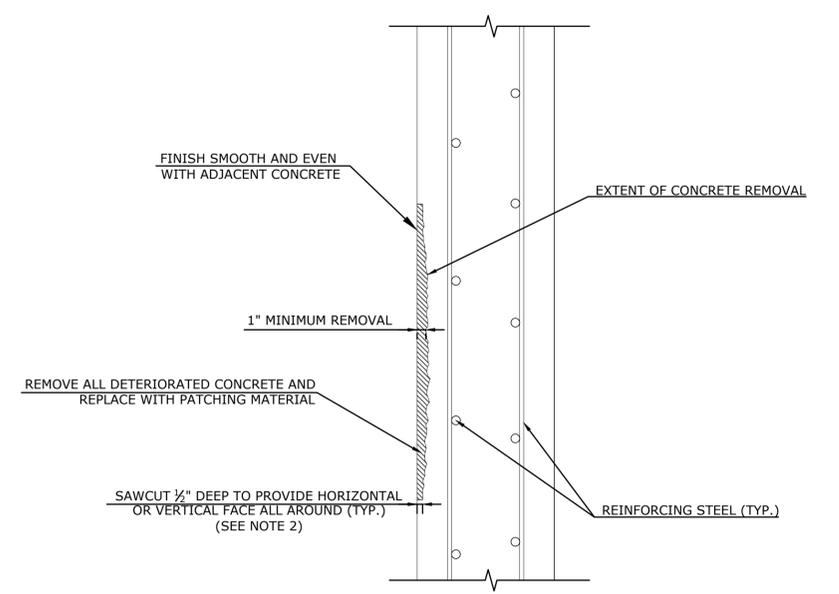
F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	14	15



**REPAIR OF DAMAGED REINFORCING STEEL**  
NOT TO SCALE



**TYPICAL PARTIAL DEPTH PATCH REPAIR (BELOW TOP REINFORCING STEEL)**  
NOT TO SCALE



**PARTIAL DEPTH PATCH (ABOVE TOP REINFORCING STEEL)**  
NOT TO SCALE

**CONCRETE REPAIR NOTES:**

1. THE DETERIORATED AREAS SHALL BE REPAIRED BY THE CONTRACTOR UTILIZING THE "PARTIAL DEPTH PATCH" ITEM FOR REPAIR TO THE WALLS AS DIRECTED BY THE ENGINEER.
2. THE COST OF REMOVAL OF THE DETERIORATED CONCRETE, INCLUDING THE 1/2 IN. SAW CUT, AND THE FURNISHING AND PLACING THE CONCRETE SHALL BE PAID FOR UNDER THE ITEM "PARTIAL DEPTH PATCH" FOR REPAIR TO THE WALLS.
3. WHERE EXISTING REINFORCING STEEL IS NOT SOUND, REPAIRS SHALL BE MADE AS SHOWN ON THIS SHEET AND/OR AS DIRECTED BY THE ENGINEER.
4. THE REINFORCEMENT USED FOR REPAIRS SHALL CONFORM TO ASTM A615 GRADE 60.
5. THE COST OF FURNISHING AND PLACING THE REINFORCEMENT SHALL BE PAID FOR UNDER THE ITEM "DEFORMED STEEL BARS".
6. CONCRETE USED FOR PARTIAL DEPTH PATCH SHALL CONFORM TO SPECIAL PROVISION "PARTIAL DEPTH PATCH".

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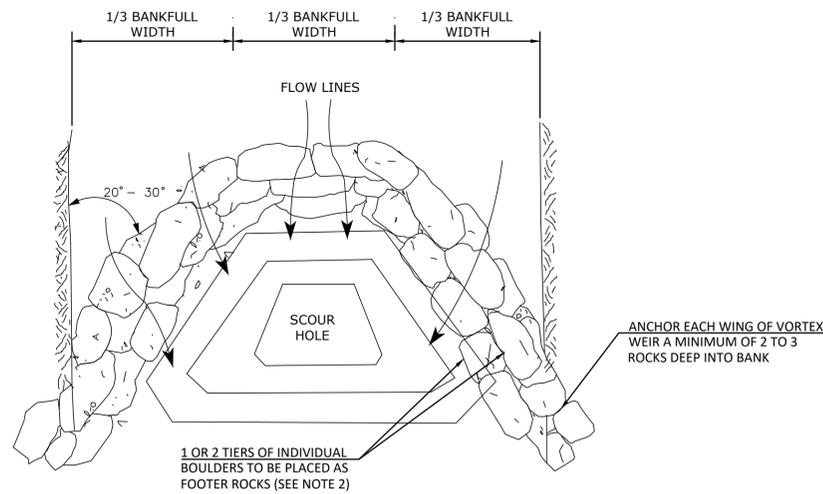
**REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
MISCELLANEOUS DETAILS**

D - S. TURNPIKE ROAD -			16032.10	SHEET 14	
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF
					15

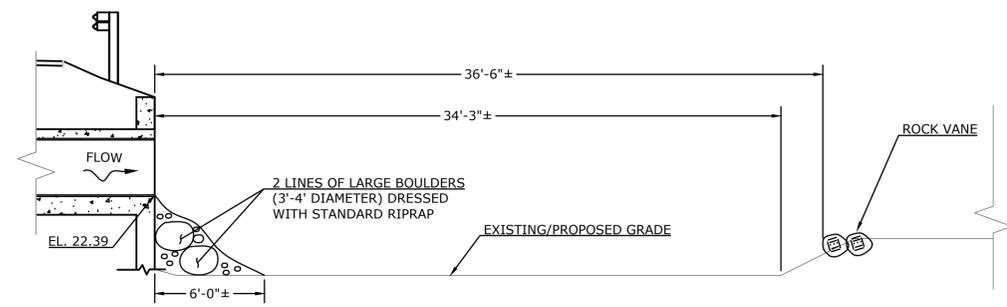
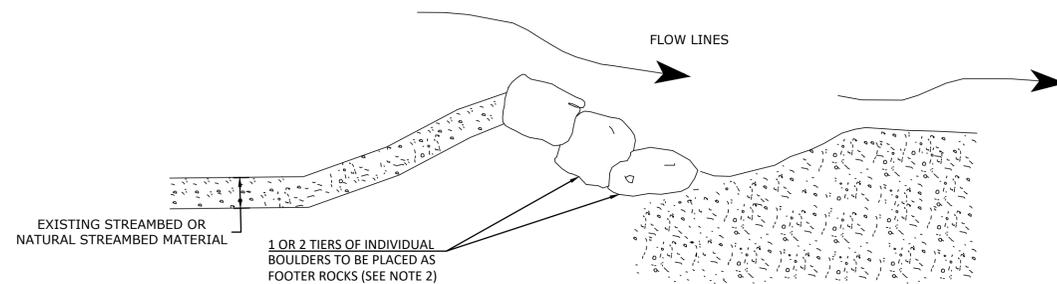
F.H.W.A REGION NO.	STATE	TOWN	FEDERAL AID PROJECT NO.	PROJECT NO.	YEAR	ROUTE NO.	SHEET NO.	TOTAL SHEETS
FHWA?	CT	WALLINGFORD	N/A	N/A	2020	TR	15	15

**NOTES:**

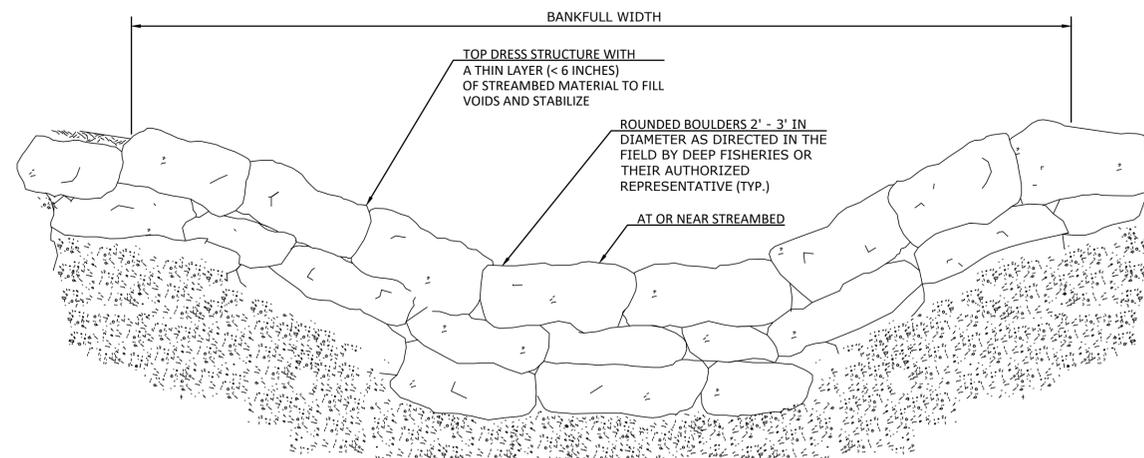
1. PLACEMENT OF THE ROCK VANE SHALL BE DIRECTED IN THE FIELD BY DEEP FISHERIES OR THEIR AUTHORIZED REPRESENTATIVE. SEE SPECIAL PROVISION "ROCK VANE".
2. FOOTER ROCKS SHALL SERVE AS THE FOUNDATION FOR THE TOP LAYER OF THE VANE. FOOTER ROCKS SHALL HAVE REASONABLE FLAT TOPS AND BOTTOMS TO ENABLE BETTER PLACEMENT OF THE TOP LAYER OF THE VANE.
3. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE ROCK VANE SHALL BE PAID FOR UNDER SPECIAL PROVISION "ROCK VANE." EXISTING OR NATURAL STREAMBED MATERIAL TO BE PAID FOR UNDER SPECIAL PROVISION "EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL" AND, "SUPPLEMENTAL STREAMBED CHANNEL MATERIAL".



**ROCK VANE PLAN VIEW**  
SCALE: N.T.S.



**DOWNSTREAM SECTION VIEW "A-A"**  
SCALE: 1" = 5'-0"



**ROCK VANE ELEVATION VIEW**  
SCALE: N.T.S.

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REHABILITATION OF SOUTH TURNPIKE ROAD  
CULVERT OVER MANSION BROOK  
ROCK VANE DETAILS

D - S. TURNPIKE ROAD -	16032.10	SHEET	15
SIZE PROJECT FILE NAME NUMBER REV.		OF	15