newsletter

April 1965 • 25c

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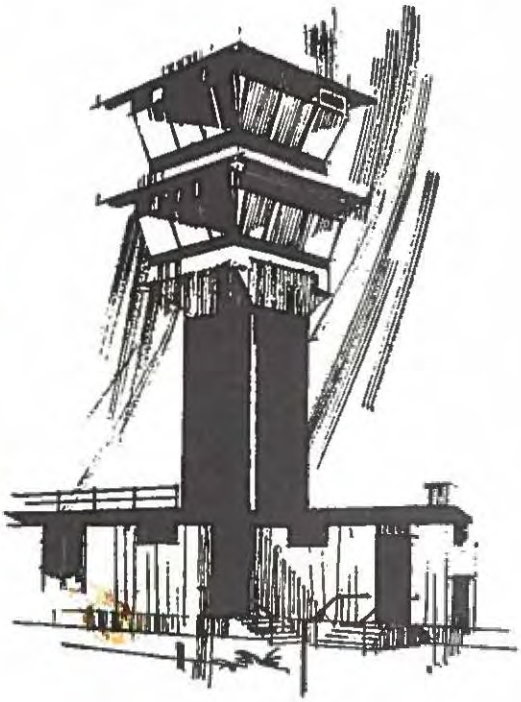

TORONTO YARD

Upper Canada Railway Society

newsletter

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Bill Hood and Ed Jordan (production), Jack Whatford (distribution), John Bromley, John Freyseng, Laurie Hole, Pete Meldrum, John Mellow, John Thompson, Brian West, Bob Buck, Ray Corley.

THE COVER:

Canadian National's Toronto Yard covers an area about two and a half miles long and almost a mile wide. The aerial view on our cover looks north up the yard, with the No. 7 Hwy. bridge evident at the bottom of the page. (See page 55)
/Canadian National Railways

* * *

This month, we make an intensive examination of CNR's new Toronto Yard. A word of warning, though, before you turn to page 52. This article is intended as a reference work on the subject, and should not be thought of as subject matter for a leisurely evening's reading. But maybe you like this sort of leisurely evening's reading. At any rate, perhaps the next time you pass the corner of Highway 7 and Keele Street, you'll have a little better idea of what's going on in that vast mechanized acreage beside you.

Because of the size of our main article this month, a little belt tightening has been necessary, and a few of the departments introduced last month have been given a month's holiday. They'll be back next month when, incidentally, we'll have a short article by CN's Pierre Delagrave placing in more concrete terms some of his plans and expectations for the future of CN's passenger business.

Remember the article on page 20 of the February NEWSLETTER entitled "The Steam Locomotive Speaks"? The author of this piece knows whereof he speaks since he is now vice-president of CN's Great Lakes Region. Mr. Gonder joined Canadian National in the '20's as an apprentice at Stratford shop, and his knowledge of things mechanical comes second nature. Regular excursionists will recall that Mr. Gonder was a head table guest at our Annual Banquet in Hamilton, Sept. 27th last.

As you can see from the cover, the NEWSLETTER format changes are far from complete. There'll be some internal changes next month as well.

/James A. Brown

Coming Events

April 2nd: A TTC observation night at Bloor and Dundas Streets. Early evening.

April 16th: GOOD FRIDAY. Regular UCRS meeting featuring an illustrated talk on "Toronto to Vancouver by rail - 1964" Room 64, Royal Ontario Museum, Queens Park at Bloor St., Toronto. 8.15 p.m.

April 25th: TTC excursion featuring PCC car 4001.

May 7th: An evening of train watching at CNR Scarboro Station, Midland Avenue at St. Clair. Early evening.

May 7,8,9: The Annual Scarborough Hobby Show, to be held this year at the Scarborough Arena, Kingston Road and Birchmount. Admission is $1.00

May 21st: Regular UCRS meeting at which a panel of members will discuss items of current railway interest.

June 4th: Observation night at CNR Port Credit station. For variety, take the commuter train out (leaving Toronto at 5.20 or 6.20 p.m.) and return on TTC. Early evening.

June 18th: Regular UCRS meeting at which a photo contest is planned.

15 Years Ago

The April, 1950 NEWSLETTER reports:

"At 2.00 p.m., March 1st, 1950, car 302 of the Niagara, St. Catherines and Toronto Railway pulled into the carbarn yard after having made the last trip over the Port Dalhousie line and ending the last electric railway passenger service out of St. Catherines. Only the Port Colborne line still has rail passenger service, connecting this town with Welland, Fonthill and Thorold."

The TH&B order for four switchers and four GP-7's from General Motors Diesel Ltd., of London is discussed. "The latter will be the first locomotives of the type to operate in Southern Ontario.

Railway News and Comment

CN'S NEW SASKATOON TERMINAL OPENS

Less than two years ago, the first sod was turned for the Saskatoon Terminal redevelopment project; in the intervening time the complete facilities of Canadian National have been consolidated on the outer fringe of the city, and the old station and yard property released for industrial redevelopment. The new station received its first train on November 15th last, with the arrival of the eastbound "Panorama". The official opening ceremonies took place two days later.

Perhaps most evident to the public is the modern new passenger station, with its imaginative use of large areas of glass and glazed brick. A highly automated Express-Freight terminal makes extensive use of modern materials handling techniques to speed merchandise through the terminal. Nerve centre of the yard operation is the main control tower, housing Yardmasters, Dispatchers and local officials. The Saskatoon CTC machine (controlling traffic from Melville to Biggar and Warman) is housed in this building.

Of particular interest is the equipment maintenance building in which the locomotive and car servicing is carried out under one roof. Nine diesel units or six RDC's can be accomodated in the motive power section which includes elevated and depressed working areas, and a drop table for wheel changing. Sixty locomotives and eight RDC cars are maintained at Saskatoon. Nine cars can be repaired at once in the car section. A Trackmobile switches this section of the shop when required.

UNIT TRAINS FOR CANADA SOON?

There is strong speculation that both of Canada's major railways will soon embark on unit train operation to handle bulk shipments of potash from mines in Saskatchewan to Pacific coast ports. Canadian Pacific trains would supply the bulk unloading plant at Port Moody, B.C., while CN trains would use the Vancouver Wharves plant at North Vancouver.

It is estimated that the Vancouver-area plants will be handling five million tons of potash annually by 1969. For such volume, unit trains operating on a constant shuttle between mine and port represent the most economical means of handling such traffic.

Under the unit train system, first introduced in the U.S. for coal traffic, and later extended to iron ore movements, trains are made up of from 50 to 80 cars, all carrying the same commodity in an unbreakable "moving pipeline" type of movement. Fast turnaround is a necessity; some trains actually unload while moving, using a self-dumping device.

Closer to home, it is quite possible that some of the unit train principles may be used by the Ontario Northland and connecting lines to move iron ore from the new developments in their territory.

MORE AND MORE CTC

Early in March, Canadian Pacific turned on the lights on its CTC extension from West Toronto to Bolton, Ont. This 22-mile addition is controlled from Toronto Union Station, and replaces an unusual "overlap" form of automatic block signalling; the overlap blocks were originally installed to permit greater flexibility of operation when helper engines were plentiful in steam days. The new CTC will facilitate switching and transfer operations in Toronto's industrial north west corner.

Last Christmas season, Canadian National extended its CTC system further west to Edson, Alta., 130 miles west of Edmonton. The programme will continue in 1965 as CTC will be installed as far as Jasper.

The National Capital Commission of Ottawa has ordered a "Traffic Master" console from General Railway Signal Corp. to control Canadian Pacific and Canadian National trains at Ottawa's new passenger terminal.

ABOVE: One of Canadian Pacific's latest newsprint cars, with plug doors and cushion underframe.
/J. F. Mellow

CN FORECASTS FINANCIAL IMPROVEMENT IN 1965

Canadian National's 1965 capital budget shows that gross revenues are expected to push above the $800 million mark for the first time.

A deficit of $35 million is predicted for this year, as compared with $38.7 million in 1964 and $43 million in 1963. This loss figure has been dropping steadily since it hit a record $67.5 million in 1960.

Actual operating profit of the railway is predicted as $26.5 million this year as compared with $23.9 million in 1964. This will be reduced sharply by interest payments of $61 million on CN's long-term and inherited debt.

Capital spending this year will total $146.6 million, up more than 11 million from 1964. Included in the figure is $76.6 million for new equipment.

ABOVE: Oshawa Railway motor 300 at the Seashore Trolley Museum, Kennebunkport, Maine. /J. Thompson collection

PANORAMA RESCUES STRANDED COTTAGERS

Four Toronto persons, stranded in a cottage some 20 miles north of Orillia by a late-February snow storm, were brought to safety by Canadian National's "Panorama".

Two members of the party hiked half a mile to CN's Bala Subdivision near Southwood. They managed to flag down a southbound freight whose crew arranged to have the "Panorama" stop for them later in the day, when the other two persons could be brought to the railway.

The four mile road leading to the cottage was completely impassable.

CN INTRODUCES NEW CONTAINER SERVICE

Canadian National is introducing a new type of road-rail container to speed the movement of express freight traffic between the Maritimes and Montreal.

The 20-foot-long aluminum containers, which are insulated and have built-in heating units, were placed in service March 17th between Montreal, Bathurst and Moncton. The containers will eventually be used at Newcastle, Rimouski and Mont Joli as well.

An advantage of the containers is that they can be transferred easily between train and truck, eliminating unnecessary handling of shipments, and speeding up pickup and delivery. On the train, the containers ride on a specially adapted flatcar. When the train reaches the containers' destination, a truck draws alongside the car. Hydraulic arms on the truck reach under the containers and pull them sideways onto the truck body. Within minutes, the truck is ready to start delivering the contents of the containers. The train, from which no cars have had to be switched, is ready to continue its journey. Loaded containers of outgoing express freight can be placed on the train in the same way.

The containers can be taken off the trucks and parked on detachable legs; thus the truck is not kept out of service while the containers are being loaded or unloaded or are awaiting transfer.

NATURE RESTRICTS NEWFOUNDLAND TRAFFIC

An embargo on traffic to Newfoundland was imposed by Canadian National on March 1st, when heavy ice conditions helped create a backlog of more than 800 carloads of Newfoundland freight at mainland ports.

Ice conditions continued to be a deterrent to traffic but by March 19th when the embargo was lifted the backlog had been greatly reduced.

A total of 18 ships, including CN's "William Carson", are being used by the railway to move freight from North Sydney, Mulgrave and Halifax to Port aux Basques, Argentia and Cornerbrook.

"DOMINION" LOSES OFF-PEAK MEAL SERVICE

Effective March 6th, Canadian Pacific cancelled all meal service west of Sudbury on trains 7 and 8, The "Dominion". The railway maintained that service on the train was only a duplication of what was available at all important stops along the line, and that there was not enough business to keep the on-train service apart from summer travel periods.

Full dining car service, along with dome cars and sleepers, will be restored to these trains on June 24th and will continue for the summer period until September 6th, the railway announced.

STUDY PLANNED ON CN'S LONDON CARSHOP CLOSING

Canadian National and the Federated Shop Crafts Unions announced March 19th that they are undertaking a joint study to explore further the best solutions to questions affecting employees arising from the forthcoming closure of the London, Ont. carshops.

The car repair work currently being carried out in London will be transferred in two steps to the new Toronto hump yard and the Point St. Charles shops in Montreal. The first move will take place in August of this year and will involve in excess of 50 jobs being transferred to Toronto. The final transfer of work will take place in 1966.

CHAMPLAIN GETS A BREATHER

"Le Champlain", Canadian National's crack stainless steel streamliner which inaugurated a fast and popular run between Quebec City and Montreal last June, was withdrawn from service during the period of the Quebec Winter Carnival, February 19th to 27th.

It was replaced with a conventional train carrying equipment with similar facilities but greater capacity, to handle the increased traffic.

This respite provided an opportunity for heavier-than-usual maintenance work on the ex-Reading equipment of "Le Champlain", as its six-days-a-week schedule precludes long shop time.

NEW FERRY FOR N.S.- NFLD SERVICE

Tenders have been called for construction of a new $10 million truck and railway car ferry to operate between Nova Scotia and Newfoundland. The ferry will be operated by Canadian National between North Sydney, N.S., and Port aux Basques, Nfld. It is expected to enter service in 1967.

CPR DERAILMENT FORCES REROUTING

Some Canadian Pacific crews were treated to a change of scenery on March 19th last. A 32-car derailment between Cartier and Chapleau blocked CP's main line and forced traffic to detour over CN lines between Fort William, Longlac, Capreol and Sudbury.

No one was injured when train 965 left the rails at Wakami, 45 miles east of Chapleau. Piggyback cars and tri-level auto racks were among the derailed cars. The line was blocked for 24 hours.

CANADIAN PACIFIC AUGMENTS ITS CONTAINER SERVICE

CPR has placed orders worth about $250,000 for equipment to augment its rail-highway express container service. This is the third extension of CPR's service since it was introduced last year.

Nine specially-designed 20-foot highway chassis and 28 insulated intermodal containers are to be delivered and go into service in late spring between Quebec and Ontario centres. As part of the system, Canadian Pacific will build six railway cars, presumably from surplus sleeping cars, to handle the containers during the rail portion of their movement. The containers will be built by Steadman Industries Ltd.

SPECTACULAR BLAZE DESTROYS MIMICO ROUNDHOUSE

A million-dollar fire of unknown origin partially destroyed Canadian National's roundhouse at Mimico, Ont. on March 24th. Half of the completely circular structure had been rented to a plywood firm and a glass company, and the fire was believed to have started in the latter premises.

Mimico roundhouse was, until a few weeks ago, CN's Toronto repair and maintenance point for freight power; operations have since been transferred almost completely to Toronto Yard. Although fuelling and servicing facilities were not damaged, it is possible that locomotives required for Mimico-dispatched trains will be supplied by the downtown Spadina roundhouse until these trains are phased into Toronto Yard early in April.

A total of three alarms were turned in, and a number of suburban Fire Departments responded to the call. The fire burned out of control for four hours, and flames were still visible 24 hours later. The rented portion of the shop (which once housed CN's 6167 between excursion runs) was a total loss, while the portion still occupied by the railway sustained considerable damage.

One locomotive was apparently in the roundhouse when the fire was discovered, but it was moved to safety.

Only last September, a roundhouse fire at Spadina shop gutted eight of that building's 36 stalls. A few locomotives sustained superficial damage. And a curious parallel to the Mimico blaze also occurred last fall at Cochrane, Ont. CN's roundhouse there had been converted to a plywood factory just a year before it was consumed by fire in October, 1964.

NEW MARKERS UNDER TEST ON CANADIAN NATIONAL

It's sad but true -- the familiar four-lens rear end marker lamp may be on its way out, at least on CN. The old markers have a tendency to blow out at high speed, and are not always adequately visible to the rear.

Experiments are now under way with several types of flashing, battery-operated markers which resemble the familiar highway barricade flashers. The new lamps have red and green lenses facing in opposite directions to provide the same indications as present markers.

The tests are under way on the Grand Trunk Western and on CN passenger trains between Toronto, Windsor and Sarnia.

FOOTNOTES

* As predicted last month, two additional CLC "Trainmasters" have been assigned to Toronto for transfer and local freight duty on Canadian Pacific. Nos. 8910 and 8911 are the new arrivals.

* Canadian National's 200-ton wrecker from Fort Erie was used to assist in the clean-up of the NYC wreck at Canfield Junction last Feb. 21st. See page 38, March NEWSLETTER.

* Hot on the heels of Boston and Maine's withdrawl of the "Alouette" from White River Jct., Vt. to Boston, comes Canadian Pacific's application to the Interstate Commerce Commission to discontinue its end of the "Alouette", from Montreal to Wells River, Vt. CPR told the ICC that it lost $71,900 in 1964 operating the RDC units on trains 31 and 32. See page 39, March NEWSLETTER.

ABOVE: Lake Superior and Ishpeming 1600 h.p. road switchers 1610 and 1608 doze on a sunny afternoon at CP's Toronto Yard. The units have been rented to ease a power shortage. /J. Freyseng

EQUIPMENT NOTES

ALGOMA CENTRAL CAPITAL ADDITIONS

The Algoma Central Railway has ordered 100 solid bulkhead gondola cars of 70-tons capacity from National Steel Car at a cost of about $1.4 million. Delivery is scheduled for early summer. This is the second such order given to NSC within the past two years.

The railway also announced the laying of the keel of a self-unloading bulk freighter with carrying capacity of 22,000 gross tons, costing about $7.5 million. Algoma Central has a fleet of seven lake carriers.

CANADIAN NATIONAL MOTIVE POWER NOTES

CNR is presently modifying some units of its MR-10 class (1700's) by removing the centre axle of their six-wheel trucks; the locomotives will, in effect, become B-B's instead of the present A1A-A1A wheel arrangement. These units have always had notoriously poor adhesion, and it is hoped that this move will improve the condition.

Several locomotives of the CN system have been reassigned to meet traffic requirements:

CV 8205 to GTW (Dec. 22)
CN 7900, 7905 to GTW (Jan. 18)
These are believed to be "permanent" moves.

CV 4552-4557 to GTW (Jan. 7)
DM&P 3609-3614 to CV (Jan. 3 & 4)
These are temporary transfers for seasonal traffic requirements only.

Eight of the DM&IR locomotives leased by CNR have been returned to their owner, as follows:

DM&IR 119, 190, 192 returned March 16th

DM&IR 102, 103, 112 returned March 23rd
121, 123

CANADIAN PACIFIC MOTIVE POWER NOTES

The first of CP's new MLW Century 424's (class DRF-24b), Nos. 4201 (serial No. 84839) and 4202 (serial No. 84840) were received from MLW in mid-March and made their first trips to Smiths Falls, Toronto and Windsor on March 20th to 24th. The first eight of the new 4200's will be completely new units, as rebuilt parts are not yet available. They will be assigned to Montreal-Calgary freight service for the present.

CP's renumbering and reclassifying of the 8200- and 8300-series locomotives will become effective April 1st. Nos. 8200-8201 become 5000-5001, class DRF-22a, Nos. 8202-8213 become 5002-5013, class DRF-25a and No. 8300 becomes 4200, class DRF-24a. See page 158, December 1964 NEWSLETTER.

Canadian Pacific GMD B-unit 4425 was sent to General Motors' London, Ont. plant on February 26th for rebuilding. This locomotive is the first of ten being traded in for new GP-35 units.

Montreal Locomotive Works received A-units 4001 and 4026 from CPR on March 23rd as trade-ins for new Century 424 locomotives. Also turned over to MLW were two units which were destroyed in early February: Road switcher 8469 was wrecked at Megantic, Quebec, while A-unit 4098 was extensively damaged by fire at Cherrywood, Ont. on February 5th.

CN ANNOUNCES NEW EQUIPMENT ORDERS

Hawker Siddeley Canada Ltd. will build 145 70-ton wood chip cars for Canadian National. The cars will be equipped with a swinging end door, permitting unloading by tipping the entire car. They will go into service in British Columbia in September.

National Steel Car Corp. will build 50 tri-level automobile rack cars and 25 bi-level carriers for trucks. The tri-level auto carriers will be delivered in June, when construction will begin on the bi-level cars.

The total combined cost of the two orders is $3.5 million.

LEFT: The first of Canadian Pacific's new MLW Century 424 locomotives idles at CP's Toronto Yard after a break-in run from Montreal with sister 4202. These units are very similar to No 8300, with the bulging fuel tanks being the major difference. /J. A. Brown

Bull Session

* * *

One of Canadian Pacific's E-8 passenger diesels, No. 1801, arrived in Toronto with the "Canadian" on February 9th, singlehanded. It later made a round trip to Hamilton, and returned to Montreal on train 22 a day or so after its first appearance.

CPR has three of the 2250 h.p. passenger locomotives, the only such engines in Canada. They normally handle CPR trains from Montreal to Ottawa, Quebec and occasionally, Farnham.

/JAB

* * *

Many of the old Canadian National landmarks at Stratford have disappeared, Bob Buck tells us. On December 1st last year, the familiar water tower was pulled over, amid clouds of dust and birds. The tower was erected in 1929 to serve CN's roundhouse and shops, but now with greatly reduced facilities, CN finds a city water main adequate.

Cooper-Bessemer has been changing the appearance of the old CN shop buildings. Gone is the blacksmith shop at the east end of the erecting hall (This was the structure on whose wall was painted the familiar CNR sign and heralds that greeted rail visitors to Stratford). Gone too is the powerhouse and its accompanying 175-foot stack. The latter was toppled with a bulldozer after dynamite failed to do the job.

/RFB

* * *

Ambitious Art Weber's Roundhouse Records is sponsoring two identical steam excursions from Windsor to St. Thomas, Ont., on April 24th and 25th, using CNR 4-8-4 No.6218. Art tells us that the round trip fare of $7.50 (U.S. Funds) includes free bus transfer to Pinafore Park in St. Thomas and a ride on the narrow gauge (ex-Huntsville and Lake of Bays) steam train located there. For tickets and information, drop Art a line at P.O.Box 326, Royal Oak, Michigan, 48068.

* * *

John Bromley has a few footnotes to his Witt disposal piece in last month's Traction Topics.

Apparently Witt 2806 was not scrapped as reported; it was discovered lying on track 10 of St. Clair Carhouse, for what reason no one seemed to know. No. 2884 appears to have been scrapped in place of 2806.

/JFB

* * *

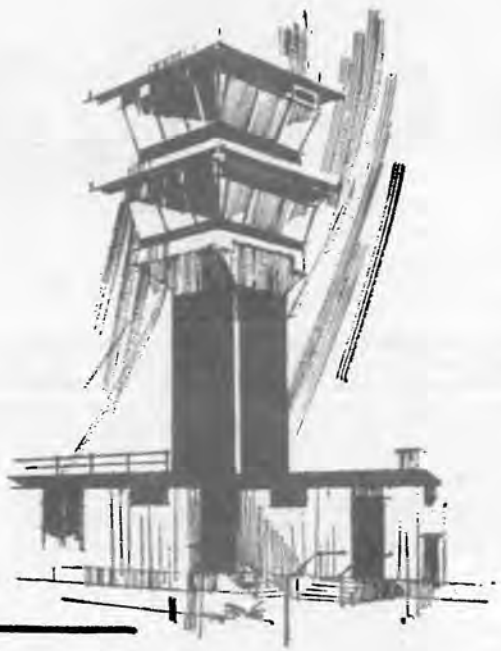
Red Face Department: About two days after it was to late to do anything about it, DM&IR units were observed at CN's Toronto Yard, the note in last month's NEWSLETTER notwithstanding. It seems that some adventurous soul tried out one of the SD-18's on the turning loop, found it stayed on the rails and that was it! So it's quite possible that you'll see maroon and yellow diesels on the Access Lines yet.

/JAB

* * *

LEFT: A flock of birds takes to the air as Canadian National's venerable water tank at Stratford, Ont., is pulled down. These photos are by Michael Nield of the Stratford TIMES

TORONTO YARD



Shortly after 10 p.m. on Saturday, February 6th, 1965, Canadian National train 308 became the first revenue freight movement to enter the new Toronto Yard. A large group of spectators, including a number of officials, watched proudly as GP-9's 4489, 4515 and 4587 slowly moved their 64-car train into the Receiving Yard.

The arrival of No. 308 climaxed almost six years of planning and construction of the most advanced automated freight classification railway centre in the world. Toronto Yard, largest in Canada and one of the largest in North America, is capable of classifying 6,000 cars daily; its standing car capacity is an impressive 11,000 cars.

Background to the need for Toronto Yard can be seen in Canadian National's Toronto Terminals which presently include six main line subdivisions and all branches, spurs, yards and other facilities within a radius of approximately 10 miles of Union Station -- about 100 miles of main track, including single and multiple lines, plus 362 miles of feeder track.

The six main line subdivisions are roughly comparable to the spokes of a half-wheel with the hub in the Don River-Bathurst St. area of downtown Toronto. When traffic movements took place between subdivisions, all traffic was forced to move through this hub. With the increasing industrialization of the Metro Toronto area, traffic movements through this area became heavier and heavier, with consequent serious delays.

Early in 1959, John L. Cann was named project director for the Toronto Terminal Project. His job: To build it!

As might be expected, CN President Donald Gordon's announcement on March 11th, 1959 of the yard and access line construction caused something of a storm among suburban ratepayers. In fact, suburban development west of Toronto was so rapid that when early plans for the western leg of the access line were drawn up, developers constructed homes in its path while railway and government people mulled over the plans.

It was evident that many protests were based on a steam locomotive concept of the railway, envisioning homes being blighted with soot and grime. To counteract the old image, Jack Cann organized a public educational trip to the Conway, Pa. yards of the Pennsylvania. Since it was similar to the new Toronto Yard, the visiting group of civic officials was thorough in its research from all angles. The findings were favourable and in effect, the main back of opposition to the yard was broken.

Finally, in May 1961, the first sod was turned on the $75 million project. To oversee and coordinate construction, a special autonomous project group was set up, with its own real estate department, engineering and office staffs.

Now, in April 1965, the project is essentially complete. The move from Mimico Yard to the new facilities was made in a number of phases, to gradually break in both the new equipment and the men operating it. By the end of March, all but a few of the freight trains operating to and from Toronto will use Toronto Yard. For the time being, the Toronto - Montreal piggyback service will continue to operate out of Bathurst St. Yard, although it is likely that a new Merchandise Terminal will be established at Toronto Yard in the not-too-distant-future to handle this traffic.

With the official opening of the yard on later in April, Jack Cann's work will be all but over. He is now finding time to recall some of the more humourous incidents that have occurred during construction. Relates he, "One time there was a lawyer who wrote demanding we plant 'carnivorous' trees along our right of way through his client's property. I was tempted to advise him all the trees I knew of were vegetarians."

How It Works

Trains approach Toronto Yard from either direction under control of the CTC machine located in the yard Administration Building. "CTC ENDS" at mileage 25.1 of the York Subdivision and mileage 0.0 of the Halton Subdivision. These points are together at the extreme south end of Toronto Yard and represent the outer switch location, for purposes of determining crews' wages. (As a train passes this location, the time is printed automatically on a "Time Slip" in the train dispatcher's office.)

From the end of CTC to the receiving yard, trains are governed by "Route Signals" through power switches controlled by the switchtender in the Receiving Control Tower. As the cars roll at restricted speed past the Administration Building, the initials and number of each is monitored by car checkers and the information recorded on a magnetic disc. This record is then checked against an advance list received hours before, from the train's point of origin. Cars lifted or set off en route are then accounted for, content and destination noted, classification tracks assigned; finally, the corrected and completed list is forwarded to the Data Processing Room, also located in the Administration Building.

As the caboose passes the Administration Building, the conductor and rear-end brakeman detrain and "book off". Meanwhile, the engines pull their train as close as possible to the fouling point at the north end of Receiving Yard "R". When the train is safely stopped and full brake application made, the engines are uncoupled and move on "Route Signals" toward the Diesel Servicing Area. This move is controlled by the North Switchtender from his vantage point atop the main hump. On arrival at the Diesel Shop, the engine crew and head-end brakeman "Book off".

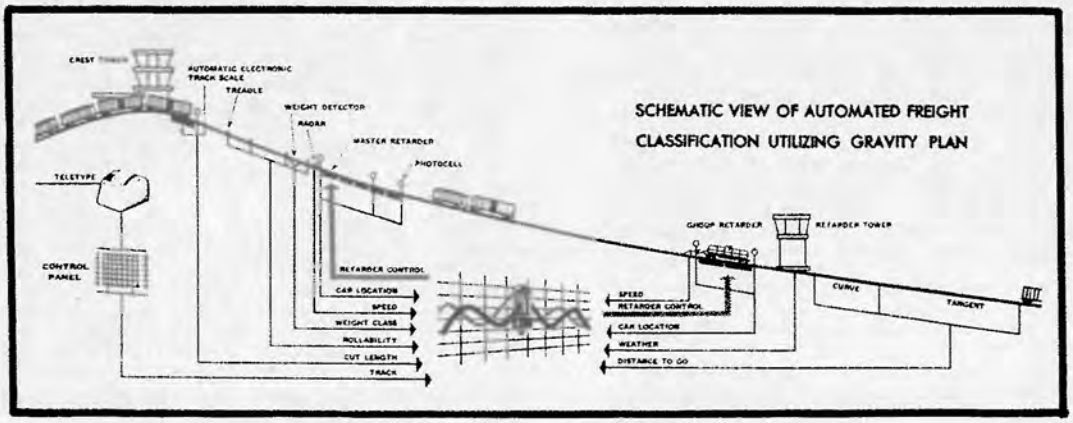
By this time, car inspectors are at work in the Receiving Yard, checking for defects, replenishing journal oil, etc. A specially-equipped truck follows the inspectors making light repairs in the yard itself, thus avoiding a trip to the Repair Track.

When the inspectors' work is completed, a hump engine (consisting of two MLW 1000 h.p. units spliced by a ballasted booster unit) hauls the train out of the Receiving Yard to the pullback track, then shoves forward to the main hump. Two yardmen inspect the cars as they roll by, checking for sticking or dragging brakes, etc.

Before humping actually commences, the Hump Foreman obtains his hump list by teletype from the Data Processing Room. He has previously arranged for his hump engine, and has been assigned one of the two tracks on the main hump for his train. He then confirms with the hump engineer that the locomotive cab signals correspond to the indications on his console, located in the hump cabin.

When the Hump Foreman is ready to commence the actual humping operation, he places the hump signal lever in "fast" position; this gives a green indication on hump and cab signals and permits the train to approach the hump at a speed of 10 m.p.h. When the movement reaches a point 300 feet from the crest of the hump, signals automatically give a yellow indication, restricting movement to 2 m.p.h., hump speed. A warning siren on the Hump Control Tower warns that humping is about to begin.

A "Pin Puller" stationed at the hump crest, uncouples cars singly or in pairs, according to the instructions of the Hump Foreman. The Foreman checks his hump list against the car numbers, and sets up routes for cars or cuts in accordance with the track assignments shown on



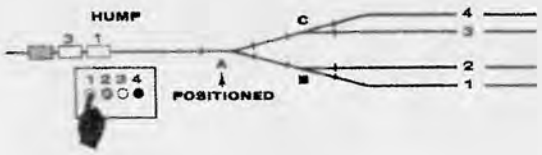
SCHEMATIC VIEW OF AUTOMATED FREIGHT CLASSIFICATION UTILIZING GRAVITY PLAN

AUTOMATIC SWITCH CONTROL

At Toronto Yard, a car can roll down the hump to any of 117 classification tracks. To provide this wide choice, a maze of switches must be operated. Complex as this requirement is, a simple push-button operation at the hump sets up the complete route.

The simplified diagrams show the principles involved. Note how each car carries its own route along with it. Because switches operate one at a time ahead of the car, no car need wait for another to complete its route. This means that many cars can be rolling to their assigned tracks simultaneously, so that classification proceeds at a rapid rate.

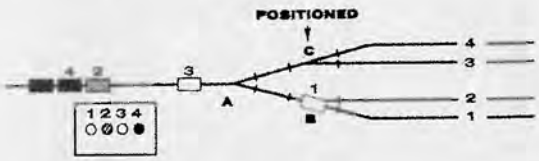
The hump conductor presses button 1 for track 1, and this route is stored in an electrical "memory" which follows the progress of car 1. Since switch A is not in use, it positions immediately.



Car 3 is now at the crest and button 3 is pressed. Switch A does not respond, because it is in use by car 1. Meanwhile, the memory, aware of the progress of car 1, positions switch B for track 1.

Car 1 has left switch A which immediately snaps into position to send car 3 towards track 3. At the crest, the button is pressed for car 2.

Car 1 enters track 1, its destination. The memory, sensing car 3 on switch A, positions switch C for track 3. As soon as car 3 leaves switch A, switch A will position for car 2.



the list. By pressing the button on his console corresponding to the designated track, he activates the analogue computer which sets the necessary switches and controls retarding so that the car will reach the correct track and couple gently to the cars already there. No two cars roll at the same speed. Such factors as weight, wind velocity and direction, weather and car rolling resistance on the track influence each car's speed.

Should a car be inadvertently humped into the wrong track, or should it fail to couple to the other cars already there, a trimming move is made; under control of the Yardmaster, an engine is sent into the classification yard to deal with the offending car.

Cars destined for Toronto locations are humped into several tracks at the centre of the main Classification Yard "C". These tracks have access to the Local Hump, and Toronto cars are humped on the Local Hump in the same manner as at the Main Hump to the north.

Toronto Yard has two Departure Yards, East (for traffic for Eastern Canada and Western Canada (via the Bala Subdivision)) and West (for traffic for Western Ontario and associated U.S. points). As well, transfers for local Toronto and vicinity destinations depart directly from the Local Classification Yard "L". Under control of the East or West Departure Control Towers, cars are gathered block by block from the Classification tracks and assembled in the appropriate departure yard, placed in proper sequence for easiest distribution at junction points, terminals or connections with other railroads.

The engine crew and rear-end brakeman report for duty at the Diesel Shop, pick up their locomotive and proceed to the Departure Yard via routes permanently left clear for the purpose. After coupling the road engine to the train, the brakeman walks to the caboose, making his usual inspection. When the brake test has been completed, the engineman advises the Yardmaster by radio who then gives permission to proceed. As the train passes the Administration Building, the conductor and head-end brakeman swing aboard, bringing with them their waybills, train orders and radio.

The CTC dispatcher has been notified of the train's departure, so that when the locomotive reaches the outer switch, signals and switches are lined correctly. (Once again, the "Time Slip" records the passage of the train, for payroll purposes.) Finally, as the train is leaving, a list of the cars and contents is transmitted by teletype to its destination, so that an enquiring shipper or consignee and the yard staff at that point can prepare for its arrival.

Toronto Yard...

...A Close Look

SPECIAL EQUIPMENT AND ITS OPERATION

SIGNALS:

ROUTE SIGNALS

Within Toronto Yard, Route Signals govern movements through Dual Control Switches by the following indications:

Yellow	- -	"Route Lined"
Red	- -	"Stop"

A yellow indication means that the route is lined only, and conveys no information concerning train or engine movements.

HUMP AND CAB SIGNALS

Movement of engines approaching the humps from the north, and while humping, are controlled by Hump and Cab signals which display the following indications:

Green	- -	Approach Hump (not exceeding 10 m.p.h.)
Yellow	- -	Hump (2 m.p.h., unless reduced by yardmaster)
Red	- -	Stop
Flashing Red		Back up
White "T"		Trimming underway

Other movements of hump engines are governed by radio or hand signals.

HUMP TRIMMER SIGNALS

Movements between the north end of the classification tracks and the crest of the humps are governed by Trimmer Signals located at the crest of the humps. Signals are operated by Hump Foreman from Hump Control consoles with indications as follows:

Green	- -	Proceed
Red	- -	Stop

SHOVE SIGNALS

Shove signals are located near the south end of tracks in the East and West Departure Yards, "E" and "W". These signals indicate when cars have been shoved to within 300 feet of fouling point of switches on the lead at the north end. The signals face in both directions. Indications displayed are:

Lighted (White)	-	OK to shove
Unlighted (Dark)	-	Do not shove

A member of the crew activates the signal by means of a pushbutton located on the unit. When the signal displays white, cars may be shoved until white light goes out.

SWITCHES:

In addition to the usual ground throw type of track switch, three other types of switch actuation are used in Toronto Yard:

AUTOMATIC SWITCHES

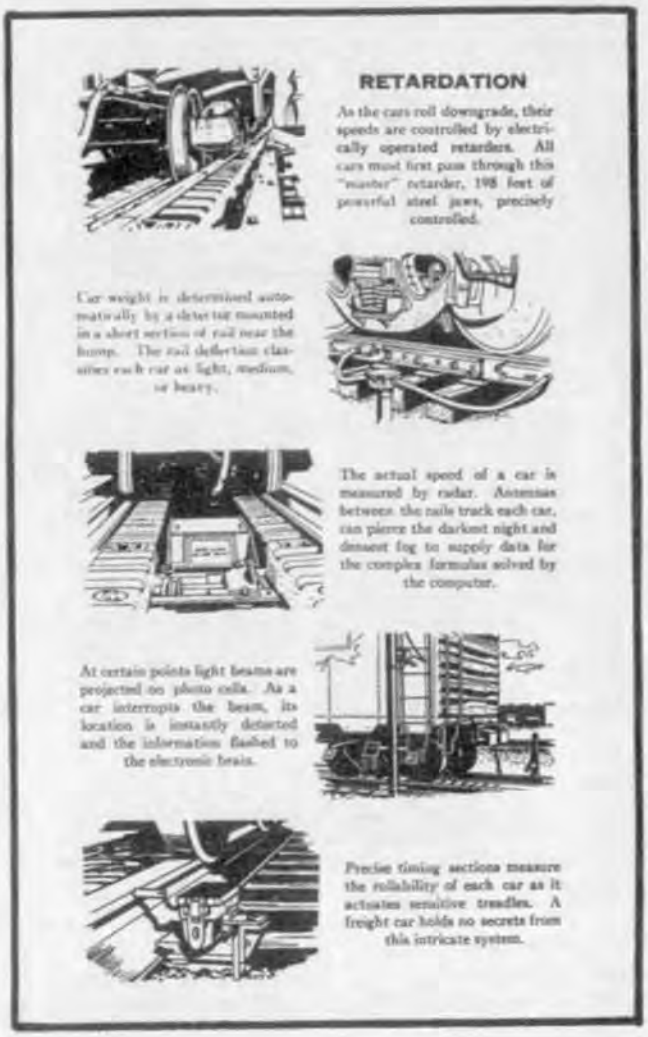
Automatic switches are employed at a number of locations throughout the Yard. These resemble conventional ground throw switches, and are identified by diamond-shaped targets. They are thrown in the conventional manner, but may be trailed through by a locomotive or car from either track, regardless of switch position.

POWER SWITCHES

Switch machines painted black are power operated only, and cannot be actuated from the switch location.

DUAL CONTROL SWITCHES

Power switch machines painted silver have dual control capability. They are normally controlled remotely by a Switchtender, but may be manually operated from a box containing two pushbuttons, located near each switch.



BLUE FLAGGING PROCEDURES:

When men are working on or about standing equipment, positive protection, "blue flagging" must be provided to guard against inadvertent movement of the cars. Toronto Yard Blue Flagging procedures are as follows:

Yard "R" - During inspection periods in the Receiving Yard, tracks are protected at the south end by electrically locking switches away from the occupied tracks, and at the north end by manually blue flagging and applying blue switch locks where applicable.

Yards "E" and "W" - Tracks in the East and West Departure Yards are manually blue flagged at the south end, and protected at the north end by blue-painted padlocks on non-automatic switches or manually blue-flagged on tracks equipped with automatic switches.

Yards "C" and "L" - When trains are actually made up for dispatch from either classification yard, the tracks will be protected at the north end by the Retarder Operator blocking power switches away from the occupied tracks, and at the south end by manual blue flagging.

Yard "B" - Tracks to the "spot" car repair area are protected by electric derails, while tracks to the main Car Repair Building are equipped with electric locks. This protection is controlled by Car Department staff.

Yard "G" - The Car Repair Building is protected at the north end by spring derails on all tracks.

COMMUNICATIONS:

TALK-BACK SPEAKERS

Talk-back speakers are located throughout the Yard to permit employees "on the ground" to communicate with the various buildings. They are colour coded to correspond with the exterior colour of the building to which they are connected.

RADIO SYSTEM

Seven radio frequencies are in use at the Yard. Radio equipment is located in all buildings and locomotives and in many of the vehicles used throughout the area. In addition, portable units are carried by certain employees.

TELEPHONE SYSTEM

A private dial operated exchange (PAX) connects most points in the Yard. Bell Telephone Co. telephones (PBX) connect with the downtown CN exchange and provide contact with points outside the yard. Tie lines making direct contact between key personnel are connected to consoles at the major control centres.

TELETYPE SYSTEM

Yard circuits connect teletypes located at key points in the Yard with the Machine Room in Master Control. This system is used for the transmission of advance consists, hump lists and cut lists.

YARD LOCOMOTIVES

Yard engines will be identified by flashing lights in colours of red, yellow, green, blue, and white arranged so as to flash a number of

ABOVE: This view of the Machine Room in the Administration Building suggests the extensive use that the Yard is making of advanced data processing techniques.
/P. A. Meldrum

times corresponding to their assigned number. This equipment has not yet been installed. Engine assignments will be as follows:

ENGINE	STARTING POINT	SUPERVISED FROM TOWER AT
Red No.1	Dual Hump Office	Dual or Local
Red No.2	"	"
Red No.3	"	"
Yellow No.2	"	"
Yellow No.1	Local Hump Cabin	Dual or Local
Green No.1	West Control Tower	West
Green No.2	"	"
Blue No.1	East Control Tower	East
Blue No.2	"	"
White No.1	South Control Tower	South
White No.2	"	"
White No.3	"	"
White No.4	"	"

Locomotives not in hump service are standard MLW 1000 h.p. units (MS-10) in the 8100 series.

Locomotives used in hump service will usually be specially equipped as shown on the following schematic sketch:

Hump unit — normal use

The H1 unit contains all necessary hump control equipment, radio, cab signals and identification light. The H2 unit contains traction motors only. The H3 unit does not have special equipment and is turned as it is to provide an "up front" sheltered location in which yard crews can ride while engine is moving light about the Yard. In hump service, the H3 unit is coupled to the cars being humped. H1 and H3 units are MS-10 8600's, while the H2 units are rebuilt MS-7 boosters.

YARD VEHICLES

A number of specialized vehicles are used in Toronto Yard for an assortment of unorthodox duties, as follows:

Diesel Refuelling Truck; Equipped with storage and dispensing equipment for diesel fuel, water and sand, together with brake shoes, and miscellaneous small items. Used for servicing yard and transfer engines at various locations throughout the Yard.

Car Repair and Service Vehicles; Two trucks equipped with spare parts and tools for minor repairs to bad order cars in the Receiving Yard.

Icing Truck; Equipped with ice storage, and crushing and blowing apparatus for icing perishable cars in the Receiving Yard; this truck is used to service cars moving through rather than terminating at the Yard.

Buses; A number of railway-owned buses are used to provide transport within the Yard, and to connect with the TTC KEELE route which terminates at the Yard's Keele Street entrance.

Fuel Trailers; Three trailers for transporting and dispensing various fuels and water and supplies for cabooses are used in conjunction with the Car Service Vehicles and Icing Truck described above.

Car Inspectors' Transport; A bus-like vehicle with provision for rapid entrance and exit is provided for use of Car Inspectors within the Receiving Yard.

In addition to the above, a number of owned and leased panel and pickup trucks are employed in various functions.

COMPONENT YARDS

TORONTO YARD is made up of ten smaller yards situated so that they can function on an assembly line principle. These are shown on the plan on page 55, and can be described as follows:

YARD "R" (RECEIVING)

Consists of 20 tracks with a roadway along one side or the other of each track for the use of inspection and servicing vehicles. The roads are numbered in sequence with the tracks, consecutively from No. 1 on the east side to No. 30 on the west side.

The switches leading to Yard "R" from the south end are Dual Control, operated by the South Switchtender located in the Receiving Control Tower. The switches at the north end consist of some Automatic and some Dual Control. The Dual Control switches are operated by the North Switchtender located on the upper floor of the Dual Hump Cabin.

An icing platform 30 carlengths long is located between tracks R-1 and R-2 to service cars on both tracks.

YARD "C" (MAIN CLASSIFICATION)

Consists of 68 tracks numbered consecutively from C-10 on the west to C-77 on the east. Space has been provided for expansion on each side.

The Yard is divided into three sections as follows:

C-10 to C-41	- -	West traffic
C-42 to C-47	- -	Local Traffic
C-48 to C-77	- -	East Traffic

Certain tracks are long tracks designed for making up trains. Air lines (ground air) for pre-charging of trainlines are located at the mid-points of tracks C-51 to C-54.

Switches at the north end of Yard "C" are Power Operated and at the south end are Automatic.

YARD "L" (LOCAL CLASSIFICATION)

Consists of 53 tracks and is used for reclassifying cars for local distribution, bad orders, storage, customs and cabooses. Tracks are numbered from west to east, with space for expansion.

Transfers, wayfreights and roadswitchers depart directly from tracks in this yard.

Switches at the north end of Yard "L" are power operated and at the south end are Automatic.

YARD "E" (EAST DEPARTURE)

Consists of 9 tracks numbered from east to west. Tracks E-1 to E-6 are for making up trains and are equipped with ground air and shove signals. E-7 to E-9 are future tracks, E-10 and E-11 are caboose tracks and E-12 is for head end cars.

Switches at the north end of Yard "E" are made up of some Automatic and some non-automatic, all equipped so that they can be locked. Switches at the south end are all Automatic.

YARD "W" (WEST DEPARTURE)

Consists of 10 tracks numbered from west to east. Tracks W-1 to W-7 are for making up trains and are equipped with ground air and shove signals. W-8 to W-10 are future tracks, W-11, W-12 and W-13 are for cabooses and head end cars.

Switches at the north end of Yard "W" are made up of some Automatic and some non-automatic, all equipped so that they can be locked.

Switches at the north end of Yard "W" are made up of some Automatic and some non-automatic, all equipped so that they can be locked. Switches at the south end are all Automatic.

YARD "B" (EQUIPMENT MAINTENANCE, BAD ORDER AND DIRTY CARS)

Consists of 20 tracks numbered from east to west, accessible from the south end only. Tracks B-2 to B-6 are for car cleaning functions, B-7 to B-9 for storage and switching, B-10 for reweighs and restencils, B-12 to B-14 for spot repairs, B-15 for lumber storage, B-16 to B-20 for medium and heavy repairs and tracks B-22 and B-23 for storage of the two auxiliary cranes.

All cars except reweighs are switched into Yard "B" from the south end and move northward through the maintenance facilities into Yard "G" by means of Trackmobiles or car moving systems. Reweighed cars will be removed from track B-10, having moved southward from Yard "G" during processing.

LEFT: Hump locomotives 8623 and 8610 spliced by Booster unit B-5 idle atop the main hump. The East and West (near camera) Hump Cabins are clearly visible. /J. A. Brown

Tracks B-12 to B-20 are protected by electrically locked switches and derails remotely controlled from the Car Repair Shop.

YARD "G" (EQUIPMENT MAINTENANCE, GOOD ORDER AND CLEAN CARS)

Consists of 21 tracks accessible from the north end only. These tracks are a continuation of tracks in Yard "B" and bear similar numbers. Track G-1 is assigned to load adjustments, G-2 to G-6 are for cleaned cars, G-7 to G-9 are storage and switching tracks, G-10 and G-11 are for reweigh cars (G-11 is equipped with a track scale), G-12 to G-14 are for repaired cars, G-15 is for wheel storage, G-16 to G-20 are for repaired cars and G-21 is for rush repairs.

All switches at the north end of Yard "G" are Automatic. The south end of tracks G-12 to G-14 and G-16 to G-20 are protected by spring derails located 100 feet north of the Car Repair Shop.

YARD "M" (MAINTENANCE OF WAY EQUIPMENT STORAGE)

Consists of six short stub end tracks accessible from the south end only and equipped with Automatic switches.

YARD "S" (STORAGE)

This Yard is not shown on the plan on page 55, and lies west of the south Yard leads, just south of No. 7 Highway. It consists of 22 tracks numbered from west to east. Tracks S-12 to S-33 are for the storage of surplus cars. Space has been provided for future tracks S-1 to S-11 and S-34 to S-60. Yard "S" is accessible only from the south end. All tracks are equipped with Automatic switches.

YARD "D" (MOTIVE POWER SERVICE AND STORAGE)

Consists of three areas:

1. "Inbound Area" - Two tracks and a thoroughfare (to be kept free at all times)
2. "Diesel Shop Area" - Eight tracks for locomotive repair and service.
3. "Dispatch Area" - Several short tracks for angle parking of units, and a thoroughfare leading to the Outbound Track.

VITAL STATISTICS

TORONTO YARD.

Size	1,000 acres
Trackage	158 miles
Classification tracks	67 main; 50 local
Track switches	561
Daily Classification	6,000 cars
Standing capacity	11,000 cars
Buildings:	
Control towers	7
Control cabins	4
Major buildings	3
Minor buildings	12
Electrical systems, connected load	3,000 KVA
Major yard bridges	6
Track ties	400,000
Rail	30,000 tons
Earth moved	5,600,000 cu. yds.
Gravel sub-ballast	630,000 cu. yds.
Crushed rock ballast	561,000 cu. yds.
Roads	23.7 miles
Employees	1458

Communications:

Seven separate control areas, each equipped with radio, telephone, teletype and talk-back speakers for communication within itself, with central control, and with other control areas.

ACCESS LINE:

Length:	
New construction	37 miles
Double-tracking existing main line	13 miles
Reconstruction of existing line	25 miles
Total length	75 miles
Total trackage	138 miles
Bridges	53
Earth moved	9,000,000 cu. yds.
Gravel sub-ballast	500,000 cu. yds.
Crushed rock and slag ballast	425,000 cu. yds.
Ties	405,000

With the establishment of Toronto Yard, a considerable amount of new trackage has appeared in the vicinity. A sketch of the Access Lines appears on page 56, while portions of the first employees' timetable to show these lines are reproduced on the following pages

WESTWARD TRAINS	Miles from Junction Switch Oshawa Sub.	Symbols		YORK SUBDIVISION STATIONS	Office Signals	Car Capacity: Sidings	Car Capacity: Other Tracks	EASTWARD TRAINS
↓	0.0	XP	C T C	PICKERING — Jct. with Oshawa Sub.	K N	....	Yard	↑
	1.4	XP		LIVERPOOL — Jct. with Oshawa Sub.		....	....	
	5.0	P		BEARE EAST		....	....	
	6.5	P		BEARE		151	....	
	12.2	P		MC COWANS		....	....	
	14.0	P	2 Tracks	HAGERMAN — Jct. with Uxbridge Sub.		....	....	
	18.4	P	2 Tracks	DONCASTER — Jct. with Bala Sub.		....	....	
	23.6	P	3 Tracks	SNIDER — Jct. with Newmarket Sub.		....	....	
	25.1	KP	3 Tracks	TORONTO YARD	Y	YA	RD	

YORK SUBDIVISION FOOTNOTES

Clearances—All train movements on this Subdivision must be authorized by clearance OK'd by Train Dispatcher, Toronto Yard.

Trains will not require clearance passing from one subdivision to another at Pickering, Liverpool, Hagerman, Doncaster and Snider providing train order signal, if any, indicates proceed.

Pickering—A switch locking button is provided on the north side of the Pickering Interlocking and instructions concerning its use have been included in Oshawa Sub. special instructions.

Pickering—Toronto Yard—Unless unusual conditions exist, protection of the rear of a train in accordance with Rule 99 is not necessary between the following points:

Pickering and Liverpool
McCowans and Hagerman
Snider and Toronto Yard.

Sounding of engine whistle signal as outlined in Rule 14M not required.

Snider—Toronto Yard—Three main tracks designated No. 1, No. 2 and No. 3 from north to south.

Toronto Yard—All movements must be governed by the requirements of the **Toronto Yard** operating manual.

INTERLOCKING

RAILWAY CROSSINGS AT GRADE

Hagerman—Signals governing movement over Uxbridge Sub. are controlled by Train Dispatcher, Toronto Yard. Permissable speed 50 m.p.h. (B.T.C. 116093 and 116183). Rule 264 applicable.

Doncaster—Signals governing movement over Bala Sub. are controlled by Train Dispatcher, Toronto Yard. Permissable speed 50 m.p.h. (B.T.C. 114567). Rule 264 applicable.

Snider—Signals governing movement over Newmarket Sub. are controlled by Train Dispatcher, Toronto Yard. Permissable speed 50 m.p.h. (B.T.C. 114568). Rule 264 applicable.

MAXIMUM SPEED

Mileage		Miles per hour
0.0 to 1.4	All trains	30
1.4 to 23.6	All trains	50
23.6 to 25.2	All trains	30

Mileage 12.2—Public crossing at grade (McCowans Road)—westward movements complying with Rule 264 must flag crossings.

Application of Item 2 of General Speed Restrictions (Form 696)

The following public crossings at grade are protected by automatic signals:

Mileage		Mileage	
4.4	Woodview Rd.	12.2	McCowans Rd.
7.7	Reesor Rd.	15.2	14th Ave.
8.4	Sewells Rd.		

OTHER TRACKS

	Car Capacity	Points Face	Mileage
Halton/York Subs. connecting track	53	on No. 3 track E.	24.3

WESTWARD TRAINS — FIRST CLASS

		35 Passenger Daily Ex. Sunday	5 Passenger Daily	911 Passenger Daily Ex. Sat. & Sun.	81 Passenger Daily	17 Passenger Daily	27 Express & Mail Daily Ex. Sunday	39 Express & Mail Daily Ex. Sunday	Miles from Toronto Yard	Symbols	HALTON SUBDIVISION — STATIONS
									0.0		TORONTO YARD
		From Weston Sub.	From Weston Sub.	From Weston Sub.	From Weston Sub.	From Weston Sub.	From Weston Sub.	From Weston Sub.	4.3	P	HUMBER
									9.7	P	MALPORT
		PM 11.36	PM 6.25	PM 5.57	PM 4.00	AM 8.30	AM 6.19	AM 12.01	11.1	PX	HALWEST Jct. with Weston Sub.
									14.3	P	PEEL
									15.2	P	BRAMPTON EAST
		811.43	8 6.32	8 6.05	8 4.07	8 8.37	8 6.42	812.15	15.4	P	BRAMPTON
									22.5	P	CREDIT
		811.55	6.42	8 6.17	8 4.18	8 8.49	8 7.18	812.33	23.5	•BP XV	GEORGETOWN Jct. with Beeton Sub.
		11.56 PM	6.43 PM	6.18 PM	4.19 PM	8.50 AM	7.19 AM	12.34 AM	24.1	PX	SILVER Jct. with Guelph Sub.
									26.4	P	STEWARTTOWN
		To Guelph Sub.	To Guelph Sub.	To Guelph Sub.	To Guelph Sub.	To Guelph Sub.	To Guelph Sub.	To Guelph Sub.	28.0	P	SPEYSIDE
									32.3	P	MANSEWOOD
									34.3	P	MILBASE
									39.5	P	ASH
									43.1	P	TANSLEY
									49.4	PXY	BURLINGTON Jct. with Oakville Sub.
		Daily Ex. Sunday 35	Daily 5	Daily Ex. Sat. & Sun. 911	Daily 81	Daily 17	Daily Ex. Sunday 27	Daily Ex. Sunday 39			

CTC — 2 Tracks: TORONTO YARD to HUMBER; 2 Tracks: HUMBER to MALPORT; 2 Tracks: MALPORT to HALWEST; 2 Tracks: PEEL to BRAMPTON EAST; 2 Tracks: BRAMPTON EAST to BRAMPTON; 2 Tracks: CREDIT to GEORGETOWN; 2 Tracks: GEORGETOWN to SILVER; 2 Tracks: STEWARTTOWN to SPEYSIDE; 2 Tracks: MANSEWOOD to MILBASE; 2 Tracks: ASH to TANSLEY; 2 Tracks: BURLINGTON Jct. with Oakville Sub.

HALTON SUBDIVISION FOOTNOTES

Clearances—All train movements on this subdivision must be authorized by clearance O.K'd by Train Dispatcher, Toronto Yard.

Trains will not require clearance passing from one subdivision to another at Malport, Halwest, Silver and Burlington provided train order signal, if any, indicates proceed.

TORONTO YARD—Burlington—Unless unusual conditions exist protection of the rear of a train in accordance with Rule 99 is not necessary between the following points:

between Peel	and C.P.R. Crossing Brampton
between Credit	and Speyside
between Mansewood	and Milbase

No train or engine shall clear the main track at the following points (B.T.C. Pending).

	Mileage
Reid & Company Lumber dealers	11.2
Camwell of Canada	12.6
Brampton Fuels	15.4
Moore Dry Kilns Co. of Canada	16.0
Ontario Hydro Electric Power Commission	17.4
Diamond Clay Products Ltd.	43.5

Wherever there are two main tracks they are designated North Track and South Track.

TORONTO YARD—All movements must be governed by the requirements of the Toronto Yard operating manual.

Malport—Cars must not be left standing on service track within crossing protection circuits which extends 1000 feet East and West of Road crossing mileage 10.5 Halton Sub. (5th line crossing). This regulation also applies to the same road crossing on the Halton/Weston Subs connecting track.

Switch leading from Halton/Weston Sub. connecting track to Malton switching lead is set for through movement when in normal position.

Halwest—This interlocking is equipped with a SWITCH LOCKING BUTTON on south track with instructions for its use posted at the control box. The use of this equipment in accordance with these instructions will suspend the requirements of Paragraphs 2, 3 & 4 of Rule 104B.

Mileage 11.8—Automatic short arm gates flashing lights and bell protect Steeles Ave. with a timing circuit extending to 300 feet east of this crossing. Westward movements stopping to perform switching in this area must do so before reaching sign. When re-coupling train must be east of the sign before proceeding toward crossing.

Mileage 11.9—All movements over Bramalea Road (Fourth Line) mileage 0.4 on Bramalea Industrial Spur, must be protected by a member of the crew.

Mileage 12.7—Special Instruction G-1 applies on Ford Motor Co. track.

Mileage 15.5—Automatic short arm gates, flashing lights and bell protect Mill St. with approach timing circuits for Westward movements interconnected with Signals 155N and 155S at Brampton. If a train has occupied one of these timing circuits for 2 minutes and 20 seconds on the north track and 1 minute and 10 seconds on the south track with the governing signal displaying proceed these governing signals will revert to stop indication and crossing protection will clear for highway traffic. To again secure a proceed indication on governing signals a member of the crew must depress push button located either at the station or near the Crossing.

HALTON SUBDIVISION

CTC

STATIONS	Office Signals	Car Capacity: Sidings	Car Capacity: Other Tracks	EASTWARD TRAINS — FIRST CLASS								
				910 Passenger Daily Ex. Sat. & Sun.	26 Express & Mail Daily Ex. Sunday	28 Passenger Daily Ex. Sunday	6 Passenger Daily	180 Passenger Sunday only	36 Express & Mail Daily Ex. Sunday	20 Passenger Daily		
2 Tracks — TORONTO YARD	Y	YA	RD									
4.1												
HUMBER				To Weston Sub.	To Weston Sub.	To Weston Sub.	To Weston Sub.	To Weston Sub.	To Weston Sub.	To Weston Sub.		
3.4												
2 Tracks — MALPORT			137									
1.4												
HALWEST Jct. with Weston Sub.				AM 7.18	AM 8.14	AM 9.53	PM 3.21	PM 7.48	PM 8.30	PM 9.42		
3.2												
PEEL												
0.9												
2 Tracks — BRAMPTON EAST												
0.2												
BRAMPTON	BN			S 7.14	S 8.10	S 9.49	S 3.17	S 7.44	S 8.26	S 9.38		
7.1												
CREDIT												
1.0												
2 Tracks — GEORGETOWN Jct. with Beeton Sub.	NR	YA	RD	S 7.00	S 7.52	S 9.38	3.07	S 7.32	S 7.57	S 9.25		
0.6												
SILVER Jct. with Guelph Sub.				6.57 AM	7.45 AM	9.35 AM	3.05 PM	7.29 PM	7.47 PM	9.19 PM		
2.1												
STEWARTTOWN				From Guelph Sub.	From Guelph Sub.	From Guelph Sub.	From Guelph Sub.	From Guelph Sub.	From Guelph Sub.	From Guelph Sub.		
1.6												
2 Tracks — SPEYSIDE												
4.3												
MANSEWOOD												
2.0												
MILBASE												
5.2												
ASH												
3.6												
2 Tracks — TANSLEY												
5.4												
BURLINGTON Jct. with Oakville Sub.	SQ	YA	RD									
				Daily Ex. Sat. & Sun. 910	Daily Ex. Sunday 26	Daily Ex. Sunday 28	Daily 6	Sunday only 180	Daily Ex. Sunday 36	Daily 20		

HALTON SUBDIVISION FOOTNOTES

All movements at this Public Crossing complying with Rule 264 must flag crossing.

To secure proceed indication on Signal 155D for movement from team track and Signal 156D for movement from the interchange track a member of the crew must depress the push button located at the respective signal and wait until train dispatcher clears signal and crossing protection is established.

Brampton—Register station for trains originating and terminating.

Georgetown—Register station for trains originating and terminating and trains to and from Guelph Sub.

Trains to and from Guelph Sub. may register by register ticket.

All trains to Guelph Sub. must obtain clearance O.K'd by Train Dispatcher Stratford.

There is a third track in front of Georgetown Station designated as "Station" track, Capacity 13 coaches.

All movements to tracks in vicinity of Provincial Paper Plant must be preceded by member of crew to give necessary warning. (B.T.C. 27847).

Mileage 49.2 (Brant St.)—First public crossing east of Burlington Station (B.T.C. 61080). Special instruction No. 5 applies at this Public Crossing.

Burlington—Train Order Signals at Burlington govern Beach, Oakville and Halton Subdivisions.

INTERLOCKING
RAILWAY CROSSING AT GRADE

Brampton—C.T.C. Signals governing movements over Canadian Pacific Railway are controlled by Train Dispatcher, Toronto Yard. Rules 264 and 672 applicable.

Milton Town Spur—Mileage 1.3, crossing Canadian Pacific Railway. Signalman on duty 8.00 a.m. to 12 noon and 1.00 p.m. to 5.00 p.m., Monday to Friday inclusive. For any C.N.R. trains which are to pass outside these hours, signalman must be called to operate interlocking plant. When signalman is not on duty, route must be left clear for C.P.R. trains.

MAXIMUM SPEED

Mileage	Miles per hour: Passenger	Freight
0.0—11.2	50	50
11.2—14.2	70	55
14.2—15.7	50	50
15.7—22.2	70	55
22.2—49.5	50	50

Permanent Slow Orders and Speed Restrictions (Signs not in place):

Mileage		Miles per hour
11.8	Steeles Ave. Westward movements having stopped at timing circuit sign—until engine or leading car has passed crossing	10
15.5	Brampton, Mill St. first west of station. (B.T.C. 23399)....until crossing occupied	10
23.5	Georgetown through east leg of Wye	5
	Milton Town Spur, mileage 1.3. Approaching Canadian Pacific Railway crossing and within 500 feet of signal (B.T.C. 78009)	15

BUILDINGS

TORONTO YARD is directed from a number of buildings located throughout the Yard as shown on the plan on page 55. They may be described as follows:

ADMINISTRATION BUILDING

The Administration Building, located near the intersection of Keele Street and No. 7 Highway, incorporates a large number of functions under a single roof including the Yard administrative offices, train dispatching and car service offices, Master Control Centre and machine room, train order operator, Conductors' room, classroom and the South Control Tower.

A novel feature of this building is its Public Observation Room and outside observation deck. This room houses a large scale, animated model of the Yard, and provides visitors with a panoramic view of activity in the Local Classification Yard.

The north wing of the building contains an employees' cafeteria, and a lounge, games room and 100 bedrooms are provided for the accomodation of out of town crews on layover.

The Administration Building is fully air conditioned.

CAR MAINTENANCE BUILDING

The Car Maintenance complex provides facilities for the cleaning and repair of all types of car equipment.

The Car Maintenance Building consists of two main areas, for medium and heavy repairs and for "spot" repairs, as well as stores department, office and classroom space, lunchroom and air brake room, etc. Office areas are air conditioned. Gas-fired infra-red heaters maintain comfortable working conditions, even when outside doors are open.

Five tracks of six cars capacity each are provided for medium and heavy repairs requiring more than one hour shop time. Cars are switched in this building by Trackmobiles, as no locomotives are allowed inside. Repairs in this portion of the shop are performed in the conventional "rip track" manner, with tools and material being brought to each car as required.

A radical departure from this practice is found in the "Spot Repair" area. Each of the three tracks is equipped with inbound and outbound car pullers, electric jacks, jib cranes, tool and parts racks, etc. A car is moved into the shop and spotted at the jack position by the inbound puller; the jacks and jib cranes facilitate truck disassembly and miscellaneous other light repairs. When the repairs are completed, the car is advanced further down the shop to the air brake test area, and ultimately exited from the shop by the outbound puller. Meanwhile, the inbound puller advances another car to the jack position, and the cycle repeats. Car movement is achieved by means of a dolly or "robot" moving in a built-up robot track between the running rails. A retractable arm on the robot contacts the axle and hence, moves the car. This mechanized system of car repairs, in which the cars are brought to the work zone instead of the usual vice versa condition, is the most advanced in North America.

Immediately east of the Car Maintenance Building is the Car Cleaning area. Here, facilities are provided for the removal of dunnage from, and the washing, vacuuming, disinfecting, etc. of all types of freight equipment. Car moving systems progress cars through the cleaning stations, eliminating the need for a switch engine in continual attendance.

TOP: An interior view of the heavy repair section of the Car Maintenance Building. Note the Trackmobile in the background. /P. A. Meldrum

CENTRE: Typical of the towers in Toronto Yard is the East Control Tower. The East Departure Yard is in the background, with a Montreal-bound train waiting to leave. /J. A. Brown

OPPOSITE: The Access Lines offer many excellent photo locations because of their lack of accompanying telegraph lines. GP-35's 4001 and 4000 are heading east at Dufferin Street. /J. A. Brown

MOTIVE POWER SERVICE BUILDING

The Motive Power Service Building, or Diesel Shop as it is familiarly called, provides servicing and maintenance facilities for the several hundred locomotives assigned to Toronto for freight and switching service.

The shop itself contains six stub-end tracks and one through track, for mileage and trip inspections and light to medium repairs. Pits and platforms are provided on all tracks so that work may be carried out beneath the unit, at truck level or at running board level. Two tracks are equipped with high-level platforms giving access to locomotive roofs

giving access to the top of a locomotive.

The usual stores department, machine shop, lunchroom and office space are provided. The office area is air conditioned.

Two overhead travelling cranes expedite the transfer of heavy engine components and other material. Two drop pit tables are available for the speedy removal of wheel sets complete with traction motors.

Perhaps one of the most novel features of the Diesel Shop is its servicing area. Attached to the east wall of the building is a structure two tracks wide and open at both ends. Within this shelter, all locomotive fuelling, sanding, and miscellaneous light servicing is performed, thus creating a sharp break with the traditional open-air servicing area.

A turning loop and test track are included as part of these facilities. Locomotives ready for dispatch are parked adjacent to the shop on a number of angled tracks, each with a capacity of about six units; this enables any locomotive to be removed from this parking area with a minimum of switching.

CONTROL TOWERS

A number of control towers are placed throughout Toronto Yard. Their names and functions can be summarized as follows:

Receiving Control Tower
-South Switchtender.

East Departure Control (Blue) Tower
-Yardmaster
-Inspection Control Officer
-Car Inspectors.

Local Control (Yellow) Tower
-Yardmaster
-Retarder Operator.

Local Hump Cabin
-Hump Foreman while preparing lists and humping, and labelling staff when required.
-Hump list and label teleprinters.

West Departure Control (Green) Tower
-Yardmaster
-Inspection Control Forces.

Dual Control (Red) Tower
-Yardmaster
-Retarder Operators.

Dual Hump Office
-Hump list teleprinters and list preparation desks.

East Hump Cabin
-Hump Foreman while humping
-North Switchtender and Weighman as required.

West Hump Cabin
-Hump Foreman while humping.

Most of these towers are air conditioned.

Traction Topics

Edited by John F. Bromley

* The Metropolitan Toronto Transportation Committee recommended on March 8th that authority be obtained from Metro Council to permit officials to design rapid transit facilities needed in conjunction with the construction of the Spadina Expressway. The committee stated that it will be necessary to provide some transit installations simultaneously with expressway construction. Cost of the expressway is $73,000,000 compared with the estimated $80,000,000 of the rapid transit line. Construction of the roadway portion is already in progress between Lawrence and Wilson Avenue. Work will begin south of Lawrence Ave. in 1966.

Metro and the TTC planing staffs are still reviewing whether or not the Yonge Street Subway extension to Steeles Avenue should be built first. However, Etobicoke Reeve John MacBeth is quoted as saying "When we are already providing funds for the Spadina line, there is little doubt which will be the next route we build".

* The TTC is preparing to lease air rights over open-cut sections of the Yonge Street Subway between Ellis Portal and Jackes Avenue for office and apartment developments. Vice-Chairman Charles Walton said on March 8th that at least eight firms were interested in the air-rights. The rights might be worth as much as $7.50 per square foot of yard area. The Commission has previously leased the rights over several sections of the line, and about five months ago, the rights over trackage between Chaplin Cres. and Berwick Ave. were leased.

* The TTC announced in mid-March that trackwork on King St. between Spadina and York Street would be replaced this spring. Much of the rail in this section was laid over forty years ago and some of it is in rather poor condition. Late March saw TTC crews replacing several small stretches of rail on Queen Street East, between Broadview and Empire, Woodfield and Woodward, Coxwell and Orchard Park Ave. and several small stretches east of Woodbine Avenue.

*** The Toronto Transit Commission's passenger volume increased by 4,188,000 persons in 1964, the third consecutive year in which there was a substantial increase. TTC vehicles carried 275,291,000 passengers last year for a 1.5% increase over 1963.**

At the year's end, the TTC had 1802 vehicles, an increase of 11, serving 83 routes covering 472 route miles.

U.S. Review

As it is our intention to keep our members and other readers posted on the American scene, there being so few trolley systems left, we are taking this opportunity to review very briefly the remaining American passenger systems.

PORT AUTHORITY OF ALLEGHANY COUNTY (PAT) - Pittsburgh, Pa.

Keating Division - North Side Routes
- 6 - Brighton Road (Downtown to High Bridge)
- 6/13 - Brighton-Emsworth (Evenings and Sundays
- 6/14 - Brighton-Avalon (Owl Service only)
- 8 - Perrysville Ave. (Downtown to Keating Station
- 10 - West View (Downtown to West View Park - through route with 15)
- 11 - East St. (Cutback of Route 10 to Keating Station)(Carhouse Pullins)
- 13 - Emsworth (Downtown to Bellevue, Avalon, Ben Avon and Emsworth, Pa. via California St.)
- 14 - Avalon (Cutback of Route 13, Peaks Only)
- 15 - Bellevue (Downtown to West View via California St. & Bellevue Borough, through route with 10 service)
- 21 - Fineview (Downtown to Perrysville & Charles via Fineview District)

Tunnel Division - South Side Routes
- 35 - Downtown to Simmons Loop, Library, Pa. (Interurban--through service with 36 line)
- 36 - Downtown to Drake Rd. (Interurban--through service with 35 line)
- 37 - Shannon (Downtown to Borough of Castle Shannon via 35-36)(Peaks only)
- 39 - Brookline (Downtown to Brookline via West Liberty Ave.)
- 40 - Mount Washington (Downtown to Mt.Washington via Tunnel)
- 42/38 - Mt. Lebanon via Beechview (Downtown to Clearview Loop via Dormont)
- 42/38A - Shannon via Beechview (Peak extension of 42/38 Route)
- 42 - Dormont (42/38 Cutback to Dormont Wye)
- 43- Neeld Avenue (42/38 Cutback, School Trippers only)
- 44 - Knoxville (Pennsylvania Station to Mt. Oliver via Tunnel)
- 44/48 - Knoxville/Arlington (Owl Service Only)
- 47 - Carrick via Tunnel (Downtown--Brentwood via South Hills)
- 48 - Arlington (Downtown to Arlington District via Tunnel)
- 49 - Beltzhoover (Downtown to Knoxville via Arlington Hill)
- 50 - Carson St. (Downtown to S.30th St. via Smithfield Bridge)
- 53 - Carrick (Downtown to Brentwood via 2nd Ave. and S.18th St.)

Craft Station - East Side Routes
- 64 - Wilkinsburgh East Pittsburgh via Forbes Ave. and Rankin (From Downtown)
- 65 - Lincoln Place Shuttle (Muldowney Loop, Lincoln Place to Munhall)(Weekends, Evenings only)
- 65 - Lincoln Place--East Pittsburgh via Braddock
- 66 - Wilkinsburgh via Forbes (Downtown to Jane St. Loop)
- 67 - Swissvale-Rankin-Braddock (Downtown to Braddock via Forbes
- 71 - Negley-Highland Park (Downtown-Highland Park via 5th Ave.)

73 - Highland (Downtown-Highland Park via 5th & Highland Ave.)
77/54 - North Side-Craft Ave. via Oakland (North Ave. to Craft Station, this route does not go downtown)
82 - Lincoln (Downtown to Lincoln Ave. & City Line Via Centre St.)
85 - Bedford - (Downtown to Herron Hill via Bedford Ave.)
87 - Ardmore - (Downtown to Wilmerding via Wilkinsburgh & East Pittsburgh)(cutbacks to Tioga St. Loop and E. Pittsburgh)
88 - Franks town (Downtown to Tioga St. via Penn Ave.)

While the foregoing would appear, on the surface, to be a rather impressive array of trolley lines for this day and age, waiting from 15 to 60 minutes for a streetcar in Pittsburgh is common and and dulls the enthusiasm somewhat. To operate all of these lines, PAT has a roster of serviceable streetcars totaling 286, at least 20 of which are almost always shopped.

Perhaps the best service in the city is the joint operation of routes 35-36 between Downtown and Washington Junction, where 36 branches off to Drake Road. A base headway of 15 minutes prevails on this section, with service every four or five minutes in rush hours between Downtown and Castle Shannon. While this may not sound spectacular to the fan in Upper Webfoot, Sask., one has only to be familiar with the single track section of the line for three miles through the Overbrook-South Mills district to realize that the peak service is rather fantastic. The single track section features two trolley wires, one for each direction. The only way to increase rush hour capacity would be the installation of MU equipment, and this could well happen in the not-too-distant future. The 35-36-37 service will be the last line to run, along with the 42/38, and PAT plans to keep both lines for many years to come, due to the long stretches of private right-of-way and the mile-long South Hills Tunnel.

The remainder of the system is not so fortunate. PAT had planned to convert the entire North Side District to bus operation this spring, as well as the east end lines 64, 67, and 87. However, they are unable to find the money to buy the required vehicles. An application was being made to the Federal Housing and Home Finance Agency for a $22.5 million grant to buy 400 buses (to replace about 186 streetcars and a few older buses) and to build five new bus garages (which would eventually replace Keating and Craft Carhouses). PAT must put up 1/3 of the money, and this does not appear to be too easy. The FHHFA will not approve a loan until they do, so it would seem that the conversions will be delayed to the end of 1965.

In view of the above, it is highly recommended that onyone who plans to visit Pittsburgh in the future should do it this year. There is much private right-of-way (lines 8, 10, 11, 15, 35-36-37, 38A, 39, 42/38, 44, 47, 48, 65 and 87), both single and double track, much narrow street operation, again single and double track, on almost all routes except the 5th Ave. lines and the incomparable route 21-FINEVIEW. Several cars have been repainted in the attractive gray, red and white paint scheme of PAT, and there were still three of the wildly painted advertising cars at last notice, although these should all be gone by summer. A fourth advertising car is in dead storage at Keating Carhouse. The Sunday (Railfan) Pass is again available, giving unlimited riding on Sundays and Holidays for $1.25 on all lines. This beats paying 30-40-50¢ a ride on other days. For those interested, a 9½ hour fan-trip is planned for Sunday, May 23rd (holiday weekend for Canadians) and details are available from Robert McMann, 80 Bannockburn Ave. Toronto 12, Ont. or from the Traction Editor, 32 North Drive, Scarborough, Ont.

BELOW: Pittsburgh Railways Co. 1723 just off the McKinley Park Trestle at Bausman St. /J. F. Bromley

SHAKER HEIGHTS RAPID TRANSIT - Cleveland, Ohio.

What can one say about the SHRT? Amazing? Unbelievable in North America? First Class? Definitely the latter, for when the Cleveland Interurban Railroad was first built in the late 1910's there had never been anything like it. A High speed trolley line starting in a subway in the basement of the Cleveland Union Terminal, the line parallels the Nickel Plate Railroad for several miles before branching off on it own east of E. 55th St. The line rambles "cross-country" for a few more miles before coming into a cut in the center of Shaker Blvd. and eventually onto private right-or-way to arrive at Green Road Terminus, another 6 miles from the Square. Further, the line was graded another 6 miles in the early 1920's to Gates Mills, and many poles were installed for the copper wire that would someday be strung. Urban development has never required this until recently, but now the plans are being looked at again. The SHRT

LEFT: Pittsburgh Railways Co 1707 on private right of way at Smith stop in Overbrook, Pa., May 24th, 1960.
/J. F. Bromley

BELOW: Shaker Heights Rapid Transit PCC 94 at Warrensville Yard, Van Aken Division. May 19th, 1955.
/J. F. Bromley Collection

is presently debt-free (how many transit operators can claim this?) and extensions would present no financing problem. **SHRT** is also one of the few systems to continuously make a profit.

The second branch of the **SHRT** leaves the Green Road line just east of Shaker Square onto what was once Moreland Blvd., now renamed Van Aken Blvd. This division curves to the south, then parallels the Shaker Division for several miles before arriving at Warrensville Centre, almost seven miles from Shaker Square. Here, too, provision was made for a future extension of about 2½ miles, although urban development would make it rather difficult to-day. Running time for the entire distance from Van Aken-Warrensville to Union Terminal is about 26 minutes (for just over 12 miles) compared with 24 minutes for the slightly shorter Shaker Division. In peak periods, each line has several express runs, non stop west of Shaker Square, and such expresses generally cut 2-3 minutes from the running time. Trains are made up of from one to five cars, depending on the time of day and the season.

Equipment consists of 25 PCCs delivered new from Pullman-Standard in 1949, which are 50'5" long and have left side doors, althouth the doors are sealed and have never been used. In 1954, 20 cars were purchased from the Twin Cities Rapit Transit, and in 1959 a further 10 were purchased from the St. Louis Public Service. All cars are equipped with MU equipment, with the exception of 5 ex-TCRT cars, which are used solely in peaks on the Shaker Division. Fares range from 25¢ for a ride west of Shaker Square from any point on the system, or 10¢ for local rides from Shaker Square eastwards. No transfers are given. As well as the PCC fleet, SHRT also owns two ex-Cleveland Kuhlman-built center entrance cars, Nos. 12 and 11. Car 12 was repainted to its former colours of gray and cream with red trim, while 11 is in the latter-day gray and yellow.

An unusual feature of the **SHRT** trollies is the left-hand rule-of-the-road operation between Union Terminal and a point just east of E. 55th Street Station, where a flyover changes the line back to normal again. This "small bit of olde England" is the result of the Cleveland Transit System's rapid transit line opened in March of 1955. Shaker and CTS trains share trackage in this section, and in order to maintain Shaker stations, it was necessary to build them in the center of the tracks, with CTS stations on the outer side. Because of **SHRT**, the CTS' entire line uses the left hand rule-of-the-road.

This year, Shaker will replace all trackage between East 55th Street and Shaker Square with new 90 lb. rail. The old track dates from 1919-20. Also, much of the catenary of the line was recently replaced, and currently a tie renewal program is under way. Sixty-mile-an-hour streetcar operation requires a smooth ride, and SHRT has it. Perhaps that is the word that best describes the Shaker lines.....smoooooth!

- Continued next month -

Readers' Exchange

IF YOU WOULD LIKE TO HELP with the design, construction or staffing of the UCRS display at the Scarborough Hobby Show, May 7th to 9th, please contact Ralph Percy, 50 Heath St. East, Toronto 7. (924-4372)

WANTED: Data on the construction of what is now the Canadian National line from Washago to Gravenhurst and Muskoka Wharf, including stopping places en route, Contractors' names, method of financing, etc., for use in a Centennial publication giving the history of the Gravenhurst area. Levi Porter, Box 252, Gravenhurst, Ont.

ARE YOU INTERESTED in riding an electrified fan trip in Pittsburgh, Pa. on the Victoria Day weekend? Fare for the trip only will be $6.00, U.S. Funds. Contact Bob McMann, 80 Bannockburn Avenue, Toronto 12. (RU3-9232)

A RECORDING of the Society's Sept. 26, 1964 trip to Scotia, Ont., with 6167 and 6218 is available at $4.50 from S & G Recordings, 41 Benlamond Ave. Toronto 13.

TORONTO to KINGSTON

Canadian National's Toronto - Montreal main line can certainly be considered one of the busiest in Canada. Not so many years ago, in the Steam Era, there were few sights as stirring as that of a mighty "Northern Type" labouring up the hill to Scarboro Junction or thundering along at 80 per on the flats near Grafton. We will be reliving a little of this romance on Saturday, June 5th, when Canadian National's only operating steam locomotive, 6218, heads the Upper Canada Railway Society's sixth annual spring excursion, to Kingston, Ont. Why not plan to experience with us this revival of mainline railroading in the grand manner?

SPECIAL FEATURES

Be sure to bring your camera and plenty of film, as at least five photo runpasts will be included in the schedule. The train equipment will include an open baggage car with 110 volt outlets for tape recorders, an open-window coach and air-conditioned coaches. A convenient Cafe Car will be serving refreshments and light meals throughout the day.

SATURDAY, JUNE 5, 1965

8.30 a.m. lv. TORONTO (Union) ar. 9.30 p.m.

Times are EASTERN DAYLIGHT

To: TRIP COMMITTEE,
UPPER CANADA RAILWAY SOCIETY,
BOX 122, TERMINAL "A",
TORONTO, ONTARIO.

Ticket orders received after May 29th will be held for pickup at train gate June 5th.

Please send me the following excursion tickets:

_____ ADULT FARES.....$ 9.00 _____

_____ CHILDREN'S FARES (5 to 12 years).....$ 5.00 _____

Out of town remittances must include exchange.

Remittance enclosed $_____

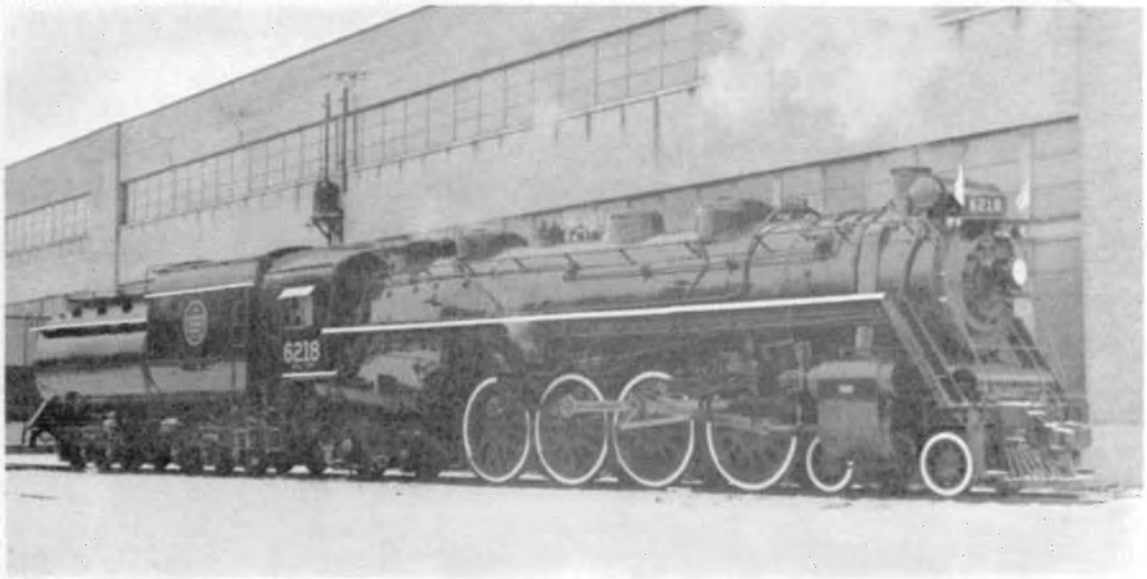
Name _____

Address _____

City _____ Zone ___ Prov./State _____

PLEASE SEND ME INFORMATION ABOUT MEMBERSHIP IN THE UPPER CANADA RAILWAY SOCIETY

☐ CHECK HERE



More Steam Excursion News