



Real People. Real Solutions.

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PO Box 68  
Jefferson, IA 50129

Ph: (515) 766-4423  
Bolton-Menk.com

January 16, 2025

Worth County Board of Supervisors  
Worth County Courthouse  
1000 Central Avenue  
Northwood, Iowa 50459

RE: Tile Repairs and Improvements  
Drainage District No. 34  
Worth County, Iowa  
BMI Project No.: OT7.131919

Dear Worth County Board of Supervisors:

The Tile Repairs and Improvements on Drainage District No. 34 were completed this summer. We recommend a completion hearing be scheduled at the Worth County Courthouse inviting all landowners whose properties were directly impacted by the construction.

#### **Project Cost**

The engineer's estimated construction cost for the work was \$800,780. Eight bids were received, and the lowest bid was submitted by Rognes Brothers Excavating, Inc. for \$680,770. The final construction cost is \$725,762 which is approximately 90.6% of the estimate. The district currently holds 10% retainage in the amount of \$72,762 from the contractor.

Two change orders were issued during the project. The largest change order items were more rock was used than estimated and more tile connections were made than estimated. In total, the change orders resulted in an increase of \$42,142.

#### **Liquidated Damages**

Rognes Brothers Excavating completed the project July, before the October 4th, 2024, completion deadline. We are not recommending liquidated damages.

#### **Crop Damages**

The damage area was calculated based on whether the area disturbed by the trench, driven over or had materials piled on it, and whether the farmer was able to re-plant after construction. The costs were applied to the different types of land uses along the route of the tile installation. The land uses considered are Corn and Soybeans. A brief description of how each land use value was determined follows.

- **Corn – \$968 / acre damage** – The Ag Decision Maker website shows the 7-year average corn yield of 201.6 bu/acre in Worth County. We have used 110% of this value at 222 bu/ac and an average price for the 2024 calendar year of \$4.36/bushel from the Iowa State Extension Website.
- **Soybeans – \$691 / acre damage** – The Ag Decision Maker website shows the 7-year average soybean yield of 56.7 bu/acre in Worth County. We have used 110% of this value at 62 bu/ac and

an average price for the 2024 calendar year of \$11.15/bushel from the Iowa State Extension Website.

- **Soil Mixing and Compaction – \$697 / acre damage** – We understand soil fertility, and soil compaction can take years to recover. A study by the USDA/ARS in Minnesota found after applying a 20T/Axle load the relative corn yield dropped 30% in year one, year two saw a 10% yield loss, and about a 5% yield loss in year 3, making a full recovery in year four. We recommend compensation to account for a 25% yield decrease every year over the next three years assuming a corn-soybean rotation. We also have included two passes of V-ripping (over 15" deep) at \$22.80 per acre per pass, and two passes of rock picking at \$14.40/acre per pass.

11 landowners had crops destroyed and/or land impacted during the project. The damages for land and crops during this project totals \$37,423.10 across 24.7 acres. The breakdown of the damages is shown below. Two properties' crop damages were reduced by \$300 each to account for the cost to re-stake through these properties due to the farmer pulling the stakes.

Owner	Crop	Acres	Payment
STEVENS, DAVID & ANNIE	Beans	4.1	\$5,690.80
HILL, LOIS REV TRUST	Beans	1.8	\$2,498.40
STEVENS, AARON	Beans	1.8	\$2,498.40
MEYER, DEAN & MARDINE	Beans	1.3	\$1,804.40
HOFSTRAND, ANDREW	Beans	2.2	\$3,053.60
JOHNSON, JAMES	Corn	3.5	\$5,827.50
ROSENBERG, PATRICIA TRUST	Corn	2	\$3,330.00
ROSENBERG, JOSHUA & ANNA	Corn	4.1	\$6,826.50
GRUNDMEIER FAMILY TRUST	Corn	2.1	\$3,196.50
PIGSKIN FARMS LLC	Corn	1.7	\$2,530.50
ROSENBERG, JAMES TRUST	Corn	0.1	\$166.50

Payment of damages will be made to the owner of each property. We understand in some situations, the cost of restoring a property to production or buffer falls on the tenant. We hope in those circumstances the owner passes the compensation on to the tenant.

If you have any questions or concerns, please call our office at 515-766-4423.

Sincerely,

**Bolton & Menk, Inc.**



**Jacob L. Hagan, P.E.**

AS-BUILTS 1/16/2024

ORTH, MARY ELLEN TRUST  
SE NE  
4 99 19

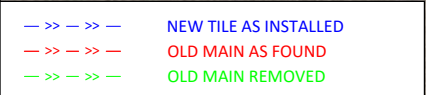
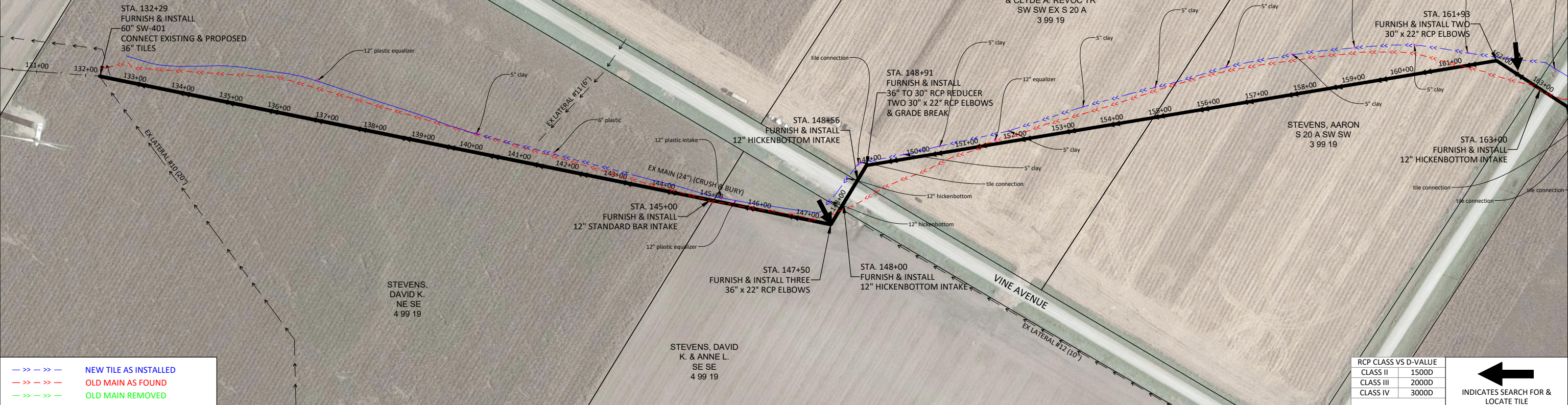
HILL, LOIS E. REVOC TR  
& CLYDE A. REVOC TR  
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HILL, LOIS E. REVOC TR  
& CLYDE A. REVOC TR  
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STEVENS, AARON  
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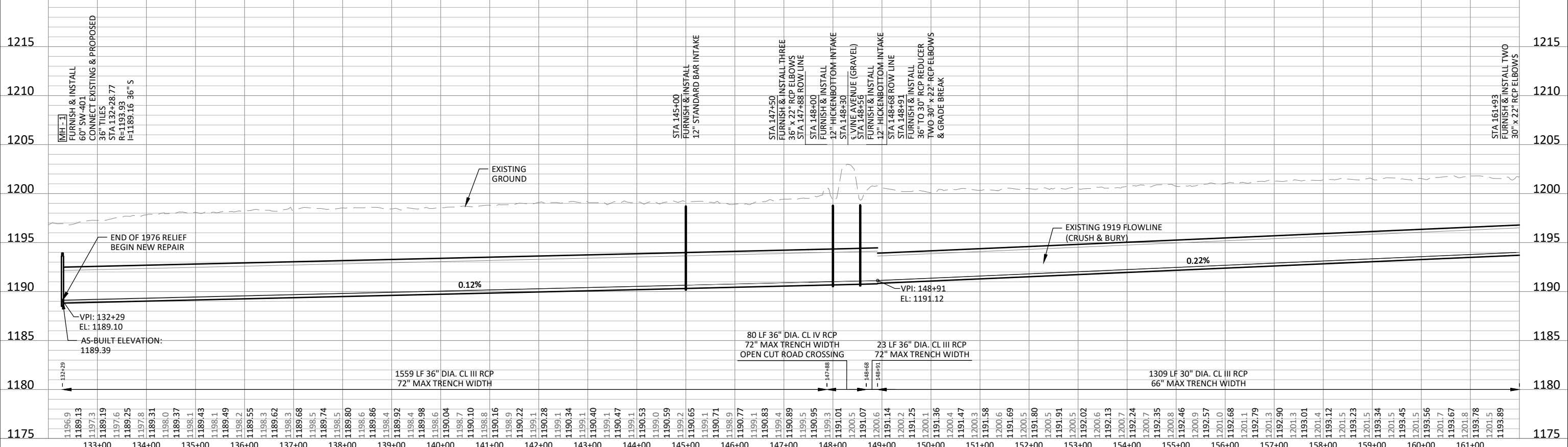
STEVENS, DAVID K.  
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STEVENS, DAVID  
K. & ANNE L.  
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RCP CLASS VS D-VALUE	
CLASS II	1500D
CLASS III	2000D
CLASS IV	3000D

← INDICATES SEARCH FOR & LOCATE TILE



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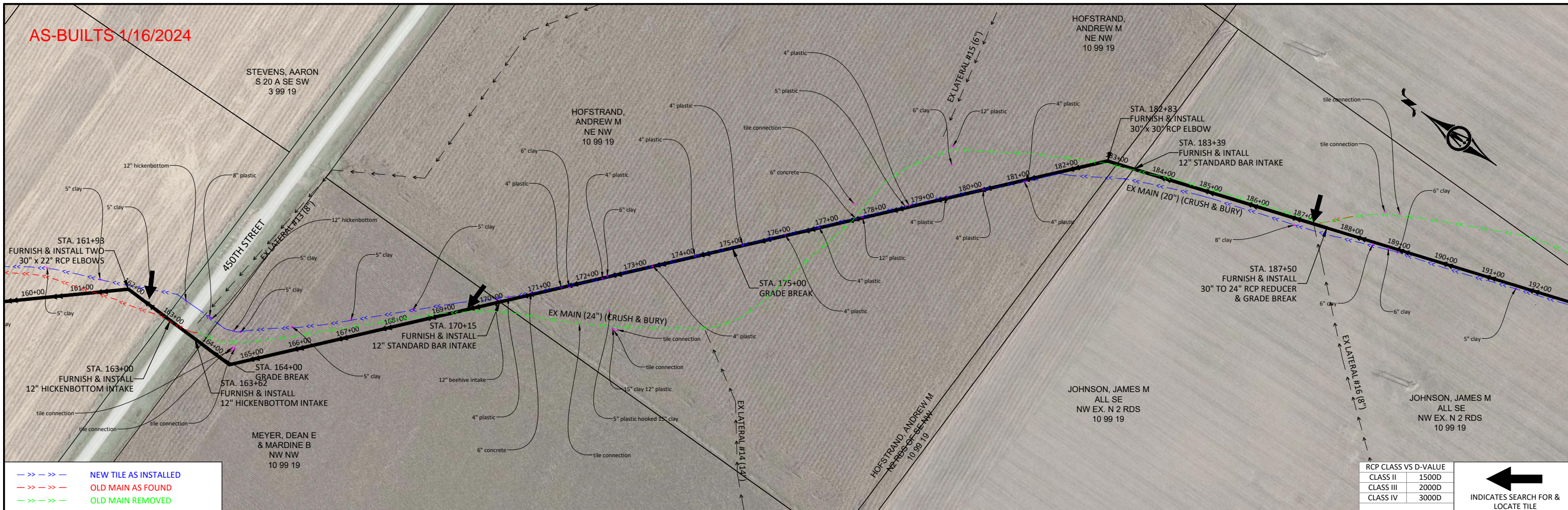
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JLH			
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TJB			
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CLIENT PROJ. NO.			

**PROPOSED DRAINAGE DISTRICT 34 TILE IMPROVEMENTS**  
WORTH COUNTY, IOWA  
**PLAN & PROFILE - UPPER MAIN IMPROVEMENTS**

SHEET  
**M.01**

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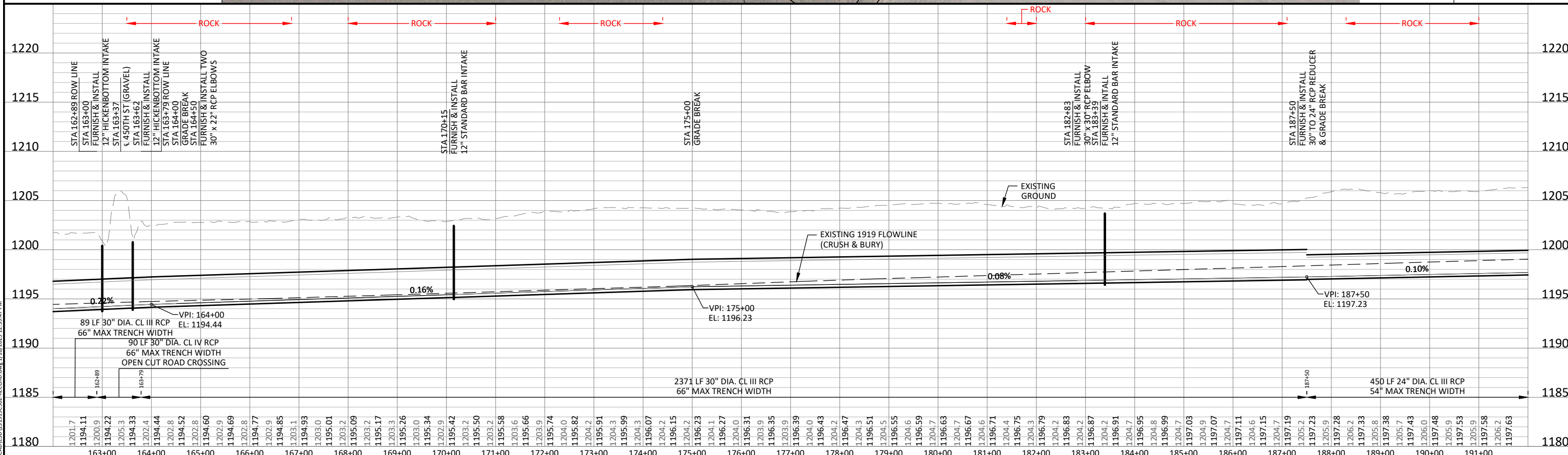
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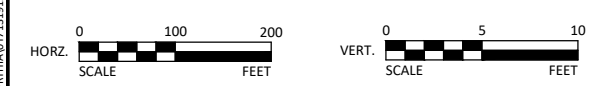
- - - - NEW TILE AS INSTALLED  
 - - - - OLD MAIN AS FOUND  
 - - - - OLD MAIN REMOVED

RCP CLASS VS D-VALUE	
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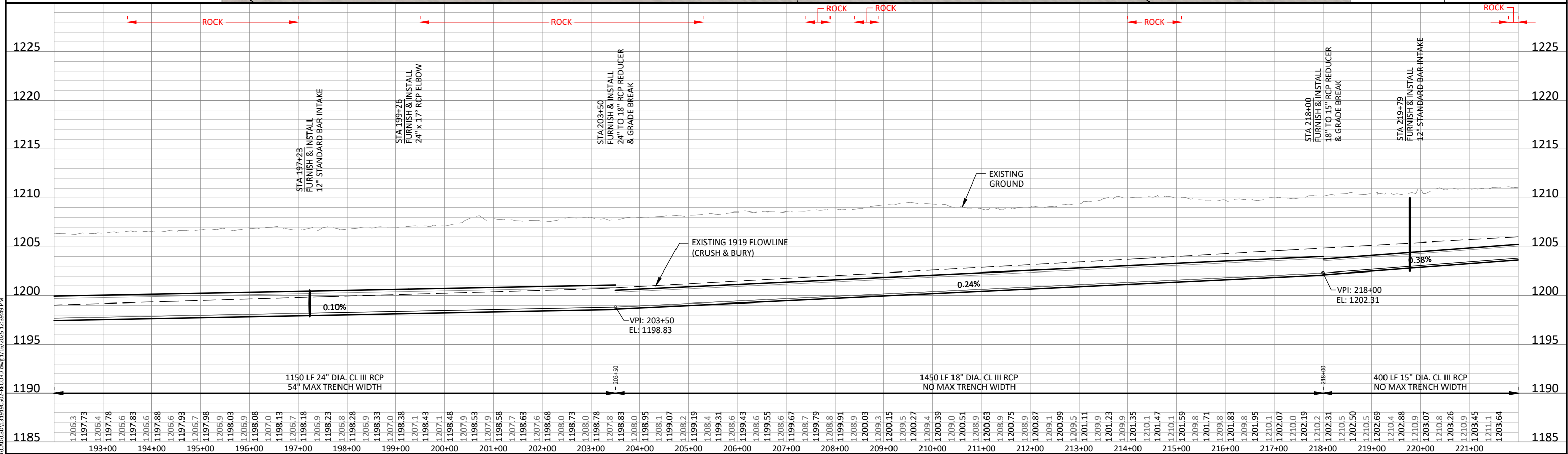
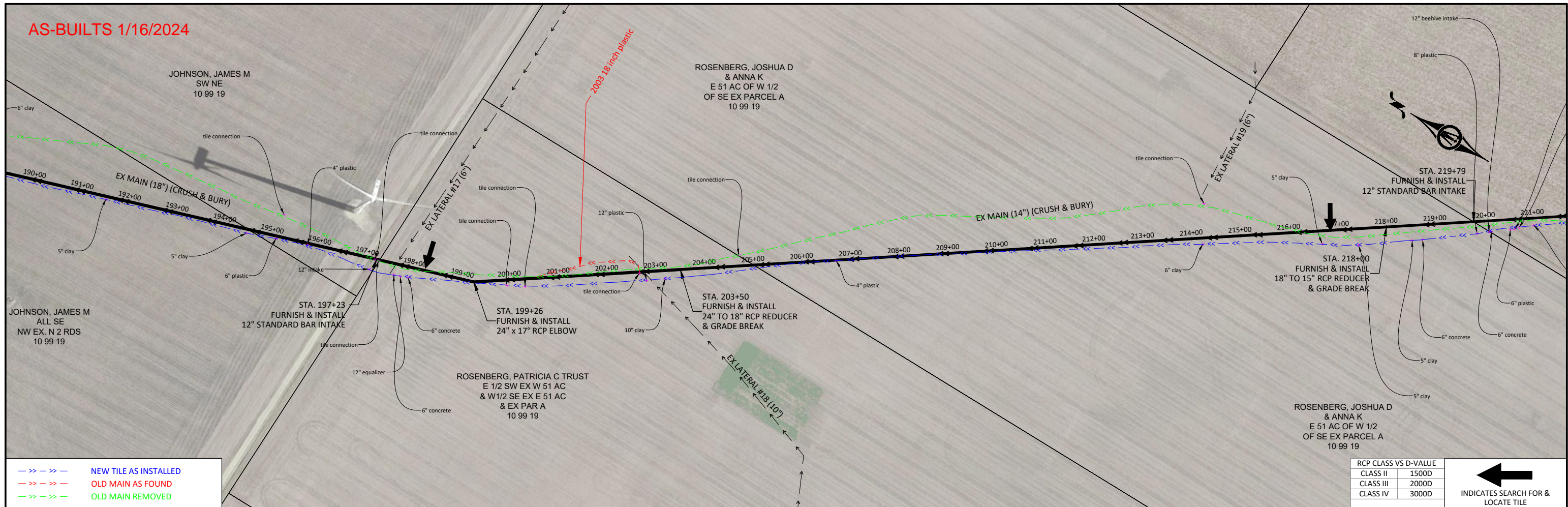
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**PROPOSED DRAINAGE DISTRICT 34 TILE IMPROVEMENTS**  
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 PLAN & PROFILE - UPPER MAIN IMPROVEMENTS

SHEET M.02

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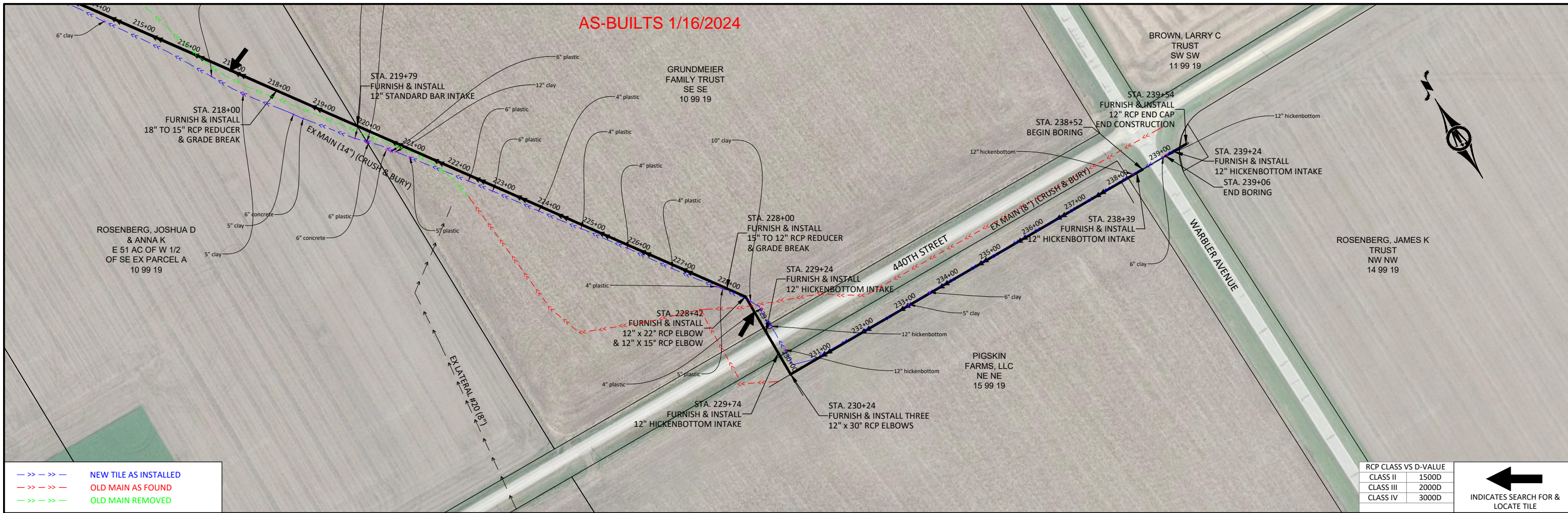
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 WORTH COUNTY, IOWA

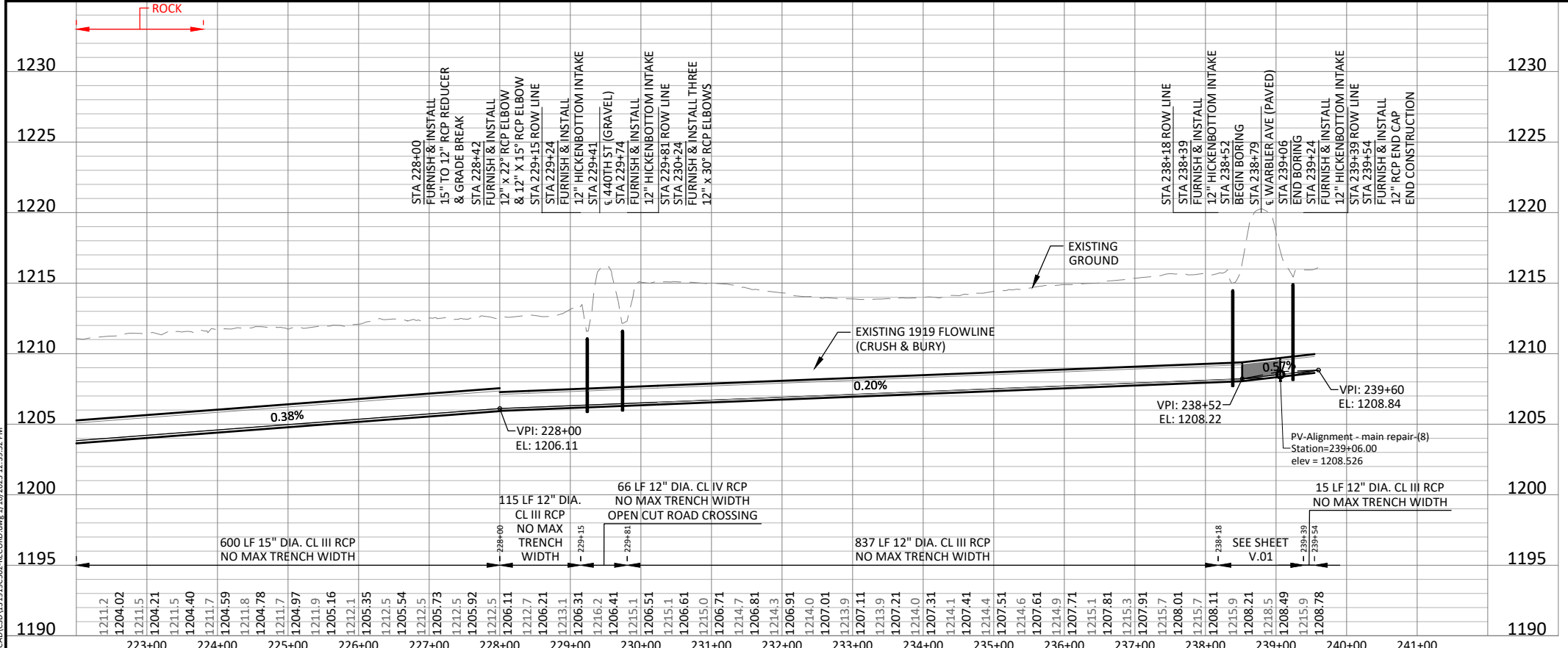
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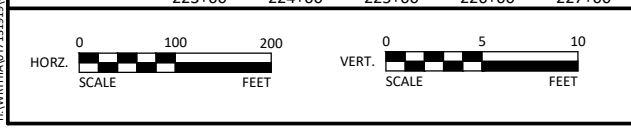
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PROPOSED DRAINAGE DISTRICT 34 TILE IMPROVEMENTS			SHEET
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PLAN & PROFILE - UPPER MAIN IMPROVEMENTS			