

Appendix A

Project Plans

CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23820047.31\23820047.31 G1.0 COVR PAGE & SHEET LIST.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 10:01 AM



**GOPHER STATE ONE CALL:  
CALL BEFORE YOU DIG.  
1-800-252-1166**

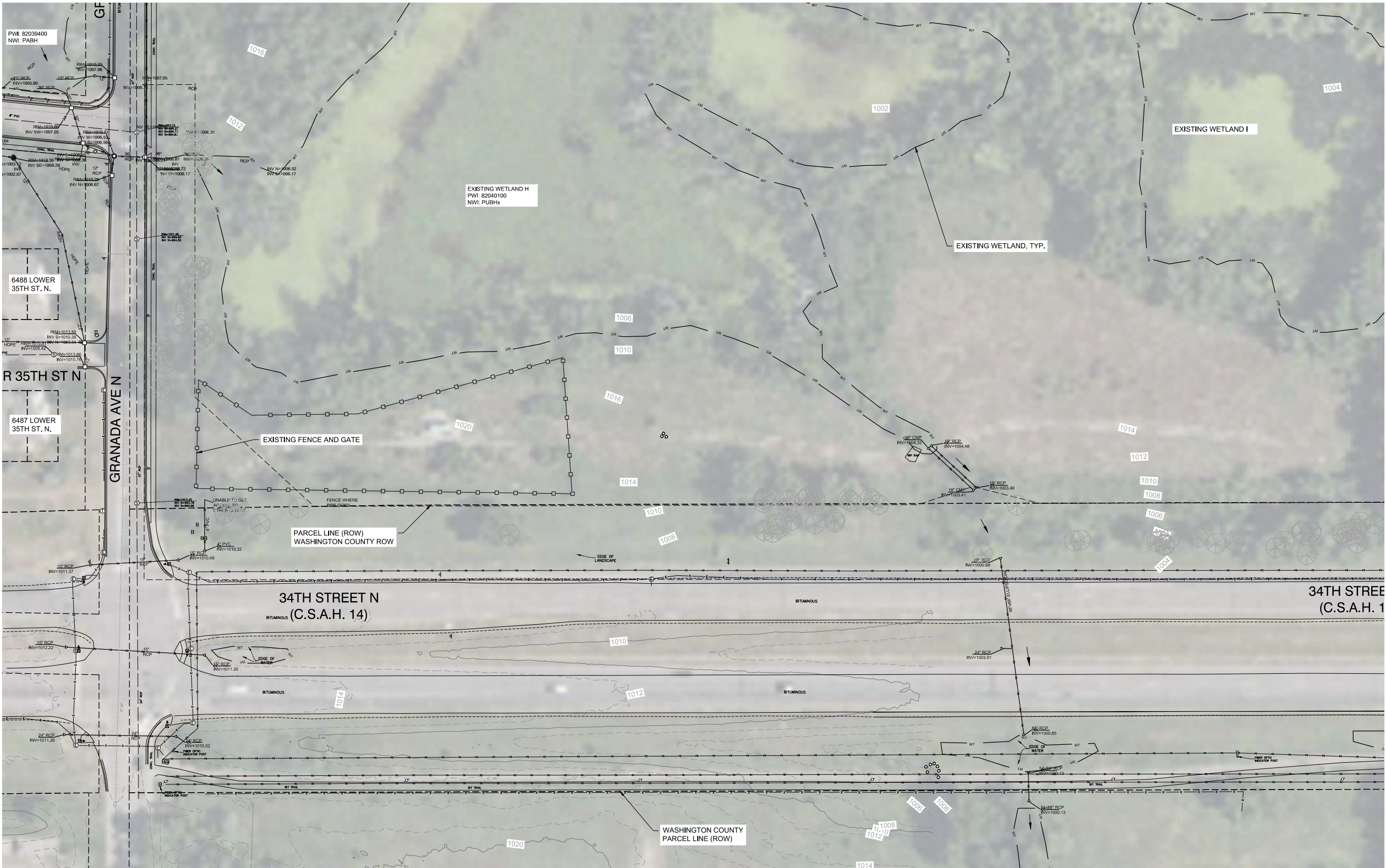


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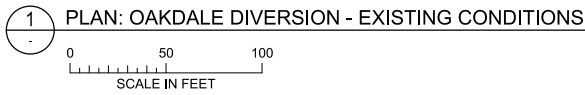


CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\2302047\31\2302047\_31\_G1\_1 EXISTING CONDITIONS.DWG PLOT SCALE: 1:1 PLOT DATE: 9/25/2024 2:27 PM



EXISTING CONDITIONS LEGEND	
	890 5 FT CONTOUR
	889 1 FT CONTOUR
	STORM SEWER
	ELECTRIC
	OVERHEAD UTILITY
	FIBER OPTIC
	CURB
	WATER
	NATURAL GAS LINE
	WETLAND
	FENCE
	SITE FENCE
	SANITARY SEWER
	PARCEL BOUNDARY
	CONSTRUCTION LIMITS
	STORM SEWER MANHOLE
	STORM SEWER CATCH BASIN
	POTABLE WATER VALVE
	EXISTING TREE
	SIGN
	HAND HOLE
	POWER POLE
	ELECTRIC MANHOLE
	TRAFFIC SIGNAL
	TELEPHONE MANHOLE
	PUSH BUTTON
	CABLE BOX
	ELECTRICAL METER
	SANITARY MANHOLE
	LIGHT POLE
	WETLAND FLOW LINE
	SOIL INVESTIGATION LOCATION

SURVEY SOURCES: ALLIANT 2024  
PROJECT COORDINATE SYSTEM:  
HORIZONTAL DATUM: WASHINGTON COUNTY COORDINATES, AD83, 2011 ADJUSTMENT  
VERTICAL DATUM: NAVD88  
AERIAL IMAGE SOURCE: BING MAPS



DRAFT  
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
A	MRM	DJF	MRM	25SEP2024	DRAFT 30% ISSUED FOR PERMITTING AND DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION

CLIENT	09/25/2024						
PERMIT							
BID							
CONSTRUCTION							
RECORD							
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DATE RELEASED							

**BARR**  
Corporate Headquarters:  
Minneapolis, Minnesota  
Ph: 1-800-632-2277

Project Office:  
BARR ENGINEERING CO.  
4300 MARKETPOINTE DRIVE  
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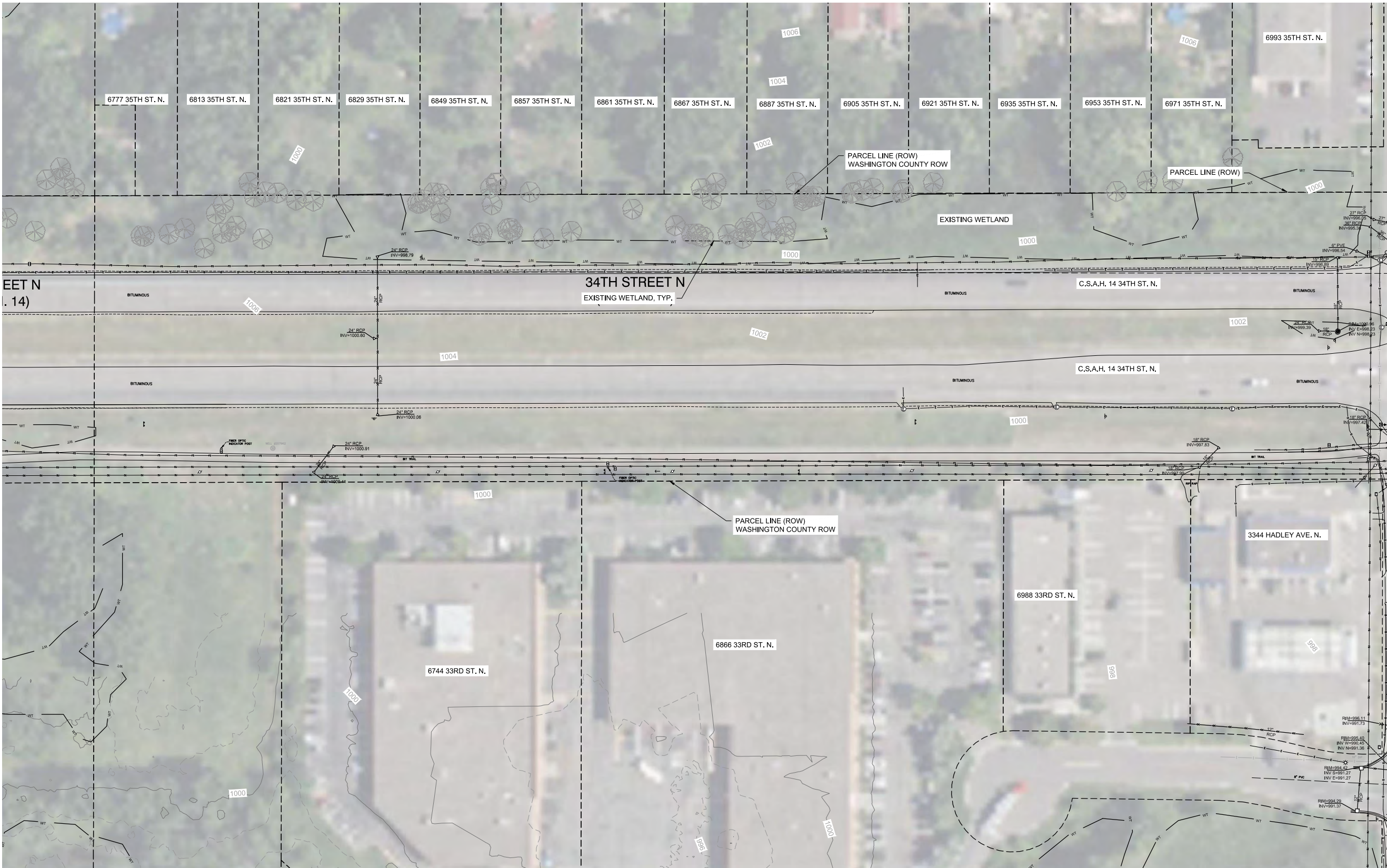
Scale	AS SHOWN
Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DJF/ADC
Designed	BARR
Approved	-

3M  
OAKDALE, MINNESOTA

OAKDALE DIVERSION  
OAKDALE, MN  
EXISTING CONDITIONS

BARR PROJECT No. 23/820047.35	
CLIENT PROJECT No. -	
DWG. No. G1.1	REV. No. A





- EXISTING CONDITIONS LEGEND**
- 890 5 FT CONTOUR
  - 889 1 FT CONTOUR
  - STORM SEWER
  - ELECTRIC
  - OVERHEAD UTILITY
  - FIBER OPTIC
  - CURB
  - WATER
  - NATURAL GAS LINE
  - WETLAND
  - FENCE
  - SITE FENCE
  - SANITARY SEWER
  - PARCEL BOUNDARY
  - CONSTRUCTION LIMITS
  - STORM SEWER MANHOLE
  - STORM SEWER CATCH BASIN
  - POTABLE WATER VALVE
  - EXISTING TREE
  - SIGN
  - HAND HOLE
  - POWER POLE
  - ELECTRIC MANHOLE
  - TRAFFIC SIGNAL
  - TELEPHONE MANHOLE
  - PUSH BUTTON
  - CABLE BOX
  - ELECTRICAL METER
  - SANITARY MANHOLE
  - GUY WIRE
  - WETLAND FLOW LINE
  - SOIL INVESTIGATION LOCATION

SURVEY SOURCES: ALLIANT 2024  
PROJECT COORDINATE SYSTEM:  
HORIZONTAL DATUM: WASHINGTON COUNTY COORDINATES, AD83, 2011 ADJUSTMENT  
VERTICAL DATUM: NAVD88  
AERIAL IMAGE SOURCE: BING MAPS

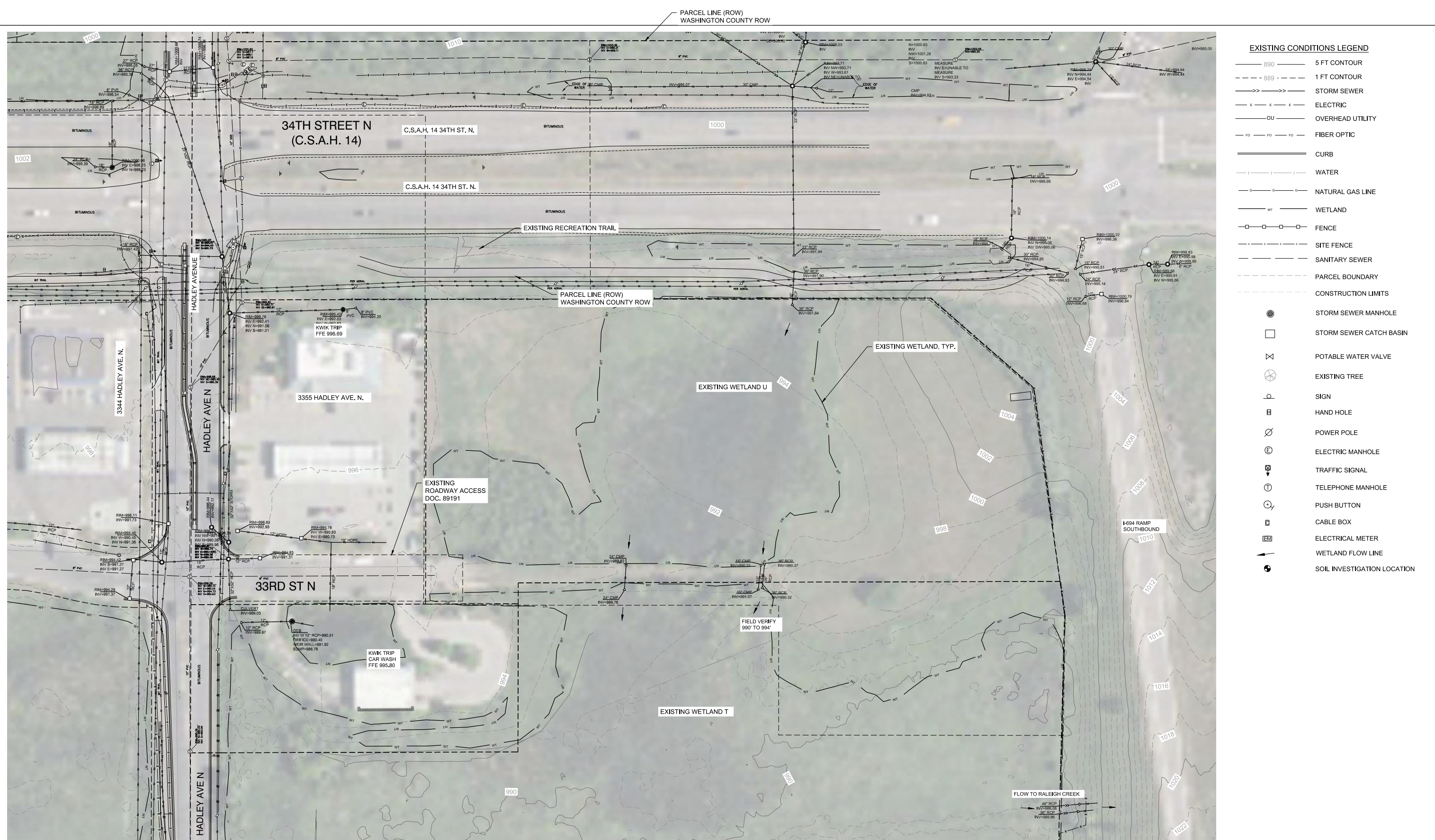
**2 PLAN: OAKDALE DIVERSION - EXISTING CONDITIONS**

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A   MRM   DJF   MRM   25SEP2024   DRAFT 30% ISSUED FOR PERMITTING AND DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT PERMIT BID CONSTRUCTION RECORD							<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div> <div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div>	Scale AS SHOWN Date 09/25/2024 Drawn JNJ/EMO Checked MRM/DJF/ADC Designed BARR Approved -		3M OAKDALE, MINNESOTA		OAKDALE DIVERSION OAKDALE, MN		BARR PROJECT No. 23/820047.35	
													CLIENT PROJECT No.							
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REVISION DESCRIPTION																				



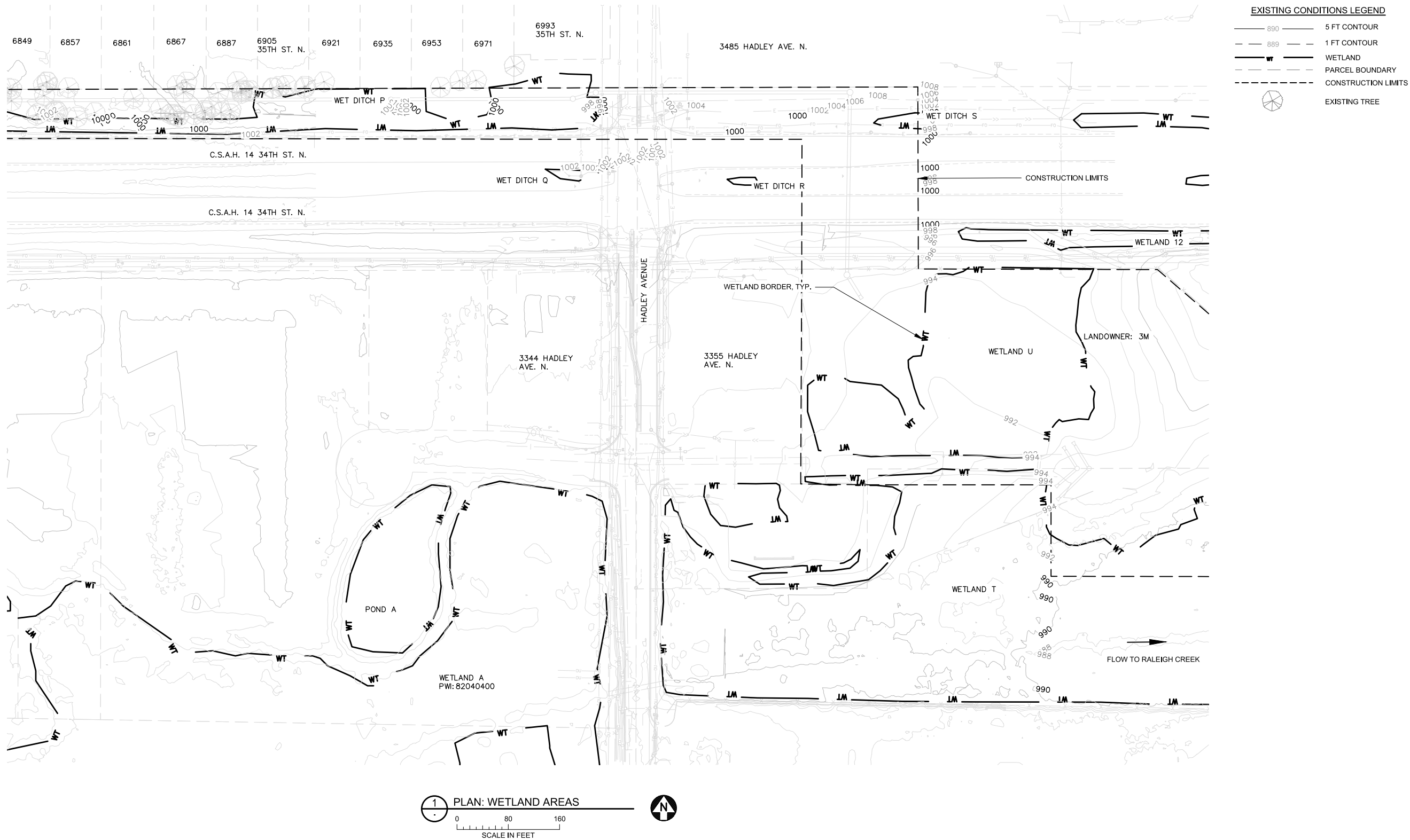




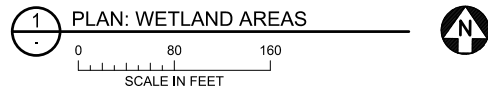




CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23820047\_21\G1.3 EXISTING WETLANDS INVENTORY AND IMPACTS.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 10:32 AM



WETLAND DELINEATION SOURCE:  
BY STANTEC. 2023

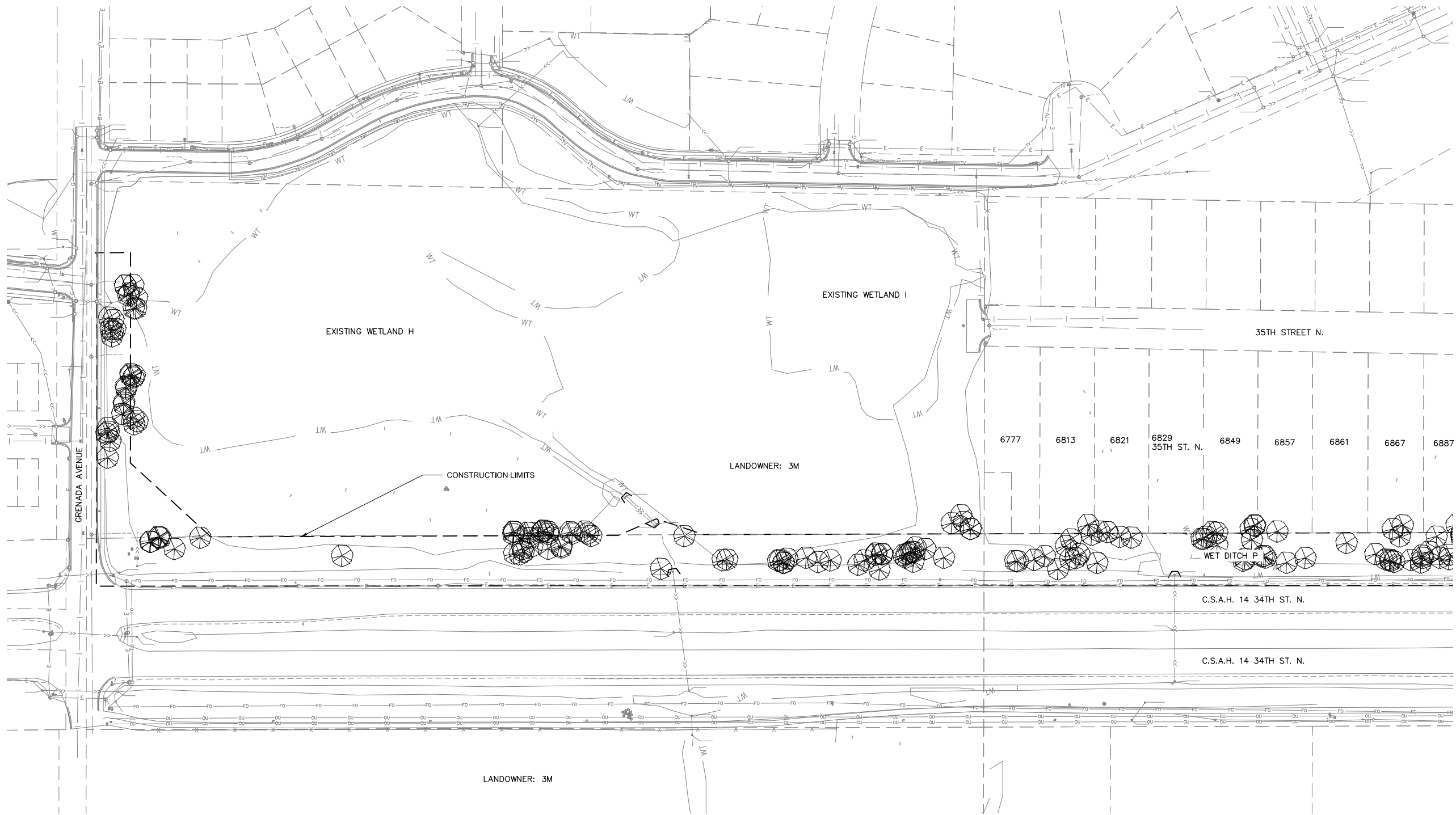


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NOT FOR CONSTRUCTION

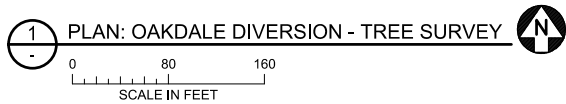
A MRM DJF MRM 25SEP2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT 09/25/2024								<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div> <div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div>				Scale AS SHOWN		3M OAKDALE, MN				OAKDALE DIVERSION OAKDALE, MN				BARR PROJECT No. 23/82-0047.35	
					BID												Date 09/25/2024						CLIENT PROJECT No.					
					CONSTRUCTION												Drawn JNJ/EMO											
					RECORD												Checked MRM/DFJ/ADC											
					RELEASED TO/FOR								Designed BARR		EXISTING WETLAND INVENTORY AND IMPACTS								DWG. No. G1.5		REV. No. A			
NO. BY CHK. APP. DATE					REVISION DESCRIPTION								Approved BARR															
					DATE RELEASED																							



CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23820047\_31\_G1.6 EXISTING TREE SURVEY.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 10:27 AM



- EXISTING CONDITIONS LEGEND**
- 890 5 FT EXISTING ELEV. CONTOUR
  - 889 1 FT EXISTING ELEV. CONTOUR
  - >> STORM SEWER
  - E ELECTRIC
  - OU OVERHEAD UTILITY
  - FO FIBER OPTIC
  - == CURB
  - | WATER
  - G NATURAL GAS LINE
  - WT WETLAND
  - FENCE
  - x-x- SITE FENCE
  - SANITARY SEWER
  - PARCEL BOUNDARY
  - STORM SEWER MANHOLE
  - STORM SEWER CATCH BASIN
  - ⊗ POTABLE WATER VALVE
  - ⊗ EXISTING TREE
  - ⊗ SIGN
  - ⊗ HAND HOLE
  - ⊗ POWER POLE
  - ⊗ ELECTRIC MANHOLE
  - ⊗ TRAFFIC SIGNAL
  - ⊗ TELEPHONE MANHOLE
  - ⊗ PUSH BUTTON
  - ⊗ CABLE BOX
  - ⊗ ELECTRICAL METER
  - ⊗ SANITARY MANHOLE
  - ⊗ LIGHT POLE
  - WETLAND FLOW LINE
  - - - CONSTRUCTION LIMITS



TREE SURVEYS SOURCE:

- MAY 2024 (PUBLIC RIGHT-OF-WAY) ALONG THE DIVERSION PIPE CORRIDOR ONLY.
- (FUTURE TREE SURVEYS NOT SHOWN)

DRAFT  
NOT FOR CONSTRUCTION

A   MRM   DJF   MRM   25SEP2024   DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT   09/25/2024					<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div> <div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div>					Scale   AS SHOWN		<div>3M OAKDALE, MN</div>										OAKDALE DIVERSION OAKDALE, MN					BARR PROJECT No. 23/82-0047.35	
															Date   09/25/2024												CLIENT PROJECT No.						
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															Checked   MRM/DFJ/ADC																		
															Designed   BARR																		
										Approved   --												DWG. No. G1.6		REV. No. A									
NO, BY, CHK, APP, DATE					REVISION DESCRIPTION					RELEASED TO/FOR					DATE RELEASED																		





## 1.0 GENERAL CONSTRUCTION ACTIVITY INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED IN COMPLIANCE WITH THE MINNESOTA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY NO. MNR100001 (GENERAL PERMIT), AS REQUIRED BY THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PROGRAM.

THE PROJECT IS LOCATED IN THE CITY OF OAKDALE, WASHINGTON COUNTY, MINNESOTA. PROPOSED CONSTRUCTION ACTIVITIES WILL TAKE PLACE WITHIN XXX. THE APPROXIMATE CENTROID OF THE PROJECT HAS A LATITUDE OF 44.9258019 AND A LONGITUDE OF -92.9601112.

THIS PROJECT INVOLVES EROSION CONTROL, REMOVAL AND REPLACEMENT OF CURB AND GUTTER, BITUMINOUS PAVEMENT REMOVALS AND INSTALLATION, EXCAVATION AND GRADING, CREATION OF STORMWATER RETENTION BASIN, INSTALLATION OF STORMWATER DIVERSION PIPE AND LANDSCAPING INCLUDING TREE REMOVAL AND REPLACEMENT. THE PROJECT, AS PROPOSED, HAS A TOTAL DISTURBANCE AREA OF XXX. REFER TO PROJECT DRAWINGS FOR FURTHER DETAILS. (CSW PERMIT PART III.A.1)

### 1.1 PROJECT SIZE AND CUMULATIVE IMPERVIOUS SURFACE:

- THE ANTICIPATED AREA OF DISTURBANCE IS APPROXIMATELY XXX.
- THE TOTAL AREA OF PRE-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY XXX.
- THE TOTAL AREA OF POST-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY XXX.
- THE TOTAL NEW IMPERVIOUS AREA IS APPROXIMATELY XXX.

1.2 DATES OF CONSTRUCTION:

- ANTICIPATED START DATE: XXX
- ANTICIPATED END DATE: XXX

### 1.3 CONTACT INFORMATION:

OWNER: XXX  
MAILING ADDRESS: XXX  
CONTACT PERSON: XXX  
PHONE NUMBER: XXX  
ALTERNATE CONTACT PERSON: XXX  
PHONE NUMBER: XXX

TITLE: XXX  
EMAIL ADDRESS: XXX  
TITLE: XXX  
EMAIL ADDRESS: XXX

OPERATOR / GENERAL CONTRACTOR (WHO WILL OVERSEE IMPLEMENTATION OF THE SWPPP): TBD  
MAILING ADDRESS: TBD  
CONTACT PERSON: TBD TITLE: TBD  
PHONE NUMBER: TBD EMAIL ADDRESS: TBD

TITLE: TBD  
EMAIL ADDRESS: TBD

PARTY RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM:  
 XXX  
 MAILING ADDRESS: XXX  
 CONTACT PERSON: XXX TITLE: XXX  
 PHONE NUMBER: XXX EMAIL ADDRESS: XXX

TITLE: XXX  
EMAIL ADDRESS: XXX

## 2.0 RECEIVING WATERS:

LIST ALL WATERS WITHIN ONE MILE (NEAREST STRAIGHT LINE DISTANCE) THAT ARE LIKELY TO RECEIVE STORMWATER RUNOFF FROM THE PROJECT SITE. (CSW PERMIT ITEM 5.10)

<u>NAME OF WATER BODY</u>	<u>TYPE</u> <sup>(1)</sup>	<u>WATER BODY ID</u> <sup>(2)</sup>	<u>SPECIAL WATER?</u> <sup>(3)</sup>	<u>IMPAIRED WATER?</u> <sup>(3)</sup>	<u>DNR PUBLIC WATER WITH WORK IN WATER RESTRICTIONS?</u>
XXX	XXX	-	NO	NO	NO
XXX	XXX	-	NO	NO	NO

- (1) TYPE EXAMPLES: DITCH, POND, WETLAND, CALCAREOUS FEN, LAKE, STREAM, RIVER
- (2) WATER BODY IDENTIFICATION (ID) MIGHT NOT BE AVAILABLE FOR ALL WATER BODIES. USE THE SPECIAL AND IMPAIRED WATERS SEARCH TOOL AT: [HTTPS://WWW.PCA.STATE.MN.US/WATER/STORMWATER-SPECIAL-AND-IMPAIRED-WATERS-SEARCH](https://www.pca.state.mn.us/water/stormwater-special-and-impaired-waters-search)
- (3) REFER TO CSW PERMIT SECTION 23 IMPAIRED WATER FOR THE FOLLOWING POLLUTANT(S) OR STRESSOR(S): PHOSPHORUS (NUTRIENT EUTROPHICATION BIOLOGICAL INDICATORS), TURBIDITY, TOTAL SUSPENDED SOLIDS (TSS), DISSOLVED OXYGEN, OR AQUATIC BIOTA (FISH BIOASSESSMENT, AQUATIC PLANT BIOASSESSMENT, AND AQUATIC MACROINVERTEBRATE BIOASSESSMENT)

**2.1 SPECIAL AND IMPAIRED WATERS:** THE MPCA'S SPECIAL AND IMPAIRED WATERS SEARCH TOOL WAS USED TO LOCATE SPECIAL AND IMPAIRED WATERS WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) OF THE PROJECT SITE. NO WATERBODIES WITHIN ONE MILE HAVE AN EPA-APPROVED IMPAIRMENT. BATTLE CREEK LAKE, WHICH IS LOCATED FURTHER DOWNSTREAM THAN ONE MILE (AERIAL RADIUS), HAS EPA-APPROVED IMPAIRMENTS FOR CHLORIDES AND MERCURY IN FISH TISSUE. THESE IMPAIRMENTS ARE CONSIDERED NON-CONSTRUCTION RELATED AND DO NOT REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES (BMPs) OR PLAN REVIEW FOR COMPLIANCE WITH THE GENERAL PERMIT. (CSW PERMIT ITEM 2.7 AND SECTION 23)

ADDITIONAL BMPS OR OTHER SPECIFIC CONSTRUCTION RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN AN APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL) ARE NOT APPLICABLE TO THIS PROJECT. (CSW PERMIT ITEM 5.19)

2.2 PUBLIC WATERS WITH WORK IN WATER RESTRICTIONS: THIS PROJECT DOES NOT INCLUDE WORK IN PUBLIC WATERS.  
(CSW PERMIT ITEM 5.11)

## 2.3 WETLAND IMPACTS: XXX

**2.4 ENVIRONMENTAL REVIEW AND OTHER REQUIRED REVIEWS:** STORMWATER MITIGATION MEASURES ARE NOT REQUIRED AS A RESULT OF AN ENVIRONMENTAL REVIEW (E.G., EAW OR EIS), ENDANGERED OR THREATENED SPECIES REVIEW, ARCHEOLOGICAL SITE REVIEW, OR OTHER LOCAL, STATE, OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT. (CSW PERMIT ITEMS 2.8, 2.9, AND 5.16)

2.5 KARST AREAS OR DRINKING WATER SUPPLY MANAGEMENT AREAS: PROPOSED CONSTRUCTION ACTIVITIES DO NOT FALL WITHIN KARST AREAS OR DRINKING WATER SUPPLY MANAGEMENT AREAS. (CSW PERMIT ITEMS 16.19, 16.20, AND 18.10)

### 3.0 PROJECT PLANS AND SPECIFICATIONS:

## REQUIRED FEATURE

- PROJECT LOCATION AND CONSTRUCTION LIMITS
- EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, LOCATIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER
- SOIL TYPES AT THE SITE
- LOCATIONS OF IMPERVIOUS SURFACES

- LOCATIONS OF AREAS NOT TO BE DISTURBED (E.G., BUFFER ZONES, WETLANDS, ETC.)
- LOCATIONS OF AREAS OF STEEP SLOPES
- LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE DURATION OF EXPOSED SOILS
- LOCATIONS OF ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs AS REQUIRED IN PERMIT SECTIONS 8 THROUGH 10 AND 14 THROUGH 19
- BUFFER ZONES AS REQUIRED IN PERMIT ITEMS 9.17 AND 23.11
- LOCATIONS OF POTENTIAL POLLUTION-GENERATING ACTIVITIES IDENTIFIED IN PERMIT SECTION 10
- STANDARD DETAILS FOR EROSION AND SEDIMENT CONTROL BMPs TO BE INSTALLED AT THE PROJECT

#### 4.0 BEST MANAGEMENT PRACTICES (BMPS):

#### 4.1 EROSION PREVENTION PRACTICES:

1. METHODS OF TEMPORARILY STABILIZING SOILS AND SOIL STOCKPILES (E.G., MULCHES, HYDRAULIC TACKIFIERS, EROSION BLANKETS, ETC.): (CSW PERMIT ITEMS 8.4, 8.5, AND 23.9)
  - a. AREAS OF EXPOSED SOIL WILL BE STABILIZED WITH ONE OF THE FOLLOWING: EROSION CONTROL BLANKET, PRESERVATION OF MATURE VEGETATION, MULCH, VEGETATIVE SLASH, ETC.
  - b. IF PRESENT, SOIL STOCKPILES WILL BE STABILIZED WITH ONE OF THE FOLLOWING MATERIALS: MULCH (SUCH AS STRAW MULCH, SLASH MULCH, WOOD CHIP, OR OTHER APPROPRIATE MULCH) (IF SLOPES  $\leq 3:1V$ ), COVER MATERIAL SUCH AS TARPS OR PLASTIC SHEETING, ETC.
  - c. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY, OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS, AND SIMILAR SURFACES ARE EXEMPT FROM THESE STABILIZATION REQUIREMENTS.
2. TIMELINE FOR STABILIZATION OF EXPOSED SOILS: WHERE REQUIRED, STABILIZATION OF EXPOSED SOIL AREAS (INCLUDING STOCKPILES) MUST BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. THE FOLLOWING ACTIVITIES CAN BE TAKEN TO INITIATE STABILIZATION:
  - a. PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION
  - b. APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA
  - c. SEEDING OR PLANTING THE EXPOSED AREA
  - d. FINALIZING ARRANGEMENTS TO HAVE STABILIZATION PRODUCT FULLY INSTALLED
3. METHODS TO BE USED FOR STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS (NOTE THAT MULCH, HYDRAULIC SOIL TACKIFIERS, HYDROMULCHES, ETC. ARE NOT ACCEPTABLE SOIL STABILIZATION METHODS FOR ANY PART OF A DRAINAGE DITCH OR SWALE WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT). (CSW PERMIT ITEMS 8.6 THROUGH 8.8)
  - a. IN THE EVENT SOILS WITHIN EXISTING STORMWATER DITCHES OR SWALES ARE DISTURBED, THEY WILL BE STABILIZED USING ONE OR MORE OF THE FOLLOWING METHODS: CHANNEL EROSION CONTROL BLANKET, RIPRAP, TURF REINFORCEMENT MAT, ETC.
  - b. MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE, OR SIMILAR EROSION PREVENTION PRACTICES WILL NOT BE USED TO STABILIZE ANY PART OF AN EXISTING STORMWATER DITCH OR SWALE.
  - c. TIMELINE FOR STABILIZATION OF STORMWATER DITCHES AND SWALES: THE LAST 200 LINEAL FEET OF LENGTH OF THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER WILL BE STABILIZED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES WILL BE COMPLETED WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.
4. METHODS TO BE USED FOR ENERGY DISSIPATION AT PIPE OUTLETS INCLUDE SPLASH PADS. (CSW PERMIT ITEM 8.9)
5. BEFORE LAND DISTURBING ACTIVITIES BEGIN, THE LIMITS OF THE AREAS TO BE DISTURBED DURING CONSTRUCTION WILL BE DELINEATED (E.G., WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.).
6. ADDITIONAL EROSION PREVENTION MEASURES: THE FOLLOWING ADDITIONAL EROSION PREVENTION METHODS WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION: (CSW PERMIT ITEMS 8.2, 8.3, AND 8.10)
  - a. CONSTRUCTION PHASING WILL BE UTILIZED TO MINIMIZE THE AREA OF SOIL EXPOSED AT ANY ONE TIME.
  - b. SOIL DISTURBANCE WILL BE MINIMIZED WHEREVER POSSIBLE TO AID IN EROSION PREVENTION.
  - c. EXISTING VEGETATION WILL BE PRESERVED WHERE POSSIBLE TO LIMIT EXPOSED SOIL AND THUS WILL SERVE AS NATURAL VEGETATIVE BUFFERS.
  - d. EXPOSED SOIL ON STEEP SLOPES ( $\leq 3:1V$ ) WILL BE STABILIZED USING EROSION CONTROL BLANKETS AND SEEDING.
  - e. HORIZONTAL SLOPE GRADING WILL BE UTILIZED TO MINIMIZE EROSION POTENTIAL.
  - f. TERRACING WILL BE USED TO MINIMIZE EROSION POTENTIAL.

#### 4.2 SEDIMENT CONTROL PRACTICES:

1. METHODS TO BE USED FOR DOWNGRADIENT PERIMETER CONTROL. (CSW PERMIT ITEMS 9.2 THROUGH 9.6)
  - a. SEDIMENT CONTROL PRACTICES SHALL BE ESTABLISHED ON ALL DOWNGRADIENT PERIMETERS AND LOCATED. UPGRADEMENT OF ANY BUFFER ZONES, PERIMETER SEDIMENT CONTROLS THAT MAY BE USED IN AREAS OF SHEET FLOW INCLUDE: SILT FENCING, SEDIMENT CONTROL LOGS / BIOROLLS (FILLED WITH COMPOST, WOOD CHIPS, ROCK, ETC.), VEGETATIVE SLASH BARRIERS, OTHER NATIVE MATERIAL BARRIERS, VEGETATIVE BUFFERS (RETAIN EXISTING VEGETATION WHERE POSSIBLE), EARTHEN BERMS, ROCK CHECKS, ETC.
  - b. PERIMETER SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE ANY UPGRADEMENT LAND-DISTURBING ACTIVITIES BEGIN AND REMAIN IN PLACE UNTIL PERMANENT COVER HAS BEEN ESTABLISHED.
  - c. IF SEDIMENT CONTROL PRACTICES HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES (SUCH AS CLEARING, GRUBBING, OR PASSAGE OF VEHICLES), THE CONTROLS MUST BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE RE-INSTALLED BEFORE THE NEXT PRECIPITATION EVENT, EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
  - d. IF THE DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), INSTALL ADDITIONAL UPGRADEMENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES.
2. METHODS TO BE USED TO CONTAIN SOIL STOCKPILES. (CSW PERMIT ITEMS 9.9 AND 9.10)
  - a. ANY TEMPORARY SOIL STOCKPILES SHALL BE SURROUNDED BY SILT FENCING OR BIOROLLS (OR OTHER EFFECTIVE SEDIMENT CONTROLS) AND SHALL NOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS.
3. METHODS TO BE USED FOR STORM DRAIN INLET PROTECTION. (CSW PERMIT ITEMS 9.7 AND 9.8)
  - a. INLET PROTECTION BMPs WILL BE INSTALLED AROUND ALL STORM DRAIN INLETS DOWNGRADIENT OF CONSTRUCTION ACTIVITIES. STORM DRAIN INLETS WILL BE PROTECTED UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION BMPs THAT MAY BE USED INCLUDE: SEDIMENT CONTROL LOG, FILTER SACK, ROCK WITH FILTER FABRIC, FILTER FENCE BOX, OR EQUIVALENT MEASURES. SILT FENCE OR FABRIC PLACED UNDER THE GRATE WILL NOT BE CONSIDERED AS AN APPROVED FORM OF INLET PROTECTION.
4. METHODS TO MINIMIZE VEHICLE TRACKING AT CONSTRUCTION EXITS AND STREET SWEEPING ACTIVITIES. (CSW PERMIT ITEMS 9.11 AND 9.12)
  - a. A VEHICLE TRACKING BMP (SUCH AS A ROCK PADS, MUD MATS, SLASH MULCH, CONCRETE OR STEEL WASH RACKS, OR AN EQUIVALENT SYSTEM) SHALL BE INSTALLED TO MINIMIZE THE TRACKING OUT OF SEDIMENT FROM THE CONSTRUCTION AREA.
  - b. IF SUCH VEHICLE TRACKING BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE PAVED ROAD, STREET SWEEPING WILL ALSO BE EMPLOYED. SEDIMENT WILL BE REMOVED BY SWEEPING WITHIN 24 HOURS.
5. PROTECTION OF INFILTRATION AREAS: ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS, PIPE PLUGS) WILL BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO ESTABLISHING PERMANENT COVER WITHIN THE CONTRIBUTING DRAINAGE AREA. (CSW PERMIT ITEMS 16.4 AND 16.5)
6. MINIMIZATION OF SOIL COMPACTION AND PRESERVATION OF TOPSOIL: SOIL COMPACTION WILL BE MINIMIZED AND TOPSOIL WILL BE PRESERVED WHERE POSSIBLE (CSW PERMIT ITEMS 5.24, 9.14, AND 9.15)
7. METHODS TO BE USED TO PROMOTE INFILTRATION AND SEDIMENT REMOVAL ON THE SITE PRIOR TO OFFSITE DISCHARGE, UNLESS INFEASIBLE. (CSW PERMIT ITEM 9.16)
  - a. DISCHARGES FROM BMPs WILL BE DIRECTED TO VEGETATED AREAS OF THE SITE (INCLUDING ANY NATURAL BUFFERS) IN ORDER TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. IF EROSION IS NOTED TO OCCUR AS THE RESULT OF SUCH A DISCHARGE, VELOCITY DISSIPATION BMPs WILL BE CONSIDERED AND INSTALLED AS NECESSARY TO PREVENT EROSION.
8. BUFFER ZONE OR REDUNDANT SEDIMENT CONTROLS TO PROTECT SURFACE WATERS: (CSW PERMIT ITEM 9.17),
  - a. IN WETLANDS AND NON-SPECIAL WATERS, A 50-FOOT NATURAL BUFFER SHALL BE PRESERVED, WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, OR WHEN A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS SHALL BE PROVIDED. REDUNDANT PERIMETER CONTROLS WILL BE INSTALLED AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE.
  - b. A 100-FOOT NATURAL BUFFER SHALL BE PRESERVED IN CONSTRUCTION AREAS DISCHARGING TO SPECIAL WATERS OR, IF A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS SHALL BE PROVIDED, WHEN A SPECIAL WATER IS LOCATED WITHIN 100 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER.
9. SEDIMENT TREATMENT CHEMICALS: NOT APPLICABLE; USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) IS NOT ANTICIPATED AS PART OF THE PROJECT. (CSW PERMIT ITEMS 5.222 AND 9.18)
10. TEMPORARY SEDIMENT BASIN(S): THE PROJECT WILL NOT INCLUDE 10 OR MORE ACRES OF DISTURBED SOIL DRAINING TO A COMMON LOCATION OF 5 OR MORE ACRES DRAINING TO A COMMON LOCATION WITHIN 1 MILE OF A SPECIAL OF IMPAIRED WATER. THEREFORE, TEMPORARY SEDIMENT BASINS ARE NOT REQUIRED. (CSW PERMIT ITEMS 5.6, 9.13, AND 23.10 AND SECTION 14)

#### 4.3 DEWATERING AND BASIN DRAINING: (CSW PERMIT SECTION 10 AND ITEM 10.5)

- a. THE FOLLOWING WILL BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER DURING DEWATERING OR BASIN DRAINING: DEWATERING FILTER BAGS OR EQUIVALENT MEASURES.
- b. THE FOLLOWING WILL BE USED TO PREVENT EROSION OR SCOUR OF DISCHARGE POINTS DURING DEWATERING OR BASIN DRAINING: TEMPORARY DRAINAGE CHANNELS AND SEDIMENT BASINS OR EQUIVALENT MEASURES.
- c. FILTERS FOR BACKWASH WATER WILL BE MANAGED ON THE SITE AND CONSISTENTLY INSPECTED FOR DAMAGE AND PROPERLY DISPOSED OF OFFSITE WHEN PUMPING IS COMPLETED OR IF SIGNS OF DAMAGE ARE FOUND.

**4.4 BMP DESIGN FACTORS:** THE FOLLOWING BMP DESIGN FACTORS HAVE BEEN CONSIDERED IN DESIGNING THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPs:

1. EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION.
2. NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES.
3. STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS.
4. RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT.

4.5 BMP QUANTITIES: ANTICIPATED EROSION PREVENTION AND SEDIMENT CONTROL BMP QUANTITIES NEEDED FOR THE LIFE OF THE PROJECT. SEE DRAWINGS AND BID FORM.

(SEE PAGE 2 OF 2)

A	MRM	DJF	MRM	25SEP2024	DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION	CLIENT	09/25/2024									<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><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#### 5.0 PERMANENT STORMWATER MANAGEMENT SYSTEM:

A PERMANENT STORMWATER MANAGEMENT SYSTEM IS REQUIRED IF THE PROJECT RESULTS IN ONE ACRE OR MORE OF NEW IMPERVIOUS SURFACES OR RESULTS IN A NET INCREASE OF ONE OR MORE ACRES OF CUMULATIVE NEW IMPERVIOUS SURFACES IN TOTAL OR IF THE PROJECT IS PART OF A LARGER PLAN OF DEVELOPMENT. (CSW PERMIT ITEM 15.3)

5.1 A PERMANENT STORMWATER TREATMENT SYSTEM IS NOT REQUIRED. (CSW PERMIT ITEMS 5.15, 15.4-15.9, AND 23.14)

**5.2 THIS IS NOT A LINEAR PROJECT WITH LACK OF RIGHT OR WAY. (CSW PERMIT ITEM 15.9)**

**5.3 THIS PROJECT DOES NOT DISCHARGE TO A TROUT STREAM (OR A TRIBUTARY TO A TROUT STREAM). (CSW PERMIT ITEM 23.12)**

## 6.0 INSPECTION AND MAINTENANCE ACTIVITIES:

6.1 PERSONS WITH REQUIRED TRAINING: TRAINED INDIVIDUALS INCLUDE THOSE PARTIES RESPONSIBLE FOR INSTALLING, SUPERVISING, REPAIRING, INSPECTING, AND MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL BMPs AT THE SITE. TRAINED INDIVIDUALS ARE ALSO RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND COMPLIANCE WITH THE GENERAL PERMIT UNTIL THE CONSTRUCTION ACTIVITIES ARE COMPLETE. PERMANENT COVER HAS BEEN ESTABLISHED, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED. (CSW PERMIT ITEMS 5.20, 5.21, AND 11.9 AND SECTION 21)

THESE INDIVIDUALS WILL BE TRAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL PERMIT, INCLUDING THE REQUIREMENT THAT THE CONTENT AND EXTENT OF TRAINING WILL BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES.

BELOW IS A LIST OF PEOPLE RESPONSIBLE FOR THIS PROJECT WHO ARE KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPs.

<u>TRAINED INDIVIDUAL</u>	<u>RESPONSIBILITY</u>	<u>TRAINING ENTITY*</u>	<u>TRAINING DATE</u>
TBD	CONSTRUCTION SITE MANAGEMENT	TBD	TBD
TBD	PERFORMANCE OF SWPPP INSPECTIONS	TBD	TBD
TBD	PERFORMANCE OR SUPERVISION OF INSTALLATION, MAINTENANCE, AND REPAIR OF BMPs	TBD	TBD

\*TRAINING DOCUMENTATION AVAILABLE UPON REQUEST.

6.2 FREQUENCY OF INSPECTIONS: A TRAINED PERSON WILL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE. (CSW PERMIT ITEMS 11.2, 11.10, AND 23.13)

- AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS

**INSPECTION FREQUENCY MAY BE ADJUSTED UNDER THE FOLLOWING CIRCUMSTANCES:**

- WHERE PARTS OF THE CONSTRUCTION AREAS HAVE PERMANENT COVER, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE AREAS WITH PERMANENT COVER MAY BE REDUCED TO ONCE PER MONTH.
- WHERE CONSTRUCTION AREAS HAVE PERMANENT COVER AND NO CONSTRUCTION ACTIVITY IS OCCURRING ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES.
- WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE INSPECTIONS MAY BE SUSPENDED. THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

6.3 INSPECTION REQUIREMENTS: EACH CONSTRUCTION STORMWATER SITE INSPECTION SHALL INCLUDE INSPECTION OF THE FOLLOWING AREAS. (CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs AND POLLUTION PREVENTION MANAGEMENT MEASURES
- SURFACE WATERS FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION
- CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING
- STREETS AND OTHER AREAS ADJACENT TO THE PROJECT FOR EVIDENCE OF OFF SITE ACCUMULATIONS OF SEDIMENT

6.4 MAINTENANCE REQUIREMENTS: MAINTENANCE OF THE FOLLOWING AREAS AND BMPS SHALL BE PERFORMED AS FOLLOWS:  
(CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- NONFUNCTIONAL BMPs WILL 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 ACCESS.
- PERIMETER CONTROL DEVICES WILL BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
- TEMPORARY AND PERMANENT SEDIMENTATION BASINS WILL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
- DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS WILL BE REMOVED, AND THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL WILL BE RE-STABILIZED. THE REMOVAL AND STABILIZATION WILL BE COMPLETED WITHIN 7 CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED DUE TO ACCESS CONSTRAINTS, REASONABLE EFFORTS TO OBTAIN ACCESS WILL BE USED. REMOVAL AND STABILIZATION WILL TAKE PLACE WITHIN 7 CALENDAR DAYS OF OBTAINING ACCESS.
- TRACKED SEDIMENT ON PAVED SURFACES WILL BE REMOVED WITHIN 1 CALENDAR DAY OF DISCOVERY.
- AREAS UNDERGOING STABILIZATION WILL BE RE-STABILIZED AS NECESSARY TO ACHIEVE REQUIRED COVER.

**6.5 RECORDKEEPING REQUIREMENTS: (CSW PERMIT ITEMS 11.11 AND 24.5 AND SECTIONS 6 AND 20)**

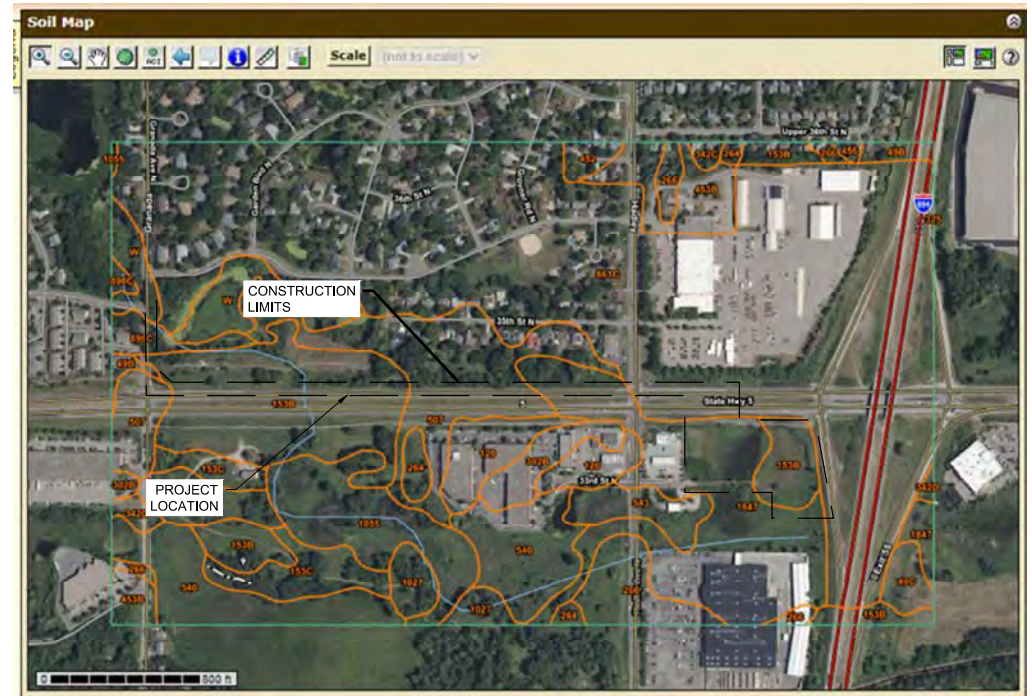
1. ALL INSPECTIONS AND MAINTENANCE ACTIVITIES MUST BE RECORDED IN WRITING WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE THE DATE AND TIME; NAME OF INSPECTOR(S); FINDINGS OF INSPECTIONS; CORRECTIVE ACTIONS (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND DATE OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS AND THE AMOUNT OF RAINFALL FOR EACH EVENT.
  - a. IF ANY DISCHARGE IS OBSERVED DURING THE INSPECTION, DOCUMENT THE LOCATION AND APPEARANCE OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS), AND A PHOTOGRAPH OF THE DISCHARGE.
2. THE SWPPP WILL BE AMENDED TO INCLUDE ADDITIONAL OR MODIFIED BMPs TO CORRECT PROBLEMS OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER, OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
  - a. THE SWPPP WILL BE AMENDED WHEN INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER, OPERATOR, OR CONTRACTORS OR BY USEPA/MPCA OFFICIALS INDICATE THAT THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER; THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES; OR THE SWPPP IS NOT CONSISTENT WITH A USEPA APPROVED TMDL.
  - b. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION WILL BE DOCUMENTED AS REQUIRED WITHIN 7 CALENDAR DAYS.
  - c. AMENDMENTS WILL BE COMPLETED BY AN APPROPRIATELY TRAINED INDIVIDUAL. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP WILL INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
3. RECORDS RETENTION: THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITEE WHO HAS OPERATIONAL CONTROL OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER A FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.
4. RECORD AVAILABILITY: THE PERMITTEES MUST MAKE THE SWPPP, INCLUDING INSPECTION REPORTS, MAINTENANCE RECORDS, AND TRAINING RECORDS, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT COVERAGE AND FOR THREE YEARS FOLLOWING THE NOT.

## 7.0 POLLUTION PREVENTION MEASURES:

1. ANY CONSTRUCTION PRODUCTS AND LANDSCAPE MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS SHALL BE STORED UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.2)
2. PESTICIDES, FERTILIZERS, AND TREATMENT CHEMICALS WILL BE STORED UNDER COVER (E.G., PLASTIC SHEETING, TEMPORARY ROOFS, WITHIN A BUILDING, OR IN WEATHER-PROOF CONTAINERS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.3)
3. HAZARDOUS MATERIALS AND TOXIC WASTE (E.G., OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) SHALL BE STORED AND DISPOSED OF IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7045, INCLUDING SECONDARY CONTAINMENT (AS APPLICABLE). HAZARDOUS MATERIALS SHALL BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGES AND PREVENT PRECIPITATION FROM FALLING ONTO THE CONTAINERS OR STORED HAZARDOUS MATERIALS. (CSW PERMIT ITEMS 2.3 AND 12.4)
4. SOLID WASTE SHALL BE COLLECTED, STORED, AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7035. THIS INCLUDES STORAGE WITHIN COVERED TRASH CONTAINERS AND DAILY REMOVAL OF LITTER AND DEBRIS. STORAGE OF SOLID WASTE WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.5)
5. PORTABLE TOILETS WILL BE LOCATED AWAY FROM SURFACE WATERS AND POSITIONED AND SECURED TO THE GROUND SO THEY WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE WILL BE DISPOSED OF IN ACCORDANCE WITH MINNESOTA RULES, CHAPTER 7041. PORTABLE TOILETS WILL BE PERIODICALLY EMPTIED AND THE WASTE HAULED OFF-SITE BY A LICENSED HAULER. (CSW PERMIT ITEM 12.6)
6. VEHICLE FUELING WILL ONLY OCCUR IN DESIGNATED AREAS. SPILL KITS SIZED APPROPRIATELY FOR THE AMOUNT OF REFUELING TAKING PLACE WILL BE LOCATED. SPILL KITS WILL BE CLEARLY LABELED AND CONTAIN MATERIALS TO ASSIST IN SPILL CLEANUP INCLUDING ABSORBENT PADS, BOOMS FOR CONTAINING SPILLS, AND HEAVY-DUTY PROTECTIVE GLOVES. SPILLS WILL BE REPORTED TO THE MINNESOTA DUTY OFFICER AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061. (CSW PERMIT ITEMS 2.3 AND 12.7)
  - a. ANY FUEL TANKS BROUGHT ON-SITE WILL HAVE PROPERLY SIZED CONTAINMENT AND WILL NOT BE TOPPED OFF TO AVOID SPILLS FROM OVERFILLING. FUEL TANKS WILL MEET INDUSTRY STANDARDS (DESIGNED TO HOLD FUEL TYPE, PROPERLY MAINTAINED, NOT ILLEGALLY MODIFIED, NOT MISSING LEAK INDICATOR FLOATS FOR DOUBLE WALLED TANKS, SIGHT GAUGES NOT USED, ETC.) OR BE REMOVED FROM THE WORK AREA.
  - b. GUIDELINES FOR SPILL PREVENTION AND RESPONSE INCLUDE:
    - TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED, INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE;
    - PERFORM REGULAR PREVENTATIVE MAINTENANCE ON TANKS AND FUEL LINES;
    - INSPECT PUMPS, CYLINDERS, HOSES, VALVES, AND OTHER MECHANICAL EQUIPMENT ON-SITE FOR DAMAGE OR DETERIORATION;
    - DO NOT WASH OR RINSE FUELING AREAS WITH WATER;
    - MAINTAIN ADEQUATE SUPPLIES TO CLEAN UP DISCHARGED MATERIALS AND PROVIDE AN APPROPRIATE DISPOSAL METHOD FOR RECOVERED SPILLED MATERIALS;
    - REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE; AND
    - MAINTAIN COPIES OF SAFETY DATA SHEETS (SDSS) FOR HAZARDOUS MATERIALS ON-SITE IN LOCATIONS READILY AVAILABLE TO EMERGENCY RESPONDERS.
7. IF VEHICLE AND EQUIPMENT WASHING IS NECESSARY, A VEHICLE WASH STATION WILL BE LOCATED IN A DESIGNATED AREA. RUNOFF FROM THE WASHING AREA WILL BE CONTAINED IN A SEDIMENT BASIN AND WASTE FROM THE WASHING ACTIVITY WILL BE PROPERLY DISPOSED OF. ANY SOAPS, DETERGENTS, OR SOLVENTS WILL BE PROPERLY USED AND STORED. ANY DETERGENTS AND OTHER CLEANERS NOT PERMITTED FOR DISCHARGE WILL NOT BE USED. (CSW PERMIT ITEMS 2.3 AND 12.8)
8. THE PROJECT WILL RESULT IN CONCRETE OR OTHER WASHOUT ACTIVITIES. BELOW IS A DESCRIPTION OF THE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND. (CSW PERMIT ITEMS 2.3 AND 12.9)
  - a. CONTRACTOR SHALL NOT BE ALLOWED TO SET UP A CONCRETE WASHOUT STATION ON-SITE. EXAMPLES OF APPROPRIATE CONCRETE WASHOUT PRACTICES INCLUDE:
    - PUTTING ALL WASHOUT WATER BACK INTO CONCRETE TRUCKS FOR CONCRETE VENDOR TO MANAGE AT THEIR FACILITY.
  - b. THE CONCRETE WASHOUT WATER FOR CONCRETE TRUCK CHUTE AND TOOLS WILL ALSO NOT TOUCH THE GROUND. THIS PAUL OF WASH WATER CAN BE PUT BACK INTO THE CONCRETE TRUCK.

## 8.0 PERMANENT COVER AND PERMIT TERMINATION CONDITIONS:

1. THE AREAS DISTURBED DURING CONSTRUCTION WILL BE STABILIZED WITH PERMANENT COVER UPON COMPLETION OF WORK. PERMANENT COVER MAY BE VEGETATIVE OR NON-VEGETATIVE, AS APPROPRIATE. ESTABLISHMENT OF PERMANENT COVER MAY INCLUDE THE FOLLOWING ACTIVITIES: PLACEMENT OF EROSION CONTROL BLANKET, PLACEMENT OF TURF REINFORCING MAT, UPLAND ZONE SEED MIXES AND PLUGS, WETLAND MEADOW SEED MIXES AND PLUGS, AND BITUMINOUS SURFACES. (CSW PERMIT ITEM 5.17)
2. FOR A CONSTRUCTION-SITE TO ACHIEVE "PERMANENT COVER", THE FOLLOWING REQUIREMENTS MUST BE COMPLETED PRIOR TO TERMINATION OF PERMIT COVERAGE (CSW PERMIT SECTIONS 4 AND 13):
  - a. ALL SOIL DISTURBING CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND PERMANENT COVER HAS BEEN INSTALLED OVER ALL AREAS. VEGETATIVE COVER CONSISTS OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70% OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION (SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER).
  - b. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS, INCLUDING CULVERTS.
  - c. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPs HAVE BEEN REMOVED. BMPs DESIGNED TO DECOMPOSE ON-SITE MAY BE LEFT IN PLACE.
3. SUBMIT A NOTICE OF TERMINATION (NOT) FORM TO THE MPCA WITHIN 30 DAYS AFTER THE TERMINATION CONDITIONS ARE COMPLETE.



SOURCE:USDA

PRELIMINARY SWPPP

DRAFT  
NOT FOR CONSTRUCTION

[illegible]



CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23820047.31\_SW\1.2 EROSION CONTROL PLANNING PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 11:15 AM

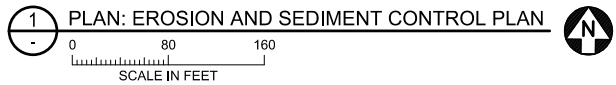


EXISTING CONDITIONS LEGEND

- 890 5 FT CONTOUR
- 889 1 FT CONTOUR
- >> STORM SEWER
- E ELECTRIC
- OU OVERHEAD UTILITY
- FO FIBER OPTIC
- CURB
- | WATER
- G NATURAL GAS LINE
- WT WETLAND
- FENCE
- X X SITE FENCE
- SANITARY SEWER
- PARCEL BOUNDARY
- STORM SEWER MANHOLE
- STORM SEWER CATCH BASIN
- ⊗ POTABLE WATER VALVE
- ⊗ DECIDUOUS TREE - DIAMETER
- ⊗ CONIFEROUS TREE - DIAMETER
- SIGN
- ⊞ HAND HOLE
- ⊞ POWER POLE
- ⊞ ELECTRIC MANHOLE
- ⊞ TRAFFIC SIGNAL
- ⊞ TELEPHONE MANHOLE
- ⊞ PUSH BUTTON
- ⊞ CABLE BOX
- ⊞ ELECTRICAL METER
- ⊞ SANITARY MANHOLE
- ⊞ LIGHT POLE
- WETLAND FLOW LINE

EROSION CONTROL LEGEND

- STAKED SEDIMENT LOG
- Entrance/Storage
- - - CONSTRUCTION LIMITS



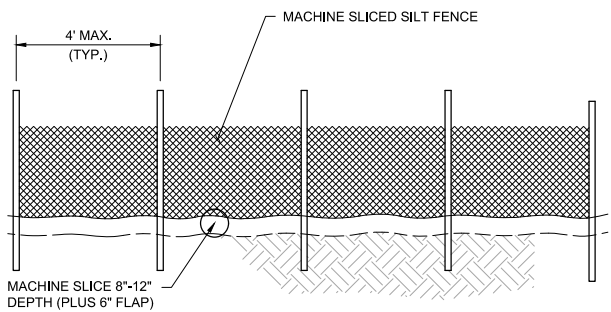
DRAFT  
NOT FOR CONSTRUCTION

A MRM DJF MRM 25SEP2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT 09/25/2024					<div><div></div><div>BARR</div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div> <div><div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div></div>					Scale AS SHOWN		3M OAKDALE, MN				OAKDALE DIVERSION OAKDALE, MN				BARR PROJECT No. 23/82-0047.35	
					BID										Date 09/25/2024										CLIENT PROJECT No.	
					CONSTRUCTION RECORD										Drawn JNJ/EMO											
															Checked MRM/DFJ/ADC											
					RELEASED TO/FOR										Designed BARR						EROSION AND SEDIMENT CONTROL PLAN		DWG. No. SW1.2		REV. No. A	
NO. BY CHK APP. DATE REVISION DESCRIPTION					A B C 0 1 2 3 DATE RELEASED					Approved --																

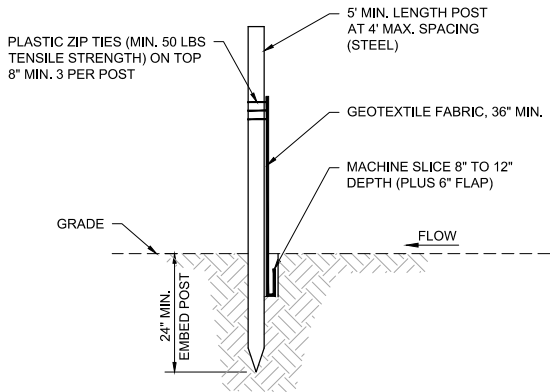




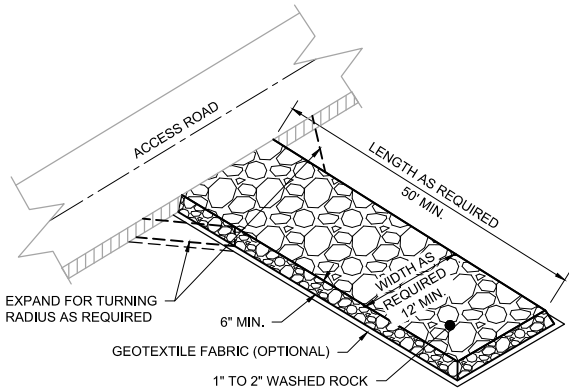
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DOWNSTREAM VIEW



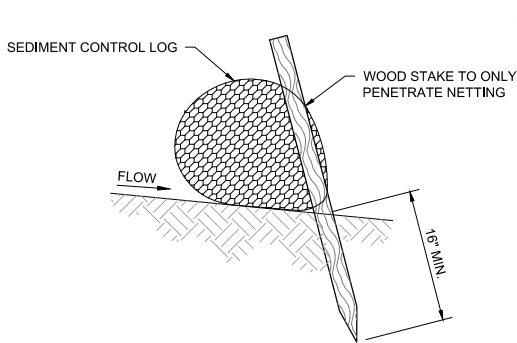
SECTION VIEW



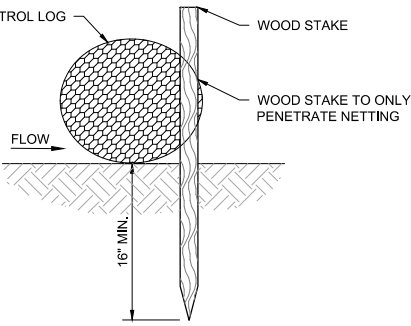
NOTES:

1. MAINTAIN ENTRANCE/EXIT THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACE AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. REMOVE ENTRANCE/EXIT IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.

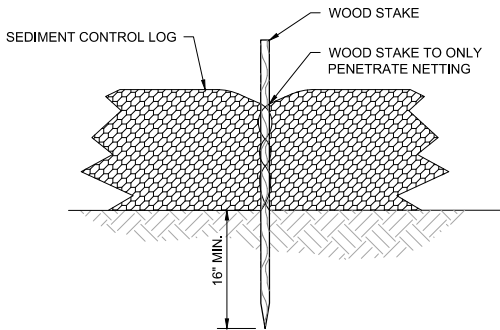
2  
-  
DETAIL: CONSTRUCTION ENTRANCE/EXIT - ROCK  
NOT TO SCALE



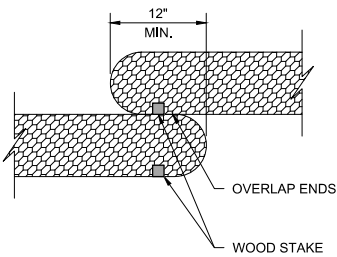
SIDE VIEW ON SLOPE



SIDE VIEW FLAT



FRONT VIEW

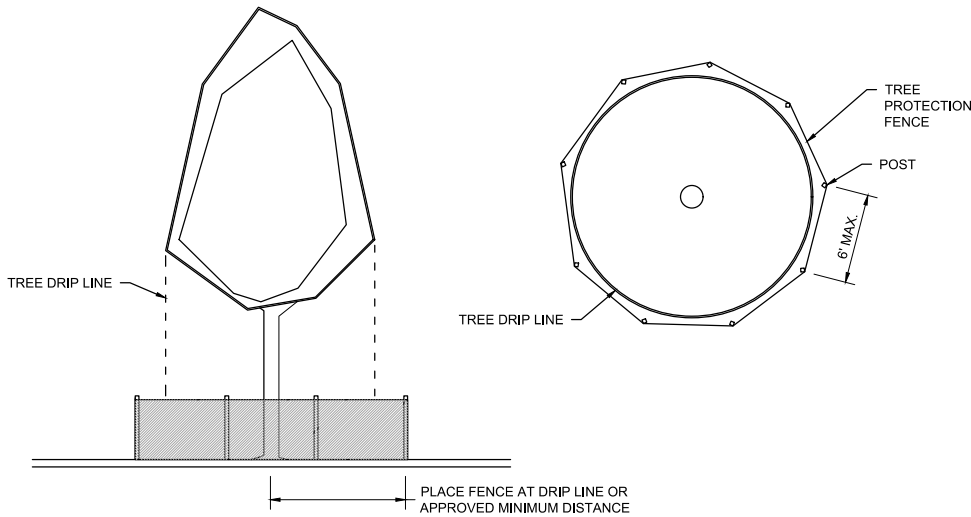


TOP VIEW

NOTES:

1. INSTALL SEDIMENT CONTROL LOG ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT CONTROL LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/2 OF LOG HEIGHT.
4. MAINTAIN SEDIMENT CONTROL LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACED AS REQUIRED.

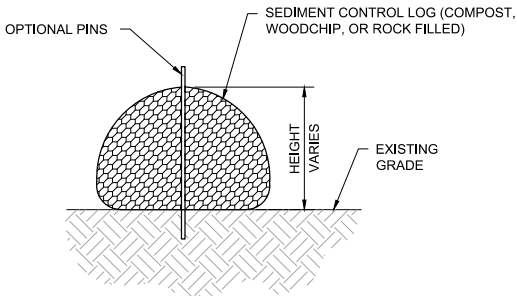
3  
-  
DETAIL: SEDIMENT CONTROL LOG - STAKING  
NOT TO SCALE



NOTES:

1. TREE PROTECTION FENCING SHALL BE INSTALLED ACCORDING TO PLAN PRIOR TO DEMOLITION OR OTHER SITE WORK. ANY RELOCATION OF THE TREE PROTECTION FENCING TO BE APPROVED BY CITY FORESTER. TREE PROTECTION FENCING SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS.
2. CONSTRUCTION MATERIALS, STOCKPILES, EQUIPMENT, VEHICLES, AND TEMPORARY FACILITIES SHALL NOT BE STORED OR OPERATED WITHIN THE TREE PROTECTION ZONE.
3. ROOTS OUTSIDE OF THE TREE PROTECTION ZONE EXPOSED OR DAMAGED DURING EXCAVATION OR OTHER CONSTRUCTION ACTIVITY SHALL BE CLEANLY CUT AS DIRECTED BY THE CITY FORESTER.
4. ADDITIONAL TREE PROTECTION MEASURES MAY BE REQUIRED.

4  
-  
DETAIL: TREE PROTECTION FENCING  
NOT TO SCALE



NOTES:

1. STAKE FREE SEDIMENT CONTROL LOG TO BE USED IN AREAS THAT ARE RELATIVELY FLAT AND SHOULD BE INSTALLED ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT CONTROL LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN REACHING 1/2 OF LOG HEIGHT.
4. SEDIMENT CONTROL LOG SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED.

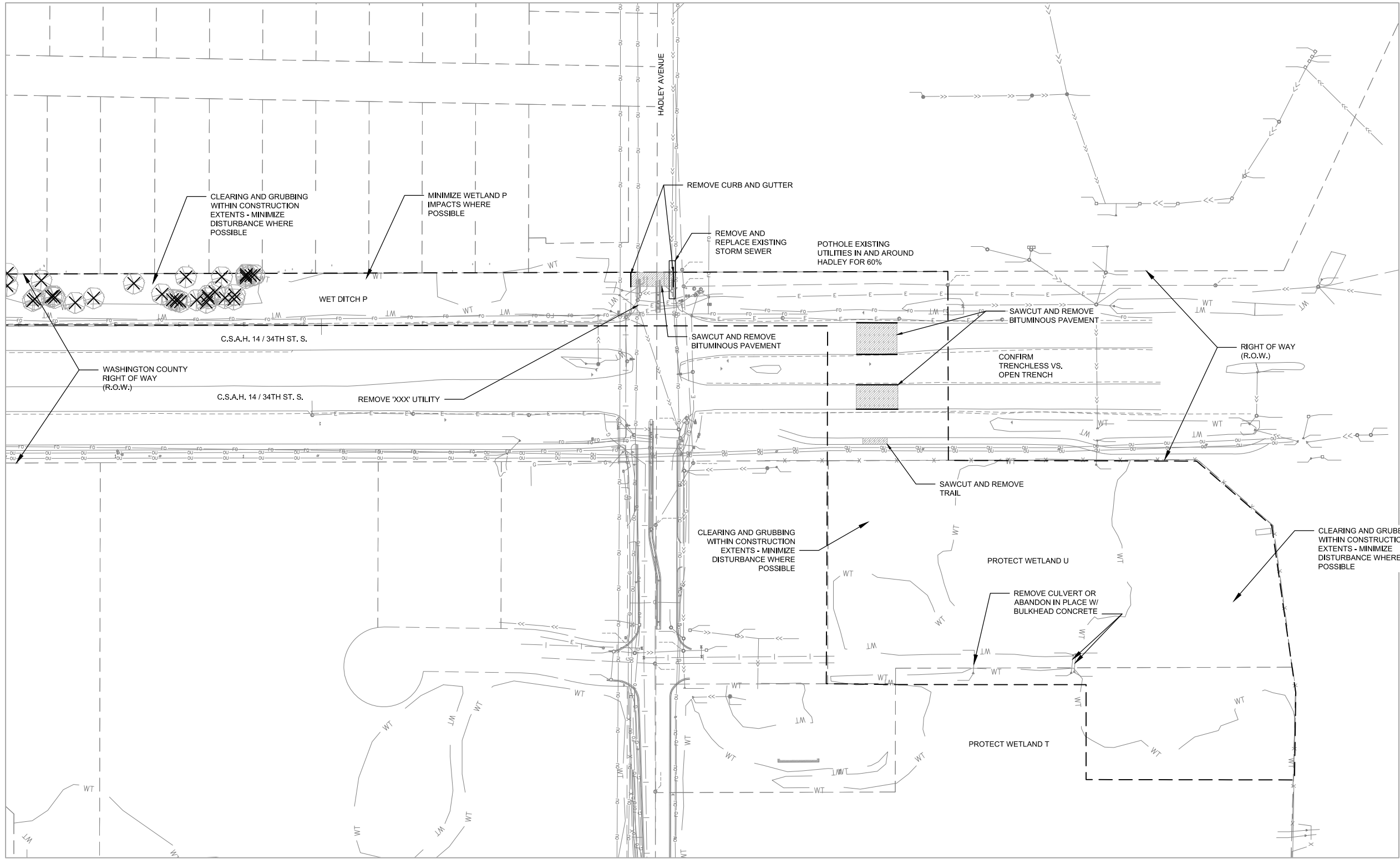
5  
-  
DETAIL: SEDIMENT CONTROL LOG - STAKE FREE  
NOT TO SCALE

MRM						DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION						CLIENT						09/25/2024						<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 www.barr.com</div></div>						Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435						Scale		AS SHOWN		<div><div>3M</div><div>OAKDALE, MINNESOTA</div></div>										OAKDALE DIVERSION OAKDALE, MN										BARR PROJECT No. 23/820047.35					
MRM						DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION						CLIENT PROJECT No.						Date		09/25/2024																																													
MRM						DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION						RECORD						Drawn		JN/J/EMO		EROSION AND SEDIMENT CONTROL DETAILS										DWG. No. SW-1.4						REV. No. A																											
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MRM						DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION						RECORD						Designed		BARR		-																																											
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CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23820047\_21\_C1.1 REMOVALS.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 10:54 AM



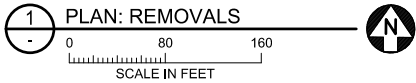
EXISTING CONDITIONS LEGEND

- 890 5 FT CONTOUR
- 889 1 FT CONTOUR
- >> STORM SEWER
- E ELECTRIC
- OU OVERHEAD UTILITY
- FO FIBER OPTIC
- ===== CURB
- | WATER
- G NATURAL GAS LINE
- WT WETLAND
- FENCE
- X X SITE FENCE
- SANITARY SEWER
- - - - - PARCEL BOUNDARY
- STORM SEWER MANHOLE
- STORM SEWER CATCH BASIN
- ⊗ POTABLE WATER VALVE
- ⊙ SIGN
- ⊞ HAND HOLE
- ⊘ POWER POLE
- ⊕ ELECTRIC MANHOLE
- ⊡ TRAFFIC SIGNAL
- ⊙ TELEPHONE MANHOLE
- ⊙ PUSH BUTTON
- ⊡ CABLE BOX
- ⊡ ELECTRICAL METER
- ⊙ SANITARY MANHOLE
- ⊙ LIGHT POLE
- ← WETLAND FLOW LINE

REMOVALS LEGEND

- ===== CURB REMOVAL
- ▨ BITUMINOUS REMOVAL
- - - - - CONSTRUCTION LIMITS
- ⊗ TREE REMOVAL

NOTE:  
PROTECT ALL DELINEATED WETLAND UNLESS SPECIFICALLY IDENTIFIED FOR ALLOWABLE WETLAND IMPACTS.  
PROTECT ALL EXISTING UTILITIES UNLESS SPECIFICALLY IDENTIFIED FOR MODIFICATIONS.

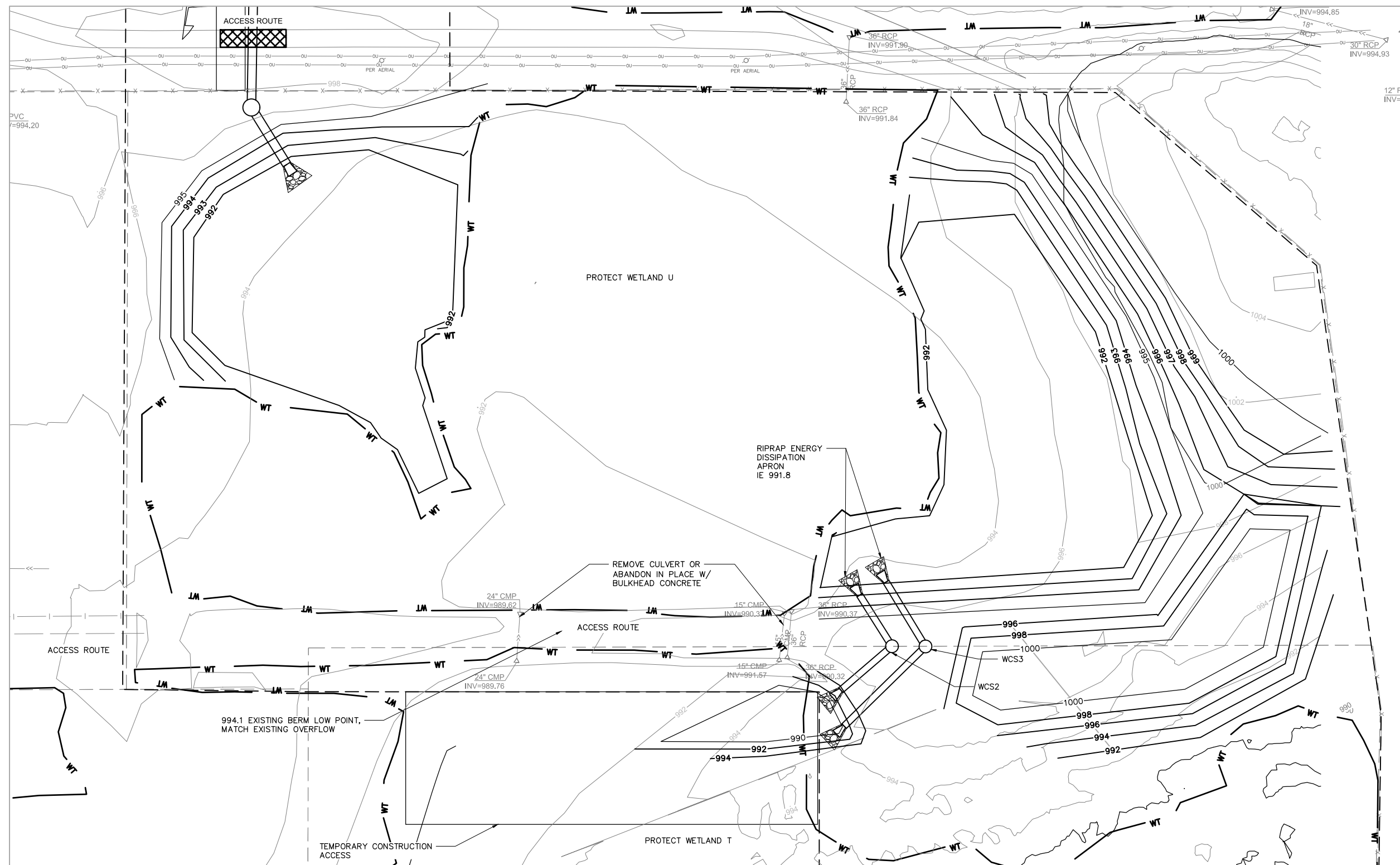


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NOT FOR CONSTRUCTION

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- ### EXISTING CONDITIONS LEGEND
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|  | 5 FT EXISTING ELEV. CONTOUR |
|  | 1 FT EXISTING ELEV. CONTOUR |
|  | 5 FT PROPOSED ELEV. CONTOUR |
|  | 1 FT PROPOSED ELEV. CONTOUR |
|  | STORM SEWER                 |
|  | ELECTRIC                    |
|  | OVERHEAD UTILITY            |
|  | FIBER OPTIC                 |
|  | CURB                        |
|  | WATER                       |
|  | NATURAL GAS LINE            |
|  | WETLAND                     |
|  | FENCE                       |
|  | SITE FENCE                  |
|  | SANITARY SEWER              |
|  | PARCEL BOUNDARY             |
|  | STORM SEWER MANHOLE         |
|  | STORM SEWER CATCH BASIN     |
|  | POTABLE WATER VALVE         |
|  | DECIDUOUS TREE - DIAMETER   |
|  | CONIFEROUS TREE - DIAMETER  |
|  | SIGN                        |
|  | HAND HOLE                   |
|  | POWER POLE                  |
|  | ELECTRIC MANHOLE            |
|  | TRAFFIC SIGNAL              |
|  | TELEPHONE MANHOLE           |
|  | PUSH BUTTON                 |
|  | CABLE BOX                   |
|  | ELECTRICAL METER            |
|  | SANITARY MANHOLE            |
|  | LIGHT POLE                  |
|  | WETLAND FLOW LINE           |

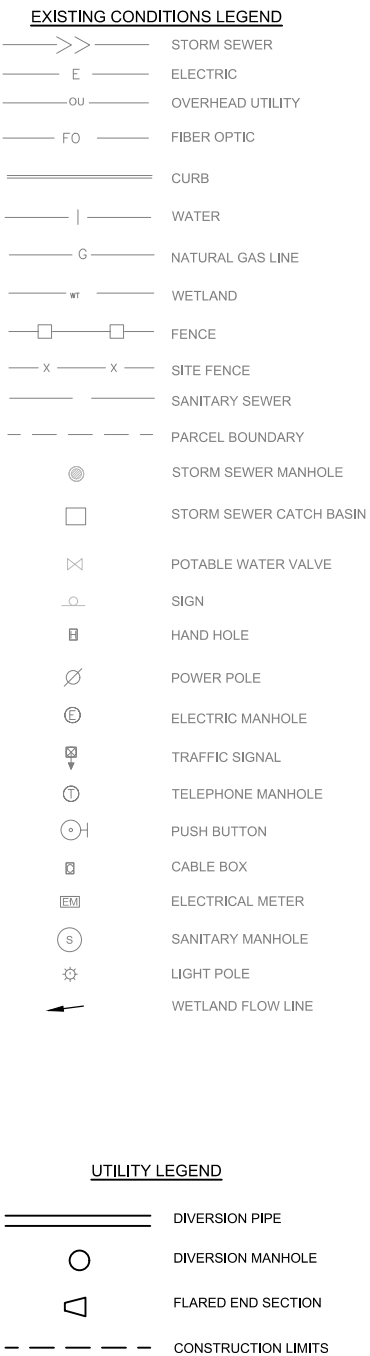
- PAVING LEGEND

	CURB PAVING
	ROAD PAVING
	TRAIL PAVING

NOTE:  
THIS PAVING PLAN IS PRELIMINARY.  
SEE TRANSPORTATION DRAWING SET FOR  
ROADWAY, PAVING, DETOUR AND MN STATE-AID  
DESIGN INFORMATION (BY OTHERS)

DRAFT  
NOT FOR CONSTRUCTION

[illegible]



PLAN: OVERALL UTILITY

0 150 300

SCALE IN FEET

N

RUNOFF EVENTS	EXISTING PEAK FLOW (CFS)	PROPOSED PEAK FLOW (CFS)
2-YEAR 24-HOUR (2.8 INCHES)	167.4	158.5
10-YEAR 24-HOUR (4.2 INCHES)	205.64	199.5
100-YEAR 24-HOUR (7.3 INCHES)	239.4	235.5
100-YEAR 10-DAY SNOWMELT (7.2 INCHES)	125.4	125.4

2 TABLE: UPSTREAM BOUNDARY CONDITIONS SUMMARY:  
- EXISTING VS. PROPOSED STORMWATER PEAK WSE (MODEL NODE RLE-940)

3 TABLE: DOWNSTREAM BOUNDARY CONDITIONS SUMMARY:  
EXISTING VS. PROPOSED STORMWATER PEAK WSE (MODEL NODE  
RLE-940)

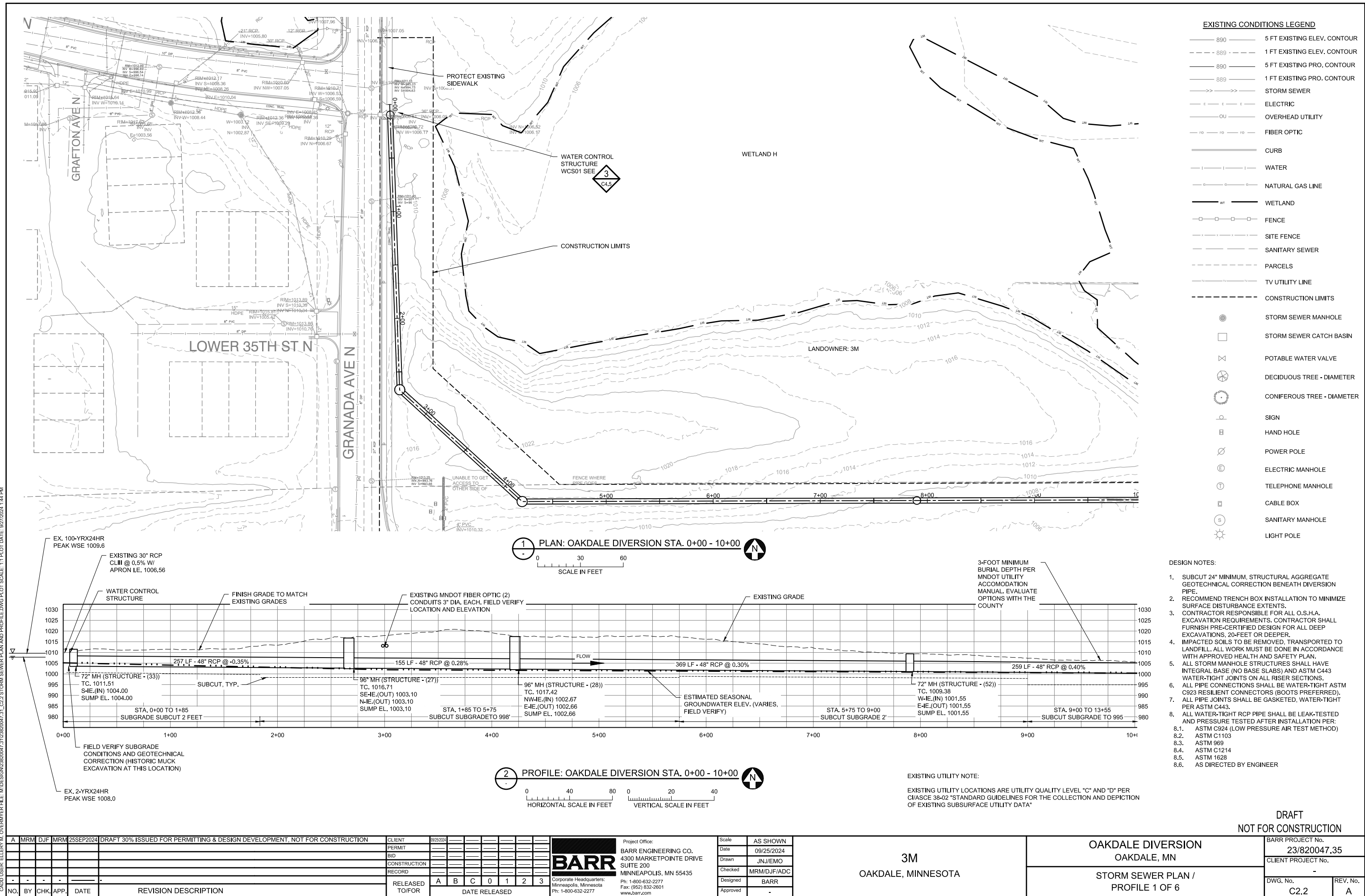
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NOT FOR CONSTRUCTION

A MRM DJF MRM 25SEP2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION										CLIENT 09/25/2024										<div><div></div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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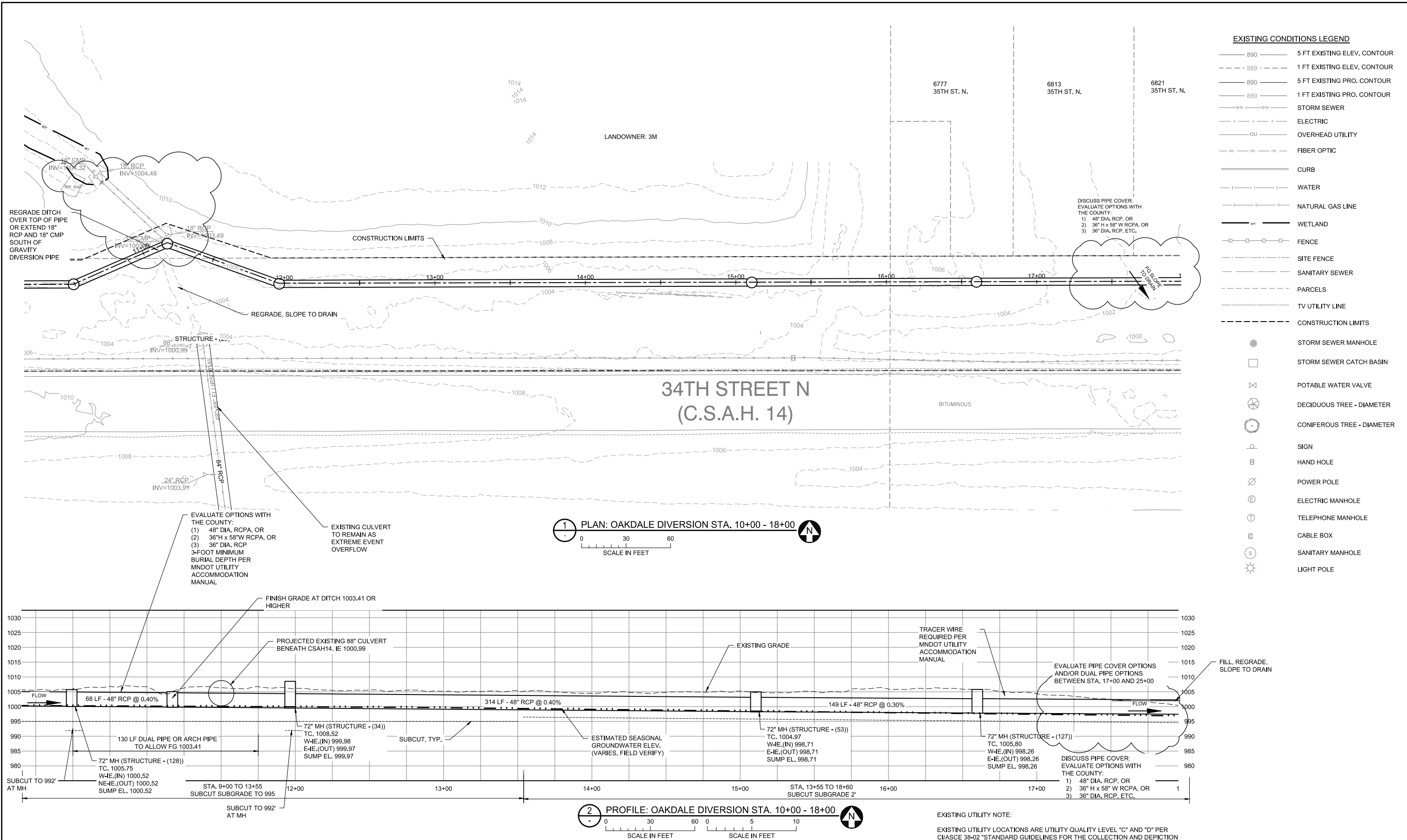
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23820047.31 C2.0 OVERALL UTILITY PLAN.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 8:43 AM











DRAFT  
NOT FOR CONSTRUCTION

OAKDALE DIVERSION  
OAKDALE, MN

STORM SEWER PLAN /  
PROFILE 2 OF 6

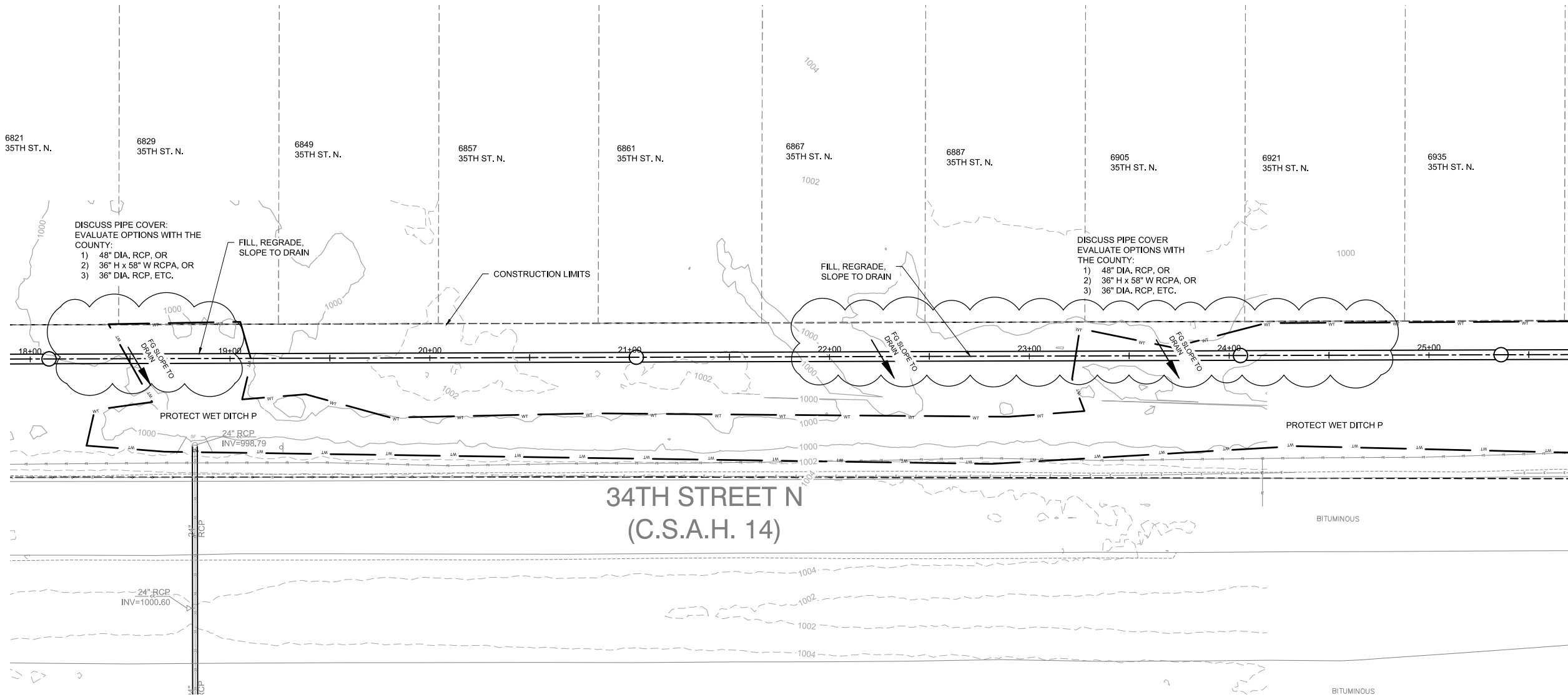
BARR PROJECT No.  
23/820047.35

CLIENT PROJECT NO. \_\_\_\_\_

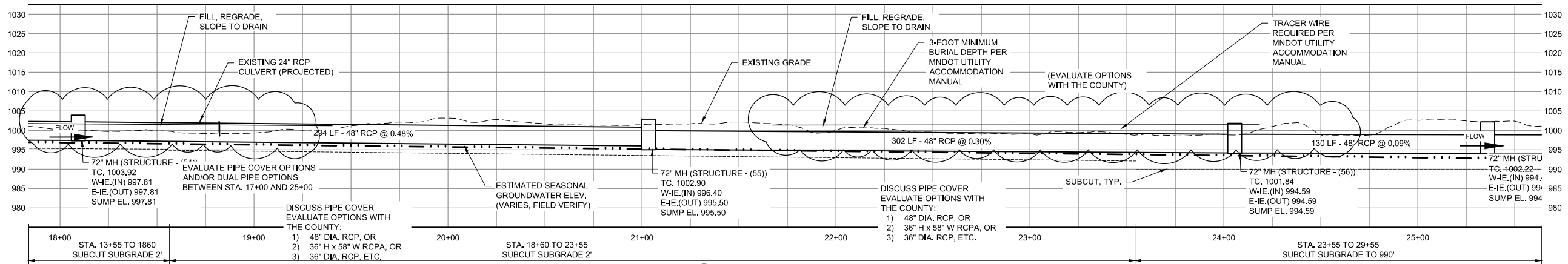
DWG. No.	RE
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C2.3	
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CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23020047\_31\_C2.2 STORM SEWER PLAN AND PROFILE.DWG PLOT SCALE: 1:1 PLOT DATE: 09/27/2024 1:44 PM



1 PLAN: OAKDALE DIVERSION STA. 18+00 - 25+50



2 PROFILE: OAKDALE DIVERSION STA. 18+00 - 25+50

- EXISTING CONDITIONS LEGEND**
- 890 5 FT EXISTING ELEV. CONTOUR
  - 889 1 FT EXISTING ELEV. CONTOUR
  - 890 5 FT EXISTING PRO. CONTOUR
  - 889 1 FT EXISTING PRO. CONTOUR
  - STORM SEWER
  - ELECTRIC
  - OVERHEAD UTILITY
  - FIBER OPTIC
  - CURB
  - WATER
  - NATURAL GAS LINE
  - WETLAND
  - FENCE
  - SITE FENCE
  - SANITARY SEWER
  - PARCELS
  - TV UTILITY LINE
  - CONSTRUCTION LIMITS
  - STORM SEWER MANHOLE
  - STORM SEWER CATCH BASIN
  - POTABLE WATER VALVE
  - DECIDUOUS TREE - DIAMETER
  - CONIFEROUS TREE - DIAMETER
  - SIGN
  - HAND HOLE
  - POWER POLE
  - ELECTRIC MANHOLE
  - TELEPHONE MANHOLE
  - CABLE BOX
  - SANITARY MANHOLE
  - LIGHT POLE

EXISTING UTILITY NOTE:  
EXISTING UTILITY LOCATIONS ARE UTILITY QUALITY LEVEL "C" AND "D" PER  
C/ASCE 38-02 "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION  
OF EXISTING SUBSURFACE UTILITY DATA"

DRAFT  
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
1	MRM	DJF	MRM	25SEP2024	DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION
2					
3					
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6					
7					
8					
9					
10					

CLIENT	PERMIT	BID	CONSTRUCTION	RECORD	RELEASED TO/FOR	DATE RELEASED
BARR ENGINEERING CO.						
4300 MARKETPOINTE DRIVE						
SUITE 200						
MINNEAPOLIS, MN 55435						
Corporate Headquarters:						
Minneapolis, Minnesota						
Ph: 1-800-632-2277						
Fax: (952) 832-2601						
www.barr.com						

Scale	AS SHOWN
Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

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Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

Scale	AS SHOWN
Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

Scale	AS SHOWN
Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

Scale	AS SHOWN
Date	09/25/2024
Drawn	JNJ/EMO
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Approved	-

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Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

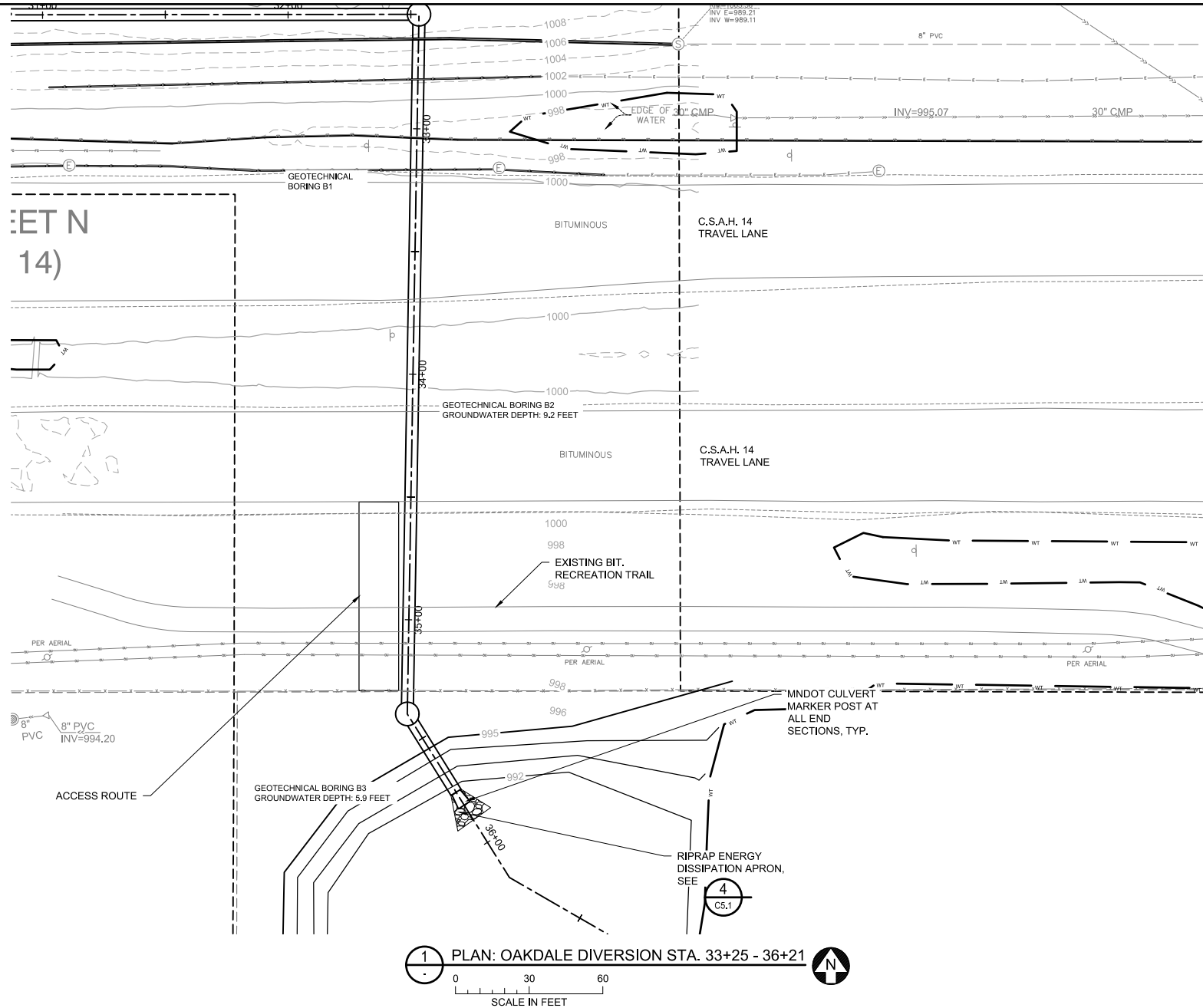
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Date	09/25/2024
Drawn	JNJ/EMO
Checked	MRM/DFJ/ADC
Designed	BARR
Approved	-

OAKDALE DIVERSION	
OAKDALE, MN	
STORM SEWER PLAN /	
PROFILE 3 OF 6	

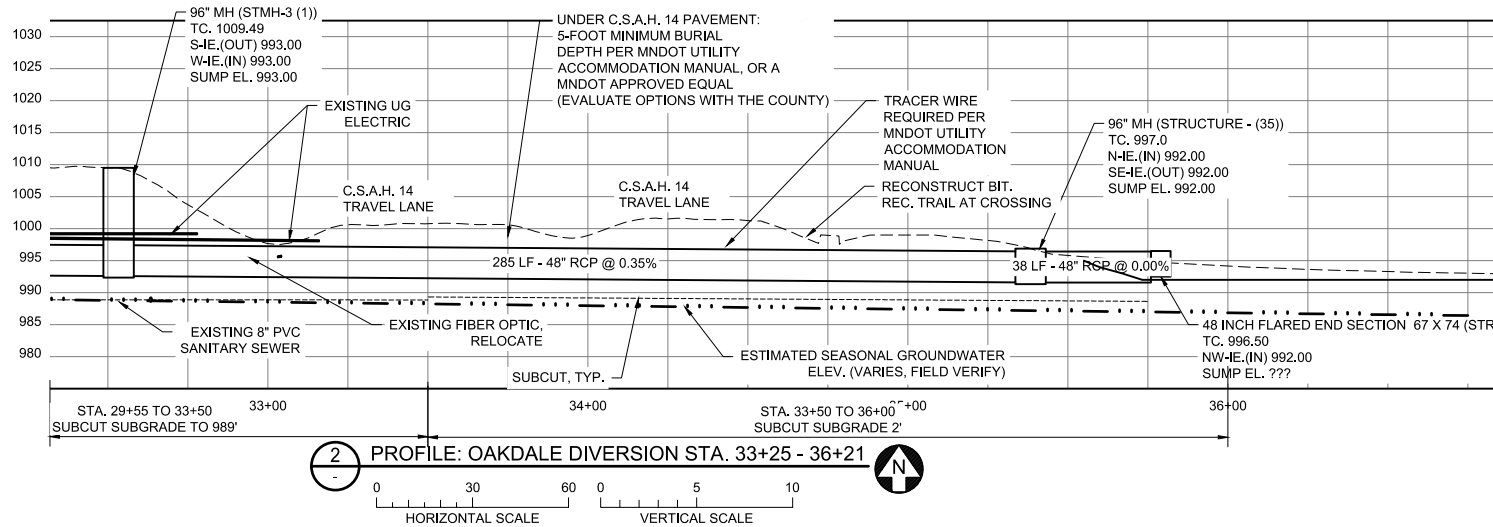




CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23820047\_21\23820047\_21\_C2.2 STORM SEWER PLAN AND PROFILE.DWG PLOT SCALE: 1:1 PLOT DATE: 09/27/2024 9:24 AM



- EXISTING CONDITIONS LEGEND**
- 890 5 FT EXISTING ELEV. CONTOUR
  - 889 1 FT EXISTING ELEV. CONTOUR
  - 890 5 FT PROPOSED ELEV. CONTOUR
  - 889 1 FT PROPOSED ELEV. CONTOUR
  - STORM SEWER
  - ELECTRIC
  - OVERHEAD UTILITY
  - FIBER OPTIC
  - CURB
  - WATER
  - NATURAL GAS LINE
  - WETLAND
  - FENCE
  - SITE FENCE
  - SANITARY SEWER
  - PARCELS
  - TV UTILITY LINE
  - CONSTRUCTION LIMITS
  - STORM SEWER MANHOLE
  - STORM SEWER CATCH BASIN
  - POTABLE WATER VALVE
  - DECIDUOUS TREE - DIAMETER
  - CONIFEROUS TREE - DIAMETER
  - SIGN
  - HAND HOLE
  - POWER POLE
  - ELECTRIC MANHOLE
  - TELEPHONE MANHOLE
  - CABLE BOX
  - SANITARY MANHOLE
  - LIGHT POLE

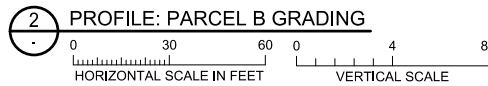
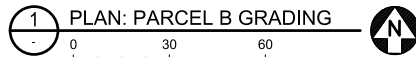
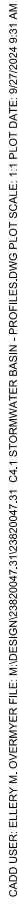


EXISTING UTILITY NOTE:  
EXISTING UTILITY LOCATIONS ARE UTILITY QUALITY LEVEL "C" AND "D" PER  
C/ASCE 38-02 "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION  
OF EXISTING SUBSURFACE UTILITY DATA"

DRAFT  
NOT FOR CONSTRUCTION

A MRM DJF MRM 25SEP2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT 09/25/2024					Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435					Scale AS SHOWN					3M OAKDALE, MINNESOTA					OAKDALE DIVERSION OAKDALE, MN					BARR PROJECT No. 23/82-0047.35				
					PERMIT					Date 09/25/2024					Drawn JNJ/EMO										CLIENT PROJECT No. -									
					CONSTRUCTION					Checked MRM/DFJ/ADC					Designed BARR										DWG. No. C2.6					REV. No. A				
					RECORD					Approved -																								
NO. BY CHK. APP. DATE					REVISION DESCRIPTION					RELEASED TO/FOR					DATE RELEASED																			



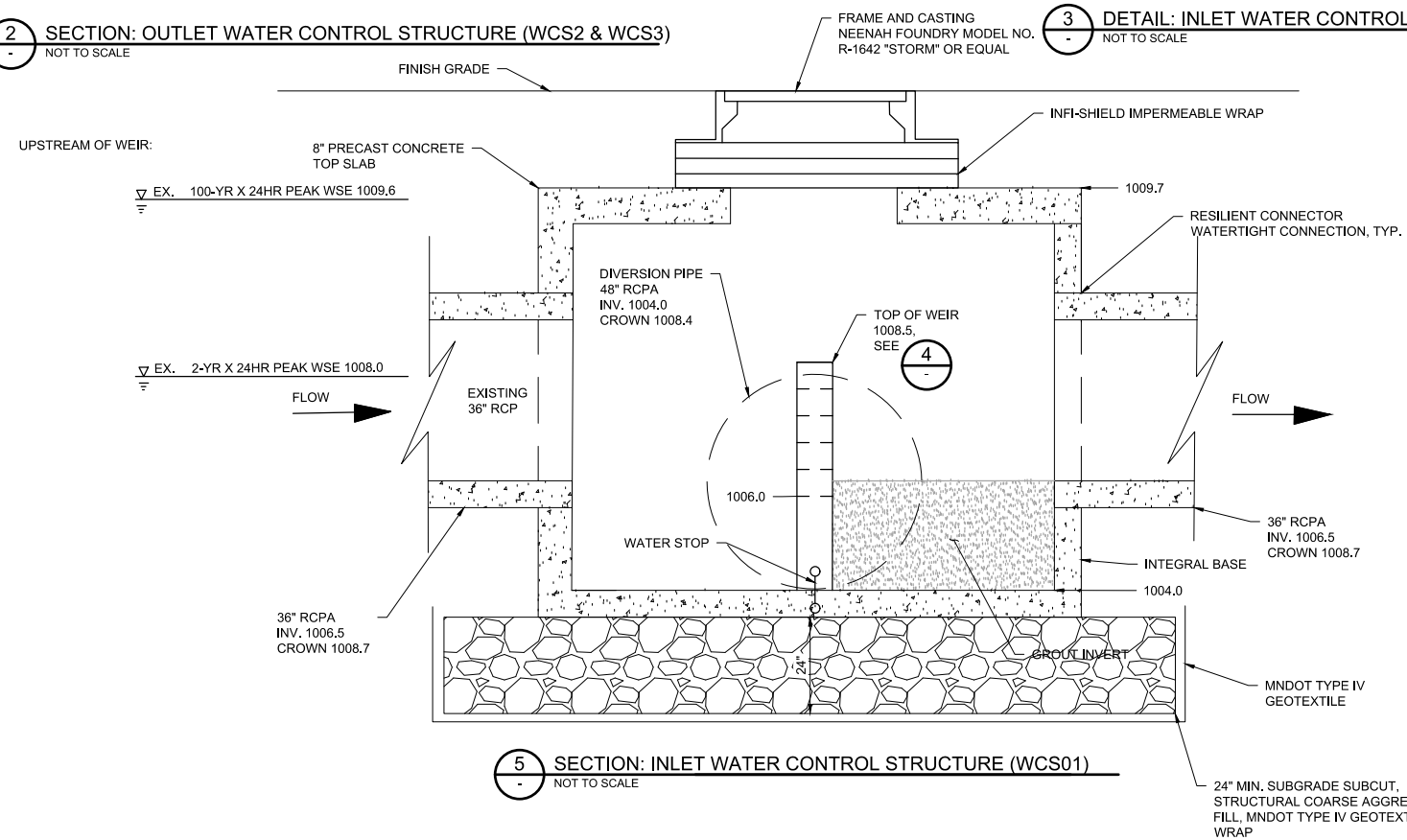
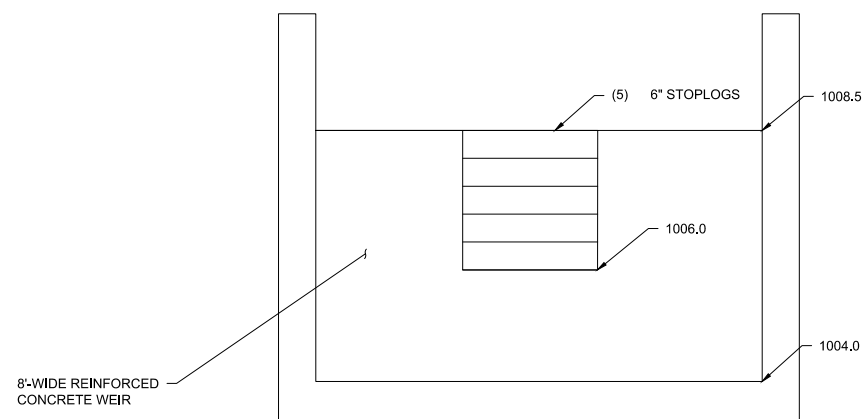
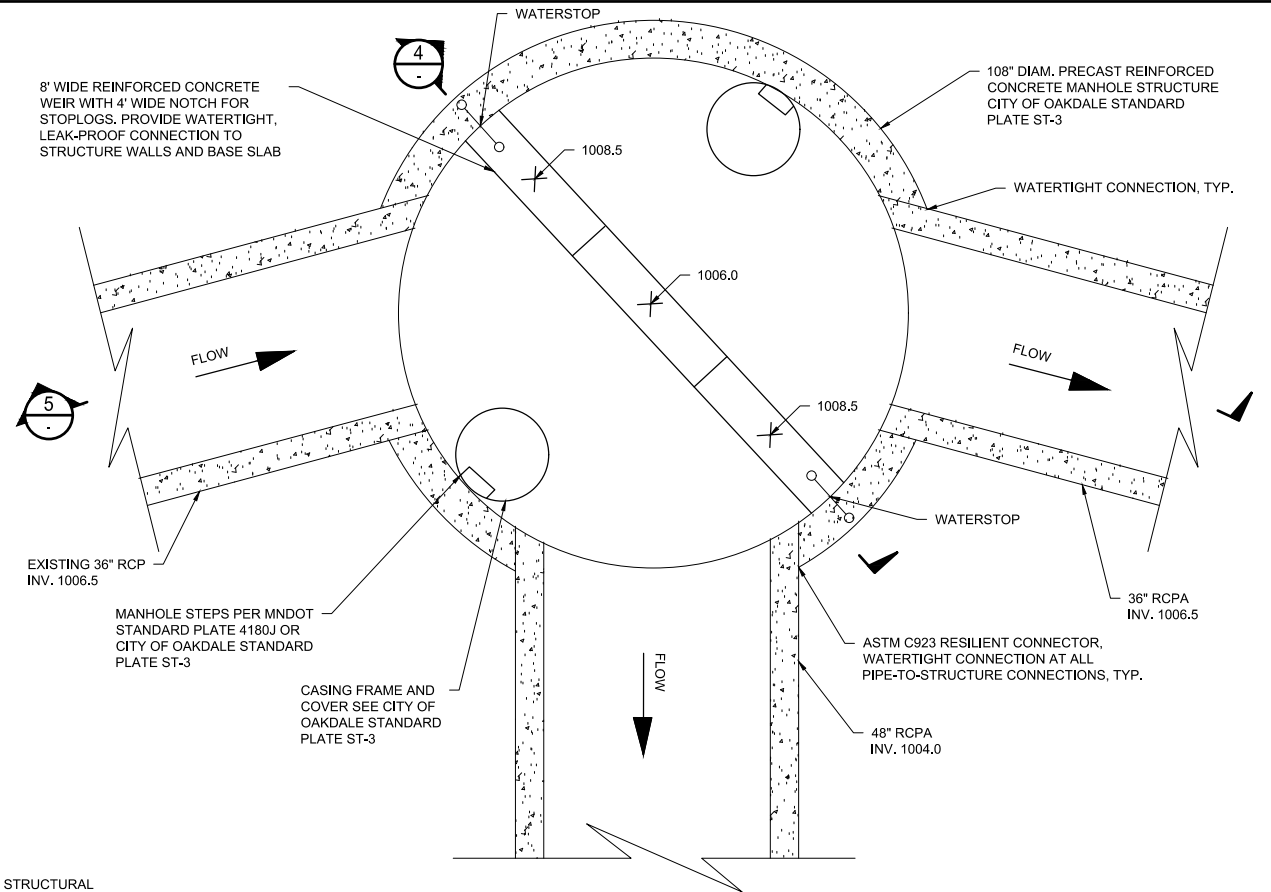
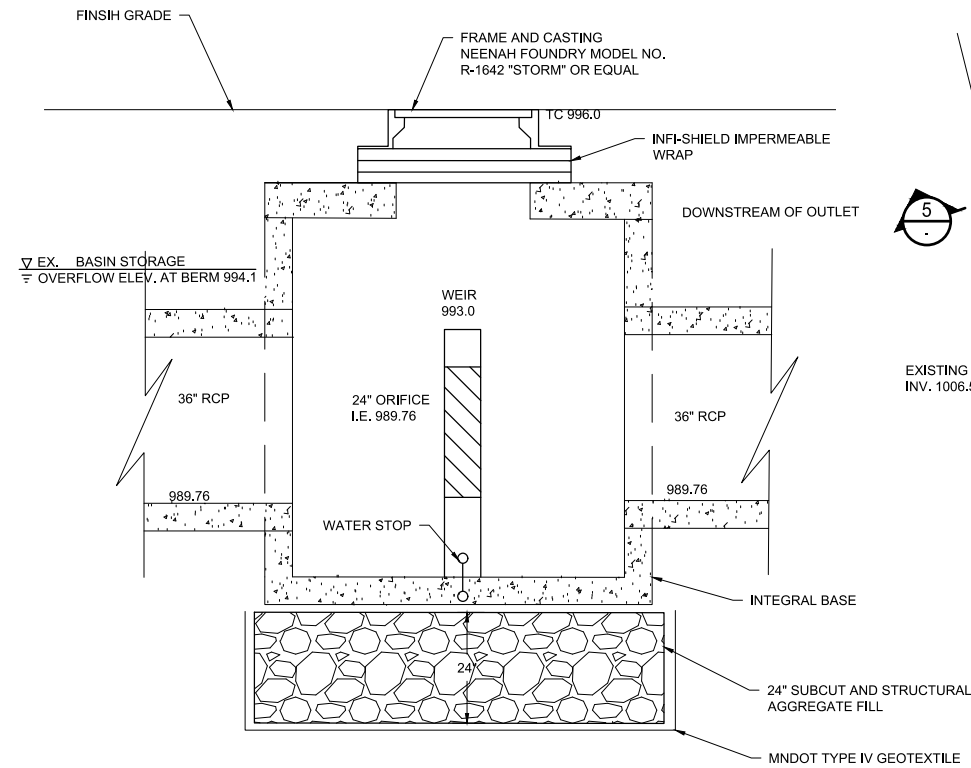
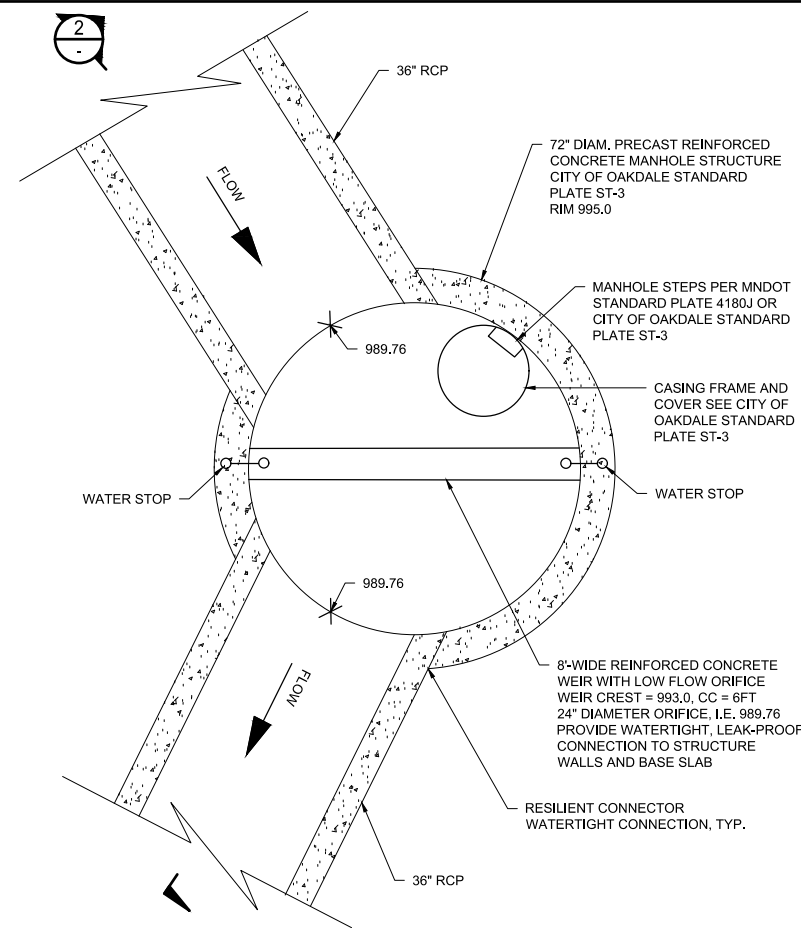


PROPOSED BASIN ELEVATION-AREA RELATIONSHIP	
ELEVATION	AREA (SQ. FT.)
996	166,300
994	129,700
992	56,500
991	1,000

DRAFT  
NOT FOR CONSTRUCTION

[illegible]





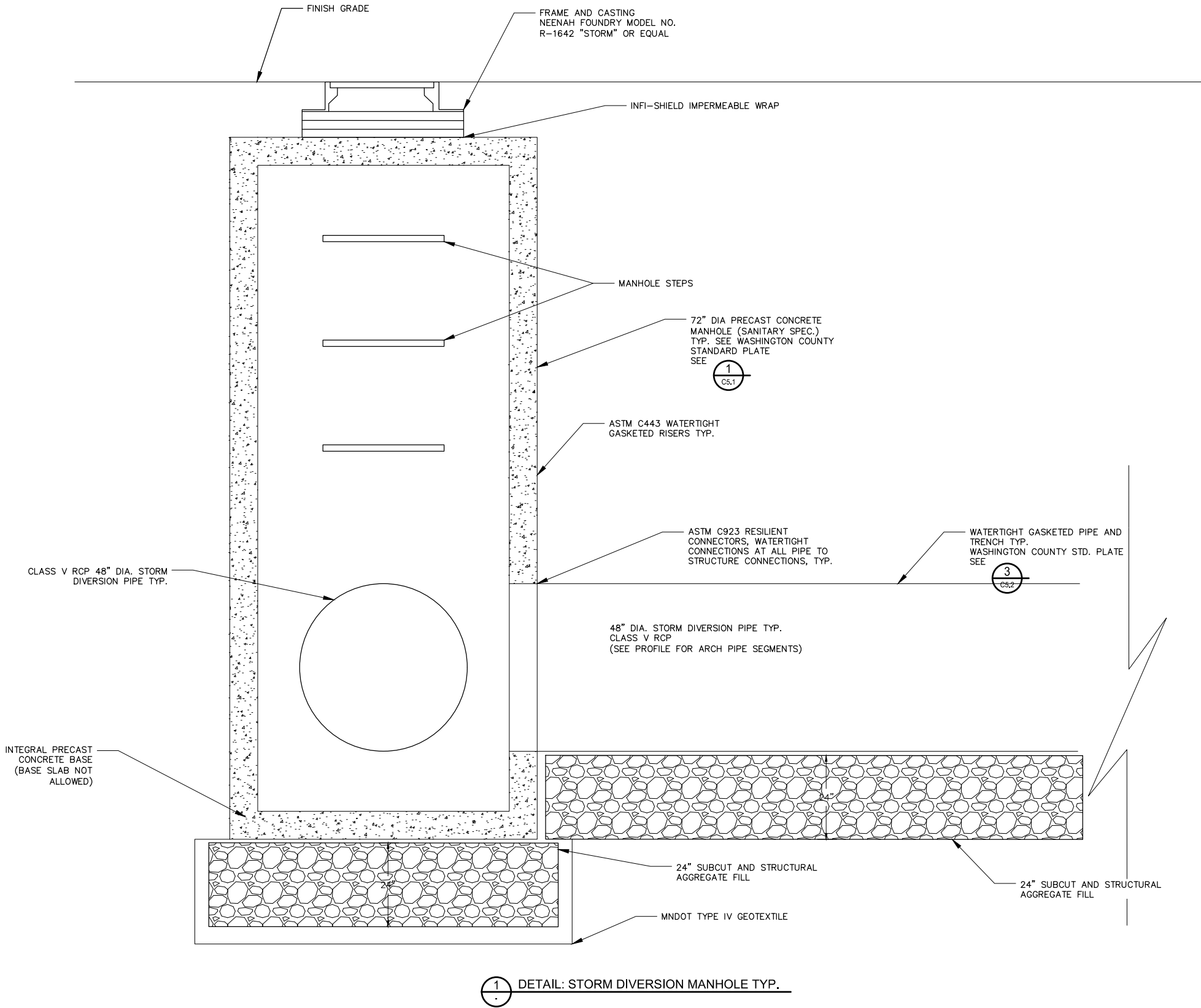
- DESIGN NOTES:

1. SUBCUT 24" MINIMUM, STRUCTURAL AGGREGATE GEOTECHNICAL CORRECTION BENEATH DIVERSION PIPE.
2. RECOMMEND TRENCH BOX INSTALLATION TO MINIMIZE SURFACE DISTURBANCE EXTENTS.
3. CONTRACTOR RESPONSIBLE FOR ALL O.S.H.A. EXCAVATION REQUIREMENTS, CONTRACTOR SHALL FURNISH PE-CERTIFIED DESIGN FOR ALL DEEP EXCAVATIONS, 20-FEET OR DEEPER.
4. IMPACTED SOILS TO BE REMOVED, TRANSPORTED TO LANDFILL. ALL WORK MUST BE IN ACCORDANCE WITH APPROVED HEALTH AND SAFETY PLAN.
5. ALL STORM MANHOLE STRUCTURES SHALL HAVE INTEGRAL BASE (NO BASE SLABS) AND ASTM C443 WATERTIGHT JOINTS ON ALL RISER SECTIONS.
6. ALL PIPE CONNECTIONS SHALL BE WATER-TIGHT ASTM C923 RESILIENT CONNECTORS (BOOTS PREFERRED).
7. ALL PIPE JOINTS SHALL BE GASKETED, WATERTIGHT PER ASTM C443.
8. ALL WATERTIGHT RCP PIPE SHALL BE LEAK-TESTED AND PRESSURE TESTED AFTER INSTALLATION PER:  
ASTM C924 (LOW PRESSURE AIR TEST METHOD),  
ASTM C 1103,  
ASTM C969,  
ASTM C1214  
ASTM C1628,  
AS DIRECTED BY ENGINEER.

DRAFT  
NOT FOR CONSTRUCTION

CAD USER: ELLERY, T. J. A   MRM   DJF   MRM   25SEP2024   DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION						CLIENT: 09/25/2024 PERMIT BID CONSTRUCTION RECORD						Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com						Scale: AS SHOWN Date: 09/25/2024 Drawn: EMO Checked: MRM/ADC/DJF Designed: BARR Approved: -		3M OAKDALE, MINNESOTA										OAKDALE DIVERSION OAKDALE, MN BARR PROJECT No. 23/82-0047.35			
						RELEASED TO/FOR DATE RELEASED						Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277								STORMWATER DETAILS										CLIENT PROJECT No. - DWG. No. C4.5 REV. No. A			
NO. BY CHK. APP. DATE REVISION DESCRIPTION																																	

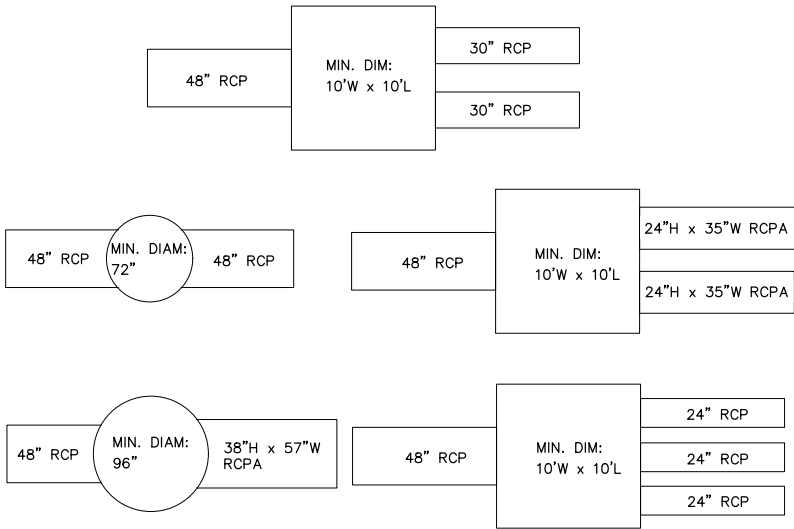
CADD USER: JACK N. JARVELA FILE: \\EDC\ADD\DESIGN\23820047\_31\_CS\0 STORMWATER - TYPICAL PLANS, SECTIONS.DWG PLOT SCALE: 1:1 PLOT DATE: 7/24/2024 4:33 PM



- DESIGN NOTES:**
- SUBCUT 24" MINIMUM, STRUCTURAL AGGREGATE GEOTECHNICAL CORRECTION BENEATH DIVERSION PIPE.
  - RECOMMEND TRENCH BOX INSTALLATION TO MINIMIZE SURFACE DISTURBANCE EXTENTS.
  - CONTRACTOR RESPONSIBLE FOR ALL O.S.H.A. EXCAVATION REQUIREMENTS. CONTRACTOR SHALL FURNISH PE-CERTIFIED DESIGN FOR ALL DEEP EXCAVATION, 20- FEET OR DEEPER.
  - IMPACTED SOILS TO BE REMOVED, TRANSPORTED TO LANDFILL. ALL WORK MUST BE IN ACCORDANCE WITH APPROVED HEALTH AND SAFETY PLAN.
  - ALL STORM MANHOLE STRUCTURES SHALL HAVE INTEGRAL BASE (NO BASE SLABS) AND ASTM C443 WATERTIGHT JOINTS ON ALL RISER SECTIONS.
  - ALL PIPE CONNECTIONS SHALL BE WATERTIGHT ASTM C923 RESILIENT CONNECTORS (BOOTS PREFERRED).
  - ALL PIPE JOINTS SHALL BE GASKETED, WATERTIGHT PER ASTM C443.
  - ALL WATERTIGHT RCP PIPE SHALL BE LEAK-TESTED AND PRESSURE TESTED AFTER INSTALLATION PER:  
ASTM C924 (LOW PRESSURE AIR TEST METHOD),  
ASTM C 1103,  
ASTM C969,  
ASTM C1214,  
ASTM C1628,  
AS DIRECTED BY ENGINEER.

STORMWATER MANHOLE STRUCTURE SCHEDULE				
ID	TOC	DIAM.	CASTING MODEL	FRAME MODEL
Structure-33	1010.19	72"		
Structure-27	1016.71	96"		
Structure-28	1017.42	96"		
Structure-52	1009.38	72"		
Structure-128	1005.75	72"		
Structure-38	1006.10	72"		
Structure-53	1004.97	72"		
Structure-127	1005.80	72"		
Structure-54	1003.92	72"		
Structure-55	1002.90	72"		
Structure-56	1001.84	72"		
Structure-126	1002.22	72"		
Structure-30	1000.20	84"		
Structure-31	1000.09	84"		
STMH-3	1009.49	96"		
Structure-35	997.00	96"		
Structure-120	996.61	72"		

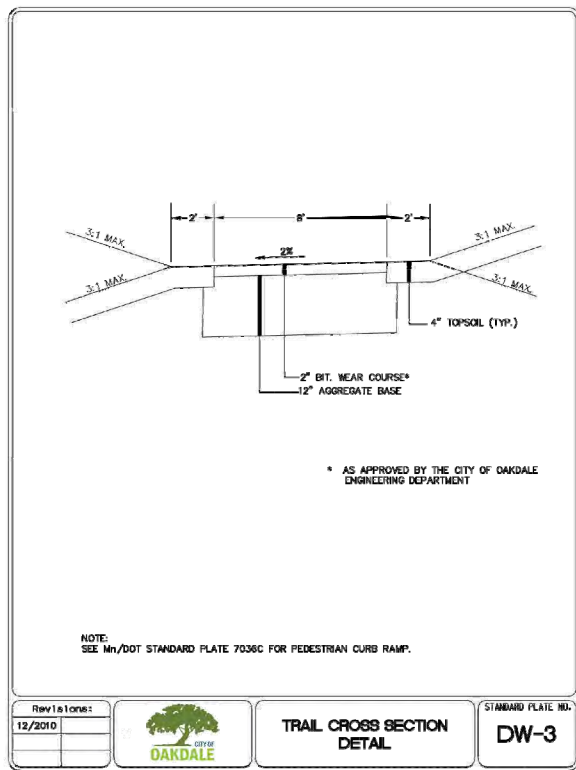
ALTERNATIVE STRUCTURE AND PIPE CONFIGURATIONS UNDER CONSIDERATION:



DRAFT  
NOT FOR CONSTRUCTION

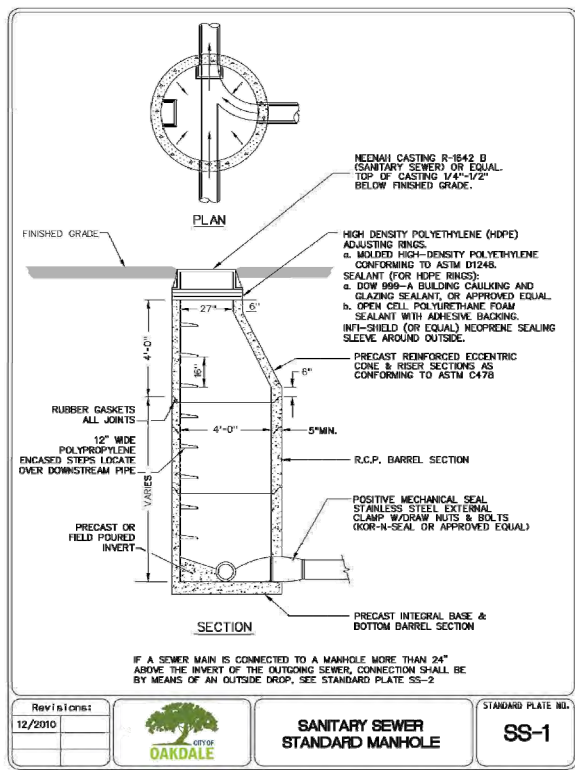
A MRM DJF MRM 23JUL2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT 07/23/2024					<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277</div></div> <div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div>	Scale AS SHOWN		3M OAKDALE, MN		OAKDALE DIVERSION OAKDALE, MN		BARR PROJECT No. 23/82-0047.35		
								CLIENT PROJECT No.											
															STORMWATER - TYPICAL PLANS, SECTIONS AND DETAILS				
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION					RELEASED TO/FOR					DATE RELEASED				

CADD USER: JACK N. JARVELA FILE: \\EDC\OAKDALE\DESIGN\23820047\_31\23820047\_31\_C51 STORMWATER - TYPICAL PLANS, SECTIONS, AND DETAILS DWG PLOT SCALE: 1:1 PLOT DATE: 7/24/2024 12:22 PM



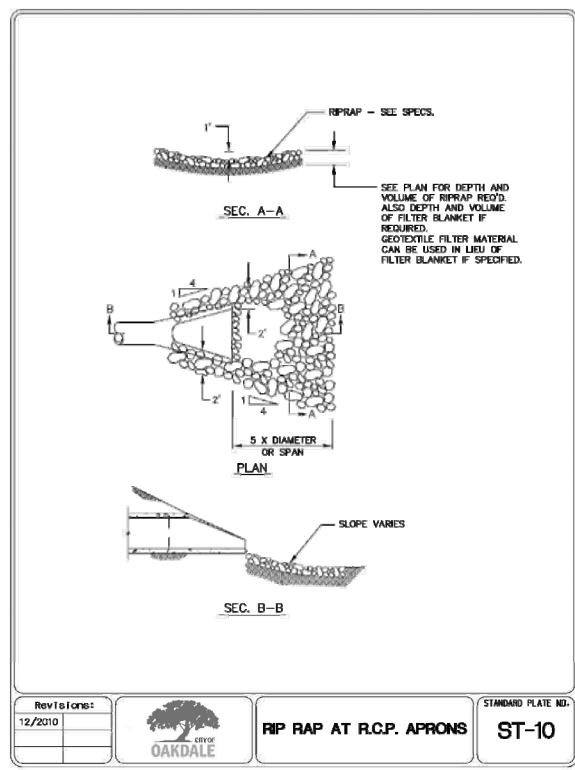
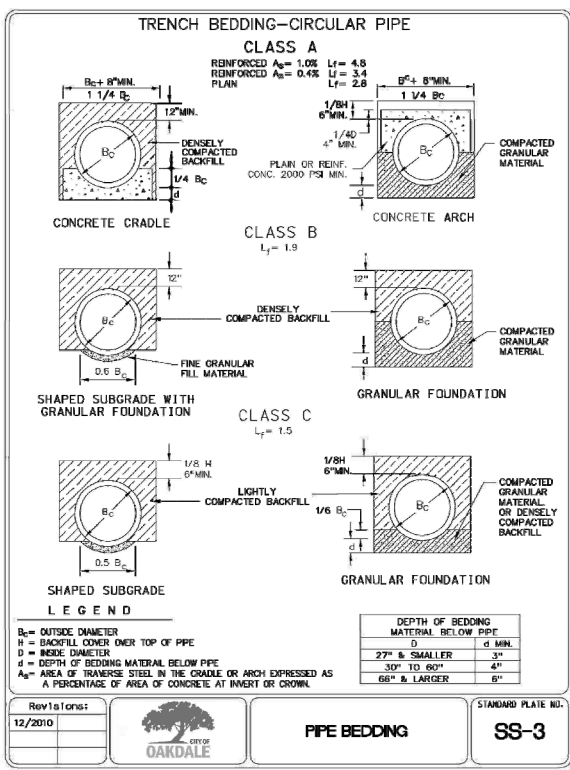
REFER TO PLAN DRAWINGS FOR PAVEMENT THICKNESS

1 DETAIL: TRAIL CROSSING SECTION  
NOT TO SCALE



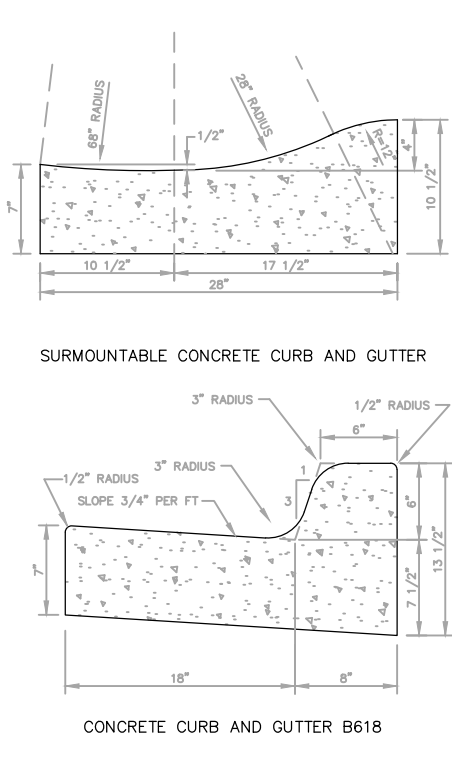
REFER TO WASHINGTON COUNTY STD. PLATE FOR ADD'L REQUIREMENTS

2 DETAIL: SANITARY SEWER MANHOLE  
NOT TO SCALE

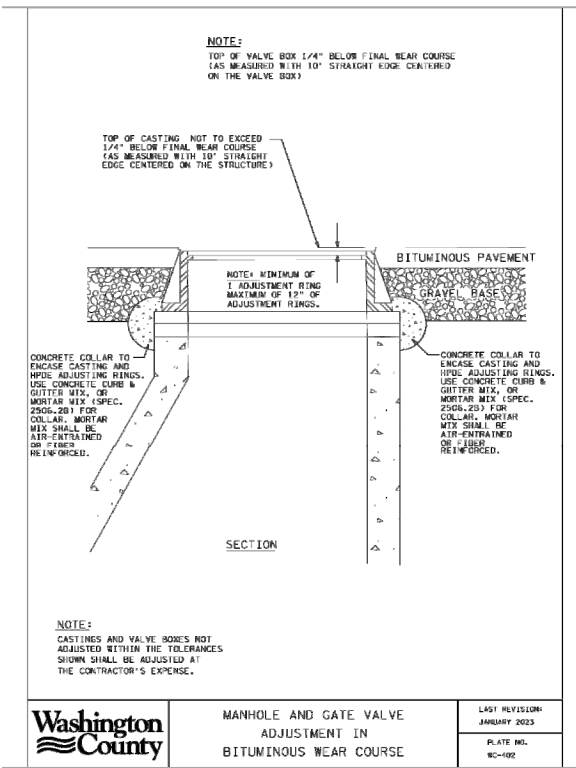


REFER TO PLAN DRAWINGS FOR RIPRAP SIZE/CLASS

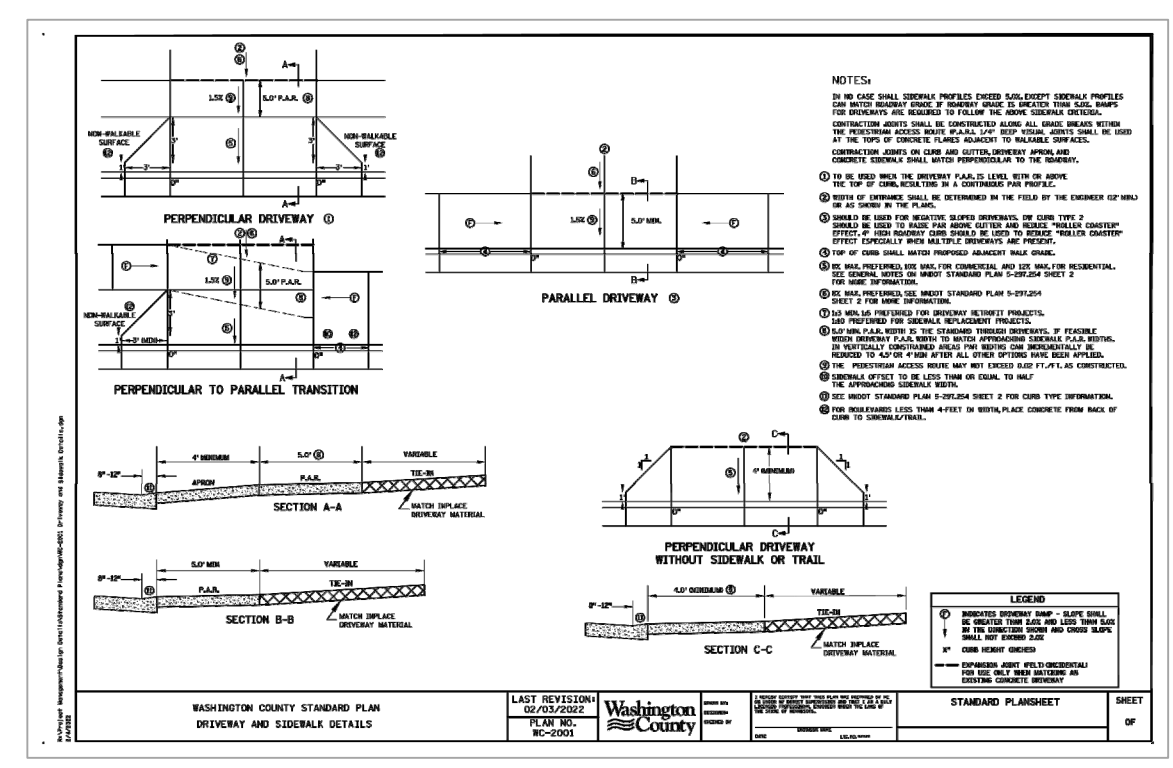
4 DETAIL: RIPRAP AT APRONS  
NOT TO SCALE



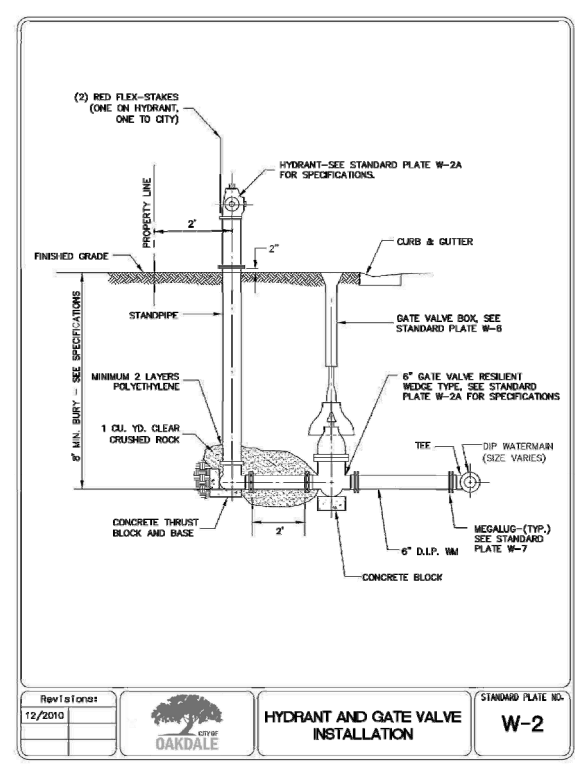
5 DETAIL: CURB AND GUTTER  
NOT TO SCALE



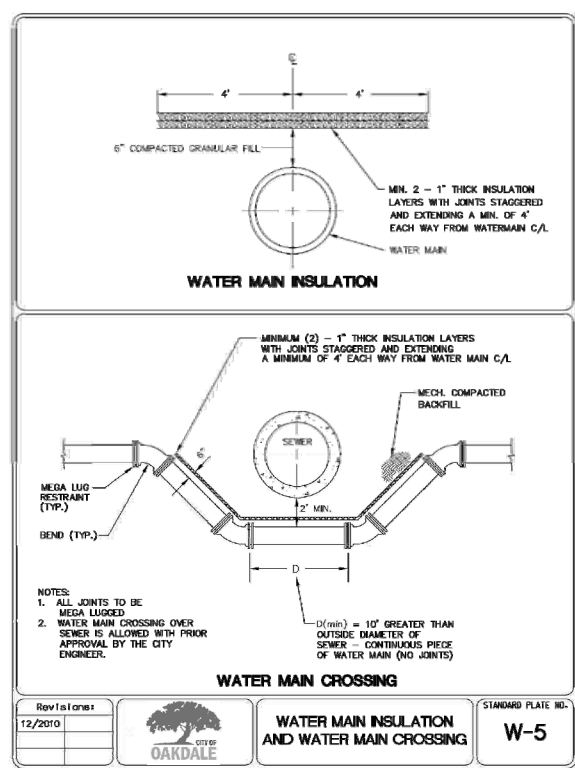
6 DETAIL: MANHOLE AND GATE VALVE  
NOT TO SCALE



7 DETAIL: DRIVEWAY AND SIDEWALK  
NOT TO SCALE



8 DETAIL: HYDRANT AND GATE VALVE  
NOT TO SCALE



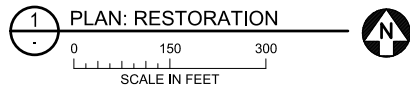
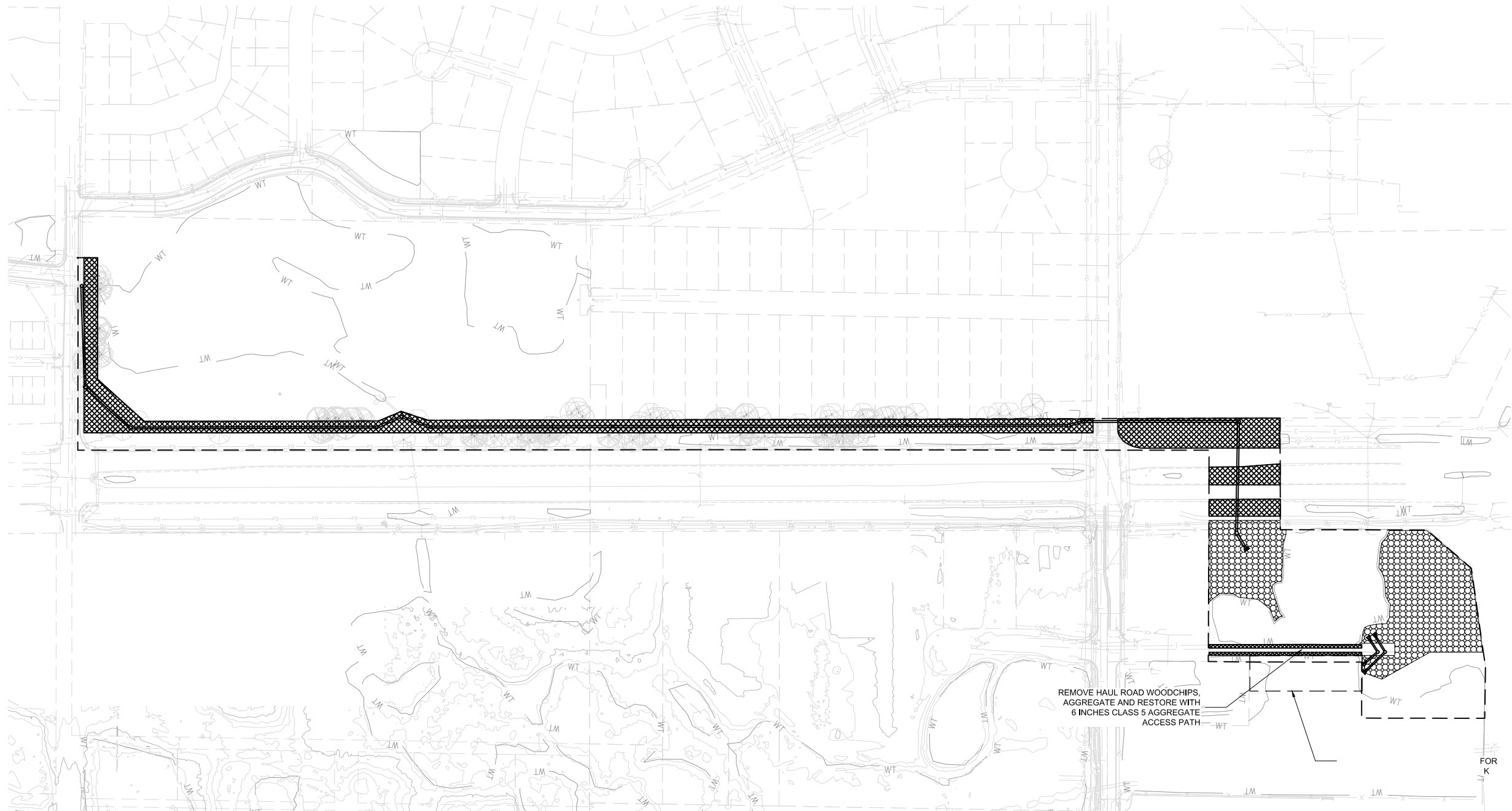
9 DETAIL: WATERMAIN INSTALLATION  
NOT TO SCALE

DRAFT  
NOT FOR CONSTRUCTION

A   MRM   DJF   MRM   23JUL2024   DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION				CLIENT   10/23/2024				Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435				Scale: AS SHOWN				OAKDALE DIVERSION OAKDALE, MN				BARR PROJECT No. 23/82-0047.35			
				BID CONSTRUCTION RECORD				Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-832-2277				Date: 07/23/2024				STORMWATER - TYPICAL PLANS, SECTIONS, AND DETAILS				CLIENT PROJECT No.			
				RELEASED TO/FOR				Ph: 1-800-832-2277 Fax: (952) 832-2601 www.barr.com				Drawn: EMO								DWG. No. C5.1			
				DATE RELEASED				Checked: MRM/ADC/DJF				Designed: BARR								REV. No. A			
NO. BY CHK. APP. DATE REVISION DESCRIPTION								Approved: --															



CADD USER: ELLERY.M. OVERVIEW FILE: M:\DESIGN\23820047.3\1.0 SITE RESTORATION PLAN.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 9:40 AM



RESTORATION LEGEND



INSTALL 4-6 INCHES SALVAGED TOPSOIL TURF  
RESTORATION MNDOT ROADSIDE SEED MIX XXX  
HYDROSEED/HYDROMULCH, RESTORED WITH  
TURF OR WETLAND RESTORATION - TBD



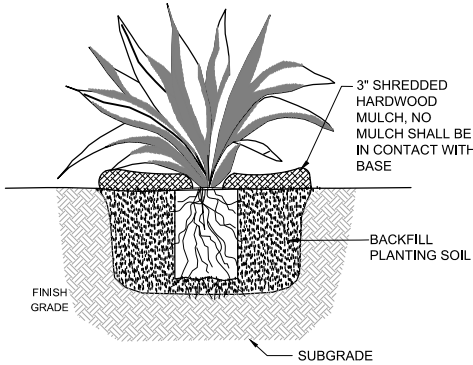
INSTALL 4-6 INCHES SALVAGED TOPSOIL  
WET MEADOW PRAIRIE RESTORATION  
DISC-ANCHOR STRAW MULCH 2 TONS/AC

NOTE: WITH THE EXTENDED DRAWDOWN  
TIMES, CONSIDER WETLAND MIXES AT THE  
BASIN GRADING AREA

DRAFT  
NOT FOR CONSTRUCTION

A. MRM DJF MRM 25SEP2024 DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION					CLIENT 09/25/2024					<div><div></div><div><b>BARR</b></div><div>Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 www.barr.com</div></div> <div>Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435 Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com</div>					Scale AS SHOWN		3M OAKDALE, MN					OAKDALE DIVERSION OAKDALE, MN					BARR PROJECT No. 23/82-0047.35	
					Date 09/25/2024		CLIENT PROJECT No.																					
					Drawn EMO																							
					Checked MRM/ADC/DJF																							
					Designed BARR																							
					Approved --									DWG. No. L1.0		REV. No. A												
NO. BY CHK. APP. DATE REVISION DESCRIPTION					RELEASED TO/FOR					DATE RELEASED																		
					A B C 0 1 2 3																							

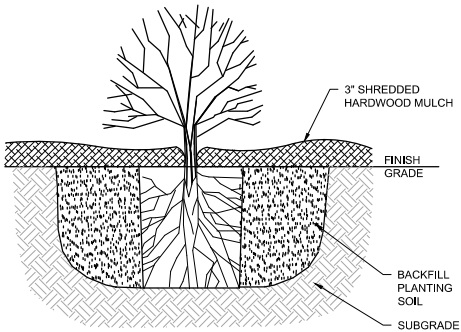
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23820047\_2\103620047\_2\1\_1.2 RESTORATION AND PLANTING SCHEDULE.DWG PLOT SCALE: 1:1 PLOT DATE: 9/27/2024 9:42 AM



1  
-  
DETAIL: PERENNIAL PLANTING  
NOT TO SCALE

HERBACEOUS PLANT PLANTING NOTES:

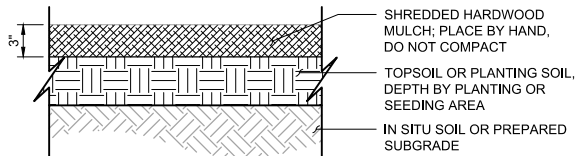
1. PROVIDE AND INSTALL PLANTS PER SCHEDULE.
2. EXCAVATE HOLE 3 TIMES WIDTH OF ROOTBALL.
3. BREAK BOTTOM OF ROOTBALL TO LOOSEN ROOTS.
4. PLANT THROUGH MULCH ALIGNING ROOTBALL TOP EVEN WITH SOIL - DO NOT PLANT TOO DEEP OR TOO SHALLOW. FIRM SOIL TO ENSURE GOOD CONTACT WITH ROOTS.
5. BACK FILL WITH PLANTING SOIL FIRM SOIL AROUND ROOT MASS TO MAINTAIN PLUMB AND ENSURE NO AIR GAPS AROUND ROOT MASS.
6. APPLY 3" DEPTH SHREDDED HARDWOOD MULCH TO ENTIRE PLANTING AREA (SOIL PREPARED AS PER SPECIFICATIONS).
7. NO MULCH TO BE IN CONTACT WITH PLANT.
8. CONSTRUCT 3" WATERING BASIN. THOROUGHLY WATER WITHIN 3 HOURS OF INSTALLATION.
9. WATER THOROUGHLY AFTER PLANTING.
10. ALL PERENNIAL PLANTS PROVIDED BY THE CONTRACTOR SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF PRELIMINARY ACCEPTANCE. AT THE END OF THE ONE-YEAR GUARANTEE PERIOD ALL PERENNIALS SHALL BE IN SATISFACTORY CONDITION, EXCLUDING INSTANCES OF VANDALISM, AS DETERMINED BY OWNER.
- 10.1. REPLACEMENTS: AT THE END OF THE ONE YEAR WARRANTY PERIOD ALL PLANTS SHALL FULFILL ALL THE REQUIREMENTS OF THESE SPECIFICATIONS AND REFERENCES WITH REGARD TO QUALITY AND CONDITION; FURTHER, THEY SHALL BE FREE OF DEAD BRANCHES AND TWIGGS AND SHALL BEAR A MINIMUM OF 50% OF THE FOLIAGE PRESENT WHEN PLANTED HAVING NORMAL DENSITY, SIZE, SHAPE AND COLOR AS DETERMINED BY THE ENGINEER. ANY PLANTS FAILING TO SATISFY ALL THESE CONDITIONS SHALL BE REPLACED AS PER THE PRELIMINARY AND FINAL ACCEPTANCE PROCESS. PLANTS MAY BE REPLACED PRIOR TO THE END OF THEIR WARRANTY PERIOD IF SUCH AN AGREEMENT EXISTS BETWEEN THE CONTRACTOR AND THE OWNER. REPLACEMENT STOCK SHALL BE SUBJECT TO ALL REQUIREMENTS AS TO SELECTION, INSPECTIONS, PREPARATION, PLANTING AND MAINTENANCE OPERATIONS. REPLACEMENTS SHALL MATCH CALIPER AND/OR HEIGHT ATTAINED BY OTHER STOCK OF THE ORIGINAL PLANTING.
11. CONTRACTOR SHALL NOTIFY OWNER FOR A FINAL INSPECTION AFTER THE END OF THE GUARANTEE PERIOD, AND AGAIN AFTER ANY AND ALL REPLACEMENTS ARE PLANTED.



2  
-  
DETAIL: SHRUB PLANTING  
NOT TO SCALE

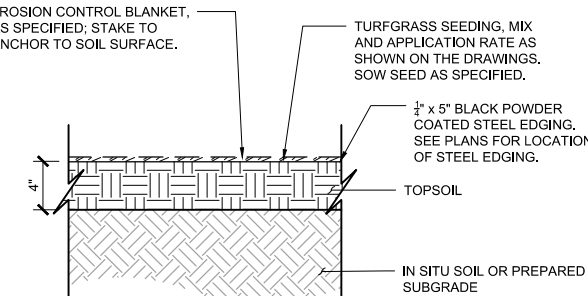
SHRUB PLANTING NOTES:

1. PREPARE SOIL WITH COMPOST AMENDMENT PER PLAN.
2. PROVIDE AND INSTALL PLANTS PER SCHEDULE.
3. REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF PLANT.
4. EXCAVATE HOLE 3 TIMES WIDTH OF ROOTBALL.
5. BREAK BOTTOM OF ROOTBALL TO LOOSEN ROOTS..
6. PLANT THROUGH MULCH ALIGNING ROOTBALL TOP EVEN WITH SOIL - DO NOT PLANT TOO DEEP OR TOO SHALLOW.
7. BACK FILL WITH PLANTING SOIL FIRM SOIL AROUND ROOT MASS TO MAINTAIN PLUMB AND ENSURE NO AIR GAPS AROUND ROOT MASS.
8. APPLY 3" DEPTH SHREDDED HARDWOOD MULCH TO ENTIRE PLANTING AREA (SOIL PREPARED AS PER PLAN).
9. NO MULCH TO BE IN CONTACT WITH PLANT.
10. WATER THOROUGHLY AFTER PLANTING.
11. SHRUBS SHALL BE GUARANTEED FOR 1-YEAR FROM TIME OF PRELIMINARY ACCEPTANCE. CONTRACTOR TO WATER AS NECESSARY TO MAINTAIN IN A HEALTHY CONDITION. AT THE END OF THIS PERIOD ANY DEAD PLANTS SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR SHALL NOTIFY OWNER FOR A FINAL INSPECTION AFTER THE END OF THE SHRUB GUARANTEE PERIOD, AND AGAIN AFTER ANY AND ALL REPLACEMENTS ARE PLANTED.



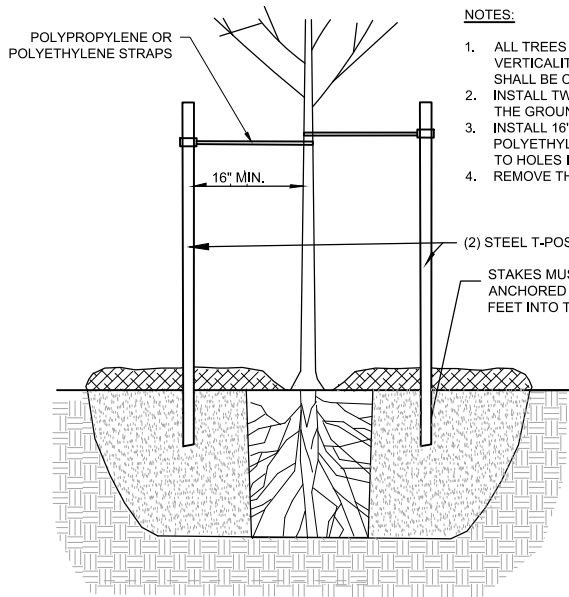
3  
-  
DETAIL: HARDWOOD MULCH  
NOT TO SCALE

- NOTES:
1. PREPARE SUBGRADE PER PLAN AND AS SPECIFIED.
  2. PROVIDE MULCH AS SPECIFIED. ENSURE MULCH IS CERTIFIED TO BE WEED SEED FREE AND IS NOT CONTAMINATED WITH SOILS OR PESTS.
  3. MULCH CONTAMINATED WITH SOIL MUST BE REMOVED AND REPLACED.



4  
-  
DETAIL: LOW GROW TURFGRASS SEEDING WITH EDGER  
NOT TO SCALE

- NOTES:
1. PREPARE SOIL PER PLAN AND AS SPECIFIED.
  2. PROVIDE SEEDING FOR ALL AREAS NOTED ON THE DRAWINGS.
  3. PROVIDE SEEDING FOR ALL ADDITIONAL DISTURBED AREAS ON- AND OFF-SITE AS NOTED ON THE DRAWINGS.



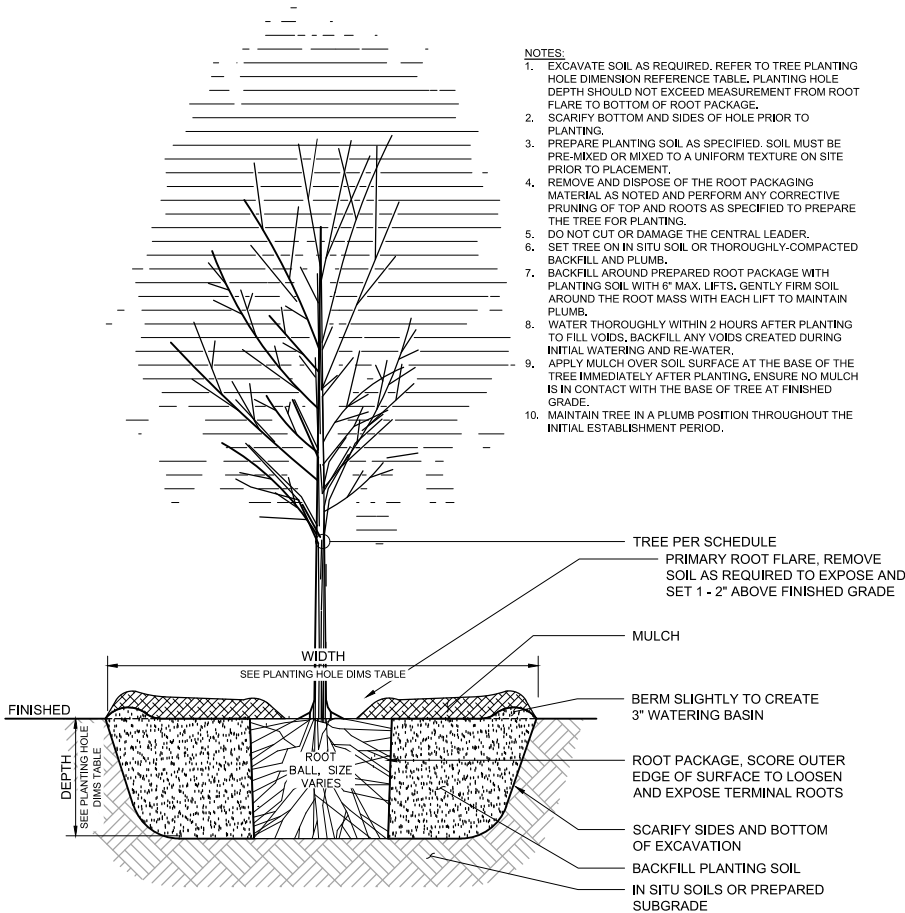
5  
-  
DETAIL: TREE STAKING  
NOT TO SCALE

NOTES:

1. ALL TREES SHALL BE STAKED AND TIED TO MAINTAIN VERTICALITY FOLLOWING PLANTING. TREE STAKING SHALL BE CONSIDERED INCIDENTAL TO TREE PLANTING.
2. INSTALL TWO (2) 8" STEEL T-POSTS, ANCHORED 2' INTO THE GROUND ON EITHER SIDE OF THE TRUNK.
3. INSTALL 16" LONG 40 MIL POLYPROPYLENE OR POLYETHYLENE STRAPS AROUND TRUNK AND AFFIX TO HOLES IN T-POSTS WITH 10 GAUGE WIRE.
4. REMOVE THE TREE STAKING AFTER 1-YEAR.

(2) STEEL T-POSTS

STAKES MUST BE ANCHORED AT LEAST 2 FEET INTO THE GROUND.



6  
-  
DETAIL: DECIDUOUS TREE PLANTING  
NOT TO SCALE

NOTES:

1. EXCAVATE SOIL AS REQUIRED. REFER TO TREE PLANTING HOLE DIMENSION REFERENCE TABLE. PLANTING HOLE DEPTH SHOULD NOT EXCEED MEASUREMENT FROM ROOT FLARE TO BOTTOM OF ROOT PACKAGE.
2. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.
3. PREPARE PLANTING SOIL AS SPECIFIED. SOIL MUST BE PRE-MIXED OR MIXED TO A UNIFORM TEXTURE ON SITE PRIOR TO PLACEMENT.
4. REMOVE AND DISPOSE OF THE ROOT PACKAGING MATERIAL AS NOTED AND PERFORM ANY CORRECTIVE PRUNING OF TOP AND ROOTS AS SPECIFIED TO PREPARE THE TREE FOR PLANTING.
5. DO NOT CUT OR DAMAGE THE CENTRAL LEADER.
6. SET TREE ON IN SITU SOIL OR THOROUGHLY-COMPACTED BACKFILL AND PLUMB.
7. BACKFILL AROUND PREPARED ROOT PACKAGE WITH PLANTING SOIL WITH 6" MAX. LIFTS. GENTLY FIRM SOIL AROUND THE ROOT MASS WITH EACH LIFT TO MAINTAIN PLUMB.
8. WATER THOROUGHLY WITHIN 2 HOURS AFTER PLANTING TO FILL VOIDS. BACKFILL ANY VOIDS CREATED DURING INITIAL WATERING AND RE-WATER.
9. APPLY MULCH OVER SOIL SURFACE AT THE BASE OF THE TREE IMMEDIATELY AFTER PLANTING. ENSURE NO MULCH IS IN CONTACT WITH THE BASE OF TREE AT FINISHED GRADE.
10. MAINTAIN TREE IN A PLUMB POSITION THROUGHOUT THE INITIAL ESTABLISHMENT PERIOD.

TREE PER SCHEDULE  
PRIMARY ROOT FLARE, REMOVE SOIL AS REQUIRED TO EXPOSE AND SET 1 - 2" ABOVE FINISHED GRADE

MULCH

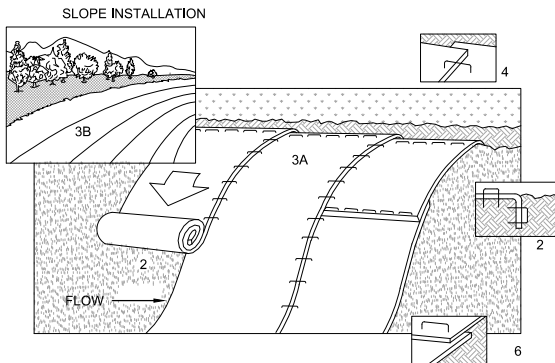
BERM SLIGHTLY TO CREATE 3" WATERING BASIN

ROOT PACKAGE, SCORE OUTER EDGE OF SURFACE TO LOOSEN AND EXPOSE TERMINAL ROOTS

SCARIFY SIDES AND BOTTOM OF EXCAVATION

BACKFILL PLANTING SOIL

IN SITU SOILS OR PREPARED SUBGRADE



NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
2. PREPARE SOIL BY LOOSENING TOP 1-2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
3. BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
5. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. BLANKET MATERIALS SHALL BE AS SPECIFIED OR AS APPROVED BY ENGINEER.

7  
-  
DETAIL: EROSION CONTROL BLANKET - INSTALLATION  
NOT TO SCALE

DRAFT  
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
1	MRM	DJF	MRM	25SEP2024	DRAFT 30% ISSUED FOR PERMITTING & DESIGN DEVELOPMENT, NOT FOR CONSTRUCTION
2					
3					
4					
5					
6					
7					
8					
9					
10					

CLIENT	29/25/2024
BID	
CONSTRUCTION RECORD	
RELEASED TO/FOR	
DATE RELEASED	

<b>BARR</b>	Project Office: BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE SUITE 200 MINNEAPOLIS, MN 55435
Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com	

Scale	AS SHOWN
Date	09/25/2024
Drawn	EMO
Checked	MRM/ADC/DJF
Designed	BARR
Approved	--

3M  
OAKDALE, MN

OAKDALE DIVERSION  
OAKDALE, MN

SITE RESTORATION  
DEAILS

BARR PROJECT No.	23/82-0047.35
CLIENT PROJECT No.	
DWG. No.	L1.2
REV. No.	A