

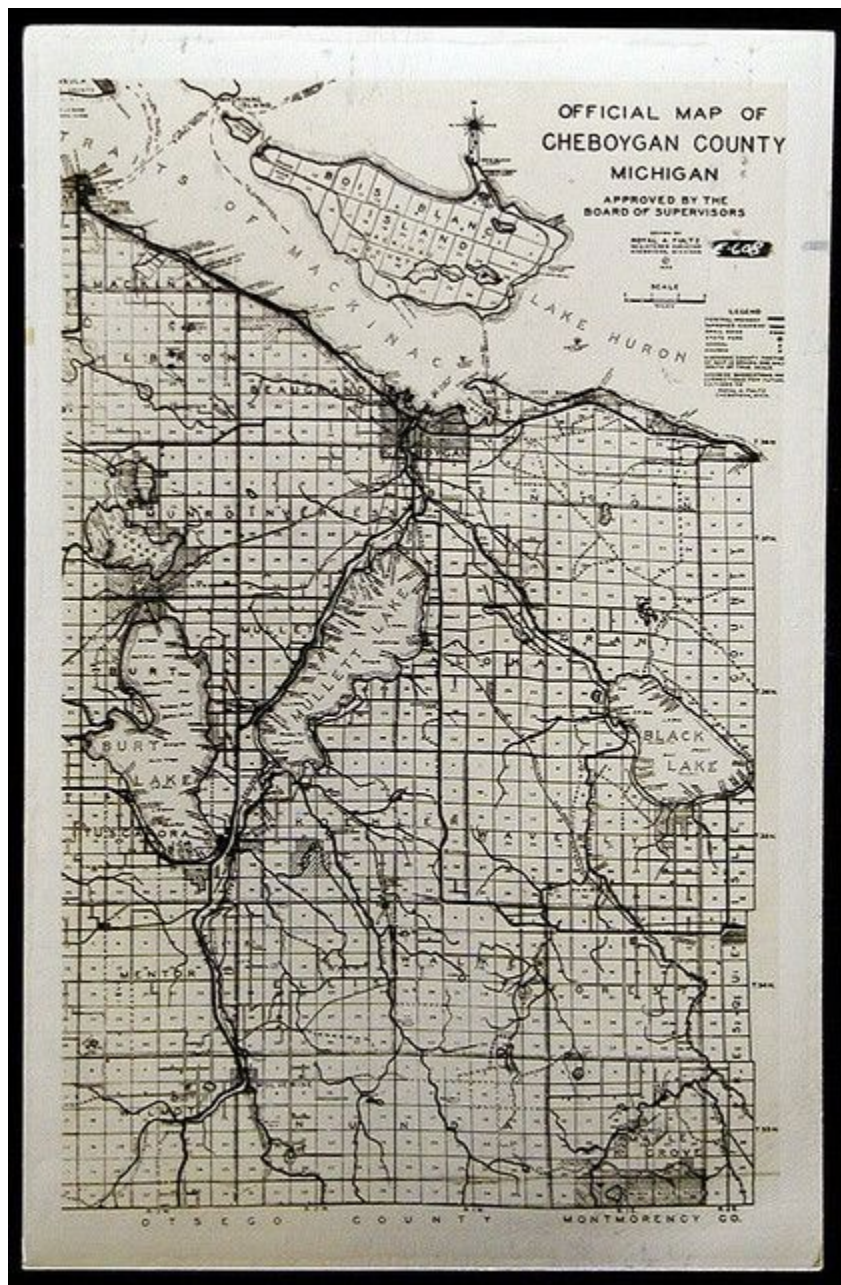
Road Construction & Paving

Focused Trenching

Modified Mill & Fill

Wedge & Overlay

Exploring Alternative Techniques in Road Infrastructure Improvement

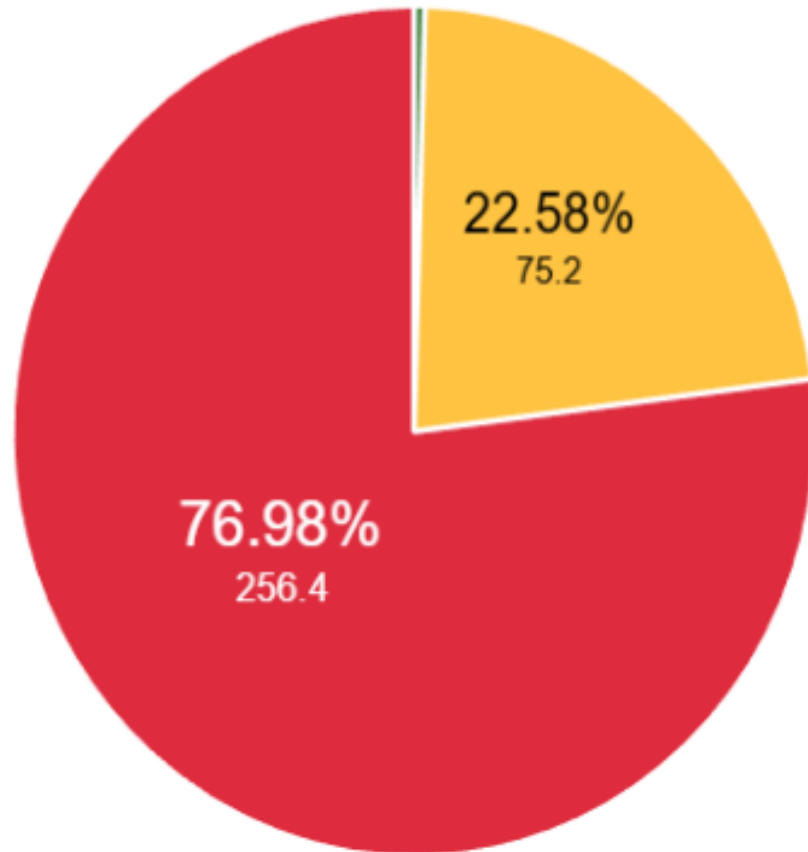


Cheboygan County

Federal Aid Rated Pavement Conditions

County, Cheboygan, County Road Commission, 2014

■ Lane Miles Good ■ Lane Miles Fair
■ Lane Miles Poor



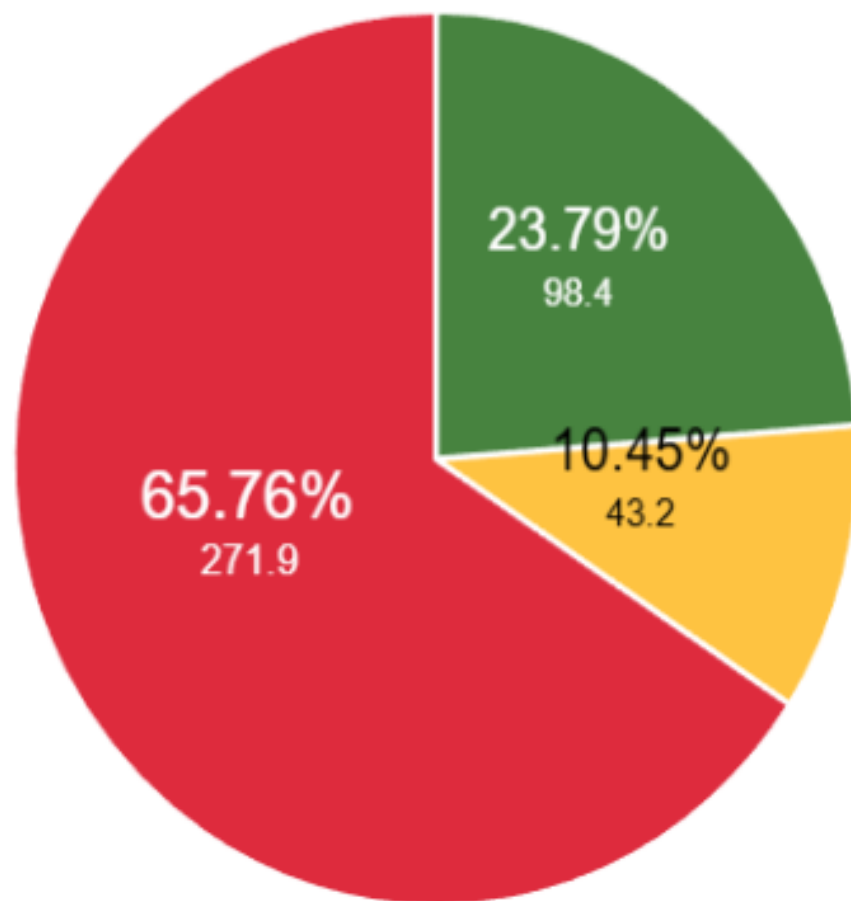
- 1129 Miles
- 312 Miles State
- 39 FTE
- 7.7 Million MTF (2024)

Millage \$1.5 Million
(2024)

Federal Aid Rated Pavement Conditions

County, Cheboygan, County Road Commission, 2021

■ Lane Miles Good ■ Lane Miles Fair
■ Lane Miles Poor



November 30, 2015

LEVERING ROAD

Project Information:

Job Number: A459.271

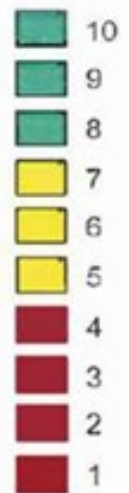
Job Location: Levering Road between Inverness Trail Road and Cheboygan City Limits.

Type of Work: 1.54 MILES OF BASE CRUSHING AND SHAPING, CONCRETE & HMA CURB, SPILLWAYS, HMA PAVING, HI-PERFORMANCE BIAXIAL GEO-GRID, GRAVEL SHOULDERS AND PAVEMENT MARKINGS.

Owner: Cheboygan County Road Commission

PASER Ratings for 9/27/2024

Ratings - 2024



Road	Township	Project Type	Project Estimate	Amount Allocated
Ranch Road*	Mullett	Paving	\$123,100.00	\$25,000
Elmhurst, Feather Lane, Numbers*	Burt	Sealcoat	\$98,300.00	\$25,000
Wartella*	Benton	Sealcoat	\$107,600.00	\$25,000
Polish Line*	Inverness	Paving	\$624,226.90	\$25,000
Godin Circle*	Grant	Gravel	\$54,300.00	\$25,000
Wurm Road*	Nunda	Sealcoat	\$147,200.00	\$25,000
Hackleburg*	Kohler	Sealcoat	\$66,100.00	\$25,000
Baker Road*	Aloha	Gravel	\$71,620.00	\$25,000
Mentor Road (split)	Mentor	Gravel	\$66,643.80*	\$25,000
Mentor Road (split)	Wilmot	Gravel	\$66,643.80*	\$25,000
Stimpson	Mackinaw	Paving	\$110,423.00	\$25,000
Gravel Match: Tuscarora, Forest, Waverly, Walker, Munro, Hebron, Beaugrand, Ellis				\$20,000
*Signed agreements received.				
Estimated Local Road Construction		\$1,536157.49		
Allocation Amount				

CHEBOYGAN COUNTY ROAD COMMISSION

PRELIMINARY CONSTRUCTION ESTIMATE

Date of Estimate: 11/13/2023 13:55

Road Name: **Bowersock Rd**

Limits: **East Mullett Lake Rd to the End**

Township: Koehler

Prepared By: Matt Hall

Project Description: 3010' HMA Crushing and shaping,trenching, aggregate base, 2" asphalt paving and restoration.

CLEAR & GRUB \$ -

EXCAVATION / GRADE WORK \$ 60,400.00

DITCHING and CULVERTS \$ 1,800.00

GRAVEL \$ 38,200.00

HMA PAVING \$ 78,800.00

SEAL COAT \$ -

SHOULDERING \$ 7,000.00

SOD, SEED & EROSION CONTROL \$ 23,900.00

TRAFFIC SIGNS / CONTROL \$ -

GUARDRAIL \$ -

CONSTRUCTION ENGINEERING \$ -

ESTIMATED PROJECT TOTAL \$ 210,100.00

Sand Repair & Seal



CHEBOYGAN COUNTY ROAD COMMISSION

PRELIMINARY CONSTRUCTION ESTIMATE

Date of Estimate: 12/17/2025 15:42

Road Name: Hackleburg Road Limits: 2900 feet west of Carter Road to M-33.

Township: Koehler

Length: 8174 Ft

Prepared By: Matt Hall

Project Description: HMA base crushing and shaping, aggregate base, trenching, cross culvert, HMA Paving (24 ft wide x 2 inch), gravel shoulders, restoration and pavement markings.

CLEAR & GRUB	\$ -	EXCAVATION / GRADE WORK	\$ 115,200.00
DITCHING and CULVERTS	\$ 2,800.00	GRAVEL	\$ 84,000.00
HMA PAVING	\$ 226,700.00	SEAL COAT	\$ -
SHOULDERING	\$ 19,300.00	SOD, SEED & EROSION CONTROL	\$ 18,700.00
TRAFFIC SIGNS / CONTROL	\$ 12,900.00	GUARDRAIL	\$ -
CONSTRUCTION ENGINEERING	\$ -		

ESTIMATED PROJECT TOTAL \$ 479,600.00

If the township would like to continue with the project please send a deposit of 2% to move the project forward.

Deposit Amount \$ 9,592.00

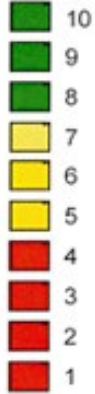






PASER Ratings for 9/27/2025

PASER Rating



Ratings
How do we
make them
all green?

More with Less

- Planning and Design of Road Projects
- Preparation and Construction of Road Foundations
- Road Paving Techniques and Materials
- Quality Control and Maintenance of Roads





Let's Try This 2021

DAVID F. BRANDT
CHAIRMAN

HENRY GINOP
VICE-CHAIRMAN

DAVID D. BROW
COMMISSIONER

KENNETH PAQUET
COMMISSIONER

RICHARD A. LAHAIE
COMMISSIONER

Cheboygan County Road Commission

5302 South Straits Highway

Indian River, Michigan 49749

Phone: (231) 238-7775

Fax: (231) 238-0830

877-257-2272

R. BRENT SHANK
ENGINEER/MANAGER

DANA S. STEMPEL
CLERK

PROPOSAL

Projects:

A459.301 RIGGSVILLE ROAD – KATE HANSON ROAD TO VFW ROAD - 2.26 MILES OF COLD MILLING, HMA PAVING, HMA APPROACHES, AGGREGATE SHOULDERS, GUARDRAIL AND PAVEMENT MARKINGS.

A459.302 N. BLACK RIVER ROAD – MEYERS PIT ROAD TO BUTLER ROAD - 1.91 MILES OF COLD MILLING, HMA PAVING, HMA APPROACHES, AGGREGATE SHOULDERS, GUARDRAIL AND PAVEMENT MARKINGS

The Cheboygan County Road Commission will accept Bids until **9:00 a.m.** local time on **November 30, 2021**, at 5302 South Straits Highway, Indian River, MI 49749. Bid packages are available at the Cheboygan County Road Commission.

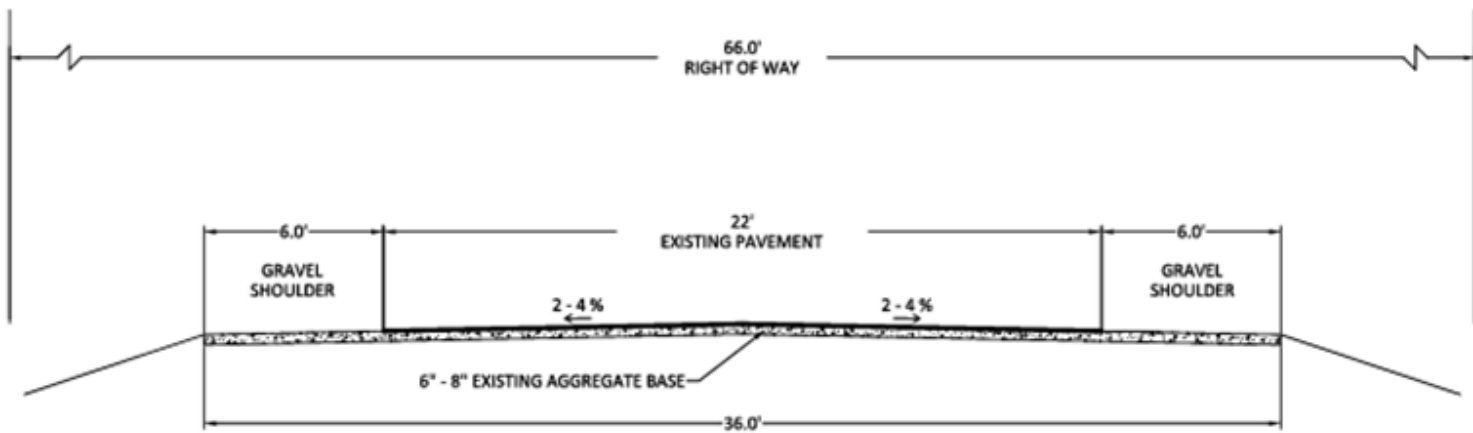
ALL BIDS WILL BE SEALED AND PLAINLY MARKED AS TO THE PROJECT AND PROJECT NUMBER.

Cold Milling HMA Surface:

Limits of cold milling shall be 5.0' in width. Mill to a depth of 2.0 inches below existing pavement surface 9.0 feet from road centerline at a 2.0% slope in Normal Crown areas and match existing cross slope in superelevated areas.

Project Quantities:

Mobilization, Max 10%	1	LSUM
Pavt, Rem	40	Syd
Approach, CI I	68	Ton
Approach, CI II	20	Ton
Shoulder, CI II	2943	Ton
Cold Milling HMA Surface	10973	Syd
HMA Surface, Rem	1407	Syd
Pavt for Butt Joints, Rem	234	Syd
HMA, 4E1	5664	Ton
HMA Approach	189	Ton
Pavt. Mrkg, Waterborne, 4 inch, White	20500	Ft
Pavt. Mrkg, Waterborne, 4 inch, Yellow	12600	Ft
Traffic Control	1	LSUM
Monument Box	1	Ea



EXISTING TYPICAL SECTION

STATIONS: 0+00 to 119+17

NO SCALE

DATE:
09/24/2021

A459.301

RIGGSVILLE ROAD
KATE HANSON ROAD TO VFW ROAD

EXISTING TYPICAL SECTION

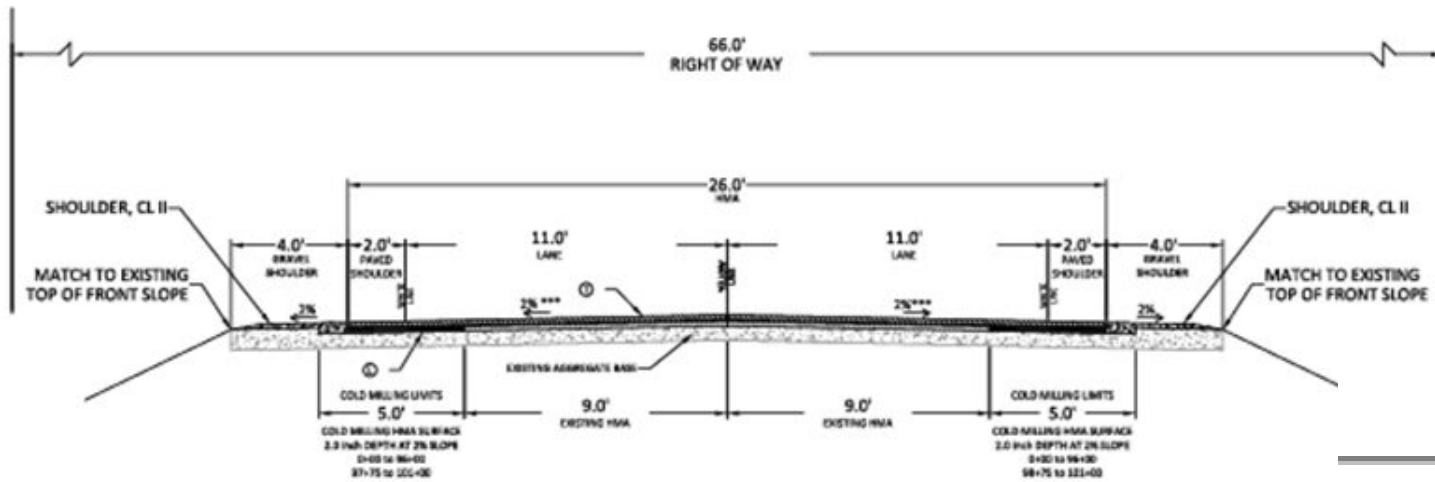
CHEBOYGAN COUNTY ROAD COMMISSION
5302 S. STRAIT'S HIGHWAY • INDIAN RIVER, MI 49749 • (231) 238-7775

DATE:
10/22/2021
A459.302

N. BLACK RIVER ROAD
MEYERS PIT ROAD TO BUTLER ROAD

CHEBOYGAN COUNTY ROAD COMMISSION
5302 S. STRAITS HIGHWAY - NOKIA RIVER, MI 49769 • (231) 228-7775

TYPICAL SECTION



HMA APPLICATION TABLE

LABEL	MIX	RATE (lbs/Syd)	PERFORMANCE GRADE	COMMENTS	PAY ITEM
T	HMA, 4E1	220*	58-28	ML - TOP	HMA, 4E1
L	HMA, 4E1	AVG 123**	58-28	ML - LEVEL	HMA, 4E1
A	HMA, 4E1	220	58-28		HMA APPROACH

- * AFTER LEVELING COURSE IS PLACED, THE CONTRACTOR AND ENGINEER WILL BACK CALCULATE AND AGREE ON TOP COURSE APPLICATION RATE FROM 95% REMAINING TONNAGE AVAILABLE
- ** LEVELING COURSE DEPTH IS 0.5 inch AT CENTERLINE, APPROXIMATELY 2.5 inch AT SHOULDER.
- *** MATCH CROSS SLOPE IN SUPERELEVATED AREAS

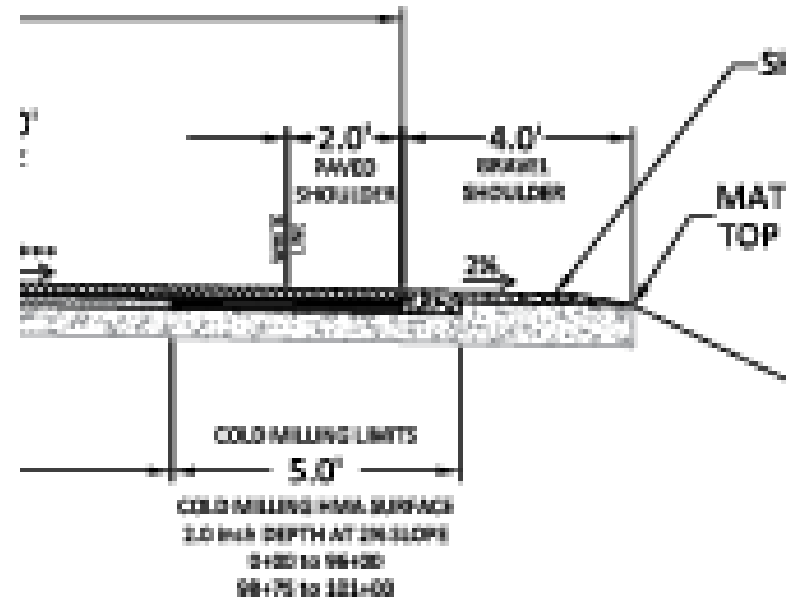
AWI = 220 FOR ALL HMA, 4E1

APPLY HMA BOND COAT AT 0.10 GALLONS PER SQUARE YARD BETWEEN PAVING COURSES OR AS DIRECTED BY THE ENGINEER AND/ OR ENGINEER TECHNICIAN (PAID FOR AS PART OF HMA ITEMS), FOR INFORMATION ONLY.

TYPICAL SECTION

STATIONS: 0+00 TO 101+00

NO SCALE





How Much Did it Cost?

MILL/WEDGE/OVERLAY 2022

- \$290,000.00 per mile
 - Did Include Guardrail/Shoulder Gravel Pavement Markings
 - 38%
 - Stronger Edge?
 - Crack in Wheel Path?

CRUSH/SHAPE/PAVE/GRAVEL ADDED 2021

- \$400,000.00 per mile
 - Restoration
 - Intersection/Driveway Approaches
 - Super Elevations

What's Next?

Can We?

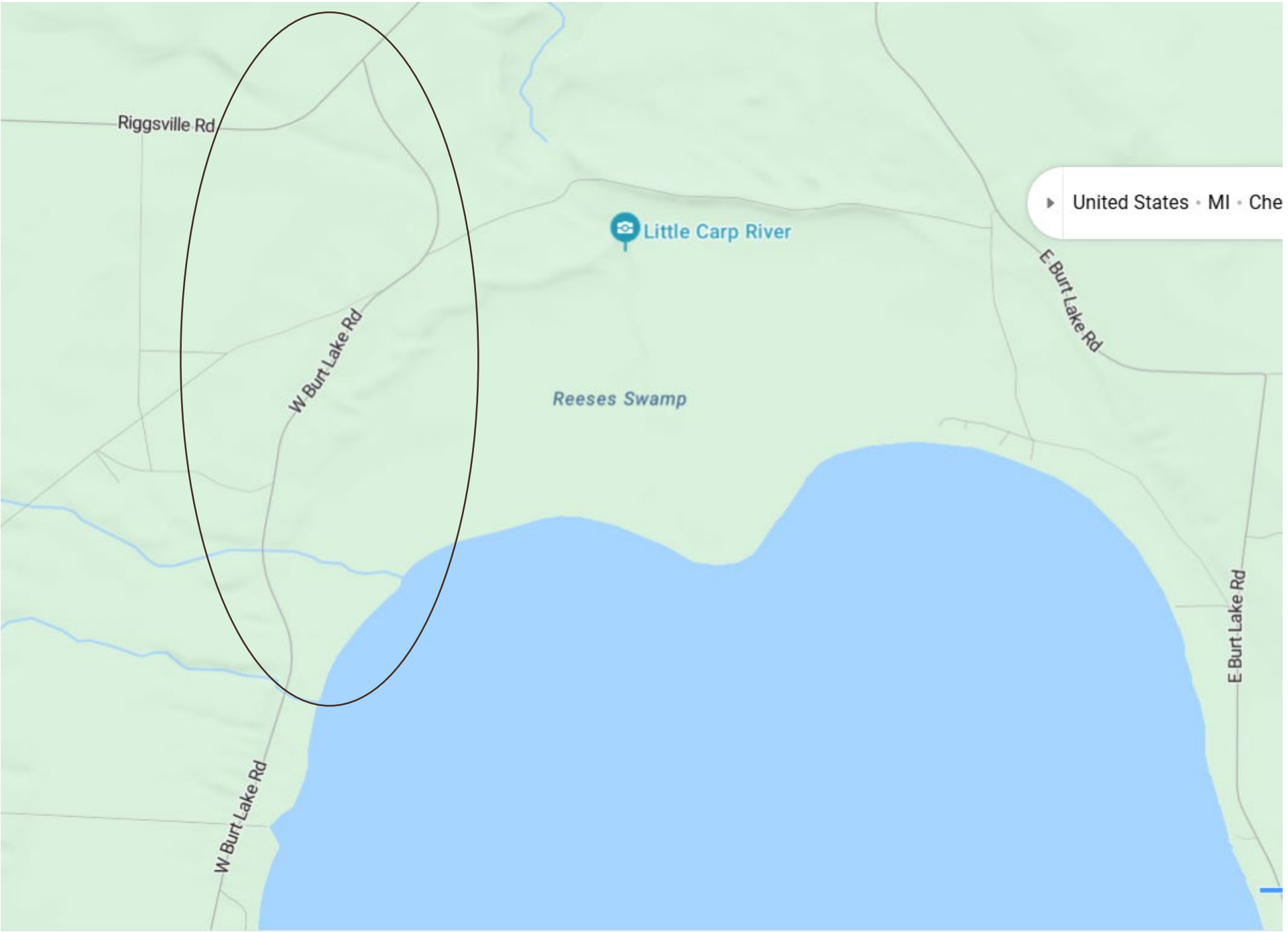
Should We?

Preparation for Construction



West Burt Lake Road

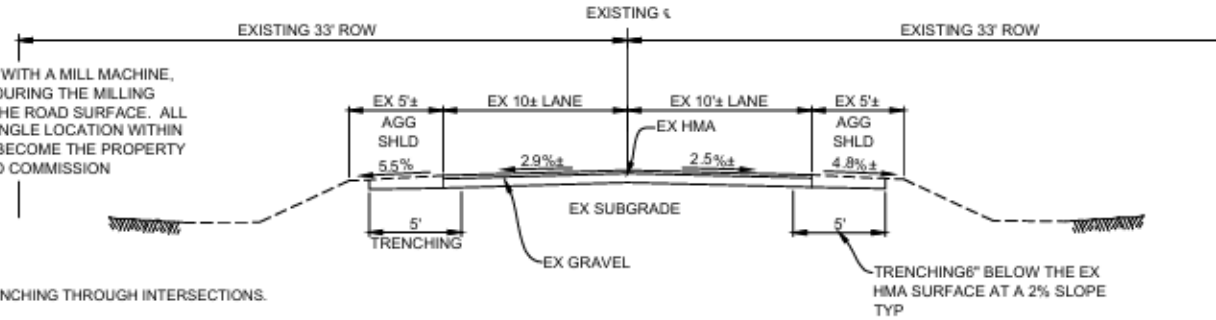
Michigan's 4th Largest Inland Lake (Schaetzl, 1993)



TRENCHING SHALL BE COMPLETED WITH A MILL MACHINE, THE MILLINGS WILL BE CAPTURED DURING THE MILLING OPERATION AND NOT PLACED ON THE ROAD SURFACE. ALL MILLINGS WILL STOCKPILED AT A SINGLE LOCATION WITHIN THE PROJECT LIMITS AND WILL BE BECOME THE PROPERTY OF THE CHEBOYGAN COUNTY ROAD COMMISSION

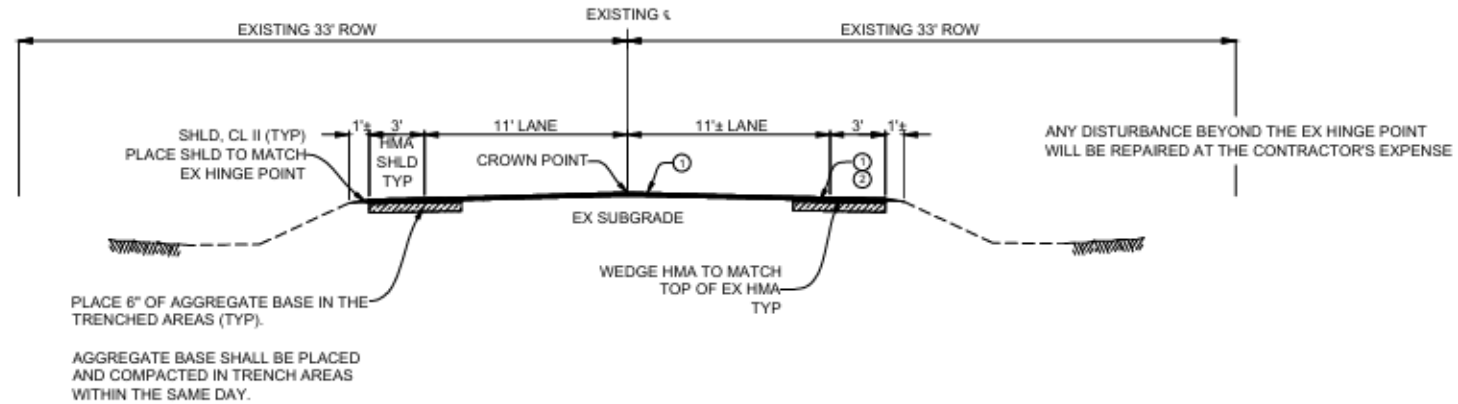
THERE WILL BE NO TRENCHING THROUGH INTERSECTIONS.

HMA DRIVES SHALL BE SAWCUT PRIOR TO TRENCHING OPERATIONS TAKE PLACE. SAWCUTTING SHALL BE PAID FOR BY OTHER ITEMS.



EXISTING SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15



PROPOSED SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15

HMA APPLICATION TABLE

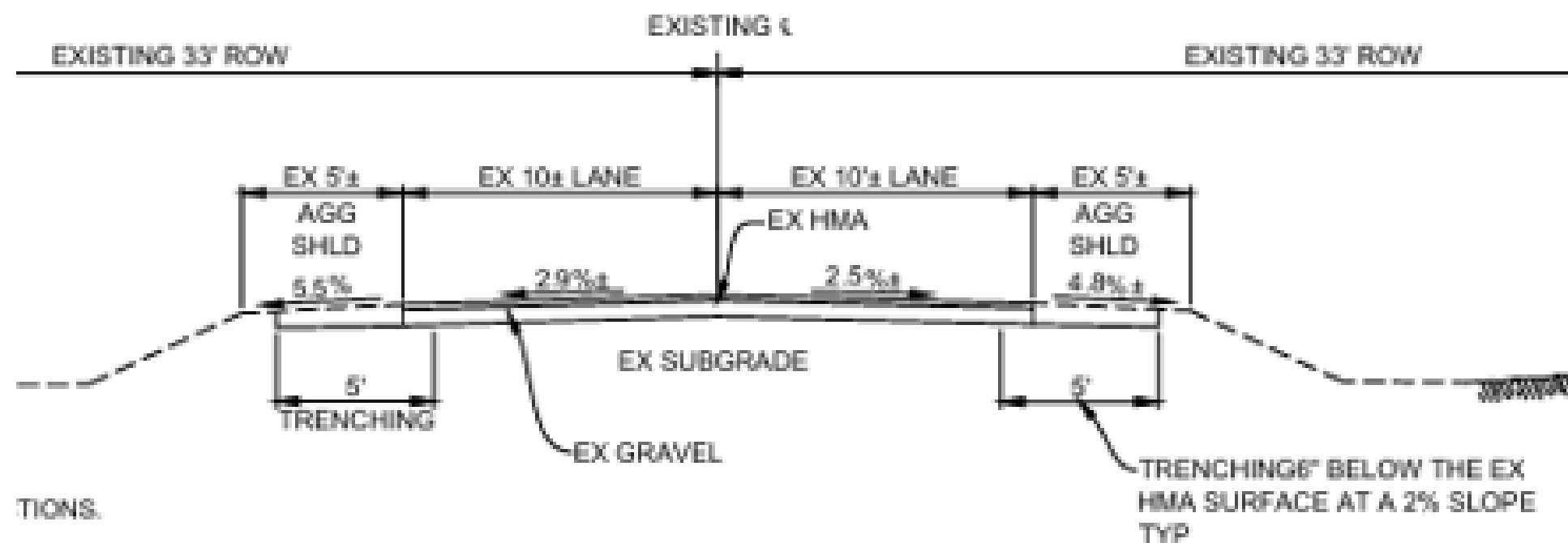
IDENTITY	PAY ITEM	RATE LB/SYD	PERFORMANCE GRADE	REMARKS
1	HMA, 4E1	220	58-28	TOP COURSE AWI 220
2	HMA, 4E1	0 - 220	58-28	HMA WEDGING TO FILL RUTS AND WEDGE SHOULDER WIDENING
3	HMA APPROACH	VARIABLE	58-28	DRIVEWAYS AND APPROACHES
	HMA BOND COAT	0.05-0.15 GAL/SYD (FOR INFORMATION ONLY)		

W BURT LAKE RD OVERLAY PROJECT INDIAN RD TO RIGGSVILLE RD TYPICAL CROSS SECTION

CLIENT:
CHEBOYGAN COUNTY ROAD COMMISSION

DATE
01/17/2024
DRN
KMS
CHD
RER
SCALE
NA

HURON
ENGINEERING & SURVEYING, INC.

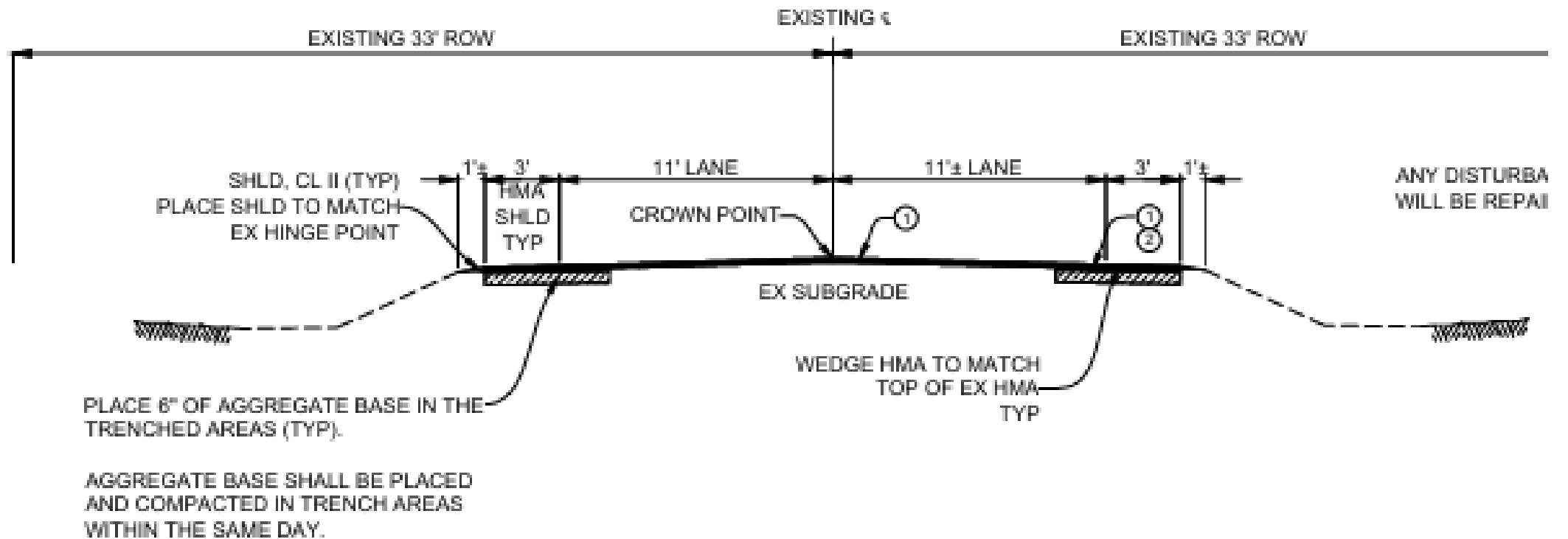


TIONS.

IG OPERATIONS
THER ITEMS.

EXISTING SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15



PROPOSED SECTION

TO APPLY: POB STA 10+25 TO POE STA 108+15

HMA APPLICATION TABLE



Burt Lake Trail



Back to Black River Road













**\$297,000.00
Per Mile**

Crush & Shape with 4' Shoulder
\$409,000.00 per mile

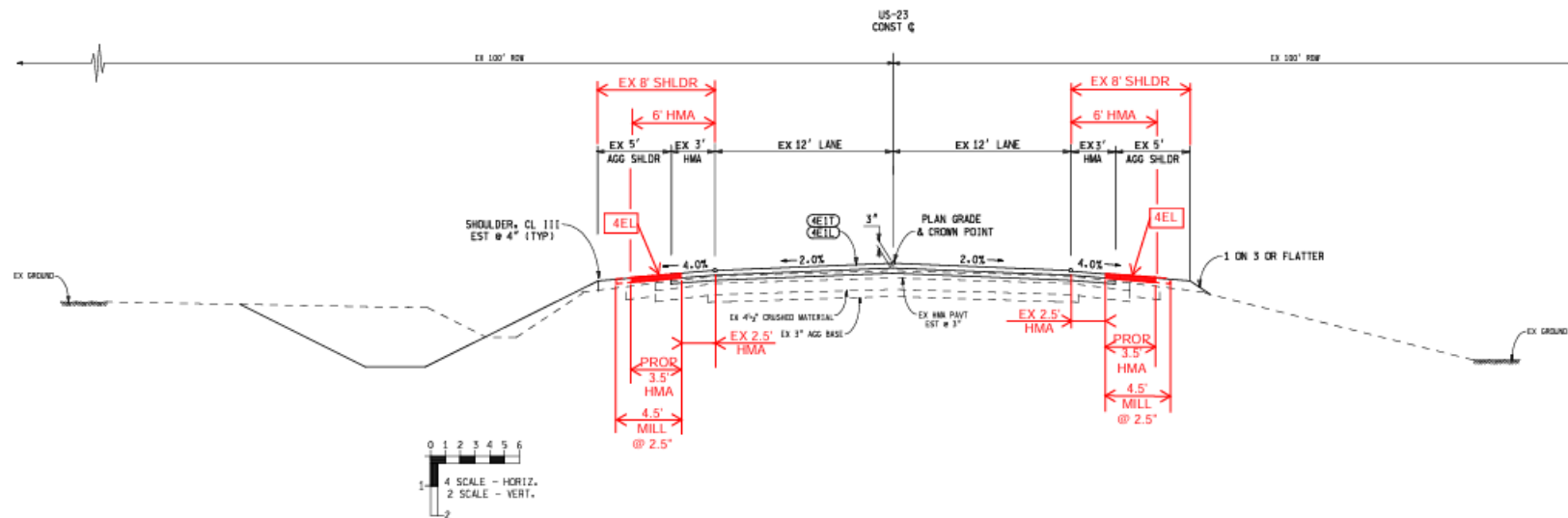


Partnership with
MDOT US-23

Edge Mill

HMA Pave/Widen

FINAL R.O.W.		
AUTH	DATE	NO.
REVISION		



IDENT NO.	ITEM	RATE PER SYD	PERFORMANCE GRADE
4EL	HMA, 4EL	275#	58-28



TYPICAL CROSS SECTIONS				
DATE	CONT. SEC.	JOB NO.	DESIGN UNIT	SHEET NO.
	16081			R.G.W/CONST.





Hand Work!







DAVID D. BROWN
CHAIRMAN

KENNETH PAQUET
COMMISSIONER

BRADLEY ORMSBEE
COMMISSIONER

GREGORY BUNKER
VICE-CHAIRMAN

HENRY GINOP
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Cheboygan County Road Commission

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Indian River, Michigan 49749

Phone: (231) 238-7775

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877-257-2272

MATTHEW HALL
MANAGER

CHELSEA STYES
CLERK

PROPOSAL

Project: A459.315

S Black River Rd & North Allis Highway Overlay

Type of Work: 3.90 miles of trenching, HMA wedging and overlay, Gravel Shoulders, and Pavement Markings

The Cheboygan County Road Commission will accept Bids until **11:00 a.m. local time on March 4, 2025** at: 5302 South Straits Highway, Indian River, MI 49749. Bid packages are available at the Cheboygan County Road Commission.

ALL BIDS WILL BE SEALED AND PLAINLY MARKED AS TO THE PROJECT AND PROJECT NUMBER.

The bidder has examined the plans, specification, special provisions and related materials in the proposal, as well as the location of the work described in the proposal for this project, and is fully informed as to the nature of the work and conditions relating to its performance and understands that the quantities shown are approximate only and are subject to wither increase or decrease.

Shoulder Widening Overlay

Bid Sheet

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount	
				Dollars	Cts	Dollars	Cts
1100001	Mobilization, Max	1	LSUM				
5010061	HMA Approach	600	Ton				
5012024	HMA, 4EL	7,000	Ton				
8120170	Minor Traf Devices	1	LSUM				
Total Bid:							

Contractor: _____

(Signature)

(Date)

South Black River Road

The Singing Road







Project Cost HMA

\$75.00/Ton

\$157,000.00/Mile

2.9 miles SBRR

1.0 Miles N Allis

Pick Up at Plant

\$69.00 & \$76.00/Ton

Conclusion

- Wheel Path Crack
- Reduce Edge Cracking
- Innovation/Spark New Ideas
- Cost Benefit