WELCOME!

Cummins Highway Open House
6:00 – 6:30

Cummins Highway Presentation
6:30 – 8:00
<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>5 min</td>
</tr>
<tr>
<td>Summary of Analysis, Design Concepts and Feedback</td>
<td>25 min</td>
</tr>
<tr>
<td>Preferred Alternative Selection</td>
<td>15 min</td>
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<tr>
<td>Questions &amp; Answers</td>
<td>30 min</td>
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</tbody>
</table>
Introduction

Jeffrey Alexis, Project Manager, BPWD

Zach Wassmoutch, Chief Design Engineer, BPWD

Para Jayasinghe, City Engineer, BPWD

Fayssal Husseini, Vice President, Nitsch

Stephen Farr, Project Manager, Nitsch

Jacqueline Perkins, Engineer, Nitsch

Ted Presume, Engineer, Nitsch
CUMMINS HIGHWAY
City Agencies

Jeffrey Alexis, Project Manager
Public Works Department

Boston Public Works Department

City of Boston Planning & Development Agency

City of Boston Transportation Department

City of Boston Water & Sewer Commission

City of Boston Disabilities Commission

City of Boston Parks & Recreation

City of Boston Neighborhood Services
CUMMINS HIGHWAY
Anticipated Project Schedule

Public Meeting No. 1  April 11, 2019
Public Meeting No. 2  October 29, 2019
Public Meeting No. 3  Feb 27, 2020
Update Meeting Date TBD
Design Engineering
Spring 2020– Fall 2020
Construction Starts
Spring 2021
“WE WANT TO TRANSFORM CUMMINS HIGHWAY INTO A NEIGHBORHOOD STREET”
CUMMINS HIGHWAY
The Project Triple Bottom Line

Policies, Plans and Initiatives

Design Guidelines and Best Practices

Community Input

The Perfect Project
CUMMINS HIGHWAY
Guiding Policies, Plans and Initiatives – Vision Zero

• Safety
• Slower Vehicle Speeds

Source: Impact Speed and a Pedestrian’s Risk of Severe Injury or Death, Brian Tefft, AAA Foundation for Traffic Safety, 2011
Sets goals, target and action plan for Boston’s transportation system.

2030 Targets include:
- 34% Increase in Transit
- 14% Increase in Walking
- 2% Increase in Biking
- 39% Reduction in driving alone.

- Balancing Multi-Modality (Walking, Biking, Transit and Driving)
- Enhancing Transportation Efficiency and Connectivity
Fairmont Indigo Initiative- Provides recommendations and strategies to improve the vitality of the Blue Hill Ave / Cummins Highway Commuter Rail Station Area.

- Safety
- Balancing Multi-modality (Walking, Biking, Transit and Driving)
- Transit Connectivity
Transportation improvements to compliment the neighborhood vision for Mattapan
Urban Street Design Guide –

Prepared by the National Association of City Transportation Officials (NACTO).

- Safety
- Balancing Multi-Modality (Walking, Biking, Transit and Driving)
Boston Complete Streets - Provides citywide design principles and guidelines for streets that are:

- Multi-modal
- Green
- Smart

- Balancing Multi-Modality (Walking, Biking, Transit and Driving)
- Designing Streets for People
CUMMINS HIGHWAY
Design Guidelines and Best Practices

Boston Bike Network Plan-

Lays out a plan for bicycle connectivity to Roslindale Square, Mattapan Square / Neponset River Trail

• Balancing Multi-Modality
CUMMINS HIGHWAY
Community Input

Mattahunt Community Center, October 29th Open House

- Presented Four Roadway Concepts
- Over 30 written comments made at the Open House
- 41 responses to the Open House survey (online & hand-written)
CUMMINS HIGHWAY Design Concepts

CONCEPT #1

CONCEPT #2

CONCEPT #3

CONCEPT #4
CUMMINS HIGHWAY
Summary of Responses to Design Survey

I am interested in Cummins Highway because....

- I commute using Cummins Hwy: 61%
- I live within 4 blocks of Cummins Hwy: 59%
- I shop in the area: 41%
- Other (please specify): 34%
- I live on Cummins Hwy - within the project limits: 15%
- I work within 4 blocks of Cummins Hwy: 7%
- I go to school within 4 blocks of Cummins Hwy: 2%
### CUMMINS HIGHWAY

**Summary of Responses to Design Survey**

**What elements do you like most about the concepts?**
(Select up to 3.)

<table>
<thead>
<tr>
<th>Element</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Calming/Speed Reduction</td>
<td>71%</td>
</tr>
<tr>
<td>Separated Bicycle Lane</td>
<td>59%</td>
</tr>
<tr>
<td>Street Lighting</td>
<td>51%</td>
</tr>
<tr>
<td>Shorter Crosswalks</td>
<td>34%</td>
</tr>
<tr>
<td>New Street Trees</td>
<td>32%</td>
</tr>
<tr>
<td>Raised Crosswalks on Side Streets</td>
<td>32%</td>
</tr>
<tr>
<td>Improved Bus Stops</td>
<td>24%</td>
</tr>
<tr>
<td>Wider Sidewalks</td>
<td>24%</td>
</tr>
<tr>
<td>Benches/Seating</td>
<td>22%</td>
</tr>
<tr>
<td>New Landscape Areas</td>
<td>20%</td>
</tr>
<tr>
<td>New Areas for Public Art</td>
<td>17%</td>
</tr>
<tr>
<td>Other (Please specify below.)</td>
<td>0%</td>
</tr>
</tbody>
</table>
CUMMINS HIGHWAY
Concept 1 – Four Lanes (Maintain Median)

Advantages
- Improved Bus Stops
- New Street Lighting
- New Street Trees

Dis-Advantages
- No Speed Reduction
- Long Cross Walks
- No Bicycle Facility
What elements do you like most about Concept No. 1? (Four lanes maintain median- select up to 3) *

- Maintains Median Island: 47%
- Maintains 4 Travel Lanes: 42%
- Other (Specify below): 17% (11 of 15 comments oppose concept #1)
- No Vehicle Speed Reduction: 14%
- Longer Crosswalks: 8%
- No Bicycle Facility: 8%

* 12% of respondents did not answer this question
What elements do you dislike most about Concept No. 1? (Four lanes maintain median- select up to 3) *

- No Vehicle Speed Reduction: 67%
- No Bicycle Facility: 56%
- Maintains 4 Travel Lanes: 42%
- Longer Crosswalks: 31%
- Maintains Median Island: 6%

Other (Specify below): 0%  * 12% of respondents did not answer this question
CUMMINS HIGHWAY
Concept 2 – Four Lanes (Remove Median)

Advantages
- Improved Bus Stops
- New Street Lighting
- New Street Trees

Dis-Advantages
- No Speed Reduction
- Long Crosswalks
- No Bicycle Facility
What elements do you like most about Concept No. 2?
(Four lanes remove median – Select up to 3) *

- Maintains 4 Travel Lanes: 39%
- Removes Median Island: 26%
- No Vehicle Speed Reduction: 19%
- Other (Specify below): 13% (8 of 13 comments oppose concept #2)
- No Bicycle Facility: 10%
- Longer Crosswalks: 3%

* 24% of respondents did not answer this question
What elements do you dislike most about Concept No. 2? (Four lanes remove median – Select up to 3)

- No Vehicle Speed Reduction: 55%
- No Bicycle Facility: 53%
- Maintains 4 Travel Lanes: 50%
- Removes Median Island: 32%
- Longer Crosswalks: 24%
- Other (Specify below): 0%

* 7% of respondents did not answer this question
CUMMINS HIGHWAY
Concept 3 – Two Lanes (Maintain Median)

Advantages
- Reduced Vehicle Speeds
- Improved Bus Stops
- Shorter Crosswalks
- New Street Lighting
- New Street Trees
- Bicycle Facility

Keep Turning Lanes at Intersections

Dis-Advantages
- Limited access to driveways due to median
- Additional vehicle travel time delay

EXIST CURB

9±' 6' 3' 8' 11' 1' 4' 1' 11' 8' 3' 6' 9±'
Summary of Responses to Design Survey

What elements do you **like** most about Concept No. 3? (Two lanes maintain median – Select up to 3)

- Bicycle Facility: 54%
- Reduced Vehicle Speeds: 51%
- Shorter Crosswalks: 30%
- Only 2 Travel Lanes: 30%
- Maintains Median Island: 27%
- Wider Sidewalks: 24%
- Limited Access to Driveways (Fewer Traffic Conflicts): 22%
- Other (Specify below): 0%

* 9% of respondents did not answer this question.
What elements do you dislike most about Concept No. 3? (Two lanes maintain median – Select up to 3)

- Only 2 Travel Lanes: 50%
- Limited Access to Driveways (Fewer Traffic Conflicts): 30%
- Maintains Median Island: 20%
- Other (Specify below): 13%
- Reduced Vehicle Speeds: 13%
- Wider Sidewalks: 10%
- Bicycle Facility: 10%
- Shorter Crosswalks: 3%

* 27% of respondents did not answer this question
CUMMINNS HIGHWAY
Concept 4 – Two Lanes (Remove Median)

Advantages
- Reduced Vehicle Speeds
- Wider Sidewalks
- Improved bus stops
- Shortest Crosswalks
- New Street Lighting
- New Street Trees
- Bicycle Facility

Keep Turning Lanes at Intersections

Dis-Advantages
- Full access to driveways creates more conflicts with vehicles
- Additional vehicle travel time delay

- Keep Turning Lanes at Intersections

EXIST CURB

12' ± 6' 3' 8' 11' 11' 8' 3' 6' 12' ±

80' ROW
What elements do you like most about Concept No. 4? (Two lanes remove median – Select up to 3) *

- Bicycle Facility: 59%
- Reduced Vehicle Speeds: 47%
- Only 2 Travel Lanes: 38%
- Wider Sidewalks: 29%
- Shorter Crosswalks: 24%
- Full Access to Driveways (More Traffic Conflicts): 18%
- Removes Median Island: 15%
- Other (Specify below): 6%

* 17% of respondents did not answer this question
What elements do you dislike most about Concept No. 4? (Two lanes remove median – Select up to 3) *

- Removes Median Island: 52%
- Only 2 Travel Lanes: 39%
- Full Access to Driveways (More Traffic Conflicts): 27%
- Wider Sidewalks: 15%
- Reduced Vehicle Speeds: 12%
- Shorter Crosswalks: 9%
- Other (Specify below): 6%
- Bicycle Facility: 6%

* 20% of respondents did not answer this question
Design Elements Liked

- Traffic Calming
- Speed Reduction
- Shorter Crosswalks
- Wider Sidewalks
- Separated Bike Facility

Design Concerns

- Removing the Median eliminates pedestrian refuge
- Removing the Median allows more left turns into driveways
- Traffic Congestion with only two lanes
CUMMINS HIGHWAY

Travel Delay – Average PM Peak Hour

Includes stop delays due to buses

Exist Travel Time = 2.3 Minutes
Future Travel Time = 3.3 Minutes

Exist Travel Time = 2.5 Minutes
Future Travel Time = 3.5 Minutes
CUMMINS HIGHWAY
Proposed Bus Stop Consolidation

16 Current MBTA Bus Stops
12 Proposed MBTA Bus Stops
Bus Stop Consolidation Benefits:

• Average Bus Stop = 15 seconds
• Fewer stops means quicker bus trips
• Less stops improves safety, reducing risk for all modes of travel
• Proposed stop spacing is approximately 880 feet, which is well below the maximum distance of 1,300 feet.
What elements are common to all?

- Policies, Plans and Initiatives
- Design Guidelines & Standards
- Balancing Multi-Modality
- Slower Vehicle Speeds
- Community Input
- Safety for all Modes
- Connectivity to all Modes
Concept #1 & #2 do not satisfy the needs of the community or the policies and guidelines of the city.
-No Speed Reduction
-No Safety Improvement
-No Multi-Modal Balance
CUMMINS HIGHWAY
Existing Conditions - 85% Vehicle Speed
CUMMINS HIGHWAY
2016-2018 Crash Data (Boston Police Dept)

119 Total Crashes
59 Personal Injury
17 Ped/Bike
2X State Average

Top 3% for Vehicle Crashes in the City
CUMMINS HIGHWAY
Concept Selection – Concept #3 vs. Concept #4

**CONCEPT #3**

**Advantages**
- ✓ Less turning conflicts due to median

**Dis-Advantages**
- ○ Higher vehicle speeds
- ○ Narrower sidewalks
- ○ Longer crosswalks
- ○ Emergency vehicles may be stuck behind vehicle queue
- ○ Snow removal more difficult

**CONCEPT #4**

**Advantages**
- ✓ Reduced Vehicle Speeds
- ✓ Wider Sidewalks
- ✓ Shortest Crosswalks
- ✓ Better Emergency Vehicle Access
- ✓ Easier Snow Removal

**Dis-Advantages**
- ○ Full access to driveways creates more conflicts with vehicles
CUMMINS HIGHWAY
Preferred Alternative
Concept #4 Two Lanes - No Median

✓ Applies most traffic calming measures
✓ No median for maximum calming affect and emergency response capability
✓ Enhance bus stops
✓ Create bicycle facilities
✓ Street Trees
✓ Improve sidewalks and pedestrian access
✓ Improve street lighting
✓ Improve green space

Rugby Rd / Savannah Ave Intersection
CUMMINS HIGHWAY
Greenfield Road Intersection

Traffic Signal versus Roundabout
CUMMINS HIGHWAY
Summary of Responses to Design Survey

What are your concerns with the Cummins Highway / Greenfield Road signalized concept?

- Pedestrian Safety: 75%
- Speeding: 58%
- Traffic Congestion: 50%
- Bicycle Safety: 43%
- Vehicle Safety: 43%
- Travel Delay: 38%
- Turning: 30%
- Parking: 25%
- Other (Please specify below.): 5%
What do you feel are the benefits with the Cummins Highway / Greenfield Road signalized concept? *

- Pedestrian Safety: 71%
- Reduced Speeds/Traffic Calming: 57%
- Bicycle Safety: 54%
- Vehicle Safety: 49%
- Turning: 29%
- Public Art: 20%
- Greenspace: 20%
- Other (Please specify below.): 6%  

* 15% of respondents did not answer this question.
CUMMINS HIGHWAY
Roundabout Concept- Greenfield Road Intersection
CUMMINS HIGHWAY

Roundabout vs. Rotary – What is the Difference?
VFW Parkway – West Roxbury Parkway, West Roxbury
What are your concerns with the Cummins Highway / Greenfield Road roundabout concept? *

- Pedestrian Safety: 69%
- Traffic Congestion: 50%
- Bicycle Safety: 47%
- Speeding: 36%
- Travel Delay: 36%
- Turning: 33%
- Vehicle Safety: 25%
- Parking: 14%

Other (Please specify below.): 8%

* 12% of respondents did not answer this question
What do you feel are the benefits with the Cummins Highway / Greenfield Road roundabout concept? *

- Reduced Speeds/Traffic Calming: 69%
- Pedestrian Safety: 44%
- Bicycle Safety: 39%
- Public Art: 36%
- Vehicle Safety: 36%
- Greenspace: 28%
- Turning: 28%
- Other (Please specify below.): 3%

* 12% of respondents did not answer this question
CUMMINS HIGHWAY
Summary of Responses to Design Survey

Design Elements Liked

• Traffic Calming
• Add order to the intersection
• Speed Reduction
• Shorter Crosswalks

Design Concerns

• Speeding
• Pedestrian Safety
• Traffic Congestion
CUMMINS HIGHWAY
Concept Selection – Traffic Signal vs. Roundabout

Traffic Signal Concept

**Advantages**
- ✓ Pedestrian signal gives clear indication when to cross
- ✓ Bicycles have more direct crossing

**Dis-Advantages**
- o Higher vehicle speeds
- o No traffic calming off-peak
- o Longer crosswalks
- o Signal maintenance and power costs
- o More vehicle conflicts

Roundabout Concept

**Advantages**
- ✓ Reduced Vehicle Speeds
- ✓ Continuous traffic calming during “off peak” periods
- ✓ Shortest Crosswalks
- ✓ Lower maintenance costs
- ✓ Less vehicle conflicts
- ✓ Less delay for pedestrians

**Dis-Advantages**
- o Pedestrians use judgement to cross during gaps in traffic
- o Bicycle crossing slightly longer
CUMMINS HIGHWAY
Preferred Alternative – Greenfield Roundabout

✓ Best traffic calming measure
✓ Slows traffic 24/7/365
✓ Safest option for all modes
✓ Lowest Maintenance
✓ Less delay for pedestrians
CUMMINS HIGHWAY
Preferred Corridor Concept

Roundabout

Two Lane No Median
CUMMINS HIGHWAY
Traffic Simulation – Afternoon Peak Hour

PREFERRED ALTERNATIVE
CONCEPT #4 with ROUNDABOUT

Future No-Build Conditions (2028)

Future Build Conditions (2028)

Note: All 3D buildings are for representation purpose ONLY.
CUMMINS HIGHWAY
Anticipated Project Schedule

Construction Starts Spring 2021
Design Engineering
Spring 2020–Fall 2020
Public Meeting No. 3 Feb 27, 2020
Update Meeting Date TBD
Public Meeting No. 2 October 29, 2019
Public Meeting No. 1 April 11, 2019
Thank you

Jeffrey Alexis
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Principal Civil Engineer
Boston Public Works Department
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jeffrey.alexis@boston.gov

Questions and Answers?

Mail-In Comment Sheet
Pickup form at Entrance/Exit
Project Website