

4.0 No Build Conditions

The No Build scenario analyzes transportation condition in the year 2020 with the assumption that no improvements are made to the transportation system other than currently approved projects.

4.1 LAND USE FORECASTS

In order to ascertain traffic conditions under a variety of economic forecasts, four distinct land use scenarios were analyzed. The four scenarios are:

- Pessimistic: Assumes lower than expected economic growth and strong competition from other office-space markets, such as New York City;
- Neutral: Assumes expected economic growth and moderate competition from other office-space markets;
- Optimistic: Assumes higher than expected economic growth and weak competition from competing office-space markets;
- Approved Office: Assumes all currently approved office space will be constructed and occupied; residential development is assumed to be the same as the neutral scenario.

4.2 TRANSPORTATION IMPROVEMENTS

The No Build conditions assume no changes to the transportation network except those that have already been approved.

The approved transportation infrastructure improvements included in the No Build scenarios consist of the following projects:

- The construction of an additional right turn lane from the New Jersey Turnpike / 12th Street eastbound to Jersey Avenue southbound;
- The extension of Greene Street to the intersection of Washington Boulevard and 2nd Street; this project includes the installation of two new traffic signals; the first signal will be at the intersection of Greene Street and the HBLRT system, and the second will be at the intersection of Greene Street and Christopher Columbus Drive. Greene Street is proposed to be one-way, creating a one-way couple with Washington Street;
- The redesign of Christopher Columbus Drive to provide 3 lanes eastbound during AM peak period and 3 lanes westbound during PM peak period across the entire span of the study area;

- The development of additional roads as part of the Liberty Harbor North development roads. The roadways will be located in the southwest quadrant of the study area, south of Grand Street, between Jersey Avenue and Marin Boulevard. The new roadways will primarily service the new trips generated by the Liberty Harbor North development;
- The redesign of Newark Avenue between Christopher Columbus Drive and Grove Street to provide westbound service to buses only;

The No Build also scenario also assumes the extension of both Warren Street and Provost Street between 2nd Street and 6th Street. These are not currently approved projects, but it is assumed they will be completed by 2020.

The No Build scenario also assumes no improvement in signalization; however, it does assume an increase in the frequency of the HBLRT, from six minute headways in the Existing conditions to five minute headways in the No Build conditions.

4.3 NO BUILD TRAFFIC CONDITIONS

The Synchro traffic model was used to analyze traffic conditions during the AM and PM peak hour conditions for all four land use scenarios for the No Build transportation conditions.

4.3.1 Summary of No Build Traffic Results

The complete modeling results are provided in the Appendix. Tables 4-1, 4-2, 4-3 and 4-4 provide a list of the intersections operating at unacceptable Levels of Service (LOS) E or F in the four No Build scenarios. As shown in these tables, the number of intersections at an unacceptable LOS would increase significantly from the Existing Conditions scenario.

In the Pessimistic scenario, **11** intersections would operate at an unacceptable LOS E or F during both the AM and PM peak hours. In the Neutral and Optimistic scenarios, between **13** and **17** intersections would operate at LOS E or F during the AM and PM peak hours. Finally, in the Approved Office scenario, **29** and **38** intersections are at LOS E or F during the AM and PM peak hours, respectively.

Table 4-1: Pessimistic Development Scenario (Intersections at LOS E or F)

AM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	18 th Street and Marin Boulevard	E	77.3
2	14 th Street and Jersey Avenue	E	64.8
3	Jersey Avenue and 12 th Street	F	111.1
4	1 st Street and Marin Boulevard	F	96.6
5	Newark Avenue and Jersey Avenue	E	78.1
6	Newark Avenue and Brunswick Street	F	> 200.0
7	Columbus Drive and Brunswick Street	E	72.9
8	Montgomery Street and Greene Street	F	150.0
9	Grand Street and Center Street	F	> 200.0
10	Montgomery Street and Marin Boulevard	E	61.0
11	Montgomery Street and Center Street	F	144.1
PM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	175.5
2	14 th Street and Erie Street	E	69.0
3	14 th Street and Marin Boulevard	F	116.3
4	9 th Street and Erie Street	E	70.2
5	6 th Street and Erie Street	E	61.0
6	Columbus Drive and Brunswick Street	F	80.2
7	Montgomery Street and Center Street	E	60.4
8	Montgomery Street and Greene Street	F	> 200.0
9	Grand Street and Center Street	F	> 200.0
10	Grand Street and Monmouth Street	F	> 200.0
11	Grand Street and Grove Street	E	68.9

Table 4-2: Neutral Development Scenario (Intersections at LOS E or F)

AM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	61.0
2	12 th Street and Jersey Avenue	F	145.0
3	6 th Street and Grove Street	E	79.7
4	Newark Avenue and Brunswick Street	F	> 200.0
5	Newark Avenue and Coles Street	E	73.4
6	Newark Avenue and Jersey Avenue	F	88.5
7	1 st Street and Marin Boulevard	F	> 200.0
8	Columbus Drive and Brunswick Street	F	131.0
9	Montgomery Street and Center Street	F	107.9
10	Montgomery Street and Grove Street	F	87.0
11	Montgomery Street and Marin Boulevard	E	76.2
12	Grand Street and Center Street	F	143.9
13	Grand Street and Pacific Avenue	F	156.7
14	Grand Street and Monmouth Street	F	130.7
15	Montgomery Street and Greene Street	F	> 200.0
PM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	190.8
2	14 th Street and Marin Boulevard	F	185.0
3	Newark Avenue and Jersey Avenue	E	79.3
4	Columbus Drive and Brunswick Street	F	97.7
5	Columbus Drive and Monmouth Street	E	70.7
6	Columbus Drive and Jersey Avenue	F	83.3
7	Montgomery Street and Center Street	F	113.0
8	Montgomery Street and Jersey Avenue	F	> 200.0
9	Montgomery Street and Grove Street	F	120.4
10	Montgomery Street and Greene Street	F	> 200.0
11	Grand Street and Merseles Street	F	81.1
12	Grand Street and Center Street	F	190.3
13	Grand Street and Pacific Avenue	F	173.9
14	Grand Street and Monmouth Street	F	> 200.0
15	Grand Street and Grove Street	F	124.2
16	Grand Street and Greene Street	F	198.1

Table 4-3: Optimistic Development Scenario (Intersections at LOS E or F)

AM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.3
2	12 th Street and Jersey Avenue	F	148.4
3	1 st Street and Marin Boulevard	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.1
6	Columbus Drive and Brunswick Street	F	116.3
7	Montgomery Street and Center Street	F	132.5
8	Montgomery Street and Monmouth Street	F	95.5
9	Montgomery Street and Greene Street	F	> 200.0
10	York Street and Marin Boulevard	E	55.4
11	Grand Street and Center Street	F	> 200.0
12	Grand Street and Pacific Avenue	E	76.9
13	Grand Street and Monmouth Street	F	118.1
PM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7
2	14 th Street and Erie Street	E	60.2
3	14 th Street and Marin Boulevard	F	170.0
4	Newark Avenue and Brunswick Street	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9
6	Columbus Drive and Brunswick Street	F	97.6
7	Columbus Drive and Monmouth Street	E	70.9
8	Columbus Drive and Jersey Avenue	E	61.6
9	Montgomery Street and Center Street	F	129.9
10	Montgomery Street and Jersey Avenue	F	> 200.0
11	Montgomery Street and Grove Street	F	128.3
12	Montgomery Street and Greene Street	F	> 200.0
13	Grand Street and Center Street	F	169.9
14	Grand Street and Pacific Avenue	F	160.6
15	Grand Street and Monmouth Street	F	> 200.0
16	Grand Street and Grove Street	F	121.7
17	Grand Street and Greene Street	F	84.9

Table 4-4: Approved Office Development Scenario (Intersections at LOS E or F)

AM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	18 th Street and Marin Boulevard	F	82.9
2	14 th Street and Jersey Avenue	E	77.8
3	14 th Street and Erie Street	F	80.0
4	12 th Street and Jersey Avenue	F	> 200.0
5	10 th Street and Erie Street	E	71.3
6	9 th Street and Grove Street	F	> 200.0
7	6 th Street and Grove Street	F	> 200.0
8	1 st Street and Marin Boulevard	F	> 200.0
9	Newark Avenue and Brunswick Street	F	> 200.0
10	Newark Avenue and Monmouth Street	E	78.1
11	Newark Avenue and Jersey Avenue	E	56.2
12	Columbus Drive and Marin Boulevard	F	147.8
13	Columbus Drive and Greene Street	E	71.0
14	Columbus Drive and Brunswick Street	F	159.8
15	Columbus Drive and Monmouth Street	F	94.9
16	Montgomery Street and Center Street	F	184.1
17	Montgomery Street and Monmouth Street	F	> 200.0
18	Montgomery Street and Jersey Avenue	F	88.1
19	Montgomery Street and Grove Street	F	85.7
20	Montgomery Street and Marin Boulevard	F	> 200.0
21	Montgomery Street and Washington Street	F	87.2
22	Montgomery Street and Greene Street	F	> 200.0
23	York Street and Grove Street	F	112.4
24	York Street and Marin Boulevard	F	> 200.0
25	York Street and Greene Street	F	124.6
26	Grand Street and Merseles Street	F	125.3
27	Grand Street and Center Street	F	> 200.0
28	Grand Street and Pacific Avenue	F	> 200.0
29	Grand Street and Monmouth Street	F	> 200.0
PM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
1	18 th Street and Jersey Avenue	E	65.6
2	14 th Street and Jersey Avenue	F	> 200.0
3	14 th Street and Erie Street	F	196.7
4	14 th Street and Marin Boulevard	F	> 200.0

Table 4-4: Approved Office Development Scenario (continued)

PM Peak Hour			
	Intersection	LOS	Average Delay (sec/veh)
5	12 th Street and Jersey Avenue	E	59.2
6	10 th Street and Erie Street	F	157.7
7	9 th Street and Erie Street	F	> 200.0
8	6 th Street and Erie Street	E	73.4
9	6 th Street and Washington Boulevard	E	69.3
10	1 st Street and Marin Boulevard	E	70.3
11	Newark Avenue and Brunswick Street	F	126.2
12	Newark Avenue and Monmouth Street	F	97.3
13	Newark Avenue and Coles Street	F	90.0
14	Newark Avenue and Jersey Avenue	F	120.4
15	Columbus Drive and Brunswick Street	F	> 200.0
16	Columbus Drive and Monmouth Street	E	74.6
17	Columbus Drive and Coles Street	F	156.7
18	Columbus Drive and Jersey Avenue	F	180.6
19	Columbus Drive and Barrow Street	F	117.9
20	Columbus Drive and Grove Street	F	104.3
21	Columbus Drive and Marin Boulevard	F	> 200.0
22	Columbus Drive and Greene Street	F	> 200.0
23	Montgomery Street and Center Street	F	> 200.0
24	Montgomery Street and Brunswick Street	E	66.2
25	Montgomery Street and Monmouth Street	E	56.8
26	Montgomery Street and Coles Street	F	82.8
27	Montgomery Street and Jersey Avenue	F	> 200.0
28	Montgomery Street and Grove Street	F	190.1
29	Montgomery Street and Marin Boulevard	F	162.1
30	Montgomery Street and Washington Street	F	139.6
31	Montgomery Street and Greene Street	F	> 200.0
32	York Street and Grove Street	F	132.5
33	Grand Street and Center Street	F	> 200.0
34	Grand Street and Pacific Avenue	F	187.5
35	Grand Street and Monmouth Street	F	> 200.0
36	Grand Street and Canal Street	F	> 200.0
37	Grand Street and Washington Street	F	103.8
38	Grand Street and Greene Street	F	> 200.0

5.0 Description of Build Conditions

5.1 DISCUSSION OF PROCESS USED TO IDENTIFY CONCEPTS

The concept proposals were identified by the steering committee following a comprehensive review of transportation studies performed over the previous two decades. All proposed roadway and transit projects were identified for potential inclusion in this study. However, several of the proposals were dropped from advanced study, typically due to estimated high cost, lack of perceived benefit to Jersey City, or other fatal flaws.

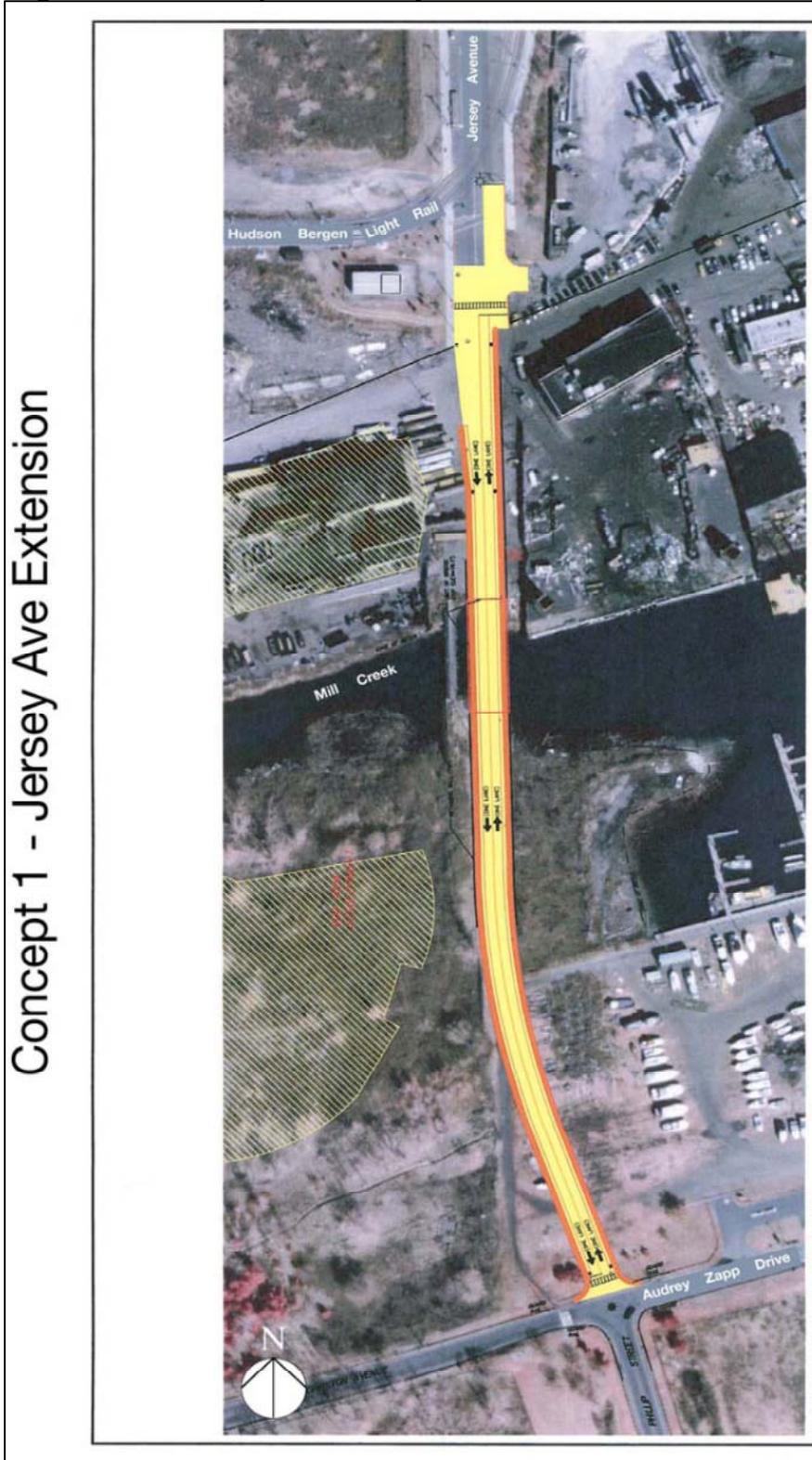
5.2 ROADWAY PROJECTS

This section describes the eight roadway projects that were initially identified for this study. The first five concepts were deemed sufficiently viable for advancement to the next level of analysis. The other three projects were deemed to be fatally flawed and were not advanced. The cost estimates were based on NJDOT cost guidelines.

5.2.1 Concept 1 – Jersey Avenue Extension to Audrey Zapp Drive

Concept 1 is the Jersey Avenue Extension (See Figure 5-1). Jersey Avenue currently terminates immediately south of Grand Street. This concept would entail the construction of a bridge spanning the Morris Canal Basin connecting the southern terminus of Jersey Avenue with Audrey Zapp Drive. The bridge would provide for one fifteen-foot lane of vehicular traffic in either direction.

Figure 5-1: Concept 1 - Jersey Avenue Extension



The bridge would also provide striped bicycle lanes and 6-foot sidewalks in both directions; these facilities would maintain the pedestrian and bicycle access currently provided by the existing current wooden footbridge. Pedestrian access from the bridge sidewalk to the promenade planned along the north side of the canal basin in Liberty Harbor North will be provided.

This concept would provide an additional roadway connection for vehicles traveling into the southern section of the study area. Some vehicles that currently access the study area via the New Jersey Turnpike interchange at Montgomery Street would instead access the Turnpike at the previous Liberty Science Center (LSC) interchange. This would also provide a more direct route for vehicles traveling from areas south of Liberty State Park into the study area.

This project is expected to have construction costs of approximately \$6.4 million, with an additional \$0.5 million estimated for right-of-way (ROW) acquisition. The project would require one year for design and construction. This concept would also require a wetlands/waterfront development permit and a floodplain encroachment permit. The permitting process should take less than one-year in entirety and not contribute significantly to the cost of the project.

The costs of any environmental mitigation of Mill Creek required for this alternative, such as mitigation of combined sewer outfall, are to be paid for by developers in the Grand/Jersey redevelopment area, and are not included in the cost estimate.

5.2.2 Concept 2 – Center/Merseles Streets Structures over Montgomery Street

Concept 2 is the Center and Merseles Streets Structures over Montgomery Street (see Figure 5-2). Under this concept, the New Jersey Turnpike ramps that currently come to grade at the intersection of Montgomery Street and Center / Merseles Streets would be extended over Montgomery Street and come to grade south of Christopher Columbus Drive.

This concept would significantly improve vehicular and pedestrian safety at the intersection of Montgomery Street with Center/Merseles Streets by removing the ramp approaches, while improving the traffic operations of these intersections.

This project is expected to have construction costs of approximately \$18.3 million, with minimal additional cost for ROW acquisition. The project would require approximately 2.5-years for design and construction. Environmental impacts would be minimal and would not require any permitting. However, there are aesthetic and security concerns with Concept 2.

An alternate concept to provide tunnels under Montgomery Street instead of the flyovers was also considered; this version of the concept is still feasible although the construction cost would be significantly higher than the flyover version.

Figure 5-2: Concept 2 - Merseles & Center Street Structures

Concept 2 - Merseles & Center St Structures



5.2.3 Concept 3 –Merseles/Wilson/Aetna Street Extensions

Concept 3 is the Merseles / Wilson / Aetna Streets Extensions (See Figure 5-3). This concept would entail the construction of a northern extension of Wilson Street and a southern extension of Merseles Street that would connect at a signalized intersection with a western extension of Aetna Street. All of these new facilities would be designed to permit striped bicycle lanes and sidewalks.

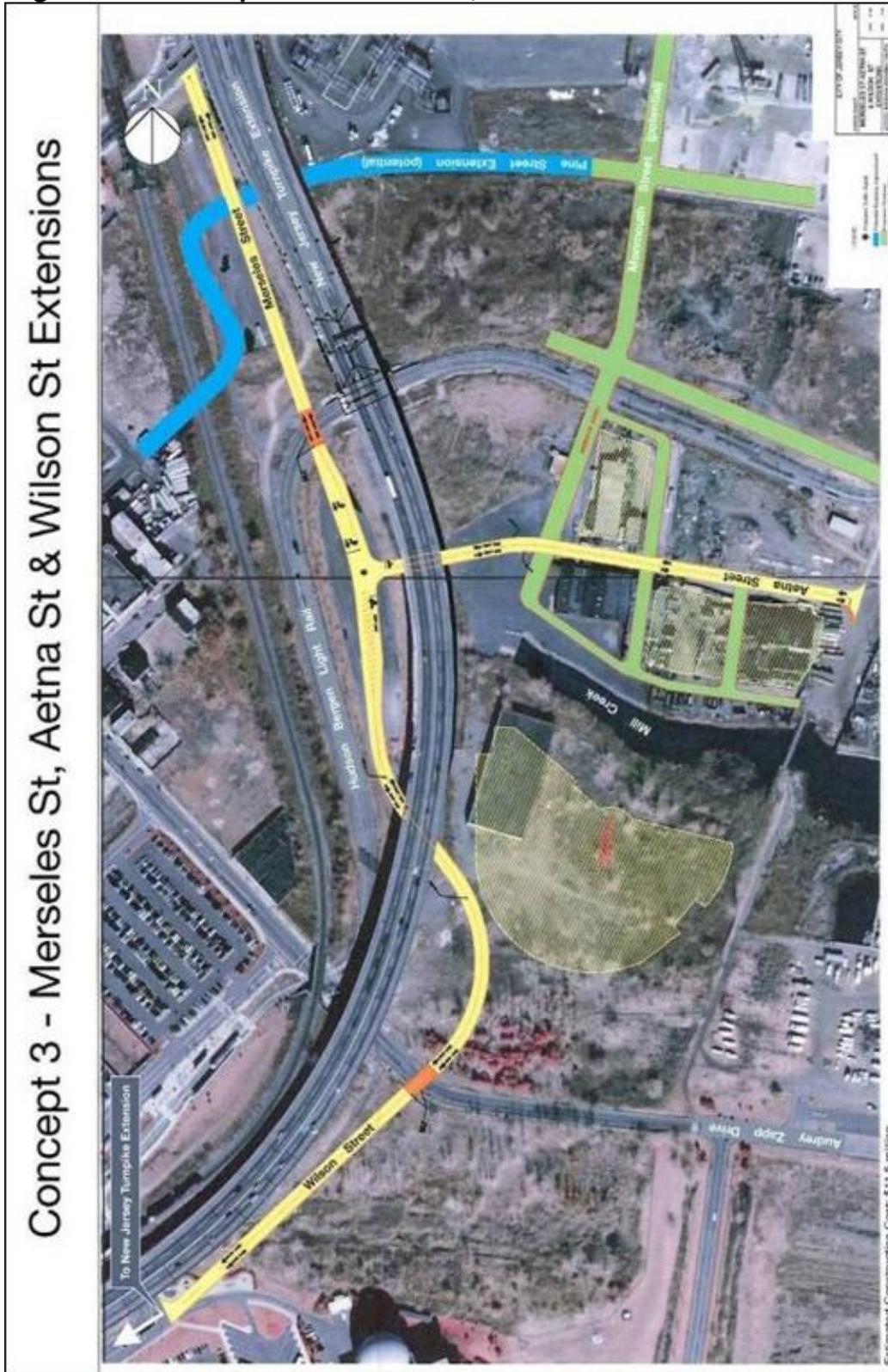
As with Concept 1, this concept would provide an additional roadway connection for vehicles traveling into the southern section of the study area. Some vehicles that currently access the study area via the New Jersey Turnpike interchange at Montgomery Street would instead access to Turnpike at the previous Liberty Science Center (LSC) interchange.

This project is expected to have construction costs of approximately \$11.5 million, with an additional \$2.5 million for ROW acquisition. The project would require 2.5-years for design and construction. This concept encroaches on Green Acres land in the vicinity of Audrey Zapp Drive, and would also require a floodplain encroachment permit.

Two variations of Concept 3 were also considered. Concept 3A would have been the same as Concept 3, but with the addition of access ramps from Audrey Zapp Drive to the Wilson Street extension. This concept was also deemed geometrically infeasible, as the bend in Audrey Zapp Drive would create poor sight-line conditions for the ramp termini.

Concept 3B would relocate the Aetna Street extension north of the HBLRT tracks to avoid the at-grade crossing. This alternative is still considered to be feasible although it would require the acquisition of additional ROW from the abutting property owners.

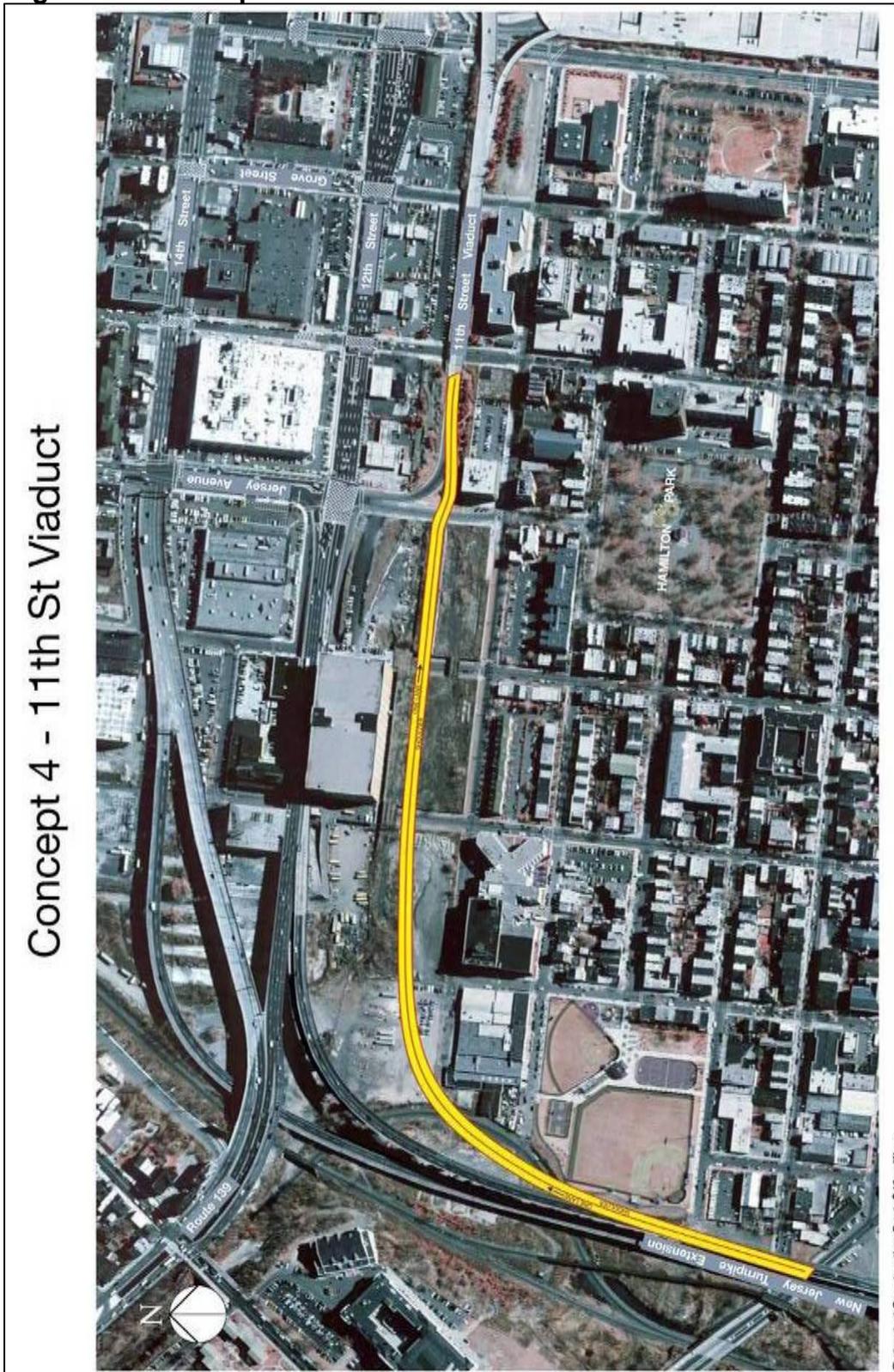
Figure 5-3: Concept 3 – Merseles St, Aetna St & Wilson St Extensions



5.2.4 Concept 4 – 11th Street Viaduct

Concept 4 is the 11th Street Viaduct (see Figure 5-4). This concept would entail the construction of a new exit ramp from the New Jersey Turnpike Extension to the existing 11th Street Viaduct that currently begins at Jersey Avenue. This project would have the effect of providing travelers to the northern part of the study area such as Newport with a unidirectional route to bypass to the long queues often experienced at the eastbound approach to the Holland Tunnel. This project is expected to have construction costs of approximately \$80 million; the additional cost for ROW acquisition is unknown. The project would require approximately 3-years for design and construction.

Figure 5-4: Concept 4 – 11th Street Viaduct



5.2.5 Enhanced No Build

This concept assumes the same conditions as the No Build conditions. The only improvements are optimization of the traffic signals and spot improvements to intersections. Three intersections were chosen for spot improvements; these intersections were selected due to their low level of service in the optimistic scenario and for the feasibility for providing low-impact improvements at those intersections.

The spot improvements would be made to the following intersections:

- Montgomery Street and Monmouth Street: modify the northbound approach to operate as shared left-through and a right turn lane;
- Christopher Columbus Drive and Brunswick Street: modify the southbound approach to operate as shared left-through and a shared right-through lane;
- Montgomery Street and Greene Street: modify the eastbound approach to include a shared left turn, and modify the signal to operate as a split phase in the AM peak period;

The spot improvements will not interfere with pedestrian or bicycle improvements, or with any of the concept plans, and the cost should be minimal as they do not involve major construction or ROW acquisition.

5.2.5.1 Grade separation of 12th and 14th Streets (Holland Tunnel approach and depart roads)

This concept entails the construction of grade-separated elevated viaducts or sunken roadways along both 12th Street and 14th Street. These viaducts would separate Holland Tunnel bound traffic from local traffic and would increase the connectivity of the two neighborhoods on the two sides of the Holland Tunnel approach and depart roads.

This concept was not studied independently due to its perceived high cost and anticipated construction disruptions.

5.2.5.2 Rerouting of New Jersey Turnpike Extension and Grade Separation of Holland Tunnel approach and departure roads to 11th Street.

This concept entails the re-routing and widening of the of the New Jersey Turnpike extension in both directions to an 11th Street alignment that would include fourteen elevated lanes of Holland Tunnel approach and depart roads. It would also connect to Washington Boulevard.

This alternative was not advanced due to its perceived high cost and visual and environmental impacts.

5.2.5.3 Extension of New Jersey Turnpike to Hoboken

This alternative assumed the construction of a northern spur from the New Jersey Turnpike extension through Hoboken to the Lincoln Tunnel.

This concept was not advanced for further analysis due to its perceived high cost and lack of any perceived utility for providing congestion relief to regional traffic bound for Jersey City.

5.2.5.4 Additional Capacity Through Holland Tunnel

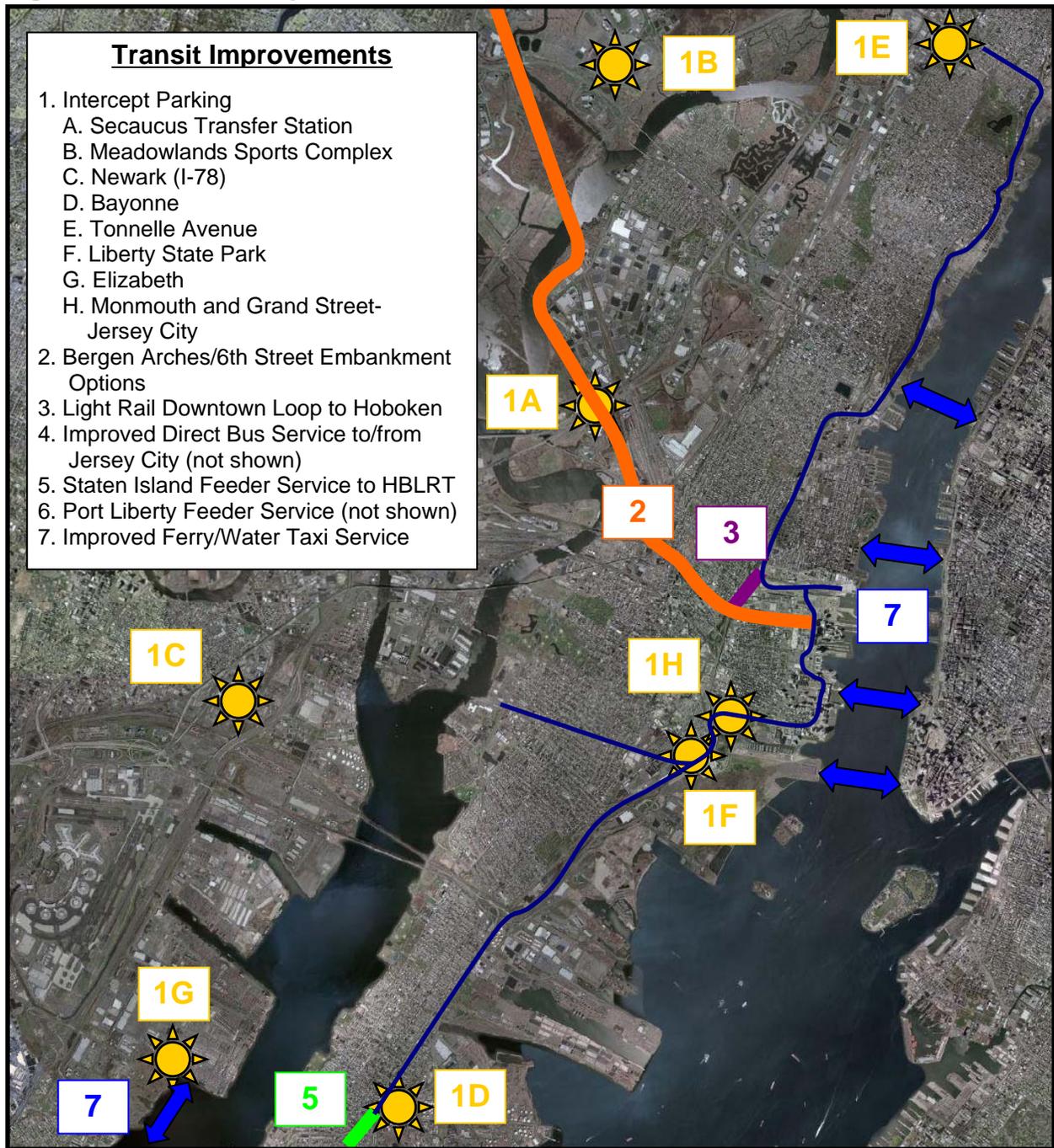
This concept entails the construction of an additional tube through the Holland Tunnel for bus and truck use only. However, the lack of any spare capacity on the New York City approaches to the tunnel would negate the benefits of the additional capacity. Therefore, this alternative was not advanced for additional analysis.

5.3 MASS TRANSIT PROJECTS

This section describes the seven transit projects that were initially identified for this study. The first five concepts were deemed sufficiently viable for advancement to the next level of analysis. The other two projects were not advanced due to reasons provided in the following subsections.

The locations of the transit projects are provided in Figure 5-5.

Figure 5-5: Transit Projects



5.3.1 Intercept Parking

This project would entail the construction of a remote, or “intercept”, parking garage or lot at one of eight possible locations.

The following three locations, external to the study area, are dependant on the extension of the HBLRT or another light rail system:

- A. Secaucus Transfer Station
- B. Meadowlands Sports Complex
- C. Newark (near Turnpike Exit 14)

The following three locations, external to the study area, utilize the existing HBLRT system:

- D. Bayonne
- E. Tonnel Avenue
- F. Liberty State Park HBLRT station (parking garage)

The following location, external to the study area, is dependant upon the commencement of a new ferry service:

- G. Elizabeth

Finally, the following location is internal to the study area:

- H. Monmouth and Grand Streets in Jersey City

5.3.2 Bergen Arches/6th Street Embankment Mass Transit Options

This alternative assumes the construction of a Light Rail Transit (LRT) line or a Bus Rapid Transit (BRT) line along the abandoned Bergen Arches rail ROW parallel to NJ Route 139. Although the precise alignment of the system is not yet determined, it would presumably connect the study area with the Secaucus Transfer Station. This concept would allow the development of intercept parking at the Secaucus Transfer Station and the Meadowlands Sports Complex.

5.3.3 Light Rail Downtown Loop to Hoboken

This concept assumed the construction of a light rail line looping between Jersey City and Hoboken. This concept was not advanced due to the perceived lack of benefits to regional traffic.

5.3.4 Improved Direct Bus Service To/From Jersey City

This concept would assume an increase in bus service to Jersey City, both from New York City and from elsewhere in New Jersey. The service would be provided by either New Jersey Transit or private carriers.

5.3.5 Staten Island Feeder Service to HBLRT

This project assumes the implementation of expanded bus service from Staten Island to the southernmost stop of the HBLRT; currently at 22nd Street, soon to be 8th Street.

5.3.6 Port Liberte Feeder Service

The alternative assumes that the Port Liberte development will provide bus transit service to selected locations such as HBLRT, PATH and ferry terminals.

5.3.7 Improved Ferry Service

This concept assumed increase ferry service between Jersey City and New York City; it was not advanced due to lack of available information.

6.0 Evaluation of Concepts

In order to properly evaluate the potential costs and benefits of each project and rank the projects in priority order, it was necessary to develop a system to award projects points based on their achievement of certain goals. In order to build consensus, it was decided that the project team would choose the criteria themselves in consultation with the steering committee. Subsequently, the entire committee would vote on the allocation of points between the criteria. The more points a criterion received, the greater the influence on the final point total.

The criteria were classified in four major groups. The four groups are:

- Cost
- Time Frame
- Traffic Impacts
- Other Local Impacts

The cost and time frame groups contain only one criterion each, while Traffic Impacts and Other Local Impacts both contain four criteria.

6.1 COST

For project cost, projects received points based on the magnitude of their construction cost; including ROW acquisition, permitting, design and construction. The greater the magnitude of a project's construction cost, the fewer points it received.

Projects were scored based on their classification into one of the following four categories:

- Low: Construction cost is less than \$10 million.
- Medium: Construction Cost is between \$10 and \$20 million.
- High: Construction cost is between \$20 and \$40 million.
- Very High: Construction cost is greater than \$40 million.

6.2 TIME FRAME

For project time frame, projects received points based on the length of time required for their completion, including design, acquisition of ROW, permitting and construction for all phases of the project. Projects were scored based on their classification into one of the following four categories:

- Short Term: Time frame is less than 5 years.
- Medium Term: Time frame is between 5 and 10 years
- Long Term: Time frame is between 10 and 15 years
- Very Long Term: Time frame is greater than 15 years

6.3 TRAFFIC IMPACTS

Traffic impacts were disaggregated by their effect on regional and local routes. The regional routes are defined as major roadway facilities within the study area that are utilized by regional traffic (i.e. trips that start or end outside the study area). The map provided in Figure 6-1 indicates the regional routes. Any roadway within the study area that was included in the traffic model and is not a regional route was considered a local route.

Figure 6-1: Study Area Regional Routes



The regional routes include all or part of the following roadways:

- Pacific Avenue
- Grand Street
- Montgomery Street
- Christopher Columbus Drive
- Newark Avenue
- 12th Street
- 14th Street
- 18th Street
- Marin Boulevard
- Washington Boulevard
- Greene Street
- Center/Merseles Streets

The effect on total congested delay (i.e. delay per vehicle greater than 55.0 seconds) is shown in Table 6-1. Further detail of the model results, including the diversion diagrams, the volume diagrams, and the level-of-service diagrams, are provided in the Technical Appendix. The total vehicle hours of congested delay is provided for each scenario, along with the percent change from the No Build conditions. As shown in this table, the enhanced No Build (signal optimization plus spot improvements) produced the greatest reduction in total congested delay in both the AM and PM peak periods. All of the single-concept and combined-concept scenarios tend to reduce the total delay in the AM peak period. During the PM peak period, the combined-concept scenarios tend to increase total congested delay; only the combination of Concepts 2 and 4 appears to offer significant reduction in the total delay.

The two transit options appear to offer similar benefits in both peak periods; a reduction of delay of approximately 5-percent in the AM peak period and 27 percent during the PM peak period.

Table 6-1: Total Vehicle Hours of Congested Delay By Scenario

Scenario	AM Peak Hour		PM Peak Hour	
	Hours	% Diff	Hours	% Diff
No Build	2,627	N/A	2,165	N/A
Spot Improvements	1,177	-55%	1,432	-34%
Concept 1 Only	1,472	-44%	1,830	-15%
Concept 2 Only	1,832	-30%	1,701	-21%
Concept 3 Only	1,585	-40%	2,147	-1%
Concept 4 Only	1,203	-54%	1,545	-29%
Concepts 1 & 2	1,223	-53%	2,378	10%
Concepts 1 & 3	1,433	-45%	2,341	8%
Concepts 1 & 4	1,411	-46%	2,485	15%
Concepts 2 & 3	1,423	-46%	2,365	9%
Concepts 2 & 4	1,121	-57%	1,621	-25%
Concepts 3 & 4	1,271	-52%	2,161	0%
Concepts 1, 2 & 3	1,315	-50%	2,447	13%
Concepts 1, 2 & 4	1,391	-47%	2,171	0%
Concepts 1, 3 & 4	1,304	-50%	2,277	5%
Concepts 2, 3 & 4	1,498	-43%	2,256	4%
Concepts 1, 2, 3 & 4	1,344	-49%	2,256	4%
Transit North	1,333	-49%	1,587	-27%
Transit South	1,316	-50%	1,571	-27%

The four criteria within this category are:

- Impact on regional routes during the AM peak period
- Impact on local routes during the AM peak period
- Impact on regional routes during the PM peak period
- Impact on local routes during the PM peak period

The projects were scored for traffic flow based on the difference between congested delay in the Build and in No Build option. Congested delay is defined as the total vehicle hours of delay that vehicles experience at Level of service E or F; that is greater than an average delay of 55 seconds per vehicle. The change in congested delay was examined for the four criteria. The projects were scored according to the following scale:

- Very Beneficial: Greater than 30 percent reduction in congested delay

- Beneficial: Between 10 and 30 percent reduction in congested delay
- Neutral: Less than 10 percent change in the congested delay
- Detrimental: Between 10 and 50 percent increase in congested delay
- Very Detrimental: Greater than 50 percent increase in congested delay

6.4 OTHER LOCAL IMPACTS

These criteria are utilized to allow scoring of the projects based on impacts on the study area that are not based primarily on traffic flow. These four criteria are:

1. Pedestrian and Bicycle Accessibility: Does the project improve accessibility for bicyclists and pedestrians within Jersey City. Projects are scored based on whether they are beneficial, neutral or detrimental for this criterion;
2. Access to Study Area: Does the project impact access between another Jersey City neighborhood or area and the study area? Projects are scored based on whether they are improving access, are neutral towards access, or diminish access;
3. Pedestrian and Vehicular Safety: Does the project impact the safety of pedestrians, bicyclists or vehicular passengers? Projects are scored based on whether they are improving safety, are neutral towards safety, or diminish safety;
4. Construction and Environmental Impacts: What are the short term construction impacts and long term air quality and noise impacts to the area surrounding the project? The projects are scored based on their proximity to a residential neighborhood; the three categories are nearer (less than 500 feet to a residence) medium (between 500 and 100 feet, or with a physical barrier between the project and the neighbors), or farther (greater than 1000 feet to a residence).

6.5 BALLOTING PROCESS

Ballots to assign weights to the criteria were distributed at Steering Committee Meeting #7. Each organization in attendance was permitted one combined vote for all attendees.

The organizations that voted on the criteria were:

- The New Jersey Turnpike Authority
- The New Jersey Department of Transportation
- New Jersey Transit
- Jersey City - City Planning
- Jersey City - City Engineering
- Jersey City Redevelopment Agency
- Jersey City Mayor's Office
- Jersey City City Council (Councilperson Michael Sottolano)
- Hudson County (one vote)
 - Hudson County Engineering

- Hudson County Planning
- Hudson Transportation Management Association (TMA)
- Liberty State Park and Liberty Science Center
- Friends of Liberty State Park
- Neighborhood Groups (one vote)
 - Historic Paulus Hook Association
 - Harsimus Cove Association
 - Lafayette Neighborhood Action Committee
- Business Community (one vote)
 - Newport Associates Development Company

The attendees first voted on the distribution of the 1,000 total points between the four major categories (Cost, Time Frame, Traffic Flow, and Other Local Impacts). Then, for the two categories with more than one criterion, the attendees voted on the division of the points between the four criteria in the goal categories of Traffic Flow and Other Local Impacts.

6.6 WEIGHTED SCORING

The ballots were used to determine the weighted score for each criterion. This gave each of the criteria an influence on the total project score (and thus ranking) based on the collective value placed on that criterion by the members of the steering committee.

The steering committee voted on the criteria without knowledge of how the various projects had been scored with regards to the criteria, thus assuring a “blind” vote and ensuring that members could not favor a particular project through their balloting.

The weighted criterion scores that resulted from the balloting are provided below in Table 6-2.

Table 6-2: Weighted Criteria Scores Resulting from Balloting

Jersey City RA/DC Study Weighted Evaluation Criteria	
Criterion	Definition

Goal 1: Cost (Maximum Goal Score: 185)

Capital Cost	What is the total project capital cost, including acquisition of ROW, permitting, design, and construction? (Maximum Criterion Score: 185)		
	Cost Category	Points	Perc.
	Low Cost - Less than \$10 million	185	100%
	Med Cost - \$10-\$20 million	129	70%
	High Cost - \$20 -\$40 million	74	40%
	Very High Cost - Over \$40 million	0	0%

Goal 2: Time Frame (Maximum Goal Score: 181)

Time For Total Completion	What is the time frame for completion of design, acquisition of funding, acquisition of R.O.W., permitting, and construction for all construction phases of the project? (Maximum Criterion Score: 181)		
	Time Frame Category	Points	Perc.
	Short Term - (Less than 5 years)	181	100%
	Medium Term (5-10 years)	127	70%
	Long Term (10 to 15 years)	72	40%
	Very Long Term (over 15 years)	0	0%

Table 6-2: Weighted Criteria Scores Resulting from Balloting (continued)

Goal 3: Traffic Flow (Maximum Goal Score: 346)

<p>Downtown Circulation – AM Peak Hour</p>	<p>What would be the impact to traffic flow on the local streets in the study area in the AM peak by 2020? (Measured in total hours of congested delay, meaning total hours of vehicle delay above normal delay for the no-build scenario.) (Maximum Criterion Score: 96)</p> <table border="1"> <thead> <tr> <th>Traffic Impact Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Very Beneficial (Greater than 30% reduction in congested delay)</td> <td>96</td> <td>100%</td> </tr> <tr> <td>Beneficial (Between 10% and 30% reduction in congested delay)</td> <td>67</td> <td>70%</td> </tr> <tr> <td>Neutral (Between 10% reduction and 10% increase in congested delay)</td> <td>38</td> <td>40%</td> </tr> <tr> <td>Detrimental (Between 10% and 50% increase in congested delay)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Very Detrimental (Greater than 50% increase in congested delay)</td> <td>-38</td> <td>-40%</td> </tr> </tbody> </table>	Traffic Impact Category	Points	Perc	Very Beneficial (Greater than 30% reduction in congested delay)	96	100%	Beneficial (Between 10% and 30% reduction in congested delay)	67	70%	Neutral (Between 10% reduction and 10% increase in congested delay)	38	40%	Detrimental (Between 10% and 50% increase in congested delay)	0	0	Very Detrimental (Greater than 50% increase in congested delay)	-38	-40%
Traffic Impact Category	Points	Perc																	
Very Beneficial (Greater than 30% reduction in congested delay)	96	100%																	
Beneficial (Between 10% and 30% reduction in congested delay)	67	70%																	
Neutral (Between 10% reduction and 10% increase in congested delay)	38	40%																	
Detrimental (Between 10% and 50% increase in congested delay)	0	0																	
Very Detrimental (Greater than 50% increase in congested delay)	-38	-40%																	
<p>Downtown Circulation – PM Peak Hour</p>	<p>What would be the impact to traffic flow on the local streets in the study area in the PM peak by 2020? (Measured in total hours of congested delay, meaning total hours of vehicle delay above normal delay for the no-build scenario.) (Maximum Criterion Score: 77)</p> <table border="1"> <thead> <tr> <th>Traffic Impact Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Very Beneficial (Greater than 30% reduction in congested delay)</td> <td>77</td> <td>100%</td> </tr> <tr> <td>Beneficial (Between 10% and 30% reduction in congested delay)</td> <td>54</td> <td>70%</td> </tr> <tr> <td>Neutral (Between 10% reduction and 10% increase in cong. delay)</td> <td>31</td> <td>40%</td> </tr> <tr> <td>Detrimental (Between 10% and 50% increase in congested delay)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Very Detrimental (Greater than 50% increase in congested delay)</td> <td>-31</td> <td>-40%</td> </tr> </tbody> </table>	Traffic Impact Category	Points	Perc	Very Beneficial (Greater than 30% reduction in congested delay)	77	100%	Beneficial (Between 10% and 30% reduction in congested delay)	54	70%	Neutral (Between 10% reduction and 10% increase in cong. delay)	31	40%	Detrimental (Between 10% and 50% increase in congested delay)	0	0	Very Detrimental (Greater than 50% increase in congested delay)	-31	-40%
Traffic Impact Category	Points	Perc																	
Very Beneficial (Greater than 30% reduction in congested delay)	77	100%																	
Beneficial (Between 10% and 30% reduction in congested delay)	54	70%																	
Neutral (Between 10% reduction and 10% increase in cong. delay)	31	40%																	
Detrimental (Between 10% and 50% increase in congested delay)	0	0																	
Very Detrimental (Greater than 50% increase in congested delay)	-31	-40%																	

Table 6-2: Weighted Criteria Scores Resulting from Balloting (continued)

Goal 3: Traffic Flow (cont.) (Maximum Goal Score: 346)

<p>Regional Mobility - AM Peak Hour</p>	<p>What would be the impact on regional mobility to downtown employment and population centers in the AM peak by 2020? (Measured in total hours of congested delay on roadway corridors in the study area that provide regional access to Grand Jersey, Liberty Harbor North, Exchange Place, Newport, or the Jersey Avenue Redevelopment Plan Area.) (Maximum Criterion Score: 101)</p> <table border="1"> <thead> <tr> <th>Traffic Impact Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Very Beneficial (Greater than 30% reduction in congested delay)</td> <td>101</td> <td>100%</td> </tr> <tr> <td>Beneficial (Between 10% and 30% reduction in congested delay)</td> <td>71</td> <td>70%</td> </tr> <tr> <td>Neutral (Between 10% reduction and 10% increase in cong. delay)</td> <td>40</td> <td>40%</td> </tr> <tr> <td>Detrimental (Between 10% and 50% increase in congested delay)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Very Detrimental (Greater than 50% increase in congested delay)</td> <td>-40</td> <td>-40%</td> </tr> </tbody> </table>	Traffic Impact Category	Points	Perc	Very Beneficial (Greater than 30% reduction in congested delay)	101	100%	Beneficial (Between 10% and 30% reduction in congested delay)	71	70%	Neutral (Between 10% reduction and 10% increase in cong. delay)	40	40%	Detrimental (Between 10% and 50% increase in congested delay)	0	0	Very Detrimental (Greater than 50% increase in congested delay)	-40	-40%
Traffic Impact Category	Points	Perc																	
Very Beneficial (Greater than 30% reduction in congested delay)	101	100%																	
Beneficial (Between 10% and 30% reduction in congested delay)	71	70%																	
Neutral (Between 10% reduction and 10% increase in cong. delay)	40	40%																	
Detrimental (Between 10% and 50% increase in congested delay)	0	0																	
Very Detrimental (Greater than 50% increase in congested delay)	-40	-40%																	
<p>Regional Mobility - PM Peak Hour</p>	<p>What would be the impact on regional mobility to downtown employment and population centers in the PM peak by 2020? (Measured in total hours of congested delay on roadway corridors in the study area that provide regional access to Grand Jersey, Liberty Harbor North, Exchange Place, Newport, or the Jersey Avenue Redevelopment Plan Area.) (Maximum Criterion Score: 72)</p> <table border="1"> <thead> <tr> <th>Traffic Impact Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Very Beneficial (Greater than 30% reduction in congested delay)</td> <td>72</td> <td>100%</td> </tr> <tr> <td>Beneficial (Between 10% and 30% reduction in congested delay)</td> <td>50</td> <td>70%</td> </tr> <tr> <td>Neutral (Between 10% reduction and 10% increase in congested delay)</td> <td>29</td> <td>40%</td> </tr> <tr> <td>Detrimental (Between 10% and 50% increase in congested delay)</td> <td>0</td> <td>0</td> </tr> <tr> <td>Very Detrimental (Greater than 50% increase in congested delay)</td> <td>-29</td> <td>-40%</td> </tr> </tbody> </table>	Traffic Impact Category	Points	Perc	Very Beneficial (Greater than 30% reduction in congested delay)	72	100%	Beneficial (Between 10% and 30% reduction in congested delay)	50	70%	Neutral (Between 10% reduction and 10% increase in congested delay)	29	40%	Detrimental (Between 10% and 50% increase in congested delay)	0	0	Very Detrimental (Greater than 50% increase in congested delay)	-29	-40%
Traffic Impact Category	Points	Perc																	
Very Beneficial (Greater than 30% reduction in congested delay)	72	100%																	
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Neutral (Between 10% reduction and 10% increase in congested delay)	29	40%																	
Detrimental (Between 10% and 50% increase in congested delay)	0	0																	
Very Detrimental (Greater than 50% increase in congested delay)	-29	-40%																	

Table 6-2: Weighted Criteria Scores Resulting from Balloting (continued)
Goal 4: Other Local Impacts (Maximum Goal Score: 291)

<p>Pedestrian And Bicycle Accessibility</p>	<p>Does the project improve accessibility for bicyclists and pedestrians within Jersey City? (Beneficial is determined if there is the creation of a new safe bicycle and pedestrian route. Detrimental is determined if there is the addition of vehicular traffic to local streets anywhere in Jersey City.) (Maximum Criterion Score: 59)</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Beneficial</td> <td>59</td> <td>100%</td> </tr> <tr> <td>Neutral</td> <td>29</td> <td>50%</td> </tr> <tr> <td>Detrimental</td> <td>-29</td> <td>-50%</td> </tr> </tbody> </table>	Category	Points	Perc	Beneficial	59	100%	Neutral	29	50%	Detrimental	-29	-50%
Category	Points	Perc											
Beneficial	59	100%											
Neutral	29	50%											
Detrimental	-29	-50%											
<p>Access To Study Area</p>	<p>Does the project impact access between another Jersey City neighborhood or area and the Study Area? (Improves access is determined if there is creation of a new pedestrian, bicycle, vehicular, or mass transit route between another neighborhood or area and the Study Area. Diminishes access is determined if access is impeded for any reason.) (Maximum Criterion Score: 82)</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Improves</td> <td>82</td> <td>100%</td> </tr> <tr> <td>Neutral</td> <td>41</td> <td>50%</td> </tr> <tr> <td>Diminishes</td> <td>-41</td> <td>-50%</td> </tr> </tbody> </table>	Category	Points	Perc	Improves	82	100%	Neutral	41	50%	Diminishes	-41	-50%
Category	Points	Perc											
Improves	82	100%											
Neutral	41	50%											
Diminishes	-41	-50%											
<p>Pedestrian And Vehicular Safety</p>	<p>Does the project impact the safety of pedestrians, bicyclists or vehicular passengers? (Maximum Criterion Score: 92)</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Improves</td> <td>91</td> <td>100%</td> </tr> <tr> <td>Neutral</td> <td>45</td> <td>50%</td> </tr> <tr> <td>Diminishes</td> <td>-45</td> <td>-50%</td> </tr> </tbody> </table>	Category	Points	Perc	Improves	91	100%	Neutral	45	50%	Diminishes	-45	-50%
Category	Points	Perc											
Improves	91	100%											
Neutral	45	50%											
Diminishes	-45	-50%											
<p>Construction And Environmental Impacts</p>	<p>What is the short term construction impact and long term air quality and noise impacts to the area surrounding the project? (Measured by the proximity of the project to an existing neighborhood.) (Maximum Criterion Score: 57)</p> <table border="1"> <thead> <tr> <th>Category</th> <th>Points</th> <th>Perc</th> </tr> </thead> <tbody> <tr> <td>Farther (Over 1000 feet)</td> <td>57</td> <td>100%</td> </tr> <tr> <td>Med or with a physical barrier (500-1000 feet or closer but physical barrier)</td> <td>28</td> <td>50%</td> </tr> <tr> <td>Nearer (Less than 500 feet)</td> <td>0</td> <td>0%</td> </tr> </tbody> </table>	Category	Points	Perc	Farther (Over 1000 feet)	57	100%	Med or with a physical barrier (500-1000 feet or closer but physical barrier)	28	50%	Nearer (Less than 500 feet)	0	0%
Category	Points	Perc											
Farther (Over 1000 feet)	57	100%											
Med or with a physical barrier (500-1000 feet or closer but physical barrier)	28	50%											
Nearer (Less than 500 feet)	0	0%											

7.0 Build Analysis and Findings

7.1 OPTIMISTIC DEVELOPMENT SCENARIO FORECAST ONLY

A decision was made to use the optimistic development scenario only for the traffic forecasts. As shown above in Tables 4-1 through 4-4, the traffic impacts of the Neutral and Optimistic development scenarios were similar enough to each other that it is assumed that transportation improvements that are appropriate for the Optimistic scenario are appropriate for the Neutral and Pessimistic scenarios also. The Approved Office development scenario was determined by the AKRF market analysis as unlikely to occur within the 2020 timeframe. However, should it occur at some point in the more distant future, as shown above in Table 4-4, the street grid would function so poorly, especially along Christopher Columbus Drive and Montgomery Street, that the proposed roadway projects could not improve traffic flow. Aggressive measures to reduce traffic demand such as the provision of intercept parking could provide marginal benefits for this scenario.

7.2 PROJECT COMBINATIONS

The roadway concepts were not only analyzed in isolation, but in the fifteen various combinations of the four concepts that are possible. This was necessary as the cumulative effect of two or more of the projects may have unanticipated effects that would not be apparent from the individual analysis. Therefore, each of the fifteen combinations was modeled and scored separately.

The intersections in each combination (including the Enhanced No Build) that operated at LOS of E or F are shown in Tables 7-1 through 7-18.

7.2.1 Transit Alternatives

The transit alternatives were modeled by assuming a best-case transit ridership scenario of 400 vehicles removed from the regional routes for any one transit scenario. This figure is based on the 2003 Bergen Arches Study Final Report, which estimated that a fully built Bergen Arches transit alternative could remove 4,000 total daily vehicle trips from the roadway system. The figure of 400 is estimated by assuming that 10 percent of the vehicle would be from the peak hours and all of those vehicles would be traveling to Jersey City.

An inbound-outbound split of 70/30 was applied to the total vehicles for the AM peak hour, and this split was reversed for the PM peak hour. Two distinct assignments were assumed. The first alternative assumes the vehicles were predominantly removed from the northern routes into the study area such as NJ Route 139 and the New Jersey

Turnpike. This alternative is referred to as the Transit North alternative. The second alternative assumes the vehicles were predominantly removed from the southern routes into the study area such as Christopher Columbus Drive, Montgomery Street and Grand Avenue. This alternative is referred to as the Transit South alternative.

This best-case transit scenario was assumed to apply only to the Bergen Arches transit alternatives. The other transit alternatives were scored based on a qualitative comparison with the best case alternative.

Table 7-1: Enhanced No Build (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1st Street and Marin Boulevard	F	> 200.0	E	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.3
6	Montgomery Street and Center Street	F	132.5	E	72.5
7	York Street and Marin Boulevard	C	33.9	E	55.4
8	Grand Street and Center Street	D	52.0	F	111.7
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	65.3
6	Columbus Drive and Monmouth Street	E	70.9	F	67.6
7	Columbus Drive and Jersey Avenue	E	61.6	F	64.2
8	Montgomery Street and Grove Street	F	127.8	E	129.1
9	Grand Street and Pacific Avenue	F	160.6	F	69.3
10	Grand Street and Grove Street	F	120.4	F	121.7
11	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-2: Build Concept 1 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.3
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Columbus Drive and Greene Street	D	54.6	E	59.6
6	Montgomery Street and Center Street	F	132.5	E	64.5
7	Montgomery Street and Monmouth Street	F	95.5	F	96.6
8	Montgomery Street and Jersey Avenue	D	54.9	E	62.5
9	Montgomery Street and Washington Street	C	25.0	E	56.3
10	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
11	York Street and Grove Street	C	33.9	F	92.9
12	York Street and Marin Boulevard	D	52.0	F	84.7
13	Grand Street and Center Street	F	> 200.0	F	123.7
14	Grand Street and Marin Boulevard	B	16.5	F	122.5
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	183.7
2	14 th Street and Erie Street	E	59.8	E	60.2
3	14 th Street and Marin Boulevard	F	170.0	F	170.0
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	71.3
6	Columbus Drive and Monmouth Street	E	70.9	F	101.7
7	Montgomery Street and Jersey Avenue	F	> 200.0	F	171.0
8	Montgomery Street and Grove Street	F	127.8	F	127.2
9	Montgomery Street and Marin Boulevard	C	24.9	F	101.9
10	Montgomery Street and Washington Street	D	39.2	F	> 200.0
11	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
12	Grand Street and Jersey Avenue	B	10.8	E	67.1
13	Grand Street and Grove Street	F	120.4	F	125.2
14	Grand Street and Marin Boulevard	A	9.8	E	66.6
15	Grand Street and Washington Street	D	47.0	F	187.5
16	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-3: Build Concept 2 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.3
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	358.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	88.6
6	Columbus Drive and Brunswick Street	F	116.3	F	137.2
7	Montgomery Street and Monmouth Street	F	95.5	F	96.3
8	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
9	York Street and Marin Boulevard	D	52	E	55.4
10	Grand Street and Center Street	F	> 200.0	F	117.2
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	183.7
2	14 th Street and Erie Street	E	59.8	E	60.2
3	14 th Street and Marin Boulevard	F	170.0	F	170.0
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	78.3
6	Columbus Drive and Brunswick Street	F	95.4	F	97.6
7	Columbus Drive and Monmouth Street	E	70.9	E	122.0
8	Columbus Drive and Jersey Street	E	61.6	F	159.0
9	Montgomery Street and Jersey Avenue	F	> 200.0	E	70.3
10	Montgomery Street and Grove Street	F	127.8	F	128.6
11	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
12	Grand Street and Monmouth Street	F	> 200.0	F	90.6
13	Grand Street and Grove Street	F	120.4	F	121.9
14	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-4: Build Concept 3 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.3
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	358	F	> 200.0
4	Columbus Drive and Greene Street	D	54.6	E	60.6
5	Montgomery Street and Monmouth Street	F	95.5	E	61.6
6	Montgomery Street and Jersey Avenue	D	54.9	F	102.6
7	Montgomery Street and Washington Street	C	25.0	F	91.0
8	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
9	York Street and Grove Street	C	33.9	E	68.2
10	York Street and Marin Boulevard	D	52.0	F	100.1
11	Grand Street and Center Street	F	> 200.0	F	136.0
12	Grand Street and Marin Boulevard	B	16.5	F	146.7
13	Merseles Street Extension	-	-	F	> 200.0

Table 7-4: Build Concept 3 (Intersections at LOS E or F) (Continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	183.7
2	14 th Street and Erie Street	E	59.8	E	60.2
3	14 th Street and Marin Boulevard	F	170.0	F	170.0
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	71.3
6	Columbus Drive and Monmouth Street	E	70.9	F	101.7
7	Montgomery Street and Monmouth Street	D	35.7	F	86.3
8	Montgomery Street and Jersey Avenue	F	> 200.0	F	182.5
9	Montgomery Street and Grove Street	F	127.8	F	129.0
10	Montgomery Street and Marin Street	C	24.9	F	101.4
11	Montgomery Street and Washington Street	D	39.2	F	> 200.0
12	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
13	York Street and Grove Street	C	32.2	E	63.7
14	Grand Street and Pacific Avenue	F	160.6	E	57.4
15	Grand Street and Monmouth Street	F	> 200.0	F	132.2
16	Grand Street and Grove Street	F	120.4	F	> 200.0
17	Grand Street and Washington Street	D	47.0	F	187.5
18	Grand Street and Greene Street	F	84.9	F	84.9
19	Merseles Street Extension	-	-	F	119.8

Table 7-5: Build Concept 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.3
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1st Street and Marin Boulevard	F	> 200.0	F	153.3
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Columbus Drive and Brunswick Street	F	116.3	F	119.9
6	Montgomery Street and Monmouth Street	F	95.5	F	95.8
7	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
8	York Street and Marin Boulevard	D	52.0	E	55.4
9	Grand Street and Center Street	F	> 200.0	F	107.7
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	183.7
2	14 th Street and Erie Street	E	59.8	E	60.2
3	14 th Street and Marin Boulevard	F	170.0	F	170.0
4	1 st Street and Marin Boulevard	C	33.1	F	96.1
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	65.3
7	Columbus Drive and Brunswick Street	F	95.4	F	94.3
8	Columbus Drive and Monmouth Street	E	70.9	E	72.0
9	Columbus Drive and Jersey Avenue	E	61.6	E	62.2
10	Montgomery Street and Center Street	F	19.4	E	57.9
11	Montgomery Street and Grove Street	F	127.8	F	128.5
12	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
13	Grand Street and Pacific Avenue	F	160.6	E	64.6
14	Grand Street and Monmouth Street	F	> 200.0	E	64.7
15	Grand Street and Grove Street	F	120.4	F	121.8
16	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-6: Build Concept 1 & 2 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.3
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	358.0	E	79.9
4	Newark Avenue and Brunswick Street	F	> 200.0	F	89.3
5	Newark Avenue and Jersey Avenue	F	90.3	F	90.1
6	Columbus Drive and Brunswick Street	F	116.3	E	61.3
7	Columbus Drive and Greene Street	D	54.6	E	60.7
8	Montgomery Street and Monmouth Street	F	95.5	F	86.6
9	Montgomery Street and Jersey Avenue	D	54.9	F	86.6
10	Montgomery Street and Greene Street	F	280.0	F	> 200.0
11	York Street and Grove Street	C	33.9	E	56.2
12	York Street and Marin Boulevard	D	52.0	F	84.7
13	Grand Street and Center Street	F	> 200.0	F	111.5
14	Grand Street and Jersey Avenue	B	10.8	F	80.7
15	Grand Street and Marin Boulevard	B	16.5	F	122.2

Table 7-6: Build Concept 1 & 2 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	F	80.8
6	Columbus Drive and Monmouth Street	E	70.9	F	90.4
7	Columbus Drive and Jersey Avenue	E	61.6	F	> 200.0
8	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
9	Montgomery Street and Marin Boulevard	C	24.9	F	102.1
10	Montgomery Street and Washington Street	D	39.2	F	> 200.0
11	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
12	York Street and Grove Street	C	32.2	E	60.3
13	Grand Street and Jersey Avenue	B	10.8	F	113.4
14	Grand Street and Grove Street	F	120.4	F	125.9
15	Grand Street and Marin Boulevard	A	9.8	E	66.6
16	Grand Street and Washington Street	D	47.0	F	190.5
17	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-7: Build Concept 1 & 3 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.8
6	Columbus Drive and Greene Street	D	54.6	E	60.7
7	Montgomery Street and Monmouth Street	F	95.5	E	62.9
8	Montgomery Street and Jersey Avenue	D	54.9	F	116.4
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	E	56.2
11	York Street and Marin Boulevard	D	52.0	F	84.7
12	Grand Street and Merseles Street	D	43.5	E	73.5
13	Grand Street and Center Street	F	> 200.0	F	105.6
14	Grand Street and Marin Boulevard	B	16.5	F	122.5

Table 7-7: Build Concept 1 & 3 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	69.4
6	Columbus Drive and Monmouth Street	E	70.9	F	99.9
7	Columbus Drive and Jersey Avenue	E	61.6	F	103.2
8	Montgomery Street and Monmouth Street	D	35.7	F	84.9
9	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
10	Montgomery Street and Marin Boulevard	C	24.9	F	103.5
11	Montgomery Street and Washington Street	D	39.2	F	> 200.0
12	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
13	Grand Street and Pacific Avenue	F	160.6	E	57.5
14	Grand Street and Monmouth Street	F	> 200.0	F	132.4
15	Grand Street and Jersey Avenue	B	10.8	F	84.5
16	Grand Street and Grove Street	F	120.4	F	131.7
17	Grand Street and Marin Boulevard	A	9.8	E	66.6
18	Grand Street and Washington Street	D	47.0	F	190.5
19	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-8: Build Concept 1 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.8
6	Columbus Drive and Brunswick Street	F	116.3	E	57.3
7	Columbus Drive and Greene Street	D	54.6	E	60.7
8	Montgomery Street and Center Street	F	132.5	E	58.0
9	Montgomery St and Monmouth Street	F	95.5	F	96.4
10	Montgomery Street and Jersey Avenue	D	54.9	F	98.3
11	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
12	York Street and Grove Street	C	33.9	E	56.2
13	York Street and Marin Boulevard	D	52.0	F	84.5
14	Grand Street and Center Street	F	> 200.0	E	77.6
15	Grand Street and Jersey Avenue	B	10.8	F	98.3
16	Grand Street and Marin Boulevard	B	16.5	F	122.0

Table 7-8: Build Concept 1 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	12 th Street and Jersey Avenue	D	53.2	E	55.0
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	69.5
7	Columbus Drive and Monmouth Street	E	70.9	F	111.0
8	Columbus Drive and Jersey Avenue	E	61.6	F	106.3
9	Montgomery Street and Center Street	F	129.4	F	102.4
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
11	Montgomery Street and Grove Street	F	127.8	F	128.4
12	Montgomery Street and Marin Boulevard	C	24.9	F	102.9
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	York Street and Grove Street	C	32.2	E	64.7
16	Grand Street and Monmouth Street	F	> 200.0	E	56.9
17	Grand Street and Jersey Avenue	B	10.8	F	> 200.0
18	Grand Street and Grove Street	F	120.4	F	> 200.0
19	Grand Street and Washington Street	D	47.0	F	190.5
20	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-9: Build Concept 2 & 3 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	> 200.0	E	79.7
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.4
6	Columbus Drive and Greene Street	D	54.6	E	61.8
7	Montgomery Street and Monmouth Street	F	95.5	E	62.9
8	Montgomery Street and Jersey Avenue	D	54.9	F	> 200.0
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	F	68.2
11	York Street and Marin Boulevard	D	52.0	E	100.8
12	Grand Street and Marin Boulevard	B	16.5	F	163.3
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	F	80.8
6	Columbus Drive and Monmouth Street	E	70.9	F	90.4
7	Columbus Drive and Jersey Avenue	E	61.6	F	> 200.0
8	Montgomery Street and Monmouth Street	D	35.7	F	84.9
9	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
10	Montgomery Street and Marin Boulevard	C	24.9	F	102.6
11	Montgomery Street and Washington Street	D	39.2	F	> 200.0
12	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
13	Grand Street and Monmouth Street	F	> 200.0	E	74.4
14	Grand Street and Jersey Avenue	B	10.8	F	82.0
15	Grand Street and Grove Street	F	120.4	F	137.3
16	Grand Street and Marin Boulevard	A	9.8	E	66.6
17	Grand Street and Washington Street	D	47.0	F	190.5
18	Grand Street and Greene Street	F	84.9	F	84.9
19	Merseles Street Extension	-	-	F	115.9

Table 7-10: Build Concept 2 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Columbus Drive and Brunswick Street	F	116.3	F	133.9
6	Montgomery Street and Monmouth Street	F	95.5	F	97.0
7	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
8	York Street and Marin Boulevard	D	52.0	E	55.5
9	Grand Street and Center Street	F	> 200.0	F	111.7
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	12 th Street and Jersey Avenue	D	53.2	E	60.2
5	1st Street and Marin Boulevard	C	33.1	F	95.5
6	Newark Avenue and Brunswick Street	F	86.8	F	87.1
7	Newark Avenue and Jersey Avenue	E	65.9	E	76.8
8	Columbus Drive and Brunswick Street	F	95.4	F	97.8
9	Columbus Drive and Monmouth Street	E	70.9	E	68.3
10	Columbus Drive and Jersey Avenue	E	61.6	F	119.9
11	Montgomery Street and Jersey Avenue	F	> 200.0	F	157.0
12	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
13	Grand Street and Monmouth Street	F	> 200.0	F	81.8
14	Grand Street and Grove Street	F	120.4	F	121.7
15	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-11: Build Concept 3 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	E	71.1	E	71.4
2	12th Street and Jersey Avenue	F	148.4	F	153.3
3	1st Street and Marin Boulevard	F	> 200.0	F	184.6
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.9
6	Columbus Drive and Greene Street	D	54.6	E	61.8
7	Montgomery Street and Monmouth Street	F	95.5	E	66.4
8	Montgomery Street and Jersey Avenue	D	54.9	F	102.0
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	E	68.2
11	York Street and Marin Boulevard	D	52.0	F	99.9
12	Grand Street and Merseles Street	D	43.5	E	75.9
13	Grand Street and Center Street	F	> 200.0	F	99.6
14	Grand Street and Jersey Avenue	B	10.8	E	71.0
15	Grand Street and Marin Boulevard	B	16.5	F	147.7

Table 7-11: Build Concept 3 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	12 th Street and Jersey Avenue	D	53.2	E	55.0
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	69.3
7	Columbus Drive and Monmouth Street	E	70.9	F	102.5
8	Columbus Drive and Jersey Avenue	E	61.6	F	105.7
9	Montgomery Street and Monmouth Street	D	35.7	F	86.5
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	195.5
11	Montgomery Street and Barrow Street	C	24.9	F	124.5
12	Montgomery Street and Marin Boulevard	C	24.9	F	103.5
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	Grand Street and Pacific Avenue	F	160.6	E	58.1
16	Grand Street and Monmouth Street	F	> 200.0	F	105.1
17	Grand Street and Jersey Avenue	B	10.8	F	98.4
18	Grand Street and Grove Street	F	120.4	F	133.1
19	Grand Street and Marin Boulevard	A	9.8	E	66.6
20	Grand Street and Washington Street	D	47.0	F	194.0
21	Grand Street and Greene Street	F	84.9	F	84.9
22	Merseles Street Extension	-	-	F	119.8

Table 7-12: Build Concept 1, 2 & 3 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	148.4
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.3
6	Columbus Drive and Brunswick Street	F	116.3	E	61.3
7	Columbus Drive and Greene Street	D	54.6	E	60.7
8	Montgomery Street and Monmouth Street	F	95.5	E	63.7
9	Montgomery Street and Jersey Avenue	D	54.9	F	85.2
10	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
11	York Street and Grove Street	C	33.9	E	56.2
12	York Street and Marin Boulevard	D	52.0	F	84.5
13	Grand Street and Center Street	F	> 200.0	F	101.1
14	Grand Street and Jersey Avenue	B	10.8	E	77.4
15	Grand Street and Marin Boulevard	B	16.5	F	122.0

Table 7-12: Build Concept 1, 2 & 3 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	183.7	F	174.3
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	F	80.8
6	Columbus Drive and Monmouth Street	E	70.9	F	90.4
7	Columbus Drive and Jersey Avenue	E	61.6	F	> 200.0
8	Montgomery Street and Monmouth Street	D	35.7	F	86.4
9	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
10	Montgomery Street and Grove Street	F	127.8	F	129.0
11	Montgomery Street and Marin Boulevard	C	24.9	F	102.9
12	Montgomery Street and Washington Street	D	39.2	F	> 200.0
13	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
14	York Street and Grove Street	C	32.2	E	63.7
15	Grand Street and Monmouth Street	F	> 200.0	F	109.6
16	Grand Street and Jersey Avenue	B	10.8	F	98.7
17	Grand Street and Grove Street	F	120.4	F	> 200.0
18	Grand Street and Washington Street	D	47.0	F	190.5
19	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-13: Build Concept 1, 2 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1 st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.4
6	Columbus Drive and Brunswick Street	F	116.3	E	66.6
7	Columbus Drive and Greene Street	D	54.6	E	60.7
8	Montgomery Street and Monmouth Street	F	95.5	F	97.7
9	Montgomery Street and Jersey Avenue	D	54.9	F	139.0
10	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
11	York Street and Grove Street	C	33.9	E	56.2
12	York Street and Marin Boulevard	D	52.0	F	84.7
13	Grand Street and Center Street	F	> 200.0	F	108.0
14	Grand Street and Jersey Avenue	B	10.8	F	111.6
15	Grand Street and Marin Boulevard	B	16.5	F	122.5

Table 7-13: Build Concept 1, 2 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	F	> 200.0	F	184.1
2	14 th Street and Erie Street	E	59.8	E	58.9
3	14 th Street and Marin Boulevard	F	170.0	F	169.7
4	12 th Street and Jersey Avenue	D	53.2	E	55.0
5	1 st Street and Marin Boulevard	C	33.1	F	90.1
6	Newark Avenue and Brunswick Street	F	86.8	F	87.1
7	Newark Avenue and Jersey Avenue	E	65.9	E	79.8
8	Columbus Drive and Monmouth Street	E	70.9	F	102.3
9	Columbus Drive and Jersey Avenue	E	61.6	F	128.6
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
11	Montgomery Street and Grove Street	F	127.8	F	131.8
12	Montgomery Street and Marin Boulevard	C	24.9	F	101.8
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	York Street and Grove Street	C	32.2	E	58.7
16	Grand Street and Jersey Avenue	B	10.8	F	141.3
17	Grand Street and Grove Street	F	120.4	F	137.3
18	Grand Street and Marin Boulevard	A	9.8	E	66.6
19	Grand Street and Washington Street	D	47.0	F	190.5
20	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-14: Build Concept 1, 3 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1st Street and Marin Boulevard	F	> 200.0	E	68.8
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.9
6	Columbus Drive and Greene Street	D	54.6	E	61.2
7	Montgomery Street and Monmouth Street	F	95.5	E	63.4
8	Montgomery Street and Jersey Avenue	D	54.9	F	116.8
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	E	68.2
11	York Street and Marin Boulevard	D	52.0	F	99.9
12	Grand Street and Merseles Street	D	43.5	E	73.6
13	Grand Street and Center Street	F	> 200.0	F	105.6
14	Grand Street and Jersey Avenue	B	10.8	F	121.9
15	Grand Street and Marin Boulevard	B	16.5	F	147.7

Table 7-14: Build Concept 1, 3 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	F	183.7	F	184.1
2	14th Street and Erie Street	E	59.8	E	58.9
3	14th Street and Marin Boulevard	F	170.0	F	169.7
4	12th Street and Jersey Avenue	D	53.2	E	55.0
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	69.3
7	Columbus Drive and Monmouth Street	E	70.9	F	102.5
8	Columbus Drive and Jersey Avenue	E	61.6	F	105.7
9	Montgomery Street and Monmouth Street	D	35.7	F	90.4
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	194.3
11	Montgomery Street and Grove Street	F	127.8	F	129.0
12	Montgomery Street and Marin Boulevard	C	24.9	F	102.9
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	York Street and Grove Street	C	32.2	E	63.7
16	Grand Street and Pacific Avenue	F	160.6	E	58.1
17	Grand Street and Monmouth Street	F	> 200.0	F	140.5
18	Grand Street and Jersey Avenue	B	10.8	F	99.1
19	Grand Street and Grove Street	F	120.4	F	> 200.0
20	Grand Street and Washington Street	D	47.0	F	190.5
21	Grand Street and Greene Street	F	84.9	F	84.9
22	Merseles Street Extension	-	-	F	119.8

Table 7-15: Build Concept 2, 3 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14 th Street and Jersey Avenue	E	71.1	E	71.4
2	12 th Street and Jersey Avenue	F	148.4	F	153.3
3	1 st Street and Marin Boulevard	F	> 200.0	F	184.6
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.4
6	Columbus Drive and Greene Street	D	54.6	E	61.8
7	Montgomery Street and Monmouth Street	F	95.5	E	63.7
8	Montgomery Street and Jersey Avenue	D	54.9	F	121.6
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	E	68.2
11	York Street and Marin Boulevard	D	52.0	F	147.4
12	Grand Street and Merseles Street	D	43.5	F	170.6
13	Grand Street and Center Street	F	> 200.0	F	113.8
14	Grand Street and Jersey Avenue	B	10.8	F	136.7
15	Grand Street and Marin Boulevard	B	16.5	F	147.4
16	Merseles Street Extension	-	-	F	186.8

Table 7-15: Build Concept 2, 3 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	F	183.7	F	184.1
2	14th Street and Erie Street	E	59.8	E	58.9
3	14th Street and Marin Boulevard	F	170.0	F	169.7
4	12th Street and Jersey Avenue	D	53.2	E	55.0
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	79.8
7	Columbus Drive and Monmouth Street	E	70.9	F	96.0
8	Columbus Drive and Jersey Avenue	E	61.6	F	127.7
9	Montgomery Street and Monmouth Street	D	35.7	F	86.4
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
11	Montgomery Street and Grove Street	F	127.8	F	130.8
12	Montgomery Street and Marin Boulevard	C	24.9	F	102.9
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	York Street and Grove Street	C	32.2	E	56.2
16	Grand Street and Monmouth Street	F	> 200.0	F	110.9
17	Grand Street and Jersey Avenue	B	10.8	F	112.2
18	Grand Street and Grove Street	F	120.4	F	133.1
19	Grand Street and Marin Boulevard	A	9.8	E	66.6
20	Grand Street and Washington Street	D	47.0	F	190.5
21	Grand Street and Greene Street	F	84.9	F	84.9
22	Merseles Street Extension	-	-	F	115.9

Table 7-16: Build Concept 1, 2, 3 & 4 (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	E	71.1	E	71.4
2	12th Street and Jersey Avenue	F	148.4	F	153.3
3	1st Street and Marin Boulevard	F	> 200.0	F	184.6
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Columbus Drive and Jersey Street	B	17.9	E	60.5
6	Columbus Drive and Greene Street	D	54.6	E	61.8
7	Montgomery Street and Monmouth Street	F	95.5	E	63.6
8	Montgomery Street and Jersey Avenue	D	54.9	F	111.3
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	York Street and Grove Street	C	33.9	E	68.2
11	York Street and Marin Boulevard	D	52.0	F	99.9
12	Grand Street and Merseles Street	D	43.5	E	72.0
13	Grand Street and Center Street	F	> 200.0	F	105.6
14	Grand Street and Jersey Avenue	B	10.8	F	121.1

Table 7-16: Build Concept 1, 2, 3 & 4 (Intersections at LOS E or F) (continued)

PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	F	183.7	F	184.1
2	14th Street and Erie Street	E	59.8	E	58.9
3	14th Street and Marin Boulevard	F	170.0	F	169.7
4	12th Street and Jersey Avenue	D	53.2	E	55.0
5	Newark Avenue and Brunswick Street	F	86.8	F	87.1
6	Newark Avenue and Jersey Avenue	E	65.9	E	73.0
7	Columbus Drive and Monmouth Street	E	70.9	F	98.2
8	Columbus Drive and Jersey Avenue	E	61.6	F	132.2
9	Montgomery Street and Monmouth Street	D	35.7	F	86.5
10	Montgomery Street and Jersey Avenue	F	> 200.0	F	> 200.0
11	Montgomery Street and Grove Street	F	127.8	F	129.2
12	Montgomery Street and Marin Boulevard	C	24.9	F	102.9
13	Montgomery Street and Washington Street	D	39.2	F	> 200.0
14	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
15	Grand Street and Monmouth Street	F	> 200.0	F	129.7
16	Grand Street and Jersey Avenue	B	10.8	F	102.3
17	Grand Street and Grove Street	F	120.4	F	154.8
18	Grand Street and Marin Boulevard	A	9.8	E	68.4
19	Grand Street and Washington Street	D	47.0	F	190.5

Table 7-17: Build Transit North (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	E	71.1	E	71.4
2	12th Street and Jersey Avenue	F	148.4	F	154.1
3	1st Street and Marin Boulevard	F	> 200.0	F	> 200.0
4	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
5	Newark Avenue and Jersey Avenue	F	90.3	F	89.3
6	Columbus Drive and Brunswick Street	F	116.3	F	110.0
7	Montgomery Street and Center Street	F	132.5	E	68.5
8	Montgomery Street and Monmouth Street	F	95.5	F	96.2
9	Montgomery Street and Greene Street	F	> 200.0	F	231.9
10	York Street and Marin Boulevard	C	33.9	E	55.4
11	Grand Street and Center Street	D	52.0	F	106.1
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	F	183.7	F	184.1
2	14th Street and Erie Street	E	59.8	E	58.9
3	14th Street and Marin Boulevard	F	170.0	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	65.4
6	Columbus Drive and Brunswick Street	F	95.4	F	92.2
7	Columbus Drive and Monmouth Street	E	70.9	E	71.6
8	Columbus Drive and Jersey Avenue	E	61.6	E	62.2
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	Grand Street and Pacific Avenue	F	160.6	E	69.3
11	Grand Street and Monmouth Street	F	> 200.0	F	113.2
12	Grand Street and Grove Street	F	120.4	F	121.8
13	Grand Street and Greene Street	F	84.9	F	84.9

Table 7-18: Build Transit South (Intersections at LOS E or F)

AM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	E	71.1	E	71.4
2	12th Street and Jersey Avenue	F	148.4	F	149.5
3	Newark Avenue and Brunswick Street	F	> 200.0	F	> 200.0
4	Newark Avenue and Jersey Avenue	F	90.3	F	89.4
5	Columbus Drive and Brunswick Street	F	116.3	F	103.3
6	Montgomery Street and Center Street	F	132.5	E	65.2
7	Montgomery Street and Monmouth Street	F	95.5	F	96.2
8	York Street and Marin Boulevard	C	33.9	E	55.4
9	Grand Street and Center Street	D	52.0	F	100.1
PM Peak Hour					
	Intersection	No Build		Build	
		LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
1	14th Street and Jersey Avenue	F	183.7	F	184.1
2	14th Street and Erie Street	E	59.8	E	58.9
3	14th Street and Marin Boulevard	F	170	F	169.7
4	Newark Avenue and Brunswick Street	F	86.8	F	87.1
5	Newark Avenue and Jersey Avenue	E	65.9	E	65.4
6	Columbus Drive and Brunswick Street	F	95.4	E	72.8
7	Columbus Drive and Monmouth Street	E	70.9	E	73.0
8	Columbus Drive and Jersey Avenue	E	61.6	E	63.0
9	Montgomery Street and Greene Street	F	> 200.0	F	> 200.0
10	Grand Street and Pacific Avenue	F	160.6	E	69.3
11	Grand Street and Monmouth Street	F	> 200.0	F	109.0
12	Grand Street and Grove Street	F	120.4	F	121.8
13	Grand Street and Greene Street	F	84.9	F	84.9

7.3 PROJECT SCORES / RANKING

The projects were scored based on the total points awarded for each of the criteria. The maximum number of points a project could receive was 1,000. The projects were then ranked in order according their relative scores. The roadway and transit projects were ranked separately.

The scores and rankings of the roadway project are shown below in Table 7-19, the ranking of the transit projects is shown in Table 7-20.

Table 7-19: Scores and Rankings of Roadway Projects

Project	Description	Total Points (out of maximum 1000)	Project Ranking	Approximate Cost		Time Frame		AM Peak - Regional		AM Peak - Local		PM Peak - Regional		PM Peak - Local		Ped and Bicycle Accessibility		Access to Study Area		Ped and Vehicular Safety		Construction and Env. Impacts		
				Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score
Enhanced No Build	Signal Optimization + Spot Improvements	838	1	Less than \$5 Million	Low	185	Short Term	181	Very Ben	101	Very Ben	96	Very Ben	72	Neutral	31	Neutral	29	Neutral	41	Neutral	45	Farther	57
Concept 1	Jersey Avenue Extension	819	2	\$7 Million	Low	185	Short Term	181	Very Ben	101	Beneficial	67	Very Ben	72	Detrimental	0	Neutral	29	Beneficial	82	Neutral	45	Farther	57
Concept 3	Merseles-Aetna-Wilson Extension	727	7	\$14 Million	Medium	129	Short Term	181	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Medium	28
Concept 4	11th Street Viaduct	716	8	\$40 Million	High	74	Short Term	181	Very Ben	101	Very Ben	96	Very Ben	72	Neutral	31	Neutral	29	Neutral	41	Improves	91	Nearer	0
Concept 2	Center-Merseles Structures over Montgomery	713	9	\$18 Million	Medium	129	Short Term	181	Very Ben	101	Neutral	38	Very Ben	72	Neutral	31	Neutral	29	Neutral	41	Improves	91	Nearer	0
No Build	Only Currently Approved Projects	676	10	N/A	Low	185	Short Term	181	Neutral	40	Neutral	38	Neutral	29	Neutral	31	Neutral	29	Neutral	41	Neutral	45	Farther	57
Concept 1&2	[see above]	644	11	\$25 Million	High	74	Short Term	181	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&3	[see above]	643	12	\$21 Million	High	74	Short Term	181	Very Ben	101	Neutral	38	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Medium	28
Concept 2&4	[see above]	642	13	\$58 Million	Very High	0	Short Term	181	Very Ben	101	Very Beneficial	96	Very Ben	72	Neutral	31	Neutral	29	Neutral	41	Improves	91	Nearer	0
Concept 2&3	[see above]	615	15	\$32 Million	High	74	Short Term	181	Very Ben	101	Neutral	38	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&2&3	[see above]	590	16	\$39 Million	High	74	Medium Term	127	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&4	[see above]	570	19	\$47 Million	Very High	0	Short Term	181	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 3&4	[see above]	570	19	\$54 Million	Very High	0	Short Term	181	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&2&4	[see above]	516	21	\$65 Million	Very High	0	Medium Term	127	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&3&4	[see above]	487	22	\$61 Million	Very High	0	Medium Term	127	Very Ben	101	Neutral	38	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 2&3&4	[see above]	487	22	\$72 Million	Very High	0	Medium Term	127	Very Ben	101	Neutral	38	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Concept 1&2&3&4	[see above]	461	24	\$79 Million	Very High	0	Long Term	72	Very Ben	101	Beneficial	67	Beneficial	50	Very Detrimental	-31	Neutral	29	Beneficial	82	Improves	91	Nearer	0

Table 7-20: Scores and Rankings of Transit Projects

Project	Description	Total Points (out of maximum 1000)	Project Ranking	Approximate Cost		Time Frame	Points	AM Peak - Regional		AM Peak - Local		PM Peak - Regional		PM Peak - Local		Ped and Bicycle Accessibility		Access to Study Area		Ped and Vehicular Safety		Construction and Env. Impacts		
				Score	Points			Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score	Points	Score
Enhanced No Build	Signal Optimization + Spot Improvements	838	1	Less than \$5 Million	Low	185	Short Term	181	Very Ben	101	Very Ben	96	Very Ben	72	Neutral	31	Neutral	29	Neutral	41	Neutral	45	Farther	57
Transit 5	Improved Bus Service to/from JC	803	3	Less than \$5 Million	Low	185	Short Term	181	Beneficial	71	Beneficial	67	Beneficial	50	Neutral	31	Neutral	29	Neutral	41	Improves	91	Farther	57
Transit 6	Staten Island Feeder Service to HBLRT	803	3	Less than \$5 Million	Low	185	Short Term	181	Beneficial	71	Beneficial	67	Beneficial	50	Neutral	31	Neutral	29	Neutral	41	Improves	91	Farther	57
Transit 7	Port Liberte Feeder Service	803	3	Less than \$5 Million	Low	185	Short Term	181	Beneficial	71	Beneficial	67	Beneficial	50	Neutral	31	Neutral	29	Neutral	41	Improves	91	Farther	57
Transit 3	Intercept Parking at External Location	746	6	\$5 Million	Low	185	Short Term	181	Beneficial	71	Beneficial	67	Beneficial	50	Neutral	31	Neutral	29	Neutral	41	Improves	91	Nearer	0
No Build	Only Currently Approved Projects	676	10	N/A	Low	185	Short Term	181	Neutral	40	Neutral	38	Neutral	29	Neutral	31	Neutral	29	Neutral	41	Neutral	45	Farther	57
Transit 4	Intercept Parking at Internal Location	619	14	\$5 Million	Low	185	Short Term	181	Neutral	40	Neutral	38	Neutral	29	Neutral	31	Neutral	29	Neutral	41	Neutral	45	Nearer	0
Transit 1	Bergen Arches/6th Street Embankment LRT	574	17	Greater than \$100 Million	Very High	0	Long Term	72	Very Ben	101	Very Ben	96	Very Ben	72	Neutral	31	Neutral	29	Beneficial	82	Improves	91	Nearer	0
Transit 2	Bergen Arches/6th Street Embankment BRT	574	17	Greater than \$100 Million	Very High	0	Long Term	72	Very Ben	101	Very Ben	96	Very Ben	72	Neutral	31	Neutral	29	Beneficial	82	Improves	91	Nearer	0

Notes:

The transit options assumed a maximum reduction of 400 vehicles during AM and PM peak hours

The potential internal intercept parking location is at Monmouth and Grand Streets

The potential external intercept parking locations are a the following seven locations:

- 1) Secaucus Transfer Station
- 2) Meadowlands Sports Complex
- 3) Bayonne
- 4) Tonnelle Avenue
- 5) Liberty State Park
- 6) Newark (Near NJ Turnpike Interchange 14)
- 7) Elizabeth