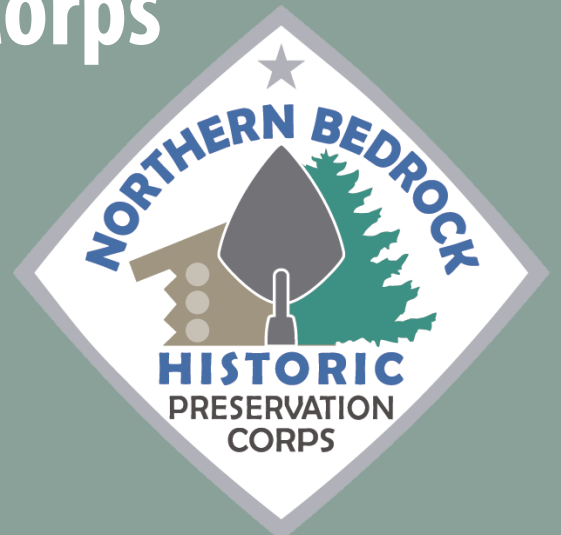




# Northern Bedrock Historic Preservation Corps

*Building a Pathway to the Preservation Trades*

2019 Field Season



## 2019 Field Season Report

# Northern Bedrock Historic Preservation Corps

*Building a Pathway to the Preservation Trades*

Report produced by  
Northern Bedrock Historic Preservation Corps Staff

November 2019

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### MINNESOTA HISTORICAL SOCIETY

Jennifer Jones  
Ann Oldenkamp  
Andrea Kajer  
David Kelliher  
Todd Mahon

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### CAREER DAY EXPERTS

Charley Langowski - St. Louis  
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Nik Allen - Arrowhead  
Builders Association  
Phil Peterson - Anderson  
Hammock Construction  
Sam Olson - Superior  
National Forest  
Tim Meyer – Meyer Group  
Architecture  
Todd Mahon - Minnesota  
Historical Society  
Tom Johnson - McGough  
Construction

## SPECIAL THANKS

4

### PROJECT HOSTS (in order of appearance)

Cheryl Skafta - City of Duluth  
Chase Bement - Habitat for Humanity  
Jonathan Goldenberg - CCMI  
Katie Hutton - Hay Lake Museum Site Manager  
Brent Peterson - Washington County Historical Society  
Simon Thill - Cloquet Forestry Center  
Lynne Moratzka - Gammelgarden Museum  
Jennifer Henry - Marine Restoration Society  
Beth Juran - Withrow Cemetery Association  
Brian Ecker - St. Matthew's Cemetery Association  
Sean Dunham - Chippewa National Forest  
Jay Smrekar - Chippewa National Forest  
Terry Sellman - Chisago Lakes Lutheran Church Cemetery  
Carrie Benson - Chisago Lakes Lutheran Church  
Dennis Houg - Heritage Group North  
Kathy George - City of Sandstone  
Lee Johnson - Superior National Forest  
Greg Heide - Superior National Forest  
Merlin Peterson - Pope County Historical Society  
Harold Langowski - City of Ely  
Jess Edberg - Dorothy Molter Museum  
Stephanie Rogers - Anderson Center  
James Patterson - Westbrook Heritage House  
James Jens - Westbrook Heritage House  
Colleen Miller - Slayton Cemetery Association  
Phil Sher - Adas Israel Chevra Kadisha Cemetery  
Jon Borden - Forest Hill Cemetery Association  
Don Ness - Ordean Foundation  
Nia Primus - City of St. Cloud  
Ann Marie Johnson - Morrison County Historical Society  
Abbi Jo Wittman - City of Stillwater  
Sue Hunter-Weir - Pioneer and Soldiers Cemetery  
Melvin Gagnon - Grand Portage National Monument  
Therese Gruba - New Hope for Families  
John Crippen - Hennepin History Museum

### ADDITIONAL PARTNERS

Damiano Center  
Glensheen Mansion  
Minnesota Alliance of Local History Museums  
Northland AmeriCorps Collaborative  
Northland History Association  
Rethos  
State Historic Preservation Office  
Superior Fuel

### FRIENDS

Almanac Coffee Roasters  
Cathy Wurzer - Twin Cities Public Television  
Chris Severson  
Cynthia Lapp  
Darryl and Diane Sannes  
Karen Johnson  
Krista Godfrey - International Wolf Center  
Louie Moritz - TBG  
Steffi O'Brien - Listening Point Foundation

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## EXECUTIVE SUMMARY

### Purpose of this Report

This report covers the 2019 Field Season (May - October). It includes an overview of the field season structure and schedule, the impact on historic resources, the impact on the Corpsmembers' lives, and 31 project reports.

### Summary

Northern Bedrock Crews improved the aging stock of Minnesota's historic resources by coordinating with Project Hosts and Technical Specialists to maintain and repair structures and landscapes. Northern Bedrock staff, project hosts and technical specialists trained and worked with Corpsmembers in cemetery restoration, carpentry, window restoration, scraping and painting, log building maintenance, and documentation. While serving on projects across the state, Corpsmembers met new people, made personal and professional connections, and gained future career and life skills.

### Outcomes

Our 24-week field season consisted of three, six-person crews. Northern Bedrock enrolled 24 Corpsmembers and collaborated with 31 Project Hosts and 17 Technical Specialists. We improved 54 structures, 51 historic and 3 newly constructed, and 13 cemeteries for a total of 17,720 hours of hands-on historic preservation. The MNHS partnership funded two crews and a portion of the overhead for the program as a whole. Thank you for your support!

## ORGANIZATIONAL OVERVIEW

### About Northern Bedrock

**Our Mission:** *To develop enduring workforce and life skills through service learning in historic preservation and community stewardship.*

**Our Values:** *Serving, Transforming, Preserving, Honoring*

We focus on young adults, ages 18 – 25, who are interested in gaining hands-on experience in the preservation trades. These Corpsmembers are selected from all backgrounds and walks of life for their enthusiasm, desire to learn, and commitment to serve for three month (quarter-time, 450 hours) or six month (half-time, 900 hours) terms. They receive a Living Allowance in exchange for their service on one of three field crews. These are scheduled as twelve, eight-day, camping-based project hitches that run from May through October, with six days off in between each hitch. Projects are planned and funded through partnerships with a variety of groups throughout the state of Minnesota, including non-profit organizations and government entities at all levels (federal, state, county and local).

Corpsmembers are eligible to receive an Education Award from the Corporation for National and Community Service (CNCS) upon successful completion of their AmeriCorps term of service. Other benefits include student loan deferment, leadership and team-building experience, an introduction to a variety of historic preservation trades, mentoring from staff and technical experts in the field, outdoor living skills development, and a chance to practice real world communication, project management, and community-engagement.

## HISTORIC PRESERVATION IMPACT

### Getting Stuff Done!

- 6440 Square Feet of Paint and Stain Removed and / or Applied (the size of a huge 5-bedroom mansion!)
- 1480 Monuments Restored- Cleaned (943), Edged (565), Leveled, and / or Reset (446)
- 76 Windows Re-glazed
- 67 Stumps Removed at Halfway
- 51 Historic Structures Improved
- 13 Cemeteries Improved
- 7 Historic Buildings Cleaned and Hazards Mitigated
- 6 Log Buildings Treated for Pest Control
- 6 Doors Refinished
- 3 Porches Repaired and Restored
- 2 Large Rooms Restored Plaster Walls
- 1 Rock Wall Restored
- 1 Rock Staircase Repaired

### 17,720 Service Project Hours

- 16,117 Corpsmembers
- 1,066 Volunteers, Hosts and Technical Specialists
- 537 Staff

### 31 Service Project Hosts

- 11 Non-Profit Cemetery Orgs
- 8 Other Non-Profits
- 5 Minnesota Cities
- 4 Federal Entities
- 3 Historical Societies



*"This program opened my eyes to a whole new work experience. Being outside has always been a passion, and it's amazing to realize there is an accessible way to work in the outdoors and I feel like this program and others like it give people access to learn those skills."*

*-Corpsmember*

### Corpsmember pre/post Survey Results!

- 95% are likely to volunteer in their community, up from 73%
- 59% know what they want to do in their careers, up from 30%
- 83% have a solid technical base, up from 57%

## FIELD SEASON OVERVIEW

### Recruitment

Northern Bedrock received 45 applications and interviewed 32 applicants. We enrolled a total of 24 participants for the field season: 11 full season (900 hours), 5 summer (450 hours) and 8 fall (450 hours). We had a great deal of interest in our program. Other corps in the area and nationwide have been unable to fill their programs.

### Career Fairs Attended:

- UMD Outdoor Jobs Fair - Duluth, MN
- "Steps to the Future" 21st Annual Powwow and Career/College Fair, Myers-Wilkins Elementary - Duluth, MN
- Bemidji State Career Fair - Bemidji, MN
- Lake Superior College Career and Transfer Fair - Duluth, MN
- Iron Range Job Fair - Virginia, MN



*"I enjoyed a lot of things about the program, and I'm walking away from this experience having gained so much. The friendships and connections that came from working on a strong team are very important to me. I also gained a lot of confidence from working out of my comfort zone so much. I was challenged a lot and found a stronger sense of competence in the work I do." - Corpsmember*

### Corpsmember Demographics

#### Race / Ethnicity

- American Indian – 2
- Asian - 3
- White – 19

#### Education

- 2 finishing high school with a partner organization
- 3 have a High School Diploma
- 7 have some college education
- 12 have college degrees

#### State Residency

- Minnesota – 16
- Wisconsin – 4
- Other States - 4
- Missouri, Tennessee, Iowa, Arizona



## CORPSMEMBER TRAINING

### Summary

Training consisted of orientation and hands-on learning. We aim to help Corpsmembers improve hard skills such as tool usage and safety, as well as soft skills such as conflict resolution and leadership (see the following orientation schedules). In order to assist our Corpsmembers in their job searches and career planning, we conducted mock interviews with professionals in a variety of fields, who also provided insights on a panel discussion. We facilitated reflection on the skills they learned and assisted with resume writing.



*"I gained experience I hadn't had before, in masonry, cemetery restoration and carpentry, in communicating with Project Hosts, Technical Specialists and Corpsmembers, and in leadership."*  
-Corpsmember



### Advice to Future Corpsmembers from Alumni

- Be open minded and flexible.
- Be patient, work hard and look at the stars at night.
- Always pack extra socks.
- Set multiple alarm clocks, especially when it's cold. It can be hard to get up sometimes and you won't want to accidentally fall back asleep.
- Bandanas are wonderful. They can shade the back of your neck, act as an additional sweatband, help keep your hardhat on, be and be and emergency rag for cooking, spills and cemeteries.
- Enjoy the time spent with your fellow Corpsmembers. They are the most wonderful people in the world!
- Connect with your Technical Specialists while on hitch, they have good career and life advice.

### Technical Specialists

The program relies heavily on both in-kind and paid Technical Specialist time, much like the Civilian Conservation Corps with the Local Experienced Men (LEM). This year the program spent \$22,878 on Technical Specialist contracts. Many Technical Specialists were from the project host site with whom we served. Specific project training included raising and leveling a porch, restoring windows, plaster repair and cemetery restoration.

*"I thoroughly enjoyed working with your Corpsmembers and would love to do it in the future. I believe in your mission."*  
- Technical Specialist

Technical Specialist	Affiliation
Mike Braun	Braun Construction
Jonathan Appell	Atlas Preservation
Joe Hayes	Hayes Window Restoration
Mark Johnston	Historic Design Consulting LLC
Anders Christensen	TigerOx Painting
Curtis Bellows	Bellows Painting & Restoration
Duane Sellman	Sellman Log Structures
Duane Wegner	Habitat for Humanity
Jay Smrekar	Chippewa National Forest
James Jens	Westbrook Heritage House
Kevin Johnson	KJohnson Construction
Merlin Peterson	Pope County Museum
Mel Gagnon	Grand Portage National Monument
Greg Heide	Superior National Forest
Tim McKenzie	Superior National Forest
Stu Chilvers	US Forest Service
Laura Leppink	Northern Bedrock



### Project Hosts

Our Project Hosts partner with us to address critical preservation issues and to build a pathway to the preservation trades for our Corpsmembers. These service projects enable us to provide opportunities for young people to learn real-world skills and open the door to a future career. We operate on a fee-for-service model, based on one crew for one 8-day hitch. Our staff do their best to estimate the amount of work a crew can accomplish during a hitch however, we are not a contractor but a service learning organization. We work with the Project Hosts to manage priorities and expectations throughout each hitch. It's truly satisfying to see how cost-effective this kind of focused attention can be.

*"The crew did a fantastic job and exceeded our community's expectation. Each individual exuded a lot of integrity and expertise and was great with pre-emptive trouble shooting. As a group, they made the community feel comfortable with the overall project. The outcome - the quality and quantity of the work far exceeded all expectation. The momentum never let down during the brutal weather."*  
- Project Host



**Program Orientation and Training**

Host: Northern Bedrock Historic Preservation Corps

Site: Halfway Ranger Station Historic District, Ely, MN

Hitch 1.1: Wednesday, May 15, 2019 – Wednesday, May 22, 2019

Technical Specialist: Laura Leppink – Window Restoration

**SCHEDULE**

Wednesday, May 15th: Welcome to the Program!

- Meet in Duluth
- Organizational and AmeriCorps overview
- Introduction to Halfway Ranger Station Historic District

Thursday, May 16th: Intro to our Service

- Scavenger Hunt
- What is Historic Preservation?
- Start OSHA 10 certification

Friday, May 17th: OSHA Continued

- OSHA 10 continued

Saturday, May 18th: Spike Camp Prep

- Leave No Trace
- All Things Food

Sunday, May 19th: Leadership

- Leadership
- Crew Roles
- Vehicles
- Handbook Quiz
- Hitch Survey

Monday, May 20th: Site Visits and CPR

- Project Introductions
- Site Visit with Superior National Forest
- CPR/First Aid Certification

Tuesday, May 21st: Project Management

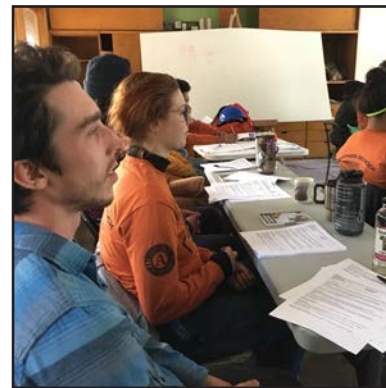
- Window Restoration
- Safety Talks

Wednesday, May 22nd: Wrap Up

- Cleaning up our space at Halfway Ranger Station
- Hitch 2 Assignments
- Debrief at Duluth Office



Getting to Know Each Other



OSHA 10 Classroom Portion



Interactive Handbook Quiz



Window Restoration



Lead Safety Training



TBG Traveling OSHA Trailer



Tool Rotations- Circular Saw



Landscaping

**Mid-Season Orientation and Training**

Host: Northern Bedrock Historic Preservation Corps

Site: Halfway Ranger Station Historic District, Ely, MN

Hitch 7: Wednesday, August 7, 2019 – Wednesday, August 14, 2019

**SCHEDULE**

Wednesday, August 7th: Welcome to the Program!

- Meet in Duluth
- Overview
- Introduction to Halfway Ranger Station Historic District
- Leave No Trace

Thursday, August 8th: Intro to our Service

- Crew Roles and Responsibilities
- Leadership
- Documentation
- Project Introductions

Friday, August 9th: Tools and Hitches

- Tool Rotations
- All Things Food
- Hitch Survey

Saturday, August 10th: Project Management

- Lead Safety
- Window Restoration
- Trailer Practice
- Personal Care

Sunday, August 11th: People and Vehicles

- Crew Roles Part 2
- Handbook Quiz
- Vehicles

Monday, August 12th: OSHA and Risk Management

- OSHA 10 training
- Risk Management Basics

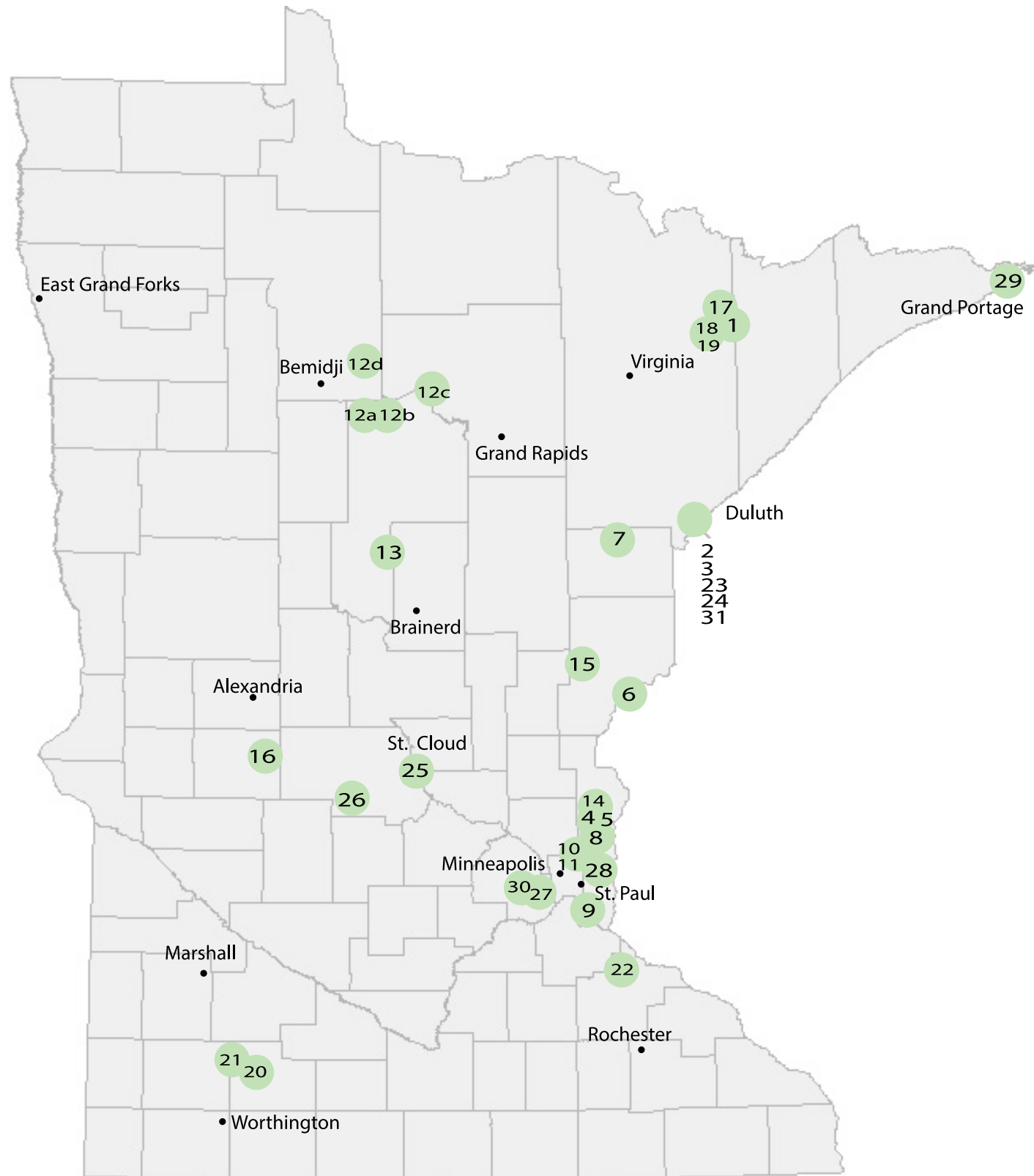
Tuesday, August 13th: OSHA 10 and Site Visits

- OSHA 10 Continued
- Site Visits

Wednesday, August 14th: Wrap Up

- Cleaning up our space at Halfway Ranger Station
- Hitch 8 Assignments
- Debrief at Duluth Office

## 2019 SERVICE PROJECT MAP



## 2019 FIELD SEASON SCHEDULE

**Hitch 1:** 5/15-5/22

1. Program Orientation and Training, Halfway Ranger Station, Ely

**Hitch 2:** 5/29-6/5

2. Harrison Park Rock Wall, Duluth
3. Western Lake Superior Habitat for Humanity Shed Building, Duluth

**Hitch 3:** 6/12-6/19

2. Harrison Park Rock Wall, Duluth
4. Hay Lake Museum, Marine on St. Croix
5. Gammelgarden Museum, Scandia
6. St. John's Landing Camp, St. Croix State Park, Hinckley
7. University of Minnesota Cloquet Forestry Center, Cloquet

**Hitch 4:** 6/26-7/3

8. Oakland Cemetery, Marine on St. Croix
9. Lakeside Cemetery, Hastings
10. Withrow Cemetery, Hugo
11. St. Matthews Cemetery, Stillwater

**Hitch 5:** 7/10-7/17

12. Chippewa National Forest
  - a. Supervisor's Office
  - b. Norway Beach Visitor's Center
  - c. Cut Foot Sioux Ranger Station
13. Heritage Group North, Pine Ridge Cemetery, Pine River
14. Chisago Lakes Lutheran Church Cemetery and Glader Cemetery, Center City

**Hitch 6:** 7/24-7/31

15. Old Sandstone School, Sandstone
16. Pope County Museum, Glenwood
17. Kawishiwi Pavillion, Superior National Forest, Ely

**Hitch 7:** 8/7-8/14

1. Mid-Season Orientation, Halfway Ranger Station, Ely
18. City of Ely Cemetery Restoration
19. Dorothy Molter Museum

**Hitch 8:** 8/21-8/28

12. Chippewa National Forest
  - d. CCC Camp Rabideau
20. Westbrook Heritage House Museum, Westbrook
21. Slayton Cemetery, Slayton
22. Anderson Center at Tower View, Red Wing

**Hitch 9:** 9/4-9/6

23. Adas Cemetery, Duluth
24. Forest Hill Cemetery, Duluth

**Hitch 9.5:** 9/10-9/14

25. Riverside Park, St. Cloud
26. Salem Historic Cemetery, Paynesville

**Hitch 10:** 9/18-9/25

27. Pioneers and Soldiers Cemetery, Minneapolis
28. City of Stillwater South Main Archaeological District, Stillwater
8. Oakland Cemetery, Marine on St. Croix
17. Kawishiwi Pavillion, Superior National Forest, Ely

**Hitch 11:** 10/2-10/9

1. Halfway Ranger Station, Ely
17. Kawishiwi Pavillion, Superior National Forest, Ely
29. Grand Portage National Monument, Grand Portage

**Hitch 12:** 10/16-10/23

30. Hennepin History Museum, Minneapolis
31. New Hope for Families, Duluth

**Bonus:** 10/26-10/28

31. New Hope for Families, Duluth



**Project:** Harrison Park Rock Wall

**Host:** City of Duluth Parks and Rec Department

**Site:** Harrison Park, Duluth, MN

**Hitch 2.1:** Wednesday, May 30, 2019 – Wednesday, June 5, 2019

**Hitch 3.3:** Wednesday, June 12, 2019 – Wednesday, June 19, 2019

**Technical Specialist:** Mike Braun, Braun Construction

### ABOUT THE SITE

Harrison park was established in 1909, which is the heart of what is now called the Lincoln Park neighborhood. This park, sometimes called Harrison Field, was named after Henry H. Harrison, a civil engineer. Harrison visited Duluth in the 1890s to consult on the city's water works and purchased some property in the city, including a parcel for Harrison Park. By 1911, the Park Board had installed playground equipment, including swings, sand boxes, and parallel bars.

### HITCH SUMMARY

All three crews rotated through Harrison Park to complete a long stone wall with Technical Specialist Mike Braun. Crews first removed the invasive species, Japanese Knotweed, from around the wall. Corpsmembers then removed the old mortar from the joints around the stone with hammer drills and HEPA vacuum systems. Next, with the guidance of Mike Braun, they removed loose stone, repointed, and reconstructed the removed stone. Crews then cleaned the wall after letting the mortar set for three days. The last step was installing the metal lath to the top of the wall with screws and pouring a mortar cap over it. A sealant will be applied to the wall to add more protection.

On Saturday, June 1st, Northern Bedrock and Rethos (then Preservation Alliance of Minnesota) hosted a public masonry workshop. Corpsmembers, Mike Braun, and staff taught 14 participants including city staff the process of repairing the rock wall, as well as basic brick laying techniques.

### Quantitative Measurements

1 ft thick by 83 ft long wall

1477 sq ft stone cleaned

- Sprayed down wall with SureKlean and water

1477sq ft stone repointed

- Raked out and removed old mortar using proper equipment to safely remove silica particles
- Noted areas where stone needed to be reset or replaced due to missing or fallen out stones
- Cleaned out joints
- Mixed mortar
- Pushed the mortar into the open joints using a trowel
- Reconstructed parts of the wall where the stone fell out or needed to be reset
- Roughed up joints
- Cleaned after three days
- Laid metal lath on top of the wall
- Poured mortar cap on top of the wall

26 stones reset



Site Visit - Before



Rock Wall - Before



OSHA Tool Training



Removing Loose Rocks



Removing Loose Rocks



Documenting Rocks







During



Mortar for Placement



Building the Cap



After



Replacing Stones



Repointed



Preparing for Workshop



Explaining the Steps at Workshop



Cleaning the Wall



Cleaning - During



Demonstrating Techniques at Workshop

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*



**Project:** Shed Building and House Siding  
**Host:** Western Lake Superior Habitat for Humanity  
**Site:** Twin Ports area  
**Hitch 2.2:** Wednesday, May 30, 2019 – Wednesday, June 5, 2019  
**Technical Specialist:** Duane Wegner – Volunteer with Habitat for Humanity

**ABOUT THE SITE**

Habitat for Humanity is a global nonprofit housing organization working in local communities across all 50 states in the U.S. and in approximately 70 countries. Habitat’s vision is of a world where everyone has a decent place to live. Habitat works toward their vision by building strength, stability and self-reliance in partnership with families in need of decent and affordable housing. Habitat homeowners help build their own homes alongside volunteers and pay an affordable mortgage.

**HITCH SUMMARY**

Three crews rotated their time throughout the hitch working on building sheds for Habitat for Humanity. While building the sheds, Corpsmembers learned valuable carpentry skills, tool use, correct measuring, and safety from longtime volunteer Duane Wegner.

**Quantitative Measurements**

- 2 sheds built
  - Constructed the floor framing and square
  - Added floor sheathing (5/8 plywood)
  - Constructed the framing for four lateral walls and square
  - Cut opening for the door
  - Attached the walls and the floor
  - Measured and construct roof trusses
  - Attached roof sheathing and drip edges
  - Constructed and attached doors
- 2 squares of siding done on Habitat build site



Shed 2 - Before



Shed 2 - During



Shed 1 - After



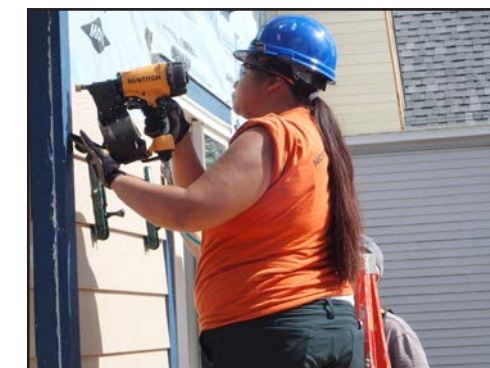
Shed 2 - After



Shed 1 - Before



Siding - During



Siding - During



Shed 1 - During



Shed 1 - During



Siding - Before



Siding - After

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*





**Project:** Bunk Rail Construction and Shutter Maintenance

**Host:** Conservation Corps of Minnesota and Iowa

**Site:** St. Croix State Park, St. John's Landing Camp, Hinckley, MN

**Hitch 3.1:** Wednesday, June 12, 2019 – Sunday, June 16, 2019

**Technical Specialist:** Mark Johnston – Historic Design Consulting, LLC

**ABOUT THE SITE**

St. John's Landing is a group camp at St. Croix State Park, used by the Conservation Corps of Minnesota and Iowa (CCMI) for youth programming for the past 35 years. CCMI sought out Northern Bedrock's expertise in completing historic preservation projects when it became necessary for them to upgrade their youth crew facilities, located at this National Historic Landmark. Both organizations are interested in collaborating further to maximize their impact and ability to address backlogged DNR projects, especially at state parks. Many of the buildings at the group camp were constructed during the 1930s by the Civilian Conservation Corps and are listed under the St. Croix Recreational Demonstration Area Historic Landmark District.

**HITCH SUMMARY**

CCMI crew leaders and staff started the bunk rails project by measuring and cutting dimensional lumber to fit each bunk. A Northern Bedrock crew finished each rail system by staining the lumber with linseed oil, assembling the pieces, and installing the railing on the top bunks. After the bunk rail project was complete, the crew moved on to inspecting cabin shutters and repairing those that did not close properly.

**Quantitative Measurements**

44 bed rails constructed

- Fasten four screws into the support boards, joining the support board to the bed rail
- Chiseled the edge to get good fit
- Stained with linseed oil
- Installed bed rails after a day of drying

138 window shutters inspected

13 shutter latches replaced

- Inspected all shutters for closure
- Assessed needs of non-closing shutters
- Drilled pilot hole
- Screwed in new latch
- Added washers in place if window is wedged open (as needed)



Bunks - Before



Building Bunk Railings



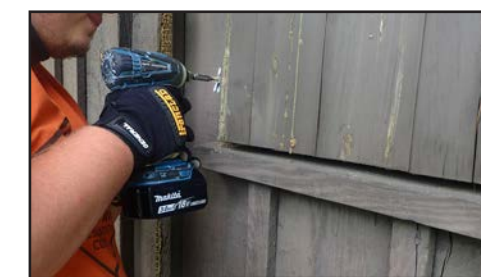
After



Shutters - Before



Inspecting Shutters



Fixing Hardware



**Project:** Repainting Entrance Signs and Landscaping

**Host:** University of Minnesota Cloquet Forestry Center

**Site:** Cloquet Forestry Center, Cloquet

**Hitch 3.1:** Sunday, June 16, 2019 – Wednesday, June 19, 2019

#### ABOUT THE SITE

The Cloquet Forestry Center started in 1909 as an experimental and demonstration forest as part of the University of Minnesota. Research started in 1911, making it the second oldest experimental forest operated by a U.S. University. On average, the center starts six new research projects and harvests about 35 acres a year.

#### HITCH SUMMARY

A crew painted two large wooden entrance signs maroon and gold. After the crew finished painting, they received a tour of the experimental forest. The Corpsmembers used loppers and folding saws to cut down competing trees in a three-foot radius around Spruce saplings in the experimental forest.

#### Quantitative Measurements

2 entrance signs painted

- Cleared overhanging branches and overgrown brush, and mowed around signs
- Scraped old paint with scrapers and wire brushes
- Applied primer
- Painted the letters gold
- Painted the rest of the sign maroon

6 acres of experimental forest landscaped

- Created space around tree sapplings



Entrance Sign - Before



Entrance Sign - During



Entrance Sign - During



Entrance Sign - After



**Project:** Log Restoration and Door Refinishing  
**Host:** Gammelgarden Museum  
**Site:** Prast Hus and Immigrant Hus – Gammelgarden Site, Scandia, MN  
**Hitch 3.3:** Sunday, June 16, 2019 – Wednesday, June 19, 2019  
**Technical Specialist:** Mark Johnston – Historic Design Consultation, LLC

**ABOUT THE SITE**

Gammelgarden Museum is the only open-air museum preserving and interpreting Swedish immigrant heritage in the United States. The site has five historic buildings from the surrounding community that tell the story of Swedish history and how they lived in the mid-1800s. The two buildings focused on were the Prast Hus and the Immigrant Hus. The Elim Congregation built the Prast Hus in 1868 as their first parsonage. The exact date of construction of the Immigrant Hus is unknown, but it is typical of the type of housing constructed by recent Swedish immigrants when they first arrived in the St. Croix Valley the 1850s.

**HITCH SUMMARY**

The Crew repaired the logs of the Prast Hus. On the Immigrant Hus, the Crew removed the door and altered it to fit more smoothly into the doorjamb. While working on the door, Corpsmembers replaced all the fasteners with ones that are correct for the period. The Crew also restacked a fallen dry stacked rock wall.

**Quantitative Measurements**

83 ln. ft. of logs repaired

- Cleaned out logs from debris and previous repairs
- Applied a borate mixture to the whole exterior of the structure
- Applied LiquidWood to the holes in the logs
- Filled the holes with wood epoxy, backer rod, and/or oakum
- Applied Log Jam over the materials in a smooth manner

1 door refinished

- Removed door from opening
- Investigated around the door opening for rot
- Removed hardware to adjust the door’s hang
- Replaced all fasteners
- Fitted door back in its opening and planed down as needed



Immigrant Hus Door Before



Immigrant Hus - During



Immigrant Hus - During



Immigrant Hus Door - After



Prast Hus - Before



Prast Hus - During



Prast Hus - After



After



Before

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*





**Project:** Painting, Landscaping, Door Refinishing  
**Host:** Washington County Historical Society  
**Site:** Hay Lake School and Erickson Log Home Museum Site, Scandia, MN  
**Hitch 3.2:** Wednesday, June 12, 2019 – Sunday, June 16, 2019  
**Technical Specialist:** Mark Johnston - Historic Design Consulting, LLC

**ABOUT THE SITE**

Hay Lake School was constructed in 1896 and Washington County Rural School system used the building until 1963. The building then sat empty and boarded up until 1970 when a group of citizens cleaned up the school and start giving tours of the building. The school was placed on the National Register of Historic Places on July 1, 1970. In 1974, the Washington County Historical Society took over the schoolhouse. The other building that Corpsmembers worked on was the Erickson Log Home. This structure was built with hand hewed logs by Swedish Immigrants Johannes Erickson and his thirteen year old son Alfred in 1868. It was used as their primary residence until 1904, when the family built a larger farmhouse. It was used as an outbuilding on the farm until it was moved to its present location in 1974.

**HITCH SUMMARY**

Corpsmembers worked on a variety of tasks around the museum. These included: painting the doors on the Erickson home that had been repaired previously, painting a pedestrian bridge, painting fence posts and an accessibility ramp along the school. Corpsmembers worked with Mark Johnston to learn about historic shellac and apply fresh shellac on the weathered exterior schoolhouse doors. They also uncovered a patio area and planted native ferns. On June 15, Corpsmembers helped set up a fundraiser event for the Washington County Historical Society.

**Quantitative Measurements**

- 192 sq ft paint applied
- 3 doors refinished
  - Scraped off varnish and removed debris
  - Glued down veneer and clamped together
  - Applied Shellac
  - Sanded with sandpaper to prepare for next layer
  - Applied second layer of Shellac
  - Applied a layer of varnish
- 1 bridge painted
- 1 ramp painted
- 839 sq ft of landscaping



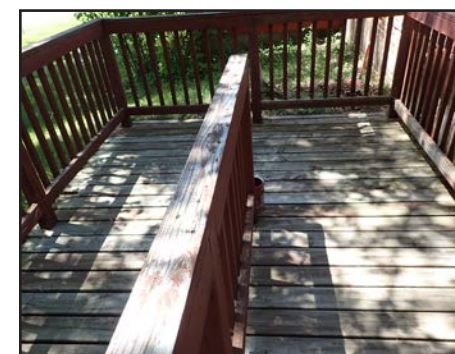
Hay Lake School - Before



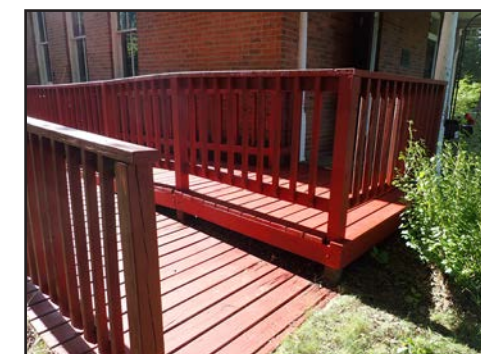
Hay Lake School - After



Hay Lake School - Before



Before



After



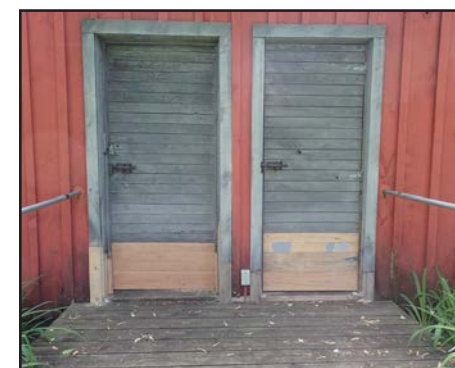
Hay Lake School - After



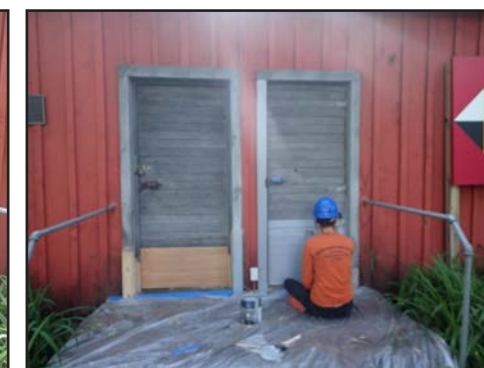
Pedestrian Bridge - Before



Pedestrian Bridge - After



Erickson Cabin - Before



Erickson Cabin - During



Erickson Cabin - After

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*





**Project:** Cemetery Restoration

**Host:** Marine Restoration Society

**Site:** Oakland Cemetery, Marine of St. Croix, MN

**Hitch 4.1:** Wednesday, June 26, 2019 – Wednesday, July 3, 2019

**Hitch 10.2:** Sunday, September 22, 2019 – Wednesday, September 25, 2019

**Technical Specialist:** Jonathan Appell – Atlas Preservation

#### ABOUT THE SITE

Oakland Cemetery was established in 1875. The City of Marine on St. Croix owns, operates and maintains this non-denominational cemetery. Oakland, like many cemeteries of the time, was located on the perimeter of the village center positioned on top of the river bluffs overlooking Marine on St. Croix and the St. Croix River.

#### HITCH SUMMARY

The first four days of Hitch 4 encompassed all-program Cemetery Training days with staff and Technical Specialist Jonathan Appell, of Atlas Preservation. All crews learned how to clean, edge, and reset monuments and gravestones. The last four days of the hitch, one Crew continued these projects at Oakland Cemetery.

A crew returned in September to continue preservation work at Oakland Cemetery. On Sunday, September 22, the crew led a public workshop on cleaning and leveling stones at the cemetery. The crew spent the rest of the hitch cleaning, edging and leveling stones, as well as tuckpointing a small stone wall.

#### Quantitative Measurements

540 sq ft (20 in x 27 in) stone wall tuckpointed

8 monuments excavated

48 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

234 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

146 monument cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



After



Before



During



After



Stone Wall - After



Before



After





**Project:** Cemetery Restoration

**Host:** Withrow Cemetery Association

**Site:** Withrow Cemetery, Hugo, MN

**Hitch 4.2:** Sunday, June 30, 2019

#### ABOUT THE SITE

A small cemetery located in Washington County near Hugo, MN.

#### HITCH SUMMARY

After our all-crew four-day intensive cemetery training with Jonathan Appell at Oakland Cemetery, one Crew went to Withrow Cemetery for a day and used the skills they learned.

#### Quantitative Measurements

17 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

19 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

15 monument cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



After



Before



After



Before



After



**Project:** Cemetery Restoration

**Host:** St. Matthew's Cemetery Association

**Site:** St. Mathew's Cemetery, Stillwater, MN

**Hitch 4.2:** Monday, July 1, 2019

#### ABOUT THE SITE

A small cemetery located in Grant Township of Washington County near Stillwater, MN.

#### HITCH SUMMARY

After our all-crew four-day intensive cemetery training with Jonathan Appell at Oakland Cemetery (Marine on St. Croix), one crew went to St. Mathew's Cemetery for a day and used their skills they learned.

#### Quantitative Measurements

7 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the perimeter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

20 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

14 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



During



Before



After



Before



After





**Project:** Cemetery Restoration

**Host:** Lakeside Cemetery Association

**Site:** Lakeside Cemetery, Hastings, MN

**Hitch 4.3:** Sunday, June 30, 2019 – Wednesday, July 3, 2019

**Hitch 4.2:** Tuesday, July 2, 2019 – Wednesday, July 3, 2019

**ABOUT THE SITE**

Lakeside Cemetery was founded in 1867 and began as 13 acres. The cemetery is now 34 acres and is the final resting place for over 5000 people including over 500 veterans. Many of Hastings’s founders and political leaders are buried here.

**HITCH SUMMARY**

After our all-crew four-day intensive cemetery training with Jonathan Appell at Oakland Cemetery (Marine on St. Croix), one crew went to Lakeside Cemetery and used the skills they learned. A second crew joined them for the last two days of the hitch.

**Quantitative Measurements**

53 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

5 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

58 monuments cleaned

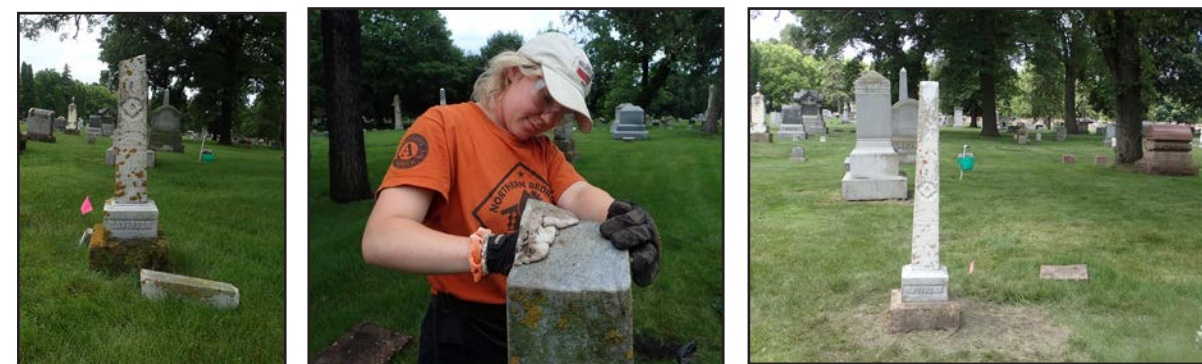
- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before

During

After



Before

During

After



Before



Before



During



After





**Project:** Staining, Painting, Window Restoration, Cedar Roof Repair, Cleaning, Stairs refinishing  
**Host:** Chippewa National Forest, Cass Lake, MN  
**Sites:** Cut Foot Sioux Ranger Station, Norway Beach Visitor Center, Supervisor’s Office, CCC Camp Rabideau

**Hitch 5.1:** Wednesday, July 10, 2019 – Wednesday, July 17,2019

**Cut Foot Sioux Ranger Station**

Cut Foot Sioux Ranger Station is a small log building built in 1908 and is the oldest existing Forest Service Ranger Station east of the Mississippi River. The historic ranger station was renovated in 1996 and is open to the public during the summer. The crew worked on re-glazing the windows and staining the cedar shakes.

**Quantitative Measurements**

- 4 double hung 4-over-4 Windows re-glazed
  - Removed old glazing
  - Removed glass as necessary
  - Sanded muttons for new glazing
  - Re-glazed window

**Forest Supervisor’s Office**

Pike Bay Company 706 CCC built the Forest Supervisor’s Office (log palace) in Cass Lake. The building has 16,000 lineal feet of red pine logs, each 10-16 inches in diameter used for outer walls and partitions. Nels Bergley of Walker, Minnesota was the designer and builder. The crew cleaned, refinished the wooden stair treads and handrails, and replaced cedar shakes on a kiosk located outside of the building.

**Quantitative Measurements**

- 30 stair treads and 2 handrails sanded and refinished
  - Sanded stair trends
  - Cleaned stair trends
  - Applied Bona Floor Sealer
- 25 sq ft of Information kiosk reroofed
  - Stapled tar paper to roof
  - Laid shakes at the bottom with overhang for first row
  - Nailed the first row near bottom edge of the shake
  - Applied the second layer of shakes directory over the first row, 7.5 inches above previous row bottom. Nail location was 8 inches up from the bottom of the shake



Cut Foot Sioux Ranger Station - Before



Cut Foot Sioux Ranger Station - After



Cut Foot Sioux Ranger Station - Before



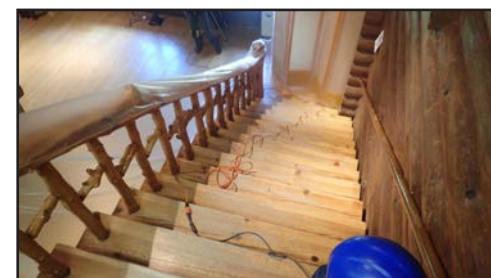
Cut Foot Sioux Ranger Station - After



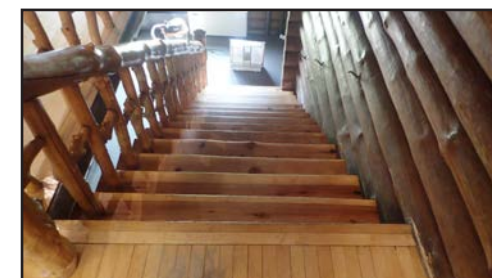
Supervisor’s Office Kiosk - Before



Supervisor’s Office Kiosk - After



Supervisor’s Office During



Supervisor’s Office After



**Hitch 8.1:** Wednesday, August 21, 2019 – Wednesday, August 28, 2019

### CCC Camp Rabideau

Camp Rabideau is a National Historic Landmark and represents one of the best preserved Civilian Conservation camps in the Country. The camp is located on 112 acres and there are 15 of its original buildings still stand. The crew scraped and painted three of the Mess Hall's four exteriors walls.

#### Quantitative Measurement

4250 sq ft of old paint removed and new paint applied

- Scraped old paint off using lead safety protocols
- Removed nails and staples for smooth surface
- Vacuumed and cleaned up lead paint chips
- Primed and painted surface

### Norway Beach Visitor Center

The Norway Beach Visitor Center was built as a campground shower house with an apartment upstairs for the camp caretaker in 1936 by the Pike Bay CCC. It was renovated in 1989-90 as an interpretive center. The crew cleaned the building's first floor inside and out.

#### Quantitative Measurements

80.5 hours of cleaning



Rabideau - Before



Rabideau - After



Rabideau - Before



Rabideau - After



Norway Beach Visitor Center



Norway Beach Visitor Center

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**Project:** Cemetery Restoration  
**Host:** Chisago Lakes Lutheran Church  
**Site:** Chisago Lake Cemetery and Glader Cemetery  
**Hitch 5.2:** Wednesday, July 10, 2019 – Wednesday, July 17, 2019

**ABOUT THE SITE**

Chisago Lake Cemetery and Glader cemetery are a couple of the earliest Lutheran Cemeteries in the state. They are maintained by Chisago Lakes Lutheran Church near Center City, MN.

**HITCH SUMMARY**

A crew cleaned, leveled, and reset cemetery stones and monuments.

**Quantitative Measurements**

**Chisago Lake Cemetery**

- 123 monuments cleaned
- 8 monuments edged
- 53 monuments raised and leveled
- 8 monuments excavated
- 22 monuments reset
- 151 total monuments improved

**Glader Cemetery**

- 28 monuments cleaned
- 13 monuments raised and leveled
- 3 monuments excavated
- 5 monuments reset
- 28 total monuments improved

**Reset**

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

**Edged**

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

**Cleaned**

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



After



Before



After





**Project:** Cemetery Restoration

**Host:** Heritage Group North

**Site:** Pine Ridge Cemetery, Pine River, MN

**Hitch 5.3:** Wednesday, July 10, 2019 – Wednesday, July 17, 2019

**ABOUT THE SITE**

Pine Ridge Cemetery is a medium-sized cemetery near Pine River, MN. Its cemetery board started in 1941 to preserve the landscape and form interest in the maintenance of the cemetery.

**HITCH SUMMARY**

A crew worked on cleaning, leveling, and resetting cemetery stones and monuments as well as recorded information to identify the grave sites in the oldest section of the cemetery. They were also able to excavate the border of this cemetery section. The cemetery board members worked beside the corpsmembers to learn the different processes for maintaining a cemetery.

**Quantitative Measurements**

87 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

128 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary

215 total monuments improved



Before



After



Before



After



Before



During



After



Before



Reset - During



After

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*





**Project:** Cleaning and Revitalizing

**Host:** City of Sandstone, MN

**Site:** Old Historic Sandstone School "The Rock," Sandstone, MN

**Hitch 6.1:** Wednesday, July 24, 2019 – Wednesday, July 31, 2019

**ABOUT THE SITE**

The Sandstone school was built in 1901 and rebuilt after 1910, doubling its size. The building is made of high quality stone from the local quarry. The school district moved into a new building in the early 2000's and left the original building empty. After a couple of private attempts to rehabilitate the building, the City of Sandstone re-possessed the building and is actively planning for its reuse.

**HITCH SUMMARY**

The crew worked to clear rooms of debris and junk, spruced up the auditorium space, and removed nails from salvageable hardwood floorboards. The City of Sandstone can now bring potential collaborators into a clean and revived space. During the hitch, the city held an ice cream social and invited the public to see what our corpsmembers were accomplishing, as well as celebrate the history of the building. Approximately 150 people attended!

**Quantitative Measurements**

300 sq ft of graffiti covered

- Painted over graffiti

2111 floor boards salvaged

- Organized scattered auditorium floor boards
- Removed nails from floor boards

33,000 sq ft of debris cleared

- Cleaned debris, objects, and dirt out of first floor and second floor spaces



First Floor - Before



First Floor - After



Second Floor Room - Before



Second Floor Room - After



Entrance - Before



Entrance - After





**Projects:** Reconstruction of Pavilion Porch and Borate Treatment  
**Host:** Superior National Forest  
**Site:** South Kawishiwi River Campground Pavilion, and Isabella Ranger Station  
**Hitch 6.2:** Wednesday, July 24, 2019 – Wednesday, July 31, 2019  
**Hitch 10.1:** Wednesday, September 18, 2019 – Wednesday, September 25, 2019  
**Hitch 11.1:** Wednesday, October 2, 2019 – Wednesday, October 9, 2019

**South Kawishiwi Pavilion**

The Civilian Conservation Corps built the South Kawishiwi enclosed log pavilion in 1933. The Pavilion is located at a Forest Service campground and can be rented out. The crew’s first project was removing the porch, salvaging the porch floor boards, and uncovering a flagstone walkway. The second hitch involved adding sister boards to the floor joist and securing the joists with blocking. The final hitch’s crew continued with blocking and adding floor boards to the porch structure.

**Quantitative Measurements**

- 93.5 feet of porch floor removed
- 174 floor boards removed and salvaged
  - Nailed removed from boards
- 25.75 square feet of landscaping
  - Uncovered flagstone walkway
- 257.75 Hours on porch joists and floor board preparation
  - Removed interior ceiling
  - Cut rotted joists flush with building on exterior
  - Added sister boards to joists that are 2/3 interior with 1/3 exterior for porch
- 91 Floor boards replaced
  - Added dowels and sanded in board grooves
  - Nailed floor boards to joists
- 300 square feet of floor joist secured with blocking
  - Added re-enforcement boards between joists

**Isabella Ranger Station**

The Isabella Ranger Station was a complex of 21 buildings, 11 of which contribute to its National Register of Historic Places Historic District. The Civilian Conservation Corps built the rustic style buildings in the 1930s. The Superior National Forest now uses the buildings for maintenance sheds, storages, and offices. The crew cleaned and treated for pest control on the warehouse buildings for three days of Hitch 6.2.

**Quantitative Measurements**

- 56 square feet of borates treatment
  - Cleaned building with a TSP solution and brushes
  - Sprayed borate solution on buildings



Pavilion - Before



Pavilion - During



Pavilion - During



Pavilion - During

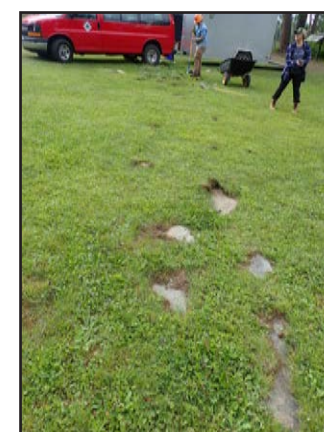


Pavilion - During



Pavilion - During

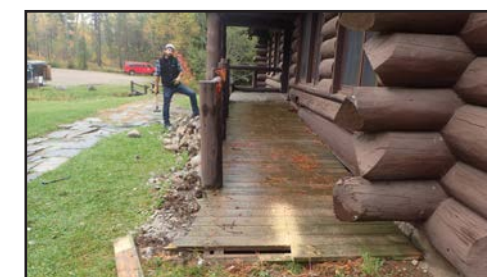
\*The Pavilion porch project is on-going and slated for completion by the SNF in 2020.



S. Kawisiwi Campground Path - Before



S. Kawisiwi Campground Path - After



Pavilion Ramp - Before



Pavilion Ramp - After





**Project:** Building Restoration and Cemetery Workshop

**Host:** Pope County Historical Society

**Site:** Pope County Museum, Glenwood, MN

**Hitch 6.3:** Wednesday, July 24, 2019 – Wednesday, July 31, 2019

#### ABOUT THE SITE

The Pope County Museum is located in Glenwood, Minnesota on the shores of Lake Minnewaska. Operated by the Pope County Historical Society, it is open year-round. The museum includes a genealogy library, exhibit galleries, six historic buildings, and a display of agricultural and industrial equipment.

#### HITCH SUMMARY

The crew worked on the Lake Cabin and the Old Log Cabin (the original Pope County Courthouse), helped move antique machinery, and provided cemetery restoration instruction. On the Lake Cabin, they scraped and painted the exterior, and restored the porch by installing new screens. They also salvaged and repaired the original window trim and replaced some siding. They applied borate to the Old Log Cabin to deter pests and rot. The crew helped move antique machinery into Pope County's new interpretive building. The crew measured and cut floor boards to length for the Log Cabin. Lastly, the crew conducted an informal cemetery workshop for ten participants at Glenwood Cemetery.

#### Quantitative Measurements

638 sq ft scraped and painted

542 sq ft of borates applied

18 floor boards cut to length

13 large pieces of machinery moved

37 cemetery monuments improved

- Cleaned, leveled and edged

#### Processes Taught During Cemetery Restoration Workshop

##### Edged Monuments

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

##### Cleaned Monuments

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Lake Cabin - Before



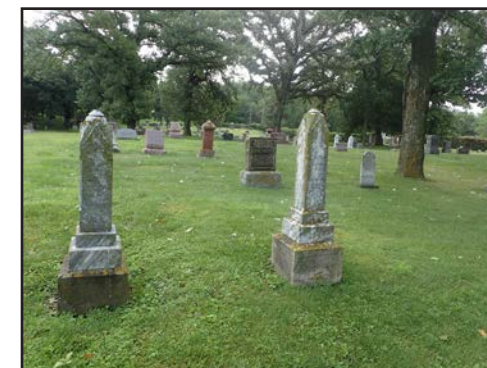
Lake Cabin - After



Lake Cabin - Before



Lake Cabin - After



Cleaning - Before



Cleaning - After





**Project:** Cemetery Restoration

**Host:** City of Ely

**Site:** City of Ely Cemetery

**Hitch 7.2:** Sunday, August 11, 2019 – Wednesday, August 14, 2019

#### ABOUT THE SITE

The Ely Cemetery is located in town and offers a final resting place for all.

#### HITCH SUMMARY

A crew cleaned, leveled, and reset monuments and removed brush from the City of Ely's Cemetery.

#### Quantitative Measurements

36 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Used tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

86 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary

86 total monuments improved

1194 sq ft of brush removed



Before



After



Before



After



Before



After





**Project:** Window Restoration

**Host:** Dorothy Molter Museum

**Site:** Dorothy Molter Museum, Point Cabin, Ely, MN

**Hitch 7.3:** Sunday, August 11, 2019- Wednesday, August 14, 2019

#### ABOUT THE SITE

Dorothy Molter was a legend in the Boundary Water Canoe Area Wilderness. For most of 56 years, she lived along on the Isle of Pines on Knife Lake, 15 miles from the nearest road. When Dorothy died in 1986, she was the last remaining non-indigenous, year-round inhabitant of the BWCAW. The Dorothy Molter Museum preserves and interprets Northwoods wilderness heritage through learning opportunities inspired by Dorothy Molter. They are a private, non-profit organization who represents part of the unique and rich history of northeastern Minnesota.

#### HITCH SUMMARY

A four-person crew re-glazed the Dorothy Molter Museum's Point Cabin Porch windows.

#### Quantitative Measurements

12 windows re-glazed (in place)

- Removed old glazing
- Removed glass if necessary
- Sanded muttons for new glazing
- Re-glazed windows



Point Cabin - Before



During



During



Point Cabin - After





**Project:** Window Restoration

**Host:** Anderson Center

**Site:** Anderson Center at Tower View Estate, Red Wing, MN

**Hitch 8.2:** Wednesday, August 21, 2019 – Wednesday, August 28, 2019

**Technical Specialist:** Joe Hayes – Hayes Window Restoration

#### ABOUT THE SITE

The former estate of Dr. Alexander Pierce Anderson was built between 1915-1921 in a distinct Georgian Revival architectural style. The Tower View estate served as the Anderson family residence, a full-fledged working farm, and as a vibrant research laboratory up until 1941. Dr. AP Anderson, a first generation American of Swedish ancestry, gained worldwide renown for developing the American breakfast cereals "Quaker Puffed Wheat" and "Quaker Puffed Rice". Today the Anderson Center at Tower View is known as one of the top artistic destination points in the upper Mississippi River region. The center has served the artistic community and the citizens of Minnesota through artistic leadership, program development, and support since 1995.

#### HITCH SUMMARY

The crew restored windows on the main house and the water tower. Corpsmembers learned window restoration from Technical Specialist Joe Hayes during a day-long intensive workshop. They restored windows by repairing lower sash mechanics, removing deteriorated window glaze, applying new glazing, and then scraping, priming and painting each window.

#### Quantitative Measurements

38 windows restored

- Numbered windows
- Removed window from jam
- Opened window pockets
- Replaced window sash cord
- Removed old paint
- Removed old glazing
- Prepared wood surfaces for primer
- Applied primer
- Re-glazed windows
- Applied paint
- Returned windows



Main House - Before



Main House - After



During



Water Tower - During



After

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*





**Project:** Window Restoration

**Host:** Westbrook Heritage House Museum

**Site:** Westbrook Heritage House, Westbrook, MN

**Hitch 8.3:** Sunday, August 14, 2019- Friday, August 23, 2019

**Technical Specialist:** James Jens

#### ABOUT THE SITE

The Westbrook station was built along the Currie Line Railroad. This 38.6-mile railway led to the growth of agriculture and the establishment of towns in the northern part of the Cottonwood County only a decade after its completion in the 1890s. The depot in Westbrook is the only one on the Currie Line still standing on its original site. It currently houses exhibits on the history of the area.

#### HITCH SUMMARY

The priorities for this project were to replace the rotten window sills and restore the windows on the Depot building and to add chinking to the corners, doors, and windows on the log cabin building. Both buildings were also coated with borate to help preserve the wood.

#### Quantitative Measurements

6 linear feet of oakum chinking added

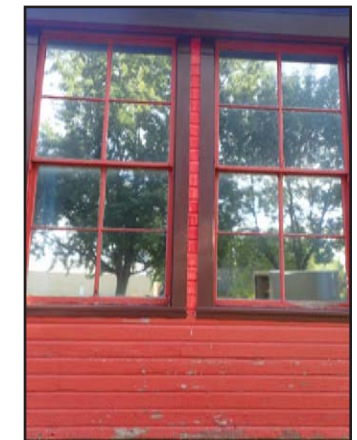
2 window sills replaced

6 windows panes replaced and re-glazed

- Removed old glazing that was falling out
- Re-glazed windows
- Painted new sills and glazing on windows



The Depot - Before



The Depot - After



The Depot - During



The Depot - After





**Project:** Cemetery Restoration

**Host:** Slayton Cemetery Association

**Site:** Slayton Cemetery, Slayton, MN

**Hitch 8.3:** Saturday, August 24, 2019- Wednesday, August 28, 2019

#### ABOUT THE SITE

Slayton Cemetery is a small cemetery located in the southwest corner of Minnesota.

#### HITCH SUMMARY

A crew cleaned, leveled, and reset monuments.

#### Quantitative Measurements

34 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

34 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

83 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



After



Before



After



Before



After





**Project:** Cemetery Restoration

**Host:** Adas Israel Chevra Kadisha Cemetery

**Site:** Adas Israel Chevra Kadisha Cemetery, Duluth, MN

**Hitch 9.1 and 9.2:** Wednesday, September 4, 2019 – Thursday, September 5, 2019

**ABOUT THE SITE**

Adas Cemetery is believed to be one of the first Jewish cemeteries in Minnesota. This was the first cemetery in Rice Lake Township, dating from 1888. It has been known as Adas Israel Cemetery since 1899. This is also where Bob Dylan aka Robert Zimmerman's parents are buried.

**HITCH SUMMARY**

A crew worked on cleaning, leveling, and resetting cemetery stones and monuments.

**Quantitative Measurements**

**Reset**

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

**Edged**

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

**Cleaned**

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary

60 monuments improved



Before



After



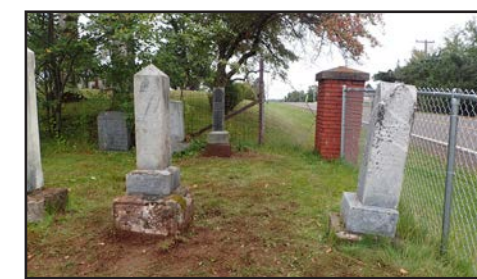
Before



After



Before



After





**Project:** Cemetery Restoration

**Host:** Ordean Foundation

**Site:** Ordean Plot in Forest Hill Cemetery, Duluth, MN

**Hitch 9.3:** Wednesday, September 4, 2019 – Thursday, September 5, 2019

#### ABOUT THE SITE

Forest Hill Cemetery is an example of the rural cemetery movement, which utilized park like settings on the outskirts of town. Originally, Forest Hill was located along the banks of Chester Creek, from East Fourth Street to East Seventh Street, between 12th and 14th Avenues. In 1888, the Forest Hill Cemetery Association chose a new cemetery at hunter's point. Over the next several years, an estimated 700 bodies were exhumed from the old cemetery and reburied at the present location. The cemetery was established in 1890.

#### HITCH SUMMARY

The Ordean Foundation sponsored a crew to clean the Ordean Family Bench and surrounding monuments.

#### Quantitative Measurements

1 large memorial bench cleaned (15ft L x 6ft W x 64 $\frac{1}{2}$  in H)

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary

27 footstones uncovered and cleaned

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone



Ordean Bench - Before



Ordean Bench - After



Louise Ordean - Before



Louise Ordean - After



Albert Ordean - Before



Albert Ordean - After





**Project:** Masonry Restoration

**Host:** City of St. Cloud Parks and Recreation

**Site:** Riverside Park, St. Cloud, MN

**Hitch 9.5.1:** Wednesday, September 10, 2019 – Saturday, September 14, 2019

**Technical Specialist:** K Johnson Construction

**ABOUT THE SITE**

Riverside Park was established in 1910 by the City of St. Cloud and significantly improved in 1933-1941 under a series of New Deal federal relief projects. This park is located on the east bank of the Mississippi River in Southeast St. Cloud. The park was developed along the bank of the River with its characteristic floodplain and terrace. Park designers responded to, and took advantage of the varied topography and did not fundamentally change it. The Federal Emergency Relief Administration (FERA) in 1933 built the fieldstone stairs and drainage flume that the crews uncovered and cleaned. It is believed that the rocks used to build this structure may have come from "rocks from old river beds near Popple Creek." Many of these stones were split by hand.

**HITCH SUMMARY**

Corpsmembers worked with technical specialists from K Johnson Masonry to reset missing stones, repoint sections of the stairs and walls, clean out drainage tiles, and clean the stair and wall stones.

**Quantitative Measurements**

533 square feet of landscaping

- Uncovered and removed brush from the drainage flumes and around the walls

1441 square feet of stone cleaned

- Cleaned with a power washer and D/2 Solution

547.3 cubic feet of stone deconstructed

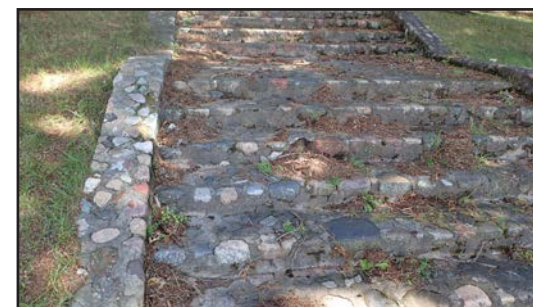
- Removed loose stone and documented where they went
- Removed loose mortar

547 cubic feet of stone reconstruction

- Reconstructed the stone structure where the stones were removed during deconstruction

547 square feet of stone repointed

- Repointed the reconstructed stone sections
- Struck the new joints with finishing tools



Staircase - Before



Staircase - After



Stone Wall - Before



Stone Wall - After



Staircase - Before



Staircase - After





**Project:** Cemetery Restoration

**Host:** Salem Historical Church and Cemetery Association, Inc.

**Site:** Salem Historical Church Cemetery, Paynesville, MN

**Hitch 9.5.2 and 9.5.3:** Wednesday, September 10, 2019 – Saturday, September 14, 2019

#### ABOUT THE SITE

Salem Church was built in 1897, after which the congregation went through many mergers. The church was closed after 1968 and since then the space has been used for their annual Salem Fest and Christmas programs. The Salem Historical Church and Cemetery Association, Inc. formed in 1998 and has been restoring the church buildings.

#### HITCH SUMMARY

Two crews spent five days resetting, edging, leveling, and cleaning the cemetery's monuments.

#### Quantitative Measurements

57 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

46 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

100 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary



Before



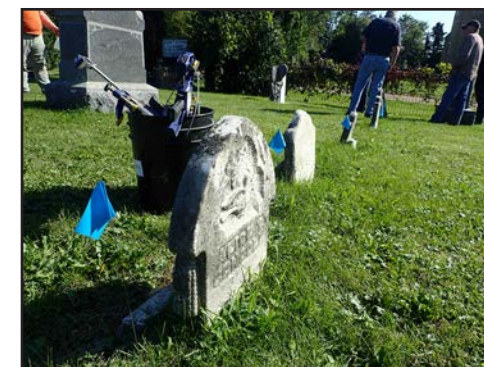
After



Before



After



Before



After



**Project:** Archaeological Ruin Vegetation Removal

**Host:** City of Stillwater

**Site:** Ruins of the Hersey & Bean Lumber Company Sawmill

**Hitch 10.2:** Wednesday, September 18, 2019- Wednesday, September 21, 2019

**ABOUT THE SITE**

This archeological site contains the ruins of the first sawmill in the City of Stillwater. It started operation 1854 and had an output of about 40,000 feet per day. The original company continued until 1861 and it became Hersey, Staples, and Hall. For the last decade of operation, it was known as Hersey, Staples and Bean. The area is now under-development to become the new Bridgeview Park.

**HITCH SUMMARY**

The crew cut and treated invasive species such as Buckthorn, Black Locust, and Honeysuckle that had completely obscured the historic ruins. The crew prioritized areas around the ruins of old office, sawmill and planning mill, and masonry walls.

**Quantitative Measurements**

1.08 acres of invasive species removed

- Identified and cut down invasive species
- Applied herbicide using a Buckthorn Blaster
- Marked large brush for chainsaw removal



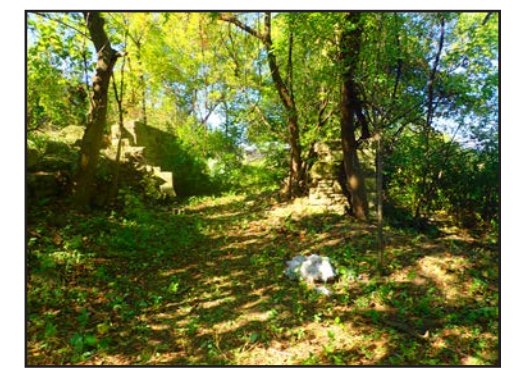
Before



During



After



After



After



After





**Project:** Cemetery Restoration

**Host:** Friends of the Pioneer and Soldiers Cemetery

**Site:** Pioneer and Soldiers Cemetery, Minneapolis, MN

**Hitch 10.3:** Wednesday, September 18, 2019 – Wednesday, September 25, 2019

#### ABOUT THE SITE

Pioneer and Soldier Cemetery is the oldest cemetery in the City of Minneapolis, with the first burial occurring in 1853. The cemetery is the final resting place for many individuals who helped shape the early history of Minneapolis. The Friends of the Cemetery group has identified between 250 and 300 early African American residents of Minneapolis buried in the cemetery, many of whom were emancipated from slavery. Two of the founders of the St. James A.M.E Church, the oldest African American congregation in the State of Minnesota, are buried here. It is one of the few cemeteries to be listed on the National Register of Historic Places.

#### HITCH SUMMARY

A crew cleaned, leveled, and reset cemetery stones and monuments.

#### Quantitative Measurements

13 monuments reset

- Separated the loose levels of the monument
- Leveled and straightened the lower base using rock bars
- Prepared and cleaned the paired surfaces that were being joined, then applied epoxy in the center
- Placed lead spacers near each corner of the lower paired surface
- Set strips of monument setting compound around the parameter of the lower surface
- Use tripod and hoist as needed to lift the upper section(s) of the stone onto the lower surface (base)
- Trimmed excess monument setting compound pressed out by weight of stone

22 monuments edged

- Inch perimeter dug around the ground-level of the stone and the depth of the stone
- Used spades and rock bars to reset stone to level it with the ground using gravel and sand
- Returned sod and dirt around the stone

112 monuments cleaned

- Saturated stones with water
- Scraped off heavy lichen with plastic putty knives
- Scrubbed the stones with soft-bristle brushes
- Removed lichen from engraved lettering using wooden skewers
- Applied D2 solution and repeated as necessary

147 total monuments improved



Before



After



Before



After



Before



After





**Project:** Stockade Repair

**Host:** Grand Portage National Monument – National Park Service

**Site:** Grand Portage National Monument Stockade

**Hitch 11.2:** Wednesday, October 2, 2019 – Wednesday, October 9, 2019

### ABOUT THE SITE

Grand Portage National Monument is located on the north shore of Lake Superior within the Grand Portage Ojibwe Reservation and is dedicated to the preservation of the center of fur trade activity and Ojibwe heritage. The site was established as a National Monument in 1960. It explores the partnership between the Grand Portage Ojibwe and the North West Company during the North American fur trade era. The structures on the site are re-creations.

### HITCH SUMMARY

The primary project at Grand Portage National Monument was the replacement of stockade whalers. The whalers are the horizontal logs holding together the vertical logs of the stockade that surrounds the historic fur trading post site. The old whaler is cut down from the stockade and measured for a new whaler. Once the new whaler is ready, the vertical logs are placed back up and the new whaler is attached to the vertical pieces with cedar dowels. The crew also helped with other tasks around the monument such as cleaning and organizing a garage space, digging a trench for drainage, and shoveling gravel into the trench.

### Quantitative Measurements

72 linear feet of stockade repairs

- Raked back rocks around posted
- Used Sawzall to cut dowels holding posts to whalers
- Caught and removed post
- Measured new whaler
- Attached whaler to king post with 8" lag bolts
- Set vertical posts back and connected to whalers with wooden dowels
- Raked rocks back into place

55 square feet of stockade landscaping



Stockade - Before



Stockade - During



Stockade - After



Stockade - Before



Stockade - After





**Project:** Plaster restoration

**Host:** New Hope for Families

**Site:** Former St. Anthony of Padua Catholic Church, Duluth, MN

**Hitch 12.1:** Wednesday October 16th – Monday October 21st

**Bonus Hitch:** Thursday October 24th – Saturday October 26th

**Technical Specialist:** Curtis Bellows- Bellows Painting and Restoration

### ABOUT THE SITE

This Mediterranean-Style influenced building was constructed in 1923 for German Catholics of Duluth. The original facility included a church, school, and rectory. Like many historic churches, the parish faced declining attendance and rising maintenance costs. In September of 1984, parishioners held their last mass there. It was then used as a school, followed by storage for medical records. The Catholic diocese sold the building to St. Mary's Medical Center for \$1. New Hope for Families purchased the property from the Sisters of St. Mary's for \$2. New Hope for Families is a nonprofit organization whose mission is to create and support a network of foster care homes for children needing a safe place to land during transition, either back home or to foster care.

### HITCH SUMMARY

Two crews learned plaster and taping techniques from Curtis Bellows of Bellows Painting and Restoration. They repaired plaster in the upstairs former sanctuary space, and removed deteriorating plaster which they replaced with masonry board and mudding in the basement.

### Quantitative Measurements

525 sq ft of Plaster Repair and Mudding

- Scraped loose paint to reveal cracks
- Broke loose plaster with hammer claw
- Taped large cracks
- Applied Durabond in cracks and holes
- Created hand palm texture:
  - Over applied textured Durabond
  - Sanded/Scraped down some texture
  - Applied Durabond with magic trowel
 (long flexible blade like a squeegee) to correct texture

975 sq ft of cement board installed and covered

- Installed furring strips for applying new Durock boards
- Hung Durock boards for large areas
- Taped cracks of Durock
- Plastered cracks and taped
- Plastered a thin layer over all Durock (2 coats)



Upstairs - Before



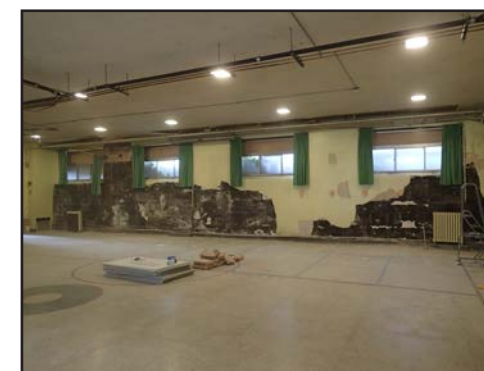
Upstairs - After



Upstairs - Before



Upstairs - After



Gym - Before



Gym - During





**Project:** Interior Restoration

**Host:** Hennepin History Museum

**Site:** Hennepin History Museum (former Christian Family Mansion)

**Hitch 12.2:** Wednesday October 16th – Monday October 21st

**Technical Specialist:** Anders Christensen – Tiger Ox Painting

Mark Johnston – Historic Design Consultation, LLC

### ABOUT THE SITE

The museum is located in the historic Christian Family Mansion, a home built in 1919 in what was then the Washburn-Fair Oaks Mansion District of Minneapolis (now the Whittier neighborhood). The house was designed by Hennepin County architects Hewitt and Brown with a blend of Gothic Revival and Renaissance Revival Styles. The residence was commissioned by George Henry Christian, who earned his wealth by developing a highly efficient way to mill the whitest and purest flour.

### HITCH SUMMARY

The crew worked with both Anders Christensen of TigerOx Painting and Mark Johnston of Historic Design Consulting. They repaired plaster walls and painted the entrance and staircase. In the upstairs office, they removed the ceiling tile, re-plastered, and painted the room. They refinished trim and molding throughout the building. In the Great Room, they fabricated brass strike plates for the radiator cover doors and repaired and refinished a large built-in bookcase. The woodworkers used Mark's hand tools including planers and drills to size a new piece of walnut for the side of one of the bookcase inserts. They also waxed the wood with a tinted beeswax mixture to match the existing color.

### Quantitative Measurements

110 sq ft of wall repair

- After the first coat of paint dried completed minor plaster repair
- Filled small holes with plaster or cracks with caulking
- Applied the second coat of paint

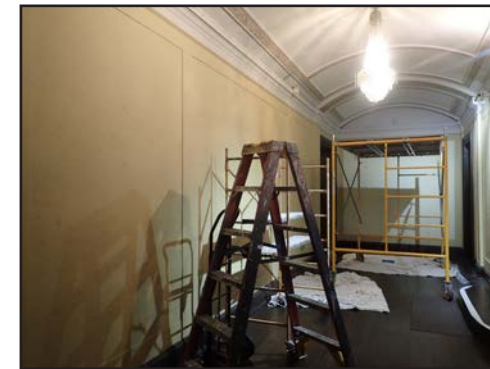
999 sq ft of paint and finishing applied

- Washed the walls and let dry
- Taped the trim
- Taped paper to the floor and put down drop cloths
- Used paintbrushes to "cut" around the edges, ceiling and trim work
- Used a paint roller to paint the larger planes
- Applied the second coat of paint

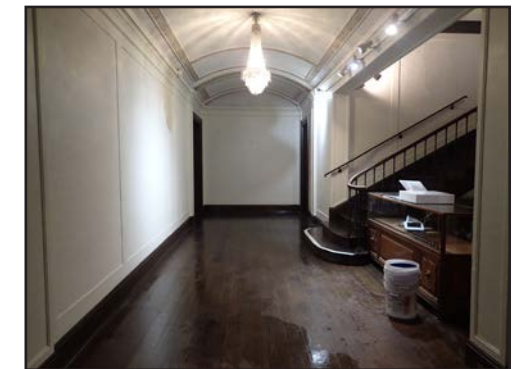
12 brass strike plates added to the radiator covers

1 wooden built-in bookcase refinished

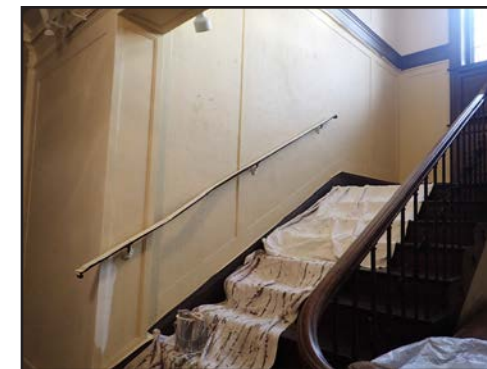
- Washed the molding / bookcase / windows
- Scraped any paint drips from it
- Sanded it lightly
- Treated it with lemon oil
- Applied a dark walnut stain with a brush
- Wiped it off excess stain



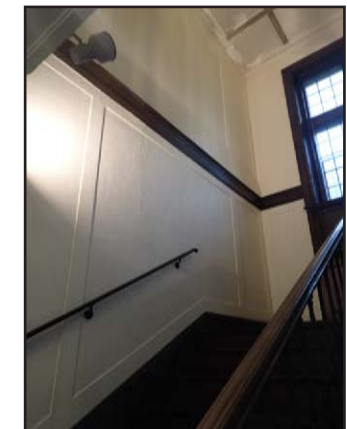
Before



After



Before



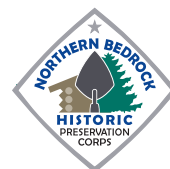
After



Bookcase - Before



Bookcase - After





**Project:** Window, Porch, and Log Restoration

**Host:** Northern Bedrock Historic Preservation Corps

**Site:** Halfway Ranger Station Historic District, South Kawishiwi River

**Hitch 11.3:** Wednesday, October 2, 2019 – Wednesday, October 9, 2019

**ABOUT THE SITE**

The Halfway Ranger Station Historic District (HRSHD) is located on the South Kawishiwi River, 10 miles south of Ely, MN. The Historic District consists of seven log buildings constructed in 1934 by locally based Civilian Conservation Corps companies and three buildings of the Lakes States Forest Experimental Station (LSFES). The latter started operating as early as 1924, conducting forest research in the area. From at least 1910 until 1950, the site was the location for the Halfway Ranger Station of the Superior National Forest. Management of the site was assumed by the Northern Research Station (formerly LSFES) in 1968, and the buildings were utilized by federal biologists conducting long-term large mammal research. Northern Bedrock Historic Preservation Corps has a Participating Agreement with the Forest Service to preserve the site for its adaptive re-use.

**HITCH SUMMARY**

This hitch focused on completing a variety of tasks for our MNHS Large Grant, specifically to rehabilitate the Ranger Dwelling Building. Corpsmembers worked with Passport in Time (PIT) volunteers, a volunteer program managed by the Forest Service. Projects included reglazing and painting windows and storms, adding new screens to the porch, refinishing the porch floor, raising (leveling) the kitchen porch back to its original height, restoring select logs, replacing oakum, removing floor tile adhesive, and mitigating pest remnants in the attic. The crew and PIT volunteers additionally stabilized warehouse logs. This included adding sister boards to support the back roof purlins, and completing half log replacements of significantly deteriorated sections.

**Quantitative Measurements**

38 windows re-glazed

- Removed old glazing
- Reglazed windows
- Painted sashes

7 porch screens replaced

- Removed screen trim
- Installed new screens
- Added trim back around the screens

Porch floor painted

- Replaced the temporary repair floor board with new tongue and groove boards
- Sanded floor boards
- Painted floor boards

Floor tile adhesive removed from living room, bedrooms and hallway

- Used heat guns, wallpaper steamers, and scrapers

Remaining attic insulation and bat guano removed

- Removed any fiberglass insulation
- Sprayed attic with NNZ deodorizer

Small porch footings replaced

- Raised porch up with jacks
- Removed old footings
- Dug holes for new footing
- Added new log footings with concrete
- Raised staircase

4 Half log replacements

- Removed rotten front of log
- Matched with new log piece
- Painted new log replacement

14 Fascia boards replaced

- Planed fascia boards to create the existing profile
- Painted fascia boards
- Removed old boards
- Nailed new boards on to buildings



Porch - Before



Porch - After



Porch Floor - Before



Porch Floor - After



Ranger Dwelling Logs - Before



Ranger Dwelling Logs - After







**Small Porch - Before**



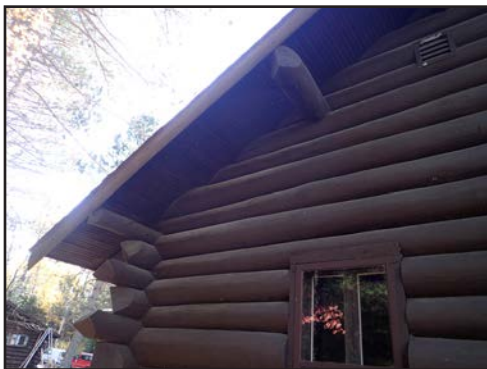
**Small Porch - After**



**Warehouse - After**



**Floor - During**



**Fascia Boards - After**



**Warehouse - After**

*This project has been financed in part with funds from the State of Minnesota from the Arts and Cultural Heritage Fund through the Minnesota Historical Society.*