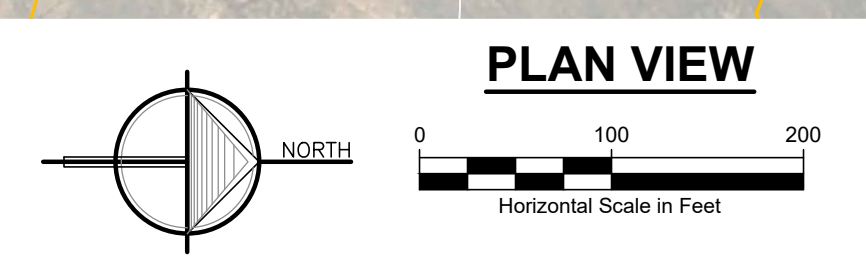


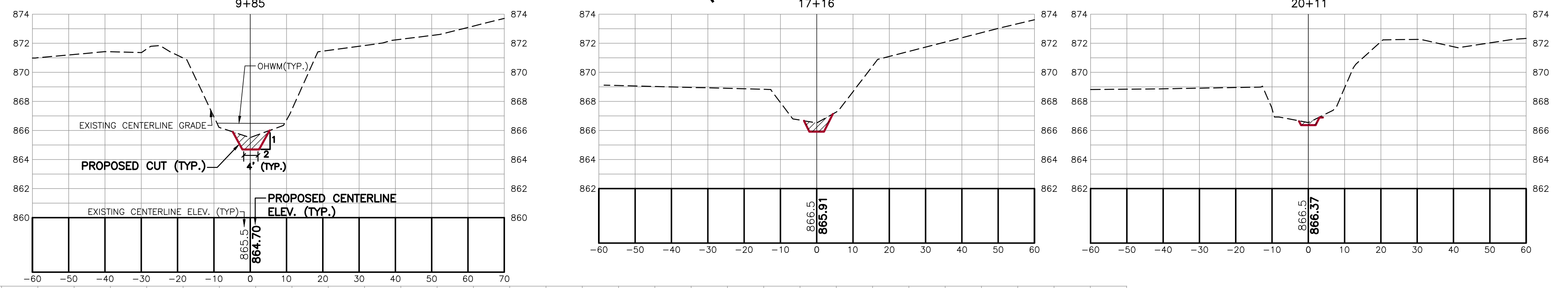
- NOTES:**
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 - PROPOSED EARTH CHANGE SHALL BE LIMITED TO EASEMENT AREA
 - CONTRACTOR SHALL USE CRANE MATS WHILE WORKING IN WETLANDS IDENTIFIED IN THE USFWS NWI TO REDUCE DISTURBANCE.
 - MULCH BLANKET BANKS AS DIRECTED BY ENGINEER.
 - IF DRAIN IS ACCESSED ACROSS PROPERTY OUTSIDE OF DRAIN EASEMENT, A LANDOWNER'S AGREEMENT FORM MUST BE EXECUTED.
 - QUANTITIES WILL NOT BE PAID ABOVE CONTRACT AMOUNT UNLESS APPROVED BY ENGINEER.
 - CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE AND FEDERAL LAWS INCLUDING CONDITIONS OF EGLE PERMIT #: WRP04090BV1.0
 - REMOVE, SALVAGE AND REPAIR FENCES, STRUCTURES AND OTHER ITEMS THAT INTERFERE WITH CONSTRUCTION, PAID FOR AS 1 LS SITE RESTORATION.
 - CONTRACTOR TO DISPOSE OF REMOVED CULVERTS.
 - DRAINAGE EASEMENT: 66', 33' EACH SIDE OF DRAIN CENTERLINE UNLESS SHOWN OTHERWISE.

- LEGEND**
- WETLAND (USFWS NATIONAL WETLAND INVENTORY)
 - SOIL TYPE (USDA NRCS WEBSOIL SURVEY)

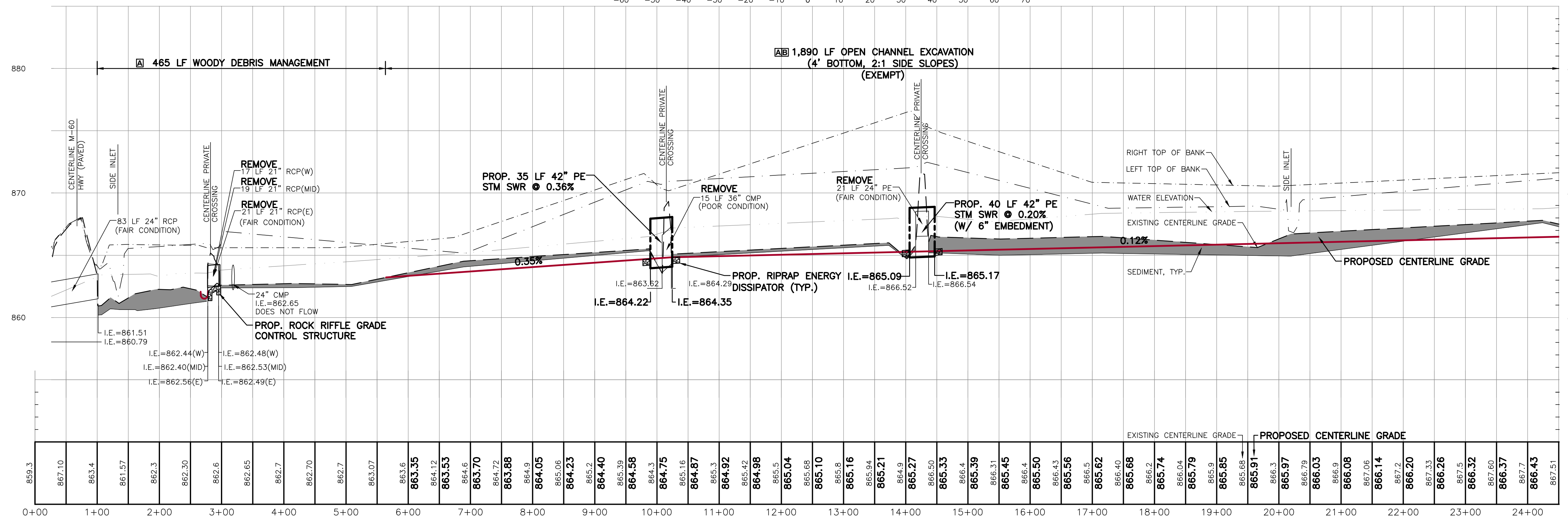


MATCH LINE: SEE SHT. C2 FOR CONTINUATION

CROSS SECTIONS
SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



- MISCELLANEOUS QUANTITIES:**
- M-60 CULVERT CLEANOUT 1 LS
 - OPEN CHANNEL SEEDING 1,890 LF
 - MULCH BLANKET 750 SY



- LEGEND**
- BENCHMARK
 - WELL
 - MONUMENT
 - FOUND IRON STAKE
 - SET IRON STAKE
 - SET WOOD STAKE
 - RR SIGN
 - GUY POLE
 - GUY ANCHOR
 - UTILITY POLE
 - LIGHT POLE
 - POST
 - SOIL BORING
 - MAILBOX
 - AC UNIT
 - FLAGPOLE
 - FIRE HYDRANT
 - WATER VALVE
 - ELECTRIC TRANSFORMER
 - GAS METER
 - WATER METER
 - TELEPHONE RISER
 - ELECTRIC METER
 - CATCH BASIN
 - ROUND CATCH BASIN
 - UTILITY MANHOLE
 - STORM MANHOLE
 - FLARED END SECTION
 - SANITARY MANHOLE
 - ELECTRIC MANHOLE
 - TELEPHONE MANHOLE
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - WATER UTILITY LINE
 - TELEPHONE UTILITY LINE
 - ELECTRIC UTILITY LINE
 - GAS UTILITY LINE
 - STEAM UTILITY LINE
 - STORM UTILITY LINE
 - SANITARY UTILITY LINE
 - FIBER OPTIC UTILITY LINE
 - OVERHEAD UTILITY LINE
 - LAKE LINE
 - EXISTING CONTOUR

CENTERLINE PROFILE
SCALE: HORIZONTAL: 1" = 100'
VERTICAL: 1" = 5'

NOTE:
ELEVATIONS ARE BASED ON NGVD 29

3 WORKING DAYS
BEFORE YOU DIG CALL MISS DIG
1-800-482-7171

CLIENT: COREY LAKE INTERCOUNTY DRAIN DRAINAGE BOARD
MIDARD 528 W. ALLEGAN STREET, LANSING, MICHIGAN 48933

PROJECT: COREY LAKE INTERCOUNTY DRAIN
CASS AND ST. JOSEPH COUNTIES, MICHIGAN

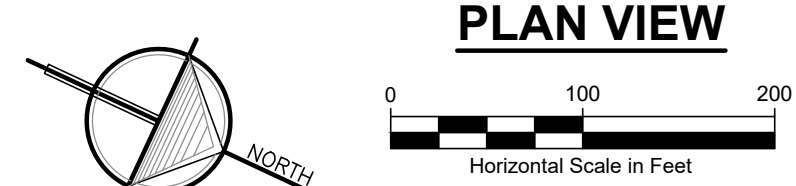
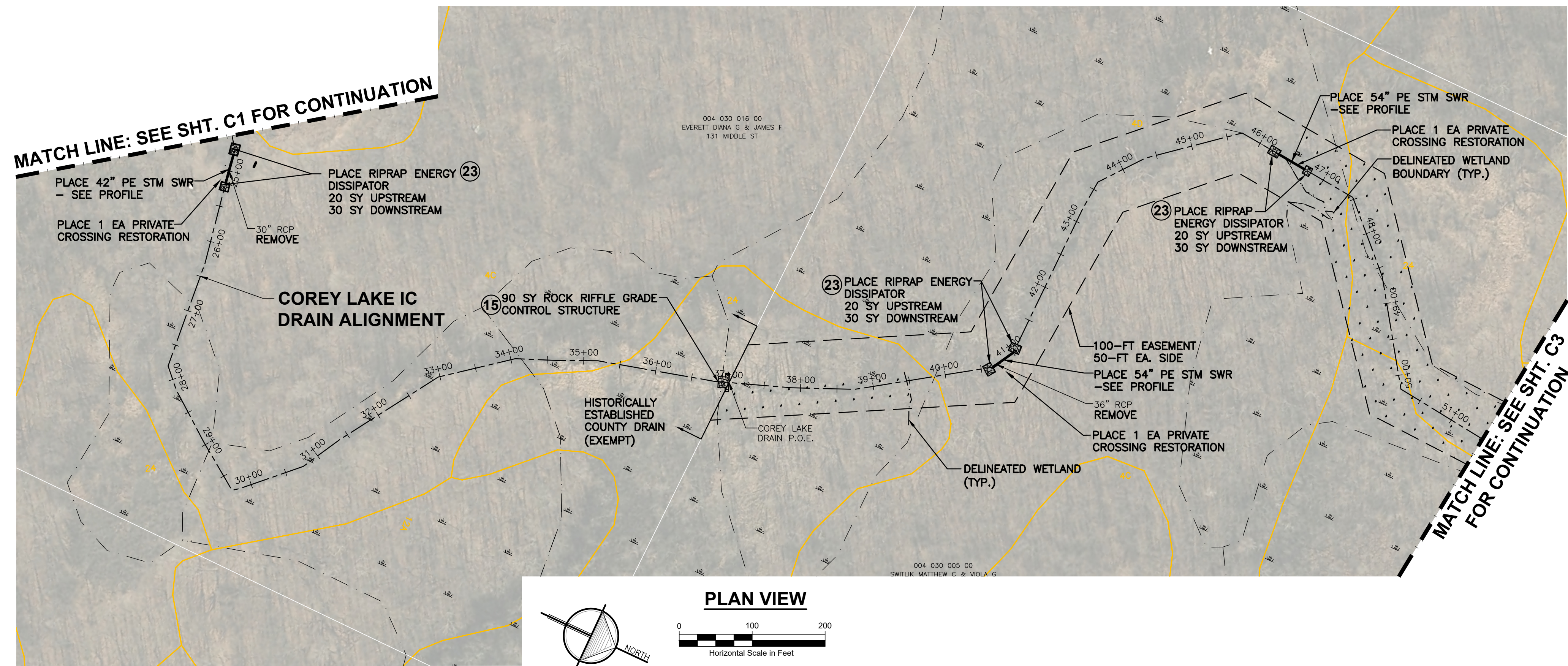
REVISIONS:

NO.	DATE	ISSUED FOR
1.	11/27/2019	DRAFT REVIEW
2.	04/23/2025	BIDS & CONSTRUCTION
3.	08/19/2025	FOR CONSTRUCTION

DATE: 11/27/2019
DESIGNED BY: CPV/AOK
DRAFTED BY: RAG
PROJECT NUMBER: 19078
DESIGNED BY: AWS
DRAFTED BY: RAG
DATE: 06/20/22
DATE: 11/20/19
DATE: 03/20/25

PLAN & PROFILE
STA: 0+00 - 24+50

SHEET NUMBER
C1



NOTES:

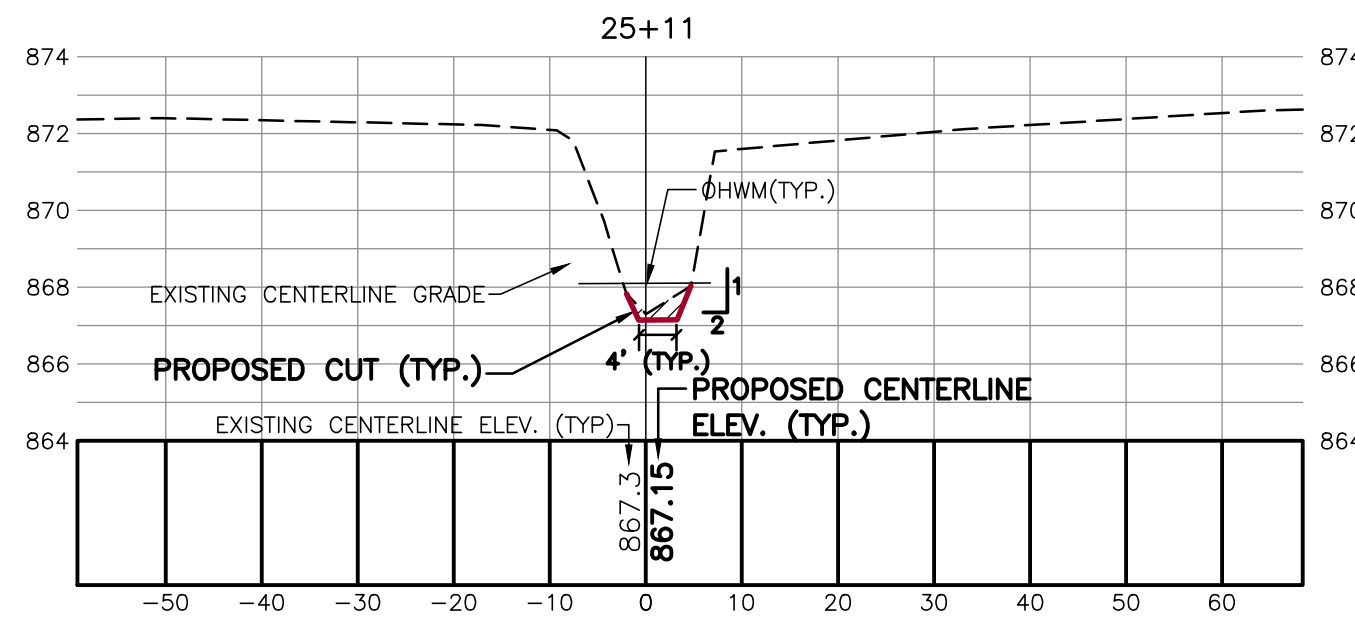
1. CONTRACTOR TO FIELD VERIFY HORIZONTAL & VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND MUST NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. PROPOSED EARTH CHANGE SHALL BE LIMITED TO EASEMENT AREA
3. CONTRACTOR SHALL USE CRANE MATS WHILE WORKING IN WETLANDS IDENTIFIED IN THE USFWS NWI TO REDUCE DISTURBANCE.
4. MULCH BLANKET BANKS AS DIRECTED BY ENGINEER.
5. IF DRAIN IS ACCESSED ACROSS PROPERTY OUTSIDE OF DRAIN EASEMENT, A LANDOWNER'S AGREEMENT FORM MUST BE EXECUTED.
6. QUANTITIES WILL NOT BE PAID ABOVE CONTRACT AMOUNT UNLESS APPROVED BY ENGINEER.
7. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE AND FEDERAL LAWS INCLUDING CONDITIONS OF EGLE PERMIT #: WRP040908V1.0
8. REMOVE, SALVAGE AND REPAIR FENCES, STRUCTURES AND OTHER ITEMS THAT INTERFERE WITH CONSTRUCTION, PAID FOR AS 1 LS SITE RESTORATION.
9. CONTRACTOR TO DISPOSE OF REMOVED CULVERTS.
10. DRAINAGE EASEMENT: 66', 33' EACH SIDE OF DRAIN CENTERLINE UNLESS SHOWN OTHERWISE.

LEGEND

- WETLAND (USFWS NATIONAL WETLAND INVENTORY)
- SOIL TYPE (USDA NRCS WEBSOIL SURVEY)

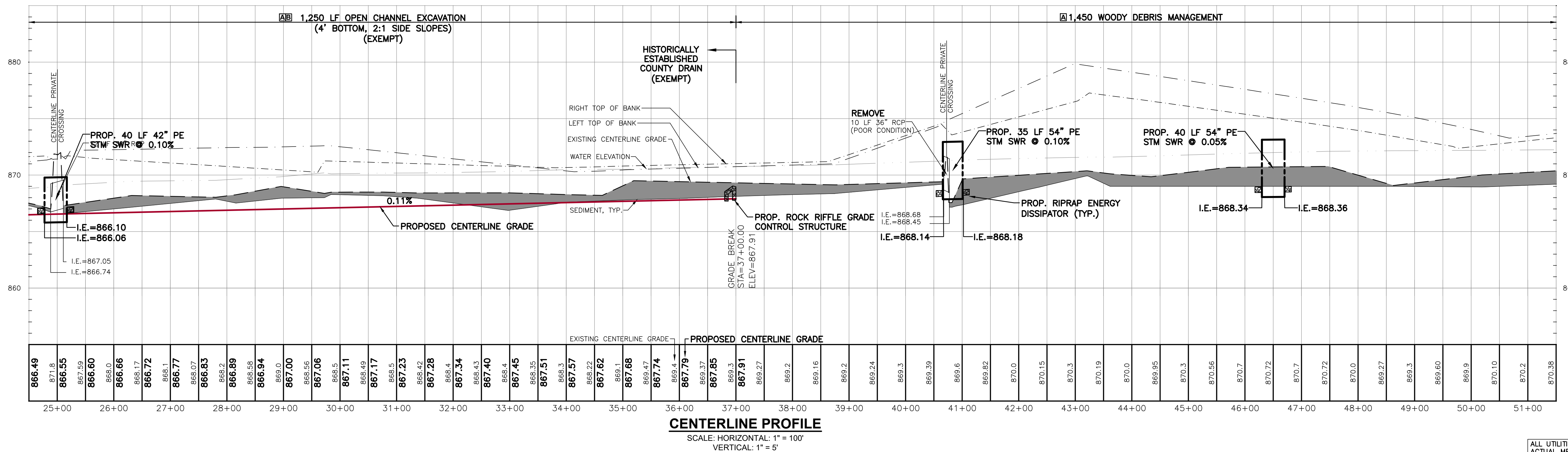
MISCELLANEOUS QUANTITIES:

- 1 OPEN CHANNEL SEEDING 1,250 LF
- 2 MULCH BLANKET 500 SY



CROSS SECTIONS

SCALE: HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 100'
VERTICAL: 1" = 5'

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

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2121 3 Mile Rd. NW
Walker, MI 49544
Ph: 616-301-7888
www.LREM.com

LRE
ENGINEERS & SURVEYORS

REVISIONS:	NO.	ISSUED FOR	DATE
	1.	DRAFT REVIEW	11/27/2019
	2.	BIDS & CONSTRUCTION	04/23/2025
	3.	FOR CONSTRUCTION	08/19/2025

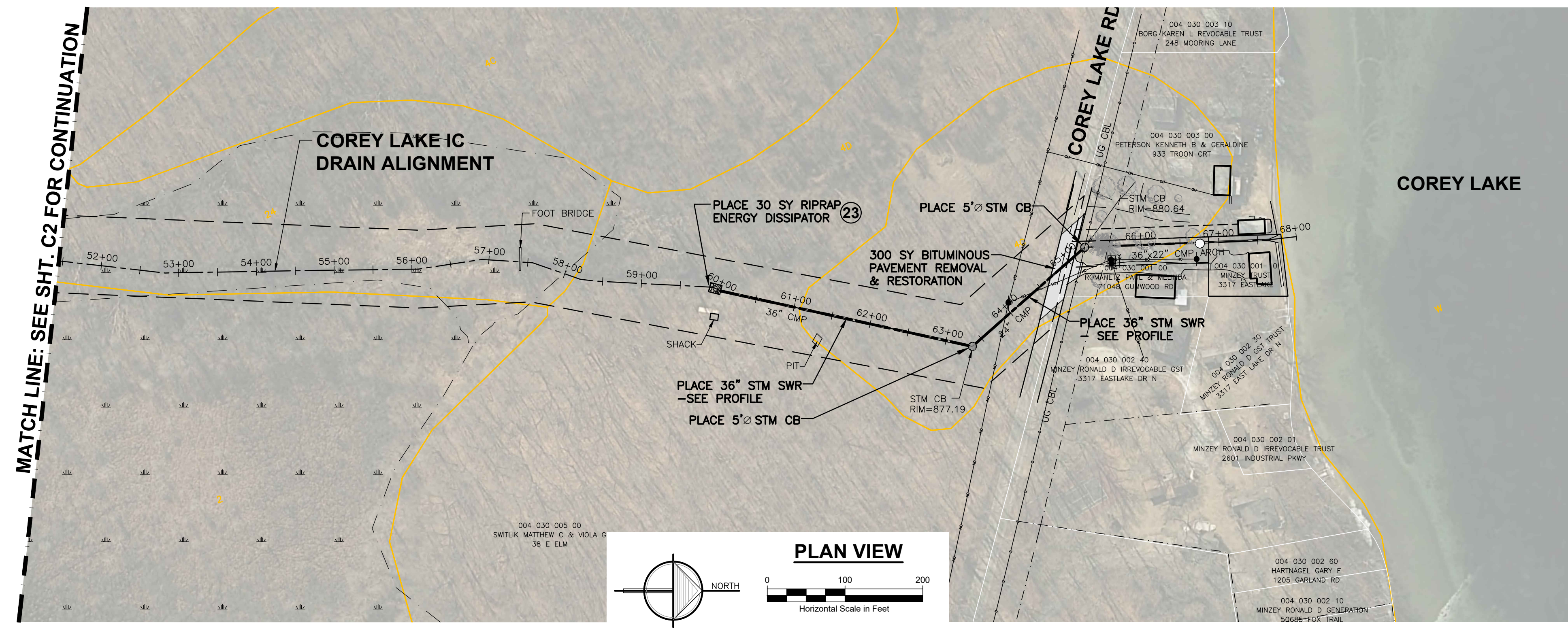
CLIENT: COREY LAKE INTERCOUNTY DRAIN DRAINAGE BOARD
MIDARD 528 W. ALLEGAN STREET, LANSING, MICHIGAN 48933

PROJECT: COREY LAKE INTERCOUNTY DRAIN
CASS AND ST. JOSEPH COUNTIES, MICHIGAN

PROJECT NUMBER:	DATE
19478	11/2019
SURVEYED BY:	DESIGNED BY:
CPV/AOK	AW
DRAFTED BY:	CHECKED BY:
RAG	DJF

PLAN & PROFILE
STA: 24+50 - 51+50

SHEET NUMBER
C2



NOTES:

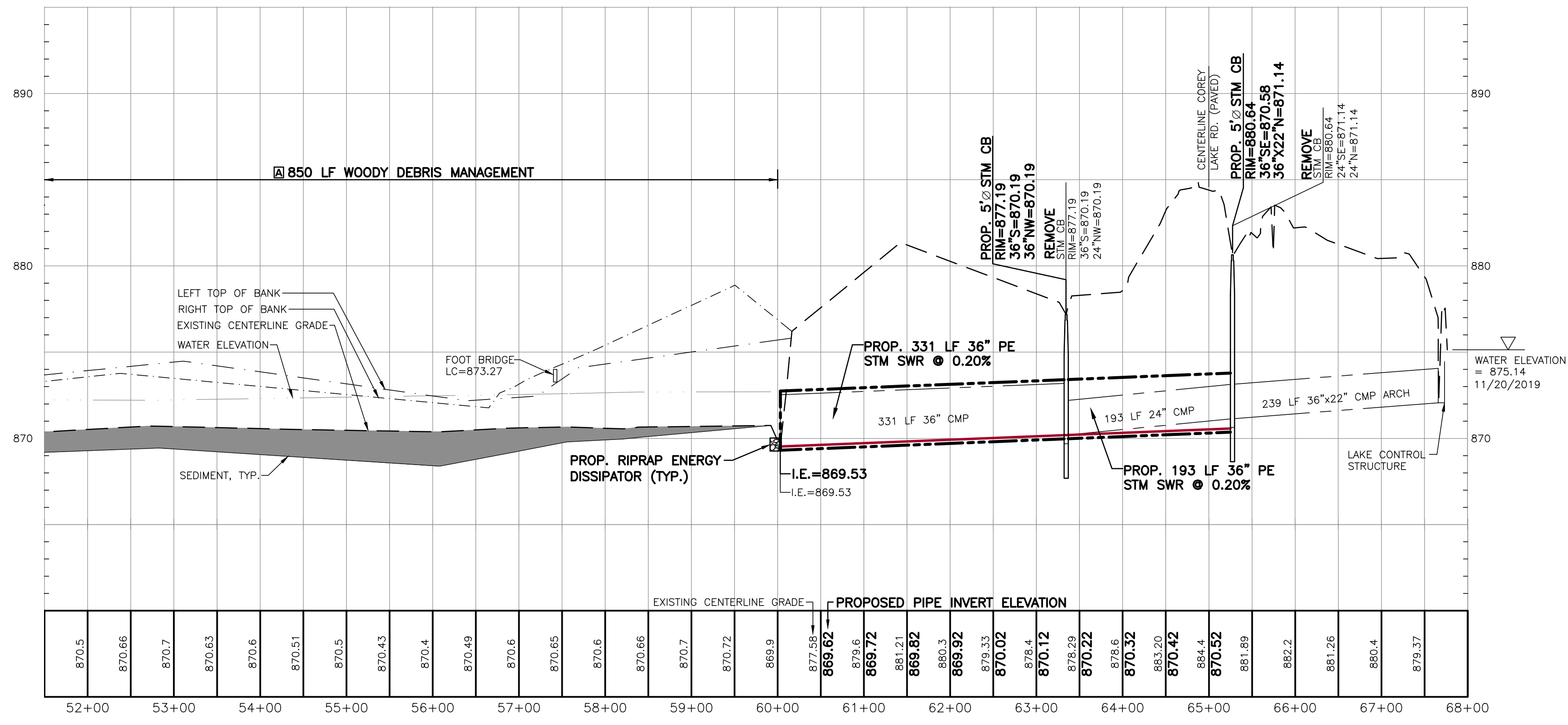
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2. CONTRACTOR SHALL SUBMIT DE-WATERING PLAN FOR APPROVAL PRIOR TO CONSTRUCTION.
3. ANY EXISTING STRUCTURES WITHIN EASEMENT SHALL REMAIN OR IF NECESSARY TO ACCESS THE WORK, BE MOVED AND REPLACED AT NO COST TO PROPERTY OWNER. PAID FOR AS 1 LS SITE RESTORATION.
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11. CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS WITHIN PROJECT LOCATION.
12. REMOVE, SALVAGE AND REPAIR FENCES, STRUCTURES AND OTHER ITEMS THAT INTERFERE WITH CONSTRUCTION, PAID FOR AS 1 LS SITE RESTORATION.

LEGEND

- WETLAND (USFWS NATIONAL WETLAND INVENTORY)
- BITUMINOUS PAVEMENT REMOVAL
- Soil Type (USDA NRCS WEBSOIL SURVEY)

MISCELLANEOUS QUANTITIES

- 1 COREY LAKE OUTLET DEWATERING 1 LS
- 1 SURFACE RESTORATION 524 LF



CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 100'
VERTICAL: 1" = 5'

2121 3 Mile Rd NW
Walker, MI 49544
Ph: 616-301-7888
www.LREM.com



NO.	ISSUED FOR	DATE
1.	DRAFT REVIEW	11/27/2019
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3.	FOR CONSTRUCTION	08/19/2025

CLIENT: COREY LAKE INTERCOUNTY DRAIN DRAINAGE BOARD
MIDARD 525 W. ALLEGAN STREET, LANSING, MICHIGAN 48933
PROJECT: COREY LAKE INTERCOUNTY DRAIN
CASS AND ST. JOSEPH COUNTIES, MICHIGAN

PROJECT NUMBER	DATE
19078	11/2019
SURVEYED BY: CRY-ADK	06/2022
DESIGNED BY: AWS	11/2019
DRAFTED BY: RAG	03/2025
CADC:DJF	

PLAN & PROFILE
STA: 51+50 - 68+000

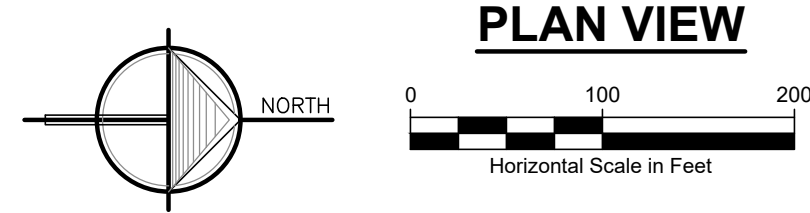
SHEET NUMBER

C3



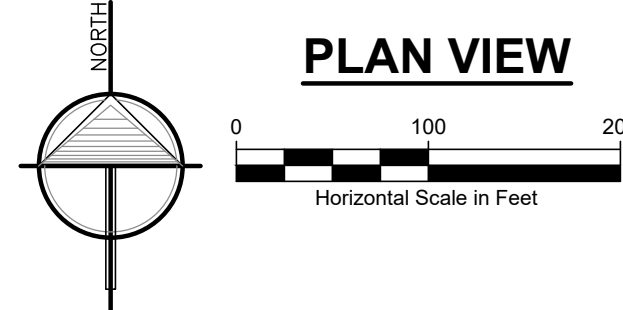
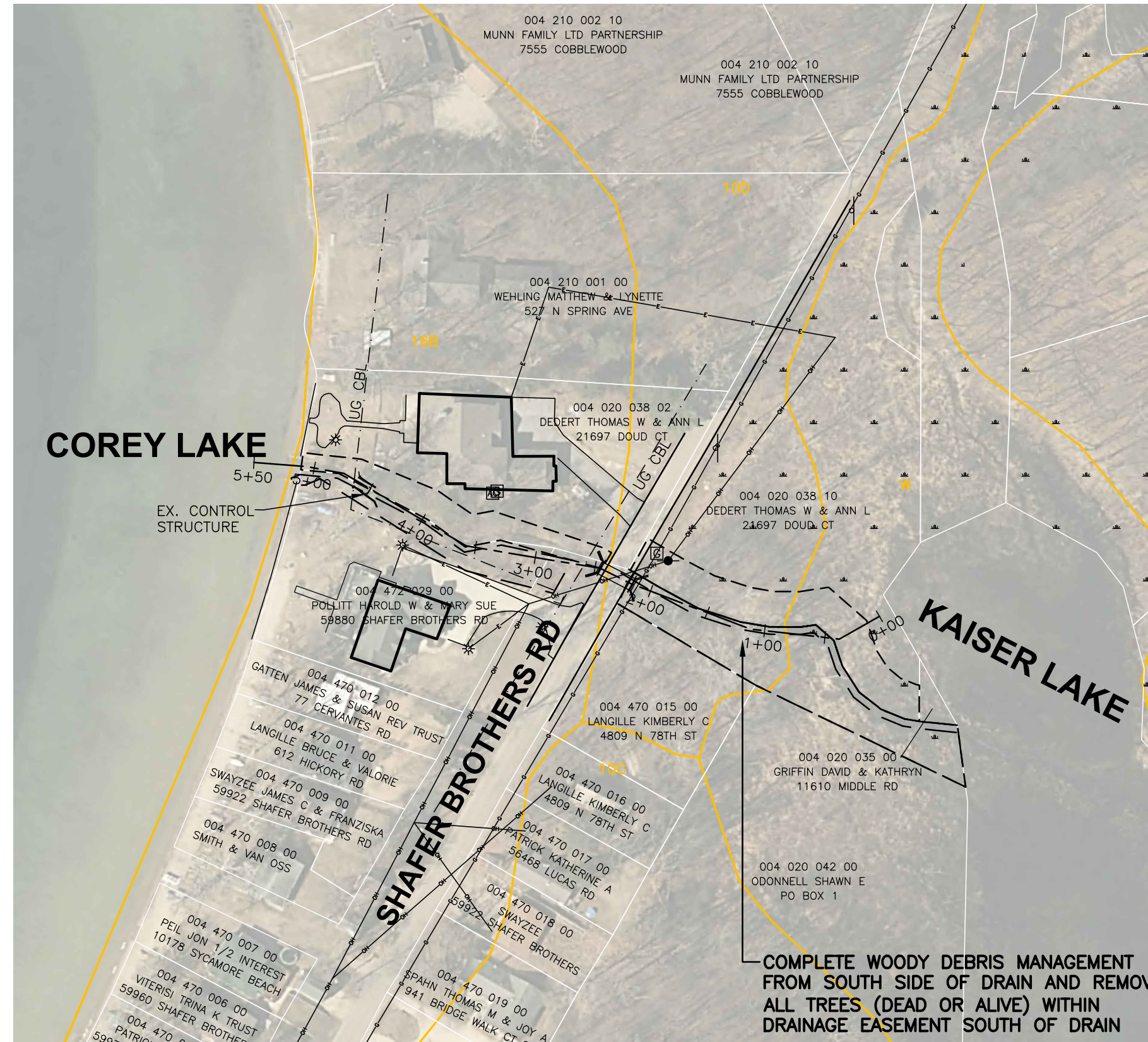
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MUD LAKE - CLEAR LAKE



LEGEND
 [Symbol] WETLAND (USFWS NATIONAL WETLAND INVENTORY)
 [Symbol] SOIL TYPE (USDA NRCS WEBSOIL SURVEY)

COREY LAKE - KAISER LAKE



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10. CONTRACTOR TO DISPOSE OF CULVERTS AND STORM SEWER.
11. CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS WITHIN PROJECT LOCATION.
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MISCELLANEOUS QUANTITIES:

- ① SURFACE RESTORATION 227 LF
- ① OPEN CHANNEL SEEDING 363 LF
- CLEAR LAKE OUTLET DEWATERING 1 LS

TIMING AND SEQUENCE OF CONSTRUCTION & SESC MEASURES

CONSTRUCTION ACTIVITY	ACTIVITY BY MONTH/WEEKS														
	FALL 2025			WINTER 2026			SPRING 2026			SUMMER 2026			FALL 2026		
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1 MOBILIZE CONSTRUCTION EQUIPMENT															
2 PLACE TEMPORARY SESC MEASURES															
3 CONDUCT CLEARING, GRUBBING, & SNAGGING															
4 CONDUCT OPEN CHANNEL EXCAVATION															
5 INSTALL CULVERTS															
6 INSTALL PERMANENT IN-STREAM SESC MEASURES															
7 INSTALL STORM SEWER FROM LAKE OUTLETS															
8 INSTALL PERMANENT UPLAND SESC MEASURES															
9 CONDUCT FINAL RESTORATION MEASURES															
10 REMOVE TEMPORARY SESC MEASURES															

*NOTE: TEMPORARY CONTROL MEASURES TO BE REMOVED ONCE VEGETATION IS ESTABLISHED AND SITE IS STABILIZED.

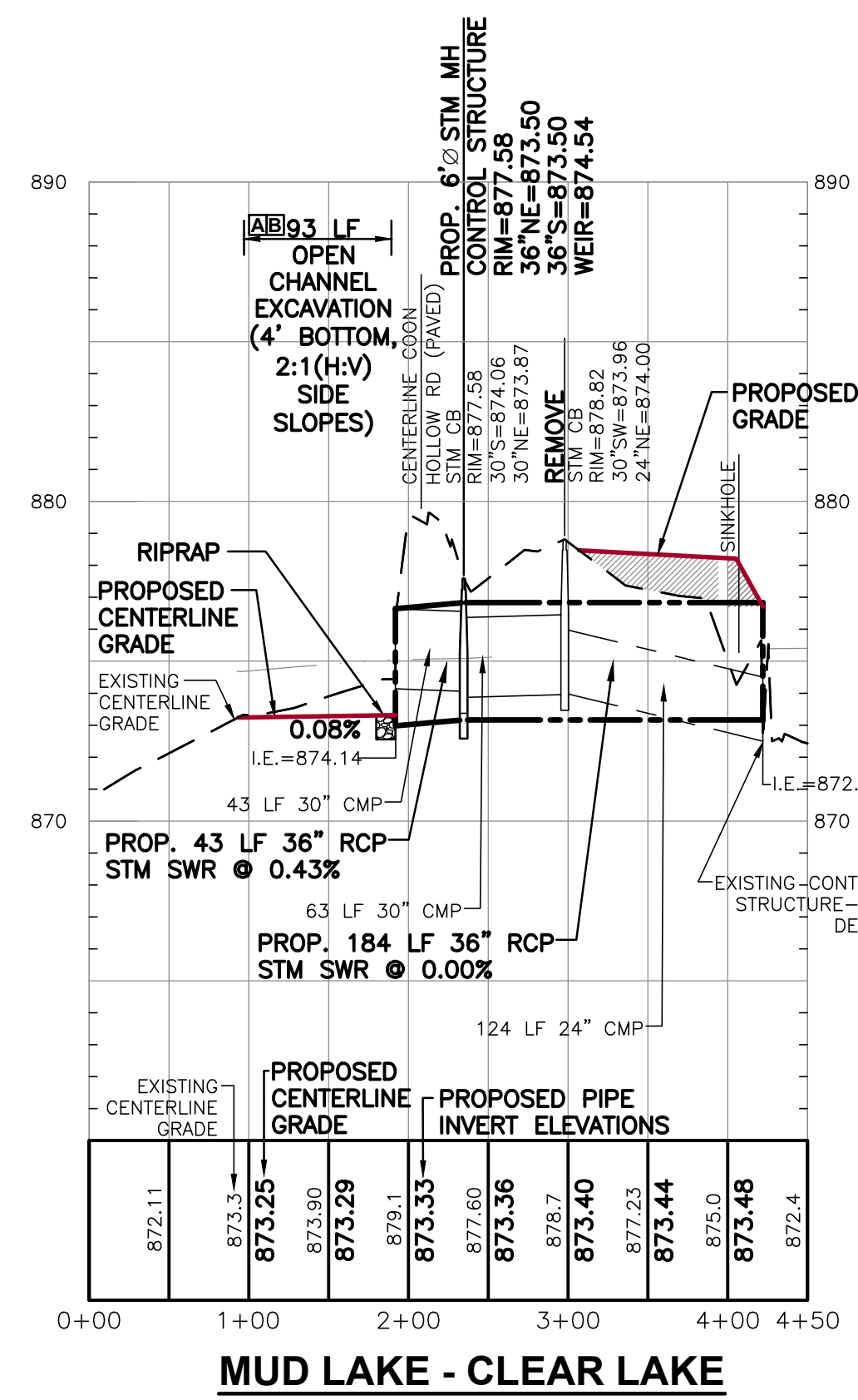
MACDC UNIFIED KEYING SYSTEM EROSION CONTROL MEASURES (SESC)

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	Seeding	[Symbol]	When bare soil is exposed, temporarily or permanently, to erosive forces from wind and or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch	[Symbol]	On flat areas, slopes, grassed waterways and spillways, diversion ditches & dikes, borrow & stockpile areas, & spoil piles when areas are subject to raindrop impact, & erosive forces from wind or water.
9	Vegetation Removal without Grubbing	[Symbol]	Retains existing root mat which assists in stabilizing slopes. Assists in the revegetation process by providing sprout growth. Reduces sheet flow velocities preventing rilling and gulying. Discourages off-road vehicle use.
13	Slope Stabilization	[Symbol]	Slope stabilizing measures provide an immediate and effective cover over raw erodible slopes affording excellent protection against rain and wind erosion.
15	Riprap	[Symbol]	Along drain banks, shorelines, or where concentrated flows occur. slows velocity, reduces erosion and sedimentation.
16	Riprap Toe of Slope	[Symbol]	Riprap toe of slope protection is used in areas where velocities are causing drain bank erosion and are too high to stabilize using other methods.
19	Armored Spillway	[Symbol]	When concentrated flow must be conveyed down a drain bank or slope of discharge into another drain. Where slope failure or channel scour is observed or is likely to occur, or when runoff must be redirected around work in the drain.
23	Outfall Stabilization	[Symbol]	In the stream or drain bank usually above the ordinary high water mark where an enclosed drain or tile discharges to an open drain.

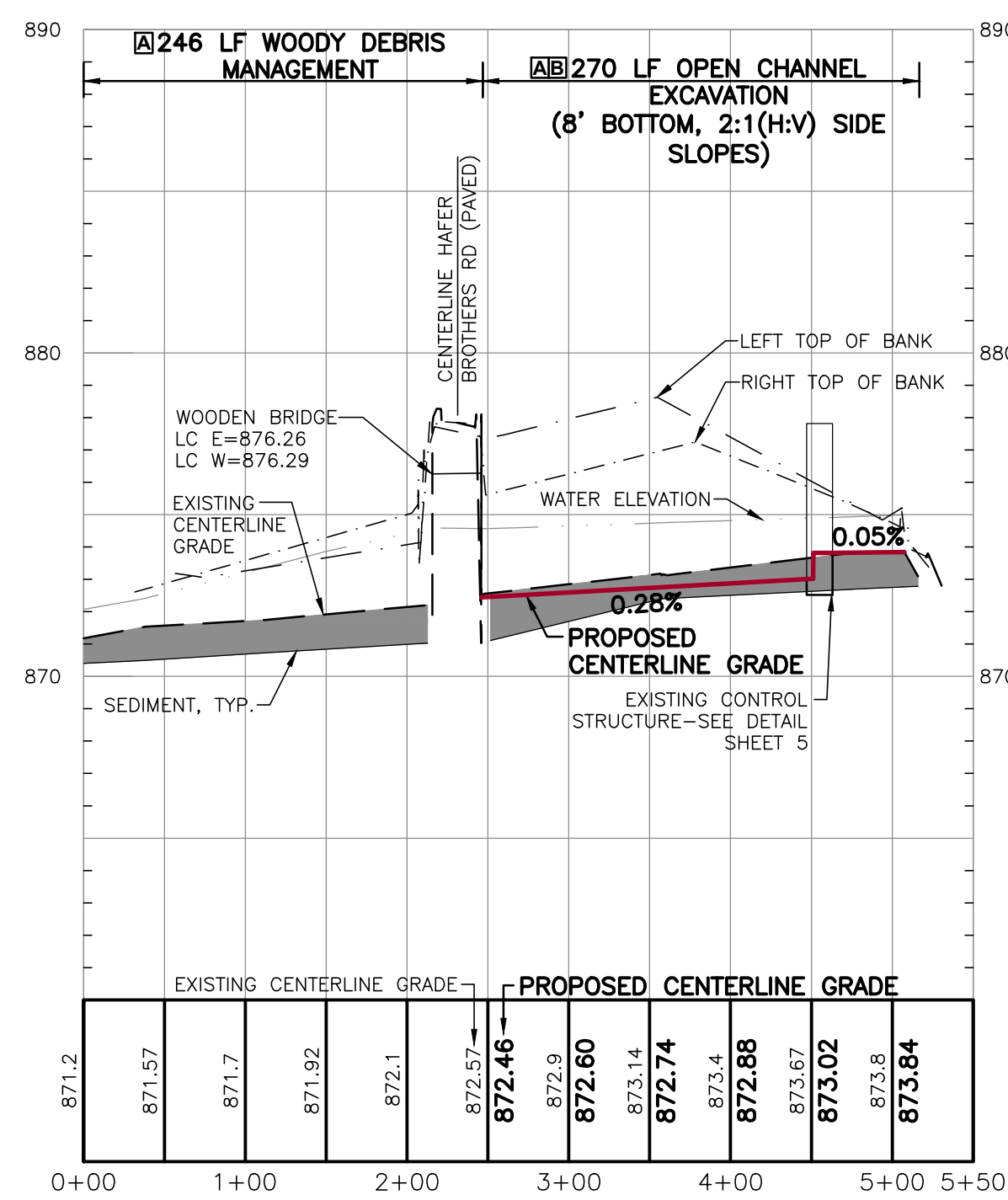
MACDC UNIFIED KEYING SYSTEM - ROUTINE MAINTENANCE ACTIVITIES

KEY	BEST MANAGEMENT PRACTICE	SESC PLAN
A	Debris Removal	NO
B	Sediment Removal	> 100 FEET

*NOTE: ALL SESC MEASURES TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MACDC SESC MANUAL.



MUD LAKE - CLEAR LAKE



COREY LAKE - KAISER LAKE

CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 100'
 VERTICAL: 1" = 5'

NOTE: ELEVATIONS ARE BASED ON NGVD 29

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	2.	04/23/2025	BIDS & CONSTRUCTION
	3.	08/19/2025	FOR CONSTRUCTION

PROJECT NUMBER:	DATE
19078	11/2019
DESIGNED BY: GFL/AOK	06/2022
DRAFTED BY: RAG	11/2019
CHECKED BY: DJF	03/2025

