# SHOREVIEW LANE ICE DAMAGE REPAIR

BREEZY POINT, MN

PROJECT LOCATION

CITY OF BREEZY POINT
CROW WING COUNTY MINNESOTA



C1.0 C1.1 C2.0 C3.0 C4.0 C5.0 C5.1 C6.0 C6.1	SHEET INDEX TABLE  SHEET TITLE  TITLE SHEET  CIVIL PLAN LEGEND  QUANTIIES, SECTIONS, & NOTES  REMOVALS PLAN  GRADING PLAN  RESTORATION, SEEDING, & EROSION CONTROL PLAN  RESTORATION GENERAL NOTES AND SPECIFICATIONS
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	SWPPP NARRATIVE SWPPP MAPS
AAVOR	CHY OFFICIALS
MAYOR:	ANGEL ZIERDEN
CITY COUNCIL:	BRAD SCOTT
	MICHAEL MORONI
	REBECCA BALL
	STEVE JENSEN
CITY ADMINSTRATOR:	DAVID CHANSKI
PUBLIC WORKS DIRECTOR :	JOE ZIERDEN
	APPROVALS
RECOMMENDED FOR APPR	OVAL: 09/26/2024  CITY CONSULTING ENGINEER DATE

 SITY OF BREEZY POINT
 SCALE:
 AS SHOWN
 09/26/2024
 (1)
 ADDED

 SREEZY POINT, MN
 CHECKED BY:
 DSR
 DSR

DATE

C1.0

PUBLIC WORKS DIRECTOR

SURVEY MONUMENTS	EXISTING UTILITY MUNICIPAL SYMBOLS (cont.)	PROPOSED UTILITY MUNICIPAL SYMBOLS	EXISTING TOPOGRAPHIC LINES	PROPOSED CONSTRUCTION LINES
BENCH MARK	STORM MANHOLE	PROPOSED OTILITY MUNICIPAL SYMBOLS  ■ APRON PROPOSED	—— - —— CENTER LINE	—○—○—○— FENCE CHAIN LINK PROPOSED
FOUND CIM	WATER CURB STOP	SANITARY CLEANOUT PROPOSED	EDGE OF WOODS	
FOUND CPNT.	W WATER HANDHOLE	SANITARY CLEANOUT PROPOSED  SANITARY LIFT STATION PROPOSED		
FOUND JLM			-x-x-x-x-xx	——————————————————————————————————————
LATH	WATER HYDRANT  WATER MANHOLE	SANITARY MANUAL E PROPOSED	-○○	
× FOUND LATH		SANITARY MANHOLE PROPOSED	FORGEMAIN	SANITARY SEWER PROPOSED
• FOUND PIPE	VV	SANITARY PLUG PROPOSED	FM FORCEMAIN	— ss — ss — SANITARY SERVICE PROPOSED
× FOUND READING		STORM CATCH BASIN PROPOSED	—— онс—— OVERHEAD CABLE TV	STORM SEWER PROPOSED
© STAKED CIM	WATER WELL	STORM MANHOLE PROPOSED	OVERHEAD ELECTRIC	——— DT ———— STORM SEWER DRAIN TILE PROPOSED
△ STAKED CPNT.	UTILITY UTILITY SIZE & TYPE	WATER 11 1/4° BEND PROPOSED	——— онт ———— OVERHEAD TELE	
© STAKED JLM		WATER 22 1/2° BEND PROPOSED	++++++++++++++++++++++++++++++++++++++	— ws — ws — WATERMAIN SERVICE PROPOSED
O STAKED PIPE	EXISTING UTILITY PRIVATE SYMBOLS	WATER 45° BEND PROPOSED		OR REPO
	€ ELEC GROUND LIGHT	WATER 90° BEND PROPOSED	> SANITARY SEWER	EROSION CONTROL LINES
	(H) ELEC HANDHOLE	[ WATER CAP PROPOSED	ss SANITARY SEWER SERVICE	BALE CHECK
EXISTING TOPO SYMBOLS	ELEC LIGHT POLE	₩ WATER CROSS PROPOSED	——⇒ STORM SEWER	<b>-о</b> -віо- <b>о</b> -віо- ВІО ROLL
AC UNIT	© ELEC MANHOLE	WATER CURB STOP PROPOSED	——— DT ———— STORM SEWER DRAIN TILE	
○ FENCE POST	ELEC METER	WATER HYDRANT PROPOSED	——— ugc——— UNDERGROUND CABLE TV	
FLAG POLE	E ELEC PEDESTAL		——— uge——— UNDERGROUND ELECTRIC	── <del>*</del> MS <del>*</del> MS ── SILT FENCE TYPE MACHINE SLICED
© GUARD POST	© ELEC POLE	■ WATER SLEEVE PROPOSED	——— FOC ——— UNDERGROUND FIBER OPTIC	- * PA * PA * PA SILT FENCE TYPE PREASSEMBLED
>— GUY ANCHOR	© ELEC SIGNAL	₩ WATER TEE PROPOSED	——— GAS ——— UNDERGROUND GAS	-\\\\- FLOTATION SILT CURTAIN
- <b>●</b> GUY POLE	ELEC TRANSFORMER BOX	₩ WATER VALVE PROPOSED	——— ugt ———— UNDERGROUND TELE	DESCRI
ட் HANDICAP SYMBOL	GAS METER		WATERMAIN	LIATOU DATTEDNI AND CHADING I FOEND
▼ MAILBOX	⋈ <sup>G</sup> GAS VALVE		ws WATERMAIN SERVICE	HATCH PATTERN AND SHADING LEGEND
SHRUB	C LP TANK	PROPOSED UTILITY PRIVATE SYMBOLS		RANDOM RIPRAP
── SIGN DOUBLE POST	(H) TELE HANDHOLE	ELEC LIGHT POLE PROPOSED		SOD
→ SIGN SINGLE POST	TELE MANHOLE		DAM LOT & EASEMENTS LINES	+ + + + SEED
★ TREE CONIFER	TELE PEDESTAL		R/W, LOT & EASEMENTS LINES  BUILDING SETBACK LINE	HYDRAULIC STABILIZER
で TREE DECIDUOUS	TELE POLE	EROSION CONTROL SYMBOLS	— LOT LINE PROPOSED	EROSION CONTROL BLANKET
和 TREE STUMP	(H) TV HANDHOLE	SURFACE DRAINAGE ARROW	EASEMENT LINE	TEMP. ROCK CONSTRUCTION ENTRANCE
O <sup>SD</sup> TV DISH	□ TV PEDESTAL	STORM DRAIN INLET PROTECTION		BUILDING WALL HATCH
			EASEMENT LINE PROPOSED	BITUMINOUS SURFACE
YARD LIGHT			LOT LINE	CONCRETE SURFACE
Y MAD LIGHT	SOIL BORING SYMBOLS	TRAFFIC CONTROL DEVICES & SYMBOLS	- O — O — MNDOT CONTROLLED ACCESS LINE	GRAVEL SURFACE
	LASER-INDUCED FLUORESCE BORING	TRAFFIC CONTROL SIGN (1 POST)	RIGHT OF WAY EXISTING	EASEMENT PATTERN
	● <sup>LY</sup> LYSIMETER	TRAFFIC CONTROL SIGN (2 POST)	RIGHT OF WAY PROPOSED	E RE
EXISTING UTILITY MUNICIPAL SYMBOLS	© <sup>MW</sup> MONITOR WELL	TYPE III BARRICADE		DOCUMENTATION OVARDOLO
□ APRON	→PT PERC TEST	O DRUM CHANNELIZER		DOCUMENTATION SYMBOLS
LIFT STATION	●PZ PIEZOMETER	••• FLASHING ARROW OR MESSAGE BOARD		SECTION ARROW - SECTION NUMBER TOP;
⊗ SANITARY CLEANOUT	RECOVERY WELL			SECTION NUMBER TOP; PAGE OF SECTION BOTTOM
S SANITARY MANHOLE	○ <sup>SB</sup> SOIL BORING			OREV
□ STORM CATCH BASIN	△ <sup>VP</sup> SOIL VAPOR POINT			る ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・
© STORM INLET				

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OR REPORT

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ER UNDER

ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

JUNE 2024

DATE REV# REVISIONS DESCRIPTION

WAS PREPARED BY ME OR UNDER MY DIRECT SUPER.

WAS PREPARED BY ME OR UNDER MY DIRECT SUPER.

THAT I AM A DULY LICENSED PROFESSIONAL ENGINEE

THE LAWS OF THE STATE OF MINNESOTA.

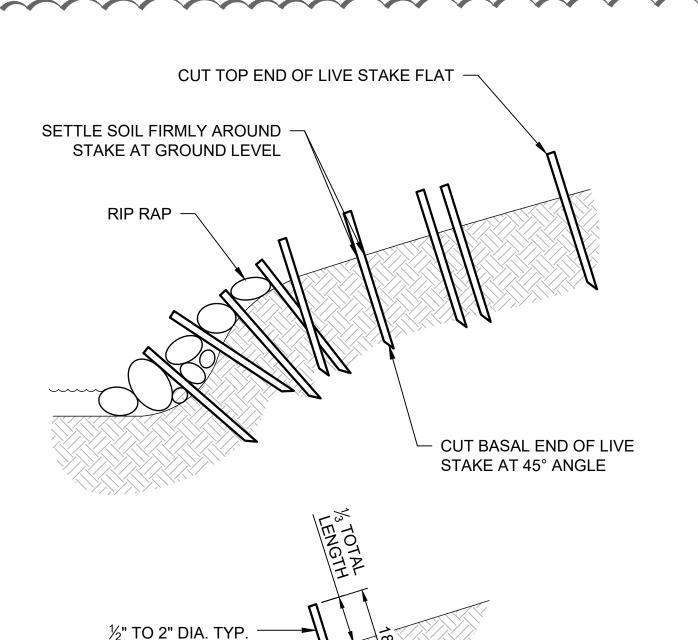
DSR

DAVID S. REESE DATE: 08/02/2024 LIC. NG

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# SHOREVIEW LANE TYPICAL SECTION

STA. 0+78.85 TO STA. 7+14.09



MATCH EXISTING PAVEMENT THICKNESS OR  $\dashv$ 3" BITUMINOUS WEARING COURSE (SPWEB240B) WHICHEVER IS GREATER

4"AGGREGATE CLASS 5

SCARIFY & COMPACT SUBGRADE

- 1. STAKES SHALL BE HARVESTED & PLANTED DURING DORMANT SEASON.
- 2. ENSURE ALL BUDS ARE FACING UPWARDS.
- 3. SEE NOTES FOR PLANTING & MATERIAL REQUIREMENTS.

# LIVE STAKING WITH RIP RAP DETAIL

SCALE: NONE

# REPAIR AREAS BITUMINOUS PAVING SECTION SCALE: NONE

<b>&gt;</b>	LIVE STAKE SPECIES PICK LIST							
۶	ABBR.	SCIENTIFIC NAME	COMMON NAME	QTY.	SIZE (DIA.)	TYPE	SPACING	NOTES
7	CS	CORNUS SERICEA	RED-OSIER DOGWOOD		95 * 1/2" TO 2"	LIVE STAKE	SPACE RENDOMLY - NOT TO EXCEED 5 STAKES PER SQ.YD.	AREAS TO RECEIVE LIVE STAKES NOT TO EXCEED 2:1 MAX. SLOPE
>	AR	ALUS INCANA SSP. RUGOSA	SPECKLED ALDER	195 *				
	SB	SALIX BEBBIANA **	BEBB'S WILLOW					

\* LIVE STAKE QUANTITY IS CALCULATED BASED ON THE LINEAR LENGTH OF 10FT OF RIP RAP, WITH 3 PLANTS PER SAID 10FT, COVERING ENTIRE RIP RAP AREA \*\* NO WILLOW SPECIES SHALL BE PLANTED WITHIN 10FT OF WATER'S EDGE; LANDSCALE CONTRACTOR TO FIELD VERIFY.

**GENERAL CONSTRUCTION NOTES** 

- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02. ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".
- THE ENGINEER HAS MADE AN ATTEMPT TO SHOW ALL PUBLIC UTILITIES WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. PUBLIC UTILITIES SHOWN ON THIS PLAN WERE DRAWN USING FIELD SURVEY INFORMATION AND MAPS PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES AS A RESULT OF A GOPHER STATE ONE CALL DESIGN LOCATE REQUEST. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS PRIOR TO BIDDING AND CONSTRUCTING THE PROJECT.
- ALL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN ARE TO BE IN PLACE PRIOR TO BEGINNING REMOVALS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY OWNER OF ANY DIFFERENCES BETWEEN THE FIELD AND PLAN.
- UNLESS OTHERWISE NOTED, ALL MATERIALS, CONSTRUCTION TECHNIQUES AND TESTING SHALL CONFORM TO THE 2013 EDITION OF THE "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION, WATERMAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA AND THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS PUBLISHED BY THE MINNESOTA DEPARTMENT OF TRANSPORTATION, 2020 EDITION. THE CONTRACTOR SHALL REQUIRE ALL PROCEDURES AS OUTLINED BY THE LOCAL AGENCY.
- THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMISSION/PERMITS FOR ALL WORK LOCATED OUTSIDE OF THE MUNICIPAL RIGHT-OF-WAY AND PROPERTY LIMITS.

### **GENERAL GRADING NOTES**

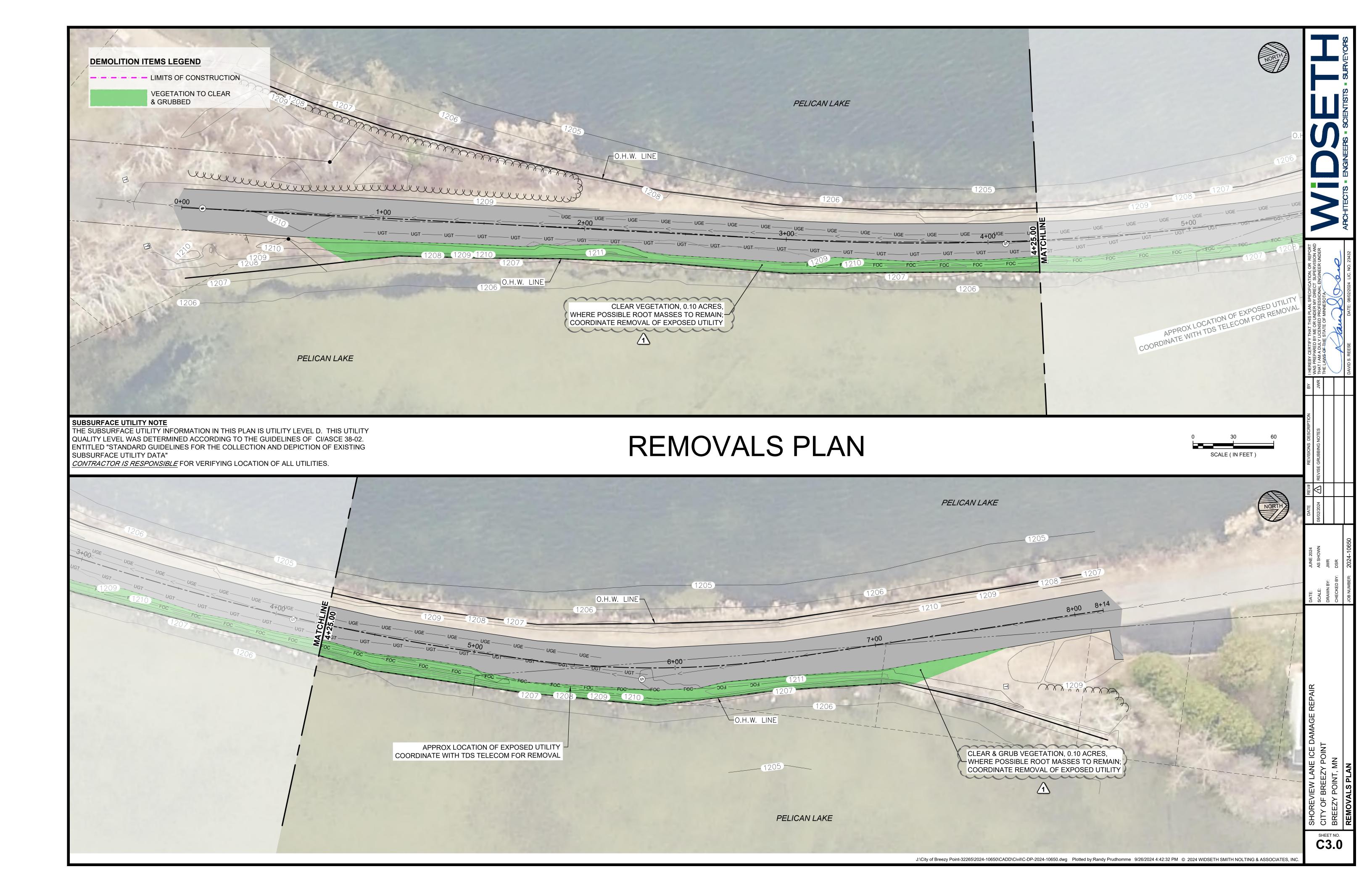
- ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
- HAULING HOURS MUST BE CONFIRMED WITH THE CITY PRIOR TO BEGINNING WORK.
- SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS, GUTTER FLOW LINE OF CURB GUTTER (FL), BACK OF CURB ELEVATIONS (TC), TOP OF SIDEWALK (TW), AND FINISHED SURFACE GRADE, UNLESS OTHERWISE NOTED.
- ALL SLOPES SHALL BE GRADED TO 3:1 OR FLATTER, UNLESS OTHERWISE NOTED ON THE PLANS.

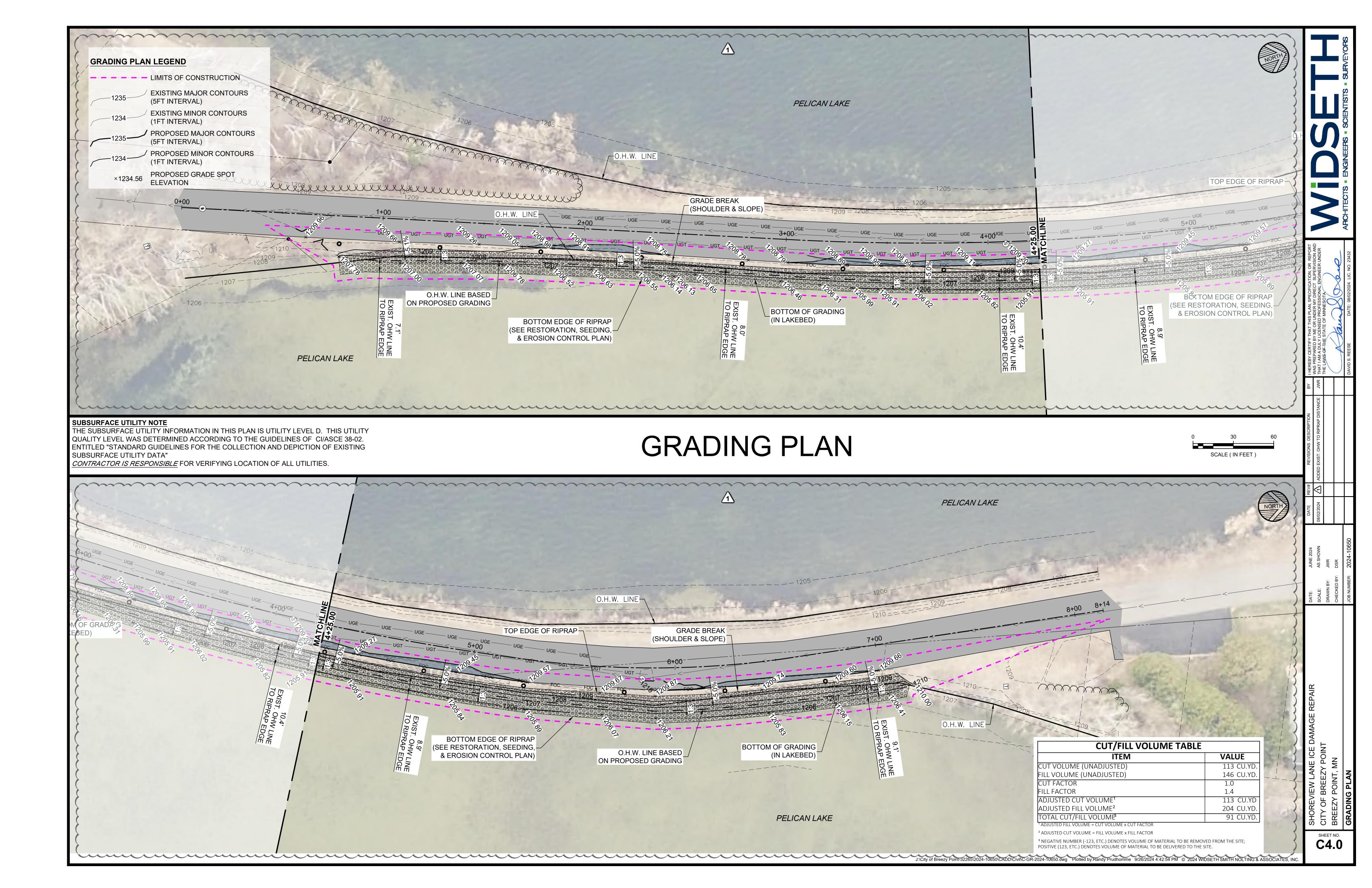
## **GENERAL EROSION CONTROL NOTES**

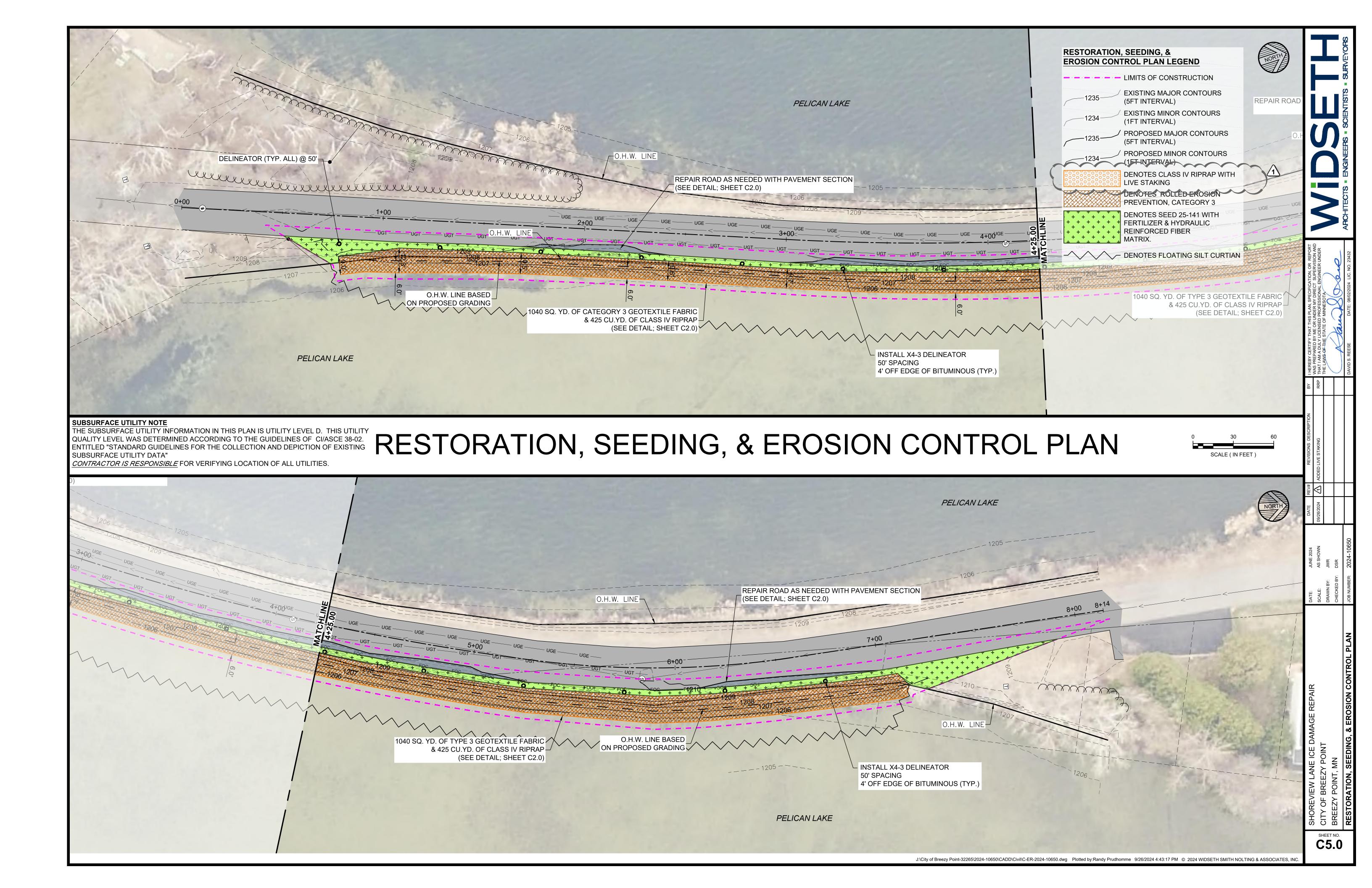
- ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPPDES) PERMIT REQUIREMENTS.
- ALL SILT FENCE AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. MAINTENANCE AND REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
- ALL STREETS UTILIZED FOR PROJECT CONSTRUCTION MUST BE CLEANED AT THE END OF EACH DAY. A ROCK ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO THE DETAILS TO REDUCE TRACKING OF SEDIMENT ONTO PUBLIC STREETS. STREET SWEEPING MAY BE NECESSARY AND WILL BE CONSIDERED INCIDENTAL.
- ALL EXPOSED SOILS MUST BE SEEDED AND STABILIZED WITHIN 7 CALENDAR DAYS OF ROUGH GRADE COMPLETION OF AFTER CONSTRUCTION TERMINATES. ALL STOCKPILES SHALL HAVE ADEQUATE SEDIMENT TRAPPING SYSTEMS INSTALLED AROUND THEM.
- ALL AREAS TO BE ESTABLISHED TO GRASS COVER SHALL RECEIVE 4" OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- SEE PLAN LEGEND FOR A COMPLETE LIST OF HATCHES AND SYMBOLS USED FOR EROSION CONTROL.

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- Andrews

SHEET NOTES NO.		SPEC NO. DESCRIPTION		UNIT	TOTAL ESTIMATED QUANTITY
		2021.501	MOBILIZATION	LUMP SUM	1
C3.0	LEAVE ROOT MASS INPLACE WHERE POSSIBLE	2101.505	CLEARING	ACRE	0.1
C3.0		2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	90
C4.0		2105.607	COMMON EXCAVATION	CU YD	113
C4.0		2105.607	COMMON BORROW (CV)	CU YD	91
C5.0		2108.504	GEOTEXTILE FABRIC TYPE 3	SQ YD	1034
C5.0		2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	18.6
C5.0		2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2;B)	TON	30
C5.0		2511.507	RANDOM RIPRAP CLASS IV	CU YD	422
		2563.601	TRAFFIC CONTROL	LUMP SUM	1
C5.0		2564.502	DELINEATOR TYPE X4-3	EACH	13
		2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1
C5.0		2573.503	FLOTATION SILT CURTAIN TYPE STILL WATER	LIN FT	678
C5.0		2574.507	COMMON TOPSOIL BORROW	CU YD	36
C5.0		2574.508	FERTILIZER TYPE 3	POUND	40
C5.0		2575.505	SEEDING	ACRE	0.06
C5.0		2575.508	SEED MIXTURE 21-111	POUND	7
C5.0		2575.508	SEED MIXTURE 25-141	POUND	27
C5.0		2575.508	HYDRAULIC MULCH MATRIX	POUND	234
C5.0		2577.502	LIVE STAKES	EACH	195







# **GENERAL NOTES & SPECIFICATIONS:**

#### PART 1 - GENERAL

- 1. GENERAL REQUIREMENTS: CONFORM TO THE GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS AND DIVISION 1. ALL WORK AND MATERIAL SHALL CONFORM STRICTLY TO THE RESPECTIVE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE FOLLOWING: STANDARD SPECIFICATIONS OF THE AMERICAN SOCIETY OF TESTING MATERIALS, LOCAL ORDINANCES AND CODES, MNDOT STANDARD SPECIFICATIONS, AND AMERICAN NURSERY STOCK STANDARDS.
- 2. DESCRIPTION OF WORK:
- 2.1. CONTRACTOR SHALL COORDINATE ALL ACTIVITIES NECESSARY FOR THE PROVISION OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SERVICES, TREES, SHRUBS, AND GROUND COVERS NECESSARY TO COMPLETE ALL LANDSCAPE OPERATIONS IN ACCORDANCE WITH THESE SPECIFICATIONS, AS SHOWN ON THE PLANS AND DETAILS, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT/OWNER.
- 2.2. THESE LANDSCAPE OPERATIONS SHALL BE PERFORMED ONLY BY A LICENSED, BONDED LANDSCAPE CONTRACTING FIRM THAT SPECIALIZES IN LANDSCAPE INSTALLATION.
- 2.3. TREES, SHRUBS, AND GROUND COVERS WILL HEREINAFTER BE REFERRED TO COLLECTIVELY AS PLANT MATERIAL.

#### 3. SITE PREPARATION

- 3.1. THE PLANTING OPERATIONS SHALL BE CONDUCTED IN SUCH MANNER THAT NO DAMAGE SHALL RESULT TO EXISTING SITE IMPROVEMENTS AND PLANTINGS.
- 3.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS OPERATION, AND SHALL REPAIR OR REPLACE SUCH DAMAGE AT HIS OWN EXPENSE BY QUALIFIED TRADES AND/OR INSTALLERS ACCEPTABLE TO THE OWNER.
- 3.3. PROTECT IMPROVEMENTS ON SITE AND ON ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERINGS, OR OTHER TYPES OF PROTECTION AS NECESSARY TO PREVENT DAMAGE AND TO SAFEGUARD AGAINST INJURY. RESTORE TO ORIGINAL CONDITION IMPROVEMENTS DAMAGED BY THE WORK OR IMPROVEMENTS WHICH REQUIRED TEMPORARY REMOVAL DURING CONSTRUCTION.
- 3.4. MAINTAIN SURVEY MONUMENTS, REFERENCE POINTS, AND BENCHMARKS; NOTIFY A/E OF DISTURBANCE TO MARKERS.
- 3.5. NO EXTRA PAYMENT OR TIME WILL BE ALLOWED FOR PROTECTION WORK THAT COULD HAVE BEEN SUSPECTED OR ANTICIPATED BY SITE INSPECTION AND INTERPRETATION OF BIDDING DOCUMENTS PRIOR TO EXECUTION OF CONTRACT.
- 3.6. ALL VEGETATION INCLUDING TREES, BRUSH, ROOTS, SOD, AND OTHER PLANTS SHALL BE REMOVED TO THE "PROJECT LIMITS" AS SHOWN ON THE DRAWINGS. REMOVAL WORK SHALL INCLUDE ALL STUMPS AND ROOTS.

#### 4. 1.04UTILITIES

- 5. NOTIFY GOPHER STATE ONE CALL AT 1-800-252-1166 (OR 811) OF CONSTRUCTION OPERATIONS AT LEAST 48 HOURS BEFORE BEGINNING WORK NEAR THEIR FACILITIES. DO NOT BEGIN EXCAVATION WORK UNTIL UNDERGROUND UTILITY LOCATIONS HAVE BEEN MARKED.
- 5.1.1. B. LOCATION AND DESCRIPTION OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON DRAWINGS ARE APPROXIMATE AND ARE BASED ON RECORDS AVAILABLE TO OWNER OR SURFACE FEATURES INDICATING THEIR EXISTENCE. THERE MAY BE OTHER UTILITIES WITHIN PROJECT AREA THAT ARE NOT SHOWN.
- 6. USE CAUTION WHEN EXCAVATING SO THAT EXACT LOCATION OF UNDERGROUND UTILITIES, BOTH KNOWN AND UNKNOWN, PRIVATE AND PUBLIC, MAY BE DETERMINED. PROVIDE ADEQUATE PROTECTION AND SUPPORT FOR UTILITIES DURING CONSTRUCTION OPERATIONS.
- 7. IF UNCHARTED OR INCORRECTLY CHARTED UTILITIES ARE ENCOUNTERED DURING EXCAVATION WORK, OR IF PROPOSED CONSTRUCTION CONFLICTS WITH EXISTING UTILITIES, GIVE PROMPT NOTICE AND SUBMIT PROPOSED SOLUTION TO A/E FOR APPROVAL. COOPERATE WITH OWNER AND PUBLIC AND PRIVATE UTILITY COMPANIES TO KEEP THEIR SERVICES AND FACILITIES IN OPERATION. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER.

# 8. 1.05JOB CONDITIONS

- 9. PLANTING OPERATIONS INCLUDING SOIL PREPARATION, SHALL PROCEED ONLY DURING PERIODS, WHICH ARE NORMAL FOR WORK AS DETERMINED BY SEASON, WEATHER CONDITIONS, AND ACCEPTED PRACTICE. DO NOT PERFORM WORK WHEN THERE IS PROLONGED FREEZING WEATHER, OR WHEN THE SOIL IS IN A WET OR MUDDY CONDITION.
- 10. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. ANY UTILITIES, STRUCTURES, OR OTHER FACILITIES DAMAGED DUE TO WORK ON THIS PROJECT SHALL BE RESTORED, EQUAL TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- 11. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE, RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY LANDSCAPE ARCHITECT/OWNER BEFORE PLANTING.

# 12. 1.06 PRODUCT HANDLING & TEMPORARY STORAGE

- 13. HANDLING AND SHIPPING OF PLANT MATERIAL SHALL BE DONE IN A MANNER THAT IS NOT DETRIMENTAL TO THE PLANTS. PLANT MATERIAL SHALL BE PACKED FOR SHIPMENT IN ACCORDANCE WITH PREVAILING PRACTICE FOR THE TYPE OF PLANT BEING SHIPPED. ALL PLANTS SHALL BE PROTECTED AGAINST DRYING, SUN, WIND, HEAT, FREEZING, AND SIMILAR DETRIMENTAL CONDITIONS AT ALL TIMES. WHEN NECESSARY, PLANT MATERIAL SHALL BE TEMPORARILY HEALED IN.
- 14. PROTECT WORK BY PLACING STAKES AND TWINE BARRIER (VISIBLE DAY OR NIGHT) AROUND ANY PLANTED AREA IF REQUIRED AS A BARRIER FOR PEDESTRIANS, ANIMALS, VEHICLES, OR ANY OTHER CAUSE UNTIL ACCEPTANCE OF WORK.
- 15. PLANT MATERIALS SHOWING DAMAGE FROM SHIPPING, OR WHILE IN STORAGE, OR DURING PLANTING SHALL BE REJECTED BY THE LANDSCAPE ARCHITECT/OWNER AND BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.

# 16. 1.07 SUBSTITUTION OF PLANTS

16.1.0.1.1. NO SUBSTITUTION OF PLANT MATERIAL WILL BE PERMITTED UNLESS EVIDENCE IS SUBMITTED TO THE LANDSCAPE ARCHITECT THAT A SPECIFIED PLANT OR VARIETY CANNOT BE OBTAINED. IF SUBSTITUTION IS PERMITTED, IT CAN BE MADE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT/OWNER.

#### 17. 1.08 ENVIRONMENTAL CONTROLS

- 18. MAINTAIN EROSION CONTROL MEASURES TO PROTECT THE PROJECT SITE AND PREVENT SEDIMENT POLLUTION OF ADJACENT WATER COURSES AND PROPERTIES.
- 19. INSTALL EROSION CONTROL MEASURES PRIOR TO START OF CONSTRUCTION AND MAINTAIN THEM UNTIL FINAL COMPLETION OF WORK. UNLESS OTHERWISE INSTRUCTED, REMOVE TEMPORARY EROSION CONTROL MEASURES PRIOR TO FINAL APPLICATION FOR PAYMENT.
- 20. CONSTRUCT AND MAINTAIN FILTER FABRIC BARRIERS, STRAW BALE BARRIERS, OR TEMPORARY DIVERSIONS TO RECEIVE RUNOFF LEAVING SITE.
- 21. PROTECT WATERWAYS BY USING INLET PROTECTION OF THE TYPE SHOWN ON DRAWINGS. IF NOT SHOWN, USE INLET PROTECTION FABRIC, SILT FENCE BARRIERS, EROSION BALE BARRIERS, OR EQUIVALENT.
- 22. REMOVE AT THE END OF EACH WORKDAY SOILS AND SEDIMENT REACHING PUBLIC OR PRIVATE STREETS NOT PART OF THE CONSTRUCTION SITE.

#### 23. 1.09 SUBMITTALS

- 24. SEED: SUBMIT SOURCE AND MIXTURE FOR SEED MIXES SPECIFIED. SEE 3.04, B, 1.
- 25. TOPSOIL: SUBMIT MATERIALS SOURCE FOR TOPSOIL, INCLUDING NAME OF IMPORTED MATERIAL SOURCE. PRODUCT CERTIFICATES FOR EACH TYPE OF MANUFACTURED PRODUCT FROM MANUFACTURER AND COMPLYING WITH MANUFACTURER'S CERTIFIED ANALYSIS OF STANDARD PRODUCTS. COMPLY WITH MNDOT STANDARDS FOR TOPSOIL.

#### PART 2 - MATERIALS

#### 2.01 PLANT MATERIALS:

- A. ALL PLANT MATERIAL FURNISHED SHALL MEET THE GRADES ESTABLISHED BY THE AMERICAN STANDARD NURSERY STOCK (ANSI Z60.1). EACH SHALL CONFORM TO THE SIZE AND ACCEPTABLE CONDITIONS AS LISTED ON THE PLANS AND SHALL BE FREE OF ALL FOREIGN PLANT MATERIAL. AN EXCEPTION TO THIS STANDARD SHALL CONCERN TREE CALIPER MEASUREMENTS. ALL TREE CALIPERS SHALL BE SIZED AT 'ANSI' (AMERICAN NATIONAL STANDARDS INSTITUTE) HEIGHT, WHICH SHALL BE CONSIDERED TO BE 6" ABOVE THE TOP OF THE ROOT-BALL.
- B. ALL PLANT MATERIAL SHALL CONSIST OF LIVE WOODY OR HERBACEOUS MATERIALS THAT ARE VIGOROUS, WELL FORMED, WITH A WELL-DEVELOPED FIBROUS ROOT SYSTEM. THE MATERIAL SHALL BE FREE FROM DEAD BRANCHES, LICHENS, AND FROM DAMAGE CAUSED BY AN ABSENCE OR AN EXCESS OF HEAT OR MOISTURE, INSECTS, DISEASE, MECHANICAL, OR OTHER CAUSES DETRIMENTAL TO GOOD PLANT DEVELOPMENT.
- C. DECIDUOUS TREES SHALL HAVE SOLITARY LEADERS (UNLESS INDICATED OTHERWISE ON PLAN) AND SHALL HAVE ONLY LATERAL BRANCHES THINNED BY PRUNING. ALL CONIFER TREES SHALL HAVE ONLY ONE LEADER (GROWING APEX) AND ONE TERMINAL BUD. TREES HAVING A DAMAGED OR MISSING LEADER, MULTIPLE LEADERS, OR Y-CROTCHES SHALL BE REJECTED.
- D. ROOT-BALLS OF THE EVERGREEN PLANTS SHALL BE SOLIDLY HELD TOGETHER BY THE FIBROUS ROOT SYSTEM OF THE PLANT IN ITS NATURAL POSITION AND SHALL BE COMPOSED ONLY OF THE EARTH IN WHICH THE PLANT HAS BEEN ACTUALLY GROWING.
- E. CONTAINER GROWN PLANTS MUST BE PLANTS TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM CONTAINER.
- F. LANDSCAPE ARCHITECT/OWNER RESERVES THE RIGHT TO INSPECT ALL PLANT MATERIAL AT PLACE OF GROWTH FOR COMPLIANCE WITH REQUIREMENTS FOR SIZE, VARIETY, CONDITION, INCLUDING DISEASE, AND IF ROOTBOUND. THIS PRELIMINARY APPROVAL DOES NOT CONSTITUTE FINAL APPROVAL OF PLANTS AT COMPLETION OF INSTALLATION OPERATIONS.

# 2.02 SEED:

- A. ALL SEED SHALL CONFORM TO THE STANDARDS FOR "CERTIFIED" GRADE SEED OR BETTER AS OUTLINED BY THE STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION SEEDING MANUAL 2023 EDITION. SEED SHALL BE FURNISHED IN STANDARD CONTAINERS ON WHICH SHALL BE SHOWN THE FOLLOWING INFORMATION:
- 1. COMMON NAME OF SEED
- 2. LOT NUMBER
- 3. NET WEIGHT
- 4. PERCENTAGE OF PURITY
- 5. PERCENTAGE OF GERMINATION (IN CASE OF LEGUMES, PERCENTAGE OF GERMINATION TO INCLUDE HARD SEED)
- 6. PERCENTAGE OF WEED SEED CONTENT AND INERT MATERIAL CLEARLY MARKED FOR EACH KIND OF SEED IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL LAWS.
- B. UPON REQUEST, THE CONTRACTOR SHALL FURNISH TO THE LANDSCAPE ARCHITECT DUPLICATE COPIES OF A STATEMENT SIGNED BY THE VENDOR CERTIFYING THAT EACH LOT OF SEED HAS BEEN TESTED BY A RECOGNIZED SEED TESTING LABORATORY WITHIN 6 MONTHS BEFORE DATE OF DELIVERY ON THE PROJECT. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT, OR STORAGE WILL NOT BE ACCEPTED.

# 2.03 LIVE STAKING:

# CONTRACTOR SHALL PROVIDE

- A. ALL LIVE STAKES SHALL BE IN CONTACT WITH THE NATIVE GROUND WHEN PLACED WITHIN RIP RAP AREAS.
- B. USE SMOOTH BARKED, LIVE WOOD STOCK A MINIMUM OF TWO (2) YEARS OLD. AVOID SUCKERS OF CURRENT YEAR'S GROWTH.
- C. TRIM TERMINAL BUDS ON LIVE WILLOW STAKES TO REDIRECT PLANT GROWTH TO ROOTS.D. ALL STAKES MUST BE SOAKED IN WATER FOR A MINIMUM OF 24 HOURS UP TO 7 DAYS PRIOR
- TO STAKING. STAKES MUST BE PLANTED THE SAME DAY THEY ARE REMOVED FROM WATER.

  E. CUT STAKES AT A 45-DEGREE ANGLE ON THE BASAL END FOR INSERTION. CONTRACTOR
- SHALL BE CAREFUL TO MINIMIZE DAMAGE TO LIVE STAKE BUDS OR BARK DURING PLANTING.

  F. USE DIBBLE, IRON BAR, OR TIPPED GRADE STAKE TO CREATE PILOT HOLE IN DESIGNATED

## PLANTING AREAS. SECURE STAKES INTO PILOT HOLES USING BLUNT MALLET.

- G. BURY STAKES A MINIMUM OF 1/2 TOTAL LENGTH AND 1/3 EXPOSED WITH BUDS SHOWING. TRIM DAMAGED TOPS AS NEEDED.
- H. ALL STAKES SHALL BE PLANTED AT RANDOM INTERVALS AT A RATE OF 2-5 CUTTINGS/m2/. SEE L2.0.

#### 2.04 GROUND COVER:

A. PROVIDE PLANTS ESTABLISHED AND WELL-ROOTED IN REMOVABLE CONTAINERS OR INTEGRAL PEAT POTS AND WITH NOT LESS THAN THE MINIMUM NUMBER AND LENGTH OF RUNNERS REQUIRED BY ANSI Z60.1 FOR THE POT SIZE SHOWN OR LISTED.

#### 2.05 TOPSOIL:

- A. CAREFULLY REMOVE ALL USABLE TOPSOIL TO ITS FULL DEPTH IN ALL BUILDING AREAS, PARKING AREAS AND ADJACENT AREAS REQUIRING A CHANGE OF CONTOUR. STOCKPILE THIS TOPSOIL ON THE SITE WITHIN THE CONTRACT LIMIT LINE OR AT A LOCATION ACCEPTABLE TO THE OWNER FOR LATER USE IN FINISH GRADING. NO TOPSOIL SHALL BE REMOVED FROM THE SITE WITHOUT SPECIFIC APPROVAL FROM THE LANDSCAPE ARCHITECT.
- B. CONTRACTOR TO PROVIDE NEW TOPSOIL AS REQUIRED PER MnDOT SPEC 3877 TOPSOIL MATERIAL, TABLE 3877.2-2 LOAM TOPSOIL BORROW REQUIREMENTS. CONFIRM NEW TOPSOIL WITH LANDSCAPE ARCHITECT. IF QUESTIONS OR CONCERNS ARISE, STOP WORK AND CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY.

#### PART 3 - EXECUTION

#### 3.01 LAYOUT OF PLANTING:

- A. ALL LOCATION LAYOUT AND STAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- B. PLANT MATERIAL QUANTITIES SHOWN ON THE PLANS ARE APPROXIMATE AND FOR REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT NUMBER OF PLANTS REQUIRED TO PLACE ALL PLANTS AT THE SPACING INDICATED, AND TO VERIFY THOSE INDICATED QUANTITIES WITH PLAN DRAWINGS.

#### 3.02 PLANTING AREA PREPARATION:

- A. FOR PLANTING PREPARATION, REFER TO MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION
- B. TOPSOIL BORROW CONFORM WITH MNDOT SECTION 3877, TOPSOIL AND BORROW FOR CLASS A TOPSOIL TO BE USED AS A TURF GROWING MEDIUM. COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.
- C. IF TOPSOIL CAN BE SALVAGED FROM THE CONSTRUCTION AREA, LANDSCAPE ARCHITECT SHALL BE CONSULTED FOR PERMISSION TO USE THE TOPSOIL.
- D. TOPSOIL MUST BE SCREENED AND FREE OF ROCKS AND DEBRIS LARGER THAN 1".
- E. ALL PLANTING AREAS SHALL BE PREPARED SO THAT THEY REMAIN WEED AND DEBRIS FREE UNTIL THE TIME OF FINAL ACCEPTANCE. THE PLANTING AREAS SHALL INCLUDE ALL PLANTING BEDS AND THOSE AREAS SHOWN ON THE PLANS OR DIRECTED BY THE LANDSCAPE ARCHITECT/OWNER.
- F. PREPARATION OF ALL PLANTING AREAS SHALL BE UNDERTAKEN AS INDICATED ON THE PLANS AND SHALL INCLUDE THE FOLLOWING:
- 1. REMOVE ALL DEBRIS, INCLUDING ASPHALT, STUMPS, ROCKS, AND CLODS FROM ALL PLANTING SURFACES.
- 2. CONFORM WITH MNDOT SECTION 2105, FINISHING OPERATIONS FOR PLACING AND FINISH GRADING TOPSOIL. COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.
- 3. LOOSEN SUBGRADE SOILS TO A DEPTH OF 3 INCHES WHERE TOPSOIL IS PLACED AND INTER-MIX TOPSOIL BORROW WITH SUBGRADE SOILS.
- 4. AFTER COMPLETION OF FINISH GRADING, PLACE TOPSOIL OVER ENTIRE AREA. SMOOTH GRADE TO WITHIN 3/4" OF FINISH GRADE AFTER SETTLEMENT TO ELIMINATE IRREGULARITIES AND TO MATCH ADJACENT PAVEMENTS AND WALKS. MINIMUM DEPTH OF TOPSOIL SHALL BE 6" SETTLED MEASURE FOR SEED AREAS AND 4" FOR SOD AREAS.

# 3.03 FINISH GRADING:

- A. SURFACES: ALL PLANTING SURFACES SHALL BE LEFT WITH A FIRM, UNIFORM SURFACE, FREE OF UNDULATIONS OR OTHER IRREGULARITIES. REMOVE ALL ROCKS, CLODS, AND DEBRIS FROM ALL PLANTING SURFACES. FINISH GRADE OF ALL NON-TURF AREAS SHALL BE 2" BELOW TOPS OF ADJACENT PAVEMENTS AND CURBS, UNLESS INDICATED OTHERWISE ON PLANS.
- B. PRELIMINARY GRADING: SHALL BE DONE IN SUCH A MANNER AS TO ANTICIPATE THE FINISHED GRADE. EXCESS SOIL SHALL BE REMOVED OR REDISTRIBUTED BEFORE APPLICATION OF SOIL MIX, FERTILIZER, AND MULCH. WHERE SOIL IS TO BE REPLACED BY PLANTS AND MULCH, ALLOWANCE SHALL BE MADE SO THAT WHEN FINISH GRADING HAS BEGUN, THERE SHALL BE NO DEFICIENCY IN THE SPECIFIED DEPTH OF MULCHED PLANTING BEDS.
- C. FINAL GRADING AND DRAINAGE: THE CONTRACTOR SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF THE SITE AND THE FEATURES THEREON. ANY DISCREPANCY IN THE DRAWINGS OR SPECIFICATIONS, OBSTRUCTIONS ON THE SITE, OR PRIOR WORK DONE BY ANOTHER PARTY WHICH THE CONTRACTOR FEELS PRECLUDES ESTABLISHING PROPER DRAINAGE, SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IN WRITING FOR CORRECTION OR RELIEF OF SAID RESPONSIBILITY.
- D. STRUCTURAL FILL AREAS: ANY LANDSCAPE AREAS OCCURRING WITHIN STRUCTURAL FILL ZONES SHALL HAVE SAID STRUCTURAL FILL MATERIALS EXCAVATED TO A DEPTH OF 12" BELOW FINISH GRADES IN SHRUB BEDS AND 6" BELOW FINISH GRADES IN LAWN AREAS, AND REPLACED WITH SPECIFIED TOPSOIL. DISPOSE OF EXCAVATED MATERIALS OFF SITE
- 3.04 SEED BED PREPARATION AND PLANTING (FOR SEEDING OF NON-HYDRO-SEED AREAS)
- A. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT NOT LESS THAN 24 HOURS IN ADVANCE OF ANY SEED BED PREPARATION, AND SHALL NOT BEGIN THE WORK UNTIL AREAS PREPARED OR DESIGNATED FOR SEEDING HAVE BEEN APPROVED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN. SEED SHALL BE PLACED AT THE RATE AND MIXTURE SPECIFIED PER MNDOT.
- B. SEED MIX
- 1. MNDOT 35-241 MESIC PRAIRIE GENERAL, NATIVE SEED MIXTURE FOR AREAS AS SHOWN ON

## PLANS. MIXTURE SHALL BE VOID OF PERENNIAL RYEGRASS/LOLIUM PERENNE

- 3.05 RESPONSIBILITY DURING CONSTRUCTION:
- A. THE CONTRACTOR SHALL INSURE ADEQUATE AND PROPER CARE OF ALL PLANT MATERIAL, AND WORK DONE ON THIS PROJECT UNTIL THE CONTRACT IS COMPLETED AND ACCEPTED. ADEQUATE AND PROPER CARE SHALL INCLUDE KEEPING ALL PLANT MATERIAL IN A HEALTHY, GROWING CONDITION.
- B. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR KEEPING THE PLANTED AREAS FREE FROM INSECT INFESTATION, WEEDS AND GRASS, LITTER, AND OTHER DEBRIS, ALONG WITH RETAINING THE FINISHED GRADES IN A NEAT UNIFORM CONDITION.

#### 3.06 CLEANUP AND PROTECTION:

- A. DURING LANDSCAPE WORK, KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION AS DETERMINED BY LANDSCAPE ARCHITECT/OWNER. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER ISSUED.
- B. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS, AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED.
- C. REMOVE DEBRIS AND SOIL FROM ALL PAVED SURFACES, CURBS AND WALKS.
- D. AT COMPLETION OF EACH AREA OF WORK, REMOVE ALL DEBRIS, EQUIPMENT AND SURPLUS MATERIALS.
- E. ALL MATERIAL REMOVED SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.

#### 3.07 PRE-MAINTENANCE

- A. PRE-MAINTENANCE AS HEREIN SPECIFIED SHALL IMMEDIATELY FOLLOW COMPLETION OF EACH PLANTING OPERATION AND SHALL CONTINUE THROUGH THE GENERAL INSPECTION AND UNTIL ACCEPTANCE OF THE PLANTING PROJECT.
- B. GROUND COVER PLANTS SHALL BE KEPT IN A HEALTHY, VIGOROUS GROWING CONDITION BY WATERING, REPLANTING, WEEDING, AND CULTIVATION OF THE ENTIRE AREA OF THE BED.
- C. LIVE STAKES SHALL BE WATERED, WEEDED, CULTIVATED AND REPLACED IMMEDIATELY IF NOT IN A HEALTHY GROWING CONDITION.
- D. SMOOTH GRADE ALL EARTH SURFACES REMOVING WEEDS, DEBRIS, AND BREAKING CLODS AND LEAVE IN AN ACCEPTABLE CONDITION.
- E. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL AREAS FROM DAMAGE DURING THE INSTALLATION AND MAINTENANCE PERIODS. THIS SHALL INCLUDE DAMAGE CAUSED BY THEFT VANDALISM OR ADVERSE WEATHER CONDITIONS.

#### 3.08 PUNCH LIST FIELD VISIT

- A. A PUNCH LIST FIELD VISIT SHALL BE REQUESTED BY THE CONTRACTOR WHEN INSTALLATION AS SET FORTH ON DRAWINGS AND SPECIFICATIONS IS SUBSTANTIALLY COMPLETE. LANDSCAPE ARCHITECT SHALL BE GIVEN FORTY EIGHT (48) HOURS NOTIFICATION PRIOR TO INSPECTION.
- B. COMPLETION OF GENERAL INSPECTION, PUNCH LIST ITEMS AND ACCEPTANCE OF THE CONTRACT WORK BY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT SHALL RELEASE THE CONTRACTOR FROM MAINTENANCE UNDER PARAGRAPH PRE-MAINTENANCE ABOVE, AND SHALL MARK THE START OF THE 60 DAY MAINTENANCE PERIOD UNDER PARAGRAPH MAINTENANCE BELOW.

3.09 CLEAN-UP: UPON COMPLETION OF THE WORK UNDER THIS SECTION, CONTRACTOR SHALL REMOVE FROM THE PREMISES ALL SURPLUS MATERIALS, TOOLS, EQUIPMENT, RUBBISH, AND DEBRIS; WASH ALL DIRT PAVEMENTS, CURBS, WALLS AND OTHER STRUCTURES RESULTING FROM HIS/HER WORK AND LEAVE THE WORK IN CLEAN, NEAT AND WORKMANLIKE CONDITIONS SATISFACTORY TO THE LANDSCAPE ARCHITECT.

# 3.10 GUARANTEE

A. WARRANTY: SEE MNDOT SPECIFICATION 2571 FOR PLANT ESTABLISHMENT PERIOD (PEP) REQUIREMENTS.

# PART 4 - EXISTING CONDITIONS

- 4.01 SUMMARY OF EXISTING VEGETATION:
- INVENTORY OF EXISTING VEGETATION IS BASED ON SITE PHOTOS GATHERED ON JUNE 6, 2023.

T SUPERVISION AND ENGINEER UNDER ARCHITECTS - ENGINEERS - SCIENTISTS - 4 LIC. NO. 23432

JUNE 2024 DATE REV# REVISIONS DESCRIPTION BY IHEREBY CERTIFY THAT THIS PLAN, SPECAS SHOWN

3Y: JWR
DBY: DSR

BER: 2024-10650 DATE: 08/02

JE ICE DAMAGE REPAIR

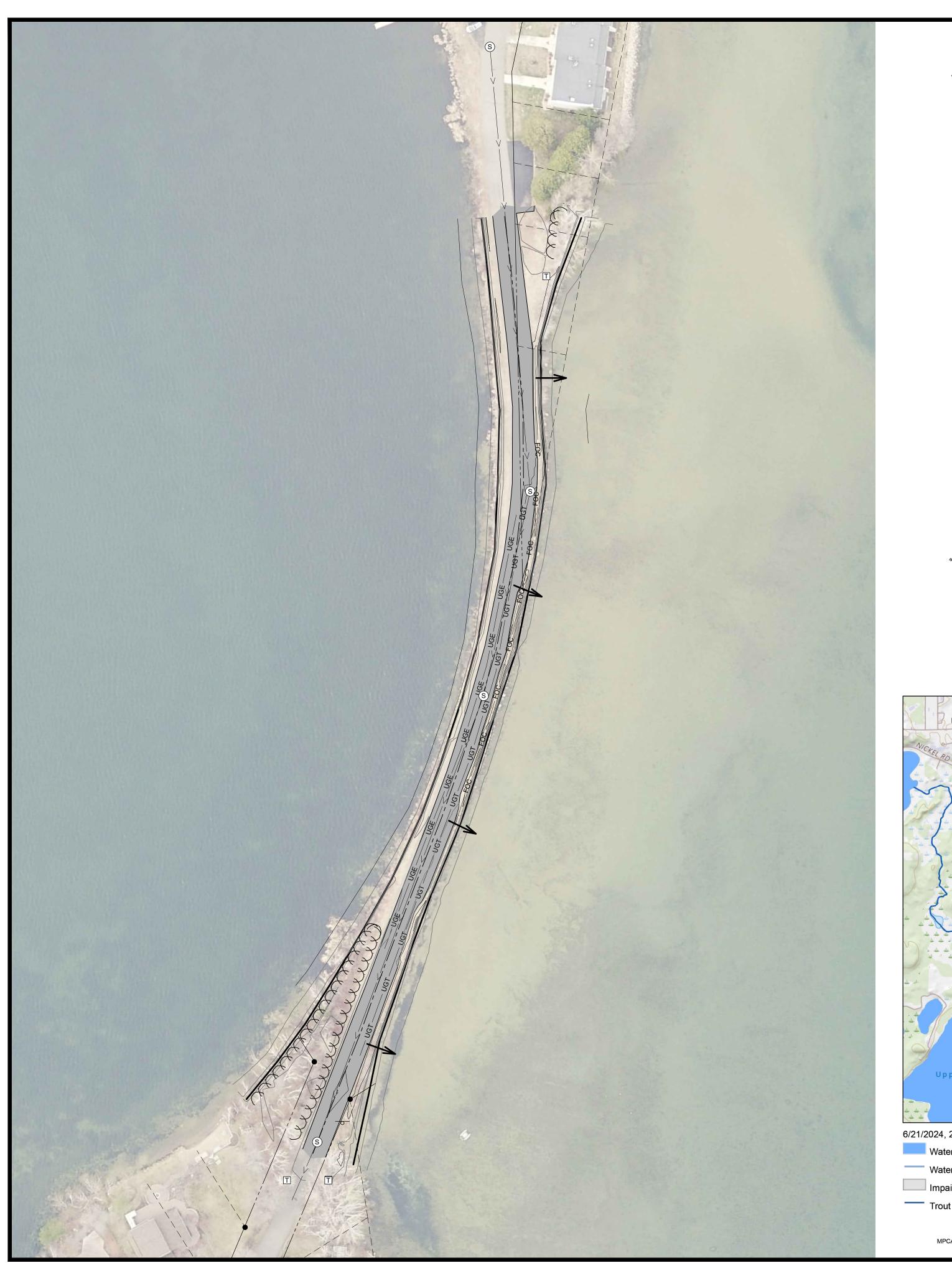
POINT

MN

SENERAL NOTES & SPECIFICATIONS

SHEET NO.

C.5.1



# **Map Unit Legend**

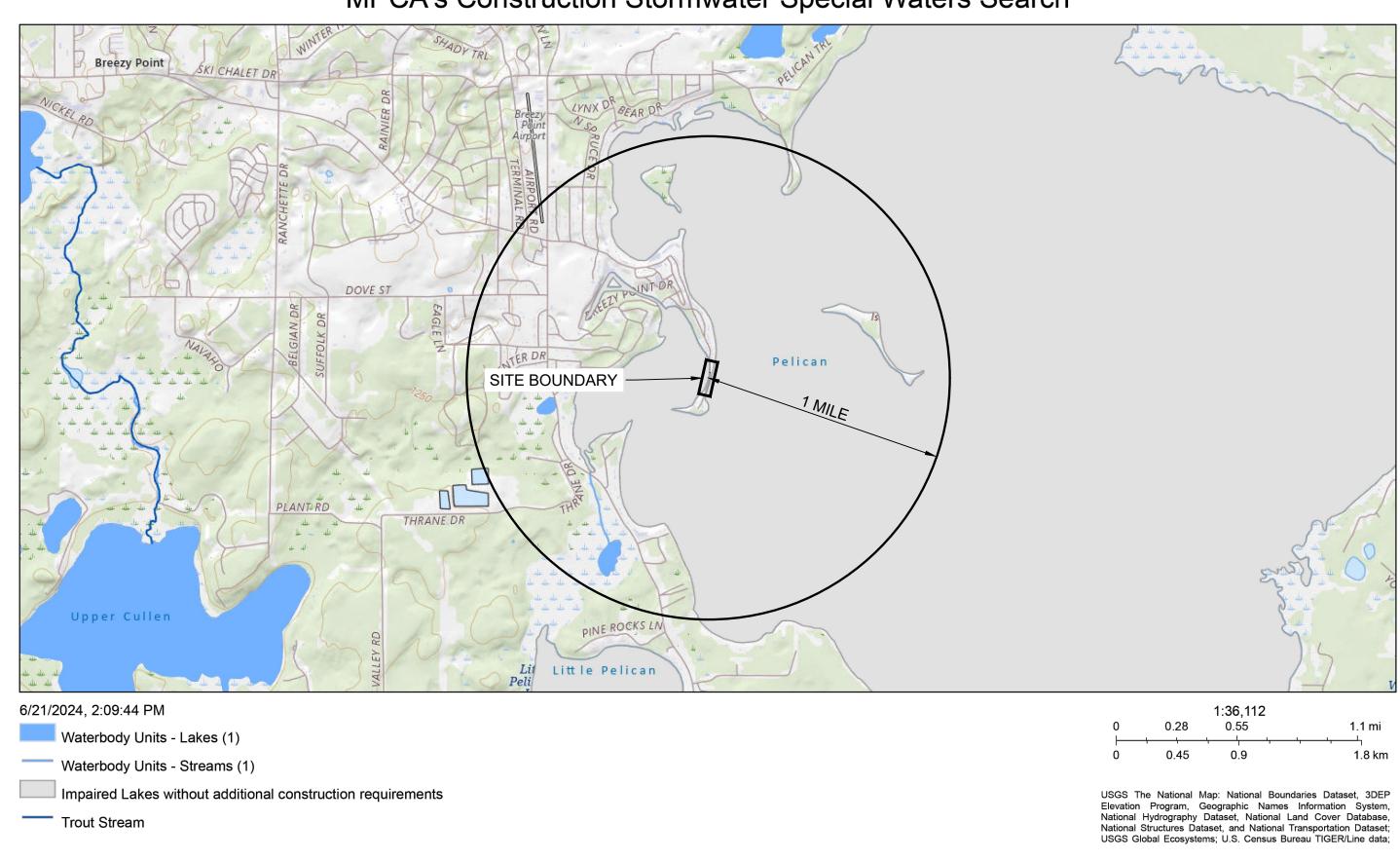
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
D74B	Wurtsmith-Meehan-Beach complex, 1 to 8 percent slopes	0.2	5
W	Water	0.2	4
Totals for Area of Interest	'	0.4	10

# MPCA's Construction Stormwater Special Waters Search

6/6/2024 Page 1 of 3

Soil Map—Crow Wing County, Minnesota

Web Soil Survey National Cooperative Soil Survey



Minnesota Pollution Control Agency

C6.0

MPCA; US Census Bureau; MNDoT; | Minnesota Pollution Control Agency | MDH | USGS The National Boundaries Dataset, and National Boundaries Dataset, and National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Boundaries Dataset, and National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Boundaries Dataset, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Hydrography Dataset, National Land Cover Database, National Structures Dataset, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, National Land Cover Database, National Land Cover Database J:\City of Breezy Point-32265\2024-10650\CADD\Civil\C-SW-2024-10650.dwg Plotted by:Randy Prudhomme 9/26/2024 4:43:24 PM © 2024 WIDSETH SMITH NOLTING & ASSOCIATES, INC. Individual overseeing implementation, revision and/or amendment the SWPPP that are available for an Address: City, State Zip: Email: \_\_\_ Phone: \_\_\_ Training organization/sponsor: Training date(s): Training activity/content: Instructor(s) name(s): Individual overseeing implementation, revision and/or amendment the SWPPP: TBD and will be documented in this SWPPP narrative prior to start of construction.

Company: Name: Address: City, State Zip: Email: Phone: Training organization/sponsor: Training date(s): \_ Training activity/content: Instructor(s) name(s): **Individual performing or supervising the installation, maintenance and repair of BMPs:** TBD and will be documented in this SWPPP narrative prior to start of construction. Company: \_\_\_\_\_ Name: Address: City, State Zip: Email: Training organization/sponsor: Training date(s): Training activity/content: \_\_\_ Instructor(s) name(s):

Installation Timing of Erosion Prevention and Sediment Control BMPs:

Erosion and sediment control BMP's must be installed as necessary to minimize erosion from disturbed surfaces and capture sediment onsite. All BMP's must conform to the MNR100001 Permit, sections 7, 8 and 9.

emporary erosion control BMPs.

The General Contractor is responsible for the Erosion Prevention Practices contained in the MNR100001 Permit, section 8. The General Contractor must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading and other construction practices that minimize erosion. The location of areas not to be disturbed must be delineated (marked) on the development site before work begins.

Temporary Sediment Control BMPs

The General Contractor is responsible for the Sediment Control Practices contained in the MNR100001 Permit, section 9. Sediment Control Practices must be installed on all down gradient perimeters before any upgradient land disturbing activities begin. These practices must remain in place until Permit Termination Conditions have been established in accordance with the MNR100001 equipment (including trucks and personal vehicles) must not be allowed in these areas. Permit, section 13.

Examples of Temporary Sediment Control BMPs

Floating Silt Curtain

- MnDOT reference: > Floatation silt curtain must be placed in the areas as shown on the plan included in this
- > Flotation silt curtain must be light duty or heavy duty and meet the requirements of MnDOT spec. 3887.
- > Flotation silt curtain must be installed as per MnDOT spec. 2573.3.

Silt Fence

- MnDOT reference:
- Silt fence must be placed in the areas as shown on the plan included in this SWPPP. > Silt fence must be preassembled, machine sliced, hand installed, super duty, or turbidity barrier type, according to plan. Materials must meet the requirements of MnDOT spec.
- > Silt fence must be installed as per MnDOT spec. 2573.3.

Sediment Control Logs

- MnDOT reference: > Sediment control logs must be placed in the areas as shown on the plan included in this
- > Sediment control logs must be Type Straw, Wood Fiber, Coir, Wood Chip, Compost, Rock, or Wood Fiber and Blanket Systems and meet the requirements of MnDOT spec. 3897.

Filter Berms

Silt fence or windrowed topsoil will be used as the primary control. Sediment control logs will be used as secondary control along each side of roadway at all low points and areas of high velocity drainage to prevent sediment from draining off roadway.

MnDOT reference:

- > Filter berms must be placed in the areas as shown on the plan included in this SWPPF
- Filter berms must be Type 1, 2, 3, 4, or 5. Materials must meet the requirements of MnDOT spec. 3874.
- > Filter berms must be installed as per MnDOT spec. 2573.3

Sediment control logs must be installed as per MnDOT spec. 2573.3.

Rock construction exits must be placed at all locations construction vehicles will be exiting the Project Area. If the contractor chooses to access the site from locations other than where temporary rock construction exits are shown on the plan, additional construction exit controls must be placed at these locations as well. If sediment tracking is discovered on adjacent streets, the sediment must be removed with a street sweeper or other approved method within one calendar day of discovery. This must be done throughout the duration of the Project. The sediment may be returned to the exposed areas of the site or disposed of offsite Erosion Prevention Measures per MPCA requirements.

MnDOT reference:

- Construction exit controls must be placed in the areas as shown on the plan included in
- > Construction exit controls must be constructed with slash mulch, crushed rock, temporary paving, reinforced geotextile, sheet pads, floating road, timber pad, or rumble pad.
- Construction exit controls must be installed as per MnDOT spec. 2573.3.

Rumble Pad Construction Exit

**Permanent Erosion Cover Methods for all exposed soil areas:** 

- Concrete
- Bituminous
- Rip rap
- Landscape material that will permanently attest soil erosion

Perennial cover

this Project that we are aware of.

Permanent erosion control will be achieved with a density of 70% of the native background vegetation by using Seed Mixture 25-141 at a rate of 59 lbs/ac of Pure Live Seed, Type 3 Fertilizer with a composition of 22-5-10 at a rate of 200 lbs/ac, and Hydraulic Reinforced Fiber Matrix at a rate Sediment Control Measures of 3900 lbs/ac on all disturbed construction areas.

Permanent erosion control will be achieved with a density of 70% vegetative cover native to local undisturbed areas using the seed mixtures, fertilizer and stabilization methods indicated on the SWPPP on all disturbed areas.

Stormwater Mitigation Measures proposed as part of environmental, endangered species, archaeological or other required local, state or federal reviews conducted by the Project No local, state, or federal environmental, endangered species or archaeological reviews were conducted for

Discharges to any U.S. EPA approved TMDL for the pollutants/stressors described in the MNR100001 Permit, section item 23.7.

Pelican Lake is located within the project site and will receive stormwater runoff. Pelican Lake has an EPA-approved impairment for Mercury in Fish Tissue. This impairment is considered to be non-construction related and does not require any additional BMP's.

Permanent Stormwater Treatment System:

No permanent stormwater treatment system is anticipated for this Project.

**Procedures to Amend SWPPP:** 

The General Contractor must amend the SWPPP within 7 days include additional requirements, such as additional or modified BMP's, designed to correct problems or address situations in accordance with the MNR100001 Permit, section 6.

\*\*\*\*\*\*\*\*\*\*\*\*\*

Amendments to the SWPPP:

- 1. Date:
- 2. Date:
- 3. Date:
- 4. Date:
- 5. Date:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Methods to Minimize Soil Compaction and to Preserve Topsoil:** 

The General Contractor must delineate areas that are not to be disturbed on the site. This may be done with flags, stakes, signs, silt fence, etc., and must be completed prior to the start of any grading operations. Regardless of the delineation method the General Contractor chooses to use, the General Contractor must communicate to his/her personnel and subcontractors that these areas are not to be disturbed and construction The General Contractor must avoid construction traffic and maintain the existing condition of pervious "green"

**Stormwater Control Design:** 

No stormwater control for this Project is anticipated.

**Chemical Treatment Systems to Enhance Sedimentation:** 

Flocculants are not anticipated to be used for this Project. If they are, they will adhere to the MnDOT standards

Maintenance Requirements:

 Flocculants MnDOT reference:

- Flocculants must be applied as specified on the plan included in this SWPPP.
- Liquid, Stock, or Granular Flocculant must be used and meet the requirements of MnDOT spec. 3898.
- > Flocculants must be installed as per MnDOT spec. 2573.3.

Impervious Surfaces pre- and post-construction:

0.07 AC Existing Impervious = Proposed Impervious Area = 0.09 AC Increase of Total Impervious Surface Area= 0.02 AC

**Infeasibility Documentation Requirements:** 

No infeasibility documentation is required for this Project.

**Site Assessments for Groundwater or Soil Contamination:** 

No site assessments for groundwater or soil contamination were completed for this Project.

**Tabulated Quantities:** 

**Estimated Quantity** Floating Silt Curtain 678 Lin ft

#### **CONSTRUCTION ACTIVITY REQUIREMENTS:**

- Exposed soils (including stockpiles) must have erosion protection/cover initiated immediately and completed within 7 days.
- For DNR Public Waters with "work in waters restrictions" during specified fish spawning time frames, stabilization must be completed for all exposed soil areas within 200 feet of the water's edge, and draining to the water, within 24 hours during the restriction period.
- The wetted perimeter of the last 200 linear feet of ditches must be stabilized within 24 hours of connecting to a surface water or property line.
- Temporary or permanent ditches or swales that are being used as a sediment containment system during construction must be stabilized within 24 hours after no longer being used as a sediment
- Pipe outlets must have energy dissipation within 24 hours of connecting to a surface water or permanent stormwater treatment system.
- Mulch, hydro mulch, tackifier, polyacrylamide, or similar erosion prevention practices cannot be used within the normal wetted perimeter of drainage ditches or swale sections with a continuous slope greater than 2%.

- Sediment control practices must be established on downgradient perimeters and upgradient of any
- ❖ Sediment control practices must be established at the base of stockpiles on the downgradient perimeter prior to the initiation of stockpiling. Sediment controls must be managed in accordance with MNR100001
- Stockpiles must be located outside of natural buffers or surface waters, including stormwater conveyances (e.g., curb and gutter systems) unless there is a bypass
- Inlet protection BMPs must be installed according to plan.
- ❖ Vehicle tracking BMPs must be established where vehicles are exiting the site to minimize street tracking. Sediment tracked onto a public street must be removed within 24 hours.
- Topsoil must be preserved unless it is infeasible.
- Soil compaction must be minimized. Discharges from BMPs must be directed to vegetated areas, unless it is infeasible.
- ❖ 50-foot natural buffers must be preserved or (if maintaining buffer is infeasible) redundant sediment controls must be provided when a surface water is located within 50 feet of the Project's earth disturbances and drains to the surface water.

**Dewatering and Basin Draining:** 

- If dewatering is required on the site, there must be a plan in place to prevent nuisance conditions, erosion, and inundation of wetlands.
  - Dewatering related to the construction activity must comply with the MNR100001 Permit, section 10. Dewatering discharge that may have turbid or sediment laden discharge must be discharged to a temporary or permanent sedimentation basin on the Project Area whenever possible and BMP's must be implemented to prevent water containing sediment or other pollutants from being discharged to surface waters or downstream properties.
  - If nuisance conditions result from the discharge, Permittees must cease dewatering immediately and corrective actions must occur before dewatering is resumed. Nuisance conditions includes, but is not limited to, a sediment plume in the discharge or the discharge appears cloudy, or opaque, or has a visible contrast, or has a visible oil film, or has aquatic habitat degradation that can be identified by an observer. (Minn. R. 7050.0210)
- ❖ If using filters with backwash water, backwash water must be hauled away for disposal, returned to the beginning of the treatment process, or incorporated into the site in a manner that does not erode into runoff.

**Inspection Requirements:** 

- The SWPPP must identify the trained person (as identified in MNR100001 Permit section item 21.2.b) who will conduct inspections.
- ❖ Inspections must be performed once every 7 days (or once every 3 days per MNR100001 section
- ❖ Inspections must be performed within 24 hours of a rain event greater than 0.5 inches in 24 hours.
- Inspection and Maintenance records should include:
  - Date and time of inspection.
- Name of person(s) conducting inspections.
- 3. Accurate findings of inspections, including the specific location where corrective actions are
- 4. Corrective actions taken (including dates, times, and party completing maintenance activities).
- 5. Date and amount of rainfall events greater than 0.5 inch in 24 hours.

6. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.

7. Requirements to observe any discharge that may be occurring during the inspection. Discharge should also be described and photographed.

- ❖ All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.
- Perimeter control devices must be repaired, replaced, or supplemented when nonfunctional or sediment reaches one-half the height of the device.
- Temporary and permanent sediment basins must be drained, and sediment removed when the depth of
- sediment collected reaches one-half storage volume within 72 hours of discovery. All sediment deposits and deltas must be removed from surface waters (including drainage ways, catch
- basins, and other drainage systems) and the removal areas restabilized within seven days. Sediment on paved surfaces (e.g., sediment tracked from vehicles) must be removed within one calendar day of discovery.

**Pollution Prevention Management Measures:** 

- Proper storage, handling, and disposal of construction products, materials, and waste is required. Hazardous materials and toxic waste (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) must be stored in waterproof containers with secondary containment. Storage and disposal of hazardous waste must be in compliance with MPCA regulations. Runoff containing such material must be collected, removed from the site, treated, and disposed at an approved solid waste or chemical disposal facility. Building products that have the potential to leach pollutants and pesticides, fertilizers, treatment chemicals and landscape materials must be under cover by plastic sheeting or temporary roofs to prevent discharge or protected by similar effective means to prevent contact with stormwater.
- ❖ Address fueling and maintenance of equipment or vehicles and spill prevention and response. The General Contractor must have a petroleum release plan and must have all necessary materials on hand to implement the plan. All employees must be trained in the implementation of the plan. The MPCA State Duty Officer must be informed of any petroleum spills greater than 5 gallons. Spill cleanup materials must be available on site. Material must include but not limited to brooms, mops, rags, gloves, absorbent material, sand plastic and metal containers. Spills greater than 5 gallons that reach storm water conveyance systems connected to a Water of the State must be immediately reported to the MPCA State Duty Officer.

Limit exterior vehicle and equipment washing to a defined area of the site.

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.

Describe the containment for concrete and other washout wastes. Concrete washout site: all liquid and solid wastes generated by concrete washout operations must be contained in a leak proof containment facility or impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid waste must be disposed of properly and in compliance with the MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment

Portable toilets must be positioned so that they are secure.

operators to utilize the proper facilities.

Licensed sanitary waste management handlers must dispose of sanitary waste.

**Permit Termination Conditions:** 

- Permanent uniform perennial vegetative cover must be established at minimum 70% density of its expected final growth.
- ❖ The permanent stormwater treatment system is constructed, meets all requirements, and is operating as
- ❖ All temporary synthetic erosion prevention and sediment control BMPs must be removed, and the surrounding area must be restored to as designed. Clean out sediment from conveyance systems and permanent stormwater treatment systems (return to
- design capacity). For residential construction only, on individual lots where lot is sold to homeowner, the structures are finished, and permanent cover has been established, coverage terminates if temporary erosion protection and downgradient perimeter control is properly installed and the MPCA's Homeowner Fact
- Submit a Notice of Termination (NOT) with either ground or aerial photographs showing requirements of MNR100001 section 13.2 have been met to the MPCA.

Record Retention Requirements:

- ❖ Permittees must keep the SWPPP, on-site, or electronically available on-site, during normal working hours with personnel who have operational control over the applicable portion of the site, including all changes to the SWPPP, inspections, and maintenance records.
  - The SWPPP and associated records must be stored and maintained by an employee or representative of the Owner for 3 years after the submission of the NOT. Responsibility for overseeing the records will be transferred to another employee or representative should the current personnel become uninvolved with the Project or Owner. These records must include the following: 1). The final SWPPP

2). Any other stormwater related permits required for the Project.

- 3). Records of all inspection and maintenance conducted during construction.
- 4). All permanent operation and maintenance agreements that have been implemented, including all right-of-way, contracts, covenants and other binding requirements regarding perpetual
- 5). All required calculations for design of the temporary and permanent Stormwater Management

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SHEET NO. C6.1

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