M-NCPPC SSP UPDATE

TRANSPORTATION IMPACT STUDY TECHNICAL WORKING GROUP (TISTWG) MEETING #2

October 7, 2019

FEHR PEERS | DC

TOOLE DESIGN

AGENDA

1. Introductions (10:00 – 10:10)
2. Project Scope Overview (10:10 – 10:15)
3. Vision Zero Integration into LATR: Preliminary Literature Review (10:15 – 10:35)
4. Alternative Policy Area Tests (10:35 – 11:00)
5. Discussion and TISTWG Input (11:00 – 11:25)
6. TISTWG Schedule and Next Steps (11:25 – 11:30)

SCOPE OVERVIEW

- LATR Test – local traffic conditions (subdivision review)
  - **Project goal:** Incorporate Vision Zero Action Plan objectives
- Policy Area Test – area-wide traffic impacts (master/sector plan review only)
  - **Project goal:** Better reflect increased travel mode alternatives (as opposed to traditional Level of Service [LOS] metrics)

TECH COMPONENT A: VISION ZERO INTEGRATION

Task 1: Stakeholder Outreach

Task 2: Literature Review

Task 3: Beta-testing of Alternative Methods in Montgomery County

Task 4: Development of Recommendations

TECH COMPONENT B: POLICY AREA TESTS

Task 1: Develop Alternative Policy Area Tests - Two options

Task 2: Beta-test proposed policy area tests in Montgomery County

Task 3: Development of Recommendations

TECH COMPONENT A: VISION ZERO INTEGRATION

Task 2: Literature Review

- Montgomery County's Vision Zero Action Plan
- Other Vision Zero strategies

MONTGOMERY COUNTY VISION ZERO ACTION PLAN

Goals

- To reduce severe and fatal traffic collisions 70% by 2024, and entirely by 2030
- To focus engineering improvements on the “High Injury Network,” 20 road segments that have a disproportionate amount of the county’s traffic collisions
- To prioritize its resources on improving traffic safety in historically disadvantaged communities

VISION ZERO INTEGRATION INTO LATR PROCESS

Principles of LATR

- Public facilities must be adequate to serve proposed development.

Discussion

- How does this principle relate to Vision Zero?

REVIEW OF VISION ZERO STRATEGIES

- Alexandria, VA
- Arlington, VA
- Austin, TX
- Bellevue, WA
- Bethlehem, PA
- Boston, MA
- Cambridge, MA
- Charleston, SC
- Chicago, IL
- Columbia, MO
- Denver, CO
- Eugene, OR
- Fort Lauderdale, FL
- Fremont, CA
- Los Angeles, CA
- Macon, GA
- New York, NY
- Oakland, CA
- Philadelphia, PA
- Portland, OR
- Sacramento, CA
- San Antonio, TX
- San Francisco, CA
- San Jose, CA
- San Luis Obispo, CA
- Seattle, WA
- Washington, DC

CASE STUDIES – WASHINGTON, DC

Vision Zero is incorporated in the development site review process

- Traffic Impact Study must document:
  - Person trip estimates
  - Assessment of sidewalk and bicycle networks
  - Condition of nearby transit stops
  - Site's proximity to high-crash intersections and blocks
- Guidelines for site access, loading, and the arrangement of the public realm

CASE STUDIES – PHILADELPHIA, PA

Complete Streets Project Review Checklist incorporates Vision Zero design recommendations

- Provide frequent pedestrian crossings
- Identify potential conflicts between travel modes
- Identify high priority bicycle design treatments
- Designate appropriate speeds and lane widths in and around the site

Traffic studies are not required as part of site review

CASE STUDIES – SACRAMENTO, CA

Studying whether to ties impact fees to Complete Streets projects

- Identified high crash streets and associated pedestrian, bicycle, and transit projects
- Developers applying to build projects near high crash streets would pay a higher share of the cost for safety mitigation based on the number of projected new vehicle trips

CASE STUDIES – OAKLAND, CA

No official Vision Zero pledge but has adopted policies that align with Vision Zero goals

Extensive transportation impact study for new development proposals including:

- Analysis of sidewalk conditions
- Potential increase in VMT (vehicle miles traveled)
- Number of pedestrian, bicycle, and vehicle collisions within the past five years at nearby intersections
- ITE Trip Generation Estimates, which are then adjusted with city-provided formulas to generate pedestrian, bicycle, and transit mode shares

Identify potential safety improvements at intersections near the site using the FHWA Crash Modification Factor Clearinghouse.

VISION ZERO INTEGRATION INTO LATR – DISCUSSION

- Analysis of the existing transportation network and development impacts
  - Person trip generation
  - Pedestrian and bicycle networks
  - Crashes at nearby intersections
- Mitigation strategies
  - FHWA Crash Modification Factor Clearinghouse
  - FHWA Proven Safety Countermeasures

POLICY AREA TESTS

Better reflect increased travel mode alternatives (as opposed to traditional Level of Service [LOS] metrics)

Auto

- Regional Accessibility
  - Peak and off-peak

Transit

- Transit quality (based on coverage, headway, and span)
- Regional Accessibility (incorporates coverage, headway, and span)
  - Peak, midday, evening
  - By (a) high-frequency transit and (b) all transit

Bike

- Low-stress network connectivity by LTS 1 & 2

Pedestrian

- Network connectivity (by “high quality” and “acceptable” facilities)

POLICY AREA TESTS – TRANSIT QUALITY

Sufficient coverage, headways, and service span

Factors Characterizing Bus Transit Quality of Service in Montgomery County			
Transit Service Area Categories	**Coverage:** (percent of area within a 1 mile walk of Metro and/or 1/3 mile walk of bus)	**Peak Headways:** (equal to or less than ___ minutes between buses on average in Peak Hour)	**Span of Service:** (equal to or more than ____hours in duration per weekday on average)
Urban	Greater than 80%	20 minutes with Metrorail; or 14 minutes without	17 Hours
Suburban	Greater than 30%	20 minutes	14 Hours

TPAR Transit Analysis Metrics

POLICY AREA TESTS – ACCESSIBILITY

service population accessible within 45 minutes

Key Definition

- Service Population: population + jobs

Multiple Measures

- By high-quality transit and by any transit — transit only
- By time of day (peak, midday, evening) — auto and transit

POLICY AREA TESTS – NETWORK CONNECTIVITY

% of the policy area's service population that are connected

Key Definitions

- Service Population: population + jobs
- Connected: bicycle level of traffic stress 1 or 2
  pedestrian comfort "high quality" and "acceptable"

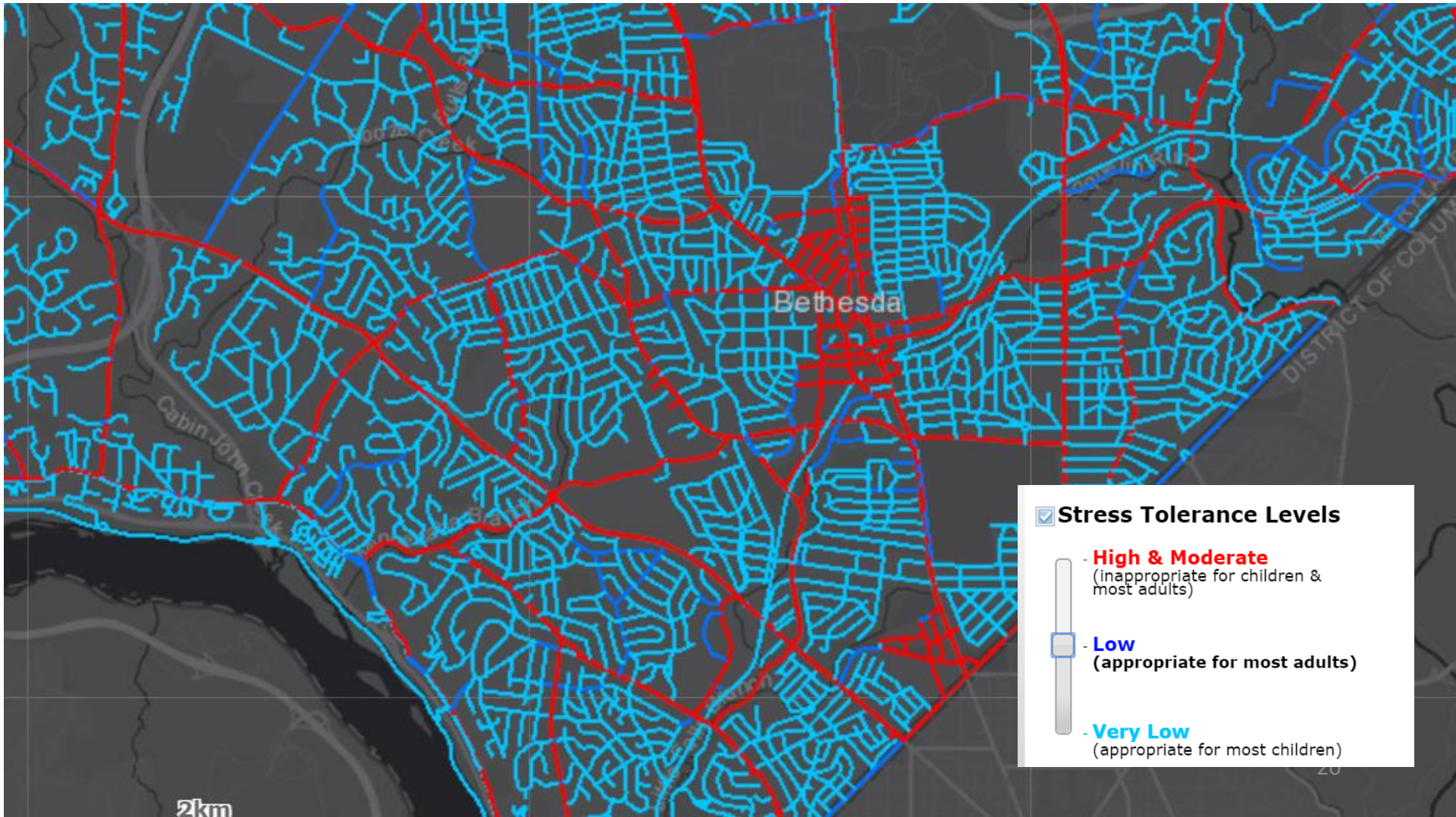
POLICY AREA TESTS – NETWORK CONNECTIVITY

% of the policy area's service population that are connected

Process

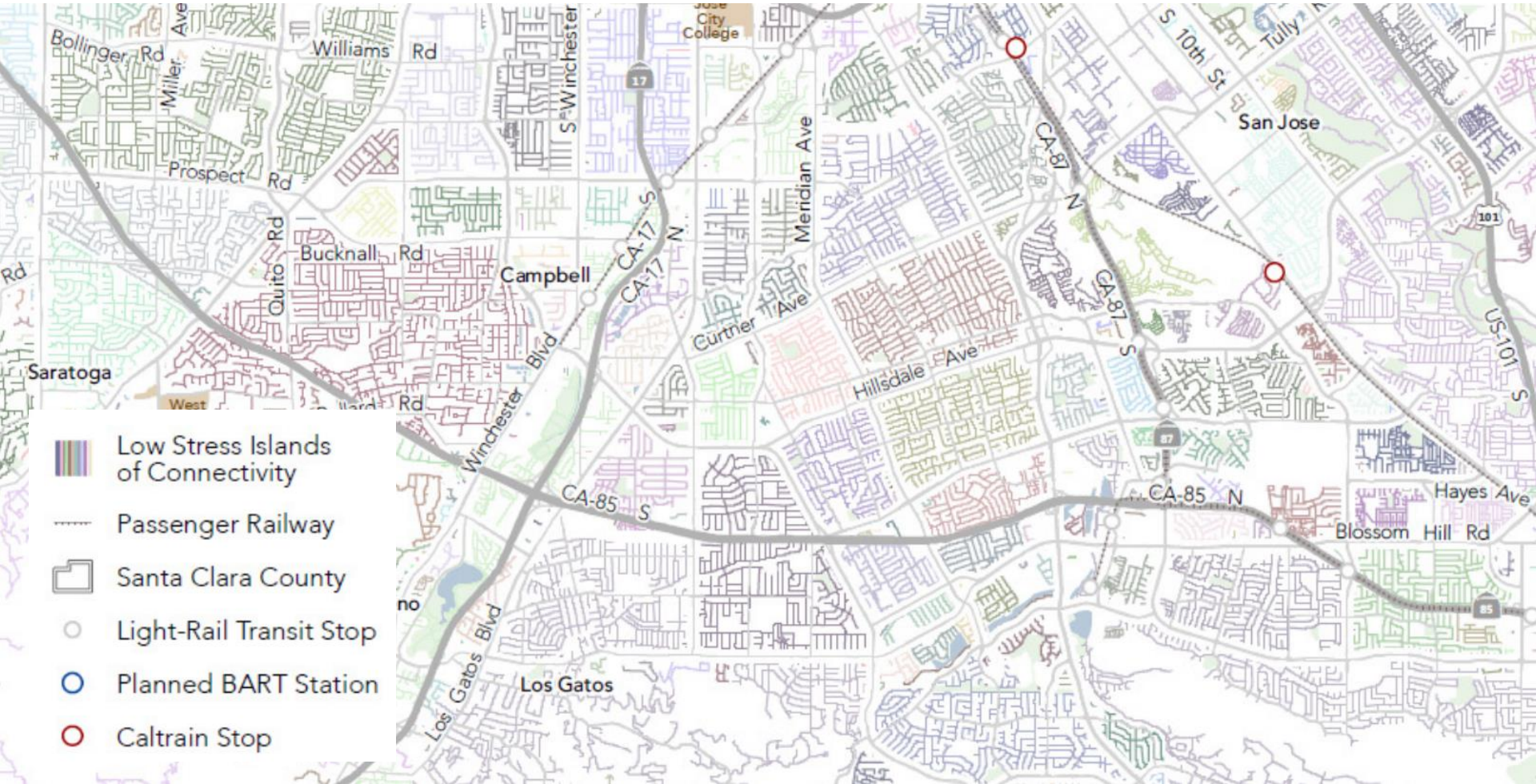
- Identify "islands" of connectivity
- Calculate the service population within each island
- Calculate weighted average based on the service population of each island
- Divide average value by total service population within Policy Area

POLICY AREA TESTS – NETWORK CONNECTIVITY



POLICY AREA TESTS – NETWORK CONNECTIVITY

Example: Santa Clara County, CA (part of Countywide Bicycle Plan Update)



POLICY AREA TESTS – NETWORK CONNECTIVITY

% of the policy area's service population that are connected

Two Measures

- **Total Connectivity:** includes connected service pop outside Policy Area (spillover)
- **Policy Area Connectivity:** only considers connected service pop within Policy Area

TISTWG SCHEDULE

Meeting Date (Tentative)	Topic
09/09/19	TISTWG Kickoff
10/07/19	Draft LATR Lit Review and Policy Area Test Options
11/04/19	Beta Test Plans for LATR and Policy Area Tests
12/02/19	LATR Data Collection Requirements
01/06/20	Draft LATR Impact Study Reports Draft Policy Area Beta Test Results
01/27/20	LATR Draft Final Report Policy Area Draft Recommendations (complete in March 2020)

NEXT STEPS

LATR – Beta Test Plans

Policy Area – Beta Test Plans

TISTWG Meeting: Monday, November 4, 10:00 – 11:30 am