

Merrimack 10136D

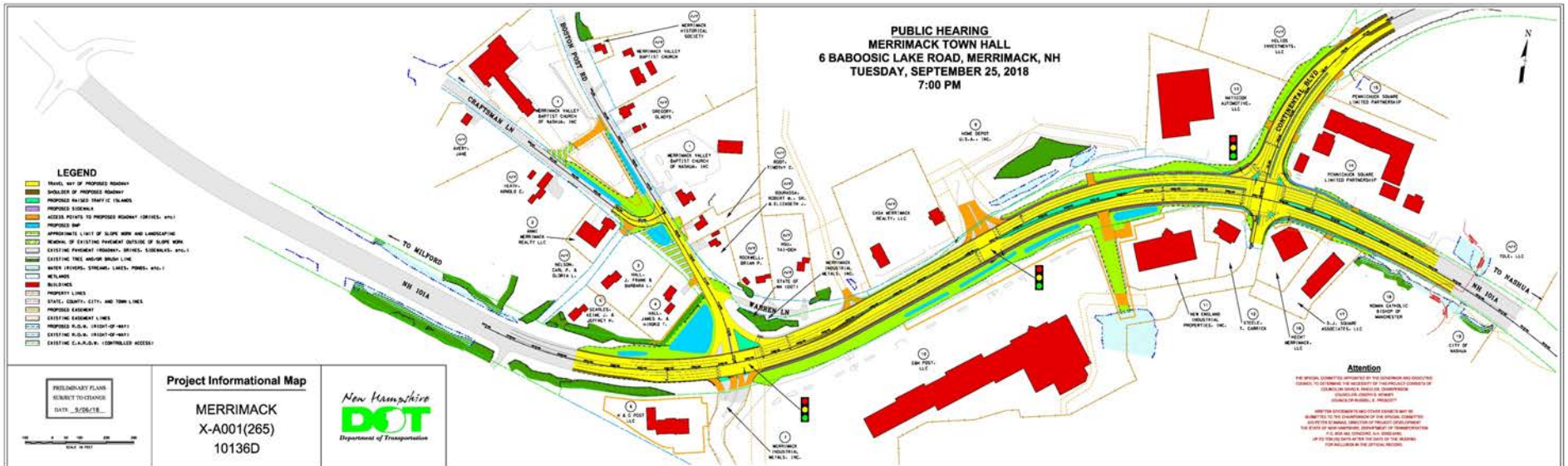
Widening of NH 101A

Public Hearing

September 25, 2018

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Widening NH 101A and Intersection Improvements



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Widening NH 101A and Intersection Improvements

- NH 101A – Project Area
 - 3 Westbound Lanes
 - 2 Eastbound lanes
 - Raised/Painted Medians to Develop Turn Lanes
 - Three Signalized Intersections
 - Boston Post Road/Connections Drive
 - Home Depot Drive
 - Continental Boulevard
 - Over 42,000 vehicles per day (weekdays)
 - Sidewalk on North (Westbound) Between Boston Post Road and Continental Boulevard – Both sides east of Continental Boulevard
 - No Pedestrian Crossings of NH 101A

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Widening NH 101A and Intersection Improvements

- Project Components
 - NH 101A and Continental Boulevard Intersection
 - Capacity Improvements
 - Sidewalk Connectivity
 - Pedestrian Access Improvements
 - Boston Post Road/Craftsman Lane
 - Traffic Calming
 - Safety

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Widening NH 101A and Intersection Improvements

- NH 101A and Continental Boulevard Intersection
 - Adds third EB through-lane
 - Adds 2nd right-turn lane from Continental Boulevard to NH 101A WB
 - Adds right-turn lane from NH 101A WB to Continental Boulevard

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Widening NH 101A and Intersection Improvements

2nd Right
Turn to
NH 101A

Right Turn to
Continental
Blvd.



3rd EB Thru Lane

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Widening NH 101A and Intersection Improvements

- Proposed Benefits – Continental Blvd.
 - Average Peak Hour Delay at Continental Blvd.
 - Future Year – No Build
 - Average Delay – 193.4 seconds
 - Future Year – Build
 - Average Delay – 61.3 seconds
 - Nearly 70% Reduction in Average Delay Across the Intersection
 - Incorporate Pedestrian Phase
 - Clearance Interval Modifications as Necessary

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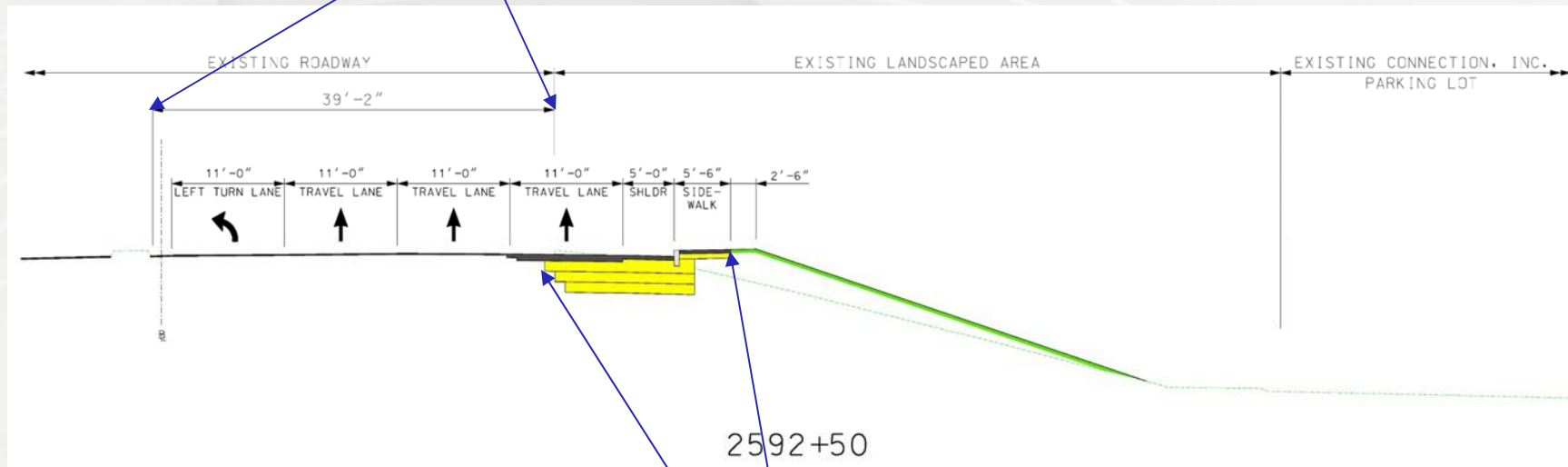
Widening NH 101A and Intersection Improvements

- Sidewalk connectivity between Continental Blvd. and Boston Post Road
 - Adds southerly sidewalk between Continental Boulevard and Boston Post Road
 - Crosswalks provided across NH 101A at Continental Boulevard and Boston Post Road
 - Bike accommodations improved at Continental Boulevard intersection

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Widening NH 101A and Intersection Improvements

Existing Left Turn Lane, 2-Travel Lanes, and Shoulder

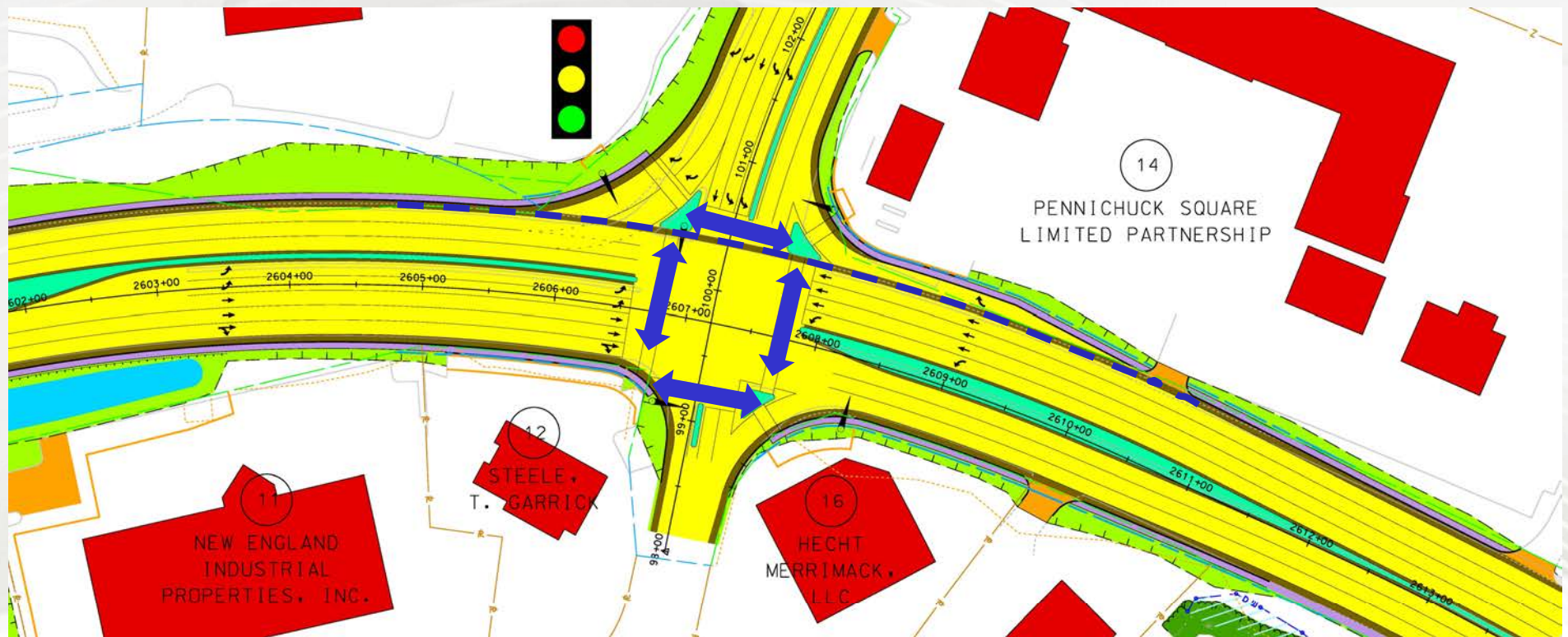


Widening and New Sidewalk

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Widening NH 101A and Intersection Improvements

- Dedicated WB Bike Lane -
- Pedestrian Crosswalks – All Legs -



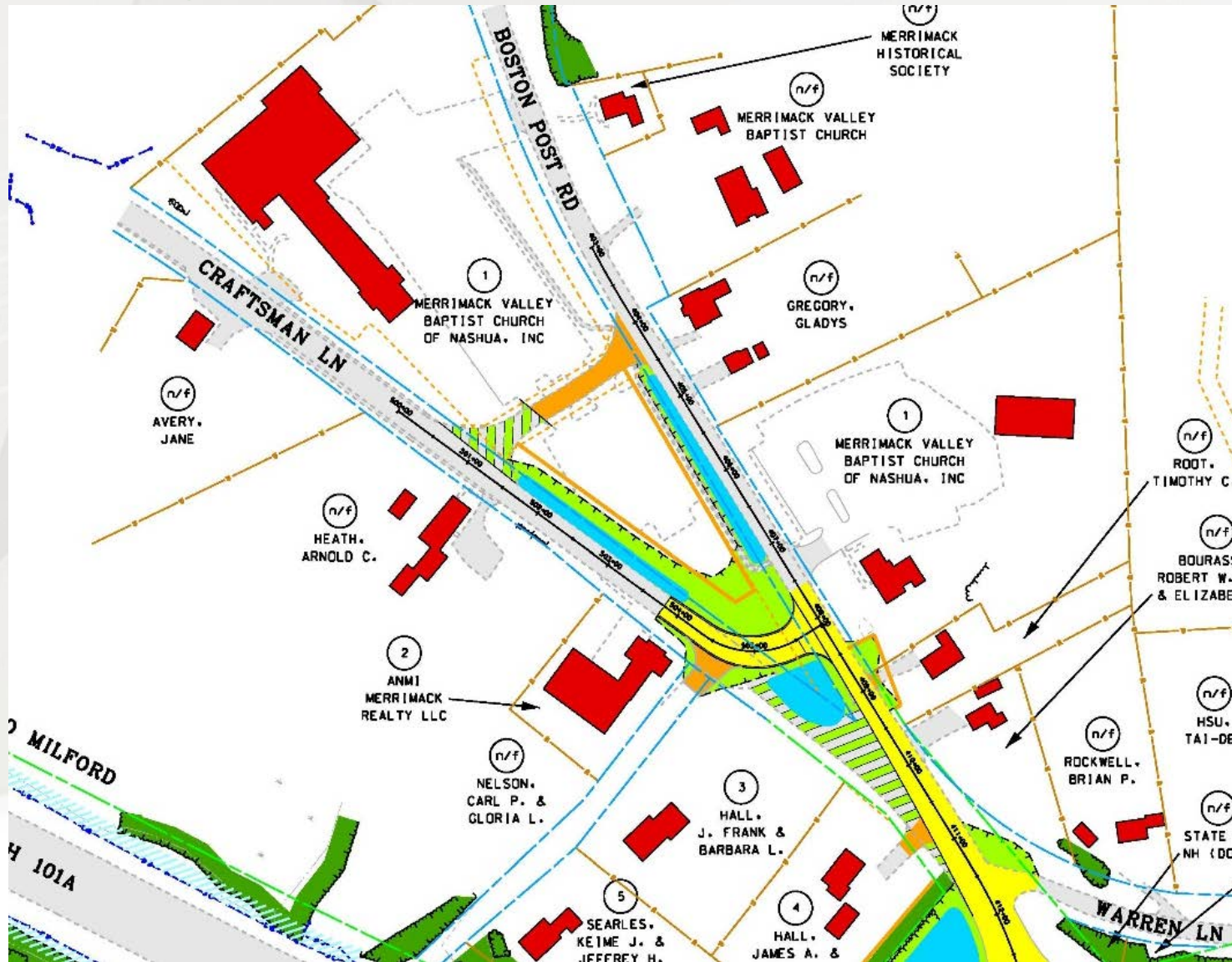
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Widening NH 101A and Intersection Improvements

- Craftsman Lane traffic calming
 - Reconfigures Boston Post Road / Craftsman Lane intersection
 - Discourage westbound 101A traffic using Craftsman Lane as a bypass
 - Reduce speeds on Craftsman Lane
 - Discontinue public Right-of-Way through church parking lot
 - Improves safety and circulation of the parking lot

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Widening NH 101A and Intersection Improvements



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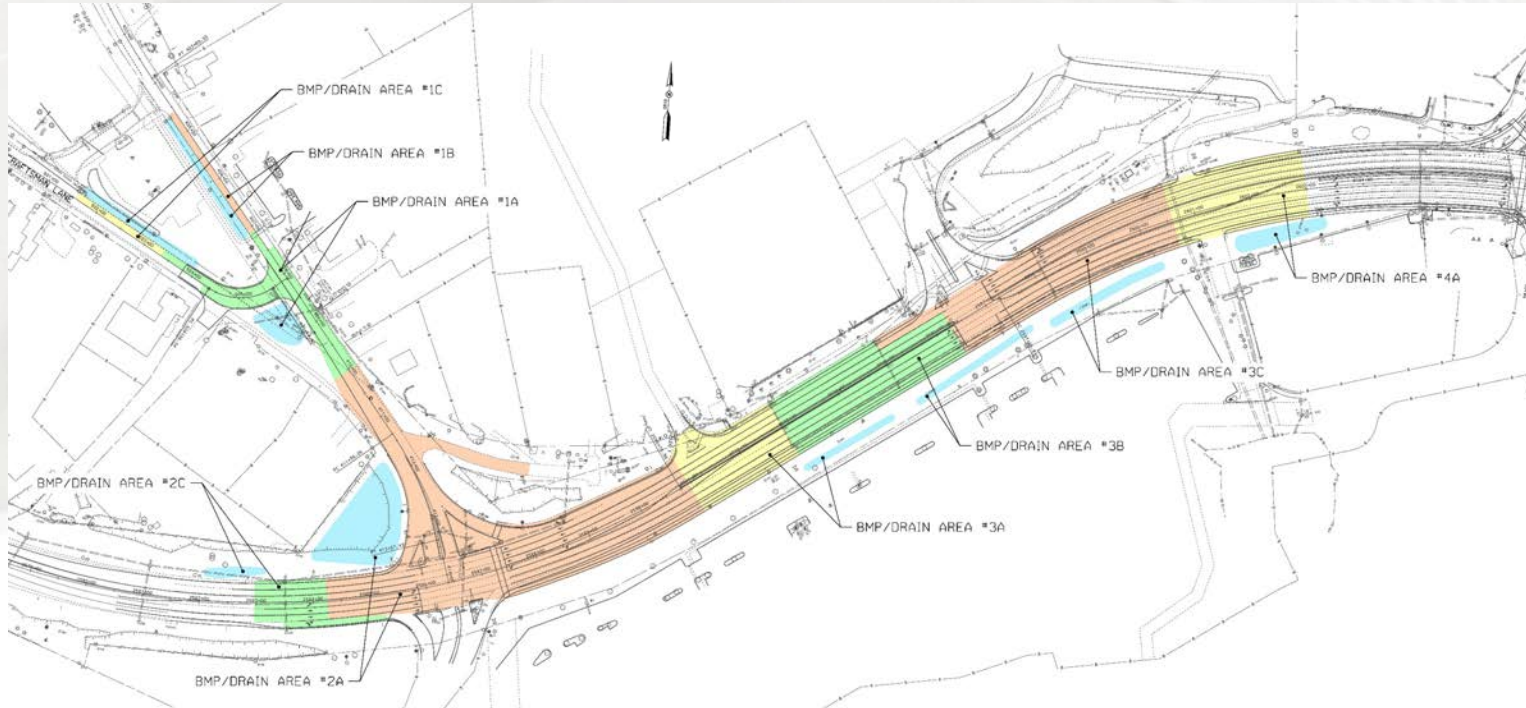
Widening NH 101A and Intersection Improvements

- **Stormwater Management**
 - New Municipal Separate Storm Sewer Systems (MS4) Regulations – Increased Treatment Requirements
 - Treatment for 100% of Impervious Area Within Project Limits
 - Existing Treatment System – Continental Blvd to East
 - Outlets to the Pennichuck Brook

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Widening NH 101A and Intersection Improvements

- Stormwater Management
 - 9 Proposed Best Management Practices (BMPs)
 - » Detention Pond
 - » Bioretention Ponds
 - » Bio-Swales



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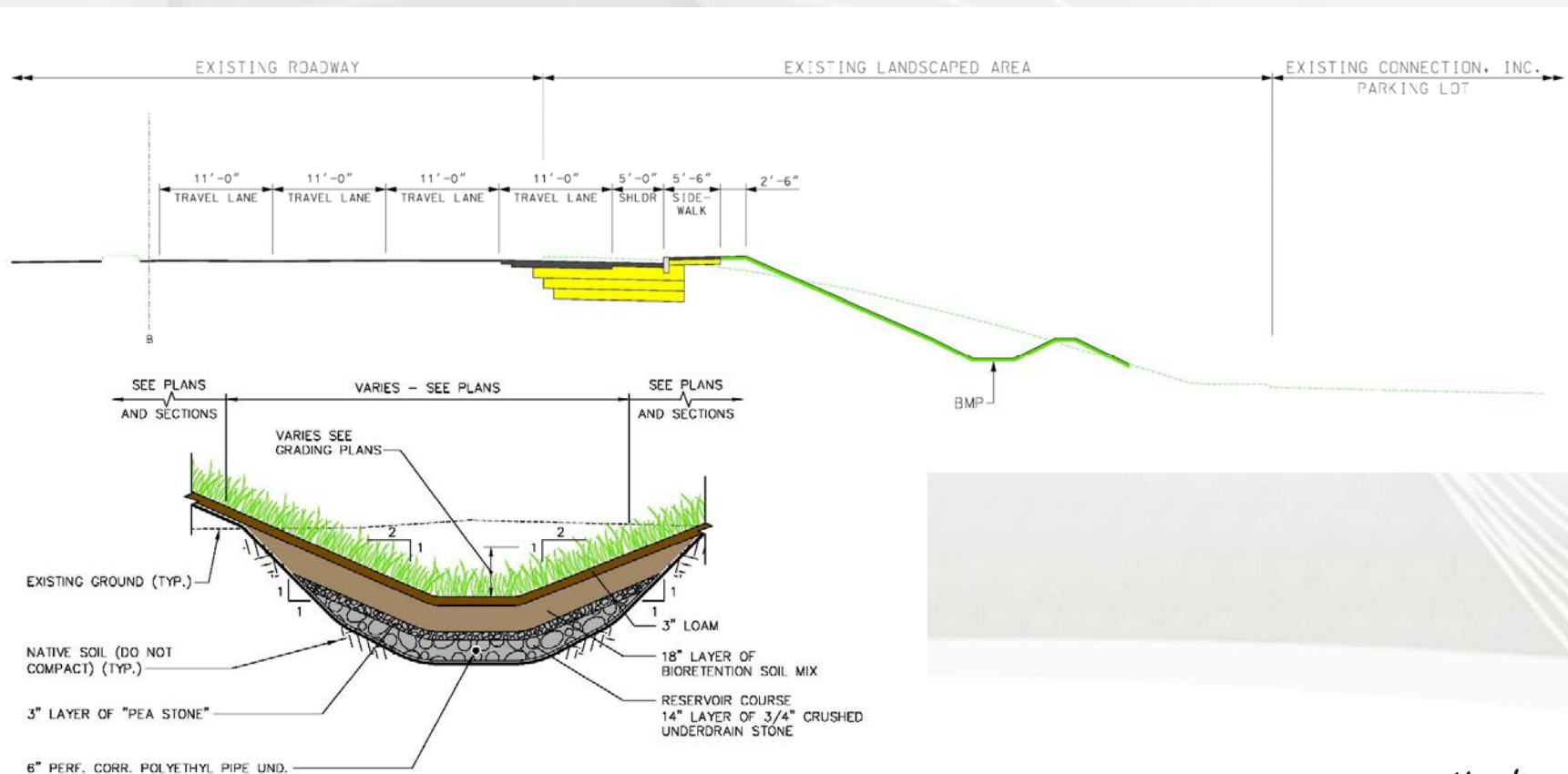
Widening NH 101A and Intersection Improvements

- Stormwater Management
 - Bioretention Systems
 - Higher Treatment Efficiencies of Key Pollutants
 - Utilizes Natural Filtering Media
 - Shallow Dry Systems
 - Low Maintenance Landscaping/Vegetation
 - Overflow Structure – Piped to Outlet
 - May be Lined with Underdrain – Piped to Outlet
 - Infiltration – Groundwater Recharge

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Widening NH 101A and Intersection Improvements

- Example Stormwater BMP Section



BIORETENTION POND TYPICAL SECTION WITH UNDERDRAIN

SCALE: 1" = 5'

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Widening NH 101A and Intersection Improvements

- Construction Duration
 - 2 Seasons
 - Minimize traffic impacts
 - Significant utility work
- Construction Impacts
 - Preliminary Geotechnical Investigation - Ledge Removal
 - Requirements on Vibration and Noise
 - Maintain Drive and Business Access

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Widening NH 101A and Intersection Improvements

- Traffic Control During Construction
 - Majority of work to outside portion of roadways
 - Maintain lane configuration off work hours
 - Daily lane closures (Off Peak)

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Widening NH 101A and Intersection Improvements

- Utility Coordination:
 - Utility verifications on-going
 - Known aerial and underground private and public utilities within the project corridor
 - Relocations in accordance with NHDOT's Utility Accommodation Manual

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Widening NH 101A and Intersection Improvements

- Right of Way Impacts:
 - Narrow Strip Acquisitions – Continental Blvd Intersection (7 Parcels)
 - Supports New Lanes and Sidewalks
 - Permanent Easements
 - Future Maintenance and Access
 - Drainage
 - Traffic Signal Mast Arms
 - Retaining Walls
 - Temporary Easements (Not Shown)
 - Construction Access
 - Driveway Matches
 - Contractor Staging/Storage (Shown on Parcel 6)