

# EXHIBIT A

## PROPOSED WEYMOUTH-ROCKLAND PARKWAY PHASE 1 TECHNICAL DETAILS

### Weymouth-Rockland Parkway Phase 1 Summary

Phase 1 of the Weymouth-Rockland Parkway will provide an east-west connection between Route 18 (via Shea and Shea Memorial Drives) and Hingham Street/Route 3 (via Reservoir Park Drive). In addition to this regional connection, the Parkway will also provide access to existing and proposed land uses adjacent to the facility's alignment. Phase 1 of the proposed Parkway will consist of three distinct segments:

1. Shea Drive/Shea Memorial Drive (existing)
2. East-West Parkway (proposed)
3. Reservoir Park Drive (existing)

During the weekday commuter peak hours, Phase 1 of the Parkway is projected to process approximately 1,050 vehicles per hour (morning) and 900 vehicles per hour (afternoon). On a daily basis approximately 14,600 vehicles are projected to use the Phase 1 Parkway.

As defined by AASHTO's *Policy on Geometric Design of Highways and Streets*, and MassDOT's *Project Development and Design Guide*, the function of collector roadways are equally divided between providing an intra-regional level of mobility (i.e., connecting the arterial network with the local roadways) and providing access to adjacent land uses. Since the roadway link comprised of the East-West Parkway Phase 1 and Shea/Shea Memorial Drives will provide a connection between Route 18 (an Urban Principal Arterial) and Weymouth Street (an Urban Minor Arterial), as well as provide access to existing and proposed land uses along the facility's alignment, it appears that designating the functional classification of Phase 1 of the Parkway Shea/Shea Memorial Drives as Urban Collectors is appropriate. Reservoir Park Drive would also be upgraded to an Urban Collector, as this facility will also serve the dual function of providing access for adjacent land uses and providing connections between arterials (Weymouth Street and Hingham Street).

From a design perspective, all three segments of the Weymouth-Rockland Phase 1 Parkway will meet the AASHTO and MassDOT standards for collector roadways. These standards include a minimum pavement width of 30 feet, minimum lane widths of 10 to 12 feet, minimum design speed of 30 mph, accommodations for pedestrians and bicycles, and the provision of turn lanes to facilitate vehicular movements where required.

Table 1 provides a summary of the Collector Road design and functionality criteria for each of the three segments of the Parkway.

**Table 1 Collector Road Design Criteria**

<b>Criteria</b>	<b>AASHTO Minimum Requirements</b>	<b>East-West Parkway Phase 1</b>	<b>Shea Drive/ Shea Mem. Dr.</b>	<b>Reservoir Park Drive</b>
Pavement Width	<b>30 ft.</b>	30 ft. – 52 ft.	30 ft. – 50 ft.	36 ft. – 40 ft.
Lane Width	<b>10 – 12 ft.</b>	11 ft	13 ft. – 15 ft.	10 ft.- 19 ft.
Design Speed	<b>30 mph</b>	40 mph	30 mph	30 mph
Pedestrian Accommodations	<b>Yes</b>	Yes	Yes	Yes
Bicycle Accommodations	<b>Yes</b>	Yes	Yes	Yes
Provides Turn lanes at intersections where needed	<b>Yes</b>	Yes	Yes	Yes
Intra-Regional Mobility	<b>Yes</b>	Yes	Yes	Yes
Land Use Access	<b>Yes</b>	Yes	Yes	Yes

**Exhibit A-1** illustrates the approximate Phase 1 alignment of the Weymouth-Rockland Parkway as well as the regional context of the proposed facility. Each of the segments is discussed in detail in the following sections.

**Shea Drive/Shea Memorial Drive**

*OWNERSHIP: South Shore Tri-Town Development Corporation*

Shea Drive/Shea Memorial Drive will become the western segment of the Parkway Phase 1 alignment and currently provides a connection between Route 18 (a Principal Urban Arterial) and the former South Weymouth Naval Air Station property (the Base). This existing facility is known as Shea Drive from Route 18 to the intersection with Memorial Grove Ave. East of Memorial Grove Drive the road is known as Shea Memorial Drive.

In the Phase 1 condition, Shea Drive/Shea Memorial Drive will provide a connection between Route 18 and the proposed East-West Parkway, as well as providing access to the existing and proposed land uses on the Base. Shea Drive has recently been reconstructed between Route 18 and Memorial Grove Avenue. At its intersection with Route 18, Shea Drive has an approximate 65-foot wide roadway cross-section consisting of two 12-foot eastbound travel lanes (toward the former Base), a 1-foot median offset, a 15-foot landscaped median, a 1-foot median offset, a 12-foot westbound left-turn lane (to Route 18 south), and a 12-foot right-turn lane (to Route 18 north). There is also a grass strip and an approximate 10-foot sidewalk/multi-use path located along the south side of the roadway. The existing roadway configuration of this portion of Shea Drive is shown in Figure 1.

Approximately 1,000 feet east of Route 18 Shea Drive narrows in width from approximately 65 feet to approximately 38 feet. At this point, the cross-section is comprised of a 6-foot bike lane, two 13-foot travel lanes, and another 6-foot bike lane. There is also a grass strip and an approximate 6-foot sidewalk on the south side of the roadway. The roadway configuration of this

portion of Shea Drive is shown in Figure 2. This configuration continues to a point just west of its intersection with Memorial Grove Avenue.

East of Memorial Grove Avenue, Shea Memorial Drive has not yet been reconstructed, however, the pavement surface is in good shape. Currently, the traffic volumes on this segment of Shea Memorial Drive are light, as most of the former uses on the Naval Air Station property are no longer in use. Along this eastern portion of Shea Memorial Drive (from Memorial Grove Avenue to the former SWNAS large hangar building) there is fairly uniform cross-section of approximately 30 feet, which is typically composed of a 15-foot travel lane in each direction. There is sidewalk located on at least one side of the road for this entire portion of Shea Memorial Drive, primarily located on the north/east side of the road. Along one segment of the roadway (in the vicinity of the former athletic center), sidewalks are provided on both sides of the road. Two typical roadway configurations along the eastern portion of Shea Memorial Drive are shown in Figures 3 and 4. The speed limit is posted at 25 miles per hour (mph) along the entire length of Shea Memorial Drive, both east and west of Memorial Grove Avenue.



*Figure A-1 Shea Drive looking west toward Route 18*



*Figure A-2 Shea Drive looking west (West of Memorial Grove Avenue)*



*Figure A-3 Shea Memorial Drive looking west (East of Memorial Grove Avenue)*





*Figure A-3 Shea Memorial Drive looking east (Near former athletic center)*

### **East-West Parkway Phase 1**

*OWNERSHIP: South Shore Tri-Town Development Corporation / Town of Rockland*

The westerly portion of the proposed East-West Parkway Phase 1 will be designed and constructed by MassDOT. This portion of the Parkway is approximately one mile in length and will run from the southern terminus of Shea Memorial Drive to a point approximately 3,600 feet west of Reservoir Park Drive along the final East-West Parkway geometric alignment (please see **Exhibit C** attached to the SSTTDC Eligibility Letter). The East-West Parkway section to be designed and constructed by MassDOT will generally have a 52-foot roadway cross-section consisting of a 4-foot shoulder, four 11-foot travel lanes, and another 4-foot shoulder. At the intersection with Shea Memorial Drive, the cross-section is expected to be widened to 63 feet, to provide a dedicated westbound left-turn lane (11-foot wide).

At a point approximately 300 feet east of the Weymouth/Rockland town line, at the proposed location of a pedestrian crosswalk and flashing signal, the roadway cross-section will be widened from 52 feet to 62 feet and will provide a 4-foot shoulder, two 11-foot travel lanes, a 2-foot median offset, a 6-foot raised median, a 2-foot median offset, two 11-foot travel lanes, and a 4-foot shoulder. Approximately 2,000 feet west of the eastern end of the MassDOT segment, MassDOT's contractor will design and build a roundabout. Approximately 600 feet east of the roundabout, the roadway will taper down to a 30-foot cross-section consisting of a 4-foot shoulder, two 11-foot travel lanes, and another 4-foot shoulder. This cross-section continues to the end of work by MassDOT. A 10- to 12-foot multi-use path will be constructed adjacent to the Parkway along the entire segment to be constructed by MassDOT. The design speed of the

MassDOT portion of the East-West Parkway is 40 miles per hour. Within the MassDOT portion of the East-West Parkway, there are only two proposed vehicular access points proposed: at the terminus of Shea Memorial Drive and at the proposed roundabout which will provide access to other parts of the proposed Base redevelopment.

The second portion of the East-West Parkway will be designed and constructed by the South Shore Tri-Town Development Corporation (SSTDC). This portion of the Parkway will be designed and constructed as a two-lane roadway connecting the MassDOT portion to Reservoir Park Drive and Weymouth Street at the eastern terminus of the East-West Parkway. The cross-section of the western portion of the SSTDC segment of the Parkway will be identical to the cross-section on the eastern portion of the MassDOT segment described above. The SSTDC segment will also include a 10- to 12-foot multi-use path constructed adjacent to the roadway alignment.

At the approach to Reservoir Park Drive/Weymouth Street, the Parkway cross-section will be approximately 73 feet in width and will be comprised of a 4-foot shoulder, an 11-foot eastbound right turn lane, an 11-foot eastbound through lane, an 11-foot eastbound left-turn lane, a 2-foot median offset, a 6-foot raised median, a 2-foot median offset, two 11-foot westbound travel lanes, and a 4-foot shoulder. At the intersection with Reservoir Park Drive, the Weymouth Street approaches will also be modified slightly from the existing conditions. On the Weymouth Street northbound approach, the through lane will be converted to a shared left-through lane. On the Weymouth Street southbound approach, the through lane will be converted to a shared through-right lane. Both of these changes are provided to allow access to the Parkway from Weymouth Street.

### **Reservoir Park Drive**

*OWNERSHIP: Town of Rockland*

Reservoir Park Drive, which the Town of Rockland has requested to be upgraded to a Collector Road designation, will become the eastern segment of the Weymouth-Rockland Parkway Phase 1 alignment. Reservoir Park Drive provides a connection from Weymouth Street (Urban Arterial) to Hingham Street (Urban Arterial) and Route 3 (Principal Arterial). In the Phase 1 condition, the roadway configuration of Reservoir Park Drive will not change from existing conditions. In general, the pavement along Reservoir Park Drive is in good condition and the pavement markings are readily visible.

At Weymouth Street, Reservoir Park Drive is approximately 36 feet wide, consisting of a 15-foot eastbound travel lane, a 10-foot westbound left-turn lane, and an 11-foot westbound right-turn lane. This section of roadway is shown in Figure 5. As the roadway continues east, the roadway cross-section remains approximately 36 feet and is comprised of a 17-foot eastbound travel lane and a 19-foot westbound travel lane. This portion of Reservoir Park Drive is shown in Figure 6. At the intersection with Hingham Street, which is the eastern terminus, Reservoir Park Drive has an approximate 40-foot wide cross-section consisting of a 17-foot westbound travel lane, an 11-foot eastbound left-turn lane (toward Route 3), and a 12-foot eastbound right turn lane. This portion of Reservoir Park Drive is shown in Figure 7. There is a sidewalk along the entire length of Reservoir Park Drive on the north side of the roadway.



*FigureA-4 Reservoir Park Drive looking west toward Weymouth Street*



*Figure A-5 Reservoir Park Drive looking east (Between Weymouth Street and Hingham Street)*



*Figure A-6 Reservoir Park Drive looking east toward Hingham Street*



