



Anoka County  
MINNESOTA

Respectful, Innovative, Fiscally Responsible

ANOKA COUNTY TRANSPORTATION DIVISION

1440 BUNKER LAKE BLVD NW

ANDOVER, MN 55304

763-324-3176

highwaypermits@anokacountymn.gov

PERMIT NUMBER

24-171

RIGHT OF WAY

COMMERCIAL ACCESS

CSAH 116

APPLICATION FOR PERMIT FOR INSTALLATION OF UTILITIES OR PLACING OBSTRUCTIONS ON THE COUNTY HIGHWAY SYSTEM  
ALL APPLICANTS MUST BE REGISTERED PRIOR TO PERMIT APPROVAL

APPLICANT NAME **Northdale Construction Co., Inc.**

CONTACT PERSON **Troy Huschle**

ADDRESS **9760 71st Street NE**

CITY **Albertville**

PHONE NUMBER **763-428-4868**

EMAIL **northdalebids@northdaleconst.com**

COMPANY OR INDIVIDUAL PERFORMING WORK **Northdale Construction Co., Inc.**

CONTACT PERSON **Troy Huschle**

EMAIL **TroyH@northdaleconst.com**

PHONE NUMBER **320-221-2723**

PERMIT WORK TO START **04/03/2024**

PERMIT WORK TO BE COMPLETED **10/31/2024**

DURATION OF JOB **178 days**

ARE YOU BEING ASKED TO RELOCATE DUE TO A COUNTY PROJECT? **No**

ANOKA COUNTY PROJECT NUMBER

WORK SITE ADDRESS **Bunker Lake Blvd, 143rd St, Town Center Dr.**

CITY **Ramsey**

METHOD OF INSTALLATION/CONSTRUCTION **Open cut & directional drill water main**

NATURE OF WORK **Various sizes of water main will be installed inside of the ROW on multiple streets in the City of Ramsey. Water main will be installed using both open cut and directional drilling methods.**

**Per approved plans on file at ACHD**

SURFACE TO BE DISTURBED

SITE PLAN

IF THE ROADWAY IS ENCROACHED, YOU MUST ATTACH A TRAFFIC CONTROL PLAN AND/OR REFERENCE THE MOST CURRENT VERSION OF THE MN TEMPORARY TRAFFIC CONTROL FIELD MANUAL (3+ DAYS REQUIRES PLANS TO BE SIGNED BY A LICENSED PE).

DITCH/BLVD



GRAVEL

BITUMINOUS



CONCRETE

NONE

IS SIGNING AND STRIPING REQUIRED? **Yes**

**See attached red-lined TC plan, implement the corrections.**

DEPTH FROM SURFACE **96" or 8'**

(60" minimum under county roads)

SIZE AND KIND OF PIPE/CABLE **6"/8"10"/12"/16" DIP, 20"/24" PVC**

NUMBER OF EXCAVATIONS **4+**

SIZE OF EXCAVATIONS **Please refer to attached plan set for all**  
(Length, width, and depth)

LOCATION OF EXCAVATIONS **ALL EXCAVATIONS ARE TO BE PROTECTED AT ALL TIMES AND THEN BACKFILLED WHEN UNATTENDED AND/OR OVERNIGHT**

Specific written descriptions of excavations - if shown on attached drawing, drawing shall be specific with depth and distance from centerline, curb, or other distinguishable location. Traffic control plans cannot be approved without specific excavation descriptions.

**Please refer to attached plan set for all excavation sizes and locations.**

**Coordinate with Anoka County Highway Department signals, Mark.Lekson@anokacountymn.gov for locates and general signal information.**

**THIS PERMIT COVERS THE RIGHT OF WAY IN ANOKA COUNTY ONLY**

**ACTD reserves the right to make changes to these special conditions.**



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**GENERAL INFORMATION**

One permit must be approved for each county road on which work will be performed prior to any work within the right of way by any utility/contractor. Emergency conditions which threaten the safety of the public and require immediate repair are exceptions to this rule. Under those circumstances, the utility/contractor is permitted to begin and/or complete the necessary repairs. The Anoka County Transportation Division (ACTD) shall be notified of emergency repairs as soon as feasible and a written permit is to be completed within two business days of occurrence.

A license-permit bond is generally required of the contractor as part of the registration process, the amount of which will be determined by the nature of the utility work.

A sketch or drawing shall accompany each permit application which will show the location of the proposed work/utility with reference to the county highway center line and right of way line. A complete set of plans is required for all sewer/water projects.

It shall be the responsibility of the applicant to determine which of the special conditions apply to each permit.

ACTD reserves the right to revoke any utility permit and halt work, if, upon inspection of any job site, the special conditions are not met, and/or a hazard exists for the applicant or public safety is threatened. **The failure to comply with the terms and conditions of any applicable Federal, State, Regional, and local laws, rules and regulations, including any provision of Anoka County's Right-of-Way Ordinance shall be cause for immediate revocation of a permit.**

The applicant shall notify ACTD immediately upon completion of project so that the ACTD can inspect the site to determine if restoration has been satisfactorily completed.

The undersigned hereby accepts the terms and conditions of this permit and the regulations of Anoka County, and agrees to fully comply therewith to the satisfaction of the ACTD. The county of Anoka, its officials, employees, and agents, shall be held harmless, by the applicant/permittee, from any demands, claims, lawsuits, or damages relating to the work described in this permit.

APPLICANT'S SIGNATURE <span style="float: right; font-size: small;">DocuSigned by: <i>Kris Christenson</i></span>	DATE <span style="float: right; color: blue;">3/26/2024</span>
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E9851E2C5E0B460...

**AUTHORIZATION OF PERMIT**

In consideration of the applicant's agreement to comply in all respects with the regulations of the ACTD covering such operations, permission is hereby granted for the work to be done as described in the above application. Said work to be done in accordance with the general conditions listed above and the special conditions required as hereby stated. It is expressly understood that this permit is conditioned upon replacement or restoration of the county highway and its right of way to their original or to a satisfactory condition. It is further understood that this permit is issued subject to the approval of local city or township authorities having joint supervision over said street or highway.

APPROVED BY: <span style="float: right; font-size: small;">DocuSigned by: <i>Susan Burgmeier</i></span>	DATE <span style="float: right; color: blue;">3/26/2024</span>
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TITLE: Traffic Technician

C5E91FE15CD44EE...

**NOT VALID UNLESS SIGNED BY ANOKA COUNTY**

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## ANOKA COUNTY TRANSPORTATION DIVISION

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### SPECIAL CONDITIONS

#### TRAFFIC CONTROL

- 1) Detours
  - a) Detailed detour layouts shall be submitted to the traffic engineer for approval.
  - b) No detours shall be permitted without prior approval of the Anoka county traffic engineer.
  - c) A ten day notice must be given prior to the installation of any detour.
  - d) It shall be the responsibility of the applicant to notify Anoka county central communications, local government bodies, and any affected bus companies ten days prior to any road closures/detours.
  - e) Immediately upon completion of work and/or detours, all posts, barricades, and signs shall be removed from the right of way.
- 2) Traffic control devices
  - a) All traffic control devices, barricades, flashers, etc., shall be furnished by the applicant and shall be in accordance with the most recent edition of the Minnesota manual on uniform traffic control devices and temporary traffic control zone layouts – field manual of the same manual.

#### CONSTRUCTION REQUIREMENTS

- 1) Open cutting of bituminous or concrete surfaced roads will be allowed only at the discretion of the county engineer.
- 2) Neither supplies nor excavation materials shall be placed on the bituminous or concrete surface at any time.
- 3) No trenches will be allowed to remain open overnight.
- 4) Materials removed from the trench shall be used as backfill insofar as they are suitable. All backfill material shall conform to MNDOT specifications for compaction. The use of heavy equipment on top of trench, slapping with backhoe bucket and/or back casting to achieve compaction is prohibited. Any additional material required to back fill to the original grade shall be furnished by the applicant at no expense to the ACTD. All the base and surface courses damaged during construction operations shall be restored to a condition equal to or better than before operations began. The applicant shall be responsible for and restore any settlement.
- 5) All culverts, ditches, shoulders, and backslopes shall be restored to their original condition unless otherwise directed by the ACTD. Shoulders which have been previously constructed or reconstructed with special materials shall be replaced in kind. Restoration of signs, guardrails, guard posts, etc., are the sole responsibility of the applicant and shall be restored to their original condition.
- 6) All roadway maintenance required within the limits of the utility project that is related to the applicant's activities shall be the sole responsibility of the applicant for one year after completion of the project. Upon completion of the restoration work, the applicant shall request a final inspection by the ACTD. The ACTD's approved completion date shall be the starting date of the applicant's one-year responsibility.

#### HORIZONTAL BORING AND JACKING

- 1) All hard surface roadways shall be jacked or bored.
- 2) All crossings of Anoka County maintained roadbeds, shall be made by boring inside a casing or carrier pipe, or by jacking unless otherwise directed by the Anoka County Engineer. The auger shall lead the casing or carrier pipe by at least six inches whenever possible and never lead the carrier pipe by more than one inch.
- 3) The use of pneumatic devices to facilitate the roadbed crossings will be allowed in most cases with prior approval. In the event approval is not granted and applicant uses a pneumatic device to cross a roadbed and encounters an obstruction and/or unstable subbase material which makes forward or reverse motion of pneumatic device impossible, said pneumatic device then becomes part of the roadway subbase and permission to excavate to retrieve device will not be granted.
- 4) If a pneumatic device is used for the work permitted herein, the installation must be kept to a minimum of four feet below the surface of the roadway if the pneumatic device is less than two inches in diameter, and a minimum of five feet below the surface of the roadway if the pneumatic device is two inches in diameter or larger.

#### BITUMINOUS RESTORATION

- 1) The locations and dimensions of all openings to be made in the bituminous surface shall be approved by the ACTD prior to any cutting or any surface opening operations.
- 2) All openings in bituminous surfaces shall be cut in a straight line with the sides smooth and vertical. No ragged edges will be permitted. Cutting shall be done with a concrete saw.
- 3) All necessary dust control operations shall be carried out by the applicant at no expense to Anoka County.
- 4) The minimum requirement for subgrade replacement shall be the upper twelve inches of material and shall meet MNDOT specifications for class five placed in six inch layers compacted to one hundred percent of optimum density.
- 5) All manhole casings, gate valves, and other utility structures shall be set one quarter inch below the top of the finished surface.
- 6) Bituminous tack coat materials and application thereof shall conform to MNDOT specification 2357.
- 7) All bituminous surfacing shall be replaced as soon as practicable after the base construction. All bituminous surfacing shall be machine laid. Any exceptions must be approved by the ACTD. Bituminous surfacing shall be replaced to original pavement depth or to a minimum of six inches of bituminous mixture (2360), whichever is greater. Bituminous mixtures must be placed in lifts not exceeding three inches in thickness for base and binder courses and not exceeding two inches for the wear course.
- 8) All surface restoration regardless of size shall conform to existing grades.
- 9) Any unnecessary or negligent damage to bituminous surface in conjunction with the installation and/or repair of a utility shall be cut out and replaced in kind as directed by the ACTD.

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### CONCRETE RESTORATION

- 1) Curb and gutter, sidewalks, and driveways shall be restored in accordance with MNDOT specifications 2531 and 2521.

### UTILITY LINES

- 1) There shall be only a single pole line on the county right of way on either side of the center line thereof.
- 2) Exact locations of longitudinal installations on county highways shall be located as directed by the ACTD.

### SECTION CORNER MONUMENTS

- 1) Utility locations shall not interfere with the location of any section, quarter, witness, or right of way monuments. For assistance in locations, contact the Anoka County Surveyor's Office.
- 2) The applicant shall be responsible for replacement of any existing property irons disturbed during construction.
- 3) The applicant shall notify the Anoka County Surveyor's Office three working days in advance of any anticipated disturbance of any section, quarter, witness, or right of way monuments.
- 4) Any monument disturbed during the course of construction, shall be reset by the Anoka County Surveyor's Office at the expense of the applicant.

### ATTACHING TO BRIDGES/STRUCTURES

- 1) No utility is permitted to be hung from, or otherwise attached to, any bridge or structure without having detailed plans approved by the Anoka County Engineer. These plans are to show approaches to the structure, method of installation, type, and dimension of housing for the utility.

### ADDITIONAL PROVISIONS

- 1) All subcontractors, installers, and crew shall possess a physical or electronic copy of all documents in relation to the approved permit prior to the commencement of work and be kept on site. This includes, but it not limited to the following:
  - a) Approved permit
  - b) Any/all traffic control plans and/or layouts
- 2) **Shall notify Anoka County Permits at 763-324-3176 or highwaypermits@anokacountymn.gov**
  - a) **At least 36 hours prior to the commencement of work**
  - b) **With time frame of proposed of work**
  - c) **Anticipated traffic control**
  - d) **When work is complete - including restorations - to request a final inspection**
- 3) No work during inclement weather or when plows are out in any capacity
- 4) All traffic control shall be in accordance with the most current version of the MnDOT Temporary Traffic Control Field Manual
- 5) For staking of right-of way or proposed infrastructure, contact Chris Osterhus at 763-324-3189 a minimum of 48 hours prior to the commencement of work.

INITIAL DS  
bc



No additional comments.

2024-03

CITY OF

BIDDING DOCUMENTS

# RAMSEY, MINNESOTA

## CONSTRUCTION PLANS FOR

# WATER MAIN INSTALLATION, EXCAVATION, HORIZONTAL DIRECTIONAL DRILLING, GRADING, BITUMINOUS PAVING, & RESTORATION WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS

CITY PROJECT NO. 21-08

### GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "AND THE SUPPLEMENTAL SPECIFICATIONS DATED SEPTEMBER 2022 SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

THE 2018 EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA "STANDARD SPECIFICATIONS" SHALL GOVERN FOR UTILITY INSTALLATION EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

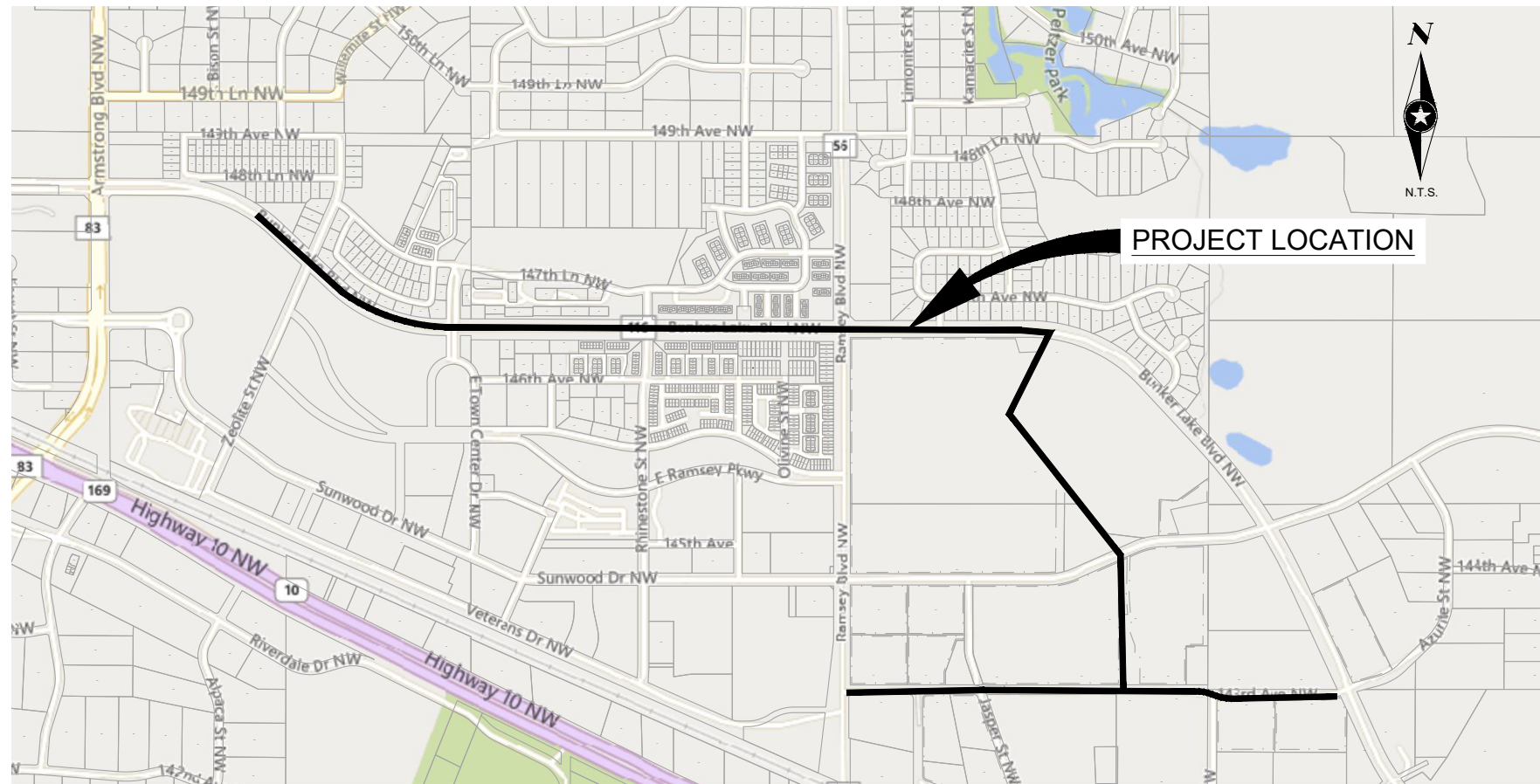
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

### INDEX

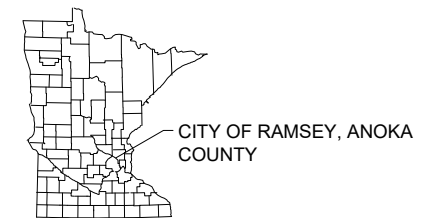
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT OVERVIEW
3	STATEMENT OF ESTIMATED QUANTITIES
4	CONSTRUCTION NOTES
5-6	CONSTRUCTION PHASING - 143RD AVE.
7-10	DETAILS
11-20	REMOVAL PLAN
21-38	WATER MAIN PLAN AND PROFILE
39-40	COTTONWOOD TRAIL PLAN AND PROFILE
41-48	EROSION CONTROL AND TURF ESTABLISHMENT
49-50	SWPPP
51-53	TRAFFIC CONTROL PLAN
54	PAVEMENT MARKING AND SIGNING PLAN
55	METER VAULT PLAN & SECTION
56	METER VAULT DETAILS
57	ELECTRICAL SYMBOLS, ABBREVIATIONS AND NOTES
58	ELECTRICAL PLANS, ELEVATION AND DIAGRAMS

THIS PLAN CONTAINS 58 SHEETS.

EXISTING	
	RIGHT OF WAY
	PERMANENT EASEMENT
	DRAINAGE AND UTILITY EASEMENT
	PROPERTY LINE
	HORIZONTAL CONTROL POINT
	BENCHMARK
	SURVEY MARKER
	SOIL BORING
	SANITARY SEWER AND MANHOLE
	FORCE MAIN AND LIFT STATION
	SANITARY SEWER SERVICE & CLEANOUT
	WATER MAIN, HYDRANT, VALVE AND MANHOLE
	WATER SERVICE AND CURB STOP BOX
	STORM SEWER, MANHOLE AND CATCH BASIN
	CULVERT AND APRON ENDWALL
	GAS MAIN, VALVE, VENT AND METER
	HANDHOLE
	BURIED FIBER OPTIC CABLE AND MANHOLE
	BURIED PHONE CABLE, PEDESTAL AND MANHOLE
	BURIED TV CABLE, PEDESTAL AND MANHOLE
	BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
	OVERHEAD WIRE, POLE AND GUY WIRE
	LIGHT POLE
	TRAFFIC SIGNAL
	STREET NAME SIGN
	SIGN (NON STREET NAME)
	RAILROAD TRACKS
	DECIDUOUS AND CONIFEROUS TREE
	BUSH / SHRUB AND STUMP
	EDGE OF WOODED AREA
	WETLAND
	BUILDING
	FENCE (UNIDENTIFIED)
	BARBED WIRE FENCE
	CHAIN LINK FENCE
	ELECTRIC WIRE FENCE
	WOOD FENCE
	WOVEN WIRE FENCE
	PLATE BEAM GUARDRAIL
	CABLE GUARDRAIL
	POST / BOLLARD
	RETAINING WALL
	STREET CENTERLINE
	RIGHT-OF-WAY
	PERMANENT EASEMENT
	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	SANITARY SEWER, BULKHEAD AND MANHOLE
	FORCE MAIN
	SANITARY SERVICE AND CLEANOUT
	WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
	WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
	WATER SERVICE AND CURB STOP BOX
	STORM SEWER, MANHOLE AND CATCH BASIN
	CULVERT AND APRON ENDWALL
	DRAIN TILE
	DITCH / SWALE
	RIPRAP
	STREET NAME SIGN
	SIGN (NON STREET NAME)
	RETAINING WALL



### PROJECT LOCATION



RAMSEY, MINNESOTA

**SEH**  
 PHONE: 651.490.2000  
 3535 VADNAIS CENTER DRIVE  
 ST. PAUL, MN 55110-5196  
 www.sehinc.com

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

*David E. Hutton*  
 Signature  
 David E. Hutton

Date: 10-06-2023 Lic. No. 19133

FILE NO.

RAMSY174498

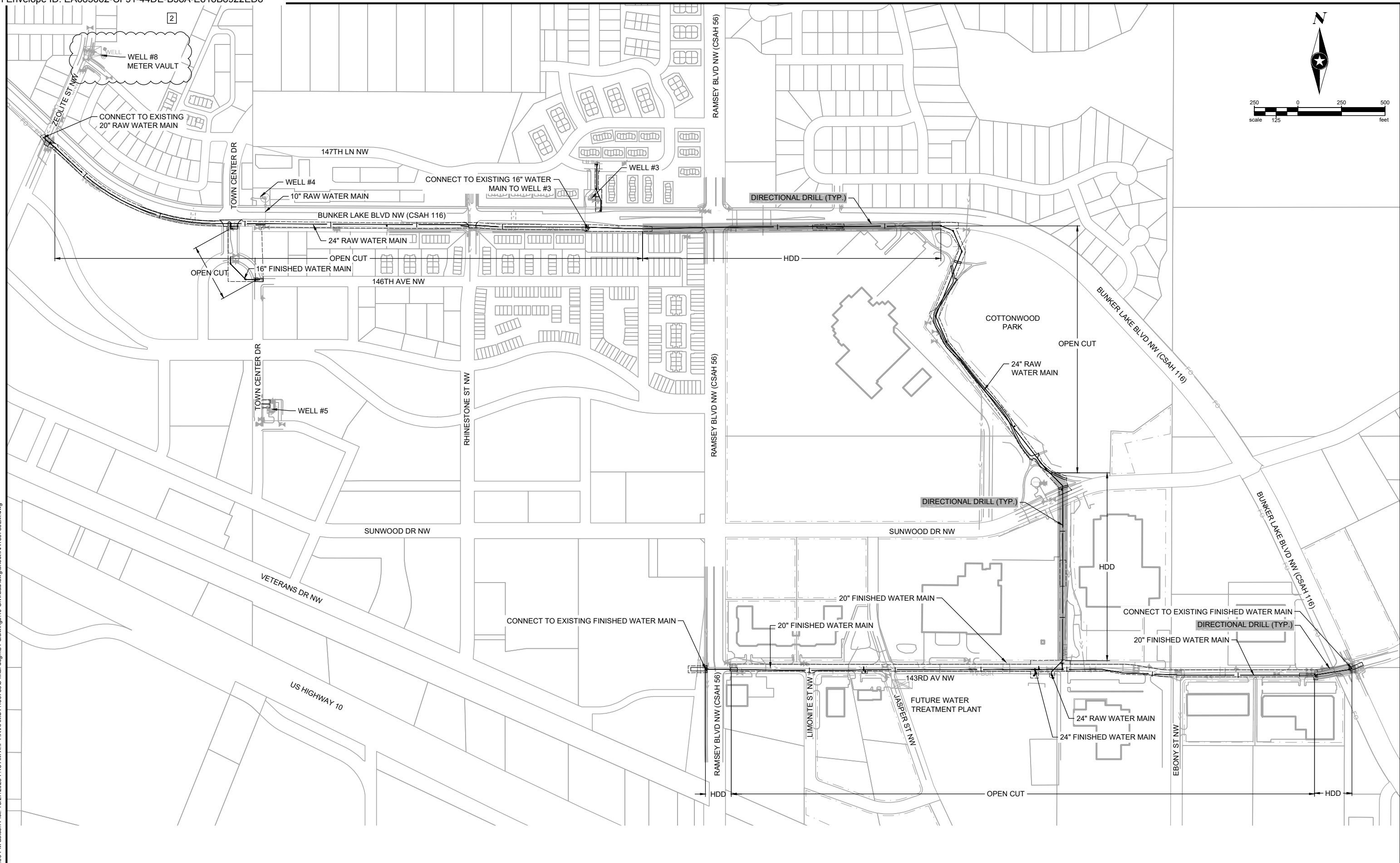
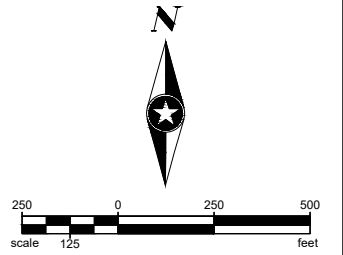
1 of 58

NOTE:  
 THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS 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 CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.


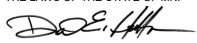


Know what's below. Call before you dig.



Save: 10/25/2023 2:09 PM aolisen Plot: 10/27/2023 7:48 AM X:\P\RAMSY\1597893\5-final-dsgn\5-1-drawings\10-Civil\cad\dwg\sheet\RA159783.LM.dwg

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	2	ADDENDUM #2	10/27/2023	.		
Designed By	KLK				.		
Checked By	CES				.		


 I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

PROJECT OVERVIEW

STATEMENT OF ESTIMATED QUANTITIES										
LINE	ITEM NO.	ITEM DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	BUNKER LAKE BOULEVARD	COTTONWOOD PARK/SUNWOOD DRIVE EASEMENT	143RD AVE NW	TOWN CENTER DRIVE	WELL #3 CROSSING	WELL #5
<b>SECTION A: STREET</b>										
1	2021.601	MOBILIZATION	LS	1.00	0.42	0.26	0.24	0.05	0.02	0.01
2	2101.505	CLEARING	ACRE	0.50		0.50				
3	2101.505	GRUBBING	ACRE	0.50		0.50				
4	2101.502	CLEARING	EA	12.00	2.00	10.00				
5	2101.502	GRUBBING	EA	12.00	2.00	10.00				
6	2104.502	SALVAGE SIGN TYPE C	EA	13.00	9.00		2.00		2.00	
7	2104.503	REMOVE CURB AND GUTTER	LF	915.00			805.00	85.00	25.00	
8	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	2325.00	430.00	110.00	1425.00	280.00	80.00	
9	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	47.00	26.00		16.00		5.00	
10	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	1185.00	380.00			759.00	46.00	
11	2104.504	REMOVE BITUMINOUS PAVEMENT (DRIVEWAY & TRAIL)	SY	1662.00	101.00	1547.00			14.00	
12	2104.518	REMOVE CONCRETE WALK	SF	825.00	380.00		320.00		125.00	
13	2105.610	EXPLORATORY EXCAVATION	HR	31.00	8.00	6.00	12.00	3.00	1.00	1.00
14	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HR	34.00	6.00	2.00	24.00	2.00		
15	2211.509	AGGREGATE BASE CLASS 5 (MODIFIED)	TON	6330.00	135.00	580.00	5400.00	185.00	30.00	
16	2215.504	FULL DEPTH RECLAMATION	SY	15667.00			15667.00			
17	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B) - TRAIL	TON	329.00	21.00	306.00			2.00	
18	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - FULL WIDTH	TON	1366.00			1366.00			
19	2360.509	TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) - FULL WIDTH	TON	1821.00			1821.00			
20	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) - PATCH	TON	134.00	37.00		17.00	72.00	8.00	
21	2360.509	TYPE SP 12.5 NON-WEARING COURSE MIXTURE (3,C) - PATCH	TON	176.00	49.00		22.00	95.00	10.00	
22	2504.602	ADJUST VALVE BOX	EA	14.00	8.00		3.00	3.00		
23	2506.502	ADJUST FRAME AND RING CASTING	EA	2.00	1.00		1.00			
24	2531.503	CONCRETE CURB AND GUTTER DESIGN B612	LF	100.00			100.00			
25	2531.503	CONCRETE CURB AND GUTTER DESIGN B618	LF	815.00			705.00	85.00	25.00	
26	2563.601	TRAFFIC CONTROL	LS	1.00	0.42	0.26	0.24	0.05	0.02	0.01
27	2564.502	INSTALL SIGN TYPE C	EA	11.00	9.00		2.00			
28	2573.501	STORM DRAIN INLET PROECTION	EA	49.00	20.00	5.00	23.00	1.00		
29	2573.503	SILT FENCE, TYPE MS	LF	8500.00	4000.00	4500.00				
30	2575.504	SODDING TYPE MINERAL	SY	1950.00		110.00	1700.00	50.00	20.00	70.00
31	2575.505	TURF RESTORATION (SEEDING)	ACRE	4.00	2.00	1.00	1.00			
32	2575.505	TEMP SEEDING	ACRE	4.00	2.00	1.00	1.00			
<b>SECTION B: STORM SEWER</b>										
33	2104.502	SALVAGE STORM PIPE APRON	EACH	1.00	1.00					
34	2104.503	REMOVE PIPE CULVERTS	LF	52.00	52.00					
35	2104.503	SALVAGE STORM SEWER PIPE	LF	65.00	45.00		20.00			
36	2501.502	PROTECT AND SUPPORT 73" SPAN RC PIPE-ARCH	EACH	1.00	1.00					
37	2501.502	INSTALL SALVAGED STORM PIPE APRON	EACH	1.00	1.00					
38	2501.502	15" CS PIPE APRON	EACH	2.00	2.00					
39	2501.503	INSTALL SALVAGED STORM PIPE	LF	65.00	45.00		20.00			
40	2501.503	15" CS PIPE	LF	52.00	52.00					
<b>SECTION C: WATER MAIN</b>										
41	2104.502	REMOVE/SALVAGE HYDRANT & VALVE	EACH	2.00	1.00		1.00			
42	2104.503	REMOVE WATER MAIN	LF	320.00	110.00			200.00	10.00	
43	2105.601	DEWATERING	LS	1.00	0.25	0.75				
44	2105.609	CRUSHED ROCK	TON	2000.00	1500.00	500.00				
45	2503.604	4" INSULATION	SY	8.00	8.00					
46	2504.602	CONNECT TO EXISTING WATER MAIN (RAW WATER)	EACH	6.00	1.00			5.00		
47	2504.602	CONNECT TO EXISTING WATER MAIN TAPPING SLEEVE AND 8" VALVE (FINISHED WATER)	EACH	3.00			1.00		2.00	
48	2504.602	CONNECT TO EXISTING WATER MAIN TAPPING SLEEVE AND 12" VALVE (FINISHED WATER)	EACH	1.00			1.00			
49	2504.602	CONNECT TO EXISTING WATER MAIN TAPPING SLEEVE AND 16" VALVE (FINISHED WATER)	EACH	1.00			1.00			
50	2504.602	CONNECT TO EXISTING WATER MAIN (HYDRANT LEAD)	EACH	2.00	1.00			1.00		
51	2504.602	HYDRANT	EACH	12.00	5.00	2.00	3.00	1.00	1.00	
52	2504.602	INSTALL SALVAGED HYDRANT	EACH	1.00			1.00			
53	2504.602	6" GATE VALVE AND BOX	EACH	13.00	5.00	2.00	4.00	1.00	1.00	
54	2504.602	16" GATE VALVE AND BOX	EACH	8.00	2.00			5.00	1.00	
55	2504.602	20" GATE VALVE AND BOX	EACH	3.00			3.00			
56	2504.602	24" GATE VALVE AND BOX	EACH	5.00	4.00		1.00			
57	2504.603	1" COPPER SERVICE	LF	85.00					25.00	60.00
58	2504.603	6" DIP WATER MAIN CL 53	LF	225.00	80.00	20.00	110.00	45.00		
59	2504.603	8" DIP WATER MAIN	LF	288.00			18.00		270.00	
60	2504.603	10" DIP WATER MAIN	LF	20.00	20.00					
61	2504.603	12" DIP WATER MAIN	LF	25.00			25.00			
62	2504.603	16" DIP WATER MAIN	LF	355.00			5.00	340.00	10.00	
63	2504.603	20" PVC WATER MAIN STAB JOINT TRENCHED (FINISHED WATER)	LF	3035.00			3035.00			
64	2504.603	20" PVC WATER MAIN RJ TRENCHED (FINISHED WATER)	LF	330.00			330.00			
65	2504.603	20" DR 18 FUSIBLE PVC WATER MAIN (HDD) (FINISHED WATER)	LF	360.00			360.00			
66	2504.603	24" DR 18 FUSIBLE PVC WATER MAIN (HDD) (RAW WATER)	LF	2635.00	1650.00	985.00				
67	2504.603	24" PVC WATER MAIN RJ TRENCHED (FINISHED WATER)	LF	45.00			45.00			
68	2504.603	24" PVC WATER MAIN RJ TRENCHED (RAW WATER)	LF	1320.00	850.00	470.00				
69	2504.603	24" PVC WATER MAIN STAB JOINT TRENCHED (RAW WATER)	LF	4310.00	2810.00	1500.00				
70	2504.603	WATER METER VAULT	LS	1.00	1.00					
71	2504.608	DUCTILE IRON FITTINGS*	LB	24966.00	9060.00	7370.00	5864.00	1958.00	714.00	
<b>ALTERNATE BID ITEM</b>										
72		ADDITIONAL BID COST IF PREVAILING WAGES ARE ADDED AS A REQUIREMENT	LS	1.00						

\*NOTE:  
DUCTILE IRON FITTINGS WEIGHT  
DETERMINATION CAN BE FOUND IN  
THE SPEC BOOK UNDER "WATER  
DISTRIBUTION SYSTEMS" (SECTION  
33.11.00, PART 2.02)

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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	1	ADDENDUM #1	10/23/2023			
Designed By	KLK	2	ADDENDUM #2	10/27/2023			
Checked By	CES						



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**STATEMENT OF  
ESTIMATED QUANTITIES**

**CONSTRUCTION NOTES**

ANY USE OF TRENCH BOX, SHEETING, SHORING OR OTHER METHODS OR MEANS OF CONSTRUCTION NECESSARY TO COMPLETE CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR SLOPE EASEMENTS SHOWN WILL BE CONSIDERED TO BE INCIDENTAL AND NO DIRECT COMPENSATION WILL BE MADE THEREFORE.

COMPACTION OF GRADING ITEMS, INCLUDING AGGREGATE BASE, SHALL BE ACCOMPLISHED BY THE "QUALITY COMPACTION METHOD".

BACKFILLING OF CURBS WITH ON-SITE MATERIAL IS INCIDENTAL TO CURB CONSTRUCTION.

WHEN CONNECTION TO EXISTING BITUMINOUS PAVEMENT IS REQUIRED, THE EDGE OF EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE AND COMPLY WITH CITY OF RAMSEY STANDARD DETAIL STR-25.

PROVIDE FOR A UNIFORM BITUMINOUS TACK COAT BETWEEN ALL COURSES. THE TACK COAT SHALL BE IN ACCORDANCE WITH MN/DOT SPECIFICATION 2357 WITH THE FOLLOWING MODIFICATIONS:

1. THE TACK COAT SHALL CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-1H) AND SHALL BE APPLIED TO THE MILLED BITUMINOUS SURFACE AND BETWEEN ALL NEWLY CONSTRUCTED COURSES.
2. THE TACK COAT BETWEEN BITUMINOUS LIFTS SHALL BE APPLIED AT A UNIFORM RATE OF 0.08 GALLONS PER SQUARE YARD BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE BASED ON DILUTED TACK MATERIAL

WATER, GAS, ELECTRIC, TELEPHONE, SEWER, AND TV CABLE LINES SHOWN ON THE DRAWINGS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTORS ATTENTION IS DIRECTED TO SECTION 1507 IN THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS HEREBY REMINDED OF HIS RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.

ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.

(P) DENOTES A PLAN QUANTITY ITEM

CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS AND SPECIFICATION, AND WILL IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY, OR AS DIRECTED BY ENGINEER, IN ORDER TO PROTECT ADJACENT PROPERTY.

ALL DIMENSIONS SHALL BE TO FACE OF CURB UNLESS STATED OTHERWISE.

PROVIDE FOR THE REMOVAL AND DISPOSAL, OUTSIDE THE CONSTRUCTION ZONE, OF ANY INPLACE SURFACING OR OTHER STRUCTURES THAT WOULD INTERFERE WITH CONSTRUCTION. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF OUTSIDE THE RIGHT OF WAY IN ACCORDANCE WITH SPECIFICATION 2104.3C. PROVIDE FOR SAW CUTTING AS DEEMED NECESSARY BY THE DESIGNER.

ALL EXCAVATED MATERIAL SHALL BE USED ONSITE FOR BORROW ITEMS IF MEETS GRADATION REQUIREMENTS UNLESS DIRECTED OTHERWISE BY THIS PLAN OR AS DIRECTED BY THE ENGINEER.

IN FILL SECTIONS, TOPSOIL AND OTHER UNSUITABLE MATERIALS SHALL BE ELIMINATED FROM THE UPPER 3 FEET OF THE "GRADING GRADE" BENEATH THE ROADWAY AS DIRECTED BY THE ENGINEER.

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES	
7100H	CONCRETE CURB AND GUTTER DESIGN B & V
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
8000I	STANDARD BARRICADES

TEST ROLLING WILL BE REQUIRED ON THIS PROJECT.

PLACE A MINIMUM OF 4 INCHES OF TOPSOIL BORROW ON ALL DISTURBED AREAS AND ALL AREAS SCHEDULED FOR TURF RESTORATION. TOPSOIL SHALL CONTAIN NO MORE THAN 35% SAND CONTENT. SEE CITY OF RAMSEY STANDARD DETAIL ERO-6. REFERENCE MNDOT SPECIFICATION 3877

USE SEED MIXTURES AS INDICATED ON EROSION CONTROL AND TURF ESTABLISHMENT PLANS.

FERTILIZE ALL AREAS TO BE RESTORED WITH SEED.

THE CONTRACTOR SHALL LIMIT EQUIPMENT USE AND NUMBER OF ACCESS ROUTES ON PRIVATE PROPERTY TO COMPLETE THE PROJECT WITH MINIMAL DISTURBANCE WHERE PRACTICAL. ANY DAMAGE TO PRIVATE PROPERTY, TURF AND/OR OTHER DRIVING SURFACES DEEMED UNNECESSARY BY THE ENGINEER SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROTECT ANY NEWLY CONSTRUCTED ASPHALT OR CONCRETE SURFACE FROM DAMAGE DURING UTILITY INSTALLATION. ANY DAMAGE DEEMED UNNECESSARY BY THE ENGINEER SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE. THE DEFINITION OF DAMAGE SHALL INCLUDE, BUT IS NOT LIMITED TO: GOUGES, DENTS, PERMANENT SCRAPES, CRACKING OR ANY OTHER PHYSICAL OR VISIBLE CHANGE FROM THE SURFACE'S PREVIOUS CONDITION CAUSED BY THE CONSTRUCTION PROCESS.

THE CONTRACTOR SHALL SUPPLY "AS BUILT" INFORMATION OF WATER SERVICES INCLUDING LENGTH AND LOCATION.

CONCRETE DRIVEWAY PAVEMENT (HIGH EARLY) - CONTRACTOR SHALL POUR CONCRETE DRIVEWAYS IN HALVES TO MAINTAIN CONTINUOUS ACCESS TO HOMES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TOP OF GRADING GRADE

TOP OF "GRADING GRADE" IS HEREBY DEFINED AS THE TOP OF THE SELECT GRANULAR MATERIAL OR THE BOTTOM OF THE AGGREGATE BASE.

SUITABLE MATERIALS

SUITABLE MATERIALS SHALL BE ALL GRANULAR SOILS ENCOUNTERED ON THE PROJECT FROM BORROW, NOT DEFINED AS BEING UNSUITABLE BY THE ENGINEER, EXCEPT THAT ONLY SELECT GRANULAR MATERIAL SHALL BE USED WHERE SPECIFIED AS SUCH IN THE PLANS.

UNSUITABLE MATERIALS

UNSUITABLE MATERIALS ARE ALL MATERIALS DETERMINED BY THE ENGINEER AS BEING UNSUITABLE FOR GRANULAR BORROW OR STRUCTURAL BACKFILL FOR ROADWAY CONSTRUCTION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.

WATERMAIN CLASS

DIP 6" OR LESS IS CLASS 53, DIP 8" OR LARGER IS CLASS 52.

BASIS OF ESTIMATED QUANTITIES	
SELECT GRANULAR BORROW	140 #/CF
AGGREGATE BASE CLASS 5	1.8 TONS/CU YD
TYPE SP 9.5 WEARING COURSE	113 #/SY/INCH
TYPE SP 12.5 NON-WEARING COURSE	113 #/SY/INCH
BITUMINOUS MATERIAL FOR TACK COAT	0.08 GAL/S.Y.
MULCH MATERIAL TYPE 6	80 CY/ACRE
COMM. FERT. ANALYSIS 25-5-10	400 #/ACRE
SEED MIXTURE 25-151	300 #/ACRE
SEED MIXTURE 25-141	59 #/ACRE

KNOWN PRIVATE UTILITIES WITHIN THE PROJECT AREA:

- ARVIG (COMM.)
- CENTERPOINT ENERGY (GAS)
- COMCAST (COMM.)
- CENTURYLINK (COMM.)
- CONNEXUS (ELECTRIC)
- ZAYO (COMM.)

CONSTRUCTION SEQUENCING

RAW WATER MAIN SEQUENCING

1. VERIFY LOCATION OF EXISTING 20" RAW WATER MAIN AT BUNKER LAKE BLVD NW AND ZEOLITE ST NW
2. SHUT DOWN EXISTING RAW WATER MAIN FROM WELL #8 TO WELL #7
3. INSTALL 24"x20" REDUCER ON EXISTING 20" RAW WATER MAIN
4. LAY 24" RAW WATER MAIN AND APPURTENANCES FROM 24"x20" REDUCER TO 24"x10" TEE
5. CONNECT 24"x10" TEE TO EXISTING 10" RAW WATER MAIN USING A BEND, PIPING, AND APPURTENANCES
6. LAY 24" RAW WATER MAIN FROM 24"x10" TEE TO 24" GATE VALVE ON THE EAST SIDE OF BUNKER LAKE BLVD NW AND ZEOLITE ST NW; CLOSE 24" GATE VALVE
7. PLACE RAW WATER MAIN IN SERVICE FROM WELL #8 TO WELL #7
8. INSTALL 24" RAW WATER MAIN AND APPURTENANCES FROM 24" GATE VALVE ON THE EAST SIDE OF BUNKER LAKE BLVD NW AND ZEOLITE ST NW TO 24"x16" TEE AT BUNKER LAKE BLVD NW AND TOWN CENTER DR NW
9. INSTALL 16" STUB FOR A FUTURE CONNECTION TO THE EXISTING 16" RAW WATER MAIN UTILIZING A VALVE, PIPING, AND APPURTENANCES
10. INSTALL 24" RAW WATER MAIN AND APPURTENANCES FROM 24"x16" TEE AT BUNKER LAKE BLVD NW AND TOWN CENTER DR NW TO 24"x16" TEE AT STA. 33+35
11. INSTALL 16" STUB FOR A FUTURE CONNECTION TO THE EXISTING 16" FINISHED WATER MAIN UTILIZING A VALVE, PIPING, AND APPURTENANCES
12. INSTALL 24" RAW WATER MAIN AND APPURTENANCES FROM 24"x16" TEE AT STA. 33+35 TO HYDRANT ASSEMBLY AND PLUG AT THE FUTURE WATER TREATMENT PLANT SITE AT STA. 83+05
13. PRESSURE TEST 24" RAW WATER MAIN AGAINST EVERY 24" GATE VALVE TO VERIFY A "SURE CUT" AT EACH 24" GATE VALVE
14. CHLORINATE RAW WATER MAIN
15. VERIFY THE FOLLOWING GATE VALVES ARE CLOSED WHEN PRESSURE TESTING AND CHLORINATING IS COMPLETE:
  - 15.1. 24" GATE VALVE AT STA. 1+27 (EAST GATE VALVE AT BUNKER LAKE BLVD NW AND ZEOLITE ST NW)
  - 15.2. 24" GATE VALVE AT STA. 12+77 AT BUNKER LAKE BLVD NW AND TOWN CENTER DR NW
  - 15.3. 16" GATE VALVE ON 16" STUB AT BUNKER LAKE BLVD NW AND TOWN CENTER DR NW
  - 15.4. 24" GATE VALVE AT STA. 33+27
  - 15.5. 16" GATE VALVE ON 16" STUB AT STA. 33+35
  - 15.6. 24" GATE VALVE AT STA. 83+00 AT THE FUTURE WATER TREATMENT PLANT SITE
16. VERIFY THE 24" GATE VALVE AT STA. 0+90 (WEST GATE VALVE AT BUNKER LAKE BLVD NW AND ZEOLITE ST NW) IS OPEN WHEN PRESSURE TESTING IS COMPLETE

FINISHED WATER MAIN SEQUENCING

17. INSTALL 12"x12" TAPPING SLEEVE AND TAPPING VALVE AT 143RD AVE NW AND RAMSEY BLVD NW
18. INSTALL 20"x12" REDUCER ON EAST SIDE OF THE 12" TAPPING VALVE AT 143RD AVE NW AND RAMSEY BLVD NW
19. INSTALL 20" FINISHED WATER MAIN AND APPURTENANCES FROM 20"x12" REDUCER TO 20"x8" TEE AT STA. 109+17
20. INSTALL 8" STUB UTILIZING PIPING, APPURTENANCES, AND A TEMPORARY VALVED BLOWOFF ASSEMBLY FOR A CONNECTION TO THE EXISTING 8" FINISHED WATER MAIN; THIS CONNECTION WILL TAKE PLACE AFTER THE FINISHED WATER MAIN HAS BEEN PLACED IN SERVICE
21. INSTALL 20"/24" FINISHED WATER MAIN AND APPURTENANCES FROM 20"x8" TEE TO 20" GATE VALVE AT STA. 119+10
22. INSTALL 24" FINISHED WATER MAIN AND APPURTENANCES FROM 24"x24" TEE AT STA. 200+75 TO 24"x12" TEE AT STA. 200+61
23. INSTALL 12" STUB UTILIZING PIPING, APPURTENANCES, AND A TEMPORARY VALVED BLOWOFF ASSEMBLY FOR A CONNECTION TO THE EXISTING 12" FINISHED WATER MAIN; THIS CONNECTION WILL TAKE PLACE AFTER THE FINISHED WATER MAIN HAS BEEN PLACED IN SERVICE
24. INSTALL 24" FINISHED WATER MAIN FROM 24"x12" TEE AT STA. 200+61 TO HYDRANT ASSEMBLY AND PLUG AT THE FUTURE WATER TREATMENT PLANT SITE
25. DISINFECT 20"/24" FINISHED WATER MAIN BETWEEN RAMSEY BLVD NW AND THE FUTURE WATER TREATMENT PLANT SITE
26. PRESSURE TEST EVERY SEGMENT OF 20"/24" FINISHED WATER MAIN AGAINST EVERY 20"/24" GATE VALVE TO VERIFY A "SURE CUT" AT EACH 20"/24" GATE VALVE BETWEEN RAMSEY BLVD NW AND THE FUTURE WATER TREATMENT PLANT SITE
27. AFTER 20"/24" FINISHED WATER MAIN ON 143RD ST NW BETWEEN RAMSEY BLVD NW AND THE FUTURE WATER TREATMENT PLANT SITE HAS PASSED PRESSURE TEST AND THE DISINFECTION PROCESS, REMOVE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 109+17 AND CONNECT 8" STUB TO THE EXISTING 8" FINISHED WATER MAIN UTILIZING A TAPPING SLEEVE, TAPPING VALVE, PIPING, AND APPURTENANCES; SWAB CONNECTION PIPING AND APPURTENANCES WITH A MINIMUM OF 50 PPM CHLORINE SOLUTION
28. AFTER 20"/24" FINISHED WATER MAIN ON 143RD ST NW BETWEEN RAMSEY BLVD NW AND THE FUTURE WATER TREATMENT PLANT SITE HAS PASSED PRESSURE TEST AND THE DISINFECTION PROCESS, REMOVE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 200+61 AND CONNECT 12" STUB TO THE EXISTING 12" FINISHED WATER MAIN UTILIZING A TAPPING SLEEVE, TAPPING VALVE, PIPING, AND APPURTENANCES; SWAB CONNECTION PIPING AND APPURTENANCES WITH A MINIMUM OF 50 PPM CHLORINE SOLUTION
29. INSTALL 16"x16" TAPPING SLEEVE AND TAPPING VALVE AT 143rd AVE NW AND BUNKER LAKE BLVD NW
30. INSTALL 20"x16" REDUCER ON WEST SIDE OF THE 16" TAPPING VALVE AT 143RD AVE NW AND BUNKER LAKE BLVD NW
31. INSTALL 20" FINISHED WATER MAIN AND APPURTENANCES FROM 20"x16" REDUCER TO 20"x6" TEE AT STA. 135+49
32. INSTALL HYDRANT TEE, VALVE, AND TEMPORARY VALVED BLOWOFF AT STA. 135+49; THIS CONNECTION TO THE EXISTING HYDRANT WILL TAKE PLACE AFTER THE FINISHED WATER MAIN HAS BEEN PLACED IN SERVICE
33. INSTALL 20" FINISHED WATER MAIN AND APPURTENANCES FROM 20"x6" TEE AT STA. 135+49 TO 20"x6" TEE AT STA. 120+52
34. INSTALL HYDRANT TEE, VALVE, AND TEMPORARY VALVED BLOWOFF AT STA. 120+52; THIS CONNECTION TO THE EXISTING HYDRANT WILL TAKE PLACE AFTER THE FINISHED WATER MAIN HAS BEEN PLACED IN SERVICE
35. INSTALL 20" FINISHED WATER MAIN AND APPURTENANCES FROM 20"x6" TEE AT STA. 120+52 TO THE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 119+30
36. DISINFECT 20" FINISHED WATER MAIN BETWEEN BUNKER LAKE BLVD NW AND THE TEMPORARY VALVED BLOWOFF ASSEMBLY NEAR THE FUTURE WATER TREATMENT PLANT SITE
37. PRESSURE TEST 20" FINISHED WATER MAIN BETWEEN BUNKER LAKE BLVD NW AND THE TEMPORARY VALVED BLOWOFF ASSEMBLY NEAR THE FUTURE WATER TREATMENT PLANT SITE.
38. AFTER 20" FINISHED WATER MAIN BETWEEN BUNKER LAKE BLVD NW AND THE TEMPORARY VALVED BLOWOFF ASSEMBLY NEAR THE FUTURE WATER TREATMENT PLANT SITE HAS PASSED PRESSURE TEST AND THE DISINFECTION PROCESS, REMOVE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 119+30 AND CONNECT 20" FINISHED WATER MAIN TO THE 20" GATE VALVE AT STA. 119+10 UTILIZING PIPING AND APPURTENANCES; SWAB CONNECTION PIPING AND APPURTENANCES WITH A MINIMUM OF 50 PPM CHLORINE SOLUTION
39. AFTER 20" FINISHED WATER MAIN BETWEEN BUNKER LAKE BLVD NW AND THE TEMPORARY VALVED BLOWOFF ASSEMBLY NEAR THE FUTURE WATER TREATMENT PLANT SITE HAS PASSED PRESSURE TEST AND THE DISINFECTION PROCESS, REMOVE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 135+49 AND CONNECT TO EXISTING HYDRANT BRANCH AFTER THE EXISTING HYDRANT HAS BEEN REMOVED, INSTALL HYDRANT ASSEMBLY UTILIZING A TEE, VALVES, PIPING, HYDRANT, AND APPURTENANCES; SWAB HYDRANT ASSEMBLY AND CONNECTION PIPING AND APPURTENANCES WITH A MINIMUM OF 50 PPM CHLORINE SOLUTION
40. AFTER 20" FINISHED WATER MAIN BETWEEN BUNKER LAKE BLVD NW AND THE TEMPORARY VALVED BLOWOFF ASSEMBLY NEAR THE FUTURE WATER TREATMENT PLANT SITE HAS PASSED PRESSURE TEST AND THE DISINFECTION PROCESS REMOVE TEMPORARY VALVED BLOWOFF ASSEMBLY AT STA. 120+52 AND CONNECT TO EXISTING HYDRANT BRANCH AFTER THE EXISTING HYDRANT HAS BEEN REMOVED, INSTALL HYDRANT ASSEMBLY UTILIZING A TEE, VALVES, PIPING, HYDRANT, AND APPURTENANCES; SWAB HYDRANT ASSEMBLY AND CONNECTION PIPING AND APPURTENANCES WITH A MINIMUM OF 50 PPM CHLORINE SOLUTION
41. VERIFY THE 24" GATE VALVE AT THE FUTURE WATER TREATMENT PLANT SITE IS CLOSED WHEN CONNECTIONS ARE COMPLETE
42. VERIFY THE FOLLOWING GATE VALVES ARE OPEN WHEN CONNECTIONS ARE COMPLETE:
  - 42.1. 12" GATE VALVE AT 143RD AVE NW AND RAMSEY BLVD NW
  - 42.2. 8" GATE VALVE AT STA. 109+17
  - 42.3. 12" GATE VALVE AT STA. 200+61
  - 42.4. 6" GATE VALVE AT HYDRANT ASSEMBLY AT STA. 120+52
  - 42.5. 6" GATE VALVE AT HYDRANT ASSEMBLY AT STA. 135+49
  - 42.6. 16" GATE VALVE AT 143RD AVE NW AND BUNKER LAKE BLVD NW

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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.	.	.	.	.	.
Designed By	KLK	.	.	.	.	.	.
Checked By	CES	.	.	.	.	.	.

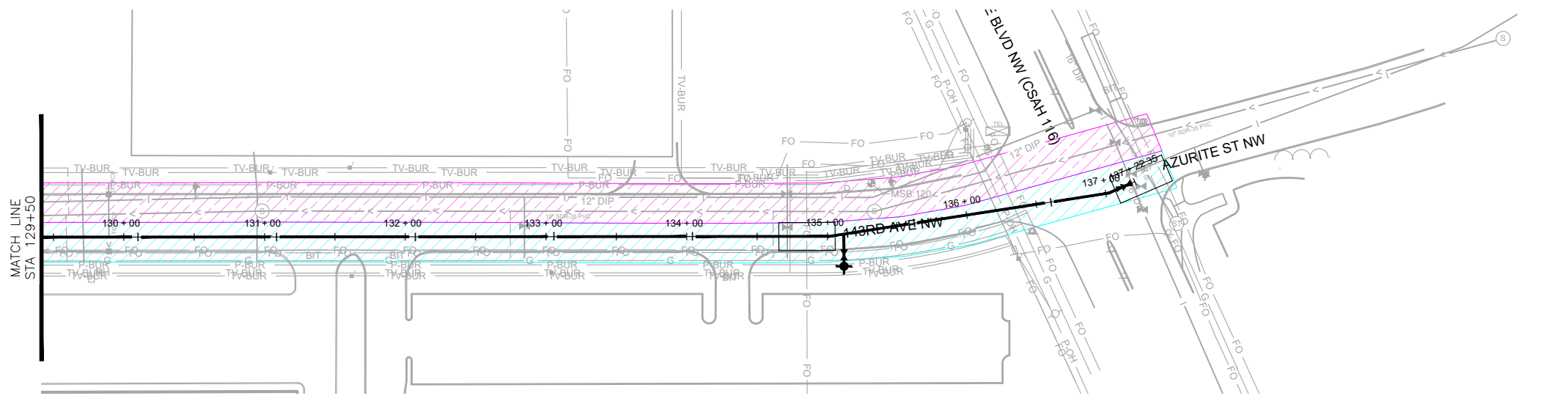
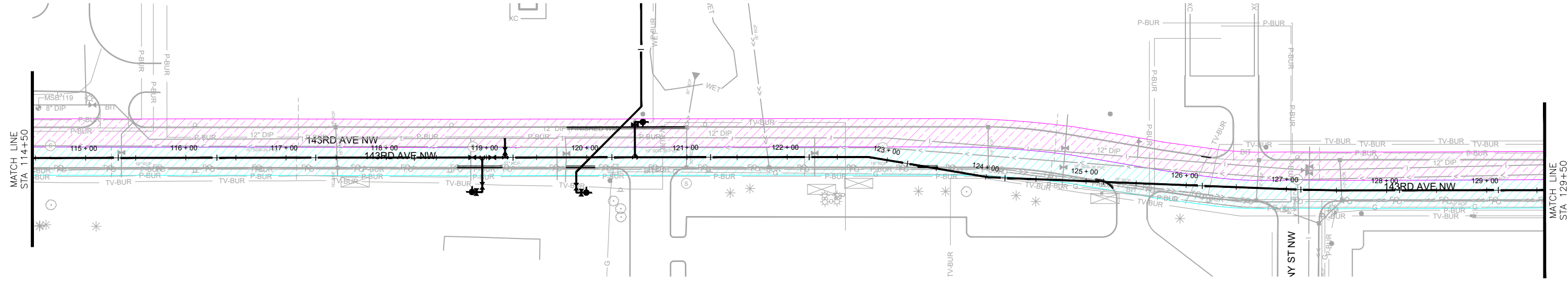
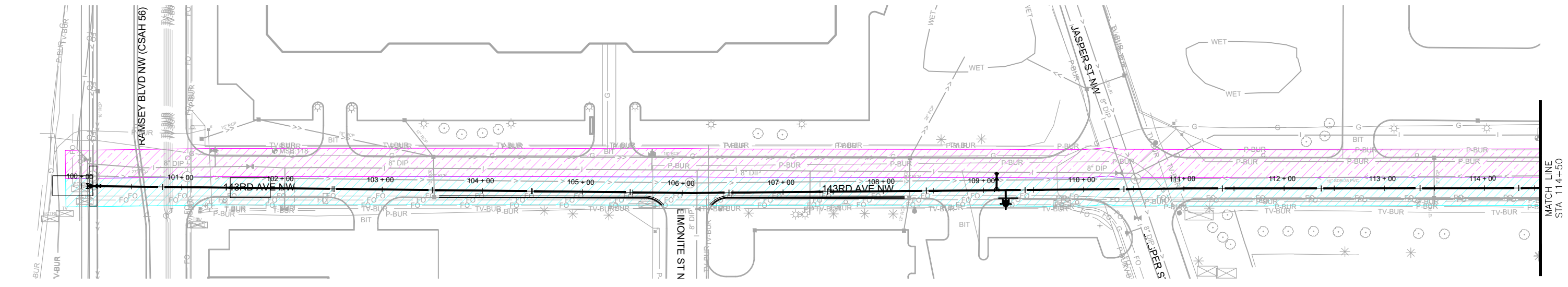


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**CONSTRUCTION NOTES**





- LEGEND**
- PHASE 1
  - PHASE 2
  - PHASE 3

- CONSTRUCTION PHASING:**
1. MILL AND RECLAIM ASPHALT ON SOUTH HALF OF 143RD AVE. FOR WATER MAIN INSTALLATION. ALLOW TRAFFIC TO USE NORTH SIDE. ONCE WATER MAIN COMPLETED, PAVE BASE COURSE ASPHALT. RECLAIM MATERIAL NOT IMMEDIATELY REUSED AS AGGREGATE BASE MATERIAL SHALL BE STOCKPILED ON THE CITY OWNED PROPERTY AT 14210 JASPER STREET. ALL EXCESS RECLAIM MATERIAL SHALL REMAIN ON THIS PROPERTY AFTER THE PROJECT IS COMPLETE.
  2. MOVE TRAFFIC TO SOUTH HALF OF 143RD AVE. FOR MILL AND RECLAIM OF NORTH HALF OF 143RD AVE. PAVE BASE COURSE ASPHALT. NO CURB SHALL BE TOUCHED UNLESS DAMAGED AND IDENTIFIED FOR REPLACEMENT BY THE ENGINEER.
  3. PAVE WEAR COURSE FULL WIDTH 143RD AVE.

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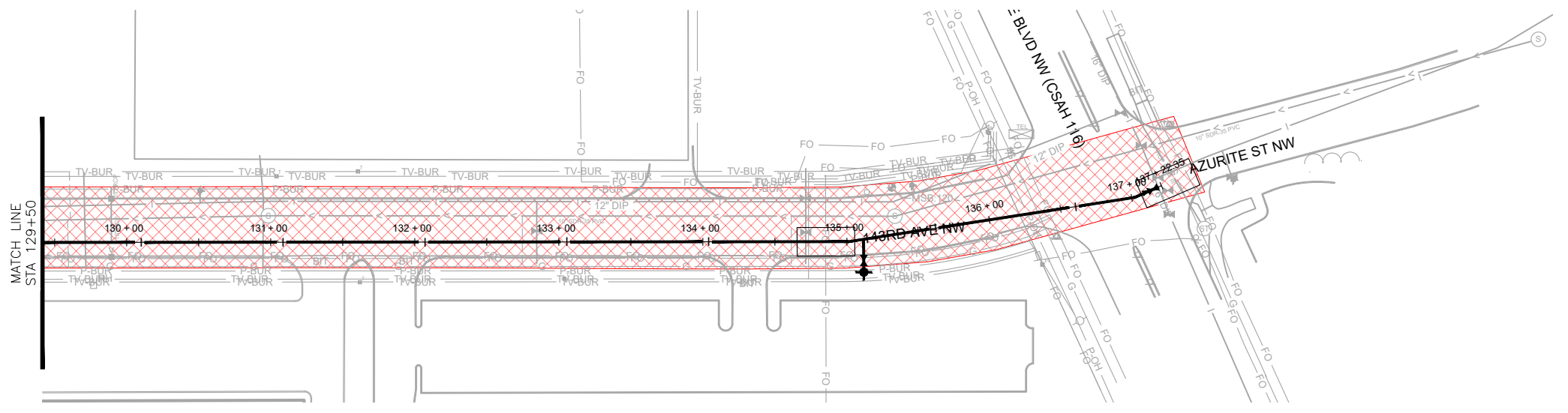
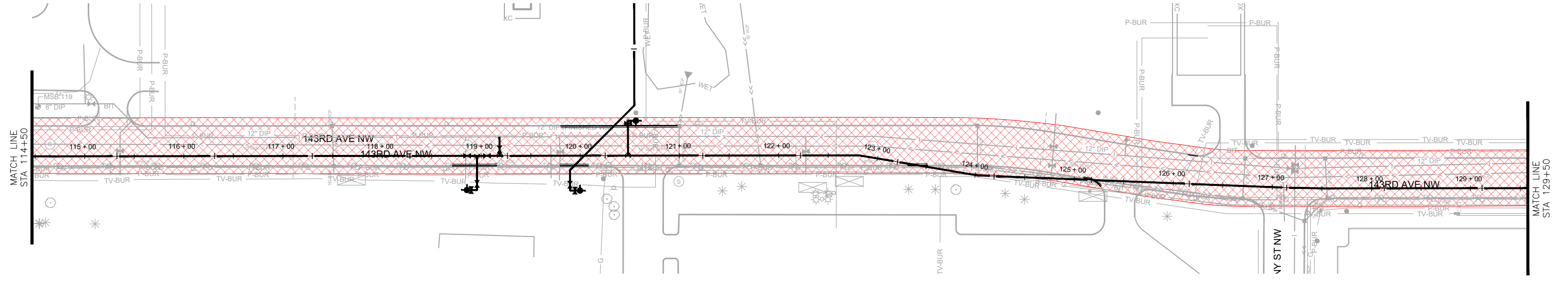
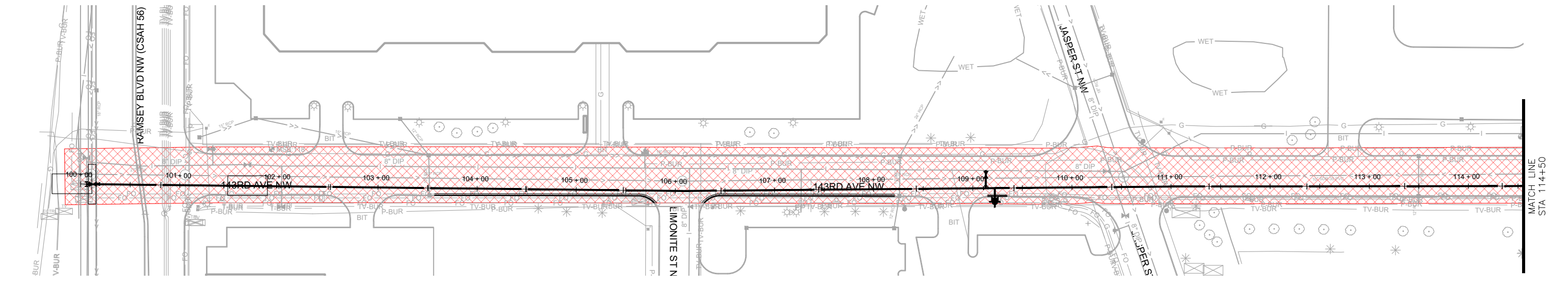
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		



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**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**CONSTRUCTION PHASING - 143RD AVE.**



- LEGEND**
- PHASE 1
  - PHASE 2
  - PHASE 3

- CONSTRUCTION PHASING:**
1. MILL AND RECLAIM ASPHALT ON SOUTH HALF OF 143RD AVE. FOR WATER MAIN INSTALLATION. ALLOW TRAFFIC TO USE NORTH SIDE. ONCE WATER MAIN COMPLETED, PAVE BASE COURSE ASPHALT. RECLAIM MATERIAL NOT IMMEDIATELY REUSED AS AGGREGATE BASE MATERIAL SHALL BE STOCKPILED ON THE CITY OWNED PROPERTY AT 14210 JASPER STREET. ALL EXCESS RECLAIM MATERIAL SHALL REMAIN ON THIS PROPERTY AFTER THE PROJECT IS COMPLETE.
  2. MOVE TRAFFIC TO SOUTH HALF OF 143RD AVE. FOR MILL AND RECLAIM OF NORTH HALF OF 143RD AVE. PAVE BASE COURSE ASPHALT. NO CURB SHALL BE TOUCHED UNLESS DAMAGED AND IDENTIFIED FOR REPLACEMENT BY THE ENGINEER.
  3. PAVE WEAR COURSE FULL WIDTH 143RD AVE.

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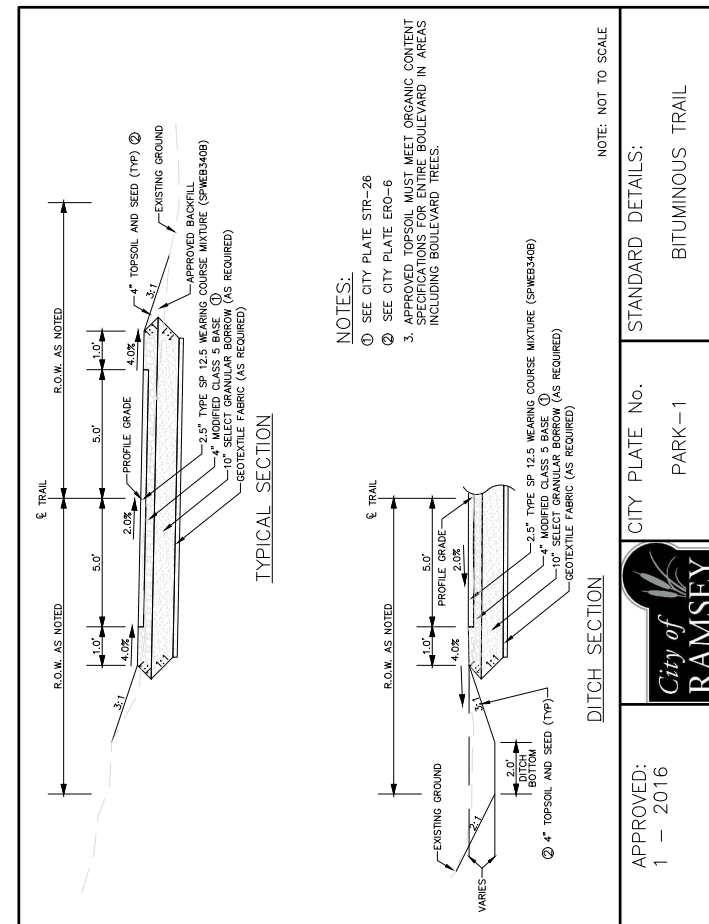
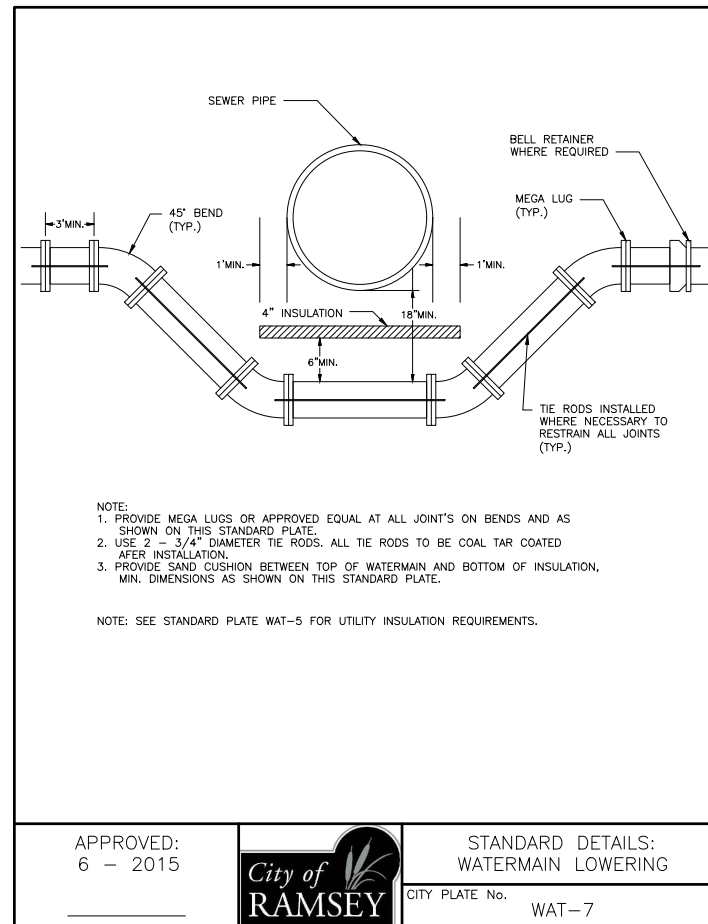
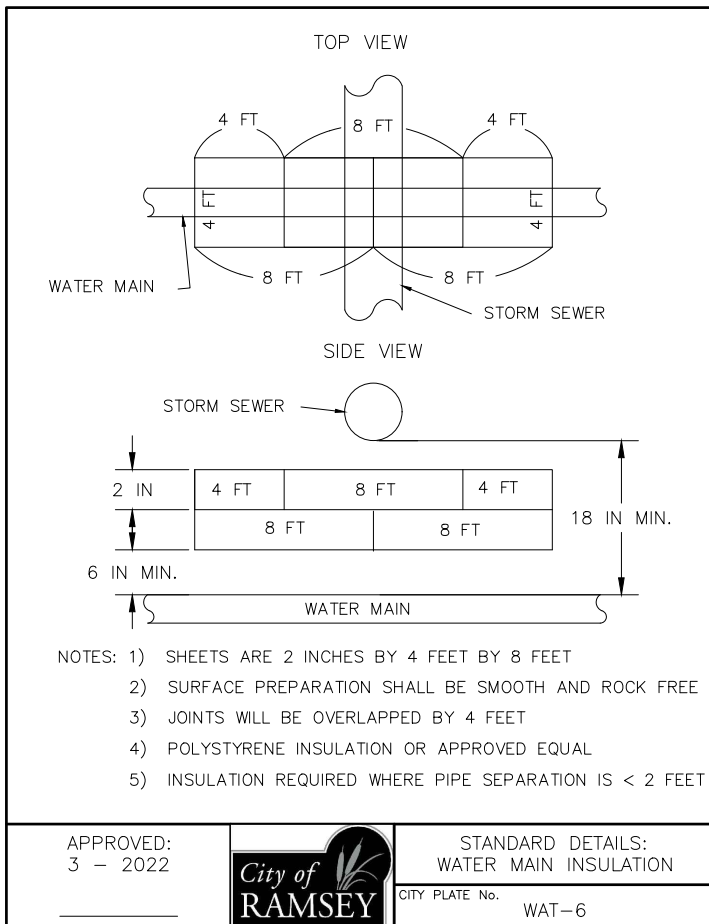
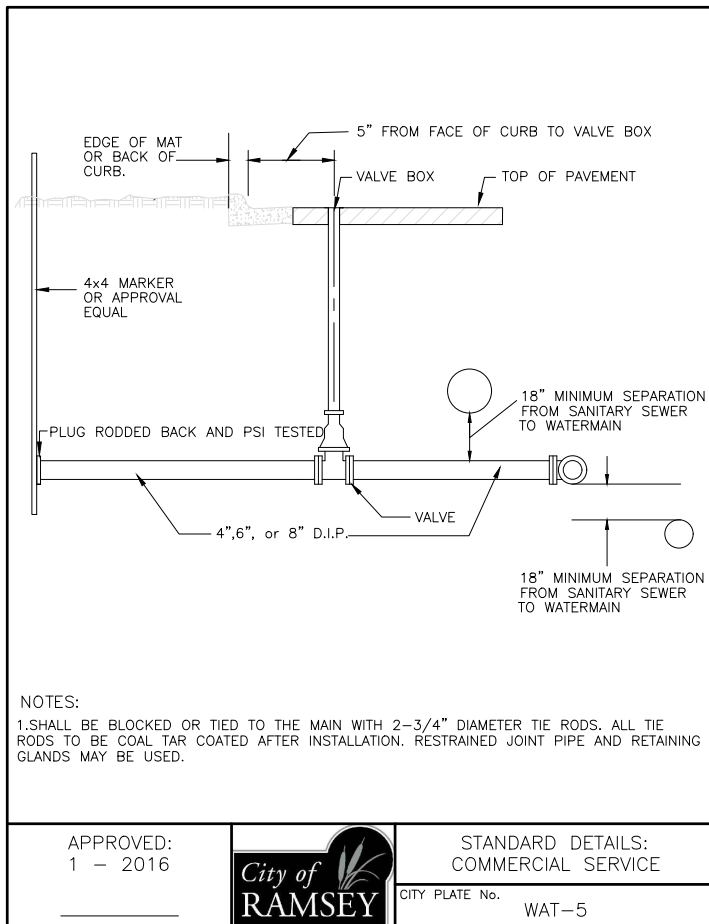
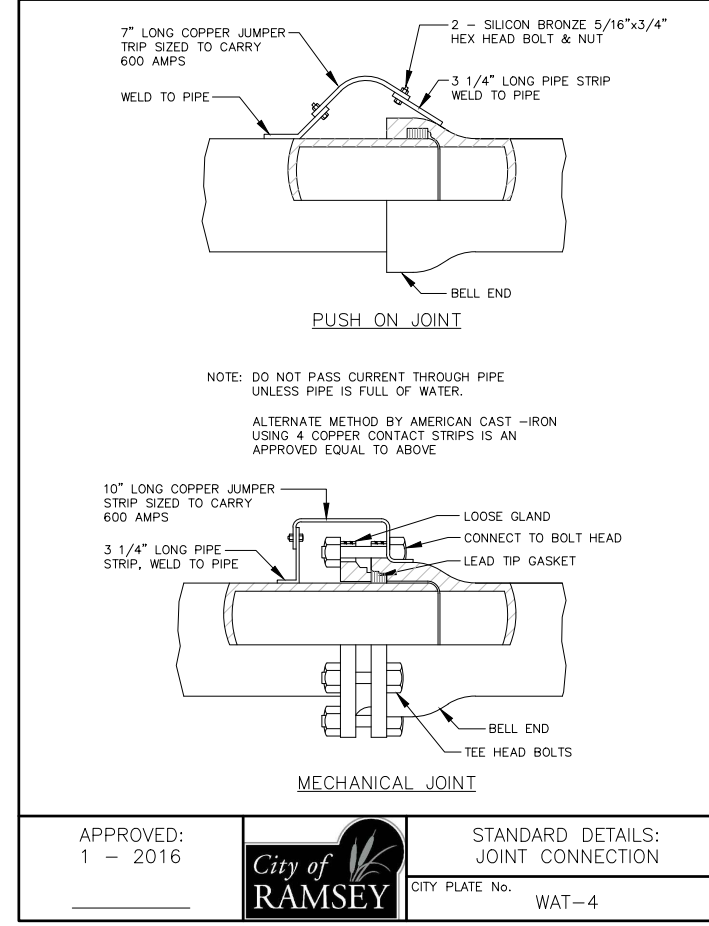
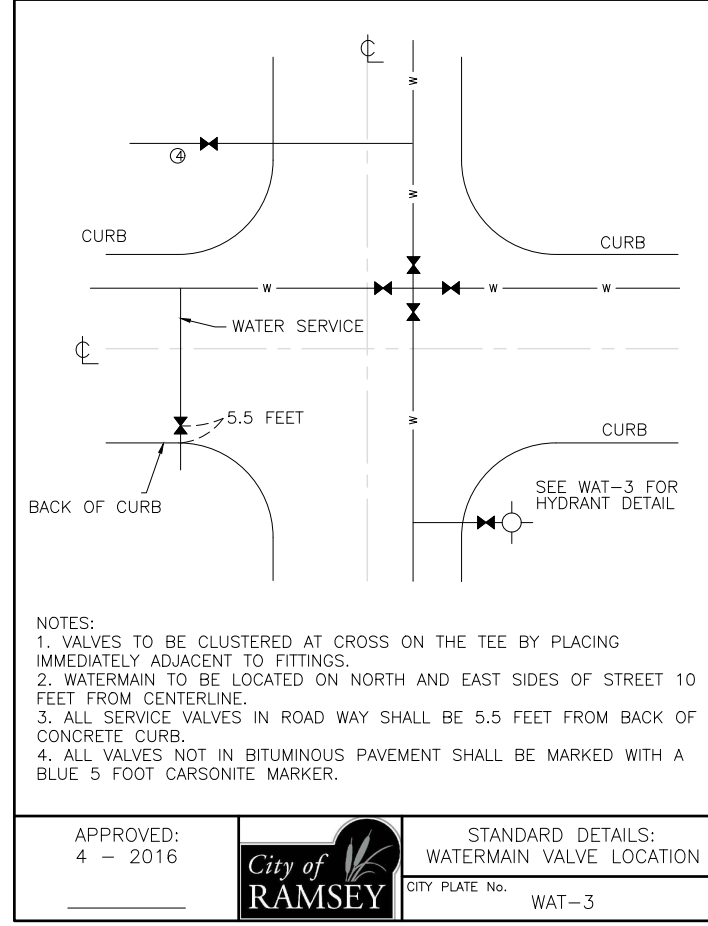
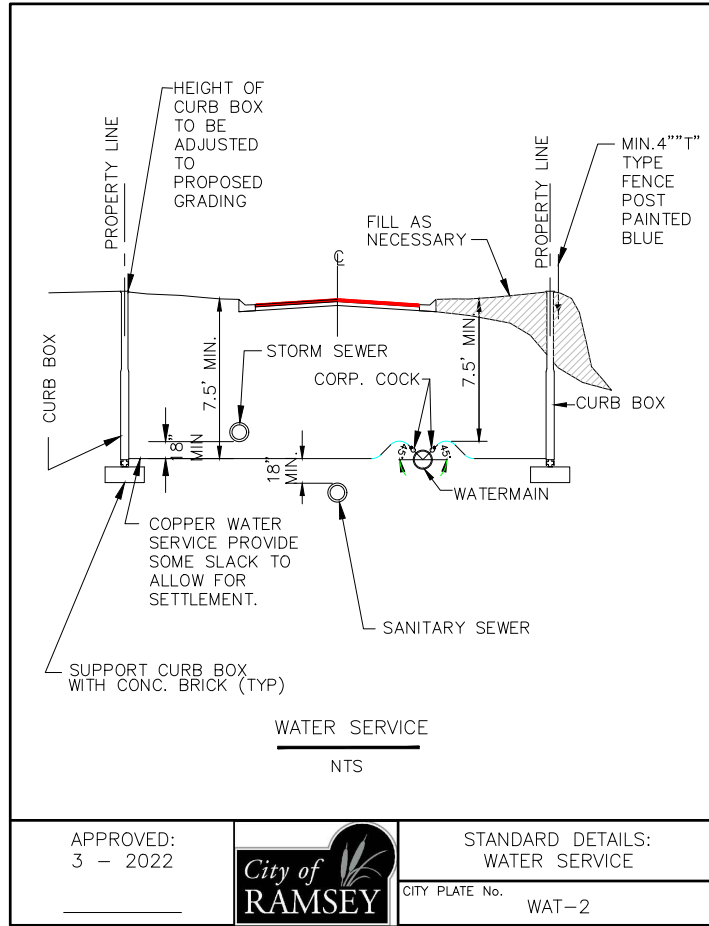
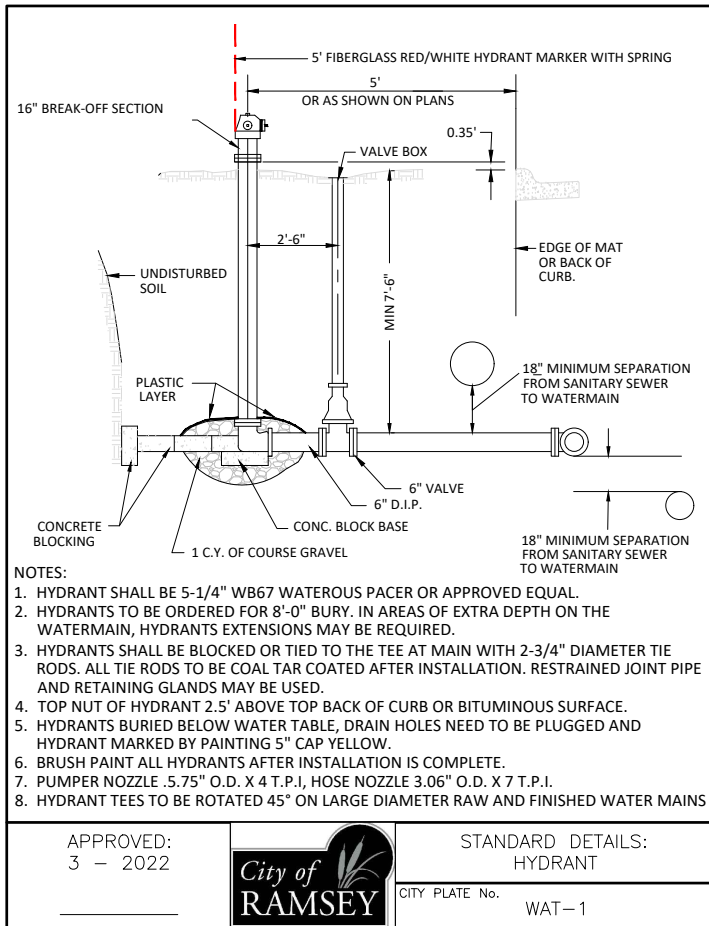
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Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		



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 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**CONSTRUCTION PHASING - 143RD AVE.**



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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**MnDOT B618 (URBAN)**  
**DRIVEWAY FOR B618**

**MnDOT B612 (URBAN)**  
**SURMOUNTABLE**

**NOTES:**  
 1. ON WEAR COURSE MILL THE EXISTING BITUMINOUS 1.5" BY 24" IN FRONT OF THE REPLACEMENT CURB.  
 2. ON BASE COURSE SAW CUT AND REMOVE EXISTING BITUMINOUS 18" IN FRONT OF THE REPLACEMENT CURB.

APPROVED: 1 - 2016  
 City of RAMSEY  
 STANDARD DETAILS: CURB AND GUTTER  
 CITY PLATE No. STR-1

**PLAN**

**SECTION A-A**

**NOTES:**  
 1. WITH REMOVAL OF EXISTING CURB AT A STREET, MILL BITUMINOUS TO A DEPTH OF 1.5" AND A WIDTH OF 18" IN EXISTING STREET.  
 2. TO BE USED WHENEVER CROSS DRAINAGE IS < 2%.  
 3. CONCRETE CURB AND GUTTER SHALL BE CAST INTEGRAL WITH CONCRETE CROSS GUTTER AREA.  
 4. CONCRETE CURB AND GUTTER SHALL BE PAID SEPARATELY FROM CONCRETE CROSS GUTTER AREA.

APPROVED: 3 - 2017  
 City of RAMSEY  
 STANDARD DETAILS: CROSS GUTTER  
 CITY PLATE No. STR-2

**PLAN**

**SECTION A-A**

**NOTE:**  
 ① BROOM FINISH CONCRETE WALK SURFACE  
 ② MAXIMUM 100 FOOT SPACING BETWEEN EXPANSION JOINTS  
 ③ 1/2" EXPANSION JOINT MEETING MNDOT SPEC 3702. PROVIDE ONE PIECE OF FILLER FOR THE ENTIRE DEPTH AND WIDTH OF THE JOINT

APPROVED: 10 - 2015  
 City of RAMSEY  
 STANDARD DETAILS: CONCRETE SIDEWALK  
 CITY PLATE No. STR-3

**STREET TIE-IN**

**NOTES:**  
 ① GRADE TO MATCH EXISTING SURFACE MINIMUM 4" COMMON TOPSOIL BORROW IN BOULEVARDS.  
 ② SEE CITY PLATE No. STR-26  
 ③ CLASS 5 GRADATION IS MODIFIED PER CITY PLATE No. STR-26  
 ④ CONTRACTOR SHALL SCARIFY AND COMPACT, ACCORDING TO THE SPECIFIED DENSITY METHOD. THE TOP 12 INCHES OF MATERIAL PRIOR TO PLACING ANY FILL MATERIALS OR CLASS 5 AGGREGATE BASE.  
 ⑤ ALL SIDEWALKS SHALL BE 6" THICK, 6' WIDE, PLACED ON PREPARED SUBGRADE.  
 ⑥ CONCRETE CURB AND GUTTER PER PLAN. SEE CITY PLATE No. STR-1.

APPROVED: 6 - 2016  
 City of RAMSEY  
 STANDARD DETAILS: STREET TIE-IN  
 CITY PLATE No. STR-5

**STREET PATCHING STANDARDS**

**NOTES:**  
 1. BITUMINOUS SHALL BE SAWCUT AND REMOVED AFTER CURB IS REPLACED.  
 2. CLASS 5 AND BITUMINOUS COURSES SHALL BE MECHANICALLY COMPACTED.  
 3. SEE CITY PLATE STR-26 FOR MODIFIED CLASS 5 SPECIFICATIONS.

APPROVED: 3 - 2022  
 City of RAMSEY  
 STANDARD DETAILS: STREET PATCHING STANDARDS  
 CITY PLATE No. STR-25

**TABLE A**  
**MODIFIED CLASS 5 SPECIFICATIONS**

	% PASSING
1"	100
3/4"	90 - 100
3/8"	50 - 80
No.4	35 - 70
No.10	20 - 60
No.40	10 - 35
No.200	5 - 10

**NOTES:**  
 1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.  
 2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.  
 3. IN THE EVENT THAT RECYCLED MATERIAL IS USE IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 - 2003  
 City of RAMSEY  
 STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATION  
 CITY PLATE No. STR-26

**TYPICAL TRENCH LAYOUT IN UTILITY EASEMENT**

**NOTES:**  
 1. BITUMINOUS SHALL BE SAWCUT AND REMOVED  
 2. CLASS 5 AND BITUMINOUS COURSES SHALL BE MECHANICALLY COMPACTED.  
 3. SEE CITY PLATE STR-26 FOR MODIFIED CLASS 5 SPECIFICATIONS.

APPROVED: 3 - 2017  
 City of RAMSEY  
 STANDARD DETAILS: STREET TIE-IN  
 CITY PLATE No. STR-31

**TYPICAL TRENCH LAYOUT IN STREET BOULEVARD**

**TYPICAL TRENCH LAYOUT IN UTILITY EASEMENT**

**NOTES:**  
 1. TRENCH AND UTILITY LOCATIONS SHALL CORRESPOND WITH STREET SERIES LAYOUT AND CONNEXUS PLANS.  
 2. WARNING TAPE AND LOCATING WIRE PLACED ABOVE GAS AND ELECTRIC

APPROVED: 7 - 1996  
 City of RAMSEY  
 STANDARD DETAILS: TYPICAL TRENCH LOCATIONS  
 CITY PLATE No. UTL-2

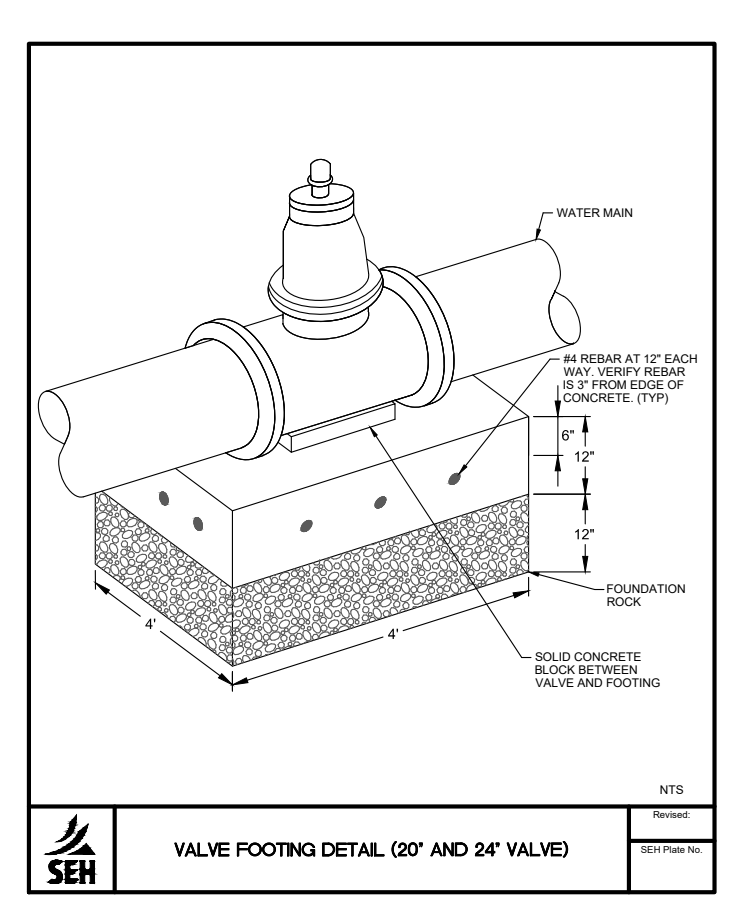
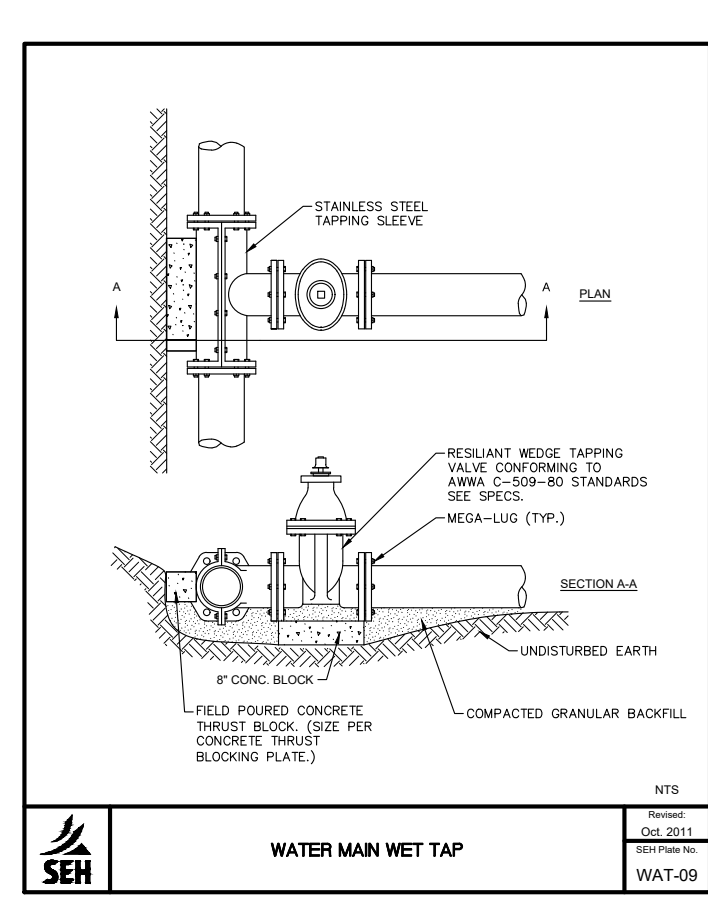
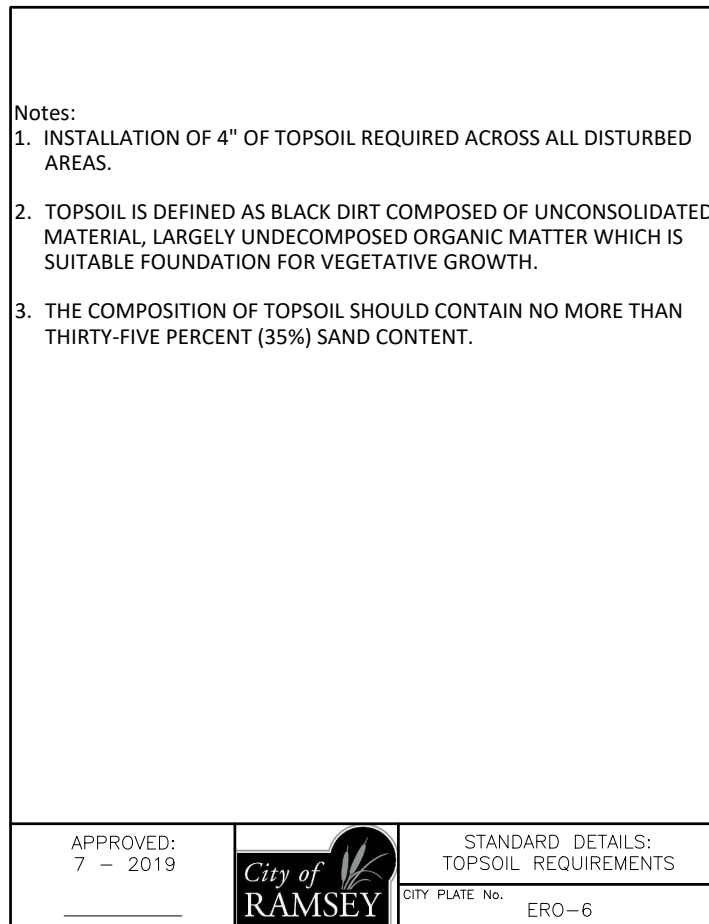
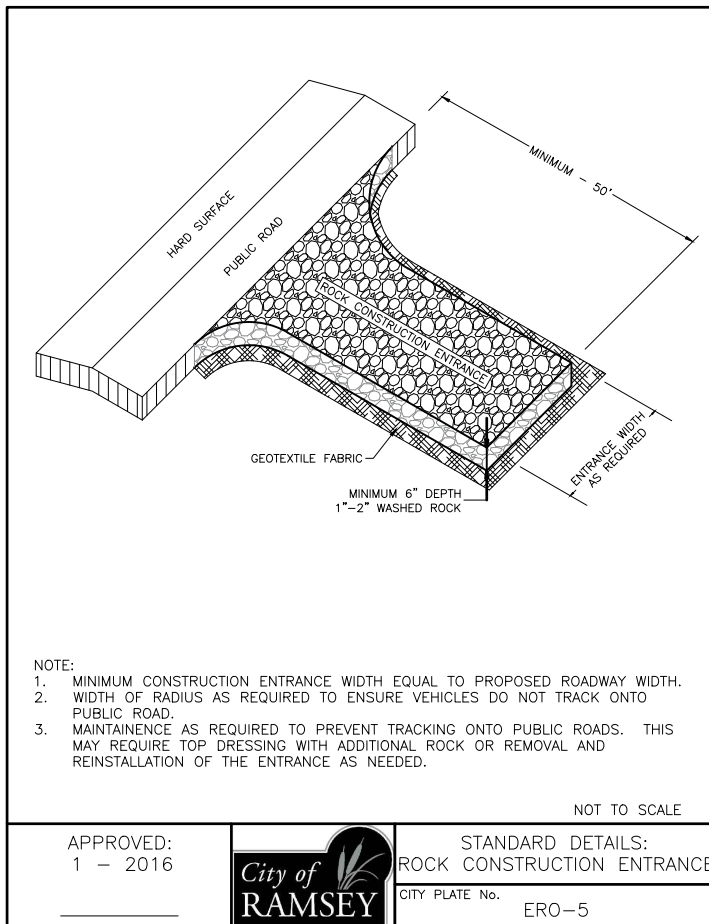
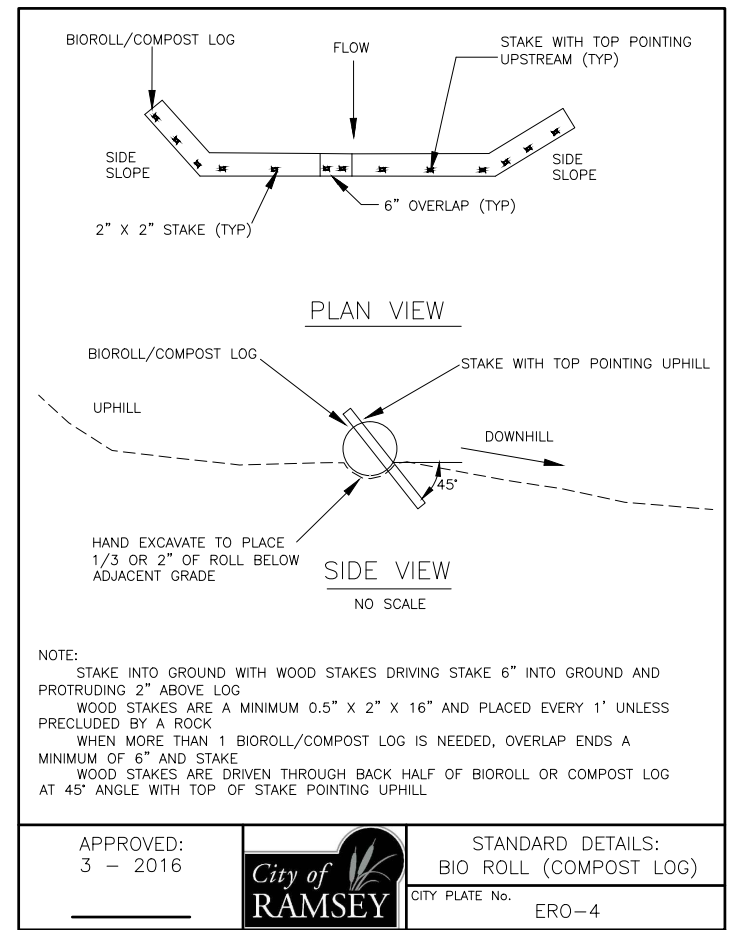
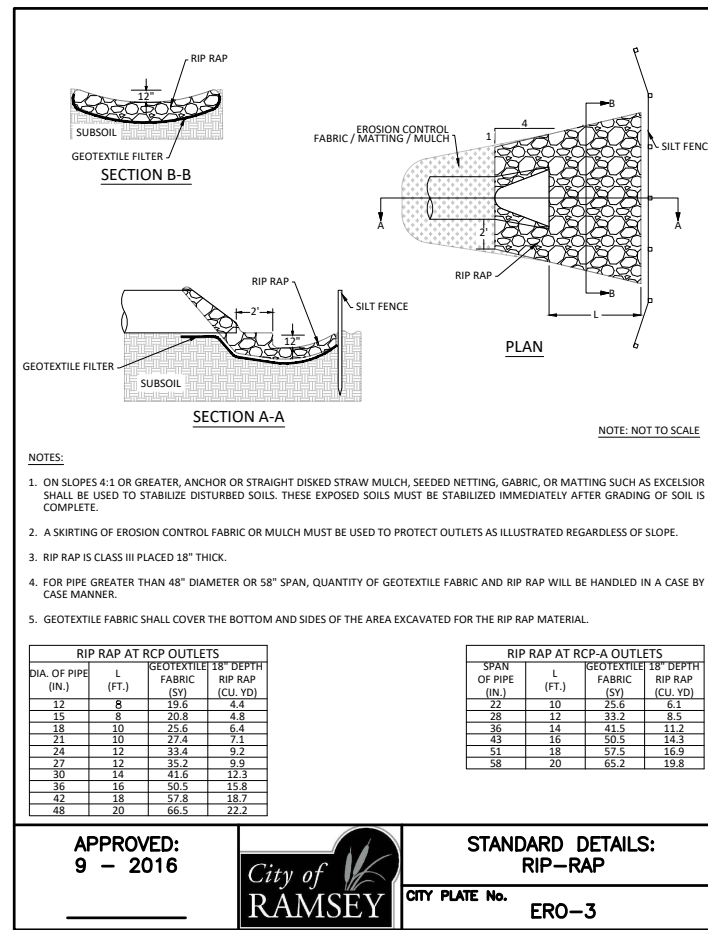
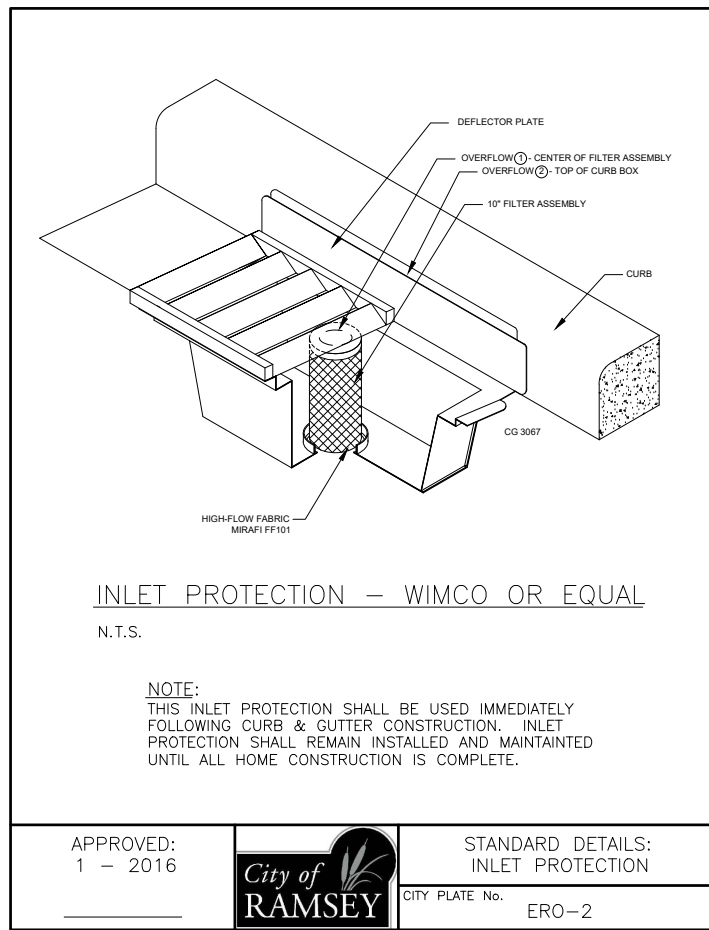
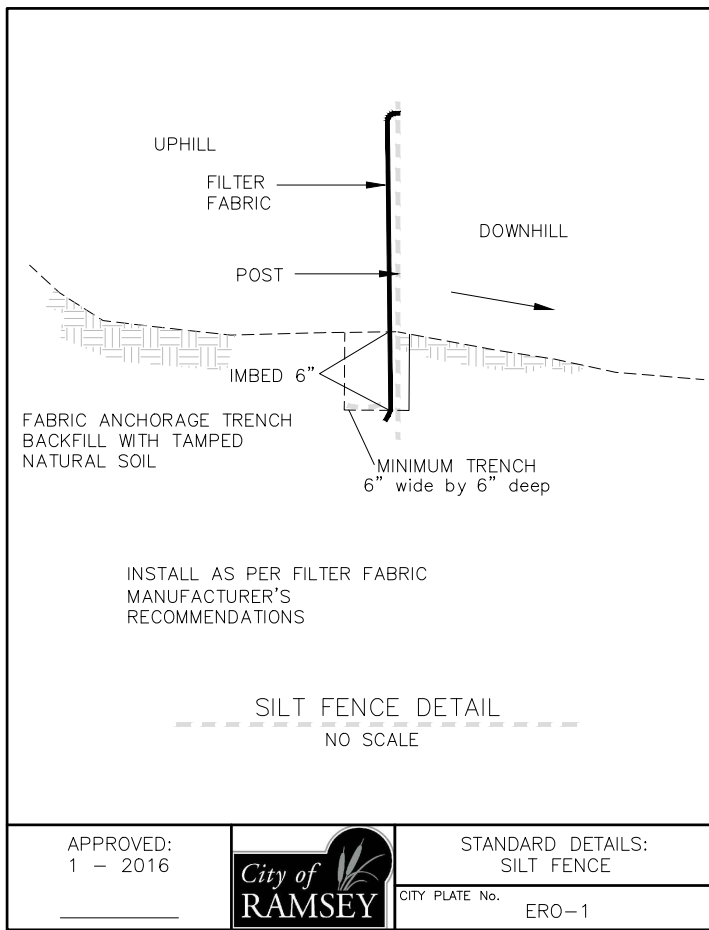
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota



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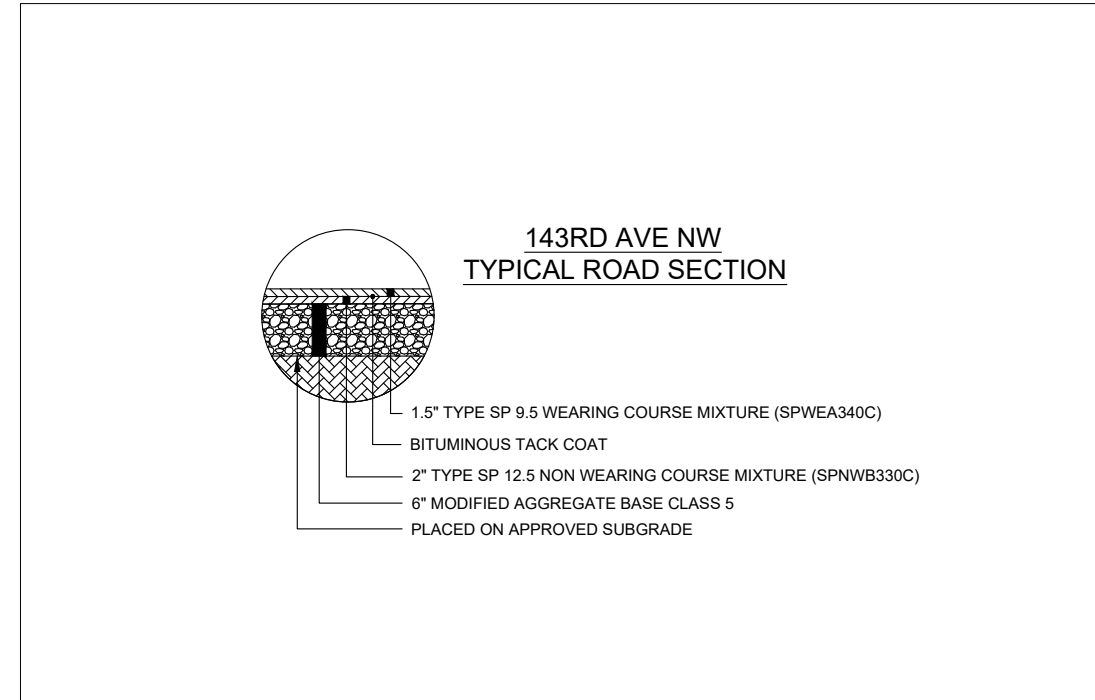
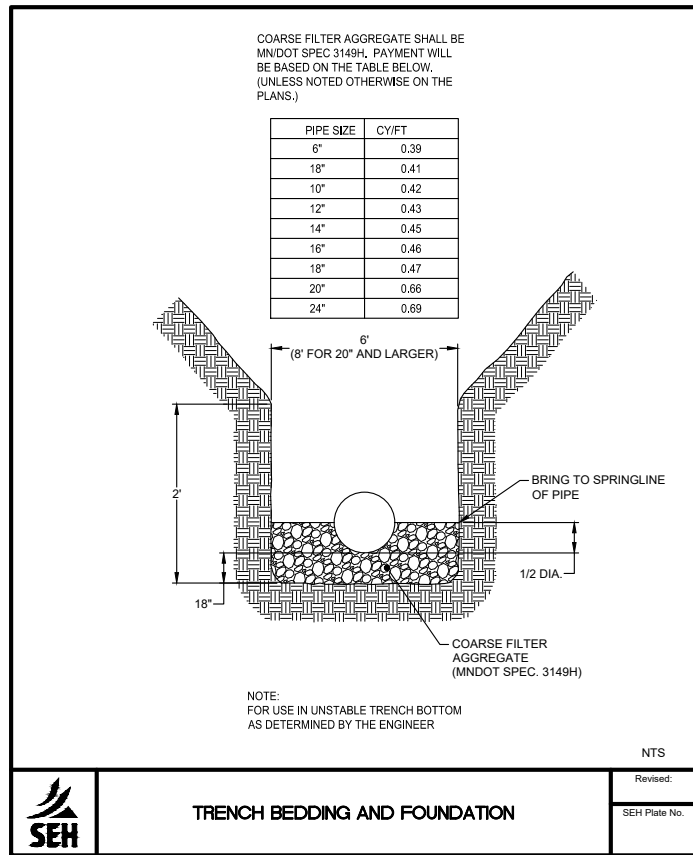
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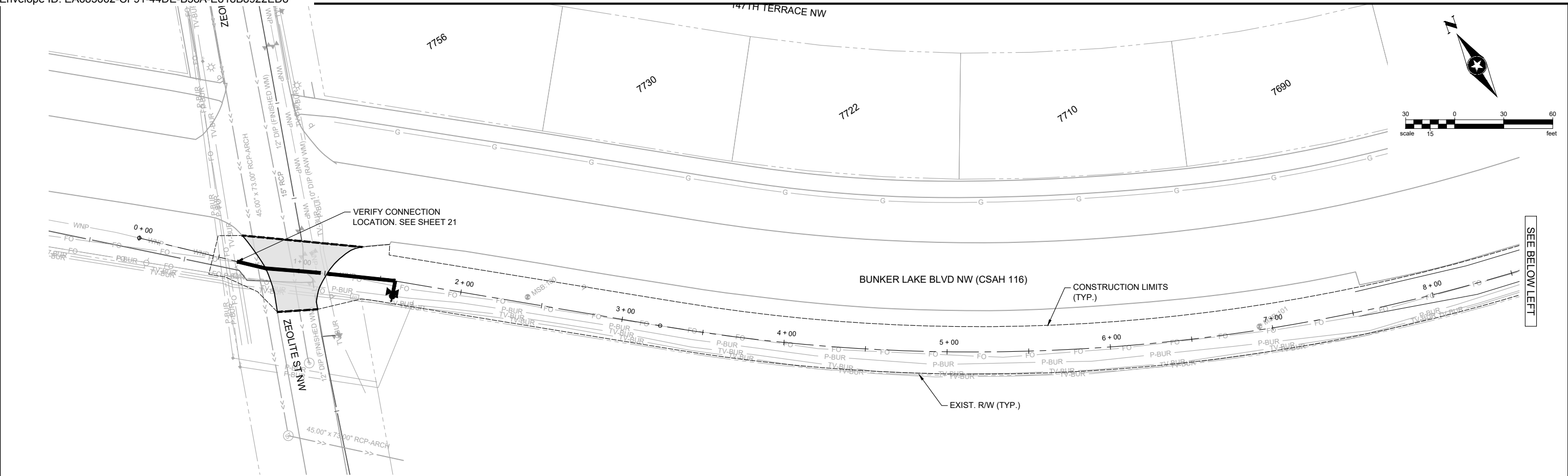


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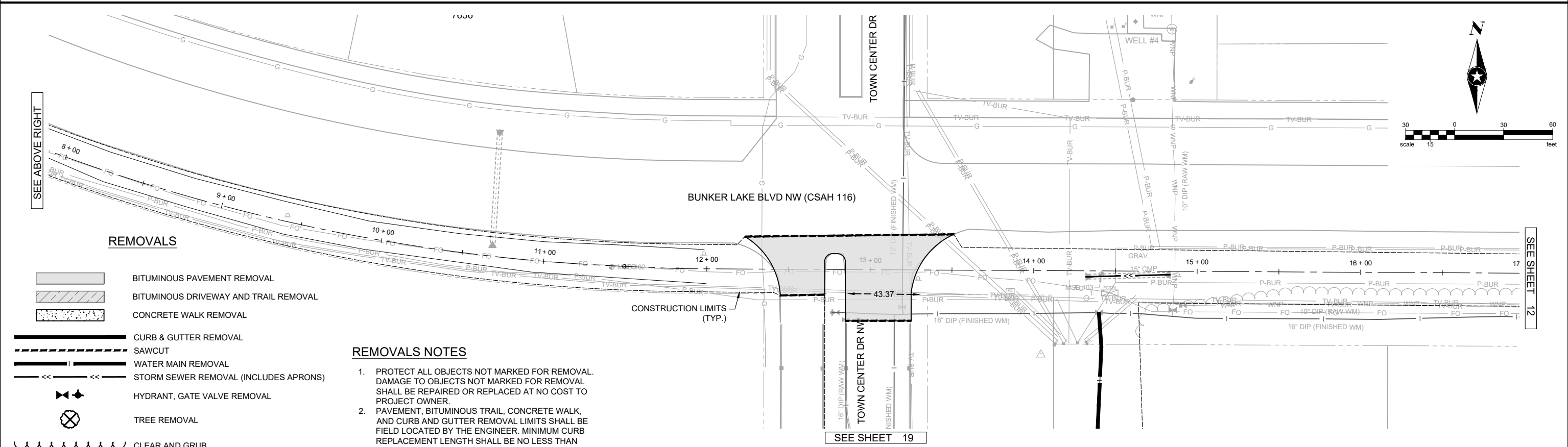
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**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**DETAILS**



### BUNKER LAKE BLVD NW (CSAH 116)



**REMOVALS**

- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
- CONCRETE WALK REMOVAL
- CURB & GUTTER REMOVAL
- SAWCUT
- WATER MAIN REMOVAL
- STORM SEWER REMOVAL (INCLUDES APRONS)
- HYDRANT, GATE VALVE REMOVAL
- TREE REMOVAL
- CLEAR AND GRUB

**REMOVALS NOTES**

1. PROTECT ALL OBJECTS NOT MARKED FOR REMOVAL. DAMAGE TO OBJECTS NOT MARKED FOR REMOVAL SHALL BE REPAIRED OR REPLACED AT NO COST TO PROJECT OWNER.
2. PAVEMENT, BITUMINOUS TRAIL, CONCRETE WALK, AND CURB AND GUTTER REMOVAL LIMITS SHALL BE FIELD LOCATED BY THE ENGINEER. MINIMUM CURB REPLACEMENT LENGTH SHALL BE NO LESS THAN HALF A CURB PANEL.

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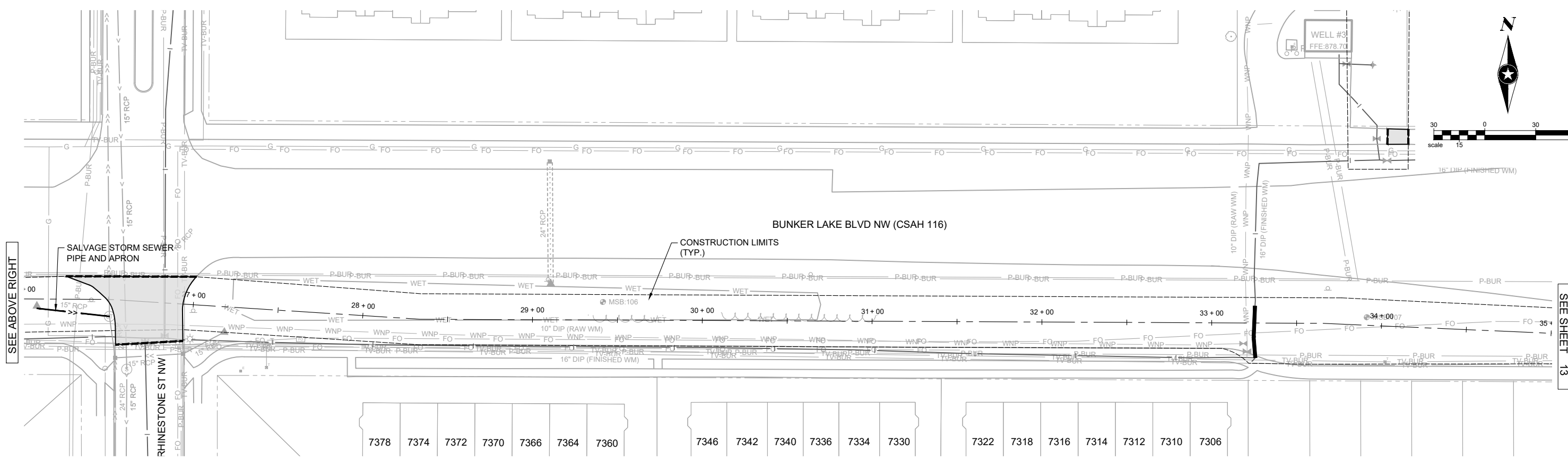
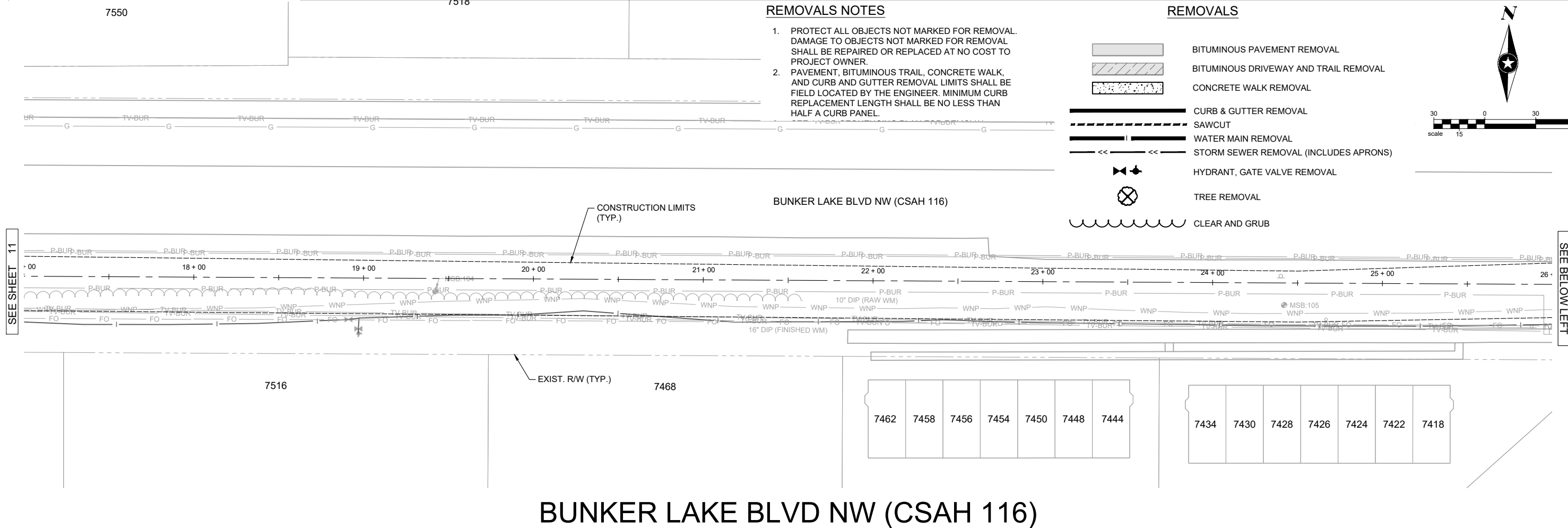
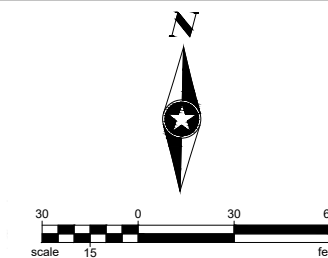
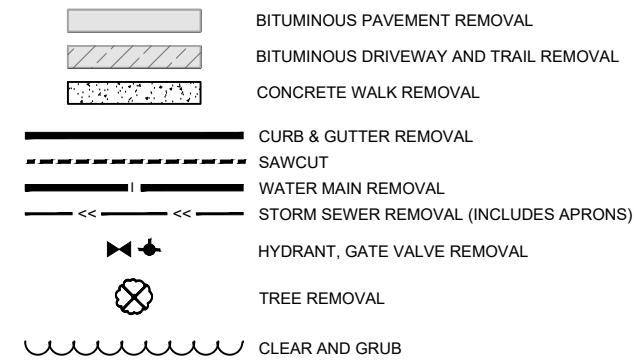
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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

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**REMOVALS**



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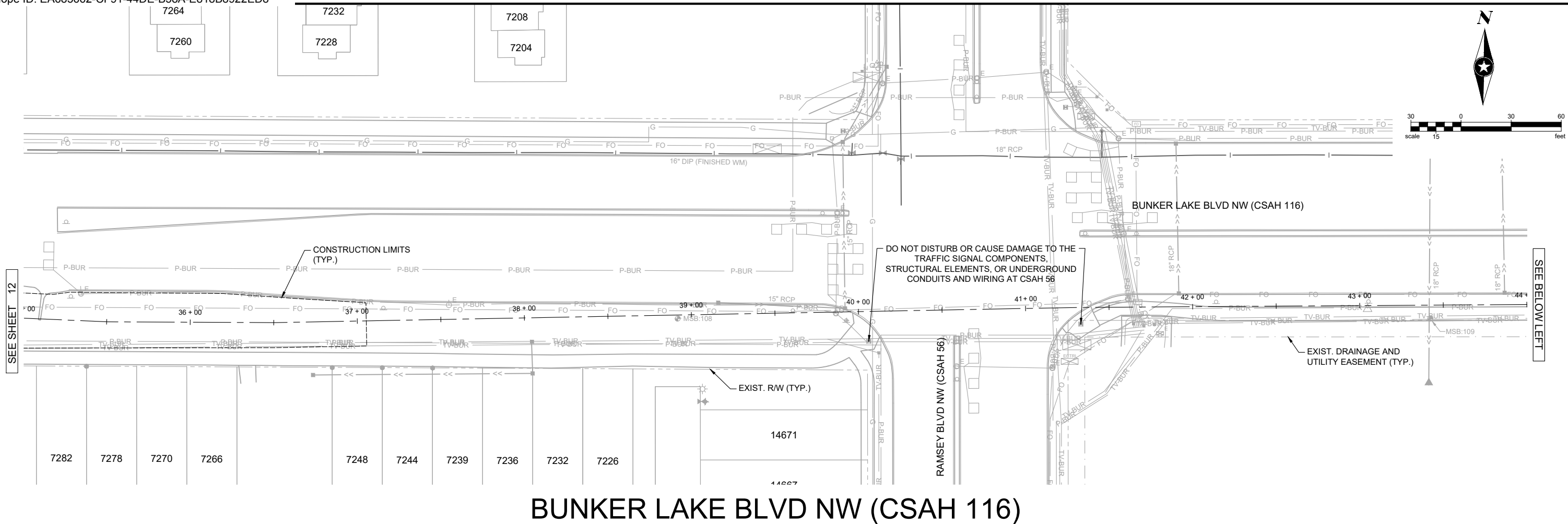
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**WATER TREATMENT PLANT  
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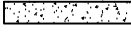


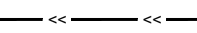




**REMOVAL PLAN  
 BUNKER LAKE BLVD NW (CSAH 116)**





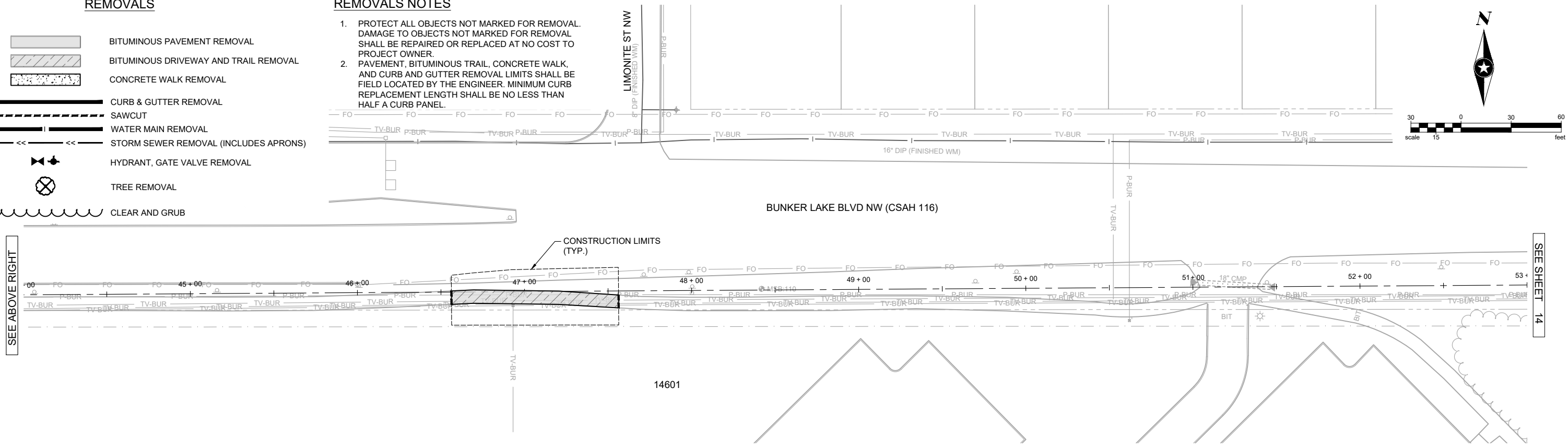
### BUNKER LAKE BLVD NW (CSAH 116)

#### REMOVALS

-  BITUMINOUS PAVEMENT REMOVAL
-  BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
-  CONCRETE WALK REMOVAL
-  CURB & GUTTER REMOVAL
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-  TREE REMOVAL
-  CLEAR AND GRUB

#### REMOVALS NOTES

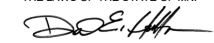
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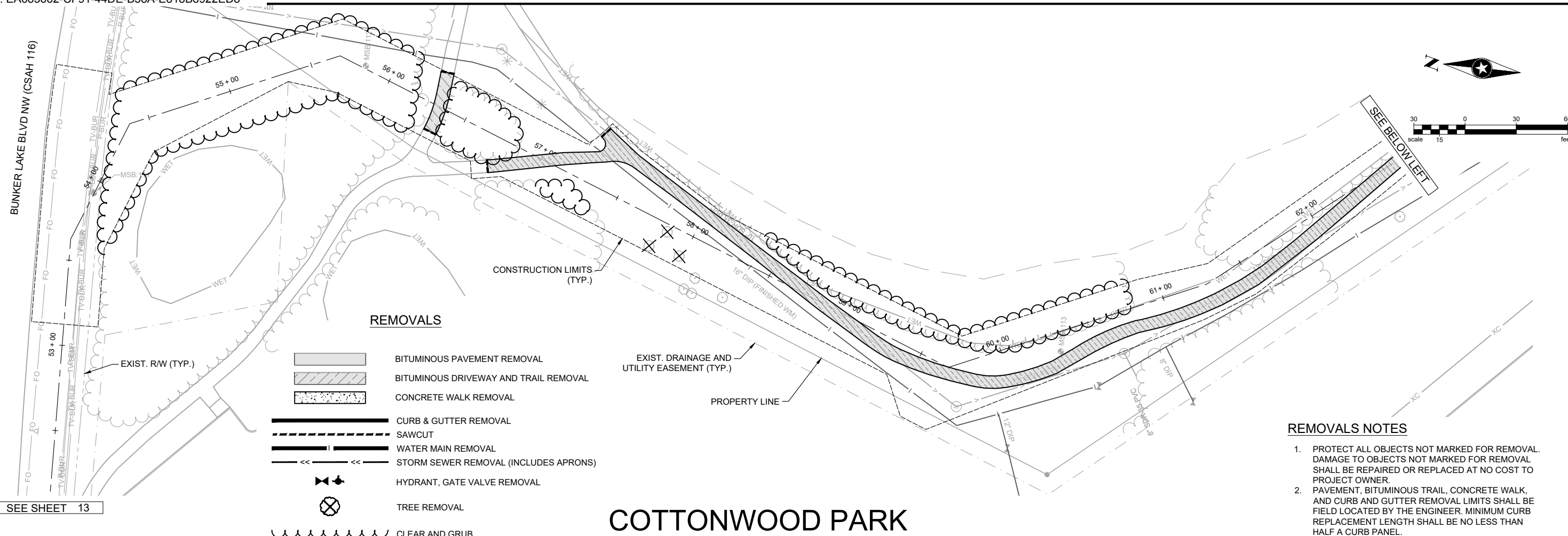
  
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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

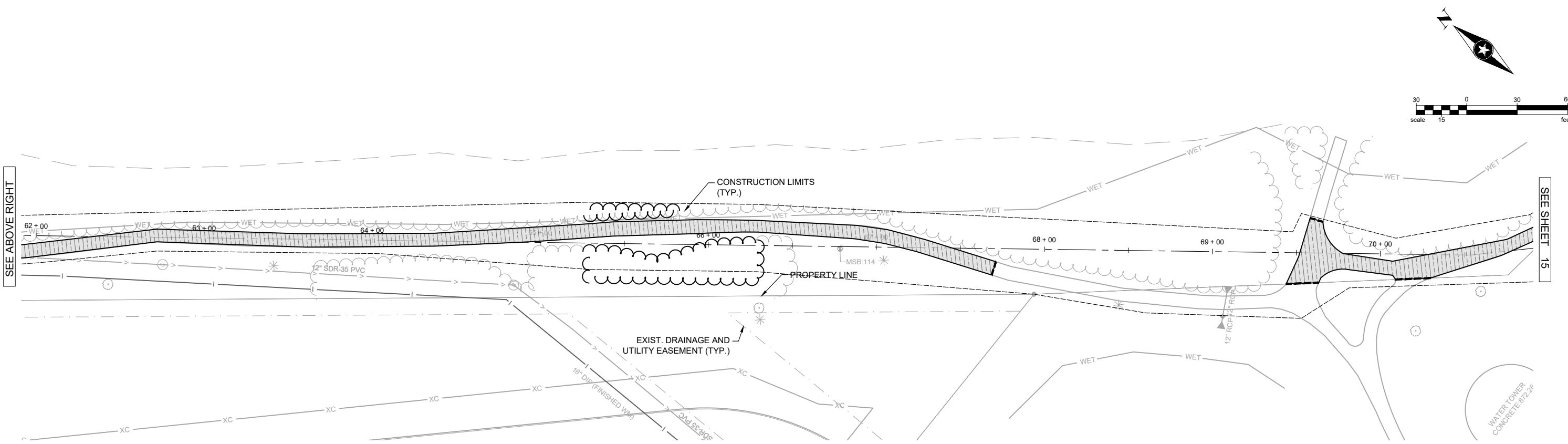
**REMOVAL PLAN**  
**BUNKER LAKE BLVD NW (CSAH 116)**

13 of 58



# COTTONWOOD PARK

- REMOVALS NOTES**
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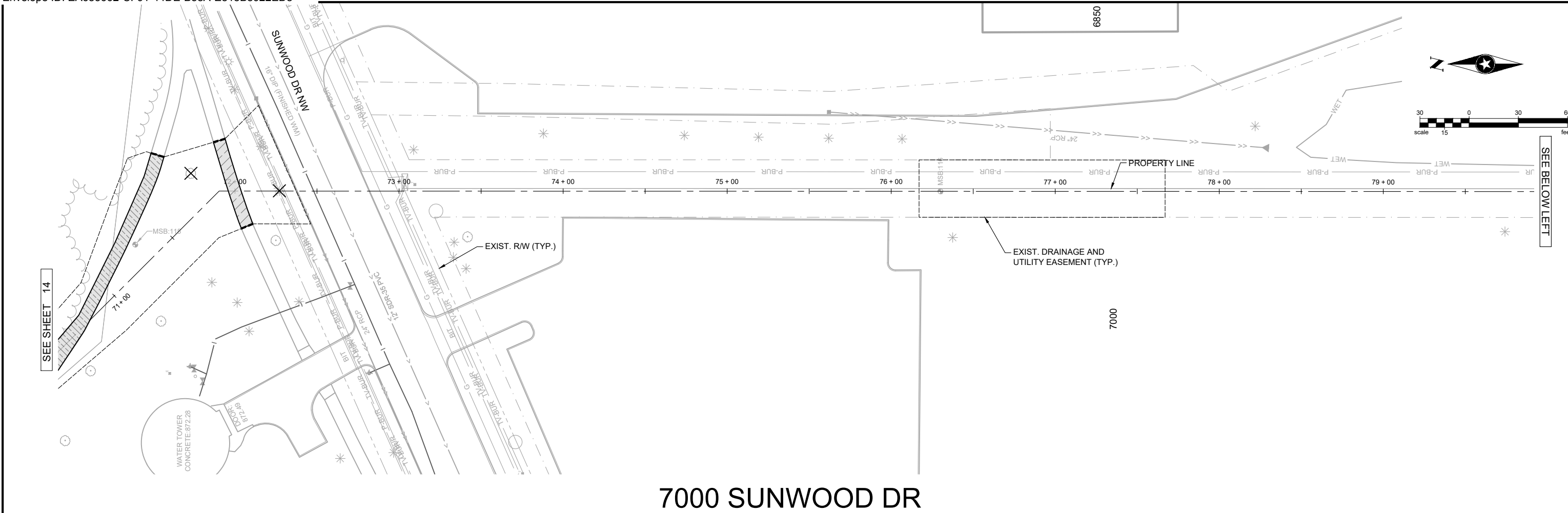
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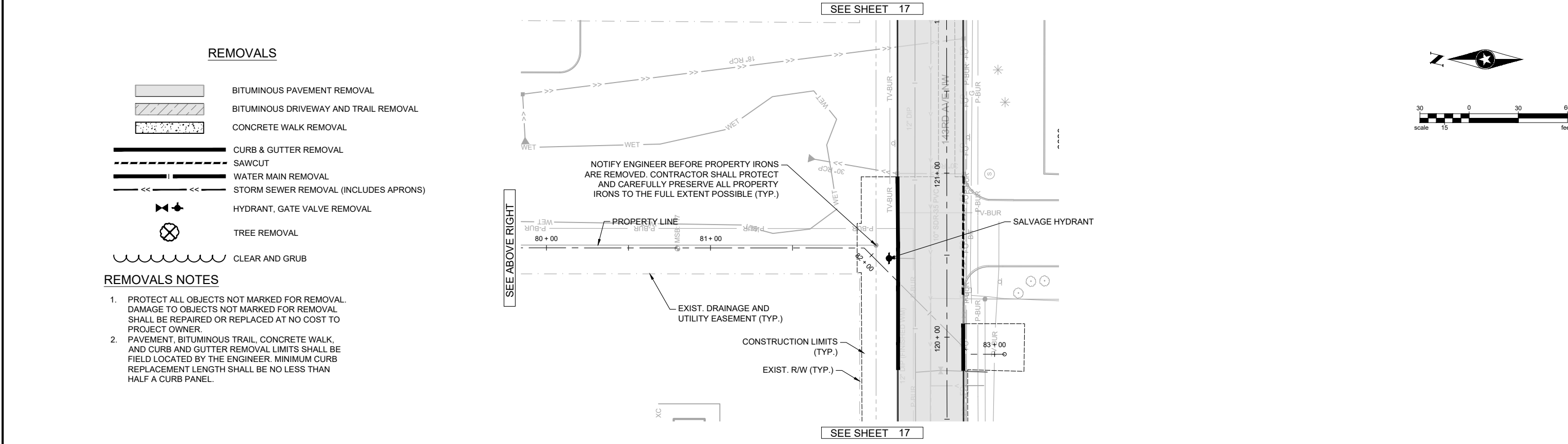
**WATER TREATMENT PLANT  
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 Ramsey, Minnesota

**REMOVAL PLAN  
 COTTONWOOD PARK**



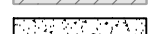







14  
 of 58



# 7000 SUNWOOD DR



### REMOVALS

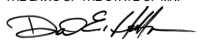
-  BITUMINOUS PAVEMENT REMOVAL
-  BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
-  CONCRETE WALK REMOVAL
-  CURB & GUTTER REMOVAL
-  SAWCUT
-  WATER MAIN REMOVAL
-  STORM SEWER REMOVAL (INCLUDES APRONS)
-  HYDRANT, GATE VALVE REMOVAL
-  TREE REMOVAL
-  CLEAR AND GRUB

### REMOVALS NOTES

1. PROTECT ALL OBJECTS NOT MARKED FOR REMOVAL. DAMAGE TO OBJECTS NOT MARKED FOR REMOVAL SHALL BE REPAIRED OR REPLACED AT NO COST TO PROJECT OWNER.
2. PAVEMENT, BITUMINOUS TRAIL, CONCRETE WALK, AND CURB AND GUTTER REMOVAL LIMITS SHALL BE FIELD LOCATED BY THE ENGINEER. MINIMUM CURB REPLACEMENT LENGTH SHALL BE NO LESS THAN HALF A CURB PANEL.

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

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



David E. Hutton  
LICENSE NO. 19133

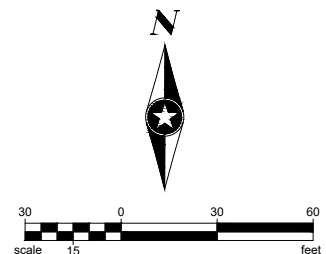
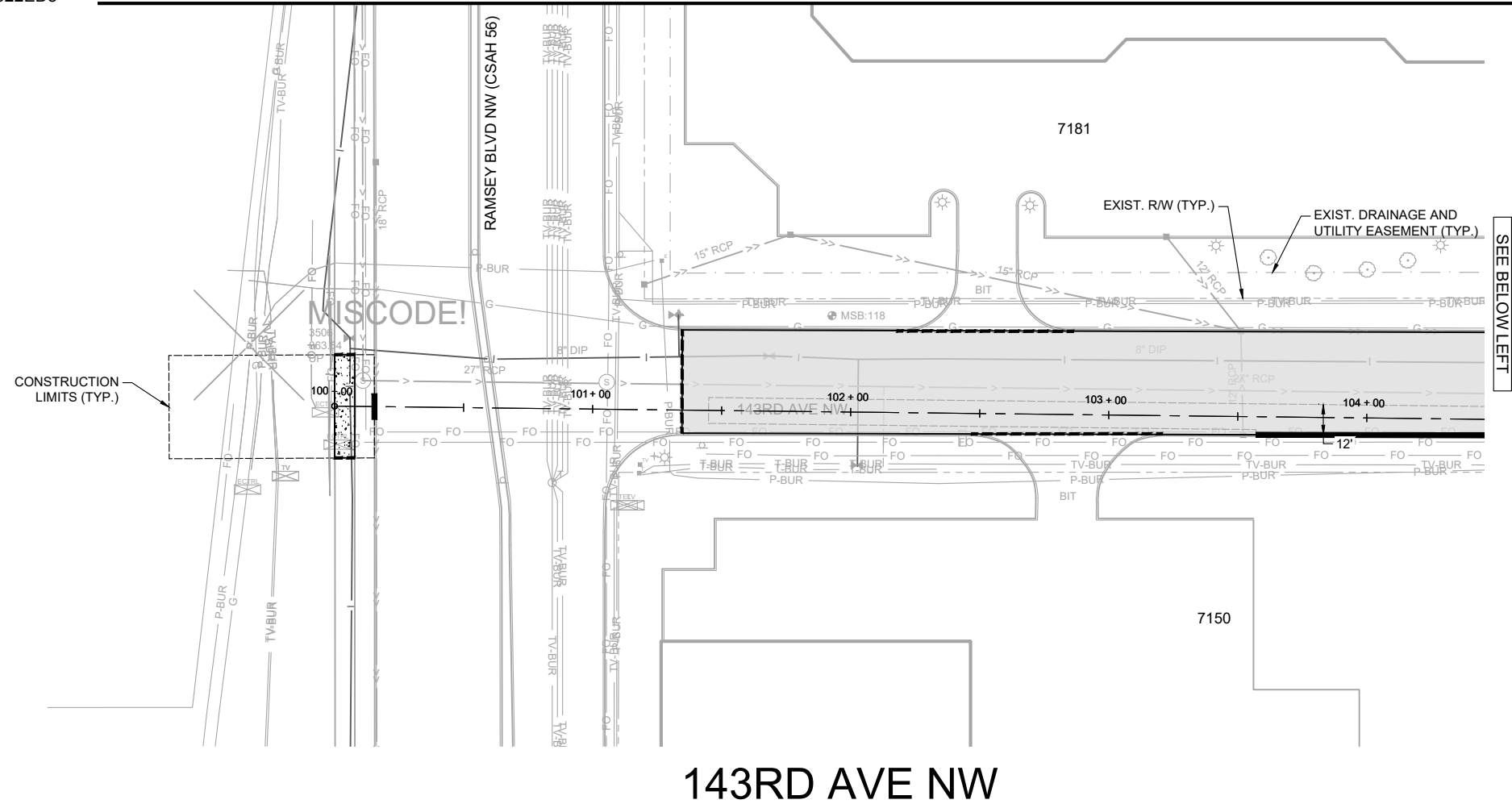
DATE 10-06-2023

**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**

Ramsey, Minnesota

**REMOVAL PLAN  
7000 SUNWOOD DR**

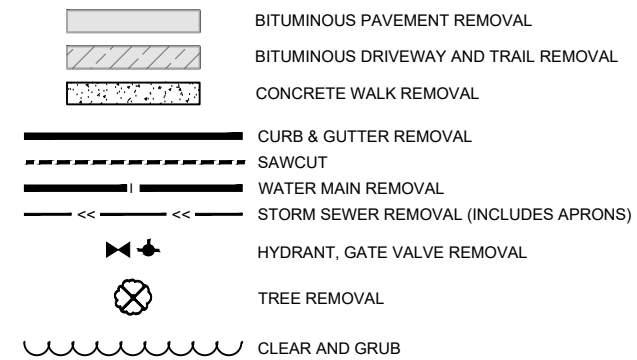
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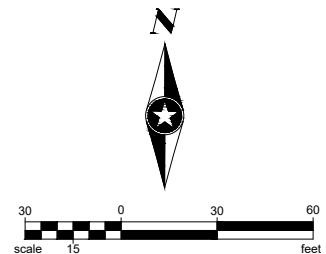
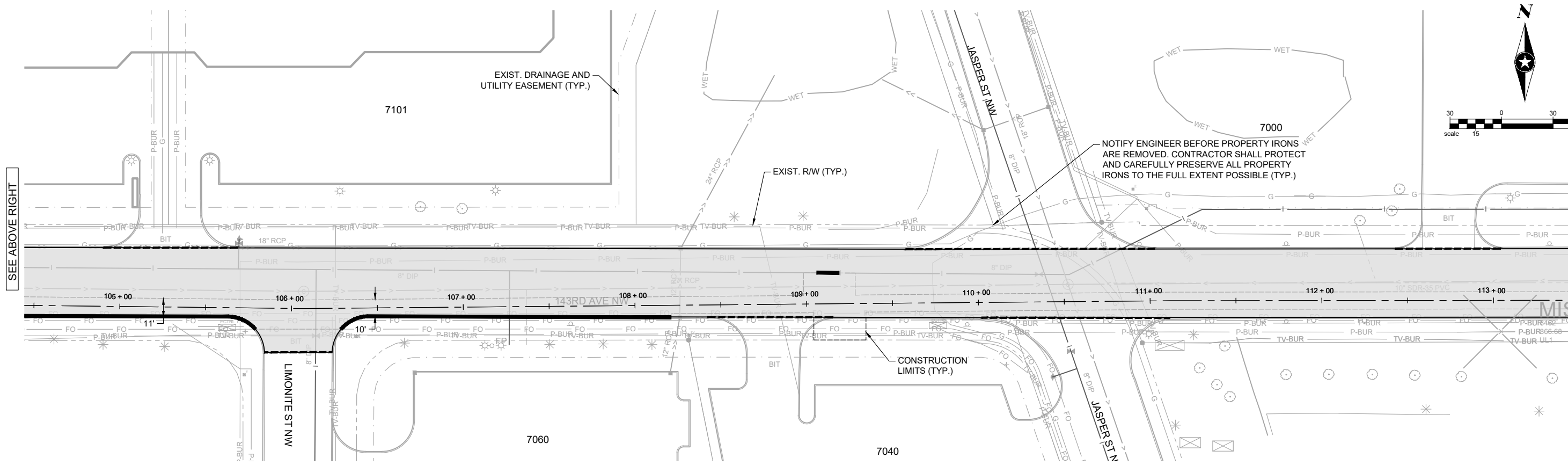
**REMOVALS NOTES**

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2. PAVEMENT, BITUMINOUS TRAIL, CONCRETE WALK, AND CURB AND GUTTER REMOVAL LIMITS SHALL BE FIELD LOCATED BY THE ENGINEER. MINIMUM CURB REPLACEMENT LENGTH SHALL BE NO LESS THAN HALF A CURB PANEL.
3. SEE 143RD SEQUENCING PLAN FOR REMOVAL STAGING DETAILS.
4. ALL MOBILIZATIONS NECESSARY TO COMPLETE 143RD REMOVALS ARE INCIDENTAL TO THE OVERALL MOBILIZATION BID ITEM.

**REMOVALS**



**143RD AVE NW**



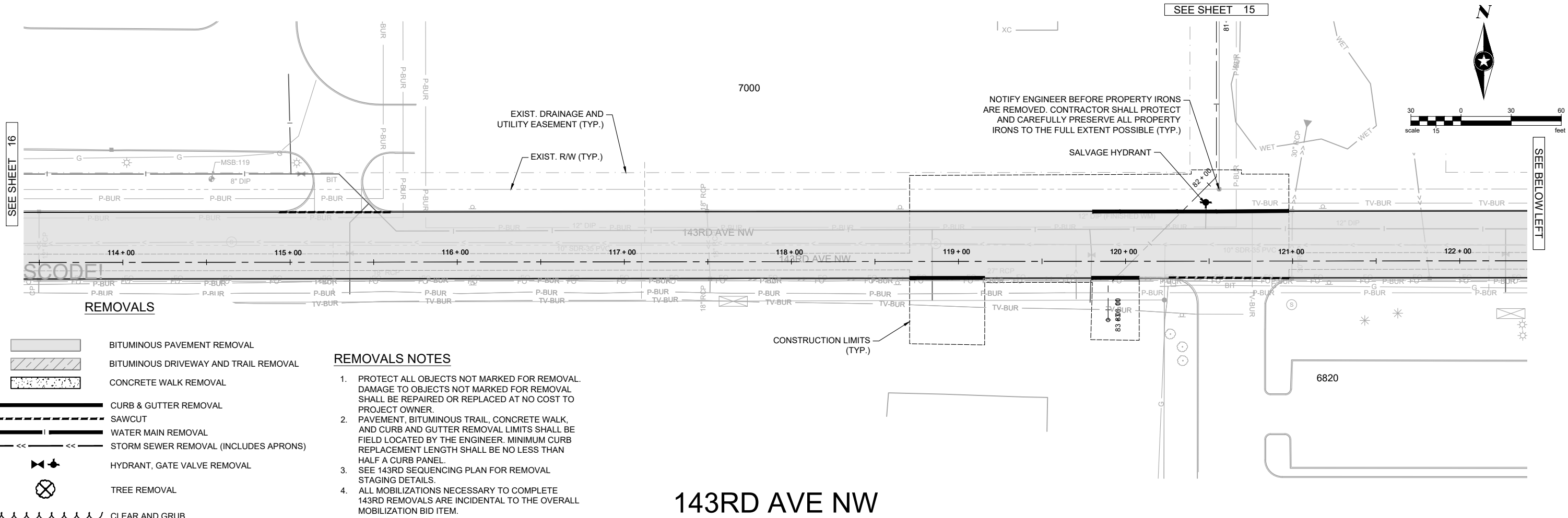
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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

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 David E. Hutton  
 DATE 10-06-2023  
 LICENSE NO. 19133

**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

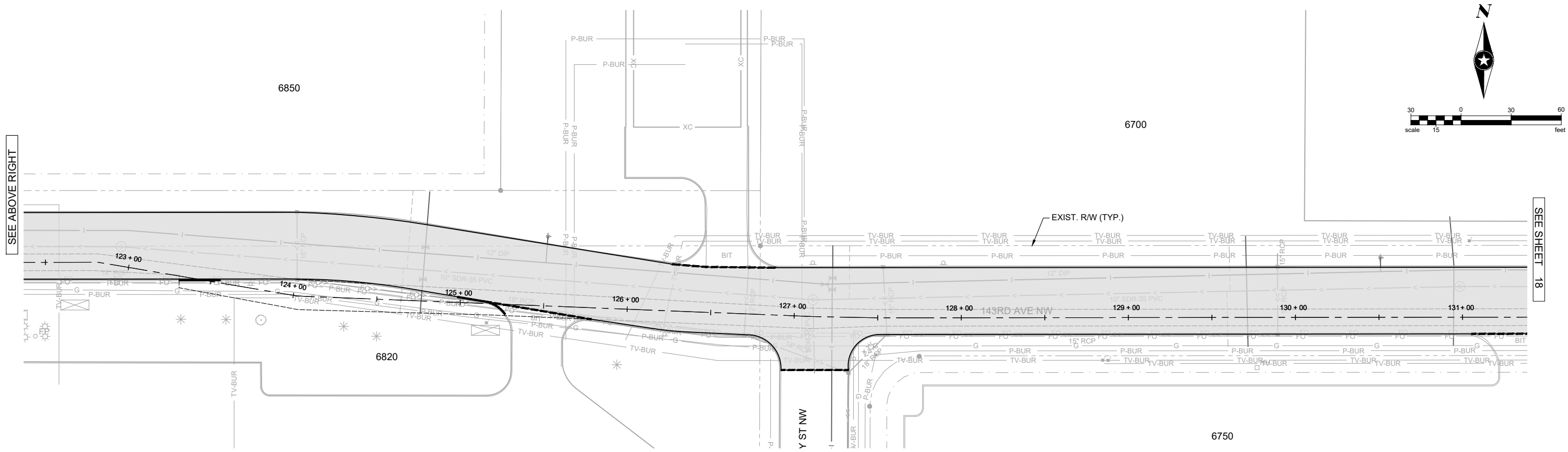
**REMOVAL PLAN  
 143RD AVE NW**



- REMOVALS**
- BITUMINOUS PAVEMENT REMOVAL
  - BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
  - CONCRETE WALK REMOVAL
  - CURB & GUTTER REMOVAL
  - SAWCUT
  - WATER MAIN REMOVAL
  - STORM SEWER REMOVAL (INCLUDES APRONS)
  - HYDRANT, GATE VALVE REMOVAL
  - TREE REMOVAL
  - CLEAR AND GRUB

- REMOVALS NOTES**
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  3. SEE 143RD SEQUENCING PLAN FOR REMOVAL STAGING DETAILS.
  4. ALL MOBILIZATIONS NECESSARY TO COMPLETE 143RD REMOVALS ARE INCIDENTAL TO THE OVERALL MOBILIZATION BID ITEM.

# 143RD AVE NW



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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

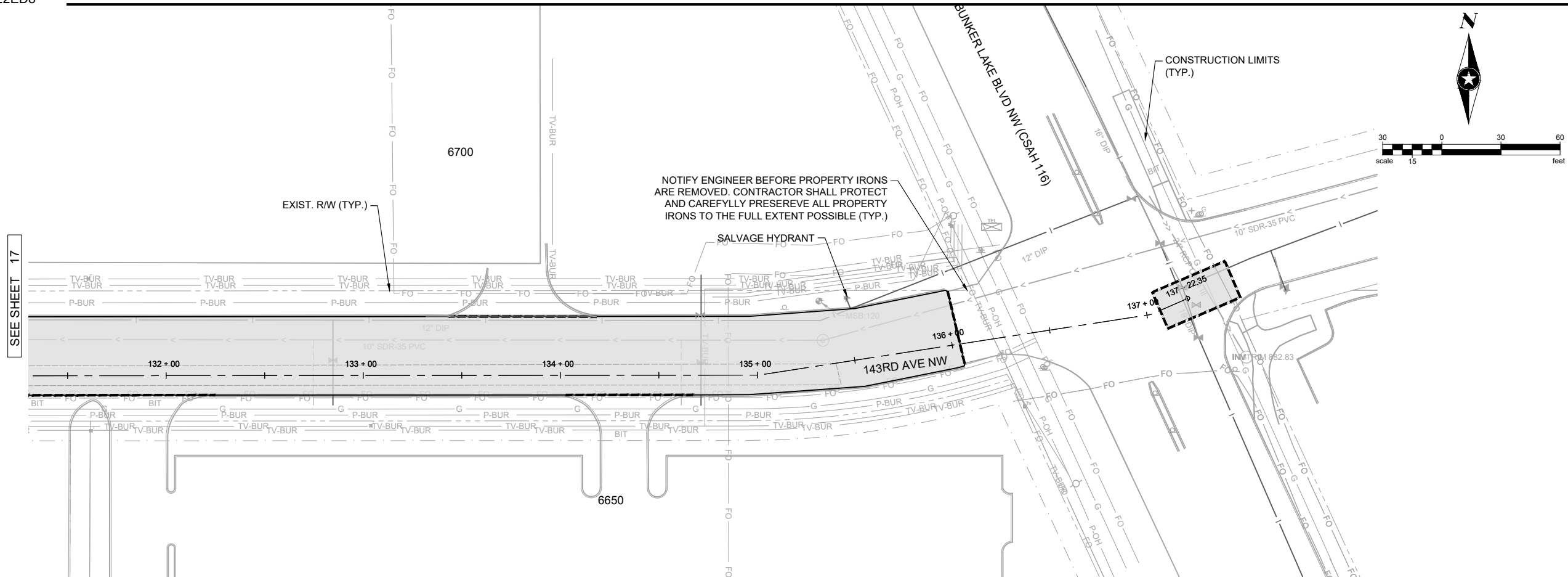
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

## WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS

Ramsey, Minnesota

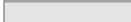

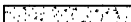







### REMOVAL PLAN 143RD AVE NW



**REMOVALS NOTES**

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2. PAVEMENT, BITUMINOUS TRAIL, CONCRETE WALK, AND CURB AND GUTTER REMOVAL LIMITS SHALL BE FIELD LOCATED BY THE ENGINEER. MINIMUM CURB REPLACEMENT LENGTH SHALL BE NO LESS THAN HALF A CURB PANEL.
3. SEE 143RD SEQUENCING PLAN FOR REMOVAL STAGING DETAILS.
4. ALL MOBILIZATIONS NECESSARY TO COMPLETE 143RD REMOVALS ARE INCIDENTAL TO THE OVERALL MOBILIZATION BID ITEM.

**REMOVALS**

-  BITUMINOUS PAVEMENT REMOVAL
-  BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
-  CONCRETE WALK REMOVAL
-  CURB & GUTTER REMOVAL
-  SAWCUT
-  WATER MAIN REMOVAL
-  STORM SEWER REMOVAL (INCLUDES APRONS)
-  HYDRANT, GATE VALVE REMOVAL
-  TREE REMOVAL
-  CLEAR AND GRUB

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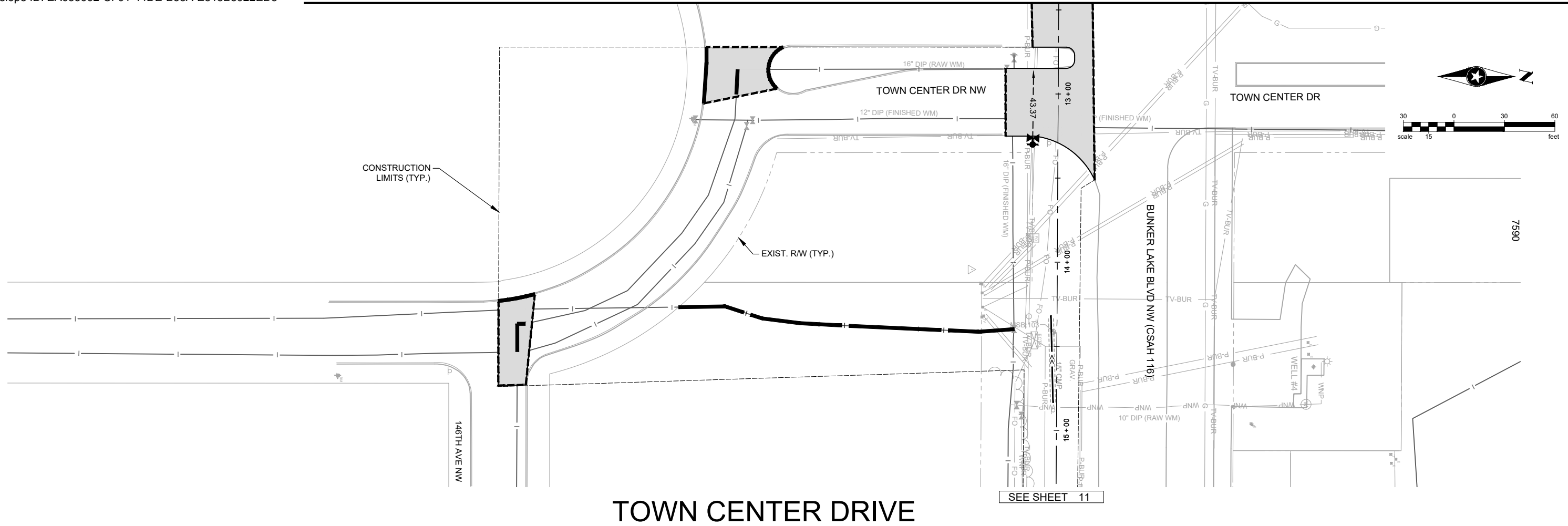
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
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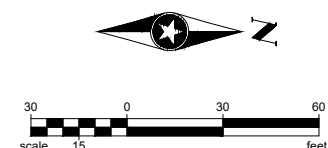
**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**REMOVAL PLAN  
143RD AVE NW**

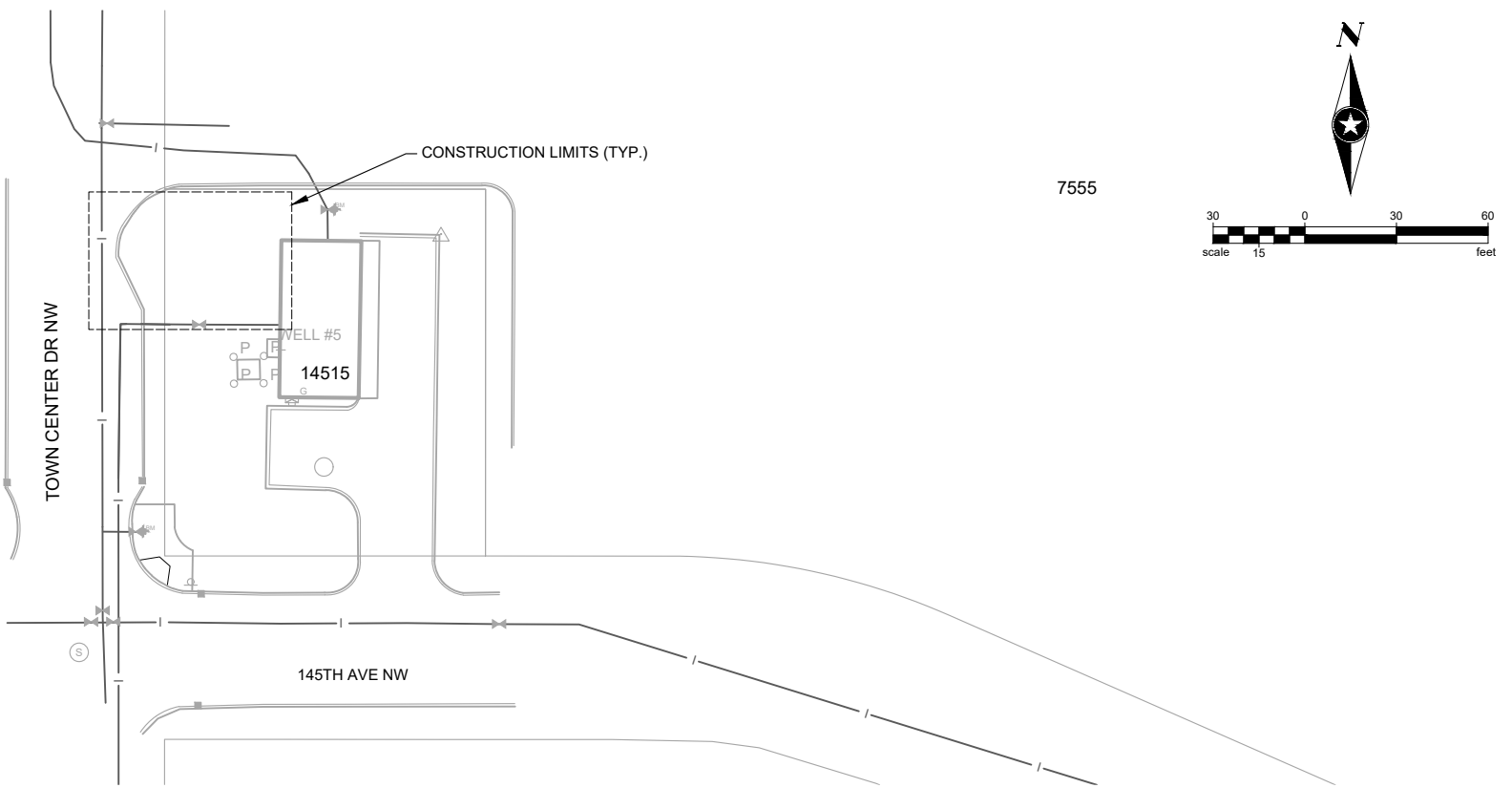


# TOWN CENTER DRIVE

SEE SHEET 11



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### REMOVALS

- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
- CONCRETE WALK REMOVAL
- CURB & GUTTER REMOVAL
- SAWCUT
- WATER MAIN REMOVAL
- STORM SEWER REMOVAL (INCLUDES APRONS)
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- TREE REMOVAL
- CLEAR AND GRUB

### REMOVALS NOTES

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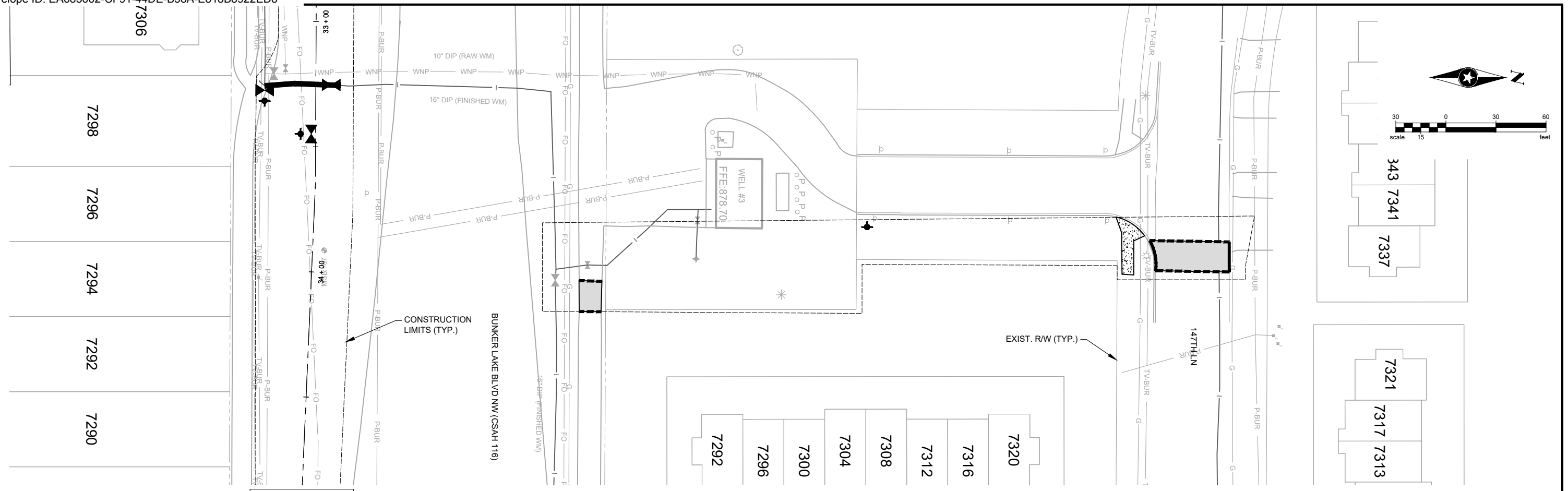
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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 DATE 10-06-2023

**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**REMOVAL PLAN  
TOWN CENTER DRIVE**



## BUNKER BLVD CROSSING AT WELL #3

### REMOVALS

- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS DRIVEWAY AND TRAIL REMOVAL
- CONCRETE WALK REMOVAL
- CURB & GUTTER REMOVAL
- SAWCUT
- WATER MAIN REMOVAL
- STORM SEWER REMOVAL (INCLUDES APRONS)
- HYDRANT, GATE VALVE REMOVAL
- TREE REMOVAL
- CLEAR AND GRUB

### REMOVALS NOTES

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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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Designed By	KLK	.			.		
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

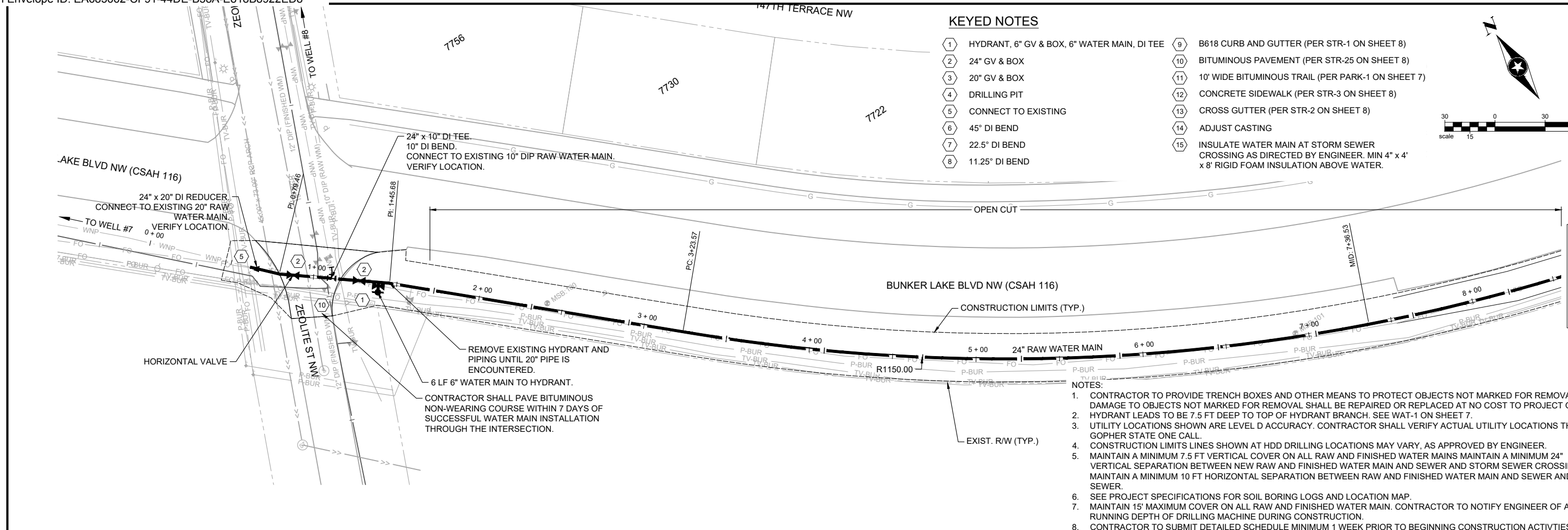
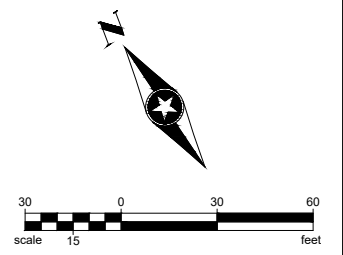
**REMOVAL PLAN  
 BUNKER BLVD CROSSING AT WELL #3**

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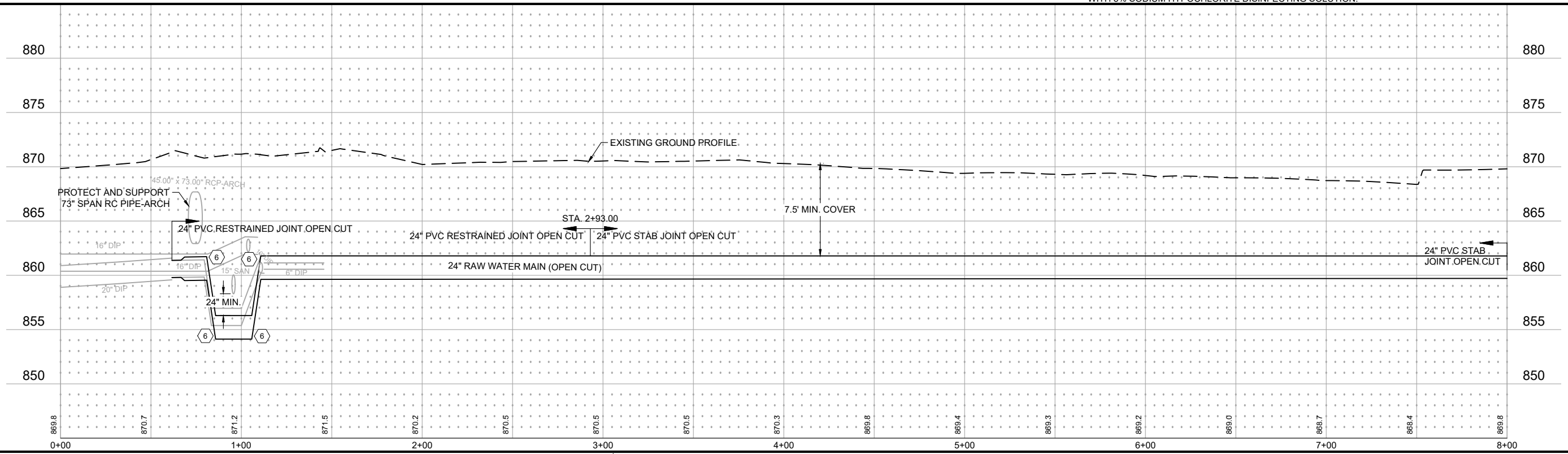
**KEYED NOTES**

- ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- ② 24" GV & BOX
- ③ 20" GV & BOX
- ④ DRILLING PIT
- ⑤ CONNECT TO EXISTING
- ⑥ 45° DI BEND
- ⑦ 22.5° DI BEND
- ⑧ 11.25° DI BEND
- ⑨ B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)
- ⑩ BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)
- ⑪ 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)
- ⑫ CONCRETE SIDEWALK (PER STR-3 ON SHEET 8)
- ⑬ CROSS GUTTER (PER STR-2 ON SHEET 8)
- ⑭ ADJUST CASTING
- ⑮ INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER.



**BUNKER LAKE BLVD NW (CSAH 116)**

- NOTES:**
1. CONTRACTOR TO PROVIDE TRENCH BOXES AND OTHER MEANS TO PROTECT OBJECTS NOT MARKED FOR REMOVAL. DAMAGE TO OBJECTS NOT MARKED FOR REMOVAL SHALL BE REPAIRED OR REPLACED AT NO COST TO PROJECT OWNER.
  2. HYDRANT LEADS TO BE 7.5 FT DEEP TO TOP OF HYDRANT BRANCH. SEE WAT-1 ON SHEET 7.
  3. UTILITY LOCATIONS SHOWN ARE LEVEL D ACCURACY. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS THROUGH GOPHER STATE ONE CALL.
  4. CONSTRUCTION LIMITS LINES SHOWN AT HDD DRILLING LOCATIONS MAY VARY, AS APPROVED BY ENGINEER.
  5. MAINTAIN A MINIMUM 7.5 FT VERTICAL COVER ON ALL RAW AND FINISHED WATER MAINS MAINTAIN A MINIMUM 24" VERTICAL SEPARATION BETWEEN NEW RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER CROSSING. MAINTAIN A MINIMUM 10 FT HORIZONTAL SEPARATION BETWEEN RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER.
  6. SEE PROJECT SPECIFICATIONS FOR SOIL BORING LOGS AND LOCATION MAP.
  7. MAINTAIN 15' MAXIMUM COVER ON ALL RAW AND FINISHED WATER MAIN. CONTRACTOR TO NOTIFY ENGINEER OF AVERAGE RUNNING DEPTH OF DRILLING MACHINE DURING CONSTRUCTION.
  8. CONTRACTOR TO SUBMIT DETAILED SCHEDULE MINIMUM 1 WEEK PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES FOR COORDINATION WITH THE CITY OF RAMSEY UTILITIES DEPARTMENT. CONTACT UTILITIES SUPERINTENDENT JOHN NELSON AT 763.250.4592. CITY OF RAMSEY TO OPERATE VALVES AND HYDRANTS FOR CONTRACTOR.
  9. DURING INSTALLATION OF THE FITTINGS AND PIPING BETWEEN THE CONNECTION TO THE EXISTING RAW WATER MAINS AND THE GATE VALVE AT STA. 1+27.42, CLEAN THE INTERIOR OF THE COMPONENTS BY MECHANICAL MEANS AND SWAB WITH 5% SODIUM HYPOCHLORITE DISINFECTING SOLUTION.



SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

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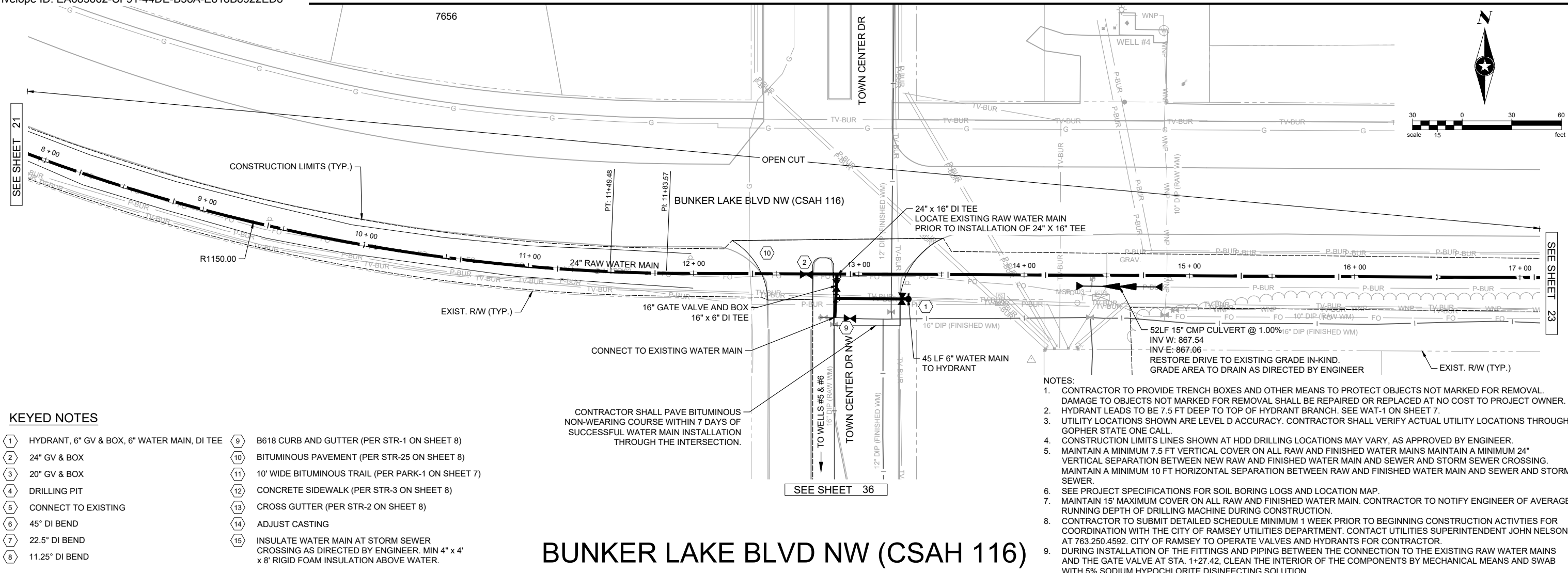
*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**BUNKER LAKE BLVD NW (CSAH 116)**

21  
of 58

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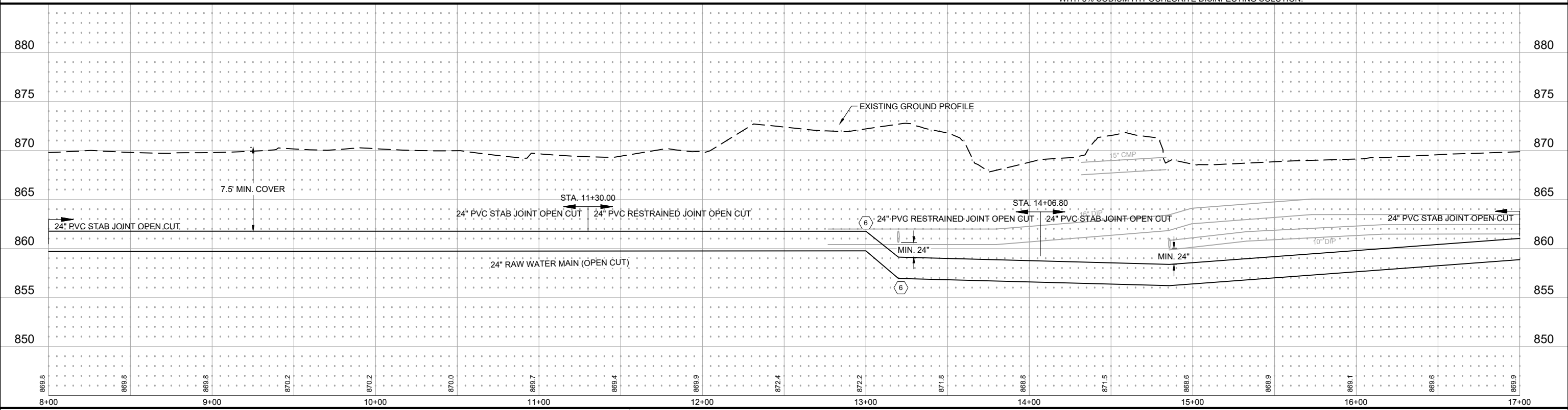
**KEYED NOTES**

- 1 HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- 2 24" GV & BOX
- 3 20" GV & BOX
- 4 DRILLING PIT
- 5 CONNECT TO EXISTING
- 6 45° DI BEND
- 7 22.5° DI BEND
- 8 11.25° DI BEND
- 9 B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)
- 10 BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)
- 11 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)
- 12 CONCRETE SIDEWALK (PER STR-3 ON SHEET 8)
- 13 CROSS GUTTER (PER STR-2 ON SHEET 8)
- 14 ADJUST CASTING
- 15 INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER.

CONTRACTOR SHALL PAVE BITUMINOUS NON-WEARING COURSE WITHIN 7 DAYS OF SUCCESSFUL WATER MAIN INSTALLATION THROUGH THE INTERSECTION.

- NOTES:**
1. CONTRACTOR TO PROVIDE TRENCH BOXES AND OTHER MEANS TO PROTECT OBJECTS NOT MARKED FOR REMOVAL. DAMAGE TO OBJECTS NOT MARKED FOR REMOVAL SHALL BE REPAIRED OR REPLACED AT NO COST TO PROJECT OWNER. HYDRANT LEADS TO BE 7.5 FT DEEP TO TOP OF HYDRANT BRANCH. SEE WAT-1 ON SHEET 7.
  2. UTILITY LOCATIONS SHOWN ARE LEVEL D ACCURACY. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS THROUGH GOPHER STATE ONE CALL.
  3. CONSTRUCTION LIMITS LINES SHOWN AT HDD DRILLING LOCATIONS MAY VARY, AS APPROVED BY ENGINEER.
  4. MAINTAIN A MINIMUM 7.5 FT VERTICAL COVER ON ALL RAW AND FINISHED WATER MAINS MAINTAIN A MINIMUM 24" VERTICAL SEPARATION BETWEEN NEW RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER CROSSING. MAINTAIN A MINIMUM 10 FT HORIZONTAL SEPARATION BETWEEN RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER.
  5. SEE PROJECT SPECIFICATIONS FOR SOIL BORING LOGS AND LOCATION MAP.
  6. MAINTAIN 15' MAXIMUM COVER ON ALL RAW AND FINISHED WATER MAIN. CONTRACTOR TO NOTIFY ENGINEER OF AVERAGE RUNNING DEPTH OF DRILLING MACHINE DURING CONSTRUCTION.
  7. CONTRACTOR TO SUBMIT DETAILED SCHEDULE MINIMUM 1 WEEK PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES FOR COORDINATION WITH THE CITY OF RAMSEY UTILITIES DEPARTMENT. CONTACT UTILITIES SUPERINTENDENT JOHN NELSON AT 763.250.4592. CITY OF RAMSEY TO OPERATE VALVES AND HYDRANTS FOR CONTRACTOR.
  8. DURING INSTALLATION OF THE FITTINGS AND PIPING BETWEEN THE CONNECTION TO THE EXISTING RAW WATER MAINS AND THE GATE VALVE AT STA. 1+27.42, CLEAN THE INTERIOR OF THE COMPONENTS BY MECHANICAL MEANS AND SWAB WITH 5% SODIUM HYPOCHLORITE DISINFECTING SOLUTION.

# BUNKER LAKE BLVD NW (CSAH 116)



SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.	.	.	.	.	.
Designed By	KLK	.	.	.	.	.	.
Checked By	CES	.	.	.	.	.	.

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*David E. Hutton*  
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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**BUNKER LAKE BLVD NW (CSAH 116)**

22 of 58

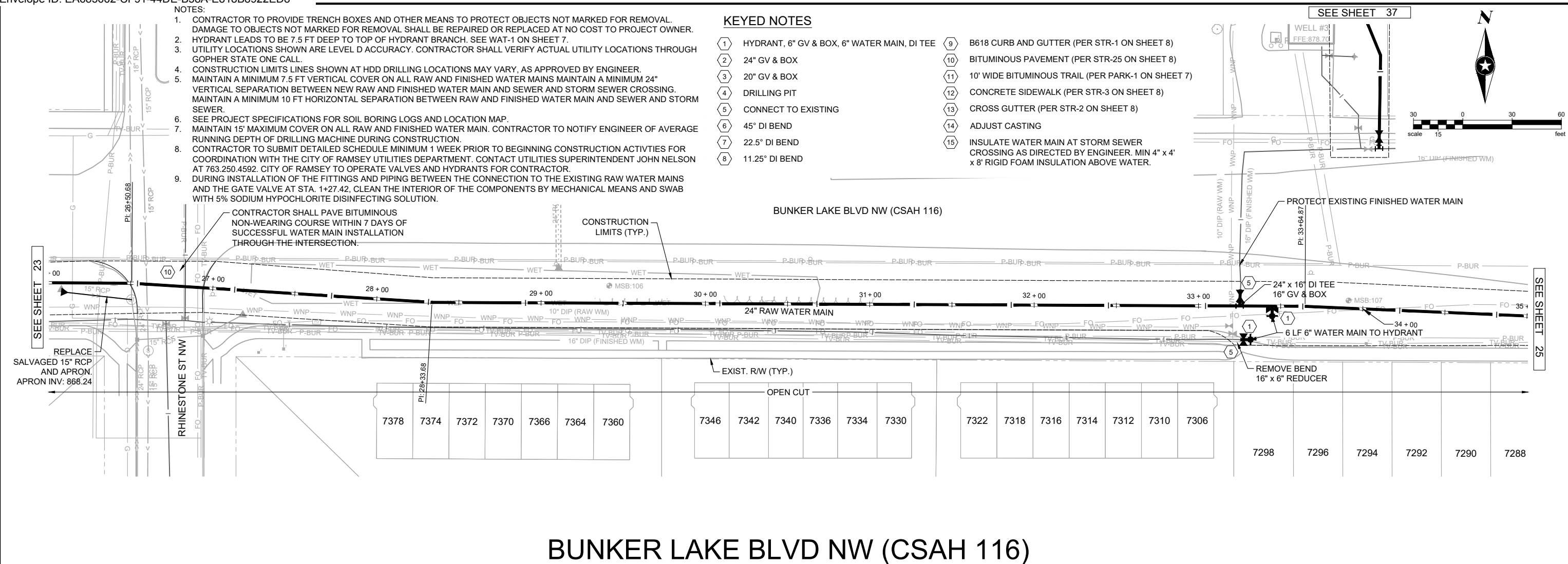
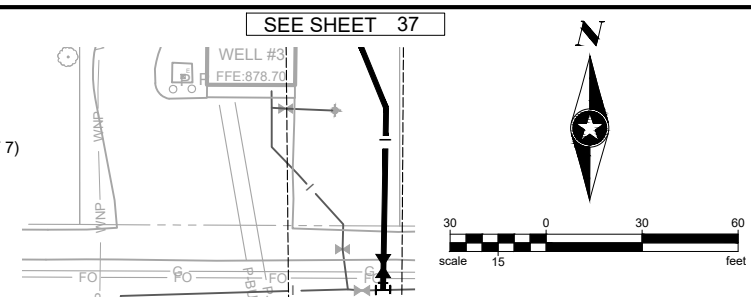


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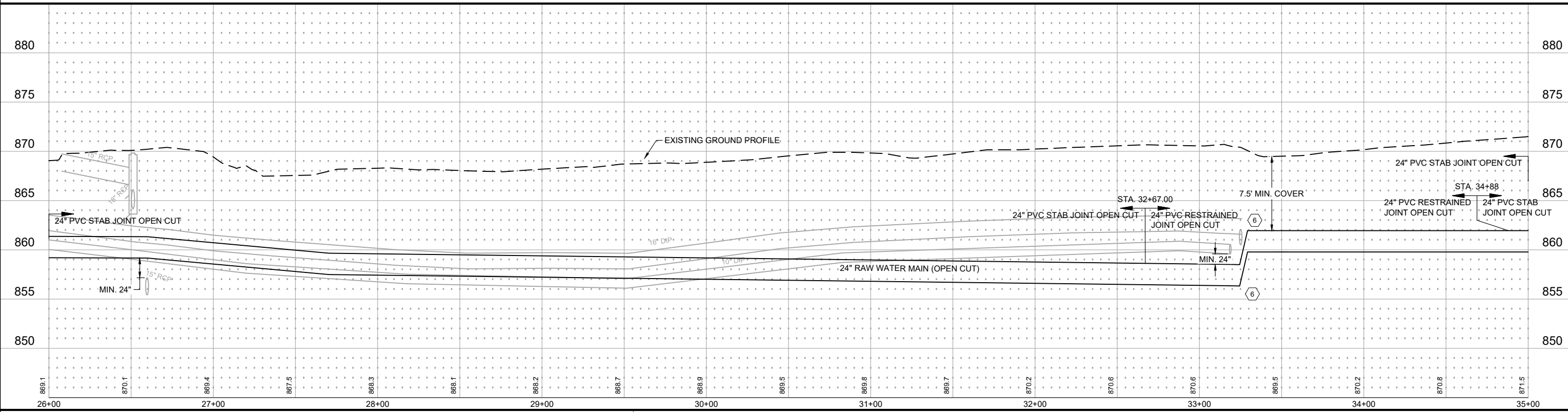
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5. MAINTAIN A MINIMUM 7.5 FT VERTICAL COVER ON ALL RAW AND FINISHED WATER MAINS MAINTAIN A MINIMUM 24" VERTICAL SEPARATION BETWEEN NEW RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER CROSSING. MAINTAIN A MINIMUM 10 FT HORIZONTAL SEPARATION BETWEEN RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER.
6. SEE PROJECT SPECIFICATIONS FOR SOIL BORING LOGS AND LOCATION MAP.
7. MAINTAIN 15' MAXIMUM COVER ON ALL RAW AND FINISHED WATER MAIN. CONTRACTOR TO NOTIFY ENGINEER OF AVERAGE RUNNING DEPTH OF DRILLING MACHINE DURING CONSTRUCTION.
8. CONTRACTOR TO SUBMIT DETAILED SCHEDULE MINIMUM 1 WEEK PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES FOR COORDINATION WITH THE CITY OF RAMSEY UTILITIES DEPARTMENT. CONTACT UTILITIES SUPERINTENDENT JOHN NELSON AT 763.250.4592. CITY OF RAMSEY TO OPERATE VALVES AND HYDRANTS FOR CONTRACTOR.
9. DURING INSTALLATION OF THE FITTINGS AND PIPING BETWEEN THE CONNECTION TO THE EXISTING RAW WATER MAINS AND THE GATE VALVE AT STA. 1+27.42, CLEAN THE INTERIOR OF THE COMPONENTS BY MECHANICAL MEANS AND SWAB WITH 5% SODIUM HYPOCHLORITE DISINFECTING SOLUTION.

KEYED NOTES

- |   |  |
|---|--|
| ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE | ⑨ B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)  |
| ② 24" GV & BOX                                | ⑩ BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)  |
| ③ 20" GV & BOX                                | ⑪ 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)  |
| ④ DRILLING PIT                                | ⑫ CONCRETE SIDEWALK (PER STR-3 ON SHEET 8)   |
| ⑤ CONNECT TO EXISTING                         | ⑬ CROSS GUTTER (PER STR-2 ON SHEET 8)  |
| ⑥ 45° DI BEND                                 | ⑭ ADJUST CASTING   |
| ⑦ 22.5° DI BEND                               | ⑮ INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER. |
| ⑧ 11.25° DI BEND                              |  |



BUNKER LAKE BLVD NW (CSAH 116)



SEH Project RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By JRB, SRP						
Designed By KLK						
Checked By CES						

SEH

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David E. Hutton  
LICENSE NO. 19133

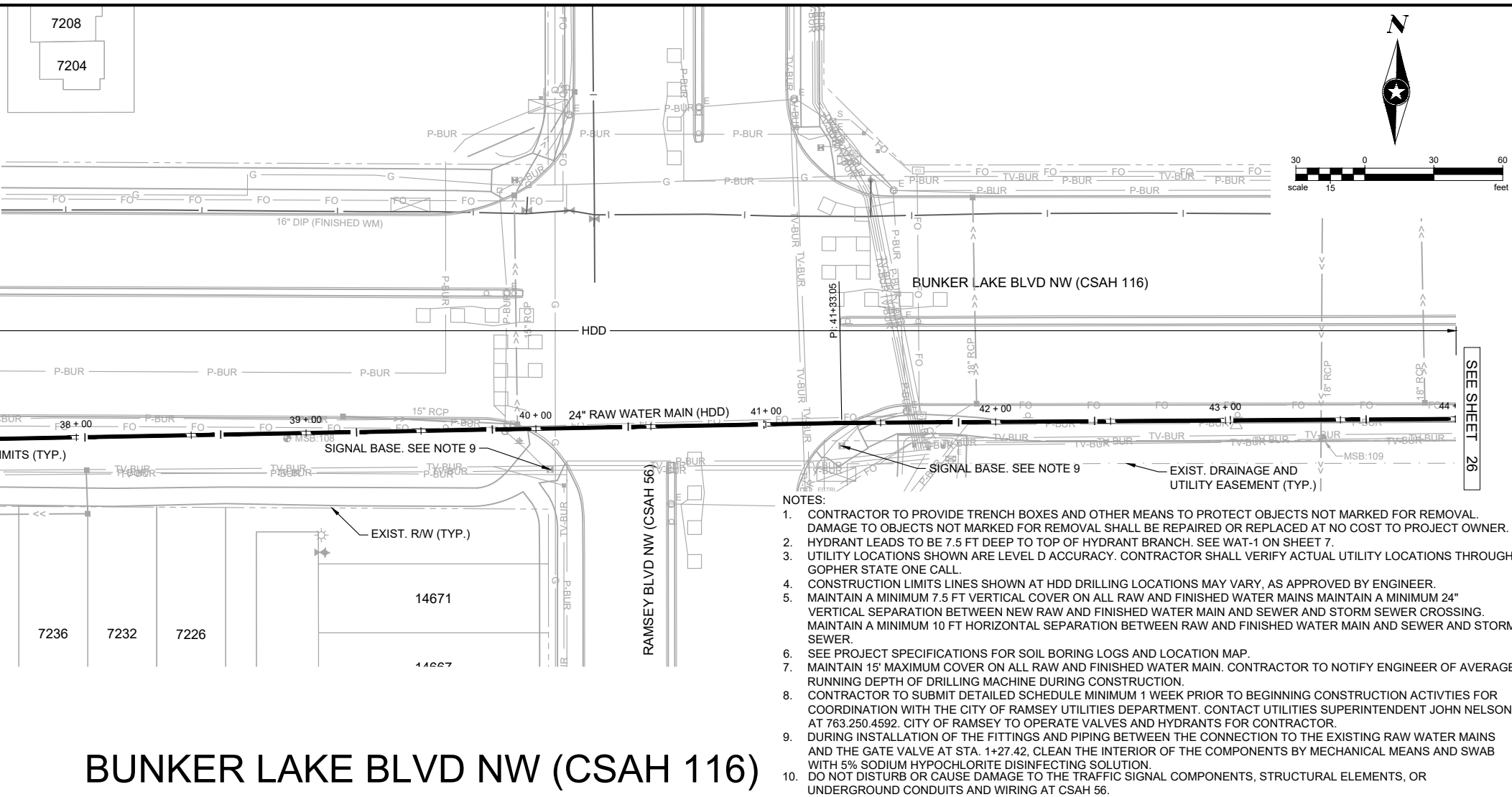
**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**BUNKER LAKE BLVD NW (CSAH 116)**

24 of 58

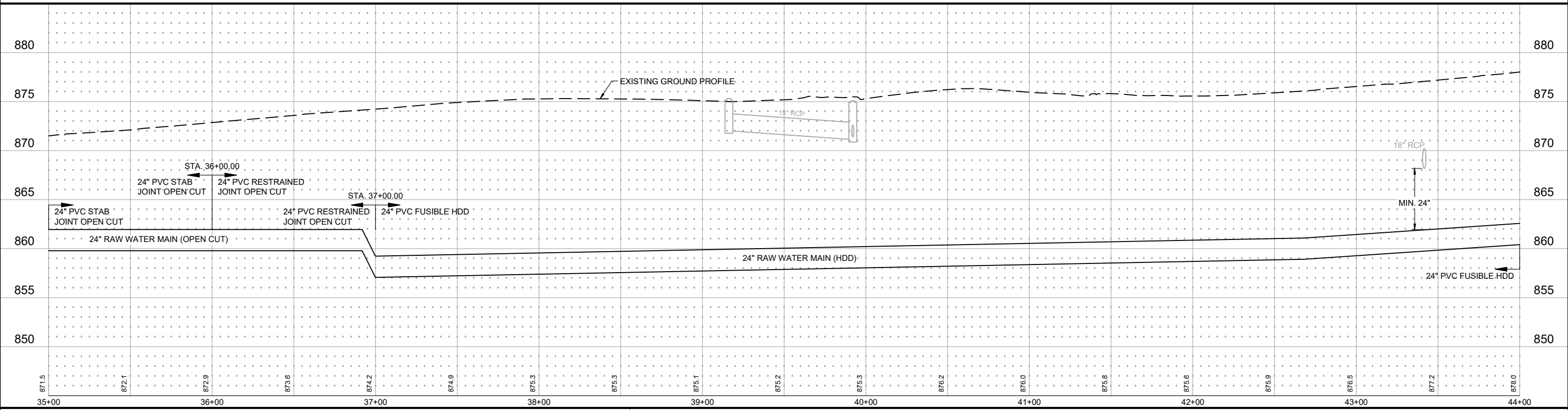
**KEYED NOTES**

- ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- ② 24" GV & BOX
- ③ 20" GV & BOX
- ④ DRILLING PIT
- ⑤ CONNECT TO EXISTING
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- ⑧ 11.25° DI BEND
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- ⑭ ADJUST CASTING
- ⑮ INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER.



- NOTES:**
- CONTRACTOR TO PROVIDE TRENCH BOXES AND OTHER MEANS TO PROTECT OBJECTS NOT MARKED FOR REMOVAL. DAMAGE TO OBJECTS NOT MARKED FOR REMOVAL SHALL BE REPAIRED OR REPLACED AT NO COST TO PROJECT OWNER.
  - HYDRANT LEADS TO BE 7.5 FT DEEP TO TOP OF HYDRANT BRANCH. SEE WAT-1 ON SHEET 7.
  - UTILITY LOCATIONS SHOWN ARE LEVEL D ACCURACY. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS THROUGH GOPHER STATE ONE CALL.
  - CONSTRUCTION LIMITS LINES SHOWN AT HDD DRILLING LOCATIONS MAY VARY, AS APPROVED BY ENGINEER.
  - MAINTAIN A MINIMUM 7.5 FT VERTICAL COVER ON ALL RAW AND FINISHED WATER MAINS MAINTAIN A MINIMUM 24" VERTICAL SEPARATION BETWEEN NEW RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER CROSSING. MAINTAIN A MINIMUM 10 FT HORIZONTAL SEPARATION BETWEEN RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER.
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  - DO NOT DISTURB OR CAUSE DAMAGE TO THE TRAFFIC SIGNAL COMPONENTS, STRUCTURAL ELEMENTS, OR UNDERGROUND CONDUITS AND WIRING AT CSAH 56.

**BUNKER LAKE BLVD NW (CSAH 116)**



SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.	.	.	.	.	.
Designed By	KLK	.	.	.	.	.	.
Checked By	CES	.	.	.	.	.	.

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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**BUNKER LAKE BLVD NW (CSAH 116)**

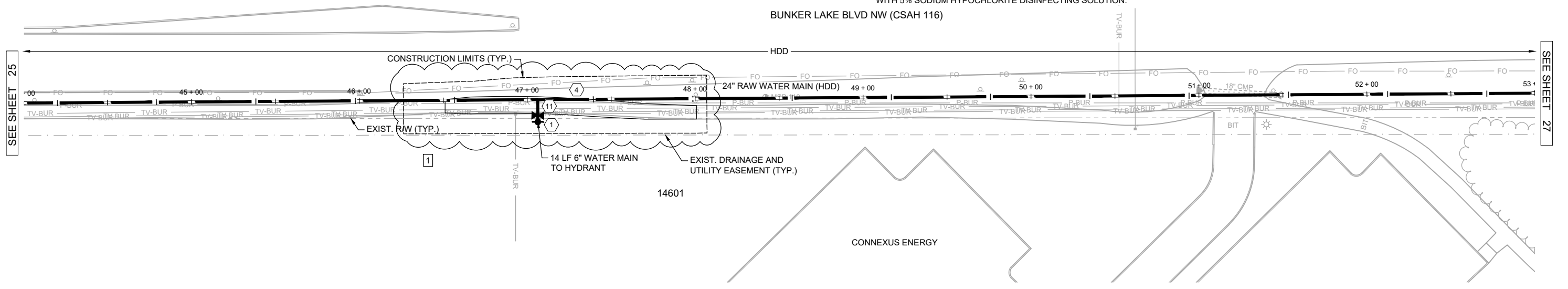
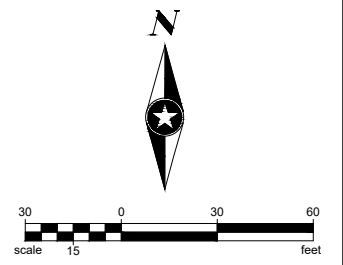
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**KEYED NOTES**

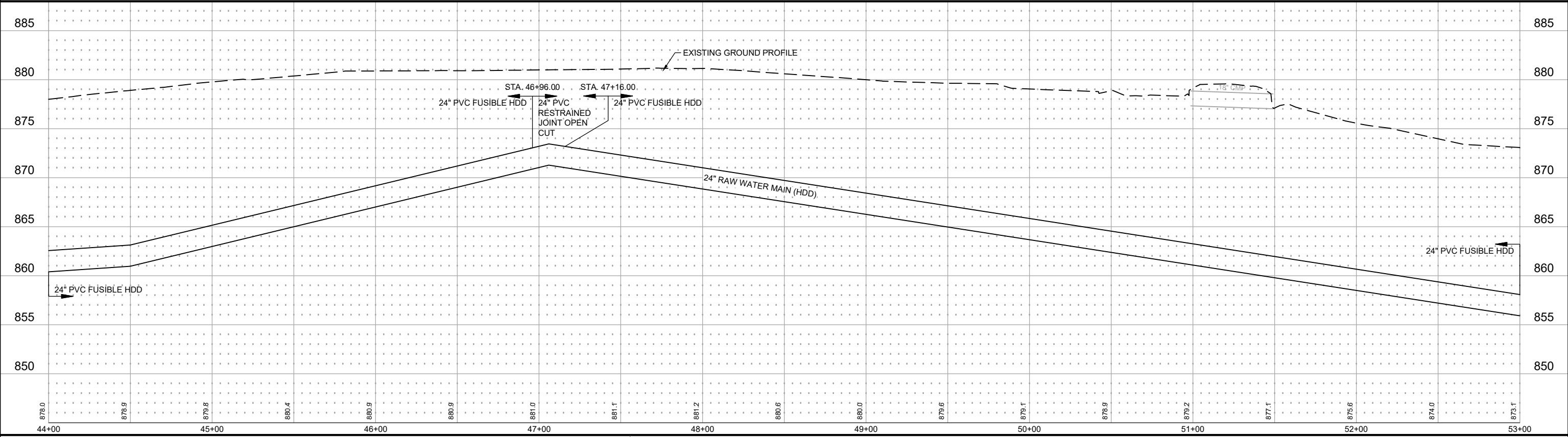
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**BUNKER LAKE BLVD NW (CSAH 116)**



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SEH Project	RAMSY174498	Rev.#	1	Revision Issue Description	ADDENDUM #1	Date	10/23/2023
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**BUNKER LAKE BLVD NW (CSAH 116)**

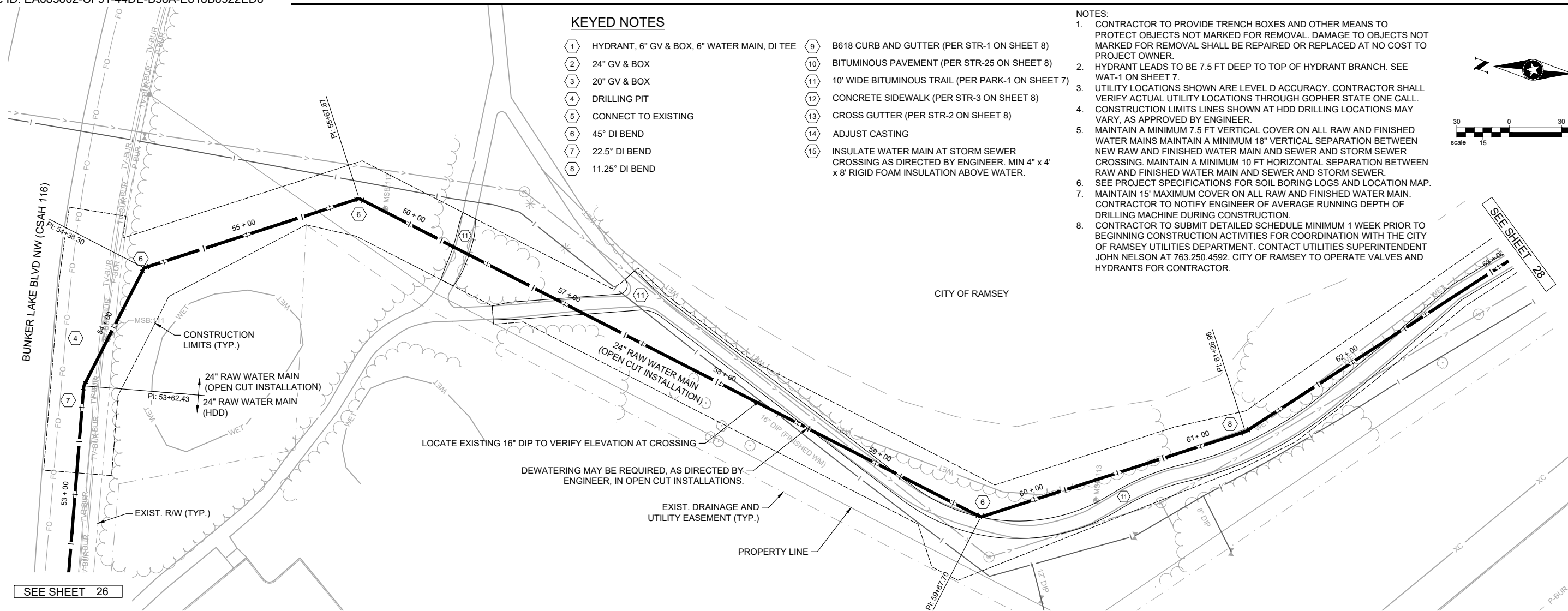
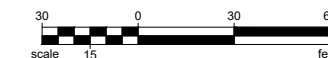
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of 58

**KEYED NOTES**

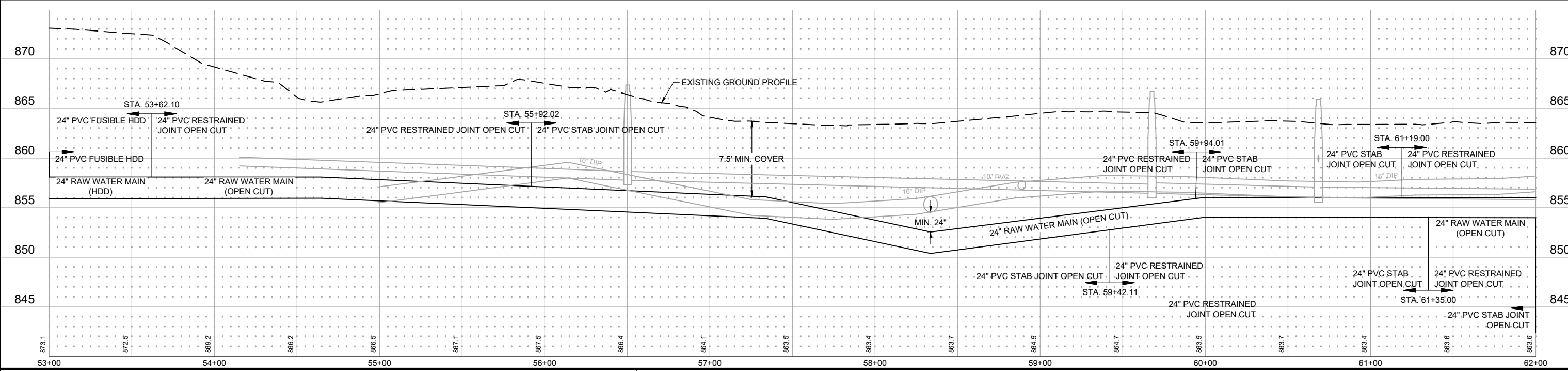
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**COTTONWOOD PARK**



SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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*David E. Hutton*  
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 LICENSE NO. 19133  
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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**COTTONWOOD PARK**

27  
of 58

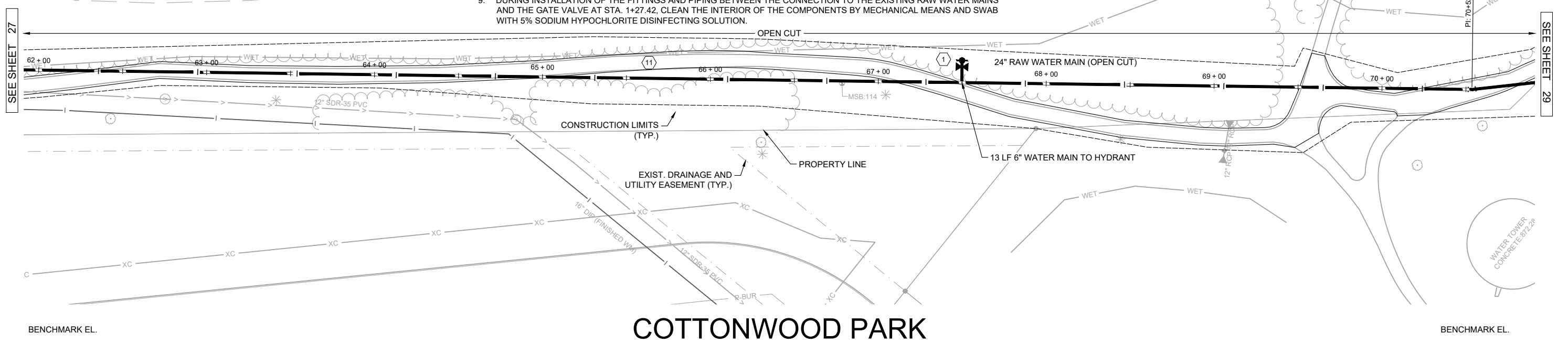
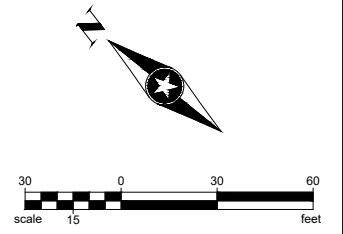
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**KEYED NOTES**

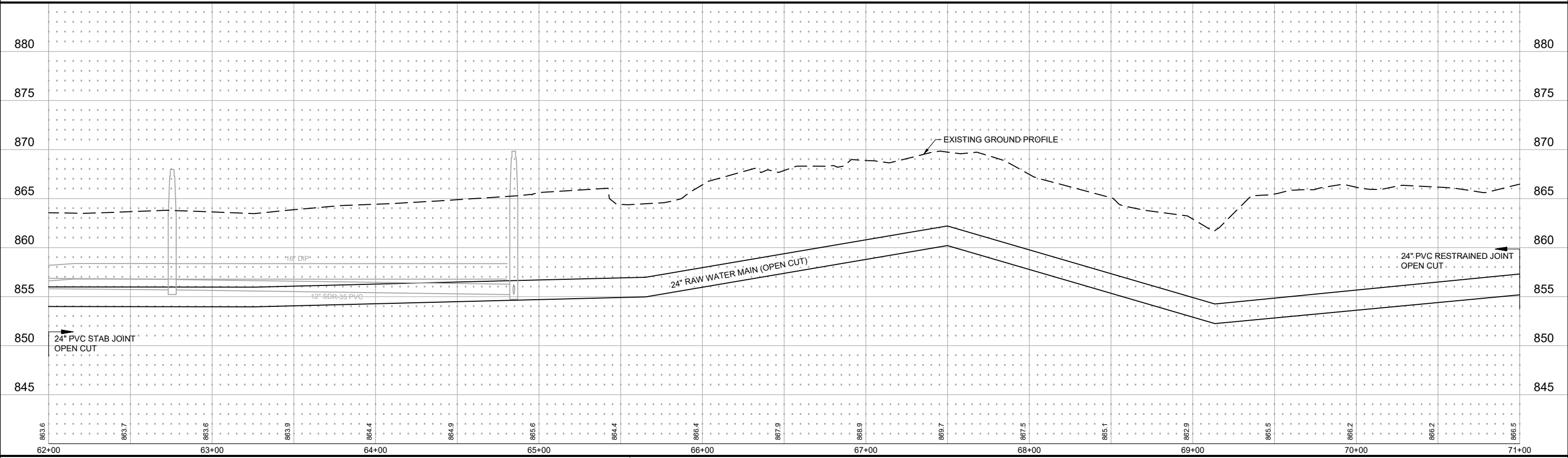
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**COTTONWOOD PARK**



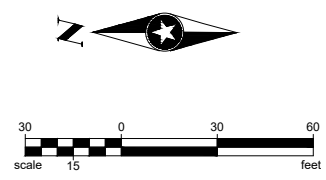
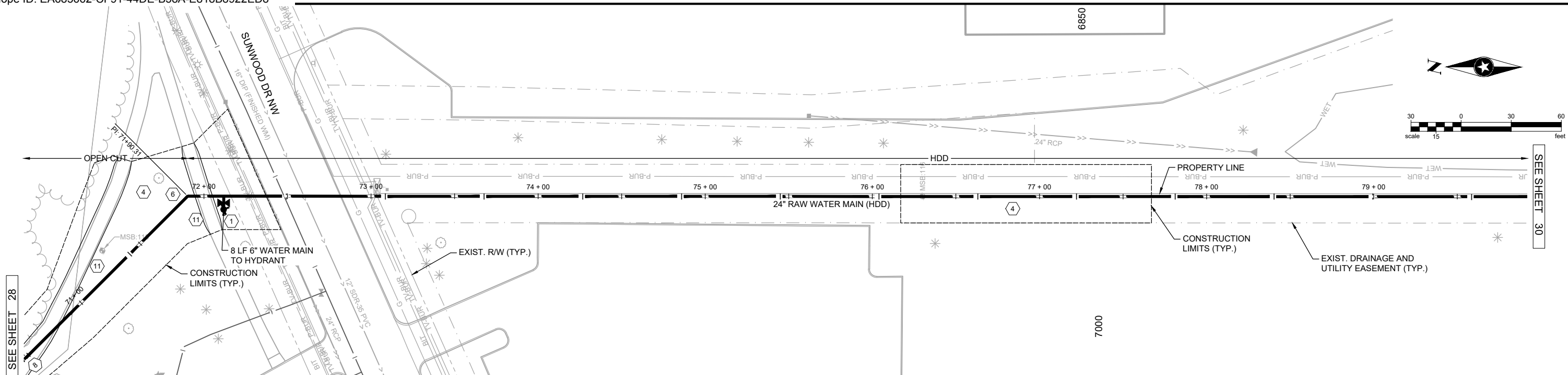
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.	.	.	.	.	.
Designed By	KLK	.	.	.	.	.	.
Checked By	CES	.	.	.	.	.	.

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 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE COTTONWOOD PARK**



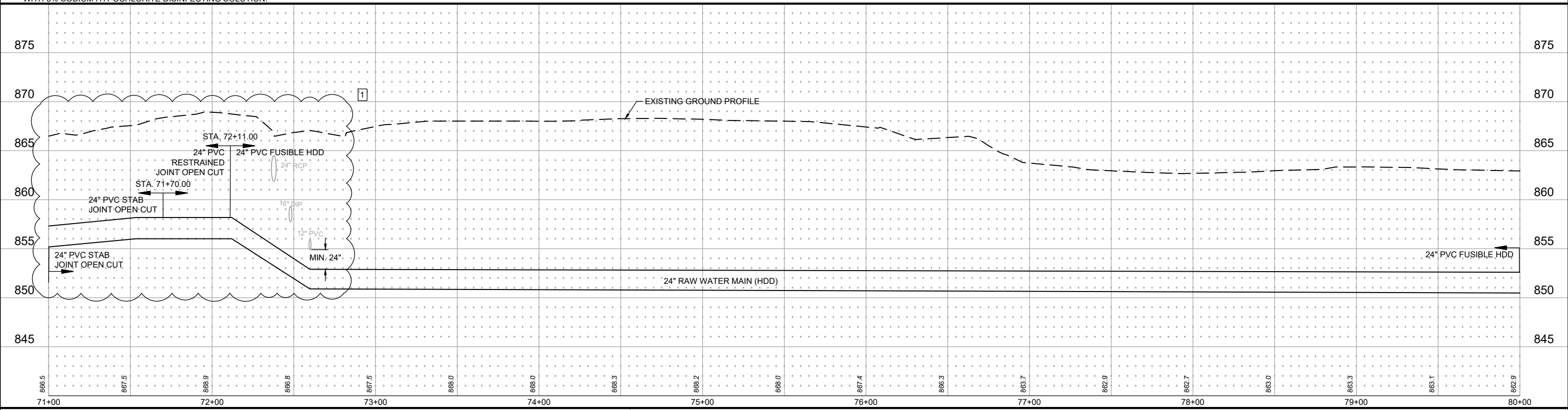


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| ⑤ | CONNECT TO EXISTING                         | ⑬ | CROSS GUTTER (PER STR-2 ON SHEET 8)  |
| ⑥ | 45° DI BEND                                 | ⑭ | ADJUST CASTING   |
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| ⑧ | 11.25° DI BEND                              |   |  |

# 7000 SUNWOOD DR



SEH Project	RAMSY174498	Rev.#	1	Revision Issue Description	ADDENDUM #1	Date	10/23/2023
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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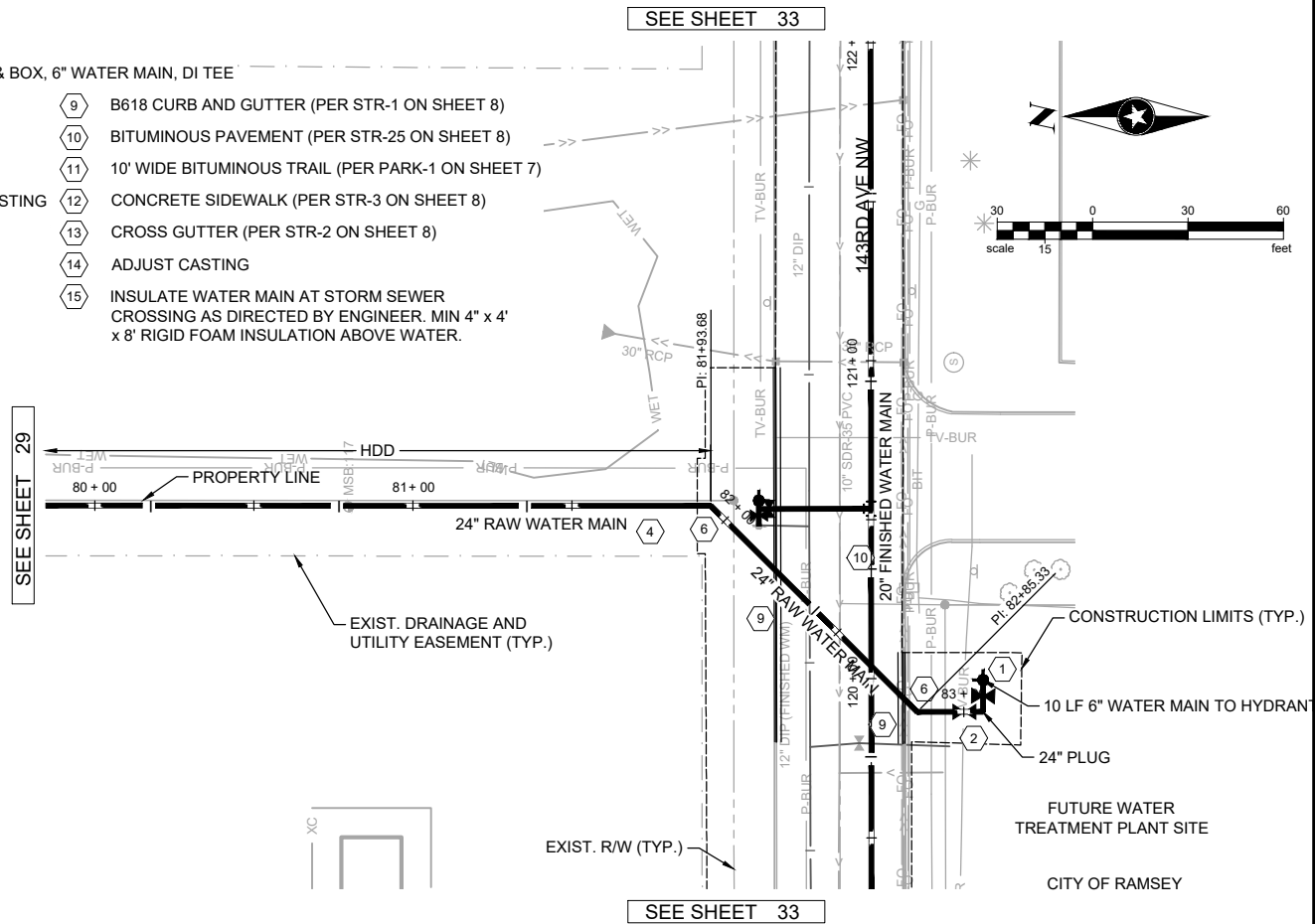
**WATER TREATMENT PLANT**  
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 Ramsey, Minnesota

**UTILITY PLAN & PROFILE**  
**7000 SUNWOOD DR**

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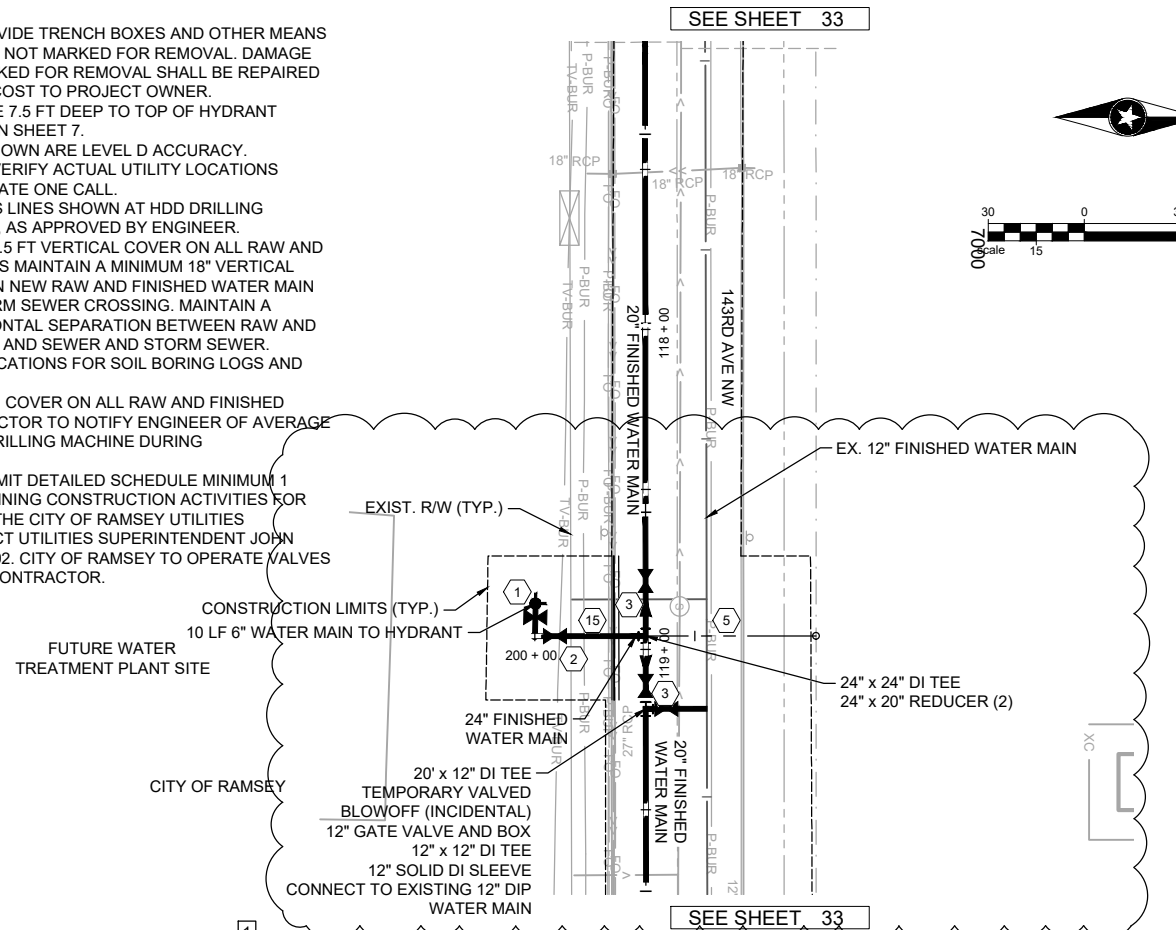
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- 7 22.5° DI BEND
- 8 11.25° DI BEND
- 9 B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)
- 10 BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)
- 11 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)
- 12 CONCRETE SIDEWALK (PER STR-3 ON SHEET 8)
- 13 CROSS GUTTER (PER STR-2 ON SHEET 8)
- 14 ADJUST CASTING
- 15 INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8" RIGID FOAM INSULATION ABOVE WATER.

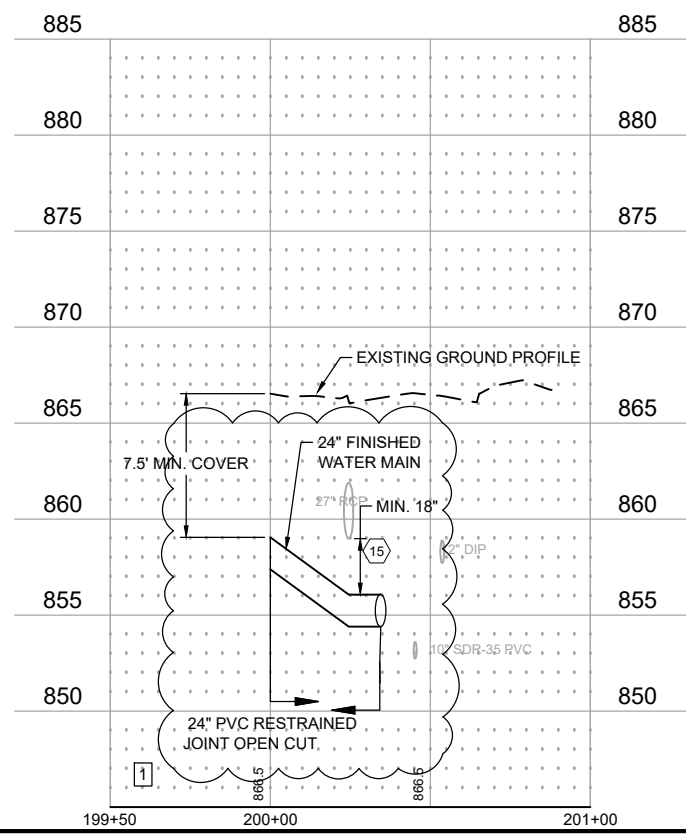
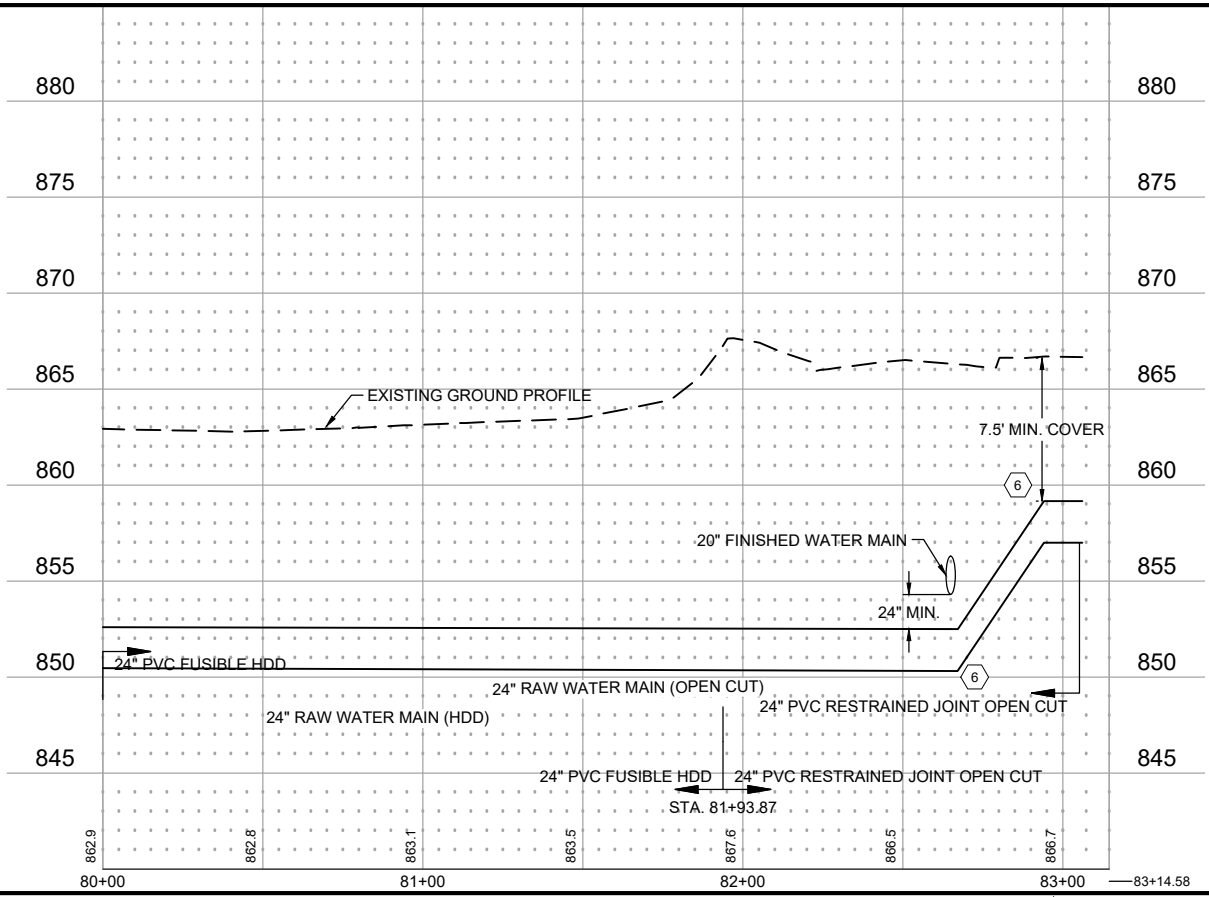


**FUTURE WTP**

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  - HYDRANT LEADS TO BE 7.5 FT DEEP TO TOP OF HYDRANT BRANCH. SEE WAT-1 ON SHEET 7.
  - UTILITY LOCATIONS SHOWN ARE LEVEL D ACCURACY. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS THROUGH GOPHER STATE ONE CALL.
  - CONSTRUCTION LIMITS LINES SHOWN AT HDD DRILLING LOCATIONS MAY VARY, AS APPROVED BY ENGINEER.
  - MAINTAIN A MINIMUM 7.5 FT VERTICAL COVER ON ALL RAW AND FINISHED WATER MAINS MAINTAIN A MINIMUM 18" VERTICAL SEPARATION BETWEEN NEW RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER CROSSING. MAINTAIN A MINIMUM 10 FT HORIZONTAL SEPARATION BETWEEN RAW AND FINISHED WATER MAIN AND SEWER AND STORM SEWER.
  - SEE PROJECT SPECIFICATIONS FOR SOIL BORING LOGS AND LOCATION MAP.
  - MAINTAIN 15' MAXIMUM COVER ON ALL RAW AND FINISHED WATER MAIN. CONTRACTOR TO NOTIFY ENGINEER OF AVERAGE RUNNING DEPTH OF DRILLING MACHINE DURING CONSTRUCTION.
  - CONTRACTOR TO SUBMIT DETAILED SCHEDULE MINIMUM 1 WEEK PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES FOR COORDINATION WITH THE CITY OF RAMSEY UTILITIES DEPARTMENT. CONTACT UTILITIES SUPERINTENDENT JOHN NELSON AT 763.250.4592. CITY OF RAMSEY TO OPERATE VALVES AND HYDRANTS FOR CONTRACTOR.



**FUTURE WTP**



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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	1	ADDENDUM #1	10/23/2023			
Designed By	KLK						
Checked By	CES						

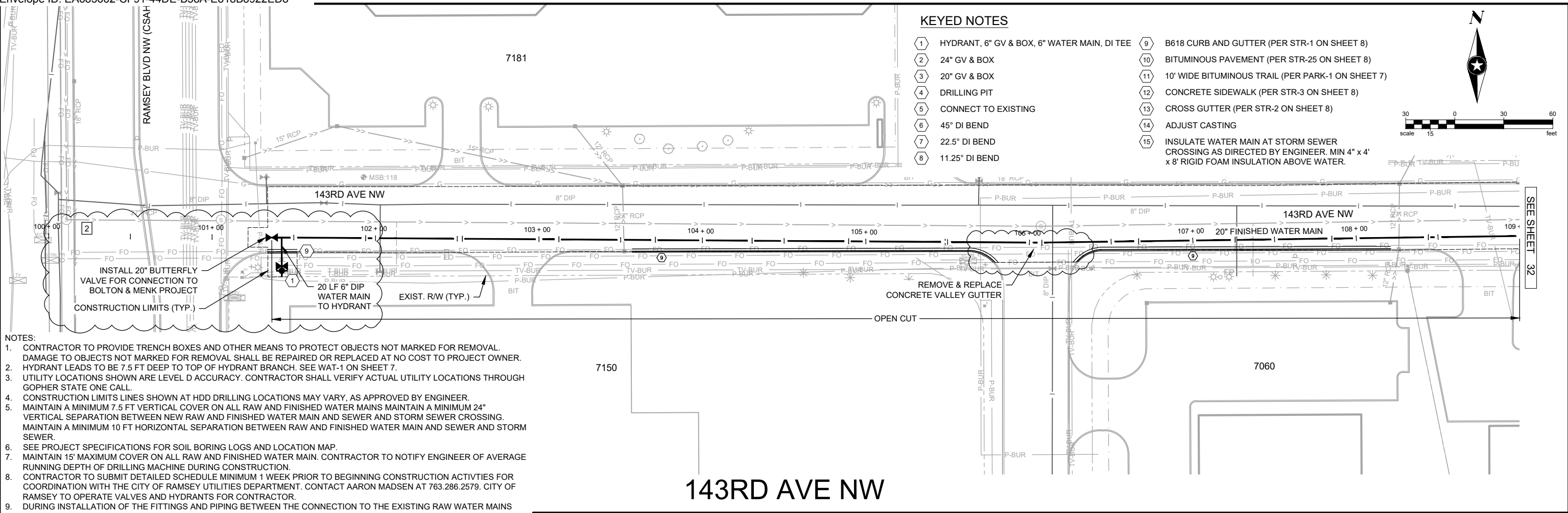
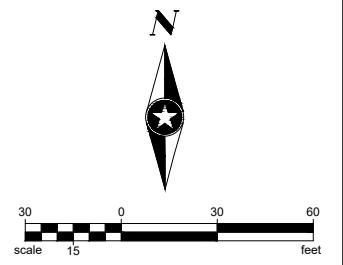
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN & PROFILE FUTURE WTP**

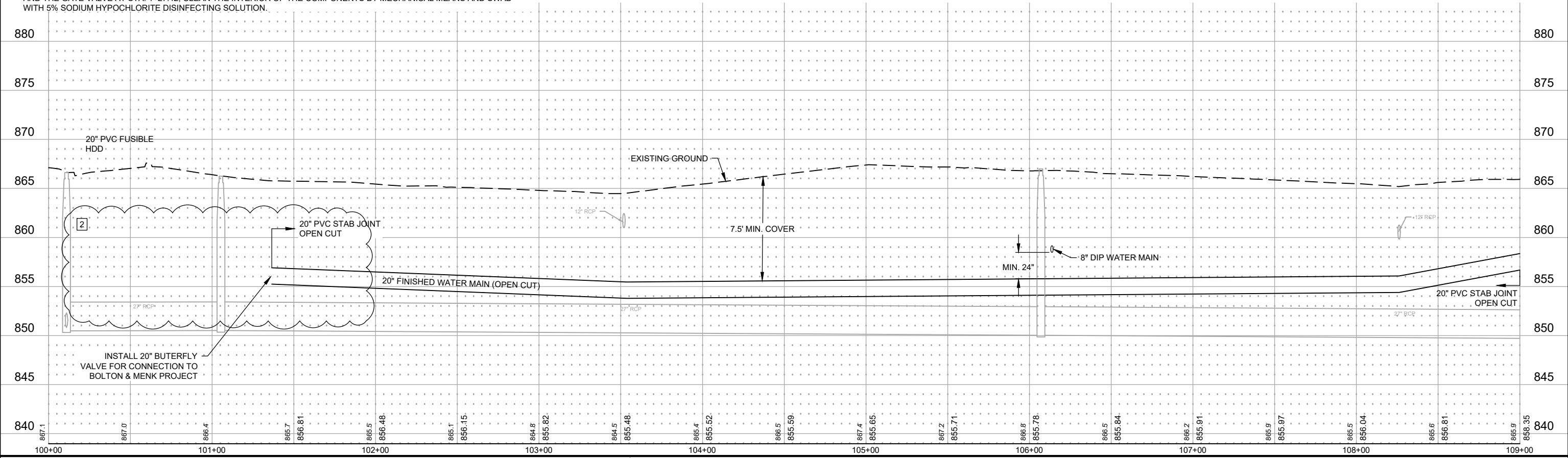
**KEYED NOTES**

- ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- ② 24" GV & BOX
- ③ 20" GV & BOX
- ④ DRILLING PIT
- ⑤ CONNECT TO EXISTING
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- ⑨ B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)
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- ⑭ ADJUST CASTING
- ⑮ INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER.



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**143RD AVE NW**



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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	1	ADDENDUM #1	10/23/2023			
Designed By	KLK	2	CHANGE ORDER #1	03/08/2024			
Checked By	CES						

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*David E. Hutton*  
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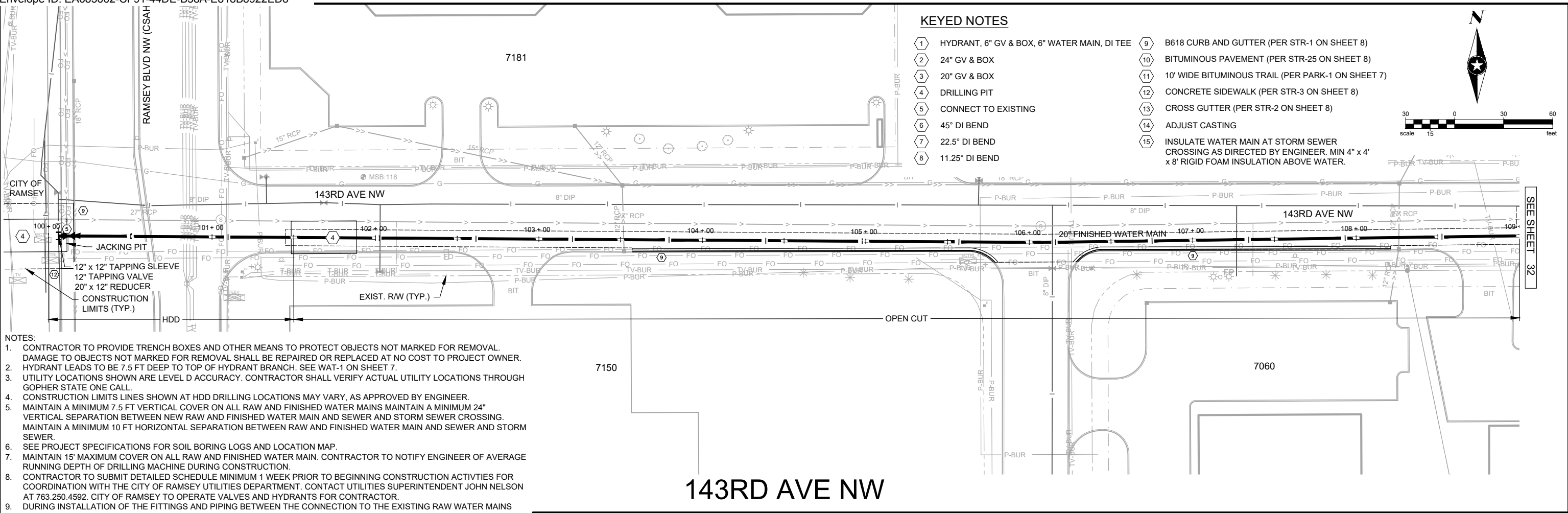
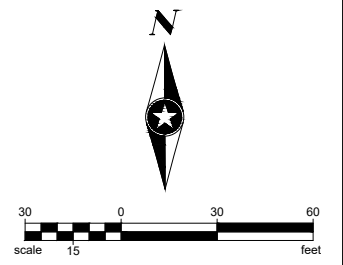
**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**  
**143RD AVE NW**

**31**  
of 58

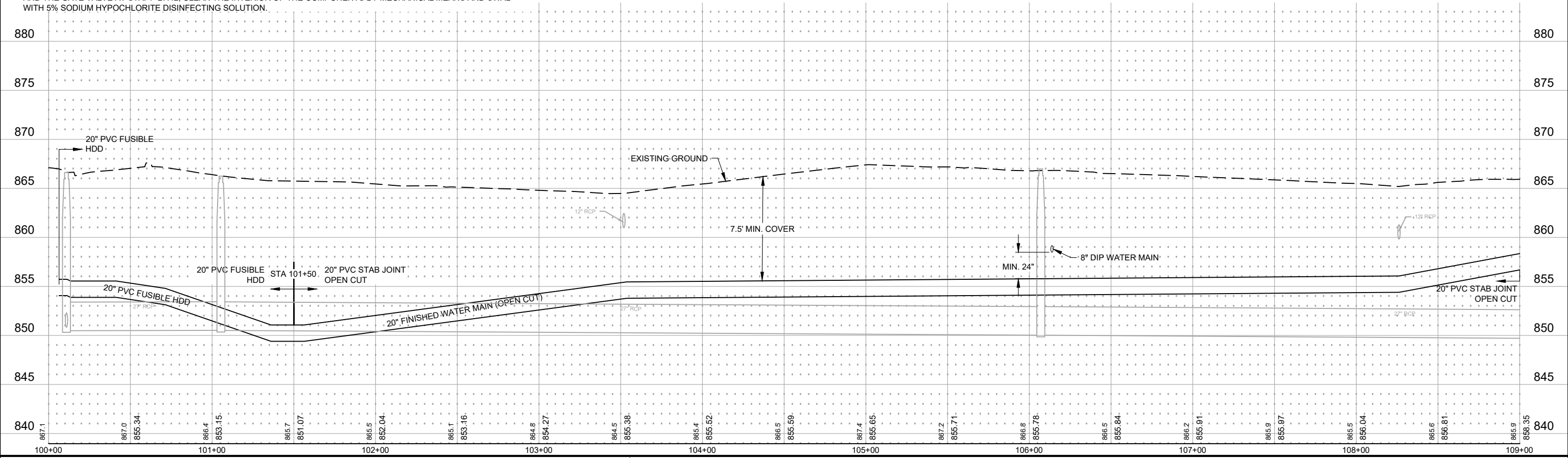
**KEYED NOTES**

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**143RD AVE NW**



SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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

*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

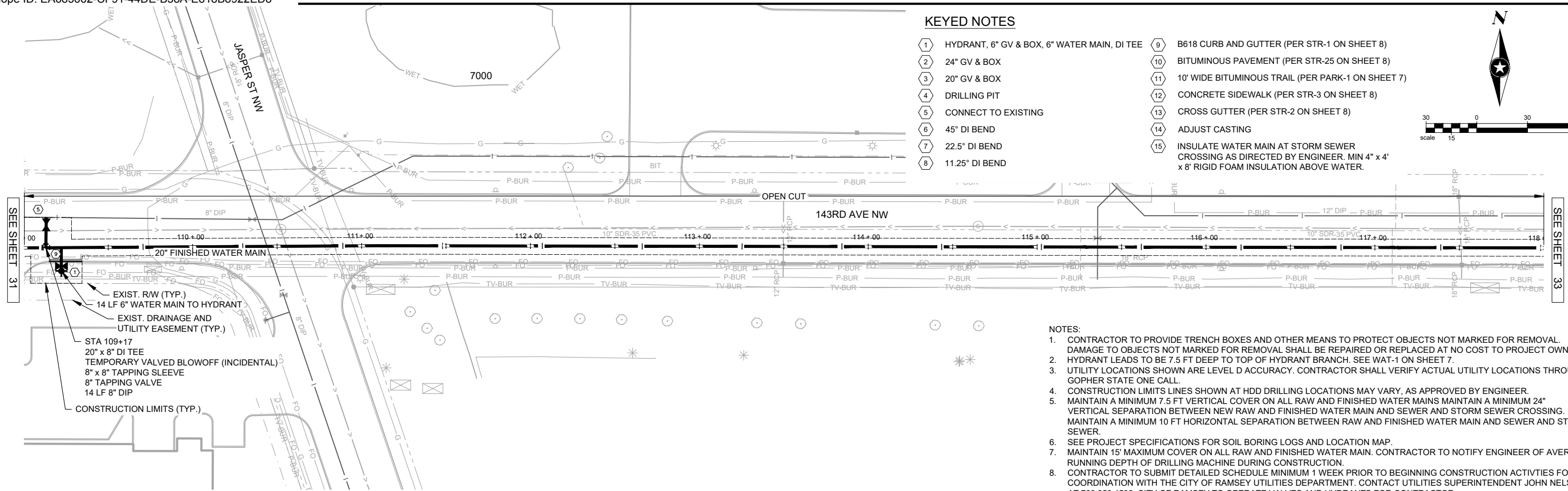
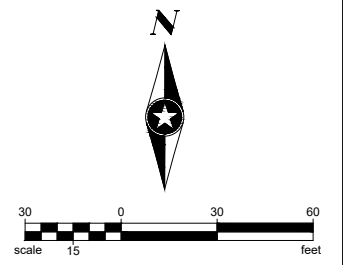
**UTILITY PLAN AND PROFILE**  
**143RD AVE NW**

**31**  
of 58

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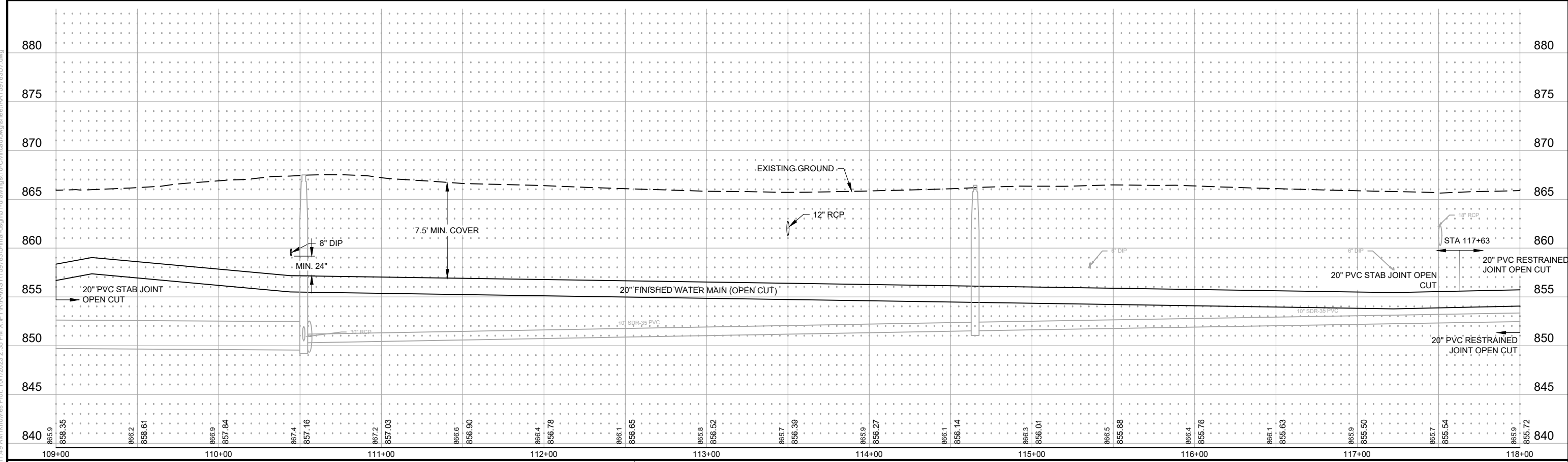


SEE SHEET 31

SEE SHEET 33

**143RD AVE NW**

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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

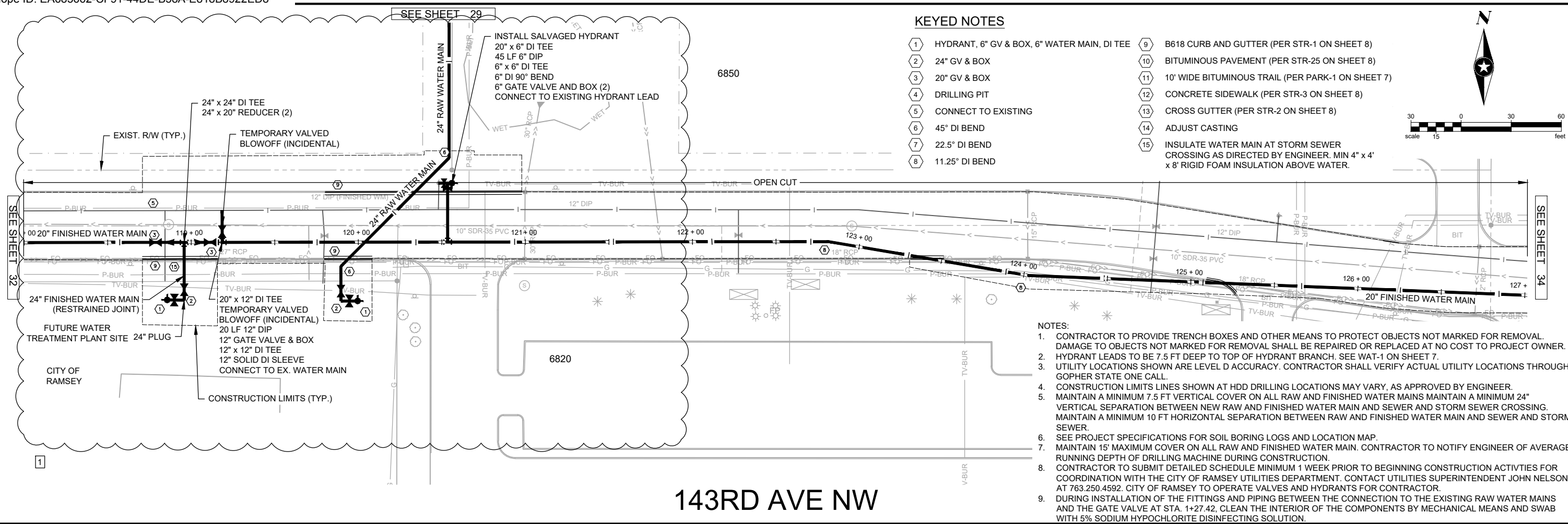
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**  
**143RD AVE NW**

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of 58



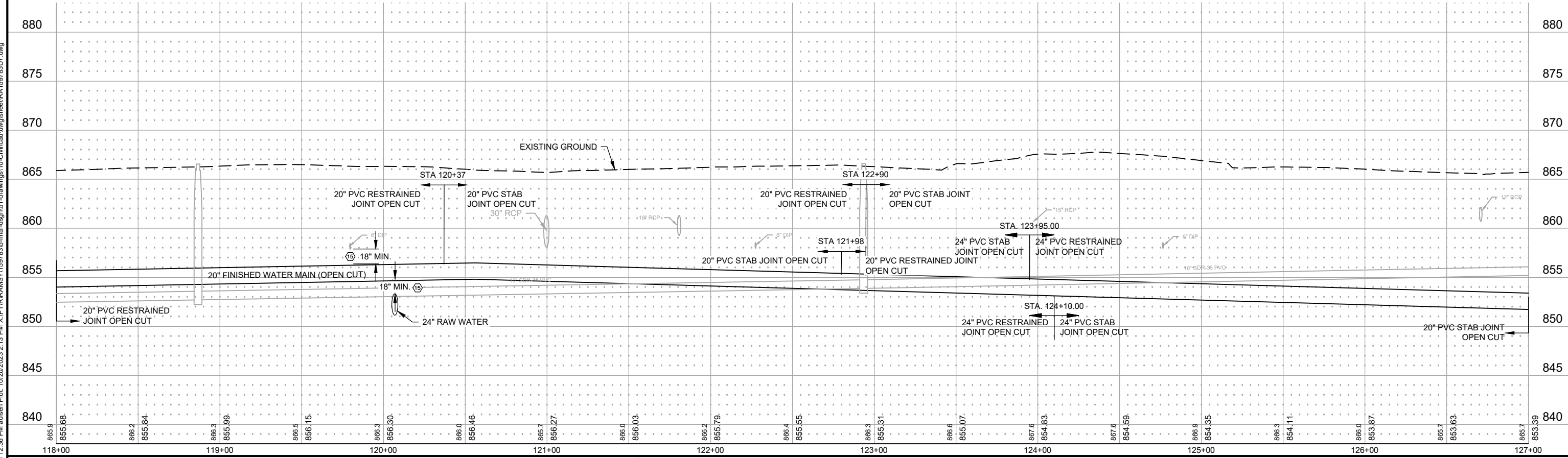
**KEYED NOTES**

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**143RD AVE NW**



SEH Project	RAMSY174498	Rev. #	1	Revision Issue Description	ADDENDUM #1	Date	10/23/2023
Drawn By	JRB, SRP	Checked By	CES				
Designed By	KLK						

**SEH**

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DATE 10-06-2023

David E. Hutton

LICENSE NO. 19133

**WATER TREATMENT PLANT**

**TRUNK WATER MAIN IMPROVEMENTS**

Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**

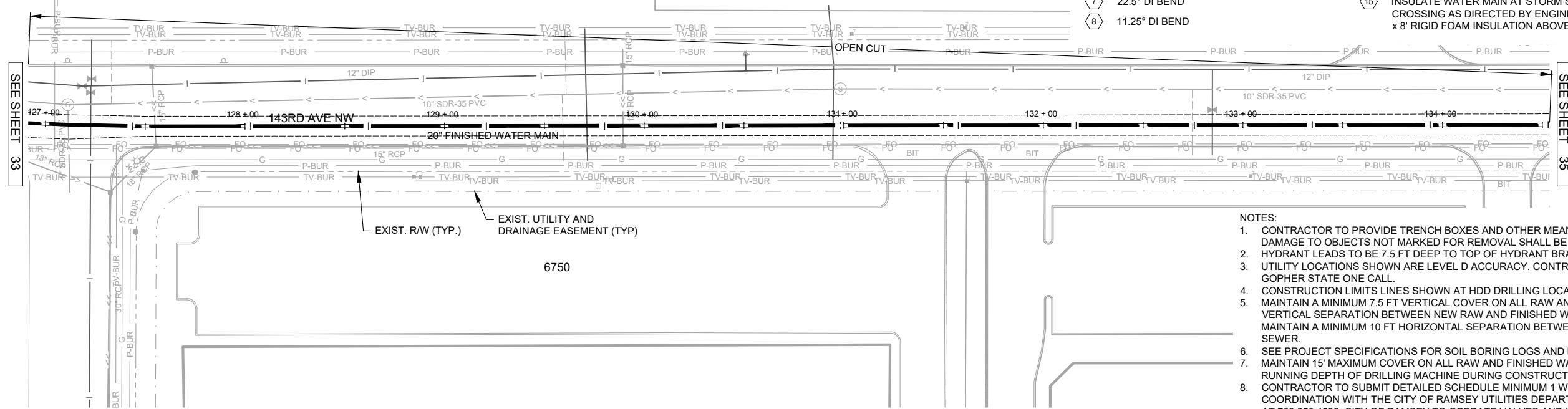
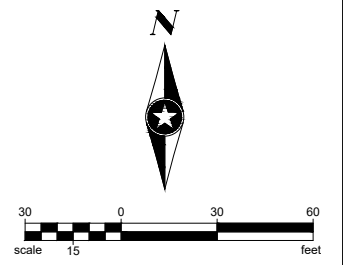
**143RD AVE NW**

**33**

of 58

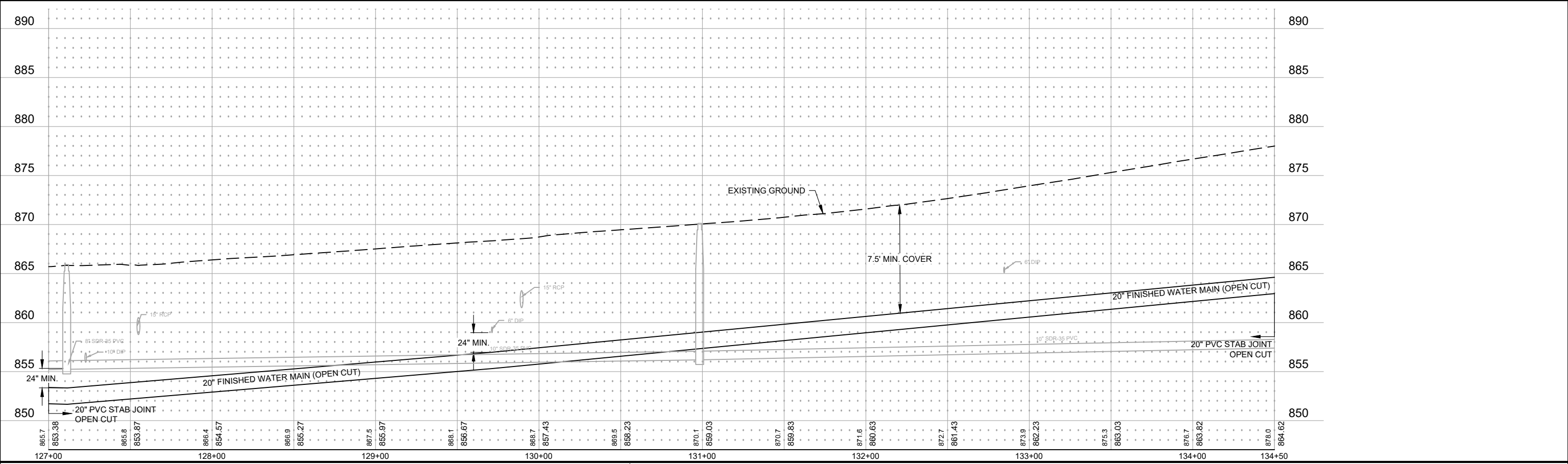
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**143RD AVE NW**



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 DATE 10-06-2023

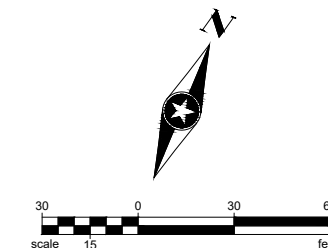
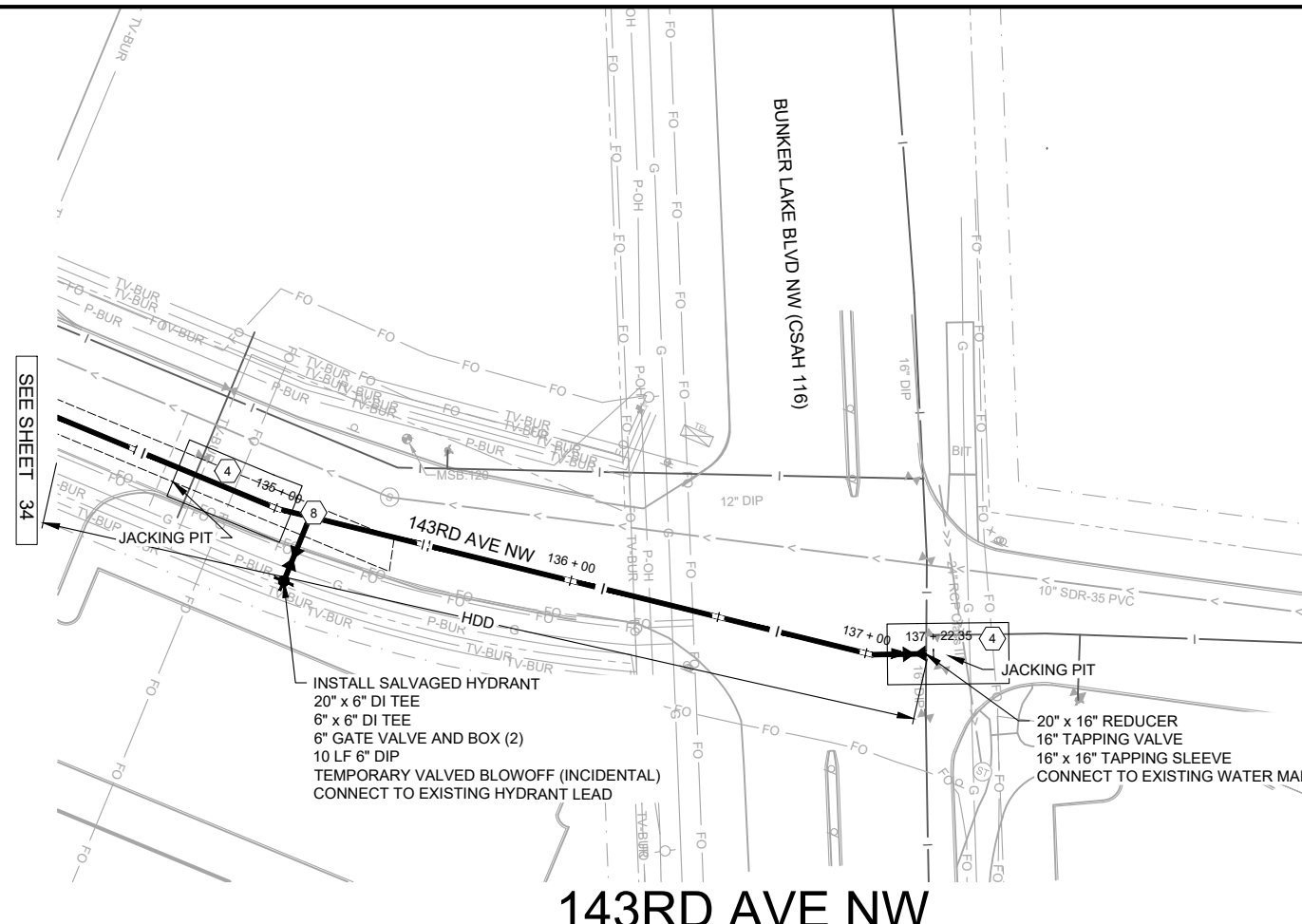
**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**KEYED NOTES**

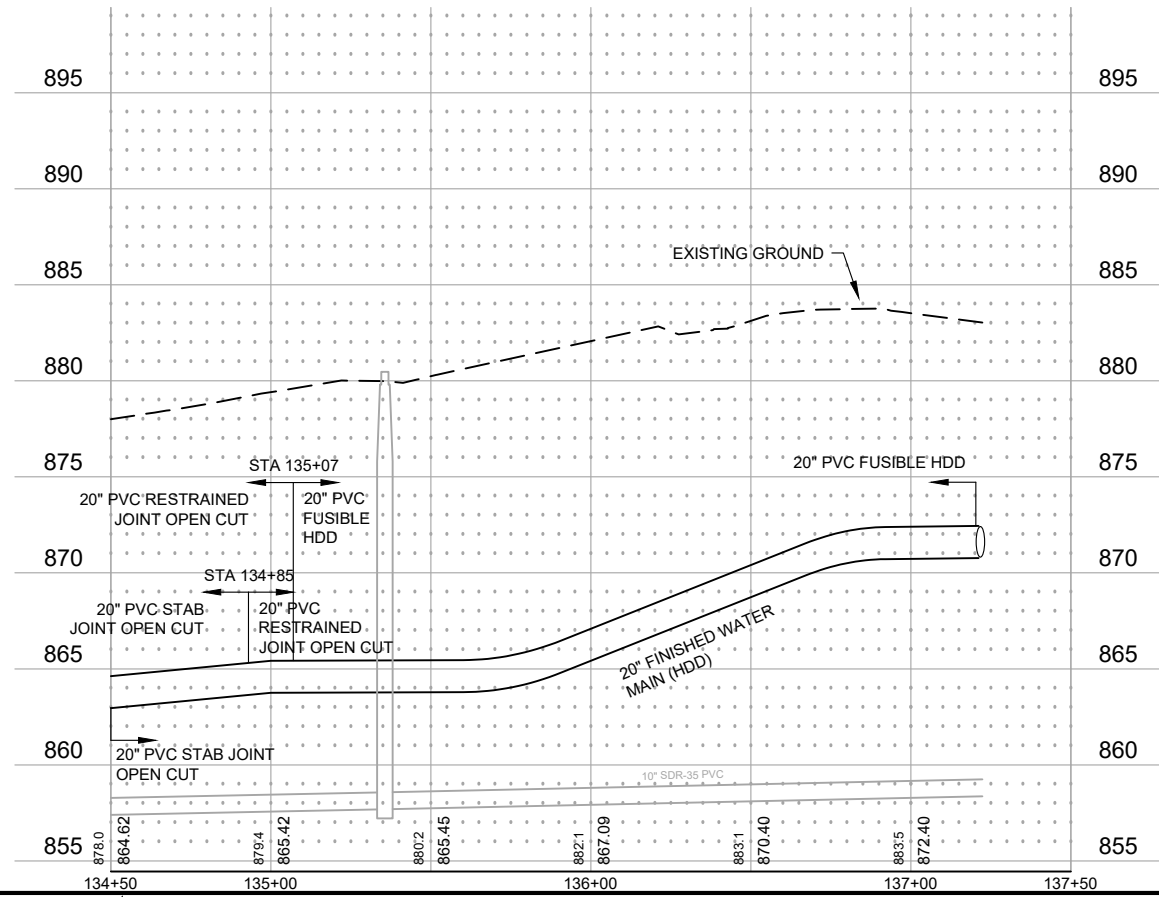
- |   |   |
|---|---|
| 1 HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE | 9 B618 CURB AND GUTTER (PER STR-1 ON SHEET 8)   |
| 2 24" GV & BOX                                | 10 BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)  |
| 3 20" GV & BOX                                | 11 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)  |
| 4 DRILLING PIT                                | 12 CONCRETE SIDEWALK (PER STR-3 ON SHEET 8)   |
| 5 CONNECT TO EXISTING                         | 13 CROSS GUTTER (PER STR-2 ON SHEET 8)  |
| 6 45° DI BEND                                 | 14 ADJUST CASTING   |
| 7 22.5° DI BEND                               | 15 INSULATE WATER MAIN AT STORM SEWER CROSSING AS DIRECTED BY ENGINEER. MIN 4" x 4" x 8' RIGID FOAM INSULATION ABOVE WATER. |
| 8 11.25° DI BEND                              |   |

**NOTES:**

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**143RD AVE NW**



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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

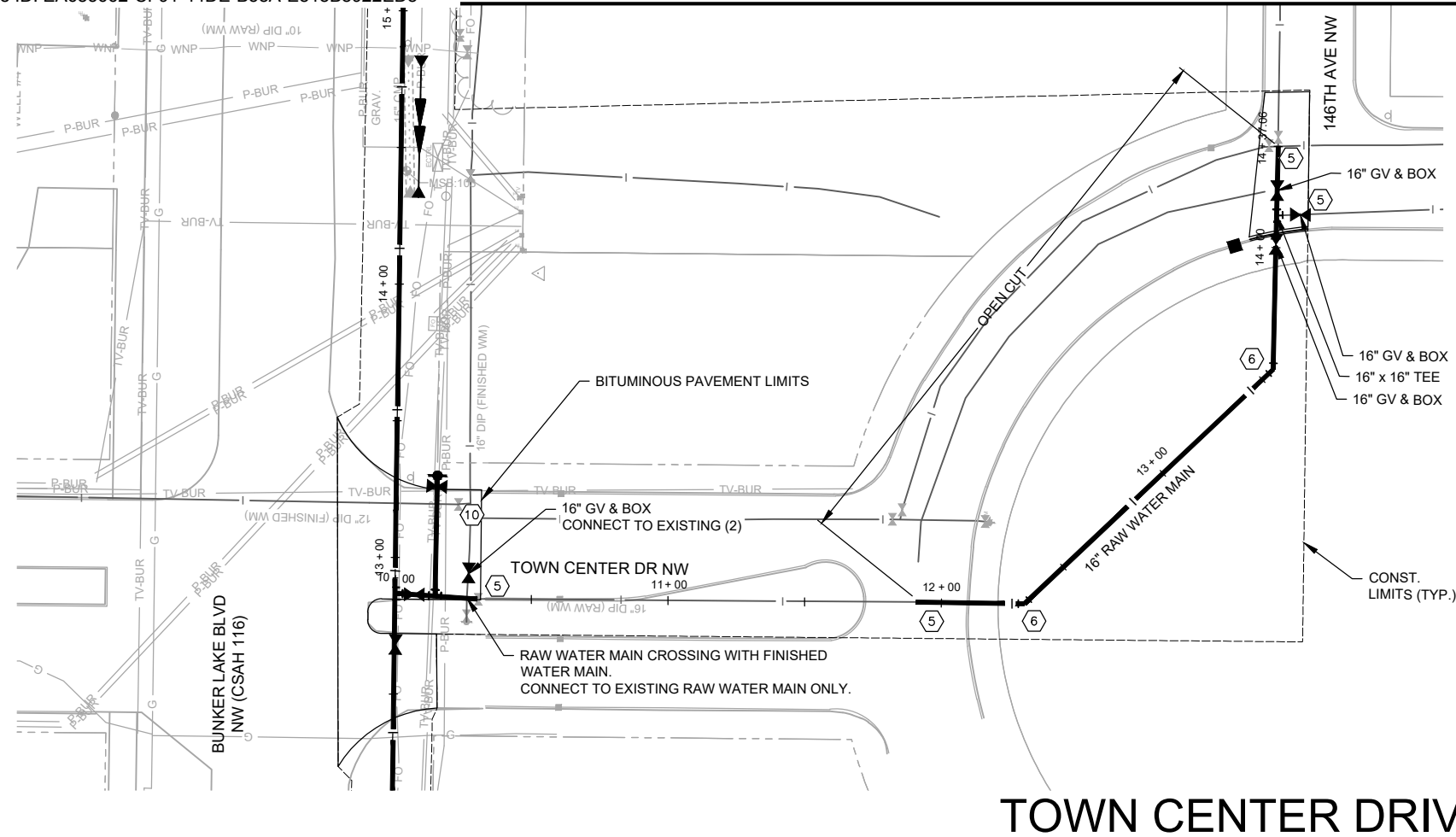
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**  
**143RD AVE NW**

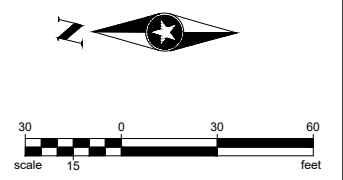




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- ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- ② 24" GV & BOX
- ③ 20" GV & BOX
- ④ DRILLING PIT
- ⑤ CONNECT TO EXISTING
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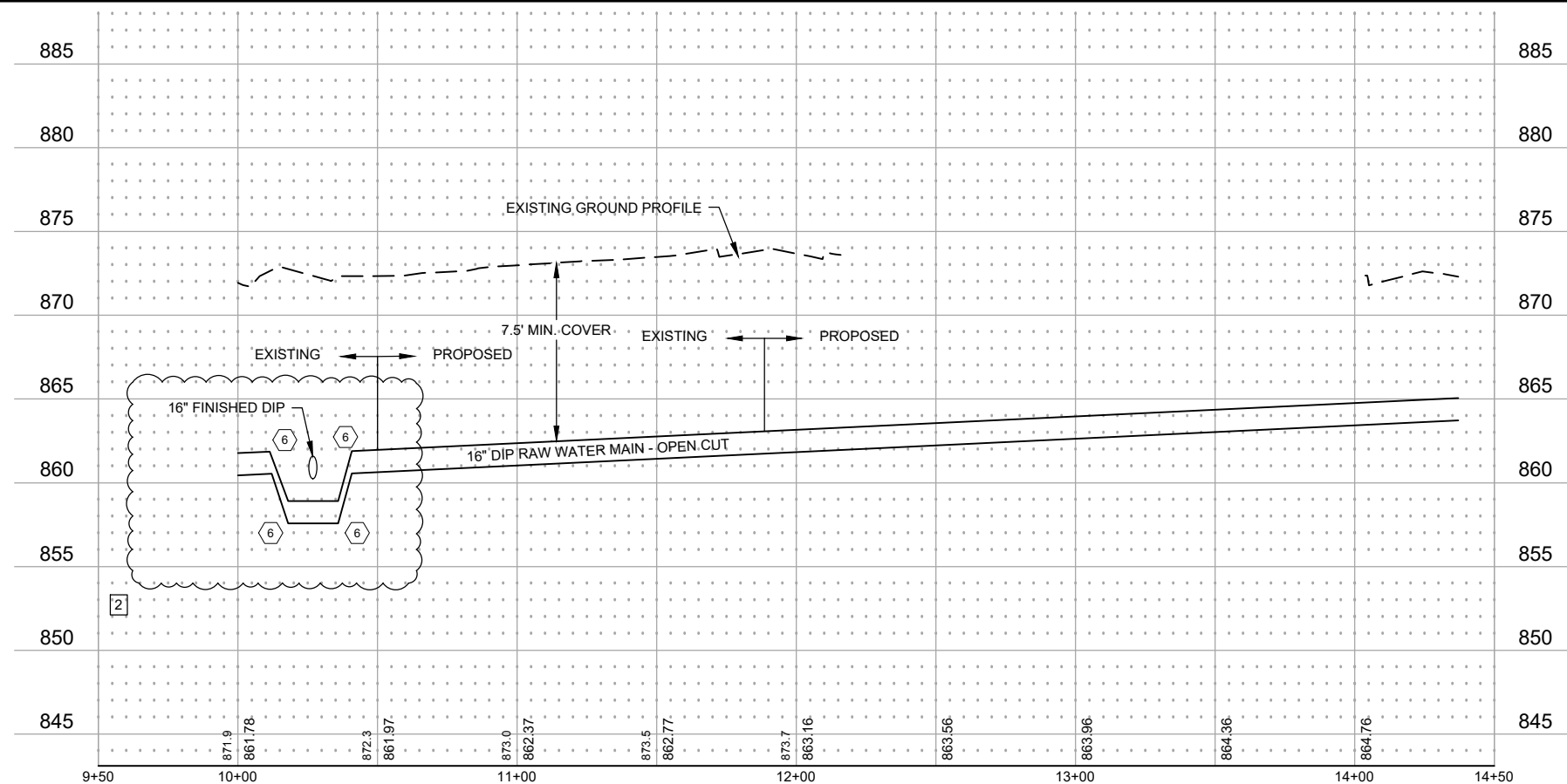
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- ⑩ BITUMINOUS PAVEMENT (PER STR-25 ON SHEET 8)
- ⑪ 10' WIDE BITUMINOUS TRAIL (PER PARK-1 ON SHEET 7)
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**TOWN CENTER DRIVE**



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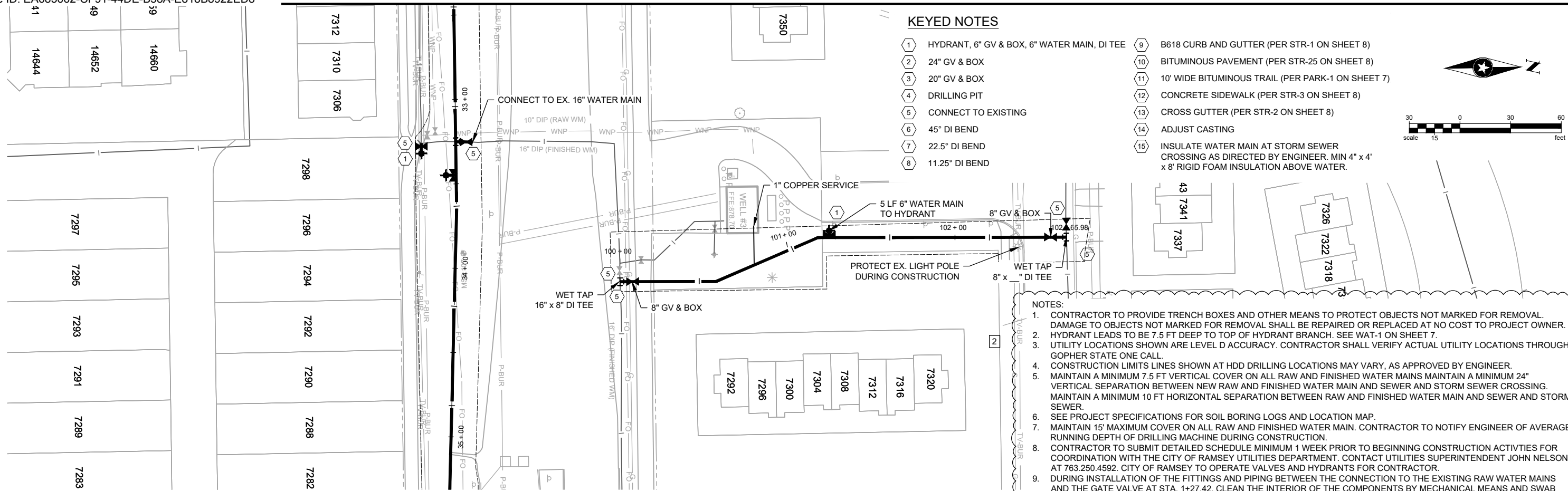
SEH Project	RAMSY174498	Rev.#	2	Revision Issue Description	ADDENDUM #2	Date	10/27/2023
Drawn By	JRB, SRP	Rev.#		Revision Issue Description		Date	
Designed By	KLK	Rev.#		Revision Issue Description		Date	
Checked By	CES	Rev.#		Revision Issue Description		Date	

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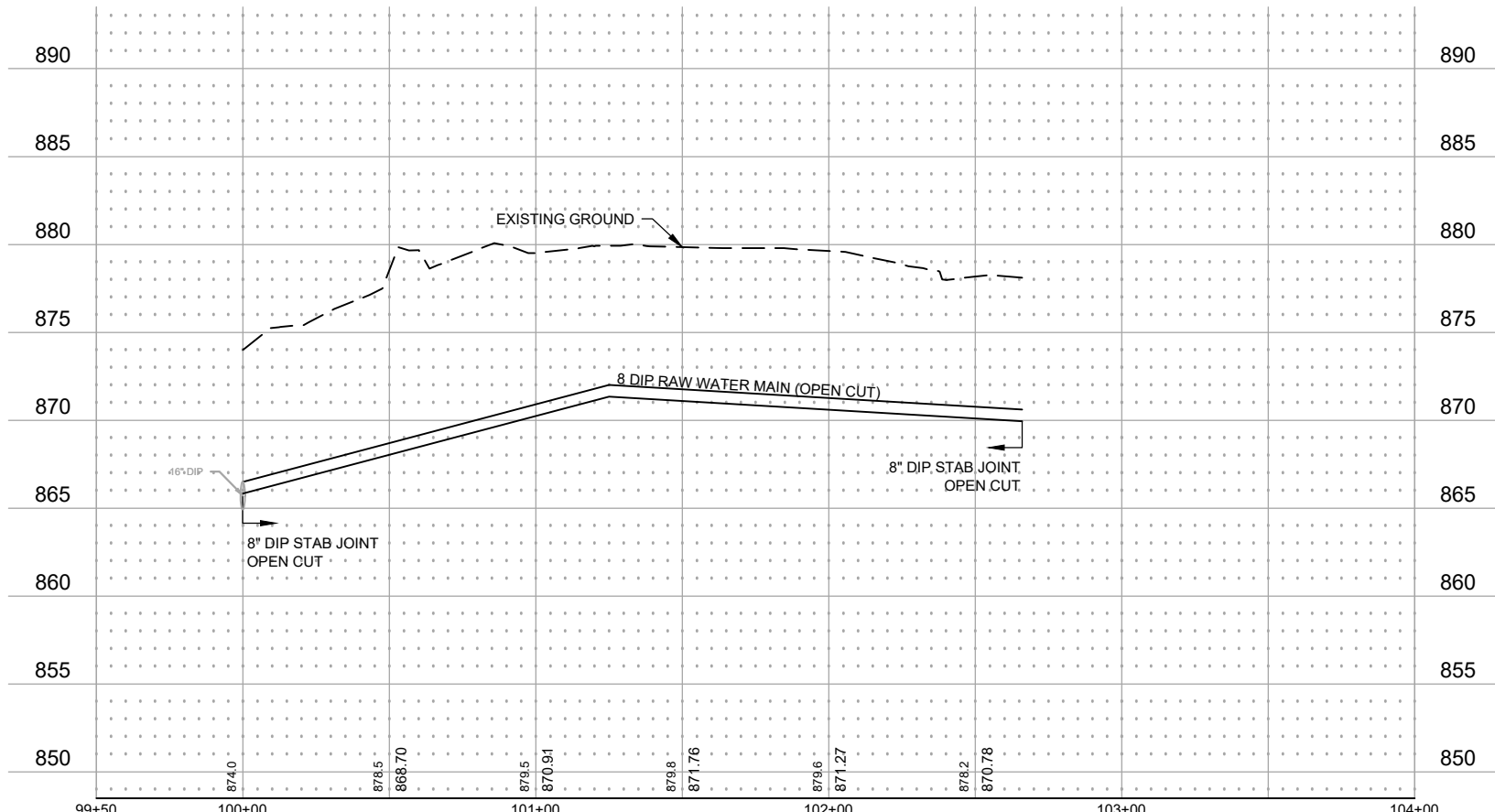
*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**  
**TOWN CENTER DRIVE**



### BUNKER TO 147TH AT WELL #3



#### KEYED NOTES

- ① HYDRANT, 6" GV & BOX, 6" WATER MAIN, DI TEE
- ② 24" GV & BOX
- ③ 20" GV & BOX
- ④ DRILLING PIT
- ⑤ CONNECT TO EXISTING
- ⑥ 45° DI BEND
- ⑦ 22.5° DI BEND
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10. 1" COPPER SERVICE WILL BE BROUGHT INTO THE WELL HOUSE BY THE CONTRACTOR. CITY STAFF TO HOOK UP INSIDE.

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SEH Project	RAMSY174498
Drawn By	JRB, SRP
Designed By	KLK
Checked By	CES

Rev.#	2
Revision Issue Description	ADDENDUM #2
Date	10/27/2023

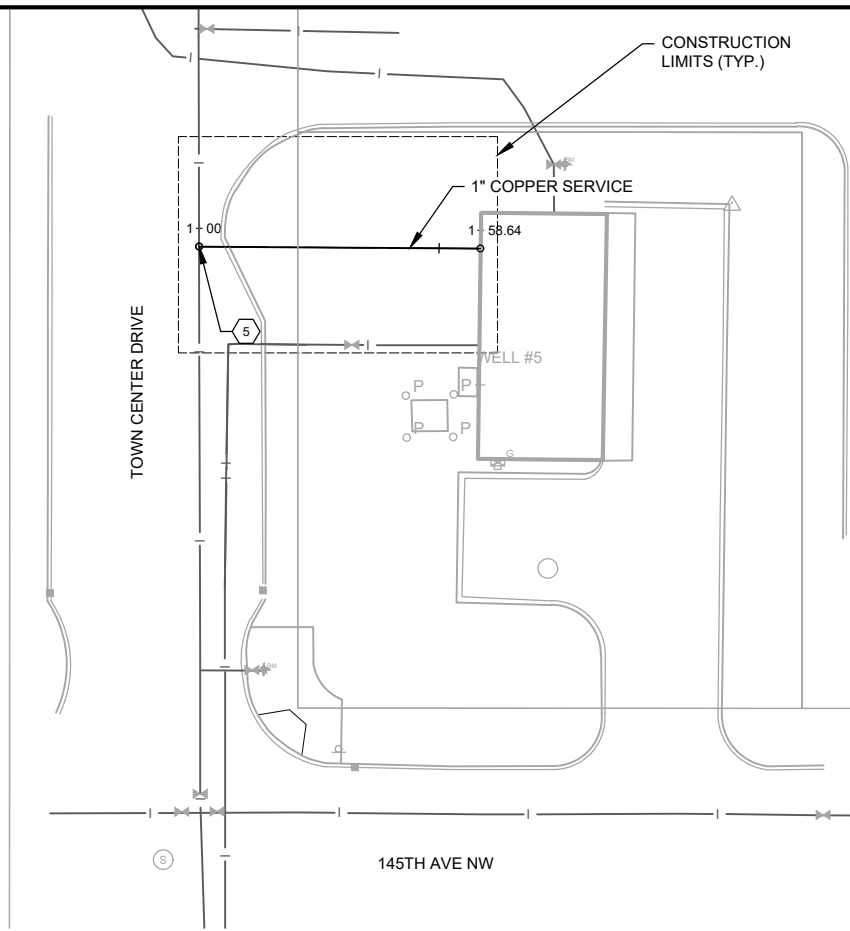
Rev.#	
Revision Issue Description	
Date	

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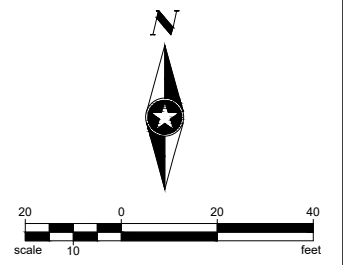
**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**UTILITY PLAN AND PROFILE**  
**BUNKER TO 147TH AT WELL #3**



**KEYED NOTES**

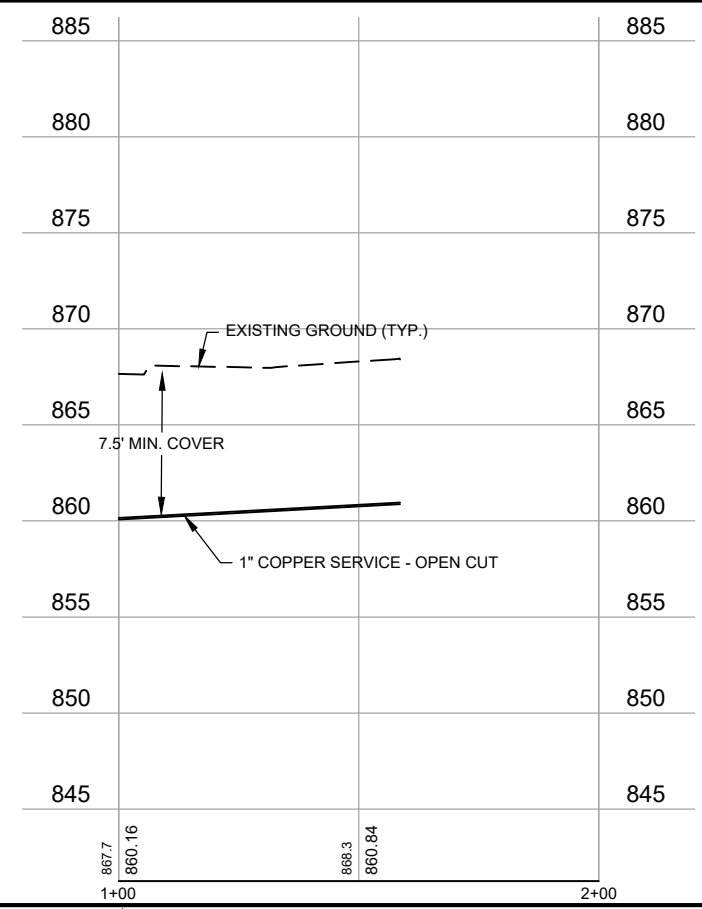
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**WELL #5**



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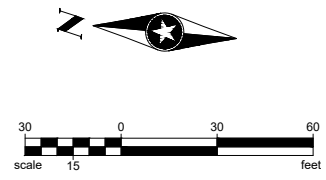
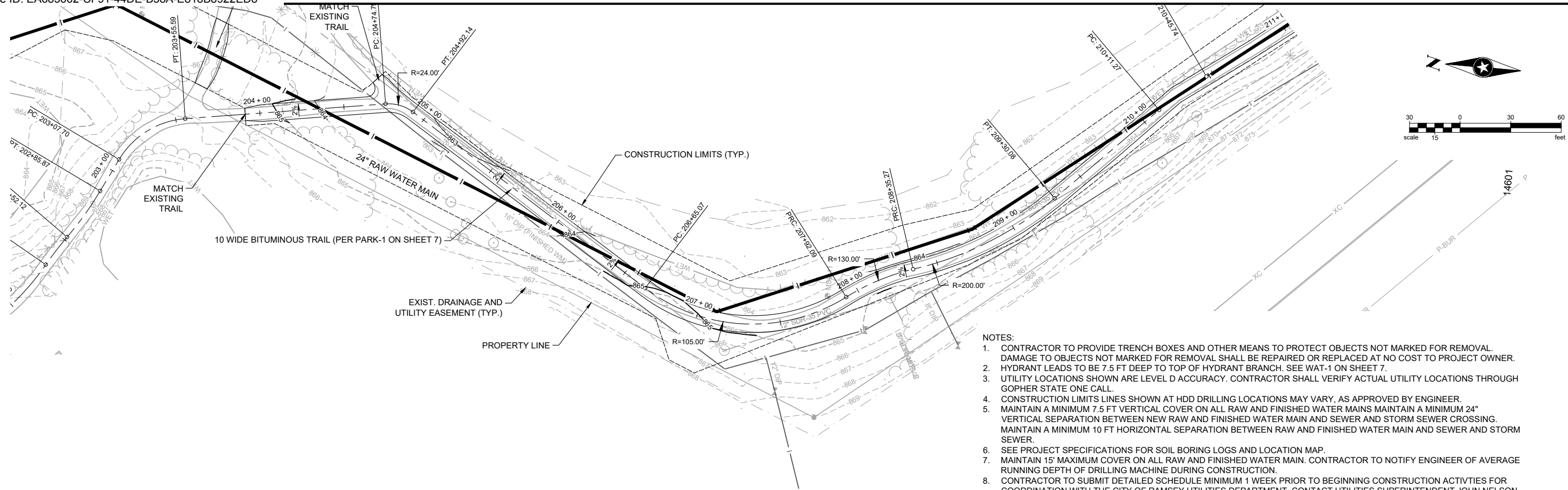
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	2	ADDENDUM #2	10/27/2023	.		
Designed By	KLK				.		
Checked By	CES				.		

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 LICENSE NO. 19133  
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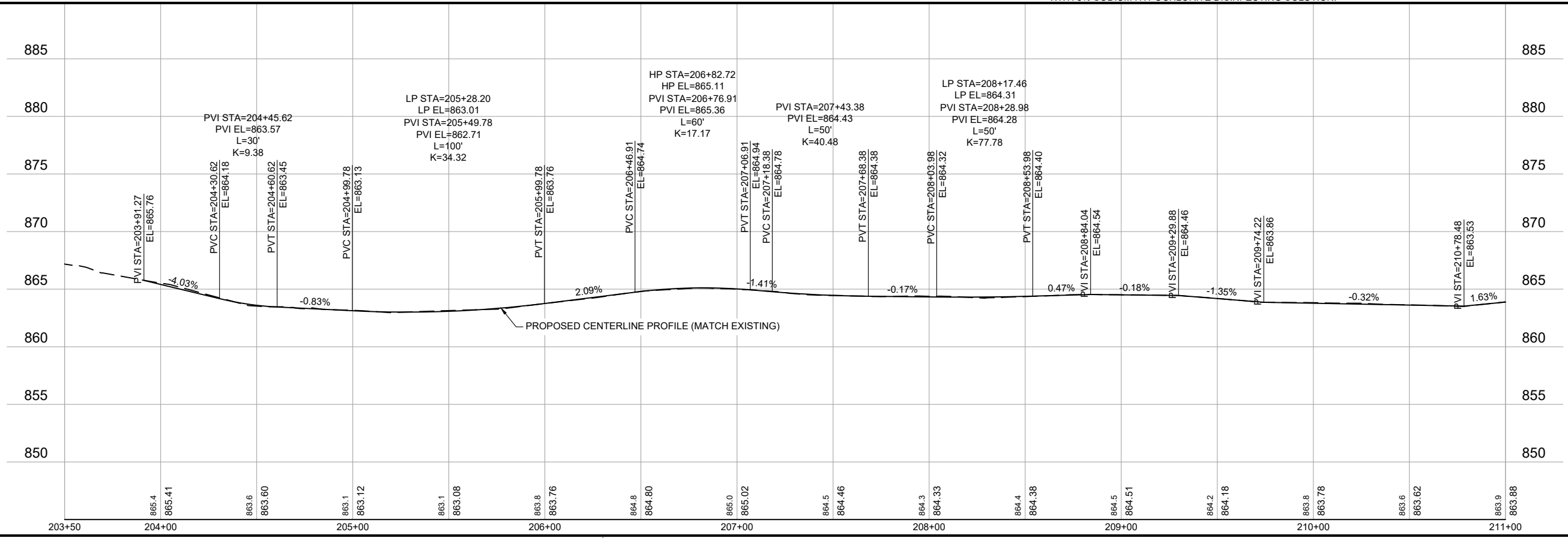
**WATER TREATMENT PLANT**  
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**WELL #5**



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# COTTONWOOD PARK TRAIL



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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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Designed By	KLK	.			.		
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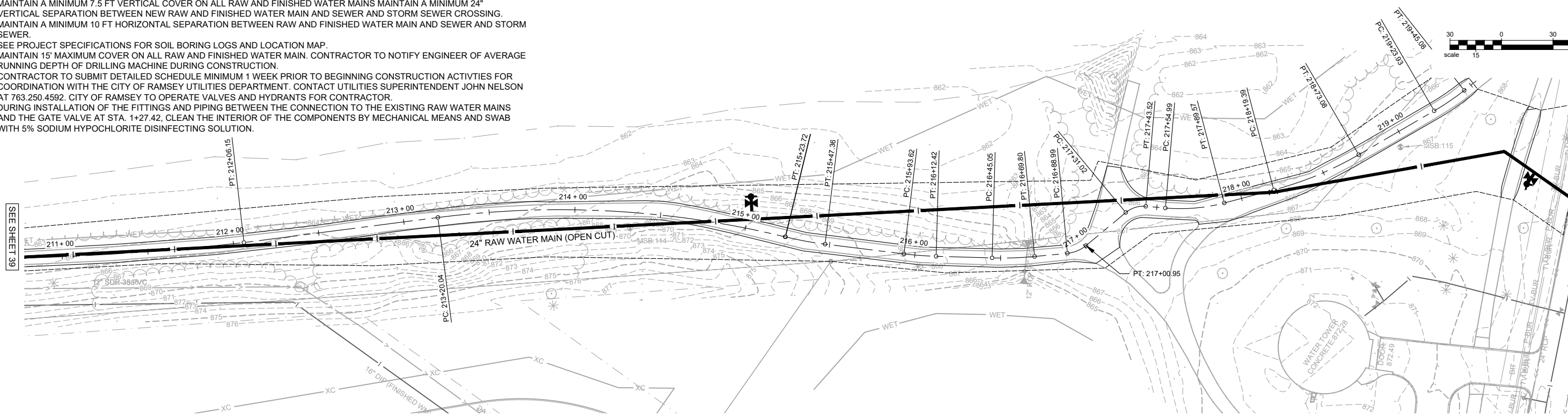
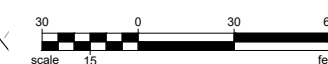
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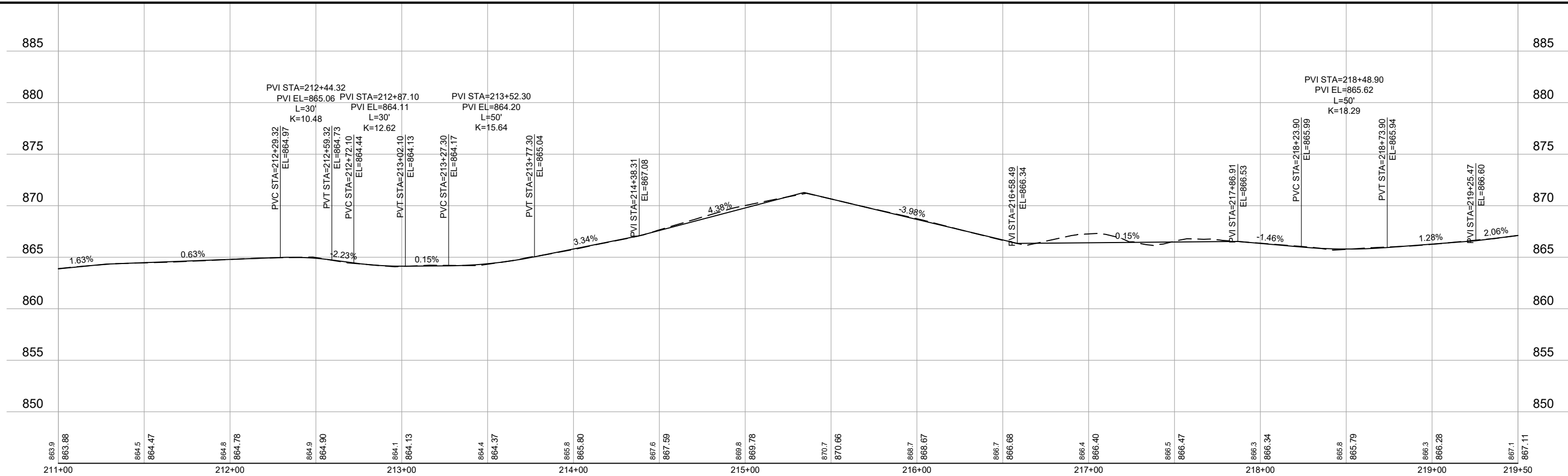
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# COTTONWOOD PARK TRAIL



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Designed By	KLK	.			.		
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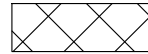






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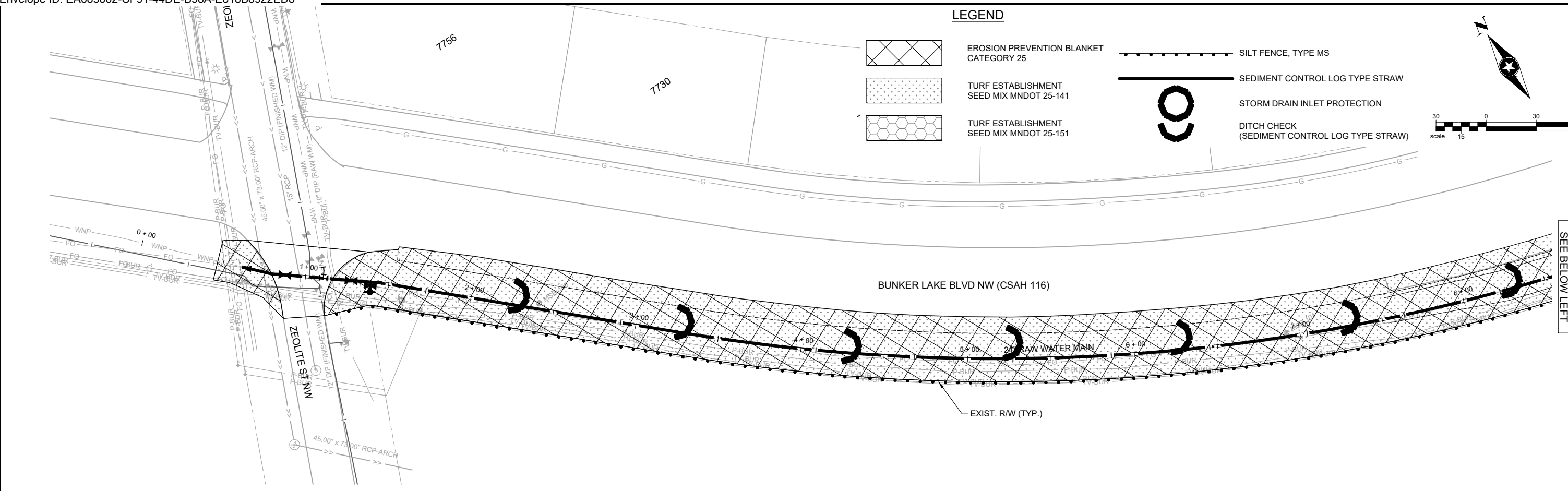
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**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

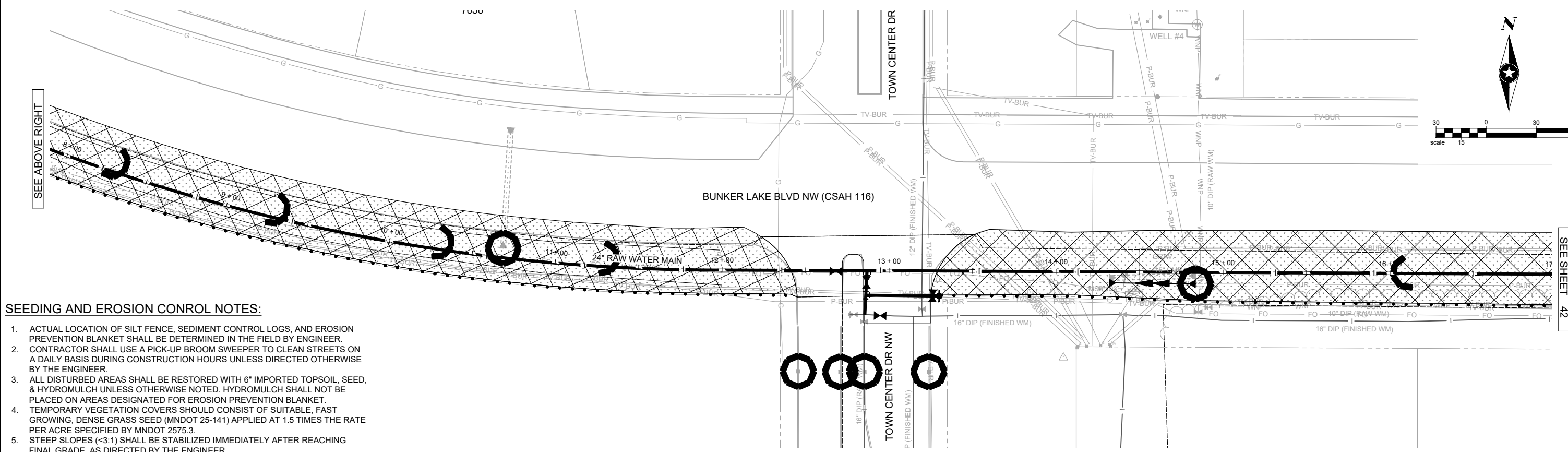
**PLAN AND PROFILE**  
**COTTONWOOD PARK TRAIL**

**LEGEND**

-  EROSION PREVENTION BLANKET CATEGORY 25
-  TURF ESTABLISHMENT SEED MIX MNDOT 25-141
-  TURF ESTABLISHMENT SEED MIX MNDOT 25-151
-  SILT FENCE, TYPE MS
-  SEDIMENT CONTROL LOG TYPE STRAW
-  STORM DRAIN INLET PROTECTION
-  DITCH CHECK (SEDIMENT CONTROL LOG TYPE STRAW)



**BUNKER LAKE BLVD NW (CSAH 116)**



**SEEDING AND EROSION CONTROL NOTES:**

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4. TEMPORARY VEGETATION COVERS SHOULD CONSIST OF SUITABLE, FAST GROWING, DENSE GRASS SEED (MNDOT 25-141) APPLIED AT 1.5 TIMES THE RATE PER ACRE SPECIFIED BY MNDOT 2575.3.
5. STEEP SLOPES (<3:1) SHALL BE STABILIZED IMMEDIATELY AFTER REACHING FINAL GRADE, AS DIRECTED BY THE ENGINEER.

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		

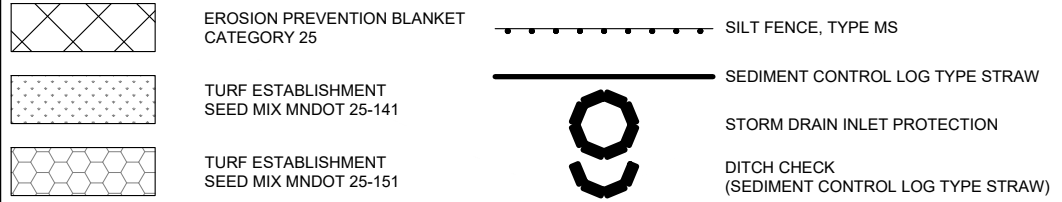


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

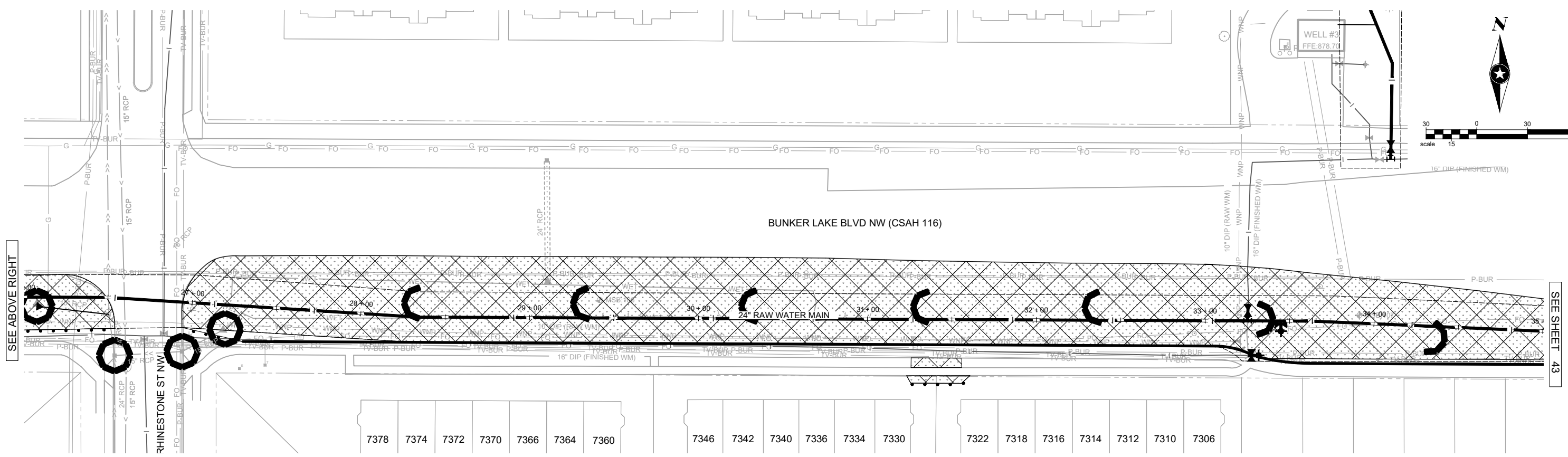
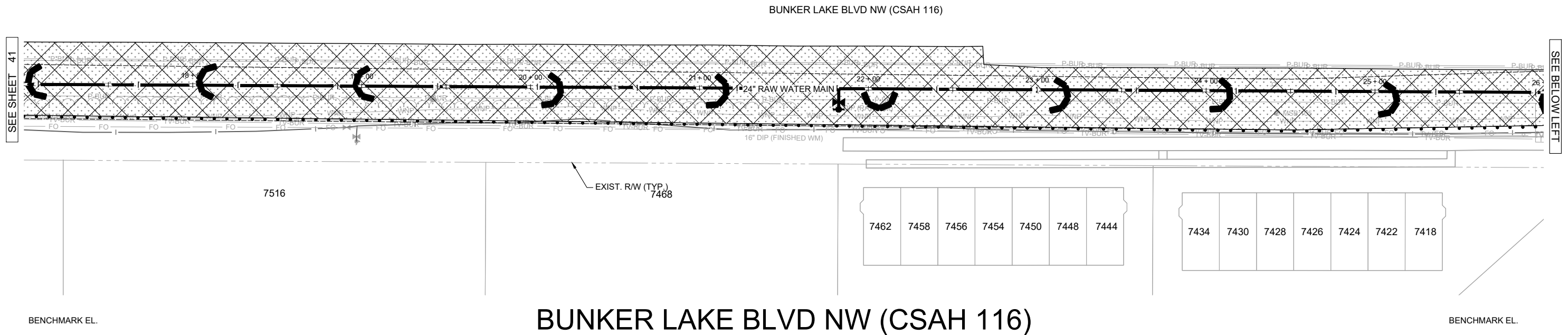
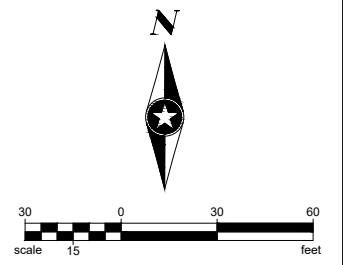
**EROSION CONTROL AND TURF ESTABLISHMENT PLAN**  
**BUNKER LAKE BLVD NW (CSAH 116)**

**LEGEND**



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Designed By	KLK						
Checked By	CES						

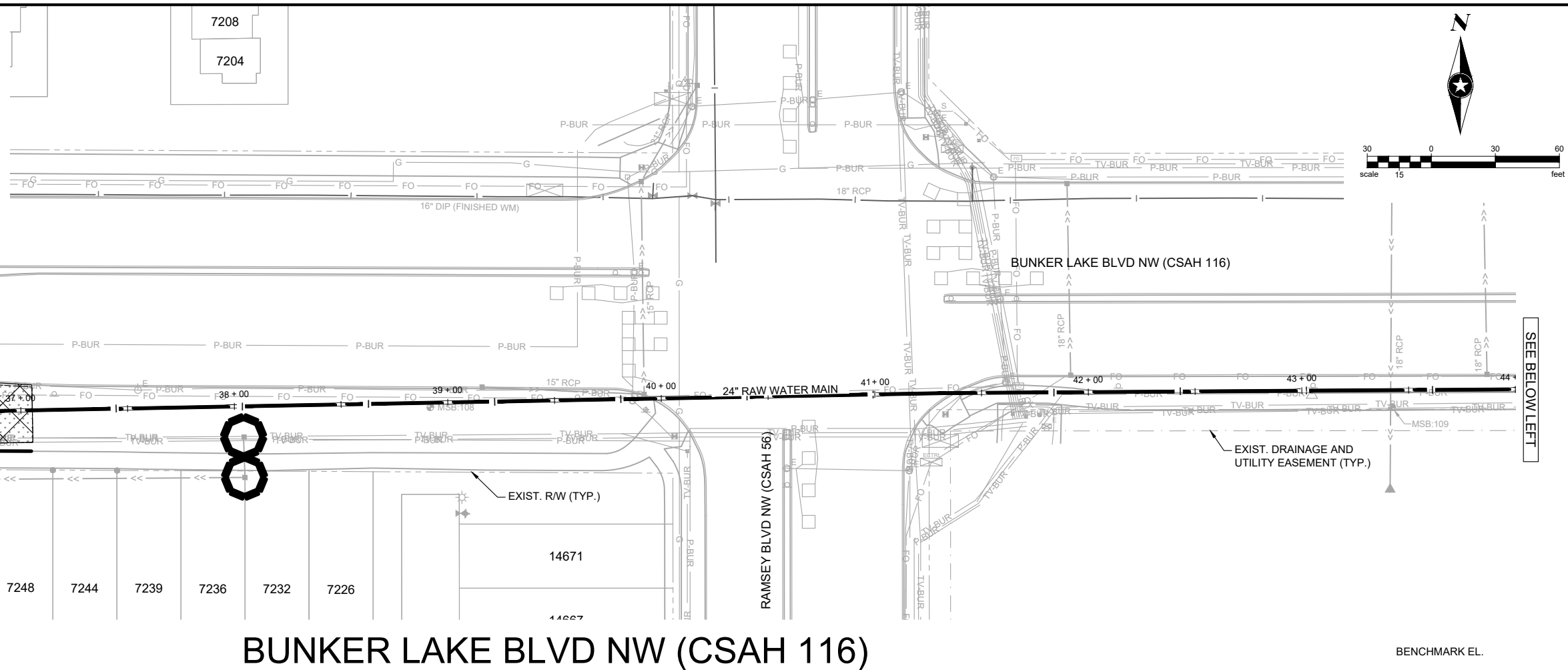
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**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

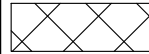






**EROSION CONTROL AND TURF  
 ESTABLISHMENT PLAN  
 BUNKER LAKE BLVD NW (CSAH 116)**

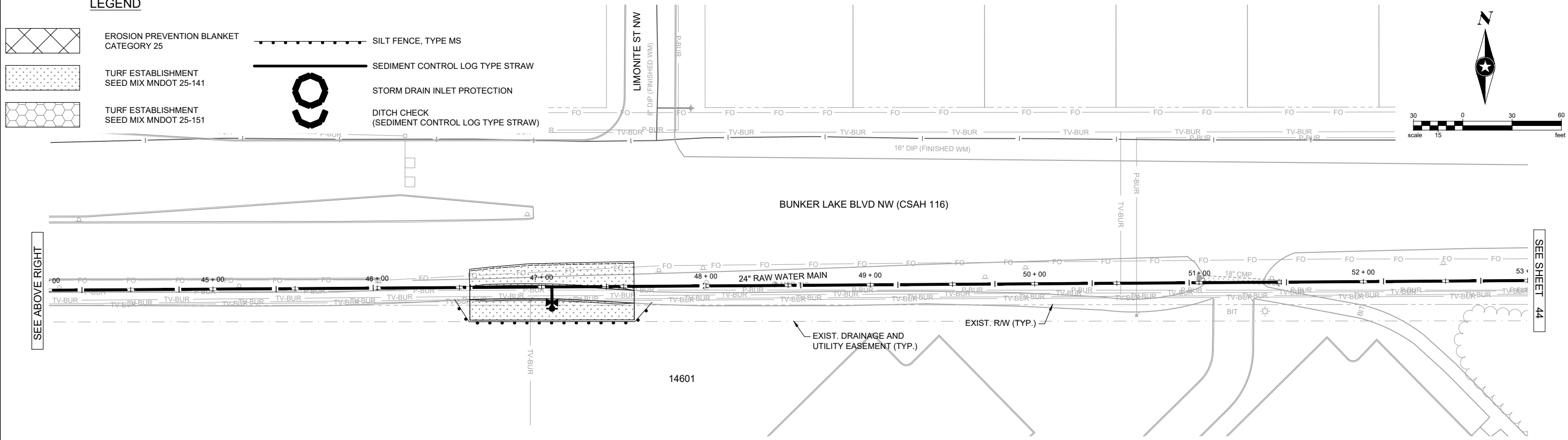
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**LEGEND**

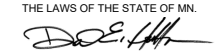
-  EROSION PREVENTION BLANKET CATEGORY 25
-  TURF ESTABLISHMENT SEED MIX MNDOT 25-141
-  TURF ESTABLISHMENT SEED MIX MNDOT 25-151
-  SILT FENCE, TYPE MS
-  SEDIMENT CONTROL LOG TYPE STRAW
-  STORM DRAIN INLET PROTECTION
-  DITCH CHECK (SEDIMENT CONTROL LOG TYPE STRAW)



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Designed By	KLK	.			.		
Checked By	CES	.			.		

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**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**EROSION CONTROL AND TURF  
 ESTABLISHMENT PLAN  
 BUNKER LAKE BLVD NW (CSAH 116)**



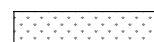

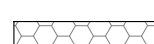


**43**  
of 58



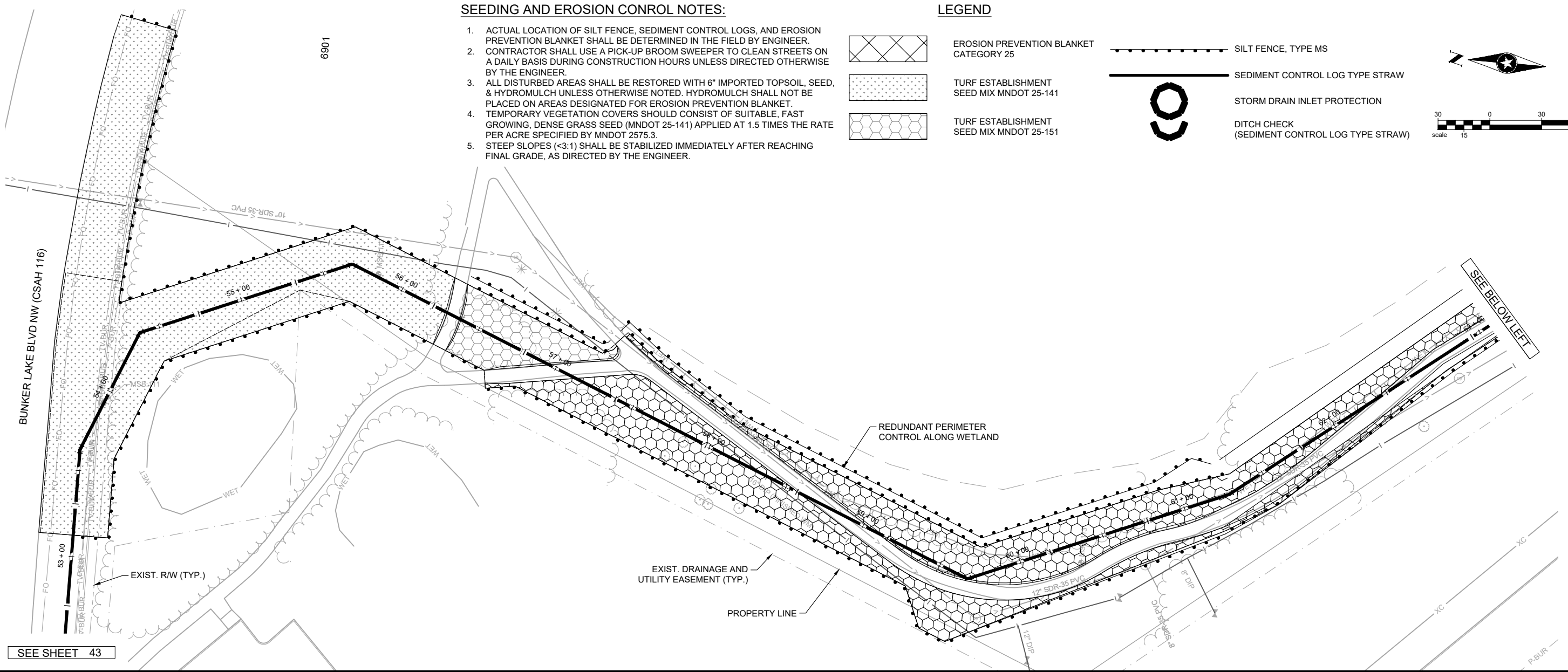


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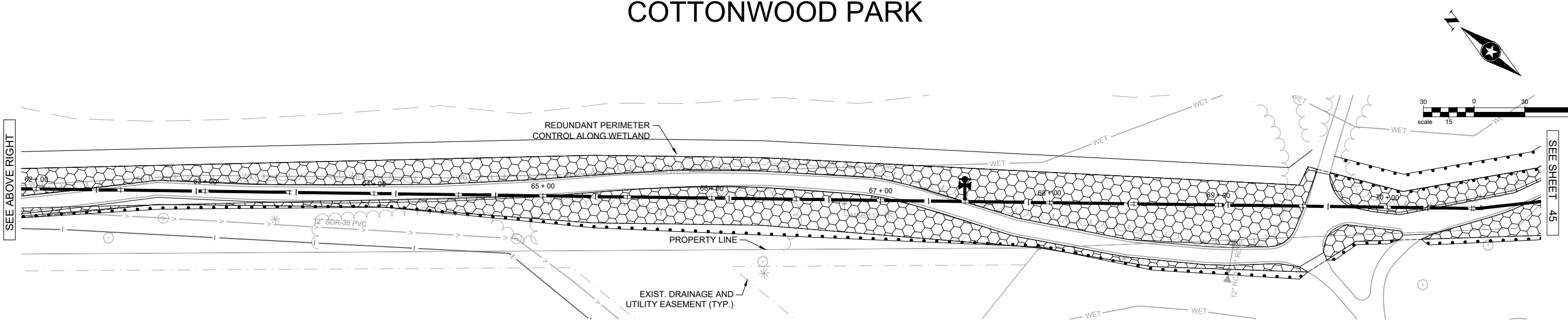
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	TURF ESTABLISHMENT SEED MIX MNDOT 25-141		SEDIMENT CONTROL LOG TYPE STRAW
	TURF ESTABLISHMENT SEED MIX MNDOT 25-141		STORM DRAIN INLET PROTECTION
			DITCH CHECK (SEDIMENT CONTROL LOG TYPE STRAW)






**COTTONWOOD PARK**

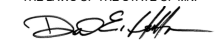


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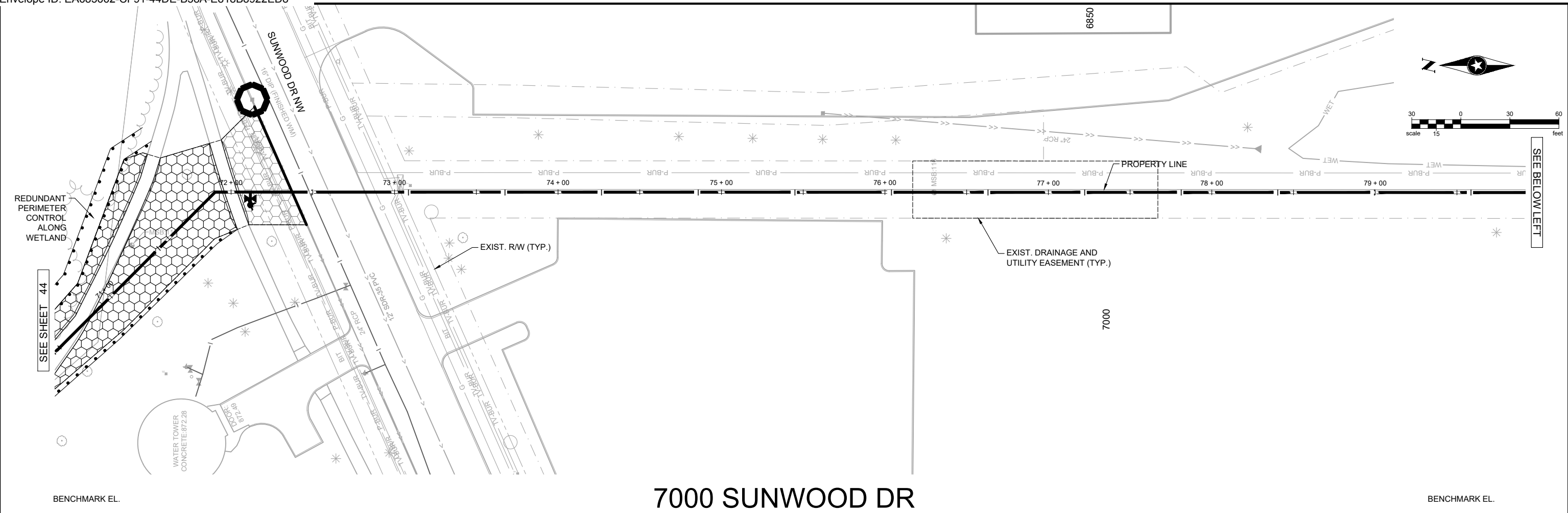


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**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
Ramsey, Minnesota

**EROSION CONTROL AND TURF ESTABLISHMENT PLAN  
COTTONWOOD PARK**

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of 58

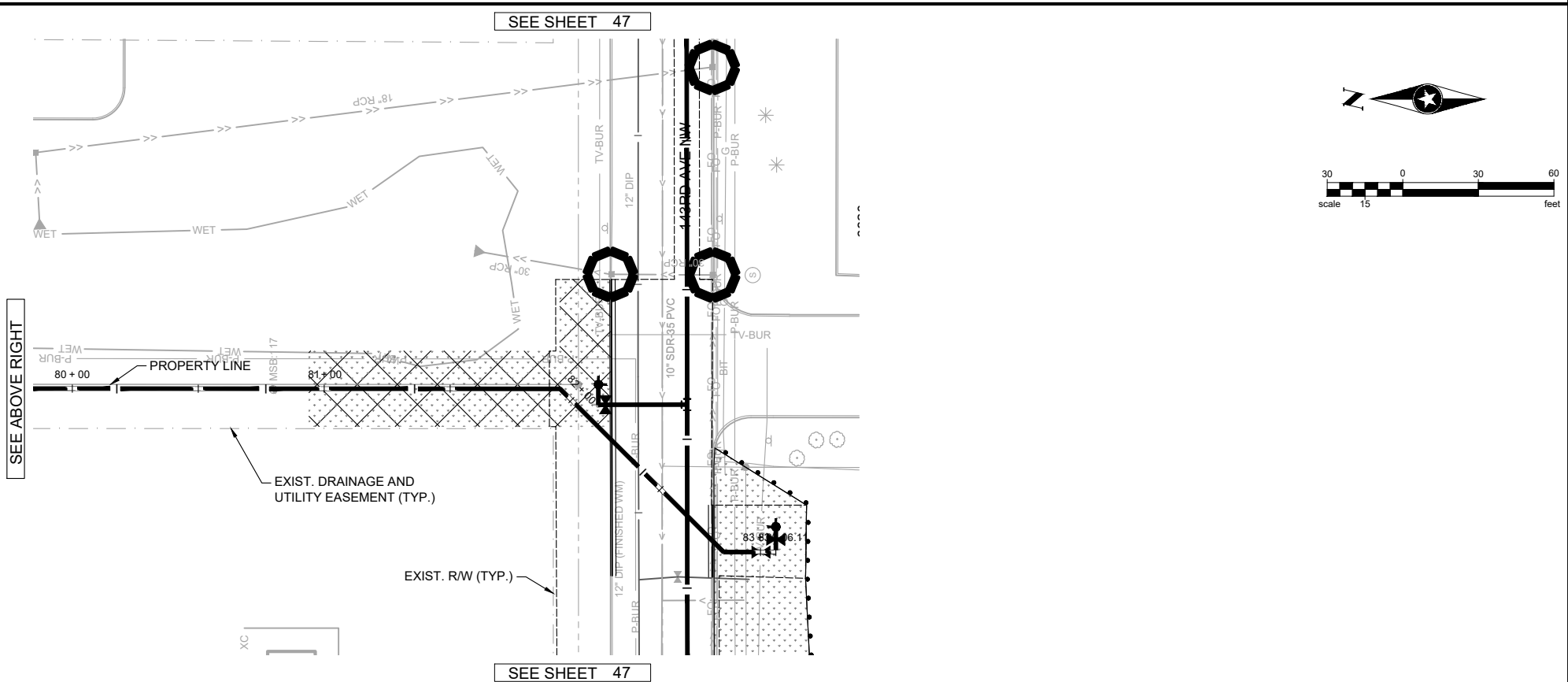


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	TURF ESTABLISHMENT SEED MIX MNDOT 25-151		STORM DRAIN INLET PROTECTION
			DITCH CHECK (SEDIMENT CONTROL LOG TYPE STRAW)



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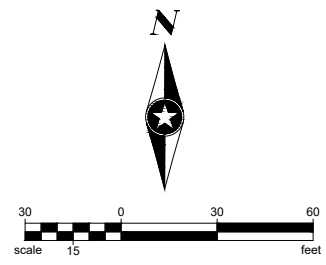
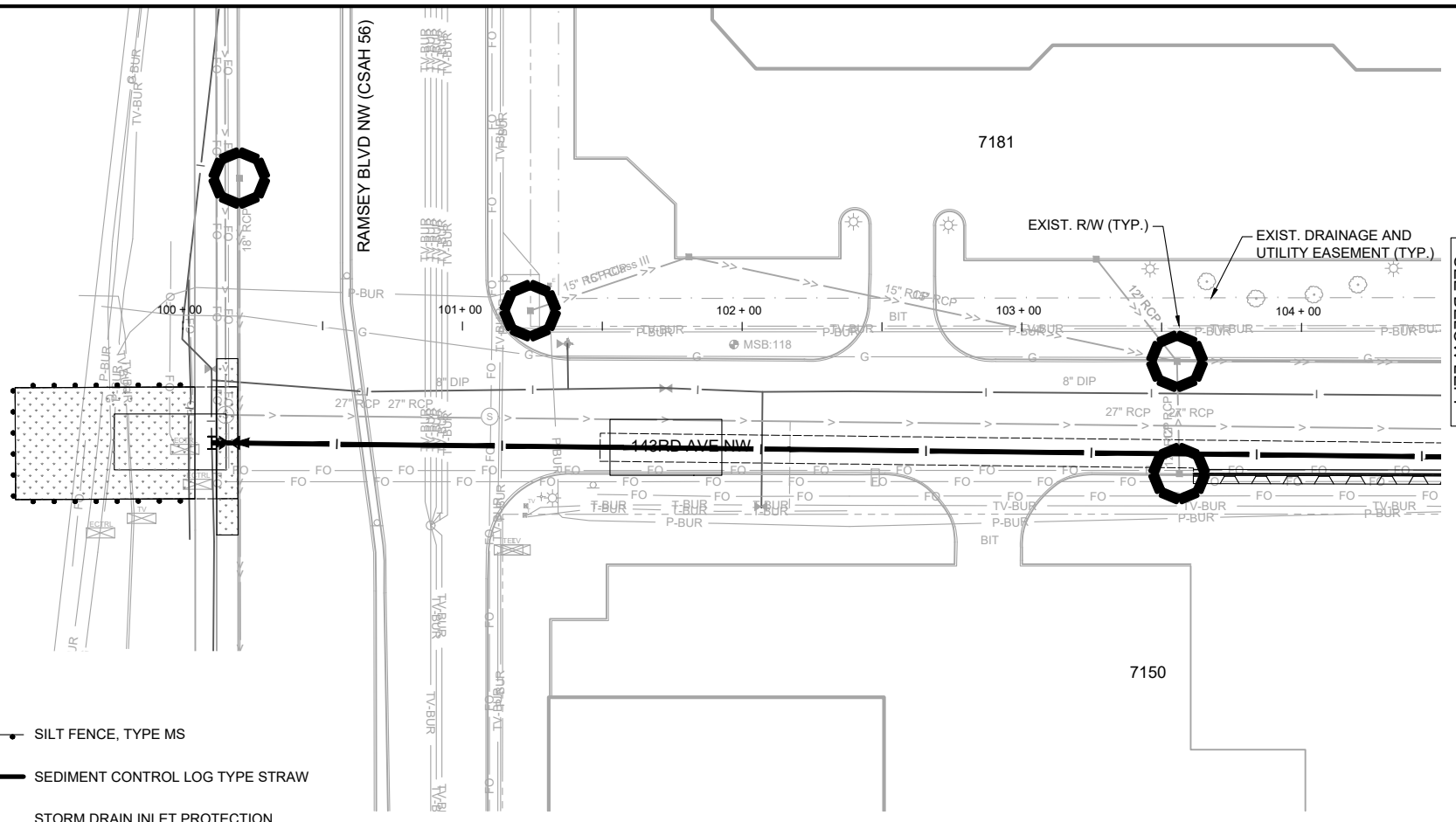
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**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**EROSION CONTROL AND TURF  
 ESTABLISHMENT PLAN  
 7000 SUNWOOD DR**

**45**  
of 58



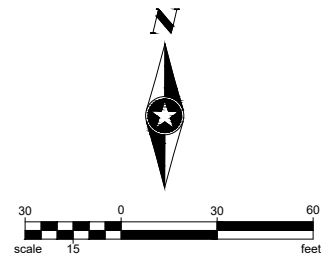
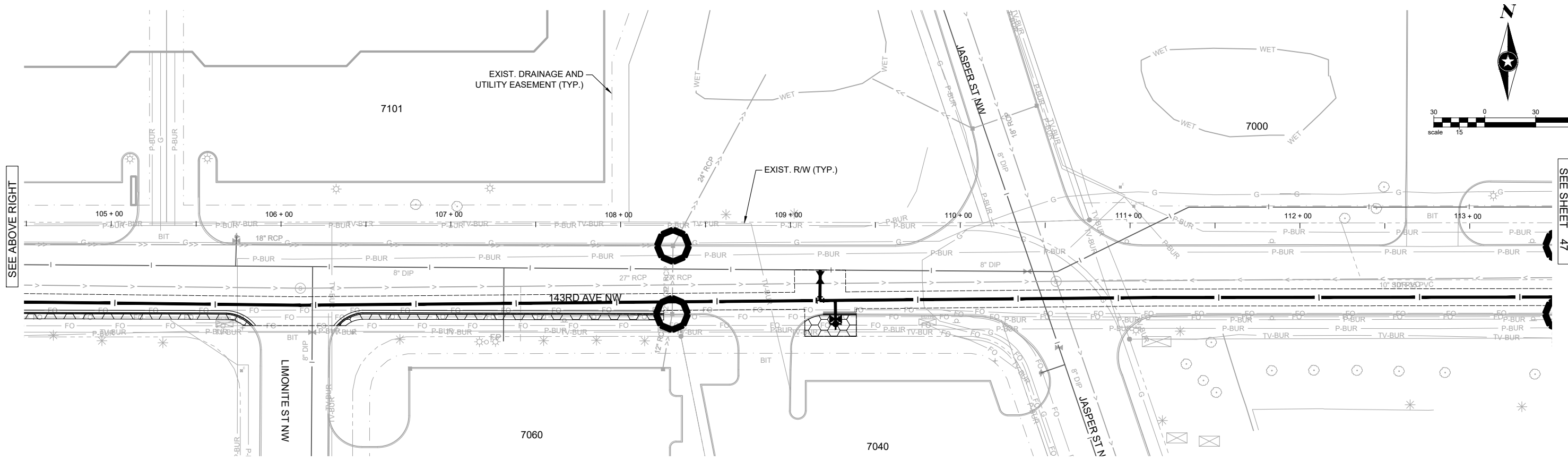
**LEGEND**

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**143RD AVE NW**



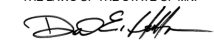
SEE ABOVE RIGHT

SEE SHEET 47

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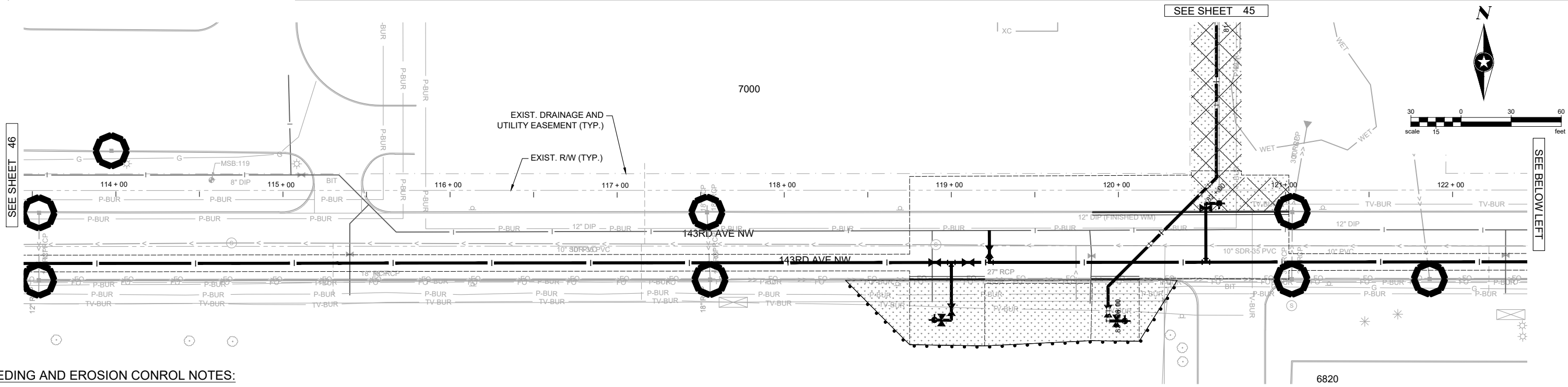
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**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**EROSION CONTROL AND TURF ESTABLISHMENT PLAN  
143RD AVE NW**

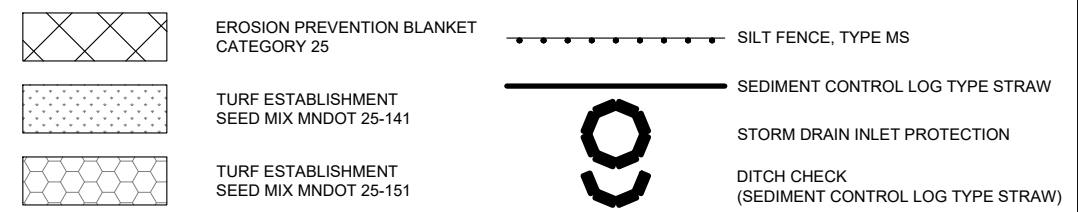
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of 58



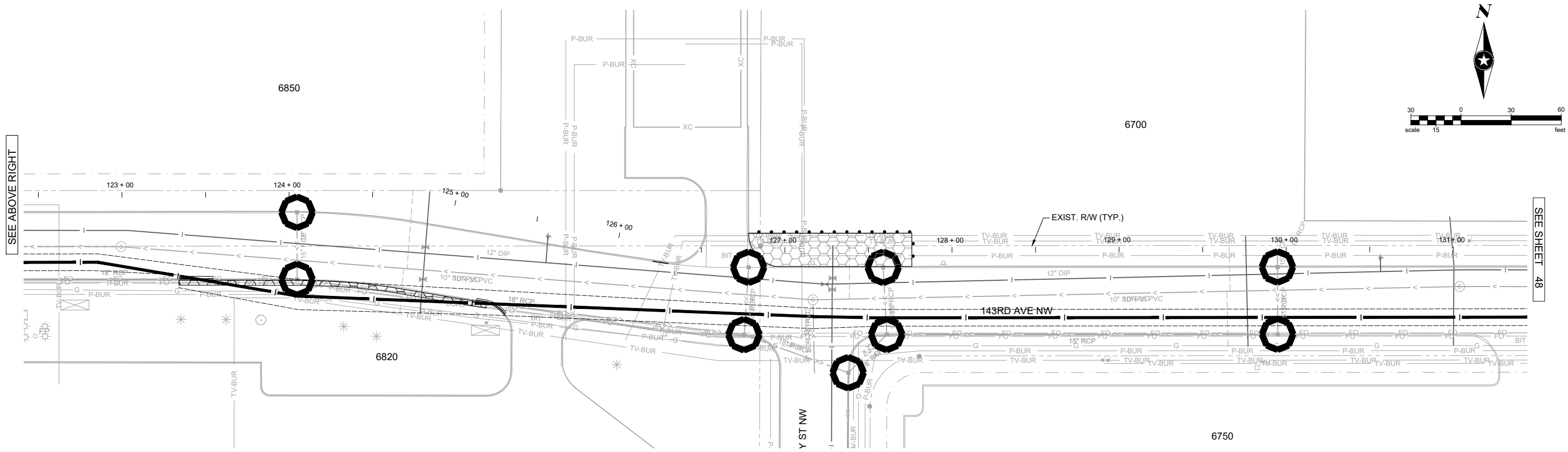
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**LEGEND**



**143RD AVE NW**



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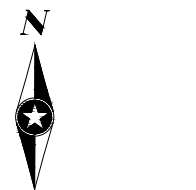
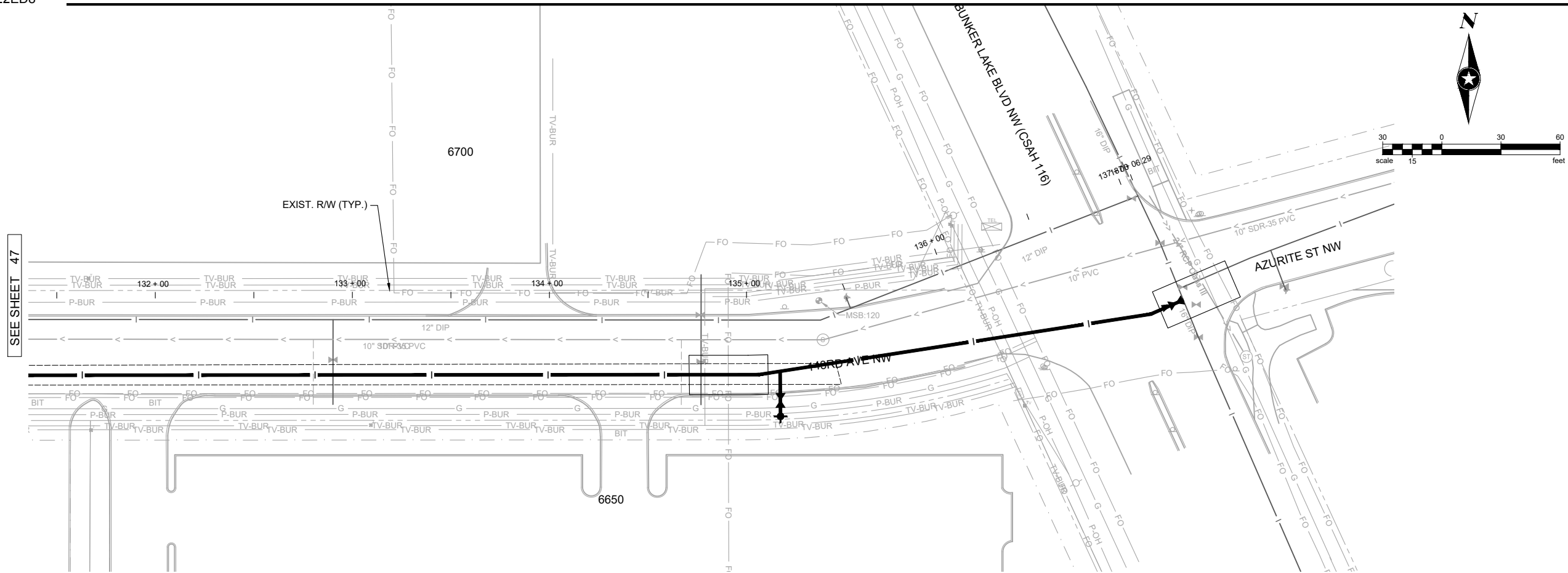
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 Ramsey, Minnesota

**EROSION CONTROL AND TURF  
 ESTABLISHMENT PLAN  
 143RD AVE NW**

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 of 58

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## 143RD AVE NW

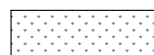
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**LEGEND**



EROSION PREVENTION BLANKET  
CATEGORY 25



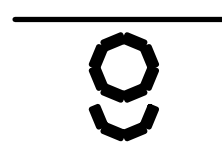
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SEED MIX MNDOT 25-141



TURF ESTABLISHMENT  
SEED MIX MNDOT 25-151



SILT FENCE, TYPE MS



SEDIMENT CONTROL LOG TYPE STRAW

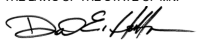
STORM DRAIN INLET PROTECTION

DITCH CHECK  
(SEDIMENT CONTROL LOG TYPE STRAW)

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**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**EROSION CONTROL AND TURF  
ESTABLISHMENT PLAN  
143RD AVE NW**

**SWPPP SUMMARY/OVERVIEW:**

THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

**PROJECT INFORMATION:**

LOCATION:	CITY OF RAMSEY, MINNESOTA
LATITUDE/LONGITUDE:	45.237184N, 93.449348W
PROJECT DESCRIPTION:	NEW WATER MAIN FOR FUTURE WATER TREATMENT PLANT
SOIL DISTURBING ACTIVITIES:	TRENCH EXCAVATION AND HDD FOR WATER MAIN

**CONTACTS:**

OWNER:	CITY OF RAMSEY
CONTACT:	BRUCE WESTBY, CITY ENGINEER
ADDRESS:	7550 SUNWOOD DRIVE NW, RAMSEY, MN 55303
PHONE:	763.433.9825
EMAIL:	bwestby@cityoframsey.com

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	ANDREW OLSEN
PHONE:	641.590.3198
EMAIL:	aolsen@sehinc.com
PROJECT NO.:	RAMSY 174498

**KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY**  
THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP.

CONTRACTOR	Northdale Construction Co. Inc.
CONTACT	Troy Huschle
PHONE	(320)-221-2723
EMAIL	TroyH@northdaleconst.com

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

**GENERAL SWPPP RESPONSIBILITIES:**  
THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMP'S AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR.

ALL SWPPP CHANGES MUST BE DONE BY AN INDIVIDUAL TRAINED IN ACCORDANCE WITH SECTION 21.4 OR 21.5. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.

BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

**LONG TERM OPERATION AND MAINTENANCE**  
THE OWNER WILL BE RESPONSIBLE OR WILL OTHERWISE IDENTIFY WHO WILL BE RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM(S).

THE OWNER WILL PREPARE AND IMPLEMENT A PERMANENT STORMWATER TREATMENT SYSTEM(S) MAINTENANCE PLAN.

**PROJECT LOCATION MAP, INCLUDING ALL RECEIVING WATERS WITHIN ONE MILE OF PROJECT SITE AND ARROWS SHOWING OVERLAND FLOW.**



**TRAINING DOCUMENTATION:**

PREPARER/DESIGNER OF SWPPP:	STEVE PRALL, PE
EMPLOYER:	SEH
DATE OBTAINED / REFRESHED	2/6/2020
INSTRUCTOR(S)/ENTITY PROVIDING TRAINING:	UNIVERSITY OF MINNESOTA

CONTENT OF TRAINING AVAILABLE UPON REQUEST.

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

-INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP  
-INDIVIDUALS PERFORMING INSPECTIONS  
-INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMP'S

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

- 1) DATES OF TRAINING
- 2) NAME OF INSTRUCTORS
- 3) CONTENT AND ENTITY PROVIDING TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT.

**PROJECT SUMMARY:**

TOTAL DISTURBED AREA:	7.0 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	0.5 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	0.5 AC
IMPERVIOUS AREA ADDED:	0 AC

RECEIVING WATER(S) WITHIN ONE MILE FROM PROJECT BOUNDARIES:  
(<http://pca-gis02.pca.state.mn.us/CSW/index.html>)

ID	NAME	TYPE	SPECIAL WATER?	IMPAIRED WATER?	CONSTRUCTION RELATED IMPAIRMENT OR SPECIAL WATER CLASSIFICATION	TMDL
02-0117-00	UNNAMED	LAKE	NO	NO	N/A	N/A
07010206-805	MISSISSIPPI	RIVER	YES	YES	SCENIC AND RECREATIONAL RIVER IMPAIRED FOR NUTRIENTS	Hg-F

ADDITIONAL BMP'S AND/OR ACTIONS REQUIRED: SECTION 23.9 (IMMEDIATELY INITIATE STABILIZATION OF EXPOSED SOIL AREAS AND COMPLETE STABILIZATION WITHIN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE TEMPORARILY OR PERMANENTLY CEASES)

SEE SECTION 23 OF THE PERMIT AND APPLICABLE TMDL WLA'S

WATERBODY	NO WORK DURING
LAKES	APRIL 1 - JUNE 30
NON-TROUT STREAMS	MARCH 15 - JUNE 15
TROUT STREAMS	SEPTEMBER 1 - APRIL 1

SEE DNR PERMIT FOR MORE INFORMATION

SITE SOIL INFORMATION: (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>)  
(SOIL INFORMATION PROVIDED IS FOR NPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEBSITE. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
HUBBARD LOAMY SAND	A
DUELM LOAMY SAND	A
MARSH	A/D
ANTICIPATED RANGE OF PARTICLE SIZES	LOAMY SAND

**RELATED REVIEWS & PERMITS:**  
ENVIRONMENTAL, WETLAND, ENDANGERED OR THREATENED SPECIES, ARCHEOLOGICAL, LOCAL, STATE, AND/OR FEDERAL REVIEWS/PERMITS:

AGENCY:	TYPE OF PERMIT:
LOWER RUM RIVER WMO	WCA PERMIT
MDH	WATER MAIN PERMIT

**IMPLEMENTATION SEQUENCE:**  
THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SEQUENCE. THE ENGINEER MAY APPROVE ADJUSTMENTS TO THE SEQUENCE AS NEEDED.

2.	INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
3.	INSTALL INLET PROTECTION ON EXISTING CATCH BASINS
5.	INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
6.	COMPLETE FINAL GRADING AND STABILIZE DISTURBED AREAS
7.	AFTER CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ACCUMULATED SEDIMENT, REMOVE BMP'S, AND RE-STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL.

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP:

PLAN AND PROFILE PLAN SHEETS:  
EROSION AND SEDIMENT CONTROL PLAN SHEETS:  
TURF ESTABLISHMENT PLAN SHEETS:  
GRADING PLAN SHEETS:  
DETAIL PLAN SHEETS:  
SWPPP NOTE AND DETAIL SHEETS:  
PROJECT SPECIFICATIONS:  
PROJECT BID FORM:

**TEMPORARY BMP DESIGN FACTORS:**

EROSION PREVENTION AND SEDIMENT CONTROL BMP'S MUST BE DESIGNED TO ACCOUNT FOR:

THE EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION

THE NATURE OF STORMWATER RUNOFF AND RON-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES

THE 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

THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT.

**TEMPORARY SEDIMENT BASINS:**

THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT BASIN(S) INDICATED ON PLANS AND REQUIRED BY THE NPDES CONSTRUCTION PERMIT.

THE TEMPORARY BASIN MUST PROVIDE LIVE STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A TWO (2)-YEAR, 24-HOUR STORM FROM EACH ACRE DRAINED TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER.

TEMPORARY SEDIMENT BASIN OUTLETS SHALL BE CONSTRUCTED TO PREVENT SHORT-CIRCUITING AND PREVENT THE DISCHARGE OF FLOATING DEBRIS.

OUTLET STRUCTURES MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE TO MINIMIZE THE DISCHARGE OF POLLUTANTS.

BASINS MUST INCLUDE A STABILIZED EMERGENCY OVERFLOW, WITHDRAW WATER FROM THE SURFACE, AND PROVIDE ENERGY DISSIPATION AT THE OUTLET.

TEMPORARY SEDIMENT BASINS SHALL BE PROVIDED WITH ENERGY DISSIPATION AT ANY BASIN OUTLET TO PREVENT SOIL EROSION.

SEDIMENT BASINS MUST BE SITUATED OUTSIDE OF SURFACE WATERS AND ANY BUFFER ZONES, AND MUST BE DESIGNED TO AVOID THE DRAINING WATER FROM WETLANDS.



**MUCA Erosion Control Certification**

**TROY HUSCHLE**

has completed the Erosion Control Site Management Course through the Minnesota Utility-Contractors Association MEETS MINNESOTA CONSTRUCTION STORMWATER PERMIT TRAINING REQUIREMENTS

Minnesota Utility Contractors Association  
1000 Westgate Drive, Suite 252, St. Paul, MN 55114 (651) 735-3908

Card Number: 6568

Expires: 12/7/2024

This card certifies that the cardholder has completed training in the required area of NPDES Construction Stormwater Site Management

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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

**SEH**  
David E. Hutton  
LICENSE NO. 19133  
DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
Ramsey, Minnesota

**STORM WATER POLLUTION PREVENTION PLAN**  
49 of 58

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**EROSION PREVENTION MEASURES AND TIMING:**

THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE PERMITTEE SHALL DELINEATE AREAS NOT TO BE DISTURBED. PERMITTEE(S) MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 7 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION. STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT CLAY, SILT, OR ORGANIC COMPONENTS DO NOT REQUIRE STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COMPLETE THE STABILIZATION OF ALL EXPOSED SOILS WITHIN 24 HOURS THAT LIE WITHIN 200 FEET OF PUBLIC WATERS PROMULGATED "WORK IN WATER RESTRICTIONS" BY THE MN DNR DURING SPECIFIED FISH SPAWNING TIMES.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPS AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITH IN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

**SEDIMENT CONTROL MEASURES AND TIMING:**

THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY IS COMPLETE, PERMITTEE(S) MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS ARE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.

THE CONTRACTOR SHALL PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROL AT THE BASE OF THE STOCKPILES.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPS. WHERE THE BMPS FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

THE CONTRACTOR SHALL ENSURE ALL CONSTRUCTION ACTIVITY REMAIN WITHIN PROJECT LIMITS AND THAT ALL IDENTIFIED RECEIVING WATER BUFFERS ARE MAINTAINED.

RECEIVING WATER	NATURAL BUFFER	IS THE BUFFER BEING ENCRoACHED ON?	REASON FOR BUFFER ENCRoACHMENT
UNNAMED LAKE	0 FT	YES	WATER MAIN ALIGNMENT CONSTRAINED TO LOCATION DUE EASEMENTS AND REQUIRED SEPARATION FROM SANITARY SEWER

A 50 FOOT NATURAL BUFFER MUST BE PRESERVED OR PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS IF NATURAL BUFFER IS INFEASIBLE.

THE CONTRACTOR SHALL NOT UTILIZE SEDIMENT CONTROL CHEMICALS ON SITE.

**INSPECTION AND MAINTENANCE:**  
ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPS IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE PERMITTEE(S) IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE PERMITTEE(S) SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE PERMITTEE(S) SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

- DATE AND TIME OF INSPECTIONS;
- NAME OF PERSON(S) CONDUCTING INSPECTION;
- FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
- CORRECTIVE ACTIONS TAKEN;
- DATE AND AMOUNT OF RAINFALL EVENTS;
- POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
- AMENDMENTS MADE TO THE SWPPP.

THE PERMITTEE(S) SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

**EROSION PREVENTION BMP SUMMARY:**  
SEE EROSION AND SEDIMENT CONTROL PLAN SHEET AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF EROSION PREVENTION BMPS.

**SEDIMENT CONTROL BMP SUMMARY:**  
SEE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF SEDIMENT CONTROL BMPS.

**DEWATERING AND BASIN DRAINING ACTIVITIES:**  
THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPS, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

BACKWASH WATER USED FOR FILTERING SHALL BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF TREATMENT PROCESS, OR INCORPORATED INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR SHALL REPLACE AND CLEAN FILTER MEDIAS USED IN DEWATERING DEVICES WHEN REQUIRED TO MAINTAIN ADEQUATE FUNCTION.

**POLLUTION PREVENTION MANAGEMENT MEASURES:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEAK POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE SHALL ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE POTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

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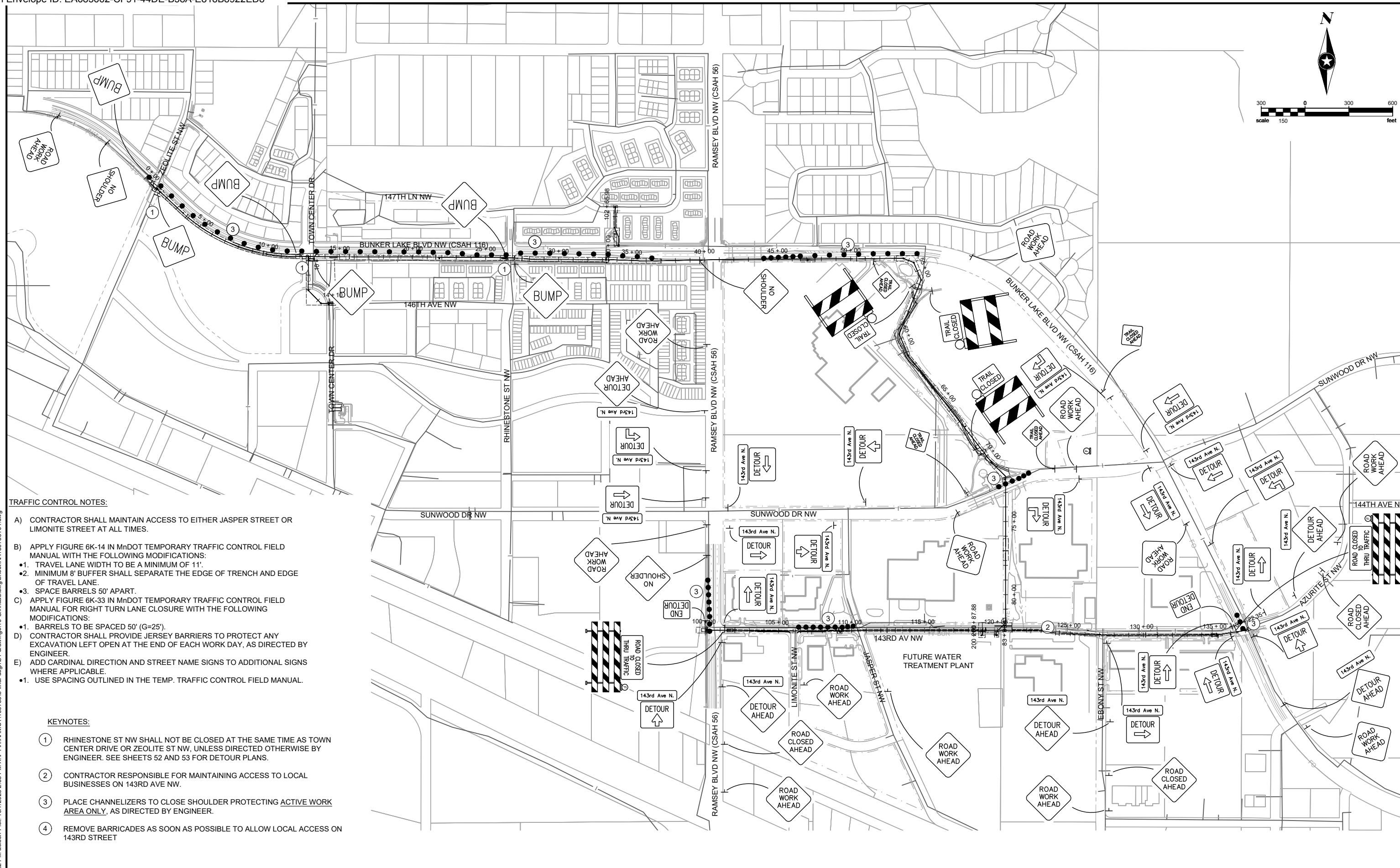
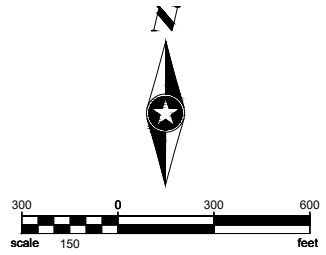
SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	.			.		



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
  
 David E. Hutton  
 DATE 10-06-2023 LICENSE NO. 19133

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**STORM WATER POLLUTION PREVENTION PLAN**



**TRAFFIC CONTROL NOTES:**

- A) CONTRACTOR SHALL MAINTAIN ACCESS TO EITHER JASPER STREET OR LIMONITE STREET AT ALL TIMES.
- B) APPLY FIGURE 6K-14 IN MnDOT TEMPORARY TRAFFIC CONTROL FIELD MANUAL WITH THE FOLLOWING MODIFICATIONS:
  - 1. TRAVEL LANE WIDTH TO BE A MINIMUM OF 11'.
  - 2. MINIMUM 8' BUFFER SHALL SEPARATE THE EDGE OF TRENCH AND EDGE OF TRAVEL LANE.
  - 3. SPACE BARRELS 50' APART.
- C) APPLY FIGURE 6K-33 IN MnDOT TEMPORARY TRAFFIC CONTROL FIELD MANUAL FOR RIGHT TURN LANE CLOSURE WITH THE FOLLOWING MODIFICATIONS:
  - 1. BARRELS TO BE SPACED 50' (G=25').
- D) CONTRACTOR SHALL PROVIDE JERSEY BARRIERS TO PROTECT ANY EXCAVATION LEFT OPEN AT THE END OF EACH WORK DAY, AS DIRECTED BY ENGINEER.
- E) ADD CARDINAL DIRECTION AND STREET NAME SIGNS TO ADDITIONAL SIGNS WHERE APPLICABLE.
  - 1. USE SPACING OUTLINED IN THE TEMP. TRAFFIC CONTROL FIELD MANUAL.

**KEYNOTES:**

- ① RHINESTONE ST NW SHALL NOT BE CLOSED AT THE SAME TIME AS TOWN CENTER DRIVE OR ZEOLITE ST NW, UNLESS DIRECTED OTHERWISE BY ENGINEER. SEE SHEETS 52 AND 53 FOR DETOUR PLANS.
- ② CONTRACTOR RESPONSIBLE FOR MAINTAINING ACCESS TO LOCAL BUSINESSES ON 143RD AVE NW.
- ③ PLACE CHANNELIZERS TO CLOSE SHOULDER PROTECTING ACTIVE WORK AREA ONLY, AS DIRECTED BY ENGINEER.
- ④ REMOVE BARRICADES AS SOON AS POSSIBLE TO ALLOW LOCAL ACCESS ON 143RD STREET

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SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.	.	.	.	.	.
Designed By	KLK	.	.	.	.	.	.
Checked By	CES	.	.	.	.	.	.

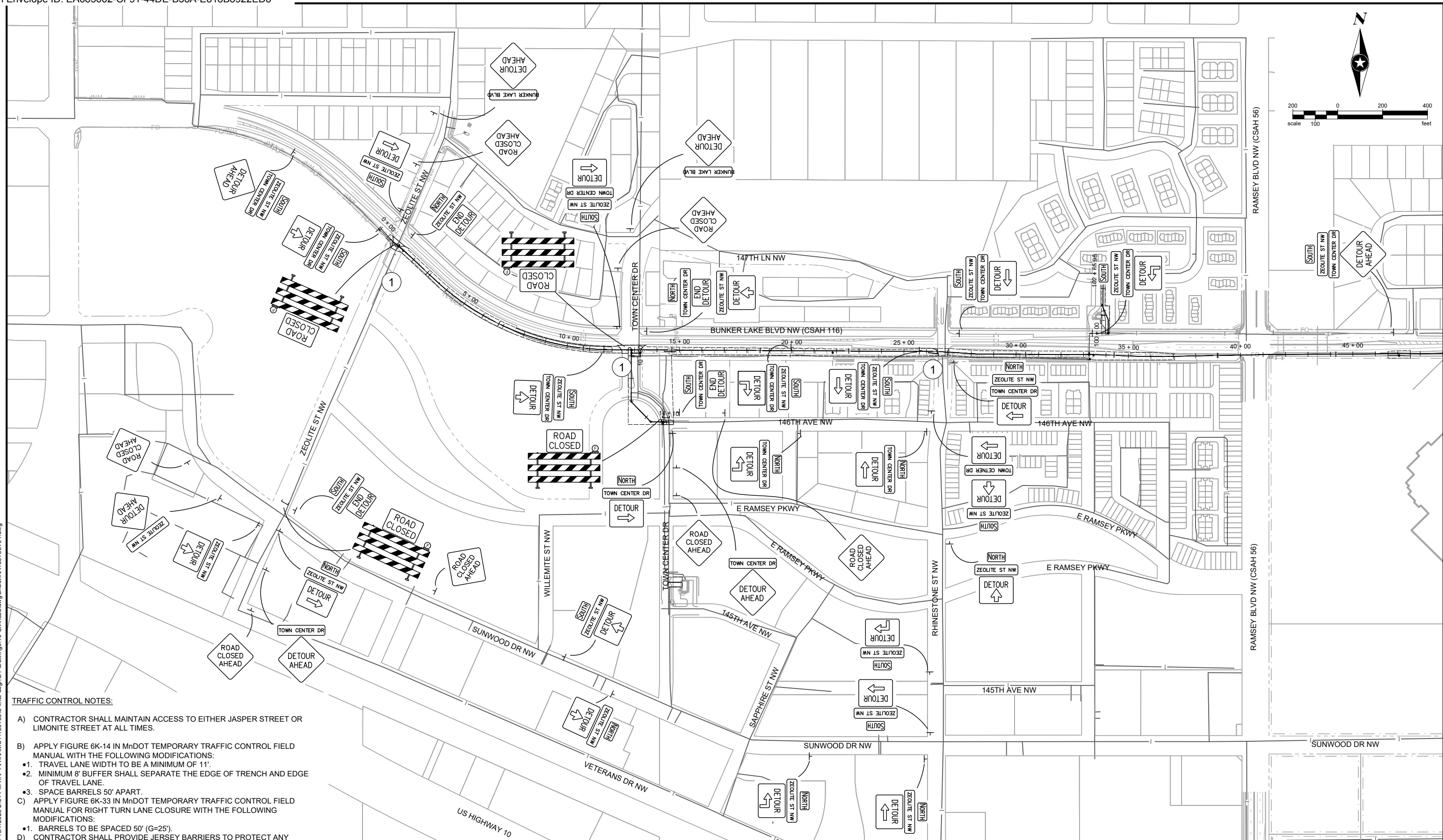
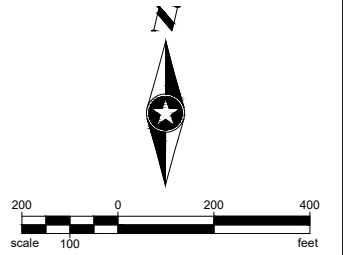
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*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**TRAFFIC CONTROL PLAN**






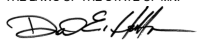
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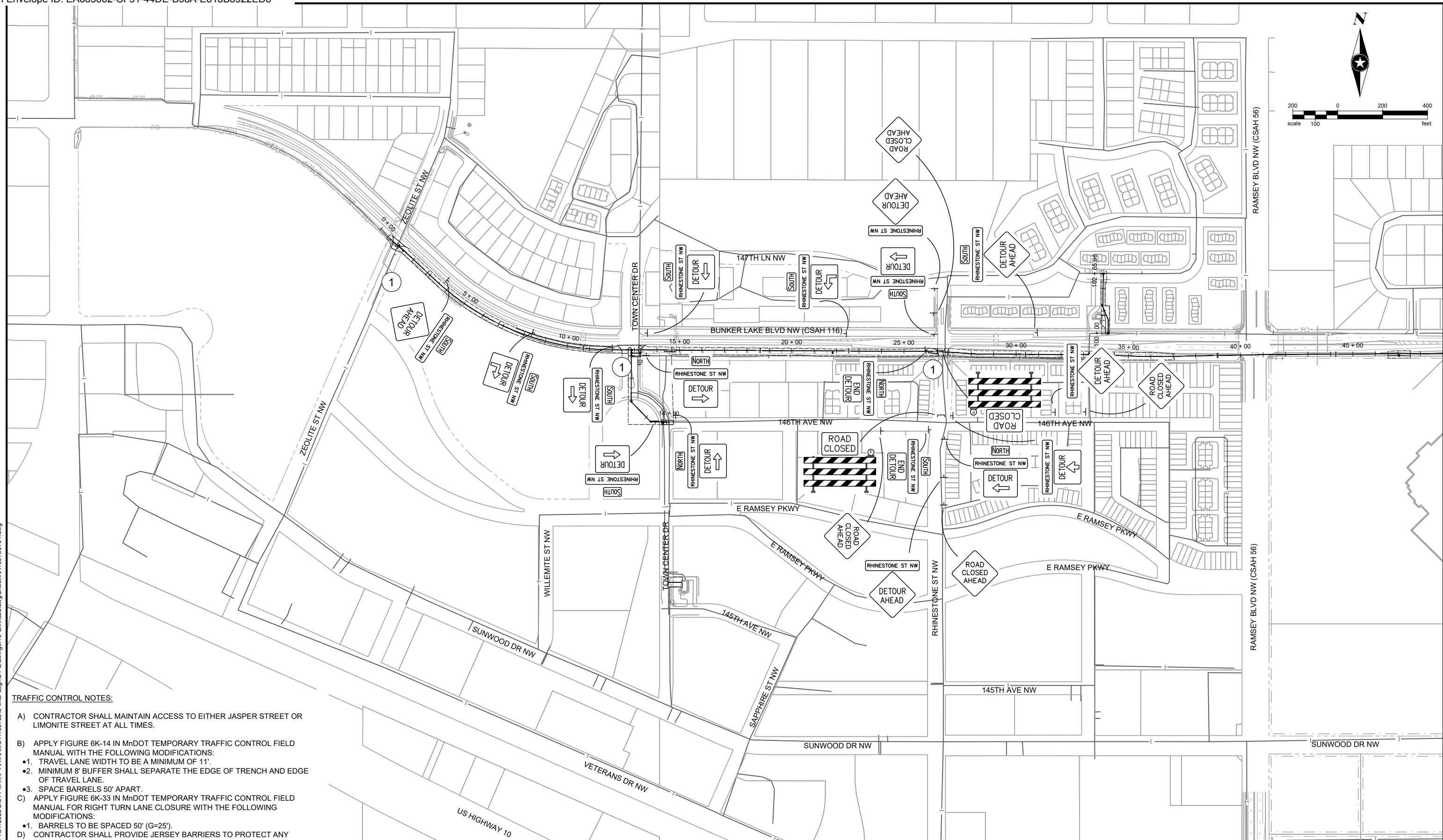
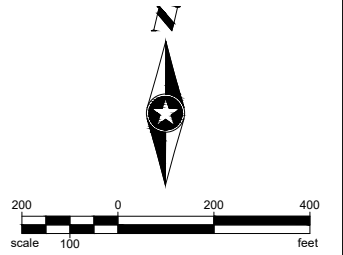
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Designed By	KLK	.			.		
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 LICENSE NO. 19133  
 DATE 10-06-2023

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

**DETOUR PLAN**  
**ZEOLITE ST NW AND TOWN CENTER DR**  
**NW**

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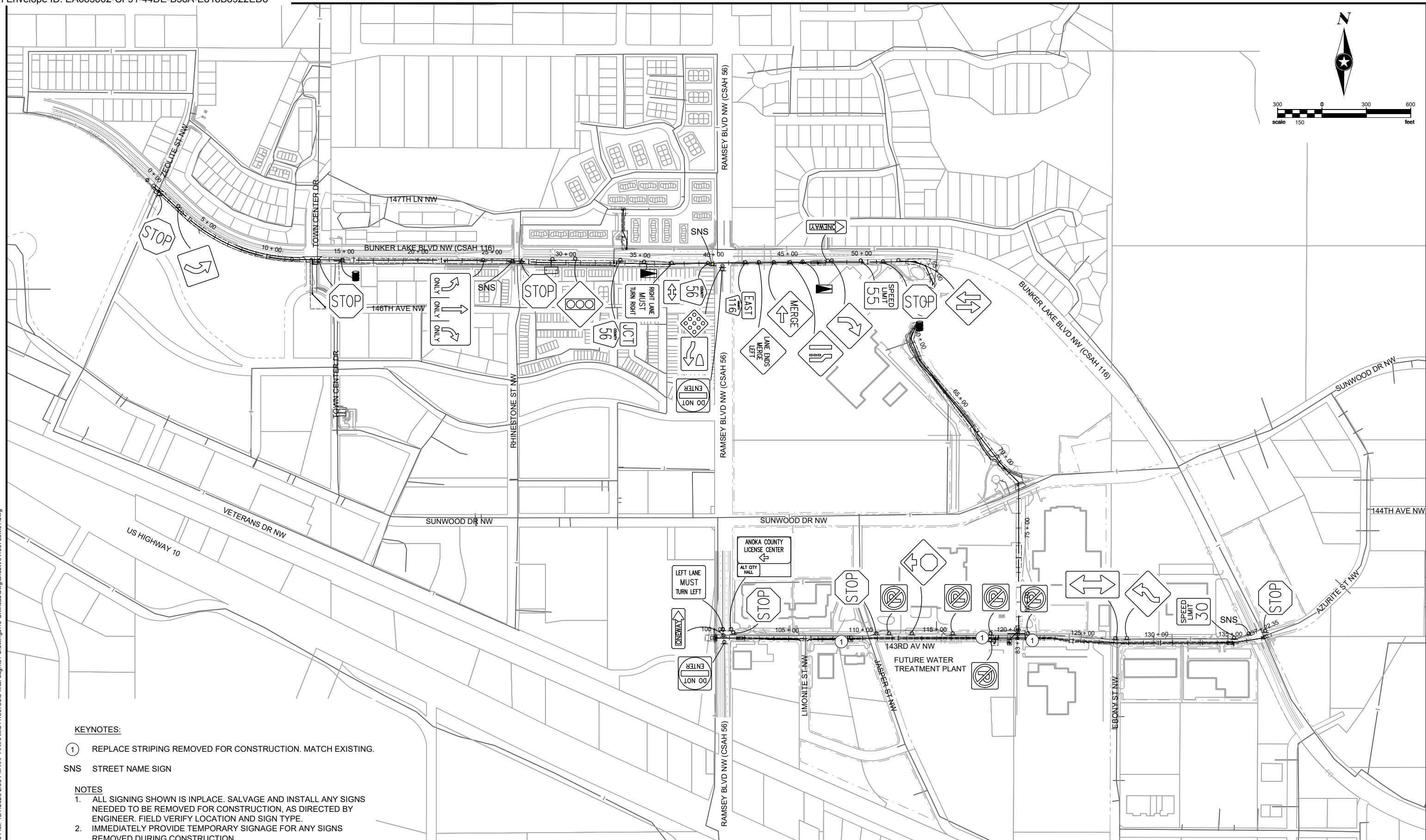
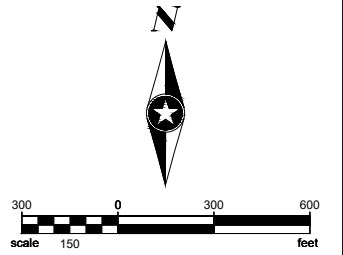
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**WATER TREATMENT PLANT  
 TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

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**KEYNOTES:**

- ① REPLACE STRIPING REMOVED FOR CONSTRUCTION. MATCH EXISTING.
- SNS STREET NAME SIGN

**NOTES**

1. ALL SIGNING SHOWN IS INPLACE. SALVAGE AND INSTALL ANY SIGNS NEEDED TO BE REMOVED FOR CONSTRUCTION, AS DIRECTED BY ENGINEER. FIELD VERIFY LOCATION AND SIGN TYPE.
2. IMMEDIATELY PROVIDE TEMPORARY SIGNAGE FOR ANY SIGNS REMOVED DURING CONSTRUCTION.

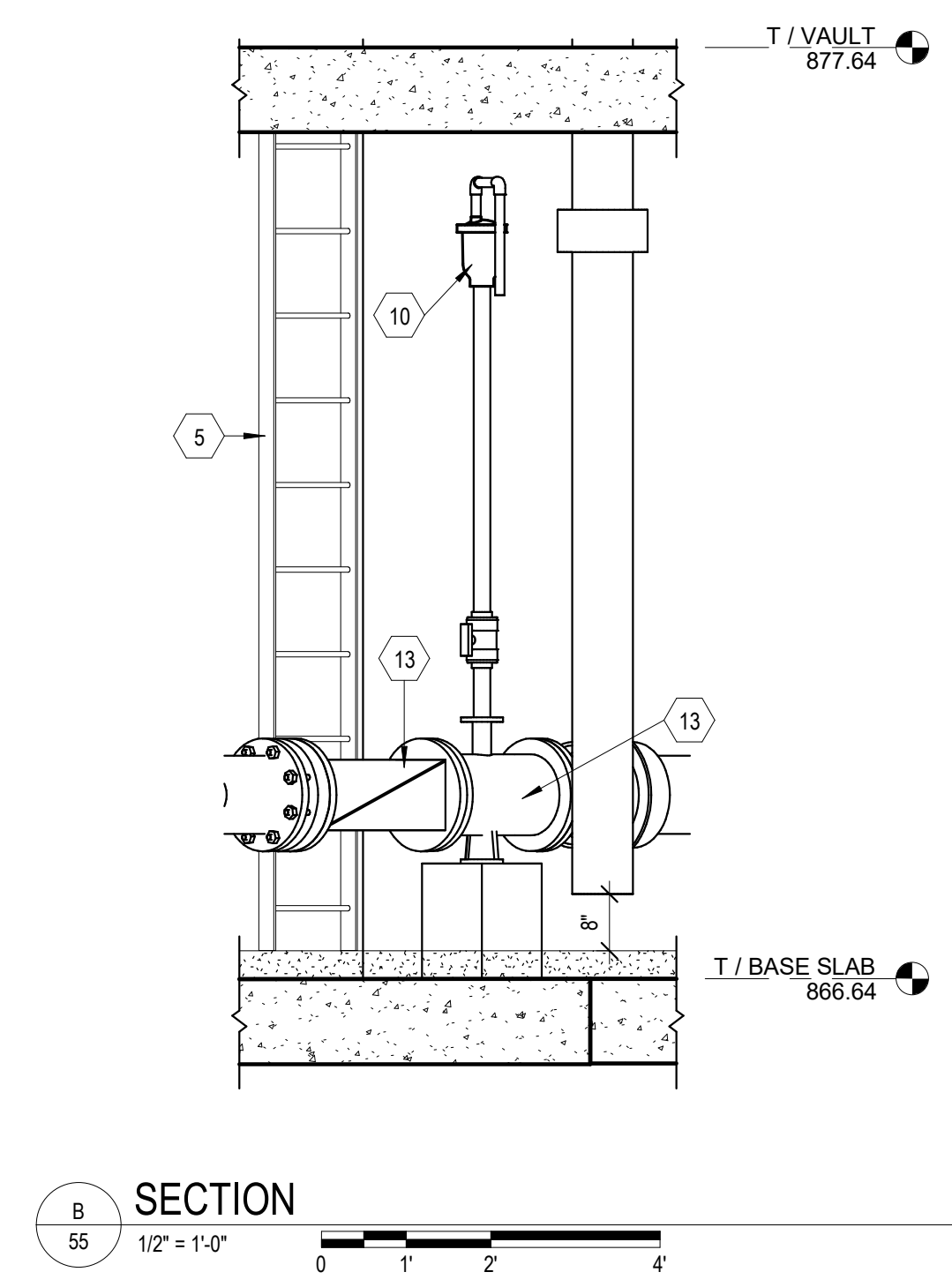
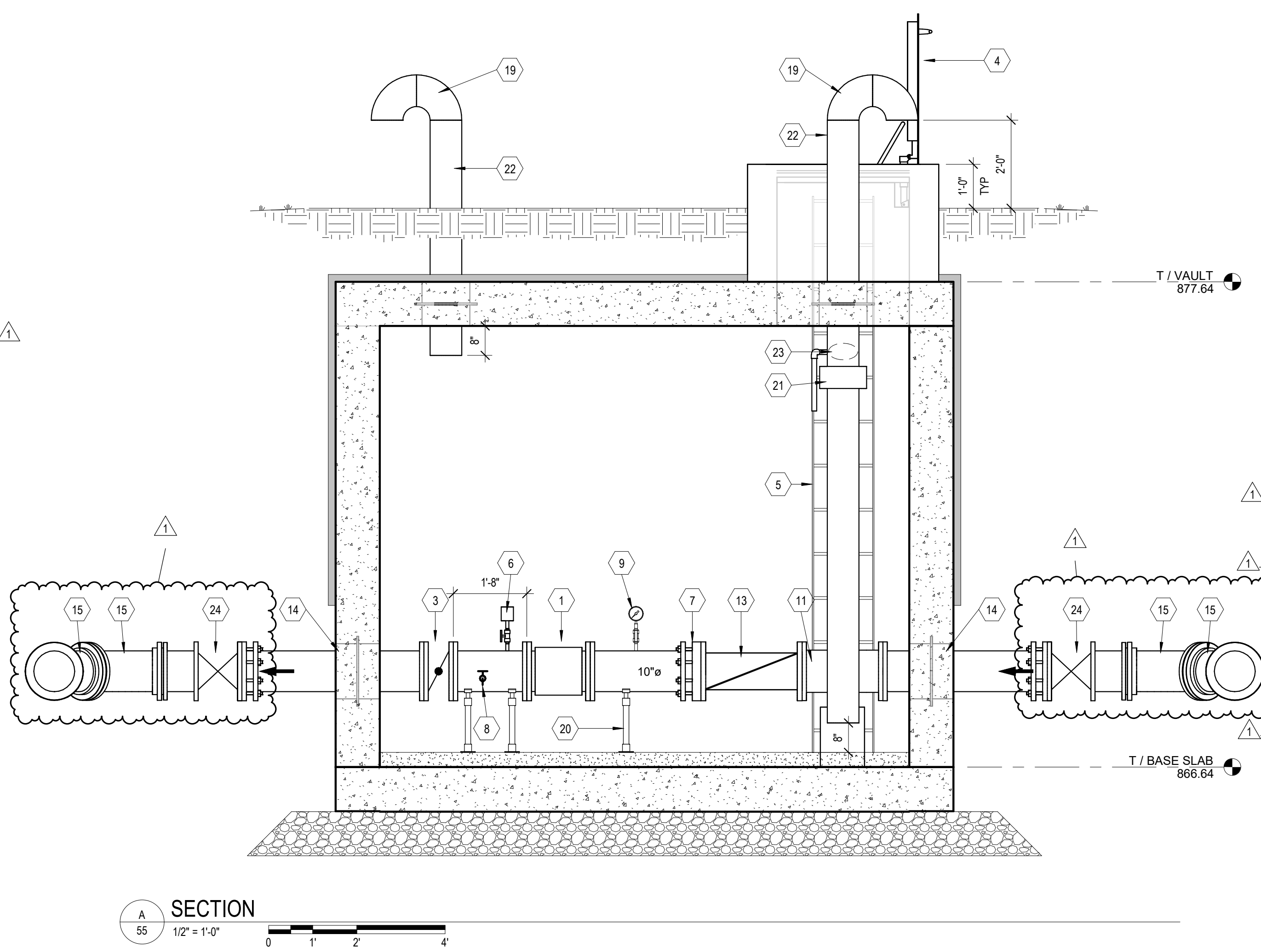
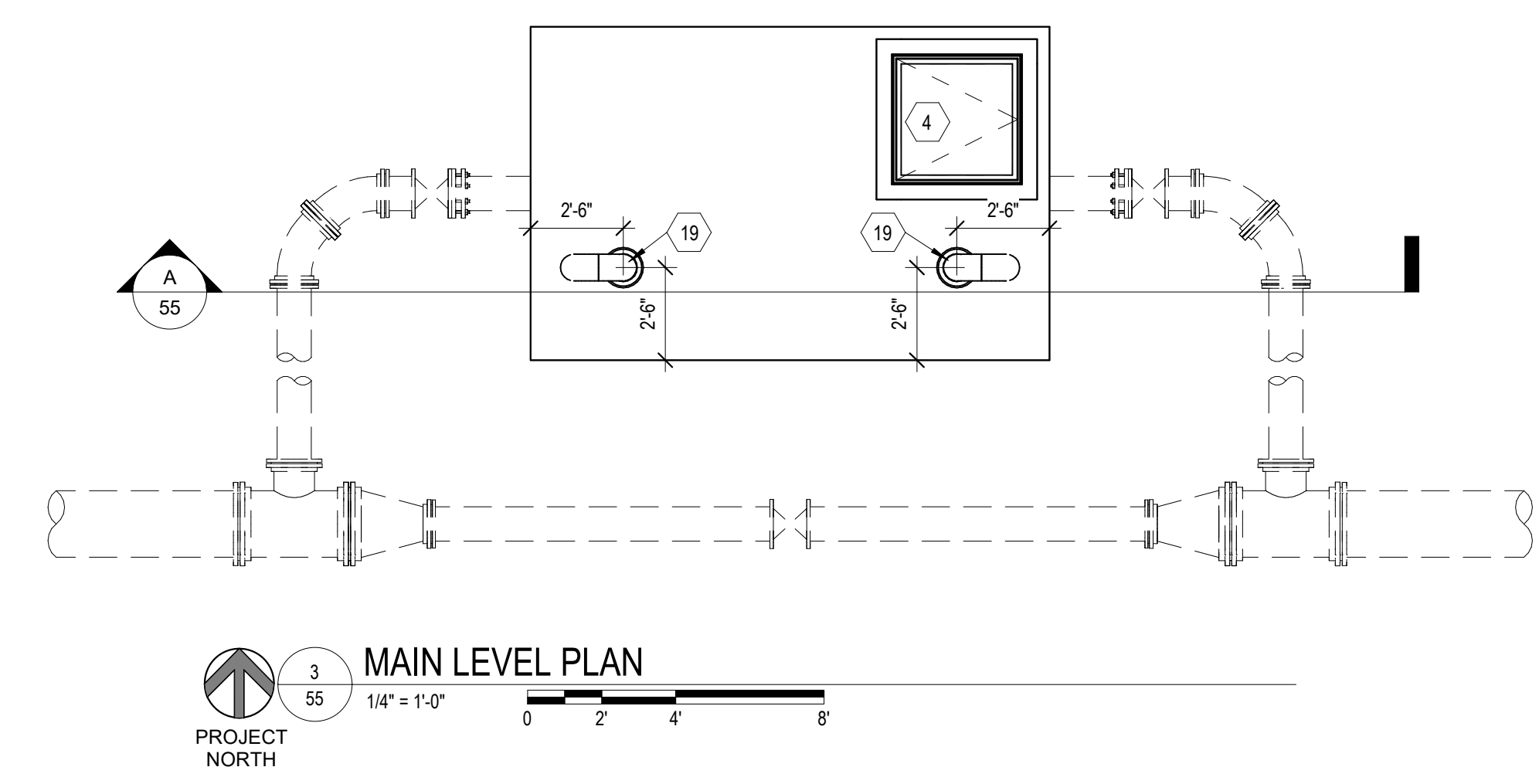
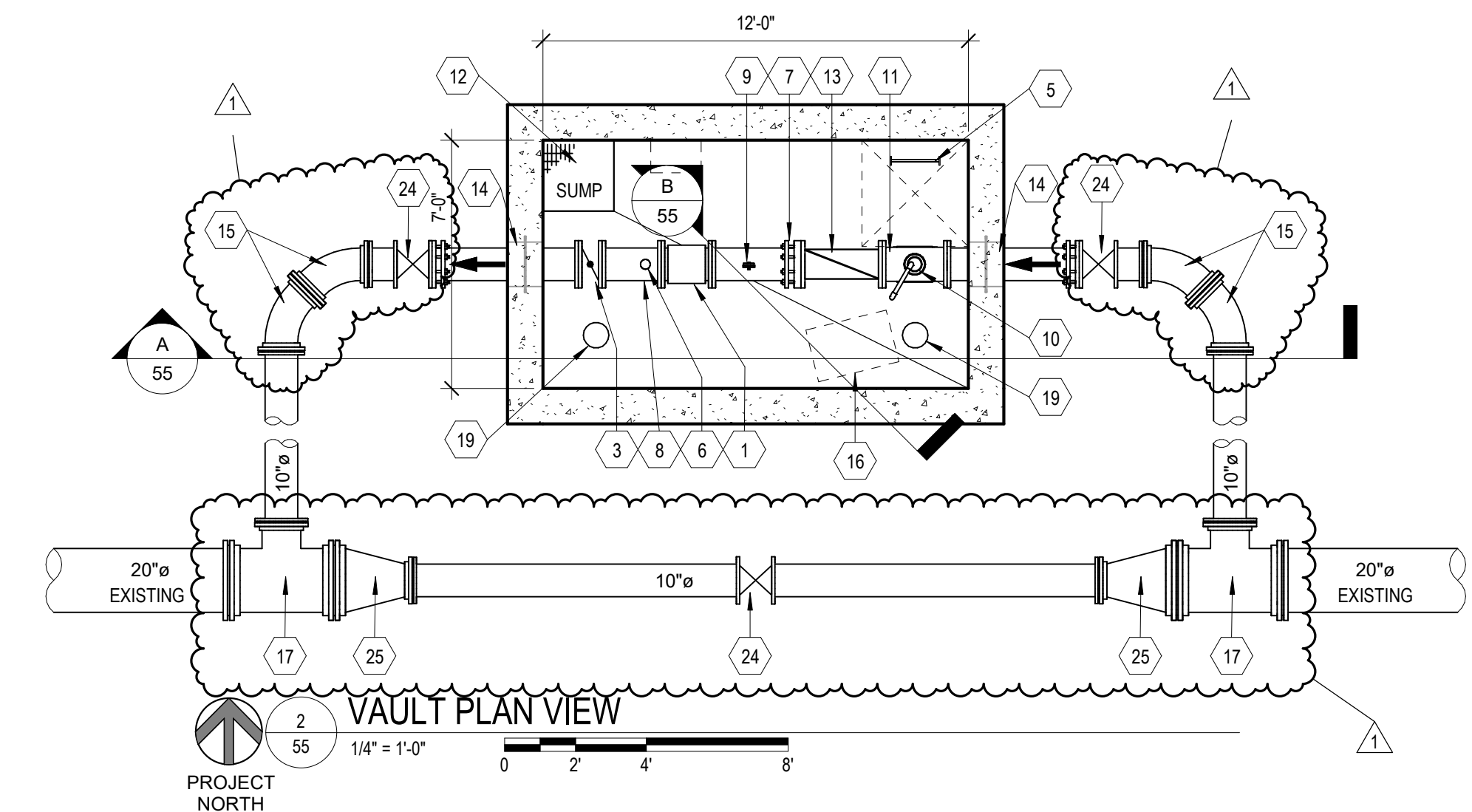
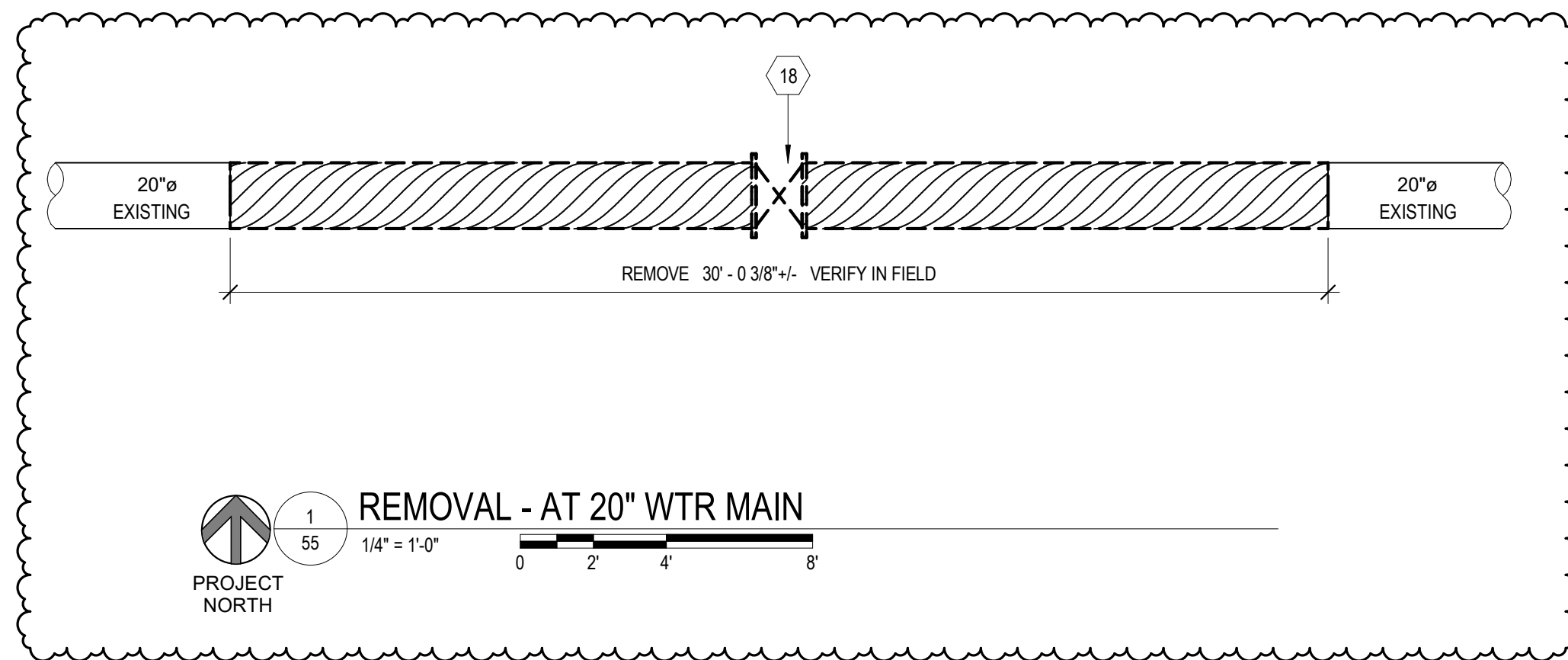
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 David E. Hutton  
 LICENSE NO. 19133  
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**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota



- ### KEYNOTES
- 1 10" FLOW METER
  - 2 2" RIGID POLYSTYRENE BOARD INSULATION TYPE X (ASTM C578) FASTENED TO CONCRETE WITH COMPATIBLE ADHESIVE
  - 3 10" BUTTERFLY VALVE
  - 4 36" x 36" CLEAR OPENING. WATER TIGHT, ALUMINUM ACCESS HATCH WITH FALL THROUGH PROTECTION.
  - 5 ALUMINUM LADDER W/ EXTENSION. SEE G/54
  - 6 AIR RELIEF VALVE
  - 7 10" FLANGE COUPLING ADAPTER
  - 8 SAMPLE TAP. SEE F/54
  - 9 TAP FOR 4-1/2" PRESSURE GAUGE 3/4" TAP, 3/4" SS BALL VALVE, SS NIPPLES AND SS CAP (QTY OF 2). SEE C/54.
  - 10 2" AIR/VACUUM VALVE
  - 11 10" x 4" FLANGED TEE, REDUCING
  - 12 SUMP PUMP
  - 13 10" CHECK VALVE
  - 14 WALL SLEEVE. SEE DETAIL B/54
  - 15 10" MJ 45° ELBOW (TYP 4)
  - 16 ELECTRIC HEATER MOUNTED TO CEILING
  - 17 20"x10" MJ TEE
  - 18 REMOVE EXISTING 20" GATE VALVE & WATER MAIN PIPING
  - 19 8" STEEL RETURN AIR VENT WITH INSECT SCREEN. SEE E/54
  - 20 STEEL PIPE SUPPORT. SEE A/54
  - 21 8" INLINE FAN
  - 22 8" FRP VENT PIPE
  - 23 GRAVITY EXHAUST DAMPER
  - 24 10" GATE VALVE (TYP 3)
  - 25 20" x 10" MJ REDUCER

- ### NOTES:
1. ALL UNDERGROUND PIPING SHALL BE LAID ON GRADE BETWEEN THE ELEVATION POINTS SHOWN. NO LOW OR HIGH POINTS WILL BE ALLOWED EXCEPT AS SHOWN.
  2. ALL MECHANICAL JOINTS SHALL BE RESTRAINED
  3. SIZE OF FITTINGS AND VALVES SHALL CORRESPOND TO THE SIZE OF ADJACENT PIPING. ALL BOLTS AND TIES SHALL BE OF STAINLESS STEEL
  4. ALL LINES SHALL BE ADEQUATELY ANCHORED AND SUPPORTED TO PREVENT EXCESSIVE MOVEMENT DURING OPERATION AND TESTING.
  5. PIPING WITHIN THE VALVE VAULT SHALL BE FLANGED.
  6. ALL FASTENERS SHALL BE STAINLESS STEEL.

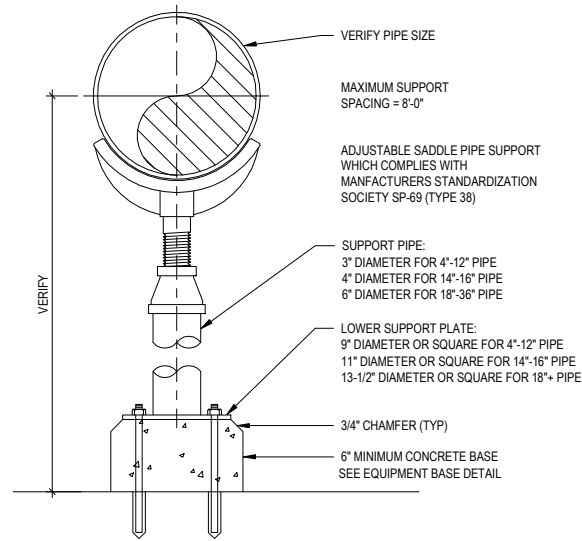
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Drawn By:	KAK	1	ADDENDUM #2	10/27/2023			
Designed By:	KAK						
Checked By:	MBJ						

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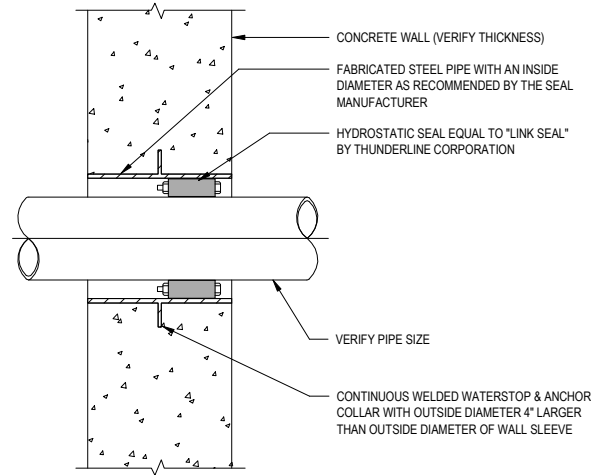
MILES B. JENSEN  
DATE 9/29/2023 LICENSE NO. 19869

## WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS

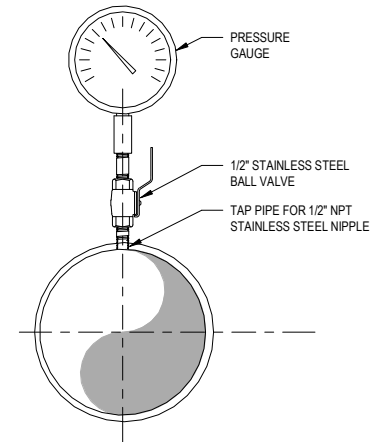
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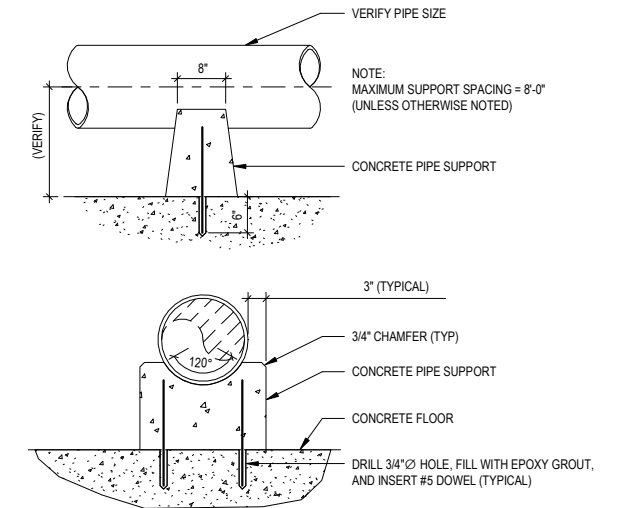
**A** STEEL PIPE SUPPORT  
56 NOT TO SCALE



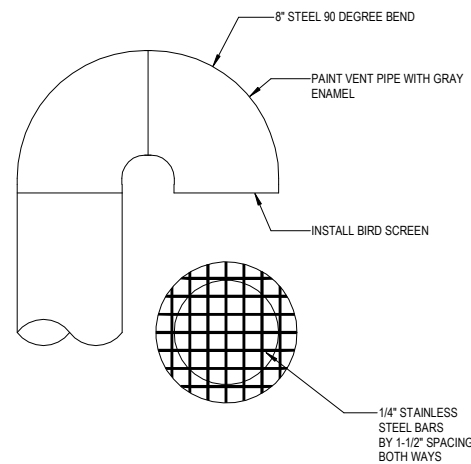
**B** WALL SLEEVE DETAIL  
56 NOT TO SCALE



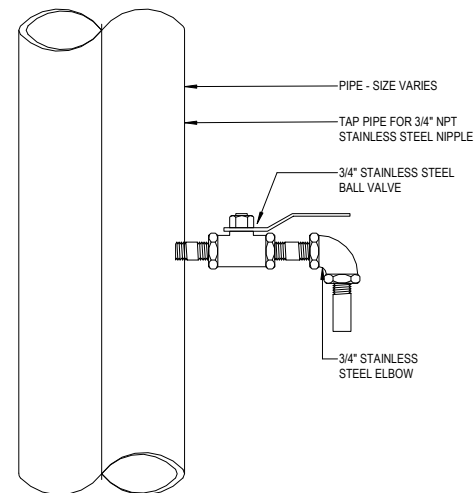
**C** PRESSURE GAUGE TAP DETAIL  
56 NOT TO SCALE



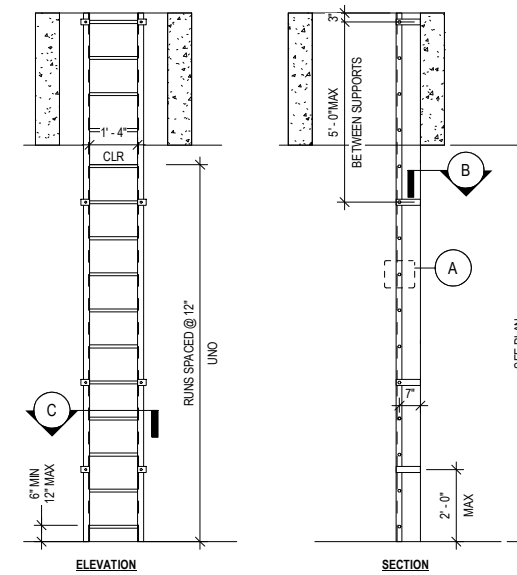
**D** CONCRETE PIPE SUPPORT  
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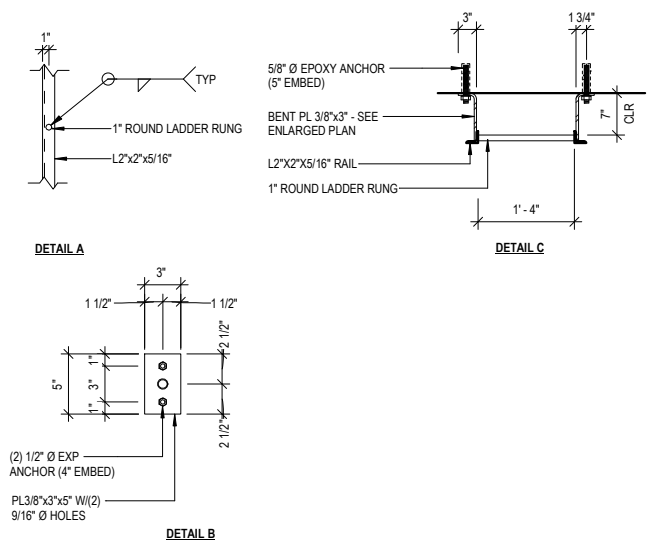
**E** STEEL VENT SCREEN  
56 NOT TO SCALE



**F** SAMPLE TAP DETAIL  
56 NOT TO SCALE



**G** ALUMINUM LADDER DETAIL  
56 NOT TO SCALE



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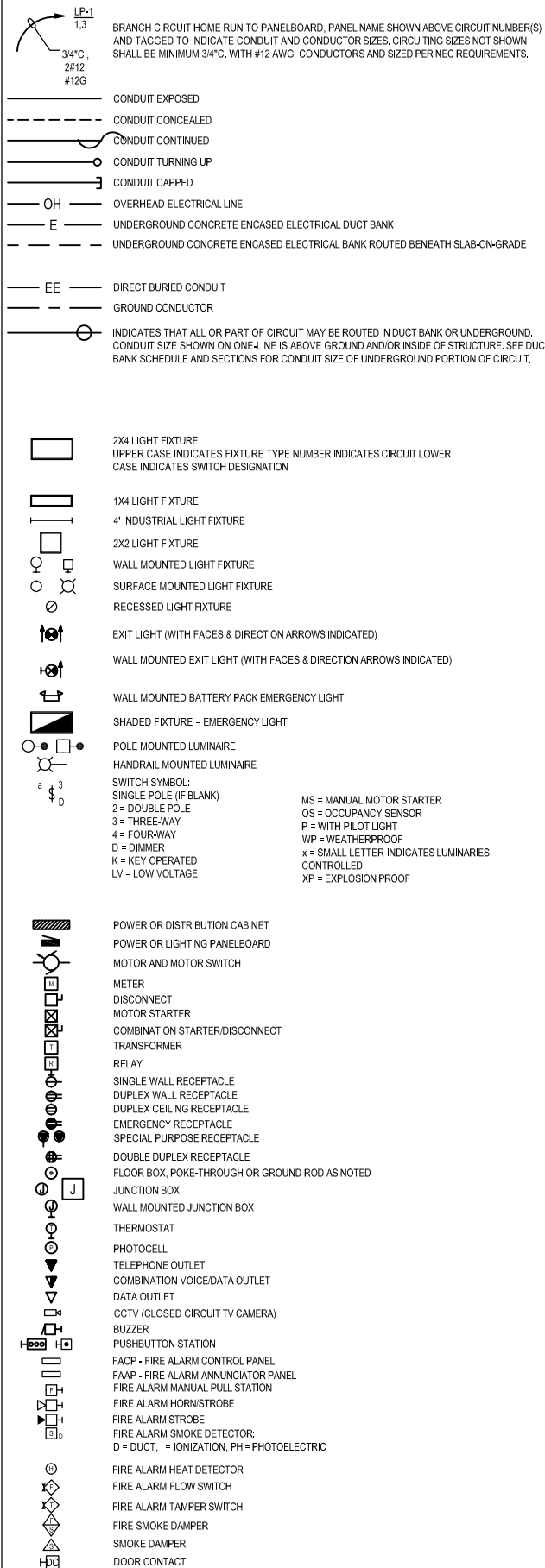


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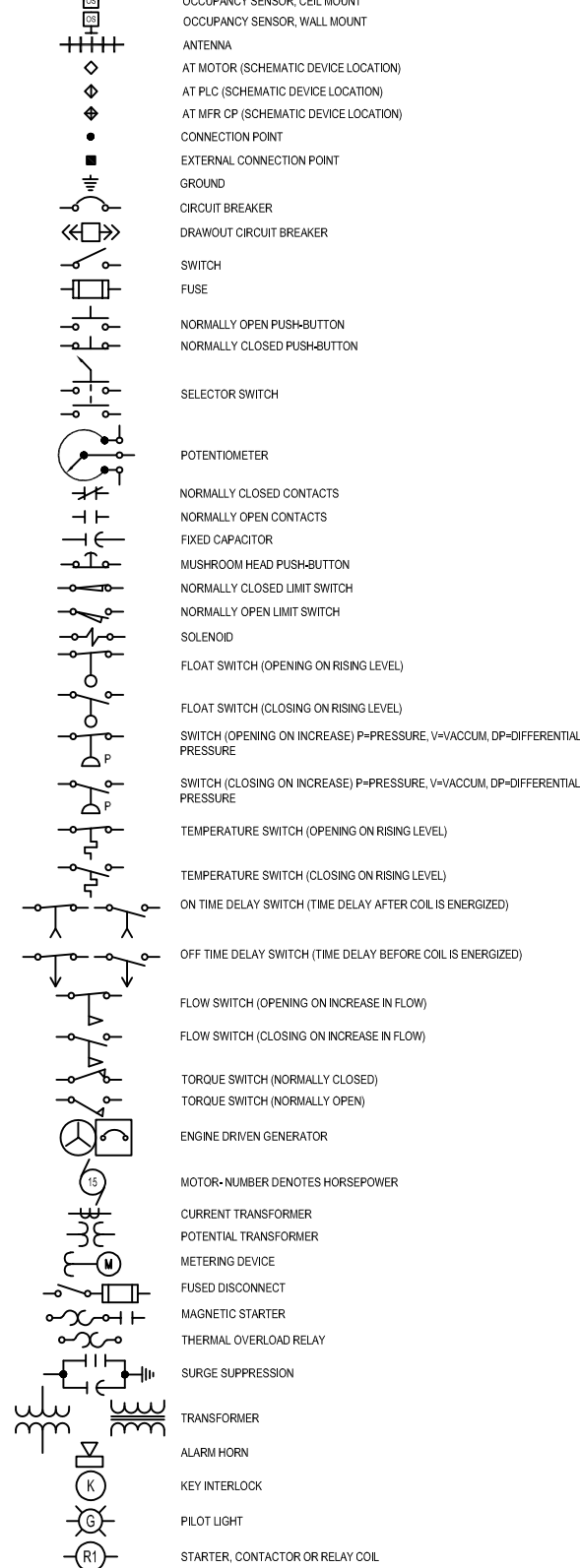
**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
Ramsey, Minnesota

METER VAULT DETAILS

POWER & LIGHTING SYMBOLS



SCHEMATIC SYMBOLS



XX XXX XX

MISC. SYSTEM COMPONENT, SEE ABBREVIATIONS FOR LETTER DESIGNATIONS NOT LISTED BELOW.

LE = LEVEL ELEMENT  
 LIT = ABOVE FINISHED FLOOR  
 FE = FLOW ELEMENT  
 FIT = FLOW INDICATING TRANSMITTER  
 FS = FLOW SWITCH  
 HS = HAND SWITCH  
 PB = PULLBOX  
 PT = PRESSURE TRANSDUCER  
 SS = SOFT STARTER  
 TS = TAMPER SWITCH  
 ATS = AUTOMATIC TRANSFER SWITCH  
 HOA = HAND OFF AUTO SELECTOR SWITCH  
 TIT = TEMPERATURE INDICATING TRANSMITTER  
 TSH = TEMPERATURE SWITCH HIGH  
 TVSS = TRANSIENT VOLTAGE SURGE SUPPRESSER  
 VFD = VARIABLE FREQUENCY DRIVE  
 SV = SOLENOID VALVE  
 XS = MOISTURE SWITCH  
 XSH = MOISTURE SWITCH HIGH  
 ZS = POSITION SWITCH

ELECTRICAL ABBREVIATIONS

A	AMBER, AMPERE, ALARM	LIT	LEVEL INDICATING TRANSMITTER
AC	ALTERNATING CURRENT	LP	LIGHTING PANEL
AF	ABOVE FINISHED FLOOR	LS	LIMIT OR LEVEL SWITCH
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AM	AMMETER	LWCO	LOW WATER CUTOFF
ANN	ANNUNCIATOR	M	MAGNETIC MOTOR STARTER
AR	ALARM RELAY	MA	MILLIAMPERE
AS	AMMETER SWITCH	MCB	MAIN CIRCUIT BREAKER
ATS	AUTOMATIC TRANSFER SWITCH	MCC	MOTOR CONTROL CENTER
AWG	AMERICAN WIRE GAUGE	MD	MOISTURE DETECTOR
BC	BATTERY CHARGER	MFR	MANUFACTURER
BILDG	BUILDING	MH	MANHOLE OR MOUNTING HEIGHT
C	CLOSE, COUNTER OR CONTACTOR	MOV	MOTOR OPERATED VALVE
CAP	CAPACITOR	MS	MANUAL MOTOR STARTER
CB	CIRCUIT BREAKER	MSH	MOTOR SPACE HEATER
CD	CONTROL DAMPER	MTR	MOTOR
CGD	COMBUSTIBLE GAS DETECTOR	MTS	MANUAL TRANSFER SWITCH
CKT	CIRCUIT	MV	MILLIVOLT, MEDIUM VOLTAGE
CL2	CHLORINE	MVA	MEGA VOLT AMPERE
CP	CONTROL PANEL	N	NEUTRAL
CPT	CONTROL POWER TRANSFORMER	NC	NORMALLY CLOSED
CR	CURRENT OR CONTROL RELAY	NMC	NON-METALLIC CONDUIT
CS	CONTROL STATION	NO	NORMALLY OPEN
CT	CYCLE TIMER OR CURRENT TRANSFORMER	O	OPEN
CV	CONTROL VALVE	OL	OVERLOAD
2/C	2 CONDUCTOR	OOA	ON-OFF-AUTO
4/C	4" CONDUIT	OOR	ON-OFF-REMOTE
DC	DIRECT CURRENT	OH	OVERHEAD
DI	DOOR INTERLOCK	P	PRIMARY
DM	DAMPER MOTOR OR DEMAND METER	PB	PUSHBUTTON OR PULL BOX
DPDT	DOUBLE POLE DOUBLE THROW	PLC	PROGRAMMABLE LOGIC CONTROLLER
DPST	DOUBLE POLE SINGLE THROW	PF	POWER FACTOR
DP	DIFFERENTIAL PRESSURE	PFCC	POWER FACTOR CORRECTION CAPACITOR
DPS	DIFFERENTIAL PRESSURE SWITCH	PH	PHASE, CHEMICAL TERM
DS, DISC	DISCONNECT SWITCH	PRS	PROXIMITY SWITCH
DWG	DRAWING	PRV	POWER ROOF VENTILATOR
E	EMERGENCY OR DAMPER OPERATOR	PS	PRESSURE SWITCH OR PUMP STATION
EC	EMPTY CONDUIT	PT	POTENTIAL TRANSFORMER OR PROGRAM TIMER
ECP	EQUIPMENT CONTROL PANEL	PVC	POLYVINYL CONDUIT
EG	ENGINE GENERATOR	2P	2 POLE
EL	ELEVATION OR EMERGENCY LIGHT	R	RED, RAISE RELAY OR REVERSE
EMH	ELECTRICAL MANHOLE	RECP	RECEPTACLE
ES	END SWITCH	RGS	RIGID GALVANIZED STEEL
ETM	ELAPSED TIME METER	RMC	RIGID METALLIC CONDUIT
EUH	ELECTRICAL UNIT HEATER	RTD	RESISTANCE TYPE TEMP DETECTOR
EVS	EMERGENCY VENTILATION SHUTOFF	RTU	REMOTE TERMINAL UNIT
EXIST	EXISTING	SA	SURGE SUPPRESSOR
F	FORWARD	SCC	SHORT CIRCUIT CURRENT
FA	FIRE ALARM	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
FACP	FIRE ALARM CONTROL PANEL	S2	SIZE 2 STARTER
FDR	FEEDER	SP	SINGLE POLE
FE	FLOW ELEMENT	SPD	SURGE PROTECTOR
FIT	FLOW INDICATING TRANSMITTER	SPDT	SINGLE POLE DOUBLE THROW
FO	FIBER OPTIC	SPST	SINGLE POLE SINGLE THROW
FS	FLOW SWITCH	SS	SELECTOR SWITCH OR SOFT STARTER
FPSP	FIRE PROTECTION SIGNALING PANEL	S, S, SST	STAINLESS STEEL
FVNR	FULL VOLTAGE NON-REVERSING	SSRV	SOLID STATE REDUCED VOLTAGE STARTER
G	GREEN OR GROUND OR GENERATOR	STR	STARTER
GD	GROUND DETECTOR OR GAS DETECTOR	SV	SOLENOID VALVE
GEN	GENERATOR	SWBD	SWITCHBOARD
GFI	GROUND FAULT INTERRUPTER	SWGR	SWITCHGEAR
GFCI	GROUND FAULT CKT INTERRUPTER	T	THERMOSTAT, TIMER OR TOTALIZER
GND	GROUND	TB	TERMINAL BLOCK
GUH	GAS UNIT HEATER	TCF	TEMPERATURE CONTROL PANEL
H	HIGH OR HUMIDISTAT	TD	TIME DELAY RELAY
HH	HANDHOLE	TEMP	TEMPERATURE
HOA	HAND-OFF-AUTO	TQ	TORQUE
HP	HORSEPOWER	TTB	TELEPHONE TERMINAL BOX
HTR	HEATER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
HVMH	HIGH VOLTAGE ELECTRIC MANHOLE	UG	UNDERGROUND
HZ	HERTZ (CYLES PER SECOND)	UPS	UNINTERRUPTIBLE POWER SUPPLY
I/O	INPUT/OUTPUT	UV	UNDER VOLTAGE OR ULTRAVIOLET
INST	INSTANTANEOUS	V	VOLTS
IS	INTRINSICALLY SAFE	VA	VOLT AMPERE
ISO	ISOLATION	VAR	VOLTAAMPERE REACTIVE
J	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE
K	KEY INTERLOCK	VM	VOLTMETER
KAIC	KILOAMPERE	VS	VOLTMETER SWITCH
KCML	THOUSAND CIRCULAR MILS	W	WHITE OR WATTS
KV	KILVOLT	WE	WEIGHT ELEMENT
KVA	KILVOLT AMPERE	WIT	WEIGHT INDICATING TRANSMITTER
KVAR	KILOVAR	WP	WEATHERPROOF
KW	KILOWATT	WPI	WEATHERPROOF IN-USE RECEPTACLE COVER
KWH	KILOWATT HOUR	XFMR	TRANSFORMER
L	LOW, LEVEL	XP	EXPLOSION-PROOF
LA	LIGHTNING ARRESTER		
LAN	LOCAL AREA NETWORK		
LC	LIGHTING CONTACTOR		
LE	LEVEL ELEMENT		

NOTES

GENERAL WIRING METHODS:

- USE NO. 10 AWG CONDUCTOR FOR 20 AMPERE, 120-VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 75 FEET; AND FOR 20 AMPERE, 277-VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 150 FEET.

CONTACT INFORMATION:

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 PHONE: 651.490.2166  
 E-MAIL: jcarlson@sehinc.com

INDEX OF ELECTRICAL DRAWINGS

57	ELECTRICAL - SYMBOLS, ABBREVIATIONS AND NOTES
58	ELECTRICAL - PLANS, ELEVATION AND DIAGRAMS

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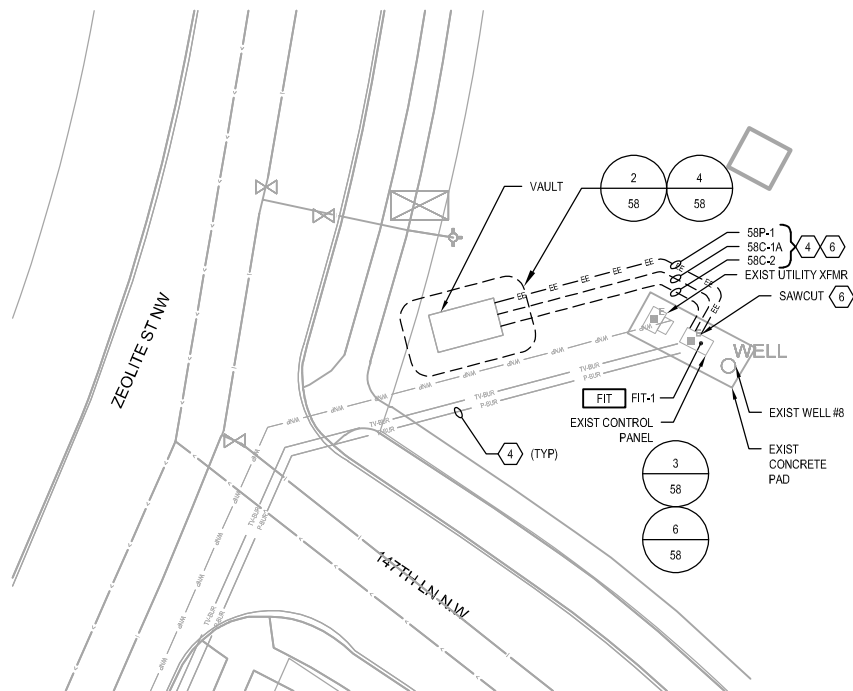
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Designed By	JRB	-			-		
Checked By	JPC	-			-		



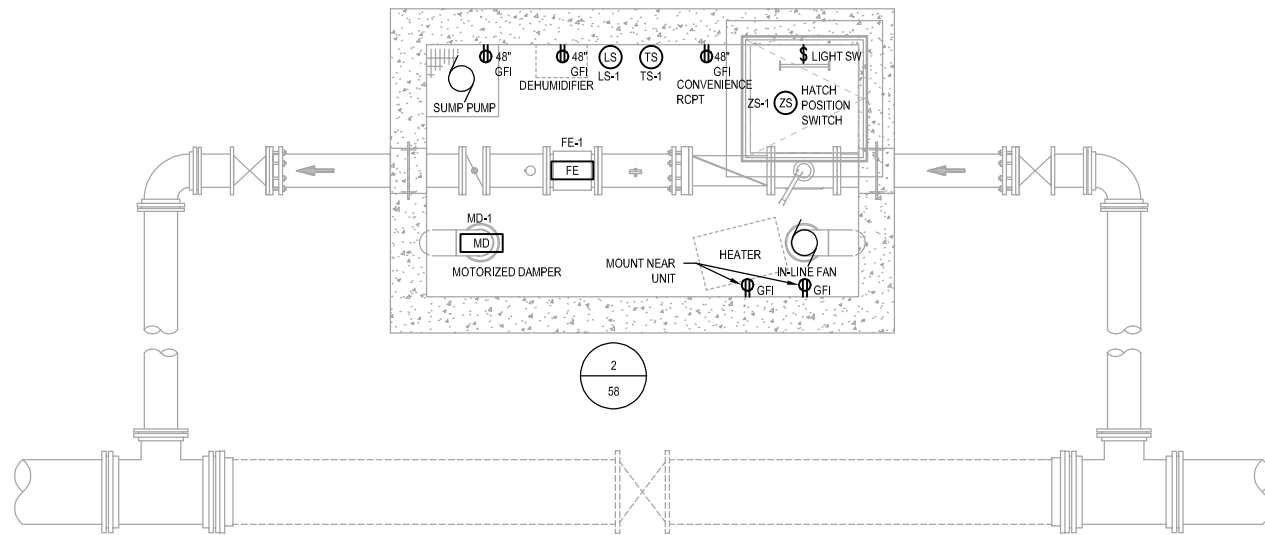
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.  
 JOHN P. CARLSON, P.E.  
 DATE: 09-29-2023 LICENSE NO. 24001

**WATER TREATMENT PLANT**  
**TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota

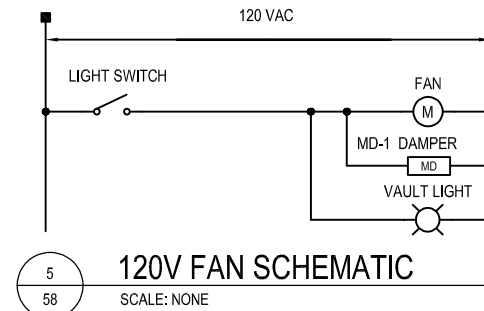
**ELECTRICAL - SYMBOLS, ABBREVIATIONS AND NOTES**  
**BUNKER LAKE BLVD NW (CSAH 116)**



**1 ELECTRICAL - SITE PLAN**  
SCALE: 1"=10'  
SCALE IN FEET



**2 ELECTRICAL - PLAN**  
SCALE: 3/8"=1'-0"  
SCALE: 3/8"=1'-0"

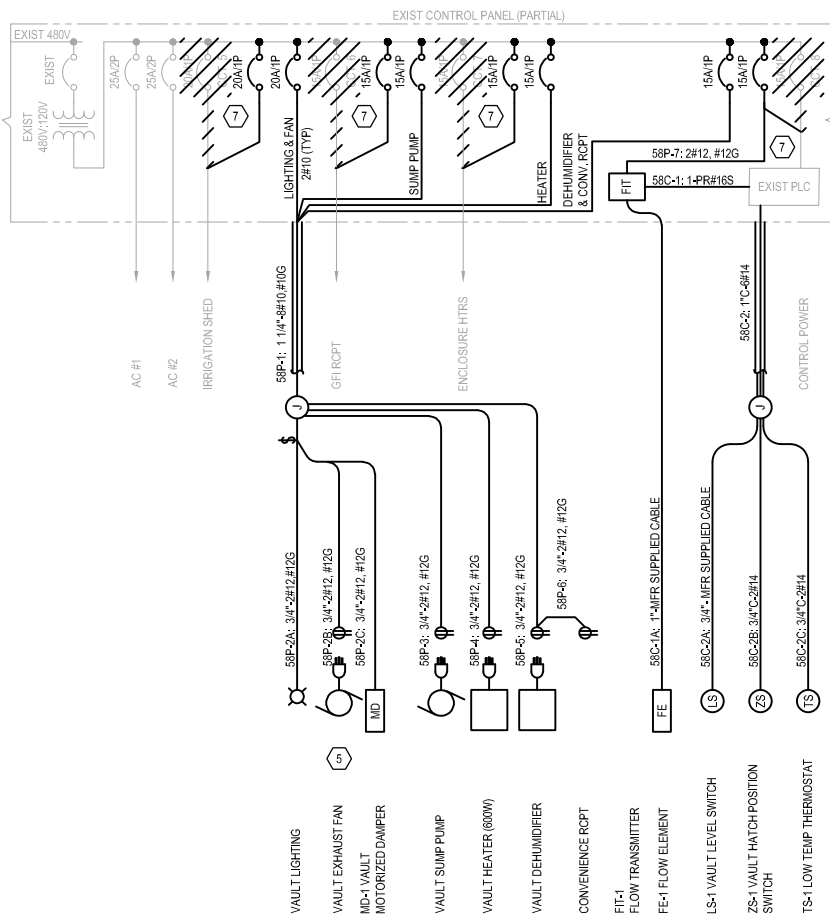


**5 120V FAN SCHEMATIC**  
SCALE: NONE

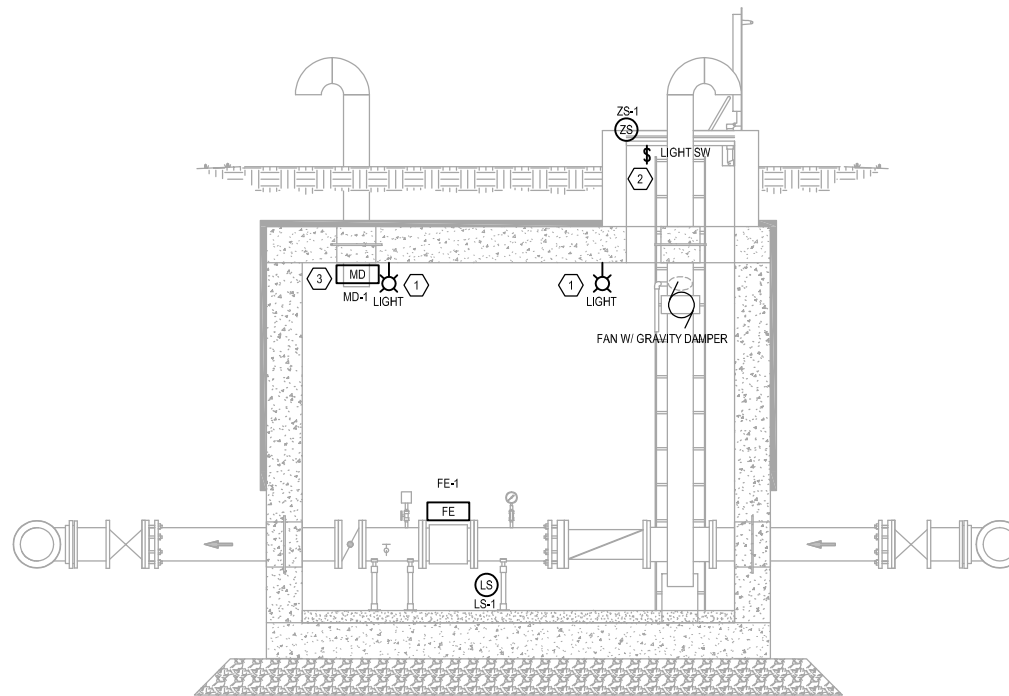


REPLACE 20A, 1-POLE WITH 20A, 1-POLE TANDEM  
REPLACE 15A, 1-POLE WITH 15A, 1-POLE TANDEM

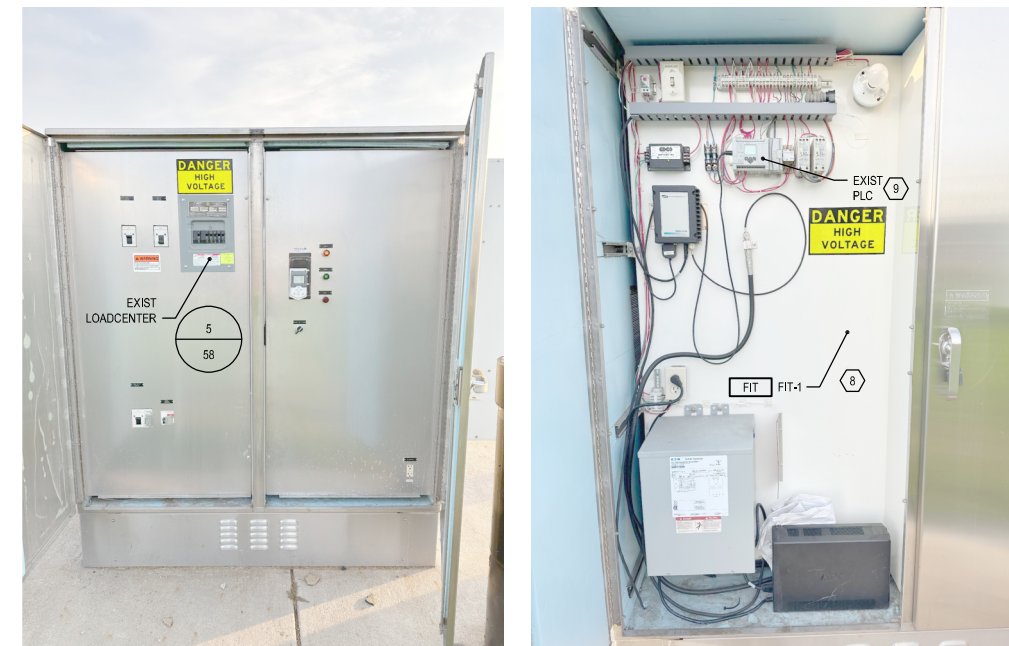
**5 EXIST LOADCENTER ELEVATION**  
SCALE: NONE



**3 ELECTRICAL - SITE PLAN**  
SCALE: NONE



**4 ELECTRICAL - ELEVATION**  
SCALE: 3/8"=1'-0"  
SCALE: 3/8"=1'-0"



**6 EXIST CONTROL PANEL ELEVATIONS**  
SCALE: NONE

- GENERAL NOTES:**
- COORDINATE ELECTRICAL REQUIREMENTS WITH OTHER TRADES.
  - ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ADDITION OF THE NATIONAL ELECTRICAL CODE, STATE, COUNTY, MUNICIPAL, AND FEDERAL LAWS OR ORDINANCES GOVERNING THE PROJECT. IF THE PLANS AND SPECIFICATIONS ARE IN CONFLICT WITH SUCH CODES, LAWS OR ORDINANCES, NOTIFY THE ENGINEER FOR RESOLUTION PRIOR TO MAKING CHANGES. WORK SHALL BE PERFORMED UNDER A LICENSED MASTER ELECTRICIAN.
  - PROVIDE LABOR, MATERIALS, EQUIPMENT AND NECESSARY OPERATIONS REQUIRED TO PROVIDE COMPLETE AND OPERATIONAL ELECTRICAL INSTALLATION IN ACCORDANCE WITH ACCOMPANYING PLANS AND SPECIFICATIONS.
  - MATERIAL SHALL BE NEW, UL LISTED AND APPROVED FOR THE PURPOSE AND INSTALLATION PER CODE IN A WORKMANSHIP MANNER.
  - SECURE AND PAY FOR PERMITS, LICENSES AND INSPECTION FEES, AND COORDINATE WITH UTILITIES AND AUTHORITIES HAVING JURISDICTION.
  - EXPOSED CONDUIT SHALL BE RIGID METAL CONDUIT (RMC). BELOW GRADE CONDUIT SHALL BE SCHEDULE 40 PVC.
  - 600V CONDUCTORS SHALL BE XHHW OR THWN/THHN STRANDED COPPER AS SPECIFIED.
  - PROVIDE GROUNDING OF SERVICE PER LATEST ADDITION OF NATIONAL ELECTRICAL CODE.
- KEYNOTES:**
- PROVIDE RAB LIGHTING FIXTURE #VLED13NDG.
  - LIGHT SWITCH SHALL CONTROL LIGHT, FAN AND MOTORIZED DAMPER. SEE SCHEMATIC 558.
  - MOTORIZED DAMPER TURNS ON WITH LIGHT SWITCH AND FAN.
  - APPROXIMATE LOCATION OF BURIED CIRCUITRY. VERIFY ROUTING WITH UTILITY, OTHER TRADES AND CIVIL PLANS.
  - PROVIDE MATCHING CORD AND PLUG.
  - SAWCUT CONCRETE FOR COMPLETELY CONCEALED CONDUIT ENTRY.
  - REPLACE EXIST 1-POLE LOADCENTER BREAKER WITH TANDEM 1-POLE BREAKER OF SAME AMPERAGE.
  - INSTALL FIT-1 IN EXIST CONTROL PANEL.
  - REARRANGE DEVICES TO ADD ANALOG AND DIGITAL INPUT CARDS TO EXIST PLC.

Save: 9/29/2023 4:17 PM x:\P1\RAMSY1744805-mak-dgn\5-drawings\35-Elec\RA1744802.dwg

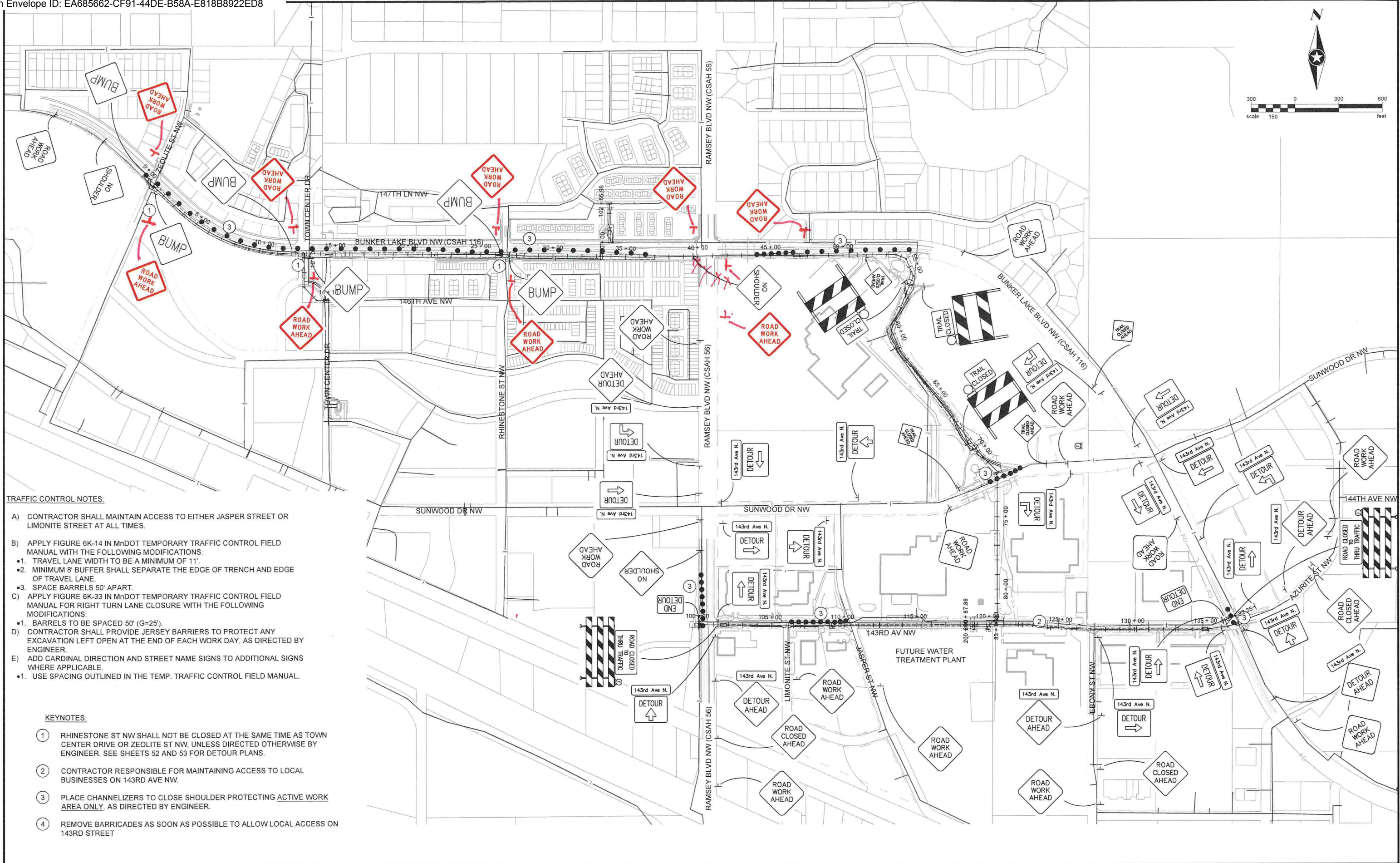
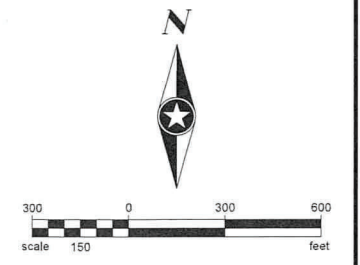
SEH Project	Ramsy174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB						
Designed By	JRB						
Checked By	JPC						

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MN.

**SEH**  
JOHN P. CARLSON, P.E.  
DATE: 09-29-2023  
LICENSE NO. 24001

**WATER TREATMENT PLANT  
TRUNK WATER MAIN IMPROVEMENTS**  
Ramsey, Minnesota

**ELECTRICAL - PLANS, ELEVATION AND  
DIAGRAMS  
BUNKER LAKE BLVD NW (CSAH 116)**



**TRAFFIC CONTROL NOTES:**

- A) CONTRACTOR SHALL MAINTAIN ACCESS TO EITHER JASPER STREET OR LIMONITE STREET AT ALL TIMES.
- B) APPLY FIGURE 6K-14 IN MnDOT TEMPORARY TRAFFIC CONTROL FIELD MANUAL WITH THE FOLLOWING MODIFICATIONS:
  - 1. TRAVEL LANE WIDTH TO BE A MINIMUM OF 11'.
  - 2. MINIMUM 8' BUFFER SHALL SEPARATE THE EDGE OF TRENCH AND EDGE OF TRAVEL LANE.
  - 3. SPACE BARRELS 50' APART.
- C) APPLY FIGURE 6K-33 IN MnDOT TEMPORARY TRAFFIC CONTROL FIELD MANUAL FOR RIGHT TURN LANE CLOSURE WITH THE FOLLOWING MODIFICATIONS:
  - 1. BARRELS TO BE SPACED 50' (G=25').
- D) CONTRACTOR SHALL PROVIDE JERSEY BARRIERS TO PROTECT ANY EXCAVATION LEFT OPEN AT THE END OF EACH WORK DAY, AS DIRECTED BY ENGINEER.
- E) ADD CARDINAL DIRECTION AND STREET NAME SIGNS TO ADDITIONAL SIGNS WHERE APPLICABLE.
  - 1. USE SPACING OUTLINED IN THE TEMP. TRAFFIC CONTROL FIELD MANUAL.

**KEYNOTES:**

- ① RHINESTONE ST NW SHALL NOT BE CLOSED AT THE SAME TIME AS TOWN CENTER DRIVE OR ZEOLITE ST NW, UNLESS DIRECTED OTHERWISE BY ENGINEER. SEE SHEETS 52 AND 53 FOR DETOUR PLANS.
- ② CONTRACTOR RESPONSIBLE FOR MAINTAINING ACCESS TO LOCAL BUSINESSES ON 143RD AVE NW.
- ③ PLACE CHANNELIZERS TO CLOSE SHOULDER PROTECTING ACTIVE WORK AREA ONLY, AS DIRECTED BY ENGINEER.
- ④ REMOVE BARRICADES AS SOON AS POSSIBLE TO ALLOW LOCAL ACCESS ON 143RD STREET

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP						
Designed By	KLK						
Checked By	CES						

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

*David E. Hutton*  
 David E. Hutton  
 LICENSE NO. 19133

DATE 10-06-2023

**WATER TREATMENT PLANT TRUNK WATER MAIN IMPROVEMENTS**  
 Ramsey, Minnesota





# Anoka County

## TRANSPORTATION DIVISION

Respectful, Innovative, Fiscally Responsible

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GIS

Fleet

Joe MacPherson, P.E.  
Chief Officer, Transportation, County Engineer

Jerry Auge, P.E.  
Department Director, Assistant County Engineer

## EXCAVATOR AND OPERATOR NOTICE

This notice is for all excavators and operators applying for permits involving excavations - your obligations to comply with Minnesota State Statutes 216D are attached to this notice.

This notice is a requirement of State Statute 216D.02; Notice to Excavators and Operators.

**Our Passion Is Your Safe Way Home**

1440 Bunker Lake Boulevard N.W. ▲ Andover, MN 55304-4005  
Office: 763-324-3100 ▲ Fax: 763-324-3020 ▲ [www.anokacounty.us/highway](http://www.anokacounty.us/highway)

**Affirmative Action / Equal Opportunity Employer**

**216D.03 NOTIFICATION CENTER.**

Subdivision 1. **Participation.** An operator shall participate in and share in the costs of one statewide notification center operated by a vendor selected under subdivision 2.

Subd. 2. **Establishment of notification center; rules.** (a) The notification center services must be provided by a nonprofit corporation approved in writing by the commissioner. The nonprofit corporation must be governed by a board of directors of up to 20 members, one of whom is the director of the Office of Pipeline Safety. The other board members must represent and be elected by operators, excavators, and other persons eligible to participate in the center. In deciding to approve a nonprofit corporation, the commissioner shall consider whether it meets the requirements of this paragraph and whether it demonstrates that it has the ability to contract for and implement the notification center service.

(b) The commissioner shall adopt rules:

(1) establishing a notification process and competitive bidding procedure for selecting a vendor to provide the notification service;

(2) governing the operating procedures and technology needed for a statewide notification center; and

(3) setting forth the method for assessing the cost of the service among operators.

(c) The commissioner shall select a vendor to provide the notification center service. The commissioner may advertise for bids as provided in section 16C.06, subdivisions 1 and 2, and base the selection of a vendor on best value as provided in section 16C.06, subdivision 6. The commissioner shall select and contract with the vendor to provide the notification center service, but all costs of the center must be paid by the operators. The commissioner may at any time appoint a task force to advise on the renewal of the contract or any other matter involving the center's operations.

(d) An operator may submit a bid and be selected to contract to provide the notification center service under paragraph (a) or (c). The commissioner shall annually review the services provided by the nonprofit corporation approved under paragraph (a) or the vendor selected under paragraph (c).

Subd. 3. **Cooperation with local government.** In establishing operating procedures and technology for the statewide notification center, the board of directors or the commissioner must work in cooperation with the League of Minnesota Cities, the Association of Minnesota Counties, and the Township Officers' Association. The purpose of this cooperation is to maximize the participation of local governmental units that issue permits for activities involving excavation to assure that excavators receive notice of and comply with the requirements of sections 216D.01 to 216D.07.

Subd. 4. **Notice to local government.** The notification center shall provide local governmental units with a master list, by county, of the operators in the county who are participants in the notification center, and the telephone number and mailing address of the notification center.

**History:** 1987 c 353 s 9; 1997 c 187 art 1 s 15; 1998 c 386 art 2 s 69

**216D.04 EXCAVATION; LAND SURVEY.**

Subdivision 1. **Notice required; contents.** (a) Except in an emergency, an excavator shall and a land surveyor may contact the notification center and provide notice at least 48 hours, excluding Saturdays, Sundays, and holidays and not more than 14 calendar days before beginning any excavation or boundary survey. An excavation or boundary survey begins, for purposes of this requirement, the first time excavation or a boundary survey occurs in an area that was not previously identified by the excavator or land surveyor in the notice.

(b) The notice may be oral or written, and must contain the following information:

- (1) the name of the individual providing the notice;
- (2) the precise location of the proposed area of excavation or survey;
- (3) the name, address, and telephone number of the individual or individual's company;
- (4) the field telephone number, if one is available;
- (5) the type and extent of the activity;
- (6) whether or not the discharge of explosives is anticipated;
- (7) the date and time when the excavation or survey is to commence; and
- (8) the estimated duration of the activity.

Subd. 1a. **Plans for excavation.** (a) Any person, prior to soliciting bids or entering into a contract for excavation, shall provide a proposed notice to the notification center to obtain from the affected operators of underground facilities the type, size, and general location of underground facilities. Affected operators shall provide the information within 15 working days. An operator who provides information to a person who is not a unit of government may indicate any portions of the information which are proprietary and may require the person to provide appropriate confidentiality protection. The information obtained from affected operators must be submitted on the final drawing used for the bid or contract and must depict the utility quality level of that information. This information must be updated not more than 90 days before completion of the final drawing used for the bid or contract.

(b) This subdivision does not apply to bids and contracts for:

- (1) routine maintenance of underground facilities or installation, maintenance, or repair of service lines;
- (2) excavation for operators of underground facilities performed on a unit of work or similar basis; or
- (3) excavation for home construction and projects by home owners.

(c) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preliminary design meetings during the design phase to communicate the project design and coordinate utility relocation. Affected facility operators shall attend these meetings or make other arrangements to provide information.

(d) A person required by this section to show existing underground facilities on its drawings shall conduct one or more preconstruction meetings to communicate the project design and coordinate utility relocation. Affected facility operators and contractors shall attend these meetings or make other arrangements to provide information.

(e) This subdivision does not affect the obligation to provide a notice of excavation as required under subdivision 1.

**Subd. 2. Duties of notification center; regarding notice.** The notification center shall assign an inquiry identification number to each notice and retain a record of all notices received for at least six years. The center shall immediately transmit the information contained in a notice to every operator that has an underground facility in the area of the proposed excavation or boundary survey.

**Subd. 3. Locating underground facility; operator.** (a) Prior to the excavation start time on the notice, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator and provide readily available information regarding the operator's abandoned and out-of-service underground facilities as shown on maps, drawings, diagrams, or other records used in the operator's normal course of business, without cost to the excavator. The excavator shall determine the precise location of the underground facility, without damage, before excavating within two feet of the marked location of the underground facility.

(b) Within 96 hours or the time specified in the notice, whichever is later, after receiving a notice for boundary survey from the notification center, excluding Saturdays, Sundays, and holidays, unless otherwise agreed to between the land surveyor and operator, an operator shall locate and mark or otherwise provide the approximate horizontal location of the underground facilities of the operator, without cost to the land surveyor.

(c) For the purpose of this section, the approximate horizontal location of the underground facilities is a strip of land two feet on either side of the underground facilities.

(d) Markers used to designate the approximate location of underground facilities must follow the current color code standard used by the American Public Works Association.

(e) If the operator cannot complete marking of the excavation or boundary survey area before the excavation or boundary survey start time stated in the notice, the operator shall promptly contact the excavator or land surveyor.

(f) After December 31, 1998, operators shall maintain maps, drawings, diagrams, or other records of any underground facility abandoned or out-of-service after December 31, 1998.

(g) An operator or other person providing information pursuant to this subdivision is not responsible to any person, for any costs, claims, or damages for information provided in good faith regarding abandoned, out-of-service, or private or customer-owned underground facilities.

**Subd. 4. Locating underground facility; excavator or land surveyor.** (a) The excavator or land surveyor shall determine the precise location of the underground facility, without damage, before excavating within two feet on either side of the marked location of the underground facility.

(b) If the excavator or land surveyor cancels the excavation or boundary survey, the excavator or land surveyor shall cancel the notice through the notification center.

(c) The notice is valid for 14 calendar days from the start time stated on the notice. If the activity will continue after the expiration time, then the person responsible for the activity shall serve an additional notice at least 48 hours, excluding Saturdays, Sundays, and holidays, before the expiration time of the original notice, unless the excavator makes arrangements with the operators affected to periodically verify or refresh the marks, in which case the notice is valid for six months from the start time stated on the notice.

(d) The excavator is responsible for reasonably protecting and preserving the marks until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe the marks are obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify or refresh the marks.

**History:** *1987 c 353 s 10; 1992 c 493 s 5; 1993 c 341 art 1 s 21; 1997 c 196 s 1; 1998 c 348 s 1-3; 2004 c 163 s 2-6*

**216D.05 PRECAUTIONS TO AVOID DAMAGE.**

An excavator shall:

- (1) plan the excavation to avoid damage to and minimize interference with underground facilities in and near the construction area;
- (2) use white markings for proposed excavations except where it can be shown that it is not practical;
- (3) maintain a clearance between an underground facility and the cutting edge or point of any mechanized equipment, considering the known limit of control of the cutting edge or point to avoid damage to the facility;
- (4) provide support for underground facilities in and near the construction area, including during backfill operations, to protect the facilities; and
- (5) conduct the excavation in a careful and prudent manner.

**History:** *1987 c 353 s 11; 1998 c 348 s 4; 2004 c 163 s 7*

**216D.06 DAMAGE TO FACILITY.**

Subdivision 1. **Notice; repair.** (a) If any damage occurs to an underground facility or its protective covering, the excavator shall notify the operator promptly. When the operator receives a damage notice, the operator shall promptly dispatch personnel to the damage area to investigate. If the damage results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health, or property, the excavator responsible shall immediately notify the operator and the 911 public safety answering point, as defined in section 403.02, subdivision 19, and take immediate action to protect the public and property. The excavator shall also attempt to minimize the hazard until arrival of the operator's personnel or until emergency responders have arrived and completed their assessment. The 911 public safety answering point shall maintain a response plan for notifications generated by this section.

(b) An excavator shall delay backfilling in the immediate area of the damaged underground facilities until the damage has been investigated by the operator, unless the operator authorizes otherwise. The repair of damage must be performed by the operator or by qualified personnel authorized by the operator.

(c) An excavator who knowingly damages an underground facility, and who does not notify the operator as soon as reasonably possible or who backfills in violation of paragraph (b), is guilty of a misdemeanor.

Subd. 2. **Cost reimbursement.** (a) If an excavator damages an underground facility, the excavator shall reimburse the operator for the cost of necessary repairs, and for a pipeline the cost of the product that was being carried in the pipeline and was lost as a direct result of the damage.

(b) Reimbursement is not required if the damage to the underground facility was caused by the sole negligence of the operator or the operator failed to comply with section 216D.04, subdivision 3.

Subd. 3. **Prima facie evidence of negligence.** It is prima facie evidence of the excavator's negligence in a civil court action if damage to the underground facilities of an operator resulted from excavation, and the excavator failed to give an excavation notice under section 216D.04 or provide support as required by section 216D.05.

**History:** 1987 c 353 s 12; 1999 c 43 s 1

**216D.07 EFFECT ON LOCAL ORDINANCES.**

(a) Sections 216D.01 to 216D.07 do not affect or impair local ordinances, charters, or other provisions of law requiring permits to be obtained before excavating.

(b) A person with a permit for excavation from the state or a public agency is subject to sections 216D.01 to 216D.07. The state or public agency that issued a permit for excavation is not liable for the actions of an excavator who fails to comply with sections 216D.01 to 216D.07.

**History:** *1987 c 353 s 13*



**CHAPTER 7560**  
**OFFICE OF PIPELINE SAFETY**  
**EXCAVATION NOTICE SYSTEM**

- 7560.0100 DEFINITIONS.
- 7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.
- 7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.
- 7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.
- 7560.0250 LOCATE STANDARDS.
- 7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.
- 7560.0325 EMERGENCY EXCAVATION NOTICES.
- 7560.0350 EXCAVATION NOTICE REQUESTING MEET.
- 7560.0375 LOCATING A SERVICE LATERAL.
- 7560.0400 CITATIONS.
- 7560.0500 RESPONSE OPTIONS.
- 7560.0600 DIRECTOR REVIEW.
- 7560.0700 CONSENT ORDER.
- 7560.0800 CIVIL PENALTIES.

**7560.0100 DEFINITIONS.**

Subpart 1. **Scope.** The terms used in this chapter have the meanings given them. Terms not defined in this part have the meanings given them in Minnesota Statutes, section 216D.01.

Subp. 1a. **Abandoned facility.** "Abandoned facility" means an underground facility that is no longer in service and is physically disconnected from a portion of the operating facility that is in use or still carries service. An abandoned facility has been deemed abandoned by the operator.

Subp. 2. **Director.** "Director" means the director of the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 3. **Good cause to believe.** "Good cause to believe" means grounds put forth in good faith that are not arbitrary, irrational, unreasonable, or irrelevant and that are based on at least one of the following sources:

- A. information from a person;
- B. facts supplied by the notification center defined in Minnesota Statutes, section 216D.01, subdivision 8;
- C. facts of which the director or an agent of the director has personal knowledge; and
- D. information provided by excavators or operators.

Subp. 4. **Locate.** "Locate" means an operator's markings of an underground facility.

Subp. 5. [Renumbered as subp 8]

Subp. 5a. [Renumbered as subp 9]

Subp. 6. [Renumbered as subp 11]

**7560.0125 EXCAVATION NOTICE SYSTEM**

2

Subp. 7. **Meet.** When used as a noun in this chapter, "meet" refers to a meeting at the site of proposed excavation requested at the time of notice by the excavator with all affected underground facility operators to further clarify the precise geographic location of excavation, schedule locating, propose future contacts, and share other information concerning the excavation and facilities.

Subp. 8. **Office.** "Office" means the Office of Pipeline Safety of the Minnesota Department of Public Safety.

Subp. 9. **Out-of-service facility.** "Out-of-service facility" means an underground facility that is no longer maintained and is not intended for future use, but has not been deemed abandoned. An out-of-service facility may still be connected to a portion of the operating facility that is in use or still carries service.

Subp. 10. **Public right-of-way.** "Public right-of-way" means the area on, below, or above a public roadway, highway, street, cartway, bicycle lane, and sidewalk in which a government unit has an interest, including other rights-of-way dedicated for travel purposes and utility easements of government units.

Subp. 11. **Remuneration.** "Remuneration" means direct or indirect compensation or consideration paid to the person or the person's agent, employer, employee, subcontractor, or contractor. A person who excavates as part of the person's duties as an employee, employer, agent, subcontractor, or contractor is considered to be acting for remuneration.

Subp. 12. **Service lateral.** "Service lateral" means an underground facility that is used to transmit, distribute, or furnish gas, electricity, communications, or water from a common source to an end-use customer. A service lateral is also an underground facility that is used in the removal of wastewater from a customer's premises.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

**History:** *16 SR 135; 24 SR 448; 29 SR 1503*

**Published Electronically:** *July 20, 2005*

**7560.0125 ABANDONED AND OUT-OF-SERVICE FACILITIES.**

Subpart 1. **Duty of operators to provide readily available information.** Operators shall provide readily available information, as shown on maps, drawings, diagrams, or other records used in the normal course of business, on the approximate location of abandoned and out-of-service facilities to an excavator by the excavation date and time noted on the excavation or location notice unless otherwise agreed between the excavator and the operator. An operator fulfills an obligation to provide information on these facilities by doing one or more of the following:

A. locating and marking the approximate location of the facility according to the current color code standard used by the American Public Works Association, as required in Minnesota Statutes, section 216D.04, subdivision 3, with an abandoned or out-of-service facility identified by an uppercase A surrounded by a circle;

B. providing informational flags at the area of proposed excavation;

C. communicating information verbally; or

D. providing copies of maps, diagrams, or records.

Subp. 2. **Duty to notify operator.** An excavator shall notify the operator:

A. before moving, removing, or otherwise altering a facility that is thought to be abandoned or out of service; or

B. if damage to the facility occurs, pursuant to Minnesota Statutes, section 216D.01, subdivision 2.

Subp. 3. **Verification of abandoned or out-of-service facility.** Upon receipt of notification by an excavator pursuant to subpart 2, an operator shall verify that an underground facility is abandoned or out of service, by either reference to installation records, testing, or other comparable standard of verification, before an excavator is allowed to move, remove, or otherwise alter an underground facility.

Subp. 4. **Liability.** An operator providing information pursuant to Minnesota Statutes, section 216D.04, subdivision 3, is not responsible to any person for any costs, claims, or damages for information provided in good faith regarding abandoned and out-of-service underground facilities.

**Statutory Authority:** *MS s 14.06; 216D.08; 299J.04; 299F.60*

**History:** *24 SR 448*

**Published Electronically:** *July 20, 2005*

#### **7560.0150 PUBLIC RIGHT-OF-WAY MAPPING AND INSTALLATION.**

Subpart 1. **Duty of operator to map.** After December 31, 2005, an operator shall maintain a map, a diagram, a drawing, or geospatial information regarding the location of its underground facility within a public right-of-way installed after that date.

Subp. 2. **Duty to install locating wire.** After December 31, 2005, an operator shall install a locating wire or have an equally effective means of marking the location of each nonconductive underground facility within a public right-of-way installed after that date. This requirement does not apply when making minor repairs to an existing nonconductive facility. As applied to this chapter, "minor repairs" means repairs to or partial replacement of portions of existing service laterals located within a public right-of-way for purposes of routine maintenance and upkeep.

**Statutory Authority:** *MS s 299J.04*

**History:** *29 SR 1503*

**Published Electronically:** *July 20, 2005*

**7560.0200** [Repealed, 24 SR 448]

**Published Electronically:** *July 20, 2005*

#### **7560.0225 EXCAVATOR RESPONSIBILITIES REGARDING A LOCATE.**

Subpart 1. [Repealed, 29 SR 1503]

Subp. 2. **Responsibility to protect and preserve.** The excavator is responsible for reasonably protecting and preserving a locate until no longer required for proper and safe excavation near the underground facility. If the excavator has reason to believe a locate is obliterated, obscured, missing, or incorrect, the excavator shall notify the facility operator or notification center in order to have an operator verify, refresh, or re-mark the locate.

**7560.0250 EXCAVATION NOTICE SYSTEM**

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Subp. 3. **Use of locate.** A locate is valid for 14 days from the excavation commencement time stated on the excavation or location notice, unless the excavator has made previous arrangements with the operators affected to periodically verify, refresh, or re-mark the locate.

**Statutory Authority:** *MS s 14.06; 216D.08; 299J.04; 299F.60*

**History:** *24 SR 448; 29 SR 1503*

**Published Electronically:** *July 20, 2005*

**7560.0250 LOCATE STANDARDS.**

Subpart 1. **Facility locate.** Unless otherwise agreed to between the excavator and operator, an operator shall locate an underground facility using stakes, flags, paint, or other suitable materials in varying combinations dependent upon the surface. The locate must be in sufficient detail to clearly identify the approximate route of the underground facility. The locate must also include:

- A. name, abbreviation, or logo of the operator when more than one operator listed on the notice uses the same color markings;
- B. width of the underground facility if it is greater than eight inches; and
- C. number of underground facilities if greater than one.

Subp. 2. **Operator duties in no conflict situation.** After December 31, 2005, an operator who receives notice and determines that an underground facility is not in conflict with the proposed excavation shall complete one or more of the following:

- A. mark the area "NO" followed by the operator's name, abbreviation, or logo in the color code of the underground facility not in conflict;
- B. place a clear plastic flag at the area that:
  - (1) states "N/C" or "NO CONFLICT" in lettering matching the color code of the underground facility that is not in conflict; and
  - (2) includes the operator's name, abbreviation, or logo, the date, a contact telephone number, and the ticket number; or
- C. contact the notification center through procedures required by the notification center and indicate that there are no underground facilities in conflict with the proposed excavation and that no markings or flags were left at the proposed excavation site.

Subp. 3. **Placement of flags or markings.** If using N/C (no conflict) flags or markings pursuant to subpart 2, an operator shall place the flags or markings in a location that can be readily observed by an excavator. When an area of proposed excavation is delineated by the use of white markings, an operator shall place the N/C flags or markings within, or as near as practicable to, the delineated area.

Subp. 4. **Duties of notification center.** After December 31, 2005, the notification center shall make the information received under subpart 2 available to the excavator before the start date and time on the notice. The notification center may fulfill this requirement by making the information accessible through one or more Internet addresses, by transmitting the information to a continuously working facsimile machine maintained by the excavator, or by other methodology developed by the notification center. The notification center shall make available the information received by operators pursuant to this section through

an electronic means. The notification center is not required by this subpart to contact an excavator verbally via telephone.

**Statutory Authority:** *MS s 299J.04*

**History:** *29 SR 1503*

**Published Electronically:** *July 20, 2005*

#### **7560.0300 OPERATOR PARTICIPATES AND SHARES COSTS.**

An operator shall participate in and share the costs of the one call excavation notice system by:

- A. submitting the information required by the notification center to allow the center to notify the operator of excavation activity;
- B. updating the information provided to the notification center on a timely basis;
- C. installing and paying for equipment reasonably requested by the notification center to facilitate receipt of notice of excavation from the center;
- D. paying the costs charged by the notification center on a timely basis; and
- E. receiving and responding to excavation notices, including emergency notices, as required by Minnesota Statutes, chapter 216D.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.641*

**History:** *16 SR 135*

**Published Electronically:** *July 20, 2005*

#### **7560.0325 EMERGENCY EXCAVATION NOTICES.**

Subpart 1. **Duty of excavator to provide notice.** An excavator shall provide notice to the notification center before commencing an emergency excavation, unless subpart 2 applies. All emergency notices, regardless whether made prior to excavation, must be verbal or in a manner accepted by the notification center. In addition to the information required by the notification center, the notice must also contain:

- A. a description of the situation requiring the emergency excavation;
- B. the precise location of the proposed area of the emergency excavation;
- C. at least one continuously staffed telephone number where the excavator can be contacted by the operator throughout the emergency; and
- D. the excavation start date and time if the need for excavation is not immediate.

Subp. 2. **Excavating before notice.** If an emergency is such that providing notice or waiting for an operator would result in an undue risk to life, health, or significant loss of property, the excavator may excavate without providing prior notice or waiting for an operator to mark an underground facility. In this situation, the excavator shall provide notice as soon as practicable and take all reasonable precautions to avoid or minimize damage. Excavation prior to notice under this subpart does not relieve an excavator from any responsibility for damage to an underground facility pursuant to Minnesota Statutes, section 216D.06.

Subp. 3. **Emergency notice requesting immediate response.** Upon receiving an emergency excavation notice requesting an immediate response, an operator shall:

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A. attempt to contact the excavator within one hour at the telephone number provided in subpart 1, item C, to provide any information concerning facilities at or near the area of excavation including an anticipated response time; and

B. locate and mark the underground facility within three hours of notice unless:

- (1) otherwise agreed between the parties;
- (2) the operator notifies the excavator that not locating does not present an immediate danger to life or health, or a significant loss of property; or
- (3) there is an event or situation that cannot be reasonably anticipated or controlled by the operator.

Subp. 4. **Emergency notice requesting scheduled response.** Upon receiving an emergency excavation notice that does not require an immediate response, and before the scheduled excavation start date and time, an operator shall:

A. locate and mark the underground facility, unless otherwise agreed between the parties; or

B. notify the excavator at the telephone number provided in subpart 1, item C, that there is not an underground facility within the area of proposed excavation.

For purposes of this subpart, a requested start time of three hours or less from the time notice is provided to the center is considered an emergency notice requesting immediate response under subpart 3.

**Statutory Authority:** *MS s 299J.04*

**History:** *29 SR 1503*

**Published Electronically:** *July 20, 2005*

**7560.0350 EXCAVATION NOTICE REQUESTING MEET.**

Subpart 1. **Excavator duties.** When requesting a meet through the notification center, an excavator must provide at least one contact name and telephone number to assist in facilitating the meet. An excavator shall contact the notification center to cancel or reschedule the meet and the notification center shall relay this information to the affected operators. When a meet is requested, an excavator's notice must include the entire geographic area of the proposed excavation and the specific location of the meet. This part does not relieve an excavator from the duty to provide a precise geographic location of the proposed area of excavation, or to use white markings except where it can be shown that to do so is not practical.

Subp. 2. **Operator duties.** When a meet is requested, an affected operator shall make a reasonable effort to attend the meet at the proposed date and time, or contact the excavator before the meet and reschedule for a mutually agreed date and time.

Subp. 3. **Excavation start date and time.** When a meet is requested, the meet date and time must be at least 48 hours after notice is provided, excluding Saturdays, Sundays, and holidays, and the excavation start date and time must be at least 24 hours after the proposed meet date and time specified on the notice, excluding Saturdays, Sundays, and holidays. This subpart does not apply if these matters are provided for in a written agreement with all affected operators.

Subp. 4. **Meet request documentation.** An excavator shall maintain written documentation of each meet with an underground facility operator or representative. This documentation must be kept for the duration of the excavation conducted under the notice. The documentation must include:

- A. the date and time of each meet;
- B. the names, company affiliations, and contact information of the attendees of each meet;
- C. a diagram, sketch, or description of the precise excavation locations, dates, and times; and
- D. the agreed schedule of any future meets or communications.

**Statutory Authority:** *MS s 299J.04*

**History:** *29 SR 1503*

**Published Electronically:** *July 20, 2005*

#### **7560.0375 LOCATING A SERVICE LATERAL.**

Subpart 1. **Operator duties.** Unless otherwise agreed, an underground facility operator shall locate a service lateral before the start date and time on the notice and in accordance with items A through C:

A. An operator of a natural gas, propane, or electric facility shall locate a service lateral up to the meter or the connection to a customer's underground facility, whichever is closer to the end-use customer. If the meter or connection to the customer's underground facility is within a public right-of-way, at a minimum the operator shall locate that portion of the service lateral within the public right-of-way up to the point where the service lateral first leaves the public right-of-way.

B. An operator of a communication facility shall locate a service lateral up to the entry of the first building. If the service lateral does not enter a building, the operator shall locate up to the utilization equipment, fence, or wall that surrounds the equipment.

C. After December 31, 2005, an operator of a sewage or water facility, at a minimum, shall locate that portion of the service lateral within a public right-of-way installed after that date up to the point where the service lateral first leaves the public right-of-way. The operator shall either locate or provide information as shown on maps, drawings, diagrams, or other records, on the location of a sewer or water service lateral installed before January 1, 2006. If no information is available on a sewer or water service lateral installed before January 1, 2006, then notifying the excavator that no information exists fulfills the requirements of this section.

Subp. 2. **Exception.** An operator is not required to locate a service lateral of a customer who currently participates in the statewide notification system, provided the customer and operator mutually agree that the customer will assume locate responsibilities. The agreement must be in writing.

**Statutory Authority:** *MS s 299J.04*

**History:** *29 SR 1503*

**Published Electronically:** *July 20, 2005*

#### **7560.0400 CITATIONS.**

Subpart 1. **Notice of violation.** The office shall issue a notice of probable violation when the office has good cause to believe a violation of Minnesota Statutes, sections 216D.01 to 216D.09 or this chapter has occurred.

Subp. 2. **Contents of notice of violation.** A notice of violation must include:

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- A. a statement of the statute or rule allegedly violated by the person and a description of the evidence on which the allegation is based;
- B. notice of response options available to the person cited;
- C. notice that the person has 30 days in which to respond;
- D. notice that failure to respond within 30 days precludes administrative review under this chapter; and
- E. if a civil penalty is proposed, the amount of the proposed civil penalty and the maximum civil penalty applicable under law.

Subp. 3. **Receipt of notice.** The notice of violation is deemed received three days after mailing to the person's last known address.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

**History:** *16 SR 135; 24 SR 448*

**Published Electronically:** *July 20, 2005*

**7560.0500 RESPONSE OPTIONS.**

The person shall respond to the notice of violation in the following way:

- A. When the notice contains a proposed compliance order, the person shall:
  - (1) agree to the proposed compliance order;
  - (2) request the execution of a consent order;
  - (3) object to the proposed compliance order and submit written explanations, information, or other materials in answer to the allegations in the notice; or
  - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- B. When the notice contains a proposed civil penalty, the person shall:
  - (1) pay the penalty and close the case;
  - (2) submit an offer in compromise of the proposed civil penalty;
  - (3) submit a written explanation, information, or other material in answer to the allegations or in mitigation of the proposed civil penalty; or
  - (4) request the office to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.
- C. Failure to respond in writing within 30 days precludes administrative review under this chapter. A final order will be issued and penalties will be forwarded for collection.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

**History:** *16 SR 135; 24 SR 448*

**Published Electronically:** *July 20, 2005*



**7560.0600 DIRECTOR REVIEW.**

If the person objects to the proposed civil penalty or compliance order and submits written explanations, information, or other materials in response to a notice of violation, within the time specified in part 7560.0500, the director shall review the submissions and determine whether to negotiate further, to change or withdraw the notice of violation, or to initiate a hearing under Minnesota Statutes, sections 14.50 to 14.69.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

**History:** *16 SR 135; 24 SR 448*

**Published Electronically:** *July 20, 2005*

**7560.0700 CONSENT ORDER.**

An executed consent order must contain:

- A. an admission by the person of the jurisdictional facts;
- B. a waiver of further procedural steps and the right to seek judicial or administrative review or otherwise challenge or contest the validity of the consent order; and
- C. an agreement that the notice of violation may be used to construe the terms of the consent order.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.641*

**History:** *16 SR 135*

**Published Electronically:** *July 20, 2005*

**7560.0800 CIVIL PENALTIES.**

Subpart 1. **Proceedings against excavators.** When the office has good cause to believe that an excavator is engaging or has engaged in conduct that violates Minnesota Statutes, section 216D.04, subdivision 1, 2, or 3; 216D.05, clause (1), (2), (3), or (4); or 216D.06, subdivision 1, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14. An operator who engages or has engaged in excavation that violates Minnesota Statutes, chapter 216D, is subject to the proceedings specified in subpart 2 and is subject to the penalties specified in subpart 4, item B or C.

Subp. 2. **Proceedings against underground facility operators.** The office may negotiate a civil penalty under item A or B.

A. When the office has good cause to believe that an underground facility operator, other than an operator set forth in item B, is engaging or has engaged in conduct that violates Minnesota Statutes, sections 216D.01 to 216D.07, or a rule adopted under Minnesota Statutes, section 216D.08, subdivision 4, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 216D.08, subdivision 2. A penalty imposed under Minnesota Statutes, section 216D.08, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

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B. When the office has good cause to believe that an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility is engaging or has engaged in conduct that violates Minnesota Statutes, sections 299F.56 to 299F.641, or a rule adopted under Minnesota Statutes, section 299F.60, subdivision 5, the office, if appropriate, shall negotiate a civil penalty under Minnesota Statutes, section 299F.60, subdivision 2. A penalty imposed under Minnesota Statutes, section 299F.60, is subject to the contested case and judicial review provisions of Minnesota Statutes, chapter 14.

Subp. 3. **Assessment considerations.** In assessing a civil penalty under this part, the office shall consider the following factors:

- A. the nature, circumstances, and gravity of the violation;
- B. the degree of the person's culpability;
- C. the person's history of previous offenses;
- D. the person's ability to pay;
- E. good faith on the part of the person in attempting to remedy the cause of the violation;
- F. the effect of the penalty on the person's ability to continue in business; and
- G. past reports of damage to an underground facility by a person.

Subp. 4. **Maximum penalties.** For the purposes of this part, penalties imposed under this part must not exceed the limits in items A to C.

A. Penalties imposed against excavators must not exceed \$1,000 for each violation per day of violation.

B. Penalties imposed against underground facility operators, other than an operator set forth in item C, must not exceed \$1,000 for each violation per day of violation.

C. Penalties imposed against an operator who engages in the transportation of gas or hazardous liquids or who owns or operates a gas or hazardous liquid pipeline facility must not exceed \$10,000 for each violation for each day that the violation persists, except that the maximum civil penalty must not exceed \$500,000 for a related series of violations.

Subp. 5. **Payment procedure.** The person shall pay a civil penalty that has been proposed, assessed, or compromised by submitting to the office a check or money order in the correct amount, payable to the commissioner of public safety.

**Statutory Authority:** *MS s 14.06; 216D.08; 299F.56; 299F.60; 299F.641; 299J.04*

**History:** *16 SR 135; 24 SR 448*

**Published Electronically:** *July 20, 2005*

**Certificate Of Completion**

Envelope Id: EA685662CF9144DEB58AE818B8922ED8	Status: Completed
Subject: Northdale Construction Company, Inc. - ROW Permit Application	
Source Envelope:	
Document Pages: 82	Signatures: 2
Certificate Pages: 4	Initials: 1
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	Highway Permits
Time Zone: (UTC-06:00) Central Time (US & Canada)	Anoka County Government Center
	2100 3rd Avenue
	Anoka, MN 55303
	HighwayPermits@co.anoka.mn.us
	IP Address: 72.21.229.130


**Record Tracking**

Status: Original	Holder: Highway Permits	Location: DocuSign
3/26/2024 7:21:55 AM	HighwayPermits@co.anoka.mn.us	
Security Appliance Status: Connected	Pool: StateLocal	
Storage Appliance Status: Connected	Pool: Anoka County	Location: DocuSign

**Signer Events**

Kris Christenson  
northdalebids@northdaleconst.com  
Security Level:  
DocuSign.email  
ID: 1  
3/26/2024 7:21:57 AM

**Signature**

DocuSigned by:  
  
F9851E2C5F0B460...  
Signature Adoption: Pre-selected Style  
Using IP Address: 72.21.229.130

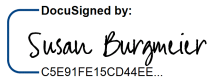
**Timestamp**

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Viewed: 3/26/2024 7:22:22 AM  
Signed: 3/26/2024 7:52:20 AM

**Electronic Record and Signature Disclosure:**

Accepted: 3/26/2024 7:22:22 AM  
ID: c923ca13-531f-445d-a76c-bd5942f401a1

Susan Burgmeier  
Susan.Burgmeier@co.anoka.mn.us  
Associate Traffic Technician  
Anoka County  
Signing Group: Highway Permits  
Security Level: Email, Account Authentication (Optional)

DocuSigned by:  
  
C5E91FE15CD44EE...  
Signature Adoption: Pre-selected Style  
Using IP Address: 156.98.106.233

Sent: 3/26/2024 7:52:28 AM  
Viewed: 3/26/2024 7:57:41 AM  
Signed: 3/26/2024 9:16:21 AM

**Electronic Record and Signature Disclosure:**

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ID: 918806bc-10b8-4722-9380-473245a1689f

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp

Northdale Construction Company, Inc.  
northdalebids@northdaleconst.com  
Security Level: Email, Account Authentication (Optional)

COPIED

Sent: 3/26/2024 9:16:29 AM

**Electronic Record and Signature Disclosure:**

<b>Carbon Copy Events</b>	<b>Status</b>	<b>Timestamp</b>
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Not Offered via DocuSign

<b>Witness Events</b>	<b>Signature</b>	<b>Timestamp</b>
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<b>Notary Events</b>	<b>Signature</b>	<b>Timestamp</b>
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<b>Envelope Summary Events</b>	<b>Status</b>	<b>Timestamps</b>
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Envelope Sent	Hashed/Encrypted	3/26/2024 7:21:56 AM
Envelope Updated	Security Checked	3/26/2024 7:52:20 AM
Envelope Updated	Security Checked	3/26/2024 9:16:21 AM
Certified Delivered	Security Checked	3/26/2024 7:57:41 AM
Signing Complete	Security Checked	3/26/2024 9:16:21 AM
Completed	Security Checked	3/26/2024 9:16:29 AM

<b>Payment Events</b>	<b>Status</b>	<b>Timestamps</b>
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<b>Electronic Record and Signature Disclosure</b>
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changing an email address, please include your prior email address as well as your new address. If you no longer wish to receive future documents in electronic format, please include that request in the body of your email.

Email: helpdesk@co.anoka.mn.us  
Phone: (763)-324-4110  
Address: Anoka County Government Center  
Attn: Information Technology, #300  
2100 3rd Avenue  
Anoka, MN 55303

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- Until or unless you notify Anoka County as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Anoka County during the course of your relationship with Anoka County.