

2015-2034 Twenty Year Capital Needs Assessment

September 16, 2013
Briefing to CPOC



Wide Range of MTA Assets



5,700 buses



74 shops/yards/depots



9 road bridges & tunnels



2,393 commuter fleet



713 stations



2,078 miles of track



6,465 subway cars

- 350 power substations
- 1,322 miles of 3rd rail
- 291 pump rooms, etc...

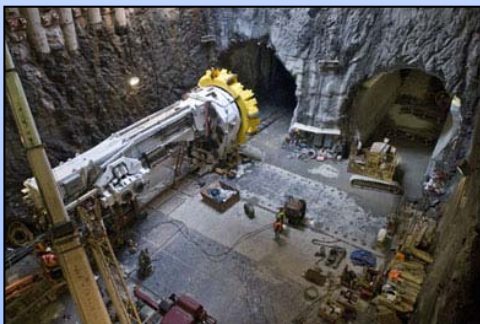
Assets Require Cyclical Investments

Acquire



or

Build



Operate



and

Maintain



Renew



or

Replace

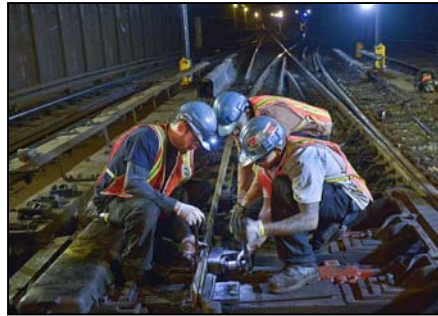


Evolution of MTA Capital Investment

Stabilize



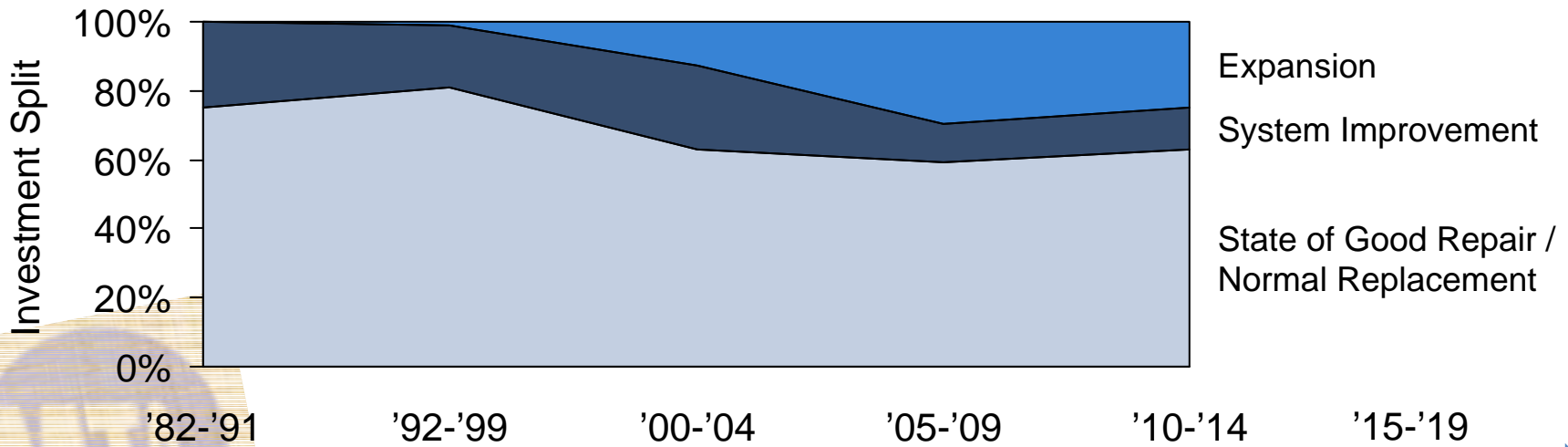
Renew



Improve



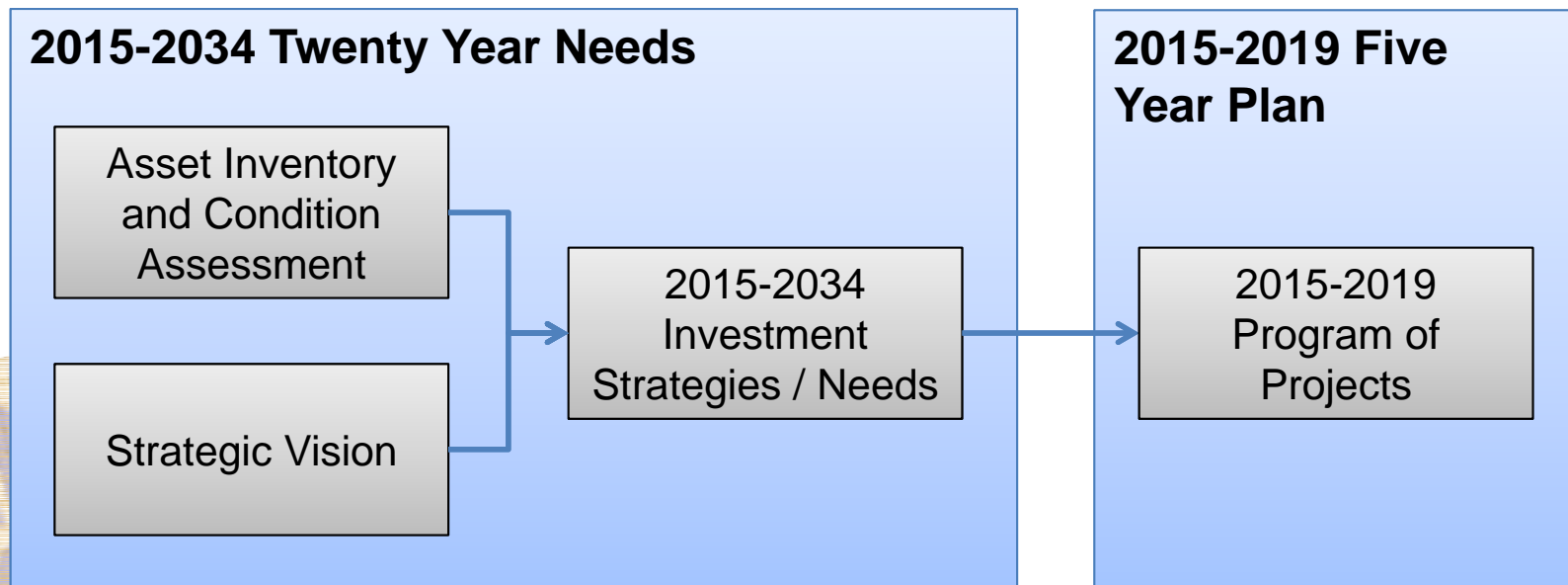
Expand



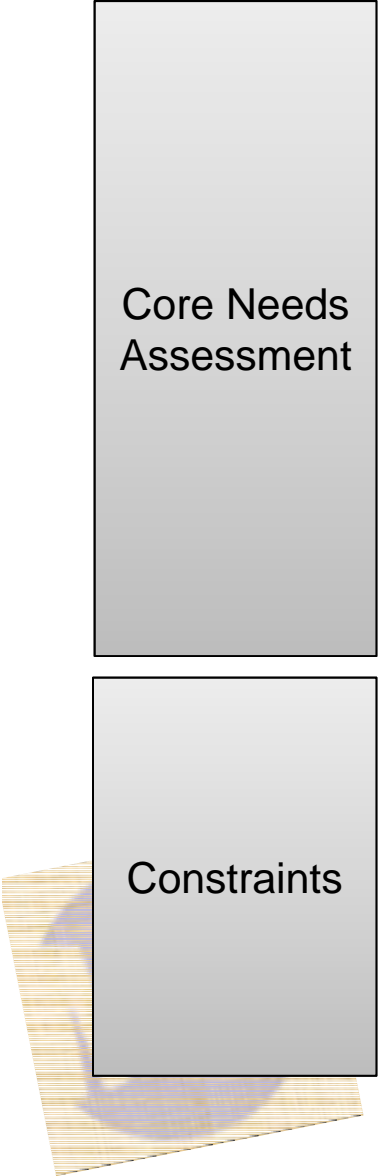
Asset Management

Twenty Year Needs (TYN) Overview

- Long-standing MTA capital planning exercise originated in '80s
- Provides strategic roadmap for capital investments in 2015-2034 period; precursor to 2015-2019 Capital Plan
- Provides consistent, MTA-wide framework for prioritizing needs
- Underpins ongoing efforts to achieve and sustain State of Good Repair



Current Twenty Year Needs Process



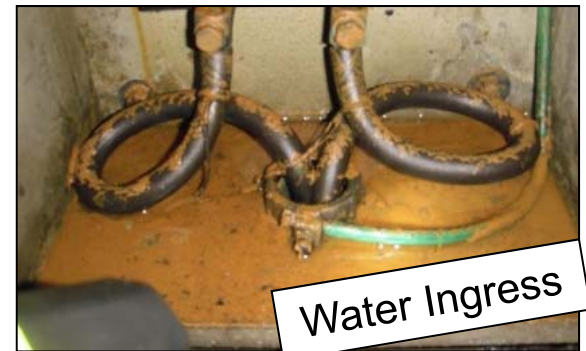
Core Needs Assessment

Constraints

- Agencies undertake assessment of each asset based on location, age, condition, performance, safety, and reliability
- Identifies:
 - Significant investments needed to bring assets to SGR
 - Normal replacement investments needed to maintain reliability of assets already in SGR
- Results inform prioritized investment needs, subject to a series of constraints
- Operational capacity to schedule work and maintain service
- Ability of consulting and contracting market to absorb work
- Availability of MTA resources to support project delivery
- Funding limitations

Impact of Sandy on Capital Planning

- Superstorm Sandy resulted in damage to select priority portions of system already in SGR (e.g., under river tunnels)
- Recovery and initial resiliency needs are being addressed in 2010-2014 Plan
 - Recovery investments are predominantly special out-of phase replacements to restore pre-Sandy SGR
 - Resiliency investments will harden MTA system against future disruptions
- Future projects will incorporate new resiliency standards to minimize impacts of climate events



Key 2015-2034 Investment Categories

Major Investment Categories

- Signals & Comms (19%)
- Bus & Rail Rolling Stock (18%)
- Track & Structures (15%)
- Stations (12%)

Emerging Priorities

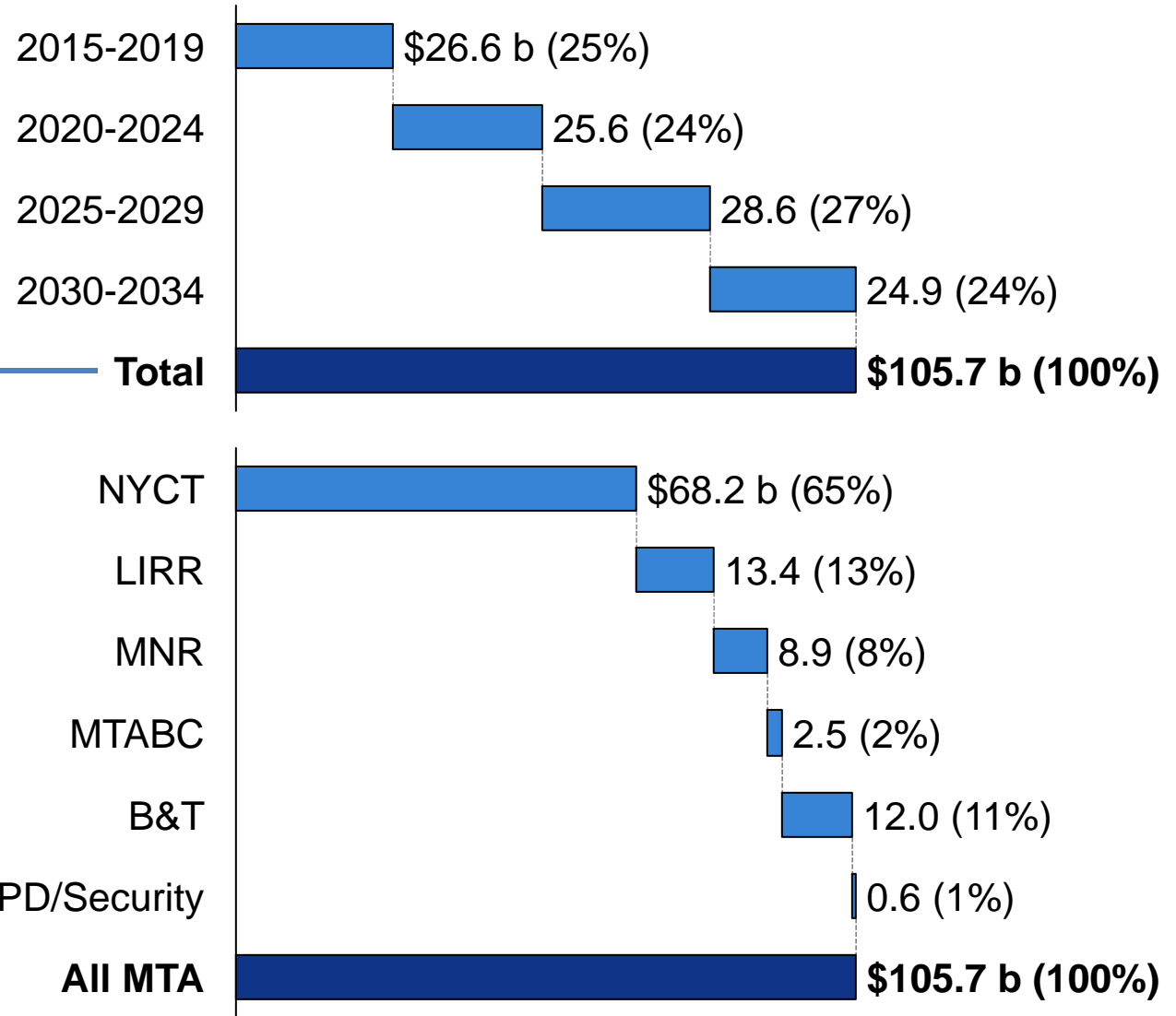
- Customer Information
- New Fare Payment
- Resiliency



2015-2034 Core Needs (2012 \$)

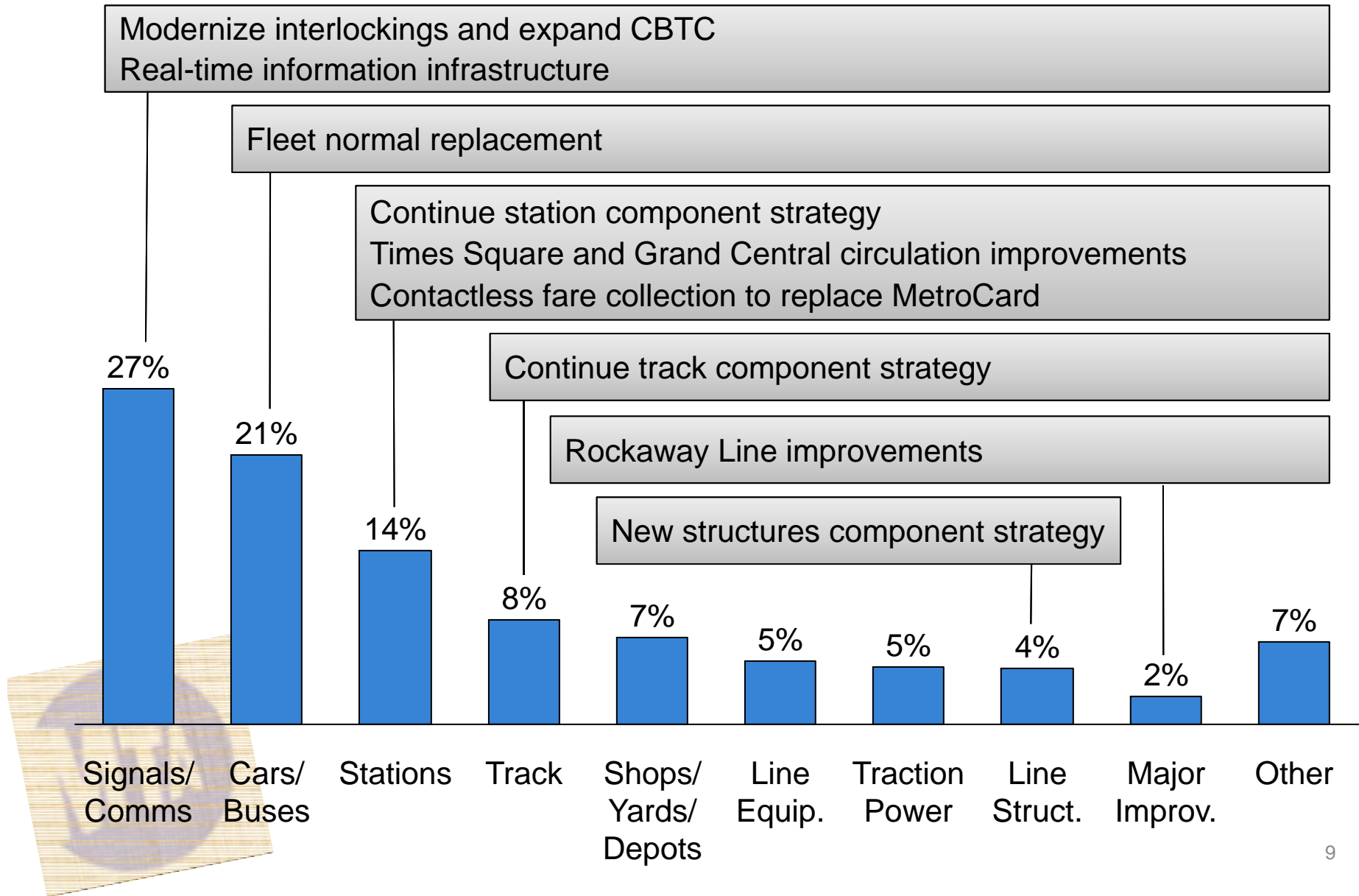
MTA-Wide Needs per 5-Year Period

Total Needs by Agency

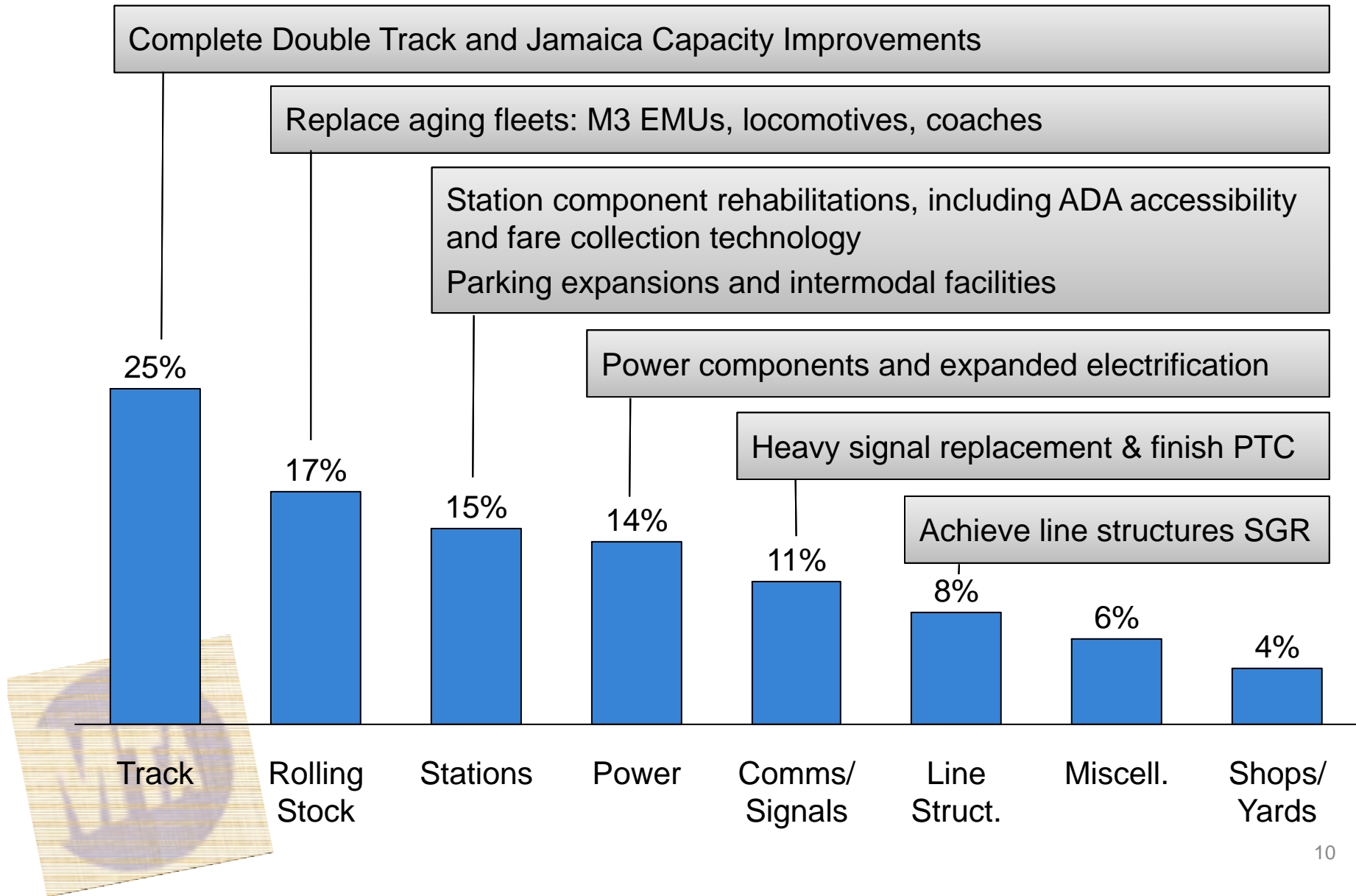


Note: Numbers may not total due to rounding

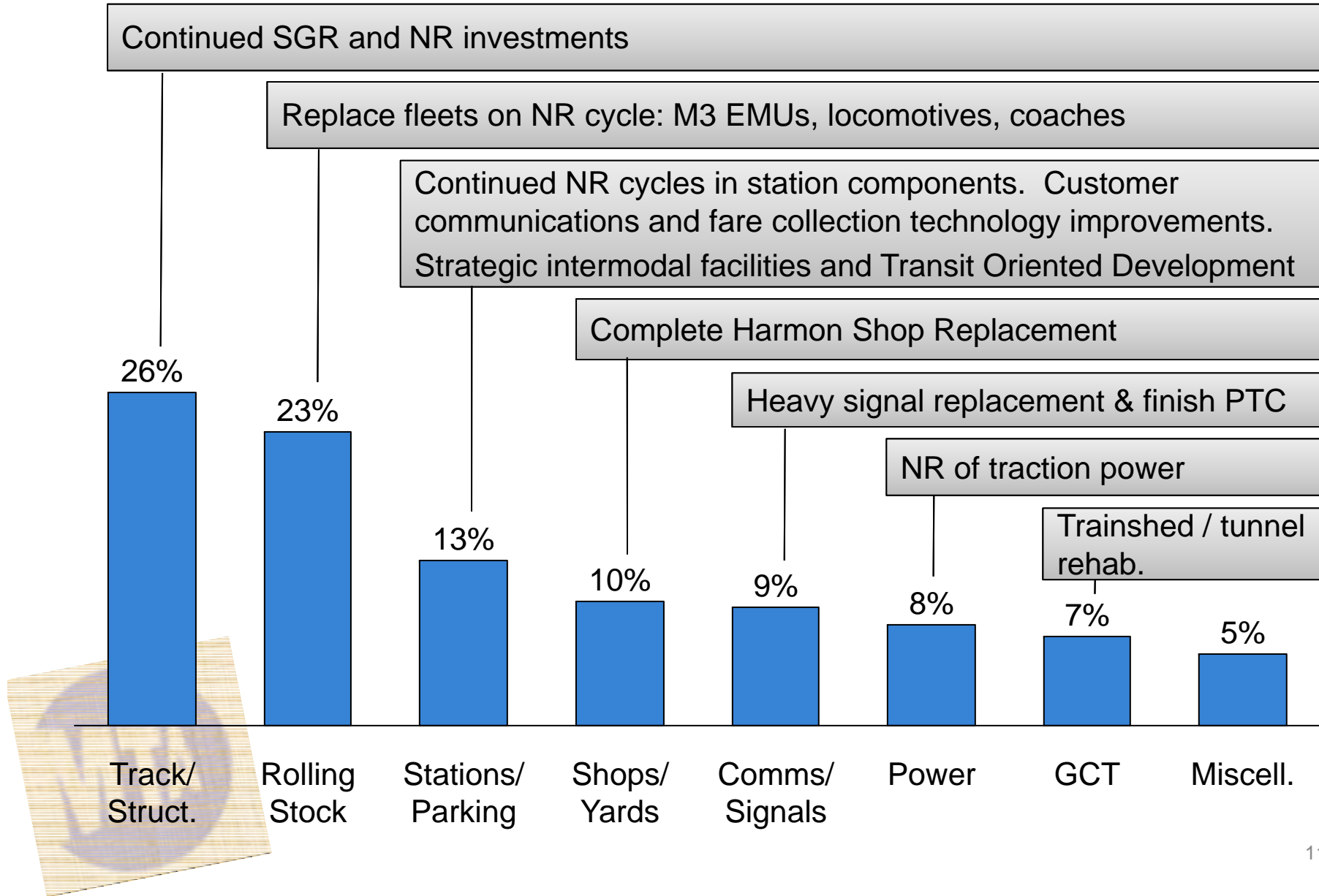
2015-2034 NYCT Core: \$68.2 b (2012 \$)



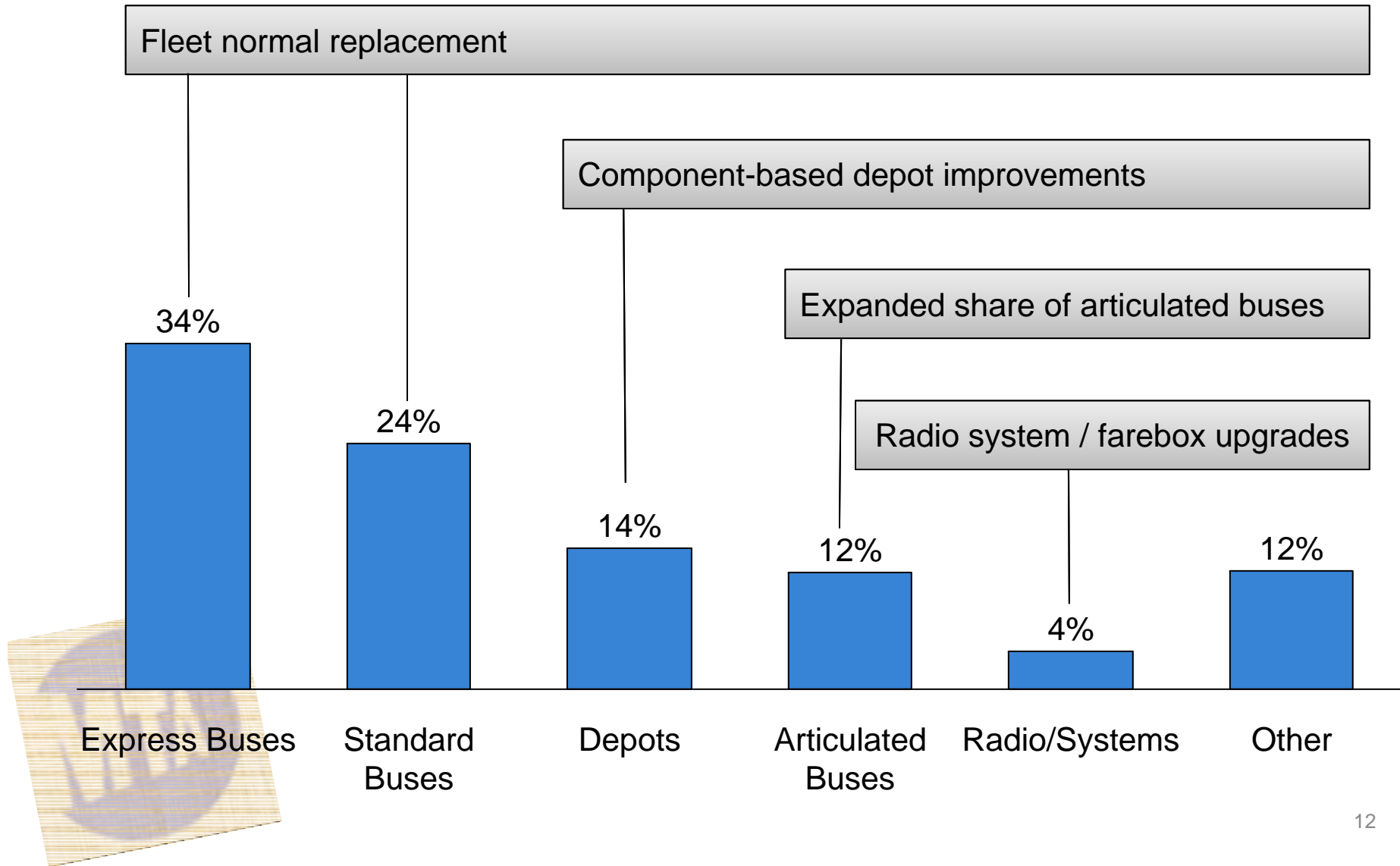
2015-2034 LIRR Core: \$13.4 b (2012 \$)



2015-2034 MNR: \$8.9 b (2012 \$)



2015-2034 MTA Bus: \$2.5 b (2012 \$)



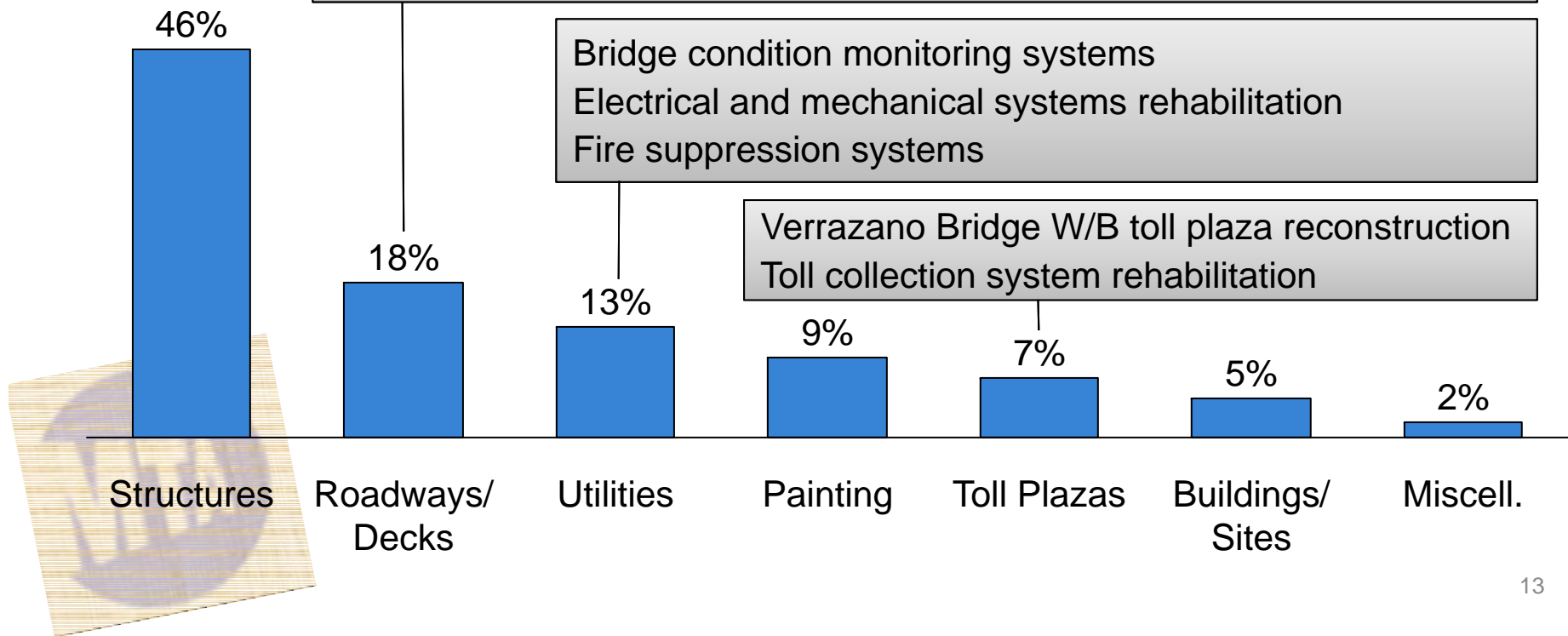
2015-2034 B&T Core: \$12.0 b (2012 \$)

Bronx-Whitestone Bridge / Verrazano Narrows Bridge main cable replacement/rehab
 Throgs Neck Bridge approach viaducts replacement
 Ongoing tunnel rehabilitation work
 Rockaway Crossings rehabilitation / reconstruction

Verrazano Bridge lower deck repl. & Belt Parkway ramps reconstruction
 Throgs Neck Bridge CI Pkwy ramp & suspended span deck replacement
 Bronx-Whitestone Bridge Queens interchange reconstruction

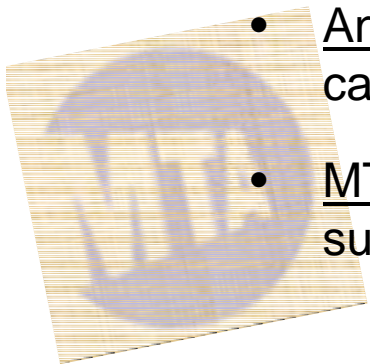
Bridge condition monitoring systems
 Electrical and mechanical systems rehabilitation
 Fire suppression systems

Verrazano Bridge W/B toll plaza reconstruction
 Toll collection system rehabilitation



Next Steps: Strategies for 15-19 Plan

- Asset life maximization: enable assets to provide longer service life between capital investments
- Component replacement: focus on targeted replacement of asset components with critical needs
- Fleet plan updates: embrace new ridership trends, technologies, and standards to improve customer benefits and reduce costs
- Track access optimization: reduce the cost and maximize the capacity for replacing and renewing track, signals, etc.
- Enterprise asset management: coordinate capital and operating interventions to reduce life-cycle costs, improve performance, and maximize investments
- Analytical review of proposed projects: validate that investments are carefully planned to maximize benefits at minimal cost
- MTA-wide coordination: ensure aligned investments in strategic areas such as new fare payment and asset management software



Moving Forward

- Develop 2015-2019 Plan: rationalize 2015-2019 needs into actionable program of projects, which
 - Prioritize and address critical needs: identify strategies to keep other assets fit for purpose
 - Reduce costs and maximize benefits

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|------------------|---------------------------------------|
| September 2013 | 2015-2019 Plan development |
| April - May 2014 | Compile draft 2015-2019 Plan book |
| July 2014 | Stakeholder briefings |
| August 2014 | Complete 2015-2019 Plan book |
| September 2014 | Submit Plan to MTA Board for approval |
| October 2014 | Submit Plan to CPRB for approval |

