III. PROJECT ALTERNATIVES

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Introduction

During project development, various alternatives including the Preferred Alternative (Figure III-1) and the No-Build Alternative were considered. After assessment of these alternatives, the Preferred Alternative was developed to be advanced through final design and the environmental review process. The alternative described below has been selected as the Preferred Alternative and is the subject of this EA.

B. Proposed Project Description

The proposed project involves the widening and reconstruction of First Street between Sussex Avenue and West Market Street in Newark's Central Ward. The length of the project is 523.4 meters. The approximate cost of the proposed action is estimated at $9,400,000, including right-of-way acquisition, utility relocation, and construction costs.

The proposed project consists of the following elements:

1. Widen First Street from Sussex Avenue to West Market Street, to consist of two 12-foot to 13-foot wide through lanes in each direction.

2. The design of the West Market Street intersection will include dual left-turning lanes with protected signal phasing in the northbound and southbound directions, a northwest corner curb realignment to improve pedestrian safety, a free southbound right turn lane and refuge island to improve operations and pedestrian safety, and the closure of the approach to Hartford Street.

3. Full time parking prohibitions (rather than peak period only) along Central Avenue approaches within one block of the University Heights Connector to allow two cross street approach lanes in each direction during all periods.

4. Addition of a traffic signal and a southbound left-turn bay at the Dickerson Street intersection to enhance traffic safety and operations.

5. A 22-foot wide landscaped and brick paved median narrowed to provide turning at key intersections. Mountable curbing is proposed to facilitate access for emergency vehicles under extreme conditions in the traffic corridor.

6. Eliminate parking and shoulders within the project corridor.

7. New curbing along the east and west sides of the proposed street.

Insert Figure III-1

8. Widen the sidewalk along the east side of the right-of-way by three feet to provide a nine-foot sidewalk with a four-foot clearance strip. A ten-foot wide sidewalk and clearance strip are proposed for the west side of the right-of-way.

9. A ten-foot wide Class 1 bikeway along the west side of the University Heights Connector. This improvement conforms with the City's Newark Greenway Plan.

10. Traffic signals along the University Heights Connector will be included in Newark's UTCS program.

11. New street lighting, street trees, and street furniture (including benches and trash receptacles) along First Street.

C. Considered And Rejected Alternatives

To address the traffic circulation and safety problems and deficiencies documented in Section II of this EA, eleven alternatives, a No-Build Alternative and ten build alternatives, were considered. The ten build alternatives are all based on the project needs set forth in Section II of this EA.

No-Build Alternative

Under the No-Build Alternative, there would be no widening of the existing roadway within the First Street corridor, and only routine or emergency maintenance and repair would be performed. The No-Build Alternative does not meet the purpose and need of the proposed project because it would not correct existing substandard traffic and safety conditions. The No-Build Alternative would maintain the existing street system and community elements. Although the No-Build Alternative does not involve any property acquisition, it does negatively impact residences and businesses located on and near First Street. Under the No-Build Alternative, chronic traffic congestion would persist during both peak periods along First Street, and continue to result in commuter diversions through adjacent residential neighborhoods. Emergency access and other trips to the University of Medicine and Dentistry of New Jersey would be curtailed. Pedestrian safety will not be improved, and the city's bikeway project will be incomplete. The No-Build Alternative does not satisfy the purpose and need for the proposed project, nor does it address the objectives of the State of New Jersey or the City of Newark for improved access to the city's Central Ward.

Build Alternatives

As the First Street corridor must be widened to properly serve the immediate and long-term traffic needs of the City, the following nine build alternatives that would avoid the acquisition and demolition of 400-406, a historic architectural resource, were considered and rejected:

Widen First Street along the east side of the existing right-of-way;
West-East shift;
Widen roadway within the existing First Street right-of-way;
Widen First Street within the existing right-of-way with TSM and reversible lanes;

Limited widening of First Street and enhancing cross streets;
One-way couplet (First and Second Street);
One-way couplet (First Street and Morris Avenue);
Shift University Heights Connector to Second Street;
Shift University Heights Connector to Morris Avenue.

These alternatives are described in detail in Section VI of this EA. As demonstrated in the evaluation in Section VI, no feasible and prudent alternatives to the proposed project were identified.

In addition, an alternative that would entail a partial widening on both sides of First Street was considered and rejected. This alternative would require the acquisition of building frontage on both sides of the street at most locations. Existing building facades are generally located along the existing right-of-way with stoop and cellar encroachments into the right-of-way at several locations. As a result, the partial widening alternative would have a large cumulative effect upon property acquisition, with adverse impacts to both sides of First Street. This alternative would require the acquisition of all buildings to be acquired under the proposed project plus those that would be acquired under the east side alternative. This alternative would provide no benefit that would not also be provided by the proposed project, and would still require the acquisition of 400-406 Central Avenue. The partial widening alternative is not considered viable

Intersection Improvement Measures Dropped From Consideration

Traffic analyses performed for the Design Year 2025 indicate that Levels of Service worse than 'D' (i.e., LOS 'E' or 'F') will continue to occur throughout the improved corridor. This condition was known to the Department and the City of Newark prior to the initiation of the Final Scope Development and Environmental Assessment effort. The project advanced on the basis of the Preferred Alternative because the benefits provided to the community and the general public, in terms of safety, operations, access, pedestrian and bicycle amenities and aesthetics, remain considerable in comparison to the "No-Build" alternative. There are corrective measures that theoretically could be employed to improve these conditions to a Level of Service 'D' or better. However, the remedies to the Level of Service generally have adverse impacts that would prove either unacceptable, or at least greater than their benefits. These possible remedies and their disadvantages include:

- **Third Through Lane in Each Direction along First Street**. The cross section of the recently improved section of First Street at the northern project limits is restricted by the presence of two culturally significant buildings. Any further widening would result in an adverse impact to one or both of these buildings. Secondly, additional through lanes at the southern project limits would not eliminate the need for additional left turn lane capacity (see West Market Street intersection discussion, below), and, therefore, require further widening and property acquisition at the West Market Street intersection. Widening would require that either or both the Wendy's (northwest corner) and Checkers (northeast corner) Restaurants to be acquired, and parking at the McDonald's (southwest corner) would be adversely affected. Finally, further corridor widening would lessen the redevelopment potential of remainder

areas along the west side of First Street (should the NJDOT decide to resell these areas) and create a wider-than-desired corridor adjacent to the residential areas to the west.

- **Widening of Key Cross Streets (West Market Street, Central Avenue)**. Benefits to through traffic along both streets would occur if each roadway is widened by a total of twelve feet to facilitate a left turn lane for east-west traffic. In both cases, queued left turn volumes have a significant impact upon the through traffic using the shared lane, in some cases converting the shared lane into a *de facto* turn lane. In these cases, property acquisition or sidewalk narrowing impacts would likely extend up to 400 feet beyond the First Street intersection. These widenings are deemed beyond the scope of the University Heights Connector project.

- **Signalization at New Street**. Despite the LOS 'F' related to current and long term operations, signal warrants based on traffic would not be met for this intersection. Review of 1998-2000 accident history indicates the signals could be warranted based on the number of right angle and turning accidents. However, this intersection is within 300 feet of the signal at West Market Street, and could actually confuse operations at the location due to the close proximity. Alignment benefits and coordination of signalization gaps at adjoining intersections will improve operations and intersection sight distance, and likely address right angle accident concerns. At this time, it is recommended that the New Street median opening remain operative, based on the following consideration;

    a. Improvements within the Preferred Alternative will ease and control the queuing that currently restricts sight distance.

    b. Closure of Hartford Street reinforces the use of New Street for emergency vehicles.

    c. Proposed right-of-way acquisition will eliminate existing physical sight obstructions, improving sight distance.

    d. The 22-foot wide median can provide a refuge area for drivers unsure of their safety as cross traffic.

Closure or Re-direction of New Street. Prohibiting through traffic along New Street, projected to operate at LOS 'F', is feasible, but undesirable. Median closure would require local traffic to divert to either Central Avenue or West Market Street for left or U-turns to driveways. Emergency vehicle access would be lessened, and off-peak operations that may otherwise be satisfactory would be curtailed. Instead, the benefits noted above will improve operations at the intersection.