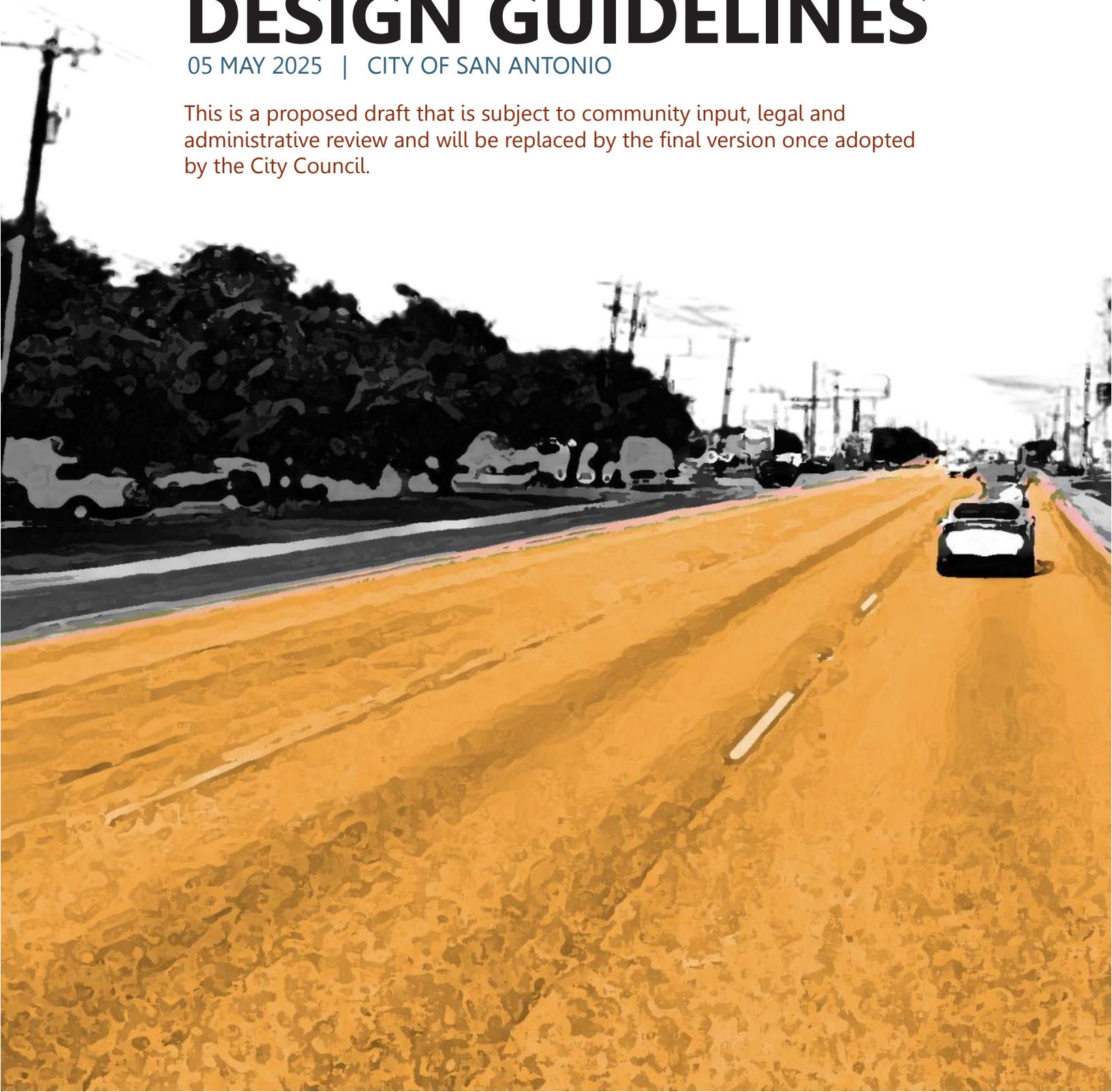


DRAFT

NORTHEAST CORRIDOR DESIGN GUIDELINES

05 MAY 2025 | CITY OF SAN ANTONIO

This is a proposed draft that is subject to community input, legal and administrative review and will be replaced by the final version once adopted by the City Council.



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EXECUTIVE SUMMARY



The Northeast Corridor (NEC) is a sub-area of the NE I-35 and Loop 410 Area Regional Center Plan. The area consists primarily of properties along Perrin Beitel Road and Nacogdoches Road, north of NE Loop 410 and south of O'Connor Road. The NEC area also includes sections of Thousand Oaks Drive, Naco-Perrin Boulevard, and side streets. A map of the study area can be found on the next page.

Since June 26, 2014, the City of San Antonio has initiated programs that have capitalized on opportunities to activate vacant and underutilized properties; reestablish community-serving retail and service businesses; and improve the appearance of buildings, signs, and parking lots. The following incentives have been made available to community members in the area:

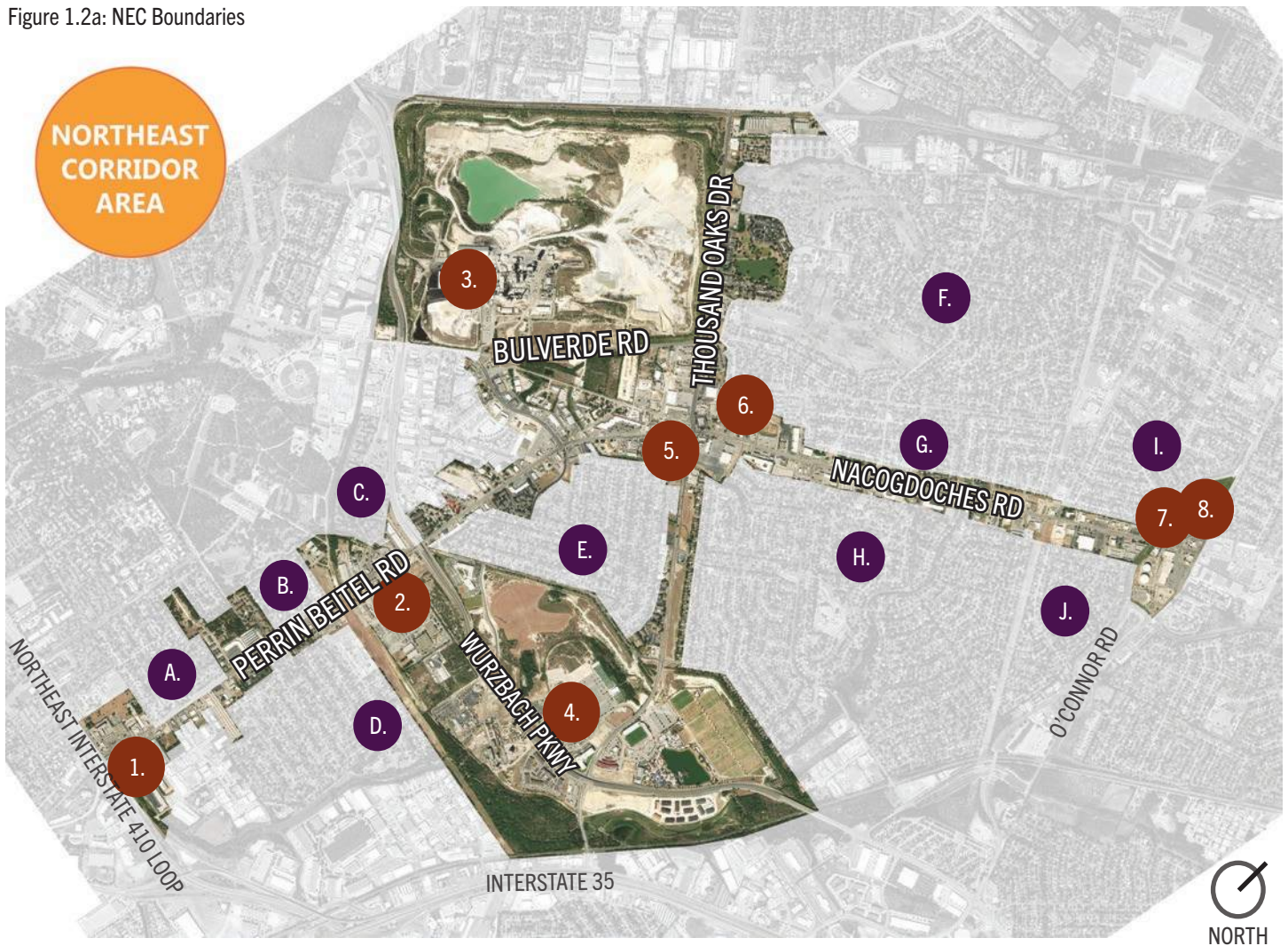
- COSA Fee Waiver Program
- NEC Enhancement Grant Program
- Opportunity Zones
- San Antonio Water System (SAWS) Commercial Programs and Rebates
- Small Business Development
- Tax Increment Reinvestment Zone (TIRZ)

One strategy established from the NEC Revitalization Plan was to adopt design guidelines for retail and mixed-use segments of the corridor in order to create cohesive sites along the corridor; these standards are the execution of that strategy.

Further, this document details the process that generated the recommended standards. Based on previous analysis and public input, it was clear that the community wanted to incorporate more nature-based solutions into the corridor, such as using plantings as screening methods or fences; adding trees along sidewalks and in parking lots for shade; incorporating passive systems such as rain water harvesting; providing additional amenities at transportation stops; creating outdoor social and gathering spaces; and eliminating visually obtrusive signage.

These design guidelines will serve as a framework that is focused on aesthetic and sustainable improvements, resulting in a new Metropolitan Corridor Overlay District pursuant to the San Antonio City Code, Chapter 35, Unified Development Code (UDC) Section 35-339.01 (2)(b).

Figure 1.2a: NEC Boundaries



PLACES OF INTEREST

- | | |
|-------------------|------------|
| 1. Academy Sports | 5. H-E-B |
| 2. Post Office | 6. Walmart |
| 3. Capital Cement | 7. Ross |
| 4. Heroes Stadium | 8. H-E-B |

NEARBY NEIGHBORHOODS AND COMPLEXES

- | | |
|-----------------------------|--------------------------------|
| A. Village North | F. Northern Hills |
| B. Perrin Park | G. Northern Heights |
| C. Vistas Two 52 Apartments | H. El Dorado |
| D. Sun Gate | I. El Chaparral Fertile Valley |
| E. Hills of North Park | J. Valencia |

INTRODUCTION

Because San Antonio is a historic city, its roadways radiate from the original city core out to surrounding towns and abutting jurisdictions. In the 20th century, growth expanded at the greatest rates outwards from the city's center along those radial roadways. We now identify these routes as important corridors in San Antonio. Uneven patterns of investment and land value affected some of these corridors, but many evolved in similar ways.

Unfortunately, the appearance of our current corridors is not how we would like our city to look today, or in the future. With the introduction of the car, patterns in our city drastically changed. Planning and construction began to center around the vehicle, resulting in wide streets; oceans of parking; large building setbacks; excessive curb cuts; and, sadly, a disregard for pedestrians and disinvestment in transit systems.

These car-centric design methods have led to an increase in stormwater runoff, resulting in flooding due

to the extent of pavement and impervious coverage. Less obvious outcomes include vast monotonous suburban residential neighborhoods; mega-stores; and lower levels of physical activity which can lead to increased obesity and health problems.

One way to revitalize our corridors is to establish design standards and guidelines. Creating a set of rules and recommendations can help us rebuild our corridors into the types of places we want them to be. These initiatives can enhance the form, function, and visual appeal of public and private commercial properties along the corridor. They will also make it safer for all users including pedestrians, cyclists, and vehicles.

This document provides guidelines which will become a road map for the future of the Northeast Corridor. They address a number of facets of building planning and construction, along with more general development guidance.

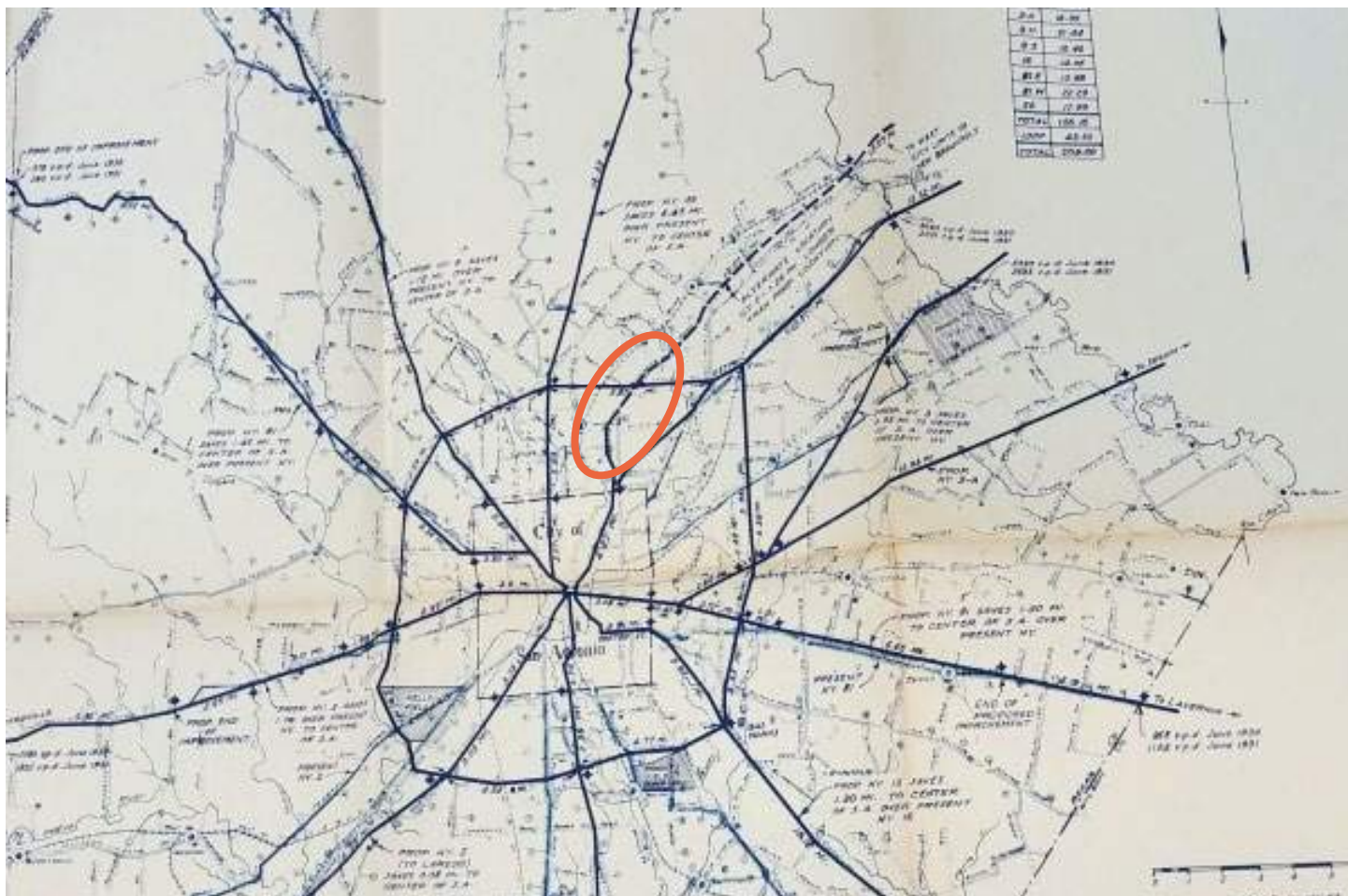


Figure 1.3a: Proposed highway plan from 1932, much of which was built, though in different form than proposed. Note the unbuilt alternate route circled in red approximately along the alignment of the Northeast Corridor

CORRIDOR VISION

COMMUNITY INPUT

A stakeholder committee consisting of business owners, residents, architects, and community leaders within the area, was formed to help guide the creation of the Northeast Corridor Design Standards.

It can take a number of years for design standards to affect the appearance and feel of a corridor, but when applied, communities start to see the aesthetic value they bring, as well as the growth and reinvestment which often follows their implementation.

Public feedback showed an agreement on the following items:

- Plantings or walls used for screening or buffers
- Shaded and wider sidewalks
- Rain water harvesting systems incorporated into new development
- Outdoor social and gathering spaces
- Public art at major intersections
- Additional amenities at bus stops
- No pole, roof, or electric signs

The full community input report can be found in Appendix A - Public Engagement on page A.5.1.

VISION

The Northeast Corridor should become a people-and-place oriented multimodal corridor, offering destinations for nearby residents to work, play, and shop. Incorporating tree plantings, landscaping, and low-impact development features should become a focus along the corridor as a means of aesthetic and sustainable improvement. Developments should become placemaking-focused rather than vehicle-focused.



Figure 2.1a: NEC Design Standards Public Meeting #1

CORRIDOR VISION

DESIGN CONSIDERATIONS

The NEC has been identified in the Northeast I-35 and Loop 410 Area Regional Center Plan as a people-and-place oriented corridor. This means that the design of the street must accompany both users (pedestrians, cyclists, public transportation, automobiles, and other users) and businesses. Because much of the corridor is noted as a severe pedestrian injury area, making improvements that enhance pedestrian experiences and increase safety is very important.

There are also historical considerations. Nacogdoches Road follows the path of El Camino Real de los Tejas, a network of roads (in many cases, following existing indigenous trails and trade routes) used extensively during the Spanish colonial period. The network connected the San Antonio-area missions to settlements further east and south to Mexico City. Recognition of this history would be appropriate and encouraged, especially with a renewed focus on the pedestrian nature of the corridor.

Much of the previous work on the corridor has placed an emphasis on improving landscaping, with a specific focus on trees. Recent City of San Antonio projects have planted over 300 trees along Perrin Beitel Road and Nacogdoches Road following community input. This work is an important enhancement to the corridor which sets the stage for these design standards.



Figure 2.2a: Section of Nacogdoches Rd

DESIGN STANDARDS AND GUIDELINES

WHAT ARE DESIGN STANDARDS AND GUIDELINES?

On June 24, 2014, the City of San Antonio Department of Planning and Community Development published the Northeast Corridor (NEC) Revitalization Plan. The initiative's purpose is to capitalize on opportunities to activate vacant and underutilized properties; re-establish community-serving retail and service businesses; and improve the appearance of buildings, signs, and parking lots for Nacogdoches Road and Perrin Beitel Road. One of the seven major goals of the NEC Revitalization Plan is to "Improve the appearance of buildings, signs, and parking lots through incentives tied to uniform design guidelines."

Design standards and guidelines are intended to enhance the overall appearance of an area. The criteria reinforces the quality of amenities to promote a cohesive site design that compliments the city's existing zoning, buildings, and infrastructure. The standards and guidelines are intended to educate existing and future property owners of the expectations and desires for new development, present clear concepts for achieving the vision of the corridor, and recommend appropriate design approaches and techniques.

Projects must obey the standards and are strongly encouraged to comply with guidelines. In addition, the standards will use a elective criterion point system in which developments must achieve a certain point total to satisfy the guidelines.

In cases where property owners believe that a requirement of these standards is not achievable on a particular property, requests for variance will be reviewed via the City of San Antonio Board of Adjustment process.

NEC REVITALIZATION RECOMMENDATIONS

The NEC recommendations include the following items:

- Landscaping on private property that is consistent with right-of-way plantings
- New pad sites in front of existing shopping centers
- Signage requirements and limitations
- Cross-access easements to eliminate curb cuts
- Gathering spaces
- Pedestrian enhancements and access to neighborhoods
- Other improvements that could be implemented with TIRZ funds
- A walkable urban village around the intersection of Thousand Oaks Drive/ Perrin Beitel Road/ Nacogdoches Road

Design standards apply to new construction and certain types of renovations, notably those which include substantial modifications as defined in this document. The standards will be enforced when an improvement or new construction plans are submitted for site plan review. Single-family residential structures in existing subdivisions shall not be subject to the design standards. The boundaries can be seen in Figure 1.2a.



Figure 3.1a: Current conditions of the Northeast Corridor Area

Elective Point System

Elective	Totals
A. Site, Landscaping, and Screening	280
Site Dimensions	20
Landscape	70
Sustainability	180
B. Building and Signage	0
C. Lighting and Utilities	20
Utilities	20
D. Right-of-Way	0
MAXIMUM ELECTIVE POINTS:	300

The elective point system is designed to encourage high-quality development by offering flexibility for different project sizes and types while ensuring that projects align with broader planning goals. The point system assigns point values to various design, sustainability, or community-oriented features. These features are identified in the tables as “Elective.”

Developments must reach a total of 100 points (out of 300 potential points) from the elective categories to be considered compliant with the guidelines. This ensures that while projects remain flexible in their approach, they still contribute meaningfully to the overarching goals of the area.

This system balances regulatory enforcement with incentives, allowing developers to tailor their projects while still meeting community priorities.

**MINIMUM TOTAL
100 PTS**

DESIGN STANDARDS

A. Site, Landscaping, and Screening

1.SITE DIMENSIONS

A1	Mandatory	Elective (points)	Summary
a	x		Minimum building setbacks and maximum percent of impervious cover are established in Figure 3.3a below. Where Table 310-1 in the UDC calls for larger setbacks, the larger setback is required. Reverse corners require front setbacks on both frontages.
b		20	As an elective criterion, any project which places a new building on an existing parking lot while also maintaining all existing building(s) on site shall be eligible for 20 elective points. The intent of this provision is to incentivize redevelopment of existing brownfield sites rather than greenfield sites, while also limiting demolition to achieve that goal.

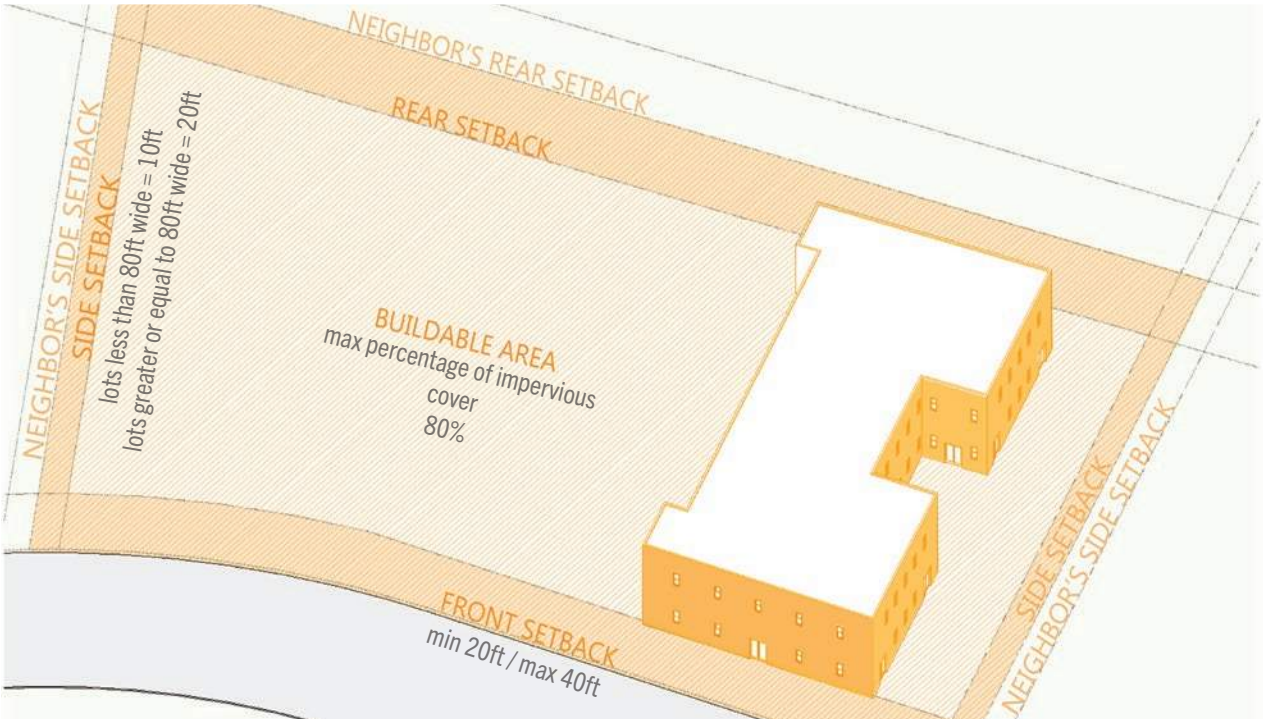


Figure 3.3a: Site Dimensions Standards

A. Site, Landscaping, and Screening

2. PARKING AND OFF-STREET LOADING

A2	Mandatory	Elective (points)	Summary
a	x		All parking areas, regardless of placement, shall be interrupted with landscaped areas (pods) at a ratio of 20 square foot landscaped area for every one (1) vehicle parking space. Pods shall be used to meet the requirements for tree and understory preservation and shading requirements for parking lot canopy trees and/or the pedestrian circulation system. Pods must be protected from vehicular traffic through the use of concrete curbs, wheel stops, or other permanent barriers. Submittal documents must include a table of calculations showing the required ratio of landscaped area to parking spaces.
b	x		Loading areas shall be located a minimum of twenty (20) feet from any residentially zoned property. The recommended placement for off-street loading areas is at the rear of the building. However, off-street loading areas may also be located on the sides of a structure that does not face a primary right-of-way. All loading areas shall be screened from view from public rights-of-way. Refer to A6 for screening requirements.
c	x		All parking areas, including the first story only of parking structures, shall be screened from public rights-of-way by plantings, landscaping or a architectural wall structure. Refer to A6 for screening requirements.
d	x		Up to 25% of required off-street parking spaces may be substituted with bicycle spaces at a 1:1 ratio.



Figure 3.4a: Parking and Off-Street Loading Examples

A. Site, Landscaping, and Screening

DRIVEWAYS, SIDEWALKS, AND TRANSPORTATION

A3	Mandatory	Elective (points)	Summary
a	x		All projects shall include a continuous pedestrian circulation system which interconnects all buildings on a site and provides connections to all public sidewalks bordering a site. Circulation paths shall be constructed of materials meeting the paving requirements elsewhere in these guidelines. Paths shall be shaded by either canopies or trees which provide a minimum of 50% shading. Calculation of coverage percentage shall use the shade area noted in the City of San Antonio Unified Development Code (UDC), Appendix E. A calculation example may be found in UDC 35-511(b)(7)(B).
b	x		Additional curb cuts along rights-of-way are not allowed. Where possible and recommended by city staff, curb cuts shall be eliminated, combined, or reconfigured to meet the minimum width permitted.
c	x		Additional access drives from rights-of-way onto properties are not allowed. Where possible, access drives should be eliminated, combined, or reconfigured to meet the minimum width permitted. Drive widths should be limited to only that necessary for property access: one lane for entering and one for departing, with neither lane wider than 11 feet.
d	x		Each new or substantially modified development shall be responsible to connect any internal walkways and bicycle storage directly to multimodal transportation facilities on adjacent streets. Internal walkways must be connected to public sidewalks and shared-use paths. Bicycle storage locations must have appropriate connections to bicycle accommodations on streets.
e	x		Where transit stops are located within right-of-way adjacent to properties, any internal pedestrian circulation systems shall be connected directly to sidewalks within five feet of transit stops, or, if no sidewalk exists, then internal pedestrian circulation systems shall terminate directly at the property boundary adjacent to the transit stop.

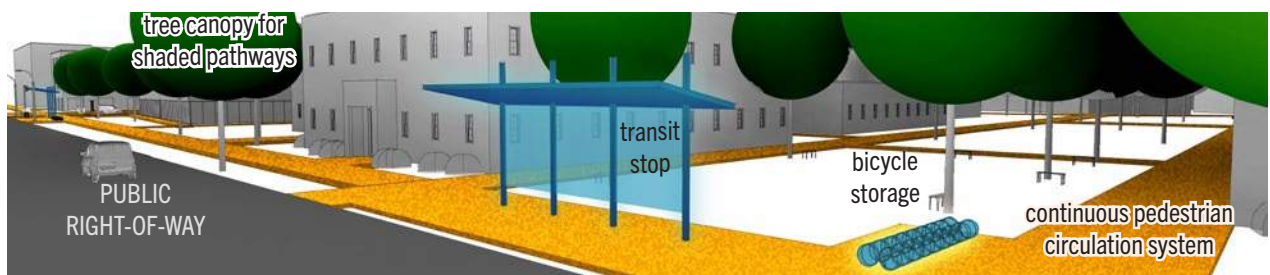


Figure 3.5a: Driveway, Sidewalks, and Transportation Examples

A. Site, Landscaping, and Screening

4. FENCES AND WALLS

A4	Mandatory	Elective (points)	Summary
a	x		<p>Fences within the area between buildings and the public right-of-way are permitted but are subject to the following standards:</p> <ol style="list-style-type: none">1) The tallest element of any fence/wall within the front setback shall not exceed four (4) feet in height with no more than three (3) feet in height being constructed of a solid permitted building material;2) Fence/wall materials shall include only earth tone colors (beiges, grays, browns, greens) or muted colors regardless of whether the color is applied or integral to the material; white, black, and silver are not allowed;3) Fences may utilize a decorative metal gate; and4) Any fence/wall placed in the clear vision area must comply with the restrictions contained in UDC 35-506.

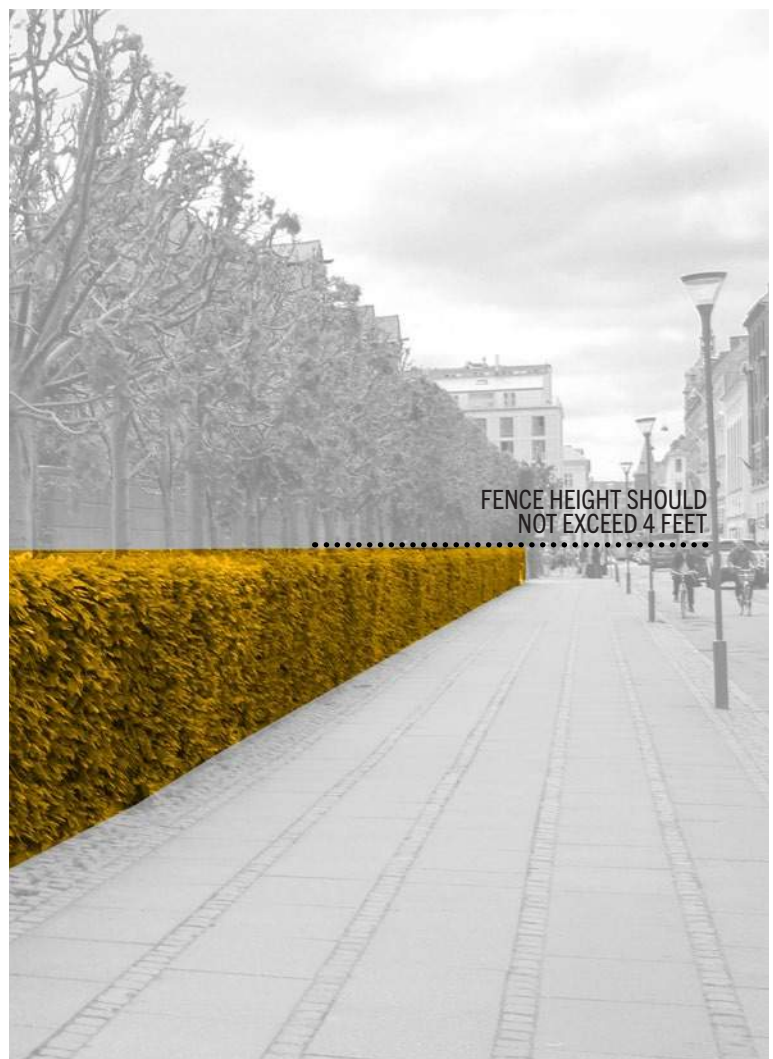


Figure 3.6a: Fences and Walls Examples

A. Site, Landscaping, and Screening

5. LANDSCAPE

A5	Mandatory	Elective (points)	Summary
a	x		Plants utilized to fulfill the landscaping requirements shall be selected from the list of native Texas plants in the San Antonio Recommended Plant List found in UDC Appendix E.
b		5	As an elective criterion, any project which eliminates turfgrasses within the planting plan shall be eligible for five (5) elective points.
c		10	As an elective criterion, any project which provides for 50% of required irrigation needs via on-site captured and stored rainwater shall be eligible for 10 elective points.
d	x		All parking areas, regardless of placement, shall be provided with trees which shade 30% of the paved area. Calculation of coverage percentage shall use the shade area noted in the City of San Antonio Unified Development Code (UDC), Appendix E. A calculation example may be found in UDC 35-511(b)(7) (B).
e		15	As an elective criterion, any project which provides trees which shade 50% of the paved area of parking areas shall be eligible for 15 elective points. Calculation of coverage percentage shall use the shade area noted in the City of San Antonio Unified Development Code (UDC), Appendix E. A calculation example may be found in UDC 35-511(b)(7)(B).
f	x		Landscaping shall be arranged in such a manner to minimize the mass of a building, fence, or wall. Landscaping around fences, walls, and foundation plantings shall be provided within the front setback. Plantings may be placed in containers in lieu of foundation plantings.
g	x		Storm water retention and detention facilities shall be designed in accordance with the San Antonio River Basin Low Impact Development Technical Design Manual and integrated as a landscape feature using plants selected from the list of native Texas plants in the San Antonio Recommended Plant List found in UDC Appendix E.
h		15	Where LID practices such as bioretention areas, rain gardens, and swales are part of an approved LID/NCDP integrated stormwater plan, the preserved pervious areas which drain to these practices and which serve multiple uses such as trails, open space, and recreation, shall be eligible for 15 elective points.
i		20	As an elective criterion, any project which provides vegetated outdoor spaces with an area of 5% of the project site or 500 square feet, whichever is greater, exclusively for free recreation or relaxation for site users, shall be eligible for 20 elective points.

A. Site, Landscaping, and Screening

5. LANDSCAPE

A5	Mandatory	Elective (points)	Summary
j	x		No fewer than three (3) different species of native plant materials (as included in the list of native Texas plants in the San Antonio Recommended Plant List found in UDC Appendix E) shall be used within the landscape design.
k		5	The placement of public art on project sites is encouraged. Public art should be sited as focal points within a site, visible from the public right-of-way. As an elective criterion, each public art focal point within the site which is visible from the public right-of-way, and approved by the Public Art Board, shall be eligible for five (5) elective points, to a maximum of fifteen (15) points.

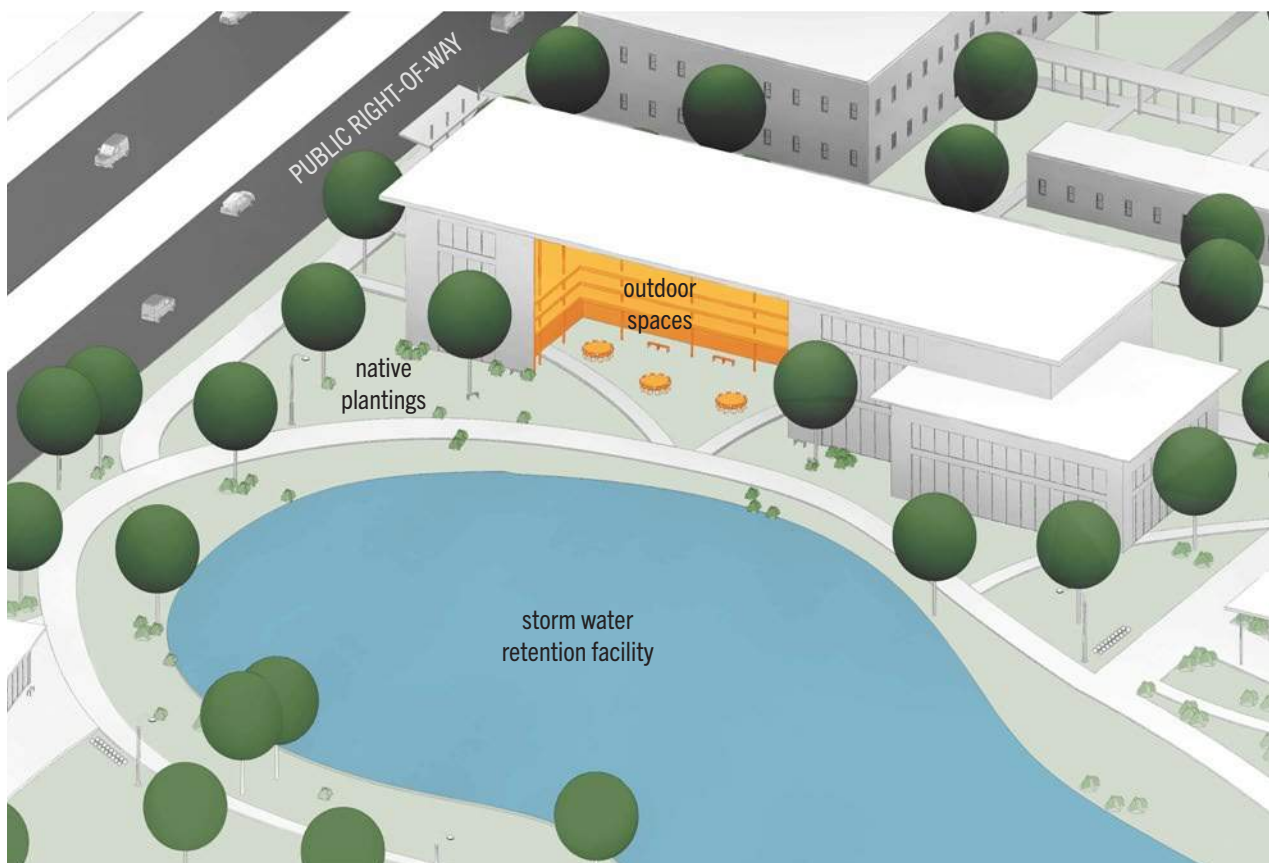


Figure 3.8a: Landscape Examples

A. Site, Landscaping, and Screening

6. SCREENING

A6	Mandatory	Elective (points)	Summary
a	x		<p>When called for in these guidelines, screening shall be one or more of the following types:</p> <p>1) Vegetation, of native species as found in the San Antonio Recommended Plant list in UDC Appendix E and compliant with Bufferyard Type A as described in UDC 35-510(d);</p> <p>2) Solid wall, fences (per UDC 35-514), or architectural screening. All screening must comply with restrictions in UDC 35-510 and shall be eligible to count towards landscaping requirements elsewhere in the UDC, as applicable. Screening height shall be as defined in individual sections, four feet tall in the front of the property, or a minimum of six feet tall if not otherwise indicated.</p>
b	x		<p>All outside storage and service areas, storage tanks, mechanical equipment, refuse storage areas, compactors, and HVAC equipment shall be screened from right-of-way to a minimum of six (6) feet by a screening method identified in A6(a).</p>
c	x		<p>Trash collection areas and dumpsters are preferred to be incorporated into the building envelope. Where this cannot be done, trash collection areas and dumpsters shall be located in the rear yard or side yard and shall be located a minimum of twenty (20) feet from any residentially zoned property. All trash collection areas and dumpsters shall be screened from right-of-way to a minimum of six (6) feet high by a screening method identified in A6(a).</p>
d	x		<p>Drive-through windows and menu boards/ordering stations shall be screened from view of adjoining properties and from view of the public right-of-way from grade to a minimum of three (3) feet by a screening method identified in A6(a).</p>

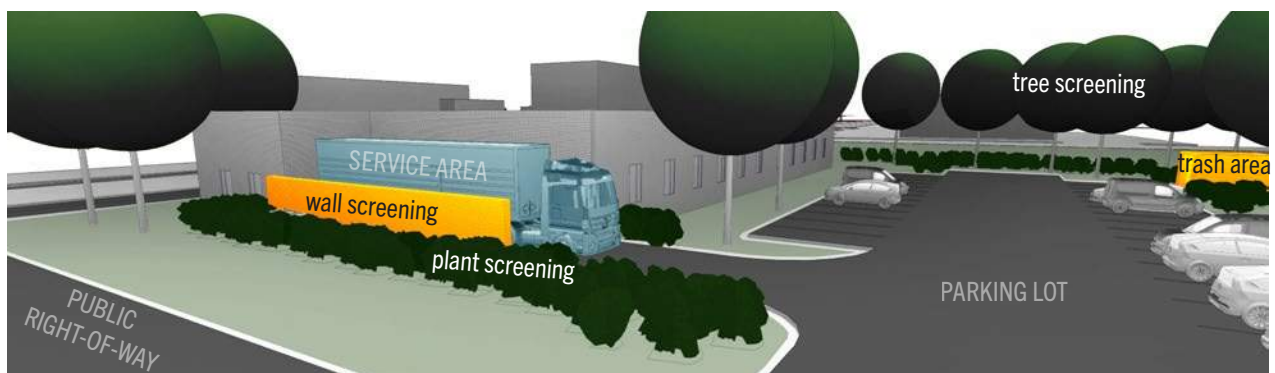


Figure 3.9a: Screening Examples

A. Site, Landscaping, and Screening

7. SUSTAINABILITY

A7	Mandatory	Elective (points)	Summary
a		20	As an elective criterion, any project which uses permeable paving for all parking areas, including drive aisles and parking spots, shall be eligible for 20 elective points. Any project which uses permeable paving for parking spots only shall be eligible for 10 elective points.
b		20	As an elective criterion, any project which uses permeable paving for all site walkways shall be eligible for 20 elective points.
c		30	As an elective criterion, any project which provides trees or structures which shade 80% of site walkways shall be eligible for 30 elective points. Calculation of coverage percentage shall use the shade area noted in the City of San Antonio Unified Development Code (UDC), Appendix E. A calculation example may be found in UDC 35-511(b)(7)(B).
d		30	As an elective criterion, any project which uses surface or sub-surface sand filtration systems which treat rainwater from a minimum of 50% of the project site shall be eligible for 30 elective points.
e		30	As an elective criterion, any project which renovates all on-site structures while also complying with other requirements in these design standards shall be eligible for 30 elective points.
f		30	As an elective criterion, any project which implements intensive or extensive green roofs equivalent to at least 50% of total site roof area shall be eligible for 30 elective points.
g		20	Installation of photovoltaic systems is generally encouraged. Specifically, placement of photovoltaic systems where they can be easily concealed (as on flat building roofs) or where they can be used as shading (as canopies in parking areas or covering pedestrian walkways) is encouraged and shall be eligible for 20 elective points.

A. Site, Landscaping, and Screening

SUSTAINABILITY



Figure 3.11a: Sustainability Examples

B. Building and Signage

BUILDING ISSUES

B1	Mandatory	Elective (points)	Summary
a	x		At least 25 of the façade of ground floors of buildings facing the corridor and connecting side streets shall contain active uses (such as uses which feature visibility from the interior of buildings to public right-of-way).
b	x		Ground floors of buildings shall feature 60% transparency in order to promote connections between inside and outside.
c	x		If the building façade length is greater than 50 ft, one or more technique(s), such as a change in facade height or building materials, shall be employed to reduce the perceived mass.
d	x		If a change in façade height is required, the change in façade height shall be at least ten percent (10%) of the vertical height. A change in the roof form of the building module is recommended to accentuate the change in the façade height.
e	x		Public entrances must be located on streets with primary pedestrian activity – chiefly the corridor itself.
f	x		A minimum of fifty percent (50%) of the street wall facade that adjoins a pedestrian circulation system shall be shaded by awnings, balconies, colonnades or arcades.



Figure 3.12a: Building Issue Examples

B. Building and Signage

2. ON-PREMISES FREE-STANDING SIGNS

B2	Mandatory	Elective (points)	Summary
a	x		Maximum permitted message area and height are established in Figure 3.13a below.
b	x		The bases of freestanding signs shall be landscaped to include plants from the list of native Texas plants in the San Antonio Recommended Plant List found in UDC Appendix E.



Figure 3.13a: On-Premises Free-Standing Sign Examples

B. Building and Signage

3. ON-PREMISES ATTACHED SIGNS

B3	Mandatory	Elective (points)	Summary
a	x		On-premises attached signs are permitted, subject to the following restrictions: 1. Attached signs shall be designed as integral elements of the building design; 2. Attached signs that project beyond the face of a building shall be located a minimum of eight (8) feet above grade; 3. Maximum allowable sign area as a percentage of the area of each building elevation is fifteen percent (15%); 4. Video display signage is not permitted.
b	x		Signs may not disfigure, damage, or obscure windows or doors.
c	x		Window signs shall not exceed fifteen (15) square feet or fifteen percent (15%) of any individual piece of glazing, whichever is smaller.



Figure 3.14a: On-Premises Attached Sign Examples

B. Building and Signage

4. OFF-PREMISES AND DIGITAL SIGNS

B4	Mandatory	Elective (points)	Summary
a	x		Installation of new, off-premises signs (billboards) shall not be permitted unless two billboards are removed in compliance with UDC 28-31(b)(3). No height adjustment permits are allowed. No digital displays are allowed.



Figure 3.15a: Off-Premises Sign Examples

C. Lighting and Utilities

1. LIGHTING SCREENING

C1	Mandatory	Elective (points)	Summary
a	x		All exterior lighting fixtures must be certified with the DarkSky Approved program; application must include listing of all exterior fixtures showing certification on project site plan.



Figure 3.16a: Local example of full-cutoff, DarkSky Approved certified fixture

C. Lighting and Utilities

2. UTILITIES

C2	Mandatory	Elective (points)	Summary
a	x		On-site utilities shall be located underground unless required by the utility to be otherwise located. This requirement does not apply to electrical transmission or distribution lines.
b	x		In locations not served by underground utilities, building electrical service should be designed with underground vaults for future access to underground utilities
c	x		Utility boxes, utility pillars, utility cabinets, and other utility equipment shall be screened from view of the public right-of-way and private streets. Screening may be achieved by methods as defined by A6(a) in this document.
d		20	As an elective criterion, any project which provides infrastructure for electric vehicle charging stations for at least 10% of parking spaces shall be eligible for 20 elective points.



Figure 3.17a: Utilities Examples

D. Right-of-Way

RECOMMENDATIONS FOR THE RIGHT-OF-WAY

A right-of-way is property that is publicly owned or land that is held by a governmental entity for public purpose. Examples include: a highway, a street, sidewalks, drainage facilities, sewerage and water facilities. Right-of-way recommendations for the Northeast Corridor include the following:

- A shared, bi-directional left turn lane or a continuous center turn lane is not recommended
- Landscaped, 16-foot-wide center medians with left turn lanes are preferred
- On-street parking is not recommended unless intended to protect pedestrian and/or bicycle traffic
- Parking should be pulled back from intersections by at least 20 feet
- Sidewalks are recommended to be five feet wide minimum and to maintain a minimum four-foot planting strip between curb and sidewalk
- Marked crosswalks and left turn lanes should be marked with reflective materials
- A minimum ten-foot multi-use or shared-use path may be installed and shall be separated from the roadway
- Vehicle lanes shared with bicycles are not recommended
- New transit shelters should integrate contextual public art elements
- The potential for shade and/or weather protection should be maximized at transit stops
- Newspaper stands, bicycle parking spaces, and trash receptacles should be provided at transit stops

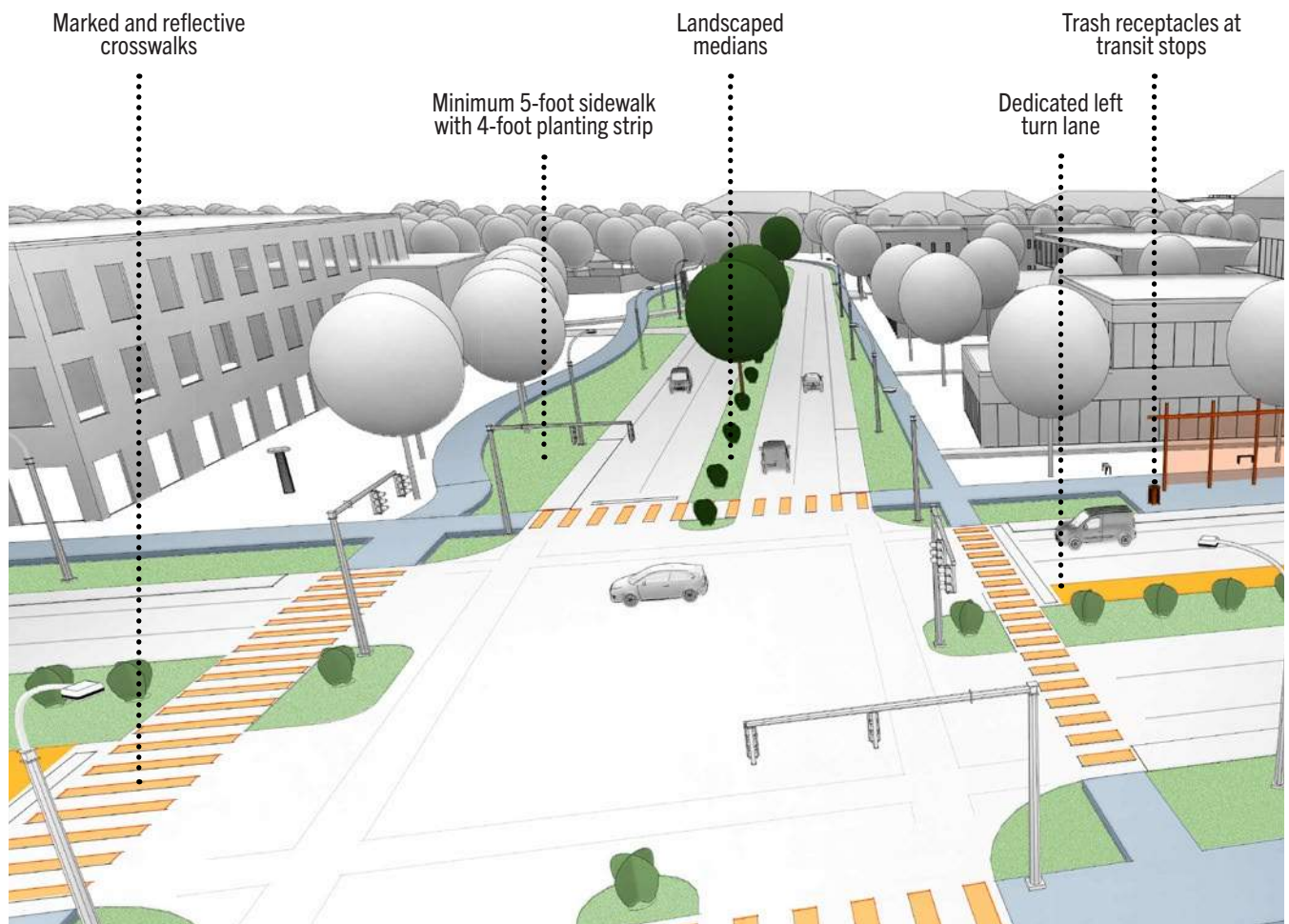


Figure 3.18a: Right-of-Way Examples

DEFINITIONS

ACTIVE USE - A space that tends to have or encourage interaction between the use of the building or structure and pedestrians on a street or sidewalk.

AWNING - Refer to UDC A:32.

BUFFER - Bufferyard; refer to UDC A:33

CONTEXT - The characteristics of the buildings, streetscape, and landscape that support or surround a given building, site, or area such specific architectural styles or materials, wide sidewalks, continuous and overhead weather protection, or consistent street trees.

EARTH TONE COLORS - Colors that are predominant in the surrounding landscape including desert and woodlands and shall be low reflectance, subtle, or neutral colors. Earth tone colors shall not include primary colors, black, white, metallic, or fluorescent colors. Earth tone is a color scheme that draws from a color palette of browns, brownish-reds, brownish-oranges, tans, grays, and greens. The colors in an earth tone scheme are muted and flat and emulate the colors found in native soil, trees, and rocks.

FAÇADE - Refer to UDC A:36.

FENCE - Refer to UDC A:56.

IMPERVIOUS COVER - Refer to UDC A:62.

LANDSCAPE WALL - A solid barrier constructed of masonry units (like brick, stone, or concrete block), or plantings, typically used to mark a property boundary or enclose an area of ground. A landscape wall does not retain earth and is not a retaining wall.

LOW IMPACT DEVELOPMENT (LID) - Refer to UDC A:66.

MASS - Refer to UDC A:67.

MULTI-USE PATH - An access route for the exclusive use of bicycles and pedestrians, physically separated from motorized vehicular traffic by an open space or barrier and either within the right-of-way or within an independent right-of-way.

NATIVE PLANTS AND TREES - San Antonio recommended species list found in Appendix E of the Unified Development Code.

OPEN SPACE - Refer to UDC A:73.

PEDESTRIAN CIRCULATION SYSTEM - Improved trails, sidewalks, and/or crosswalks that facilitate pedestrian movement within a site.

RIGHT-OF-WAY - Public right-of-way; refer to UDC A:78.

RHYTHM - Reference to the regular or harmonious recurrence of lines, shapes, forms or colors, incorporating the concept of repetition as a device to organize forms and spaces in architecture.

SCREEN - Refer to UDC A:84.

SETBACK - Refer to UDC A:85.

STREET WALL FAÇADE - Refer to UDC A:92.

SUBSTANTIALLY MODIFIED - Also substantially improved; refer to UDC A:93.

SWALE - Refer to UDC A:94.

TRANSIT SHELTER - A roofed structure located on or adjacent to the right-of-way of a street, and which is designed and used primarily for the weather protection

DEFINITIONS

and convenience of waiting transit passengers.

TRANSIT STOP - A fixed location where passengers board and alight public transit, usually identified by a sign.

TRANSPARENCY - Also transparent; refer to UDC A:95.

UNIFIED DEVELOPMENT CODE (UDC) - Chapter 35 of the Code of Ordinances of the City of San Antonio. The UDC establishes standards and procedures for new development in the city.

WALL - Refer to UDC A:98.

CITY COUNCIL ORDINANCE

REVIEW OF PREVIOUS STUDIES

NE I-35 AND LOOP 410 AREA REGIONAL CENTER PLAN

The recent NE I-35 and Loop 410 Area Regional Center Plan (as of this writing, still in final draft form, but not expected to change), encompasses an area which includes the corridor addressed by these design standards. It addresses a number of different facets of planning for the area, a number of which significantly impact these standards. The following is a summary of the plan, with specific notes and highlights regarding applicability to the standards.

CHALLENGES

1. Changing economy and general disinvestment leading to aging and underutilized strip centers lining commercial corridors
2. Congested traffic patterns created by growth of surrounding suburban communities
3. Lack of landscaping created by crisscrossing highways and rail lines
4. Few green and open areas; connections to parks and trails difficult

OPPORTUNITIES

1. Attractive commercial hub; already vibrant transportation and warehousing base
2. Existing TIRZ, Opportunity Zone, and commercial property enhancement grant program

VISION

The NE I-35 and Loop 410 Area Regional Center is a place where neighborhoods and businesses thrive and whose unique recreational, educational, and institutional assets draw residents and visitors alike. Its well-connected transportation networks integrate options for automobile, public transit, bicycle, and pedestrian travel allowing efficient access to everything the area has to

offer – from entertainment, to parks and hike/bike trails, to businesses that meet day-to-day needs. The Regional Center supports its traditional industrial base, embraces economic development that fosters a balanced mix of live, work, and play options, and evolves in a way that sustains and protects its natural systems and environment.

GOALS

1. Encourage economic development and business diversity that nurture positive community identity.
 - a. Continue to capitalize on existing economic development tools such as the area's Tax Increment Reinvestment Zone (TIRZ), Opportunity Zones, and commercial property improvement grant to incentivize catalytic, community-serving development and reinvestment.
 - b. Validate and continue implementing the land use suggestions in the Northeast Corridor Revitalization Plan.
 - c. Seek innovative approaches to adaptive reuse of vacant and outdated spaces – both large and small.
 - d. Encourage mixed-use development that attracts businesses that meet the daily needs of the community, such as dining and shopping.
 - e. Promote redevelopment of the Longhorn Quarry as a regional mixed-use anchor and entertainment destination.
 - f. Promote and expand upon existing area assets, such as Morgan's Wonderland, Toyota Field, and Children's Rehabilitation Institute, as unique attractions to encourage positive change and Regional Center identity.
 - g. Support a mix of workforce housing options.
2. Promote community well-being and safety
 - a. Preserve existing single-family neighborhoods

by directing growth to major corridors, with appropriate transitions between high and low-density areas.

- b. Direct growth and development along major arterials, near intersections, and close to public transit.
 - c. Develop design standards and guidelines for major corridors and redevelopment areas to improve safety, comfort, and attractiveness and to foster a recognizable community identity.
 - d. Encourage a sense of community and pride of place where businesses and residents respect each other and their shared spaces.
3. Create a connected transportation network that integrates multiple modes of transportation - including automobile, public transit, bicycle, and pedestrian - to efficiently serve the needs of multiple audiences including area residents, workforce commuters, commerce and trade, and visitors.
- a. Support transportation options and improvements to keep pace with growth and development.
 - b. Improve and install infrastructure that provides options for pedestrians, bicyclists and public transit riders that provides safe and efficient connectivity to other major employment hubs as well as the rest of the city.
 - c. Examine ways to create hike/bike trails within the Regional Center and how to connect them to other trails and parks in the City.
 - d. Explore transportation demand management (TDM) approaches to managing traffic.
4. Expand and connect green space, parks, and trails.
- a. Examine ways to preserve existing green space, reintroduce green space into already developed areas, and incorporate natural features into new development.
 - b. Invest in projects that better connect area neighborhoods and amenities to the regional greenway system and other parks and trails.
5. Support sustainable development practices that encourage stewardship of the natural environment, create healthy neighborhoods, and minimize the risk of flooding.
- a. Encourage the integration of green infrastructure into new and redevelopment projects. Green infrastructure uses natural elements, such as vegetation and soils, to restore some of the natural

processes required to manage water and create healthier environments.

REGIONAL CENTER FOCUS AREAS ON THE CORRIDOR

Perrin Beitel Road at Thousand Oaks Drive

The vision for this focus area is to return the area to vitality through a combination of mixed-use redevelopment, adaptive reuse, and infill development, reversing the trend of disinvestment and vacancy within the corridor. This focus area will meet the day-to-day needs of surrounding communities while also expanding green space and adding linkages to nearby parks and trails.

The primary nexus of this focus area is the intersection of Perrin Beitel Road and Thousand Oaks Drive, which features large retail centers as well as older commercial strip development. The proximity of VIA's Naco Pass Mobility Hub is another benefit to the focus area.

Redevelopment and retrofitting of older commercial areas will be an important part of revitalization of the area into a mixed-use corridor with an emphasis on community-serving employment, shopping, dining, and green space recreational options. Improving multimodal mobility is another facet of the changes.

Near Longvale Drive, the area near the former CPS Energy Tuttle Training Center grounds at Perrin Beitel Road is another potential transformative site. Here, a trailhead for the Beitel Creek Trail expansion (part of the Longhorn Quarry redevelopment) can link Perrin Beitel Road to Longhorn Quarry and Lady Bird Johnson Park along greenways, which can then link into the Salado Creek Greenway system.

Implementation recommendations within this section include supporting land use and zoning which encourage redevelopment and revitalization of outdated commercial areas; these guidelines must support modern approaches to development. Strategically concentrating new growth in mixed-use hubs as a way to preserve existing neighborhoods is another recommendation, and similarly, these guidelines must have the flexibility to address hubs separately.

MOBILITY

Mobility-related improvements include improved safety for pedestrians and those using public transit; improved connections between employment and commercial offerings; support for corridor-based transit

as an economic catalyst; and better connections to the greenway system. The Northeast Corridor is identified as a transit/pedestrian priority corridor, meaning that it is intended to be a walkable environment which allows users to choose travel options other than driving. Dedicated transit lanes, signal timing, and other operational enhancements are key to that choice.

The Northeast Corridor is classified within the plan functionally as an enhanced/secondary arterial and contextually as mixed-use residential/storefront. The plan notes that while the corridor still needs to move goods and traffic, the surrounding context is envisioned to move towards mixed-use with a focus on retail and residential. The need for multimodal integration on

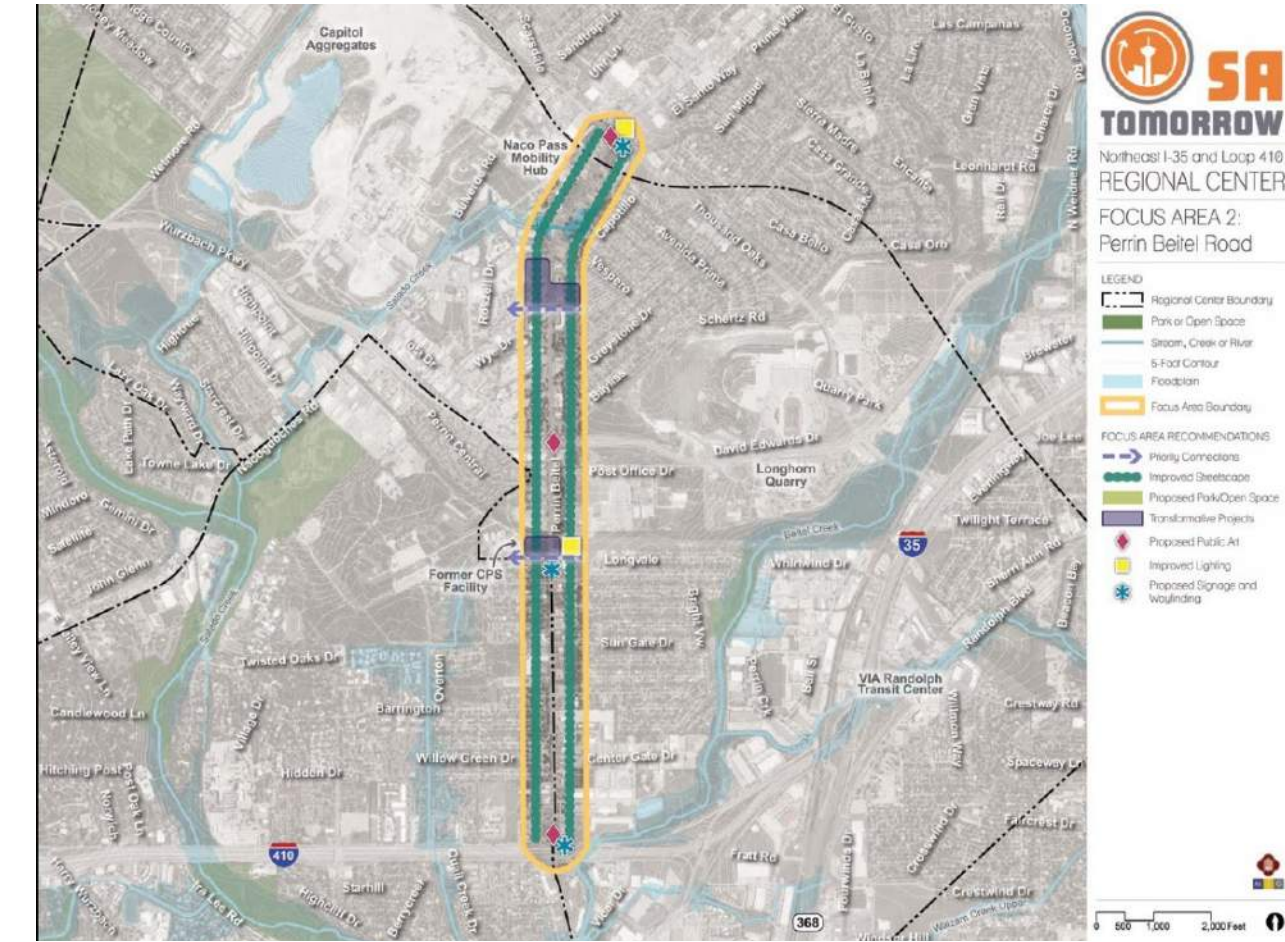


Figure A3.3: Perrin Beitel Road focus area

These features will create an easy, reliable, and congestion-proof way for residents to move to and from work, school, and other destinations.

The corridor is bookended by two areas of special interest: the node at Thousand Oaks Drive and Perrin Beitel Road which includes the Naco Pass Mobility Hub, and the mixed-use activity center near Perrin Beitel Road and Austin Highway (slightly outside the project area of the design guidelines). These mobility hubs can provide a variety of mobility options such as frequent transit, shared rides, bicycling, and micro-mobility. Amenities in these hubs support multimodal transit options and include lighting, shelters, benches, real-time information, accessible sidewalks, and pedestrian crossings.

the corridor, supported by other sections of the plan, is clear. This conjunction of use and function brings with it restricted parking to allow for more active uses, denser environments, and better pedestrian/bicycle connectivity.

Mobility recommendations include continued implementation of the San Antonio Vision Zero Action Plan, which will influence how the design guidelines address the curb-to-property line environment. Further coordination with the Vision Zero Action Plan should be done as well; within this project area, the implementation strategies specifically identify Perrin Beitel Road from Austin Highway to Sun Gate Street as well as from Schertz Road to Naco Perrin Boulevard. Another mobility recommendation is to manage



Figure A3.4: Conceptual image of intersection at Perrin Beitel Road and Thousand Oaks Drive

transportation demand by creating walkable spaces, supporting transit operations, and implementing parking management strategies. Key nodes along the corridor (Perrin Beitel Road at Thousand Oaks Drive, within the study area) should receive focus to implement this recommendation.

The final mobility recommendation is to support VIA Advanced Rapid Transit (ART) corridor service by prioritizing transit-supportive policies and infrastructure near transit stations. This relates directly to a future ART corridor along Perrin Beitel Road, and as implemented, may include reduced parking requirements around station areas and a cohesive pedestrian network.

AMENITIES AND PUBLIC SPACE

Plan recommendations for amenities and public space include creating additional connections to greenways and parks; establishing regional center-wide character-defining signage and other elements; and encouraging appropriately-scaled mixed-use development near trails and transportation hubs. Each of these recommendations, but especially the second, is important for the guidelines. In fact, the implementation strategy for this point calls for the development of these design standards and supplemental guidelines.

Additionally, one of the implementation recommendations is to allow for mixed-use development near trails, transportation hubs, and other public amenities. These guidelines must allow and enhance the integration of new mixed-use development into the existing city fabric.

HOUSING

Housing challenges in the regional center include a lack of diversity of housing options (specifically, lack of newer housing products); lack of land for new growth; and mobility barriers such as highways, creeks, floodways, and railroads. Recommendations follow in part from addressing those challenges. Most relevant to the guidelines is the first recommendation, which is to increase the diversity of housing options to support residents at all stages of life and income levels. Specifically, the guidelines must enhance opportunities for diverse housing choices, especially higher-density options.

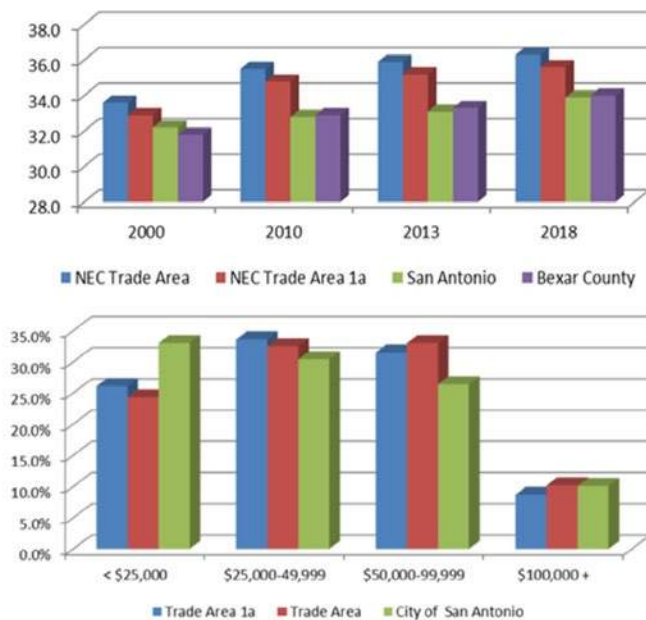


Figure 3.2a: 2013 Northeast Corridor Market Study – Median age analysis (top); median disposable income analysis (bottom)

ECONOMIC DEVELOPMENT

Much of the economic identity of the regional center is not tied to the Northeast Corridor; rather, the warehouse and light industrial facilities which depend on the center's access to major transportation routes drive economics. Therefore, the challenges and opportunities for economic development similarly do not hinge on the corridor's characteristics. That said, one of the recommendations is to support revitalization of existing commercial and industrial areas, and the guidelines are themselves part of that support. Reinvestment in and development of the aging retail areas along the corridor is key to reposition them, and the guidelines will impact that character.

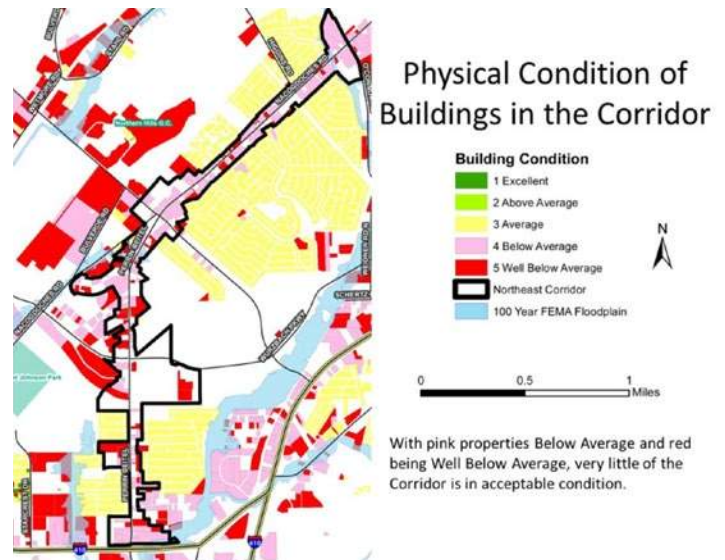


Figure 3.2b: 2013 Northeast Corridor Market Study – Analysis of physical condition of buildings in the corridor

2013 NORTHEAST CORRIDOR MARKET STUDY

The market study included analyses of zoning, demographics, retail, and non-retail businesses, and recommendations for steps to improve the competitive position of the corridor.

Basic demographic analysis identified several characteristics of the study area, including higher than median age (compared to San Antonio and Bexar County), higher levels of educational attainment and professional employment, and higher than median disposable income.

An analysis of existing conditions included zoning, land use, vacant land, and, importantly, the physical condition of buildings in the corridor. The latter revealed that building conditions are largely average to below average, echoing comments from many members of the public and stakeholders.

A retail leakage analysis identified opportunities for book/periodical/music stores, shoe stores, clothing stores, department stores, and other general merchandise stores. Using the demographic profile generated in the study and that leakage analysis, the study recommended recruitment of stores with those profiles for placement on the corridor. Since that analysis, a Walmart has opened on the corridor, likely extinguishing a significant portion of that leakage (the market study estimated 50%).

The market study concluded that despite the projected slow growth of population and households, with the addition of recommended retail, retail sales could increase significantly over the next five years (ending 2018), strengthening the fiscal performance of the corridor by capturing retail sales which were previously lost to other areas.

2014 NORTHEAST CORRIDOR REVITALIZATION PLAN

Following the market study, the Northeast Corridor Steering Committee in conjunction with the City of San Antonio Department of Planning and Community Development created a revitalization plan to articulate new directions for the corridor, including outlining a program of changes for revitalization of the corridor. Goals were grouped into four main areas, and they included:

ORGANIZATION

- Build a coalition of influential business and property owners that will advocate for funds, services, and other resources.

DESIGN

- Activate vacant and underutilized properties with large-scale, catalytic development projects.
- Reintroduce native trees, shrubs, and permeable surfaces.
- Improve the appearance of buildings, signs, and parking lots through incentives tied to uniform design guidelines.



Figure A3.6a: 2014 Revitalization Plan “New Directions for the NEC” graphic from plan

The consultant provided extensive recommendations for corridor improvement in many different areas. Some of the recommendations which relate to this plan include:

- Create non-obligatory design guidelines for façade preservation, signage, and landscaping
- Offer design assistance to all property owners on the corridor
- Create a “village theme” at the intersection of Thousand Oaks Drive and Nacogdoches Road, emphasizing walkability
- Improve trees and landscaping
- Create and implement a sidewalk plan
- Create and implement an exterior lighting plan



Figure A3.6b: 2014 Revitalization Plan identified corridors and nodes

MARKETING

- Establish a unifying brand that positions the corridor for investment and communicates positive change.

BUSINESS DEVELOPMENT

- Reinvest in schools, apartments, and single-family neighborhoods to maintain a stable customer base.
- Recruit community-serving retail and service businesses based on a thorough knowledge of market conditions.

The planning process included public engagement, both from the community in general as well as from partners, to shape the strategic action plan.

In addition to an area assessment – much of which is revisited and updated as part of this report – the plan included a strategic action plan with multiple action items based on the four goal areas.

Some of the goals have been achieved, most notably establishment of a TIRZ for the corridor and creation of grant programs for property enhancement. Additionally, many of the goals identified in the plan are ongoing, rather than immediately achievable, (such as “Support Northeast Neighborhood Alliance”) which cannot necessarily be evaluated at this time. The NEC Improvement Partnership, an outgrowth of the revitalization planning effort, appears to have been inactive since 2018.

Strategy	Category	Page	2014	2015	2016	2017	2018	Dependent on TIRZ*
O1 Grow NEC Network	Organization	20	■	■	■	■	■	
O2 Measure Performance	Organization	21	■	■	■	■	■	
D1 TIRZ Designation	Design	21	■			■		
D2 Property Redevelopment	Design	21					■	■
D3 Landscaping	Design	21	■	■		■		■
D4 Support Zoning Changes	Design	22	■	■	■	■	■	
D5 Design Guidelines	Design	22		■				
D6 Design Assistance	Design	22		■	■	■	■	
D7 NEC Adopt A Spot Litter Control Program	Design	22	■	■	■	■	■	
D8 Top 10 Improvement Opportunities	Design	23	■	■	■	■	■	
D9 Beautification Award	Design	23	■	■	■	■	■	
D10 Facade Grant	Design	23			■	■	■	■
D11 Neighborhood Signage Grant	Design	23					■	■
D12 Multi-Family Rehab Program	Design	23	■	■				■
M1 Enhance Marketing Material	Marketing	24	■					
M2 Outreach to Realtors	Marketing	24	■	■	■	■	■	
M3 News Article Submissions	Marketing	24	■	■	■	■	■	
M4 Community Meetings/ Press Conferences	Marketing	24	■	■	■	■	■	
M5 Chamber Outreach	Marketing	24	■	■	■	■	■	
B1 Support Northeast Neighborhood Alliance	Business Development	25	■	■	■	■	■	
B2 Provide Real Estate Listings	Business Development	25	■	■	■	■	■	
B3 Business Attraction	Business Development	25	■	■	■	■	■	■

Figure A3.8: Northeast Corridor 2014 Revitalization Plan strategies

AAMPO MOBILITY 2045 LONG RANGE TRANSPORTATION PLAN

Mobility 2045 is the long-range regional plan developed by Alamo Area Metropolitan Planning Organization (AAMPO), released in April 2019. Mobility 2045 is intended to outline the region's planning goals, performance metrics, and prioritized capital projects, as required by the Fixing America's Surface Transportation (FAST) Act of 2015. MPO's long-range transportation plans are typically updated every four or five years, and it follows from AAMPO's previous plan, Mobility 2040. The Greater San Antonio region is expected to add an additional 1.5 million people and 800,000 jobs by 2045, slightly lower estimates than the 1.6 million residents and 850,000 jobs cited by Mobility 2040's growth scenario. AAMPO's jurisdiction includes all of Bexar, Comal, and Guadalupe Counties, and a portion of Kendall County. The goals of Mobility 2045 include:

- Identify opportunities to improve and enhance the regional transportation system;
- Increase the efficiency of the transportation system and manage traffic congestion;
- Address safety of road users;
- Address social and environmental issues of regional transportation planning efforts;
- Support economic development and employment growth;

- Facilitate community and stakeholder engagement; and
- Ensure transportation planning efforts are coordinated with local land use and development plans.

Mobility 2045's goals have particular resonance because it is the first plan completed since the EPA declared that Bexar County is in a state of non-attainment of federal air quality standards for ground-level ozone. The plan evaluates regional transportation planning efforts with respect to active transportation, emerging technologies, public transit (VIA), roadways, freight, environmental concerns, and congestion management. The plan concludes with a list of prioritized transportation capital projects over the next 25 years, reflecting forecast public revenues and expenditures. Mobility 2045's Vision is to "meet growing transportation needs" while:

- Ensuring environmental quality;
- Enhancing the safety of the traveling public;
- Fostering appropriate land use patterns;
- Advancing sustainable modes of transportation; and
- Increasing accessibility of all users.

Active transportation commuting in the region is relatively uncommon – just 0.3% of residents bike to work, while 1.9% walk to work, ranking 40th and 42nd, respectively, out of the top 50 most populous American cities. However, interest in walking and biking remains

high. An AAMPO survey in 2015 showed that 86% of residents would like to bike more frequently, while just 37% were satisfied with the conditions and availability of sidewalks in their neighborhoods. AAMPO has supported numerous local policies to help achieve air quality attainment as well as the broader goals of Mobility 2045 with respect to active transportation, such as its Safe Routes to School Program (2017) and Walk Roll Program (2018). AAMPO also provides a Walkable Community Workshop Technical Assistance Program, which provides technical assistance to communities in identifying and addressing local barriers to walking and biking.

Perrin Beitel Road and Nacogdoches Road are classified as a Regionally Significant Roadway, with AAMPO terming them both “Activity Centers.” At the municipal level, the City of San Antonio’s Complete Streets policy (2011) prioritizes investment in pedestrian and bike infrastructure improvements to major corridors. AAMPO awards federal funding to active transportation projects through its Surface Transportation-Metropolitan Mobility (STP-MM) program and its Transportation Alternatives Program (TAP). These funds direct about \$170 million and \$15 million during their most recent award periods, respectively. Funding is also available from the Congestion Mitigation Air Quality (CMAQ) program, starting in 2020, when about \$20 million will be available annually. Additional sources of funding of potential relevance to the Northeast Corridor include the TIRZ for the corridor and two programs of the City of San Antonio, its Infrastructure Management Program and its Bond Program.

AAMPO does not play a direct role in advancing regional public transit improvements, as VIA fulfills this obligation with its Vision 2040 Plan, described elsewhere. AAMPO has several congestion-management goals that may apply to the Northeast Corridor. These goals, and the performance metrics associated with them, are shown in Figure A3.8a.

Congestion Management Goal	Performance Metric
Maintain congested VMT per capita through 2022	Volume/capacity ratio
Maintain current level of congested hours through 2022	Congestion hours
Average reliability of the transit system should be 85% by 2040	Average system-wide reliability (VIA)
Double the population and employment within a quarter-mile access of frequent transit by 2040	Population within a quarter-mile access of frequent transit Employment within a quarter-mile access of frequent transit
Maintain travel time for freight moved on highways through 2022	Number of Top 100 truck bottlenecks in the region

Figure A3.9a: AAMPO Congestion Management Goals and Metrics. Source: AAMPO Mobility 2045 Plan, page 11-9

The information collected through the corridor metrics described above are used to score every principal arterial in the region based on its ability to handle traffic congestion. Corridors with higher scores are equipped with more travel options to alleviate congestion from the main roadway facility, while lower-scoring corridors are prioritized for improvements related to congestion management. This approach is outlined in Figure A3.8b. Current scores for the corridor are:

Alternative Roadway Construction:	14
Modal Options:	5
System Demand:	19
System Reliability:	6
Total Corridor Score:	44

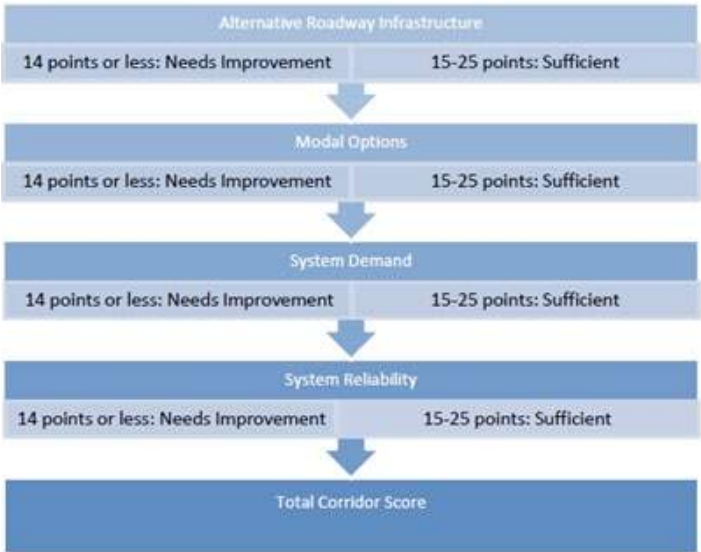


Figure A3.9b: AAMPO Congestion Management Corridor Scoring by Category. Source: AAMPO Mobility 2045 Plan, page 11-19

AAMPO REGIONAL THOROUGHFARE PLAN

AAMPO's Regional Thoroughfare Plan (RTP) is intended to identify differences between how various San Antonio area jurisdictions classify their thoroughfares, and highlights the implications of these differences with respect to:

- Continuity of roadway design across jurisdictions;
- Constructibility of roadway improvements;
- Right-of-way needs and typical dimensions; and
- Categorization of key corridors within standardized functional classifications.

The significant variation among AAMPO agencies' functional classification systems has been a consistent challenge for planning efforts in the region. In order to mitigate this challenge and improve the associated systems, the following goals were identified:

- Establish a common organizational structure and vocabulary to discuss thoroughfares across the region.
- Allow for better continuity and transitions between jurisdictions.
- Compare-and-contrast existing roadway design standards across the region.
- Identify and discuss best practices within the region and older standards that should be updated.
- Develop a "bridge" to understand how individual jurisdictions' existing classification system aligns with the regional system.

Under this common organizational structure, the Northeast corridor is classified as a "Minor Arterial" by AAMPO. Typical minimum recommended right-of-way dimensions for Minor Arterials are shown with various modal priorities in the figure on the following page.

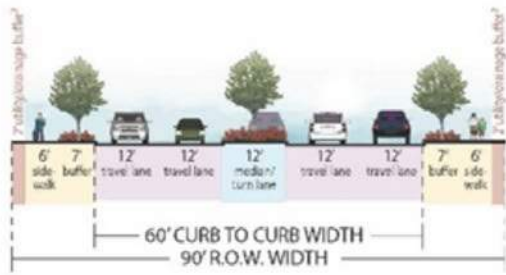




STREET TYPE	MINIMUM RECOMMENDED TYPICAL SECTION	SECTION DESCRIPTION
<p>MINOR ARTERIAL</p>  <p>ROW: 86'-110'</p> <p>CURB TO CURB: 86'-110'</p> <p>4 LANES: 10'-12'</p> <p>DESIGN SPEED: 40-50</p>		<ul style="list-style-type: none"> • Offset sidewalks for pedestrian safety • Consider retaining 6' median width for pedestrian crossing refuge at intersections where possible • Consider on-street bike facilities if additional ROW is available • Use buffer width for bike lanes or additional sidewalk width, if needed • Buffer can be used for inset on-street parking • Lane widths may be reduced to 11' • Add 24' for right-turn lanes at intersections
STREET TYPE	BICYCLE OPTION 	SECTION DESCRIPTION
<p>MINOR ARTERIAL</p>  <p>ROW: 86'-110'</p> <p>CURB TO CURB: 86'-110'</p> <p>4 LANES: 10'-12'</p> <p>DESIGN SPEED: 40-50</p>		<ul style="list-style-type: none"> • Offset sidewalks and raised cycle track, can be combined for option of wider shared-use path • Use different pavements to define pedestrian and cyclist space • Reduce buffer to provide protected bike lane instead of cycle track or consider 2-way cycle track on one side only, if driveway density low • Incorporate bike pavement markings, signing and signals at intersections • Limit or consolidate driveways to reduce conflicts with cyclists and pedestrian • If on-street parking is included, consider door-swing buffer
STREET TYPE	ENHANCED/TRANSIT OPTION 	SECTION DESCRIPTION
<p>MINOR ARTERIAL</p>  <p>ROW: 86'-110'</p> <p>CURB TO CURB: 86'-110'</p> <p>4 LANES: 10'-12'</p> <p>DESIGN SPEED: 40-50</p>		<ul style="list-style-type: none"> • Dedicated ROW for transit provides reliability & greater efficiency by moving more people per hour per lane • Can be light rail, BRT or bus; outside lanes or center-running with median used for stations • Can reduce lane widths to 11' if space is needed • Outside dedicated lanes can conflict with right-turns • Center-running may prohibit left-turns at intersections • Provide enhanced pedestrian crossings for access to transit stations • Consider improvements where modes intersect • Bike facilities can be on-street; but should wrap around transit stops • Landscaped buffer area can be used for enhanced bus stops where needed, or on-street parking with curb extensions. Lengthen curb extensions for transit stops

Figure A3.11: AAMPO Regional Thoroughfare Plan – Design Standards Matrix. Source: AAMPO Regional Thoroughfare Plan

HOWARD W. PEAK GREENWAY TRAIL SYSTEM

The Howard Peak Greenway Trail System is a growing network of about 65 miles of multi-use and accessible, off-street paths throughout the San Antonio metropolitan area along at least five key waterways. The Trail Design Strategy, funded by local sales taxes, is intended to establish design principles and outline enhanced infrastructure and wayfinding/branding features for the system, while setting criteria for their implementation.

The strategy's key objectives include:

- Provide an administrative vehicle to align current and upcoming design initiatives for the best possible impact on their surroundings.
- Improve the quality of trails and make of this already-popular infrastructure even more so.
- Spark neighborhood revitalization, acting as a catalyst for infill redevelopment in declining areas.
- Apply Low Impact Development (LID) principles of water preservation and ecological design.

None of the greenway trails currently intersect the Northeast Corridor, though studies have been done in the private sector investigating possibilities of connecting the former Longhorn Quarry developments along Beitel Creek to Lady Bird Johnson Park.

According to Section 22-28 E of the city zoning code, the city's trail system is open to the public only during daylight hours, closed from sunset to sunrise. As a result, the trail system is not designed to accommodate everyday, utilitarian trips, but rather is intended to serve recreational trips.

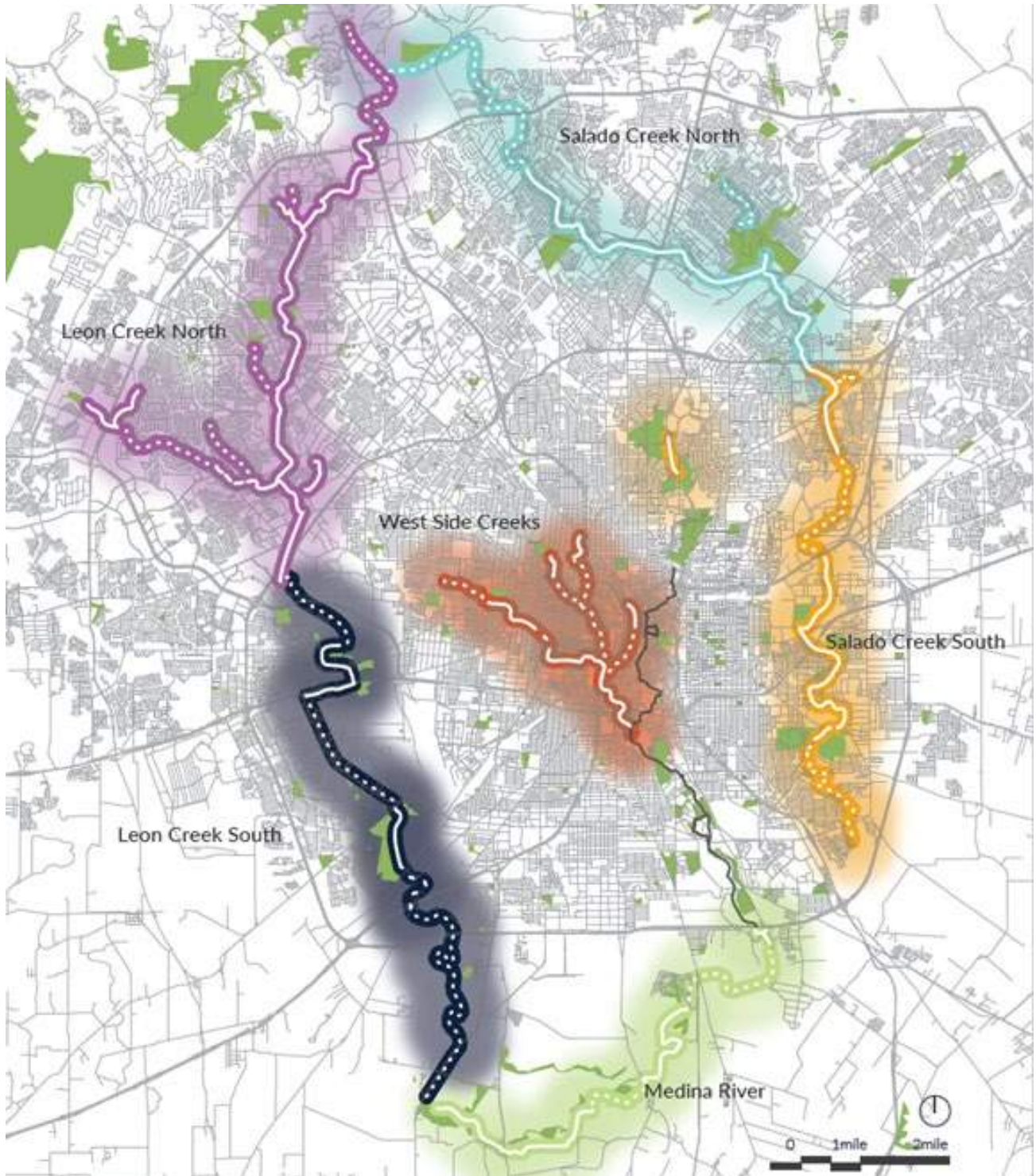


Figure A3.12: Howard Peak Greenway Trail System. Source: San Antonio Trail Design Strategy

SA TOMORROW COMPREHENSIVE PLAN

The San Antonio Comprehensive Plan, “SA Tomorrow,” describes the city’s goals, policies, and performance indicators for its land use and transportation environment in its Transportation and Connectivity chapter. The city’s transportation and connectivity goals include:

- Providing a world class multimodal transportation system, providing safe and comfortable connectivity to residential, commercial, education, cultural, healthcare, and recreation opportunities.
- Supporting the city’s competitiveness in the regional, national, and international economy.
- Supporting a high quality of life and strong, healthy communities.
- Building, managing, and maintaining the transportation network cost-effectively in order to meet current and future needs and expectations.
- Providing a range of convenient, safe and comfortable active transportation options for all users and abilities and many regularly use multimodal options such as walking, biking and transit.
- Using technology and other innovative services and solutions to ensure predictable and reliable travel throughout the city.
- Managing congestion for residents and businesses through TDM programs, HOV/HOT lanes on major highways, and continued investment in multimodal networks.

One of SA Tomorrow’s top priorities is to improve transportation options for people walking, biking, and riding transit. While many San Antonio residents currently use these modes, they are not always desirable for many types of trips. The NHTSA named San Antonio a Pedestrian Focus City, a classification for 22 American cities with above-average rates of pedestrian-vehicular fatalities. San Antonio’s existing pedestrian network includes many significant sidewalk gaps, absent curb ramps, and sidewalks in poor condition. SA Tomorrow advises particular focus on the pedestrian network near transit stops, schools, parks and trails, healthcare services, major employers, and cultural destinations. The plan also recommends continuing to expand the city’s bike network, as outlined in the City’s 2011 Bike Master Plan (to be updated beginning this year).

The city’s Complete Streets program is one means of increasing investment in multimodal networks. Additionally, San Antonio is developing a network of

off-street bike paths and trails through linear greenway parks. Examples include the bike paths along Leon Creek, Salado Creek, Medina River, and the Mission and Museum Reaches of the San Antonio River. Future plans include extending existing paths further along the San Pedro and Alazan Creeks. These trails are prioritized for implementation near specified regional centers. The nearest regional center to the Northeast Corridor is the NE I-35 and Loop 410 area, noted specifically for infill redevelopment of older industrial areas.

SA TOMORROW MULTIMODAL TRANSPORTATION PLAN

The multimodal plan is framed around the transportation and connectivity goals indicated in the SA Tomorrow Comprehensive Plan. The plan is a long-range blueprint that reflects a broader shift in focus from moving vehicles to moving people. It shares the comprehensive plan’s goals of improving mobility on all modes of transportation, by increasing the network of Complete Streets, increasing transit ridership, and reducing vehicle miles traveled and commute times. One of the reasons that San Antonio has been a late adopter in establishing multimodal networks to this end is that as recently as 2010, the roadway network operated as an acceptable level of service (LOS). However, given the AAMPO’s forecasts that regional congestion will significantly increase by 2040, city stakeholders increasingly acknowledge that they cannot reduce congestion by merely building more roadway capacity. Instead, greater attention must be paid to compact, transit-oriented development and more robust multimodal networks to limit the need for long-distance SOV commuting. Compared to other large American cities, San Antonio has better-than-average outcomes in terms of roadway infrastructure state of good repair, vehicular delay, and congestion. However, its public transit, pedestrian, and bike networks are less than acceptable.

The multimodal plan identifies “informing and educating the community about the benefits of alternative modes of transportation” as a major challenge the city is facing. A public survey conducted as part of this planning process found that transportation is the most frequently cited topic of concern related to the community’s quality of life, with 34 percent of respondents identifying it as the city’s primary challenge, double the share of the second-most popular categories (17 percent each for land use/sprawl and natural resources). Light rail is one of the more popular transportation investments

Action	Description	Potential Indicator(s)
TC A2	Create a program for protected bike lanes.	TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
TC A3	Expand bicycle access routes to new areas.	TC 1: Miles of Complete Streets TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
TC A4	Analyze and prioritize key locations for complete streets investments.	TC 1: Miles of Complete Streets TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility TC 18: Number of Automobile Accidents TC 19: Number and rate/ratios of Automobile and Bicycle Crashes Involving Pedestrians TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
TC A5	Improve pedestrian and bike route connectivity.	TC 7: WalkScore TC 8: BikeScore TC 20: Connectivity Index
TC A6	Collaborate with VIA to align investments in multimodal transportation infrastructure and new transit stations and routes.	TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities TC 4: Bus Service Hours of Frequent Routes TC 10: Diversity of transit ridership (race, ethnicity, income level, etc.) TC 16: Percentage of Population within Walking Distance of Frequent Transit Service TC 21: Number of Residents within 1/4-Mile of a Transit Stop
TC A8	Implement policies or designs that promote traffic calming measures, a range of safe bicycle facilities and multi-use trails.	TC 1: Miles of Complete Streets TC 18: Number of Automobile Accidents TC 19: Number and rate/ratios of Automobile and Bicycle Crashes Involving Pedestrians
TC A11	Increase transit and multimodal options to medical and healthcare facilities, military installations, and educational institutions.	TC 1: Miles of Complete Streets TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities TC 4: Bus Service Hours of Frequent Routes TC 6: Commuters using modes other than Single Occupancy Vehicle (SOV) TC 10: Diversity of transit ridership (race, ethnicity, income level, etc.) TC 12: Number of Car Sharing Vehicles Active in San Antonio TC 13: Number of Bike Sharing bikes and stations in San Antonio TC 14: Per Capita Vehicle Miles Traveled (VMT) TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
TC A13	Increase percentage of households that live within 1/4 to 1/2-mile of a bike lane/trail, complete sidewalk network, or transit.	TC 7: WalkScore TC 8: BikeScore TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility TC 16: Percentage of Population within Walking Distance of Frequent Transit Service TC 21: Number of Residents within 1/4-Mile of a Transit Stop
TC A14	Increase investment in multimodal transportation options.	TC 1: Miles of Complete Streets TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities TC 3: Number of Dollars Spent on Multimodal Transportation Infrastructure TC 4: Bus Service Hours of Frequent Routes TC 6: Commuters using modes other than Single Occupancy Vehicle (SOV) TC 12: Number of Car Sharing Vehicles Active in San Antonio TC 13: Number of Bike Sharing bikes and stations in San Antonio
TC A19	Create a better strategy for managing transportation options by providing dedicated lanes for transit priority and parking during large scale special events.	TC 4: Bus Service Hours of Frequent Routes TC 6: Commuters using modes other than Single Occupancy Vehicle (SOV) TC 16: Percentage of Population within Walking Distance of Frequent Transit Service
TC A20	Create school siting requirements and enforce standards for streets and connectivity within 1 miles of schools.	TC 7: WalkScore TC 8: BikeScore TC 20: Connectivity Index
TC A21	Implement ITS improvements and transit priority for frequent bus routes.	TC 4: Bus Service Hours of Frequent Routes TC 5: Travel Time Index (TTI) TC 9: Average Commute Time TC 16: Percentage of Population within Walking Distance of Frequent Transit Service
TC A22	Advance one federally supported transit project into development phase by 2020.	TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities

Figure A3.14: SA Tomorrow - Selected Actions and Potential Indicators. Source: SA Tomorrow Multimodal Transportation Plan

proposed during the multimodal plan's public outreach, with 78 percent of respondents agreeing it is an important part of the city's future transportation network.

The plan developments multimodal solutions for corridors around the city to demonstrate possible options that could be applied to other locations with similar characteristics. The solutions include light rail, dedicated BRT, bike facilities, and pedestrian improvements.

Developing and evaluating these solutions at the corridor-level provided opportunities to identify needed policy recommendations and to develop short term improvements to address safety and operational issues. The multimodal plan includes a five-year action plan, and some of its policy recommendations of greatest relevance to the Northeast Corridor Study include:

- Take a Vision Zero and Complete Streets approach to roadway design, with particular focus on the city's engineering and design guidelines.

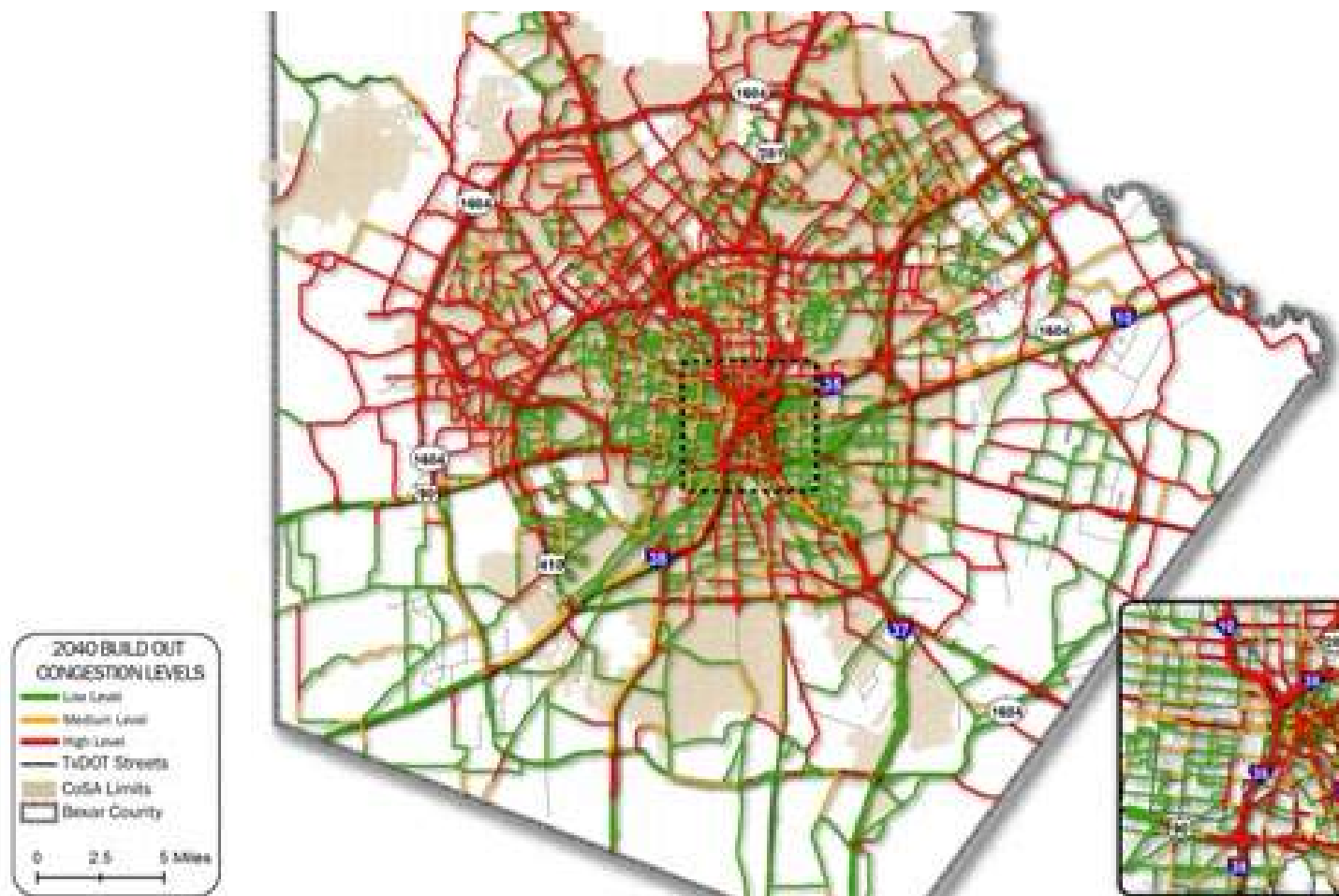


Figure 3 - Map of Level of Service for 2040

Figure A3.15: 2040 Level of Service. Source: SA Tomorrow Multimodal Plan, page 2-13

- Promote pedestrian activity by prioritizing the completion of the pedestrian network that serves major activity centers and transit stops. About 34 percent of San Antonio's streets lack sidewalks entirely. On major thoroughfares, sidewalks should be a minimum six to eight-feet in width.
- Provide ADA-compliant infrastructure such as curb ramps, accessible pedestrian crossings, and leading pedestrian signals whenever a pedestrian way is newly built or altered.
- Allocate two percent of the TCI capital budget annually as a core program for bike and pedestrian improvements.
- Quadruple the lane-miles of protected bike facilities.
- Install traffic calming measures (e.g. traffic circles, mid-block crossings, sidewalk bulbouts, chicanes, etc.) to reduce speeding and enhance pedestrian safety.
- Apply lane and road diets to reduce crossing distances and reduce vehicle speeds.
- Prioritize the completion of the bikeway network that serves bicyclists' travel to employment centers, commercial districts, transit stations, institutions, and recreational destinations.

- Coordinate transportation improvements with VIA to ensure the necessary design and operations support for the regional transit program.
- Prioritizing transit signal priority (TSP) and ITS improvements on corridors with premium and high frequency transit service where service reliability is consistently challenged by local congestion.

The multimodal plan also outlines policy recommendations to update the city's Major Thoroughfare Plan, a roadway hierarchy that classifies the corridor as a "Secondary Arterial Type A." These recommendations include:

- Update the Major Thoroughfare Plan based on recommendations related to the City's Vision Zero, which the multimodal plan details.
- Based on right-of-way, determine what modes can be accommodated on the corridor.
- Identify the priority of the user(s) along the roadway by reviewing current demand and future potential of the roadway.

SA TOMORROW SUSTAINABILITY PLAN

The City of San Antonio's Sustainability Plan is a vision document to guide regional planning efforts towards economic, environmental, and social sustainability by 2040. The plan identifies five cross-cutting themes that structure its approach to sustainability:

- Air quality
- Economic vitality
- Equity
- Resilience
- Water resources

These themes were identified during the plan development process as high-priority issues for the community. Additionally, the plan outlines seven "focus areas" that contain strategies ready for implementation to achieve the best outcomes for the five themes above:

- Energy
- Food systems
- Green buildings and infrastructure
- Land use and transportation
- Natural resources
- Public health
- Solid waste resources

Of these focus areas, land use and transportation are the most relevant to the Northeast Corridor plan. This focus area deals with sustainable transportation modes, infrastructure improvements, transit-oriented development, bike and pedestrian facilities, alternative fuels, transit options, and Complete Streets. The plan outlines a vision for land use and transportation as the following: "San Antonio's future growth is sustainable and efficient, focusing on strategic development that is compact, mixed-use, economically inclusive, and multimodal." Further, the plan identifies four performance metrics to measure progress towards achieving this vision, including:

- Housing and Transportation Index – the sum of average housing + transportation costs as a percentage of area median household income. This score prioritizes the development of low-cost transportation alternatives to driving alone, such as transit, walking, and biking. However, infrastructural improvements to these modes alone will not register progress on this measure unless sustainable transportation modes are also widely used. The key to progress on this indicator is to create a transportation network sufficiently attractive to induce a modal shift from driving alone to more sustainable modes, and therefore reducing the average household's transportation cost.

- Daily Vehicle Miles Traveled (VMT) per Capita – Shifting trips from drive-alone to more sustainable modes is essential to make progress on this metric. The plan's goal is to reduce VMT per capita from 22 miles, in 2013, to 17 miles by 2040.

- Bicycle Friendly Community Score – this is a composite metric developed by the League of American Bicyclists. It incorporates local bike commute mode share, the length and quality of the bike network, and the strength of local bike-oriented legislation, among other factors. The plan's goal is to improve its current score of bronze, in 2015, to Platinum, by 2040.

- Average Walk Score – WalkScore is an index that measures how walkable a location is by evaluating the number of retail and service destinations within walking distance. A score of 0 indicates an area completely reliant on private vehicles to meet daily needs, while a score of 100 indicates that nearly every daily trip can be easily made on foot. In 2015, San Antonio's average WalkScore was 34. The plan's goal is to improve the average WalkScore by 62 by 2040.

The goals specified above are ambitious for a city in which 80 percent of residents drive alone to work, and the plan indicates a range of preferred strategies to achieve them. The proposed strategies with greatest relevance to the Northeast Corridor plan include:

- Incentivize new development to provide bike and pedestrian facilities, and infrastructure for electric vehicles;
- Evaluate and assess innovative parking strategies to encourage walkability and alternative modes of transportation;
- Work with public and private employers to design and implement employee TDM programs;
- Develop a program to encourage private employers to install shower and locker facilities for employees who walk or bike to work
- Participate in Great Streets program and other public improvement programs to create Complete Streets;
- Explore the feasibility of high-capacity transit options such as BRT, light rail, or streetcar;
- Develop and implement a Priority Bike Facility Action Plan; and
- Develop a Bike Living Lab Pilot Program – temporary or "tactical" bike facilities that can demonstrate the viability of longer-term implementation.

VIA VISION 2040 LONG RANGE PLAN

VIA's Vision 2040 Long Range Plan is intended to evaluate current and projected regional growth and travel demand patterns, articulate the role of public transit in meeting regional transportation needs, and chart course for the development of an increasingly robust regional transit network. The Vision 2040 Plan, completed in 2016, prioritizes a variety of transit improvements to increase the system's performance while also meeting the needs of the Greater San Antonio Region's extraordinary population and employment growth.

The San Antonio region is expected to grow by an additional 1.6 million residents between 2010 and 2040, equivalent to nearly 150 new residents per day. During the same period, the region will also add more than 800,000 new jobs and 1.3 million new personal vehicles, which will contribute to congestion on regional road networks. The region is also expected to see an increase in both young adults (ages 16 to 34) and seniors (ages 65 and over), and both groups are more likely than others to rely on public transit to get around. Vision 2040 makes it clear that transit is critical to accommodate this growth, by both serving and shaping the cities and neighborhoods it links. The plan also emphasizes the role of transit in improving broader multimodal access and mobility, helping reduce household transportation costs and encourage walking and biking.

The Vision 2040 Plan identifies the goals and objectives of the regional public transit system as the following:

- Strengthen regional mobility, development, and sustainability by:
 - Providing community access to opportunities for jobs, education, and other destinations
 - Supporting sustainable communities and economic vitality
 - Moving people using a diversity of transit services and products
 - Enhancing and safeguarding natural resources and the environment

- Provide an outstanding multimodal transportation system by:
 - Enhancing safe routes to transit by foot or bike
 - Providing efficient, reliable, congestion-proof alternatives
 - Engaging to inform, involve, and empower communities
 - Supporting safe communities

VIA outlines a range of potential transit modal alternatives, including vanpool, demand-response, local bus service, Primo or rapid bus (sometimes referred to as "BRT lite"), bus rapid transit (BRT), light rail, and express service.

During the Vision 2040 Plan's community engagement process, residents expressed strong interest in fixed-route, rapid transit service and valued transit's ability to access work, shopping, and entertainment destinations.

The Vision 2040 Plan articulated three overarching strategies to improve its regional transit network:

- Robust system wide improvements to the bus network
 - More frequent, reliable transit across the entire network with expanded hours of service
 - Improved frequency on Metro Local and Metro Frequent routes
 - Expansion of the Primo bus network
 - Enhanced sidewalks and bus stop amenities, such as ticket vending machines and shelters
- Network of corridors connecting the region's major community destinations and employment centers:
 - Rapid transit (light rail or BRT in dedicated lanes)
 - Metro Express in HOV lanes connecting Park Rides to key destinations
- Investments to keep the system smart and flexible:
 - Emerging technologies, such as integration with car share and bike share as first/last-mile connections to transit hubs
 - Mobile applications that offer integrated multimodal trip planning and fare payment

The Vision 2040 Plan concludes by detailing potential federal, state, and local funding sources, as well as strategies for implementing transit improvements on priority corridors.

SA CLIMATE READY: A PATHWAY FOR CLIMATE ACTION AND ADAPTATION

The Climate Action Adaptation Plan (CAAP) was initiated and adopted in 2019. It is a response to greater awareness of the climate impacts of greenhouse gases (GHGs), and the changes that those impacts will bring to San Antonio. It is connected to the Paris Agreement, a 185-nation global effort to reduce GHGs and adapt to climate impacts.

The overall goal is to make San Antonio carbon neutral by 2050. That has significant implications for San Antonio’s transportation infrastructure.

Roughly 38% of San Antonio’s GHG emissions are due to transportation, the majority of which is generated private vehicles. In fact, private transportation is the single largest component of GHG emissions in the city, exceeding even commercial and industrial buildings. To meet targets specified in the Paris Agreement, San Antonio must reduce GHG emissions a minimum of 0.5 metric tons of CO2 equivalent per year through 2050. The transportation portion of this is substantial:

to reduce emissions by 47% by 2030 and 74% by 2040. The plan calls specifically for promotion of cleaner vehicles and reduction of vehicle miles traveled by transforming both how our communities are developed and how people move around the city. The plan lays out a number of different action strategies to accomplish various components of GHG emissions reduction and general sustainability. Those relevant to this plan are:

10: Vehicle Miles Traveled (VMTs). Reduce vehicle miles traveled per person throughout the city, prioritizing the reduction of those traveled in single-occupancy vehicles by diversifying transportation choices.

11: Connectivity / Walkability. Accelerate connectivity and walkability by prioritizing the funding and construction of infrastructure for micro-mobility modes such as biking and other human-powered transportation with an emphasis on the protection of vulnerable road users.

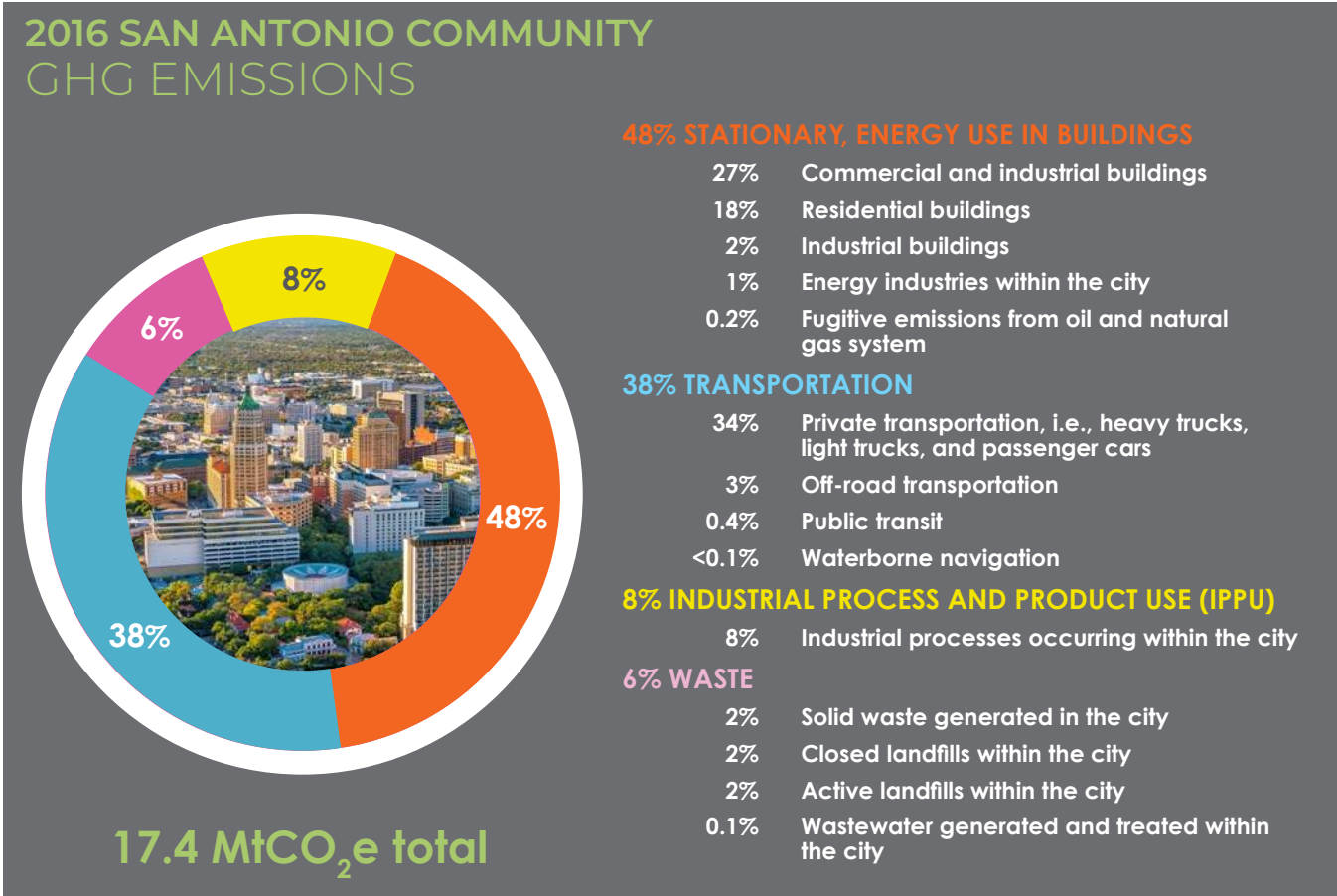


Figure A3.18: 2016 San Antonio greenhouse gas emissions. Source: SA Climate Ready: A Pathway for Climate Action Adaptation

12: Sustainable Land Planning and Development. Support and incentivize the development and redevelopment of more compact, connected, cost-effective, and resilient neighborhoods and districts.

13: Mobility as a Service. Utilize smart city and big data solutions to promote mobility as a service to reduce the GHG impact of transportation solutions.

20: Urban Heat Island. Analyze and quantify the urban heat island (UHI) in San Antonio and develop an implementable and impactful UHI mitigation and adaptation plan with a focus on vulnerable populations and ecosystems.

21: Ecological Planning and Climate Sensitive Design. Integrate climate mitigation and adaptation into existing land development review and permitting processes with a goal of maximizing the benefits of natural geographic and watershed features.

The plan further establishes adaptation strategies: ways to cope with the effects of climate change. Those strategies relevant to this plan include:

4: Flood-proof Roadways. Once FEMA floodplains are updated using Atlas 1454 rainfall intensity values, undertake a prioritized assessment of flood resilience options for all low-lying roadways.

5: Protect Transit Riders. Work with VIA to assess public transportation routes, stops, and associated infrastructure and identify potential shelter improvements to prepare for extreme weather events.

31: Create an Integrated Green and Blue Infrastructure Plan. Assess opportunities for creating connected networks to manage water and regulate temperature through ecosystem-based adaptation measures. This could include connecting existing park and open space networks and adjacent areas to provide cooling corridors and stormwater management benefits.

32: Tree Canopy Programs. Incentivize, expand, and fund tree planting/replacement programs to promote more drought and wildfire-resistant native species, prioritizing the most effective locations for the plantings, and further develop Best Management Practices (BMPs). Consideration should be given to avoid potential disruption to critical infrastructure, such as overhead power lines.

CONNECTSA: A PROPOSAL FOR MODERN MOBILITY

ConnectSA is a new mayoral initiative intended to transform the way that San Antonio approaches transportation. Awareness of transportation issues has been rising over the past several decades, and as projections of substantial population growth become more real, solving congestion issues has become a priority.

The ConnectSA planning – there is no “plan” in a traditional sense; no written report – picks up many features directly from VIA Vision 2040 and VIA Reimagined. Those features include bus rapid transit (BRT, relabeled as Advanced Rapid Transit, ART), discarding light rail entirely, and increasing bus frequency and coverage. It also includes 40 scattered miles of micromobility lanes, calls for VIA Link in various areas, and calls for the completion of the greenway trail system.

The plan prioritizes 25 items intended to be implemented by 2025:

- Construct the first phases of the Advanced Rapid Transit corridor
- Construct a minimum of 40 miles of dedicated, protected micromobility lanes with right-of-way for bike/scooter/other modes
- Construct up to 200 miles of sidewalks that eliminate gaps between existing networks
- Construct high-priority segments of the City of San Antonio’s major thoroughfare plan
- Extend roadway network in unincorporated areas of Bexar County from the County Arterial Plan
- Install pedestrian detection systems at key intersections
- Construct multi-modal mobility hubs to integrate trip modes and destinations
- Create seamless first/last-mile services for easy multimodal trips
- Create a “one-call, one-click” center for transportation services and information for seniors and people with disabilities
- Design a universal app to plan and pay for all types of transportation (public/ private)
- Create equitable, city-wide standards for affordable, accessible, and appropriate transportation options for seniors and individuals with disabilities
- Provide real-time parking availability information



Figure A3.20: ConnectSA mobility plan goals.

Source: Connect SA public presentation, October 2019

- Provide traffic forecast information to travelers related to weather emergencies and other unique events (e.g. major festivals, concerts)
- Install real-time bike rack and wheelchair space availability sensors on all transit vehicles
- Launch autonomous vehicle pilot projects
- Improve reliability of transit mobility services through application of emerging data sources
- Construct more electric vehicle charging stations in San Antonio
- Collect transit fares off vehicle to reduce delays when boarding
- Install additional freeway dynamic message boards and provide enhanced trip information
- Provide real-time traffic options to travelers particularly when roadway system faces major disruption
- Construct new freeway and street lanes strategically in congested areas
- Rebuild intersections to increase capacity
- Consolidate bus stops and optimize stop spacing along all high-frequency routes
- Expand transit signal priority to all high-frequency bus routes
- Install adaptive signal timing in major corridors

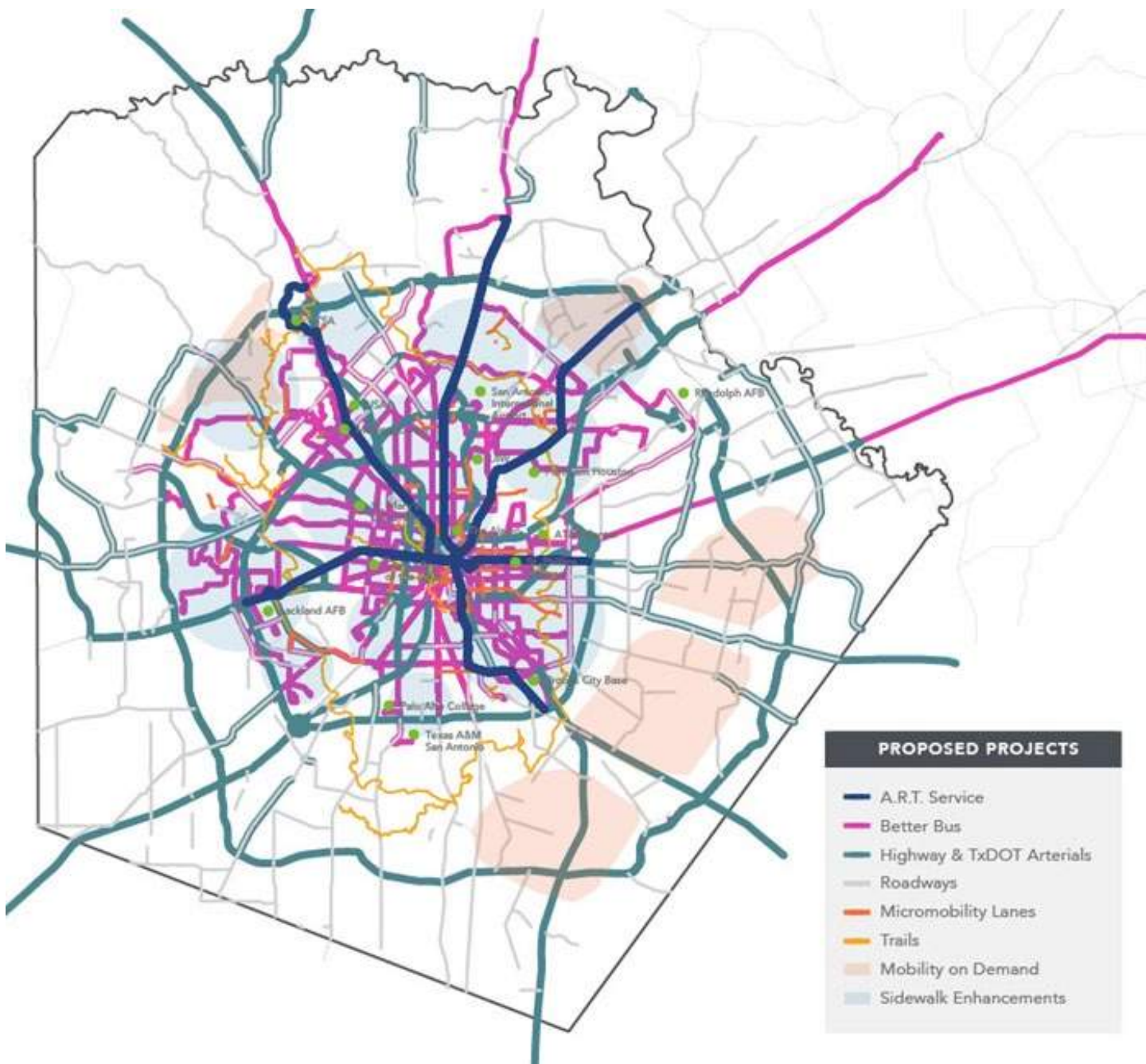


Figure A3.21: ConnectSA mobility plan composite map. Source: Connect SA public presentation, October 2019

In all, the planning for ConnectSA is not yet fully developed. The portions of the planning which are actionable are those which are taken from other planning efforts; to that extent, the summaries elsewhere in this section are still directly relevant to the Northeast Corridor planning efforts.

EXISTING CONDITIONS ANALYSIS

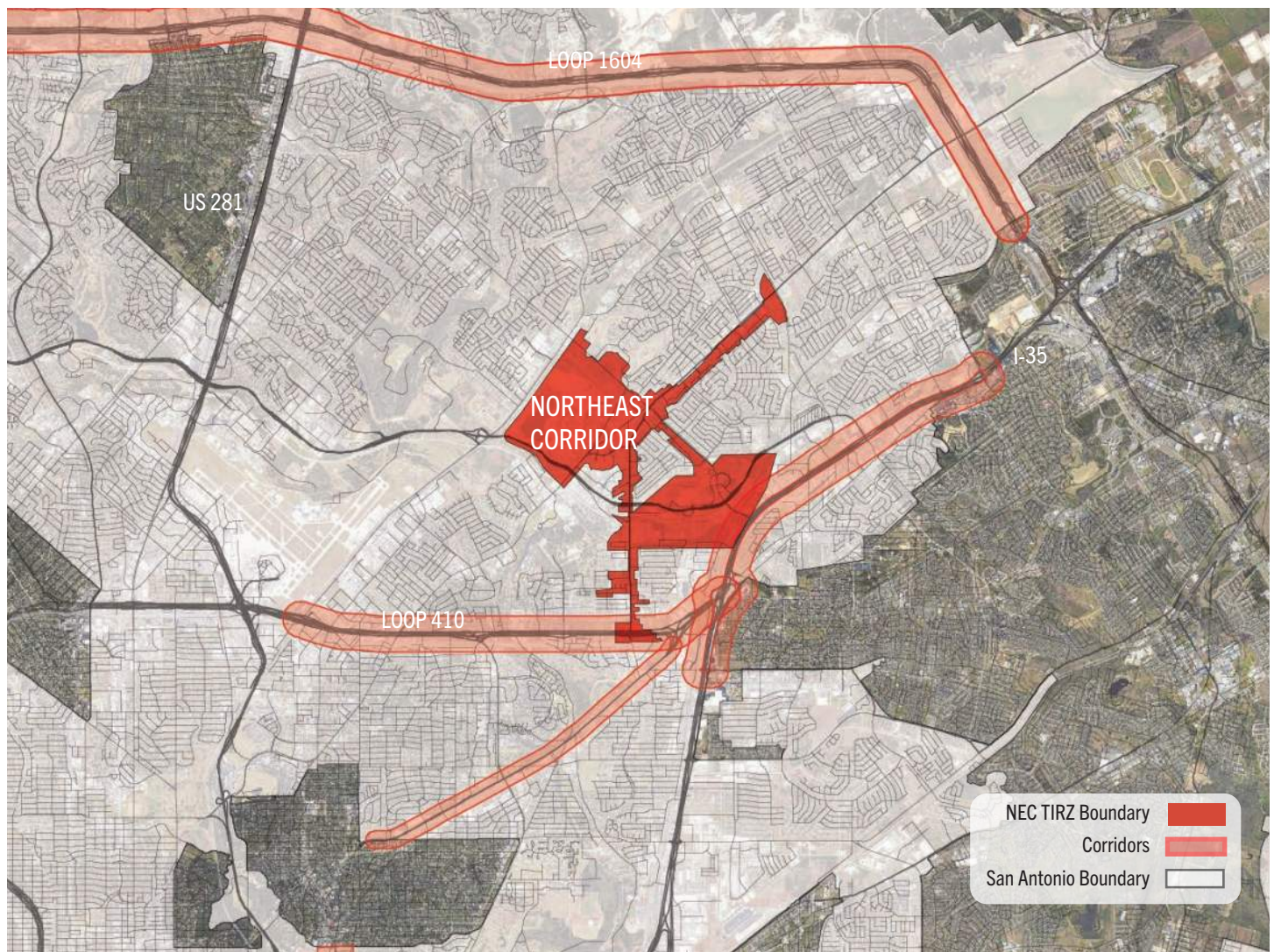


Figure A4.1: Northeast Corridor Regional Plan area, showing corridors and NEC TIRZ boundary

NORTHEAST CORRIDOR TIRZ AND PLAN AREA

For regional context, the San Antonio city limits, designated corridors, and the boundaries of the Northeast Corridor TIRZ are shown on the map above. The following illustrations will focus on the limits of the TIRZ, which is not necessarily coincident with the boundaries of the adopted design standards.

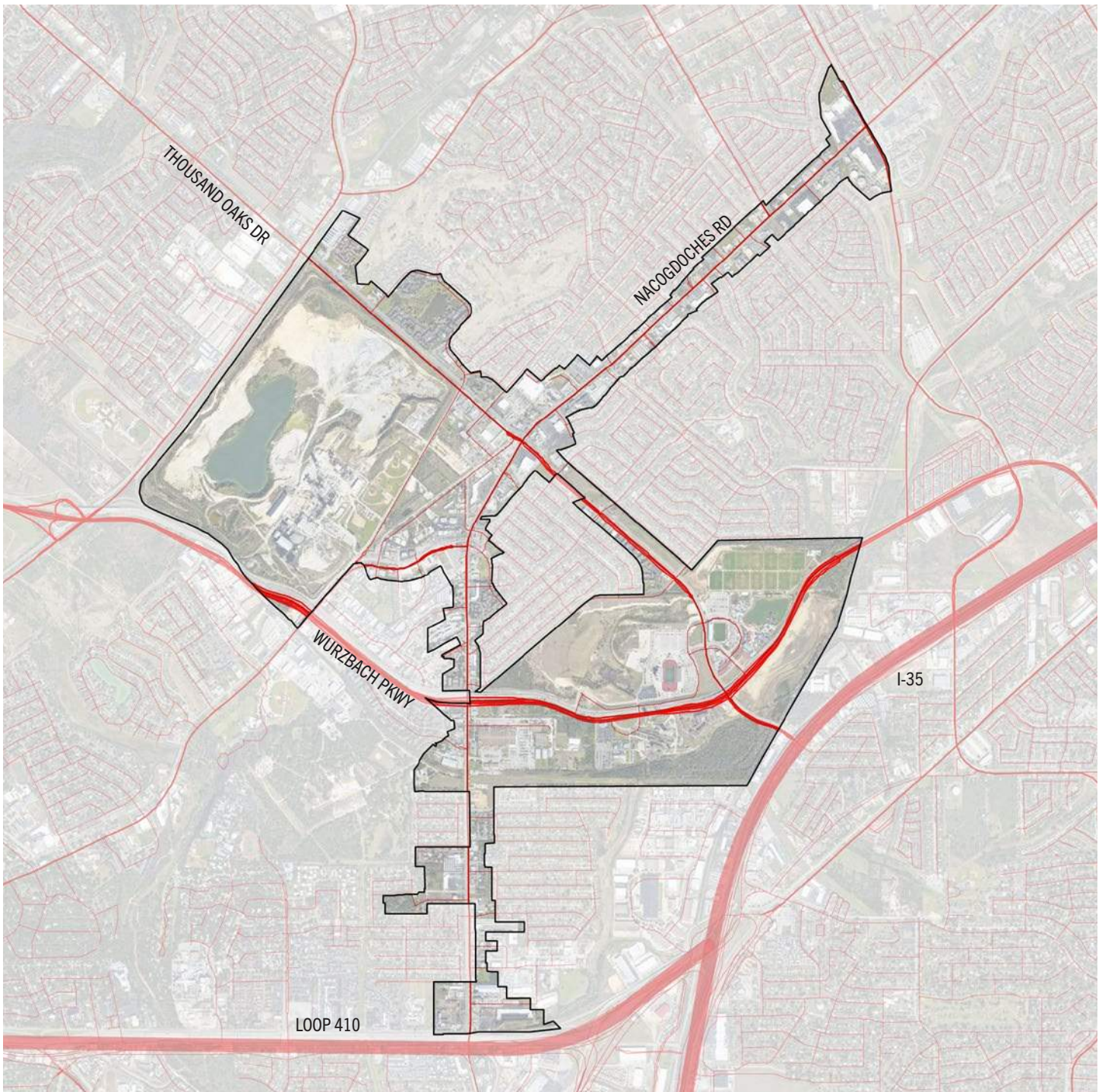


Figure A4.2: Transportation network

TRANSPORTATION

The Northeast Corridor is well connected to surrounding areas. Its location adjacent to one of the city's distribution hubs, where I-35 and Loop 410 join, is of particular strategic importance. However, the corridor is sufficiently separated from that nexus to have a separately-developed character, one which relates much more closely to typical suburban strip development than it does to the light industrial character of areas closer to I-35.

Additional significant routes connecting the corridor to adjacent areas include Wurzbach Parkway (with a grade-separated intersection at Perrin Beitel Road), Thousand Oaks Drive, and O'Connor Road.

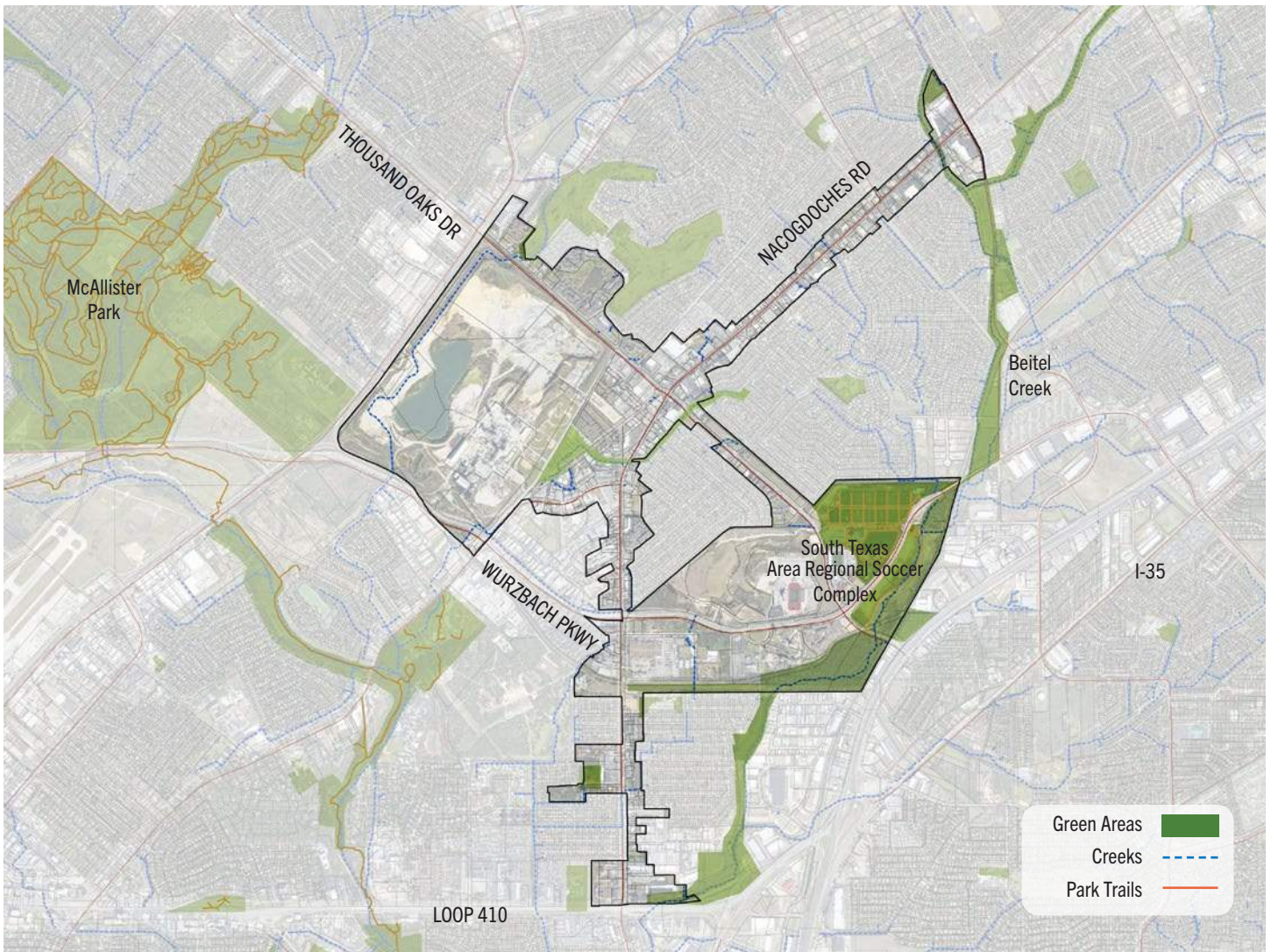


Figure A4.3: Open space

OPEN SPACE

While there is significant open space in the vicinity of the corridor, open space along the corridor itself is limited. There are two primary green components: first, a drainageway which crosses Perrin Beitel Road north of Naco Perrin, connecting west to playing fields and east behind commercial development, under Thousand Oaks Drive, and into an adjacent neighborhood. The second – a more major component – is the northern end of Beitel Creek, just south of O'Connor Road.

While not necessarily currently perceived as an open space feature, a CPS easement intersects Nacogdoches Road opposite Higgins Road. The easement runs southwest to Wurzbach Parkway and offers a potential connection to Heroes Stadium, Morgan's Wonderland, and the other facilities in the former Longhorn Quarry.

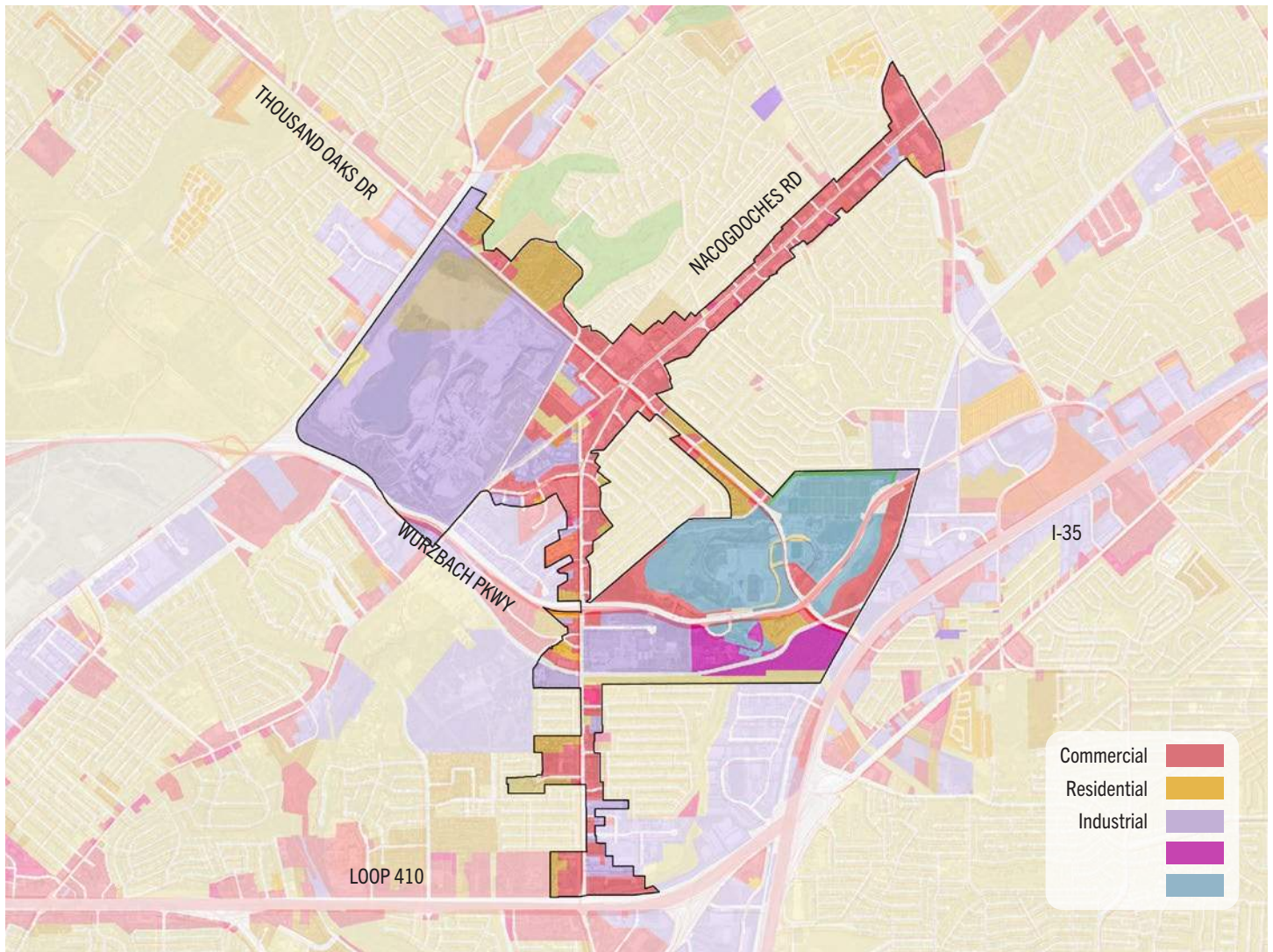


Figure A4.4: Land use

LAND USE

As with many similar areas around the city, the land use along the corridor itself is primarily commercial, especially on the northern leg of the corridor, with single-family residential adjacent. There are some substantial areas of light industrial land use, however, near Wurzbach Parkway: a CPS facility and a post office, along with some significant industrial parks northwest of the intersection of Wurzbach Parkway and Perrin Beitel Road. While not within the corridor plan area, the Capitol Cement plant northwest of the area is a significant land use both in terms of area consumed as well as traffic generation and other impacts to the area.

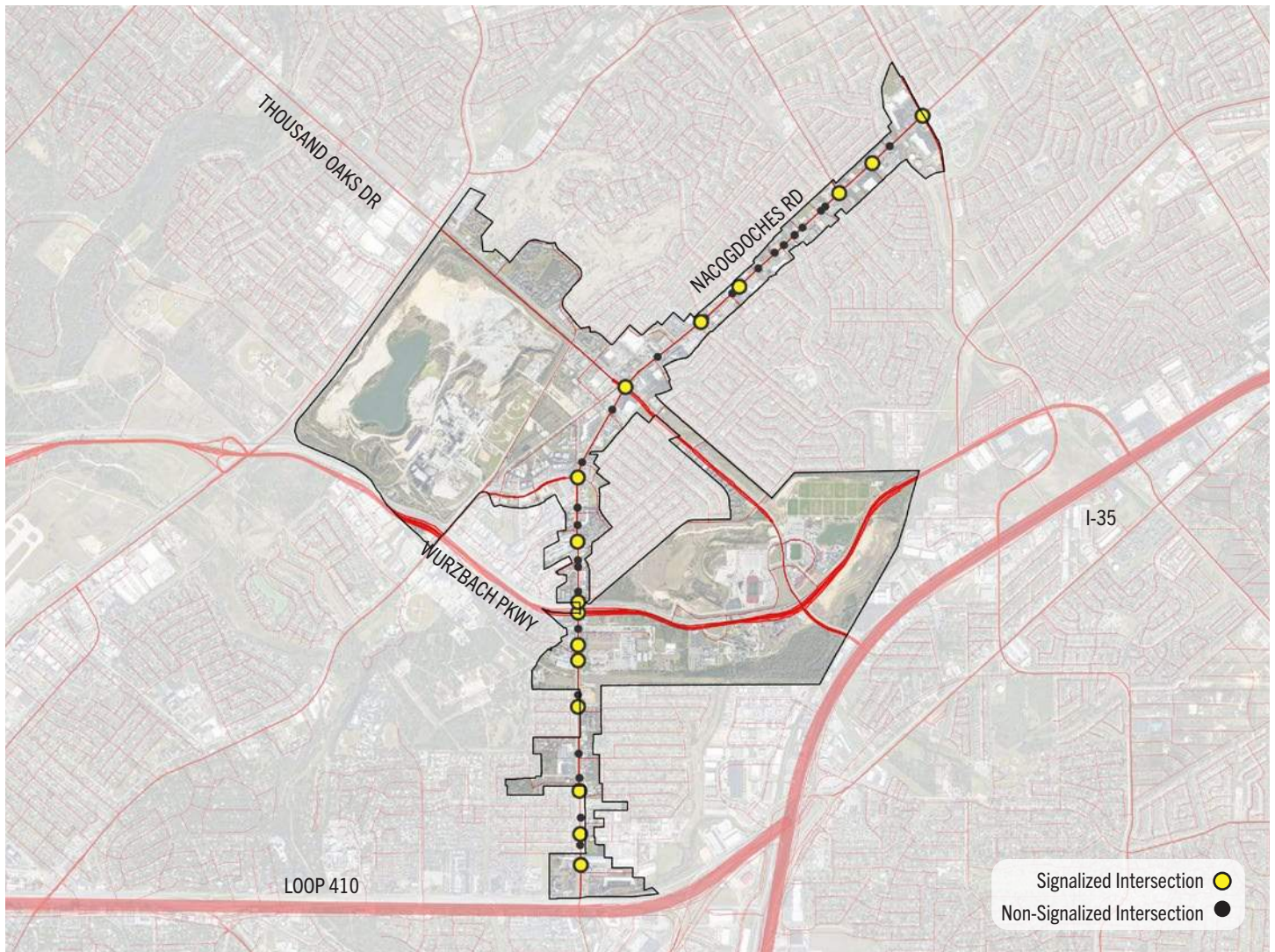


Figure A4.5: Intersections

INTERSECTIONS

Like any corridor of its type, the Northeast Corridor has a number of intersections, both signalized and non-signalized. While this is not an ideal situation for traffic conveyance, the re-imagining of the corridor as pedestrian- and multimodal-centric casts that in a different light. Multiple protected crossing points strengthen a corridor's usefulness for non-vehicular means of travel.

Another feature which often goes along with non-signalized intersections, however, is less ideal: curb cuts are extensive along the corridor, and they form a disadvantage to walkers and bikers. Where possible, this situation (including head-in parking which crosses sidewalks) should be improved by limiting or combining curb cuts.

Crosswalks are one of the most important components of multimodal corridors – they are frequently the last part of many bus journeys and a necessity for journeys along the corridor. Ensuring good walkways from developments to public sidewalks, and good connections from sidewalks to bus stops and crosswalks, is critical.

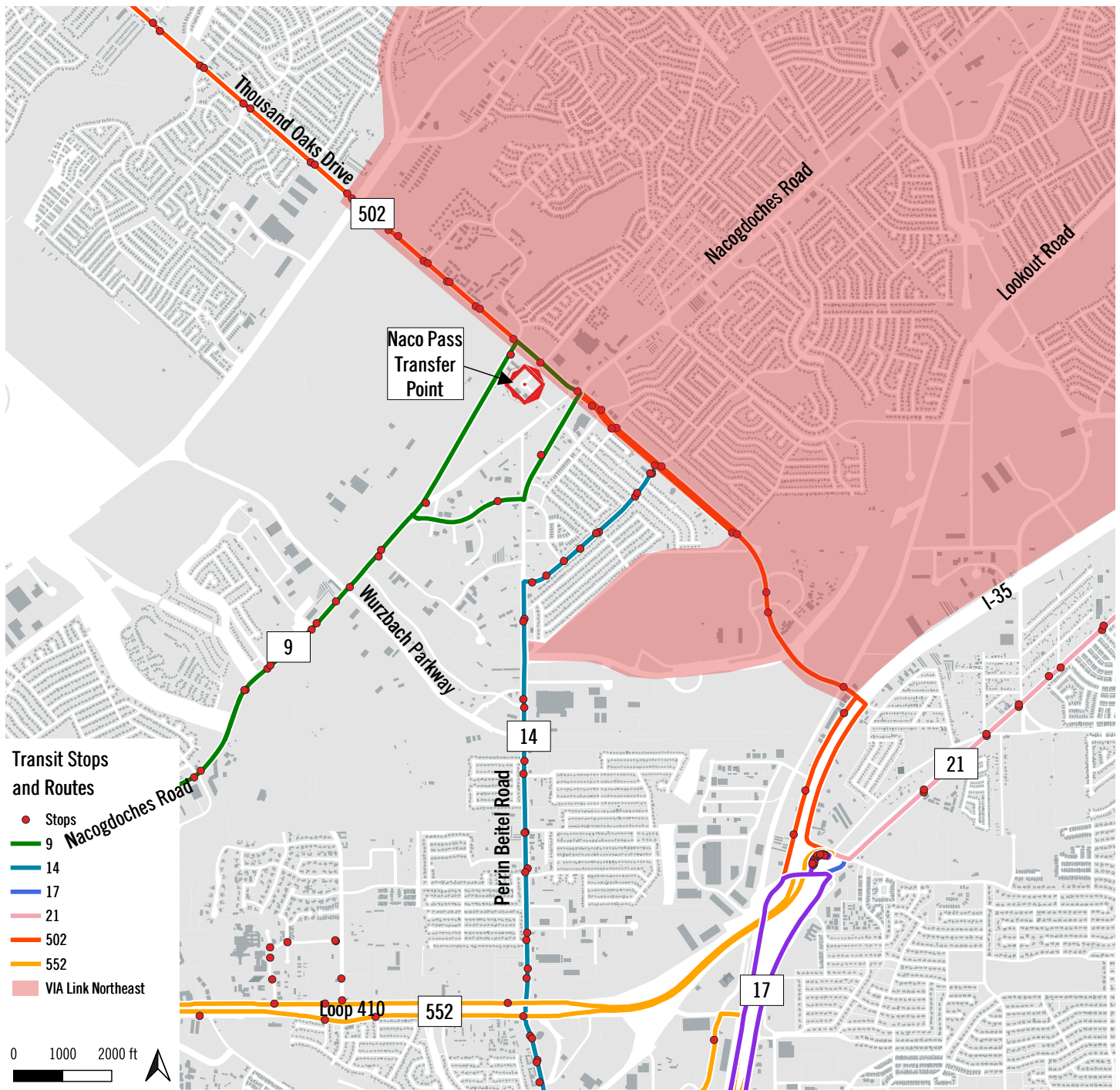


Figure A4.6: Transit routes and stops

PUBLIC TRANSIT

Traditional public transit on the corridor is limited, but a new VIA program expands the service area. One route, Route 14, serves the Perrin Beitel Road portion of the corridor. No service is available on Nacogdoches Road north of Thousand Oaks Drive. Various routes serve adjacent areas and offer connections to Route 502 on Thousand Oaks Drive, which connects to Route 14 on Perrin Beitel Road.

In addition to traditional routes, however, VIA's Northeast VIA Link service area encompasses the entirety of the area north and east of the line of Thousand Oaks Drive. The main transfer point for the service area is the Naco Pass transfer point, west of the corridor.

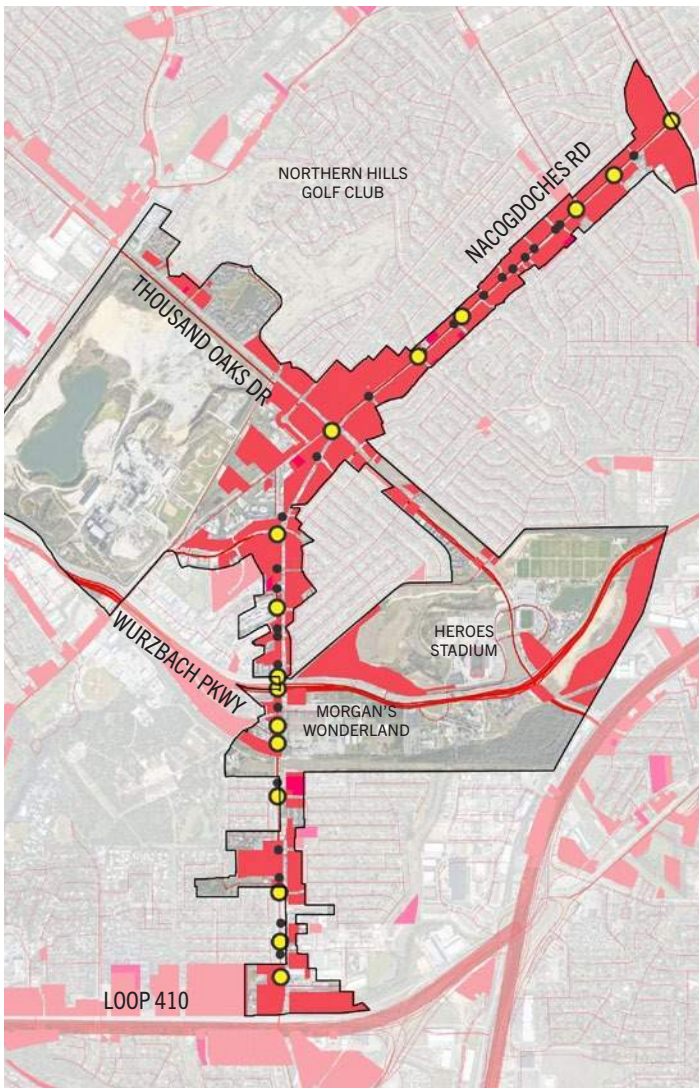


Figure A4.7b: Commercial land use

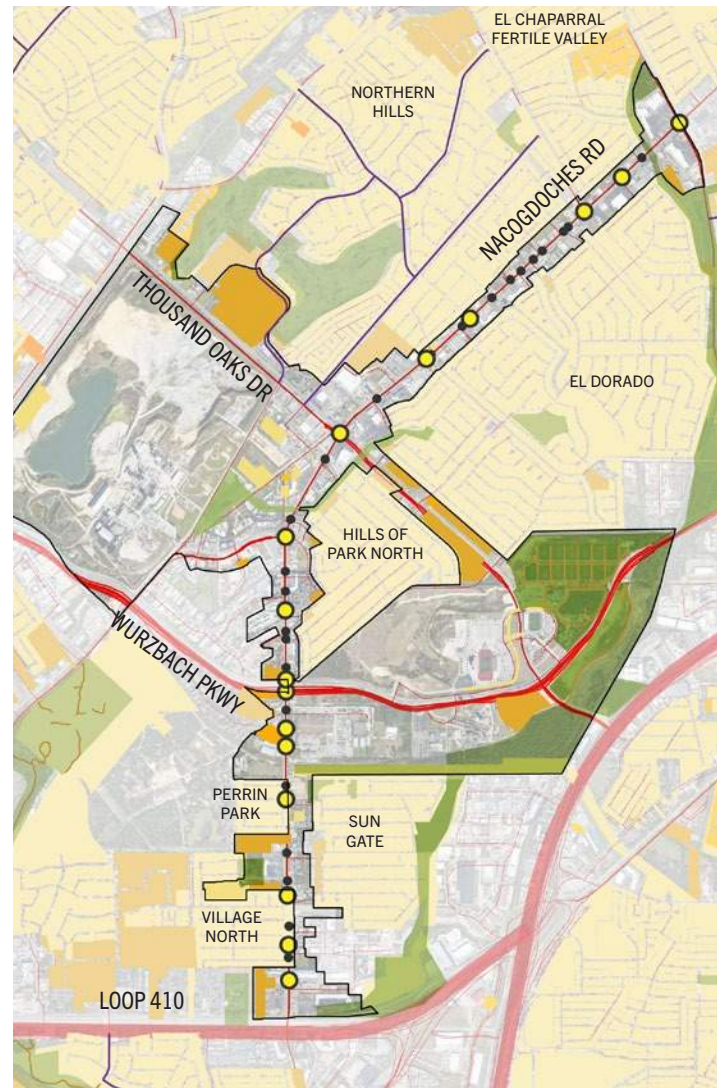


Figure A4.7a: Residential land use

LAND USE

The two figures above show land use along and around the corridor, focused on commercial and residential land use. The corridor itself is closely lined with commercial uses, primarily retail. Larger clusters of commercial uses are located at significant intersections: Perrin Beitel Road and Loop 410, Thousand Oaks Drive and Perrin Beitel Road, and Nacogdoches Road and O'Connor Road. This clustering suggests potential for more density and internally-focused development in the longer term; in the short term, the larger sites at these locations lend themselves to big-box retail, but at a community rather than a regional scale.

Residential is primarily single-family, grouped into large neighborhoods with limited access to main arterials, though some sections of single-family development have block-by-block access in limited areas. Neighborhoods in the area were built predominantly in the 1960s and 1980s, with a more limited number in the 1990s. There is very little single-family residential on the corridor itself; just the Perrin Park and Village North neighborhoods front on Perrin Beitel Road.

There is some multifamily around the corridor, but multifamily uses are quite limited on the corridor itself. Larger clusters of apartments are located along Thousand Oaks Drive and in the Longhorn Quarry area.

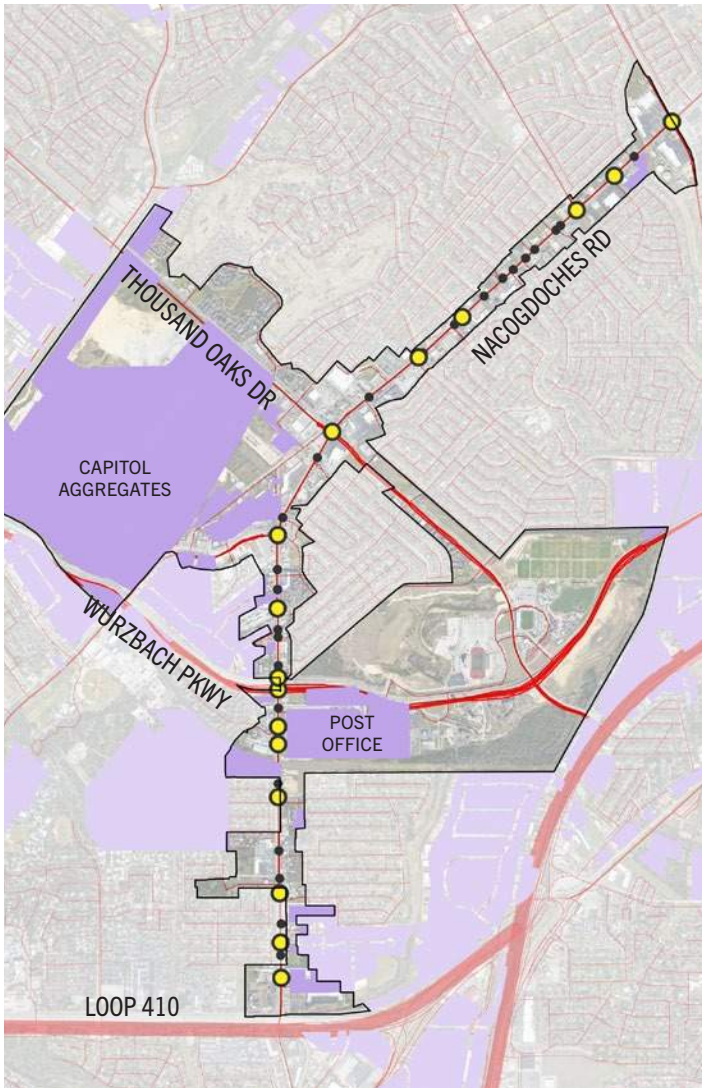


Figure A4.8: Industrial land use

Industrial land use is the third major land use component in the vicinity of the corridor. Second in size to residential land use, it is primarily in large areas at some remove from the corridor. The US post office is the largest industrial use on the corridor itself, though of course the Capitol Aggregates Inc. plant west of the corridor, bordered on the north and south by Thousand Oaks Drive and Wurzbach Parkway, is the largest single land use in the area.

The major transportation corridors noted in the NE I-35 and Loop 410 Area Regional Center Plan serve both the major commercial and industrial uses in the area well. The I-35 corridor is lined with industrial users who rely on its logistics facilitation. While these areas are well outside the limits of this corridor study, the connective nature of transportation networks means that it is worthy of note.

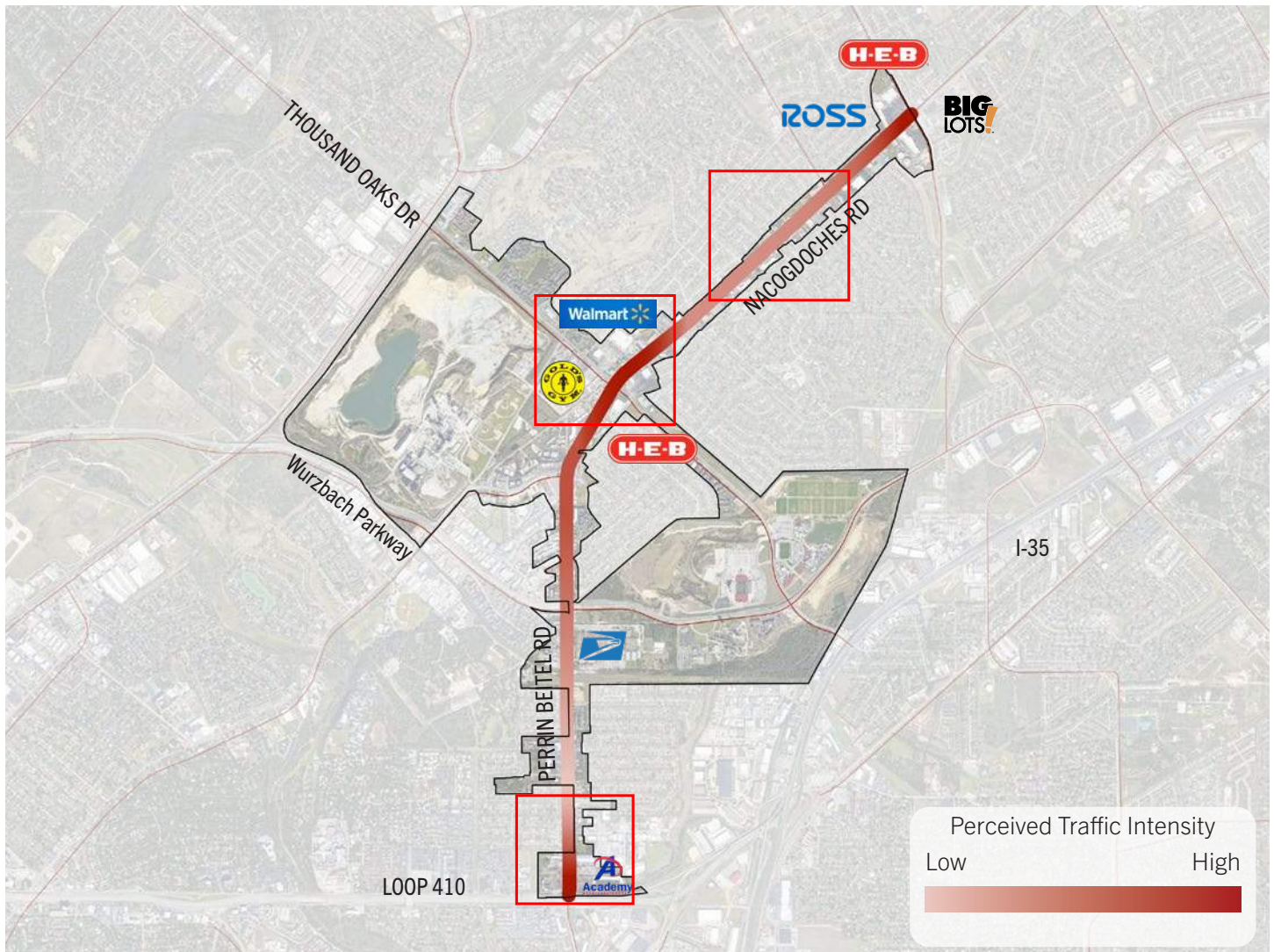


Figure A4.9: Retail locations and perceived traffic intensity

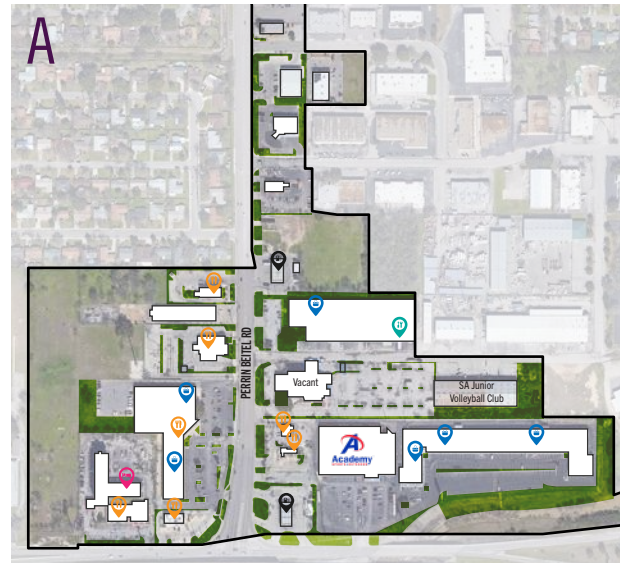
TRAFFIC INTENSITY AND RETAIL

As with most retail corridors, perceived traffic intensity is focused where areas of retail are most intensive. As noted elsewhere, those locations coincide with intersections with major thoroughfares – Loop 410 (where the major tenant is Academy Sports + Outdoors), Thousand Oaks Drive (H-E-B, Gold's Gym, and Walmart), and O'Connor Road (Ross, Big Lots, and H-E-B). Design standards at these locations should reflect responses for this intensity of usage, either through location-specific requirements (such as within a certain radius of given intersections) or through requirements which are triggered by measures of intensity.

Each of the areas shown in a red box above is enlarged on the following page. Areas were selected to reflect different characters along the corridor.

A – PERRIN BEITEL ROAD

Development at the intersection of Perrin Beitel Road with Loop 410 is predominantly strip centers with Loop 410 frontage road access, along with a single anchor, Academy Sports + Outdoors. The primacy of access to Loop 410 is clear in the diagram to the right; over half of the square footage at the intersection is oriented to Loop 410 rather than Perrin Beitel Road. Other tenants line Perrin Beitel Road to the north. Vacancy is relatively high here, in large part due to restaurant closures.



B – THOUSAND OAKS DRIVE AND NACOGDOCHES ROAD

The intersection of Nacogdoches Road, Perrin Beitel Road, and Thousand Oaks Drive is considerably more vital than the Perrin Beitel Road/Loop 410 intersection. The cluster qualifies as a Community Center shopping area, with two anchor tenants and a large amount of square footage. Smaller retail sites, including separate pad sites and strip center-type development, surround the major tenants. Development is oriented relatively evenly towards the roadways, with less development to the east due to the proximity of adjacent neighborhoods.



C – NACOGDOCHES ROAD

This linear stretch of development is characteristic of much of the length of the corridor. A variety of retail establishments, either in pad sites or small strip centers, lines both sides of the road. The types of establishments range from service (auto service, a funeral home) to restaurants, to small private educational and child care facilities. A large public storage facility is also located along this stretch. Areas like this are visually choppy, with signage from businesses competing for attention, along with a variety of different setbacks, front-of-building parking, and buildings oriented variously towards, perpendicular to, and away from the road.



APPENDIX A - PUBLIC ENGAGEMENT



Figure A.5.1: Public meeting #1 station setup



Figure A.5.1: Community members providing feedback at public meeting #1 stations

The first public meeting for the NEC Design Standards took place March 4, 2024 at the Toolyard, located at 10303 Toolyard Building 1, San Antonio, Texas 78233. The meeting was scheduled for 5:30 p.m. About 10 community members attended as well as a few committee members and Councilman Marc Whyte.

The meeting began with NEC Project Manager, Sidra Schimelpfening introducing City of San Antonio staff and the consultant team, Work5hop. Work5hop then reviewed the project area for the NEC. The presentation continued with a brief overview of a site analysis which included transportation, open space, and land use aspects. Work5hop then explained to the audience the intended scope of work: the creation of development design standards and supplemental guidelines. Once the project goal was communicated, audience members were released and instructed to provide feedback at the stations located around the room.

There were a total of eight stations. Each station provided the audience with different topics, such as setbacks, transit networks, screening and buffers, impervious coverage, shading, public art, signage, and problem areas, and included an educational, existing conditions and feedback section. Feedback results can be found on the following pages.



What urban design/green infrastructure methods would you like to see?

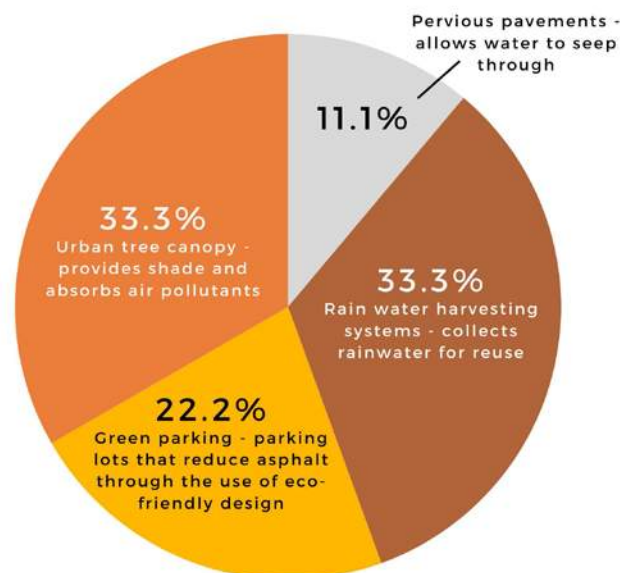


Figure A.5.3: Public meeting #1 station setup and feedback results



What type of screening method do you prefer?

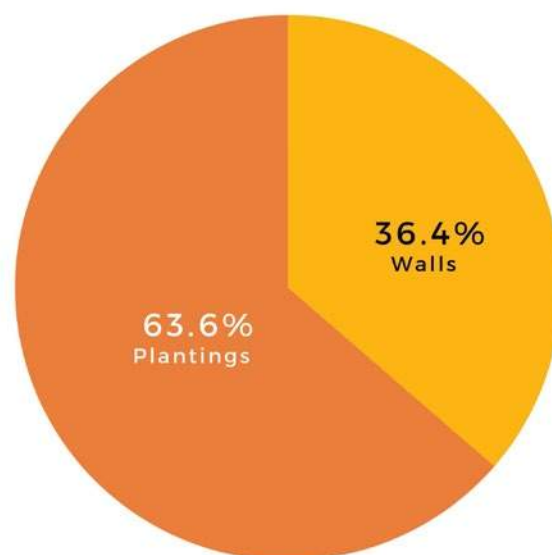


Figure A.5.4: Public meeting #1 station setup and feedback results

LEARN: SIGNAGE

What are the different types of **SIGNAGE** and what is the purpose of regulating it?

Signage is classified as an object, device, display, structure, figure, painting, drawing, message, plaque, placard, poster, or thing or any part thereof, situated outdoors or indoors, that is designed or used to advertise, inform, identify, display, direct, or attract attention to anything by any means, including words, letters, figures, design, symbols, fixtures, colors, illumination or projected images.

The main types of signs include:

- wall
- projecting
- pole
- roof
- electric
- monument

Signage is regulated to protect the safety and efficiency of the city's transportation network by reducing confusion or distractions to motorists, enhancing motorists' ability to see and react, and providing consistent aesthetics along the corridor.

GIVE FEEDBACK

What type of signage would you like to see on the Northeast Corridor?

Place a sticker by your top two choices.

POLE SIGNS

WALL SIGNS

EXISTING CONDITIONS

A. Wall signs

B. Projecting signs

C. Pole signs

D. Roof signs

E. Electric signs

F. Monument signs

What type of signage would you like to see on the Northeast Corridor?

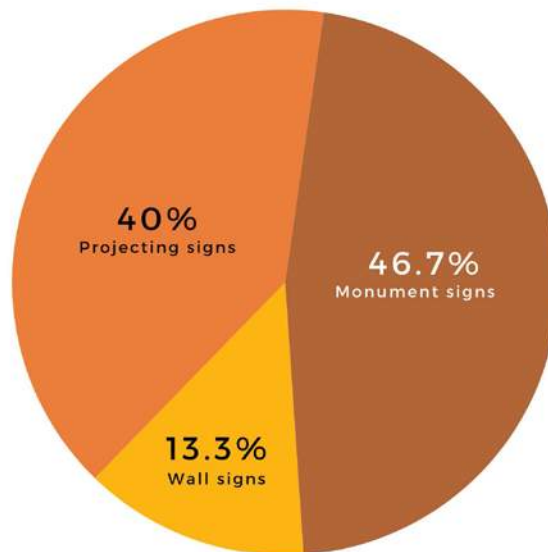


Figure A.5.5: Public meeting #1 station setup and feedback results

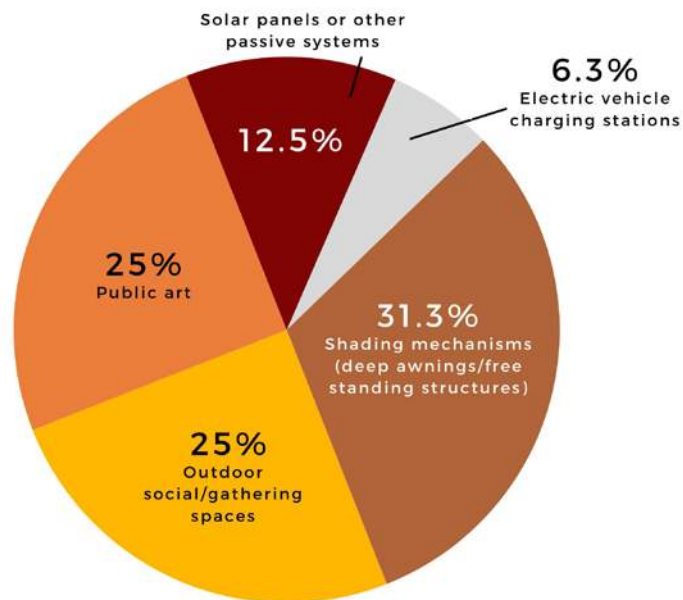
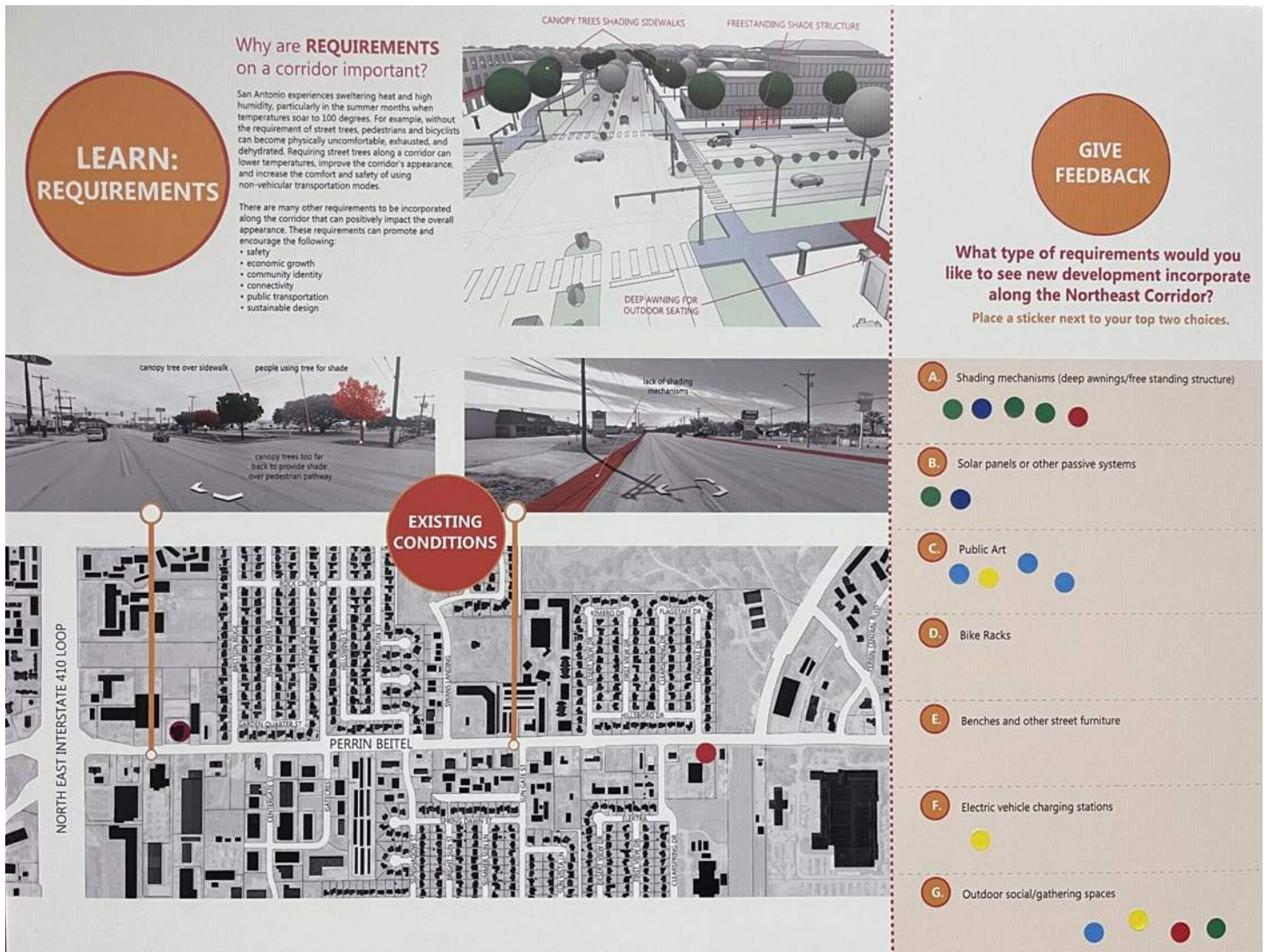


Figure A.5.6: Public meeting #1 station setup and feedback results



What type of elements should new development along the Northeast Corridor incorporate into their design to promote multimodal transportation?

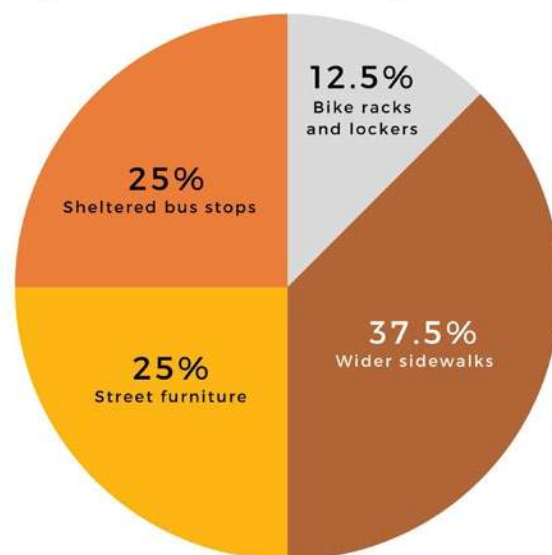


Figure A.5.7: Public meeting #1 station setup and feedback results



Figure A.5.8: Public meeting #1 station setup and feedback results



Figure A.5.9: Public meeting #1 station setup and feedback results



NEC Design Guidelines – Community Meeting #1

March 4, 2024

Comments:

Have a requirement that every building have a visible street number.



NEC Design Guidelines – Community Meeting #1

March 4, 2024

Comments:

Multi Modal
- nothing to encourage homeless
to congregate

Figure A.5.10: Public meeting #1 additional comments from comment cards

PUBLIC MEETING #2

The second public meeting took place on Tuesday, June 9, 2024 at 5:30 p.m. The Toolyard, located at 10303 Toolyard Building 1, San Antonio, Texas 78233, was again selected as the venue for the public meeting. About five community members attended.

The meeting began with NEC Project Manager, Sidra Schimelpfening introducing City of San Antonio staff and the consultant team, Work5hop. Work5hop then recapped the results from public meeting #1 and explained how the data was analyzed and translated into design standards and guidelines. The consultant team broke down the standards and guidelines into four categories:

1. Site, Landscaping, and Screening
2. Building and Signage
3. Lighting and Utilities
4. Right-of Way

The consultant team then explained the difference between development design standards (mandatory) versus supplemental guidelines (voluntary) and proposed an elective point system. The presentation ended with a Q&A session.



Figure A.5.11a: Public meeting #2