



Transportation Plan Presentation

June 20, 2014



OVERVIEW OF PRESENTATION

- Highlights of our transportation plan
- Our overall approach
- What we've learned
- The details of our transportation plan
- Summary

HIGHLIGHTS OF OUR TRANSPORTATION PLAN

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- 1) A truly multi-modal approach
- 2) Immediate access to the T
- 3) More than \$45,000,000 in roadway improvements that solve longstanding regional problems
- 4) Our plan is complete and it works

1) A truly multi-modal approach

- Unprecedented access to the MBTA
- A robust Transportation Demand Management plan that gets people out of private vehicles
- Substantial regional highway improvements
- Multiple access and egress points
- Pedestrian and bicycle accommodations with new Hubway stations
- Patron shuttles to regional attractions and other key locations
- Employee shuttles to reduce single occupancy vehicle trips
- Financial support for realistic water transportation services.

2) Immediate access to the T

- Resort entrance is steps from Beachmont Station
- Served by multiple bus routes
- One of the largest transit-oriented development projects in the history of Commonwealth.

HIGHLIGHTS OF OUR TRANSPORTATION PLAN



WINTHROP AVENUE & WASHBURN AVENUE

3) More than \$45 million in infrastructure improvements that both offset project-generated impacts and address longstanding regional traffic problems

- Route 1A, including the congested Boardman Street intersection
- Route 1/Route 16 interchange
- Revere Beach Parkway (Route 16/Route 145)
- MSM's site access points
- Donnelly Square
- Bell Circle
- Copeland Circle
- Many others in Revere and Boston.

HIGHLIGHTS OF OUR TRANSPORTATION PLAN



Map of 21 MSM
Roadway
Improvements

4) **Our plan is complete and it works**

- We will improve every intersection that will experience a measurable impact – no reliance on third parties
- We have committed to pay for each of these solutions. No taxpayer money is needed
- Our guests step from the T to our front door – no shuttle buses needed
- Visitors can get seamlessly to and from Logan Airport.

OUR OVERALL APPROACH



1) Public Transportation Study and Analysis

- We projected public transportation ridership by:
 - Comparing urban casinos in the U.S.
 - Analyzing MBTA service within our catchment area
 - Analyzing T ridership for non-work purposes and among tourists
- We also recognize the following:
 - Immediate proximity and performance of the MBTA Blue Line
 - High-level of transit acceptance in Boston area
 - Our demand-related measures, such as significant limitations on employee parking
- MassDOT and MBTA agree with all of our assumptions.

2) Traffic Study and Analysis

- Is consistent with MassDOT, MEPA, and DCR requirements
- Provides data collection and analysis of existing conditions
- Includes trip generation and distribution studies using comparable sites and proprietary gravity models
- Recognizes future traffic growth and approved developments
- Creates “no-build” and “build” transportation networks
- Develops mitigation consistent with industry standards.

OUR OVERALL APPROACH

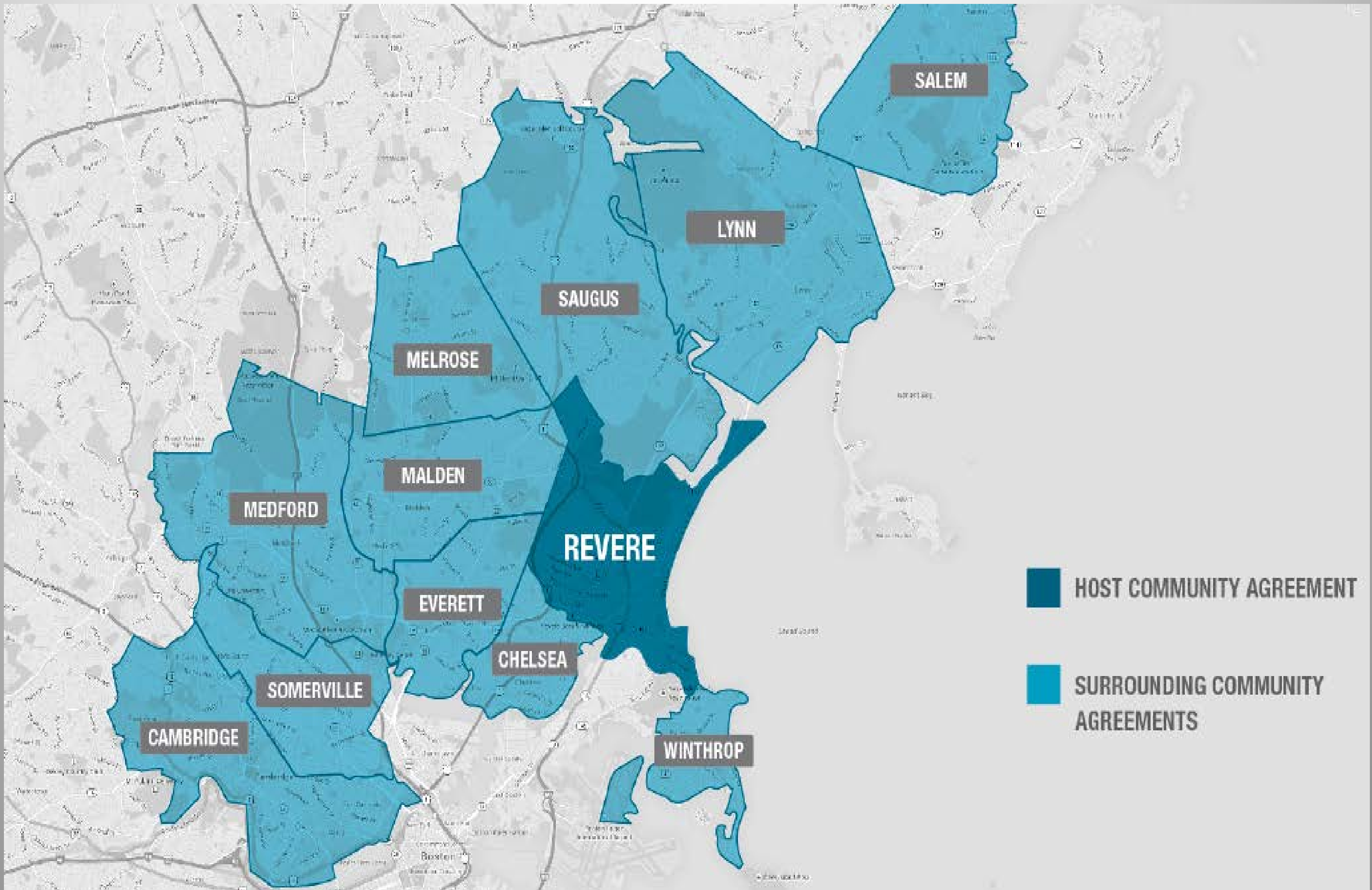


Study Area
Intersections

3) Outreach throughout the region

- We have held hundreds of meetings to discuss transportation planning with responsible agencies and interested stakeholders
 - Weekly meetings with the City of Revere
 - Dozens of meetings with MassDOT and the MBTA
 - Six public forums in the City of Revere
 - Dozens of presentations to community organizations throughout the region
 - Outreach with more than 20 environmental interest groups
- We have 11 Surrounding Community Agreements.

OUR OVERALL APPROACH



Surrounding Community Map

WHAT WE'VE LEARNED

1) Travel Demand Characteristics

- Demand spread over 24 hour day and 7-day week, but Friday and Saturday are our peak days
- Peak resort demand begins after 7 PM and does not coincide with PM commuter peak
- Very limited trips during AM commuter peak
- Employee trips spread throughout the day with staggered work shifts.

2) Trip Distribution Characteristics

- At least 30% of our employees will use public transportation
 - The vast majority of remaining employees will use the employee interceptor shuttle plan.
- At least 11% of patrons will use public transportation
- 69% of vehicle trips come from the South on Route 1A.

WHAT WE'VE LEARNED



3) Transportation Network Connections

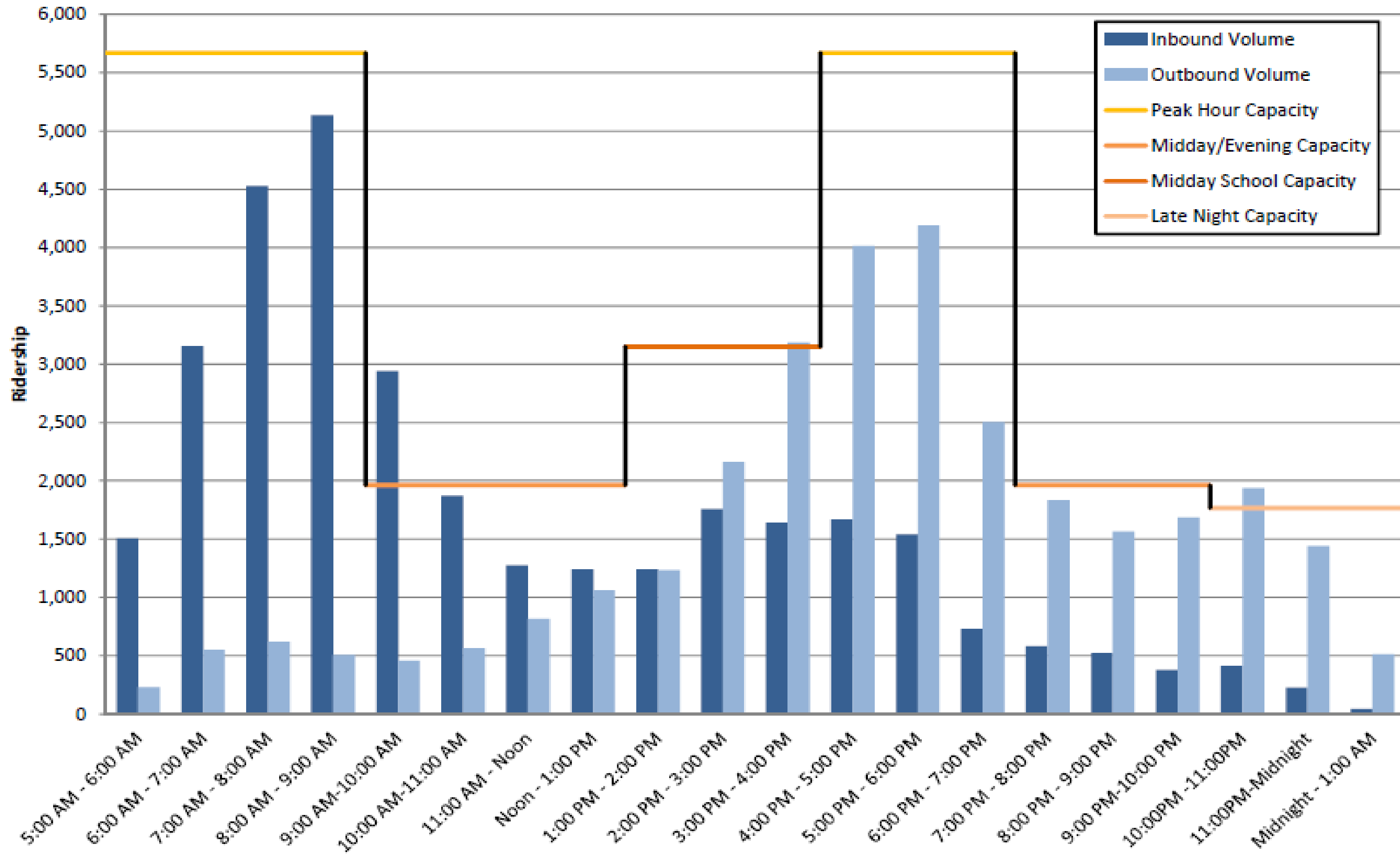
- There are intersections that cause regional congestion and we will fix them
- New ridership on the MBTA system will be generated
- The increase in ridership is well within the capacity of Beachmont Station and the Blue Line
- On a Saturday, the busiest day for the resort's MBTA trip generation, the projected line volume never approaches the Blue Line's peak load capacity
- MSM is working with the MBTA to develop a package of improvements to Beachmont Station.

WHAT WE'VE LEARNED



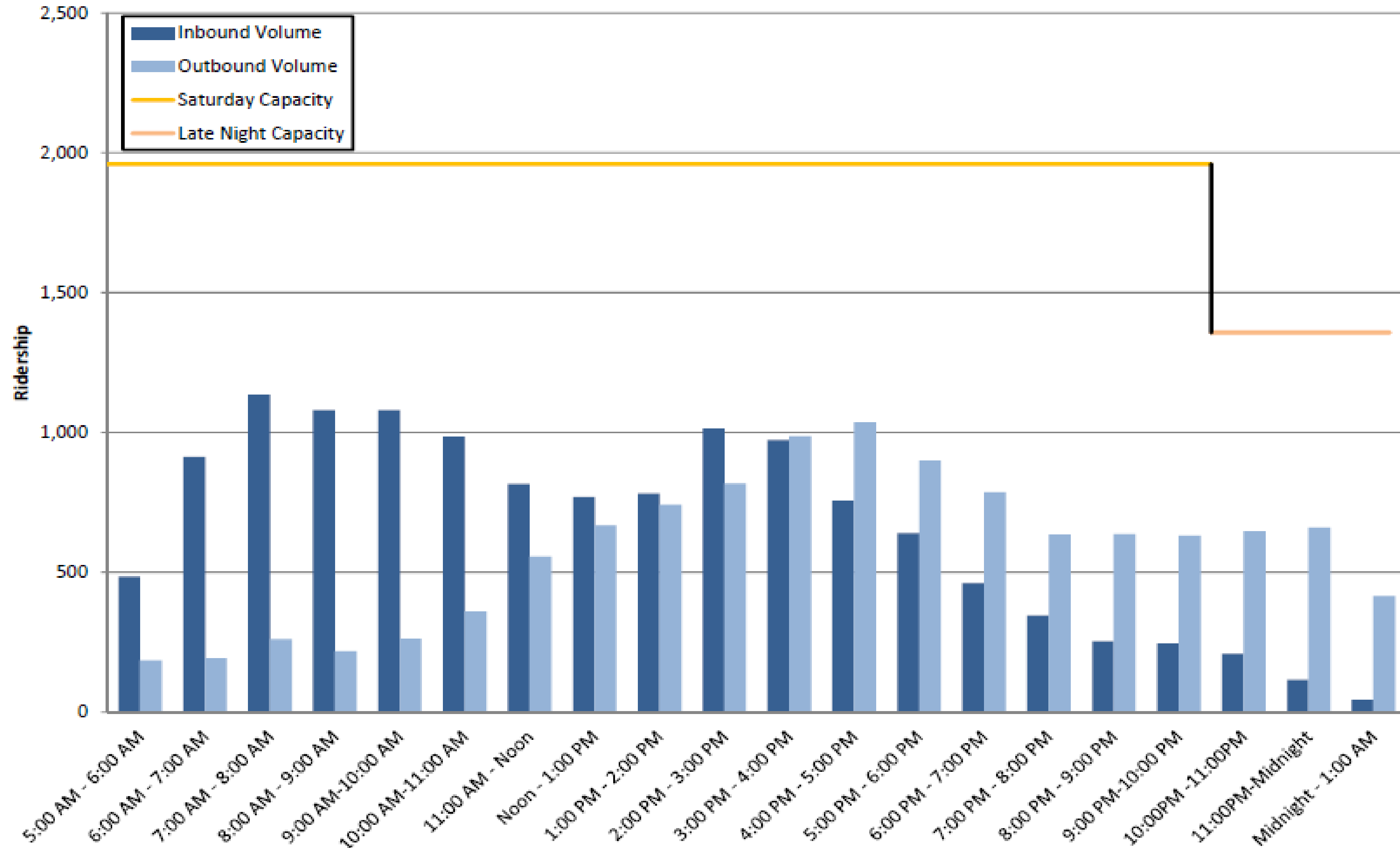
WHAT WE'VE LEARNED

MBTA Blue Line Existing Conditions Weekday Ridership Maverick Station to Aquarium Station



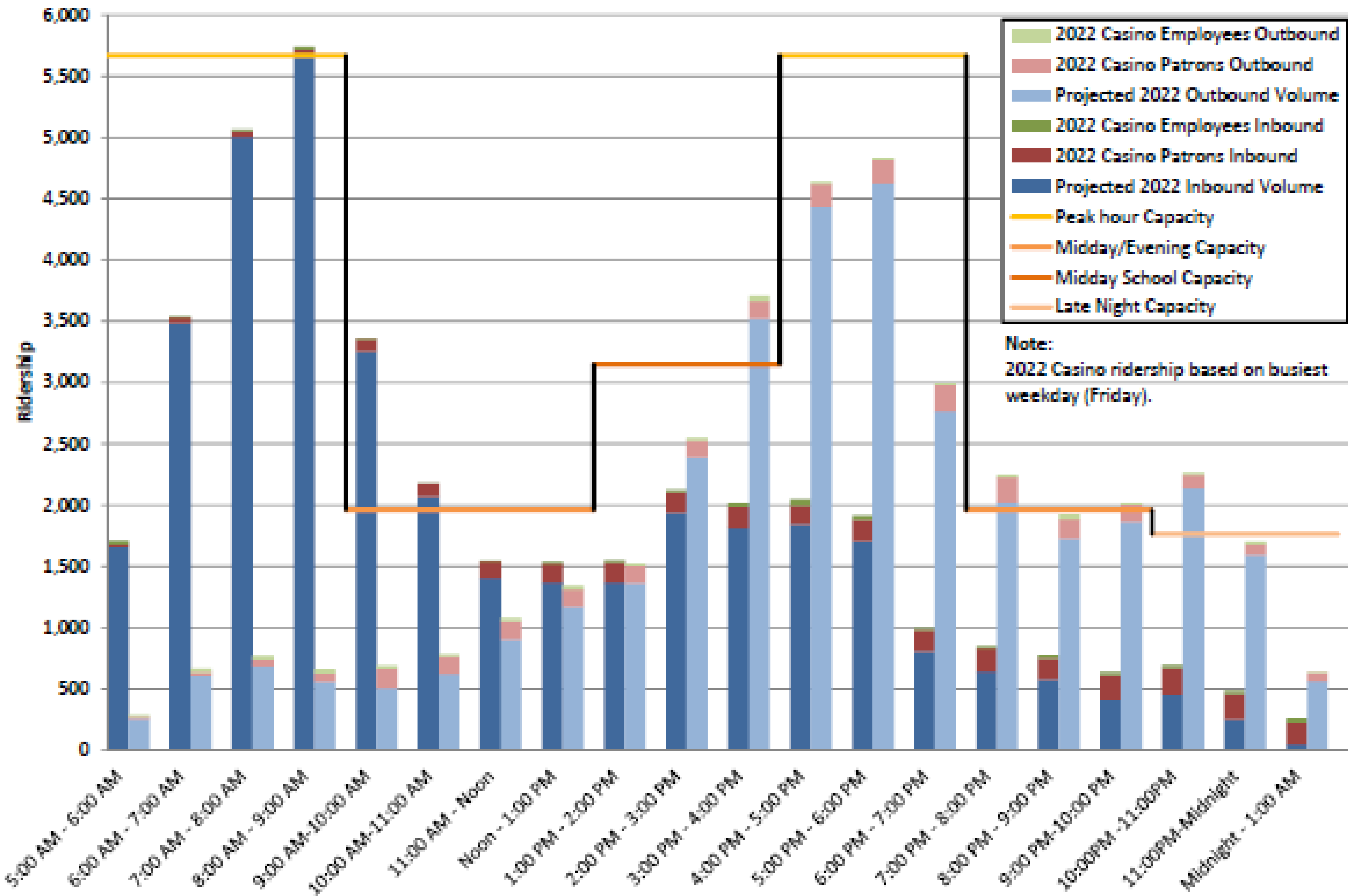
WHAT WE'VE LEARNED

MBTA Blue Line Existing Conditions Saturday Ridership Maverick Station to Aquarium Station



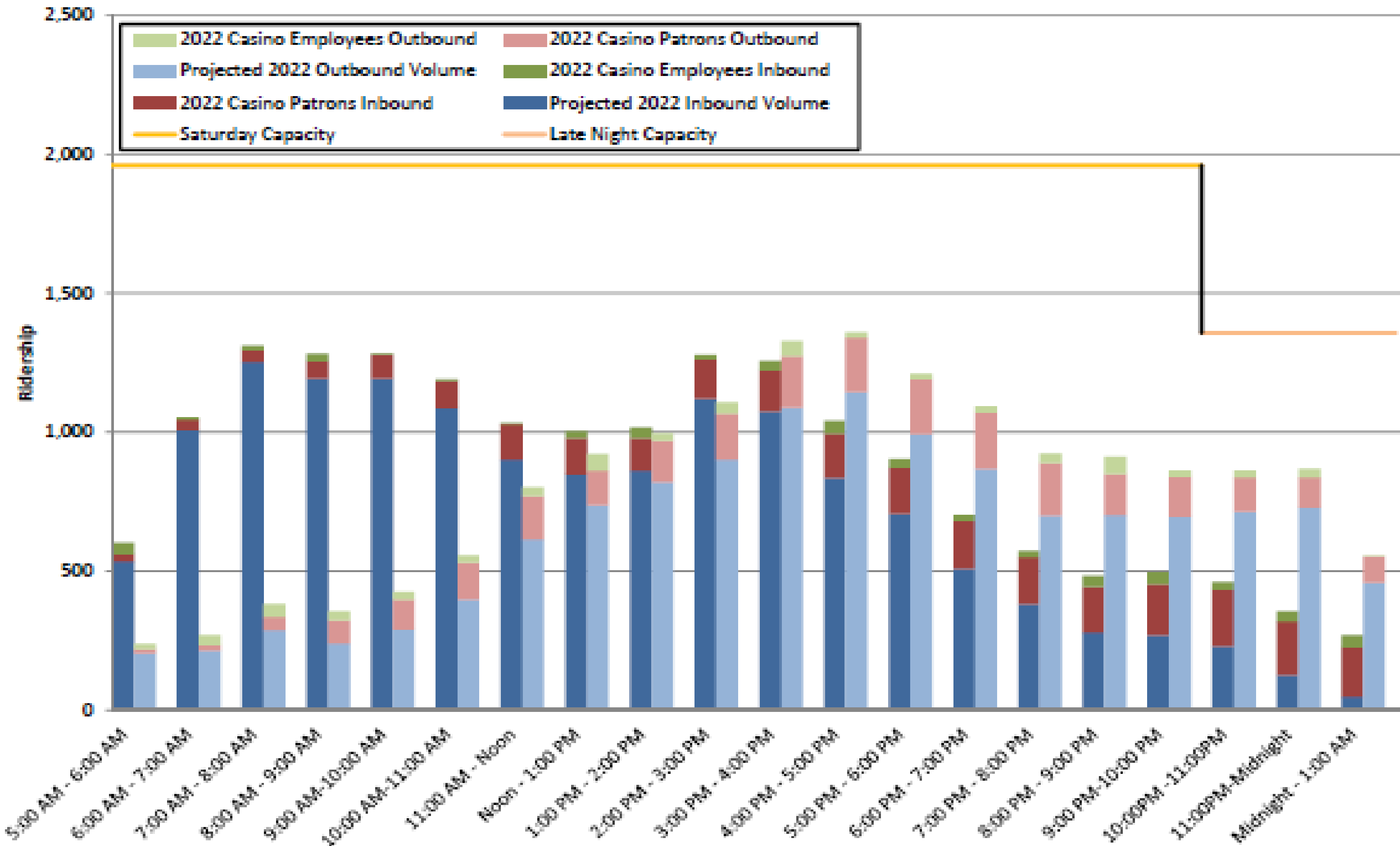
WHAT WE'VE LEARNED

MBTA Blue Line Future Conditions Weekday Ridership Maverick Station to Aquarium Station



WHAT WE'VE LEARNED

MBTA Blue Line Future Conditions Saturday Ridership Maverick Station to Aquarium Station



OUR TRANSPORTATION PLAN



- **Our study, analysis and outreach led to a comprehensive transportation plan with**
 - 1) **Roadway and safety improvements**
 - 2) **Transportation Demand Management measures**
 - 3) **Employee and patron shuttles**
 - 4) **Targeted support for water transportation**
 - 5) **Commitment to pedestrian and bicycle accommodations.**

1) Roadway and Safety Improvements

- Route 1A, including the congested Boardman Street intersection
- Route 1/Route 16 interchange
- Revere Beach Parkway (Route 16/Route 145)
- MSM's site access points
- Donnelly Square
- Bell Circle
- Copeland Circle
- Many others in Revere and Boston.

OUR TRANSPORTATION PLAN



Map of 21 MSM
Roadway
Improvements

OUR TRANSPORTATION PLAN



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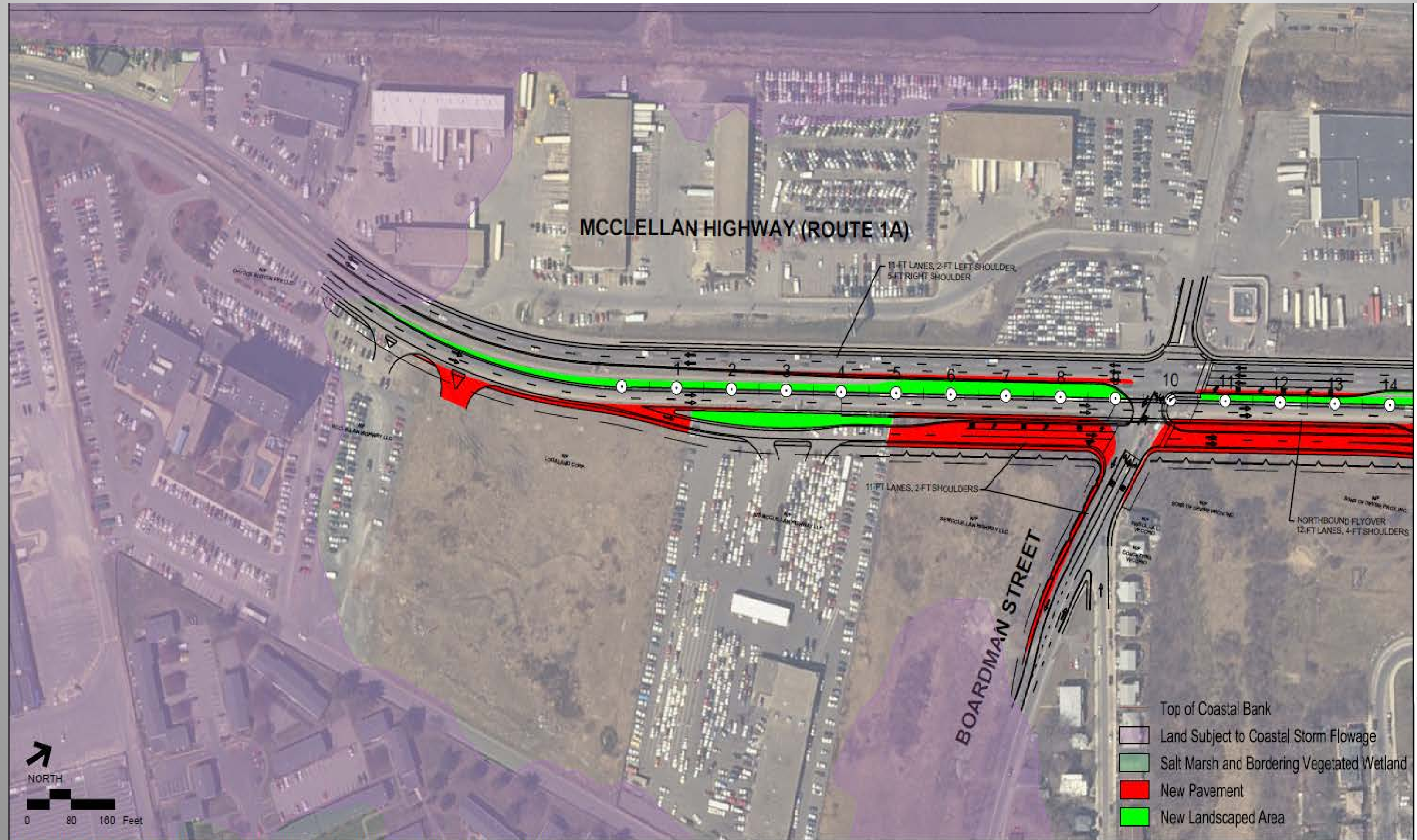


OUR TRANSPORTATION PLAN



Route 1A and
Boardman St.

OUR TRANSPORTATION PLAN



Mohegan Sun Massachusetts - Environmental Impact Report Revere, Massachusetts

Figure 5-24a

Route 1A Improvement - Option 8 (Northbound Flyover) - Section A

Route
1A Opt.
8N



OUR TRANSPORTATION PLAN



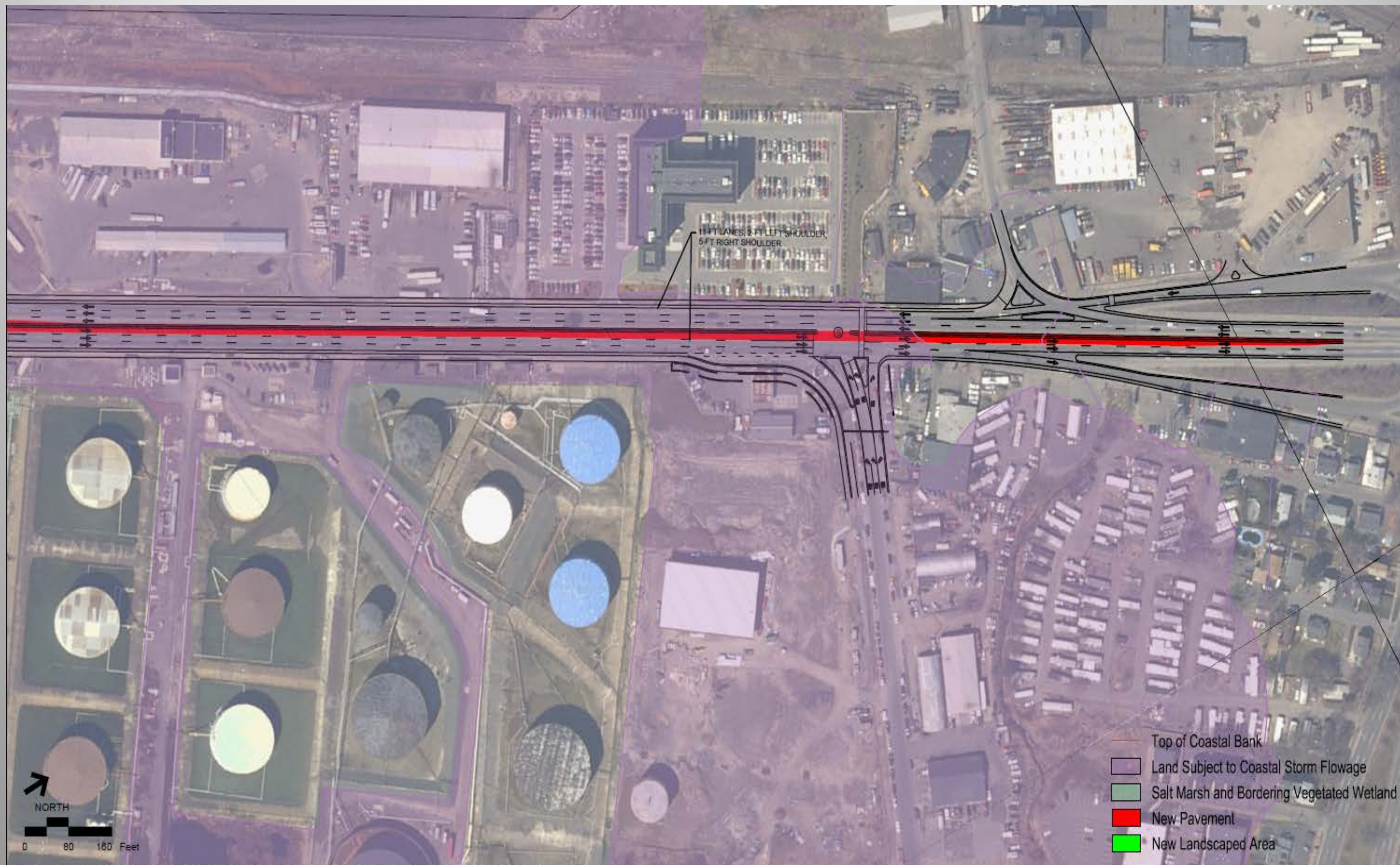
Mohegan Sun Massachusetts - Environmental Impact Report Revere, Massachusetts

Figure 5-24b
Route 1A Improvement - Option 8 (Northbound Flyover) - Section B

Route
1A Opt.
8N



OUR TRANSPORTATION PLAN



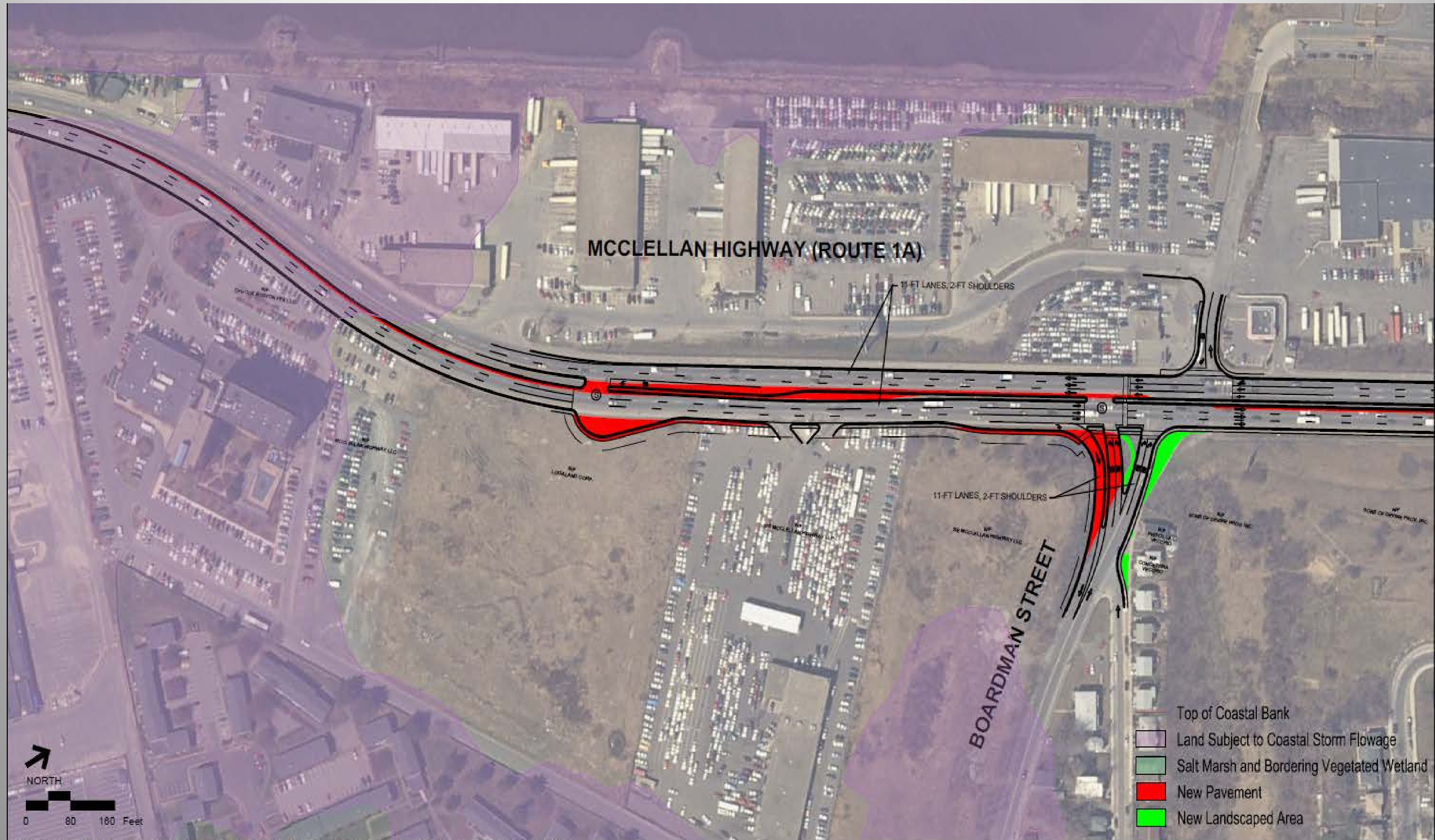
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Figure 5-24c
Route 1A Improvement - Option 8 (Northbound Flyover) - Section C

Route
1A Opt.
8N

OUR TRANSPORTATION PLAN

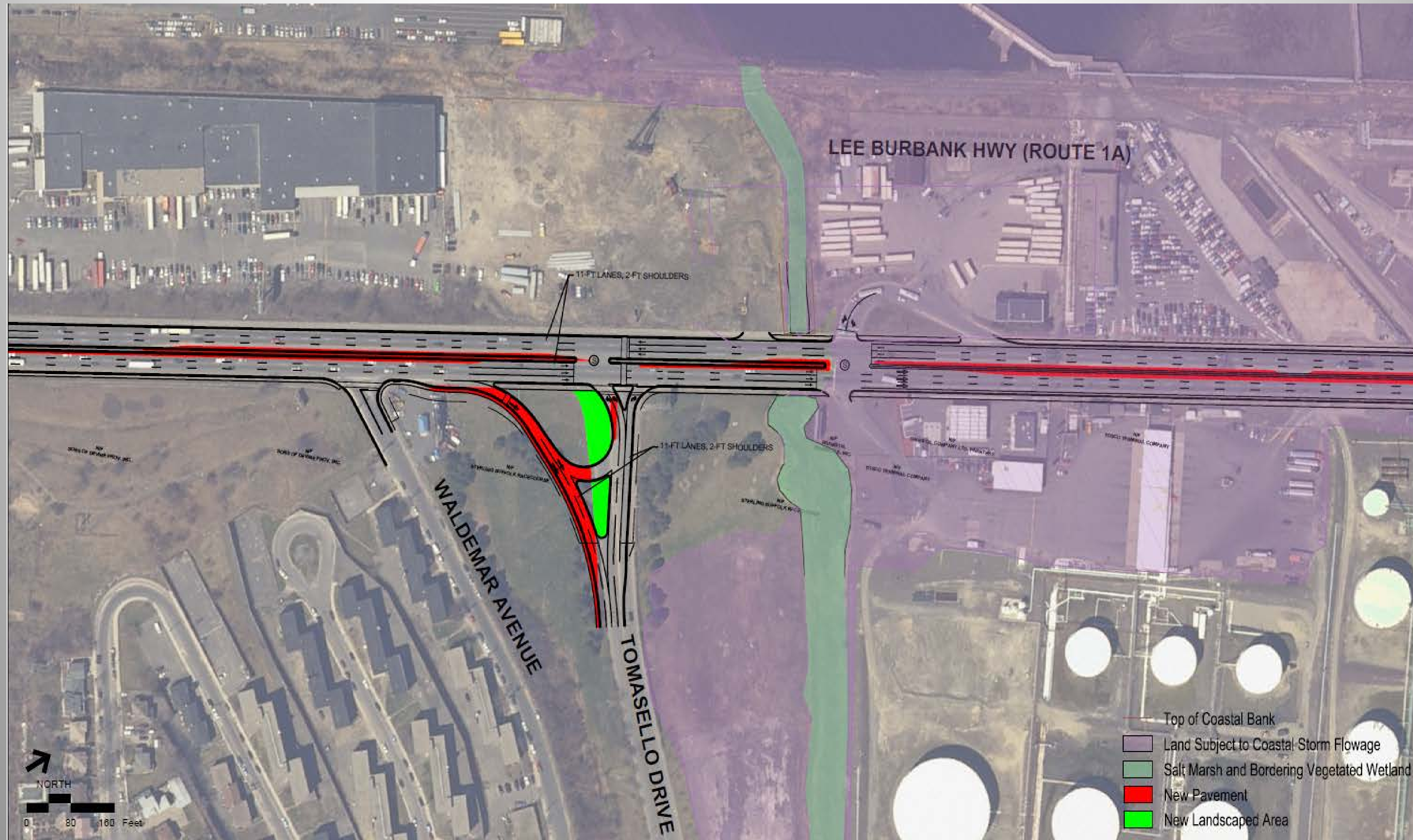


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Figure 5-26a

Route 1A Improvement - Option 11 (At-Grade Alternative) - Section A

OUR TRANSPORTATION PLAN



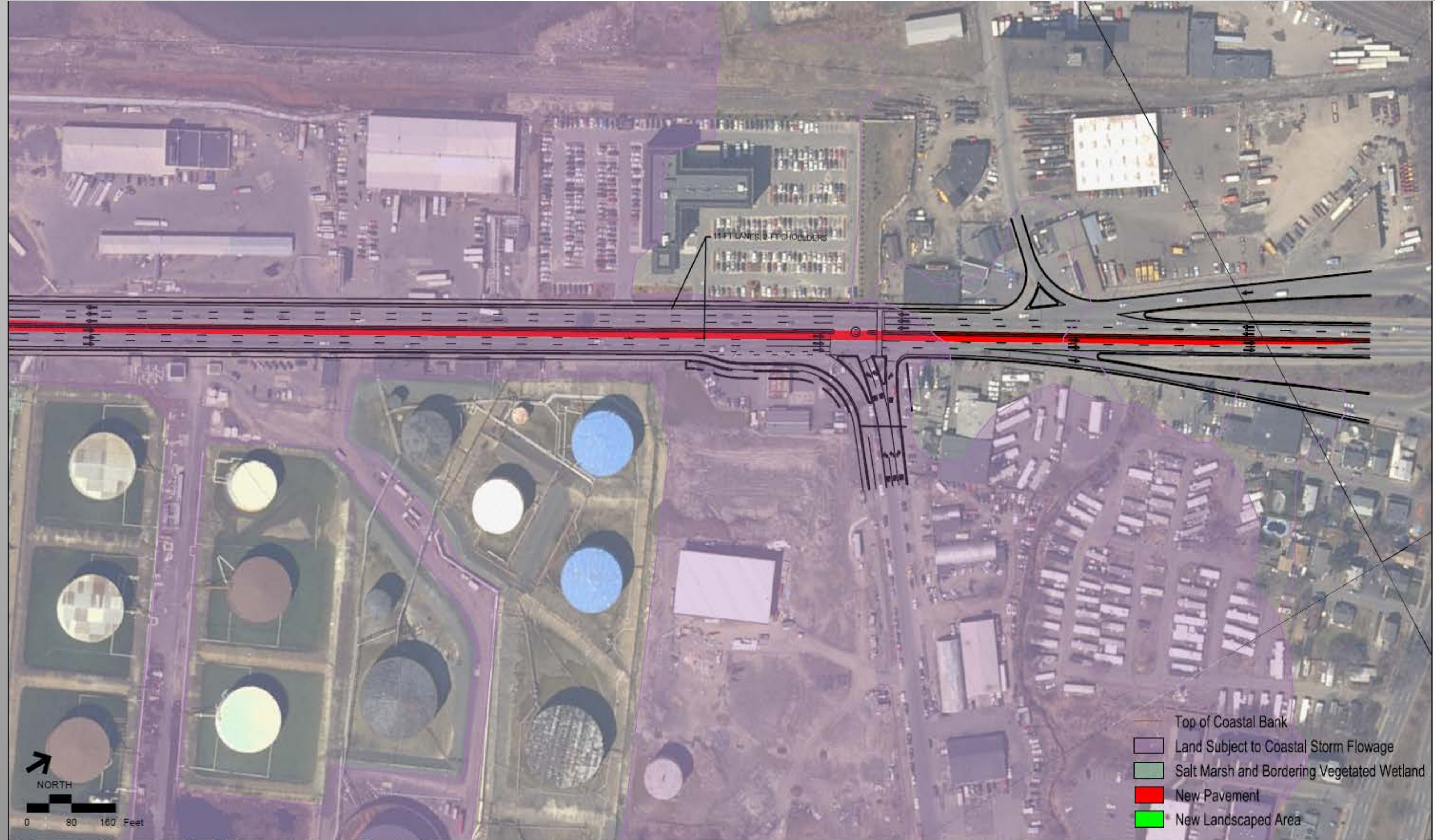
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Figure 5-26b

Route 1A Improvement - Option 11 (At-Grade Alternative) - Section B

Route
1A Opt.
11

OUR TRANSPORTATION PLAN



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Figure 5-26c
Route 1A Improvement - Option 11 (At-Grade Alternative) - Section C

Route
1A Opt.
11

- **VISSIM Presentation**





VHB Vanasse Hangen Brustlin, Inc.



VHB Vanasse Hangen Brustlin, Inc.



0 40 100 VHB Vanasse Hangen Brustlin, Inc.
SCALE: 1" = 40'

OUR TRANSPORTATION PLAN

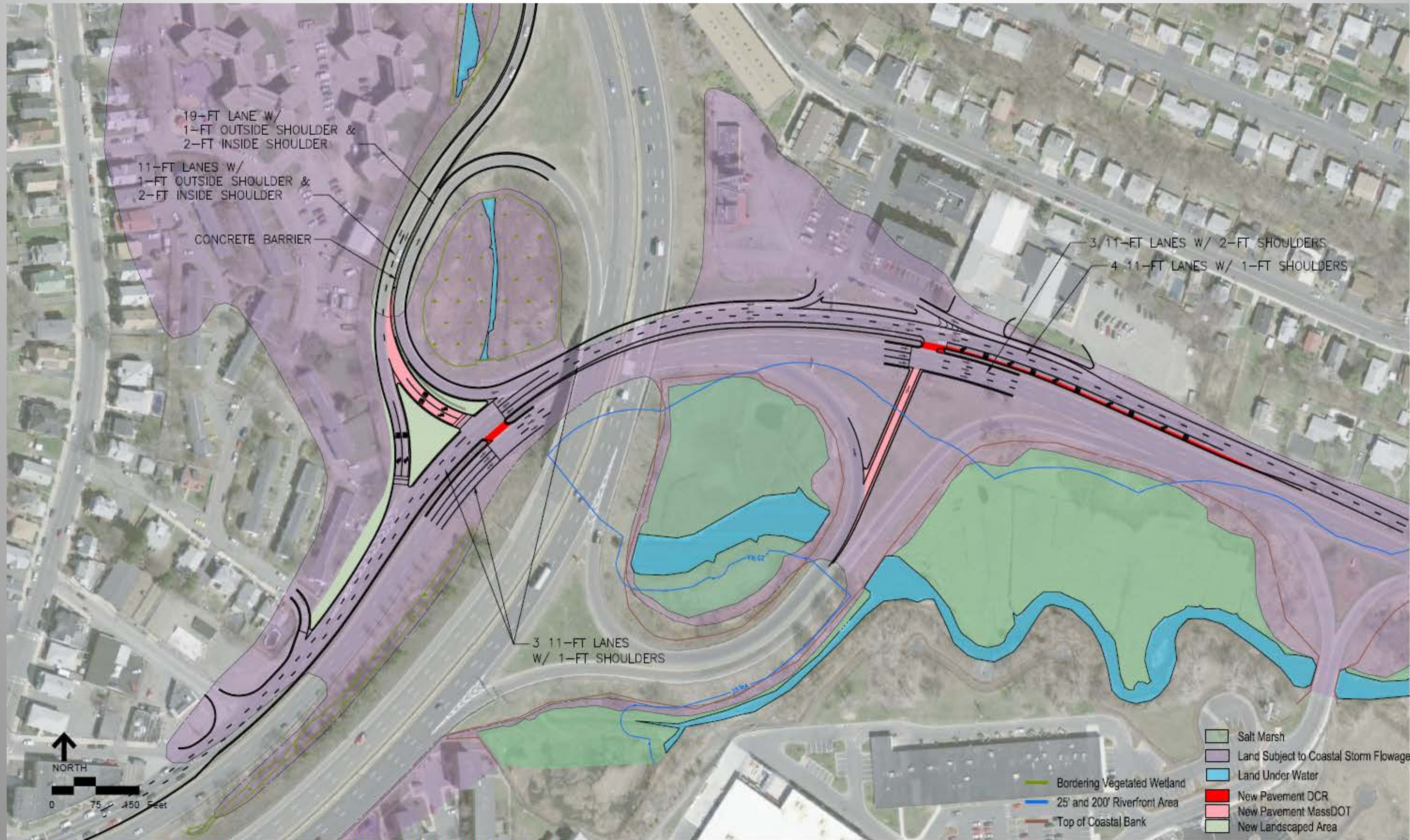


Route 1/Route 16

OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN



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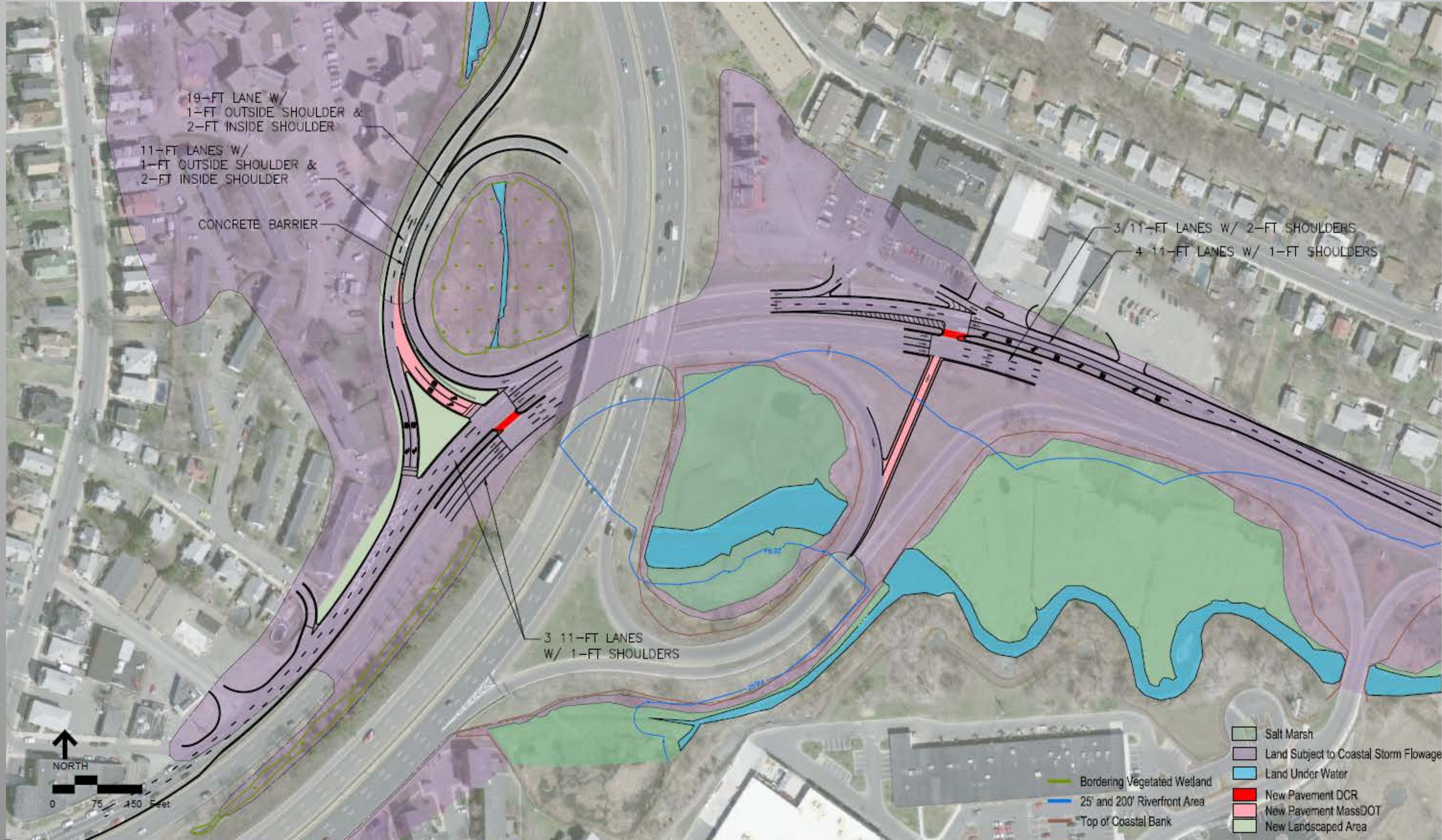
Figure 5-27a

Route 1/Route 16 - Median Work Alternative

Route
1/16 Alt.
A



OUR TRANSPORTATION PLAN



Route
1/16 Alt
B

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Figure 5-27b
Route 1/Route 16 - Striping Alternative

OUR TRANSPORTATION PLAN



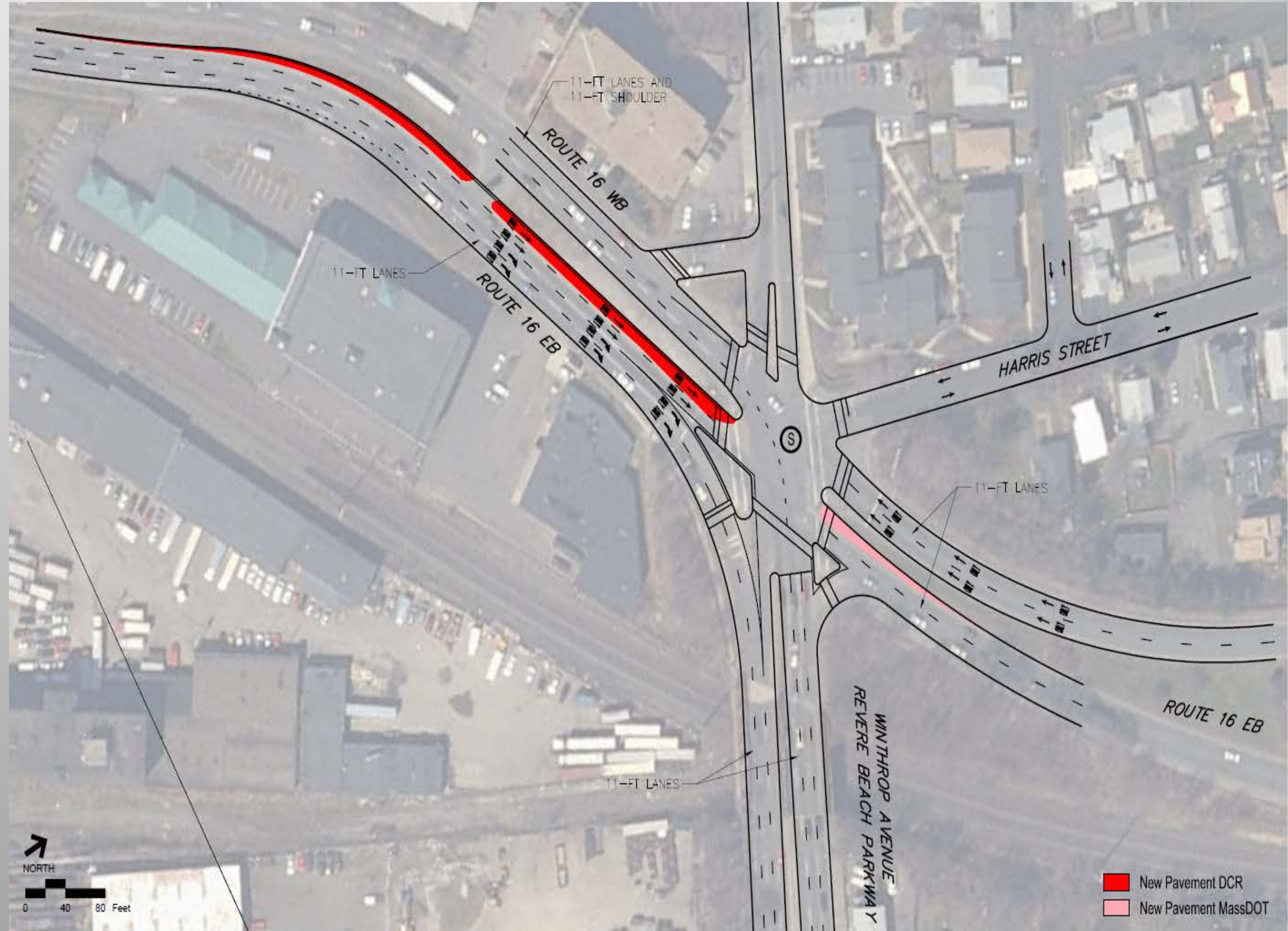
Revere Beach Parkway
- Winthrop Ave./Route
16/Harris Street

OUR TRANSPORTATION PLAN



Revere Beach Parkway
- Winthrop Ave./Route
16/Harris Street

OUR TRANSPORTATION PLAN



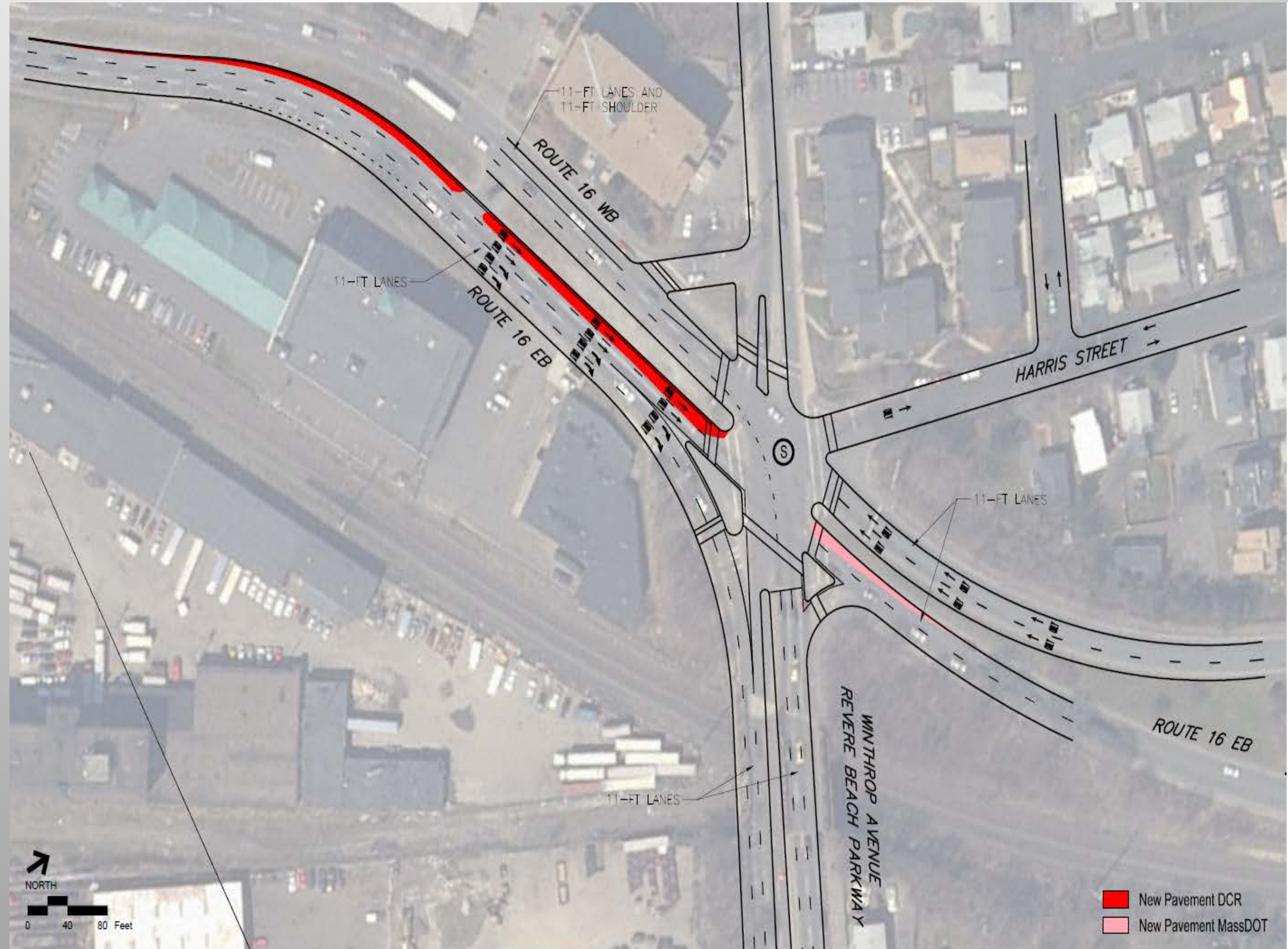
Revere Beach Parkway
- Winthrop Ave./Route
16/Harris Street

Mohegan Sun Massachusetts - Environmental Impact Report Revere, Massachusetts



Figure 5-28.
Winthrop Avenue (Route 145) at Revere Beach Parkway (Route 16)/Harris Street - Harris Street Two-Way

OUR TRANSPORTATION PLAN



Mohegan Sun Massachusetts - Environmental Impact Report Revere, Massachusetts

Figure 5-28b

Winthrop Avenue (Route 145) at Revere Beach Parkway (Route 16)/Harris Street - Harris Street One-Way Northbound

Revere Beach Parkway
- Winthrop Ave./Route
16/Harris Street



OUR TRANSPORTATION PLAN



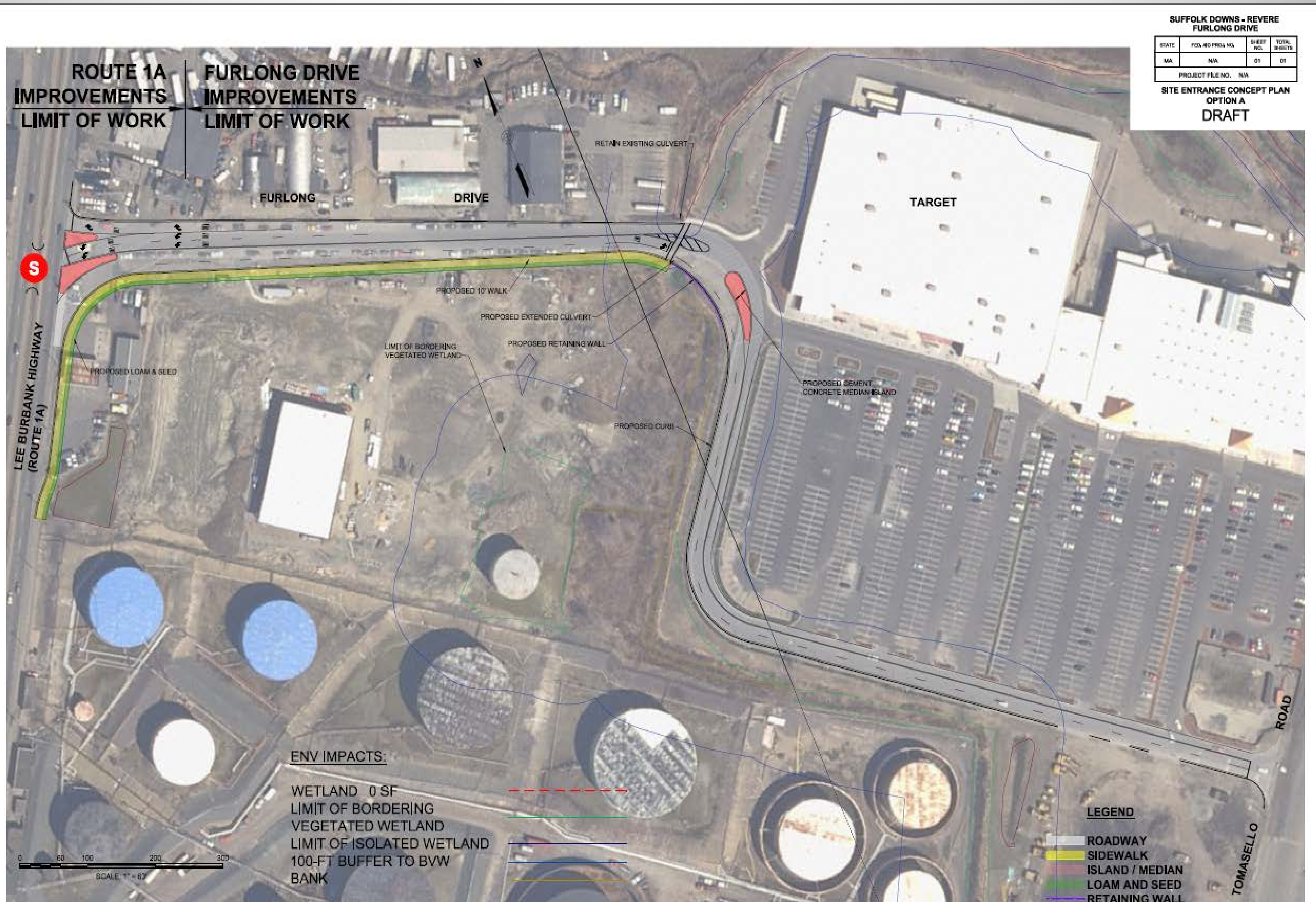
Route 1A and
Furlong Drive. &
Winthrop Ave. /
North Shore Road /
Tomasello Drive

OUR TRANSPORTATION PLAN



Route 1A and
Furlong Drive. &
Winthrop Ave. /
North Shore Road /
Tomasello Drive

OUR TRANSPORTATION PLAN



Furlong Drive Access

OUR TRANSPORTATION PLAN



Winthrop Ave. /
North Shore Ave.
/ Tomasello Drive
Access

■ New Pavement DCR
■ New Landscaped Area
■ Median

Verona Design Services, Inc.
Softik Downs April 9, 2014
Figure 18 - New Pavement Surfaces
Conceptual Long Term Roadway Improvements
Site entrance at Winthrop Street
Revere, MA

OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN



Donnelly Square

OUR TRANSPORTATION PLAN



Donnelly Square

OUR TRANSPORTATION PLAN



Donnelly
Square

OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN



Bell Circle

OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN



Copeland Circle

OUR TRANSPORTATION PLAN



OUR TRANSPORTATION PLAN

Summary of LOS Grades at Intersections with MSM Traffic Improvements

Location	Friday Evening		Saturday Afternoon	
	2022 No Build Conditions	2022 With MSM Roadway Improvements	2022 No Build Conditions	2022 With MSM Roadway Improvements
Route 1A at Boardman Street	F	A (Opt 11) C (Opt 8N)	D	A (Opt 11) C (Opt 8N)
Route 1A at Tomasello Drive	F	B (Opt 11) C (Opt 8N)	F	A (Opt 11) D (Opt 8N)
Route 1A at Furlong Drive	F	A	F	B
Route 1A at Jughandle	D	A (Opt 11) B (Opt 8N)	B	A (Opt 11) A (Opt 8N)
Route 1A at Waldemar Avenue	C	B (Opt 8N) F (Opt 11)	C	B (Opt 8N) C (Opt 11)
Route 1A at Curtis Street	F	Operational and Safety Improvements	F	Operational and Safety Improvements
Route 1A (North Shore Road) at Revere Street	F	Operational and Safety Improvements	F	Operational and Safety Improvements
Copeland Circle (Rte 1 SB - Rte 60)	E	C	E	C
Copeland Circle (Rte 60 EB - Rte 1)	E	B	E	B
Copeland Circle (Rte 1 NB - Rte 60)	E	B	E	B
Rte 60 at Bell Circle (North signal)	C	B	C	B
Rte 1A at Bell Circle (East signal)	C	C	C	C
Rte 16/Rte 1A/Beach St at Bell Circle (South signal)	F	E	E	E
Beach St/Rte 60 at Bell Circle (West signal)	A	A	A	A
Winthrop Ave (Rte 145) at North Shore Road	E	A (Alt B) E (Alt A)	C	A (Alt B) D (Alt A)
Winthrop Ave (Rte 145) at Tomasello Drive	C	C	C	C
Winthrop Ave (Rte 145) at Revere Beach Parkway (Rte 16)/Harris St	D	D (Alt B) E (Alt A)	D	C (Alt B) D (Alt A)
Route 16 at Garfield Avenue/Webster Avenue	F	D	D	C
Route 16/Route 1 NB On-ramp	MSM to build Connection	B	MSM to build Connection	B
Bennington Street/State Rd at Winthrop Ave	D	Operational and Safety Improvements	C	Operational and Safety Improvements
Bennington Street at Saratoga Street	F	Operational and Safety Improvements	F	Operational and Safety Improvements
Bennington Street at Neptune Road	F	Operational Improvements	F	Operational Improvements
Bennington Street at Crescent Avenue	E	Operational and Safety Improvements	C	Operational and Safety Improvements
Neptune Road at Route 1A off-ramp	D	Operational Improvements	C	Operational Improvements
Neptune Road at Saratoga Street	Operational Difficulty	Operational and Safety Improvements	Operational Difficulty	Operational and Safety Improvements
Neptune Road at Bremen Street	C	Operational and Safety Improvements	C	Operational and Safety Improvements
Route 60 at Revere Street	F	Operational Improvements	F	Operational Improvements
Brown Circle (Roundabout)	F	Operational Improvements	F	Operational Improvements

2) Transportation Demand Management Plan

- Working with the MBTA to improve Beachmont Station and nearby bus stops
- Integrating the T into our design
- Dramatically limiting on-site employee parking
- Providing targeted subsidies for Charlie Cards
- Marketing the T to patrons
- Appointing a Transportation Coordinator
- Joining and requiring tenants to join the Logan Airport Transportation Management Association.

3) Employee and Patron Shuttles

- **Employee HOV Shuttles**
 - Restricted on-site parking for employees
 - Employees to be intercepted at remote locations, such as transit hubs and park and ride locations
 - Performance-based, dynamic program to be operated by experienced third party contractor.

3) Employee and Patron Shuttles

- **Flexible Patron Shuttles**

- HOV Shuttles to provide transportation option for patrons to key regional attractions
 - Logan Airport
 - Revere Beach Reservation
 - Maverick Square/East Boston
 - Back Bay
 - Theater and Seaport Districts
 - Others to be explored (Harvard Square, Salem, regional business districts).

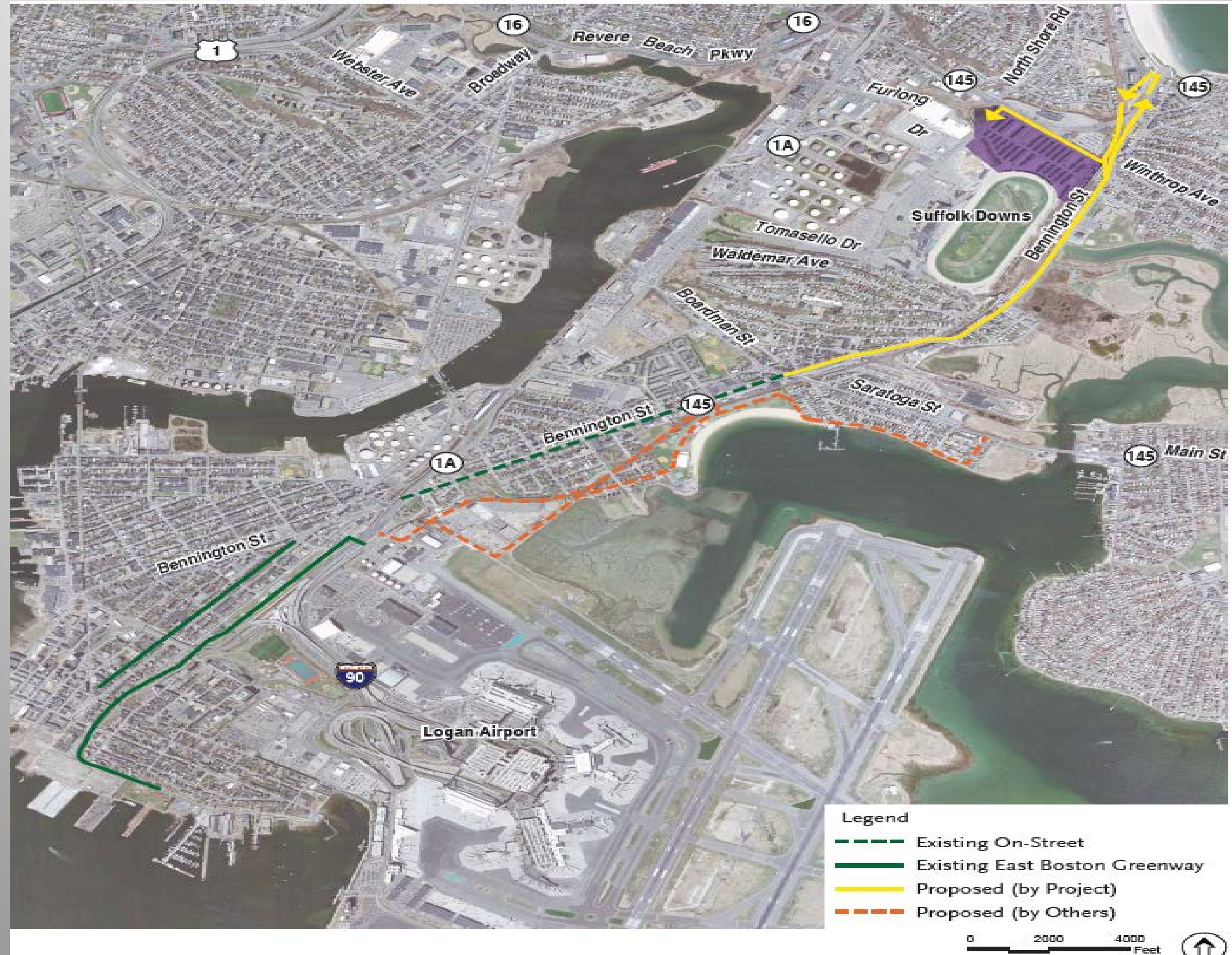
4) Targeted Support for Water Transportation

- \$100,000 annually dedicated to operation of the Winthrop water shuttle
- Support for the City of Boston's Seaport to Maverick Square water shuttle
- Partnership with DCR to formally link Revere Beach Reservation and Boston Harbor Islands ferries
- Conceptual plans to support Native American heritage education programming on the Islands.

5) Commitment to Pedestrian and Bicycle Accommodations

- Development of bicycle lanes on
 - Saratoga Street along Bennington Avenue; and
 - Winthrop Avenue
- “Beach-to-beach” connection between Constitution Beach and Revere Beach
- Covered bicycle parking spaces
- MSM will pay for two new Hubway stations when expanded to Revere.

OUR TRANSPORTATION PLAN



Planned and Existing Bicycle Routes

SUMMARY



- **MSM Offers**

- A superior location
- A development that maximizes the MBTA
- Regional traffic solutions to longstanding problems, all of which are privately funded
- Thoughtful support for all modes of transit
- A cooperative approach and connection to our neighbors
- A workable plan on which the Gaming Commission can rely.