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## MEMORANDUM

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Date: May 16, 2014

Project #: 10753

To: Jeannette Brugger, AICP  
Philadelphia City Planning Commission (PCPC)  
1515 Arch Street, 13<sup>th</sup> Floor  
Philadelphia, PA 19102

From: Adam Vest, PE, PTOE

Project: Washington Avenue Transportation and Parking Study

Subject: Project Summary

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The Washington Avenue Transportation and Parking Study is a Transportation and Community Design Initiative (TCDI) grant funded by the Delaware Valley Regional Planning Commission (DVRPC). As identified in the approved scope of work, the primary objectives include:

- Identifying potential safety improvements for bicycles and pedestrians, as well as general ways to better accommodate a variety of travel modes; specifically, this project will develop a street design allowing continuous on-street bicycle facilities through the length of the study corridor.
- Assessing traffic impacts of potential changes to the roadway section.

Kittelison & Associates, Inc. (KAI) and Boles, Smyth Associates, Inc. completed a detailed evaluation to guide the development of a short-term marking and signing plan, while laying the framework for longer range direction on Washington Avenue. Key supporting analysis included a detailed parking and loading evaluation, traffic analysis, and safety review. The project also included a series of working, stakeholder, and community meetings.

## SUPPORTING ANALYSIS

Several forms of analysis, evaluation, and on-site review/data collection were completed to support and inform recommendations for the Washington Avenue corridor. These include an evaluation and inventory of the existing parking and loading supply, demand, and operations; a review of all crash data for a 3-year time frame (2010-2012); and detailed traffic operations analysis of each signalized intersection along the study corridor (i.e., AM and PM peak hour) for all proposed conceptual configurations.

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## Parking and Loading Evaluation

In July 2013, the team conducted a detailed parking and loading evaluation along Washington Avenue between Grays Ferry Avenue and Broad Street. Specific tasks included:

- Inventory of types of parking (i.e., parallel, head-on, median), loading zones, no stopping zones, and driveway locations.
- An all-day parking duration study, including parking occupancy, duration of parked vehicles, and parking observations (e.g., double parking, median parking, enforcement, pavement markings, signage).
- Memorandum of findings, including detailed parking analysis and results, pictures, and mapping of findings.

The findings of the parking evaluation were shared at Public Meeting #1.

## Crash Summary and Evaluation

A safety evaluation was conducted using crash data from 2010 to 2012 for the entirety of the Washington Avenue study corridor. Crash data was summarized by crash type, crash severity, crash mode (i.e., vehicle, pedestrian, bicyclist), and then mapped. Key findings include:

- Crashes cluster between 5<sup>th</sup> Street and 9<sup>th</sup> Street and between 9<sup>th</sup> Street and 17<sup>th</sup> Street, likely due to the high number of conflicts in these areas.
- Bicyclists and pedestrians have become vulnerable users along the corridor, particularly between 5<sup>th</sup> Street and 15<sup>th</sup> Street
- Nighttime visibility is a concern on the west side of the corridor.

The findings of the parking evaluation were shared at Public Meeting #1.

## Traffic Analysis

A detailed AM and PM peak hour traffic operations analysis was completed under a variety of typical section scenarios, including:

- Existing Condition (2 lanes per direction and a two-way left-turn lane)
- Three-Lane Condition (1 lane per direction and a two-way left-turn lane/left-turn lanes)
- Four-Lane Condition (2 lanes per direction)
- Hybrid option, including a combination of the three-lane and four-lane proposals.

In addition to modifications to the number of lanes, other considerations included modifications to cycle lengths, progression speed, and modifications to pedestrian clearance intervals. A series of summary memorandums were submitted in November and December of 2013. While some of the traffic operations analysis were shared at both public meetings, much of the detailed and technical discussions were between the Streets Department, PCPC, and the consultant team.

## PUBLIC AND STAKEHOLDER OUTREACH

A series of public and agency stakeholder meetings were conducted

- Steering committee Kick-off meeting on June 4, 2013
- Parking and Right-of-Way Enforcement Agency meeting on August 15, 2013
- Steering Committee Meeting on September 25, 2013
- Public Meeting #1 on September 25, 2013 - The Mummers Museum
- Steering Committee Meeting on March 11, 2014
- Public Meeting #2 on March 11, 2014 – Grace and Peace Community Church

## CORRIDOR CONCEPTS

Using public feedback and supporting analysis, a short-term marking concept was developed for Washington Avenue. The concept was shared with the community and stakeholders during the stakeholder meeting and Public Meeting #2 held on March 11, 2014. Further modifications were also made to the concepts based on comments from the Streets Department, stakeholders, and the general public. Final short-term concepts were submitted to the Streets Department (PDF and AutoCAD) on April 16, 2014 in order for the Streets Department to then develop final signing and marking plans. In short, the final concepts included the following elements:

- A 3-lane cross section west of 16<sup>th</sup> Street, including angle parking and bike lanes. This section includes 1 travel lane per direction, left-turn lanes and right-turn lane pockets as needed.
- A 5-lane cross section between 16<sup>th</sup> Street and 13<sup>th</sup> Street, including parallel parking and bike lanes. This section includes 2 travel lanes per direction and left-turn lanes.
- A transitional 4-lane section between 13<sup>th</sup> Street and 12<sup>th</sup> Street, including a combination of angle and parallel parking on the north and south sides, respectively. Bike lanes are also included.
- A 3-lane cross section between 12<sup>th</sup> Street and 5<sup>th</sup> Street, including angle parking and bike lanes. This section includes 1 travel lane per direction, left-turn lanes and right-turn lane pockets as needed.
- A transitional 4-lane section between 5<sup>th</sup> Street and 4<sup>th</sup> Street, including a combination of angle and parallel parking on the south and north sides, respectively. Bike lanes are also included.
- A 5-lane cross section between 4<sup>th</sup> Street and Columbus Avenue, including parallel parking on the north side and bike lanes. This section includes 2 travel lanes per direction and left-turn lanes. Similar to today's configuration, no on-street parking is provided on the south side, although parking is provided on along the frontage road.

Ongoing outreach to the community, stakeholders, and public officials is continuing to ensure all comments and concerns are addressed through the planning, design, and implementation stage of the Washington Avenue Transportation and Parking Study.