National Capital Region
Transportation Planning Board

MEMORANDUM

TO: TPB Technical Committee

FROM: Charlene Howard, TPB Transportation Planner
           John Swanson, TPB Transportation Planner

SUBJECT: Status Report on the Identification of Regional "Transit Access Focus Areas"

DATE: February 28, 2020

In December of 2018, through Resolution R10-2019, the TPB directed its staff to identify a prioritized list of transit station areas that have significant need and opportunity for better pedestrian and bicycle connections to transit. Based on this directive, TPB staff launched a project to develop a list of "Transit Access Focus Areas" (TAFAs) through a process of 1) regional analysis and 2) outreach to our local government jurisdictions.

Last year, TPB staff developed a draft list of TAFAs and conducted informal meetings with the staff of large jurisdictions to discuss the process and the inputs and outputs for this project. Staff is currently determining how to address feedback received in those meetings before developing a revised list of TAFAs, conducting additional outreach, and finalizing the project. TPB staff currently anticipates that the TPB will be asked to approve the TAFA list in May or June of 2020.

PURPOSE

Out of the large collection of high-capacity transit stations in the region, the TPB has determined it will be helpful to identify a focused list of station areas where pedestrian and bicycle improvements could have a particularly significant impact. These are places where critical gaps currently exist and opportunities to increase walking and biking to transit are significant.

The TPB expects that the list of station areas identified through this effort will receive priority consideration for funding by the TPB's member jurisdictions and agencies. In addition, projects at these station areas will receive additional consideration for funding through the Transportation Land-Use Connections (TLC) Program, grant funding from the Transportation Alternatives Set-Aside Program (TAP), and other potential regionally oriented funding programs and opportunities.

BACKGROUND

Visualize 2045, the long-range transportation plan approved by the TPB in 2018, identified "Improving Walk and Bike Access to Transit" as one of seven regional initiatives that can positively affect travel conditions in the future. The plan noted that there are still too many station areas in our region where people drive to transit because walking and biking are too time-consuming, too unpleasant, or too unsafe. Visualize 2045 said that investments to remedy these conditions should be considered regionally significant because they will not simply serve local circulation needs but will also improve access to regional transit systems, including Metrorail, commuter rail, light rail, and bus rapid transit.

Following the approval of Visualize 2045, the TPB determined that the next step in moving this initiative forward should focus on providing geographic specificity to the concept. On December 19, 2018, the TPB approved Resolution R10-2019 to "take action on recommended project, program, and policy ideas that would implement the TPB's aspirational initiatives identified in its Visualize 2045 plan."

Among other activities, the resolution directed TPB staff to:

> "Identify a set of regionally prioritized high capacity transit stations where pedestrian/ bicycle access improvements have the greatest potential to utilize available capacity and increase transit ridership, by building on the previous work by the TPB and WMATA, and report on progress by end of June 2019."

KEY PRINCIPLES

Several key principles underpin the development of the list of Transit Access Focus Areas:

- *Prioritize locations where changes would have the greatest impact*

  This project is intended to identify the places where improved pedestrian and biking facilities would have the greatest impact. Key criteria for selection are focusing on identifying places where it is it difficult to walk and bike to transit, as well as places where there is significant potential demand for walking and biking. That means that places where walking is already fairly easy would not be included. Similarly, transit station areas in low-density communities without a lot of potential pedestrians or bicyclists would not be included.

- *Identify places, not projects*

  The list of Transit Access Focus Areas will build upon past studies that the TPB and WMATA have conducted to promote station access.[1] However, while those studies identified specific pedestrian and bicycle projects, this new effort is taking a different approach. Rather than identifying individual improvements — such as sidewalks or trails — TPB staff and our partners have determined it would be most appropriate with this new effort to broadly identify the stations and surrounding areas where such improvements could have a significant impact. Specific projects will be left to local and state agencies to identify.

- *Achieve regional balance and honor local priorities*

  The list of Transit Access Focus Areas will be a regional resource to be used and embraced widely by TPB members. Therefore, we have determined that all jurisdictions with high-capacity transit would have at least one TAFA on the final list. In addition, the development of the list would not be based solely on regional analysis. TPB members would be invited to provide input about their locally determined priorities to influence the development of the list so that adjustments can be made before the list is presented to the TPB for approval.

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[1] The TPB's 2015 study "Improving Bicycle and Pedestrian Access at Select Rail Stations" (funded through the federal Transportation, Community, and Systems Preservation grant program) identified station access improvements at 25 rail stations. In 2016, WMATA followed up with the "Metrorail Station Investment Strategy" which identified station access improvements for all remaining stations (91 total stations).

PROCESS

Staff work began with the development and application of a methodology to select a preliminary staff list of TAFA locations. This regional analysis is being followed by targeted outreach to the TPB's member jurisdictions to ensure the list complements the jurisdictions' own policies and priorities.

TASKS

I.   DEVELOPMENT OF A PRELIMINARY STAFF LIST

Staff have taken iterative steps to develop and apply a methodology to identify a preliminary list of TAFA locations.

A. Identification of a baseline list for analysis

The starting point for this analysis was the development of a baseline list of station areas that were selected according to the following criteria:

- *Stations deemed "high-capacity transit"*: The list only includes "high-capacity transit stations," which are defined by the TPB to include Metrorail, commuter rail, bus rapid transit, light rail, and streetcar lines.

- *Cutoff year*: The analysis is considering stations that are currently built or will be in place by 2025[2] according the Constrained Element of Visualize 2045.[3]

- *Activity Center designation*: The initial list will only include stations that are within a half mile of one of the region's 141 Activity Centers.[4]

Using the baseline criteria above, staff determined that a total of 173 station areas[5] would serve as the starting point for analysis to identify Transit Access Focus Areas.

B. Analysis of the initial list of station areas based upon key factors

Three key factors, described below, were used to identify station areas where it is difficult to walk/bike and where there is current/anticipated demand for walking or biking.

1. *Where is it difficult to walk or bike to transit?*
    A walkshed analysis was used to identify stations with deficient pedestrian and bicycle infrastructure.

    TPB staff used an analysis of "walksheds" to identify those locations where walking and biking to transit is relatively difficult. A walkshed is a catchment area in which the outer perimeter represents the distance that people can be

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[2] As of the date of this memo, TPB staff has tentatively decided to extend the cutoff to 2030, based on feedback received from discussions with members, which is described later in this memo.

[3] The Constrained Element of Visualize 2045 only includes projects for which funding is reasonably anticipated to be available.

[4] Activity Centers, which were designated by MWCOG in 2013, are mixed-use housing and job centers, usually near transit, where local and regional planners anticipate most of the region's future growth will occur.

[5] The total baseline number of 173 station areas include some stations that serve multiple types of high-capacity transit. For example, Union Station includes Metrorail, commuter rail, and light rail, but for the purposes of this study it was only counted as one station area.

expected to walk to a central destination. Planners generally assume that one half mile— a 10-minute walk on average— is the maximum distance we can expect people to walk to a train station. As the crow flies, the outer limits of a half-mile walk would form a perfect circle with the station at the center. But in reality, a half mile of walking is often much longer than the geometric radius. Blocks are sometimes very long, sidewalks may be missing, or a natural or human-made barrier may obstruct a direct path. As routes become more circuitous, the distance covered by a half-mile walk from a transit station to a final location— the actual walkshed— is often much tighter than the half-mile radius would suggest. Constrained walksheds can be expanded by bridging barriers, creating new connections, and enhancing existing connections to transit stations.

The walkshed analysis for this project included the development of maps and associated data for each station area using GIS. To develop the walksheds, staff performed geospatial analysis using ArcGIS software utilizing the Network Analyst extension, specifically using the Service Area analysis option. Service areas define an area of network facilities (e.g., streets, trails, and other elements) that can be traversed in a prescribed time or distance. Staff developed a methodology for creating walksheds for each identified high-capacity transit station that would best reflect the opportunities and deficiencies around each station area.

Staff identified the walksheds for all 173 station areas selected for this analysis and calculated the percent of walkshed coverage within a half mile for each station area. A draft table containing this information was developed for use in later stages of the analysis.

Staff developed an additional product (geospatial feature class) of walksheds for all existing high-capacity transit stations. The data from this work are available for download in the TPB's Regional Transportation Data Clearinghouse (RTDC) and also as a map app on the COG website at: https://www.mwcog.org/maps/map-listing/transit-within-reach-walksheds/.

2. *Where is there significant potential demand for walking and biking?*
   Stations were screened to identify locations with high employment/population density

   The analysis also sought to identify places with significant numbers of people living or working close to transit. Staff identified the Traffic Analysis Zones (TAZ) associated with the stations and summarized the combined population and employment densities for each station for 2025. The presence of higher densities was assumed to represent a current or latent potential demand for walking or biking to transit.[6]

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[6] It is important to note that this project sought to ensure the final draft list is regionally balanced. Therefore, outer jurisdictions were not be expected to have the same levels of employment and population density as core jurisdictions for potential inclusion in this project's final list.

3. *Where are vulnerable populations concentrated?*
   Station areas were identified that are in Equity Emphasis Areas

   The station areas selected for analysis were also screened to identify whether they are located in Equity Emphasis Areas (EEAs), which are small geographic areas that are home to relatively high concentrations of minority and low-income communities. The map of EEAs has been approved by the TPB to be the primary tool for regional Environmental Justice analysis. For the purposes of this study, it is important to note that the people living in these areas are more likely to be transit-dependent than the general population.

   The analysis determined that out of the 173 station areas selected for analysis, 133 are in Equity Emphasis Areas.

C. Development of a preliminary staff list based upon regional analysis

Staff used the analysis describe below to develop a preliminary staff list of 40 priority station areas. This initial draft list was developed as follows:

1. *Development of a composite score for each station area*

   Composite regional scores were developed for each station using the three factors described above. The factors were weighted as follows:

   - 50% - Deficient ped/bike infrastructure (walkshed analysis)
   - 35% - Demand for walking & biking (high population/employment density)
   - 15% - Vulnerable populations (Equity Emphasis Areas)

2. *Identification of a preliminary staff list of Transit Access Focus Areas*

   Staff identified station areas to include in the preliminary list based on the following sequential steps:

   - *Identify the number of station areas per jurisdiction:* Each jurisdiction was assigned a number of stations for inclusion on the list that would be equivalent to 20% of the total number of high-capacity transit stations in the jurisdiction. For example, a jurisdiction with 20 high-capacity transit stations would have four stations on the list.[7]

   - *Elimination of stations that are already walkable:* Stations that have a walkshed coverage of more than 50% (i.e., stations that are already quite walkable) were not eligible for inclusion, for the most part.[8]

   - *Selection of station areas for each jurisdiction*: After applying the two criteria listed above, staff used the composite regional scores for

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[7] To ensure regional coverage, each TPB jurisdiction with one or more high-capacity transit stations in an Activity Center has at least one station included on the preliminary draft list.

[8] The City of Manassas and the City of Frederick each have only one HCT station, and in both cases, the walkshed coverage exceeds 50%. Both of these station areas have been included, however, because of the policy (described above) to include every TPB jurisdiction that has one or more high-capacity transit stations in an Activity Center.

each station area to identify the stations in each jurisdiction for inclusion on the list.

II. SEEK JURISDICTIONAL INPUT

In November-December of 2019, Charlene Howard and John Swanson of TPB staff conducted outreach meetings with staff from the large jurisdictions included on the preliminary TAFA list — Arlington, D.C., Fairfax, Montgomery and Prince George's. In each of these meetings, TPB staff presented the list of TAFA stations that were preliminarily identified. Participants then informally discussed whether the list was consistent with the local staff's knowledge about needs and opportunities, as well as the established policy priorities of the jurisdiction.

In these meetings, jurisdiction staff for the most part seemed to support the purpose and direction of the project. Some welcomed the spotlight of attention that could accompany the regional TAFA designation. In other cases, jurisdiction staff expressed concerns about aspects of the project's methodology, but still accepted the purpose for such a regional planning activity. However, a few participants in these sessions were more critical in their reactions. Among other things, they expressed concerns that the TAFA list would become too influential in determining funding priorities. TPB sought to assure these participants that the TAFA designation would only one of several criteria considered in the selection processes for TLC or TAP.

Suggestions for revising the methodology included the following points.

- *Extend the cutoff year to 2030.*
  The preliminary staff analysis only included stations that would be built by 2025. Local staff made a persuasive case that some key facilities will open between 2025 and 2030, and station area planning for these places could benefit from potential designations as TAFAs.
  Status: TPB staff has tentatively agreed to this change.

- *Establish a system for localities to provide input as part of the methodology.*
  TPB staff made it clear that the ultimate designation of TAFA location will include significant opportunity for local input. In the outreach meetings, it became clear that the input we receive should not be purely ad hoc, and in fact we need a system for incorporating local priorities. One potential way to gather input might be for local jurisdictions to provide scores that would form a set percentage (15%? 20%) of the total score for each station area. Jurisdictions might also be asked to provide rankings of station areas.
  Status: TPB staff sees a need to address this concern, but has not yet determined an exact approach to deal with it.

- *Include high-frequency bus-only transit centers in the analysis.*
  The TPB staff baseline only included stations served by high-capacity transit (HCT), based on a long-standing TPB definition. In our meetings, local staff frequently mentioned that we should include high-frequency, bus-only transit centers in this baseline. Examples of such locations include Shirlington, the Mark Center, Seven Corners, and Montgomery Mall. Members commented that these centers often serve

more people than many of our HCT stations (e.g., commuter rail stations and BRT), and these hubs are particularly important for low-income populations.

Status: TPB staff have determined that we will not, at this time, change our regional definition of high-capacity transit. However, for this project we are considering the inclusion of a supplemental list of high-frequency bus-only transit centers, which would be eligible for analysis and potential inclusion on the TAFA list. It should be noted that there is no established definition for a bus-only transit center, which makes the addition of such stations challenging. Staff is currently considering options for addressing this lack of definition.

Based on staff responses to the comments described above and several technical corrections, staff will revise the list of TAFA locations in the coming weeks. Staff will then present the new list to the jurisdictions who were visited in the first round of outreach. Staff will also discuss the list with small jurisdictions that may only have one or a few station areas on the list, as well as presenting it to key committees and other stakeholders.

III.   SEEK TPB APPROVAL

After incorporating feedback received during the jurisdiction outreach described above as well as conducting additional outreach to key stakeholders and committees, staff will develop a final draft list of Transit Access Focus Areas, which will be presented to the TPB for approval. This action is expected in May or June of 2020.

SCHEDULE FOR FINALIZATION

Staff currently anticipates the following rough schedule for finalization:

- February 28 - March 20   Staff develops a revised list of TAFAs
- March 23 - April 24   Final outreach to jurisdictions, committees, and other stakeholders
- May 1   Staff presents the draft list to the TPB Technical Committee
- May 20 or June 17   TPB approval

CONTACT

For more information about the TAFA project, please contact:

- John Swanson, 202-962-3295, jswanson@mwcog.org
- Charlene Howard, 202-962-3384, charlene@mwcog.org

TRANSIT WITHIN REACH

Prioritizing Transit Access Focus Areas for pedestrian & bicycle investments

Charlene Howard & John Swanson
TPB Transportation Planners

TPB Technical Committee
March 6, 2020

Agenda Item 7

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In a nutshell

The TPB will approve a list of Transit Access Focus Areas that will be regionally prioritized for pedestrian and bicycle improvements

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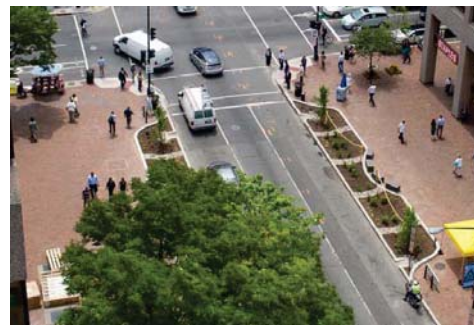
Purpose

- Support implementation of Visualize 2045 Aspirational Initiatives

- Use the TAFA designations as a tool for TLC and TAP project selection

- Potentially seek other funding (e.g., TIGER)

- Encourage local, state, and private funding for high-impact ped/bike improvements

Follow-up to Visualize 2045

- "Improve Walk & Bike Access to Transit" was one of the Aspirational Initiatives in Visualize 2045

- In November 2018, the TPB's Bike/Ped Subcommittee recommended the TPB prioritize station areas for ped/bike improvements

- In December, TPB Resolution R10-2019 directed staff to:

  "Identify a set of regionally prioritized high capacity transit stations where pedestrian/ bicycle access improvements have the greatest potential to utilize available capacity and increase transit ridership, by building on the previous work by the TPB and WMATA, and report on progress by end of June 2019."
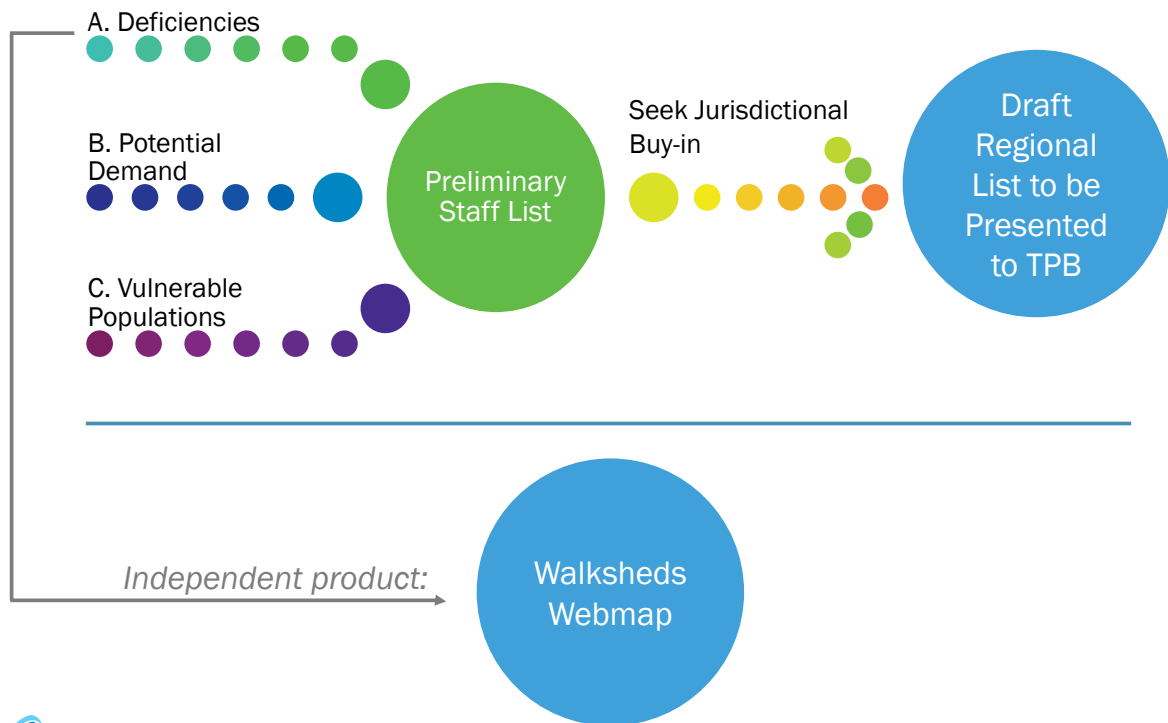
Building on past work

- 2015: TPB study "Improving Bicycle and Pedestrian Access at Select Rail Stations" (TCSP funded) – Identified station access improvements at 25 rail stations

- 2016: WMATA "Metrorail Station Investment Strategy" – Identified station access improvements for all remaining stations (91 total stations)

Starting principles

- **Prioritize places where impact would be greatest:**
  - Deficiencies – Where is it difficult to walk and bike to transit?
  - Demand – Where is there significant potential demand for walking and biking?

- **Places, not projects**
  - We will identify opportune station *areas* for improvements, not specific projects

- **Regional balance, local priorities**
  - All jurisdictions with high-capacity transit will have at least one priority station area
  - Jurisdictions will provide input about their locally determined priorities

Process for regional analysis

A. Deficiencies

B. Potential Demand

C. Vulnerable Populations

Preliminary Staff List

Seek Jurisdictional Buy-in

Draft Regional List to be Presented to TPB

Independent product:

Walksheds Webmap

The baseline list for analysis

The baseline list of station areas met these criteria:

- High-capacity transit: Metrorail, commuter rail, BRT, light rail, streetcar
- Cutoff year of 2025
- Activity Center designation

173 station areas met these criteria.

The baseline total of 173 stations areas combines some stations (e.g., Union Station) that provide different types of transit but are essentially in the same station area. For the purposes of this study, these locations were only counted as one station area.

Key factors for analysis

1. Where is it difficult to walk or bike to transit? *We used a walkshed analysis to identify stations with deficient pedestrian and bicycle infrastructure.*

2. Where is there significant potential demand for walking and biking? *We identified stations with high employment/population density.*

3. Where are vulnerable populations concentrated? *We identified station areas that are in Equity Emphasis Areas.*
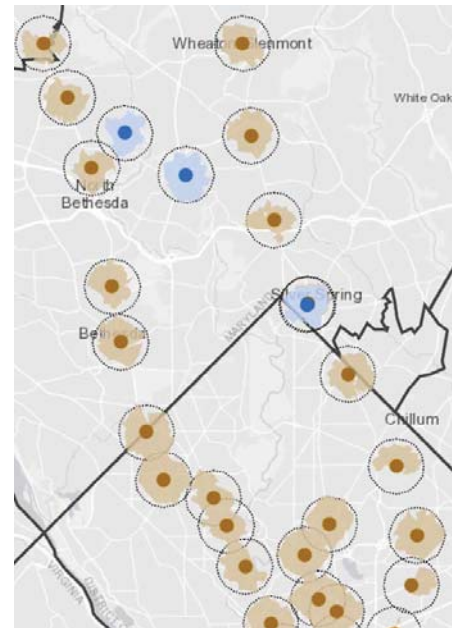
Screenshot from the walkshed analysis

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Preliminary staff list of TAFAs

- **We developed a composite score for each station area based on key factors:**
    1. Deficient ped & bike infrastructure (walkshed analysis - 50%)
    2. Demand for walking & biking (high population/employment density - 35%)
    3. Vulnerable populations (Equity Emphasis Areas - 15%)

- **We identified a preliminary staff list**
    - Target number of TAFAs for each jurisdiction = 20% of the number of total station areas in the jurisdiction
    - Eliminated stations that are already walkable (>50% walkshed coverage)
    - Identified TAFA station areas for each jurisdiction

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Preliminary outreach

- **Meetings with large jurisdictions** – November-December 2019

- **Major suggestions/comments:**
    - Extend the cutoff year to 2030
    - Establish a system for localities to provide input
    - Include high-frequency bus-only transit centers

Wrapping it up

Current schedule

• Develop revised list	February 28 - March 20
• Final outreach	March 23 - April 24
• Final draft to Tech Committee	May 1
• TPB approval	May 20 or June 17

Charlene Howard

(202) 962-3384

charlene@mwcog.org

John Swanson

(202) 962-3295

jswanson@mwcog.org

mwcog.org/tpb

Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002

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