NOTICE OF AUTHORIZATION

Permit Number: WRP049295 v. 1 **Date Issued: June 22, 2026**
Site Name: 27-Lobischer creek at FR 3218-Watersmeet Twp **Expiration Date: June 22, 2031**

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; specifically:

- ☐ Part 31, Floodplain Regulatory Authority of the Water Resources Protection.
- ☒ Part 301, Inland Lakes and Streams.
- ☒ Part 303, Wetlands Protection.
- ☐ Part 315, Dam Safety.
- ☐ Part 323, Shorelands Protection and Management.
- ☐ Part 325, Great Lakes Submerged Lands.
- ☐ Part 353, Sand Dunes Protection and Management.

Authorized Activity:

Remove a 40-foot-long by 6-foot-wide by 3.7-foot-tall culvert on Lobischer Creek and replace with a new 57-foot-long by 6.9-foot-wide by 4.75-foot-tall culvert. Install up to 15 cubic yards of riprap below the Ordinary High Water Mark and in regulated wetlands at the culverts ends.

No in-stream work is authorized from October 1 to May 31 to protect spawning trout populations.

All work shall be completed in accordance with the attached plans and the terms and conditions of this permit.

Waterbody Affected: Lobischer Creek; Adjacent regulated wetlands
Property Location: Gogebic County, Watersmeet Township, T43N R38W Sec 15

Permittee:
U.S. Forest Service
Attn: Spring Rosales
E23979 US 2
Watersmeet, MI 49969

Kayla Conklin

Kayla Conklin
Marquette District Office
Water Resources Division

This notice must be displayed at the site of work.
Laminating this notice or utilizing sheet protectors is recommended.
Please refer to the above permit number with any questions or concerns.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
WATER RESOURCES DIVISION
PERMIT

Issued To:

U.S. Forest Service
Attn: Spring Rosales
E23979 US 2
Watersmeet, MI 49969

Permit No: **WRP049295 v.1**
Submission No.: **HQF-VJT5-PFPMD**
Site Name: **27-Lobischer creek at FR 3218-Watersmeet Twp**
Issued: **June 22, 2026**
Expires: **June 22, 2031**

This permit is being issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:

- ☒ **Part 301, Inland Lakes and Streams**
- ☒ **Part 303, Wetlands Protection**
- ☐ **Part 315, Dam Safety**
- ☐ **Part 323, Shorelands Protection and Management**
- ☐ **Part 325, Great Lakes Submerged Lands**
- ☐ **Part 353, Sand Dunes Protection and Management**
- ☐ **Part 31, Water Resources Protection (Floodplain Regulatory Authority)**

EGLE certifies that the activities authorized under this permit are in compliance with the State Coastal Zone Management Program and certifies without conditions under the Federal Clean Water Act, Section 401 that the discharge from the activities authorized under this permit will comply with Michigan's water quality requirements in Part 31, Water Resources Protection, of the NREPA and associated administrative rules, where applicable.

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

Authorized Activity:

Remove a 40-foot-long by 6-foot-wide by 3.7-foot-tall culvert on Lobischer Creek and replace with a new 57-foot-long by 6.9-foot-wide by 4.75-foot-tall culvert. Install up to 15 cubic yards of riprap below the Ordinary High Water Mark and in regulated wetlands at the culverts ends.

No in-stream work is authorized from October 1 to May 31 to protect spawning trout populations.

All work shall be completed in accordance with the attached plans and the terms and conditions of this permit.

Waterbody Affected: Lobischer Creek; Adjacent regulated wetlands
Property Location: Gogebic County, Watersmeet Township, T43N R38W Sec 15.

Authority granted by this permit is subject to the following limitations:

A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. This permit shall not be assigned or transferred without the written approval of EGLE.
J. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
K. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
L. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
M. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
N. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
O. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.
P. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.
Q. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit

are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.

R. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.

S. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).

T. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.

U. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.

V. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.

W. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.

X. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

1. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit https://www.michigan.gov/egle/about/organization/water-resources/soil-erosion/sesc-overview and select “Soil Erosion and Sedimentation Control Agencies”.
2. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.
3. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.
4. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
5. The permit placard shall be kept posted at the work site in a prominent location at all times for the duration of the project or until permit expiration.
6. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.
7. The existing structure shall be kept open to pass the stream flow during removal of the existing road fill.
8. The placement of the new culvert and the initial placement of fill in the stream shall be done immediately after removal of the existing culvert. The placement shall be conducted in such a manner that all flow is immediately passed through the new culverts, allowing the major placement of fill to be done in the dry or in still water where erosion and siltation will be minimized. The fill material used in this initial placement shall be washed gravel, coarse aggregate, or rock and shall be placed at both ends of the culvert to a level above normal water level before backfill material is placed.
9. The culvert shall be installed to align with the center line of the existing stream at both the inlet and outlet ends, and must be buried below the stream bed to provide a natural channel substrate through the structure as shown on the approved plans.

10. Road fill side slopes shall not be steeper than 1-on-2 (1 vertical to 2 horizontal) except where headwalls of reinforced concrete, mortar masonry, dry masonry, or other acceptable methods are used.
11. Road fill side slopes terminating in the stream and any raw streambanks resulting from the construction shall be stabilized with temporary measures in accordance with appropriate Best Management Practices based on site conditions, and if necessary, may be riprapped extending above the ordinary high water mark, before or upon commencement of the permitted activity. Temporary stabilization measures shall be maintained until permanent measures are in place.
12. All other road fill slopes, ditches, and other raw areas draining directly to the stream may be protected with riprap, sod and/or seed and mulch as may be necessary to provide effective erosion protection. The placement of riprap shall be limited to the minimum necessary to ensure proper stabilization of the side slopes and fill in the immediate vicinity of the structure. Rock riprap shall be placed such that it does not narrow up the stream or interfere with stream flows into and out of the structure.
13. If the project, or any portion of the project, is stopped and lies incomplete for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect the incomplete work from erosion, including the placement of temporary gravel bag riprap, temporary seed and mulch, or other acceptable temporary protection.
14. No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.

Issued By: Kayla Conklin

Kayla Conklin
Marquette District Office
Water Resources Division

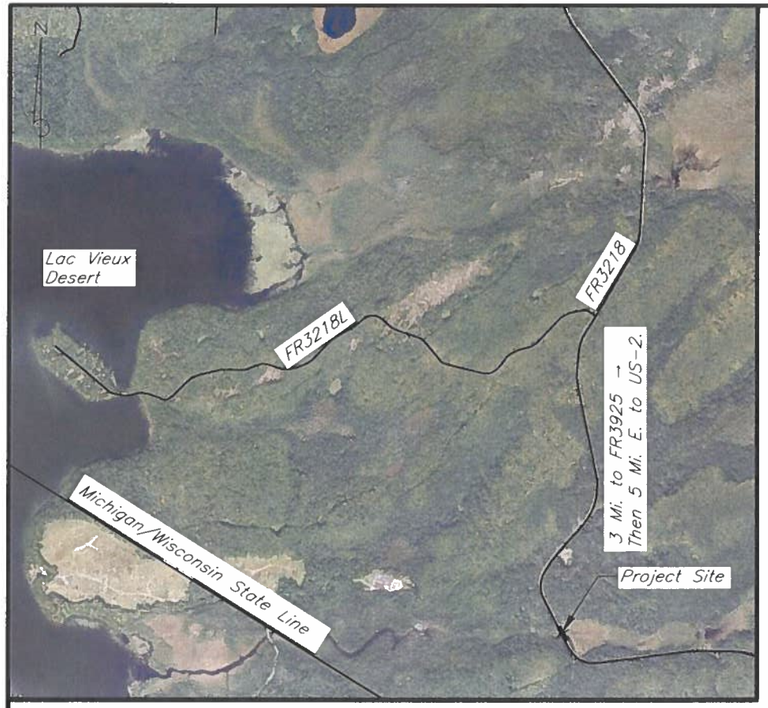
THIS PERMIT MUST BE SIGNED BY THE PERMITTEE TO BE VALID.

I hereby assure that I have read, am familiar with, and agree to adhere to the terms and conditions of this permit.

_____ _____

Permittee Signature Date

cc: Beth Shrader, Lac Vieux Desert
Watersmeet Township Clerk
Gogebic County Drain Commissioner
Gogebic County CEA
Gogebic County Clerk



LOCATION MAP

0.5 0 0.5

Scale in Miles

BENCHMARK DESCRIPTION(S)

T.B.M.# 4 — Capped ½" rebar 2' N. of existing culvert C/L, 12' W. of FR3218 C/L
Elev. 1700.84

T.B.M.# 9 — ½" rebar on N. side of channel 95' SW of existing culvert outlet
Elev. 1695.53

T.B.M.# 3 — Capped ½" rebar 11' E of FR3218 C/L 340' S. of culvert
Elev. 1702.25

MISS DIG System, Inc. 811

Three full working days before you dig, call MISS DIG at **811 or 800-482-7171**

Ticket # _____

ENGINEERING CERTIFICATION FOR COMPLETED CONSERVATION PRACTICES

CPS NO.	CONSERVATION PRACTICE	EJC	CONTRACT UNIT	AMOUNT

NRCS As-Built Construction Approval Signature Certifies That All Work For The Conservation Practice Is 100% Complete And Meets NRCS Standards And Specifications. Approver Must Have Adequate Engineering Job Approval Authority.

NRCS AS-BUILT CONSTRUCTION APPROVAL

As-Builts Completed By: _____ Date: _____

As-Builts Approved By: _____ Date: _____

THESE CONSTRUCTION DRAWINGS AND SPECIFICATIONS HAVE BEEN REVIEWED AND ALL PARTIES UNDERSTAND WHAT IS REQUIRED. (All contractors must sign and date.)

Landowner/Operator: _____

Contractor(s): _____

Certified Storm Water Operator: (where appropriate) _____

NRCS Representative(s): _____

OPERATION & MAINTENANCE

CPS NO.	TITLE
578	Stream Crossing
560	Access Road
584	Channel Bed Stabilization

THESE OPERATION & MAINTENANCE PLANS HAVE BEEN REVIEWED AND I UNDERSTAND WHAT IS REQUIRED.

Landowner/Operator: _____

Date: _____

CONSTRUCTION SPECIFICATIONS

SPEC. NO.	TITLE
MI 150	Site Preparation
MI 151	Structure Removal
MI 152	Excavation
MI 154	Earthfill
MI 156	Corrugated Metal Pipe Conduit Installation
MI 162	Salvaging And Spreading Topsoil
MI 164	Loose Rock Riprap
MI 165	Geotextiles
MI 166	Seeding

TABLE OF ESTIMATED QUANTITIES

ITEM	UNIT	AMOUNT	AS-BUILT
Structure Removal, 72" X 44" CMP	LF	40	
83" X 57" Pipe-Arch CMP	LF	57	
Riprap, D50=5"	CY	11	
Riprap, D50=8"	CY	10	
Class I Nonwoven Geotextile	SY	205	
Aggregate MDOT 6AAA Or As Specified	CY	15	
Topsoil Salvage And Spread	CY	20	
Excavation	CY	385	
Earthfill	CY	345	
MDOT 22A	CY	180	
Class IIIA Culvert Bedding	CY	40	
Seeding	SF	1400	
Mobilization	LS	1	
Dewatering	LS	1	

INDEX OF SHEETS

MICHIGAN ENGINEERING STANDARD DRAWING	
FILE NAME MI-000-B 2-20.dwg	
STANDARD DWG. NO. MI-000-B	
DATE 2-20	SHEET 1 OF 2

		Date
Designed	J. Ingmire	1/5/24
Drawn	J. Ingmire	1/5/24
Checked	A. Bastone	7/21/24
Approved		

FR3218 Lobischer Creek Culvert Replacement

Gogebic Co., Michigan

Watersmeet Township, T.43N-R.1E, Sec. 15

ENGINEERING JOB CLASS V

United States Department of Agriculture

Natural Resources Conservation Service

File Name
LMD_NOP_LobischerCreek_Design_Final

Drawing Name
Coversheet

7/26/2024 2:12 PM

Sheet 1 of 7

EGLE
WRP049295 v1.0
Approved
Issued On:06/22/2026
Expires On:06/22/2031

ROLES AND RESPONSIBILITIES NOTES

ITEM	LANDOWNER/OPERATOR (L/O)	CONTRACTOR (CONTR)	NRCS
Obtaining Bids & Hiring a Contractor	May serve as the CONTR. Provides construction drawings and specifications (CD&S) to potential CONTRs. Recommended to obtain at least 3 responsible bids, including own bid if applicable. Hire a competent CONTR.	Read and know construction drawings and specifications (CD&S) prior to bidding. Perform own site investigation, make own determination as to difficulty of the work. Earthwork volumes are estimated as compacted, use judgement when bidding.	Answer L/O and CONTR questions. Provide Cost Estimate and Bid Schedule to L/O.
Permits, Easements, Laws, Ordinances, Regulations, Zoning (Federal, State, and Local)	Check into, obtain and comply with all that may affect the project. Hire Certified Storm Water Operator (CSWO) where appropriate (1 ac. or more disturbed).	Comply with all that may affect the project. Protect surface water and groundwater from contamination during construction.	Provide L/O with pertinent information.
Utilities (water, electric, telephone, gas, sewer, etc.)	Where MISS DIG must be contacted, inform the CONTR of responsibility and ensure that CONTR contacts MISS DIG. Locate any buried utilities in work area not covered by the MISS DIG program.	Contact MISS DIG where required. Provide MISS DIG ticket number to L/O and NRCS. Observe and verify utility locations.	NRCS makes no representation of the accuracy of locations of utilities shown in these construction drawings and to the presence or absence of utilities in the work area. Record MISS DIG Ticket number on the coversheet.
Pre-Construction Meeting (required unless NRCS specifically determines it to be unnecessary)	Arrange for and host a meeting between the CONTRs, CSWO (if applicable) and NRCS to review the CD&S and site prior to construction. Alert CONTR and NRCS to any site specific biosecurity concerns. Sign cover sheet of drawings.	Participate in pre-construction meeting. Sign cover sheet of drawings. Provide CD&S to workers, subcontractors, and any others not attending meeting and review contents.	Assist L/O with pre-construction meeting. Sign cover sheet of drawings. Place original signed cover sheet in the field office L/O file.
Safety	Order CONTR to correct unsafe conditions. Order CONTR to stop work if unsafe conditions are not promptly corrected. Wear hard hat if exposed to falling objects, flying debris, or overhead construction equipment.	Know and follow the appropriate safety standards required by the Michigan Occupational Safety and Health Act. Promptly correct unsafe conditions. Wear hard hat if exposed to falling objects, flying debris, or overhead construction equipment. Follow any site specific biosecurity requirements of L/O.	Inform L/O and CONTR of unsafe conditions. If corrective action on significant violations is not taken in a timely manner, terminate assistance immediately and leave the site. Wear hard hat if exposed to falling objects, flying debris, or overhead construction equipment. Follow NRCS guidance on biosecurity and L/O site specific requirements.
Construction Scheduling NRCS Field Office Telephone Number: 906-774-1550 ext 108	Authorize CONTR to begin work only after receipt of NRCS-approved CD&S and following the pre-construction meeting. Notify the local NRCS office at least 7 days prior to when construction is to start, and other times as specified in the CD&S. Keep NRCS informed of progress.	Inform L/O of planned work schedule. Provide at least 7 days notice in advance of planned start date. Keep L/O and NRCS informed of progress. Provide equipment, materials and work force needed to complete work in a timely manner. Provide appropriately skilled workers.	Schedule NRCS staff to be available for construction layout and quality assurance.
Cultural Resources or Human Remains	Follow MI-NRCS Procedures for Construction Discoveries, contact local NRCS Field Office for additional information.		
Construction Layout, Survey Control, Quantity Measurements	Protect all NRCS survey benchmarks from damage. Avoid unnecessary destruction of NRCS survey staking and flagging.	Protect all NRCS survey benchmarks from damage. Avoid unnecessary destruction of NRCS survey staking and flagging. Perform own surveying, measuring, flagging and staking beyond the basics provided by NRCS. Perform own quantity measurements for L/O – CONTR pay items.	Provide basic layout survey staking and flagging, as needed.
Communications and Decisions	Be available for consultation and decisions.	A designated Foreman (responsible decision maker) with a set of CD&S must be on site at all times during construction.	Be available for inspection, consultation, and decisions.
Quality Control (QC)/ Quality Assurance (QA)	Assure compliance with CD&S requirements. Order CONTR to stop and correct work that does not comply. Any deviation from the CD&S without written approval from NRCS may result in work not meeting NRCS requirements, and in the withdrawal of technical or financial assistance for the affected conservation practice.	Prepare QC plans and other submittals as required by the CD&S. Comply with CD&S requirements. Inform NRCS of discrepancies within or between CD&S. Understand NRCS QA Plan. Perform QC measurements and testing. Promptly correct work that is out of compliance. Provide appropriately skilled testers.	Review QC Plan and other submittals from the CONTR as required by the CD&S. Follow QA Plan. Perform QA observations, measurements and testing necessary to determine compliance with CD&S requirements. Inform L/O and CONTR of results.
Changes, Differing Site Conditions	Inform NRCS when unexpected site conditions are encountered.	Inform L/O and NRCS when unexpected site conditions are encountered. Deviate from CD&S only with NRCS and L/O approval.	Inform L/O and NRCS District Conservationist when unexpected site conditions are encountered. Make needed design changes with appropriate engineering approval.
Completion, Certification and Payment	Insure that all specified work is completed according to CD&S.	Complete all items of work as specified in the CD&S, within scope of contract with L/O. Submit QC documentation.	Reviews L/O, CONTR and NRCS documentation, provides construction certification as appropriate.
Operation and Maintenance (O&M)	Agree to operate and maintain all conservation practices shown in these plans in accordance with the supplied O&M Plan.	N/A	Develop and provide O&M Plan.

MICHIGAN ENGINEERING STANDARD DRAWING	
FILE NAME MI-000-B 2-20.dwg	
STANDARD DWG. NO. MI-000-B	
DATE 2-20	SHEET 2 OF 2

ACRONYM LEGEND

- L/O = Landowner/Operator
- CONTR = Contractor
- NRCS = Natural Resources Conservation Service
- CD&S = Construction Drawings and Specifications
- CSWO = Certified Stormwater Operator
- QC = Quality Control
- QA = Quality Assurance
- O&M = Operation and Maintenance

Date	
Designed J. Ingmire	1/5/24
Drawn J. Ingmire	1/5/24
Checked A. Bastone	7/21/24
Approved J. Ingmire	7/26/24

Roles and Responsibilities
FR3218 Lobischer Creek Culvert Replacement
Gogebic Co., Michigan
Watersmeet Township, T. 43N-R. 1E, Sec. 15

United States Department of Agriculture
Natural Resources Conservation Service

File Name LVD_NOP_LobischerCreek_Design_Final

Drawing Name Roles & Responsibilities

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DESIGN NOTES

This project is designed in accordance with USDA Natural Resources Conservation Service (NRCS) conservation practice standards Stream Crossing (578), Access Road (560), and Channel Bed Stabilization (584). Work includes removal of existing road materials, excavation of the existing culvert site, removal of the culvert, installation of a new pipe–arch culvert, grading and compaction of the embankment and excavated soils, placement of rock riprap, formation of channel bed materials, and grading and aggregate surfacing of the road. The purpose of the project is to address erosion and flow concerns in the existing culvert and create a passage for aquatic organisms.

Design Data:

- *Existing Road Bed Width = 11 feet*
- *Existing Shoulder Width = varies*
- *Proposed Road Bed Width = 12 feet*
- *Proposed Shoulder Width = 2 feet*
- *Approximate Road Length Remove and Replace = 500 feet*
- *Contributing Watershed Size = 2300 acres*
- *Design Discharge = 155 cfs*
- *Inlet Channel Elevation = 1694.80 feet*
- *Outlet Channel Elevation = 1694.50 feet*
- *Culvert Size = 87" x 57" Corrugated Metal Pipe*
- *Culvert Length = 57 feet*
- *Culvert Slope = 0.53%*

OPERATION AND MAINTENANCE PLAN

Inspection and maintenance are required to achieve the intended function, benefits, and life of the practices. The operator is responsible to establish and implement an inspection and maintenance program. Items to inspect and maintain during the 10–year design life of the practice include, but are not limited to, the following:

1. *Inspect after significant storm events and at least annually to identify repair and maintenance needs.*
2. *Inspect the downstream toe of the embankment annually. If there are wet areas or seeps at the downstream toe of the embankment, it could be a serious problem. Ask for assistance from a qualified professional to evaluate the seepage.*
3. *When found, clear accumulated trash away from inlet, outlet, and rock riprap.*
4. *Check inlet, embankment, and outlet after heavy rains for possible damage. Replace riprap as needed.*
5. *Repair erosion at inlet and outlet of culverts as needed.*
6. *Fill rills and gullies that occur on the embankments. Reseed the filled areas.*
7. *Prevent woody vegetation from growing in or around the embankment and structure. Control tree and bush growth by hand cutting, mowing, or chemicals. Avoid damaging grass with herbicide sprays.*
8. *Maintain vegetated areas in adequate cover to meet the intended purpose(s). Re–seed, fertilize, and mow as needed.*
9. *Keep machinery away from steep side slopes. Keep equipment operators informed of all potential hazards.*
10. *Check areas where unusual settlement has occurred. Determine cause of settlement and fill or otherwise repair, as appropriate..*
11. *Maintain access road. Fill and resurface rills and gullies that occur. Fill low areas in travel treads and re–grade, as needed, to maintain road cross section.*
12. *Promptly repair or replace damaged surface treatment and components.*
13. *Check frequently for burrowing animals. When found, remove the burrowing animals, replace embankment materials and reseed.*

		Date
Designed	J. Ingmire	1/5/24
Drawn	J. Ingmire	1/5/24
Checked	A. Bastone	7/21/24
Approved	J. Ingmire	7/26/24

Construction Notes
FR3218 Lobischer Creek Culvert Replacement
Gogebic Co., Michigan
Watersmeet Township, T.43N–R.1E, Sec. 15

United States Department of Agriculture
Natural Resources Conservation Service

File Name
LVD_AOP_LobischerCreek_Design_Final

Drawing Name
Construction Notes

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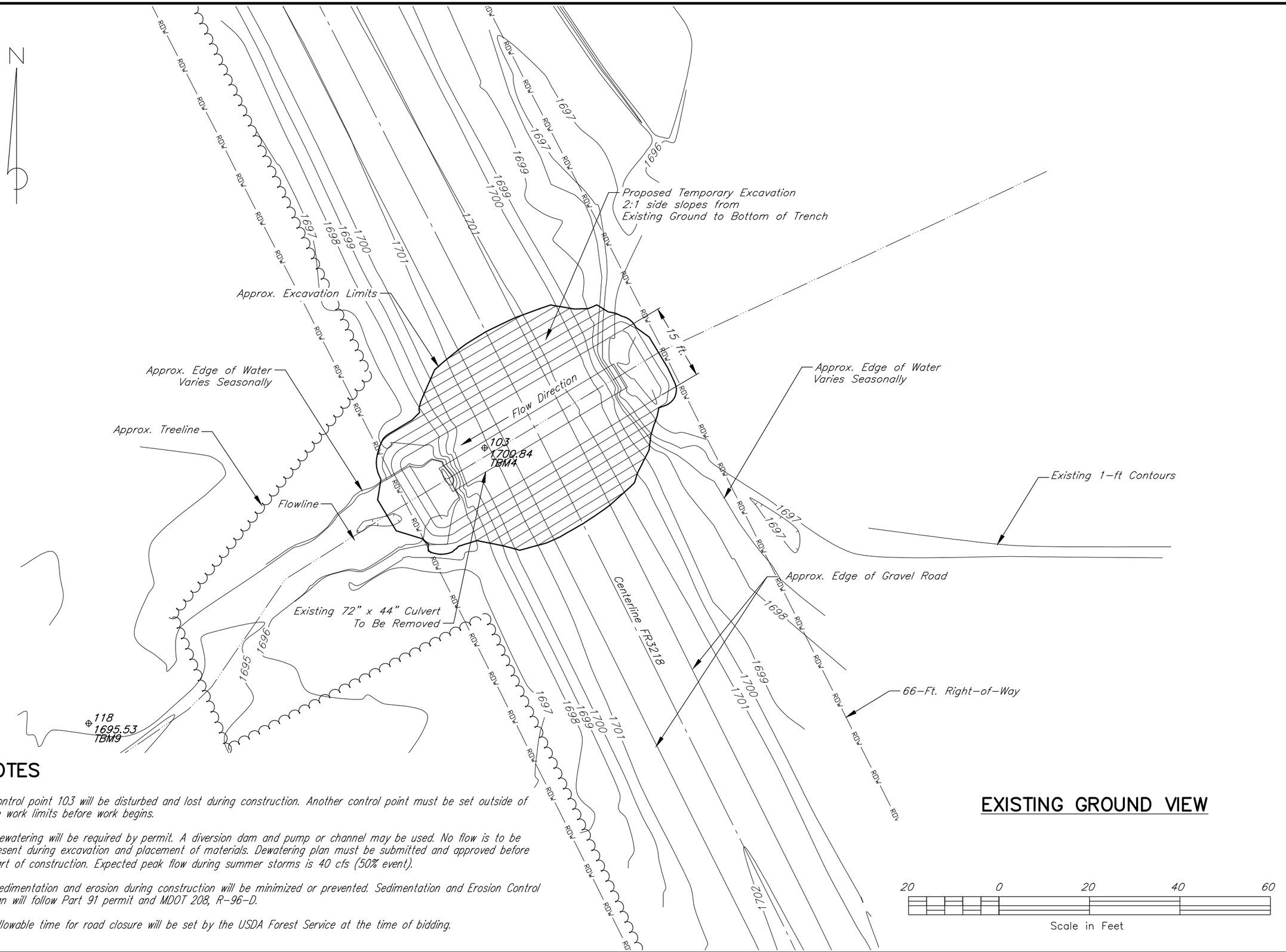

EXISTING GROUND VIEW

NOTES

1. Control point 103 will be disturbed and lost during construction. Another control point must be set outside of the work limits before work begins.

2. Dewatering will be required by permit. A diversion dam and pump or channel may be used. No flow is to be present during excavation and placement of materials. Dewatering plan must be submitted and approved before start of construction. Expected peak flow during summer storms is 40 cfs (50% event).

3. Sedimentation and erosion during construction will be minimized or prevented. Sedimentation and Erosion Control Plan will follow Part 91 permit and MDOT 208, R-96-D.

4. Allowable time for road closure will be set by the USDA Forest Service at the time of bidding.

	Date
Designed J. Ingmire	1/5/24
Drawn J. Ingmire	1/5/24
Checked A. Bastone	7/21/24
Approved J. Ingmire	7/26/24

Planview
FR3218 Lobischer Creek Culvert Replacement
Gogebic Co., Michigan
Watersmeet Township, T.43N-R.1E, Sec. 15

United States Department of Agriculture
Natural Resources Conservation Service

File Name
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Drawing Name
Planview

7/26/2024 2:12 PM

Sheet 4 of 7

N

Existing 1-ft Contours

Riprap for scour protection to be placed 3-ft on both sides of culvert and to height of 1.5-ft (elevation 1700.0) above top of pipe

See Cross Section Sheet 6

Proposed Culvert Bottom Elev. 1693.8 Sta. 9+72

Centerline FR3218

Approx. Work Limits And Slope Catch Line

Proposed final grade 3:1 side slopes from road grade to bottom of channel

16 ft. See Typical Road Section, Sheet 6

Riprap for scour protection to be placed 3-ft on both sides of culvert and to height of 1.5-ft (elevation 1699.8) above top of pipe

Flow Direction

10+00

13 ft.

16 ft.

Rock Riprap Inlet Protection. See Sheet 6 for Details.

Rock Riprap Outlet Protection. See Sheet 6 for Details.

See Cross Section Sheet 6

Proposed 1-ft Contours

Proposed Culvert Bottom Elev. 1693.5 Sta. 10+29

Proposed 83"x57" CMP 57' Long

66-Ft. Right-of-Way

Approx. Road Edge

1695 1696 1697 1698 1699 1700 1701

A A' B B'

RDW

PROPOSED GROUND VIEW

10 0 10 20 30

Scale in Feet

Site Layout
FR3218 Lobischer Creek Culvert Replacement
Gogebic Co., Michigan
Watersmeet Township, T.43N-R.1E, Sec. 15

	Date
Designed J. Ingmire	1/5/24
Drawn J. Ingmire	1/5/24
Checked A. Bastone	7/21/24
Approved J. Ingmire	7/26/24

United States Department of Agriculture
Natural Resources Conservation Service

File Name
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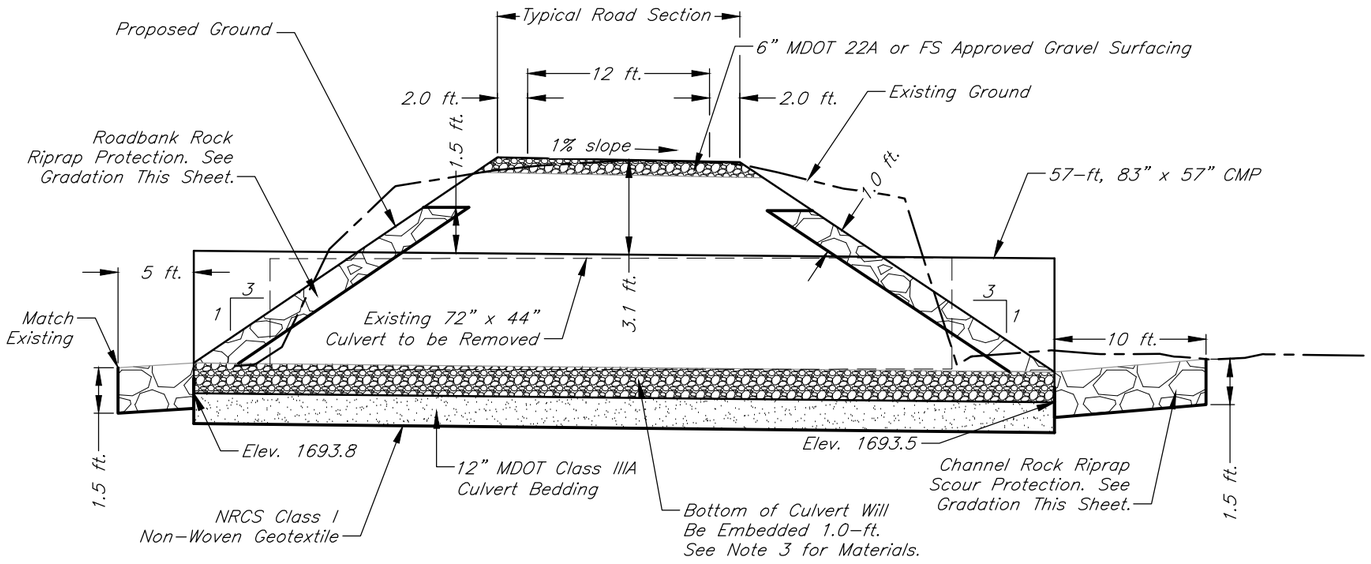
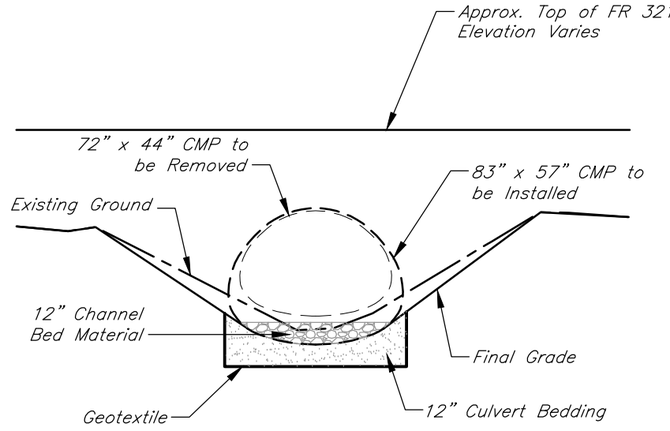


CROSS SECTION A–A'

NO SCALE
2V = 1H



CROSS SECTION B–B'

NO SCALE

CONSTRUCTION NOTES

1. Channel slope to be built in culvert matches culvert slope as installed. There is 1.0-ft of fill from the bottom of the culvert to design elevation. Use elevations as specified on this sheet. Riprap tolerance is 0.25'. Aggregate and fill tolerance is 0.1'.

2. Fill materials outside culvert will be brought up evenly on each side, with lifts no more than 9" during placement. See Construction Specification MI-154.

3. Material for channel bed to be built in culvert will come from excavation of material beneath existing culvert. If material proves to be unsuitable, as determined by NRCS engineer, MDOT 6AAA or an aggregate mix with the gradation specified on this sheet may be substituted. If excavated material is suitable for use as the channel bed, pay item "Aggregate, MDOT 6AAA or as specified" will not apply.

4. Individual rock fragments will be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. The rock fragments will be angular to subrounded in shape. The least dimension of an individual rock fragment will not be less than 1/3 the greatest dimension of the fragment. The specific gravity of rock will be 2.65.

5. Surplus material excavated from road embankment may be used for excavation backfill if it meets MDOT Class III Specs.

6. The road bed will be rebuilt to the same centerline elevation as pre-project. The bed will be 16-ft wide and have 3:1 side slopes to the existing ground. Road grade will be outsloped no greater than 2% to the downstream culvert side (West) as per USDA Forest Service requirements. See Section A-A' for a typical cross section.

7. Corrugated metal culvert must be able to support HS-20 loading with the minimum 2-ft fill depth and with the road fill height as shown. Contractor will submit manufacturer certification that selected culvert meets these requirements prior to approval and installation. Multiplate or prefab, aluminum or steel pipe may be used.

8. Dewatering will be required by permit. A diversion dam and pump or channel may be used. No flow is to be present during excavation and placement of materials. Dewatering plan must be submitted and approved before start of construction. Expected peak flow during summer storms is 40 cfs (50% event).

9. Sedimentation and erosion during construction will be minimized or prevented. Sedimentation and Erosion Control Plan must follow Part 91 permit and MDOT 208, R-96-D.

10. Allowable time for road closure will be set by the USDA Forest Service at the time of bidding.

11. All disturbed areas will be seeded according to MI-166, Seeding Construction Specification.

CHANNEL ROCK RIPRAP	
SIZE	% PASSING
12-16"	100
10-14"	85
8-12"	50
6-10"	10

Channel rock riprap (scour protection rock) willl meet the gradation as specified above. Rock will be 1.5-ft deep.

ROAD BANK ROCK RIPRAP	
SIZE	% PASSING
8-10"	100
7-9"	85
5-8"	50
4-7"	10

Road bank rock riprap (slope protection rock) willl meet the gradation as specified above. Rock will be 1-ft deep, 3.0-ft on both sides of culvert ends, and extend to the elevation as specified on the plans.

CHANNEL BED ROCK	
SIZE	% PASSING
1 1/2"	100
3/4"	60-85
3/8"	30-60
No. 200 Sieve	0-8

Channel bed rock must be MDOT 6AAA, or meet the gradation as specified above. If material excavated from beneath existing culvert during removal is suitable, pay item "MDOT 6AAA" will not apply.

	Date
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Profile
FR3218 Lobischer Creek Culvert Replacement
Gogebic Co., Michigan
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Work Item	Inspection Details	Work Item	Inspection Details
Well	*Intermittent and upon completion. Provide well log to NRCS. Review and approval of Contractor–selected pump and pressure tank prior to installation.*	*Timber Fabric.*	*Intermittent and upon completion. Review and approval of roof structure design information prior to start of roof structure construction.*
Site Preparation	*Intermittent and upon completion.*	*Structure*	*Intermittent and upon completion*
Fences, Gates	*Intermittent and upon completion.*	*Metal Fabric.*	*Intermittent and upon completion.*
Excavation	*Inspection intensity will be intermitent to continuous as conditions warrent for inspection of excavation safety measures, exposed soil and water conditions, dewatering, grades, dimensions, check for cultural resources and human remains, suitability of borrow material for intended use, disposal of unsuitable or excess materials (spoils). Where unexpected subsurface conditions, cultural resources, or human remains are encountered, stop work until Inspector reviews the situation and determines direction to proceed.*	*Loose Rock Riprap*	*Inspection and approval of rock source, type and gradation prior to delivering rock to the site. Contractor is responsible for testing of rock material and gradation. Inspection and approval of subgrade preparation and geotextile placement prior to placemnt of rock riprap. Continuous inspection for placement of larger and more angular rock over geotextile to insure that geotextile filter is not compromised by tears or overlap separation. Inspection for placement of smaller and rounder rock over geotextile may be continuous to intermittent.*
Earthfill (cohesive and non–cohesive materials)	*Review and approval of Contractor Quality Control Plan (required? YES or NO) and Cold Weather Earthfill Plan (required? YES or NO) prior to earthfill placement. Inspection and approval of subgrade preparation and earthfill materials and prior to placement, lift thickness and moisture content prior to compaction. Continuous inspection of specified method–based compaction methods, particularly where significant risk exists due to earthfill height, impoundment surface area and volume, nonuniformity of subgrade fill thickness, compacted earth liner storing waste. Intermittent inspection of NRCS–approved performance–based compaction methods where Contractor performs adequate quality control testing and provides test data to NRCS. Intermittent inspection of minor earthfills. As determined by the Inspector, where conditions warrant, inspection intensity may be reduced to intermittent.*	*Reinforced & Plain Concrete*	*Review and approval of proposed Concrete Design Mix, Contractor Quality Control Plan (required? YES or NO) and Cold Weather Concreting Plan (required? YES or NO) prior to placement of concrete. Inspection and approval of subgrade preparation prior to placement of reinforcing steel and forms. Inspection and approval of steel reinforments, formwork and subgrade moisture condition prior to ordering concrete. Continuous inspection is required durign concrete placement and finishing, correction of significant subgrade over–excavation, repair of significantly honeycombed, damaged or otherwise defective concrete, and at other times deemed necessary by Inspector. Otherwise, inspection may be intermittent. Approval of date and time when backfilling of concrete block and cast–in–place concrete structures may begin.*
Geotextiles	*Review and approval of Manufacturer/Distributor material certification letter, product production run test data if required, manufacturer supplied securing pins, alternative securing methods, and surface preparation prior to placing materials (rock riprap, drainfill, topsoil, road gravel, flexible membrane liner, etc.). Continuous inspection is required where the covering operation follows quickly behind placement operation. Otherwise, inspection may be intermittent.*	*Topsoil, Fertilizer, Seeding, Mulching, Netting*	*Inspection and approval of topsoil material from off site source prior to delivering topsoil to site. Inspection and approval of final grading and surface preparation of subgrade prior to topsoil placement. Inspection and approval of final grading and surface preparation of topsoil prior to seed bed preparation. Inspection and approval of fertilizer, lime, seed, and mulch and netting materials prior to their placement. NRCS Inspector must be notified at least 2 business days in advance of date and time of mulch netting installation. Inspection will be continuous to intermittant as conditions warrant.*
Drainfill (granular free draining materials with a drainage and filtering function)	*Review and approval of written material certification for drainfill gradation from a tested source prior to delivering drainfill to the site. Review and approval of material from an untested source prior to delivering drainfill to site. Contractor is responsible for testing material gradation. Inspection and approval of subgrade preparation prior to drainfill placement. Inspection and approval of pipe conduit installation prior to placing drainfill over or around the pipe conduit. Continuous inspection is required where drainfill is placed for blanket and trench drains for waste storage and manure transfer facilities, and for pipe conduit drainage diaphragms in earth embankments.*	*Pipe*	*Inspection and approval of subgrade preparation and bedding prior to placing the pipe conduit. Inspection and approval of the placed pipe conduit and appurtenances prior to placement of fill material over and around the pipe conduit. Inspection of pipe placement may be intermittent to continuous, as determined necessary by the Inspector.*
Additional Work Items and Inspection Details			

Landowner/Operator and Contractor are responsible to keep NRCS informed of progress so that the NRCS Inspector may schedule and perform needed inspections in a timely manner. To assist with this responsibility, "Inspection Details" identifies work items for which the NRCS Inspector must be present continuously, and specific points where an approval is required before the Contractor proceeds further with the work. "Continuous" means NRCS Inspector will be present at all times while the specific work items is being performed. "Intermittent" means NRCS Inspector may be present less than continuously. "Inspection and Approval" or "Review and Approval" signifies a "stopping point" where Contractor needs an approval from the NRCS Inspector prior to proceeding further on the specific work item. No attempt is made here to list all items the Inspector will look at during intermittent and continuous inspections. Where a specific Contractor–prepared plan is identified YES or NO will be circled to show whether or not it is required.

Date
Designed J. Ingmire 1/5/24
Drawn J. Ingmire 1/5/24
Checked A. Bastone 7/21/24
Approved J. Ingmire 7/26/24

Inspection Details
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Gogebic Co., Michigan
Watersmeet Township, T.43N–R.1E, Sec. 15

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Existing 1-ft Contours

Riprap for scour protection to be placed 3-ft on both sides of culvert and to height of 1.5-ft (elevation 1700.0) above top of pipe

See Cross Section Sheet 6

Proposed Culvert Bottom Elev. 1693.8 Sta. 9+72

Centerline FR3218

Approx. Work Limits And Slope Catch Line

Proposed final grade 3:1 side slopes from road grade to bottom of channel

Riprap for scour protection to be placed 3-ft on both sides of culvert and to height of 1.5-ft (elevation 1699.8) above top of pipe

16 ft. See Typical Road Section, Sheet 6

Flow Direction

10+00

13 ft.

16

wetland impact area
28' wide x 16' long

Rock Riprap Inlet Protection. See Sheet 6 for Details.

15 C.Y. of riprap
To be installed below
OHWM in wetland

Rock Riprap Outlet Protection. See Sheet 6 for Details.

See Cross Section Sheet 6

Proposed Culvert Bottom Elev. 1693.5 Sta. 10+29

Proposed 83"x57" CMP 57' Long

wetland impact area
30' wide x 20' long

Proposed 1-ft Contours

66-Ft. Right-of-Way

Approx. Road Edge

1696 1697 1698 1699 1700 1701

PROPOSED GROUND VIEW

10 0 10 20 30
Scale in Feet

	Designed	Drawn	Checked	Approved
	J. Ingmire	J. Ingmire	A. Bostone	J. Ingmire
Date	1/5/24	1/5/24	7/21/24	7/26/24

Site Layout
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EGLE
WRP040205 v1.0
Approved
Issued On:06/22/2024
Expires On:06/22/2034