



South Central Light Rail Corridor

Existing Conditions Report

2019



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<i>Green Systems Element</i>	<i>TBD</i>



PROJECT INTRODUCTION

The residents, neighborhoods, businesses and organizations that make up the South Central Corridor are the foundation of a vibrant, diverse and cohesive community.

Overview

The City of Phoenix, in partnership with Valley Metro, is advancing the final engineering design for the South Central extension from Downtown Phoenix to Baseline Road.

The extension will add approximately five and a half miles to the light rail system, and will include seven new stations south of Downtown and two park-and-ride facilities. The new stations will be located on Central Ave at Lincoln Street, Buckeye Road, the Nina Manson Pullman Audubon Center, Broadway Road, Roeser Road, Southern Avenue, and Baseline Road.

Project construction is expected to begin in late 2019, with opening operations slated for 2023.

The expansion of the light rail stations along Central Avenue and 1st Avenue will occur within an overall boundary area defined as McKinley Street on the north, South Mountain Avenue on the south, 7th Street on the east, and 7th Avenue on the west.

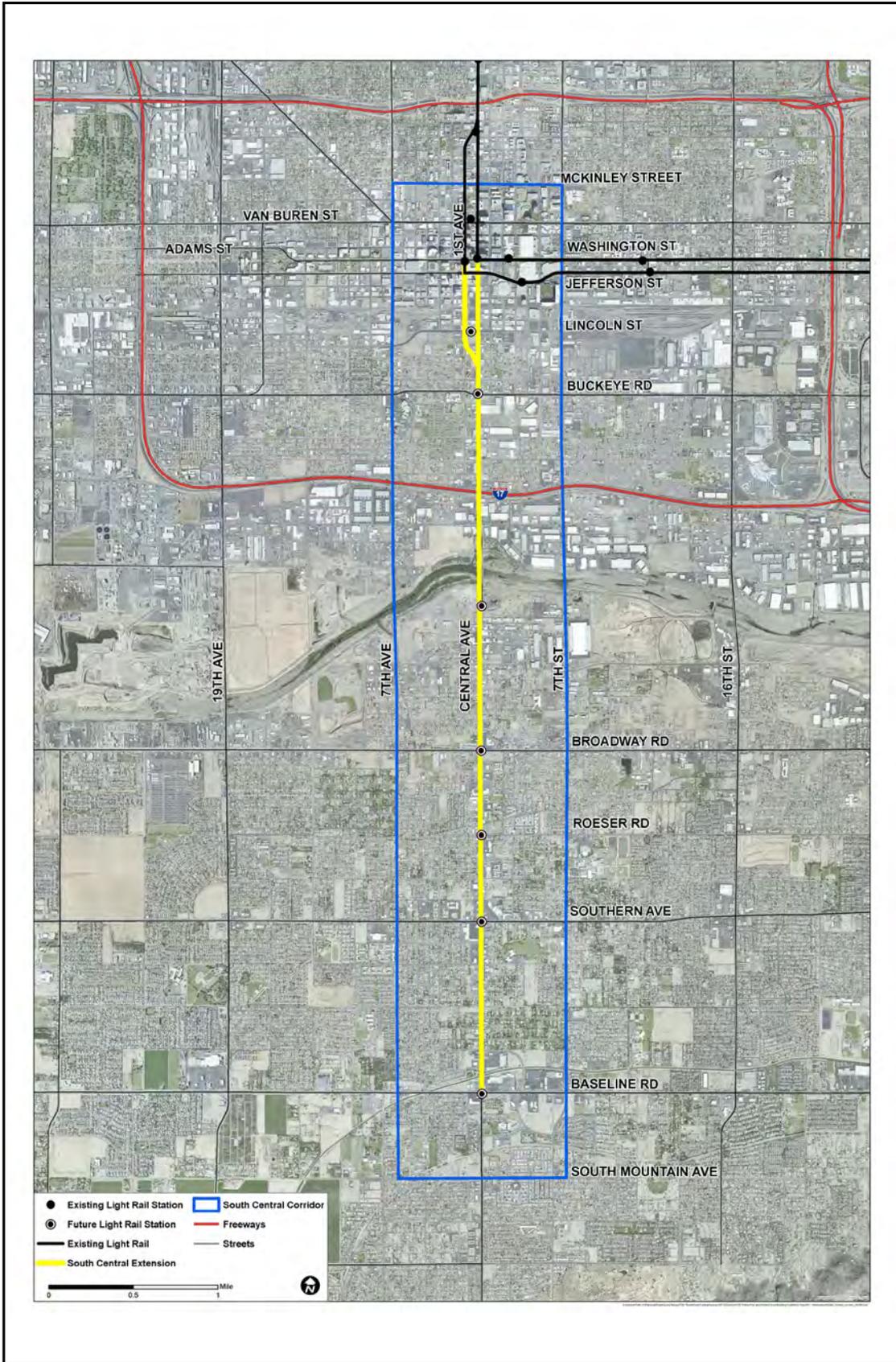
Existing Conditions Report

The purpose of the South Central Light Rail Corridor Existing Conditions Report is to provide an analysis, background, and demographic overview

that will serve as a resource for the transit-oriented development (TOD) planning process along the South Central light rail extension.

However, for some of the demographic data, such as those for housing, the report will focus on a specific area within the overall boundary that has not been previously analyzed or incorporated in past studies or plans, such as the Downtown Phoenix Plan.

Therefore, data collected may represent the Corridor's census tracts mostly located south of the Union Pacific Railroad tracks to South Mountain Avenue, and from 7th Avenue to 7th Street.



Light Rail Expansion and Future Light Rail Stations Map
Source: City of Phoenix Planning and Development Department

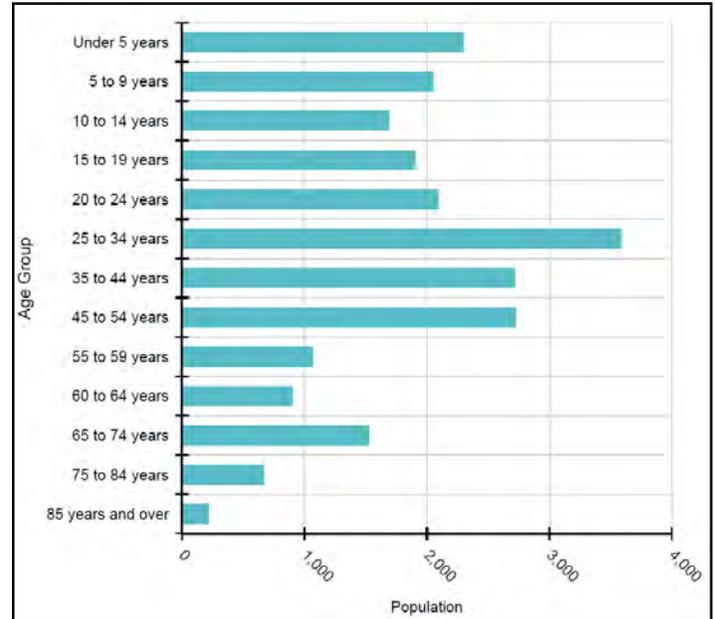
Demographics Overview

The following demographics data is representative of census block groups in close alignment to the South Central Corridor boundary spanning approximately from the Union Pacific Railroad tracks on the north to South Mountain Avenue on the south, and between 7th Avenue on the west and 7th Street on the east. The data represented comes from the U.S. Census Bureau American Community Survey 2012-2016 (5 year estimates).

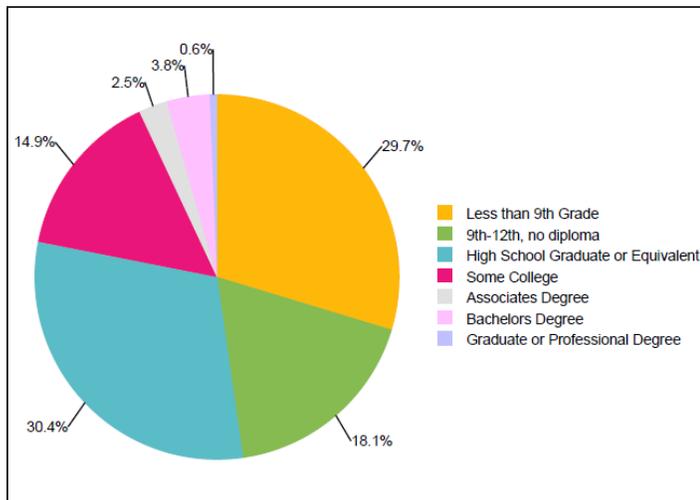
This area represents 5.10 square miles with a minority population of 21,269 residents or 90.70%. The block groups chosen have 6,178 total households and a population density of 4,601.69 residents per square mile.

Additional and updated demographics data may be discussed in later sections of the existing conditions reports in relation to each of the six planning elements as described on page 15.

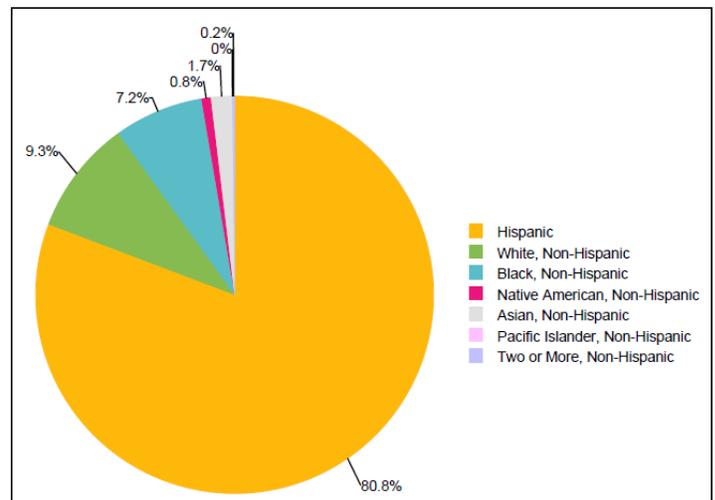
Age



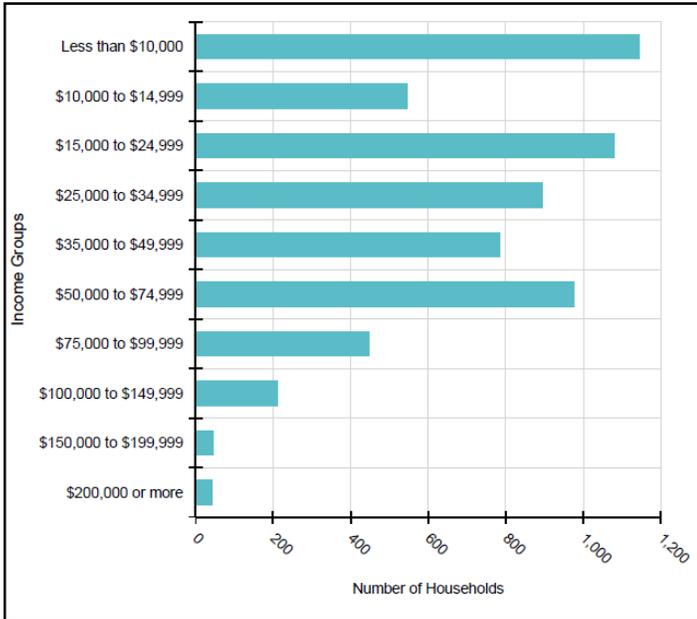
Educational Attainment (Age 25+)



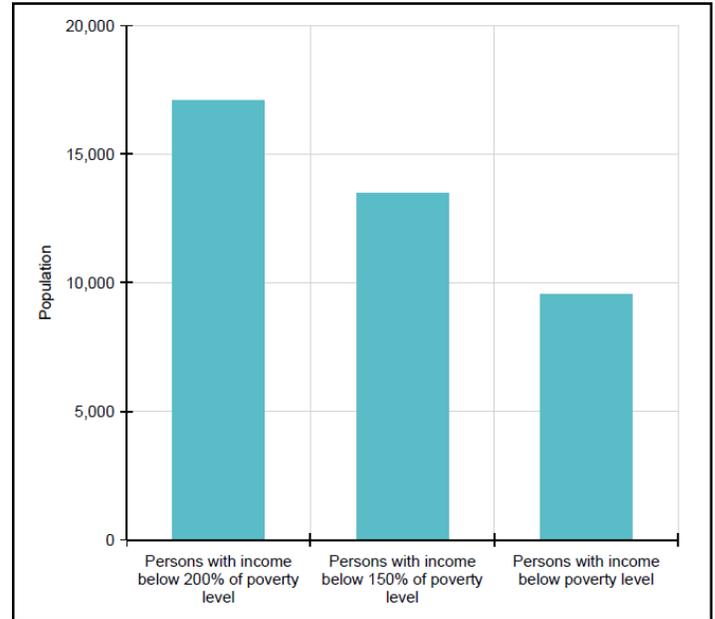
Race and Ethnicity



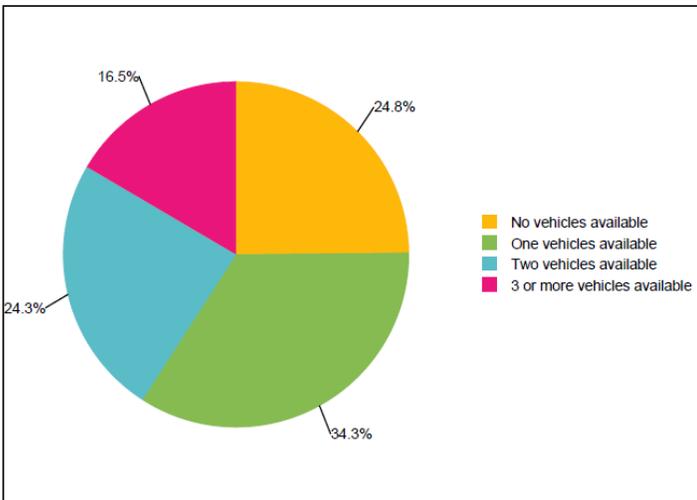
Household Income



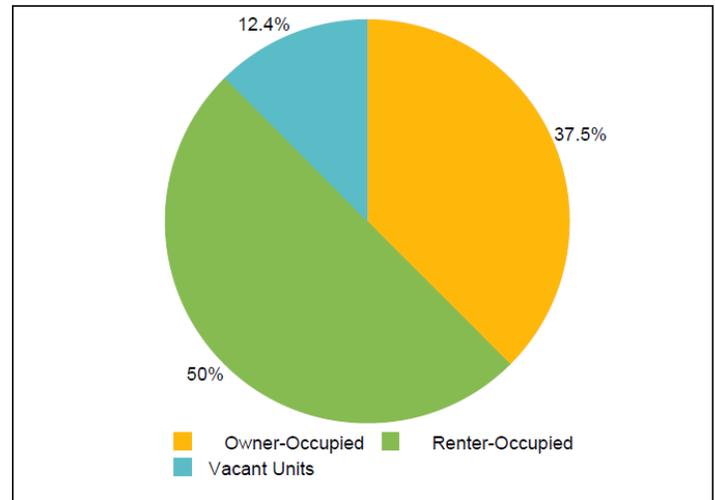
Poverty Status

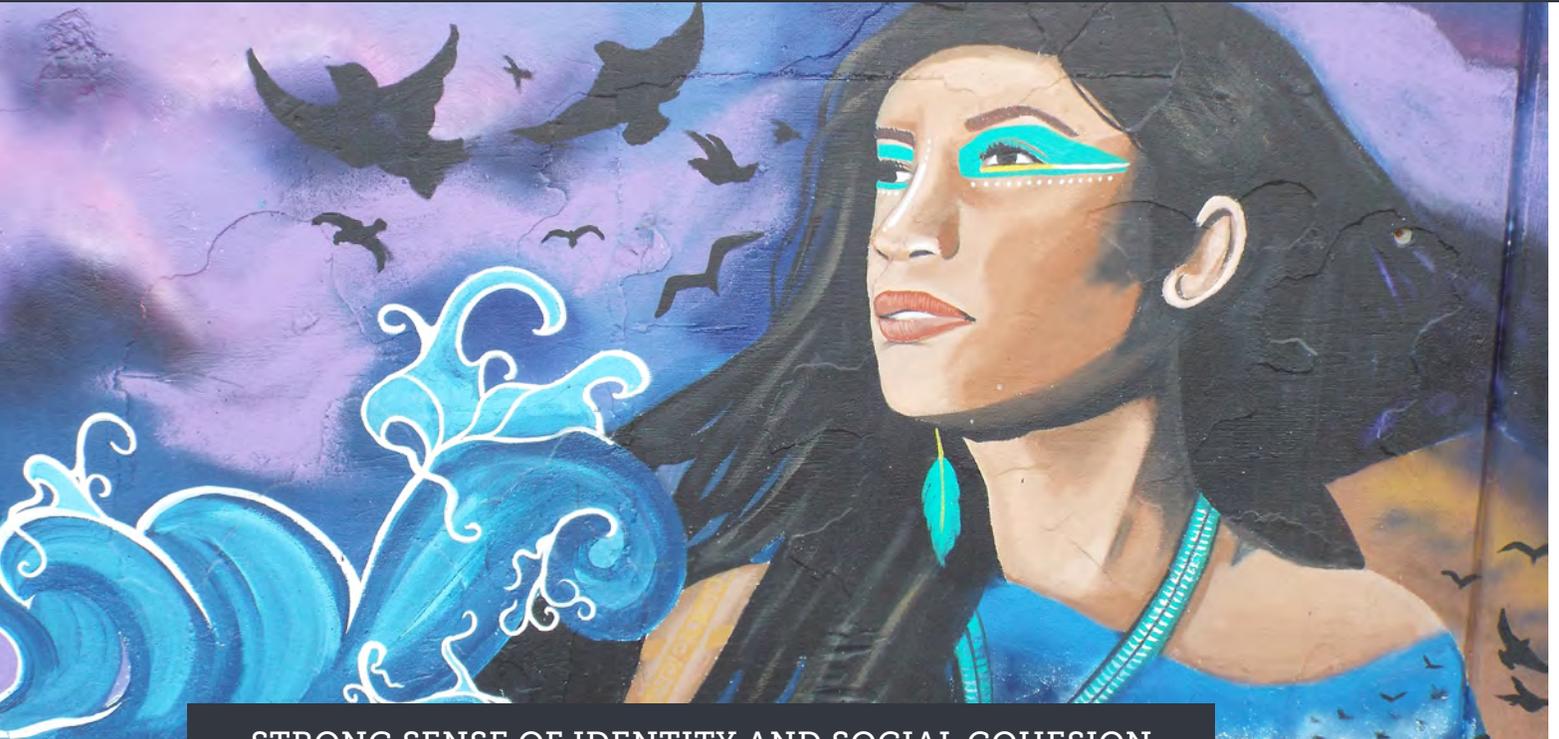


Occupied Household Vehicles Available



Housing Occupancy





STRONG SENSE OF IDENTITY AND SOCIAL COHESION

OPPORTUNITIES

The Central City South and South Phoenix communities possess a strong sense of identity and social cohesion, which is reflected in its established neighborhoods and in residents who have lived in the area for multiple generations.

Gathering spaces such as churches, schools, parks, and recreational centers, play a central role in the community's sense of place. Several local and regional resources offer recreational opportunities, including neighborhood parks, the Western Canal, the Rio Salado Audubon Center and Habitat Restoration Area, and South Mountain Park/Preserve.

The addition of the South Central extension and associated bicycle and pedestrian improvements will transform Central Avenue into a multi-modal transportation Corridor, complementing the existing local and rapid bus routes and the future Bus Rapid Transit (BRT) planned for Baseline Road.

Portions of Central Avenue contain an interesting building stock located close to the street, which will easily translate into a pedestrian-oriented, urban form. Several of these buildings are listed on or eligible for listing on the Phoenix Historic Property Register and/or the National Register of Historic Places, creating an opportunity to retain community character and honor the area's rich history.

CHALLENGES

Community members have shared that they are hesitant to participate due to a lack of trust and a lack of understanding of how their input is included in the process.

Decades of neglect and disinvestment in the community has created long-lasting distrust by residents. It is critical that city staff and the consultant team create engagement strategies that directly address barriers to participation (see Community Efforts, Community Engagement Toolkit for additional discussion on page 19).

Residents and businesses have expressed concerns and fear that infrastructure, public improvements, and other capital investments will lead to gentrification or displacement. Vacant land offers opportunities for revitalization within the Corridor; however, a high rate of residential and commercial rentals may lead to development pressures that may not directly serve the existing community.

These opportunities and challenges underscore the importance of an inclusive and thoughtful TOD planning process that avoids unintended impacts to the existing community while guiding growth and investment towards a shared community vision for the future.

ENCOURAGING COMMUNITY PARTICIPATION



The FTA awarded the City of Phoenix a \$2 million TOD grant to assist in the planning efforts for the South Central Light rail extension.



PLANNING EFFORTS ALONG **SOUTH CENTRAL**

Overview

The following pages outline several recent planning and community efforts that are contributing to understanding the South Central Corridor communities current conditions and are identified here as references to develop a shared understanding of where we are at today.

Feasibility Assessment

In 2011, Valley Metro and the City of Phoenix assessed the feasibility of extending light rail from Downtown Phoenix to Baseline Road. Upon award of a planning grant from the Federal Transit Administration (FTA) in 2012, Valley Metro expanded the feasibility study into an Alternatives Analysis to evaluate three transit modes (light rail, bus rapid transit, and modern streetcar) and 11 alignments. Valley Metro evaluated alignment alternatives using portions of 7th Avenue, 1st Avenue, Central Avenue, and 7th Street. Based on extensive technical analysis and community input, light rail technology on Central Avenue emerged as the Locally Preferred Alternative. The full analysis is documented in the 2014 Locally Preferred Alternative Report. The Locally Preferred Alternative was carried forward for further refinement and environmental analysis. The FTA approved the Environmental Assessment and issued a Finding of No Significant Impact in January 2017.



Transportation 2050 (T2050)

In August 2015, Phoenix voters approved Proposition 104 (Transportation 2050) to increase the City of Phoenix sales tax for transit from 0.4 percent to 0.7 percent for a period of 35 years. The approval of Proposition 104 has enabled several transit projects to advance ahead of schedule, including the South Central extension. In January 2016, the Phoenix City Council approved the Phoenix Transportation 2050 High Capacity Transit Corridor schedule and its incorporation in the Regional Transportation Plan. This approval accelerated the South Central extension by 11 years, from 2034 to 2023.





**VALLEY METRO
+ CITY OF
PHOENIX
FEASIBILITY
ASSESSMENT**
2011-2012

**SONORAN
INSTITUTE
IMPACT OF
CLIMATE CHANGE
ON LATINO
COMMUNITIES**
2014

**REINVENT
PHOENIX**
2011-2015

**LADDER
STEP**
2015

**VITALYST
COMMUNITY
ENGAGEMENT
TOOLKIT**
2017

**FEDERAL
TRANSIT
AUTHORITY
(FTA) TOD
PLANNING
GRANT**
2017 - Present

**CENTRAL
CITY SOUTH
COMMUNITY
FOOD RESOURCES
REPORT**
2010

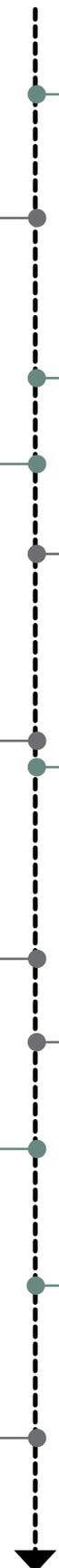
**SAN JUAN
DIEGO PHASE
1 +2**
2014

**SOUTH CENTRAL
NEIGHBORHOODS
TRANSIT HEALTH
IMPACT ASSESSMENT
(SCNTHIA)**
2013-2015

**PHOENIX
REVITALIZATION
CORPORATION
(PRC) EXISTING
CONDITIONS
INVENTORY**
2015

**TRANSPORTATION
2050 (T2050)**
2016

**QUALITY OF
LIFE PLAN**
2017



LadderSTEP

The U.S. Department of Transportation identified Phoenix – specifically its South Central Light Rail Corridor project – as one of seven cities selected for the agency’s Ladders of Opportunity Transportation Empowerment Pilot (LadderSTEP) program.

The aim of the program is to promote neighborhood revitalization by investing in transportation infrastructure to connect under-served communities with employment centers.

The LadderSTEP program reflects a broader shift in thinking about the intersection of transportation projects, economic opportunity, and the people whose lives will be most affected.

Federal Transit Administration (FTA) Transit Oriented Development (TOD) Planning Grant

Nationally, there is a growing recognition about the importance of equitable approaches in how communities plan for and implement major transit projects.

The Federal Transit Administration (FTA) is prioritizing planning projects that aim to identify strategies for pro-actively addressing residential and commercial displacement, which can be unintended consequences of capital investments. The FTA’s Pilot Program for Transit-Oriented Development (TOD) Planning provided funding to local

communities and transit agencies to better integrate land use planning with transportation investments with the overall intent of achieving equitable outcomes.

In 2016, the FTA awarded the City of Phoenix a \$2 million TOD grant to assist in the planning efforts for the South Central Light rail extension.

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South Central Neighborhoods Transit Health Impact Assessment (SCNTHIA)

From August 2013 to January 2015, the Maricopa County Department of Public Health, Arizona, Department of Health Services, and Arizona Alliance for Livable Communities conducted the South Central Neighborhoods Transit Health Impact Assessment (SCNTHIA).

While the health impacts on all residents were considered, the HIA focused on the unique needs of pregnant women; families with children or youth with special health care needs; and adults with chronic conditions (including developmental, physical, and sensory disabilities). This assessment examined the conditions that support and impact public health within the proposed South Central light rail transit Corridor.

A community advisory group consisting of residents and community leaders provided guidance for the assessment based on what was found as the transit Corridor's greatest impacts to the community's health, which included health conditions, behaviors, and the determinants that influence those behaviors.

These included:

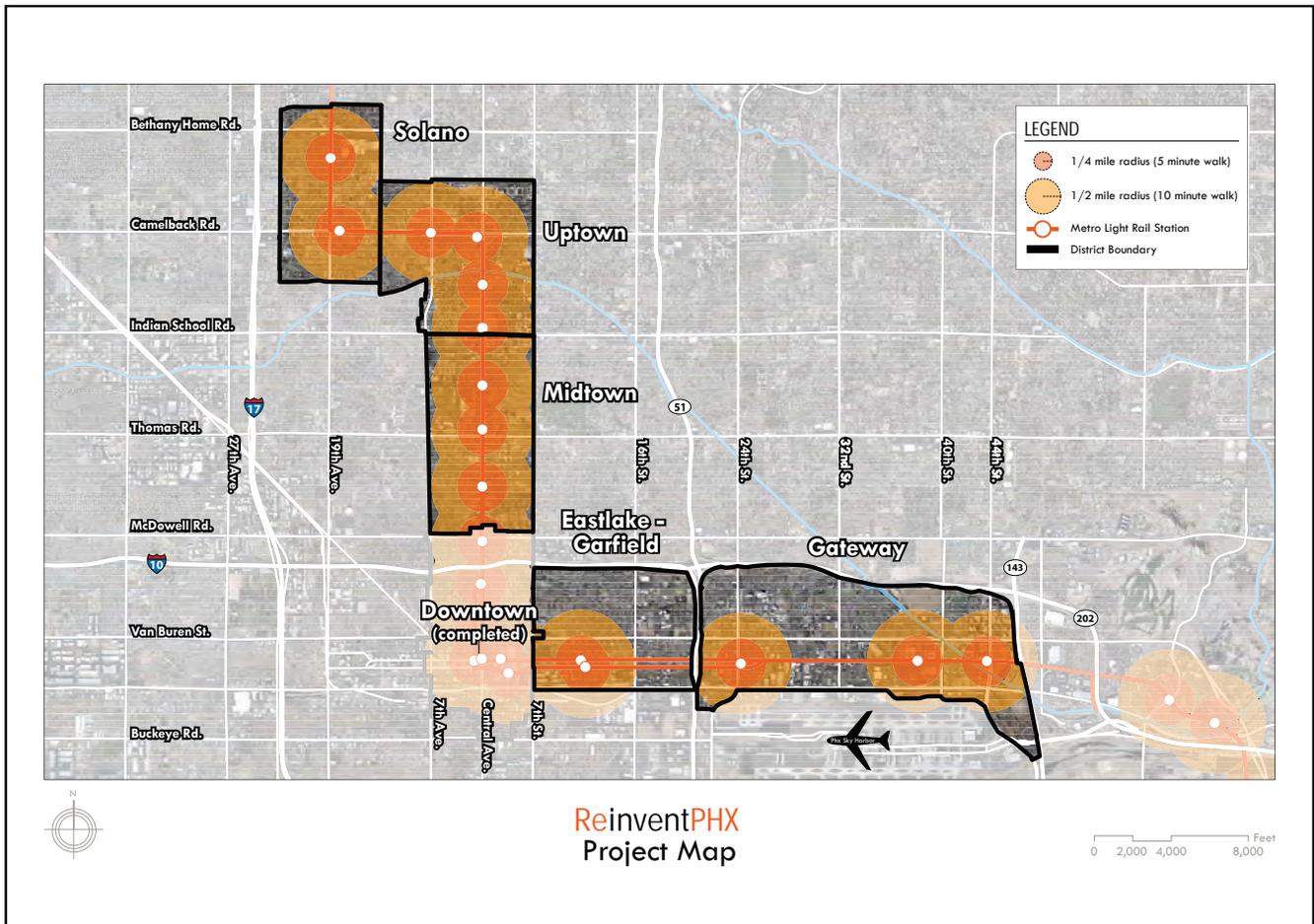
- Landscape/Shade/Security
- Transportation costs
- Business and Employment
- Housing
- Access to healthy food, healthcare and recreation
- Active transportation

The SCNTHIA report provided a wealth of information, data and recommendations relating to all six impacts to health, and these will be discussed throughout this report.

ReinventPHX

In 2011, the U.S. Department of Housing and Urban Development awarded the City of Phoenix a \$2.9 million grant to plan for development along the light rail Corridor. Known as ReinventPHX, this comprehensive planning initiative was a collaborative partnership between the City of Phoenix, Arizona State University, St. Luke's Health Initiatives (now Vitalyst Health Foundation) and numerous other organizations committed to developing walkable, opportunity-rich communities connected to light rail. ReinventPHX established five transit districts along the light rail system (Gateway, Eastlake-Garfield, Midtown, Uptown, and Solano), and created TOD policy plans for each district. The plans establish a community-based vision for the future and identify investment strategies to improve the quality of life for all residents. ReinventPHX was based on four objectives:

- Quality Development - Create an attractive investment environment for high quality and equitable Transit-Oriented Development.
- Smart Growth Model - Establish a model process for guiding smart, cost-effective investment along light rail Corridors.
- Civic Engagement - Empower the community, including low-income and limited English-speaking residents, to be actively involved in the decision-making and implementation processes.
- Return on Investment - Capitalize on the community's investment in light rail by guiding development to benefit residents, lower the cost of living and enhance unique and historic characteristics.



Transit Oriented Development (TOD) - FRAMEWORK

The TOD planning effort for the South central light rail Corridor is expected to build upon the information learned through the ReinventPHX projects TOD Strategic Policy Framework and five approved TOD District Policy Plans. The project team will seek to understand stakeholders’ perspectives on the Corridor’s current and desired conditions to generate a 30-year vision relative to six planning elements, as follows:



The **Land Use Element** focuses on the spatial pattern of urban development, including intensity, design, building form, and unique place-making characteristics.



The **Health Element** focuses on key aspects of the built environment that impact public health, including the availability of healthy food, public recreational amenities, and safe places to walk and bicycle.



The **Housing Element** focuses on the affordability, quality and diversity of residential living options.



The **Mobility Element** focuses on the movement of people and goods, including the availability of quality multi-modal transportation options.



The **Economic Development Element** focuses on the financial prosperity of businesses and residents, including the access to jobs, training and educational opportunities.



The **Green Systems Element** focuses on the design of buildings and infrastructure to improve resource efficiency and environmental protection.

It is important to recognize that these six planning elements are intrinsically interconnected to one another and changes in the defining factors of one element are likely to have impacts that affect the conditions of other elements. Phoenix is committed to actively engaging the areas’ residents in order to create plans that are responsive to the specific needs and desires of the community.

COMMUNITY EFFORTS

Several community-based organizations, non-profit corporations, public foundations, and state and local entities have conducted studies, inventories, and assessments of varied environmental, health, and social aspects of portions of the Central City South and South Phoenix communities. Each of these efforts is described below in greater detail. It is expected that the consultant team will incorporate and build upon visions, ideas, and strategies already established through these community-based planning efforts.

Phoenix Revitalization Corporation (PRC) Existing Conditions Inventory

In 2015, Phoenix Revitalization Corporation (PRC), a non-profit community development corporation with an emphasis on the revitalization of Central City South, worked with the community to prepare an assets and existing conditions inventory of the area's neighborhoods.

Central City South is located south of Downtown and is generally bound by the Union Pacific Railroad tracks/Grant Street to the north, Interstate 17 (I-17) to the west, the Salt River to the south, and 16th Street to the east.

In collaboration with the community, PRC documented the overall demographics of the area and mapped land uses of each of the 16 neighborhoods comprising Central City South.

Quality of Life Plan

In 2017, the Central City South community updated its Quality of Life Plan (QLP), which documents the vision and ideas of stakeholders and serves as a "road map" for community revitalization and investments. Stakeholders reviewed the strategies presented in the April 2014 QLP, and added, removed, or carried forward strategies into the 2017 Quality of Life Plan.

Central City South Community Food Resources Report

Like the 2017 QLP, previous versions identified health and access to healthy foods as critical to improving residents' quality of life. To begin to address these needs, PRC partnered with Arizona State University (ASU) in 2010 to assess food access and availability in Central City South, evaluate the nutritional environment provided by existing community food outlets, and collaborate with the community to develop recommendations to improve healthy food access.

ASU's assessment identifies several key challenges related to food access:

- Healthy foods are not readily available within Central City South. Food availability is limited to ethnic food stores, carnicerías, convenience stores, or other retail outlets that also sell some food items (e.g. liquor stores or discounted retail stores). There are no grocery stores (defined as having all the major food departments and annual sales of at least \$2 million) in Central City South.
- Unhealthy food options, in general, are cheaper than healthy food options at the food outlets most readily accessible by Central City South residents.
- Finally, ASU observed that healthy foods are advertised differently than unhealthy foods, with several food

outlets displaying highly-visible external signage for unhealthy foods. Of all the Central City South neighborhoods, ASU noted that Matthew Henson, Coffelt-Lamoreaux, and 7-11 have fewer healthy food options than other neighborhoods.

Based on stakeholder input and the food assessment, ASU identified five recommendations for advancing the QLP health goals.

These include:

1. Expand the community garden program;
2. Establish a healthy corner store initiative;
3. Develop a virtual supermarket program;
4. Establish a mobile food stand; and
5. Construct a new grocery store.

Since completion of ASU's Community Food Resources Report in 2011, the Discovery Triangle Development Corporation partnered with local organizations to launch the Fresh Express mobile produce market. Fresh Express became operational in 2014 and serves several Central City South locations, including Marcos de Niza Senior Center (305 W. Pima Road), Coffelt Housing (1510 S. 19th Drive), Harmon Library (1325 S. 5th Avenue), Gateway Community College (1245 E. Buckeye Road), and Henson Village (1045 S. 8th Avenue), among others.

San Juan Diego Study - Phase 1 and 2

In partnership with Raza Development Fund and Promise Arizona, ASU's Center for Urban Innovation analyzed data compiled from a survey about the quality of life of South Phoenix residents.

Promise Arizona designed the survey to gather feedback about the area's strengths and needs to inform future development and community investments, particularly within the San Juan Diego Plan area.

The San Juan Diego area of interest is bordered by Central Avenue on the east, the Rio Salado on the north, 15th Avenue on the west, and Southern Avenue on the south. Promise Arizona completed over 1,000 surveys in English and

Spanish generally between the Rio Salado on the north, Dobbins Road on the south, 7th Street on the east, and 15th Avenue on the west.

SONORAN INSTITUTE IMPACT OF CLIMATE CHANGE

In 2014, the Sonoran Institute conducted interviews and a convening of Latino civic and community leaders across Arizona, some of whom are also stakeholders in the South Central Light Rail Corridor project.

The purpose of the interviews was to determine whether community leaders believe that climate change is occurring and to understand the magnitude of concern about public health impacts related to climate change.

Interviewees responded unanimously that they believe climate change is happening, and more than 75 percent of respondents stated that weather in their community is getting worse. Furthermore, 95 percent of interviewees believe that there is a correlation between weather events and climate change.

However, through the interviews and convening, the Sonoran Institute identified economic stability, immigration, and housing are a cross-section of the issues that consistently outweigh climate change.

The research also revealed that Latinos support efforts that lead to a healthy and sustainable environment. Therefore, community

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leaders suggested framing climate change in a way that resonates more personally with Latino communities, specifically as an environmental justice, health, or economic issue that can be acted upon from a position of empowerment.

Vitalyst Community Engagement Toolkit

In 2017, Vitalyst Health Foundation researched the barriers and challenges that have previously prevented Central City South and South Phoenix residents from participating in community engagement activities.

Several interviews with Central City South and South Phoenix community leaders and residents were conducted to gain a better understanding of

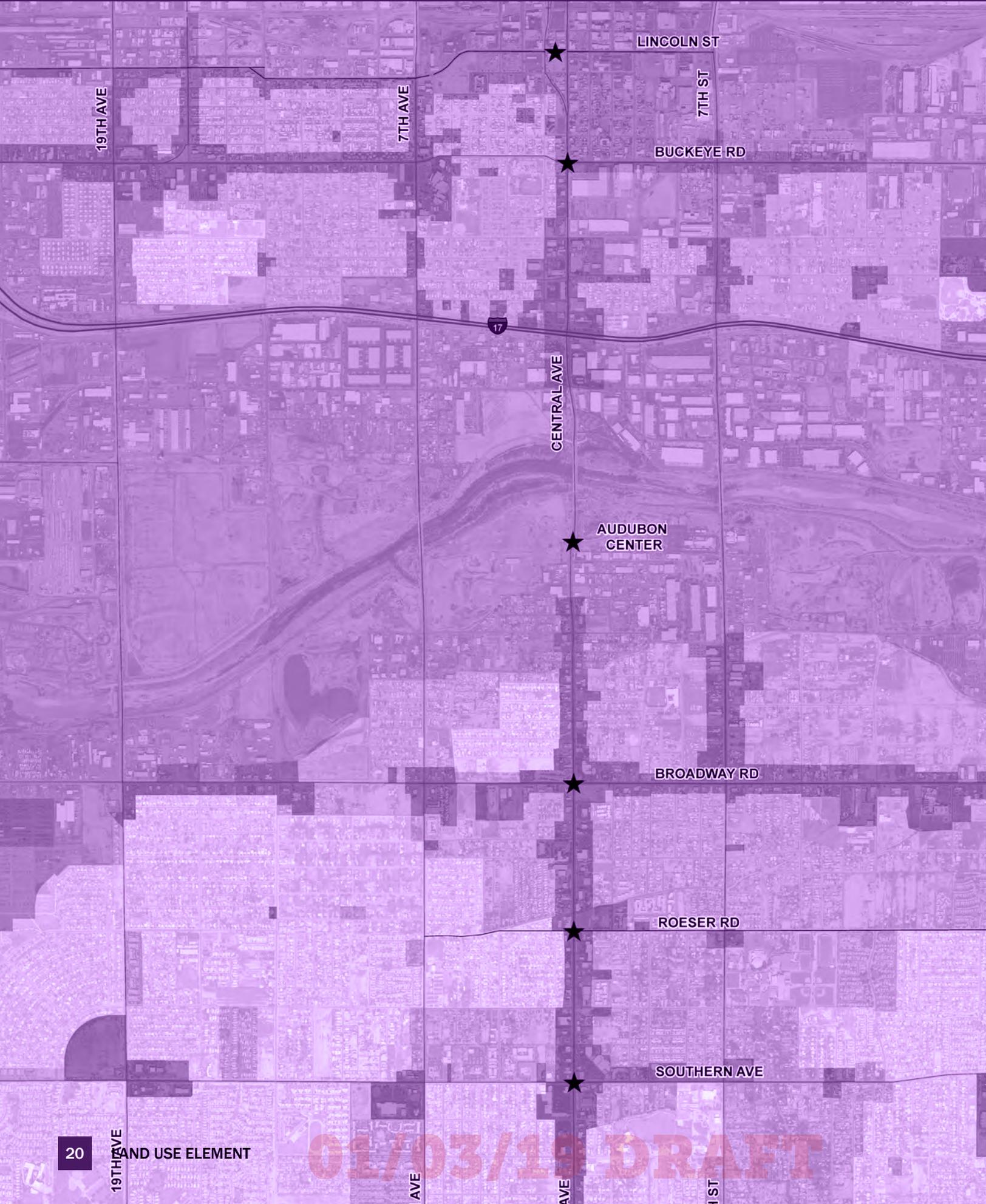
their personal experiences and their perceptions of systemic challenges within government. The following questions were posed to elicit recommendations from the interviewees for improving community engagement, particularly for the South Central Light Rail Corridor:

- What suggestions do you have for the City of Phoenix for their community engagement efforts? What should they consider?
- What would make it easy for you to participate? More comfortable? Motivate you to be engaged in the process?
- What are the barriers to participating? Do you have any ideas on how to address those barriers?
- How would you know that they have taken

into consideration your feedback?

From this information a Community Engagement Toolkit was created linking the community's recommendations with public participation objectives, specific strategies and tools, and providing examples of ideas employed by other cities.

South Central Corridor - Land Use Element



LINCOLN ST

7TH ST

19TH AVE

7TH AVE

BUCKEYE RD

17

CENTRAL AVE

AUDUBON CENTER

BROADWAY RD

ROESER RD

SOUTHERN AVE



LAND USE

The South Central Corridor extends from Downtown Phoenix south to the gateway of South Mountain Park. The Corridor's two bookends are a testament to the importance it plays in connecting two of Phoenix's greatest assets. Several major roadways and landmarks provide transition points for the Corridor's land use mix, creating distinct land use areas.

EXISTING USES AND GENERAL PLAN

The following pages contain a summary of the the Corridor's existing land use conditions and General Plan Land Use Map Designations for each of the sections in the Corridor. The General Plan is the blueprint for future growth and development throughout the city. With the FTA awarded TOD Planning grant, there is an opportunity for city staff, the consultant team, community members, and stakeholders to review existing land use designations and associated area plans as part of this planning process.

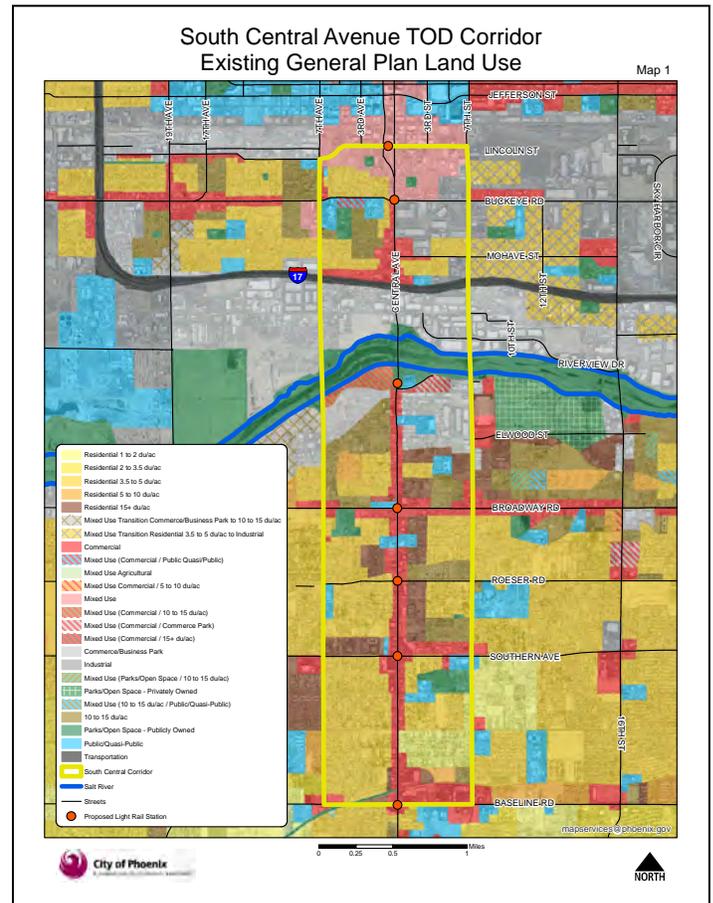
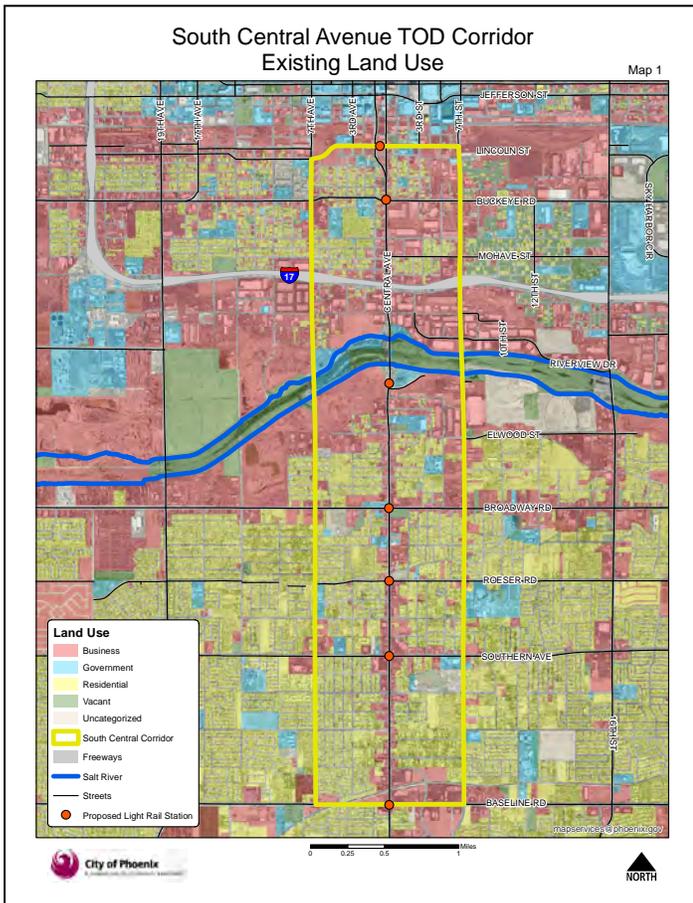
SOUTH CENTRAL CORRIDOR OVERVIEW

Land Uses Overview

The transition from the city's urban core to one of the country's largest open space areas highlights the depth and diversity of land uses within the Corridor. Starting from Downtown Phoenix and moving south to Baseline Road, the Corridor traverses through a variety of neighborhoods land uses, ranging from large-lot single family homes to warehouses. It is this diversity of land uses that poses both opportunities and challenges as the community works together to realize the hope of creating a vibrant transit oriented Corridor.

General Plan Land Use Map Overview

There have been no significant changes to the City of Phoenix General Plan Land Use Map for the Corridor since the adoption of the Rio Salado Beyond the Banks Area Plan in 2003. Below is a detail of the General Plan Land Use Map showing the South Central Corridor and land use categories.



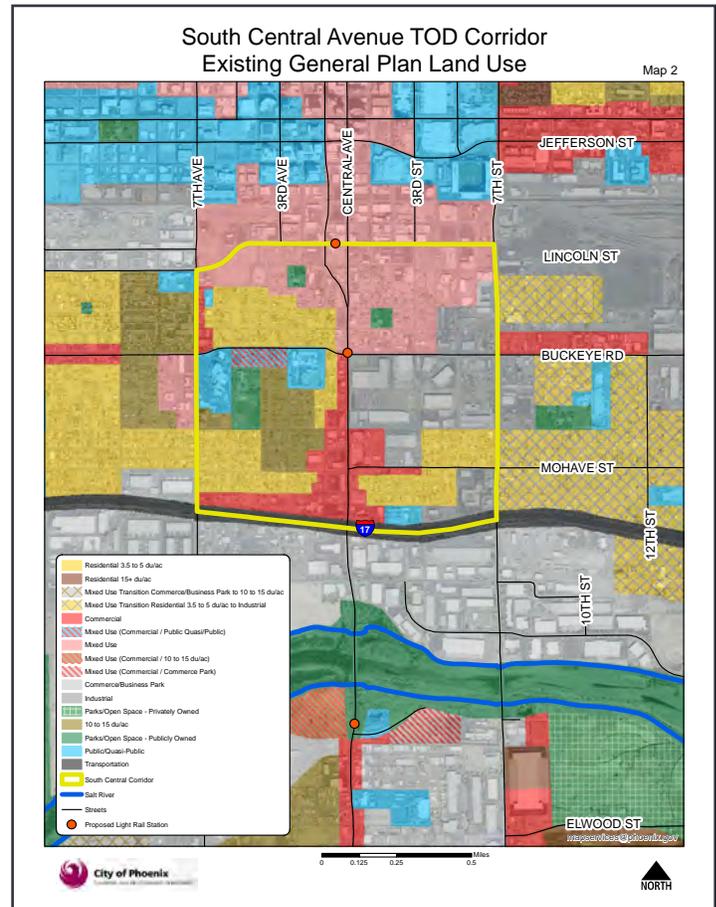
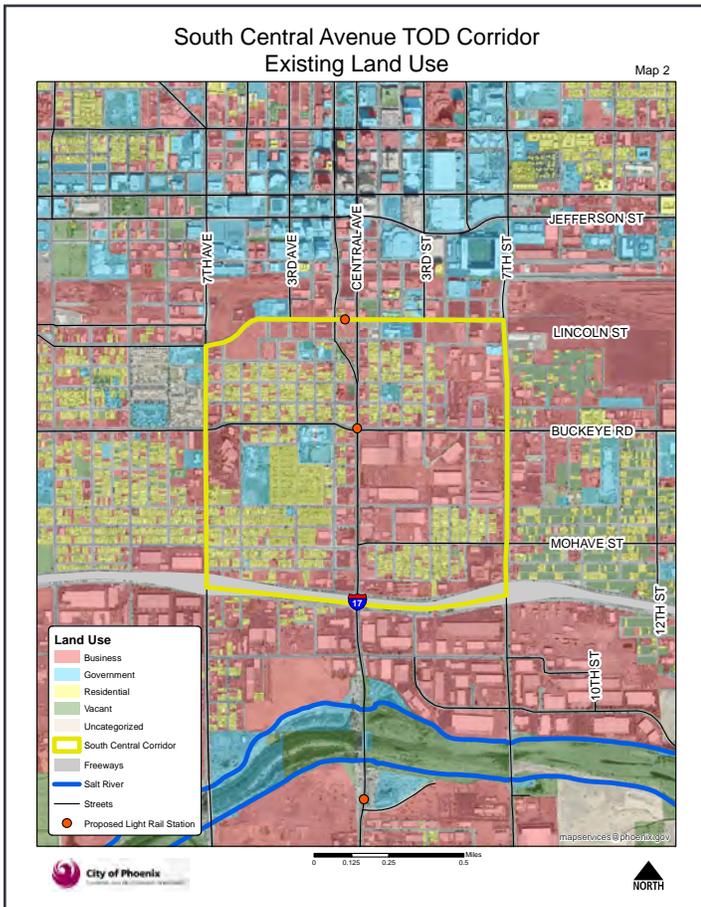
LINCOLN STREET TO INTERSTATE 17

Existing Land Uses

This section boasts one of the oldest residential neighborhoods in Phoenix, Grant Park, located south of Lincoln Road and west of Central Avenue. Developed in the early 1900's, Grant Park contains many homes that could be eligible for historic preservation. Grant Park is zoned as a multifamily district but it was developed as a single-family subdivision. In fact, all of the residential areas in this segment of the Corridor are zoned as multifamily districts—mostly developed as single-family with a few duplex and triplex residential buildings. The area south of Buckeye Road and west of Central Avenue is defined by the affordable housing complex Marcos De Niza. The development is surrounded by Harmon Park, and public or quasi-public uses (Harmon Park, schools, hospitals). In comparison, the most prominent land use east of Central Avenue to 7th Street, is industrial. This area is very near the railroad, which made for a perfect location for warehouses in the early to mid 1900's that even had rail spurs.

Existing City of Phoenix General Plan Land Use Map

This section of the Corridor has a wide variety of land use designations. Mixed use designated areas north of Buckeye Road are part of the Downtown Code. Industrially designated land uses are located to the east of Central Avenue and south of Buckeye Road. West of Central Avenue is defined by multifamily and single-family land use designations, and public or quasi public uses. Central Avenue is the commercial spine of the Corridor - primarily designated for commercial development, which could include mixed uses.



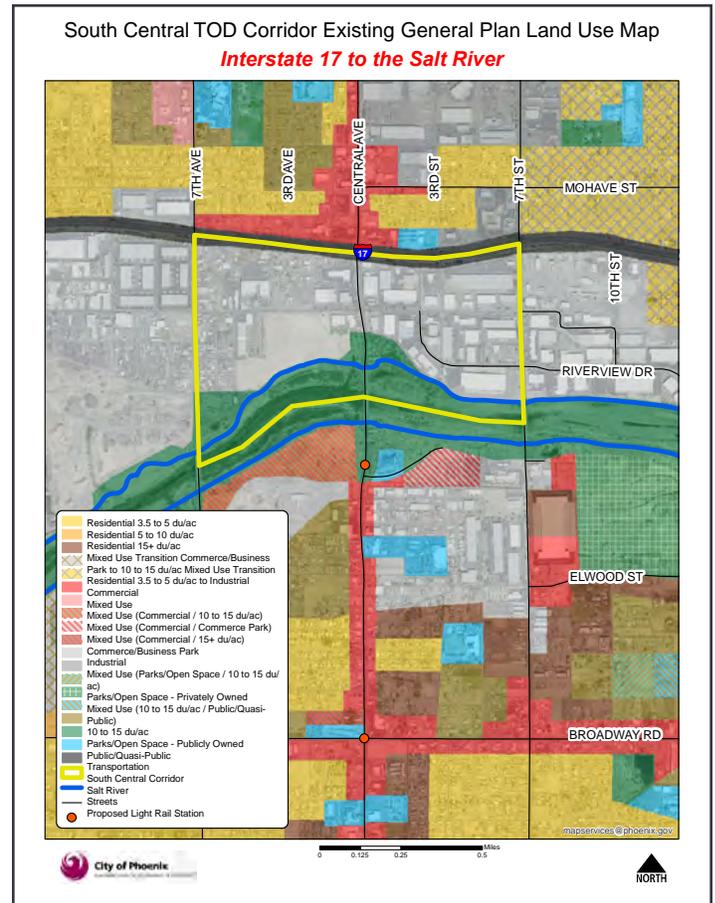
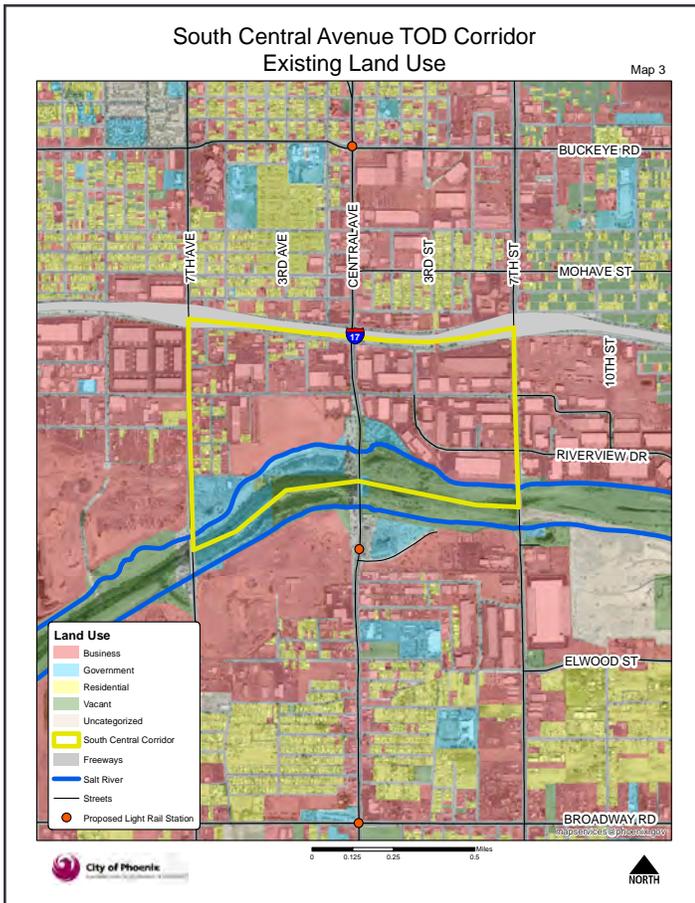
INTERSTATE 17 TO THE SALT RIVER

Existing Land Uses

This section has the highest concentration of industrial land uses in the entire Corridor. The east side of Central Avenue was completely redeveloped in the form of industrial parks (the area is zoned for Commerce/Business Park). On the west side there is a mixture of smaller, older industrial properties near 7th Avenue. The Salt River and the Rio Salado Habitat Restoration Area make up 24.5% of the land area, providing valuable environmental services that include wetlands and riparian habitats.

Existing City of Phoenix General Plan Land Use Map

This segment is defined by two land use designations – Commerce/Business Park and Open Pace – Public (Rio Salado Environmental Restoration Project). These designations mimic the current land use mix. In the larger context of the Corridor, this area, due to its proximity to Interstate 17, Phoenix Sky Harbor Airport and railroad, is the most appropriate location for this type of land use activity and designations.



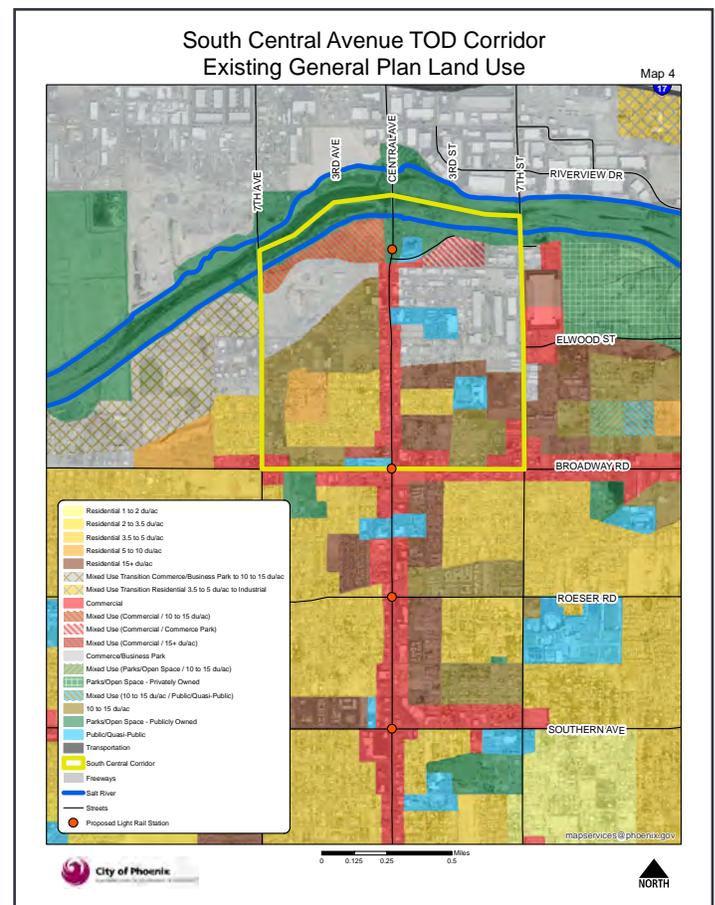
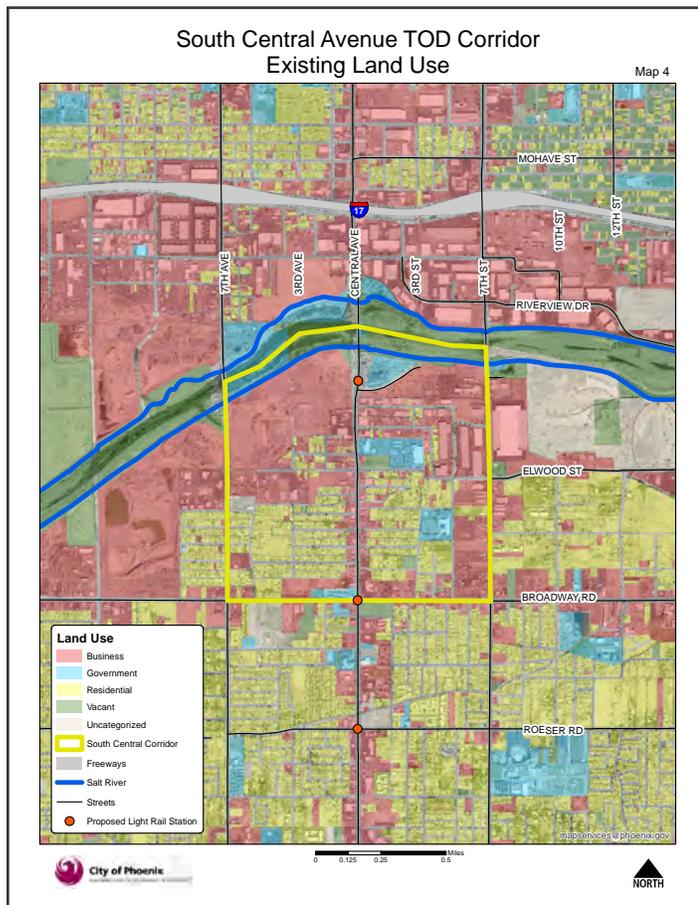
SALT RIVER TO BROADWAY ROAD

Existing Land Uses

Gravel and sand mining defined the area and the land uses south of the Salt River to Elwood Street - some industrial land uses have been phased out over the years as a result of the Rio Salado Beyond the Banks Area Plan and the Interim Overlay District. Currently, industrial land uses only comprise 20% of the land area in this section of the Corridor. This transition serves as some of the Corridor's greatest opportunities for mixed use development within proximity of the Rio Salado Habitat Restoration Project, and the Rio Salado Audubon Center. The areas south of Elwood to Broadway Road are zoned as single-family and multifamily districts—most of the development in both types of district is made up of single family residences, built between 1930-60. Neighborhood commercial lines Central Avenue while general commercial uses line 7th Street.

Existing City of Phoenix General Plan Land Use Map

The General Plan Land Use designation for this area shows a transition to mixed uses south of the Rio Salado. The east side is designated as Commerce/Business Park, but some of the current uses include open storage industrial uses. The industrially designated area west of Central Park contains sand and gravel operations. The area has the highest concentration of multi-family land use designations in the entire Corridor.



BROADWAY ROAD TO BASELINE ROAD

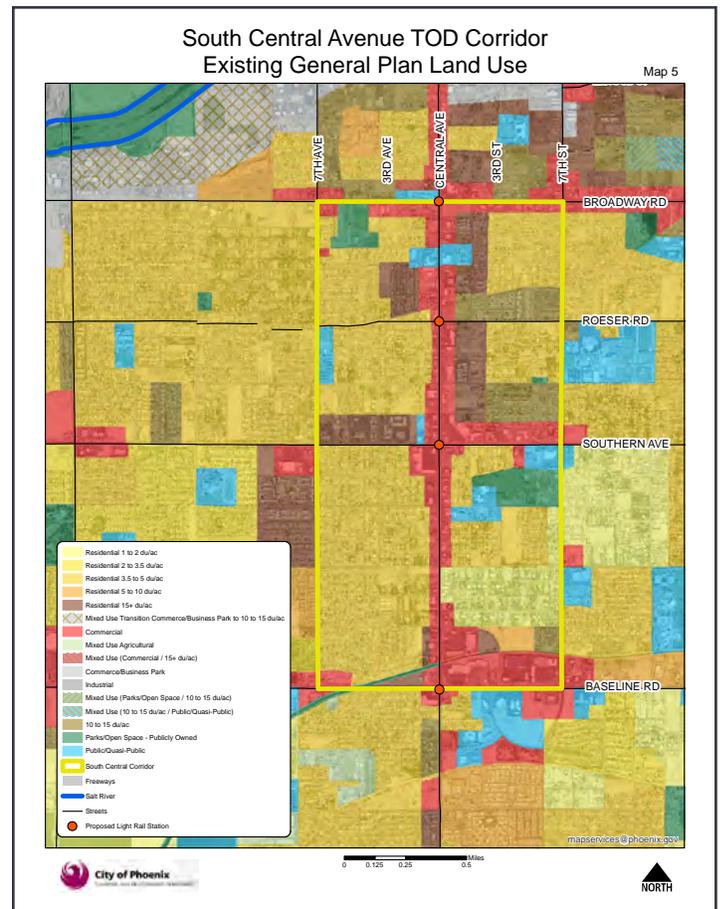
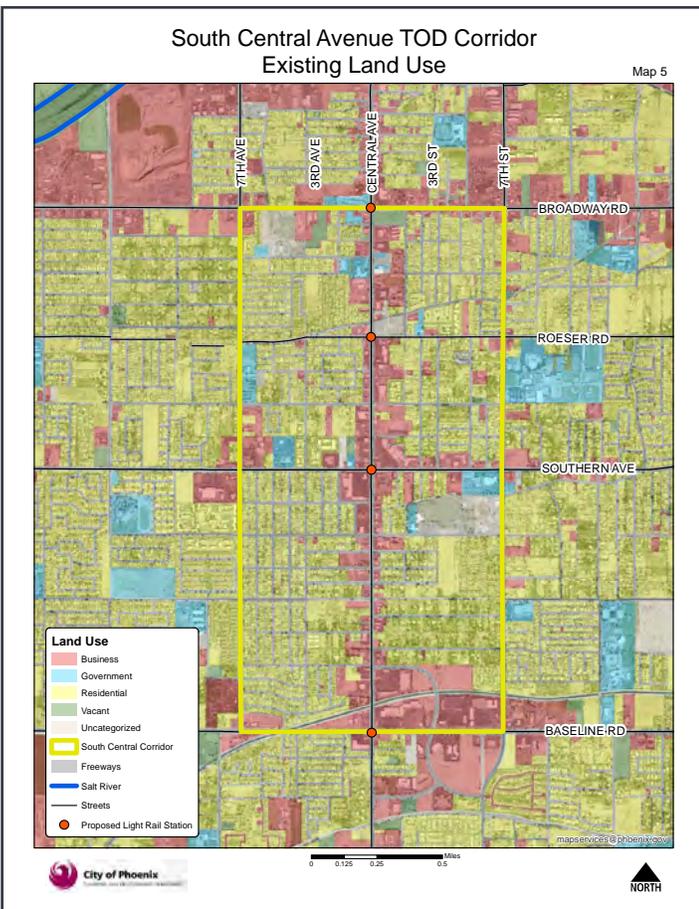
Existing Land Uses

This very large section of the Corridor has single-family residential development as the dominant land use, comprising more than 56% of the land area at more than 717 acres. The intensity of development and zoning designation decreases from Broadway Road south to Baseline Road. Most multifamily districts are located between Broadway and Southern Roads, while single-family districts are the predominant district from Southern Road to the south. Over the past 50 years, some larger multifamily projects were developed, many as affordable housing, but the majority of multifamily development comes in the form of duplexes to fourplexes, and there are also a few mobile home park properties. Commercial land uses are concentrated along Central Avenue and the north side of Southern Avenue. There are very few commercially zoned properties

on 7th Street and 7th Avenue. The area around Baseline Road and South Mountain Avenue, the Corridor's southern boundary, are bounded by the Western and the Highline Canals. There appears to be a well distributed number of land uses, including the newest residential subdivisions and a commercial and medical hub between Central Avenue and 7th Street.

Existing City of Phoenix General Plan Land Use Map

The General Plan calls for Central Avenue to be lined with commercial land uses bordered by a variety of residential land uses to the east and west. Multifamily land use designations can be found along Central Avenue's commercial Corridor between Broadway Road and Southern Avenue. South of Southern Avenue is the beginning of land use designations for large-lot single-family residential.



PLANNING DOCUMENTS

Several sections of the Corridor have been the subject of previous planning efforts that encompass community and City Council adopted policies regarding land use and other planning elements. The following section summarizes these planning documents.



ZONING OVERLAYS + CODES

Due to all the planning efforts, the Corridor is home to several zoning overlays and the Downtown Code. Each of the overlays corresponds with one of the adopted policy plans. Not all the policy plans have a corresponding overlay. Zoning Overlays serve as an additional layer of regulation on land uses within their boundaries in addition to the base zoning district. In some cases, overlays provide for additional flexibility for the underlying zoning standards, while in other instances the overlay is more restrictive.

DOWNTOWN PHOENIX PLAN

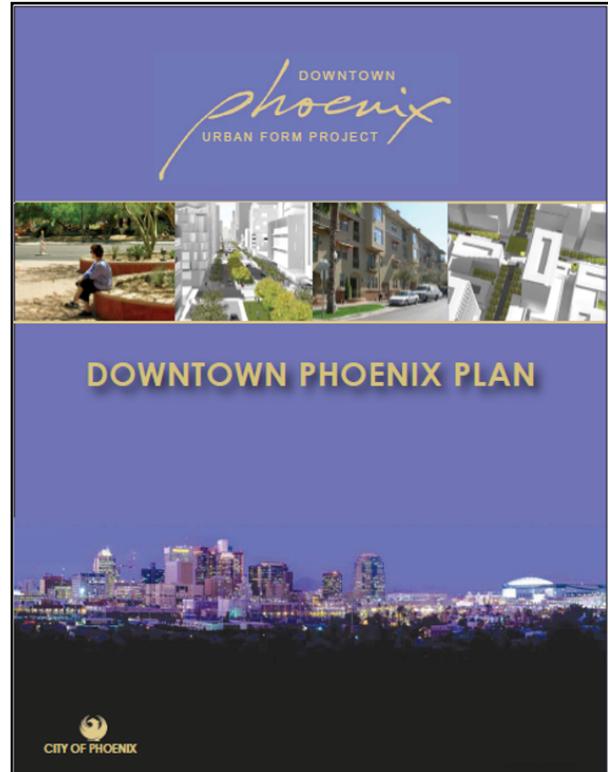
Adopted by the Phoenix City Council - 2008

Overview

Downtown Phoenix has several policy planning efforts, the most recent of which is the Downtown Urban Form Project. The City Council adopted the Downtown Phoenix Plan in 2008 and it served as the foundation for the eventual adoption of the Downtown Code.

The Plan serves as the primary policy guide for land use and development within Downtown Phoenix and established seven key themes:

- (1) Knowledge Anchors
- (2) Downtown Living
- (3) Great Neighborhoods
- (4) Arts and Entertainment Hub
- (5) Distinctive Shopping
- (6) Great Places/Great Spaces
- (7) The connected Oasis.



LAND USE

South Central Corridor Highlight:

The Corridor falls within the boundaries of the Warehouse and Central Park Neighborhoods character areas. Special consideration should be given to the unique character and vision for each of these neighborhoods.

CODE

Downtown Code (2010)

The Code's primary purpose is to implement the vision, goals and policies of the Downtown Phoenix Plan and provide the physical environment necessary to create a pedestrian-oriented, dynamic urban center with an authentic sense of place. The Code's intent is to address design that impacts the public realm by establishing standards that will allow projects to develop in a scale and character consistent with the Phoenix Plan.

CENTRAL CITY SOUTH AREA PLAN

Adopted by the Phoenix City Council - 2004

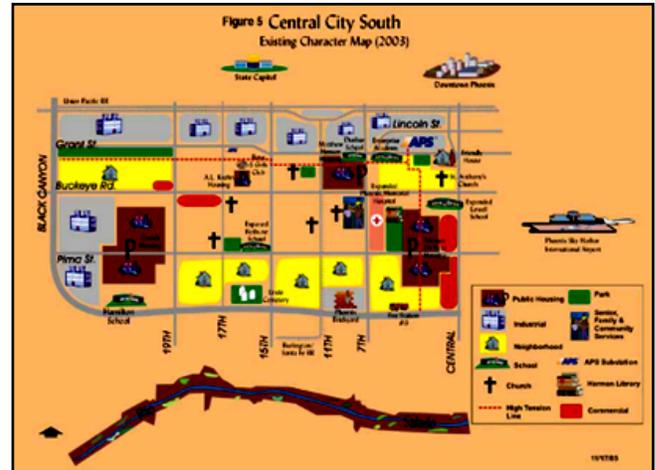
Overview

The Plan presents the community's vision for itself. It also establishes goals, objectives and recommendations that will guide public actions for improving the area and removing impediments that have discouraged private reinvestment.

LAND USE

South Central Corridor Highlight:

The Plan provides a comprehensive overview of the existing land use and housing conditions within the Central City South area.



ZONING OVERLAY

Central City South Interim Overlay District (2002)

The Central City South Interim Overlay (CCSIO) District aims to protect and enhance residential character within the district's boundaries, promote community identity, reduce open land uses, discourage undue concentration of environmentally harmful land uses, and promote well managed growth. The CCSIO was intended to be an interim overlay and reexamined after the completion of the Central City South Area Plan. No efforts have been made to revisit the CCSIO.

South Central Corridor Highlight: The Overlay provides additional regulations on a variety of land uses. Commercial waste facilities are prohibited by the CCSIO (permitted use in industrial zoning districts), as are billboards and outdoor salvage yards - uses are generally seen as incompatible with residential development. The restriction is consistent with the Central City South Area Plan's desire to attract additional residential investment.

East Buckeye Road Overlay District (2005)

The East Buckeye Road Overlay (EBRO) District applies to all land fronting on East Buckeye Road, between Central Avenue to the west and Sixteenth Street to the east, but not to exceed 250 feet from the centerline of Buckeye Road. The EBRO replicates restrictions and standards found in the Central City South Interim Overlay District.

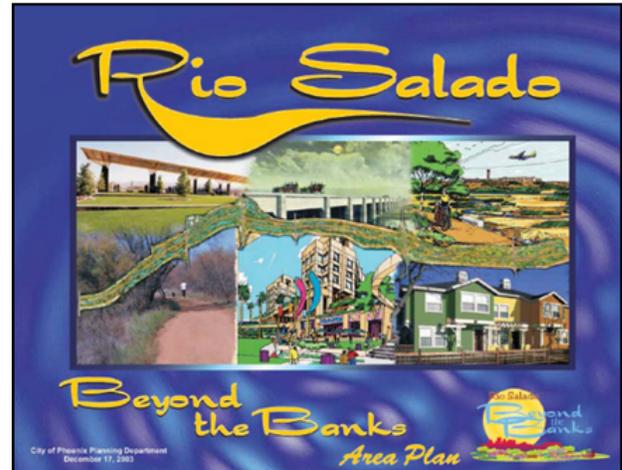
South Central Corridor Highlight: The EBRO requires enhanced screening standards for industrially zoned properties (A-1 and A-2). The goal of this provision is to enhance the image of the area through the improvement of the streetscape through a combination of new landscaping and walls.

RIO SALADO BEYOND THE BANKS AREA PLAN

Adopted by the Phoenix City Council - 2003

Overview

City residents, business owners, planners and leaders came together to develop the Rio Salado Beyond the Banks Area Plan as a means of protecting the investment made in the Rio Salado Habitat Restoration Project. The Plan identifies six specific goals relating to land use, community recreation, economic development, neighborhoods, accessibility, and safety.



LAND USE

South Central Corridor Highlight:

The Land Use Plan for the area proposes in detail the desired land use mix. Planners used the Plan's recommendations to update the GP Land Use Map and the updated mix of uses is generally in place today.

ZONING OVERLAY

Rio Salado Interim Overlay District (2002)

The Rio Salado Interim Overlay District (RSIOD) is designed to protect the investment in and maximize the benefits of the Rio Salado Habitat Restoration Project. The overlay district is designed to control open, outdoor land uses and other uses to have a positive impact on the Rio Salado Habitat Restoration Project and add to the long-term value of adjacent land. The RSIOD has many of the same provisions as the East Buckeye Road Overlay District and the Central City South Interim Overlay District.

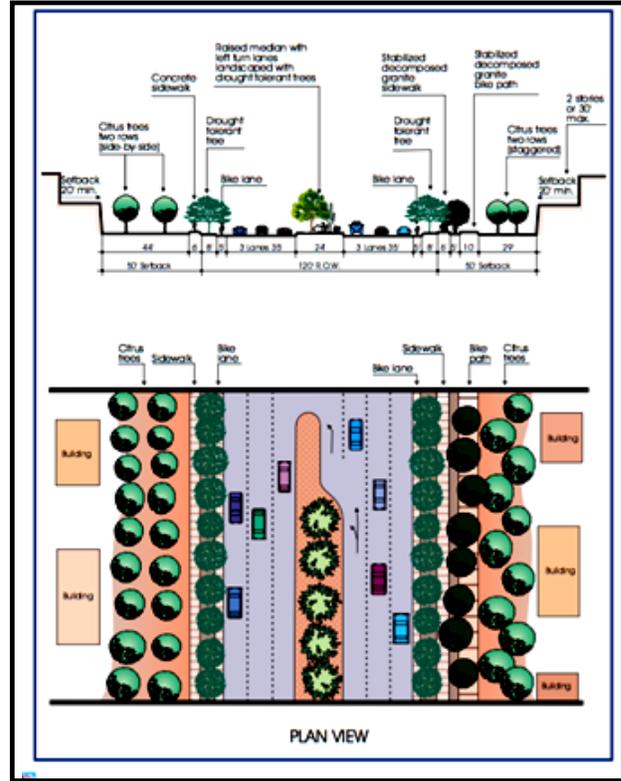
South Central Corridor Highlight: One of the unique provisions of the RSIOD is the requirement for a geotechnical plan to be prepared and sealed by a registered engineer for the filling and compaction of pits that exceed ten feet in depth. This is significant because it large portion of property within the South Central Corridor defunct or active mining pits. The goal of the requirement is to ensure the stability of the site and enable future development to occur.

BASELINE AREA MASTER PLAN

Adopted by the Phoenix City Council - 1997

Overview

The Baseline Area Master Plan provides comprehensive policy guidance for land use and design east of Central Avenue and South of Central Avenue to 40th Street. One of the primary goals of the Plan is to preserve the area's long established agrarian and rural character.



LAND USE

South Central Corridor Highlight:

The Plan proposed a comprehensive update to the General Plan Land Use Map and established the Mixed Use Agricultural land use category. In addition, the Plan puts forth design guidelines for residential and commercial development and cross sections for street designs.

ZONING OVERLAY

Baseline Area Overlay District (DATE?)

The Baseline Area Overlay District (BAOD) is designed to encourage and protect the rural, agricultural character of the area while allowing development in accord with the Baseline Area Master Plan. Developments along Baseline Road will incorporate flowers and citrus into the site which will preserve the historical character of the area. Neighborhood streets will be tree-lined to provide shade for pedestrians and enhance the landscape. Special design guidelines encourage unique developments which focus on the landscape and pedestrian.

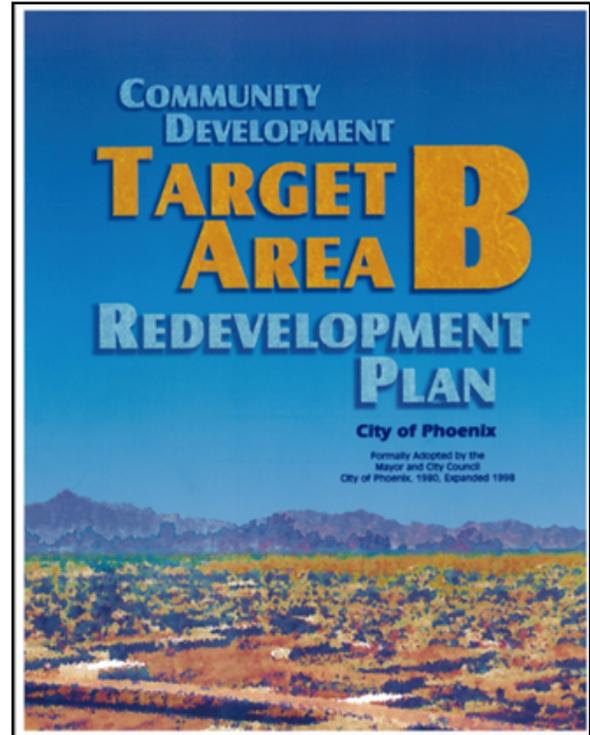
South Central Corridor Highlight: The BAOD restricts building height to 2 stories and 30 feet. This will limit the redevelopment opportunities for parcels within the quarter-mile station area that fall within the boundaries of the BAOD.

TARGET AREA B REDEVELOPMENT PLAN

Adopted by the Phoenix City Council - 1980

Overview

The South Central Corridor’s longest standing policy guide is the Target Area B Redevelopment Plan. The Redevelopment Plan’s primary goal was to eliminate slum and blight along the Broadway Road Corridor. The Plan was recently updated in 2016 to modify the proposed land use mix near 24th Street and Broadway Road.



LAND USE

South Central Corridor Highlight:

The proposed Land Use maps serve as its strongest policy guidance. The plan supports the establishment of commercial uses along Broadway Road.

ZONING OVERLAY

South Phoenix Village and Target Area B Design Overlay District (2003)

The South Phoenix Village and Target Area B Design Overlay District have a narrow scope. It’s primary focus is to raise the level of design for single-family homes within the its boundary. The Overlay requires all new single-family homes to be subject to design review process of 507 TAB A II of the Phoenix Zoning Ordinance.

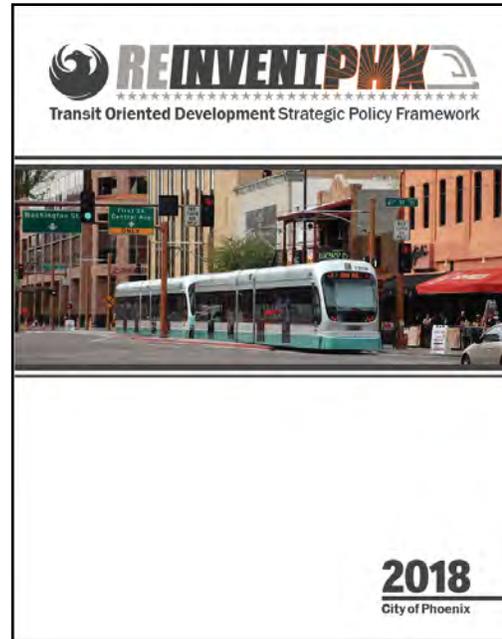
South Central Corridor Highlight: Overlay pays special attention to the front yards of homes. As new development occurs, the Overlay places an emphasis on ensuring that a front yard’s driveway and open space are separated by a physical barrier. This requirement for a physical separation of the two section of the front yard is intended to prevent surface parking from overtaking the entire yard.

TOD STRATEGIC POLICY FRAMEWORK

Adopted by the Phoenix City Council - 2015, updated 2018

Overview

The City of Phoenix uses a holistic and multidisciplinary approach to urban planning by guiding the integration of economic, social and environmental systems to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. The Transit Oriented Development (TOD) Strategic Policy Framework provides a framework intended to improve the investment environment around key nodes in the Phoenix transit network and guide sustainable urban development to benefit all residents.



LAND USE

Transit Oriented Development Strategic Policy Framework (2013, Updated in 2018)

The Phoenix City Council adopted the Transit Oriented Development Strategic Policy Framework in 2013 to establish a new model for planning along the city's high capacity transit Corridors. The City Council adopted an update of the Framework in 2018 in order to assign Centers to each of the proposed transit station areas along the South Central Corridor. The incorporation of the South Central Corridor within the Framework was a significant planning milestone for the Corridor.





HEALTH

The key aspects of the built environment that affect public health include access to healthy food, public recreation, and the ability to walk and bike safely.

Mental and social well-being are also an integral part of health, since health is more than the absence of physical health burdens and it includes such things as having social support, being free of threats of violence, not being anxious or fearful, being in good temper and feeling empowered.

SOUTH CENTRAL CORRIDOR OVERVIEW

Overview

Accessible, dependable and affordable transportation options encourage healthy behaviors and provide easier access to health-related resources. The uncontested negative consequences of today's auto-centric reliance are especially hard on underserved populations.

Per the South Central Neighborhoods Transit Health Impact Assessment (SCNTHIA) those with challenging health conditions and restricted means, including limited income and disabilities that hinder mobility, are often hit hardest. A family without accessible, transportation options might struggle to travel for work or errands, to receive health care, or to buy healthy food. This reality exemplifies the importance of considering how health is impacted during transportation planning.

Health Demographic Factors

As shown in the demographics section, the South Central Corridor area residents have low educational achievement, with almost half of the population over age 25 not having achieved a high school diploma. Residents of the Corridor have income levels below poverty, are typically younger in age, have larger household and family sizes, are more likely to be a minority group, and are more reliant on public transportation due to low vehicle availability per household. Studies consistently show that people who reside in low-income areas, have less educational achievement, are minority groups, and are more likely to have a much shorter life expectancy.

A family's socioeconomic status is one of the greatest influences in determining access and ability to afford health care, and, therefore, plays a significant role in overall health and wellbeing. Studies show that those with less educational attainment tend to suffer more

physical symptoms tied to lack of wellbeing and undergo greater psychological distress, which is most often linked to financial instability.

The data from the demographics section shows that nearly twenty-five percent (24.8%) of households in the Corridor do not possess a car and thirty-four percent (34.3%) of households have a single car. Residents without a vehicle are more likely to walk, ride a bike, or use public transportation to commute. However, considering the very low household income in this area, even the relatively affordable cost of public transportation can be considered a substantial financial burden.

Housing and transportation are the two largest budget items for most households. From a public policy perspective, housing costs should consume no more than 30% of a household's income. In the past decade, there has been a growing acknowledgement that because housing and transportation costs are closely linked, these costs should be examined as a whole, rather than separately.

The Center for Neighborhood Technology (CNT) developed the Housing and Transportation (H+T) Affordability Index to analyze the true costs of housing and transportation. The index shows that on average, South Central Corridor homeowners spend 41.9% of their income on H+T combined, while renters in the Corridor spend 74.6%, compared to Metropolitan Phoenix at 53% and Phoenix at 49%. Housing and transportation costs can have significant impacts on the economic wellbeing of individuals and families, particularly in households with children and/or frequent healthcare appointments.

HOUSING + TRANSPORTATION (H+T) COST COMPARISON

<i>Station Study Area</i>	Median Household Income	Annual Housing Costs	Annual Transportation Costs	H+T Costs	H+T %	Transit Users %	TCI Score
Lincoln						15.5%	11.5
Homeowner	\$98,896	\$13,596	\$9,840	\$23,436	23.7%		
Renter	\$25,691	\$11,580	\$5,592	\$17,172	66.8%		
Buckeye						13.5%	9.4
Homeowner	\$32,095	\$13,464	\$8,244	\$21,708	67.6%		
Renter	\$13,205	\$4,992	\$3,780	\$8,772	66.4%		
Audubon						3.5%	6.1
Homeowner	\$40,784	\$5,196	\$9,144	\$14,340	35.2%		
Renter	\$18,196	\$10,968	\$8,112	\$19,080	104.9%		
Broadway						7.5%	6
Homeowner	\$39,947	\$13,464	\$10,692	\$24,156	60.5%		
Renter	\$20,356	\$8,088	\$7,656	\$15,744	77.3%		
Roeser						7.6%	6.3
Homeowner	\$38,841	\$4,704	\$9,156	\$13,860	35.7%		
Renter	\$19,691	\$7,956	\$6,060	\$14,016	71.2%		
Southern						5.4%	7
Homeowner	\$40,339	\$5,700	\$11,004	\$16,704	41.4%		
Renter	\$19,692	\$8,592	\$6,720	\$15,312	77.8%		
Baseline						3.6%	5.2
Homeowner	\$50,483	\$9,420	\$11,628	\$21,048	41.7%		
Renter	\$20,221	\$8,040	\$7,752	\$15,792	78.1%		
Total/AVG						7.4%	7.4
Homeowner	\$45,426	\$8,334	\$10,704	\$19,038	41.9%		
Renter	\$19,807	\$8,404	\$6,365	\$14,769	74.6%		
Citywide		\$14,412	\$12,142	\$26,554	49%	4.3%	4
Homeowner	\$66,865	\$16,176					
Renter	\$34,291	\$11,472					
Metro		\$15,480	\$12,915	\$28,395	53%	3.5%	3
Homeowner	\$71,303	\$17,052					
Renter	\$38,790	\$12,480					

Sources: CNT H+T Index Analysis, ACS 2012-2016 5 year study, B25003

HEALTHY FOOD ACCESS

A nutritious diet is a building block of overall health and well being. Good nutrition and regular exercise can reduce the prevalence of obesity, heart disease, stroke, cancer and diabetes, which together comprise the leading causes of death and disability in the U.S.

Demographic Data

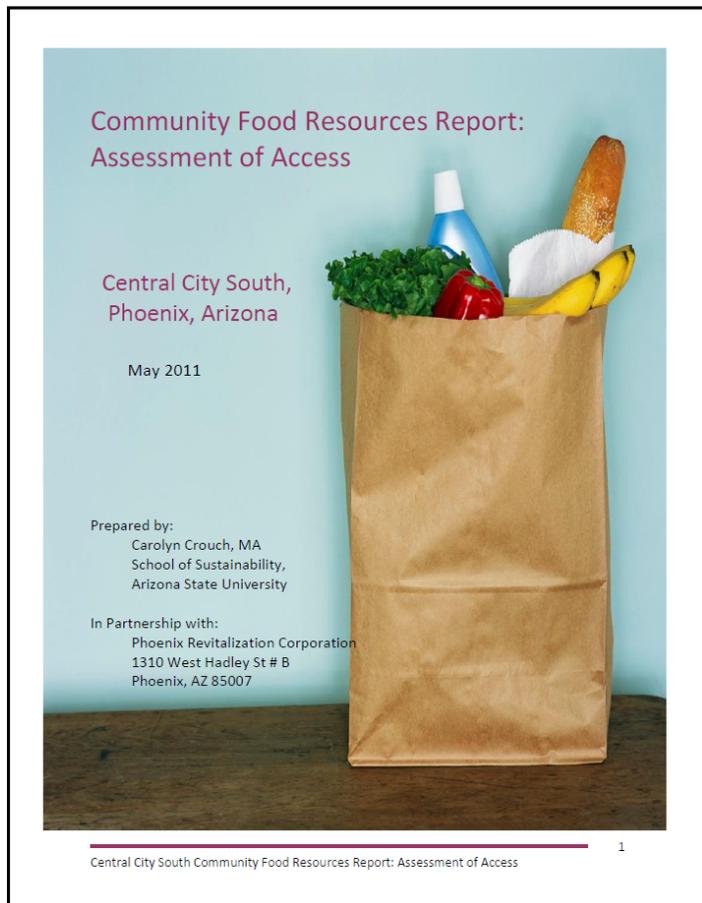
Many studies have demonstrated that access to healthy food in the United States is unevenly distributed in a manner that excludes the poor and minorities, given that supermarkets and other fresh food retailers are less likely to locate in low-income minority communities, where convenience and dollar stores are more prevalent than grocery options.

Obesity impacts certain populations more than others. Latino families and those with lower incomes have higher rates of obesity than the general public. Studies show that communities with the lowest socioeconomic status can have 2.5 times more fast food restaurants than communities with the highest socioeconomic status.

The Community Food Resources Report: Assessment of Access for Central City South, was published in 2011. Central City South is a collection of neighborhoods in the northern portion of the South Central Corridor study area, between Grant Street on the north and Interstate 17 on the south. The eastern boundary is Central Avenue and the western boundary is Interstate 17. There are no full service grocery stores in Central City South.

Findings of the study indicate that healthy food options are significantly less available than less healthy options; few stores have produce in stock and of those that do, the produce is frequently of poor quality; and healthier food options are generally more expensive than unhealthy options.

Overall, the South Central Corridor has several convenience stores and eight dollar stores. A 2009 USDA report on food access in the U.S. showed that consumers pay an average of 10% more at smaller food stores and convenience stores than when shopping at supermarkets.

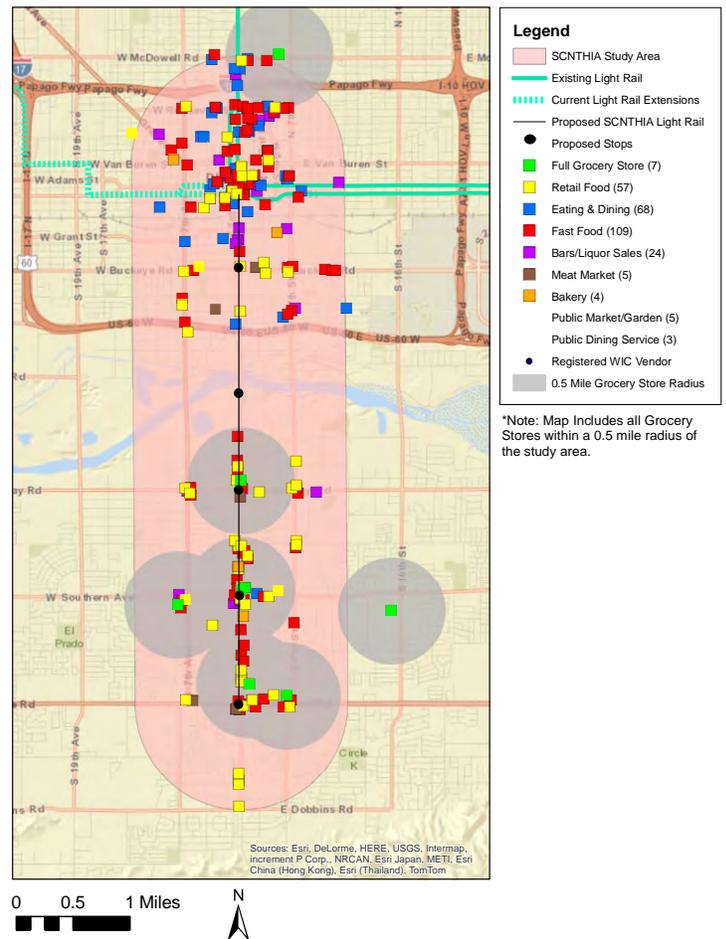
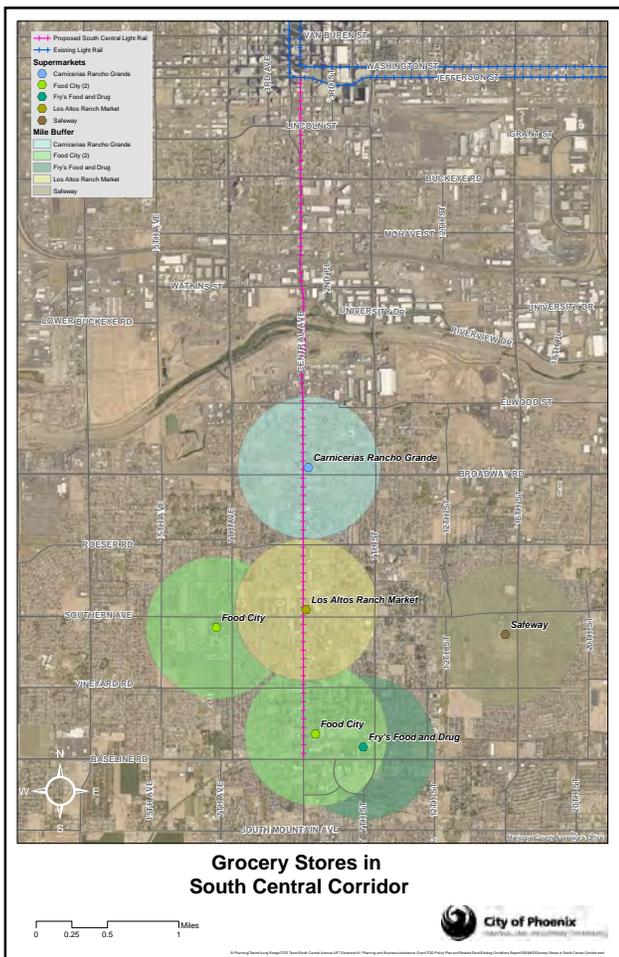


SUPERMARKETS

The South Central Corridor has five full service supermarkets with an additional Safeway supermarket outside of the study area on south 16th Street and Southern Avenue. They provide healthy food accessibility within ½ mile for the majority of residents south of the Rio Salado. Residents north of the Rio Salado have to travel between one and three miles to access a full service supermarket.

A Fry's Supermarket is slated to open at the northern end of the South Central Corridor, at 1st Street and Jefferson Street, however this location is more than ½ mile away from residential neighborhoods south of Downtown and the Warehouse District. The lack of a grocery store within a mile of portions of the Corridor qualifies the area as having low food access per the U.S. Department of Agriculture.

Per the SCNTIA Study, lack of accessibility, high transportation costs and inconvenient transportation within the study area have been found to be barriers to healthy foods. The figure below shows the boundary of the SCNTIA Study and all of the public food establishments and grocery stores within a half-mile radius, including fast food establishments. The concentration of supermarkets in the South Central Corridor is south of Rio Salado to Baseline Road. The radius around the supermarkets represents a ½ mile walking radius. Of the nearly 6,048 Corridor households, approximately 2,000 households live further than a 10-minute walk to a supermarket. While supermarkets are concentrated south of Rio Salado, community gardens and urban farms have found a home north of Rio Salado.



COMMUNITY GARDENS



Overview

Community gardens are collaborative projects, usually between neighborhoods and outside agencies, that work on shared open spaces where all participants share in the maintenance and products of the garden. Health benefits of community gardens are food security and the production of nutritionally rich foods that result in healthier diets. Community benefits include community cohesion, crime prevention and the development of job and life skills.

Many community gardens emerge as part of an agency's mission to enrich the lives of a community through sustainable urban agriculture, to increase food security and access to healthy foods, and to provide an educational component such as nutritional classes or to teach the next generation of urban farmers. The gardens offer an opportunity for people to experience a direct and deep connection with plants, the land and with each other.

Barriers such as lack of resources, liability and other expenses, and the knowledge to navigate city requirements, often make it challenging for residents to establish or maintain community gardens in their neighborhoods. Outside agencies such as local governments, non profit organizations, schools, and private businesses are in a unique position to help promote

healthy eating, equitable food accessibility, and active living by supporting community gardens.

Staff have identified five community gardens and one urban farm that have been developed by or with the assistance of outside agencies. Most community gardens are located north of the Rio Salado—an area where residents live furthest from a supermarket and have limited access to healthy foods—the community gardens in South Central are helping residents to have access to healthy produce.

St. Vincent de Paul Urban Farm

St. Vincent de Paul Urban Farm is located on 3rd Drive and the Interstate 17 Maricopa Freeway access road. This one-acre farm grows a variety of vegetables and fruits and utilizes an aquaponics system that produces tilapia and a robust composting program that turns kitchen scraps into valuable soil to grow more food. In addition, permaculture and natural farming methods eliminates the use of chemical fertilizers and pesticides. The produce is added to food boxes for needy families and used in St. Vincent de Paul dining room, located directly south of the farm, where they provide nutritious dinners for families during the weekdays.

Friendly House— Academia del Pueblo Community Garden

Located on 201 E Durango Street, this community garden operates during the Academia del Pueblo's school year and is tended by the students who can take the produce from the garden home. United Way and ASU students participate volunteering to help clean up and plant during the season.

Grant Park Community Garden

With the assistance of the City of Phoenix and the 'Love Your Block' grant, South Central's first straw bale garden was installed in 2018. Located at 702 S 3rd Avenue, the garden is approximately 20,000 square feet. Owners Susan and Silvario Ontiveros

share this community space that provide opportunities for neighbors to connect and have healthy eating options. Residents can use the garden and work on their individual or family plots anytime using a shared locked gate.

Phoenix Day Central Park Community Garden

This community garden, located at 702 S 1st Street at the Primera Iglesia Metodista, opened in 2010, thanks to the vision of Phoenix Day Early Childhood Education School, the Central Park community, Primera Iglesia Metodista Unida, and a grant received by Phoenix Day from St. Luke's Health Initiatives.

The church also wanted

to be a beacon in this neglected corner of the city, but it didn't have the curb appeal. In 2011, they won Watershed Management Group's (WMG) first green infrastructure grant for Phoenix—and the transformation began.

Over the years, WMG has worked with the community to reshaped the landscape into a water-harvesting oasis, therefore, beyond having the community garden, the church boasts the shadiest corner of the Central Park neighborhood. More information will be provided in the green systems current conditions assessment.

Harmon Park

GRANT PARK: 'LOVE YOUR BLOCK'





COMMUNITY TIRE PROS AND AUTO REPAIR: COMMUNITY TIRE GARDEN

Community Garden

Harmon Garden was established over 10 years ago at Yavapai Street and 4th Avenue. The garden was shut down in 2017 for rehabilitation. Valley of the Sun United Way worked with the City of Phoenix Housing Department to rebuild and reopen the garden. Harmon Park Community Garden reopened in March of 2018, with 19 new garden beds. The care of each of those plots has been assigned to community residents through a lottery system that will ensure fresh produce is grown in Central City. Residents can also check

out seeds at Harmon Library. An educational component will be part of the garden—the community garden leader training will take place in Winter 2018, to help the community garden productive. The training will be presented by staff from the University of Arizona Cooperative Extension (Maricopa County) with the support from United Way.

Community Tire Garden

Created and run by Community Tire Pros and Auto Repair (located across the street from the garden),

this once vacant lot at 123 E Durango Street was transformed into a garden with several raised beds made of tires. The produce is given to residents who volunteer their time, and residents can also rent raised beds to grow produce.

RECREATION ACCESS

There are a number of recreation opportunities in the South Central Corridor which range in size from under an acre to several thousand areas. There are parks, recreation centers, a river Corridor, a conservation related facility and an extensive mountain preserve.

Overview

Most residents in the Corridor are within a 10 minute walk from a park, however, many residents report feeling uneasy at parks due to lack of surveillance and lighting. The Rio Salado Habitat Restoration Area is often reported as providing a high level of unease for people do to its perceived seclusion and high concentration of homeless individuals.

It is important to point out that a large portion of the southwest area of the Corridor, which contains a large concentration of households does not have access to parks within a 1/2 mile.

South Central Corridor Recreation Accessibility



RIO SALADO HABITAT RESTORATION AREA

The Salt River (Rio Salado) within the South Central Corridor has a mix of paved and dirt trails in an area where its native wetland and riparian habitat has been restored along its banks. The restoration area comprises 595 acres and extends five miles from 28th Street on the eastern upstream end to 19th Avenue on the western or downstream end. There are six trailheads, one on each side of the river at 7th Avenue, Central Avenue and 7th Street. On the north bank, the paved trail is 3.7 miles and the dirt trail is 3.9 miles. The south bank paved trail is 3.9 miles and the dirt trail is 3.2 miles.



SOUTH CENTRAL CORRIDOR PARKS

There are seven City-owned parks in the South Central Corridor. Three of the parks are north of the Rio Salado, all of which have a recreation building, and one of which has a swimming pool. Four parks are south of the Rio Salado, two of which have recreational buildings, one of which has a swimming pool.

Outside the Corridor boundaries, the 16,000 acre regional South Mountain Park/Preserve is included as a recreational amenity.



NINA MASON PULLIAM RIO SALADO AUDUBON CENTER

Located on the south bank of the Rio Salado on the east side of Central Avenue, the Rio Salado Audubon Center exists to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity. The Center's mission is to connect urban people with nature through hands-on, science based education and conservation programs. Conservation action accessible to everyone by reaching out to audiences that are new to environmental stewardship and by providing useful information about sustainable living. The Center offers a full range of hands-on experiences for every age with field trips, bird walks, social activities, and education and conservation programs.



SOUTH MOUNTAIN PARK/PRESERVE

This regional park, at more than 16,000 acres, has its primary entrance at the south terminus of Central Avenue. South Mountain Park/ Preserve consists of three mountain ranges, the Ma Ha Tauk, Gila and Guadalupe; and is one of the largest municipally operated parks in the country. It has 51 miles of primary trails for horseback riding, hiking and mountain biking for all ability levels.

From the park's main entrance, a 5.5 miles trail to "Dobbins Lookout" offers spectacular valley wide views.



PEDESTRIAN EXPERIENCE AND HEALTH

High surface temperatures, lack of quality shade, and poor mitigation of high heat are factors that can have clear health implications for residents who regularly use transit, especially during the summer months when they are exposed to extreme heat when walking to and waiting for a bus.

Overview

There are many ways to be physically active, but few are as inexpensive and easy to do as walking. The most obvious health outcome of increased walking and biking is weight control.

Safe Streets and Public Health

The Surgeon General recommends at least 30 minutes of walking five times a week as a means of reducing obesity and other chronic health conditions. People who use public transportation walk to and from transportation stops, which, in turn, increases the likelihood of meeting the minimum daily recommendation of physical exercise. People who live in more compact neighborhoods walk, bike and use public transportation more frequently than those in more spread-out neighborhoods, and they also have lower rates of obesity.

The safety and condition of sidewalks play a major role on whether or not people chose to walk—unless required to do so. According to the South Central Neighborhoods Transit Health Impact Assessment residents of the South Central Corridor reported experiencing a general feeling of unpleasantness while walking throughout the area. This feeling was attributed to insufficient shade along sidewalks and at bus stops; inadequate lighting; inferior, discontinuous or

lack of sidewalks; feeling of lack of safety; messy alleys; and insufficient number of crosswalks. Additional information regarding street conditions will be provided in the Mobility Element.

Surface Temperatures

Every year the urban areas in Phoenix experience extreme heat conditions. Ambient temperature can be as high as 120 degrees fahrenheit with a relative humidity of less than 20%. The excess of hardscape exacerbates the urban heat island effect, where the nighttime temperature can stay above 90 degrees fahrenheit. High ambient temperatures are not conducive to overall health, particularly for vulnerable populations such as children and the elderly.

The Center for Disease Control categorizes the effects of extreme heat as a public health issue. As shown in the Green Systems chapter, the surface temperatures in the South Central Corridor are extreme. Exposure to extreme heat can lead to heat exhaustion, heat cramps, heat stroke and death. Significant public health impacts associated with heat exposure are observed each year in central Arizona. Exposure to extreme heat has been shown to have a disproportionate impact on the socially isolated populations, along with elderly, infants, minorities, and those with poor health as being more vulnerable to extreme heat.

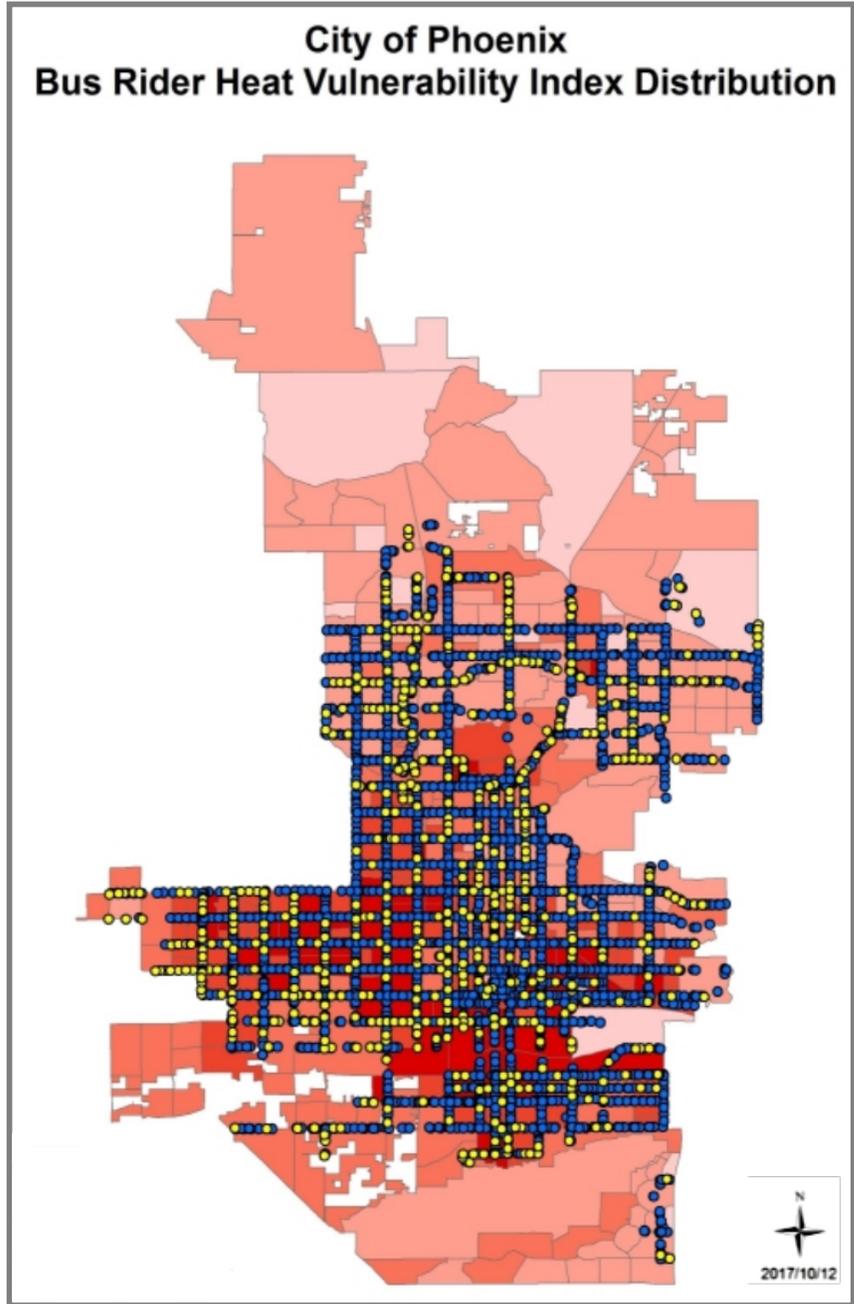
Maricopa County Department of Public Health reports a large prevalence of outdoor heat deaths in South Phoenix and Downtown areas: From 2006 to 2017, there have been 33 heat related deaths along the South Central Corridor. Since 2006, approximately 20% of the outdoor heat deaths in the county have been deaths of homeless individuals, with the majority of them occurring in Downtown and South Phoenix.

Tree canopies, even in neighborhoods with a lot of hardscape, can make a difference and create a more livable outdoor environment. Lowering temperatures by just a few degrees could encourage residents to walk and bike more. Neighborhoods with greater shade can experience lower outdoor ambient temperatures by more than 10 degrees due to the higher levels of evapotranspiration that will result from the high concentration of vegetation. Additional information regarding surface temperatures will be provided in the Green Systems Element.

Heat and Transit Access

The heat exposure is exacerbated due to a lack of shade, both in terms of tree canopy along the sidewalk and shaded shelters at bus stops. While the heat exposure could be a deterrent to transit ridership for some, for many in households without vehicles, there are no other transportation alternatives and the heat must be endured. Besides the overall discomfort, those who are exposed to the extreme heat in this consistent manner may have health risks related to heat exposure. In 2017, The City of Phoenix Public Transit Department partnered with ASU, Maricopa County Department of Public Health, and Vitalyst Health Foundation to develop the 'Phoenix Health & Air Quality Study.' The City of Phoenix Public Transit Department's previous methods of determining priority for improvements such as shade structures, was based solely upon ridership.

Utilizing the newest thermal emission technology and Landsat 8 satellite imagery, the team mapped information about vegetation cover and land surface temperature to provide the City of Phoenix Public Transit Department with an estimation of the radiative load riders experience at bus stops. The team provided the Transit Department with an analysis of the thermal environment at city bus stops, including identifying bus stops that could benefit from structures that promote thermal comfort.



The study's results will contribute to the Phoenix Transit Department's efforts to reduce the risk of heat-related illness for transit riders across the city and promote the viability of public transportation to achieve long-term health and sustainability goals.

Legend

- unshaded_Bus_Stop
- Phoenix_Bus_Stops

RiderHeatVulnerability

BHVI	UNSHADED STOP	ALL STOP	PERCENTAGE (%)
0.00-1.05	28	107	26.17
1.06-1.36	144	946	15.22
1.37-1.78	190	1001	18.98
1.79-2.32	149	908	16.41
2.33-3.31	135	879	15.36

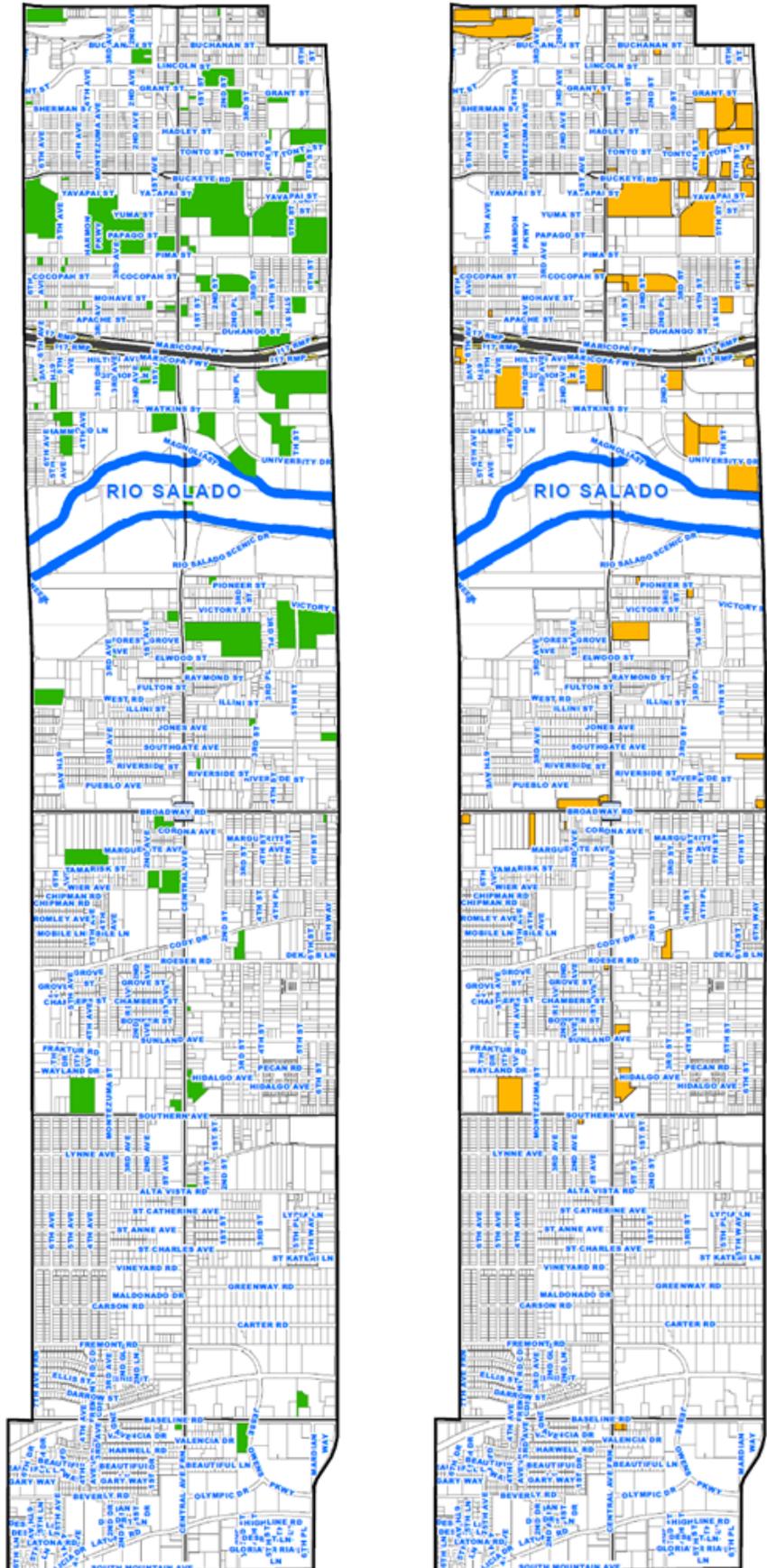
ENVIRONMENTAL POLLUTION

The heavy industrial uses in the north portion of the Corridor have a considerable impact on the environmental health of the Corridor. Most underground storage tanks are located north of the Rio Salado.

Pollution, or the discharge of hazardous materials into the environment is tracked and enforced by the Arizona Department of Environmental Quality (ADEQ). ADEQ records indicate that there are currently 105 registered underground storage tanks in the study area of which 58 have leaked their contents into the ground.

The Corridor also has 72 Hazardous Waste Generator industries and businesses, with the greatest concentration found along the north portion of the Corridor. The figures in the next page show the location of Hazardous Waste Generators and Leaking Underground Storage Tanks.

- Hazardous Waste Generators
- Leaking Underground Storage Tanks.



HEALTH AND WELL-BEING

According to the World Health Organization, health is much more than the absence of physical health burdens, it also includes such things as having social support, being free of threats of violence, not being anxious or fearful, being in good temper and feeling empowered.

Overview

The physical and psychological interconnection of aspects of well-being are a key point in describing health. Unfortunately, both aspects are often difficult to unravel given that physical symptoms may lead to mental anguish and psychological problems may also result in physical illnesses. For vulnerable low income populations relying on public transportation, added everyday stressors also include time constraints imposed by commuting via public transit. Lack of convenient public transportation and safe routes to walk and bike result in longer commutes with more transit connections for residents without a vehicle. This translates into added daily stressors and time constraints related to commuting. These stressors can have significant negative impacts on the health of residents along with reduced time availability to do other more beneficial recreational activities. Additional mental health stressors reported by Corridor residents include feeling unsafe and unease with the Police Department.

Many of the families are of Latino heritage and worry about being asked for “their papers” because of SB 1070. This law has created an environment of distrust for some residents, which results in crimes going unreported. It is believed that a call to report a crime will increase police presence—albeit temporarily—which will increase the likelihood of harassment. In their estimation, the simplest solution is to not engage the police at all, which allows crime to go unreported and unchecked. This contributes to the feelings of anxiety, disempowerment and fear that can adversely impact the mental health of residents.

Access to Health Services

Several participants in the South Central Neighborhoods Transit Health Impact Assessment (SCNTHIA) study reported transportation struggles to access medical services and a desire to see more medical providers locate along the light rail extension, with a particular emphasis on more accessibility to specialist medical providers.

The study also noted that residents in the Corridor are less likely to have private medical insurance coverage, have higher rates of chronic disease, generally poorer health outcomes, and less access to health services. When transit-dependent riders travel long distances, make multiple bus transfers, and experience inconsistent service, they are more likely to miss medical appointments, delay care, and forego medications/ vaccinations.

There is only one hospital within the South Central Corridor, located at 7th Avenue and Buckeye Road. However, for South Central Corridor residents who do not own a vehicle, accessibility to medical services such as the hospitals north of the Corridor, such as St. Joseph’s and the Veterans Affairs (VA) Hospital, and near the light rail will be improved once the light rail extension is completed, and it will reduce the amount of time that travelers spend waiting for transportation.