

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2024-020

Considered at Board of Managers Meeting: May 8, 2024

Received complete: April 22, 2024

Applicant: Olympic Hills Golf Club

Consultant: Anderson Engineering, Brian Field

Project: Olympic Hills Golf Club hole 5 –relocation of a pond and reconstruction of one hole at Olympic Hills Golf Course.

Location: Mt Curve Road & Olympia Drive, Eden Prairie, MN

Reviewer: Katherine Tomaska, EIT; Scott Sobiech, PE, Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the May 8, 2024 meeting of the managers. Resolved that the application for Permit 2023-005 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2024-020 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Rule Conformance Summary

Rule	Issue	Conforms to RPBCWD Rules?	Comments
B	Floodplain Management and Drainage Alterations	Yes	
C	Erosion Control Plan	See Comment	See rule-specific permit condition C1 & C2 related to updating plans to show construction entrance and providing name and contact information for the individual responsible for erosion control.
L	Permit Fee	Yes	\$3,000 deposit fee received April 16, 2024. As of May 2, 2024 the amount due is \$3,107.
M	Financial Assurance	See Comment	The financial assurance is calculated at \$20,388

Project Background

The applicant is proposing to reshape hole 5 by moving the green, removing and reconstructing sections of bituminous cart path, and relocating an existing stormwater pond. The existing stormwater pond along hole 5 at Olympic Hills Golf Course outlets to an 18-inch CMP pipe that flows west through city-owned Outlot D. The applicant states that the existing CMP pipe appears to show signs of deterioration at the bottom and is exposed for the last 5-10 feet. The 18-inch CMP connects to a 15-inch RCP that flows north and connects to a 36-inch RCP storm sewer downstream of the Neil Lake outlet. The proposed pond will be slightly northeast of its present location. The proposed pond outlet will connect to the existing 36-inch RCP storm sewer from Neil Lake approximately 320 feet upstream of where the existing outlet connects.

The engineer concurs with the applicant analysis confirming the discharge rate entering the 36-inch RCP pipe under proposed conditions is lower for the 2-, 10-, and 100-year storm events than under existing conditions. Additionally, the pond reconstruction reduces the 100-year flood elevation of the pond, thus providing increased system resilience. Because the only disturbed and reconstructed impervious area is a cart path that does not exceed 10 feet in width and is bordered downgradient by pervious area extending at least 5 feet, the project is exempt from compliance with of Rule J (subsection 2.2d. The project site information is summarized below:

Description	Area (acres)
Total Site Area	175
Existing Site Impervious	6.9
Post-Construction Site Impervious	6.81
Change in Site Impervious Area	-0.09 (1.3% decrease)
Proposed Trail Reconstruction (exempt)	0.09
Disturbed Impervious Surface	0.18
Total Disturbed Area	4.6

Exhibits:

1. Permit Application received March 21, 2024 (applicant was notified of an incomplete application on April 9, 2024; information completing the application was received on April 22, 2024)
2. Stormwater Management Plan Memorandum dated March 20, 2024 (revision dated April 22, 2024)
3. Design Plans Sheets dated March 14, 2024 (revision received April 22, 2024)
4. HydroCAD model received April 22, 2024
5. Response to Stormwater Review Comments Letter dated April 22, 2024

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because the proposed project involves the placement of 1,535 cubic yards of fill below the 100-year flood elevation (810.21 ft) of existing stormwater detention facility to reconfigure the facility, , the applicant must submit plans conforming to the requirements in the RPBCWD Floodplain Management and Drainage Alterations rule (Rule B, Subsection 2.1).

Rule B, subsection 3.1 imposes no requirements because no buildings are proposed to be constructed or reconstructed as part of the project. Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory storage at or below the same elevation for fill in the floodplain of a water basin and within the floodplain of the same waterbody is provided (Rule B, Subsection 3.2). The RPBCWD engineer concurs that 1,535 cubic yards of fill will be placed in floodplain and 2,205 cubic yards of compensatory storage will be created by regrading stormwater detention facility, thus providing a net increase in the floodplain storage and conforming with Rule B, Subsection 3.2.

The RPBCWD engineer concurs with the hydraulic analysis conducted by the applicant's engineer which demonstrates that the project will not materially alter surface flows and will decrease the flood elevations of the facility (see below table). The analysis also demonstrates that the proposed pond will contain runoff for the 2-, 10-, and 100-year events. Because the project also proposes to increase in the water quality volume (a.k.a. dead storage volume) of the pond by 323 cubic yards, the proposed pond will promote increased pollutant settling and the plans demonstrate no impact to water quality. Because the project provides a net increase in flood storage, reduces discharge rates, and increases the water quality volume of the basin, the engineer finds that the project is not reasonably likely to adversely affect flood risk, basin or channel stability, or stream baseflow, thus meeting the requirements of Rule B, subsection 3.3.

Storm Event	Existing Conditions Discharge (cfs)	Proposed Conditions Discharge (cfs)	Existing Pond HWL (feet)	Proposed Pond HWL (feet)
2-Year	0.9	0.8	808.42	807.50
10-Year	4.5	3.4	809.04	808.34
100-Year	22.6	20.2	810.21	809.79

Because no watercourses exist on the site, Rule B, Subsection 3.4 does not impose requirements on the project. See Rule C analysis of the applicant's submitted erosion control plan to demonstrate conformance with Rule B, Subsection 3.5. A note on the plans indicates that activities must be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.6.

The proposed project conforms to the floodplain management and drainage alteration requirements of Rule B.

Rule C: Erosion and Sediment Control

Because the project will involve 4.6 acres of land-disturbing activities, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control/turf restoration plan includes installation of silt fence, inlet protection for storm sewer catch basins, turf establishment, placement of a minimum of 6 inches of topsoil with a minimum 5% organic matter, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The applicant must update the construction drawing to incorporate a rock construction entrance or similar feature to prevent tracking of materials off-site.
- C2. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$3,000 was received on April 16, 2024. If the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of May 2, 2024 the amount due is \$3,107.

Rule M: Financial Assurance

	Unit	Unit Cost	# of Units	Total
Rules C: Silt fence:	LF	\$2.50	2514	\$6,285
Inlet protection	EA	\$100	5	\$500
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	4.6	\$11,500

	Unit	Unit Cost	# of Units	Total
Contingency (10%)		10%		\$1,853
Total Financial Assurance				\$20,388

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed above and on the permit. The granting of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD’s determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to Rule B.
3. The proposed project will conform to Rule C if the conditions listed above are met.

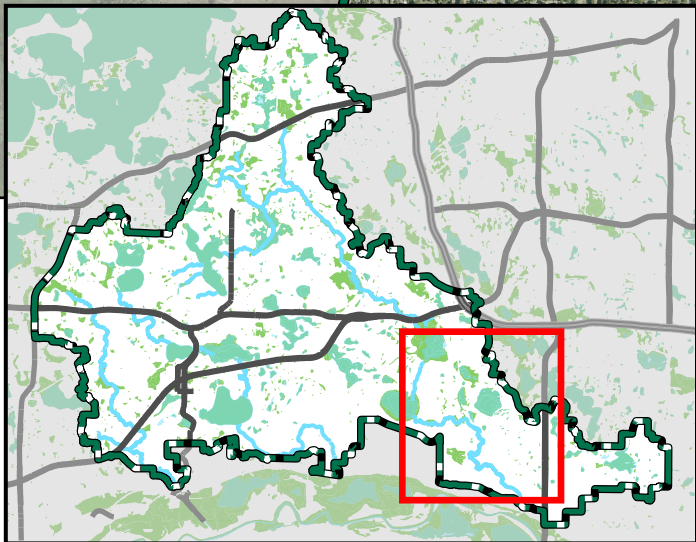
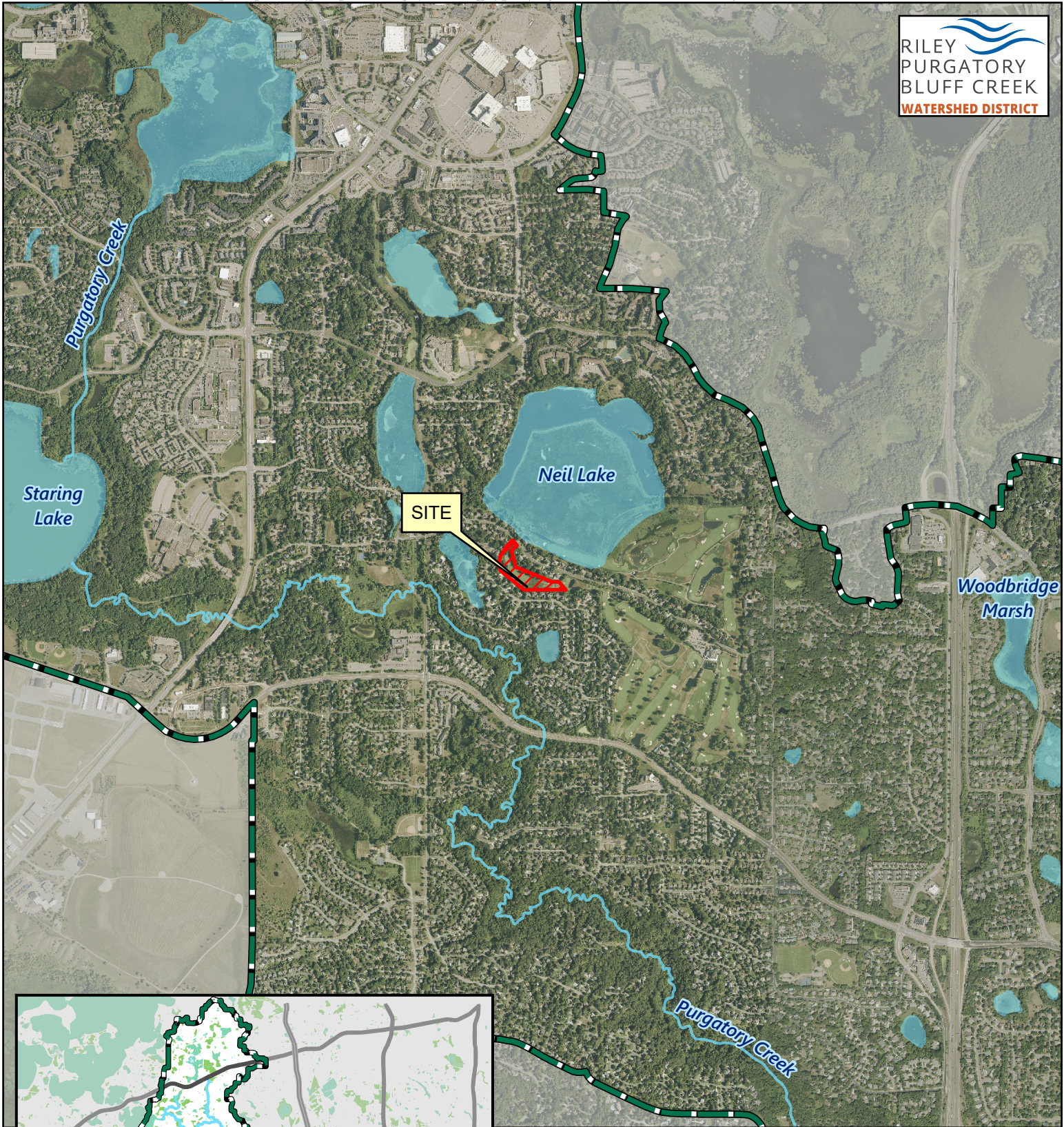
Recommendation:

Approval of the permit contingent upon:

1. Financial Assurance in the amount of \$20,388.
2. The applicant providing revised construction drawing to incorporate a rock construction entrance or similar feature as acceptable to RPBCWD to prevent tracking of materials off-site.
3. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of May 2, 2024 the amount due is \$3,107.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Per Rule C, Subsection 3.3 the permit holder will be responsible for the inspection, maintenance and effectiveness of all erosion prevention and sediment control facilities, features and techniques. The permittee must inspect all erosion prevention and sediment control facilities and soil stabilization measures to ensure integrity and effectiveness until final site stabilization.
3. Upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization the stormwater management facility conforms to design specifications and functions as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
 - a) the surveyed bottom elevations, water levels, and general topography of all facilities;
 - b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
 - c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
 - d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
4. Providing the following additional close-out materials:
 - a) Documentation that constructed stormwater facilities perform as designed. This may include infiltration testing, flood testing, or other with prior approval from RPBCWD
 - b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C Subsection 3.2c criteria



Feet



Permit Location Map

OLYMPIC HILLS GOLF COURSE - HOLE 5

Permit 2024-020

Riley Purgatory Bluff Creek Watershed District

EXISTING CONDITIONS SURVEY

SURVEY FOR: **OLYMPIC HILLS GOLF COURSE**

PROPERTY LOCATION:
Hole No. 5, Olympic Hills Golf Course, Eden Prairie, Minnesota.

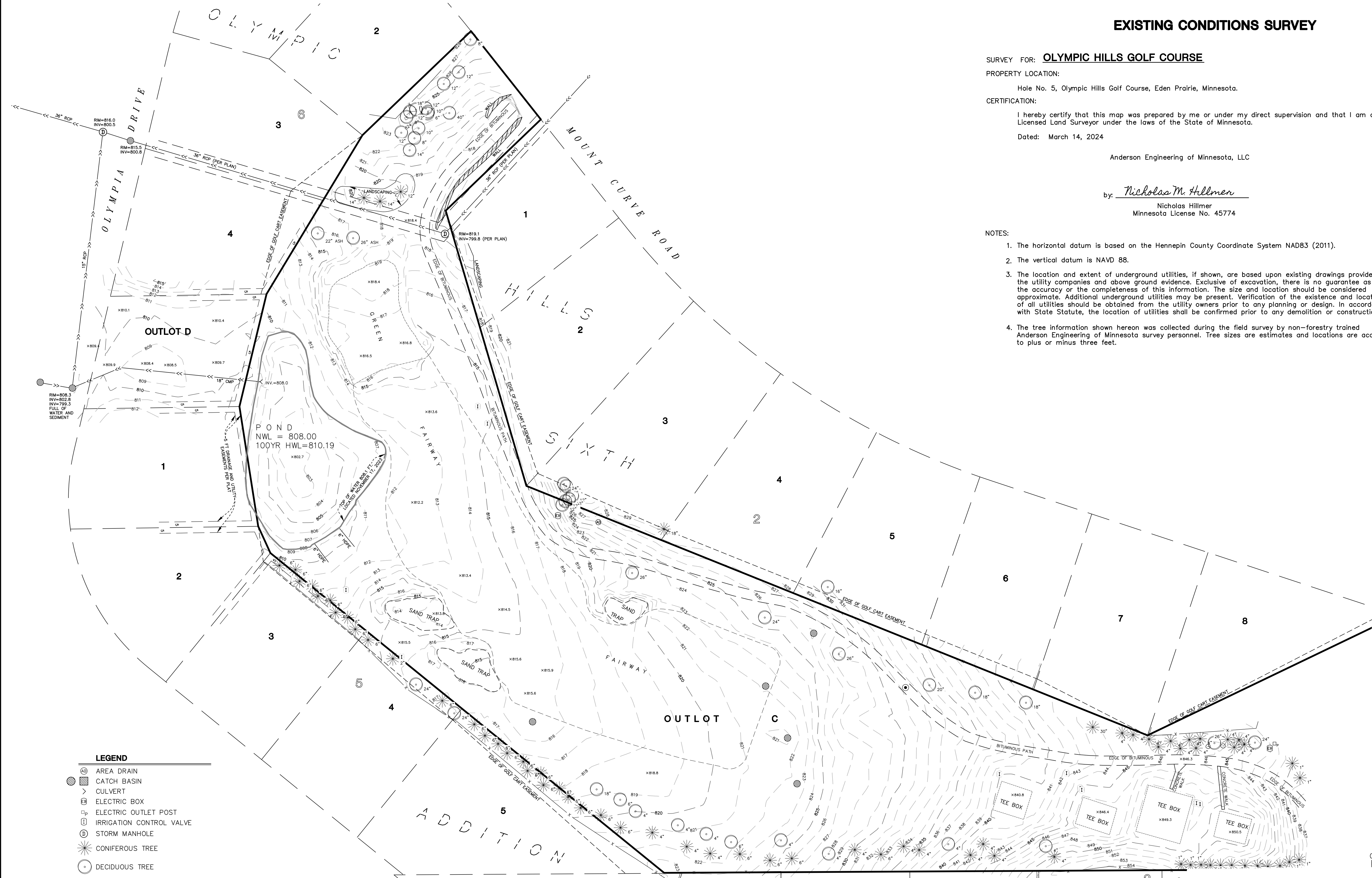
CERTIFICATION:
I hereby certify that this map was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Dated: March 14, 2024

Anderson Engineering of Minnesota, LLC

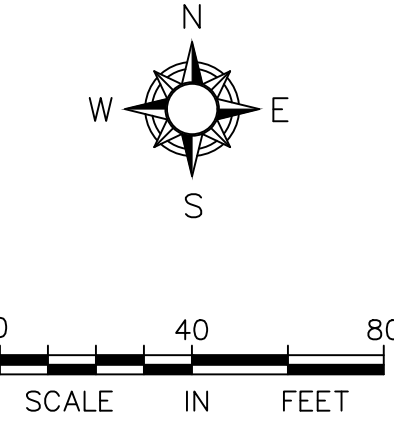
by: Nicholas M. Hillmer
Nicholas Hillmer
Minnesota License No. 45774

- NOTES:
- The horizontal datum is based on the Hennepin County Coordinate System NAD83 (2011).
 - The vertical datum is NAVD 88.
 - The location and extent of underground utilities, if shown, are based upon existing drawings provided by the utility companies and above ground evidence. Exclusive of excavation, there is no guarantee as to the accuracy or the completeness of this information. The size and location should be considered approximate. Additional underground utilities may be present. Verification of the existence and location of all utilities should be obtained from the utility owners prior to any planning or design. In accordance with State Statute, the location of utilities shall be confirmed prior to any demolition or construction.
 - The tree information shown hereon was collected during the field survey by non-forestry trained Anderson Engineering of Minnesota survey personnel. Tree sizes are estimates and locations are accurate to plus or minus three feet.



LEGEND

	AREA DRAIN
	CATCH BASIN
	CULVERT
	ELECTRIC BOX
	ELECTRIC OUTLET POST
	IRRIGATION CONTROL VALVE
	STORM MANHOLE
	CONIFEROUS TREE
	DECIDUOUS TREE
	STORM SEWER
	FENCE



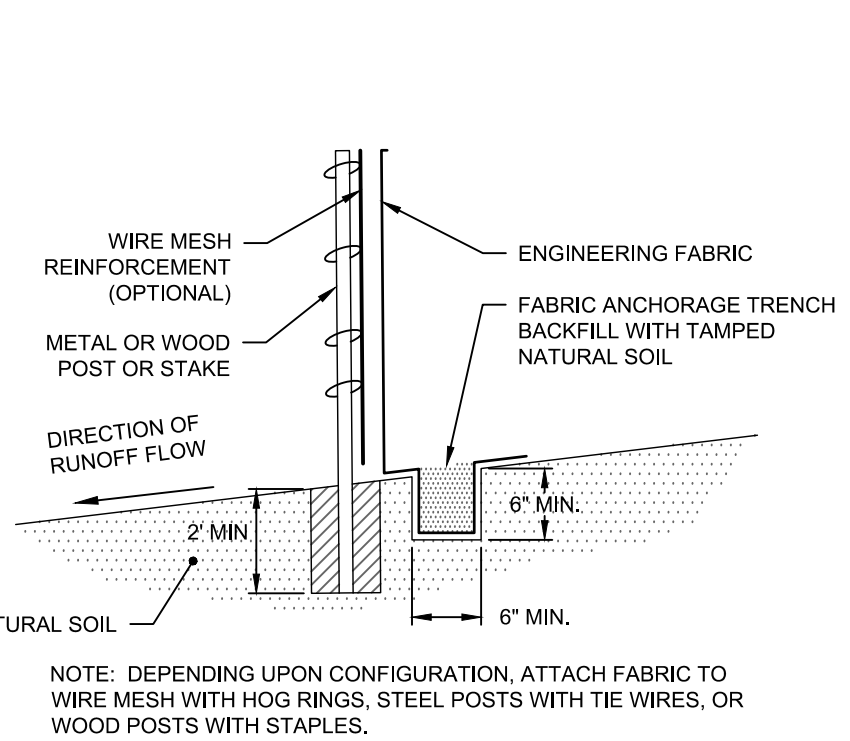
CALL 48 HOURS BEFORE DIGGING:
GOPHER STATE ONE CALL

TWIN CITY AREA (651)454-0002
 MINNESOTA TOLL FREE 1-800-252-1166

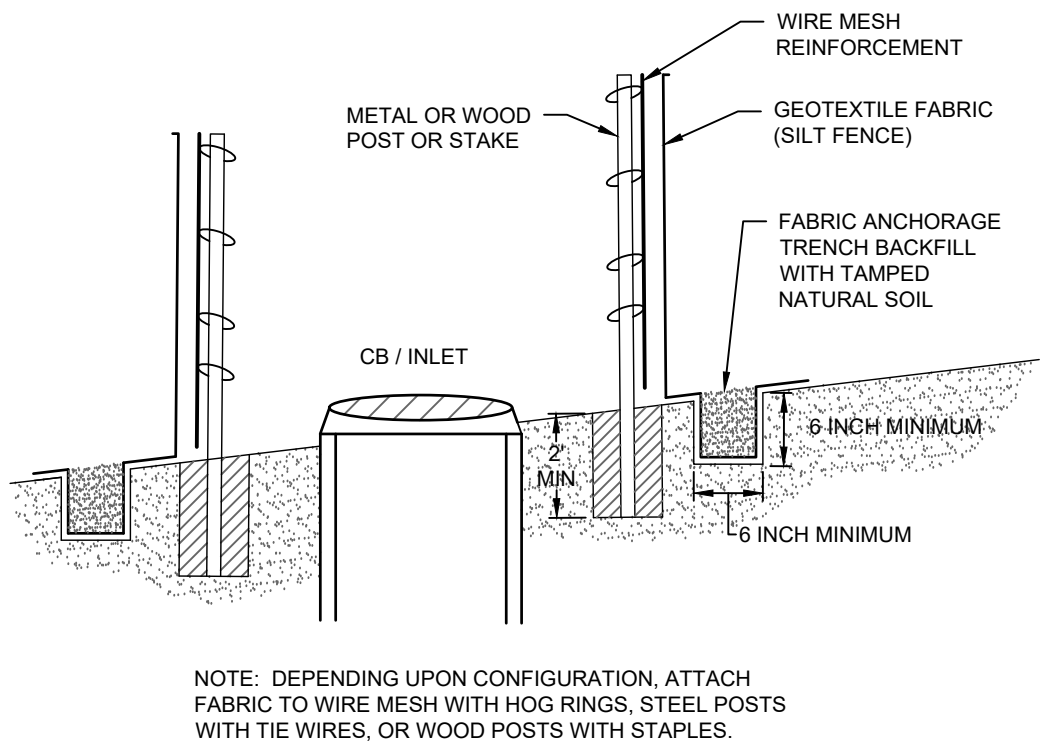
AREA TABLE	
TOTAL SITE AREA (ACRES)	175
EXISTING SITE IMP (ACRES)	6.9
POST CONSTRUCTION IMP (ACRES)	6.81
NEW (INCREASE) SITE IMP (ACRES)	-0.09 (1.3% DECREASE)
PROPOSED TRAIL RECONSTRUCTION (EXEMPT)	0.09
DISTURBED IMP SURFACE (ACRES)	0.18
TOTAL DISTURBED AREA (ACRES)	4.6

GRADING NOTES

1. THE TOTAL DISTURBED AREA IS EQUAL TO 4.06 ACRES. AN MPCA PERMIT WILL BE REQUIRED.
2. PROPOSED SPOT ELEVATIONS ARE TO TOP OFF FINISHED SURFACE UNLESS OTHERWISE NOTED IN LEGEND.
3. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES. LOCATIONS OF UTILITIES SHOWN BASED ON SURVEY AND AS-BUILT INFORMATION AND MAY NOT REPRESENT ACTUAL CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR UTILIZING UTILITY LOCATES PRIOR TO STARTING ANY WORK.
4. CONTRACTOR IS RESPONSIBLE TO QUANTIFY SOIL IMPORT OR EXPORT AND PERFORM THEIR OWN QUANTITY TAKEOFFS FROM THE DRAWINGS. ONSITE EXCAVATION OF SOIL MAY BE NECESSARY TO ACHIEVE FINAL GRADES. CONTRACTOR SHALL COORDINATE ADDITIONAL ONSITE BORROW AREAS WITH OWNER AND ENGINEER. SUITABLE OFFSITE IMPORT MATERIAL MAY BE NECESSARY TO ACHIEVE FINAL GRADES. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER TO VERIFY IMPORT.
5. GRADING ELEVATIONS TO CONFORM TO MNDOT SPEC 2106.3.1
6. SOIL COMPACTION TESTING SHALL FOLLOW THE FREQUENCY OUTLINED IN THE GEOTECHNICAL REPORT.
7. CONTRACTOR SHALL COORDINATE SOIL TESTING AND INSPECTIONS WITH THE GEOTECHNICAL ENGINEER.



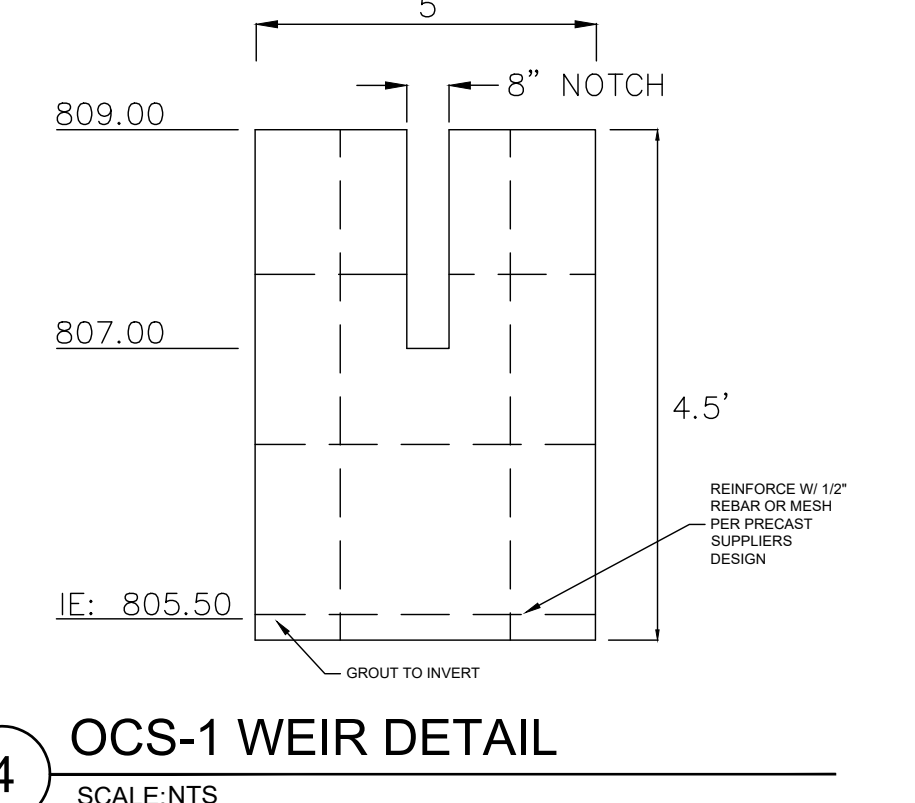
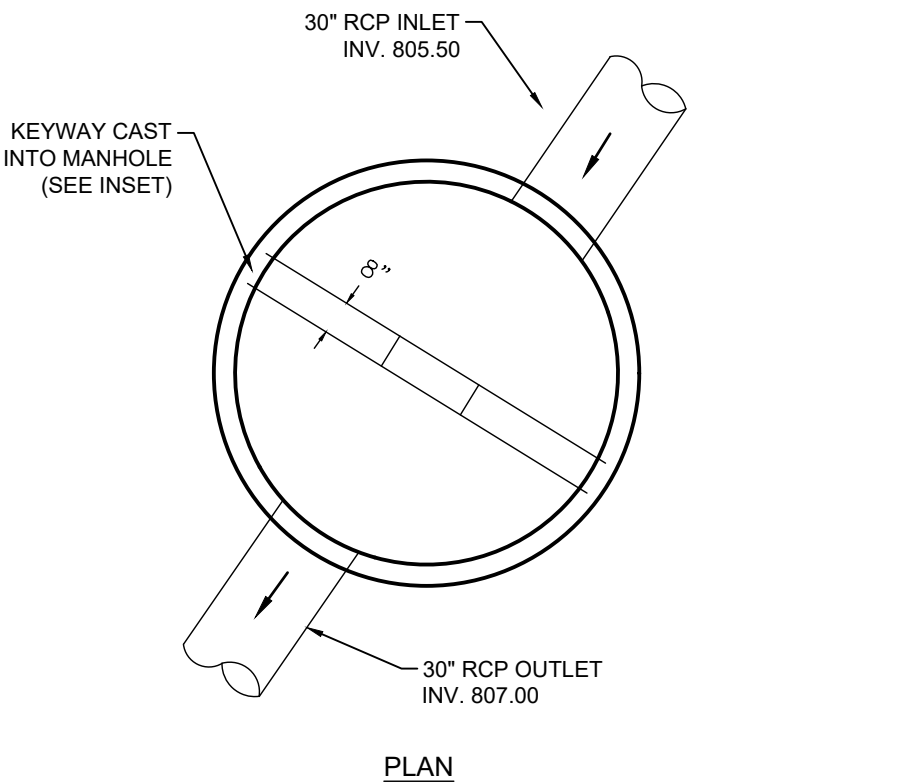
2 **SILT FENCE DETAIL**
 SCALE: NTS



3 **INLET PROTECTION DETAIL**
 SCALE: NTS

EROSION NOTES

1. AT LEAST 6 INCHES OF TOPSOIL OR ORGANIC MATTER WILL BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED, AND THE TOPSOIL WILL CONTAIN AT LEAST 5% ORGANIC CONTENT, CONSISTENT WITH THE DISTRICT'S TOPSOIL DEFINITION.
2. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PVIOUS UPON COMPLETION OF CONSTRUCTION WILL BE DECOMPACTED TO ACHIEVE;
 - 2.1. A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL OR,
 - 2.2. A BULK DENSITY OF LESS THAN 1. GRAMS PER CUBIC CENTIMETER OR POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL AND,
 - 2.3. IN ADDITION, UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION WILL BE PROTECTED UNTIL FINAL REVEGETATION OR OTHER STABILIZATION OF THE SITE.
3. NATURAL TOPOGRAPHY AND SOIL CONDITIONS WILL BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
4. CONSTRUCTION TO BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (SEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.



4 **OCS-1 WEIR DETAIL**
 SCALE: NTS

0 50' 100'

LEGEND

- PROPERTY LIMITS
- ADJACENT PROPERTY LIMITS
- EXISTING D&U EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- DRAINAGE ARROW
- PROPOSED RETAINING WALL
- PROPOSED BITUMINOUS CART PATH
- SF SILT FENCE
- AVOID COMPACTION AREA
- INLET PROTECTION
- REMOVE EXISTING TREE

KEYNOTES

1. INSTALL AND MAINTAIN PERIMETER SILT FENCE. REMOVE AS RECOMMENDED WITHIN THE NPDES PERMIT.
2. INSTALL AND MAINTAIN INLET SEDIMENT PROTECTION.
3. INSTALL SILT FENCE AROUND STAGING AREA OR STOCKPILES AS NEEDED.
4. INSTALL TREE PROTECTION FENCE AT DRIP LINE OF EXISTING TREE TO REMAIN.
5. PROPOSED 8' WIDE BITUMINOUS CART PATH.
6. PROPOSED BOULDER RETAINING WALL TO MATCH EXISTING.
7. REMOVE EXISTING FES CAP, SEAL, AND BURY END OF PIPE.
8. 52 LF - 30" RCP @ 3.9%
9. 33 LF - 30" RCP @ 1.0%
10. CONNECT 30" RCP TO EXISTING MANHOLE VIA CORE DRILL.
11. INSTALL SILT FENCE DITCH CHECKS 100 LF WITHIN SWALE.
12. INSTALL 30" TIDE FLEX INLINE CHECK VALVE AT DOWN STREAM CONNECTION TO EXISTING MANHOLE

STORM WATER POND SUMMARY

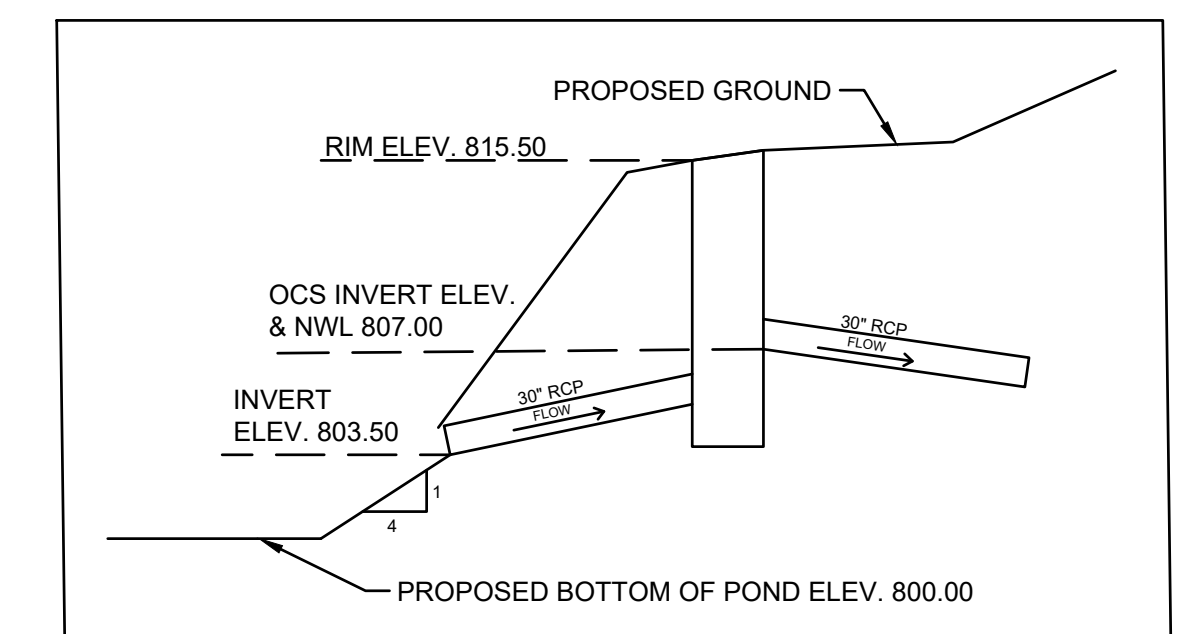
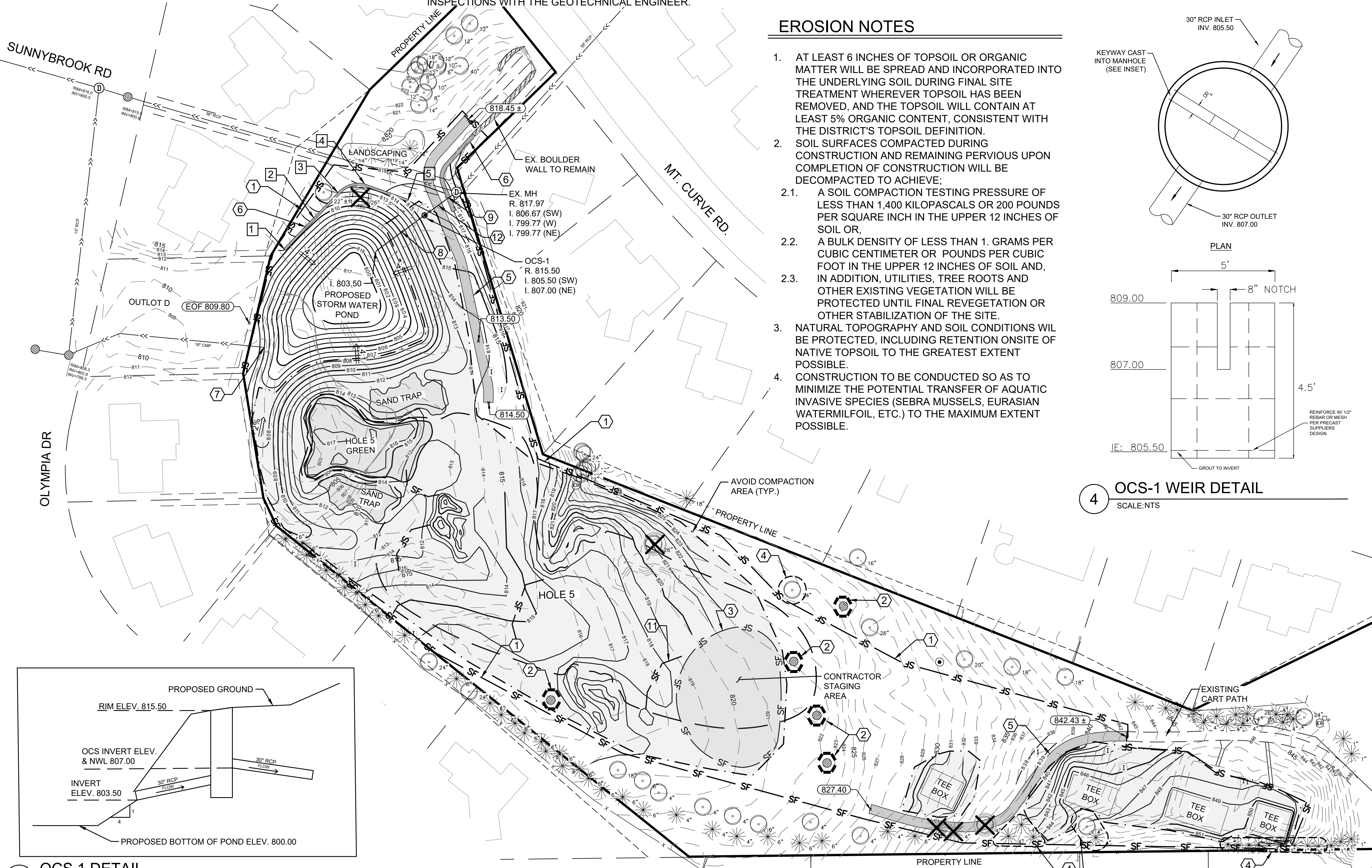
EXISTING		PROPOSED	
NWL ELEV.	= 808.00	NWL ELEV.	= 807.00
100-YR HWL	= 810.21	100-YR HWL	= 809.79
BOT ELEV.	= 803.00	BOT ELEV.	= 800.00
DEAD VOLUME	= 39,583 CF	DEAD VOLUME	= 48,316 CF

WALL ELEVATIONS

POINT	TOP OF WALL	BOTTOM OF WALL
1	811.20	810.80
2	813.50	810.20
3	816.10	813.00
4	817.30	814.20
5	816.20	815.90

SPOT ELEVATION KEY

±	EXISTING GRADE
R	RIM ELEVATION
I	INVERT ELEVATION
EOF	EMERGENCY OVERFLOW ELEVATION



1 **OCS 1 DETAIL**
 SCALE: NTS

ANDERSON
 13605 1st Avenue N. #100
 Plymouth, MN 55441 | ae-mn.com
 P 763.412.4000 | F 763.412.4090
 Anderson Engineering of Minnesota, LLC

OLYMPIC HILLS GOLF COURSE HOLE 5
 10625 MT CURVE RD
 EDEN PRAIRIE, MN 55347

OLYMPIC HILLS GOLF CLUB

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: BRIAN J. FIELD, PE
 SIGNATURE: NOT FOR CONSTRUCTION
 DATE: 8/15/2019 LICENSE NO. 57224

REVISION LOG

NO.	DATE	DESCRIPTION OF REVISIONS

PROJECT PHASE
 03/20/2027
 DESIGNED: BF DRAWN: SL CHECKED BY: BF

GRADING, DRAINAGE AND EROSION CONTROL PLAN

DRAWING NO. C2
 PLOTTED: 03/20/2024 COMM. NO. 13365

Apr 22, 2024 - 9:38am
 Xref Filename: 13365_c_base_13365_image_13365_22x34_titleblock
 Y:\133001\13365 OLYMPIC HILLS GOLF COURSE\2023 Hole 5 Renovation\07 Civil\01 CAD files\01 SHEETS\13365_C_GRADING.dwg
 BField

STORM WATER POLLUTION PREVENTION PLAN NARRATIVE - PAGE 1 OF 2

PROJECT DESCRIPTION/LOCATION

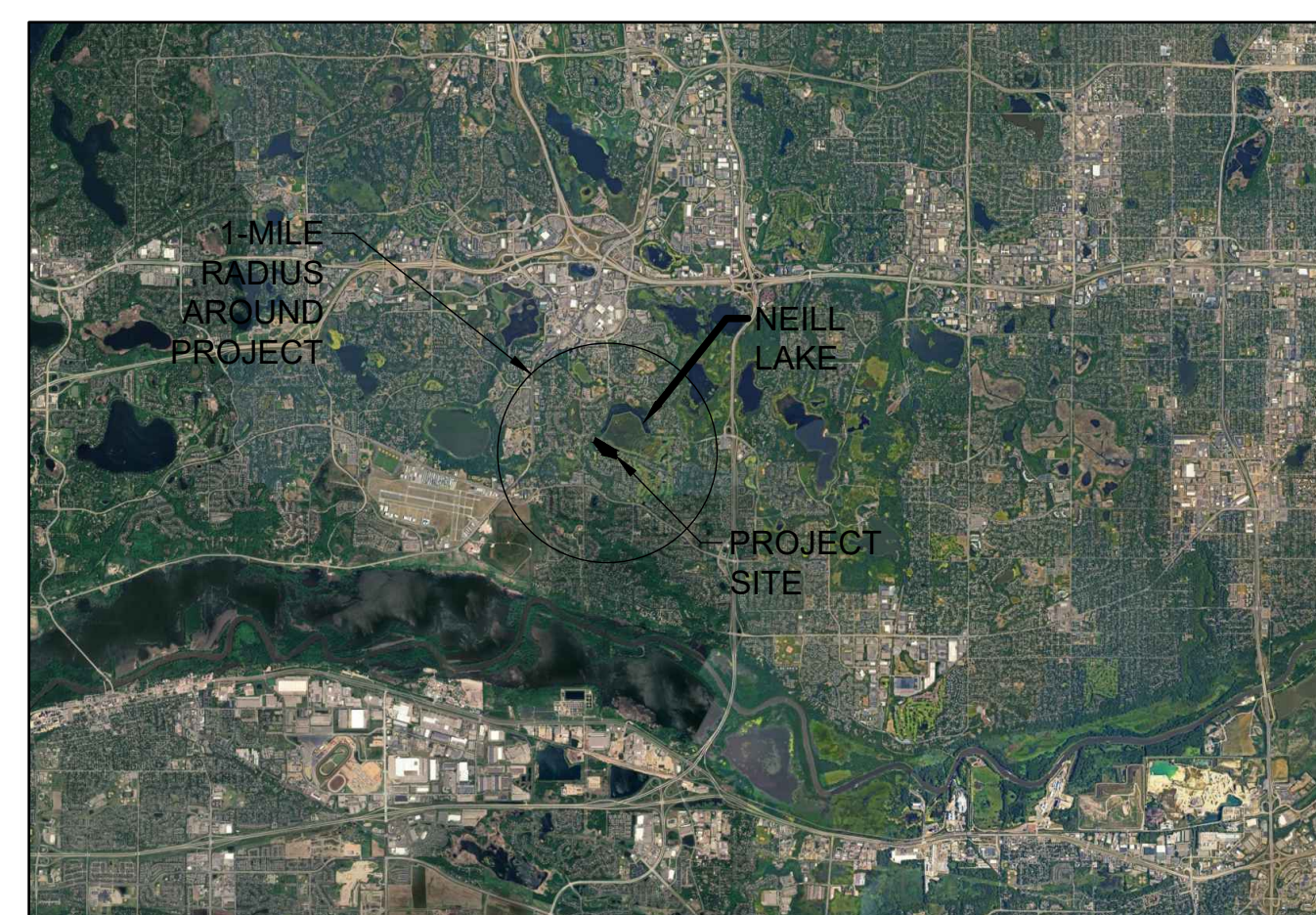
OLYMPIC HILLS GOLF COURSE HOLE 5 IS LOCATED IN THE CITY OF EDEN PRAIRIE IN HENNEPIN COUNTY BOUNDED ON MT CURVE ROAD AND OLYMPIA DRIVE. LOCATED IN THE RILEY PURGATORY WATERSHED DISTRICT. THE PROPOSED SITE ENCOMPASSES 5.49 ACRES.

THE PLANNED SCOPE OF THE PROJECT INCLUDES:

- THE INSTALLATION OF EROSION CONTROL MEASURES AS REQUIRED FOR THE MASS GRADING OF THE SITE FOR THE CONSTRUCTION OF HOLE 5 POND RELOCATION.
- GRADING AS REQUIRED FOR THE RELOCATION OF THE POND AND WALLS
- THE CONSTRUCTION OF A POND AND OUTLET STRUCTURE
- PLACEMENT OF PAVEMENT WALK AS REQUIRED TO ESTABLISH SIDEWALKS THROUGHOUT THE SITE

RECEIVING WATERS

THESE WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. DUE TO THE PROXIMITY OF THE RECEIVING WATERS, THE BMPS DESCRIBED IN APPENDIX A OF THE NPDES PERMIT MAY APPLY TO ALL AREAS OF THE SITE.



WATERS WITHIN 1 MILE RADIUS					
NAME OF WATER BODY	TYPE (LAKE, RIVER, WETLAND, DITCH, ETC)	APPENDIX A SPECIAL WATER (YES OR NO)	IMPAIRED WATER WITHIN 1 MILE OF PROJECT SITE (YES OR NO)	APPROVED TMDL	RECEIVING WATERS (YES OR NO)
NEILL LAKE	LAKE	NO	NO	NA	NO

LONG TERM MAINTENANCE AND OPERATION

OLYMPIC HILLS GOLF CLUB WILL OWN AND MAINTAIN NEW POND.

PROJECT PERSONNEL AND TRAINING

THIS SWPPP WAS PREPARED BY PERSONNEL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPP. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH THE ENGINEER.

PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER / SWPPP DESIGNER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. PROVIDE PROOF OF CERTIFICATION AT THE RECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH CONTRACTOR OR SUBCONTRACTOR THAT INSTALLS THE PRODUCTS LISTED IN SPECIFICATION SECTION 2573.3.A.2 CERTIFIED INSTALLERS. PROVIDE PROOF OF CERTIFICATION AT THE RECONSTRUCTION MEETING. WORK WILL NOT BE ALLOWED TO COMMENCE UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

CHAIN OF RESPONSIBILITY

THE OWNER AND CONTRACTOR ARE CO-PERMITTEES FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION PERMIT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

PROJECT CONTACTS

THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED.

CONTACT INFORMATION		
ORGANIZATION	CONTACT NAME	PHONE
OLYMPIC HILLS GOLF CLUB		
ANDERSON ENGINEERING (SWPPP DESIGN)	SARAH LARSON	763-412-4000

*CERTIFIED FOR DESIGN OF CONSTRUCTION SWPPP BY UNIVERSITY OF MINNESOTA, EXPIRES 05/24/2026

MPCA DUTY OFFICER 24 HOUR EMERGENCY NOTIFICATION:
651-649-5451 OR 800-422-0798

SITE INSPECTION AND MAINTENANCE

CONTRACTOR SHALL PROVIDE NAME, CONTACT INFO, AND TRAINING DOCUMENTATION FOR THE PERSON RESPONSIBLE FOR SWPPP IMPLEMENTATION AND INSPECTION/MAINTENANCE OF BMPS.

INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES WITHIN A 24 HOUR TIME FRAME. INSPECT ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE N.O.T. HAS BEEN SUBMITTED. INSPECT SURFACE WATER INCLUDING DRAINAGE DITCHES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION. INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES. INSPECT SURROUNDING PROPERTIES FOR EVIDENCE OF OFF SITE SEDIMENT ACCUMULATION.

RECORD ALL INSPECTIONS AND MAINTENANCE ACTIVITIES IN WRITING WITHIN 24 HOURS. SUBMIT INSPECTION REPORTS IN A FORMAT THAT IS ACCEPTABLE TO THE PROJECT ENGINEER.

FOR PROJECTS THAT DISCHARGE TO PROHIBITED WATERS, CONDUCT ROUTINE SITE INSPECTIONS AT A MINIMUM OF ONCE EVERY 72 HOURS (3 DAYS).

INCLUDE THE FOLLOWING IN THE RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY:

- DATE AND TIME OF INSPECTIONS
- NAME OF PERSONS CONDUCTING INSPECTIONS
- FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
- CORRECTIVE ACTION TAKEN, INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES
- DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCH IN 24 HOURS
- DOCUMENTS AND CHANGES MADE TO THE SWPPP

REPLACE, REPAIR OR SUPPLEMENT ALL NONFUNCTIONAL BMPS IN THE TIME PROVIDED BELOW:

- REPAIR, REPLACE, OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN IT BECOMES NONFUNCTIONAL OR SEDIMENT REACHES $\frac{1}{2}$ THE HEIGHT OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
- REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES $\frac{1}{2}$ THE HEIGHT AND/OR DEPTH OF THE DEVICE. COMPLETE REPAIRS BY THE END OF THE NEXT BUSINESS DAY FOLLOWING DISCOVERY.
- DRAIN AND REMOVE SEDIMENT FROM TEMPORARY AND PERMANENT SEDIMENT BASINS ONCE THE SEDIMENT HAS REACHED $\frac{1}{2}$ THE STORAGE VOLUME. COMPLETE WORK WITHIN 72 HOURS OF DISCOVERY.
- REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATER INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. RESTABILIZE ANY AREAS THAT ARE DISTURBED BY SEDIMENT REMOVAL OPERATION. SEDIMENT REMOVAL AND STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS OF DISCOVERY. PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR WORKING IN SURFACE WATERS.
- REMOVE TRACKED SEDIMENT FROM PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY. STREET SWEEPING MAY HAVE TO OCCUR MORE OFTEN TO MINIMIZE OFF SITE IMPACTS. LIGHTLY WET THE PAVEMENT PRIOR TO SWEEPING.
- MAINTAIN ALL BMPS UNTIL WORK HAS BEEN COMPLETED, SITE HAS GONE UNDER FINAL STABILIZATION, AND THE NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.

AREA SUMMARY

ACREAGE SUMMARY	
AREA	ACRES
PROPERTY	5.49
DISTURBED	4.60
IMP. PRE-CONSTRUCTION	0.23
IMP. POST-CONSTRUCTION	0.16
NEW IMP.	0.09
PERVIOUS AT COMPLETION	3.91

SPECIAL SITE NOTES

IF SITE REQUIRES PERMANENT STORMWATER MANAGEMENT, HYDROLOGIC AND WATER QUALITY MODELING DATA IS AVAILABLE UPON REQUEST.

THE SWPPP COORDINATOR MUST BE AVAILABLE FOR AN ONSITE INSPECTION WITHIN 72 HOURS UPON REQUEST BY THE MPCA AND SHALL BE RESPONSIBLE FOR THE FOLLOWING:

- SUBMIT THE NPDES PERMIT APPLICATION AND COMPLY WITH ALL REQUIREMENTS.

- IMPLEMENT THE SWPPP.
- OVERSEE INSTALLATION AND MAINTENANCE PRACTICES AND REPAIRS IDENTIFIED IN THE SWPPP.
- IMPLEMENT AND OVERSEE EMPLOYEE TRAINING AND RECORD IN OR WITH THE SWPPP.
- CONDUCT OR PROVIDE FOR INSPECTION AND MONITORING ACTIVITIES AND MAINTAIN LOGS AS PERMIT REQUIRES.
- IDENTIFY OTHER POTENTIAL POLLUTANT SOURCES NOT LISTED IN THE SWPPP AND ADD THEM.
- IDENTIFY ANY DEFICIENCIES IN THE SWPPP AND CORRECT THEM.
- ENSURE THAT CHANGES TO CONSTRUCTION PLANS ARE ADDRESSED IN THE SWPPP.
- FILE THE NOTICE OF TERMINATION UPON PROJECT COMPLETION.

AFTER THE NOTICE OF TERMINATION HAS BEEN FILED, THE OWNER SHALL BE RESPONSIBLE FOR ASSIGNING RESPONSIBILITY FOR PERMANENT MAINTENANCE MEASURES.

PERMITS

THE FOLLOWING PERMITS APPLY TO THIS PROJECT:

AGENCY	TYPE OF PERMIT	PERMIT # AND DATES
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)	NPDES CONSTRUCTION PERMIT	
CITY OF EDEN PRAIRIE	GRADING PERMIT	

NOTE: IF THE 25' BUFFERS ARE MAINTAINED FROM THE WETLANDS, ADDITIONAL PERMITS WILL NOT BE REQUIRED.

LOCATION OF SWPPP REQUIREMENTS

THE REQUIRED SWPPP ELEMENTS MAY BE LOCATED IN MANY PLACES WITHIN THE PLAN SET.

SWPPP AMENDMENTS

A QUALIFIED INDIVIDUAL MUST COMPLETE ALL SWPPP CHANGES. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.

PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION OPERATION, MAINTENANCE, WEATHER, OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.

AREA	TIME FRAME	NOTES
LAST 200 LINEAL FEET OF DRAINAGE DITCH OR SWALE	WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE	1, 2, 3
REMAINING PORTIONS OF DRAINAGE DITCH OR SWALE	7 DAYS	1, 3
PIPE AND CULVERT OUTLETS	24 HOURS	
STOCKPILES	7 DAYS	1

PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER OR OPERATOR, USEPA OR MPCA OFFICIALS INDICATE THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER OR THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCE OR THE SWPPP IS NOT CONSISTENT WITH THE OBJECTIVES OF A USEPA APPROVED TMDL. **STABILIZATION TIME FRAMES**

ALL AREAS DISTURBED BY CONSTRUCTION WILL RECEIVE SEED OR SOD ACCORDING TO THE PLANS AND SPECIFICATIONS AND WITHIN THE SPECIFIED VEGETATIVE TIME SCHEDULE. FINAL STABILIZATION WILL OCCUR WHEN THE SITE HAS A UNIFORM VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE DISTURBED AREA COMPARED TO EXISTING CONDITIONS. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION. ALL SEDIMENT MUST BE CLEANED OUT OF CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS IF APPLICABLE.

- INITIATE INLET STABILIZATION IMMEDIATELY WHEN CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. COMPLETE STABILIZATION WITHIN THE TIME FRAME LISTED. IN MANY INSTANCES THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING THE COURSE OF THE PROJECT. TEMPORARY SOIL STOCKPILES WITHOUT SIGNIFICANT CLAY OR SILT AND STOCKPILED AND CONSTRUCTED ROAD BASE ARE NOT APPROPRIATE AND THEREFORE EXEMPT FROM THE STABILIZATION REQUIREMENT.
- APPLICATION OF MULCH, HYDROMULCH, TACKIFIER AND POLYACRYLAMIDE ARE NOT ACCEPTABLE STABILIZATION METHODS IN THESE AREAS.
- STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER, ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED, SEEDED, AND BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.
 - SINGLE YEAR CONSTRUCTION BETWEEN MAY 1 - AUGUST 1, SEED WITH SEED MIXTURE 21.111
 - SINGLE YEAR CONSTRUCTION BETWEEN AUGUST 1 AND OCTOBER 31, SEED WITH SEED MIXTURE 21-112
 - MULTI YEAR CONSTRUCTION 22-111
- TOPSOIL BERMS MUST BE STABILIZED IN ORDER TO BE CONSIDERED PERIMETER CONTROL BMPS. USE RAPID STABILIZATION METHOD 2, 3, OR 4 AS DIRECTED BY THE ENGINEER. THE SEED MIX USED IN THE RAPID STABILIZATION MAY BE SUBSTITUTED AS FOLLOWS:
 - SINGLE YEAR CONSTRUCTION BETWEEN MAY 1 - AUGUST 1, SEED WITH SEED MIXTURE 21.111
 - SINGLE YEAR CONSTRUCTION BETWEEN AUGUST 1 AND OCTOBER 31, SEED WITH SEED MIXTURE 21-112
 - MULTI YEAR CONSTRUCTION 22-111
- KEEP DITCHES AND EXPOSED SOILS IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES, HYDROMULCHES AND BLANKETS.



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: BRIAN J. FIELD, PE

SIGNATURE: **NOT FOR CONSTRUCTION**

DATE: 8/15/2019 LICENSE NO. 57224

REVISION LOG

NO.	DATE	DESCRIPTION OF REVISIONS

PROJECT PHASE

03/20/2027

DESIGNED:	DRAWN:	CHECKED BY:
BF	SL	BF

DRAWING TITLE

SWPPP - PAGE 1

DRAWING NO.

C3

PLOTTED:	COMM. NO.
03/20/2024	13365

STORM WATER POLLUTION PREVENTION PLAN NARRATIVE - PAGE 2 OR 2

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY

- CONTRACTOR SHALL AMEND THE SWPPP AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS WITHIN 7 DAYS UPON IMPLEMENTATION. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES.
- PREPARE AND SUBMIT A SITE MANAGEMENT PLAN FOR THE ENGINEER'S ACCEPTANCE FOR CONCRETE MANAGEMENT, CONCRETE SLURRY APPLICATION AREAS, WORK IN AND NEAR AREAS OF ENVIRONMENTAL SENSITIVITY, AREAS IDENTIFIED IN THE PLANS AS "SITE MANAGEMENT PLAN AREA", ANY WORK THAT WILL REQUIRE DEWATERING, AND AS REQUESTED BY THE ENGINEER. SUBMIT ALL SITE MANAGEMENT PLANS TO THE ENGINEER IN WRITING. ALLOW A MINIMUM OF 7 DAYS FOR THE ENGINEER TO REVIEW AND ACCEPT SITE MANAGEMENT PLAN SUBMITTALS. WORK WILL NOT BE ALLOWED TO COMMENCE IF A SITE MANAGEMENT PLAN IS REQUIRED UNTIL ACCEPTANCE HAS BEEN GRANTED BY THE ENGINEER. THERE WILL BE NO EXTRA TIME ADDED TO THE CONTRACT DUE TO THE UNTIMELY SUBMITTAL.
- IT IS THE DESIGNER'S INTENT THAT THE CONTRACTOR BUILD PONDS AND INSTALL EROSION CONTROL BMPS BEFORE PUTTING THEM INTO ACTIVE SERVICE TO THE MAXIMUM EXTENT PRACTICABLE.
- BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN PROJECT BOUNDARY.
- DO NOT DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS. DELINEATE AREAS NOT TO BE DISTURBED PRIOR TO STARTING GROUND DISTURBING ACTIVITIES. IF IT BECOMES NECESSARY TO DISTURB AREAS OUTSIDE OF THE CONSTRUCTION LIMITS, OBTAIN WRITTEN PERMISSION FROM THE PROJECT ENGINEER PRIOR TO PROCEEDING. PRESERVE ALL NATURAL BUFFERS SHOWN ON THE PLANS.
- ROUTE STORMWATER AROUND UNSTABILIZED AREAS OF THE SITE WHENEVER FEASIBLE. PROVIDE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES AS NEEDED TO KEEP CHANNELS FROM ERODING AND TO PREVENT NUISANCE CONDITIONS AT THE OUTLET.
- DIRECT DISCHARGES FROM BMPS TO VEGETATED AREA WHENEVER FEASIBLE. PROVIDE VELOCITY DISSIPATION DEVICES AS NEEDED TO PREVENT EROSION.
- THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE PLACED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND TO CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES COMMENCE.
- ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UP GRADIENT OF ANY BUFFER ZONES BEFORE UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- LOCATE PERIMETER CONTROL ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100 FOOT INTERVALS.
- PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES. PLACE BMP A MINIMUM 5 FEET FROM THE TOE OF SLOPE WHERE FEASIBLE. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES.
- FLOATING SILT CURTAIN IS ALLOWED AS PERIMETER CONTROL FOR IN WATER WORK ONLY. INSTALL THE FLOATING SILT CURTAIN AS CLOSE TO SHORE AS POSSIBLE. PLACE PERIMETER CONTROL BMP ON LAND IMMEDIATELY AFTER THE IN WATER WORK IS COMPLETED.
- DITCH CHECKS WILL BE PLACED AS INDICATED ON THE PLANS DURING ALL PHASES OF CONSTRUCTION.
- PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. PROVIDE CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACK OUT. MAINTAIN CONSTRUCTION EXITS WHEN EVIDENCE OF TRACKING IS DISCOVERED. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE. CONSTRUCTION EXITS ARE INCIDENTAL.
- DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS. CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS OR TEMPORARY SEDIMENT TRAPS TO THE DESIGN CAPACITY AFTER ALL UP GRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.
- PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.
- PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.

POLLUTION PREVENTION

- PROVIDE A SPILL KIT AT EACH WORK LOCATION ON THE SITE.
- STORE ALL BUILDING MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS UNDER COVER WITH SECONDARY CONTAINMENT.
- PROVIDE A SECURE STORAGE AREA WITH RESTRICTED ACCESS FOR ALL HAZARDOUS MATERIALS AND TOXIC WASTE. RETURN ALL HAZARDOUS MATERIALS AND TOXIC WASTE TO THE DESIGNATED STORAGE AREA AT THE END OF THE BUSINESS DAY UNLESS INFEASIBLE. STORE ALL HAZARDOUS MATERIALS AND TOXIC WASTE (INCLUDING BUT NOT LIMITED TO OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT, PETROLEUM BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) IN SEALED CONTAINERS WITH SECONDARY CONTAINMENT. CLEAN UP SPILLS IMMEDIATELY.
- STORE, COLLECT AND DISPOSE OF ALL SOLID WASTE.
- POSITION ALL PORTABLE TOILETS SO THAT THEY ARE SECURE AND CANNOT BE TIPPED OR KNOCKED OVER. PROPERLY DISPOSE OF ALL SANITARY WASTE.
- FUEL AND MAINTAIN VEHICLES IN A DESIGNATED CONTAINED AREA WHENEVER FEASIBLE. USE DRIP PANS OR ABSORBENT MATERIALS TO PREVENT SPILLS OR LEAKED CHEMICALS FROM DISCHARGING TO SURFACE WATER OR STORMWATER CONVEYANCES. PROVIDE A SPILL KIT AT EACH LOCATION THAT VEHICLES AND EQUIPMENT ARE FUELED OR MAINTAINED AT.
- LIMIT VEHICLE AND EQUIPMENT WASHING TO A DEFINED AREA OF THE SITE. CONTAIN RUNOFF FROM THE WASHING AREA TO A TEMPORARY SEDIMENT BASIN OR OTHER EFFECTIVE CONTROL. PROPERLY DISPOSE OF ALL WASTE GENERATED BY VEHICLE AND EQUIPMENT WASHING. ENGINE DEGREASING IS NOT ALLOWED ON THE SITE.
- PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND. DESIGN THE CONTAINMENT SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR CONTAINMENT AREA.
- CREATE AND FOLLOW A WRITTEN DISPOSAL PLAN FOR ALL WASTE MATERIALS. INCLUDE IN THE PLAN HOW THE MATERIAL WILL BE DISPOSED OF AND THE LOCATION OF THE DISPOSAL SITE. SUBMIT PLAN

TO THE ENGINEER.

- USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT DISCHARGE OR PLACEMENT OF BITUMINOUS GRINDINGS, CUTTING, MILLINGS, AND OTHER BITUMINOUS WASTES FROM AREAS OF EXISTING OR FUTURE VEGETATED SOILS AND FROM ALL WATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES.
- USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT CONCRETE DUST, PARTICLES, CONCRETE WASH OUT, AND OTHER CONCRETE WASTES FROM LEAVING SITE, DEPOSITING IN EXISTING OR FUTURE VEGETATED AREAS, AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS, INCLUDING INLETS, DITCHES AND CURB FLOW LINES. USE METHODS AND OPERATIONAL PROCEDURES THAT PREVENT SAW CUT SLURRY AND PLANING WASTE FROM LEAVING SITE AND FROM ENTERING STORMWATER CONVEYANCE SYSTEMS INCLUDING DITCHES AND CULVERTS.

RECORD RETENTION

THE SWPPP, ALL CHANGES TO IT AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT ON-SITE DURING CONSTRUCTION. THE OWNER MUST RETAIN A COPY OF THE SWPPP ALONG WITH THE FOLLOWING RECORDS FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION (NOT):

- ANY OTHER PERMITS REQUIRED FOR THE PROJECT.
- RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION
- ALL PERMANENT OPERATIONS AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED INCLUDING ALL RIGHT OF WAY, CONTRACTS, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
- ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

SWPPP SCHEDULE OF INSTALLATION & MAINTENANCE

ITEM	INSTALLATION	INSPECTION & MAINTENANCE	REMOVAL
SILT FENCE	PRIOR TO COMMENCEMENT OF EARTHWORK OPERATIONS.	INSPECT & MAINT. AFTER EACH RUN-OFF EVENT. REMOVE SEDIMENTS AS REQUIRED.	AFTER TRIBUTARY DRAINAGE AREA IS RESTORED.
DETENTION POND	DURING EARTHWORK OPERATIONS.	AFTER HEAVY RAINFALL EVENTS. REMOVE SEDIMENTS AS NEEDED.	PERMANENT.
SEED & MULCH	AFTER POND GRADING IS COMPLETED.	INSPECT & MAINTAIN AFTER HEAVY RAINS. REPLACE WASH-OUT AREAS IMMEDIATELY	NO REMOVAL NECESSARY.
INLET PROTECTION	UPON INLET CONSTRUCTING	WHEN 1/3 CAPACITY OF BMP IS REACHED	AFTER TRIBUTARY AREAS ARE FULLY RESTORED

DESCRIPTION OF PERMANENT STORMWATER TREATMENT SYSTEMS

NOT APPLICABLE FOR SITE.

CALCULATIONS FOR TEMPORARY & PERMANENT STORMWATER TREATMENT SYSTEMS

NOT APPLICABLE FOR SITE.

SITE ASSESSMENTS FOR GROUNDWATER OR SOIL CONTAMINATION

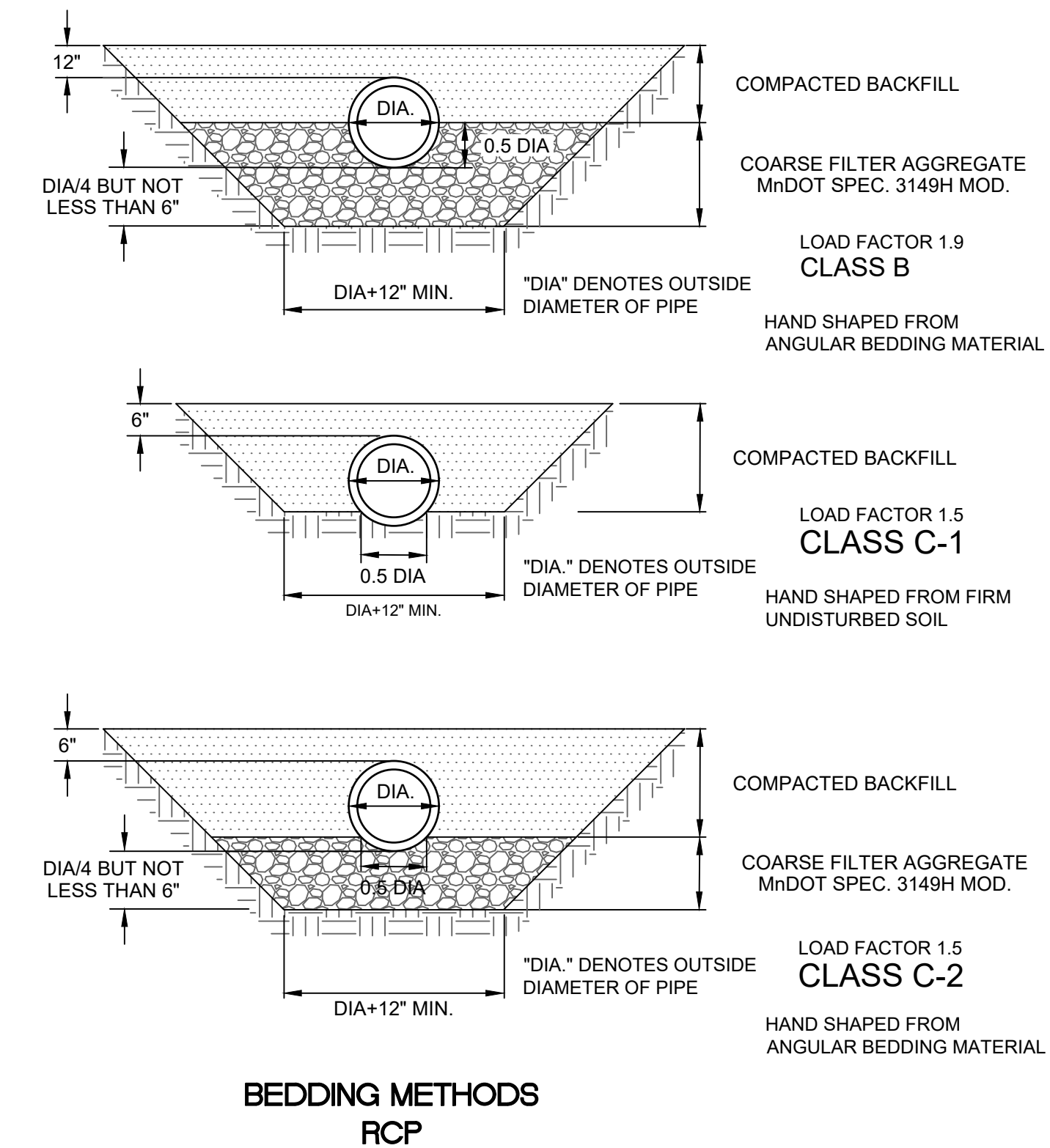
NOT APPLICABLE FOR SITE.

SITE CONSTRAINTS

NOT APPLICABLE FOR SITE.

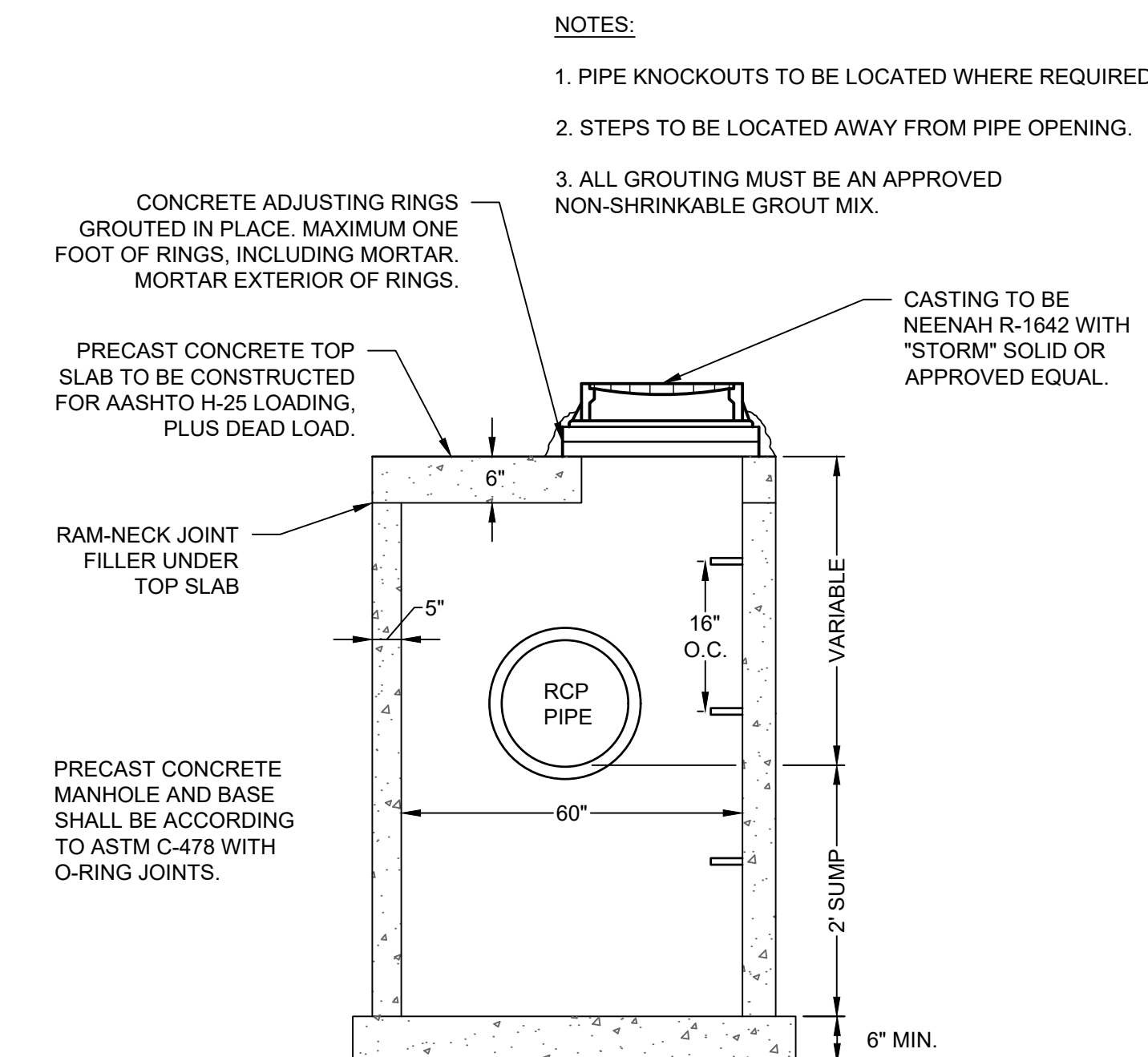
ESTIMATED BMPS QUANTITIES

BMP	ORIGINAL ESTIMATE	MODIFICATION	DATE
CAT 3 EROSION CONTROL BLANKET	12,301 SF		
PERMANENT SODDING	20,515 SF		
SILT FENCING	2460 LF		
STORM DRAIN INLET PROTECTION	5		
ENERGY DISSIPATER			
TEMP. DIVERSION DIKES			
CHECK DAMS			
TEMP SEEDING			
PERMANENT SEEDING			
MULCHES (SPECIFY TYPES)			
SOIL TACKIFIERS			
EROSION CONTROL MATS			
TEMPORARY OR PERMANENT SEDIMENTATION BASINS			
CONSTRUCTION ENTRANCE			
DEWATERING (TREATMENT LOCATION, SCHEMATIC, & SAMPLING PLAN REQUIRED)			
CONCRETE TRUCK WASHOUT			



BEDDING METHODS
RCP

1 RCP PIPE BEDDING DETAIL
SCALE: NTS



2 MANHOLE DETAIL
SCALE: NTS



OLYMPIC HILLS GOLF COURSE HOLE 5

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EDEN PRAIRIE, MN 55347

OLYMPIC HILLS GOLF CLUB

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

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PROJECT PHASE

03/20/2027

DESIGNED: BF DRAWN: SL CHECKED BY: BF

DRAWING TITLE

SWPPP -
PAGE 2

DRAWING NO.

C4

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