

FOREST PRESERVE DETAILED PROJECT WORK PLAN

Fiscal Year 2024
Project # 2023-RB-035; CO-WP-321

<u>Region</u> 5	<u>Project Title</u> Moose Pond Club Rd Bridge Replacement
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<u>Project Type</u>	<u>Town(s)</u>	<u>County</u>	<u>Management Unit</u>
Expansion of Existing Structure/Improvement	Minerva	Essex	Vanderhacker Mountain Wild Forest

Description of Desired Condition(s) for Project

The Moose Pond Club Road is a DEC public motor vehicle road that provides deeded private land access and public motor vehicle access to the Vanderhacker Mountain Fire Tower trailhead and several primitive tent sites. The bridge along the road over Vanderhacker Brook needs replacement because the abutments are undermining and settling into the stream making the bridge unfit for public motor vehicle access. As a result of the failing bridge abutments, the bridge and road were closed to public motor vehicle traffic in 2022. Since the road closure, the bridge abutments have continued to undermine and settle further into the stream.

The Vanderhacker Mountain Fire Tower is an important historic structure that offers great views of the High Peaks; thus, the fire tower typically receives high visitor use. The hike to the tower is traditionally a five-mile round trip when the road and bridge are open to motor vehicles, but users are currently making an 11-mile round trip with the road closed.

The goal for the Moose Pond Club Road bridge replacement is to provide safe public and private access to the area while also protecting the natural resources and water quality of Vanderhacker Brook. The new bridge will allow for proper stream flow, prevent erosion, and restore water quality protection at the bridge site. In addition, the bridge will restore and help facilitate historic public motor vehicle access to the Vanderhacker Mountain Fire Tower trailhead, six popular roadside campsites, and private landowner access to private lands.

Description of Project Specifications

The existing site consists of a 28-foot-long by 12-foot-wide steel girder bridge on concrete abutments (poured base with stacked blocks). The narrow opening between abutments (19 feet) has caused large scour holes to develop. This has caused the southern abutment to settle and a section of stacked block wingwall on the downstream side of the northern abutment has fallen away. This has caused this corner of the bridge to settle over 12-inches and remain unsupported, rendering it unsafe for public motor vehicle use. Due to this, DEC has closed the Moose Pond Club Road to public motor vehicles.

The new bridge will be a 60-foot-long by 15-foot-wide pre-engineered steel bridge with a timber deck. The new bridge will sit on timber crib abutments spanning 50 feet. Given the new width, there will also be a floodplain area between the existing stream and the abutments for increased hydraulic

capacity. This area will be protected by heavy stone riprap to prevent future erosion or scour under the new abutments. The new stream crossing is designed to current stream crossing standards and is significantly wider than the existing crossing, so will accommodate heavy storm events much better than the current structure does. This increased capacity will also restore the stream channel to its natural width for a more sustainable pre-bridge function.

Description of Measures Taken to Avoid, Mitigate and Minimize Impacts to Natural Resources Trees to be removed: The area immediately around the work site will require some tree cutting to ensure proper erosion control and access during the construction process. Sixty-six (66) trees will need to be removed, thirty-five (35) of which are between one and three inches in diameter at breast height (DBH), and thirty-one (31) of which are between three and ten inches DBH. These trees will be taken in an approximately 5,500 square foot area.

State Land Tree Tally															
Project: Moose Pond Club Bridge															
State Land Unit: Vanderwhacker Mountain Wild Forest															
County: Essex								Town: Minerva							
Date Tallied: 9/25/23															
Tallied By: Robert Ripp and Ben Thomas															
Species	Diameter														Total
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	
Balsam Fir		8	2												10
White Pine		5	4		2										11
Red Spruce			6												6
Black Cherry		4													4
2 inch category	35														35
															0
Total	35	17	12	0	2	0	0	0	0	0	0	0	0	0	66

Earthwork and disturbance: Earthwork will occur in the form of removal of approximately 2,285 square feet of concrete and road material. This material had been imported to initially build the road, so the removal of the material will restore the site directly adjacent to the stream to a more natural “pre road” condition. The approximate volume of material to be removed are 4.5 cubic yards of concrete for the old abutments, and 177.2 cubic yards of old road fill.

Impacts to streams, waterbodies, and wetlands: The project will not impact APA jurisdictional wetlands. Any impacts to Vanderwhacker Brook will be limited to the placement of temporary erosion control and water diversion devices. There will be no permanent negative impacts to the stream, rather this project will result in restored natural flow and hydraulic function. All in-stream work will be done between May 1 and September 14 to avoid impacts to trout spawning and will be compliant with US Army Corps of Engineers Nationwide Permit #3 - Maintenance.

Rare, threatened, or endangered species: There are no rare, threatened, or endangered species documented within 0.25 miles of the project site.

Analysis of Project Location and Design Alternatives

One potential alternative for this project would be the no action alternative. This is not a viable alternative because the abutments are continuing to scour/undermine which is making them continually settle into the stream. The scouring action makes the structure unsafe for use and puts it at risk for collapse into Vanderwhacker Brook.

It is important to note that the landowner with deeded access across this bridge could also construct the bridge under their rights. In this scenario, the construction of the bridge would be outside of the Department's work planning process and outside of Article 15 water quality protections due to the site being located on Forest Preserve. The Department taking the lead on this project ensures all water quality protections will be adhered to.

Another alternative would be to repair the failing abutment. This alternative would require a similar amount of, and potentially more, in-stream work. It would also not correct the problem long term. The stream would still be over constricted so scouring related to the narrowed stream channel and increased velocity would continue. This alternative would be a temporary stabilization with no hydraulic/aquatic benefit and only a short-term health and safety benefit. It would only delay the need for a comprehensive replacement as proposed by the Department at this time.

Another alternative would be to remove the bridge entirely. This would include site and streambank stabilization to prevent future erosion. This is not a viable option because the private landowner has a deeded right-of-way along this road and across this bridge, so any removal without replacement would infringe on their access rights.

The proposed action is the only long-term solution that restores natural hydrology, protects the resource, and allows for motor vehicle use.

Description of Use of Motorized Equipment and/or Motor Vehicles (if any)

Trucks, excavators, loaders, a crane, and potentially small equipment will be needed to complete this project. All motor vehicle use will remain within the existing footprint of the road, so there will be no impacts outside of where motor vehicles are already allowed.

Description of Applicable Standards for Accessibility by People with Disabilities

This project restores motor vehicle use for all users.

Other Relevant Considerations

Prepared by (Name & Title): Robert Ripp
Phone: 518 897-1305

Date: 10/31/2023

Approvals:

Comments:



Regional Program Manager
Date: 1/10/2024

Joseph M. Zolinski

Regional Director

Date: 3/11/2024

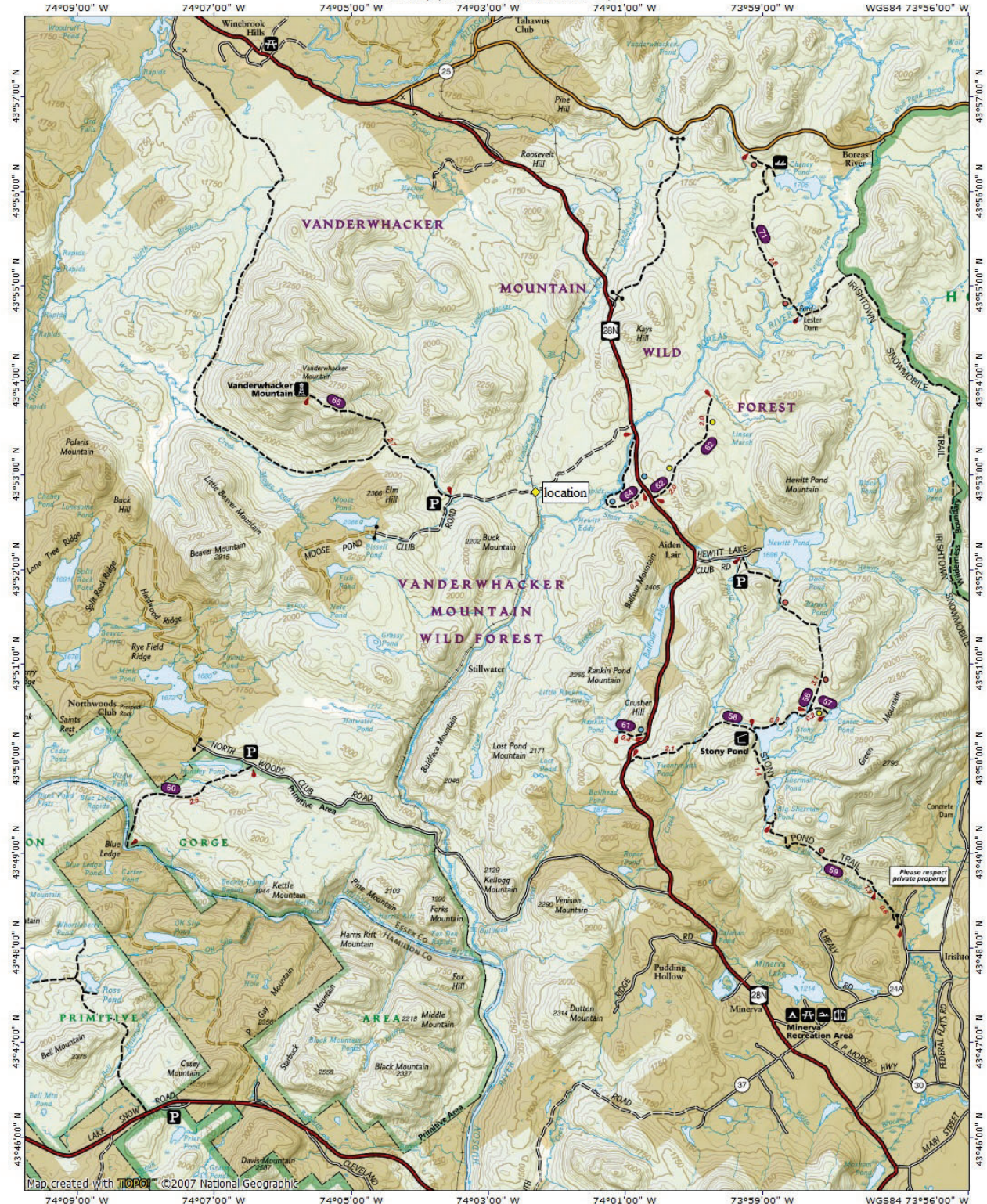
Peter Frank for Fiona Watt

Division Director

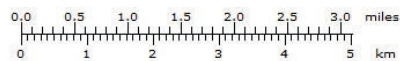
Date: 3/4/2024

REGULATORY CLEARANCE CHECKLIST – STATE LANDS and CONSERVATION EASEMENT PROJECTS

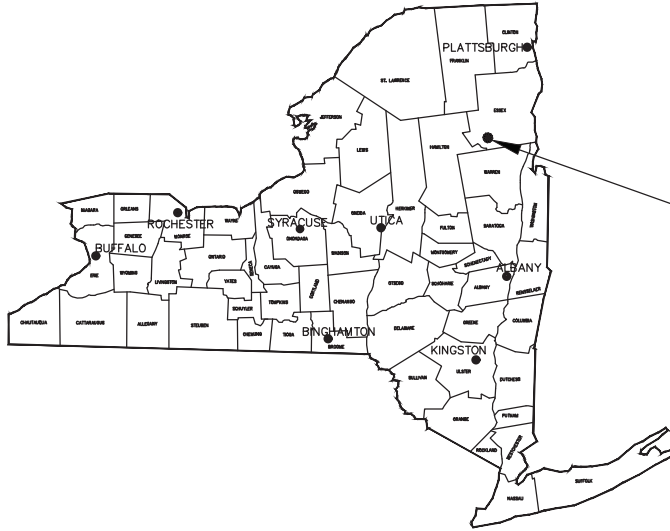
PROGRAM	PERMIT	REQUIRED		SECURED BY	COMMENTS
		YES	NO	(NAME)	
Air Resources	Restricted Burning	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Mineral Resources	Mining	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Materials Management	Solid Waste Mgt. Fac.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Water	Dam Safety Review	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Const. in Flood Hazard	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Public Water Supply	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	SPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Spills Management	Petro. Bulk Storage	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Lands and Forests	Unit Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Robert Ripp	VMWF 2018 amendment
	Tree Cutting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Robert Ripp	Included in work plan
	Protected Native Plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Historic Preservation	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Fish and Wildlife	Freshwater Wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Wild Scenic & Rec. River	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Compliance Services	Other Protection of Waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	EAF	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Negative Declaration	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Env. Impact Statement	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Water Quality Cert.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
DEC (other)	CP-17	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Commissioner (aircraft,motorized equipment)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Flight Request	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Contract Clearance Sh.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	DOB Exemption	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Other Agencies	APA MOU	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	APA Wetlands Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Corps. of Engineers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DEC Engineer	Complies with USACE Nationwide #3-Maintenance
	Building Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Local Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Easements	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Highway Enter DOT	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	Wastewater Disposal	<input type="checkbox"/>	<input checked="" type="checkbox"/>		



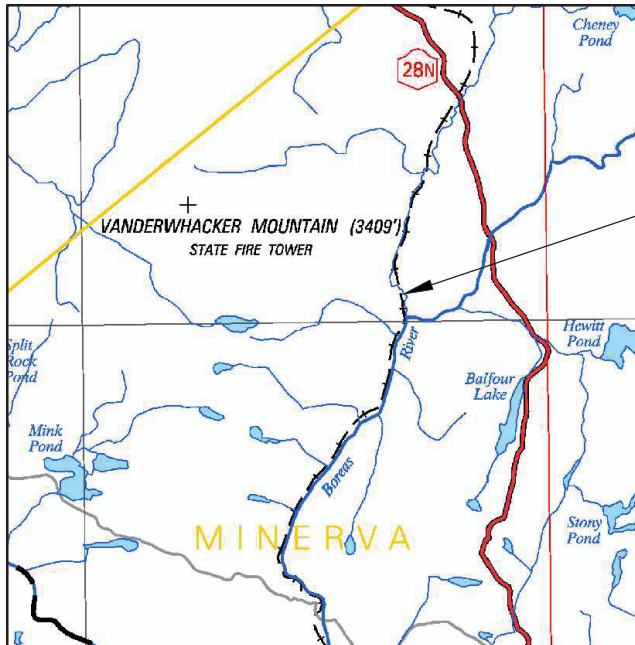
Map created with TOPO! ©2007 National Geographic



10/30/23




PROJECT LOCATION
 42.88053 LAT.
 -74.03805 LONG.



PROJECT LOCATION

DRAWING INDEX:

1. TITLE SHEET
2. EXISTING SITE PLAN
3. NEW SITE PLAN
4. BRIDGE SECTION

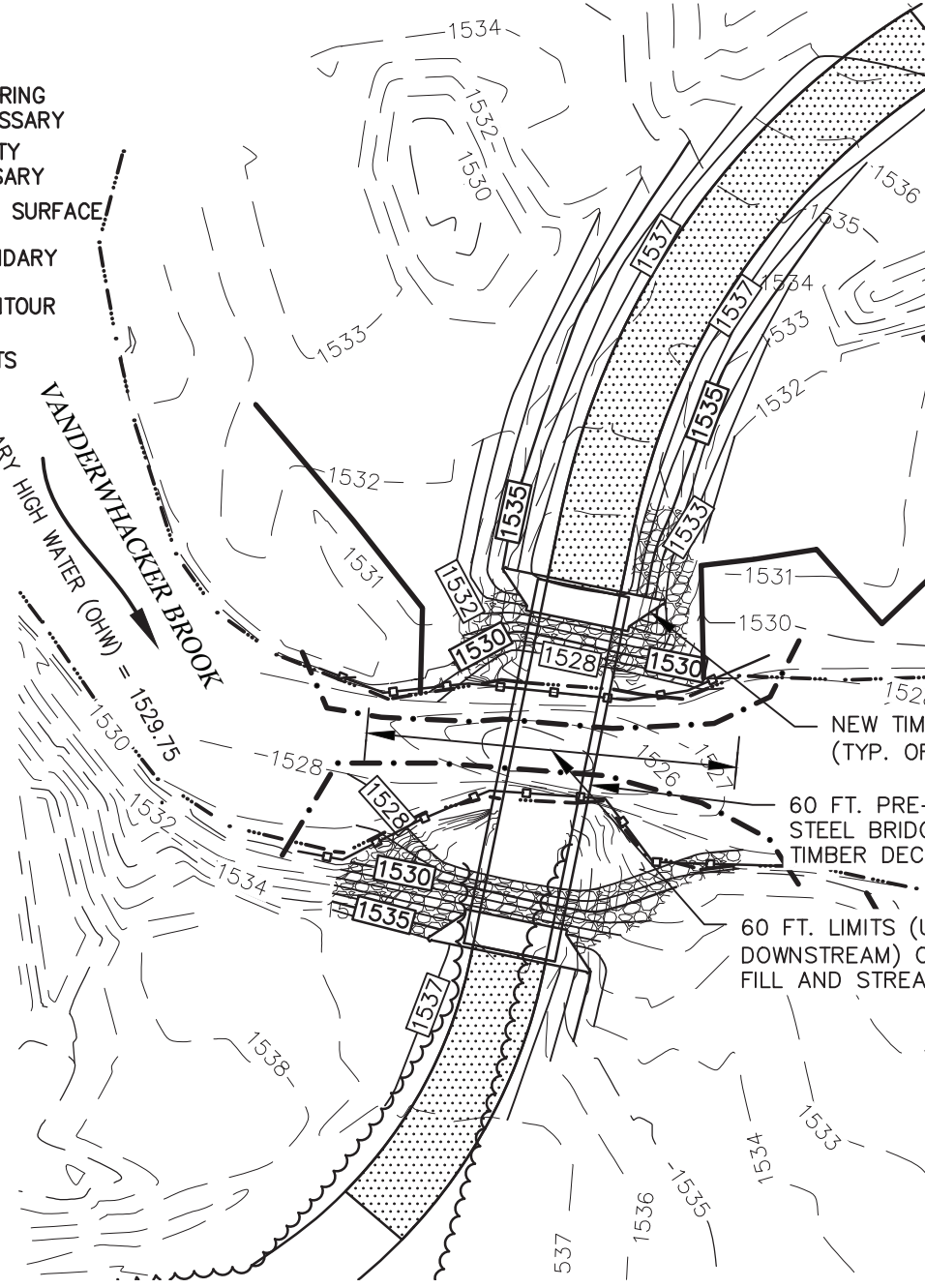
 Department of Environmental Conservation STATE OF NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF OPERATIONS BUREAU OF DESIGN & CONSTRUCTION	PROJECT DESCRIPTION	PROJECT NO. 76949
	MOOSE POND CLUB ROAD AT VANDERWHACKER BROOK – BRIDGE RECONSTRUCTION	DATE 09/2023
	PERMIT DRAWINGS	SCALE NONE
	TITLE SHEET	DRAWING NO. 1 OF 4

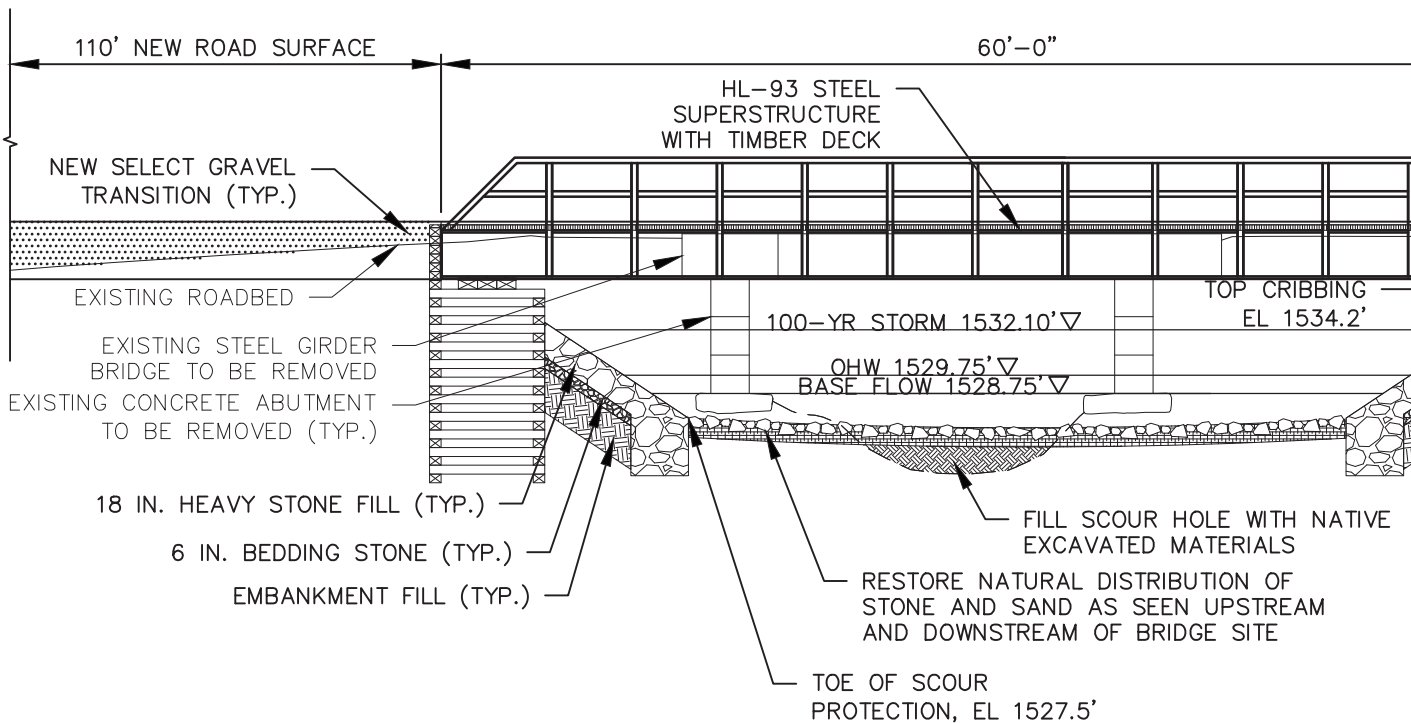


SITE LEGEND

- TEMPORARY DEWATERING MEASURES AS NECESSARY
- SILT FENCE/TURBIDITY CURTAIN AS NECESSARY
- EDGE OF NEW ROAD SURFACE
- APA WETLAND BOUNDARY
- FINAL SURFACE CONTOUR
- ROAD GRADING LIMITS
- NEW STONE FILL

PROJECT DESCRIPTION		PROJECT NO.
MOOSE POND CLUB ROAD AT VANDERWHACKER BROOK - BRIDGE RECONSTRUCTION		76949
PERMIT DRAWINGS		DATE
NEW SITE PLAN		09/2023
		SCALE
		1"=30'
		DRAWING NO.
		3 OF 4





QUANTITIES BELOW OHW 1529.75:

DISTURBANCE AREA:

TOTAL DISTURBANCE AREA = 2284.7 SF

CUT:

EXCAVATION = 177.2 CY

CONCRETE ABUTMENT REMOVAL = 4.5 CY

TOTAL CUT = 181.7 CY

FILL:

HEAVY STONE FILL = 59.2 CY

BEDDING STONE = 1.0 CY

EMBANKMENT BELOW BEDDING STONE = 3.5 CY

STREAM BED RESTORATION (60 FT OF STREAMBED) = 71.4 CY

SCOUR HOLE FILL (60 FT OF STREAMBED) = 6.7 CY

TOTAL FILL = 141.8 CY

PROJECT DESCRIPTION	PROJECT NO.
MOOSE POND CLUB ROAD AT VANDERWHAACKER	76949
BROOK - BRIDGE RECONSTRUCTION	DATE
PERMIT DRAWINGS	09/2023
NEW SITE PLAN	SCALE
	1"=10'
	DRAWING NO.
	4 OF 4