



**STATE ENVIRONMENTAL QUALITY REVIEW ACT  
DETERMINATION OF NON-SIGNIFICANCE (NEGATIVE DECLARATION)**

**STONY BROOK MITIGATION**

DATE: June 21, 2017

NAME OF ACTION: Stony Brook Mitigation

LOCATION: 2.6 mile stretch of Stony Brook Creek in the Town of Schoharie

SEQRA CLASSIFICATION:  Type I;  Unlisted

REVIEW TYPE:  Coordinated;  Uncoordinated

DETERMINATION OF SIGNIFICANCE:  Negative Declaration;  Positive Declaration

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**The Proposed Project:**

The Schoharie County Soil & Water Conservation District (“SCSWCD”) proposes to utilize CDBG-DR funding to implement a stream repair and restoration project along approximately 2.6 miles of Stony Brook (the “Proposed Project”). Stony Brook is a tributary to Schoharie Creek, which flows to the Mohawk River and then to the Hudson River. The project site is located in the town of Schoharie, in northeastern Schoharie County, New York. The Proposed Project includes eight (8) proposed restoration areas and is anticipated to improve the health of the riverine system, prevent flooding and protect infrastructure and private residential properties during storm events. The Proposed Project includes the following eight (8) proposed restoration areas:

Area 1

Channel Location (STA): 32+00 – 14+50  
Latitude: 42.645601 / Longitude: -74.326106

Area 2

Channel Location (STA): 32+50 – 44+00  
Latitude: 42.644488 / Longitude: -74.321308

Area 3A

Channel Location (STA): 48+50 – 67+00  
Latitude: 42.642651 / Longitude: -74.316228

Area 3B

Channel Location (STA): 48+50 – 67+00  
Latitude: 42.642989 / Longitude: -74.313465

**Area 4**

Channel Location (STA): 70+00 – 82+00  
Latitude: 42.644698 / Longitude: -74.309846

**Area 5**

Channel Location (STA): 86+00 – 99+00  
Latitude: 42.646348 / Longitude: -74.305249

**Area 6**

Channel Location (STA): 100+50 – 114+00  
Latitude: 42.645921 / Longitude: -74.300552

**Area 7**

Channel Location (STA): 134+00 – 150+00  
Latitude: 42.644092 / Longitude: -74.290176

The Proposed Project would include development of sediment management standards to guide removal of sediment and proper channel sizing at the above locations. In addition, based on the engineering study, the following improvement measures are also proposed for specific areas: installation of rock vane structures to improve sediment transport; removal of sidecast sediments; installation of grade control to arrest channel incision and prevent additional incision; repair and restacking of stacked rock revetment wall and installation of grade control; roughening of channel with random boulder placement; bank failure repair and relocation of channel away from toe of slope; replacement of undersized culvert at Frisbieville Road; and replacement of undersized culvert at Stony Brook Road.

The Proposed Project will require the following permits:

- New York State Department of Transportation Highway Work Permit
- New York State Department of Environmental Conservation Article 15 Protection of Waters Permit and 401 Water Quality Certification
- New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (“SPDES”) General Permit for Stormwater Discharges from Construction Activities
- United States Army Corps of Engineers Section 404 Clean Water Act and Section 10 Rivers and Harbors Act permit

**Purpose and Need:**

Severe flooding events, most significantly Tropical Storm Irene in 2011, and also a June 2013 flood event have resulted in severe bed and bank erosion within the Stony Brook channel as well as aggradation of bedload sediment. This aggradation of sediment has clogged culvert and bridge crossings, leading to the reduction of flood conveyance capacity in the channel. The sediment migration has caused the channel to become unstable, with bank erosion and excessive sedimentation in many areas.

During Tropical Storm Irene, Stony Brook overflowed, flooding houses along Frisbieville Road and undermined the shoulder of Stony Brook Road to the point of collapse. Stony Brook Road is a major evacuation route for residents of the northern part of the Town of Schoharie, isolating the upstream population and hindering access to emergency sheltering. In addition, emergency services were slowed down due to the reduced access capacity to the southern part of the Town.

The Proposed Project is anticipated to improve the health of the riverine system, prevent future flooding, and protect infrastructure and private residential properties during storm events.

**Existing Conditions:**

Stony Brook is prone to overflowing during severe storm events, flooding houses along Frisbieville Road and undermining Stony Brook Road to the point of collapse. Stony Brook is classified as a New York State Department of Environmental Conservation Class C stream; it is not listed in the Wild, Scenic, and

Recreational Rivers List (NYSDEC 2017) nor on the Nationwide Rivers Inventory (NPS 2011). Stony Brook is mapped as National Wetlands Inventory (NWI) riverine wetlands with a classification of R5UBH (unknown Perennial). There are no NYSDEC wetlands within the project site.

The west end of the project site is located within the 500-year and 100-year floodplains associated with Schoharie Creek. The project site boundary includes approximately 1.11 acres within the 500-year floodplain and 1.56 acres within the 100-year floodplain. However, the 500-year and 100-year floodplains are outside the limits of disturbance of the Proposed Project.

As mentioned above, recent flooding events have led to aggradation of sediment and clogging of culverts that are causing reduced conveyance capacity. Current conditions include aggradation of sediment (Areas 1, 2, and 3), evidence of sidecasting (Areas 1, 2, and 4), channel incision (Areas 4, 5, 6, and 7), high bank failure (Areas 5, 6, and 7), undercutting of stacked rock wall (Area 4), and undersized culverts (Areas 1 and 3).

The Proposed Project will be conducted in accordance with NYSDEC and USACE permitting guidelines and with the 8-Step Floodplain Management & Wetland Protection Plan prepared in compliance with Executive Orders 11988 and 11990. The Proposed Project culvert replacements will follow the NYSDOT Chapter 8 Drainage Standards.

### **Funding:**

The total project cost is estimated at \$2,400,000. GOSR proposes to allocate funding pursuant to the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) program as authorized by the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, approved January 29, 2013). The NYS Housing Trust Fund Corporation (HTFC), which administers the CDBG-DR program funds on behalf of GOSR, intends to approve funding for the Proposed Project as described in this notice.

### **Environmental Considerations:**

The Proposed Project involves the design, engineering, and construction of shoreline and stream improvements for Stony Brook, located north of Stony Brook Road. The construction of these mitigation improvements aim to reduce the risk of flooding and ponding, while contributing to safer and more accessible regional roadway conditions.

The Proposed Project will be providing stream and culvert improvements and is anticipated to reduce the risk of localized flooding during future storm events, while preventing isolation of residents and allowing uninterrupted emergency response. A preliminary HEC-RAS hydraulic modeling study has been conducted for the project. The preliminary HEC-RAS study confirmed that no impacts would occur (i.e., rise in water levels) to Schoharie Creek. Should further refinement of the model change this conclusion, the design would be modified to eliminate the impact. Therefore, no adverse impacts to the floodplain are anticipated.

The Proposed Project will be conducted in accordance with NYSDEC and USACE permitting guidelines. The culvert replacements will follow the NYSDOT Chapter 8 Drainage Standards. State and local permitting requirements would incorporate best management practices (BMPs) to eliminate erosion impacts during construction. In addition, since the Proposed Project involves more than one acre of disturbance, a New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (“SPDES”) General Permit for Stormwater Discharges from Construction Activities will be required and a Stormwater Pollution Prevention Plan (SWPPP) will be prepared.

*Land Use, Zoning, Public Policy and Urban Design* – The Proposed Project would maintain current land uses and would therefore be compatible with existing land use. The Proposed Project would not result in the creation of new jobs or businesses, and therefore would not have an urbanizing effect.

*Farmland* – Although a portion of the Proposed Project location is comprised of Prime Farmland and Farmland of Statewide Importance soils, disturbance would be limited to approximately 2.05 acres of land primarily along the bed and banks of Stony Brook, with a small area of disturbance associated with the barn demolition (less than 0.25 acres) and staging areas (0.07 acres). The USDA National Resources Conservation

Service has been consulted in order to ensure compliance with the Farmland Protection Policy Act.

*Soil Suitability, Slope, Erosion, Drainage, and Storm Water Runoff* – The Proposed Project involves the installation of stream bank improvements and erosion control installation aims to reduce the risk of flooding during storm events. This would result in minor beneficial impacts. During construction, best management practices would be utilized to avoid potential soil erosion. A preliminary HEC-RAS hydraulic modeling study has been conducted for the project. The preliminary HEC-RAS study confirmed that no impacts would occur (i.e., rise in water levels) to Schoharie Creek. Should further refinement of the model change this conclusion, the design would be modified to eliminate the impact. Since the Proposed Project would involve approximately 2.05 acres of disturbance (including the stream restoration work, staging areas, and barn demolition) a SWPPP will be prepared.

*Hazards and Nuisances, including Site Safety and Noise* – The Proposed Project would consist of the design, engineering, and construction of shoreline and stream improvements. The Proposed Project includes the demolition of one structure, an existing barn. Impacts such as fugitive dust would be addressed under existing regulations governing construction activity in New York State, Schoharie County, and the Town of Schoharie.

The Proposed Project would only temporarily increase noise levels at nearby residences during construction. These increases would be mitigated by implementing the Construction Impacts Conditions for Approval, including outfitting of equipment with mufflers, and compliance with local noise ordinances including time of-day work limitations.

*Energy Consumption* – The Proposed Project would result in energy consumption including the use of fossil fuels, for use of construction equipment and the shipment of materials required for construction activities. However, the Proposed Project would not increase long-term energy consumption.

*Socioeconomic Impacts and Community Facilities and Services* - The Proposed Project would create temporary jobs during construction. However, these jobs would not significantly increase employment opportunities or impact income patterns. Operation of the Proposed Project would not result in any changes to existing employment opportunities or impact income patterns or alter the demographic characteristics of the surrounding community.

In addition, the project would not increase the demand for educational, health care or social service facilities, police protection, fire protection, or emergency medical services, nor would it directly or indirectly displace people, businesses, institutions, or community facilities. The Proposed Project would provide a benefit to public safety by lessening the likelihood of flooding impacts from Stony Brook during future storm events.

*Natural Features* – There are no NYSDEC Unique Geologic Features or NYSDEC Critical Environmental Areas within the vicinity of the Proposed Project location. There are no Sole Source Aquifers in Schoharie County.

*Threatened or Endangered Species* – The Proposed Project was reviewed using the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper. According to the information generated by the Mapper, rare threatened or endangered plant or animal species may be present within the vicinity of the Proposed Project.

A consultation letter was submitted to the NYSDEC New York Natural Heritage Program (NYNHP) on February 10, 2016 requesting review and concurrence with GOSR's determination that the Proposed Project will have no effect on or is not likely to adversely affect rare, threatened or endangered plant or animal species. A concurrence letter was received on March 11, 2016.

The Proposed Project was reviewed in February 2016 and again in May 2017 using the U.S. Fish & Wildlife Services (USFWS) IPaC website and the generated Trust Resource Report. According to the report, there is one species listed as a federally listed threatened or endangered that is potentially associated with the Proposed Project location. The species is the Northern long-eared bat (NLEB) (*Myotis septentrionalis*). There are currently no roost trees or hibernacula known to be occupied by the NLEB within the Proposed Project boundaries. The closest hibernaculum is within three miles of the Proposed Project location. The Proposed Project will include limited tree removal, which may take place during the active season (April-

October). The Proposed Project location consists mainly of stream and riparian areas along Stony Brook. Forested areas within the project site are fragmented by farm fields and roads. The limited trees that may be removed would not likely be considered suitable habitat for the NLEB, as discussed in the consultation letter submitted to USFWS on June 22, 2016.

Nonetheless, due to the potential for active season tree removal, GOSR determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule. All activities associated with the Proposed Project will not:

- 1) disturb hibernating NLEBs in a known hibernaculum;
- 2) alter the entrance or interior environment of a known hibernaculum;
- 3) remove any trees within 0.25 miles of a known hibernaculum at any time of year; or
- 4) cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree, during the pup season (June 1 through July 31).

*Historic and Archeological Resources* – Although archaeological resources are not expected to exist in the immediate project area, unanticipated discoveries may occur. If ground-disturbing activities uncover archeological or historic resources the Subrecipient and their contractor must suspend activities in the vicinity of the discovery, protect the site from any further disturbance, and notify GOSR and SHPO.

#### **Standard Requirements:**

Any change to the Proposed Project as described will require re-evaluation by GOSR's Certifying Officer for compliance with SEQRA and other law, regulations and policies.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

#### **Additional Mitigation Measures:**

To the extent required and/or practicable, any approval of the Proposed Project is subject to following mitigation measures being adhered to by the grant recipient to minimize environmental impacts and create a more sustainable project:

- Construction and demolition – to the maximum extent possible, utilize local and recycled materials in construction process and recycle materials generated onsite.
- Clean diesel – implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:
  - Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
  - Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.
- Stormwater – utilize low impact development (LID) principles such as minimizing effective imperviousness to create site drainage, and the planting of native and non-invasive vegetation on the project site for stormwater management purposes. Other LID practices can include bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements;
- Cost-efficient, environmentally friendly landscaping – EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping;
- Energy efficiency – energy-efficient technologies should be incorporated into the station house when possible; and

- Water conservation and efficiency – promote water conservation and efficiency through use of water efficient products (toilets, faucets, showerheads) and practices. Consider use of products with the WaterSense label where appropriate.

In addition to the factors considered above, the GOSR considered the following guidance from the State Environmental Quality Review Act and its implementing regulations and determined that the Proposed Project would:

- (i) Not result in “a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems;” (§617.7(c)(1)(i))
- (ii) Not result in “the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources;”(§617.7(c)(1)(iii))
- (iii) Not result in “the impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part;” (§617.7(c)(1)(iii))
- (iv) Not result in “the creation of a material conflict with a community’s current plans or goals as officially approved or adopted;” (§617.7(c)(1)(iv))
- (v) Not result in “the impairment of the character or quality of important historical, archaeological, architectural, or aesthetic resources or of existing community or neighborhood character;” (§617.7(c)(1)(v))
- (vi) Not result in “a major change in the use of either the quantity or type of energy;” (§617.7(c)(1)(vi))
- (vii) Not result in “the creation of a hazard to human health;” (§617.7(c)(1)(vii))
- (viii) Not result in “a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses;” (§617.7(c)(1)(viii))
- (ix) Not result in “the encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action;” (§617.7(c)(1)(ix))
- (x) Not result in “the creation of a material demand for other actions that would result in one of the above consequences;” (§617.7(c)(1)(x))
- (xi) Not result in “changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment; (§617.7(c)(1)(xi))

Therefore, GOSR, acting as Lead Agency, and having prepared a Short Environmental Assessment Form, has determined that the Proposed Project will not have a significant effect on the environment and a Draft Environmental Impact Statement will not need to be prepared.



Lori A. Shirley  
Certifying Officer  
Director – Bureau of Environmental Review and Assessment  
Governor’s Office of Storm Recovery  
99 Washington Avenue Suite 1224 Albany, New York 12260  
Office: (518) 474-0755

Date: June 21, 2017

**Attachments:**

Short Environmental Assessment Form (available online <http://www.stormrecovery.ny.gov/environmental-docs>)

Negative Declaration Distribution List

A copy of this Notice and Attachments are available at the following web address:  
<http://www.stormrecovery.ny.gov/environmental-docs>

# Short Environmental Assessment Form

## Part 1 - Project Information

### Instructions for Completing

**Part 1 - Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

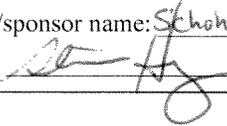
<b>Part 1 - Project and Sponsor Information</b>				
Name of Action or Project: Stony Brook Mitigation				
Project Location (describe, and attach a location map): The Proposed Action would be located along a 2.6 mile stretch of Stony Brook Creek in the Town of Schoharie				
Brief Description of Proposed Action: The Proposed Action is a stream repair and restoration project along approximately 2.6 miles of Stony Brook. Stony Brook is a tributary to Schoharie Creek, which flows to the Mohawk River and then to the Hudson River. The project site is located in the town of Schoharie, in northeastern Schoharie County, New York (see Attachment 1). Recent, severe flooding events, most significantly Tropical Storm Irene in 2011, and also a June 2013 flood event have resulted in severe bed and bank erosion within the Stony Brook channel as well as aggradation of bedload sediment. This aggradation of sediment has clogged culvert and bridge crossings, leading to the reduction of flood conveyance capacity in the channel. The sediment migration has caused the channel to become unstable, with bank erosion and excessive sedimentation in many areas. The Proposed Action includes eight (8) restoration areas (see Attachment 2). Current funding is only available for areas 1, 3 (3a, 3b), 4 and 7.				
Name of Applicant or Sponsor: Stephen Hoerz		Telephone: (518) 823-4535		
		E-Mail: District@SchoharieSoilandWater.org		
Address: Schoharie County Soil & Water Conservation District, 173 South Grant Street, Suite 3				
City/PO: Cobleskill		State: NY	Zip Code: 12043	
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<b>NO</b>	<b>YES</b>
			<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Governor's Office of Storm Recovery (GOSR) CDBG Funding; NYSDEC - Article 15 (TBD); NYSDOT Highway Work Permit; NYSDEC/USACE Joint Permit Application for stream disturbance (TBD); NYSDEC General Permit			<b>NO</b>	<b>YES</b>
			<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.a. Total acreage of the site of the proposed action?		_____ 2 acres		
b. Total acreage to be physically disturbed?		_____ 0.6 acres		
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		_____ 2 acres		
4. Check all land uses that occur on, adjoining and near the proposed action.				
<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban)				
<input type="checkbox"/> Forest <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____				
<input type="checkbox"/> Parkland				

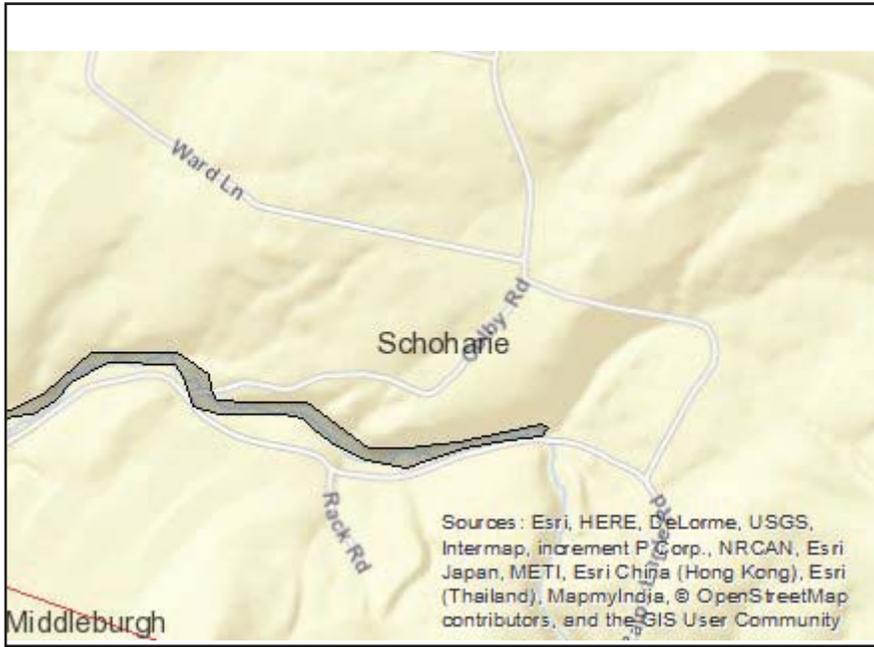


<p>18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?</p> <p>If Yes, explain purpose and size: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input checked="" type="checkbox"/></p>	<p><b>YES</b></p> <p><input type="checkbox"/></p>
<p>19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input checked="" type="checkbox"/></p>	<p><b>YES</b></p> <p><input type="checkbox"/></p>
<p>20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input checked="" type="checkbox"/></p>	<p><b>YES</b></p> <p><input type="checkbox"/></p>

**I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**

Applicant/sponsor name: Stoharic Co. Soil/Water Conservation District Date: 6/20/16

Signature: 

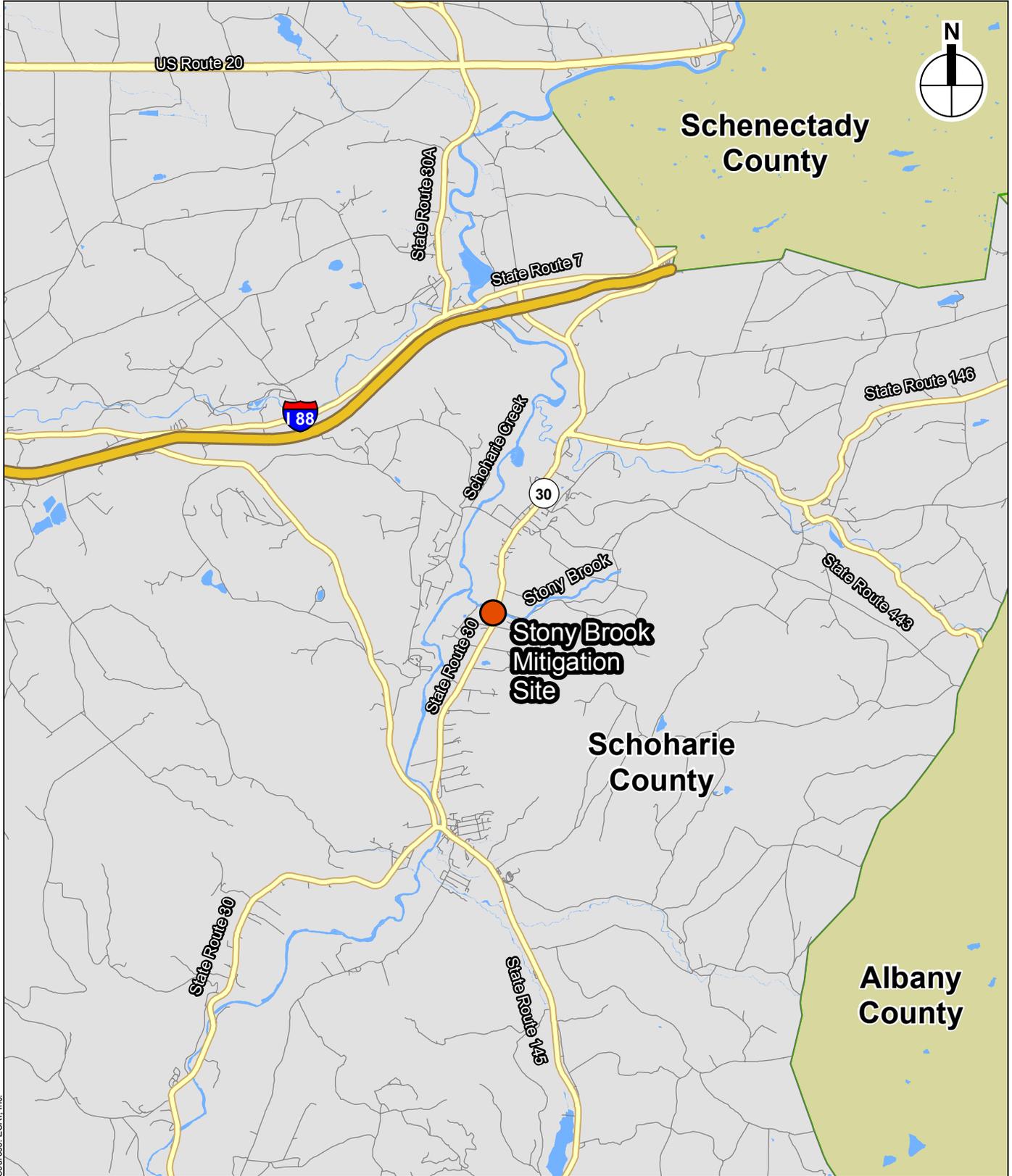


**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



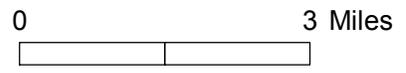
Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

**Attachment 1:  
Figures**



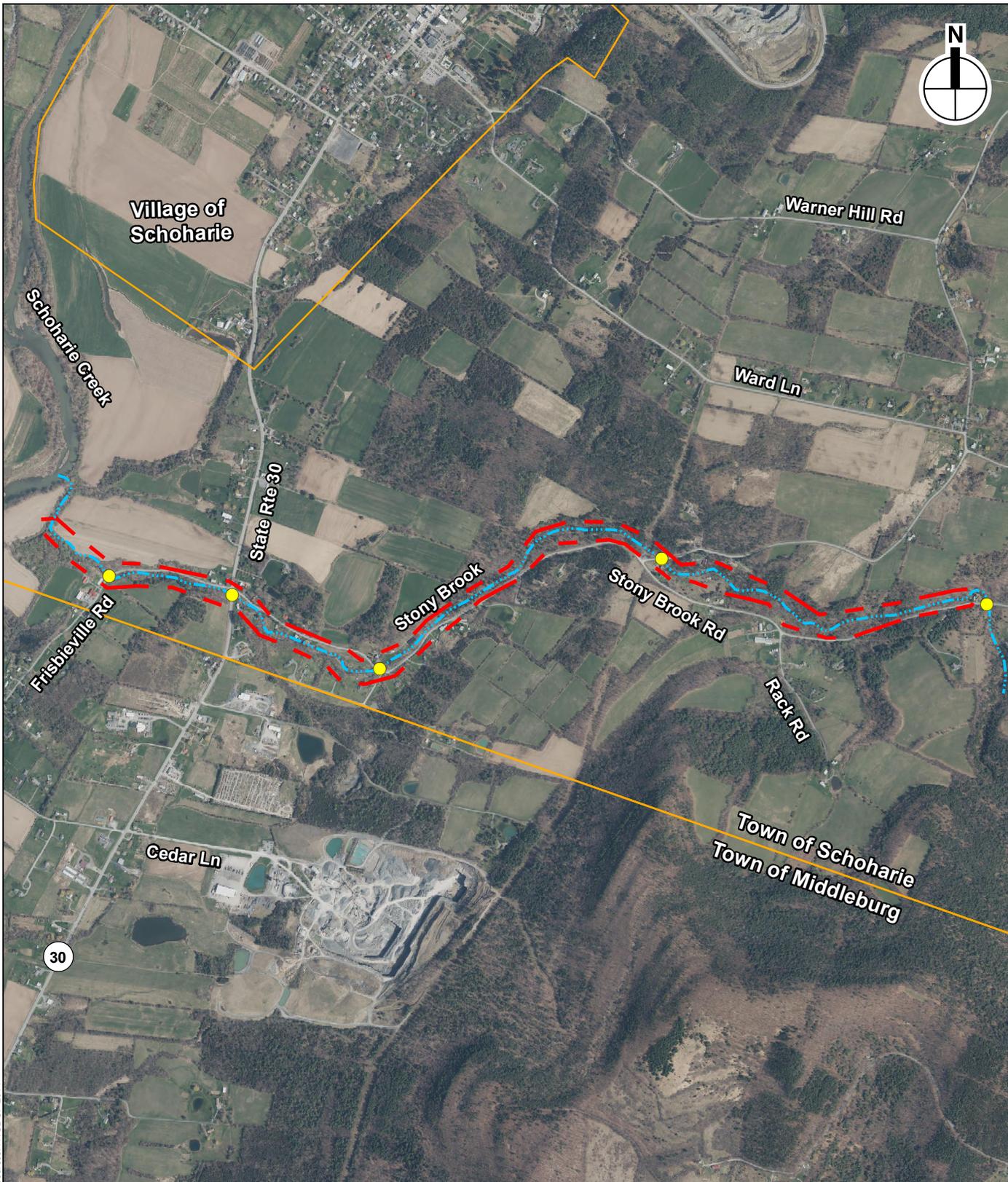
Sources: ESRI, Inc.

● Site Location

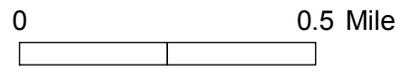


**Stony Brook Mitigation, Town of Schoharie**

Project Location Map  
**Figure 1**

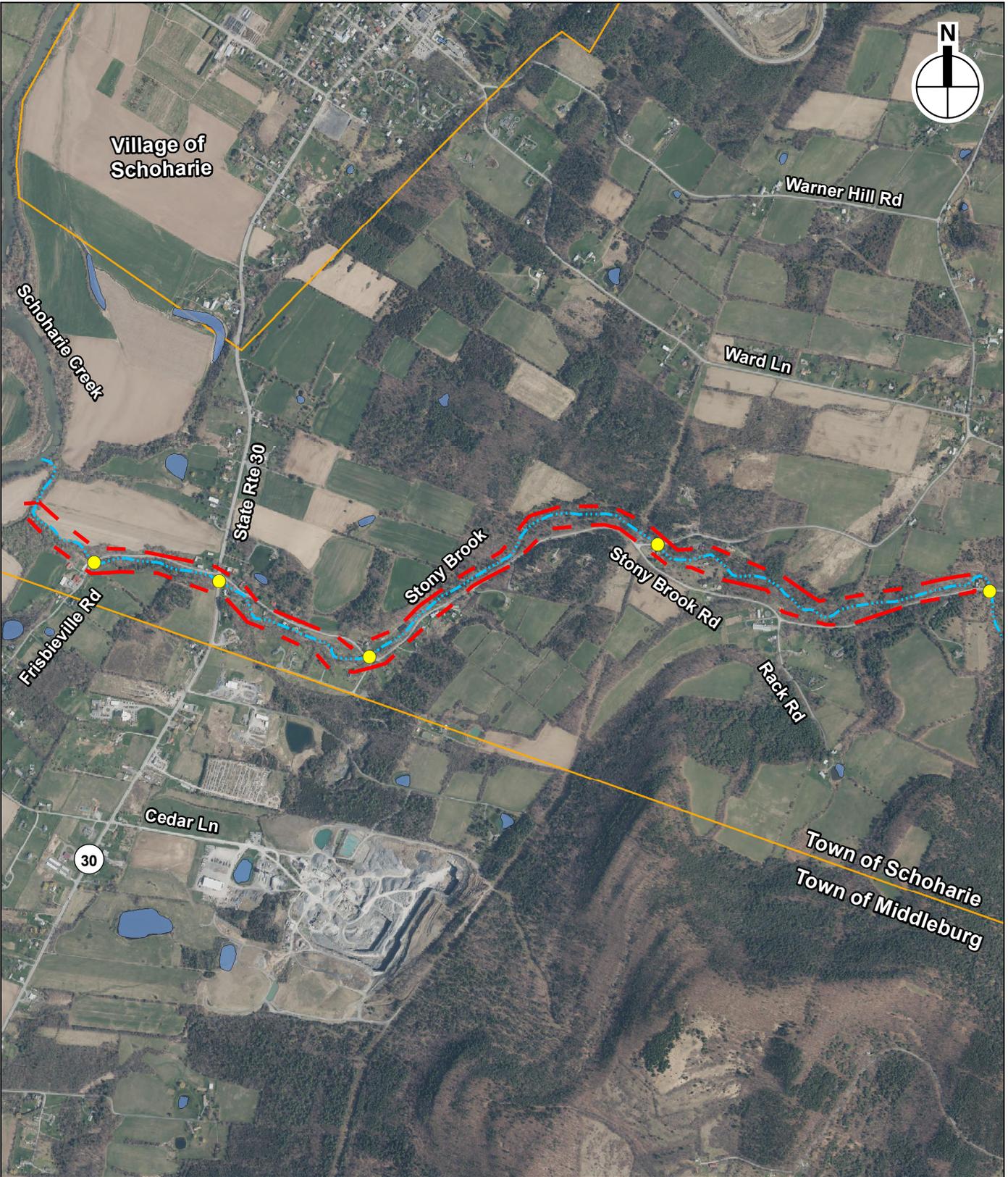


-  Culvert
-  Site Boundary
-  Stony Brook
-  Municipal Boundaries



**Stony Brook Mitigation, Town of Schoharie**

**Project Site Map  
Figure 2**

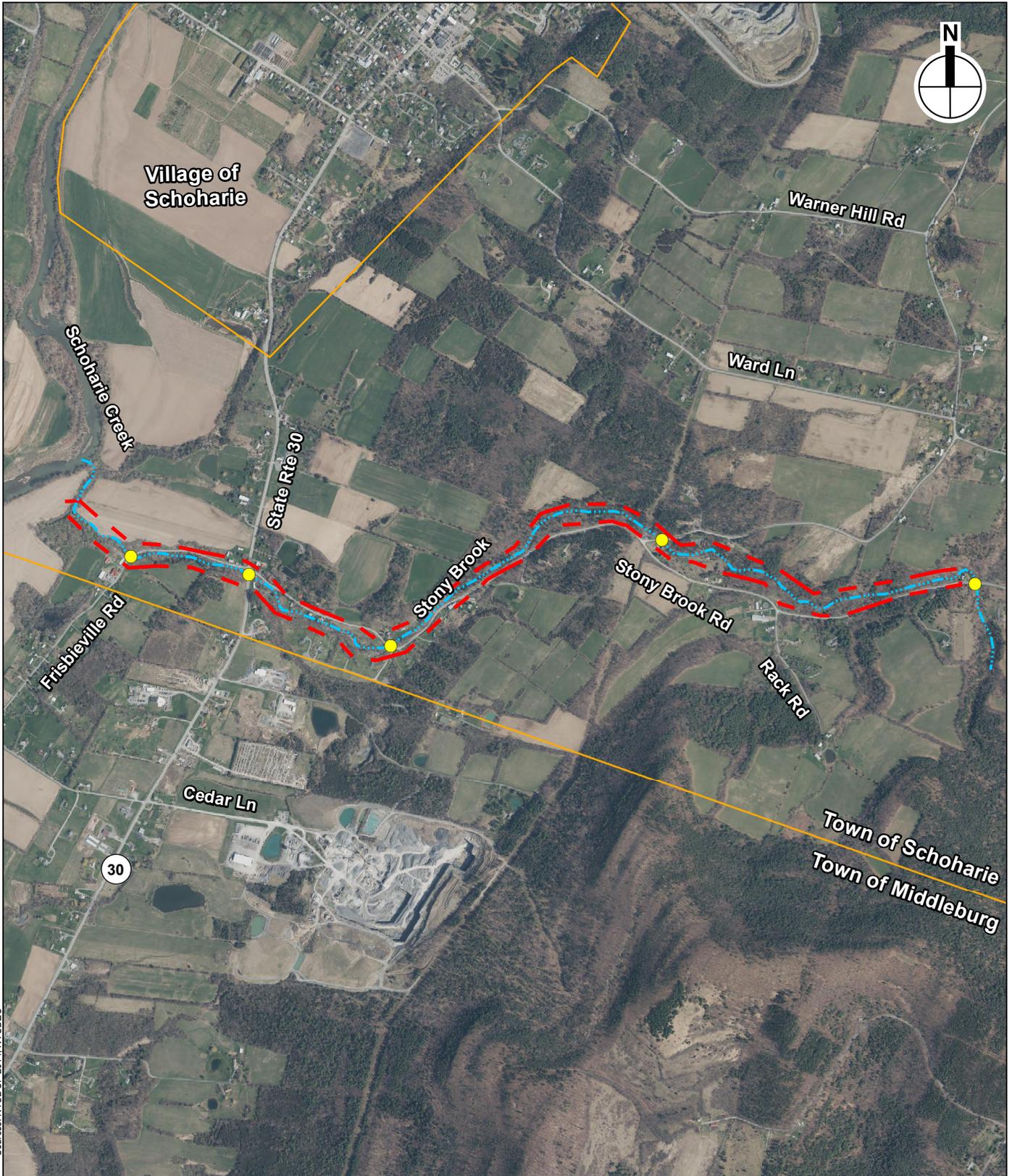


Sources: NYS DOP, 2014; U.S. Fish and Wildlife Service



**Stony Brook Mitigation, Town of Schoharie**

**NWI Wetlands  
Figure 3**



Sources: NYS DOP 2014; NYS DEC

-  Culvert
-  Stony Brook
-  Site Boundary
-  Municipal Boundaries
-  NYSDEC Freshwater Wetlands

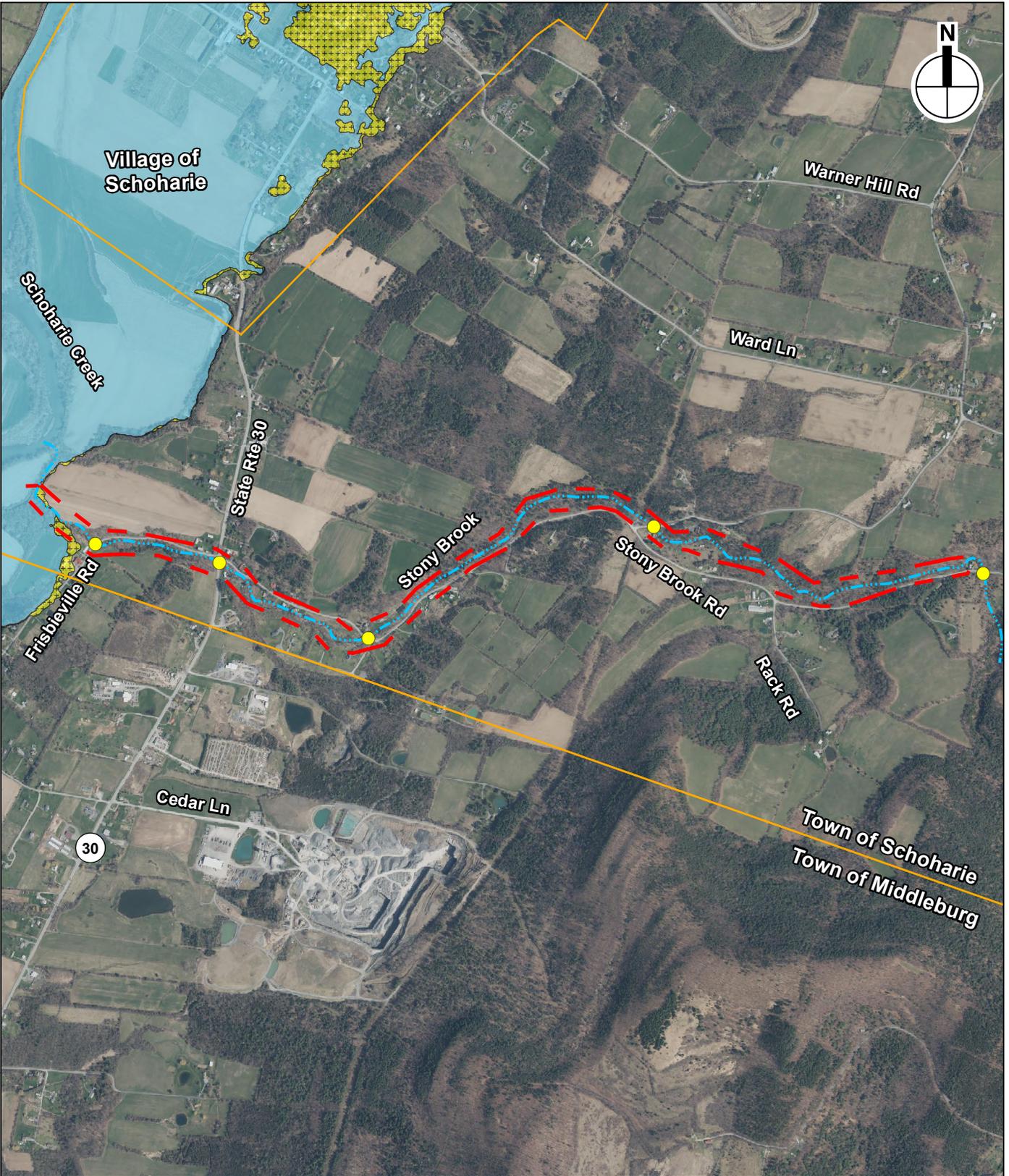
0 0.5 Mile



### Stony Brook Mitigation, Town of Schoharie

NYSDEC Freshwater Wetlands  
**Figure 4**

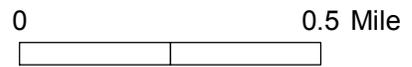
FEBRUARY 2016



Sources: NYSDOP 2014, FEMA

-  Culvert
-  Stony Brook
-  Site Boundary
-  Municipal Boundaries

- FEMA Floodzone**
-  100-Year Flood Zone
  -  500-Year Flood Zone



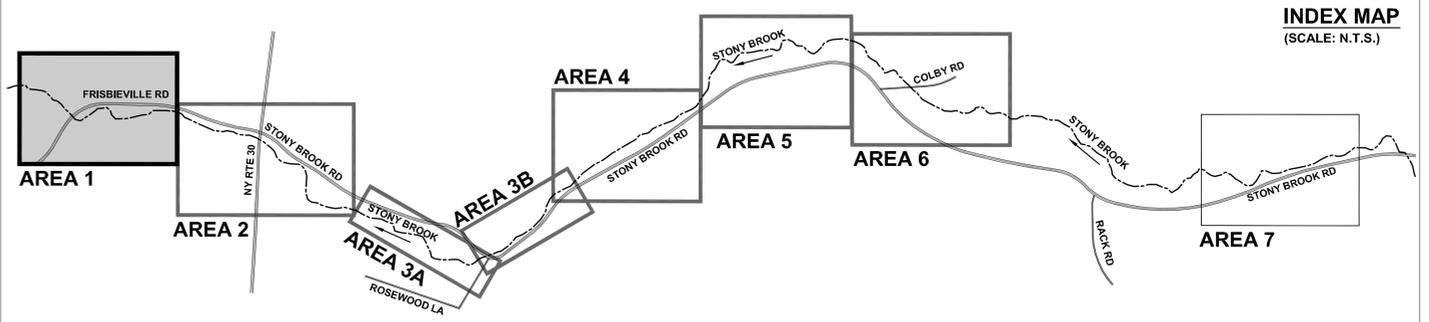
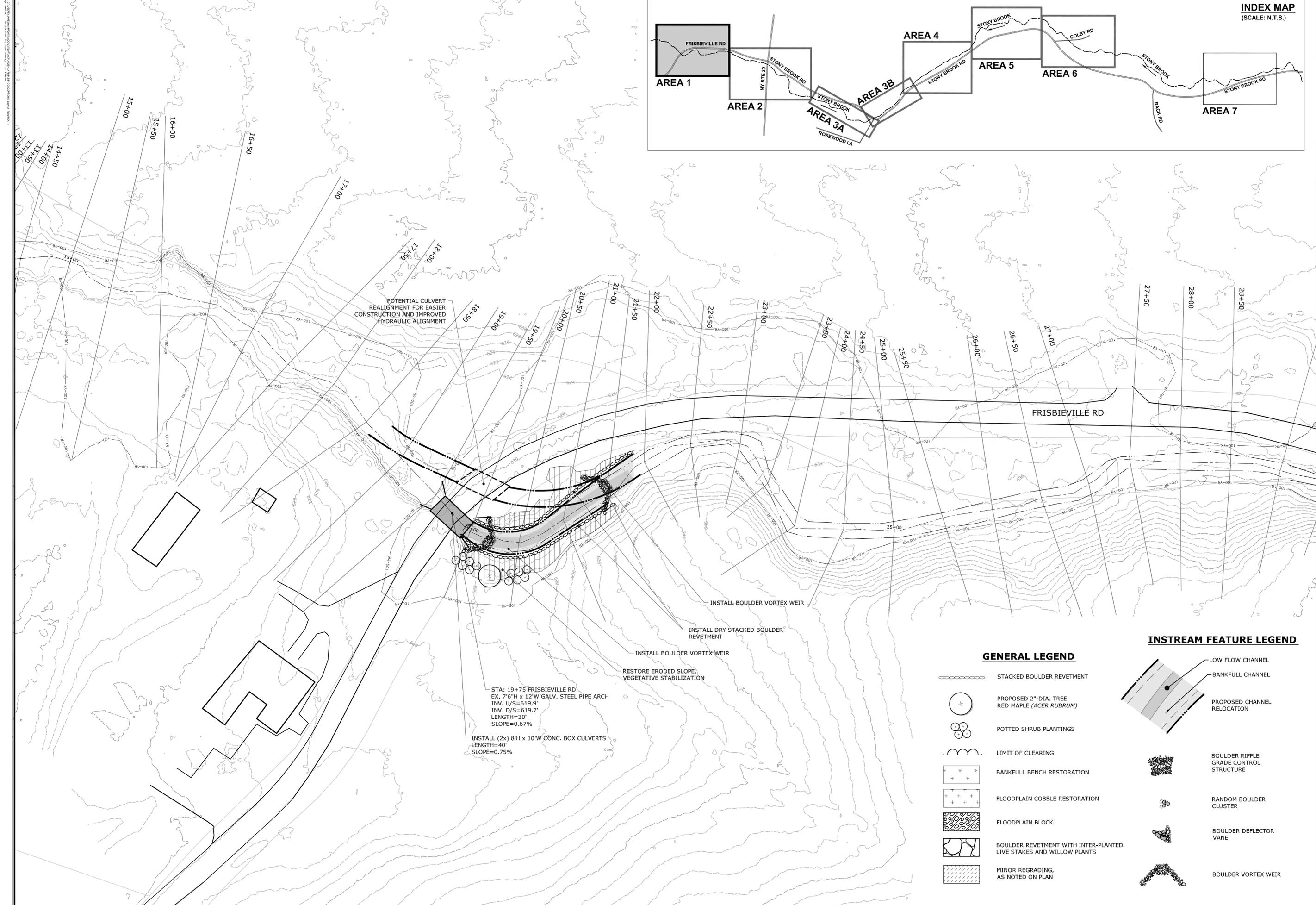
Note: Stony Brook has not been evaluated by FEMA

FEMA Flood Zone

Figure 5

**Stony Brook Mitigation, Town of Schoharie**

**Attachment 2:  
Conceptual Design Plans**



POTENTIAL CULVERT  
REALIGNMENT FOR EASIER  
CONSTRUCTION AND IMPROVED  
HYDRAULIC ALIGNMENT

STA: 19+75 FRISBIEVILLE RD  
EX. 7'6" H x 12' W GALV. STEEL PIPE ARCH  
INV. U/S=619.9'  
INV. D/S=619.7'  
LENGTH=30'  
SLOPE=0.67%

INSTALL (2x) 8' H x 10' W CONC. BOX CULVERTS  
LENGTH=40'  
SLOPE=0.75%

INSTALL BOULDER VORTEX WEIR

INSTALL DRY STACKED BOULDER  
REVETMENT

INSTALL BOULDER VORTEX WEIR

RESTORE ERODED SLOPE,  
VEGETATIVE STABILIZATION

**GENERAL LEGEND**

- STACKED BOULDER REVETMENT
- PROPOSED 2"-DIA. TREE  
RED MAPLE (*ACER RUBRUM*)
- POTTED SHRUB PLANTINGS
- LIMIT OF CLEARING
- BANKFULL BENCH RESTORATION
- FLOODPLAIN COBBLE RESTORATION
- FLOODPLAIN BLOCK
- BOULDER REVETMENT WITH INTER-PLANTED  
LIVE STAKES AND WILLOW PLANTS
- MINOR REGRAVING,  
AS NOTED ON PLAN

**INSTREAM FEATURE LEGEND**

- LOW FLOW CHANNEL
- BANKFULL CHANNEL
- PROPOSED CHANNEL  
RELOCATION
- BOULDER RIFFLE  
GRADE CONTROL  
STRUCTURE
- RANDOM BOULDER  
CLUSTER
- BOULDER DEFLECTOR  
VANE
- BOULDER VORTEX WEIR

**MILONE & MACBROOM**

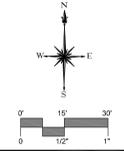
DATE	BY

**PROPOSED CONCEPT DESIGN - AREA 1**

**STONY BROOK  
STREAM REPAIR AND RESTORATION**

NY ROUTE 30, AND STONY BROOK ROAD AREA  
SCHÖHARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE: 1"=40'		
DATE: JAN. 2016		
PROJECT NO.: 4805-04		
SHEET NO.: 01 OF 07		
<b>AREA 1</b>		



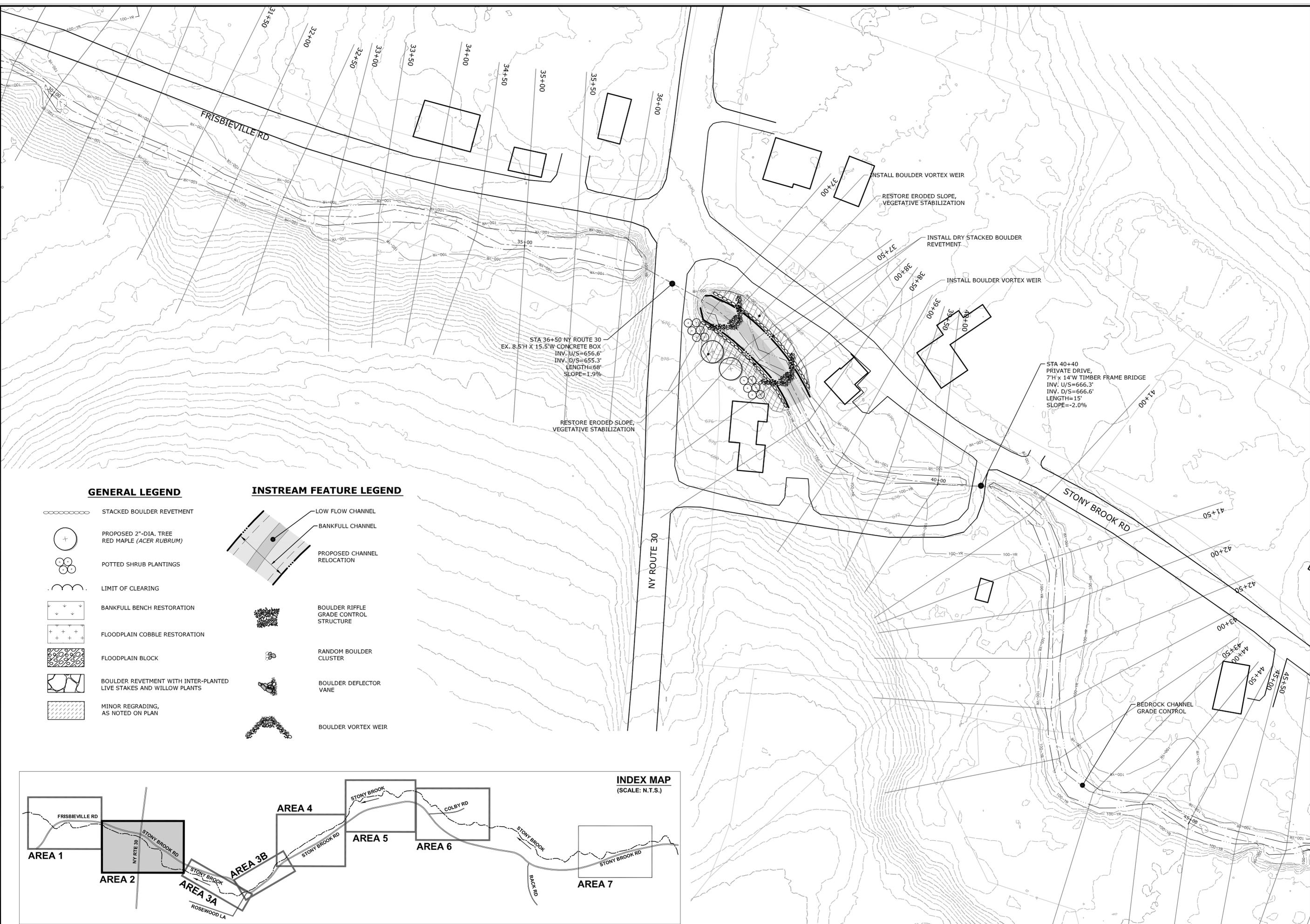
MILONE & MACBROOM®

DESCRIPTION	DATE	BY

**PROPOSED CONCEPT DESIGN - AREA 2**  
**STONY BROOK**  
**STREAM REPAIR AND RESTORATION**  
 NY ROUTE 30, AND STONY BROOK ROAD AREA  
 SCHOHARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE 1"=40'		
DATE JAN. 2016		
PROJECT NO. 4805-04		
SHEET NO. 02 OF 07		

**AREA 2**



**GENERAL LEGEND**

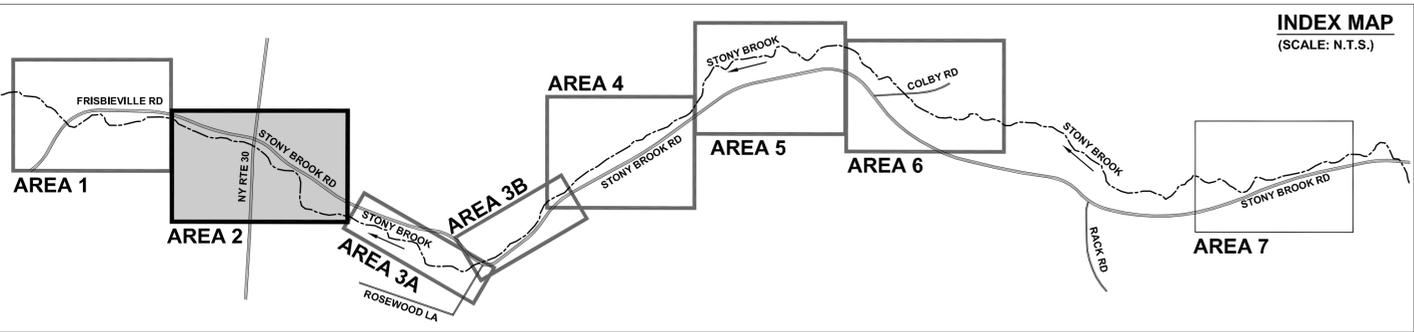
- STACKED BOULDER REVETMENT
- PROPOSED 2"-DIA. TREE  
RED MAPLE (*ACER RUBRUM*)
- POTTED SHRUB PLANTINGS
- LIMIT OF CLEARING
- BANKFULL BENCH RESTORATION
- FLOODPLAIN COBBLE RESTORATION
- FLOODPLAIN BLOCK
- BOULDER REVETMENT WITH INTER-PLANTED  
LIVE STAKES AND WILLOW PLANTS
- MINOR REGRAVING,  
AS NOTED ON PLAN

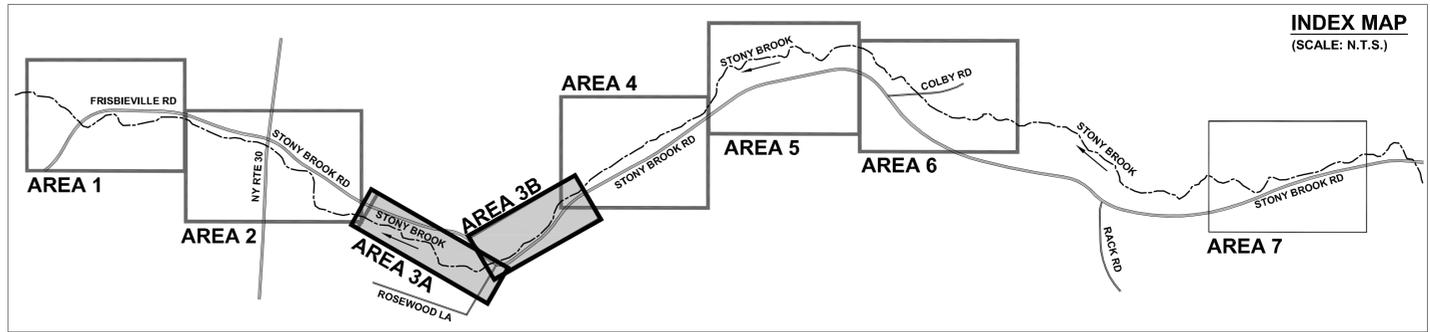
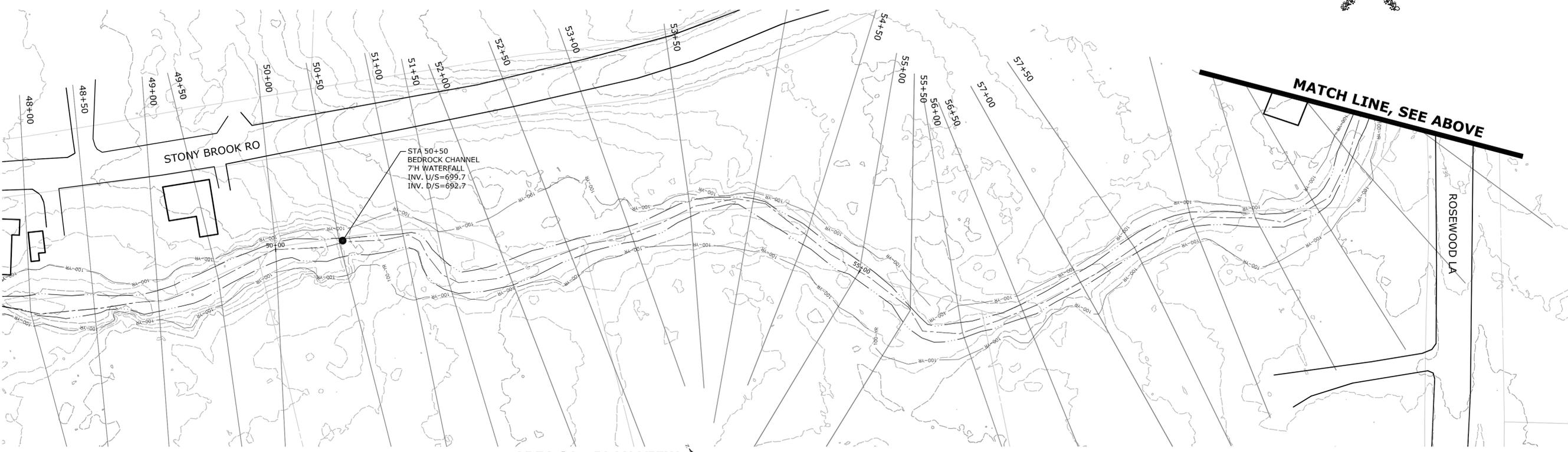
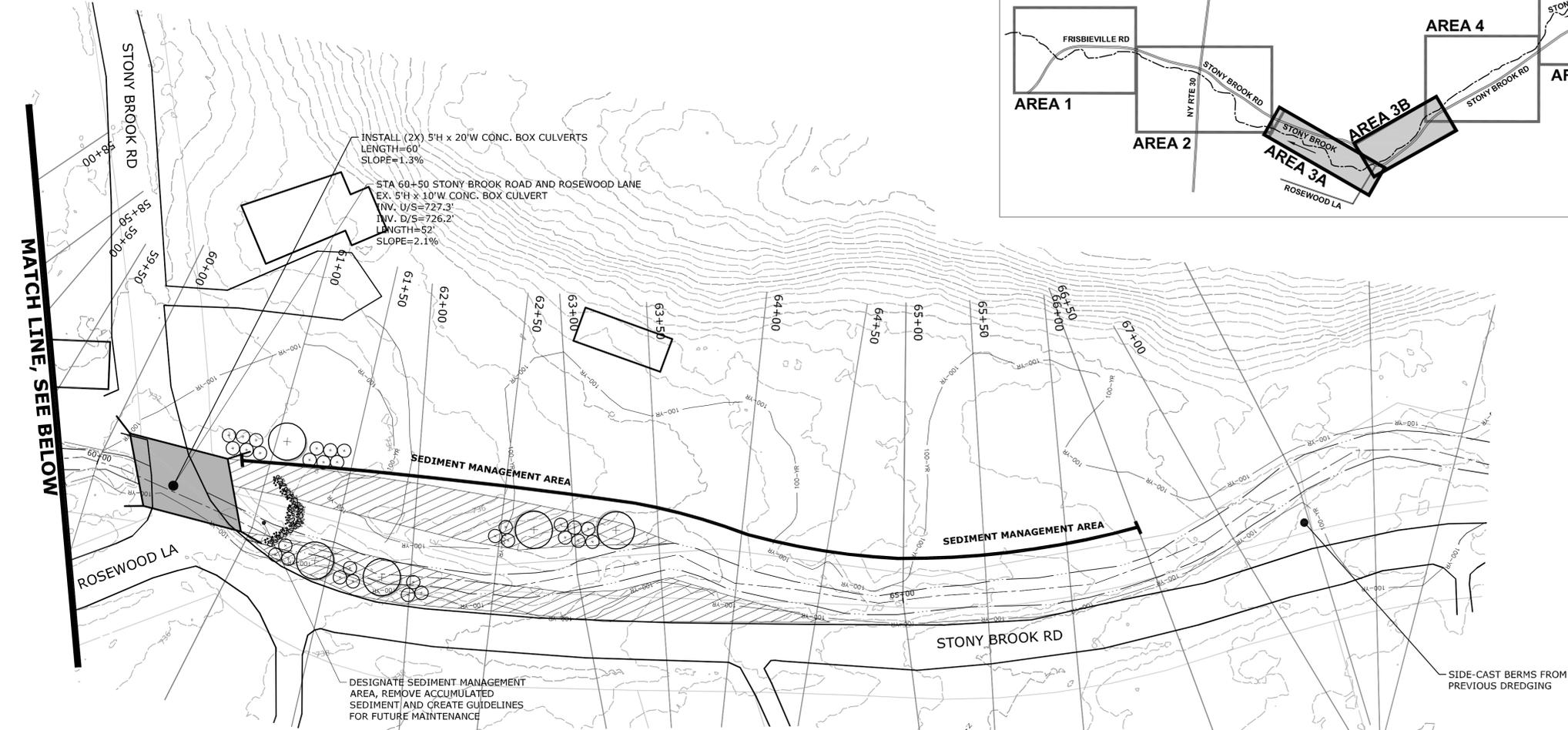
**INSTREAM FEATURE LEGEND**

- LOW FLOW CHANNEL
- BANKFULL CHANNEL
- PROPOSED CHANNEL  
RELOCATION
- BOULDER RIFFLE  
GRADE CONTROL  
STRUCTURE
- RANDOM BOULDER  
CLUSTER
- BOULDER DEFLECTOR  
VANE
- BOULDER VORTEX WEIR

STA 36+50 NY ROUTE 30  
 EX. 8.5'H X 15.5'W CONCRETE BOX  
 INV. U/S=656.6'  
 INV. D/S=655.3'  
 LENGTH=68'  
 SLOPE=1.9%

STA 40+40  
 PRIVATE DRIVE,  
 7'H X 14'W TIMBER FRAME BRIDGE  
 INV. U/S=666.3'  
 INV. D/S=666.6'  
 LENGTH=15'  
 SLOPE=-2.0%





- LEGEND**
- STACKED BOULDER REVETMENT
  - EXISTING 100-YR FLOODPLAIN (HYDRAULIC MODELING)
  - EXISTING EDGE OF LOW-FLOW CHANNEL
  - LOW FLOW CHANNEL
  - BANKFULL CHANNEL
  - PROPOSED CHANNEL RELOCATION
  - BOULDER RIFFLE GRADE CONTROL STRUCTURE
  - RANDOM BOULDER CLUSTER
  - BOULDER DEFLECTOR VANE
  - BOULDER VORTEX WEIR

MATCH LINE, SEE BELOW

MATCH LINE, SEE ABOVE

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231 Main Street, Suite 103  
Scholarie, NY 12154  
(845) 637-8153 Fax (845) 633-8162  
www.miloneandmacbroom.com

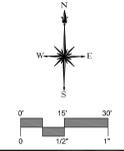
DESCRIPTION	DATE	BY

**PROPOSED CONCEPT DESIGN - AREA 3**

**STONY BROOK STREAM REPAIR AND RESTORATION**  
NY ROUTE 30, AND STONY BROOK ROAD AREA  
SCHOLARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE: 1"=40'		
DATE: JAN. 2016		
PROJECT NO.: 4805-04		
SHEET NO.: 03 OF 07		

**AREA 3**



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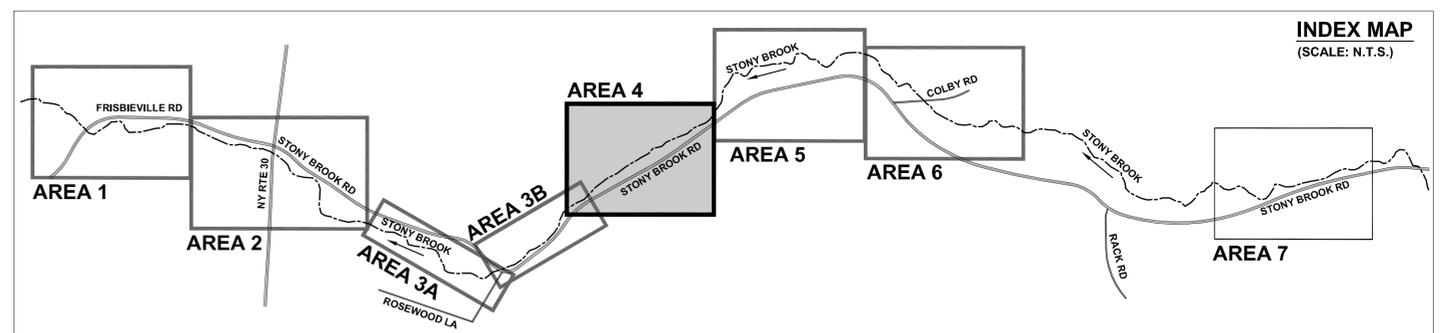
DESCRIPTION	DATE	BY

**GENERAL LEGEND**

- STACKED BOULDER REVETMENT
- PROPOSED 2"-DIA. TREE RED MAPLE (*ACER RUBRUM*)
- POTTED SHRUB PLANTINGS
- LIMIT OF CLEARING
- BANKFULL BENCH RESTORATION
- FLOODPLAIN COBBLE RESTORATION
- FLOODPLAIN BLOCK
- BOULDER REVETMENT WITH INTER-PLANTED LIVE STAKES AND WILLOW PLANTS
- MINOR REGRADING, AS NOTED ON PLAN

**INSTREAM FEATURE LEGEND**

- LOW FLOW CHANNEL
- BANKFULL CHANNEL
- PROPOSED CHANNEL RELOCATION
- BOULDER RIFFLE GRADE CONTROL STRUCTURE
- RANDOM BOULDER CLUSTER
- BOULDER DEFLECTOR VANE
- BOULDER VORTEX WEIR

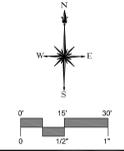
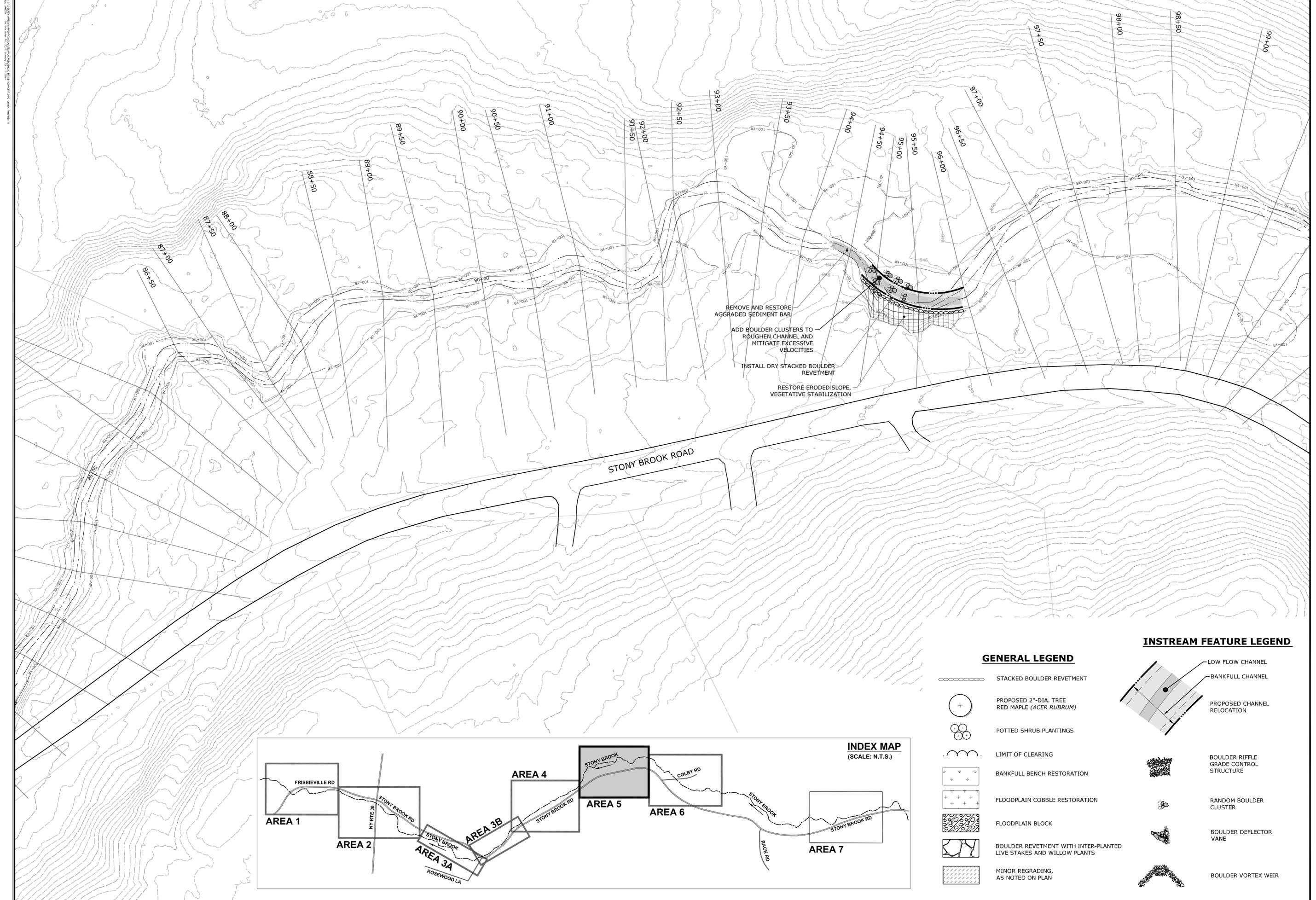


**PROPOSED CONCEPT DESIGN - AREA 4**

**STONY BROOK  
 STREAM REPAIR AND RESTORATION**  
 NY ROUTE 30, AND STONY BROOK ROAD AREA  
 SCHOHARIE, NEW YORK

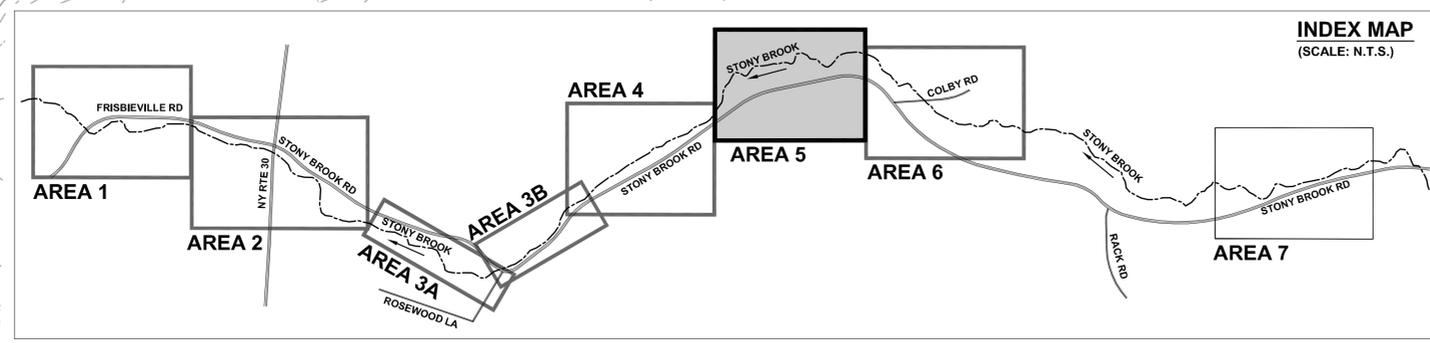
JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE 1"=40'		
DATE JAN. 2016		
PROJECT NO. 4805-04		
SHEET NO. 04 OF 07		

**AREA 4**



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 Schenectady, NY 12304  
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DESCRIPTION	DATE	BY



**GENERAL LEGEND**

- STACKED BOULDER REVETMENT
- PROPOSED 2"-DIA. TREE RED MAPLE (*ACER RUBRUM*)
- POTTED SHRUB PLANTINGS
- LIMIT OF CLEARING
- BANKFULL BENCH RESTORATION
- FLOODPLAIN COBBLE RESTORATION
- FLOODPLAIN BLOCK
- BOULDER REVETMENT WITH INTER-PLANTED LIVE STAKES AND WILLOW PLANTS
- MINOR REGRAVING, AS NOTED ON PLAN

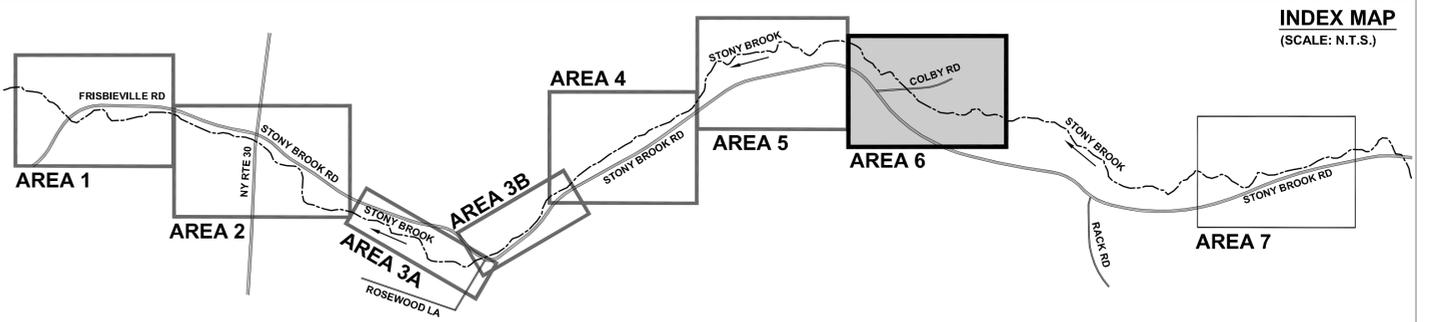
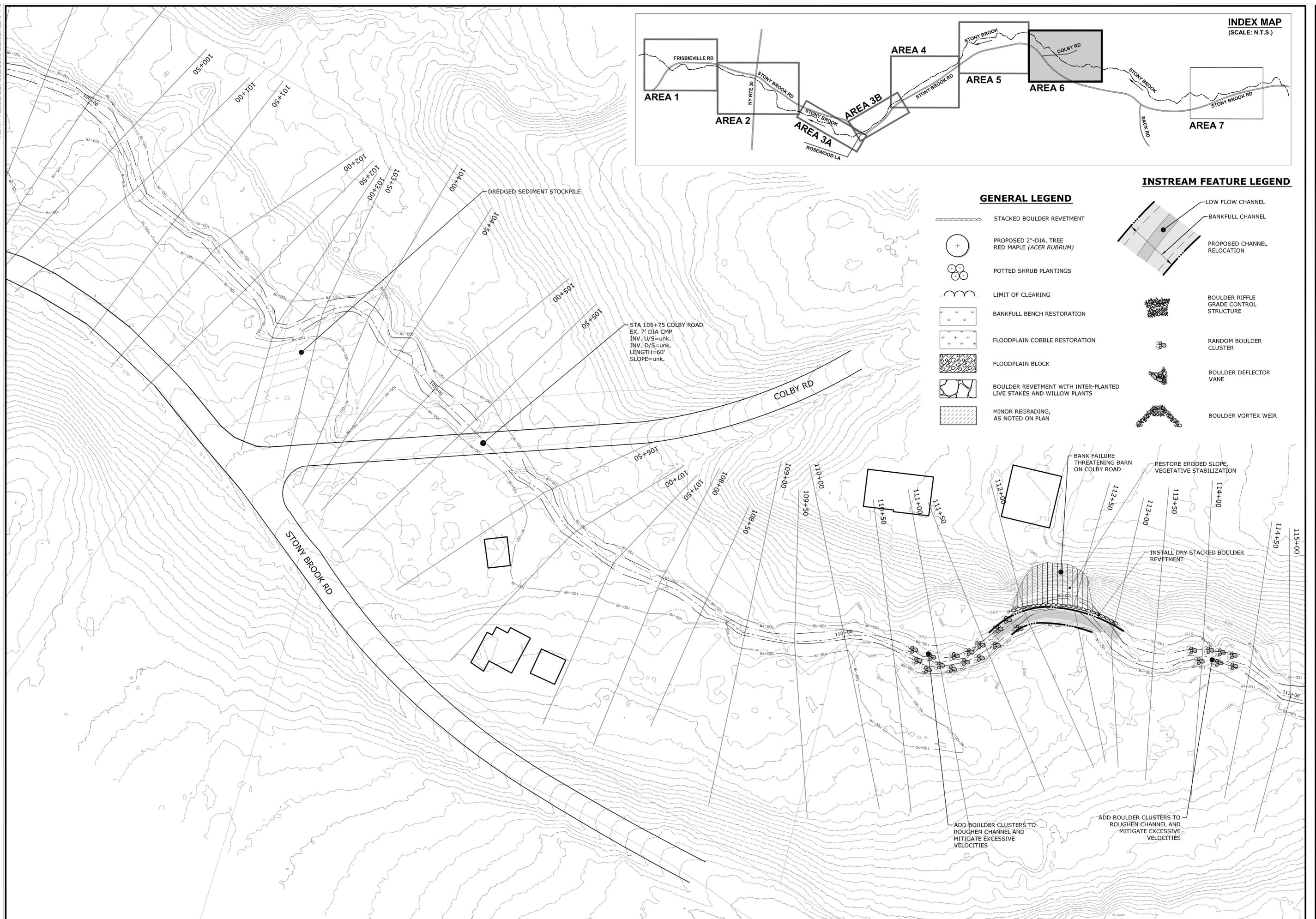
**INSTREAM FEATURE LEGEND**

- LOW FLOW CHANNEL
- BANKFULL CHANNEL
- PROPOSED CHANNEL RELOCATION
- BOULDER RIFFLE GRADE CONTROL STRUCTURE
- RANDOM BOULDER CLUSTER
- BOULDER DEFLECTOR VANE
- BOULDER VORTEX WEIR

**PROPOSED CONCEPT DESIGN - AREA 5**  
**STONY BROOK**  
**STREAM REPAIR AND RESTORATION**  
 NY ROUTE 30, AND STONY BROOK ROAD AREA  
 SCHOHARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE: 1"=40'		
DATE: JAN. 2016		
PROJECT NO.: 4805-04		
SHEET NO.: 05 OF 07		

**AREA 5**



- GENERAL LEGEND**
- STACKED BOULDER REVETMENT
  - PROPOSED 2"-DIA. TREE RED MAPLE (*ACER RUBRUM*)
  - POTTED SHRUB PLANTINGS
  - LIMIT OF CLEARING
  - BANKFULL BENCH RESTORATION
  - FLOODPLAIN COBBLE RESTORATION
  - FLOODPLAIN BLOCK
  - BOULDER REVETMENT WITH INTER-PLANTED LIVE STAKES AND WILLOW PLANTS
  - MINOR REGRAVING, AS NOTED ON PLAN
- INSTREAM FEATURE LEGEND**
- LOW FLOW CHANNEL
  - BANKFULL CHANNEL
  - PROPOSED CHANNEL RELOCATION
  - BOULDER RIFFLE GRADE CONTROL STRUCTURE
  - RANDOM BOULDER CLUSTER
  - BOULDER DEFLECTOR VANE
  - BOULDER VORTEX WEIR

STA 105+75 COLBY ROAD  
 EX. 7" DIA CMP  
 INV. U/S=unk.  
 INV. D/S=unk.  
 LENGTH=60'  
 SLOPE=unk.

BANK FAILURE THREATENING BARN ON COLBY ROAD

RESTORE ERODED SLOPE, VEGETATIVE STABILIZATION

INSTALL DRY STACKED BOULDER REVETMENT

ADD BOULDER CLUSTERS TO ROUGHEN CHANNEL AND MITIGATE EXCESSIVE VELOCITIES

ADD BOULDER CLUSTERS TO ROUGHEN CHANNEL AND MITIGATE EXCESSIVE VELOCITIES

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DESCRIPTION	DATE	BY

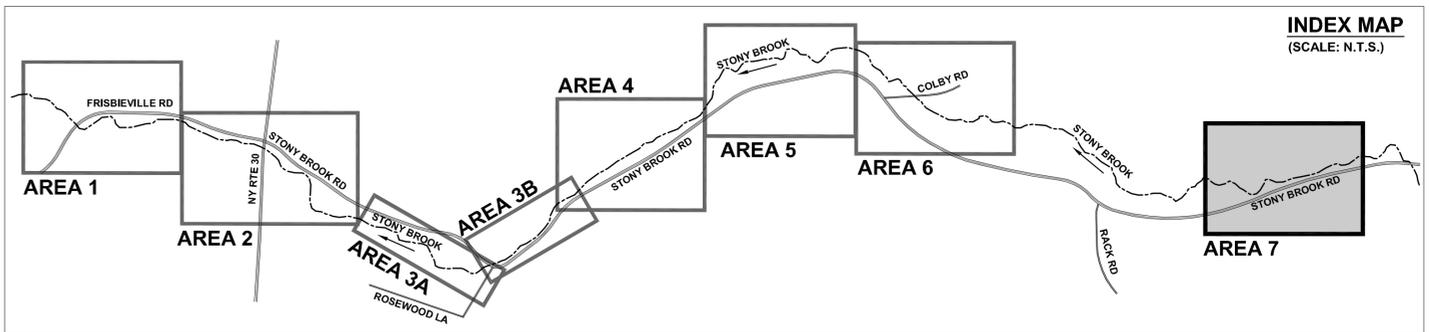
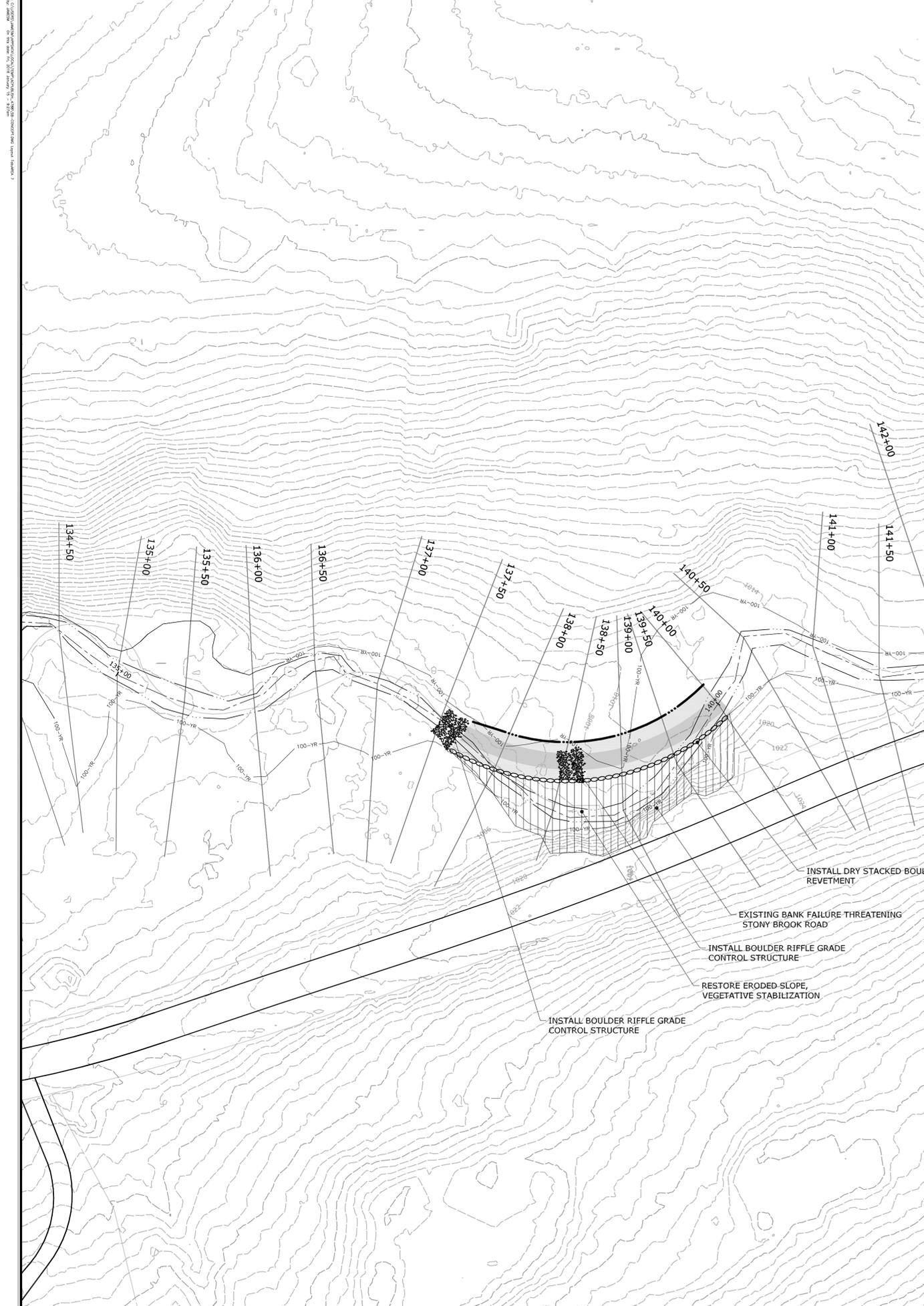
**PROPOSED CONCEPT DESIGN - AREA 6**

**STONY BROOK STREAM REPAIR AND RESTORATION**

NY ROUTE 30, AND STONY BROOK ROAD AREA

SCHOHARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE: 1"=40'		
DATE: JAN. 2016		
PROJECT NO.: 4805-04		
SHEET NO.: 06 OF 07		
<b>AREA 6</b>		



**GENERAL LEGEND**

- STACKED BOULDER REVETMENT
- PROPOSED 2"-DIA. TREE RED MAPLE (*ACER RUBRUM*)
- POTTED SHRUB PLANTINGS
- LIMIT OF CLEARING
- BANKFULL BENCH RESTORATION
- FLOODPLAIN COBBLE RESTORATION
- FLOODPLAIN BLOCK
- BOULDER REVETMENT WITH INTER-PLANTED LIVE STAKES AND WILLOW PLANTS
- MINOR REGRAVING, AS NOTED ON PLAN

**INSTREAM FEATURE LEGEND**

- LOW FLOW CHANNEL
- BANKFULL CHANNEL
- PROPOSED CHANNEL RELOCATION
- BOULDER RIFFLE GRADE CONTROL STRUCTURE
- RANDOM BOULDER CLUSTER
- BOULDER DEFLECTOR VANE
- BOULDER VORTEX WEIR

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DESCRIPTION	DATE	BY

**PROPOSED CONCEPT DESIGN - AREA 7**

**STONY BROOK**  
**STREAM REPAIR AND RESTORATION**  
 NY ROUTE 30, AND STONY BROOK ROAD AREA  
 SCHOHARIE, NEW YORK

JCM DESIGNED	JCM DRAWN	MBC CHECKED
SCALE: <b>1"=40'</b>		
DATE: <b>JAN. 2016</b>		
PROJECT NO.: <b>4805-04</b>		
SHEET NO.: <b>07 OF 07</b>		

**AREA 7**

SHEET NAME

**Involved/Interested Agencies –  
Proposed Stony Brook Mitigation, Town of Schoharie, Schoharie County, NY.**

**INVOLVED**

Schoharie County Soil and Water Conservation District  
173 Grant Street, Suite 3  
Cobleskill, NY 12043

William Clarke, Regional Permit Administrator  
New York State Department of Environmental Conservation Region 4  
1130 North Wescott Road  
Schenectady, NY 12306

Jack Williams, P.E., Regional Director  
Region 9  
New York State Department of Transportation  
44 Hawley Street  
Binghamton, NY 13901

Larry Moss, Technical Specialist  
Division for Historic Preservation  
New York State Historic Preservation Office  
Peebles Island Resource Center  
P.O. Box 189  
Waterford, NY 12188-0189

Mr. Ron Rausch, Director  
Environmental Management Bureau  
Office of Parks, Recreation and Historic Preservation  
625 Broadway, 2nd Floor  
Albany, New York 12238

Mr. Richard Lord  
Chief of Mitigation Programs & Agency Preservation Officer  
NYS Division of Homeland Security & Emergency Services  
1220 Washington Avenue  
Bldg 7A, Floor 4  
Albany NY 12242

Ben Cooper, Public Works Administrator  
Schoharie County Department of Public Works  
P.O. Box 249  
Schoharie, NY 12157

Christopher W. Tague, Town Supervisor  
Town of Schoharie  
P.O. Box 544  
Schoharie, NY 12157

Alicia Terry, Senior Planner  
Schoharie County Planning and Development Agency Office  
276 Main Street- Suite 2, P.O. Box 396  
Schoharie, NY 12157

Katheryn M. Saddlemire, Chairwoman  
Town of Schoharie Planning Board  
167 Westfall Road  
Schoharie, NY 12157

**INTERESTED**

M. Indica Jaycox, Schoharie County Clerk  
P.O. Box 549  
Schoharie, New York 12157

Pamela Foland, Town Clerk/Collector  
Town of Schoharie  
P.O. Box 544  
Schoharie, NY 12157

Leslie J. Price, Clerk/Treasurer  
Village of Schoharie  
P.O. Box 219  
Schoharie, NY 12157

John J. Borst, Mayor  
Village of Schoharie  
P.O. Box 219  
Schoharie, NY 12157

Pete Coppolo, Supervisor  
Town of Middleburgh  
143 Railroad Avenue  
Middleburgh, NY 12122