



Office of Water Resources, Michael A. Bilandic Building, 160 N. LaSalle St., S-703, Chicago, IL 60601

Illinois Department of Natural Resources, Office of Water Resources
Public Notice

**Infrastructure Repairs, in Lake Michigan,
at Northwestern University's Evanston Campus**

Northwestern University 2020 Ridge Avenue, Evanston IL 60208, has applied for an Illinois Department of Natural Resources, Office of Water Resources permit for the replacement of two stormwater outfalls, a weir bridge and four water intake screens, in Lake Michigan, at its Evanston Campus, Evanston, IL 60208.

The applicant proposes to replace two existing 48-inch diameter corrugated metal stormwater outfalls (North and South), an existing pedestrian weir bridge and four existing water intake screens. The existing stormwater outfalls will be replaced with two 48-inch diameter concrete stormwater outfalls. The new outfalls will be located adjacent to the existing outfalls. The new outfalls will include water quality structures upstream to catch debris. The existing outfalls will be removed or sealed. The existing pedestrian bridge that crosses the southern cooling pond weir will be replaced with a larger, 15ft.-4inch wide by 38ft. long, bridge that can accommodate emergency and service vehicles. The four existing offshore water intake screens will be replaced with larger screens. The new screens will have a 126-inch diameter and a crest elevation of 563.65 ft. The new screens will provide a larger surface area reducing the through screen velocity. All elevations are International Great Lakes Datum 1985-adjusted (IGLD-85). The proposed project will be reviewed using the Department's Part 3704 Rules. A location map is attached to this notice.

No work is to start on this project unless and until such a time that the permit is issued.

Inquiries and comments regarding the proposed project can be directed to James Casey of the Chicago Office at IDNR/OWR, 160 N. LaSalle Street, Suite S-703, Chicago, Illinois 60601 or james.casey@illinois.gov. An expanded version of the public notice can be viewed at <http://www.dnr.illinois.gov/WaterResources/Pages/PublicNotices.aspx>. Comments will be accepted through **April 30, 2024**.



Northwestern University - Shoreline Infrastructure Repairs
Permit Application Supplemental Information

March 18 2024 | 13485.601.R1.Rev0

Baird.
Innovation Engineered.

Northwestern University - Shoreline Infrastructure Repairs

Permit Application Supplemental Information

Prepared for:

Prepared by:



Northwestern University
633 Clark Street
Evanston, IL 60208

Baird.

Innovation Engineered.

W.F. Baird & Associates Ltd.

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ragnew@baird.com
www.baird.com

13485.601.R1.Rev0

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Revision	Date	Status	Comments	Prepared	Reviewed	Approved
Rev0	3/18/204	Issued	For Agency Review	NAR	RPA	CDB

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Executive Summary

The information presented in this document is provided as supplemental material in support of a completed Joint Permit Application (JPA) for shoreline infrastructure repairs being proposed to the Northwestern University (NU) Evanston campus Lake Michigan shoreline.

The project site is in Evanston, Illinois, at select locations along the NU campus shoreline. A plan of the existing conditions is shown in Figure ES.1. A series of infrastructure repair designs were developed to either prolong the life or improve the performance of specific key infrastructure elements.

The overall objective of this project is to replace or update existing shoreline infrastructure elements that are aging or no longer meet the safety or regulatory standards of the client or permit requirements. Individual element improvements to accomplish the overall project objective include:

- Replacing two 48-inch diameter corrugated metal stormwater pipes in-kind with concrete pipe between the existing outfall and manholes. Existing manholes will be replaced and a stormwater treatment structure (i.e., CDS® model by Contech or equivalent) will be added to each outfall. The outfall termination through the existing steel sheet pile bulkhead wall will be redesigned to encase the new concrete pipe;
- Replacing the existing pedestrian bridge that crosses the southern cooling pond weir with a new, larger bridge that can accommodate clearances and loads associated with emergency and service vehicles; and
- Replacing the existing four intake screens on NU's Central Utility Plan offshore intake structure with new screens designed to provide a larger surface area, resulting in a reduction to the through-screen velocity to meet Section 316(b) of the Clean Water Act (40 CFT 125 Subpart J).

JPA authorization is requested under the following Nationwide Permits (NWP):

- Shoreline Infrastructure Repairs
 - Stormwater outfall improvements: NWP 7 – Outfall structures and Associated Intake Structures & NWP 33 – Temporary Construction , Access, & Dewatering
 - Weir bridge improvements: NWP 42 – Recreational Facilities
- Water Intake Cap Replacement – NWP 58 – Utility Line Activities for Water and Other Substances

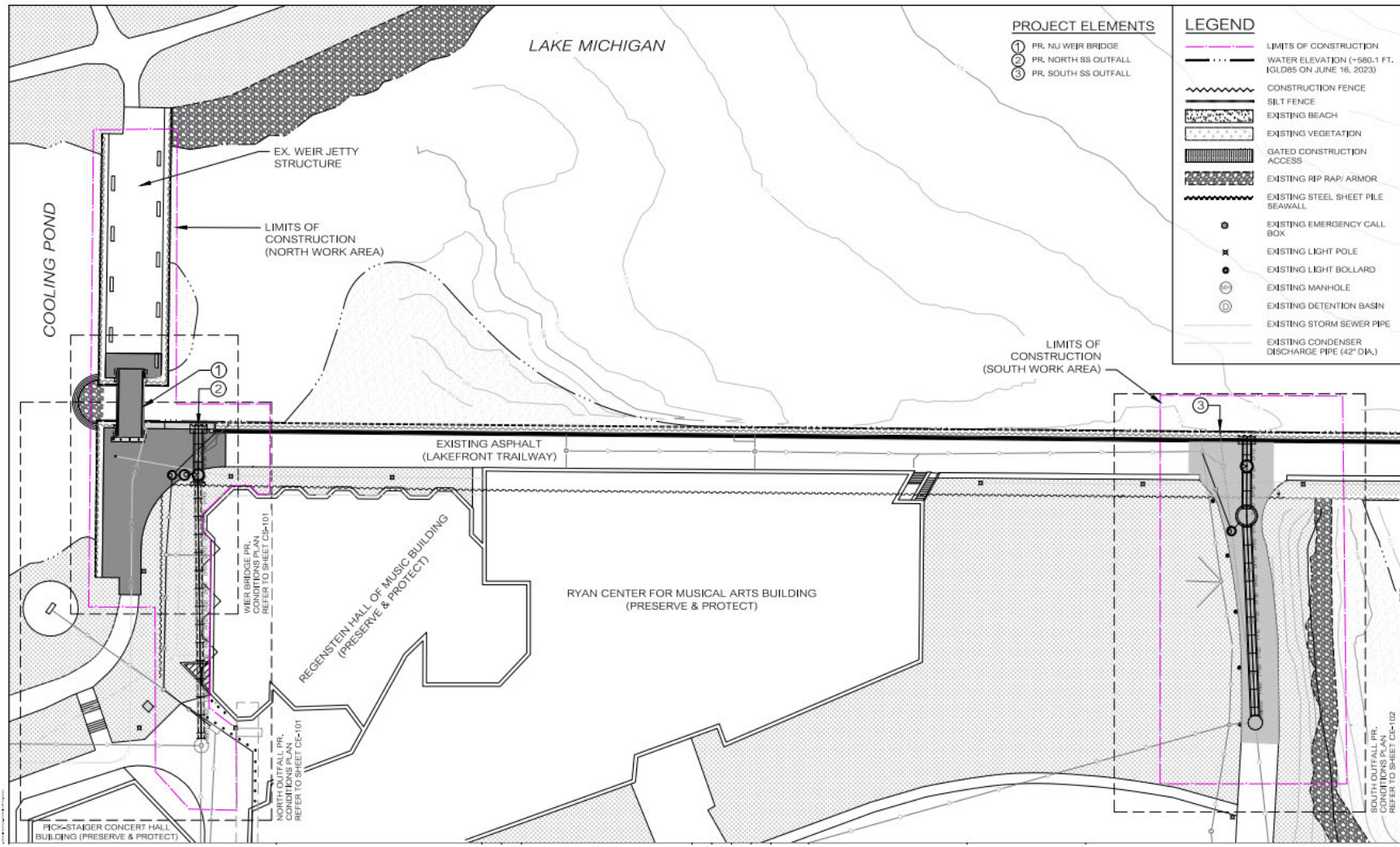


Figure ES.1: Plan of Existing Conditions

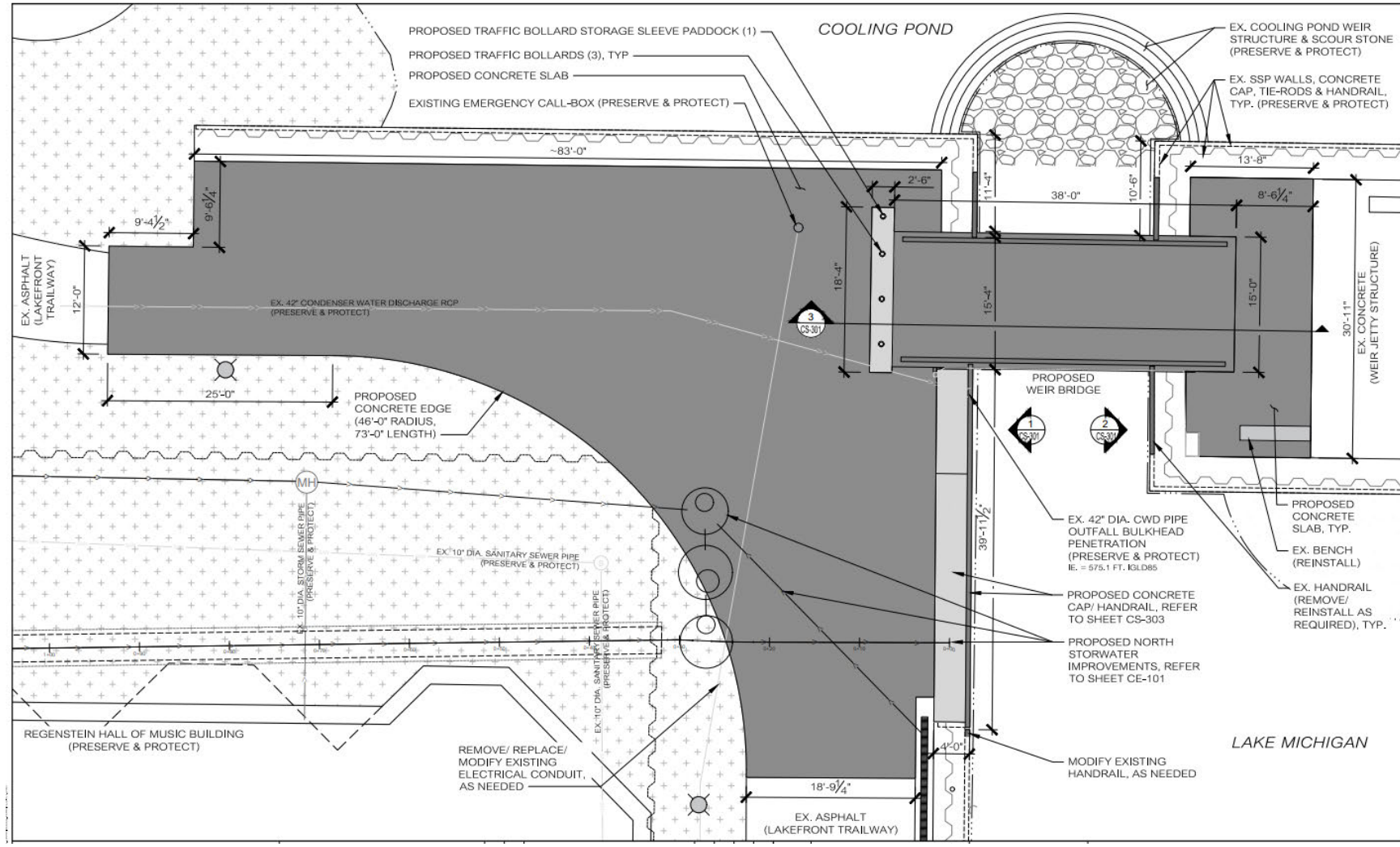


Figure ES.2: Plan of Proposed Improvements (Wier Bridge)

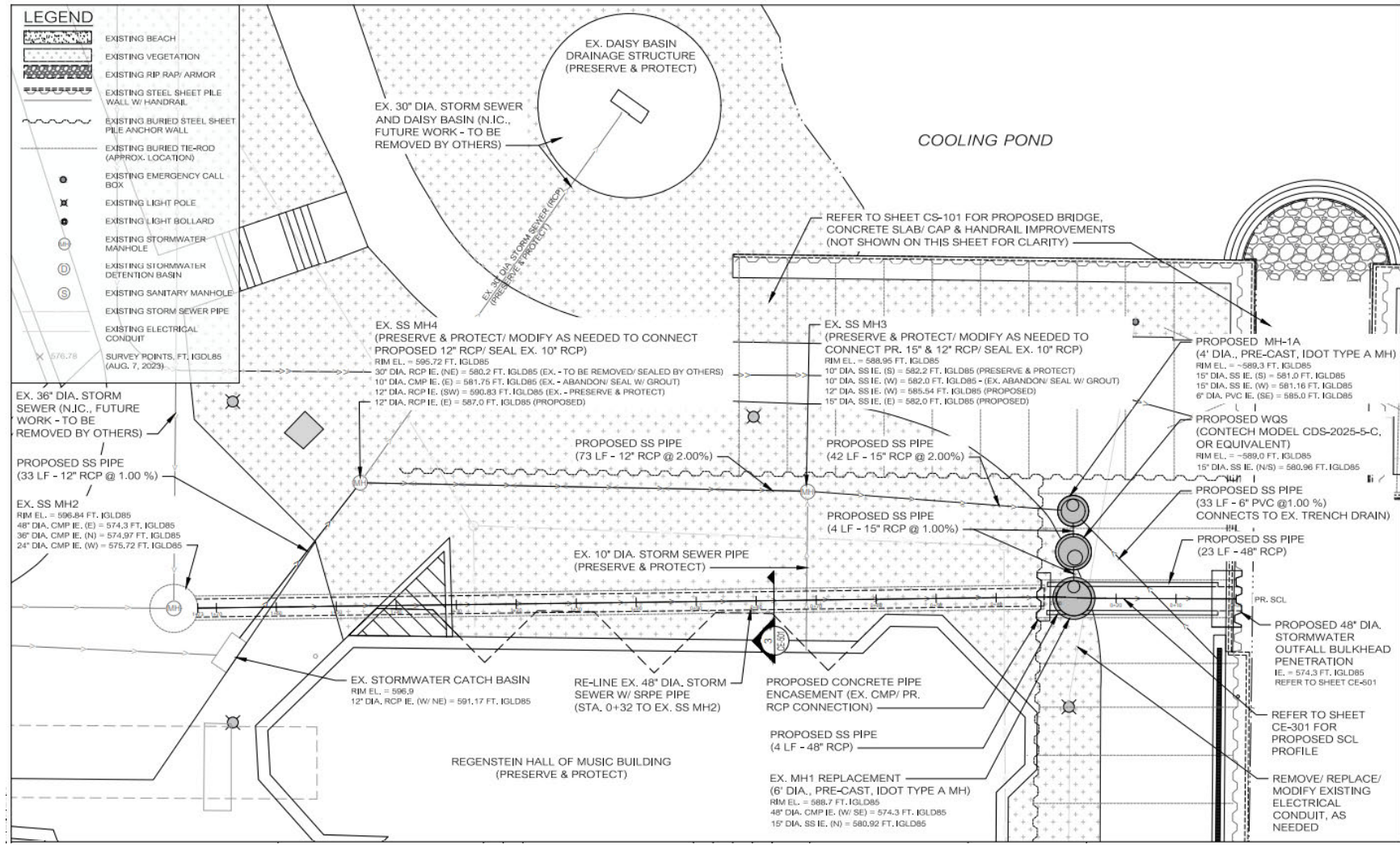


Figure ES.3: Plan of Proposed Improvement (North Outfall)

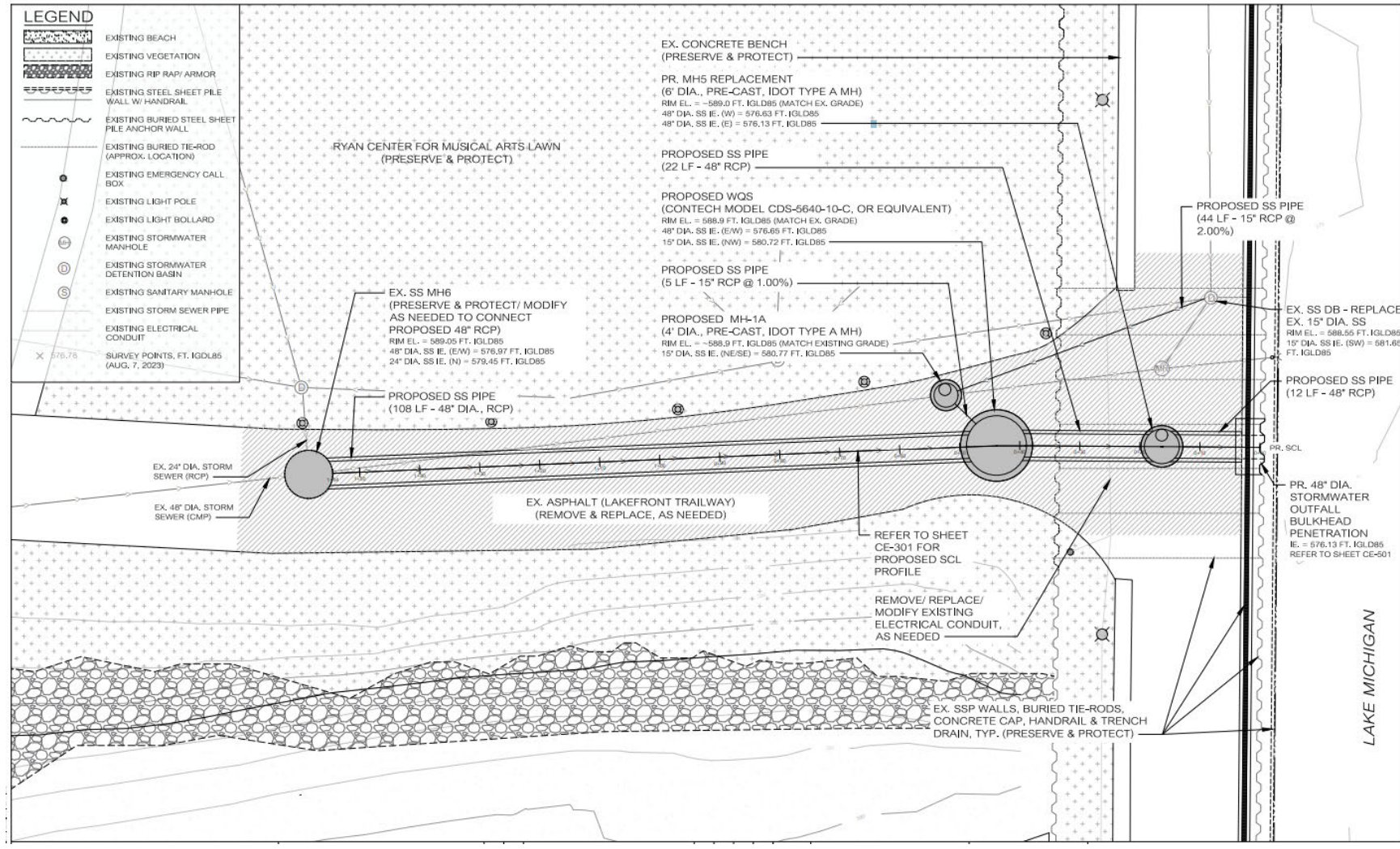


Figure ES.4: Plan of Proposed Improvement (South Outfall)

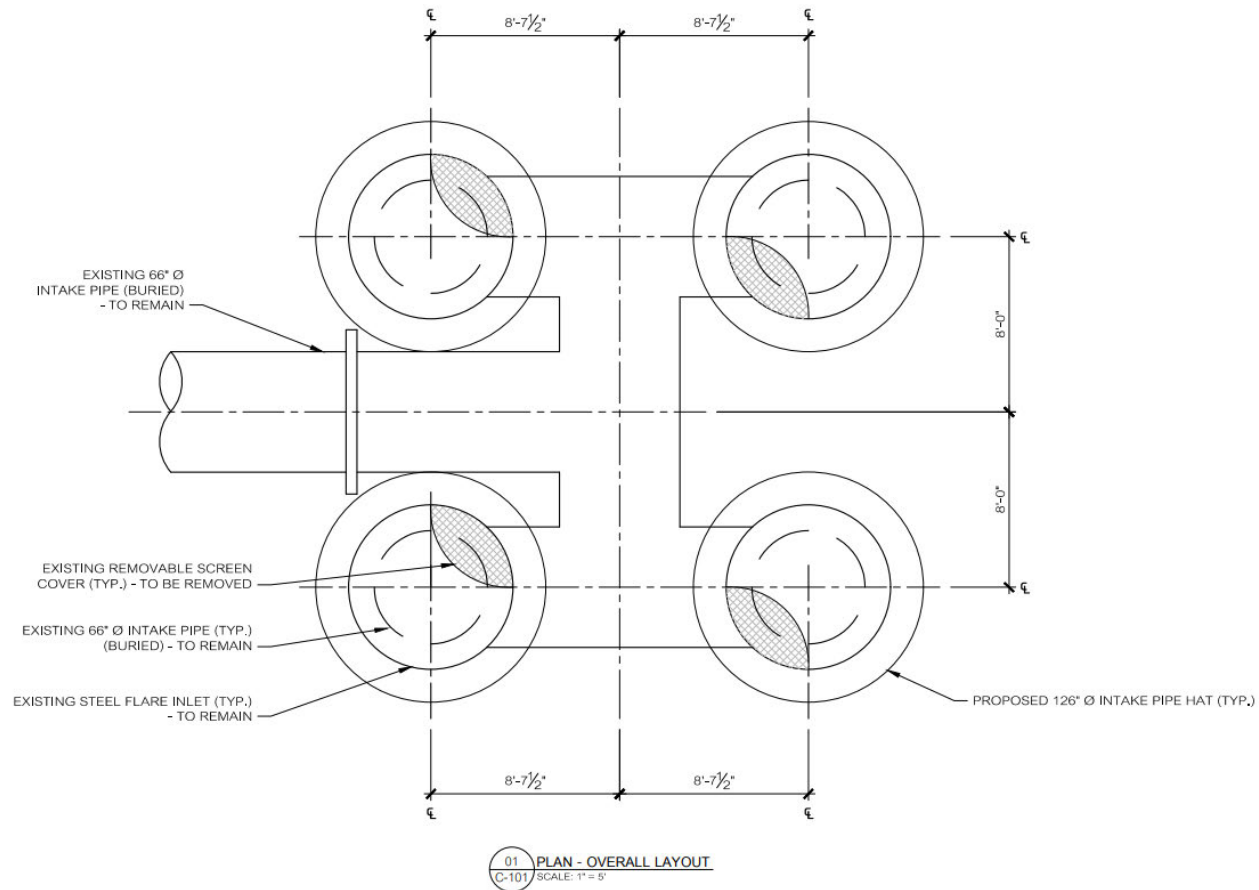


Figure ES.5: Overall Layout (Water Intake Screen)

This report also provides information on the topics below to facilitate public and agency review of the proposed work.

Threatened or Endangered Species

- Federal-listed species in Cook County - Preliminary effects determination on the identified species is “No Effect” because suitable habitat is not present; however, after subsequent discussion with regulatory agencies, the USACE advised that Piping plover may transiently stop over at the beach on the south end of NU’s property, adjacent to the proposed project, during the nesting period between April 1 and August 31. Construction activities will adhere to any required window of limitation to avoid any negative impact on the habitat of the species listed.
- State-listed species - The EcoCAT consultation identified three threatened (Ground Juniper, Marram Grass, and Sea Rocket) and one endangered (Seaside Spurge) terrestrial plant species that have been documented in the vicinity. As there are no aquatic plants listed and any terrestrial plants plan to be flagged and avoided, the project is not expected to negatively impact the habitat of the species listed.
- Wetland Delineation – A delineation report was prepared for this project and no wetland was identified on the project site; however, Lake Michigan was identified as a Waters of the US (WOUS). The approved jurisdictional determination by the USACE (LRC-2021-00160) confirms this finding.

Historical Properties

- After consulting the Historic and Architectural Resources Geographic Information System (HARGIS), the project has no potential to affect historic properties, as defined by the National Register of Historic Places. In addition, after consulting the Historic and Architectural Resources Geographic Information System (HARGIS), it appears that there are no significant cultural resources or landforms within the project area.

Soil Erosion and Sedimentation Control Measures

- A specific Soil Erosion and Sedimentation Plan has been developed for the project. Soil erosion and sedimentation control measures include the use of silt fences, turbidity curtains and cofferdams around construction areas when appropriate.

Table of Contents

1. Introduction	1
2. Project Narrative	2
2.1 Block 8: Project Description	2
2.2 Block 9: Project Purpose and Need	9
3. Additional Information	12
3.1 Threatened or Endangered Species	12
3.1.1 U.S. Fish and Wildlife Service Endangered Species	12
3.1.2 Illinois Department of Natural Resources (IDNR)	13
3.2 Historical Properties	13
3.3 Soil Erosion and Sedimentation Control Measures	13
 Appendix A Joint Permit Application	
Appendix B Permit Application Drawings	
Appendix C USACE Approved Jurisdictional Determination LRC-2021-00160	
Appendix D IDNR EcoCAT Review Results	

Tables

Table 3.1: Federal-listed Threatened and Endangered Species Determination	12
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Figures

Figure ES.1: Plan of Existing Conditions	iii
Figure ES.2: Plan of Proposed Improvements (Wier Bridge)	iv
Figure ES.3: Plan of Proposed Improvement (North Outfall).....	v

Figure ES.4: Plan of Proposed Improvement (South Outfall) vi

Figure ES.5: Overall Layout (Water Intake Screen) vii

Figure 2.1: Shoreline Infrastructure Repair Project Location 2

Figure 2.2: Water Intake Cap Replacement Project Location..... 3

Figure 2.3: Plan of Existing Conditions 4

Figure 2.4: Plan of Proposed Improvements (Wier Bridge) 6

Figure 2.5: Plan of Proposed Improvements (North Outfall)..... 7

Figure 2.6: Plan of Proposed Improvements (South Outfall) 8

Figure 2.7: Example water quality structure by Contech..... 9

Figure 2.8: Proposed bridge design..... 10

Figure 2.9: Intake Screen Concept for Increasing Screen Area 11

Figure 3.1: Temporary Mobile Sheet Pile Cofferdam System (Acotec) 14

1. Introduction

The information presented in this document is provided as supplemental material in support of a completed Joint Permit Application (JPA) for shoreline infrastructure repairs being proposed to the Northwestern University (NU) Evanston campus Lake Michigan shoreline.

Below is a summary of information provided within each section of this document:

- Section 2: Project Narrative (narrative for JPA form Blocks 8-9)
- Section 3: Additional Information (threatened or endangered species, wetland delineation, historic properties, soil erosion and sedimentation control measures)

In addition, the following is included with this document, as appendices:

- Appendix A: Completed JPA form
- Appendix B: Permit Application Drawings:
- Appendix C: Wetland Delineation
- Appendix D: IDNR EcoCAT Review Results

A pre-application meeting with representatives from the Illinois Department of Natural Resources (IDNR) and Illinois Environmental Protection Agency (IEPA) was held on July 25, 2023. A separate pre-application meeting with a representative from the United States Army Corps of Engineers (USACE) was held on July 28, 2023. The proposed project was presented during these pre-application meetings to gather information and feedback from regulatory agencies regarding the permit application process and required permits.

JPA authorization is requested under the following Nationwide Permits (NWP):

- Shoreline Infrastructure Repairs
 - Stormwater outfall improvements: NWP 7 – Outfall structures and Associated Intake Structures & NWP 33 – Temporary Construction , Access, & Dewatering
 - Weir bridge improvements: NWP 42 – Recreational Facilities
- Water Intake Cap Replacement – NWP 58 – Utility Line Activities for Water and Other Substances

2. Project Narrative

As noted, a completed JPA form for the proposed improvements is attached to this document (Appendix A). Refer to the completed JPA form for Blocks 1-7 & 10-18. Information provided herein has been organized to supplement JPA form Blocks 8 & 9.

2.1 Block 8: Project Description

The Northwestern University (NU) campus is located along the shores of Lake Michigan in Evanston, Illinois. The objective of this project is to repair or improve several shoreline infrastructure components at select locations along the NU campus shoreline, as shown in Figure 2.1, and replace a water intake cap offshore of the campus, as shown in Figure 2.2.

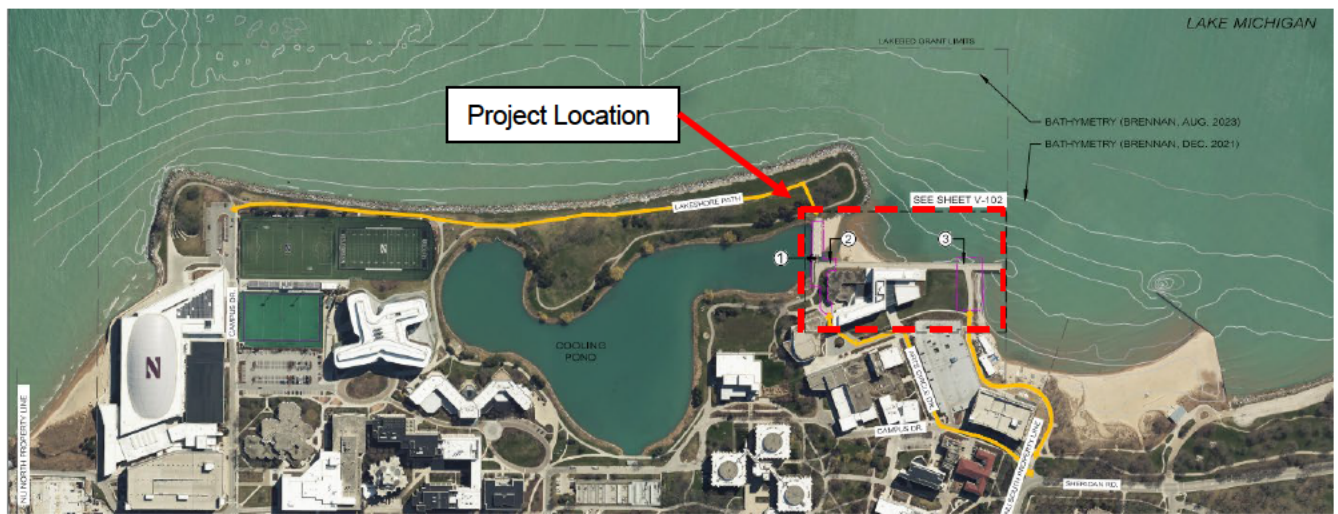


Figure 2.1: Shoreline Infrastructure Repair Project Location

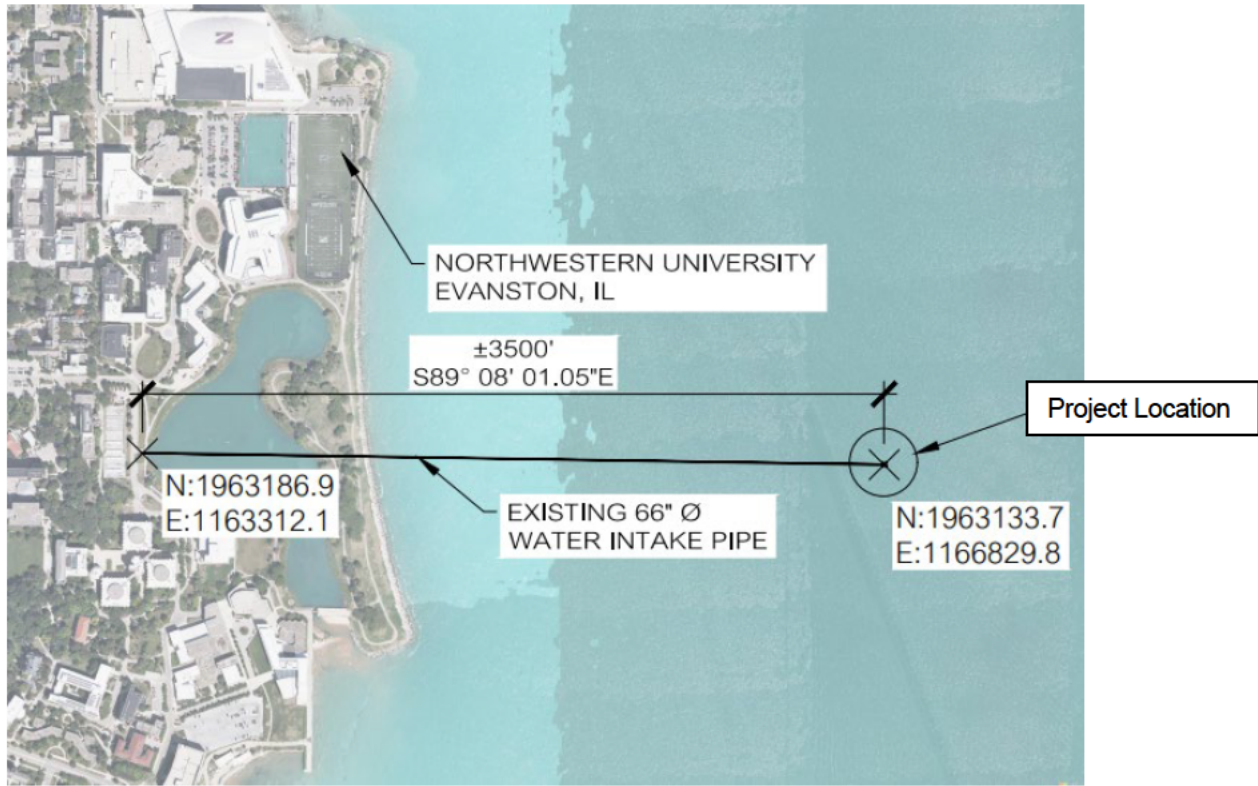
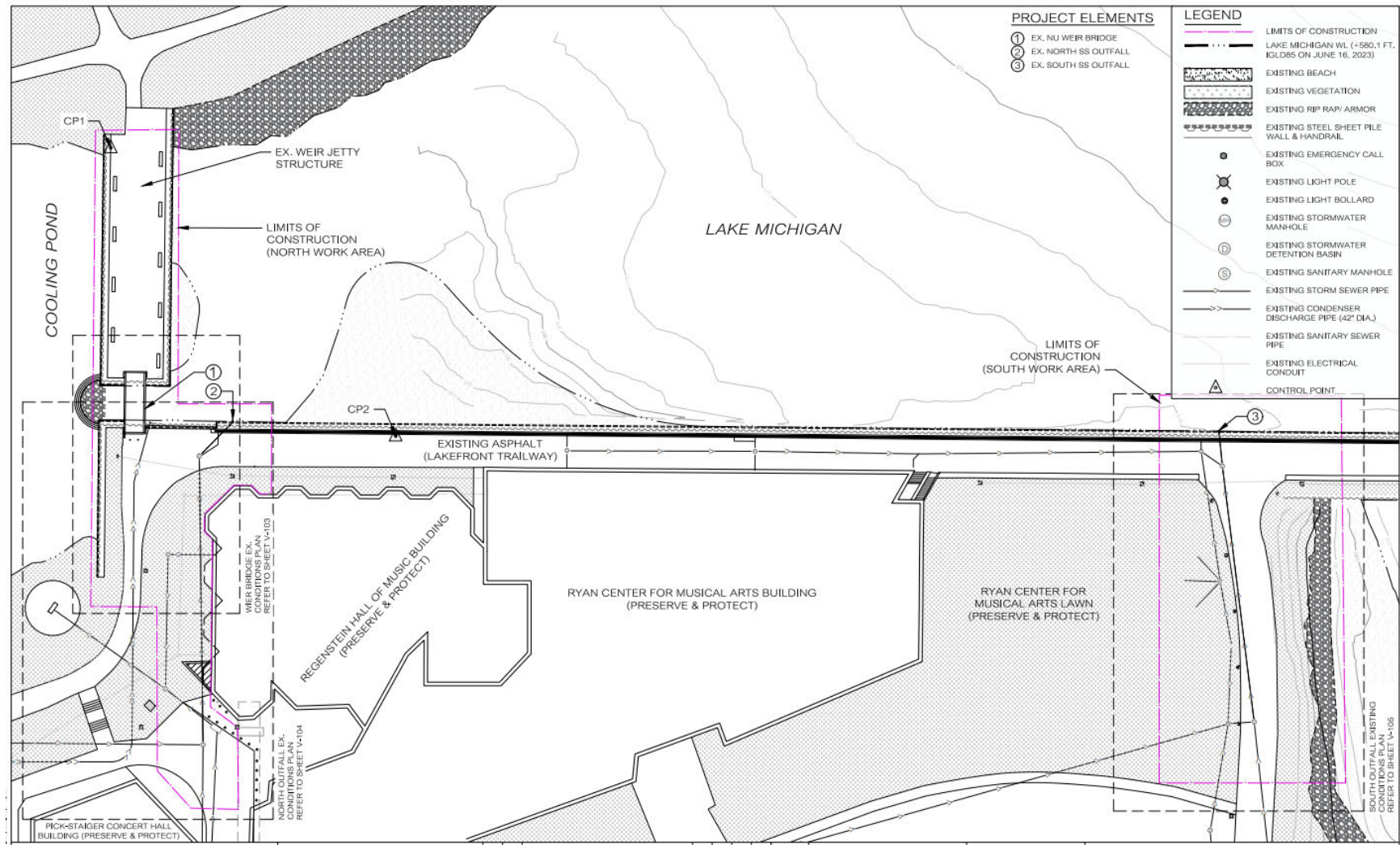


Figure 2.2: Water Intake Cap Replacement Project Location

The project location currently consists of an existing weir bridge that can only accommodate pedestrians and bicyclists, two existing 48-inch diameter corrugated metal stormwater outfalls located along the steel sheet pile bulkhead structure, and an existing intake pipe that extends approximately 3500 ft offshore. An overview plan of the existing conditions for the project area is shown in Figure 2.3.



The weir bridge is not capable of accommodating emergency vehicles. The two 48-inch corrugated metal stormwater outfalls experience sedimentation and since the metal pipes are more than 50 years old, they have severely deteriorated. The current configuration of the intake structure screens does not allow the system to meet the Section 316(b) of the Clean Water Act (40 CFT 125 Subpart J).

The overall objective of this project is to improve select shoreline infrastructure components for this area of the NU campus and provide long-term robust solutions that will prolong the life of the infrastructure, enhance public safety and comply with environmental regulations. Individual element improvements to accomplish the overall project objective include:

1. Replace the existing weir bridge to allow for emergency vehicular loading and access;
2. Replace the corrugated metal outfall pipes with a reinforced concrete stormwater pipe between the existing outfall and manholes. Stormwater treatment structures will be added to each outfall.
3. Replacing the intake screens with the new proposed design that provides greater surface area resulting in a reduced intake velocity at the structure to meet IEPA permit requirements.

An overview plan of the proposed shoreline conditions is shown in the figures below (Figure 2.4 through Figure 2.6). The purpose and need of the project/ individual element improvements is provided in the following section of this document.

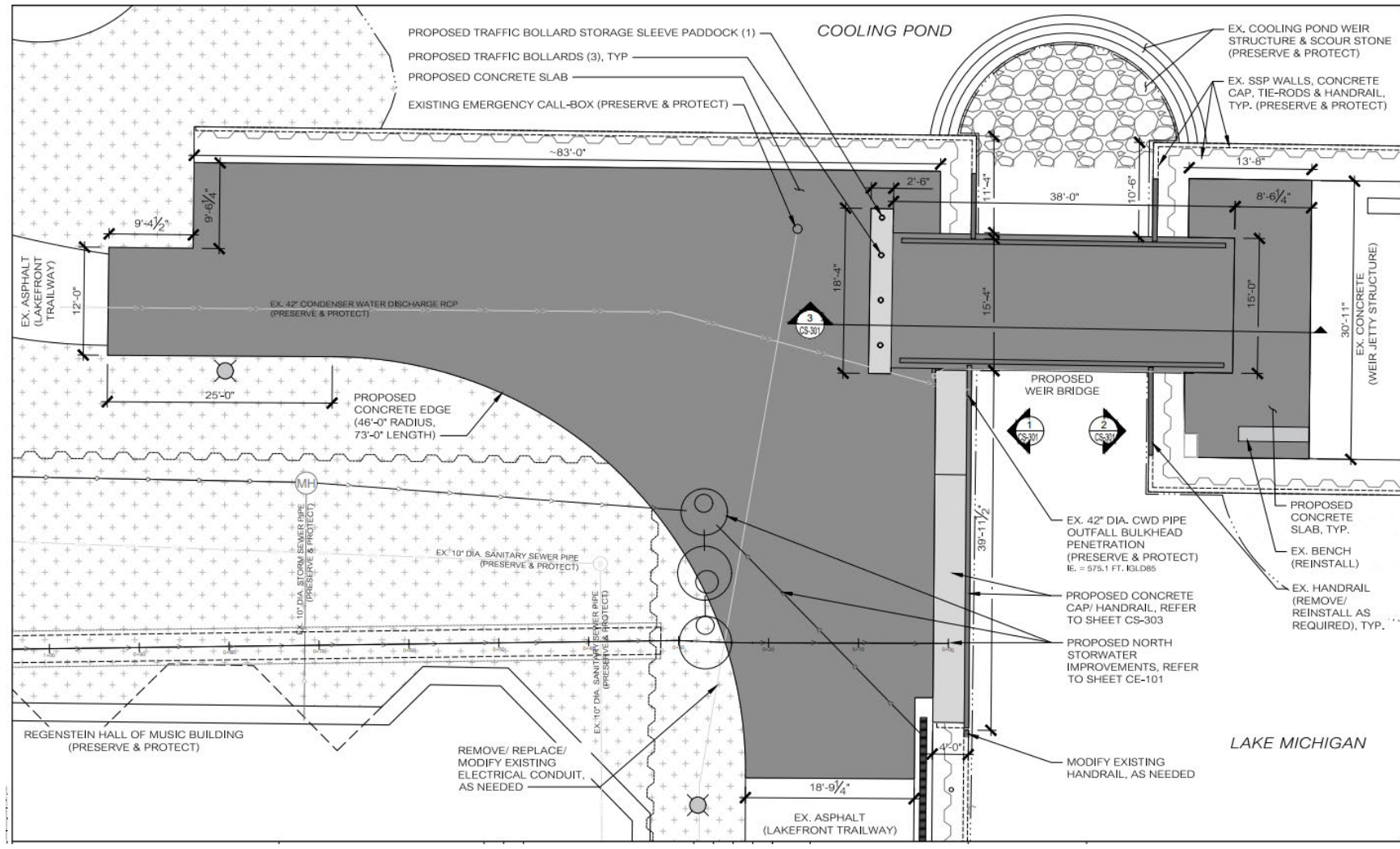


Figure 2.4: Plan of Proposed Improvements (Wier Bridge)

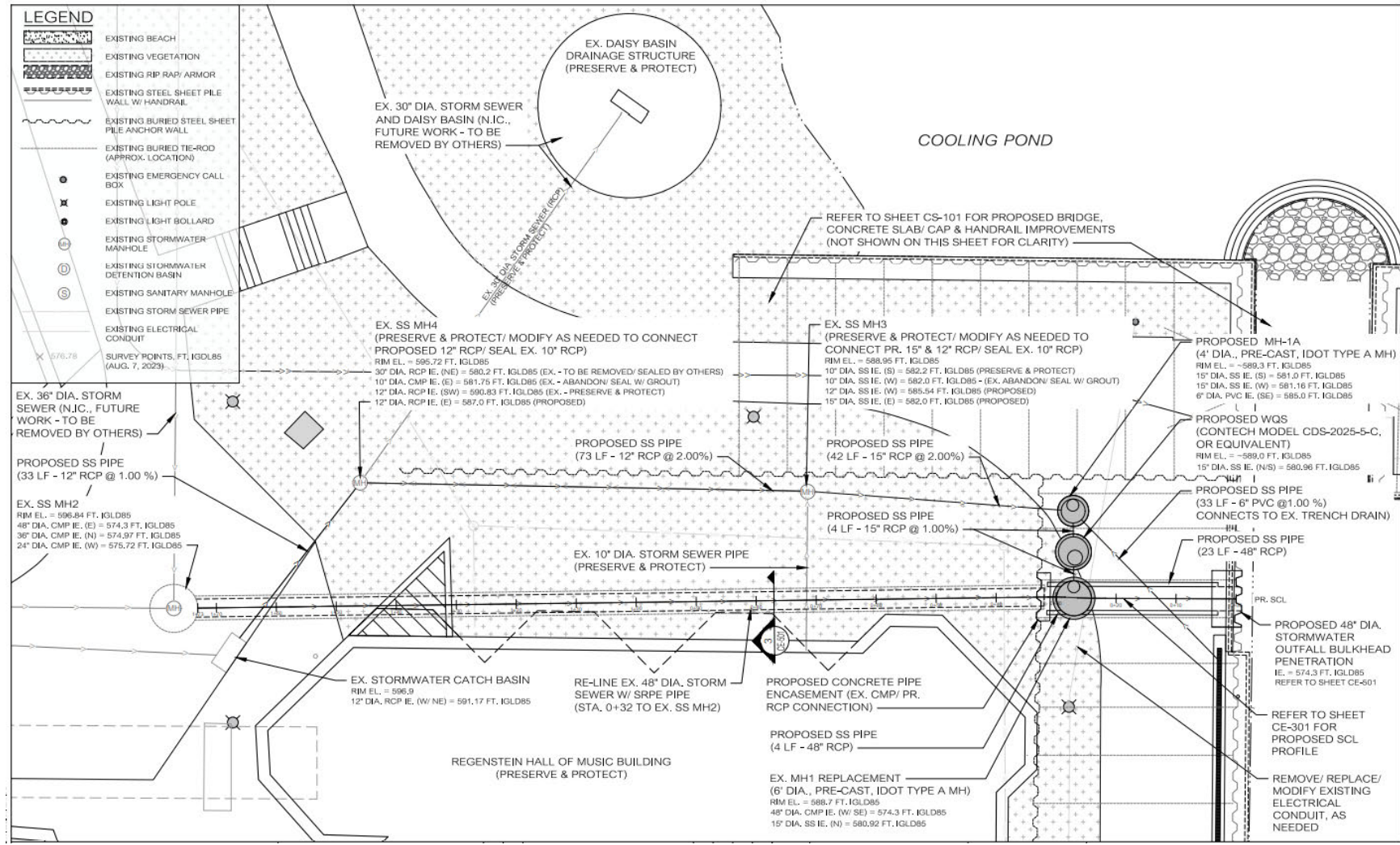


Figure 2.5: Plan of Proposed Improvements (North Outfall)

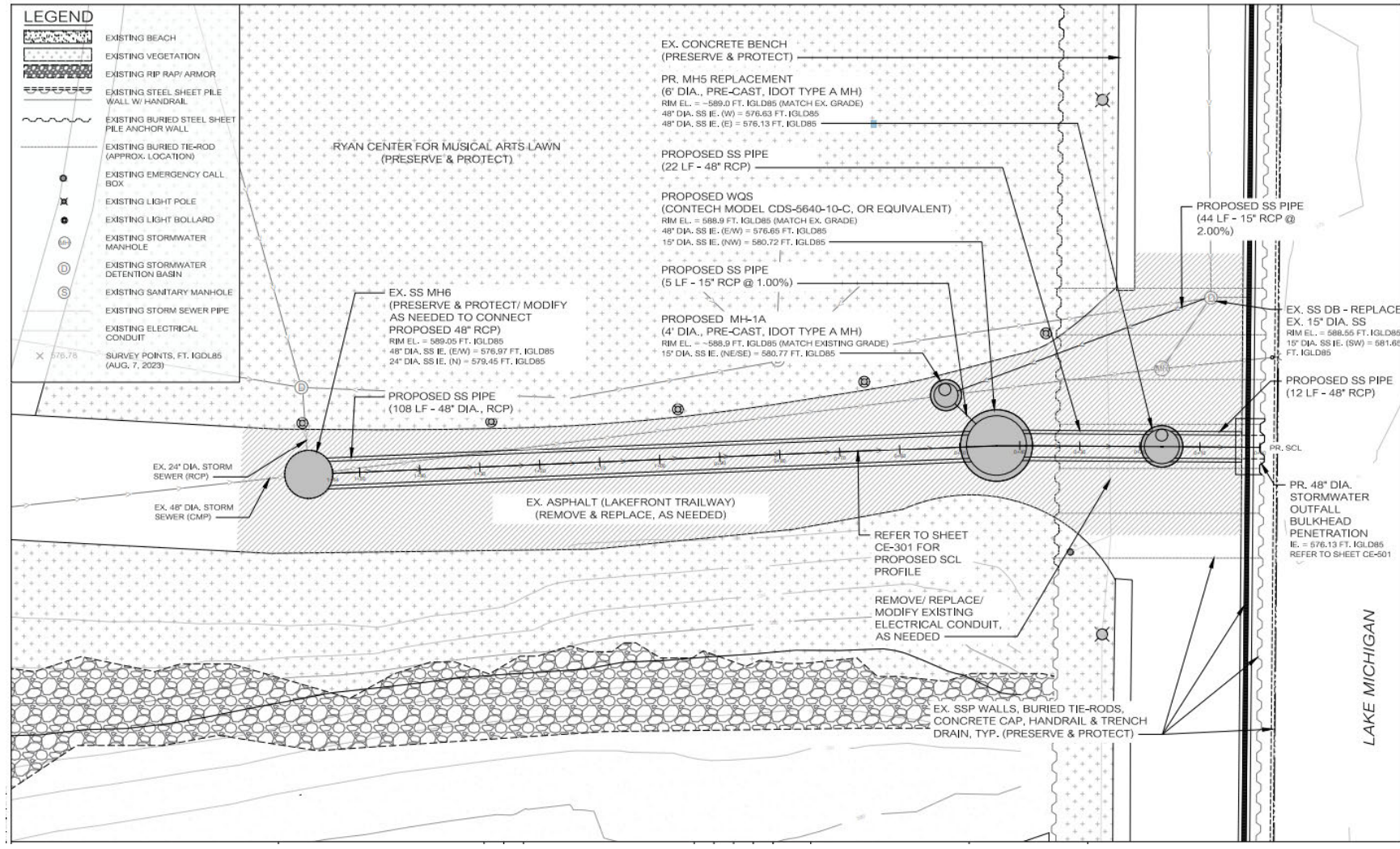


Figure 2.6: Plan of Proposed Improvements (South Outfall)

2.2 Block 9: Project Purpose and Need

The overall objective of this project is to improve existing shoreline infrastructure along Northwestern's Evanston Campus and at the offshore intake structure by replacing inadequate or deteriorated infrastructure elements to enhance performance efficiency and user safety. As shown in Figure 2.4, Figure 2.5, and Figure 2.6, proposed improvements include:

1. Reinforced concrete pipe outfalls;
2. Weir bridge; and
3. Intake Screens.

The purpose and need for these elements are discussed below.

Reinforced Concrete Pipe Outfalls:

The existing corrugated metal pipes are more than 50 years old and severely deteriorated. Additionally, sedimentation has been observed at each of the two outfalls, resulting in a reduced discharge capacity. Replacing the corrugated metal pipes with a reinforced concrete pipe will extend the life of the stormwater system infrastructure. The existing outfalls will be removed or sealed. The replacement outfalls will be located adjacent to the existing, with similar invert elevations and diameter (i.e. 48"). If needed, a portion of the existing north outfall pipe may be sliplined. Water quality structures (WQS) will be installed upstream of the outfalls to catch debris before it enters Lake Michigan, further improving the performance of the system. NU will perform maintenance cleaning of the WQS per manufacturers recommendations, at a minimum.

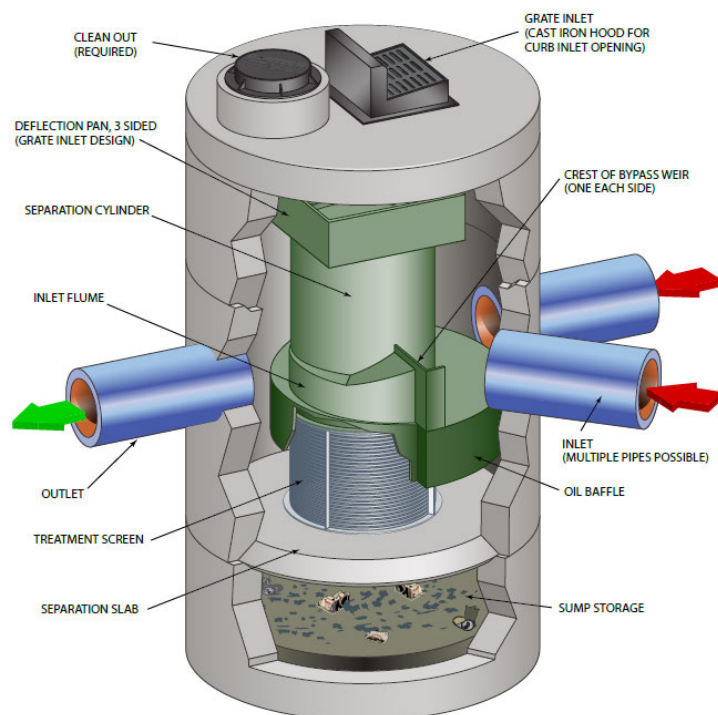


Figure 2.7: Example water quality structure by Contech

Weir Bridge:

The existing weir bridge is not capable of accommodating vehicular traffic. Emergency and service vehicles can only access the peninsula from the north. To improve access and safety, the weir bridge is being replaced completely with a new wider structure with an increased design load that will be capable of accommodating emergency vehicles. The bridge would span the same length as the existing bridge, but new foundations would be required. Note, all bridge supports (abutment, piling, beams, etc.) will be placed landward of the existing steel sheet pile bulkhead and will not impact/ come into contact with the existing lakebed/ waters that it will span over.

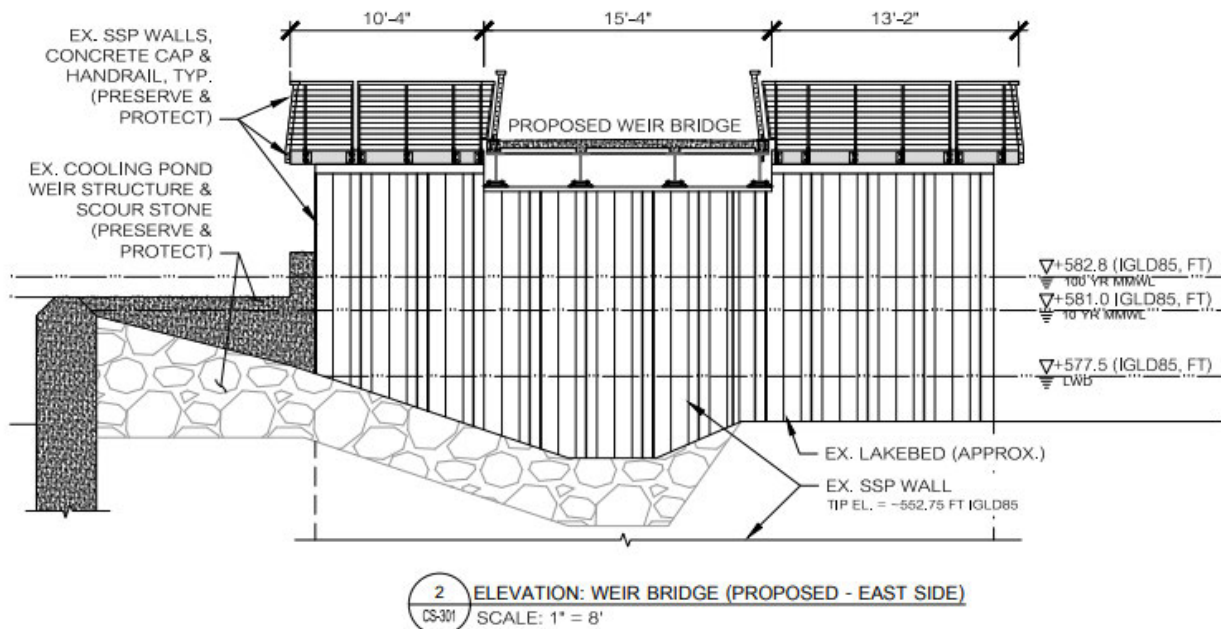


Figure 2.8: Proposed bridge design

Intake Screens:

Section 316(b) of the Clean Water Act (40 CFT 125 Subpart J) stipulates that the water intake velocities through the intake cones must not exceed 0.5 ft/s. A review by NU Infrastructure Planning Operations in 2019 provided information regarding the existing flow rates and velocities. This data suggested that when four units are operating, which is reported as being about 10% of the year, the intake current speeds are above the 0.5 ft/s threshold stipulated in the permit. In order to meet the NPDES permit regulations (No. IL0066541), a modification to the intake screens is proposed. The proposed design includes increasing the area of the screen, thereby reducing the through-screen velocity. Under normal conditions (i.e. no ice blockage), analysis results indicated that the proposed screen modification would drop the average velocity to 25% of the existing speed. During a semi-blocked conditions (i.e. if frazzle ice covers the top of the intake structure) the proposed option would drop the average velocity to 50% of the existing speed. As such, raising the screen's position and providing additional surface area around the perimeter of the intake is an effective manner to reduce the velocity below 0.5 ft/s. This screen modification would be applied to all four cones.

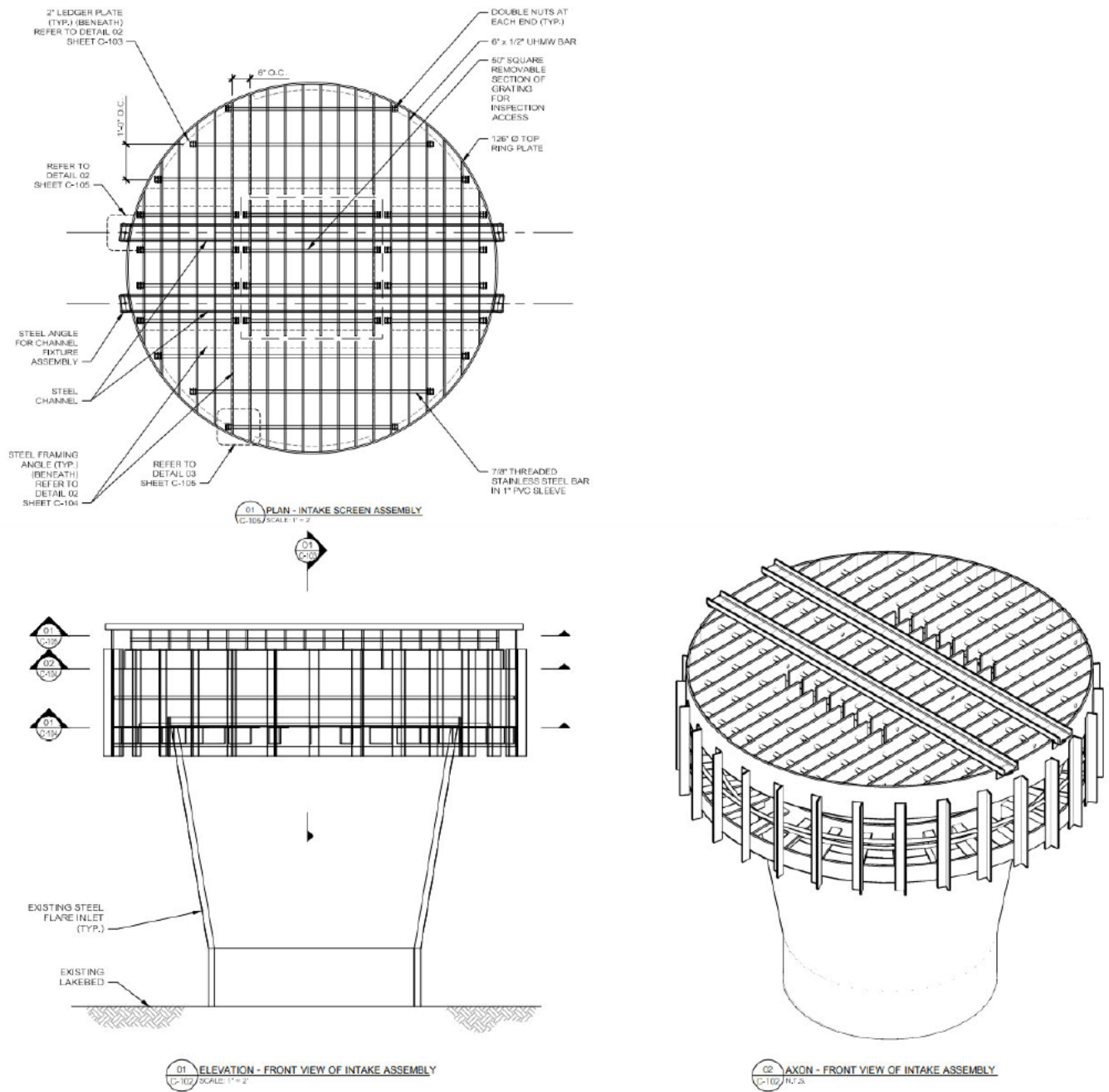


Figure 2.9: Intake Screen Concept for Increasing Screen Area

3. Additional Information

Additional analyses were undertaken to support the permit application, as summarized below.

3.1 Threatened or Endangered Species

3.1.1 U.S. Fish and Wildlife Service Endangered Species

The endangered species list with the U.S. Fish and Wildlife Service Endangered Species Program was reviewed for Cook County, Illinois as part of the permit process. The species list identified for Cook County is provided in Table 3.1. Preliminary effects determination on the identified species is “No Effect” because suitable habitat is not present (disturbed upland areas consist of existing hardscape paths and/ or lawn area).

Table 3.1: Federal-listed Threatened and Endangered Species Determination

Species	Status	Habitat	Preliminary Determination
Northern long-eared bat <i>Myotis septentrionalis</i>	Threatened Key to 4(d) Rule	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests and woods.	No Effect – Covered under the 4(d) rule
Piping plover <i>Charadrius melodus</i>	Endangered	Lakeshore beaches	No Effect – habitat is not present.
Eastern massasauga <i>Sistrurus catenatus</i>	Threatened	Graminoid dominated plant communities (fens, sedge meadows, peatlands, wet prairies, open woodlands, and shrublands)	No Effect – habitat is not present
Rufa Red knot <i>Calidris canutus rufa</i>	Threatened	Only actions that occur along coastal areas or large wetland complexes during migratory window of May 1 - September 30	No Effect – habitat is not present.
Hine’s emerald dragonfly <i>Somatochlora hineana</i>	Endangered	Spring fed wetlands, wet meadows and marshes	No Effect – habitat is not present
Hine’s emerald dragonfly <i>Somatochlora hineana</i>	Critical Habitat Designated	Cool shallow, slow moving waters (usually only several centimeters deep), spring-fed marshes, and seepage sedge meadows.	No Effect – habitat is not present
Rattlesnake-master borer moth <i>Papaipema eryngii</i>	Candidate	Undisturbed prairie and woodland openings that contain their only food plant, rattlesnake-master (<i>Eryngium yuccifolium</i>).	No Effect – habitat is not present
Rusty patched bumble bee <i>Bombus affinis</i>	Endangered	Grasslands with flowering plants from April through October, underground and abandoned rodent cavities or clumps of grasses above ground as	No Effect – habitat is not present

Species	Status	Habitat	Preliminary Determination
		nesting sites, and undisturbed soil for hibernating queens to overwinter.	
Eastern prairie fringed orchid <i>Platanthera leucophaea</i>	Threatened	Moderate to high quality wetlands, sedge meadow, marsh, and mesic to wet prairie	No Effect – habitat is not present
Leafy-prairie clover <i>Dalea foliosa</i>	Endangered	Prairie remnants on thin soil over limestone	No Effect – habitat is not present
Mead's milkweed <i>Asclepias meadii</i>	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil	No Effect – habitat is not present
Prairie bush clover <i>Lespedeza leptostachya</i>	Threatened	Dry to mesic prairies with gravelly soil	No Effect – habitat is not present

3.1.2 Illinois Department of Natural Resources (IDNR)

An EcoCAT consultation was performed in the vicinity to identify if any protected natural resource could be affected by the proposed project. The consultation concluded that adverse effects are unlikely (see Appendix D).

3.2 Historical Properties

The project has no potential to affect historic properties, as defined by the National Register of Historic Places. In addition, after consulting the Historic and Architectural Resources Geographic Information System (HARGIS), it appears that there are no significant cultural resources or landforms within the project area.

3.3 Soil Erosion and Sedimentation Control Measures

Soil Erosion and Sedimentation Control measures proposed for this work are summarized on Permit Drawings G-003 and C-102.

The construction of the outfall penetrations may require a temporary cofferdam and dewatering system. The proposed temporary cofferdam will consist of a temporary sheet pile cofferdam bulkhead installed on the lakeside of the sheet pile bulkhead, similar to the system illustrated in Figure 3.1. The dewatering procedures will follow the Illinois Urban Manual Practice Standards including the use of a sediment filtration bag to prevent the discharge of sediment into Lake Michigan. The Contractor will be responsible for the final means and methods for the cofferdam and dewatering system.



Figure 3.1: Temporary Mobile Sheet Pile Cofferdam System (Acotec)



Appendix A

Joint Permit Application

JOINT APPLICATION FORM FOR ILLINOIS

ITEMS 1 AND 2 FOR AGENCY USE

1. Application Number	2. Date Received
-----------------------	------------------

3. and 4. (SEE SPECIAL INSTRUCTIONS) NAME, MAILING ADDRESS AND TELEPHONE NUMBERS

3a. Applicant's Name: David Stone Company Name (if any): Northwestern University Address: 2020 Ridge Avenue, Suite 250, Evanston, IL 60208 Email Address:	3b. Co-Applicant/Property Owner Name (if needed or if different from applicant): Company Name (if any): Address: Email Address:	4. Authorized Agent (an agent is not required): Rory Agnew Company Name (if any): W.F. Baird & Associates Ltd. Address: 2924 Marketplace Dr., Suite 200, Madison, WI 53719 Email Address:
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Applicant's Phone Nos. w/area code Business: 0 Residence: 0 Cell: Fax:	Applicant's Phone Nos. w/area code Business: Residence: Cell: Fax:	Agent's Phone Nos. w/area code Business: Residence: Cell: 608-320-8400 Fax:
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STATEMENT OF AUTHORIZATION

I hereby authorize, Rory Agnew to act in my behalf as my agent in the processing of this application and to furnish, upon request, confidential information in support of this permit application.

Date: March 15, 2024

5. ADJOINING PROPERTY OWNERS (Upstream and Downstream of the water body and within Visual Reach of Project)

Name	Mailing Address	Phone No. w/area code
a. See permit drawings (sheet V-109)		
b.		
c.		
d.		

6. PROJECT TITLE:
 Northwestern University Shoreline Infrastructure Repairs

7. PROJECT LOCATION:
 Northwestern University, Evanston Campus

LATITUDE: 42.05245 °N LONGITUDE: 87.67110 °W	UTM's Northing: 4655817.56 Easting: 444466.63										
STREET, ROAD, OR OTHER DESCRIPTIVE LOCATION	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">LEGAL DESCRIPT</th> <th style="width: 15%;">QUARTER</th> <th style="width: 15%;">SECTION</th> <th style="width: 15%;">TOWNSHIP NO.</th> <th style="width: 15%;">RANGE</th> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">18</td> <td style="text-align: center;">41N</td> <td style="text-align: center;">14E</td> </tr> </table>	LEGAL DESCRIPT	QUARTER	SECTION	TOWNSHIP NO.	RANGE			18	41N	14E
LEGAL DESCRIPT	QUARTER	SECTION	TOWNSHIP NO.	RANGE							
		18	41N	14E							
<input checked="" type="checkbox"/> IN OR <input type="checkbox"/> NEAR CITY OF TOWN (check appropriate box) Municipality Name Evanston	WATERWAY Lake Michigan										
COUNTY: Cook STATE: IL ZIP CODE: 60208	RIVER MILE (if applicable)										

8. PROJECT DESCRIPTION (Include all features):

See Permit Application Supplemental Information.

9. PURPOSE AND NEED OF PROJECT:

See Permit Application Supplemental Information.

COMPLETE THE FOLLOWING FOUR BLOCKS IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

10. REASON(S) FOR DISCHARGE:

The proposed plan will not require the placement of material lake-ward of the OHWM (i.e., discharge).

11. TYPE(S) OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS FOR WATERWAYS:

TYPE: N/A

AMOUNT IN CUBIC YARDS:

N/A

12. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED (See Instructions)

N/A

13. DESCRIPTION OF AVOIDANCE, MINIMIZATION AND COMPENSATION (See instructions)

N/A - The proposed plan will not require the placement of material lake-ward of the OHWM (i.e., discharge).

14. Date activity is proposed to commence

Summer 2024

Date activity is expected to be completed

Spring 2025

15. Is any portion of the activity for which authorization is sought now complete?

Yes

No

Month and Year the activity was completed

NOTE: If answer is "YES" give reasons in the Project Description and Remarks section. Indicate the existing work on drawings.

16. List all approvals or certification and denials received from other Federal, interstate, state, or local agencies for structures, construction, discharges or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
MWRD	WMO Permit	TBD	March 14, 2024	In Progress	
City of Evanston	Building, Electrical, Stormwater Control	TBD	March 14, 2024	In Progress	

17. CONSENT TO ENTER PROPERTY LISTED IN PART 7 ABOVE IS HEREBY GRANTED.

Yes No

18. APPLICATION VERIFICATION (SEE SPECIAL INSTRUCTIONS)

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and that to the accurate. I further certify that I possess the authority to undertake the proposed

March 15, 2024

Date

Signature of Applicant or Authorized Agent

Date

Signature of Applicant or Authorized Agent

Date

- Corps of Engineers Revised 2010
 IL Dep't of Natural Resources
 IL Environmental Protection Agency
 Applicant's Copy

SEE INSTRUCTIONS FOR ADDRESS

LOCATION MAP

See permit drawings (sheet G-001 and V-101).



Revised 2010

Corps of Engineers

IL Dep't of Natural Resources

IL Environmental Protection Agency

Applicant's Copy

PLAN VIEW

sheet C-101).



FOR AGENCY USE ONLY

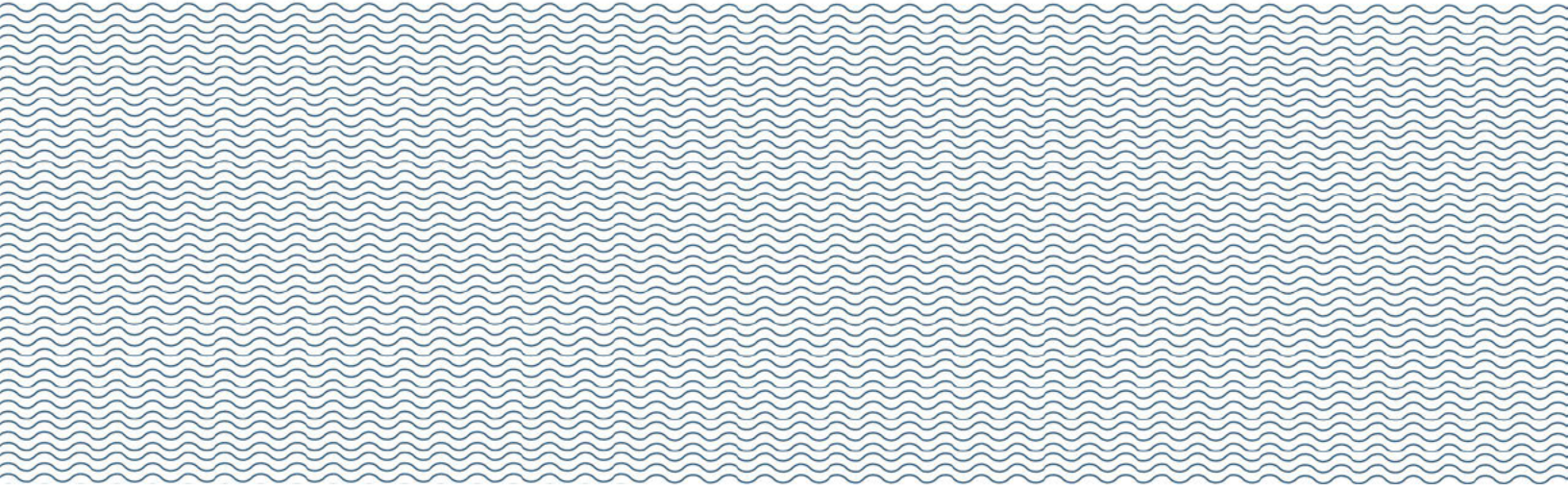
Revised 2010

Corps of Engineers

IL Dep't of Natural Resources

IL Environmental Protection Agency

Applicant's Copy

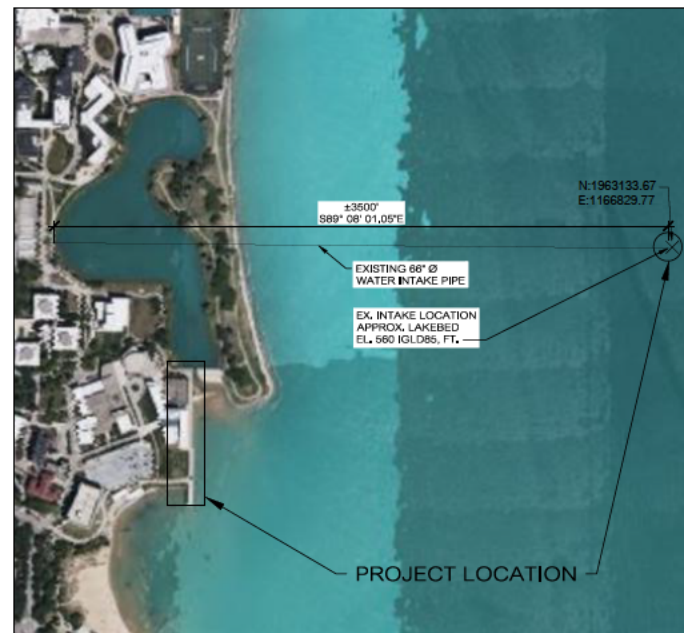


Appendix B

Permit Application Drawings

NORTHWESTERN UNIVERSITY SHORELINE INFRASTRUCTURE REPAIRS

PERMIT DRAWINGS



PROJECT LOCATION
NORTHWESTERN UNIVERSITY
EVANSTON, IL

Sheet Number	Sheet Title
G-001	TITLE SHEET
G-002	GENERAL NOTES
G-003	MWRD GENERAL NOTES
V-101	EXISTING CONDITIONS - NU EVANSTON CAMPUS
V-102	EXISTING CONDITIONS (PROJECT AREA)
V-103	EXISTING CONDITIONS (WEIR BRIDGE)
V-104	EXISTING CONDITIONS (NORTH OUTFALL)
V-105	EXISTING CONDITIONS (SOUTH OUTFALL)
V-106	SITE PHOTO MAP
V-107	SITE PHOTOS (SHEET 1 OF 2)
V-108	SITE PHOTOS (SHEET 2 OF 2)
V-109	ADJACENT PROPERTY OWNERS
V-301	EXISTING CONDITIONS SECTIONS (WEIR BRIDGE)
V-302	EXISTING CONDITIONS SECTIONS (OUTFALLS)
C-101	PROPOSED IMPROVEMENTS PLAN
C-102	SITE PREPARATION AND SESC PLAN
C-103	DEMOLITION PLAN (WEIR BRIDGE)
C-104	DEMOLITION PLAN (NORTH OUTFALL)
C-105	DEMOLITION PLAN (SOUTH OUTFALL)
C-601	SOIL EROSION AND SEDIMENT CONTROL (SESC) DETAILS
CS-101	WEIR BRIDGE REPLACEMENT PLAN
CS-301	WEIR BRIDGE SECTIONS
CE-101	NORTH OUTFALL PLAN
CE-102	SOUTH OUTFALL PLAN
CE-301	STORMWATER OUTFALL SECTIONS
CE-501	WATER QUALITY STRUCTURE DETAILS
CE-502	MANHOLE DETAILS
CI-101	PROPOSED INTAKE CAP LAYOUT
CI-301	PROPOSED INTAKE CAP DETAILS
CI-302	PROPOSED INTAKE CAP DETAILS
CI-303	PROPOSED INTAKE CAP DETAILS
CI-304	INTAKE CAP DETAILS

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2020 RIDGE AVENUE
EVANSTON, IL 60208

Northwestern
University

Contact the Metropolitan
Water Reclamation District
of Greater Chicago 2 days
before starting work.
☎ (708) 588-4055
✉ WMOJobStart@mwrdd.org

PERMIT DRAWINGS
NOT FOR CONSTRUCTION

SHEET NUMBER: G-001

ISSUE DATE: 2024-03-14

GENERAL NOTES

- CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID FOR THE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER (BAIRD & ASSOCIATES) TO GAIN ACCESS TO THE SITE.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THESE DRAWINGS AND THE PROJECT SPECIFICATIONS. NOTES BELOW ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. DO NOT SCALE PROJECT DRAWINGS. REPORT ANY DISCREPANCIES IN THE CONSTRUCTION DRAWINGS AND/OR SPECIFICATIONS TO THE ENGINEER FOR CLARIFICATIONS OR ADJUSTMENTS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOT BEGIN DEMOLITION/CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
- SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, CONSTRUCTION DRAWINGS, AND/OR SPECIFICATIONS, THE MOST RESTRICTIVE INTERPRETATION SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE ENGINEER ANY CLARIFICATION OR INTERPRETATION OF THE GENERAL NOTES, CONSTRUCTION DRAWINGS, AND/OR SPECIFICATIONS IN WRITING AND IN ADVANCE OF THE BEGINNING OF DEMOLITION/CONSTRUCTION. NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERCEDE ANY DISCREPANCY IN THE SCALING ON THE CONSTRUCTION DRAWINGS.
- METHODS OF DEMOLITION/CONSTRUCTION AND INSTALLATION OF MATERIAL IS THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS, AND REGULATIONS, AND ADHERE TO ALL PERMIT CONDITIONS.
- THE CONTRACTOR SHOULD BE AWARE THAT THE PROJECT DATUM IS INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85) FOR ALL CONSTRUCTION. HOWEVER PREVIOUS WORK AT THIS SITE MAY HAVE BEEN BASED ON DIFFERENT DATUMS, CAUTION SHOULD BE USED IF PREVIOUS PLANS ARE USED FOR ELEVATION REFERENCE AT THE SITE.
- THE CONTRACTOR SHALL CONSIDER AND PLAN FOR, ON A DAILY BASIS, THE EFFECT OF WATER LEVEL FLUCTUATIONS AND WEATHER IN THE EXECUTION OF THE WORK.
- CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY AND DRAWINGS OF COMPLETED WORK TO THE ENGINEER.

SITE PREPARATION & DEMOLITION

- EXISTING CONSTRUCTION, INCLUDING UTILITIES AND OTHER MISCELLANEOUS ITEMS WHICH ARE TO REMAIN, SHALL BE PRESERVED AND PROTECTED, UNLESS NOTED OTHERWISE. ALL BUILDINGS, SURFACE, AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THE PROJECT SITE ARE NOT NECESSARILY SHOWN HEREON.
- THE ACCURACY OF EXISTING UTILITIES, BULKHEADS, BUILDINGS, AND OTHER STRUCTURES SHOWN ON PLANS ARE NOT GUARANTEED. ACTUAL FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF MATERIALS, ORDERING MATERIALS, OR PERFORMING WORK. ANY DISCREPANCIES FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF WORK.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN IN THE CONSTRUCTION DRAWINGS ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL EXISTING KNOWN UNDERGROUND UTILITIES BEFORE COMMENCING ANY WORK. THE CONTRACTOR SHALL CONTACT 'JULIE BEFORE YOU DIG' (TEL. 800-892-0123) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION TO VERIFY LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO ORDERING MATERIALS, EXCAVATING OR DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF DAMAGES THAT OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UTILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, ANY AND ALL DAMAGES THAT MAY OCCUR OUTSIDE AND WITHIN THE LIMITS OF CONSTRUCTION AS A RESULT OF DEMOLITION/CONSTRUCTION. ALL AREAS DISTURBED DURING DEMOLITION/CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT NO EXPENSE TO THE OWNER, UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL, ON A DAILY BASIS, REMOVE FROM THE SITE ANY DEBRIS RESULTING FROM DEMOLITION/CONSTRUCTION. DISPOSAL OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL MATERIALS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED, AND SHALL BE DISPOSED OF AS SPECIFIED. ALL DEBRIS SHALL BE PROPERLY DISPOSED OF IN A PERMITTED LANDFILL. THE CONTRACTOR SHALL KEEP RECORDS OF ALL MATERIALS REMOVED FROM THE SITE, INCLUDING DESCRIPTION, QUANTITIES, AND DISPOSAL LOCATION.
- THE CONTRACTOR SHALL STAKEOUT ALL BASELINES OF CONSTRUCTION, THE LOCATION OF ALL NEW CONSTRUCTION, AND VERIFY ALL SETBACKS, OFFSETS, AND CLEARANCES PRIOR TO THE START OF WORK.
- THE CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIERS AND SHALL PLACE CONSTRUCTION DEBRIS CONTROL DEVICES, TURBIDITY CURTAINS, BOOMS, TARPULINS, FLOATS, STAGING, AND OTHER DEVICES AS NECESSARY TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE WATER AND AIRBORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. IF, IN THE OPINION OF NORTHWESTERN UNIVERSITY (NU) AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE BEING TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH FROM TRAVELWAYS TO THE SATISFACTION OF THE CLIENT AND/OR LOCAL AUTHORITIES.
- ALL EXCAVATION, TRENCHING, SHEETING, SHORING AND BRACING SHALL BE INSTALLED AS REQUIRED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING O.S.H.A.

TRAFFIC CONTROL & SITE ACCESS

- THE CONTRACTOR SHALL CONDUCT OPERATIONS SO AS TO NOT INTERFERE WITH OR BE DETRIMENTAL TO PEDESTRIAN AND VEHICULAR TRAFFIC DURING THE COURSE OF THE WORK.
- WHERE PEDESTRIAN AND DRIVER SAFETY IS ENDANGERED IN THE AREA OF DEMOLITION/CONSTRUCTION WORK, USE TRAFFIC BARRICADES ('JERSEY' TYPE BARRIERS) WITH FLASHING LIGHTS. BARRICADES SHALL BE POSITIONED A MINIMUM OF 5 FEET FROM THE EDGE OF ANY OPENINGS IN THE STRUCTURE RESULTING FROM DEMOLITION/CONSTRUCTION ACTIVITIES.
- CONTRACTOR TO INSTALL TEMPORARY WARNING SIGNS ALERTING THE PUBLIC TO CONSTRUCTION ACTIVITY APPROXIMATELY 50 FEET TO THE NORTH AND SOUTH OF ALL LOCATIONS WHERE CONTRACTOR WILL CROSS OR UTILIZE PUBLIC PEDESTRIAN/ BICYCLE PATHS AND SIDEWALKS (TRAILS) TO ACCESS THE WORK AREA. CONTRACTOR SHALL ALWAYS EMPLOY A FLAG-PERSON AT EACH CROSSING POINT WHENEVER CONTRACTOR'S ACTIVITIES REQUIRE CROSSING OR UTILIZING PUBLIC TRAILS. TRAILS SHALL REMAIN OPEN DURING CONSTRUCTION.
- CONTRACTOR SHALL ENSURE ALL CONSTRUCTION TRAFFIC ADHERES TO DESIGNATED CITY OF EVANSTON ROUTES.
- NO FULL-SIZE EXCAVATORS, HAUL TRUCKS OR OTHER MEDIUM-DUTY OR HEAVY-DUTY CONSTRUCTION EQUIPMENT ARE ALLOWED ON THE EXISTING WEIR JETTY STRUCTURE/ IMMEDIATELY ADJACENT TO THE EXISTING BULKHEAD. PROVIDE PROTECTION FOR PAVED AND CONCRETE SURFACES AND ANY OTHER ELEMENT SUCH AS RAILINGS, BENCHES OR PLANTINGS. ANY DAMAGES TO PAVED OR CONCRETE SURFACES, DEFINED AS COSMETIC, CRACKS, STAINS TIRE TREAD MARRING, SPALLING, OR DISPLACEMENT WILL REQUIRE REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF NU.

SURVEY NOTES

- HORIZONTAL DATA ARE IN UNITED STATES SURVEY FEET AND RELATIVE TO ILLINOIS STATE PLANE COORDINATE SYSTEM (SPCS) BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR ILLINOIS, EAST ZONE (1201), NORTH AMERICAN DATUM (NAD) OF 1983, 1990 ADJUSTMENT.
- VERTICAL DATA ARE IN FEET RELATIVE TO INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85). A VERTICAL DATUM CONVERSION CHART IS PROVIDED HEREIN.
- DIMENSIONS ARE IN FEET UNLESS NOTED OTHERWISE.
- AERIAL IMAGERY IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY, PROJECT AREA IMAGE OBTAINED BY BAIRD. IMAGERY DATE: JUNE, 2023.
- PROJECT IS LOCATED AT/ NEAR 1823 CAMPUS DR. EVANSTON, IL 60208
LAT: 42.05049n
LONG: -87.67221w
- ECD = EVANSTON CITY DATUM.
IGLD85 LWD @ NU = LOW WATER DATUM.
IGLD85 @ NU = INTERNATIONAL GREAT LAKES DATUM OF 1985.
NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988.

DATUM CONVERSION

GIVEN DATUM	TO CONVERT TO DATUM (FT)			
	ECD	IGLD85 LWD @ NU	IGLD85 @ NU	NAVD88
ECD		0.95	578.45	578.98
IGLD85 LWD @ NU	-0.95		577.5	578.03
IGLD85 @ NU	-578.45	-577.5		0.53
NAVD88	-579.98	-578.03	-0.53	

SURVEYS

- BATHYMETRIC SURVEY DATA COLLECTED BY J.F. BRENNAN COMPANY, INC. (BRENNAN) ON DEC. 8, 2021 AND AUGUST 8-9, 2023.
- TOPOGRAPHIC SURVEY DATA COLLECTED BY BRENNAN ON AUGUST 8-9, 2023.
- PROPERTY BOUNDARY SURVEY AND LAKEBED GRANT LIMITS SURVEY CONDUCTED BY GRIMLEY & BIEDERMANN ON JUN. 25, 2015.
- SITE/ UNDERGROUND UTILITY INFORMATION PROVIDED HEREIN IS BASED ON RECENT SURVEYS CONDUCTED BY HAEGER ENGINEERING ON MAY 11, 2020 AND GRIMLEY & BIEDERMANN ON NOV. 16, 2022. HISTORIC CONSTRUCTION DOCUMENTS USED TO FURTHER DEFINE/ LOCATE UNDERGROUND UTILITY INFORMATION INCLUDED 'REGENSTEIN HALL SCHOOL OF MUSIC' PREPARED BY S.O.M. (DATED 1976), 'SPEECH AND BLOCK BUILDING' PREPARED BY LOEBL SCHLOSSMAN & HACKL (DATED 1978), 'NORTHWESTERN UNIVERSITY PARKING STRUCTURE' PREPARED BY CONRAD ASSOCIATES (DATED 1980), 'NORTHWESTERN STUDIO BUILDING' PREPARED BY LOEBL SCHLOSSMAN & HACKL (DATED 1989) 'BLOCK PLAZA RESTORATION' PREPARED BY DANIEL CREANEY COMPANY (DATED 2000), AND 'BIENEN SCHOOL OF MUSIC NEW BUILDING' BY GOETTSCH PARTNERS (2014). NORTHWESTERN UNIVERSITY UTILITY GIS DATABASE WAS ALSO USED TO DEFINE/ LOCATE UNDERGROUND UTILITY INFORMATION.
- THE FOLLOWING IS A LIST OF SURVEY CONTROL BENCHMARKS (BRENNAN, 2023).
- CONTRACTOR TO VERIFY ALL SURVEY CONTROL MONUMENT DATA AND BENCHMARKS PRIOR TO PROCEEDING WITH PROJECT LAYOUT OR DESIGN WORK.

PROJECT & SURVEY CONTROL

- PROJECT CONTROL POINTS: CP-01, CP-02, CP-03.
- SURVEY MONUMENT: NGS CONTROL POINT NG0120.
- SEE SURVEY CONTROL CHART FOR PROJECT CONTROL & SURVEY MONUMENT DETAILS.
- PROTECT AND MAINTAIN SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.

SURVEY CONTROL			
NAD83 STATE PLANE ILLINOIS EAST, FT			
POINT	NORTHING	EASTING	ELEVATION (IGLD85, FT)
CP1	1962444.386	116270.316	589.73
CP2	1962285.858	1164110.225	588.68
NG0120	1963182.790	1163293.840	590.29

SIGNIFICANT FEATURES OF WORK

- WEIR BRIDGE
 - REMOVE, SALVAGE AND STORE EXISTING ELEMENTS PER DRAWINGS.
 - DEMO AND DISPOSE OF EXISTING ELEMENTS PER DRAWINGS.
 - FABRICATE AND INSTALL PROPOSED BRIDGE STRUCTURAL ELEMENTS.
 - CAST CONCRETE BRIDGE DECK, CONCRETE CAP, AND SLAB.
 - INSTALL HANDRAIL, UTILITIES, LIGHT FIXTURES, AND BENCHES.
- NORTH STORM SEWER OUTFALL
 - REMOVE, SALVAGE AND STORE EXISTING ELEMENTS PER DRAWINGS.
 - INSTALL TEMPORARY STORM SEWER DIVERSION(S), AS NEEDED.
 - DEWATER/INSPECT/ ASSESS CONDITION OF EX. 48" DIA. STORM SEWER.
 - SEAL/FILL EXISTING NORTH OUTFALL.
 - EXCAVATE, DEMO, AND DISPOSE OF EXISTING ELEMENTS.
 - FABRICATE/ PROCURE/ INSTALL PROPOSED STORM SEWER ELEMENTS.
 - RESTORE SITE.
- NORTH STORM SEWER OUTFALL
 - REMOVE, SALVAGE AND STORE EXISTING ELEMENTS PER DRAWINGS.
 - INSTALL TEMPORARY STORM SEWER DIVERSION(S), AS NEEDED.
 - SEAL/FILL EXISTING SOUTH OUTFALL.
 - EXCAVATE, DEMO, AND DISPOSE OF EXISTING STORM SEWER ELEMENTS.
 - FABRICATE/ PROCURE/ INSTALL PROPOSED STORM SEWER ELEMENTS.
 - RESTORE SITE.
- INTAKE CAP REPLACEMENT
 - REMOVE AND DISPOSE OF EXISTING CAP.
 - FABRICATE/ INSTALL PROPOSED INTAKE CAP.

P:\DRAWING\NORTHWESTERN\2024\22949\22949.dwg

PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH) PHASE OF ISSUE	(A) PRELIMINARY (B) DESIGN	(C) PERMIT (D) TENDER	(E) CONSTRUCTION	(F) RECORD			

PREPARED FOR:



PREPARED BY:



NU SHORELINE INFRASTRUCTURE REPAIRS

GENERAL NOTES

SHEET NUMBER: **G-002**

A. REFERENCED SPECIFICATIONS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
 * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
 * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
 * CITY OF EVANSTON MUNICIPAL CODE;
 * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
 * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

- THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).
- THE CITY OF EVANSTON ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

- ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE INTERNATIONAL GREAT LAKES DATUM OF 1985 (IGLD85). CONVERSION FACTOR TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) IS +0.53 FT.
- MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
- THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
- THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
- ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
- THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.
- THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
- A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
- DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
- ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE 6-INCH TO 15-INCH DIAMETER SDR 26 18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM D-3034 ASTM F-679	ASTM D-3212 ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC 4-INCH TO 36-INCH 4-INCH TO 12-INCH 14-INCH TO 48-INCH	ASTM D-2241 AWWA C900 AWWA C905	ASTM D-3139 ASTM D-3139 ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
- ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
 a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
 b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
 c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMANS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
- EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
- A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

- THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
- ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
 a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
 b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
- MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
- TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
- ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
- VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
- EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
- STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
- THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMANS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
- ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

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REV	DESCRIPTION	CEP	RPA	CDB	EL	2024-03-14
C	PERMIT DRAWINGS - NOT FOR CONSTRUCTION					
PH	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS						
(PH) PHASE OF ISSUE	(A) PRELIMINARY (B) DESIGN	(C) PERMIT (D) TENDER	(E) CONSTRUCTION (F) RECORD			

PREPARED FOR:



PREPARED BY:



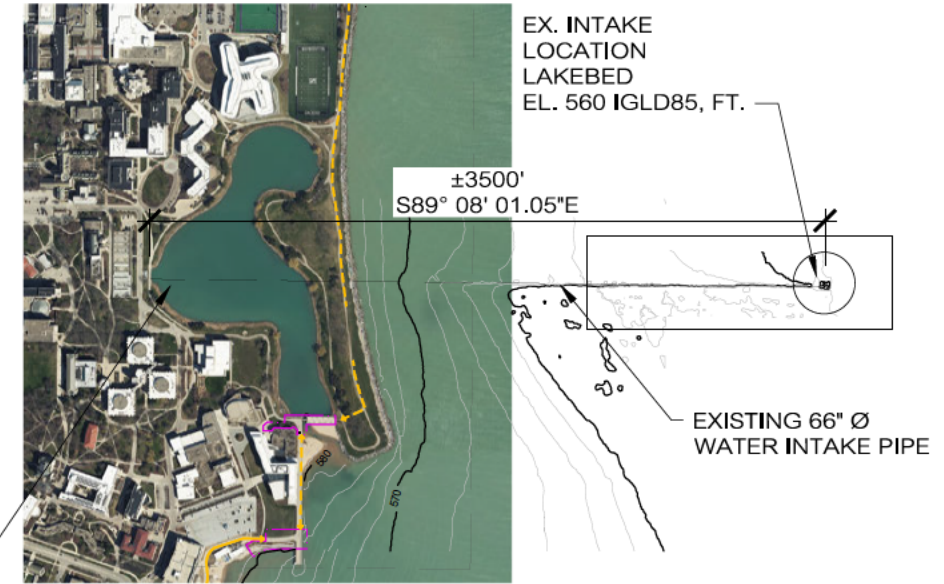
NU SHORELINE INFRASTRUCTURE REPAIRS

MWRD GENERAL NOTES

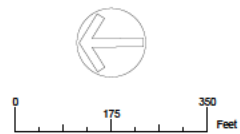
SHEET NUMBER: G-003

LEGEND

- ① NU WEIR BRIDGE
- ② NORTH STORMWATER OUTFALL
- ③ SOUTH STORMWATER OUTFALL
- PROJECT LOCATION/ LIMITS OF PROPOSED CONSTRUCTION
- PRIMARY CONSTRUCTION ACCESS ROUTE
- SECONDARY CONSTRUCTION ACCESS ROUTE (AS NEEDED)



NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	2024-03-14
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

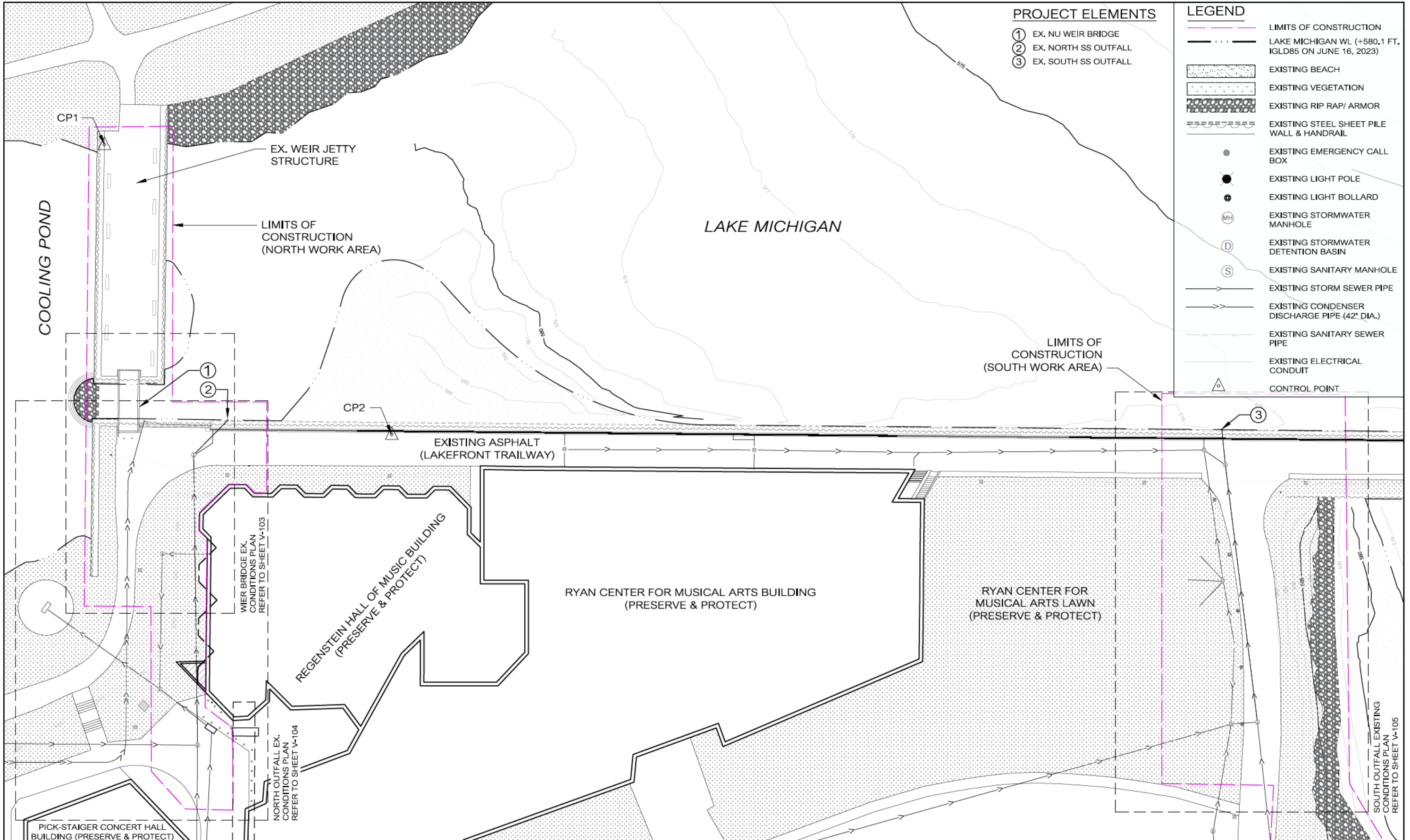
Northwestern University

PREPARED BY:

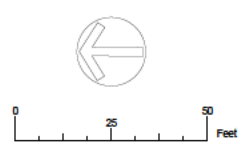
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
EXISTING CONDITIONS - NU EVANSTON CAMPUS

SHEET NUMBER: V-101



NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



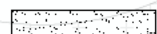
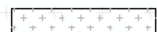














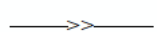
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C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

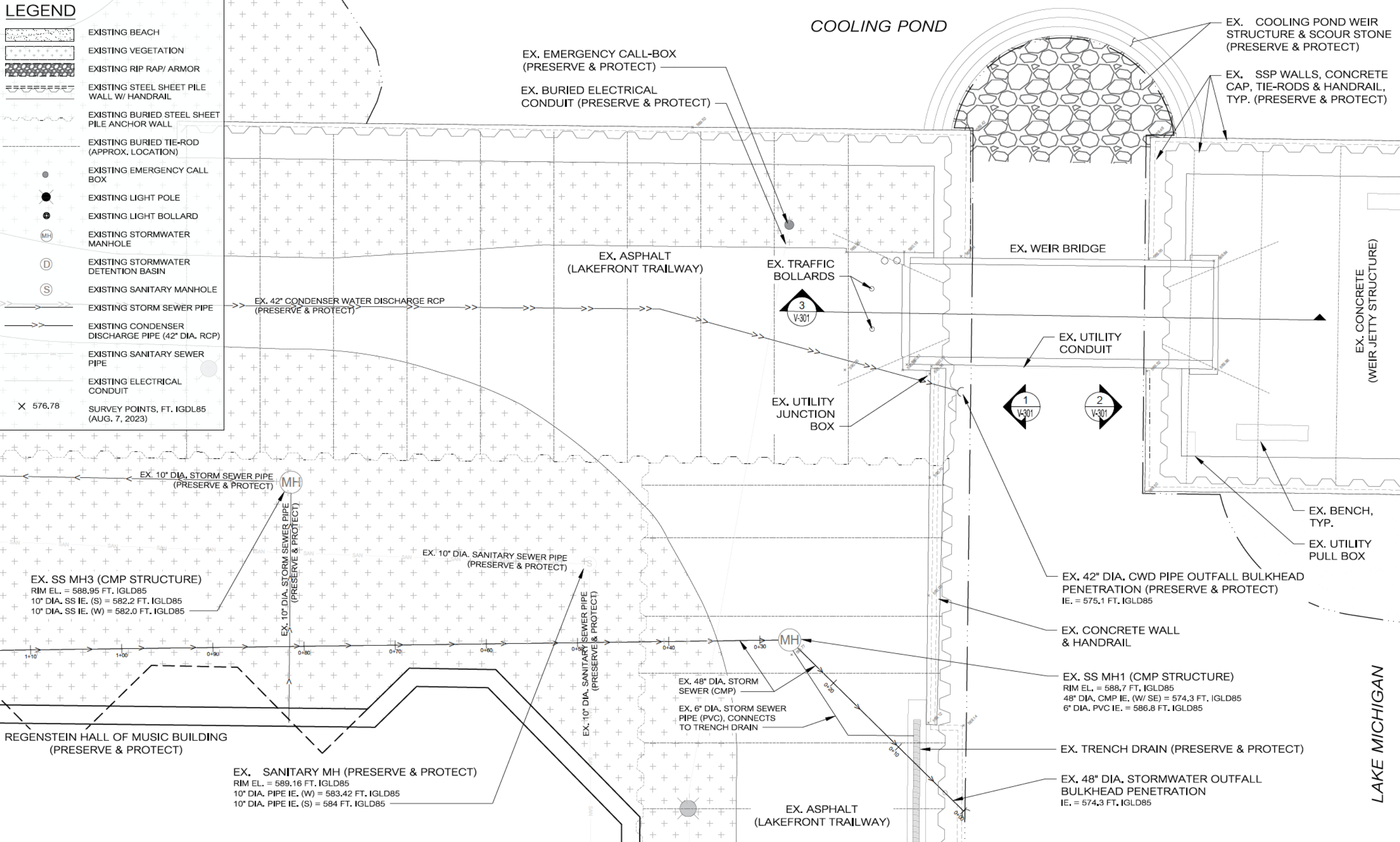
PREPARED BY:

NU SHORELINE INFRASTRUCTURE REPAIRS
 EXISTING CONDITIONS (PROJECT AREA)
 SHEET NUMBER: V-102

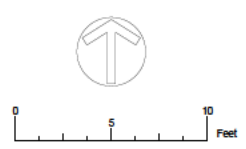
LEGEND

-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING CONDENSER DISCHARGE PIPE (42" DIA. RCP)
-  EXISTING SANITARY SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  SURVEY POINTS, FT. IGLD85 (AUG. 7, 2023)

X 576.78



NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:



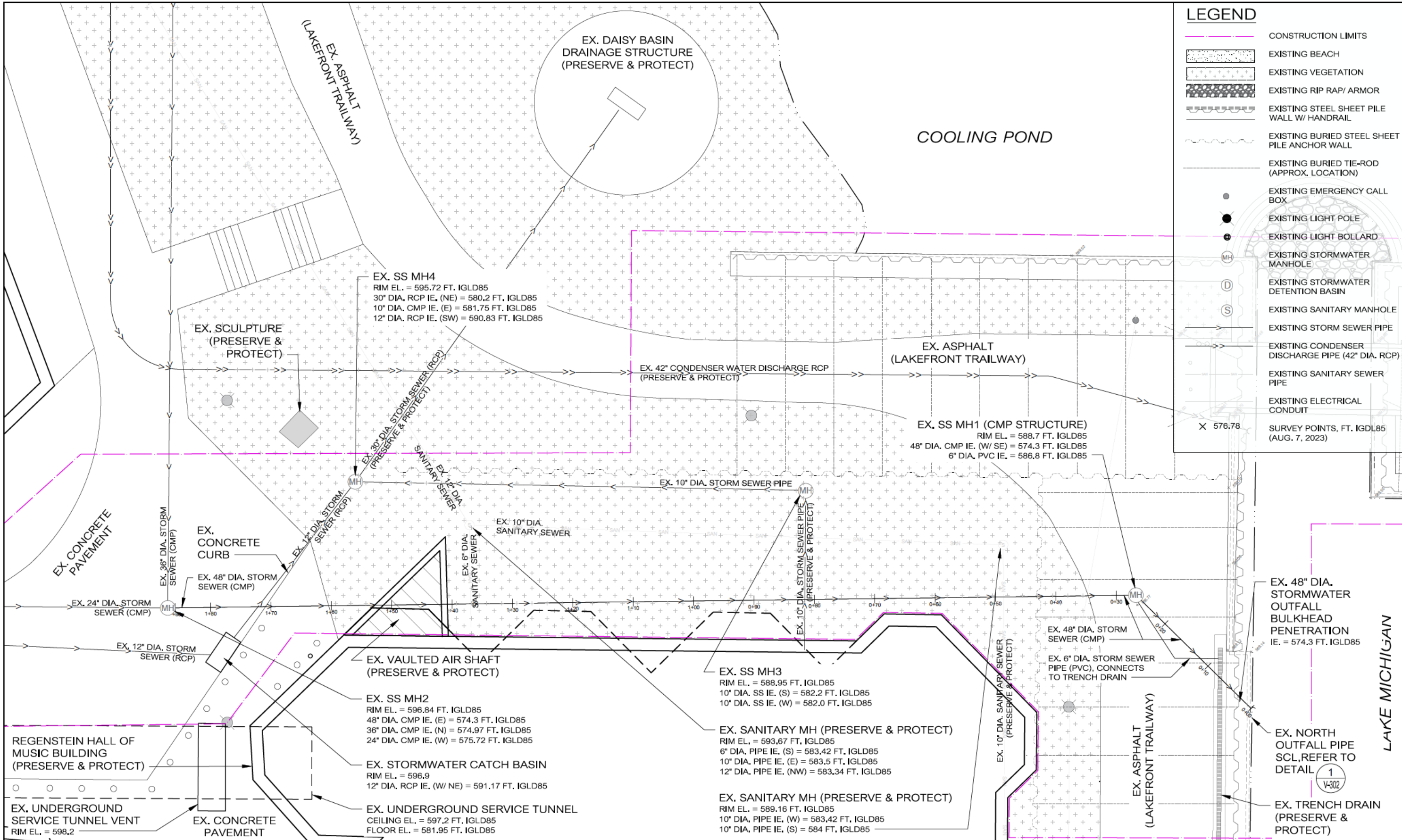
PREPARED BY:



NU SHORELINE INFRASTRUCTURE REPAIRS

EXISTING CONDITIONS (WEIR BRIDGE)

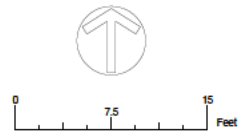
SHEET NUMBER: V-103



LEGEND

- CONSTRUCTION LIMITS
- EXISTING BEACH
- EXISTING VEGETATION
- EXISTING RIP RAP/ ARMOR
- EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
- EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
- EXISTING BURIED TIE-ROD (APPROX. LOCATION)
- EXISTING EMERGENCY CALL BOX
- EXISTING LIGHT POLE
- EXISTING LIGHT BOLLARD
- EXISTING STORMWATER MANHOLE
- EXISTING STORMWATER DETENTION BASIN
- EXISTING SANITARY MANHOLE
- EXISTING STORM SEWER PIPE
- EXISTING CONDENSER DISCHARGE PIPE (42\"/>

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				


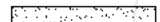
















PREPARED FOR:

PREPARED BY:

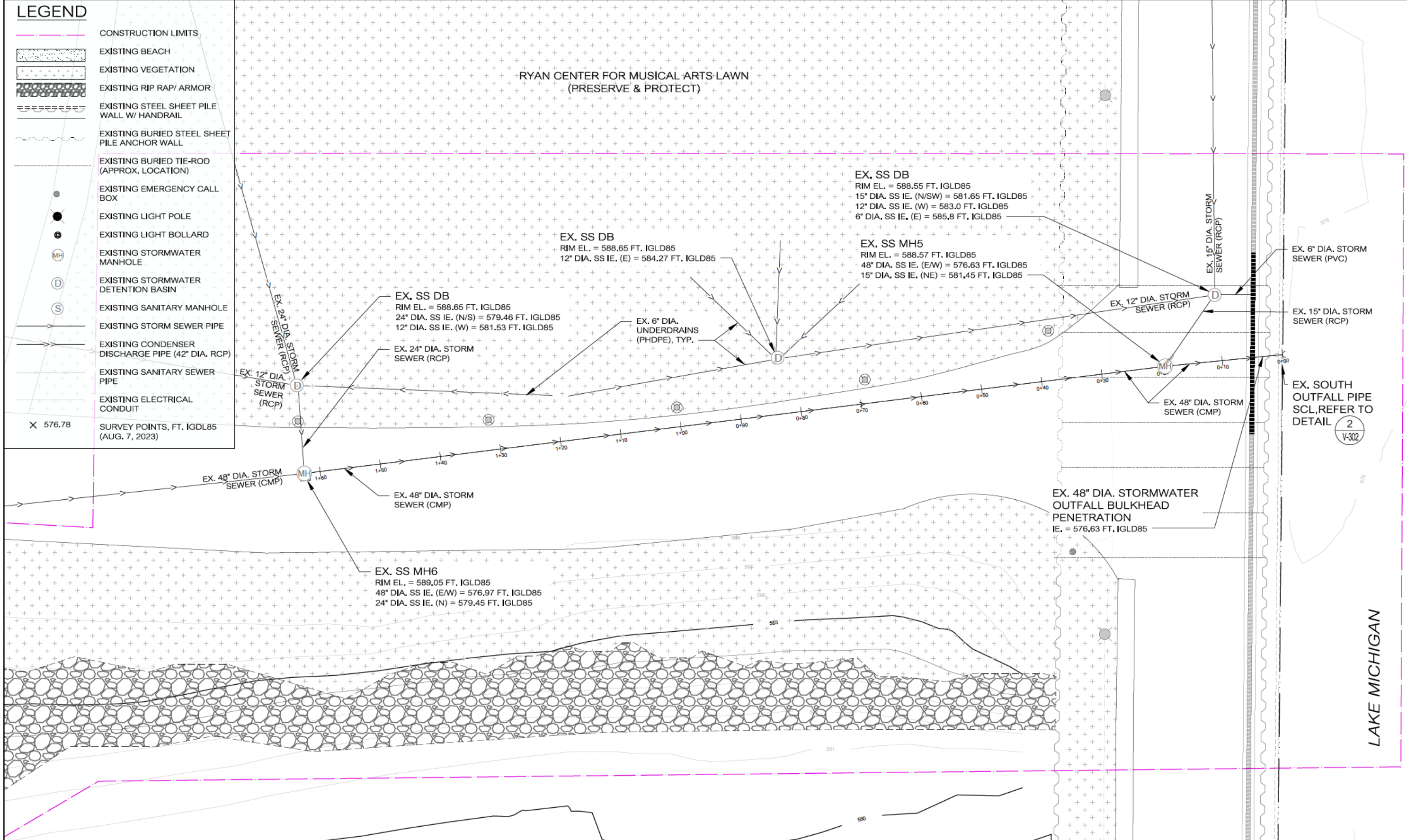
NU SHORELINE INFRASTRUCTURE REPAIRS
 EXISTING CONDITIONS (NORTH OUTFALL)

SHEET NUMBER: **V-104**

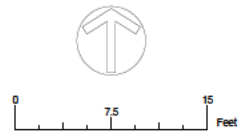
LEGEND

-  CONSTRUCTION LIMITS
-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING CONDENSER DISCHARGE PIPE (42" DIA. RCP)
-  EXISTING SANITARY SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  X 576.78 SURVEY POINTS, FT. IGLD85 (AUG. 7, 2023)

RYAN CENTER FOR MUSICAL ARTS LAWN
(PRESERVE & PROTECT)



NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	2024-03-14
(PH)	(A)	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
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	(B)	DESIGN	(D)	TENDER	(F)	RECORD	

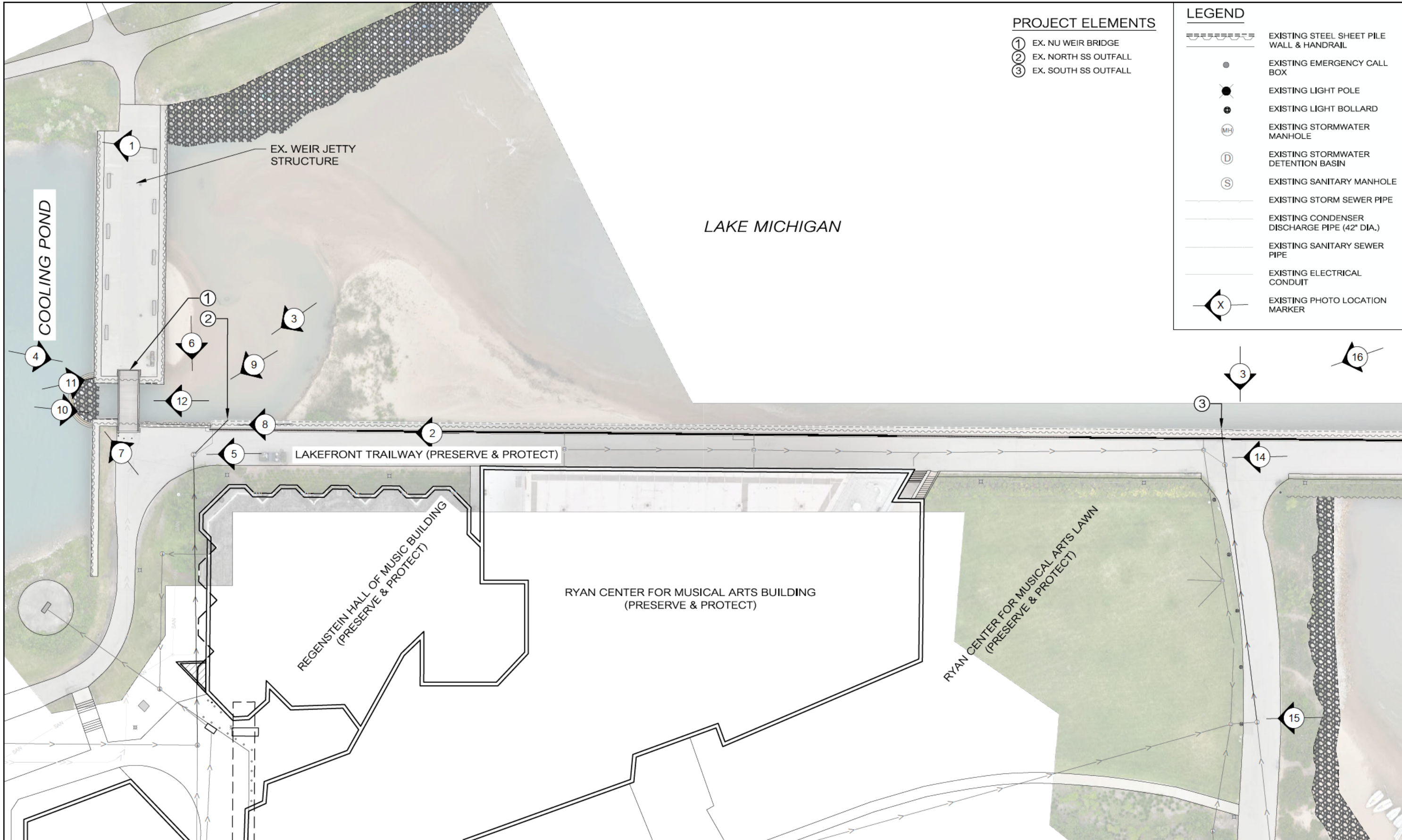
PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
EXISTING CONDITIONS (SOUTH OUTFALL)

SHEET NUMBER: **V-105**

LAKE MICHIGAN



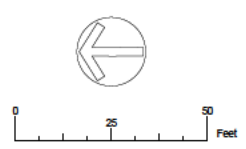
PROJECT ELEMENTS

- ① EX. NU WEIR BRIDGE
- ② EX. NORTH SS OUTFALL
- ③ EX. SOUTH SS OUTFALL

LEGEND

- EXISTING STEEL SHEET PILE WALL & HANDRAIL
- EXISTING EMERGENCY CALL BOX
- EXISTING LIGHT POLE
- EXISTING LIGHT BOLLARD
- EXISTING STORMWATER MANHOLE
- EXISTING STORMWATER DETENTION BASIN
- EXISTING SANITARY MANHOLE
- EXISTING STORM SEWER PIPE
-
- EXISTING SANITARY SEWER PIPE
- EXISTING ELECTRICAL CONDUIT
- EXISTING PHOTO LOCATION MARKER

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
SITE PHOTO MAP
SHEET NUMBER: **V-106**



PHOTO: 1
 DIRECTION: NORTH
 DATE TAKEN: 08-07-2023
 NOTES: CONTROL POINT (CP1) - PK NAIL

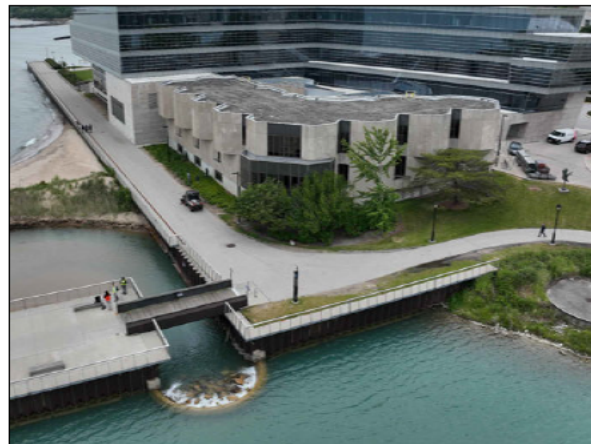


PHOTO: 4
 DIRECTION: SOUTH
 DATE TAKEN: 06-16-2023
 NOTES: AERIAL OBLIQUE



PHOTO: 7
 DIRECTION: NORTH-EAST
 DATE TAKEN: 06-16-2023
 NOTES: EX. HANDRAIL/ EROSION



PHOTO: 10
 DIRECTION: SOUTH
 DATE TAKEN: 06-16-2023
 NOTES: EXISTING BRIDGE ABUTMENT



PHOTO: 2
 DIRECTION: NORTH
 DATE TAKEN: 08-07-2023
 NOTES: CONTROL POINT (CP2) - PK NAIL



PHOTO: 5
 DIRECTION: DOWN
 DATE TAKEN: 06-16-2023
 NOTES: EX. SS MH 1

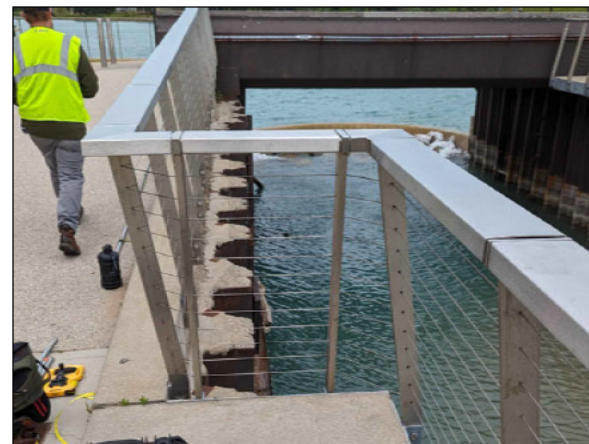


PHOTO: 8
 DIRECTION: NORTH
 DATE TAKEN: 06-16-2023
 NOTES: EXISTING HANDRAIL



PHOTO: 11
 DIRECTION: NORTHWEST
 DATE TAKEN: 06-16-2023
 NOTES: EXISTING BRIDGE DECK



PHOTO: 3
 DIRECTION: NORTHWEST
 DATE TAKEN: 06-16-2023
 NOTES: AERIAL OBLIQUE



PHOTO: 6
 DIRECTION: WEST
 DATE TAKEN: 06-16-2023
 NOTES: EX. SHEET PILE & WALER



PHOTO: 9
 DIRECTION: NORTHWEST
 DATE TAKEN: 06-16-2023
 NOTES: EXISTING BRIDGE



PHOTO: 12
 DIRECTION: NORTH
 DATE TAKEN: 06-16-2023
 NOTES: EXISTING BRIDGE

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.

PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

Northwestern University

PREPARED BY:

Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS

SITE PHOTOS (SHEET 1 OF 2)

SHEET NUMBER: V-107



PHOTO: 13
 DIRECTION: WEST
 DATE TAKEN: 06-16-2023
 NOTES: SOUTH OUTFALL



PHOTO: 14
 DIRECTION: DOWN
 DATE TAKEN: 06-16-2023
 NOTES: EX. SS MH5



PHOTO: 15
 DIRECTION: DOWN
 DATE TAKEN: 06-16-2023
 NOTES: EX. SS MH5



PHOTO: 16
 DIRECTION: NORTHWEST
 DATE TAKEN: 06-16-2023
 NOTES: AERIAL OBLIQUE (OVERALL)

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.

PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

Northwestern University

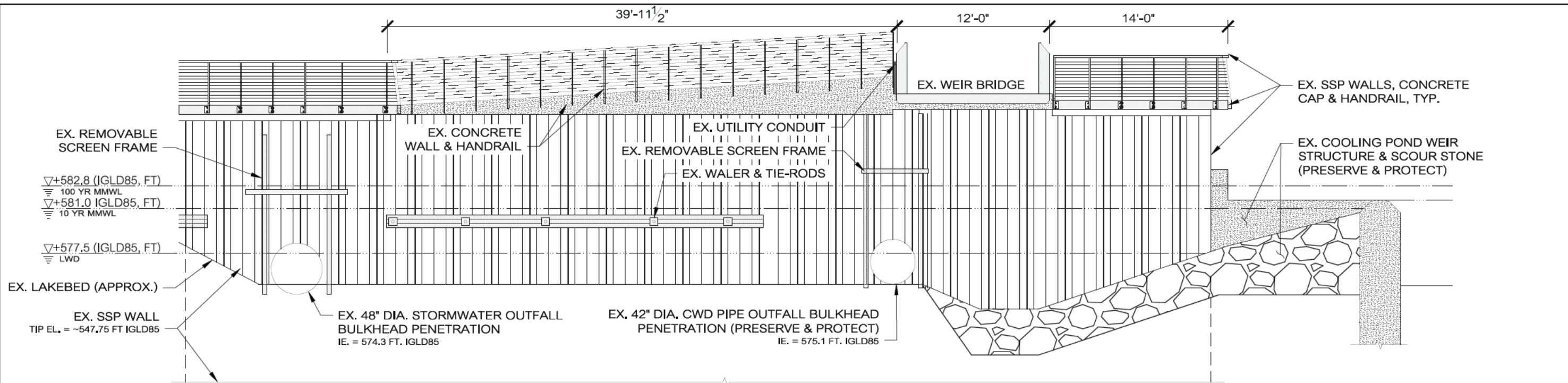
PREPARED BY:

Baird.

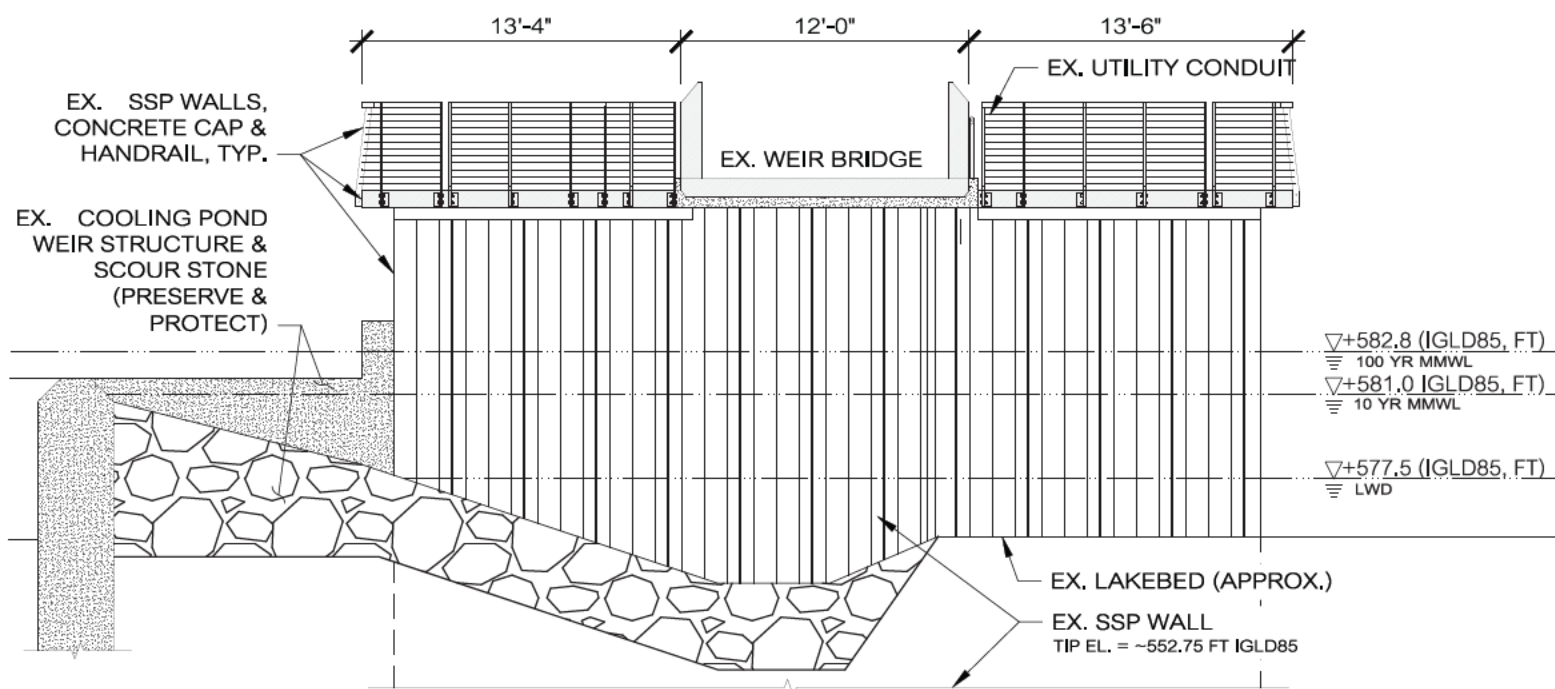
NU SHORELINE INFRASTRUCTURE REPAIRS

SITE PHOTOS (SHEET 2 OF 2)

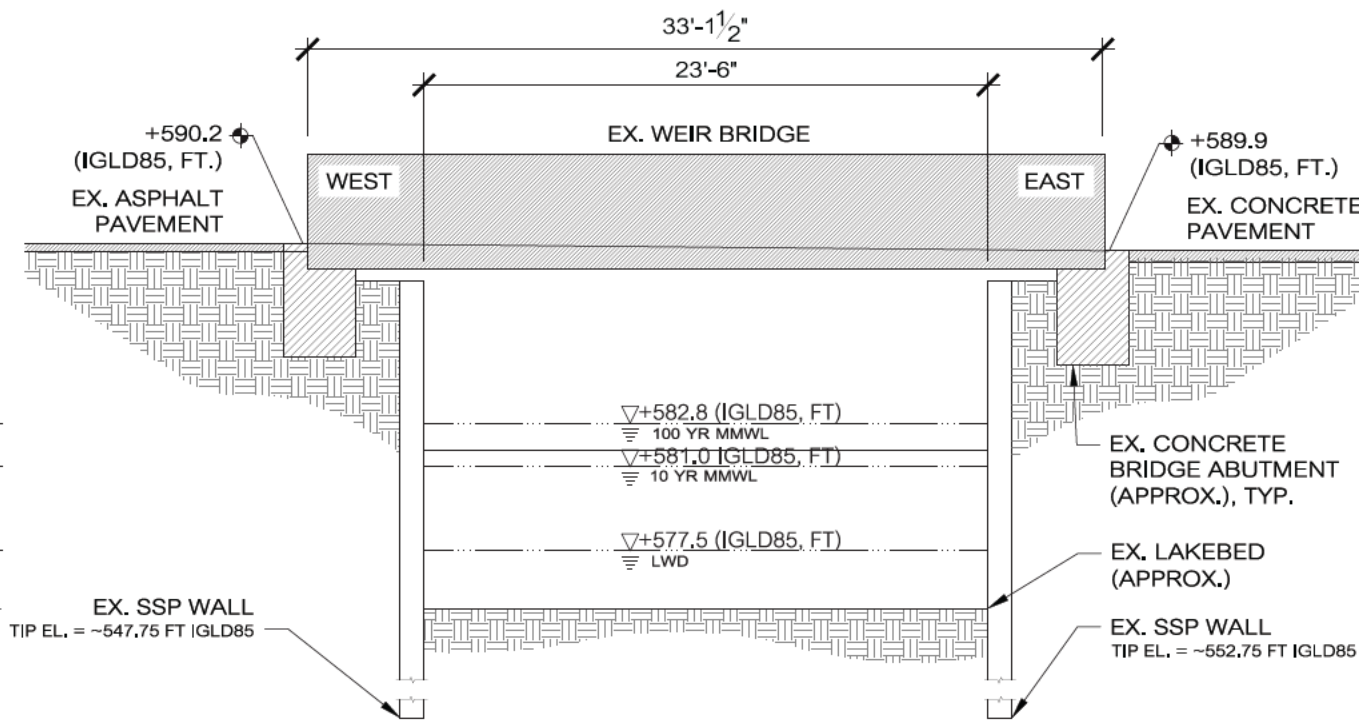
SHEET NUMBER: V-108



1 ELEVATION: WEIR BRIDGE (EXISTING - WEST SIDE)
V-301 SCALE: 1" = 8'

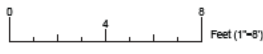


2 ELEVATION: WEIR BRIDGE (EXISTING - EAST SIDE)
V-301 SCALE: 1" = 8'



3 SECTION: WEIR BRIDGE (EXISTING)
V-301 SCALE: 1" = 8'

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PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	ISSUE DATE
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REVISIONS							
(PH)	(A)	PRELIMINARY	(C)	PERMIT	(E)	CONSTRUCTION	
PHASE OF ISSUE	(B)	DESIGN	(D)	TENDER	(F)	RECORD	

PREPARED FOR:

Northwestern University

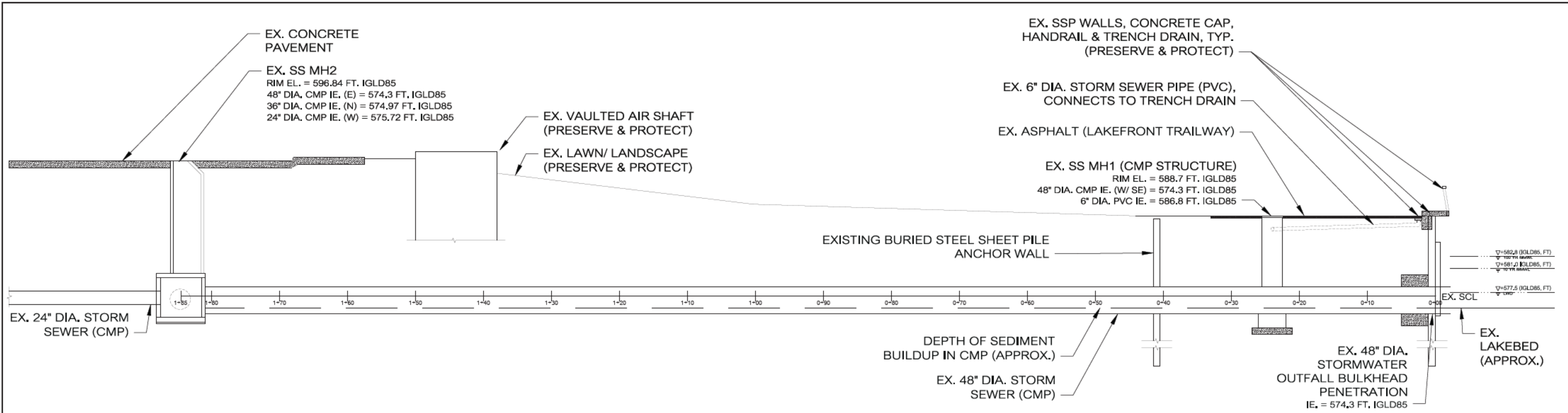
PREPARED BY:

Baird.

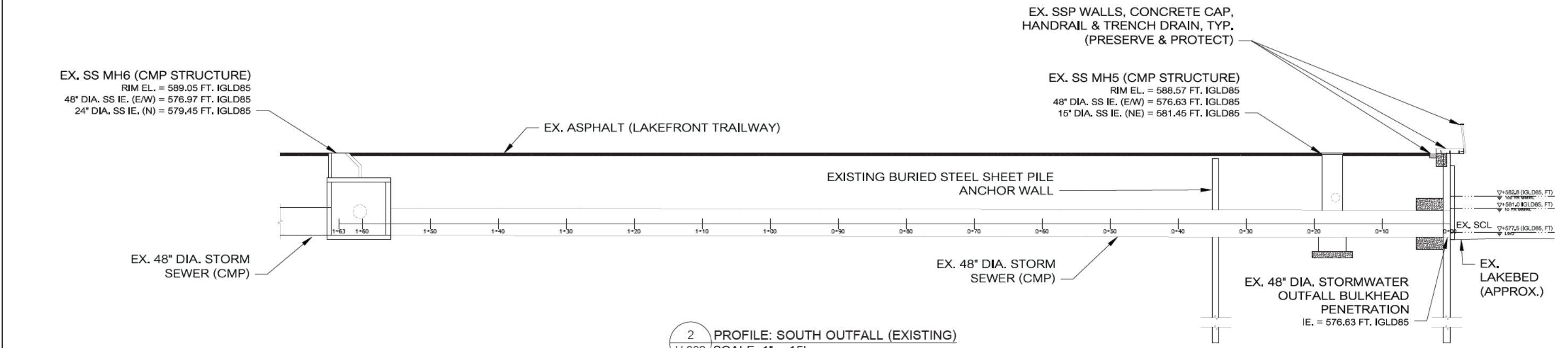
NU SHORELINE INFRASTRUCTURE REPAIRS

EXISTING CONDITIONS SECTIONS (WEIR BRIDGE)

SHEET NUMBER: V-301



1 PROFILE: NORTH OUTFALL (EXISTING)
V-302 SCALE: 1" = 15'



2 PROFILE: SOUTH OUTFALL (EXISTING)
V-302 SCALE: 1" = 15'

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
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	(B) DESIGN	(D) TENDER	(F) RECORD				

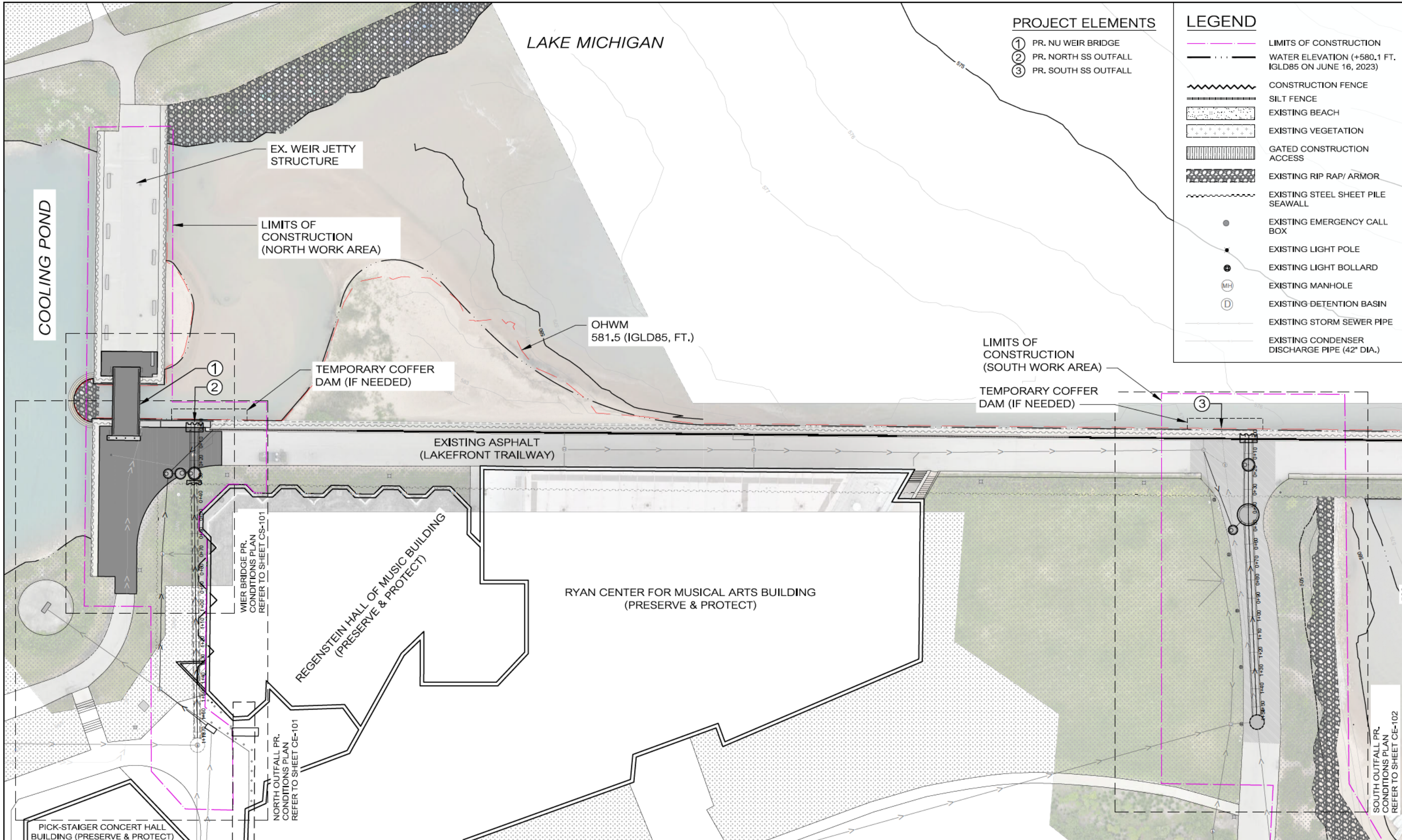
PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
EXISTING CONDITIONS SECTIONS (OUTFALLS)

SHEET NUMBER: V-302

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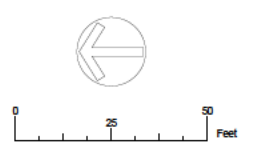
PROJECT ELEMENTS

- ① PR. NU WEIR BRIDGE
- ② PR. NORTH SS OUTFALL
- ③ PR. SOUTH SS OUTFALL

LEGEND

- LIMITS OF CONSTRUCTION
- WATER ELEVATION (+580.1 FT. IGLD85 ON JUNE 16, 2023)
- CONSTRUCTION FENCE
- SILT FENCE
- EXISTING BEACH
- EXISTING VEGETATION
- GATED CONSTRUCTION ACCESS
- EXISTING RIP RAP/ ARMOR
- EXISTING STEEL SHEET PILE SEAWALL
- EXISTING EMERGENCY CALL BOX
- EXISTING LIGHT POLE
- EXISTING LIGHT BOLLARD
- EXISTING MANHOLE
- EXISTING DETENTION BASIN
- EXISTING STORM SEWER PIPE
- EXISTING CONDENSER DISCHARGE PIPE (42" DIA.)

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



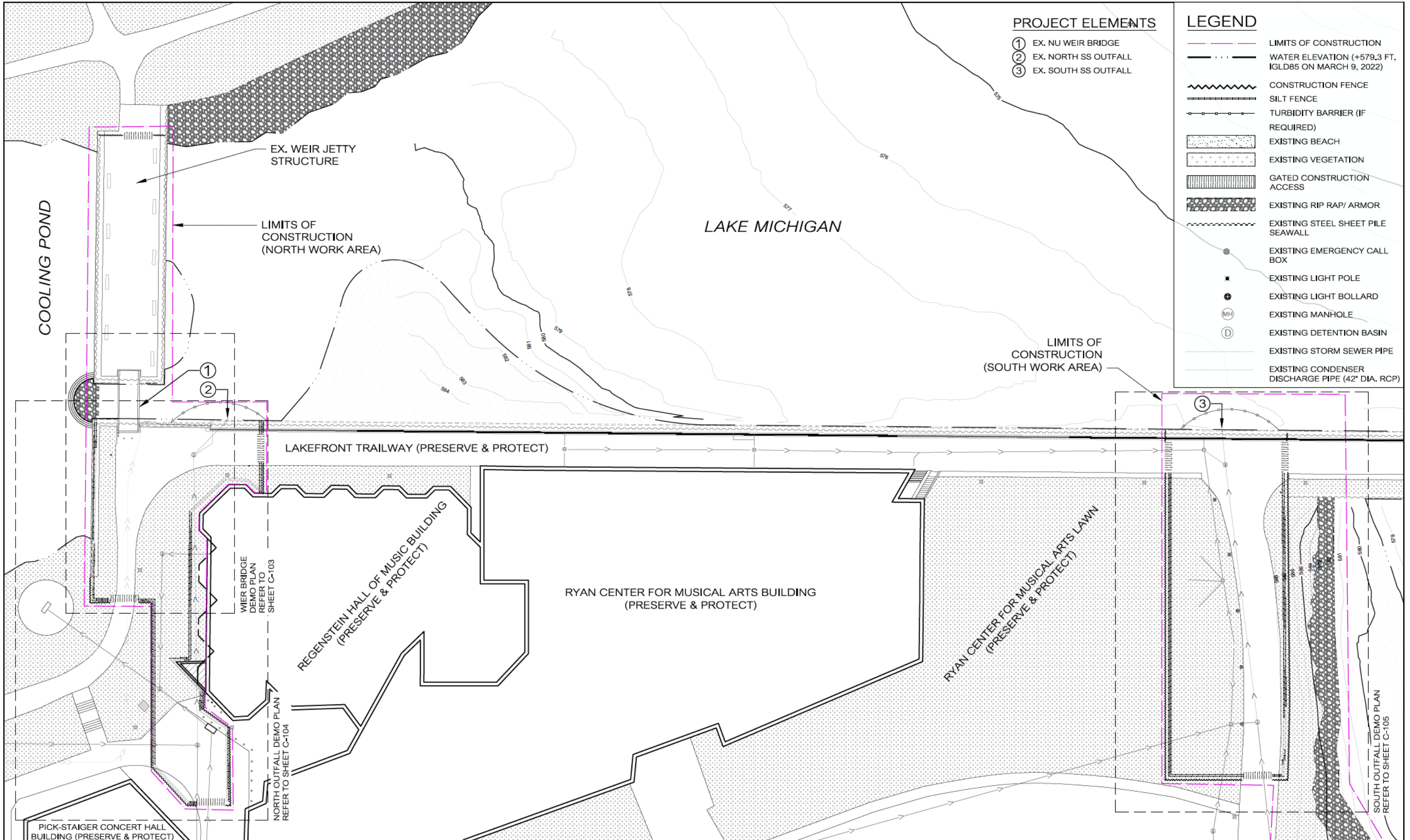
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REVISIONS							
(PH) PHASE OF ISSUE	(A) PRELIMINARY	(C) PERMIT	(E) CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:
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PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
PROPOSED IMPROVEMENTS PLAN

SHEET NUMBER: **C-101**



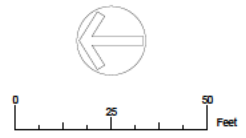
PROJECT ELEMENTS

- ① EX. NU WEIR BRIDGE
- ② EX. NORTH SS OUTFALL
- ③ EX. SOUTH SS OUTFALL

LEGEND

- LIMITS OF CONSTRUCTION
- WATER ELEVATION (+579.3 FT. IGLD85 ON MARCH 9, 2022)
- CONSTRUCTION FENCE
- SILT FENCE
- TURBIDITY BARRIER (IF REQUIRED)
- EXISTING BEACH
- EXISTING VEGETATION
- GATED CONSTRUCTION ACCESS
- EXISTING RIP RAP/ ARMOR
- EXISTING STEEL SHEET PILE SEAWALL
- EXISTING EMERGENCY CALL BOX
- EXISTING LIGHT POLE
- EXISTING LIGHT BOLLARD
- (MH) EXISTING MANHOLE
- (D) EXISTING DETENTION BASIN
- EXISTING STORM SEWER PIPE
- EXISTING CONDENSER DISCHARGE PIPE (42" DIA. RCP)

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.
 2. SEE SHEET C-501 FOR SITE PREPARATION AND SESC DETAILS.

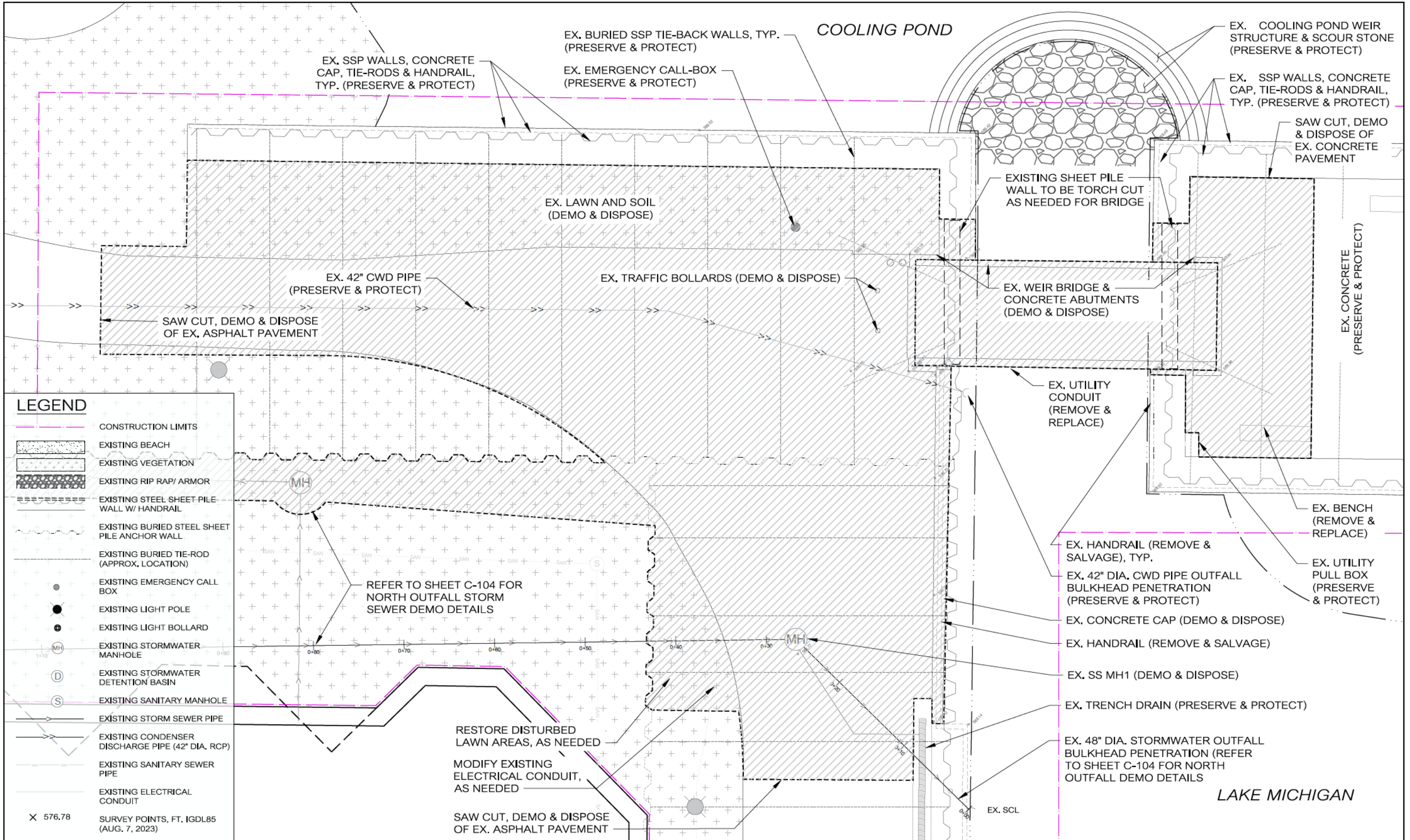


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REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

PREPARED BY:

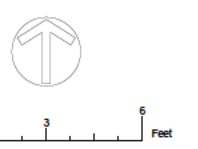
NU SHORELINE INFRASTRUCTURE REPAIRS
 SITE PREPARATION AND SESC PLAN
 SHEET NUMBER: **C-102**



LEGEND

- CONSTRUCTION LIMITS
- EXISTING BEACH
- EXISTING VEGETATION
- EXISTING RIP RAP/ ARMOR
- EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
- EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
- EXISTING BURIED TIE-ROD (APPROX. LOCATION)
- EXISTING EMERGENCY CALL BOX
- EXISTING LIGHT POLE
- EXISTING LIGHT BOLLARD
- EXISTING STORMWATER MANHOLE
- EXISTING STORMWATER DETENTION BASIN
- EXISTING SANITARY MANHOLE
- EXISTING STORM SEWER PIPE
- EXISTING CONDENSER DISCHARGE PIPE (42\"/>

X 576.78 SURVEY POINTS, FT. IGD85 (AUG. 7, 2023)



NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.
 2. LOCATIONS OF EX. SUBSURFACE ELEMENTS (SSP WALLS, TIE-RODS, CWD, SANITARY AND STORM SEWER PIPES, ELECTRICAL CONDUIT, ETC.) ARE APPROX./ BASED ON HISTORIC DRAWINGS & SURVEYS. CONTRACTOR TO CONFIRM ALL LOCATIONS OF SUBSURFACE ELEMENTS.

PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
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	(B) DESIGN	(D) TENDER	(F) RECORD				











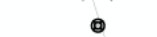




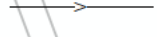


PREPARED FOR:

PREPARED BY:

NU SHORELINE INFRASTRUCTURE REPAIRS
 DEMOLITION PLAN (WEIR BRIDGE)

SHEET NUMBER: **C-103**

LEGEND

-  CONSTRUCTION LIMITS
-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING CONDENSER DISCHARGE PIPE (42" DIA. RCP)
-  EXISTING SANITARY SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  SURVEY POINTS, FT. IGD85 (AUG. 7, 2023)

EX. 36" DIA. STORM SEWER (N.I.C., FUTURE WORK - TO BE REMOVED BY OTHERS)

EX. 24" DIA. STORM SEWER (CMP) (PRESERVE & PROTECT)

EX. 12" DIA. STORM SEWER (RCP)

EX. CONCRETE PAVEMENT (PRESERVE & PROTECT)

REGENSTEIN HALL OF MUSIC BUILDING (PRESERVE & PROTECT)

EX. UNDERGROUND SERVICE TUNNEL VENT (PRESERVE & PROTECT)

EX. 30" DIA. STORM SEWER AND DAISY BASIN (N.I.C., FUTURE WORK - TO BE REMOVED BY OTHERS)

EX. SCULPTURE (PRESERVE & PROTECT)

EX. SS MH3 (PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PR. 15" & 12" RCP/ SEAL EX. 10" RCP)

EX. SS MH4 (PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PR. 12" & 12" RCP/ SEAL EX. 10" RCP)

EX. SANITARY MH (PRESERVE & PROTECT)

EX. SS MH2 (PRESERVE & PROTECT)

EX. STORMWATER CATCH BASIN (PRESERVE & PROTECT/ MODIFY AS NEEDED)

EX. UNDERGROUND SERVICE TUNNEL (PRESERVE & PROTECT)

EX. CONCRETE PAVEMENT (PRESERVE & PROTECT)

EX. DAISY BASIN DRAINAGE STRUCTURE (PRESERVE & PROTECT)

COOLING POND

REFER TO SHEET C-103 FOR WEIR BRIDGE DEMO DETAILS

EX. ASPHALT (DEMO & DISPOSE, PER SHEET C-103)

EX. CONCRETE CAP (DEMO & DISPOSE)

EXISTING SHEET PILE WALL (PRESERVE & PROTECT/ MODIFY, AS NEEDED)

EX. SS MH1 (DEMO & DISPOSE)

EX. 48" DIA. STORM SEWER (CMP) (SEAL/ FILL W/ GROUT, STA. 0+00 TO 0+15)

EX. 48" DIA. STORM SEWER (CMP) (PRESERVE & PROTECT, STA. 0+40 TO EX. SS MH2)

EX. 6" DIA. STORM SEWER PIPE (PVC) (DEMO & DISPOSE)

EXISTING LIGHTING AND ELECTRICAL (PRESERVE & PROTECT)

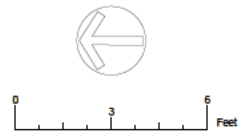
EX. BURIED STEEL SHEET PILE ANCHOR WALL (PRESERVE & PROTECT)

EX. ASPHALT (LAKEFRONT TRAILWAY)

EX. TRENCH DRAIN (PRESERVE & PROTECT)

LAKE MICHIGAN

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:

Northwestern University

PREPARED BY:



















Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS

DEMOLITION PLAN (NORTH OUTFALL)

SHEET NUMBER: C-104

LEGEND

-  CONSTRUCTION LIMITS
-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING CONDENSER DISCHARGE PIPE (42" DIA. RCP)
-  EXISTING SANITARY SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  X 576.78 SURVEY POINTS, FT. IGD85 (AUG. 7, 2023)

**RYAN CENTER FOR MUSICAL ARTS LAWN
(PRESERVE & PROTECT)**

EX. CONCRETE BENCH
(PRESERVE & PROTECT)

EX. MH5 (DEMO & DISPOSE)

EXISTING LIGHTING BOLLARDS
(PRESERVE & PROTECT/ REMOVE & REPLACE, AS NEEDED) BURIED CONDUIT NOT SHOWN/ TO BE LOCATED BY CONTRACTOR

EX. 48" DIA. STORM SEWER (CMP)
(DEMO & DISPOSE, STA. 0+15 TO EX. SS MH 6)

EX. SS MH6
(PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PROPOSED 48" RCP)

EX. SS DB
(PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PROPOSED 15" RCP)

EX. 15" DIA. RCP
(DEMO & DISPOSE)

EX. 24" DIA. RCP
(PRESERVE & PROTECT)

EX. 48" DIA. CMP
(PRESERVE & PROTECT)

EX. ASPHALT (LAKEFRONT TRAILWAY)
(REMOVE & REPLACE, AS NEEDED)

REMOVE/ REPLACE/ MODIFY EXISTING ELECTRICAL CONDUIT, AS NEEDED

EX. 48" DIA. STORM SEWER (CMP)
(SEAL/ FILL W/ GROUT, STA. 0+00 TO 0+15)

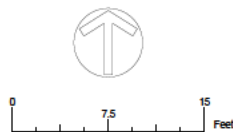
EX. PLANTING AREA, REFER TO SHEET ##### FOR PROPOSED PLANTING RESTORATION PLAN

EX. SSP WALLS, BURIED TIE-RODS, CONCRETE CAP, HANDRAIL & TRENCH DRAIN, TYP. (PRESERVE & PROTECT)

LAKE MICHIGAN

SEE SAILING CENTER REPAIR DRAWINGS FOR PROPOSED BEACH IMPROVEMENTS

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.
2. LOCATIONS OF EX. SUBSURFACE ELEMENTS (SSP WALLS, TIE-RODS, CWD, SANITARY AND STORM SEWER PIPES, ELECTRICAL CONDUIT, ETC.) ARE APPROX./ BASED ON HISTORIC DRAWINGS & SURVEYS. CONTRACTOR TO CONFIRM ALL LOCATIONS OF SUBSURFACE ELEMENTS.



PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	2024-03-14
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REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

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Northwestern University

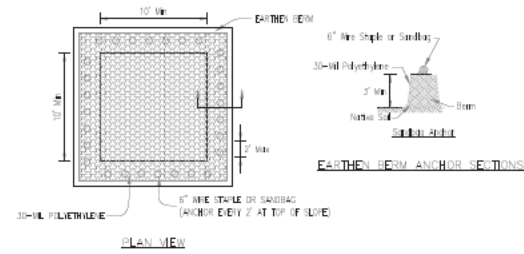
PREPARED BY:

Baird.

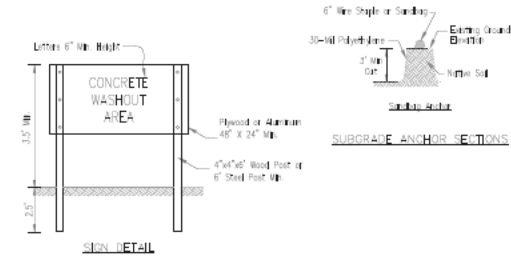
NU SHORELINE INFRASTRUCTURE REPAIRS

DEMOLITION PLAN (SOUTH OUTFALL)

SHEET NUMBER: C-105



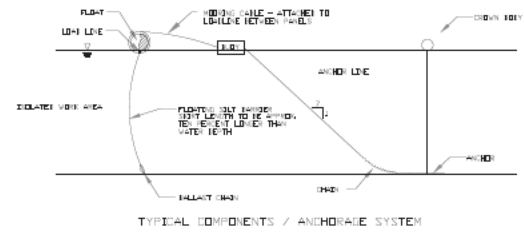
EARTHEN BERM ANCHOR SECTIONS



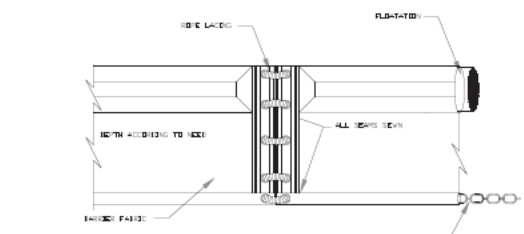
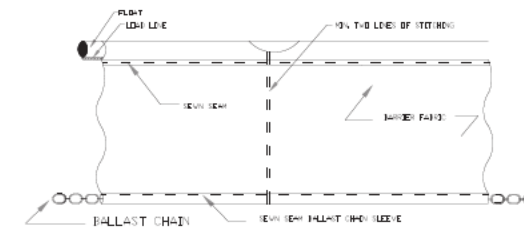
SUBGRADE ANCHOR SECTIONS

- NOTES:
1. Maintaining temporary concrete washout facilities that include curbing and depositing of washed concrete and/or slurry will retaining the facilities to a functional condition.
 2. Facility shall be cleaned or reconstructed in areas where washout facilities become non-functional.

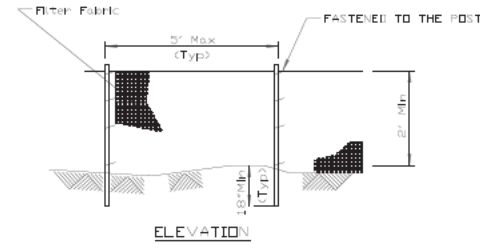
01 DETAIL: TEMPORARY CONCRETE WASHOUT FACILITY
C-501 SCALE: NTS. REFERENCE: IL. URBAN MANUAL, 654



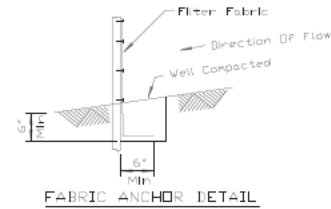
TYPICAL COMPONENTS / ANCHORAGE SYSTEM



02 DETAIL: TEMPORARY TURBIDITY BARRIER
C-501 SCALE: NTS. REFERENCE: IL. URBAN MANUAL, 617



ELEVATION

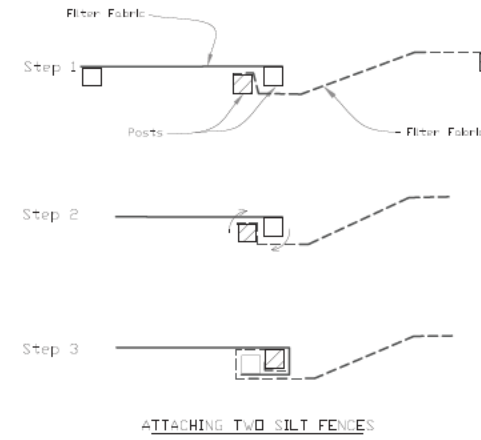


FABRIC ANCHOR DETAIL

NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2.
3. Fence posts shall be either standard steel post or wood post 2\"/>

03 DETAIL: TEMPORARY SILT FENCE
C-501 SCALE: NTS. REFERENCE: IL. URBAN MANUAL, 620



ATTACHING TWO SILT FENCES

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material.
3. Cut the fabric near the bottom of the stakes to accommodate the 6\"/>

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES

PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION					2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

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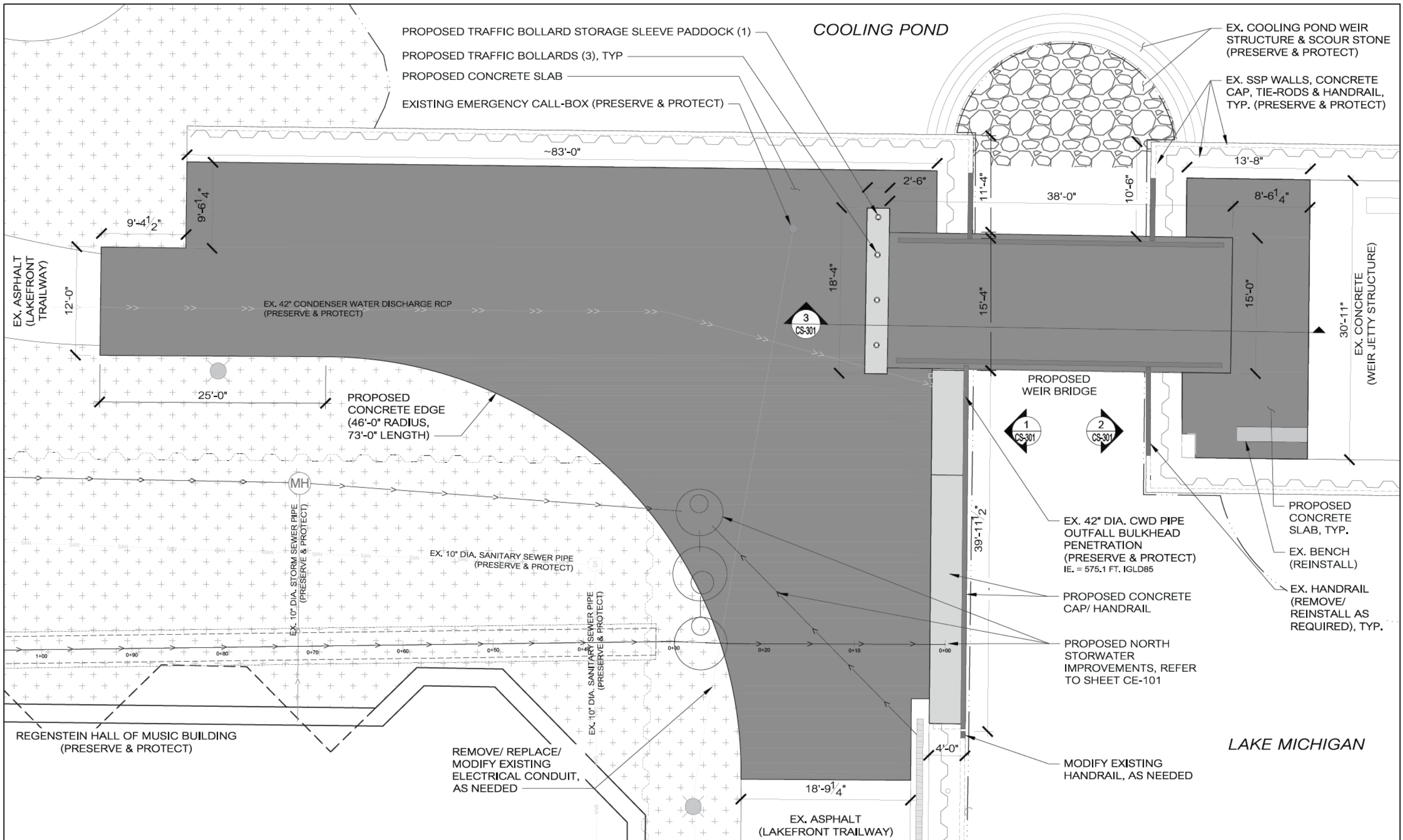
PREPARED BY:

Baird.

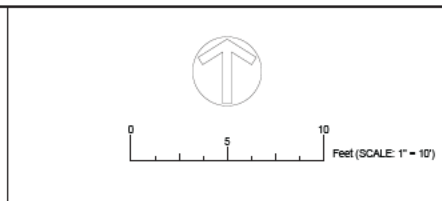
NU SHORELINE INFRASTRUCTURE REPAIRS

SOIL EROSION AND SEDIMENT CONTROL (SESC) DETAILS

SHEET NUMBER: C-501



NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



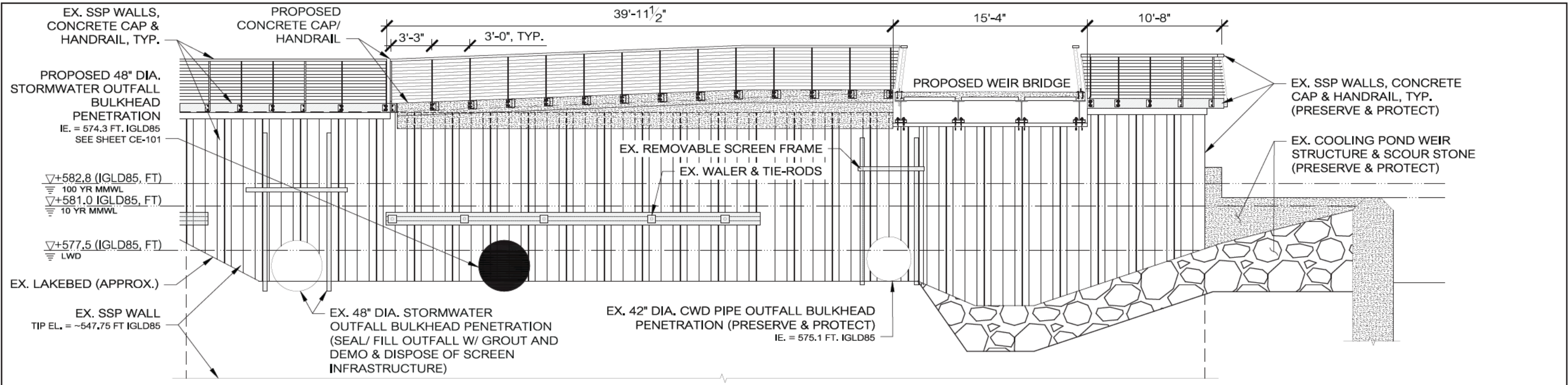
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PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:
Northwestern University

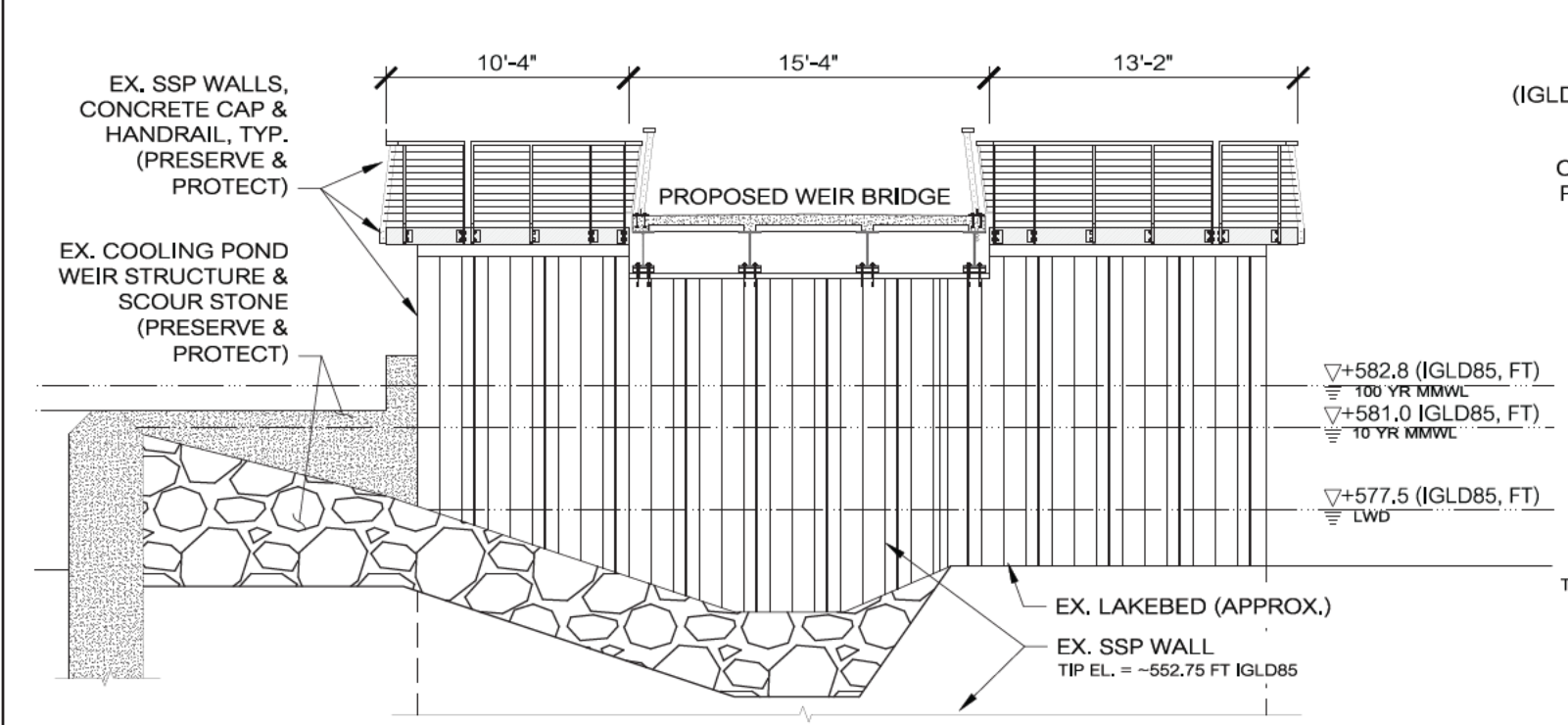
PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
 WEIR BRIDGE REPLACEMENT PLAN

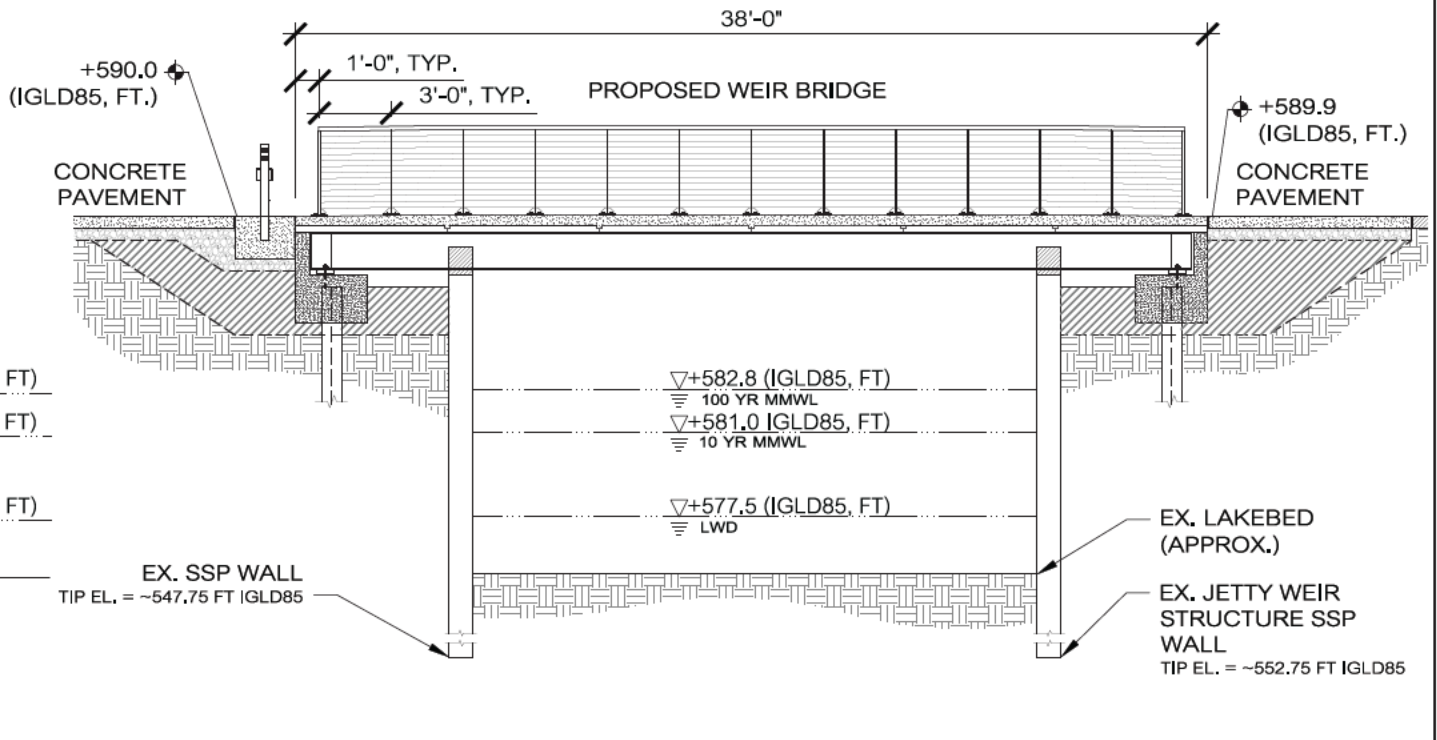
SHEET NUMBER: CS-101



1 ELEVATION: WEIR BRIDGE (PROPOSED - WEST SIDE)
 CS-301 SCALE: 1" = 8'



2 ELEVATION: WEIR BRIDGE (PROPOSED - EAST SIDE)
 CS-301 SCALE: 1" = 8'



3 SECTION: WEIR BRIDGE (PROPOSED)
 CS-301 SCALE: 1" = 8'

NOTES:
 1. SEE SHEET G-002 FOR GENERAL NOTES.
 2. SEE SHEET CS-001 FOR WEIR BRIDGE NOTES.



PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
PH	REV	DESCRIPTION	DRN	DSN	APR	DCM	ISSUE DATE
REVISIONS							
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PREPARED FOR:


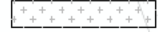

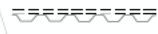











PREPARED BY:

NU SHORELINE INFRASTRUCTURE REPAIRS
 WEIR BRIDGE SECTIONS

SHEET NUMBER: CS-301

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LEGEND

-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  SURVEY POINTS, FT. IGLD85 (AUG. 7, 2023)

EX. 36" DIA. STORM SEWER (N.I.C., FUTURE WORK - TO BE REMOVED BY OTHERS)

PROPOSED SS PIPE (33 LF - 12" RCP @ 1.00 %)

EX. SS MH2
RIM EL. = 596.84 FT. IGLD85
48" DIA. CMP IE. (E) = 574.3 FT. IGLD85
36" DIA. CMP IE. (N) = 574.97 FT. IGLD85
24" DIA. CMP IE. (W) = 575.72 FT. IGLD85

EX. 24" DIA. STORM SEWER (NOT IN SERVICE)

EX. 30" DIA. STORM SEWER AND DAISY BASIN (N.I.C., FUTURE WORK - TO BE REMOVED BY OTHERS)

EX. DAISY BASIN DRAINAGE STRUCTURE (PRESERVE & PROTECT)

EX. SS MH4 (PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PROPOSED 12" RCP/ SEAL EX. 10" RCP)
RIM EL. = 595.72 FT. IGLD85
30" DIA. RCP IE. (NE) = 580.2 FT. IGLD85 (EX. - TO BE REMOVED/ SEALED BY OTHERS)
10" DIA. CMP IE. (E) = 581.75 FT. IGLD85 (EX. - ABANDON/ SEAL W/ GROUT)
12" DIA. RCP IE. (SW) = 590.83 FT. IGLD85 (EX. - PRESERVE & PROTECT)
12" DIA. RCP IE. (E) = 587.0 FT. IGLD85 (PROPOSED)

PROPOSED SS PIPE (73 LF - 12" RCP @ 2.00%)

EX. 10" DIA. STORM SEWER PIPE (PRESERVE & PROTECT)

RE-LINE EX. 48" DIA. STORM SEWER W/ SRPE PIPE (STA. 0+32 TO EX. SS MH2)

REGENSTEIN HALL OF MUSIC BUILDING (PRESERVE & PROTECT)

EX. SS MH3 (PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PR. 15" & 12" RCP/ SEAL EX. 10" RCP)
RIM EL. = 588.95 FT. IGLD85
10" DIA. SS IE. (S) = 582.2 FT. IGLD85 (PRESERVE & PROTECT)
10" DIA. SS IE. (W) = 582.0 FT. IGLD85 - (EX. ABANDON/ SEAL W/ GROUT)
12" DIA. SS IE. (W) = 585.54 FT. IGLD85 (PROPOSED)
15" DIA. SS IE. (E) = 582.0 FT. IGLD85 (PROPOSED)

PROPOSED SS PIPE (42 LF - 15" RCP @ 2.00%)

PROPOSED SS PIPE (4 LF - 15" RCP @ 1.00%)

PROPOSED CONCRETE PIPE ENCASEMENT (EX. CMP/ PR. RCP CONNECTION)

PROPOSED SS PIPE (4 LF - 48" RCP)

EX. MH1 REPLACEMENT (6' DIA., PRE-CAST, IDOT TYPE A MH)
RIM EL. = 588.7 FT. IGLD85
48" DIA. CMP IE. (W/ SE) = 574.3 FT. IGLD85
15" DIA. SS IE. (N) = 580.92 FT. IGLD85

REFER TO SHEET CS-101 FOR PROPOSED BRIDGE, CONCRETE SLAB/ CAP & HANDRAIL IMPROVEMENTS (NOT SHOWN ON THIS SHEET FOR CLARITY)

COOLING POND

PROPOSED MH-1A (4' DIA., PRE-CAST, IDOT TYPE A MH)
RIM EL. = -589.3 FT. IGLD85
15" DIA. SS IE. (S) = 581.0 FT. IGLD85
15" DIA. SS IE. (W) = 581.16 FT. IGLD85
6" DIA. PVC IE. (SE) = 585.0 FT. IGLD85

PROPOSED WQS (CONTECH MODEL CDS-2025-5-C, OR EQUIVALENT)
RIM EL. = -589.0 FT. IGLD85
15" DIA. SS IE. (N/S) = 580.96 FT. IGLD85

PROPOSED SS PIPE (33 LF - 6" PVC @ 1.00 %) CONNECTS TO EX. TRENCH DRAIN)

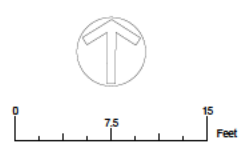
PROPOSED SS PIPE (23 LF - 48" RCP)

PR. SCL
PROPOSED 48" DIA. STORMWATER OUTFALL BULKHEAD PENETRATION IE. = 574.3 FT. IGLD85

REFER TO SHEET CE-301 FOR PROPOSED SCL PROFILE

REMOVE/ REPLACE/ RELOCATE EXISTING ELECTRICAL CONDUIT, AS NEEDED

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	CEP	RPA	CDB	EL	2024-03-14
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION					
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

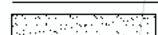
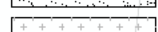
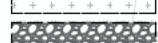
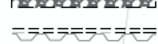











PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
NORTH OUTFALL PLAN

SHEET NUMBER: CE-101

LEGEND

-  EXISTING BEACH
-  EXISTING VEGETATION
-  EXISTING RIP RAP/ ARMOR
-  EXISTING STEEL SHEET PILE WALL W/ HANDRAIL
-  EXISTING BURIED STEEL SHEET PILE ANCHOR WALL
-  EXISTING BURIED TIE-ROD (APPROX. LOCATION)
-  EXISTING EMERGENCY CALL BOX
-  EXISTING LIGHT POLE
-  EXISTING LIGHT BOLLARD
-  EXISTING STORMWATER MANHOLE
-  EXISTING STORMWATER DETENTION BASIN
-  EXISTING SANITARY MANHOLE
-  EXISTING STORM SEWER PIPE
-  EXISTING ELECTRICAL CONDUIT
-  SURVEY POINTS, FT. IGLD85 (AUG. 7, 2023)

RYAN CENTER FOR MUSICAL ARTS LAWN
(PRESERVE & PROTECT)

EX. CONCRETE BENCH
(PRESERVE & PROTECT)

PR. MH5 REPLACEMENT
(6' DIA., PRE-CAST, IDOT TYPE A MH)
RIM EL. = -589.0 FT. IGLD85 (MATCH EX. GRADE)
48" DIA. SS IE. (W) = 576.63 FT. IGLD85
48" DIA. SS IE. (E) = 576.13 FT. IGLD85

PROPOSED SS PIPE
(22 LF - 48" RCP)

PROPOSED WQS
(CONTECH MODEL CDS-5640-10-C, OR EQUIVALENT)
RIM EL. = 588.9 FT. IGLD85 (MATCH EX. GRADE)
48" DIA. SS IE. (E/W) = 576.65 FT. IGLD85
15" DIA. SS IE. (NW) = 580.72 FT. IGLD85

PROPOSED SS PIPE
(5 LF - 15" RCP @ 1.00%)

PROPOSED MH-1A
(4' DIA., PRE-CAST, IDOT TYPE A MH)
RIM EL. = -588.9 FT. IGLD85 (MATCH EXISTING GRADE)
15" DIA. SS IE. (NE/SE) = 580.77 FT. IGLD85

EX. SS MH6
(PRESERVE & PROTECT/ MODIFY AS NEEDED TO CONNECT PROPOSED 48" RCP)
RIM EL. = 589.05 FT. IGLD85
48" DIA. SS IE. (E/W) = 576.97 FT. IGLD85
24" DIA. SS IE. (N) = 579.45 FT. IGLD85

PROPOSED SS PIPE
(108 LF - 48" DIA., RCP)

PROPOSED SS PIPE
(44 LF - 15" RCP @ 2.00%)

EX. SS DB - REPLACE
EX. 15" DIA. SS
RIM EL. = 588.55 FT. IGLD85
15" DIA. SS IE. (SW) = 581.65 FT. IGLD85

PROPOSED SS PIPE
(12 LF - 48" RCP)

EX. 24" DIA. STORM SEWER (RCP)

EX. 48" DIA. STORM SEWER (CMP)

EX. ASPHALT (LAKEFRONT TRAILWAY)
(REMOVE & REPLACE, AS NEEDED)

REFER TO SHEET CE-301 FOR PROPOSED SCL PROFILE

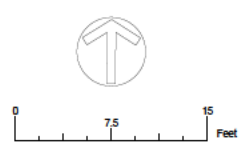
REMOVE/ REPLACE/ MODIFY EXISTING ELECTRICAL CONDUIT, AS NEEDED

PR. SCL

PR. 48" DIA. STORMWATER OUTFALL BULKHEAD PENETRATION
IE. = 576.13 FT. IGLD85

LAKE MICHIGAN

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.
2. CONTRACTOR TO FIELD VERIFY EXACT LOCATION, SIZE, AND ELEVATIONS FOR PROPOSED STORM SEWER MODIFICATIONS PRIOR TO ORDERING MATERIAL.



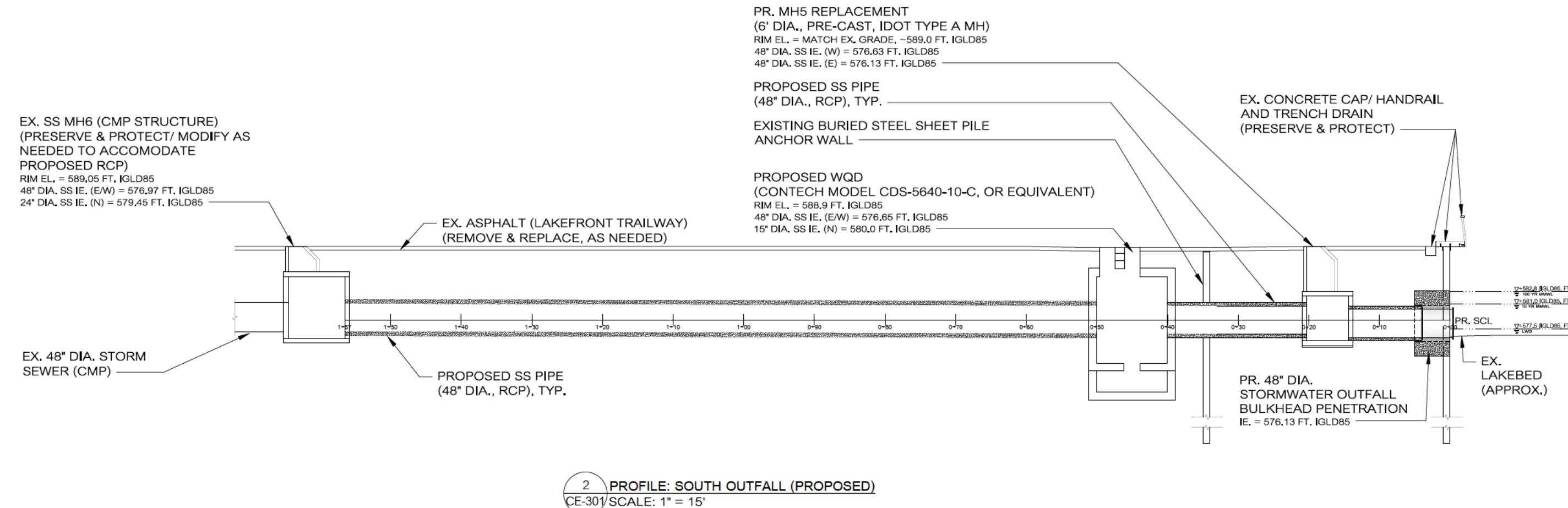
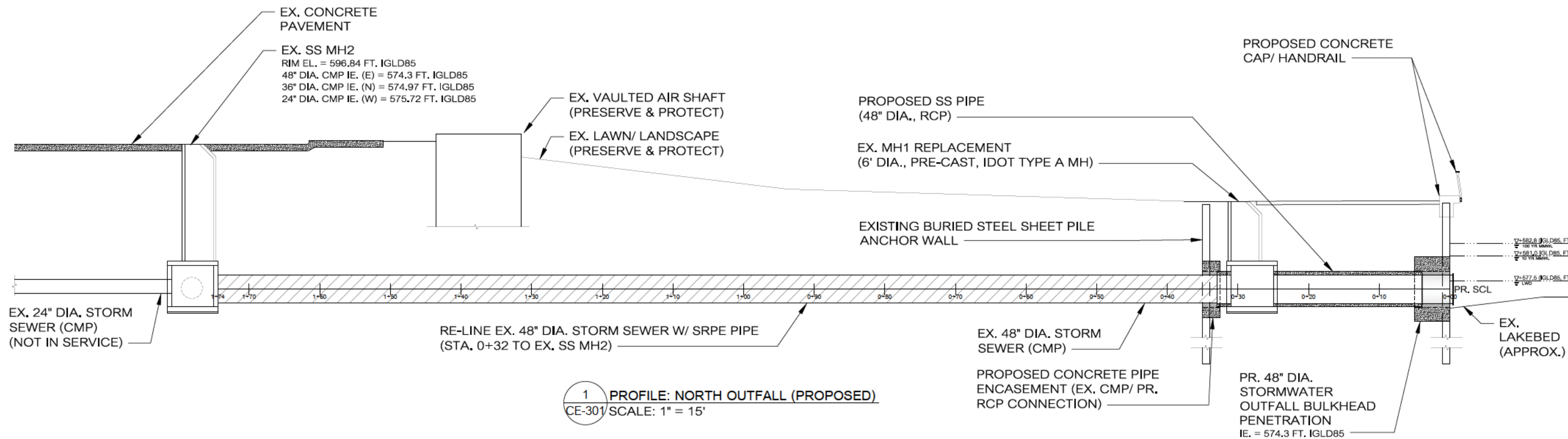
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REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

PREPARED FOR:
Northwestern University

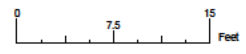
PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
SOUTH OUTFALL PLAN

SHEET NUMBER: CE-102



NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



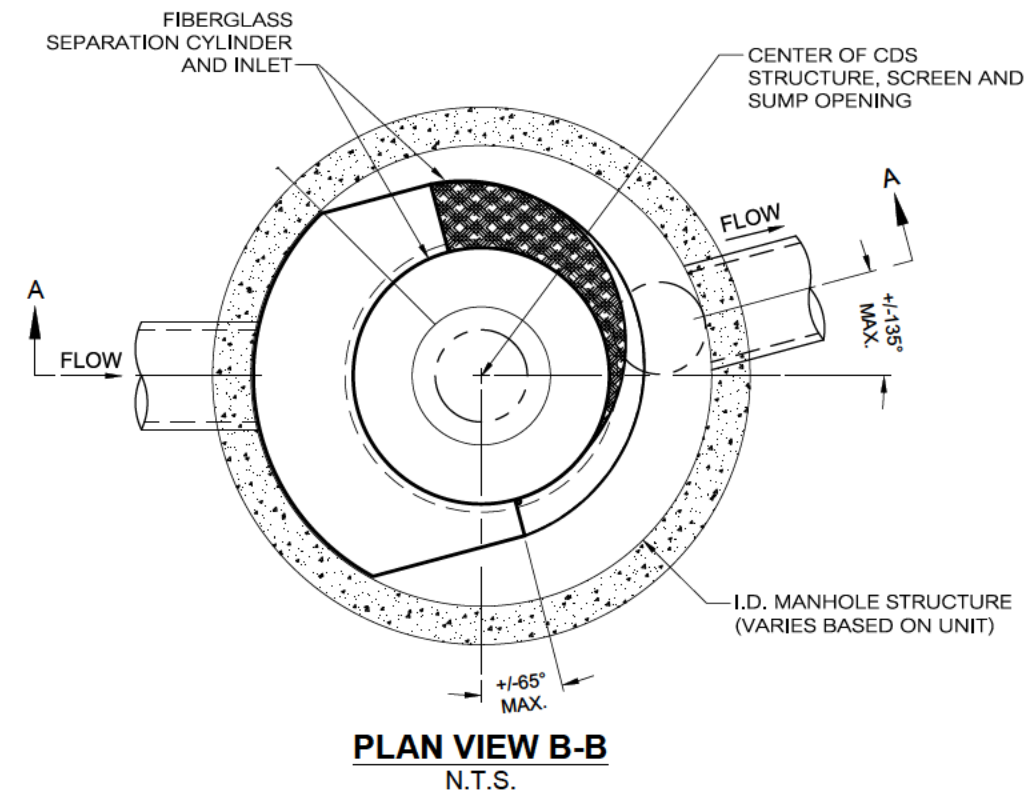
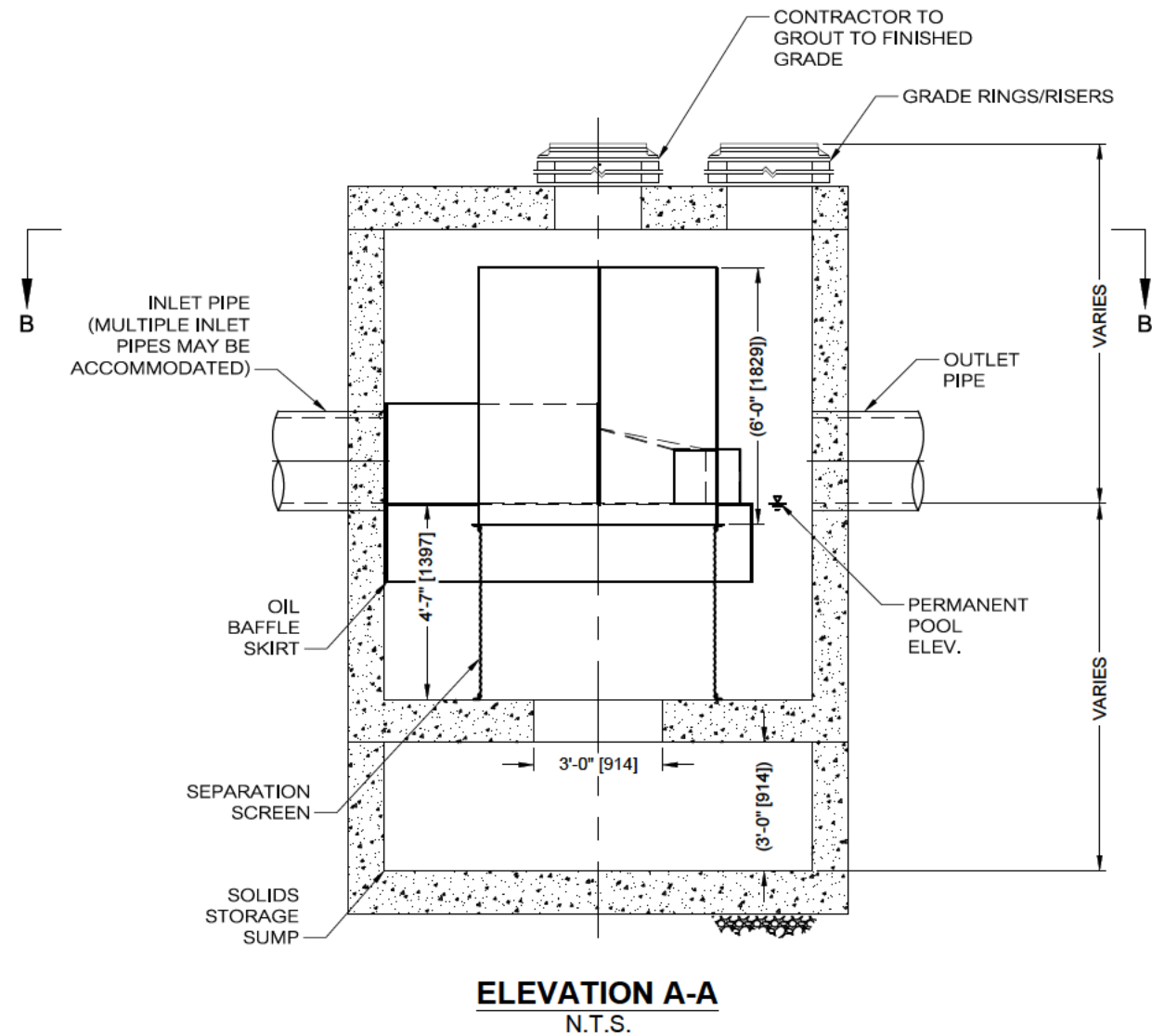
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C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION					2024-03-14
PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	DESIGN	PERMIT	CONSTRUCTION				
ISSUE	(B)	(D)	(F)				
		TENDER	RECORD				

PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
STORMWATER OUTFALL SECTIONS

SHEET NUMBER: **CE-301**



1 **DETAIL: WATER QUALITY STRUCTURE (CDS BY CONTECH)**
 CE-501 NTS/ DETAILS VARY PER MODEL/ SIZE SPECIFIED (FOR REFERENCE ONLY)

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.

PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

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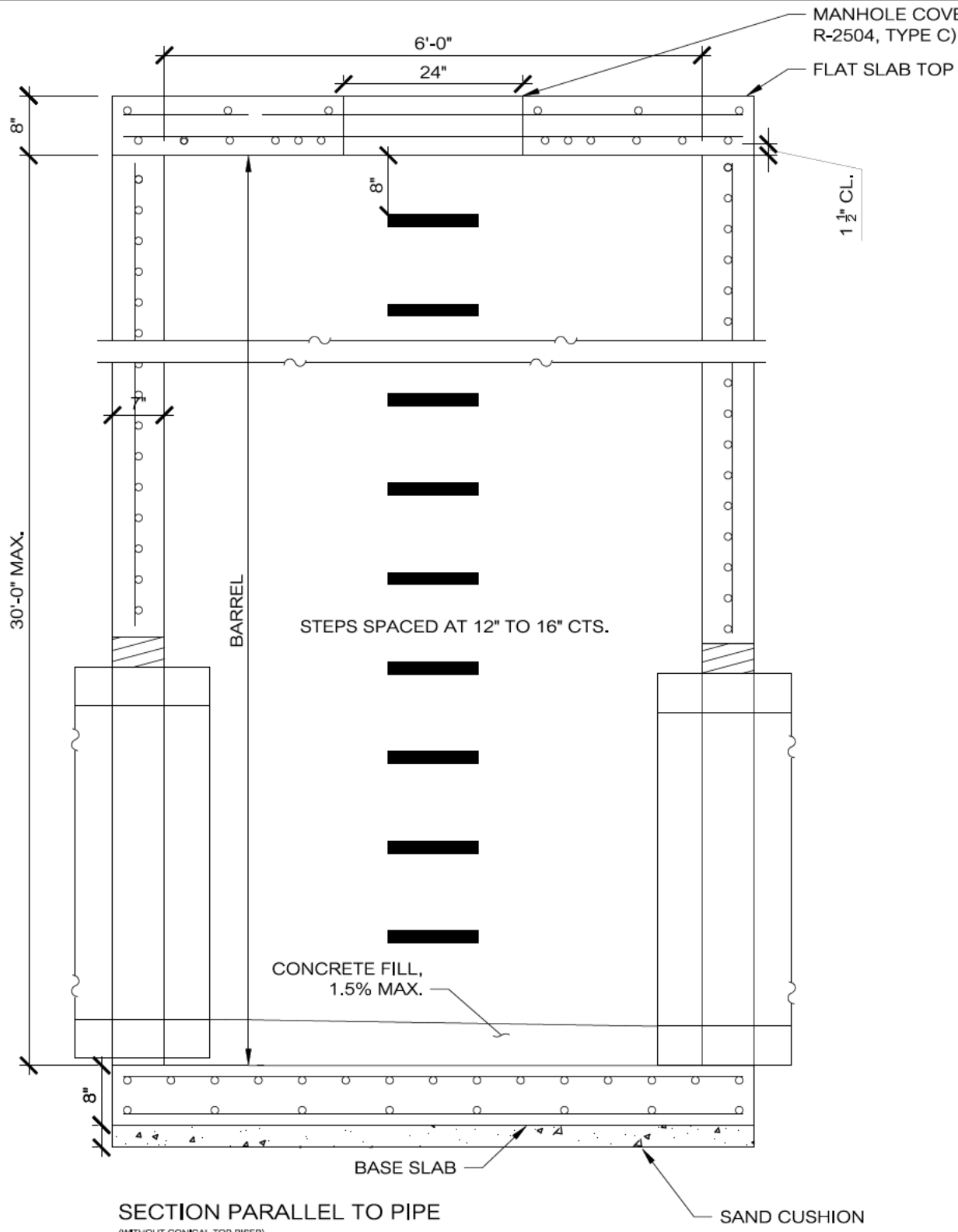
Northwestern
University

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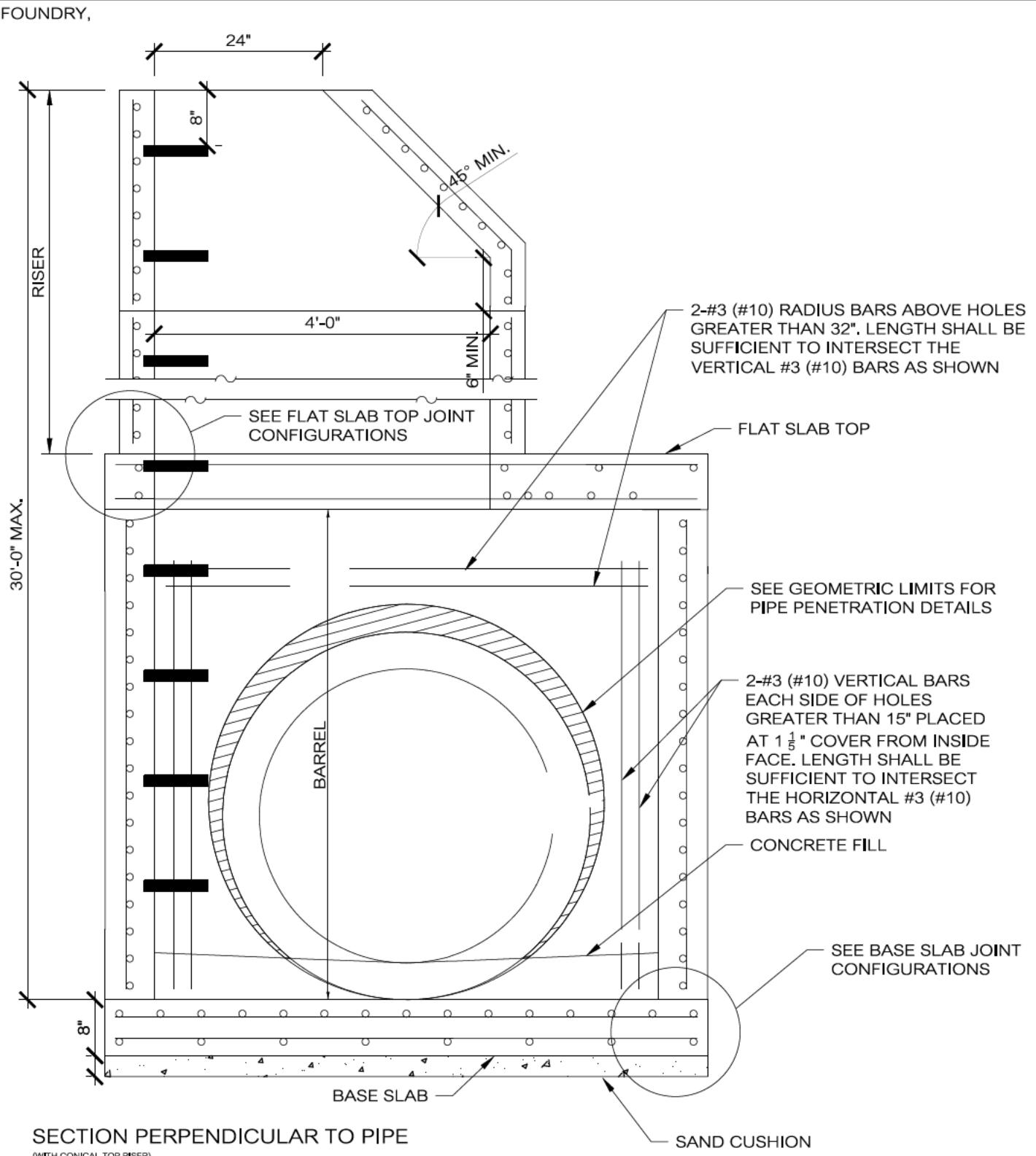
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
 WATER QUALITY STRUCTURE DETAILS

SHEET NUMBER: CE-501



SECTION PARALLEL TO PIPE
(WITHOUT CONICAL TOP RISER)



SECTION PERPENDICULAR TO PIPE
(WITH CONICAL TOP RISER)

2
CE-502
DETAIL: MANHOLE (IDOT, TYPE A), REFERENCE ONLY
NTS/ DETAILS VARY PER SPECIFIED MODEL/ SIZE

2
CE-502
DETAIL: MANHOLE (IDOT, TYPE A), REFERENCE ONLY
NTS/ DETAILS VARY PER SPECIFIED MODEL/ SIZE

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.

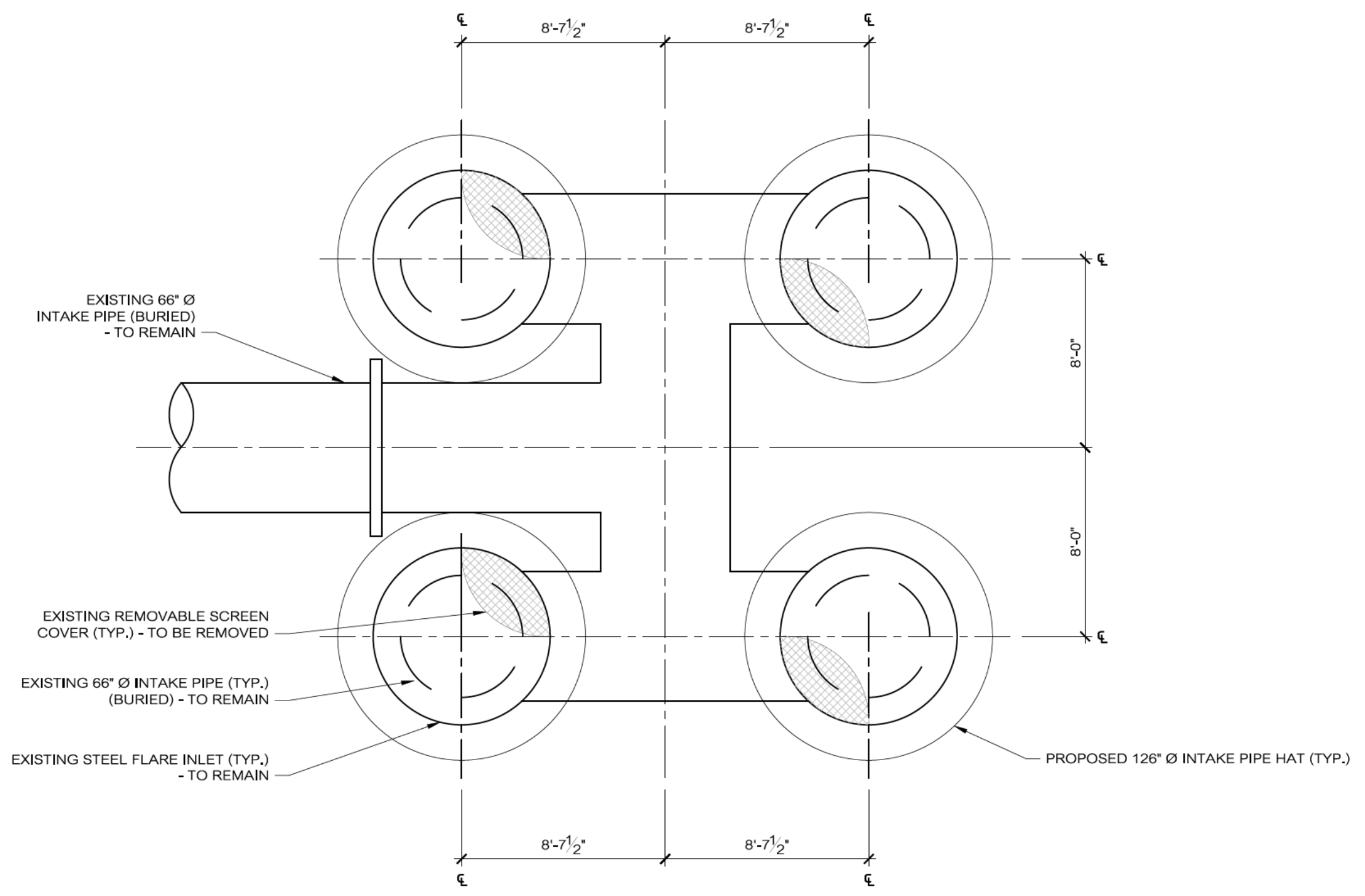
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C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF	PRELIMINARY	PERMIT	CONSTRUCTION				
ISSUE	(B) DESIGN	(D) TENDER	(F) RECORD				

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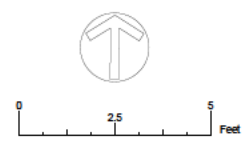
NU SHORELINE INFRASTRUCTURE REPAIRS
MANHOLE DETAILS

SHEET NUMBER: CE-502



01 PLAN - OVERALL LAYOUT
 C-101 SCALE: 1" = 5'

NOTES:
 1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
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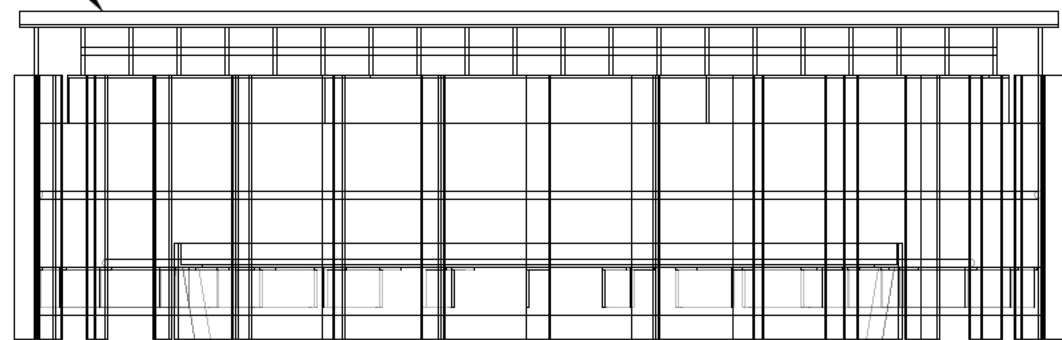
PREPARED FOR:

PREPARED BY:

NU SHORELINE INFRASTRUCTURE REPAIRS
 PROPOSED INTAKE CAP LAYOUT
 SHEET NUMBER: **CI-101**

EL. 563.65 (IGLD 85, FT.)

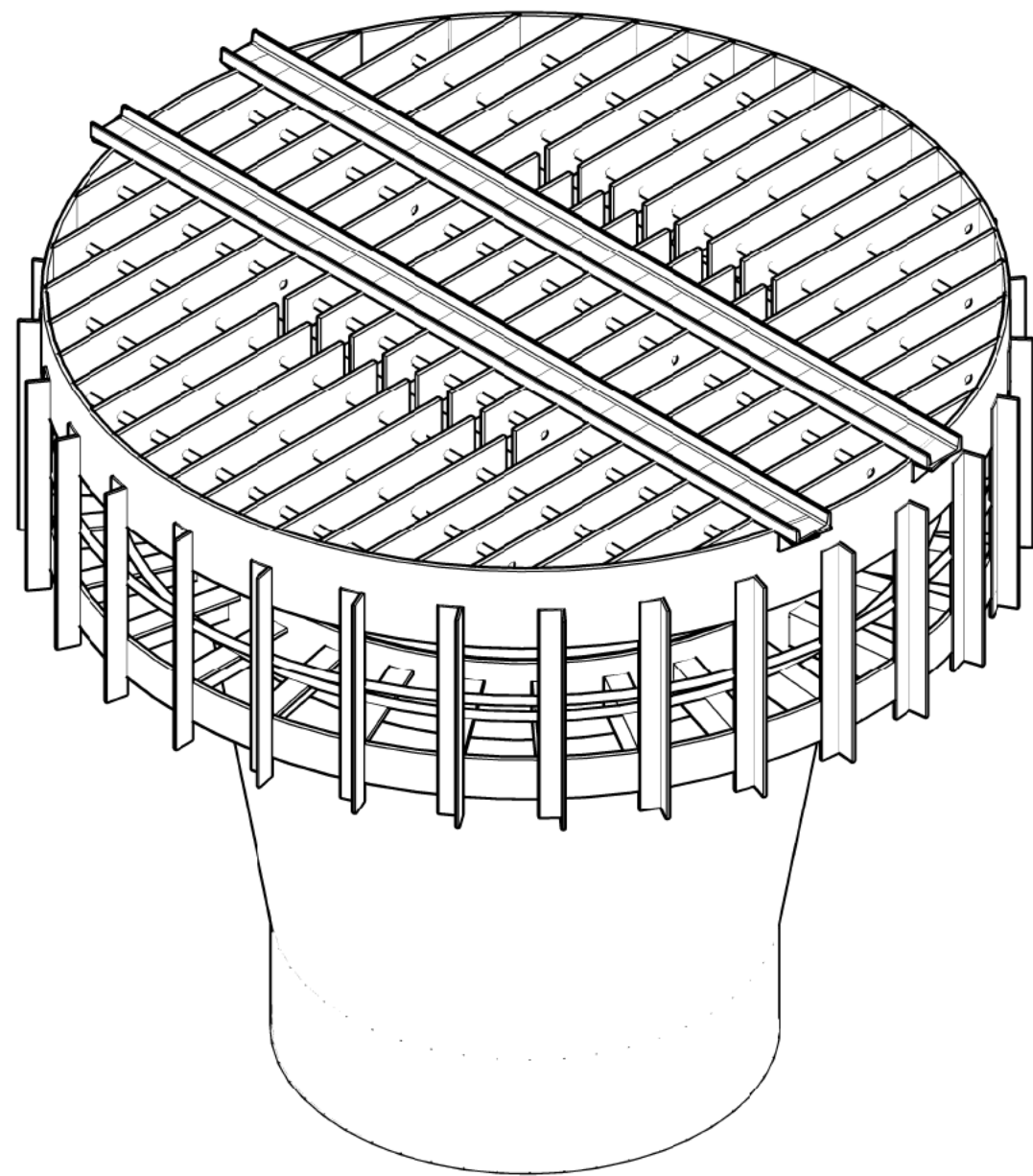
- 01
CI-304
- 02
CI-303
- 01
CI-303



EXISTING LAKEBED

EXISTING STEEL FLARE INLET (TYP.)

01 ELEVATION - FRONT VIEW OF INTAKE ASSEMBLY
CI-301 SCALE: 1" = 2'



02 ISOMETRIC - FRONT VIEW OF INTAKE ASSEMBLY
CI-301 N.T.S.

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	(C)	(E)				
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION				
	(B) DESIGN	(D) TENDER	(F) RECORD				

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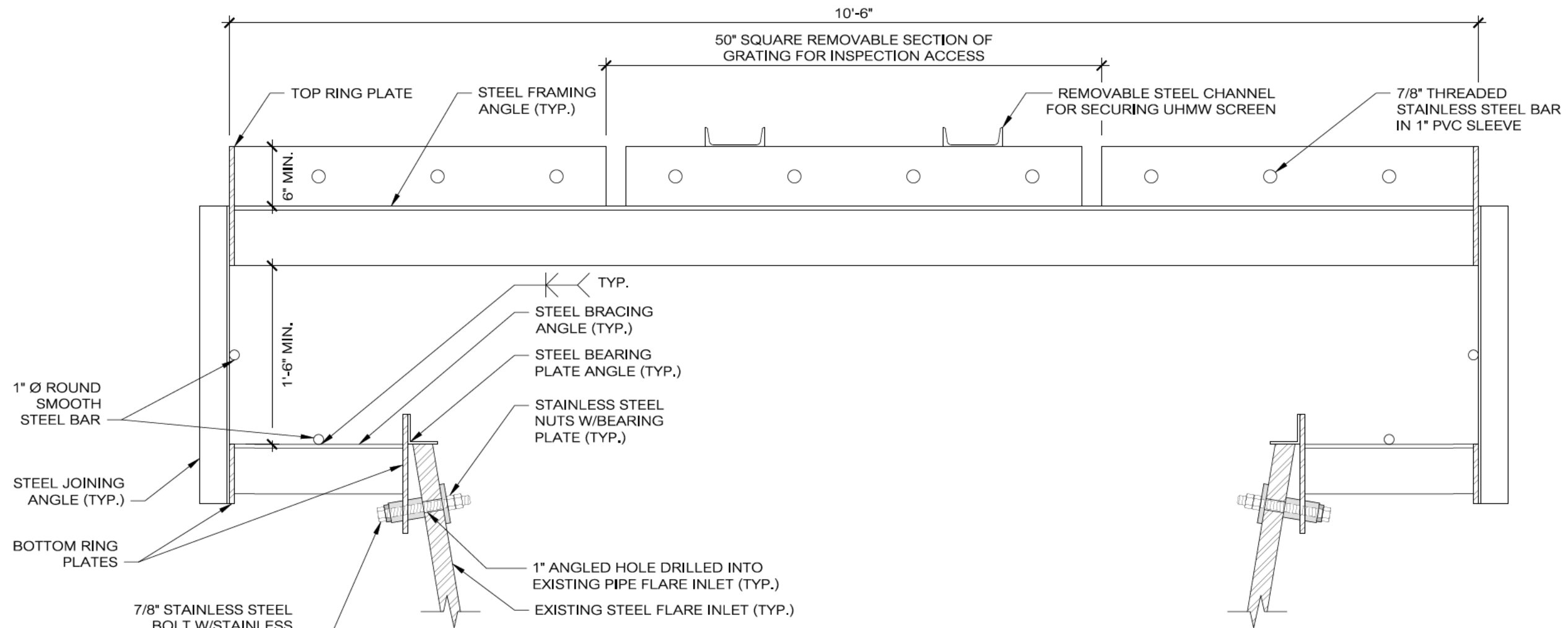
Northwestern University

PREPARED BY:

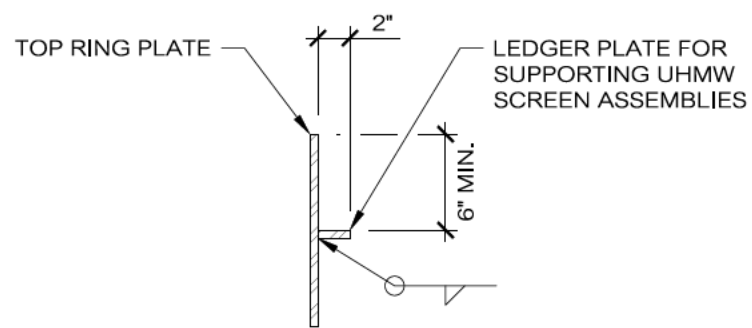
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
INTAKE CAP DETAILS (SHEET 1 OF 4)

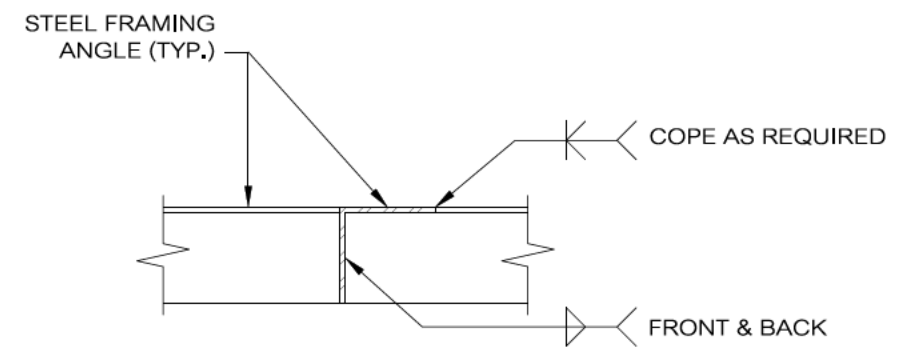
SHEET NUMBER: CI-301



01 SECTION - TYPICAL CROSS-SECTION
CI-302 SCALE: 1" = 1'

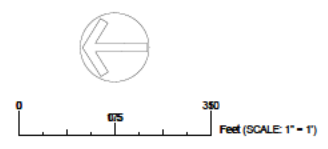


02 DETAIL - LEDGER PLATE CONNECTION
CI-302 SCALE: 1" = 1'



03 DETAIL - STEEL FRAMING ANGLE COPE
CI-302 SCALE: 1" = 1'

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH) PHASE OF ISSUE	(A) PRELIMINARY	(B) DESIGN	(C) PERMIT	(D) TENDER	(E) CONSTRUCTION	(F) RECORD	

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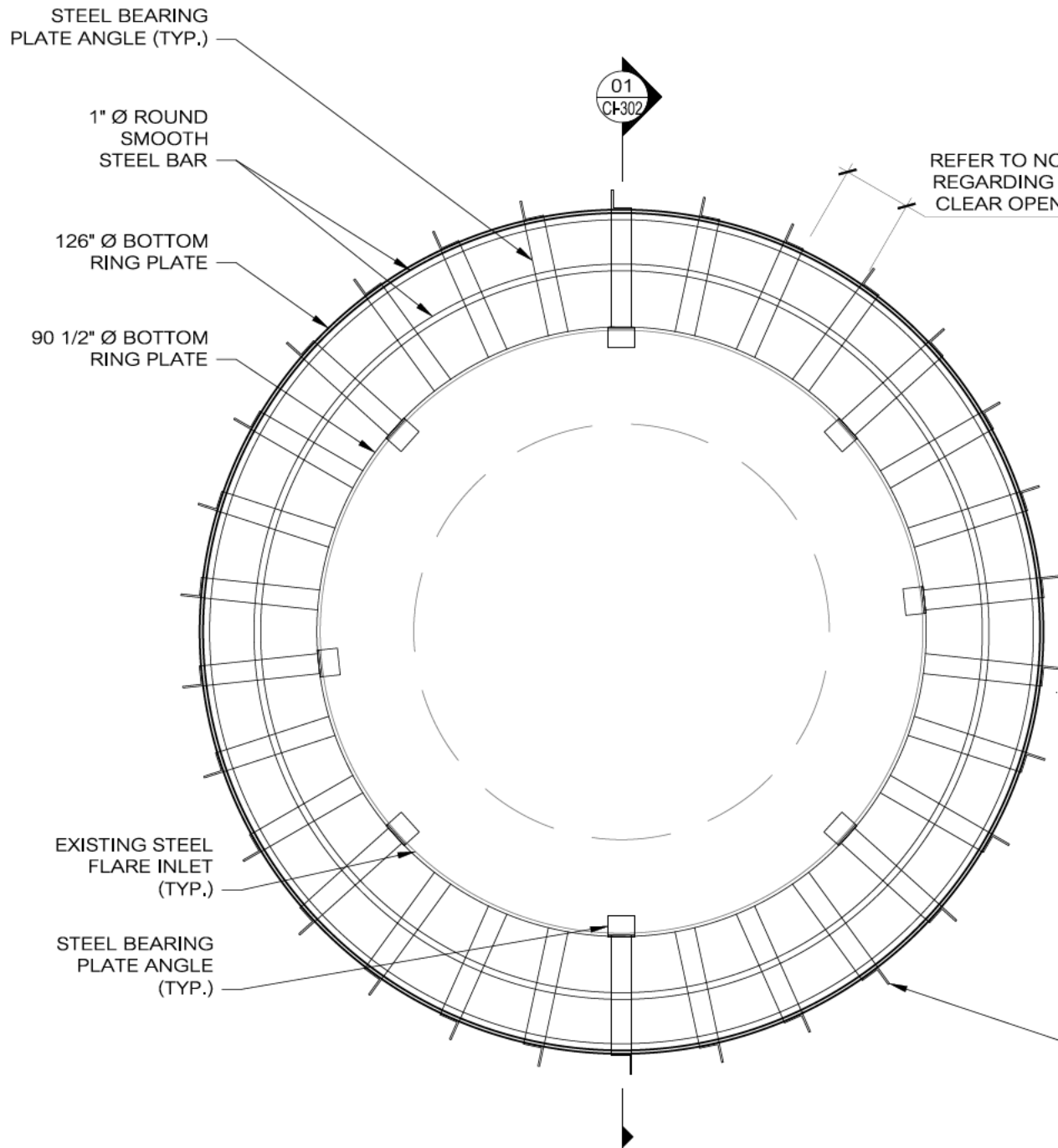
Northwestern University

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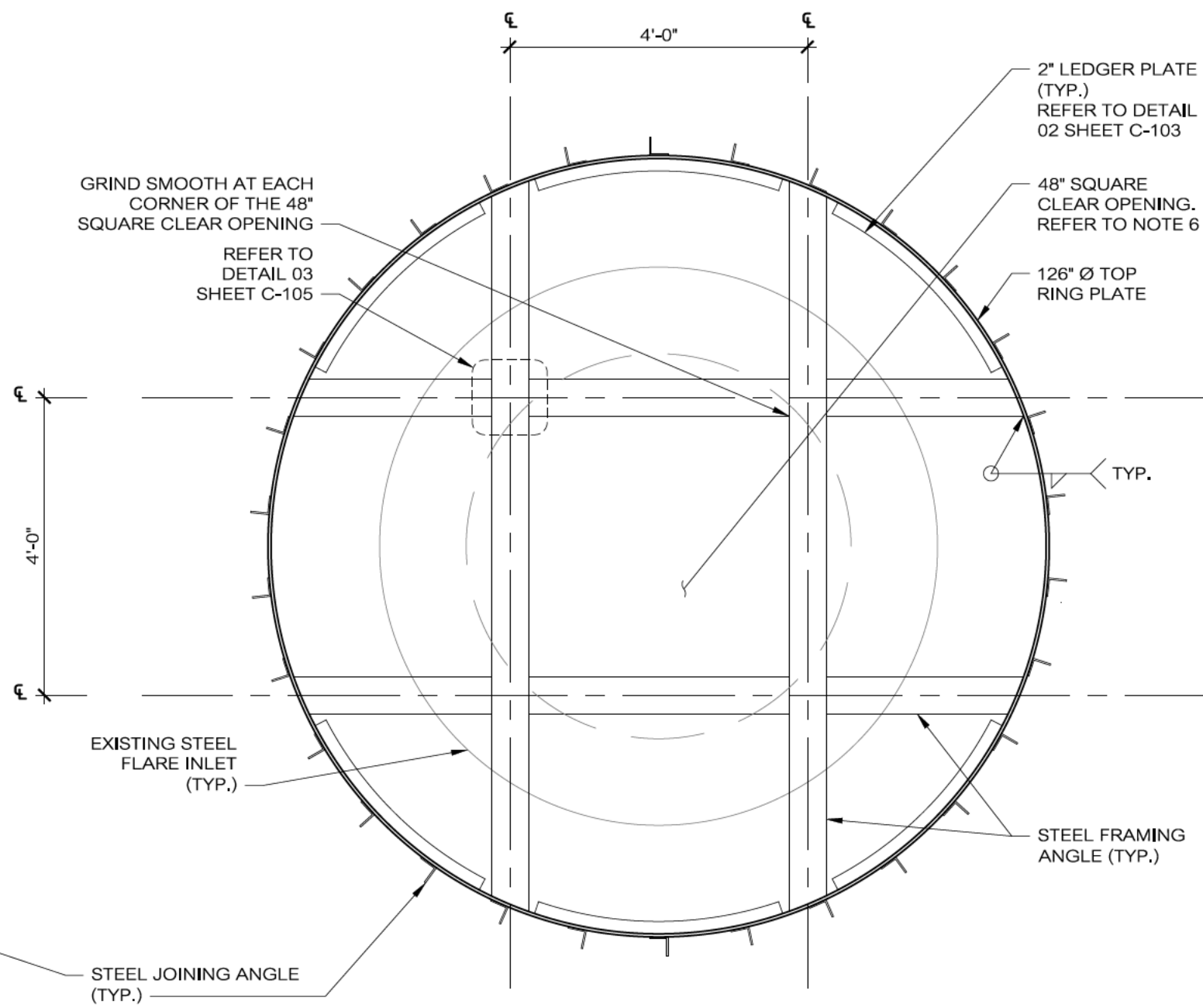
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
INTAKE CAP DETAILS (SHEET 2 OF 4)

SHEET NUMBER: CI-302



01 PLAN - BOTTOM ELEVATION STRUCTURAL FRAMING
CI-303 SCALE: 1" = 2'



02 PLAN - TOP ELEVATION STRUCTURAL FRAMING
CI-303 SCALE: 1" = 2'

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE
C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14
REVISIONS							
(PH)	(A)	PRELIMINARY	(C)	PERMIT	(E)	CONSTRUCTION	
ISSUE	(B)	DESIGN	(D)	TENDER	(F)	RECORD	

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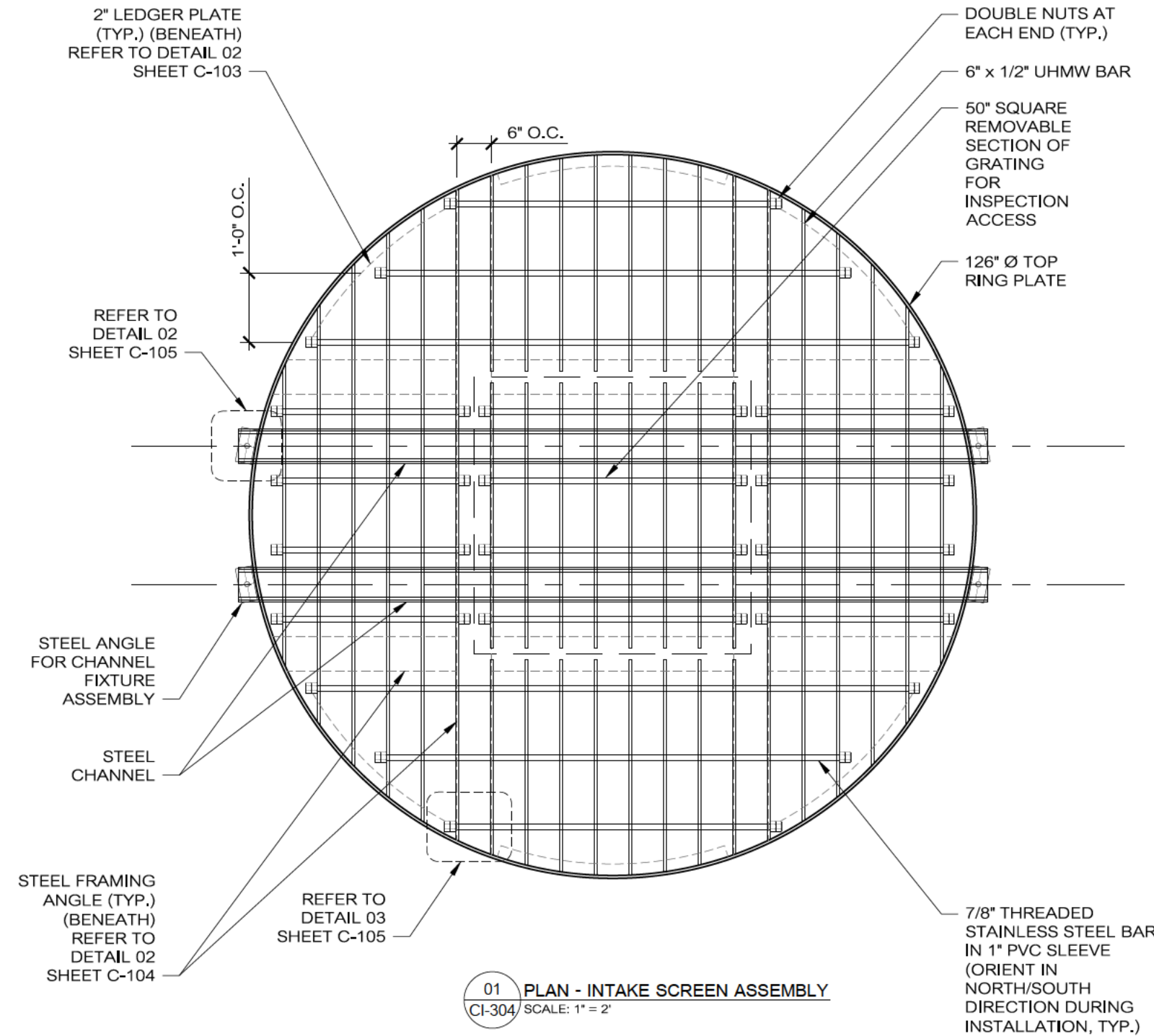
Northwestern University

PREPARED BY:

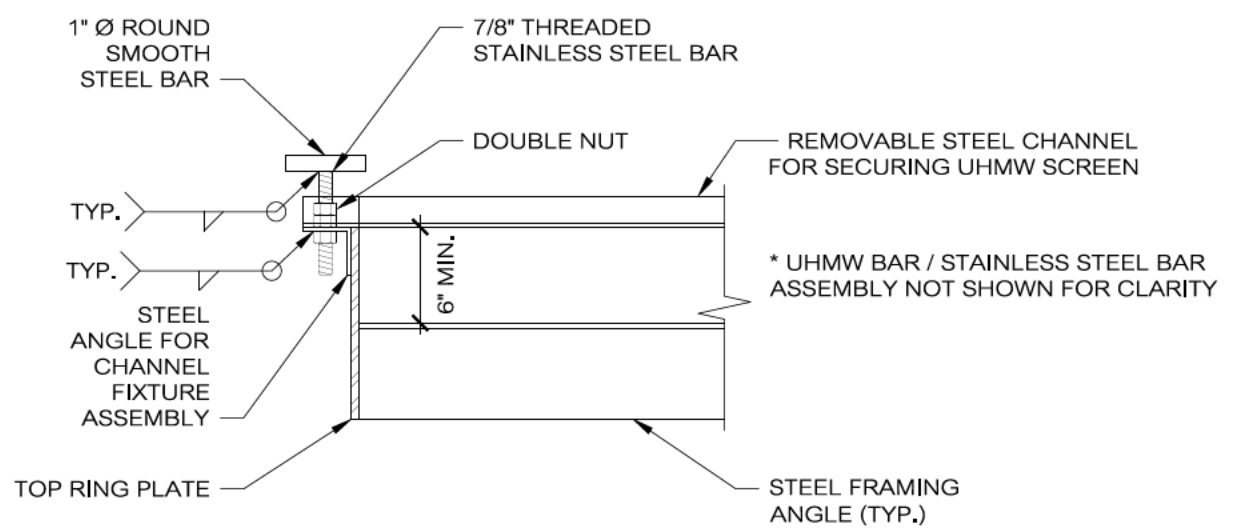
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
INTAKE CAP DETAILS (SHEET 3 OF 4)

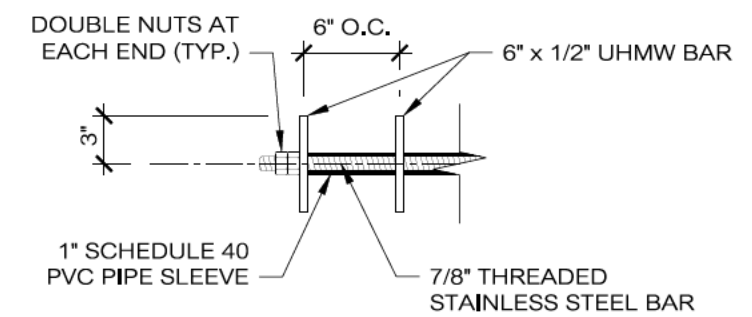
SHEET NUMBER: CI-303



01 PLAN - INTAKE SCREEN ASSEMBLY
CI-304 SCALE: 1" = 2'

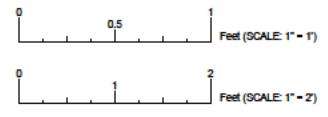


02 DETAIL - CHANNEL FIXTURE ASSEMBLY
CI-304 SCALE: 1" = 1'



03 DETAIL - UHMW BAR / STAINLESS STEEL BAR ASSEMBLY
CI-304 SCALE: 1" = 1'

NOTES:
1. SEE SHEET G-002/ G-003 FOR GENERAL NOTES.



C	-	PERMIT DRAWINGS - NOT FOR CONSTRUCTION	CEP	RPA	CDB	EL	2024-03-14		
PH	REV	DESCRIPTION	DRN	DSN	APR	QCM	ISSUE DATE		
REVISIONS									
(PH)	(A)	(C)	(E)						
PHASE OF ISSUE	PRELIMINARY	PERMIT	CONSTRUCTION						
	(B) DESIGN	(D) TENDER	(F) RECORD						

PREPARED FOR:
Northwestern University

PREPARED BY:
Baird.

NU SHORELINE INFRASTRUCTURE REPAIRS
INTAKE CAP DETAILS (SHEET 4 OF 4)

SHEET NUMBER: **CI-304**



Appendix C

USACE Approved Jurisdictional Determination LRC-2021-
00160



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

January 31, 2022

Operations Division
Regulatory Branch
LRC-2021-00160

SUBJECT: Jurisdictional Determination for the Northwestern Shoreline Protection Study in Evanston, Cook County, Illinois (Latitude 42.050807, Longitude -87.671729)

David Stone
Northwestern University
2020 Ridge Avenue
Evanston, Illinois 60208

Dear Mr. Stone:

This is in response to your request that the U.S. Army Corps of Engineers complete a jurisdictional determination for the above-referenced site submitted on your behalf by Resource Environmental Solutions, LLC. The subject project has been assigned number LRC-2021-00160. Please reference this number in all future correspondence concerning this project.

Following a review of the information you submitted, this office has determined that the subject property contains "waters of the United States".

Waters 1:Lake Michigan & Wetland 1 have been determined to be under the jurisdiction of this office and therefore, subject to Federal regulation.

In the event an application is submitted for work within jurisdictional areas, a concurrence of the wetland boundaries and/or a professional survey of the identified wetland and water features stamped by a professional surveyor will need to be prepared and shall accompany the approved wetland delineation.

For a detailed description of our determination please refer to the enclosed decision document. This determination covers only your project as depicted in the Wetland Delineation Report date July 9, 2021, prepared by RES.

This determination is valid for a period of five (5) years from the date of the letter, unless new information warrants revision of the determination before the expiration date or a District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

This letter is considered an approved jurisdictional determination for your subject site. If you object to this determination, you may appeal, according to 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and a Request for Appeal (RFA) form. If you request to appeal the above determination, you must submit a completed RFA form to the Great Lakes/Ohio River Division Office at the following address:

Jacob Siegrist
Regulatory Appeals Review Officer
US Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10-714
Cincinnati, Ohio 45202-3222
Phone: (513) 684-2699 Fax: (513) 684-2460

In order to be accepted, your RFA must be complete, meet the criteria for appeal and be received by the Division Office within sixty (60) days of the date of the NAP. If you concur with the determination in this letter, submittal of the RFA form to the Division office is not necessary.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is your responsibility to obtain any required state, county, or local approvals for impacts to wetland areas not under the Department of the Army jurisdiction. For projects located in unincorporated and unauthorized municipalities in Cook County, please contact the Metropolitan Water Reclamation District of Greater Chicago at (312) 751-3247. For projects in incorporated areas of Cook County, contact the authorized municipality for information related to the Watershed Management Ordinance.

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States, including wetlands. A Department of the Army permit is required for any proposed work involving the discharge of dredged or fill material within the jurisdiction of this office. To initiate the permit process, please submit a joint permit application form along with detailed plans of the proposed work. Information concerning our program, including the application form and an application checklist, can be found at and downloaded from our website:

<http://www.lrc.usace.army.mil/Missions/Regulatory.aspx>

If you have any questions, please contact Mr. Michael J. Machalek of my staff by telephone at (312) 846-5534 or email at Mike.J.Machalek@usace.army.mil.

Sincerely,

Diedra L. McLaurin
Team Lead
Regulatory Branch

Enclosures

Copy Furnished w/out Enclosures

Cook County Building and Zoning (Michael Fazio)
Metropolitan Water Reclamation District of Greater Chicago (Dan Feltes)
RES (Caitlin Burke)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: David Stone, Northwestern University

File Number: LRC-2021-00160

Date: January 31,
2022

Attached is:

See Section below

	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A. INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district commander. Your objections must be received by the district commander within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district commander will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district commander will send you a proffered permit for your reconsideration, as indicated in Section B below.

B. PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

C. PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

D. APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

E. PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Regulatory Branch
Chicago District Corps of Engineers
231 South LaSalle Street, Suite 1500
Chicago, IL 60604-1437
Phone: (312) 846-5530
Fax: (312) 353-4110

If you only have questions regarding the appeal process you may also contact:

Jacob Siegrist
Regulatory Appeals Review Officer
US Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10524
Cincinnati, Ohio 45202-3222
Phone: (513) 684-2699 Fax: (513) 684-2460

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Commanders personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:



Appendix D

IDNR EcoCAT Review Results



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

March 06, 2024

Rory Agnew
Kory Burton
Suite 200 2020 Ridge Avenue
Evanston, IL 60208

RE: Northwestern University Shoreline Infrastructure Improvements
Project Number(s): 2411071 [LRC-2023-387, 2110230]
County: Cook

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, any required night lighting follows International Dark-Sky Association (IDA) guidance to minimize the effect of light pollution on wildlife; including shielding fixtures so no light travels upward, using “warm-white” or filtered LEDs (CCT < 3,000 K) to minimize blue emission, and avoiding over-lighting.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project’s implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Bradley Hayes
Division of Ecosystems and Environment
217-785-5500

Applicant: Kory Burton
Contact: Rory Agnew
Address: Suite 200 2020 Ridge Avenue
Evanston, IL 60208

IDNR Project Number: 2411071
Date: 02/27/2024
Alternate Number: LRC-2023-387,
2110230

Project: Northwestern University Shoreline Infrastructure Improvements
Address: 1823 Campus Drive, Evanston

Description: The project site is in Evanston, Illinois, at the Northwestern University (NU) Evanston campus. The project consists of three distinct work items, listed/ described below:

Sailing Center Repairs

Shoreline Infrastructure Repairs

Water Intake Screen Replacement

Item 1: Sailing Center Repairs. The overall objective of this work item is to replace temporary emergency shoreline protection measures with features that will help stabilize the shoreline, enhance protection, and mitigate the need for future shoreline-related repairs to the NU Sailing Center building. The Sailing Center Building is located along the shoreline at the south end of the Evanston campus, adjacent to the City of Evanston Clark Street Beach. Individual element improvements to accomplish the overall objective include:

Extending an existing jetty structure to the south to improve wave sheltering and beach stability;
Reconstructing the lake-side Sailing Center shoreline protection to make this structure more robust;
and

Importing sand to nourish the existing beach to increase beach width adjacent to the Sailing Center building.

Item 2: Shoreline Infrastructure Repairs. This work item involves replacing an existing pedestrian bridge that spans the weir/ drainage channel at the south end of the NU Cooling Pond (with a new bridge that can accommodate vehicular loading), and outfall/ storm sewer pipe upgrades for two existing storm sewer outlets that drain into Lake Michigan through an existing steel sheet pile bulkhead near the southern end of the NU campus.

Item 3: Water Intake Screen Replacement. NU uses water from Lake Michigan to remove excess heat from their central utility plan. Lake water is drawn in through an intake approximately 3,500 ft offshore. The offshore intake consists of four cones. This work item involves replacing the existing screens covering the four intake cones with new/ prefabricated screens that reduce intake flows to be less than 0.5 ft/s to minimize the entrainment of fish/ satisfy regulatory requirements.

Natural Resource Review Results

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Sea Rocket (*Cakile edentula var. lacustris*)

Seaside Spurge (*Chamaesyce polygonifolia*)

Thank you for submitting this project for review through the IDNR Comprehensive Environmental Review Process. An IDNR staff member will contact you regarding the results of the Department's review.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Cook

Township, Range, Section:

41N, 14E, 7

41N, 14E, 18



IL Department of Natural Resources

Contact

Justin Dillard

217-785-5500

Division of Ecosystems & Environment

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.