



Photo Credit: Jeff Terry

2021 SEASON RETROSPECTIVE

We made it. I would like to thank all of the volunteers who contributed their time, energy, and thoughts into completing the abbreviated 2021 season. In many respects it was a remarkable year.

- The Museum turned 50 years old!
- After over a year of inaction the operating team came together and recertified over 100 operators, trained eight new operators, prepared and maintained the cars, track, overhead, and right-of-way, and assembled a series of customer-focused special events.
- During the year we also successfully tested a new schedule offering—a Friday afternoon shift
- We also executed a highly successful update to the charter booking process.

For those who were unable to operate due to the shortened schedule or concerns with COVID, I hope that you will be able to return next year, when we all hope things will be back to normal.

The following pages provide a more detailed recap of 2021. As always, I would like to thank each of you for volunteering and making the museum a successful destination activity. If you have any questions or concerns, please contact me (bruce.gustafson@optum.com). See you next year!

SCHEDULE SUMMARY

As noted in a prior newsletter, the 2021 operating schedule had some major changes to the Como-Harriet operation. We removed 5 shifts and added 1 new shift (CHSL Friday afternoon) for the 2021 operation compared to our last normal operating year. These changes impacted the number of volunteer hours and along with a shortened season our passenger counts. At ESL the Farmers' Market shift was cut.

Table 1. Schedule Comparison 2021 vs. 2019

		2019	2021			2019	2021
Weekday	CHSL Schedule			ESL Schedule			
	Tuesday Evening	Yes	-	Farmers Market	Yes	-	
	Wednesday Afternoon	Yes	Yes				
	Wednesday Evening	Yes	-				
	Thursday Evening	Yes	-				
	Friday Afternoon	-	Yes				
Weekend	Friday Evening	Yes	Yes				
	Saturday	2 shifts	2 shifts	Saturday	2	2	
	Sunday	2 shifts	1 shift	Sunday	1	1	
Total Shifts		9	6		4	3	

OPERATING VOLUNTEERS

ROSTER

For the 2021 operating season we had 104 operators who were qualified to volunteer as an operator or station agent. This is comparable to the past few years: 117 operators in 2019; 115 operators in 2018; 106 operators in 2017; and,

104 operators in 2016. Eighty-four operators logged hours to support the schedule. This percentage is again comparable to prior years.

Como-Harriet

Como-Harriet had 82 operating personnel compared to 90 in 2019. 63 of the qualified operators logged hours for a total of approximately 1425 hours.

- Following historical patterns 13 volunteers contributed the majority (50%) of the hours. These volunteers include Rod Eaton, Mark Digre, Pat Cosgrove, Louis Hoffman, Mike Buck, Patrick Desbonnet, Andy Jacob, Steve Simon, Ezra Strobel, Linda Ridlehuber, Mary Jo Odegaard, Bill Arends and Bill Way.

Excelsior

ESL had 26 operating personnel compared to 43 in 2019. 23 of the volunteers have logged hours.

- Similar to prior years a minority of the team provided the majority of the hours. These volunteers include Karen Kertzman, Gregory Thomas, Jim Kertzman, Tim Gephart, Tom Dulebohn, and Mike Buck.

YEAR-TO-DATE OPERATIONAL PERFORMANCE

The table below summarizes the 2021 operating performance. The majority of the data comes from the new POS, so comparison to prior years is difficult due to some inconsistencies in the data.

	2021		
	CHSL	ESL	Total
Charters	39	23	62
	\$4,700	\$1,356	\$6,056
Regular Fares	9,443	1,710	11,153
	\$27,837	\$5,112	\$32,949
Passes	118	7	125
	\$ 2,016	\$ 149	\$2,165
Memberships	2	1	3
	\$ 120	\$ 60	\$180
Total Riders ⁽¹⁾	11,387	2,062	13,449

Note 1: CHSL "Total Riders" is estimated based on the ESL ratio of Total to Paid riders

Como-Harriet

The 11,387 estimated riders compares to roughly 21,600 riders in 2019. The Point-of-Sale (POS) system used at CHSL is able to track passes and memberships and will be useful in coming years to allow comparisons that we have not been able to do in the past.

Excelsior

For the year ESL ridership with 3 shifts per week, had 2,062 riders including 1,710 passengers purchasing a fare. Including charter volume (336), the total passenger count for ESL was 2,398. This compares to roughly 7,000 riders in 2019.

CHARTERS – PAT COSGROVE, KAREN KERTZMAN

CHSL

As shown in the Operational Summary CHSL's 2021 operating season supported 39 charters generating \$4,700.

In addition to the charter operations, considerable work was done to make the process easier to manage and more convenient for all

- All charter inquires now come via the website/e-mail eliminating phone tag and missed voice mails.

- Once MSM's tech person Ben Franske implements our website's charter page (already written) that process will be even better by eliminating numerous e-mails to get all the needed information
- Putting the charter openings on shift planning allowed anyone to crew most charters. Previously a small set of operators had to be called.
- Payment is now done on-line eliminating the crews needing to worry about collecting money. But there are several manual steps remaining that are targeted for automation in 2022

ESL

The year 2021 saw the largest number of charters at ESL in the past 6 years and possibly more. As shown in the table below there were 24 charters with 336 riders generating over \$2,000 in revenue.

No. of Charters

- 12 Welcome Back Charters in May and June
- 1 Motorman Charter in May
- 11 Regular Charters
- 24 Total Charters

MECHANICAL (EQUIPMENT) REPORT – DICK ZAWACKI

After almost a year and a half of not operating and COVID restrictions which limited carbarn operations, the majority of the carbarn crew's work focused on general maintenance of each streetcar. However, each car had specific improvements and upgrades or had associated activities which are detailed below.

CHSL Streetcar Status

TCRT No. 1300

Several improvements were made to the car's braking system and it is much more responsive than it has been in a number of years. When the refurbished motor was installed on the front truck, new gears were installed. The teeth on these gears are straight cut (i.e., in line with the shaft they are mounted on) which, inherent to their design, are louder than the previous gears which had helical cut (i.e., cut at an angle to the shaft they are mounted on) teeth.

At intermittent times when using the controls at the rear of 1300, the motors would not shut off when the STOP switch was engaged. After completing maintenance on some controller components and performing several tests, the real problem was found to be that the START switch was intermittently malfunctioning. The switch kept power continuously applied to the motors and would not allow the STOP switch to remove power from the motors. The START and STOP switches were replaced (they come as a set) and the problem has not recurred.

TCRT No. 322

The car's front bumper is currently at a welding shop for repairs. Some portions of the bumper are being straightened and some sections will need to be cut out and replaced. After repairs are completed, the bumper will be repainted to match the car's original colors and reinstalled on the car.

During the season 322 experienced a number of problems with the operation of various systems in the car. The problem was traced to several poor (high resistance) electrical connections that did not allow the batteries to charge to their normal operating voltage of 36 VDC. This result of this low voltage condition was that several systems would not operate correctly. The components were cleaned, repaired as needed, and retightened to eliminate high resistance connections. A label was added to the dashboard telling the operator to take the car out of service if the operating voltage drops below 32 VDC. The car also experienced problems that were traced to low clearance of the front track brakes. The brakes were readjusted to the correct height above the tracks.

TCRT No.1239

Our overall plan is to backdate the car to the way it looked during the 1920's era. The center piece of this plan is to replace the Chicago Transit Authority (CTA) trucks that were installed on the car when it was originally restored. The gauge on these trucks is out of specification and the gearing is not optimal for the car. Our basic plan is to build a complete truck that closely replicates the original Baldwin #5 trucks that were under the car. Most of the fabrication work on the new truck components is completed. Truax Machinery has fabricated new equalizers and other parts and is charging us only for the cost of the material. New coil springs have been received from Carolina Coil, the company that made new springs for the 1300 truck rebuild project. New leaf springs are on order from a company near North

Branch, Minnesota. The wheels will be machined to the correct profile for streetcar wheels. Two motors that we acquired from the Halton County Radial Railway were refurbished by L&S Electric and are at CHSL, ready to be installed in the new trucks.

We will lease a truck assembly from the Illinois Railway Museum that will greatly simplify the logistics of removing the old trucks and installing the new ones during the upcoming winter and next year. Using this truck assembly will allow us the flexibility to move 1239 in and out of the carbarn as needed without having to store the car body on jacks. We will also be able to keep the car in operational status in the event it is needed to support our regular operations.

Other components to complete the look of 1239 (a new, non-working Baker heater and associated piping and smokestack, vintage looking lighting, historically correct headlight, car cards, etc.) have been installed or replaced. The replica smokestack for the Baker heater was fabricated and donated by a Twin Cities Sheet Metal Workers Local 10 training class. Some details of the paint scheme will also be changed to be consistent with the 1920's look.

ESL Streetcar Status

DSR No. 78

The rebuilt controller is installed in the car and the car is operational. The controller mounting configuration has been redesigned and strengthened to prevent the vibration which caused the original problem of an electrical short in the controller. The wires attached to the controller from the underside of the car are now labeled to make future repairs easier. Plans are to upgrade the second controller to the same level as the first controller during the upcoming winter. New ditch lights were installed in the car. In conjunction with this, a 12 volt battery system was installed in the car to run interior control systems.

DSR No. 265

A new rear door operating lever has been installed in the car that reduces wear on the entire mechanism. The fare box was repaired and cleaned to eliminate stiff and sticky operation. A new voltmeter will be installed in the car. The rear START and STOP switches were repaired, to prevent the similar problem that occurred in TCRT 1300.

Winona Mo. 10

Following a number of unsuccessful attempts over the past 2 years to rebuild the GE 800 motor for the car, we came to an agreement with AC Electric in Bangor, Maine, that it was best for all involved to have Swiger Coil in Cleveland, Ohio, repair the motor. AC Electric did not charge us for any of the work they did to our motor. The motor has arrived at Swiger and they are in the process of completing their evaluation of the motor. Once this is finished, we will have a better understanding of the timeline to complete the repairs.

Mesaba No. 10

Materials that were stored under and inside the car are in the process of being sorted and cleaned out. One truck that was under the car has been moved to the warm barn to be cleaned and made operational. Later, the second truck will also be made operational. Then the trucks will be placed under the car body. All of this is being done in preparation of moving the car body to track 2 as part of realigning track 3 (where Mesaba 10 currently sits) and completing the concrete floor in the cold section of the carbarn.

Fargo-Moorhead 28

The car body remains in a storage shed in Watertown, Minnesota. At this point in time, there are no specific plans or timeline for the restoration of this streetcar.

ENGINEERING – KEITH ANDERSON

Listed below is a summary of the major initiatives performed during 2021.

- Killmer Electric performed overhead maintenance this spring at CHSL. This included replacement of 19 lineside poles, addition of several pull-offs, and stretching/realigning the OH wire.
- The CHSL overhead crew was on the site this spring to confirm the poles that would be replaced by the Contractor. Later, they made some adjustments to the overhead wire after the Contractor completed his work.
- Several cubic yards of crushed rock were delivered to CHSL and distributed around the site, including in the area of the speeder shed switch.

- We purchased 25 ties for ongoing, periodic replacement at CHSL by our volunteers. We plan two work sessions, on November 5 and 6, to replace a few of the worst ties on the line.
- Repairs were made to the overhead wire at ESL after one of the wire supports failed.

MERCHANDISE SALES – BILL ARENDS

The following table shows pre-tax sales activity for the full 2021 season. A full year comparison to 2019 is not possible at this time, but the YTD August sales were down ~30%. It is worth noting that sales appears to be down substantially less than ridership.

	CHSL	ESL	Total
Toys	\$ 2,894	\$ 965	\$ 3,859
Book	1,577	231	1,808
Ornament	665	85	750
Candy	646	-	646
Jewelry	640	20	660
Clothing Total	938	55	993
Souvenir Total	2,777	605	3,381
Other Total	133	197	330
Grand Total	\$ 10,270	\$ 2,157	\$ 12,427

Souvenirs include mugs (\$609), artifacts (\$555), magnets (\$430), souvenir tokens (\$393), and prints (\$313).

RIGHT-OF-WAY (CHSL) – STEVE MCCULLOCH

Our work was an ongoing effort to keep mother nature at bay. The crew met on a semi-regular weekly basis for three to four hours at a time. We mowed grass at the depot, mowed weeds along the right-of-way, trimmed vegetation along the right-of-way, removed vegetation that interfered with our signs and structures, sprayed weeds along the right-of-way and removed as much buckthorn as possible.

RIGHT-OF-WAY (ESL) – KAREN KERTZMAN

Yard and grounds work was performed throughout the year by the Tuesday Crew and various operations volunteers. Some of the work performed included:

- Fixed broken panels on the outside of the car barn doors
- Moved the wheels piled up in the car yard to the fenced in area
- Extensive grounds and right of way grass mowing
- Major tree and brush trimming and chipping in the car yard, along the car barn and along the track

SPECIAL EVENTS – ROD EATON AND KAREN KERTZMAN

COVID impacted a number of the special events especially the Halloween and Christmas activities that were not able to operate with open windows and strong air circulation. The events that were operated, however, experienced good performance as summarized below.

CHSL

- Halloween Events.
 - Transylvania Trolley. An estimated 500 riders with 399 fares were sold for a total revenue of \$1,348. There were many kids 3 and under along with a number of season pass holders.
 - Pumpkin Patch. Great event. We carried over 500 people and sold 200+ pumpkins.

ESL

- Art & Apples on the Lake. Total ridership of 404 guests generating \$1,335. The revenue breakdown is:
 - \$921 Fares
 - \$142 Donations
 - \$207 Merchandise
 - \$1,335 Total
- Trick O' Trolley. A record breaking day of rides for 590 folks. Car no. 265 kept moving, making 24 round trips in 6 hours. Revenue at \$2/paying rider totaled \$966. About \$896 were fare sales, \$70 donations from riders.

MISCELLANEOUS

- Used Books Sales (Bill Arends). This year I placed the cheap books in boxes in the depot and labeled them \$2, \$5 and threw in some \$1 and \$10 books. We sold 42 used books for \$194. Not a lot of money but not bad for \$1, \$2, \$5 and \$10 books that otherwise would be collecting dust on the shelves. Now we have more shelf space for more cheap books that will be donated.

CLOSING REMARKS

Thank you again for your volunteer efforts that resulted in a successful 2021 operating season. Have a safe and enjoyable winter season break and I look forward to working with you in 2022.