SOUTH AFRICA ROAD FEDERATION

Non-Motorised Transport Practitioner's Course

11 NOVEMBER 2020

Session 5: Case study – Establishing Walkable Communities

SARF
founded in 1950

Session 5: Pedestrian Master Plans

Terminology, Objectives, Outcomes & Performance measurement

Developing a Pedestrian Master Plan

Case studies

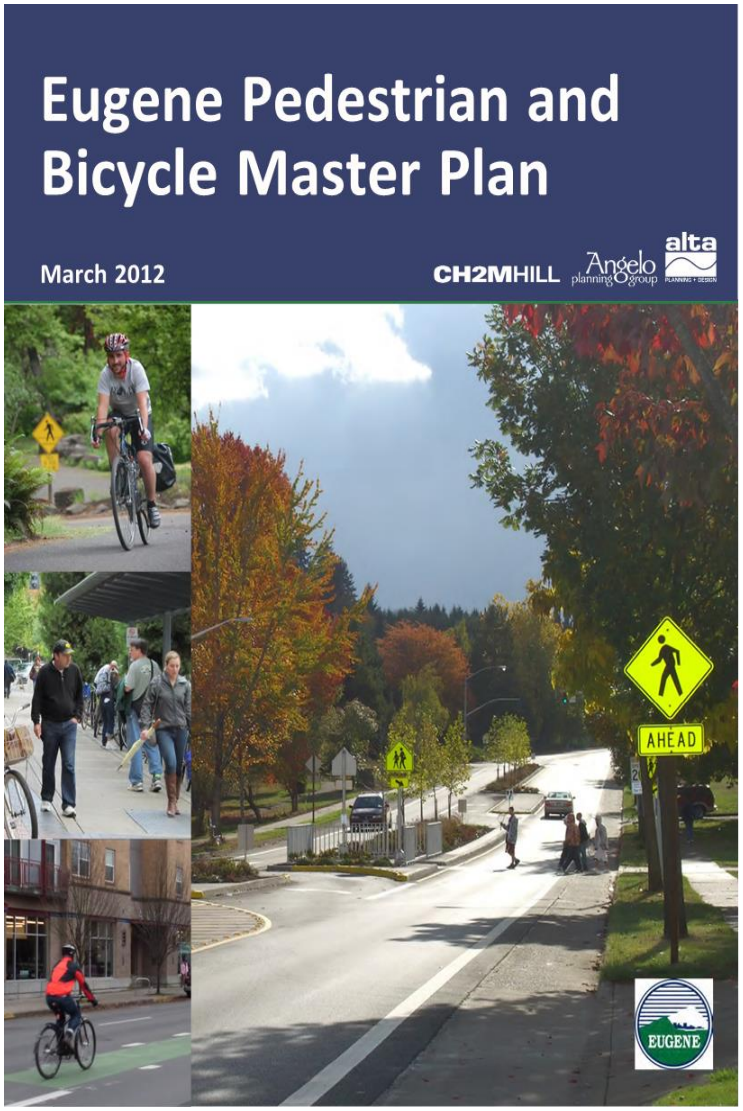
Terminology, Objectives, Outcomes & Performance measurement

STREETS AS PUBLIC SPACES AND DRIVERS OF URBAN PROSPERITY (UN HABITAT, 2013)

The findings of this report show that prosperous cities are those that recognize the relevance of public spaces (with proper layouts) and those which have allocated sufficient land to street development, including sufficient crossings along an appropriate lengthy network. Those *cities that have failed to integrate the multi-functionality of streets tend to have lesser infrastructure development, lower productivity and a poorer quality of life*. The report also shows that the lack of street connectivity increases social exclusion and generates inequalities in various spheres of life, access to basic services, in particular.

Terminology

- A masterplan is *a comprehensive document that sets out* *<u>an overall strategy</u>*. *https://en.wiktionary.org/wiki/master_plan*
- A master plan provides *<u>an overview of the walking network and identifies improvements that will enhance and encourage walking throughout the community</u> (Steps to a Walkable Community - A Guide for Citizens, Planners, and Engineers, 2012)*
- The session focusses on master plans, strategies, action plans, management plans to promote the planning, design and implementation of pedestrian networks.



Master Plan Objectives

- To create a *public-outreach process* to solicit and incorporate the perspectives of multiple stakeholders: *walking/cycling and mobility-advocacy groups, residents, business owners and developers, officials and media*.
- To create a *technical outreach process* to solicit and incorporate input from the fields of *engineering, planning, landscape architecture, law enforcement, transit, education, and public health.*

Pedestrian Master Plans

A pedestrian master plan should:

- Present a *vision, goals, and objectives*
- Examine *existing pedestrian conditions* and their use
- *Identify and prioritize locations* that need improvement
- Create *pedestrian design guidelines* (if no national/provincial guidelines)
- Identify *potential capital investment projects* to address those needs
- *Prioritize and identify funding sources*, create a *timeline for project completion*
- Review, revise, and recommend *transportation and land use policies*.
- Provide guidance to integrate *accessibility of other modes* of transportation into the pedestrian network (public transport/cycling)
- *Include multidisciplinary approaches to improving the pedestrian environment* through changes in enforcement, education, encouragement policies, and, if appropriate, legislation.

Pedestrian Master Plans Outcomes

- Encourages walking
- Increases pedestrian safety
- Provides mobility and access for all
- Offers alternatives to driving
- Reduces pollution
- Connects to public transport
- Fosters economic growth
- Increases social interaction on streets
- Builds strong communities and liveable neighbourhoods
- Helps address obesity and health concerns

Performance measures

- A PMP should include performance measures to assess whether the plan is meeting its goals.
- The measures are focused on *tracking the PMP's effectiveness over time and measure its progress toward achieving the Plan goals* of safety, equity, vibrancy, and health.

Criteria to consider

- *Number of pedestrian fatalities and serious injury c*ollisions.
- *Rate of crashes involving pedestrians*, reported both by pedestrian crashes per 100,000 residents/pedestrian crashes per pedestrian trips
- *Percent of sidewalks* within the Priority Investment Network *completed*
- *Mode share* (percentage of trips made on foot as measured in household travel survey)
- *Pedestrian activity* (number of pedestrians in selected count locations)
- *Children walking or cycling* to or from school

Developing a Pedestrian Master Plan

Tasks in Developing a Pedestrian Master Plan

- Task 1: *Advocacy tactics* (getting buy-in for the plan)
- Task 2: *Policy* – create a broad level framework to promote walking
- Task 3: *Integrate pedestrian with land use* - Rethink the land use outlook of the city (e.g.Transit Orientated Development)
- Task 4: *Design and engineering* – Retrofitting the urban environment
- Task 5: *Encouragement and Education* – Create a walking culture and promote safety and security
- Task 6: *Enforcement* of PMP – Ensure compliance with plan.

Tasks in Developing a PMP

Task 1: Advocacy tactics (may not play out in linear fashion)

- Assess your organization and network of supporters
  - Identify partners and discuss your ideas
- Define the issue in context to set effective goals
- Set (campaign) goals:
  - ***SMART*** goals: **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**imely
  - Set short, medium and long-term goals
- Assess resources and opportunities
  - Align goals with current resources, strengths and opportunities.

Tasks in Developing a PMP

Task 1: Advocacy tactics

- Target *decision-makers* and create a *champion*
  - Community leaders have a lot competing for their attention
  - Who has the power to make the change you want to achieve?
- *Communicate*
  - Change depends on communication. Talk to people, posting flyers, use emails, the press and editorials, using social media.
- Set *tactics* and *timelines*:
  - Create a *to-do list* of actions or tactics to achieve your campaign goals
  - Specify a timeline for their completion
- Manage *resources*
  - Staff or volunteers to lead groups, write letters, attend meetings, help with communication.

Steps in Developing a PMP

Task 2: Policy tactics – create a broad level framework to promote walking

- Get *champions* on board
  - Mayoral directives can create/modify policies affection operations
  - Kickstart process and secure multiagency collaboration
  - Director to oversee process
- Establish an *Advisory Council or Safety Task Force*
  - Typically a volunteer committee of informed citizens to provide guidance on policies, programmes and plans
- *Prioritise Pedestrians in street hierarchy*
  - A street user hierarchy provides the framework for transport policy showing which modes should be considered first in road design.

Steps in Developing a PMP

Task 2: Policy tactics – create a broad level framework to promote walking

- *Develop an walking plan*
  - Shows current walking network and identify improvements (missing links) that will promote walking
- Define *measureable performance indicators*
  - Crucial element to evaluate the effectiveness of the policy
  - Monitoring programme to collect data
- Ensure *disabilities* are catered for
  - Make infrastructure accessible to people of all abilities
- Adopt a *Complete Streets Policy*
  - Safe access to everybody regardless of age, ability or mode
- Conduct a *health impact assessment.*

Steps in Developing a PMP

Task 3: Rethink the land use policy of the city

- *Support Street Life*: Form-Based Zoning
  - Focus on relationship between buildings and the street scape to create pedestrian orientated public space
- *Manage Parking* to Promote Walking
  - Manage supply of parking to reduce car use and provide space where people can walk to their destinations
- Add *Street-Connectivity* Minimums
  - Establish minimum levels of street connectivity for future developments to create space for walking and cycling
- *Retrofit streets and connections*
  - Identify missing links and provide missing infrastructure

Steps in Developing a PMP

Task 3: Rethink the land use policy of the city

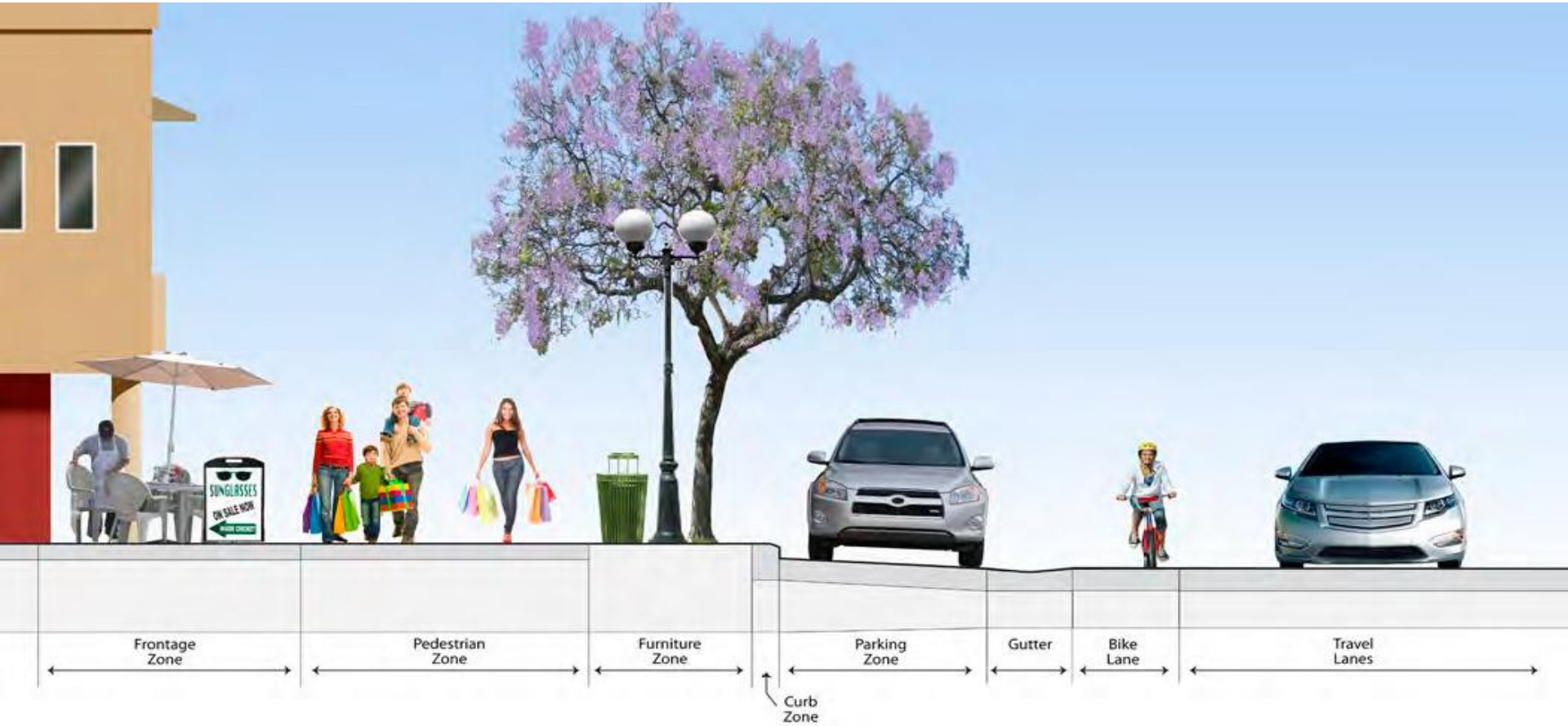
- Create *Transit-Oriented Develo*pment
  - Compact, high-density, mixed land use benefitting form its proximity to public transport, supporting public transport, walking and cycling
- Provide *LOS Exemptions* for Pedestrian Improvements
  - Allow developers to replace vehicle LOS mitigation with improvements for pedestrians, cyclists or public transport
- Diversify *Suburban Land Use Regulations*
  - Encourage higher density/diverse land use in residential zones
- Transform *Underutilised Areas (e.g. Cape Town Waterfront)*
  - Transform into dense, mixed use and walk friendly destinations
- Encourage Temporary Uses in Vacant Sites and Buildings
  - Promote security and more dynamic urban space

Steps in Developing a PMP

Task 4: Focus on (Re)design and engineering

- Adopt *Context-Sensitive street de*sign guidelines
- Adopt *accessible and attractive stree*tscape design guidelines
- Narrow or reduce travel lanes – *Road diets*
- Build a *comprehensive sidewalk network*
- *Integrate walking (and cycling) into transportation projects*
- *Traffic calming*, create *slow zones*
- Turn *asphalt into grass* and other uses to promote NMT usage
- Build *pedestrian and cyclist bridges*
- *Redesign arterial streets for people*.

Task 4: Focus on (Re)design and engineering



CROSS SECTION ILLUSTRATES HOW STREETSCAPE ELEMENTS CAN BE INTEGRATED TO CREATE PLEASANT, SAFE ENVIRONMENTS FOR MULTIPLE MODES OF TRAVEL.

Steps in Developing a PMP

Task 5: Encouragement and Education

- Create a SmartTrips Program
  - Programme to *encourage people to switch* from car base trips to walking, cycling and public transport
- Create a pedestrian way finding system
  - Traditionally signing, nowadays GPS systems, web connectivity and mobile systems
- Create Open Streets
  - Temporary closing of streets to cars and allow activities in street

Steps in Developing a PMP

Task 5: Encouragement and Education

- Create Play Streets
- Activate Streetscapes by Temporary Uses
- Promote Park(ing) Day
- Start Up Jane's Walks
- Use Apps to Encourage Walking
- Create a Safe Routes to Schools
- Create a Safe Routes to Transit
- Create a Safe Routes for Seniors
- Establish Walking Meetings at Work
- Use Walk Score to Your Advantage: walk-, bike-, and transit-friendliness of areas.

Steps in Developing a PMP

Task 6: Enforcement of Plan

- Train law enforcement officers
- Pass a demerit point system (AARTO)
- Provide training instead of fines – attending a road safety class
- Install red-light cameras and speed cameras
- Strengthen street-crossing ordinances (jaywalking)
- Install pedestrian traffic managers
- Organize pedestrian safety enforcement operations

Case studies

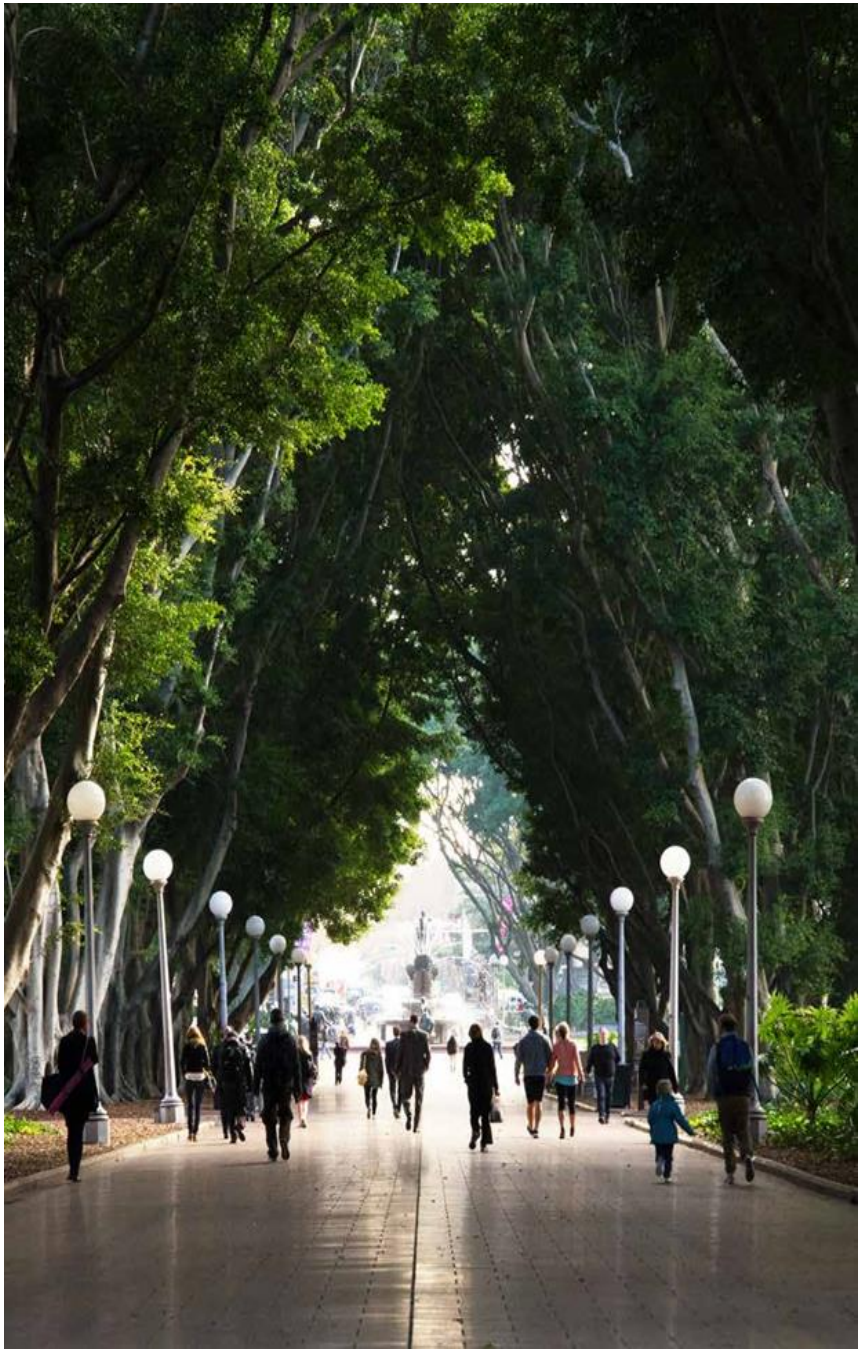
Sydney Walking Strategy and Action Plan 2030

Seattle Pedestrian Master Plan

Minneapolis Pedestrian Master Plan

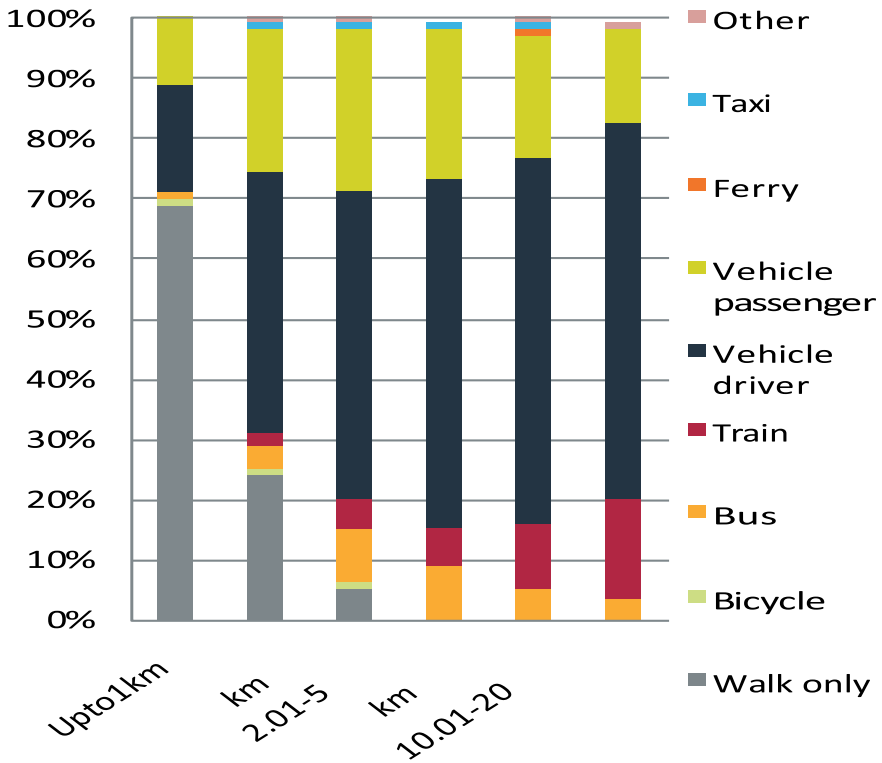
Sydney Walking Strategy and Action Plan 2030

1. Walking to make up one third of commuter trips by City of Sydney.
2. Walking to account for 60% of local trips by City of Sydney residents by 2030.
3. Reduce delay to walking times by 10% across key walking routes.
4. Increase footpath capacity by 20% on average on main activity streets through planned upgrade.
5. Improve walking amenity by 10% on main activity streets through planned upgrades.



Sydney Walking Strategy and Action Plan 2030

6. All residents to be within a 10-minute walk (800m) of commercial/retail space suitable for essential daily needs.
7. Every resident to be within a three-minute walk (250m) of the Liveable Green Network.
8. Reduce traffic related crashes involving people walking by 50%.
9. Walking to make up 50% of trips to and from late night precincts.
10. 90% of residents feel safe walking in the day and night.



Sydney Walking Strategy and Action Plan 2030 Action List

Ongoing Actions

O1. Create at least 5km of additional *pedestrianised streets and laneways* per annum

O2. Design *walking-related infrastructure* (accessible & inclusive)

O3. Audit and *upgrade infrastructure* to be safe and accessible by 2020

O4. Activity streets, urban renewal areas and major street upgrades be designed as *low speed environments* and will use traffic calming measures

O5. Implement existing planning controls to create walkable, fine grain street networks

O6. Continue the roll-out of improved *pedestrian lighting, including LED lighting*

O7. New developments and urban renewal areas to be designed using a *'people first' approach* with walking and cycling as the starting point

O8. All new developments and urban renewal areas *CPTED principles*

O9. Encourage low rents/short-term uses in vacant retail units, particularly in urban renewal areas

O10. Implement planning controls that *encourage active street frontages on activity stree*ts

O11. Work with neighbouring local governments to *deliver more walkable environments*

O12. Develop, promote and manage events that *celebrate walking*

Sydney Walking Strategy and Action Plan 2030 Action List

Ongoing Actions (continued)

O13. Identify a *business unit to manage the walking portfolio*

O14. Undertake a *walkability audit* every five years to determine improvement in walkability

O15. *Research and monitor walking initiatives* to benchmark walking activity and improve outcomes

O16. *Review Walking Strategy and Action Plan every five years* and report yearly on progress

O17. Work with the NSW Government to investigate opportunities to *improve pedestrian priority and reduce travel time for people walking*

O18. Work with the NSW Government *to increase active travel to schools*

O19. Investigate and request *low speed environments* across city

O20. Implement an integrated *wayfinding system* across the city

O21. Develop and distribute *local walking maps* that identify average walking distances and times to key destinations

Sydney Walking Strategy and Action Plan 2030 Action List

Short Term

S1. Create a *public domain access policy/plan*

S2. Investigate and implement *streetscape amenity improvements*

S3. Encourage provision of *end-of-trip facilities* (e.g. changing rooms, showers and lockers) in development through promotional efforts

S4. Support *workplace travel planning* through promotional efforts

S5. Work with the NSW Government to ensure *good access to major transport hubs*

S6. *Promote walking as a mode of transport* through targeted communication campaigns

S7. Develop *promotional material* including a dedicated page on the City of Sydney website with route finding information

S8. Work with the NSW Government to implement pedestrian improvements as part of the City Access Strategy

Sydney Walking Strategy and Action Plan 2030 Action List

Medium Term

M1. Work with the NSW Government to *review designs, standards, warrants and technical directions for walking-related infrastructure*

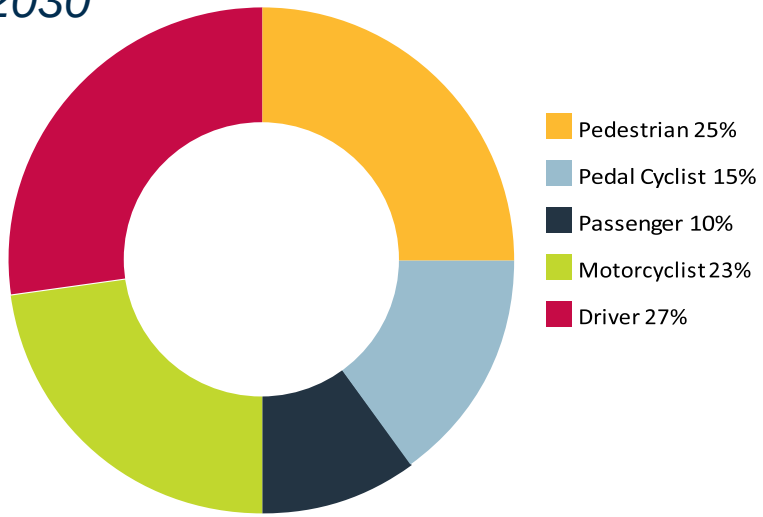
M2. Implement a system/guide that considers a place-based context for *streetscape design and facilities*

Long Term

L1. All Key Routes of the City to be *safe, accessible, connected and amenable with high level of pedestrian priority by 2030*

L2. Provide walking priority facilities on the city-wide Pedestrian Priority Network by 2030

L3. Upgrade all *activity streets to comply with City of Sydney standards by 2030*



Seattle Pedestrian Master Plan 2035

CHAPTER 1: INTRODUCTION

Why Walkability and Accessibility Matter

Plan Purpose

Who Does the PMP Serve?

Community Engagement

Plan Organization

CHAPTER 2: POLICY FRAMEWORK

Plan Vision, Goals, and Objectives

Planning Context

CHAPTER 3: MEASURING PROGRESS

Understanding the Pedestrian System

Improving the Pedestrian System

Activities Guided by the PMP

Programs and Activities for Pedestrian Improvements

How has the PMP Guided Pedestrian Improvements?

Plan Performance

Lessons Learned

Seattle Pedestrian Master Plan 2035

CHAPTER 4: PRIORITIZING PEDESTRIAN IMPROVEMENTS

- Prioritization Framework
- Network Development: the Priority Investment Network
- Opportunities for Pedestrian Improvements
- Evaluating Pedestrian Opportunities
- Implementation Plan Priorities

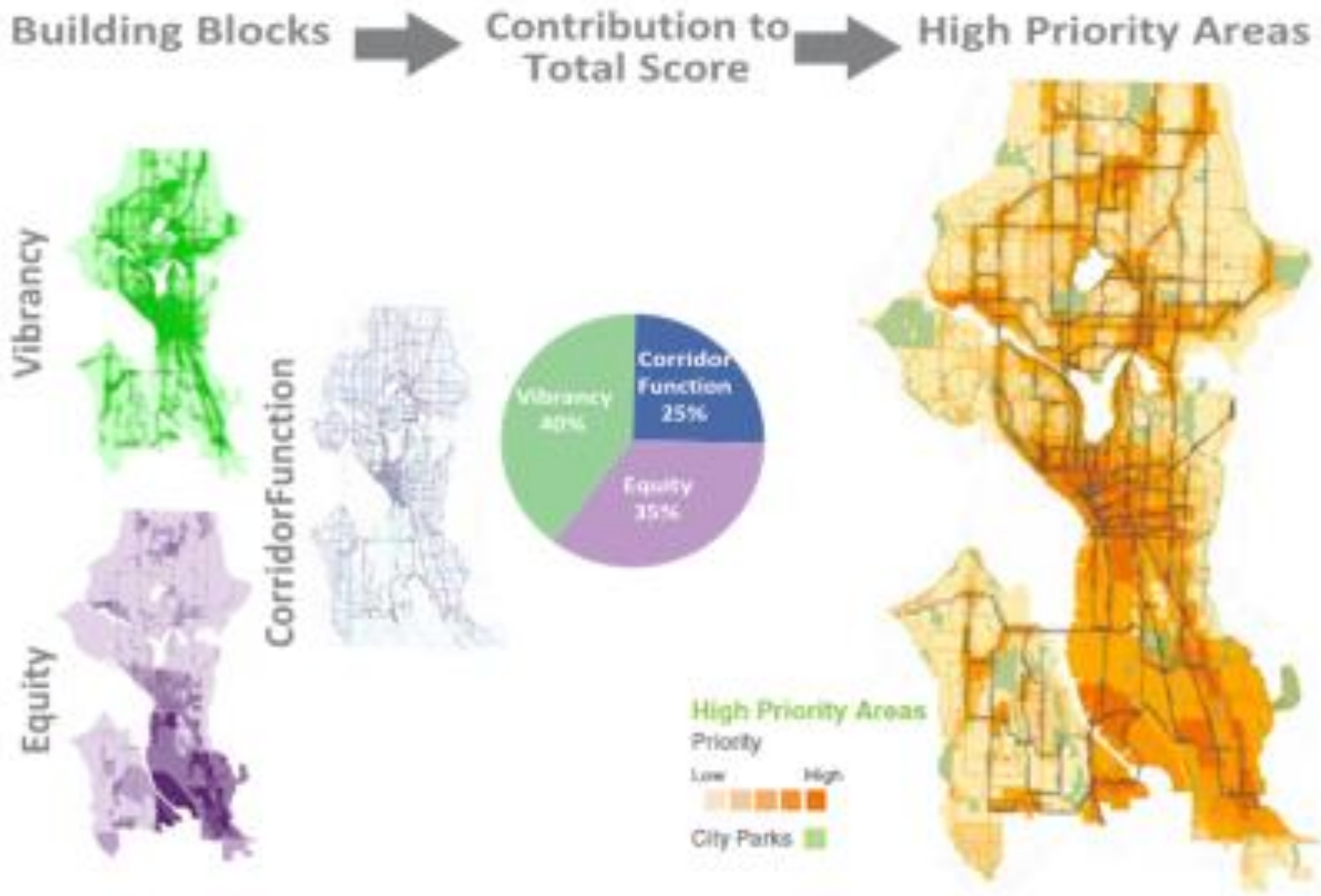
CHAPTER 5: IMPLEMENTING STRATEGIES & ACTIONS

- Along-the-Roadway Strategies and Actions
- Crossing-the-Roadway Strategies and Actions
- Network-wide Strategies and Actions
- Education, Encouragement, and Enforcement Strategies and Actions
- Pedestrian Quality and Comfort Strategies and Actions

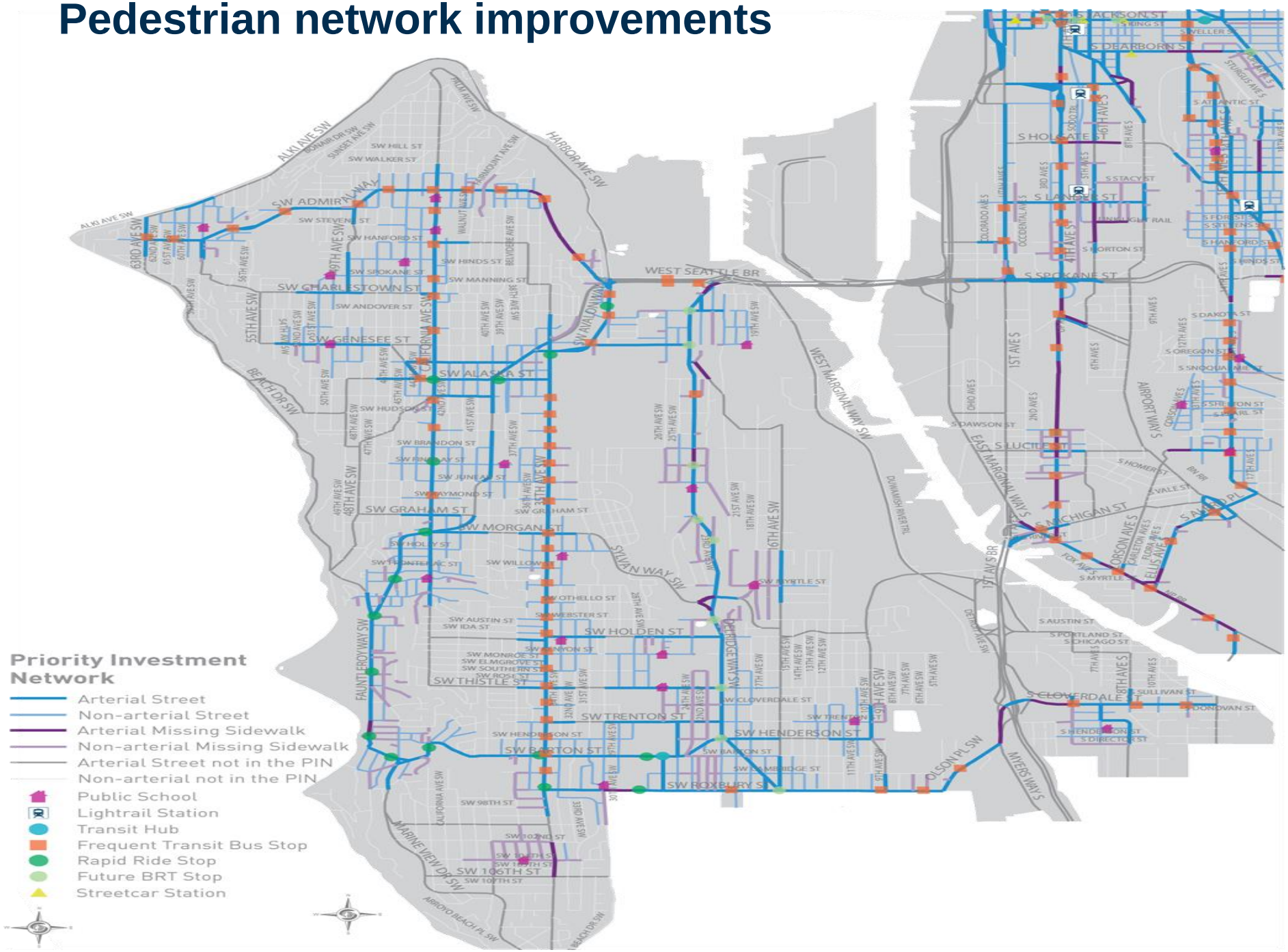
CHAPTER 6: PLAN IMPLEMENTATION

- PMP Implementation Plan
- Prioritization Framework
- Planning-Level Cost Estimates
- Potential Funding Opportunities
- Plan Performance Measures

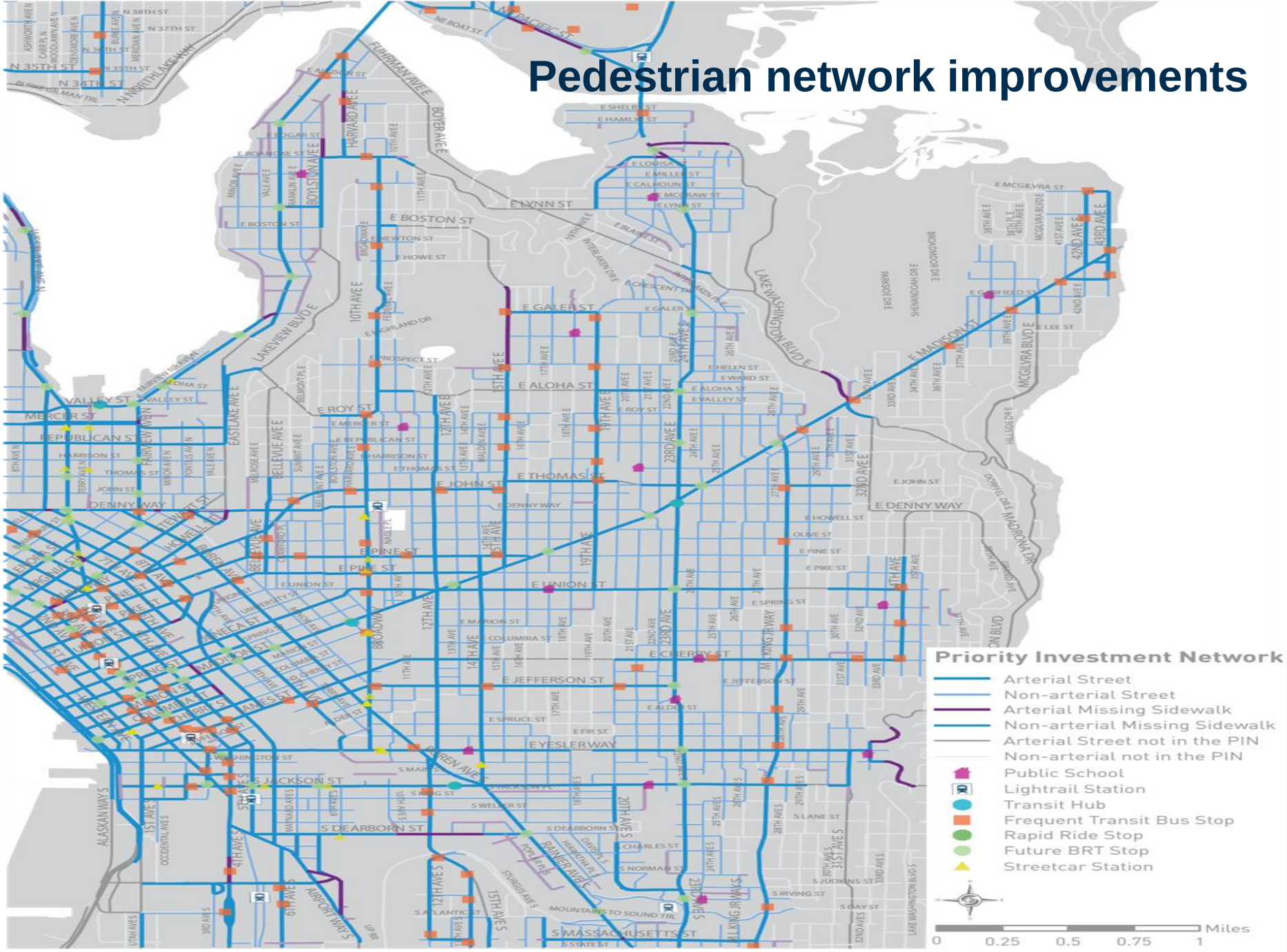
FIGURE 3-4: 2009 PMP HIGH PRIORITY AREAS



Pedestrian network improvements



Pedestrian network improvements



Number of vehicle lanes at arterials intersections

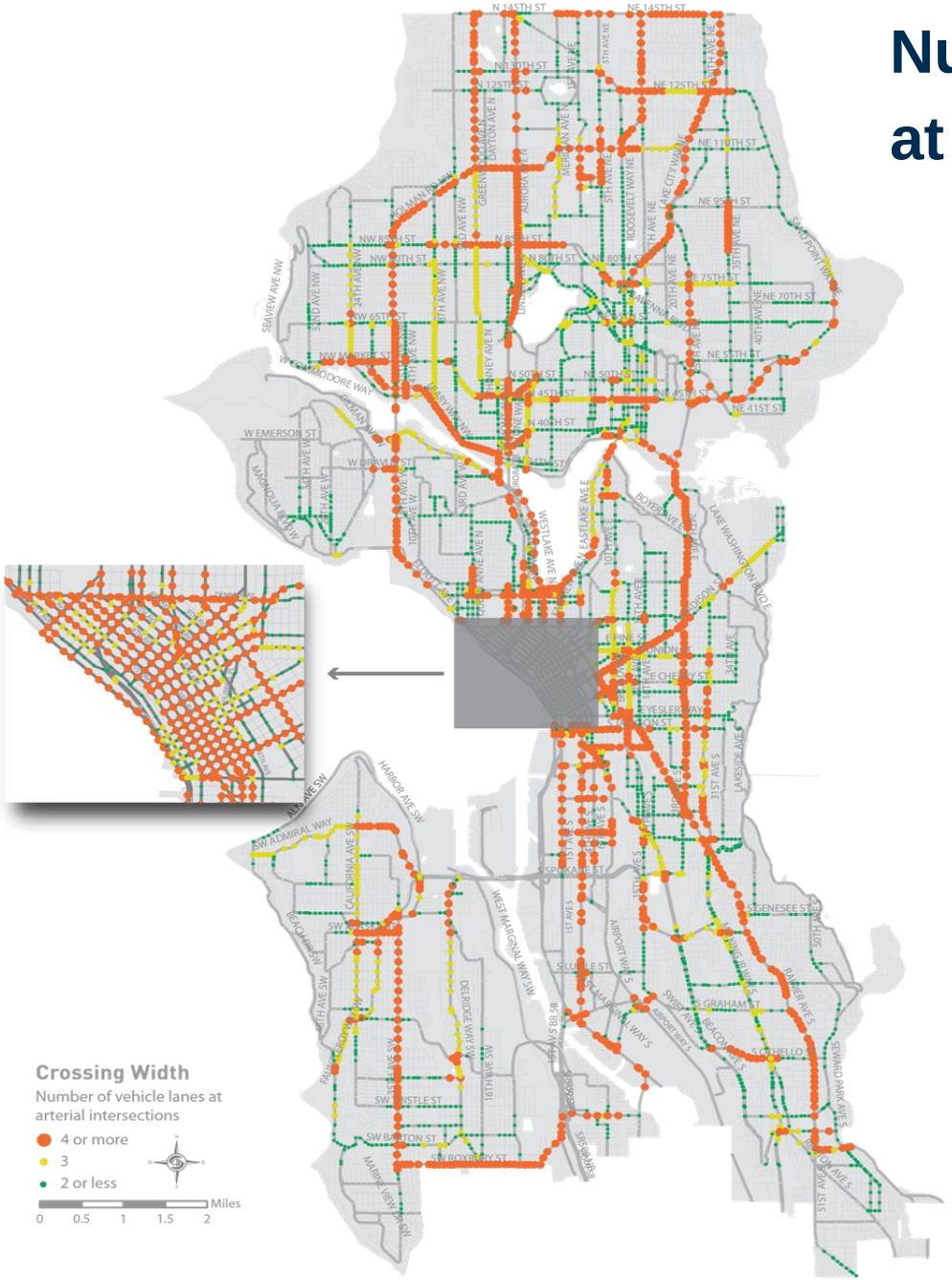


FIGURE 4-11: EQUITY AND HEALTH ANALYSIS

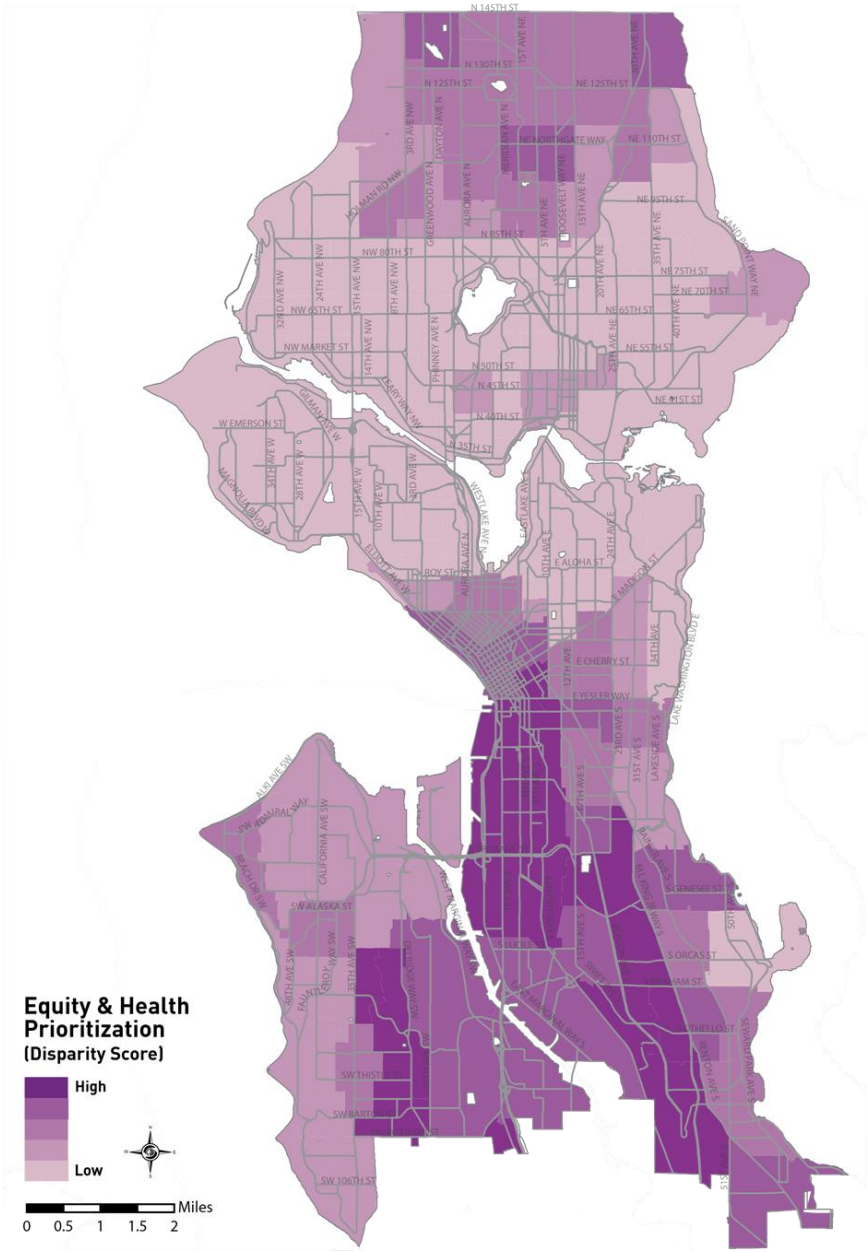
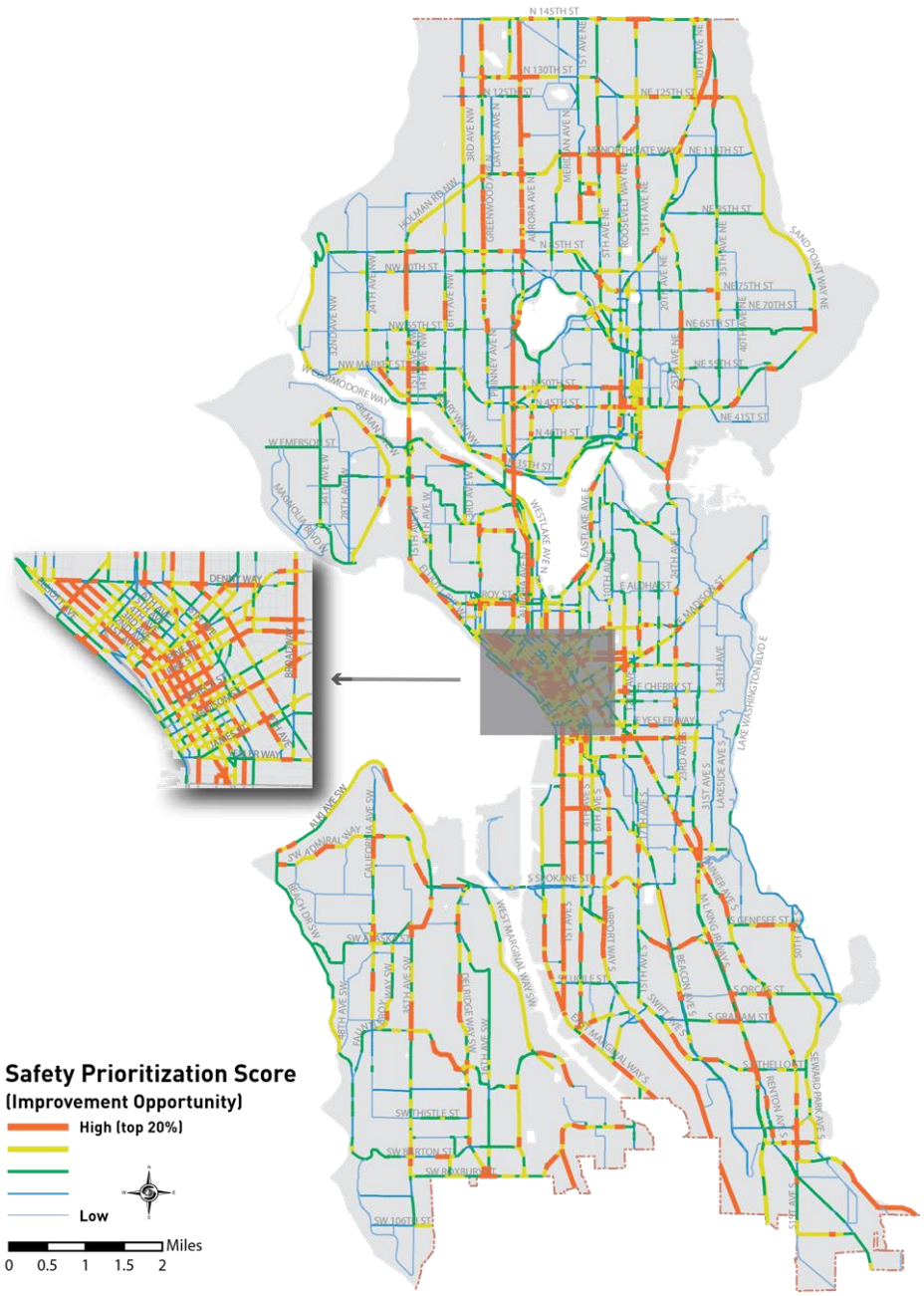


FIGURE 4-10: ARTERIAL SAFETY ANALYSIS



Minneapolis Pedestrian Master Plan, 2009

- Minneapolis has an extensive sidewalk system, many great places to walk, and many programs and policies oriented to improving walking and the pedestrian environment. <u>But there's room for improvement</u>.
- Some of the most common *barriers to walking* identified:
  - Conflicts between pedestrians and cars at intersections and along busy streets.
  - Streets that lack trees and have little buffer from traffic lanes.
  - Maintenance & construction zones.

Minneapolis

ADOPTED BY CITY COUNCIL
October 16, 2009

Implementation strategies

GOAL 1: A WELL-CONNECTED WALKWAY SYSTEM

Objective 1.1: Complete the Sidewalk Network

Objective 1.2: Maintain and Improve Pedestrian Network Connectivity

Objective 1.3: Improve Skyway-Sidewalk Connectivity

Objective 1.4: Improve Pedestrian Wayfinding Information

GOAL 2: 2:ACCESSIBILITY FOR ALL PEDESTRIANS

Objective 2.1: Identify & Remove Accessibility Barriers on Pedestrian Facilities

Objective 2.2: Improve and Institutionalize Best Design Practices for Accessibility

People of all ages and abilities need to safely and conveniently travel as pedestrians.

All pedestrians benefit from accessible facilities, including pedestrians with wheeled luggage.

Implementation strategies

GOAL 3: SAFE STREETS AND CROSSINGS

Objective 3.1: Reduce Pedestrian-Related Crashes

Objective 3.2: Promote Safe Behavior for Drivers, Bicyclists and Pedestrians

Objective 3.3: Improve Pedestrian Safety for the Most Vulnerable Users

Objective 3.4: Improve Traffic Signals for Pedestrians

Objective 3.5: Improve Crosswalk Markings

Implementation strategies

GOAL 4: A PEDESTRIAN ENVIRONMENT THAT FOSTERS WALKING

Objective 4.1: Design Streets with Sufficient Space for Pedestrian Needs

Objective 4.2: Design Bridges and Underpasses for Pedestrian Needs

Objective 4.3: Provide Appropriate Street Lighting for Pedestrian Needs

Objective 4.4: Provide Street Furniture Appropriate for Pedestrian Needs

Objective 4.5: Foster Vibrant Public Spaces for Street Life

Objective 4.6: Foster Healthy Trees and Greening along Sidewalks

Implementation strategies

GOAL 5: A WELL-MAINTAINED PEDESTRIAN SYSTEM

Objective 5.1: Ensure Effective Snow and Ice Clearance for Pedestrian

Objective 5.2: Maintain Sidewalks in Good Repair

Objective 5.3: Manage Encroachments on Sidewalks

Objective 5.4: Maintain Pedestrian Safety and Accessibility in Construction Zones

GOAL 6: A CULTURE OF WALKING

Objective 6.1: Promote Walking for Youth

Objective 6.2: Promote Walking for Adults

Objective 6.3: Showcase and Celebrate Great Walking Experiences

During construction, pedestrian safety and accessibility needs to be maintained.

Sidewalks that are not well cleared of snow can remain icy and slippery all winter.

Implementation strategies

GOAL 7: FUNDING, TOOLS AND LEADERSHIP FOR IMPLEMENTING PEDESTRIAN IMPROVEMENTS

Objective 7.1: Implement Best Practices for Pedestrian Facility Design

Objective 7.2: Integrate Pedestrian Improvements into Capital Improvement Programs

Objective 7.3: Improve Tools to Identify, Plan, Design, & Evaluate Pedestrian Improvements

Objective 7.4: Foster Effective Pedestrian Advocacy and Stewardship

Objective 7.5: Pursue New Funding Tools for Pedestrian Facilities