Non-motorized Pathway Master Plan

M-137 Corridor

Green Lake Township, Michigan

Prepared by:

FLEIS&VANDENBRINK

DESIGN. BUILD. OPERATE.

Offices in Michigan & Indiana

603 Bay Street, 1st Floor

Traverse City, MI 49684

Phone: 231.932.8600 Fax: 231.932.8700

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Plan prepared with cooperation from:

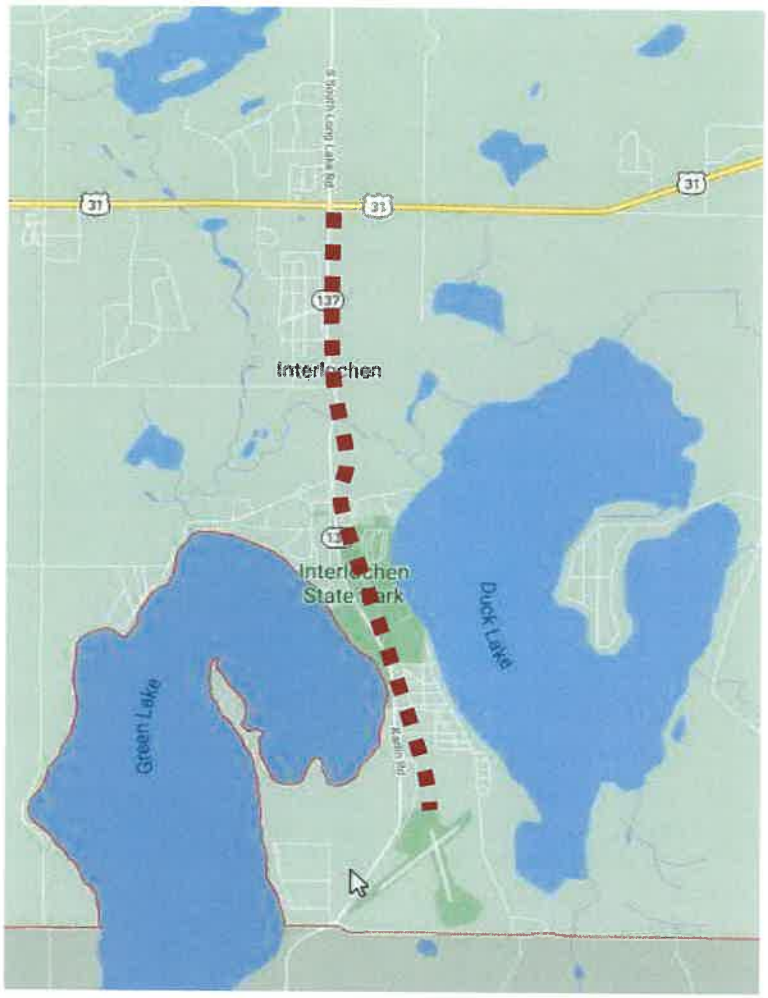
Eric Gray – Intelochen DDA & Interlochen Center for the Arts

SECTION 1: INTRODUCTION

We recognize that the value of pathways and trails extends far beyond linking together destinations on a map. They also have the capacity to connect people. By reconnecting people, the process of trail building also becomes a process of community building.

Project Area

Completion of the trail would provide a strong non-motorized trail system that would link the US-31 corridor south through the Green Lake Township Downtown Development Authority (DDA), connect the Interlochen Center for the Arts and the Interlochen State Park and terminate at the Green Lake Township Memorial Park. The Memorial Park, located off Karlin Road, is a popular location for both local residents and seasonal visitors. Amenities at the park include ball fields, a playground, basketball courts, and a picnic area that features two pavilions. Memorial Park also is home to the Green Lake Airport, which serves Interlochen and Grand Traverse County.



Furthermore, a M-137 corridor trail could also provide an important link to other regional trails such as the Betsy Valley Trail to the southwest and the TART Trail to the North/Northeast.

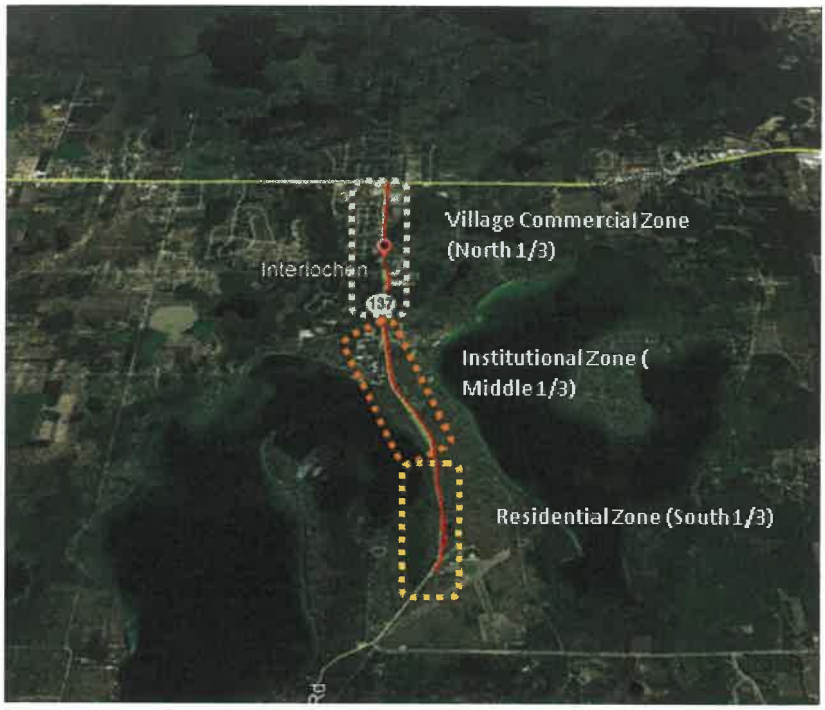
To better reflect its local significance, jurisdiction of M-137 was transferred from the Michigan Department of Transportation (MDOT) to the Grand Traverse County Road Commission (GRTC) in August of 2020. The 2.8-mile section from US-31 to a point south of the Interlochen State Park will be maintained by the GTCRC. Discussions were held with the GTCRC in regards to the potential re-surfacing project and the possible reduction of the existing shoulders along M-137. The GTCRC indicated that at this point, they would like to maintain the current existing cross-section of M-137.

The overall distance from the intersection of US-31 and M-137 to the Green Lake Township Memorial Park to the south is just over 3½ miles. The posted speed limit throughout the corridor rages from 45 MPH from US-31 to the Interlochen Business District at 3rd Street, 40 MPH from 3rd Street to Interlake Boulevard, and 55 MPH from Interlake Boulevard to Hamlin Road. Speed limits and speed studies fall under the purview of the Michigan State police and it is unlikely that any lowering of the speed limit will be forthcoming along the Corridor. This could be reevaluated if some traffic calming measures along the Corridor would help reduce the traffic speed but that could not be analyzed until some point in the future.

Given the presence of the Interlochen Center of the Arts and the Interlochen State Park, there are going to be younger bicyclist and pedestrians that will be traveling the Corridor. Therefore, in the interest of safety, a separated and parallel non-motorized path would likely be the best cross section at this point in time over the use of bike lanes or paved shoulders. The MDNR representatives have indicated that more dialogue is possible on the potential pathway meandering onto State property when final routing is established as part of the preliminary design phase.

The corridor can be divided into sub zones with the northern 1/3 being characterized as the mixed-use village commercial zone for Green Lake Township. The section of commercial properties with a 66-foot minimum dedicated right-of-away that runs south to 11th street (45 MPH zone).

The middle 1/3 the right-of-way expands to a 100-foot width. The adjacent land uses include the Interlochen Center for the Arts and the Interlochen State Park. Many portions of this section along the right-of-way have mixed type vegetation and have adjacent open space where the trail could meander outside the right-of-way by obtaining potential easements from landowners. There are some adjacent wetlands and a Betsie River watershed that a pathway connection would need to be accomplished with the use of boardwalks and a pedestrian bridge in the middle section. This section is likely the most expensive of the three based on a per foot basis (40 MPH zone).



The southern 1/3 section begins just south of the Interlochen State Park. With large parcels owned by the State of Michigan, the Interlochen Center for the Arts and Green Lake Township, the potential pathway could connect fairly easily to the Memorial Park along the existing utility easement that is offset from the M-137 right-of-way. The section is perhaps the least expensive of the three and moving away from the M-137 corridor would offer scenic and safety benefits (55 MPH zone).

Area Photos

Area Photos (Con't.)

SECTION 2: PURPOSE

The growing popularity of outdoor recreation activities, such as cycling, inline skating, walking, and running, combined with the loss of community open space, has increased the need for quality recreational facilities such as non-motorized trails. Trails not only serve as independent community amenities, but they also enhance existing recreational resources by linking neighborhoods and schools to parks, waterfronts, recreational centers, and other facilities. Trails and pathways can greatly help to improve public health by promoting the following uses and benefits:

- **Accessibility** - Level grades and obstacle-free design make trails ideal routes of travel for all kinds of available destinations
- **Bird watching / Nature observation** - Continuity of intact environments make for natural bird and animal watching opportunities
- **Cross-country Skiing** - Trails offer long, flat surface and natural escapes ideal for winter recreation
- **Cycling** - By far the most common form of trail recreation
- **Health and recreation** - Americans are turning to trails to be healthy, happy, and fit for life
- **Inline Skating -** Hard surface trails that let you glide for miles.
- **Running** - Trails provide uninterrupted scenic corridors for training and solitude
- **Walking** - Walk to socialize, exercise, or find solace

Benefits of Increased Trails

1. **Reduced traffic congestion** - More people walking and bicycling means fewer cars on the road.
2. **Quiet and clean transportation** -. Bicycling and other forms of foot traffic keep motor-traffic noise and pollution out of neighborhoods.
3. **Efficient use of public facilities and funds -** More bicycling and walking increase the "people moving" capacity of public facilities without the large investment required to add motor-vehicle lanes of traffic.
4. **Improved public health & lower healthcare costs** - Increased levels of exercise and reduced air pollution. Exercise becomes part of normal daily activities done close to home.
5. **Improved access to affordable transportation** for citizens of all income levels.
6. **Improved neighborhood security** - Increased effectiveness of neighborhood watch activity and encouragement of police-on-bicycle patrol units.
7. **Increased energy independence** - reduced reliance on foreign oil sources.
8. **Increased mobility** - More transportation choices means less dependence on the single occupant automobile.
9. **Improved retail climate** - Increases the number of customers for shopping and business areas without the negative impacts of increased motor vehicle traffic (increased congestion & parking space demand). Encourages shopping close to home, which benefits local retailers in the DDA.

Long Term Goals

This plan describes specific policy goals, which will help the Township and the DDA bring the benefits of increased levels of bicycling and walking to their residents and visitors.

1. Provide bicycle and pedestrian access to all destinations normally served by motorized transportation.
2. Increase by at least twice the current percentage of total trips made by bicycling and walking while reducing the number of trips by motorized traffic to reach the same destinations.
3. Increase the overall safety of both pedestrians and bicyclists as they move throughout the corridor.
4. Trails and pathways create healthy recreation and transportation opportunities by providing people of all ages with attractive, safe, accessible, and low- or no-cost places to cycle, walk, hike, jog or skate. Trails help people of all ages incorporate exercise into their daily routines by connecting them with places they want or need to go.
5. The economic effects of trails and pathways are sometimes readily apparent (as in the case of trailside businesses) and are sometimes more subtle, like when people or businesses decides to move into the community because of amenities like trails.

Strategies - Facilities/Infrastructure:

1. Identify specific road and trail improvement projects, which will eliminate the barriers to bicycle and pedestrian access and expand the local bikeways network. These projects could be incorporated into a Future Non-Motorized Improvement Program.
2. Adoption by local government of the AASHTO design guidelines for bicycle facilities.
3. Create local building codes that encourage adequate bicycle parking facilities at all destinations normally served by motorized transportation.
4. Promote non-motorized transportation by publishing a local bicycle map.

Implementation:

Many communities designate a member of the local staff to serve as a bicycle/pedestrian coordinator. This person's duties generally include:

1. Promote bicycle pedestrian facility improvement projects into the normal planning and funding process (such as Capital Improvement Programs, and Transportation Improvement Programs).
2. Monitor upcoming development or redevelopment projects for potential impact on bicycle/pedestrian access.
3. Educate the general public about the benefits of trail use and the opportunities available in the community.
4. Formulate a maintenance agreement of the trail with the GTCRC, Green Lake Township, and the DDA and coordinate year-round maintenance.

SECTION 3: DESIGN STANDARDS

Shared use paths are bikeways that are physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths are sometimes referred to as "trails." However, in many states the term "trail" means an unimproved recreational facility. Care should be taken not to use these terms interchangeably because they have distinctly different design guidelines. Shared use paths identified as part of this master plan should be designed based on the guidance in this master plan. The relevant sections from the AASHTO Guide for the Development of Bicycle Facilities (2012), 4th Edition have been highlighted below. They consider the multiple potential path users that may include but are not limited to:

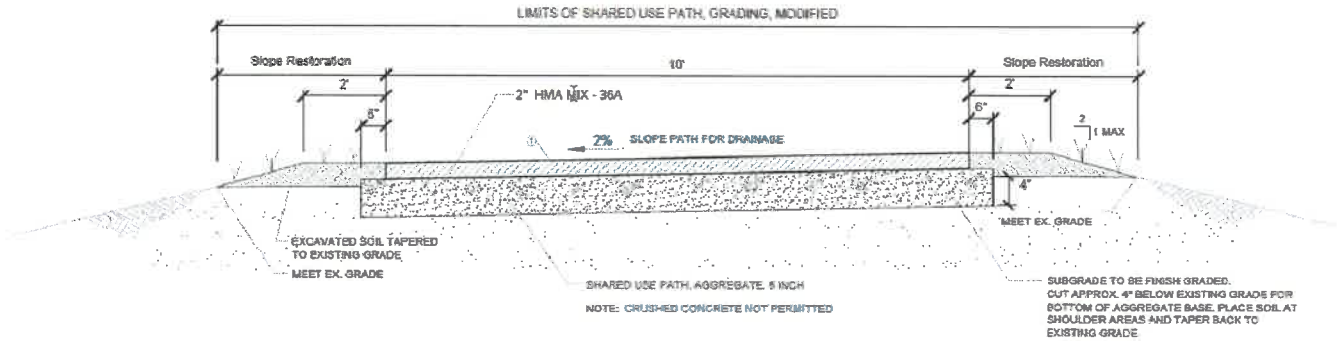
- Typical upright adult bicyclists
- Recumbent bicyclists
- Bicyclists pulling trailers
- Child bicyclists
- Inline skaters
- Roller skaters
- Skateboarders
- Kick scooter users
- Pedestrians-including walkers, runners, people using wheelchairs (both non-motorized and motorized), people with baby strollers, people walking dogs, and others

Paths are most commonly designed for two-way travel, and the recommended design guidance assumes a two-way facility is planned unless otherwise stated. Shared use paths can serve a variety of purposes. They can provide users with a shortcut through a residential neighborhood (e.g., a connection between two cul-de-sac streets) or access to schools. They can provide a commuting route between residential areas, commercial zones, parks, and other local points of interest. Located in a park or a greenway, they can provide an enjoyable recreational opportunity.

The preliminary alignment concept plans are included in the appendix of this report. Currently the pathway is proposed along the east side of M-137 to tie into the existing walk along the Tom's Food markets property, the public library, the Interlochen Community School, the Interlochen State Park and the Green Lake Township Memorial Park. Street crossings would provide linkages to the Interlochen Center for the Arts and points in the Green Lake Township DDA. This routing can be evaluated when survey and right-of-way information is finalized.

Width

The usable width and the horizontal clearance for a shared use path are primary design considerations. The section below depicts the typical cross section of a shared use path. The appropriate paved width for a shared use path is dependent on the context, volume, and mix of users. The minimum paved width for a two-directional shared use path is 10 ft with 2' foot recovery zones on each side.



SHARED USE PATH, HMA - SECTION

Cross slope

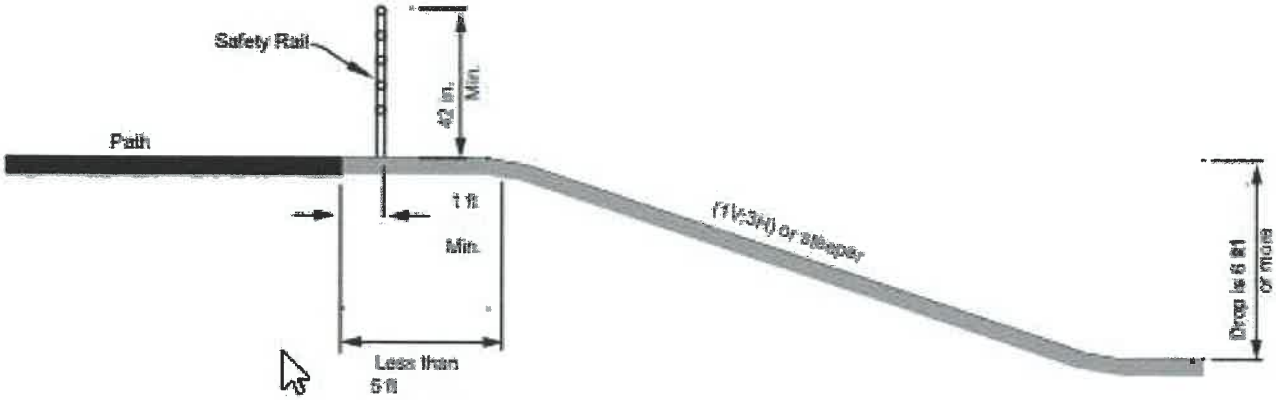
Shared use paths must be accessible to people with disabilities. Shared use paths located adjacent to roadways essentially function as sidewalks, and therefore should follow ADA guidelines which requires that cross slopes not exceed 2 percent.

Gradient

The maximum grade of a shared use path adjacent to a roadway should be 5 percent, but the grade should generally match the grade of the adjacent roadway. Where a shared use path runs along a roadway with a grade that exceeds 5 percent, the path grade may exceed 5 percent but must be less than or equal to the roadway grade. With the State Parks Wastewater Treatment Project proposed for the summer of 2021, routing of the trail in this area will need to be further evaluated once topographical survey and construction are completed.

Physical Barrier

Typical separation from a shared use path edge from a travel lane, shoulder or sloped area greater than 3:1 is recommended to be at least 5' recovery/clear zone. If site conditions limit the amount of space to less than 5 feet, a 42" high safety rail or physical barrier is required to provide a level of safety and physical separation.



Curve Radii

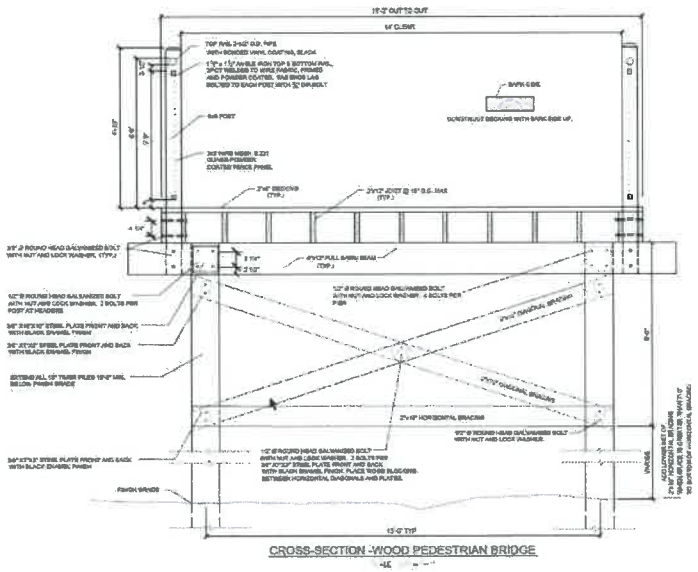
The curve radius should be based upon various design speeds of 18 to 30 mph and a desirable maximum lean angle of 20 degrees. Lower design speeds of 12 to 16 mph may be appropriate under some circumstances (e.g., where environmental or physical constraints limit the geometrics). Minimum radii of curvature for a paved path can be selected from the chart that follows and the typical design speed minimum for most paths is 18 MPH.

Minimum Radii for Horizontal Curves on Paved, Shared Use Paths at 20-Degree Lean Angle

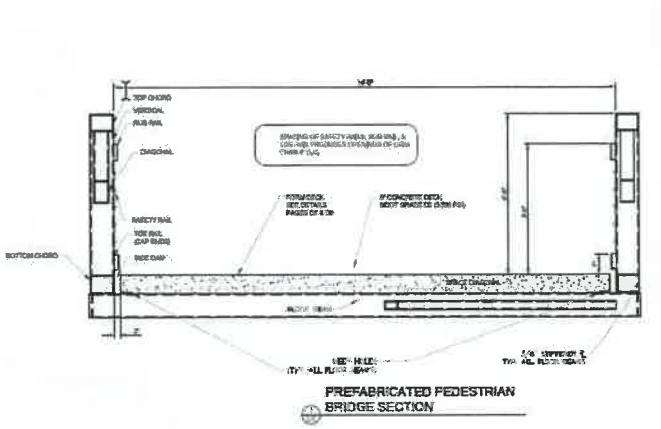
U.S. Customary		Metric	
Design Speed (mph)	Minimum Radius (ft)	Design Speed (km/h)	Minimum Radius (m)
12	27	19	8
14	36	23	11
16	47	26	15
18	60	29	18
20	74	32	22
25	115	40	35
30	166	48	50

Bridges and Boardwalks

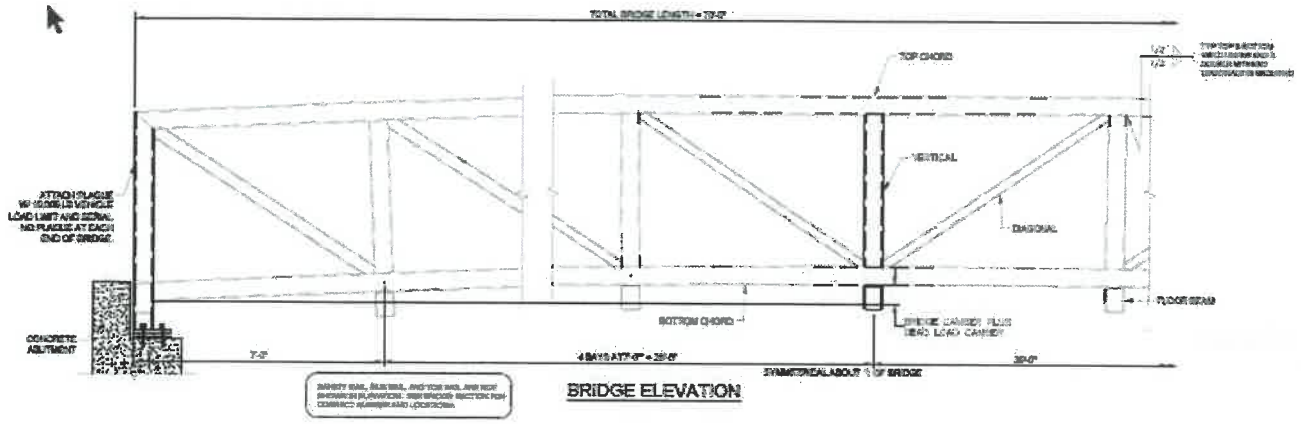
- 14' overall clear interior width (10' plus two 2' clear zones)
- Protective railings, fences, or barriers on either side of a shared use path on a stand-alone structure should be a minimum of 54" high.
- Access by emergency, patrol, and maintenance vehicles should be considered in establishing design clearances of structures on shared use paths. Similarly, vertical clearance may be dictated by occasional authorized motor vehicles using the path. A minimum vertical clearance of 10 ft is desirable for adequate vertical shy distance.
- All dead loads, applied dead loads, live loads, and wind loads as specified in the AASHTO specifications to accommodate for AASHTO H10 standard truck and a minimum live load of 90 lbs. per square foot, not acting concurrently.



CROSS-SECTION -WOOD PEDESTRIAN BRIDGE



PREFABRICATED PEDESTRIAN BRIDGE SECTION



BRIDGE ELEVATION

Drainage

Depending on site conditions, typically paths with cross slope in the direction of the existing terrain will provide sheet flow of surface runoff and avoid the need for channelizing flow in ditches, cross culverts, and closed pipe systems. However, where a shared use path is constructed on the side of a slope that has considerable runoff, or other conditions that result in relatively high runoff, a ditch of suitable dimensions should be placed on the uphill side to intercept the slope's drainage. Such ditches should be designed so that the potential for injury to errant bicyclists is limited.

SECTION 4: PRELIMINARY COST ESTIMATES*

Included in this section is the engineer's opinion of probable costs at the pre-design stage for constructing the trail from US-31/M-137 Intersection to Green Lake Township Memorial Park. Easements obtained from adjacent property owners could be beneficial in minimizing necessary site grading and save existing vegetation by allowing more area for the trail to meander. Project phasing as well as the general economic climate could impact these costs as well.

Engineer's Opinion of Costs

Project Number:	846790	**Project Engineer:**	Fleis & VandenBrink Engineering, Inc.
Estimate Number:	1		
Project Type:	Miscellaneous	**Date Created:**	4/6/2021
Location:	Grand Traverse County	**Date Edited:**	6/7/2021
Description:	M137 Interlochen Nonmotorized Pathway-Revised to meet AASHTO 2012 4th Edition	**Fed/State #:**	
		Fed Item:	
		Control Section:	

Line	Pay Item	Description	Quantity	Units	Unit Price	Total
0001	1027051	_ 15% - Contingency - Undeveloped Details	1.000	LSUM	$360,000.00	$360,000.00
0002	1027051	_ Engineering - Design & Survey	1.000	LSUM	$380,000.00	$380,000.00
0003	1500001	Mobilization, Max	1.000	LSUM	$250,000.00	$250,000.00
0004	2010001	Clearing	10.000	Acre	$6,000.00	$60,000.00
0005	2080036	Erosion Control, Silt Fence	30,000.000	Ft	$3.00	$90,000.00
0006	3087011	_ Geocellular Confinement System	160.000	Syd	$60.00	$9,600.00
0007	4010012	Culv End Sect, 12 inch	16.000	Ea	$500.00	$8,000.00
0008	4010233	Culv, Cl B, 12 inch	160.000	Ft	$40.00	$6,400.00
0009	4040061	Underdrain, Subbase, 4 inch	8,000.000	Ft	$7.00	$56,000.00
0010	7077050	_ Prefabricated Pedestrian Bridge, Furn and Erect	1.000	Ea	$250,000.00	$250,000.00
0011	8030010	Detectable Warning Surface	260.000	Ft	$50.00	$13,000.00
0012	8060020	Shared use Path, Conc	200.000	Syd	$60.00	$12,000.00
0013	8060040	Shared use Path, HMA	3,000.000	Ton	$125.00	$375,000.00
0014	8067001	_ Shared use Path, Grading, Modified	20,000.000	Ft	$12.00	$240,000.00
0015	8067001	_ Shared use Path, Handrail	80.000	Ft	$80.00	$6,400.00
0016	8067001	_ Wood Pedestrian Boardwalk	300.000	Ft	$1,200.00	$360,000.00
0017	8067011	_ Shared use Path, Aggregate, 6 inch	25,000.000	Syd	$9.00	$225,000.00
0018	8087050	_ Bicycle Rack	2.000	Ea	$1,000.00	$2,000.00
0019	8100380	Post, Wood, 4 inch by 6 inch	300.000	Ft	$20.00	$6,000.00
0020	8100404	Sign, Type IIIA	50.000	Sft	$18.00	$900.00
0021	8100405	Sign, Type IIIB	30.000	Sft	$18.00	$540.00
0022	8110237	Pavt Mrkg, Waterborne, 12 inch, White	3,000.000	Ft	$3.00	$9,000.00
0023	8120170	Minor Traf Devices	1.000	LSUM	$10,000.00	$10,000.00
0024	8120252	Plastic Drum, Fluorescent, Furn	60.000	Ea	$30.00	$1,800.00
0025	8120253	Plastic Drum, Fluorescent, Oper	60.000	Ea	$3.00	$180.00
0026	8120350	Sign, Type B, Temp, Prismatic, Furn	880.000	Sft	$10.00	$8,800.00
0027	8120351	Sign, Type B, Temp, Prismatic, Oper	880.000	Sft	$3.00	$2,640.00
0028	8130010	Riprap, Plain	150.000	Syd	$40.00	$6,000.00
0029	8160027	Mulch Blanket	8,500.000	Syd	$4.00	$34,000.00
0030	8167011	_ Slope Restoration	25,000.000	Syd	$4.00	$100,000.00
					Estimate Total:	**$2,883,260.00**

*This opinion of probable cost is based on information available from the State of Michigan MDOT Michigan Engineers Resource Library average unit pricing in 2021. ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, project phasing, competitive bidding or market conditions. For every year beyond 2021, a budgetary inflation factor of 3-5% would be advised.

SECTION 5: FUNDING OPTIONS

We have a broad range of public funding and grant experience in the area of park & recreation and non-motorized trails. We have worked with the MDNR and MDOT on many non-motorized trail projects. Once complete, this plan could then be referenced into the Township's Park & Recreation Plan and the plan's respective capital improvements schedules. This would then qualify funding applications (by Township or County) for any designated phases of the non-motorized trail project to be submitted for MDNR recreation grants for the next five years. Below are funding programs that should be considered as possible matching fund sources for non-motorized path construction. Local match amounts required may vary from 25% to 50% of the total cost for your project to qualify and receive consideration for the various programs listed below. Also, MDOT funding options require the applicant to be an Act 51 agency, which would necessitate the GTCRC to fill the role as applicant.

A. Michigan Natural Resources Trust Fund

The Michigan Natural Resources Trust Fund (MNRTF) has been in place since 1976. It provides financial assistance to local governments and the Department of Natural Resources (DNR) to purchase lands for outdoor recreation and/or the protection of natural resources and open space. It also assists in the appropriate development of land for public outdoor recreation.

The MNRTF is supported by annual revenues from the development of State-owned mineral resources, largely oil and gas. It is governed by Article 9, Section 35 of the State Constitution and Part 19 of the Natural Resources and Environmental Protection Act, 451 PA 1994, as amended. The program is administered by the MNRTF Board of Trustees and the Grants Administration Division (GAD) of the DNR. The MNRTF Board of Trustees meets about six times a year and all meetings are open to the public.

Program Objective(s):
The objective is to provide grants to local units of government and to the State for acquisition and development of lands and facilities for outdoor recreation or the protection of Michigan's significant natural resources.

Criteria:
Applications are evaluated on established criteria such as resource protection, water access, and project need. At least 25 percent match on either acquisition or development projects is required from local government applicants. Recommendations are made by the Michigan Natural Resources Trust Fund Board (members are appointed by the Governor) to the State Legislature for final approval. Criteria are spelled out in the "Recreation Grants Selection Process" booklet given to all applicants. There are eleven evaluation criteria:

1. Protection and use of significant natural resources
2. Use of inland waters
3. Population served
4. Economic benefits
5. Hunting, fishing, and other wildlife-related values
6. Need for proposal
7. Capability of applicant
8. Site and project quality
9. Special Initiatives of the MNRTF Board (See below)
10. Financial need of the applicant
11. Local match contribution

The Special Initiatives of the Board have been:

1. Acquisition or development of trailways that contribute to an overall State trail system.
2. Acquisition of lands open to hunting or development of hunting-related facilities, such as shooting ranges.
3. Acquisition of lands that provide for deer habitat with thermal cover.
4. Local shooting ranges or State/local shooting range partnerships.
5. Acquisition projects that create establish and protect wildlife/ecological corridors by connecting to and/or buffering existing protected and managed State or local natural areas, forests or game areas.

Eligibility:
Any local of government, including school districts, or any combination of units in which authority is legally constituted to provide recreation. Local units of government, school districts and local authorities must have a DNR-approved recreation plan to be eligible.

Application Process:
1. Submittal of community recreation plan.
2. Submittal of grant application.
3. Evaluation by Department staff.
4. Recommendation by the Michigan Natural Resources Trust Fund Board.
5. Passage of an appropriations bill by the Legislature and signature by the Governor.

Deadline(s):
Applications must be submitted to the Grants Administration Division and postmarked (by the U.S. Postal Service) no later than April 1 of the year of application. Applicants will need to have their recreation plans (see 1 above) adopted by their local governing body and submitted to the Department for approval by February 1 to eligible to apply as of April 1 of that year.

Timeline(s):
Grant awards are dependent on the appropriations process, but in general grant awards can be made within 12 months after the application deadline.

Dollar Amount(s) Available:
Development project minimum/maximum grant amount: $15,000 to $300,000. No minimum/maximum limits on land acquisition grants.

Source(s) of Funds:
Michigan Natural Resources Trust Fund

B. Land and Water Conservation Fund (LWCF)

The federal Land and Water Conservation Fund (LWCF) program makes money available to the States for land acquisition and development of outdoor recreation facilities. From 1965 to 1996, the Department of Natural Resources (DNR) received over $100 million in LWCF assistance for more than 1,500 projects, over 1,100 of which have been grants to local governments. From 1996 to 1999, the "Stateside" portion of the LWCF was not funded by Congress. Stateside funding began again in Federal Fiscal Year (FFY) 2000 with a $1.1 million apportionment to Michigan. The annual apportionment has been increasing each year and topped $5.4 million in FFY 2020.

Program Objective(s):
The objective is to provide grants to local units of government and to the State to acquire and develop land for outdoor recreation.

Criteria:
Applications are evaluated on established criteria including project need, capability of applicant, and site and project quality. At least 50 percent match on either acquisition or development projects is required from local government applicants. The Michigan Department of Natural Resources (DNR) makes recommendations to the National Park Service (NPS), which grants final approval. Criteria are spelled out in the "Recreation Grants Selection Process" booklet given to all applicants. There are three evaluation criteria:
1. Need for proposal.
2. Capability of applicant.
3. Site and project quality.

Additional criteria will be used as tiebreakers among like scores if needed to meet funding limits.

Eligibility:
Any unit of government, including school districts or any combination of units in which authority is legally constituted to provide recreation. Local units of government, school districts and local authorities must have a DNR-approved community recreation plan to be eligible.

While both land acquisition and development projects are eligible, the DNR may limit its use of Land and Water Conservation Funds to development projects only.

Application Process:
1. Submittal of community recreation plan
2. Submittal of grant application
3. Evaluation by Department staff
4. Recommendation by the DNR to the NPS
5. Final approval of project by NPS

Deadline(s):
Applications must be submitted to the Grants Administration Division and postmarked (by the U.S. Postal Service) no later than April 1 of the year of application. Applicants will need to have their recreation plans (see 1 above) adopted by their local governing body and submitted to the Department for approval by February 1 to eligible to apply as of April 1 of that year.

Timeline(s):
Grant awards are dependent on NPS approval process, but in general grant awards can be made 9 to 12 months after the application deadline.

Dollar Amount(s) Available:
$15,000 grant minimum/$300,000 grant maximum for development projects.

Source(s) of Funds:
Federal Land and Water Conservation Fund.

C. Transportation Alternatives Program (TAP) Grants - MDOT

The Transportation Alternatives Program (TAP) is a competitive grant program for projects such as bike paths, pedestrian and bicycle safety improvements, and preservation of historic transportation facilities that enhance Michigan's intermodal transportation system and provide safe alternative transportation options. These investments support place-based economic development by offering transportation choices, promoting walkability, and improving quality of life. The program uses federal transportation funds designated by Congress for these types of activities.

TAP was created by the Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in July 2012. TAP continued as a set-aside to the Surface Transportation Block Grant Program with the passage of the Fixing America's Surface Transportation Act (FAST Act), signed into law in December 2015.

Approximately $24.5 million is available annually. Of this, $17.6 million is available through a competitive grant process administered by the Michigan Department of Transportation (MDOT) Office of Economic Development (OED). The other $6.9 million is available through competitive grant processes administered by the metropolitan planning organizations (MPOs) in urban areas with populations greater than 200,000.

The Michigan TAP program is under the oversight of MDOT OED. MDOT is responsible for overseeing the implementation of all TAP grants, regardless of which agency selects them. Based on the MDOT-Federal Highway Administration (FHWA) Stewardship Agreement, MDOT agrees to establish which eligible types of federal transportation funding can be implemented through MDOT.

TAP applications may be submitted online at any time. Funding commitments are typically issued several times per year for future fiscal years.

D. Michigan Safe Routes to Schools – Major Grants

Just like the international Safe Routes to School movement, the Michigan Safe Routes to School (SRTS) program strives to make it safe, convenient, and fun for students to get to school by walking, rolling, or biking. Managed by the Michigan Department of Transportation (MDOT) and supported by the Michigan Fitness Foundation, Michigan SRTS has awarded over $31 million in infrastructure funding and another $1.4 million in non-infrastructure funding since 2003.

Michigan SRTS began as a two-year pilot project in 2003 through the Federal Highway Administration Transportation Enhancement Program and today offers two options for funding: mini grants and major grants. Major grants through Michigan SRTS require several steps to acquire, but the reward is up to $200,000 per school in infrastructure funding, with another $8,000 per school, maximum, for non-infrastructure funding. Because these projects generally require six months to a year of in-depth planning, Michigan SRTS offers four rolling application deadlines through the year.

Here are the key steps:

1. **Register your school** on the Michigan SRTS website. All schools with at least one grade in the Kindergarten to 8th Grade range are eligible, including public schools, private schools, and tribal schools.
2. **Attend a 30–45-minute basics webinar** that covers how SRTS works in Michigan. Available monthly, this free webinar requires registration. Live and recorded versions are available.
3. **Get in touch with your SRTS grant coordinator**. Contact the director to be assigned to one of the three coordinators available.
4. **Gather an SRTS Core Team** that includes your SRTS coordinator, school principal, teachers, parents, students, local law enforcement, local road agency, and a local planner. This team will provide leadership, generate support, and leverage community resources.
5. **Collect survey data**: a student tally of how students arrive and depart from school over a three-week period; a multiple-choice student survey evaluating current transportation methods, attitudes about walking, and more; and a multiple-choice parent survey evaluating attitudes and perceptions about transportation.
6. **Conduct walking and biking audits** to identify safety hazards, raise awareness of SRTS, start identifying possible solutions to safety concerns, and complete the SRTS planning process. Use your SRTS Core Team, community leaders, the media, and other stakeholders so everyone can understand the reasons SRTS programs will help.
7. **Schedule and hold planning meetings** to begin identifying the key steps for getting students to walk and bike to school. Assign roles, identify priorities, and establish timelines. Your SRTS coordinator can help you with this step.

E. DALMAC Fund Grants

Established in 1975, The DALMAC Fund made its first contribution to bicycling in Michigan by donating a tandem bicycle to Lansing's St. Vincent Home for Children in 1976. This was a modest start toward realizing the vision of Dick Allen, the originator of DALMAC. Since then, DALMAC's success has allowed the Fund to grant over $1.5 Million to a variety of bicycling activities in Michigan ranging from safety and education programs to bicycle trail development. Marking its 47th year in 2021, The DALMAC Fund will continue to contribute to the vitality of bicycling in Michigan for many years to come thanks to the dedicated TCBA volunteers and the hundreds of riders who enjoy DALMAC each year.

The DALMAC Fund goals:

1. Improve the bicycling environment in Michigan
2. Expand bicycling in Michigan
3. Promote good will towards bicycling in the community
4. Increase bicycle safety

Grant requests will be evaluated on meeting the 4 goals, as well as:

1. The amount requested is reasonable
2. TCBA is comfortable funding the request

3. The request has local support
4. Funding one year does not guarantee funding in future years
5. Facility requests will be commented on by the Michigan Trails and Greenways Alliance

Typical grant funded requests involve:

1. Construction and design of bicycle facilities
2. Bicycle education programs
3. Bicycle promotion activities
4. Purchase of bicycles and related equipment
5. Developing bicycle routes or maps (not facilities)

DALMAC Fund applications are typically due in March of the current year and final funding decisions will be made by May of that year. The DALMAC Fund Committee will announce any changes if necessary. The DALMAC Fund expects to grant a minimum of $18,000 in 2021.

All organizations requesting funds should expect a member of the DALMAC Fund committee to contact them by email with questions concerning their proposal. Prompt response to questions and requests for additional information from committee members is essential. Consequently, an email address is required for all grant requests.

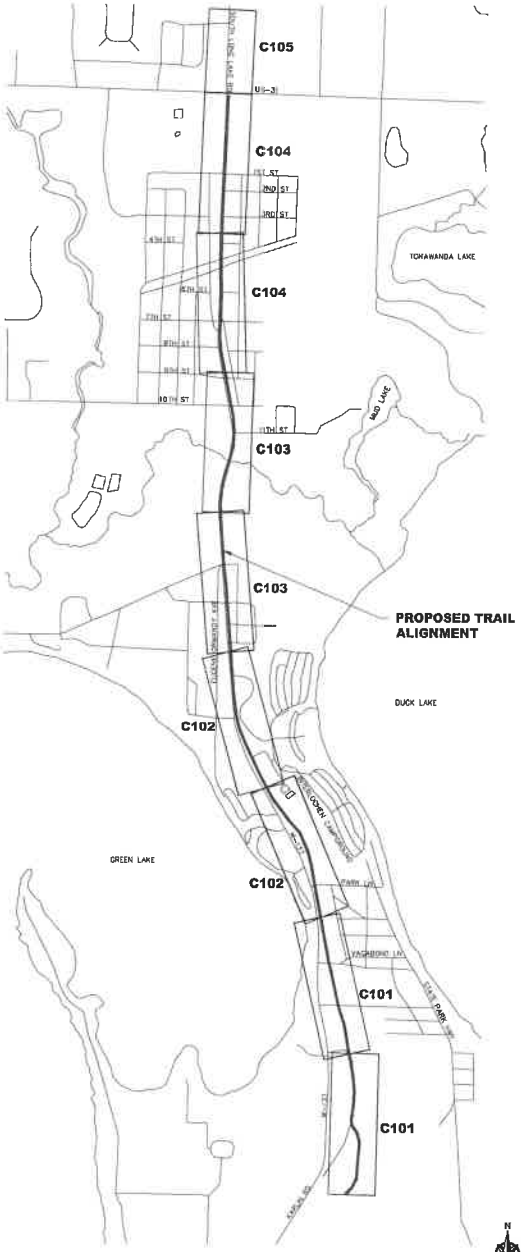
F. Local Park & Recreation Millage

In an effort to raise matching funds or fund projects with local money, many community leaders have placed ballot proposals before their residents for a dedicated increase the in their existing mill property tax to fund park maintenance and repair including care for new parks and newly acquired parks, compliance with the Americans with Disabilities Act (ADA), as well as safety and security improvements. Continuation of the Park Improvement/Development, Maintenance and Repair Millages will assure that parks and facilities will be maintained at the level of quality expected by park users and that new parkland will have adequate amenities.

SECTION 6: APPENDIX

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT
JANUARY 2021

VICINITY MAP



LOCATION MAP

INDEX OF DRAWINGS	
DESCRIPTION	SHEET NO.
COVER SHEET	CS
M-137 DDA TRAIL	C101
M-137 DDA TRAIL	C102
M-137 DDA TRAIL	C103
M-137 DDA TRAIL	C104
M-137 & US-31 INTERSECTION	C105
BOARDWALK & BRIDGE DETAILS	C501

811 Know what's below. Call before you dig.

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INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT

JANUARY 2021
F&V PROJECT NO.
846790

CS

M-137 / KARLIN STREET
SCALE 1"=80' HORIZONTAL

M-137 / KARLIN STREET
SCALE 1"=80' HORIZONTAL

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ENGINEERING, SURVEYING, OPERATIONS
603 Bay St, First Floor
Traverse City, MI 49684
P: 231.932.6900
F: 231.932.6700

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT
M-137 DDA TRAIL

NOT FOR CONSTRUCTION

JANUARY 2021

F&V PROJECT NO.
64679D

C101

M-137 / KARLIN STREET
SCALE 1"=50' HORIZONTAL

M-137 / KARLIN STREET
SCALE 1"=50' HORIZONTAL

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.
803 Bay St, First Floor
Traverse City, MI 49684
P: 231.932.6660
F: 231.932.6760

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT
M-137 DDA TRAIL

DESIGN TEAM:
PROJ MGR: RB
MI SUPVSR: RS
DRAWN BY: MD
CHKD BY:

DRAWING INFORMATION:
846750_C102
020421.mxd

NOT FOR CONSTRUCTION

JANUARY 2021

F&V PROJECT NO
846750

C102

SEE ABOVE FOR CONTINUATION

SEE SHEET C104 FOR CONTINUATION

SEE SHEET C102 FOR CONTINUATION

SEE BELOW FOR CONTINUATION

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT

M-137 DDA TRAIL

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JANUARY 2021
F&V PROJECT NO. 846790

C103

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M-137 / KARLIN STREET
SCALE 1"=80' HORIZONTAL

M-137 / KARLIN STREET
SCALE 1"=80' HORIZONTAL

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ENGINEERING SURVEYING
503 Bay St, First Floor
Traverse City, MI 49684
P: 231.932.8600
F: 231.932.8700

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT
M-137 DDA TRAIL

DESIGN TEAM | DRAWN BY | CHECK BY

DRAWING INFORMATION:
846790_C104
829421 mwtn

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JANUARY 2021

F&V PROJECT NO.
846790

C104

NORTH

0 80 160

SCALE IN FEET

SEE SHEET C104 FOR CONTINUATION

M-137 / US-31 CROSSING

SCALE 1"=80' HORIZONTAL

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ENGINEERING OPERATE

933 Bay St, First Floor
Traverse City, MI 49684
P: 231.932.6800
F: 231.932.6700

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT

M-137 & US-31 INTERSECTION

DESIGN TEAM:
PROJ MANGR: KS
DESIGNED BY: PS
DRAWN BY: MCR
CHECK BY:

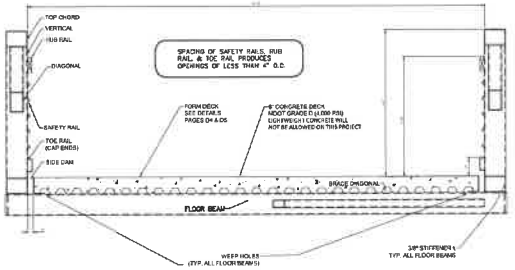
DRAWING INFORMATION:
S46790_C105
022421 mwfh

NOT FOR CONSTRUCTION

JANUARY 2021

F&V PROJECT NO.
S46790

C105



PREFABRICATED PEDESTRIAN BRIDGE SECTION

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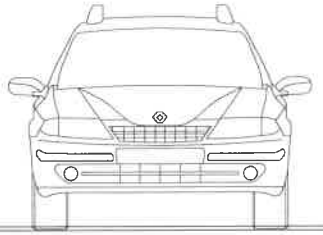

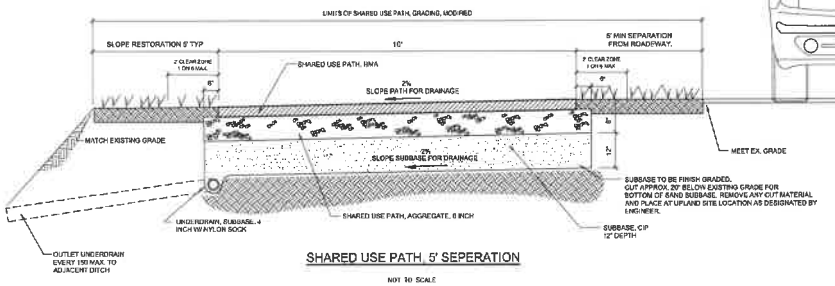

SHARED USE PATH, 5' SEPERATION

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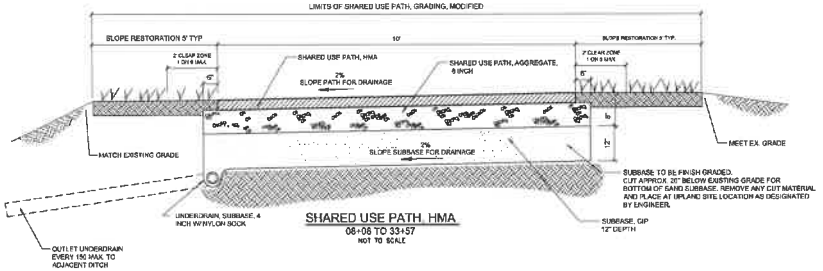
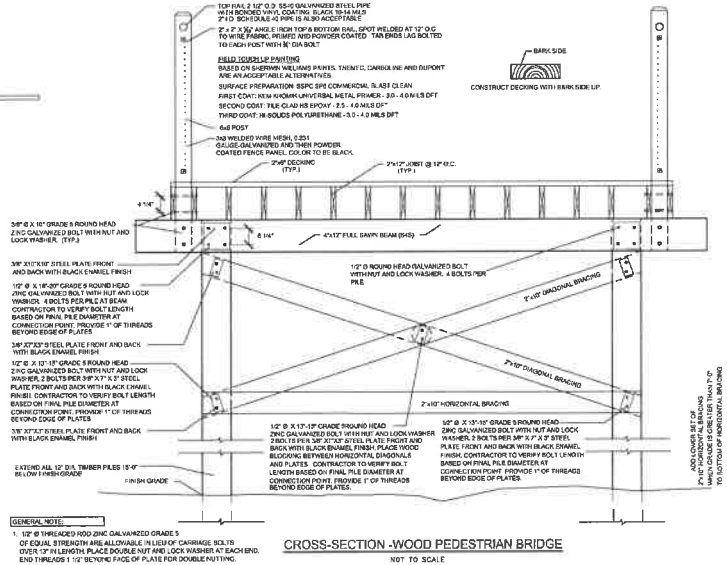


SHARED USE PATH, HMA

06+06 TO 33+57

NOT TO SCALE



GENERAL NOTE:

1. 1/2" Ø THREADED ROD ZINC GALVANIZED GRADE 5 OF EQUAL STRENGTH ARE ALLOWABLE IN LIEU OF CARRIAGE BOLTS OVER 13" IN LENGTH, PLACE DOUBLE NUT AND LOCK WASHER AT EACH END. END THREADS 1 1/2" BEYOND FACE OF PLATE FOR DOUBLE NUTTING.

CROSS-SECTION -WOOD PEDESTRIAN BRIDGE

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902 Bay St., First Floor
Traverse City, MI 49684
P: 231.932.9900
F: 231.932.9709

INTERLOCHEN DDA
GRAND TRAVERSE COUNTY, MICHIGAN
CONCEPTUAL TRAIL ALIGNMENT
BOARDWALK & BRIDGE DETAILS

DETAIN NAME	FINAL DESIGN:	PS
	DESIGNED BY:	PS
	DRAWN BY:	MDS
	CHECK BY:	

DRAWING INFORMATION:
846290_D101
012021 mds.

NOT FOR CONSTRUCTION

JANUARY 2021

FLEIS PROJECT NO.
945790

C501