

# Bement Drain

SAGINAW COUNTY PUBLIC WORKS COMMISSIONER - BRIAN J. WENDLING

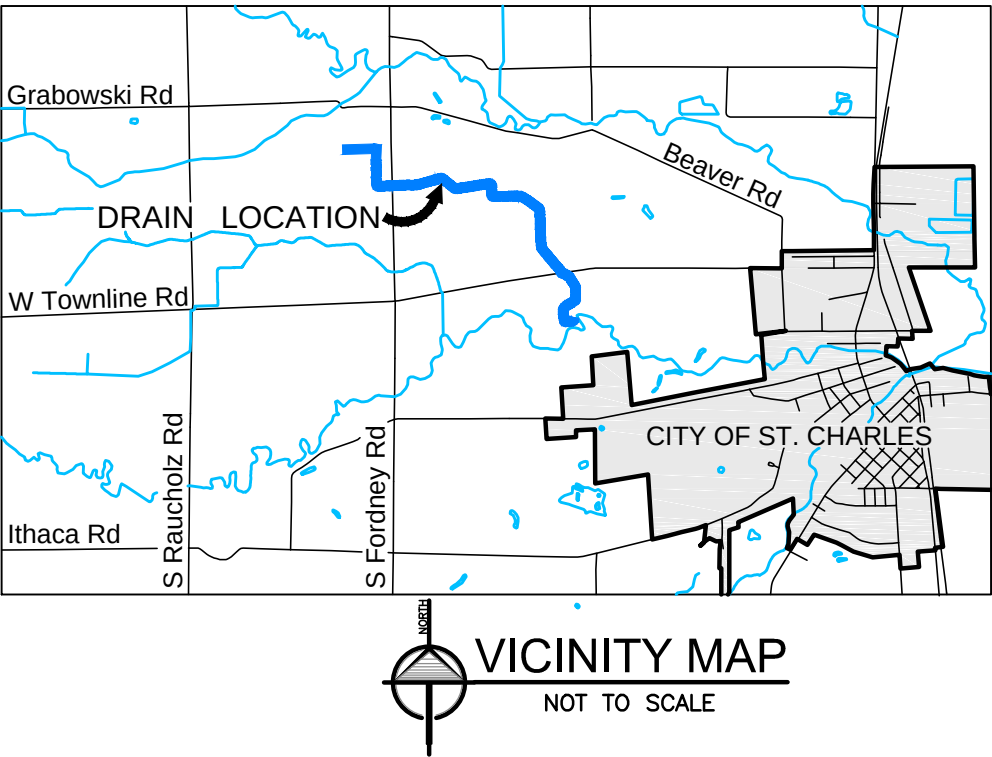
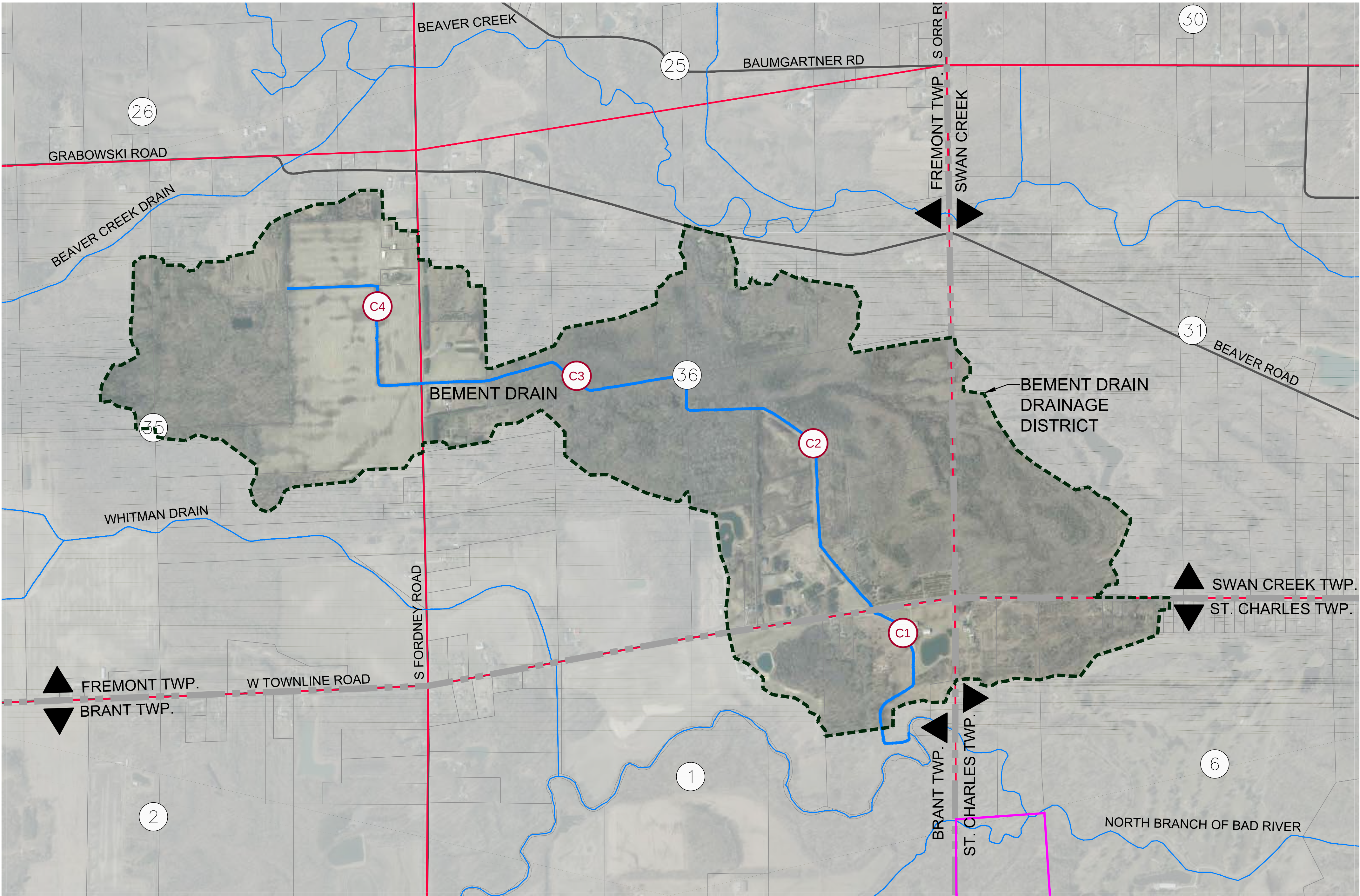
Sections 35 & 36  
T11N, R2E, Fremont Township,  
Saginaw County, Michigan

Section 1  
T10N, R2E, Brant Township,  
Saginaw County, Michigan



Section 31  
T11N, R3E, Swan Creek Township,  
Saginaw County, Michigan

Section 6  
T10N, R3E, St. Charles Township,  
Saginaw County, Michigan



|                       |  |
|-----------------------|--|
| INDEX OF SHEETS       |  |
| CS - COVER SHEET      |  |
| C1 - PLAN & PROFILE   |  |
| (STA. 00+00 - 27+50)  |  |
| C2 - PLAN & PROFILE   |  |
| (STA. 27+50 - 50+50)  |  |
| C3 - PLAN & PROFILE   |  |
| (STA. 50+50 - 76+50)  |  |
| C4 - PLAN & PROFILE   |  |
| (STA. 76+50 - 105+00) |  |
| C5 - DETAILS          |  |
| C6 - SESC PLAN        |  |

|                                     |              |
|-------------------------------------|--------------|
| DRAIN INFORMATION                   |              |
| BEMENT DRAIN LENGTH                 | 1.99 MILES   |
| BEMENT DRAIN DRAINAGE DISTRICT AREA | 548.00 ACRES |

|        |                            |
|--------|----------------------------|
| LEGEND |                            |
|        | ENCLOSED CHANNEL DRAIN     |
|        | OPEN CHANNEL DRAIN         |
|        | DRAINAGE DISTRICT BOUNDARY |
|        | SECTION LINE               |
|        | TOWNSHIP LINE              |
|        | VILLAGE OF ST. CHARLES     |
|        | ROADS                      |
|        | PROPERTY LINES             |
|        | SECTION NUMBERS            |
|        | SHEET NUMBERS              |

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

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

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

| REVISIONS | NO. | ISSUED FOR         | DATE       |
|-----------|-----|--------------------|------------|
| 1.        | 1.  | PRELIMINARY REVIEW | 04/08/2022 |
| 2.        | 2.  | OWNER REVIEW       | 04/22/2022 |
| 3.        | 3.  | 95% REVIEW         | 06/19/2022 |
| 4.        | 4.  | FINAL REVIEW       | 08/19/2022 |

SAGINAW COUNTY PUBLIC WORKS COMMISSIONER

111 S. MICHIGAN AVENUE, SAGINAW, MI 48602

PROJECT: BEMENT DRAIN

SAGINAW COUNTY, MI

| PROJECT NUMBER: 21-123       | DATE    |
|------------------------------|---------|
| SURVEYED BY: LSG / ADK / AHR | 03/2022 |
| DESIGNED BY: TRM             | 04/2022 |
| DRAWN BY: NDJ / KJB          | 03/2022 |
| QA/QC: DJF                   | 04/2022 |

COVER SHEET

SHEET NUMBER

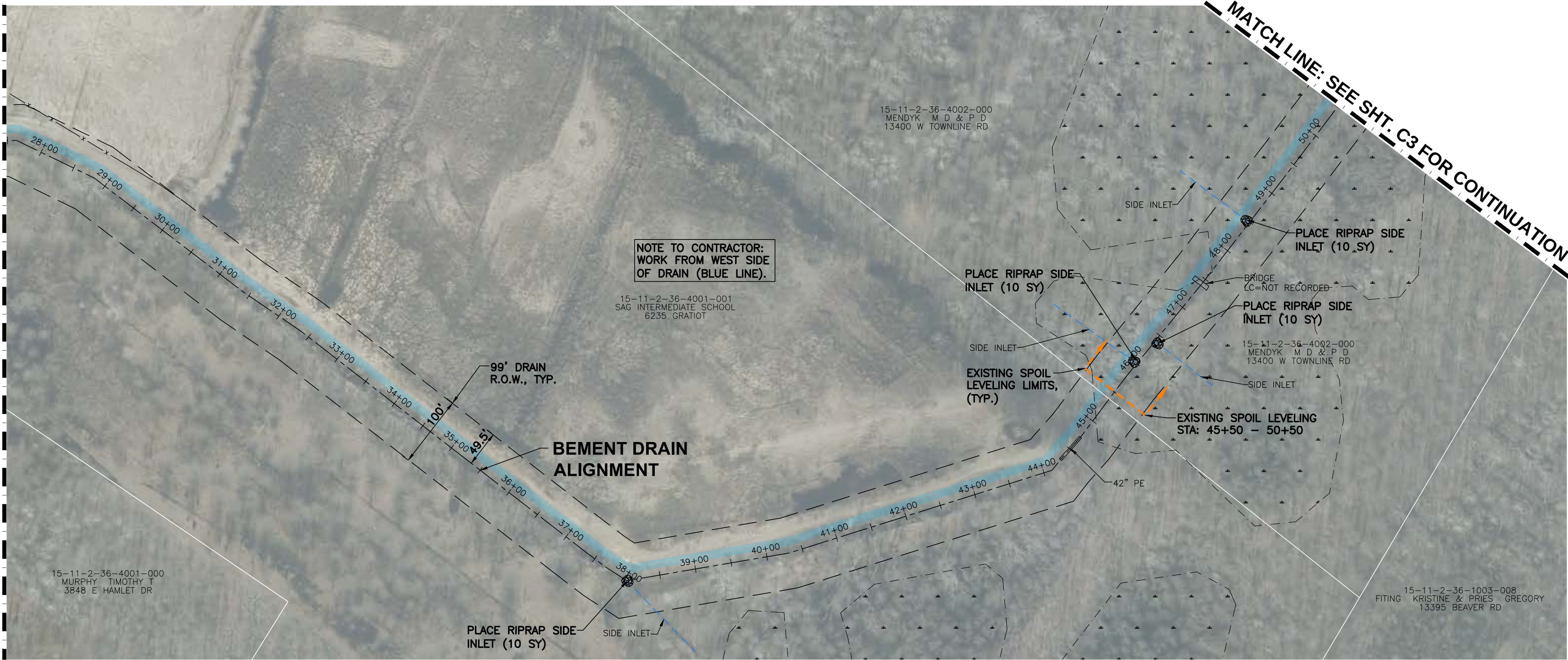
CS







MATCH LINE: SEE SHT. C1 FOR CONTINUATION



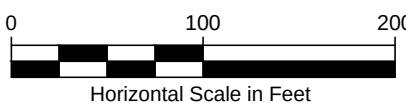
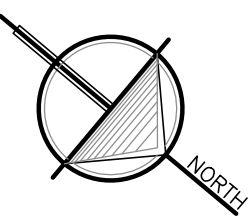
#### LEGEND

WETLAND (USFWS NATIONAL WETLAND INVENTORY)

#### MISCELLANEOUS QUANTITIES

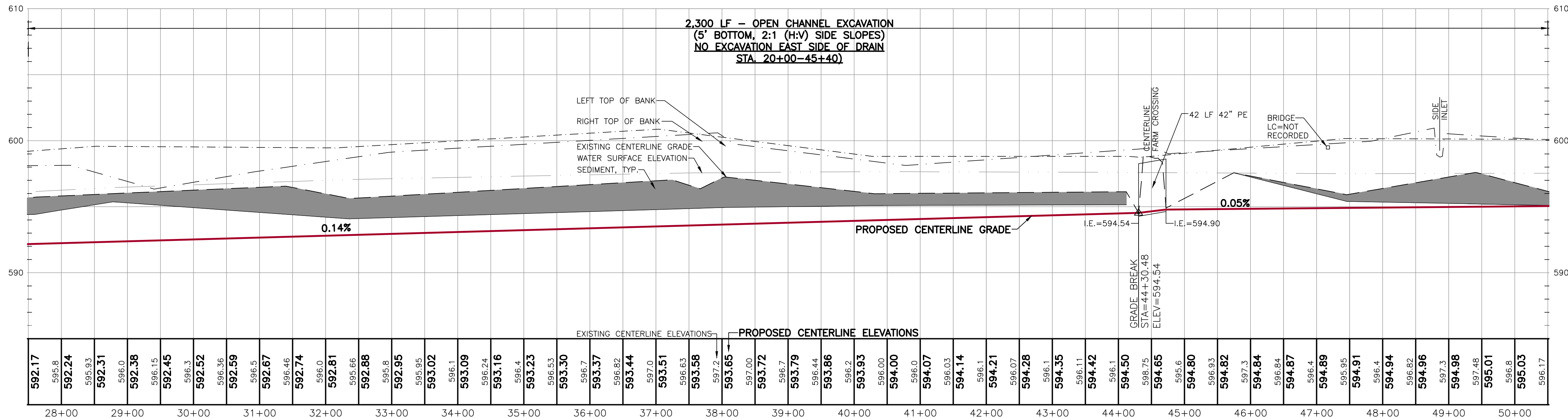
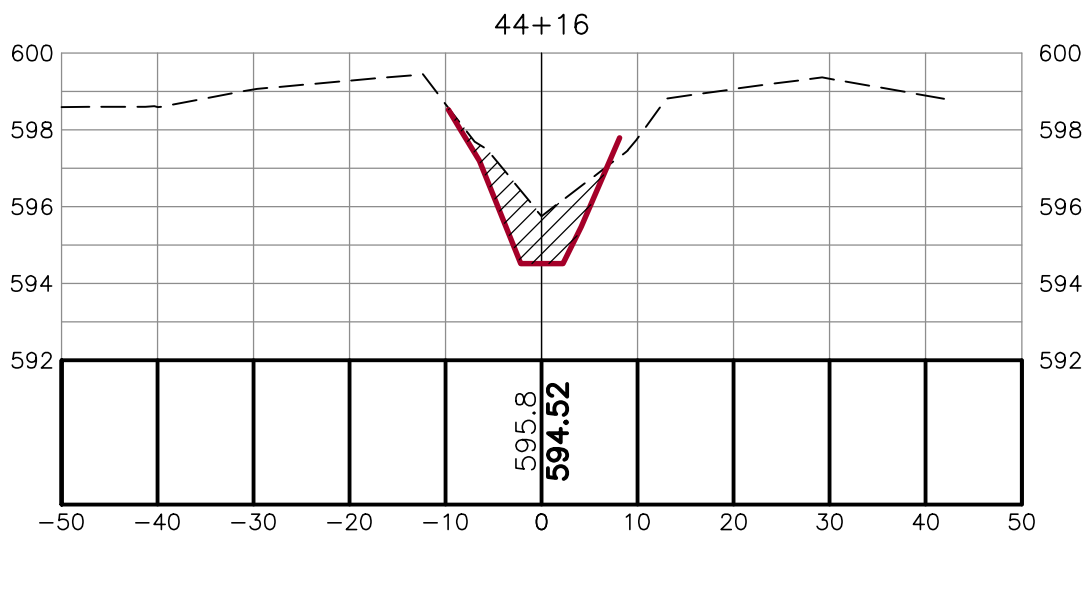
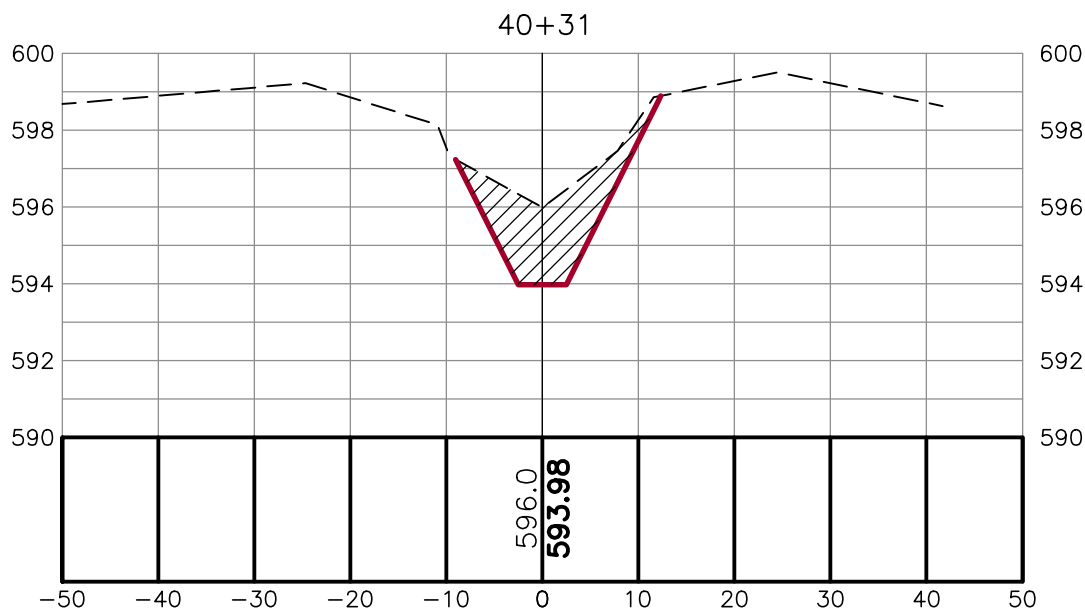
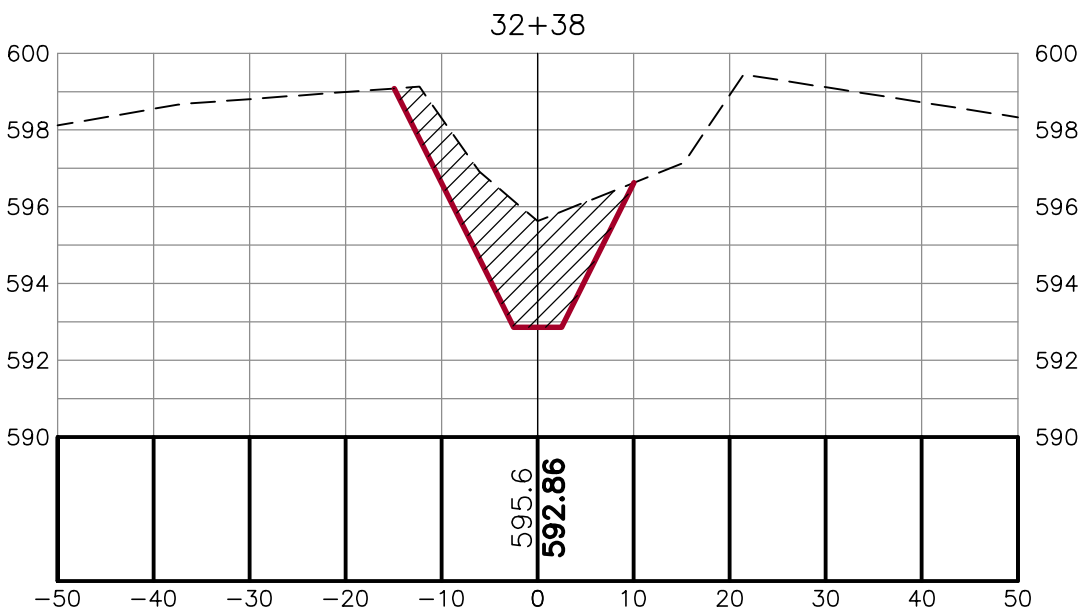
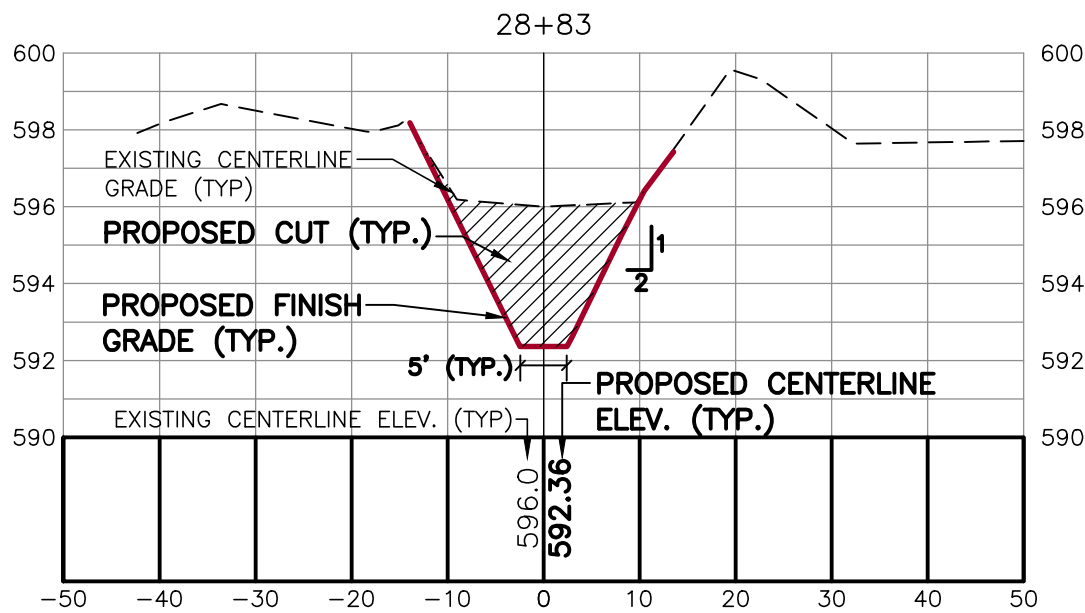
OPEN CHANNEL SEEDING 2,300 LF  
EXISTING SPOIL LEVELING 500 LF  
RIPRAP SIDE INLET (CONTINGENCY) 20 SY

#### PLAN VIEW



#### CROSS SECTIONS

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



#### CENTERLINE PROFILE

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



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111 S. MICHIGAN AVENUE, SAGINAW, MI 48602

BEMENT DRAIN  
SAGINAW COUNTY, MI

PROJECT NUMBER: 21-123

SURVEYED BY: LSG/ADK/AHR  
DESIGNED BY: TRM  
DRAFTED BY: NDJ/KJB  
QAC: DJF

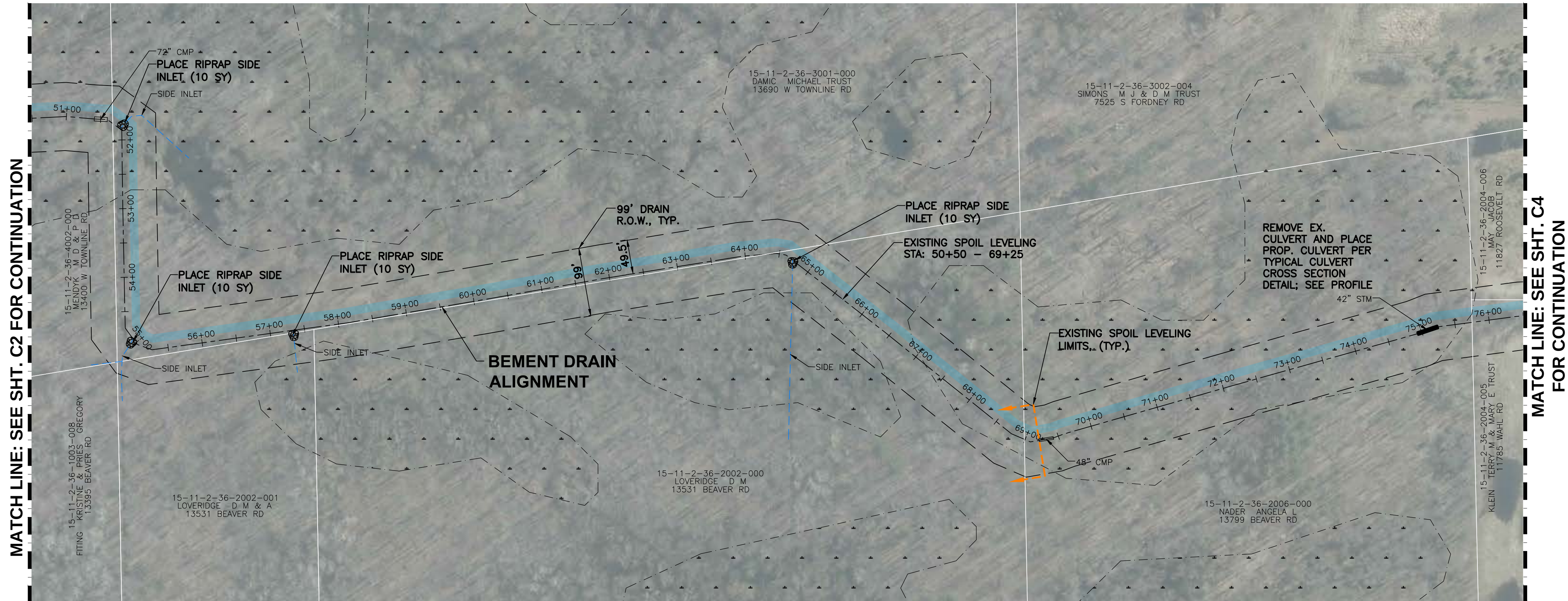
PLAN & PROFILE  
STA: 27+50 - 50+50

SHEET NUMBER

C2

ALL UTILITIES AS SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.



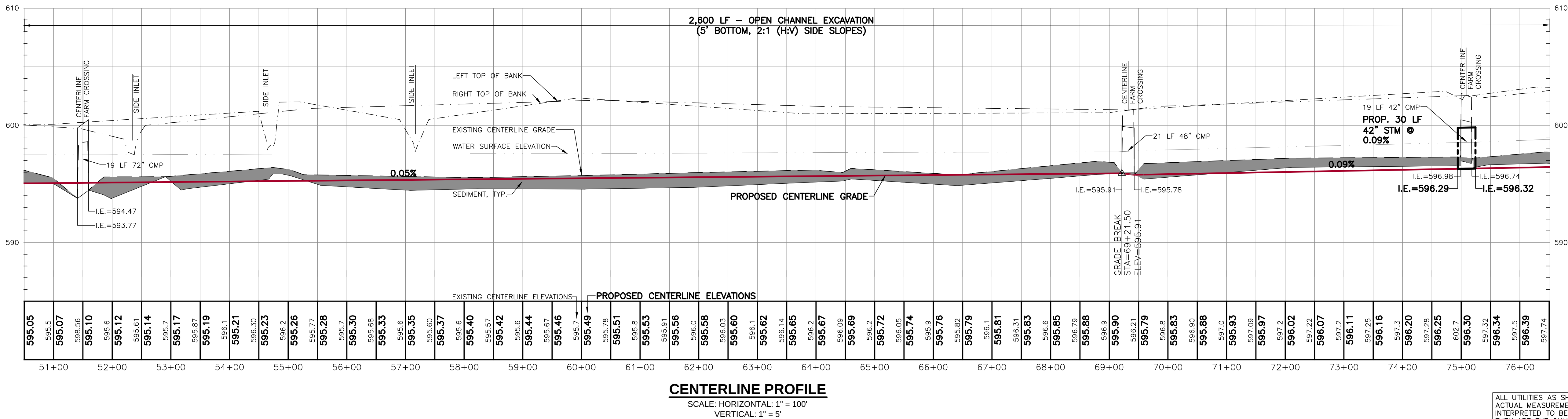
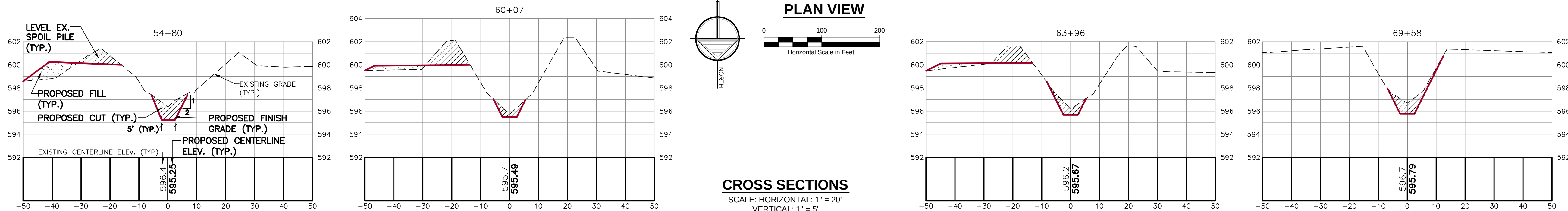


**LEGEND**

|  |                                            |
|--|--------------------------------------------|
|  | WETLAND (USFWS NATIONAL WETLAND INVENTORY) |
|--|--------------------------------------------|

**MISCELLANEOUS QUANTITIES**

|                         |          |
|-------------------------|----------|
| OPEN CHANNEL SEEDING    | 2,600 LF |
| EXISTING SPOIL LEVELING | 1,875 LF |



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| DRAFTED BY: NDJ/KJB      | 04/2022 |
| QA/QC: DJF               |         |

PLAN & PROFILE  
STA: 50+50 - 76+50

SHEET NUMBER

C3



MATCH LINE: SEE SHT. C3 FOR CONTINUATION

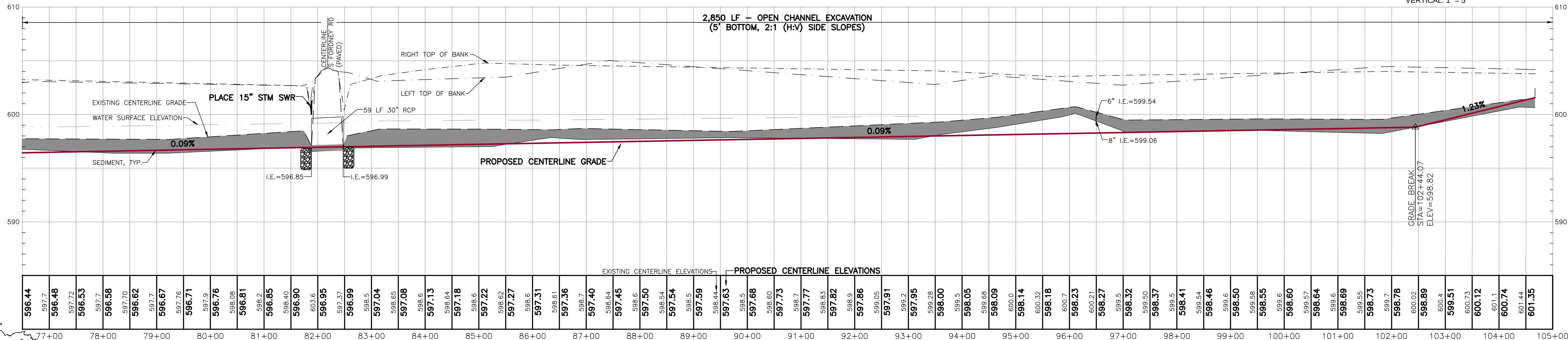


#### LEGEND

WETLAND (USFWS NATIONAL WETLAND INVENTORY)

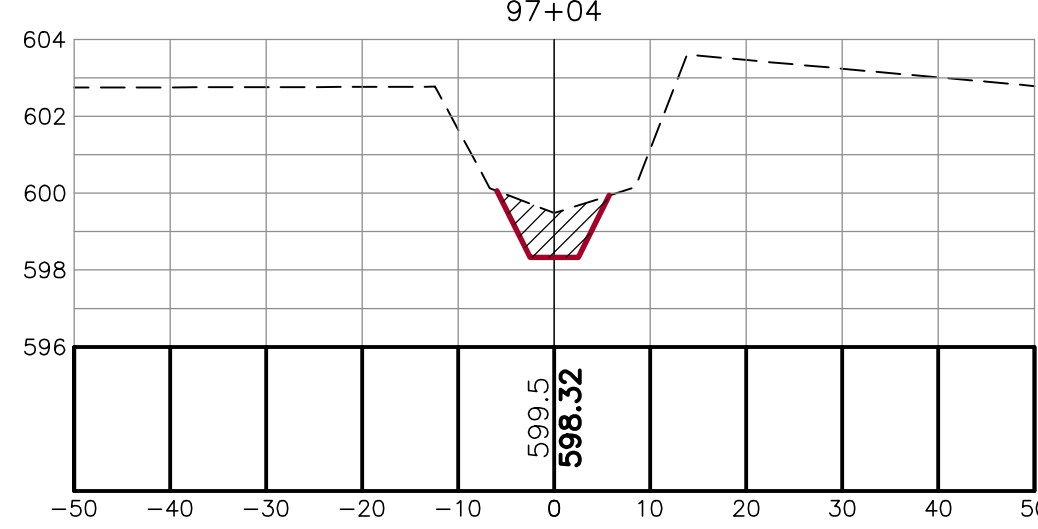
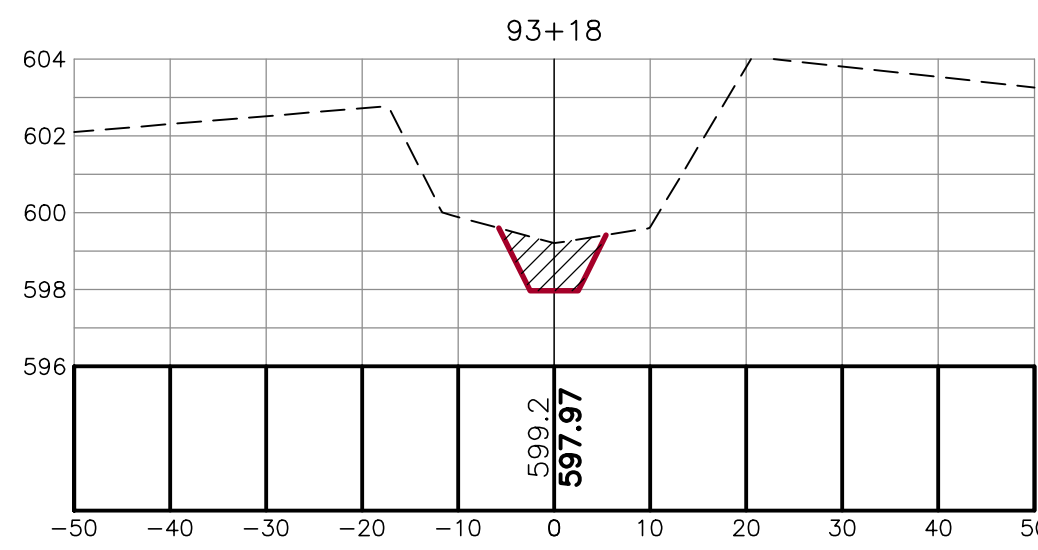
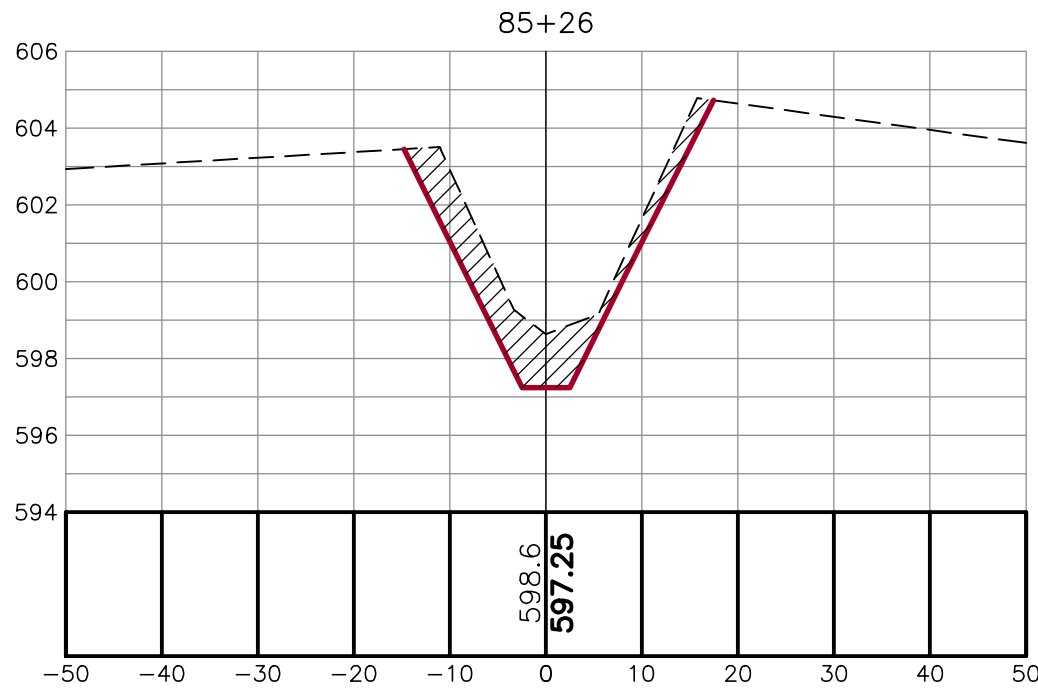
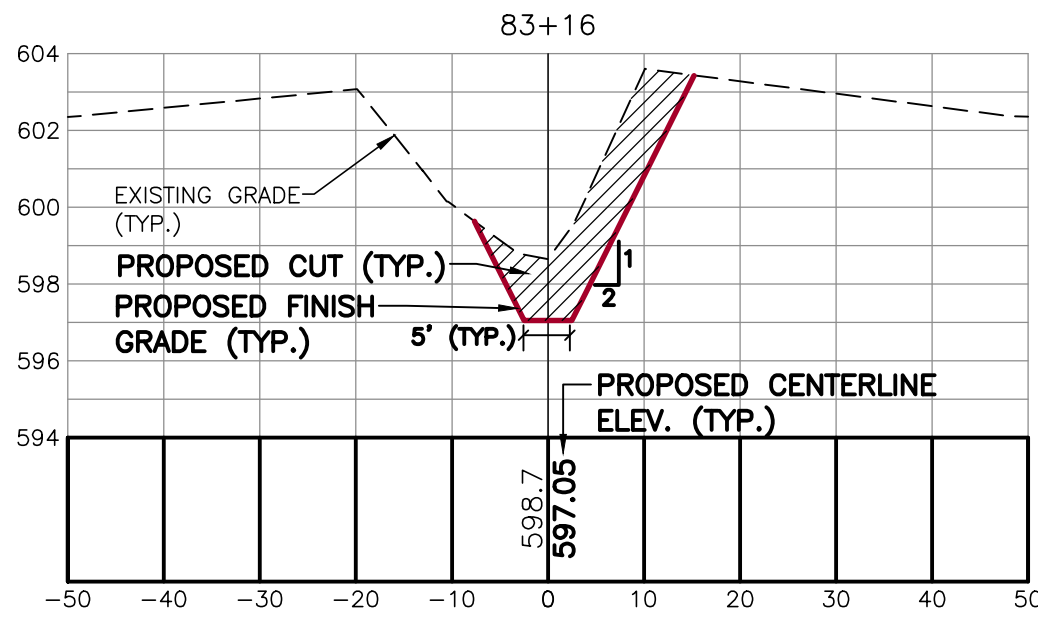
#### MISCELLANEOUS QUANTITIES

OPEN CHANNEL SEEDING 2,850 LF  
TILE OUTLET PROTECTION (CONTINGENCY) 10 SY



#### CENTERLINE PROFILE

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



#### CROSS SECTIONS

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**LRE**  
ENGINEERS & SURVEYORS

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PLAN & PROFILE  
STA: 76+50 - 105+00

SHEET NUMBER

C4

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| QAQC: DJF                    | 04/2022 |



