

National Register of Historic Places: Eligible Property

## **INSPIRATION POINT WAYSIDE REST**

### **Condition Assessment**

TH 16 near junction with CSAH 21  
Carrolton Township, Fillmore County, MN



**November 2013**

Prepared for  
**Minnesota Department of Transportation**

Prepared by  
**MacDonald & Mack Architects, LTD.**  
**Minnesota Department of Transportation**



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## 1. PROJECT ADMINISTRATIVE DATA

**Location:** Carrolton Township, Fillmore County, MN: Minnesota Department of Transportation Wayside Rest on northwest side of TH 16, 1.9 miles southwest of the junction of TH 16 and CSAH 21.

**Methodology:** Completed advance review of *Historic Roadside Development Structures Preservation and Restoration Report, Inspiration Point Wayside Rest* by HDR Engineering in 2005, *Historic Roadside Development Structures on Minnesota Trunk Highways* by Gemini Research in 1998, and original construction plans from 1933-34. Conducted on-site condition investigation on April 29, 2013 to assess the physical condition of the wayside rest and its masonry components. Conditions were documented using field notes, photographs, and selective material investigations.

**Project Participants:** Todd Grover of MacDonald & Mack Architects and Kathryn McFadden of the Minnesota Department of Transportation conducted on-site investigations, report writing, and report production with assistance from Angela Wolf Scott of MacDonald & Mack Architects.

**Todd Grover** is a registered architect in Minnesota and is certified by the National Council of Architectural Registration Boards. He has worked full time with MacDonald & Mack Architects since 1997 and became a Principal in 2004. Project experience includes historical research, HABS/HAER documentation, physical and materials evaluations, as well as typical architectural services such as design, construction documents, and construction administration. Mr. Grover's interests include the preservation of the recent past, and efforts to heighten the awareness and understanding of significant buildings that have not reached the fifty-year threshold. He is also an Adjunct Assistant Professor at the University of Minnesota and President of the Minnesota Chapter of DOCOMOMO.

**Kathryn McFadden** is a Licensed Landscape Architect in Minnesota. After receiving her Masters in Landscape Architecture in 1997 from the University of Minnesota, she worked in private sector traditional landscape architecture practice until 2008, when she joined the Minnesota Department of Transportation. As Program Manager for the Historic Roadside Structures Program at MnDOT, Kathryn has been instrumental in developing processes and procedures for assuring quality restoration projects through innovative contracting, funding innovation and a team approach with stakeholders. In addition, Kathryn has worked closely with Historical Architect consultants in developing and implementing high quality plans and specifications for historic structure restoration.

**Angela Wolf Scott** is a registered architect in Minnesota and is certified by the National Council of Architectural Registration Boards. She has worked with MacDonald & Mack Architects since 2006. Project experience includes historical research, physical and materials evaluations, and construction documents for historic preservation, restoration, and adaptive reuse projects. Prior to joining MacDonald & Mack, Ms. Wolf Scott worked on an adaptive reuse project sponsored by Americorps and the University of Colorado for the historic Hayden Ranch in Leadville, Colorado. In this project she explored the interface between historic preservation and sustainable design.

## 2. EXECUTIVE SUMMARY

Wayside Rest Location:	Carrolton Township, Fillmore County, MN: Minnesota Department of Transportation Wayside Rest on northwest side of TH 16, 1.9 miles southwest of the junction of TH 16 and CSAH 21.
MnDOT District:	6
Assessment Date:	April 29, 2013
Dates of Construction:	1934
Original Plan:	SP 2304, 1933
Previous Repairs:	Dates unknown

The purpose of this study is to assess the current physical condition of Inspiration Point Wayside Rest and to provide an update on the conditions of the site with recommendations for repairs and associated costs. As part of the initial inventory of Roadside Development Structures for MnDOT in 1997, Gemini Research determined that Inspiration Point is eligible for listing on the National Register of Historic Places. The inventory report also provided a comprehensive assessment of the site; unfortunately accelerated deterioration has continued since that report was compiled eight years ago. Assessments and recommendations for this work are required to be in compliance with the Secretary of Interiors Standards for the Preservation of Historic Properties. No destructive testing of any materials or the subgrade was included in this investigation. The following items are included in the assessment:

- Masonry structures
  - South Entrance Walls
  - North Overlook Wall
  - East Overlook Wall
  - Picnic Tables and Benches
  - Stone Curbs
- Site elements
  - Historic Drive
  - West Drive
  - North Overlook Parking Area
  - East Overlook Parking Area
  - Visual Relationships
  - Site drainage
  - Topography
  - Vegetation

Recommendations for structure restoration are intended to prescribe material conservation, keeping as much historic, existing material in place through repairs, rather than replacement. Removal and replacement are recommended only when existing materials are no longer serviceable.

Recommendations regarding landscape grading, vegetation, vehicular/pedestrian circulation and viewsheds are intended to replicate the historic plans for the site as feasible. The goal is to maintain mature but still viable original plantings, removal of vegetation not included in the original plan and not consistent with the native plant palette of the site, and the removal of invasive species in order to restore original viewsheds over the Root River Valley.

A Site Plan is attached at the end of the Executive Summary that references the various structures and site elements noted in text.

In summary, our recommendations are as follows:

## **MASONRY STRUCTURES**

- The more contemporary addition of the West Drive significantly alters the appearance of the site.
  - Recommendation:
    - Conduct a traffic assessment to determine if there are safety issues with the Historic Entrance access to TH 16.
    - If no issues exist, remove the West Entrance and West Drive.
    - If any issues exist, retain the West Entrance but remove the loop of the West Drive that intersects and surrounds the west picnic tables.
    - Remove and reinstall the bituminous Historic Drive, West Overlook Parking Area, and East Overlook Parking area adding a seal coat aggregate, eliminating the final fog coat. The reinstalled drives need proper drainage design to drain water away from the historic walls. Restore curb stones.
- The South Entrance Walls and East Overlook Wall were poorly constructed, lacking proper dry laid stone techniques.
  - Recommendation:
    - Rebuild the South Entrance Walls and East Overlook Wall using original, historic stone supplemented by new stone as required for proper dry laid stone construction.
    - Part of the original Nichols detail included setting the top 6" of stone in a mortar bed, essentially capping the wall as a solid mass. This is not a typical detail for a dry laid stone wall; however, if this mortared cap was placed upon a properly constructed wall, it will aid in the durability of the wall and is recommended to be replicated.
- The original construction documents indicate that the retaining wall of the North Overlook was to be a dry laid stone wall. However the dry stone design intended for other walls was apparently abandoned for a more typical ashlar wall construction. The wall is significantly deteriorated.
  - Recommendation:
    - Rebuild the retaining wall with mortared joints employing a structural engineer to design a backup wall system that will retain soil behind this wall. Use original, historic stone supplemented by new stone as required. Match configuration of historic wall when rebuilt.
- The increased elevation of the road due to road repair throughout the site has increased the amount of stormwater runoff reaching the historic structures. This condition is common on the site.
  - Recommendation:
    - Lower the elevation of the existing drive and surrounding site to attain positive drainage away from masonry structures.
- The three picnic tables of the original design still exist on the site, however in a variety of conditions.

- Recommendation:
  - Use the remaining picnic table as a guide to restore all three picnic tables ensuring proper construction details and a stable foundation.
- The original design had two fireplaces built on the site, both have been removed.
  - Recommendation:
    - Restore the easterly fireplace near the picnic table following the design in the original drawings.
    - The westerly fireplace is now in a turf island surrounded by the West Drive. When the road is removed, reconstruct the westerly fireplace following the design and location found in the original drawings.

## SITE

- Buckthorn has extensively invaded this site, effectively eradicating the original powerful view of the Root River Valley below by taking over the understory of the original tree species on the site.
  - Recommendation:
    - Remove all buckthorn and other invasive woody species within the project limits using an established and effective method for eliminating these invasive species.
    - Develop a two year buckthorn removal plan for the site as part of the initial construction contract.
    - Initiate a community buckthorn task force that will continue to monitor the site after construction.
    - Re-establish the native understory plants on the bluffsides of the site.
- Non-native tree species have been introduced to the site.
  - Remove large spruce from center island at the east end of the site.
  - Remove elm additions and other species added or volunteered which are not native to the site.
- Regrade the site to establish positive drainage away from stone structures and toward road edge, repave drive. (See notes regarding second, non-historic entrance to the site, above).
- Prune established oak and cedar trees.
  - Remove dead branches and selected lower branches to re-establish views toward the Root River Valley similar to those at original construction.
  - Maintain established trees on bluff as "frames" for views on all sides.
  - Replant new oak and cedar species to replant those lost from the original plan.
- Trim and prune shrub species to original configurations, locations. Add additional plants as required.
- Re-establish turf cover per the original plan.
- Improve ADA access to picnic areas and viewsheds



### 3. HISTORY AND SIGNIFICANCE

#### INTRODUCTION

"The need for adequate facilities for the tourist became critical as travel by car became more popular. Without today's plethora of gas stations, convenience stores, and fast food restaurants, early travelers encountered few public (or even commercial) establishments in which to find drinking water, buy food, or use a restroom. Motorists stopped to picnic in farmers' fields, build campfires in ditches, and pulled off the road to sleep almost anywhere."

*Historic Roadside Development Structures on Minnesota Trunk Highways*  
Gemini Research, 1998

The construction of wayside rests for motorists during the New Deal era was not limited to Minnesota; it was a National trend that was recognized by the Federal Highway Administration which in 1933 was going to require that a minimum of one-half of one percent of all federal highway funds be spent on roadside development. The Minnesota Department of Transportation (then the Minnesota Department of Highways, or MHD) anticipated this mandate by establishing the Roadside Development Division in 1932, led by Harold E. Olson. The Roadside Development Division hired Arthur R. Nichols to be their Consulting Landscape Architect who established a philosophy for the development of these roadside properties:

1. Make use of "existing scenic advantages" when determining a new highway route that is intended largely for pleasure traffic.
2. Harmonize the road with natural topography.
3. Conserve existing vegetation and trees where possible.
4. Provide new plant material primarily to control erosion and to provide a "natural transition between construction and nature."
5. Create "outlooks, concourses, parking spaces, picnic areas, historical marker sites, and similar strategic areas where the public can stop for rest and enjoyment."
6. Promote the creation of a liberal right-of-way.

#### BACKGROUND

Inspiration Point Wayside Rest is one of the first designs by Consulting Landscape Architect Arthur Nichols after the start of his collaboration with the Minnesota Highway Department and as such is exceptional in its historic significance. Here Nichols created a picnic and rest area that utilized an existing high promontory, 300 feet above the beautiful the Root River Valley. It is an excellent and dramatic example of the incorporation of many of Nichols' goals in designing a safety amenity for the traveling public. In addition, Nichols used dry stone masonry for a majority of the masonry walls.

Dry stone masonry is a wall construction technique that uses no mortar but creates a wall that interlaces face stone and core stones that are 'packed' into the middle of the wall. This packing of stones creates a unified, durable wall that can drain, accommodate ice accumulation, and can easily be rebuilt if damaged. This technique was only used on one other site in the MnDOT inventory, the

Camp Ripley Entrance Walls, which adds an even greater level of historic significance of Inspiration Point Wayside Rest as an exceptional asset in MnDOT cultural resources portfolio.

## LANDSCAPE HISTORY

### *The Paleozoic Plateau*

The Paleozoic Plateau of southeastern Minnesota is often called the Driftless Area, referring to this area's escape from the glaciation of the last glacial period and the resulting lack of glacial deposits (drift). It is a region noted for its dramatic limestone bluffs, deeply carved river valleys, forested hillsides and for its Karst topography which includes caves and cave systems, disappearing streams, blind valleys, underground streams, sinkholes, springs, cold springs and cold streams. Most strikingly, the region has very few lakes.

### *Pre-settlement Vegetation*

Prior to European settlement in the 19<sup>th</sup> century, the vegetation in this area consisted of tallgrass prairie and bur oak savanna on the ridgetops, sugar maple-basswood-oak forest on moister slopes, sugar maple-basswood forests in protected valleys and on north-facing slopes, wet prairie along the rivers, and some mesic prairie on the floodplains.

### *Rare Species*

Though this region comprises only three percent of Minnesota's land area, it is home to 43 percent of the state's endangered, threatened and of special concern plant and animal species. These include blue-winged warblers, Karner blue butterflies and timber rattlesnakes as well as plants such as the broad beech fern.

## CULTURAL CONTEXT

European settlers began farming this area in the mid-1800s, altering the oak savanna and prairie landscape. The Norwegians were a predominant immigrant population in the area and eventually became the state's third largest cultural group.

Later, in addition to their initial traveler safety purpose which continues today, these beautiful sites also became important social spaces for their surrounding communities. As written in the Lanesboro Leader, November 22, 1934:

"Work on the Duschee Hill park project is being rushed these days in an effort to complete the work before the ground freezes. . . The park when completed according to plans will have three concrete picnic tables, two at the west end and one at the east end on the high point from which a wonder scenic view of the Root River basin may be obtained. Two ovens will also be constructed for the use of the public. A stone wall is being built along the entire south side next to the highway and will add much to the beauty of the place.



It is estimated that at least three or four weeks work will still be required to complete the project. According to present plans the grading will be seeded and shrubbery set out in the spring. This will make a beautiful scenic spot and no doubt will be a popular place for picnic parties and steak dinners when the weather is fine.”

Situated between the town of Preston and Lanesboro, and long the Root River Trail, Inspiration Point when restored can once again become an important gathering place as well as a rest stop for the weary traveler.

#### **4. ASSESSMENT AND RECOMMENDATIONS**

The narrative below details our recommendations for site modifications, stone masonry repairs, and other restoration work. Some repairs are more critical than others if they contribute to, or are causing, accelerated deterioration of the wayside rest. These specific repairs are highlighted below as “High” priority; these are repairs that require immediate repair/restoration.

#### **SITE DESCRIPTION**

Inspiration Point Wayside Rest is a nine-acre site which forms a peninsula on top of Duschee Hill. A ravine about one-quarter mile east of the site carries Duschee Creek, and ravines one-half and one mile north carry another creek and the South Branch of the Root River. The developed space consists of a long, narrow oval that runs east and west. The center of the site is an open, turfed area surrounded to the north and east by forested hillsides. TH 16 borders the south, east and north edge of the site, wrapping around the parcel before it road continues north to Lanesboro. To the west the land drops to farm land.

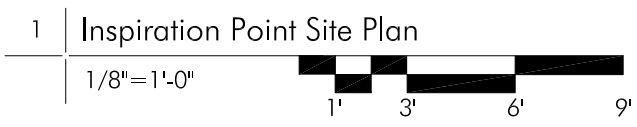
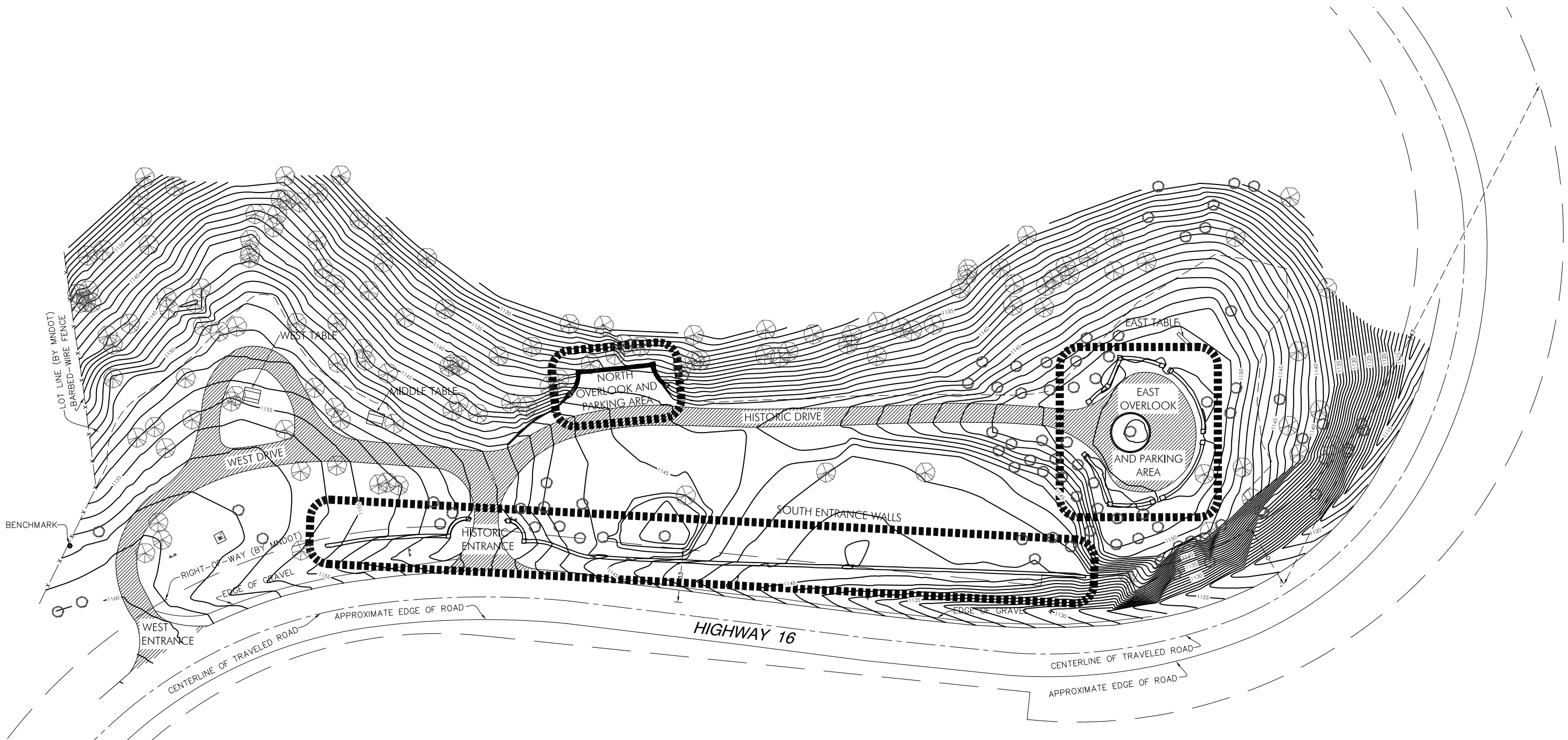
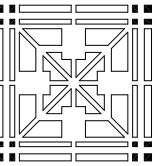
The site configuration consists of two main gathering spaces, the East Overlook and Parking Area and at the West Drive, connected by a narrow road. The East Overlook and Parking area is a circular stone wall with a center island which brings the visitor to the views to the east. One picnic table was originally located here. A bench remnant is all that remains today. (See Site Plan, page 11).

Midway between the East Overlook and the west drive is the North Overlook and parking area, a small parking area set behind a historic stone retaining wall which drops below the elevation of the road and parking area. The West Drive loops through the west picnic area and connects to the original road just west of the North Overlook Wall and Parking Area.

Further to the west is a larger picnic area which contains two picnic tables and benches, original to the site. This picnic area is significantly altered by the addition of the West Drive, added at a later date. The West Drive loops through the west picnic area and connects to the original road just west of the North Overlook Wall and Parking Area.



North Overlook Parking area today



- BENCH
- FOUND IRON MONUMENT
- PICNIC TABLE
- SIGNAGE
- STONE WALL
- BITUMINOUS
- DECIDUOUS TREE
- CONIFEROUS TREE

**Inspiration Point**

Inspiration Point Wayside Rest, Lanesboro, Minnesota

DRAWN DATE 06.27.2013 REVISION

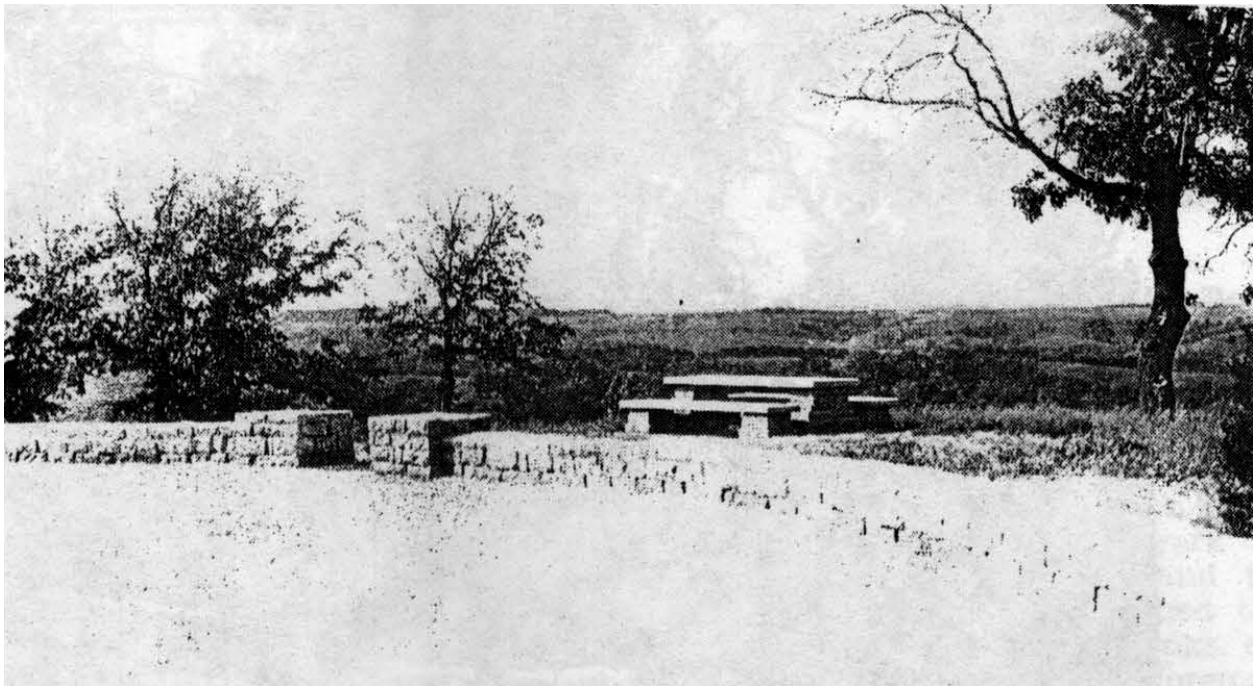
Site Plan

Originally there were two fireplaces built as part of the original plan; one at the East Overlook and one at the west picnic area. Both of these have been removed. Remnants of the fireplace still exist at the East Overlook near the stone picnic bench.

Arthur Nichols designed many similar rest areas in the 1930's and 1940's that were constructed by the various work relief programs of the depression era such as the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). This property is believed to have been built by the Federal/State Emergency Relief (FERA/SERA) according to Gemini Research. The Fillmore County Historical Society, however, attributes the construction of Inspiration Point to the Civilian Conservation Corps (CCC). This is possibly substantiated by a photo from 1934 of a CCC camp a mile south of Lanesboro. The date is consistent with the construction of the wayside.

#### **4.1 Visual Relationships, Vegetation, Topography, and Site Drainage**

An amazing visual relationship is currently all but invisible to today's visitor to Inspiration Point. The view from the eastern end of the site, 40' above the road below and 300' above the Root River Valley provides a most dramatic view. However, today this view has been almost completely obstructed by buckthorn and other non-native species which have taken over the hillside. When the Overlook was originally constructed, this view allowed an almost completely clear view of the valley allowing the visitor an experience of the vastness and complexity of this landscape.



Historic photo looking northeast from East Overlook



The View from Duschee Hill over the Root River Valley, 1934.



The View today blocked by buckthorn and other invasive species



Current photo looking northeast from North Overlook.  
The road can be seen, but only because there are no leaves

Many of the original oaks and cedars are now beautiful mature trees, in need of clean up and care but will provide lovely foreground elements to frame the views to the valley, once these are re-established. Recently noted on the site were three species of Oak tree—Bur Oak, Red Oak and Pin Oak. In addition to these and the beautiful mature cedars were sumac, alpine currant, wild berries and other shrubs, many of which are original to the site given their planned planting configurations. Not original to the site are two large elms and a very large spruce located in the small island at the east end of the site. The north slope is more densely forested, blocking the view of TH 16 on the north edge of the site in summer.

#### Assessment:

The most dramatic and powerful change to the site during the restoration will be the removal of the thick understory of buckthorn covering the eastern slope and other areas. Well matured original trees in good conditional generally need only pruning and clean up. Few need to be removed, though the northern slope is somewhat dense and opening up some views to the north would be beneficial if verified by historic photographs.

#### Recommendations:

- Remove all buckthorn from the site using established and effective means of achieving permanent removal.
- The original construction contract should include a two-year buckthorn removal program in which buckthorn removal is conducted twice a year. An initial removal of established plants and three follow-up treatments involving sprouts from initial cutting, new growth and foliar spray of small shoots.

- Following construction it is recommended that the local community groups be enlisted to continue to monitor buckthorn on the site and remove if encountered. This program should be initiated early in the construction planning process.
- Remove non-original elm, spruce and other non-native trees
- Prune all trees of dead branches and for appropriate form, keeping them as foreground elements to views, limbing up as needed.
- Replace any original tree and shrub lost due to age or disease with same species
- Replicate historic planting plan as plants lost through age or disease are identified

Priority:

- High

## 4.2 Circulation

The Historic Drive of the Wayside Rest was a gravel road with stone curbs that connected the Historic Entrance, the West Overlook and Parking Area, and the East Overlook and Parking Area. An additional road, the West Drive, was added to the site to provide an additional entrance and drive that accesses the two westerly picnic tables. All drives were later covered in bituminous. The West Drive significantly alters the historic appearance of the site.. All drives are at a higher elevation than when originally constructed, attributed to numerous drive pavement overlays. This has contributed to the movement of stormwater runoff toward the stone structures and to the deterioration of the stone walls.



1930's, original drive configuration





Original entrance, and south wall today.

The construction of the West Drive provided an additional entrance from TH 16, west of the original entrance. It also provided a turn-around area for the western portion of the site through the west picnic area. The West Drive is bituminous.

Two parking areas, the West Overlook Parking Area and the East Overlook Parking Area still remain on the site. The East Overlook Parking Area is an extension of the Historic Drive and has been covered with bituminous. The West Overlook Parking Area is now heavily compacted soil..

Much of the original stone curb that edged the Historic Drive remains, however it is covered with bituminous, soil, or vegetation.



West Drive



Looking east to Historic Entrance and East Overlook

Assessment:

The bituminous road is in fair condition and has minor areas of cracking. The road appears to have been moved slightly from its original position as the original stone curbs that remain vary between 6" and 18" from the edge of the road.

The West Road bisects the west picnic area, was placed directly over one of the historic fireplaces, and circles the West Table essentially cutting the table off from the rest of the property. Because of this placement the Drive negatively impacts the historic significance of the site as it eliminated a number of historic structures, altered the landscape design, and increased the paved area on the site.

Recommendations:

- Review ADT's and other data and consult with MnDOT District 6 to regarding the feasibility of removing the non-historic West Entrance drive. If feasible, remove the West Entrance and West Drive to return the site to its original configuration.
- If the Historic Entrance is a traffic safety concern, remove the north loop of the West Drive that bisects the west picnic area. Return the picnic area to Nichols's design by restoring the picnic tables, regrading the area for proper drainage, and reconstructing the fireplace. The straight portion of the West Drive that connects the West Entrance to the Historic Drive would remain.
- Lower the grade of the existing drive and surrounding site to historic elevations.
- Realign the Historic Drive following the design in the historic documents and the existing location of the curb stone. The current drive does not follow this alignment.
- Install bituminous with a seal coat aggregate, minus the final fog-coat to give a gravel drive appearance consistent with the original construction.

Priority:

- High

Unknown Conditions Recommendations:

- Possible traffic safety issues of the Historic Entrance.

Comments:

- None

### 4.3 Accessibility

Like many of the other wayside rests of its time, Inspiration Point Wayside Rest was not designed to be wheelchair accessible or accessible by anyone with a limited mobility.



Unpaved opening through East Overlook wall

Assessment:

The site is partially accessible. The East Overlook Wall and Parking Area have a bituminous surface and could be accessible except for the leaves and trash near the wall which inhibit mobility. The surface of the North Overlook Wall and Parking Area has compacted soil and weeds and is not ADA accessible. The picnic tables are not ADA accessible.

Recommendations:

- When fully restored, at least one of the two picnic areas should be accessible. The East Table currently has only one bench that remains, the table and other bench is missing. Reconstruct the missing table and bench to be wheelchair accessible, but sympathetic with the historic design using materials and details that are modified to accommodate a wheelchair. Add an accessible gravel path from East Overlook Parking Area, through the opening in the overlook wall, and East Picnic Table.

Priority:

- Medium

Unknown Conditions Recommendations:

- None

Comments:

- None

#### 4.4 Signage

There are two signs on the site. One sign is a bronze marker installed in 1998 by the Minnesota Historical Society and MnDOT which tells the story of "Minnesota's Norwegian Americans". The other sign is an Adopt-A-Rest-Area sign. Both signs are near the West Entrance.



Signs near West Entrance

##### Assessment:

These two metal signs are not within the period of significance of the site and are visually obtrusive, especially in such a prominent location.

##### Recommendations:

- Relocate both signs. They would be more appropriate closer to the West Entrance or possibly at another site as content is not necessarily location specific.

##### Priority:

- Medium

##### Unknown Conditions Recommendations:

- None

##### Comments:

- If the Adopt-A-Rest-Area sign is no longer current or relevant it should be removed from the site.

#### 4.5 South Entrance Walls

The Historic Entrance of the wayside rest is marked by low, dry laid, freestanding masonry walls. The walls are constructed of rock-faced, ashlar limestone with a one inch thick, poured-in-place concrete cap. The walls are roughly symmetrical with one quarter circle section on either side of the Historic Entrance which connects to low walls that run parallel to TH 16. The walls are roughly 2'-0" thick and 2'-6" high on an 8" sand foundation, with 3'-0" x 3'-0" x 3'-0" pillars at each end and between the

quarter circle sections and the long sections of wall. The west section of wall is 75'-0" long and the east section is 303'-0" long. The east section of wall steps to follow the contours of the hillside and was constructed in front of a natural outcropping of limestone rather than through the outcropping as originally designed. There are selective gaps between the bottom of the wall and the adjacent grade in an effort to provide storm water drainage under the wall.

The stone curb that had formed the western and northern edge of the Historic Drive remains. It is now roughly 18" from the existing bituminous road.



South Entrance Walls

#### Assessment:

The South Entrance Walls are in poor condition. The original plans noted these walls to be dry laid masonry construction. From the assessment, it does appear these walls were an attempt at this specific type of construction, however, the craftsmanship or dry laid masonry techniques were lacking. Poor construction techniques have resulted in the structural failure of the wall which impacts the historic and aesthetic integrity of the wall. There are many sections of the wall that have shifted out of place or settled differently than adjacent sections of wall, indicating a failure of the base. To repair these conditions a concrete cap and crudely applied surface mortar was installed. Initially intended to stabilize the walls, these repairs are inappropriate for this type of wall construction and have resulted in the ongoing and accelerated deterioration of the walls. This deterioration is causing the stone to spall and break, altering many beyond the ability for salvage and reinstallation.

The pillar west of the entrance road appears to have been hit by a vehicle. It is out of plumb and partly separated from the adjacent section of wall.

The stone curbs that remain are mostly obscured by soil and vegetation.

#### Recommendations:

- Remove the concrete cap, dismantle, and reconstruct the entire wall. Photograph the wall to document the historic stone pattern. Measure all details of the wall to ensure that the reconstructed wall is true to the original wall design which will vary slightly when it is

constructed. Salvage original stones, clean stones to remove mortar, dirt and moss growth, and prepare for reuse. It will be very difficult to ensure that the reconstruction of the wall will place historic stones back in their current location because of the significant amount of new stone needed for proper reconstruction. Rather than exact stone placement, the visual character of the wall must be maintained, ensuring that similar size and coursing of stone is used for the reconstruction.

- The piers appear to have always been mortared, but because of their failing condition must be dismantled and reconstructed. Exact reconstruction, placing the stones in their historic configuration, must be followed. Photographically document the location of the current stone to aid in the reconstruction process.
- The original construction documents state that the walls were built on an 8" sand foundation; however this foundation has failed and must be removed. Install new reinforced concrete foundation with a proper frost footing to serve as the base for the reconstructed stone wall. The new foundation must not extend above grade.
- Reconstruct the walls using original stone, supplementing with replacement stones when necessary where stones have deteriorated and to provide the need for additional stone following proper dry laid stone construction. The new stones must match the existing stones in size, color, surface texture, and tooling.
- Part of the original Nichols detail included setting the top 6" of stone in a mortar bed, essentially capping the wall as a solid mass. This is not a typical detail for a dry laid stone wall; however, if this mortared cap was placed upon a properly constructed wall, it will aid in the durability of the wall and is recommended to be replicated.
- Reset curb stones. Use dismantling means and methods that do not damage adjacent, sound masonry. Salvage original stones, clean stones to remove mortar, dirt, and moss growth, and prepare for reuse. Reinstall curb stones in their original locations on a new compacted Class 5 base, mortaring the vertical joints. Mortar must match existing, historic mortar in strength, texture, appearance, and tooling. Reconstructed mortar joints will be flush with the outside face of adjacent stones. There have been several other sites that have installed a concrete 'footing' under the curb stone to help the stone resist overturning. The documents do not show this type of construction, but digging test holes at the back of the curb will assist in this determination. If this curb footing is found, include a similar detail in the reconstruction of the curb.

Priority:

- High

Unknown Conditions Recommendations:

- The 1933 plans indicate that the foundation is an 8" bed of sand under the dry laid stone wall. We do not know if the foundation was installed according to the drawing or if a different foundation was installed. Whatever type of foundation is found under the wall during the dismantling process, it has failed and must be removed.

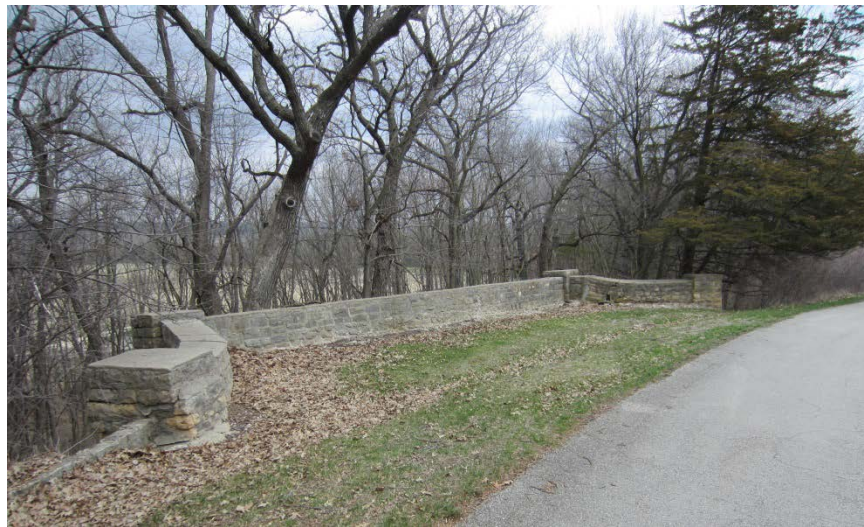
Comments:

- None

#### 4.6 North Overlook Retaining Wall and Parking Area

The North Overlook Retaining Wall and Parking Area were designed to provide a location close to TH 16 to pull off the road and park. The overlook wall that extends above grade is a rock-faced, ashlar limestone wall roughly 2'-0" thick. The wall was built to retain the parking area and varies in exposure on the north side from approximately 3'-0" on the west side of the wall to 10'-0" on the east. The original plans note that it was intended to be a dry stone wall, but our investigations indicate that it was constructed with crude mortar joints where the mortar was installed on the exterior face with little mass retaining the soil of the parking area.

The historic masonry curb that had been the northern edge of the historic road is connected to the west end of the wall and extends west roughly parallel to the road. The current road is now several feet from the curb and the parking area is not paved.



North Overlook and Parking Area

##### Assessment:

The original plans indicate that this wall was meant to be a dry stone wall that would have retained 3 to 4 feet of soil. However the existing walls are much taller and it is assumed that the construction methodology of this wall was changed to compensate for the added height of the wall. The mass, or thickness, of the wall below grade is unknown. Nor is it known if the wall was built with any batter to resist the force of the soil.

The wall is in failing condition. The last conditions assessment in 2005 reported that the central, straight portion of the wall was out of plumb 9" on the west end and 10" on the east end. The same section of the wall is currently 9 ¼" out of plumb on the west end and 10 ¾" out of plumb on the east end. The wall is continuing to shift and immediate action should be taken to avoid structural failure of the wall.

There are several possible reasons why the wall is out of plumb. The weight of vehicles parked next to the wall may have compacted and pushed soil against the foundation of the retaining wall. The

historic foundation was likely not designed to support the weight of modern vehicles. In our experience with other retaining walls from that era, we have found that the foundations were often insufficient.

Another reason for the failure is likely due to improper storm water drainage from the retained soil. The gravel surface of the parking area has eroded and the surface of the adjacent road has been changed from gravel to bituminous that slopes towards the wall. The storm water that is draining off the bituminous roadway onto the parking area is draining towards the retaining wall, possibly with enough pressure to displace the wall.

The central, straight portion of the wall has poorly crafted mortar joints. The joints are not well packed and there are frequent voids in the joints. This has contributed to the deterioration of the wall. Masonry walls constructed with mortared joints are designed to act monolithically; however with missing mortar, the wall is significantly weakened. The pillars on either side of the central, straight portion of the wall have more skillfully installed joints and appear to be in sound condition but are leaning out of plumb because of the adjacent wall. Several of the stones in this section of wall are cracked and broken. There is significant dirt and moss growth on the wall; particularly at the base where it was very wet indicating that water from the parking area above is draining through the wall.

Both the west and the east sections of quarter circle walls have large cracks that extend from the top of the wall to the bottom and run through the entire thickness of the wall. There are several stones adjacent to the cracks that have shifted and now project from the face of the wall. Successive mortar repairs have been applied to the large cracks and adjacent stones in an attempt to repair those cracks. Unfortunately, this repair was not successful. The cracks are once again open and the repair mortar has likely caused additional damage trapping water in the walls and cracking the adjacent stone. The pillar on the west end of the wall (terminating the west semi-circular portion of the wall) is in poor condition. The concrete cap is cracked and a section of it is missing. The top two courses of stones are shifted several inches further north than the rest of the pillar below. There are many joints without mortar and large sections of the pillar have mortar smeared on the face of the stones.

The curb west of the retaining wall is in good condition, although several stones have shifted out of position.

#### Recommendations:

- Dismantle and reconstruct the entire retaining wall. Photograph the wall to document the historic stone pattern and configuration. Measure all details of the wall to ensure that the reconstructed wall is true to the original wall design as built. Use dismantling means and methods that do not damage adjacent, sound masonry. Salvage original stones, clean stones to remove mortar, dirt and moss growth, and prepare for reuse.
- Demolish the historic foundation, if one exists. Install new reinforced concrete foundation and soil retaining system designed by a structural engineer. Install drainage system to protect retaining wall from future water damage.
- Reconstruct wall with original stone, using replacement stones only when necessary to replace broken or deteriorated stones. Any replacement stones must match the removed stones in size, color, surface texture, and tooling. Install in fully filled bed, head, and collar



joints using the repointing mortar. Ensure full curing of the joints prior to repointing. Repointing mortar to match existing, historic mortar in texture, appearance, and tooling. Strength of repointing mortar to be determined through petrographic testing of the historic mortar. Reconstructed mortar joints will be raked approximately ½" from the outside face of adjacent stones.

- Regrade parking area inside the wall to match the historic elevation in relation to the inside face of the retaining wall, but also accommodating proper site drainage away from the wall, see Section 4.1. Install bituminous with a seal coat aggregate, minus the final fog-coat in the parking area.
- Reconstruct curb stones to accommodate modified site drainage, see Section 4.1. Use dismantling means and methods that do not damage adjacent, sound masonry. Salvage original stones, clean stones to remove mortar and biological growth, and prepare for reuse. Reinstall curb stones in their original locations on a new compacted Class 5 base, mortaring the vertical joints. Mortar must match existing, historic mortar in strength, texture, appearance, and tooling. Reconstructed mortar joints will be flush with the outside face of adjacent stones. There have been several other sites that have installed a concrete 'footing' under the curb stone to help the stone resist overturning. The documents do not show this type of construction, but digging test holes at the back of the curb will assist in this determination. If this curb footing is found, include a similar detail in the reconstruction of the curb.

Priority:

- High

Unknown Conditions Recommendations:

- We do not know how the mass of this wall was constructed to provide soil retention. Potentially an entirely new support system will need to be designed. In this new system, the existing surface stone may be the only elements of the current wall that are used, installed as a veneer over the underlying structure.

Comments:

- None

#### **4.7 East Overlook Wall and Associated Parking Area**

The Historic Drive through the site terminates at the East Overlook Wall and Parking Area. The wall is a series of semi-circular walls that are broken in three areas to allow visitors to walk through the wall to the picnic area and site views beyond. The wall is roughly 2'-0" thick and approximately 1'-4" high and is punctuated with 3'-0" x 3'-0" x 3'-0" pillars.

This wall was designed and constructed as dry laid stone with the top course of stones to be grouted with mortar. There have been subsequent repairs which have resulted in several different types of mortar applied to the joints and faces of the stones. A concrete cap has been added to the top of the wall and piers.

There is room for parking within the semi-circular wall. The parking area, along with the rest of the road, was originally gravel and is currently bituminous. The center of the parking area is occupied by a large coniferous tree within an island. The island is ringed by a stone curb.



Looking east towards East Overlook and Parking Area

Assessment:

The East Overlook Wall is in poor condition. Similar to the south wall, this wall was poorly constructed and has suffered inappropriate repairs. There are several areas where stones have shifted or settled and the concrete cap is cracked, broken, or missing. The later repairs have resulted in mortar applied liberally and crudely to the face of the wall, breaking, deteriorating, and significantly altering many stones.

The straight portions of the wall were constructed at a different angle (in plan) than designed. The actual construction likely deviates from the 1933 Nichols plan because of the topography of the site. The constructed forms is less aesthetically pleasing than the Nichols plan as the straight sections, rather than being perpendicular to the arc, are placed at an odd angle. These sections then extend into to two short sections that appear to curve, but only minimally. The assembly of these walls is somewhat awkward on the site.

View to the east toward the East Overlook

The curb is in good condition, although the grade and bituminous have now made them flush instead of raised above grade.

### Recommendations:

- Dismantle and reconstruct the entire wall. Photograph the wall to document the historic stone pattern. Measure all details of the wall to ensure that the reconstructed wall is true to the original wall design which will vary slightly when it was constructed. Salvage original stones, clean stones to remove mortar, dirt and moss growth, and prepare for reuse. It will be very difficult to ensure that the reconstruction of the wall will place historic stones back in their current location because of the significant amount of new stone needed for proper reconstruction. Rather than exact stone placement, the visual character of the wall must be maintained, ensuring that similar size and coursing of stone is used for the reconstruction.
- The piers appear to have always been mortared, but because of their failing condition must be dismantled and reconstructed. Exact reconstruction, placing the stones in their historic configuration, must be followed. Photographically document the location of the current stone to aid in the reconstruction process.
- The documents state that the walls were built on an 8" sand foundation; however this foundation has failed and must be removed. Install new reinforced concrete foundation with a proper frost footing to serve as the base for the reconstructed stone wall. The new foundation must not extend above grade.
- Reconstruct wall using original stone, supplementing with replacement stones when necessary where stones have deteriorated and to provide the need for additional stone following proper dry laid stone construction. The new stones must match the existing stones in size, color, surface texture, and tooling.
- Part of the original Nichols detail included setting the top 6" of stone in a mortar bed, essentially capping the wall as a solid mass. This is not a typical detail for a dry laid stone wall; however, if this mortared cap was placed upon a properly constructed wall, it will aid in the durability of the wall and is recommended to be replicated.
- Reconstruct curb stones to accommodate modified site drainage, see Section 4.1. Use dismantling means and methods that do not damage adjacent, sound masonry. Salvage original stones, clean stones to remove mortar and biological growth, and prepare for reuse. Reinstall curb stones in their original locations on a new compacted Class 5 base, mortaring the vertical joints. Mortar must match historic mortar in strength, texture, appearance, and tooling. Reconstructed mortar joints will be flush with the outside face of adjacent stones. There have been several other sites that have installed a concrete 'footing' under the curb stone to help the stone resist overturning. The documents do not show this type of construction, but digging test holes at the back of the curb will assist in this determination. If this curb footing is found, include a similar detail in the reconstruction of the curb.
- Lower the grade of the existing drive and surrounding site to drain away from the masonry structures. Ensure that the historic elevation of the top of the wall is maintained.
- Regrade parking area inside the wall to provide proper site drainage away from the wall, see Section 4.1. Install bituminous with a seal coat aggregate, minus the final fog-coat.

### Priority:

- High

### Unknown Conditions Recommendations:

- The 1933 plans indicate that the foundation is an 8" bed of sand under the dry laid stone wall. We do not know if the foundation was installed according to the drawing or if a

different foundation was installed. Whatever type of foundation is found under the wall during the dismantling process, it has failed and must be removed.

Comments:

- None

#### 4.8 Picnic Tables and Benches

The 1933 Nichols site plan for Inspiration Point Wayside Rest shows three sets of picnic tables, each consisting of a table and two benches with mortared ashlar stone legs and reinforced concrete table tops and seats. The actual tables deviate only slightly from the details included on the site plan drawing. Most of the components of the tables still exist on-site. Two picnic tables are west of the Historic Entrance to the wayside rest. The third picnic table is northeast of the East Overlook Wall and Parking Area.



Center Picnic Table and Benches

Assessment:

The West Table is in fair condition. The reinforced concrete table top and bench seats sag slightly in the centers but are in otherwise good condition with minimal chipped concrete at edges and a few areas of exposed reinforcing. The stone legs of the table and benches are dirty with moss growth, but are in sound condition. The masonry joints are in poor condition exhibiting cracks and deterioration. It appears as though the grade was raised in this area since the time the table was constructed as each leg is partially buried.

The center picnic table has similar conditions issues as the West Table but is in poor condition. One of the bench seats sags enough to collect debris and water but has minimal chipping and exposed reinforcing. The stone legs of the table and benches have similar dirt staining, moss growth, and deteriorated masonry joints. The legs are also partially buried in the soil. One of the benches is tipped toward the table and both legs are damaged.

Only one bench of the East Table is still standing and it is in poor condition. The masonry legs have cracked and deteriorated joints, and the stones are dirty with some moss growth, but the stones themselves are still in sound condition. The reinforced concrete slab has a large chip missing from one corner and has exposed reinforcing. There are masonry sections from the missing table and bench still on the site. These sections appear to be the ruins of the masonry table legs.

Recommendations:

□ West Table:

- Clean 100% of the masonry legs and concrete slabs to remove dirt and moss stains. Masonry cleaning may require several test swatches to find the gentlest, most effective product and method.
- Repoint 100% of the masonry legs and the joint between the concrete slabs and the stone. Repoint using techniques that do not damage existing, sound stone. Repointing mortar must match existing, historic mortar in strength, texture, appearance, and tooling. Take extra precautions to match historic, existing mortar, not mortar that was used in more recent repointing installations. Ensure the profiles replicate those of the existing masonry legs and are slightly recessed from the face of the stones.
- Lower the grade in the picnic area (see road recommendations for related work) to expose the bottom edge of the masonry legs.
- Clean exposed surface of all steel reinforcing bars and coat with epoxy to prevent rust. Rusted reinforcing bars expand within concrete and lead to rapid concrete deterioration.



□ Center Table:

- Clean 100% of the masonry legs and concrete slabs to remove dirt and moss stains. Masonry cleaning may require several test swatches to find the gentlest, most effective product and method.
- Rebuild bench that is out of plumb using only salvaged stone and concrete from the original bench. Rebuilding requires photo documenting the bench and documenting the location of each stone to facilitate constructing the bench in its original form. Install salvaged stone in fully filled bed, head, and collar joints using the repointing mortar. Ensure full curing of the joints prior to repointing. The pointing mortar must match the existing, historic mortar in strength, texture, appearance, and tooling. Ensure the profiles replicate those of the existing masonry legs and are slightly recessed from the face of the stones.
- Repoint 100% of the masonry legs and the joint between the concrete slabs and the stone. Repoint using techniques that do not damage existing, sound stone. Repointing mortar must match existing, historic mortar in strength, texture, appearance, and tooling. Take extra precautions to match historic, existing mortar, not mortar that was used in more recent repointing installations. Ensure the profiles

replicate those of the existing masonry legs and are slightly recessed from the face of the stones.

- Lower the grade in the picnic area (see road recommendations for related work) to expose the bottom edge of the masonry legs.
- Clean exposed surface of all steel reinforcing bars and coat with epoxy to prevent rust. Rusted reinforcing bars expand within concrete and lead to rapid concrete deterioration.
  
- East Table:
  - Clean 100% of the masonry legs and concrete slabs to remove dirt and moss stains. Masonry cleaning may require several test swatches to find the gentlest, most effective product and method.
  - Repoint 100% of the masonry legs and the joint between the concrete slabs and the stone of the remaining bench. Repoint using techniques that do not damage existing, sound stone. Repointing mortar must match existing, historic mortar in strength, texture, appearance, and tooling. Take extra precautions to match historic, existing mortar, not mortar that was used in more recent repointing installations. Ensure the profiles replicate those of the existing masonry legs and are slightly recessed from the face of the stones.
  - Construct replica of missing bench and table using stone salvaged from hillside, if possible, and new materials if no salvaged materials are found on-site.. The new stones must match the existing and salvaged stones in size, color, surface texture, and tooling. Install salvaged and new stone in fully filled bed, head, and collar joints using the repointing mortar. Ensure full curing of the joints prior to repointing. The pointing mortar must match the existing, historic mortar in strength, texture, appearance, and tooling. Ensure the profiles replicate those of the existing masonry legs and are slightly recessed from the face of the stones. Install new reinforced concrete table top and bench seat to match the appearance of the existing, historic slabs including the shape and size of the aggregate in the concrete and the dimensions, form, and corner details of the existing, historic slabs.
  - Clean exposed surface of all steel reinforcing bars and coat with epoxy to prevent rust. Rusted reinforcing bars expand within concrete and lead to rapid concrete deterioration. Chipped corner of remaining bench seat to remain.

Priority:

- Medium

Unknown Conditions Recommendations:

- The 1933 plans indicate that the foundation is an 8" bed of sand. We do not know if the foundation was installed according to the drawing or the condition of the foundation currently.

Comments:

- None

## 4.9 Stone Fireplaces

Inspiration Point Wayside Rest originally had two stone fireplaces located near the three picnic tables. According to the 1933 Nichols drawings, the fireplaces were simple, low, masonry structures with a metal grill surface for cooking.

### Assessment:

Of the two stone fireplaces originally constructed on the site, only the foundation of the east fireplace remains. A road now occupies the location of the west fireplace, which was located between the west picnic table and the center picnic table.

### Recommendations:

- Reconstruct the east fireplace on the existing foundation following the design in the original construction documents.
- If part of the west road is removed, reconstruct the west fireplace between the two benches following the design in the original construction documents.

### Priority:

- Low

### Unknown Conditions Recommendations:

- Are there concerns at MnDOT about reinstalling the fireplaces on the site? Reconstruction should follow original designs which will provide for a working fireplace. If this is not desired, it may be best to not reconstruct the fireplaces rather than reconstructing a modified design. Consult with MnDOT Cultural Resources Unit when finalizing this decision.

### Comments:

- Do not install a new west fireplace unless it is able to be placed in the historic location. This assumes that the circle of the West Drive has been removed.





## 5. COST ESTIMATE MATRIX

### Inspiration Point Wayside Rest - Restoration Cost Estimate

TH 16 near junction with CSAH 21

Carrolton Township, Fillmore County, MN

ITEM	UNIT	ESTIMATED COST
MOBILIZATION	LUMP SUM	\$ 95,000
CLEARING AND GRUBBING	LUMP SUM	\$ 110,000
REMOVE STONE CURB	LIN FT	\$ 5,000
REMOVE BITUMINOUS PAVEMENT	SQ YD	\$ 45,000
SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	\$ 500
SALVAGE STONE CURB	LIN FT	\$ 13,500
COMMON EXCAVATION	CU YD	\$ 15,000
TOPSOIL BORROW (LV)	CU YD	\$ 37,500
GEOTEXTILE FABRIC TYPE V	SQ YD	\$ 25,000
AGGREGATE BASE (CV) CLASS 5	CU YD	\$ 42,750
EXPANSION JOINTS DESIGN SPECIAL	LIN FT	\$ 1,500
BITUMINOUS MATERIAL FOR SEAL COAT	GALLON	\$ 1,875
BITUMINOUS SEAL COAT	SQ YD	\$ 52,500
TYPE SP 12.5 WEARING COURSE MIX (2, C)	TON	\$ 17,500
FINE FILTER AGGREGATE (LV)	CU YD	\$ 6,250
GRAVEL WALK	SQ FT	\$ 37,500
PRECAST CONCRETE CURB DESIGN SPECIAL	LIN FT	\$ 375
INSTALL STONE CURB	LIN FT	\$ 35,000
TRUNCATED DOMES	SQ FT	\$ 1,200
RESTORE PICNIC TABLE	EACH	\$ 19,040
RECONSTRUCT PICNIC TABLE	EACH	\$ 15,700
RESTORE HISTORIC STONE CURB	LIN FT	\$ 15,000
RESTORE DRY LAID STONE WALLS	LIN FT	\$ 420,000
RESTORE MORTARED STONE PIERS	SQ FT	\$ 28,125
RESTORE STONE RETAINING WALL	SQ FT	\$ 81,000
RECONSTRUCT STONE RETAINING WALL	LUMP SUM	\$ 100,000
TRAFFIC CONTROL	LUMP SUM	\$ 2,500
TREE PRUNING	HOUR	\$ 15,000
TREE REMOVAL	EACH	\$ 15,000
FILTER LOG TYPE COMPOST LOG	LIN FT	\$ 10,000
SEEDING	ACRE	\$ 500
SEED MIXTURE 260	POUND	\$ 300
COMPOST, GRADE 2	CU YD	\$ 500
RAPID STABILIZATION, METHOD 4	SQ YD	\$ 5000
WEED SPRAYING SPECIAL	ACRE	\$ 2000
MULCH MATERIAL TYPE SPECIAL	CU YD	\$ 5000
<b>TOTAL ESTIMATED COST</b>		<b>\$ 1,262,615</b>



## 6. IMAGES



4.2 – West Drive with deteriorated and cracking bituminous



4.4 – Minnesota Historical Society 1998 marker and West Entrance



4.5 – Shifted sections of East Entrance Walls



4.5 – Mortar cap and mortared joints of curved walls at Historic Entrance



4.5 – Significant deterioration at South Entrance Walls



4.5 – Vehicle impact at west end of South Entrance Walls



4.5 – Dry laid freestanding masonry of South Entrance walls showing mortar cap, mortared joints, and stone deterioration



4.6 – North Overlook Walls and Parking Area



4.6 – North Overlook Retaining Wall – note tilting of the wall from plumb



4.6 – West end of North Overlook Wall is out of plumb by 9-1/4" (above left) at the west pier is and the east pier is out of plumb by 10-3/4" (above right)



4.6 – Cracks indicating movement of the wall



4.6 – Cracks indicating movement of the wall





4.7 – East Overlook Wall and Parking Area



4.7 – Mortared cap, joints, and stone deterioration at East Overlook Wall



4.7 – Significant deterioration at wall and pier of East Overlook Wall



4.7 – Flush curbstones and tree at the island of the East Overlook Wall and Parking Area



4.7 – Bituminous deterioration



4.8 – West Table with loop of West Drive in the background



4.8 – Dirt and moss on West Table



4.8 – Center Table with undermined bench



4.8 – Center Table with stone deterioration

