



CHARLES MOSER
Vice Chairman - Drummond Island

JEREMY K. GAGNON
Chairman - Sault Ste. Marie

KEVIN E. SPRAGUE
Member - Sault Ste. Marie

BRIAN DECKER
Office Manager

ROBERT LAITINEN, P.S.
Manager

STEPHANIE BOILEAU, PE
Engineer

KEITH ERICKSON
Road Superintendent

REQUEST FOR BID

CHIPPEWA COUNTY ROAD COMMISSION
3949 S. MACKINAC TRAIL
SAULT SAINTE MARIE, MI 49783

May 2024

The Chippewa County Road Commission (CCRC) will accept sealed bids until **1:00 p.m. on Wednesday, May 8, 2024** for procurement of an aluminum structural plate culvert pipe-arch. The materials will be used in two culvert crossing locations on Prentiss Bay Road in Raber Township, Chippewa County, Michigan. All bids received will be publicly opened, read and tabulated at 1:00 PM on Wednesday, May 8, 2024 with an award the following day. Please submit your bid to the Road Commission office located at 3949 S. Mackinac Trail, Sault Ste. Marie, MI 49783.

Bids submitted for consideration are to be in sealed envelopes and plainly marked "BID – 2024 Prentiss Bay Road Culverts". If mailing the bid, please label either the external or internal envelope with the aforementioned project name. Any bids received after the specified date and time will be returned unopened. Please submit your bid early to avoid postal delays. **BIDS RECEIVED VIA FAX OR E-MAIL WILL NOT BE ACCEPTED.**

Bidding documents can be obtained at the above address, by calling (906) 440-5345, or from our website at www.chippewacountyroads.org. Office hours are Monday – Friday, 7:00 a.m. to 3:30 p.m.

Bids shall become effective upon award.

The Chippewa County Road Commission reserves the right to accept or reject any or all bids, waive irregularities in any bid, and award the bid which, in their opinion, is in the best interest of the Road Commission.

2024 PRENTISS BAY ROAD CULVERT REPLACEMENTS

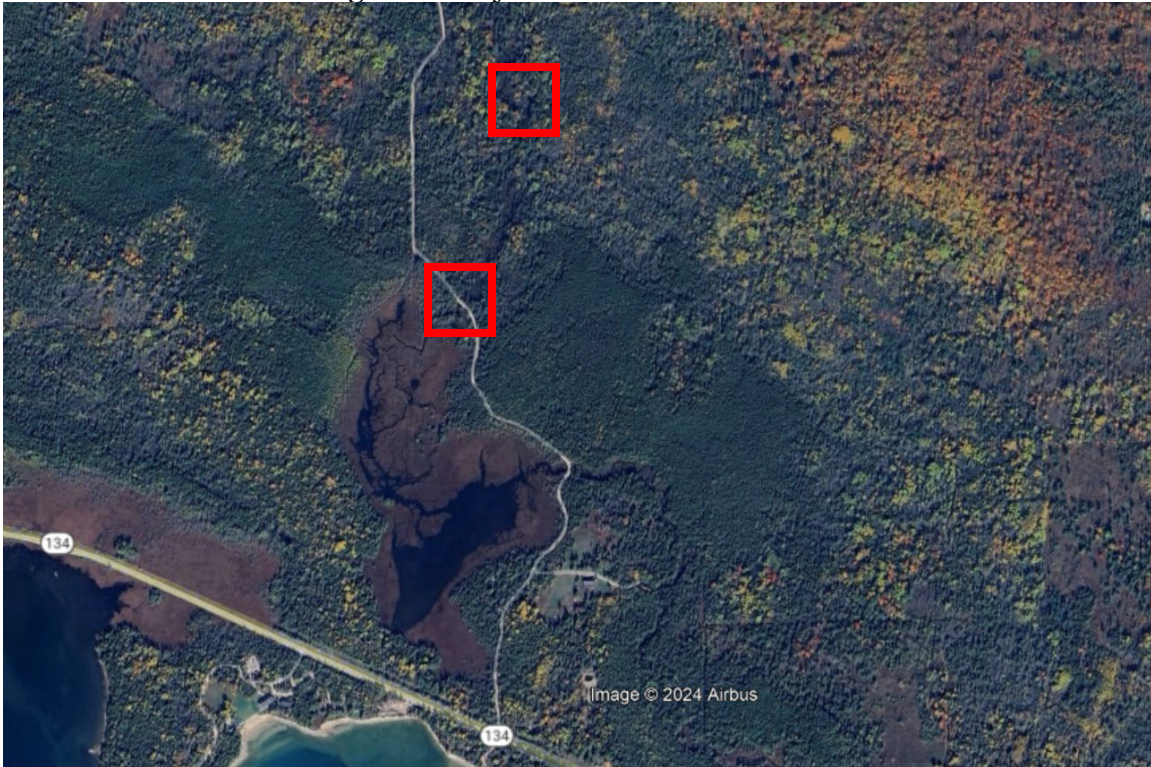
This project will include the procurement of materials for two culvert crossing replacements along Prentiss Bay Road (MCW23) and a nearby DNR non-motorized pathway (MCW24). The project will be funded by Huron Pines, a non-profit watershed advocacy agency focusing on improving habitat in the greater Lake Huron area. The removal of existing structures and replacement will be performed by CCRC staff. This project is anticipated to begin in mid-July, with a proposed final completion date for all work before the Labor Day holiday weekend.

This project is located on Prentiss Bay Road, north of M-134, in Raber Township, Chippewa County, Michigan. The closest address is 35340 S Prentiss Bay Road, Goetzville MI 49736. Figures 1 and 2 below detail the project locations:

Figure 1: Project Location – Raber Township



Figure 2: Project Locations – Both Sites



The selected supplier will provide, coordinate, and deliver to the project site the materials necessary to assemble two aluminum culverts with the following properties:

- Culvert 1 (MCW-23) along Prentiss Bay Road will be 40 feet long by 16-foot span by 4.25-foot rise polymer-coated aluminum box culvert.
- Culvert 2 (MCW-24) along the DNR nonmotorized trail will be 27 feet long by 16.3-foot span by 5.9-foot rise polymer-coated aluminum box culvert with wingwalls.

Please refer to the attached plan sets and approved EGLE permit for further details.

The selected supplier will also include in their pricing the man-hours necessary for a representative onsite throughout the duration of the assembly. This project will be bid as a lump sum.

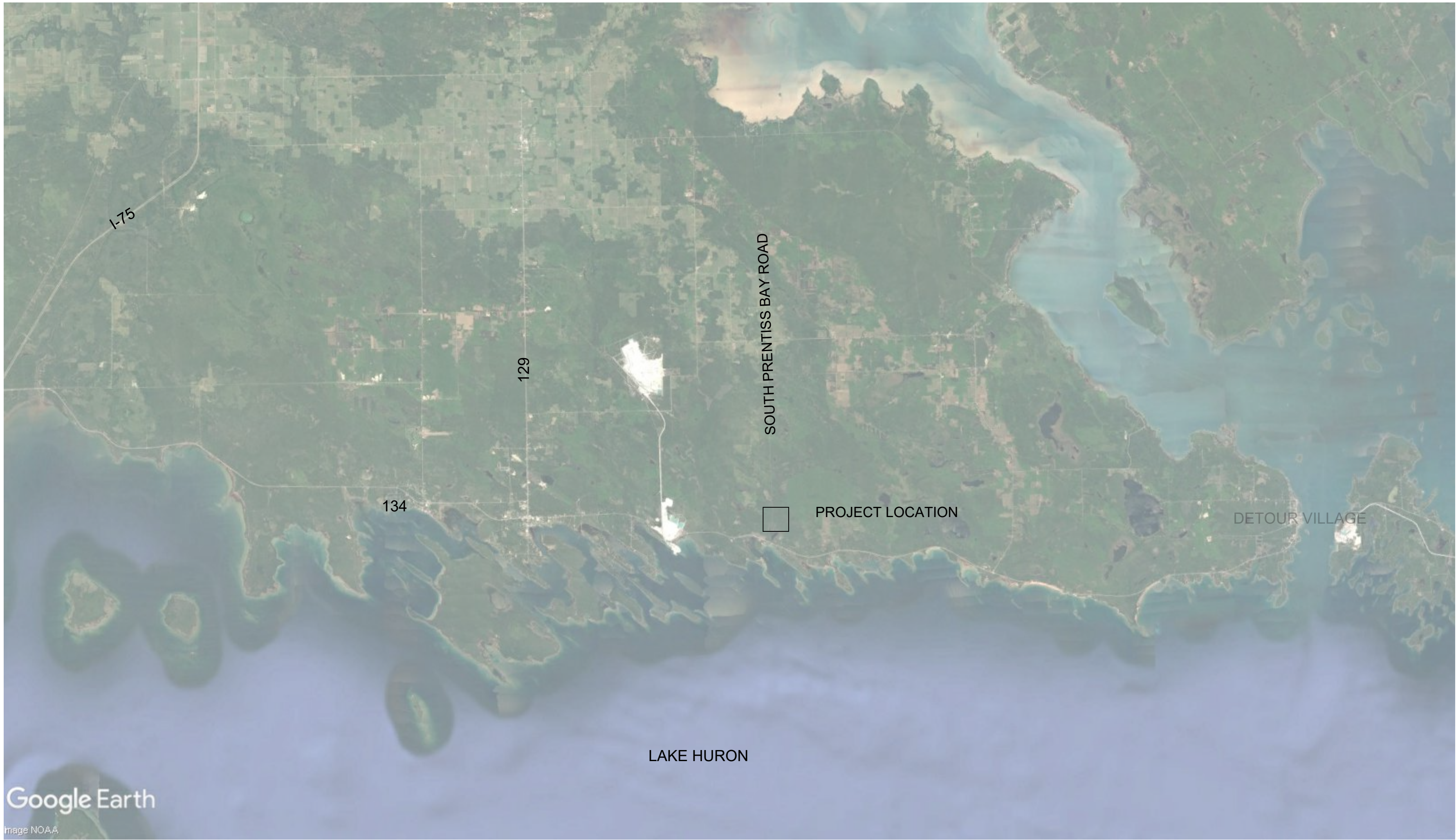
HURON PINES IN COOPERATION WITH CHIPPEWA COUNTY ROAD COMMISSION

PLANS OF PROPOSED IMPROVEMENTS
PRENTISS BAY ROAD N RD OVER BEAVERTAIL CREEK (MCW23)
SECTION 29, T42N, R2E, RABER TOWNSHIP
CHIPPEWA COUNTY, MICHIGAN

GENERAL NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.



INDEX TO SHEETS	
SHEET 1	TITLE SHEET
SHEET 2	TYPICAL AND NOTE SHEET
SHEET 3	LEGEND SHEET
SHEET 4	PLAN SHEET

CONTRACT FOR: CULVERT REPLACEMENT	
PREPARED UNDER SUPERVISION OF	
REBECCA E. RIVARD REGISTERED PROFESSIONAL ENGINEER	50497 REGISTRATION NO.
HURON ENGINEERING AND SURVEYING, INC.	
ORGANIZATION	
3205 US-23 SOUTH, ALPENA, MI 49707	
ADDRESS	

TITLE SHEET

SCALE

1/2" = 1'

ENGINEER

RIVARD

DATE

JULY 28, 2023

SITE NUMBER

MCW23

JOB NUMBER

22.120



SHEET NO.

1



GENERAL PLAN NOTES

UNDERGROUND UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE

THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

SOIL EROSION MEASURES

PLACE TOPSOIL, SEED, FERTILIZER, AND MULCH AS SOON AS POSSIBLE. CRITICAL GRADES SHOULD BE PROTECTED WITH MULCH BLANKETS AS DIRECTED BY THE ENGINEER. CIRCLED NUMBERS ON PLANS REFER TO ITEMS ON THE MDOT STANDARD PLAN R-96-SERIES

PARCEL CORNERS

CONTRACTOR SHALL PRESERVE AND/OR REPLACE ANY EXISTING PARCEL CORNERS ENCOUNTERED DURING THE WORK, INCLUDED IN PAYMENT FOR OTHER ITEMS OF WORK.

PUBLIC UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	KIND OF UTILITY
CLOVERLAND ELECTRIC COMPANY 2916 WEST M-28 DAFTER, MI 49724 CONTACT: PHONE: 906-632-5191	ELECTRIC

NOTES APPLYING TO STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

ROAD STANDARD PLANS

R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS-SECTIONS

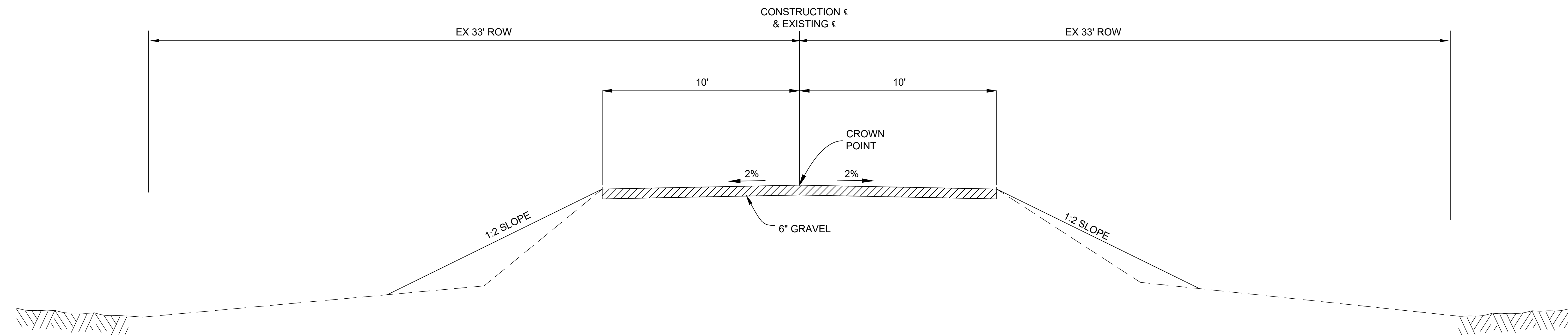
MISCELLANEOUS ESTIMATES

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SOIL EROSION, SEDIMENTATION CONTROL, AND MAINLINE ROADWORK WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER

MISCELLANEOUS ITEMS	
250	Ft Erosion Control, Silt Fence

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SLOPE RESTORATION WHERE DESIGNATED BY THE ENGINEER.

MISCELLANEOUS ITEMS	
500	Syd Slope Restoration, Modified



PROPOSED TYPICAL SECTION

TYPICAL AND NOTE SHEET

SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW23

JOB NUMBER
22.120

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

2

WATER & DRAINAGE SYMBOLS

- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CULVERT END SECTION
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- WATER SHUTOFF(Service Valve)
- GATE VALVE
- GATEWELL
- WATER METER
- WATER MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- ADJ-HYD ADJUST FIRE HYDRANT
- ADJ ADJUST DRAINAGE STRUCTURE
- ADJ-K ADJUST DRAINAGE STRUCTURE W/COVER
- ADJ-B/O ADJUST DRAINAGE STRUCTURE BY OTHERS
- REL-B/O RELOCATE - BY OTHERS
- SR-1 SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- w.T. m WATER TABLE (PROFILES)
- POST
- WATER WELL

REAL ESTATE SYMBOLS

- PROPERTY OWNERSHIP ARROW
- CONTIGUOUS PROPERTY SYMBOL
- 123456 PARCEL NUMBER BOX
- PARCEL LINES

UTILITIES SYMBOLS

- POWER POLE
- TELEPHONE POLE
- GUY POLE
- LIGHT POLE
- POWER LIGHT POLE
- TELEPHONE MANHOLE
- POWER TOWER
- GAS VALVE
- WALK/NO-WALK
- GUY ANCHOR
- RAILROAD SIGNAL
- ELECTRICAL MANHOLE
- ELECTRICAL HANDHOLE
- TELEPHONE PEDESTAL/RISER
- FIBER OPTIC MARKER

MISCELLANEOUS SYMBOLS

- RIPRAP
- SIGN
- STUMP
- SWAMP
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- MAIL BOX
- FLAG
- BAR & CAP
- SECTION CORNER
- QUARTER SECTION
- BENCHMARK
- USGS MARKER
- CONTROL POINT
- 123 BEAM G. R. RUN NUMBER (EXISTING)
- 123 BEAM G. R. RUN NUMBER (PROPOSED)

HAZARDOUS OR FLAMMABLE MATERIAL USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY USED WITH FIBER OPTICS LINES

PROP 36" PROPOSED CULVERT/SEWER

EX 12" CMP EXISTING CULVERT/SEWER

UTILITY PATTERNS

- ELEC ELECTRICAL LINE
- 24" GAS GAS LINE
- 12" OIL OIL LINE
- TELE TELEPHONE LINE
- 36" WM WATER LINE
- CTV CABLE TV
- FO FIBER OPTICS
- POWER TRANSMISSION LINE

R.O.W. PATTERNS

- EX. LIMITED ACCESS R.O.W.
- EXISTING R.O.W.
- PROP LIMITED ACCESS R.O.W.
- PROP FREE ACCESS R.O.W.
- SECTION LINE
- GRADING EASEMENT

TOPO PATTERNS

- HEDGE LINE
- TREE LINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING GUARD RAIL
- PROPOSED GUARD RAIL
- DRAINAGE CRS/EDGE OF WATER
- WETLANDS AREA
- ABANDON ANY UTILITY
- CITY LIMITS
- RAILROAD
- SOUND ABATEMENT WALL
- CONCRETE MEDIAN BARRIER
- SLOPE STAKE LINE

DRIVE/APPROACH LEGEND

- CONCRETE
- HMA
- AGGREGATE

REMOVAL LEGEND

- REMOVING (R)
- ABANDONING (A)
- SAVE (S)
- BULKHEAD (B)
- REMOVING CURB & GUTTER

SPECIAL LEGEND THIS PROJECT

- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION (26)
- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION CHECK DAM (37)
- ROAD BORING LOCATION (SBOR 1)

LEGEND SHEET

SCALE
N=8

ENGINEER
RIVARD

DATE
JULY 28, 2023

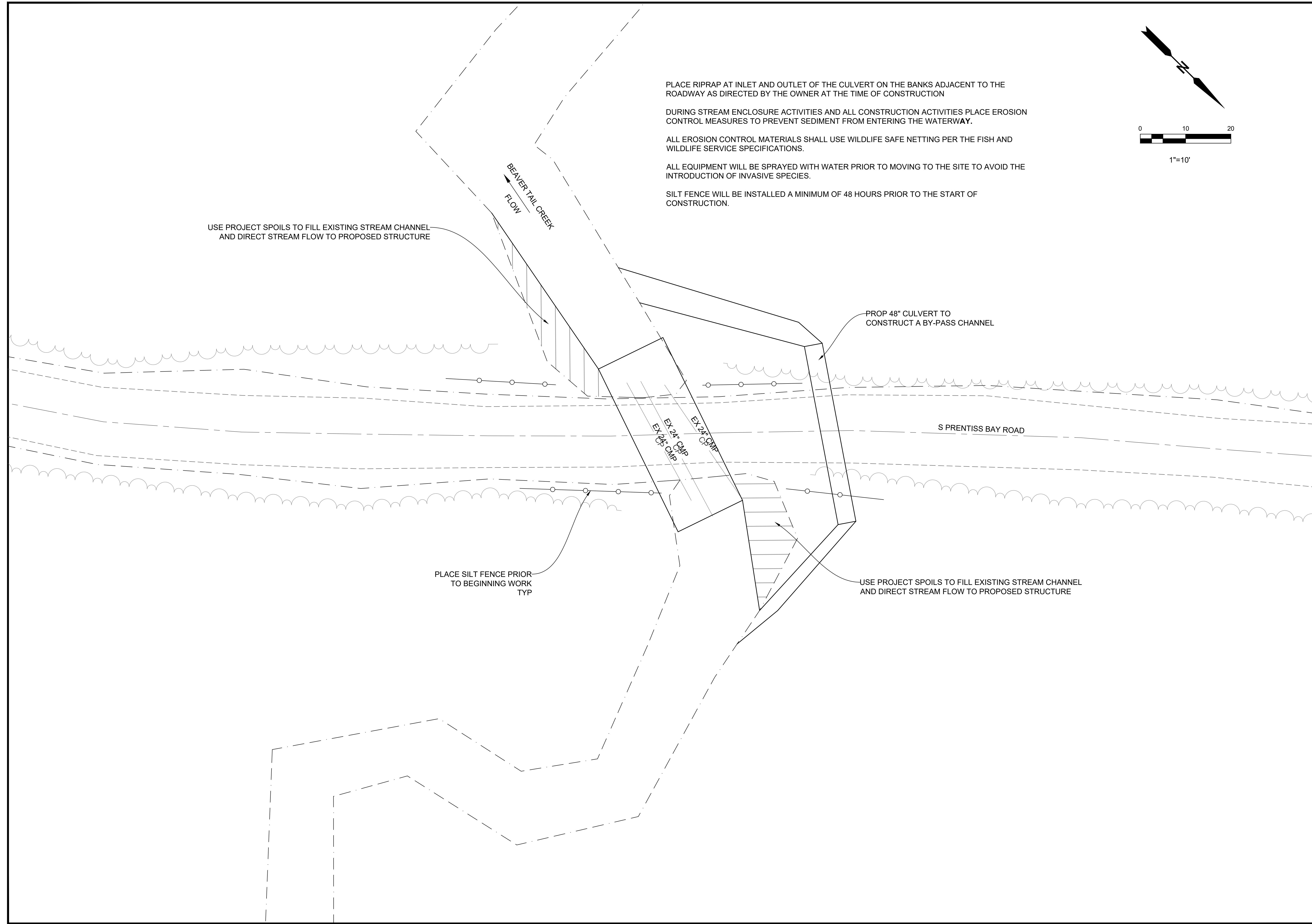
SITE NUMBER
MCW23

JOB NUMBER
22.120



SHEET NO.

3



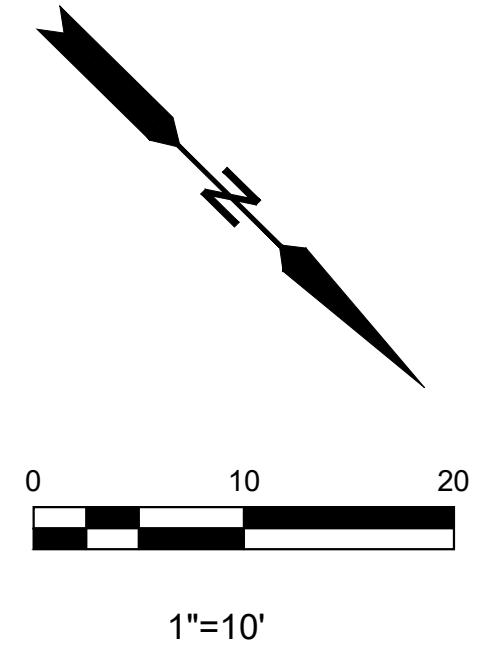
PLACE RIPRAP AT INLET AND OUTLET OF THE CULVERT ON THE BANKS ADJACENT TO THE ROADWAY AS DIRECTED BY THE OWNER AT THE TIME OF CONSTRUCTION

DURING STREAM ENCLOSURE ACTIVITIES AND ALL CONSTRUCTION ACTIVITIES PLACE EROSION CONTROL MEASURES TO PREVENT SEDIMENT FROM ENTERING THE WATERWAY.

ALL EROSION CONTROL MATERIALS SHALL USE WILDLIFE SAFE NETTING PER THE FISH AND WILDLIFE SERVICE SPECIFICATIONS.

ALL EQUIPMENT WILL BE SPRAYED WITH WATER PRIOR TO MOVING TO THE SITE TO AVOID THE INTRODUCTION OF INVASIVE SPECIES.

SILT FENCE WILL BE INSTALLED A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.



USE PROJECT SPOILS TO FILL EXISTING STREAM CHANNEL AND DIRECT STREAM FLOW TO PROPOSED STRUCTURE

PROP 48" CULVERT TO CONSTRUCT A BY-PASS CHANNEL

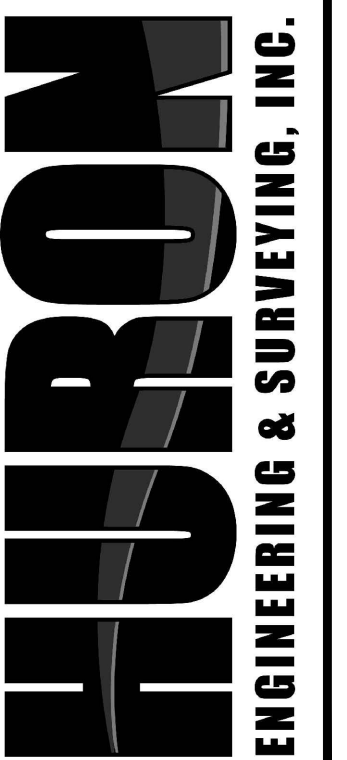
S PRENTISS BAY ROAD

PLACE SILT FENCE PRIOR TO BEGINNING WORK TYP

USE PROJECT SPOILS TO FILL EXISTING STREAM CHANNEL AND DIRECT STREAM FLOW TO PROPOSED STRUCTURE

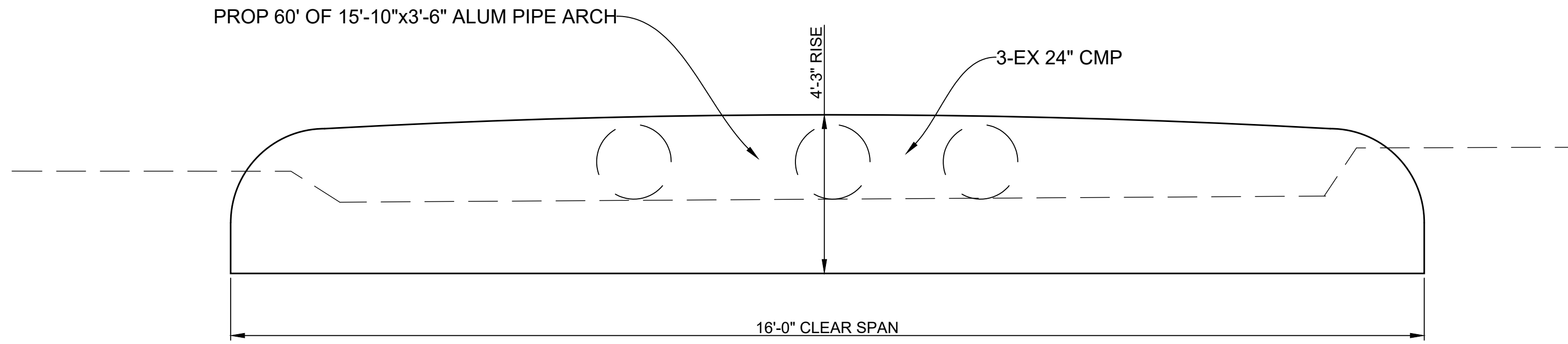
MCW23 PRENTISS BAY ROAD OVER BEAVER TAIL CREEK

JOB NUMBER	22.120
SITE NUMBER	MCW23
DATE	JULY 28, 2023
ENGINEER	RIVARD
SCALE	1/2" = 10'



PROP 40' OF 15'-10"x3'-6" POLYMER COATED ALUMINUM BOX CULVERT WITH FULL INVERT

PROVIDE 2' OF MINIMUM COVER OVER THE STRUCTURE

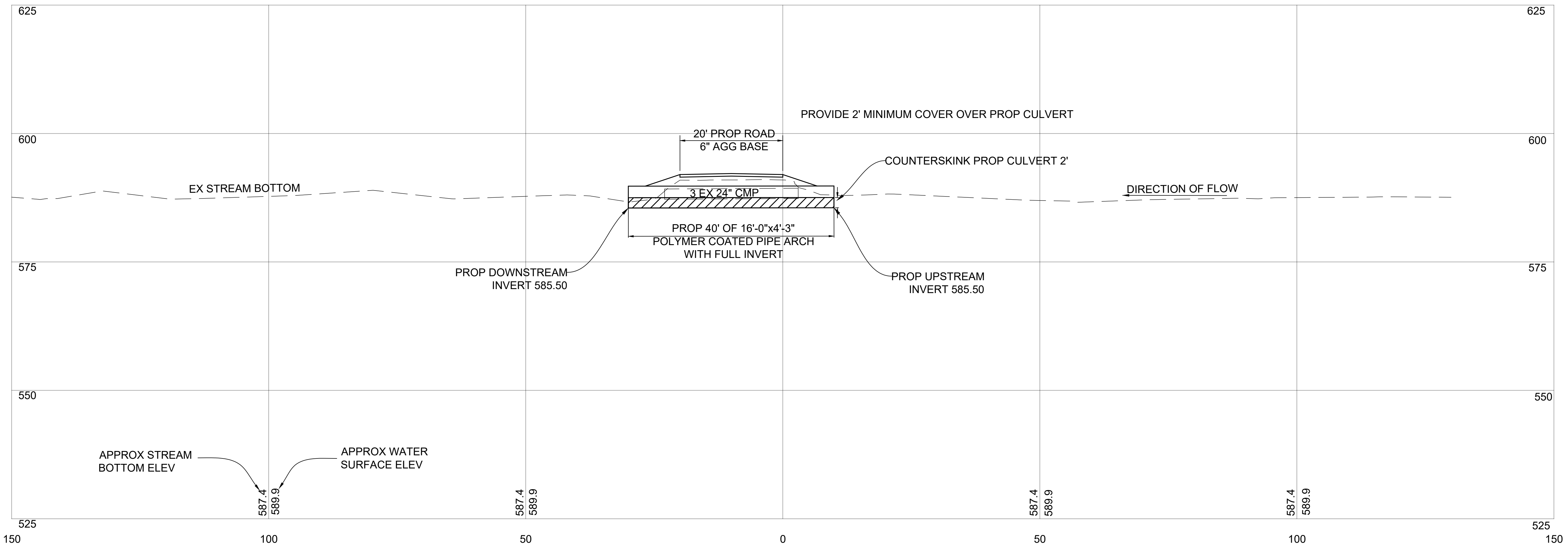


PROPOSED ALUM BOX CULVERT DETAIL

NOT TO SCALE

PROPOSED ALUMINUM BOX DETAIL

NOT TO SCALE



STREAM PROFILE DETAIL

MCW23 PRENTISS BAY ROAD OVER BEAVER TAIL CREEK

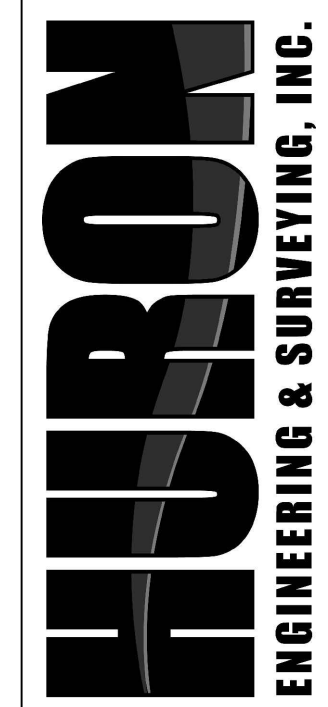
SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW23

JOB NUMBER
22.120



SHEET NO.

5

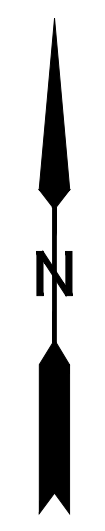
HURON PINES IN COOPERATION WITH CHIPPEWA COUNTY ROAD COMMISSION

PLANS OF PROPOSED IMPROVEMENTS
BEAVERTAIL CREEK STATE FOREST ROAD RD OVER BEAVERTAIL
CREEK (MCW24) SECTION 29, T42N, R2E, RABER TOWNSHIP
CHIPPEWA COUNTY, MICHIGAN

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CONTRACT FOR:
CULVERT REPLACEMENT

PREPARED UNDER SUPERVISION OF
REBECCA E. RIVARD 50497
REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

HURON ENGINEERING AND SURVEYING, INC.
ORGANIZATION
3205 US-23 SOUTH, ALPENA, MI 49707
ADDRESS

TITLE SHEET

SCALE	1/2" = 1/2"
ENGINEER	RIVARD
DATE	JULY 28, 2023
SITE NUMBER	MCW24
JOB NUMBER	22.120
HURON ENGINEERING & SURVEYING, INC.	
SHEET NO.	1

INDEX TO SHEETS

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- WATER MANHOLE
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- PROPOSED FIRE HYDRANT
- ADJUST FIRE HYDRANT
- ADJUST DRAINAGE STRUCTURE
- ADJUST DRAINAGE STRUCTURE W/COVER
- ADJUST DRAINAGE STRUCTURE BY OTHERS
- RELOCATE - BY OTHERS
- SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- WATER TABLE (PROFILES)
- POST
- WATER WELL

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- CONTIGUOUS PROPERTY SYMBOL
- PARCEL NUMBER BOX
- PARCEL LINES

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- CONTROL POINT
- BEAM G. R. RUN NUMBER (EXISTING)
- BEAM G. R. RUN NUMBER (PROPOSED)

HAZARDOUS OR FLAMMABLE MATERIAL USED WITH UNDERGROUND GAS & ELECTRICAL LINES

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- BULKHEAD
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SPECIAL LEGEND THIS PROJECT

- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION
- SILT FENCE
- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION CHECK DAM
- ROAD BORING LOCATION

LEGEND SHEET

SCALE
N/A

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW24

JOB NUMBER
22-120



SHEET NO.

2

GENERAL PLAN NOTES

UNDERGROUND UTILITIES

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NAME OF OWNER	KIND OF UTILITY
---------------	-----------------

CLOVERLAND ELECTRIC COMPANY 2916 WEST M-28 DAFTER, MI 49724 CONTACT: PHONE: 906-632-5191	ELECTRIC
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NOTES APPLYING TO STANDARD PLANS

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ROAD STANDARD PLANS

R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
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R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS-SECTIONS

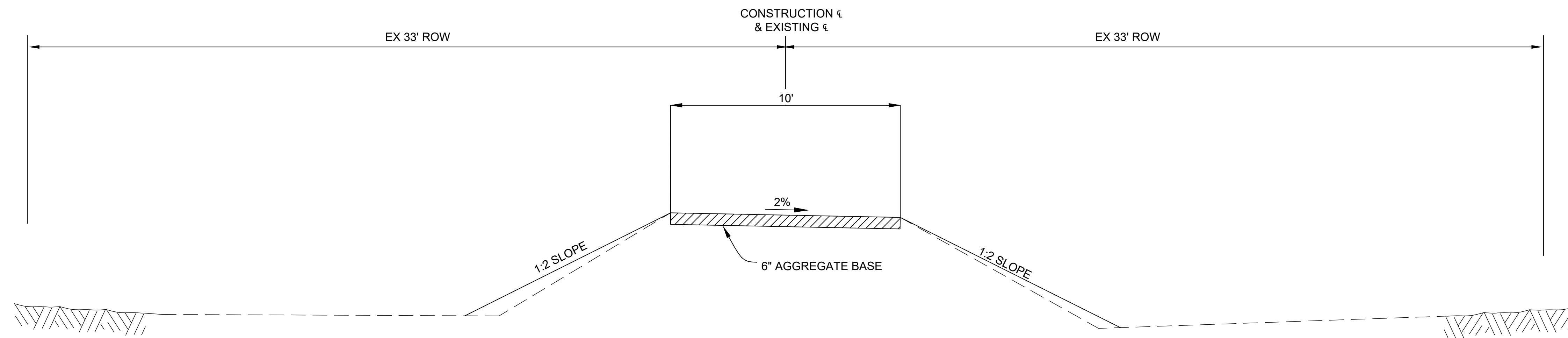
MISCELLANEOUS ESTIMATES

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MISCELLANEOUS ITEMS	
250	Ft Erosion Control, Silt Fence

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SLOPE RESTORATION WHERE DESIGNATED BY THE ENGINEER.

MISCELLANEOUS ITEMS	
500	Syd Slope Restoration, Modified



PROPOSED TYPICAL SECTION

TYPICAL AND NOTE SHEET

SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

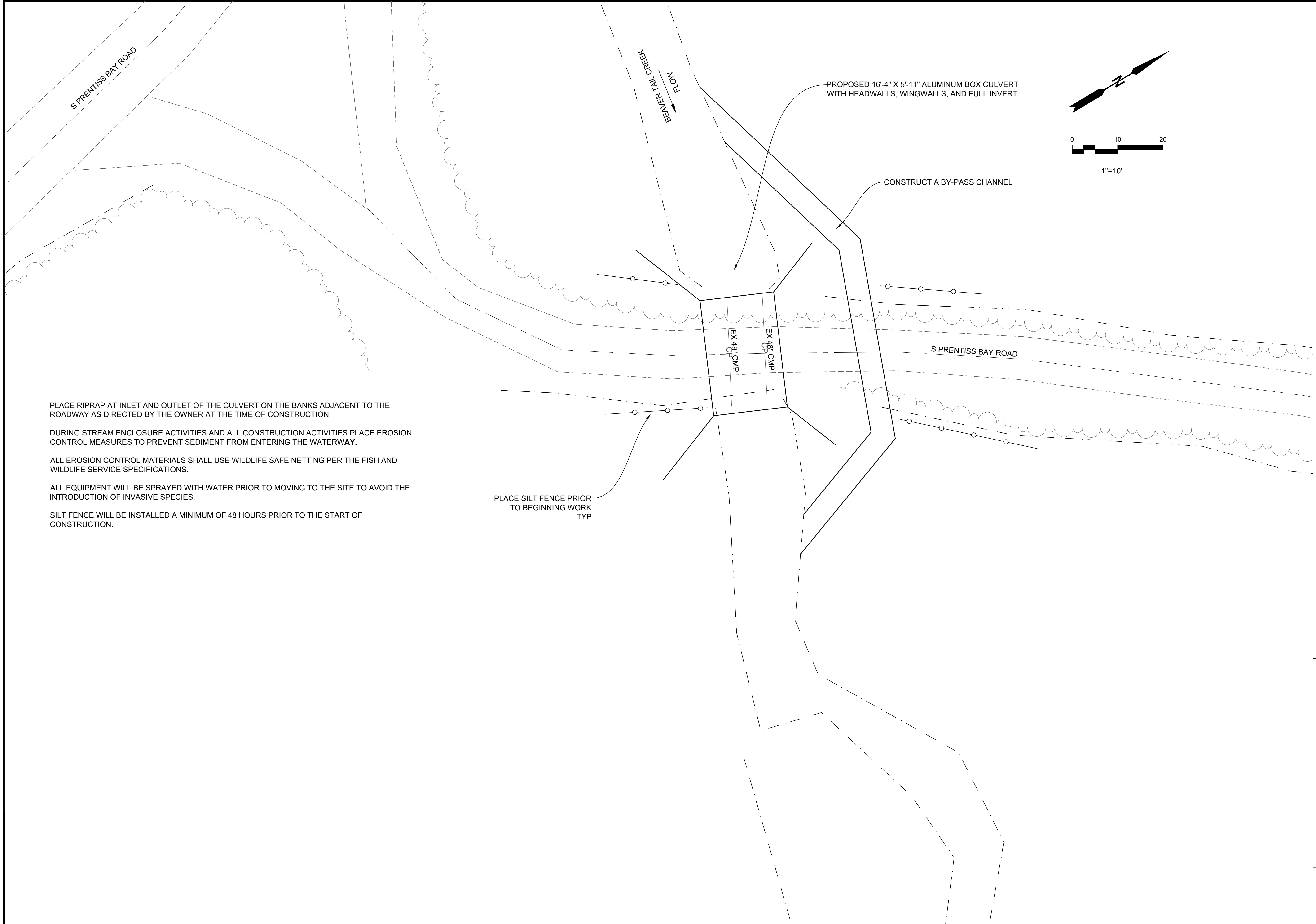
SITE NUMBER
MCW24

JOB NUMBER
22.120

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

3



PLACE RIPRAP AT INLET AND OUTLET OF THE CULVERT ON THE BANKS ADJACENT TO THE ROADWAY AS DIRECTED BY THE OWNER AT THE TIME OF CONSTRUCTION

DURING STREAM ENCLOSURE ACTIVITIES AND ALL CONSTRUCTION ACTIVITIES PLACE EROSION CONTROL MEASURES TO PREVENT SEDIMENT FROM ENTERING THE WATERWAY.

ALL EROSION CONTROL MATERIALS SHALL USE WILDLIFE SAFE NETTING PER THE FISH AND WILDLIFE SERVICE SPECIFICATIONS.

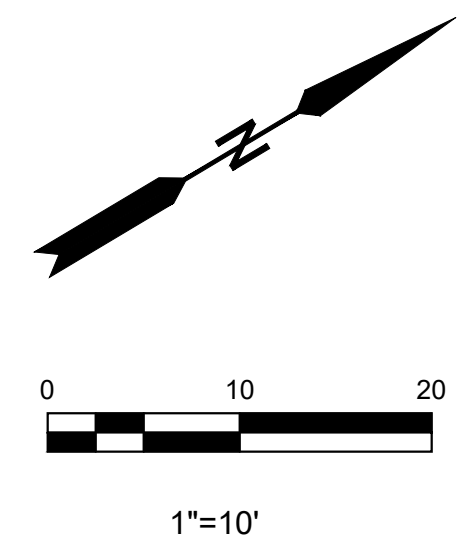
ALL EQUIPMENT WILL BE SPRAYED WITH WATER PRIOR TO MOVING TO THE SITE TO AVOID THE INTRODUCTION OF INVASIVE SPECIES.

SILT FENCE WILL BE INSTALLED A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

PLACE SILT FENCE PRIOR TO BEGINNING WORK TYP

PROPOSED 16'-4" X 5'-11" ALUMINUM BOX CULVERT WITH HEADWALLS, WINGWALLS, AND FULL INVERT

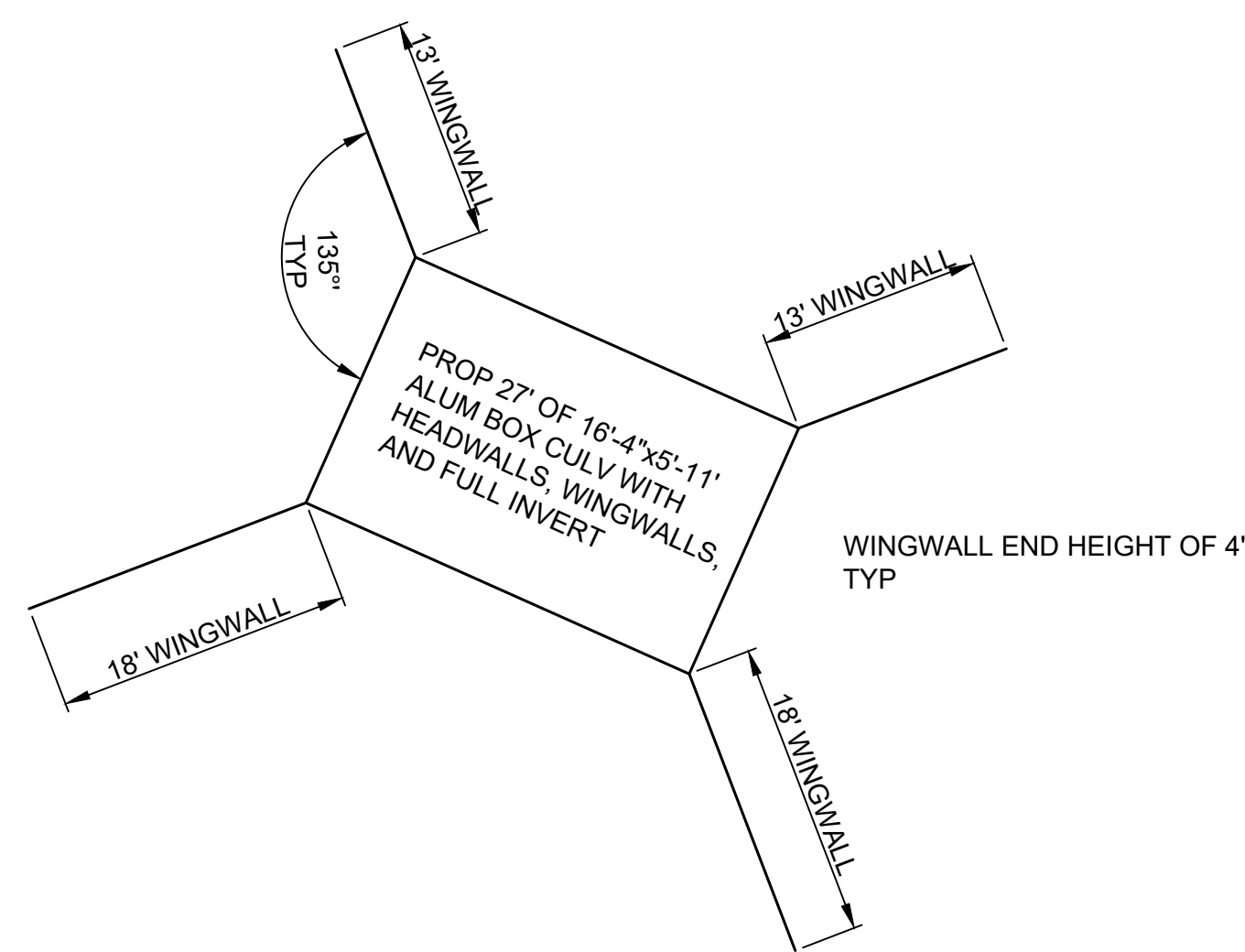
CONSTRUCT A BY-PASS CHANNEL



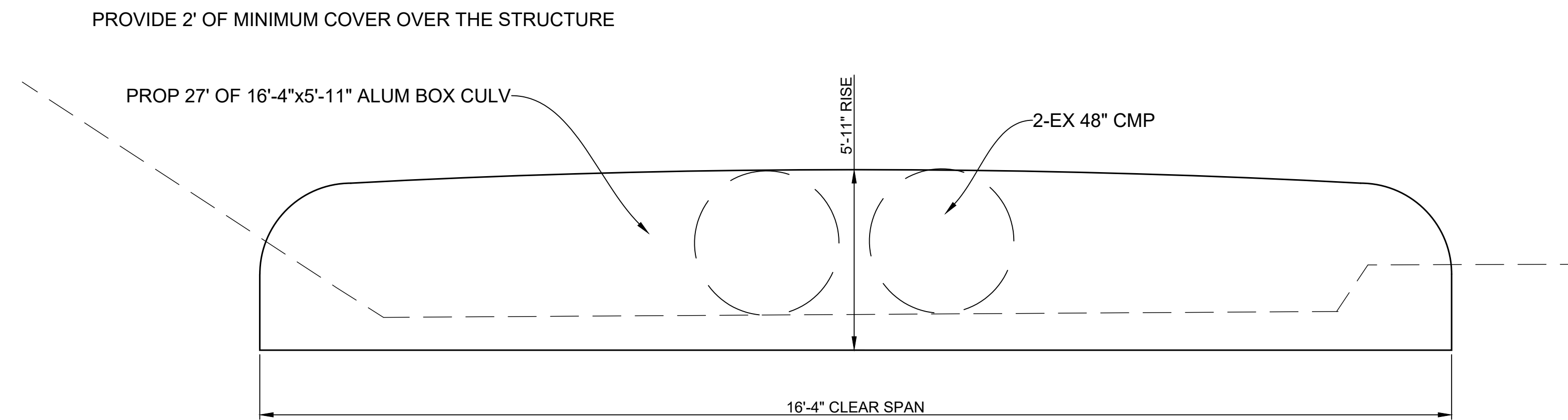
MCW24 STATE FOREST ROAD OVER BEAVER TAIL CREEK

JOB NUMBER 22.120	SITE NUMBER MCW24	DATE JULY 28, 2023	ENGINEER RIVARD	SCALE 1/2"=1'-0"
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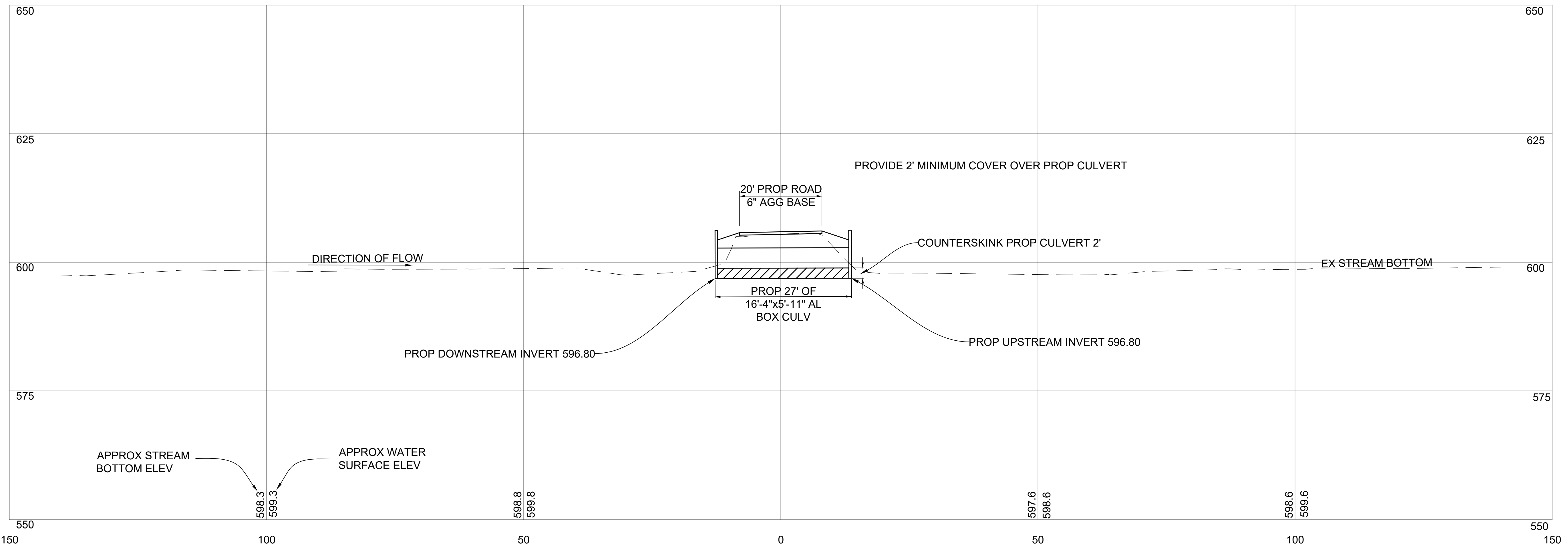




PROPOSED ALUMINUM BOX DETAIL
NOT TO SCALE



PROPOSED ALUM BOX CULVERT DETAIL
NOT TO SCALE



STREAM PROFILE DETAIL

HURON ENGINEERING & SURVEYING, INC.	JOB NUMBER 22.120	SITE NUMBER MCW24	DATE JULY 28, 2023	ENGINEER RIVARD	SCALE 1/2" = 1'-0"
	MCW24 STATE FOREST ROAD OVER BEAVER TAIL CREEK				
SHEET NO. 5					



NOTICE OF AUTHORIZATION

Permit Number: WRP040169 v. 1

Date Issued: January 25, 2024

Site Name: 17 - Prentiss Bay Road at Beavertail Creek

Expiration Date: January 25, 2029

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 and replace the existing structures on the Prentiss Bay Road crossing of Beavertail Creek and a forest road crossing of Beavertail Creek at the following locations:

- **MCW – 22 – remove the existing structures and install a 40-foot long by 20-foot span by 5-foot rise pre-cast, pre-stressed concrete slab bridge on poured abutments. Place up to 121-cubic yards of fill including riprap for the culvert replacement. Excavate up to 44-cubic yards of material and backfill with up to 56-cubic yards of material to install a temporary bypass channel during construction.**
- **MCW – 23 – remove the existing structures and install a 40-foot long by 16-foot span by 4.25-foot rise aluminum box culvert. Place up to 121-cubic yards of fill including riprap for the culvert replacement. Excavate up to 44-cubic yards of material and backfill with up to 67-cubic yards of material to install a temporary bypass channel during construction.**
- **MCW – 24 – remove the existing structure and install a 27-foot long by 16.3-foot span by 5.9-foot rise aluminum box culvert with wingwalls. Place up to 47-cubic yards of fill including riprap for the culvert replacement. Excavate up to 44-cubic yards of material and backfill with up to 56-cubic yards of material to install a temporary bypass channel during construction.**

*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.

EGLE
WRP040169 v1.0
Approved
Issued On:01/25/2024
Expires On:01/25/2029

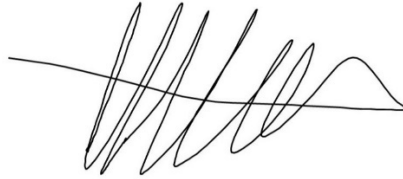
Total wetland impact from project is 0.09-acres of temporary impact and 0.06-acres of permanent impact for the culverts and roadway restoration.

All work shall be performed according to the attached plans and permit conditions.

To be conducted at property located in: Chippewa County, Waterbody: Beavertail Creek
Sections 29/32, Town 42N, Range 02E, Raber Township

Permittee:

Chippewa County Road Commission
3949 S. Mackinac Trail
Sault Ste. Marie, Michigan 49783



Issued By:

John Gustafson
Marquette District Office
Water Resources Division
906-203-9887

*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.

EGLE
WRP040169 v1.0
Approved
Issued On:01/25/2024
Expires On:01/25/2029



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

Issued To:

**Chippewa County Road Commission
3949 S. Mackinac Trail
Sault Ste. Marie, Michigan 49783**

Permit No: WRP040169 v.1
Submission No.: HQ0-677Z-VB4NN
Site Name: 17 - Prentiss Bay Road at Beavertail Creek
Issued: January 25, 2024
Revised:
Expires: January 25, 2029

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

- | | |
|---|---|
| <input checked="" type="checkbox"/> Part 301, Inland Lakes and Streams | <input type="checkbox"/> Part 323, Shorelands Protection and Management |
| <input checked="" type="checkbox"/> Part 303, Wetlands Protection | <input type="checkbox"/> Part 325, Great Lakes Submerged Lands |
| <input type="checkbox"/> Part 315, Dam Safety | <input type="checkbox"/> Part 353, Sand Dunes Protection and Management |
| <input checked="" type="checkbox"/> 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 and replace the existing structures on the Prentiss Bay Road crossing of Beavertail Creek and a forest road crossing of Beavertail Creek at the following locations:

- MCW – 22 – remove the existing structures and install a 40-foot long by 20-foot span by 5-foot rise pre-cast, pre-stressed concrete slab bridge on poured abutments. Place up to 121-cubic yards of fill including riprap for the culvert replacement. Excavate up to 44-cubic yards of material and backfill with up to 56-cubic yards of material to install a temporary bypass channel during construction.**

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Total wetland impact from project is 0.09-acres of temporary impact and 0.06-acres of permanent impact for the culverts and roadway restoration.

All work shall be performed according to the attached plans and permit conditions.

Waterbody Affected: Beavertail Creek

Property Location: Chippewa County, Raber Township, Town/Range/Sections 42N/02E-29/32

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

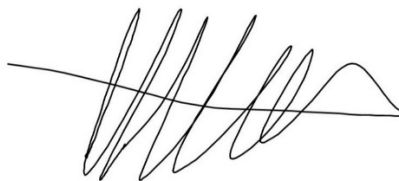
- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- 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. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit.
- J. This permit shall not be assigned or transferred without the written approval of EGLE.
- K. 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.
- L. 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).

- M. 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.
- N. 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.
- O. 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.
- P. 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.
- Q. 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.
- R. 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.
- S. 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.
- T. 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).
- U. 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.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.

- W. 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.
- X. 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 (MDNR), Fisheries Division.
- Y. 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 compliance requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA. Any discharge of sediment into waters of the state and/or off the road right-of-way is a violation of this permit, Part 91, and Part 31, Water Resources Protection, of the NREPA. A violation of these parts subjects the permittee to potential fines and penalties.
 - 2) This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
 - 3) The permittee is responsible for acquiring all necessary easements or rights-of-way before commencing any work authorized by this permit. All construction operations relating to, or part of this project shall be confined to the existing right-of-way limits or other acquired easements.
 - 4) Temporary soil erosion and sedimentation control measures shall be installed before or upon commencement of the earth change and shall be maintained daily. Temporary soil erosion and sedimentation control measures shall be maintained until permanent soil erosion and sedimentation control measures are in place and the area is stabilized. Permanent soil erosion and sedimentation control measures for all slopes, channels, ditches, or any disturbed area shall be installed within five (5) calendar days after final grading, or the final earth change has been completed.
 - 5) All raw areas in uplands resulting from the permitted construction activity shall be effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands. Temporary stabilization measures shall be installed before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.
 - 6) All raw earth within 100 feet of a lake, stream, or wetland that is not brought to final stabilization by the end of the active growing season shall be temporarily stabilized with mulch blankets in accordance with the following dates: September 20th for the Upper Peninsula, October 1st for the Lower Peninsula north of US-10, and October 10th for the Lower Peninsula south of US-10.
 - 7) This 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.

- 8) 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 at the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.
- 9) No instream work authorized by this permit is allowed from October 1 to May 15 due to critical spawning and migration periods.
- 10) All fill/backfill shall consist of clean inert material that will not cause siltation nor contain soluble chemicals, organic matter, pollutants, or contaminants. All fills shall be contained in such a manner so as not to erode into any surface water, floodplain, or wetland. All raw areas associated with the permitted activity shall be stabilized with sod and/or seed and mulch, riprap, or other technically effective methods as necessary to prevent erosion.
- 11) All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, revegetated and reseeded with native Michigan species appropriate to the site, and mulched in such a manner so as to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.
- 12) During removal of the existing structures, every precaution shall be taken to prevent debris from entering any watercourse. Any debris reaching the watercourse during the removal of the structures shall be immediately retrieved from the water. All material shall be disposed of in an acceptable manner consistent with local, state, and federal regulations.
- 13) Prior to the removal of the existing structures, cofferdams of steel sheet piling, gravel bags, clean stone, coarse aggregate, concrete or other acceptable barriers shall be installed to isolate all construction activity from the water. The barriers shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site.
- 14) All cofferdam and temporary steel sheet pile shall then be removed in its entirety, unless specifically shown to be left in place on the accepted plans. Cofferdam and sheet pile that is left in place shall be cut off at the elevation shown on the plans and shall be a minimum of one foot below the stream bottom.
- 15) During work on the crossing, and until the site is stabilized, the stream shall be passed through a temporary channel. The temporary channel shall be completely stabilized prior to passing flow and maintained in good working condition until the culvert is installed and stabilized.
- 16) Upon completion of the project, the disturbed wetland areas shall be restored to the original contour elevation, revegetated and reseeded with species native to Michigan appropriate to the site, and mulched to prevent erosion.
- 17) 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 recessed into the stream bed to provide a natural channel substrate throughout the structure, as shown on the approved plans.

- 18) 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.
- 19) 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 (OHWM), before or upon commencement of the permitted activity. Temporary stabilization measures shall be maintained until permanent measures are in place.
- 20) 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.
- 21) 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.
- 22) No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.
- 23) The 100-year floodplain elevation of Beaver Tail Creek is estimated to be approximately 6 feet above the OHWM at each crossing. All materials remaining upon completion of the work shall be removed to outside of the floodplain.
- 24) Any riprap installed shall be placed such that it does not narrow up the stream or interfere with flows into or out of the structure.
- 25) Areas to be protected by riprap shall be cleared of brush and debris. All grades shall be shaped and compacted to the required cross section. Geotextile liner shall be placed on the prepared grades. The riprap installation shall not damage the geotextile liner.
- 26) Any alterations to the existing road grade elevations other than that shown on the plans will require prior approval from the WRD.



Issued By:

John Gustafson
Marquette District Office
Water Resources Division
906-203-9887

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: Raber Township Clerk
Chippewa County CEA
Becky Rivard, Huron Engineering and Surveying Inc.
Amy Nowakowski, Huron Pines
Joshua Brinks, MDNR

HURON PINES IN COOPERATION WITH CHIPPEWA COUNTY ROAD COMMISSION

PLANS OF PROPOSED IMPROVEMENTS
SOUTH PRENTISS BAY ROAD RD OVER BEAVERTAIL CREEK
(MCW22) SECTION 29, T42N, R2E, RABER TOWNSHIP
CHIPPEWA COUNTY, MICHIGAN

GENERAL NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

TITLE SHEET

SCALE
1/2" = 1/2"

ENGINEER
RIVARD

DATE
JULY 28, 2023

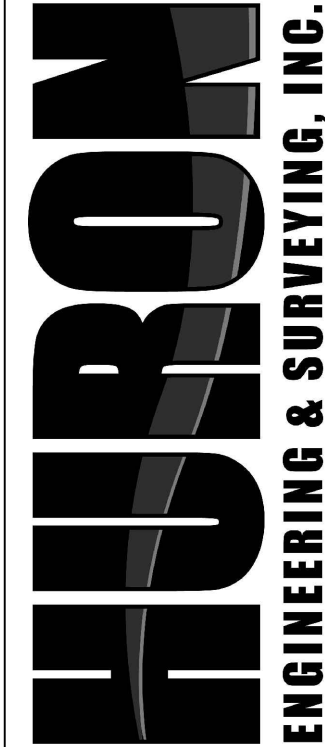
SITE NUMBER
MCW22

JOB NUMBER
22.120

CONTRACT FOR: CULVERT REPLACEMENT	
PREPARED UNDER SUPERVISION OF	
REBECCA E. RIVARD REGISTERED PROFESSIONAL ENGINEER	50497 REGISTRATION NO.
HURON ENGINEERING AND SURVEYING, INC.	
ORGANIZATION	
3205 US-23 SOUTH, ALPENA, MI 49707	
ADDRESS	



INDEX TO SHEETS	
SHEET 1	TITLE SHEET
SHEET 2	TYPICAL AND NOTE SHEET
SHEET 3	LEGEND SHEET
SHEET 4	PLAN SHEET
SHEET 5	DETAIL SHEET



SHEET NO.
1

GENERAL PLAN NOTES

UNDERGROUND UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE

THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

SOIL EROSION MEASURES

PLACE TOPSOIL, SEED, FERTILIZER, AND MULCH AS SOON AS POSSIBLE. CRITICAL GRADES SHOULD BE PROTECTED WITH MULCH BLANKETS AS DIRECTED BY THE ENGINEER. CIRCLED NUMBERS ON PLANS REFER TO ITEMS ON THE MDOT STANDARD PLAN R-96-SERIES

PARCEL CORNERS

CONTRACTOR SHALL PRESERVE AND/OR REPLACE ANY EXISTING PARCEL CORNERS ENCOUNTERED DURING THE WORK, INCLUDED IN PAYMENT FOR OTHER ITEMS OF WORK.

PUBLIC UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	KIND OF UTILITY
CLOVERLAND ELECTRIC COMPANY 2916 WEST M-28 DAFTER, MI 49724 CONTACT: PHONE: 906-632-5191	ELECTRIC

NOTES APPLYING TO STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

ROAD STANDARD PLANS

R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS-SECTIONS

MISCELLANEOUS ESTIMATES

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SOIL EROSION, SEDIMENTATION CONTROL, AND MAINLINE ROADWORK WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER

MISCELLANEOUS ITEMS	
250	Ft Erosion Control, Silt Fence

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SLOPE RESTORATION WHERE DESIGNATED BY THE ENGINEER.

MISCELLANEOUS ITEMS	
500	Syd Slope Restoration, Modified

TYPICAL AND NOTE SHEET

SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

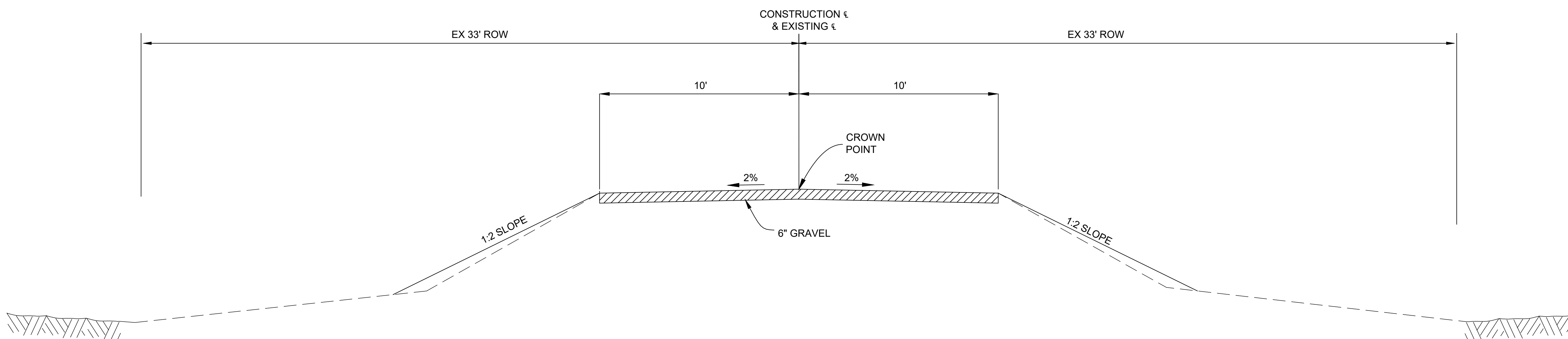
SITE NUMBER
MCW22

JOB NUMBER
22.120

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

2



PROPOSED TYPICAL SECTION

WATER & DRAINAGE SYMBOLS

- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CULVERT END SECTION
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- WATER SHUTOFF(Service Valve)
- GATE VALVE
- GATEWELL
- WATER METER
- WATER MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- ADJ-HYD ADJUST FIRE HYDRANT
- ADJ ADJUST DRAINAGE STRUCTURE
- ADJ-K ADJUST DRAINAGE STRUCTURE W/COVER
- ADJ-B/O ADJUST DRAINAGE STRUCTURE BY OTHERS
- REL-B/O RELOCATE - BY OTHERS
- SR-1 SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- w.T. m WATER TABLE (PROFILES)
- POST
- WATER WELL

REAL ESTATE SYMBOLS

- PROPERTY OWNERSHIP ARROW
- CONTIGUOUS PROPERTY SYMBOL
- 123456 PARCEL NUMBER BOX
- PARCEL LINES

UTILITIES SYMBOLS

- POWER POLE
- TELEPHONE POLE
- GUY POLE
- LIGHT POLE
- POWER LIGHT POLE
- TELEPHONE MANHOLE
- POWER TOWER
- GAS VALVE
- WALK/NO-WALK
- GUY ANCHOR
- RAILROAD SIGNAL
- ELECTRICAL MANHOLE
- ELECTRICAL HANDHOLE
- TELEPHONE PEDESTAL/RISER
- FIBER OPTIC MARKER

MISCELLANEOUS SYMBOLS

- RIPRAP
- SIGN
- STUMP
- SWAMP
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- MAIL BOX
- FLAG
- BAR & CAP
- SECTION CORNER
- QUARTER SECTION
- BENCHMARK
- USGS MARKER
- CONTROL POINT
- 123 BEAM G. R. RUN NUMBER (EXISTING)
- 123 BEAM G. R. RUN NUMBER (PROPOSED)

HAZARDOUS OR FLAMMABLE MATERIAL USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY USED WITH FIBER OPTICS LINES

PROP 36" PROPOSED CULVERT/SEWER

EX 12" CMP EXISTING CULVERT/SEWER

UTILITY PATTERNS

- ELEC ELECTRICAL LINE
- 24" GAS GAS LINE
- 12" OIL OIL LINE
- TELE TELEPHONE LINE
- 36" WM WATER LINE
- CTV CABLE TV
- FO FIBER OPTICS
- POWER TRANSMISSION LINE

R.O.W. PATTERNS

- EX. LIMITED ACCESS R.O.W.
- EXISTING R.O.W.
- PROP LIMITED ACCESS R.O.W.
- PROP FREE ACCESS R.O.W.
- SECTION LINE
- GRADING EASEMENT

TOPO PATTERNS

- HEDGE LINE
- TREE LINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING GUARD RAIL
- PROPOSED GUARD RAIL
- DRAINAGE CRS/EDGE OF WATER
- WETLANDS AREA
- ABANDON ANY UTILITY
- CITY LIMITS
- RAILROAD
- SOUND ABATEMENT WALL
- CONCRETE MEDIAN BARRIER
- SLOPE STAKE LINE

DRIVE/APPROACH LEGEND

- CONCRETE
- HMA
- AGGREGATE

REMOVAL LEGEND

- REMOVING (R)
- ABANDONING (A)
- SAVE (S)
- BULKHEAD (B)
- REMOVING CURB & GUTTER

SPECIAL LEGEND THIS PROJECT

- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION (26)
- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION CHECK DAM (37)
- ROAD BORING LOCATION (SBOR 1)

LEGEND SHEET

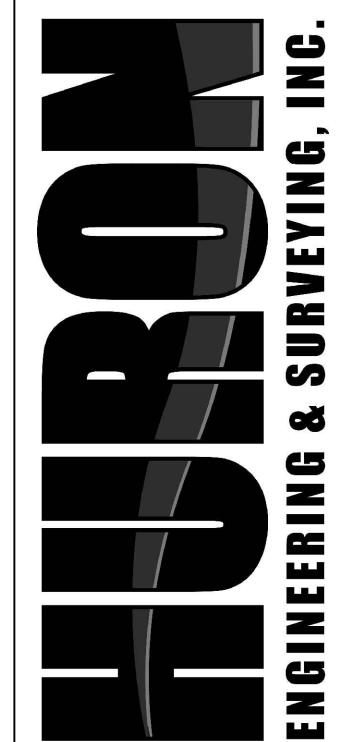
SCALE
1"=20'

ENGINEER
RIVARD

DATE
JULY 28, 2023

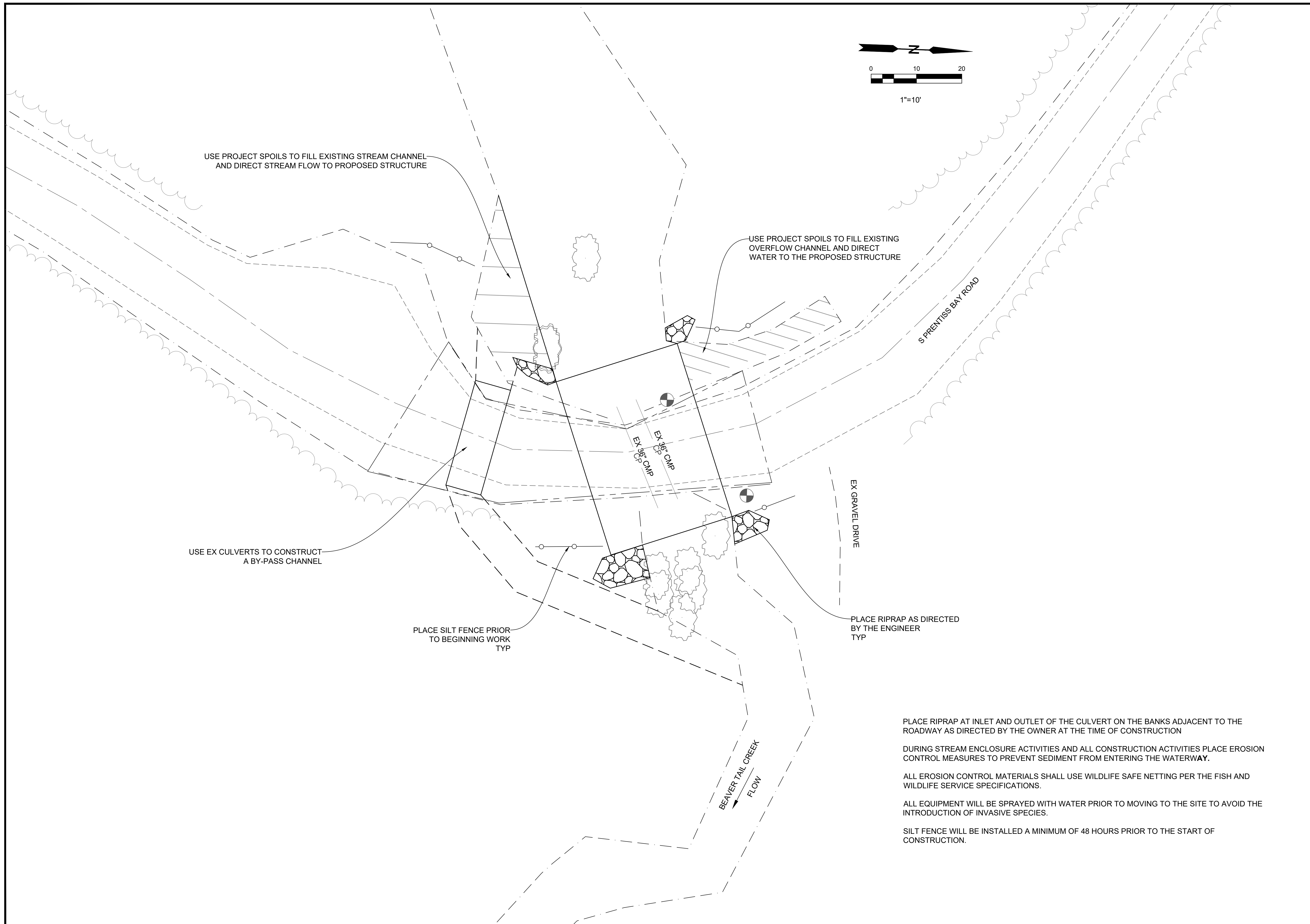
SITE NUMBER
MCW22

JOB NUMBER
22.120



SHEET NO.

3



MCW22 PRENTISS BAY ROAD OVER BEAVER TAIL CREEK

JOB NUMBER 22.120	SITE NUMBER MCW22	DATE JULY 28, 2023	ENGINEER RIVARD	SCALE 1/2" = 1'
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SHEET NO.
4

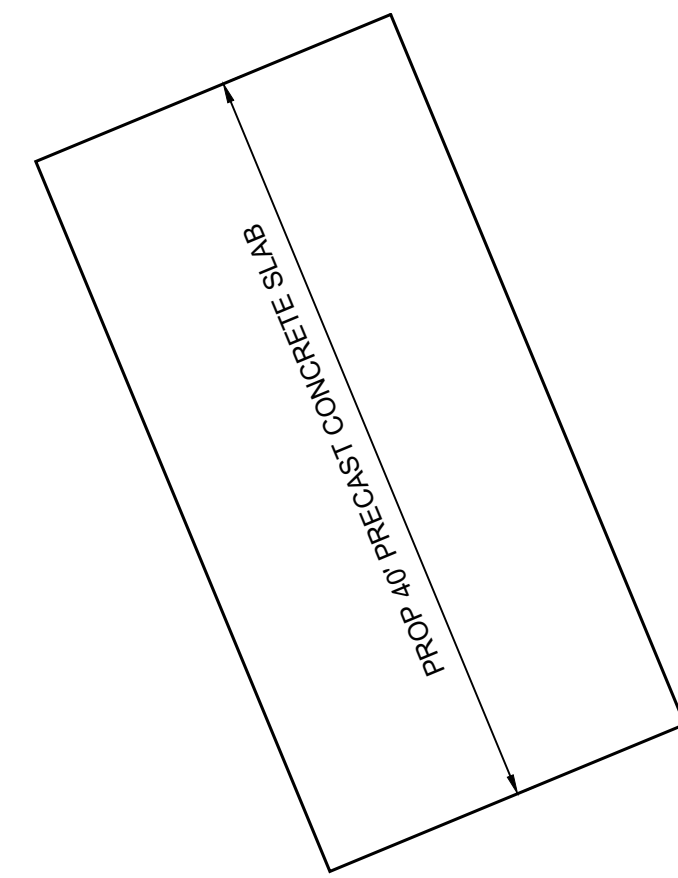
PLACE RIPRAP AT INLET AND OUTLET OF THE CULVERT ON THE BANKS ADJACENT TO THE ROADWAY AS DIRECTED BY THE OWNER AT THE TIME OF CONSTRUCTION

DURING STREAM ENCLOSURE ACTIVITIES AND ALL CONSTRUCTION ACTIVITIES PLACE EROSION CONTROL MEASURES TO PREVENT SEDIMENT FROM ENTERING THE WATERWAY.

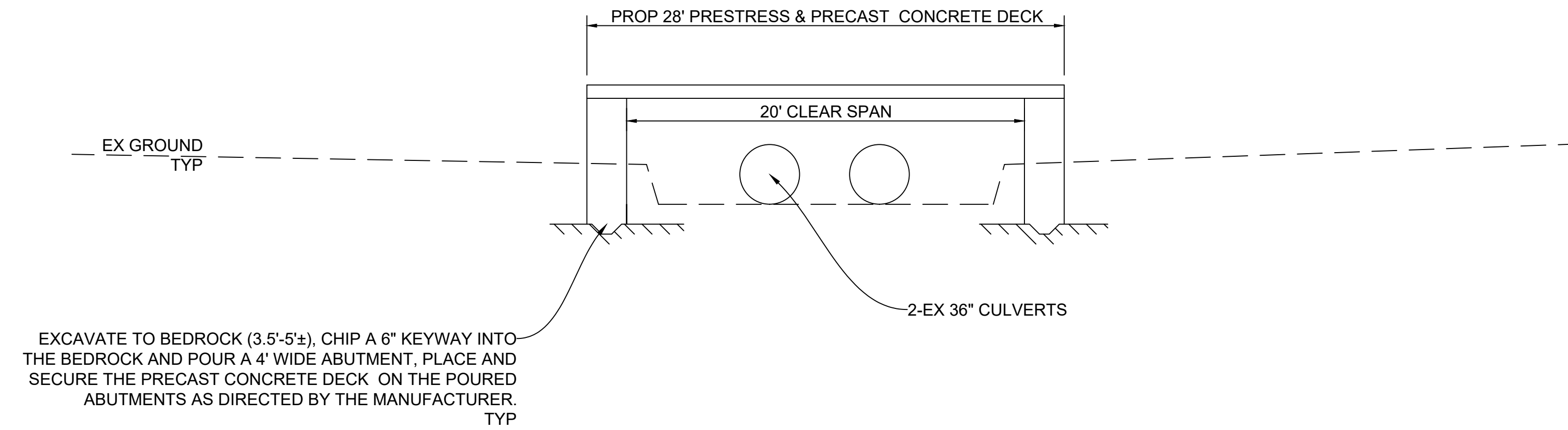
ALL EROSION CONTROL MATERIALS SHALL USE WILDLIFE SAFE NETTING PER THE FISH AND WILDLIFE SERVICE SPECIFICATIONS.

ALL EQUIPMENT WILL BE SPRAYED WITH WATER PRIOR TO MOVING TO THE SITE TO AVOID THE INTRODUCTION OF INVASIVE SPECIES.

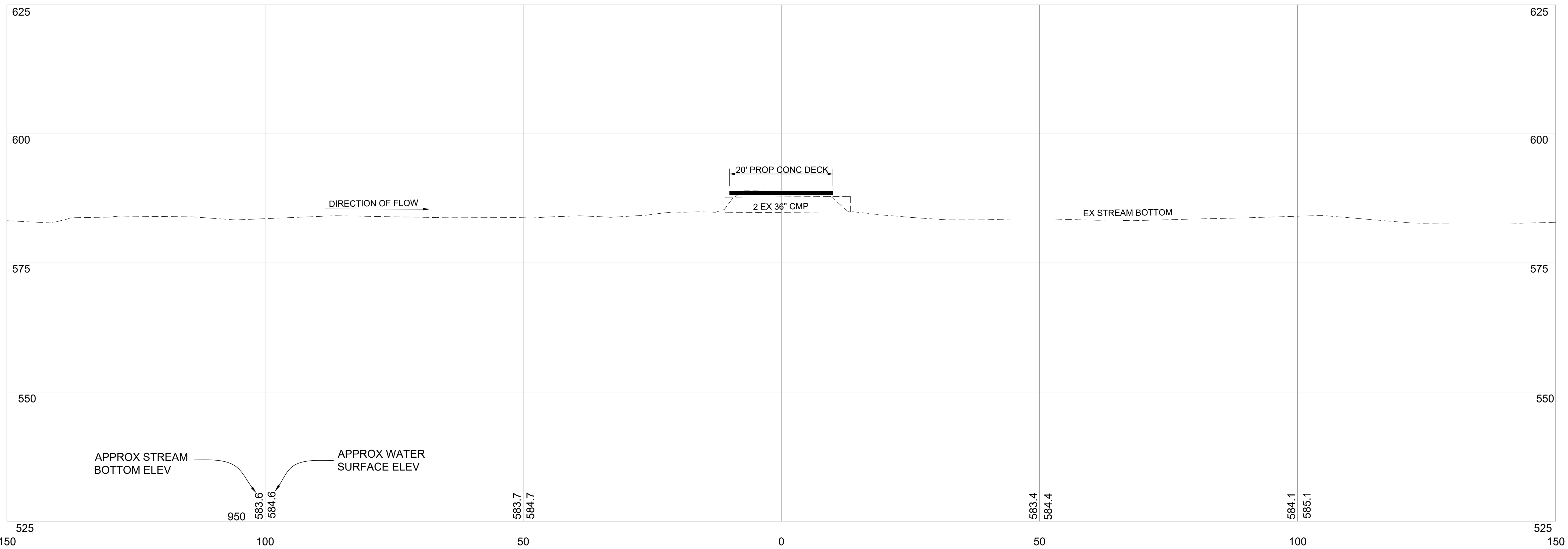
SILT FENCE WILL BE INSTALLED A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.



PROPOSED BRIDGE DETAIL
NOT TO SCALE



PROPOSED BRIDGE DETAIL
NOT TO SCALE



STREAM PROFILE DETAIL

DETAIL SHEET

SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW22

JOB NUMBER
22.120

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

5

HURON PINES IN COOPERATION WITH CHIPPEWA COUNTY ROAD COMMISSION

PLANS OF PROPOSED IMPROVEMENTS
PRENTISS BAY ROAD N RD OVER BEAVERTAIL CREEK (MCW23)
SECTION 29, T42N, R2E, RABER TOWNSHIP
CHIPPEWA COUNTY, MICHIGAN

GENERAL NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.



INDEX TO SHEETS	
SHEET 1	TITLE SHEET
SHEET 2	TYPICAL AND NOTE SHEET
SHEET 3	LEGEND SHEET
SHEET 4	PLAN SHEET

CONTRACT FOR: CULVERT REPLACEMENT	
PREPARED UNDER SUPERVISION OF	
REBECCA E. RIVARD REGISTERED PROFESSIONAL ENGINEER	50497 REGISTRATION NO.
HURON ENGINEERING AND SURVEYING, INC.	
ORGANIZATION	
3205 US-23 SOUTH, ALPENA, MI 49707	
ADDRESS	

TITLE SHEET

SCALE
1/2" = 1/2"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW23

JOB NUMBER
22.120



SHEET NO.

1



GENERAL PLAN NOTES

UNDERGROUND UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE

THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

SOIL EROSION MEASURES

PLACE TOPSOIL, SEED, FERTILIZER, AND MULCH AS SOON AS POSSIBLE. CRITICAL GRADES SHOULD BE PROTECTED WITH MULCH BLANKETS AS DIRECTED BY THE ENGINEER. CIRCLED NUMBERS ON PLANS REFER TO ITEMS ON THE MDOT STANDARD PLAN R-96-SERIES

PARCEL CORNERS

CONTRACTOR SHALL PRESERVE AND/OR REPLACE ANY EXISTING PARCEL CORNERS ENCOUNTERED DURING THE WORK, INCLUDED IN PAYMENT FOR OTHER ITEMS OF WORK.

PUBLIC UTILITIES

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO BE SATISFIED AS TO ITS ACCURACY AND THE LOCATION OF EXISTING UTILITIES.

NAME OF OWNER	KIND OF UTILITY
CLOVERLAND ELECTRIC COMPANY 2916 WEST M-28 DAFTER, MI 49724 CONTACT: PHONE: 906-632-5191	ELECTRIC

NOTES APPLYING TO STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

ROAD STANDARD PLANS

R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS-SECTIONS

MISCELLANEOUS ESTIMATES

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SOIL EROSION, SEDIMENTATION CONTROL, AND MAINLINE ROADWORK WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER

MISCELLANEOUS ITEMS	
250	Ft Erosion Control, Silt Fence

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SLOPE RESTORATION WHERE DESIGNATED BY THE ENGINEER.

MISCELLANEOUS ITEMS	
500	Syd Slope Restoration, Modified

TYPICAL AND NOTE SHEET

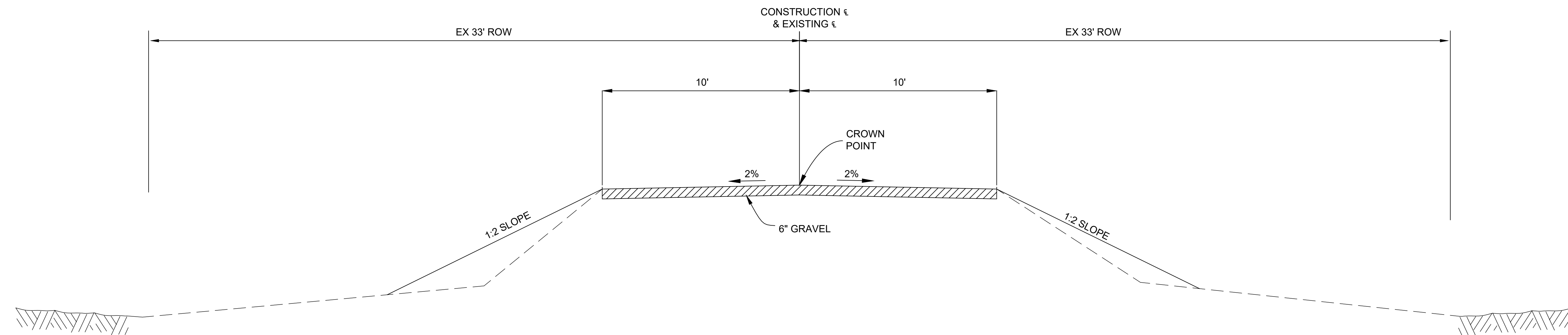
SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW23

JOB NUMBER
22.120



PROPOSED TYPICAL SECTION

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

2

WATER & DRAINAGE SYMBOLS

- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CULVERT END SECTION
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- WATER SHUTOFF(Service Valve)
- GATE VALVE
- GATEWELL
- WATER METER
- WATER MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- ADJ-HYD ADJUST FIRE HYDRANT
- ADJ ADJUST DRAINAGE STRUCTURE
- ADJ-K ADJUST DRAINAGE STRUCTURE W/COVER
- ADJ-B/O ADJUST DRAINAGE STRUCTURE BY OTHERS
- REL-B/O RELOCATE - BY OTHERS
- SR-1 SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- w.T. m WATER TABLE (PROFILES)
- POST
- WATER WELL

REAL ESTATE SYMBOLS

- PROPERTY OWNERSHIP ARROW
- CONTIGUOUS PROPERTY SYMBOL
- 123456 PARCEL NUMBER BOX
- PARCEL LINES

UTILITIES SYMBOLS

- POWER POLE
- TELEPHONE POLE
- GUY POLE
- LIGHT POLE
- POWER LIGHT POLE
- TELEPHONE MANHOLE
- POWER TOWER
- GAS VALVE
- WALK/NO-WALK
- GUY ANCHOR
- RAILROAD SIGNAL
- ELECTRICAL MANHOLE
- ELECTRICAL HANDHOLE
- TELEPHONE PEDESTAL/RISER
- FIBER OPTIC MARKER

MISCELLANEOUS SYMBOLS

- RIPRAP
- SIGN
- STUMP
- SWAMP
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH
- MAIL BOX
- FLAG
- BAR & CAP
- SECTION CORNER
- QUARTER SECTION
- BENCHMARK
- USGS MARKER
- CONTROL POINT
- 123 BEAM G. R. RUN NUMBER (EXISTING)
- 123 BEAM G. R. RUN NUMBER (PROPOSED)

HAZARDOUS OR FLAMMABLE MATERIAL USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY USED WITH FIBER OPTICS LINES

PROP 36" PROPOSED CULVERT/SEWER

EX 12" CMP EXISTING CULVERT/SEWER

UTILITY PATTERNS

- ELEC ELECTRICAL LINE
- 24" GAS GAS LINE
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- GRADING EASEMENT

TOPO PATTERNS

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- TREE LINE
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- PROPOSED FENCE
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- PROPOSED GUARD RAIL
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- WETLANDS AREA
- ABANDON ANY UTILITY
- CITY LIMITS
- RAILROAD
- SOUND ABATEMENT WALL
- CONCRETE MEDIAN BARRIER
- SLOPE STAKE LINE

DRIVE/APPROACH LEGEND

- CONCRETE
- HMA
- AGGREGATE

REMOVAL LEGEND

- REMOVING (R)
- ABANDONING (A)
- SAVE (S)
- BULKHEAD (B)
- REMOVING CURB & GUTTER

SPECIAL LEGEND THIS PROJECT

- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION SILT FENCE (26)
- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION CHECK DAM (37)
- ROAD BORING LOCATION (SBOR 1)

LEGEND SHEET

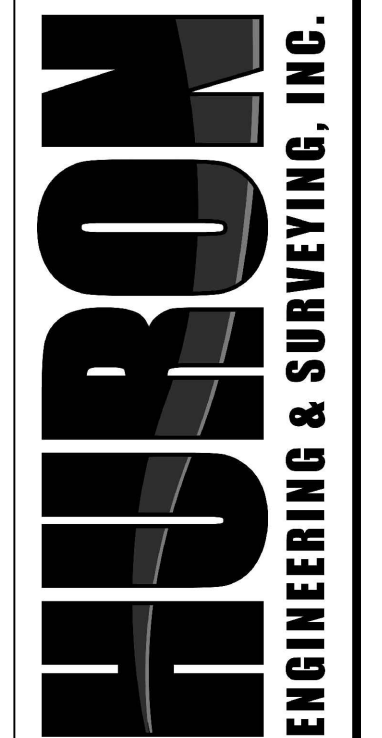
SCALE 1"=20'

ENGINEER RIVARD

DATE JULY 28, 2023

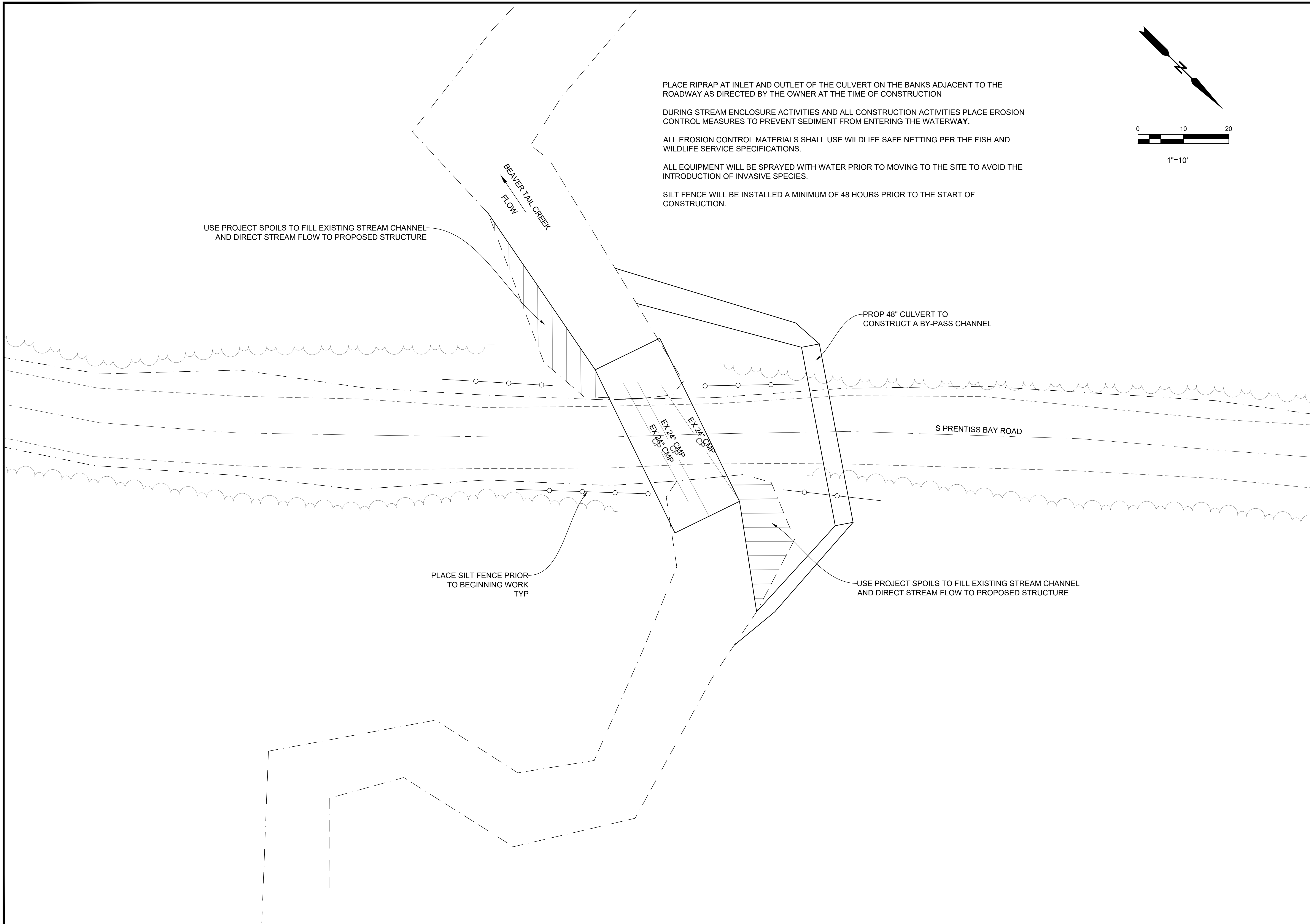
SITE NUMBER MCW23

JOB NUMBER 22.120



SHEET NO.

3



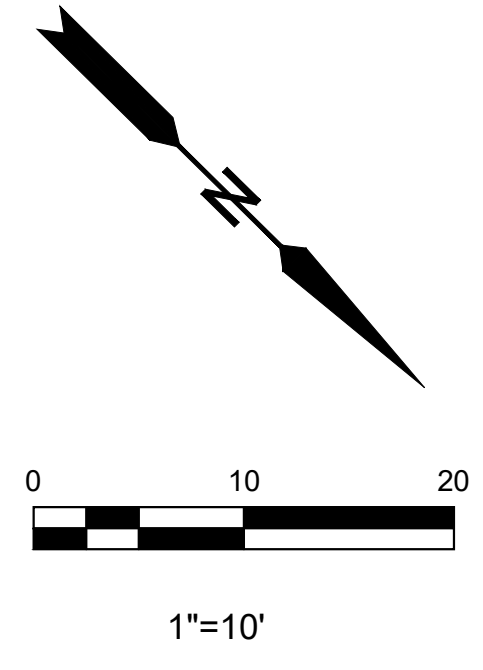
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ALL EQUIPMENT WILL BE SPRAYED WITH WATER PRIOR TO MOVING TO THE SITE TO AVOID THE INTRODUCTION OF INVASIVE SPECIES.

SILT FENCE WILL BE INSTALLED A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.



USE PROJECT SPOILS TO FILL EXISTING STREAM CHANNEL AND DIRECT STREAM FLOW TO PROPOSED STRUCTURE

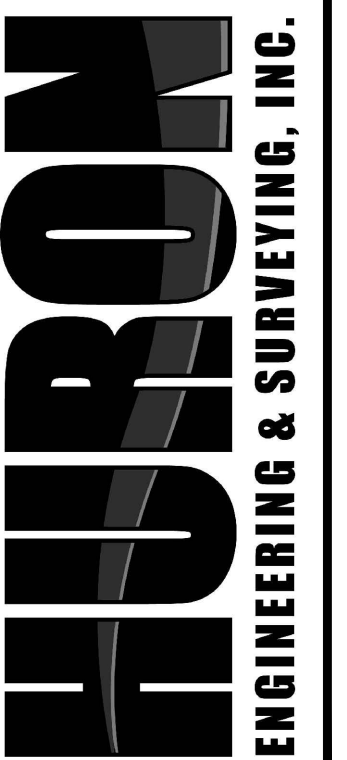
PROP 48" CULVERT TO CONSTRUCT A BY-PASS CHANNEL

PLACE SILT FENCE PRIOR TO BEGINNING WORK TYP

USE PROJECT SPOILS TO FILL EXISTING STREAM CHANNEL AND DIRECT STREAM FLOW TO PROPOSED STRUCTURE

MCW23 PRENTISS BAY ROAD OVER BEAVER TAIL CREEK

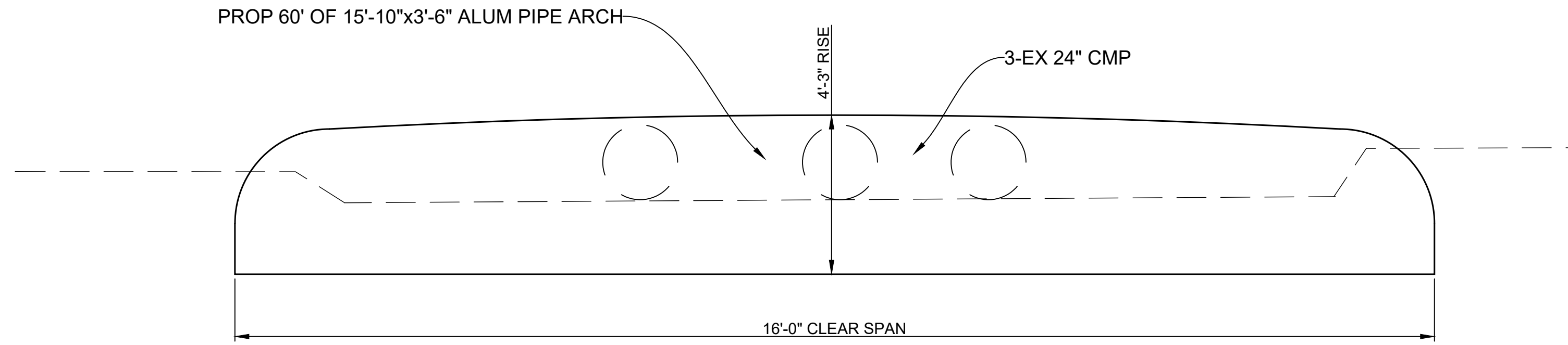
ENGINEER	RIVARD	SCALE	1/2" = 10'
DATE	JULY 28, 2023	SITE NUMBER	MCW23
JOB NUMBER	22.120		



SHEET NO.
4

PROP 40' OF 15'-10"x3'-6" POLYMER COATED ALUMINUM BOX CULVERT WITH FULL INVERT

PROVIDE 2' OF MINIMUM COVER OVER THE STRUCTURE

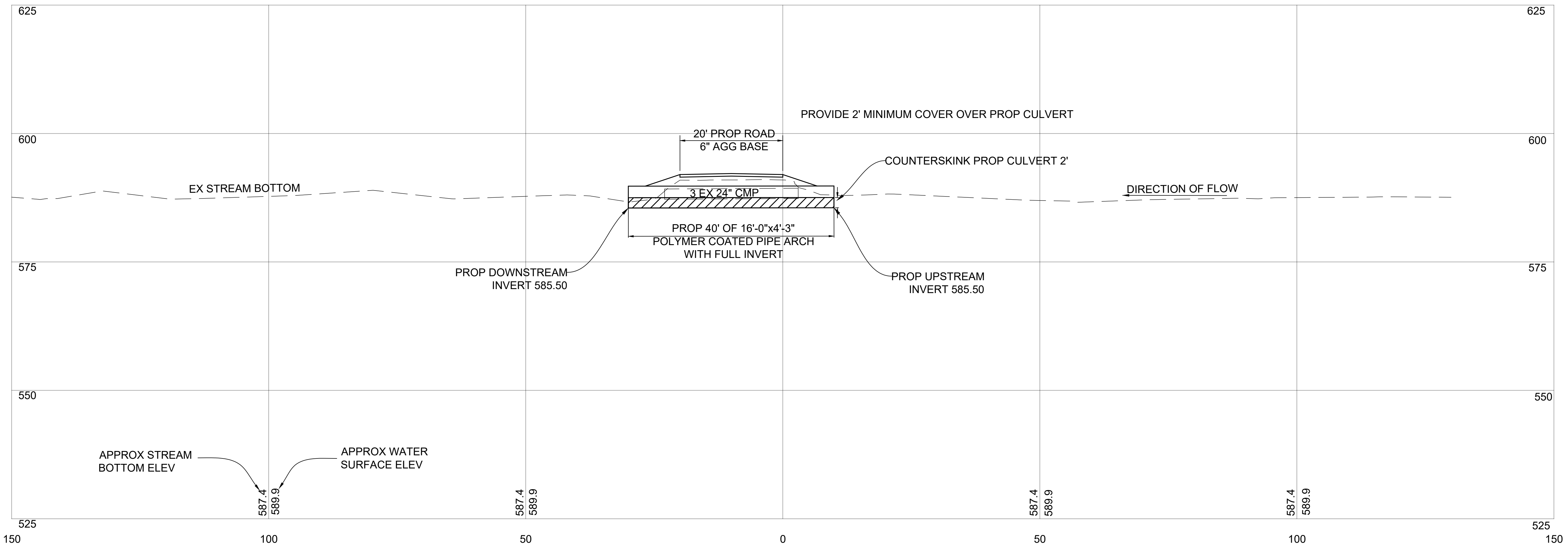


PROPOSED ALUM BOX CULVERT DETAIL

NOT TO SCALE

PROPOSED ALUMINUM BOX DETAIL

NOT TO SCALE



STREAM PROFILE DETAIL

MCW23 PRENTISS BAY ROAD OVER BEAVER TAIL CREEK

SCALE
N/A

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW23

JOB NUMBER
22.120



SHEET NO.

5

HURON PINES IN COOPERATION WITH CHIPPEWA COUNTY ROAD COMMISSION

PLANS OF PROPOSED IMPROVEMENTS BEAVERTAIL CREEK STATE FOREST ROAD RD OVER BEAVERTAIL CREEK (MCW24) SECTION 29, T42N, R2E, RABER TOWNSHIP CHIPPEWA COUNTY, MICHIGAN

GENERAL NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED HEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

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TITLE SHEET

SCALE

1/2" = 1'00'

ENGINEER

RIVARD

DATE

JULY 28, 2023

SITE NUMBER

MCW24

JOB NUMBER

22.120

CONTRACT FOR:	
CULVERT REPLACEMENT	
PREPARED UNDER SUPERVISION OF	
REBECCA E. RIVARD	50497
REGISTERED PROFESSIONAL ENGINEER	REGISTRATION NO.
HURON ENGINEERING AND SURVEYING, INC.	
ORGANIZATION	
3205 US-23 SOUTH, ALPENA, MI 49707	
ADDRESS	



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SHEET 4	PLAN SHEET



SHEET NO.
1

WATER & DRAINAGE SYMBOLS

- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CULVERT END SECTION
- PROPOSED CULVERT END SECTION
- EXISTING HEADWALL
- PROPOSED HEADWALL
- WATER SHUTOFF(Service Valve)
- GATE VALVE
- GATEWELL
- WATER METER
- WATER MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- ADJUST FIRE HYDRANT
- ADJUST DRAINAGE STRUCTURE
- ADJUST DRAINAGE STRUCTURE W/COVER
- ADJUST DRAINAGE STRUCTURE BY OTHERS
- RELOCATE - BY OTHERS
- SIDEWALK RAMP TYPE
- CHECK DAM (PROFILES)
- DIKE (PROFILES)
- WATER TABLE (PROFILES)
- POST
- WATER WELL

UTILITIES SYMBOLS

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- BEAM G. R. RUN NUMBER (EXISTING)
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CAUTION - CRITICAL UNDERGROUND UTILITY USED WITH FIBER OPTICS LINES

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- STANDARD PLAN R-96-E SOIL EROSION & SEDIMENTATION CHECK DAM (37)
- ROAD BORING LOCATION (SBOR 1)

LEGEND SHEET

SCALE
N/A

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
MCW24

JOB NUMBER
22-120



SHEET NO.

2

GENERAL PLAN NOTES

UNDERGROUND UTILITIES

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE

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SOIL EROSION MEASURES

PLACE TOPSOIL, SEED, FERTILIZER, AND MULCH AS SOON AS POSSIBLE. CRITICAL GRADES SHOULD BE PROTECTED WITH MULCH BLANKETS AS DIRECTED BY THE ENGINEER. CIRCLED NUMBERS ON PLANS REFER TO ITEMS ON THE MDOT STANDARD PLAN R-96-SERIES

PARCEL CORNERS

CONTRACTOR SHALL PRESERVE AND/OR REPLACE ANY EXISTING PARCEL CORNERS ENCOUNTERED DURING THE WORK, INCLUDED IN PAYMENT FOR OTHER ITEMS OF WORK.

PUBLIC UTILITIES

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NAME OF OWNER	KIND OF UTILITY
CLOVERLAND ELECTRIC COMPANY 2916 WEST M-28 DAFTER, MI 49724 CONTACT: PHONE: 906-632-5191	ELECTRIC

NOTES APPLYING TO STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

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R-82-D	BEDDING AND FILLING AROUND PIPE CULVERTS
R-83-C	UTILITY TRENCHES
R-96-E	SOIL EROSION & SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS-SECTIONS

MISCELLANEOUS ESTIMATES

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SOIL EROSION, SEDIMENTATION CONTROL, AND MAINLINE ROADWORK WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER

MISCELLANEOUS ITEMS	
250	Ft Erosion Control, Silt Fence

THE FOLLOWING ITEMS OF WORK ARE ESTIMATED FOR THE ENTIRE PROJECT FOR SLOPE RESTORATION WHERE DESIGNATED BY THE ENGINEER.

MISCELLANEOUS ITEMS	
500	Syd Slope Restoration, Modified

TYPICAL AND NOTE SHEET

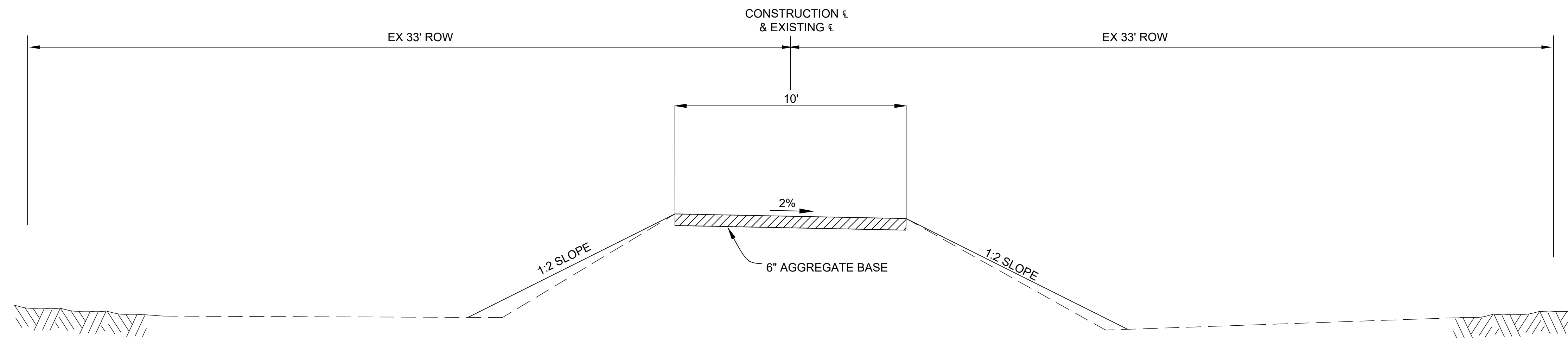
SCALE
1/2" = 1'-0"

ENGINEER
RIVARD

DATE
JULY 28, 2023

SITE NUMBER
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JOB NUMBER
22.120

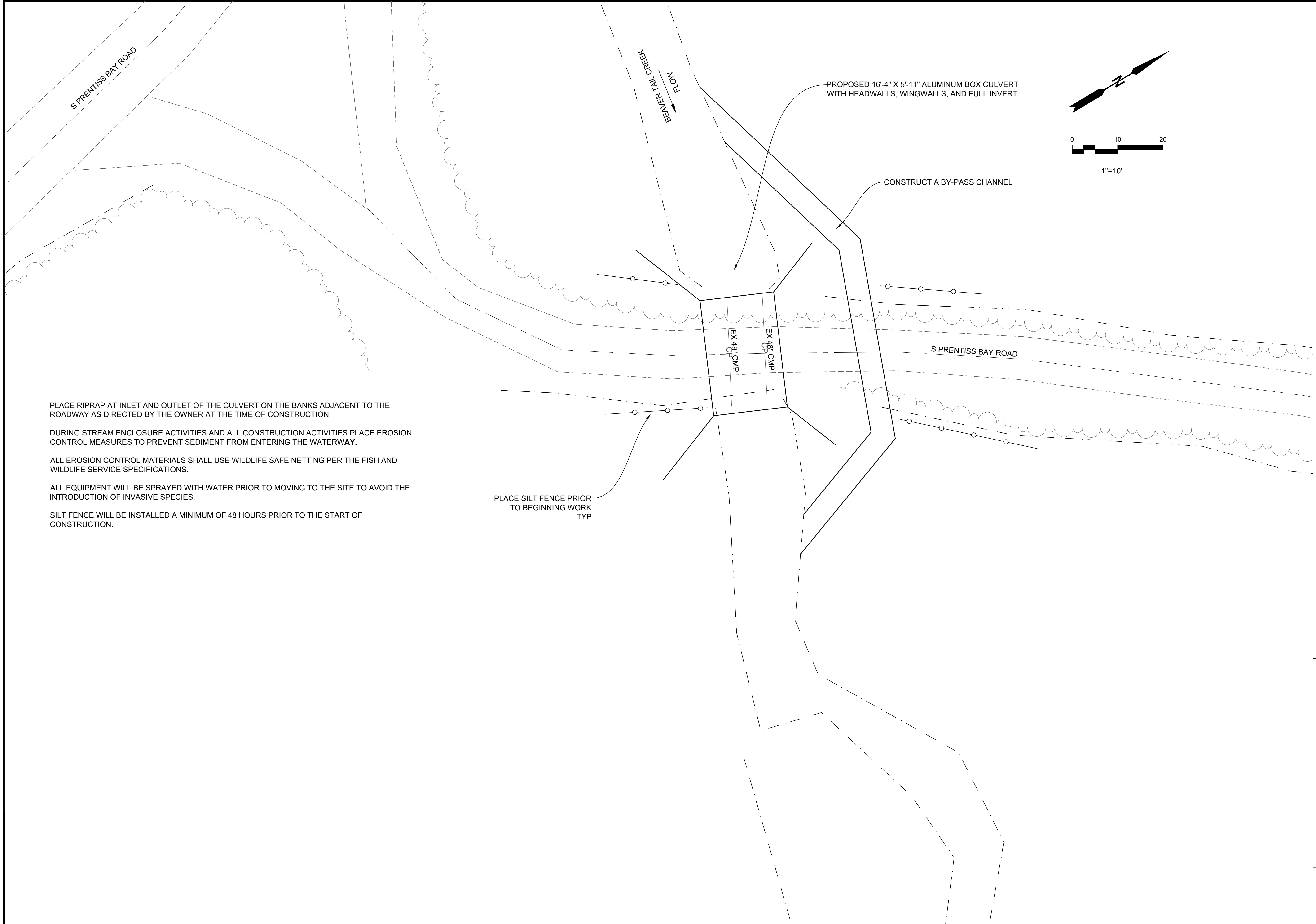


PROPOSED TYPICAL SECTION

HURON
ENGINEERING & SURVEYING, INC.

SHEET NO.

3



PLACE RIPRAP AT INLET AND OUTLET OF THE CULVERT ON THE BANKS ADJACENT TO THE ROADWAY AS DIRECTED BY THE OWNER AT THE TIME OF CONSTRUCTION

DURING STREAM ENCLOSURE ACTIVITIES AND ALL CONSTRUCTION ACTIVITIES PLACE EROSION CONTROL MEASURES TO PREVENT SEDIMENT FROM ENTERING THE WATERWAY.

ALL EROSION CONTROL MATERIALS SHALL USE WILDLIFE SAFE NETTING PER THE FISH AND WILDLIFE SERVICE SPECIFICATIONS.

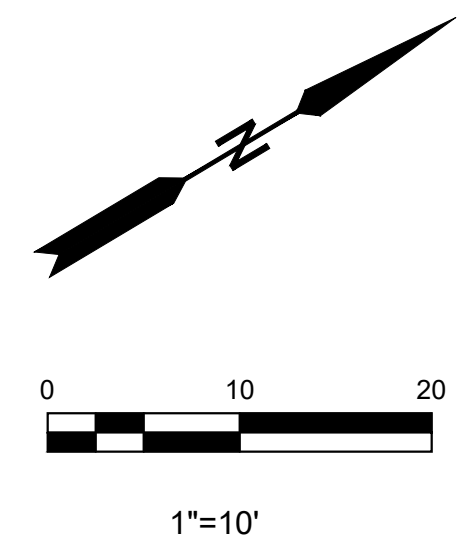
ALL EQUIPMENT WILL BE SPRAYED WITH WATER PRIOR TO MOVING TO THE SITE TO AVOID THE INTRODUCTION OF INVASIVE SPECIES.

SILT FENCE WILL BE INSTALLED A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

PLACE SILT FENCE PRIOR TO BEGINNING WORK TYP

PROPOSED 16'-4" X 5'-11" ALUMINUM BOX CULVERT WITH HEADWALLS, WINGWALLS, AND FULL INVERT

CONSTRUCT A BY-PASS CHANNEL

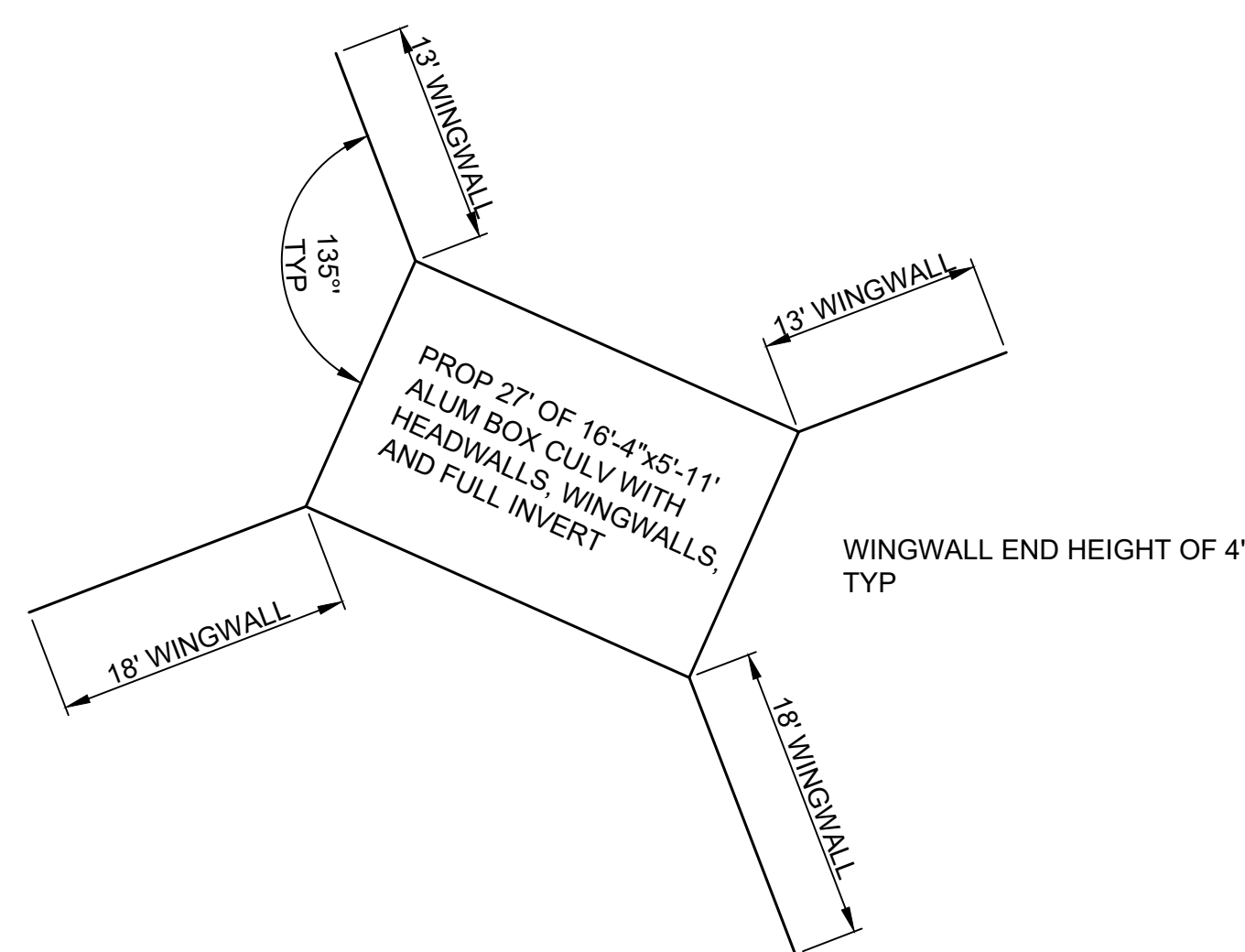


MCW24 STATE FOREST ROAD OVER BEAVER TAIL CREEK

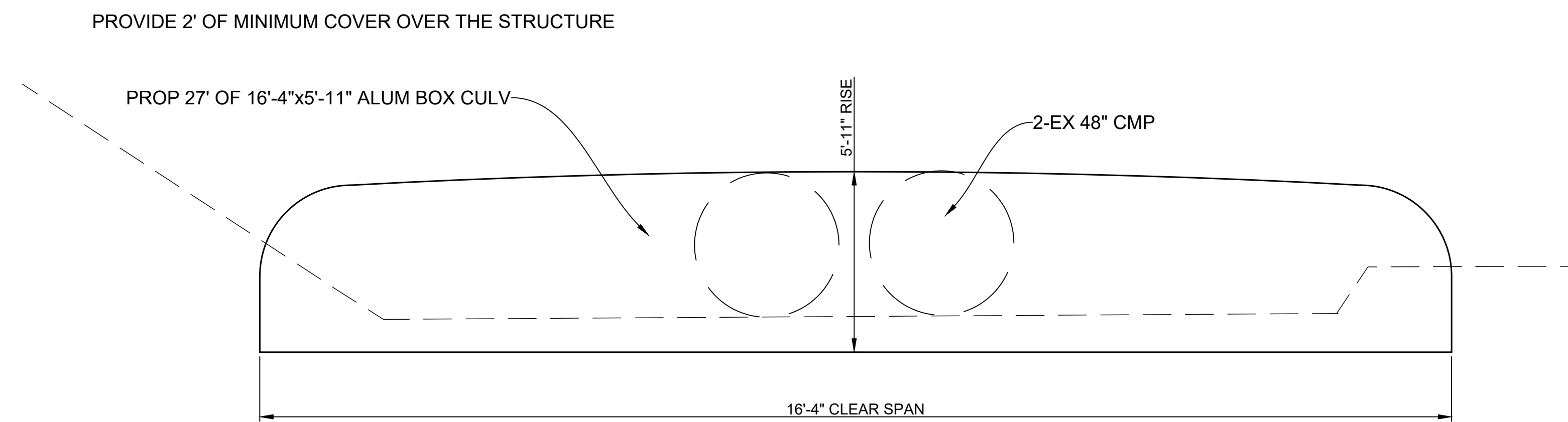
JOB NUMBER 22.120	SITE NUMBER MCW24	DATE JULY 28, 2023	ENGINEER RIVARD	SCALE 1/2"=1'-0"
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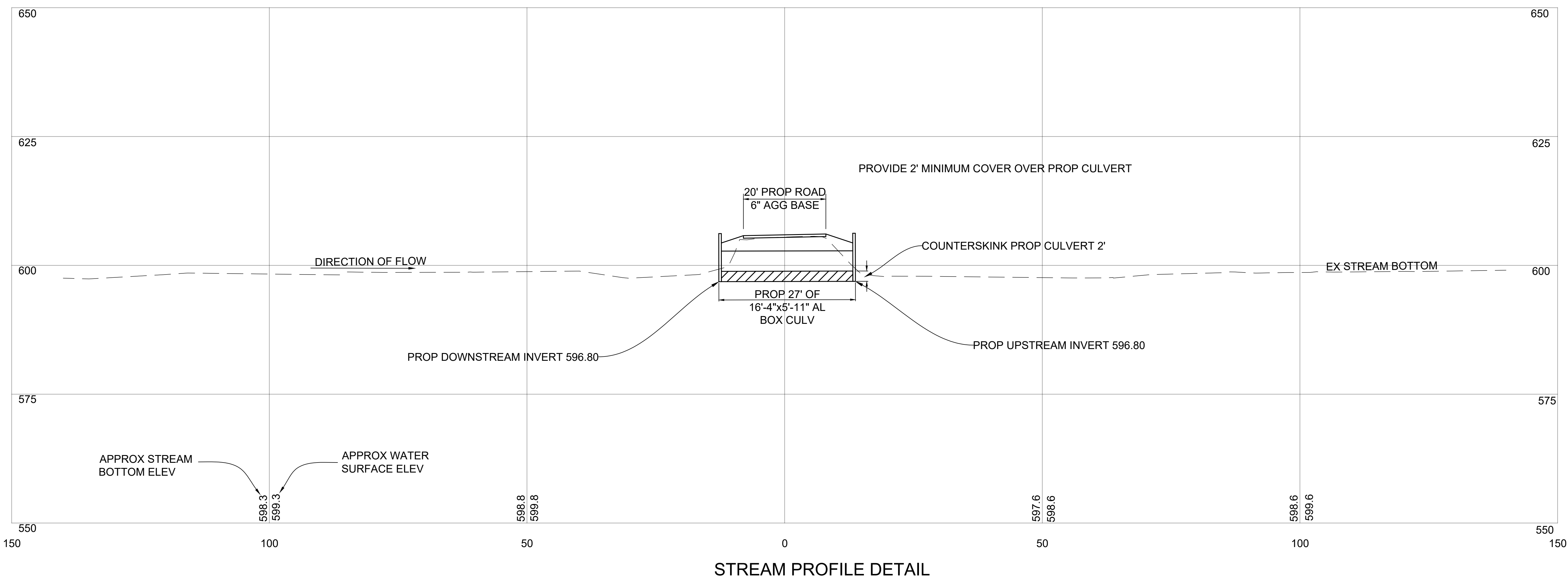
SHEET NO.
4



PROPOSED ALUMINUM BOX DETAIL
NOT TO SCALE



PROPOSED ALUM BOX CULVERT DETAIL
NOT TO SCALE



STREAM PROFILE DETAIL

MCW24 STATE FOREST ROAD OVER BEAVER TAIL CREEK

JOB NUMBER
22.120

SITE NUMBER
MCW24

DATE
JULY 28, 2023

ENGINEER
RIVARD

SCALE
1/2\"/>



SHEET NO.

5