

NOVEMBER 2019



Preliminary Design Services SLEEPING BEAR HERITAGE TRAIL COUNTY ROAD 669 TO COUNTY ROAD 651



Networks Northwest
P.O. Box 506
Traverse City, MI 49685-0506

OHM Advisors®



November 7, 2019

Elizabeth Calcutt, Community Planner
Networks Northwest
P.O. Box 506
Traverse City, MI 49685-0506

RE: **Deliverable Packet for Preliminary Design Services for the Sleeping Bear Heritage Trail, County Road 669 to County Road 651**

Dear Ms. Calcutt:

The Sleeping Bear Dunes National Lakeshore welcomes nearly 1.4 million visitors each year. Considering the importance of these areas to the State's economy, through Networks Northwest, there was a need identified to improve non- motorized access to and within the park. We appreciated the opportunity to work with you and stakeholders of this project, National Park Service, Leelanau County Road Commission, MDOT, TART, Cleveland Township, Centerville Township, trail users, and residents.

This bounded report is in chronological order presenting the materials that developed as a part of this process, including:

- Public Meeting #1
- The trail study process
- Cost estimates throughout the process
- Recommended trail alignment including trail cost estimate
- Public Meeting #2
- Schematic engineering of the trail

On behalf of the OHM team, it was a pleasure to work with you, and we thank you for this opportunity.

Sincerely,
OHM Advisors

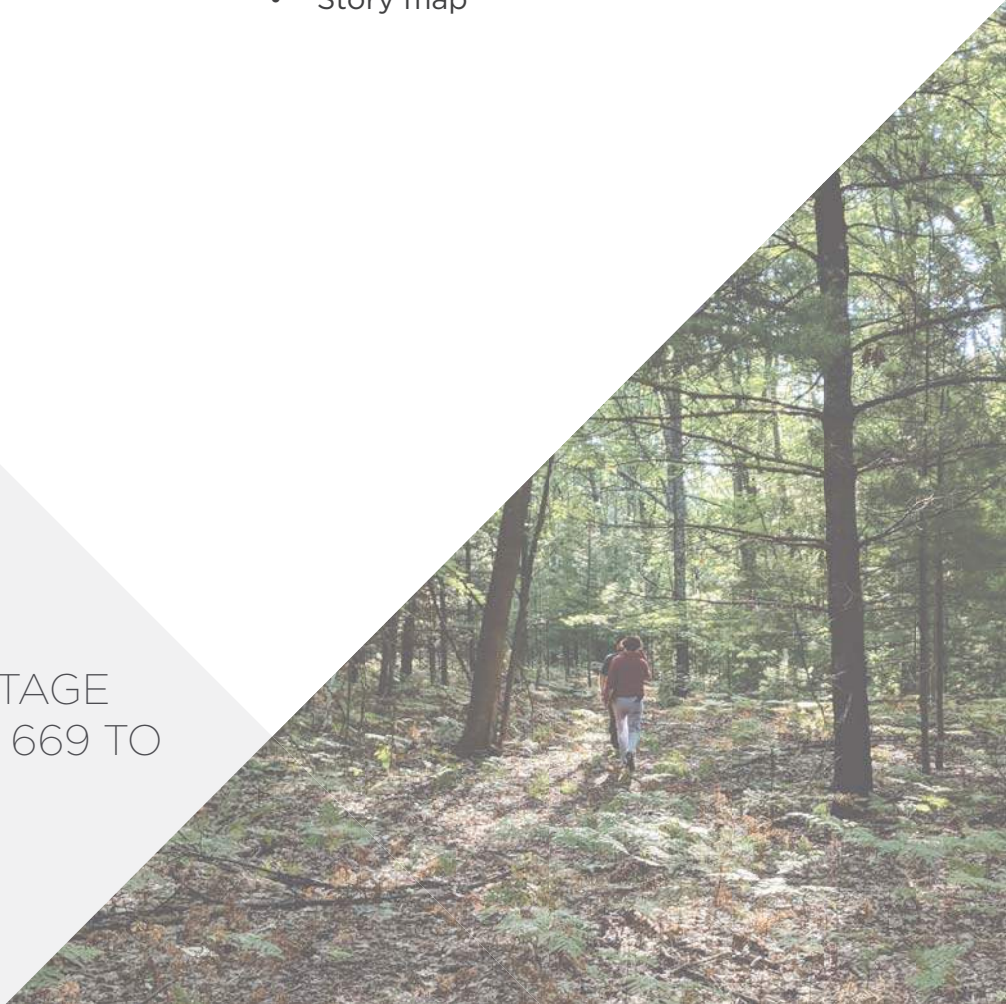
A handwritten signature in blue ink that reads "Steven L. Warren". The signature is fluid and cursive, with the first name "Steven" and last name "Warren" clearly legible.

Steven L. Warren, PE
Principle in Charge

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 - Trail route development
 - Consensus building
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 - Schematic engineering
 - Story map

Preliminary Design Services
SLEEPING BEAR HERITAGE
TRAIL COUNTY ROAD 669 TO
COUNTY ROAD 651





1 Scope of Services

Scope of Services

OHM Advisors was engaged by Networks Northwest to identify and evaluate viable route alternatives between County Road 669 (South Bohemian Road) and County Road 651 (Good Harbor Trail), within the constraints of the Environmental Assessment conducted for the Sleeping Bear Heritage Trail. OHM Advisors compiled existing data (wetland, streams and buffers, ROW information), conducted topographic surveys as needed, and solicited public input. Viable alternatives were evaluated by OHM and the Study Group, utilizing Choosing by Advantages Decision Making Process and by evaluating Pros/Cons. Study Group members included representatives from the Leelanau County Road Commission, Michigan Department of Transportation, National Park Service, Cleveland Township, Centerville Township, TART Trails, Friends of Sleeping Bear, and the Little Traverse Lake Association.

OHM provided a website to house information and collected public input throughout the process, and prepared preliminary plans and estimates suitable for grant applications (included herein). The link for that website is listed below.

(<https://ohmadvisors.maps.arcgis.com/apps/Cascade/index.html?appid=4a3308df6f6441029484da510ef9123c>)



2 Public Meeting #1

The first public meeting for this project took place on Wednesday, August 29, 2018, from 5:30 to 7:00 at the Cleveland Township Hall. This meeting was designed to introduce the study, the study team members, and kick-off the design and public input process. After a quick presentation, the Township Hall divided into stations that were supported by study team members to listen to the public's reaction to the trail and allow them to draw on maps to help depict their desires for this segment of trail. This meeting provided an opportunity to talk with folks and develop a connection to the trail users and the local community.

The public survey was introduced at this meeting to help gather input from the community. This survey was written and distributed either by hand or through the Networks Northwest website. Networks Northwest provided interactive features online, including story maps and the ability to peg the user's location for a better understanding of the situation of community concerns.

Included within this section are:

- The open house presentation
- The open house sign-in sheet
- Survey questionnaire
- Summary of the survey questionnaire result.



Sleeping Bear Dunes Heritage Trail

CR 669 to CR 651 Trail Extension

Open House



Welcome

Tim Stein - Cleveland Township Supervisor

Study Group Members:

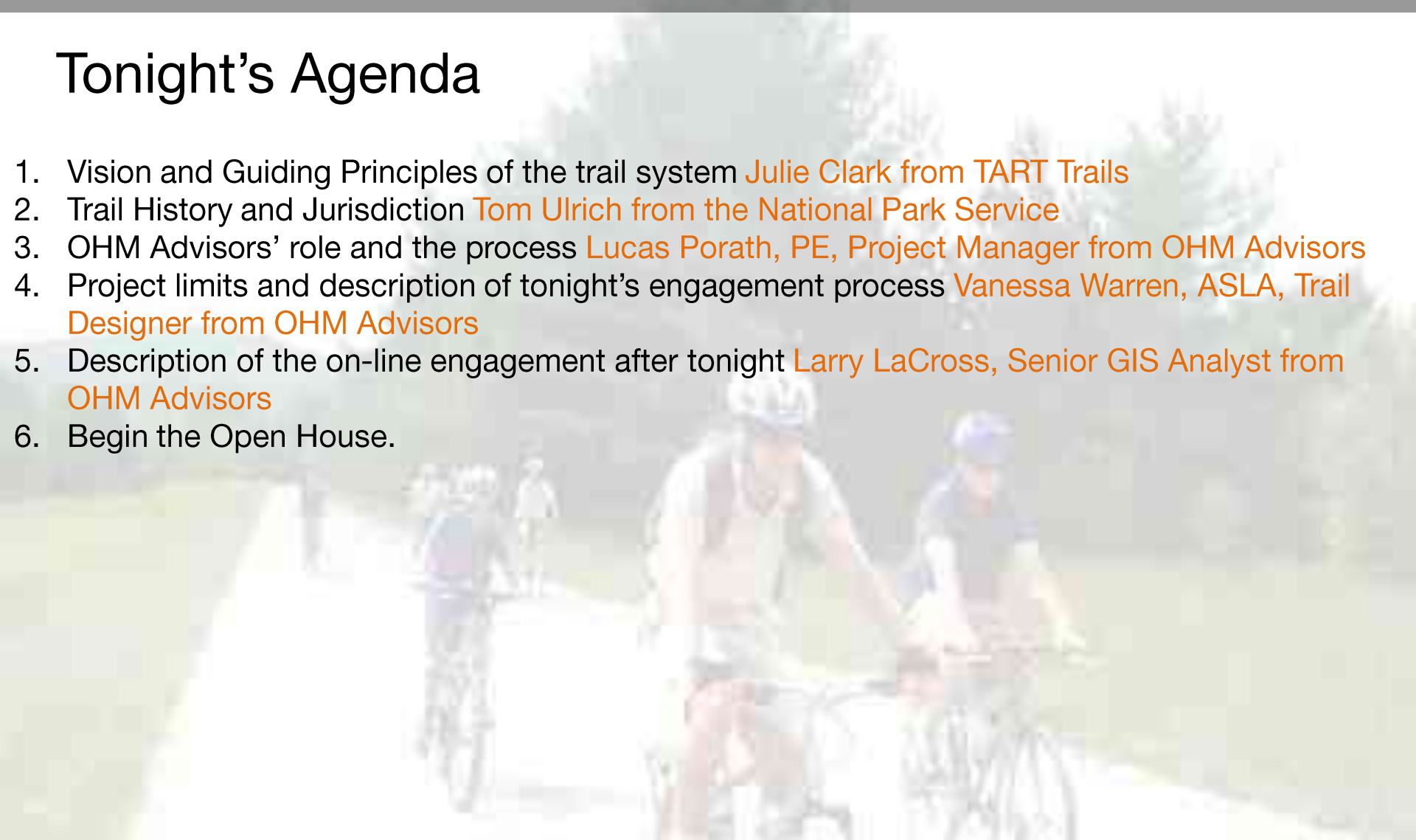
1. Centerville Township
2. Cleveland Township
3. National Park Service
4. Leelanau County Road Commission
5. Michigan Department of Transportation
6. Little Traverse Area Property Owners Association
7. Friends of the Sleeping Bear Dunes
8. TART Trails

Facilitation by Networks Northwest
Design Consultants from OHM Advisors

Welcome

Tonight's Agenda

1. Vision and Guiding Principles of the trail system Julie Clark from TART Trails
2. Trail History and Jurisdiction Tom Ulrich from the National Park Service
3. OHM Advisors' role and the process Lucas Porath, PE, Project Manager from OHM Advisors
4. Project limits and description of tonight's engagement process Vanessa Warren, ASLA, Trail Designer from OHM Advisors
5. Description of the on-line engagement after tonight Larry LaCross, Senior GIS Analyst from OHM Advisors
6. Begin the Open House.



Trail Mission and Vision

Trailway Plan: Vision

Create a non-motorized linear trailway system that is connected to historical, cultural, recreational, and environmental points of interest throughout the Lakeshore and surrounding communities; a Trailway that promotes health, environmental, social, and economic benefits and provides a safe alternative for walking, biking, running, and cross-country skiing; and is universally accessible wherever possible.

Trail Mission and Vision

Sleeping Bear Dunes Heritage Trail Guiding Principles

1. Promote and encourage people to engage in healthy lifestyles benefiting from non-motorized trails.
2. Strengthen trail connections to existing trail heads, communities, and points of interest within the project boundary.
3. Enhance the recreational experience within the Sleeping Bear Dunes National Lakeshore and project area.
4. Incorporate universal design principles with regard to trail alignment, cross-sectional design, and trail head development.
5. Consider the impacts that could occur to the environment and existing ecosystems.
6. Consider the impacts that could occur to historic properties and archeological resources.
7. Design a trail cross-section and trail alignment that is sustainable with regard to materials.
8. Provide a safe non-motorized trail facility.

Trail History and Jurisdiction

Sleeping Bear Heritage Trail

Hard-surfaced, multi-use trail extending 27 miles through the Lakeshore.

Provides a safe, non-motorized transportation alternative connecting visitor attractions with neighboring communities.

Gives walkers, runners, bicyclists, skiers, wheelchair users, and baby strollers a safe way to access and explore the Lakeshore and neighboring communities.

Trail History and Jurisdiction

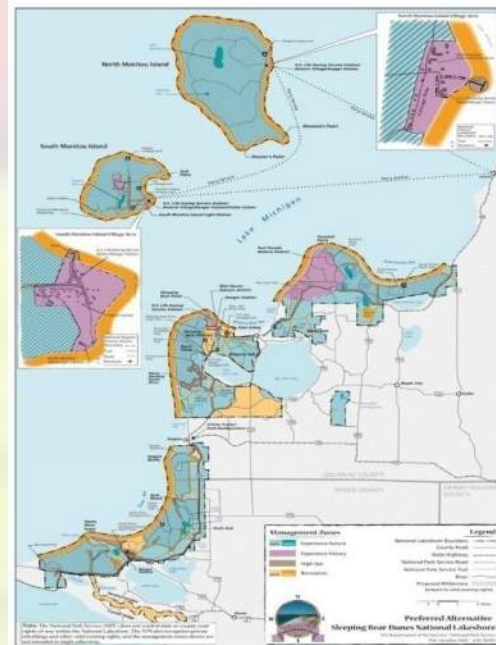
Leelanau Scenic Heritage Route (LSHR)

- Guiding Committee made up of all jurisdictional and citizen interests including nine townships, three villages, county commissions, MDOT, NPS, the Grand Traverse Band, private organizations, and local citizens.
- Added to State Scenic Byways system in 2001.
- Natural and historic resources along the route drive the economy of the region and contribute to the sense of identity of its residents.
- Provides platform from which to qualify for federal and state grants.

Trail History and Jurisdiction

2009 General Management Plan (GMP)

The LSHR proposed the Heritage Trail concept to the Lakeshore early in the GMP process. The concept was evaluated during the associated public planning from 2006-2008. The resulting Final GMP included zoning for the trail through the entire length of the National Lakeshore.



Trail History and Jurisdiction

Environmental Compliance

Following the GMP, the NPS completed an Environmental Assessment for 27 miles of trail in Leelanau County. A trail route was selected that provided the best experience for trail users with no significant impacts on the environment, and a FONSI was signed in August 2009.



Trail History and Jurisdiction

Construction

The trail is being constructed to AASHTO standards for non-motorized trails. The NPS has entered a Partner Construction Agreement with the Michigan Department of Transportation. For this phase of the trail, MDOT will hold the contract for design engineering and construction of the trail.



Trail History and Jurisdiction

Operations and Maintenance

The fundraising plan includes 10% for a maintenance investment account. The account is populated during fundraising therefore, the funds are in hand for each phase by its public opening. The Friends of Sleeping Bear Dunes are partners in an agreement for facility operations and preventative maintenance.



Trail History and Jurisdiction

Decision-making for the Sleeping Bear Heritage Trail

A bit complicated because of multiple and overlapping governmental roles in the project area.

- The National Park Service must approve/endorse anything proposed for NPS-owned property and/or paid for with project funds raised by the NPS fundraising partner, TART Trails, Inc.
- The Leelanau County Road Commission has permitting authority for any development proposed within their county road rights-of-way.
- The Michigan Department of Transportation has permitting authority for any development proposed within their state highway rights-of-way.
- The Townships' role is to act as facilitators and "influencers" rather than decision-makers

The intent of the study group is to develop a project proposal for the CR 669 to CR 651 segment of the SBHT that will be approved by these three entities, and can qualify for any applicable environmental permits.

About Us



ARCHITECTS



ENGINEERS



LANDSCAPE ARCHITECTS AND PLANNERS

[Project Team](#)
Lucas Porath
Larry LaCross
Vanessa Warren

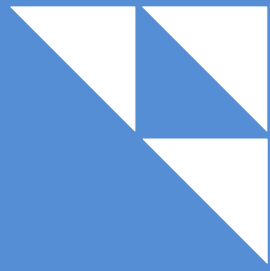
Preliminary Design Process

1. Compile existing data, including but not limited to:
 - Wetlands
 - Dunes
 - Streams and natural buffer systems
 - Topography
 - Soils
 - Road right-of-way
 - Property lines
 - Trail Plan and Environmental Assessment
2. Solicit input from local residents and trail users (Tonight's Open House #1).
3. Identify and evaluate viable route alternatives using the data collected.
4. Provide a schematic layout of the trail's alignment with associated costs based on input provided by trail stakeholders.
5. Solicit input from local residents and trail users (Open House #2).
6. Prepare final schematic plans and estimates suitable for grant applications.

Project Limits for Tonight's Meeting



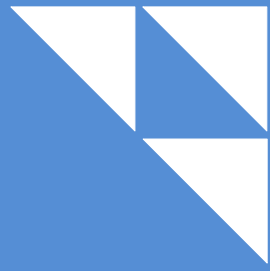
Tonight's Objective



Generate ideas through a charrette workshop that is intended to:

- Identify values
- Identify needs
- Identify concerns, and
- Establish priorities

Workshop Mechanics



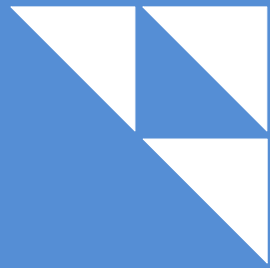
Informally gather around one of the map stations and draw or write comments down either on the maps themselves or on Sticky Notes that should be placed at the location of your comment.

Members of the Study Group will be located throughout to help answer questions or help formulate your ideas onto the maps.

Keep your comments to this trail extension, which is CR 669 to Good Harbor Trail.

Meeting ends at 7:00 p.m.

Public Engagement after Tonight



1. Hard copies of the survey will be available at Cleveland and Centerville Township Halls for 2 weeks.
2. A link to a written survey and an interactive public engagement will be available on the Networks Northwest, TART Trails, Inc. and the Sleeping Bear Dunes Heritage Trail webpages.

Thank you
and let's get started



Sleeping Bear Dunes Heritage Trail

Public Open House

SIGN IN SHEET

Date: August 29, 2018

Please print the following information.

NAME

ADDRESS

EMAIL

| | | |
|----------------------|-------------------------------|------------------------|
| BILL & DEAN DAILY | 11655 WHITTINGTON, TC. | bbdaily@gmail.com |
| Kama Ross | 2765 E. Sugar Maple Cedar | kama.ross@yahoo.com |
| Dea Mankas | 5855 S. Maple City Rd MC | mankasdea@gmail |
| ERIC BHARTLEY | 5223 KING HAVEN RD | TEBHARTLEY@GMAIL.COM |
| MARK KINGSLEY BIBLER | 974 E TRAVELER RD | MBIBLER@FUSE.NET |
| Dawn Zunk | 145 W TRAVELER RD | _____ |
| Alice Zunk | 145 W TRAVELER RD | _____ |
| Becky Biebert | 7241 E LEECHMAN HILL DR | rebeach@charter.net |
| Christine Sykes | 1677 NORTON RD CEDAR | csykes67@yahoo.com |
| David Stierlund | 3755 N MS2 Owasco MI 49867 | farmreglory@gmail.com |
| Michael S. Fairhol | 1782 E Swanson Cedar MI 49621 | MyBible@aol.com |
| Larry WAT | 902 E Travers LE RD | larry.watt@design1.com |
| JOHN VOCK | P.O. Box 105/6006 FOKES, G.A. | johnvolk2010@gmail.com |
| Pam Amidon | P.O. Box 579 Glen Arbor | pamidon@charter.net |
| Neil Hanna | 822 E Travers LE RD | hanna2287510@yahoo.com |



Sleeping Bear Dunes Heritage Trail

Public Open House



SIGN IN SHEET

Date: August 29, 2018

Please print the following information.

| NAME | ADDRESS | EMAIL |
|--------------------------|------------------------------|------------------------------|
| CONRAD MASON | 1036 E TRAVERSE LAKE RD | HetaLump@umich.edu |
| Ann mason | 1036 E Traverse Lake Rd | " " |
| Michele Leanderson | 502 E. Traverse Lk Rd | michele.leanderson@gmail.com |
| Kristen + Peter Race | 510 E Traverse Lk Rd | kristenrace@gmail.com |
| Ed + Cathy Schocker | 155 W. Traverse Lake Rd. | Cathy.schocker4@gmail.com |
| JERRY LEANDERSON | 502 ETLR | Jerry.leanderson@gmail.com |
| Tom + Marnie Sutter | 1908 E Mountain View Cedar | marnie.sutter@gmail.com |
| Elle + Janna Blakely | 5223 S. Lime Lk. Rd. Cedar | janna.blakely@gmail.com |
| RITA DICK | 3988 S. Manitowish Cedar | EXPEDICK@aol.com |
| Amy + John Warner | 1762 S. Manitowish Trail | amywarner.n.crew@gmail.com |
| Nora + Cameron Bunn | 752 E TRAVERSE LAKE RD | CJBunn@Cedar.com |
| Serome Buefka | 1518 E Traverse Lk Rd Cedar | whiskers@centurytel.net |
| SAM & NANCY STEWART | 929 S. MANITOWISH TR. L.L.C. | |
| LKA + SUOTY MARTIN | 598 W. Harbor Hwy | martinsco@aol.com |
| JAN FRAZEE + Tim Johnson | 7426 S Rosinsky Rd cedar | |

Public Open House



Date: August 29, 2018

Please print the following information.

[illegible]

Sleeping Bear Dunes Heritage Trail

Public Open House

SIGN IN SHEET

Date: August 29, 2018

Please print the following information.

NAME ADDRESS EMAIL

| | | |
|------------------------|-------------------------------|-------------------------------|
| Kathy Hurst | 294 E. Traverse Lk. Rd. Cedar | hurstynorth1@gmail.com |
| Tom Lauer | 802 E. Trav. Lk. Rd. Glen | Hauer@bsu.edu |
| Nancy Mueller | 7680 W Deer Trail ga | |
| Nancy Tanulix | 7690 W Deer Trail ga | |
| David Pruis | 200 E Traverse Lk Rd Cedar | david.pruis@yahoo.com |
| JEFF SHUTZ | 550 W. TLR | jeff1shutz@gmail.com |
| Robert & Deanne Miller | 461 W. HARRISON RIDGE NC | zdeebob@gmail.com |
| JUDY BENHARDT | 4955 S. ZIMMERBERG | farmerjudy521@gmail.com |
| JANICE SOHN | | sohnjaff@gmail.com |
| Carol Gripenstrog | 516 W. Harbor Hwy | caripen@centurytel.net |
| Holly Webster | 432 E Duane Lake Rd | holly8summer@gmail.com |
| Joan Kufske | 7856 S. Maple City Rd | joank43@sbcglobal.net |
| Gene Kufske | " | |
| Peter Fisher | 475 E Suze Bay Ln Cedar | peter.fisher@jbgreatlakes.com |
| LEO & SEENA | 123 W TERAVILLE LANE | leoaccsaver@gmail.com |
| ACCSAVER | | |

SIGN IN SHEET

Date: August 29, 2018

Please print the following information.

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Sleeping Bear Heritage Trail
Study of the extension of the Trail from CR 669 to CR 651
Conducted by OHM Advisors

The Sleeping Bear Heritage Trail is a non-motorized, multi-use trail connecting points of interest throughout the Sleeping Bear Dunes National Lakeshore and surrounding communities. When complete, the trail will span 27 miles.

Preliminary design efforts are underway to complete the 5-mile northernmost section of the trail from County Road 669/Bohemian Road to County Road 651/Good Harbor Bay. The following questions are intended to help us understand how the trail is currently used, and what interests and concerns there are regarding the proposed trail. Your input will help inform the final trail design. *The information you provide is voluntary, confidential, and anonymous.*

1. Do you use the Sleeping Bear Heritage Trail?
 - a. Yes
 - b. No
2. If yes, what is your primary activity on the trail?
 - a. Walking/Hiking
 - b. Biking
 - c. Jogging/Running
 - d. Cross Country Skiing
 - e. Transportation to recreational opportunities along the trail
 - f. Other _____
3. What season(s) do you most often use the trail?
 - a. Spring
 - b. Summer
 - c. Fall
 - d. Winter
4. On average, when do you use the trail?
 - a. Week Days
 - b. Weekends
 - c. Both
5. Are there facility improvements or amenities that would enhance your trail experience?
 - a. Improved access to the trails
 - b. Parking
 - c. Picnic opportunities
 - d. Overlooks
 - e. Trash receptacles
6. Are you a property owner along the proposed route from CR 669 to CR 651?
 - a. Yes
 - b. No
7. Do you have concerns about further development of the trail due to? (select all that apply)
 - a. No concerns
 - b. Yes;
 - i. Noise from trail users
 - ii. Trespassing of trail users onto private property
 - iii. Littering
 - iv. Damage to the physical natural systems of the dunes
 - v. Trail conflicting with personal recreational activities on private land
 - vi. Vandalism
 - vii. Other _____

What features of trail design are important to you? _____

Sleeping Bear Heritage Trail: CR 669 to CR 651

Public Input Summary #1

To help inform the preliminary design phase of the Sleeping Bear Heritage Trail: CR 669 to CR 651, public input was collected from August 29, 2018 through September 14, 2018. Input was received through the comment cards provided by OHM Advisors (via the online survey form and in hard copy format); the Public Open House on August 29, 2018 (via the large maps and sticky notes); the online public comment form; and through emails and letters.

Below is a summary of input received through the Sleeping Bear Heritage Trail Survey. The results are intended to provide an understanding of how the trail is currently used, and what interests and concerns there are regarding the proposed trail.

Sleeping Bear Heritage Trail Survey Summary

Total Survey Responses: 93

1. Do you use the Sleeping Bear Heritage Trail?

Total Responses = 90

- a. Yes: 84 responses (93%)
- b. No: 6 responses (7%)

2. If yes, what is your primary activity on the trail?*

Total Responses = 85

- c. Walking/hiking: 17 (20%)
- d. Biking: 67 (79%)
- e. Jogging/Running: 7 (8%)
- f. X-Country Skiing: 7 (8%)
- g. Transportation to recreational opportunities along the trail: 2 (2%)
- h. Other: *Roller Blading; Snowshoeing; Transportation to work and school*

3. What season(s) do you most often use the trail?*

Total Responses = 84

- a. Spring: 21 (25%)
- b. Summer: 67 (89%)
- c. Fall: 29 (35%)
- d. Winter: 11 (13%)

4. On average, when do you use the trail?

Total Responses = 83

- a. Week Days: 22 (27%)
- b. Weekends: 10 (12%)
- c. Both: 51 (62%)

5. Are there facility improvements or amenities that would enhance your trail experience?*

Total Responses = 61

- i. Improved access to the trail: 19 (31%)
- j. Parking: 24 (39%)
- k. Picnic Opportunities: 3 (5%)
- l. Overlooks: 12 (20%)
- m. Trash Receptacles: 7 (12%)

6. Are you a property owner along the proposed route from CR 669 to CR 651?

Total Responses = 89

- a. Yes: 32 responses (36%)
- b. No: 57 responses (64%)

7. Do you have concerns about further development of the trail due to?*

Total Responses = 88

- a. No Concerns: 30
- b. Yes;
 - i. Noise from trail users: 5
 - ii. Trespassing of trail users onto private property: 11
 - iii. Littering: 7
 - iv. Damage to the physical natural systems of the dunes: 32
 - v. Trail conflicting with personal recreational activities on private land: 7
 - vi. Vandalism: 3
 - vii. Other: 19 (handicap accessibility; tree removal; costs; injuries from cars)

What features of trail design are important to you?

There were 87 responses received to this open-ended question. Close to 45% of responses addressed the importance of minimizing environmental impacts to the area's dunes, trees, wetlands, wildlife, and designated wilderness area. Other common features of importance were safety, paved trail, separated (off-road) trail, scenic, and respecting privacy/private property. Below is a summary of important trail design features and/or concerns expressed by survey respondents:

- Minimize environmental impact
- Paved trail
- Safety
- Separated/Off-road Trail
- Privacy/Private property
- Scenic
- Accessibility
- Poor visibility/dangerous light conditions along Traverse Lake Rd due to tree canopy
- Blind turns on Little Traverse Lake Rd
- Reducing speed on Traverse Lake Rd
- Do not route trail on south side of Traverse Lake Rd
- Loss of on-street parking for guests
- Do not widen road – already too close to homes
- Cost
- Boardwalks – concerns over environmental impacts
- Boardwalks – favorable
- Liability issues
- Restrooms
- Parking

** The online survey was limited to one response per question. Surveys completed in hard copy format could provide more than one response.*



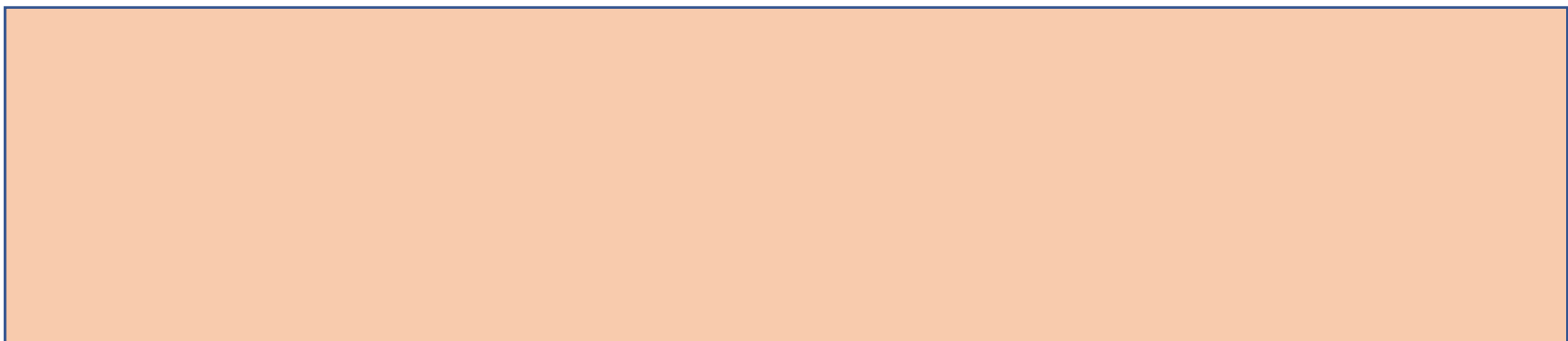
3 Trail Study

The trail study portion of the project was twofold devised to deliver a comprehensive understanding of the project's physical and cultural factors. The first portion was an in-depth inventory and analysis of the various possible routes to develop an understanding of the site's physical characteristics. This understanding was accomplished through researching existing site maps, master plans, environmental reviews, obtaining new topographical information, speaking with the land owner's agents including the National Park Service, Michigan Department of Transportation, developing an understanding to required permits, and the Leelanau County Road Commission, and walking the site many times over. Many trail routes were considered and presented throughout the second phase of this section.

Consensus was achieved through meetings with the trail team members and working shop tools such as Choosing by Advantages and Pros and Cons and reviewing the data from the public surveys. Various trail alignments were studied, presented and discussed.

This section contains:

- A map of the various routes considered
- The various design sections for these different routes
- The Choosing by Advantage Process
- Outcomes of that process
- Pros and Cons to the alternate routes



Sleeping Bear Heritage Trail

Trail Route

10' Wide HMA Trail

14' Crushed Limestone Trail

Boardwalk

Potential Future Spur

Shared Roadway

Existing SBHT

Proposed Road Route

National Wetlands Inventory

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Critical Dunes

NPS Property

Wilderness Boundary

The map displays the Sleeping Bear Heritage Trail area, including Lake Michigan, various wetlands, and proposed trail routes. Key features include:

- Trail Routes:** 10' Wide HMA Trail (black line), 14' Crushed Limestone Trail (brown line), Boardwalk (green line), Potential Future Spur (yellow dashed line), Shared Roadway (yellow line), Existing SBHT (green line), and Proposed Road Route (yellow line).
- National Wetlands Inventory:** Freshwater Emergent Wetland (light green), Freshwater Forested/Shrub Wetland (dark green), Freshwater Pond (blue), Riverine (light blue), Critical Dunes (orange), NPS Property (white), and Wilderness Boundary (purple outline).
- Other Features:** National Park Service Boundary (dashed line), Good Harbor Bay Beach, Connector to Beach Area, Good Harbor Trl, Wilderness Boundary, Bufka Farm Site Access, Bufka Farm Spur Alternate #1, Bufka Farm Spur Alternate #2, Traverse Lake Rd from M22 to Bufka Farm Spur Alternate #1, Traverse Lake Rd from M22 to Bufka Farm Spur Alternate #2, Traverse Lake Rd from M22 to Bufka Farm Spur Alternate #3, Extension to Traverse Lake Road Alternate #1, Extension to Traverse Lake Road Alternate #2, Existing Trail, Potential Trailhead and Parking Lot, Potential Easement, Potential Redefining Wall, Mountain View Trl, Ridgecliff Trl, Lakeview Dr, Swanson Trl, Fairway Dr, Bluff Ln, E Sugar Loaf Mountain Rd, S Sandy Ln, S Lime Lake Rd, W Harbor Hwy, Bartunek Rd, Maple City Rd, M22, CR-651, CR-669, Bohemian Rd, E Meander Ln, Eltzen Rd, Sugar Maple Dr, Linden Ct, Red Oak Ct, Birch Ct, Hemlock Rd, Beech Ct, Overby Rd, and Lake Michigan Rd.

North arrow pointing up. Scale bar showing 0, 1,000, and 2,000 feet. 1" = 1,500'.

Source: Data provided by Leelanau County, State of Michigan, National Parks Service, and ESRI Online Living Atlas. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan Central FIPS 2112 Feet
Map Published: September 1, 2019

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POSSIBLE TRAIL CONFIGURATIONS



Boardwalk Trail
14' Wide



Designated Shared Roadway



Independent Paved Trail
Paved 10' Wide with 2' Shoulders



Multi-use Road
5', One Way Traffic Bicycle Lanes

Sleeping Bear Dunes Heritage Trail

Assessment of Alternate Routes

Date: October 2, 2018

To: SBHT Study Group

From: OHM-Advisors

Re: Sleeping Bear Heritage Trail – CR 669 to CR 651

Choosing by Advantages

We suggest utilizing the Choosing by Advantages (CBA) decision-making process for this project. CBA is an accurate, logical and documentable method for comparing alternatives and making sound decisions. It was developed by federal agency personnel with the help of economic, ecologic, urban planning and human behavior experts at the University of Michigan and Utah State University and is now a preferred method for facility decisions in the US National Forest Service, the National Park Service and several other agencies. In a nutshell, the process looks at magnitudes of differences between alternatives and the relative importance of those differences.

Draft Route Selection Criteria:

- Cost Considerations
 - Cost of Construction
 - Cost of Engineering
 - Cost of Maintenance
- Recreational Experience
 - User types
 - Setting / Environment
 - Potential User Conflicts
 - Accessibility
 - Connectivity
- Overall Constructability
 - Natural Resource Impacts
 - Historical/Cultural Resource Impacts
 - Topography
 - Adjacent Land Use
- Political Factors
 - Public Opinion
 - Level of Government Support
 - Economic Impact
- Safety
 - Vehicular Traffic
 - Crime

CHOOSING BY ADVANTAGES TABLE - SBHT along M-22 from CR 669 to TLR

Project: **Sleeping Bear Heritage Trail**

Prepared For: **Networks Northwest**

Prepared By: Lucas C. Porath, P.E.
OHM-Advisors



Date: April 8, 2019

| FACTOR / CRITERIA | ALTERNATIVES | | |
|---|--------------------------------|--|---|
| | Most Important Advantage Score | Conceptual Segment 1A - CR 669 to Traverse Lake Road | Conceptual Segment 1B - Widened Roadway |
| Cost Considerations | | | |
| Attributes | | <u>\$240,000</u> | \$30,000 |
| Advantages | | \$0 | \$210,000 |
| Importance of Adv. | 30 | 0 | 30 |
| Recreational Experience | | | |
| Attributes | | 6 | <u>1</u> |
| Advantages | | 5 | 0 |
| Importance of Adv. | 100 | 100 | 0 |
| Overall Constructability | | | |
| Attributes | | <u>4</u> | 9 |
| Advantages | | 0 | 5 |
| Importance of Adv. | 85 | 0 | 85 |
| Public Support | | | |
| Attributes | | 5 | <u>4</u> |
| Advantages | | 1 | 0 |
| Importance of Adv. | 50 | 50 | 0 |
| Government Support / Political Factors | | | |
| Attributes | | 9 | <u>2</u> |
| Advantages | | 7 | 0 |
| Importance of Adv. | 50 | 50 | 0 |
| Safety | | | |
| Attributes | | 8.5 | <u>2</u> |
| Advantages | | 6.5 | 0 |
| Importance of Adv. | 85 | 85 | 0 |
| Total Importance | | 285 | 115 |

1. Attributes for subjective factors: 10-Excellent 8-Very Good 6-Good 4-Fair 2-Poor 0-Bad OR 0-Very Difficult 2-More Diff. 4-Modertely Diff. 6-Fairly Easy 8-Easy 10-Simple

OR 10-Lowest 8-Lower 6-Low 4-High 2-Higher 0-Highest

2a. Least preferred attribute in each factor is underlined.

2b. Advantages are the differences from the least preferred attribute.

3a. Most important advantage in each factor is **bold**.

3b. Paramount advantage is **bold/underlined**.

3c. Importance of the most important advantage in each factor is relative to the paramount advantage and is shown **bold**.

3d. Importance of each remaining advantage is decided last and is shown standard text format.

CHOOSING BY ADVANTAGES TABLE - SBHT along TLR from M-22 to Bufka Farm Spur

Project: **Sleeping Bear Heritage Trail**

Prepared For: **Networks Northwest**

Prepared By: Lucas C. Porath, P.E.
OHM-Advisors



Date: April 8, 2019

| FACTOR / CRITERIA | Most Important Advantage Score | ALTERNATIVES | | |
|---|--------------------------------|---|--|---|
| | | Conceptual Segment 2A - Traverse Lake Road from M-22 to Bufka Farm Spur | Conceptual Segment 2B - Shared Roadway Alternative | Conceptual Segment 2C - Widened Roadway / Bicycle Lanes Alternative |
| Cost Considerations | | | | |
| Attributes | | <u>\$3,550,000</u> | \$650,000 | \$1,250,000 |
| Advantages | | \$0 | \$2,900,000 | \$2,300,000 |
| Importance of Adv. | 30 | 0 | 30 | 24 |
| Recreational Experience | | | | |
| Attributes | | 8.5 | <u>3</u> | 4 |
| Advantages | | 5.5 | 0 | 1 |
| Importance of Adv. | 100 | 100 | 0 | 18 |
| Overall Constructability | | | | |
| Attributes | | <u>1</u> | 8.5 | 4.5 |
| Advantages | | 0 | 7.5 | 3.5 |
| Importance of Adv. | 85 | 0 | 85 | 40 |
| Public Support | | | | |
| Attributes | | <u>3</u> | 5 | 4 |
| Advantages | | 0 | 2 | 1 |
| Importance of Adv. | 50 | 0 | 50 | 25 |
| Government Support / Political Factors | | | | |
| Attributes | | 8 | <u>3</u> | 5 |
| Advantages | | 5 | 0 | 2 |
| Importance of Adv. | 50 | 50 | 0 | 20 |
| Safety | | | | |
| Attributes | | 9 | <u>3</u> | 4.5 |
| Advantages | | 6 | 0 | 1.5 |
| Importance of Adv. | 85 | 85 | 0 | 21 |
| Total Importance | | 235 | 165 | 148 |

1. Attributes for subjective factors: 10-Excellent 8-Very Good 6-Good 4-Fair 2-Poor 0-Bad **OR** 0-Very Difficult 2-More Diff. 4-Moderately Diff. 6-Fairly Easy 8-Easy 10-Simple

OR 10-Lowest 8-Lower 6-Low 4-High 2-Higher 0-Highest

2a. Least preferred attribute in each factor is underlined.

2b. Advantages are the differences from the least preferred attribute.

3a. Most important advantage in each factor is **bold**.

3b. Paramount advantage is **bold/underlined**.

3c. Importance of the most important advantage in each factor is relative to the paramount advantage and is shown **bold**.

3d. Importance of each remaining advantage is decided last and is shown standard text format.

CHOOSING BY ADVANTAGES TABLE - SBHT off-road via Bufka Farm Spur vs. TLR and Bufka Field along M-22

Project: **Sleeping Bear Heritage Trail**

Prepared For: **Networks Northwest**

Prepared By: Lucas C. Porath, P.E.
OHM-Advisors



Date: April 8, 2019

| FACTOR / CRITERIA | Most Important Advantage Score | ALTERNATIVES | | | |
|---|--------------------------------|---|---|--|---|
| | | Conceptual Segment 3A - Bufka Farm Spur | Conceptual Segment 3B - along TLR and Bufka Field | Conceptual Segment 3C - Shared Roadway Alternative | Conceptual Segment 3D - Widened Roadway / Bicycle Lanes Alternative |
| Cost Considerations | | | | | |
| Attributes | | \$1,100,000 | \$1,750,000 | \$370,000 | \$420,000 |
| Advantages | | \$650,000 | \$0 | \$1,380,000 | \$1,330,000 |
| Importance of Adv. | 30 | 14 | 0 | 30 | 29 |
| Recreational Experience | | | | | |
| Attributes | | 9 | 7 | 5 | 5.5 |
| Advantages | | <u>4</u> | 2 | 0 | 0.5 |
| Importance of Adv. | 100 | 100 | 50 | 0 | 13 |
| Overall Constructability | | | | | |
| Attributes | | <u>3</u> | 5 | 7 | 6 |
| Advantages | | 0 | 2 | 4 | 3 |
| Importance of Adv. | 85 | 0 | 43 | 85 | 64 |
| Public Support | | | | | |
| Attributes | | <u>3</u> | 4 | 5 | 4 |
| Advantages | | 0 | 1 | 2 | 1 |
| Importance of Adv. | 50 | | | 50 | |
| Government Support / Political Factors | | | | | |
| Attributes | | 7 | 8 | <u>3</u> | 5 |
| Advantages | | 4 | 5 | 0 | 2 |
| Importance of Adv. | 50 | 40 | 50 | 0 | 20 |
| Safety | | | | | |
| Attributes | | 9 | 9 | <u>5</u> | 6 |
| Advantages | | <u>4</u> | 4 | 0 | 1 |
| Importance of Adv. | 85 | 85 | 85 | 0 | 21 |
| Total Importance | | 239 | 228 | 165 | 146 |

1. Attributes for subjective factors: 10-Excellent 8-Very Good 6-Good 4-Fair 2-Poor 0-Bad **OR** 0-Very Difficult 2-More Diff. 4-Moderately Diff. 6-Fairly Easy 8-Easy 10-Simple

OR 10-Lowest 8-Lower 6-Low 4-High 2-Higher 0-Highest

2a. Least preferred attribute in each factor is underlined.

2b. Advantages are the differences from the least preferred attribute.

3a. Most important advantage in each factor is **bold**.

3b. Paramount advantage is **bold/underlined**.

3c. Importance of the most important advantage in each factor is relative to the paramount advantage and is shown **bold**.

3d. Importance of each remaining advantage is decided last and is shown standard text format.

CHOOSING BY ADVANTAGES TABLE - Townline Road to CR 651

Project: **Sleeping Bear Heritage Trail**

Prepared For: **Networks Northwest**

Prepared By: Lucas C. Porath, P.E.
OHM-Advisors



Date: April 8, 2019

| FACTOR / CRITERIA | ALTERNATIVES | | |
|---|--------------------------------|--|---|
| | Most Important Advantage Score | Conceptual Segment 4A - Townline to CR 651 | Conceptual Segment 4B - Widened Roadway |
| Cost Considerations | | | |
| Attributes | | <u>\$143,000</u> | \$45,000 |
| Advantages | | \$0 | \$98,000 |
| Importance of Adv. | 30 | 0 | 30 |
| Recreational Experience | | | |
| Attributes | | 9 | <u>1</u> |
| Advantages | | 8 | 0 |
| Importance of Adv. | 100 | 100 | 0 |
| Overall Constructability | | | |
| Attributes | | <u>6</u> | 9 |
| Advantages | | 0 | 3 |
| Importance of Adv. | 85 | 0 | 85 |
| Public Support | | | |
| Attributes | | 8 | 4 |
| Advantages | | 4 | 0 |
| Importance of Adv. | 50 | 50 | 0 |
| Government Support / Political Factors | | | |
| Attributes | | 9 | <u>2</u> |
| Advantages | | 7 | 0 |
| Importance of Adv. | 50 | 50 | 0 |
| Safety | | | |
| Attributes | | 8.5 | <u>2</u> |
| Advantages | | 6.5 | 0 |
| Importance of Adv. | 85 | 85 | 0 |
| Total Importance | | 285 | 115 |

1. Attributes for subjective factors: 10-Excellent 8-Very Good 6-Good 4-Fair 2-Poor 0-Bad OR 0-Very Difficult 2-More Diff. 4-Modertely Diff. 6-Fairly Easy 8-Easy 10-Simple

OR 10-Lowest 8-Lower 6-Low 4-High 2-Highest 0-Highest

2a. Least preferred attribute in each factor is underlined.

2b. Advantages are the differences from the least preferred attribute.

3a. Most important advantage in each factor is **bold**.

3b. Paramount advantage is **bold/underlined**.

3c. Importance of the most important advantage in each factor is relative to the paramount advantage and is shown **bold**.

3d. Importance of each remaining advantage is decided last and is shown standard text format.

Sleeping Bear Heritage Trail Alignment

Alternative Valuation

Extension of existing trail to Traverse Lake Road

Alternative #1- Independent from roadway trail

Pros:

- Continuity from the end of the existing trail
- Safe (55 mph speed limit along M22- speeds go up, attention span of drivers goes down)
- Seamless connection to future trailhead
- Road right-of-way width and adjacent Park property allow for a meandering trail to avoid trees where possible and create opportunities for different views
- High recreational trail experience
- Allows for four season usage
- Fits well into the Sleeping Bear Heritage Trail guiding principles
- Meets universal non-motorized, multi-use accessible design standards

Cons:

- Private property proximate to the corner of Traverse Lake Road and M22 is close or in the road right-of-way and an easement would need to be acquired to avoid a negative situation
- More expensive than widening M22 for bicycle lanes
- Most impact on natural resources by clearing vegetation and altering the scenic quality of the corridor

Alternative #2- Widen M22 to allow for one-way traffic bicycle lanes

Pros:

- Less expensive than an independent trailway
- Eliminates the need for an easement due to the private property on the corner of Traverse Lake Road and M22
- Minimal impact to trees and landscaping along the roadway minimizing impact to the scenic quality of the corridor

Cons:

- MDOT will not permit this option
- Less continuity from the end of the existing trail
- Less safe (55 mph speed limit along M22- speeds go up, attention span of drivers goes down)
- Requires crossings of M22, which is not permissible when other viable options are present
- Limits trail and seasonal users
- Only connection to the future trailhead would be from one direction
- Low recreational trail experience

- Does not fit well into the Sleeping Bear Heritage Trail guiding principles
- Does not meet universal non-motorized, multi-use accessible design standards

Traverse Lake Road from M22 to Bufka Farm Spur

Alternative #1- Independent trail on the north side of the roadway

Pros:

- Safest (40 mph speed limit along the winding Traverse Lake Road as speeds go up, attention span of drivers goes down)
- Best recreational trail experience
- Road right-of-way width and adjacent National Park property allow for a meandering trail to avoid trees and dunes where possible and create opportunities for different views
- Three driveway crossings
- Avoids the utilities and private mailboxes along the south side of the road
- Allows for four season usage
- Fits well into the Sleeping Bear Heritage Trail guiding principles
- Meets universal accessible design
- Least impact on local traffic along Traverse Lake Road

Cons:

- Most impact to the natural resources
- Wall will be necessary in three locations to limit impact to dunes
- Wall will negatively impact views into the Park from the road
- Pedestrian bridge and boardwalk will be necessary within the road right-of-way
- Three driveway crossings
- Dune permit required

Alternative #2- Widen Traverse Lake Road to allow for one-way traffic bicycle lanes

Pros:

- Less expensive than an independent trailway
- Less impact to the dunes and trees (walls still necessary but smaller and not as long)
- Views into the Park from the road not impacted as much compared to Alternative #1

Cons:

- Trail would be the jurisdiction of the County Road Commission and due to the speed limit and sight lines for this option is not likely to be permitted
- Bicyclists will have a lot of interaction with local traffic with poor sight lines, including driveway crossings
- Limits trail and seasonal users
- Low recreational trail experience
- Does not fit well into the Sleeping Bear Heritage Trail guiding principles
- Does not meet universal non-motorized, multi-use accessible design standards
- Will require numerous utility pole and mailbox relocations
- Guardrail will be necessary

- Several trees will need to be removed impacting the scenic quality of the roadway
- Wall will be necessary in two locations to avoid impact to dunes
- Dune permit required

Alternative #3- Shared roadway

Pros:

- Less expensive than other options
- No environmental impact

Cons:

- Trail route lies in the jurisdiction of the County Road Commission and due to the speed limit and sight lines this option will not be recommended to the County Road Commissioners
- Without signage, the trail discontinues
- Less continuity from the end of the existing trail
- Bicyclists will have a lot of interaction with local traffic with poor sight lines
- Limits trail and seasonal users
- Lower recreational trail experiences
- Does not fit well into the Sleeping Bear Heritage Trail guiding principles
- Does not meet universal non-motorized, multi-use accessible design standards
- Roadway will need to be reconstructed and signage installed for the increase of users
- Not competitively grantable for non-motorized trailways

Bufka Farm Spur

Alternative #1- Independent trail diverting from Traverse Lake Road to the backside of the historical Bufka Farm

Pros:

- Entirely on National Park Service land to allow for a meandering trail to avoid trees and where possible and create opportunities for different views
- Provides historical, cultural, educational opportunities
- Best recreational trail experience
- Allows for four season usage
- Fits well into the Sleeping Bear Heritage Trail guiding principles
- Provides universal non-motorized, multi-use accessible design to provide access to a portion of the park that would otherwise be unavailable

Cons:

- Boardwalk will be necessary in locations to limit impact to dunes
- More difficult and time consuming to construct due to access of the trail's site
- Most impact on natural resources
- Does not connect to the Sugar Loaf Mountain neighborhood
- High maintenance costs

Alternative #2- Trail following Traverse Lake Road to M22 and continuing through the open field to the historical Bufka Farm

Pros:

- Entirely on National Park Service land to allow for a meandering trail to avoid trees and where possible and create opportunities for different views
- No dunes to consider within the design
- Provides historical, cultural, educational opportunities
- Allows for four season usage
- Fits well into the Sleeping Bear Heritage Trail guiding principles
- Provides universal non-motorized, multi-use trail accessibility
- Connect to the Sugar Loaf Mountain neighborhood

Cons:

- Aggregate trail surface needed across farm field to preserve historic values
- Lower recreational trail experience
- Lengthy boardwalk necessary to cross wetlands
- Negative impacts to the wetlands
- High maintenance costs

Good Harbor Road

Alternative #1- Independent trail extending down along Good Harbor Road to the designated beach area

Pros:

- Safe (55 mph speed limit along Good Harbor- speeds go up, attention span of drivers goes down)
- Road right-of-way width and adjacent Park property allow for a meandering trail to avoid trees where possible and create opportunities for different views
- High recreational trail experience
- Allows for four season usage
- Fits well into the Sleeping Bear Heritage Trail guiding principles
- Meets universal non-motorized, multi-use accessible design standards

Cons:

- Currently there is no Environmental Assessment for a trail along Good Harbor and this would have to be conducted prior any decisions
- Most impact on natural resources by clearing vegetation and altering the scenic quality of the corridor
- Wetlands requiring boardwalk
- Several cross culverts bisecting the road will need to be extended to accommodate the trail

Alternative #2- Widen Good Harbor Road to allow for one-way traffic bicycle lanes

Pros:

- Less expensive than an independent trailway
- Less impact to the wetlands
- Views into the Park from the road not impacted as much compared to Alternative #1

Cons:

- Limits trail and seasonal users
- Low recreational trail experience
- Does not fit well into the Sleeping Bear Heritage Trail guiding principles
- Several cross culverts bisecting the road will need to be extended to accommodate the trail

Alternative #3- Shared roadway

Pros:

- Less expensive than other options
- No environmental impact

Cons:

- Without signage, the trail discontinues

- Less continuity from the end of the proposed trail
- Bicyclists will have a lot of interaction with local traffic
- Limits trail and seasonal users
- Low recreational trail experiences
- Does not fit well into the Sleeping Bear Heritage Trail guiding principles
- Does not meet universal non-motorized, multi-use accessible design standards
- Roadway will need to be reconstructed and signage installed for the increase of users
- Several cross culverts bisecting the road will need to be extended to accommodate the trail
- Not competitively grantable for non-motorized trailways



4 Recommendation

This design and consensus developing process leads to the recommendation by OHM Advisors of a proposed trail alignment. This section of the report contains a map of the proposed route and its cost estimate.



Sleeping Bear Heritage Trail Recommended Route

Trail Route

10' Wide HMA Trail

14' Crushed Limestone Trail

Boardwalk

Potential Future Spur

Shared Roadway

Existing SBHT

National Wetlands Inventory

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Critical Dunes

NPS Property

Wilderness Boundary

N

0

1,000

2,000

Feet

1" = 1,500'

The map displays the Sleeping Bear Heritage Trail Recommended Route, showing various trail alternatives, wetlands, and roads. Key features include:

- Trail Route:** 10' Wide HMA Trail (black line), 14' Crushed Limestone Trail (brown line), Boardwalk (green line), Potential Future Spur (yellow dashed line), Shared Roadway (yellow line), Existing SBHT (green line).
- National Wetlands Inventory:** Freshwater Emergent Wetland (light green), Freshwater Forested/Shrub Wetland (dark green), Freshwater Pond (blue), Riverine (light blue), Critical Dunes (orange), NPS Property (white), Wilderness Boundary (purple).
- Map Labels:** National Park Service Boundary, Lake Michigan Rd, CR-669, Bohemian Rd, Existing Trail, Extension of Existing Trail to Traverse Lake Road Alternate #1 - Independent from Roadway Trail, Potential Trailhead and Parking Lot, Potential Easement, Traverse Lake Road from M22 to Bufka Farm Spur Alternate #1 - Independent from Roadway Trail, Potential Retaining Wall, Bufka Farm Spur Alternate #1 - Independent Trail Diverting from Traverse Lake Road to the Backside of Historic Bufka Farm, Bufka Farm Site Access, Manitou Trail, Good Harbor Trail, Good Harbor Bay Beach, Alternative #3 Shared Roadway, Wilderness Boundary, Overby Rd, CR-651, E Weaudeg Ln, Eitzen Rd, Swanson Trl, Ridgecliff Trl, Lakeview Dr, Mountain View Trl, Townline Rd, Sugar Maple Dr, Birch Ct, Red Ct, Linden Ct, Beech Ct, Wing Foot Dr, Skiview Cir, S County Club Dr, S Lime Lake Rd, W Harbor Hwy, Bartunek Rd, Maple City Rd, Bluff Ln, E Sugar Loaf Mountain Rd, Shady Ln, Shady.

Source: Data provided by Leelanau County, State of Michigan, National Parks Service, and ESRI Online Living Atlas. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan Central FIPS 2112 Feet
Map Published: September 10, 2019

8/18/2019 10:50 AM Sleeping Bear Heritage Trail, OHM, Version 1.0, 8/18/2019, 10:50 AM, Preliminary Design, Not for use



OPINION OF PROBABLE CONSTRUCTION COST

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

Telephone: (734) 522-6711 FAX: (734) 522-6427

PROJECT: Sleeping Bear Heritage Trail
LOCATION: Leelanau County, Michigan
WORK: Construction of a non-motorized multi-use trail.
Segments 1-3

DATE: August 29, 2019
PROJECT #: 7786180010
ESTIMATOR: KCB
CHECKED BY: SLW
CURRENT ENR:

| ITEM CODE | DESCRIPTION | UNIT | TOTAL | UNIT PRICE | COST |
|--|--------------------------------------|------|--------|--------------|------------------------|
| 1500001 | Mobilization, Max. 10% | LSUM | 1 | \$478,037.00 | \$ 478,037.00 |
| 2017002 | Clearing | Sta | 25 | \$ 150.00 | \$ 3,750.00 |
| 2020002 | Tree, Rem, 19 inch to 36 inch | Ea | 47 | \$ 1,000.00 | \$ 47,000.00 |
| 2020004 | Tree, Rem, 6 inch to 18 inch | Ea | 253 | \$ 500.00 | \$ 126,500.00 |
| 2050010 | Embankment, CIP | Cyd | 2658 | \$ 7.00 | \$ 18,606.00 |
| 2050016 | Excavation, Earth | Cyd | 12303 | \$ 10.00 | \$ 123,030.00 |
| 2080036 | Erosion Control, Silt Fence | Ft | 10149 | \$ 2.00 | \$ 20,298.00 |
| 3010002 | Subbase, CIP | Cyd | 941 | \$ 20.00 | \$ 18,820.00 |
| 3077011 | Aggregate Base, 6 inch, Modified | Syd | 289 | \$ 15.00 | \$ 4,335.00 |
| 3077011 | Aggregate Base, 8 inch, Modified | Syd | 21674 | \$ 12.00 | \$ 260,088.00 |
| 3077011 | Shoulder, CI II, 4 inch, Modified | Syd | 4881 | \$ 12.00 | \$ 58,572.00 |
| 5017031 | HMA, Driveway | Ton | 55 | \$ 100.00 | \$ 5,500.00 |
| 8030010 | Detectable Warning Surface | Ft | 24 | \$ 40.00 | \$ 960.00 |
| 8030036 | Sidewalk Ramp, Conc, 6 inch | Sft | 1323 | \$ 10.00 | \$ 13,230.00 |
| 8060010 | Shared use Path, Aggregate | Ton | 115 | \$ 25.00 | \$ 2,875.00 |
| 8060030 | Shared use Path, Grading | Ft | 22965 | \$ 10.00 | \$ 229,650.00 |
| 8060040 | Shared use Path, HMA | Ton | 3577 | \$ 85.00 | \$ 304,045.00 |
| 8070000 | Guardrail, Type B | Ft | 550 | \$ 15.00 | \$ 8,250.00 |
| 8070010 | Guardrail, Curved, Type B | Ft | 706 | \$ 20.00 | \$ 14,120.00 |
| 8070042 | Guardrail Approach Terminal, Type 2B | Ea | 4 | \$ 2,500.00 | \$ 10,000.00 |
| 8070050 | Guardrail Departing Terminal, Type B | Ea | 4 | \$ 500.00 | \$ 2,000.00 |
| 8070080 | Guardrail Reflector | Ea | 51 | \$ 6.00 | \$ 306.00 |
| 8070095 | Post, Mailbox | Ea | 1 | \$ 75.00 | \$ 75.00 |
| 8100130 | Delineator Reflector | Ea | 3 | \$ 5.00 | \$ 15.00 |
| 8100350 | Post, Delineator | Ea | 3 | \$ 2.50 | \$ 7.50 |
| 8100370 | Post, Steel, 2 lb | Ft | 84 | \$ 7.50 | \$ 630.00 |
| 8100380 | Post, Wood, 4 inch by 6 inch | Ft | 28 | \$ 20.00 | \$ 560.00 |
| 8100404 | Sign, Type IIIA | Sft | 4 | \$ 40.00 | \$ 160.00 |
| 8120140 | Lighted Arrow, Type C, Furn | Ea | 1 | \$ 1,000.00 | \$ 1,000.00 |
| 8120141 | Lighted Arrow, Type C, Oper | Ea | 1 | \$ 100.00 | \$ 100.00 |
| 8120170 | Minor Traf Devices | LSUM | 1 | \$ 10,000.00 | \$ 10,000.00 |
| 8120250 | Plastic Drum, High Intensity, Furn | Ea | 50 | \$ 15.00 | \$ 750.00 |
| 8120251 | Plastic Drum, High Intensity, Oper | Ea | 50 | \$ 1.50 | \$ 75.00 |
| 8120370 | Traf Regulator Control | LSUM | 1 | \$ 1,000.00 | \$ 1,000.00 |
| 8167011 | Turf Establishment, Performance | Syd | 177861 | \$ 3.00 | \$ 533,583.00 |
| 8257001 | Boardwalk | Ft | 1827 | \$ 735.00 | \$ 1,342,845.00 |
| 8257001 | Sheet Pile Wall | Ft | 2138 | \$ 750.00 | \$ 1,603,500.00 |
| 8257050 | Guy Wire, Relocate | Ea | 5 | \$ 100.00 | \$ 500.00 |
| 8357012 | Trail Easement | Acre | 0.22 | \$ 62,000.00 | \$ 13,640.00 |
| | | | | | \$ 5,258,412.50 |
| TOTAL OPINION OF PROBABLE CONSTRUCTION COST = | | | | | \$ 5,258,412.50 |



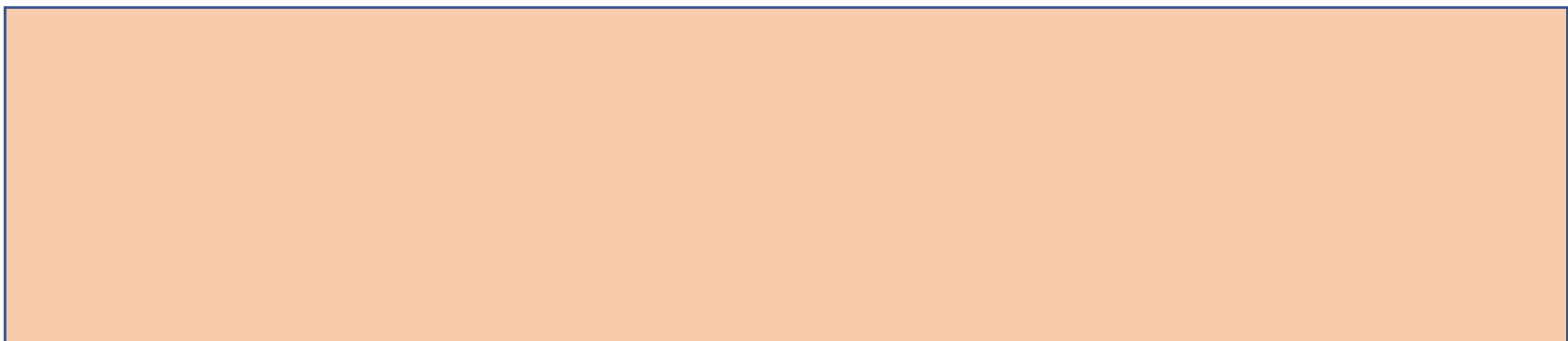
5 Public Meeting #2

The second public meeting for this project took place on Tuesday, September 10, 2019, at a regularly scheduled Cleveland Township meeting. This meeting was designed to introduce the recommended trail route to the public. After a quick presentation of the study process and the proposed alignment, residents and trail users offered the opportunity to react to the study's findings and recommendations. The Township Board voted to accept the proposed route with the understanding that permits, and grants must be acquired.

Included within this section are:

- Open house presentation
- Township Board Agenda
- Township Board Minutes

The PowerPoint found within this section was again used at a regularly scheduled meeting of Centerville Township by representatives from Networks Northwest.



Sleeping Bear Dunes Heritage Trail

CR 669 to CR 651 Trail Extension

Recommendation Presentation



Project Review



The Study Group Members

1. Centerville Township
2. Cleveland Township
3. National Park Service*
4. Leelanau County Road Commission*
5. Michigan Department of Transportation*
6. Little Traverse Area Property Owners Association
7. Friends of the Sleeping Bear Dunes
8. TART Trails

- Decision-Making Authorities

Facilitation by Networks Northwest
Design Consultants OHM Advisors

Trail Planning Process

1. Compile existing data, including but not limited to:
 - Wetlands
 - Dunes
 - Streams and natural buffer systems
 - Topography
 - Soils
 - Road right-of-way
 - Property lines
 - Trail Plan and Environmental Assessment
2. Solicit input from residents and trail users.
3. Identify and evaluate viable route alternatives using the data collected.

Sleeping Bear Heritage Trail Preliminary Routes



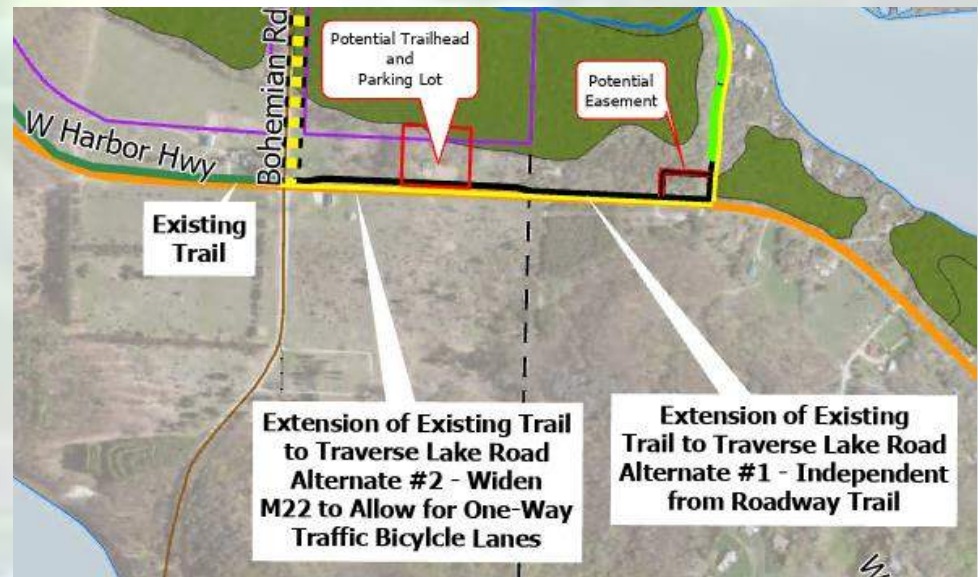
Trail Design Considerations

M22: CR 669 to Traverse Lake Road

Alternate #1- independent trail.



Alternate #2- widened shoulders.



Trail Design Considerations

Traverse Lake Road



Alternate #1- independent trail.



Alternate #2- widened shoulders.

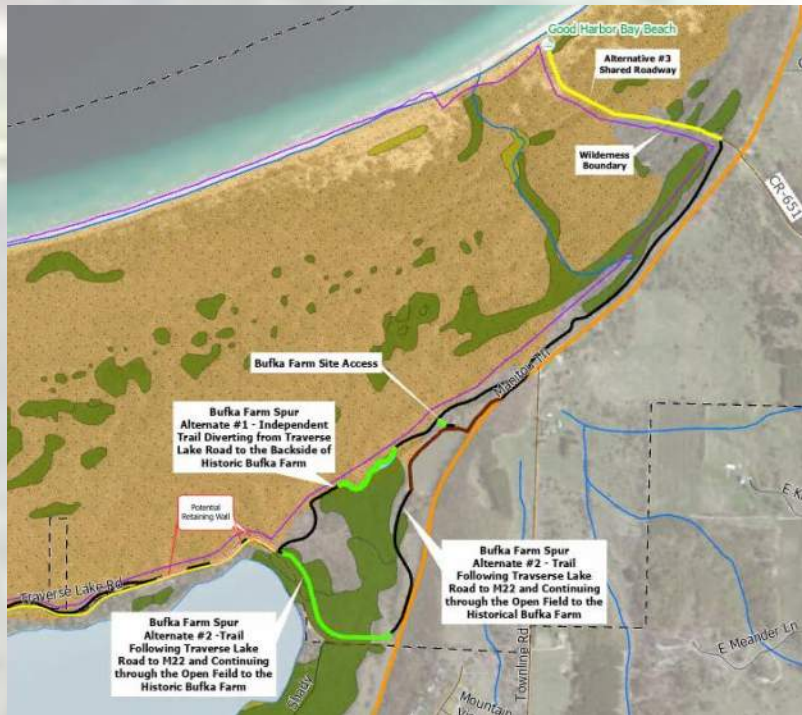


Alternate #3- share road.



Trail Design Considerations

Bufka Farm Cut



Alternate #1 and #2 include varying lengths of boardwalk and independent trail. Alternate #2 includes a portion of crushed aggregate surface.

Trail Design Considerations

Good Harbor Road



Alternate #1- independent trail.



Alternate #2- widened shoulders.



Alternate #3- share road.



Basis of Recommendation

1. Safety
2. Recreational experience for trail users
3. Cost
4. Environment:
 - a. Dunes;
 - b. Dune permitting with the Michigan Critical Dunes Protection Act;
 - c. Wetlands.
5. Private property impacts
6. National Environmental Policy Act. A trail can only be placed within an area where an Environmental Assessment Statement has been conducted, and this project's Environmental Assessment Statement is designated from CR 669 to CR 651 and states a trail must be located outside the designated wilderness area which shall be:
 - a. The first 100' from the centerline of adjacent county roads; and
 - b. 300' from the centerline of adjacent State highways
7. State Historical Preservation Office
8. Access to areas within the designated recreational zone of the National Park
9. Trail's Mission and Vision Statement.
10. Permittable.

Cleveland Township Board

Leelanau County

Maple City, MI 49664

Regular Meeting of Tuesday, September 10, 2019

AGENDA

1. Call to Order
2. Roll Call
3. Approval of the August 13, 2019, Regular Meeting Minutes as presented-
4. Consideration of the Agenda
5. Public Comment on the Agenda
6. Reports:
 - a. Supervisor
 - b. Clerk
 - c. Treasurer
 - d. Planning Commission
 - e. Zoning Administrator
 - f. Zoning Board of Appeals
 - g. Maintenance
 - h. Assessor
 - i. Other Members
7. Old Business
 - a. Update on 4 Township Fire/Emergency Department- Cedar Area Fire & Rescue- Review R. Royston report
8. New Business
 - a. Review SBHT Proposed Recommended Route for Segment 9, and Support Documentation- T. Stein, Networks Northwest, OHM Design/Engineering
 - b. Payment of Bills
 - c. Correspondence
9. Open Forum- Public Comment
10. Adjournment

Regular Meeting of the Township Board
Tuesday, September 10, 2019
Cleveland Township Hall

Supervisor Stein called the meeting to order at 7:00 pm. Present on roll call were Bill Olsen, Todd Nowak, Tim Stein, Jan Nowak and Angie Diotte. Present from the public were Eric Carlson, Dave Kammerer, Rose Kammerer, Cookey Currier, Nello Valentine III, Nancy Mueller, Doug Verellen, Linda Verellen, Beth Stephens and Jim Stephens, Tom Sutter, Marnie Sutter, Tom Lauer, Karen Lauer, Nora Bumb, Charlie Bumb, Kathy Marceniak, Fay Dlouhy Isaacson, Frank Clark, Neal Neese, Randy Burns, Cheri Burns, Coco Newton, Holly Webster, Kris Rea, Peter Rea, Wadsworth, Bill Skaff, Steve Fisher, Linda Fisher, Todd Gilmer, Charles Carr, Jim Massaroni, Gwenn Allgaier, Michael Robinson, Audrey Kraemer, and Conrad Mason.

Approval of August 13, 2019, Regular Meeting Minutes – Tim recommended an amendment to the motion regarding the airstrip off Nemeskal Road more accurately reflect the discussion the Board had on this issue. The amended motion to read as follows: Motion by Todd Nowak that the Cleveland Township Board on legal recommendation consider the private airstrip off Nemeskal road a closed discussion issue, and allow it to continue as a non-complying usage until zoning amendments are adopted by the Planning Commission that specifically address private airports.

Motion by Todd Nowak and seconded Bill Olsen to approve August 13, 2019 regular meeting minutes as amended. Ayes: 5, Nays: 0. Motion carried.

Supervisor's Report – Tim stated that there was a meeting in August with himself, the clerk, Bruce Buchan and attorney Tim Figura to discuss how better to define our nuisance ordinance to more specifically address unsafe environments and/or junk.

Clerk Report – Jan stated that Windows 7 is no longer being supported through Microsoft due to this the Election Bureau is requesting that all EPB (Electronic Poll Books) be upgraded to Windows 10. The current laptop used for elections is over 10 years old. I have discussed things with Mike from Sleeping Bear Computers and he is recommending purchasing a new laptop for a cost of approximately \$600, this includes purchase of new computer and set up. This laptop is used exclusively for elections. Mike is also going to upgrade my desktop so it is also in compliance with the new operating system.

Motion by Tim Stein and seconded by Todd Nowak to approve the purchase of a new laptop to be used for elections and to update the Clerk's database for the cost of up to \$750. Ayes: 5, Nays: 0. Motion carried.

Jan stated that she would like to schedule an election commission meeting for October 8 prior to the regular scheduled Board meeting at 6:30 pm. Tim Stein and Angie Diotte are in agreement. Election Commission meeting scheduled for October 8.

Treasurer's Report –

| | |
|---------------|--------------|
| Revenue | \$ 12,077.39 |
| Disbursements | \$ 9,772.65 |
| Bank Balance | \$341,132.79 |

Tim confirmed that the balance includes the \$125,000 for the culver work on 669.

Motion by Jan Nowak and seconded by Tim Stein to accept Treasurer's report as presented. Ayes: 5, Nays: 0. Motion carried.

Angie stated that Chase Bank is closing in Cedar on October 24. Tim stated that the Board would look forward to Angie's recommendation at the October meeting of either staying with Chase or other options.

Planning Commission Report – Todd stated that on September 4 a public hearing was held. The proposed amendment to Article IV General Provisions, Section 4.16(a)(viii) has been sent to Trudy at the Leelanau County Planning Commission for review. Todd stated at the regular meeting Dean stated that he spoke with attorney Tim Figura and he would provide feedback before the October meeting. Next month we are working on the barn wedding venue issue. Todd stated that Dean asked the board for a nod from the board to go forward with a short-term rental ordinance.

Tim stated that it was fine to go forward but to make sure to prioritize the matters.

Zoning Administrator's Report – Bruce stated that four permits were issued for approximately \$900,000 this month. No complaints. He has been clearing multiple contacts regarding short-term rentals and wedding venues.

Zoning Board of Appeals Report – Bill stated that there is a Public Hearing scheduled for October 7 at 6:30 pm.

Maintenance Report – Tim stated that the dock and port-a-potty would be removed the beginning of November. Tim also stated that the water can be shut off at the cemetery on November 1.

Assessor Report – None

Other members – None

Old Business –

Review/Update Cedar Area Fire and Rescue – Rick stated that last spring Cedar Area Fire and Rescue along with Blair Township, Leelanau Township and Leland Township applied for a regional grant through FEMA to update the breathing apparatuses. The grant has been approved. This will save the fire department approximately \$114,000. Rick also stated that the Fire Chief has done a great job and has been working hard to find money and live within the budget. Rick thanked the crowd for their support.

Tim Asked when to expect the new breathing apparatuses. Rick stated that it was probably about 4-5 months out.

New Business –

Review Sleeping Bear Heritage Trail Proposed Recommendation Route for Segment 9, and Supporting Documentation - Tim recapped the matter from the beginning of the process. OHM was hired after the bid process and is here tonight to make a presentation. OHM with the public input began working on this project and has come up with a proposed route for Segment 9. Tim pointed is going to break with normal protocol and will allow for 10 minutes of public questions after the presentation.

Lucas and Vanessa from OHM presented a power point showing the 3 different options they have looked at. Study group members were Centerville Township, Cleveland Township, the National Park Service, Leelanau County Road Commission, Michigan Department of Transportation, Little Traverse Lake Property Owners Association, Friend of Sleeping bear and TART. Discussed what they used in the trail planning process.

Looked at three different options with Traverse Lake Road, independent trail, shared trail, and shared roadway. Basis if recommendation - safety, recreational experience for trail users, cost, environment, private property impacts, State Historical Preservation Office, Access to areas within National Park, Trails Mission and vision statement, permissible, and National Environmental Policy Act (first 100' from centerline to adjacent county roads and 300' from centerline of adjacent state highways.) Recommendation includes for Environmental Assessment for a possible trail extension on CR 669 to Lake Michigan and for an independent trail running on the west side of Good Harbor Road. With the trail meandering along Little Traverse Lake Road, walls would have to be built to preserve the dunes. Shared road was not going to be permitted by the Leelanau County Road Commission, option off the table. Best option is an independent trail, tucking it into the park. Environmental assessment has not been conducted on 651 to Good Harbor Beach. Also recommend a later environmental assessment for a future spur from M22 down 669 to Lake Michigan.

Tim opened up for public comment.

When is it going to be done - next step is to apply for grants for construction.

Conrad – Is a Little Traverse Lake Property Owner Association board member - support plan but is a dissenting vote. Park Service qualified the environmental impact. Asked about shoulder size - Vanessa explained that there has to be a 2 foot fall zone. It would vary throughout the trail.

Holly - Interested in trail going down 669 and why is that not sufficient? Why can't that be the terminating point? Township Board to look at the impact of the road.

Nancy - why would the option be picked that is the most expensive and the most impact to the environment? States that wilderness from Little Traverse Lake Road to Lake Michigan is designated as wilderness. Vanessa states that the shared road was taken off the table.

Tom Sutter – states that the trail gorgeous. Let's get it done so we can enjoy it. Why are we battling over this? It's off the road and it's off all our properties.

Nancy - how many trees are coming down? Vanessa states that no number has been set. Cost per mile? Lucas states that it is a little over a million dollars a mile.

Nello - what would the trail look like at the corner of Little Traverse Lake? –Vanessa states that there would be a wall system to protect the dunes. Nello asked if they would need a critical dune permit. Vanessa stated yes, a permit would need to be approved.

Bruce – What are the assurances from State of Michigan that they will be allowed to cut into the dunes? Once dunes are hacked up they are hacked up.

Total cost to date? Percentage of time to look at alternatives? Vanessa - not aware of the total cost-to-date.

Todd – I am a member of the Planning Commission and it is part of the Master Plan to protect dunes and wetlands. I do not feel it is a viable option but the trail should go down 669.

Angie agreed with Todd about the impact to the environment.

Tim stated that the Board has an opportunity to make a decision about this route. The money will need to be raised by private sources, and an environmental study needs to be conducted regarding 651. The other option is to put this matter on hold until the October meeting.

Bill - they will raise the money.

Todd if we don't support are we out of it in regards to overseeing the project? Would it be taken off the table?

Angie - should postpone.

Jan asked that if by postponing until October all it is doing is delaying the fundraising, and looking into permits? This is not going to stop the trail planning from going forward. Vanessa stated that is correct. Jan stated she thinks we should go forward with the resolution.

Motion by Jan Nowak and second by Bill Olsen to support a resolution as follows:

Whereas, the Township through its representation in a study group has had input in the recommendations for an alignment between CR 669 and CR 651, including the

recommendation of pursuit of formal connection to Shalda Creek Trailhead on CR 669;

Whereas, the necessary permits can be secured for the recommended alignment of trail between CR 669 and CR 651;

Whereas, the private funding efforts used on previous sections of the Sleeping Bear Heritage Trail will be applied in future design and development of the Sleeping Bear Heritage Trail between CR 669 and CR 651;

Now, therefore, be it resolved that the Cleveland Township Board; (1) Supports and prioritizes the recommendation to pursue design of a trail extension north on CR 669 to Shalda Creek; (2) Supports the recommended alignment for the Sleeping Bear Heritage Trail through Cleveland Township as follows: Segment 1: Independent trail on the north side of M22 from exiting trail to Little Traverse Lake Road; Segment 2: Independent trail on north side of Little Traverse Lake Road from M22 to the Bufka Farm Spur; Segment 3: Independent trail diverting from Little Traverse Lake Road to the backside of the Bufka Farm.

Roll call vote: Bill - Aye, Todd - Aye, Tim - Aye, Jan – Aye, and Angie - Aye. Resolution passed.

Motion by Bill Olsen for payment of the bills and seconded by Angie Diotte. Ayes: 5, Nays: 0. Motion carried.

Correspondence – None

Public forum – public comment was held

Doug - have property on E. Traverse Lake Road, also a park service supporter, on Little Traverse Lake Property Owners Association and on a committee for the trail. I was voice of dissent. They never spent that much time on the criteria - never really looked at the environmental impact. Avid trail user - park service to open the park would make perfect sense to go down Bohemian Road. No proof of high public demand. Is it important to get people in wilderness or drive them right through it?

Len - public funds why would that preclude the trail. Tim stated that there will be no funding from the township.

Mike - I think the trail they have done so far is great. Just putting that in respect to what the power line company did to his property.

Gwenn - a shared road is not an option but the trail through the woods would be a beautiful trail.

David - trail going 20' from my front porch. Nothing has changed from this proposal than what has been made in the past. The township has an input in making decisions. It does not support a plan for development. Thinks it is a shame that the board is endorsing and is short-sighted. Access to Sugar Loaf - Bufka provides no access to residential property.

Marnie - Thanked the township board for its support of this proposal. As resident of this township for 45 years, I will find a lot of use of this trail.

Nancy - thought we should have waited a month to make a decision.

**Motion by Todd Nowak and seconded by Bill Olsen to adjourn meeting at 8:15 pm.
Ayes: 5, Nays: 0. Motion carried.**

Jan Nowak, Clerk

Approved by Tim Stein, Supervisor

Leelanau County Road Commission

NOTICE OF MEETING

A rescheduled regular meeting of the Leelanau County Road Commission Board of Commissioners will be held at 1:00 PM on Tuesday, September 17, 2019 at the Road Commission office in Suttons Bay

(Please silence cellular/electronic devices)

Agenda – As Approved

Pledge of Allegiance

Call to Order/Notation of Quorum

Approve Agenda

Approve Minutes from September 3, 2019 regular meeting.

Public Comment:

Appointment:

- 1:03 P.M. with Networks Northwest Community Planner Elizabeth Calcutt: present proposed route of the next phase of the Sleeping Bear Dunes Heritage Trail: from CR-669 to CR-651.
 - o Motion authorizing Manager to issue/approve future permit application request for portions of the Heritage Trail to be constructed within the Traverse Lake Road and Good Harbor Trail road right of ways provided the route stays the same as what was presented at today's meeting.

Communication Items:

- Letter dated September 9, 2019 from Diana Terrell asking the Road Commission to consider installing a traffic light at the M-72/CR-651 intersection.

Staff Reports:

Old Business:

- Motion to amend Dalton/First Street ROW permit approval: amend original motion to remove requirement to record permit with Leelanau County Register of Deeds per recommendation from Road Commission's legal counsel.

New Business:

- Request to amend Administrative Employee handbook – Kelenske.
- Approve Resolution 19-03: Leelanau County Road Commission Board express concerns with recent Ironman event which cut off access to and from Leelanau County along M-72 corridor.
- Motion to re-schedule either October 1st or October 15th meeting dates as quarterly night-time meeting.
- Motion authorizing Manager to exceed this year's 34CS-Slag quantity: purchase additional stockpiling for next year's seal coat operation.

Public Comment:

Commissioner Comments:

Adjourn

**CENTERVILLE TOWNSHIP
(LEELANAU COUNTY)
CEDAR, MICHIGAN 49621**

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Centerville Township Resolution # 2019 - 09

Whereas the Centerville Township Board of Trustees has been on the record in the past supporting the Sleeping Bear Heritage Trail as an important community asset and

Whereas the township through its representation in a study group of local stakeholders, including Cleveland Township, the Leelanau County Road Commission, the Michigan Department of Transportation, the National Park Service, TART Trails and others, has had input in the determination of the trail route in Centerville Township,

Now, therefore, be it resolved that the Centerville Township Board of Trustees supports the recommended alignment for the Trail from County Road 669 to County Road 651 presented to the board as the following:

- Segment 1: Independent trail on the north side of M22 from existing trail to Traverse Lake Rd
- Segment 2: Independent trail on the north side of Traverse Lake Rd from M22 to the Bufka Farm Spur
- Segment 3: Independent trail diverting from Traverse lake Rd to the backside of the Bufka Farm
- Segment 4: Shared roadway along CR 651/Good Harbor Trail.

And be it also resolved that the Centerville Township Board of Trustees supports, with appropriate study and environmental assessment, a future independent trail running on the west side of CR651/Good Harbor Trail from the Bufka Farm Spur to Lake Michigan.

The foregoing resolution offered by Township Board member Schwantes and supported by Township Board member Pleva.

Upon roll call vote, the following voted:

Hubbell: Yes Pleva: Yes Schaub: Yes Schwantes: Yes Wurm: Yes

The Township Clerk declared the resolution carried Ayes=5, No=0.



David Wurm, Clerk Date: 9-11-2019

**CENTERVILLE TOWNSHIP
(LEELANAU COUNTY)
CEDAR, MICHIGAN 49621**

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**Centerville Township Regular Monthly Board Meeting Minutes
September 11, 2019 at 7:00PM
Centerville Township Hall**

Call to Order: Schwantes called the meeting to order at 7:00PM.

Members Present: Board Members present were James Schwantes, David Wurm, Katrina Pleva, Dan Hubbell, & Ronald Schaub.

Others Present: Justin Kelenski, Darlene Doorlag, Chris Comeaux, Tom Ulrich, Elizabeth Calcutt, & Julie Clark.

Public Comment: Chris Comeaux was present to give a fire department update. The new ambulance is currently in Traverse City getting artwork and will be in-service on September 24, 2019. The Union has agreed to transition their health insurance plan from a PPO to a HMO which will be a savings moving forward. The traditional PPO plan did not allow for a Health Saving Account (HSA) which will allow savings to the department and the employee. Our current staffing is stable with the addition of a new member and a member out on medical leave. Grant funding on a new engine is pending. A regional grant for new air packs was granted for 15 sets valued at \$200,000+ with an estimated \$14,000 cost the department. Chief Comeaux has commented that he is conducting training exercises at Sugar Loaf. Schwantes (& the board) offered their appreciation for the Chief's hours spent covering open shifts due to employee medical leave.

Approve Agenda:

Add 13.2 Snow Plowing.

Motion to approve agenda by Pleva, seconded by Hubbell. Agenda approved.

Approval of Minutes for August 14, 2019:

Leelanau County Commissioner Report should read: Patricia Soutas-Little reported that the Solid Waste Council requested using the Government Center campus as a temporary recycling center site be placed on the BOC agenda for discussion. Their hope was the Government Center could be utilized until a permanent site for Leland Township could be found. (As it turns out this action item was rejected on a 4/3 vote).

Motion by Hubbell to approve the August 14, 2019 minutes with changes, seconded by Schaub. Ayes=5, No=0, Motion carried.

Motion by Schwantes to pay township invoices, seconded by Schaub. Ayes=5, No=0, Motion carried.

Treasurer's Report: Township Chase Tax Fund Checking \$1,530.42, Chase HI Yield Savings \$5,144.67, Chase Business Savings \$5,030.04, Chase Commercial Checking \$114,799.12, and Chemical Bank CD is \$27,494.41, Honor Bank CD's are \$25,821.06 & \$35,751.69, with combined CD's of \$89,067.69. General Fund balance is \$21,384.74.

Schwantes stated that next month we will review quarter reports. We will review our November 30 balances in December as this will be our lowest level of funding.

Motion by Hubbell to accept the treasurer's report as presented, seconded by Schaub. Ayes=5, No=0, Motion carried.

Motion by Hubbell to accept the Leelanau County L-4029 tax rate request to be signed by Schwantes & Wurm, seconded by Schaub. Ayes=5, No=0, Motion carried.

Schwantes will email the form to the Equalization Department.

Correspondence/Communication: Schwantes said he was contacted by the new sexton for the Swedish Cemetery and directed him to the Register of Deeds. The “Emily” FOIA notification with regards to the new FOIA Policy has mailed/mailed. Under the new policy they have 48 days to respond or the FOIA will be considered closed. Patricia Soutas-Little requested time for a representative from the Early Childhood Committee to speak on the millage request on the November ballot.

Assessor’s Report: Assessor was not present.

Sleeping Bear Heritage Trail: The township through its representation in a study group of local stakeholders, including Cleveland Township, the Leelanau County Road Commission, the Michigan Department of Transportation, the National Park Service, TART Trails and others, has had input in the determination of a trail route in Centerville Township.

Motion by Schwantes for approval of Resolution 2019-09 Centerville Township Board of Trustees supports the recommended alignment of the trail from CR-669 to CR-651 and, with appropriate study and environment assessment, a future independent trail running on the west side of CR-651, seconded by Pleva.

Roll Call Vote:

Hubbell=Yes, Pleva=Yes, Schaub=Yes, Schwantes=Yes, Wurm=Yes

Ayes=5, No=0, Motion carried.

Zoning Administrator (ZA) Report: Two Land Use Permits & no Land Divisions/Property Line adjustment requests were made in August. The resident on Lake Shore Drive has been granted an extension to his August 3rd deadline to Nov 1st to come into compliance with a Land Use Permit due to family health hardships. Camping on Skyline Drive is being monitored.

Planning Commission (PC) Activities/Comments:

The regular PC meeting was held on August 26, 2019. Board Representative Dan Hubbell reported that the Zoning Ordinance amendments are being completed in October/November. The next regular PC meeting will be held on September 23, 2019 at 6:30pm at the Township Hall.

Cedar Area Fire & Rescue: Chris Comeaux was present for public comment to update the board. The next meeting is scheduled for Thursday, September 19th at 7PM at the Cedar Fire Hall.

Board – Unfinished Business:

Deputy Clerk & Deputy Treasurer: Wurm is working to provide a list of responsibilities delegated to his deputies to have them properly trained in the event of his absence. Deputy Treasurer continues to learn the role of the Treasurer. Schwantes will note that the township is looking for a deputy clerk, and possibly a deputy treasurer, in the newsletter.

Township Hall: The window was replaced but it was discussed that none of the windows have ever been painted and are all badly deteriorated. The board is considering replacing all 8 windows in future budget years. Exit signs and smoke detectors are being planned.

Roads: Justin Kelenski was present to discuss the county & township roads. He is looking to develop a 2 year plan using a compiled list of county roads including township roads that need to be improved. Schwantes gave an overview of how Centerville Township plans its road audit. Amore Road continues to be a priority as well as the Sugar Loaf Chalets. The road pacer scale road report for Centerville Township is available on the web site.

Motion by Schwantes to make the following roads the township’s 2019-20 priorities for planning and budgeting purposes: the Chalet subdivision, Amore Road, Schomberg Rd from Fabiszak to Popa, Kabat from Galla to Lake Shore Drive, and the Ski View subdivision, seconded by Hubbell. Ayes=5, No=0, Motion carried.

Board – New Business:

2006 Fuel Oil Spill at Hall: The Board is pleased to announce we have received approval of the “No Further Action” (NFA) Report for our 2006 Fuel Oil Spill at the Hall from the Department of Environment, Great Lakes, and Energy (EGLE).

Snow Plowing: Schwantes will be contacting SOS to do the snow plowing at the Hall for the upcoming 2019-2020 season.

Leelanau County Commissioner Report: Patricia Soutas-Little reported that the Load Capacity Analysis Study for the County-owned Towers has been completed and the Internet Service Providers are loading equipment on the towers. Fixed Wireless high-speed service will be available to communities that are underserved soon. Grand Traverse Band is continuing to lay fiber in various locations around the county and is examining how they can serve the County with high speed service. The motion to utilize the Government Center Campus as a temporary recycling center failed 4/3. The Solid Waste Committee will be working with the Leland Township board to explore alternatives. Again this year the Board of Commissioners (BOC) passed a resolution setting October 1st as Indigenous Peoples Day at the September 10, 2019 BOC meeting. Celebration of our Native American neighbors will be held on Oct 1st, at the GTB Eyawing Museum and Cultural Center. Time is 6:30PM with a social half hour with the program beginning at 7:00PM.

Next Regular Township Board Meeting:

The next regular township board meeting will be held Wednesday, October 9, 2019 at 7PM at the Centerville Township Hall.

Public Comment: None.

Adjourn: Meeting adjourned at 8:18PM.

David Wurm - Township Clerk

CENTERVILLE TOWNSHIP
Monthly Check Journal with Totals Sorted by Check#
Augst 15, 2019 to Sept 11, 2019 prepared by David Wurm

| Type | Date | Num | Name | Memo | Account | Debit | Credit |
|-----------------|------------|------|--|---|--|-----------------|----------|
| Paycheck | 09/11/2019 | EFT | DANIEL HUBBELL (TRUSTEE) DANIEL HUBBELL (TRUSTEE) | BD MTG BD MTG | 015 - CHASE CHECKING GEN FUND 2769 101-701 - Adm Wages | 100.00 | 92.35 |
| | | | | | | 100.00 | 92.35 |
| Paycheck | 09/11/2019 | EFT | DAVID D WURM (CLERK) DAVID D WURM (CLERK) | 1-MO CLERK SALARY 1-MO CLERK SALARY | 015 - CHASE CHECKING GEN FUND 2769 215-701 - Wages | 1,316.67 | 1,215.93 |
| | | | | | | 1,316.67 | 1,215.93 |
| Paycheck | 09/11/2019 | EFT | JAMES SCHWANTES (SUPERVISOR) JAMES SCHWANTES (SUPERVISOR) | 1-MO SUPERVISOR SALARY 1-MO SUPERVISOR SALARY | 015 - CHASE CHECKING GEN FUND 2769 171-701 - Adm Wages | 850.00 | 784.97 |
| | | | | | | 850.00 | 784.97 |
| Paycheck | 09/11/2019 | EFT | JULIE KROMBEEN (ASSESSOR) JULIE KROMBEEN (ASSESSOR) | 1-MO ASSESSOR SALARY 1-MO ASSESSOR SALARY | 015 - CHASE CHECKING GEN FUND 2769 257-701 - Wages | 1,216.67 | 1,123.60 |
| | | | | | | 1,216.67 | 1,123.60 |
| Paycheck | 09/11/2019 | EFT | KATRINA PLEVA (TREASURER) KATRINA PLEVA (TREASURER) | 1-MO TREASURER SALARY 1-MO TREASURER SALARY | 015 - CHASE CHECKING GEN FUND 2769 253-701 - Wages & School Col. | 1,316.67 | 1,215.94 |
| | | | | | | 1,316.67 | 1,215.94 |
| Paycheck | 09/11/2019 | EFT | RONALD J SCHAUB (TRUSTEE) RONALD J SCHAUB (TRUSTEE) | BD MTG BD MTG | 015 - CHASE CHECKING GEN FUND 2769 101-701 - Adm Wages | 100.00 | 92.35 |
| | | | | | | 100.00 | 92.35 |
| Check | 09/11/2019 | EFT | CYPHER GROUP, INC CYPHER GROUP, INC CYPHER GROUP, INC | 1-MO ZA CONTRACT 101 MILES @ \$.58/MILE | 015 - CHASE CHECKING GEN FUND 2769 723-701 - Contracted Services 723-860 - Travel | 750.00 58.58 | 808.58 |
| | | | | | | 808.58 | 808.58 |
| Check | 09/11/2019 | EFT | DAVID WURM DAVID WURM | "EMILY" FOIA MAILING "EMILY" FOIA MAILING | 015 - CHASE CHECKING GEN FUND 2769 215-726 - Office Supplies/Software | 7.35 | 7.35 |
| | | | | | | 7.35 | 7.35 |
| Liability Check | 09/11/2019 | EFT | United States Treasury | VOID: 38-2297948 | 015 - CHASE CHECKING GEN FUND 2769 | 0.00 | |
| | | | | | | 0.00 | 0.00 |
| Liability Check | 09/11/2019 | EFT | United States Treasury | 38-2297948 | 015 - CHASE CHECKING GEN FUND 2769 | | 804.82 |
| | | | | | | 0.00 | 804.82 |
| Paycheck | 09/11/2019 | 4966 | LORI NASH (DEPUTY CLERK) LORI NASH (DEPUTY CLERK) LORI NASH (DEPUTY CLERK) | DEPUTY CLERK DEPUTY CLERK DEPUTY CLERK | 015 - CHASE CHECKING GEN FUND 2769 215-703 - Part Time Wages 262-701 - Wages-Part time | 15.00 67.50 | 76.18 |
| | | | | | | 82.50 | 76.18 |
| Check | 09/11/2019 | 4967 | LORI NASH LORI NASH | 225 MILES @ \$.58/MILE 5 TRIPS @ 45 MILES @ \$.58/MILE | 015 - CHASE CHECKING GEN FUND 2769 262-860 - Travel | 130.50 | 130.50 |
| | | | | | | 130.50 | 130.50 |
| Check | 09/11/2019 | 4968 | DUN RITE MAINTENANCE LLC DUN RITE MAINTENANCE LLC | REPLACE WINDOW AT TWP HALL REPLACE WINDOW AT TWP HALL | 015 - CHASE CHECKING GEN FUND 2769 265-930 - Repairs & Maintenance | 800.00 | 800.00 |
| | | | | | | 800.00 | 800.00 |
| Check | 09/11/2019 | 4969 | ACCIDENT FUND OF MICHIGAN ACCIDENT FUND OF MICHIGAN | POLICY # WCV 0158676 - 31 WORKERS COMPENSATION AUDIT | 015 - CHASE CHECKING GEN FUND 2769 101-871 - Workers Compensation Insurance | 251.00 | 251.00 |
| | | | | | | 251.00 | 251.00 |
| Check | 09/11/2019 | 4970 | CHERRYLAND ELECTRIC CO-OP CHERRYLAND ELECTRIC CO-OP | ACT #6311010 1-MO HALL ELECTRICITY | 015 - CHASE CHECKING GEN FUND 2769 265-920 - Utilities-Electric | 29.06 | 29.06 |
| | | | | | | 29.06 | 29.06 |

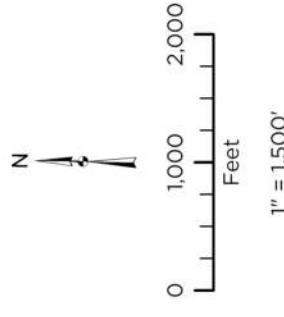
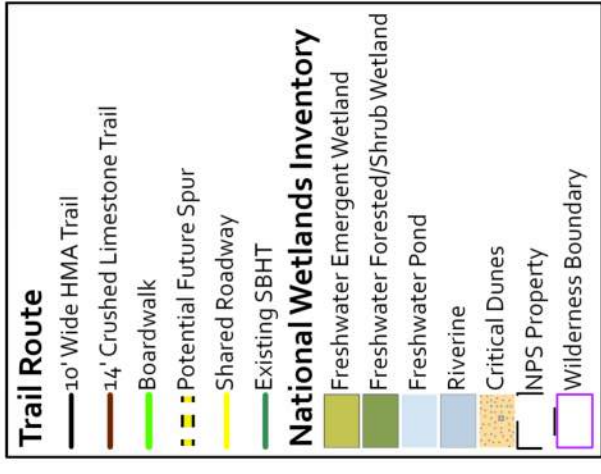
CENTERVILLE TOWNSHIP
Monthly Check Journal with Totals Sorted by Check#
 Augst 15, 2019 to Sept 11, 2019 prepared by David Wurm

| Type | Date | Num | Name | Memo | Account | Debit | Credit |
|--------------|------------|------|--|--|--|-----------------------|------------------|
| Check | 09/11/2019 | 4971 | LEELANAU COUNTY TREASURER | PRIOR YEAR TAX ADJ (2018) BOR | 015 · CHASE CHECKING GEN FUND 2769 | | 24.27 |
| | | | | | | 0.00 | 24.27 |
| Check | 09/11/2019 | 4972 | WILLIAMS AND BAY PORTABLE RESTROO... WILLIAMS AND BAY PORTABLE RESTROO... | INV #81013R 1-MO PORTA JON RENTAL/SERVICE 8/13-9/9 | 015 · CHASE CHECKING GEN FUND 2769 751-801 · Contracted Services | 99.00 | 99.00 |
| | | | | | | 99.00 | 99.00 |
| Check | 09/11/2019 | 4973 | CONSUMERS ENERGY CONSUMERS ENERGY | ACT #1000 0031 1496 1-MO STREET LIGHTS | 015 · CHASE CHECKING GEN FUND 2769 448-920 · Utilities-Electric | 68.82 | 68.82 |
| | | | | | | 68.82 | 68.82 |
| Check | 09/11/2019 | 4974 | BRIAN BOOTH BRIAN BOOTH BRIAN BOOTH | LAWN CARE PAYMENT 4 OF 6 LAWN CARE PAYMENT 4 OF 6 LAWN CARE PAYMENT 4 OF 6 | 015 · CHASE CHECKING GEN FUND 2769 265-930 · Repairs & Maintenance 751-930 · Repairs & Maintenance | 200.00 175.00 | 375.00 |
| | | | | | | 375.00 | 375.00 |
| Check | 09/11/2019 | 4975 | CEDAR AREA FIRE & RESCUE CEDAR AREA FIRE & RESCUE CEDAR AREA FIRE & RESCUE | INV #3Q 2019-20 3Q 2019-20 OPERATIONS ASSESSMENT 3Q 2019-20 CAP IMPROVEMENT ASSESS | 015 · CHASE CHECKING GEN FUND 2769 336-801 · Administrative Fee 336-801 · Administrative Fee | 39,912.75 4,347.25 | 44,260.00 |
| | | | | | | 44,260.00 | 44,260.00 |
| Check | 09/11/2019 | 4976 | TIME WARNER CABLE | ACT #086220701 | 015 · CHASE CHECKING GEN FUND 2769 | | 134.98 |
| | | | | | | 0.00 | 134.98 |
| Paycheck | 09/11/2019 | 4977 | LORI NASH (DEPUTY CLERK) LORI NASH (DEPUTY CLERK) | DEPUTY CLERK DEPUTY CLERK | 015 · CHASE CHECKING GEN FUND 2769 253-703 · Part Time Wages | 277.50 | 256.28 |
| | | | | | | 277.50 | 256.28 |
| TOTAL | | | | | | 52,089.32 | 52,650.98 |



7 Drawings

Sleeping Bear Heritage Trail Recommended Route



Source: Data provided by Leelanau County, State of Michigan, National Parks Service, and ESRI Online Living Atlas. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan Central FIPS 2112 Feet
Map Published: September 10, 2019

