



State of Wisconsin
Scott McCallum, Governor

Department of Agriculture, Trade and Consumer Protection
James E. Harsdorf, Secretary

March 4, 2002

Richard Dukelow, Chairperson
Green Lake County Drainage Board
W2026 County Road B
Markesan WI 53946-8837

RE: Green Lake County Seneca-Warren Drainage District, Sections 1, 3, 4, 9-12, 14-16, T17N, R12E; Section 7, T17N, R13E; Green Lake County and Section 25, T18N, R11E; Sections 29, 30, 32, 33, T18N, R12E; Waushara County

Dear Mr. Dukelow:

I have completed my review of the specifications for the Seneca-Warren District, prepared by Resource Engineering Assoc. Inc. These specifications were submitted for compliance with section ATCP 48.20 (1), Wisconsin Administrative Code. The Department of Agriculture, Trade and Consumer Protection (DATCP) hereby conditionally approves these specifications. The condition is that, due to the uncertainty of the district boundaries, it must be shown that the drainage board has complied with the requirements of sections 88.77 to 88.80, Wis. Stats.. After the board has shown this compliance, the specifications can be adopted for formal establishment.

In order for these specifications to be formally established, the drainage board must take a specific action to adopt them. After the drainage board adopts the specifications, it will have 30 days to send a copy of the specifications to, the Green Lake County Zoning office and, to the Green Lake County Register of Deeds office. The drainage board is required to keep a copy of the specifications as part of their permanent record. I have retained one copy for our records but the drainage board must notify DATCP of the action to adopt these specifications.

No future changes can be made to the formally established district drain alignment, cross-section, or profile without the approval of DATCP.

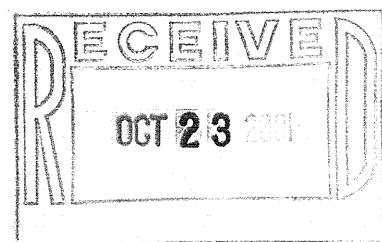
All questions and concerns should be directed to me at the telephone number below.

Sincerely,

A handwritten signature in cursive script, appearing to read "David Russell".

David Russell, PE
State Drainage Engineer
Agricultural Resource Management Division
(608) 224-4627

cc: Bruce Roskom, Green Lake County Zoning Administrator
Lynne R. Keach, Register of Deeds
Lee Bartlett, PE – Resource Engineering Assoc. Inc.
Florian J Krueger
Steve J Meilahn



SENECA WARREN DRAINAGE DISTRICT SPECIFICATIONS

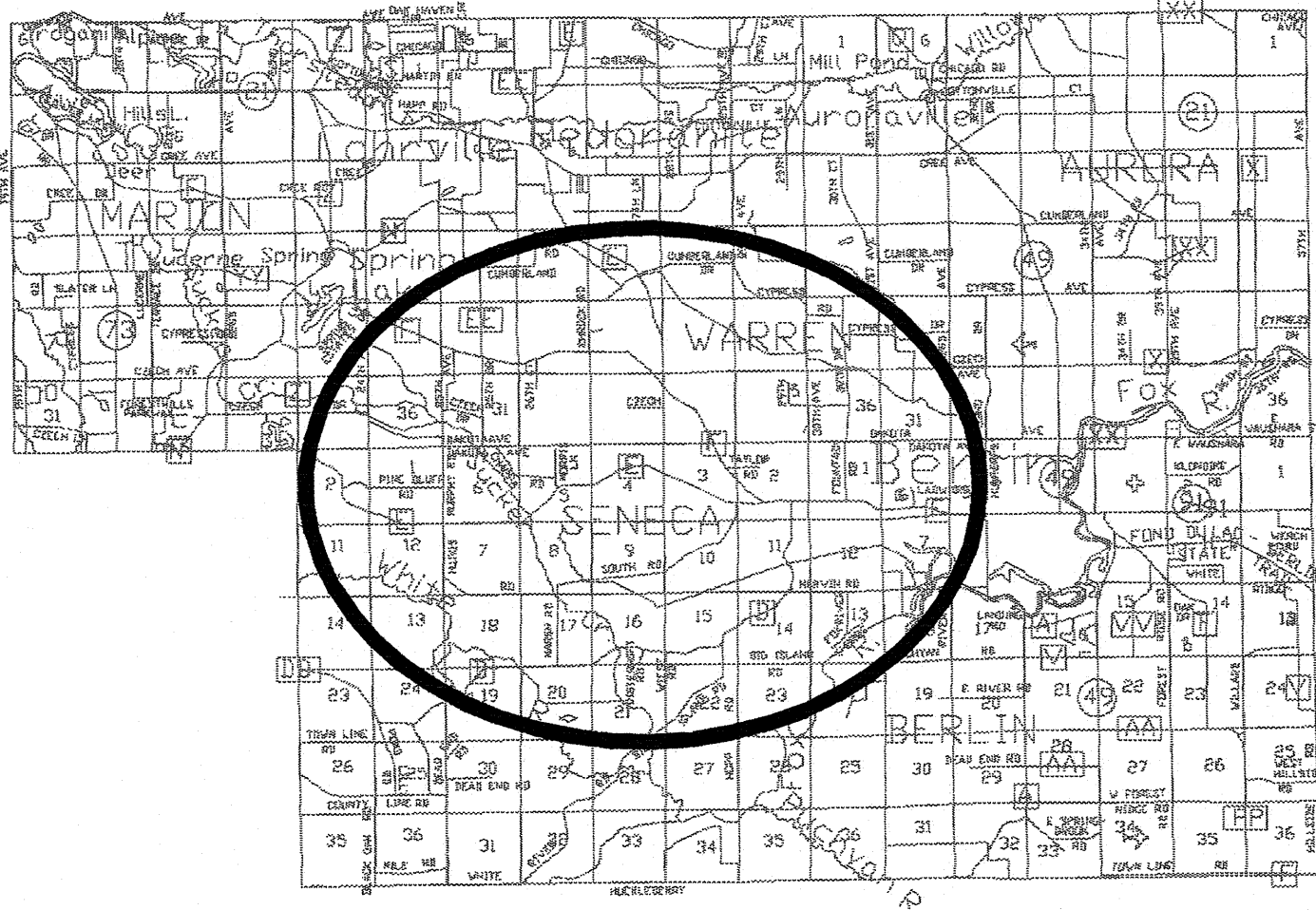
GREEN LAKE COUNTY, WISCONSIN

PREPARED FOR:

GREEN LAKE COUNTY DRAINAGE BOARD
OCTOBER 2001



GREEN LAKE COUNTY, WISCONSIN



TOWNSHIP OF BERLIN, SENECA, & WARREN



Lee A. Bartlett 10-23-01
Lee A. Bartlett, P.E. E-23405

NOTES:

Documents used to determine the district boundaries included the following:

1. 2000 Assessment Roll
2. Drawing of Seneca Warren Drainage District filed by Green Lake County Circuit Court December 22, 1964.

Documents and field survey information used to determine the alignment included the following:

1. Hydrology layer from Green Lake County GIS System
2. 1977 Green Lake County Soil Survey
3. 1989 Waushara County Soil Survey
4. 2000 Aerial photographs - Green Lake County GIS System
5. 2000 Aerial photographs - Waushara County

The drainage board approved maintaining a corridor width of 20' feet from top edge of the ditch bank on each side of the ditch with a minimum 100' foot corridor (50' feet on either side of the centerline of the ditch).

A historical design drawings "Profile of the Warren and Seneca Joint Town Drain" by W.R. Nicolls April 30, 1919 and "Profile of the Edwin Lehr Town Drain" by W.R. Nicolls April 30, 1919 were used. The historical profile was then overlaid on the existing profile. The existing slope at the outlet matched the design slope and therefore the design profile was placed at the elevation of the existing conditions near the outlet.

The original design called for 1 to 1 side slopes, and a ditch bottom that ranged from 8 feet to 4 feet in width. Cross-sections were determined from field survey information, and intended cross-sections were redeveloped to consider the current condition of the ditch.

The Parcel Map was compiled from the following sources:

1. Parcel layer from Green Lake County GIS System
2. 1998 Green Lake County Plat Book
3. Parcel layer from Waushara County GIS System
4. 1998 Waushara County Plat Book

The base flow water surface elevation determined by calculating the base flow using Method 1 in Chapter 48, Appendix A and then running these flows through HEC-RAS. The peak water surface elevation determined by calculating the peak flow for a 10 year 24 hour rain event using the Flood Frequency Characteristics of Wisconsin Streams and then running these flows through HEC-RAS.

Survey was conducted by Jenkins Survey and Design, Inc., Madison, WI (608-848-5060) on January and July, 2001. The survey work was based upon Waushara County's High Accuracy Reference Network (HARN). JSD then used WISCON software to convert Waushara County's HARN State Plane Coordinates to Green Lake County Coordinate System. Horizontal and vertical datums for Waushara County's geodetic control monuments are as follows:

1. Horizontal - State Plane Coordinate System, South Zone, North American Datum 1983, 1991 Adjustment/NAD83(91).
2. Vertical - National Geodetic Vertical Datum 1929, NGVD29.

JSD established horizontal and vertical control based upon this geodetic control network using Trimble 4800 Global Positioning System survey equipment. JSD used geodetic control monuments 297, 298, and 301 for the Seneca Warren Drainage District as provided by the Waushara County Surveyor's Office.

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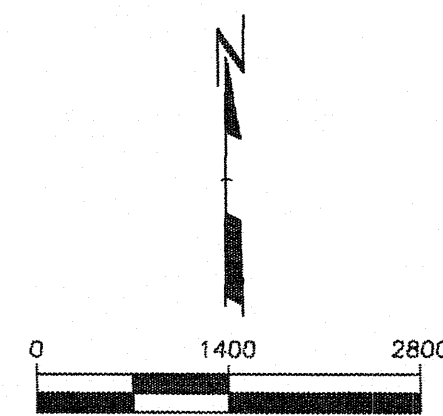
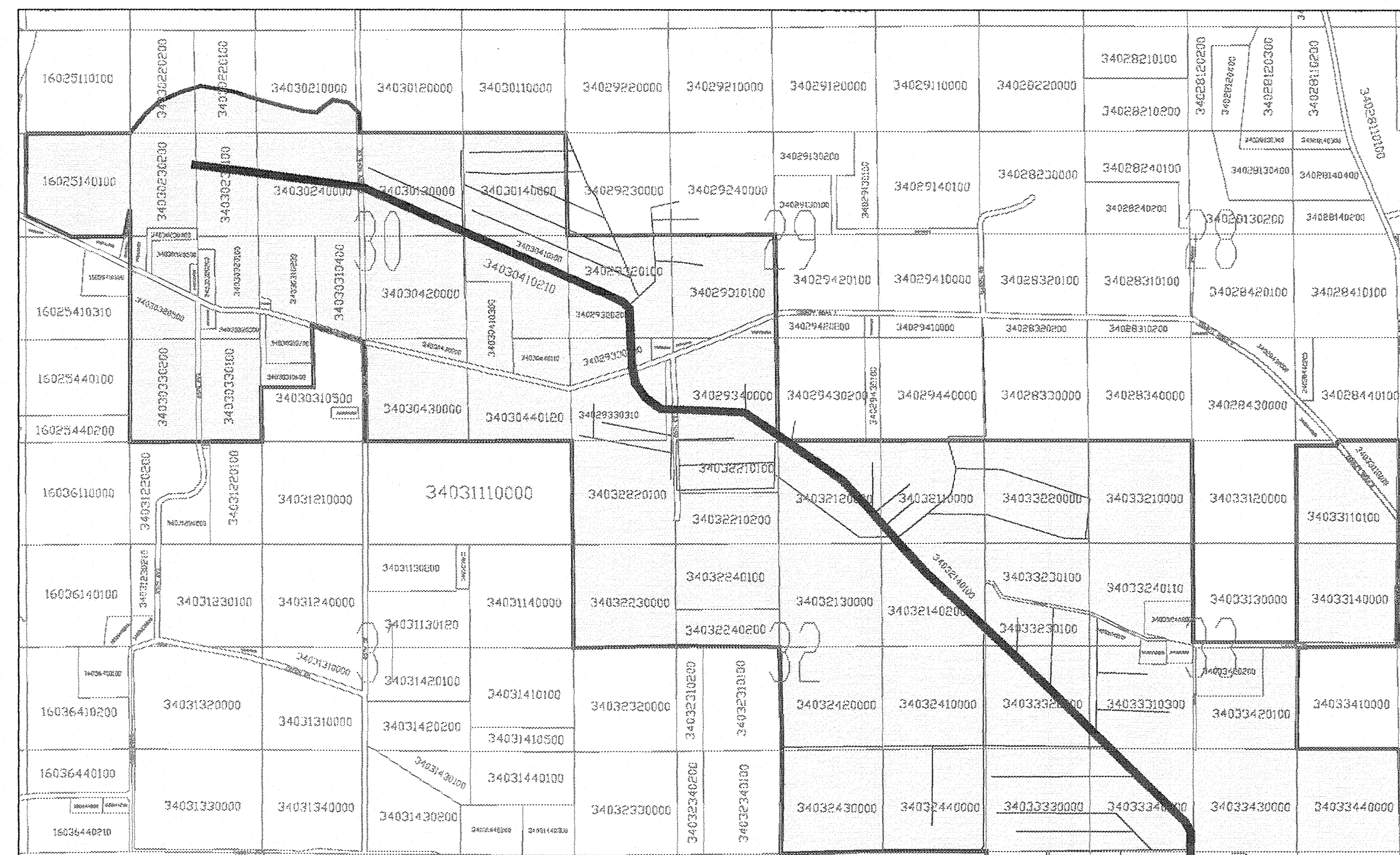
By: *Don Pearson*

Date: 3-4-02

Department of Agriculture, Trade
And Consumer Protection

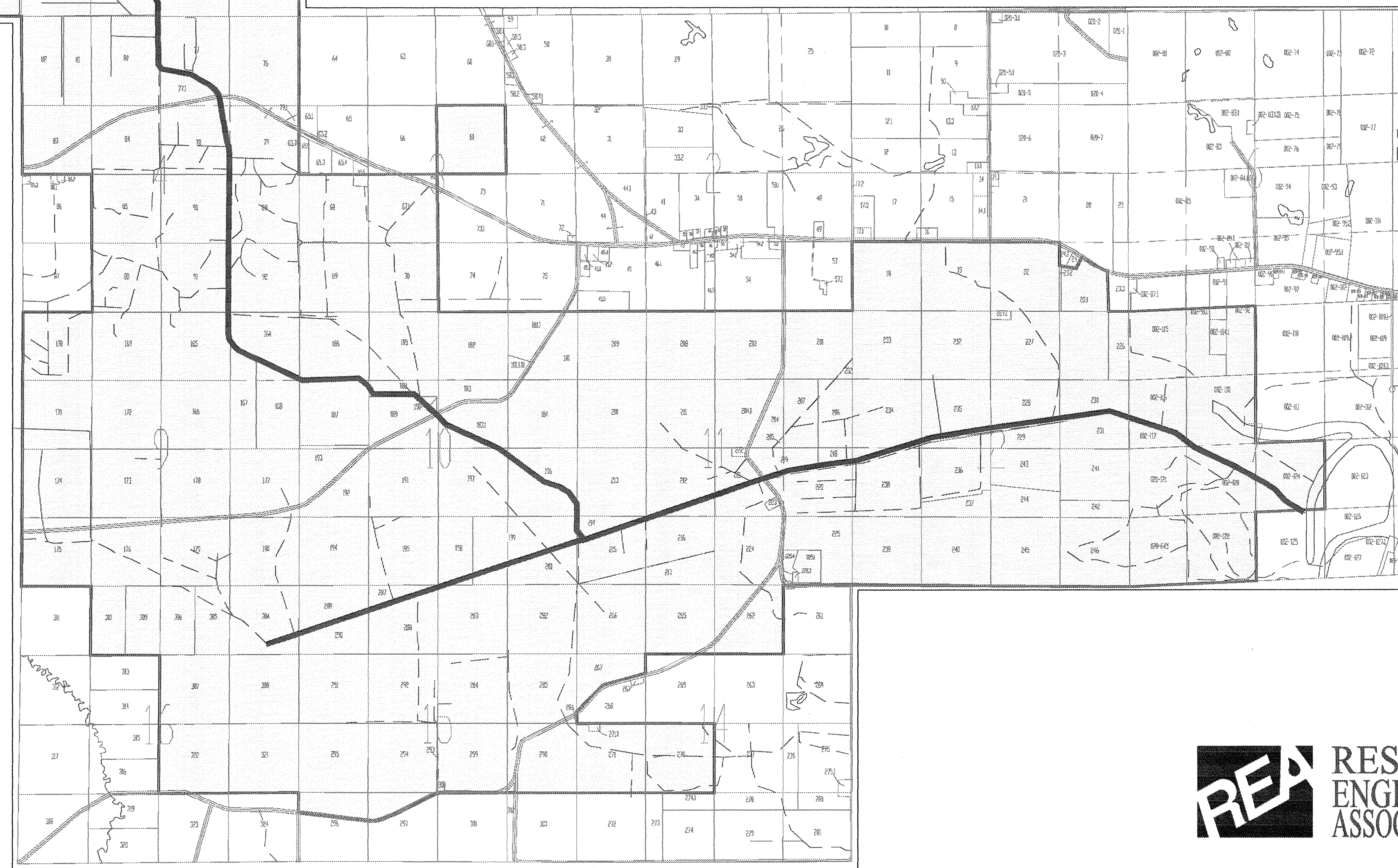


**RESOURCE
ENGINEERING
ASSOCIATES, INC.**



LEGEND

-  DISTRICT DRAIN & CORRIDOR
-  PRIVATE DRAIN, NATURAL STREAM
-  DISTRICT BOUNDARY



SENECA WARREN DRAINAGE DISTRICT

GREEN LAKE COUNTY, WISCONSIN

TOWNSHIP OF BERLIN T.17N.-R.13.E
SECTION 7

TOWNSHIP OF SENECA T.17N.-R.12.E.
SECTIONS 1,3,4,9,10,11,12,14,15,16

WAUSHARA COUNTY, WISCONSIN

TOWNSHIP OF WARREN T.18N.-R.12.E.
SECTIONS 29,30,32,33

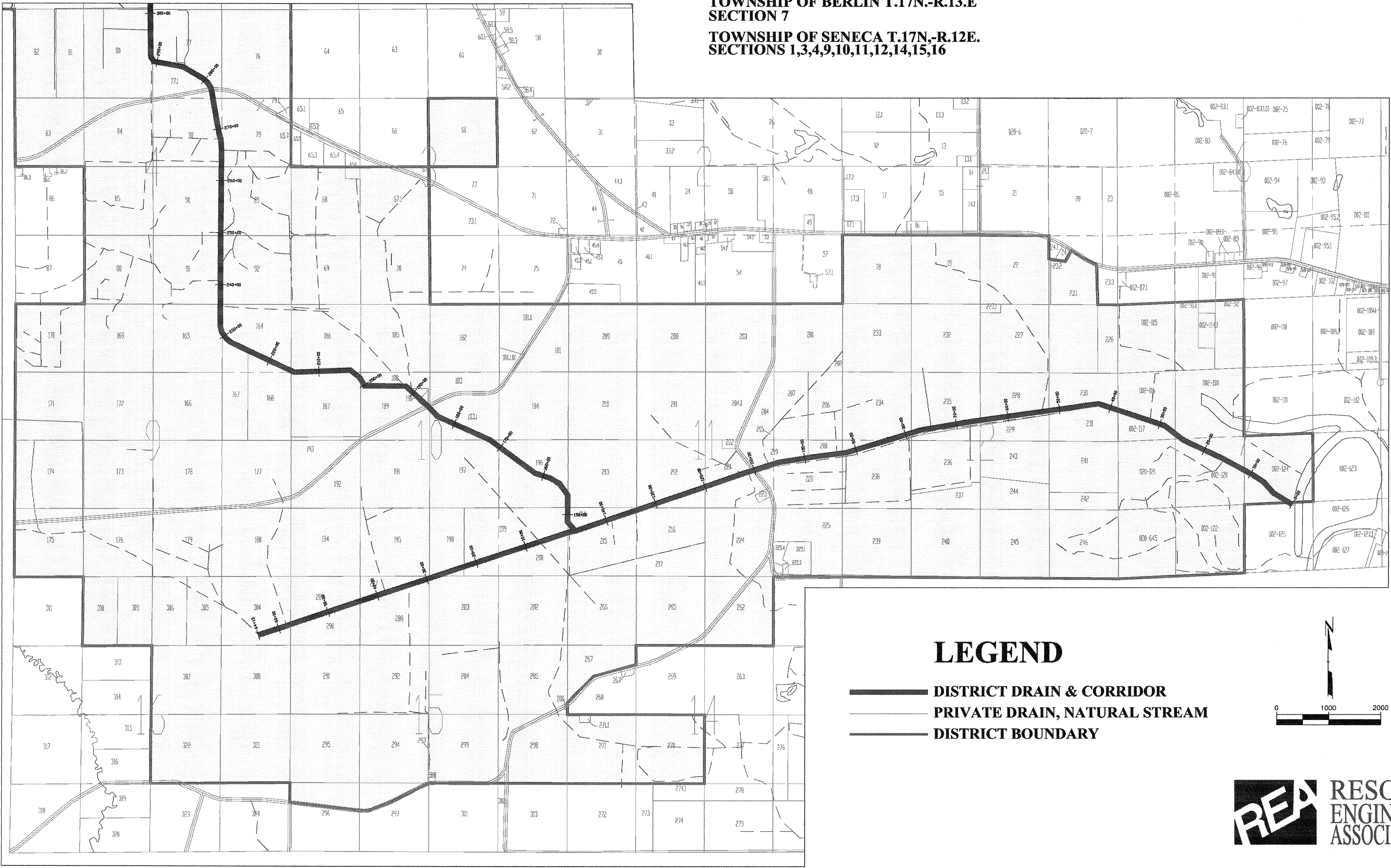
TOWNSHIP OF MARION T.18N.-R.11E.
SECTION 25

SENECA WARREN DRAINAGE DISTRICT

GREEN LAKE COUNTY, WISCONSIN

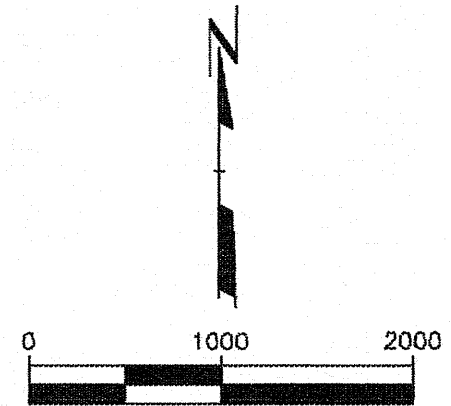
TOWNSHIP OF BERLIN T.17N.-R.13.E
SECTION 7

TOWNSHIP OF SENECA T.17N.-R.12E.
SECTIONS 1,3,4,9,10,11,12,14,15,16

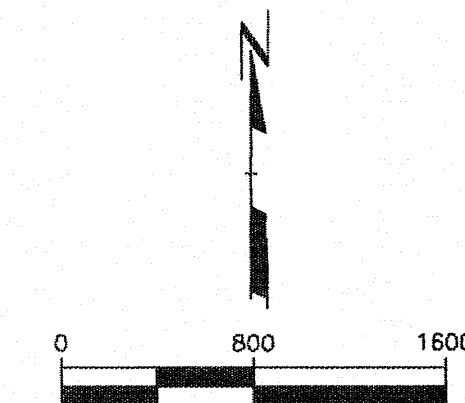
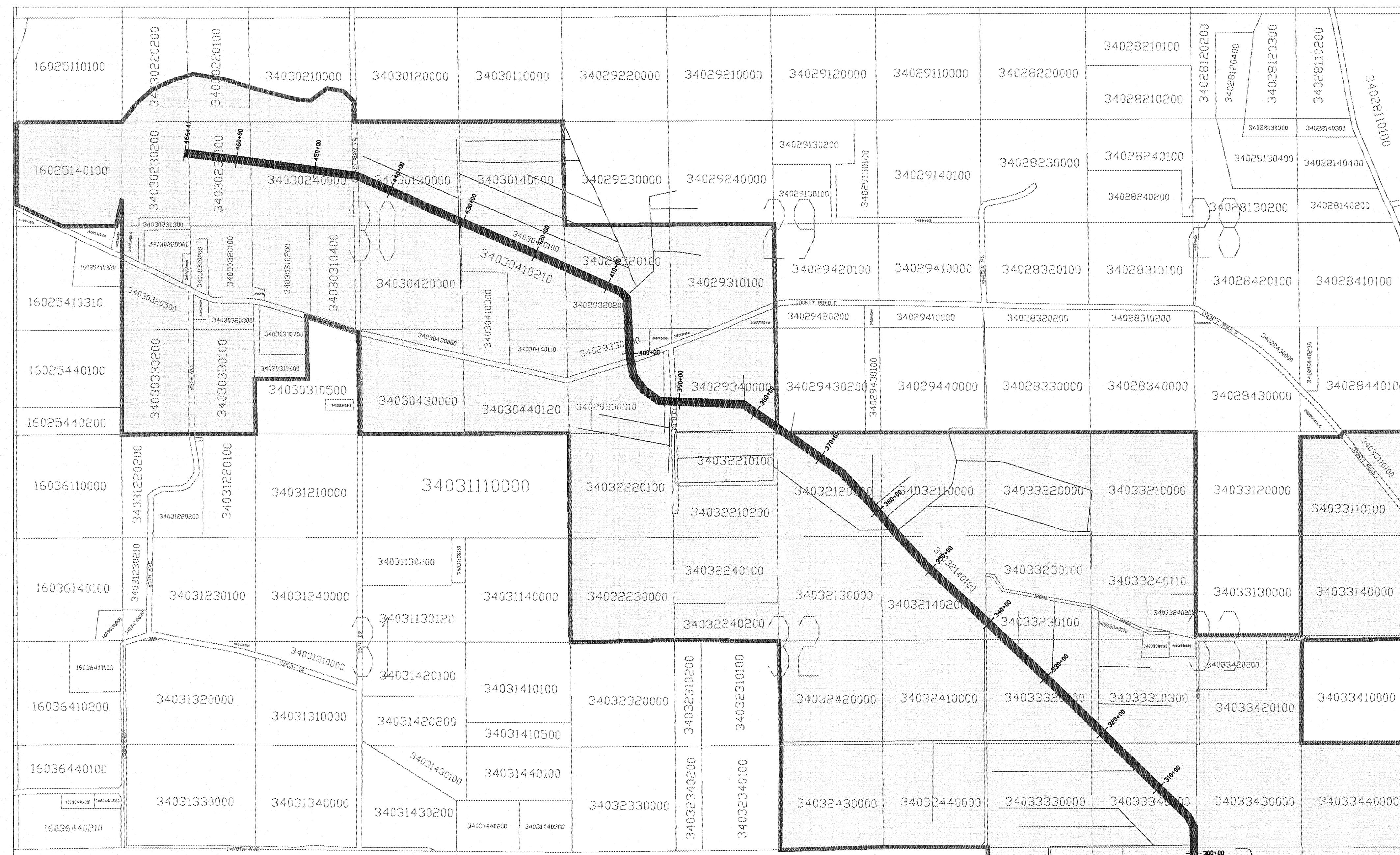


LEGEND

- DISTRICT DRAIN & CORRIDOR**
- PRIVATE DRAIN, NATURAL STREAM**
- DISTRICT BOUNDARY**

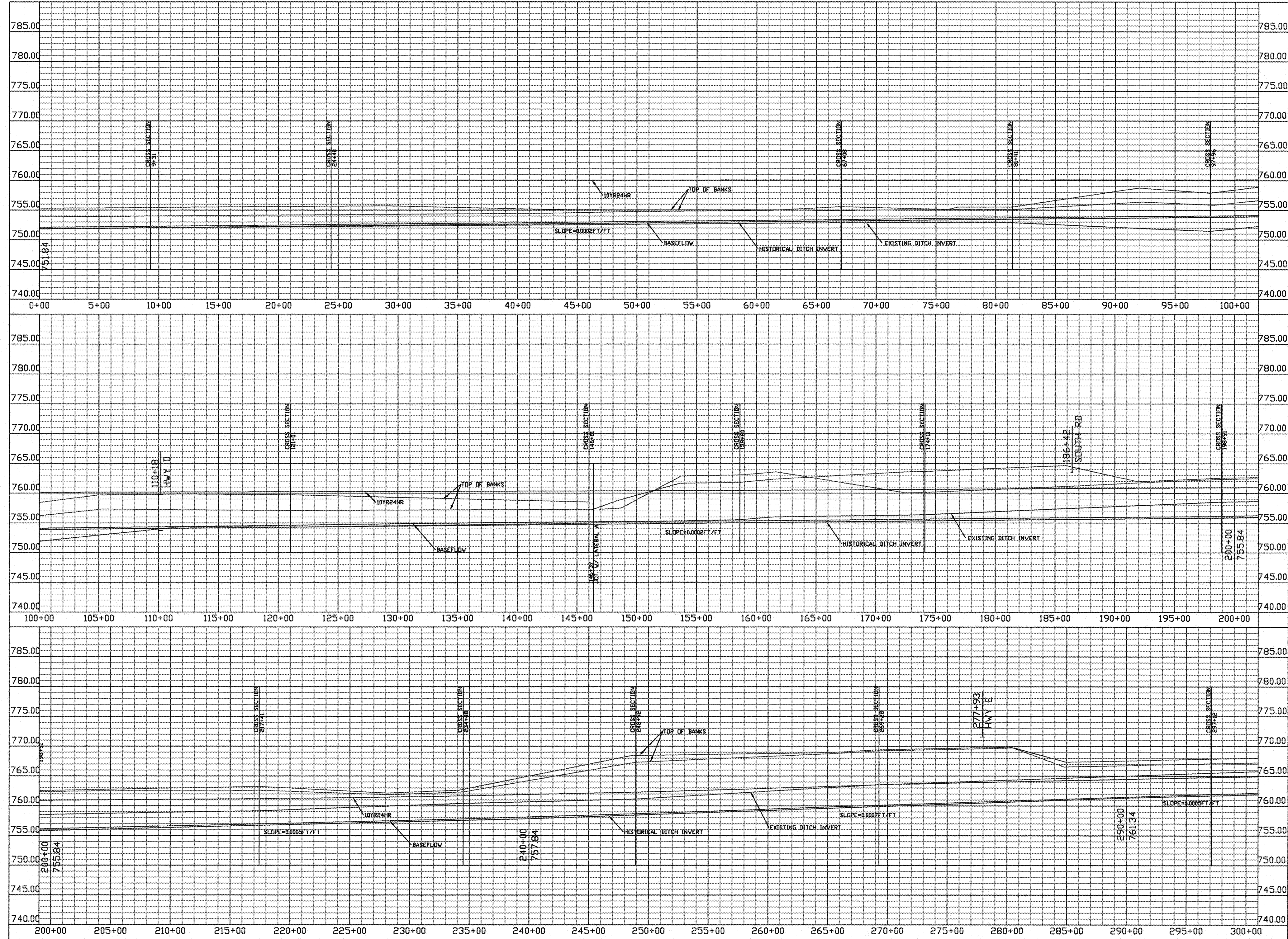


**TOWNSHIP OF MARION T.18N.-R.11E.
SECTION 25**



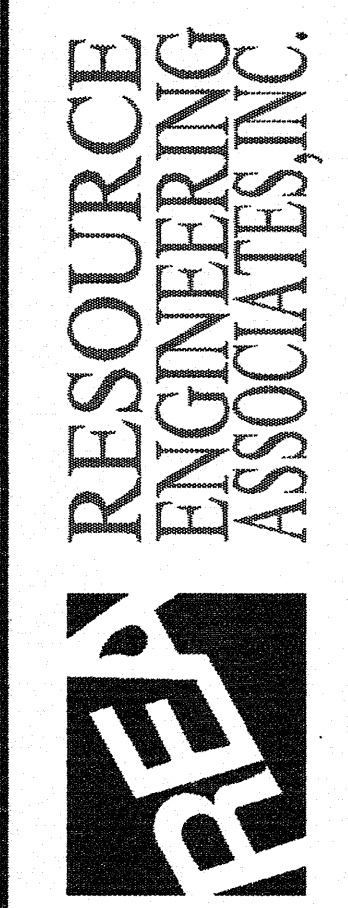
 DISTRICT DRAIN & CORRIDOR
 PRIVATE DRAIN, NATURAL STREAM
 DISTRICT BOUNDARY





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SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN
MAIN DITCH
PROFILE

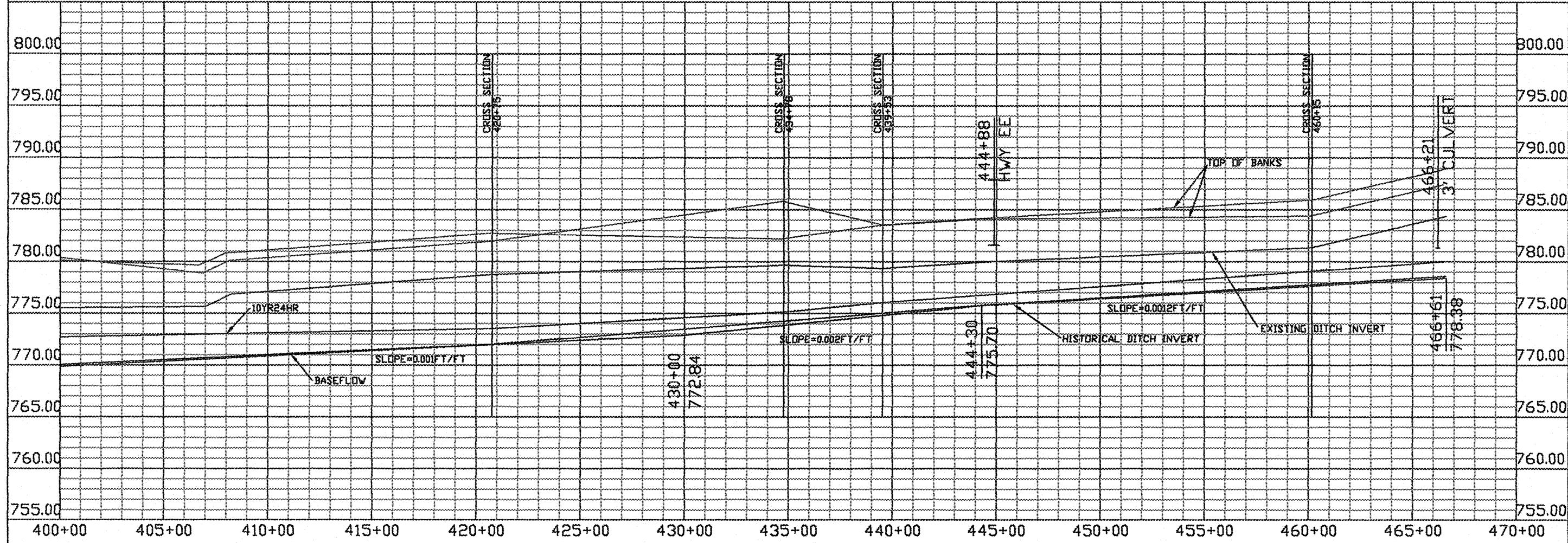
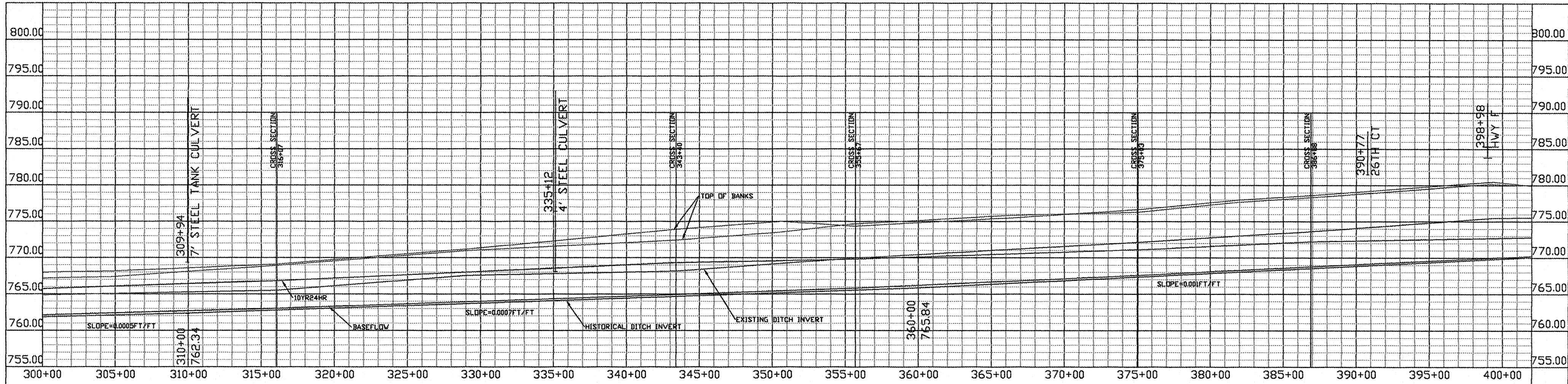
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Approved: LB

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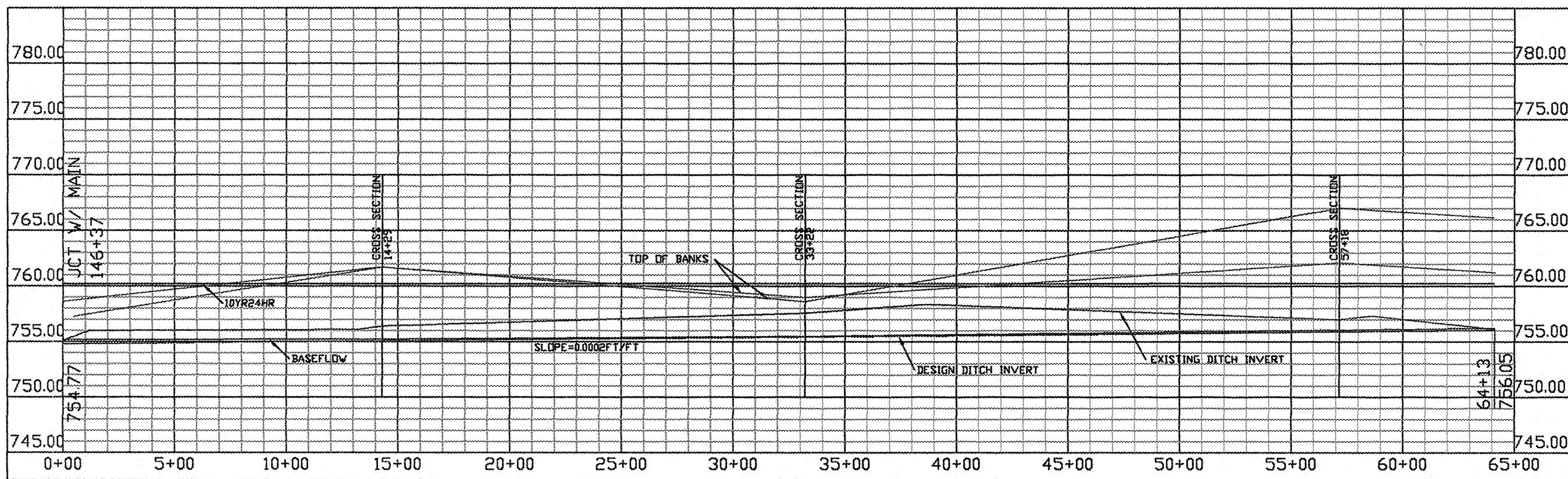
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MAIN DITCH

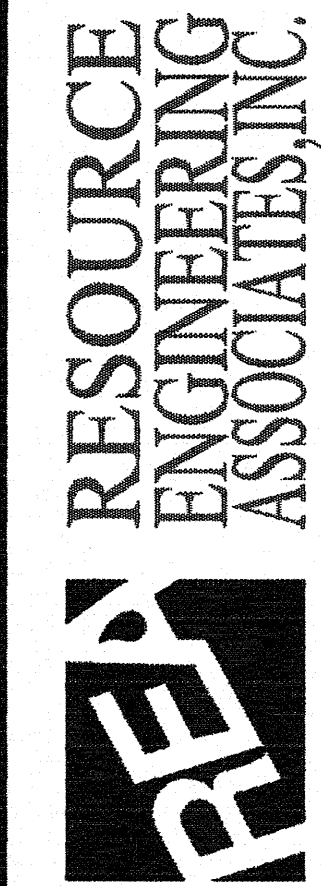


LATERAL A



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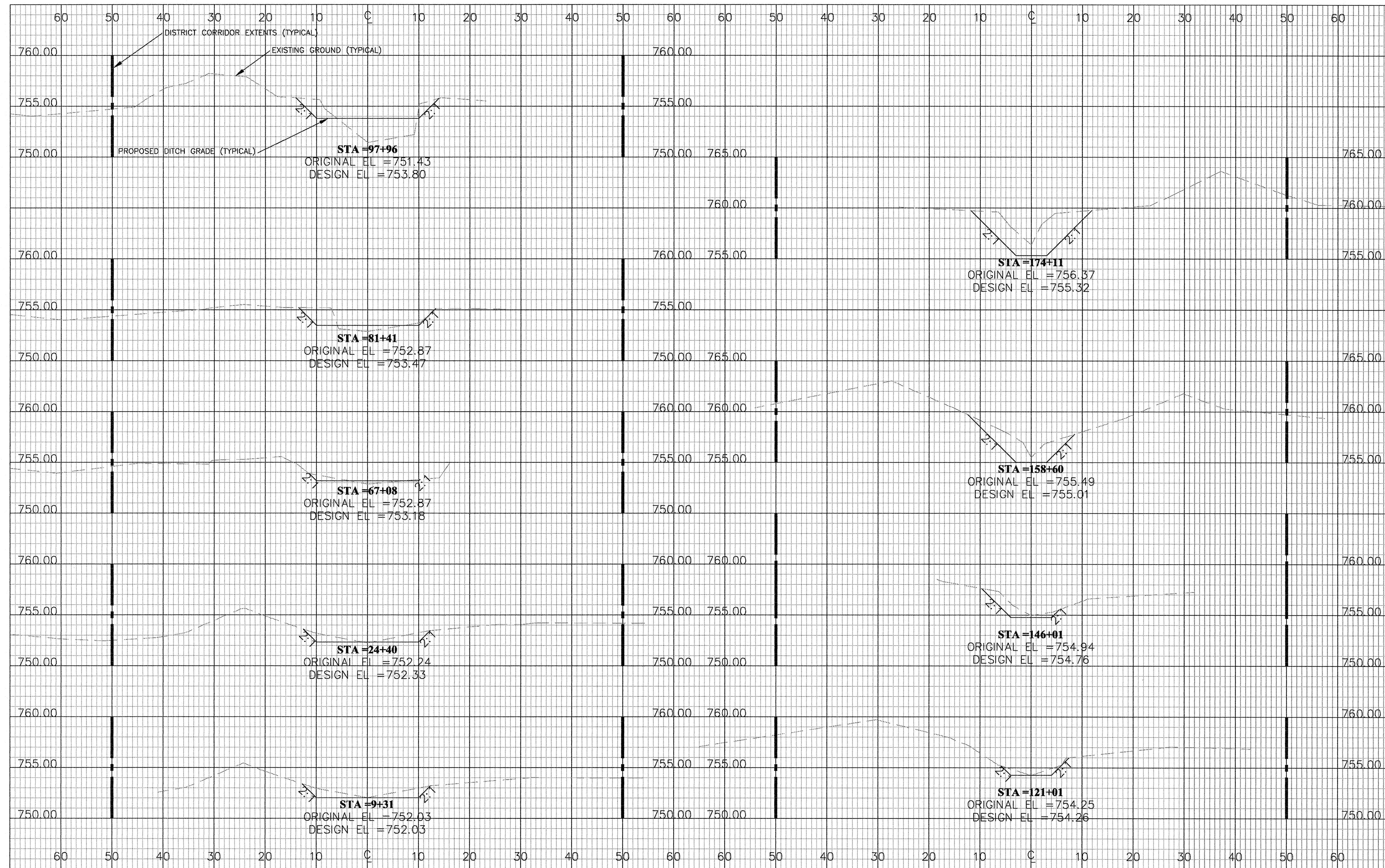
SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN
MAIN DITCH & LATERAL A
PROFILE

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Approved: LB

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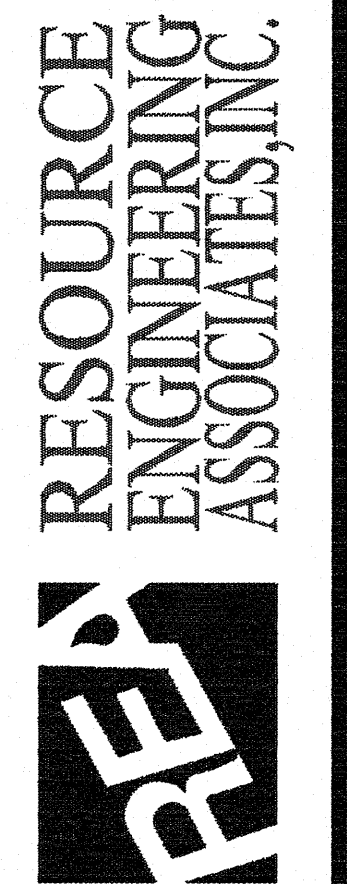
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SHEET 6 OF 11



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SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN

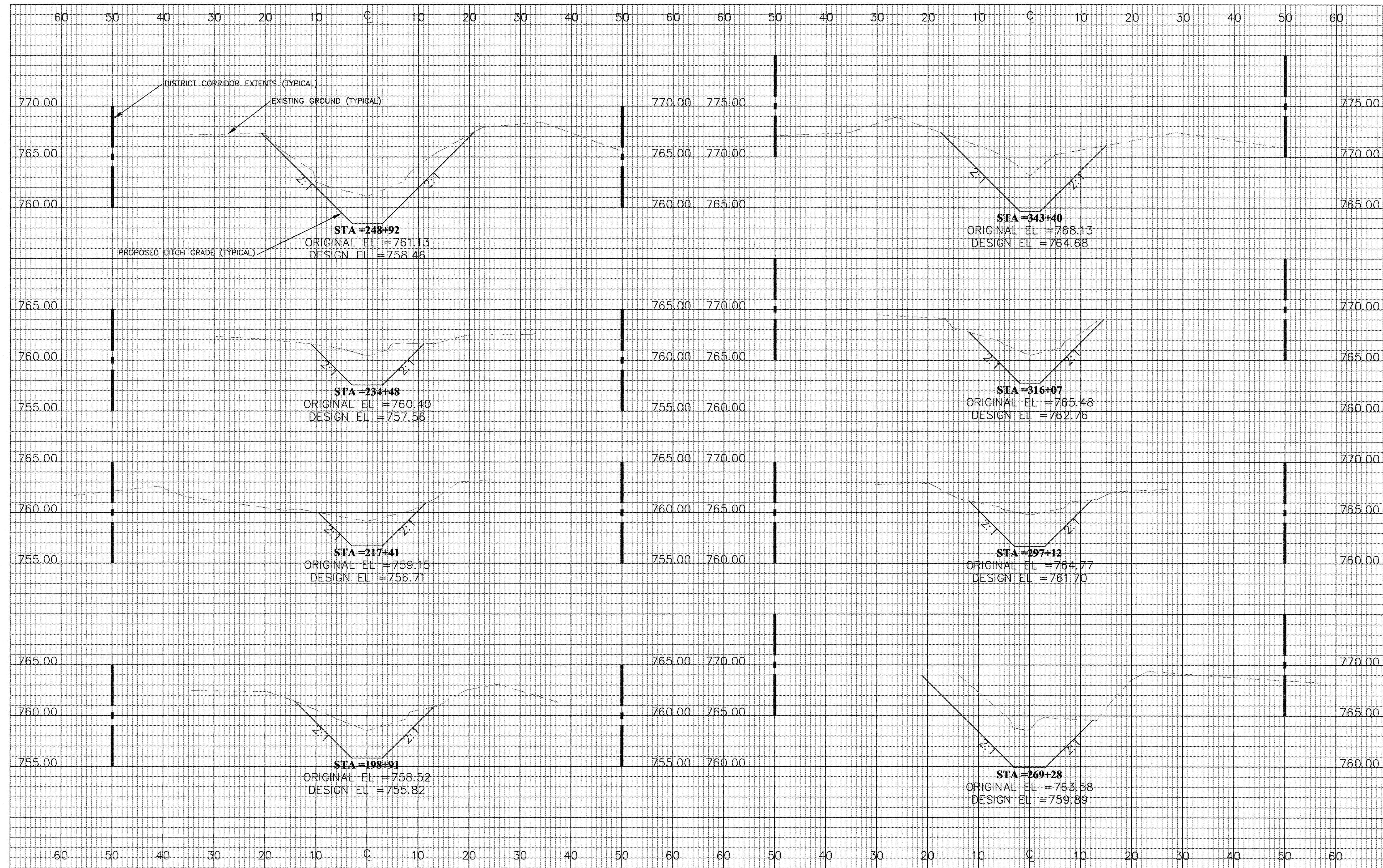
MAIN DITCH
EXISTING CROSS SECTIONS

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SHEET 7 OF 11



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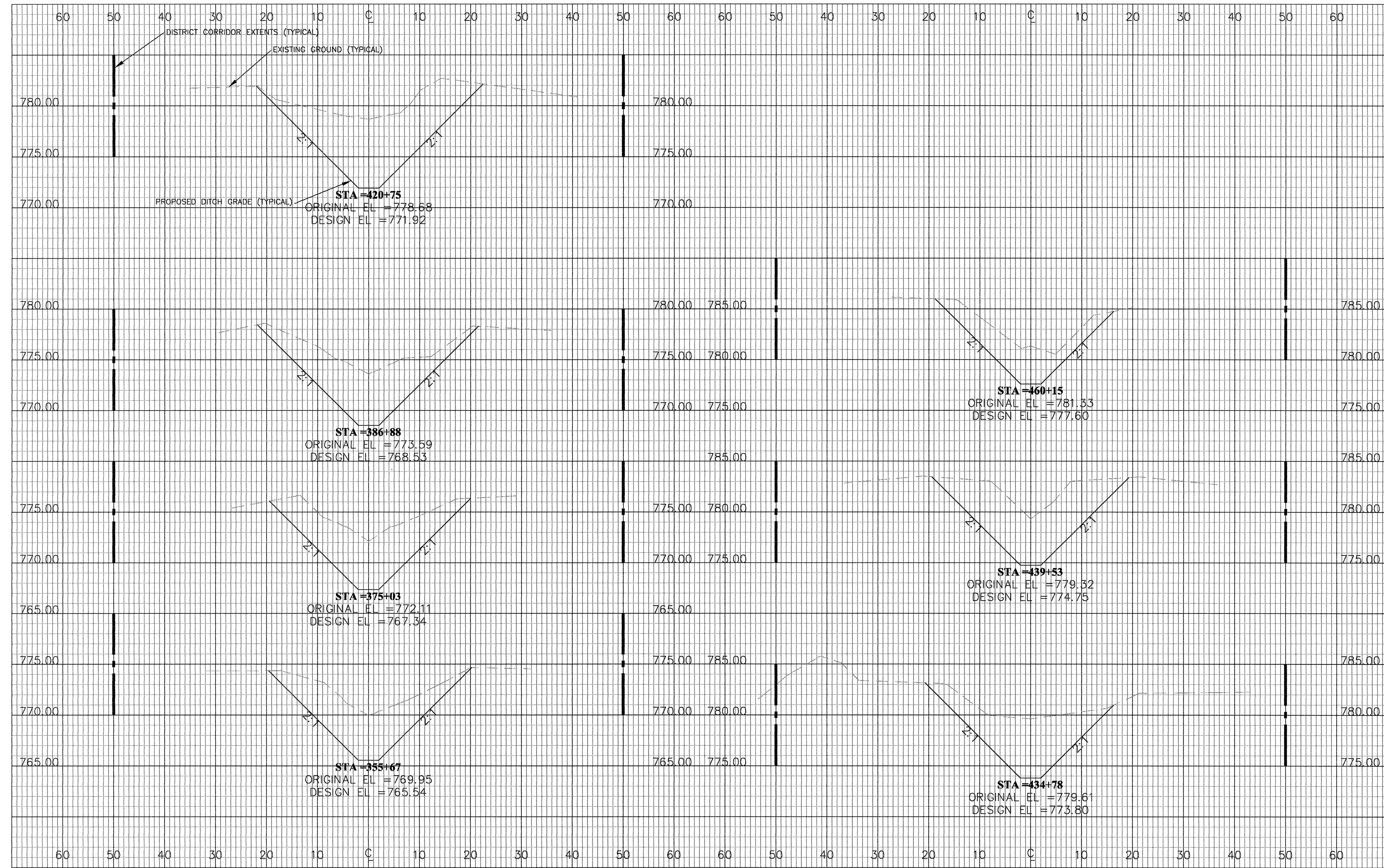
SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN
MAIN DITCH
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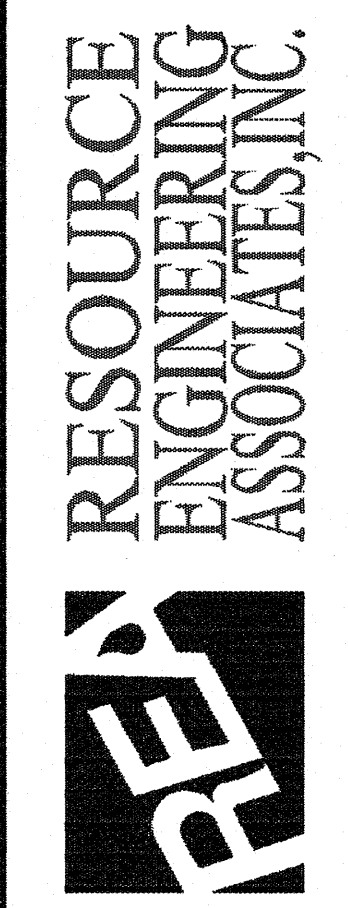
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SHEET 8 OF 11



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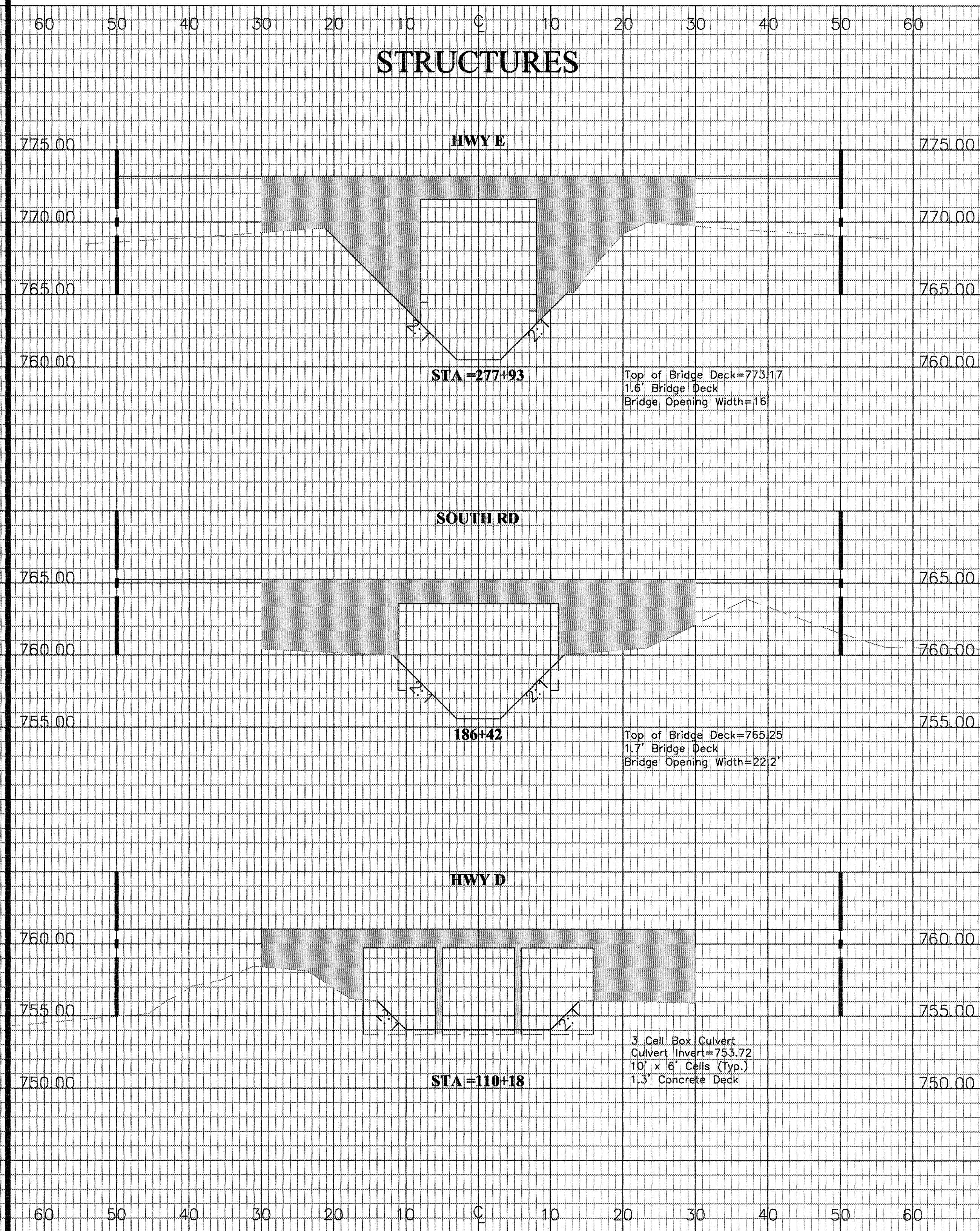
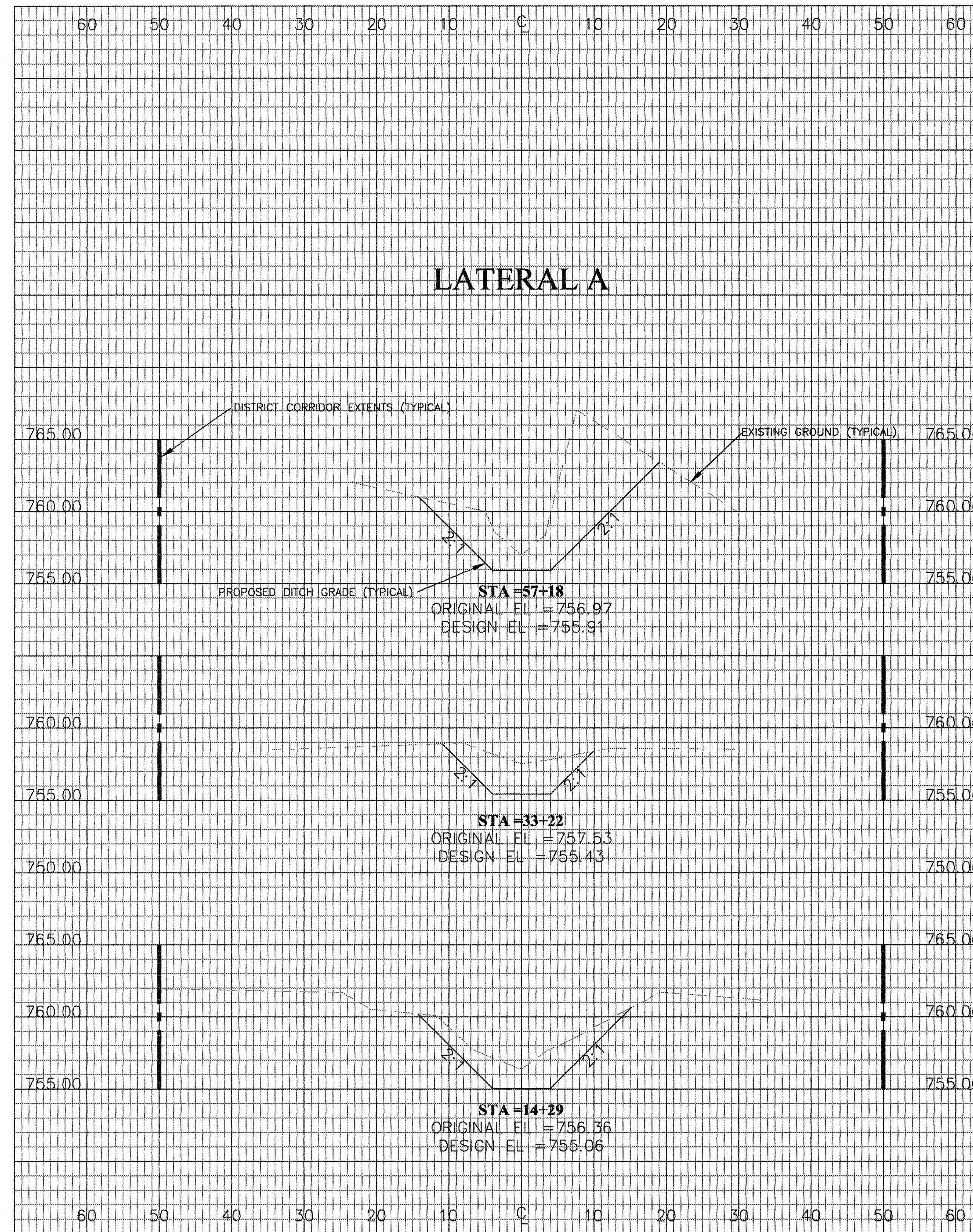
SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN
MAIN DITCH
EXISTING CROSS SECTIONS

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Approved: LB

SWXS3.DWG

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SHEET 9 OF 11



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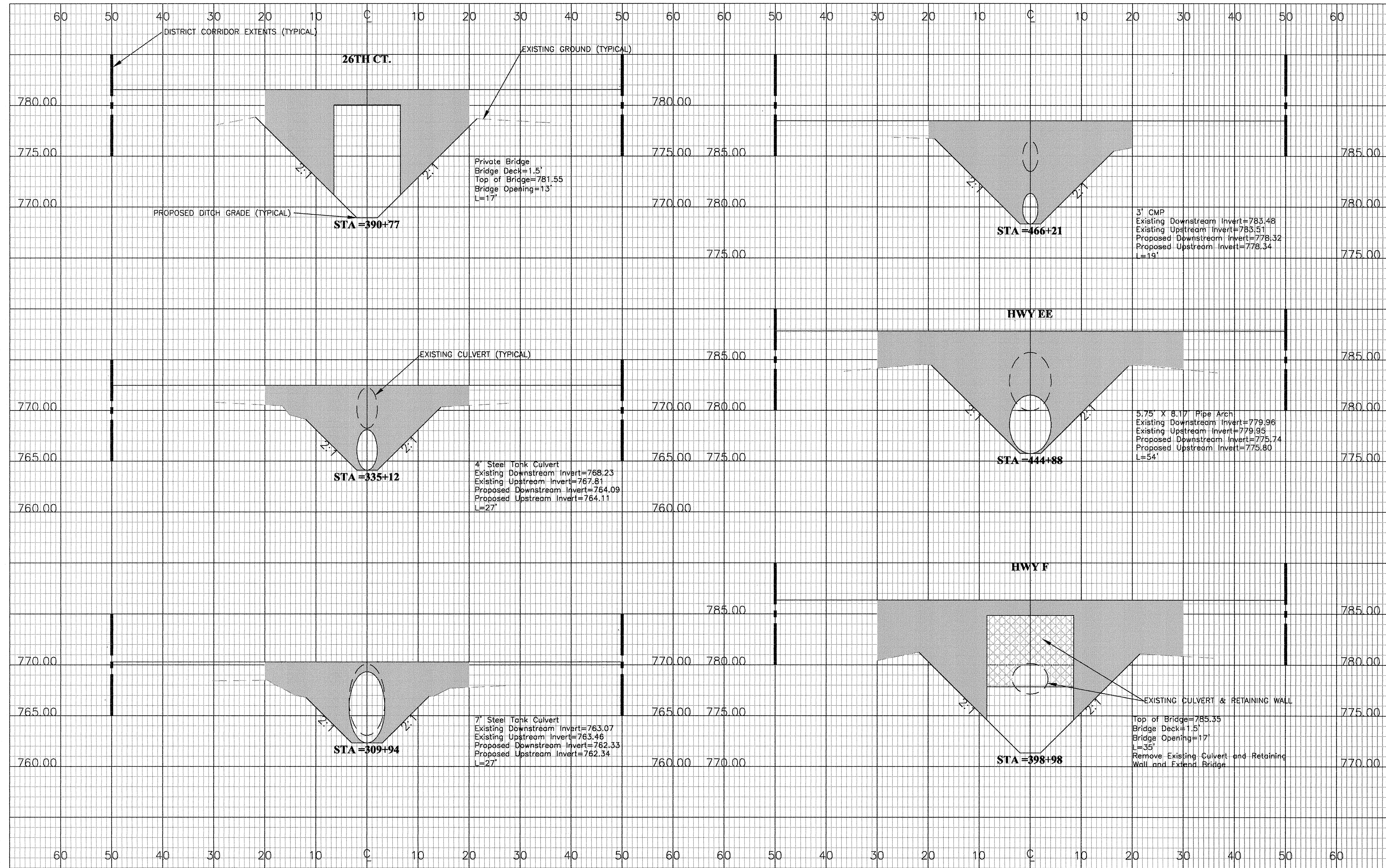
SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN
LATERAL A EXISTING CROSS SECTIONS
MAIN DITCH EXISTING STRUCTURES

Date: OCT. 2001
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Approved: LB

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SHEET 10 OF 11



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SENECA WARREN DRAINAGE DISTRICT
GREEN LAKE COUNTY, WISCONSIN

MAIN DITCH
STRUCTURES

Date: OCT. 2001
Drawn: DW
Checked: LB
Approved: LB

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SHEET 11 OF 11