

## Subway Action Plan - 2017 & 2018 Expense vs. \$836 Budget

All \$ in (000's)

*These results are subject to audit.*

Operating	Expense			Budget	Full Program Budget	Remainder to Spend in 2018
	2017	2018 Dec YTD	2017-2018 Dec YTD	2018		
<b>Track / Infrastructure</b>	\$ 32,051	\$ 181,791	\$ 213,842	\$ 159,146	\$ 191,197	\$ (22,644)
Water management initiative:						
Seal Leaks	\$ 1,710	\$ 8,173	\$ 9,884	\$ 9,020	\$ 10,730	\$ 847
Drains (Internal & Contractor)	\$ 17,228	\$ 71,789	\$ 89,016	\$ 52,152	\$ 69,380	\$ (19,636)
Vents	\$ 3,049	\$ 4,661	\$ 7,711	\$ 13,439	\$ 16,488	\$ 8,778
Clean track between stations	\$ 1,354	\$ 14,649	\$ 16,003	\$ 9,765	\$ 11,119	\$ (4,884)
Accelerate repair of track issues	\$ 7,499	\$ 54,360	\$ 61,860	\$ 39,068	\$ 46,567	\$ (15,292)
Install friction pads to increase resiliency	\$ 348	\$ 34	\$ 382	\$ 3,195	\$ 3,543	\$ 3,161
Triple number of Combined Action Teams	\$ -	\$ 12,323	\$ 12,323	\$ 13,182	\$ 13,182	\$ 860
Increase work train availability	\$ 173	\$ 6,425	\$ 6,598	\$ 5,678	\$ 5,851	\$ (747)
Track Access / Training / Support / Equipment	\$ 690	\$ 9,376	\$ 10,066	\$ 13,647	\$ 14,337	\$ 4,271
<b>Signals</b>	\$ 4,451	\$ 37,603	\$ 42,054	\$ 58,837	\$ 63,288	\$ 21,234
Signal Maintenance and Repair	\$ 1,835	\$ 28,861	\$ 30,696	\$ 49,676	\$ 51,511	\$ 20,815
Signal Mtr Rate Increase	\$ -	\$ 5,956	\$ 5,956	\$ 5,861	\$ 5,861	\$ (95)
Training & Support (Incl. Helpers)	\$ 2,617	\$ 2,786	\$ 5,402	\$ 3,300	\$ 5,917	\$ 514
<b>Power</b>	\$ 4,181	\$ 10,246	\$ 14,426	\$ 18,651	\$ 22,832	\$ 8,405
Improve power and signal power reliability (internal)	\$ 4,181	\$ 10,246	\$ 14,426	\$ 13,801	\$ 17,982	\$ 3,555
Track Access / Training / Support / Equipment	\$ -	\$ 0	\$ 0	\$ 4,850	\$ 4,850	\$ 4,850
<b>Car Equipment</b>	\$ 40,129	\$ 117,848	\$ 157,977	\$ 111,256	\$ 151,385	\$ (6,593)
Overhaul cars and install customer amenities	\$ 23,794	\$ 98,085	\$ 121,879	\$ 81,130	\$ 104,924	\$ (16,955)
Pilot seat removal from cars	\$ 399	\$ 1,072	\$ 1,471	\$ 652	\$ 1,051	\$ (420)
Increase train repair capacity	\$ 15,860	\$ 8,470	\$ 24,330	\$ 18,374	\$ 34,234	\$ 9,904
Expand number of emergency car response teams	\$ 76	\$ 4,190	\$ 4,266	\$ 3,599	\$ 3,675	\$ (591)
Lengthen C train	\$ -	\$ -	\$ -	\$ 883	\$ 883	\$ 883
Track Access / Training / Support / Equipment	\$ -	\$ 6,032	\$ 6,032	\$ 6,618	\$ 6,618	\$ 587
<b>Stations</b>	\$ 10,265	\$ 49,621	\$ 59,887	\$ 47,462	\$ 57,728	\$ (2,159)
Improving Station Environment	\$ 9,938	\$ 41,479	\$ 51,417	\$ 31,489	\$ 41,427	\$ (9,990)
Expand dedicated EMT station deployment	\$ 327	\$ 3,263	\$ 3,590	\$ 2,200	\$ 2,527	\$ (1,063)
Improve elevator and escalator maintenance	\$ -	\$ 2,084	\$ 2,084	\$ 11,647	\$ 11,648	\$ 9,564
E&E Mtr Rate Increase	\$ -	\$ 2,795	\$ 2,795	\$ 2,126	\$ 2,126	\$ (669)
<b>Communications</b>	\$ 6,387	\$ 11,199	\$ 17,586	\$ 14,723	\$ 21,110	\$ 3,524
Improve in-station customer service	\$ 1,769	\$ 501	\$ 2,270	\$ 1,092	\$ 2,861	\$ 591
Provide clearer more timely information	\$ 1,890	\$ 4,416	\$ 6,305	\$ 6,818	\$ 8,708	\$ 2,402
Support Vehicle Purchase/Lease	\$ -	\$ -	\$ -	\$ 1,000	\$ 1,000	\$ 1,000
Training / Support	\$ 2,728	\$ 6,282	\$ 9,010	\$ 5,813	\$ 8,541	\$ (469)

<b>Operating Total</b>	\$ 97,464	\$ 408,308	\$ 505,772	\$ 410,075	\$ 507,539	\$ 1,767
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Capital	Expense			Budget	Full Program Budget	Remainder to Spend in 2018
	2017	2018 Dec YTD	2017-2018 Dec YTD	2018		
Track - Install Continuous Welded Rail	\$ 6,534	\$ 25,106	\$ 31,640	\$ 26,421	\$ 32,955	\$ 1,315
Signals - Modernize Signals*	\$ 1,470	\$ (1,470)	\$ -	\$ 206,531	\$ 208,001	\$ 208,001
Power - ConEdison Power Improvements	\$ 30,634	\$ 113,742	\$ 144,376	\$ 48,416	\$ 79,050	\$ (65,326)
Other - Equipment Purchases	\$ -	\$ 8,519	\$ 8,519	\$ 8,465	\$ 8,465	\$ (54)

<b>Capital Total</b>	\$ 38,638	\$ 145,897	\$ 184,535	\$ 289,833	\$ 328,471	\$ 143,936
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<b>Grand Total</b>	\$ 136,102	\$ 554,205	\$ 690,307	\$ 699,908	\$ 836,010	\$ 145,704
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\*The Signals category includes a Signals Modernization capital project budgeted at \$208M that will be implemented in 2019 due to the extended time required to finalize the project specifications and award the project.

## Subway Action Plan Accomplishments July 2017 - December 2018

- Aggressive focus on critical subway system components, performing overdue corrective repairs in an accelerated timeframe, and instituting an ongoing maintenance cycle.
- Implemented operational improvements by better coordinating work and resources, maximizing efficiency and increasing productivity while maintaining safety.
- Gathered data and built foundation for better maintenance planning, such as developing a database of drainage maps for the full system for the first time ever.

<b>TRACK: Cleaned track and improved ride quality</b>
Cleaned over 450 miles of track between stations
Repaired over 19,000 high priority defects
Installed over 136,000 friction pads to prevent fractured rails
Added 16 specialized, multidisciplinary teams (for a total of 24) to improve incident response and recovery times
Installed over 39 miles of seamless Continuous Welded Rail, minimizing the number of rail joints and providing strong tracks requiring less maintenance, and a smoother ride for customers

<b>INFRASTRUCTURE: Remediated conditions that damage track, signals and power sources</b>
Cleaned over 40,000 street grates systemwide
Sealed over 3,900 leaks
Cleared 450 track miles, freeing them of debris blocking drain boxes and pipes

<b>POWER: Ensured supporting infrastructure reliability</b>
Installed 384 voltage correctors to mitigate the impact of electric voltage variations that could cause signal failures
Inspected and repaired more than 600 Energy Distribution and Signal Relay Rooms

<b>CARS: Reduced downtime and upgraded critical components</b>
Accelerated the major car overhaul cycle from 7 years to 6 years - nearly 2,300 cars completed in 2017-2018
Inspected over 6,400 doors to help reduce preventable door failures
Refurbished 38 work trains, increasing the availability of flat cars for essential maintenance and capital work
Completed replacing unreliable equipment in our fleet - including nearly 1,000 limit switches, and installing improved shielding on 700 master controllers
Added 20 Emergency Car Response teams for in-service car incidents

<b>SIGNALS: Improved signal reliability</b>
Repaired over 1,700 signal components and rebuilt over 200 signal stops
Inspected over 750 air switches, and instituted a 30-day inspection cycle
123 new signal positions added, including 91 for maintenance and repair

<b>STATIONS: Improved overall Station environment</b>
Enhanced cleaning and maintenance of our busiest stations
Increased the number of daily elevator inspections
Expanded dedicated EMT deployment by added 7 teams for a total of 12

<b>COMMUNICATIONS</b>
Added Dedicated Announcers to better inform customers regarding current service status