



# Deck Rehabilitation and Steel Repairs

Maurice J. Tobin Memorial Bridge

US 1 NB & Ramps – Chelsea

September 11, 2017



# Maurice J. Tobin Memorial Bridge

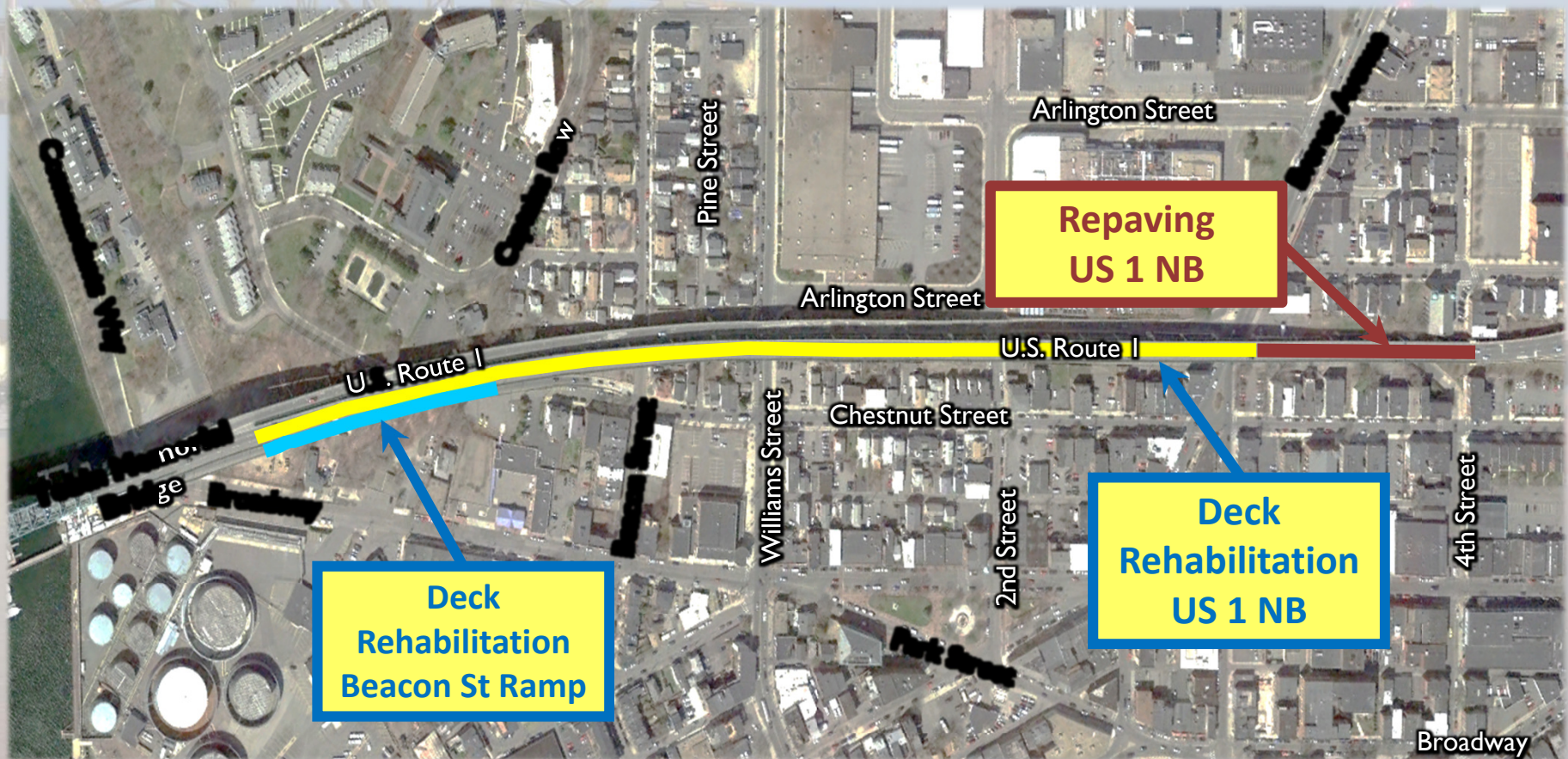




# Current Project Limits

Chelsea Approach Spans

US 1 NB - Lower Deck

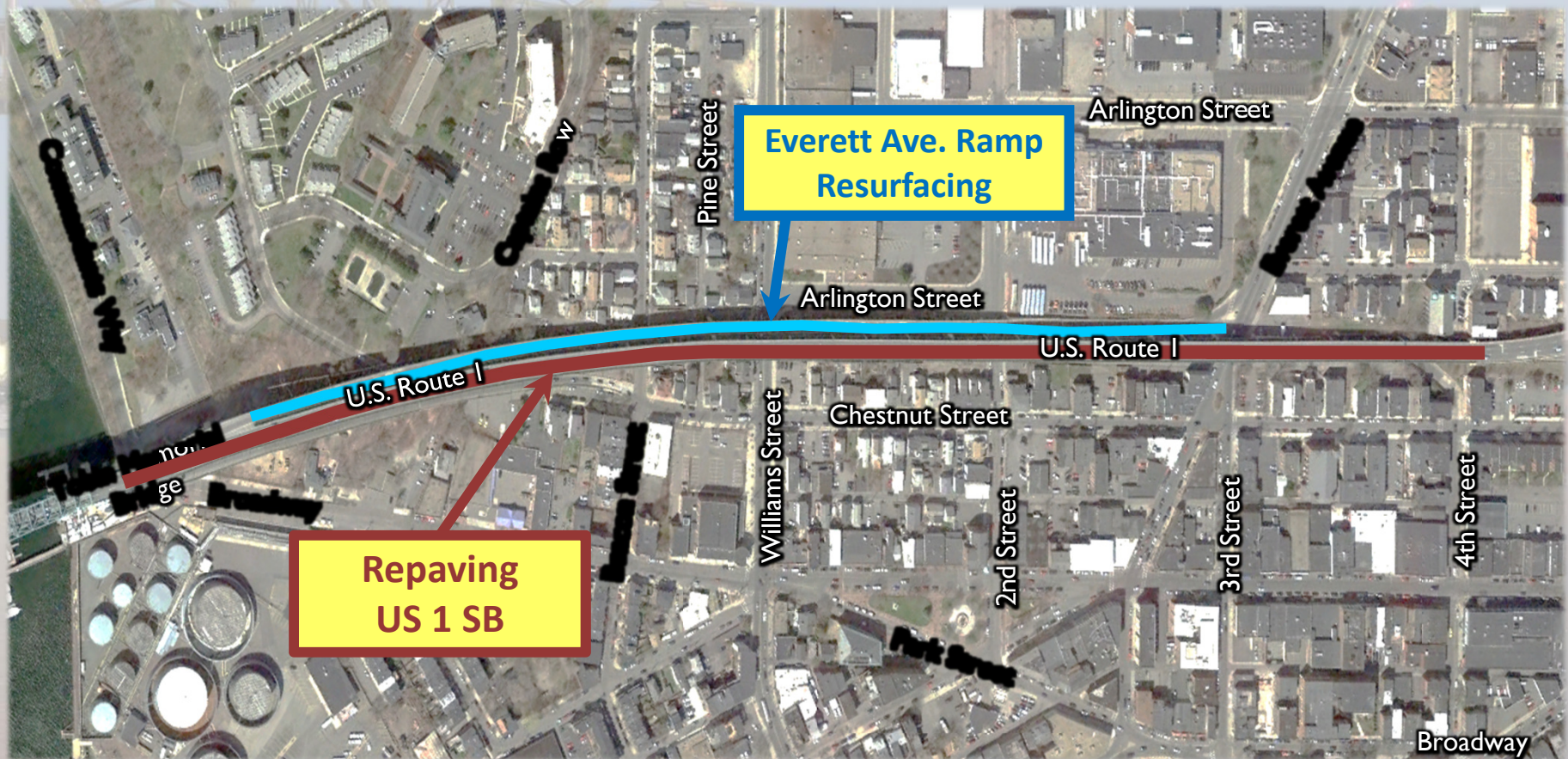




# Current Project Limits

Chelsea Approach Spans

US 1 SB - Upper Deck





# Scope of Work

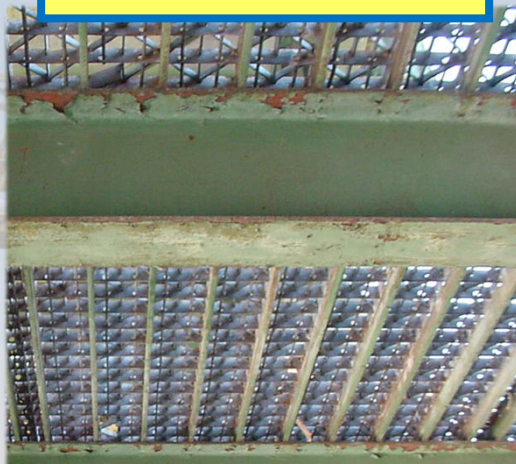
## Chelsea Approach Spans – Lower Deck



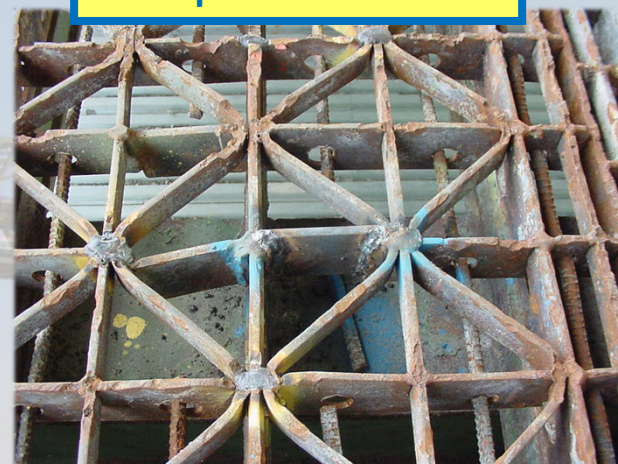
Existing Condition



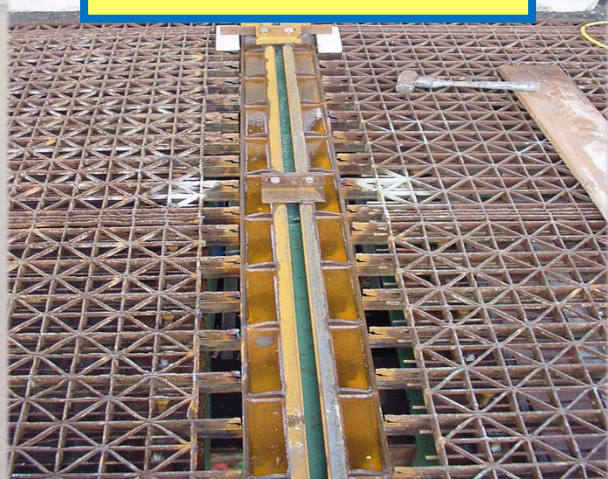
Remove Concrete Fill



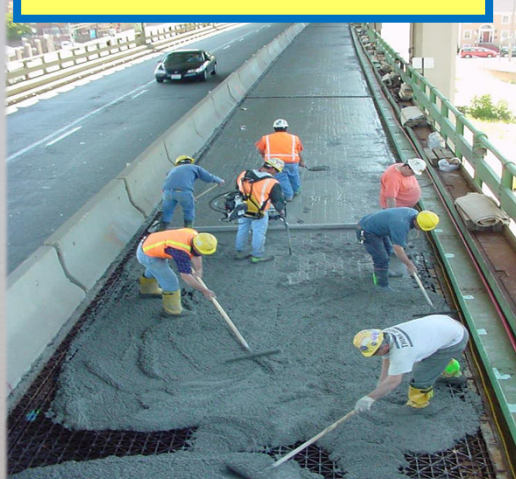
Repair Grid Deck



Install New Deck Joints



Place New Concrete Fill



Rehabilitated Deck



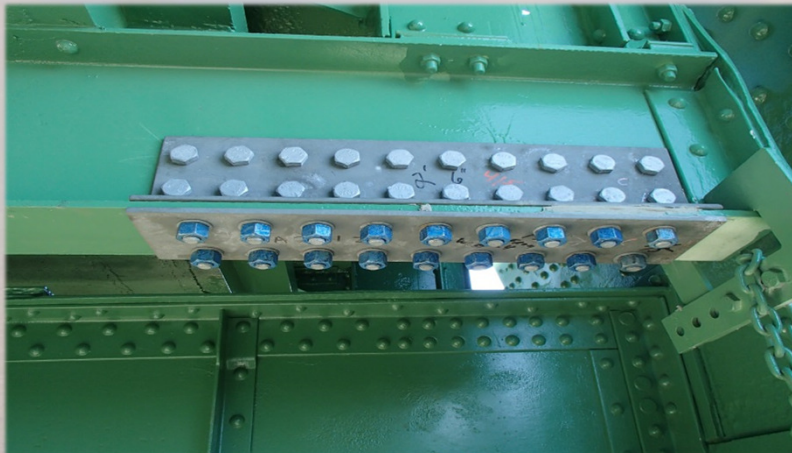


# Scope of Work

## Chelsea Approach Spans



**Steel Repairs**





# Scope of Work

## Chelsea Approach Spans



Safetywalk Repairs





# Lane Closures Required

## Chelsea Approach Spans



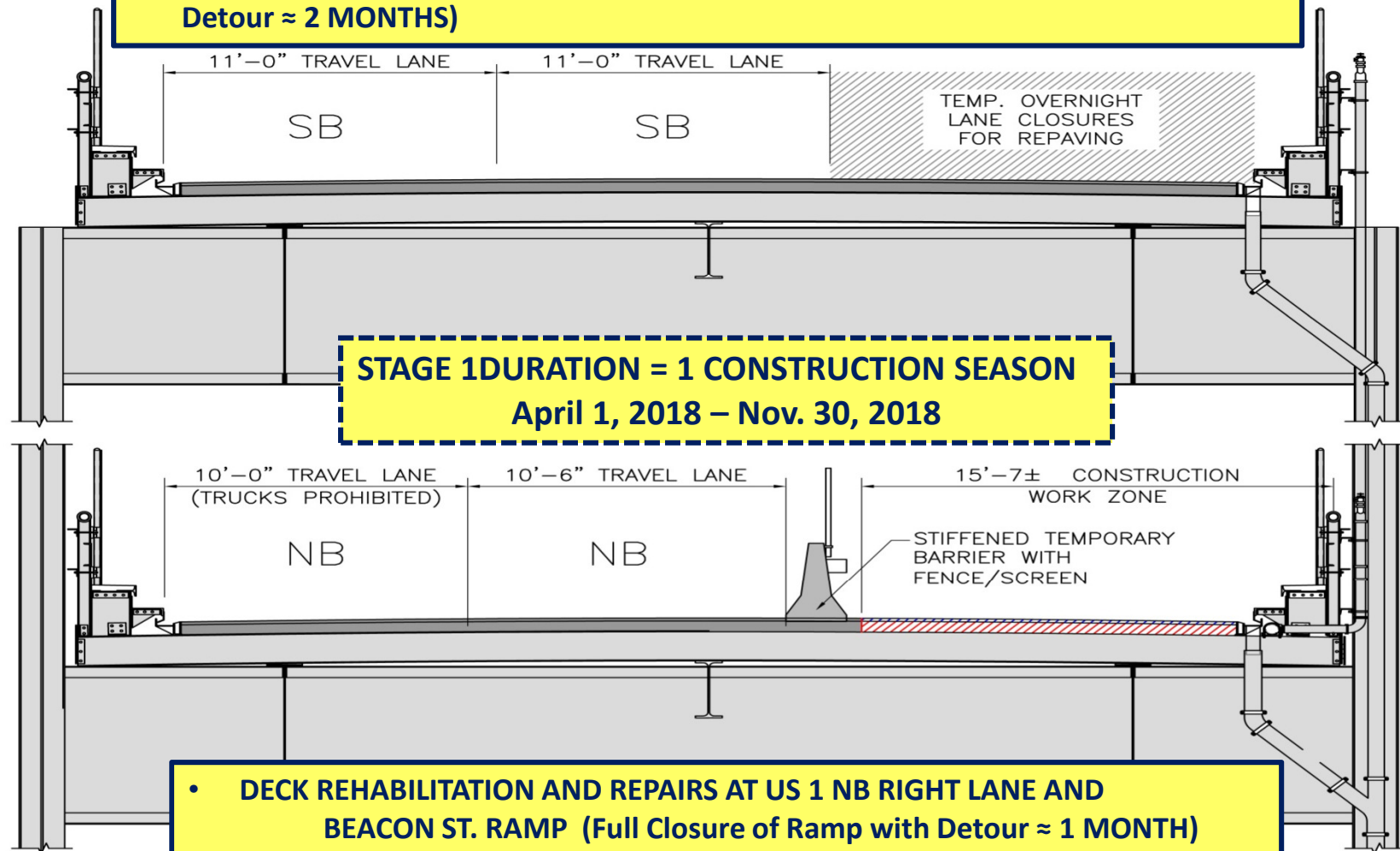


# Traffic Control – Stage 1

## Chelsea Approach Spans



- **REPAVING AT US 1 SB RIGHT LANE - TEMPORARY OVERNIGHT LANE CLOSURES**  
(Sundays – Thursdays 11 PM – 5 AM)
- **RESURFACING OF EVERETT AVENUE RAMP TO US 1 NB** (Full Closure of Ramp with Detour ≈ 2 MONTHS)



- **DECK REHABILITATION AND REPAIRS AT US 1 NB RIGHT LANE AND BEACON ST. RAMP** (Full Closure of Ramp with Detour ≈ 1 MONTH)
- **REPAIRS AT BIG MYSTIC TRUSS; INSTALLATION OF DRY STANDPIPE SYSTEM**

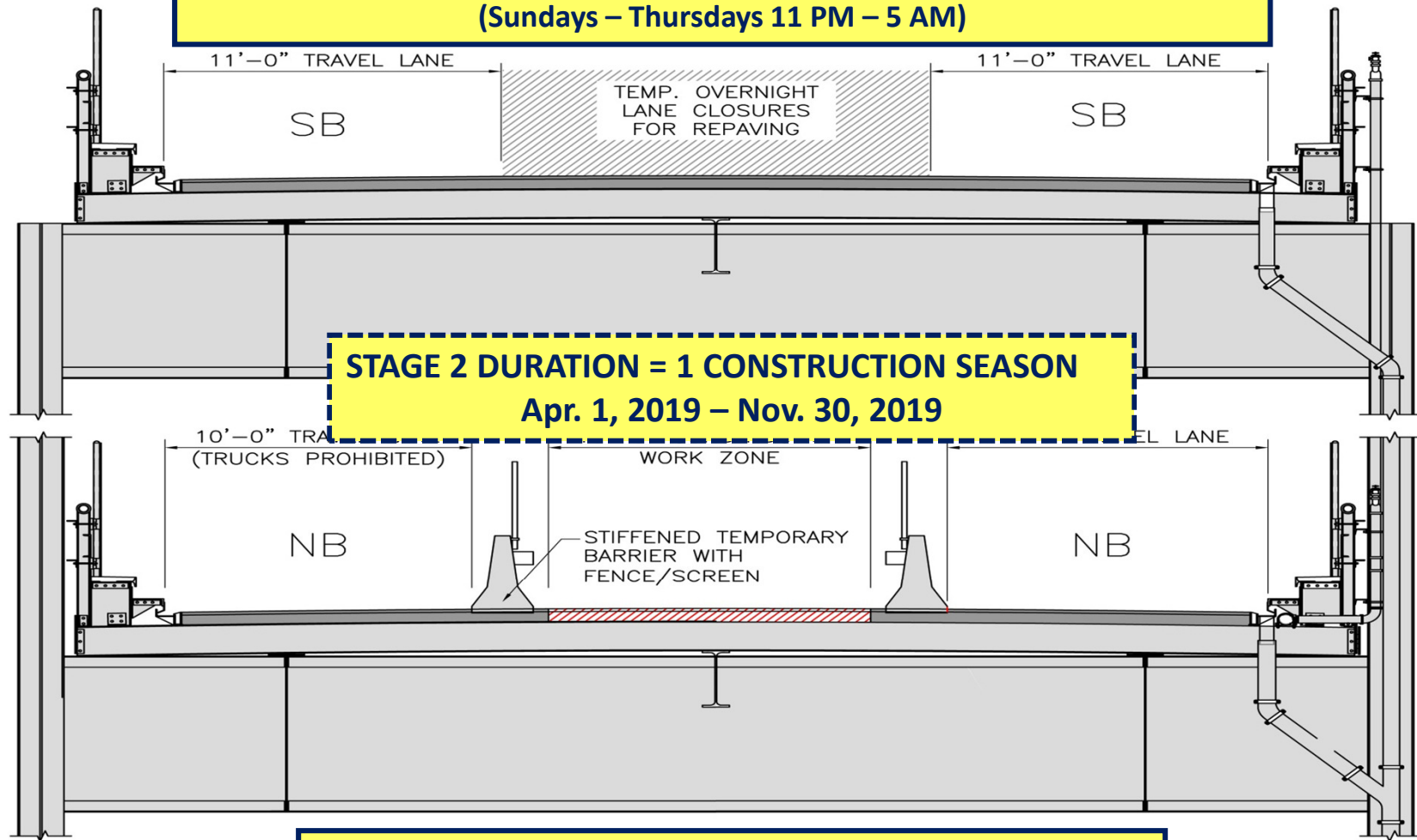


# Traffic Control – Stage 2

## Chelsea Approach Spans



**REPAVING AT US 1 SB CENTER LANE - TEMPORARY OVERNIGHT LANE CLOSURES**  
**(Sundays – Thursdays 11 PM – 5 AM)**



**DECK REHABILITATION AND REPAIRS AT US 1 NB CENTER LANE**

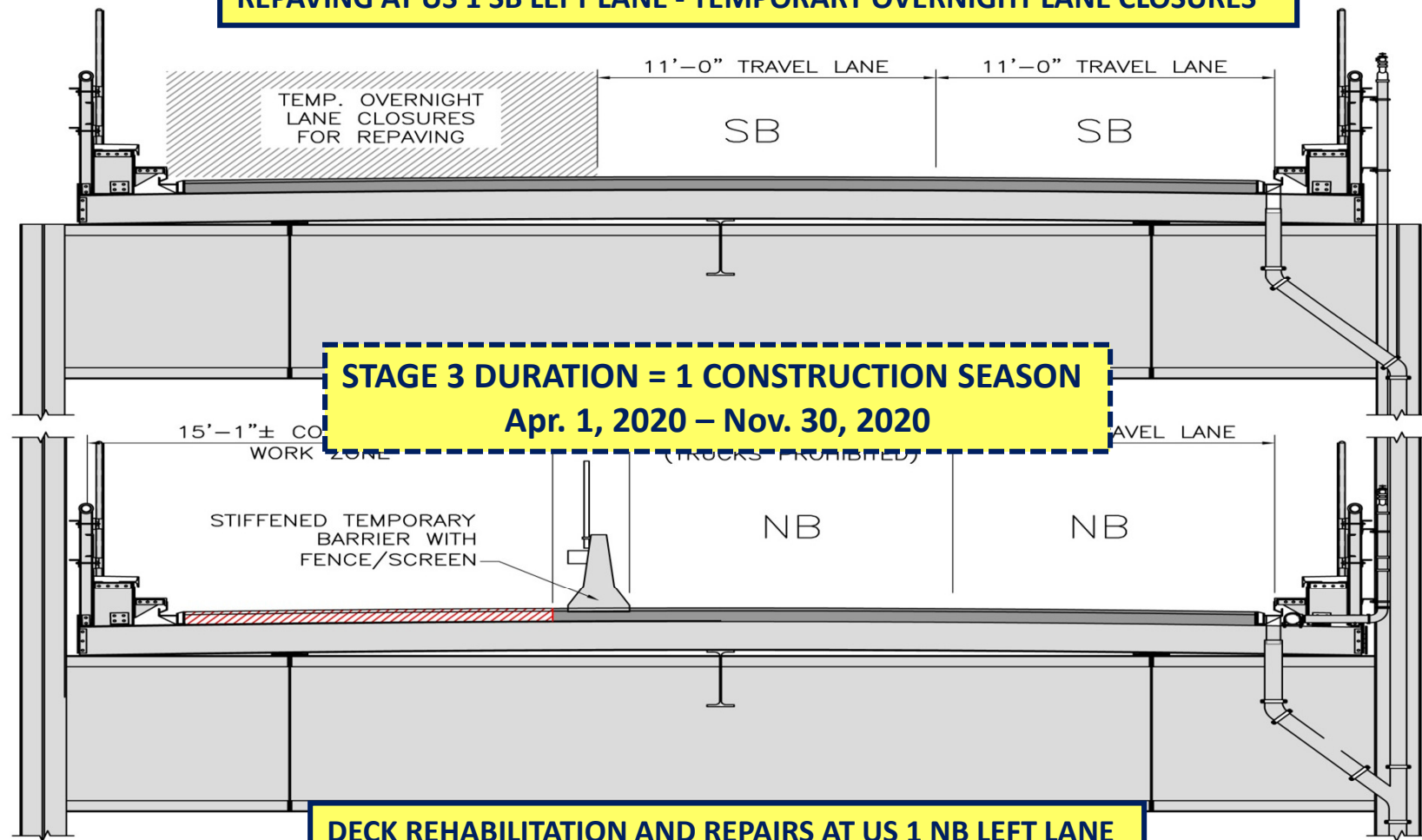


# Traffic Control – Stage 3

## Chelsea Approach Spans



### REPAVING AT US 1 SB LEFT LANE - TEMPORARY OVERNIGHT LANE CLOSURES





# Traffic Impacts During Construction



DATES	Northbound (Lower Deck)	Southbound (Upper Deck)
Apr. 1, 2018 - Nov. 30, 2018	One lane closed; two lanes open. Everett Ave. Ramp closed for approx. 2 months. Beacon St. Ramp closed for approx. 1 month.	Three Lanes Open except during milling and paving operations when 1 lane will be closed during night time hours (Sun. - Thurs, 11 PM - 5 AM)
Dec. 1, 2018 - Mar. 30, 2019	All 3 Lanes open. No closures.	All 3 Lanes open. No closures.
Apr. 1, 2019 - Nov. 30, 2019	One lane closed; two lanes open.	Three Lanes Open except during milling and paving operations when 1 lane will be closed during night time hours (Sun. - Thurs, 11 PM - 5 AM)
Dec. 1, 2019 - Mar. 30, 2020	All 3 Lanes open. No closures.	All 3 Lanes open. No closures.
Apr. 1, 2020 - Nov. 30, 2020	One lane closed; two lanes open.	Three Lanes Open except during milling and paving operations when 1 lane will be closed during night time hours (Sun. - Thurs, 11 PM - 5 AM)



# Current Project Limits

Chelsea Approach Spans

## Parking Lot Construction





## Project Dates



- NTP will be issued approximately two weeks after Board approval
- Contract has a three-year duration that will start upon issuance of NTP
- Detailed schedule is due from the contractor 30 days after the NTP is issued
- Contract Duration: 1000 days
- Estimated completion date: June/2020



## Project Dates



- Design-Bid-Build procurement method
- Advertised on Oct. 22, 2016
- Bids opened on July 18, 2017
- Canvass of bids performed and verified that documents are in order and that lowest bidder is eligible
- Lowest Eligible Bidder: JF White
- Lowest bid: \$41,637,112



## Bids Submitted



- JF White: \$41,637,112
- SPS New England: \$44,644,500
- D.W. White: \$45,415,051
- Barletta Heavy: \$53,496,000

Low Bid: \$41,637,112 (9.82% below estimate)

Average Bid: \$46,298,166 (4 bids received)



# Project Costs

Deck Rehabilitation and Steel Repairs  
Chelsea Approach Spans



Office Estimate \$46,168,948

CIP Total: \$49,100,000

Low Bid: \$41,637,112

Total Project Cost: \$51,564,534 (5.0% above CIP)

Contractor: JF White – performed the last Deck Rehabilitation project  
(2008 - Lower Deck - Toll Plaza & Big Mystic)