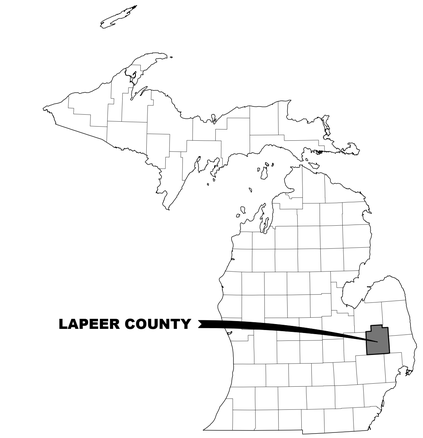
VILLAGE OF CLIFFORD
LAPEER COUNTY, MICHIGAN
MAIN ST REHABILITATION
MDOT TED-CATEGORY B GRANT #695
JULY 2026



VICINITY MAP

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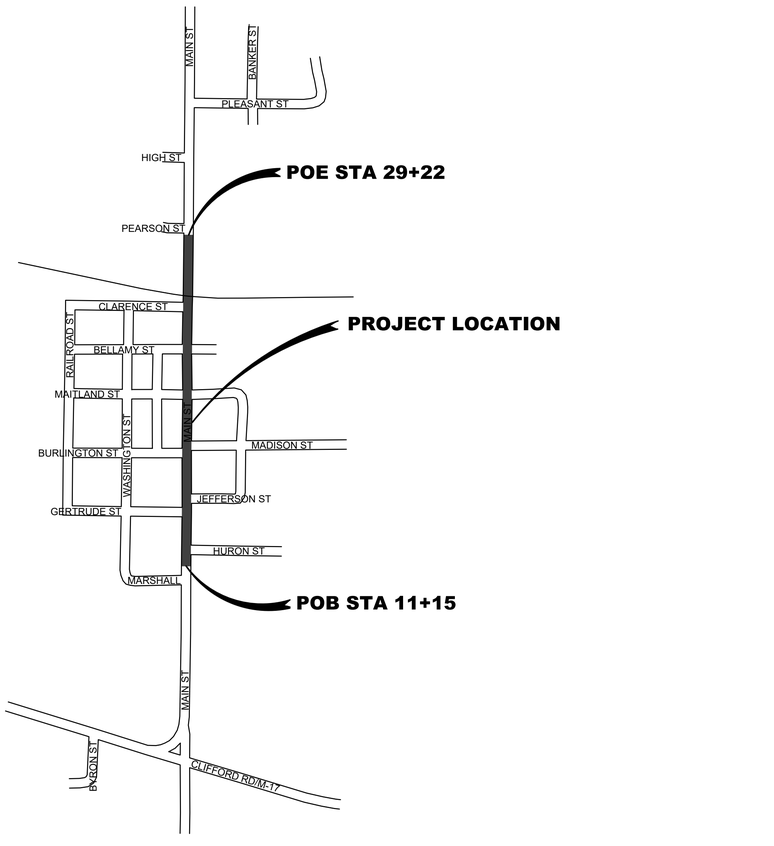

LOCATION MAP

N

Know what's below. Call before you dig.

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3562 Ridgecrest Dr, Suite 102
Midland, MI 48642
P: 989.837.3280
F: 989.837.3290

VILLAGE OF CLIFFORD
LAPEER COUNTY, MICHIGAN
MAIN ST REHABILITATION

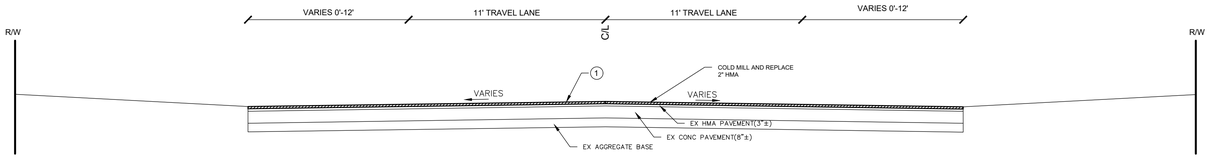
COVER SHEET

DESIGN TEAM	PROJ MNGR: LBH DESIGNED BY: MHW DRAWN BY: MHW
	CHECKED BY:

F&V PROJECT NO.
876750

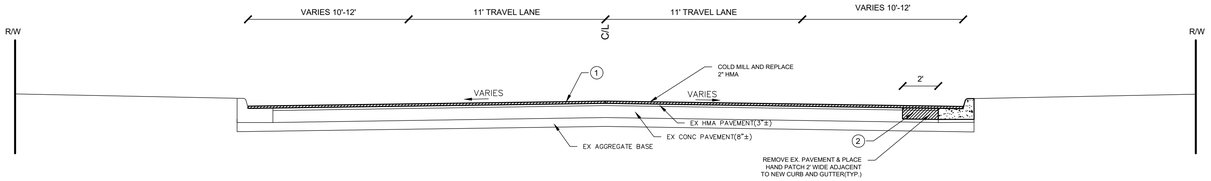
C-001

M:\Proj\876501-877000\876750 Village of Clifford - FY2025 TEDF Category B\Cad\Print\876750 CS.dwg Friday, July 24, 2026 at 4:28pm matt.wittig



TYPICAL CROSS SECTION

STA 27+75 TO STA 29+22(POE)



TYPICAL CROSS SECTION

STA 11+15(POB) TO STA 27+75

MISCELLANEOUS QUANTITIES THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUGHOUT THE PROJECT. THESE ITEMS ARE NOT DETAILED OR INCLUDED ON THE PLAN AND PROFILE SHEETS BUT ARE TO BE USED AS DIRECTED BY THE ENGINEER, WHERE REQUIRED.		
QUANTITY	UNIT	DESCRIPTION
1	LSUM	GENERAL CONDITIONS, BONDS, AND INSURANCE, MAX 5%
18	EA	EROSION CONTROL, INLET PROTECTION, FABRIC DROP
10	EA	DR STRUCTURE COVER, ADJ, CASE 1, MODIFIED
10	EA	BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN
10	EA	BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER
40	EA	PEDESTRIAN TYPE II BARRICADE, TEMP
200	EA	CHANNELIZING DEVICE, 42 INCH, FLUORESCENT, FURN
200	EA	CHANNELIZING DEVICE, 42 INCH, FLUORESCENT, OPER
2	EA	LIGHTED ARROW, TYPE C, FURN
2	EA	LIGHTED ARROW, TYPE C, OPER
1	LSUM	MINOR TRAFFIC DEVICES
488	SFT	SIGN, TYPE B, TEMP, PRISMATIC, FURN
488	SFT	SIGN, TYPE B, TEMP, PRISMATIC, OPER
1	LSUM	TRAF REGULATOR CONTROL
4	EA	GATE BOX, ADJ, CASE 1

CONSTRUCTION SIGNING (FOR INFORMATION ONLY)					
SIGN	TYPE	SIZE	SIGN AREA (SFT)	NUMBER	TOTAL AREA (SFT)
1	TYPE III BARRICADE		NA	10	NA
2	W20-1	48"x48"	16.0	12	192.0
3	R-18b	48"x60"	20.0	2	40.0
4	W20-4	48"x48"	16.0	2	32.0
5	W3-5b	48"x48"	16.0	2	32.0
6	W20-7a	48"x48"	16.0	2	32.0
7	W3-4	48"x48"	16.0	2	32.0
8	R5-18c	48"x48"	16.0	2	32.0
9	R2-1*	48"x60"	20.0	4	80.0
10	G20-2	48"x24"	8.0	2	16.0
				TOTAL:	488.0

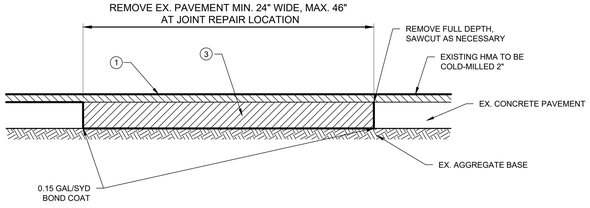
NOTES: R2-1 TO BE SPEED LIMIT 25 SIGNS, SEE MAINTAINING TRAFFIC TYPICAL IN SPEC

NOTES: R2-1 TO BE SPEED LIMIT 25 SIGNS, SEE MAINTAINING TRAFFIC TYPICAL IN SPEC

HMA APPLICATION TABLE					
COURSE	TYPE	ITEM	EST. YIELD	BINDER GRADE	REMARKS
(1)	SURFACE	HMA, 4EL	220 LBS/SYD	58-28	AWI = 220 MIN
(2)	HAND PATCH	HMA, 3EL	440 LBS/SYD	58-28	PLACE IN 2 EQUAL LIFTS
(3)	HAND PATCH	HMA, 3EL	990 LBS/SYD	58-28	PLACE IN 3 EQUAL LIFTS

NOTES: BOND COAT SHALL BE APPLIED BETWEEN SUCCESSIVE COURSES OF BIT (INCLUDED IN HMA MIX PAY ITEM). APPLICATION RATE 0.05 - 0.15 GAL/SYD SS-1H.

HMA FOR STREET APPROACHES SHALL MATCH THE MAINLINE SECTION AND IS INCLUDED IN PAYMENT FOR MAINLINE HMA.



BITUMINOUS PAVEMENT PATCHING AT JOINT AND CRACK REPAIR LOCATIONS

NO SCALE

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VILLAGE OF CLIFFORD
LAPEER COUNTY, MICHIGAN
MAIN ST REHABILITATION

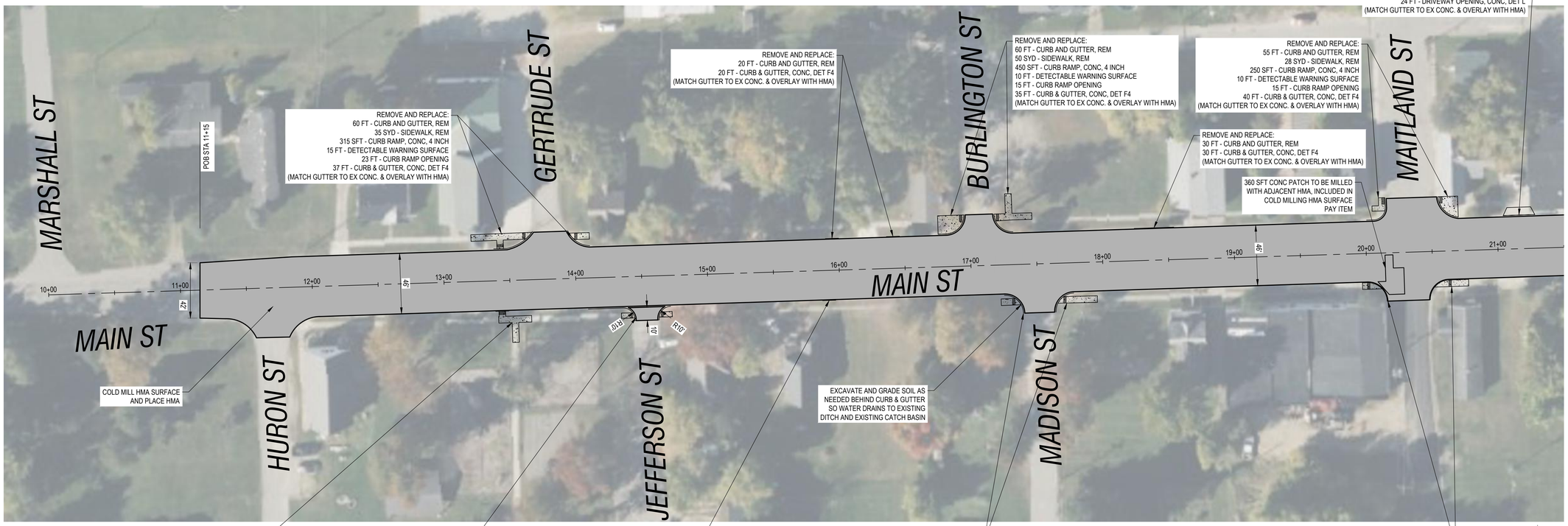
CROSS SECTIONS

DESIGN TEAM
PROJ MNGR: LBH
DESIGNED BY: MHW
DRAWN BY: MHW
CHECKED BY:

F&V PROJECT NO.
876750

C-002

M:\Proj\876001-878000\876750\Village of Clifford - FY2025 TEDF Category B\Cad\Print\876750_Sections.dwg Friday, July 24, 2026 at 4:30pm matt.wittig

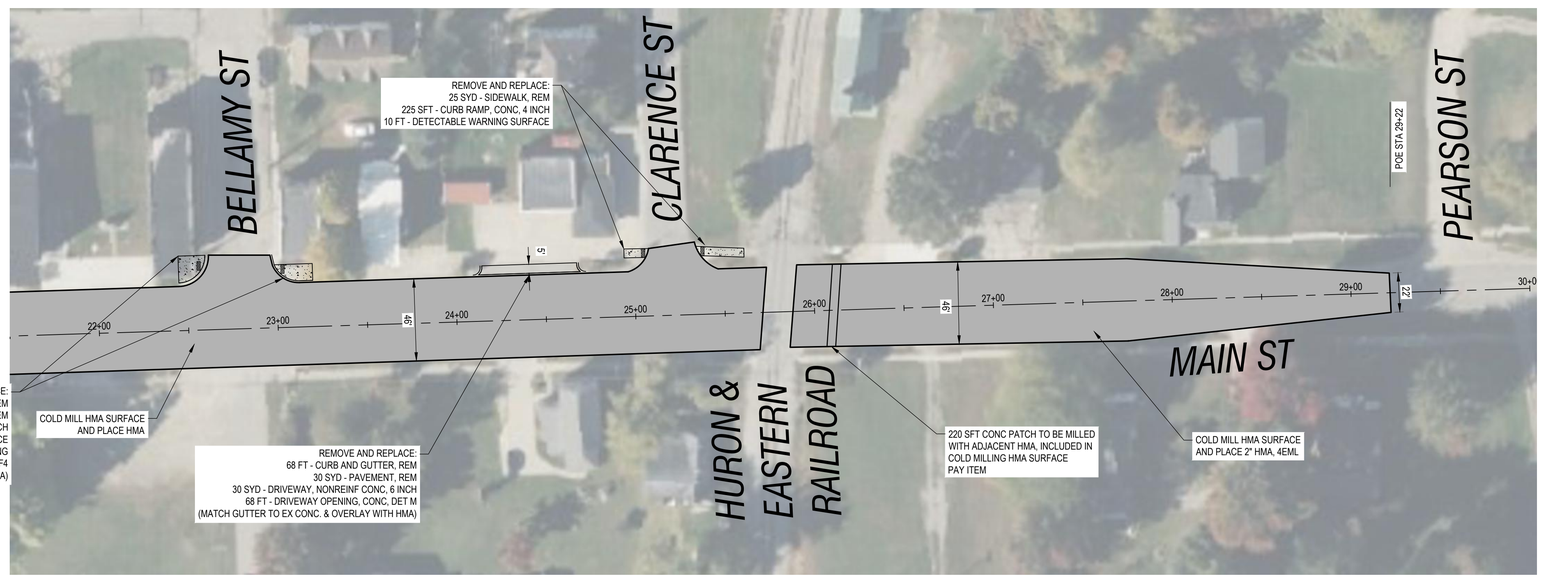


MAIN ST
EX. BIT. PAVEMENT

NORTH
0 20' 40' 80'
SCALE IN FEET

MISCELLANEOUS QUANTITIES(THIS SHEET)

QUANTITY	UNIT	DESCRIPTION
10000	SYD	COLD MILLING HMA SURFACE
750	FT	PAVT JOINT AND CRACK REPR, DET 8
150	TONS	HAND PATCHING
1100	TONS	HMA, 4EL
3700	FT	PAVT MRKG, WATERBORNE, 4 INCH, YELLOW
3700	FT	PAVT MRKG, WATERBORNE, 2ND APPLICATION, 4 INCH, YELLOW
92	FT	PAVT MRKG, OVLY COLD PLASTIC, 24 INCH, STOP BAR
2	EA	PAVT MRKG, OVLY COLD PLASTIC, RAILROAD SYM
350	SYD	SLOPE RESTORATION, NON-FREEWAY, TYPE A
10	CYD	EXCAVATION, EARTH



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VILLAGE OF CLIFFORD
LAPEER COUNTY, MICHIGAN
MAIN ST REHABILITATION

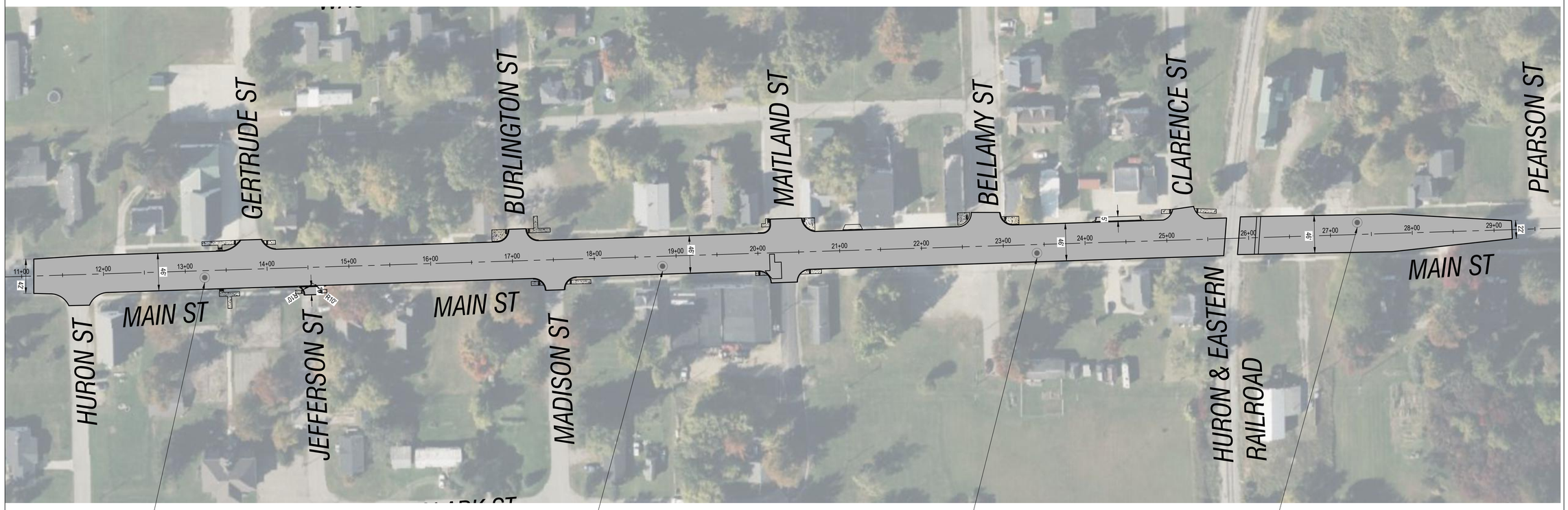
MAIN ST ROAD PLAN

DESIGN TEAM	PROJ MNGR: LBH DESIGNED BY: MHW DRAWN BY: MHW CHECKED BY:

F&V PROJECT NO.
876750

C-101

M:\Proj\876001-876500\876750 Village of Clifford - FY2025 TEDF Category B\Cad\Print\876750_Main.dwg Friday, July-24-2026 at 4:31pm matt.wittig



McDOWELL & ASSOCIATES
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LOG OF SOIL BORING NO. SB-4
PROJECT Main Street - Pearson Street to Huron Street
LOCATION Northbound
9527 Main Street
Clifford, Michigan
JOB NO. 25-630173
SURFACE ELEVATION --
DATE 3/10/2026

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den. Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	0'3"		ASPHALT 0'3"						
	0'6"								
	0'9"		CONCRETE						
	1'0"		0'11"						
	1'3"		GRAVEL						
	1'6"		1'6"						
	1'9"								
A	2'0"			4					
	2'3"								
S.S.	2'6"			5					
	2'9"								
	3'0"			7					
	3'3"								
	3'6"		Extremely stiff moist variegated silty CLAY with occasional pebbles	12					
	3'9"								
	4'0"								
	4'3"			6					
B	4'6"								
	4'9"			8					
S.S.	5'0"								
	5'3"			10					
	5'6"		5'6" End of Boring						
	5'9"								
	6'0"								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
* - CALIBRATED PENETROMETER (POCKET PENETROMETER)

Note(s): Boring was closed with auger cuttings and cold patch.

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT FT. INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES NONE

SPT Hammer Crew Chief JD
Standard Penetration Test - Driving 2" O.D. Sampler 1' With 140lb Hammer Falling 30". Count Made at 6" Intervals

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LOG OF SOIL BORING NO. SB-3
PROJECT Main Street - Pearson Street to Huron Street
LOCATION Northbound
9618 Main Street
Clifford, Michigan
JOB NO. 25-630173
SURFACE ELEVATION --
DATE 3/10/2026

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den. Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	0'3"		ASPHALT 0'3"						
	0'6"								
	0'9"		CONCRETE						
	1'0"		0'11"						
	1'3"		GRAVEL						
	1'6"		1'4"						
	1'9"								
A	2'0"			3					
	2'3"								
S.S.	2'6"			4					
	2'9"								
	3'0"			6					
	3'3"								
	3'6"		Very stiff moist variegated silty CLAY with occasional pebbles	8					
	3'9"								
	4'0"								
	4'3"			3					
B	4'6"								
	4'9"			4					
S.S.	5'0"								
	5'3"			8					
	5'6"		5'6" End of Boring						
	5'9"								
	6'0"								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
* - CALIBRATED PENETROMETER (POCKET PENETROMETER)

Note(s): Boring was closed with auger cuttings and cold patch.

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT FT. INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES NONE

SPT Hammer Crew Chief JD
Standard Penetration Test - Driving 2" O.D. Sampler 1' With 140lb Hammer Falling 30". Count Made at 6" Intervals

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LOG OF SOIL BORING NO. SB-2
PROJECT Main Street - Pearson Street to Huron Street
LOCATION Northbound
9711 Main Street
Clifford, Michigan
JOB NO. 25-630173
SURFACE ELEVATION --
DATE 3/10/2026

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den. Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	0'3"		ASPHALT 0'3"						
	0'6"								
	0'9"		CONCRETE						
	1'0"		0'10"						
	1'3"		GRAVEL						
	1'6"		1'3" Moist brown SAND with pebbles, possible fill 1'6"						
	1'9"								
A	2'0"			2					
	2'3"								
S.S.	2'6"			3					
	2'9"								
	3'0"			3					
	3'3"		Compact wet brown SAND, possible fill						
	3'6"			3					
	3'9"								
	4'0"								
	4'3"			2					
B	4'6"								
	4'9"			1					
S.S.	5'0"		4'10"						
	5'3"		Soft moist brown sandy CLAY with occasional pebbles	2					
	5'6"		5'6" End of Boring						
	5'9"								
	6'0"								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
* - CALIBRATED PENETROMETER (POCKET PENETROMETER)

Note(s): Boring was closed with auger cuttings and cold patch.

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT 1 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION 3 FT. 11 INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Cave-In

SPT Hammer Crew Chief JD
Standard Penetration Test - Driving 2" O.D. Sampler 1' With 140lb Hammer Falling 30". Count Made at 6" Intervals

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Phone: (989) 496-3610 • Fax: (989) 496-3190

LOG OF SOIL BORING NO. SB-1
PROJECT Main Street - Pearson Street to Huron Street
LOCATION Southbound
9776 Main Street
Clifford, Michigan
JOB NO. 25-630173
SURFACE ELEVATION --
DATE 3/10/2026

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den. Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	0'3"		ASPHALT 0'4"						
	0'6"								
	0'9"		CONCRETE						
	1'0"		0'11"						
	1'3"		GRAVEL						
	1'6"		1'2"						
	1'9"								
A	2'0"		Very compact moist brown SAND with occasional pebbles, possible fill	7					
	2'3"								
S.S.	2'6"		2'4"	8					
	2'9"								
	3'0"			7					
	3'3"		Very compact wet brown silty SAND						
	3'6"			7					
	3'9"								
	4'0"		4'0"						
	4'3"			4					
B	4'6"								
	4'9"		Compact wet brown silty SAND	3					
S.S.	5'0"								
	5'3"			6					
	5'6"		5'6" End of Boring						
	5'9"								
	6'0"								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
* - CALIBRATED PENETROMETER (POCKET PENETROMETER)

Note(s): Boring was closed with auger cuttings and cold patch.

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT 2 FT. 4 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION 3 FT. 9 INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Cave-In

SPT Hammer Crew Chief JD
Standard Penetration Test - Driving 2" O.D. Sampler 1' With 140lb Hammer Falling 30". Count Made at 6" Intervals

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VILLAGE OF CLIFFORD
LAPEER COUNTY, MICHIGAN
MAIN ST REHABILITATION
SOIL BORINGS

DESIGN TEAM	PROJ MNGR: LBH DESIGNED BY: MHW DRAWN BY: MHW CHECKED BY:

F&V PROJECT NO.
876750

C-501

M:\Proj\876001-879000\876750 Village of Clifford - FY2025 TEDF Category B\Cad\Plns\876750_Soil Borings.dwg Friday, July 24, 2026 at 4:37pm matt.wittig