

Agenda

Project Team

About The Project

What We Learned

Study Recommendations

Implementation Steps

Q&A and Discussion



Project Team



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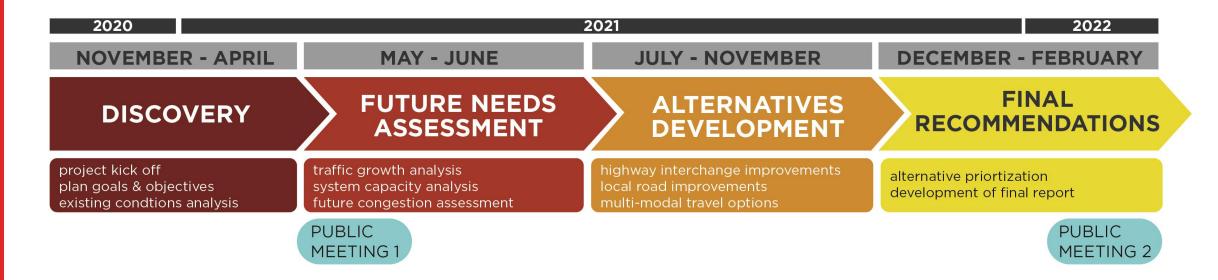




Project Purpose

- Update to 2008 Study
- Determine the need for transportation improvements based on recent regional developments
- Evaluate the safety, efficiency, and convenience of the transportation system
- Recommend improvements to the transportation system based on a technical analysis
- Identify opportunities to improve the economic conditions for area businesses
- Explore the need and desire for non-motorized transportation improvements

Study Timeline

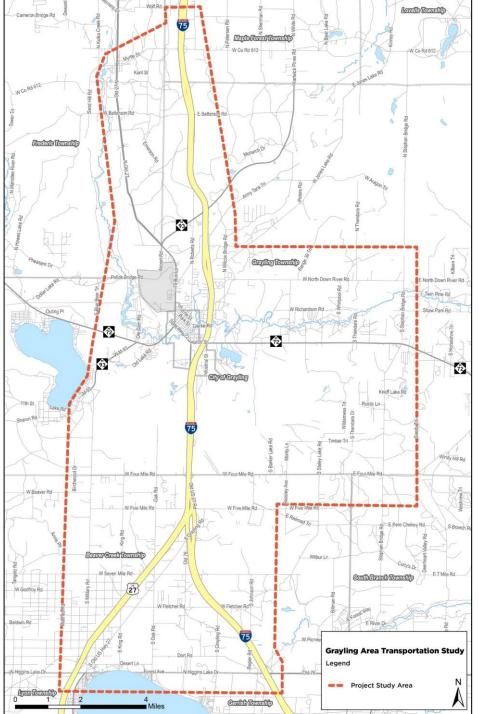


- 15-Month process
- 4 project phases
- Identify feasible projects that will improve transportation conditions in the region

Project Study Area

Study Area Includes the Following Communities:

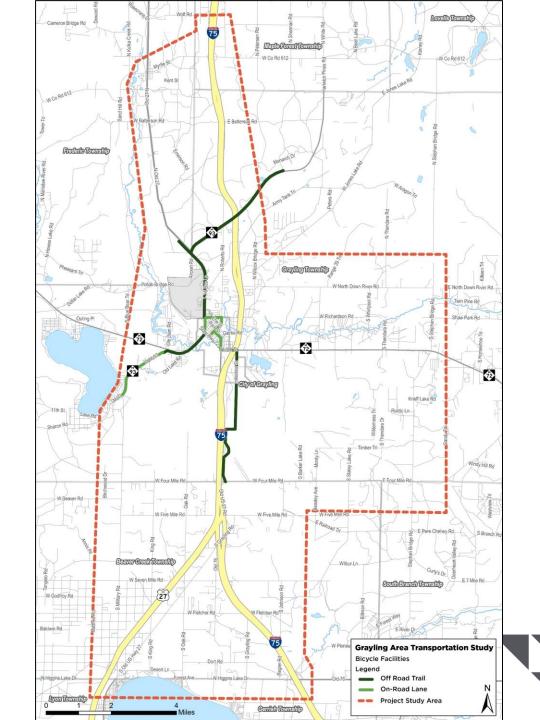
- City of Grayling
- Grayling Township
- Frederic Township
- Beaver Creek Township
- Maple Forest Township
- Gerrish Township
- Lyon Township





Project Study Area

- Study Area exists at the crossroads of three major roadways
 - I-75
 - M-72
 - M-93
- Many trips through the area are travelers to other areas Up North
- Non-motorized network extends north and south out of Grayling
- Future Iron Belle Trail Connection runs through Study Area



Project Goals

- Identify existing and potential future congestion areas
- Explore highway interchange improvements
- Improve the efficiency of military traffic around Grayling
- Identify potential non-motorized improvements
- Use transportation investments to spur economic development in the Grayling area





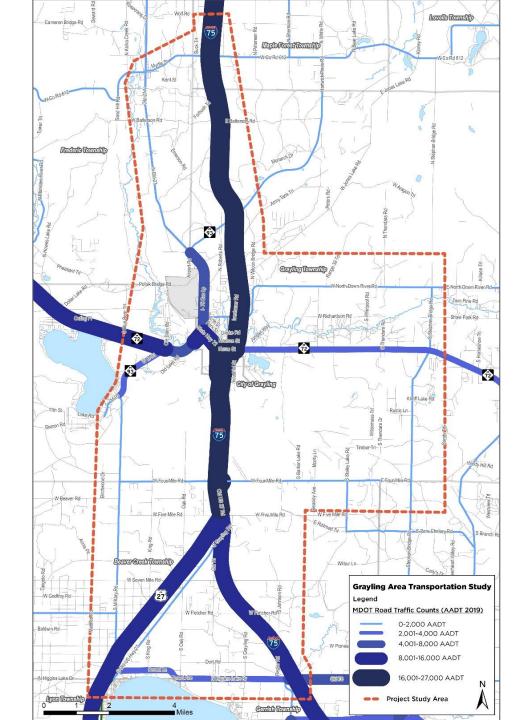
Existing Conditions Quick Facts

- Population and Employment have remained relatively stable over the past decade.
- Assuming modest growth over the next 30 years
- Employment is **concentrated near Grayling**, with some large centers south of the City
- New amenities, small businesses, and larger employers are making Grayling more attractive
- Crashes occur most often on I-75 and within the City of Grayling
- Most commuters travel less than 20 minutes to work



Traffic

- Data shown is 2019
 MDOT data
- Accounts for most major roadways in Study Area
- Majority of traffic is on I-75, US-27, and M-72
- Updated counts gathered in January 2021



COVID Traffic Adjustment

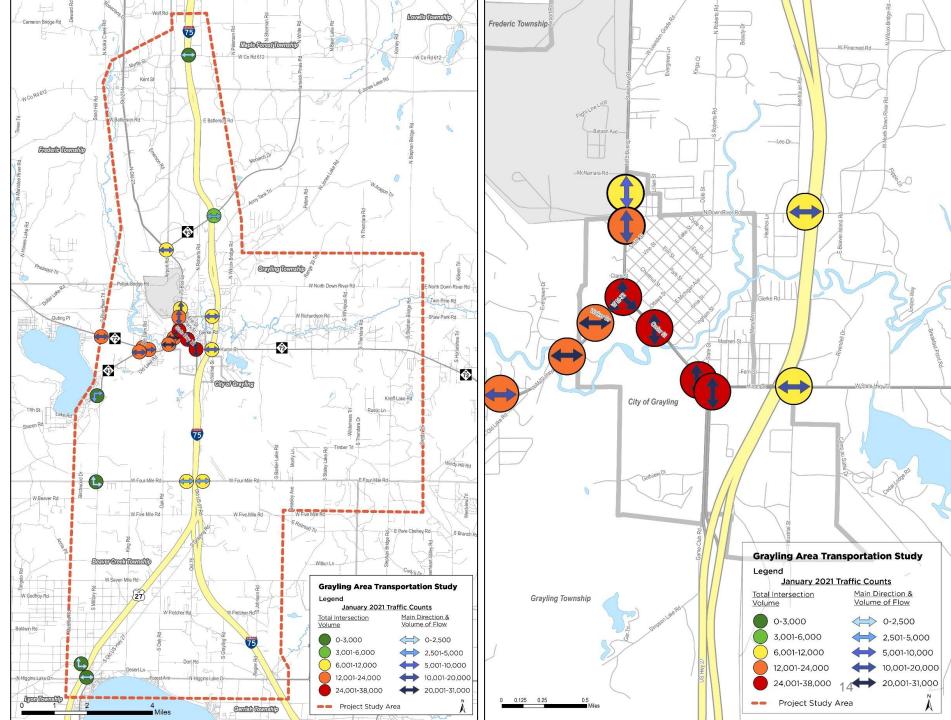
- 2021 traffic counts compared to 2019 MDOT counts at overlapping locations
- Comparison helped determine how traffic changed due to COVID
- Average total change from 2019 to 2021 ranged from -20% to -27%

Location	Count Comparisons Locations	Average Traffic Change (2019-2021)		
North Zone	N Old 27 @ Hartwick Pines Rd	200/		
	Hartwick Pines Rd @ I-75 NB on/off ramp	-26%		
	I-75 BL @ Huron St	-20%		
Central Zone	Cedar St/M-93/McClellan/Lake			
	M-93 @ M-72			
	W 4 Mile Rd @ S Military Rd			
South Zone	W 4 Mile Rd @ SB I-75 on/off ramp	-27%		
	N Higgins Lake Dr @ US-127 SB on/off ramp			

Grayling Area Transportation Study

Study Area Traffic Counts

- Highest traffic counts from 2021 are along M-72 and M-93 through Grayling
- Medium traffic levels at 4 Mile Rd, I-75 BL North, and N Down River Rd



Grayling Area Transportation Study

Conclusions

- Regional population has remained stable the past 6 years
- Overall employment has increased since 2008 likely a rebound from the recession
- Employment is likely to grow slightly alongside with population
- Non-motorized facilities concentrated in center of Study Area
- High crash areas are along I-75 and through Downtown Grayling
- COVID accounted for a 25% decrease in traffic in 2021
- Highest traffic density is within Downtown Grayling





Project Identification Process

- Used existing conditions, input from public and advisory committee, and traffic analysis
- Identified areas where safety issues, congestion, and non-motorized opportunities exist
- Explored possibility of highway interchange improvements

- Roundabouts
- Highway Interchange Improvements
- Intersection Improvements
- Non-Motorized Improvements
- Access Management
- Parking
- Roadway Improvements
- ORV Trails



Roundabouts

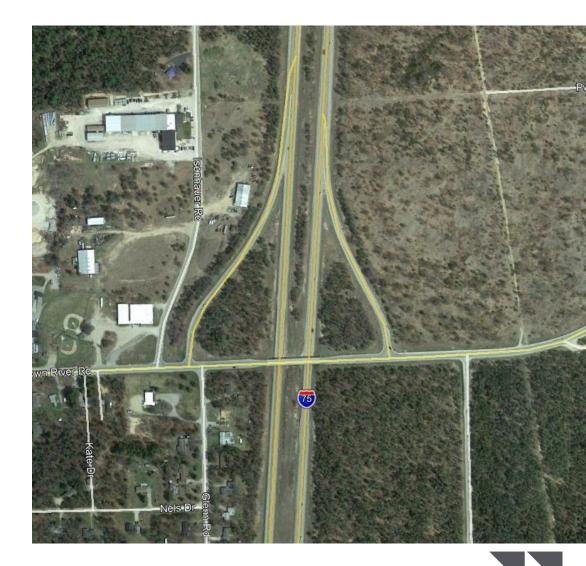
- Addition of roundabouts at targeted intersections
- Help to improve traffic flow and safety
- Can handle large amounts of traffic without major crash risks





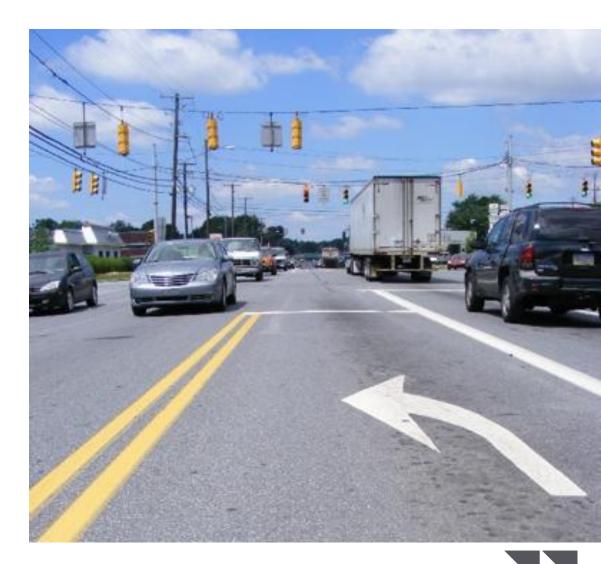
Highway Interchange Improvements

- Potential for additional or updated exit/entrance ramps to I-75
- Need to fit specific geometry constraints
- Focused on targeted interchanges in the Study Area



<u>Intersection Improvements</u>

- Improvements to targeted intersections where congestion or safety issues exist
- Projects Include:
 - Left Turn Lanes
 - Geometry Updates
 - Signal Modernization
 - Stop Control



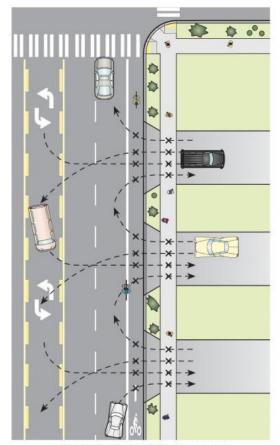
Non-Motorized Facilities

- Projects to improve conditions for pedestrians and bicyclists in the Study Area
- Projects Include:
 - Pedestrian Crossing Enhancements
 - Bike Lanes
 - Shared Use Paths
 - Non-Motorized Connections

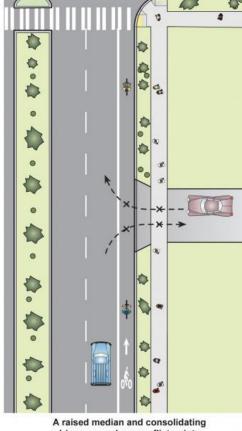


Access Management

- Design techniques along stretches of roadway to improve safety and efficiency of the road.
- Projects Include:
 - Shared driveway entrances
 - Removal of driveways
 - Dedicated left and right turn lanes for access







Intro Fig. Access Management - Caption: Benefit of Access Management



Parking

- Changes to on-street parking to improve safety and efficiency for roadway users
- Projects Identified:
 - Reverse angled parking



Roadway Improvements

- Road and bridge repairs in areas where condition improvements are needed
- Poor roadway condition can cause issues for vehicles
- Poor conditions can push vehicles to other, more congested routes



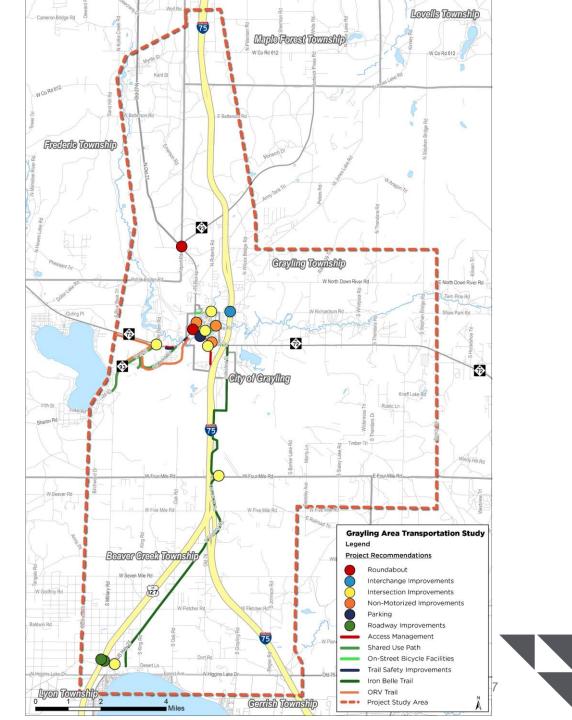
Off Road Vehicle (ORV) Trails

- Extensions of existing trails to local activity centers
- Build off growth in ORV and snowmobile related tourism
- Reduce crash potential along busy roadways



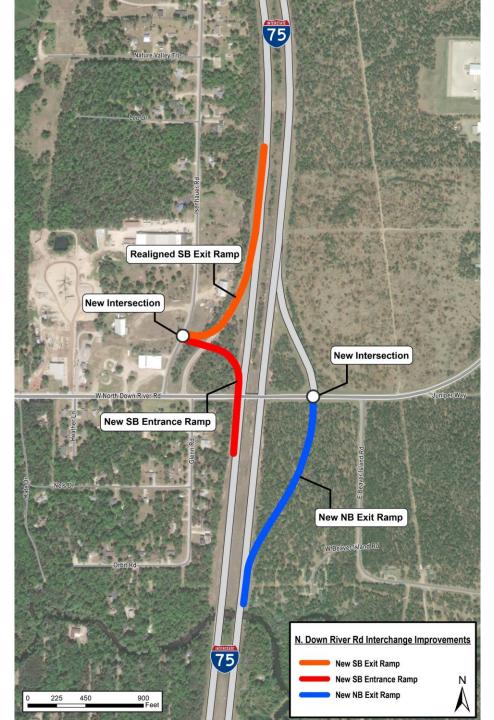
Project Recommendations

- Most projects concentrated near City of Grayling
- Some projects are located at a single point, others are along a corridor



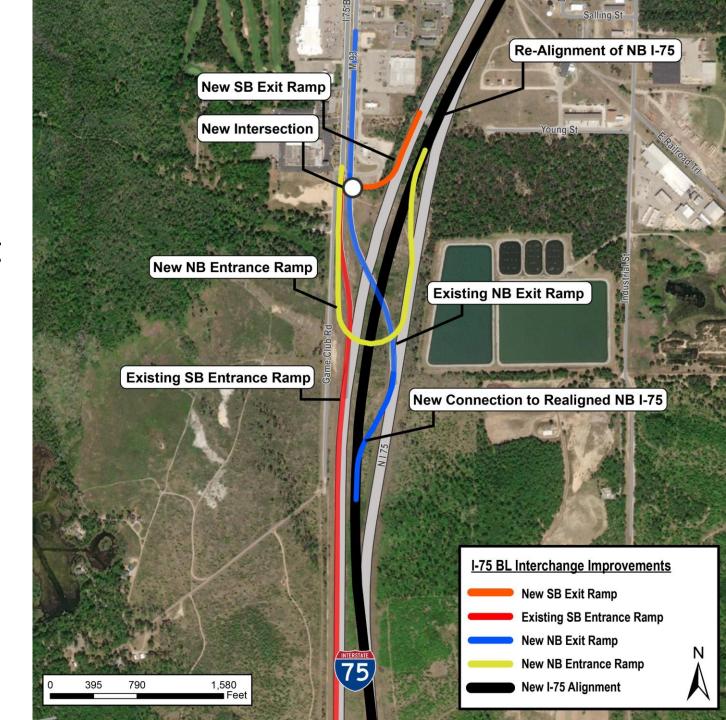
North Down River Road Interchange

- Full access interchange with I-75 at N Down River Rd
- Would add three new or realigned ramps:
 - Realigned SB Exit Ramp
 - New SB Entrance Ramp
 - New NB Entrance Ramp



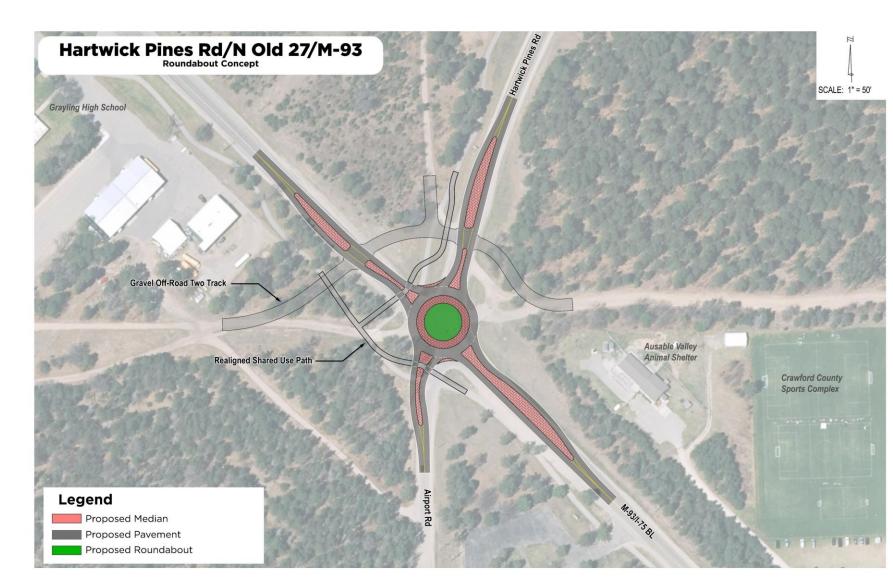
I-75 BL Interchange

- Full access interchange at I-75 BL
- More extensive modifications needed
 - Realigned NB I-75
 - New SB exit ramp
 - New NB entrance ramp
 - New connection to realigned NB I-75



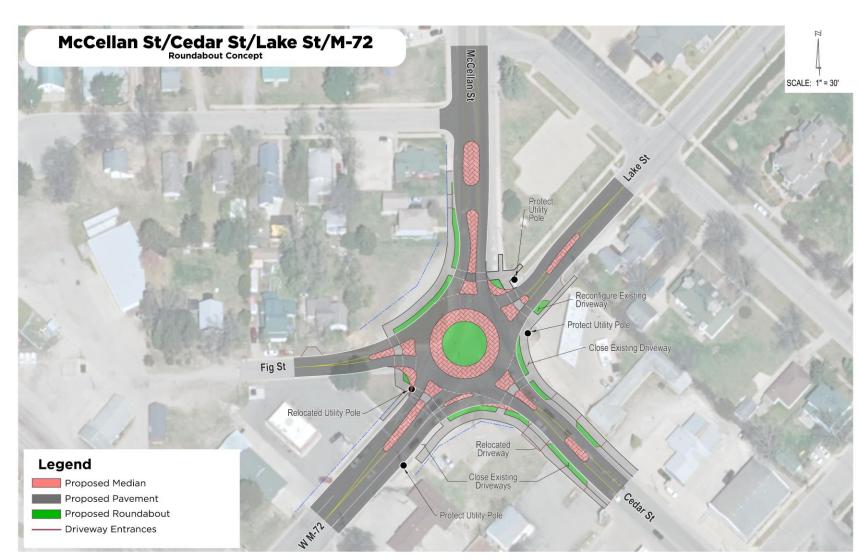
Hartwick Pines Road Roundabout

- Simplifies complex intersection geometry
- Safer crossing of ORV paths



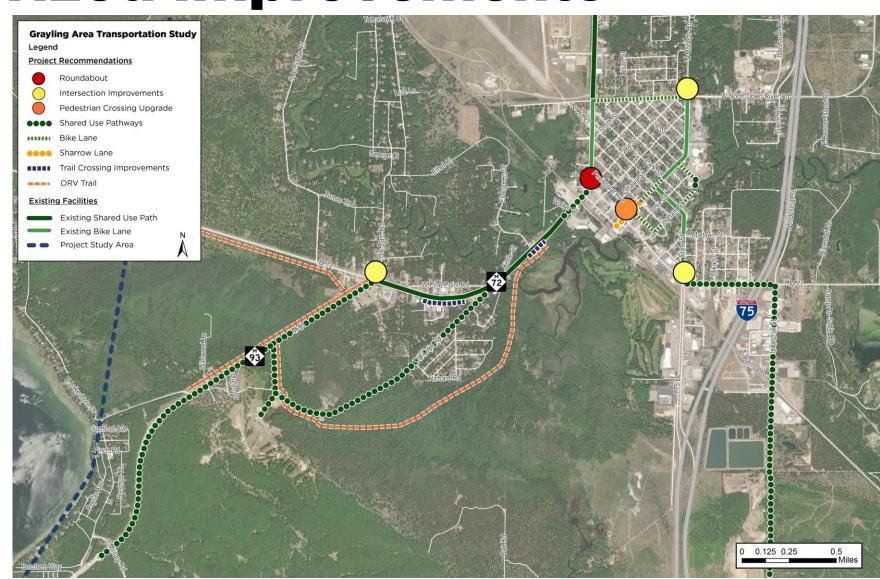
Cedar Street Roundabout

- Simplifies complex intersection
- Helps improve congestion without adding lanes
- Safer crossing for pedestrians



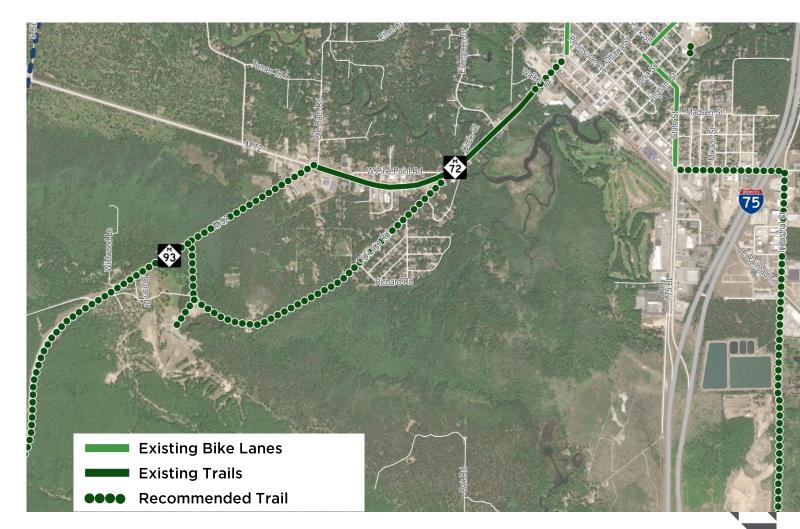
Non-Motorized Improvements

- Connections to existing Grayling Bicycle Highway
- Mix of bike lanes, pathways, and safety improvements
- Better connect Grayling area to nearby attractions



Non-Motorized Improvements

- Add Bike Lanes:
 - N Down River Rd
 - Plum St
 - Ingham St
 - Peninsular Ave
- Add Sharrow Lane
 - Michigan Ave
- Add Shared Use Pathway
 - Huron St
 - M-72 at Cedar St
 - M-93
 - Old Lake Rd
 - Iron Belle Trail



Grayling Area Transportation Study

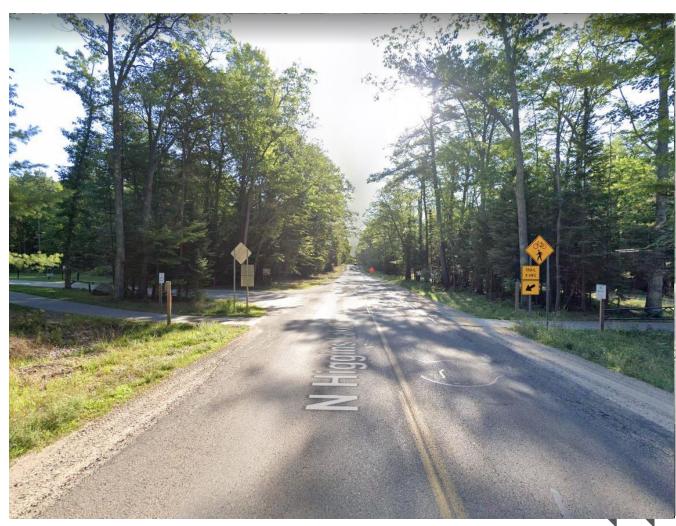
Safety and Local Road Improvements

- Projects focus on improving transportation conditions for area travelers.
 - Improved stop control
 - Midblock and crosswalk enhancements
 - Upgraded traffic signals
 - Addition of left turn lane
 - Bridge and road repair
- Spread throughout study area



Safety and Local Road Improvements

- Non-motorized crossing improvements
 - Midblock crossing at Peninsular Ave and McCellan St
 - Crosswalk upgrades at Michigan Ave and Cedar St
 - Crosswalk additions/upgrades at I-75 BL and Huron St
 - Crosswalk upgrades at N Higgins Lake Dr and Conservation Dr



Safety and Local Road Improvements

- Intersection Upgrades
 - Stop control improvements at Michigan Ave and N Down River Rd.
 - Signal upgrade at M-93 and M-72
 - Addition of center turn lane at 4 Mile Rd and Kirtland College



Safety and Local Road Improvements____

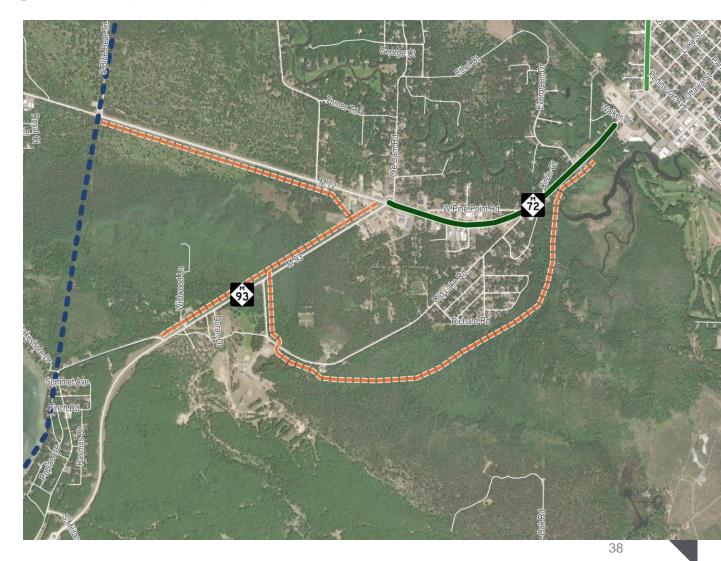
- Roadway and Bridge Repairs
 - Both located at N
 Higgins Lake Rd at US 127





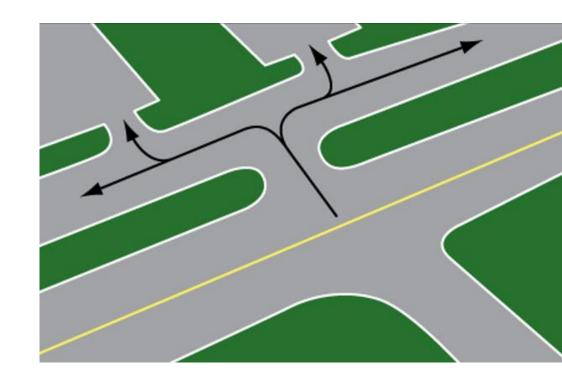
Off Road Vehicle Trails

- Off road vehicle trails recommendations were included
- Help reduce conflicts between vehicles
- Can be an economic development tool



Access Management

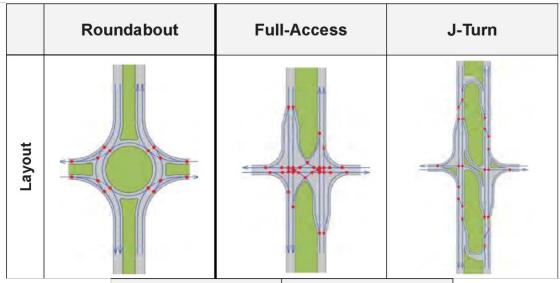
- Ways to improve safety and traffic congestion through efficient spacing of driveway entrances along roadways.
- Good access management reduces potential conflict points and establishes dedicated turning areas.

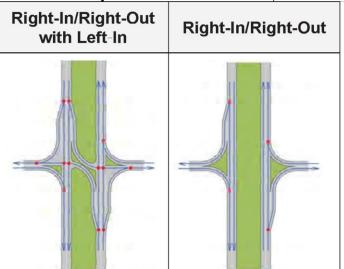




Access Management

- Techniques for Access Management include:
 - Driveway spacing
 - Shared or consolidated property access
 - Adjacent land use planning
 - Median treatments
 - Safe turning lanes





Implementation Plan

- Matrix of all recommended projects
- Include details about implementation, including:
 - Location
 - Construction timeframe
 - Estimated cost
 - Project Partners
 - Potential Funding Sources

Project Type	Project Number	Project Details	Time Frame	Road	At	Improvement Type	Project Partners	Potential Funding Source*	Cost
Highway Interchange Improvements	1	Add SB entrance ramp and NB exit ramp, reconfigure SB exit ramp	Long Term	North Down River Rd	1-75	Operations Improvement	MDOT, FHWA, Crawford Co Road Commission (CCRC), NEMCOG	DCIP, BUILD, NHS, STP, INFRA, MDOT Rural Task Force, TEDF	ssss
	2	Add NB Entrance Ramp and SB Exit Ramp, realign NB I-75 and add SB exit ramp connection to realigned I-75	Long Term	I-75 BL	1-75	Operations Improvement	MDOT, FHWA, NEMCOG	DCIP, BUILD, NHS, STP, INFRA, MDOT Rural Task Force	\$\$\$\$\$
Local Roadway Improvements	3	Add Roundabout	Mid Term	M-72/Cedar St	McClellan St/M-93/Lake St	Traffic Safety Improvement, Operations Improvement	MDOT	DCIP, NHS, STP, MDOT Rural Task Force	\$\$\$\$
	4	Add Roundabout	Mid Term	M-93/N Old 27	Hartwick Pines Rd	Traffic Safety Improvement	MDOT	DCIP, NHS, STP, MDOT Rural Task Force	\$\$\$\$
	5	Stop Control Improvements	Short Term	E Michigan Ave	N Down River Rd	Traffic safety	CCRC, City of Grayling	STP, Local Funding	S
	6	Add Midblock Crossing	Short Term	Peninsular Ave	McClellan St	Non-motorized safety	City of Grayling	STP, TAP, Highway Safety Improvement Program (HSIP) Local Funding	ss
	7a	Add High Visibility crosswalks	Short Term	Michigan Ave	Cedar St	Non-motorized safety	City of Grayling, MDOT	STP, TAP, HSIP, Local Funding	s
	7b	Review/Update Signal Timing	Short Term	Michigan Ave	Cedar St	Non-motorized safety	City of Grayling, MDOT	STP, Local Funding	s
	8	Back-In Angled Parking	Mid Term	Michigan Ave	Penninsular Ave	Non-motorized safety, traffic safety	City of Grayling	Local Funding	s
	9	Add High Visibility crosswalks	Short Term	I-75 BL	Huron St/ State St	Non-motorized safety	MDOT	STP, TAP, HSIP; Local Funding	S

