



City of Madison Planning Division  
215 Martin Luther King Jr. Blvd. | Room LL.100 | P.O. Box 2985 | Madison, WI 53701-2985

# Madison Landmarks Commission APPLICATION

32606

## 1. LOCATION

Project Address: Tenney Park, City of Madison Aldermanic District: 2

## 2. PROJECT

Date Submitted: 12/2/2013

Project Title / Description: Marston Avenue and Sherman Avenue Pedestrian Bridge Restoration at Tenney Park

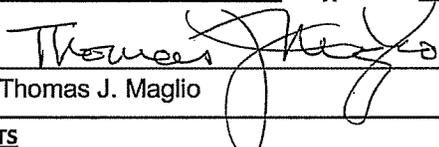
This is an application for: (check all that apply)

- Alteration / Addition to a Designated Madison Landmark
- Alteration / Addition to a building adjacent to a Designated Madison Landmark
- Alteration / Addition to a building in a Local Historic District (specify):
  - Mansion Hill
  - University Heights
  - Third Lake Ridge
  - Marquette Bungalows
  - First Settlement
- New Construction in a Local Historic District (specify):
  - Mansion Hill
  - University Heights
  - Third Lake Ridge
  - Marquette Bungalows
  - First Settlement
- Demolition
- Variance from the Landmarks Ordinance
- Referral from Common Council, Plan Commission, or other referral
- Other (specify): Restoration of a Designated Madison Landmark

## 3. APPLICANT

Applicant's Name: Keith Behrend, P.E. Company: Strand Associates, Inc.  
 Address: 910 West Wingra Dr. City/State: Madison, WI Zip: 53715  
 Telephone: 608-251-4843 E-mail: keith.behrend@strand.com

Property Owner (if not applicant): City of Madison Parks Division  
 Address: 210 Martin Luther King Jr. Blvd, Rm 104 City/State: Madison, WI Zip: 53701-2987  
P.O. Box 2987

Property Owner's Signature:  Date: 12/9/13  
 Thomas J. Maglio

### GENERAL SUBMITTAL REQUIREMENTS

Twelve (12) collated paper copies and electronic (.pdf) files of the following: (Note the filing deadline is 4:30 PM on the filing day)

- Application
- Brief narrative description of the project
- Scaled plan set reduced to 11" x 17" or smaller pages. Please include:
  - Site plan showing all property lines and structures
  - Building elevations, plans and other drawings as needed to illustrate the project
  - Photos of existing house/building
  - Contextual information (such as photos) of surrounding properties
- Any other information that may be helpful in communicating the details of the project and how it complies with the Landmarks Ordinance, including the impacts on existing structures on the site or on nearby properties.

**Questions?** Please contact the  
Historic Preservation Planner:  
Amy Scanlon  
Phone: 608.266.6552  
Email: [ascanlon@cityofmadison.com](mailto:ascanlon@cityofmadison.com)

NOTICE REGARDING LOBBYING ORDINANCE: If you are seeking approval of a development that has over 40,000 square feet of non-residential space, or a residential development of over 10 dwelling units, or if you are seeking assistance from the City with a value of \$10,000 (including grants, loans, TIF or similar assistance), then you likely are subject to Madison's lobbying ordinance (Sec. 2.40, MGO). You are required to register and report your lobbying. Please consult the City Clerk's Office for more information. Failure to comply with the lobbying ordinance may result in fines.



**Strand Associates, Inc.®**

910 West Wingra Drive

Madison, WI 53715

(P) 608-251-4843

(F) 608-251-8655

November 29, 2013

Madison Landmarks Commission  
Department of Planning and Development  
215 Martin Luther King Jr. Blvd.  
PO Box 2985  
Madison, WI 53701-2985

Re: Madison Landmarks Commission Application for Pedestrian Bridge Restoration at  
Tenney Park, City of Madison

Dear Sir or Madam:

Enclosed is the Madison Landmarks Commission Application form including supporting information for the Marston Avenue and Sherman Avenue Pedestrian Bridge Restoration Work at Tenney Park in the City of Madison, Wisconsin.

### **Project Description**

Tenney Park is a 37-acre park located in Madison adjacent to the Yahara River. Most of the park is located between Sherman Avenue and East Johnson Street, west of the Yahara River. Within the park, there is a serpentine lagoon with a central 10-acre island that is accessed via multiple bridges. Two of the bridges that access the island are the Marston Avenue pedestrian bridge and the Sherman Avenue pedestrian bridge. Both bridges are listed on the Wisconsin State Register of Historic Places.

The Marston Avenue pedestrian bridge, constructed in 1912, is a reinforced concrete arch bridge. The bridge spans approximately 50 feet over the lagoon and is approximately 80 feet long and 16 feet wide. The bridge includes integral concrete parapets. The bridge deck cross section is asphalt pavement and earth fill over a concrete arch. The bridge is used for pedestrian traffic only. Except at the underside of the arch, the surface texture of the existing exposed-to-view concrete has a "weathered" look, with the coarse aggregate exposed. There are numerous locations on the bridge where the existing concrete shows signs of significant deterioration. All new repair concrete placed will be finished to closely match the appearance of the existing weathered concrete. A petrographic examination of the existing concrete is being performed to aid the restoration contractor in designing a concrete mix that will match the mechanical and aesthetic properties of the original concrete. The following proposed restoration work is being planned for the existing Marston Avenue pedestrian bridge.

Madison Landmarks Commission  
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Proposed Marston Avenue Pedestrian Bridge Restoration Work

1. Clean all above-grade concrete surfaces of the bridge before any new restoration work is completed. There are varying amounts of organic material, such as moss and lichens, on the surfaces of the bridge that cause the existing concrete to appear darker than it actually is. This organic material will be cleaned off so that the cleaned appearance of the bridge can be used as a baseline reference to match the aesthetics of the new work.
2. Repair all spalled and unsound concrete on the underside of the arch. Since the exposed concrete on the underside of the arch does not have a “weathered” look, a commercially available concrete surface repair mortar will be used to repair spalled concrete and finished to match the existing concrete surface finish. Where existing reinforcing steel is incorporated into new repair work, it will be coated with a rust-inhibitive primer prior to the installation of the surface repair mortar to prevent future spalling. It is estimated that concrete surface repairs will be required on about 50 percent of the underside of the existing arch. Upon completion of concrete surface repair work, a breathable waterproof cement-based coating will be applied to the underside of the arch to provide a uniform appearance and to seal and waterproof the concrete surface. The color of the coating will be the manufacturer’s standard gray finish to match the existing concrete.
3. Replace the outer portions of the concrete arch with new reinforced concrete finished to match the “weathered” look of the existing concrete. Almost all the outer portions of the concrete arches on both sides of the bridge show signs of significant spalled and unsound concrete with many locations where the concrete has already “fallen” off. The deteriorated concrete on the outer portions of the arch will be removed to sound concrete and then reformed to match the geometry of the existing arches.
4. Remove the upper portion of the concrete parapets (copings) on both sides of the bridge. The coping on the south side of the bridge is in significantly worse shape than the coping on the north side, but both copings will be replaced so that the aesthetics of the copings match. Both copings will be removed and reformed to match the geometry of the existing copings. The new concrete will be finished to match the “weathered” look of the existing concrete.
5. Perform concrete surface repairs to all above-grade surfaces exposed to view. Concrete repairs will be finished to match the “weathered” look of the existing concrete.
6. Install a waterproofing membrane on the entire upper surface of the concrete arch to prevent future water damage from occurring to the existing concrete arch.

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7. Apply a migrating corrosion inhibitor to both the existing and new concrete surfaces of the bridge to protect the reinforcing steel in the concrete from future corrosion. The migrating corrosion inhibitor will not affect the appearance of the concrete.
8. Apply a concrete sealer to the existing and new concrete exposed to view to protect new and existing concrete from the damaging effects of water intrusion. The concrete sealer will not affect the appearance of the concrete.
9. Install new asphalt pavement on the bridge and 10 feet beyond the ends of the bridge. The profile of the new asphalt path will match the existing profile.

The Sherman Avenue pedestrian bridge, constructed in 1929, is a reinforced concrete arch bridge with a rock-faced random limestone ashlar veneer. The bridge spans approximately 50 feet over the lagoon and is approximately 70 feet long and 12.5 feet wide. The bridge includes integral concrete parapets that are clad with limestone veneer. The bridge deck cross section is asphalt pavement and earth fill over a concrete arch. The bridge is used for pedestrian traffic only. Masonry restoration including repointing is being proposed along with some concrete repair work on the underside of the arch. A petrographic analysis is being performed on the original mortar that was used so that it can be matched for repointing work. The following proposed restoration work is being planned for the existing Sherman Avenue pedestrian bridge.

#### Proposed Sherman Avenue Pedestrian Bridge Restoration Work

1. Clean all above-grade masonry surfaces of the bridge before any new restoration work is completed. There are varying amounts of organic material, such as moss and lichens, on the surfaces of the bridge that cause the existing masonry to appear darker than it actually is. This organic material will be cleaned off so that the cleaned appearance of the bridge can be used as a baseline reference to match the aesthetics of the new work to.
2. Repair all spalled and unsound concrete on the underside of the arch. A commercially available concrete surface repair mortar will be used to repair spalled concrete and finished to match the existing concrete surface finish. Where existing reinforcing steel is incorporated into new repair work, it will be coated with a rust-inhibitive primer prior to the installation of the surface repair mortar to prevent future spalling. It is estimated that concrete surface repairs will be required on about 20 percent of the underside of the existing arch. Upon completion of concrete surface repair work, a breathable waterproof cement-based coating will be applied to the underside of the arch to provide a uniform appearance and to seal and waterproof the concrete surface. The color of the coating will be the manufacturer's standard gray finish to match the existing concrete.

Madison Landmarks Commission  
Department of Planning and Development  
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3. Repair existing above-grade stones that are cracked using epoxy-crack injection.
4. Repoint existing deteriorated above-grade mortar joints.
5. Spray apply migrating corrosion inhibitor to the underside of the concrete arch to protect the reinforcing steel in the concrete from future corrosion. The migrating corrosion inhibitor will not affect the appearance of the concrete.
6. Apply a sealer to all surfaces of masonry exposed to view to protect the masonry from the damaging effects of water intrusion. The sealer will not affect the appearance of the masonry.
7. Install new asphalt pavement on the bridge and 10 feet beyond the ends of the bridge. The profile of the new asphalt path will match the existing profile.

All proposed restoration work for the two bridges is being planned so that the original aesthetics of the bridges will be maintained. The proposed work is being designed to repair deficiencies in the existing bridges as well as prolong the useable life of each bridge.

In support of the Madison Landmarks Commission Application, we have included the following documents:

1. Completed Madison Landmarks Commission application form.
2. Project location maps.
3. Proposed project construction drawings.
4. Proposed project technical specifications.
5. Photos of the existing bridges.
6. State historic property register listing information.

Please call me if you have any questions or require additional information.

Sincerely,

STRAND ASSOCIATES, INC.®



Keith R. Behrend, P.E.

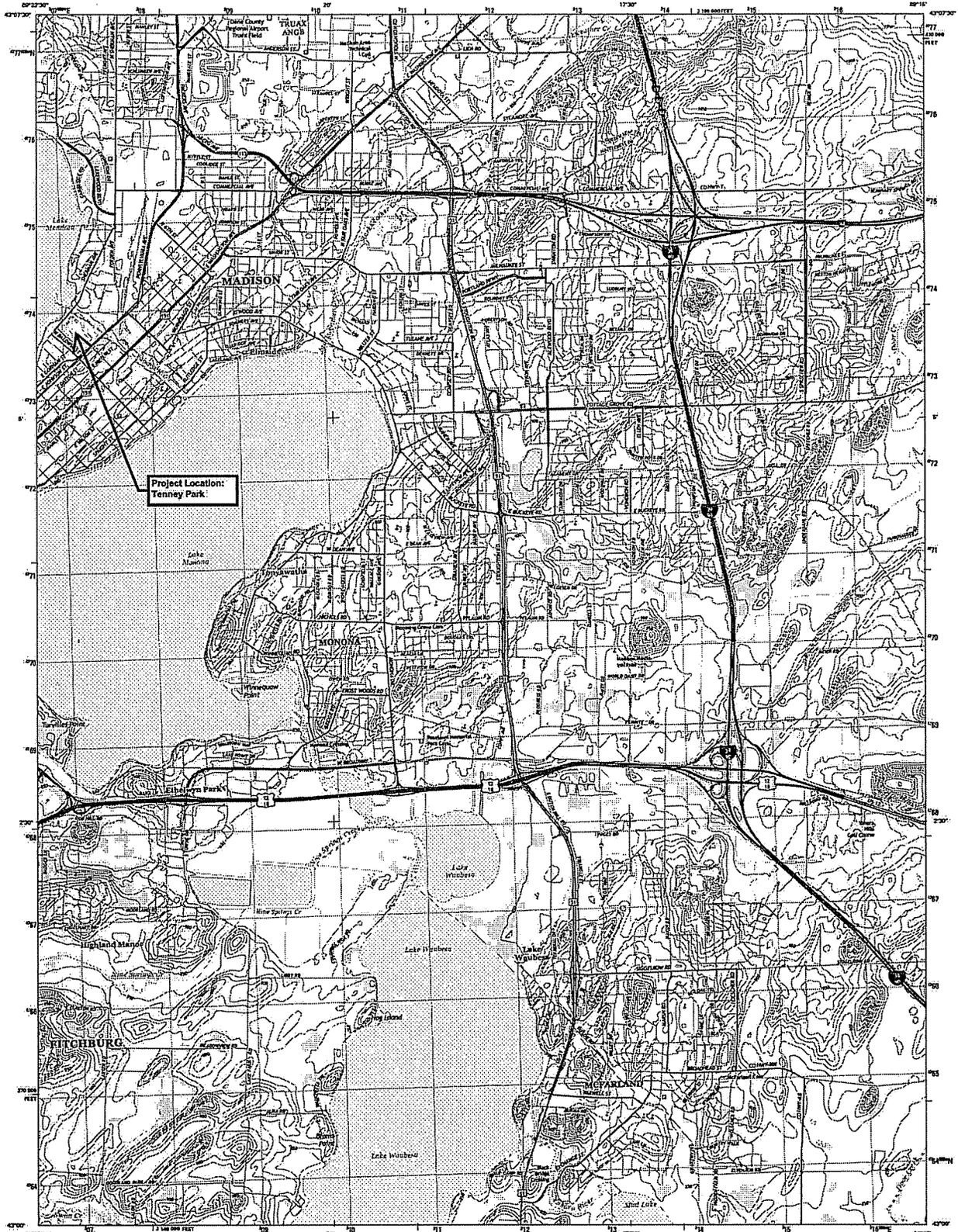
c/enc.: Thomas J. Maglio, City of Madison



U.S. DEPARTMENT OF THE INTERIOR  
U. S. GEOLOGICAL SURVEY

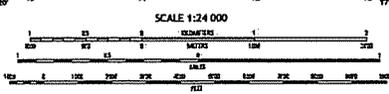
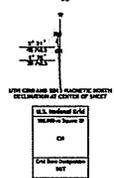
The National Map  
US Topo

MADISON EAST QUADRANGLE  
WISCONSIN-DANE CO.  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
Horizontal Control System of 1983 (NAD83), Projection and  
1:250,000 scale (Horizontal Transverse Mercator), Zone 16E  
at 250-foot scale. Vertical Control System of 1983 (mean  
sea)

Source: USGS, July 1983  
Map: 1:250,000 Topographic  
Horizontal Control System of 1983 (NAD83), Projection and  
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at 250-foot scale. Vertical Control System of 1983 (mean  
sea)

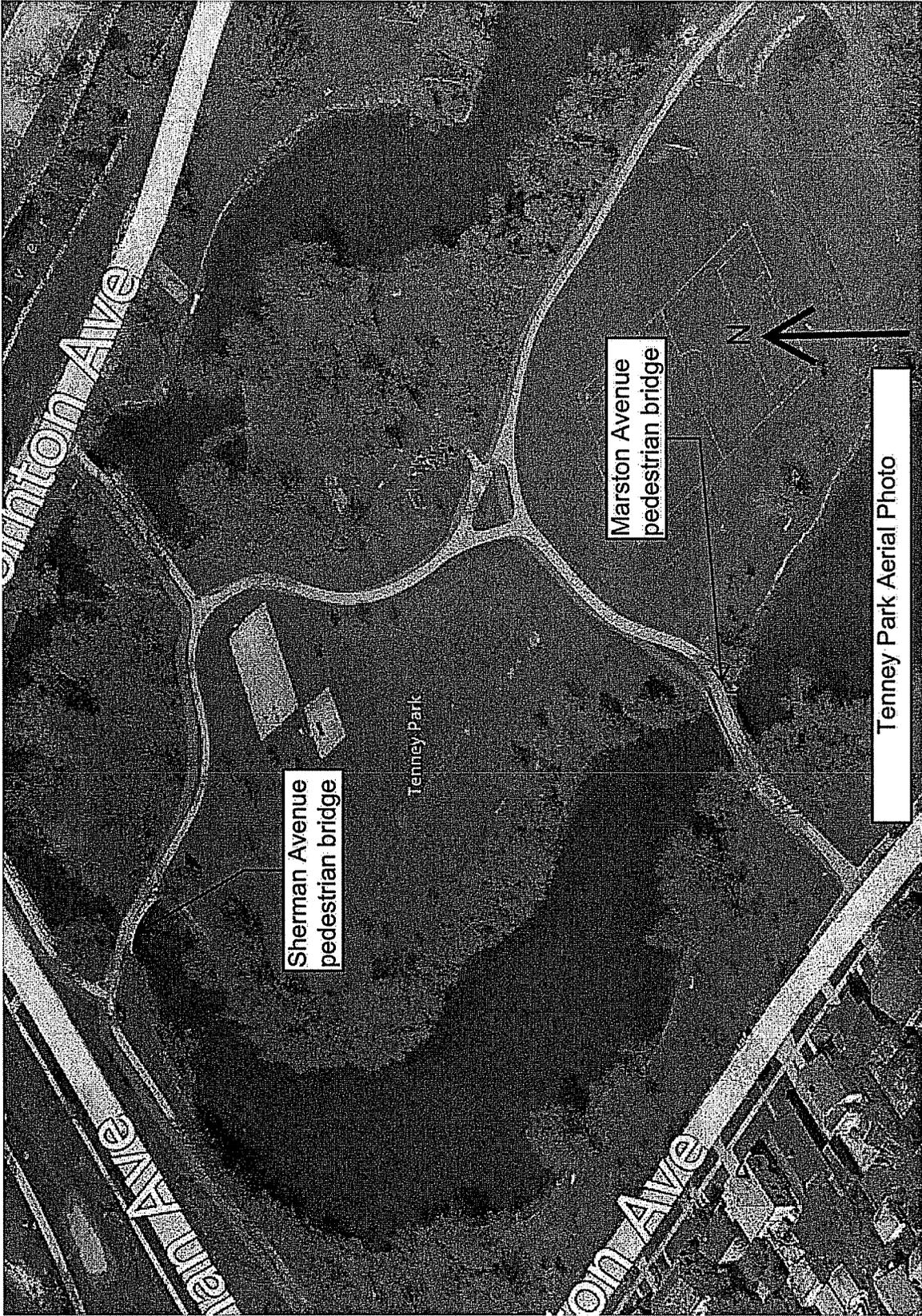


SCALE 1:24 000  
CONTOUR INTERVAL 10 FEET  
HORIZONTAL SCALE OF 1983  
This map was produced in accordance with the  
National Geospatial Program (US Topo Project), December, 1991.  
It conforms to the standards with this product to 30% vertical G. & C.

Water	Blue	Blue
Vegetation	Green	Green
Buildings	Black	Black
Other	Black	Black

ROAD CLASSIFICATION  
 Primary Road: Solid line  
 Secondary Road: Dashed line  
 Tertiary Road: Dotted line  
 Private Road: Dashed line with cross-ticks  
 Local Connector: Solid line with cross-ticks  
 Local Road: Solid line with cross-ticks  
 US Route: Solid line with shield  
 State Route: Solid line with shield

MADISON EAST, WI  
2013



Sherman Avenue  
pedestrian bridge

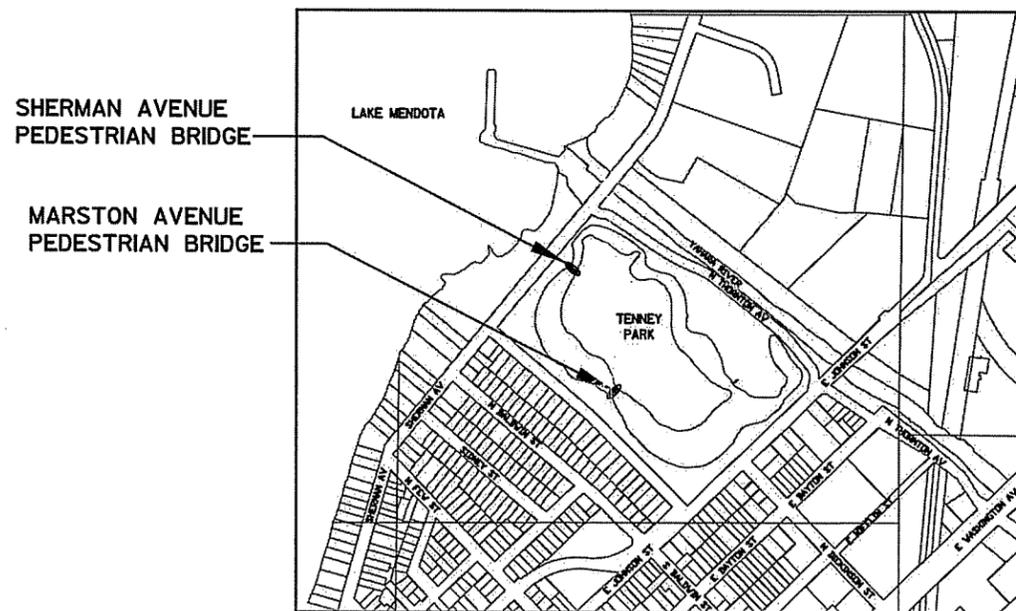
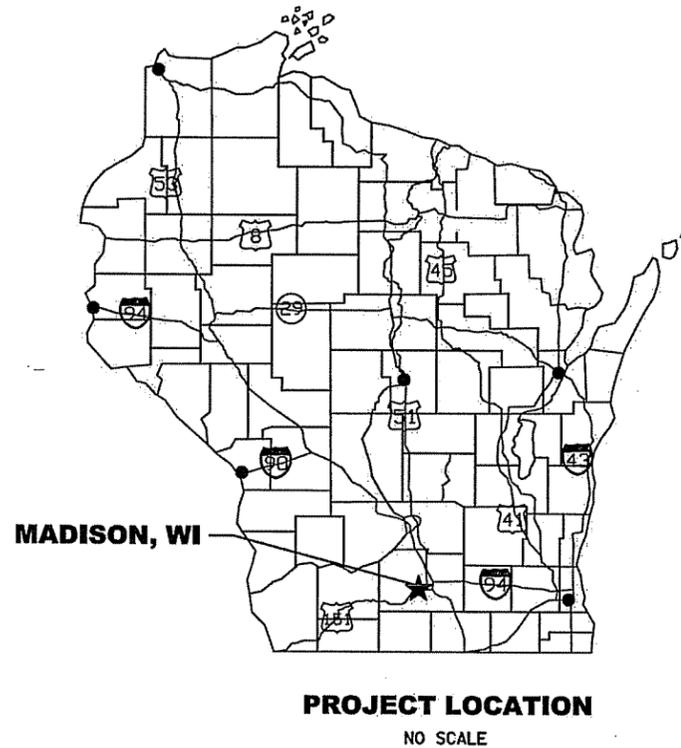
Marston Avenue  
pedestrian bridge

Tenney Park

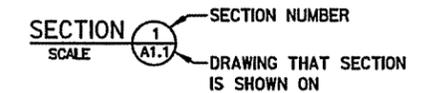
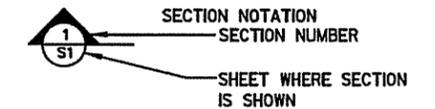
Tenney Park Aerial Photo

# MARSTON AVENUE AND SHERMAN AVENUE PEDESTRIAN BRIDGE RESTORATION WORK AT TENNEY PARK

## FOR THE CITY OF MADISON PARKS DIVISION MADISON, WISCONSIN FEBRUARY, 2014

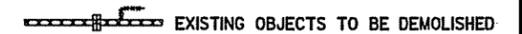
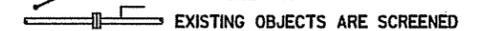


### DRAFTING SYMBOLS



+EL 1000.00 FINISH ELEVATION

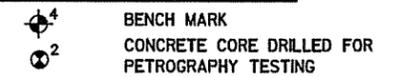
EL 1000.00 SPOT ELEVATION



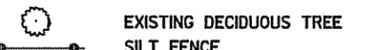
### ARCHITECTURAL SYMBOLS



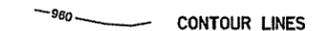
### TOPOGRAPHICAL SYMBOLS



CONCRETE CORE DRILLED FOR PETROGRAPHY TESTING



SILT FENCE



CONTOUR LINES

### LIST OF DRAWINGS

SHEET NO.	DRAWING NO.	DRAWING TITLE
1	GENERAL G1	TITLE SHEET.
2	CIVIL C1	SITE PLAN.
3	STRUCTURAL S1	MARSTON AVENUE PEDESTRIAN BRIDGE DEMOLITION WORK.
4	S2	MARSTON AVENUE PEDESTRIAN BRIDGE RESTORATION WORK.
5	S3	MARSTON AVENUE PEDESTRIAN BRIDGE RESTORATION WORK DETAILS.
6	S4	SHERMAN AVENUE PEDESTRIAN BRIDGE DEMOLITION AND RESTORATION WORK.

910 West Wingra Drive  
Madison, WI 53715  
608-251-4843  
608-251-8655 fax  
www.strand.com

**CONTRACT NO. 7129**



SHEET  
1  
G1

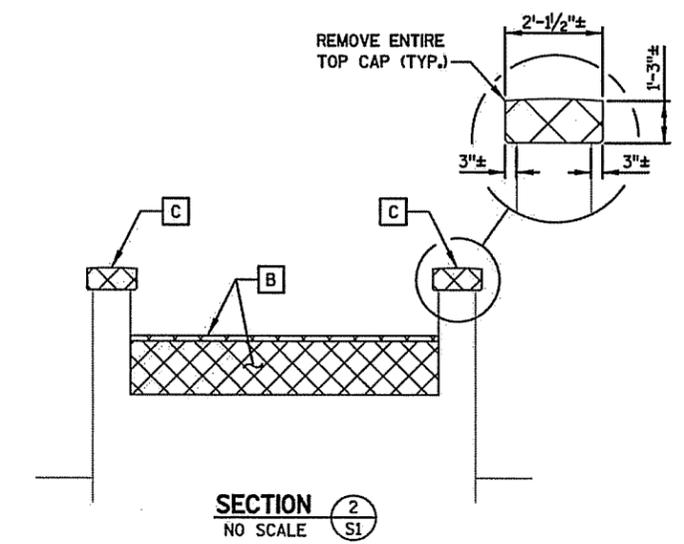
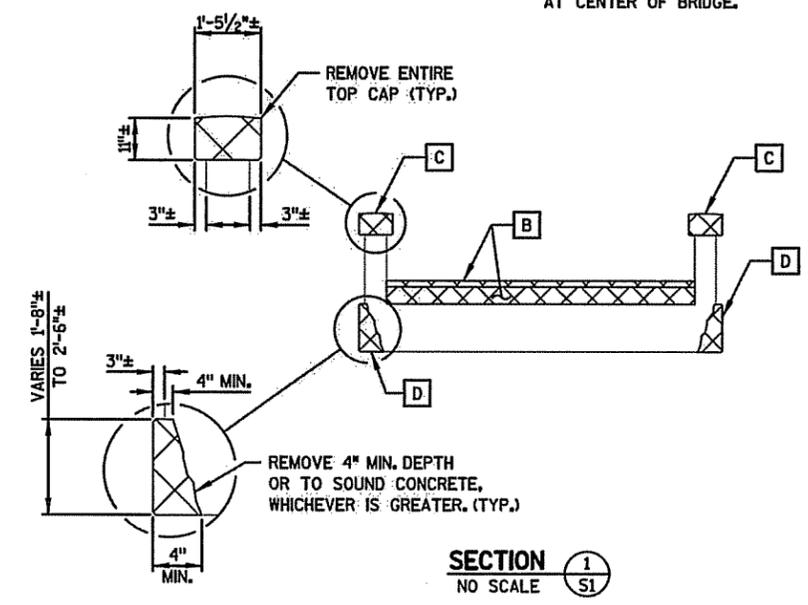
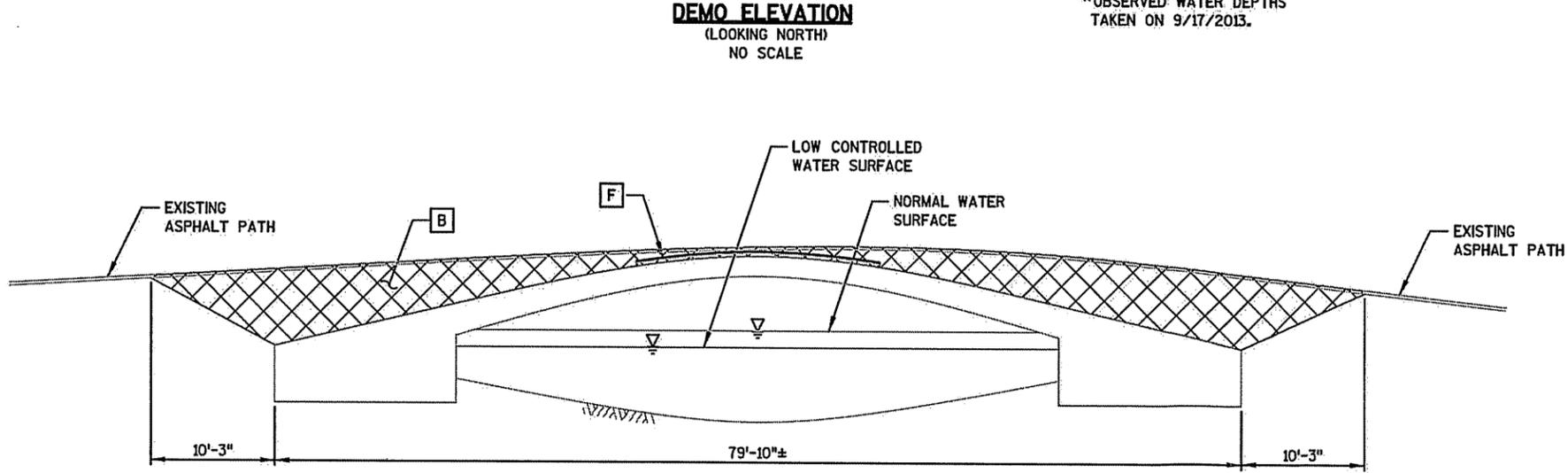
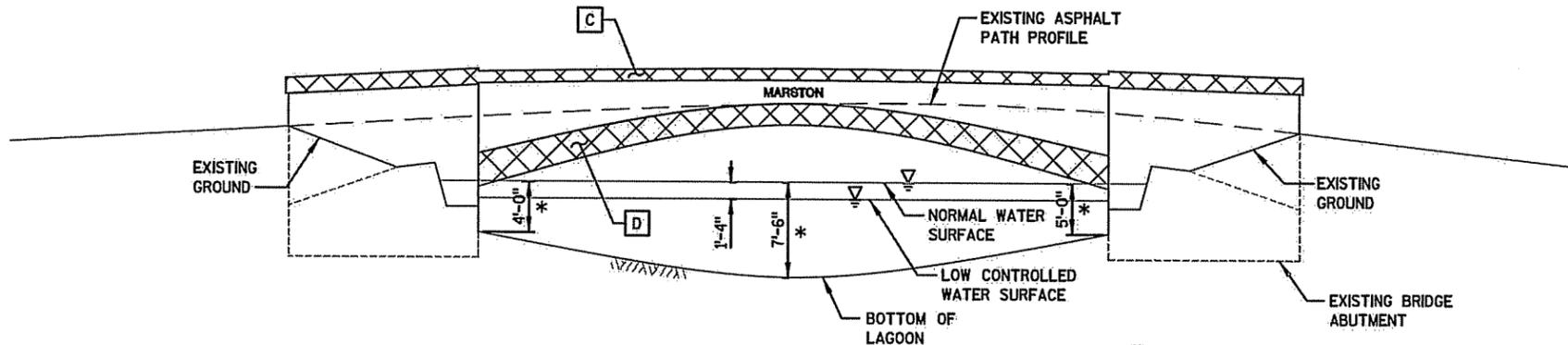
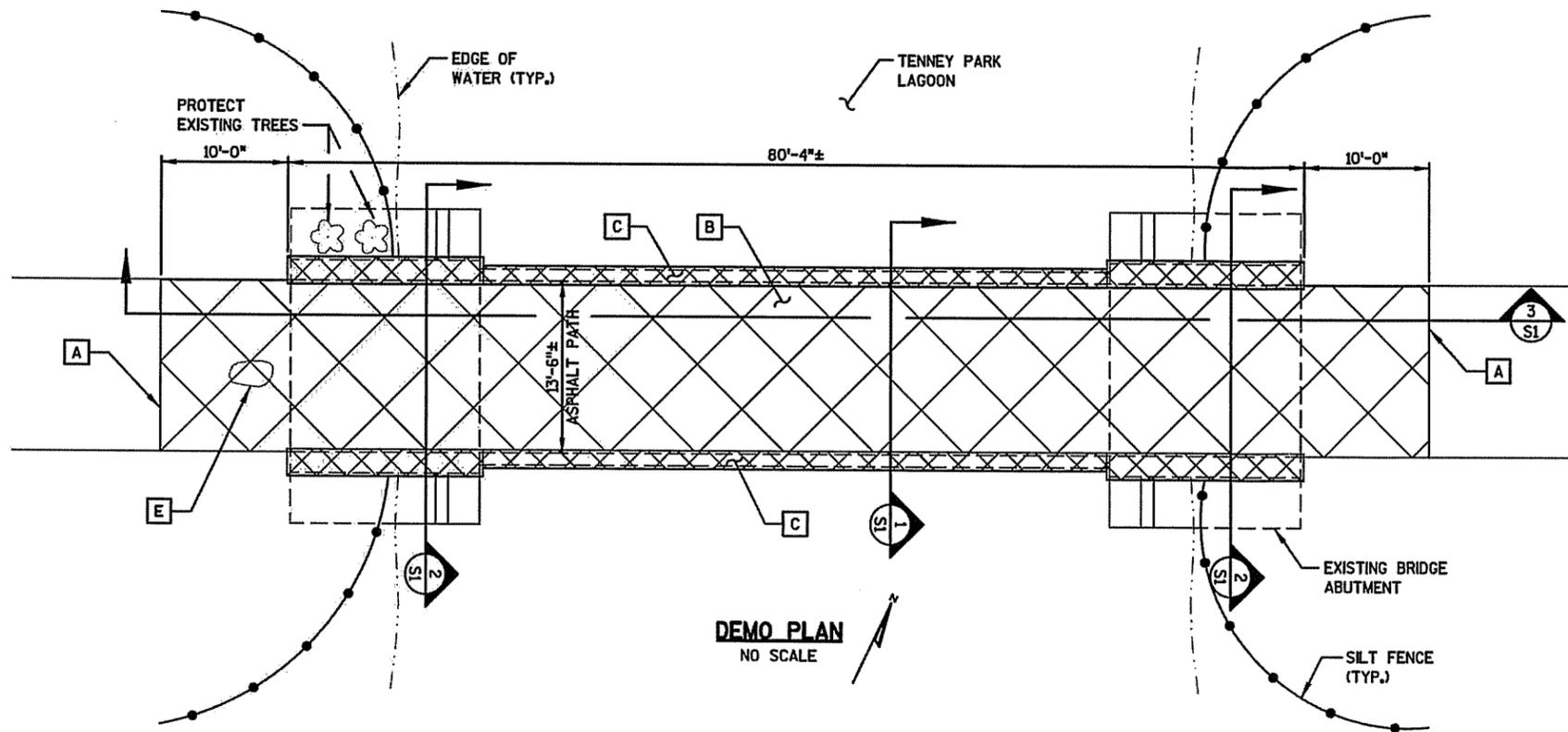


**GENERAL NOTES**

SEE GENERAL NOTES ON SHEET S2.

**DEMOLITION NOTES**

- A** SAWCUT EXISTING ASPHALT PAVEMENT.
- B** REMOVE EXISTING ASPHALT PAVEMENT AND FILL DOWN TO TOP SURFACE OF CONCRETE ARCH.
- C** REMOVE UPPER PORTION OF EXISTING CONCRETE PARAPET. SEE SECTIONS FOR EXTENTS.
- D** REMOVE OUTER PORTION OF EXISTING CONCRETE ARCH. SEE SECTIONS FOR EXTENTS. TYPICAL BOTH SIDES OF BRIDGE.
- E** REMOVE EXISTING ROCK. SALVAGE FOR REUSE AT SAME LOCATION.
- F** REMOVE EXISTING CONCRETE OVERLAY AND EMBEDDED ANGLES DOWN TO CONCRETE ARCH. CONCRETE OVERLAY IS APPROXIMATELY 20'-0" LONG AT CENTER OF BRIDGE.



NO.	REVISIONS	DATE
1	DNR CHAPTER 30 APPLICATION	10/30/13
2	SHPD REVIEW	11/25/13

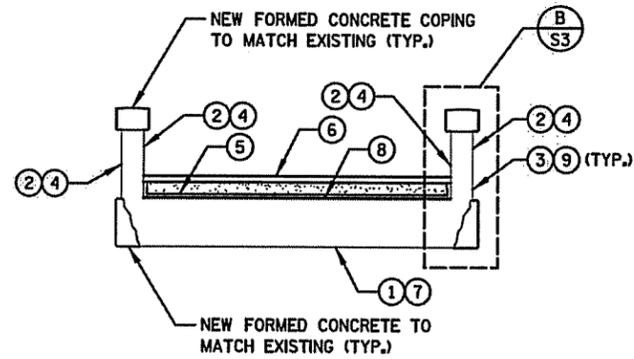
**MARSTON AVENUE  
PEDESTRIAN BRIDGE DEMOLITION WORK**  
MARSTON AVE. & SHERMAN AVE. PEDESTRIAN BRIDGE  
RESTORATION WORK AT TENNEY PARK  
CITY OF MADISON PARKS DIVISION  
MADISON, WISCONSIN

JOB NO. 1020.078  
PROJECT MGR. KRB

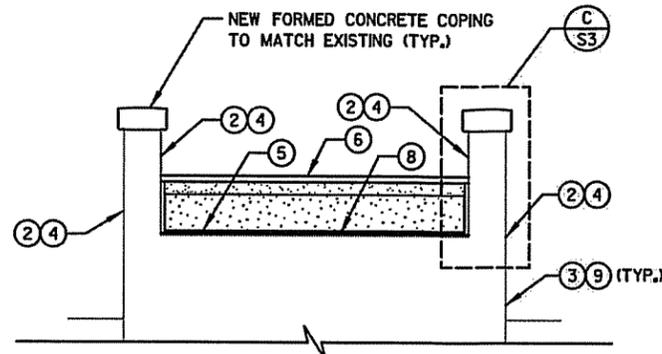


SHEET 3 S1

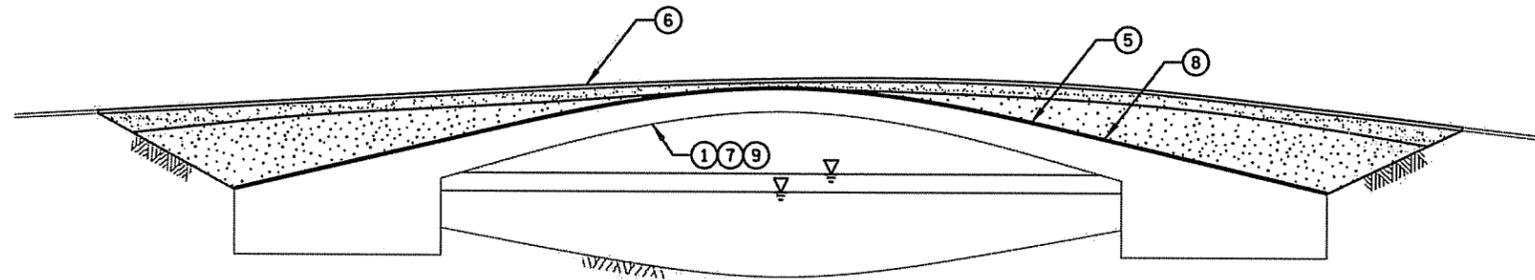




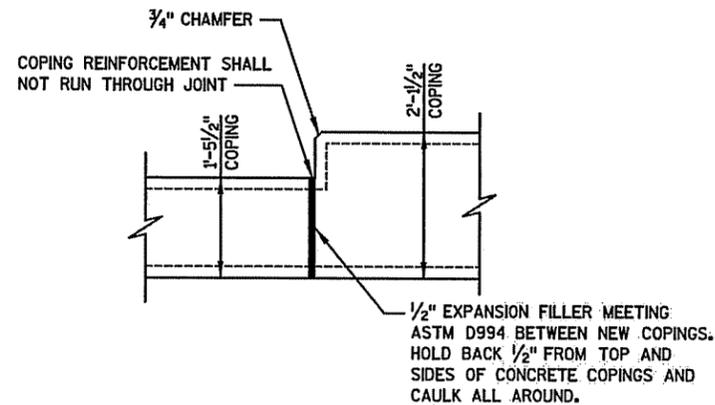
SECTION 1  
NO SCALE S3



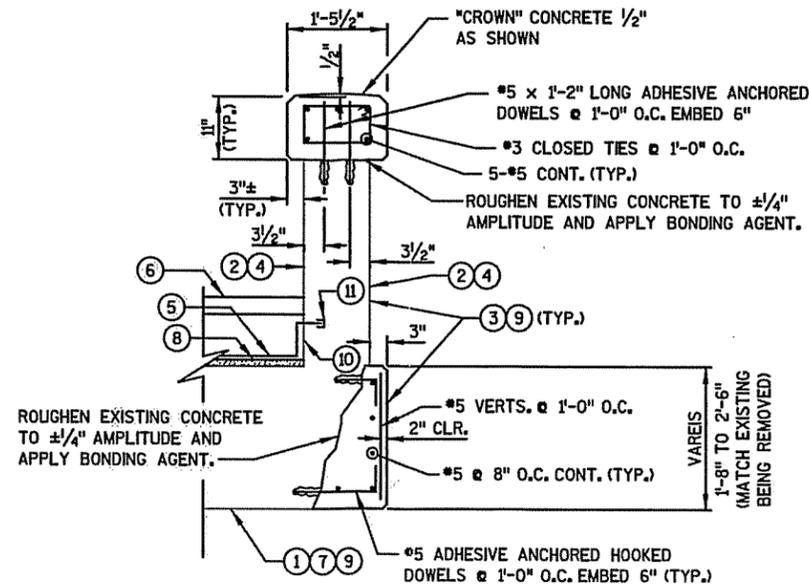
SECTION 2  
NO SCALE S3



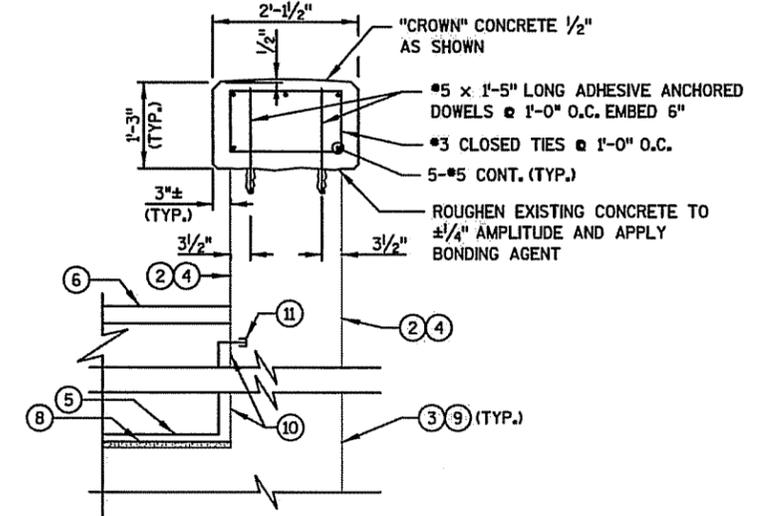
SECTION 3  
S3



COPING CONTROL JOINT A  
S3



COPING DETAIL B  
S3



COPING DETAIL C  
S3

**GENERAL NOTES**

SEE GENERAL NOTES ON SHEET S2.

**KEY NOTES**

- 1 SOUND ENTIRE UNDERSIDE OF CONCRETE ARCH ABOVE THE NORMAL HIGH WATER ELEVATION IN PRESENCE OF ENGINEER AND PERFORM CONCRETE SURFACE REPAIRS WHERE REQUIRED.
- 2 CLEAN ALL ABOVE-GRADE VERTICAL SURFACES OF CONCRETE PRIOR TO ANY CONCRETE SURFACE REPAIR WORK.
- 3 APPLY CONCRETE SEALER TO ALL EXPOSED ABOVE-GRADE SURFACES OF CONCRETE (EXCEPT UNDERSIDE OF ARCH) IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- 4 SOUND ALL EXISTING ABOVE-GRADE CONCRETE SURFACES EXPOSED TO VIEW AND PERFORM CONCRETE SURFACE REPAIRS WHERE REQUIRED.
- 5 WATERPROOFING MEMBRANE. APPLY TO ENTIRE TOP SURFACE OF EXISTING CONCRETE ARCH AND WRAP UP INSIDE FACES OF CONCRETE PARAPETS TO UNDERSIDE OF NEW ASPHALT PAVING. INSTALL PREFABRICATED DRAINAGE COMPOSITE OVER ALL MEMBRANE SURFACE.
- 6 3" ASPHALT OVER 8" CRUSHED AGGREGATE BASE COURSE OVER SELECT FILL.
- 7 APPLY CEMENT-BASED WATERPROOFING COATING TO ENTIRE UNDERSIDE OF CONCRETE ARCH ABOVE THE NORMAL HIGH WATER ELEVATION.
- 8 INSTALL 1/2" CONCRETE TOPPING OVER ENTIRE TOP SURFACE OF CONCRETE ARCH.
- 9 ALL EXPOSED ABOVE-GRADE CONCRETE SURFACES TO RECEIVE PENETRATING CORROSION INHIBITOR IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- 10 GRIND EXISTING INSIDE FACE OF CONCRETE PARAPETS BELOW THE ASPHALT PATH TO PROVIDE A SUITABLE SUBSTRATE TO ADHERE WATERPROOFING MEMBRANE TO. WORK IS INCIDENTAL TO CONCRETE TOPPING BID ITEM.
- 11 SAWCUT 1/2" x 1/2" REGLET FOR TERMINATION OF WATERPROOFING MEMBRANE. TURN MEMBRANE INTO REGLET AND SEAL WITH MASTIC AS RECOMMENDED BY THE MEMBRANE MANUFACTURER. WORK IS INCIDENTAL TO WATERPROOFING MEMBRANE SYSTEM BID ITEM.

NO.	REVISIONS	DATE
1	DNR CHAPTER 30 APPLICATION	10/30/13
2	SHPO REVIEW	11/25/13

**MARSTON AVENUE  
PEDESTRIAN BRIDGE RESTORATION DETAILS**  
 MARSTON AVE. & SHERMAN AVE. PEDESTRIAN BRIDGE  
 RESTORATION WORK AT TENNEY PARK  
 CITY OF MADISON PARKS DIVISION  
 MADISON, WISCONSIN

JOB NO.  
1020.078  
PROJECT MGR.  
KRB



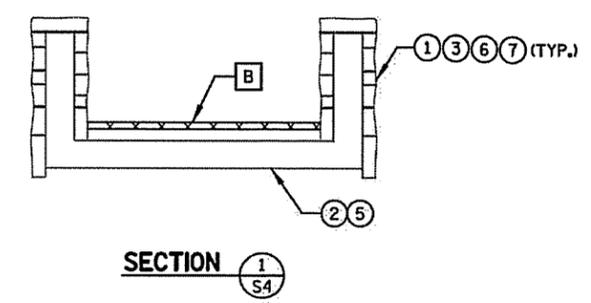
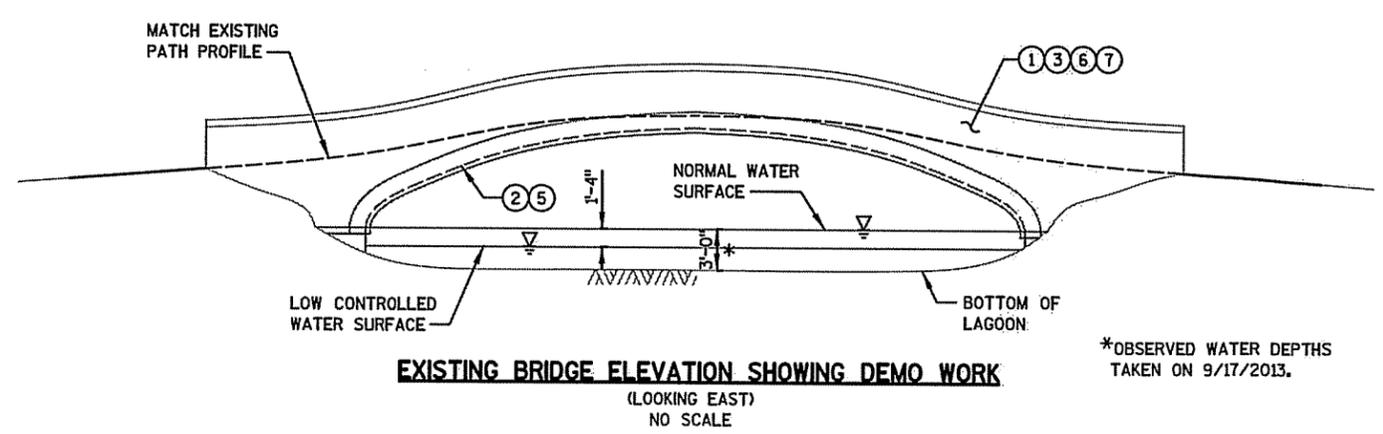
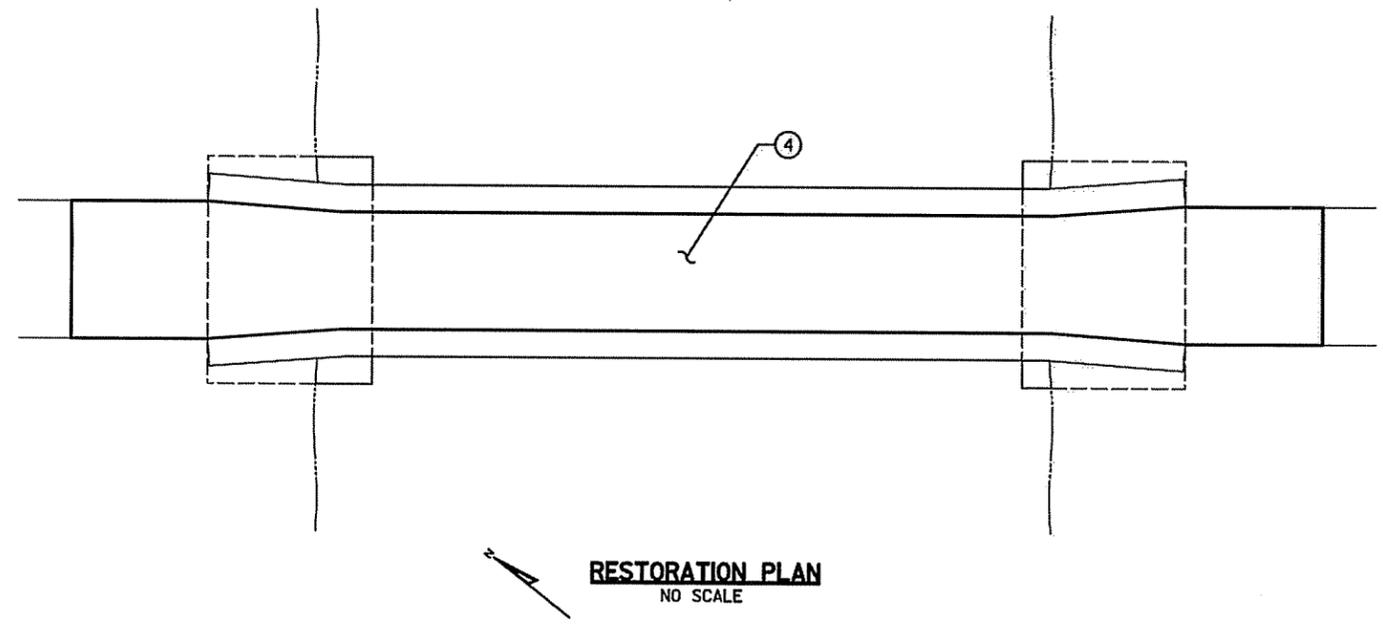
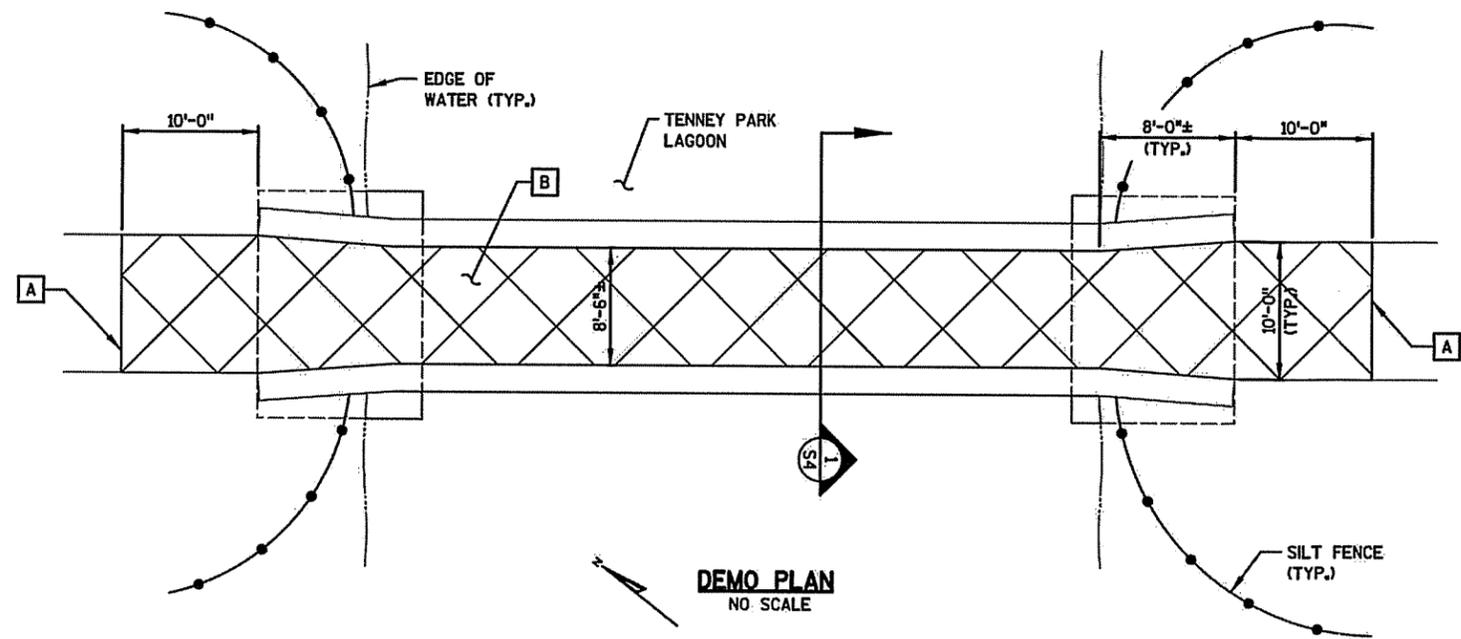
**GENERAL NOTES**  
SEE GENERAL NOTES ON SHEET S2.

**DEMOLITION NOTES**  
**A** SAWCUT EXISTING ASPHALT PAVEMENT.  
**B** REMOVE EXISTING ASPHALT PAVEMENT.

**KEY NOTES**

- ① CLEAN ALL ABOVE-GRADE SURFACES OF STONE VENEER. PRIOR TO ANY REPOINTING OR STONE RESTORATION WORK.
- ② SOUND ENTIRE UNDERSIDE OF CONCRETE ARCH IN PRESENCE OF ENGINEER AND PERFORM CONCRETE SURFACE REPAIRS WHERE REQUIRED AS DETERMINED BY ENGINEER.
- ③ REPOINT EXISTING DETERIORATED MORTAR JOINTS.
- ④ NEW 3" ASPHALT PAVING OVER EXISTING BASE COURSE.
- ⑤ APPLY CEMENT-BASED WATERPROOFING COATING TO ENTIRE UNDERSIDE OF CONCRETE ARCH ABOVE THE NORMAL HIGHWATER ELEVATION.
- ⑥ REPAIR CRACKED STONES USING EPOXY CRACK INJECTION. SEE STONE RESTORATION SPECIAL PROVISION.
- ⑦ APPLY MASONRY SEALER TO ALL EXPOSED ABOVE-GRADE SURFACES OF MASONRY IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

NO.	REVISIONS	DATE
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2	SHPO REVIEW	11/25/13



**SHERMAN AVENUE  
PEDESTRIAN BRIDGE DEMOLITION WORK**  
 MARSTON AVE. & SHERMAN AVE. PEDESTRIAN BRIDGE  
 RESTORATION WORK AT TENNEY PARK  
 CITY OF MADISON PARKS DIVISION  
 MADISON, WISCONSIN

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KRB

**SA**  
**STRAND**  
ASSOCIATES®

SHEET  
6  
S4