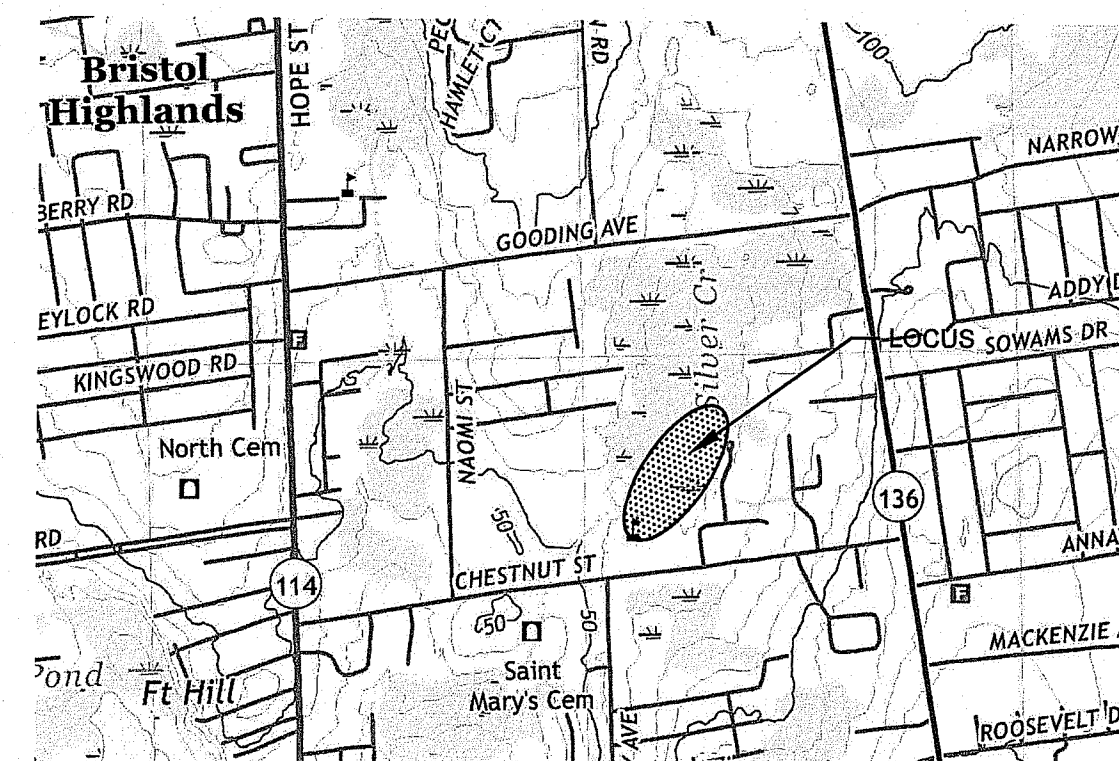


# SILVER CREEK - EAST BRANCH CHANNEL RESTORATION PROJECT

BRISTOL, RHODE ISLAND

## RIDEM PERMITTING AND CONSTRUCTION DOCUMENTS

Environmental Management  
AUG 29 2019  
Office of Water Resources



LOCATION MAP  
NOT TO SCALE

### INDEX OF DRAWINGS

- 1 COVER SHEET
- 2 NOTES AND DETAILS
- 3 CHANNEL RESTORATION PLAN
- 4 ACCESS ROUTING AND SEDIMENTATION AND TURBIDITY CONTROL PLAN
- 5 CHANNEL SECTIONS

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

**CERTIFICATION:**

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY:	NOT A BOUNDARY SURVEY
OTHER TYPE OF SURVEY:	COMPILATION PLAN
MEASUREMENT SPECIFICATION:	HORIZONTAL ACCURACY: N/A
	VERTICAL ACCURACY: N/A
	TOPOGRAPHIC ACCURACY: N/A

*David T. Bray* 7/1/19  
DAVID T. BRAY P.L.S. NO. 1689 DATE  
CAPUTO AND WICK LTD., REG. NO. A177

THIS COMPILATION PLAN HAS BEEN PREPARED FROM SOURCES OF INFORMATION AND DATA WHOSE POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED. THE PROPERTY LINES DEPICTED HEREON DO NOT REPRESENT A BOUNDARY OPINION, AND OTHER INFORMATION DEPICTED IS SUBJECT TO SUCH CHANGES AS AN AUTHORITY FIELD SURVEY MAY DISCLOSE.

THE PURPOSE OF THIS MAP IS TO DEPICT THE AREAS ALONG SILVER CREEK TO BE RESTORED BY REMOVING SEDIMENT.

PREPARED FOR  
**TOWN OF BRISTOL**  
10 COURT STREET  
BRISTOL, RHODE ISLAND 02809

**JULY 1, 2019**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUL 15 2020 FILE # 19-0259  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Stephen D. Schneck*

COVER

<p>DAVID T. BRAY PROFESSIONAL LAND SURVEYOR</p>	<p>KEVIN R. HARROP REGISTERED PROFESSIONAL ENGINEER CIVIL</p>	<p>SILVER CREEK - EAST BRANCH CHANNEL RESTORATION PROJECT PREPARED FOR TOWN OF BRISTOL BRISTOL, RHODE ISLAND SCALE: 1" = 40'</p>	
		<p><b>CAPUTO AND WICK LTD.</b> Land Surveying, Civil Engineering, Environmental Services, Traffic Engineering and Construction Engineering 1150 PAWTUCKET AVE. RUMFORD, R.I. 02916-1897 Tel: 401-434-8880 WWW.CWLTD.NET</p>	<p>DATE JULY 1, 2019</p> <p>SHEET 1 OF 5</p>



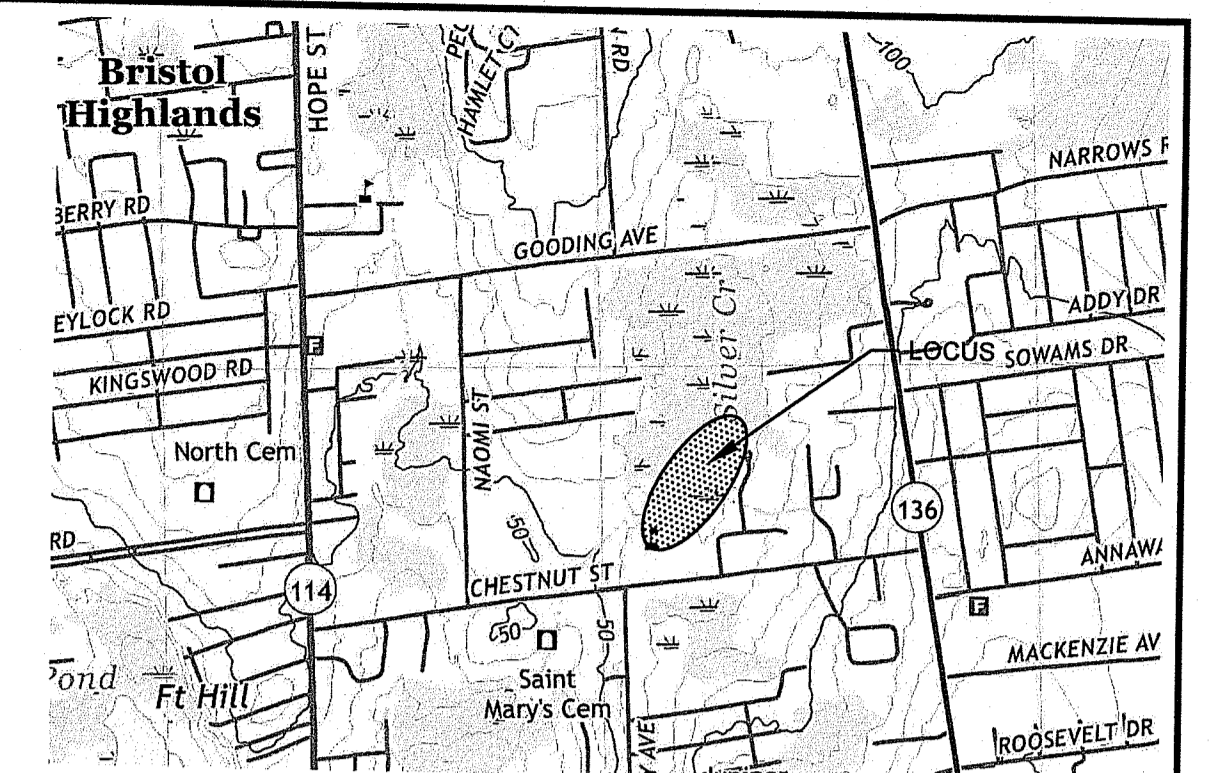
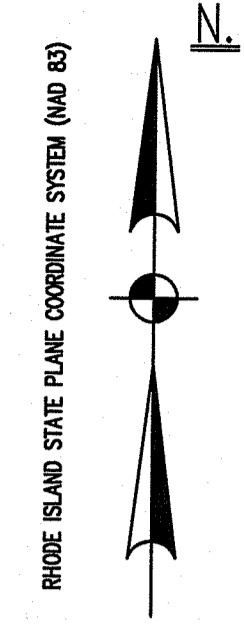
**GENERAL WETLAND NOTES**

1. THE TOP AND TOE OF CHANNEL BANKS ASSOCIATED WITH SILVER CREEK AND THREE OF ITS TRIBUTARIES WERE FIELD LOCATED BY CAPUTO AND WICK LTD., DECEMBER 2018.
2. FRESHWATER WETLAND EDGES HAVE NOT BEEN FIELD DELINEATED, CONSISTENT WITH RIDEM PRE-APPLICATION MEETING DISCUSSIONS ON JUNE 6, 2018.
3. MUCH OF THE SUBJECT SEGMENT OF SILVER CREEK AND THE WORK AREAS ARE LOCATED WITHIN FORESTED FRESHWATER WETLANDS MEETING THE DEFINITION OF SWAMP.
4. ALL STREAMBANK WORK AND DESIGNATED MACHINERY ACCESS ROUTES LIE WITHIN THE 200-FOOT RIVERBANK WETLANDS OF SILVER CREEK. 100-FOOT RIVERBANK WETLANDS FROM SILVER CREEK'S FOUR TRIBUTARIES ALSO APPLY.
5. THE ENTIRE WORK AREA LIES WITHIN FLOOD ZONE AE, RANGING IN ELEVATION FROM APPROXIMATELY 60 TO 61, AS DEPICTED ON FEMA MAP NUMBER 44001C0011H, REVISED JULY 7, 2014.
6. RESTORATION ACTIVITY FLAGS 1 - 27 WERE ESTABLISHED IN THE FIELD IN GREEN FLAGGING, AND CROSS SECTIONS 1 - 9 WERE ESTABLISHED IN PINK FLAGGING, BY CAPUTO AND WICK LTD., DECEMBER 2018.

**GENERAL PLAN NOTES**

1. AERIAL IMAGERY OBTAINED FROM RHODE ISLAND DIVISION OF STATEWIDE PLANNING, IMAGERY DATE APRIL 2014.
2. ASSESSORS LOT LINES AND OWNERSHIP INFORMATION OBTAINED FROM THE BRISTOL ONLINE GEOGRAPHIC INFORMATION SYSTEM.
3. UTILITY INFORMATION HAS NOT BEEN RESEARCHED AND IS NOT INDICATED ON THE MAPPING. CONTRACTOR IS TO CONTACT DIG-SAFE PRIOR TO COMMENCING THE PROJECT.

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**LOCATION MAP**  
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUL 15 2020 FILE # 19-0259  
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**CERTIFICATION:**

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MEASUREMENT SPECIFICATION: HORIZONTAL ACCURACY: N/A  
VERTICAL ACCURACY: N/A  
TOPOGRAPHIC ACCURACY: N/A

DAVID T. BRAY PLS NO. 1259 7/1/19  
CAPUTO AND WICK LTD., COA NO. A177

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THE PURPOSE OF THIS MAP IS TO DEPICT THE AREAS ALONG SILVER CREEK TO BE RESTORED BY REMOVING SEDIMENT.

**LEGEND**

- COMPACT SEDIMENT DEPOSIT TO BE REMOVED
- GENERAL SEDIMENT OVERLAY TO BE REMOVED
- TOP OF RIVERBANK
- TOE OF RIVER BANK

Environmental Management  
AUG 29 2019  
Office of Water Resources

**CHANNEL RESTORATION PLAN**

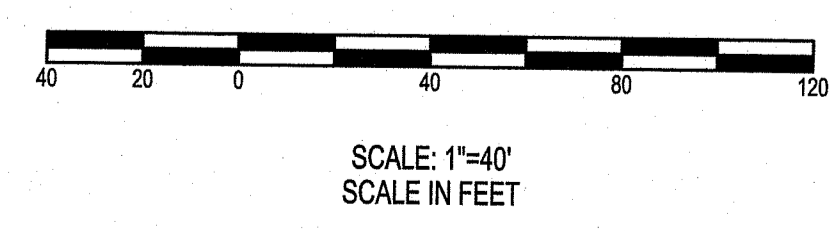
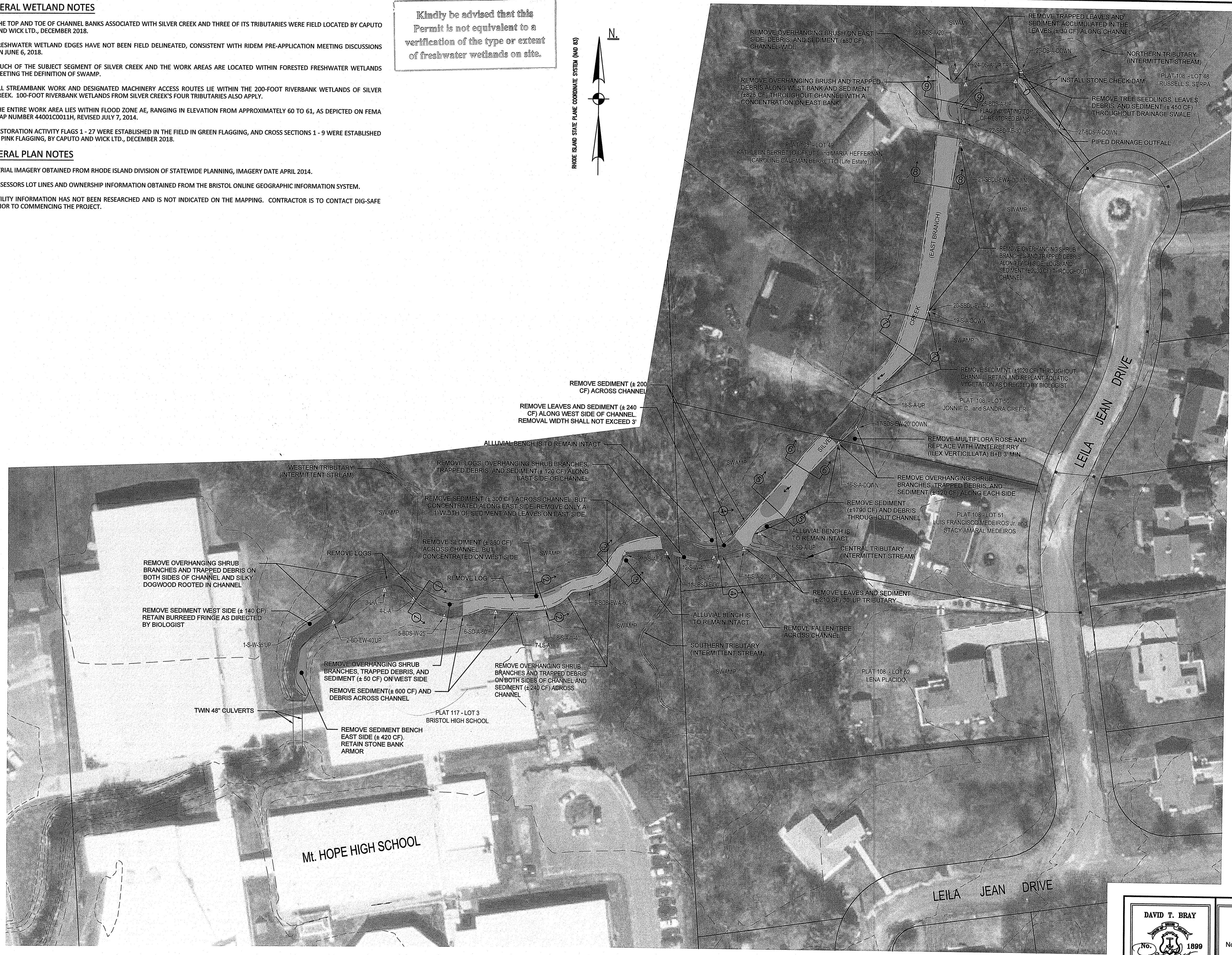
SILVER CREEK - EAST BRANCH  
CHANNEL RESTORATION PROJECT  
PREPARED FOR  
TOWN OF BRISTOL  
BRISTOL, RHODE ISLAND  
SCALE: 1" = 40'

DAVID T. BRAY  
No. 1259  
1899  
PROFESSIONAL  
LAND SURVEYOR

KEVIN R. HARROP  
No. 9200  
REGISTERED  
PROFESSIONAL ENGINEER  
CIVIL

**CAPUTO AND WICK LTD.**  
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3 OF 5



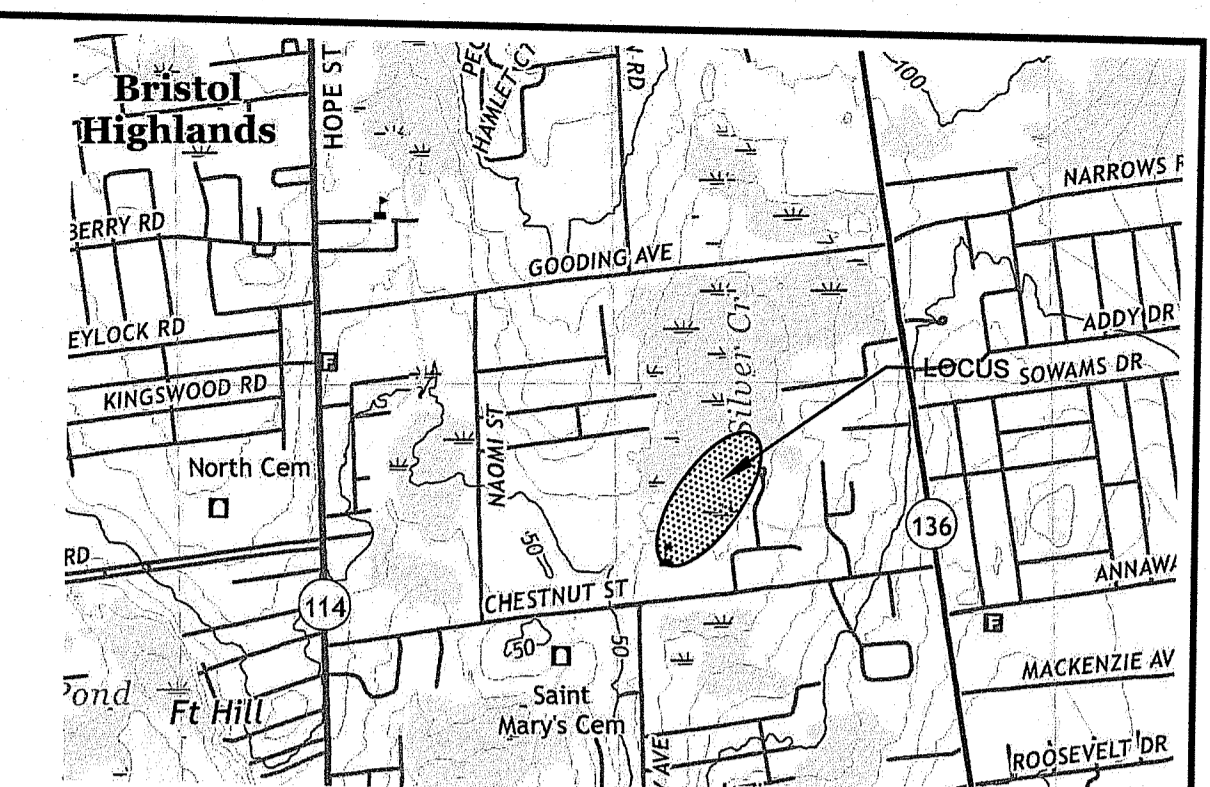
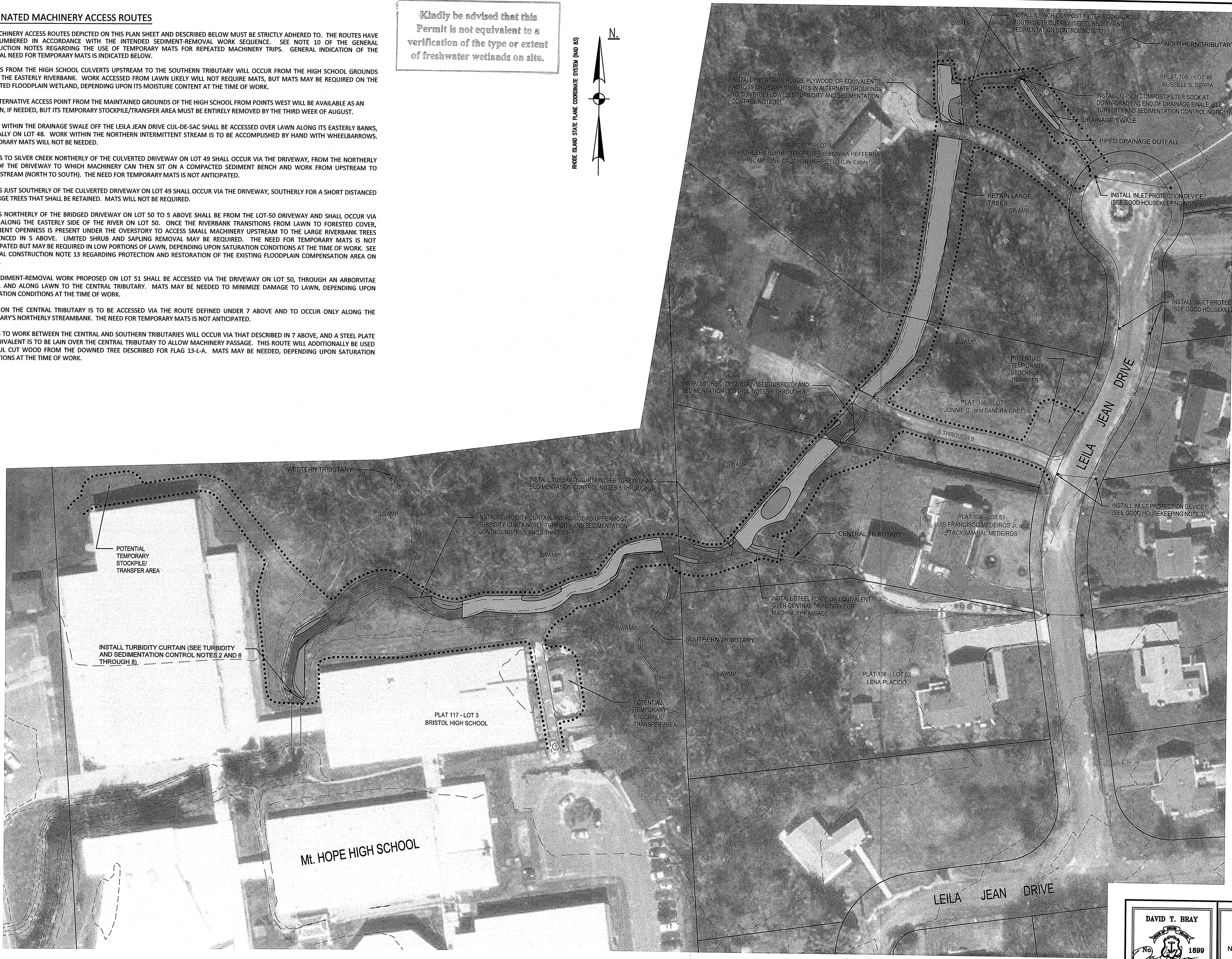
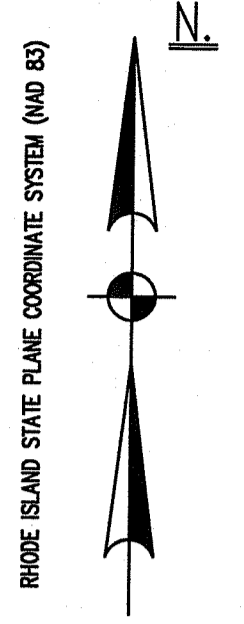
F:\RhodeIsland\Bristol\Leila Jean Drive\201801101 RI Bristol Silver Creek - Plans.dwg

**DESIGNATED MACHINERY ACCESS ROUTES**

THE MACHINERY ACCESS ROUTES DEPICTED ON THIS PLAN SHEET AND DESCRIBED BELOW MUST BE STRICTLY ADHERED TO. THE ROUTES HAVE BEEN NUMBERED IN ACCORDANCE WITH THE INTENDED SEDIMENT-REMOVAL WORK SEQUENCE. SEE NOTE 10 OF THE GENERAL CONSTRUCTION NOTES REGARDING THE USE OF TEMPORARY MATS FOR REPEATED MACHINERY TRIPS. GENERAL INDICATION OF THE POTENTIAL NEED FOR TEMPORARY MATS IS INDICATED BELOW.

1. ACCESS FROM THE HIGH SCHOOL CULVERTS UPSTREAM TO THE SOUTHERN TRIBUTARY WILL OCCUR FROM THE HIGH SCHOOL GROUNDS FROM THE EASTERLY RIVERBANK. WORK ACCESSED FROM LAWN LIKELY WILL NOT REQUIRE MATS, BUT MATS MAY BE REQUIRED ON THE FORESTED FLOODPLAIN WETLAND, DEPENDING UPON ITS MOISTURE CONTENT AT THE TIME OF WORK.
2. AN ALTERNATIVE ACCESS POINT FROM THE MAINTAINED GROUNDS OF THE HIGH SCHOOL FROM POINTS WEST WILL BE AVAILABLE AS AN OPTION, IF NEEDED, BUT ITS TEMPORARY STOCKPILE/TRANSFER AREA MUST BE ENTIRELY REMOVED BY THE THIRD WEEK OF AUGUST.
3. WORK WITHIN THE DRAINAGE SWALE OFF THE LEILA JEAN DRIVE CUL-DE-SAC SHALL BE ACCESSED OVER LAWN ALONG ITS EASTERLY BANKS, PARTIALLY ON LOT 48. WORK WITHIN THE NORTHERN INTERMITTENT STREAM IS TO BE ACCOMPLISHED BY HAND WITH WHEELBARROWS. TEMPORARY MATS WILL NOT BE NEEDED.
4. ACCESS TO SILVER CREEK NORTHERLY OF THE CULVERTED DRIVEWAY ON LOT 49 SHALL OCCUR VIA THE DRIVEWAY, FROM THE NORTHERLY SIDE OF THE DRIVEWAY TO WHICH MACHINERY CAN THEN SIT ON A COMPACTED SEDIMENT BENCH AND WORK FROM UPSTREAM TO DOWNSTREAM (NORTH TO SOUTH). THE NEED FOR TEMPORARY MATS IS NOT ANTICIPATED.
5. ACCESS JUST SOUTHERLY OF THE CULVERTED DRIVEWAY ON LOT 49 SHALL OCCUR VIA THE DRIVEWAY, SOUTHERLY FOR A SHORT DISTANCED TO LARGE TREES THAT SHALL BE RETAINED. MATS WILL NOT BE REQUIRED.
6. ACCESS NORTHERLY OF THE BRIDGED DRIVEWAY ON LOT 50 TO 5 ABOVE SHALL BE FROM THE LOT-50 DRIVEWAY AND SHALL OCCUR VIA LAWN ALONG THE EASTERLY SIDE OF THE RIVER ON LOT 50. ONCE THE RIVERBANK TRANSITIONS FROM LAWN TO FORESTED COVER, SUFFICIENT OPENNESS IS PRESENT UNDER THE OVERSTORY TO ACCESS SMALL MACHINERY UPSTREAM TO THE LARGE RIVERBANK TREES REFERENCED IN 5 ABOVE. LIMITED SHRUB AND SAPLING REMOVAL MAY BE REQUIRED. THE NEED FOR TEMPORARY MATS IS NOT ANTICIPATED BUT MAY BE REQUIRED IN LOW PORTIONS OF LAWN, DEPENDING UPON SATURATION CONDITIONS AT THE TIME OF WORK. SEE GENERAL CONSTRUCTION NOTE 13 REGARDING PROTECTION AND RESTORATION OF THE EXISTING FLOODPLAIN COMPENSATION AREA ON LOT 50.
7. THE SEDIMENT-REMOVAL WORK PROPOSED ON LOT 51 SHALL BE ACCESSED VIA THE DRIVEWAY ON LOT 50, THROUGH AN ARBORVITAE HEDGE, AND ALONG LAWN TO THE CENTRAL TRIBUTARY. MATS MAY BE NEEDED TO MINIMIZE DAMAGE TO LAWN, DEPENDING UPON SATURATION CONDITIONS AT THE TIME OF WORK.
8. WORK ON THE CENTRAL TRIBUTARY IS TO BE ACCESSED VIA THE ROUTE DEFINED UNDER 7 ABOVE AND TO OCCUR ONLY ALONG THE TRIBUTARY'S NORTHERLY STREAMBANK. THE NEED FOR TEMPORARY MATS IS NOT ANTICIPATED.
9. ACCESS TO WORK BETWEEN THE CENTRAL AND SOUTHERN TRIBUTARIES WILL OCCUR VIA THAT DESCRIBED IN 7 ABOVE, AND A STEEL PLATE OR EQUIVALENT IS TO BE LAID OVER THE CENTRAL TRIBUTARY TO ALLOW MACHINERY PASSAGE. THIS ROUTE WILL ADDITIONALLY BE USED TO HAUL CUT WOOD FROM THE DOWNED TREE DESCRIBED FOR FLAG 13-L-A. MATS MAY BE NEEDED, DEPENDING UPON SATURATION CONDITIONS AT THE TIME OF WORK.

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**LOCATION MAP**  
NOT TO SCALE

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OFFICE OF WATER RESOURCES  
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*David T. Bray* 7/1/19  
DAVID T. BRAY PLS NO. 1899 DATE  
CAPUTO AND WICK LTD., CO. NO. A177

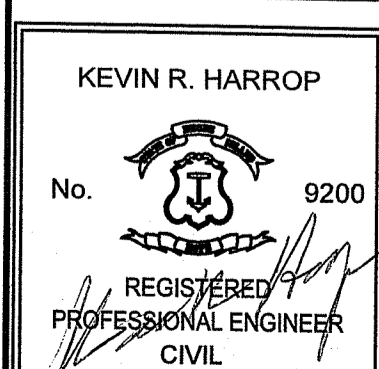
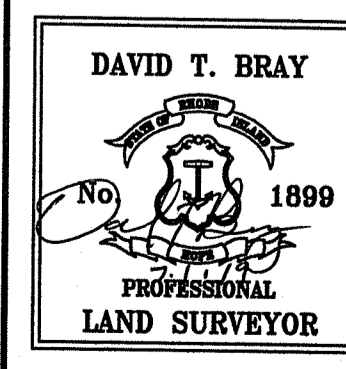
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**LEGEND**

- ① DESIGNATED MACHINERY ACCESS ROUTE NUMBER
- - - EDGE OF MACHINERY ACCESS ROUTE
- ..... LIMIT OF DISTURBANCE

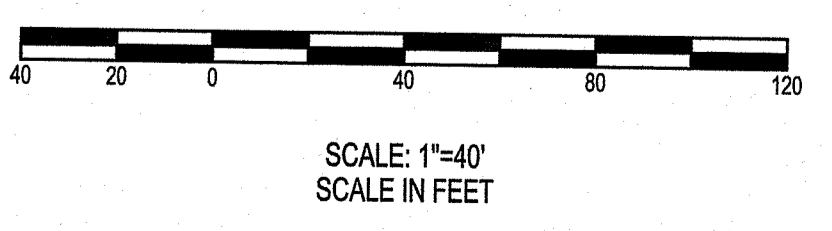
**ACCESS ROUTING AND SEDIMENTATION AND TURBIDITY CONTROL PLAN**



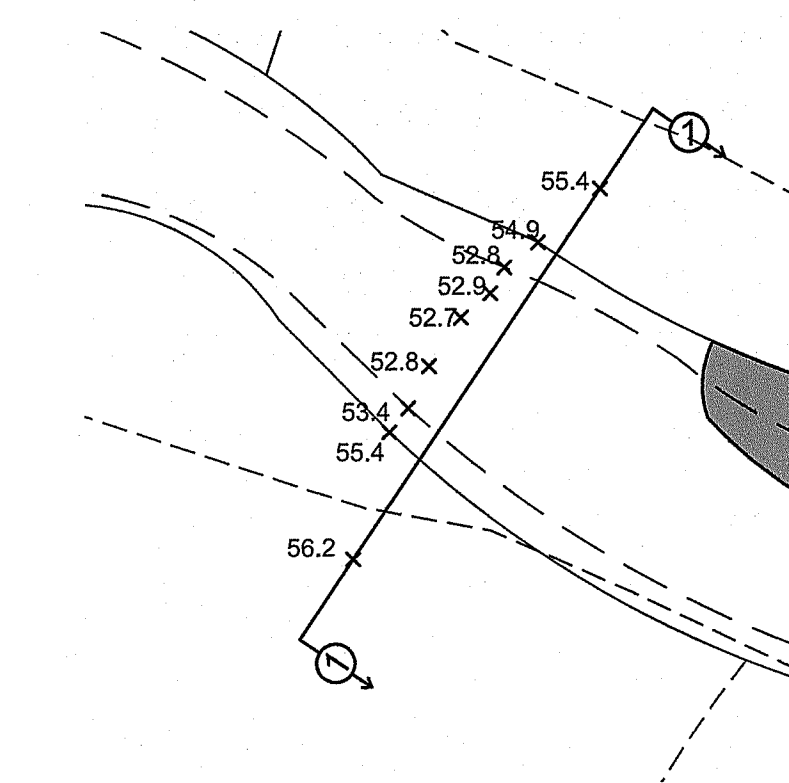
SILVER CREEK - EAST BRANCH CHANNEL RESTORATION PROJECT  
PREPARED FOR  
TOWN OF BRISTOL  
BRISTOL, RHODE ISLAND  
SCALE: 1" = 40'

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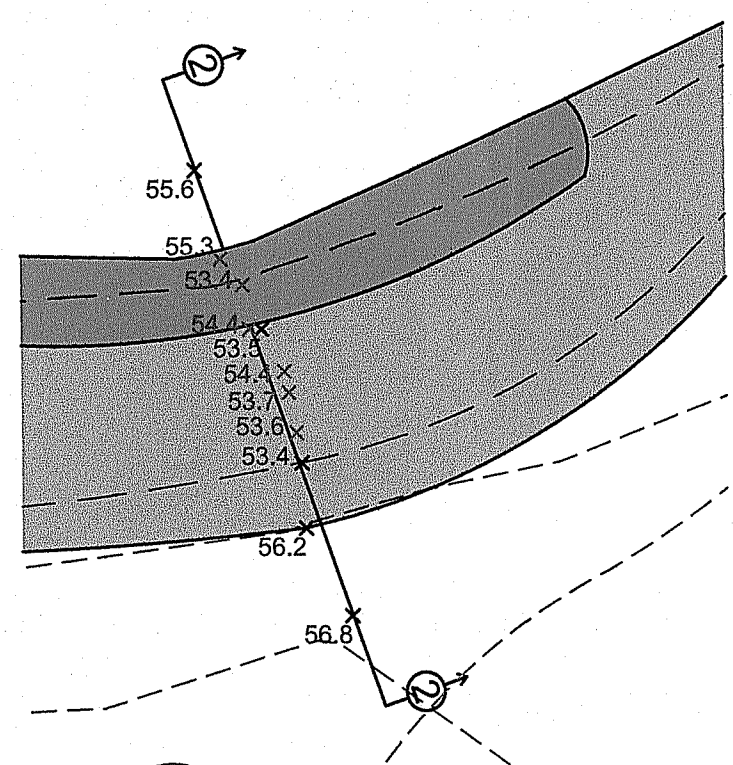
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4 OF 5



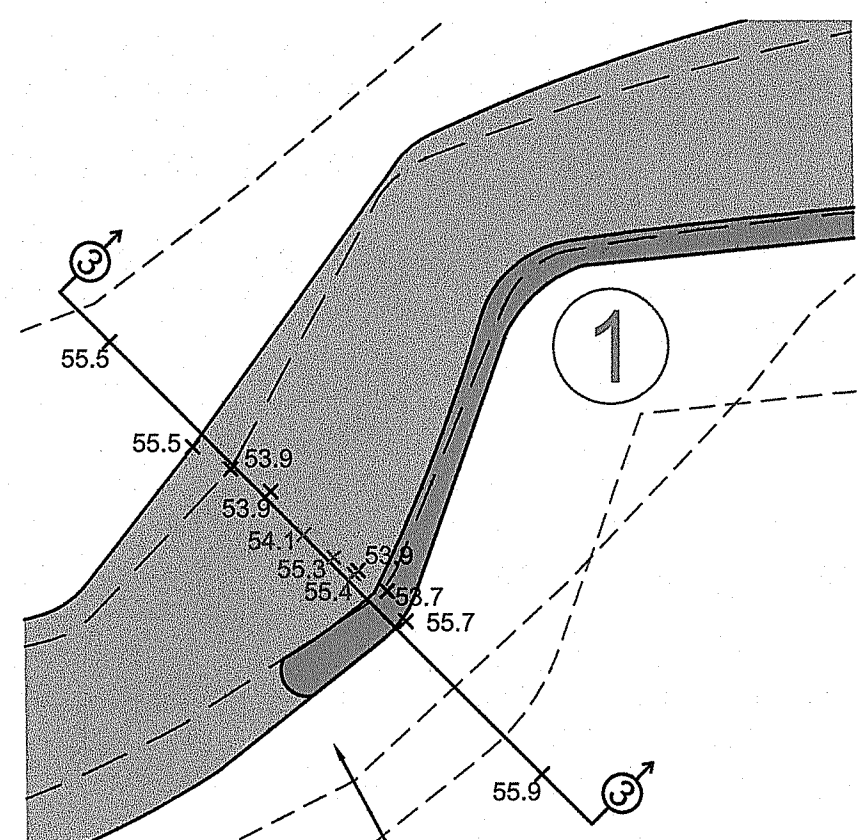
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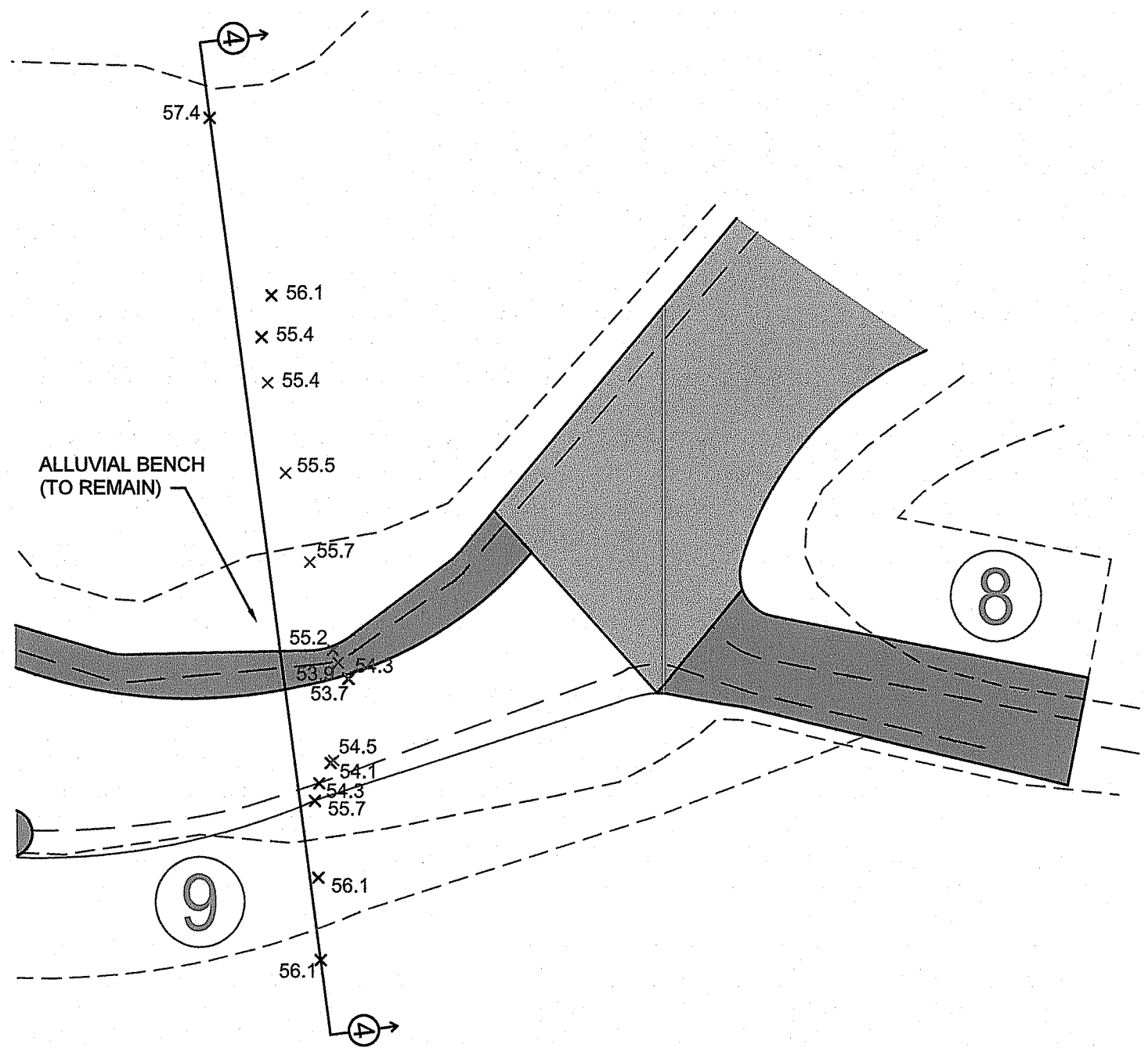
**SECTION 1-1**  
NATURAL CHANNEL CROSS  
SECTION WITH NO WORK NEEDED



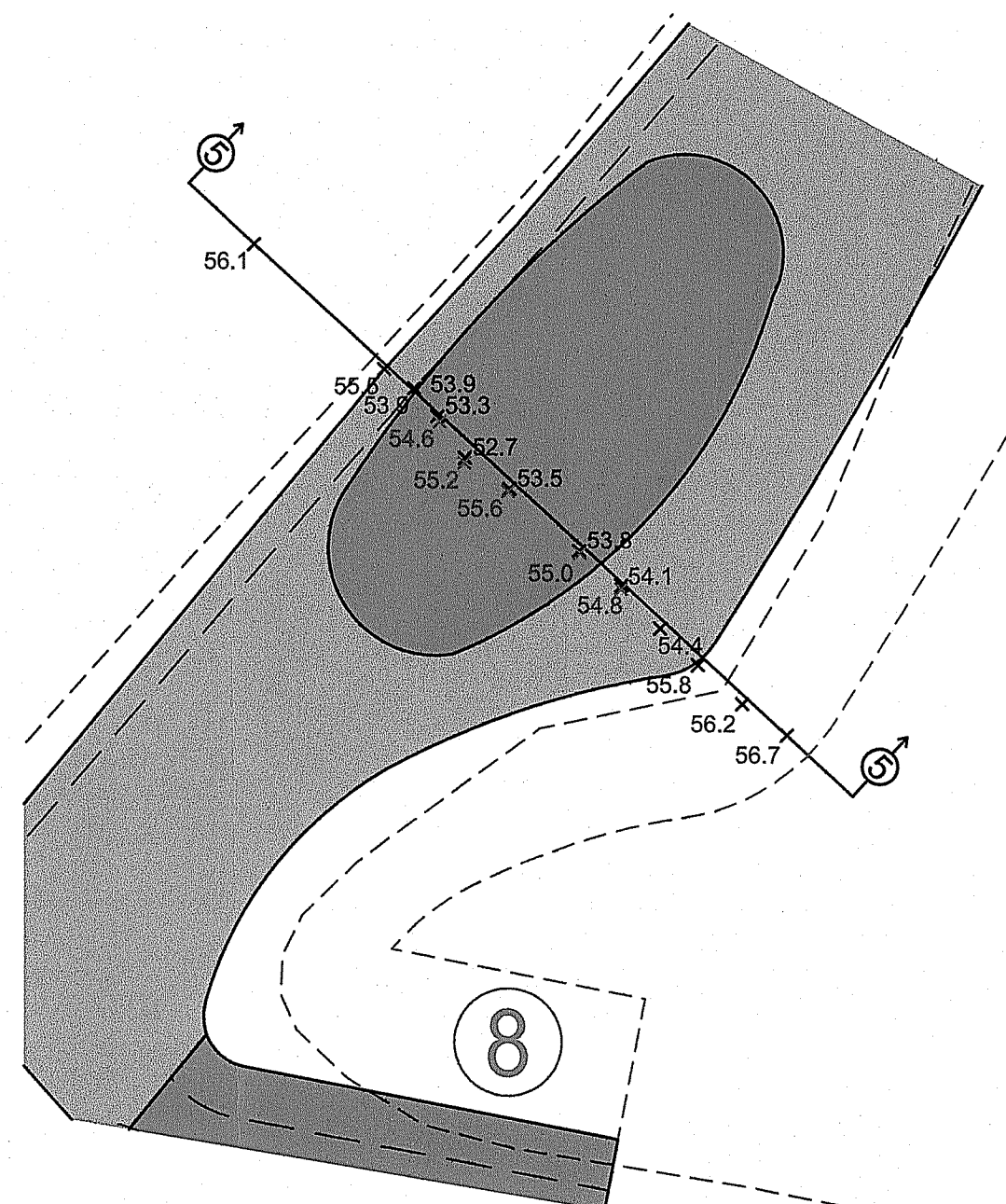
**SECTION 2-2**



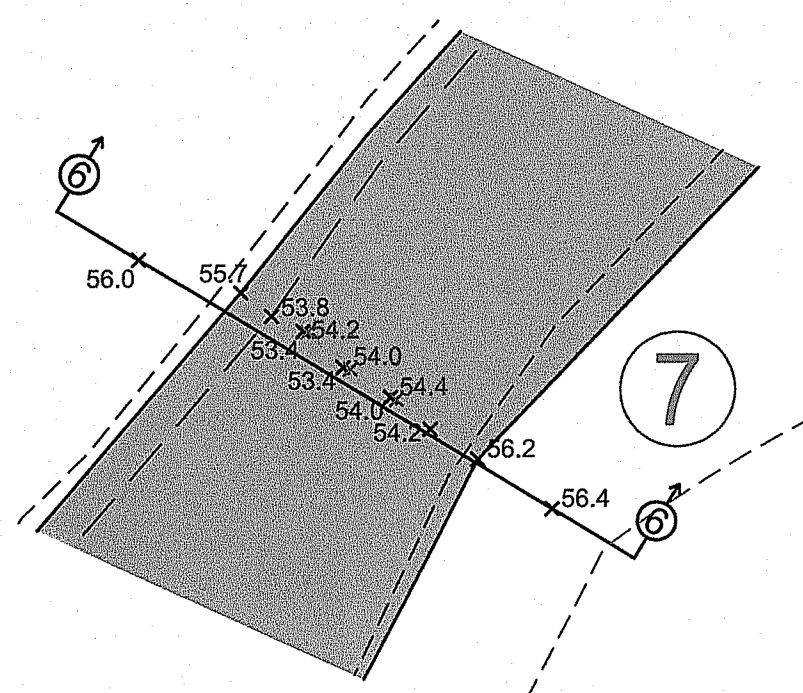
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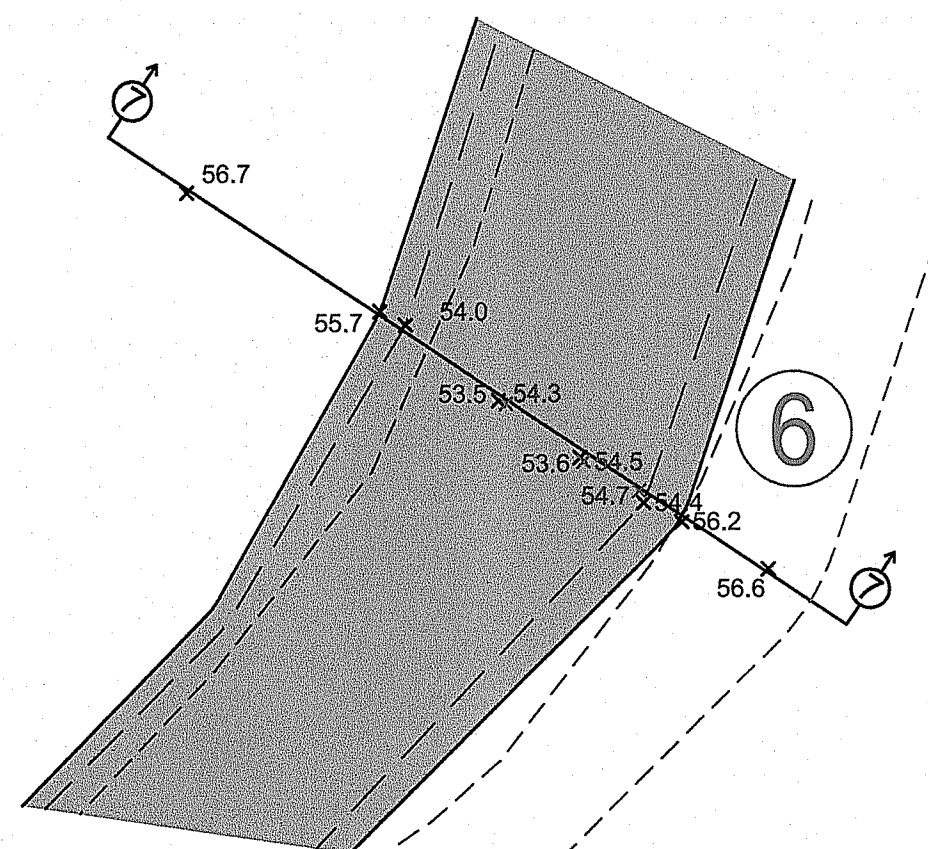
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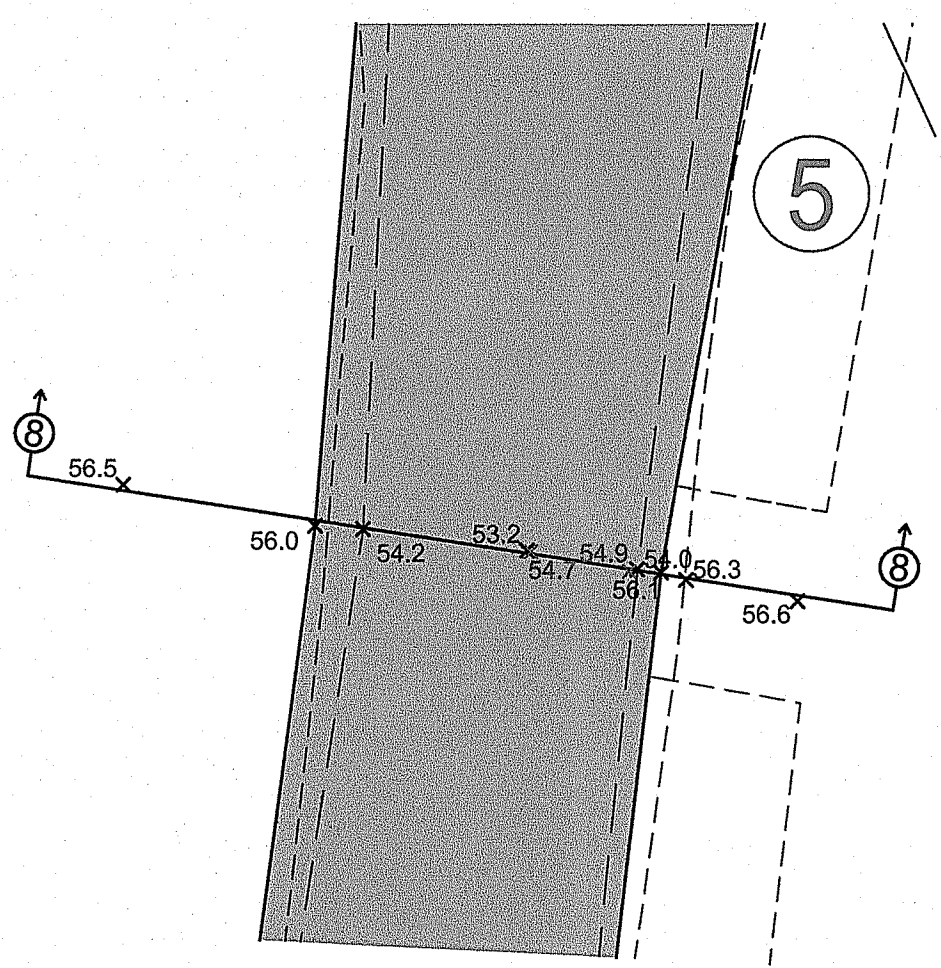
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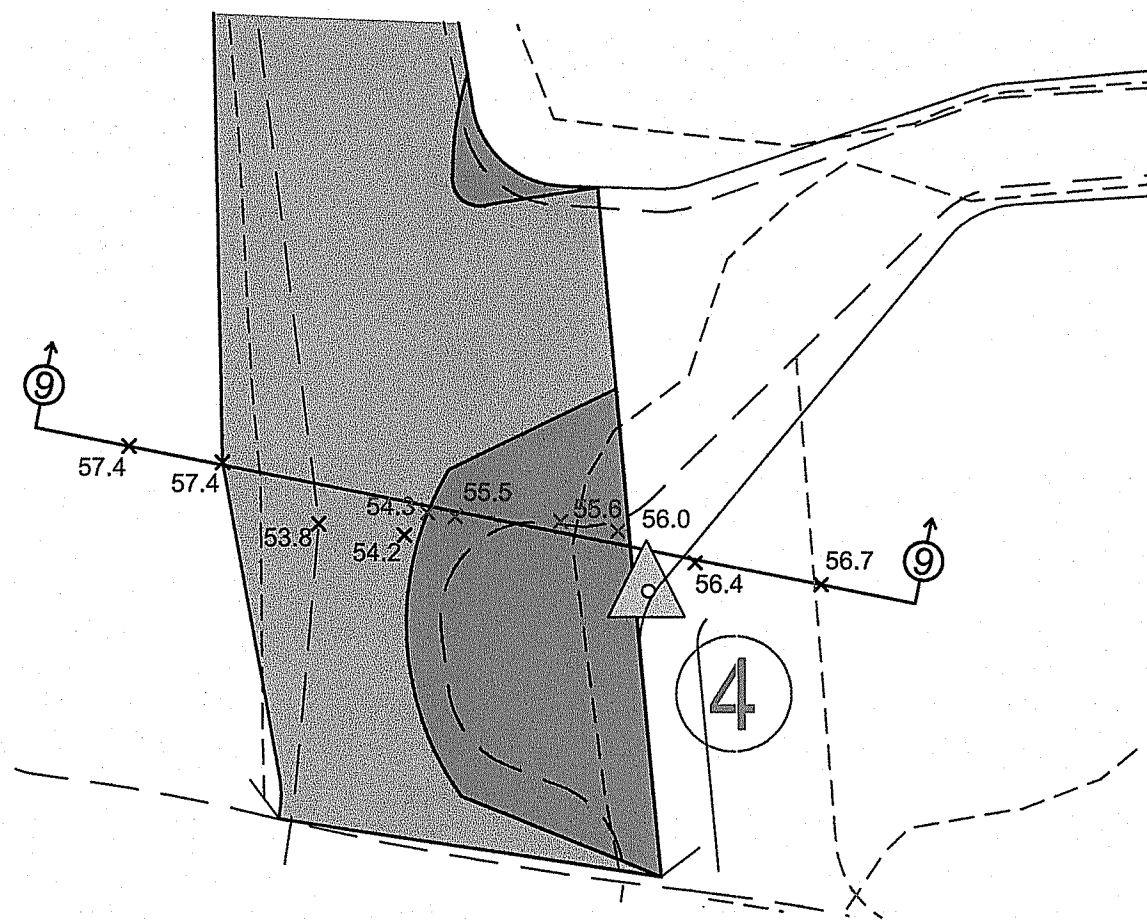
**SECTION 6-6**



**SECTION 7-7**



**SECTION 8-8**



**SECTION 9-9**

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**LEGEND**

- COMPACT SEDIMENT DEPOSIT TO BE REMOVED
- GENERAL SEDIMENT OVERLAY TO BE REMOVED
- NATIVE CHANNEL CONFIGURATION
- ACCUMULATED SEDIMENT TO BE REMOVED
- DESIGNATED MACHINERY ACCESS ROUTE NUMBER
- EDGE OF MACHINERY ACCESS ROUTE
- LIMIT OF DISTURBANCE

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SCALE: PLAN VIEWS SCALE: 1"=10'  
SECTION VIEWS HORIZONTAL SCALE: 1"=4'  
VERTICAL SCALE: 1"=2'

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RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD 83)

N

Environmental Management  
AUG 29 2019  
Office of Water Resources

**CHANNEL CROSS SECTIONS**

<p><b>DAVID T. BRAY</b> No. 1899 PROFESSIONAL LAND SURVEYOR</p>	<p><b>KEVIN R. HARROP</b> No. 9200 REGISTERED PROFESSIONAL ENGINEER CIVIL</p>	<p><b>SILVER CREEK - EAST BRANCH CHANNEL RESTORATION PROJECT</b> PREPARED FOR <b>TOWN OF BRISTOL</b> BRISTOL, RHODE ISLAND SCALE: 1" = 40'</p>
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		<p>DATE JULY 1, 2019 SHEET 5 OF 5</p>