Photograph 78. Walkway structural skeleton before decking. *Photo courtesy of Mr. Stephen Klein, Jr.*

Photograph 79. Structural skeleton from underside prior to decking. *Photo courtesy of Mr. Stephen Klein, Jr.*

Photograph 80. Top view of bridge section connections. *Photo courtesy of Mr. Tibor Latincsics.*

Photograph 81. Underside view of bridge section connections. *Photo courtesy of Mr. Tibor Latincsics.*

The #1 KDAT specification. Each 20-foot panel weighed 1,500 pounds. Handling the panels with the winch hoists required the operators to mount the panels. This added another 400-900 pounds. If #1 CCA treated lumber that was not dried after treatment was used, another 500 to 1,000 pounds would have been added due to the additional moisture in the wood. The assembled bridge skeleton prior to the installation of decking is shown in photos 78-80. Photo 81 shows the spaced chord connections and the sistered interior 2-inch by 6-inch connections between the bridge sections. The design plans had the interior walkway joists sistered connections offset in a 10-foot stagger. In order to simplify the prefabrication and transport, this was changed to a common 20-foot spacing.

**Final Cable Tuning**

When the catenary cable was uniformly and continuously loaded, the final tuning of the suspension system commenced. The following criteria were adhered to:

- The design walkway camber of 3.5 percent, which meets ADA standards.
- Clearance to the 100-year flood level.

The exact elevation of the catenary sag point was set by the project engineer utilizing the turnbuckles. Subsequent to this, each individual suspender threaded rod had to be adjusted to smooth out the camber of the bridge. As the threaded rods hang plumb, the 3.5 percent camber of the bridge was automatically set by the bevel cut on the
underside of the 6-inch by 6-inch cross-stringer. This is detailed on Plan Sheet 8, Figure 16 (page 59), and photo 64 (page 62). As each threaded rod adjustment affected the load on its neighbor, the final bridge tuning was a repetitive process. Photo 82, perhaps the definitive photo during the construction period, shows the bridge camber after two adjustments.

### Decking and Stairs

The plans specified 2-inch by 6-inch #1 SYP CCA.40 KDAT 19% MC decking, screwed down bark side up with a 1/8-inch gap between boards to accommodate swelling. The screw holes were pre-drilled, and the soaped square drive, galvanized 3-inch bugle head deck screws were driven two per joist at 14.5 inches on center (o.c.) This was a very time-consuming process as opposed to power nailing. This is shown in photo 83. Out of the 31 other pedestrian suspension bridges inventoried by the author, only the Dry River Bridge in the WMNF used screws; all others were nailed. Screws are a superior connector, especially for an elevated bridge subject to cross-winds.

The staircases are detailed on Plan Sheet 3, and the construction is shown in photo 84. When the wire mesh and handrail are completed, the staircases will comply with the BOCA® code, with the exception that the total rise on the west staircase is 12 feet, 3 inches, which is 3 inches more rise than allowed by BOCA® without an intermediate landing. Given the location on a wilderness footpath, the project partners and project owner found this to be acceptable.

### Field Modifications

Following is a list of field modifications.

1. Because of the drought, the site was accessible to concrete trucks, up to 30 CY of concrete was utilized for the snowshoe foundation in lieu of the 20 CY specified by the plans. This improved the protective concrete cover on the rebar.

2. The tower base rebar was upgraded from a #14 to a #18 due to availability.