

# VAN BUREN COUNTY DRAIN COMMISSIONER

## VAN BUREN COUNTY, MICHIGAN

# DRAINAGE IMPROVEMENTS

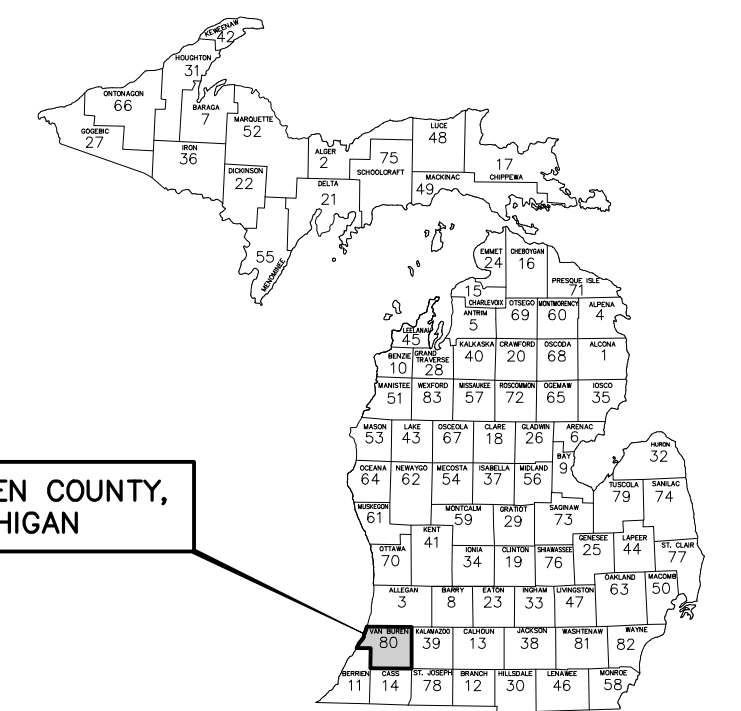
## BOB-O-LINK DRAIN DRAINAGE DISTRICT



SCALE : 1" = 1000'



SITE LOCATION MAP



VAN BUREN COUNTY,  
MICHIGAN

SHEET INDEX

SHEET No.	DESCRIPTION
1	COVER SHEET
2	25TH STREET (SECTION LINE TO STA. 17+00)
3	25TH STREET (STA. 17+00 TO STA. 25+00)
4	SECTION LINE (25TH STREET TO STA. 50+00)
5	SECTION LINE (STA. 50+00 TO STA. 62+00)
6	PROPERTY LINE (STA. 69+00 TO STA. 78+00)
7	PROPERTY LINE (STA. 80+00 TO MAIN STREET)
8	PROPERTY LINE (MAIN STREET TO STA. 97+00)
9	PROPERTY LINE (STA. 97+00 TO STA. 104+00)
10	PROPERTY LINE (STA. 110+00 TO STA. 114+00)
11	MAINTAINING TRAFFIC (MAIN STREET)

ISSUED FOR BIDS : JANUARY, 2020

**Prein & Newhof**  
Engineers • Surveyors • Environmental • Laboratory

PROJECT NO.  
**2180293**

SHEET NO.

**1** OF 11

### SOIL EROSION CONTROL NOTES

**EROSION CONTROL BLANKET :**  
SOIL EROSION CONTROL BLANKET SHALL BE PLACED ON ALL DISTURBED SLOPES THAT ARE 1 ON 3 OR STEEPER AND IN ALL DISTURBED DITCH BOTTOMS.

**TEMPORARY SEEDING :**  
TEMPORARY SEEDING SHALL BE CAST ON ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER WITHIN 1 WEEK OF DISTURBANCE.

### UTILITIES

#### FIBER OPTIC

MIDWEST ENERGY & COMMUNICATIONS  
60590 DECATUR RD.  
CASSOPOLIS, MI 49031  
ATTN : MICHAEL HAM  
(269) 445-1126

#### ELECTRIC

INDIANA MICHIGAN POWER  
2425 MEADOWBROOK DR.  
BENTON HARBOR, MI 49022  
ATTN : KURT SCHNEIDER  
(269) 926-0663

#### GAS

CONSUMERS ENERGY  
2500 EAST CORK ST.  
KALAMAZOO, MI 49001-5096  
ATTN : KYLE OAK  
(269) 337-2366  
KYLE.OAK@CMSENERGY.COM

#### CABLE TELEVISION

VERIZON FRONTIER  
ATTN : LANCE WEBLEY  
(269) 273-0383  
LANCE.WEBLEY@TR.COM

#### WATER & SEWER

VILLAGE OF MATTAWAN PUBLIC WORKS  
24221 FRONT AVE.  
MATTAWAN, MI 49071  
ATTN : TOM ANTHONY  
(269) 668-2128  
TOM@MATTAWANMI.COM

#### FIBER OPTIC

BLOOMINGDALE COMMUNICATIONS  
PO BOX 187  
101 W. KALAMAZOO ST.  
BLOOMINGDALE, MI 49026  
ATTN : DAN KEY  
(269) 521-7320  
DKEY@BLOOMINGDALECOM.NET



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

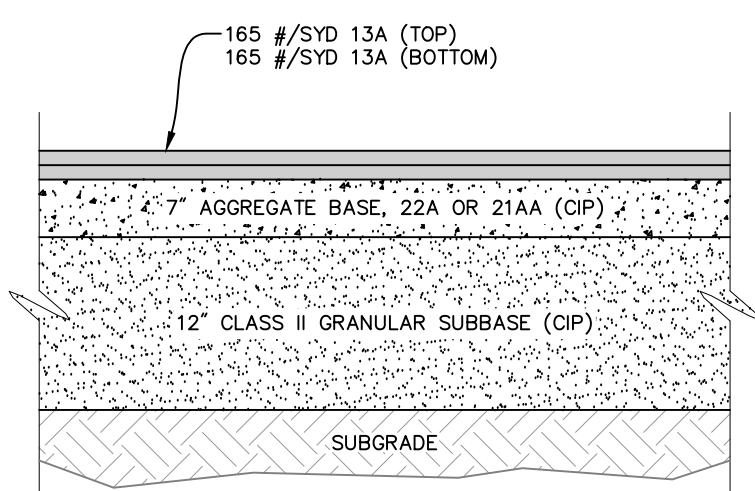
Know what's below.  
Call before you dig.

BENCHMARK EL. 814.35

25TH STREET  
85± E FROM C/L & 150± S OF S  
E/GRAV. DR. #51943, RAIL ROAD SPIKE  
SET IN SOUTH SIDE OF POWER POLE

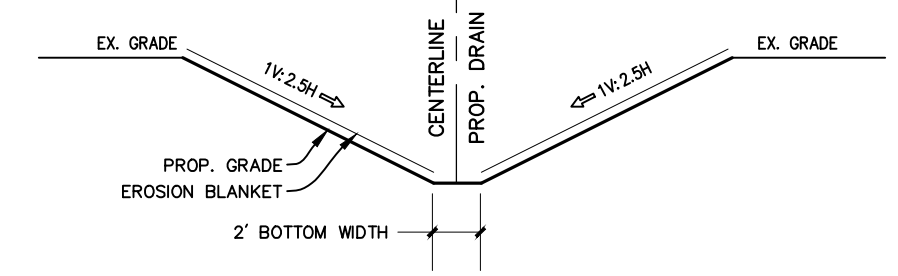
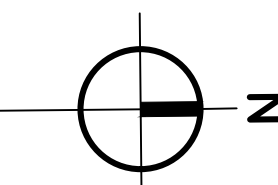
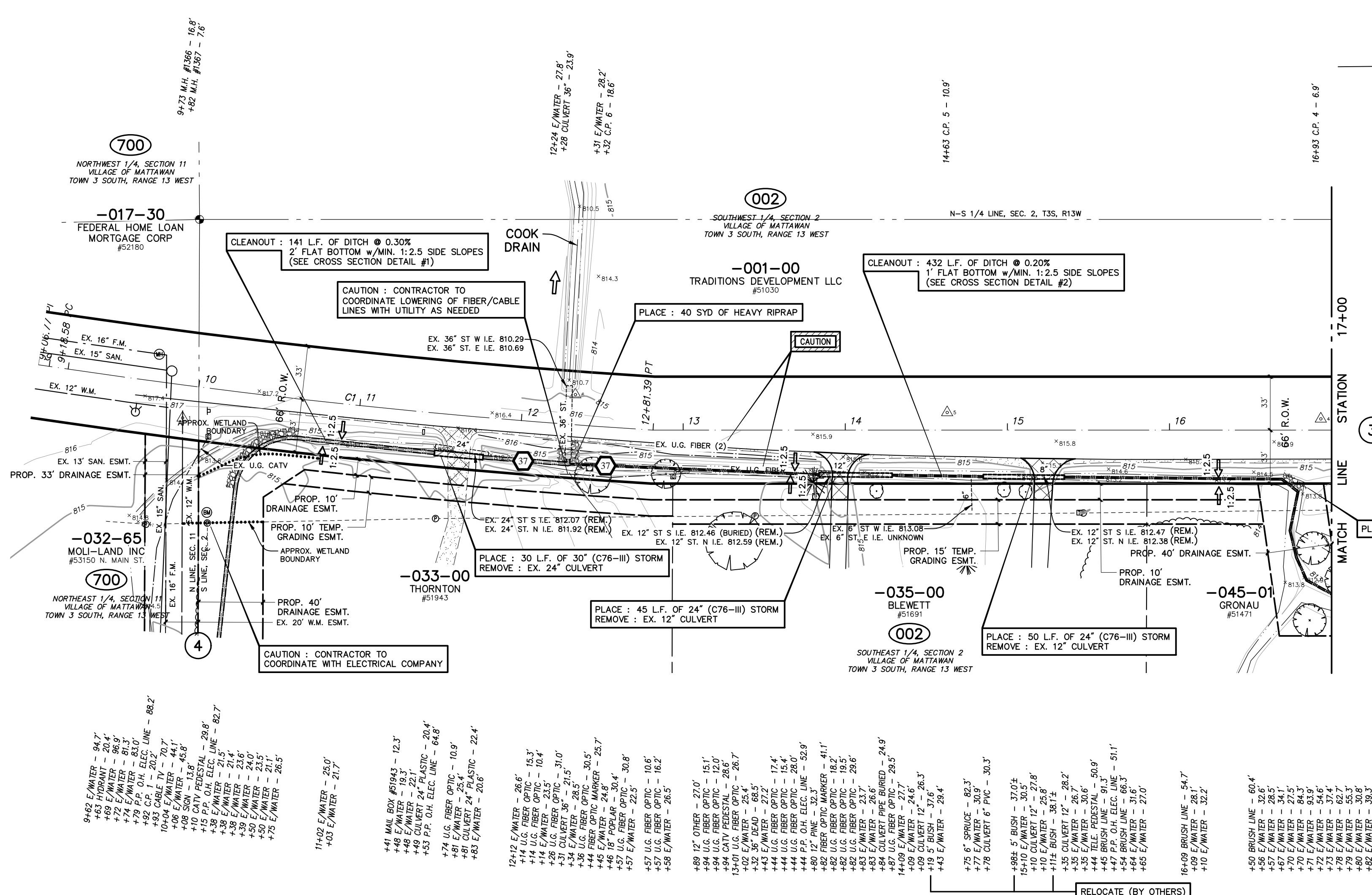
POINT No.	NORTHING	EASTING	ELEVATION
1	269241.953	12726571.070	816.03
4	269943.950	12736578.590	815.22
5	269713.541	12736572.370	814.69
6	269484.359	12736559.080	815.14

ROADWAY CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	CHORD
C1	4°41'28"	4431.09'	181.51'	362.81'
				N6°31'25"E 362.71'

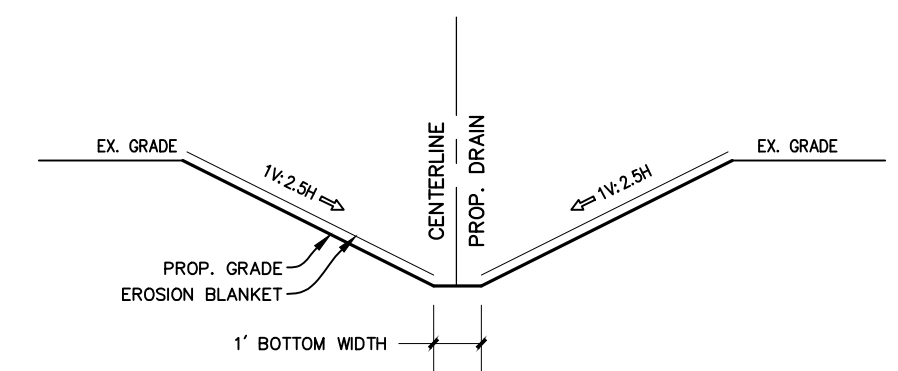


RESIDENTIAL DRIVEWAY SECTION

SCALE: NONE



DITCH CROSS SECTION #1  
(CLEANOUT - SOUTH OF COOK DRAIN)  
SCALE: NONE



DITCH CROSS SECTION #2  
(CLEANOUT - NORTH OF COOK DRAIN)  
SCALE: NONE

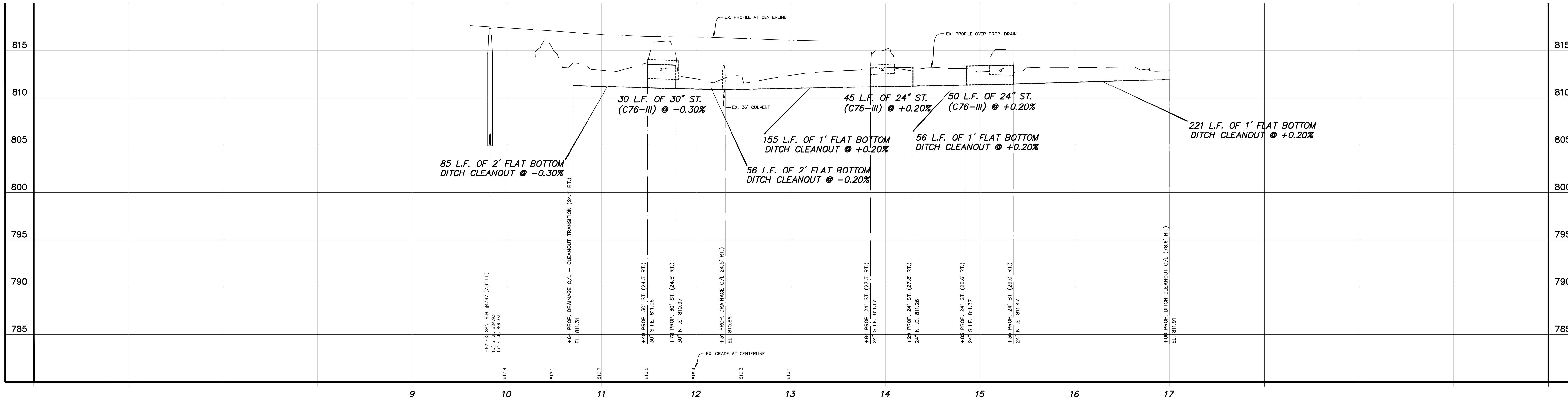
CONSTRUCTION NOTE

- CLEARING, BRUSHING & TREE REMOVAL IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT & RIGHT-OF-WAY AREAS ON THIS SHEET. NO SPOILS SHALL BE SPREAD WITHIN THE WETLAND AREA.
- CONTRACTOR SHALL COORDINATE LOCATING THE FIBER/CABLE LINES ALONG 25TH STREET & COORDINATING LOWERING, RELOCATING WITH VERIZON FRONTIER & BLOOMINGDALE COMMUNICATIONS AS NEEDED TO CONSTRUCT THE DRAINAGE DITCH AS SHOWN. IT IS ANTICIPATED THAT THE LINES WILL BE IN THE INFLUENCE OF THE NEW DITCH. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.

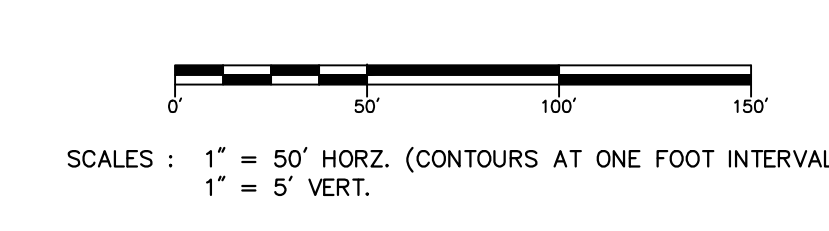
SOIL EROSION CONTROL LEGEND

- PROPOSED EROSION CONTROL SILT FENCE
- PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
- PROPOSED EROSION CONTROL MULCH BLANKET
- PROPOSED EROSION CONTROL TEMPORARY CHECK DAM

25TH STREET  
(66' RIGHT OF WAY WIDTH ASPHALT PAVEMENT WIDTH VARIES)



PROJECT DATUM INFORMATION  
 COORDINATE SYSTEM: STATE PLANE GRID  
 ZONE: MICHIGAN 3031R 2113  
 ELLIPSOID: GRS 80  
 HORIZONTAL DATUM: NAD 83 (2011)  
 VERTICAL DATUM: NAVD 83  
 SEGS: 15B  
 UNITS: INTERNATIONAL FEET  
 PROJECT COMPILED SCALE FACTOR (PCSF) = 0.9999373386  
 GROUND DISTANCE = GRID DISTANCE \* PCSF



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

DATE: JULY '18  
 CHECKED: K.A.B.  
 DATE: OCT. '18

VAN BUREN COUNTY DRAIN COMMISSIONER  
 VAN BUREN COUNTY, MICHIGAN  
 BOB-O-LINK DRAIN IMPROVEMENTS  
 25TH STREET

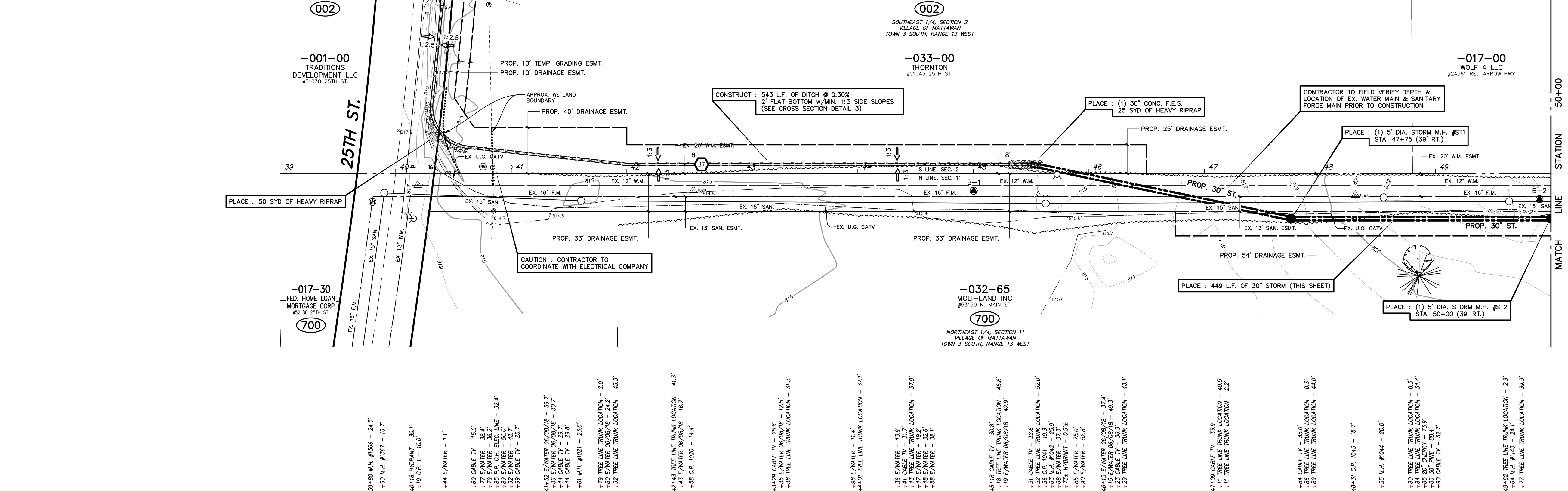
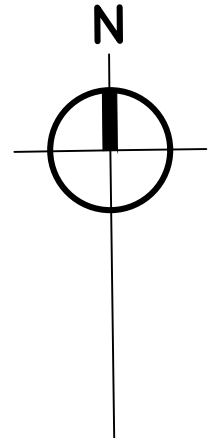
PROJECT NO. 2180293  
 SHEET NO. 2 OF 11

T:\LOCAL PROJECTS\2018\2180293\VAN BUREN COUNTY DC\_BOB-O-LINK DRAIN\2\_SPCS\2180293.DRW - ISTRONG - Dec, 27, 2018 - 12:40pm - Prein&Newhof



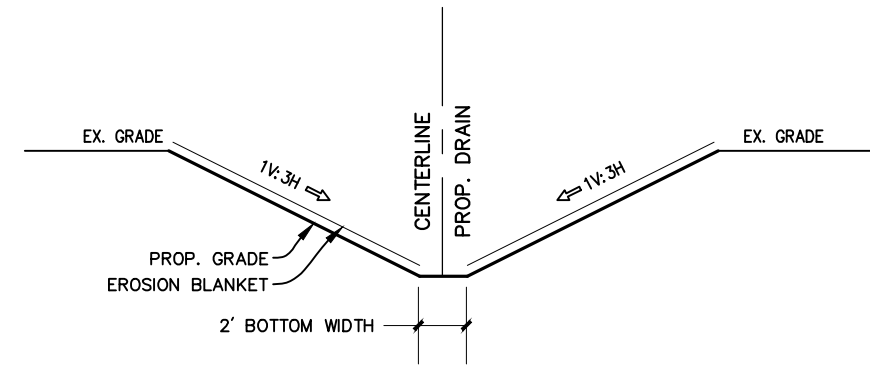
BENCHMARK EL. 814.35  
25TH STREET  
85± E FROM C/L & 150± S OF S  
E/GRAV. DR. #51943, RAIL ROAD SPIKE  
SET IN SOUTH SIDE OF POWER POLE

POINT NO.	NORTHING	EASTING	ELEVATION
1	269241.903	12726071.070	816.03
1020	269234.286	12738609.520	815.08
1041	269225.241	12737108.020	816.09
1043	269222.128	12737382.380	821.12



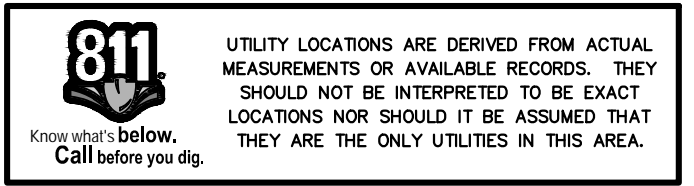
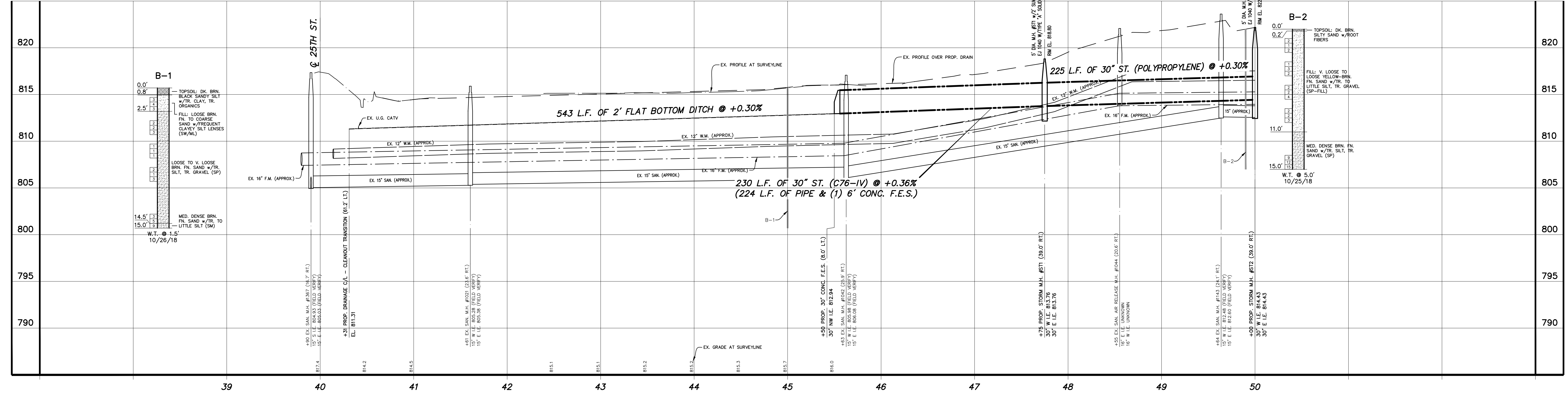
- CONSTRUCTION NOTES**
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSIDE STRUCTURE.
  - CONTRACTOR TO CONTACT PROPERTY OWNER TO MARK PRIVATE UTILITY LINES PRIOR TO CONSTRUCTION.
  - BURIED FIBER OPTICS/CABLE LINES & ELECTRIC LINES ARE LIKELY IN THE PROJECT AREA. THE EXACT LOCATION COULD NOT BE DETERMINED BY RECORD DRAWINGS. CONTRACTOR SHALL COORDINATE LOCATING, RELOCATING AS NECESSARY WITH THE UTILITY COMPANIES. THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.

- SOIL EROSION CONTROL LEGEND**
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



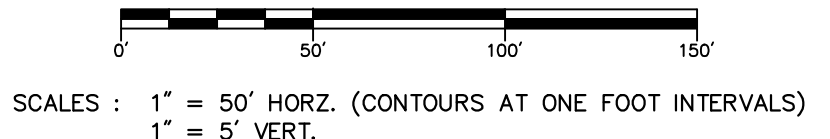
**DITCH CROSS SECTION #3**  
(CONSTRUCT - OUTLET TO 25TH ST.)  
SCALE: NONE

**SECTION LINE**



**PROJECT DATUM INFORMATION**

COORDINATE SYSTEM:	STATE PLANE GRID
ZONE:	MICHIGAN 3031H 2113
ELLIPSOID:	GRS 80
HORIZONTAL DATUM:	NAD 83 (2011)
VERTICAL DATUM:	NAVD 83
SEGS:	SEGS 15B
UNITS:	INTERNATIONAL FEET
PROJECT COMBINED SCALE FACTOR (PCSF):	0.9999373386
ORIGNO DISTANCE = GRID DISTANCE * PCSF	



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.
				DATE: JULY '18
				CHECKED: K.A.B.
				DATE: OCT. '18



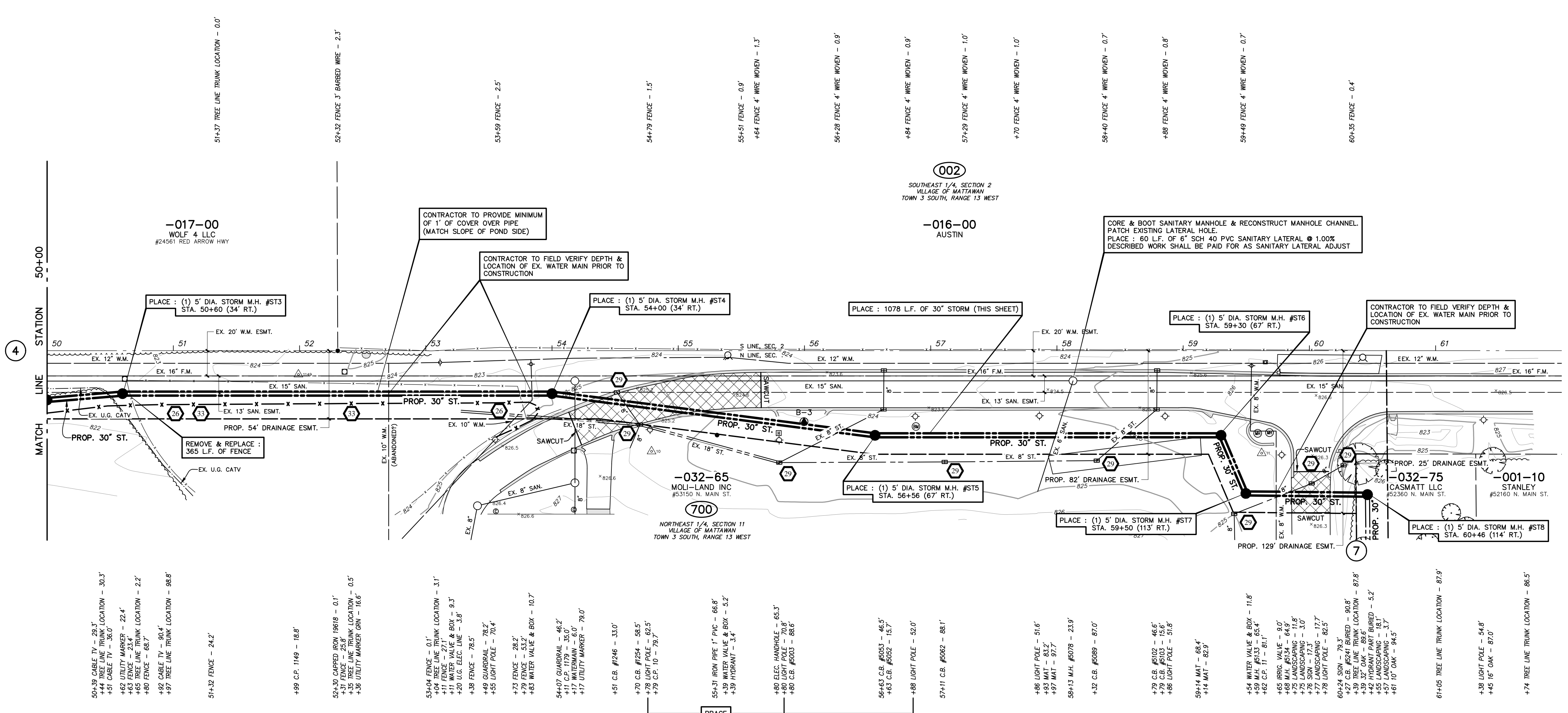
VAN BUREN COUNTY DRAIN COMMISSIONER  
VAN BUREN COUNTY, MICHIGAN  
BOB-O-LINK DRAIN IMPROVEMENTS  
**SECTION LINE**

PROJECT NO.  
**2180293**  
SHEET NO.  
**4 OF 11**



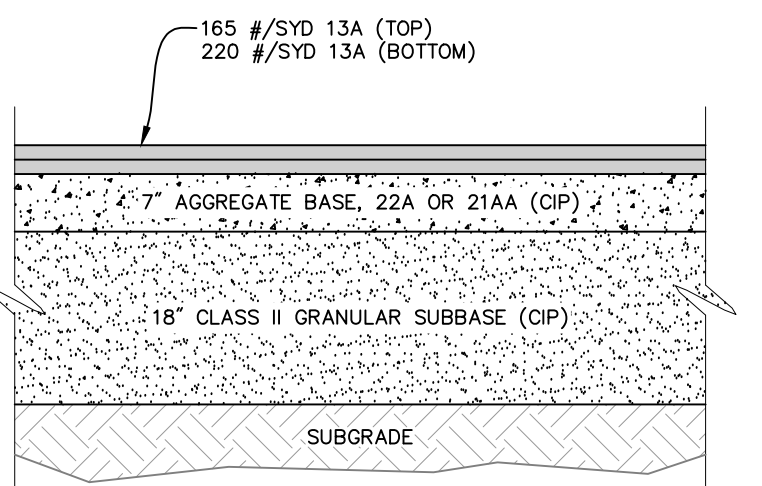
BENCHMARK EL. 826.67  
N. MAIN STREET & FRENCH AVENUE  
50' ± S & 875' ± W OF C/O, "X"  
CHISELED SQUARE IN SOUTH SIDE OF  
CONC. LIGHT POLE BASE

POINT NO.	NORTHING	EASTING	ELEVATION
10	269132.231	1273929.700	825.49
11	269144.156	1273851.930	825.86
1149	269216.900	1273775.830	824.25
1179	269197.828	1273782.730	824.44

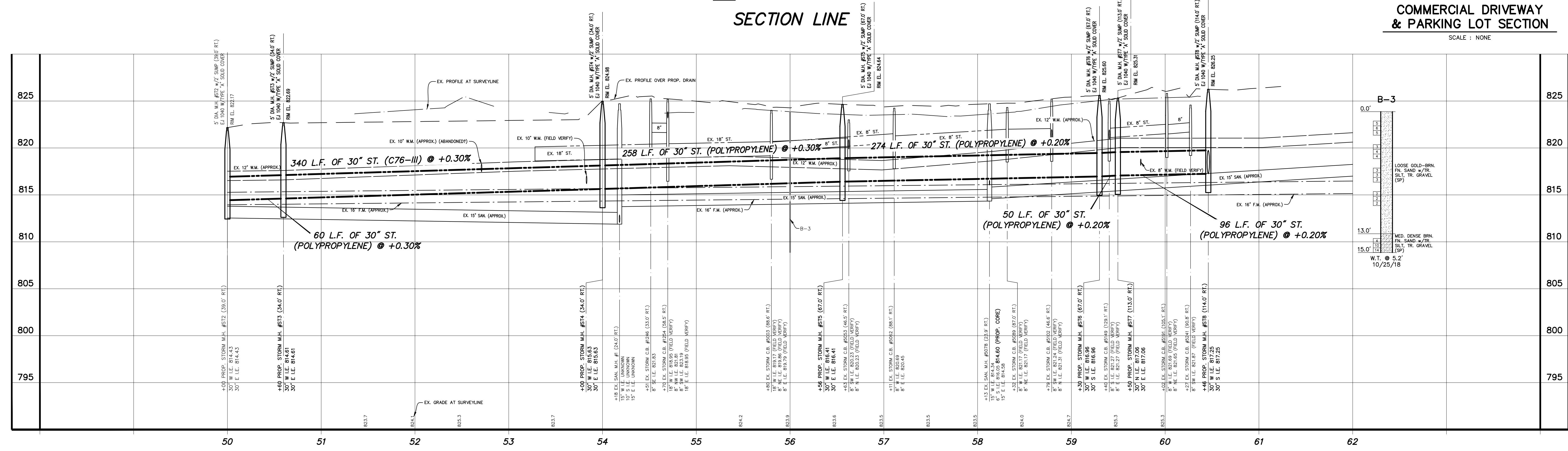


- ### CONSTRUCTION NOTES
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSREAM STRUCTURE.
  - CONTRACTOR TO CONTACT PROPERTY OWNER TO MARK PRIVATE UTILITY LINES PRIOR TO CONSTRUCTION.
  - BURIED FIBER OPTICS/CABLE LINES & ELECTRIC LINES ARE LIKELY IN THE PROJECT AREA. THE EXACT LOCATION COULD NOT BE DETERMINED BY RECORD DRAWINGS. CONTRACTOR SHALL COORDINATE LOCATING, RELOCATING AS NECESSARY WITH THE UTILITY COMPANIES. THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.

- ### SOIL EROSION CONTROL LEGEND
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



**COMMERCIAL DRIVEWAY & PARKING LOT SECTION**  
SCALE: NONE



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

**PROJECT DATUM INFORMATION**

COORDINATE SYSTEM: STATE PLANE GRID  
 ZONE: MICHIGAN SOUTH 2113  
 ELLIPSOID: GRS 80  
 HORIZONTAL DATUM: NAD 83 (2011)  
 VERTICAL DATUM: NAVD 83  
 GROUND: 5600.000  
 UNITS: INTERNATIONAL FEET  
 PROJECT COMBINED SCALE FACTOR (PCSF) = 0.999933386  
 GROUND DISTANCE = GRID DISTANCE \* PCSF

SCALES: 1" = 50' HORIZ. (CONTOURS AT ONE FOOT INTERVALS)  
 1" = 5' VERT.

NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

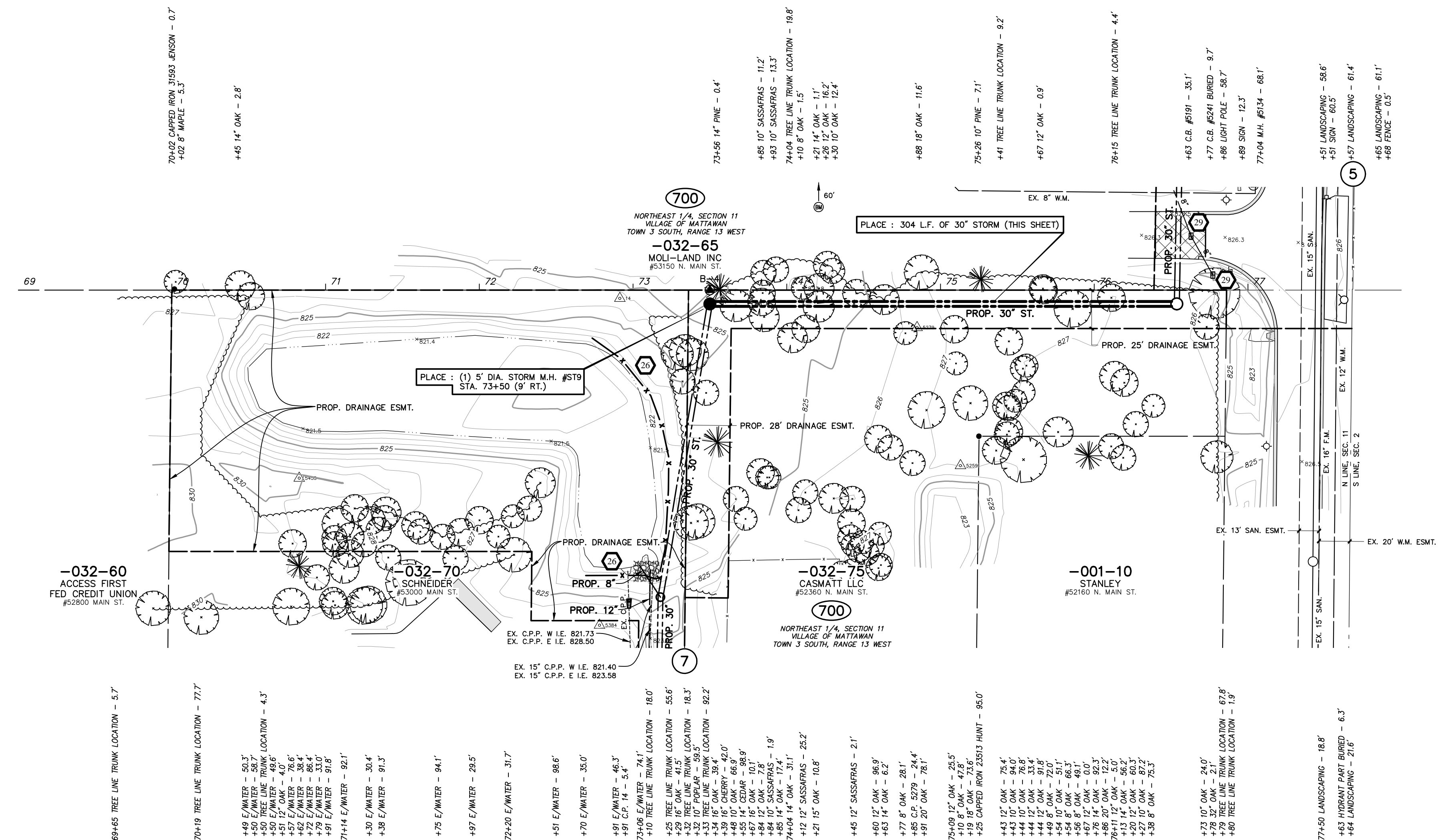
**Prein & Newhof**  
 Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
 VAN BUREN COUNTY, MICHIGAN

BOB-O-LINK DRAIN IMPROVEMENTS  
 SECTION LINE

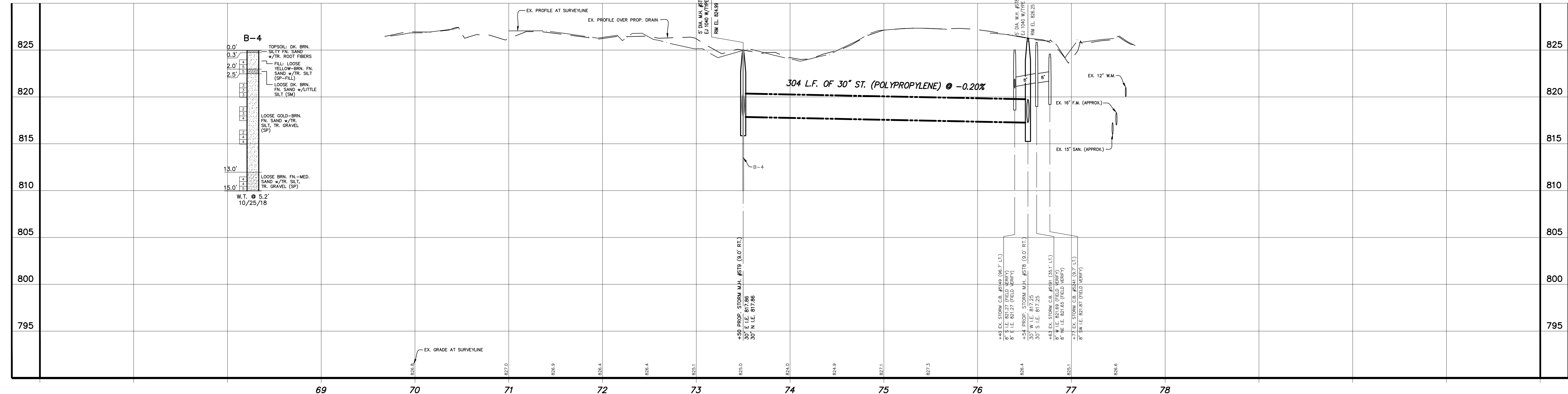
BENCHMARK EL. 827.17  
 N. MAIN STREET & FRENCH AVENUE  
 350' E. S & 640' E. W OF C/L "X"  
 CHISELED SQUARE IN SOUTH SIDE OF  
 CONC. LIGHT POLE BASE

POINT NO.	NORTHING	EASTING	ELEVATION
1	128741.871	1272891.130	826.64
5259	208664.974	12738700.880	827.16
5279	208641.102	12738610.940	826.12
5384	208733.781	12738803.720	828.13
5425	208538.871	12738707.220	830.53



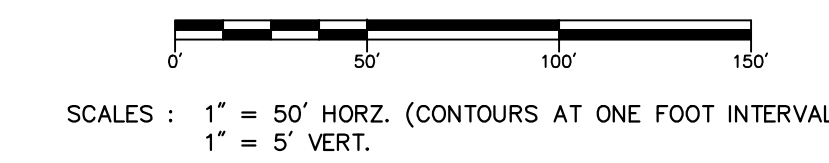
- ### CONSTRUCTION NOTES
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSTREAM STRUCTURE.
  - CONTRACTOR TO CONTACT PROPERTY OWNER TO MARK PRIVATE UTILITY LINES PRIOR TO CONSTRUCTION.
  - BURIED FIBER OPTICS/CABLE LINES & ELECTRIC LINES ARE LIKELY IN THE PROJECT AREA. THE EXACT LOCATION COULD NOT BE DETERMINED BY RECORD DRAWINGS. CONTRACTOR SHALL COORDINATE LOCATING, RELOCATING AS NECESSARY WITH THE UTILITY COMPANIES. THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.
  - CONTRACTOR SHALL REMOVE & DISPOSE OF ALL TREES & BRUSH WITHIN THE POND & ITS EMBANKMENTS. THE SILT WITHIN THE BOTTOM OF THE POND SHALL BE REMOVED & DISPOSED OF BY THE CONTRACTOR. THE BOTTOM OF THE POND SHALL HAVE AN ELEVATION OF NO HIGHER THAN 820. THE EMBANKMENTS SHALL BE TOPSOIL, SEEDED WITH MULCH BLANKET. THIS SHALL BE PAID FOR AS "POND CLEANOUT".

- ### SOIL EROSION CONTROL LEGEND
- PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



**811**  
 UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.  
 Call before you dig.

**PROJECT DATUM INFORMATION**  
 COORDINATE SYSTEM : STATE PLANE GRID  
 ZONE : MICHIGAN 2011R 2113  
 ELLIPSOID : GRS 80  
 HORIZONTAL DATUM : NAD 83 (2011)  
 VERTICAL DATUM : NAVD 83  
 SEGS : 158  
 UNITS : INTERNATIONAL FEET  
 PROJECT COMBINED SCALE FACTOR (PCSF) = 0.9999373386  
 GROUND DISTANCE = GRID DISTANCE / PCSF



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

**Prein & Newhof**  
 Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
 VAN BUREN COUNTY, MICHIGAN  
 BOB-O-LINK DRAIN IMPROVEMENTS  
**PROPERTY LINE**

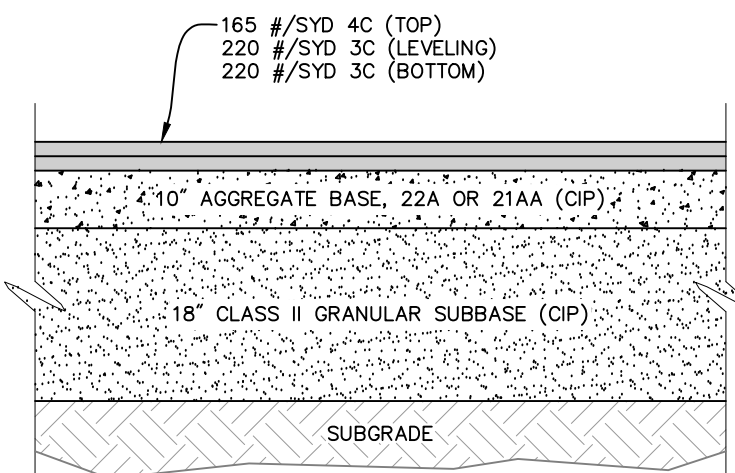
PROJECT NO.  
**2180293**  
 SHEET NO.  
**6 OF 11**



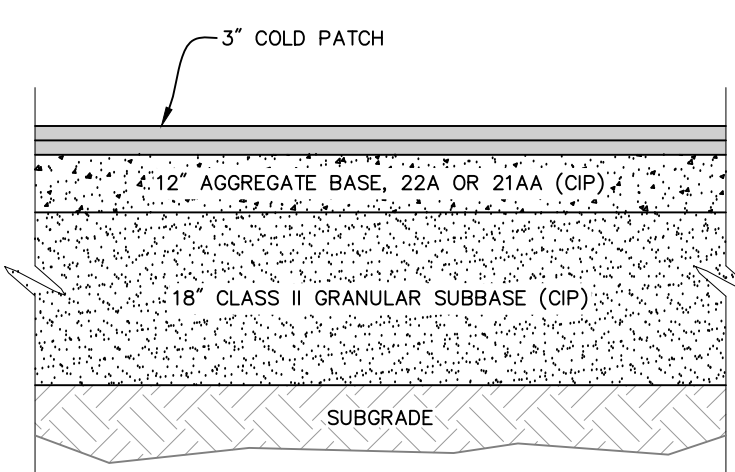
BENCHMARK EL. 827.17  
N. MAIN STREET & FRENCH AVENUE  
350'± S & 640'± W OF C/L "X",  
CHISELED SQUARE IN SOUTH SIDE OF  
CONC. LIGHT POLE BASE

BENCHMARK EL. 828.15  
N. MAIN STREET & FRENCH AVENUE  
410'± S & 30'± W OF C/L "X", RAIL  
ROAD SPIKE SET IN NORTH SIDE OF  
POWER POLE

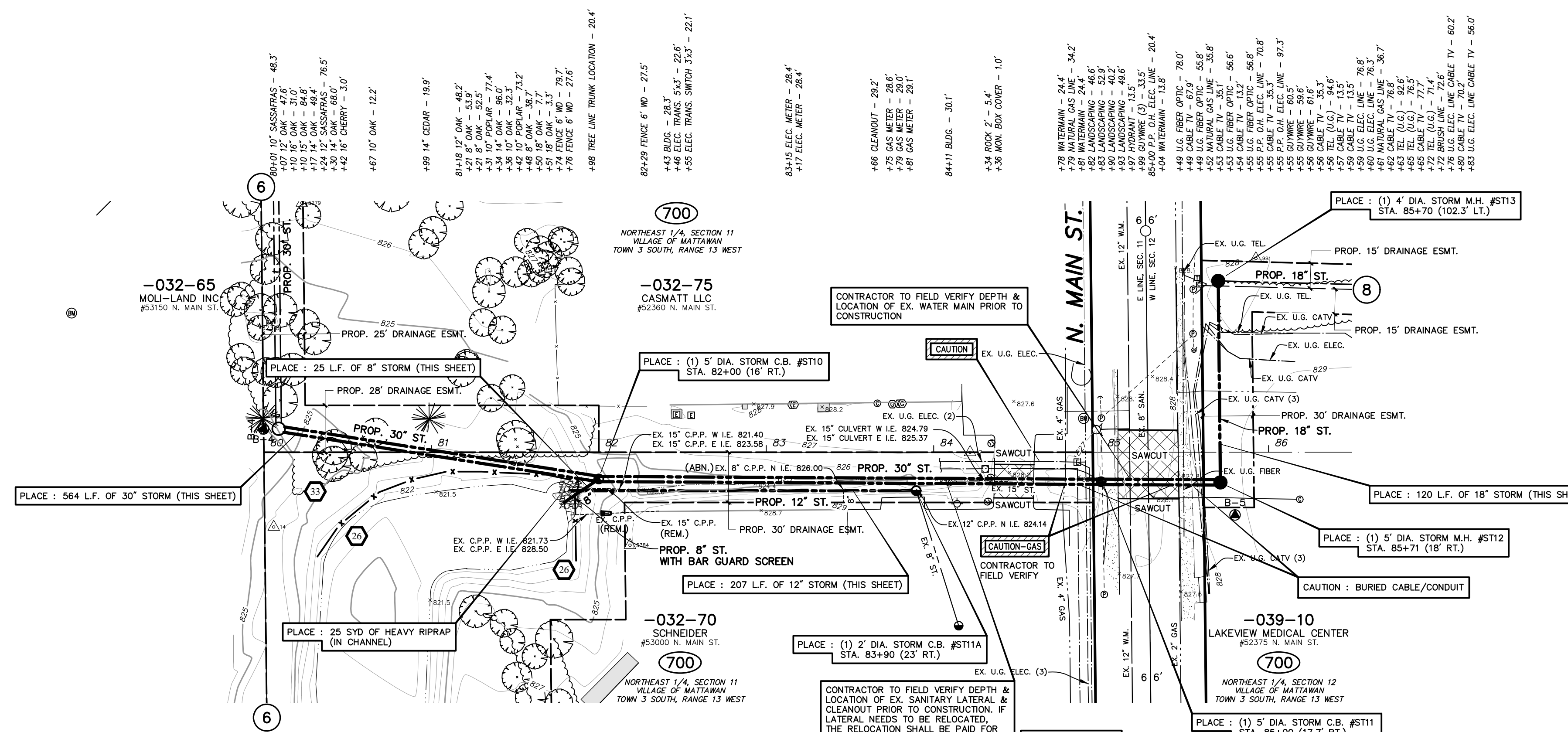
POINT No.	NORTHING	EASTING	ELEVATION
14	28747.871	1273859.130	826.64
17	28786.113	1273907.610	827.31
991	28689.288	1273940.080	827.83
5279	28694.102	1273861.940	826.12
5384	28733.781	1273863.720	826.13



**PERMANENT MAIN STREET**  
SCALE : NONE

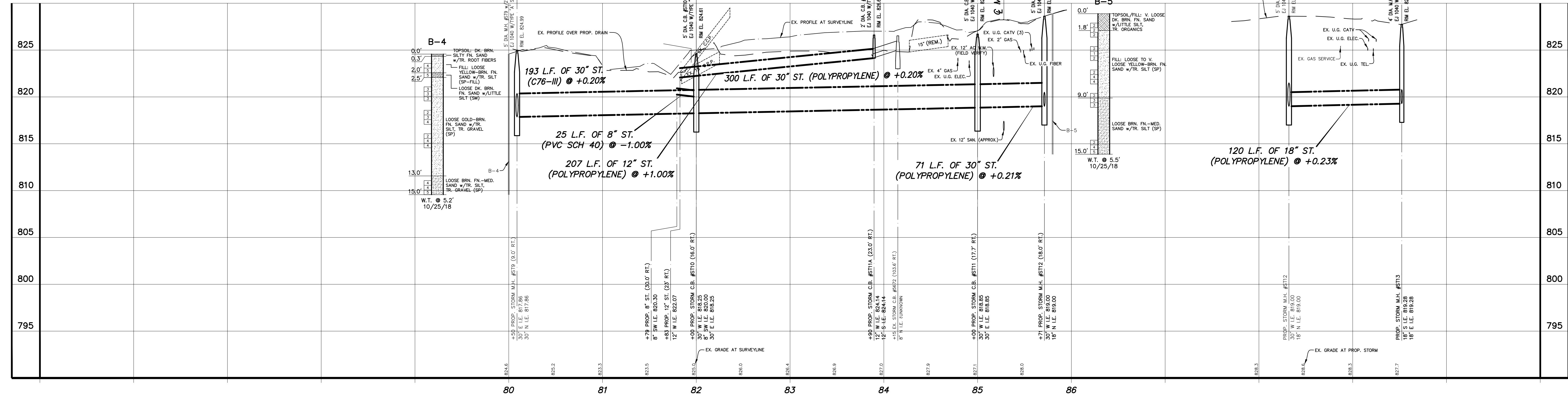


**TEMPORARY MAIN STREET**  
SCALE : NONE



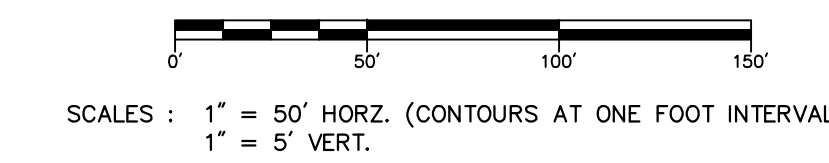
- CONSTRUCTION NOTES**
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSTREAM STRUCTURE.
  - CONTRACTOR TO CONTACT PROPERTY OWNER TO MARK PRIVATE UTILITY LINES PRIOR TO CONSTRUCTION.
  - BURIED FIBER OPTICS/CABLE LINES & ELECTRIC LINES ARE LIKELY IN THE PROJECT AREA. THE EXACT LOCATION COULD NOT BE DETERMINED BY RECORD DRAWINGS. CONTRACTOR SHALL COORDINATE LOCATING, RELOCATING AS NECESSARY WITH THE UTILITY COMPANIES. THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.

- SOIL EROSION CONTROL LEGEND**
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



**811**  
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.  
Call before you dig.

**PROJECT DATUM INFORMATION**  
COORDINATE SYSTEM : STATE PLANE GRID  
ZONE : MICHIGAN 3031R 2113  
ELLIPSOID : GRS 80  
HORIZONTAL DATUM : NAD 83 (2011)  
VERTICAL DATUM : NAVD 83  
SEGS : 500, 128  
UNITS : INTERNATIONAL FEET  
PROJECT COMBINED SCALE FACTOR (PCSF) = 0.999933386  
GROUND DISTANCE x GRID DISTANCE x PCSF



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

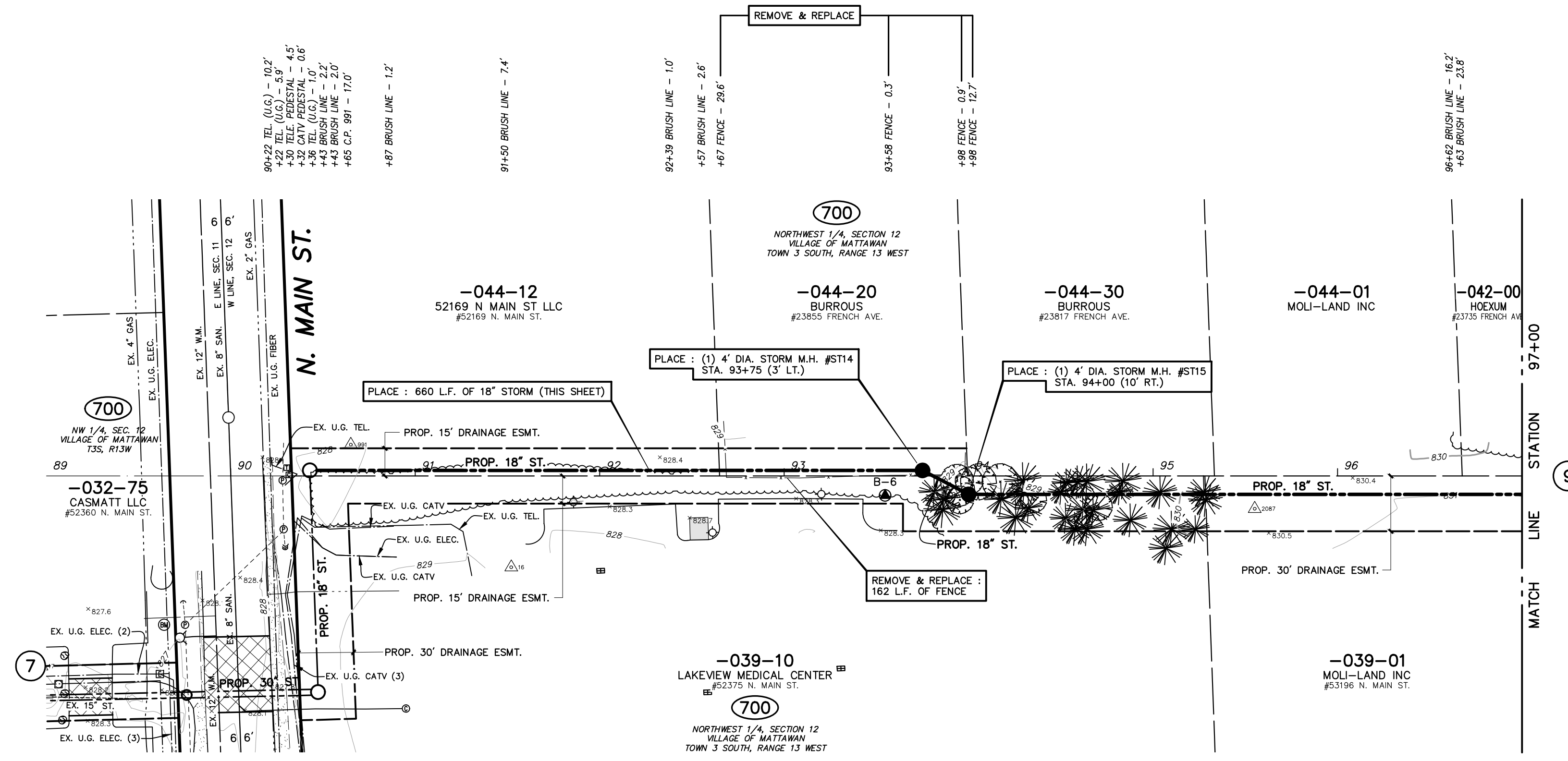
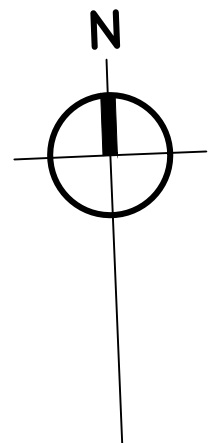
**Prein & Newhof**  
Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
VAN BUREN COUNTY, MICHIGAN  
BOB-O-LINK DRAIN IMPROVEMENTS  
**PROPERTY LINE**

PROJECT NO.  
**2180293**  
SHEET NO.  
**7 OF 11**

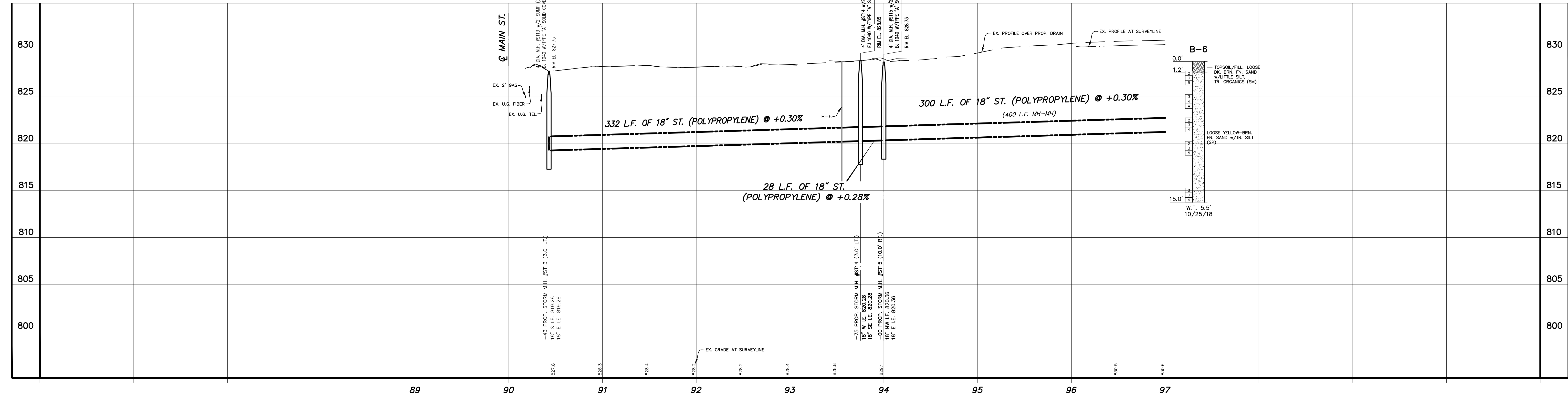
BENCHMARK EL. 828.15  
 N. MAIN STREET & FRENCH AVENUE  
 410± S & 30± W OF C/L "X", RAIL  
 ROAD SPIKE SET IN NORTH SIDE OF  
 POWER POLE

POINT NO.	NORTHING	EASTING	ELEVATION
10	268859.250	1273954.130	828.95
991	268859.268	1273950.080	827.63
2041	268859.159	1273955.470	828.77
2087	268844.337	1273966.180	830.54



- CONSTRUCTION NOTES**
1. CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  2. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  3. 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE. STORM SEWER AND SHALL BE CONNECTED INTO DOWNSTREAM STRUCTURE.
  4. CONTRACTOR TO CONTACT PROPERTY OWNER TO MARK PRIVATE UTILITY LINES PRIOR TO CONSTRUCTION.
  5. BURIED FIBER OPTICS/CABLE LINES & ELECTRIC LINES ARE LIKELY IN THE PROJECT AREA. THE EXACT LOCATION COULD NOT BE DETERMINED BY RECORD DRAWINGS. CONTRACTOR SHALL COORDINATE LOCATING, RELOCATING AS NECESSARY WITH THE UTILITY COMPANIES. THIS WORK SHALL BE INCLUDED IN THE MAJOR ITEMS OF WORK AS SHOWN IN THE PROPOSAL.

- SOIL EROSION CONTROL LEGEND**
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



**811** UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.  
 Call before you dig.

**PROJECT DATUM INFORMATION**

COORDINATE SYSTEM : STATE PLANE GRID  
 ZONE : MICHIGAN 3037H 2113  
 ELLIPSOID : GRS 80  
 HORIZONTAL DATUM : NAD 83 (2011)  
 VERTICAL DATUM : NAVD 83  
 SEGS : GEOID 158  
 UNITS : INTERNATIONAL FEET  
 PROJECT COMBINED SCALE FACTOR (PCSF) = 0.9999373386  
 GROUND DISTANCE = GRID DISTANCE \* PCSF

SCALES : 1" = 50' HORIZ. (CONTOURS AT ONE FOOT INTERVALS)  
 1" = 5' VERT.

NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

**Prein & Newhof**  
 Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
 VAN BUREN COUNTY, MICHIGAN

BOB-O-LINK DRAIN IMPROVEMENTS

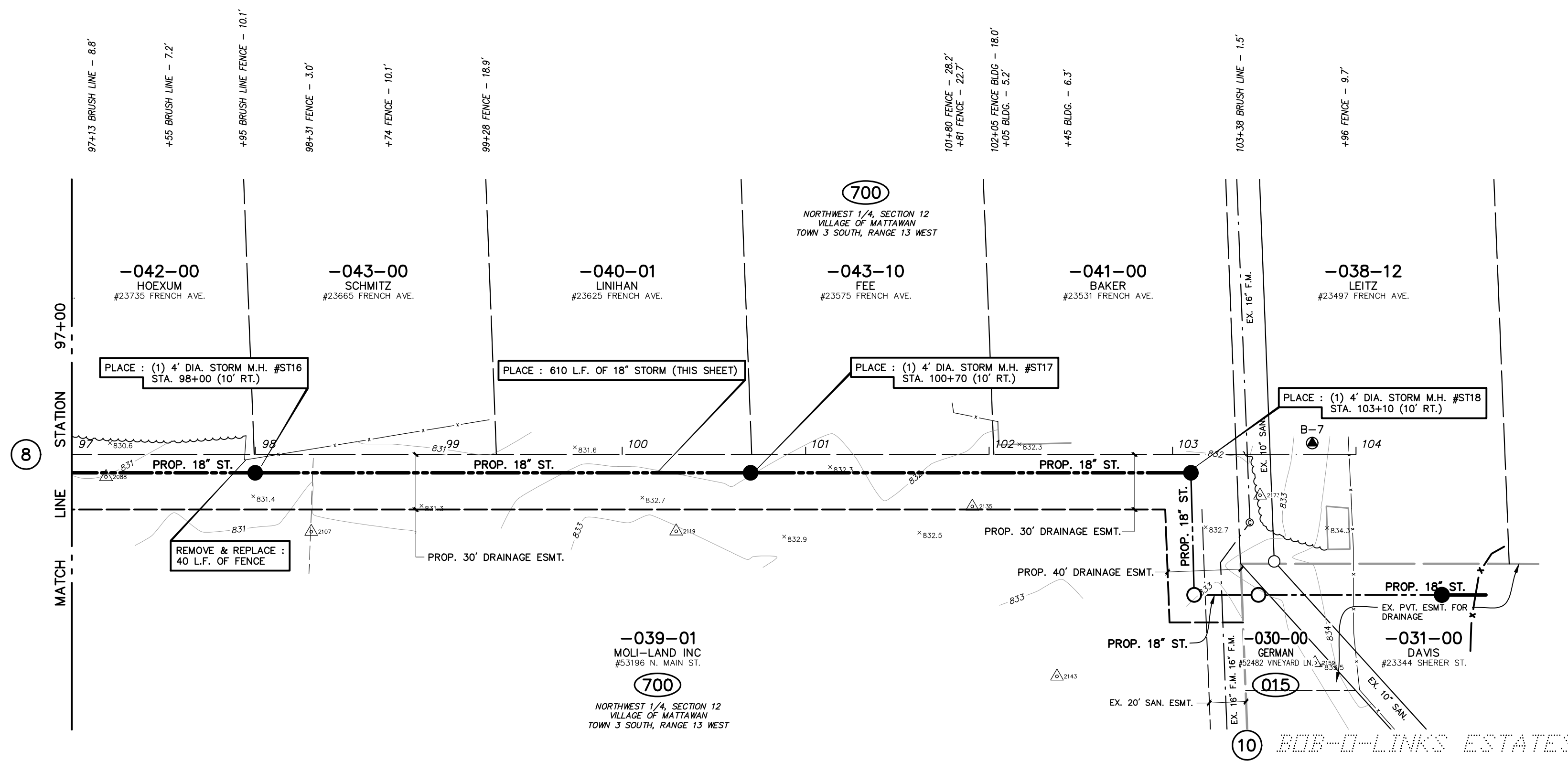
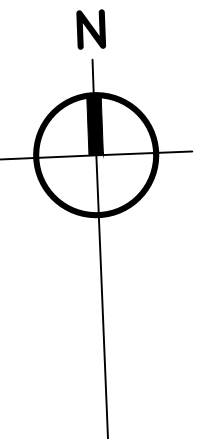
**PROPERTY LINE**

PROJECT NO.  
**2180293**

SHEET NO.  
**8 OF 11**

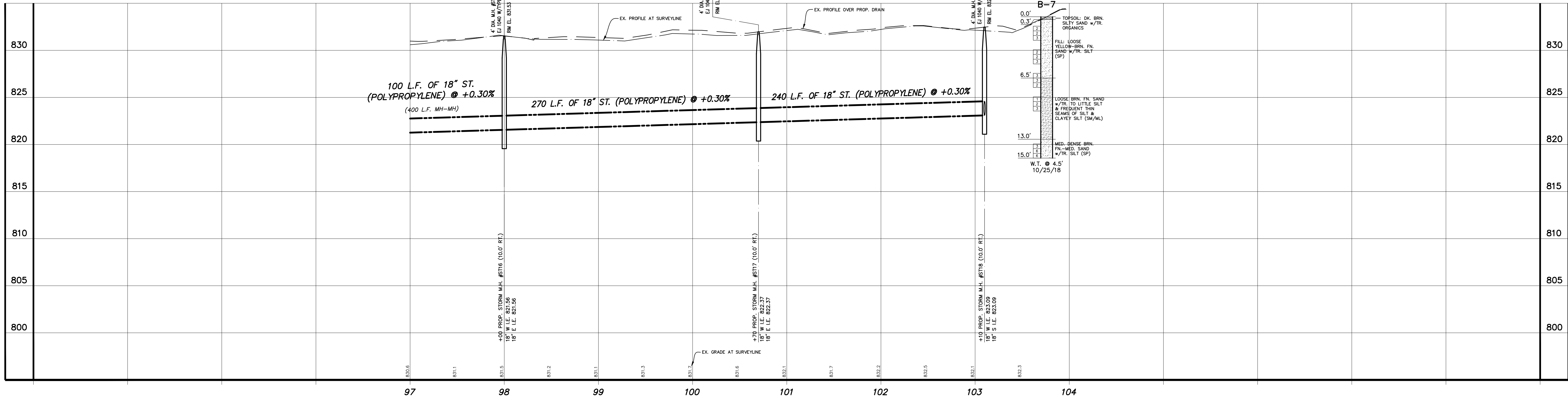


POINT No.	NORTHING	EASTING	ELEVATION
2088	268843.150	12739981.890	831.20
2107	268808.709	12739942.410	830.99
2119	268800.716	12740141.170	833.13
2135	268807.600	12740302.970	832.88
2143	268713.155	12740345.260	833.24
2159	26874.693	12740486.120	834.75
2173	268807.193	12740459.930	832.24



- CONSTRUCTION NOTES**
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSTREAM STRUCTURE.

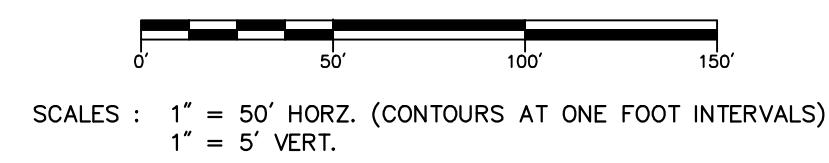
- SOIL EROSION CONTROL LEGEND**
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM



T:\WORK\PROJECTS\2018\2180293\_LINK\_DRAIN\2\_SPCS\2180293\_LINK\_DRAIN.DWG - ISTRONG - Dec, 27, 2019 - 10:30am - Prein&Newhof

**811**  
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.  
Call before you dig.

**PROJECT DATUM INFORMATION**  
COORDINATE SYSTEM : STATE PLANE GRID  
ZONE : MICHIGAN 3031H 2113  
ELLIPSOID : GRS 80  
HORIZONTAL DATUM : NAD 83 (2011)  
VERTICAL DATUM : NAVD 83  
SECS : 15B  
UNITS : INTERNATIONAL FEET  
PROJECT COMBINED SCALE FACTOR (PCSF) = 0.9999373386  
GROUND DISTANCE = GRID DISTANCE \* PCSF



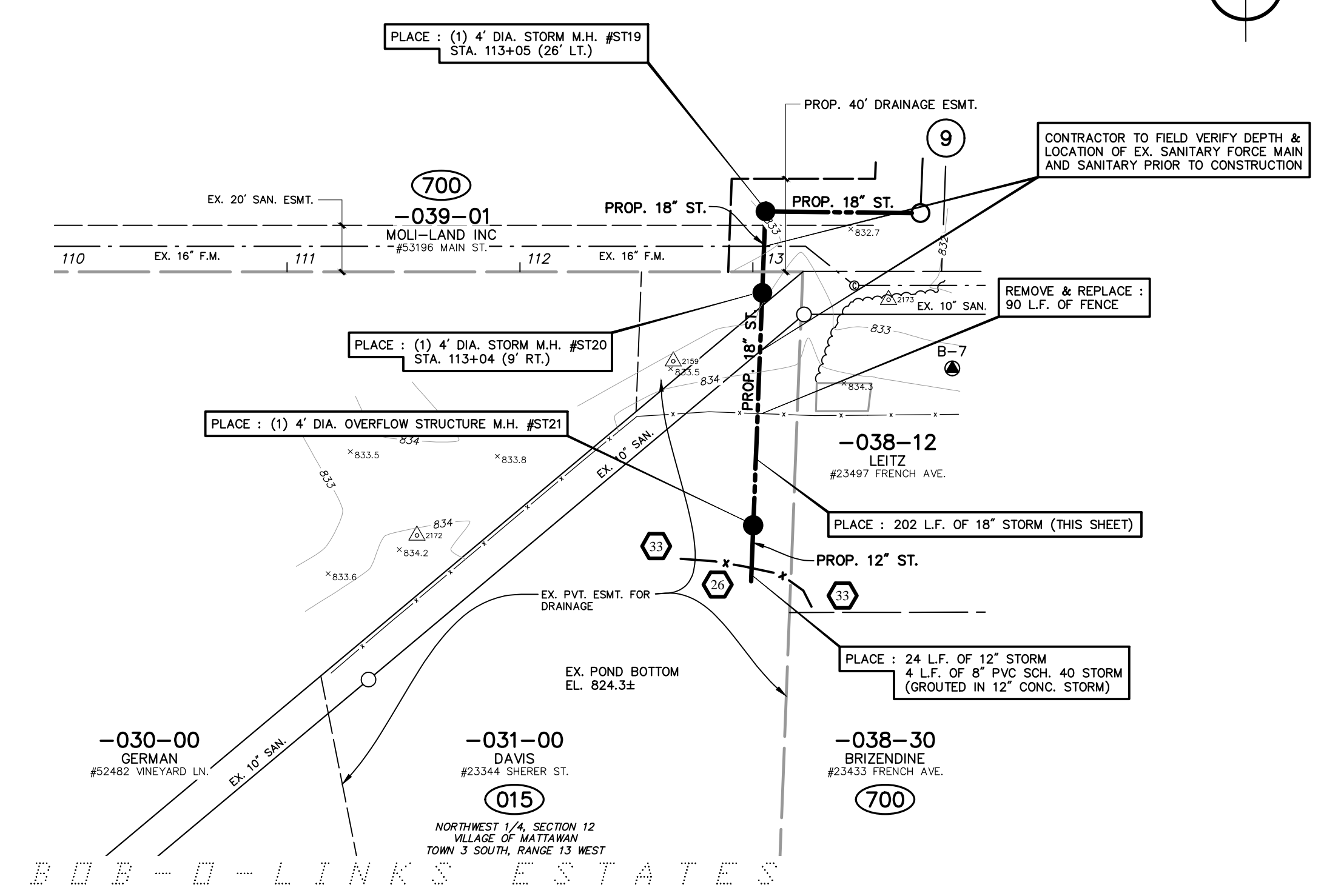
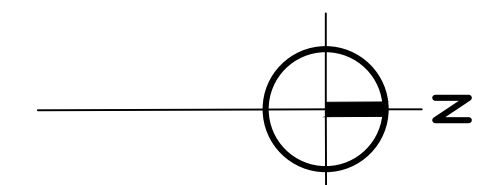
NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.

**Prein&Newhof**  
Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
VAN BUREN COUNTY, MICHIGAN  
BOB-O-LINK DRAIN IMPROVEMENTS  
**PROPERTY LINE**

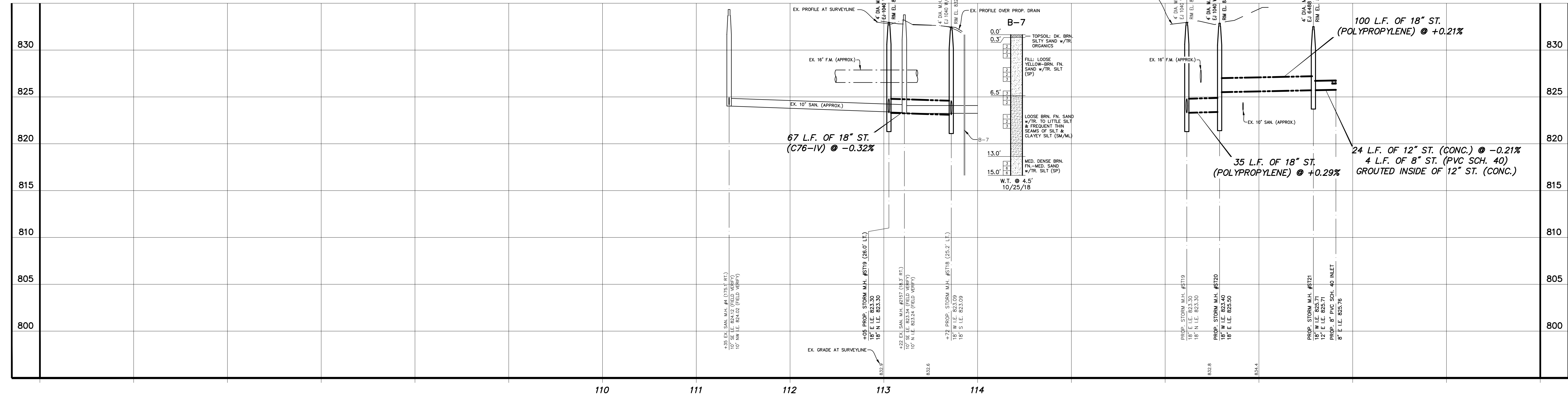
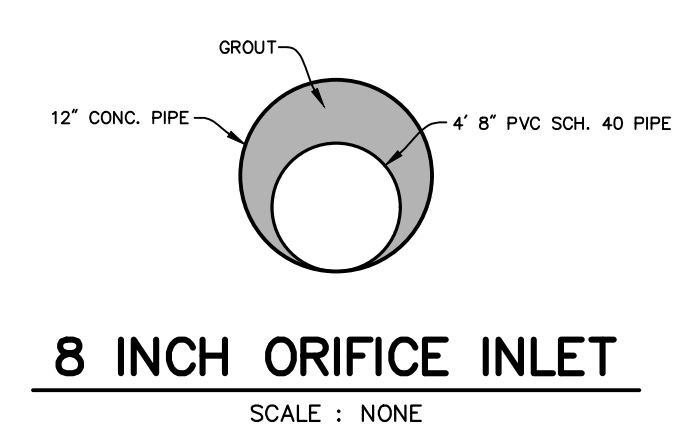
PROJECT NO.  
**2180293**  
SHEET NO.  
**9 OF 11**

POINT No.	NORTHING	EASTING	ELEVATION
2159	26874.693	12740486.120	834.75
2172	268604.454	127400560.590	834.29
2173	268807.193	12740458.930	832.24



- CONSTRUCTION NOTES**
- CLEARING & GRUBBING IS PAID FOR AS LUMP SUM & SHALL INCLUDE ALL DRAINAGE EASEMENT AREAS ON THIS SHEET.
  - CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - 6 INCH UNDERDRAIN SHALL BE INSTALLED IN SAME TRENCH AS MAIN LINE STORM SEWER AND SHALL BE CONNECTED INTO DOWNSTREAM STRUCTURE.
  - PLACE TEMPORARY STONE FILTER BERM AROUND PROPOSED FLARED END SECTION UNTIL THE PROJECT AREA HAS BEEN STABILIZED.

- SOIL EROSION CONTROL LEGEND**
- PROPOSED EROSION CONTROL SILT FENCE
  - PROPOSED EROSION CONTROL INLET PROTECTION SILT BAG
  - PROPOSED EROSION CONTROL MULCH BLANKET
  - PROPOSED EROSION CONTROL TEMPORARY CHECK DAM

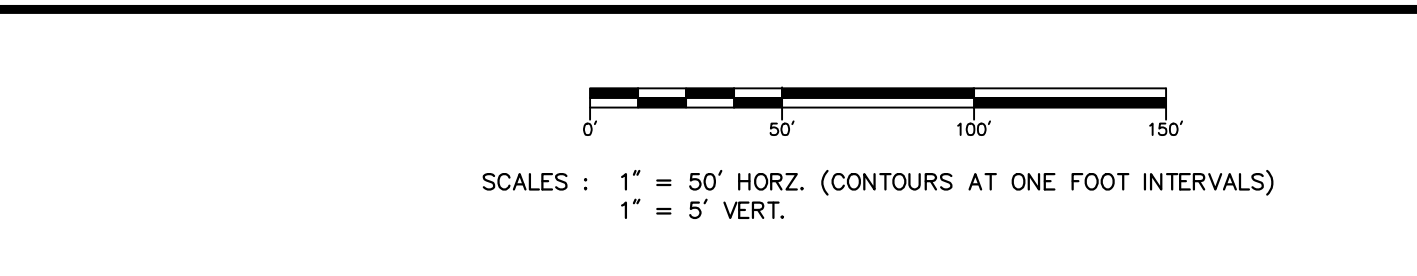


**811** UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

Call before you dig.

**PROJECT DATUM INFORMATION**

COORDINATE SYSTEM :	STATE PLANE GRID
ZONE :	MICHIGAN 2013H 2113
ELLIPSOID :	GRS 80
HORIZONTAL DATUM :	NAD 83 (2011)
VERTICAL DATUM :	NAVD 88
SEGS :	SEGS 15B
UNITS :	INTERNATIONAL FEET
PROJECT COMBINED SCALE FACTOR (PCSF) :	0.999935386
GROUND DISTANCE * GRID DISTANCE / PCSF :	



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.
				DATE: JULY '18
				CHECKED: K.A.B.
				DATE: OCT. '18

**Prein & Newhof**  
Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
VAN BUREN COUNTY, MICHIGAN

BOB-O-LINK DRAIN IMPROVEMENTS

**PROPERTY LINE**

PROJECT NO.  
**2180293**

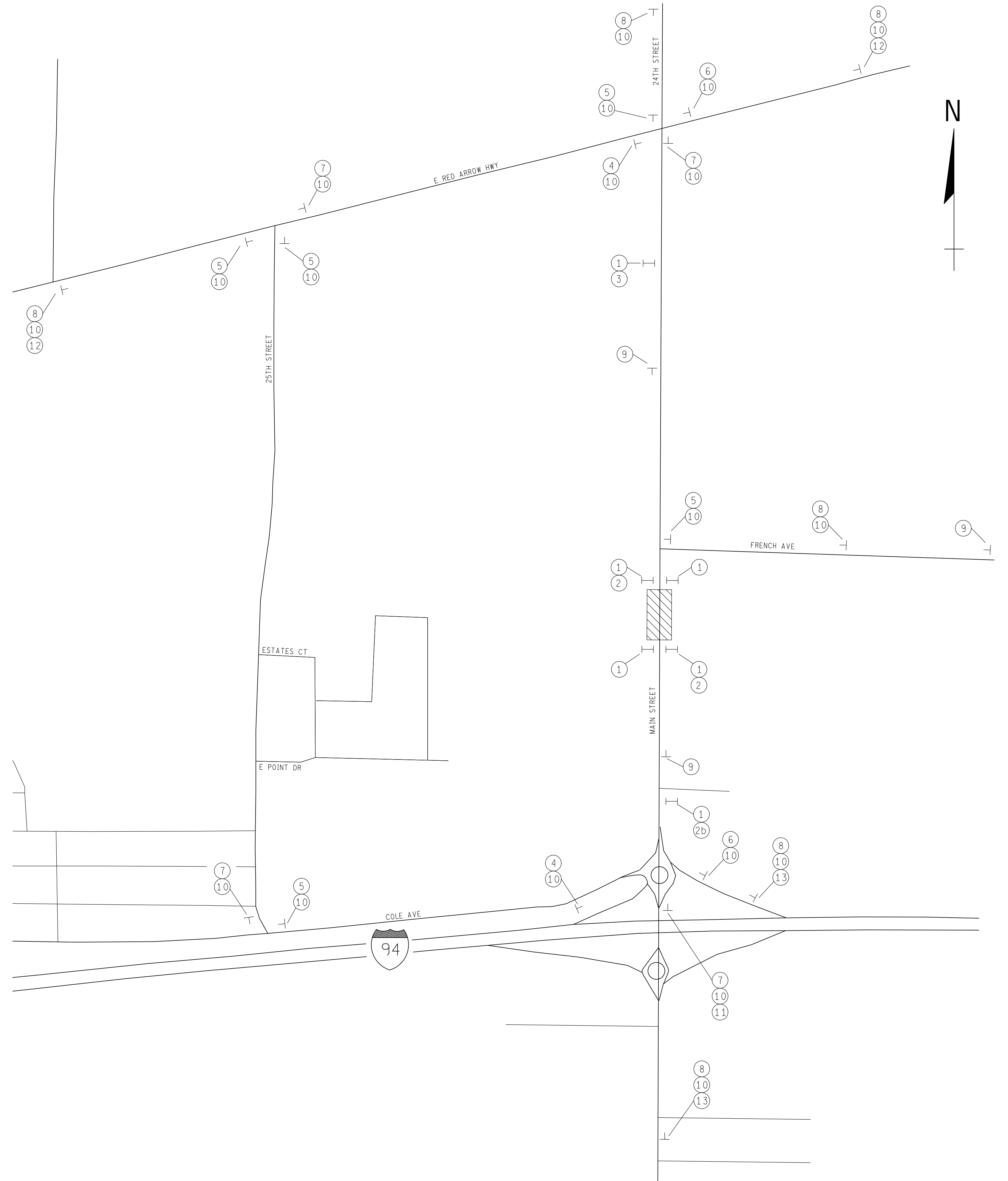
SHEET NO.  
**10 OF 11**

DETOUR SIGNING REQUIREMENTS

#	SIGN DESIGNATION	SIGN DESCRIPTION	SIGN SIZE	NO. REQ.
1	TYPE III BARRICADE	TYPE III BARRICADE, HIGH INTENSITY, DOUBLE SIDED, LIGHTED	NA	6
2	R11-2	ROAD CLOSED	48" X 30"	2
2b	R11-4	ROAD CLOSED TO THRU TRAFFIC	60" X 30"	1
3	R11-3a	ROAD CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY	60" X 30"	1
4	M4-8a	END DETOUR	24" X 18"	2
5	M4-9R	DETOUR RIGHT	30" X 24"	5
6	M4-9	DETOUR THRU	30" X 24"	2
7	M4-9L	DETOUR LEFT	30" X 24"	4
8	W20-2	DETOUR AHEAD	48" X 48"	6
9	W20-1	ROAD WORK AHEAD	48" X 48"	3
10	* D3-1	MAIN STREET	48" X 12"	19
11	* D3-1	FOLLOW COLE AVE.	48" X 12"	1
12	* D3-1	SOUTH OF FRENCH AVENUE	48" X 12"	2
13	** M3-1	NORTH	24" X 12"	2

\* PAID FOR AS SIGN, TYPE B, TEMP PRISMATIC, SPECIAL, FURN/OPER  
 \*\* M3-SERIES SIGNS USED WITH DETOUR TO BE BLACK LETTERS AND A BLACK BORDER ON A FLUORESCENT ORANGE BACKGROUND

KEY	
⊥	TEMPORARY SIGN
⊥	BARRICADE TYPE III
▨	WORK ZONE



NO.	REVISIONS	BY	DATE	DRAWN
1	ISSUED FOR BIDS	K.A.B.	12/19	R.P.S.
				DATE: JULY '18
				CHECKED: K.A.B.
				DATE: OCT. '18

**Prein & Newhof**  
 Engineers • Surveyors • Environmental • Laboratory

VAN BUREN COUNTY DRAIN COMMISSIONER  
 VAN BUREN COUNTY, MICHIGAN  
 BOB-O-LINK DRAIN IMPROVEMENTS  
 MAINTAINING TRAFFIC

PROJECT NO.  
 2180293  
 SHEET NO.  
 11 OF 11