

DANA AVENUE BRIDGE

over Neponset River (Replacement Project) Hyde Park, Boston, MA

November 14, 2018 | 6:30 PM



Chris P. Osgood, Chief of Streets

Mayor Martin J. Walsh

AGENDA

- **Welcome and Introductions**
- **Where is the project taking place?**
- **Why is this project being undertaken?**
- **How will the project be built?**



PROJECT LOCATION



Chris P. Osgood, Chief of Streets



Mayor Martin J. Walsh

PROJECT GOAL AND APPROACH

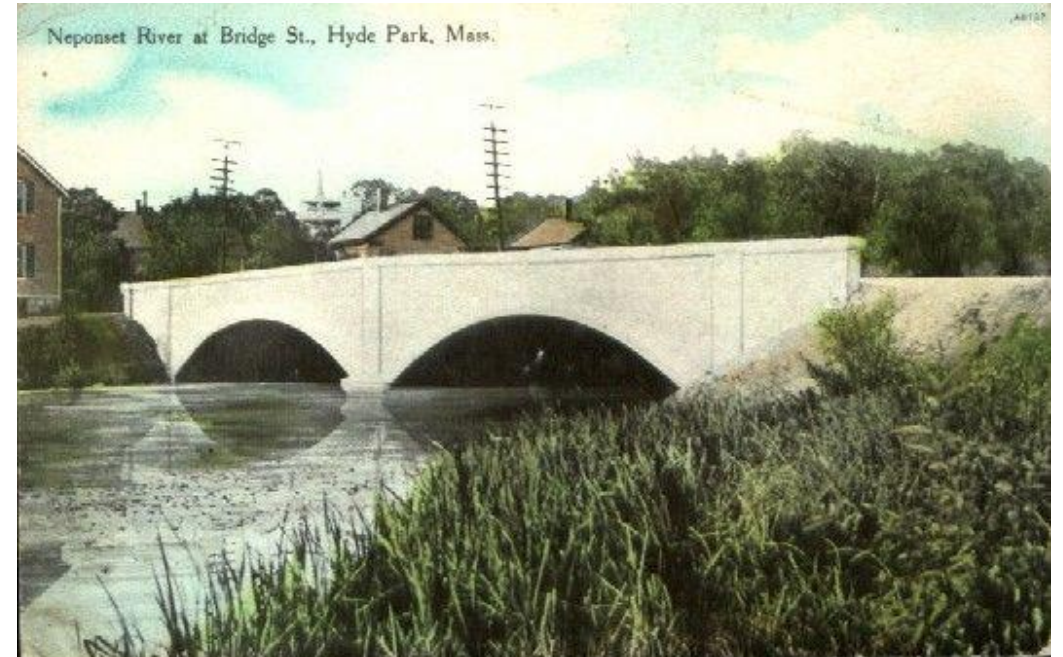


- **Why is this project being undertaken?**
 - BRIDGE IS SAFE
 - but -
 - *Superstructure has exceeded its useful life*



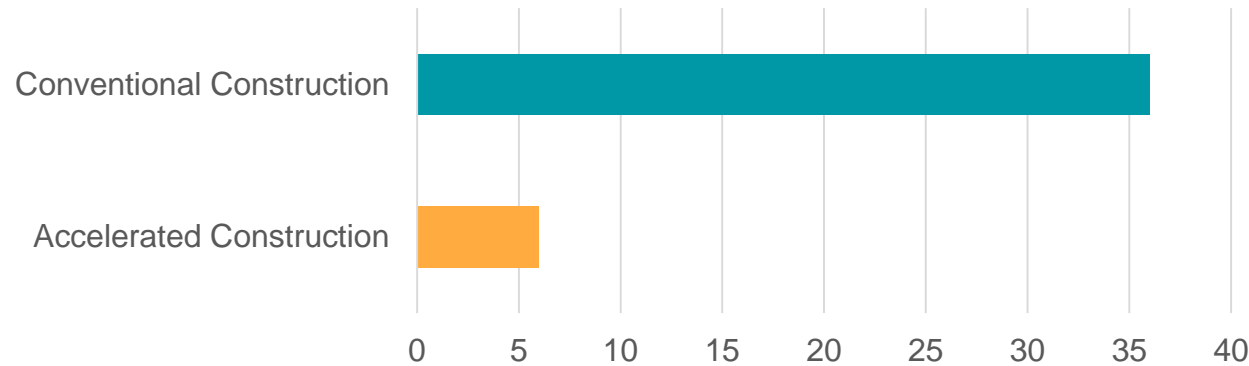
PROJECT GOAL AND APPROACH

- **Existing Structure – 2 span arch bridge**
- **Selected Replacement**
 - *New Precast Concrete Arches and walls*
 - *Reuse Existing Bridge Foundations*
- **Accelerated/Rapid Const**
 - *Limit disruption(s)*
 - *Get in, Get out, Stay out*



PROJECT GOAL AND APPROACH

- **How will the project be built?**
 - *Bridge will be constructed using accelerated bridge construction techniques*
 - *6 months accelerated versus 36 months conventional*
 - *Includes a 7 week shutdown of Dana Ave*



ANTICIPATED TIMELINE

- **Finalize Design and Advertise – December 2018**
- **Award Construction Contract – March 2019**
- **Begin Construction – May-June 2019**
 - *Prep Work*
 - *Install Temp Pedestrian Bridge*
 - *Utility shutdown/removal*
- **Close Bridge – July 8, 2019**
 - *Demolish Existing Bridge Superstructure*
 - *Install new Bridge*
- **Reopen Bridge – August 25, 2019**
- **Finalize construction activities –October 31, 2019**



ANTICIPATED TIMELINE

DANA AVE SCHEDULE

Advertise December 21 2018
Bids Opened January 25, 2019
NTP March 2019
Dana Ave Shutdown July 8, 2019
Dana Ave Reopened August 26, 2019

Advertising / Bid Development
Bids Opened / Contract to NTP
Contractor Procurement / Early work
Dana Ave Shut Down / Replace Bridge
Complete Construction

Contract Completion October 31, 2019

January

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

April

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

July

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

October

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

February

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | | |

May

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

August

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

November

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|-----|
| | | | | | | 1 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

March

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

June

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | | | | | | |

September

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

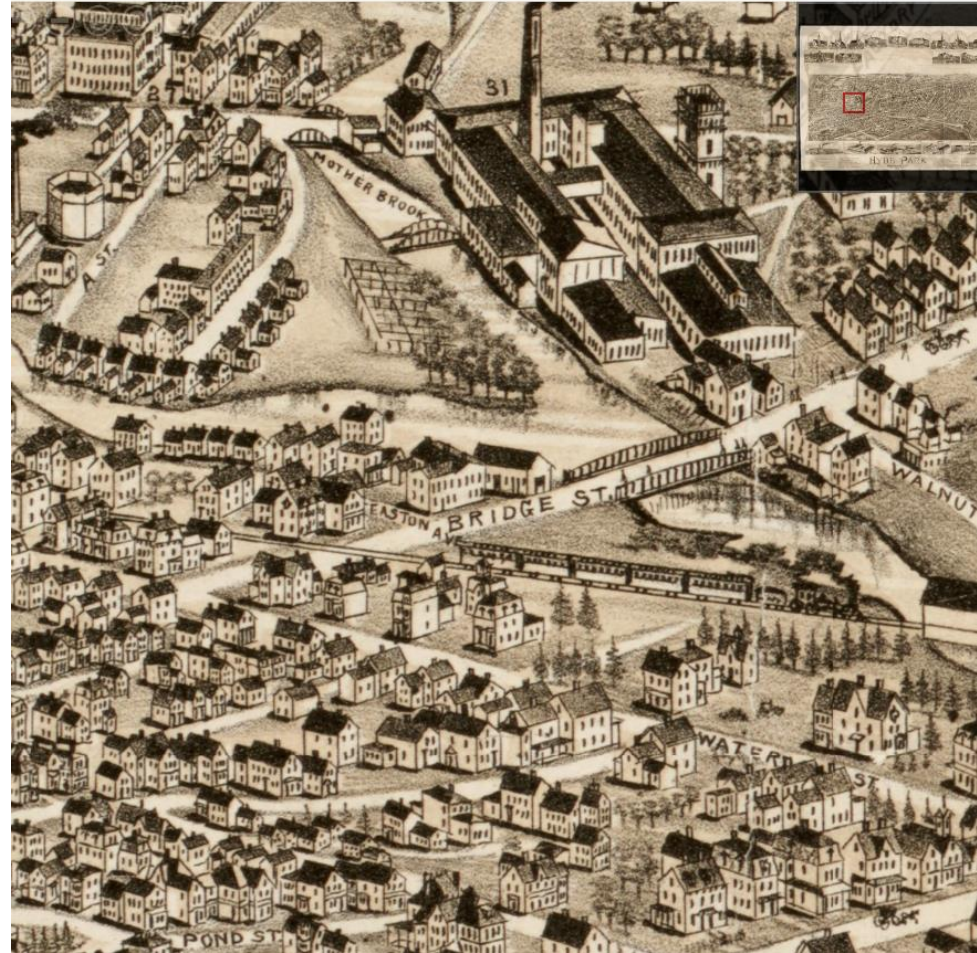
December

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |



EXISTING CONDITIONS

Hyde Park, Massachusetts



- **Traffic Volumes**
 - 9,000 Vehicles Per Day
 - Peds, Bikes, Parking
 - Recreation, river
- **Direct Abutters**
 - Boston EMS, PWD
 - Residences



CONSTRUCTION ACTIVITIES

- **What happens before closure**
 - *Prep Work*
 - *Temporary Pedestrian Bridge*
- **What happens during bridge closure**
 - *Demolition*
 - *Install Precast Arches*
 - *Construct walls and*
 - *Construct roadway & sidewalk*
- **After bridge opens to traffic**
 - *Remove temporary bridge*
 - *Restore project site*



IMPACTS TO TRAFFIC/PEDESTRIANS

- **Before closure – time frame**

- *Maintain pedestrian traffic with at least one sidewalk open at all times*
- *Traffic shifted during pedestrian bridge preparation*
- *Temporary Lane Closures during working hours*
 - *Full bridge closure not anticipated during prep stage**
- *Gas Service to be Maintained through construction*
- *River to be open, except starting two weeks before, during the bridge closure, until possibly two weeks after*
 - *As soon as passage is safe for boaters**



IMPACTS TO TRAFFIC/PEDESTRIANS

- **During closure – time frame**
 - Vehicular traffic detoured
 - Lowest traffic volumes during the summer
 - Traffic signals on detour route will be monitored and adjusted by contractor if required
 - Maintain pedestrian traffic at all times via adjacent temporary pedestrian bridge
 - River closed under both arches for safety



IMPACTS TO TRAFFIC – ADVANCED WARNING

DANA AVE
BRIDGE
CLOSURE



PORTABLE CHANGEABLE MESSAGE SIGNS
TO PROVIDE ADVANCED WARNING = 

MBTA

River Street

Hyde Park Ave

Dana Ave

Mother

Brook

Walnut

Fairmount Ave.

Neponset R.

MBTA

Truman Parkway

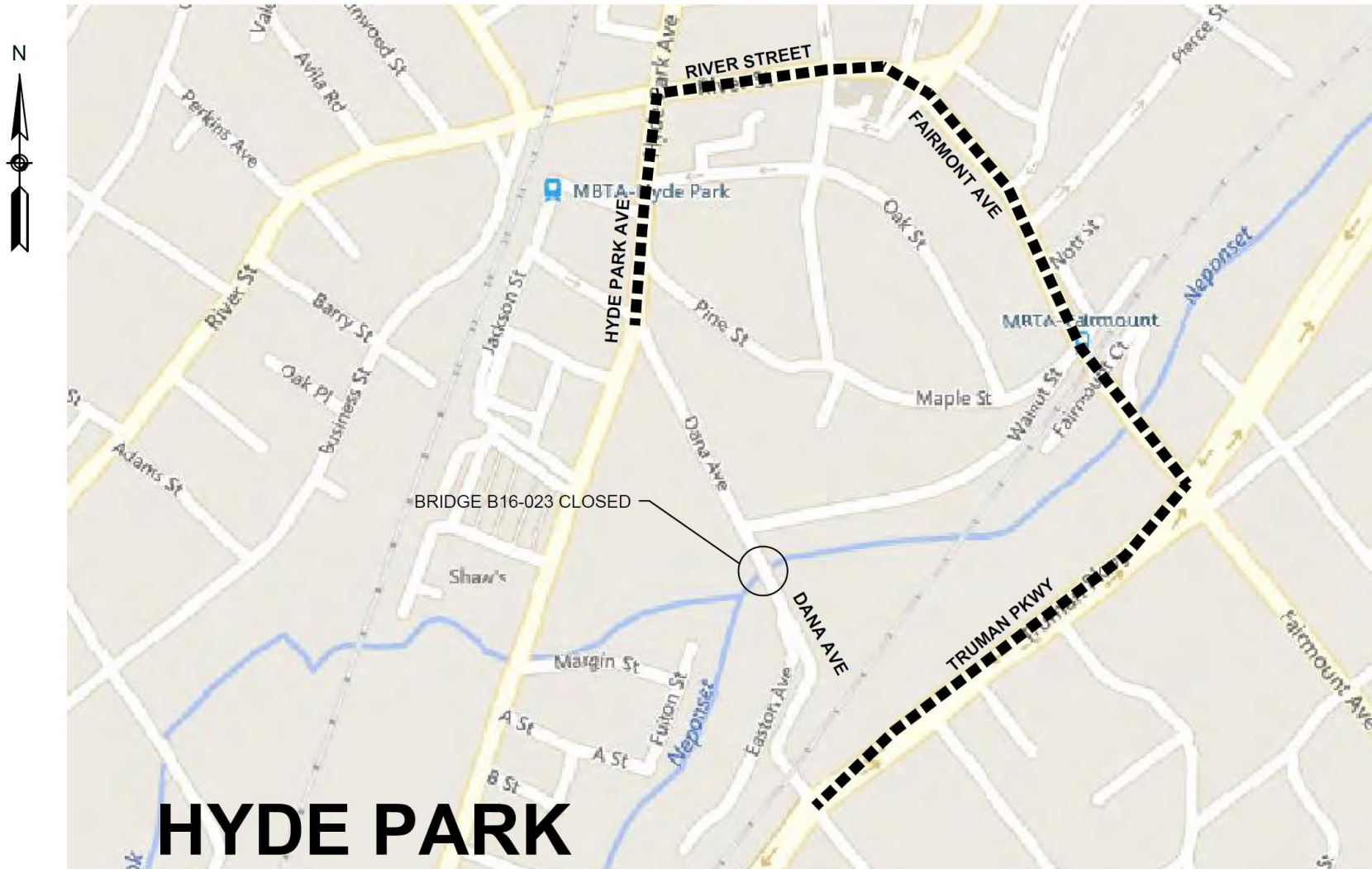


Chris P. Osgood, Chief of Streets

GILL
ENGINEERING

Mayor Martin J. Walsh

IMPACTS TO TRAFFIC - DETOUR



RIGHT OF WAY

**No Right of Way takings
Or
Temporary Easements are anticipated**





Chris P. Osgood, Chief of Streets



Mayor Martin J. Walsh



Chris P. Osgood, Chief of Streets



Mayor Martin J. Walsh

ADVANTAGES OF PROJECT COMPONENTS

- **Bridge Type**

- *Arches similar to existing shape*
- *Able to utilize existing footings*
- *Precast construction allows accelerated installation*

- **Approach to execute the project**

- *Greatest latitude for construction operations*
- *Flexibility for crane, equipment and material staging*
- *Construction and hoisting operations occur away from traveling public*
- *Least impact to users*
- *Maintains pedestrian access at all times*
- *Retains existing substructures*
- *All work within existing right of way (ROW)*



PROJECT CONTACT INFORMATION

Benjamin Sun, P.E.

City of Boston Public Works Department

benjamin.sun@boston.gov

617-635-4968

or

Preston A. Huckabee, P.E.

Gill Engineering Associates, Engineering Consultant

Huckabee@gill-eng.com

781-355-7100



QUESTIONS??



Chris P. Osgood, Chief of Streets

Mayor Martin J. Walsh