# **PERMITTING PLANS** FOR

# **COUNTY ROAD 6 STORMWATER POND RETROFIT PROJECT**

**CITY OF ORONO** HENNEPIN COUNTY, MN



VICINITY MAP

SCALE: 1" = 500'

**PROJECT LOCATION** 

CITY: ORONO

COUNTY: HENNEPIN

THIS PLANSET CONTA
Sheet Numb
G-001
G-002
G-003
C-001
C-002
C-101
C-201
C-202
C-301
C-302
C-303
C-304
C-305
C-501
C-801
C-802



OWNER: MINNEHAHA CREEK WATERSHED DISTRICT



15320 MINNETONKA BLVD MINNETONKA, MN 553405 CONTACT: KAILEY CERMAK PH: (952) 641-4501

ENGINEER: STANTEC CONSULTING SERVICES INC.



ONE CARLSON PARKWAY, SUITE 100 PLYMOUTH, MN 55447 CONTACT: CHRIS MEEHAN, P.E. PH: (763) 252-6844

#### WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 661-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER. CALL BEFORE YOU DIG

GOPHER STATE ONE CALL TWIN CITY AREA: 651-454-0002 TOLL FREE 1-800-252-1166



AINS <u>16</u> SHEETS

SHEET INDEX			
ər	Sheet Title		
	COVER SHEET		
	LEGENDS		
	NOTES		
	EXISTING CONDITIONS AND REMOVAL PLAN		
	EXISTING CONDITIONS AND REMOVAL PLAN		
	TYPICAL SECTIONS PLAN		
	SWPPP		
	RESTORATION AND EROSION CONTROL PLAN		
	GRADING PLAN		
	GRADING PLAN		
	CROSS SECTIONS		
	CROSS SECTIONS		
	TRAIL GRADING PLAN		
	STORM SEWER PLAN		
	DETAILS		
	DETAILS		

#### EXISTING TOPOGRAPHIC SYMBOLS

01110	TO OUVAITIE STRIDUES		
$\succ$	STORM SEWER APRON	ø	POLE-COMMUNICATIONS
0	BUSH DECIDUOUS	ø	POLE-GUY
0	CATCH BASIN BEEHIVE	<b>\</b>	POLE-LIGHT
69	CLEAN OUT (SEWER)	¢	POLE-POWER
• CLVT	CULVERT END	ø	POLE-UTILITY
$\leftarrow$	GUY WIRE	S	POLE-UTILITY SERVICE
X	HYDRANT VALVE	٠	POST
0	INLET (SMALL DIA.)	8-	SATELLITE DISH
CP	LIFT STATION CONTROL PANEL	SEP	SEPTIC TANK
DWo	LIFT STATION DRY WELL	SEPTIC X VENT	SEPTIC VENT
	LIFT STATION WET WELL	SEPTIC ×	SEPTIC DRAIN FIELD
MAIL	MAIL BOX	P	SIGN
0		- <del>\$</del> -	SOIL BORING
0		R	STUMP
e	MANHULE-POWER	×	TREE DEAD
63	MANHOLE-SANITARY SEWER	*	TREE-CONIFEROUS
S	MANHOLE-STORM SEWER	$\odot$	TREE-DECIDUOUS
©	MANHOLE-COMMUNICATIONS	$\langle \hat{\cdot} \rangle$	TREE-FRUIT
CTV	PEDESTAL CATV	<u>ــــــــــــــــــــــــــــــــــــ</u>	WETLAND
C	PEDESTAL COMMUNICATIONS		

PIV POST INDICATOR VALVE

#### SURVEY SYMBOLS

Μ

AFRIAL CONTROL POINT		
AFRIAL UNIRUL PUINT	AIK	AFRIAL CONTROL DOINT
	CONTROL	AERIAL CONTROL POINT

BS BACKSIGHT CONTROL POINT

Î GPS CONTROL POINT

JLM JUDICIAL LAND MONUMENT

MONUMENT COMPUTED . MONUMENT IRON FOUND

0 MONUMENT IRON SET

R RESECTED POINT

ROW MONUMENT

R/W POST ROW MARKER POST

۲ SECTION CORNER

TS TRAVERSE CONTROL POINT

BM BENCH MARK LOCATION

#### PROPOSED TOPOGRAPHIC SYMBOLS

0	DRAINTILE	CLEANOUT

RIP RAP

DRAINAGE FLOW 

# EXISTING PRIVATE UTILITY LINES

CTV-D	CTV-D	- CTV-D	CABLE TV QUALITY LEVEL D
CTV-C	CTV-C	- CTV-C	CABLE TV QUALITY LEVEL C
CTV-B	CTV-B	— CTV-B—	CABLE TV QUALITY LEVEL B
CTV-A	CTV-A	- CTV-A	CABLE TV QUALITY LEVEL A
— FO-D —	— FO-D —	— FO-D —	FIBER OPTIC QUALITY LEVEL D FIBER
—— FO-C —	— FO-C —	— FO-C —	OPTIC QUALITY LEVEL C FIBER OPTIC
— FO-В —	— FO-В —	— FO-В —	QUALITY LEVEL B FIBER OPTIC QUALITY
— FO-A —	— FO-A —	— FO-A —	LEVEL A
—— E-D —	— E-D —	— E-D ——	POWER QUALITY LEVEL D
—— E-C —	— E-C —	— E-C ——	POWER QUALITY LEVEL C
——— E-B —	— Е-В —	— Е-В ——	POWER QUALITY LEVEL B
—— E-A —	— E-A —	— E-A ——	POWER QUALITY LEVEL A
—— G-D —	G-D	— G-D ——	GAS QUALITY LEVEL D
—— G-C —	G-C	— G-C —	GAS QUALITY LEVEL C
——— G-B —	—— G-B ——	— G-B ——	GAS QUALITY LEVEL B
—— G-A —	— G-A —	— G-A ——	GAS QUALITY LEVEL A
——— C-D —	C-D	— C-D ——	COMMUNICATION QUALITY LEVEL D
C-C —	C-C	— C-C —	COMMUNICATION QUALITY LEVEL C
—— С-В —	— С-В —	— С-В ——	COMMUNICATION QUALITY LEVEL B
——— C-A —	— C-A —	— C-A —	COMMUNICATION QUALITY LEVEL A
OHP	OHP	— OHP —	OVERHEAD POWER
— онс —	— онс —	— онс —	OVERHEAD COMMUNICATION
— они —	— они —	— они —	OVERHEAD UTILITIES

#### EXISTING TOPOGRAPHIC LINES

GUARD RAIL TREE LINE WETLAND

#### SURVEY LINES

	BOUNDARY
	CENTERLINE
	EXISTING EA
	PROPOSED E
· · ·	FLOOD PLAIN
	EXISTING LO
	PROPOSED L
	EXISTING RIG
	PROPOSED F
	SETBACK LIN
	SECTION LIN
	QUARTER SE

SEMENT LINE EASEMENT LINE IN BOUNDARY OT LINE LOT LINE GHT-OF-WAY RIGHT-OF-WAY NE NE ECTION LINE SIXTEENTH SECTION LINE

### EXISTING UTILITY LINES

STORM SEWER \_\_\_\_\_\_ >> \_\_\_\_\_ >> \_\_\_\_\_ >> \_\_\_\_\_

#### PROPOSED UTILITY LINES

STORM SEWER

#### GRADING INFORMATION



ABBREVIATIONS

AD

BV

BVCE

ALGEBRAIC DIFFERENCE BUTTERFLY VALVE BEGIN VERTICAL CURVE ELEVATION BEGIN VERTICAL CURVE STATION CENTER LINE CLASS CORRUGATED METAL PIPE CHANGE ORDER DUCTILE IRON PIPE ELEVATION END VERTICAL CURVE ELEVATION END VERTICAL CURVE STATION EXISTING FLARED END SECTION FACE TO FACE FORCE MAIN FIELD ORDER GATE VALVE HIGH POINT HIGH WATER LEVEL INVERT CURVE COEFFICIENT LOW POINT MANHOLE (SANITARY) NOT TO SCALE NORMAL WATER LEVEL POINT OF CURVE COMPOUND CURVE POINT OF INTERSECTION PROPERTY LINE PERFORATED POLYVINYL CHLORIDE PIPE POINT OF REVERSE CURVE POINT OF TANGENT POLYVINYL CHLORIDE PIPE POINT OF VERTICAL INTERSECTION RADIUS REINFORCED CONCRETE PIPE RIGHT-OF-WAY STORM SEWER STRUCTURE STATION TEMPORARY CONSTRUCTION EASEMENT TOP NUT HYDRANT TYPICAL VERTICAL CURVE WATER MAIN

#### HATCH PATTERNS

SAND

GRAVEL



EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS / SLOPE LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)



#### GOVERNING SPECIFICATIONS

- 1. CITY OF ORONO (CITY) STANDARD SPECIFICATIONS AND REQUIREMENTS.
- 2. MINNESOTA DEPARTMENT OF TRANSPORTATION (MN/DOT) "STANDARD SPECIFICATIONS FOR CONSTRUCTION" LATEST EDITION AND SUPPLEMENTS.
- 3. CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) STANDARD SPECIFICATIONS FOR UTILITIES LATEST EDITION.
- 4. APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES

#### GENERAL NOTES

- 1. UNTIL REVISION BLOCK STATES "ISSUED FOR BID", THE PLAN SET IS NOT CERTIFIED FOR CONSTRUCTION AND CONTRACTOR IS BUILDING AT THEIR OWN RISK.
- EXISTING CONDITIONS SHOWN ARE FROM A TOPOGRAPHIC SURVEY COMPLETED BY STANTEC, DATED JUNE 2024.
   EXISTING FEATURES MAY NOT BE EXACT TO THEIR LOCATION. CONTRACTOR RESPONSIBLE FOR VERIFYING THE CONDITIONS OF THE SITE AND MUST IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF DISCREPANCIES OR VARIATIONS FROM THE DRAWINGS.
- 3. SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA". EXACT LOCATIONDEPTH OF SUBSURFACE UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, SEWER, WATER, PIPELINES, ELECTRICAL, AND CABLE TV ARE UNKNOWN AND THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
- 4. CONTRACTOR RESPONSIBLE FOR CONTACTING GOPHER STATE ONE CALL (1-800-252-1166) A MINIMUM OF 48 HOURS IN ADVANCE (EXCLUDING HOLIDAYS AND WEEKENDS) BEFORE STARTING WORK FOR LOCATIONS OF UNDERGROUND UTILITIES.
- 5. CONTRACTOR SHALL ANTICIPATE PRIVATE UTILITY CONFLICTS THROUGHOUT THE PROJECT SUB CUT AND TRENCH AREAS AND MUST COORDINATE THE RELOCATION OR PROTECTION OF EXISTING UTILITIES, OR INSTALLATION OF NEW UTILITIES WITH UTILITY OWNERS THAT MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE STARTING WORK. COSTS FOR SUCH WORK, INCLUDING EXTRA TIME AND EFFORT FOR PROVISIONS NECESSARY TO WORK AROUND OR UNDER UTILITIES, IS THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. FEES OR CHARGES WHICH ARE TO BE PAID TO THE UTILITY COMPANY, INCLUDING WORK THAT MUST BE PERFORMED BY THE UTILITY COMPANY, ARE AT NO ADDITIONAL COST TO THE OWNER.
- 6. QUANTITIES ARE APPROXIMATE, AND MAY VARY TO ALLOW COMPLETION OF WORK.
- 7. WORK AND MATERIALS MUST COMPLY WITH CITY, COUNTY, STATE, AND FEDERAL (INCLUDING OSHA) REGULATIONS AND CODES.
- 8. CONTRACTOR SHALL COORDINATE WORK WITH OTHER CONTRACTORS PERFORMING WORK AT OR NEAR THE SITE.
- 9. CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS TO ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION.
- 10.CONTRACTOR SHALL COORDINATE AND MAINTAIN MAIL, GARBAGE, AND RECYCLING SERVICES TO PROPERTIES THROUGHOUT CONSTRUCTION.
- 11.CONTRACTOR SHALL COORDINATE AND MAINTAIN STORMWATER DRAINAGE CONVEYANCE THROUGHOUT CONSTRUCTION (BOTH PIPED AND OVERLAND FLOW).
- 12.CONTRACTOR SHALL COORDINATE AND MAINTAIN WATER AND SANITARY FLOW TO AND FROM PROPERTIES. PROVIDE BYPASS AND TEMPORARY SYSTEMS, AS NECESSARY.
- 13.CONTRACTOR SHALL COORDINATE AND MAINTAIN UTILITY SERVICES TO ADJACENT PROPERTIES AT ALL TIMES. UTILITY SERVICE MUST NOT BE INTERRUPTED WITHOUT APPROVAL FROM OWNER, CITY, AND ADJACENT PROPERTIES.
- 14. CONSTRUCTION LIMITS ARE TO PROPERTY LINE UNLESS SHOWN OR NOTED OTHERWISE. CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITIES TO AREAS DESIGNATED ON PLANS WITHIN THE CONSTRUCTION LIMITS.
- 15.CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING PAVEMENT, SITE FEATURES, UTILITIES, TREES, ETC. UNLESS NOTED OR SHOWN OTHERWISE.
- 16 EXISTING PAVEMENT AND SITE CONDITIONS HAVE BEEN DOCUMENTED, AND ANY DAMAGE TO THE EXISTING PAVEMENT, CURBING, STRIPING, OR OTHER SITE FEATURE TO REMAIN MUST BE REPLACED BY THE CONTRACTOR, TO OWNER'S SATISFACTION, AT NO ADDITIONAL COST TO THE OWNER.
- 17.CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION AND WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES.
- 18.CONTRACTOR MUST IMMEDIATELY NOTIFY THE OWNER AND ENGINEER IN WRITING OF DISCREPANCIES OR CONFLICTS IN THE CONTRACT DOCUMENTS BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO NOTIFY OWNER AND ENGINEER OF AN IDENTIFIABLE CONFLICT BEFORE PROCEEDING WITH INSTALLATION RELIEVES OWNER AND ENGINEER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
- 19.CONTRACTOR SHALL HAVE ONE COPY OF EACH REQUIRED CONSTRUCTION PERMIT AND ONE COPY OF THE MOST CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS (INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT, SPECIAL CONDITIONS AND PROVISIONS, ETC.) AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
- 20. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR IMPLEMENTATION AND ENFORCEMENT OF SAFE WORK PRACTICES, INCLUDING BUT NOT LIMITED TO PERSONNEL MONITORING, USE OF TRENCHING, SHEETING, AND SHORING, SCAFFOLDING; MATERIALS HANDLING AND DRILLING; OPERATION OF EQUIPMENT; AND SAFETY OF PUBLIC DURING PROGRESS OF WORK.
- 21. CONTRACTOR SHALL PLAN FOR AND ENSURE PERSONNEL COMPLY WITH PROVISIONS OF OSHA SAFETY AND HEALTH STANDARDS (29 CFR 1910) AND GENERAL CONSTRUCTION STANDARDS (29 CFR 1926) AS APPROPRIATE
- 22. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH WORK. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS FOR SAFETY OF EMPLOYEES ON PROJECT SITE AND OTHER PERSONS AND ORGANIZATIONS WHO MAY BE AFFECTED BY THE PROJECT. CONTRACTOR'S DUTIES AND RESPONSIBILITIES FOR SAFETY IN CONNECTION WITH WORK SHALL CONTINUE UNTIL SUCH TIME AS ALL WORK IS COMPLETED, AND ENGINEER HAS ISSUED NOTICE TO CONTRACTOR THAT WORK IS COMPLETE.
- 23. HAZARDOUS MATERALS, INCLUDING BUT NOT LIMITED TO OIL, GASOLINE, PAINT AND OTHER HAZARDOUS SUBSTANCES MUST BE PROPERLY STORED, BY THE CONTRACTOR, INCLUDING SECONDARY CONTAINMENTS, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MCPA REGULATIONS. CONTRACTOR SHALL REMOVE SPILL OF FUELS, OILS, OR OTHER CHEMICALS IMMEDIATELY UPON DETECTION.
- 24. IF CONSTRUCTION IS ANTICIPATED TO OCCUR DURING COLD WEATHER, IN THE EVENT THAT SNOW REMOVAL IS REQUIRED FOR SITE ACCESS AND CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL COORDINATE WITH OWNER FOR ACCEPTABLE SNOW STORAGE AREAS ONSITE. SNOW REMOVAL AND STORAGE IS INCIDENTAL TO THE CONTRACT.

#### **REMOVAL/DEMOLITION NOTES**

- 1. SEE GENERAL NOTES FOR ADDITIONAL PROJECT AND SITE INFORMATION.
- 2. CONTRACTOR SHALL OBTAIN PERMITS REQUIRED FOR DEMOLITION, REMOVAL AND DISPOSAL
- CONTRACTOR SHALL REVIEW FEATURES NOT SPECIFICALLY IDENTIFIED ON PLAN FOR SALVAGE OR REMOVAL THAT CONFLICT WITH CONSTRUCTION WITH THE ENGINEER.
- 4. MATERIALS REMOVED/DEMOLISHED BY CONTRACTOR BECOME PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL LOAD AND HAUL MATERIAL OFF-SITE AND PROPERLY DISPOSE OF MATERIALS IN ACCORDANCE WITH APPLICABLE REGULATIONS. CONTRACTOR MUST LEAVE THE SITE IN A CONDITION TO THE SATISFACTION OF THE OWNER AND ENGINEER.

- 5. CONTRACTOR SHALL COORDINATE UTILITY REMOVAL WORK WITH APPROPRIATE UTILITY OWNER.
- 6. CONTRACTOR SHALL SALVAGE AND REINSTALL STREET AND TRAFFIC SIGNS IN CONFLICT WITH CONSTRUCTION ACTIVITIES AS NOTED OR AS DIRECTED BY ENGINEER. IF SIGNS ARE DAMAGED DURING CONSTRUCTION, CONTRACTOR REQUIRED TO PROVIDE NEW SIGNS AT NO ADDITIONAL COST TO THE OWNER.
- 7. IN THE EVENT THAT UNKNOWN CONTAINERS OR TANKS ARE ENCOUNTERED, THE CONTRACTOR MUST CONTACT THE ENGINEER IMMEDIATELY. ALL CONTAINERS OR TANKS MUST BE DISPOSED OF PROPERLY AT A REGULATED/PERMITTED FACILITY.
- 8. CONTRACTOR SHALL REVIEW ALL TREE REMOVALS WITH THE OWNER AND ENGINEER PRIOR TO REMOVAL OPERATIONS.
- 9. CLEARING AND GRUBBING OPERATIONS MUST COMPLY WITH THE FOLLOWING:
- A. PROTECT ALL TREES AND PLANTS NOT DESIGNATED FOR REMOVAL.
- B. CONDUCT OPERATIONS IN SUCH A MANNER THAT DOES NOT DAMAGE PROTECTED TREES AND VEGETATION C. CUT, REMOVE, AND DISPOSE OF TREES, BRUSH, SHRUBS, WINDFALLS, LOGS, STUMPS, ROOTS, FALLEN TIMBER AND OTHER VEGETATION
- BACKFILL DEPRESSIONS WITH NATIVE SOILS OR SUITABLE FILL MATERIAL AS REQUIRED BY DESIGN OR AS
   DIRECTED BY THE GEOTECHNICAL ENGINEER AND COMPACT BACKFILL AS DIRECTED.
- E. DISPOSE OF DEBRIS IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- F. CONSIDER BENEFICIAL USE DESIGNATIONS FOR UNADULTERATED WOOD, WOOD CHIPS, BARK AND SAWDUST.
- G. NO BURYING OF CLEARED AND GRUBBED WASTE WITHIN THE CONSTRUCTION LIMITS.

#### TRAFFIC CONTROL NOTES

- 1. SEE GENERAL NOTES FOR ADDITIONAL PROJECT AND SITE INFORMATION.
- CONTRACTOR SHALL COORDINATE CONSTRUCTION STAGING, ON OR OFFSITE, AS NECESSARY TO COMPLETE THE WORK. IF OFFSITE STAGING AREA IS REQUIRED, CONTRACTOR IS RESPONSIBLE TO FIND, OBTAIN, AND PAY FOR NECESSARY STAGING AREA AT NO ADDITIONAL COST TO THE OWNER. SUBMIT A STAGING PLAN TO THE ENGINEER FOR REVIEW BEFORE STARTING WORK.
- 3. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL AND PEDESTRIAN DETOURS. TRAFFIC CONTROL AND PEDESTRIAN DETOURS MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MM MUTCO, INCLUDING LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. SUBMIT TRAFFIC CONTROL PLAN AND PEDESTRIAN DETOUR PLAN TO CITY AND ENGINEER FOR REVIEW BEFORE CONSTRUCTION RELATED ACTIVITIES. PLANS MUST COMPLY WITH APPLICABLE PERMIT REQUIREMENTS. TRAFFIC CONTROL INCLUDES NECESSARY SIGNAGE AND MARKINGS FOR SIDEWALKS, TRAILS, BOARDWALKS, ETC. CLOSURE. THIS MUST INCLUDE ADVANCED WARNING SIGNS AND NECESSARY FENCING AND SIGNAGE TO PREVENT PEDESTRIANS FROM ACCESSING THE PROPOSED AREA.
- 4. CONTRACTOR MUST SCHEDULE WORK IMPACTING COUNTY ROAD 6 WITH THE CITY AND ENGINEER.
- 5. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC ON COUNTY ROAD 6 AT ALL TIMES.

### PAVING. PAVEMENT MARKING, AND SIGNAGE NOTES

- . . . . . .
- SEE GENERAL NOTES FOR ADDITIONAL PROJECT AND SITE INFORMATION.
   CONTRACTOR SHALL MAINTAIN STREET AND TRAFFIC SIGNS AT ALL TIMES DURING CONSTRUCTION
- 2. CONTRACTOR SHALL MAINTAIN STREET AND TRAFFIC SIGNS AT ALL TIMES DURING CONSTRUCTION.
- SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND CITY STANDARDS.

#### EROSION CONTROL NOTES

- 1. SEE GENERAL NOTES FOR ADDITIONAL PROJECT AND SITE INFORMATION.
- 2. CONTRACTOR SHALL CONFORM TO AND CONDUCT INSPECTIONS IN ACCORDANCE WITH THE NPDES PERMIT AND SWPPP REQUIREMENTS.
- BEFORE SITE DISTURBANCE AND AS REQUIRED AS CONSTRUCTION PROGRESSES, CONTRACTOR SHALL INSTALL, MAINTAIN, REPAR, AND REPLACE EROSION PREVENTION MEASURES AND SEDIMENT CONTROL DEVICES (INLET PROTECTION, CONSTRUCTION ENTRANCE, SILT FENCE, EROSION CONTROL BLANKET, ETC.) IN ACCORDANCE WITH THE SWPPP, INDES PERMIT, CITY, AND STATE REQUIREMENTS.
- 4. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING ON SITE CONDITIONS DURING CONSTRUCTION. COORDINATE WITH ENGINEER.
- CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS WITHIN THE CONSTRUCTION LIMITS WITHIN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE THAT HAS TEMPORARILY (WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS) OR PERMANENTLY CEASED. STABILIZATION MUST BE INITIATED PROMPTLY.
- 6. CONTRACTOR SHALL REMOVE ANY SEDIMENT THAT HAS TRACKED ONTO PAVED SURFACES BOTH ON AND OFFSITE WITHIN 24 HOURS AND AS DIRECTED BY CITY OR ENGINEER. SWEEP STREET IN ACCORDANCE WITH CITY AND NDPES PERMIT REQUIREMENTS.
- 7. CONTRACTOR SHALL COMPLETE CONCRETE WASH-OUT OFF-SITE OR PROVIDE SELF-CONTAINED CONCRETE READY MIX TRUCKS.
- CONTRACTOR SHALL MINIMIZE DUST FROM CONSTRUCTION OPERATIONS BY PROVIDING WATER OR OTHER APPROVED METHOD ON A DAILY BASIS.
- 9. CONTRACTOR SHALL PHASE GRADING WORK TO MINIMIZE THE DURATION THAT DISTURBED SOIL IS EXPOSED.
- 10.CONTRACTOR SHALL PROVIDE/INSTALL DIVERSION DITCHES, SEDIMENT BASINS, AND OTHER EROSION PROTECTION/SEDIMENT CONTROL MEASURES AS NECESSARY DURING INTERIM PROJECT CONDITIONS (NOT SHOWN ON PLANS) TO MANAGEDIVERT STORM WATER AWAY FROM STIE FEATURES AND CONTROL EROSION/SEDIMENT. CONTRACTOR SHALL ADJUST MEASURES AS NECESSARY THROUGHOUT PROJECT PHASING.
- 11.CONTRACTOR SHALL LOCATE SOIL STOCKPILES NO LESS THAN 50 FEET FROM ROADWAYS, STORMWATER INLETS, PONDS, WETLANDS, DRAINAGE CHANNELS, AND OTHER SURFACE WATERS. IF REMAINING FOR MORE THAN 7 DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATED COVER, TARPS, OR OTHER MEANS IN ACCORDANCE WITH THE NPDES PERMIT. PLACE PERIMETER SEDIMENT CONTROLS AROUND STOCKPILES TO CONTROL EROSION. COVER TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES IF LEFT FROM MORE THAN 24 HOURS.
- 12.CONTRACTOR SHALL REMOVE ALL EROSION CONTROL MEASURES AFTER SITE HAS BEEN STABILIZED AND VEGETATION IS ESTABLISHED AS DIRECTED BY ENGINEER. EROSION CONTROL MEASURES USED FOR CONSTRUCTION MUST NOT BE REMOVED UNTIL AUTHORIZED BY OWNER OR ENGINEER. 13.CONTRACTOR SHALL SUBMIT THE NOTICE OF TERMINATION AT THE COMPLETION OF THE PROJECT IN
- ACCORDANCE WITH THE NPDES PERMIT AND SWPPP REQUIREMENTS.

#### GRADING NOTES

- 1. SEE GENERAL NOTES FOR ADDITIONAL PROJECT AND SITE INFORMATION
- 2. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE, UNLESS NOTED OTHERWISE.
- THE SITE HAS NOT NECESSARILY BEEN DESIGNED TO BALANCE THE ON-SITE MATERIALS, EXCESS MATERIAL, UNLESS NOTED OTHERWISE, INTHE PROPERTY OF THE CONTRACTOR AND IS TO BE MOVED AND DISPOSED OF OFFSITE IN ACCORDANCE. WITH APPLICABLE LAWS.
- 4. CONTRACTOR SHALL BACKFILL SUBGRADE AND TRENCH EXCAVATIONS PROMPTLY AFTER EXCAVATION FOR PUBLIC SAFETY.
- 5. CONTRACTOR SHALL PROVIDE TOPSOIL, SEED/SOD AND MULCH IN ACCORDANCE WITH THE EROSION CONTROL PLAN.
- ALL DISTURBED PERVIOUS AREAS ARE TO RECEIVE 6 INCHES OF IMPORTED OR SALVAGED TOPSOIL, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SALVAGE TOPSOIL BEFORE GRADING, AND STOCKPILE FOR

#### RESPREADING.

- 7. EXISTING TOPSOIL ON SITE VARIES IN DEPTH. CONTRACTOR SHALL REMOVE SURFACE VEGETATION AND TOPSOIL AND OTHER LOOSE, SOFT OR OTHERWISE UNSUITABLE MATERIAL FROM THE IMPERVIOUS AREAS BEFORE PLACEMENT OF SUITABLE FILL MATERIAL.
- CONTRACTOR SHALL EXCAVATE AND DISPOSE OF UNSUITABLE OR CONTAMINATED SOILS DISCOVERED ONSITE IN ACCORDANCE WITH APPLICABLE REGULATIONS AND AS DIRECTED BY ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR MEETING GRADING/COMPACTION REQUIREMENTS OUTLINED IN THE SPECIFICATIONS FOR THE PROJECT.
- 10 EXISTING SPOT ELEVATIONS AT MATCH POINTS ARE BASED ON INTERPOLATED POINT TO POINT SURVEY DATA. CONTRACTOR IS RESPONSIBLE FOR VERIFYING CONNECTION POINTS PRIOR TO INSTALLATION OF IMPROVEMENTS. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY OF ANY FIELD DISOREPANCIES. CONTRACTOR IS RESPONSIBLE FOR MAKING NECESSARY ADJUSTMENTS IN THE FIELD FOR CONSTRUCTABILITY, REGULATORY COMPLIANCE (ADA), POSITIVE DRAINAGE, AND TO ENSURE SMOOTH TRANSITIONS TO FIELD CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR REWORK OF A DISCREPANCY THAT IS NOT COMMUNICATED TO THE ENGINEER IN WRITING.

#### STORM SEWER NOTES

- 1. CONTRACTOR SHALL COMPLY WITH THE SPECIFICATIONS OF THE CITY AND CEAM FOR MATERIALS, INSTALLATION, AND TESTING OF STORM UTILITIES
- CONTRACTOR SHALL VERIFY PIPE SIZE, MATERIAL, AND ELEVATION FOR CONNECTIONS. PROVIDE APPROPRIATE PIPES AND FITTINGS REQUIRED TO MAKE CONNECTIONS TO EXISTING INFRASTRUCTURE AS VERIFIED IN THE FIELD.
- 3. CONTRACTOR SHALL PLACE AND COMPACT SUITABLE FILL MATERIAL BEFORE INSTALLATION OF PROPOSED UTILITIES.
- LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO BACKFILLING IN ACCORDANCE WITH CITY HAVING JURISDICTION REQUIREMENTS.
- PIPE LENGTH INDICATED BETWEEN STRUCTURES IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS NOTED OTHERWISE. PIPE LENGTH INDICATED BETWEEN STRUCTURE AND FLARED END SECTION.
   CENTER OF STRUCTURE TO END OF FLARED END SECTION.

#### FILTRATION BENCH NOTES

- 1. CONTRACTOR SHALL STAGE CONSTRUCTION APPROPRIATELY AND INSTALL NECESSARY EROSION CONTROL TO PREVENT SEDIMENT WASHING INTO THE FILTRATION BENCH.
- CONTRACTOR SHALL STAGE CONSTRUCTION APPROPRIATELY TO MINIMIZE COMPACTION OF THE SOLLS IN THE FILTRATION AREA. CONTRACTOR SHALL ACCOMPLISH FINAL GRADING OF THE BENCH SYSTEM WITH LOW-IMPACT (WIDE TRACKED) EARTH MOVING EQUIPMENT TO PREVENT COMPACTION.
- 3. CONTRACTOR SHALL STAKE OFF AND MARK THE PROJECT AREA TO KEEP CONSTRUCTION TRAFFIC, EQUIPMENT AND MATERIAL STOCKPILES OUT OF THE PROPOSED FILTRATION AREAS.
- 4. CONTRACTOR SHALL STAGE CONSTRUCTION APPROPRIATELY AND INSTALL NECESSARY EROSION CONTROL TO PREVENT SEDIMENT AND TOPSOIL FROM WASHING INTO THE FILTRATION AREA. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE IFILTRATION AREA, THE CONTRACTOR SHALL REMOVE THE MATERIAL BEFORE PROCEEDING WITH CONSTRUCTION
- 5. CONTRACTOR SHALL NOT EXCAVATE THE FILTRATION BENCH UNTIL THE CONTRIBUTING DRAINAGE AREAS WITH EXPOSED SOLI HAVE BEEN STABILIZED AND BITUMINOUS BASE COURSE INSTALLED ON CONTRIBUTING PAVEMENT AREAS. DIVERT UPLAND DRAINAGE AREAS TO PREVENT RUNOFF FROM ENTERING THE EXCAVATED CELL OR INTO THE WORK AREA. DO NOT ALLOW CONSTRUCTION RUNOFF INTO THE CELL(S), WHEN ALTERNATE DRAINAGE ROUTES ARE FEASIBLE.
- 6. CONTRACTOR SHALL ACCOMPLISH FINAL GRADING OF THE BASIN TO PREVENT COMPACTION. EXCAVATION SHOULD BE PERFORMED WITH A BACKHOE FROM THE SIDES AND OUTSIDE THE FOOTPRINT OF THE FILTRATION AREA. IF REQUIRED TO WORK WITHIN THE FILTRATION FOOTPRINT, ONLY LOW GROUND PRESSURE TRACKED EQUIPMENT SHALL BE ALLOWED. RUBBER TIRE EQUIPMENT IS PROHIBITED WITHIN THE FILTRATION AREA.
- 7. CONTRACTOR SHALL AVOID CONTAMINATION OF FILTRATION BASIN SOILS WITH SEDIMENT, IN-SITU OR TOPSOIL DURING AND AFTER INSTALLATION. MATERIALS MUST BE SEGREGATED. INSTALLATION WITH DRY SOIL CONDITIONS IS CRITICAL TO PREVENT SMEARING AND COMPACTION.
- 8. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE FILTRATION BASIN, THE CONTRACTOR SHALL REMOVE THE MATERIAL BEFORE PROCEEDING WITH CONSTRUCTION.
- 9. CONTRACTOR SHALL ENSURE FILTRATION BASIN IS FREE AND CLEAR OF SEDIMENT UPON FINAL COMPLETION OF CONSTRUCTION.

1. CONTRACTOR SHALL ANTICIPATE GROUND WATER, A BID ITEM HAS BEEN PROVIDED FOR ALL DEWATERING AND

2. CONTRACTOR SHALL OBTAIN APPLICABLE REQUIRED PERMITS (INCLUDING MN DNR WATER APPROPRIATION

4. CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATER RELATED TO DEWATERING OR BASIN

DRAINING (E.G. PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT

SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. CONTRACTOR MAY DISCHARGE FROM THE

TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO THE SURFACE WATERS IF THE BASIN WATER HAS BEEN

VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE

F THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER,

CONDITIONS (SEE MINNESOTA RULES CHAPTER 7050.0210, SUBPART 2) WILL NOT RESULT FROM THE DISCHARGE

IT MUST BE TREATED WITH THE APPROPRIATE BMPs (E.G. SILT BAGS) SUCH THAT THE DISCHARGE DOES NOT

DISCHARGE WATER THAT CONTAINS OIL OR GREASE. THE CONTRACTOR MUST USE AN OIL-WATER SEPARATOR

OR SUITABLE FILTRATION DEVICE (E.G. CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGING THE

5. CONTRACTOR MUST DISCHARGE WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES IN A MANNER THAT.

6. IF THE CONTRACTOR IS USING FILTERS WITH BACKWASH WATER, THE CONTRACTOR MUST HAUL THE BACKWASH

OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE

SANITARY SEWER AUTHORITY. THE CONTRACTOR MUST REPLACE AND CLEAN THE FILTER MEDIA USED IN

1 CONTRACTOR SHALL PROTECT EXISTING TREES THAT ARE NOT TO BE REMOVED INSTALL ORANGE MESH

FENCING, 4 FEET HIGH, WITH STAKES EVERY 10 FEET, 5 FEET OUTSIDE OF THE DRIP LINE OF PRESERVED TREES,

OR AT THE CONSTRUCTION LIMITS, DO NOT PERFORM ACTIONS WITHIN THE PROTECTED AREA THAT MAY HARM

THE TREE AND COMPACT THE SOIL, INCLUDING EXCAVATION, STORING MATERIALS, PARKING AND TRAFFIC

DURING CONSTRUCTION. WHERE CONSTRUCTION REQUIRES DISTURBANCE WITHIN THE PROTECTED AREAS,

WATER AWAY FOR DISPOSAL RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS.

CONTRACTOR MAY DISCHARGE BACKWASH WATER TO THE SANITARY SEWER IF PERMISSION IS GRANTED BY THE

OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWN SLOPE PROPERTIES.

EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SANDBAGS, PLASTIC

ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM PROPERTIES. IF THE CONTRACTOR MUST

WATER. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM

PERMIT) AND SUBMIT DEWATERING PLAN TO ENGINEER FOR REVIEW. DEWATERING MUST MEET PERMIT REQUIREMENTS AND BE ACCEPTED BEFORE STARTING CONSTRUCTION ACTIVITIES.

3. CONTRACTOR MUST DEWATER IN ACCORDANCE WITH THE PROJECT SWPPP AND NPDES PERMIT

TEMPORARY STORMWATER MANAGEMENT WORK NECESSARY FOR CONSTRUCTION

SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES.

DEWATERING DEVICES WHEN REQUIRED TO RETAIN ADEQUATE FUNCTION.

TREE PRESERVATION NOTES

DISTURB THE ROOT ZONE AS LITTLE AS POSSIBLE

#### DEWATERING NOTES

2. TREE PROTECTION MEASURES/FENCING MUST BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION AND MUST BE REVIEWED BY OWNER AND ENGINEER BEFORE STARTING CONSTRUCTION.

3. WHEN TREE ROOTS ARE ENCOUNTERED THAT MUST BE REMOVED, CONTRACTOR SHALL CUT ROOTS CLEANLY AS FAR FROM THE TREE AS POSSIBLE AND IMMEDIATELY WATER AND BACKFILL OVER THE ROOTS TO PREVENT DRYING.

# HORIZONTAL AND VERTICAL CONTROL NOTES

1. THE HORIZONTAL CONTROL FOR THIS PLAN IS NAD83 HENNEPIN COUNTY COORDINATES SYSTEM US FOOT. 2. THE VERTICAL CONTROL FOR THIS PLAN IS NAVD88.

### TEMPORARY STORMWATER MANAGEMENT NOTES

1. CONTRACTOR SHALL ANTICIPATE STORMWATER INFLOW THROUGHOUT THE DURATION OF THE PROJECT. A BID ITEM HAS BEEN PROVIDED FOR ALL DEWATERING AND TEMPORARY STORMWATER MANAGEMENT WORK NECESSARY FOR CONSTRUCTION.

2. BID ITEM "DEWATERING AND TEMPORARY STORMWATER MANAGEMENT" INCLUDES ANY AND ALL EFFORTS REQUIRED TO DRAWDOWN POND WATER LEVELS AND ISOLATE THE WORK AREA FROM STORMWATER FLOW, PUMP OR OTHERWISE REMOVE WATER FROM THE WORK AREA, MANAGE ANY STORMWATER INFLOW, GROUNDWATER INFLOW OR SEEPAGE THAT MAKES ITS WAY INTO THE WORK AREA.

3. CONTRACTOR SHALL SUBMIT A TEMPORARY STORMWATER MANAGEMENT PLAN FOR CITY, WATERSHED, AND ENGINEER REVIEW AND APROVAL PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL INCLUDE PROVISIONS IN THE PLAN THAT ADDRESS HOW THE WORK AREA WILL BE PROTECTED AND HOW THE POND WILL BE DRAWNDOWN IN THE EVENT OF LARGE RAIN EVENTS.

4. TEMPORARY STORMWATER MANAGEMENT PLAN SHALL MINIMALLY CONSIST OF THE FOLLOWING:

 A. DETAILED SCHEDULE THAT INCLUDES INSTALLATION OF TEMPORARY EROSION CONTROL AND PUMPING.
 B. LIST OF EQUIPMENT AND MATERIALS THAT WILL BE UTILIZED FOR TEMPORARY STORMWATER MANAGEMENT DURING CONSTRUCTION.

5. CONTRACTOR SHALL FOLLOW ALL ADDITIONAL REQUIREMENTS NOTED IN CITY, DNR, NDPES, AND OTHER RELEVANT PERMITS.

6. CONTRACTOR SHALL NOT OBSTRUCT STREET TRAFFIC FOR TEMPORARY STORMWATER MANAGEMENT PURPOSES.







SHEET NO .:
C-001











#### **IMPAIRED WATERS MAP**



#### SOIL MAP



#### **PROJECT INFORMATION**

PROJECT NAME: COUNTY ROAD 6 STORMWATER RETROFIT PROJECT LOCATION: COUNTY ROAD 6 ORONO, MINNESOTA PROJECT TYPE: RETROFIT OF EXISTING STORMWATER BMP TOTAL AREA DISTURBED BY CONSTRUCTION: APPROXIMATELY 1.73 ACRES. THE TOTAL SITE AREA IS XIMATELY 1.99 ACRES

ESTIMATED CONSTRUCTION DATES: PROJECTED CONSTRUCTION DATES SUMMER TO FAIL OF 2025 CUMULATIVE IMPERVIOUS SURFACE/PERMANENT STORMWATER MANAGEMENT REQUIREMENTS: THE PROPOSED PROJECT RESULTS IN A ±0.0 ACRE NET INCREASE/DECREASE IN IMPERVIOUS SURFACE WITHIN THE LIMITS OF DISTURBANCE, INCLUDE ANY INFORMATION ABOUT FUTURE EXPANSION IMPERVIOUS HERE

THE SITE ULTIMATELY DRAINS TO LONG LAKE CREEK WHICH IS LISTED AS AN IMPAIRED WATER FOR FISH BIOASSESSMENTS MERCURY IN FISH, NUTRIETS,

THE PERMANENT STORMWATER SYSTEM WILL CONSIST OF MODIFICATION TO THE EXISTING POND TO ADD A FILTRATION BENCH

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF THE SITE (OWNER): MINNEHAHA CREEK WATERSHED DISTRICT CONTACT: KAIL EY CERMAN

CONTACT PHONE: 952-641-4501 CONTACT EMAIL: KCERMAK@MINNEHAHACREEK.ORG PARTY RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP (CONTRACTOR): TBD CONTRACTOR: TBD ONTRACTOR PHONE: TBD

CONTRACTOR EMAIL: TBD

CONTRACTOR SHALL PROVIDE A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE FOR INCORPORATION INTO THIS SWPPP DOCUMENT TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE (THROUGH FINAL STABILIZATION AND NOT SUBMITTAL) EPFED TOTAL THE CONSTRUCTION PROJECT SOUTHELE (TRADOGRETING STATION AND ON SUBMITTE). CONTRACTOR SHALL ALSO PROVIDE DOCUMENTATION OF PERSONNEL TRAINING IN ACCORDANCE WITH THE PERMIT FOR INCORPORATION INTO THIS SWPPP DOCUMENT AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. CONTRACTOR IS RESPONSIBLE FOR KEEPING A FINAL SWPPP DOCUMENT, CONTAINING THE INFORMATION REQUIRED ABOVE. AT THE CONSTRUCTION SITE FOR THE DURATION OF THE PROJECT

#### SWPPP DOCUMENTS

THE SWPPP IS COMPOSED OF, BUT NOT LIMITED TO, THE BELOW PROJECT DOCUMENTS. THESE DOCUMENTS SHALL BE KEPT ON THE PROJECT SITE AT ALL TIMES THROUGHOUT CONSTRUCTION. THE SWPPP SHALL BE AMENDED BY THE PERSON RESPONSIBLE TO INCLUDE ANY DOCUMENTS NECESSARY TO ENSURE ADHERENCE TO THE GENERAL

COUNTY ROAD 6 STORMWATER POND RETROFIT CIVIL CONSTRUCTION DRAWINGS BY STANTEC DATED FEBRUARY.

RECORD RETENTION - THE SWPPP, ALL CHANGES TO IT, AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT ON-SITE DURING CONSTRUCTION; THE CONSTRUCTION DRAWINGS ARE INCORPORATED HEREIN BY REFERENCE, AND A COPY OF THE PLAN SET SHOULD BE KEPT ON-SITE WITH THE SWPPP RECORDS. 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: 1. 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, CONTRACT, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE: AND

ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER

#### INSPECTIONS

THE INSPECTION LOG WILL BE COMPLETED BY THE CONTRACTOR FOR THE CONSTRUCTION SITE INSPECTOR(S): TBD. TRAINING DOCUMENTATION (PER SECTION 21 2 OF THE PERMIT) WILL BE INCOPORATED INTO THIS SWPPP AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. THE CONTRACTOR WILL MAKE CORRECTIONS OR REPAIRS REQUIRED TO COMPLY WITH THE PERMIT

INSPECTIONS AT THE SITE WILL BE COMPLETED IN ACCORDANCE WITH THE PERMIT AS FOLLOWS: ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND, WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE INDIVIDUAL PERFORMING INSPECTIONS MUST BE TRAINED AS REQUIRED BY SECTION 21.3 OF THE PERMIT TRAINING DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR FOR INCORPORATION INTO THE SWPPP INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMPS, AND INFILTRATION AREAS, CORRECTIVE ACTIONS MUST BE IDENTIFIED AND DATE OF CORRECTION MUST BE NOTED AS IDENTIFIED IN SECTION 11.11 OF THE PERMIT. ANY OFFSITE DISCHARGE MUST BE DOCUMENTED AS IDENTIFIED IN SECTION 11.11 OF THE PERMIT, ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED WITHIN SEVEN (7) CALENDAR DAYS. AN INSPECTION LOG AND SALESS ALSO ATTACHED; THE INSPECTION LOG AND SWPPP MUST BE KEPT ON-SITE FOR THE DURATION OF THE CONSTRUCTION PROJECT.

AT A MINIMUM, THE FOLLOWING SHALL BE COMPLETED DURING EACH INSPECTION: -RECORD DATE AND TIME OF INSPECTION. -RECORD RAINFALL RECORDS SINCE THE MOST RECENT INSPECTION.

- -RECORD MAINFALL RECORDS STORE THE MICE THE MICE RECEIVE THOM. INSPECT THE SITE FOR EXCESS EROSION AND SEDIMENTATION. -INSPECT THE SITE FOR DEBRIS, TRASH, AND SPILLS. -INSPECT TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES.
- -INSPECT CONSTRUCTION ENTRANCES FOR SEDIMENT TRACKING ONTO PUBLIC STREETS
- RECORD RECOMMENDED REPAIRS AND MODIFICATIONS TO EROSION AND SEDIMENT CONTROLS. RECOMMEND ANY NECESSARY CHANGES TO THIS SWPPP.

-RECORD REPAIRS AND MODIFICATIONS IMPLEMENTED SINCE PREVIOUS INSPECTIONS. -INSPECT THE ADJACENT STREETS AND CURB AND GUTTER FOR SEDIMENT, LITTER, AND CONSTRUCTION DEBRIS

THE GENERAL CONTRACTOR MUST UPDATE THE SWPPP, INCLUDING THE JOBSITE BINDER AND SITE MAPS, TO REFLECT THE PROGRESS OF CONSTRUCTION ACTIVITIES AND GENERAL CHANGES TO THE PROJECT SITE. UPDATES SHALL BE MADE DAILY TO TRACK PROGRESS WHEN ANY OF THE FOLLOWING ACTIVITIES OCCUR: BMP INSTALLATION, MODIFICATION OR REMOVAL, CONSTRUCTION ACTIVITIES (E.G. PAVING, SEWER INSTALLATION, ETC), CLEARING, GRUBBING, GRADING, OR TEMPORARY AND PERMANENT STABILIZATION.

THE CONTRACTOR MAY LIPDATE OR MODIFY THE SWPPP WITHOUT ENGINEER APPROVAL IN AN EMERGENCY SITUATION TO PREVENT SEDIMENT DISCHARGE OR PROTECT WATER QUALITY. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PERMIT AND PROTECTION OF DOWNSTREAM WATER QUALITY.

#### EROSION AND SEDIMENT CONTROL

PRIOR TO ANY SITE DISTURBANCE AND AS REQUIRED AS CONSTRUCTION PROGRESSES ANY PERMIT REQUIRED EROSION PREVENTION MEASURES AND THE SEDIMENT CONTROL DEVICES INLET PROTECTION, CONSTRUCTION ENTRANCE, SILT FENCE, EROSION CONTROL BLANKET SHOWN ON THE CONSTRUCTION DRAWINGS WILL BE INSTALLED AT THE SITE

ALL EXPOSED SOIL AREAS WITHIN THE CONSTRUCTION LIMITS WILL BE STABILIZED WITHIN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY (WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS) OR PERMANENTLY CEASED. STABILIZATION WILL BE INITIATED IMMEDIATELY. EXPOSED SOIL AREAS MUST HAVE TEMPORARY EROSION PROTECTION (SLASH MULCH, EROSION CONTROL BLANKET SEED) OR PERMANENT COVER YEAR ROUND.

CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE FROSION WHEN PRACTICAL THE NORMAL WE TEED PERMITTER OF ANY TEMPORARY OR PERMANENT DRAINAGE LINGUICH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

SWPPP IMPLEMENTATION, PHASING, AND SEQUENCE OF CONSTRUCTION:

- BMP AND EROSION CONTROL INSTALLATION SEQUENCE SHALL BE AS FOLLOWS: CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE, CONCRETE WASHOUT PIT, AND INSTALL SILT FENCE
- INSTALL INLET PROTECTION AT EXISTING STORMWATER CULVERTS AND INLETS.
- PREPARE TEMPORARY STORAGE, PARKING, AND PHASING AREAS.
- CONSTRUCT AND STABILIZE DIVERSIONS AND TEMPORARY SEDIMENT TRAPS/BASINS PERFORM CLEARING AND GRUBBING OF THE SITE, IF APPLICABLE.
- PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS
- BEGIN EXCAVATION OF PERMANENT STORMWATER BASIN AREAS. SEE SEQUENCING BELOW FOR ADDITIONAL NFORMATION
- START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
- INSTALL SMALL UTILITIES (GAS, ELECTRIC, PHONE, CABLE, ETC.).
- PAVE CURB AND GUTTER, SIDEWALK, AND PARKING LOT/ DRIVEWAYS.
- TEMPORARILY SEED WITH PURE LIVE SEED THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE
- INACTIVE FOR 7 DAYS OR MORE AS REQUIRED BY NPDES OR PERMIT.

SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS. THE FOLLOWING MEASURES WILL BE TAKEN AS SEDIMENT CONTROL PRACTICES IN ORDER TO MINIMIZE SEDIMENTS FROM ENTERING SURFACE WATERS:

- INSTALLATION OF SEDIMENT CONTROL PRACTICES ON ALL DOWN GRADIENT PERIMETERS PRIOR TO LAND DISTURBING ACTIVITIES.
- SILT FENCING, BIOLOGS, OR OTHER SEDIMENT CONTROL SURROUNDING TEMPORARY SOIL STOCKPILES. VEHICLE TRACKING BMP AT CONSTRUCTION SITE ENTRANCE/EXIT. STREET SWEEPING SHALL BE PERFORMED IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFFSITE WITHIN 24 HOURS OF DISCOVERY PER
- THE PERMIT STREET SWEEPING IS NOT TO BE USED AS A PRIMARY BMP FOR SEDIMENT TRACKING. IF SEDIMENT IS TRACKED OFFSITE, WORK WILL CEASE UNTIL PROPER EROSION CONTROL AND SEDIMENT CONTROL DEVICES ARE INSTALLED AND/OR BEING MAINTAINED TO PREVENT TRACKING BEYOND THE SITE'S PERIMETER (CONTAINMENT AREA). ALL STREET SWEEPING MUST BE PERFORMED UTILIZING A PICK-UP SWEEPER. IF NECESSARY WATER WILL ALSO BE USED TO CLEAN UP THE STREETS PRIOR TO BEING SWEPT TO ENSURE THEY ARE FULLY

THE FOLLOWING GUIDELINES WILL BE USED TO DETERMINE IF POLLUTION CONTROL DEVICES REQUIRE MAINTENANCE, REPAIR, OR REPLACEMENT:

-IF SEDIMENT CONTROL DEVICES SUCH AS SILT FENCE ARE FILLED TO 1/3 THE HEIGHT OF THE FENCE, REMOVE ALL SEDIMENT WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.

-IF INLET PROTECTION DEVICES APPEAR PLUGGED WITH SEDIMENT, ARE FILLED TO 1/3 CAPACITY, OR HAVE STANDING WATER AROUND THEM, REMOVE THE SEDIMENT AND CLEAN OR REPLACE THE FILTER WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.

IF THE GRAVEL CONSTRUCTION ENTRANCE(S) ARE FILLED WITH SEDIMENT EITHER REPLACE THE ENTRANCE OR ADD ADDITIONAL GRAVEL WITH 24 HOURS OF DETECTION OR NOTIFICATION.

IF SEDIMENT FROM THE SITE IS OBSERVED ON ADJACENT STREETS OR OTHER PROPERTIES, THE INSPECTOR SHALL IDENTIFY THE SOURCE AND DISCHARGE LOCATION OF THE SEDIMENT AND INSTRUCT TO IMPLEMENT ADDITIONAL EROSION AND SEDIMENT CONTROLS AT THOSE LOCATIONS TO PREVENT FUTURE DISCHARGES. -IF BUILDING MATERIALS, CHEMICALS, OR GENERAL REFUSE IS BEING USED, STORED, DISPOSED OF, OR OTHERWISE MANAGED INAPPROPRIATELY, CORRECT SUCH DEFECTS WITHIN 24 HOURS OF DETECTION OR NOTIFICATION. -IF EXCESSIVE SEDIMENTS OR DEBRIS ARE OBSERVED AT THE FLARED END SECTION OUTFALLS, THE INSPECTOR

SHALL DETERMINE THE SOURCE AND DISCHARGE LOCATIONS OF SUCH MATERIALS. IF THE DISCHARGE HAS OCCURRED ON THE PROPERTY, REMOVE THE SEDIMENTS AND DEBRIS WITHIN 24 HOURS OF NOTIFICATION AND CORRECT THE SOURCE OF SUCH MATERIALS AS DIRECTED BY THE INSPECTOR

#### POLLUTION PREVENTION MEASURES

SOLID WASTE

SOLID WASTE, INCLUDING BUT NOT LIMITED TO, COLLECTED ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTE, INCLUDING ALL TRASH ONSITE, MUST BE REGULARLY DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

#### HAZARDOUS MATERIALS

HAZARDOUS MATERIALS, INCLUDING BUT NOT LIMITED TO OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCE MUST BE PROPERLY STORED INCLUDING SECONDARY CONTAINMENT, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MCPA REGULATIONS.

#### CONSTRUCTION EQUIPMENT/VEHICLES:

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE, RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF, NO ENGINE DEGREASING IS ALLOWED ON SITE. REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS SHALL BE TAKEN. ADEQUATE SUPPLIES MUST BE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS; CONDUCT FUELING IN A CONTAINED AREA UNLESS INFEASIBLE.

#### CONCRETE WASHOUT AREA:

CONCRETE WASHOUT WILL BE PERMITTED ON-SITE; CONTRACTOR SHALL FOLLOW ALL PERMIT REQUIREMENTS FOR CONCRETE WASHOUT, THE CONTRACTOR SHALL PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND AND THE CONTAINMENT MUST BE DESIGNED TO PROHIBIT RUNOFF FROM THE WASHOUT OPERATIONS/AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA BULES. A SIGN MUST BE INSTALLED AD ACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR CONCRETE WASHOUT AND DISPOSAL OF WASHOUT WASTES. CONTRACTOR SHALL REVISE SWPPP TO INDICATE WASHOUT LOCATION ONCE THE LOCATION HAS BEEN

FERTILIZERS AND LANDSCAPE MATERIALS MUST BE UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.

PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER SANITARY WASTE MUST BE DISPOSED OF PROPERLY.

- NPDES PERMIT



FINAL STABILIZATION: ALL PERVIOUS AREAS DISTURBED BY CONSTRUCTION AS DESIGNATED WILL RECEIVE VEGETATIVE COVER ACCORDING TO THE PLANS AND SPECIFICATIONS AND WITHIN THE SPECIFIED VEGETATIVE TIME SCHEDULE. FINAL 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 RESTORED PERVIOUS AREAS, ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION ALL SEDIMENT MUST BE CLEANED OUT OF CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS IF APPLICABLE. NOTICE OF TERMINATION (NOT) MUST BE SUBMITTED WITHIN 30 DAYS OF FINAL STABILIZATION

### IMPAIRED WATERS, SPECIAL WATERS, AND WETLANDS

CONSTRUCTION



# CERTIFICATION

## FILTRATION BASIN SEQUENCING NOTES

1 CONTRACTOR SHALL STAGE CONSTRUCTION APPROPRIATELY AND SHALL NOT INSTALL FILTER MEDIA UNTIL THEY CONSTRUCT AND FULLY STABILIZE CONTRIBUTING DRAINAGE AREA.
2. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE FILTRATION BASIN, THIS MATERIAL WILL NEED TO BE REMOVED PRIOR TO PROCEEDING WITH CONSTRUCTION. A ALL SLOPES WITHIN PERMANENT STORMWATER SYSTEM (INCLUDING SWALES, BASINS, AND PONDS) SHALL BE STABILIZED WITH A EROSION CONTROL BLANKET. 4. PROVIDE TOPSOIL AND SEED IN ACCORDANCE WITH THE EROSION CONTROL PLAN, LANDSCAPE PLAN, AND

#### GENERAL SWPPP NOTES

DEWATERING IS NOT ANTICIPATED TO BE REQUIRED DURING TRENCHING FOR UTILITY CONSTRUCTION. IN THE EVENT THAT DEWATERING IS NECESSARY CONTRACTOR SHALL COMPLY WITH PERMIT SECTION 10.1 REQUIREMENTS

THIS SWPPP SHALL BE AMENDED BY THE CONTRACTOR IN ACCORDANCE WITH THE PERMIT AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS. TO CORRECT PROBLEMS IDENTIFIED, OR TO ADDRESS SITUATIONS PER SECTION 6.1 OF THE PERMIT

THE PROJECT WILL DISTURB MORE LESS THAN 5 ACRES THAT PROMOTE DRAINAGE TO A COMMON LOCATION THE FROUED WILE DISTORE INCLUSION ELESS THAT PACHES THAT FROM THE DRAINAGE TO A COMMUNE CONTINUE. THEREFORE A TEMPORARY SEDIMENT BASIN WILL NOT BE REQUIRED. THIS SWIPP SHALL BE AMENDED BY THE CONTRACTOR IN ACCORDANCE WITH THE GENERAL PERMIT TO INCLUDE TEMPORARY SEDIMENTATION BASINS, IF THEY BECOME NECESSARY, BASINS, IF DESIGNED BY THE CONTRACTOR, SHALL ACCOMMODATE NO LESS THAN 3,600 TO BECOME RECEIPTING THE SURFACE OF CONTRIBUTING DRAINAGE AREA BASIN OUTLETS SHALL BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE OF THE BASIN, PREVENT SHORT-CIRCUITING AND THE DISCHARGE OF FLOATING DEBRIS. BASINS SHALL HAVE A STABILIZED EMERGENCY OVERFLOW LOCATION AND BE DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS TO THE EXTENT PRACTICAL

THIS PROJECT IS LOCATED WITHIN ONE MILE OF LONG LAKE CREEK AND ULTIMATELY DISCHARGES TO LONG LAKE AN IMPAIRED WATER. LONG LAKE IS LOCATED SOUTHEAST OF THE PROJECT LOCATION AND IS LISTED AS IMPAIRED FOR FISH BIOASSESSMENTS FISH HG-F, NUTRIENTS. DISCHARGE TO AN IMPAIRED WATER REQUIRES IMPLEMENTATION OF SECTION 23.1 OF THE PERMIT AS INCORPORATED INTO THIS SWPPP DOCUMENT.

THE PROJECT SITE DISCHARGES TO EXISTING STORMWATER POND FOR STORMWATER MANAGEMENT PRIOR TO THE ULTIMATE DISCHARGE POINT ONSITE. THE PROJECT WILL NOT IMPACT WETLANDS. SITE SOILS - SITE SOILS ARE SHOWN ON THIS SHEET. THIS PROJECT IS NOT LOCATED IN A KARST AREA

### ESTIMATED BMP QUANTITIES AND INSTALLATION SCHEDULE

THE ADJACENT TABLE INDICATES THE ESTIMATED MATERIAL QUANTITIES NECESSARY TO IMPLEMENT THE TEMPORARY AND DEPENDANCE I DESIGN PREVENTION AND SEDIMENT CONTROL BMPS IDENTIFIED IN THIS SWPPP AND ON THE CONSTRUCTION DRAWINGS. TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPS WILL BE INSTALLED/CONSTRUCTED WHEN NECESSARY AS CONSTRUCTION ACTIVITIES PROGRESS AND IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS

MAINTAIN AND REPLACE BMPs DURING THE EXECUTION OF THE PROJECT AS REQUIRED TO CONTINUE SWPPP COVERAGE DURING

ESTIAMTED BMP QUANTITIES			
	QUANTITIY	UNIT	
D END PROTECTION	4	EA	
LIZED CONSTRUCTION EXIT	1	EA	
IENT CONTROL LOG	601	LF	
ENCE	233	LF	
TION SILT CURTAIN	253	LF	
REIN FORCEMENT MAT	165	SY	
ON CONTROL BLANKET	2508	SY	
ESTABLISHMENT	1.69	AC	

NOTE: QUANTITIES ON PLAN SUPERCEDES LIST QUANTITIES IN A DISCREPANCY

IN ACCORDANCE WITH SECTION 21 OF THE GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES, THE PREPARER OF THIS DOCUMENT WAS TRAINED UNDER THE UNIVERSITY OF MINNESOTA EROSION AND SEDIMENT CONTROL CERTIFICATION PROGRAM. BEN OTTO'S CERTIFICATION IN DESIGN OF SWPPP IS VALID THROUGH MAY 2025.











### LEGEND



EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)

COUNTY ROAD 6 ACCESS









HARED\_PROJECTS/227707038draffing/03 - DESIGM1\_CADI3 PLANSHEETS/227707038-C301-



#### LEGEND



<<•

<<

EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)

COUNTY ROAD 6 ACCESS







HARED\_PROJECTS/227707038diafting\03 - DESIGN1\_CAD\3 PLANSHEETS\227707038-C301-ctb.dwg



#### LEGEND



<<•

EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)

COUNTY ROAD 6 ACCESS







### LEGEND



EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)

COUNTY ROAD 6 ACCESS







#### LEGEND

<<-



<<-

<<•

EXISTING CONTOUR MINOR EXISTING CONTOUR MAJOR PROPOSED CONTOUR MINOR PROPOSED CONTOUR MAJOR PROPOSED GRADING LIMITS PROPOSED SPOT ELEVATION

RISE:RUN (SLOPE)

COUNTY ROAD 6 ACCESS

PROPOSED PEA ROCK







