

SANTA FE METROPOLITAN PEDESTRIAN MASTER PLAN



SANTA FE METROPOLITAN PLANNING ORGANIZATION

DESIGN OFFICE . AOS ARCHITECTS

SANTA FE MPO PLANNING AREA

Santa Fe, NM

area = 52.5 sq. mi

population = 81,198 (2014)

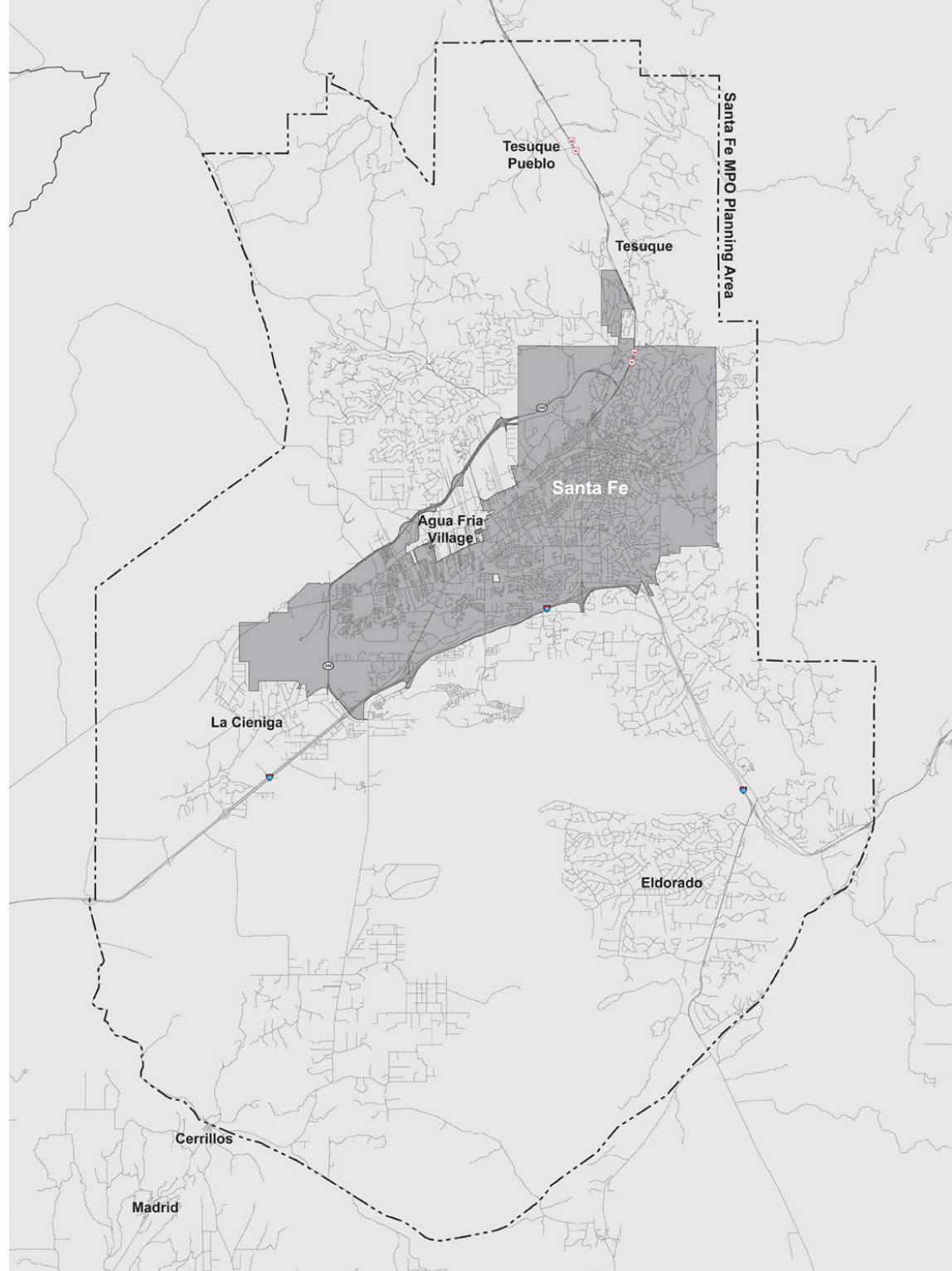
Santa Fe MPO Planning Area

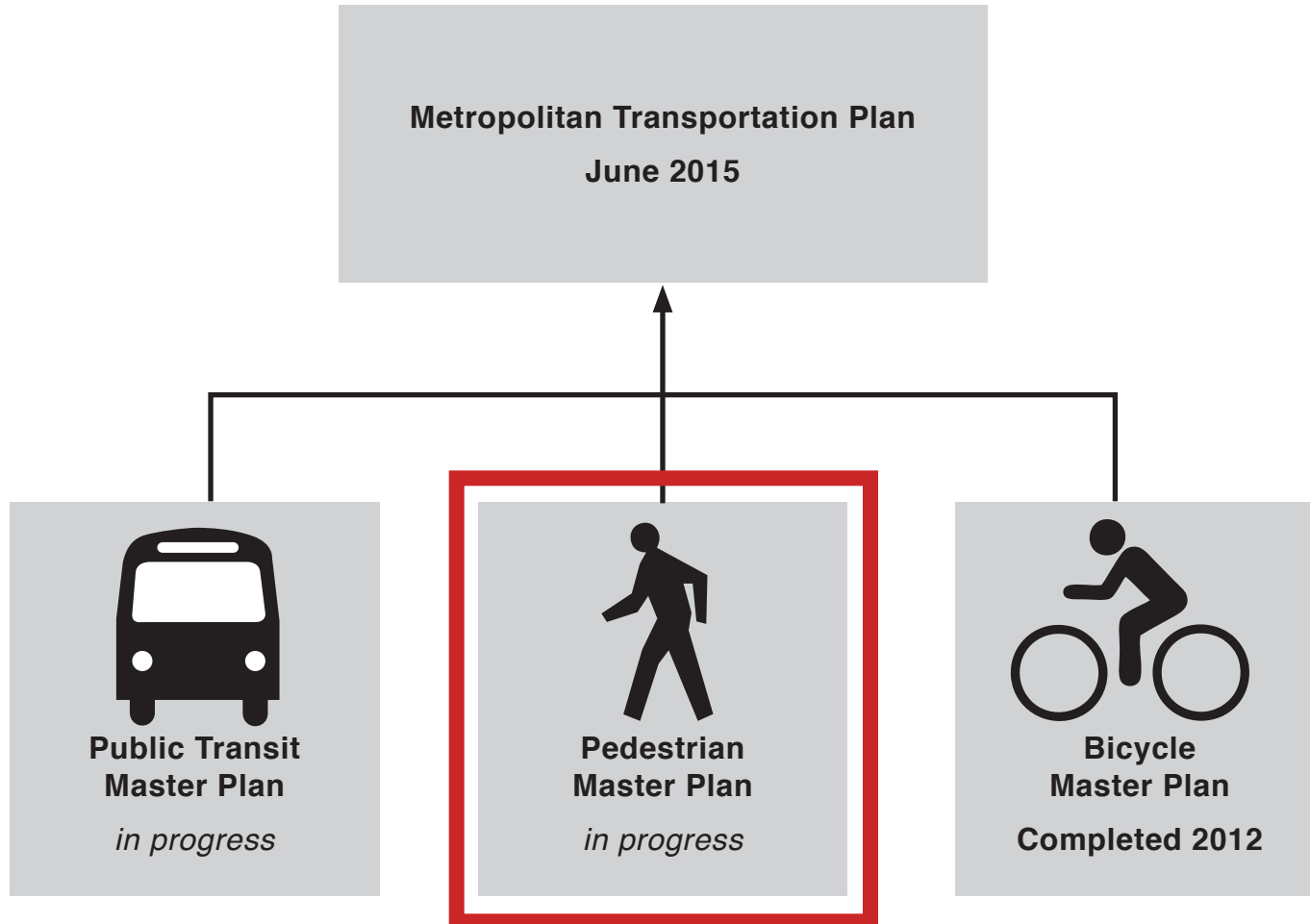
area = 426.6 sq. mi

population = 116,386 (2013)

MPO Metropolitan Planning Organization

The purpose of the MPO is to create a forum for transportation decision making in the metropolitan planning area.



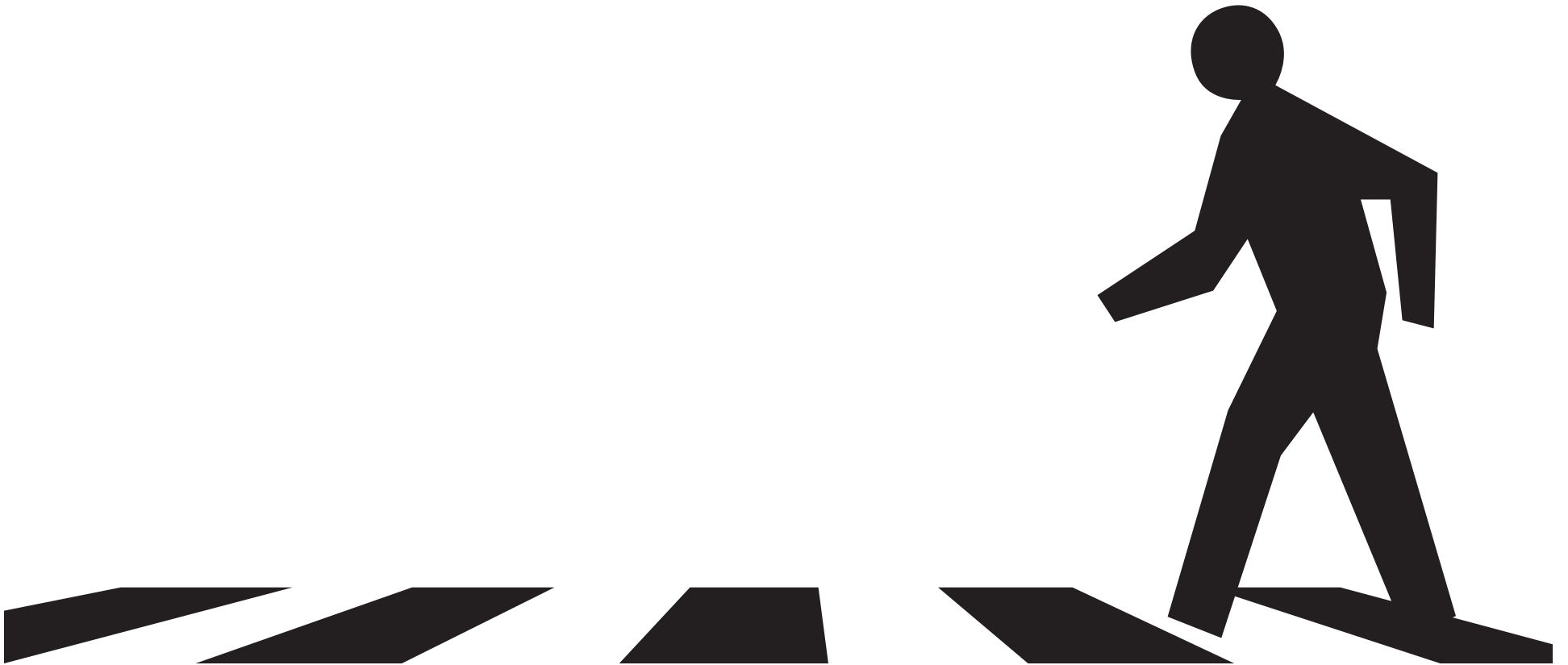


PEDESTRIAN MASTER PLAN GOALS AND POLICIES

VISION **DRAFT**

vision

The residents of Santa Fe envision a community that invites people of all ages and abilities to walk for enjoyment, exercise, and daily transportation by providing a safe, convenient, and attractive pedestrian environment.



PEDESTRIAN MASTER PLAN GOALS AND POLICIES

GOALS **DRAFT**

safety

Improve pedestrian safety through well-designed facilities along and across roadways, and by promoting safe driving, walking, and bicycling behaviors.

equity

Provide accessible pedestrian facilities for all through equity in public engagement, service delivery, and capital investment.

health

Develop a pedestrian network that promotes active, healthy lifestyles and sustains a healthy environment.

social

Enhance social interactions by creating inviting public places for people to socialize.

multi-modal transportation

Develop high-quality pedestrian facilities that provide access to all other modes of transportation.

economic sustainability

Enhance economic vibrancy by creating safe and aesthetically pleasing walking environments with easy connections to commercial centers and inviting public places for people to socialize.

connectivity

Provide a citywide network of accessible, efficient, and convenient pedestrian infrastructure that connects homes, jobs, shopping, schools, services, and recreation areas using sidewalks, crosswalks, shared-use paths, bridges, tunnels, and signage.

land use and site design

Employ land use planning and site design requirements that are conducive to pedestrian travel and result in a mode shift away from automobile trips to walking trips.

environment

Improve the environment with landscaped pedestrian corridors that provide shade, improve air quality, encourage walking, and reduce CO2 emissions with fewer automobile trips.



PEDESTRIAN MASTER PLAN STATISTICS

Economic Benefits

Increased Sales

Pedestrians and bicyclists spend less money per trip, but make more frequent visits to businesses through out the month, averaging more spending than their car-driving counterparts. (Clifton, 2013)

Property Values and Stability

A one-point increase in Walk Score was associated with a \$500-\$3,000 increase in home values (Cortright, 2009).

Worker Productivity

Bicycling to work significantly reduces absenteeism due to illness. Regular cyclists - 7.4 sick days/yr; non-cyclists 8.7 sick days/yr (2013, London School of Economics)

Events and Tourism

Facilities like rail trails and safe places to bike and walk attract tourists. Local communities now vie for “Bicycle Friendly Community” and “Walking Friendly Community” designations, and communities with these designations report the recognition is good for business (Maus, 2006).

Source: Bicycling And Walking In The United States 2014 Benchmark Report, Alliance for Bicycling & Walking 2014

Decreased Traffic Congestion

On average, each car commuter spends roughly 40 hours and over \$800 per year waiting in traffic (Texas A&M Transportation Institute, 2012)

Cleaner Air

A modest increase in bicycling and walking could save 3 billion gallons of gasoline and prevent the release of 28 million tons of CO2 (Rails to Trails Conservancy, 2008).

Improved Health

Obesity costs the average taxpayer \$180 per year regardless of their own health status. If just one of every ten adults started a regular walking program, the United States could save \$5.6 billion—the equivalent of paying the college tuition for 1,020,000 students (National Governors Association, 2006).

Savings

AAA estimated that, in 2013, the average cost of owning and operating a car increased by 2% to \$9,122 a year (or 60.8 cents per mile) for a person driving 15,000 miles per year and paying \$3.49 per gallon of gas (AAA,2013).



EXISTING CONDITIONS STUDY AREA

Santa Fe, NM

area = 52.5 sq. mi
population = 81,198 (2014)

Santa Fe MPO Planning Area

area = 426.6 sq. mi
population = 116,386 (2013)

Study Area

area = 29.1 sq. mi

Public Transit 'Passenger Trips'

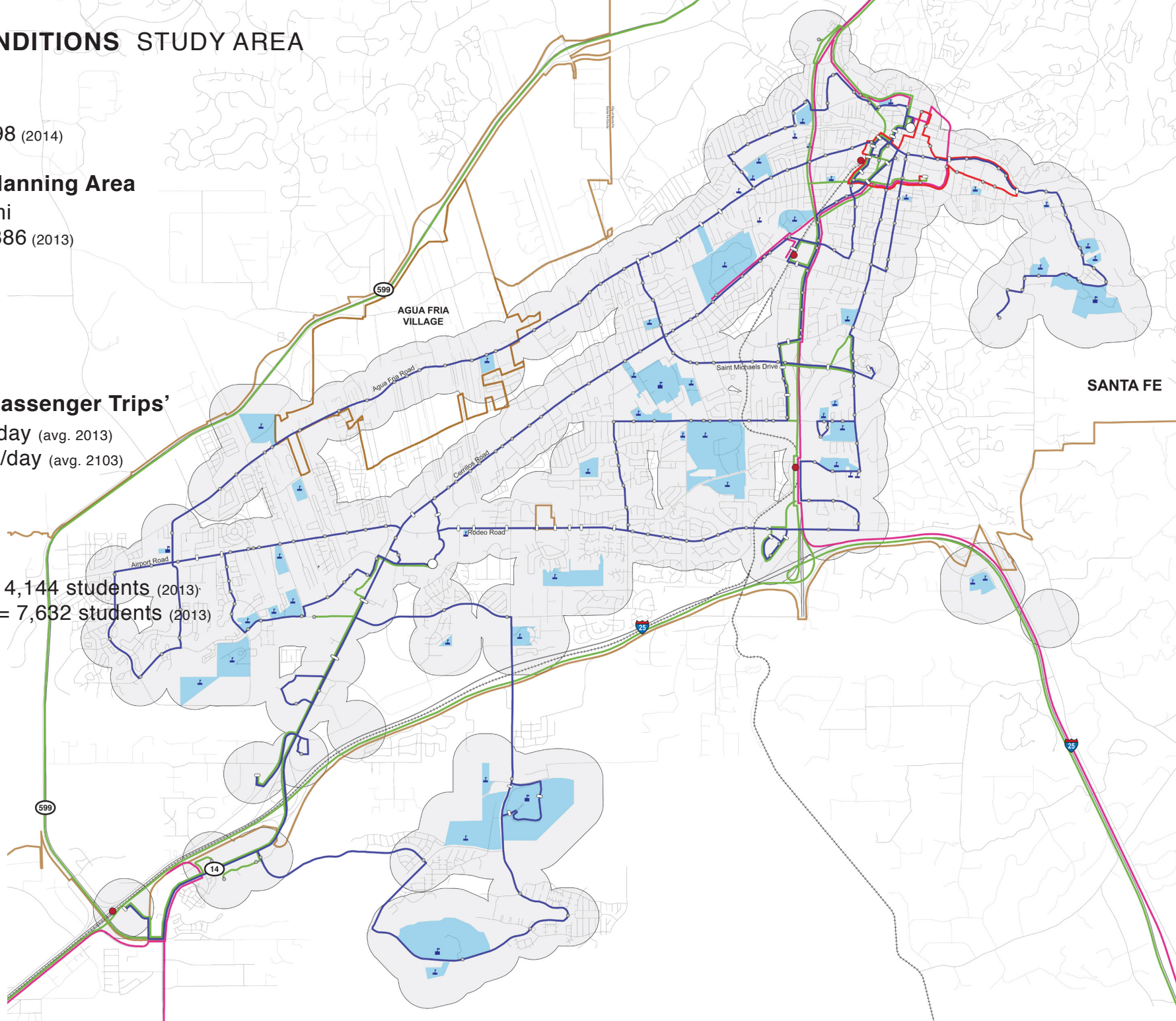
SF Trails = 3,464/day (avg. 2013)

Rail Runner = 981/day (avg. 2103)

Schools

Public Schools = 14,144 students (2013)

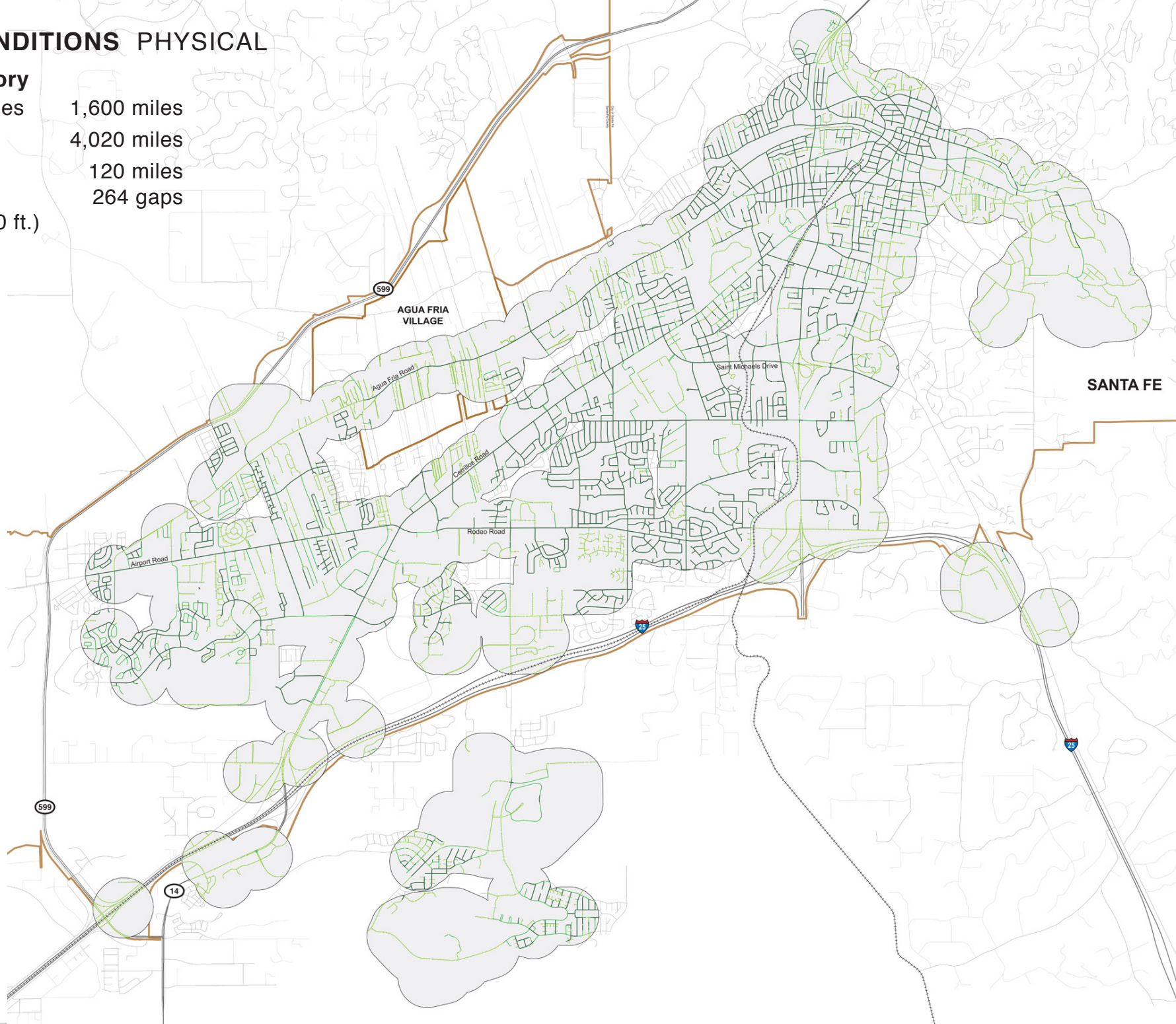
Higher Education = 7,632 students (2013)



EXISTING CONDITIONS PHYSICAL

Sidewalk Inventory

sidewalks both sides	1,600 miles
sidewalk one side	4,020 miles
no sidewalk	120 miles
sidewalk gaps	264 gaps
(average gap 200 ft.)	



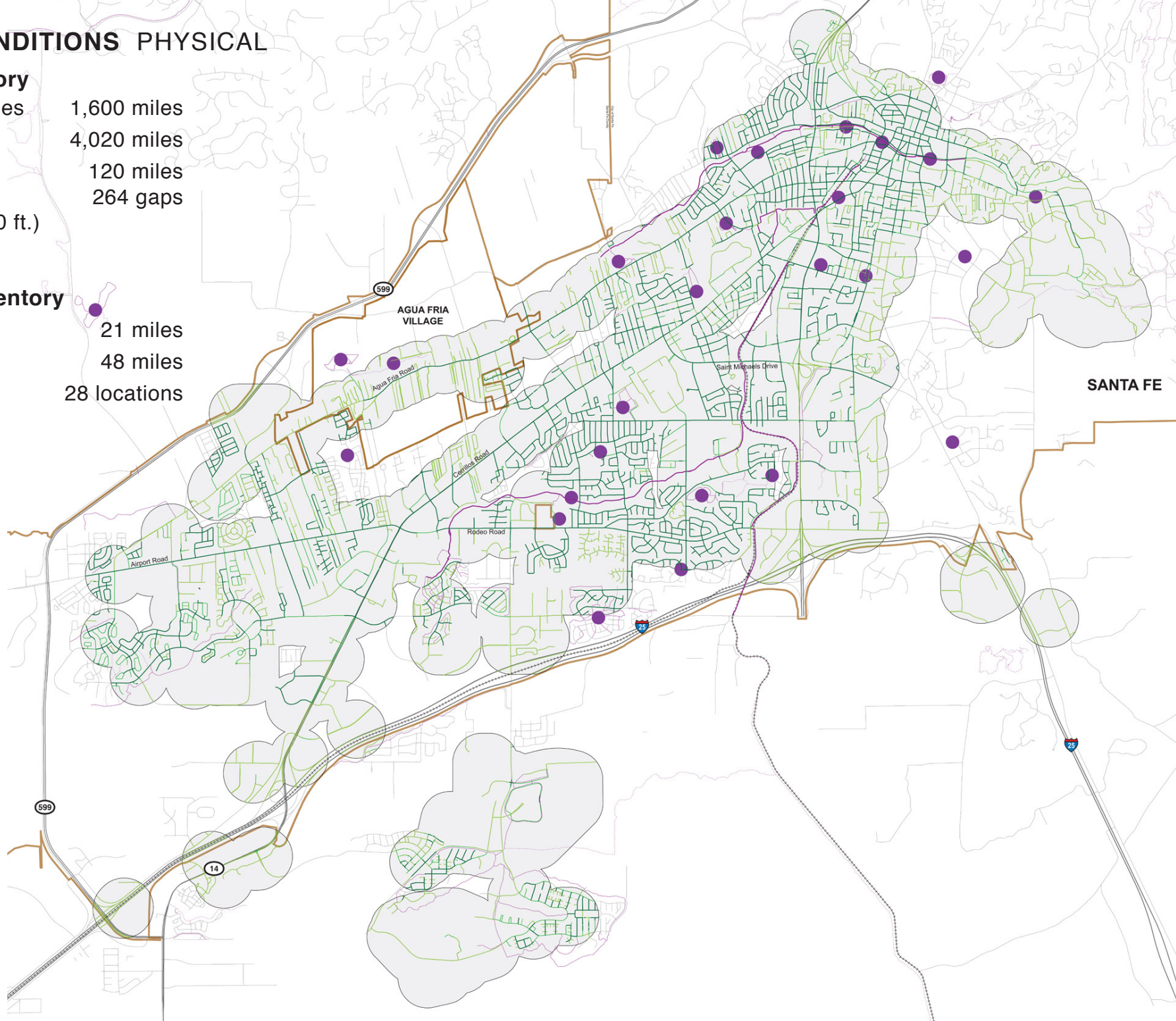
EXISTING CONDITIONS PHYSICAL

Sidewalk Inventory

sidewalks both sides	1,600 miles
sidewalk one side	4,020 miles
no sidewalk	120 miles
sidewalk gaps (average gap 200 ft.)	264 gaps

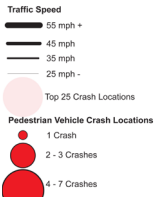
Urban Trails Inventory

major urban trails	21 miles
minor urban trails	48 miles
● prescription trails	28 locations



EXISTING CONDITIONS SAFETY

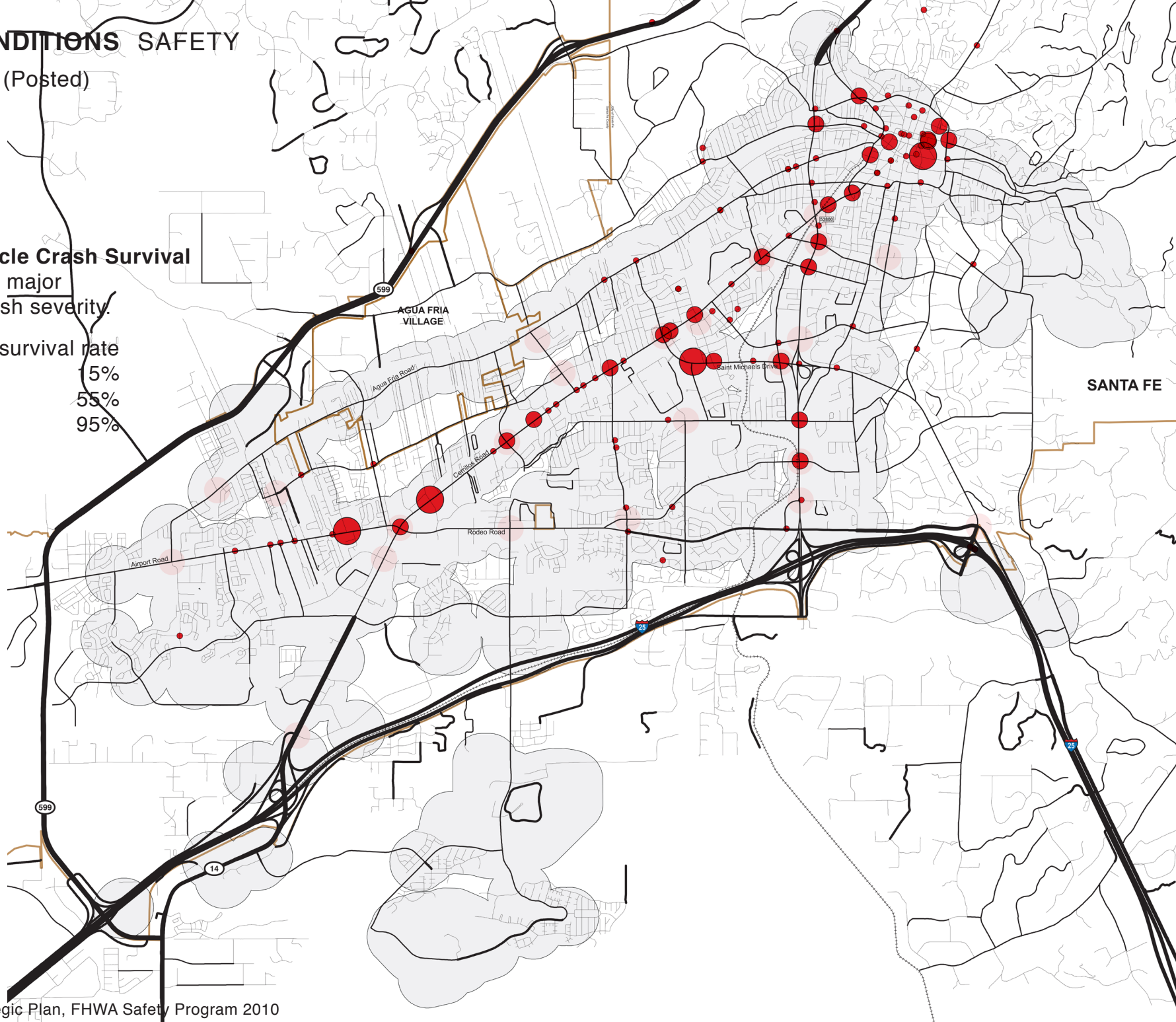
Roadway Speed (Posted)



Pedestrian / Vehicle Crash Survival

Vehicle speed is a major determinant of crash severity.

vehicle speed	survival rate
40 mph	15%
30 mph	55%
20 mph	95%



Source:
Pedestrian Safety Strategic Plan, FHWA Safety Program 2010

PUBLIC PERCEPTION RESPONSE

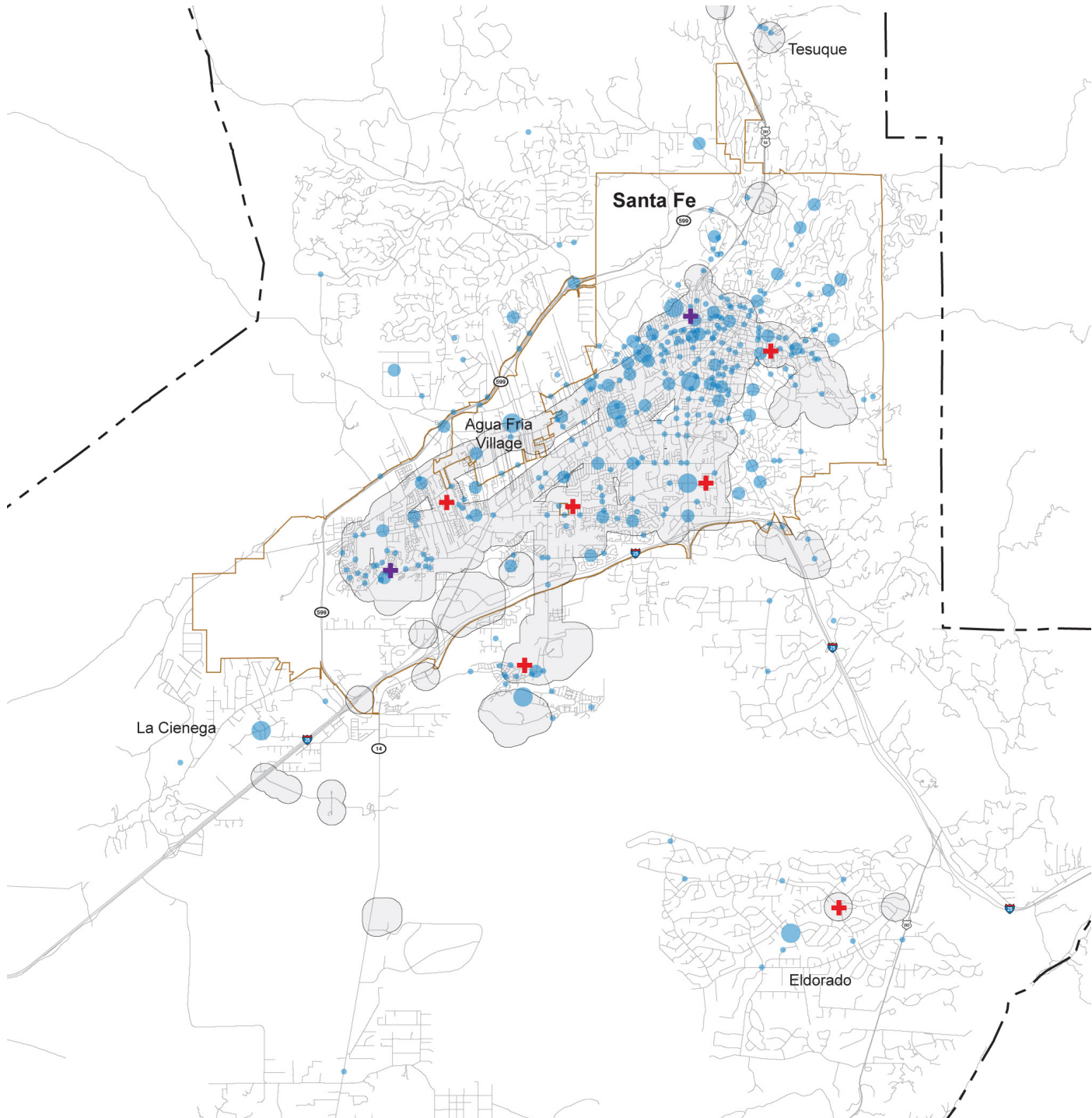
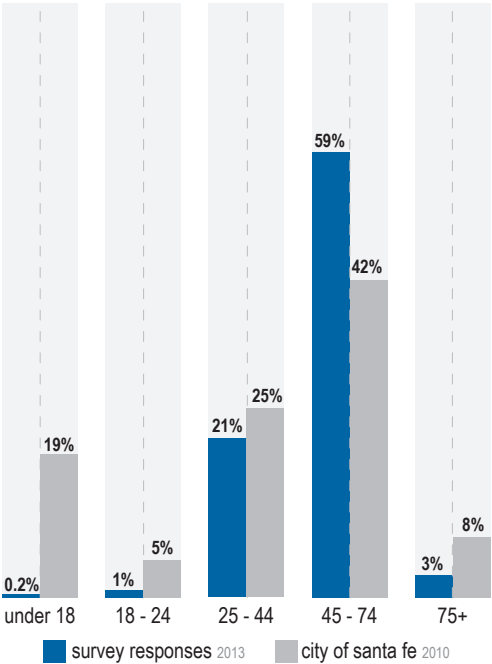
Survey Respondents	878
Public Meeting Series 1	205
Public Meeting Series 2	70

- Roads
- Santa Fe City Limits 2014
- Santa Fe MPO Planning Area
- Study Buffer
- Public Meeting Series 1 Location
- Public Meeting Series 1 + 2 Location

Locations of Survey Respondents

- 1-3 Respondents
- 4-10 Respondents
- 11-20 Respondents

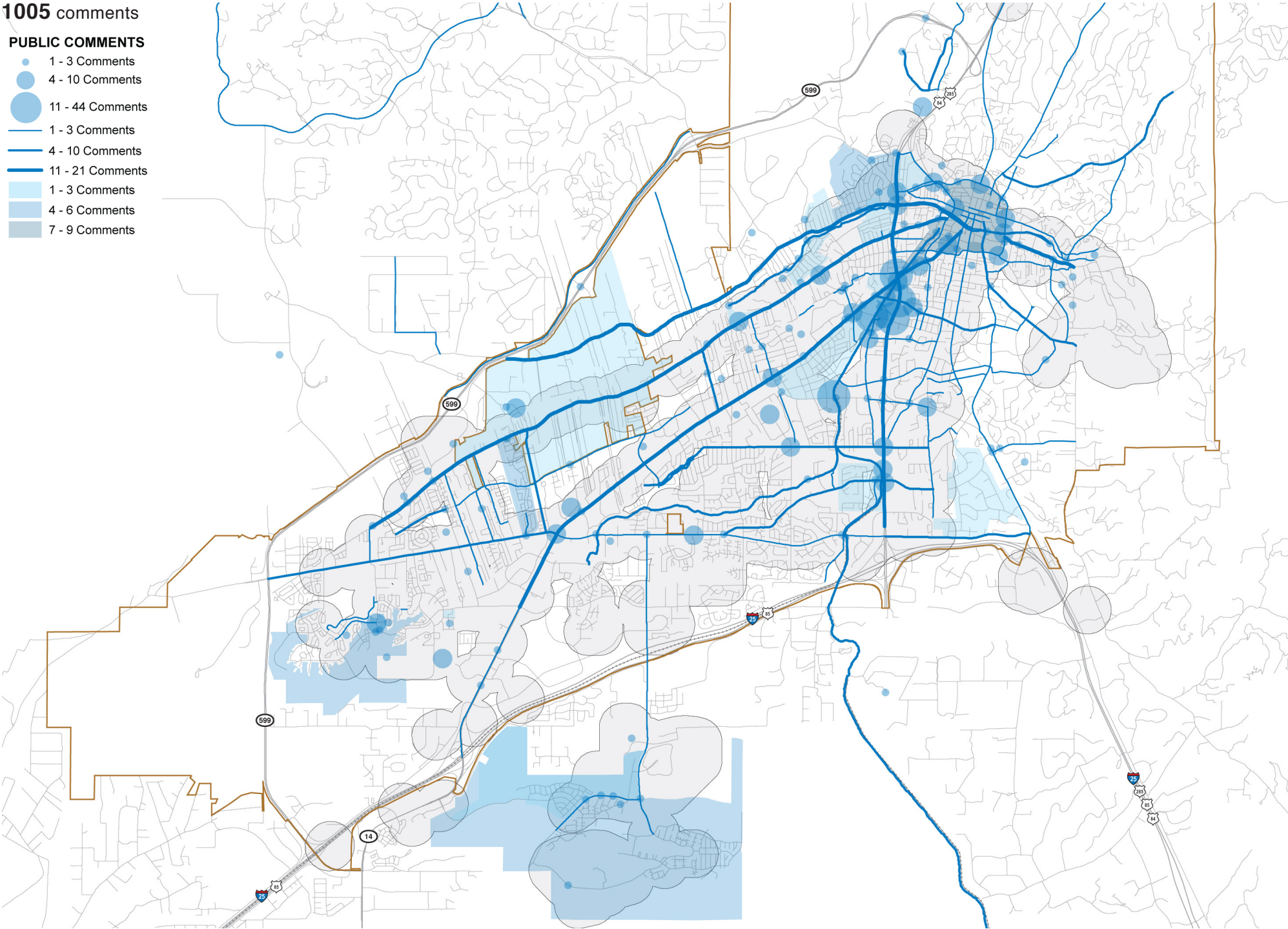
Survey Respondent Ages



PUBLIC PERCEPTION COMMENT SUMMARY

1005 comments

- PUBLIC COMMENTS**
- 1 - 3 Comments
 - 4 - 10 Comments
 - 11 - 44 Comments
 - 1 - 3 Comments
 - 4 - 10 Comments
 - 11 - 21 Comments
 - 1 - 3 Comments
 - 4 - 6 Comments
 - 7 - 9 Comments



PUBLIC PERCEPTION ISSUES

Challenges to Walking in Santa Fe (from Phase I public process 2013)

54% connectivity comments

40% safety comments

13% general comments

11% mainenance comments

6% transit comments

6% enforcement comments

3% accessibility comments

3% public awareness comments

2% schools comments



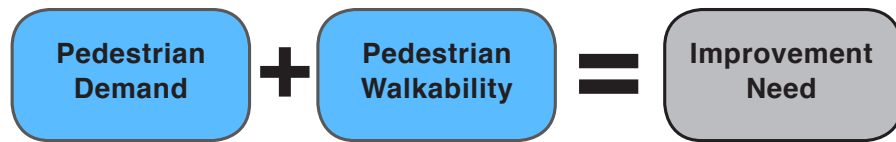
PEDESTRIAN MASTER PLAN



PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Improvement Needs

areas with high demand and low walkability



PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Demand Indicators + Weights

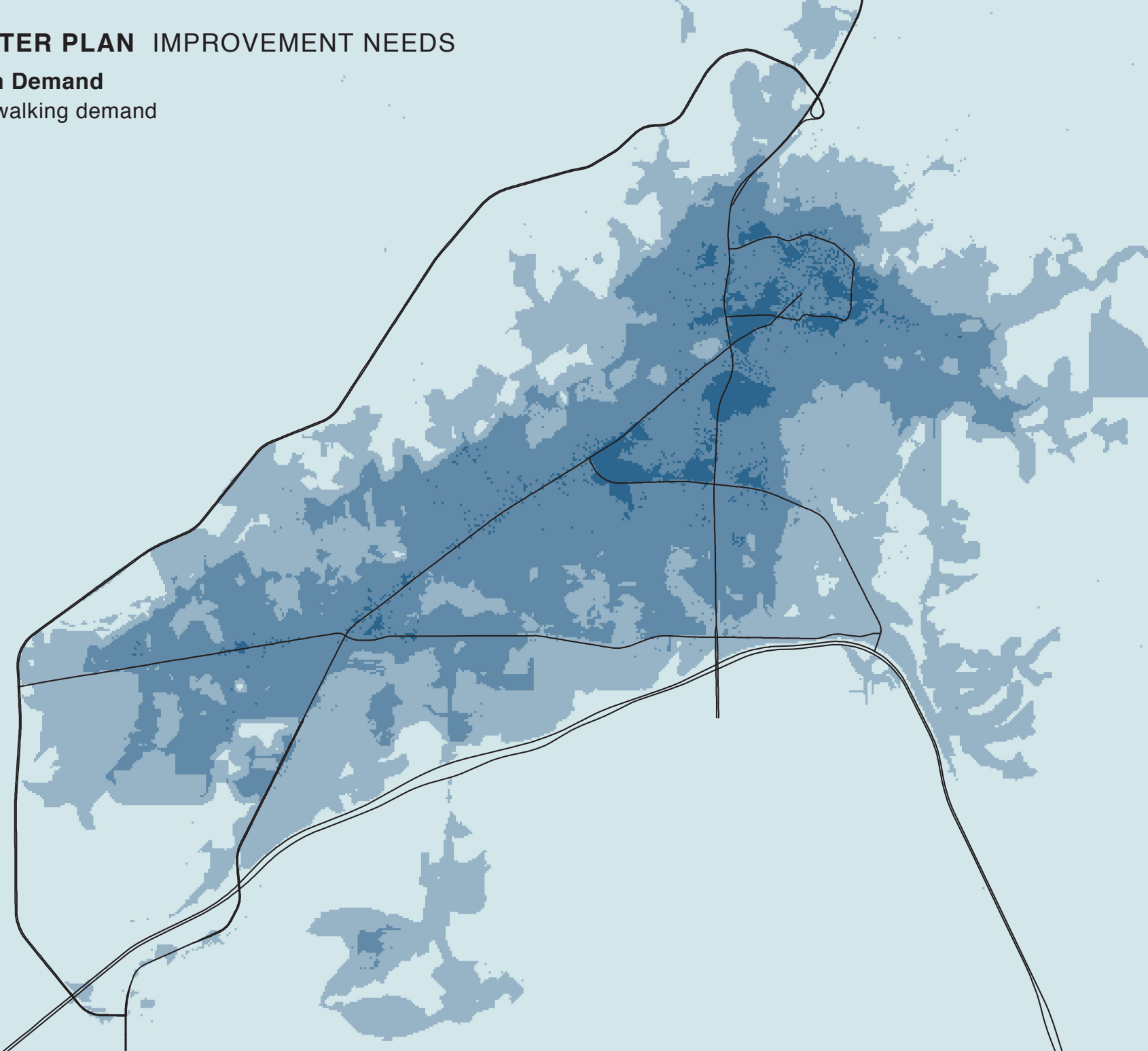
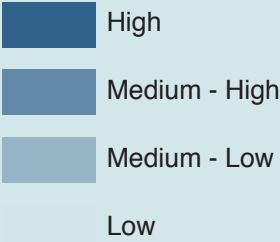
areas with the greatest walking demand (14)

Public Transit	15
Schools	13
Low Income (below \$20,000)	12
Employment Centers	9
Food Sources	9
Community Services	7
Population Density	7
Mix of Uses	6
Senior 65+	6
Moderate Income (\$20,000 - \$35,000) +	5
Youth (18 and under)	5
Recreation	4
Cultural Centers	1
Shopping Centers	1

+ category added by PMP Working Group

PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Demand
areas with the greatest walking demand



PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Walkability Indicators + Weights
areas with the highest / lowest pedestrian deficiencies (9)

Sidewalks *	20
Striping / Marking + *	14
Traffic Speeds *	12
Street Connectivity *	12
Pedestrian Vehicle Crashes	11
Destinations per Capita + *	11
SFPS Hazard Zones	9
Street Lighting *	7
Street Width *	4
Transition Plan *	tbd

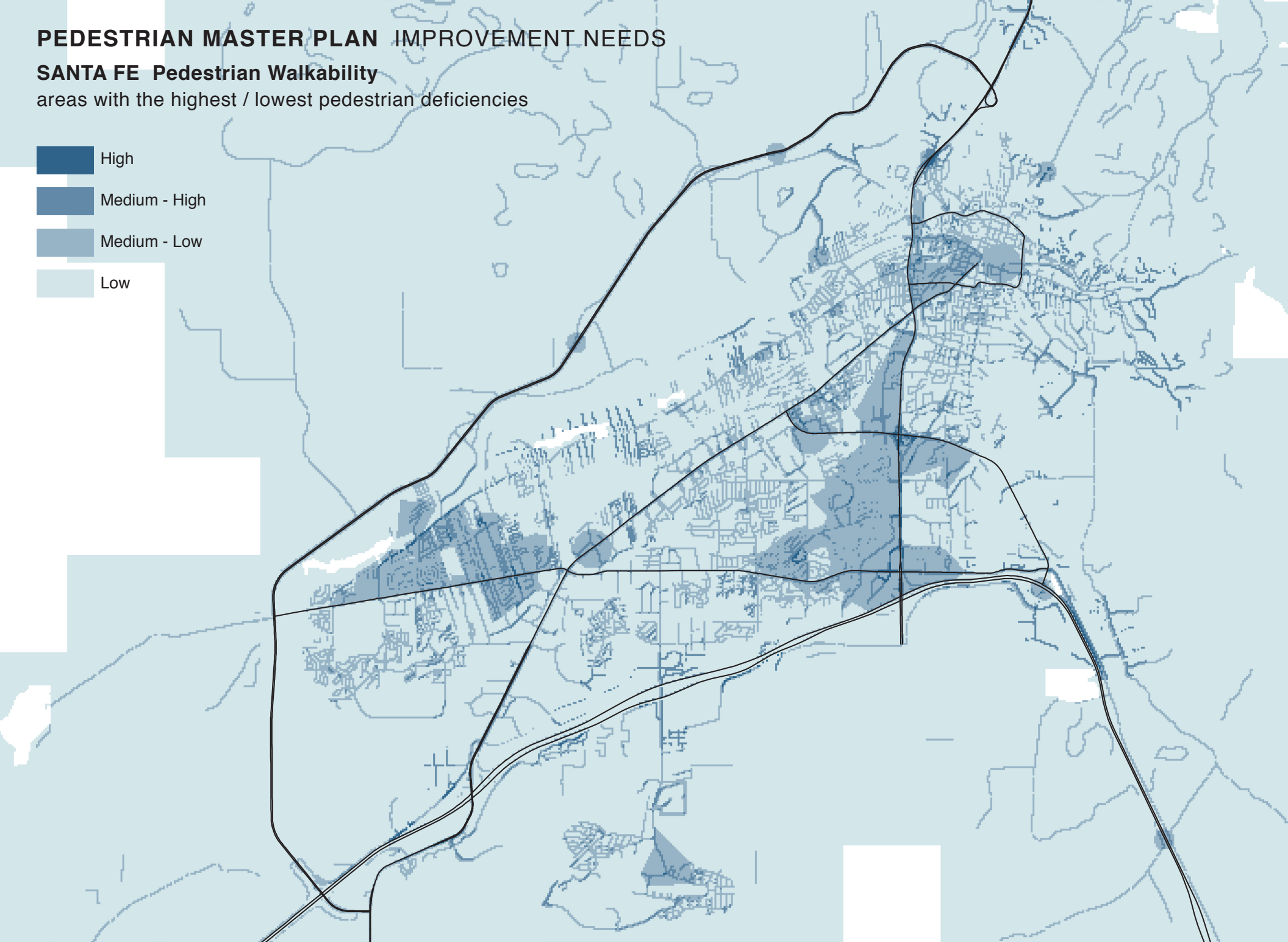
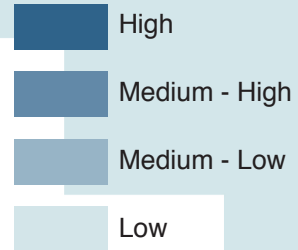
* *additional data collection needed*

+ *category added by PMP Working Group 6/23/14*

PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Walkability

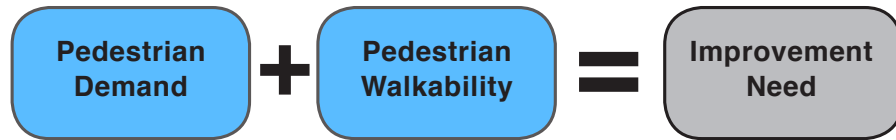
areas with the highest / lowest pedestrian deficiencies



PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Improvement Need Composite

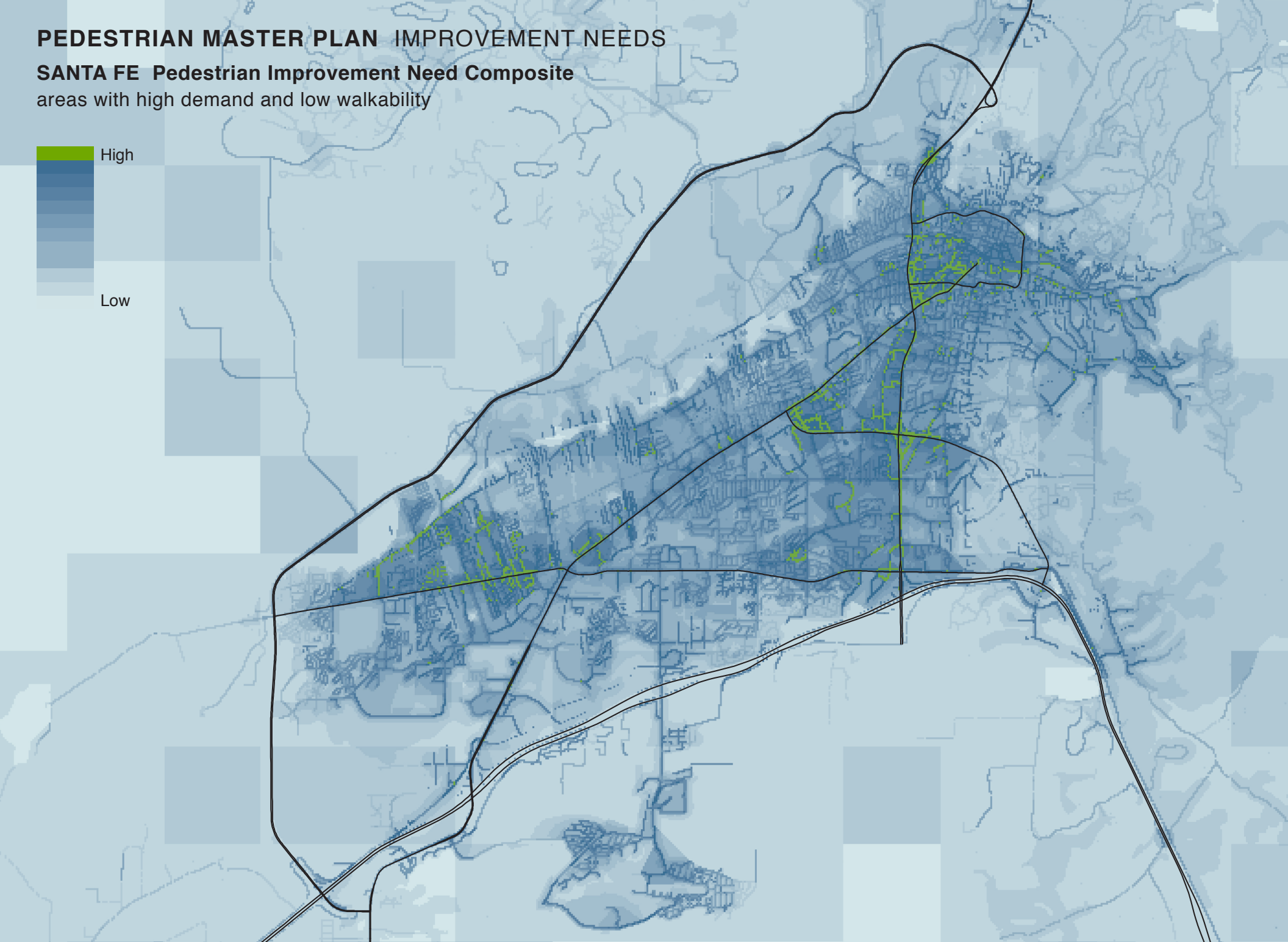
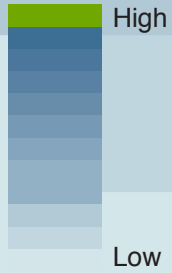
areas with high demand and low walkability



PEDESTRIAN MASTER PLAN IMPROVEMENT NEEDS

SANTA FE Pedestrian Improvement Need Composite


areas with high demand and low walkability

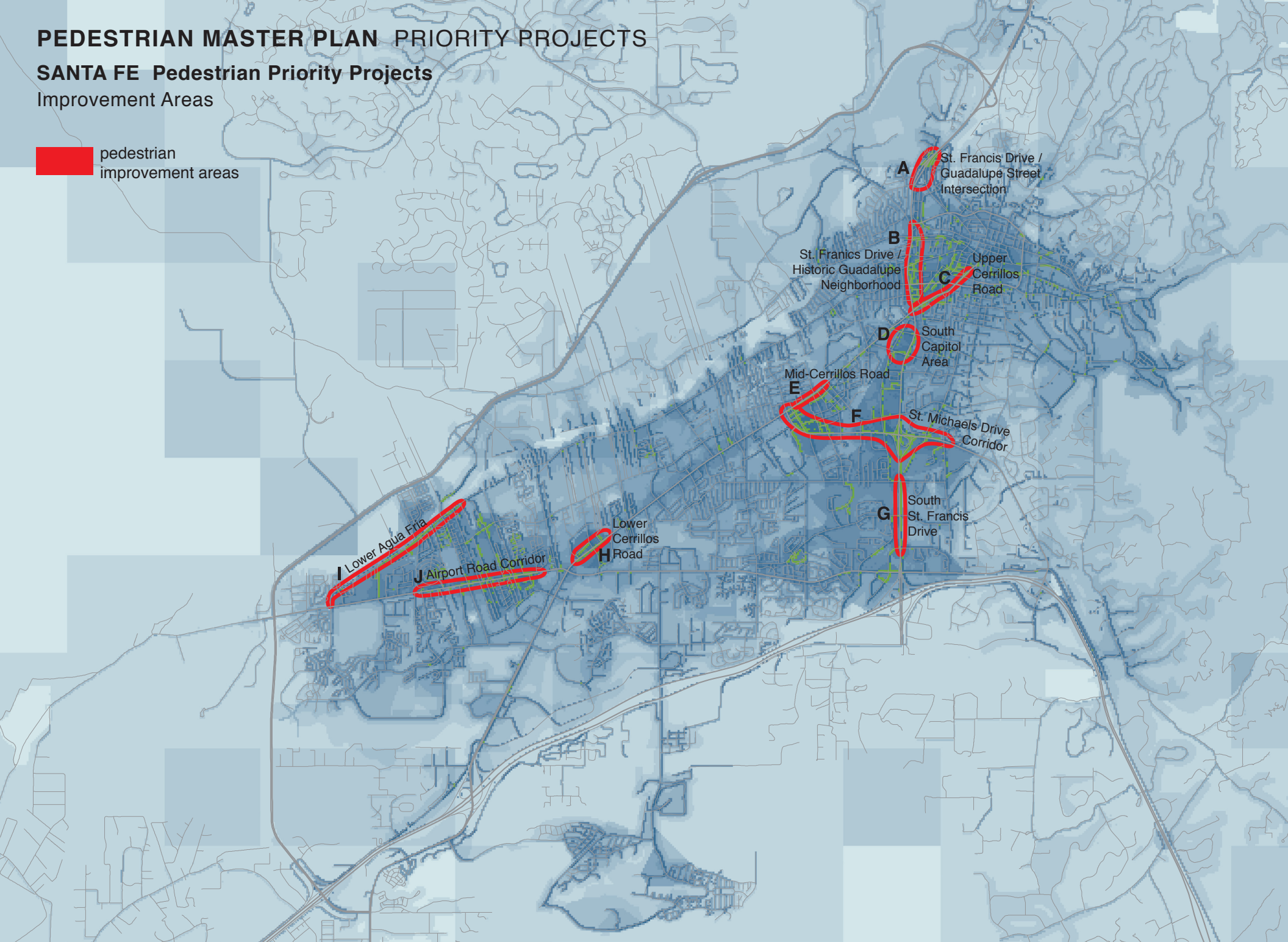


PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects

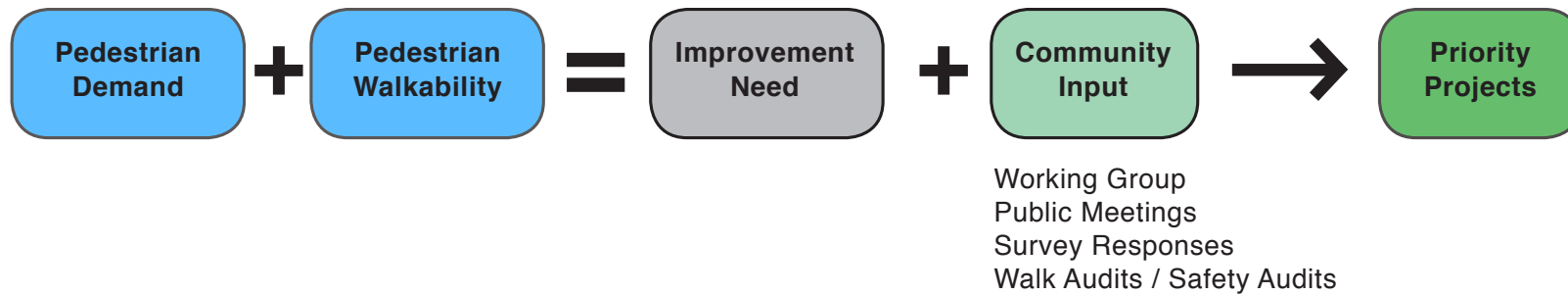
Improvement Areas

 pedestrian improvement areas



PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects



PEDESTRIAN MASTER PLAN COMMUNITY INPUT

Pedestrian Survey (English + Spanish) **878**

Public Meetings (10 meetings) **275**

Working Group Meetings (4 meetings) **26**

Partnerships

Creative Santa Fe

La Familia

WALC Institute

Pedestrian Master Plan Updates

Transportation Coordinating Committee

Transportation Planning Board

Mayor's Commission for Disabilities

Bicycle and Trails Advisory Committee

Parks Open Space Advisory Commission

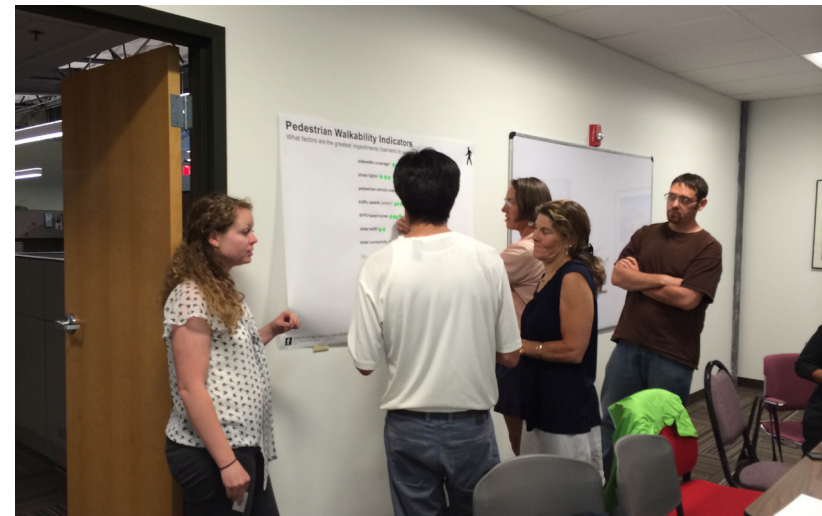
County Open Lands, Trails and Parks Advisory Committee

Transit Advisory Board

AARP

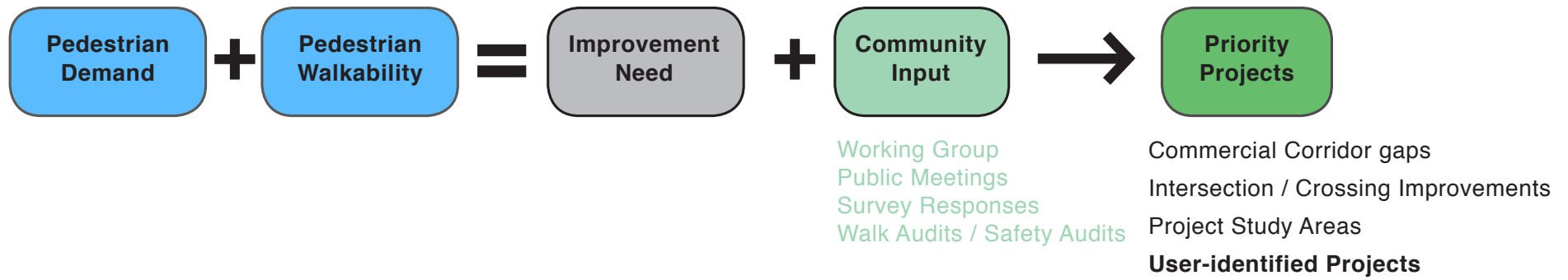
Tesuque Pueblo

Santa Fe Public Schools



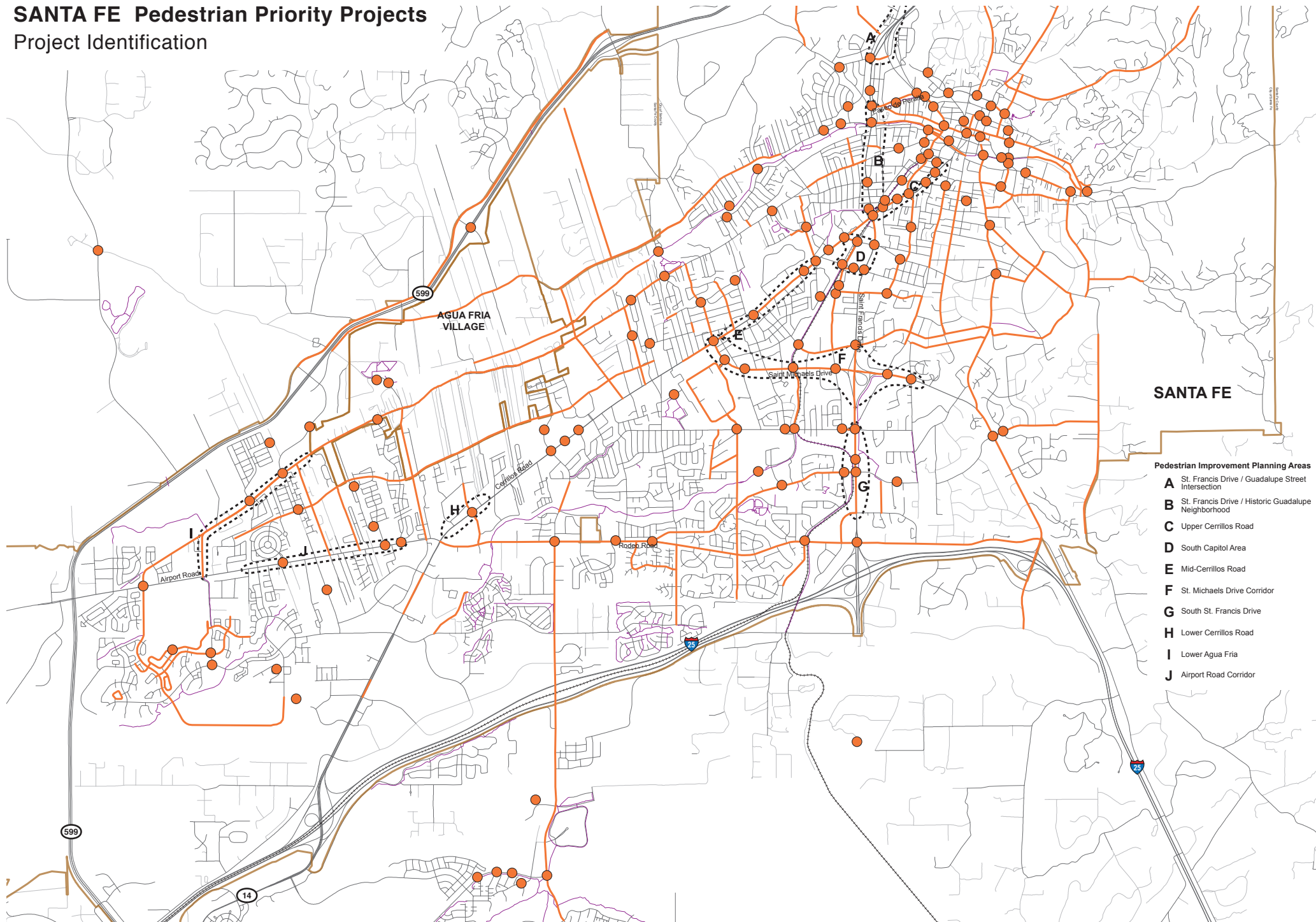
PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects



PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects Project Identification



PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects **DRAFT**

Project Ranking





SAFETY How will the proposed project increase safety for all users? Does it alleviate a known issue?

- | | |
|---|---|
| 4 | Will resolve major identified safety issue (4+ crashes or 3+ public comments) |
| 3 | Will resolve a documented safety issue (<4 crashes) |
| 2 | Will resolve an identified safety issue (<3 public comments) |
| 1 | Will have no impact on safety |

CONNECTIVITY How well will the proposed project improve the connectivity of the pedestrian network?

- | | Sidewalk Connection | Crossing / Intersection |
|---|---|---|
| 4 | Fills a major gap or creates a more convenient connection (missing connection along a collector roadway or higher classification) | Creates a new crossing at a major roadway |
| 3 | Creates a new connection or fills a minor gap (missing connection along a neighborhood / residential street) | Creates a new crossing at a minor roadway |
| 2 | Upgrades an existing sidewalk / path or introduces sidewalk to a new residential area (maintenance improvement, widens sidewalk, restripes crossing, etc) | Upgrades an existing crossing (restriping, new pedestrian activated signal, etc.) |
| 1 | Will have no impact on network connectivity | Has no impact on network connectivity |

IMPROVEMENT NEED Does the proposed project fall within a designated Pedestrian Planning Area?

- | | | |
|---|--|---|
| 5 | Falls within a designated Pedestrian Planning Area |  |
| 4 | Has composite score of 4000 - 4480 (High) |  |
| 3 | Has composite score of 3500 - 4000 (Medium High) |  |
| 2 | Has composite score of 3000 - 3500 (Medium) |  |
| 1 | Has composite score of < 3000 (Low) | |

FEASIBILITY Is the project in an area that can easily be developed by the City / County / State?

- | | |
|---|--|
| 4 | Land is owned by the City / County / State / publicly owned or within the Right-of-Way |
| 3 | Land has jurisdictional conditions (i.e. County land within FEMA flood plain or Federal Funding is used) |
| 2 | Land is privately owned |
| 1 | Land is privately owned and has jurisdictional conditions |

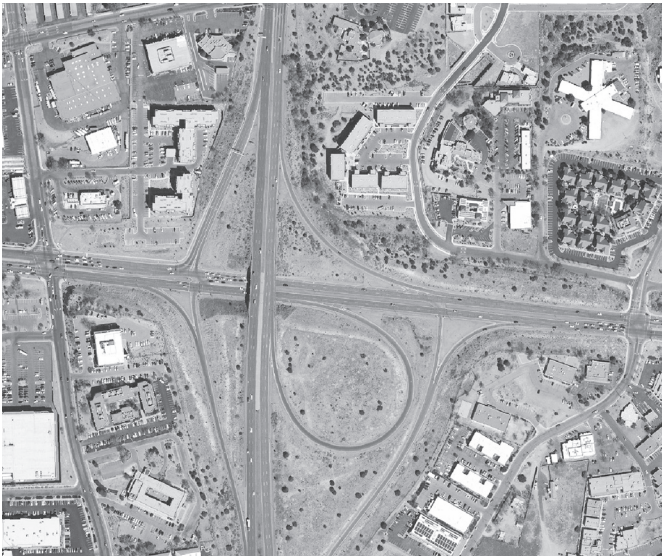
TIME FRAME Based on identified safety, interconnectivity, composite score, and feasibility, when does the project need to be implemented?

- | | |
|---------------|---------------------|
| Short | Within 1 years |
| Medium | Within 1 to 3 years |
| Medium / Long | Within 3 to 5 years |
| Long | More than 5 years |

PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects DRAFT

St. Michael's Drive (Galisteo - Pacheco)



Scorecard

SAFETY	Will resolve a major identified safety issue	4
CONNECTIVITY	Fills a major gap or creates a more convenient connection	4
IMPROVEMENT NEED	Falls within a Pedestrian Planning Area	5
FEASIBILITY	Land publicly owned / within ROW	4
		composite score: 17

Project Improvements

- * Roadway Safety Audit (coordination w/ bike, public transit)
- Sidewalk connections along north + south sides of St. Michael's Drive (3,560 LF)
- Pedestrian improvements at intersections w/ on/off ramps
- Roadway improvements / revisions

PEDESTRIAN MASTER PLAN PRIORITY PROJECTS

SANTA FE Pedestrian Priority Projects **DRAFT**

Agua Fria St. (Frenchy’s Field Park/
Camino de Chelly)



Scorecard

SAFETY	Will resolve an identified safety issue	2
CONNECTIVITY	Upgrades an existing mid-block crossing	2
IMPROVEMENT NEED	Falls within a Medium Level Pedestrian Planning Area	2
FEASIBILITY	Land publicly owned / within ROW	4
		composite score: 10

Project Improvements

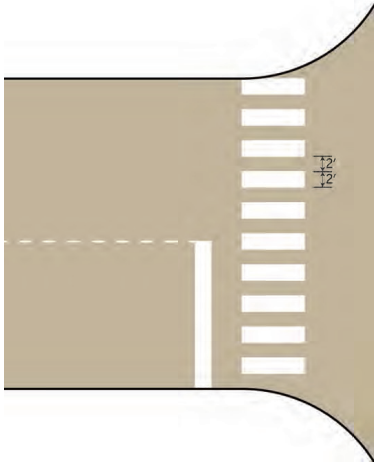
Striping + pedestrian signage at existing mid-block crossing / median refuge island

TOOLBOX OPTIONS

PEDESTRIAN MASTER PLAN DESIGN STANDARDS

SANTA FE Pedestrian Improvement Toolbox

Marked Crossing



**STANDARD CONTINENTAL
CROSSWALK**

Marked crosswalks indicate where pedestrians may cross the street and where drivers should expect them to cross.

In-Road Pedestrian Yield Law Sign



State and City law requires that vehicles must yield to pedestrians who are in a crosswalk. In-road “State Law Yield for Pedestrians” signs are a supplemental feature to remind drivers of this law.

PEDESTRIAN MASTER PLAN DESIGN STANDARDS

SANTA FE Pedestrian Improvement Toolbox

Leading Pedestrian Interval

HOW A LEADING PEDESTRIAN INTERVAL WORKS

1. BOTH VEHICLES AND PEDESTRIANS ARE STOPPED.



2. PEDESTRIANS CAN BEGIN TO CROSS THE INTERSECTION, BUT VEHICLES ARE STILL STOPPED.

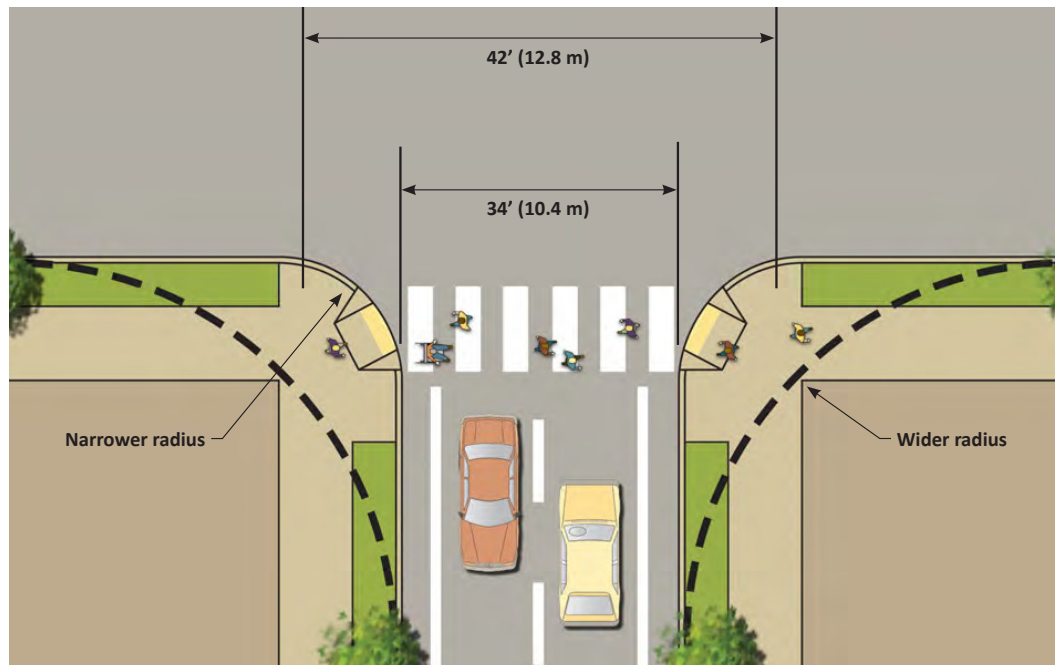


3. BOTH PEDESTRIANS AND VEHICLES CAN ENTER THE INTERSECTION AND TURNING VEHICLES MUST YIELD TO PEDESTRIANS.



A leading pedestrian interval (LPI) gives pedestrians a head start into an intersection before vehicles. The WALK signal is turned on approximately three seconds before vehicles are given a green signal.

Reduced Curb Radius

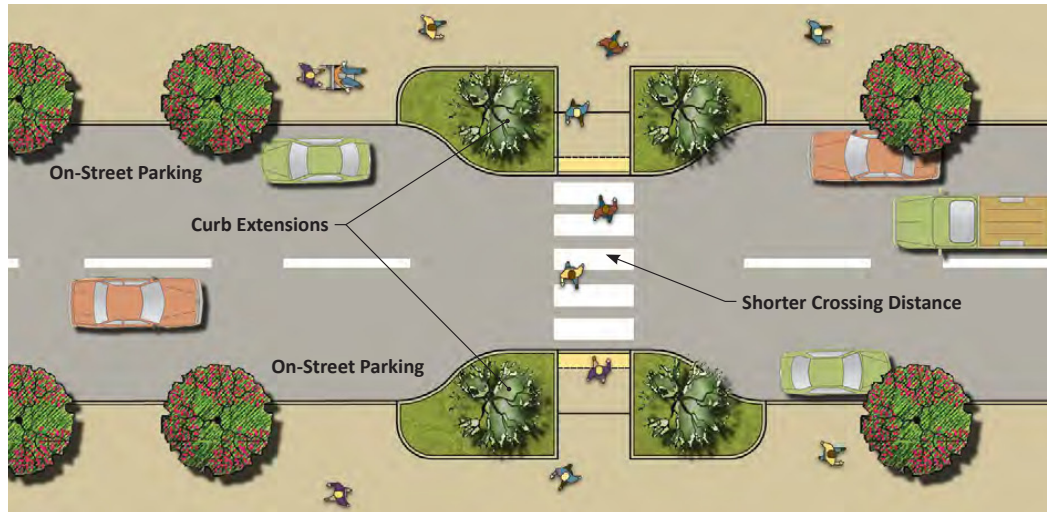


The use of smaller curb return radii at intersections reduces pedestrian crossing distances. Reduced radii also help to slow vehicles as they navigate through their turning movement, enabling drivers to respond more quickly to signal changes and crossing pedestrians.

PEDESTRIAN MASTER PLAN DESIGN STANDARDS

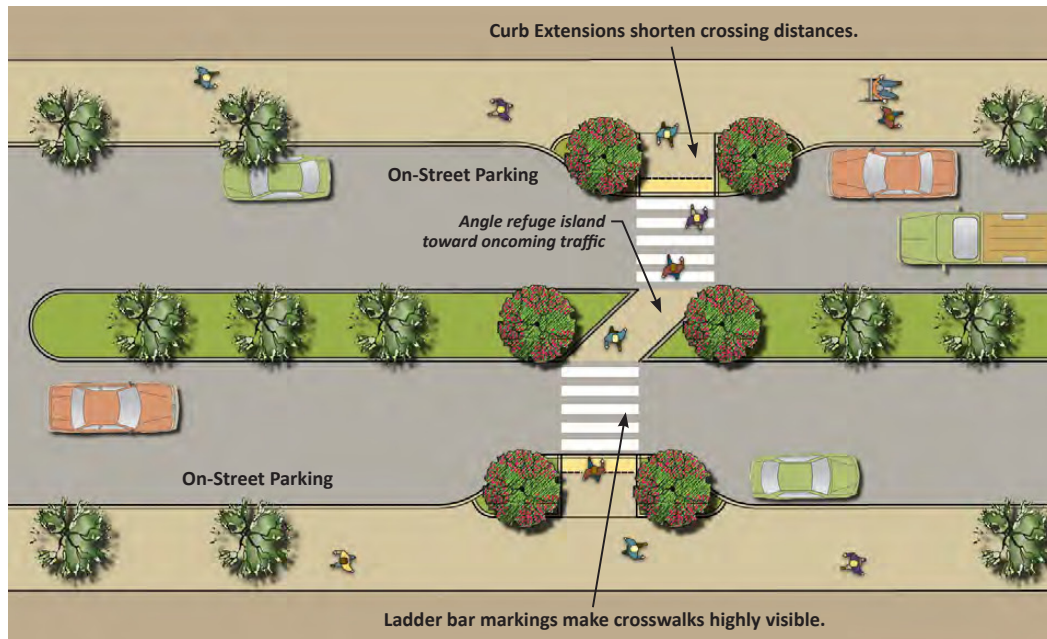
SANTA FE Pedestrian Improvement Toolbox

Mid-Block Crossing



Mid-block crossings should be located where there is adequate sight distance for both the motorist and pedestrian. In addition to proper roadway geometry, any obstacle that would interfere with visibility at the crossing location.

Refuge Island



Raised refuge islands greatly increase pedestrian safety at mid-block crossings. They can be installed by themselves or within a median.

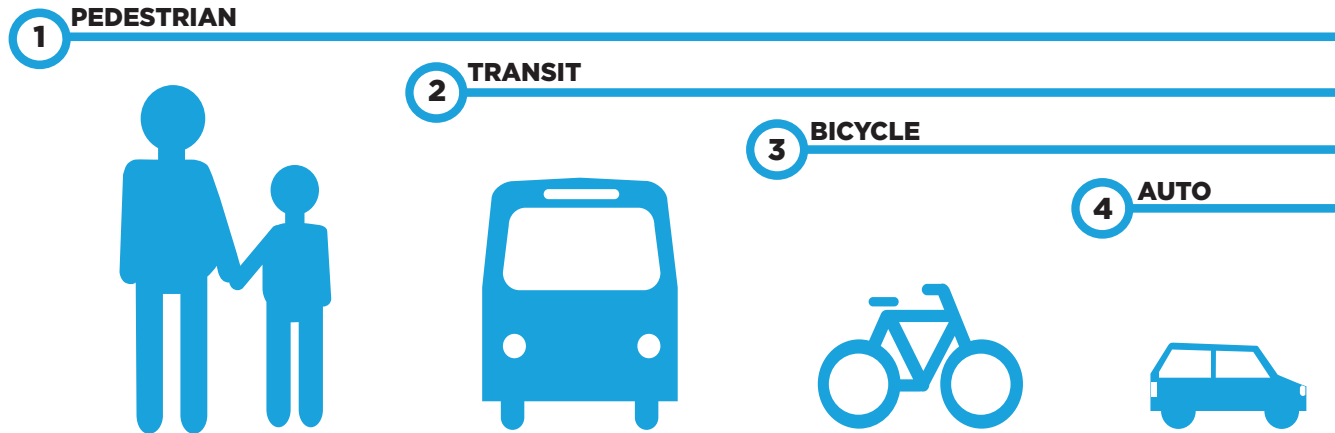
On multi-lane roads, raised medians or refuge islands are highly recommended because they greatly increase pedestrian safety.

GOALS AND POLICIES COMPLETE STREETS

Santa Fe Metropolitan Planning Organization, New Mexico Resolution 2007-1, 2007

Complete Streets are streets that work for all users, not just those using a car.

They are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets in a community, regardless of how they are traveling. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.



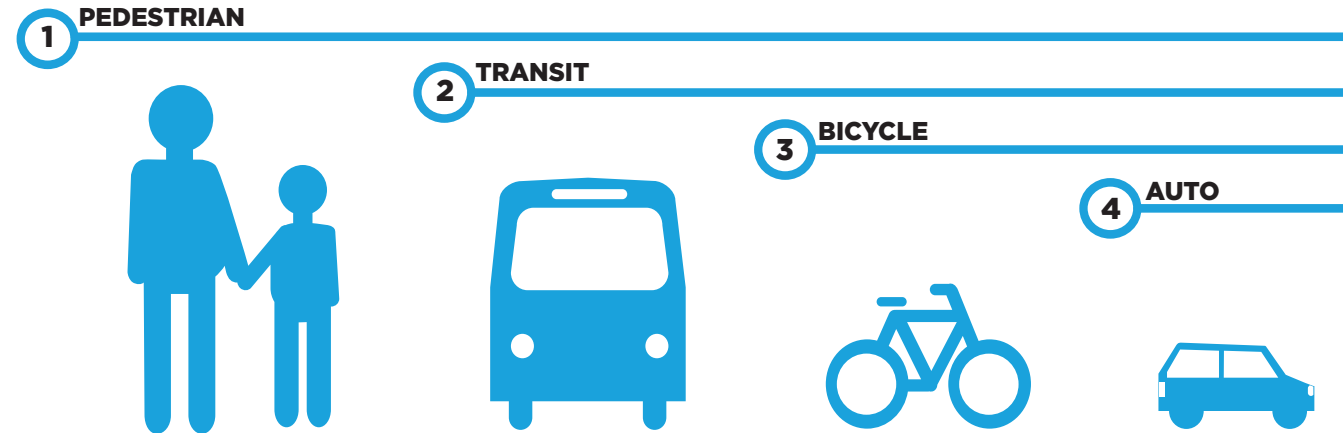
Pedestrian First Modal Hierarchy

GOALS AND POLICIES COMPLETE STREETS

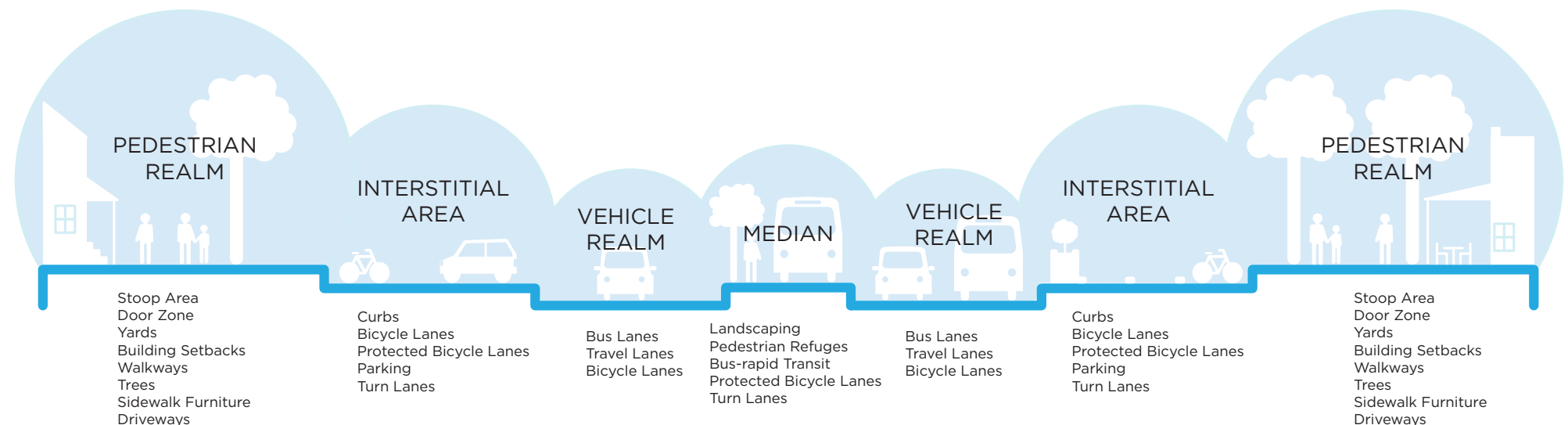
Santa Fe Metropolitan Planning Organization, New Mexico Resolution 2007-1, 2007

Complete Streets are streets that work for all users, not just those using a car.

They are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets in a community, regardless of how they are traveling. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.



Pedestrian First Modal Hierarchy



PEDESTRIAN MASTER PLAN

RECOMMENDATIONS PROJECT LIST IMPLEMENTATION

PLANNING AREA STUDIES

SCHOOL HAZARD AREA IMPROVEMENTS

INTEGRATED MULTI-MODAL ASSESSMENT

STRIPING / SIGNAGE

LIGHTING

PEDESTRIAN COUNTERS (EXISTING CONDITIONS)

EDUCATION

PEDESTRIAN ADVOCACY COMMITTEE

REPORTING / EVALUATION SYSTEM

LIGHTING

