

CHICAGO NORTH SHORE AND MILWAUKEE RAILWAY COMPANY

A N N U A L R E P O R T

For the Year 1951

SUPERINTENDENT OF WAY AND STRUCTURES

Highwood, Illinois
February 28, 1952

CHICAGO NORTH SHORE AND MILWAUKEE RAILWAY COMPANY

WAY AND STRUCTURES DEPARTMENT

ANNUAL REPORT

FOR THE YEAR 1951

FOREWORD

This report is an account of the work accomplished by the Way and Structures Department during the year 1951 and includes all A.F.E. and extraordinary maintenance work performed by contractors and regular company forces, as well as information and statistics relating to the regular maintenance work which are of interest at this time and will be of value in the future for record and reference purposes.

In 1951 more installations of automatic gates were made than in any year since 1932. Besides providing improved and safer crossing protection, these installations saved the wages of 18 men who were employed as gatemen.

For the first year since 1947 a ballast program was carried out and the two tracks from Oakton Street to Hamlin Avenue on the Howard-Dempster Line were rehabilitated by raising, surfacing and lining the tracks with new crushed stone ballast and at the same time installing new ties, plates and angle bars as needed. Crossing at Kostner Avenue was renewed and the gauntlets removed at the C.T.A. station.

Also, a station, platform and shelter rehabilitating program was carried out. All buildings from Linden Avenue to Hubbard Woods were gone over; framing, siding, roofs and gutters repaired or renewed and then painted. All signs and other facilities in the territory were repaired and painted at the same time.

We are planning to continue the automatic gate, ballasting, building repair and painting program in 1952. The receipt and installation of new rail allotted for 1952 will be a further step in adequately maintaining the property.

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TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS

TRACK REHABILITATION - HOWARD-DEMPSTER LINE A.F.E. 5022

Further progress was made on rehabilitating track on the Howard-Dempster Line. Both main line tracks were ballasted from Oakton Street to Crawford Avenue and from East Prairie Road to a point 1500 feet east. Track was skeletonized to the bottom of the ties to remove the old cinder ballast and widen the shoulders. Ties were spaced and renewed where necessary and the track raised an average of 3 inches on new stone ballast. The gauntlet switches at Kostner Avenue were removed and a new asphalt macadam 4-plank crossing was installed. A total of 73 cars or 4,454 net tons of stone was used. 33 cars of cinders were unloaded for shoulder widening.

RETIREMENT OF SPECIAL WORK, TRACKS AND OVERHEAD AT DEMPSTER STREET STATION - A.F.E. 5144

Due to the discontinuance of Chicago Transit Authority operation to Dempster Street on the Howard-Dempster Line, the terminal loading tracks, special work, interlocking signals and pipe lines, one block signal and overhead trolley distribution system were removed. This was done to release material for other locations and save maintenance on items no longer needed.

CONSTRUCTION OF SIDETRACK TO SERVE NORTHBROOK LUMBER COMPANY SOUTH OF DUNDEE ROAD, SKOKIE VALLEY LINE - A.F.E. 5207

This A.F.E. covered the C.N.S.&M. proportion of the cost of a new siding to serve the Northbrook Lumber Company. Total length of the siding is 600 feet, of which 180 feet are on property of the Railway Company and covered by this A.F.E. and 420 feet are on property sold to Northbrook Lumber Company and track built by a private contractor. Siding and turnout are constructed of 80# relay rail on sidetrack ties. No ballast had been applied as of December 31, 1951, as this is to be done when the contractor does the ballasting on his portion of the track.

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - Continued

RETIREMENT OF SIDETRACKS AND EXTENSION OF PARKING
AREA AT BRIERGATE, S.V.L. - A.F.E. 5203

Under this A.F.E. the south 190 feet of track #2 and south 100 feet of track #3 were removed, a wood bumper installed north from southbound station platform and area improved with cinders to provide additional automobile parking space.

EXTEND SIDING AT 10th STREET, WEST LINE, WAUKEGAN
A.F.E. 5189

The switching lead on the west side of the right-of-way south of 10th Street was extended north across 10th Street, 560 feet, to a connection by switch with the 9th Street siding. Construction consists of 80# relay rail on alternate new and secondhand ties and cinder ballast. Crossing of 10th Street, 100# relay rail on new ties and stone ballast and treated gumwood crossing sections. Trolley wire was extended only across 10th Street from the south. A secondhand trolley switch was installed in the 9th Street siding wire. This work was done to provide trackage to serve a paving contractor and to provide a link in freight service trackage to serve industries and provide switching facilities off of main line tracks.

RETIREMENT OF TRACKS AND OVERHEAD AT RACINE QUARRY -
A.F.E. 5192

Quarry storage tracks #3 and #4 and trolley overhead were removed. Tracks have not been used since Quarry ceased operations and were out of service because of rotten ties. Retirement was made to save maintenance and release material for scrap sales.

RETIRE MAIN LINE CROSSOVER AT OKLAHOMA AVENUE -
A.F.E. 5209

Crossover and block signal were removed because of discontinuance of Milwaukee City car operation. The removal released material for use at Kenosha and saved expense of maintenance of special work and signal facilities at Oklahoma Avenue.

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - Continued

RETIRE CROSSOVER AT MILWAUKEE FREIGHT HOUSE - A.F.E. 5195

Crossover between tracks #4 and #5 at Milwaukee Terminal was removed because it was no longer used and to save maintenance cost and provide 80# switch material for use at other locations.

RETIRE STORAGE TRACK AT DOWNEY'S, SHORE LINE - A.F.E. 5194

Retired the long facing point crossover south of Downey's Road which was installed to provide loading facilities away from the Waukegan City crossover. The discontinuance of city car service rendered its use unnecessary, and it was removed to save maintenance expense and release material for use at other locations. The south trailing point crossover between the north-bound main track and the east siding was retired at the same time.

CENTRAL PRODUCTS COMPANY, NORTHFIELD - JOB ORDER 869

Company forces extended the switching lead at Northfield south and east to serve the new plant of the Central Products Company located south of Builder's Service. The south 157 feet of the switching lead were lined east and 168 feet of new track built. Total track on Central Products Company property is 236 feet. Construction is of 80# relay rail on new ties and cinder ballast. The end of the track is protected with wheel stops. The industry bore the cost of all work on its property.

CITIES SERVICE SIDING, KENOSHA - JOB ORDER 905

Company forces lined this track west about 10 feet to 19'-8" centers with the northbound main track. A No. 10-100# turnout was installed to provide for future extension of this track north. Cost of realignment was borne by the Railway Company and cost of installing the turnout was charged to the Deckert Corporation, contractor for the Nash Motors Company who requested this work in connection with their expansion program.

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - Continued

SIDETRACK CONSTRUCTION - WEBER

The Deckert Corporation did the following track work for the account of the Railway Company and various industries in the Weber Industrial Area:

(1) SIDING FOR RHOPAC COMPANY - JOB ORDER 828

A new siding 350 feet long was built to serve the above industry which is located immediately west of the Wyeth property. This track lies on the north side of the Wyeth lead track and extends east from the point of switch located 17 feet west of the west line of St. Louis Avenue.

(2) EXTENSION OF LEAD TRACK - JOB ORDER 865

The switching lead on the Railway Company's south 20-foot easement was extended east 678 feet to the end of the easement.

(3) SIDING FOR A. R. BARNES COMPANY - JOB ORDER 877

A new siding 400 feet long was built to serve the above industry which is located immediately south of the Rhopac Company property. This track lies on the south side of the Wyeth lead track and extends east from the point of switch located 97 feet west of the west line of St. Louis Avenue.

(4) SIDING FOR W. M. WELCH COMPANY - JOB ORDER 879

The south switching lead was extended east 309 feet on the Welch Company property. The east end of this track is depressed to serve a future building.

All tracks are built of 90# relayer rail on new oak ties fully tie plated and with stone ballast. Turn-outs are No. 7.

TRACK AND ROADWAY DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining the track, cutting weeds, cleaning ditches, greasing curves, filling switch lamps and fighting snow, the following work was done:

Renewed the high rail of both tracks in the curve west of Dodge Avenue. 1122 lineal feet of 100# rail was replaced with 100# relayer rail.

Renewed 150 - 100# rail joints between East Prairie Road and the Canal Bridge with new 100# joints.

Renewed 1 - No. 7 100# turnout at north end of Oakton Interchange track with 100# relay material.

The full plank crossing at Westleigh Road, Skokie Valley Line, was renewed with plank and asphalt. The ties were in good condition and were not renewed.

The main line crossings at 15th and 14th Streets, North Chicago, West Line, were completely rebuilt. All ties were renewed, new stone ballast applied and plank and asphalt wearing surface installed. The sidetrack crossing at 14th Street was not renewed.

Rebuilt the plank and asphalt crossings at 73rd Street, Kenosha. All ties were renewed in the main line and the sidetrack.

Replaced the full plank crossing at Berryville Road with plank and asphalt. No ties were renewed.

Railroad crossings at Racine and Ryan Tower were repaired by the Teleweld Company.

Renewed 1,950 - 100# rail anchors north of College Avenue. Ericson 2 piece anchors were installed.

Unloaded 5 cars of stone ballast for dressing track between Layton Avenue and Howard Avenue, Milwaukee.

Weimer Welding Company made extensive repairs to the National Avenue crossing in Milwaukee.

25 expansion rails were renewed on the 6th Street viaduct and 48 thermit welds made.

TRACK AND ROADWAY DIVISION

MAINTENANCE WORK - Continued

Repaired broken rails on Greenleaf Avenue, Wilmette, and made 36 thermit welds. ✓

Renewed 132 lineal feet of rail at Lake Avenue, Wilmette, Shore Line, with 80# relay rail. ✓

Renewed the high rail of the southbound curve north of Forest Avenue, Wilmette. 231 lineal feet of 80# relay rail were installed. ✓

Renewed the rail in the reverse curves on both tracks north of Park Avenue, Glencoe. 1632 lineal feet of 80# relay rail were used. ✓

Installed 2 Pettibone Mulliken Hub Safety Switch Stands in Highwood Yard to eliminate derailments caused by failure to clear the switch points on a reverse movement. Both stands were installed in the northbound main track, one at the north end of the crossover and the other at the yard leadout switch. ✓

FENCING

Right-of-way fence was rebuilt as follows:

4-Mile Road to 5-Mile Road - 2080 feet on east side.

Mile Post 74, south of West Nicholson Road - 660 feet on east side and 330 feet on west side.

West Nicholson Road to Puetz Road - 2970 feet on west side.

North of Oak Creek - 330 feet on east side.

Puetz Road to South Milwaukee Road - 1980 feet on east side.

Mile Post 75 to South Milwaukee Road - 1980 feet on west side.

South Milwaukee Road to Drexel - 1320 feet on east side.

College Avenue South - 1650 feet on east side.

Total Fencing - 13,300 lineal feet

TRACK AND ROADWAY DIVISION

MAINTENANCE WORK - Continued

Installed 18,800 - 100# double shoulder tie plates as follows:

<u>Section</u>	<u>Tie Plates</u>
1 - Dempster Street	2,511
2 - Glenayre	4,048
3 - Briergate	6,826
5 - Waukegan	412
6 - Zion	10
7 - Kenosha	1,669
8 - South Racine	1,114
9 - North Racine	802
10 - Carrollville	1,008
11 - Grange Avenue	300 (Layton Ave. Bridge)
12 - Milwaukee	100
Total Tie Plates	18,800

TIES RENEWED

Ties were renewed by company forces as follows:

<u>Section</u>	<u>Main Line</u>	<u>Sidetrack</u>	<u>Switch</u>
1 - Dempster Street	2,958	335	*289
2 - Glenayre	2,118	-	-
3 - Briergate	4,349	40	33
4 - South Upton	244	-	78
5 - Waukegan	186	224	146
6 - Zion	5	-	5
7 - Kenosha	911	-	1
8 - South Racine	629	-	-
9 - North Racine	576	-	-
10 - Carrollville	575	-	-
12 - Milwaukee	16	106	178
13 - Libertyville	1,205	4	19
✓ 14 - Winnetka	760	-	24
✓ 15 - Highwood	645	38	61
✓ 16 - Lake Forest	1,798	33	3
	16,972	780	837

*Includes 182 third rail chair ties

BRIDGE AND BUILDING DIVISION

ADDITIONS AND BETTERMENTS

REPAIR ELEVATOR CONTROLS AND INSTALL GATES, CHICAGO BAGGAGE ROOM - A.F.E. 5182

To comply with an order issued by the Building Department of the City of Chicago, 2 sets of elevator slide-up counterweighted gates, 2 new switches and 3 new mechanical-electrical interlocks were installed on the freight elevator at 507-09 South State Street building. This work was done under contract by the Altizer Elevator Manufacturing Company.

CONSTRUCTION OF PARKING FACILITIES - DEMPSTER STREET STATION - A.F.E. 5202

This project included leveling and distributing of old cinder and stone ballast left after the removal of the station pocket tracks to provide additional parking facilities. Area east of the high platform and south of same was levelled and widened. Old ballast south of these areas was picked up and used to extend parking area along east fence, far enough south, to provide room for another row of automobiles. Bumper rails are yet to be provided and some further levelling is to be done, when weather permits, in 1952.

PLATFORM EXTENSIONS - HIGHMOOR AND DEERPATH STATIONS A.F.E. 5190

32 foot extensions to each platform at each of the above locations were constructed to accommodate 5-car trains. The extensions are made with wood plank curbs, cinder fill and screenings surface.

INSTALLATION OF AUTOMATIC GAS HOT WATER HEATER AND RETIREMENT OF EXISTING HAND-FIRED COAL HOT WATER HEATER AND STORAGE TANK - A.F.E. 5181

An 80-gallon automatic gas hot water heater was purchased and installed in the Harrison Street shops to replace the existing coal heater which was cracked and old storage tank rusted through.

BRIDGE AND BUILDING DIVISION

ADDITIONS AND BETTERMENTS - Continued

RETIRE NORTH 189 FEET OF MILWAUKEE FREIGHT HOUSE A.F.E. 5177

By contract with Henry Danischefsky the north 189 feet of the Milwaukee freight house were razed and site cleaned and cindered to provide parking space. This portion of the building was destroyed beyond repair by fire on February 14, 1950. In connection with the razing, the concrete block garbage house was relocated, the stairway to the station boiler room adjusted to lower level, openings closed in 2-story section wall, unused basement filled in and electrical circuits in remainder of building rehabilitated and changed to A.C. power.

RENEWAL OF WATER TANK - HIGHWOOD YARD - A.F.E. 5176

By contract with Wendnagel and Company of Chicago, the 20,000 gallon water tank was renewed on the existing steel tower in Highwood Yard. The new tank is built of 3" cypress throughout. Most of the steel I-beams supporting the tank floor were renewed as were the cleanout fittings and the indicator board. ✓

RETIRE STATION AND CANOPY - BRADLEY ROAD, LIBERTYVILLE BRANCH - A.F.E. 5175

The standard No. 2 station and canopy on the southbound platform built in 1904 was removed because of the need of extensive repairs and the sharp curtailment of local service which rendered the facility unnecessary. A standard 2 x 4 railing was built on the back and east edge of the platform where the building was removed.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BRIDGES, TRETTLES AND CULVERTS

The following repairs were made by company forces:

LAYTON AVENUE BRIDGE - MILWAUKEE COUNTY

Renewed 8 piles, 1 mud sill, 1 cap, 27 stringers and 4 sway braces in the timber approach spans. Renewed all ties on the entire structure and the guard rail on the southbound track. 185 ties and 16 lengths of guard rail were used.

SOUTH UPTON BRIDGE - LIBERTYVILLE LINE

Renewed all ties and guard rail on eastbound bridge and 3 ties and all guard rail on westbound bridge. A total of 21 ties were renewed. As a safety measure to safeguard trainmen switching on the Flexicore siding, a wooden footbridge was built on the south side of the eastbound bridge.

CULVERTS

Repaired cast-iron pipe culverts between McKeon Road and South Kenosha and between Drerel Boulevard and the Mahn Overway. Pipes had pulled apart at the joints due to frost action and settlement.

DRAW BRIDGES ON MILWAUKEE VIADUCT

Refastened all bridge guide rails and repaired wood deck on both draw bridges. 1 bridge guide was renewed.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS AND PLATFORMS

In addition to routine minor repairs to buildings and platforms on the system, the following major work was done:

Renewed the floor in the freight elevator at 507 South State Street, Chicago.

The high concrete platform and canopy at Kostner Avenue, Skokie, were cut back to permit operation of freight trains on the main line without using the gauntlet tracks.

Remodeled waiting room entrances to Skokie Valley stations at Harmswoods, Glenayre, Northbrook, Woodridge, Highmoor and Sheridan Elms. Existing double doors were replaced with new single doors and glazed side panels.

Repaired the foundation of the Briergate section house.

Renewed the roll roofing on the Deerpath section house.

Made extensive repairs to Kenosha Freight House prior to painting. 750 feet of new siding was used. Closed up 6 doors on the east side of the north section of this building and cut back the roof overhang on the east side to clear high box cars. The ceiling in the office was lined with Celotex.

The "H" type shelter at Pike Creek was removed after being damaged in a train-auto collision.

Repaired and weather-stripped windows and doors at Racine Tower and laid new linoleum.

Renewed 90 square feet of maple flooring in the Racine ticket office.

At Milwaukee Freight House, 6th and Clyborn Streets, the north end of the loading platform was rehabilitated for passenger loading use. The maple top floor was removed and the 3" subfloor repaired. The platform was widened on the track side by the addition of a 3" x 8" plank laid on brackets secured to the posts. A railing of wire cable supported on cedar posts was erected along the back edge of the platform.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS AND PLATFORMS - Continued

At Church Street, Evanston, made extensive repairs to the southbound shelter and the platforms. ✓

Made extensive repairs to the shelters and stairways at Indian Hill and Winnetka stations.

Renewed the roof on the north end of the Ravinia station.

Covered the Electrical and Tin Shop buildings in Highwood Yard with Johns-Manville asbestos shingle siding. Made all new doors for the west side of these buildings. ✓

Renewed the roll roofing on the flat portion of roofs on the Carpenter Shop, Lumber Shed and Speeder Shop at Highwood.

Renewed all foundation posts and part of sills under the Way and Structures storage shed located north of the Signal Shop in Highwood Yard.

Renewed all foundation posts under the Truscon storage building used by the Mechanical Department. ✓

PLUMBING AND HEATING

Renewed approximately 12 feet of 2-inch lead pipe in the water line to the Oakton Street station.

Renewed hot air furnaces at Glenayre and Northfield stations.

Made extensive repairs to the lead water line under the platform between No. 1 and No. 2 tracks at Milwaukee Terminal.

Installed a secondhand hot water boiler in the Highwood garage and rearranged the piping and radiation.

Installed a new bath tub in the agent's apartment at Libertyville station.

Cleaned, maintained and repaired all heating plants on the system.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS AND PLATFORMS - Continued

FIRE AT ADAMS AND WABASH STATION

Fire which started early in the morning of Saturday, December 14, 1951, caused serious damage to the basement and first floor of the station. The C.T.A. ticket office on the east platform was used from Saturday morning until Monday noon. By that time door and window openings had been closed up and temporary repairs made to heating and lighting facilities and operations transferred to the second floor of the station. Access to the station was gained by way of the C.T.A. "EXIT" stairway on Wabash Avenue. Water lines to the women's rest room were repaired by Thursday noon and that facility returned to service. No work has been done on the first floor and basement pending settlement of claims and removal of debris.

MACHINE SHOP

In addition to the routine work of maintaining tools and work equipment for all divisions of the Way and Structures Department, the following work was done:

Overhauled 8 section gang motor cars and 9 small inspection speeders.

Rebuilt 11 push cars.

Overhauled all Barco tytampers.

Made general repairs on portable air compressors.

Rebuilt vacuum pump for Wilson Avenue heating plant.

Rebuilt sump pump for Highwood Inspection Shop.

Made 54 steel gear racks and did general welding and machining work for Signal and Interlocking Division.

Repaired 6 switch points and 19 frogs in the welding shop.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

SHEET METAL SHOP

About 75% of the time of this shop is devoted to making water coolers, flush tanks, water supply tanks, card holders, toilet chutes, destination sign box panels, car heater magazines, roof flanges, roof jacks and ventilators for the Mechanical Department. Made up all sheet metal work for cars in the reconditioning program.

In addition to the foregoing work for the Mechanical Department and miscellaneous spot maintenance to heating plants and sheet metal work on buildings, the following was done:

Made platform railing braces, sign braces, sign blanks, sand box corners, trash cans, tilt-top cans, roofs for switch cabinets and manual control boxes for automatic gates.

Renewed the hot air furnace and ducts at Glenayre and Northfield stations.

Renewed gutters at McKeon Road Substation and on the building at 2620 South 5th Street, Milwaukee (Pollyanna Building).

Repaired gutters and downspouts on freight station at Kenosha and 6th and Clyborn Streets, Milwaukee.

Installed a new smoke stack on the Quarry Substation.

Renewed gutters on Wilmette Avenue station ✓ and repaired those at Winnetka and Ravinia.

At Highwood Yard renewed the smoke stack on the garage and the hood and smoke pipe over the forge ✓ in the Mechanical Department Blacksmith Shop. Made a large sheet metal sink for the Inspection Shop.

Renewed gutters on Fort Sheridan station and ✓ repaired gutters on canopy over northbound platform.

Repaired switch lamps, headlights and marker lamps.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

MISCELLANEOUS

Enlarged parking lots at Dempster Street, Woodridge and Briergate.

At Sheridan Elms station the outfall line from the septic tank was relocated to flow south on the right-of-way. 275 feet of 6" drain tile was laid and backfilled with gravel.

Constructed a new plank crosswalk on the south side of 21st Street, Racine, to connect with a new sidewalk built by the City.

Constructed 96 feet of wood bumper for parking lot at Briergate station to keep cars from getting too close to the southbound main track.

Repaired the wood fence between Central Avenue and Lake Avenue, Wilmette, Shore Line. ✓

Rebuilt the wood floor in one coal storage bin in the Siljstrom Coal Yard, Highland Park. Repaired 5 steel coal chutes. ✓

Made extensive repairs to the board fences at Highwood Yard. ✓

Improved and extended the parking facilities at Highwood Office Building. Built a bumper of scrap rail welded to rail posts. ✓

Built a 50-foot extension to the wheel storage rack on the north side of the Car Repair Shop at Highwood. ✓

Repaired all blacktop crossings on the system.

Made annual fire inspection at all passenger and freight stations, interlocking towers and section houses.

Repaired approximately 50 ticket validators.

Constructed numerous coal and sand boxes.

Hauled all store room supplies to Chicago, Shore Line, Skokie Valley Line and Libertyville Line stations and section houses.

Operated the weed killer over the system.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

PAINTING

<u>Location</u>	<u>Description</u>
Adams & Wabash	Washed Interior
Wilson Avenue	Washed Interior of Station & Commissary Office
Downey's, West	Painted Interior
Edison Court Station	Washed Interior
Kenosha Freight Station	Painted Interior & Exterior
Racine Station	Washed Interior
Harrison Street Station	Painted Interior
Harrison Street Truscon Bldg.	Painted Sheet Metal Roof
Milwaukee Terminal	Refinished Station Benches
✓ Church Street Station	Painted Exterior
✓ Linden Avenue	Painted Shelters
✓ Wilmette Avenue	Painted Shelter & Station
✓ Forest Avenue	Painted Shelter
✓ Kenilworth	Painted Shelters
✓ Indian Hill	Painted Exterior, including Shelters
✓ Willow Road	Painted Shelters & Tool House
✓ Winnetka Station	Painted Exterior, including Shelters
✓ Ravinia	Painted Exterior & Subway
✓ Highland Park	Washed Interior
✓ Highwood Avenue	Painted Interior
✓ Highwood Section House	Painted Interior
✓ Highwood Yard -	
✓ Electrical & Tin Shop	Painted Trim
✓ Garage	Painted Sheet Metal Roof
✓ Trainmen's Room & Barber Shop	Painted Interior
✓ Lake Forest Station	Painted Interior
✓ Lake Bluff Station	Painted Interior
✓ Great Lakes, Main Gate	Painted Interior
✓ 10th Street, Waukegan, East	Painted Interior

MISCELLANEOUS PAINTING

Refinished all station signs from Linden Avenue to Winnetka and at Ravinia.

Made 100 "Bus Stop" signs for the Waukegan North Chicago Transit Company.

Made 92 signs for various locations and 35 "No Parking" and "No Trespassing" signs for stock.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

MISCELLANEOUS PAINTING - Continued

Painted the posts and railing of the guard fence south of Lake Avenue, Wilmette, and the board fences at Highwood Yard. Repainted the "North Shore Line" sign on the south fence. ✓

Painted out the "Car Stop" signs on trolley poles in Milwaukee.

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS

AUTOMATIC GATES AND FLASHERS - GRAND AVENUE, WAUKEGAN - A.F.E. 5196

Installed two Griswold automatic gates with sidewalk arms and flashing light signals and two Griswold sidewalk gates replacing Standard Automatic gates. This was done to provide spare Standard gate pedestals for the maintenance of other locations and to reduce gate arm breakages by the addition of flashers.

AUTOMATIC GATES AND FLASHERS - GRANGE AVENUE - A.F.E. 5159

Two Griswold automatic gates with flasher signals were installed at this crossing replacing a 600 volt autoflag. The new crossing protection was placed in service on November 1, 1951. ✓

REPLACEMENT OF 25-CYCLE SIGNAL EQUIPMENT - A.F.E. 5186

25-cycle signal equipment between Austin Avenue and Bolivar Avenue was changed to 60-cycle equipment in order to release 25-cycle equipment for maintenance and as a step toward elimination of the special 440 volt - 25-cycle power supply from Harrison Street Substation.

AUTOMATIC GATES AND FLASHERS - RAVINIA - A.F.E. 5158

One Griswold Signal Company automatic gate with sidewalk arm and two-way flasher signal, one automatic gate with three-way flasher signal and two automatic sidewalk gates were installed at this crossing replacing manual gates operated joint with the C&NW Ry. Pending installation of automatic gates by the C&NW Ry., their manual gates are interlocked to control the outside traffic gate on the CNS&M Ry. for C&NW train movements. The automatic gates were placed in service on October 8, 1951. ✓

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS - Continued

AUTOMATIC GATES AND FLASHERS - ELM PLACE, HIGHLAND PARK - A.F.E. 5155

Two Griswold automatic gates with sidewalk arms and flasher signals and two automatic sidewalk gates were installed at this crossing. The east traffic gate has an additional flasher signal facing north and south for traffic on St. Johns Avenue which parallels the tracks. The gates, which replace manually controlled electric gates, were placed in service on April 9, 1951. ✓

RELAY REPAIR SHOP - HIGHWOOD - A.F.E. 5143

The new relay repair shop, located in the south yard at Highwood immediately south of the Signal Shop was completed and put in service on April 2, 1951. The building, of concrete block construction with a precast concrete slab roof, was erected in 1950. Benches and shelving were installed in 1951 and the shop equipped with testing apparatus, tools and supplies for the repair and adjustment of relays. Relay repairs in the new shop are being made at a considerable saving over the former practice of having this work done by the C.T.A. ✓

AUTOMATIC GATES AND FLASHERS - FARWELL'S, LAKE FOREST A.F.E. 5160

Work was started on the installation of two Griswold automatic gates with flasher signals to replace existing manually operated gates joint with the C&NW Ry. At the end of the year the work was 10% complete. ✓

AUTOMATIC GATES AND FLASHERS - LAKE BLUFF, SHORE LINE - A.F.E. 5157

This A.F.E. proposed the installation of Griswold automatic gates and flasher signals at Scranton Avenue, the installation of flasher signals at North Avenue and the closing of the "Freight House" crossing. The freight house crossing was closed on April 20, 1951, at which time the manual gates were removed, the crossing planks taken up and the approaches levelled off. A controversy developed with the Village of Lake Bluff over ✓

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS - Continued

AUTOMATIC GATES AND FLASHERS - LAKE BLUFF, SHORE LINE - A.F.E. 5157 - Continued

the type of protection proposed for North Avenue. After several Commission hearings, a plan for handling the C&NW Ry. station traffic over the Scranton Avenue crossing was developed and put into effect, thereby eliminating the necessity for the North Avenue crossing. Two automatic gates with sidewalk arms and flasher signals and two sidewalk gates were put in service at Scranton Avenue on August 13, 1951. Pending the final order in the case, the crossing at North Avenue has been barricaded but the manual gates and the gate tower have not been removed.

COOK COUNTY CROSSING PROTECTION PROGRAM

Work was continued on the program of crossing protection improvements for 10 grade crossings in Cook County. This work was started in 1949 and carried on in 1950 and 1951. All costs, except engineering, are borne by Cook County. Work done in 1951 is shown below:

LAKE AVENUE, WILMETTE, SHORE LINE - A.F.E. 5152

Work was completed on the installation of four Griswold automatic gates with sidewalk arms and three flasher signals replacing manually operated gates. Gates and flashers were put in service on January 16, 1951.

AUTOMATIC GATES AND FLASHERS - BRAESIDE - A.F.E. 5153

One automatic gate with sidewalk arm and flasher signal was installed on the east side of the North Shore tracks. One automatic gate with flasher signal and one automatic sidewalk gate were installed on the west side of the North Western tracks. Griswold Signal Company automatic gates and flasher signals were installed at this crossing jointly with the C&NW Ry. Co. North Shore forces installed all gates, signals and controls except C&NW track circuits. The new installation replaced existing joint manually operated crossing gates and was put in service on February 26, 1951.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining interlocking plants, block signals and crossing protection devices, the following work was done by Company forces and charged to maintenance accounts:

Renewed signal cable between Signal 114 west of East Prairie Road and the relay case on the east side of East Prairie Road.

At Kostner Avenue, track cuts for the automatic gates were moved to the leaving side of the crossing. New track wires in 2" steel pipe were installed from the relay case to the southbound track cut.

The southwest automatic gate at Main Street, Skokie was moved closer to the track to allow for a driveway into the property west of the right-of-way. Renewed the cables from the relay case to the gate pedestal.

Installed precast concrete battery boxes at Deerfield Road and Old Elm Road on the Skokie Valley Line.

Installed one additional cell in the batteries at Old Elm Road and Westleigh Road to assure more positive operation of the autoflags.

Painted the aerial cable at K.O. Tower with P&B Rubberoid paint.

Renewed the cables to Signal 337, south of Downey's station, Skokie Valley Line.

The derail on the north end of the Downey's Interchange track was moved 40 feet south to give added protection from derailed cars fouling the main line.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

A precast concrete battery box was installed at 18th Street, North Chicago.

At Ridgeland Avenue, Waukegan, one additional cell was added to the battery which was moved to a precast concrete battery box.

The control and track cables for the autoflag at Holdridge Road were renewed, a precast concrete battery box installed and one cell added to the battery.

Southbound block signal No. 430 at 33rd Street, Zion, was moved to a precast concrete foundation installed 6 feet south of the original location. Underground cables were renewed.

At 21st Street, Zion, the west automatic gate was moved from the north to the south side of the street. All control cables were renewed, the runs across the track and the street being placed in 3-inch pipe. A third two-way lamp was installed on both gate arms and a precast concrete battery box installed.

In connection with the paving of 15th Street, Racine, a 4-inch steel pipe was laid across the street and all gates raised to meet the new grade.

Renewed the aerial cable between Signal 813, south of Austin Avenue, and Signal 820 at Oklahoma Avenue.

Renewed the underground power cable between Wilmette Avenue and Central Avenue, Wilmette. 3-inch pipe was installed across the tracks at Wilmette Avenue. ✓

A precast concrete battery box was installed at Deerpath Avenue, Lake Forest on the Shore Line. All underground cables were renewed except those leading to the northeast gate, which were renewed in 1950. The northbound track feed was placed in old interlocking pipe laid between the two tracks for a distance of about 250 feet. ✓

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

Relocated eastbound start for Knollwood gates 400 feet further west.

Installed a standard crossbuck sign on the south side of the track at the Scale House crossing.

Installed pipe through crossing at 4th Street, Libertyville, and renewed all cables to the automatic gate. Installed a precast concrete battery box at this crossing.

Installed a precast concrete battery box at Milwaukee Avenue, Libertyville, and added one cell to the storage battery.

Delivered four standard advance warning signs to the Village of Libertyville for installation at Stewart Avenue.

The two Vincent automatic gates at Wheeler Road, Libertyville Branch, were removed and scrapped and two Model M Standard Automatic gates installed. The Vincent gates were put in service on September 30, 1927, and were the first automatic gates on the railroad.

A resistance-type gate pedestal heater was purchased and installed for test purposes at Roosevelt Road, Kenosha, and at Garfield Avenue, Libertyville. It is planned to install these heaters in all Standard Automatic gate pedestals when they are overhauled in the shop.

Two Pettibone-Mulliken Mechanical Switchmen were changed out and sent to the factory for reconditioning.

During the year 10 relays were repaired in the C.T.A. Relay Shop and, after April 2, 129 relays were repaired in our shop. 35 motors were repaired by the Cote Electric Company, Waukegan, and 2 motors by Holt Electric Company, Milwaukee.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

Fifteen automatic gate pedestals were replaced and taken to the Highwood Signal Shop for overhauling. Locations are as follows:

Lake Avenue, Skokie Valley Line	1 gate
Deerfield Road, " " "	1 "
Berkeley Road " " "	1 "
18th Street, North Chicago	1 "
*Grand Avenue, Waukegan	1 "
21st Street, Zion	1 "
73rd Street, Kenosha	3 gates
Roosevelt Road, Kenosha	1 gate
Taylor Avenue, Racine	1 "
21st Street, Racine	1 "
Knollwood	1 "
Green Bay Road, Glencoe	1 "
Deerpath Avenue, Lake Forest	1 "

*Gate pedestal damaged by automobile

CROSSING GATE OPERATION

Automatic Gate Locations

	<u>1951</u>	<u>1950</u>
Gates broken by automobiles	99	96
Other interruptions*	321	270

Manually Operated Crossing Gate Locations

Gates broken by automobiles	24	29
Other interruptions*	82	73

*Includes interruptions due to power failures, blown fuses, mechanical failures, frosted contacts, line trouble, track circuit trouble, sleet, pedestrians breaking sidewalk arms, etc.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

CROSSING GATES AND SIGNALS MAINTAINED AS OF DEC. 31

	<u>1951</u>	<u>1950</u>
Automatic Gates	41	42
Automatic Gates and Flashers	25	18
Manual Gates	13	20
Flasher Signals	6	6
Autoflags - Track Circuit	16	16
Autoflags - Manual Control	3	3
Block Signals - S.T. Miles	111.0	111.0
Switch Protection Signals	8	8
Interlocking Plants	4	4
Smash Gates	3	3
Gate Indication Signals	12	11

EQUIPMENT PURCHASES

ADDITIONS AND BETTERMENTS

A.F.E. 5180 - PURCHASE OF TRACK MOTOR CAR

A Kalmazoo Model 56A Motor Car, one- to six-man capacity, complete with electric starter and all steel top, was purchased and placed in service for use by the Signal Construction Gang on automatic gate installations.

A.F.E. 5183 - PURCHASE OF WALL CLEANING MACHINE

A pressure-operated, wall cleaning machine was purchased and placed in service for use by the painters in cleaning walls. This outfit eliminates the use of drop clothes, time lost in carrying and changing cleaning water and the need for rubber gloves.

A.F.E. 5191 - PURCHASE AND INSTALL A METAL CUT-OFF BAND SAW AND RETIRE OLD SAW

This is a Model "J" Johnson metal cut-off saw installed in the Speeder and Machine Shop to replace an obsolete and unusable Racine No. 7 saw more than 30 years old.

A.F.E. 5193 - RETIRE AMERICAN DITCHER AND AUXILIARY EQUIPMENT

The American Ditcher with 3/8 cu. yd. dipper, 3/4 yard clam shell bucket, pile driver leads and hammer, gondola car #2055 and water tank were retired and sold for scrap. This equipment was obsolete and out of use and was retired because it is more economical to rent such equipment than maintain it.

A.F.E. 5199 - PURCHASE OF TIE TAMPING MACHINES

Two Model TT-4 Barco Tytampers were purchased and placed in service to increase production and improve quality and permanence of routine tie tamping and surfacing operations.

WAY AND STRUCTURES SUMMARY

	<u>1951</u>	<u>1950</u>
<u>TRACK CONSTRUCTION - LINEAL FEET</u>		
Sidetrack Constructed on Railway Right-of-Way	1,593	2,680
Sidetrack Constructed on Private Property	1,540	503
Sidetrack Retired	5,896	1,147

RAIL INSTALLED - SINGLE TRACK FEET

128#	--	2,514
112#	--	2,823
100#	--	314
90#	853	--
80#	740	340
	<u>740</u>	<u>340</u>
TOTAL	1,593	5,991

RAIL RENEWED IN KIND - SINGLE TRACK FEET

100#	561	487
80#	998	--
	<u>998</u>	<u>--</u>
TOTAL	1,559	487

RAIL REMOVED - SINGLE TRACK FEET

100#	2,360	--
95#	--	2,514
80#	975	1,461
65#	2,561	--
	<u>2,561</u>	<u>--</u>
TOTAL	5,896	3,975

TIE PLATES INSTALLED

100#	18,800	15,459
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ANGLE BARS RENEWED - PAIRS

100#	150	1,073
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WAY AND STRUCTURES SUMMARY - Continued

	<u>1951</u>	<u>1950</u>
<u>SPECIAL WORK</u>		
Crossovers Installed	--	1
Crossovers Removed	5	--
Turnouts Installed	5	4
Turnouts Removed	6	1
Crossings Built Up	3	2
Frogs Repaired	19	10
Switch Points Repaired	6	14
Thermit Welds	84	132

TIES RENEWED

Main Line	16,972	12,647
Sidetrack	780	1,066
Switch	655	366
Bridge	206	166
3rd Rail Chair	182	--
TOTAL	18,795	14,245

TIES INSTALLED ON NEW WORK*

Main Line - New	362	22
Sidetrack - New	311	150
Switch - New	90	108

BALLAST - CARS

Stone	78	18
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BROKEN RAILS

100#	2	1
80#	6	3

*Does not include ties installed at Weber by Deckert Corporation as no inventory has been taken.

WAY AND STRUCTURES SUMMARY - Continued

	<u>1951</u>	<u>1950</u>
<u>CROSSINGS</u>		
Gumwood Crossings Installed	1	--
Asphalt Crossings Rebuilt	6	8
<u>BRIDGE REPAIRS</u>		
Bridges Repaired	2	5
<u>PAINTING</u>		
Buildings - Painted and Decorated	24	18
<u>CROSSING PROTECTION</u>		
Automatic Gates and Flashers Installed - Locations	7	--
Automatic Flashers Installed - Locations	--	7
Automatic Gates Damaged by Automobiles	99	96
Manual Gates Damaged by Automobiles	24	29
<u>FENCING</u>		
Right-of-Way Fence Rebuilt - Lin. Feet	13,300	11,400
<u>WEED KILLER</u>		
One Application - Single Track Miles	200	200
Total Solution Used - Gallons	40,150	40,900
<u>CARLOAD MATERIAL</u>		
Sand and Stone	97	32
Coal	24	29
Ties	30	69
Cinders	74	51
Miscellaneous	<u>12</u>	<u>9</u>
TOTAL	237	190