

Appendix 3.2-F

Construction Staging Memorandum

Construction Staging Memo

Prepared for

massDOT

Massachusetts Department of Transportation

10 Park Plaza

Boston, Massachusetts 02116-3969

Prepared by



Vanasse Hangen Brustlin, Inc.

99 High Street, 10th Floor

Boston, Massachusetts 02110-2354



SOUTH COAST RAIL

June 2012



Table of Contents

Table of Contents	i
List of Tables	iii
List of Figures	iv
Construction Staging Summary	1
1.1 General	1
1.1.1 General Sequence of Work.....	1
1.1.2 Railroad Operations and Coordination.....	2
1.1.3 Bridge Construction Sequencing	2
1.2 Stoughton Line.....	6
1.2.1 Retaining Walls	6
1.2.2 Grade Crossings	7
1.2.3 Stations	8
1.2.4 Bridges.....	8
1.2.5 Culverts.....	11
1.2.6 Track	12
1.3 New Bedford Main Line	13
1.3.1 Retaining Walls	13
1.3.2 Grade Crossings	14
1.3.3 Stations	15
1.3.4 Bridges.....	15
1.3.5 Culverts.....	16
1.3.6 Track	17
1.4 Fall River Secondary	18
1.4.1 Retaining Walls	18
1.4.2 Grade Crossings	19
1.4.3 Stations	20
1.4.4 Bridges.....	20
1.4.5 Culverts.....	21
1.4.6 Track	22
Bridge Access and Laydown Summary	1
2.1 Stoughton Line Bridges	1
2.1.1 Kingsley Pond (Forge Pond), Canton	1
2.1.2 Bolivar Street, Canton	2
2.1.3 Mill Brook, Canton.....	2

2.1.4	Coal Yard Road, Stoughton	3
2.1.5	Totman Farm Road, Stoughton	3
2.1.6	Day's Farm Road, Easton	4
2.1.7	Cowesett Brook, Easton	4
2.1.8	Pond Street, Easton	4
2.1.9	Small Creek, Easton	4
2.1.10	Main Street, Easton	5
2.1.11	Bridge Street, Easton	5
2.1.12	Hockomock Swamp Trestle, Raynham	5
2.1.13	Bridge Street, Raynham	6
2.1.14	Route 138 Grade Separation, Raynham	6
2.1.15	Thrasher Street, Raynham	7
2.1.16	Taunton River (North), Taunton	7
2.1.17	Taunton River (Middle), Taunton	8
2.1.18	Taunton River (South), Taunton	8
2.1.19	Mill River, Taunton	8
2.2	New Bedford Main Line Bridges	9
2.2.1	Taunton River, Taunton	9
2.2.2	Brickyard Road, Taunton	9
2.2.3	Route 24, Taunton	10
2.2.4	Cotley River (North), Berkley	10
2.2.5	Cotley River (South) , Berkley	11
2.2.6	Assonet River (Cedar Swamp), Lakeville	11
2.2.7	Fall Brook (Freetown Brook), Freetown	12
2.2.8	Route 18, New Bedford	12
2.2.9	Wamsutta Street, New Bedford	12
2.3	Fall River Secondary Bridges	13
2.3.1	Cedar Swamp River (Assonet River), Lakeville	13
2.3.2	Farm Road (North), Freetown	13
2.3.3	Farm Road (South), Fall River	14
2.3.4	Golf Cart Road, Fall River	14
2.3.5	2.3.5 Golf Club Road, Fall River	14
2.3.6	Miller's Cove Road	15
2.3.7	Collins Road, Fall River	15
2.3.8	Ashley's Underpass (Ashley Street) , Fall River	15
2.3.9	Brownell Street, Fall River	16
2.3.10	President Avenue, Fall River	16
2.3.11	Pearce Street, Fall River	17
2.3.12	Turner Street, Fall River	17
2.3.13	Channel near Battleship Cove, Fall River	17

List of Tables

Table No.	Description	Page
Table 1-1	Construction Staging Summary	3

List of Figures

Figure No.	Description	Page
1-1	Figure Heading.....	1



This page intentionally left blank.

Construction Staging Summary

1.1 General

The purpose of this Construction Staging summary is to identify feasible construction staging and sequencing options for the construction of various elements of the South Coast Rail (SCR) project. An assessment of potential construction access locations and laydown areas for bridge construction and site specific constraints are contained in Part 2 - Bridge Access & Laydown Summary.

All construction will be performed in close coordination with the operating railroads - Massachusetts Bay Transportation Authority (MBTA), Mass Coastal Railroad (MCRR), and CSX. Flagging and inspection services will be provided by the operating railroad for a given section of track as defined under Railroad Operations and Coordination. The work will include the construction of retaining walls, bridges, stations, station platforms, track, special track work, interlockings, drainage, culvert rehabilitations, maintenance of utilities, power substations, and overhead catenary.

Proposed track within the active right-of-way will be reconstructed between 7:00 PM and 7:00 AM weeknights and over extended weekends subject to MCRR delivery consolidation, except in specified areas in the vicinity of the Acushnet Cedar Swamp, during amphibian breeding season (mid-March through Mid-April) as noted in the Biodiversity Report.

1.1.1 General Sequence of Work

The following provides a general construction sequence of construction for the South Coast Rail Project.

- Clear and grub, demolish buildings and address HAZMAT issues on all property taken for the project.
- Construct station and substation site features beyond the right-of-way.
- Remove abandoned tracks and utilities along the right-of-way.
- Construct retaining walls, culverts and bridges.
- Install drainage and utility improvements.

- Grade right of way and prepare subgrade for track construction.
- Install track and relocate existing track to remain.
- Construct platforms and canopies.
- Install signal cable, conduit, foundations and signal equipment.
- Install catenary foundations, poles, cantilevers, brackets and wires.

1.1.2 Railroad Operations and Coordination

MassCoastal Railroad (MCRR) operates and maintains freight service south of Winter Street in Taunton to New Bedford and Fall River. CSX Customer freight service operates between Weir Junction and Cotley Junction where deliveries are made during the week between 7:00 AM and 7:00 PM. There are no deliveries scheduled on weekends unless a special delivery is needed or a weekday delivery is postponed to a Saturday. Daily MCRR freight service passes through Cotley Junction to destinations in New Bedford and Fall River on alternate days. During SCR construction, deliveries can be coordinated through MCRR and CSX with customers to reduce the number of weekly shipments and provide longer windows for track and bridge construction. Depending on the customer and the location of the construction, shipments can be consolidated to allow for up to a 6-day (including the weekend) track outage once a month.

Passenger service at existing Canton and Stoughton stations cannot be disrupted on weekdays, during peak hours. Work in those areas will be scheduled during off-peak hours - midday, at night, or on weekends. Service shutdowns and flagging will have to be coordinated through MBTA.

All work outside of the active right-of-way can be completed during regular working hours as long as the work does not foul or have the potential to foul active tracks. This work may include station and substation sites and any work within the inactive right-of-way. Work that has the potential to foul active track will be limited to off-peak hours, nights and weekends or during service shutdowns, will require a flagger present and must be approved by the operating railroad(s) MBTA, MCRR and/or CSX. Work within the active commuter rail right-of-way will be subject to MBTA approval and will require an MBCR flagman to be present.

1.1.3 Bridge Construction Sequencing

Bridge reconstruction along active rail lines will be staged depending on the number of existing and proposed tracks. Bridge staging will take precedence over track staging with consideration for nearby structures, right-of-way limits and wetland boundaries. The work will be sequenced in order to minimize impacts to local rail and roadway traffic. A Bridge Staging Summary Table is provided on pages 3 and 5.



Construction Staging Summary

Project: South Coast Rail
 Location: Staging Summary
 Calculated By: KK/RW Date: May, 2012
 Checked By: ML Date: May, 2012

Table 1-1 Construction Staging Summary

Line	Operating Railroad	Approx. MP ²	SCR MP ³	General				Bridge		Tracks			Signals Territory	Method*	CONSTRUCTION							
				Stationing	DOT No	Description	Town	Undergrade/Overhead	Proposed Type	Active	Existing Service ⁴	Proposed Offset			Type		Grade Crossings Within 1500 Feet		Access		Approx. Duration	Comments
															Existing Tracks	Proposed Tracks	North	South	North	South		
STOUGHTON LINE																						
S	MBTA	0.87	15.79	833+71.2	—	Kingsly Pond (Forge Pond)	Canton	UG	Precast Girder Ballasted Deck	Active	P	14	Signalized	B	1	2	Washington Street	—	—	Washington Street, Ames Ave	1yr	
S	MBTA	1.19	16.11	850+60.8	546730J	Bolivar Street	Canton	UG	Steel Beam Tub Ballasted Deck	Active	P	14	Signalized	B	1	2	—	—	Bolivar Street	Bolivar Street	4mo	Should be sequenced with Bolivar and Mill Brook if required for access
S	MBTA	1.64	16.56	874+36.8	—	Mill Brook	Canton	UG	Precast Girder Ballasted Deck	Active	P	14	Signalized	B	1	2	—	Pine Street	—	Pine Street	1yr	Should be sequenced with Bolivar and Mill Brook if required for access
S	MBTA	4.22	19.07	1006+89.6	546738N	Coal Yard Road	Stoughton	UG	Precast Box Girder Ballasted Deck	Active	P	14	Signalized	D	2	2	Wyman Street, Porter Street	Brock Street	—	Washington Street	4mo	—
End Active Track																						
S	—	5.93	20.85	1100+88.0	546745Y	Totman Farm Road	Stoughton	UG	Steel Beam Tub Ballasted Deck	—	—	16.6	Dark	B	1	2	—	—	Totman Farm Road	Washington Street	6mo	Tracks out of service
S	—	6.65	21.57	1139+00.0	—	Day's Farm Road (Private)	Easton	UG	Steel Beam Tub Ballasted Deck	—	—	20.6	Dark	B	1	2	—	—	Totman Farm Road	—	2mo	Tracks out of service. Construct Days Farm, Cowesett Brook and Totman Farm bridges in sequence
S	—	6.83	21.75	1148+28.0	—	Cowesett Brook	Easton	UG	Steel Beam Tub Ballasted Deck	—	—	0	Dark	B	1	1	—	—	Totman Farm Road	Elm Street	6mo	Tracks out of service. Construct Days Farm, Cowesett Brook and Totman Farm bridges in sequence
S	—	7.88	22.80	1204+00.0	—	Pond Street (Ped.)	Easton	UG	Steel Beam Tub Ballasted Deck	—	—	0	Dark	—	1	1	Elm Street, Oliver Street	—	Shovel Shop Square	Pond Street	2mo	Tracks out of service. Construct Days Farm, Cowesett Brook and Totman Farm bridges in sequence
S	—	7.92	22.84	1206+09.0	—	Small Creek	Easton	UG	Precast Box Girder Ballasted Deck	—	—	0	Dark	—	1	1	Oliver Street	—	Sullivan Street	—	2mo	Small Creek Bridge should be constructed after Pond Street Bridge if it is required to use the bridge over Pond Street for access
S	—	8.01	22.93	1211+23.2	546750V	Main Street	Easton	OH	—	—	0	Dark	—	1	1	Oliver Street	Williams Street	Main Street	—	2yr	Construction at Bridge Street should not occur at the same time	
S	—	8.35	23.27	1228+65.6	546751C	Bridge Street	Easton	OH	—	—	0	Dark	—	1	1	Williams Street	—	Bridge Street	—	2yr	Construction at Main Street should not occur at the same time	
S	—	11.25	26.17	1425+00.0	—	Hockomock Swamp Trestle	Raynham	UG	—	—	0	Dark	—	1	1	Foundry Street	—	Foundry Street	Race Track Crossing	2.5yr	Detailed in separate memo	
S	—	15.28	30.20	1594+56.0	—	Bridge Street	Raynham	OH	—	—	14	Dark	—	1	2	—	Elm Street	Bridge Street	Elm Street	2yr	—	
S	—	16.46	31.38	1656+86.4	—	Route 138 Grade Separation	Raynham	OH	—	—	0	Dark	—	1	1	—	Britton Street	Rte. 138	—	1.5yr	—	
S	—	18.48	33.40	1763+52.0	—	Thrasher Street	Raynham	OH	—	—	14	Dark	—	1	2	—	—	Thrasher Street	Longmeadow Road	1.5yr	—	
18.93 33.81 1784+95.0 Begin Active Track																						
S	CSX	19.50	34.38	1815+16.0	—	Taunton River	Taunton	UG	Through Plate Girder Open Deck	Active	F	0	Dark	A1	1	1	Dean Street	—	Deane Street	—	1yr	Should be sequenced with the other Taunton River and Mill River crossings. May require several lengthy work windows
S	CSX	19.70	34.62	1828+02.0	—	Taunton River	Taunton	UG	Through Plate Girder Open Deck	Active	F	0	Dark	A1	1	1	Dean Street	Summer Street	Deane Street	—	1yr	Should be sequenced with the other Taunton River and Mill River crossings. May require several lengthy work windows
S	CSX	19.80	34.73	1833+69.0	—	Taunton River	Taunton	UG	Through Plate Girder Open Deck	Active	F	0	Dark	A1	1	1	—	Summer Street, High Street	Dean Street	—	1yr	Should be sequenced with the other Taunton River and Mill River crossings. May require several lengthy work windows
S	CSX	20.00	34.90	1842+87.0	—	Mill River	Taunton	UG	Steel Beam Tub Ballasted Deck	Active	F	0	Dark	A1	1	1	Summer Street	High Street	Dean Street	—	6mo	Should be sequenced with the Taunton River crossings. May require several lengthy work windows

- Notes:**
- Construction details assume one freight train per day between 7 AM and 7 PM
 - "Approx. MP" is based on point of beginning with Milepost 0.0 at Canton Junction for the Stoughton Line
 - "SCR MP" is based on point of beginning with Milepost 0.0 at South Station
 - P: Passenger; F: Freight

- * Construction Method Legend**
- A1: Roll in new structure during shutdown, 1 Existing Track, 1 Proposed Track
 - A2: Oversized substructure, 1 Existing Track, 1 Proposed Track
 - B: Construct ½ new bridge then replace existing, 1 Existing Track, 2 Proposed Tracks
 - C: Construct ½ bridge at a time, 2 Existing Tracks, 2 Proposed Tracks



Construction Staging Summary

This page intentionally left blank.



Construction Staging Summary

Project: South Coast Rail
 Location: Staging Summary
 Calculated By: KK/RW Date: May, 2012
 Checked By: ML Date: May, 2012

Table 1-1 Construction Staging Summary (Continued)

Line	Operating Railroad	Approx. MP ²	SCR MP ³	General				Bridge		Tracks			Signals Territory	Method ⁵	CONSTRUCTION						Approx. Duration	Comments
				Stationing	DOT No	Description	Town	Undergrade/Overhead	Proposed Type	Active	Existing Service ⁴	Proposed Offset			Type		Grade Crossings Within 1500 Feet		Access			
															Existing Tracks	Proposed Tracks	North	South	North	South		
NEW BEDFORD LINE																						
NB	CSX	11.80	35.56	1877+55.0	—	Taunton River	Taunton	UG	Through Plate Girder Ballasted Deck	Active	F	14	Dark	B	1	2	Ingell Street	—	Ingell Street	—	2 yr	
NB	CSX	12.00	35.79	1889+50.0	537302N	Brickyard Road	Taunton	UG	Precast Box Girder Ballasted Deck	Active	F	14	Dark	B	1	2	—	Hart Street	—	Plain Street Akron Street	4 mo	
NB	MCR	13.90	37.69	1989+82.0	537304C	Route 24	Taunton	OH		Active	F	14	Dark	B	1	2	—	West Stevens Street	Route 24	Route 24	2 yr	Needs to allow both tracks to be constructed below.
NB	MCR	15.17	38.93	2055+67.0	—	Cotley River	Berkley	UG	Steel Beam Tub Ballasted Deck	Active	F	14	Dark	B	1	2	—	—	Colley Street	Padelford Street	1 yr	
NB	MCR	15.70	39.46	2083+69.0	—	Cotley River	Berkley	UG	Steel Beam Tub Ballasted Deck	Active	F	14	Dark	B	1	2	—	—	Colley Street	Padelford Street	1 yr	
NB	MCR	18.60	42.14	2225+16.0	—	Assonet River	Lakeville	UG	Steel Beam Tub Ballasted Deck	Active	F	7.4	Dark	A2	1	1	—	—	Malbone Street	Howland Road	9 mo	Widen the proposed structure to account for rail traffic throughout construction.
NB	MCR	21.65	45.43	2398+96.0	—	Fall Brook	Freetown	UG	Steel Beam Tub Ballasted Deck	Active	F	9.7	Dark	A2	1	1	—	Chace Road	—	Chace Road	9 mo	This location is a priority for sequencing construction with other bridges on the line due to existing bridge condition.
NB	MCR	30.38	54.17	2860+00.0	5373273	Route 18	New Bedford	UG	Through Plate Girder Ballasted Deck	Active	F	0	Dark	A2	1	1	—	—	Purchase Street	Purchase Street	1.5 yr	Track to be deactivated from this point to the terminus at the proposed New Bedford Station.
NB	MCR	54.21	54.21	2862+50.0	537328R	Wamsutta Street	New Bedford	UG	Through Plate Girder Ballasted Deck	Active	F	0	Dark	A2	1	1	—	—	Rail Yard	Rail Yard	1.5 yr	Track to be deactivated from this point to the terminus at the proposed New Bedford Station.
FALL RIVER SECONDARY:																						
FR	MCR	0.92	41.51	2192+00.0	—	Cedar Swamp River	Lakeville	UG	Through Plate Girder Ballasted Deck	Active	F	0	Dark	A1	1	1	—	—	Adams Lane	Beechwood Road	8 mo	The proposed bridge is to be constructed within track outage windows.
FR	MCR	4.98	45.58	2407+00.0	537363E	Route 24/79	Freetown	UG		Active	F		Dark	—			—	—	—	—		Bridge construction not required.
FR	MCR	5.93	46.53	2457+35.0	537366A	Farm Road	Freetown	UG	Steel Beam Tub Ballasted Deck	Active	F		Dark	A2	1	1	—	—	South Main Street	Farm Road	1 yr	Widening the proposed structure to account for rail traffic will require work around the active track.
FR	MCR	6.77	47.75	2501+00.0	537368N	Farm Road	Fall River	UG	(Remove & Fill in)	Active	F	0	Dark	—	1	1	—	—	—	Golf Cart Road	2 mo	Filling operations would require the work to be completed under track outage windows.
FR	MCR	6.92	47.90	2529+61.2	—	Golf Cart Road	Fall River	OH	Concrete Deck on Steel Stringer	Active	F	15	Dark	—	1	1	—	—	—	Golf Club Road	1 yr	Needs to be constructed to allow track construction below.
FR	MCR	7.13	48.11	2540+70.0	537369V	Golf Club Road	Fall River	OH	Concrete Deck on Steel Stringer	Active	F	15.5	Dark	—	1	2	—	—	—	Golf Club Road	1 yr	Needs to be constructed to allow track construction below.
FR	MCR	7.98	48.62	2567+50.0	537370P	Miller's Cove Road	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	0	Dark	A2	1	1	—	—	Miller's Cove Road		1 yr	Widening the proposed structure to account for rail traffic will require work around the active track.
FR	MCR	8.42	49.06	2590+70.0	537372D	Collins Street	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	0	Dark	A2	1	1	—	—	Collins Road	North Main Street	1 yr	
FR	MCR	8.58	49.21	2599+00.0	546592X	Ashley's Underpass	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	2	Dark	A2	1	1	—	—	Collins Road	Canady's Underpass	1 yr	Widening the proposed structure to account for rail traffic will require work around the active track.
FR	MCR	10.40	51.03	2695.00.0	546594L	Brownell Street	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	0	Dark	B	1	1	—	—	Brownell Street	Pearce Street	1 yr	
FR	MCR	10.48	51.11	2699+00.0	546595T	President's Avenue	Fall River	UG	Through Plate Girder Ballasted Deck	Active	F	0	Dark	B	1	1	—	—	President's Avenue	Parking Lot off North Main Street	1 yr	
FR	MCR	10.57	51.20	2704+00.0	546596A	Pearce Street	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	14	Dark	C	1	1	—	—	Pearce Street	Main Street		Bridge construction not required.
FR	MCR	10.77	51.40	2714+50.0	546597G	Turner Street	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	14	Dark	C	1	2	—	—	Turner Street	Open lay-down area		Bridge construction not required.
FR	MCR	11.50	52.09	2751+00.0	—	Quequechan River	Fall River	UG	Steel Beam Tub Ballasted Deck	Active	F	0	Dark	—	1	1	—	—	Rail Yarde	—	6 mo	Construction cannot be phased at this location, so the track will be shut down and service suspended during bridge construction.

Notes:

- Construction details assume one freight train per day between 7 AM and 7 PM
- "Approx. MP" is based on point of beginning with Milepost 0.0 at Canton Junction for the Stoughton Line
- "SCR MP" is based on point of beginning with Milepost 0.0 at South Station
- P: Passenger; F: Freight

*** Construction Method Legend**

- A1: Roll in new structure during shutdown, 1 Existing Track, 1 Proposed Track
- A2: Oversized substructure, 1 Existing Track, 1 Proposed Track
- B: Construct ½ new bridge then replace existing, 1 Existing Track, 2 Proposed Tracks
- C: Construct ½ bridge at a time, 2 Existing Tracks, 2 Proposed Tracks



Construction Staging Summary

This page intentionally left blank.

One Existing Track - Two Proposed Tracks

The typical construction sequence to expand a single track bridge into a double track bridge will be as follows assuming the existing track is Track 1 and the proposed track is Track 2 (see figure on page 6).

- Demolish portions of the existing structure, as necessary, to construct the new Track 2 structure, while maintaining rail service on Track 1.
- Construct Track 2 structure and track.
- Install temporary crossovers no closer than 500 feet from the abutments and divert all railroad traffic to Track 2.
- Demolish remaining portions of existing Track 1 structure.
- Construct new Track 1 structure and track.
- Remove temporary crossovers after both track connections have been completed in their final configuration.

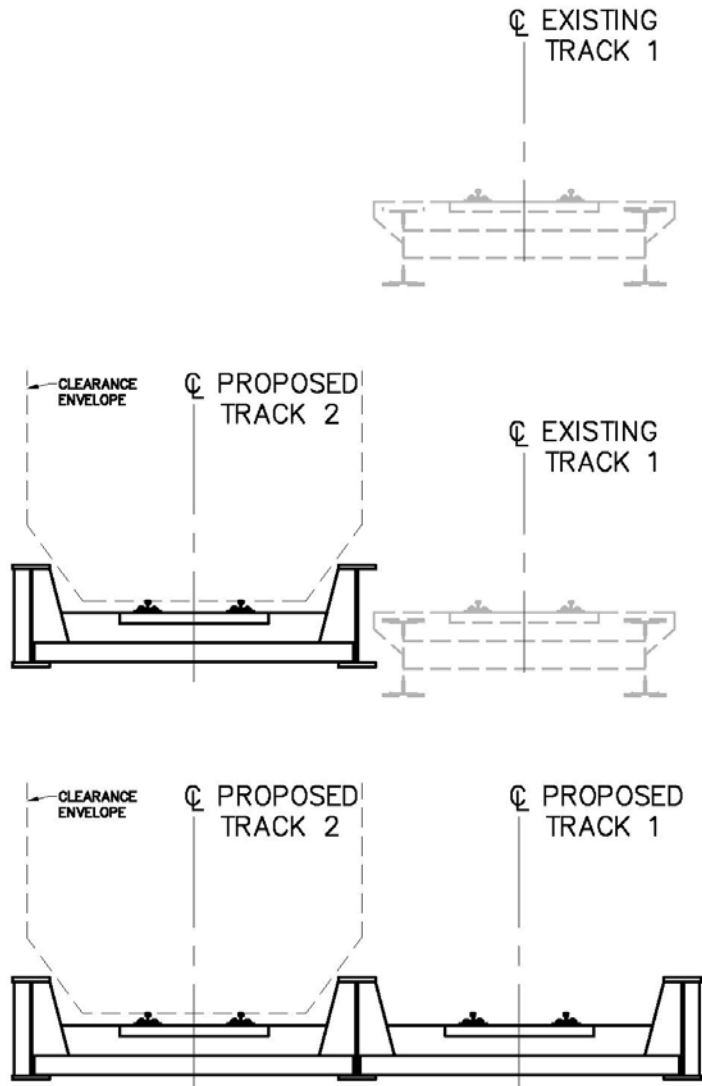
Two Existing Tracks - Two Proposed Tracks

Existing two-track bridges that will be reconstructed to accommodate two proposed tracks will utilize the following construction sequence (see figure on page 8).

- Install temporary crossovers, if necessary, to divert rail traffic to Track 2.
- Divert all railroad traffic to Track 2 over the existing bridge.
- Demolish the portions of the existing substructure that support Track 1.
- Construct proposed Track 1 substructure, superstructure and track.
- Divert rail traffic to the new Track 1 structure.
- Demolish remaining substructure and superstructure that supports Track 2.
- Construct proposed Track 2 structure and track
- Make track connections in their final configuration and remove temporary cross-overs.

One Existing Track - One Proposed Track

There are two options to reconstruct existing single track bridges. Both options must optimize material delivery and lay-down area access to minimize track outages. Option 1 will involve coordination with freight customers to consolidate deliveries during the week to provide longer track outage windows over the weekends. Option 2 will include the construction of wider abutments and a wider ballasted bridge structure to accommodate track shifts for maintenance of rail service. Option 1 is preferred and will be employed whenever possible. Option 2 may not be feasible in areas with a constrained right-of-way



\\MABOSDATA\projects\10111.00\cad\at\plan\misc\PhaseExample.dwg Printing Date: 4/23/2012 3:59 PM



**Bridge Construction Sequence
One Existing Track -
Two Proposed Tracks**

Prepared by: VHB

Not to Scale

Option 1

- Construct the substructure abutments and piers at night and on weekends while maintaining rail service weekdays between 7:00 AM and 7:00 PM.
- Consolidate freight shipments to reduce or eliminate weekly shipments, and allow extended weekday or weekend work windows.
- Assemble superstructure elements in a nearby laydown area.
- Over an extended weekend shut down rail service and remove the existing superstructure.
- Load superstructure elements onto flatbed rail cars.
- Roll in the preassembled superstructure over existing piers and place on temporary blocking.
- Remove upper portions of the existing piers and lower the superstructure onto the bridge seats and construct approaches.
- Construct track on approaches.
- Open bridge to rail service.
- Remove remaining portions of the existing piers and abutments

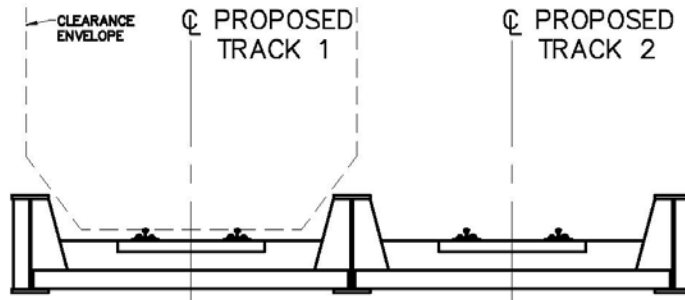
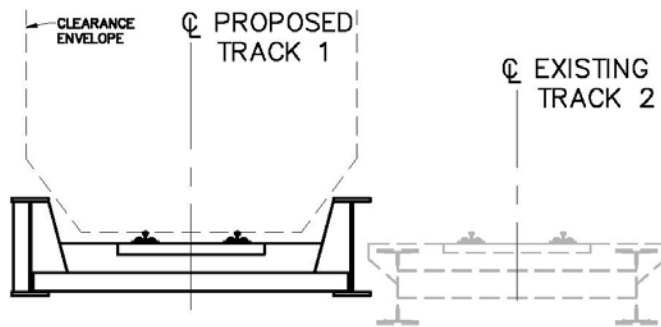
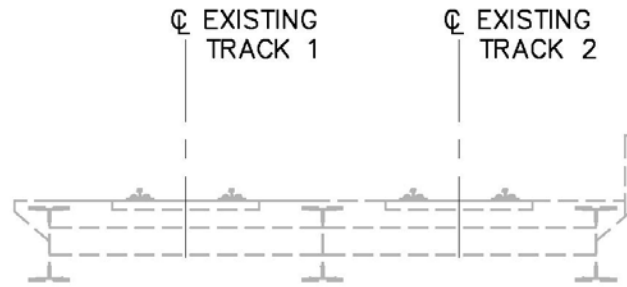
Under this scenario consecutive bridges will be constructed one location at a time to maximize access.

Option 2 (see figure on page 9)

- Construct the oversized abutments and piers at night and on weekends while maintaining rail service on the existing structure weekdays between 7:00 AM and 7:00 PM.
- Construct west half of the proposed superstructure.
- Install track on west half of the bridge and shift existing track on approaches to align with the track on the west half of the bridge.
- Remove existing superstructure and demolish substructure elements where possible.
- Construct east half of new superstructure while maintaining rail service on the west half of the bridge.
- Construct track in its final configuration.
- Remove remaining existing substructure elements.

Grade Crossings

Grade crossings located within 1500 feet of a bridge will have to be considered when evaluating the construction staging for the bridge. The Bridge Summary Table provided on pages 3 and 4 identifies the respective crossings for each bridge. In most cases reconstructing the crossing before the bridge may provide more operational flexibility. A new controller will improve the operation of the temporary and permanent crossings and the new equipment can be located to accommodate the various track shifts.



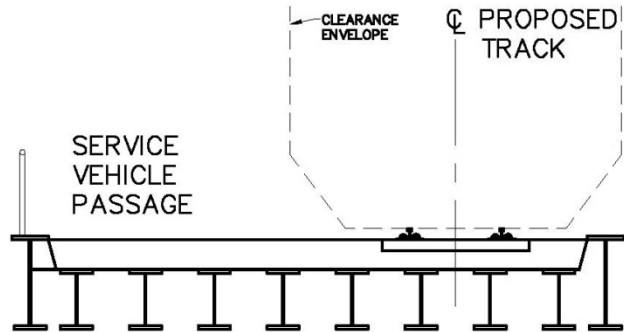
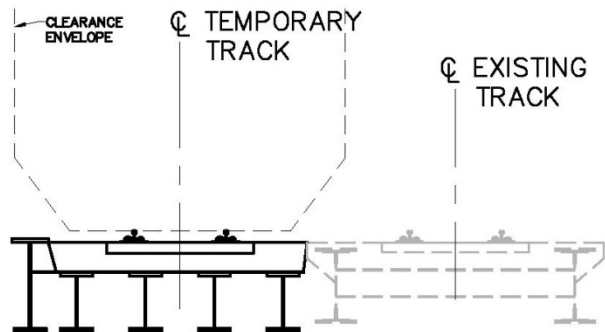
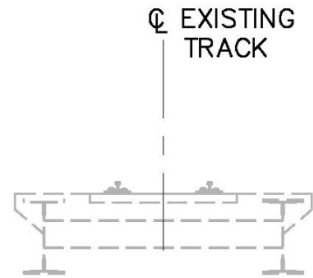
\\MABOSDATA\project\10111.00\cad\plan\misc\PhaseExample.dwg Printing Date: 4/23/2012 4:00 PM



**Bridge Construction Sequence
Two Existing Tracks -
Two Proposed Tracks**

Not to Scale

Prepared by: VHB



\\MABOSDATA\projects\10111.00\cad\et\plan\misc\PhaseExample.dwg Printing Date: 4/23/2012 4:01 PM



Bridge Construction Sequence
One Existing Track -
One Proposed Track
Option 2

Prepared by: VHB

Not to Scale

1.2 Stoughton Line

The SCR project will reconstruct the Stoughton Line from just south of Canton Junction Station to Weir Junction. This line has active passenger and freight service to Stoughton Station and active freight service between Winter Street in Taunton and Weir Junction. The right-of-way between Brock Street in Stoughton (MP 4.55) and Winter Street in Taunton (MP 18.93) is currently inactive with no rail remaining intact south of Short Street in Easton. Walls, bridges, and culverts within the inactive right-of-way can be constructed as resources allow. Construction within the active right-of-way must be coordinated and scheduled with MBTA and MCRR to minimize impacts to rail service and local traffic.

1.2.1 Retaining Walls

Construct retaining walls to the extent possible without fouling the active track. Work that requires foul time will be completed as allowed by flaggers. Retaining walls will be constructed along approximately 36,300 track feet as noted below.

- Station 818+00 to 821+00
- Station 833+00 to 836+00
- Station 839+00 to 851+00
- Station 856+00 to 871+00
- Station 879+00 to 885+00
- Station 894+00 to 899+00
- Station 981+00 to 996+00
- Station 1007+00 to 1009+00
- Station 1017+00 to 1033+00
- Station 1039+00 to 1062+00
- Station 1102+00 to 1116+00
- Station 1139+00 to 1145+00
- Station 1165+00 to 1171+00
- Station 1177+00 to 1232+00
- Station 1416+00 to 1425+00
- Station 1510+00 to 1543+00
- Station 1593+00 to 1602+00
- Station 1608+00 to 1611+00
- Station 1639+00 to 1683+00

- Station 1750+00 to 1762+00
- Station 1782+00 to 1797+00
- Station 1836+00 to 1839+00
- Station 1844+00 to 1854+00
- Station 1890+00 to 1902+00
- Station 1912+00 to 1941+00
- Station 1974+00 to 1977+00

1.2.2 Grade Crossings

Construct or remove the following grade crossings to the extent possible during the weekday hours within the inactive track areas and on nights and weekends with MBCR flagmen present within the active track areas. Active grade crossings that are proposed to be closed, such as Morton Street in Stoughton, cannot be dismantled/blocked until the proposed alternative access has been constructed.

- | | |
|----------------------------------|----------|
| ➤ MP 0.70 Washington Street | Maintain |
| ➤ MP 1.70 Pine Street | Maintain |
| ➤ MP 2.10 Will Drive | Maintain |
| ➤ MP 2.90 Central Street | Maintain |
| ➤ MP 3.20 Simpson Street | Maintain |
| ➤ MP 3.70 School Street | Maintain |
| ➤ MP 3.90 Porter Street (RTE 27) | Maintain |
| ➤ MP 4.00 Wyman Street | Maintain |
| ➤ MP 4.30 Brock Street | Maintain |
| ➤ MP 4.60 Plain Street | Maintain |
| ➤ MP 5.20 Morton Street | Close |
| ➤ MP 5.30 Pearson's Crossing | Close |
| ➤ MP 5.39 Stanley Prod. Co. | Close |
| ➤ MP 5.60 Fish and Game Club | Close |
| ➤ MP 7.60 Elm Street | Maintain |
| ➤ MP 7.80 Oliver Street | Maintain |
| ➤ MP 8.30 Williams Street | N/A |
| ➤ MP 8.65 Easton DPW | Close |
| ➤ Residential Access | Close |
| ➤ 3-Way Path Crossing | Close |
| ➤ MP 9.15 Gary Lane | Maintain |

- MP 9.55 Short Street Maintain
- MP 10.00 Depot Street - Route 123 Maintain
- ATV Tracks (Multiple) Close
- MP 10.20 Purchase Street Maintain
- MP 10.90 Prospect Street Maintain
- MP 11.40 Country Club Close
- MP 11.80 Foundry Street - Route 106 Maintain
- MP 12.40 Power Line Close
- MP 14.10 Race Track Crossing Maintain
- MP 15.40 Elm Street Maintain
- MP 15.80 Carver Street Maintain
- MP 16.50 Britton Street Maintain
- MP 17.10 King Phillip Street Maintain
- MP 18.10 East Britannia Street Maintain
- MP 18.90 Longmeadow Road Maintain
- MP 19.40 Dean Street - Route 44 Maintain

1.2.3 Stations

The following stations will be constructed along the Stoughton Line as part of the SCR Project.

- Canton (reconstruct existing)
- Stoughton
- North Easton
- Easton Village
- Raynham Park
- Taunton

1.2.4 Bridges

Bridge reconstruction along the active right-of-way along the Stoughton Line will follow the bridge construction sequencing outlined on pages 2 through 9 as dictated by the number of existing and proposed tracks. Bridge staging will take precedence over track staging with consideration for nearby structures, property limits and wetland boundaries. The work will be sequenced in order to minimize impacts on the Stoughton central business district.

One Existing Track - Two Proposed Tracks

The following existing undergrade bridges along the Stoughton Line will be expanded to support a 2-track cross section.

- MP 0.87 (Station 836+45.60) Kingsley Pond (Forge Pond)
- MP 1.20 (Station 853+88.00) Bolivar Street
- MP 1.64 (Station 877+11.20) Mill Brook

Two Existing Tracks - Two Proposed Tracks

The two track bridge that carries the Stoughton line over Coal Yard Road (MP 4.22, Station 1013+33.60) will be reconstructed to accommodate two tracks.

One Existing Track - One Proposed Track

The following single track undergrade bridges along the Stoughton Line will be reconstructed to provide a new single track bridge.

- MP 19.50 (Station 1815+16.00) Taunton River
- MP 19.70 (Station 1828+02.00) Taunton River
- MP 19.80 (Station 1833+69.00) Taunton River
- MP 20.00 (Station 1842+87.00) Mill River

Inactive Right-of-Way

The following bridges to be reconstructed are located along the inactive portion of the Stoughton Line right-of-way and construction can proceed unimpeded. Refer to the Bridge Access Summary for additional notes on sequencing bridges with other locations.

- MP 5.90 (Station 1102+04.00) Totman Farm Road
- MP 6.60 (Station 1139+00.00) Day's Farm Road (Private)
- MP 6.80 (Station 1148+28.00) Cowessett Brook
- MP 7.90 (Station 1204+00.00) Pond Street (Ped.)
- MP 7.95 (Station 1206+09.00) Small Creek
- MP 8.05 (Station 1211+23.20) Main Street
- MP 11.11 (Station 1228+52.35) Bridge Street
- MP 14.01 (Station 1425+00 to Station 1510+00) Hockomock Swamp (See description below)
- MP 13.86 (Station 1517+78.00) Begin Siding L2
- MP 15.32 (Station 1595+08.80) Bridge Street
- MP 16.43 (Station 1653+69.60) Route 138 Grade Separation
- MP 18.33 (Station 1753+85.00) Begin Siding L3
- MP 18.45 (Station 1760+35.20) Thrasher Street

Hockomock Swamp Trestle

The trestle proposed to span the Hockomock Swamp as part of the SCR Project will minimize impacts to the vegetation and wildlife in the Hockomock Swamp. The trestle will consist of a multi-span, ballasted superstructure supported by deep foundations and will extend from station 1425+00 in Easton to station 1510+00 in Raynham.

Due to the sensitivity of the surrounding environment, the approved construction method will minimize impacts outside the existing railroad bed. The construction activities will be performed within the constraints of a set boundary on either side of the work area. The boundary will be defined by the installation of sedimentation and erosion controls along the existing railroad embankment.

The construction site can be accessed from the north by Foundry Street and from the south through Raynham Park. Raynham Park offers ample space for the primary laydown area. To the north, there may be limited space for laydown along the right-of-way, outside the limits of the swamp (adjacent to the Southeast Regional Vocational-Technical High School). During construction, the site would be accessed from the north and south ends, within the construction boundaries defined along the existing railroad right of way.

Before construction begins, existing power lines spanning the right-of-way will be raised as needed to meet minimum clearance requirements. The trestle will be constructed from both ends using at least two crews per operation. Precast concrete elements including pile caps, deck slabs, and box beams can be used to expedite construction and minimize disruption within the swamp. The construction sequence will include the following.

- Install erosion controls and perform selective clearing and trimming of vegetation.
- Construct infiltration trenches and perform earthwork between pier locations.
- Drive piles starting from the center of the trestle, working out toward Foundry Street and Raynham Park. Each crew will work from separate laydown areas at each end of the trestle. Install precast pile caps prior to driving the next set of piles so construction equipment can progress outward, on the embankment, within the construction boundaries to the next pier location.
- Install precast concrete box beams using two crews starting at each end, working toward the center of the trestle. The transverse post-tensioning of the box beams must be completed during the installation of each span to allow construction access over the trestle to install the beams for next span.
- Install precast concrete deck panels. Deck panels may be installed span by span with the box beams or after all of the beams are in place.
- Install deck drainage, ballast, track, signal cables, traction power and ancillary items.

1.2.5 Culverts

All but three of the culverts located along the Stoughton Line are located within the inactive right-of-way and therefore they will be constructed as resources allow. Culvert CV-ST- 2.47 and CV-ST- 3.40 are located north of Stoughton Station and will be restored if required. The culvert CV-ST-19.10 is located south of Winter Street and will have to be reconstructed in stages during track outages and over extended weekends. MCRR will coordinate with customers to consolidate freight shipments to minimize weekday deliveries and provide longer weekend windows for construction. This work can be scheduled in conjunction with the track outages for the nearby bridge work as discussed on pages 2 through 9. Culverts along the Stoughton Line include the following:

- MP 2.47 CV-ST- 2.47
- MP 3.40 CV-ST- 3.40
- MP 4.49 CV-ST-4.49
- MP 4.94 CV-ST-4.94
- MP 5.04 CV-ST-5.04
- MP 5.26 CV-ST-5.26
- MP 5.45w CV-ST-5.45w
- MP 5.53w CV-ST-5.53w
- MP 5.94 CV-ST-5.94
- MP 6.45 CV-ST-6.45
- MP 6.83 CV-ST-6.83
- MP 7.06 CV-ST-7.06
- MP 7.21 CV-ST-7.21
- MP 7.23 CV-ST-7.23
- MP 7.42 CV-ST-7.42
- MP 9.22 CV-ST-9.22
- MP 9.35 CV-ST-9.35
- MP 10.05 CV-ST-10.05
- MP 10.23 CV-ST-10.23
- MP 10.41 CV-ST-10.41
- MP 10.90 CV-ST-10.90
- MP 10.95 CV-ST-10.95
- MP 11.11 CV-ST-11.11
- MP 11.23 CV-ST-11.23

- MP 11.33 CV-ST-11.33
- MP 11.34 CV-ST-11.34
- MP 11.44 CV-ST-11.44
- MP 11.59 CV-ST-11.59
- MP 11.61 CV-ST-11.61
- MP 11.65 CV-ST-11.65
- MP 11.91 CV-ST-11.91
- MP 12.09 CV-ST-12.09
- MP 12.38 CV-ST-12.38
- MP 12.68 CV-ST-12.68
- MP 12.99 CV-ST-12.99
- MP 13.12 CV-ST-13.12
- MP 13.42 CV-ST-13.42
- MP 14.02 CV-ST-14.02
- MP 14.1E CV-ST-14.1E
- MP 15.4E CV-ST-15.4E
- MP 15.4w CV-ST-15.4w
- MP 15.80 CV-ST-15.80
- MP 16.00 CV-ST-16.00
- MP 16.46E CV-ST-16.46E
- MP 16.73 CV-ST-16.73
- MP 17.37 CV-ST-17.37
- MP 17.96 CV-ST-17.96
- MP 18.18 CV-ST-18.18
- MP 19.10 CV-ST-19.10
- MP 19.41 CV-ST-19.41

1.2.6 Track

In general, track construction staging will support the construction staging and schedule of the nearest bridge under construction. Track construction along inactive rail lines will proceed as resources allow. The construction of track sidings can be completed with minimal disruption to freight service.

Inactive Right-of-Way

- Construct northerly section of new track in final position along the west side of right of way from Station 1020+00 to 1190+70.
- Construct southerly section of new track in final position along the east side of right of way from Station 1250+30 to 1780+80.
- Construct new sidings in final position along the east side of right of way from Station 1517+78 to 1632+16
- Relocate existing power line along the right-of-way within Pine Swamp to provide adequate clearance to the proposed catenary.
- Install interlocking track components, including two Track 1 to 2 crossovers, from Station 1041+00 to 1052+00

Active Right-of-Way

- Shift and connect existing Track 1 to Track 2:
 - Station 798+17 to 1145+56.
 - Station 1753+85 to 1784+95
 - Station 17886+70 to 1810+22
- Install Weir Junction interlocking track components from Station 1846+75 to 1872+54, including one crossover between High Street and Ingell Street, three yard tracks, connections to existing yard tracks and the connection to the Attleboro Line.
- Restore passenger and freight service.

1.3 New Bedford Main Line

This project will include the reconstruction of the New Bedford Main Line between Weir Junction and New Bedford. This line has active freight service operated by CSX between Weir Junction and Cotley Junction, and by MCRR between Weir Junction and New Bedford.

1.3.1 Retaining Walls

Construct retaining walls to the extent possible without affecting existing rail service. Retaining walls are proposed along approximately 8,100 track feet.

- Station 1990+00 to 1993+00
- Station 2020+00 to 2024+00
- Station 2176+00 to 2179+00
- Station 2280+00 to 2286+00

- Station 2525+00 to 2529+00
- Station 2674+00 to 2678+00
- Station 2752+00 to 2772+00
- Station 2787+00 to 2793+00
- Station 2814+00 to 2842+00
- Station 2849+00 to 2852+00

1.3.2 Grade Crossings

Reconstruct grade crossings or close existing crossings to the extent possible during off peak hours with a flagman and during weekend track outages. Active grade crossings that are proposed to be closed cannot be dismantled/blocked until the proposed alternative access has been constructed.

- | | | |
|------------|--------------------|------------|
| ➤ MP 35.46 | Ingell Street | (Maintain) |
| ➤ MP 35.98 | Hart Street | (Maintain) |
| ➤ MP 36.48 | Silva Crossing | (Maintain) |
| ➤ MP 37.81 | W. Stevens Street | (Maintain) |
| ➤ MP 38.34 | Cotley Street | (Maintain) |
| ➤ MP 38.47 | Private Crossing | (CLOSE) |
| ➤ MP 38.57 | Private Crossing | (CLOSE) |
| ➤ MP 39.85 | Padelford Street | (Maintain) |
| ➤ MP 40.52 | Myricks Street | (Maintain) |
| ➤ MP 40.96 | Malbone Street | (Maintain) |
| ➤ MP 41.34 | Obed Crossing | (CLOSE) |
| ➤ MP 42.39 | Crossing Planks | (CLOSE) |
| ➤ MP 42.78 | Private Crossing | (CLOSE) |
| ➤ MP 42.99 | Gravel Bank | (CLOSE) |
| ➤ MP 43.09 | Private Crossing | (CLOSE) |
| ➤ MP 43.41 | Private Crossing | (CLOSE) |
| ➤ MP 43.56 | Stonewall Crossing | (CLOSE) |
| ➤ MP 43.98 | Jeep Crossing | (CLOSE) |
| ➤ MP 44.17 | Jeep Crossing | (CLOSE) |
| ➤ MP 44.36 | Townline Crossing | (CLOSE) |
| ➤ MP 45.09 | Pierce Gravel Pit | (CLOSE) |
| ➤ MP 45.51 | Gas Line | (CLOSE) |
| ➤ MP 45.62 | Chace Road | (Maintain) |
| ➤ MP 46.06 | Private Road | (CLOSE) |

- MP 46.30 Private Road (CLOSE)
- MP 46.37 Lucas Crossing (CLOSE)
- MP 46.66 Lawrence Crossing (CLOSE)
- MP 47.24 Braley Road (Maintain)
- MP 47.35 Occupation Crossing (CLOSE)
- MP 47.44 Pittsley Crossing (CLOSE)
- MP 47.84 East Chipaway Road (Maintain)
- MP 48.21 Private Road (Maintain)
- MP 49.03 Samuel Barnet Rd. (Maintain)
- MP 49.10 Polaroid Crossing (CLOSE)
- MP 49.41 Private Crossing (CLOSE)
- MP 51.17 Pig Farm Road (Maintain)
- MP 51.93 Tarkiln Hill Road (Maintain)
- MP 52.91 Nash Road (Maintain)

1.3.3 Stations

The following stations will be constructed along the New Bedford Main Line:

- Taunton Depot
- King's Highway
- Whales Tooth Station

1.3.4 Bridges

Bridge reconstruction along the New Bedford Main Line will follow the bridge construction sequencing outlined on pages 2 through 9 as dictated by the number of existing and proposed tracks. Bridge staging will take precedence over track staging with consideration for nearby structures, property limits and wetland boundaries. The work will be sequenced in order to minimize impacts local traffic.

One Existing Track - Two Proposed Tracks

The following single track bridges along the New Bedford Main Line will be reconstructed to support a 2-track cross section.

- MP BR 35.56 (Station 1877+55) Taunton River
- MP BR 35.79 (Station 1889+50) Brickyard Road
- MP BR 38.93 (Station 2055+67) Cotley River
- MP BR 39.46 (Station 2083+69) Cotley river

One Existing Track - One Proposed Track

The following single track bridges along the New Bedford Main Line will be reconstructed to provide a new single track bridge.

- MP BR 42.14 (Station 2225+16) Assonet River
- MP BR 45.43 (Station 2398+96) Fall Brook
- MP BR 54.17 (Station 2860+00) Route 18
- MP BR 54.21 (Station 2862+50) Wamsutta Street

The alignment and physical constraints of the existing undergrade railroad bridges at Route 18 and Wamsutta Street in New Bedford make it extremely difficult and costly to maintain rail service during construction. MBTA and MCRR will coordinate with the freight customer(s) in New Bedford to provide an alternative means of transportation for an extended period to deliver freight while the bridges are under construction.

1.3.5 Culverts

The existing culverts along the New Bedford Main Line will be reconstructed in stages during track outages and over extended weekends. MCRR will coordinate with customers to consolidate freight shipments to minimize weekday deliveries and provide longer weekend windows for construction. This work can be scheduled in conjunction with the track outages for the nearby bridge work as discussed on pages 2 through 9. Culverts along the New Bedford Main Line include the following:

- MP 17.89 CV-NB-17.89
- MP 19.69 CV-NB-19.69w
- MP 20.37 CV-NB-20.37
- MP 20.78 CV-NB-20.78
- MP 20.89 CV-NB-20.89
- MP 21.51 CV-NB-21.51
- MP 21.61 CV-NB-21.61
- MP 21.68 CV-NB-21.68
- MP 24.08 CV-NB-24.08
- MP 24.31 CV-NB-24.31
- MP 26.47 CV-NB-26.47
- MP 26.68 CV-NB-26.68
- MP 26.96 CV-NB-26.96
- MP 27.43 CV-NB-27.43
- MP 12.0 CV-NB-12w
- MP 14.52 CV-NB-14.52
- MP 14.74 CV-NB-14.74

- MP 15.01 CV-NB-15.01
- MP 16.4 CV-NB-16.4
- MP 16.89 CV-NB-16.89
- MP 22.24 CV-NB-22.24
- MP 22.52 CV-NB-22.52
- MP 22.58 CV-NB-22.58
- MP 22.71 CV-NB-22.71
- MP 22.84 CV-NB-22.84
- MP 23.65 CV-NB-23.65
- MP 28.47 CV-NB-28.47
- MP 28.60 CV-NB-28.60
- MP 28.87 CV-NB-28.87

1.3.6 Track

In general, track construction staging will support the construction staging and schedule of the nearest bridge under construction. Track construction along inactive rail lines will proceed as resources allow. The construction of track sidings can be done with minimal disruption to freight service. Environmental commitments may limit hours of construction to daytime only.

Construct sidings along the east side of right of way

- Station 1879+00 to 2180+00
- Station 2420+08 to 2515+63
- Station 2748+62 to 2839+33

Construct Wamsutta Layover Yard, Station 2881+36

Clear and grub,

Excavate, construct subgrade, install drainage, construct pavement,

Install tracks, connect to mainline track and place into service.

Track construction within the active right-of-way.

- Shift and connect existing Track 1 to Track 2:
- Install interlocking track components, including two crossovers, at the connection to the Fall River Secondary.
- Install interlocking track components, including two crossovers, from station 2870+00 to station 2840+00 in New Bedford.

- Install mainline track on existing track bed from station 1877+55 (north of Taunton River Bridge) to station 2180+00 south of the Fall River connection after sidings and second main tracks have been constructed.

1.4 Fall River Secondary

This project will reconstruct the Fall River Secondary between Myricks Junction and Fall River. This line has active freight service operated by MCRR between Myricks Junction and Fall River.

1.4.1 Retaining Walls

Construct retaining walls to the extent possible without affecting existing rail service. Retaining walls are proposed along approximately 21,000 track feet.

- Station 2158+00 to 2162+00
- Station 2188+00 to 2198+00
- Station 2203+00 to 2208+00
- Station 2224+00 to 2227+00
- Station 2234+00 to 2240+00
- Station 2259+00 to 2273+00
- Station 2280+00 to 2282+00
- Station 2433+00 to 2447+00
- Station 2457+00 to 2462+00
- Station 2490+00 to 2498+00
- Station 2511+00 to 2521+00
- Station 2568+00 to 2587+00
- Station 2598+00 to 2603+00
- Station 2625+00 to 2631+00
- Station 2638+00 to 2700+00
- Station 2710+00 to 2716+00
- Station 2720+00 to 2751+00

1.4.2 Grade Crossings

Reconstruct grade crossings or close existing crossings to the extent possible during off peak hours with a flagman and during weekend track outages. Active grade crossings that provide the single access to a property will be maintained, until the proposed alternative access has been constructed.

- MP 0.2 Mill Street CLOSE
- MP 0.4 Private Road CLOSE
- MP 0.6 Adams Lane CLOSE
- MP 0.8 Private Road CLOSE
- MP 0.9 Private Road CLOSE
- MP 1.2 Beechwood Street CLOSE
- MP 1.3 Richmond Road - North Maintain
- MP 2.0 Private Road CLOSE
- MP 2.3 Private Road CLOSE
- MP 2.4 Forge Road -North CLOSE
- MP 2.4 Richmond Road - South Maintain
- MP 2.7 Forge Road - South Maintain
- Farm Crossing CLOSE
- MP 3.0 Elm Street Maintain
- Farm Crossing CLOSE
- MP 3.7 High Street Maintain
- MP 4.5 Private Road CLOSE
- MP 4.7 Copicut Road Maintain
- MP 5.6 Brightman Lumber Maintain
- Former Private Crossing N/A
- Former Farm Crossing N/A
- Farm Crossing CLOSE
- Farm Crossing CLOSE
- Golf Service Road - North CLOSE
- ATV Crossing CLOSE
- Private Crossing CLOSE
- Private Road CLOSE
- Dirt Crossing CLOSE
- MP 9.0 Private Road CLOSE

1.4.3 Stations

The following stations will be constructed along the Fall River Secondary:

- Freetown
- Fall River Depot
- Battleship Cove

1.4.4 Bridges

Bridge reconstruction along the Fall River Secondary will follow the construction sequencing outlined on pages 2 through 9 depending on the number of existing and proposed tracks. Bridge staging and scheduling will take precedence over track staging requirements/needs with respect to nearby structures, right-of-way constraints and wetland boundaries. The work will be sequenced to minimize impacts to local traffic to the extent possible.

One Existing Track - Two Proposed Tracks

The following existing single track bridges along the Fall River Secondary will be expanded to support a 2-track cross section.

- UG BR 10.57 (Station 2704+00.00) Pearce Street - the existing span is new and does not have to be replaced.
- UG BR 10.77 (Station 2714+50.00) Turner Street - the existing span is new and does not have to be replaced.

One Existing Track - One Proposed Track

The following single track bridges along the Fall River Secondary will be reconstructed to provide a new single track bridge.

- UG BR 0.92 (Station 2192+07) Cedar Swamp
- UG BR 5.93 (Station 2457+35.00) Farm Road
- UG BR 6.77 (Station 2501+00.00) Farm Road - remove and backfill
- UG BR 6.92 (Station 2529+61.20) Golf Cart Road
- UG BR 7.13 (Station 2540+70.00) Golf Club Road
- UG BR 7.98 (Station 2567+50.00) Miller's Cove Road
- UG BR 8.42 (Station 2590+70.00) Collins Street
- UG BR 8.58 (Station 2599+00.00) Ashley's Underpass (Ashley Street)
- UG BR 10.40 (Station 2695+00.00) Brownell Street
- UG BR 10.48 (Station 2699+00.00) President's Avenue

1.4.5 Culverts

The existing culverts along the Fall River Secondary will be reconstructed in stages during track outages and over extended weekends. MCRR will coordinate with customers to consolidate freight shipments to minimize weekday deliveries and provide longer weekend windows for construction. This work can be scheduled in conjunction with the track outages for the nearby bridge work as discussed on pages 2 through 9. Culverts along the Fall River Secondary include the following:

- MP 0.42 CV-FR-0.42
- MP 0.58+- MP 0.58+-
- MP 1.14 CV-FR-1.14
- MP 1.20 CV-FR-1.20
- MP 1.47 CV-FR-1.47
- MP 1.59 CV-FR-1.59
- MP 1.76 CV-FR-1.76
- MP 2.13 CV-FR-2.13
- MP 2.21 CV-FR-2.21
- MP 2.71 CV-FR-2.71
- MP 2.95 CV-FR-2.95
- MP 4.50 CV-FR-4.50
- MP 5.49 CV-FR-5.49
- MP 5.55E CV-FR-5.55E
- MP 5.62 CV-FR-5.62
- MP 5.68 CV-FR-5.68
- MP 5.72 CV-FR-5.72
- MP 5.79 CV-FR-5.79
- MP 6.86 CV-FR-6.86
- MP 7.11 CV-FR-7.11
- MP 7.24 CV-FR-7.24
- MP 7.31 CV-FR-7.31
- MP 7.58 CV-FR-7.58
- MP 8.97 CV-FR-8.97
- MP 9.28 CV-FR-9.28
- MP 11.43 CV-FR-11.43
- MP 11.65 CV-FR-11.65

1.4.6 Track

In general, track construction staging will support the construction staging and schedule of the nearest bridge under construction. Track construction along inactive rail lines will proceed as resources allow. The construction of track sidings can be done with minimal disruption to freight service.

Construct new sidings in final position along the east side of right of way:

- from Station 2441+38 to 2410+59
- from Station 2501+92 to 2556+60
- from Station 2700+61 to 2718+47

Construct Weavers Cove Layover Yard, Station 2025+52

- Clear and grub,
- Excavate, construct subgrade, install drainage, construct pavement,
- Install tracks, connect to mainline track and place into service.

Track Construction within the active right-of-way

- Install interlocking track components, including two crossovers.
- Connect to the Fall River Secondary at Myricks Junction.
- Install interlocking track components from station 2740+00 to station 2770+00 in Fall River.

2

Bridge Access and Laydown Summary

2.1 Stoughton Line Bridges

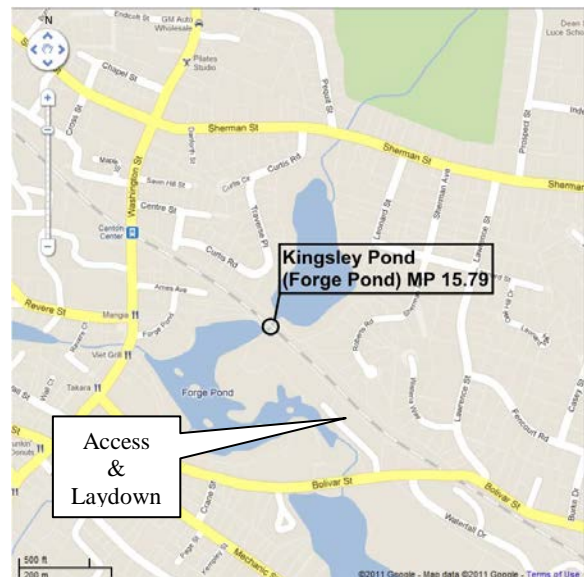
The following locations have been identified for access and construction laydown for the reconstruction of bridges along the Stoughton Line as part of the South Coast Rail project.

2.1.1 Kingsley Pond (Forge Pond), Canton

This site is accessible 0.22 miles west at Washington Street or 0.32 miles west at Ames Ave. Space for a lay-down area may be available behind 230 Bolivar Street.

This bridge can be constructed at any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed.

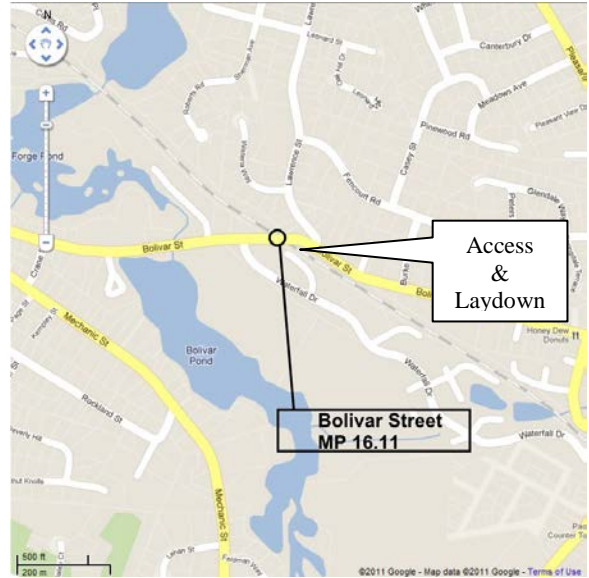
Material will have to be carried in over active track. The existing bridge rating is unknown, however based on current traffic the existing bridge could carry limited construction related traffic. The construction of this bridge should be sequenced with the Bolivar Street and Mill Brook bridges.



2.1.2 Bolivar Street, Canton

This site is accessible from Bolivar Street or from 333 Bolivar Street at Waterfall Drive to the east where laydown space is also available.

This bridge can be constructed any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed. Material will have to be carried in over active track. The existing bridge is rated below Cooper E80. Based on the load capacity rating and current traffic, the existing structure could carry limited construction related traffic to construct other bridges on the line. The construction of this bridge should be sequenced with the construction of the Kingsley Pond and Mill Brook bridges.

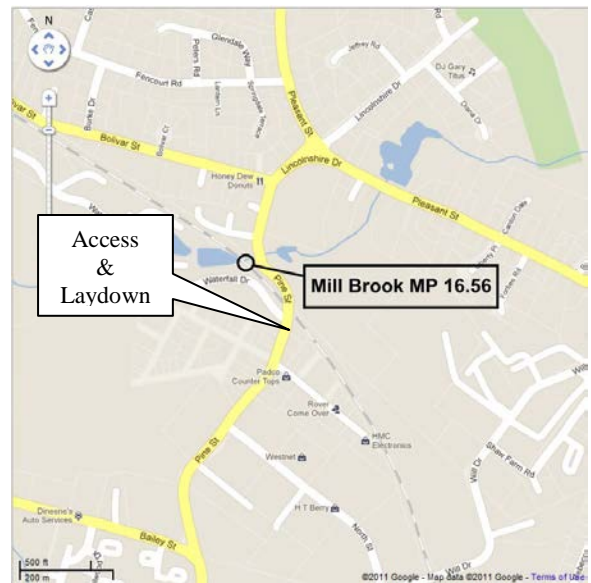


The existing bridge is rated below Cooper E80. Based on the load capacity rating and current traffic, the existing structure could carry limited construction related traffic to construct other bridges on the line. The construction of this bridge should be sequenced with the construction of the Kingsley Pond and Mill Brook bridges.

2.1.3 Mill Brook, Canton

Access and lay-down are available 434 feet east at Pine Street.

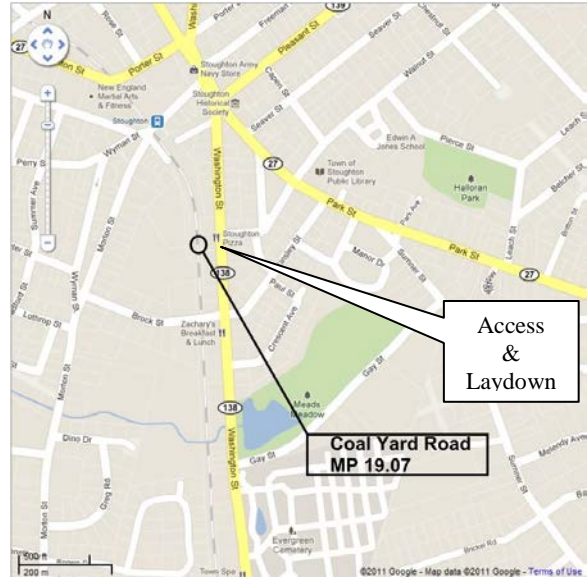
This bridge can be constructed at any time. The existing bridge currently carries a single track for commuter rail traffic. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed. Material will have to be carried in over active track. The existing bridge rating is unknown, however based on current traffic the existing bridge could carry limited construction related traffic. The construction of this bridge should be sequenced with the reconstruction of the Bolivar Street and Kingsley Pond bridges.



2.1.4 Coal Yard Road, Stoughton

Access and space for lay-down for this bridge are available 165 feet east at 893 Washington Street/Route 138.

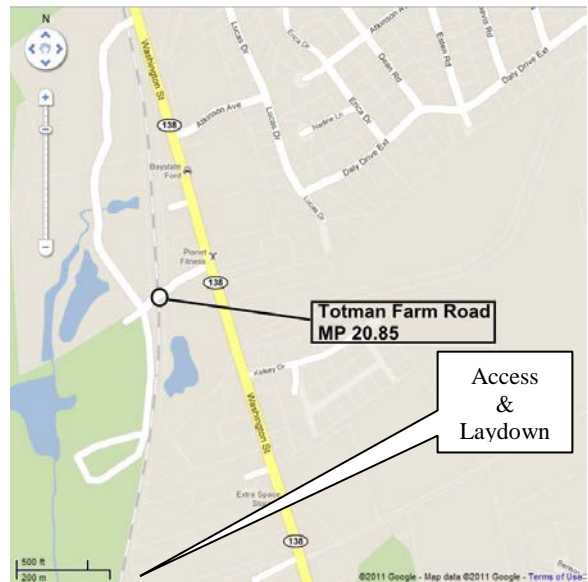
This bridge can be constructed at any time. Phased construction would include replacing each span separately while maintaining rail service on one of the other structures. The existing bridge is rated below Cooper E80, but currently carries commuter train traffic. Based on the rating and current rail traffic, the existing bridge could be used for limited construction related traffic. The Stoughton line south of this bridge is abandoned and this bridge will not be used for construction access to other bridges.



2.1.5 Totman Farm Road, Stoughton

This bridge is accessible from Totman Farm Road via Washington Street or 0.37 mile south from 2031-2183 Washington Street, where space is available for laydown.

This bridge could be constructed at any time. However, this location could be used to access the right of way and other locations to the south. The existing bridge is out of service and the superstructure has been removed. The right of way could be accessed from this location once the existing abutments are removed. The new bridge would then be constructed once access from this location is no longer required. Totman Farm Road will be used as primary access for the Morton Street frontage road.



2.1.6 Day's Farm Road, Easton

This site is accessible from the north via Totman Farm Road or 0.33 miles north from the shopping and office complex at 25 Washington Street, where laydown space is available.

The Days Farm Bridge will have to be reconstructed first to provide access to Cowesett Brook.



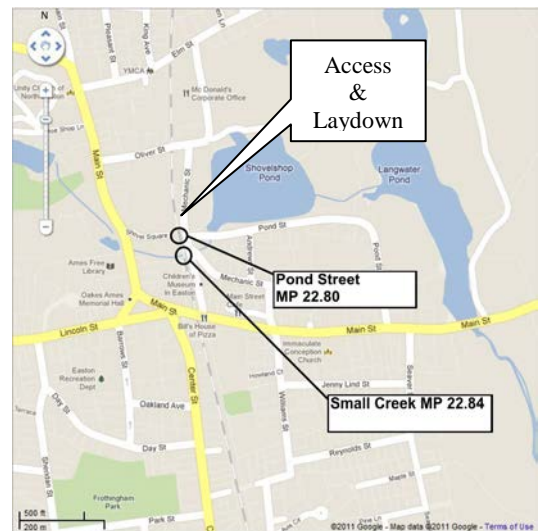
2.1.7 Cowesett Brook, Easton

The site is accessible from Totman Farm Road to the north or 0.45 miles north from the shopping complex at 25 Washington Street, where laydown space is available. Day's Farm Road Bridge will have to be constructed before this bridge to provide construction access along the right-of-way. Access is also available 0.85 miles south from Elm Street.

2.1.8 Pond Street, Easton

This site is accessible from Shovel Shop Square to the west and from the corner of Pond Street and Mechanic Street to the east. Lay-down space may be available in the area north of Shovel Shop Square.

This bridge can be constructed at any time without relying on construction of other bridges. This bridge should be constructed prior to the construction of the Small creek bridge if it is to be used to transport construction materials and equipment.



2.1.9 Small Creek, Easton

This site is accessible from Sullivan Street and Mechanic Street to the north. Lay-down space may be available in the vicinity north of Shovel Shop Square.

This bridge should be constructed after Pond Street if it is to be used to transport of construction materials and equipment.

2.1.10 Main Street, Easton

This site is accessible from Main Street or along Sullivan Avenue. Lay-down space may be available in the area north of Shovel Shop Square or at the rear of the parking area behind 101 Main Street.

This bridge can be constructed at any time as it is located within the inactive portion of the right-of-way; however, this bridge should not be constructed at the same time as Bridge Street as one road will be the detour for the construction of the other.



2.1.11 Bridge Street, Easton

This site is accessible from Bridge Street or 425 feet north from Williams Street. Lay-down space may be available 0.54 miles north in the vicinity of Shovel Shop Square or 0.23 mile north at the rear of the parking area behind 101 Main Street.

This bridge can be constructed at any time, except during the construction of the Main Street Bridge.

2.1.12 Hockomock Swamp Trestle, Raynham

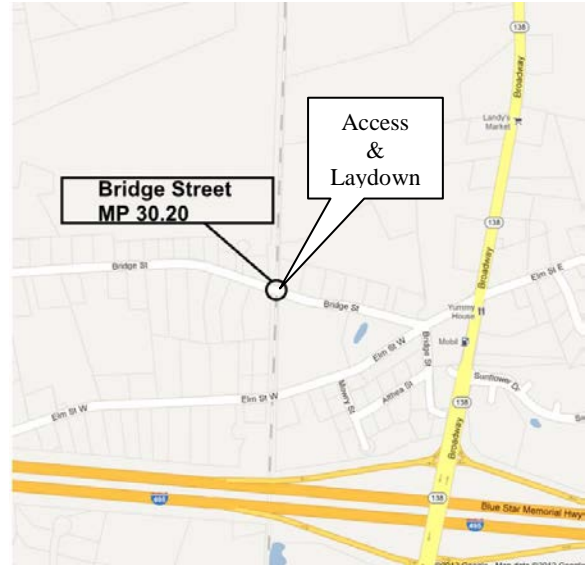
Access and lay-down are available to the north from the Vocational School and Foundry Street and to the south from the Race Track crossing.

The Hockomock Swamp Trestle construction will be completed working from the north and south using two crews. The staging is described on pages 13 and 14 of this report.



2.1.13 Bridge Street, Raynham

This site is accessible from Bridge Street or 0.14 miles south from Elm Street. Laydown space is available at the Race Track crossing, 1.07 miles north. This bridge can be constructed at any time. The roadway bridge construction over the inactive rail will not affect work in other locations.



2.1.14 Route 138 Grade Separation, Raynham

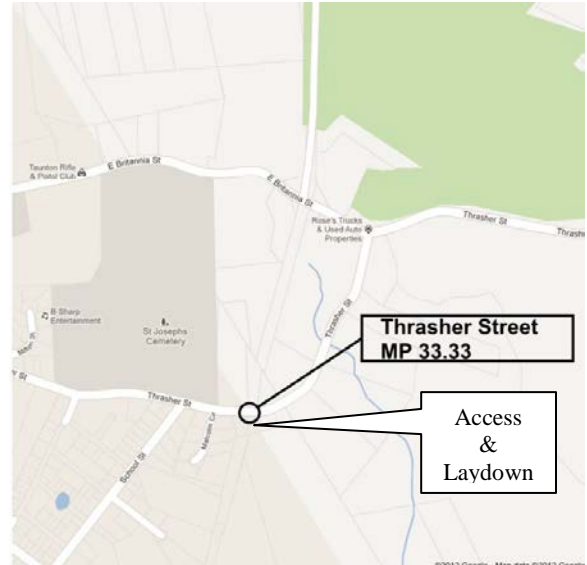
This site is accessible from Route 138. Lay-down space is available in the rear of 728 Broadway or 686 Broadway along the Whittenton Branch ROW. This bridge can be constructed at any time. The roadway bridge construction over the future rail right-of-way will not affect work in other locations.



2.1.15 Thrasher Street, Raynham

This site is accessible from Thrasher Street, or 0.29 miles north from East Britannia Street or 0.50 miles south from Longmeadow Road, where space is available for laydown.

This bridge can be constructed at any time. The roadway bridge construction over the inactive rail will not affect work in other locations.

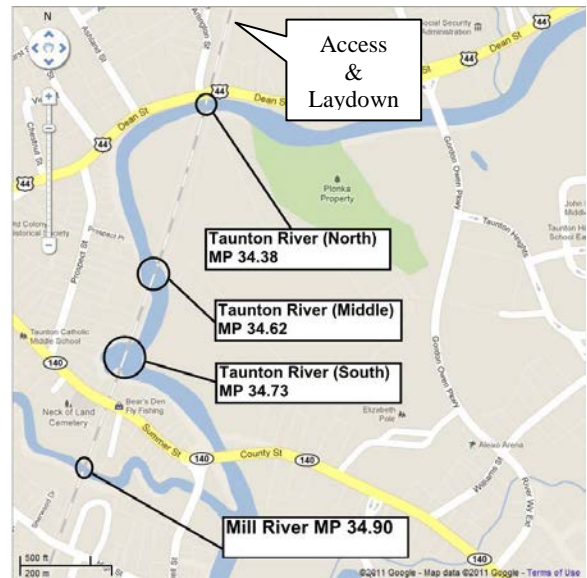


2.1.16 Taunton River (North), Taunton

This site is accessible from Dean Street. Space for lay-down is available 0.17 miles north at William Hooke Lane.

The bridge near Dean Street can be constructed at any time, but should be sequenced with the other Taunton River and Mill River bridges to the south. The proposed bridge will be constructed using accelerated methods, weeknights 7:00 PM to 7:00 AM, weekends 7:00 PM on Friday to 7:00 AM on Monday and as allowed by MCRR. Shipments will be coordinated with MCRR customers to provide

one extended (5 or 6 day) weekend service shutdown per month to roll in the superstructure. Roadway work on Dean Street will be staged to minimize traffic impacts. The existing bridge structure is rated below Cooper E-80, but currently carries freight traffic and could carry limited construction related traffic. This bridge should be reconstructed in sequence from north to south with the two bridges to the south for construction access to the other sites.



2.1.17 Taunton River (Middle), Taunton

This site is accessible from Dean Street. Lay-down space is available 0.42 miles north at William Hooke Lane.

The middle bridge can be constructed at any time, but should be sequenced with the other Taunton River crossings to the north and south. The proposed bridge will be constructed using accelerated methods, weeknights 7:00 PM to 7:00 AM, weekends 7:00 PM on Friday to 7:00 AM on Monday and as allowed by MCRR. Shipments will be coordinated with MCRR customers to provide one extended (5 or 6 day) weekend service shutdown per month to roll in the superstructure. The existing bridge structure is rated below Cooper E-80, but currently carries freight traffic and could carry limited construction related traffic. This bridge should be constructed in sequence with the bridge to the north and south for construction access to the other sites.

2.1.18 Taunton River (South), Taunton

This site is accessible from Dean Street. Lay-down space is available 0.53 miles north at William Hooke Lane.

The southern bridge can be constructed at any time, but should be sequenced with the other Taunton River crossings to the north and the mill river crossing to the south. The proposed bridge will be constructed using accelerated methods weeknights 7:00 PM to 7:00 AM, weekends 7:00 PM on Friday to 7:00 AM on Monday and as allowed by MCRR. Shipments will be coordinated with MCRR customers to provide one extended (5 or 6 day) weekend service shutdown per month to roll in the superstructure. The existing bridge structure does not rate for Cooper E-80, but currently carries freight traffic. Based on the bridge rating, the bridge has limited capacity and should be reconstructed before it can carry construction traffic.

2.1.19 Mill River, Taunton

The site is accessible from Dean Street. Lay-down space is available 0.72 miles north at William Hooke Lane.

This bridge can be constructed at any time, but should be sequenced with the other Taunton River crossings to the north. The proposed bridge will be constructed using accelerated methods, weeknights 7:00 PM to 7:00 AM, weekends 7:00 PM on Friday to 7:00 AM on Monday and as allowed by MCRR. Shipments will be coordinated with MCRR customers to provide one extended (5 or 6 day) weekend service shutdown per month to erect the preassembled superstructure. The existing bridge structure is rated below Cooper E-80, but currently carries freight traffic and could carry limited construction related traffic. Where construction access is required from the north, this bridge should be constructed after the other Taunton River crossings to the north to allow the transport of construction materials and equipment.

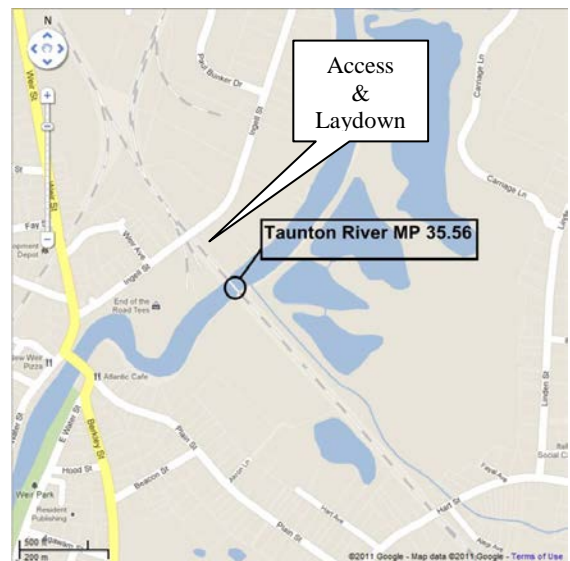
2.2 New Bedford Main Line Bridges

The following locations have been identified for access and construction laydown for the reconstruction of bridges along the New Bedford Main Line as part of the South Coast Rail project.

2.2.1 Taunton River, Taunton

The access and lay-down for this site are 490 feet northwest of the site at Ingell Street.

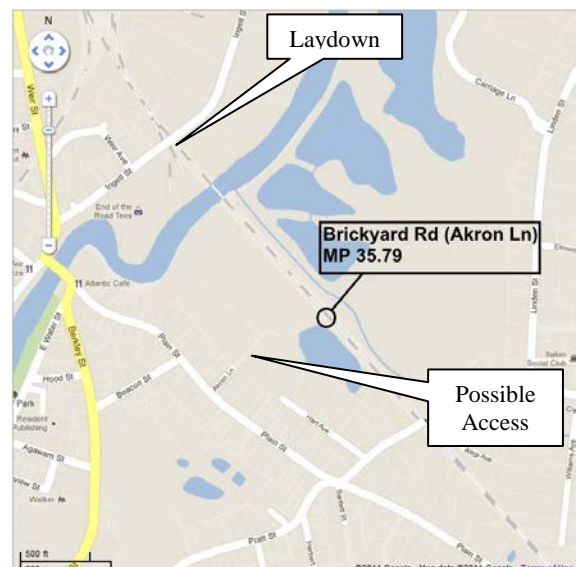
This bridge can be constructed at any time. The staging will include the construction of a new one track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will have to be shifted to the new bridge to reconstruct the existing bridge. Construction material and equipment will have to be carried in over the active track. The existing bridge is rated for E64 loading, but is able to handle construction related traffic to construct other bridges to the south. The steel through-plate-girder bridge can be constructed one track at a time with three girders. The center girder will support both tracks.



2.2.2 Brickyard Road, Taunton

This site is seasonally flooded under the bridge. The site is accessible from Plain Street and Akron Lane 670 feet west of the site via the abandoned road or 0.25 miles south at the Hart Street grade crossing. A lay-down area for this site is located 0.30 miles northwest at Ingell Street.

This bridge can be constructed at any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. After shifting service to the new bridge, the



existing bridge can be reconstructed. Construction material and equipment will have to be carried in over active track. The existing bridge is rated for E97 loading, and could carry construction related traffic to construct other bridges on the line. The proposed prestressed box girder bridge would require post tensioning in each phase.

2.2.3 Route 24, Taunton

This site is accessible from Route 24. Access and lay-down at rail grade are available from the east at the Galleria Mall. The access road heads 0.15 miles southwest from Galleria Mall Drive to the right-of-way at a point 0.11 miles from the overhead crossing (0.26 miles total).

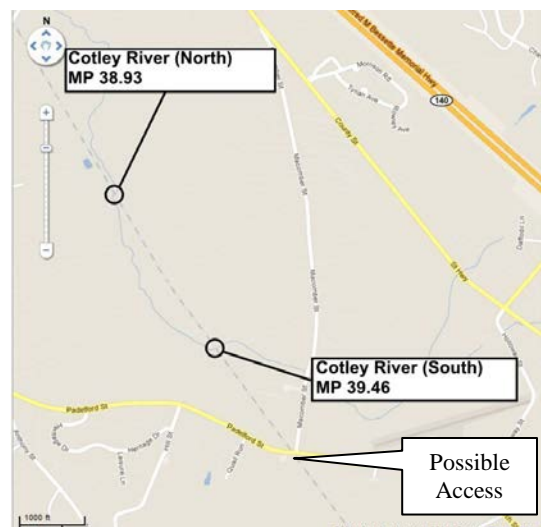
This bridge can be constructed at any time. Construction staging would not significantly affect rail service as this is a roadway bridge. This bridge has to be constructed before the tracks can be constructed below.



2.2.4 Cotley River (North), Berkley

This site is accessible from Cotley Street, 0.59 miles north of the site or 0.90 miles south from Padelford Street via the Cotley River South Bridge. This site is also accessible from Galleria Mall Road, 1.12 miles north where space for lay-down is also available.

This bridge can be constructed at any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service can then be shifted to the new bridge while the existing bridge is reconstructed. This will require material to be carried in over active track. The existing bridge and the Cotley River crossing to the south both accommodate Cooper E78 loading. Based on the strength rating and current rail traffic the existing bridge structures could carry construction related traffic. The Cotley River



bridges should be constructed sequentially if it is required to use one bridge as access for the other.

2.2.5 Cotley River (South) , Berkley

This site is accessible 0.40 miles south at Padelford Street and 1.12 miles north at Cotley Street via the Cotley River North Bridge. A potential lay-down area is located 1.66 miles north at the Galleria Mall Road access.

This bridge can be constructed at any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service can then be shifted to the new bridge while the existing bridge is reconstructed. The existing bridge and the Cotley River crossing to the north both accommodate Cooper E78 loading. Based on the strength rating and current rail traffic the existing bridge structures could carry construction related traffic. The Cotley River bridges should be constructed sequentially, as each bridge will provide access to the next.

2.2.6 Assonet River (Cedar Swamp), Lakeville

This site is accessible from Malbone Street, 1.19 miles north and 1.11 miles south from Howland Road. The Howland Road access is steep and would require an easement over private property. Lay-down and access are also available 1.63 miles northwest in the vicinity of Myricks Street and Grove Street at Myricks Junction.

This bridge can be constructed at any time. Widening the proposed structure to accommodate rail service during construction will require material to be carried in over active track. The existing timber bridge was recently reconstructed, rated for Cooper E78 loading and could carry construction related traffic.



2.2.7 Fall Brook (Freetown Brook), Freetown

This site is accessible from Chace Road, 0.17 miles south.

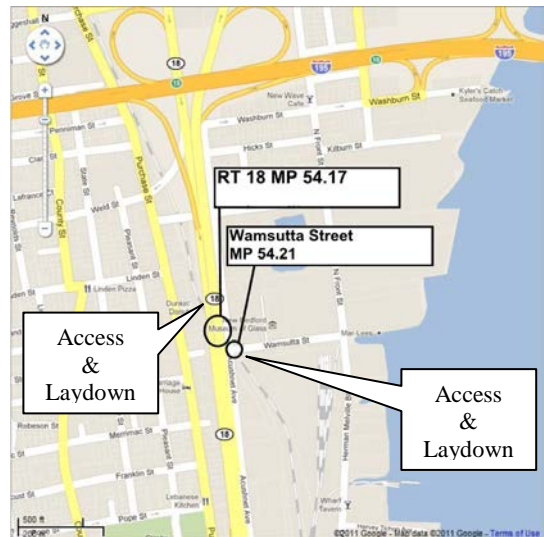
This bridge can be constructed at any time; however the existing bridge is not able to carry construction traffic. Widening the proposed structure to accommodate rail service during construction will require material to be carried in over active track. The existing bridge is rated at Cooper E51 loading, and is currently carrying freight traffic. Based on the bridge rating, the bridge has limited capacity and should be reconstructed before it can carry construction traffic.



2.2.8 Route 18, New Bedford

Access and lay-down for this site are available to the west side of 1750 Purchase Street.

This bridge is to be constructed as a three-span bridge including the span over Wamsutta Street, and can be constructed at any time. Alternative transportation will have to be provided to the MCRR customer to the south so the bridges can be closed for reconstruction. The Wamsutta Street Bridge will have to be replaced before it can accommodate construction traffic.



2.2.9 Wamsutta Street, New Bedford

Access and lay-down for this site is available from the rail yard immediately to the east.

This bridge is to be constructed as a three span bridge including the two spans over Route 18, and can be constructed at any time. Alternative transportation will have to be provided to the MCRR customer to the south so the bridges can be closed for reconstruction. This bridge is in poor condition and has a rated capacity of E55. This bridge would have to be reconstructed before it will be able to carry construction related traffic.

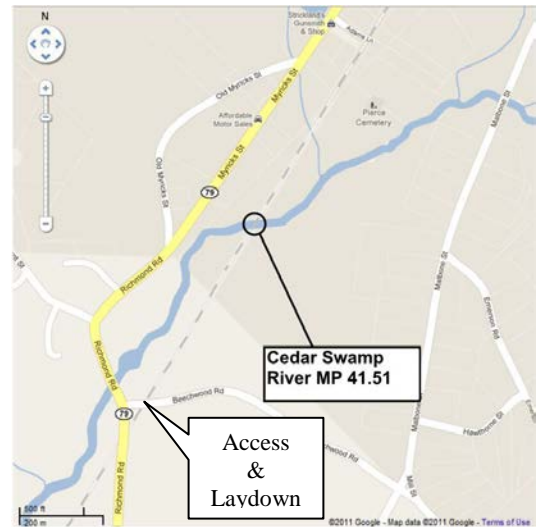
2.3 Fall River Secondary Bridges

The following locations have been identified for access and construction laydown for the reconstruction of bridges along the Fall River Secondary as part of the South Coast Rail project.

2.3.1 Cedar Swamp River (Assonet River), Lakeville

Access and lay-down for this site are available 0.31 miles south at Beechwood Road. Access is also available through private property on Adams Lane, 0.33 miles to the north.

This bridge can be constructed at any time. The proposed bridge will be constructed using accelerated methods weeknights 7:00 PM to 7:00 AM, weekends 7:00 PM on Friday to 7:00 AM on Monday and as allowed by MCRR. The existing bridge is rated below Cooper E80, and is currently carrying freight traffic. The bridge should be reconstructed before it can be used for construction traffic.



2.3.2 Farm Road (North), Freetown

Access and lay-down for the bridge are available 0.63 miles to the north at the abandoned rail yard located at 178-188 South Main Street. The site is also accessible 0.6 miles south from the Farm Road at M.P. 46.75. A temporary access easement would be required to gain access from the industrial plant service road to the south as well as from Farm Road.

This bridge can be constructed at any time. Widening the proposed structure to accommodate rail service during construction will require material to be carried in over active track. The existing steel bridge is rated below Cooper E80. Based on the rating capacity and current freight traffic the existing bridge could carry limited construction related traffic.



2.3.3 Farm Road (South), Fall River

The site is accessible from Golf Cart Road, 0.54 miles south. Access is also available 0.15 miles east from Horizon Way/Point West Drive via Farm Road. The abandoned rail yard located 1.48 miles northeast of the bridge site may provide an acceptable laydown area via the Farm Road North Bridge.

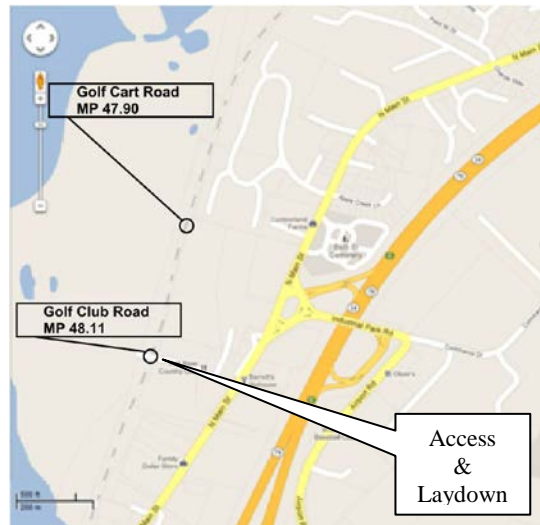
This bridge construction could commence at any time. Filling Operations would require work around scheduled track outages. This bridge is rated for E73 loading, and currently carries freight traffic. The existing bridge could carry construction related traffic.



2.3.4 Golf Cart Road, Fall River

Access and lay-down for this site is available 0.21 miles south at Golf Club Road (M.P. 48.11).

This overhead bridge can be constructed at any time. Construction staging would not significantly affect rail traffic as this is an overhead bridge.



2.3.5 2.3.5 Golf Club Road, Fall River

Access and lay-down for this site are available via the Golf Club Road at-grade crossing to the south.

This overhead bridge can be constructed at any time. Construction staging would not significantly affect rail traffic as this is an overhead bridge. This bridge must be reconstructed before the tracks below can be reconstructed.

2.3.6 Miller’s Cove Road

This site is accessible from abandoned Miller’s Cove Road via 5856 North Main Street and 0.50 miles north from Golf Club Road. Lay-down and access for this site are also available 375 feet to the north from 3700-3820 North Main Street.

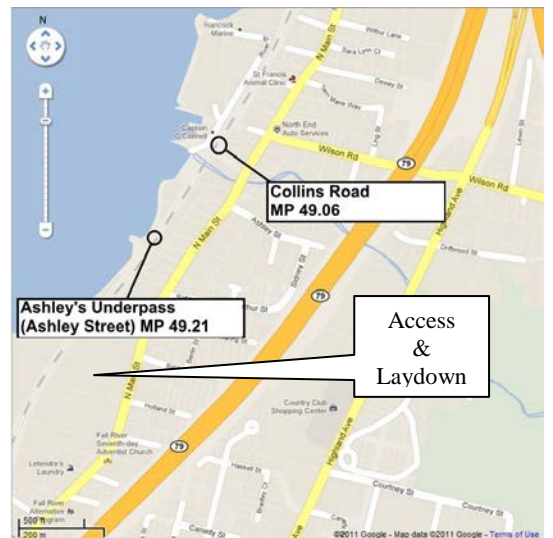
This bridge can be constructed at any time. Widening the proposed structure to accommodate rail service during construction will require material to be carried in over active track. The existing concrete bridge is rated below Cooper E80, but currently carries freight traffic. The existing bridge could carry limited construction related traffic.



2.3.7 Collins Road, Fall River

This site is accessible from Collins Road. Access and lay-down are available 0.50 miles southwest in the vicinity of 2684-2698 North Main Street.

This bridge can be constructed any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed. Material will have to be carried in over active track. The existing bridge is rated below Cooper E80, but currently carries freight traffic. The existing bridge could carry limited construction related traffic.



2.3.8 Ashley’s Underpass (Ashley Street) , Fall River

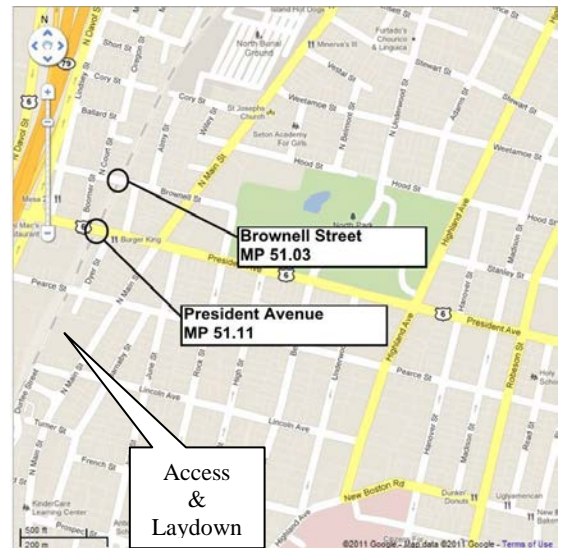
This site is accessible 280 feet north from Collins Road or 550 feet south at the Canedy’s Underpass. The site is bounded and constrained by private property. This site is also accessible from Clark Street and River Street to the north. Some tree clearing may be necessary to gain access from River Street. Access and lay-down may be available 0.35 miles southwest in the vicinity of 2684-2698 North Main Street.

Ashley’s Underpass can be constructed at any time. Widening the proposed structure to accommodate rail service during construction will require material to be carried in over active track. The existing bridge is rated below Cooper E80, but currently carries freight traffic and could carry limited construction related traffic.

2.3.9 Brownell Street, Fall River

This site is accessible from Brownell Street or 0.22 miles north via Railroad Avenue off of North Court Street. Lay-down space is available 0.25 miles south at 870 North Main street and is accessible from the Pearce Street and President’s Avenue bridges.

This bridge can be constructed any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed. The existing bridge is rated below Cooper E80, but currently carries freight traffic and could carry limited construction related traffic.



2.3.10 President Avenue, Fall River

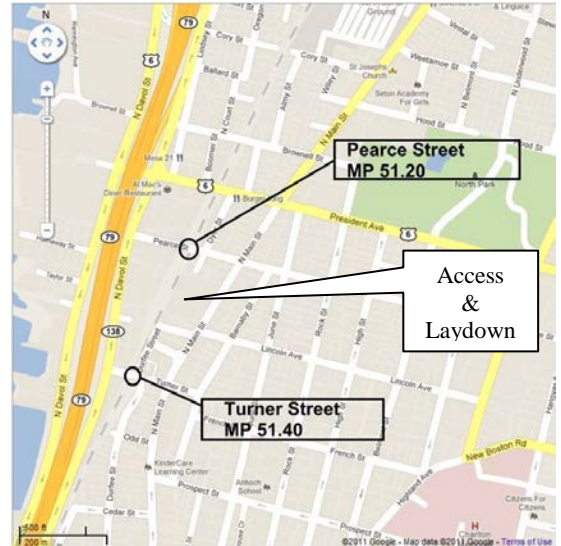
This site is accessible from President Avenue or 0.15 miles south at the parking lot behind 870 North Main Street via Pearce Street Bridge, which can also be used for construction laydown. Additional access is also available 0.14 miles north via Railroad Avenue from North Court Street as long as the Brownell Street bridge has been reconstructed.

This bridge can be constructed any time. The staging will include the construction of a new single track bridge adjacent to the existing bridge while maintaining rail service on the existing bridge. Rail service will then be shifted to the new bridge while the existing bridge is reconstructed. The existing bridge is rated below Cooper E80, but currently carries freight traffic and could carry limited construction related traffic.

2.3.11 Pearce Street, Fall River

This site is accessible from Pearce Street or from the south via Main Street, which has space for construction laydown.

The existing single track bridge over Pearce Street will be retained and will be used to maintain rail service while a second span is constructed adjacent to the existing span. The proposed structure will be a separate structure.



2.3.12 Turner Street, Fall River

This site is accessible from Turner Street or from an open lay-down area immediately to the south, or from the parking lot behind 870 North Main Street to the north.

The existing single track bridge over Turner Street will be retained and will be used to maintain rail service while a second span is constructed adjacent to the existing span. The proposed structure will be built as a separate structure.

2.3.13 Channel near Battleship Cove, Fall River

Access and lay-down for this bridge are available from the north at 118-184 Water Street





This page intentionally left blank.