



Building a Better World
for All of Us[®]

CHANGE ORDER

City of Ramsey

OWNER

21-08

OWNER'S PROJECT NO.

Water Treatment Plant Trunk Water Main Improvements

PROJECT DESCRIPTION

September 4, 2024

DATE

3

CHANGE ORDER NO.

RAMSY 174498 71.50

SEH FILE NO.

*The following changes shall be made to the contract documents:
Description:*

This change order consists of two separate items.

1. At the intersection of Bunker Lake Boulevard and 143rd Ave/Azurite St., the plans called for the 20-inch trunk watermain to connect to the existing north-south 16-inch water main via horizontal directional drilling (HDD) methods. A proposed drilling pit was planned at the tee of the two water main pipes.

Because the existing 16-inch pipe was fairly deep and the pit was located in the edge of the driving lane for northbound Bunker Lake Boulevard, the work would have resulted in both lanes of Bunker Lake Boulevard to be closed to traffic. Anoka County would not allow these lane closures during normal Monday-Friday traffic but rather they required a 1 day Saturday closure. Additionally, there was no way to install a 20-inch pipe to the existing 16-inch without a wet tap to keep the 16-inch trunk main in service.

Based on those factors, it was determined to do this work on a Saturday shut down and install all the 20-inch pipe across Bunker Lake Boulevard via open cut rather than HDD. Anoka County issued a road closure/detour permit and the work was done on Saturday, August 24.

Attached is a letter from Northdale outlining the effort it took to complete this work during the 1 day closure. The total cost of this change was \$69,595.11.

2. The second change consists of concrete removal under the existing 143rd Ave. pavement, as a "change in conditions."

During water main installation on 143rd Ave, they discovered subsurface concrete to a depth of 5-feet below grade. The extent of this concrete was approximately 185 feet long and one 8-foot wide trench was required to install the water main. This work required an additional larger backhoe with a concrete ripper/jack hammer attachment.

Attached is a letter from Northdale outlining the effort it took to remove this concrete. The total change order for their time and materials is \$55,170.34.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 10650 Red Circle Drive, Suite 500, Minnetonka, MN 55343-9229

952.912.2600 | 800.734.6757 | 888.908.8166 fax | sehinc.com

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Purpose of Change Order:

1. Due to the difficulty in completing the HDD pipe across Bunker Lake Blvd, the Contractor requested and received permission to install the 20" watermain crossing via open cut methods. Anoka County required this work to be done on a Saturday since it involved a complete closure of their highway. The City agreed to use Time and Materials (T&M) for the change order. Attached is a detailed summary from Northdale outlining the steps they took to complete the work and account for the hours and materials used. The total pipe related work is approximately \$31,000 and the remainder is for other subcontractors such as paving and traffic control. As a side note, the City contract was reduced approximately \$23,000 in pipe installation costs due to not doing the direction drilling method.

2. Due to changing site conditions (i.e. unknown concrete under road) the Contractor has to rent additional equipment to remove 5-foot thick concrete to install the 20-inch watermain on 143rd Ave.

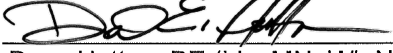
Basis of Cost: *Actual* *Estimated*

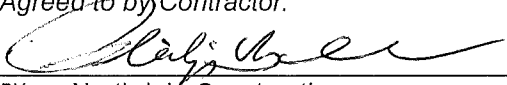
Attachments (list supporting documents)

- Northdale Const. Co. Inc. Invoice dated 08/28/24

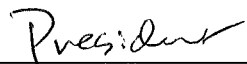
Contract Status

	<i>Time</i>	<i>Cost</i>
<i>Original Contract</i>		\$6,671,414.00
<i>Net Change Prior C.O.'s <u>1</u> to <u>2</u></i>		\$271,725.31
<i>Change this C.O.</i>		\$124,765.45
<i>Revised Contract</i>		\$7,067,904.76

Recommended for Approval: Short Elliott Hendrickson Inc. by 
 Dave Hutton, PE (Lic. MN, WI, ND)

Agreed to by Contractor:


Approved for Owner:

BY Northdale Construction
 9/16/2024

BY City of Ramsey

TITLE
Distribution Contractor 2 Owner 1 Project Representative 1
x:\p\tr\ramsy\174498\7-const-svcs\71-mgmt\150-chg-order\co3\cprn 21-08 ramsey change order #3.docx

TITLE
 SEH Office 1



INVOICE

NORTHDALE CONST. CO. INC.

9760 71st St NE -Albertville, MN 55301

Office: 763-428-4868

Fax: 763-428-4997

BILLED TO:

Short Elliott Hendrickson, Inc.
Attn: David Hutton, PE
10650 Red Circle Drive, Suite 500
Minnetonka, MN 55343

INVOICE DATE: 8/28/2024

INVOICE# 202403-CO h

OUR JOB # 2024-03

PLAN SHEET # 35 REVISED

PLAN STATION # 137+18 to 136+21

JOB NAME: Trunk WM Improvement

LOCATION: Ramsey

HOUSE # / STREET: Bunker Lk / Azurite St

DATE OF WORK: 8/23/24 & 8/24/24

DESCRIPTION OF WORK:

Anoka County only allowed the work in the intersection of Bunker Lake Blvd and 143rd Ave to be completed on Saturday, August 24th. In order to meet the time constraints, Northdale began setting the stage Friday afternoon. The guys worked on getting the 16" x 20" reducer and 20" 11 1/4 degree bend on 20" SJ WM. We bolted the reducer to 4' of 16" DIP and added 15' of 20" SJ WM. The 11 1/4 degree was bolted on a stick of 20" SJ WM. We originally thought about using the directional drilled pipe for this work but after looking it over and the time constraints we opted for SJ and will use the directional drilled pipe in another location.

On August 24th, Warning Lites set up all road closures starting at 5:30 am. Northdale's crew came in at 6:00 am to start moving boxes / sheeting closer to the intersection. We removed the bituminous pavement and hauled it to Sauters instead of stockpiling. We removed the Class 5 and stockpiled it closer so we weren't wasting time travelling to the bone yard to get material. We used our Ford Dump Truck to haul the rubble and Class 5. Reiner Contracting also came in at 6:00 am to cut the pavement on Bunker Lk Blvd. He needed to make (3) passes. Northdale started the removal as soon as he was done cutting. Once everything was removed, we dug down to find the water main and set the box / sheeting for the wet tap. Fobbe Contracting arrived around 9:45 am with two workers to perform the 16" wet tap which took approximately 3 hours that ended around 1:00 pm. They pressure tested the valve / seal also.

The material was very sandy, almost like sugar sand, which required us to use all the metal sheeting that we had. It also required some fiber boards to protect the roadway from collapsing and keep the sand from running back into the trench box so we could safely lay the pipe. When Fobbe completed the wet tap, we installed the first section of pipe that included 4 ft of 16" DIP along with a 16x20 reducer and 15 ft of 20" SJ WM. We then dug out for the next pass and shifted all of the sheets. The next pipe had an 11 1/4 degree bend bolted on. We then would drag the 2nd box with us the remainder of the time and piggy backed the metal sheets. This was a slow process but was necessary to save the road from undermining and to keep the sand from coming back in. Next, we dug and installed the 20" WM underneath the utilities in the radius of the intersection which was also time consuming. It didn't make sense to stop short or underneath the (4) utilities. We would have needed to go back into the radius if we didn't. Once completed, we started to backfill and remove the sheeting / boxes. We had to work our way back to pull the first box that was installed for the wet tap. We had to be careful not to damage the existing blacktop or saw cuts. We were at the maximum width that the paver could blacktop back without making a second pass. North Oaks Paving arrived around 4:00 pm and didn't start paving until around 8:30 pm. The reason they were there at 4pm was because the plant wouldn't supply mix after 4pm so they had (4) trucks full sitting there until we were done installing the watermain. Because the depth of the bit replacement and heat, they had to pave the area in (3) 2" lifts. They ended their work around 1:00 am. While the paving was taking place, Northdale swept the intersection with our sweeper to clean all the debris from the road surface. Warning Lites pulled the detour signage around 1:00 am when the paving was completed.

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
LABOR COSTS				
16.00	Hour	Superintendent - OT	\$171.67	\$2,746.72
2.50	Hour	Foreman	\$121.22	\$303.05
16.50	Hour	Foreman - OT	\$168.38	\$2,778.27
14.50	Hour	Backhoe Operator - OT	\$145.65	\$2,111.93
16.00	Hour	Loader Operator - OT	\$142.02	\$2,272.32
2.50	Hour	Pipelayer	\$107.42	\$268.55
14.50	Hour	Pipelayer - OT	\$150.19	\$2,177.76
2.50	Hour	Bottomman	\$104.06	\$260.15
14.50	Hour	Bottomman - OT	\$145.15	\$2,104.68
2.50	Hour	Bottomman	\$103.06	\$257.65
14.50	Hour	Bottomman - OT	\$144.15	\$2,090.18
8.00	Hour	Mechanic - OT	\$142.88	\$1,143.04
EQUIPMENT COSTS				
14.50	Hour	Cat 349 Backhoe	\$512.61	\$7,432.85
5.00	Hour	Cat 950K Loader	\$264.80	\$1,324.00
2.00	Hour	Ingersol Rand Compactor	\$92.51	\$185.02
1.00	Hour	66" Smooth Drum	\$190.50	\$190.50
6.00	Hour	CAT 255D3 Skidsteer	\$143.54	\$861.24
16.50	Hour	Pickup Truck	\$51.38	\$847.77
4.50	Hour	Ford Single Axle Dump Truck	\$138.30	\$622.35
1.00	Day	Trench Box	\$650.00	\$650.00
1.50	Hour	Sweeper Attachment	\$66.85	\$100.28
OTHER COSTS				
1.00	LS	North Oaks Paving	\$28,500.00	\$28,500.00
1.00	LS	Waring Lites	\$2,800.00	\$2,800.00
1.00	LS	Fobbe Contracting (Mob)	\$665.00	\$665.00
1.00	LS	Reiner Contracting (Mob)	\$575.00	\$575.00
SUBTOTAL:				\$63,268.28
10% Markup				\$6,326.83
BALANCE DUE:				\$69,595.11

Questions concerning this Invoice?
Call: Philip B. Lesnar
(763) 428-4868

MAKE ALL CHECKS PAYABLE TO:

Northdale Construction Co., Inc.
9760 71st St NE
Albertville, MN 55301



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 Attn: David Hutton, PE
 10650 Red Circle Drive, Suite 500
 Minnetonka, MN 55343

INVOICE DATE: 9/13/2024
INVOICE# 202403-X10
OUR JOB # 2024-03
PLAN SHEET # 34
PLAN STATION # 131+00 to 132+65
JOB NAME: Trunk WM Improvement
LOCATION: Ramsey
HOUSE # / STREET: 143rd Ave NW
DATE OF WORK: 8/26/24 to 9/3/24

DESCRIPTION OF WORK:

From Station 131+00 to Station 132+65, we hit concrete that was above and below pipe grade. In order to fix this, we ended up taking out a 165' L x 8' W x 5' D area that was enough to pull the box and get our pipe in. We had to rent a Komatsu PC360 backhoe with a hydraulic hammer for the beginning of the concrete removal process which was time consuming. We then used a CAT 349F Backhoe and a CAT 950K Loader to remove and load the concrete rubble into the trucks to haul out. The concrete had a 1 1/2" diameter rebar along with a thick cable that was embedded within the concrete. On top of the concrete there were core samples as well. Once we removed the concrete, we placed bedding sand under the pipe, then installed the pipe. Jacobs Trucking was used to stockpile sand on-site, haul out concrete rubble to Martin Marietta and bring back bedding sand from Sauters. The concrete was hard enough to wear over 1 7/8" of bit off of the hydraulic hammer. We also burned 283.6 gallons of diesel fuel in the rental machine.

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
LABOR COSTS				
29.50	Hour	Backhoe Operator	\$106.07	\$3,129.07
31.50	Hour	Loader Operator	\$103.66	\$3,265.29
EQUIPMENT COSTS				
11.00	Hour	Cat 349 Backhoe	\$512.61	\$5,638.71
1.00	LS	Komatsu PC360 Backhoe w/Hydraulic Hammer (Rental)	\$25,213.22	\$25,213.22
283.60	Gal	Diesel fuel for Rental Backhoe	\$3.38	\$958.57
31.50	Hour	Cat 950K Loader	\$264.80	\$8,341.20
5.50	Hour	Ingersol Rand Compactor	\$92.51	\$508.81
20.00	Hour	Jacobs Trucking	\$155.00	\$3,100.00
			SUBTOTAL:	\$50,154.86
			10% Markup	\$5,015.49
			BALANCE DUE:	\$55,170.34

Questions concerning this Invoice?

Call: Philip B. Lesnar
 (763) 428-4868

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Northdale Construction Co., Inc.

9760 71st St NE

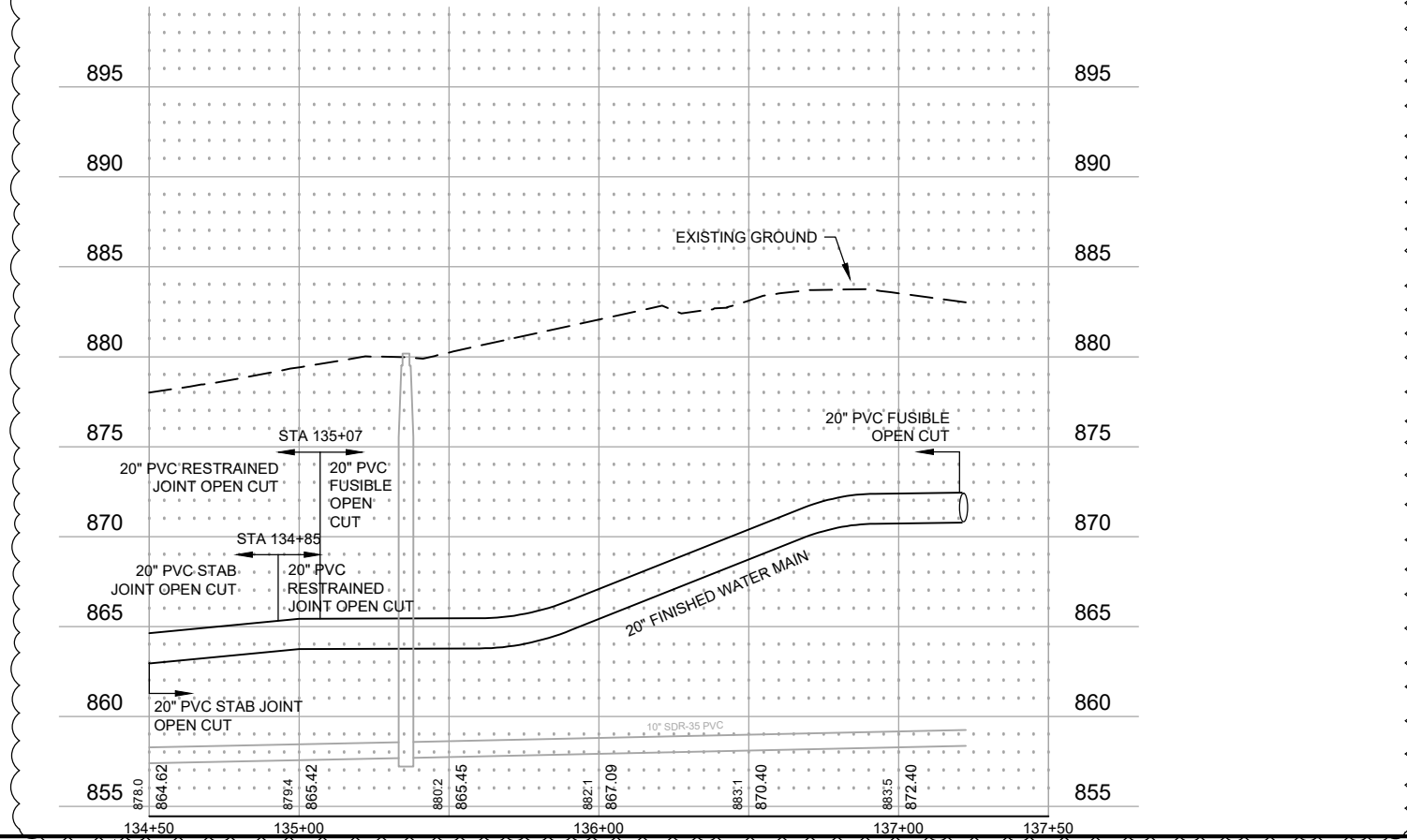
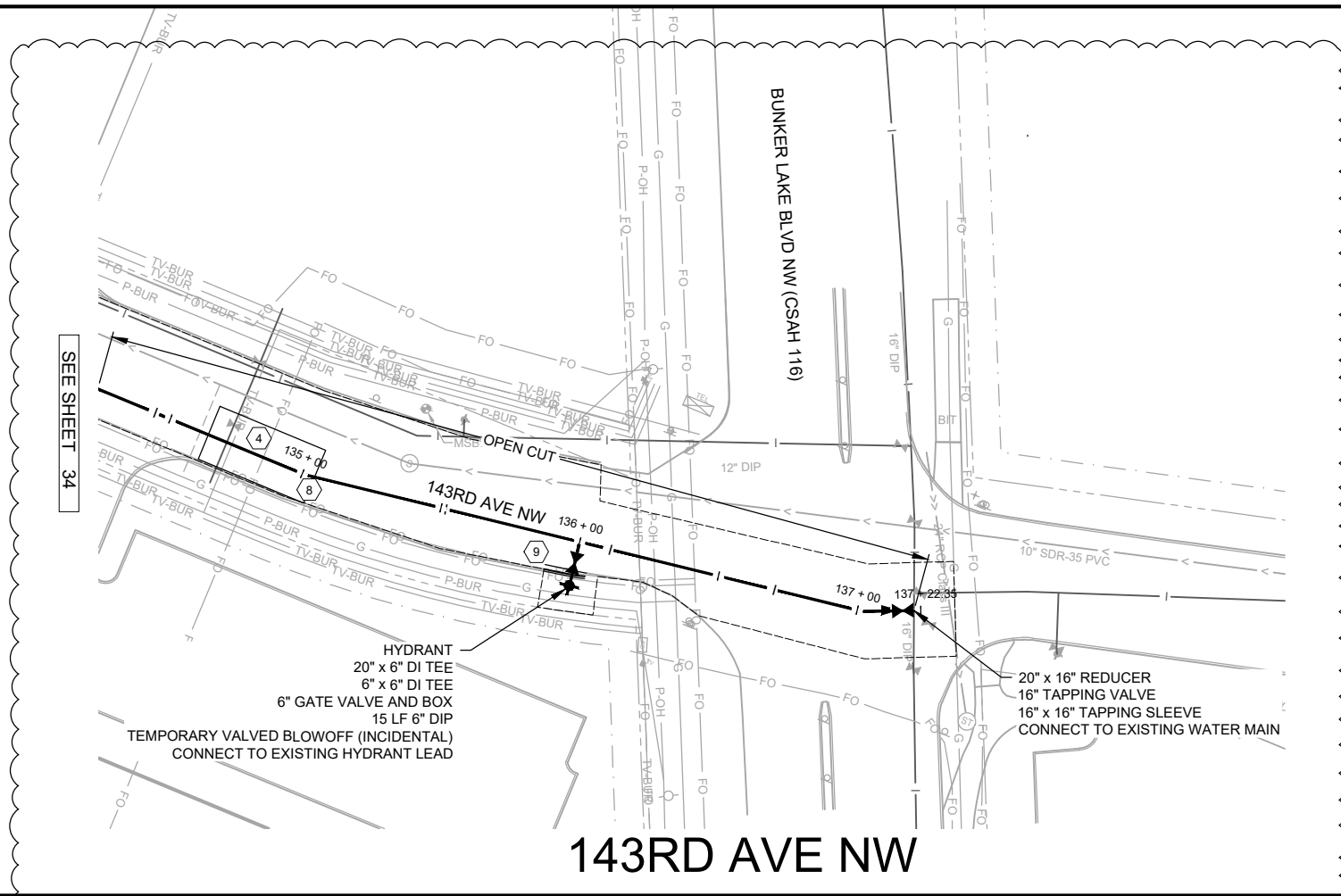
Albertville, MN 55301

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:

- 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.
- 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 AARON MADSEN AT 763.286.2579. CITY OF RAMSEY TO OPERATE VALVES AND HYDRANTS FOR CONTRACTOR.
- 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.
- CONTRACTOR TO PERFORM WATER MAIN WORK IN INTERSECTION OF BUNKER AND 143RD ON APPROVED SATURDAY BY ANOKA COUNTY. BITUMINOUS PATCH TO BE COMPLETED ON SAME SATURDAY.



Save: 5/14/2024 10:16 AM aadisen Plot: 5/14/2024 10:18 AM X:\PT\RAMSY\159783\5-final-dsgn\51-drawings\10-Civil\carddwg\sheet\F01_59783\UT.dwg

SEH Project	RAMSY174498	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	JRB, SRP	.			.		
Designed By	KLK	.			.		
Checked By	CES	1	CHANGE ORDER #2	05-15-2024	.		

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**