The Bulletin

Electric Railroaders' Association, Incorporated

Vol. 59, No. 12 December, 2016

The Bulletin

Published by the Electric Railroaders' Association, Incorporated, PO Box 3323, New York, New York 10163-3323.

For general inquiries, or *Bulletin* submissions, contact us at bulletin@erausa.org. ERA's website is www.erausa.org.

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BROOKLYN PCC CARS' 80TH ANNIVERSARY
by Bernard Linder
(Continued from November, 2016 issue)

As soon as the cars were in service, newspapers reported that the passengers liked the quiet, fast, comfortable cars. St. Louis Car Company's booklet explains how the company accomplished this feat.

The designers proceeded to develop a radically new control and braking apparatus for smooth and rapid starts and stops. To determine the maximum comfortable acceleration, your Editor-in-Chief's supervisor sat in a car loaded with sandbags. Tests were conducted in the Ninth Avenue Depot at different rates of acceleration and deceleration. These experiments revealed that high acceleration and braking rates are comfortable as long as they are accomplished without jerking or sudden changes in rates. The controls were set as shown in the following table, which compares the performance of the old and the new cars:

	PCCs	6000s	OLD CARS
Acceleration (MPH/sec.)	4.00	3	0.5-1.0
Braking (MPH/sec.)	4.75	2.5	1.5

Smooth acceleration was accomplished by mounting 99 resistors on the rim of a drum powered by a 32-volt electric motor. Use of rheostatic acceleration instead of series-parallel eliminated the transition notch and made it possible to obtain high rates smoothly. Cars were stopped without jerking by using dynamic, air, and magnetic track brakes. The dynamic and magnetic brakes slow the car quickly and smoothly from high speeds without generating excessive heat in the wheels and also insure against skidding. The dynamic brake came into service first and was increased as the brake foot pedal was depressed. At 3-inch pedal movement, the track brake cut in. The air brake completed the braking cycle and held the car after it stopped. Your Editor-in-Chief's supervisor recalled that the Brooklyn cars' magnetic brakes were disconnected after they wore out the track rails at the trolley stops. The PCC's brakes gave rates of retardation that were not previously achieved.

The PCCs were much quieter than the older cars. This noise reduction was accomplished by attaching the motors to hypoid gears floating in oil and by designing a new assembly for the trucks and wheels using rubber connections, instead of metal ones, between the truck and the car body. This type of resilient wheel is one of the most novel features and was one of the latest developments of the use of rubber for mechanical purposes. A new method of vulcanizing rubber to metal made the new wheel possible. The wheels were flanged steel bands with large discs of rubber supporting the axle. The rubber disc in the wheel separated the metal tire from the rest of the wheel. The hub of the wheel and the axle were also separated from the frame of the truck by rubber. The large conical rubber springs were used for this purpose.

An automatic system was designed to heat and ventilate the car. Air was taken through an opening in the roof and carried through ducts in the car. All the rheostats used to control the motors during acceleration and dynamic braking were enclosed in a compartment under the center of the car. Cool air

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NEXT TRIP: PENN STATION BEHIND THE SCENES — SATURDAY, DECEMBER 17

FROM RECOGNITION TO DOMINANCE: THE NEW YORK CONNECTING RAILROAD (BRIDGING THE BAY AND CONNECTING THE PIECES)

by George Chiasson

(Continued from November, 2016 issue)

THE NEW HAVEN'S "RAPID TRANSIT" SERVICE TO 129TH STREET STATION ENDS

By February of 1904, the New Haven's Engineering Department was deep into its task of planning details in the extensive package of right-of-way reconstructions that would soon encompass the Harlem River Branch and appointed its first Project Manager to oversee this gargantuan enterprise. The actual work would not commence for another 20 months, but in the meantime the New Haven's own steam-powered "rapid transit" operation was replaced by a third rail-electrified IRT shuttle from the 129th Street station to the existing high center platform at the Harlem River (Willis Avenue) Terminal beginning on May 11, 1905. In truth this was actually the last piece of the entire Manhattan Elevated system to require Forney steam engines for propulsion, the balance of Manhattan Railway Company lines having been so converted in 1903, before they were handed off to the Interborough Rapid Transit Company in anticipation of their integration with the subway system then under construction. Standard IRT "gate cars" were thus deployed to again shuttle between the two stops, albeit at a peppier pace than their steam-powered predecessors, and it appears that public response was much better than the earlier incarnation thanks to the operational advantages provided by electrification (faster relay moves and operating speeds, in a relative sense). Concurrently, the New Haven resumed its pre-1887 service pattern on the Harlem River Branch local, which again roamed strictly between New Rochelle and the outer platforms of the Harlem River Terminal. Two transfer alternatives were then available for continuation to Manhattan: the Willis Avenue Shuttle to 129th Street or a walking transfer to the 133rd Street station, where through express service could be had during the rush hours. The New Haven's existing "rapid transit" rolling stock continued its assignment on the Harlem River Local through the first several months of this revival, being gradually replaced by shared equipment from the New Haven's "main line" operation into Grand Central sometime in the first half of 1906.

The ultimate fate of the New Haven's Forney locomotives and their companion, specialized "rapid transit" coaches is herewith revealed by Mr. Charlie Dunn of the New Haven Rail Road Historical & Technical Association:

"In the period between May, 1905 and July, 1906 all ten (10) of the New Haven S-8 Class Forneys were shopped for class repairs…All were transferred from the Harlem River Branch, along with their small passenger coaches, to the Hartford-New Britain-Bristol suburban service starting in July, 1906, when its (unique) 10-year-old 3rd rail electrification was shut due to mounting legal issues, after several young boys had been killed by falling across the energized rail. This action was also influenced politically by some New Britain merchants who didn't like their customers being able to easily hop the 3rd rail cars into Hartford to shop…The locals dubbed them 'Dinky' trains due to their small engines and small coaches, but it was not used as a term of endearment because the vast majority of riders were never very happy with them. The first day of service brought an uproar of complaints by riders, including the same folks in New Britain that had complained the loudest about the 3rd rail. The Forneys burned soft coal which produced more smoke and when the windows of the coaches were opened it flowed unpleasantly inside, covering everyone in cinders. Plus, many passengers sorely missed the open electric cars that had traditionally run each and every summer. In addition, the Dinky trains had difficulty maintaining the fast, rapid transit-like schedule that the electric cars had, and in the winter the little Forneys had trouble staying warm enough to steam properly. Shortly, calls were made for the New Haven to bring back the 3rd rail despite its faults, which the company steadfastly refused to do. The Forneys thus continued to serve the "Dinky" until they were retired, most by 1908, with a few making it to 1913 and one to 1915. They were also used on the Rockville Branch, the New Britain-Berlin Line and the Berlin-Middletown Line. Other S Class engines may have been (and probably were) used on the Hartford-New Britain-Bristol route as well, with older, smaller 4-4-0s replacing the Forneys as they were retired (although the public still referred to the 'newer' engines as Dinkys while the same, small 'Eads' coaches were still in service). These were initially used in the same fashion, running tender-first from Bristol toward Hartford, but this resulted in a number of wrecks when the tenders derailed at higher speeds. The Connecticut Public Utilities Commission finally prohibited this practice and the New Haven, to avoid installing a turntable in Bristol, ran the Dinky trains up to the Terryville loop to turn them around. As far as I've been able to determine the Dinky trains ran into the 1920s *(Note: circa 1923)*, at which time the former rapid transit "Eads" coaches (delivered for through service to 129th Street in

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From Recognition to Dominance

(Continued from page 2)

1890-1) were retired permanently."

NEW YORK CONNECTING RAILROAD, PHASE 1-A, CAPITAL UPGRADES IN THE BRONX AND WESTCHESTER

The long and drawn-out effort to remove grade crossings and otherwise upgrade the New Haven's Harlem River Branch at last got underway in October of 1905, and then consumed some 28 months before reaching a state of beneficial use (though probably not full completion). This was one of two major efforts addressing both sides of what would in time become the New York Connecting Railroad and in 2016 is found to be the lesser-documented from a historical perspective. Given that there was also extensive civil engineering then underway on virtually all of Greater New York's rail transportation assets this should come as no surprise, but it does hinder an ability to paint the project's advancement in any great detail a century-plus after the fact. As such, the following checklist grants a fine overview of the specific components contained in the Harlem River Branch upgrade and enlargement as completed. What is known can be derived from a project summary that appeared in the ***Engineering Record*** of November 9, 1907 as the project was beginning to wind down. A perfunctory description states that the first key part of the project to be accomplished was the "Hunts Point Cut" in the Bronx, the spoils from which were used to create a pilot three-track elevation in the project area's upper reaches and enable the establishment of preliminary, temporary overpasses. Two of the tracks on the elevation were then used for revenue service and the other for construction needs. While the project advanced these pilot embankments were gradually filled out and expanded with permanent overpasses, underpasses and station facilities being constructed as passengers continued to utilize the temporary installations. Of note is that this so-called "cut" was actually its adjustment to undulating geography in the Bronx, which topographically is really the southern end of the Saw Mill Mountain Range.

The following describes the project's scope as accomplished:

First section: Grade crossing elimination and expansion from four to six tracks on the Harlem River Branch from New Rochelle Junction (Signal Station 22) as far as the Pelham Manor station, and from two to six tracks from the Pelham Manor station to Signal Station 3 (Bungay Street, the Bronx). This was component to the anticipated New York Connecting Railroad from Bay Ridge, Brooklyn and Sunnyside, Queens to Port Morris via a proposed bridge across the Hell Gate Channel at the mouth of the East River. At that time, the New York Connecting Railroad franchise was pending with the City of New York, with application filed by the Pennsylvania Railroad.

In this portion, the widened right-of-way was occupied by six tracks, arranged 3-1-2-4-5-6 from left to right (west to east), with 3-4 nominally designated for local passenger trains, 1-2 for through passenger trains, and 5-6 for freight trains, though such assignments were not strictly followed. New and existing trackage was elevated from New Rochelle Junction (SS-22) to the Pelham Bay drawbridge (SS-14), partly elevated and partly depressed from the Pelham Bay drawbridge to Morris Park, depressed from Morris Park to the Bronx River drawbridge (SS-7), and depressed from the Bronx River drawbridge to SS-3 at Bungay (E. 149th) Street. Also included was the installation of a new, 1,600-foot, six-track trestle across Pelham Bay immediately to the east of that opened with the original Harlem River & Portchester Railroad in 1873, with a six-track Scherzer Rolling Lift Bridge employed at its navigation channel in the form of three parallel two-track plates. *(Note: It should be noted that the "Scherzer Rolling Lift Bridge," a modern design of the late 19th century, was a common element of many major water crossings throughout the New Haven system)*.

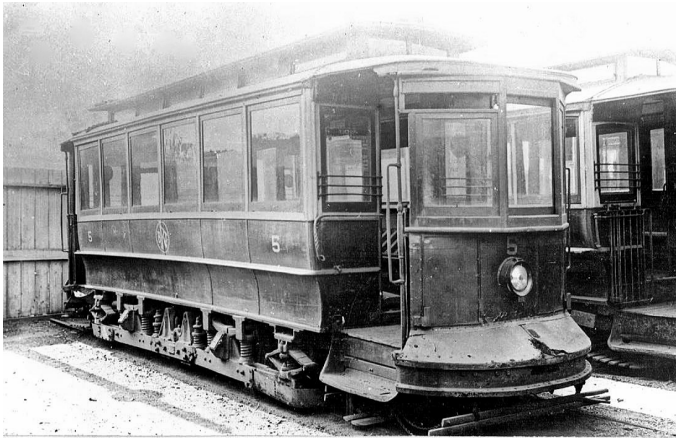
Work included the replacement of drawbridges at Pelham Bay and the Bronx River; the corresponding relocation and expansion of station facilities, with (low) platforms generally aligned to the outside of newly-established (outer) local tracks 3 and 4; the corresponding (minor) modification to yard facilities at Westchester and Oak Point; the installation of seven (7) new steel six-track overpasses* (usually consisting of three adjacent two-track components) on joint stone and concrete abutments; the installation of seventeen (17) new steel and truss-type six-track underpasses* on joint stone and concrete abutments; and the expansion of one (1) existing overpass. ***(Note: *overpasses and underpasses in this project area are defined from the railroad's viewpoint. That is, the railroad passes overhead at an overpass and underneath at an underpass.)***

The geographic progression of improvements was as follows:

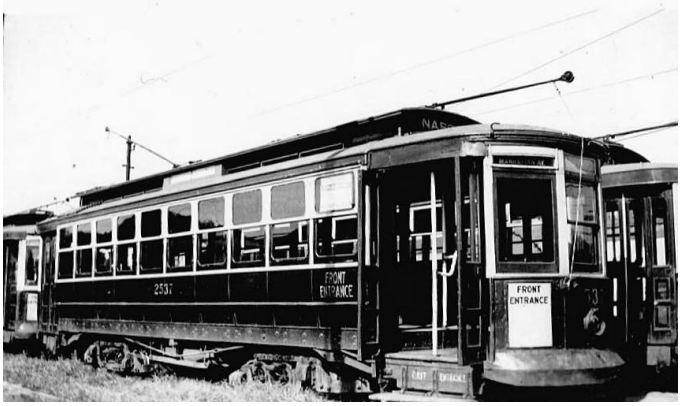
- The existing four-track overpass at Webster Avenue in New Rochelle (built 1873, widened by 1894) was again rebuilt for six tracks
- A new six-track overpass was installed at Beechwood Avenue, New Rochelle.
- Existing (low) platforms at the Woodside station were rehabilitated
- The existing four-track overpass at Old Boston Post Road (Kings Highway), New Rochelle (built 1873, widened by 1894) was again rebuilt for six tracks
- A new six-track overpass was installed at Main Street, New Rochelle
- A new six-track overpass was installed at the Pelham Country Club, Pelham
- A new six-track overpass was installed at Pelhamdale Avenue, Pelham
- New (low) platforms were installed at the Pelham Manor station
- A new six-track overpass was installed at the Bartow Mansion in Pelham Bay Park, Bronx which used stone abutments per request of the City of

(Continued on page 6)

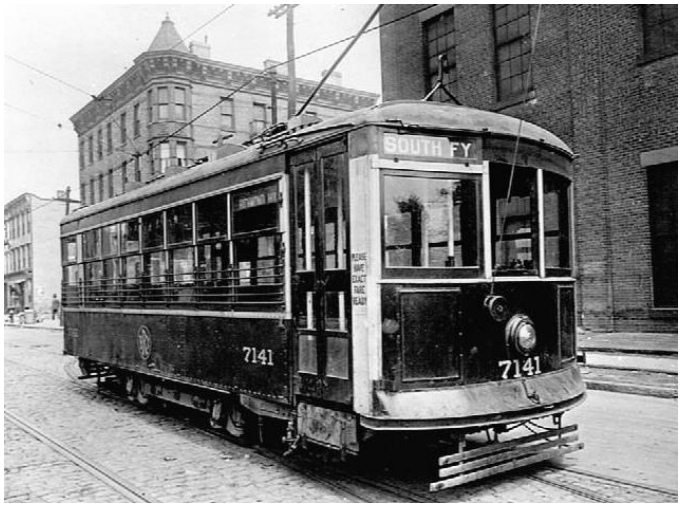
BROOKLYN CARS OPERATING BETWEEN 1900 AND 1956



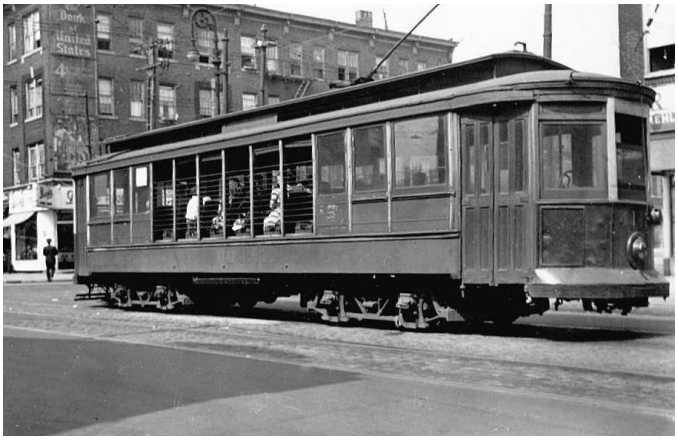
BRT car 5 (formerly Montague Street cable car) in 1921.
Bernard Linder collection



B&QT rebuilt box car 2537.
Bernard Linder collection

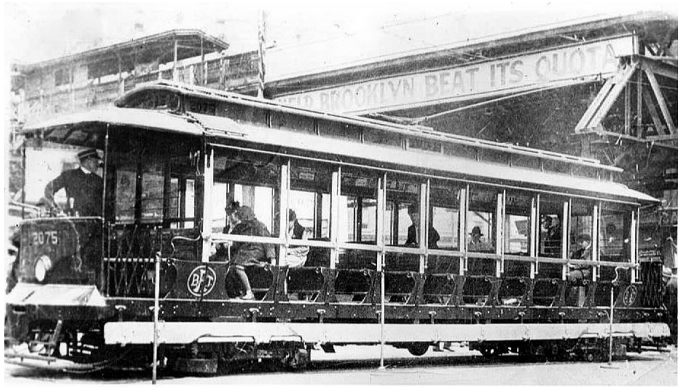


Birney 7141, Second Avenue and 58th Street, 1921.
Bernard Linder collection



Convertible with windows removed for summer.
Bernard Linder collection

Two-man convertible 4550 at Edaville.
Bernard Linder collection

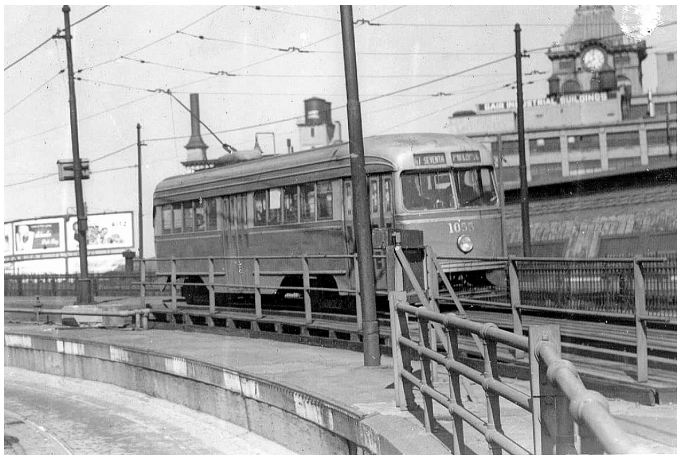


BRT open car 2075.
Bernard Linder collection

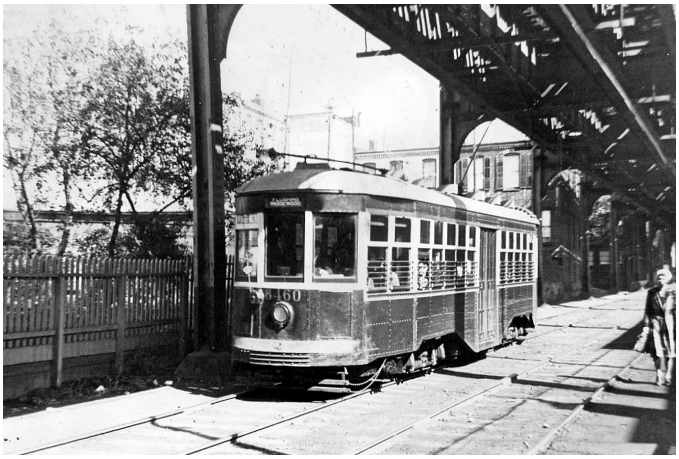
(Continued on page 5)

Brooklyn Cars Operating Between 1900 and 1956

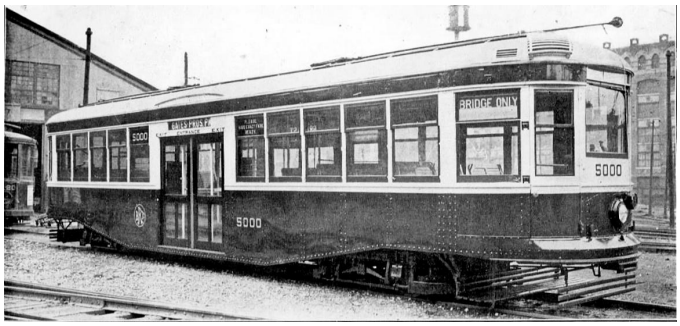
(Continued from page 4)



PCC 1055 on Route 67 leaving Brooklyn Bridge southbound, early 1950s.
Bernard Linder collection



Car 8460 on Flushing-Ridgewood Line under Myrtle Avenue "L."
Bernard Linder collection



5000, a double-ended two-man car from the 5000-79 series.
Bernard Linder collection

5063, a single-ended car from the 5000-79 series.
Bernard Linder collection

A one-man 5100-series car.
Bernard Linder collection

6077 on Nostrand Avenue Line at Avenue U Loop, 1949.
Bernard Linder collection

From Recognition to Dominance

(Continued from page 3)

New York

- New (low) platforms were installed at the City Island (Bartow) station
- The Pelham Bay trestle and drawbridge (SS-14) was replaced
- New (low) platforms were installed at Baychester station
- A new six-track overpass was installed at Eastchester Road, Bronx
- New express (low) platforms were installed at the Westchester station (between Tracks 3-1 and 2-4)
- A new six-track underpass was installed at Williamsbridge Road, Bronx
- A new six-track overpass was installed at Bear Swamp (Bronxdale) Road, Bronx
- New (low) platforms were installed at the Van Nest station
- A new six-track underpass (steel truss type) was installed at Unionport Road, Bronx
- One new six-track underpass was installed at Adams and Van Nest Streets (E. 180th Street in 2016) and West Farms Road (E. Tremont Avenue in 2016), Bronx. This underpass provided trackage for the Third Avenue Railway Company Tremont Avenue trolley on West Farms Road
- A new six-track underpass was installed at Tremont Avenue (E. 177th Street in 2016), Bronx. This underpass was sufficiently rated to support later installation of the Third Avenue Railway Company E. 180th Street Crosstown trolley
- New express (low) platforms were installed at the West Farms station (between Tracks 3-1 and 2-4)
- The original Bronx River drawbridge (Signal Station 7) was replaced with a six-track Scherzer Rolling Lift span composed of three (3) parallel two-track plates
- A new six-track underpass and station depot were installed at Westchester Avenue, Bronx. This underpass provided trackage for the Third Avenue Railway Company Westchester Avenue trolley
- New (low) platforms were installed at the Westchester Avenue station
- A new six-track underpass was installed at Ludlow Avenue, Bronx
- A new six-track underpass was installed at Longfellow Avenue, Bronx
- A new six-track underpass was installed at Bryant Avenue, Bronx
- A new six-track underpass was installed at Faile Street, Bronx
- A new six-track underpass and station depot were installed at Hunts Point Avenue, Bronx. This underpass was sufficiently rated to support later installation of the Third Avenue Railway Company 163rd Street Crosstown trolley
- New (low) platforms were installed at the Hunts Point station
- A new six-track underpass was installed at Baretto Street, Bronx
- A new six-track underpass was installed at Tiffany Street, Bronx
- A new six-track underpass (steel truss type) was installed at Lafayette Avenue, Bronx
- A new six-track underpass was installed at Longwood Avenue, Bronx
- A new six-track underpass (steel truss type) was installed at E. 156th Street, Bronx
- A new six-track underpass (steel truss type) was installed at Leggett Avenue, Bronx
- New (low) platforms were installed at the Casanova station
- A new six-track underpass (steel truss type) was installed at Bungay Street (E. 149th Street in 2016), Bronx

Second section: Grade crossing elimination, and expansion from two to four tracks on the Harlem River Branch from Signal Station 3 (Bungay Street, Bronx) to the Harlem River Terminal. This was component to the anticipated New York Connecting Railroad, including the existing grade crossing with the Harlem River (New York Central) Rail Road's Port Morris Branch.

In this portion, the widened right-of-way was occupied by four tracks, arranged 3-1-2-4 from left to right (west to east), with 3-4 nominally designated for local passenger trains and 1-2 for through passenger and freight trains. New and existing trackage was elevated from SS-3 at Bungay (E. 149th) Street to E. 132nd Street (including passage over the Harlem River (New York Central) Rail Road's Port Morris Branch), then rebuilt at grade from E. 132nd Street to the Harlem River Terminal.

Work included the corresponding expansion of station facilities, with (low) platforms generally aligned by new (outer) local tracks 3 and 4, the installation of one (1) new steel six-track underpass on joint stone and concrete abutments, and the installation of twelve (12) new steel four-track overpasses (usually consisting of two adjacent two-track bridges) on joint stone and concrete abutments.

The geographic progression of improvements was as follows:

- A new six-track overpass was installed at the Harlem River (New York Central) Rail Road's Port Morris Branch, Bronx
- A new four-track overpass was installed at E. 141st Street, Bronx
- A new four-track overpass was installed at E. 140th St., Bronx
- A new four-track overpass was installed at E. 139th Street, Bronx
- A new four-track overpass was installed at E. 138th Street, Bronx. This overpass provided for trackage of the Third Avenue Railway Company X/138th Street Crosstown trolley
- A new four-track overpass was installed at E. 137th St., Bronx
- A new four-track overpass was installed at E. 136th

(Continued on page 15)

STATUS OF NORTH AMERICAN TRANSIT PROJECT OPENINGS SCHEDULED FOR 2016

by Randy Glucksman

Using the latest available information, the projects listed in the table below were or are scheduled for completion by the end of 2016. You may refer to the table that was published in the January 2016 ***Bulletin.*** As usually happens, some projects "slip" into next year for various reasons and four are listed below the main table. The CTA Orange Line extension to Ford City, has been postponed till further notice. Seven projects are still scheduled to open this year; however, at publication time, those dates were not available.

DATE	AGENCY	CITY	TYPE	LINE	DETAILS
January 23	Sound Transit	Seattle, Washington	SC	First Hill Streetcar	Occidental/South Jackson to Broadway/East Denny Way 2.5 miles, 10 stations
February 27	District DOT	Washington, D.C.	SC	H Street/Benning Road	Union Station to Oklahoma Avenue 2.2 miles, 8 stations
March 5	Los Angeles County Metropolitan Transportation Authority	Los Angeles, California	LR	Gold - Foothill Phase 2A (Pasadena to Azusa)	Sierra Madre Villa to APU/ Citrus College 11.5 miles, 6 stations
March 19	Sound Transit	Seattle, Washington	LR	University Link LRT	Westlake to University of Washington 3.15 miles, 2 stations
March 19	Valley Metro Rail	Phoenix, Arizona	LR	Northwest Phase I	19th Avenue/Montebello to Dunlap Avenue 3.2 miles, 3 stations
April 22	Denver RTD	Denver, Colorado	CR	A (East Rail)	Union Station to Denver International Airport 22.8 miles, 8 stations
May 6	Kansas City Streetcar Authority	Kansas City, Missouri	SC	KC Downtown Streetcar Project	Union Station to River Market 2.2 miles, 14 stations
May 15	NJ Transit	Wood-Ridge, New Jersey	CR	Bergen County	Avalon-Wesmont station opened
May 20	Los Angeles County Metropolitan Transportation Authority	Los Angeles, California	LR	Expo Phase II	Culver City to Santa Monica 6.6 miles, 7 stations
June 6	Southern California Regional Rail Authority	Los Angeles, California	CR	91/Perris Valley Line	Extension from Riverside to Perris 24 miles, 4 stations
July 25	Denver RTD	Denver, Colorado	CR	B (Northwest Rail) - Segment I	Union Station to Westminster 6.2 miles, 2 stations
August 27	Dallas Area Rapid Transit	Dallas, Texas	SC	Oak Cliff Streetcar Phase II	Dallas Union Station to Arts District 0.7 mile, 1 station
September 9	South West Ohio Regional Transit Authority	Cincinnati, Ohio	SC	Cincinnati Streetcar Phase I	Findlay Market to Fountain Square/5th Street 3.6 mile loop, 18 stations
September 24	Sound Transit	Seattle, Washington	LR	S. 200th Street Link Extension	SeaTac Airport to Angle Lake 1.6 miles, 1 station
September 30	Massachusetts Bay Transportation Authority	Fitchburg, Massachusetts	CR	Fitchburg	Extension from Fitchburg to Wachusett 4.5 miles, 1 station
October 2	New Orleans Regional Transit Authority	New Orleans, Louisiana	SC	Rampart Street/St. Claude Phase II	Elysian Fields-Canal Street 1.6 miles, 6 stations
October 24	Dallas Area Rapid Transit	Dallas, Texas	LR	South Oak Cliff Blue Line Extension	Ledbetter to University of North Texas 2.6 miles, 2 stations
November	MTA New York City Transit	Staten Island, New York	HR	Arthur Kill Station	Replaces Nassau and Atlantic stations

(Continued on page 8)

Status of North American Transit Project Openings

(Continued from page 7)

DATE	AGENCY	CITY	TYPE	LINE	DETAILS
December 2	Trans Link (SkyTrain)	Vancouver, British Columbia	ART	Evergreen	Coquitlam to Lougheed 6.83 miles, 6 stations
Fall	Denver RTD	Denver, Colorado	CR	G (Gold)	Union Station to Wheat Ridge-Ward 11.2 miles, 8 stations
Fall	Amtrak	Miami, Florida	LD	Tri-Rail	Trains begin serving Miami International Airport station
Late Fall	Bay Area Rapid Transit	San Francisco, California	HR	Warm Springs Extension	Fremont to Warm Springs 5.4 miles, 1 station
December	Empire State Development Corporation	New York, New York	LD	Northeast Corridor	Moynihan Station Phase I opens
December	MTA New York City Transit	New York, New York	HR	Second Avenue Subway Phase I	96th Street to Lexington Avenue/63rd Street 6.3 miles, 3 stations
Moved to 2017					
Winter	Denver RTD	Denver, Colorado	LR	R (Aurora/I-225)	Nine Mile to Peoria 10.5 miles, 16 stations
Early	Chicago Transit Authority	Chicago, Illinois	HR	Washington/Wabash Station	Replaces Randolph/Wabash and Madison/Wabash stations
Spring	Loop Trolley Transportation Development District	St. Louis, Missouri	SC	Delmar Loop Trolley	
May	Massachusetts Bay Transportation Authority	Boston, Massachusetts	CR	Boston Landing Station	Fill-in station between Yawkey and Newtonville
Late Spring	Sonoma Marin Area Rail Transit	Petaluma, California	DMU	Sonoma County Airport to San Rafael	

Legend:
ART: Advanced Rapid Transit HR: Heavy Rail SC: Streetcar
CR: Commuter Rail LD: Long Distance
DMU: Diesel Multiple Unit LR: Light Rail

SUBDIVISION "B" CAR ASSIGNMENTS

CARS REQUIRED NOVEMBER 6, 2016

LINE	AM RUSH	PM RUSH	LINE	AM RUSH	PM RUSH
A	10 R-32, 296 R-46	20 R-32, 296 R-46, 8 R-68A	L	168 R-143, 24 R-160	152 R-143, 16 R-160
B	48 R-68, 152 R-68A	48 R-68, 136 R-68A	M	184 R-160	176 R-160
C	64 R-32, 80 R-160	56 R-32, 80 R-160	N/W	16 R-68, 310 R-160	16 R-68, 310 R-160
D	232 R-68	216 R-68	Q	190 R-160	190 R-160
E	260 R-160	260 R-160	R	240 R-46	240 R-46
F	56 R-46, 370 R-160	56 R-46, 370 R-160	S (Rockaway)	12 R-46	12 R-46
G	52 R-68	52 R-68	S (Franklin)	4 R-68	4 R-68
J/Z	80 R-32, 40 R-42, 40 R-160	80 R-32, 32 R-42, 40 R-160			

CORRECTION

Member Murray Friedman informs us that the table on page 1 of the November, 2016 issue should read:

TROLLEY COACH OPERATION		
LINE	BEGUN	DISCONTINUED
B-23/Cortelyou Road	July 23, 1930	October **25**, 1956

Commuter and Transit Notes

No. 337

by Ronald Yee and James Giovan

METROPOLITAN TRANSPORTATION AUTHORITY

During a social gathering amongst top level transportation professionals attended by News Editor Ron Yee, it was stated that the opening date for the Second Avenue Subway will be Saturday, December 31, just in time to meet the "end of 2016" deadline set by New York State Governor Andrew Cuomo. That date was selected as it fell on a weekend when it would be easier to open up a new line and, as the last day of the calendar year, provide the maximum amount of time for workers to properly prepare the line for an opening. (Ron Yee, November 15)

MTA revealed two options for the next fare increase currently set for March 1, 2017. For the subways and local buses, Plan A would keep the current base fare of $2.75 with a discount of 5% on a $5.50 round trip purchase, making the effective fare $2.62, while Plan B would raise the base fare to $3 with a 16% discount on a $6 round-trip purchase, making the effective fare $2.59. Plan A and B would price the 30-day *MetroCard* at $121, an increase of $4.50 over the current $116.50, while the 7-day *MetroCard* would be hiked by one dollar to $32.00. Express bus cash fares would remain the same at $6.50 with Plan A while Plan B would raise it to $7. The $1 new card fee remains unchanged. Commuter rail fare increases within the State of New York would be capped at 3.75% or $15 for the monthly ticket or $6.75 for the weekly ticket covering the longest distance trips. Intermediate fares would increase between 4-6% due to fare increases being rounded to the nearest 25-cent increment. MTA Bridges and Tunnels would see cash tolls increase from $8 to $8.50 while a New York-issued private automobile/car E-ZPass would see a modest increase from $5.54 to $5.76 on the Robert F. Kennedy, Bronx-Whitestone, and Throgs Neck Bridges and the Queens Midtown-and Hugh L. Carey Tunnels. Cash tolls for non-Staten Island residents would go up by $1 from $16 to $17 while New York-issued E-ZPass tolls for cars would go from $11.08 to $11.52. The Henry Hudson, Marine Parkway/Gil Hodges, and Cross Bay Veterans Memorial Bridges with their lower tolls would see increases of similar percentiles. (MTA website, November 16)

MTA LONG ISLAND RAIL ROAD

LIRR issued new schedules effective November 14 to cover the service enhancements and changes for the Thanksgiving holiday period starting November 23 with extra "getaway" trains through Sunday, November 27, added weekend trains starting Saturday, November 26 through Sunday January 1, 2017, as well as make some seasonal changes to services on the east end of the island. On the Montauk Branch, the schedule of the weekday 5:39 AM train from Montauk to Hunterspoint Avenue was adjusted, as was the schedule of the 7:03 AM from Patchogue to Babylon advanced by 2 minutes to 7:01 AM and its connection at Babylon moved up to 7:35 AM, operating 2 minutes earlier than before between Babylon to Seaford, reverting to its former schedule the rest of the run to Penn Station, arriving at 8:48 AM. On the North Fork, two round-trip shuttle trains will operate on weekends between Ronkonkoma and Greenport, restoring the year-round weekend shuttle service that had been suspended in 2010 due to the budget crisis back then. On the Far Rockaway Branch, Friday-only "Sundown" service began operating on November 18, departing Atlantic Terminal (Brooklyn) at 3:05 PM and Penn Station at 3:07 PM, both connecting to a 3:31 PM train out of Jamaica stopping only at Valley Stream, Gibson, Hewlett, Woodmere, Cedarhurst, and Lawrence and arriving at Far Rockaway at 4:05 PM, sufficiently ahead of the earliest time of sundown for the benefit of the large Jewish community living along the line. Some off-peak trains were adjusted to accommodate track work necessitating single track operations on the Port Washington Branch (Mets-Willets Point to Bayside for tie replacement during weekday middays), Atlantic Branch (welded rail replacement between East New York and Jamaica), and the Montauk Branch (concrete ties) with weekday overnight outages between Valley Stream and Rockville Center, and Rockville Center to Freeport on weekends. *(Editor's Note by Ron Yee: The LIRR press release states that these schedule changes will remain in effect through March 6, 2017; the actual public timetables, adorned with a Thanksgiving theme, have an effective date of November 14-December 11, 2016. It can be expected that a revised edition of this timetable adorned with a 'Season's Greetings' motif will be issued effective December 12, 2016 to reflect schedule changes required for the Christmas holiday season. It can also be expected that yet another edition of this public timetable will be issued around January 9, 2017 to remove all references to the holiday season and its extra service.)* (LIRR Press release, November 8)

MTA METRO-NORTH RAILROAD

Metro-North continues its tradition of operating extra trains for the holiday shopping season, aptly named "Shopper's Specials," on the Hudson and New Haven Lines. On Saturdays, starting November 19 through December 17, there are two additional upper Hudson Line trains and eight on the New Haven Line. On Sundays, there will be three added trains on the New Haven line. (***Mileposts***, November 15)

The MTA Board approved an order for 60 additional M-8 electric multiple unit (EMU) commuter rail cars to be manufactured by Kawasaki at its Lincoln, Nebraska plant. These cars will serve on the New Haven Line, augmenting the existing fleet of 405 M-8 cars. The contract has an option for an additional 34 cars, bringing the potential order to 94 cars, raising the total count of

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M-8s in the fleet to 465 and possibly 499 if the 34-car option is exercised. These cars will enable Metro-North and the Connecticut Department of Transportation to finally retire the 36 1973-6-vintage M-2 class EMUs that had been retained as back-up cars with at least one set of 8 cars scheduled in the weekday equipment cycles, filling in for M-8 fleet shortages generated by ridership increases and service improvements that have outstripped previous expectations since the initial M-8 order of 405 cars was placed. Literally speaking, Metro-North is a victim of its own success. These cars are expected to begin arriving in three years. These cars will be funded 65% by the State of Connecticut and 35% by the MTA Capital Program. The contract also includes funding to retrofit 10 M-8s into a Café car configuration, with Connecticut footing 100% of the cost. The 405 M-8s already in service have far exceeded the reliability goals previously set by Metro-North by 53%, the average M-8 operating 460,277 miles between mechanical breakdowns, by far the most reliable cars on the fleet. These newer M-8s will be delivered with Positive Train Control and on-board cameras already installed and operational. Like their earlier sisters, these cars will seat 110 in the A car and 101 in the airline-style vacuum toilet-equipped restroom and bicycle rack-equipped, ADA-accessible B car. The cars will have at-seat 110-volt a.c. power outlets and easy-to-read destination signs inside and out as well as internal and external speakers for PA announcements at station stops. The seating is expected to be the same red color as the original M-8s, representative of the New York, New Haven & Hartford Railroad heritage of the line. They will be capable of operating under Metro-North's 12,500-volt, 60-cycle a.c. catenary and Amtrak's Northeast Corridor east of New Haven with its 25,000-volt, 60-cycle a.c. catenary (enabling these cars to cover Shore Line East services) as well as Metro-North's 700-volt d.c. underrunning third rail to Grand Central Terminal. While it cannot yet be confirmed, the M-8 third rail shoe design is intended to be compatible with the 700-volt d.c. LIRR overrunning third rail that will be extended north beyond Harold Interlocking to CP GATE on the Hell Gate Line (where the Northeast Corridor splits away from the former New York Connecting Railroad freight line in northern Queens) and allow New Haven Line service between New Rochelle and Penn Station, New York via Co-Op City and the east Bronx. The catenary between New Rochelle and CP GATE has already been changed from the Pennsylvania Railroad-style 11,000-volt, 25-cycle power to the Metro-North standard. (Metro-North Railroad press release, November 16)

NJ Transit

Member Randy Glucksman reported that the consist of the NJ Transit Pascack Valley train that was wrecked in Hoboken on September 29 was Comet V cab car 6036, Comet V coaches 6577, 6575, and 6521, and locomotive 4214 pushing from the rear. This information missed the printing deadline for the November ***Bulletin***. (Randy Glucksman, October 20)

New timetables were issued for all NJ Transit commuter rail lines on November 6, 2016. The weekday changes are mostly minor schedule adjustments on the Northeast Corridor Line for outbound trains departing between 5 and 5:45 PM and select morning peak period trains to improve operations into and out of New York's Penn Station to coordinate NJ Transit and Amtrak train movements. Select trains arriving and departing Hoboken around the midnight hours will have their schedules adjusted to provide "time windows" during which track and other maintenance functions can be performed. On weekends, the North Elizabeth station will be served by at least one train per hour from 8 AM to 9 PM to New York and from noon to 1 AM from New York by adding this station to select North Jersey Coast Line trains. (NJ Transit website, November 3)

Amtrak

Amtrak passengers who use the *Texas Eagle* route for service between San Antonio and Chicago will now have a new stop available in Missouri. The new Arcadia Valley station opened on November 20 and is expected to greatly benefit people in the area, which is located about 92 miles southwest of St. Louis. A ribbon cutting ceremony for the station took place on November 17. The station opening was a happy moment for supporters who had been trying to raise money to build an ADA-compliant platform at the location since 2011. (trains.com, November 9)

Other Transit Systems

Philadelphia, Pennsylvania

The South Eastern Pennsylvania Transportation Authority (SEPTA) was hit with a strike by the labor unions representing the 4,700 employees operating its city services including the Market-Frankford and Broad Street rapid transit lines, Subway-Surface light rail (Routes 10, 11, 13, 15, 34, and 36), and local city bus and trackless trolley routes. The Route 100, 101, and 102 suburban light rail services to Media, Sharon Hill, and Norristown and the suburban bus network were not affected and operated normally. However, pickets appeared at work sites associated with SEPTA's regional rail system, requiring a court injunction barring the picketing of those locations and facilities. Crowd control restrictions were placed into effect at commuter rail stations in the city, including at 30th Street, Suburban Station, Jefferson Station (formerly known as Market East), Temple University, and the University City. This was similar to measures implemented during the papal visit during September 26-27, 2015 where all customers had to wait in concourse queuing areas and have their tickets collected prior to entering the platforms, relieving the crew of the need to collect fares until the train left the parts of the city with heavy ridership from strike-diverted passengers. The strike commenced after 12:01 AM on Tuesday, November 1. As Election Day approached, there were concerns that the strike could prevent voters in the inner city from reaching their polling places to

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cast their votes. Contingency plans were made to call on both sides to suspend the strike for the election day period to eliminate any effect of such a strike on the outcome of a presidential election in a crucial "swing" state. As it turned out, the strike ended on November 7, just in time to not disrupt Election Day, with both sides coming to an agreement that was ratified by Transport Workers Union (TWU) Local 234 as a five-year contract. (SEPTA, November 1-7 and 18)

SPECIAL REPORT FROM ERA MEMBER BOB WRIGHT ON THE ROTEM SILVERLINER V SAGA

SEPTA Regional Rail Problems – Almost Solved

SEPTA's newest electric MU commuter cars, the 120-car Silverliner V (S-V) fleet, entered service in 2010 and allowed the retirement of the Silverliner II/IIIs, dating to the mid-1960s, in 2012. The Silverliner Vs represent nearly ⅓ of the Regional Rail car fleet, serving alongside the 231-car Silverliner IVs dating back to 1974-6 and 45 Bombardier push-pull coaches from two orders in 1987 and 2000. Current schedules (April, 2016) call for a weekday service complement of 291 cars to cover 788 scheduled trains.

On Friday, July 1, a crew noticed that S-V car 812 was leaning oddly to one side on an in-service train. The train was sent to Overbrook Shop after its assignment was completed for an inspection, where a fatigue crack was observed in one of the car's equalizer beams. There are four such beams on each car and these serve to transfer the load of the car body to the trucks. Throughout the day, other S-V trains were instructed to observe a 50 mph speed restriction while in service, and trains were removed from service at the end of their service day for inspection. The inspections turned up cracks in the equalizer beams of 115 of the 120 cars. It was decided to remove all of the S-V cars from service until a solution was found, since failure of the beams particularly at speed could be catastrophic.

A public announcement was made to this effect on Saturday, July 2, catching riders by surprise. Fortunately, the long July 4 holiday weekend gave SEPTA staff opportunity to implement a service plan with the available cars of a much-reduced fleet. Accounting for maintenance (several of the push-pulls were undergoing rehabilitation, ironically at Rotem, the builder of the Vs, as part of the settlement for cost-overrun items and late delivery of the Vs), a program utilizing 233 cars on 577 trains, just over 70% of the normal daily requirement, would be the best that could be done. The public announcement instructed riders to check the SEPTA website on July 4 to see what schedules would be provided for the work week beginning Tuesday, July 5.

The "interim" schedules were basically modified weekend timetables, which offer hourly service on most lines (Paoli-Thorndale has half-hour headways on Saturdays, while Airport is carded half-hourly every day). Trains would be lengthened to 6 cars on most lines (the effective limit of the Silverliner IVs and longer than the platforms at many outlying stations) and additional rush hour service would be provided as needed. The Cynwyd Line, which has a requirement for two single-car "trains" and operates in peak hours with a single round trip midday, was closed and buses were substituted, operating between Cynwyd and 30th Street, one stop shy of the line's usual terminus at Suburban Station.

The first few days of the modified schedules could best be described as chaotic. Regular commuters were in for surprises as they showed up for their "normal" trains, only to learn of the revised schedules. Many trains were overcrowded and had to bypass stations located closer to downtown as there was no room for additional passengers. The limited-stop and express trains that many riders enjoyed over the years were not offered in the new schedule that featured all-stop locals, so most trips were longer and slower. News media reports showed trains with riders in vestibules, between cars, and wherever they could squeeze in. Trains were late as loading and unloading was slow. As the first week wore on, some rush hour deadheads and put-ins were added as car availability and turnaround permitted to provide service to the closer-in stops where possible, and SEPTA urged riders to use transit where it was an option. Parking lots were identified and opened close to several subway stops to provide some relief. At the same time, the existing and popular park-and-ride adjacent to the Broad Street Line's AT&T (nee Pattison) station was closed for preparations and security related to the Democratic National Convention (DNC), which was held at the nearby Wells Fargo Center. Some replacement parking was offered at the Philadelphia Eagles practice facility a few long blocks away, creating more inconvenience to riders. That park-and-ride lot was reopened after the DNC concluded in early August.

SEPTA staff also began to reach out for equipment from nearby commuter railroads and Amtrak to help the situation. By July 22, a total of 28 cars from other properties were on hand to ease the burden somewhat. NJ Transit supplied 8 coaches with an ALP-45, which served a Trenton trip in each peak. Amtrak freed up a Keystone set of 5 coaches and an ACS-64 to provide four Bryn Mawr shorts (two inbound AM peak, 2 outbound PM peak, with the equipment quickly deadheading back for a second peak period trip.). Equipment for each of these laid up in midday at the Suburban Station stub tracks. MARC provided 15 cars, which were divided into two 8-car sets with two leased Amtrak ACS-64s providing power. One MARC cab car served one train and a SEPTA push-pull cab car was cobbled onto the other, with these on the Wilmington/Newark and West Trenton Lines for the most part. The 8-car consists, dubbed "super trains," greatly assisted the reduced service levels.

Schedules were updated on July 11 and 18 as the added trains were inserted and times were fine-tuned based on experiences from the first week of modified runs. New timetables were posted on-line and printed in

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Xerox format. On-time performance suffered greatly, even though there were fewer trains on the lines, dropping to the 45-60% range instead of the normal 85-90%. Overcrowding was one factor, and hot weather, which imposed speed restrictions to account for catenary expansion and sag, was another. Many riders began to find alternatives, either driving or transit.

In the quest for equipment, the eight Comet cars purchased by SEPTA from NJT in 2008, in dead storage at Overbrook Shop for the last couple of years, were moved to Wayne Shop in mid-July for evaluation for reuse. Unfortunately, during their time laid up in Overbrook Yard, they had been heavily "tagged" with graffiti and would need to be thoroughly cleaned before reuse. The cars were not returned to service.

On July 14 SEPTA management held a press conference at Overbrook and laid out the plan of attack to repair the S-Vs. It advised that the four equalizer beams on each car would need to be completely removed and replaced because of the observed cracks, which were found to be failed welds. New beams — 480 of them — would need to be fabricated and installed. No other problems were found in a top-to-bottom inspection of the fleet. The process would begin immediately, with a schedule for the first 10 repaired cars back in service by the end of August and a production plan of 10 cars per week following. The intent was a return to normalcy by mid-October. The cars are still under warranty from Rotem which will cover the cost of these repairs by SEPTA personnel. However, the costs associated with the leasing of the NJ Transit, MARC, and Amtrak consists and locomotives have not yet been agreed upon, not to mention the losses of passenger revenue from reduced ridership during this period.

The combination of revisions in service and reduction in ridership eased the overcrowding situation to some degree, but it was common for peak-hour trains to have all seats filled with a lot of standees in the aisles, which continued to slow operations and result in late trains. Some riders began to "backtrack" to ensure they would get seats, riding to 30th Street or Jefferson to avoid crowds in the PM peak. To address this to some extent, SEPTA instituted a system of mezzanine-level fare collection and inspection on August 1. Riders would need to show passes or surrender tickets to inspectors before going to the platforms at University City, 30th Street, Suburban, Jefferson, and Temple during afternoon hours (originally 3-6:30 PM, since modified to 3-7 PM). Crowded trains often prevented Conductors from getting through cars to collect fares, so this measure would ensure that riders paid (although some quickly learned they could pay the minimum zone fare for the outbound ride as there was no additional ticket checking on the trains). Schedules were further fine-tuned on select lines on August 1, 8, and 15 to reflect time changes and related items. A MARC trainset was placed on a Media-Elwyn run in early August to add some capacity, with an inbound AM/outbound PM operation.

After sitting in Powelton, Overbrook, and Roberts Yards for a while, S-Vs slowly began moving to shops for the repair work. A handful of cars at Overbrook were targeted by graffiti vandals while there, resulting in the need for a clean-up before going in for repairs. The first repaired S-Vs were available in late August for testing and made a number of non-revenue runs on various lines during nighttime hours. The repairs appeared to be successful and the program continued, with some confidence that the return of the S-Vs would happen as planned.

SEPTA's concern was that Labor Day would mark the end of the Summer vacation season and, combined with the start of the Fall semester at local colleges, would add riders to the regional rail system that the modified schedules could not accommodate. Additional MARC cars were made available in late August, increasing the complement to 35 cars total by mid-September, allowing for some slight tweaks in schedules. The 40-year-old S-IVs, which soldiered on dependably all summer, were showing some wear and tear of their own, and many were pressed into service with minor problems (often failed air-conditioning and sticking doors) as long as they could be operated. To address the need for additional capacity, SEPTA announced the initiation of several express bus routes that would provide alternate service. The possibility of bus supplements and complete replacement on shorter lines, such as Fox Chase, had been hinted at by SEPTA throughout the Summer. Limited peak hour, peak direction service would begin on September 6 with a handful of runs from Chestnut Hill West serving Chestnut Hill East and several of that line's stations to/from Fern Rock, a Jenkintown-Elkins Park-Melrose Park route to/from Fern Rock, a Fox Chase express to/from Fern Rock, a handful of Norristown Line runs calling at Ivy Ridge, Manayunk, and Wissahickon express to/from Suburban, and Swarthmore-AT&T (Pattison) on Media-Elwyn. Despite the fare for these trips set at the normal transit rate ($2.25) instead of the higher Regional Rail amount, ridership was low as most stuck to the trains. (This author rode an outbound express to Wissahickon during the first week of operation and found that he was the only passenger on the trip, a slow and circuitous routing that took nearly three times as long as the train.)

The first group of repaired Vs was released for service on September 12, with a set dedicated to Fox Chase-Chestnut Hill West and a short "welcome back" ceremony at Fox Chase. The service was short-lived, as the heads of the steel pins securing the equalizer beams to the truck frames were found to be $^{1}/_{32}$" too wide, resulting in undesirable friction and wear. The cars were returned to the shop for correction, and others already in the process were retrofitted, with cars back in service on September 20. At that point the initial 20 rehabs were back and a schedule of 10-15 per week was set, meaning that the fleet would be back in full in mid-November. Another notable change occurred around

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this time, with the Amtrak *Keystone* set moved to cover two inbound expresses from Newark, Delaware in the AM peak and the Bryn Mawr short-turns formerly using them reverting to MUs (the PM Bryn Mawr shorts kept the Amtrak consist).

With the replacement express buses getting little use, SEPTA was anxious to end the operation. It was confirmed that the car fleet would be sufficiently available to allow a return to "normal" schedules during the last week of September. Accordingly, a public announcement was made on September 28 that the April, 2016 schedules would once again be in effect as of Monday, October 3. A new Media-Elwyn Line schedule was introduced as that line returned to its Elwyn terminal from its temporary endpoint at Swarthmore on September 6 with the reopening of the Crum Creek viaduct. The supplemental bus service would cease as of the last runs on September 30.

SEPTA reported that ridership was down nearly 21% in July compared with 2015, and 10% in August, with the revenue over the two months close to $8 million. The Service Guarantee program was suspended for the duration and remains as such as of mid-November as this report goes to press.

The re-start of "normal" service was marked by several short trains (as cautioned by SEPTA, but this occurrence became less and less frequent throughout October). Sufficient S-Vs were returned to service, allowing the NJ Transit consist to be relinquished on October 14. The Amtrak *Keystone* set remained on the two PM Bryn Mawr runs for another week. The MARC cars and their Amtrak locomotives are still in service, and have been confined to Thorndale expresses. Amtrak has indicated it will need the ACS-64s back to power its Thanksgiving extra train service, and about a dozen MARC cars were seen in Amtrak's Penn Coach Yard in mid-November awaiting return to their owner. As of early November 90 of the 120 S-Vs were back on the property and the return of normal regional rail schedules by the latter part of the month appears to be on track.

As if there were not enough problems, on November 1 TWU Local 234 called for a transit strike against SEPTA as its contract expired (see above). Normally Regional Rail would pick up the brunt of the displaced riders, but difficulties were expected as equipment was scarce to add cars to trains or add runs. SEPTA did manage to creatively field roughly a dozen additional trains using deadheading consists and turning around some trains more quickly and Regional Rail was able to respond to some extent. The transit strike was settled on November 7.

Crew problems continued to plaque the operations all Summer, as a shortage of Engineers led to a number of train cancellations. A new crop of Engineers is entering service, so this shortage is expected to end by New Year's.

Hopefully Thanksgiving marked the end of the Silverliner V sagas and a return to normal operation on SEPTA's Regional Rail system. (Bob Wright, November 16, 2016)

Port Clinton, Pennsylvania

The Reading & Northern Railroad in Pennsylvania is about to receive new diesel locomotives and an expanded and improved fleet of freight cars. The move was prompted by a 15 percent increase in freight business. The railroad is planning to purchase six locomotives from a recent Norfolk Southern auction and expected growth in the railroad's coal business has also resulted in a purchase of over 150 used steel hopper cars. The fleet expansion brings the railroad's rolling stock count up to 1,179 cars. Along with freight business, the railroad's passenger excursion business has also risen about 15 percent compared to 2015 when ridership was up to 100,000 visitors. To prepare for an increase in business, Reading & Northern has also improved track infrastructure in anticipation of more rail traffic in the near future. (trains.com, November 7)

Washington, D.C. area

The Washington Metropolitan Transportation Authority (WMATA) announced that the 82 surviving 4000-series metro cars have been abruptly withdrawn from service following the agency's discovery of a potential issue with the automatic train control (ATC) system when the cars are placed in the lead position of a train. The manufacturer, AnsaldoBreda (now Hitachi Rail) recommended annual testing for these cars to reduce the risk of false speed limit indications, which could mislead the Train Operator into operating the train (while in manual mode) at a higher speed or closer to a train ahead than would be safe. Out on abundance of caution, rather than embarking on a testing program to mitigate the risk, the cars were immediately withdrawn from service until further evaluation could be done. A day afterward, WMATA determined that the cars would not pose an ATC safety issue and the agency would "bury" this small fleet of cars mid-consist until their scheduled retirement in late 2017, or it may consider retiring these cars on an accelerated schedule, ahead of the 1000-series cars, which are also designated as "belly cars" (not permitted to be on the leading or trailing ends of any trains) owing to structural deficiencies that make them less crashworthy than the other cars in the fleet. The 100-car fleet of 4000s have long been considered a class that never met even basic expectations of mechanical reliability since their introduction to service in 1991, such as suffering un-commanded door openings while in motion among other chronic mechanical issues during their career at WMATA**.** When the order for the 7000-series cars was placed with Kawasaki, an option for an additional 100 cars was exercised in 2013 with intent of replacing the balky 4000s despite their relatively young age, rather than proceed with an extensive rebuilding program slated to commence in 2014 that could have resolved the issues. The order of 7000-series cars is currently at 748 units, with the first entering service on June 8, 2015, and are scheduled to replace the 1000-,

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4000-, and 5000-series cars by the end of 2020. (***Progressive Railroading***, November 18; WMATA press release, November 19)

North Carolina

The Rail Division of the North Carolina Department of Transportation has awarded an additional $10 million to improve freight rail and railroad crossing safety within the state in 2017. The funding was added after severe damage was incurred to a great deal of state rail infrastructure after Hurricane Matthew struck in October. $7.3 million will go towards rebuilding a section of rail line between Chadbourn and Whiteville, in addition to other track and railroad crossing improvements. $1.7 million will be used to upgrade rail bridges in various counties. The rest of the funding will go to other aspects of infrastructure improvements. The added funding brings the state's total funding commitment to just under $14 million towards rail improvements in 2017. (trains.com, November 8)

Miami, Florida

Miami-Dade MetroRail was presented on October 246 with the first two of 136 new rapid transit cars in a $300 million contract with Hitachi Rail Italy at a manufacturing facility that was built in nearby Medley, Florida. This rail manufacturing company was the formerly known as the Italian car builder AnsaldoBreda that was taken over by Hitachi in November, 2015. The cars will replace the original car fleet built by Budd/Transit America in 1983 for the system's opening back on May 20, 1984 and are all expected to be in service by mid-2019. (***Railway Age***, October 24)

Chicago, Illinois

In support of the historic run of post-season playoff games the Chicago Cubs baseball team played on its way to winning its first World Series since 1908 (coincidentally the same year in which the Chicago, South Shore & South Bend Railroad was founded), the Northern Indiana Commuter Transportation District (NICTD) operated an extra baseball special train on the South Shore Line departing its Millennium Station in Chicago an hour after the conclusion of each National League Championship game held at Wrigley Field and 90 minutes after the conclusion of each of the three World Series games held at Wrigley. The baseball extra eliminated the need for baseball game attendees to wait for the last regularly scheduled train departing Millennium Station at 12:45 AM, far too late for convenience. The baseball train, named the "*Cubs Extra,"* operated express from Millennium Station to Hegewisch and made regular station stops from there to Carroll Avenue in Michigan City, Indiana. During the entire postseason run of the Cubs, South Shore Line trains displayed 11 x 13-inch white "classification flags" emblazoned with a large blue "W" over the Engineer's cab on the lead and rear car. While not signifying the train as an extra, these flags were displayed to commemorate a Cubs win at Wrigley Field or away from home. The South Shore's Nippon-Sharyo-built electric multiple unit commuter cars were all built with mounting brackets for classification flags which, in today's world of dispatching, have fallen into disuse. (Al Holtz, October 29)

Not to be outdone by NICTD's South Shore Line, the Chicago Transit Authority (CTA) rolled out an eight-car train made up of 1976-8-vintage Boeing-Vertol 2400-series elevated cars restored to their original appearance with wide red, white, and blue striping along the sides below the windows. The vintage train made one round trip from Howard departing around 3:45 PM and operating southward to 95th Street/Dan Ryan Expressway, departing around 4:50 PM for the trip back to Howard prior to each World Series game. The interiors of the cars were adorned with posters celebrating the historic Cubs season. Additional service was operated over the CTA Red and Yellow Lines to handle the World Series crowds.

Seattle, Washington

Sound Transit has conducted three public meetings to discuss the latest design for three Lynnwood Link light rail stations that will be part of an extension project bringing new service to neighborhoods north of Seattle. Open houses were conducted in Lynnwood, Shoreline, and Mountlake Terrace to give chances for the public to provide feedback on the design of the new stations. The Lynnwood Link light rail extension will extend the line by eight and a half miles north to Lynnwood and Northgate and is expected to open by 2023 and carry up to 75,000 passengers daily by 2035. (trains.com, November 10)

Modesto, California

In Modesto, trains are getting a major speed boost. Thanks to improvements on a four-mile stretch of track owned by Union Pacific, trains passing through the area are now able to increase their speed from 40 to 60 miles per hour between Plaza Parkway and River Road. The speed limit increase took effect on November 15 and the railroad has invested over $11 million on infrastructure improvements within the past decade to make the change possible. Union Pacific plans to invest an additional $120 million towards improving more tracks throughout California in the remainder of 2016. (trains.com, November 10)

San Francisco, California

Caltrain is working to reduce overcrowding on trains by adding more passenger cars to rush-hour trains. The commuter rail agency is planning to add an extra car to three trains that currently operate as five-car trains, but will soon each have a sixth car to expand capacity by up to 200 passengers. All three trains with the additional cars will be southbound trains from San Francisco. (trains.com, November 10)

San Diego, California

The San Diego Metropolitan Transit System (MTS) awarded a contract for 45 new S-70 class light rail vehicles (LRVs) to Siemens, boosting the number of Siemens LRVs on MTS to 244. The new LRVs will provide a fleet expansion needed to operate the new 11-mile extension of the Blue Line to UC San Diego currently under construction. The new cars are expected to arrive in late 2018. (***Railway Age***, November 1)

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From Recognition to Dominance

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St., Bronx

- New (low) platforms were installed at the Port Morris station
- A new four-track overpass was installed at E. 135th Street, Bronx
- A new four-track overpass was installed at E. 134th Street, Bronx
- A new four-track overpass was installed at E. 133rd Street, Bronx
- A new four-track overpass was installed at E. 132nd Street, Bronx
- A new four-track underpass (exaggerated span) was installed at Cypress Avenue, Bronx

According to a subsequent article published in the ***Engineering Record***, all aspects of this reconstruction project were in use by February, 1908. At that time there were about two dozen New Haven Local round-trips running on weekdays along Tracks 3 and 4 (expresses would begin later); up to four "through" passenger trains ran between Washington and Boston on Tracks 1 and 2 in cooperation with the Pennsylvania Railroad and numerous road freights on Tracks 5 and 6 which came off the New Haven system to reach the car floats at Oak Point (which also opened in 1908) and Harlem River Terminal.

Commuter and Transit Notes

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Toronto, Ontario, Canada

VIA Rail's Toronto facility will receive a major upgrade thanks to federal funding that has been allocated towards improving infrastructure. Canada has set aside $34.4 million to improve numerous mechanical and electrical systems, water treatment systems, and track infrastructure, in addition to other things. James Maloney of the Parliament for Etobicoke-Lakeshore said that the government's investment in VIA's Toronto facility will "ensure the seamless and safe movement of passengers beyond Toronto's borders by improving the transportation network as one of Canada's busiest transportation hubs." The money for the project was made possible because of an initiative on federal infrastructure presented in the 2016 budget. (trains.com, November 10)

Metrolinx has filed a notice to cancel a contract worth over $700 million for Bombardier to supply light-rail vehicles for new LRT lines currently under construction. "There have been some concerns about Bombardier's performance as there have been significant quality and manufacturing issues that, to-date, have not been resolved," Metrolinx spokesperson Anne Marie Aikins told CBC News. According to Metrolinx, the transit agency has experienced issues with other Bombardier train orders in the past and decided that the best option moving forward would be to file a notice of intent to cancel the order. Bombardier spokesperson Marc-Andre Lefebvre told CBC News the notice of intent is a "normal" part of the contractual process, but declined to elaborate on the cause of the delay. The cancelling of the light-rail order is not definitive as of yet, and issues on the prototype light-rail vehicle still have the potential to be resolved. The cars would not be needed for service until 2021. (cbc.ca, November 3)

Vancouver, British Columbia, Canada

A 6.83-mile-long extension to the Evergreen Line was set to open to riders on December 2 and it will be connected to the existing SkyTrain system. The extension project was funded in part by Canada, British Colombia, and Translink. The project has cost C$1.43 billion to complete and is expected to benefit at least 70,000 daily riders by 2021. "We are thrilled that our customers and neighbors across the Tri-Cities will soon have more transit choices to seamlessly connect to the Metro Vancouver transit network," said Kevin Desmond, CEO of TransLink. "We are focused on ensuring a smooth transition for customers and continue to get ready behind the scenes; testing the extension, planning the Community Celebration, and preparing for bus integration after Evergreen opens." (rtands.com, November 9)

London, England

Seven people were killed and over 50 injured in a fatal trolley accident in London on the morning of Wednesday, November 9. It was reported that the trolley derailed and overturned in the south London borough of Croydon at approximately 6:15 AM local time. The Operator was taken into custody on suspicion of manslaughter, according to local police. The last time a fatal trolley accident occurred in the United Kingdom was back in 1959, when three people died after a trolley caught fire when it crashed into a truck in Glasgow, Scotland, according to Britain's Press Association. (usatoday.com, November 9)

Budapest, Hungary

A contract has been planned by a Chinese developer to create a 300-mile high-speed rail line between Budapest and Belgrade. Plans for the new passenger rail service were recently unveiled at a finance summit between China and Central and Eastern European countries. Currently, traveling on the existing rail line takes eight hours, but it is hoped that a new high speed line would cut travel time down to two-and-a-half hours. The new initiative supports improved connectivity between Asia and Europe as explained by CCTV America. Further details on the project have yet to be disclosed. (cctv-america.com, November 6)

Karachi, Pakistan

A fatal crash involving two trains carrying hundreds of passengers has killed at least 20 people and injured more than 60 in the Pakistani city of Karachi. Witnesses described that a train stopped at the Quaidabad station was struck by another train that ran into it on the morning of November 3. Officials have estimated that up to

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SWITZERLAND IN THE LATE SUMMER
by Jack May
(Photographs by the author)
(Continued from November, 2016 issue)

The morning dawned cloudy again, and we arose at 6:45. By the time we had breakfast at 7:15, walked to the railroad station (we had found out about a back entrance), and boarded our meter-gauge Matterhorn Gotthard Bahn (MGB) train at 8:23, the sun had broken through. It turned out that the adjacent first class car of our meter-gauge train was getting filled with mayors of all the places we stopped at--for some kind of a meeting or convention; they detrained at Obergesteln, one station before our destination. Our companion in the typical knee-to-knee seating on Swiss regional locals turned out to be a railfan whose English was reasonably good. He was carrying a video camera for a day of photography and provided us with a little history of the lines of the former Furka Oberalp railway, which we were riding today — this one and its old route over Furka Pass that is now a mostly steam-operated heritage line. We arrived at Oberwald at 9:37, right on time. There were signs indicating where to board the Furka Steam Railway (DFB or Dampfbahn Furka-Bergstrecke in German), but first we had to pay for our reserved tickets, which were waiting at the MGB station.

We had attempted to purchase tickets on the mostly volunteer DFB Lines website. Our plan had been to ride west from Realp to Oberwald on this date, but that train had already been sold out when we inquired a few months earlier, so we were fortunate that the morning train in the other direction (eastbound) was available. But every time I got to the Pay screen, my computer would hang up. I eventually emailed DFB and a representative kindly indicated that our tickets would be waiting for us at Oberwald and we could pay when we picked them up.

That accomplished, we got to the platform just as a shuttle train from Gletsch arrived, with steam engine No. 4 pulling two coaches and a diesel locomotive at the rear. Four bright red coaches were already at the platform and after some switching, including the reversing of the steam locomotive on the turntable (all duly photographed), No. 4 was positioned in front of our four -car train, while the diesel and the other two coaches were on the adjacent siding, all facing in the right direction for scheduled service later in the day. Meanwhile most of the passengers for our train were arriving by automobile. Inspection of the coaches indicated that computer-printed sheets were pasted on the backs of the wooden benches displaying the names of the parties that would occupy them in large bold lettering. Our seats were facing backward, but we were very fortunate that the J.A. Timmers, who had reserved the seats opposite ours, were no-shows. Thus we ended up sitting forward and had lots of leg room. Our 10:20 departure was delayed, though, as a *Glacier Express* connection that left Brig at 9:18 was tardy and did not arrive until 10:29 (11), so we did not leave until 10:33. I was very happy we had not used that as our connecting train, as I would have missed all of the switching maneuvers and the watering of the locomotive.

Operations over this mostly rack-and-pinion line was discontinued when the Furka-Oberalp (now merged into the Matterhorn Gotthard Bahn) completed the construction of a base tunnel from Oberwald to Realp in 1982, making the steep old route through Gletch and the Furka Pass surplus. The original rack-operated line had its own, albeit shorter, tunnel, and reached Gletsch in 1914 and Furka in 1925. The 11-mile-long route was electrified in 1941. But because of the difficult terrain, with large amounts of snow and ice at its altitude (high point over 7,000 feet), the line was impassible during the winter months and could not be operated. Each year one of the railroads bridges had to be folded up, removed, and transported away to avoid destruction from avalanches, and then reinstalled, along with its overhead wire, the following spring. Now, the 8.5-mile-long base tunnel allows service to operate all year round.

Almost immediately a group of railfans formed the Verein Furka-Bergstrecke to restore the old railway and operate historically accurate vintage steam trains over it during the summer. Part of the line was brought back into service as early as 1992, with the entire DFB route inaugurated to great fanfare in 2010. To operate the line the organization obtained two cog-wheel locomotives from Vietnam (Nos. 1 and 9), which had originally been part of a group built by SLM in Winterthur, Switzerland between 1923 and 1930. Another Swiss-built locomotive, No. 6, is on the roster, and a fourth steamer, No. 4, which formerly operated over the route, is on loan from MGB.

Our train immediately began climbing into beautiful scenery. There were a few photographers on the first hill, but we were soon in extremely rugged areas that probably take great effort to access. I suspect the line has been chased with fantastic results, but it is something that would have to be planned carefully, and most likely would involve more than a single day if all the most interesting spots were to be covered. I could not see any sign that the line was ever operated with electrified overhead wire — the restoration is so good. Meanwhile, the picture windows and especially the open platforms made it possible to get some good photos from the train. Of course the windows were closed prior to every tunnel and none of the riders made the mistake of staying on the platform at those times. DFB treats its passengers like adults. No “stay in your seats” and ”you cannot stand on the platforms because safety

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Switzerland in the Late Summer

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is our number one concern." It was very refreshing after some of my experiences on U.S. museum lines.

We soon arrived at Gletsch, which translates to glacier. The town is dominated by the Hotel Glacier du Rhone, a large resort. But Gletsch is not what it used to be, as the glacier, once the largest in Europe, is rapidly shrinking. In 1985 Clare and the kids stayed in the town, and were able to walk to the ice field. Photos from the beginning of the twentieth century show the blue ice almost enveloping the town. Now you need binoculars to really get a good look at the Rhone Glacier — it has retreated so much that it can hardly be seen by the naked eye.

An electric locomotive in push mode at the rear of an MGB train westbound from Andermatt to Zermatt. Most of those detraining at Oberwald were passengers for the Furka steam line.

DFB 2-6-0 locomotive No. 4 pulling into Oberwald with the first westbound train of the day, a shuttle from Gletsch, carrying few passengers, but more importantly, the rolling stock for a midday diesel-powered short turn return run. The western portal of the Furka Base Tunnel is at left, including an unelectrified track that connects the MGB mainline to DFB, the route we would traverse shortly afterward — the original Furka-Oberalp Line.

The next three photos illustrate the switching that took place to turn the steam engine and place it on the point of our train to Realp, while the diesel at the rear of the shuttle would end up in the exact same position after all its work.

No. 4, having pulled the shuttle equipment westward, is at rest alongside the platform at left. The diesel locomotive that was on its rear has already been detached and is shown in the right background at the throat leading to the station. It was moving toward the camera to be placed on the eastern end of our train (at the right platform). It then pulled our consist out onto the mainline beyond the switch to the turntable, allowing the steam locomotive to first pull ahead toward the camera and then back up over the crossover.

After the diesel pulled our consist beyond the portal on the mainline, No. 4, now with an open path, backs eastward toward the turntable, while . . .

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Switzerland in the Late Summer

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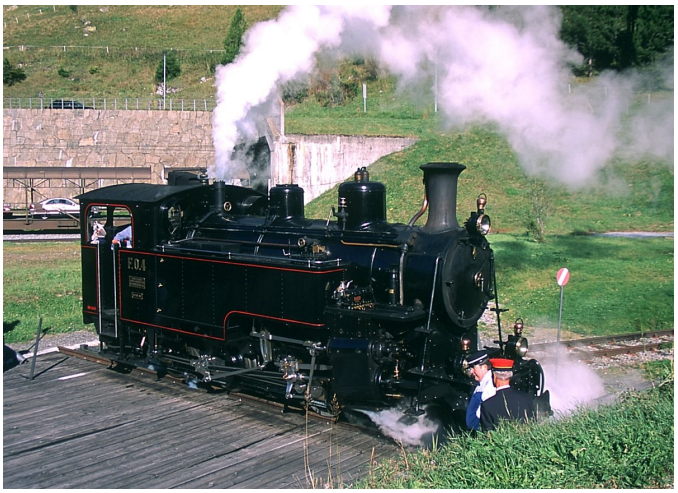
. . . a few minutes later, the diesel heads in the same direction back to the throat after having been detached from our train's equipment. The diesel first pulled our consist from the platform out onto the mainline beyond the switch to the turntable, providing the 2-6-0 with a route to leave the platform area and be turned. It then brought the passenger cars of our train back to the platform. It will now cross back over to the other track in order to be ready to pull a later departure.

After being turned No. 4 was attached to our train and now takes on water.

(Above and below) No. 4 being turned. The mainline track is at right in the photo above.



The train stands, awaiting departure.

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Switzerland in the Late Summer

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The whistle has been blown signifying "all aboard" and after many photographs of loved ones posing alongside the locomotive, a few holdouts take one last picture before boarding.

Two displays of scenic splendor on the western end of the Furka steam line. The railway climbs from 4,481 feet at Oberwald to 5,781 at Gletch along this 3-mile stretch, aided by many bridges and tunnels, a sample being shown above. A morning cloud dissipates above a stream in the view on the right.

The Hotel Glacier du Rhone in Gletsch. The "Belle Epoch" resort dates back to 1830. The green hills behind the hotel was once an icy bluish white color during all seasons of the year, having been covered by the Rhone Glacier in the years surrounding the turn of the 20th century.

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Around New York's Transit System

Equipment Moves for Reintroduction of W Service

In connection with the restoration of W train service on November 7, 2016 (see November ***Bulletin***), the following transfers were made over the weekend of November 5-6:

- R-46 5822-45 (24 cars) from Pitkin to Jamaica
- R-160 9183-9222 (40 cars) from Jamaica to Coney Island

See page 8 of this issue for car requirements.

Truck Damages Station's Mezzanine

An October 27 advisory states that a truck hit and damaged the Pennsylvania Avenue 3 4 station mezzanine in the morning. The overall steel structure and the tracks are structurally safe, but 3 and 4 trains will bypass the closed station for about four weeks while repairs are made. Free shuttle buses are operating between the Pennsylvania Avenue and Van Siclen Avenue 3 4 stations at all hours.

Second Avenue Subway Progress Report

MTA still expects to open the Second Avenue Subway on December 31 despite the slow progress testing elevators, escalators, and fire alarms. Crews were scheduled to install the final three of the 13 escalators at the 86th Street station by October 10, but were unable to complete the work on time. Work at the 72nd Street station is also behind schedule.

Service Changes for Myrtle Avenue Viaduct Repairs

Starting in the summer of 2017, NYC Transit expects to demolish and rebuild the viaduct's connecting curves linking the M Myrtle Avenue "L" with the J/Z Broadway "L" and the New York & Atlantic Railway bridge east of Fresh Pond Road. Starting July, 2017, M trains will be rerouted until work is completed. On weekdays, they will operate from Forest Hills /71st Avenue E F M R to Broadway Junction A C J L Z. During the afternoon peak, several short-turns will operate between Forest Hills/71st Avenue and Second Avenue F.

Alternate bus service will be provided to the closed Myrtle Avenue M stations. J and Z trains will stop at all stations between Broadway Junction and Marcy Avenue. Riding on L is expected to increase when M is closed for reconstruction. NYC Transit expects to add 11 round trips on weekdays, 12 round trips during Saturday mornings and afternoons, and 27 round trips on Sunday from morning to evening.

The 14th Street Tunnel, which was flooded during Superstorm Sandy in 2012, will be closed for repairs in 2019. When the tunnel is closed, it is expected that J M Z riding will increase.

New York City revealed potential routings for the proposed $2.5 billion, 16-mile, 30-station streetcar line currently referred to as "BQX." In Astoria, a "transit desert" could be served with the BQX routed along 27th Avenue, then south along 21st Street. Vernon Boulevard, Crescent Street, and 31st Street were identified as alternatives with a listing of the shortcomings of each. In Williamsburg, the BQX could run along Bedford Avenue offering connection with the NYCT L. Kent Avenue, Wythe Avenue, and Berry Street could be alternative routings with lower traffic volumes competing for street space but not offer the L connection. In Downtown Brooklyn, the streetcar route would serve the site of the former Brooklyn Navy Yard and pass through Cobble Hill and Red Hook where a Columbia Street alignment could offer a connection to the NYCT elevated station at Smith-9th Street. The BQX would cross the Gowanus Canal on a new transit bridge at 10th Street or 19th Street, the latter possibly serving as a rout for bicycles and pedestrians. Finally, the BQX could run down Second, Third, or Fourth Avenues in the Sunset Park section of Brooklyn, each of which has its strong points as well as disadvantages as a route to carry the line to its planned terminus at the Brooklyn Army Terminal.

Brooklyn PCC Cars' 80th Anniversary

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had to be blown on them at all times when the car was running, to prevent them from reaching excessively high temperatures. A blower, which was interlocked with the motor circuit, cooled these resistors. The waste heat from the resistors was circulated through the thermostatically-controlled baffles outside the car during warm weather or through louvers under the seats in the winter. If the car was still cold, thermostatically-controlled heaters took their power from the trolley wire.

PCCs' circuits were complicated, but the old cars' circuits were quite simple. Resistors hung under the car were cooled by the breeze when the car was in motion. Heaters were adjusted by the Motorman in accordance with the Dispatcher's orders.

Commuter and Transit Notes

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1,000 people were aboard the two trains when the accident occurred. It is believed that a major contributing factor to the accident is a lack of investment in railway safety. Thousands of miles of track in Pakistan remain from the past when it was constructed during Britain's control of the area and train accidents unfortunately are very frequent. (yahoonewsdigest-intl.tumbler.com, November 3)