

Appendix

Appendix A. Front and Myrtle Improvement Plan

Front and Myrtle Improvement Plan

The improvement plan was developed under the assumption that Front and Myrtle are to remain key automobile access facilities, as recommended in the Downtown Boise Mobility Study System Evaluation. Automobile access will continue to be important well into the future and must be preserved on key downtown gateways. At the same time, more effort should be made to improve the bicycle and pedestrian realm. For evaluation purposes, the Front and Myrtle downtown corridor can be divided into three distinct segments:

1) *I-184 Approach from the west to 9th*

The emphasis is on maximizing crossing opportunities while maintaining the highest possible degree of capacity.

2) *The Central Area from 9th to 6th*

This area strikes a greater balance between automobile capacity and pedestrian access and circulation treatments.

3) *The Eastern End from 6th to Broadway*

There are more opportunities here to reallocate roadspace from automobile conveyance to other modes of transportation.

I-184 APPROACH FROM THE WEST TO 9TH

The following improvements are recommended along this segment:

EASTBOUND MYRTLE TOWARDS DOWNTOWN:

At 13th

- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals
- Add Gateway feature

At 11th

- Improve traffic operation - remove one lane of traffic from each direction on 11th
- Reallocate roadspace - add bicycle lanes along both sides of 11th
- Reallocate roadspace - extend curb/reduce turning radius at southeast corner
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals
- Add gateway feature (Pioneer Walkway)

WESTBOUND FRONT TOWARDS I-184:***At 10th***

- Reallocate roadspace - extend curbs on both sides of 10th, north of the intersection

At 11th

- Reallocate roadspace - reduce turning radius at the southwest and southeast corners
- Improve conditions on crossing streets - add one bicycle lane in each direction
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At 12th

- Reallocate roadspace - extend curb at northwest corner

At 13th

- Improve traffic operation - change one southbound shared through/right turn lane to a dedicated right turn lane
- Reallocate roadspace - extend the curb on Front downstream of the existing westbound left turn lane
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

THE CENTRAL AREA FROM 9TH TO 6TH

The following improvements are recommended along this segment:

EASTBOUND MYRTLE THROUGH DOWNTOWN:***At 9th***

- Reallocate roadspace - reduce turning radius at the northwest and northeast corners
- Signal timing - introduce a leading pedestrian interval on the eastbound signal phase
- Enhance pedestrian crossing - paint high visibility crosswalks

At 8th

- Reallocate roadspace - continue curb extension on north side of Myrtle
- Reallocate roadspace - extend curb on 8th at the northwest and southeast corners, to protect parking and shorten crossing
- Improve conditions on crossing streets - continue the median treatment along 8th south of the intersection
- Signal timing - provide additional time for pedestrians crossing Myrtle; increase the time allotted for crossing by 5 seconds, either by lengthening the 8th street phase or by introducing a leading pedestrian interval
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At Capitol

- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At 6th

- Improve traffic operation - remove one southbound lane
- Improve conditions on crossing streets - extend curbs on 6th north of the intersection
- Signal timing - add a 5 second leading pedestrian interval to the southbound phase

WESTBOUND FRONT TOWARDS I-184:

At 6th

- Reallocate roadspace - extend curbs on the south side of the intersection of 6th
- Reallocate roadspace - continue curb extension along south side of Front
- Signal timing - increase the time allotted to Front per cycle

At Capitol

- Reallocate roadspace - extend curb/reduce radius on Capitol downstream of northbound left turn lane
- Reallocate roadspace - continue curb extension along south side of Front

- Signal timing - add a 10-second leading pedestrian interval on the northbound signal phase
- Enhance pedestrian crossing - install enhanced crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals
- Add Gateway feature

At 8th

- Enhance pedestrian crossing - install enhanced crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At 9th

- Improve traffic operation - change one southbound through lane to a shared through/right turn lane on 9th
- Reallocate roadspace - reduce turning radius on northeast corner
- Reallocate roadspace - continue curb extension along south side of Front
- Enhance pedestrian crossing - install enhanced crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

THE EASTERN END FROM 6TH TO BROADWAY

The following improvements are recommended along this segment:

EASTBOUND MYRTLE PAST DOWNTOWN:***At 5th***

- New signalized crossing - add a new traffic signal with a 60-second cycle
- Reallocate roadspace - extend curbs on 5th north and south of the intersection
- Enhance pedestrian crossing - paint high visibility crosswalks

At 4th

- Reallocate roadspace on 4th - extend curbs north of the intersection

At 3rd

- New signalized crossing - add a new traffic signal with a 60-second cycle
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At 2nd

- Reallocate roadspace - extend curb on 2nd north of the intersection

At Avenue A

- Improve traffic operation - change eastbound lane configuration on Myrtle to four eastbound through lanes and one eastbound dedicated left turn lane
- New signalized crossing - add a new traffic signal with a 60-second cycle when warranted
- Reallocate roadspace - extend curbs on Avenue A north of the intersection
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At Broadway

- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

WESTBOUND FRONT TOWARDS DOWNTOWN:

At Broadway

- Reallocate roadspace - create island on the north side of the intersection on Broadway
- Reallocate roadspace - install a permanent curb extension at the southeast corner on Broadway
- Reallocate roadspace - add an island in the northwest corner between the southbound right turn and southbound through lanes
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals
- Add Gateway feature

At Avenue A

- Reallocate roadspace - extend curb on Avenue A south of the intersection
- Enhance pedestrian crossing - paint high visibility crosswalks
- Enhance pedestrian crossing - install pedestrian countdown signals

At 2nd

- Reallocate roadspace - extend curb on 2nd south of the intersection

At 3rd

- Reallocate roadspace - add combined parking/bike lane on west side of 3rd, south of Front
- Reallocate roadspace - add a dedicated bike lane on east side of 3rd street, south of Front
- Reallocate roadspace - continue curb extension along south side of Front
- Enhance pedestrian crossing - paint high visibility crosswalks

At 5th

- New signalized crossing - add a new traffic signal with a 120-second cycle
- Reallocate roadspace - extend curb on 5th north and south of the intersection
- Reallocate roadspace - continue curb extension along south side of Front

Appendix B. Summary of Traffic Analysis Results

Summary of Traffic Analysis Results

This appendix summarizes the results of the year 2025 traffic analysis, including efforts to optimize system performance and to identify potential mitigation measures. Future year PM peak hour turning movement counts were generated by using the regional traffic demand model to identify growth on each link, applying this growth to existing turning movement counts, and completing a Furness analysis to determine future turning movement proportions. In some cases additional manual adjustments were made to produce balanced traffic volumes.

Of the 104 intersections studied, 11 currently operate with LOS E or F in the afternoon peak hour. In 2025, this number is projected to increase to 41 intersections. By simply optimizing signal timings, it is projected that the number of intersections with poor operation can be reduced to 28. For these locations, additional investigation has been performed to identify potential measures to meet the target of LOS D or better for overall intersection operation.

Table B.1 on the following page identifies the intersections with 2025 LOS E or F, even after optimization of signal timing (splits and offsets). Intersections are organized by street corridor. For these locations, additional potential mitigation measures have been identified. The intention is to provide an indication of the type of measures required to meet LOS targets. The physical feasibility of measures such as additional lanes has not been investigated in detail.

The second portion of the table identifies improvements that are considered to improve vehicle LOS, but are not recommended. These improvements are expected to generate a considerable amount of discussion due to community concerns about pass-through traffic through the neighborhood. It is recommended that these improvements, if considered in the future, be examined within the context of an overall traffic-calming study.

Table B.1 Intersections with Poor LOS		
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments
Broadway Note: Additional study should be completed for this corridor to confirm traffic volume projections and complete further testing of potential improvement measures, including network improvements.	Broadway/Main/Idaho/Warm Springs	Additional lanes required:
		Additional eastbound right turn on Main (with reconfiguration of existing lanes)
		Additional southbound left turn lane on Broadway
		Reconfigure westbound Warm Springs approach to two left turn lanes, one right turn lane to Idaho and one right turn lane to Broadway
		Provide protected right turn phase from eastbound Main, overlapping with northbound left turns
	Result: LOS D	
	Broadway/Front	Additional investigation recommended as heavy projected volumes (especially northbound left turns) cannot be accommodated even with significant changes.
		Tested the following modification:
		Additional northbound left turn lane on Broadway (results in triple left turn)
		Result: LOS F (still would not meet target)
		Removing northbound left turns from Broadway (e.g. through grade separation, providing three northbound through lanes on Capitol and 4 westbound lanes on Front could achieve LOS D
	Broadway/Myrtle/Park	Additional lanes required:
		Southbound through lane on Broadway
		Eastbound through lane on Myrtle
		Result: LOS D
		Boise River Bridge impacts: Providing the additional southbound through lane while maintaining the free right turn from Myrtle would likely require widening of the bridge, at least in the southbound direction
	Broadway/University	Modify existing lane configuration and signal phasing:
		Change eastbound University to two left turn lanes and one shared through and right turn lane
		Provide a protected left turn phase for eastbound left turns on University
		Provide actuation for westbound driveway approach
Result: LOS D		

Table B.1 Intersections with Poor LOS		
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments
Front	Front/Broadway	See above in Broadway corridor
Note: Additional study should be completed for this corridor to confirm traffic volume projections, evaluate corridor performance, and complete further testing of potential improvement measures, including network improvements. Although the major of intersections are identified to operate with LOS F with improvements, significant reductions in delay are achieved. Operation will also be tested with more sophisticated simulation modeling.	Front/3rd	Pedestrian and bicycle improvements only Result: LOS F
	Front/6th	Pedestrian improvements only Result: LOS F
	Front/Capitol	Pedestrian improvements only Result: LOS F
	Front/8th	Pedestrian improvements only Result: LOS F
	Front/9th	Modify lane configuration and signal phasing Adjust the southbound lane configuration on 9th Street to three through lanes, one shared through and right turn lane, and one dedicated right turn lane Adjust the westbound configuration on Front Street to four through lanes and one left turn lane Result: LOS F
	Front/11th	Modify lane configuration and signal phasing Adjust the northbound lane configuration on 11th Street to one through lane and one exclusive left turn lane Remove parking on 11th Street in the southbound direction and adjust the configuration to one right turn lane and one through lane, allow the right turn lane to turn during the same phase as the northbound left turn Result: LOS F
	Front/13th	Modify lane configuration and signal phasing Add a leading northbound left turn phase on 13th Street Adjust the southbound lane configuration on 13th Street to one through lane and one right turn lane and allow the right turn lane to run during the same phase as the northbound left turn lane Result: LOS F

Table B.1 Intersections with Poor LOS		
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments
<p>Myrtle</p> <p>Note: Additional study should be completed for this corridor to confirm traffic volume projections, evaluate corridor performance, and complete further testing of potential improvement measures, including network improvements. Although the major of intersections are identified to operate with LOS F with improvements, significant reductions in delay are achieved. Operation will also be tested with more sophisticated simulation modeling.</p>	Myrtle/13th	Modify lane configuration and signal phasing
		Change the eastbound lane configuration on Myrtle to one left turn lane, 3 through lanes, one shared through and right lane
		Result: LOS F
	Myrtle/9th	Modify lane configuration and signal phasing
		Adjust the eastbound lane configuration to three through lanes, one shared through and right lane, and one right turn lane
		Result: LOS F
	Myrtle/8th	Pedestrian improvements only
		Result: LOS E
	Myrtle/Capitol	Modify lane configuration
		Adjust the northbound lane configuration to three through lanes and one right turn lane
Result: LOS F		
Myrtle/Broadway/Park	See above in Broadway corridor	
<p>Capitol</p> <p>Note: Additional study should confirm traffic volume projections and complete further testing of potential improvement measures, including network improvements.</p>	Capitol/University	Additional investigation recommended as heavy projected volumes (especially southbound left turns) cannot be accommodated even with significant changes
		Tested the following modifications:
		Additional lanes:
		Eastbound right turn lane on Ann Morrison Park
		Northbound right turn lane on Capitol
		Provide protected right turn phase from eastbound Ann Morrison Park, overlapping with northbound left turns
		Disconnect Boise from this intersection. Assumes Boise would link to Capitol via an underpass south University
		Result: LOS E (still would not meet target)
		Boise River Bridge impacts: Through movements on Capitol are not the critical movements at this intersection. Additional through lanes would not necessarily improve intersection LOS significantly, and four lanes are already provided on both the Capitol and 9th Street bridges

Table B.1 Intersections with Poor LOS		
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments
Capitol, continued	Capitol/Myrtle	See above in Myrtle corridor
	Capitol/Front	See above in Front corridor
	Capitol/Jefferson	Install traffic signal Result: LOS A
9th	9th/Front	See above in Front corridor
	9th/Myrtle	See above in Myrtle corridor
	9th/Battery	Modify lane configuration and signal phasing
		Change the southbound 9th Street configuration to one southbound shared through and left turn lane, two through lanes, one right turn lane
		Provide a free right turn from eastbound Battery to southbound 9th
		Result: LOS D
Additional study should confirm the feasibility of providing the free eastbound right turn		
Hays	Hays/5th/Fort	Additional lanes required:
		Northbound through lane on Fort (requires receiving lane)
		Result: LOS D
	Hays/15th	Modify signal phasing and provide actuation for southbound approach. Result: LOS F
Fort	Fort/5th/Hays	See above in Hays corridor
	Fort/6th	Reconfigure westbound Fort lanes to one shared left and through lane, one shared through and right turn lane
		Increase cycle length to 90 seconds (may need to increase cycle length corridor-wide)
		Result: LOS C
	Fort/8th	Additional lane required:
		Westbound right turn lane on Fort
		Increase cycle length to 90 seconds (may need to increase cycle length corridor-wide)
Result: LOS F		

Table B.1 Intersections with Poor LOS			
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments	
Isolated Intersections	Americana and Shoreline	Additional investigation recommended as heavy projected volumes would require major changes to the intersection, including:	
		Additional lanes:	
		Eastbound left turn lane on Shoreline (with reconfiguration to two left turn lanes, one through lane, and one shared through and right turn lane)	
		Westbound right turn lane on Shoreline (with reconfiguration to one left turn lane, two through lanes, and one right turn lane)	
		Provide a free right turn from westbound Shoreline to northbound Americana	
		Result: LOS D	
		Additional study should confirm traffic volume projections, complete further testing of potential improvement measures, and determine the feasibility of providing the free westbound right turn.	
	Main/27th	Boise River Bridge impacts: Through movements on Americana are not the critical movements at this intersection. Additional through lanes would not necessarily improve intersection LOS significantly.	Additional lanes required:
			Westbound right turn lane on Main
			Southbound right turn lane on 27th
			Result: LOS C
	State/8th		Additional lane required:
			Westbound through lane on State
			Modify signal phasing to provide a protect left turn phase for eastbound State
	11th/Grove		Congestion projected for this intersection is the result of spillback queuing on southbound 11th from the intersection with Front. As an isolated intersection, it would operate with LOS B. No modification proposed.

Table B.1 Intersections with Poor LOS		
Corridor	Intersections with Poor LOS (LOS E or F in 2025)	Proposed Improvements/Comments
Improvements Not Recommended	Hays/5th/Fort	Additional lanes required:
		Eastbound right turn lane on Hays
		Result: LOS D
	Hays/15th	Additional lane required:
		Northbound left on 15th
		Result: LOS C

