

ROLL SIGNS LISTS FOR BMT-IND R-27's Pages 2 & 3

History of The CENTRE STREET SUBWAY by D. Rogoff Pages 4-8

LISTING OF CURRENT PENNSY M-u SERVICES by H. T. Audenbush . Page 8

FIRST OF NEW BMT R-27's were delivered on November 2 and then whisked away to IND 207th Street Shops for testing. Our information was that the first delivery was to be Nov. 15 but this may have been a smoke screen. Tuesday morning, Nov. 15, a retired motorman broke a bottle of Patterson's champagne on the first train (Cars 8027-6, 8025-4, 8021-0, 8028-9) at Prospect Park-Brighton Line station (on normally unused track 0-1) then TA "Brass" reporters and interested passengers (including at least 3 N.Y. Division members) boarded the train as it rode south from the station, stopped short (apparently as the north end motorman put on his brake handle). After a brief delay, the train continued beyond the crossover, then reversed direction for a trip over the Manhattan Bridge thru Nassau Loop and via Tunnel to Brooklyn. At Lawrence St., the first stop was made, most TA officials departed and then the train made all stops to Coney Island. The doors between cars were locked shortly after Lawrence St. After about 2 hours at Coney Island, it went into regular service to Continental Ave.-Forest Hills. These are the first on 550 cars on order from St. Louis Car Co. and are slated to replace the BMT 4000's, low 2000's, 2900's, 4580's (ex-IRT) and 7000's. Some may be used to increase train lengths and for additional cars needed for the Chrystie St. services. The cars have all side seats of hard plastic and seat only 50 compared to 54 for R-11 & R-16's; 56 for R-1 thru R-10; 66 for "modernized" 2000's and 74 (plus cab seats) for standard 2000's. The 30% of the passengers who now get seats and will have to stand in the new cars are not expected to be pleased. The side doors are slightly closer together than the R-16's. (From door center to door center; R-16 is 14'11"; R-27 is 14'7") All colors and fittings appear to match the R-26's and R-28's and the new BMT-IND cars also have controls at one end only. The 550 new cars are divided: R-27 230 cars; R-30 260 cars; R-30-A 60 cars. As a look at the following pages will disclose, both IND and BMT signs are integrated for the first time. (The R-11 had both divisions but they were merely separate signs sewed together) and the surprise is the use of letters for the BMT lines.)

MAD BOMBER planted a bomb in car #3221 on Nov. 6 which killed 1 and injured several passengers on a southbound "A" at the 125 Street station. It was planted under the single seat opposite Cab #1, blew a hole in the floor, buckled the car wall and disintegrated the seat. As a result, TA crews were ordered to lift and look under every seat cushion of every car before it left the terminal on each run.

Car Notes: Correcting last month's story of EX rebuilding, cars 2400-2468 will have a 2600 car replacing its trailer while 2468-2499 will be recoupled into 2-car AB units. Cars damaged in the BMT collision near Lawrence St. on Oct. 26 were "modernized" #2593, Flat car X139 and Crane X104. All are awaiting repairs at Coney Island Shop.

PROPOSED BMT CHANGES will have the Brighton Local operating to Astoria at all times (Via Tunnel or Bridge similar to present), the Brighton Exp. cutting back to 57 St. whenever it runs. (Continued Page 8)

Front destination R-27 #8021
-top-

#8024 Outside
Side Route
-top-

Side Destination-8024
UPPER (Inside)
-top-

(Continued)

JAMAICA 168th ST. ASTORIA
 CRES CENT STREET QUEENS PLAZA
 EASTERN PARKWAY CONTINENTAL AVENUE
 METROPOLITAN AVENUE 179th ST JAMAICA
 ROCKAWAY PARKWAY 168th ST WASH HTS
 MYRTLE AVENUE 207th ST WASH HTS
 8th AVE 205th ST CONCOURSE
 BROAD STREET BEDFORD PARK
 CANAL STREET 34th ST 6th AVE
 CHAMBERS STREET B'WAY LAFAYETTE
 CITY HALL 2nd AVENUE
 WHITEHALL STREET HUDSON TERMINAL
 9th AVE SMITH 9th ST
 62nd STREET CHURCH AVENUE
 BAY PARKWAY EUCLID AVENUE
 KINGS HIGHWAY LEFFERTS BLVD
 36th STREET AQUEDUCT RACE TRACK
 CONEY ISLAND ROCKAWAY PARK
 BRIGHTON BEACH FAR ROCKAWAY
 FRANKLIN AVENUE SPECIAL
 PROSPECT PARK NO PASSENGERS
 95th STREET #bottom-
 57th STREET

QT BWAY-BRGTN LOCAL^{Via} TUNNEL
 TT WEST END LOCAL
 T BWAY WEST END EXPRESS
 RR BWAY 4th AVE LCL
 QB BWAY-BRGTN LOCAL^{Via} Bridge
 Q BWAY-BRIGHTON EXPRESS
 N BWAY-SEA BEACH EXPRESS
 M NASSAU STREET EXPRESS
 LL 14th STREET LINE
 L 14th STREET LINE
 KK NASSAU ST LOCAL
 JJ NASSAU ST LOCAL
 J NASSAU ST EXPRESS
 S SPECIAL
 GG B'KLYN QUEENS LOCAL
 F 6th AVE EXPRESS
 E 8th AVE EXPRESS
 D 6th AVE EXPRESS
 CC 8th AVE LOCAL
 C 8th AVE EXPRESS
 BB 6th AVE LOCAL
 AA 8th AVE LOCAL
 A 8th AVE EXPRESS
 -bottom-

NO PASSENGERS ← SPECIAL
 AQUEDUCT RACE TK
 EUCLID AVE
 205th CONCOURSE
 BEDFORD PK BLVD
 207 ST-WASH.HTS
 168 ST-WASH. HTS
 179th ST-JAMAICA
 CONTINENTAL AV
 ASTORIA
 QUEENS PLAZA
 57th STREET
 CITY HALL
 ESSEX ST
 CHAMBERS ST
 FRANKLIN AVE
 36th STREET
 MYRTLE AVE
 ROCKAWAY P'KWAY
 METROPOLITAN AV
 EASTERN PARKWAY
 CRESCENT ST
 JAMAICA 168 ST
 -bottom-
 LOWER (Inside) Dest.
 -top-
 SMITH-9th ST
 ROCKAWAY PARK
 FAR ROCKAWAY
 LEFFERTS BLVD
 EUCLID AVE
 CHURCH AVE
 HOUSTON ST-2nd AV
 34th ST-6th AVE
 ROCKAWAY PKWAY
 JAMAICA-168th ST
 METROPOLITAN AV
 EASTERN PARKWAY
 CRESCENT ST
 WHITEHALL ST
 CONEY ISLAND
 BRIGHTON BEACH
 KINGS HIGHWAY
 BAY PARKWAY
 62nd STREET
 9th AVENUE
 95th ST-4th AVE
 BROAD STREET
 CHAMBERS ST
 CANAL STREET
 EIGHTH AVE
 -bottom-

(Cont'd.)

R-27 Sign Lists
are by courtesy
of Hugh Dunne

Front-Route Sign R-27 #8021-side
-top- (Inside)

Side Destination R-11 (8010-9)
Upper -top-

- A 8th AVE
- AA 8th AVE
- BB 6th AVE
- C 8th AVE
- CC 8th AVE
- D 6th AVE
- E 8th AVE
- F 6th AVE
- GG BROOKLYN-QUEENS
- S SPECIAL
- J NASSAU ST
- JJ NASSAU ST
- KK NASSAU ST
- L 14th ST
- LL 14th ST
- M NASSAU ST
- N BROADWAY SEA BEACH
- Q BROADWAY BRIGHTON
- QB BROADWAY BRIGHTON
- QT BROADWAY BRIGHTON
- RR BWAY-4th AVE
- T BWAY WEST END
- TT WEST END

- QT BRIGTN^{Ma} TUNNEL
- TT WEST END LCL
- T BWAY WEST END EXP
- RR BWAY 4th AVE LCL
- QB BRIGTN^{Ma} BRIDGE
- Q BWAY-BR GTN EXP
- N BWAY SEA BCH
- M NASSAU ST EXP
- LL 14th ST LINE
- L 14th ST LINE
- KK NASSAU ST LCL
- JJ NASSAU ST LCL
- J NASSAU ST EXP
- S SPECIAL
- GG B'KLYN-QUEENS
- F 6th AVE EXP
- E 8th AVE EXP
- D 6th AVE EXP
- CC 8th AVE LCL
- C 8th AVE EXP
- BB 6th AVE LCL
- AA 8th AVE LCL
- A 8th AVE EXP

-bottom-
Outside Destination
Side Signs are in
same order as inside
and lettering is
identical with these
exceptions: (Upper)

- AQUEDUCT
- RACE TRACK
- 205th STREET
- CONCOURSE
- 207th STREET
- WASH HTS
- 168th STREET
- WASH HTS
- 179th STREET
- JAMAICA
- CONTINENTAL AVENUE
- METROPOLITAN AVENUE

-Lower-(Outside)-Exceptions

- HOUSTON ST 2nd AVE
- ROCKAWAY PARKWAY
- JAMAICA 168th STREET
- METROPOLITAN AVENUE
- EASTERN PARKWAY
- 95th STREET 4th AVENUE

- WASH.HTS.-207th ST.
- WASH.HTS.-168th ST.
- CONCOURSE-205th ST.
- CONCOURSE-BEDFORD PK.
- JAMAICA-179th ST.
- JAMAICA-169th ST.
- JAMAICA-PARSONS Blvd.
- QUEENS-FOREST HILLS COURT ST.-BORO HALL
- NO PASSENGERS
- SPECIAL
- space-
- ASTORIA
- QUEENS PLAZA
- 57th ST.MANH'T'N
- TIMES SQUARE
- CHAMBERS ST.
- BROAD ST.
- CANAL ST.
- CITY HALL
- NINTH AV.
- 62nd ST. B'KLYN
- KINGS HIGHWAY
- BAY PARKWAY
- CONEY ISLAND
- BRIGHTON BEACH
- 95th ST.Ft.H'TON
- FRANKLIN AV.
- PROSPECT PARK
- METROPOLITAN AV.
- 168th ST.-JAMAICA
- 111th STREET
- LEFFERTS AVE.
- ATLANTIC AVE.
- EASTERN PKY.
- MYRTLE AVE.
- CANARSIE
- 14th ST.-8th AV.
- bottom-

Lower Side Destination-R-11
-top-

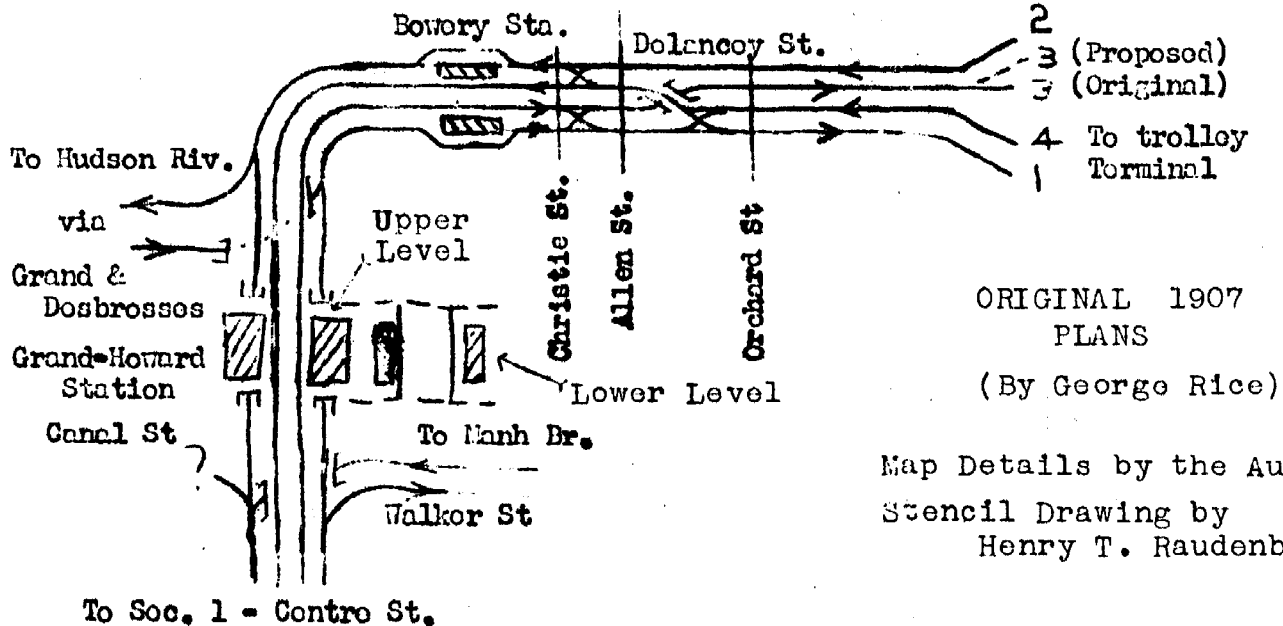
- SIXTH AV.-34th ST.
- HOUSTON-LAFAYETTE ST.
- HUDSON TERMINAL
- B'KLYN-HOYT ST.
- FULTON-EAST N.Y.
- FULTON-EUCLID AV.
- FULTON-LEFFERTS Blvd.
- SMITH-9th ST.
- B'KLYN-CHURCH AV.
- KINGS HIGHWAY
- CONEY ISLAND
- NO PASSENGERS
- SPECIAL
- space-
- ASTORIA -etc., then continues as upper.

THE CENTRE STREET SUBWAY

By David Rogoff

ERA Sprague Librarian

Construction Route Number 9-0 was adopted by the City of New York in 1905. Plans for the route were completed by the City's Board of Rapid Transit Commissioners (succeeded in 1907 by the State's Public Service Commission - 1st District.) Work was contracted for and begun by May 1907. Officially the route was called the "Brooklyn Loop Lines - Manhattan Section", but today it is known as the Centre Street Subway, part of the BRT's Jamaica line.



Plans called for a 4 track subway (all "local" service) under Delancey St., "Delancey St. Extension" (a proposed new street, now known as Kenmore St.), private property and Centre St. A branch from the north went to the North River via Grand and Desbrosses Sts. Another from the south went to the Manhattan Bridge (then uncompleted) via Walker and Canal Sts. (see April 1960 article). The route was single level except at branch line connections and at two stations. (See map and below). There were 4 stations: "Bowery" (1 level, 2 island platforms), "Grand-Howard" (2 level, 2 outside platforms at each level), "Franklin-Leonard" (same as "Grand-Howard") and Chambers St. (See July 1959 article). All stations were at, or between the street named. The layouts at the "Grand-Howard" and "Franklin-Leonard" stations were unique, identical only to the present day "Nostrand Ave." station of the IND Fulton St. Subway. The platforms were on the upper level for the inner tracks, and on the lower level for the outer tracks. Construction Route # 9-0 was to connect at its north-east end with 2 tracks of the BRT's underground "Manhattan Terminal" for Broadway (Brooklyn) elevated trains. The other 2 tracks were to connect with 2 or more tracks in the adjoining underground BRT trolley terminal, immediately south. Several trolley lines including the Manhattan Bridge 3 $\frac{1}{2}$ Line and the Brooklyn Heights R.R., offered unsuccessfully to run their trolleys through the 2 south tracks under Delancey St. and the 2 east tracks under Centre St.

The route was divided as follows:

Sec. 1- Under Centre St. from Park Row to Pearl St. (Contracted to the Bradley Contracting Co.) (See July 1959 article).

Sec. 2- Under Centre St. from Pearl to Canal Sts. (Contracted to the Degnon Contracting Co. - Finished by the end of 1909. - This section included the branch to the Manhattan Bridge under Walker and Canal Streets.)

Sec. 3- Under Centre St. from Canal to Broome Sts. (Contracted to the Cranford Co.-Finished by the end of 1909.-This section included the Branch west under Grand & Desbrosses Sts.)

Sec. 4- Under private property (now the N.Y. City Police Academy) and a new street (now Kenmore St.) to the Bowery. (Contracted to the Bradley Contracting Co.) (Finished by end of '09.)

Sec. 5- Under Delancey St. from the Bowery to Norfolk St. (Contracted to the Bradley Contracting Co.) (Finished by end of '09.)

The Williamsburg Bridge was opened on Dec. 19, 1903. Construction of the elevated connection between the Brooklyn end of the bridge and the BRT Broadway (Brooklyn) Elevated Line was begun on April 7, 1907 and was finished by Dec. 31, 1907. Elevated type cars first operated over the bridge and into the "Manhattan Terminal" on Sept. 16, 1908. Brooklyn trolleys first operated over the bridge and into the adjoining underground trolley terminal in Manhattan on May 18, 1908. Both underground terminals were officially completed on Dec. 1, 1908. The BRT "elevated" operation into the underground "Manhattan Terminal" was never considered a "subway" and until the "Loop" lines in Manhattan were completed in 1913 (see below), the only cars using the underground terminal were 9 foot wide, wood BRT Elevated cars.

In 1907, the IRT was operating the "First Subway" (opened in 1904) and was scheduled to operate an extension being built to Atlantic Ave. in Brooklyn. The BRT did not operate any subways although they did operate into the "Manhattan Terminal." (See above.) The city, which owns the subways, believed that it might not be able to get either the IRT or BRT to operate additional subway lines, then being planned, at financially acceptable terms. It, therefore, considered having other electric railroads operate the new subways. Such railroads, as the Long Island Rail Road and the New York Central Railroad, however, operated much larger cars than either the IRT or BRT at that time. Accordingly, late in 1907, Henry B. Seaman, Chief Engineer of the N.Y. (State) Public Service Commission, 1st District, redesigned all the plans of the then planned subways.

All grades were reduced to 3% except at bridge approaches, tunnels were widened and heightened for then standard railroad coaches, routes were simplified with all possible trackage on one level and finally certain stations were eliminated,

The effect of these changes on the "Loop Lines" in Manhattan was to eliminate both the "Grand-Howard" and "Franklin-Leonard" stations (located between the streets named), and to replace them with a single one-level, 2-island platform station at, and named, "Canal St." In addition the size of the "Loop" tunnels was increased.

To illustrate, a chart of New York City subway tunnel sizes is given below:

| | WIDTH* | HEIGHT** |
|---|-----------------|----------|
| First Subway (IRT)-1904 | 12' 6" | 12' 4" |
| "Brooklyn Loop Lines" & 4th Ave. Subway & Lexington Ave. Subway <u>AS PLANNED</u> | 13' 6" & 13' 0" | 12' 3" |
| "Brooklyn Loop Lines" & 4th Ave. Subway (BRT) & Lexington Ave. Subway (IRT) <u>AS BUILT</u> | 14' 0" | 14' 6" |
| BROADWAY SUBWAY (BRT) | 14' 3" & 13' 6" | 12' 8" |
| 7th AVE. SUBWAY (IRT) | 13' 6" & 13' 0" | 12' 3" |

* Width from center of columns between tracks to face of side wall.

** Height above top of rail.

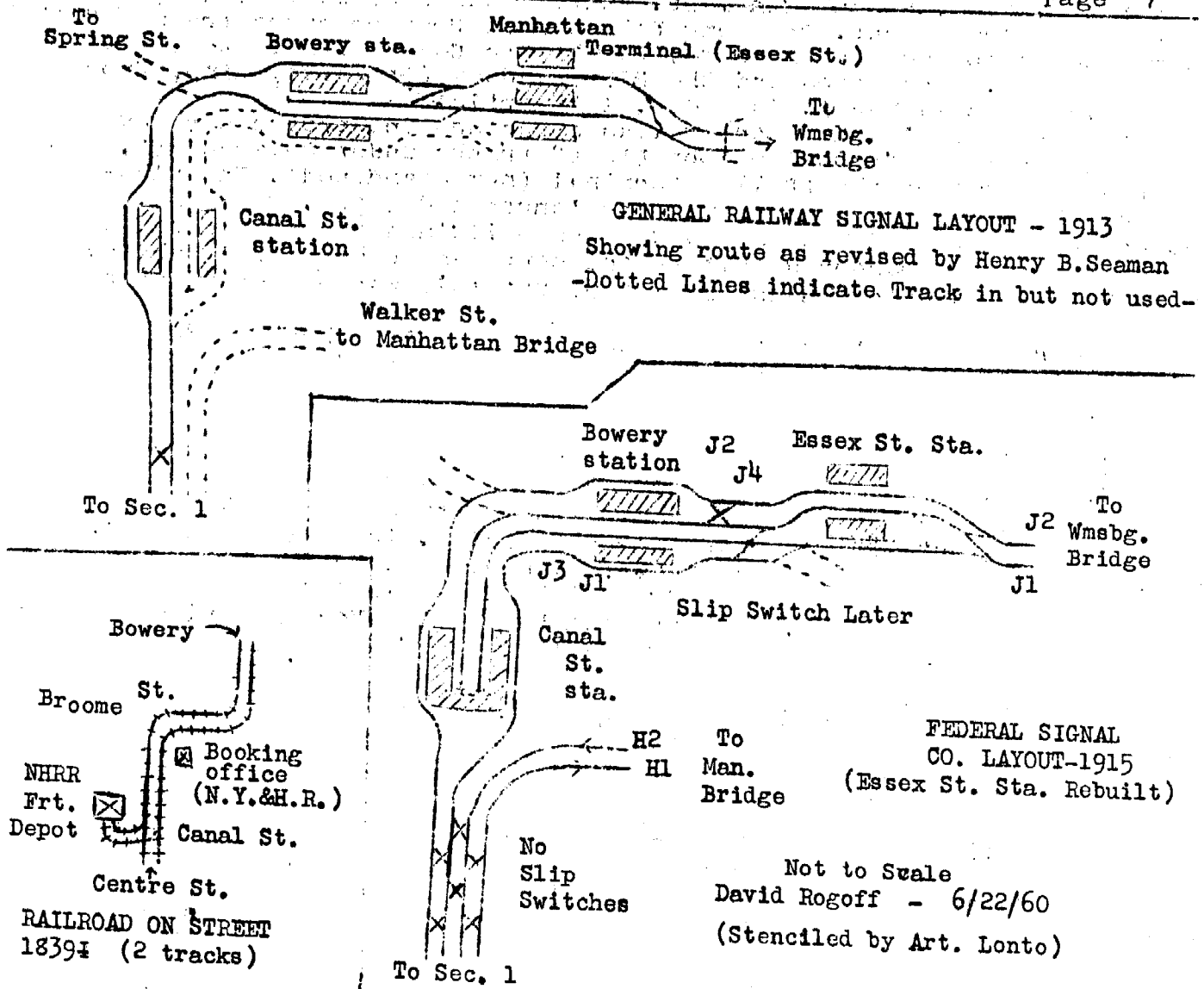
One of the subways which was enlarged was the Broadway-Lexington Ave. Line above 42nd St. in Manhattan. Although now used by the IRT, this stretch of subway is larger in cross section than any part of the IND and most of the BMT. The IRT Seventh Ave. Subway below 42nd St. was designed later to smaller IRT "Dual System" contract specifications, after the city had decided, in 1913, to split the entire subway system operation between the IRT and BRT.

Because of the height of the tunnels of the "Brooklyn Loop Lines" and the entire 4th Ave. Subway, it is possible to operate present day BMT "BU" Type E1 cars from the BMT Eastern Division (Jamaica, Canarsie, Myrtle Ave.) into the BMT Southern Division (4th Ave., Brighton, Sea Beach & West End) for major repairs and servicing. These E1 cars are brought over the Williamsburg Bridge, and through Delancey and Centre Sts. as far as Chambers St. station, reversed in the station and sent over the Manhattan Bridge to the BMT Coney Island Yards. Some sections of the BMT subways will not clear these cars in their original (unmodified) height.

The height of the "Loop" and 4th Ave. tunnels encouraged the BRT to develop a new car for subway use, larger than either IRT subway or BRT elevated cars. In Dec. 1911, the BRT announced plans for 10 ft. wide, 67 foot long steel subway cars. These cars, first delivered in 1915, became the "A," "B" & "BX" types so familiar today and were followed by other BMT 10 foot wide car types and by IND 10 foot wide cars in 1930.

Other changes in the original 1907 plans included elimination of the turnout into the proposed "Grand St. Subway" and revision of the Canal St. turnout into a single level layout. Provisions for connections to another crosstown subway under Spring St were built, however, branching off the tunnels under Delancey St. Extension at Mulberry St., just as the "Loop" swings south under private property to reach Centre St. These consisted of pockets in the north wall of the tunnels. The connection was to be to the 2 north tracks at grade. The pockets probably still exist, although rendered almost invisible by a lack of lights. Bowery station on both the original and revised plans was very deep (8 feet below ground water and 44½ feet below the street surface) to allow room overhead for a proposed Third Ave. Subway under the Bowery (Construction Route #3). This proposed subway was also to connect with Construction Route #20 (under Canal St.) heading east at the west end of the Manhattan Bridge (where turnout space was built into the north wall of the Canal St. Subway (See April 1960 article).

The changes to the "Loop" lines were made after letting the contracts and required renegotiation and reconstruction after work had already begun. Not long after trolley lines had unsuccessfully attempted to obtain operating rights over 2 of the tracks of the Manhattan Section of the "Loop," it was decided to connect all 4 tracks to the BRT Broadway (Brooklyn) E1. (now BMT "Jamaica Line") at the underground "Manhattan Terminal." At first, only 3 of the loop tracks were to be connected with the 2 tracks in the terminal, but eventually all 4 tracks were to be connected with the 3 tracks in the rebuilt terminal. Secs. 2, 3, 4 & 5 were completed by the end of 1909, but Sec. 1 was unfinished for years due to delay in construction of the Municipal Building (See July 1959 article). The line from the then 2 track terminal to Chambers St. station was operated, in part, on June 30, 1913, and experimentally in the last few days of July and for the first 3 days of August 1913. The official opening (with BRT 9 foot wide "E1" cars) was on August 4, 1913, when a train left the terminal at 4:08 AM and arrived at Chambers St. station 8 minutes later. The line was equipped with General Railway Signal Co.



equipment. Towers were at the east end of Bowery station and north of Chambers St. station. Both were between the two center tracks and were small temporary offices. Only the 2 north tracks under Delancey St. and the two west tracks under Centre St. were used, with the exception of a third track at Bowery station (see diagram). Canal and Chambers St. stations used only the west tracks and platforms.

As patronage increased, the former Manhattan Terminal was rebuilt into a 3 track, 2 platform station (see June 1958 article) and platforms were cut back to clear 10 foot wide cars. Rebuilding began in April 1913, the center track was in place on Feb. 22, 1915 and the rebuilt former terminal (rechristened "Essex St." station) was completed by June 1915. Concurrently the track clearances on the Williamsburg Bridge were widened by spreading bridge cables, etc., to clear 10 foot wide cars. The "GRS" signal equipment was removed in 1915 and replaced with the present Federal Signal equipment, about the time that service over the Manhattan Bridge into Chambers St. station began. Experimental service over the Manhattan Bridge began on Saturday, June 19, 1915 at 1:30 PM when a train of steel subway cars left Chambers St. station, crossed the Manhattan Bridge and went to Coney Island via the 4th Ave. & Sea Beach lines. The official opening was, however, on Tuesday, June 22, 1915. At the same time, all 4 tracks on the "Brooklyn Loop Lines" in Manhattan were placed in use from Essex St. to

Chambers St. stations and Canal St. station was rebuilt to its present track & platform layout. The Long Island Rail Road operated trains (summer only) to and from Rockaway Beach into Chambers St. station via the Autumn Ave. connection and the BRT Broadway (Brooklyn) Line, from about 1913 to World War I. (See Nov. 1958 article.)

Still visible is the 2 track load structure (no tracks were ever installed) from the "Brooklyn Loop Lines" tracks under Delancey St. into the west end of the trolley terminal (now abandoned). The platforms of all stations on the line were lengthened later. Canal St. station was built very wide and underpins buildings under both sides of the street. An abandoned exit to the northeast corner of Canal and Centre Sts. was to contain an escalator, but this was probably never installed.

The various Manhattan trolleys using the Williamsburg Bridge and their opening dates were:

8th & 14th Sts. Crosstowns - Feb. 9, 1905

Grand Street - Nov. 8, 1905

4th Ave. Line to Grand Central - Jan. 28, 1907

N.Y. Post Office to B'klyn.Plaza-June 7, 1908

Centre St. was part of the route of the 2 track New York & Harlem Railroad from about 1839 (See July 1959 article). The New Haven Railroad, which also had operating rights, maintained a freight depot at the northwest corner of Canal and Centre Sts. Tracks led into the freight depot via Canal St. from the north. The New York & Harlem RR had a booking office at the corner of Broome and Centre Sts.

PENNSYLVANIA RAILROAD M-U CAR SERVICES

| <u>TRAIN NO.</u> <u>SERIES</u> | <u>ROUTE</u> | <u>FREQUENCY</u> |
|-----------------------------------|---|--------------------------|
| 300 | Philadelphia - Paoli & Bryn Mawr | Regular |
| 400 | Philadelphia - Baltimore | 1 RT Mon-Fri |
| 400 | Baltimore - Washington | 1 RT Mon-Fri |
| 500 | Philadelphia - Trenton | Regular |
| 600 | Philadelphia - Parkesburg | 2 RT Mon-Fri 1 RT Sat |
| 600 | Lancaster-Harrisburg | 1 RT Mon-Fri |
| 650 | Philadelphia - Manayunk | Regular-M-F; 2RT Sat |
| 700 | Philadelphia - Media | Regular |
| 700 | Media - West Chester | Infrequent |
| 800 | Philadelphia - Chestnut Hill | Regular |
| 900 | Philadelphia - Chester & Wilmington | Regular |
| 3600 | New York & Jersey City & Rahway-South Amboy | Regular* |
| 3700 | New York & Jersey City - New Brunswick | Regular* |
| 3800 | New York & Jersey City - Trenton | Regular* |
| 4100 | Princeton Jct - Princeton | Regular |

*Note: Jersey City Services in Mon-Fri Rush-Hours only
Sunday-only trains on various lines numbered in 4000's.

---NEWS BRIEFS CONTINUED---

The Fourth Ave. Local will run to Forest Hills (Continental Ave. on the new sign rolls) Monday-Friday midday and rush-hours and will be cut-back at 57 St. at other times. The West End Exp. will be extended to Astoria. It will not run Sundays so this means rush-hours and Saturdays only although it may continue early evening service.

PHILADELPHIA has added an "OPERATION MANAYUNK" to its other subsidized railroad services. At about the same time the Pennsy M-U service beyond Manayunk to Norristown was discontinued.

News from Hugh Dunne, Henry Raudenbush, etc. Typed & edited-A.Lonto