

ALPENA CITY COUNCIL MEETING

November 01, 2021 – 6:00 p.m.

AGENDA

The Meeting Will be Held In-Person at City Hall. The Meeting Can Be Viewed Virtually with the Login Information as Follows:

From a Computer, Tablet or Smartphone: <https://www.gotomeet.me/CityofAlpena>

Dial in Using a Phone: United States: [+1 \(646\) 749-3112](tel:+16467493112)

Access Code: 667-050-061

1. Call to Order.
2. Pledge of Allegiance.
3. Approval and Modification of the Agenda.
4. Approve Minutes –Regular Session of October 18, 2021.
5. Citizens Appearing Before Council on Agenda and Non-Agenda Items (Citizens Shall be Allowed a Maximum of Five (5) Minutes Each to Address Their Concerns. This is the Only Time During a Council Meeting that Citizens are Allowed to Address the Council).
6. Public Hearing.
7. Consent Agenda.
 - A. Bills to be Allowed, in the Amount of \$391,887.81.
 - B. Mayoral Appointment of Jaclynn Krawczak and Carol Lund to the Compensation Committee for a 5-Year Term Expiring on November 1, 2026.
 - C. Mayoral Reappointment of Clayton VanWagoner to the Planning Commission for a 3-Year Term Expiring on November 1, 2024.
 - D. Council Reappointment of Elizabeth Littler and Vernie Nethercut to the Wildlife Sanctuary Board for a 3-Year Term Expiring on November 1, 2024.
8. Presentations.
9. Announcements.

A City Election Will be Held Tomorrow, November 2, 2021, for the Two Councilmember Seats. Polls are open 7 a.m. to 8 p.m. New Voters Can Register to Vote at the Clerk's Office until 8 p.m. on Election Day.
10. Mayoral Proclamation.
11. Report of Officers.

Alpena County Hazard Mitigation Plan – Rachel Smolinski, City Manager.
12. Communications and Petitions.
13. Unfinished Business.

14. New Business.
 - A. Ambulance Rates – Bill Forbush, Fire Chief.
 - B. Planet/History Walk Proposal for Besser Museum – Gary Goren, Besser Museum Board.
15. Adjourn to Closed Session to Discuss an Update Regarding Proposed Litigation with the Alpena Prototype Biorefinery, LLC, American Process, Inc., and GranBio LLC; and Also to Discuss the Water and Sewer Litigation.
16. Return to Open Session.
17. Adjourn.



Rachel Smolinski
City Manager

COUNCIL PROCEEDINGS

October 18, 2021

The Municipal Council of the City of Alpena met in regular session in person on the above date and was called to order at 6:00 p.m. by the Mayor.

Present: Mayor Waligora, Mayor Pro Tem Johnson, Councilmembers Nowak, Mitchell and Osmer.

Absent: None.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

APPROVAL OF AGENDA

Moved by Councilmember Nowak, seconded by Mayor Pro Tem Johnson, to approve the agenda.

Motion carried 5-0.

MINUTES

The minutes of the regular session of October 4, 2021, were approved as printed.

PUBLIC HEARING

A public hearing was opened for Special Assessment No. 124 for Merchant Street, from Miller Street to Lake Street. The Assessor, Allan Berg, was available virtually to answer questions. A report was given by the Treasurer, Anna Soik. She stated that a correction to the special assessment roll for the property located at 611 Merchant Street was needed. Due to the timing of the billing and sale of the property, the bill for the special assessment belongs to the previous owner, John Kelly. The

current of the property, Maria Lindahl, was in attendance at the hearing and stated that a title search on the property did not locate a special assessment. There was no other public comment. The Clerk did not receive any written comments. The public hearing was then closed.

Moved by Mayor Pro Tem Johnson, seconded by Councilmember Mitchell, to approve resolution 2021-18, which confirms the roll for the 2019 Special Assessment Project No. 124.

Motion carried 5-0

CONSENT AGENDA

Moved by Councilmember Nowak, seconded by Mayor Pro Tem Johnson, that the following Consent Agenda items be approved:

- A. Bills to be allowed, in the amount of \$380,074.97.
- B. Budget amendment request to move budgeted funds from DPW to Sidewalks.
- C. Mayoral appointment of Tanner Kostelic to the Compensation Committee for a 5-year term expiring on October 18, 2026.

Motion carried 5-0.

INTRODUCTION OF NEW EMPLOYEE

City Manager Smolinski introduced Montiel Birmingham to the Council as the new Planning, Zoning and Development Director.

ORDINANCE 21-463

Moved by Councilmember Nowak, seconded by Councilmember Osmer, to approve ordinance 21-463, which amends Chapter 86 – Taxation; Article V – Bingham School Tax Exemption, sections 86-95 and 86-99.

Motion carried 5-0.

ORDINANCE 21-464

Moved by Councilmember Nowak, seconded by Councilmember Osmer, to approve ordinance 21-464, which amends chapter 62, Personnel, Article III – Retirement System, Division 1 – generally, section 62-74 – Termination of Membership; Reinstatement.

Motion carried 5-0.

ACHIEVEMENT

Leilan Bruning, Deputy Clerk/Treasurer/Finance Director, has met the requirements for the Michigan Certified Professional Treasurer designation through the Michigan Municipal Treasurers' Association.

FIRST QUARTER FY22 FINANCIAL REPORT

Moved by Mayor Pro Tem Johnson, seconded by Councilmember Nowak, to receive and file the first quarter of fiscal year 2022 financial report.

Motion carried 5-0.

ADJOURN

On motion of Councilmember Nowak, seconded by Mayor Pro Tem Johnson, the Municipal Council adjourned at 6:32 p.m.

Matthew Waligora
Mayor

ATTEST:

Anna Soik
City Clerk

INVOICE REGISTER

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EXP CHECK RUN DATES 11/02/2021 - 11/02/2021

UNJOURNALIZED

OPEN - CHECK TYPE: PAPER CHECK

VENDOR	INVOICE #	DESCRIPTION	AMOUNT
A-1 TREE SERVICE	21-287	BAGGED LAWN & LEAF PICK-UP 10/21	10,100.00
AIRGAS USA LLC	9982891899	VEH MAINT - EQ	70.29
AIRGAS USA LLC	9118487297	SUPPLIES - EMS DISP	44.45
ALL MARINE AND STORAGE LLC	000240	TRAVEL LIFT/STORAGE SVCS - MARINA	9,222.49
ALLEGRA ALPENA	153659	SUPPLIES - POLICE	60.43
ALLEGRA ALPENA	153660	SUPPLIES - POLICE	211.80
ALLEGRA ALPENA	153720	SUPPLIES - AUDIT	146.07
ALPENA AGENCY INC	40948	INSURANCE - SECOND AVE BRIDGE	12,124.00
ALPENA AREA CHAMBER OF COMM	21481	GMDA TICKETS	180.00
ALPENA COUNTY TREASURER	101421	TAX TRIBUNAL ADJ - DOCKET #21-000078	514.21
ALPENA KIWANIS CLUB	102821	MEMBERSHIP DUES - MGR	180.00
ALPENA POWER COMPANY	110221	ELECTRIC	8,416.09
ALPENA TRIM LLC	102221	MAINT - MARINA	75.00
AMAZON CAPITAL SERVICES INC	177L-N6Q3-94JN	SUPPLIES - PARKS	247.00
AMAZON CAPITAL SERVICES INC	1NT3-T6FH-X9CD	SUPPLIES - LIGHTS	1,584.80
AMAZON CAPITAL SERVICES INC	16H9-3MFP-CPR6	SUPPLIES - PUBLIC WORKS	69.99
APLEX	110221	POLLING PLACE FEE 11/02/21	100.00
BANDIT INDUSTRIES INC	806489	VEH MAINT - EQ	282.43
BEDROCK CONTRACTING &	CONC 2021-01	2021 CITY CONCR PROG	14,790.98
BELL EQUIPMENT COMPANY	P03100	VEH MAINT - EQ	543.74
BELL EQUIPMENT COMPANY	P03114	VEH MAINT - EQ	743.58
BERG ASSESSING & CONSULTING INC	21-0000274	ASSESSONG CONTRACTED SVCS 11/21	7,083.00
BIT DIRECT INC	5029777	SUPPLIES - IT	1,756.85
BIT DIRECT INC	5030025	SUPPLIES - IT	457.90
BLARNEY CASTLE OIL COMPANY	1368865	DIESEL FUEL PURCHASE - MARINA	1,400.07
BOUND TREE MEDICAL LLC	84239557	SUPPLIES - EMS DISP	1,220.52
BOUND TREE MEDICAL LLC	84239558	SUPPLIES - EMS DISP	101.28
BS&A	137224	INTERNET SVC/SUPPORT FEE - C/T/BLDG/AS	6,247.00
CARRIER & GABLE INC	IN25390	MAINT - MAJ ST	98.90
CASEY STUTZMAN	111021	TRAVEL ADVANCE - POLICE	105.00
CDW GOVERNMENT INC	L909729	SUPPLIES - IT	3,287.76
CDW GOVERNMENT INC	L968041	SUPPLIES - IT	67.26
CDW GOVERNMENT INC	L997554	SUPPLIES - IT	664.98
CHARTER COMMUNICATIONS	0161607102121	FAX LINE - PUBLIC SAFETY	39.99
CHARTER TOWNSHIP OF ALPENA	101421	REIMB GARAGE NATURAL GAS - FIRE/EMS	24.58
CHEBOYGAN CEMENT PRODUCTS INC	87686	STORES - CONCRETE	173.04
CROSSCUT CONCRETE CUTTING INC	9338	CURB CUT - MAJ/LOC ST	6,000.00
DANIEL HIBNER	101421	FOOD/SERVICE - FIRE/EMS	49.60
DEAN ARBOUR FORD LINCOLN MERCURY	33330	VEH MAINT - FIRE/EMS	946.66
DEAN ARBOUR FORD LINCOLN MERCURY	33363	VEH MAINT - EQ	120.56
DEAN ARBOUR FORD LINCOLN MERCURY	33378	VEH MAINT - EQ	27.50
DETROIT SALT COMPANY	SI22-08535	STORES - ROAD SALT	3,661.37
DETROIT SALT COMPANY	SI22-08553	STORES - ROAD SALT	19,779.54
DETROIT SALT COMPANY	SI22-08578	STORES - ROAD SALT	23,143.65
DETROIT SALT COMPANY	SI22-08604	STORES - ROAD SALT	16,744.33
DETROIT SALT COMPANY	SI22-08623	STORES - ROAD SALT	3,342.79
DOGPOOPBAGS.COM LLC	7810	SUPPLIES - PARKS	186.00
DOUGLAS KEOGH	102121	UNIFORMS/MEAL REIMB/LIC RENEWAL-FIRE/	127.50
EAGLE SUPPLY CO	119988	SUPPLIES - FIRE/EMS	229.38
EAGLE SUPPLY CO	120000	SUPPLIES - PARKS	117.00
EAGLE SUPPLY CO	120108	SUPPLIES - CITY HALL	64.40
EAGLE SUPPLY CO	120113	SUPPLIES - CITY HALL	58.50
EMERY ENTERPRISES	063314	SUPPLIES - PUBLIC WORKS	860.00
EMILY PAGE	AP21V-1355C	AMBULANCE REFUND	5.00
EVERETT GOODRICH TRUCKING	32619	STORES - COLD PATCH	1,290.24
EVERETT GOODRICH TRUCKING	32811	STORES - COLD PATCH	1,092.48
EVERETT GOODRICH TRUCKING	HMA 2021-02	HMA PATCHING 2021	2,463.61
EVERETT GOODRICH TRUCKING	RES 2019-02	2019 RESURFACING	186,306.79
FASTENAL COMPANY	MIALP187306	VEH MAINT - EQ	129.27
FASTENAL COMPANY	MIALP187534	VEH MAINT - EQ	164.71
FASTENAL COMPANY	MIALP187535	MAINT - MARINA	350.00
FIRST UNITED METHODIST CHURCH	110212	POLLING PLACE FEE 11/02/21	200.00
FITZPATRICK'S HARDWARE	5361395	SUPPLIES - MARINA	9.99
FITZPATRICK'S HARDWARE	5361638	SUPPLIES - MARINA	15.92
FITZPATRICK'S HARDWARE	5361880	SUPPLIES - MARINA	43.27
FITZPATRICK'S HARDWARE	5362315	VEH MAINT - EQUIP	5.99
FITZPATRICK'S HARDWARE	5363342	SUPPLIES - MARINA	27.99
FITZPATRICK'S HARDWARE	5358045	SUPPLIES - MARINA	33.07
FITZPATRICK'S HARDWARE	5358129	SUPPLIES - MARINA	41.03
FITZPATRICK'S HARDWARE	5358193	SUPPLIES - MARINA	24.22
FITZPATRICK'S HARDWARE	5359127	VEH MAINT - EQ	219.04
FITZPATRICK'S HARDWARE	5359515	SUPPLIES - MARINA	5.88

INVOICE REGISTER

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VENDOR	INVOICE #	DESCRIPTION	AMOUNT
FITZPATRICK'S HARDWARE	5359788	SUPPLIES - MARINA	11.89
FITZPATRICK'S HARDWARE	5359865	SUPPLIES - MARINA	7.83
FRONTIER	2793 11/21	TELEPHONE - POL/FIRE/EMS	109.73
GALLS LLC	019445758	UNIFORMS - FIRE/EMS	335.00
GALLS LLC	019446079	UNIFORMS - FIRE/EMS	12.80
GALLS LLC	019446301	UNIFORMS - FIRE/EMS	240.00
GLITZ & GLAMOUR BRIDAL & GIFTS	062821	UNIFORMS - POLICE	6.00
HURON VALLEY GUNS	184001	UNIFORMS - FIRE/EMS	526.98
HURON VALLEY GUNS	184002	UNIFORMS - FIRE/EMS	21.00
HURON VALLEY GUNS	184001	UNIFORMS - FIRE/EMS	552.31
HURON VALLEY GUNS	184002	UNIFORMS - FIRE/EMS	21.00
ICMA	1014284 01/22	2022 MEMBERSHIP DUES	815.34
INK AND TONER ALTERNATIVE	21-7597	SUPPLIES - IT	245.06
JEROMES TOWING	21-3027	IMPOUND TOWING - POLICE	88.00
JOEL W JETT	102121	TRAVEL EXPENSE/VEH MAINT - POLICE	106.24
JOHN BRODZIAK	102021	WORK APPAREL ALLOW - PW	52.99
JOHN NYE	101221	SAFETY SHOE/WORK APPAREL ALLOW - PK	228.95
KARLEE ANDERSON	101821	SEW/WATER BILL REFUND	840.34
KENNETH HARRISON	AP21-2250C	AMBULANCE REFUND	200.00
L & S TRANSIT MIX	61726	MAINT - LOC ST	40.00
L & S TRANSIT MIX	61781	MDOT REPAIRS - MAJ ST	65.00
L & S TRANSIT MIX	61789	MDOT REPAIRS - MAJ ST	109.00
L & S TRANSIT MIX	61796	MDOT REPAIRS - MAJ ST	20.00
L & S TRANSIT MIX	61835	MAINT - LOC ST	20.00
LAKESHORE PLUMBING, HEATING &	46461	MAINT - CITY HALL	143.50
LAPPAN AGENCY INC	58404	UST INSURANCE - MARINA	1,146.00
LEFAVE PHARMACY INC	101521	SUPPLIES - EMS DISP	108.44
MHR BILLING	4000	BILLING 09/21 - EMS	3,688.62
MICHIGAN CAT	PD1270068	VEH MAINT - EQ	338.75
MICHIGAN CAT	PD12715983	VEH MAINT - EQ	174.90
MICHIGAN CAT	PD12726026	VEH MAINT - EQ	212.13
MICHIGAN CONFIDENTIAL DOCUMENT	16091	DOCUMENT DESTR FEE - CH/ELECT/TREAS	256.00
MICHIGAN PIPE & VALVE	T015543	STORES - CLAMPS	372.00
MICHIGAN PIPE & VALVE	T016905	STORES - PIPE	2,160.00
MICHIGAN PIPE & VALVE	T016906	STORES - PIPE/VALVE BOX	1,089.20
MICHIGAN PIPE & VALVE	T016979	STORES - CURB STOP	924.00
MID MICHIGAN MEDICAL CENTER-ALPENA	092721	SUPPLIES - EMS	84.00
MID MICHIGAN MEDICAL CENTER-ALPENA	556	SUPPLIES - EMS DISP	600.00
OFFICE DEPOT	19424365	SUPPLIES - PUBLIC SAFETY	543.19
RAPID RESULTS	13270	DRUG/ALCOHOL SCREENS - PW/PKS	150.00
SEVAN K INC	303 09/21	VEH MAINT - EQ	8.00
SEVAN K INC	313 09/21	VEH MAINT - POLICE	46.50
SHI INTERNATIONAL CORP.	B14255055	OFFICE 365 SOFTWARE	15,070.00
SPARTAN DISTRIBUTORS INC	11842843	VEH MAINT - EQ	699.17
SPECIFICATION STONE PRODUCTS	2646437	MAINT - PARKS	338.55
SPECIFICATION STONE PRODUCTS	2646946	STORES - 6A STONE	93.12
ST ANNE CATHOLIC CHURCH	110221	POLLING PLACE FEE 11/02/21	200.00
STANDARD ELECTRIC CO	4046827-00	MAINT - MARINA	45.09
STANDARD ELECTRIC CO	4047467-00	MAINT - LIGHTS	65.76
STEVEN HALL	102621	REIMB TOOL PURCH/TESTING FEE - BLDG	126.74
STRALEY LAMP & KRAENZLEIN PC	34501	MONTHLY FEE 09/21	3,280.00
SUPERIOR FABRICATING INC	15556	VEH MAINT - EQ	246.00
TRACTOR SUPPLY CREDIT PLAN	100699268	SUPPLIES - MARINA	9.99
TRACTOR SUPPLY CREDIT PLAN	200994310	SUPPLIES - MARINA	39.99
TRACTOR SUPPLY CREDIT PLAN	200999958	SUPPLIES/VEH MAINT - PW/PKS/EQ	69.92
WALMART-CAPITAL ONE	081121	SUPPLIES - POLICE	6.97
WALMART-CAPITAL ONE	081821	LATE FEE - CLERK	29.00
WALMART-CAPITAL ONE	082721	SUPPLIES - FIRE/EMS	219.03
WALMART-CAPITAL ONE	091821	LATE FEE - CLERK	29.00
WEINKAUF PLUMBING & HEATING INC	14875	MAINT - PUBLIC SAFETY BLDG	2,670.46
WEINKAUF PLUMBING & HEATING INC	14876	MAINT - PUBLIC SAFETY BLDG	455.10
WEINKAUF PLUMBING & HEATING INC	14877	BLDG MAINT - POLICE	155.10
WEINKAUF PLUMBING & HEATING INC	14966	MAINT - MARINA	159.00
WEST SHORE FIRE INC	25973	VEH MAINT - FIRE EQ	427.38
WITMER PUBLIC SAFETY GROUP	E2106004	UNIFORMS - FIRE/EMS	50.98
WITMER PUBLIC SAFETY GROUP	E2078449.001	UNIFORMS - FIRE/EMS	49.79
WITMER PUBLIC SAFETY GROUP	E2119570	SUPPLIES - FIRE/EMS	56.77
WITMER PUBLIC SAFETY GROUP	E2113363	UNIFORMS - FIRE/EMS	251.45

Total:

391,887.81

11/1/2021

	NAME	BOARD	TERM	New Ex. Date	APPT AUTH
APPOINT	Jaclynn Krawczak	Compensation Committee	5	11/1/2026	Mayor
APPOINT	Carol Lund	Compensation Committee	5	11/1/2026	Mayor
REAPPOINT	Clayton VanWagoner	Planning Commission	3	11/1/2024	Mayor
REAPPOINT	Elizabeth Littler	Wildlfe Sanctuary Board	3	11/1/2024	Council
REAPPOINT	Vernie Nethercut	Wildlfe Sanctuary Board	3	11/1/2024	Council

Memorandum



Date: October 28, 2021

To: Mayor and City Council Members

Copy: Anna Soik, City Clerk/Treasurer/Finance Director

From: Rachel Smolinski, City Manager

Subject: Resolution-Alpena County Hazard Mitigation Plan

In the spring of 2020, the Office of Emergency Management distributed surveys to local government partners including the City of Alpena seeking information for the County's Hazard Mitigation Plan, which was due for review.

The Plan was submitted and recently approved by FEMA. The final step in the process requires the County and covered partners to adopt the Plan by resolution. The Alpena County Board of Commissioners accomplished this task at their monthly meeting held on September 29. The County is requesting that all local municipalities covered by the Plan adopt the attached resolution. For the City of Alpena to be covered by the Plan and be eligible for various types of FEMA funding, the County must receive an adopted resolution from the City.

Upon receipt of all resolutions from covered municipalities within the County, they will forward the file to NEMCOG, which will submit the packet to FEMA.

The Alpena County Hazard Mitigation Plan may be viewed at:

<http://www.discovernortheastmichigan.org/hazardmitigation.asp>

Additional information regarding hazard mitigation plans may be reviewed at:

<https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/requirements>



Resolution No. 2021-19

A RESOLUTION OF THE CITY OF ALPENA ADOPTING THE 2021 ALPENA COUNTY HAZARD MITIGATION PLAN

WHEREAS the City of Alpena Municipal Council recognizes the threat that natural hazards pose to people and property within Alpena County; and

WHEREAS Alpena County has prepared a multi-hazard mitigation plan, hereby known as 2021 Alpena County Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the 2021 Alpena County Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Alpena County from impacts of future hazards and disasters; and

WHEREAS adoption by the City of Alpena Municipal Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2021 Alpena County Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED THAT:

The 2021 Alpena County Hazard Mitigation Plan is hereby adopted as an official plan of the City of Alpena. The content of this document, together with all maps attached to and contained herein are hereby adopted by the City of Alpena as the 2021 Alpena County Hazard Mitigation Plan on this 1st day of November 2021.

Motion:

Second:

Ayes:

Nays:

Absent:

Matthew J. Waligora, Mayor


Anna Soik, Clerk



Alpena Fire Department
Alpena County EMS
501 W Chisholm Street
Alpena, Michigan 49707
www.alpena.mi.us

Fire/EMS

To: Honorable Mayor & Municipal Council

From: Bill Forbush, EFO 
Fire Chief

Date: October 26, 2021

Re: Ambulance Rates

Periodically, third party insurers like Blue Cross, Medicare and Medicaid adjust the allowable rates that they will pay for medical services. Ambulance services that do not adjust their rates accordingly literally leave money on the table. Also, the impact of Covid-19 and the MidMichigan Ambulance presence in Alpena leaves us with less operating revenue, so any increase in revenue streams would be advantageous.

Based on these new adjustments, we are recommending the following ambulance rate increases effective immediately:

Service	Current	Proposed	Difference
Advanced Life Support 1 (ALS1)	575.00	611.89	36.89
Advanced Life Support 2 (ALS2)	750.00	785.00	35.00
Critical Care (MICU Transfer)	875.00	918.00	43.00

Our interlocal agreement with Alpena County requires that we secure their approval to raise ambulance rates by more than 5%. These recommendations are at the insurance company's new rate, or 5%, whichever is lower.

It is my recommendation as Fire Chief that we amend the fee schedule to increase our ambulance rates as detailed above.

Planet/History Walk Proposal

Dear Alpena City Council Members,

This is a letter to let you know of a new project the Besser Museum for Northeast Michigan is pursuing. Perhaps you have heard of a planet walk. There are over a hundred of them in the United States. Downtown Lansing has a great one that starts at the Impression Five Science Center (with the Sun) and runs along the River Trail for 5.5 miles to the Potter Park Zoo. There is a sign explaining each planet, and they are scaled to the correct size and distance with the real solar system. It is a popular tourist destination.

We are proposing something similar that would begin at the Besser Museum and continue along the Alpena Bi-Path for several miles to the outer planets. The map of the route is attached. The City of Alpena would NOT be responsible for the funding of this project. We are writing this proposal to securing permission for eight signs along the bike path. One for each planet.

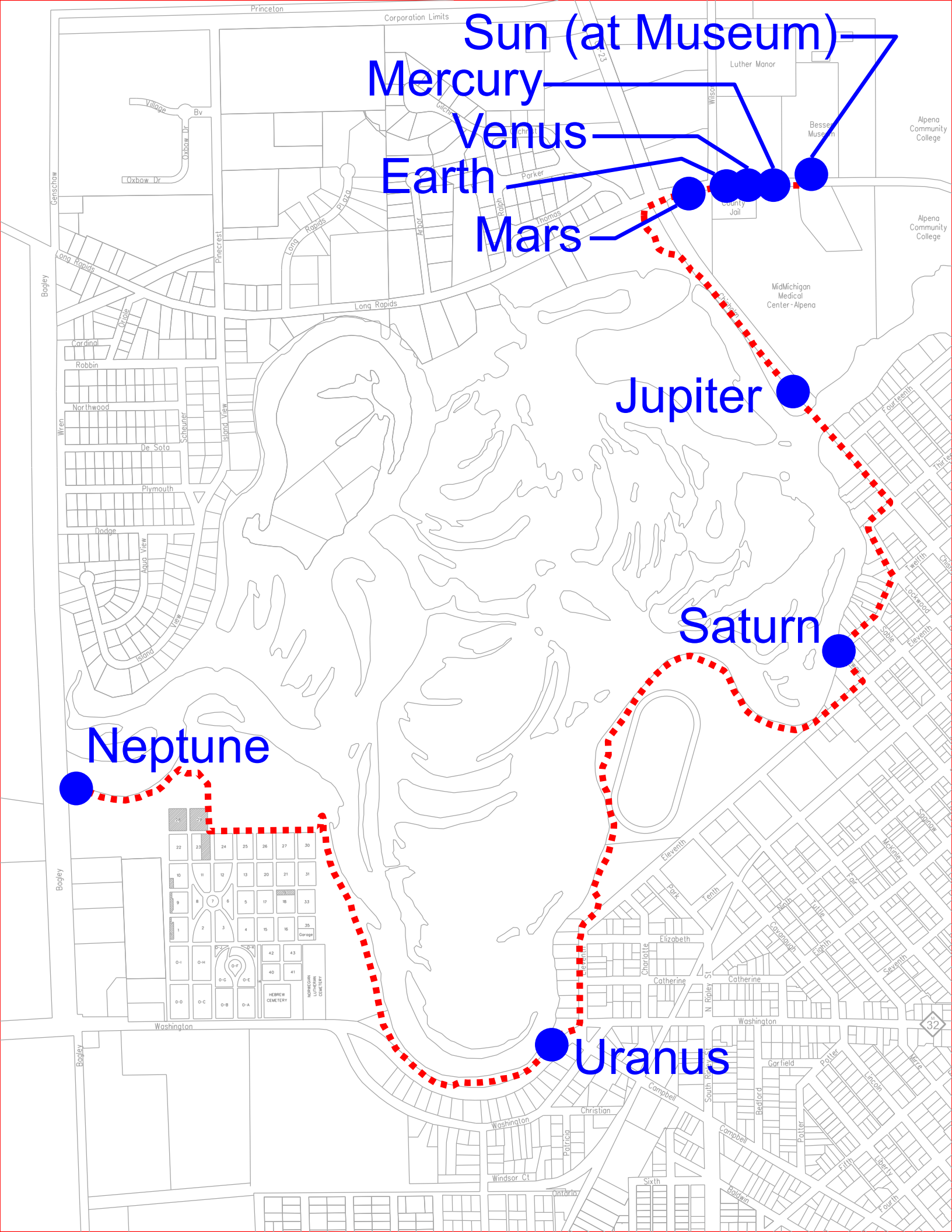
Attached are some examples of planet walks in other communities. The flip side of each planet sign would be part of an Alpena History Walk. Each sign would contain a milestone of our local history, with the museum being the present day and the trails end highlighting the native American period. More information would be available through a QR Code on each sign. This would direct earthlings to a webpage maintained by the Besser Museum

The signs would be produced locally. We are applying for a 2022 Rural Development Grant from the state of Michigan to help offset project costs (about \$35,000). We are required to provide three letters of support for this grant, and we are hoping the City of Alpena would be one of those letters.

The target date for installation would be Summer of 2022. We feel the signs would have multiple benefits for the city. This includes: an additional attraction for tourists, more people using the Bi-Path and providing an education about the planets and local history. Of course, part of our goal at the Besser Museum is to increase the attendance at the only planetarium in Northern Lower Michigan. We will also create "Planet Walk passports" that will allow visitors to all eight planets to receive a discounted admission to the museum and/or planetarium.

Thank you,

Christine Witulski
Executive Director
Besser Museum for Northeast Michigan



URANUS

NAMESAKE (Greek mythology)

Father of Saturn

AVERAGE DISTANCE

FROM SUN

1.78 billion miles (1,839 feet in scale model)

FROM EARTH

1.69 billion miles (1,744 feet)

DIAMETER

31,763 miles (.3608 inches)

LENGTH OF DAY

17.2 hours

LENGTH OF YEAR

Orbits the sun every 83.8 years

MEAN TEMPERATURE

-320° F

YOUR WEIGHT ON URANUS

150-pound person
would weigh 133 pounds



SATURN

889 million miles
(925 feet)



LOOPPLANETWALK.COM



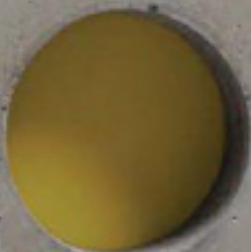
NEPTUNE

1.02 billion miles
(1,041 feet)

Scale model of the solar system

One inch = 80,000 miles

Scale 1:5 billion



**Sciencenter**
Interdisciplinary Science Center
at the University of the State of New York
at Stony Brook

MARS

CRATERS AND CANYONS OF CLAY

ONCE HOME TO STREAMS, LAKES, AND POSSIBLE LIFE

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's. It is the only planet in our solar system that has a polar ice cap and a thin atmosphere. Mars is the only planet in our solar system that has a global magnetic field and a complex system of canyons and craters. Mars is the only planet in our solar system that has a polar ice cap and a thin atmosphere. Mars is the only planet in our solar system that has a global magnetic field and a complex system of canyons and craters.

STRONG SEASONS, CURVE VARIATIONS, WATER ICE COULES

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's. It is the only planet in our solar system that has a polar ice cap and a thin atmosphere. Mars is the only planet in our solar system that has a global magnetic field and a complex system of canyons and craters. Mars is the only planet in our solar system that has a polar ice cap and a thin atmosphere. Mars is the only planet in our solar system that has a global magnetic field and a complex system of canyons and craters.

FACTS

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's.

SIZE

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's.

ATMOSPHERE

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's.

TEMPERATURE

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's.

WATER

Mars is the only planet in our solar system that has a day and year nearly identical to Earth's.

**Sciencenter**
Interdisciplinary Science Center
at the University of the State of New York
at Stony Brook



Mars' size relative to the sun

Mars

Mars has two moons: Phobos and Deimos. It is the home of the largest volcano in the solar system.



Named for the
Roman god of war



Diameter

4,200 miles (0.0874 inches)

Distance from the Sun

134 million miles (245 feet)

Light time: 12 minutes

Length of Day/Year

24.6 hours/669 days

Average Temperature

- 62°F

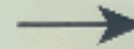


Ceres

116 million miles
(201 feet)

Rotary

Lake Chelan



Earth

41 million miles
(71 feet)

Scale model of the solar system



Anchorage Light Speed Planet Walk

Station #5 JUPITER Super-Sized

Super...

Big - Jupiter is eleven times the diameter of Earth. 1,000 Earths could fit inside.

Massive - Jupiter is 2.5 times more massive than all the other planets combined.

Large - It swallows and smashes asteroids whole Jupiter, the most of any planet.

Fast - Jupiter spins so fast that it bulges at the equator. A day on Jupiter lasts only 10 hours, the shortest day in the solar system.

Temperature - Jupiter produces almost as much energy from its interior as it receives from the Sun. This heat is generated by gravitational contraction. Jupiter is actually shrinking by a few millimeters each year!

Thin Rings - Discovered by Voyager, there are now believed to be fainter rings than Saturn's rings.

Colorful - Jupiter's bands give it the appearance of a giant Easter egg. Beautiful orange, brown and white cloud patterns are produced by Jupiter's constant winds.

Storms - The Great Red Spot is a gigantic swirling storm, three times Earth's diameter. First discovered in 1666 by Robert Hooke, it will likely last for hundreds to thousands of years.

Voyager 1 observed this dramatic view of Jupiter's Great Red Spot.



Jupiter's Moons

The four largest moons of Jupiter are Io, Europa, Ganymede, and Callisto. They are all rocky and have no atmospheres.



Io - Io is the only moon in the solar system with active volcanoes. It is covered in a layer of molten sulfur and has a surface temperature of about 1,300 degrees Fahrenheit.



Europa - Europa is the only moon in the solar system with a smooth, icy surface. It is covered in a layer of water ice and has a surface temperature of about -160 degrees Fahrenheit.



Ganymede - Ganymede is the largest moon in the solar system. It is covered in a layer of water ice and has a surface temperature of about -160 degrees Fahrenheit.



Callisto - Callisto is the second largest moon in the solar system. It is covered in a layer of water ice and has a surface temperature of about -160 degrees Fahrenheit.

Jupiter Sponsored by Westchester Neighborhood Rotarians

Primary Sponsors of the Anchorage Light Speed Planet Walk
Rasmussen Foundation
Anchorage Rotary Club

Anchorage Light Speed Planet Walk

Walk across the Solar System at the speed of light!

The Anchorage Light Speed Planet Walk is a scale model of our Solar System.

By taking the walk, you experience the relative sizes of the planets and their distances from the Sun. The scale was chosen so that a leisurely walking pace mimics the speed of light. On this scale, each step equals the distance light travels in one second (300,000 kilometers or 186,000 miles). It should take you about 4 minutes to walk from the Sun station at 1st and G to the Earth station at 1st and K, just as it takes 8 minutes for a light beam to travel from the real Sun to Earth. Similarly, it takes you and a light beam 1 1/2 hours to reach Pluto. Of course, you can keep on your hike, roller blades or bike, and travel the distance at warp speed!

As you experience the Planet Walk, notice how small the planets are compared to the Sun, and how vast the distances are between them.

The 5 outer planets are along the Coastal Trail.

