



# Fitchburg

## Commuter Rail

### Line Improvement Project

***Presented to:***

MBTA Project Development Group for South Acton Station

***Presented by:***

The HNTB Team

**July 28, 2011**



# AGENDA

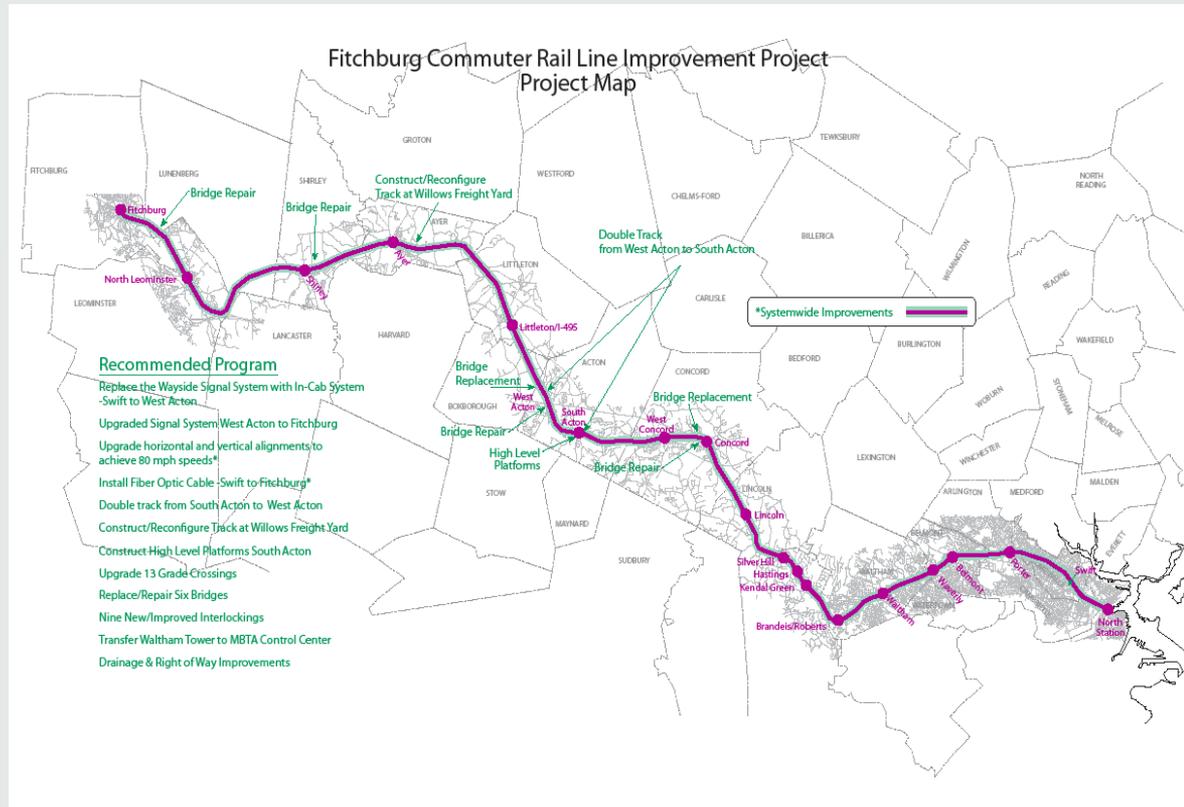
- Fitchburg Program Overview
- Station Design History
- Station Architecture/Elevator and Features
- Station Site Layout
- Construction Staging/Service Outages
- Schedule
- Risk Analysis
- Payment Item Review



# FML Program Overview

## One Corridor - Multiple Projects

CPF 43  
Double Tracking  
Wachusett Ext.  
Small Starts



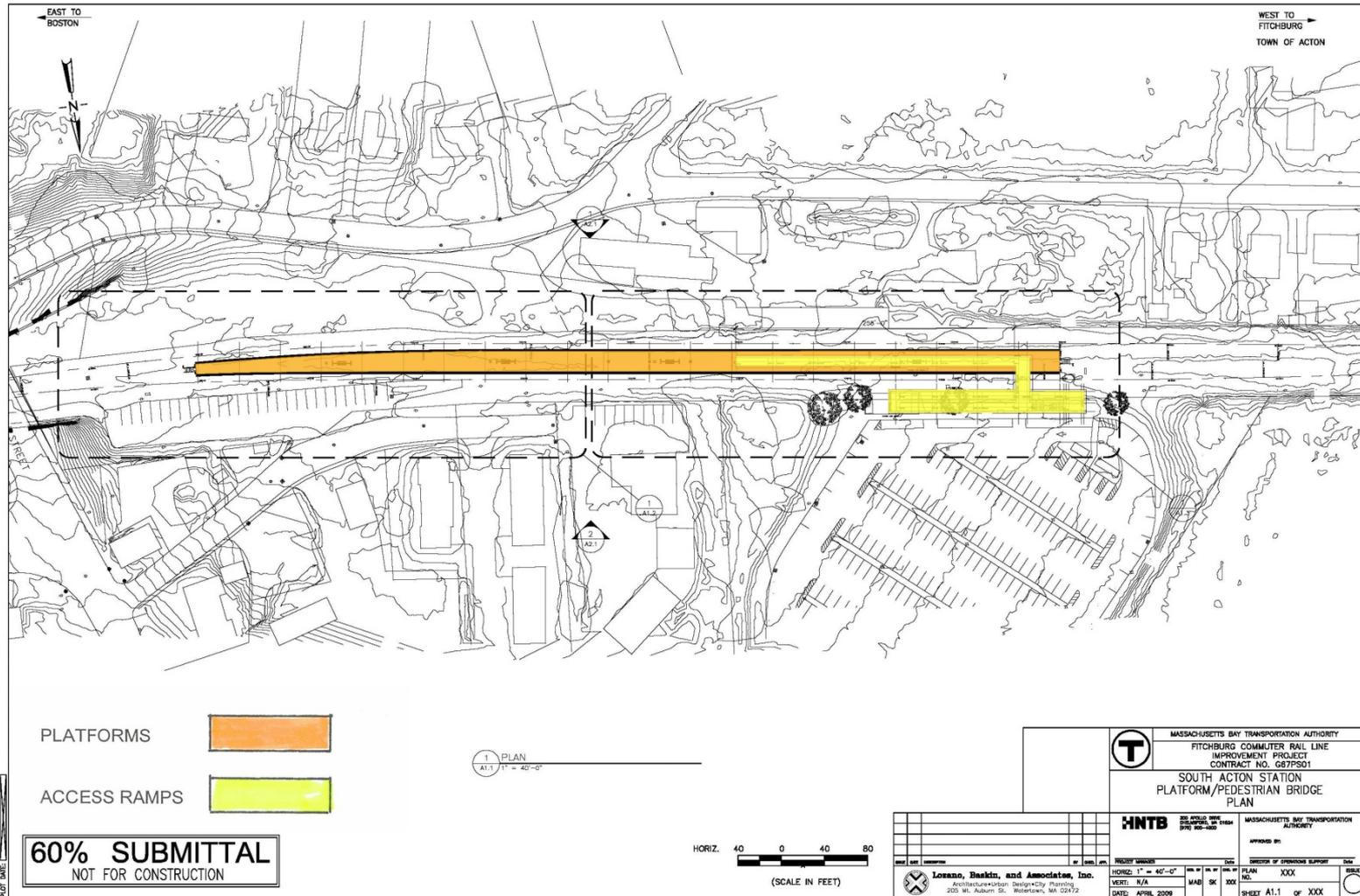


# South Acton Station Design History

- 1.Center Island Platform & Ramps
- 2.Side Platforms with Overhead Bridge & Elevators
- 3.Changes to Station Architecture and Features



# Center Platform/Ramp - April 2009

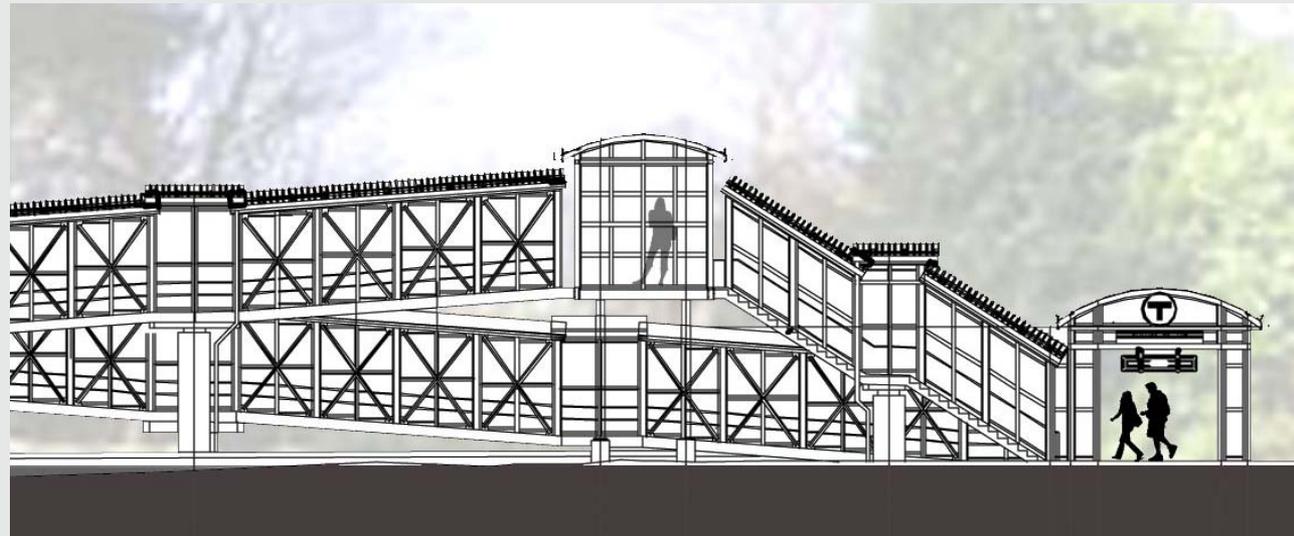




# Center Platform/Ramp - April 2009



North Elevation

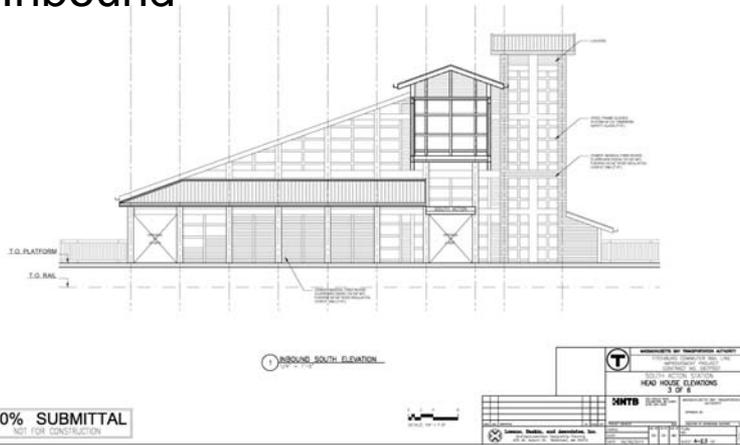




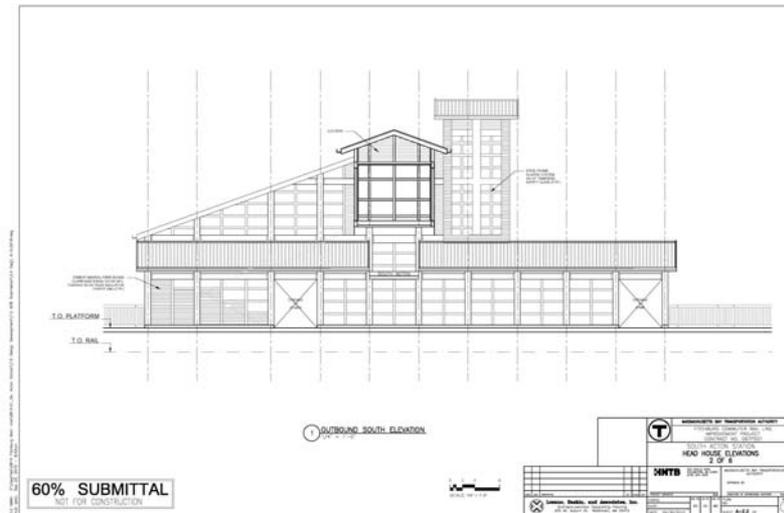
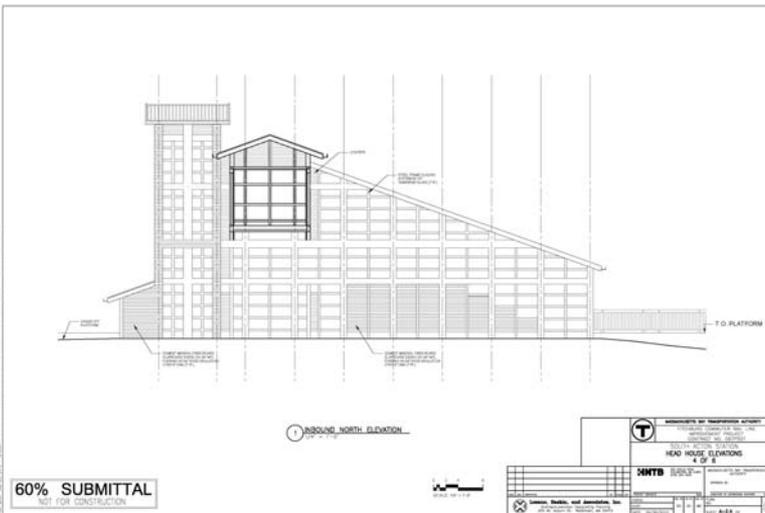
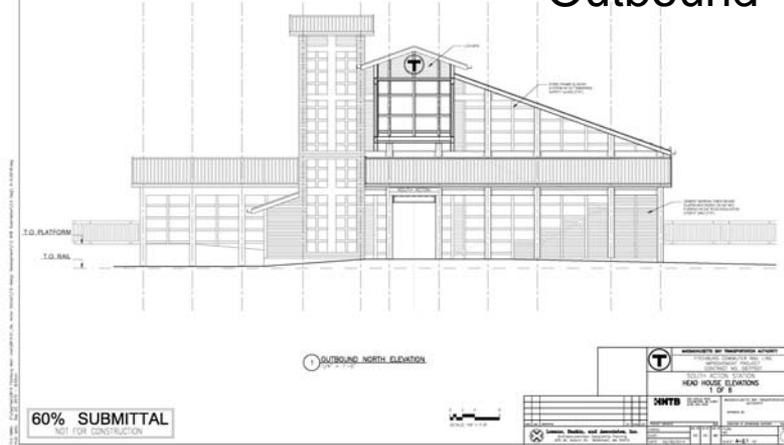


# Side Platform/Elevator - September 2010

Inbound

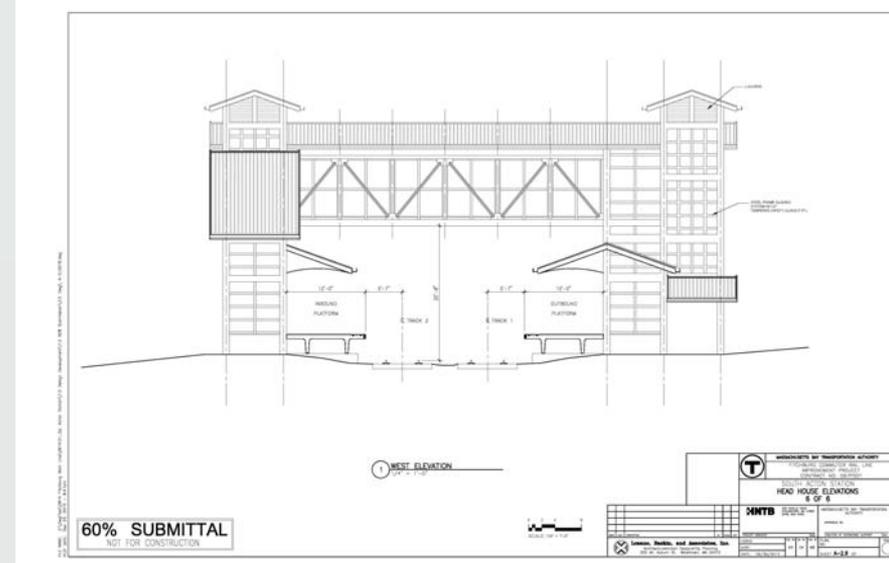
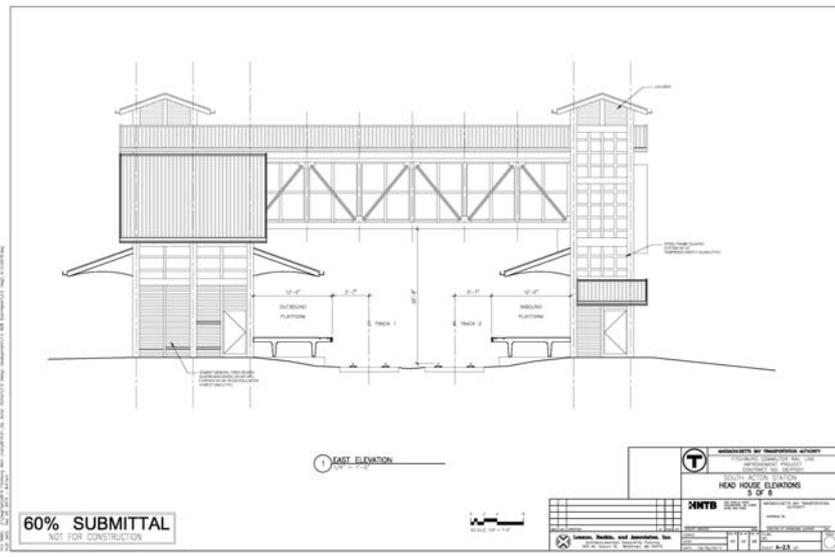


Outbound





# Side Platform/Elevator - September 2010





# Side Platform/Elevator - November 2010





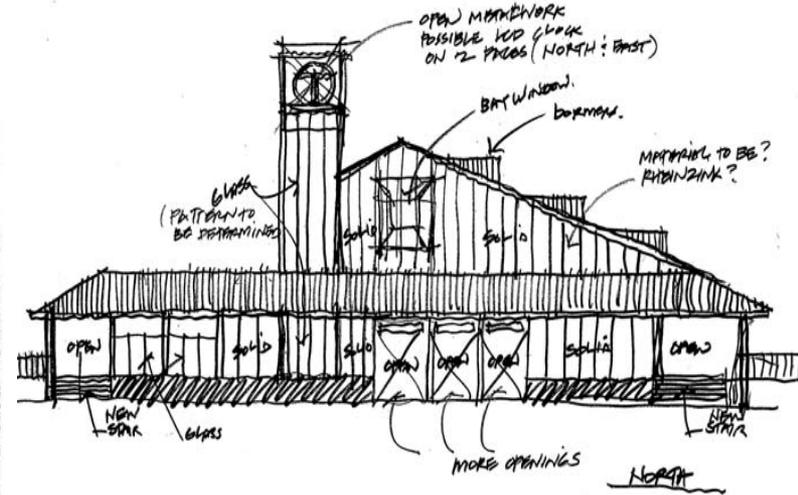
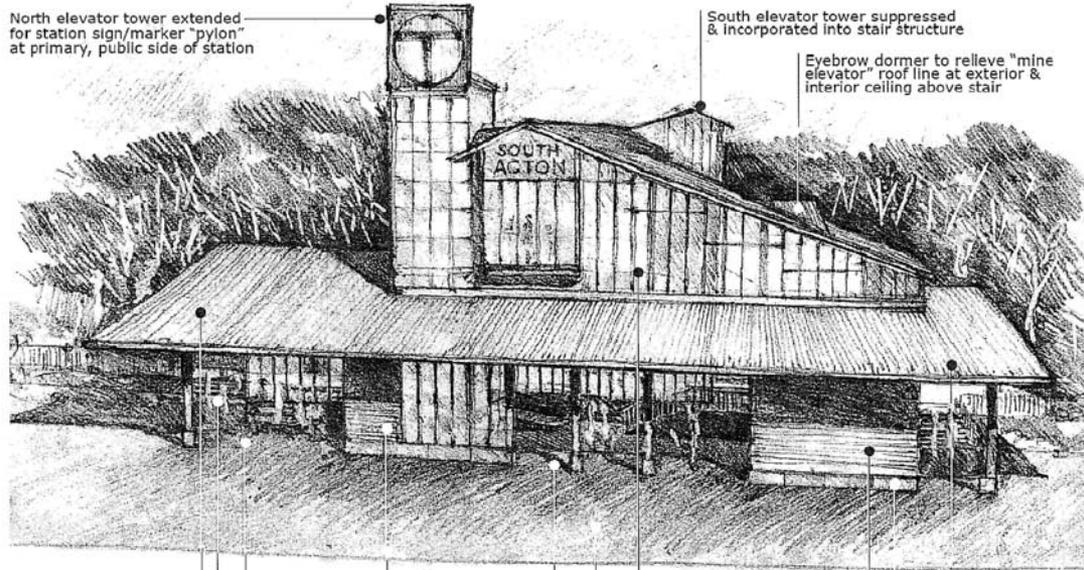
# Side Platform/Elevator - November 2010



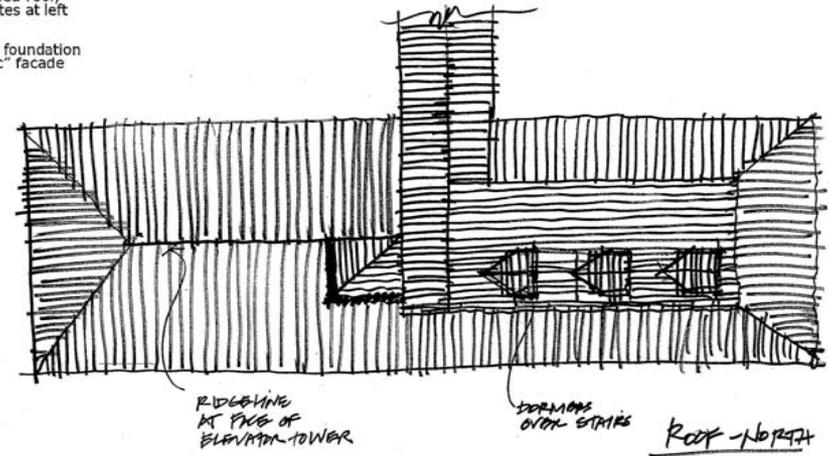
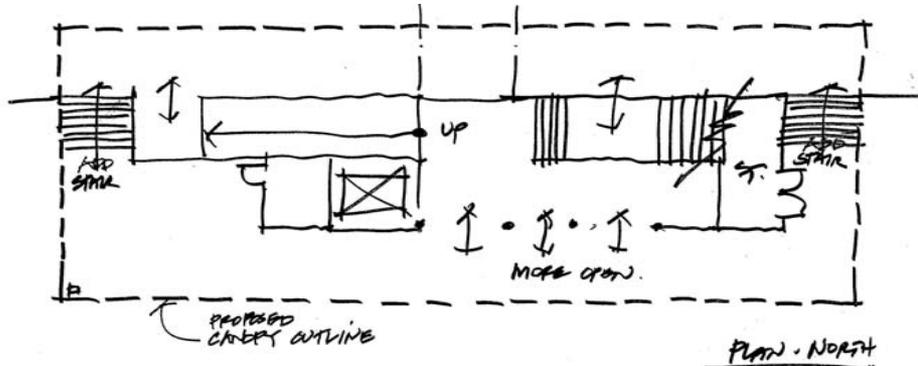


# Side Platform/Elevator - November 2010

## AHDC Proposed Design

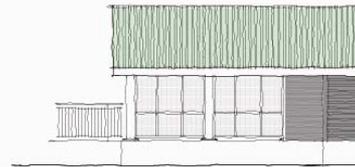
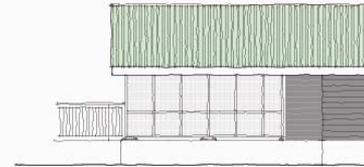


- Extended roof to provide the shelter & sensibility of a traditional station
- Utility room included under extended roof
- Enlarged head house portal
- Glazed & opaque cladding run outside of columns & beams for the appearance of a public building, not a service shed (sound detail practice, as well)
- Added steps & extended roof see notes at left
- Added platform steps under eave to relieve congestion & provide free movement at the building's perimeter
- Protected waiting / seating area adjacent to parking & bike storage
- Widened sidewalk & single dropoff lane
- Finished, even foundation base at "public" facade



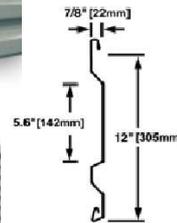


# Side Platform/Elevator – AHDC Meetings



## RHEINZINK® - Horizontal Reveal Panel

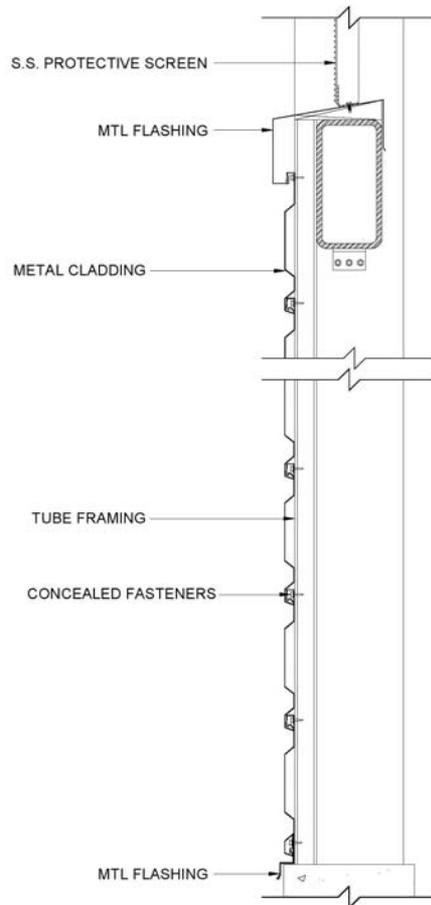
- Available in all three standard RHEINZINK® finishes.
- Can be oriented either horizontally or vertically.
- Easy to fabricate and install.
- Face heights from 6" to 13"



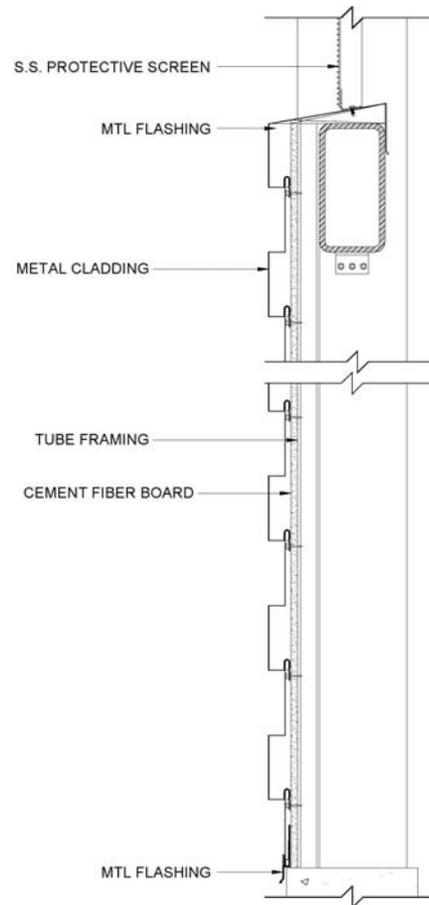


# Side Platform/Elevator - AHDC Meetings

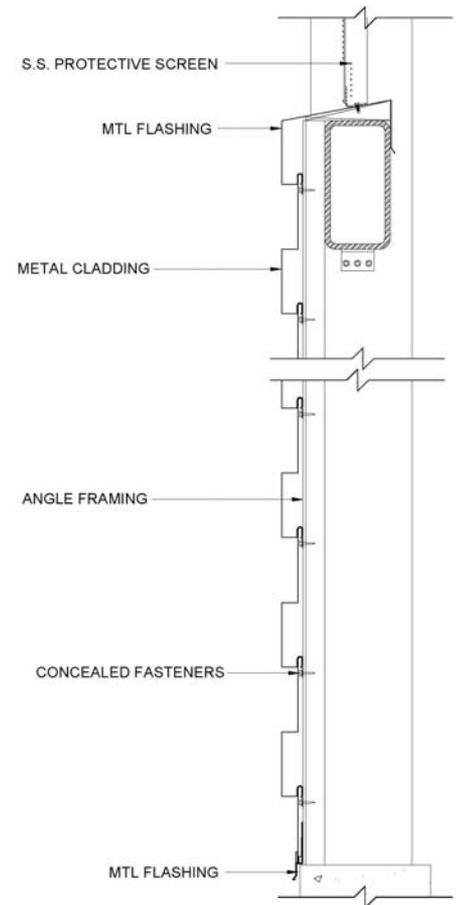
STANDARD COLORS				
PREMIUM COLORS		METALLIC COLORS		
<small>These finishes provide an extra, upscale aesthetic advantage.</small>				
NATURAL METAL FINISH				
<small>These finishes provide a natural, weathered appearance. All finishes are coated on the back side to inhibit corrosion. The top side remains a clear, protective, organic film.</small>				



Low Profile Cladding on Steel Tube Frame



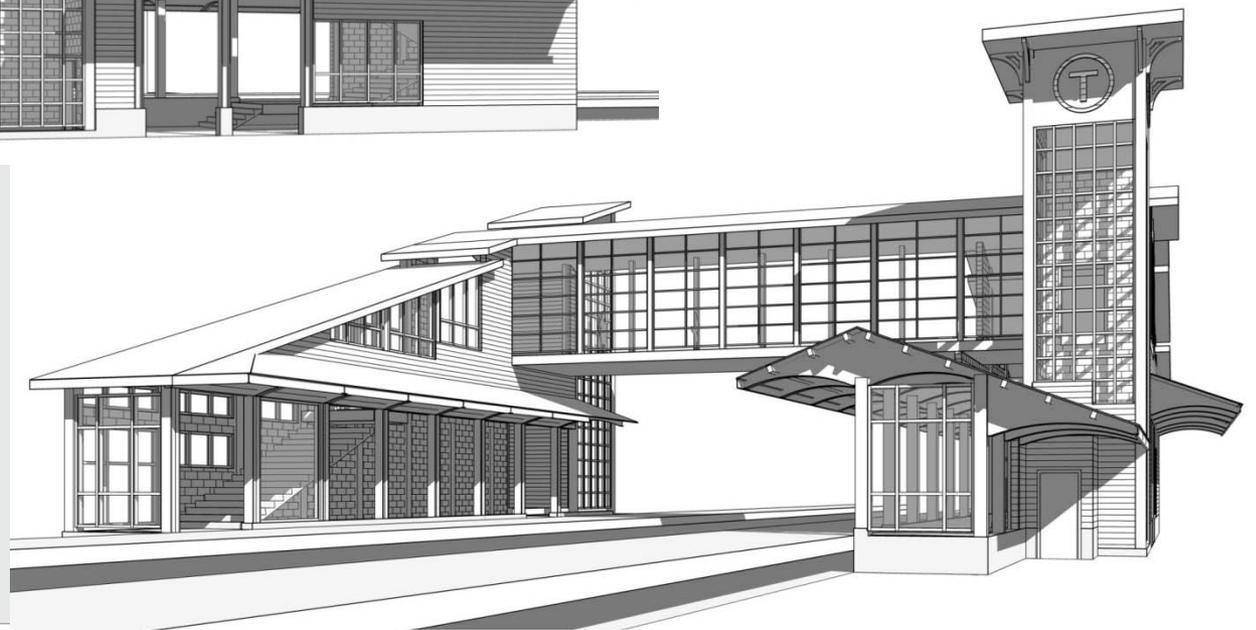
Cladding on Cement Fiber Board on Tube Frame



Cladding on Angle Frame

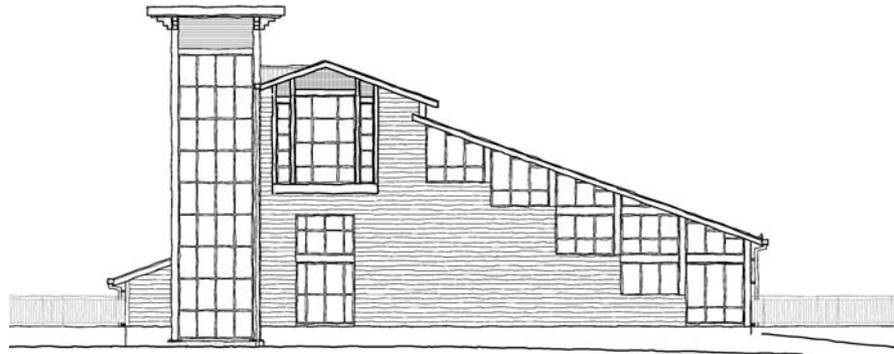


# Side Platform/Elevator - AHDC Meetings

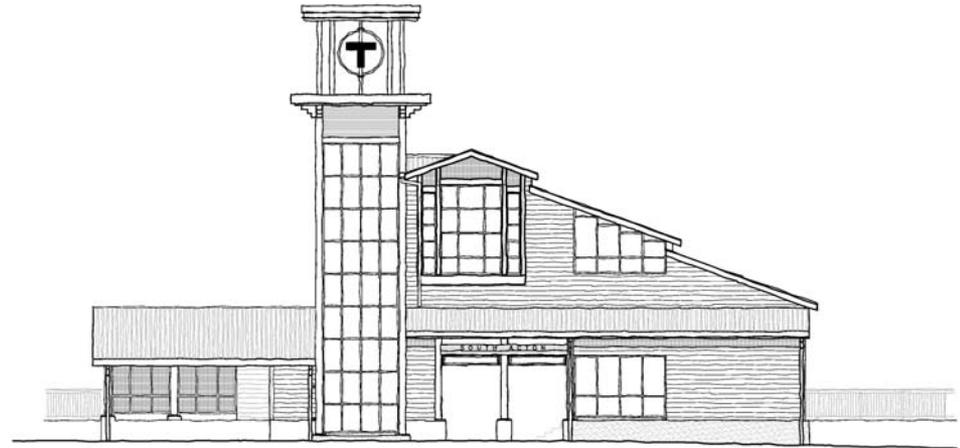




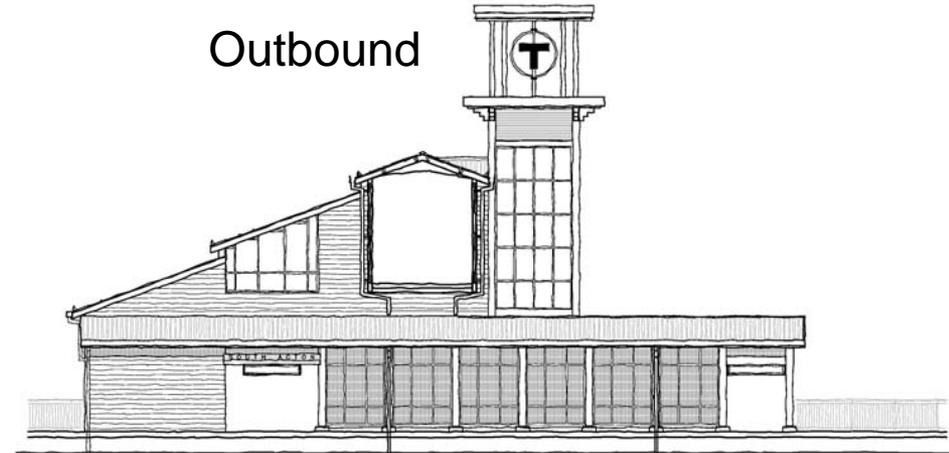
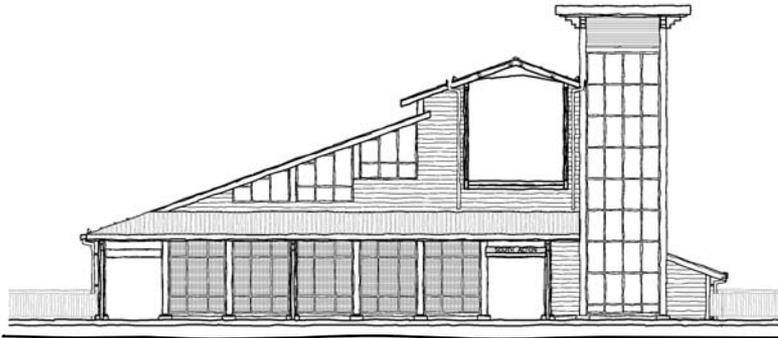
# Side Platform/Elevator - AHDC Meetings



Inbound

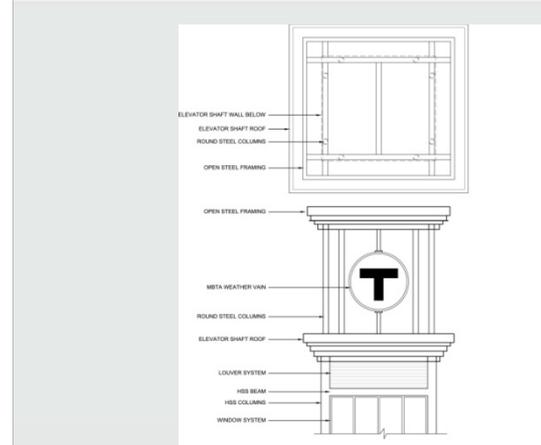


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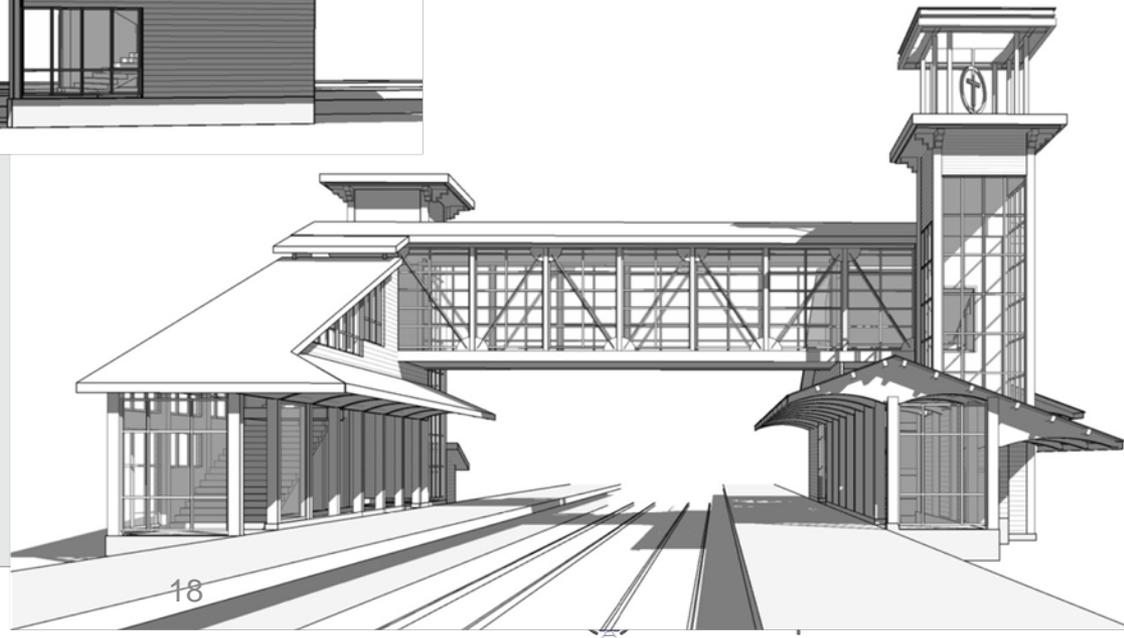




# Side Platform/Elevator - AHDC Meetings

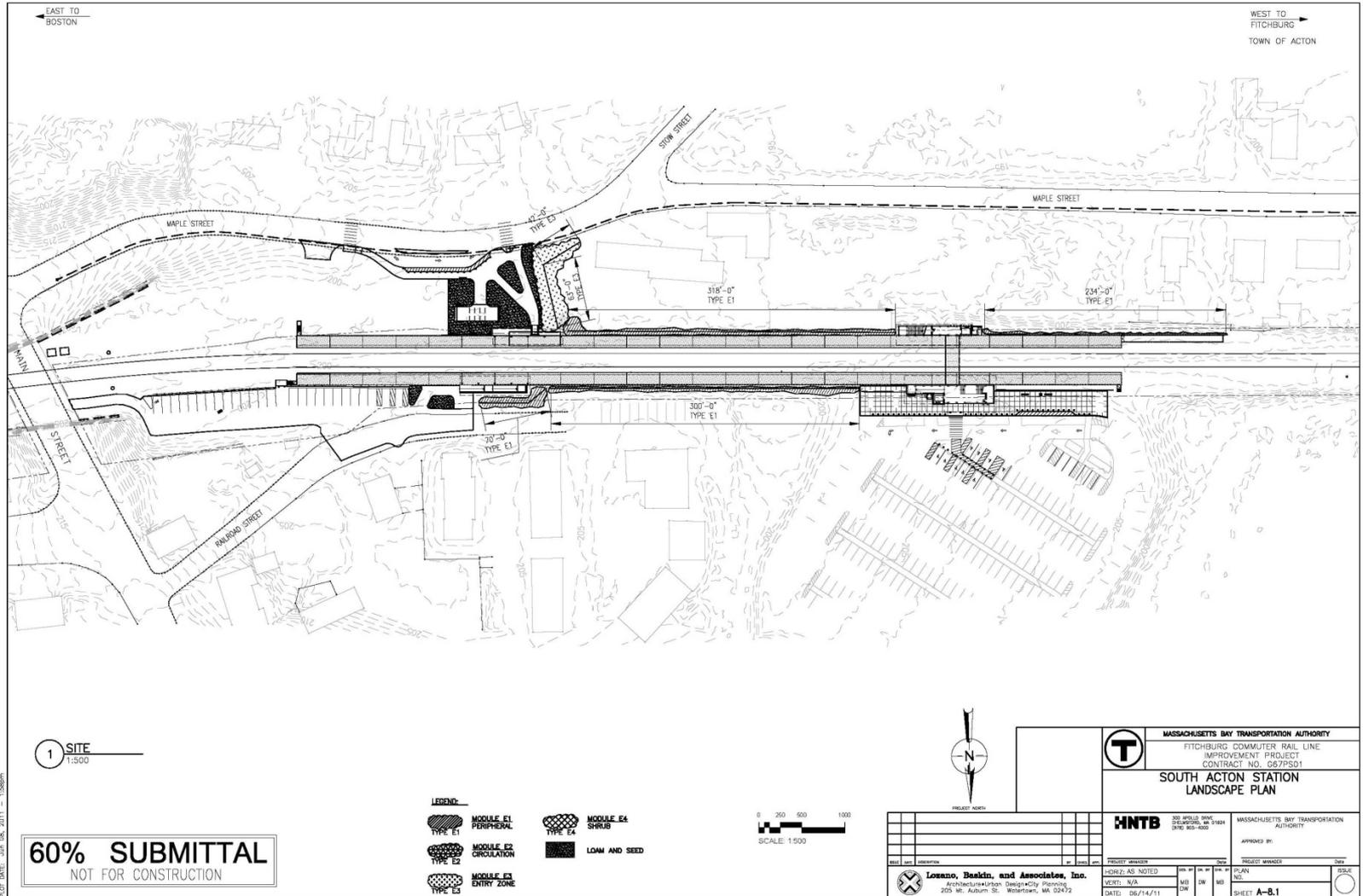


Campanile Scheme





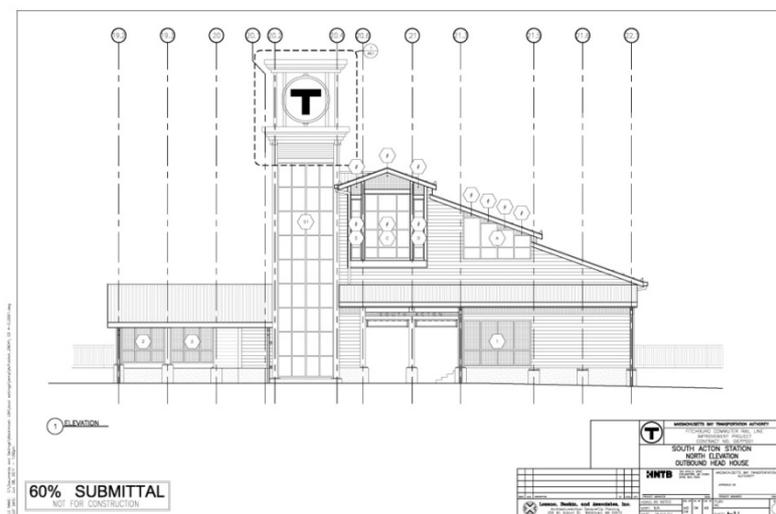
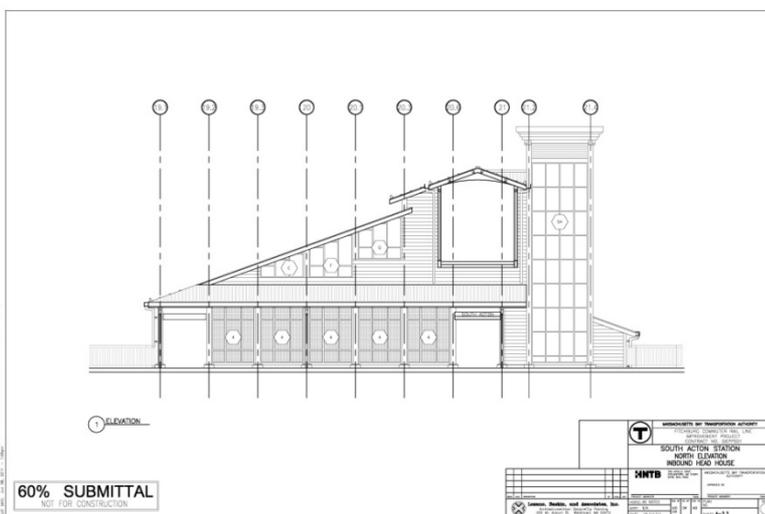
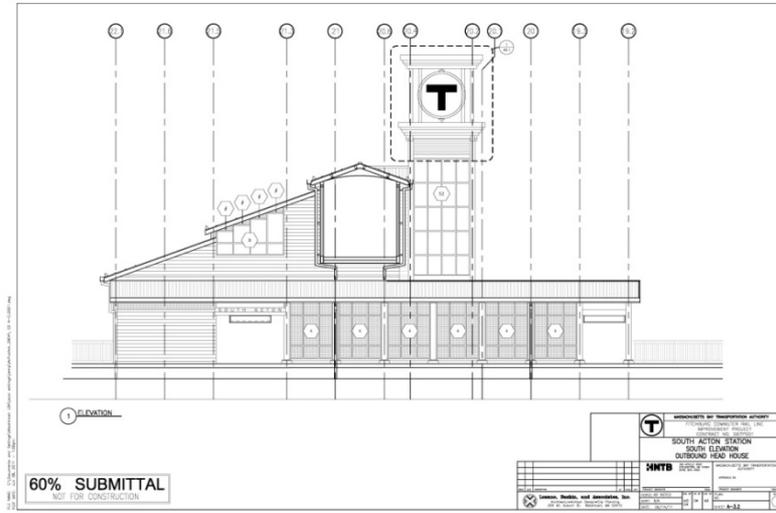
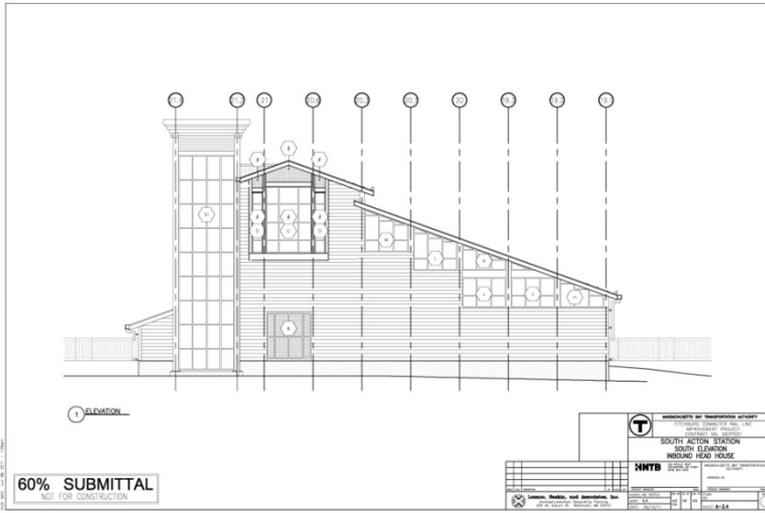
# Side Platform/Elevator - Current 60%



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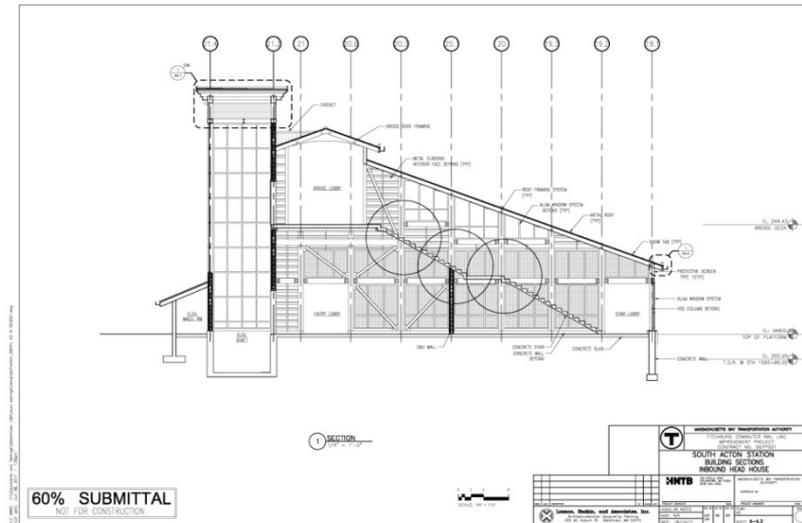
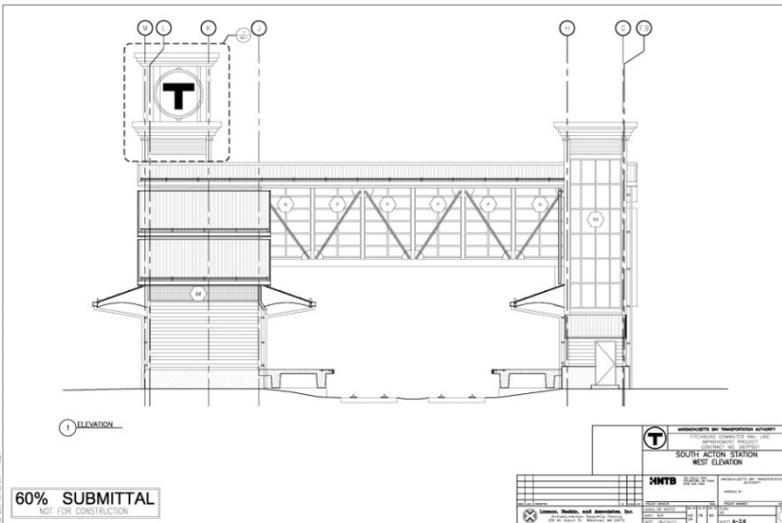
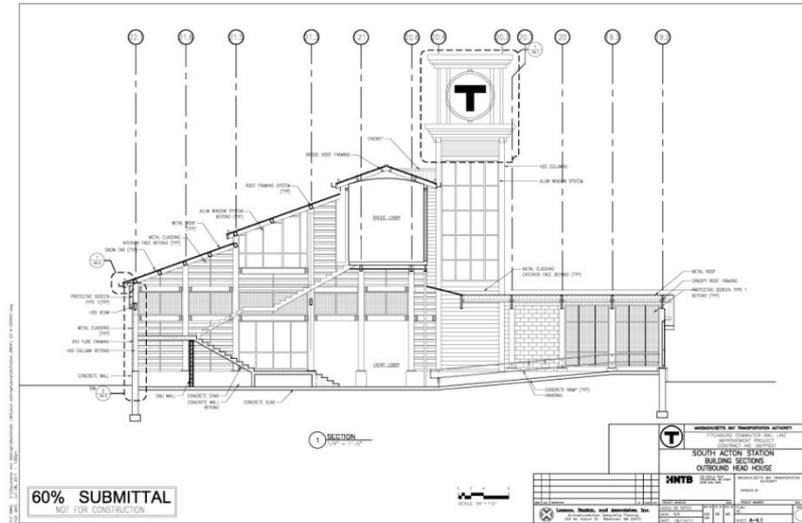
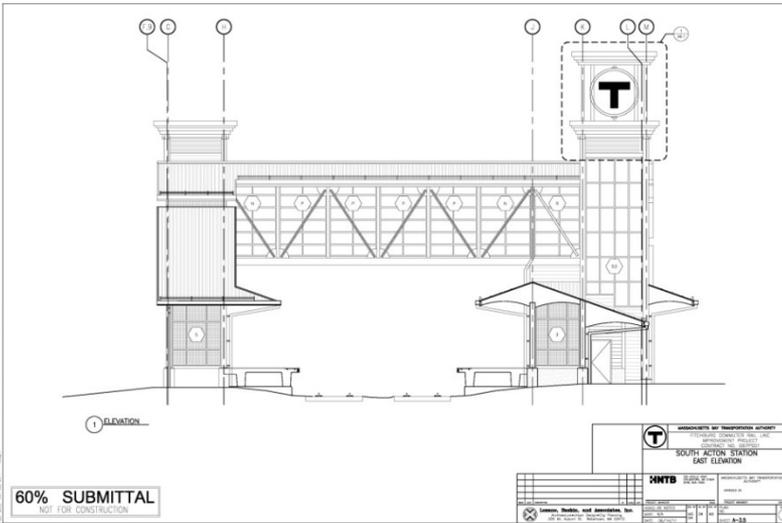


# Side Platform/Elevator - Current 60%





# Side Platform/Elevator - Current 60%





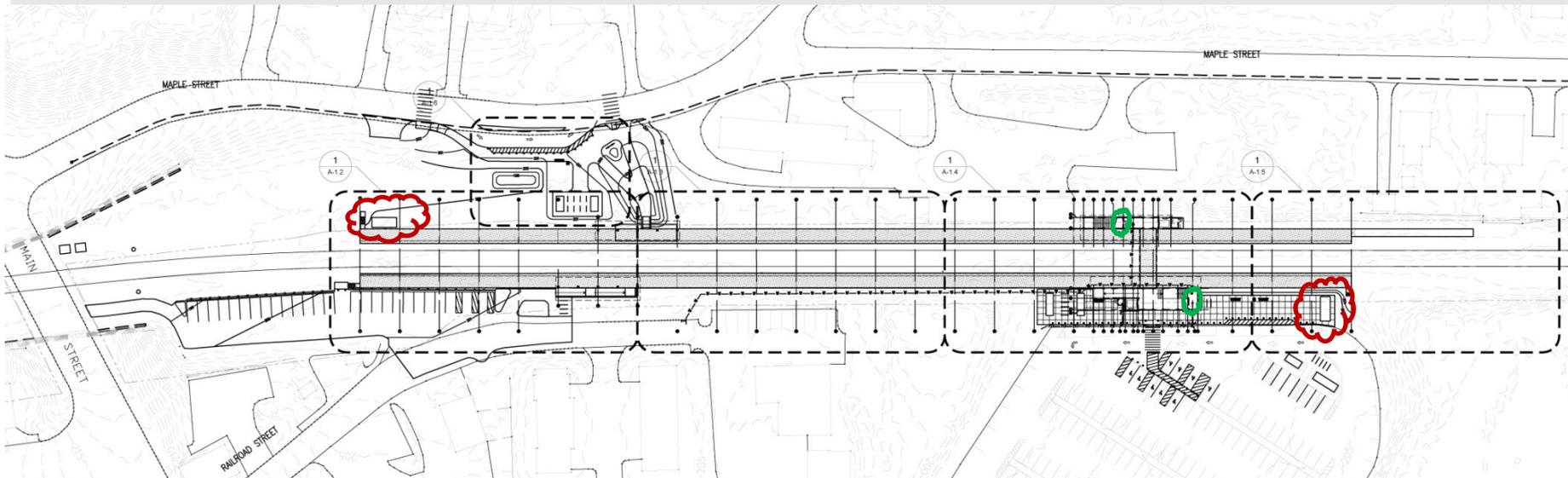
# Side Platform/Elevator - Questions

- Location of MBTA and Town communication rooms?  
Proposed:           Town – Outbound (North) Headhouse  
                          MBTA – Inbound (South) Headhouse
- Location and orientation of storage facilities?
- CMU walls to be provided for enclosure of communication and electrical rooms under stairs with closure details to prevent water incursion between CMU and exterior wall panels?
- Location and provisions for future Ticket Vending Machines?
- Inbound Headhouse elevator machine room door location/floor level?
- Should low level handrails be provided at stairs per ADAAG Advisory 505.4?



# Side Platform/Elevator - Responses

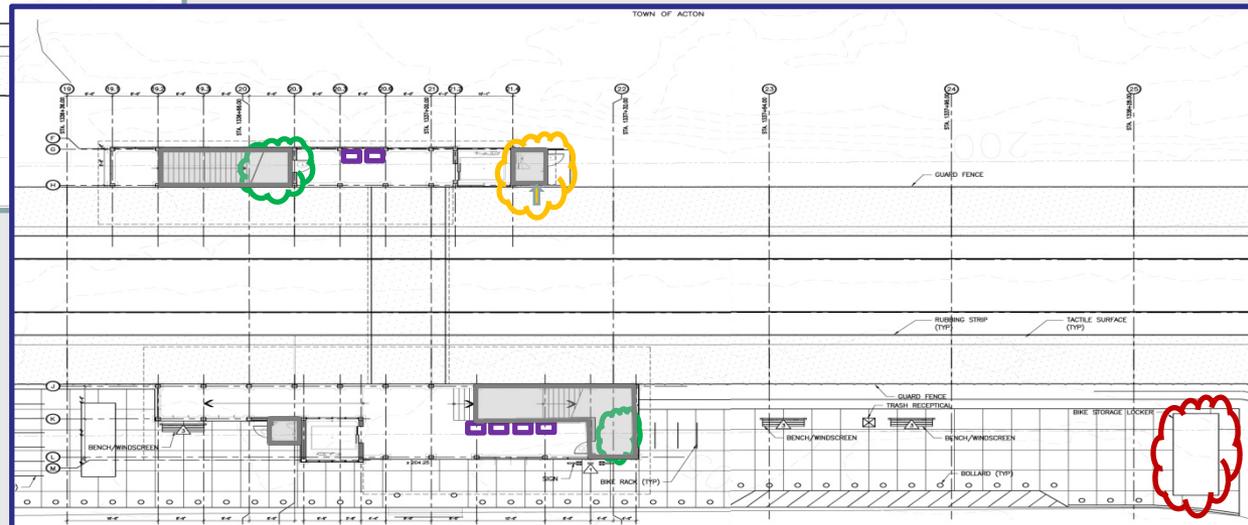
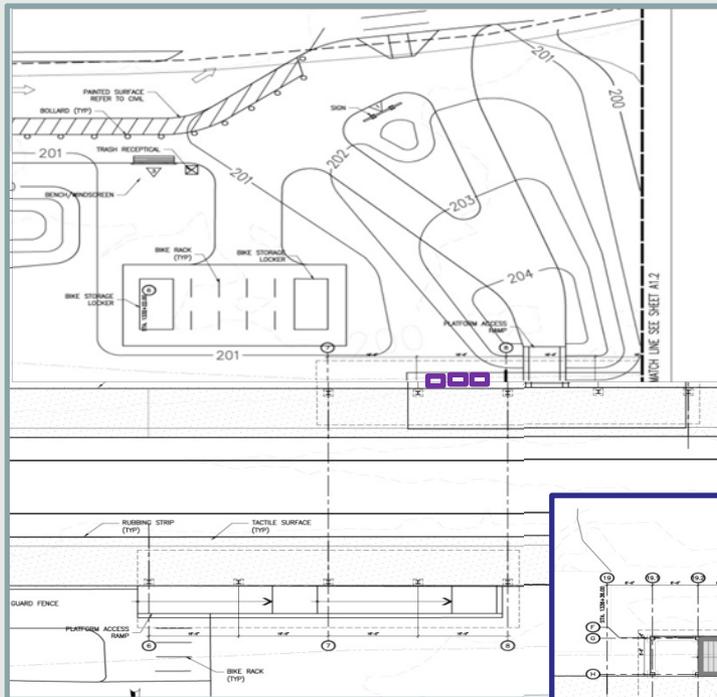
- Communication room locations
- Storage facilities
- CMU enclosed spaces
- Elevator machine room
- TVM locations





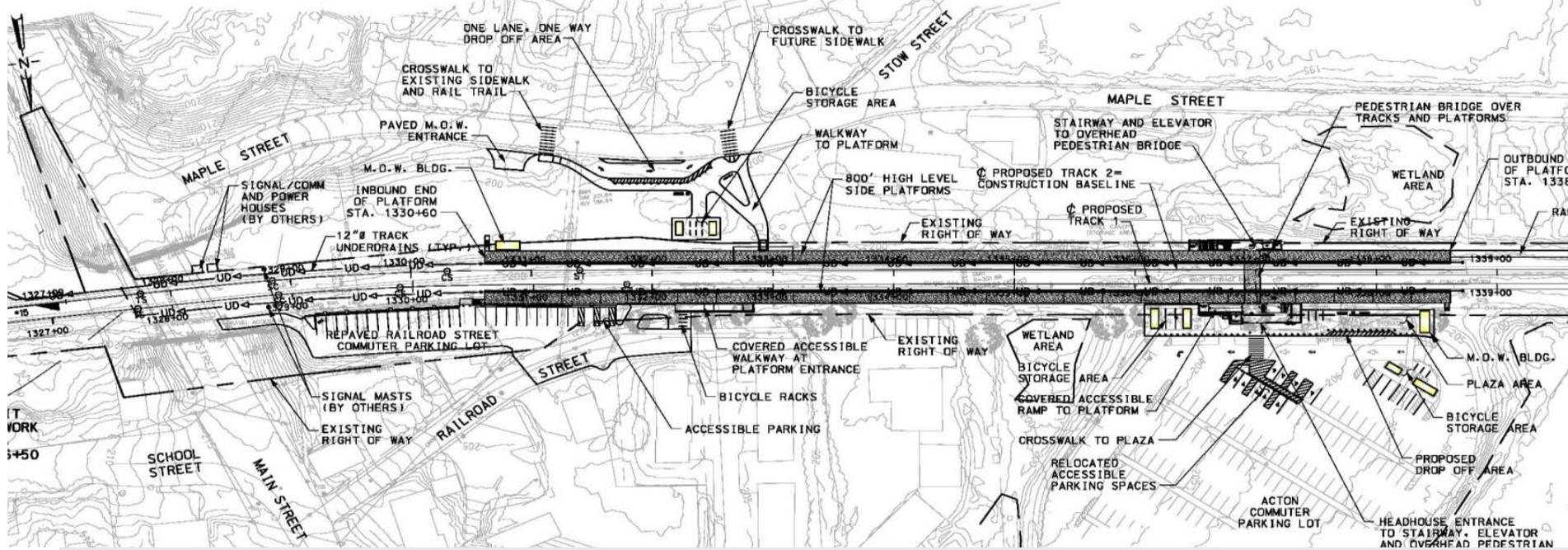
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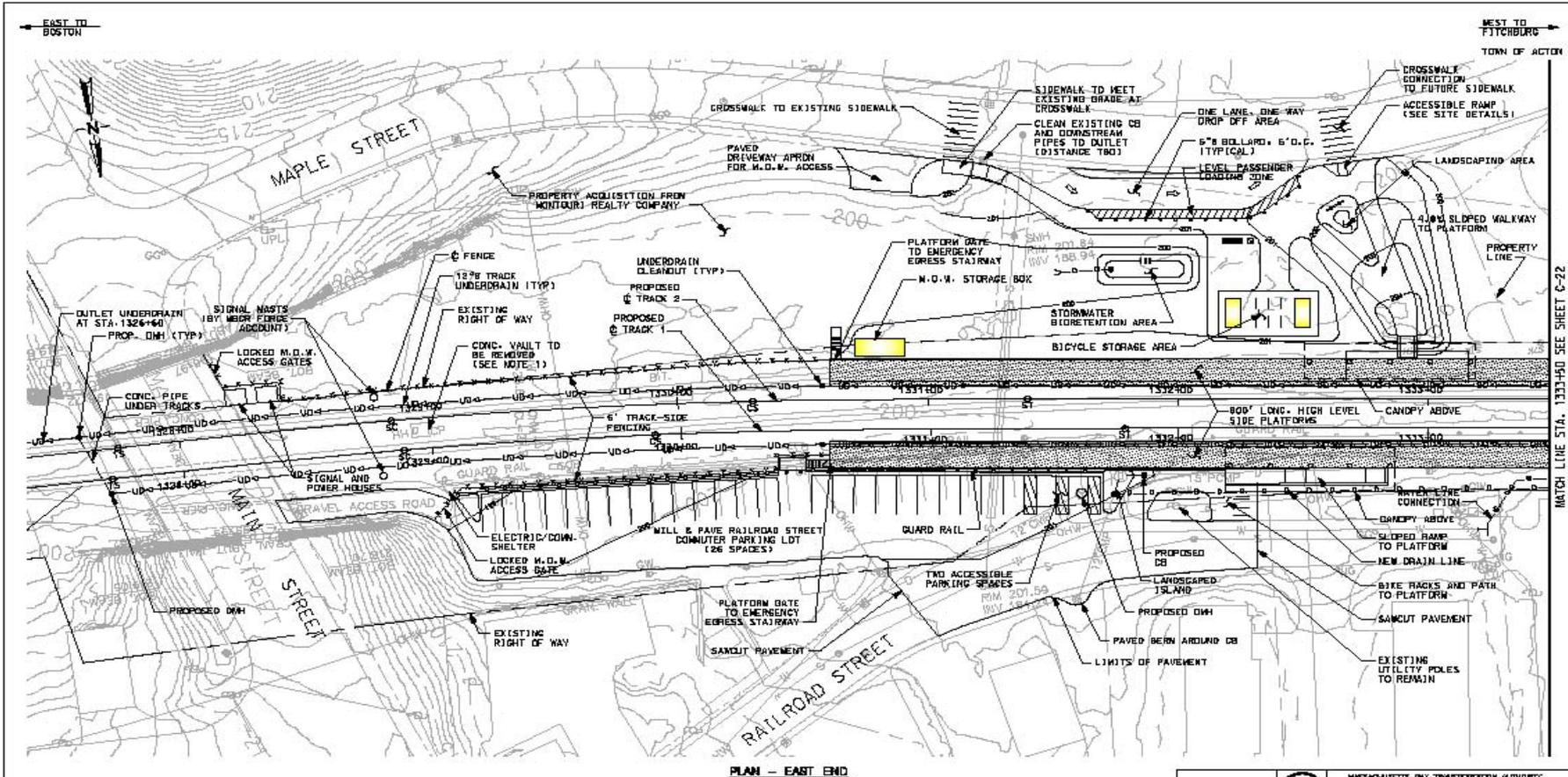


# Station Site Layout - Overview





# Station Site Layout – East End



- NOTES**
- CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE VAULT. PRIOR TO REMOVAL AND DISPOSAL ENSURE THERE ARE NO OPERATING UTILITIES BURIED BENEATH THE SAND AND DIRT WITHIN THE VAULT. IF ACTIVE UTILITIES ARE FOUND ARRANGE FOR APPROPRIATE RELOCATION AS REQUIRED.

- LEGEND**
- PLATFORM, STAIRS AND ELEVATORS



**60% SUBMITTAL**  
NOT FOR CONSTRUCTION

		MASSACHUSETTS RAIL TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G87CM01	
		SOUTH ACTON STATION DETAILED SITE PLAN – EAST END SHEET 1 OF 2	
		IMPROVED BY TRANSPORTATION AUTHORITY	
		PREPARED BY: [ ] CHECKED BY: [ ] DATE: 05/16/11	

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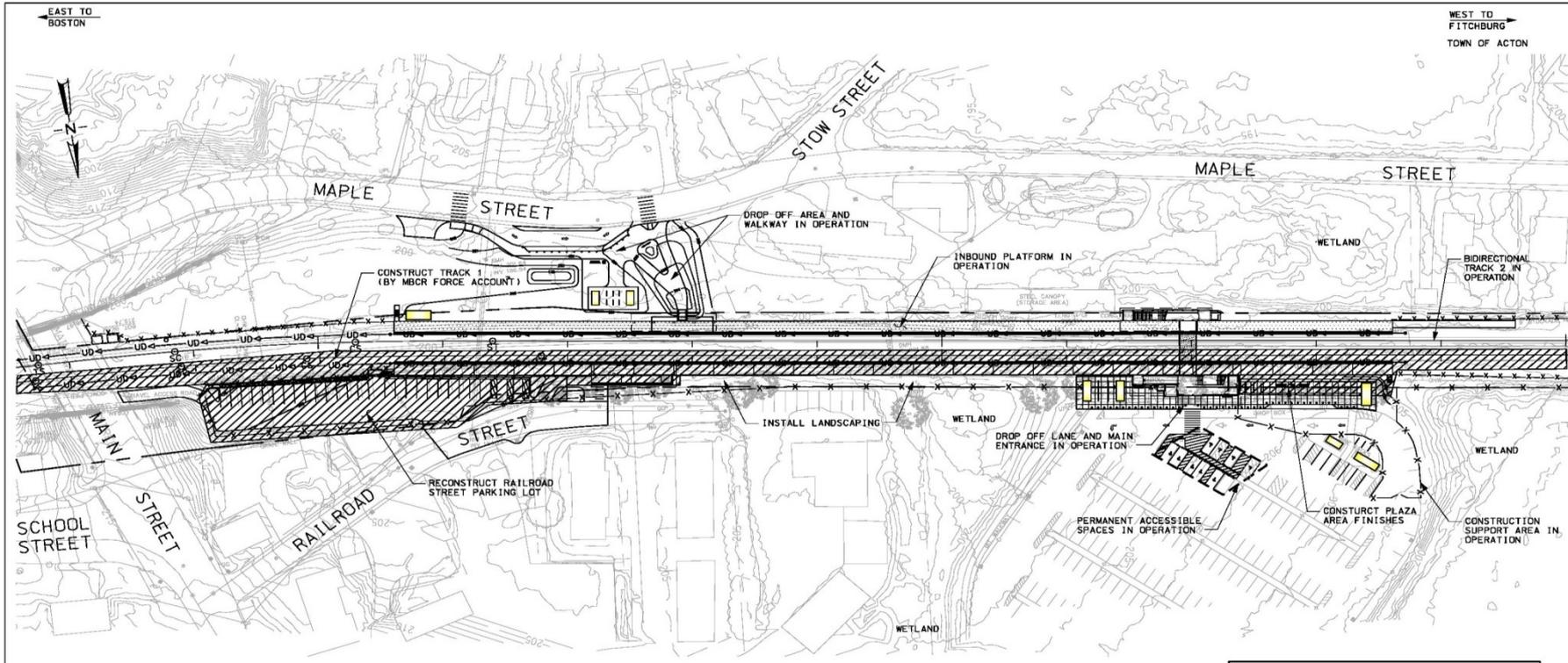








# Station Staging Plan - Phase 5



PLAN - PHASE 5

COMPLETE CONSTRUCTION OF RAILROAD STREET PARKING AREA, TRACK 1 CONSTRUCTION (BY MBCR FORCE ACCOUNT) & PERFORM ALL SYSTEMS TESTING.

**NOTES:**

1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.
2. PEDESTRIAN ACCESS IS AVAILABLE FROM MAPLE STREET AND THE MAIN PARKING LOT.

**LEGEND:**

WORK UNDER CONSTRUCTION



**60% SUBMITTAL**  
NOT FOR CONSTRUCTION

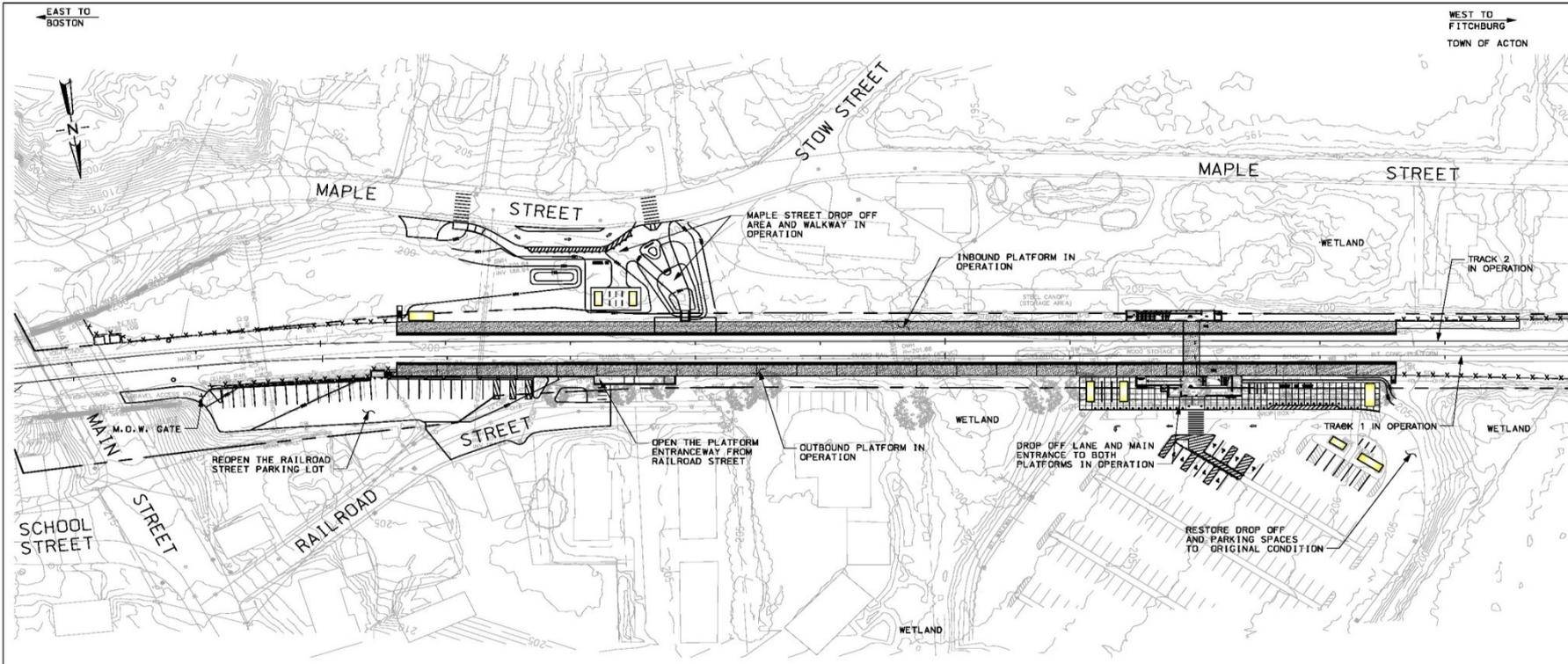
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PLOT DATE: Jun 09, 2017 - 3:45pm

<b>T</b>	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
	SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 5	
<b>HNTB</b> 300 ANGLAS DRIVE COLLEEN, MA 01881 (978) 930-6300		MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: _____		DATE: _____
PROJECT NUMBER: _____		DATE: 06/14/11
HORIZ: AS SHOWN		PLAN NO. _____
VERT: NONE		ISSUE _____
DATE: 06/14/11		SHEET C-19

**JACOBS**  
245 CONVENT STREET  
BOSTON, MA 02110  
(617) 542-8322



# Station Staging Plan - Phase 6



PLAN - PHASE 6

REMOVE ALL CONSTRUCTION RELATED MEASURES AND RESTORE ALL STAGING AND OTHER DISTURBED AREAS TO THEIR ORIGINAL CONDITION.

**NOTES:**

1. FOR CONSTRUCTION STAGING NOTES SEE SHEET C-14.

**LEGEND:**

WORK UNDER CONSTRUCTION



**60% SUBMITTAL**  
NOT FOR CONSTRUCTION

<b>T</b>	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY FITCHBURG COMMUTER RAIL LINE IMPROVEMENT PROJECT CONTRACT NO. G67CN01	
	SOUTH ACTON STATION CONSTRUCTION STAGING PLAN PHASE 6	
<b>HNTB</b>	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY	
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PROJECT NUMBER: _____ DATE: _____		PLAN NO. _____
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DATE: 06/14/11		SHEET C-20

<b>JACOBS</b>	
245 CONVENT STREET BOSTON, MA 02110 (617) 542-8300	

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# Design & Construction Schedule

- *90% Design* - September 2011
- *100% Design* - December 2011
- *Advertise* - March 2012
- *NTP* - July 2012
- *Substantial Completion* - January 2014





# Risk Analysis

## High Risk

- Timely Relocation/Removal of Signal Pole Line
- Change in Favorable Market Conditions (Bid prices)
- Change in Material costs
- Change in Site Conditions (Utilities, High Water Table and Shallow Bedrock)
- Weather delays
- Construction Staging/Storage Restrictions
- Environmental Permitting Changes/Delays



# Risk Analysis

## Medium Risk

- Additional Design Changes via Third Party
- Flagging Availability

## Low Risk

- Potential for Hazardous Materials On Site
- Delay Executing Elevator Maintenance Agreement with Town of Acton
- Construction Access via Railroad St. via MBTA Leased Property
- Delay Securing DPU Vertical Clearance Waiver