

JOHNSON CITY

Analysis / Solutions



TUFLAB FALL 2014
A CASE STUDY IN THE TEXAS HILL COUNTRY

JOHNSON CITY

Eight points for the revitalization of Johnson City:

- 1. Develop a low impact soft infrastructure network to handle water conservation and supply ecosystem services.
- 2. Connect parks and landscapes into an integrated network for recreation.
- 3. Establish a distinct identity for Johnson City by integrating a development strategy for the 281 Corridor with a landscape infrastructure system in keeping with the scenic beauty of the Hill Country.
- 4. Redesign the 290 Corridor infrastructure to meet NACTO standards urban roadway design so as to establish a walkable and economically viable Main Street.
- 5. Establish Pecan Street as a shared space in order to stage cultural programs and events for the community.
- 6. Recapture the Courthouse Square as a multifunctional public space.
- 7. Encourage development in the Historic District to follow the established scale of urban street frontages and to infill the urban blocks in order to establish a dense and culturally significant Town Center.
- 8. Establish policies and procedures to encourage and facilitate additional capacity and density within the surrounding residential neighborhoods.



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"I know that the nature we are concerned with ultimately is human nature. That is the point of the beautification movement, and that finally is the point of architecture. Winston Churchill said, 'First we shape our buildings, and then they shape us.' The same is true of our highways, our parks, our public buildings, the environment we create. They shape us."

-Lady Bird Johnson, 1968

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& BUILT FORM

"The Hill Country...is quickly becoming suburban. With its rolling hills, lakes and rivers, it is attracting Texans eager to escape city life, and out-of-state buyers who can buy more acreage for less, real estate agents say, than they might pay in other states.

"[There has been] a huge infusion over the last few years of people who come and see it as a low-cost alternative to Arizona, Florida or Nevada," said Eldon Rude, Austin market director at Metrostudy, a residential home consultancy. "They can build a big house on a lot of acreage for less than where they came from."

- NYTimes, "Keeping the Country in the Hill Country", 2007

Texas Urban Futures Lab

DARK SKIES & HILL COUNTRY ALLURE

Population growth inside Texas cities and along major transportation corridors has led to an explosion of light pollution within the last few decades. The effects of light pollution - glare, sky glow, and clutter - mask the night sky making it difficult to see stars. The NASA imagery which the attached diagram is based upon shows that over half of Texas' sky is polluted with light to the point where visitors and residents can no longer see the magic of the Milky Way painting the sky above at night.

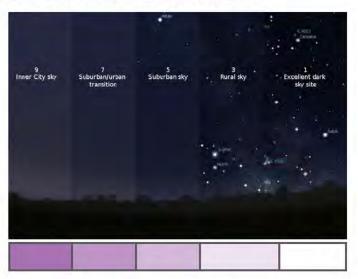
The Hill Country is one of the few remaining regions where residents and visitors can still have a clear view of the night sky. An emphasis should be placed on patterns of growth that will preserve this valuable asset for generations to come.

RECOGNIZING THE PROBLEM

Light Pollution - Excessive and inappropriate artificial light. **Urban Sky Glow** - The brightness of the sky over cities. **Light Trespass** - Light falling where it is not intended, wanted, or needed.

Glare - Excessive brightness which causes visual discomfort. **Clutter** - Bright, confusing, and excessive groupings of light sources comonly found in over-lit urban areas.

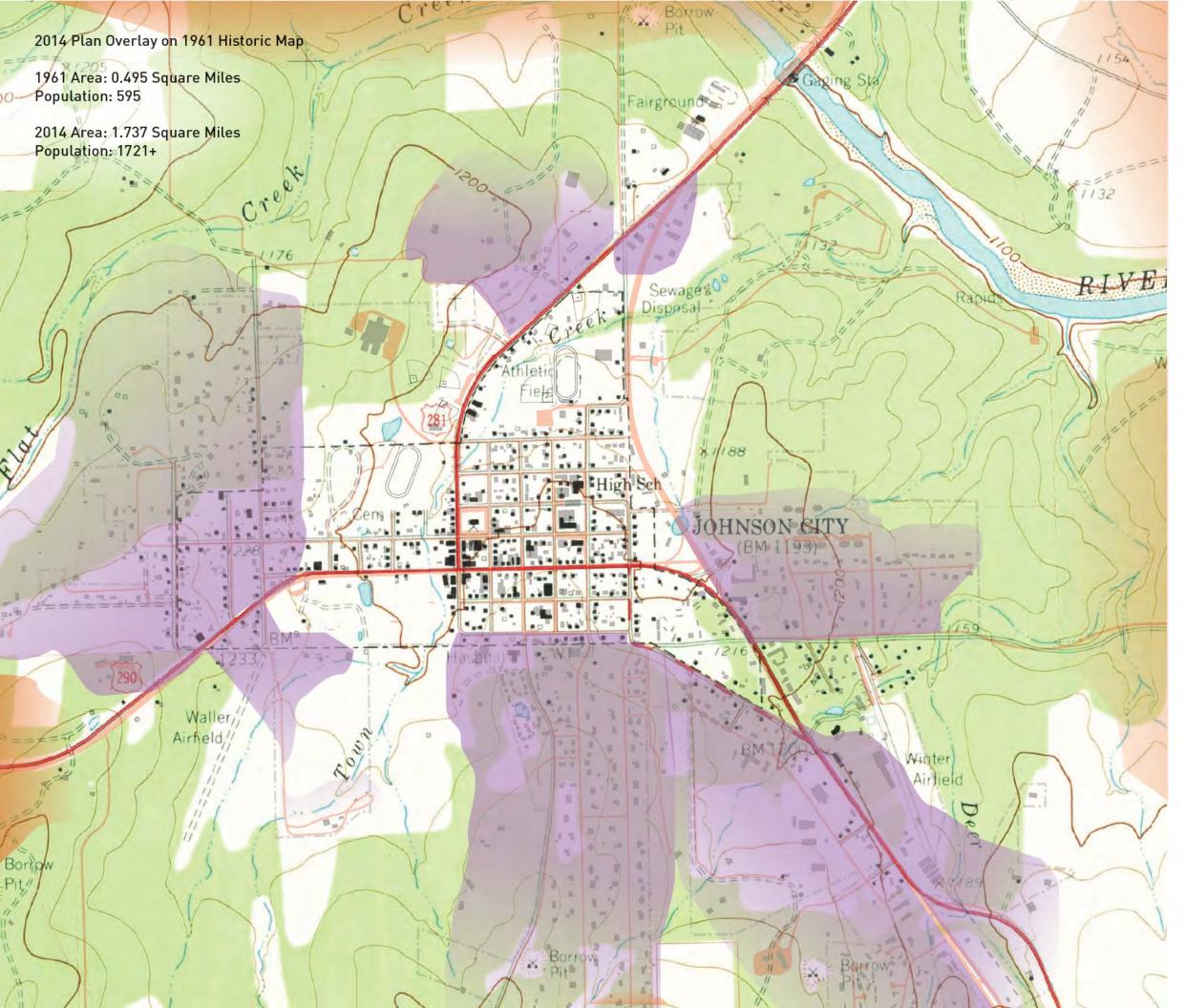
LEGEND: LIGHT POLLUTION TRANSECT



NOT TO SCALE

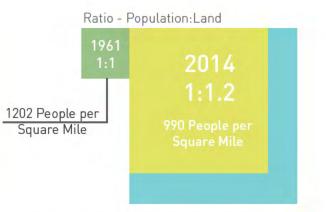
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SETTLEMENT PATTERNS & GROWTH

Over the last 50 years, Johnson City has experienced steady population growth, more than tripling its resident count. However, rather than building within the city center to accommodate this growth, settlement patterns of both commercial and residential building stock, as well as roads, have taken on low-density, sprawling tendencies and are largely disconnected from the historic downtown. The overreaching boundaries of the city limit reflect this pattern.



POPULATION GROWTH VS. CITY AREA GROWTH

PRIMARY PROPERTY TYPE



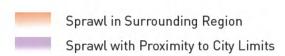
PRIMARY RESIDENCE TYPE

Single Family Home

MEDIAN HOUSE VALUE

\$156,250

Data from 2011 Census



1:2000

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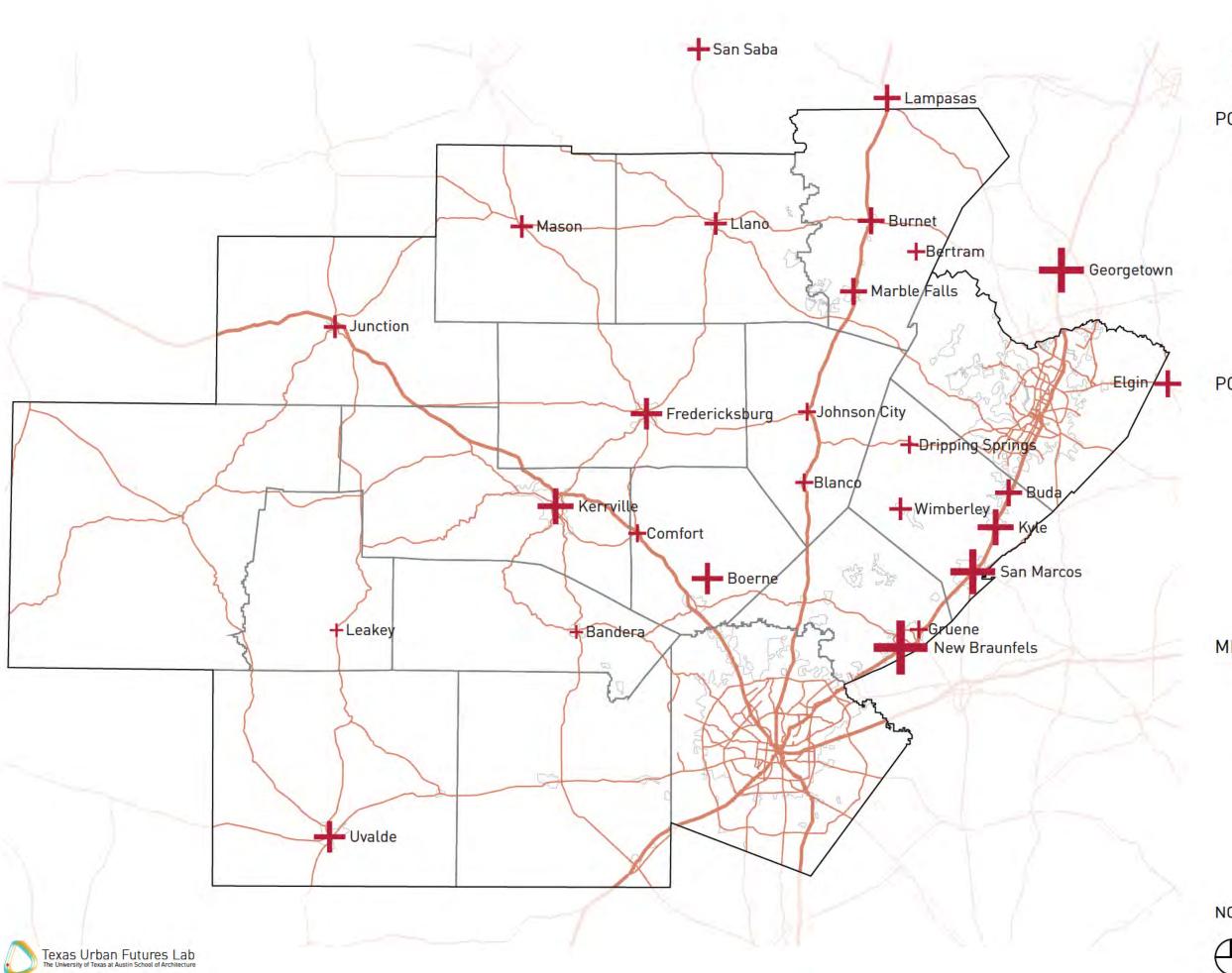


CULTURE & IDENTITY

"There are two ways to think about the Texas Hill Country. Physically, it spreads across the undulating Edwards Plateau, with Austin to the east and San Antonio to the south...

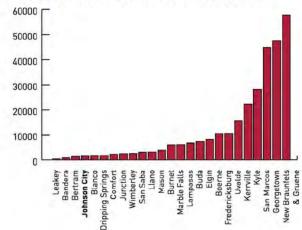
"To get a feeling for the Hill Country in the second sense — the state of mind where cool mingles with tradition, and industriousness and idleness are equally esteemed values (depending on the time of day) — head out among the limestone knolls full of live oak groves and cypress-lined creeks, and to the gritty pin-dot towns built largely of native stone. Here you'll find a delicious tension between rural and refined. Inns and restaurants are bringing a clever touch to Lone Star hospitality and mythology, and with the vineyards and boutique farms (lavender, olives), some people make comparisons to Napa Valley or even Provence. But those assessments ignore something fundamental: the Hill Country — being Texas at its finest - is like nowhere else in the world."

- 36 Hours in the Texas Hill Country, NYTimes, 2013

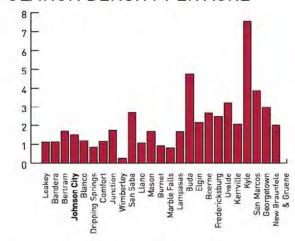


TAXONOMY OF REGIONAL TOWNS

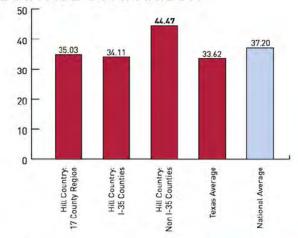
POPULATION OF MUNICIPALITIES



POPULATION DENSITY PER ACRE



MEDIAN AGE COMPARISON



NOT TO SCALE

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TAXONOMY OF TOWNS A COMPARATIVE STUDY OF HILL **COUNTRY TOWN TYPOLOGIES**

The Texas Hill Country is a region that was settled by a diversity of cultures. The region is host to strong European, Mexican, and American influences. This inventory represents a taxonomy of 26 seperate Hill Country towns tracing the patterns of settlement around the central point of their town.

In many cases these towns are the County Seat for their respective counties and contain a courthouse square. Others grew around major transportation networks such as rail stations, rivers, and highway intersections. Many towns embody multiple combinations of these civic, infrastructure, and geographic features. These diagrams are ment to express commonalities and contrasts in present settlement patterns overlayed on top of what was the historic town pattern.

TEXAS HISTORICAL COMMISSION: TEXAS MAIN STREET PROGRAM

4-Point Approach to Main Street Revitalization

Organization: Partnerships are essential for successful preservation-based downtown revitalization. Through a solid Main Street structure, many groups that share an interest in the health of downtown come together to work toward an agreed-upon vision for downtown and thus, for the community.

Promotion: This aspect of the Approach is utilized to market a unified, quality image of the business district as the center of activities, goods and services.

Design: Capitalizing on the downtown's unique physical assets and heritage, design activities such as building rehabilitations, utilization of preservation-based tools and ordinances and effective planning practices help to create an active district and maintain its authenticity.

Economic Restructuring: In this area, a targeted program is developed to identify new market opportunities for the commercial district, find new uses for historic commercial buildings, and stimulate investment in property.

LEGEND

- Building Footprint
- Historic Town Core/Extents
- Public Green Space
- Water

JOHNSON CITY: 1"=500" ALL OTHERS: 1"=150"

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LLANO - OPEN PRO LONGHORN CAVERNS EN CHANTED ROCK JOHNSON CITY - WRPA OPEN PRO STONEWALL - PEACH JAMBOREE BARTON SPRINGS BOY BIRD JOHNSON WILDFLOWER PARK DRIPPING SPRINGS - FAIR WIMBERELY - VFW RODEO WONDER WORLD PARK CAVERNS GUADALUPE RIVER STATE PARK LOST MAPLES STATE NATIONAL AREA BANDERA - COWBOY CAPITOL BRO. CASCADE CAVERNS BULVERDE TEJAS NATURAL BRIDGE CAVERNS SAN ANTONIO RODEO HONDO - OPEN RRO UVALDE - SWTJC

RODEOS, PARKS, & LIGHTS

The Texas Hill Country is the home to some of the nation's largest rodeos, beautiful parks, and a huge holiday light display that spans multiple cities.



SAN ANTONIO -RODEO, AT&T CENTER





THE BEST TEXAS STATE PARKS

- I. Enchanted Rock
- 2. Lost Maples State National Park
- 3. Palo Duro Canyon State Park
- 4. Garner State Park
- 5. Mustang Island State Park
- 6. Longhorn Cavern State Park 7. Guadalupe River State Park
- 8. Hueco Tanks State Historic Site
- 9. Devil's River State Natural Area
- 10. Washington on the Brazos State Historic Site



WRPA OPEN PRO

WIMBERELY -

VWF RODEO

JOHNSON CITY -



http://gotexas.about.com/



FESTIVAL OF LIGHTS

Burnet Marble Falls Dripping Springs Johnson City Fredericksburg Kerrville Blanco Wimberley Boerne Bandera

HILL COUNTRY

ENCHANTED ROCK

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WINE TRAILS & ACCOMMODATIONS San Saba Brady Lampasas Johnson City lies at the heart of the hill country wine AVA and is surrounded by natural park areas. However, due to a current lack of hotel availability, it cannot significantly support tourism 41 when compared to other nearby towns such as Fredricksburg, Mernard Marble Falls and Boerne. Lake Buchanan 134 Keys Burnet Mason 175 Keys 61 Keys Llano HILL COUNTRY WINE AVA 166 Keys Horseshoe Bay Junction . 349 Keys **JOHNSON CITY** Fredericksburg **113 KEYS** 1600+ Keys 03 **JOHNSON CITY WINE TRAILS** HOTEL AVAILABILITY Dripping 11 10 07 Springs ---- 4.5 Hour Round Trip (1) Radius = 100 Hotel Keys 92 Keys ---- 3 Hour Round Trip Comfort Blanco ---- 3 Hour Round Trip 129 Keys Rock Springs 94 Keys LAND DESIGNATION 2 Hour Round Trip Wimberley 1108 Key ----- 1 Hour Round Trip Hill Country Wine AVA ---- 30 Minute Round Trip Boerne 32 Designated Park Land 611 Keys HILL COUNTRY WINE STOPS 11 Texas Hills Vineyard 24 Duchman Family Winery **25** Wimberley Valley Winery 02 Lewis Wines Bandera 13 Hye Meadow Winery 26 Driftwood Estate Winery William Chris Vineyards 27 Salt Lick Cellars 28 Sister Creek Vineyards 05 Compass Rose Cellars 6 Garrison Brothers Distillery 29 Chisholm Trail Winery Santa Maria Cellars 07 Perdernales Cellars Kerrville Hills Winery 18 Woodrose Winery 19 Hilmy Cellars Vineyards & Winery Bending Branch Winery Singing Water Vineyards 10 Becker Vineyards 11 Torre Di Pietra Winery & Vineyards Dry Comal Creek Vineyards & Winery Hondo Flat Creek Estate & Winery 12 Grape Creek Vineyards Sabinal Inwood Estates Winery & Bistro Stonehouse Vineyard 14 4.0 Cellars 37 Flat Creek Enoteca Messina Hof Hill Country Winery 38 Perissos Vineyard & Winery 1/3 Uvalde Rancho Ponte Vineyard 39 Fall Creek Vineyards-17 Fiesta Winery Tasting Room 40 Pillar Bluff Vineyards 8 Fredericksburg Winery [41] Texas Legato Winery 19 McReynolds Winery 42 Fiesta Winery 20 Spicewood Vineyards 43 Alamosa Wine Cellars 21 Westcave Cellars Winery [44] Wedding Oak Winery 45 Pontontoc Vineyards 22 Bell Springs Winery 23 Solaro Estate TUFLAB FALL 2014 A CASE STUDY IN THE TEXAS HILL COUNTRY JOHNSON CITY Texas Urban Futures Lab

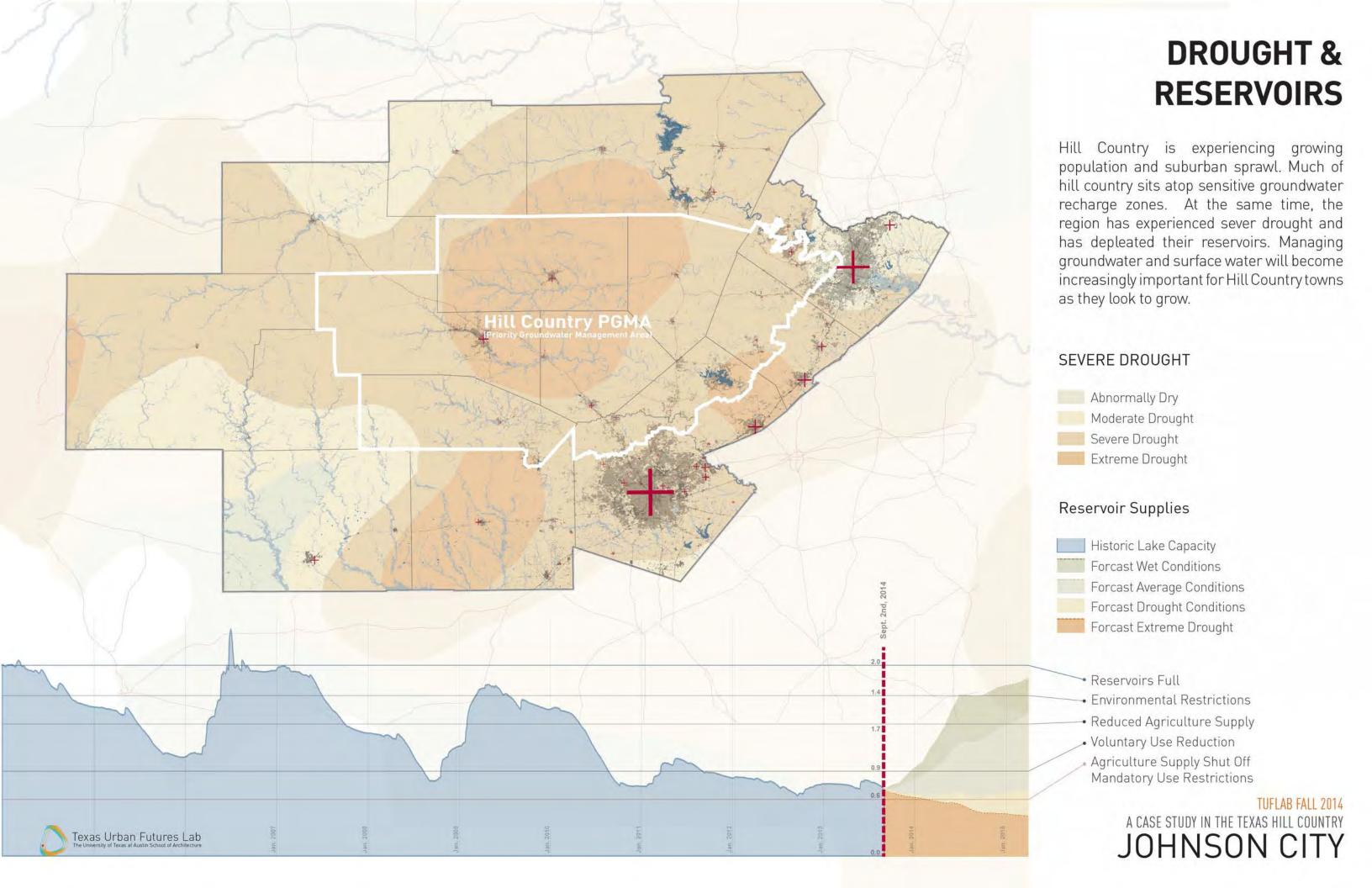


ECOLOGY & LANDSCAPE

"In Texas a perfect storm is brewing as the population booms and water resources deplete, and many people believe water will soon overtake oil and natural gas as the next major natural-resource play in the state...

"...the Hill Country can't accommodate unlimited growth. Already, municipalities are looking for ways to exceed their watershed capacities by bringing in water from outside sources, an expensive and long-term endeavor."

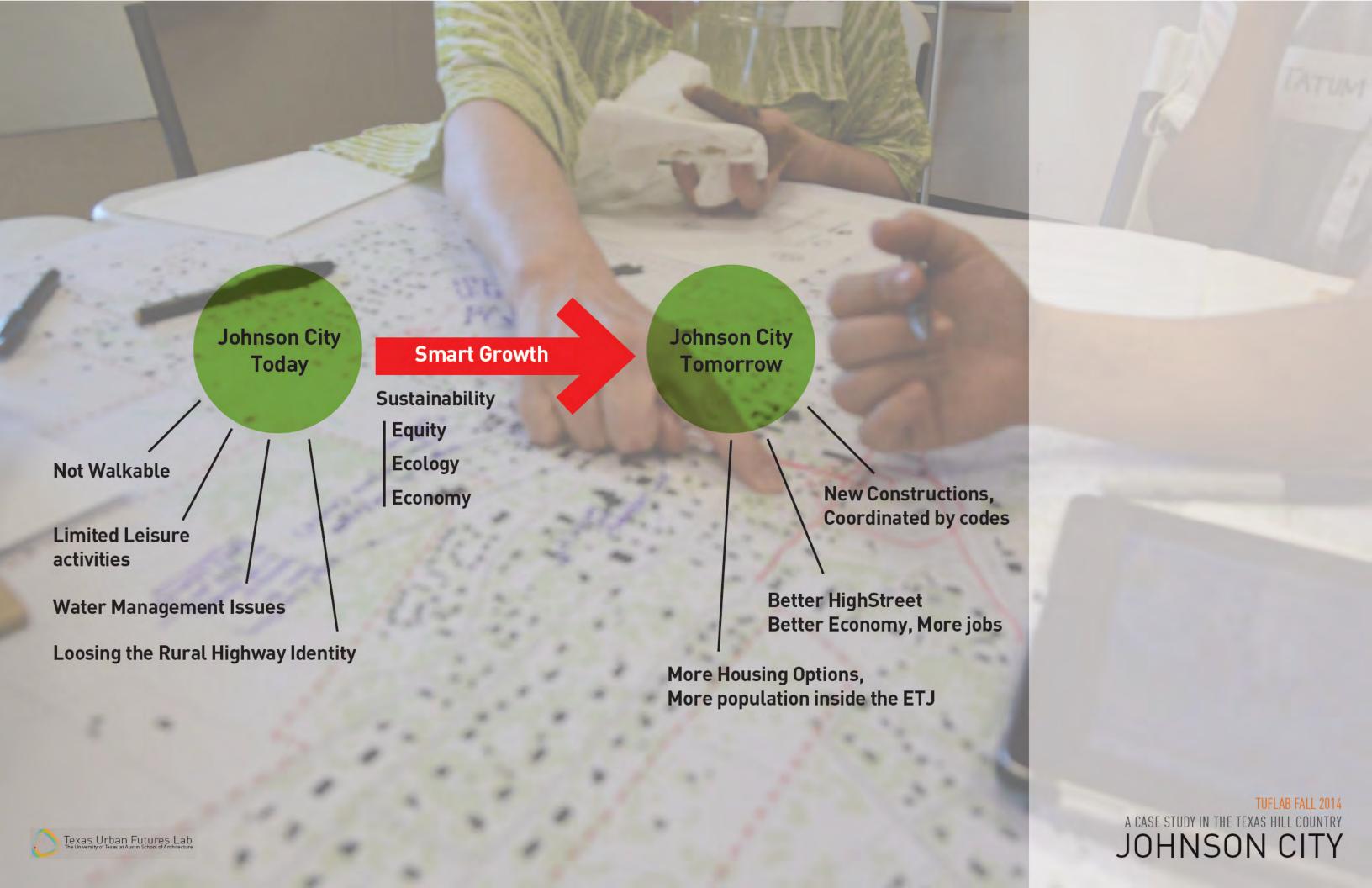
- "A Water Generation Gap Portends Confrontation Between Texas' Past, Future", Ari Phillips, Texas Climate News, 2013

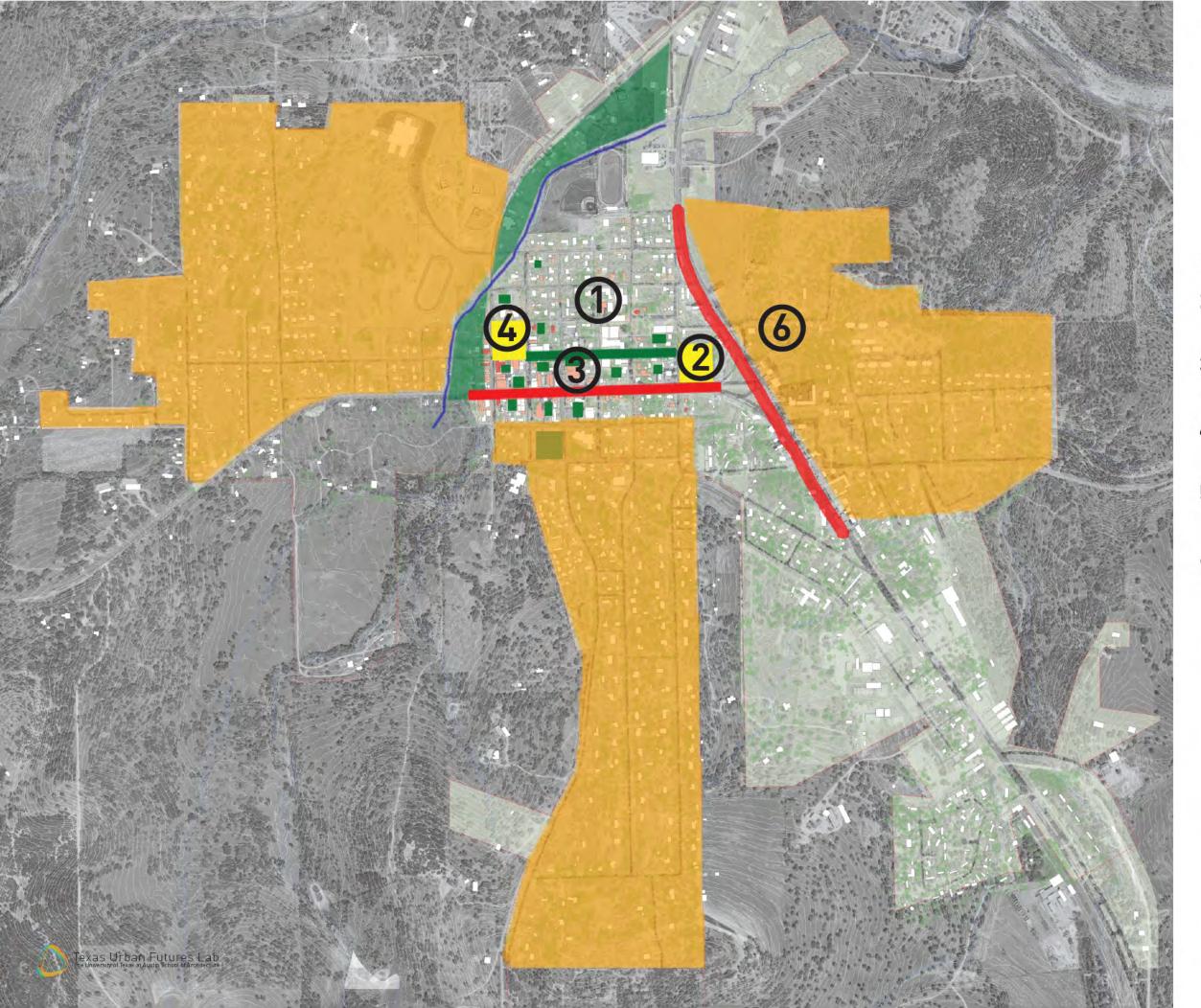


ANALYSING PLACE

THE ISSUES	MOBILITY & TRANSIT	ECOLOGY & LANDSCAPE	CULTURE & IDENTITY	SETTLEMENT & BUILT FORM
REGIONAL	Orientation to the Texas Triangle	Texas Orientation within the Colorado River Basin to the Gulf Hill Country Drought &	Hill Country as destination for tourism and retirees Rodeos, parks, and events to draw tousts to Johnson	Hill Country as Natural Connection & Dark Sky Haven
	Regional Texas Traffic along 281/290	Water	City Wine Country and hotel accommodations	Town Typologies & Data
CORRIDOR	Road Traffic at City Level	Pedernales River Water Shed	Education Opportunities	Settlement Patterns & Land Use in City
		Johnson City Ecological Systems	Jobs & Commuting Festivals & Landscape	Downtown Program & Pedestrian Potential
LOCAL TOWN	Local Transport, Pedestrian Walkability & Impediments	Downtown Hydrology	Recreation & Food Downtown Event Areas Areas	Street & City Sections
POTENTIAL & PROBLEMS	Limited access to diversity of transport but well situated Infrastructure needs improvement	Issues of water and area growth / sustainability Excessive impervious cover and lack of ecological consideration (storm water, riparian areas, etc)	Unrealized potential to capitalize on unique area identity Disconnect from area amenities	Need to preserve landscape from sprawling development Diversify building typologies for housing, commercial and industry

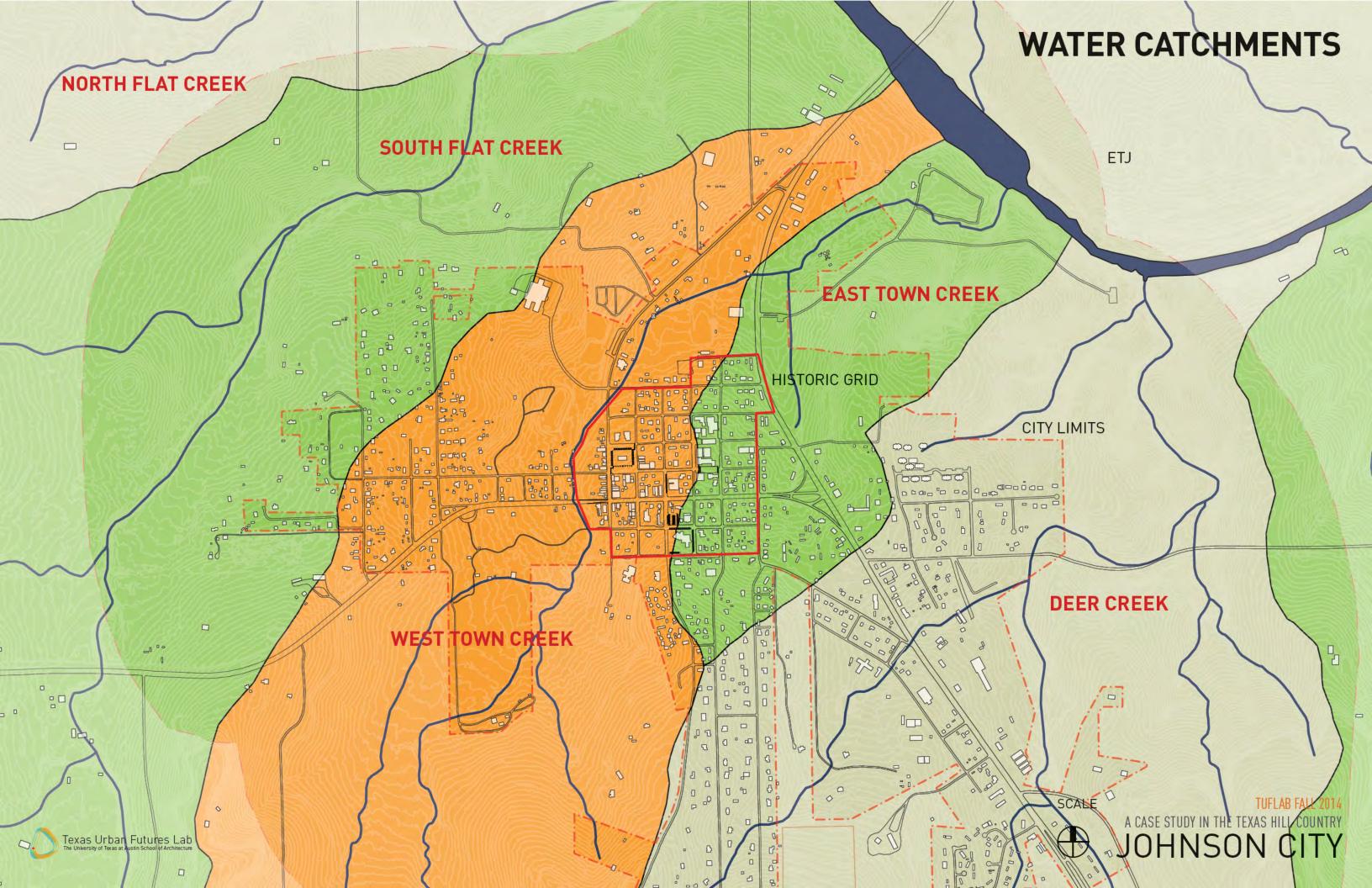


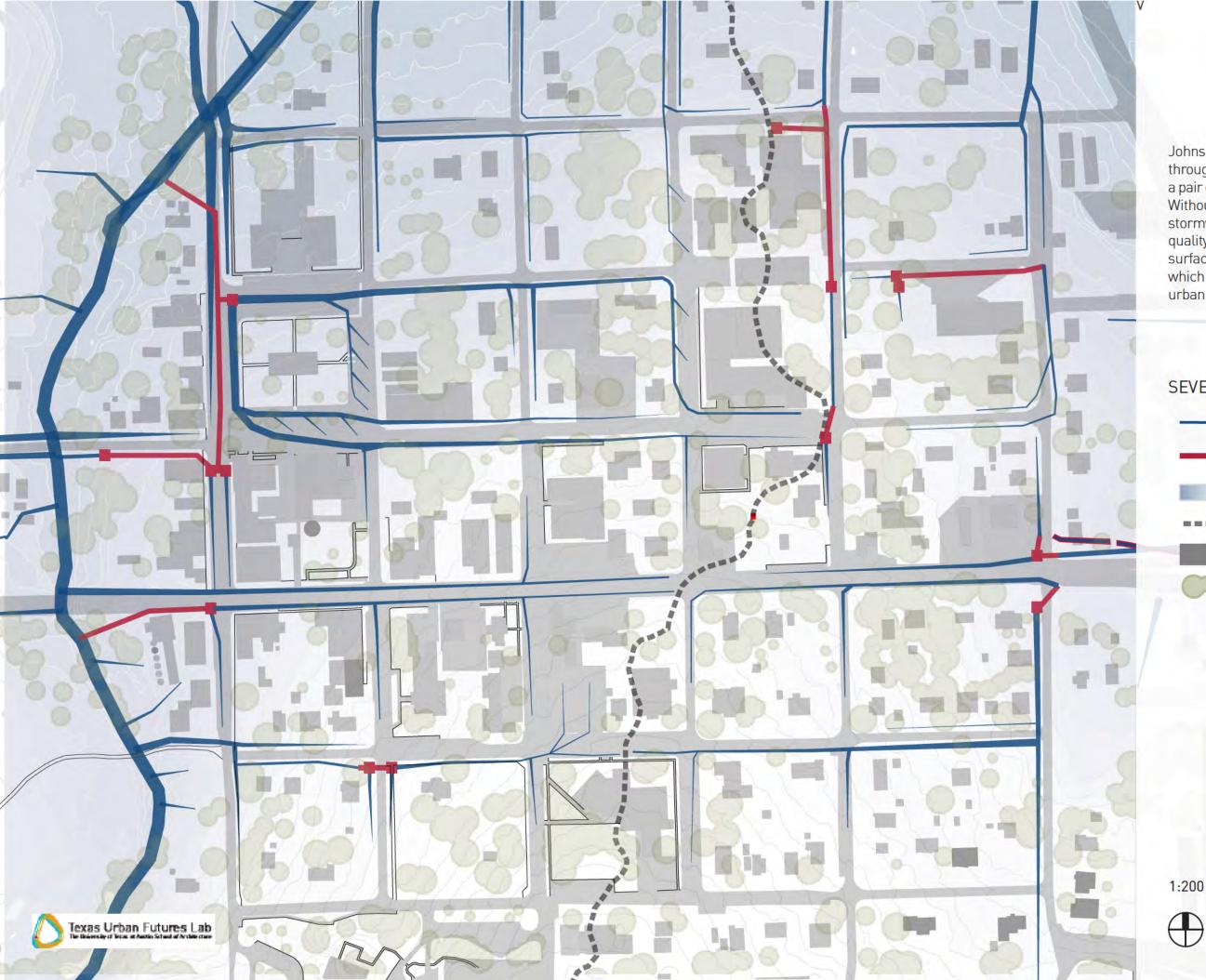




FRAME WORK

- 1. Green Infrastructure
- 2. Proposals for a new Hotel, and a Wine Center
- 3. Streets Redesign Main, Pecan, 280 & local Streets
- 4. CourtHouse Square Renovation Plan
- 5. Form Based Codes for new construction
- 6. Housing Options





STORMWATER & TREE CANOPY

Johnson city has vast areas of impervious surfaces throughout the city. The towns runoff is directed into a pair of streams that flow into the Pedernales River. Without a mechanism for filtering and cleaning stormwater, this system contributes to poor water quality in the regions reservoirs. These impervious surfaces also contribute to the "Heat Island Effect" which increase temperature in the town. However, urban tree canopies can help mitigate these effects.

SEVERE DROUGHT

Surface Water Flow'

Storm Water Drain & Sub-Surface Water Flow

Surface Flow Topography

Ridgline

Impervious Surface

Tree Canopy Coverage

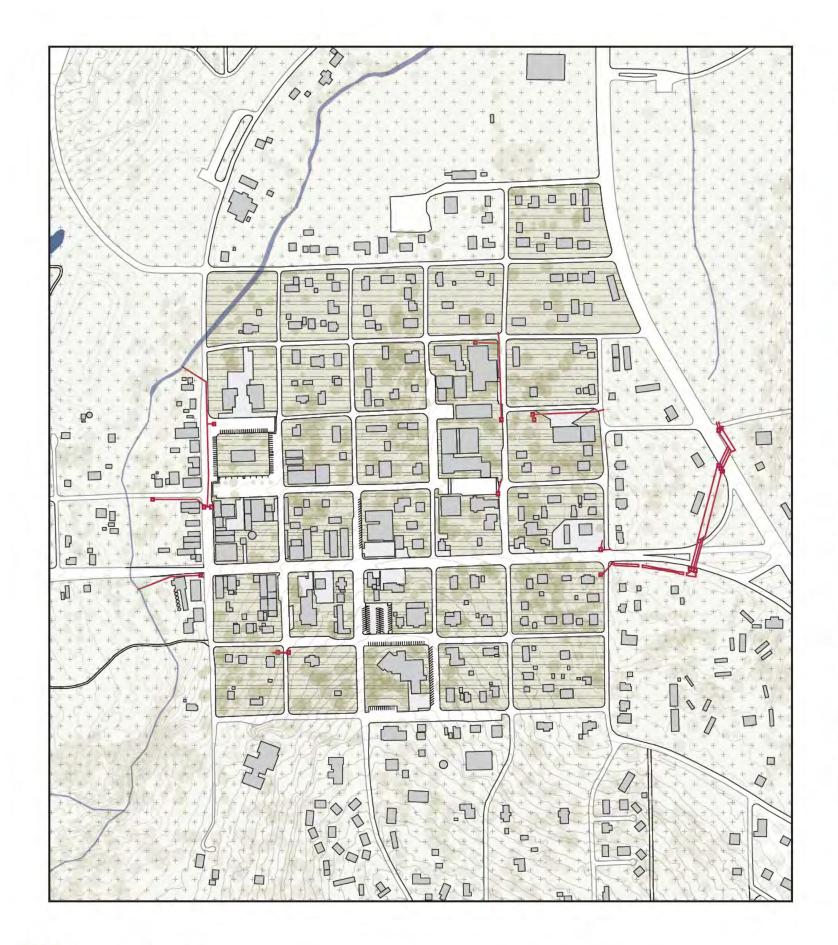
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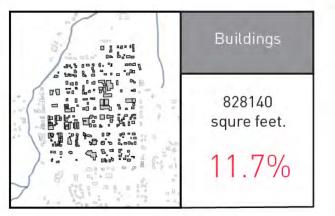
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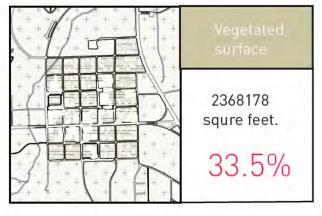
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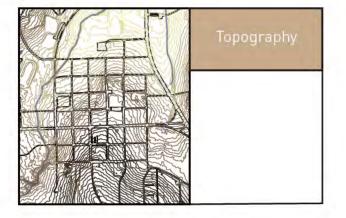
IMPERVIOUS&PERVIOUS COVER CACULATION







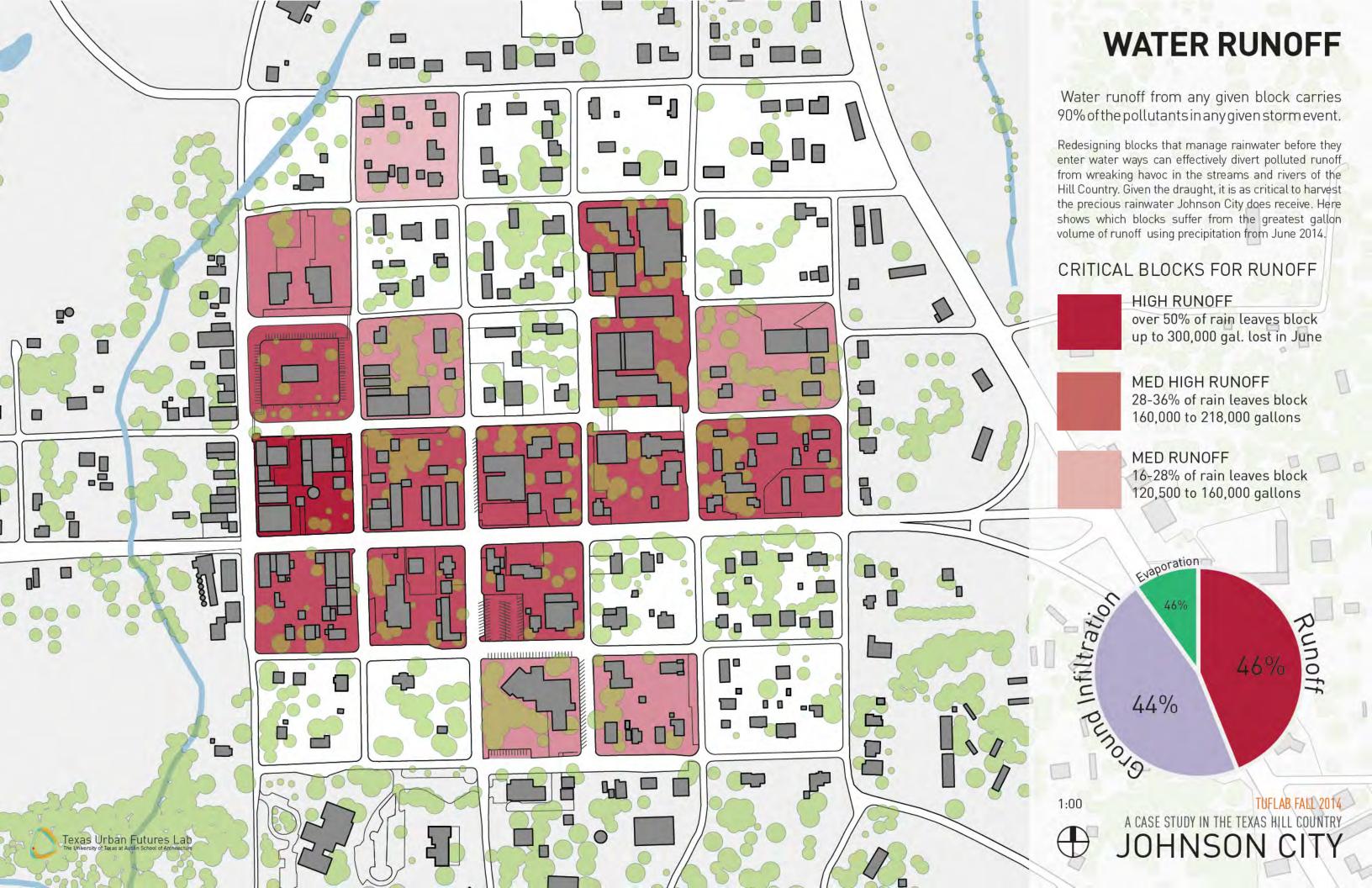




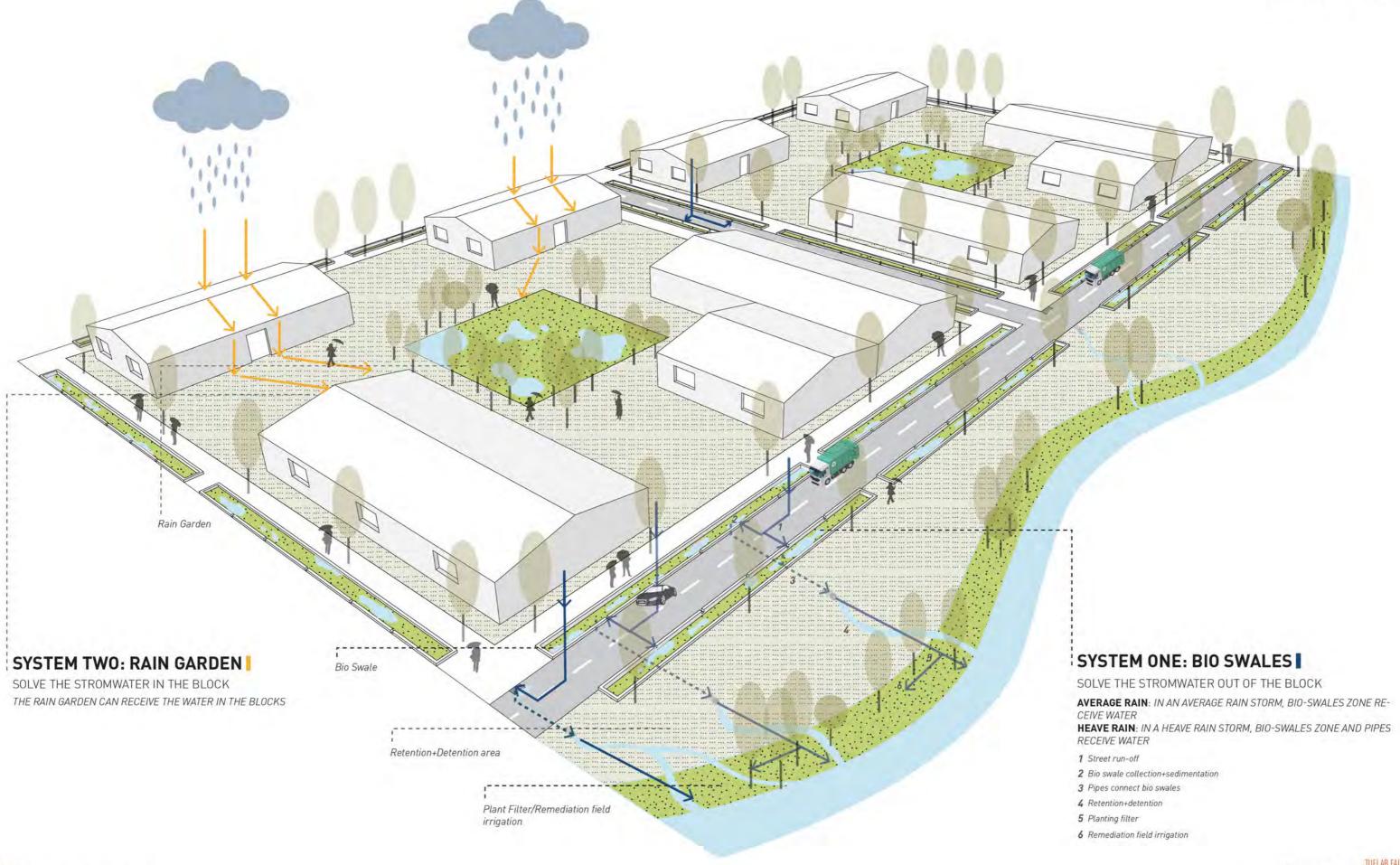


For ensuring meeting the demand of capture of water, we caculated the area in historic block depending on impervious cover and pervious cover.

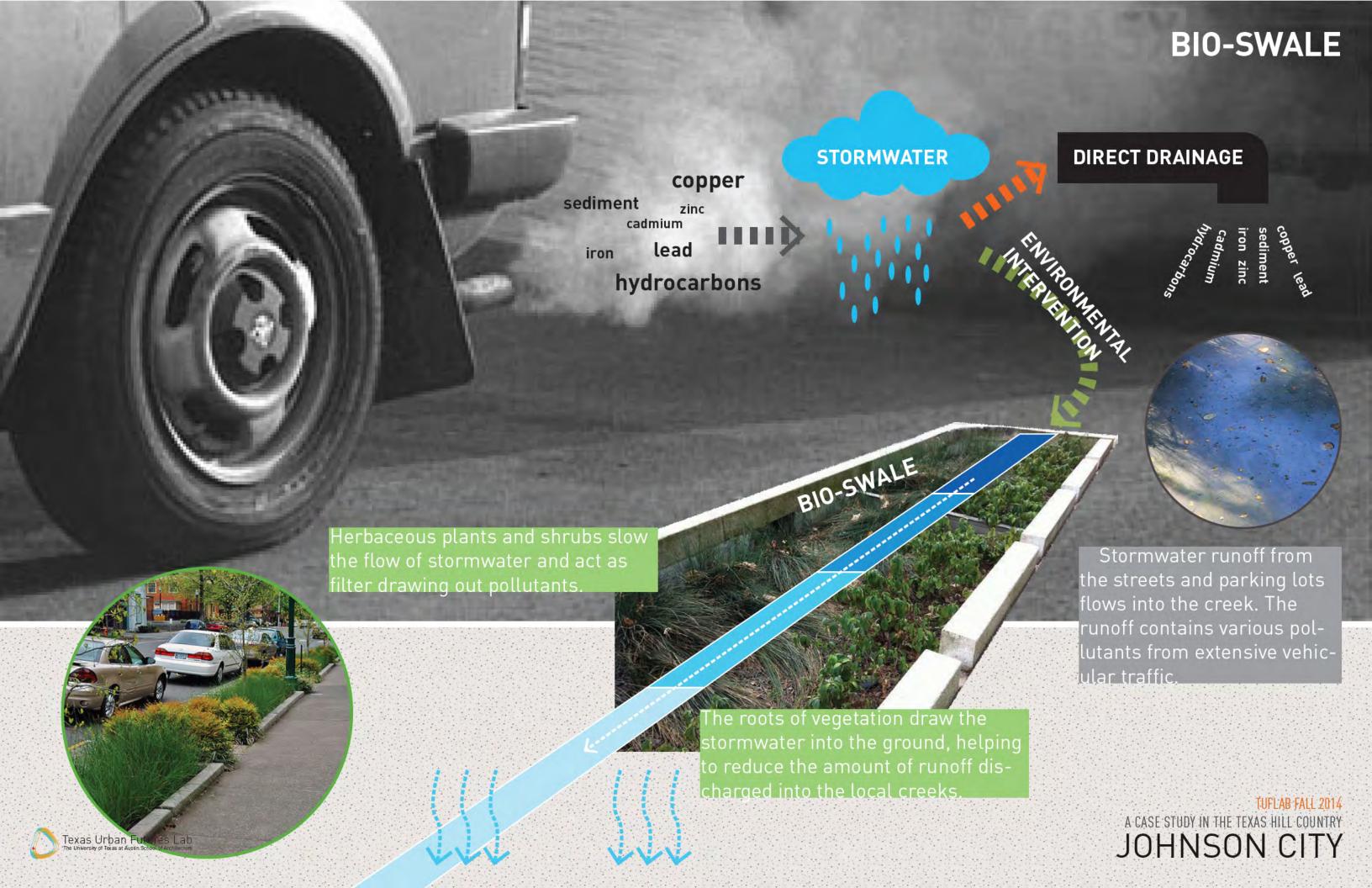




WATER SYSTEM



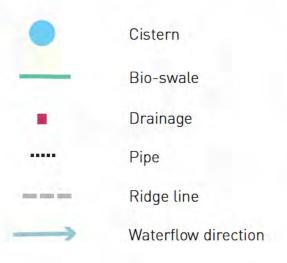


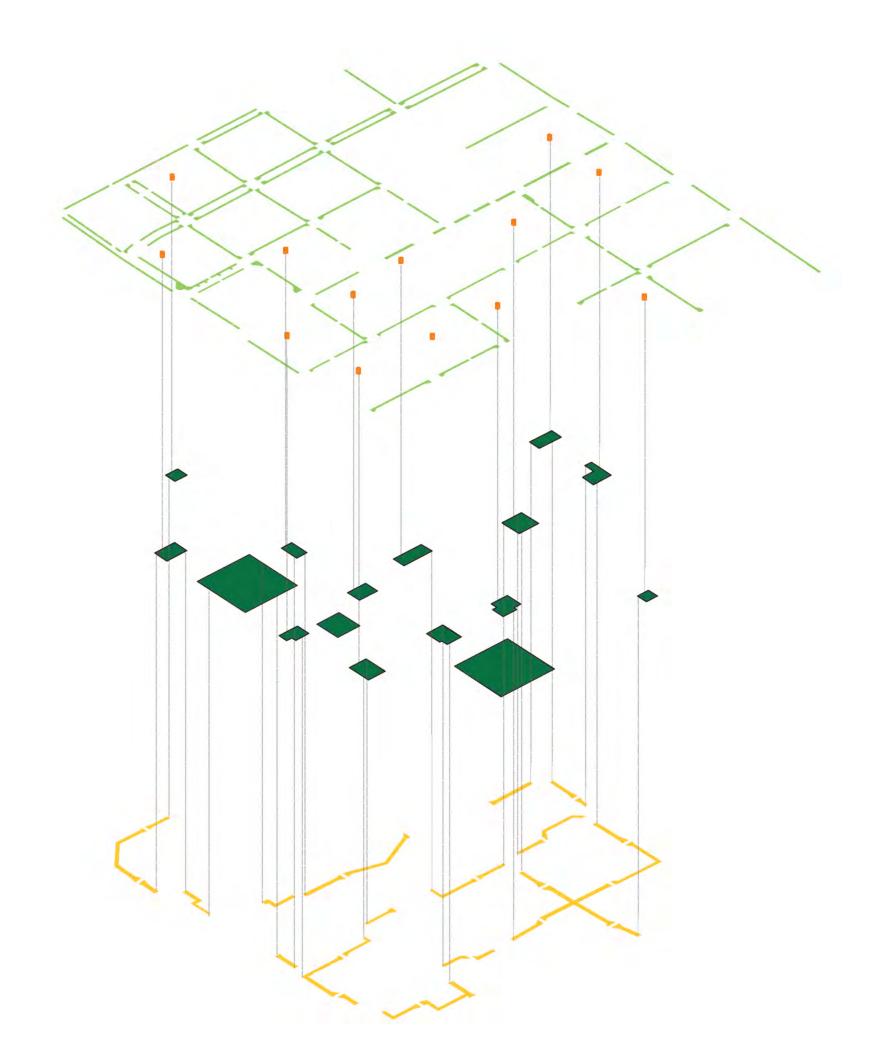


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WATER FLOW

The ridge line is going through the middle of historic block in Johnson City which makes water goes two diferent directions. In result, water converges in the northwest and northeast corner. To avoid the water running on the street, bio-swales are designed in the place where water converges, especially at the corner. Pipes serve as connections between bio-swale for ensuring water collected by bio-swale are sent to the creek.





Bioswale + cistern

absrobs, cleans rainwater for reuse





Rain gardens

inter-block parks with water collection





Greenways

connecting ecology with grid porosity

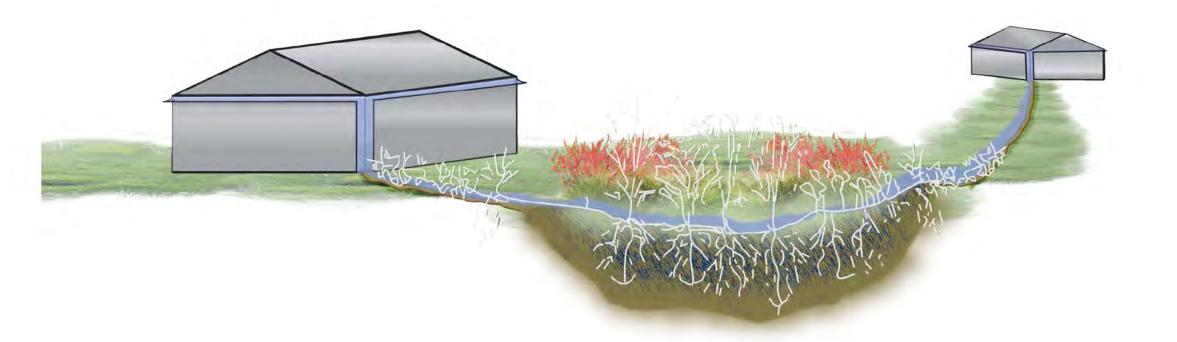




Downtown landscape system

creating a network of water collection parks that re-imagine pedestrian movement and social space.







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RAIN GARDENS

For water to be properly managed within blocks, rainfall ought to be mitigated into rain gardens and/or bioswales.

Here the rainwater travels through trenches to the rain garden. The garden is able to absorb the excess into the subsurface water table, instead of acting as runoff into the creek, carrying pollutants with it.

This design works as a critical ecological system where the plants within the trenches and rain gardens properly filter the water while still thriving within the Hill Country.

GRASSES

- 1. Buffalograss
- 2. Little Bluestream
- 3. Blue Grama
- 4. Horseherb
- 5. Deer Muhly

Shrubs

- 6. Red Yucca
- 7. Rock Rose
- 8. Mexican Sage Bush
- 9. Beautyberry
- 11. Cenizo

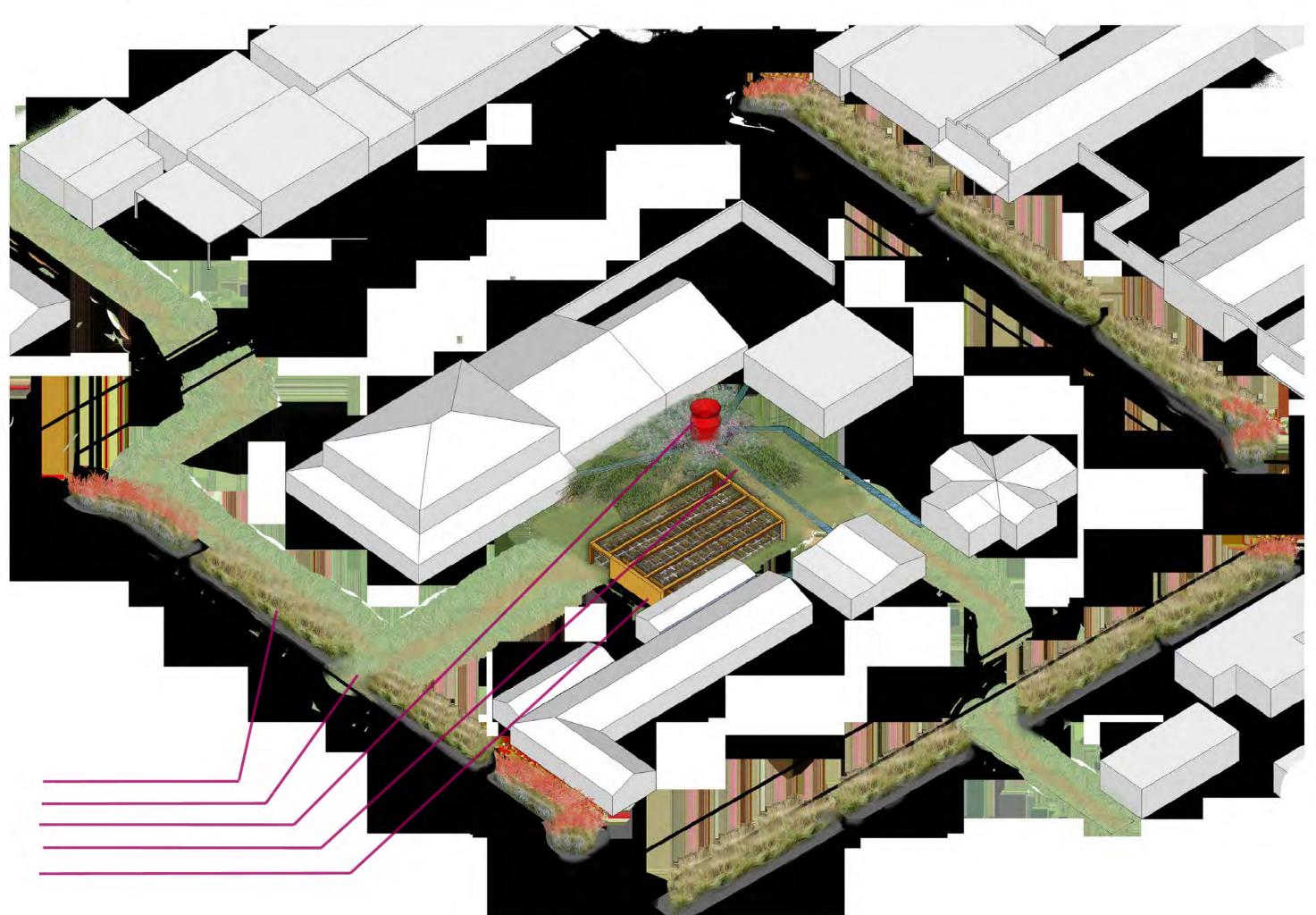
Perennial Herbs

- 10. Gregg's Mistflower
- 12. Pink Evening Primrose
- 13. Swamp Milkweed
- 14. Fogfruit
- 15. Common Blue Violet

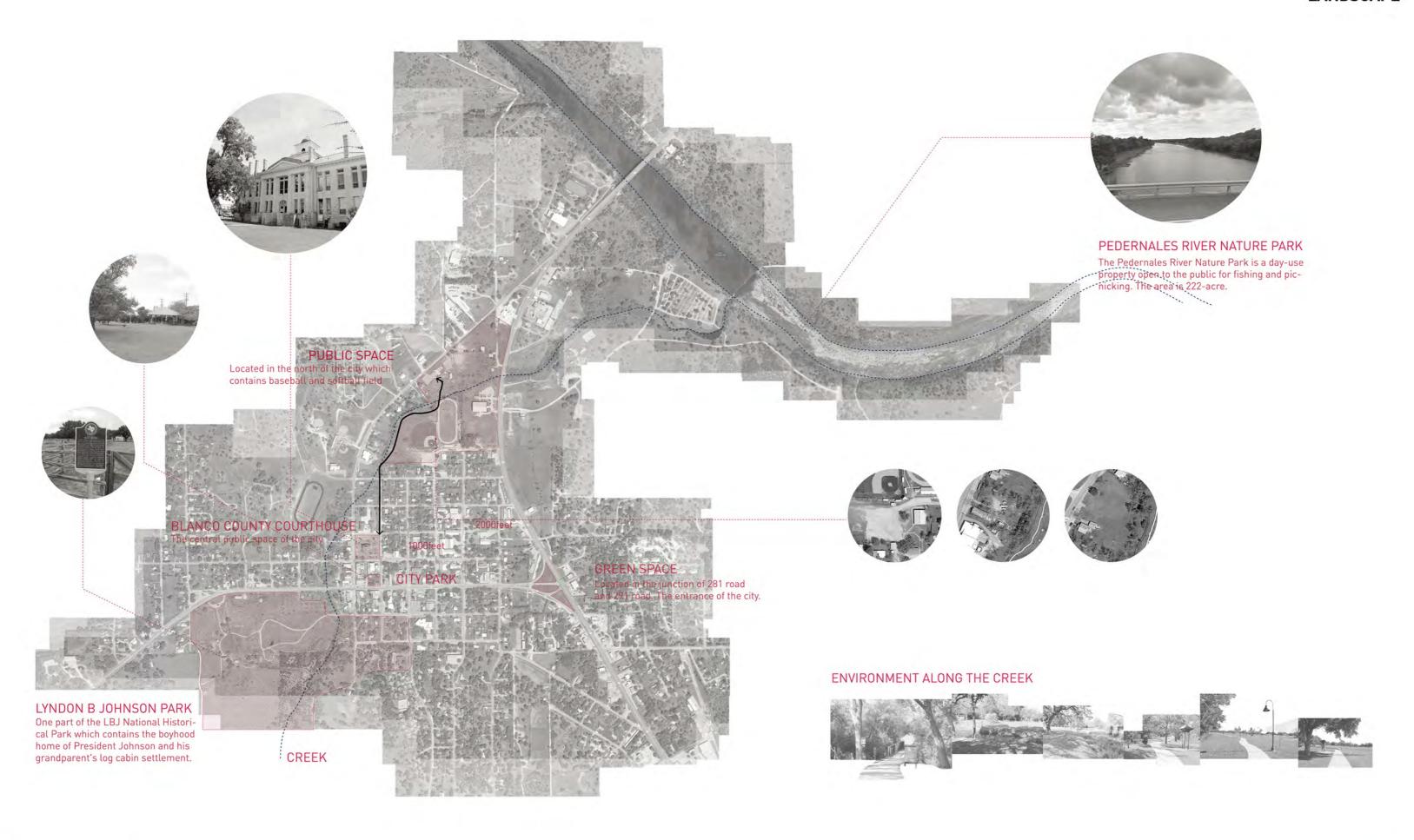
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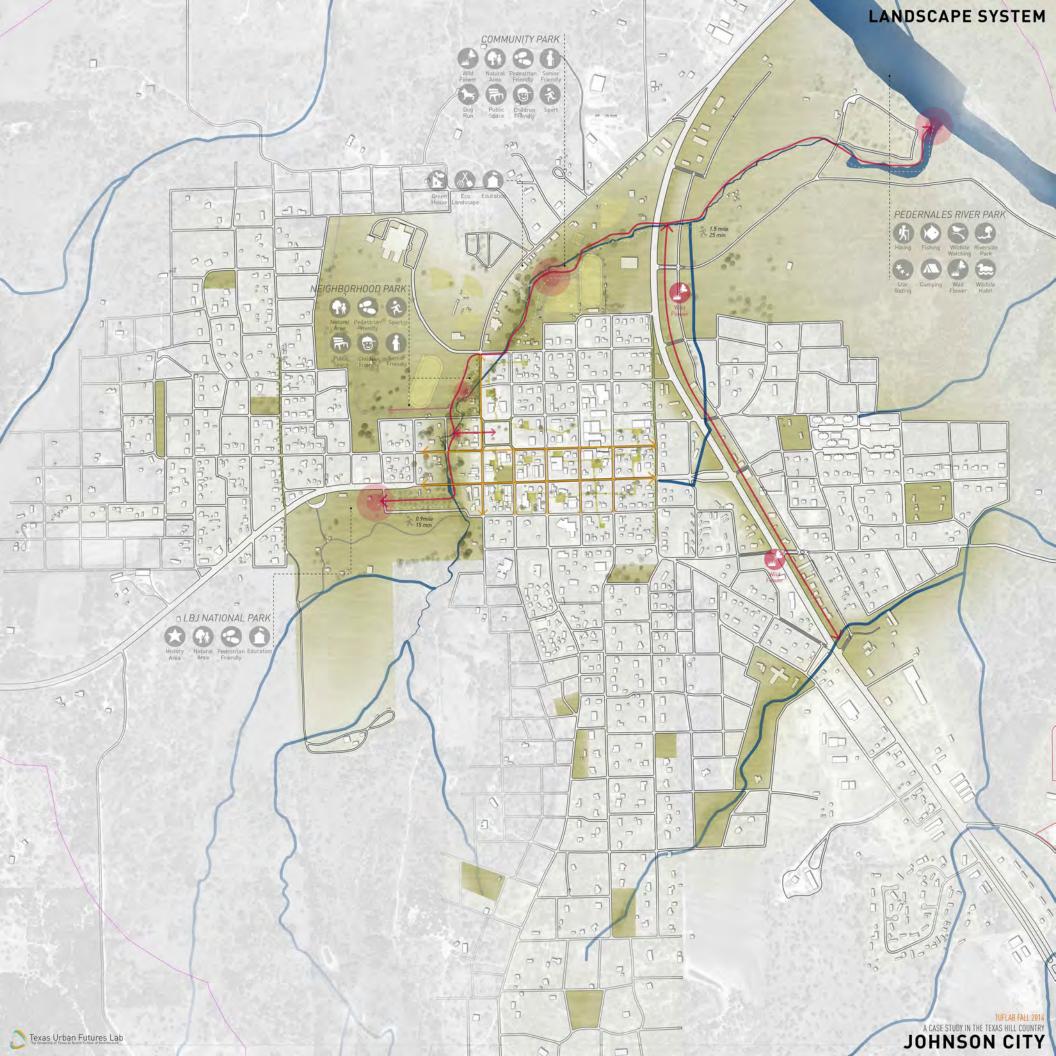
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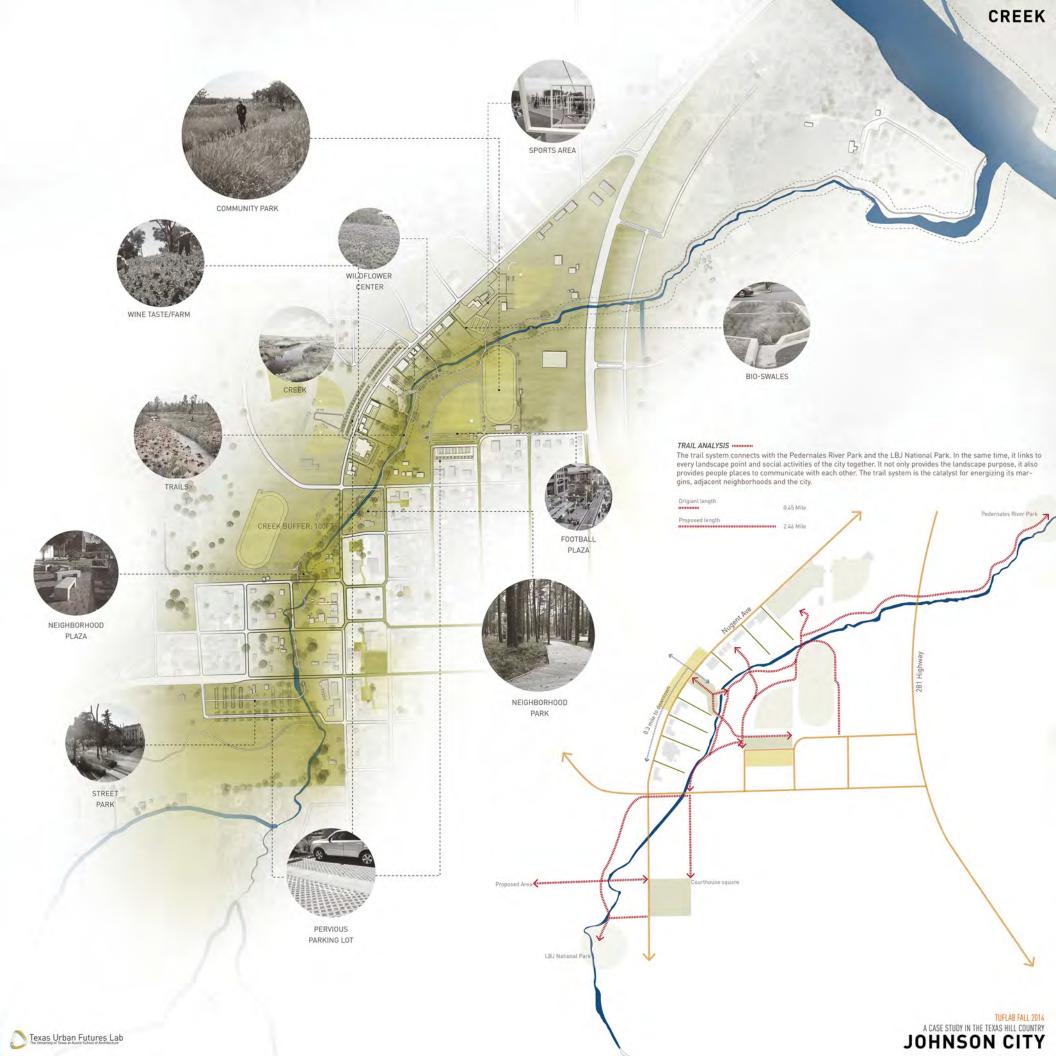


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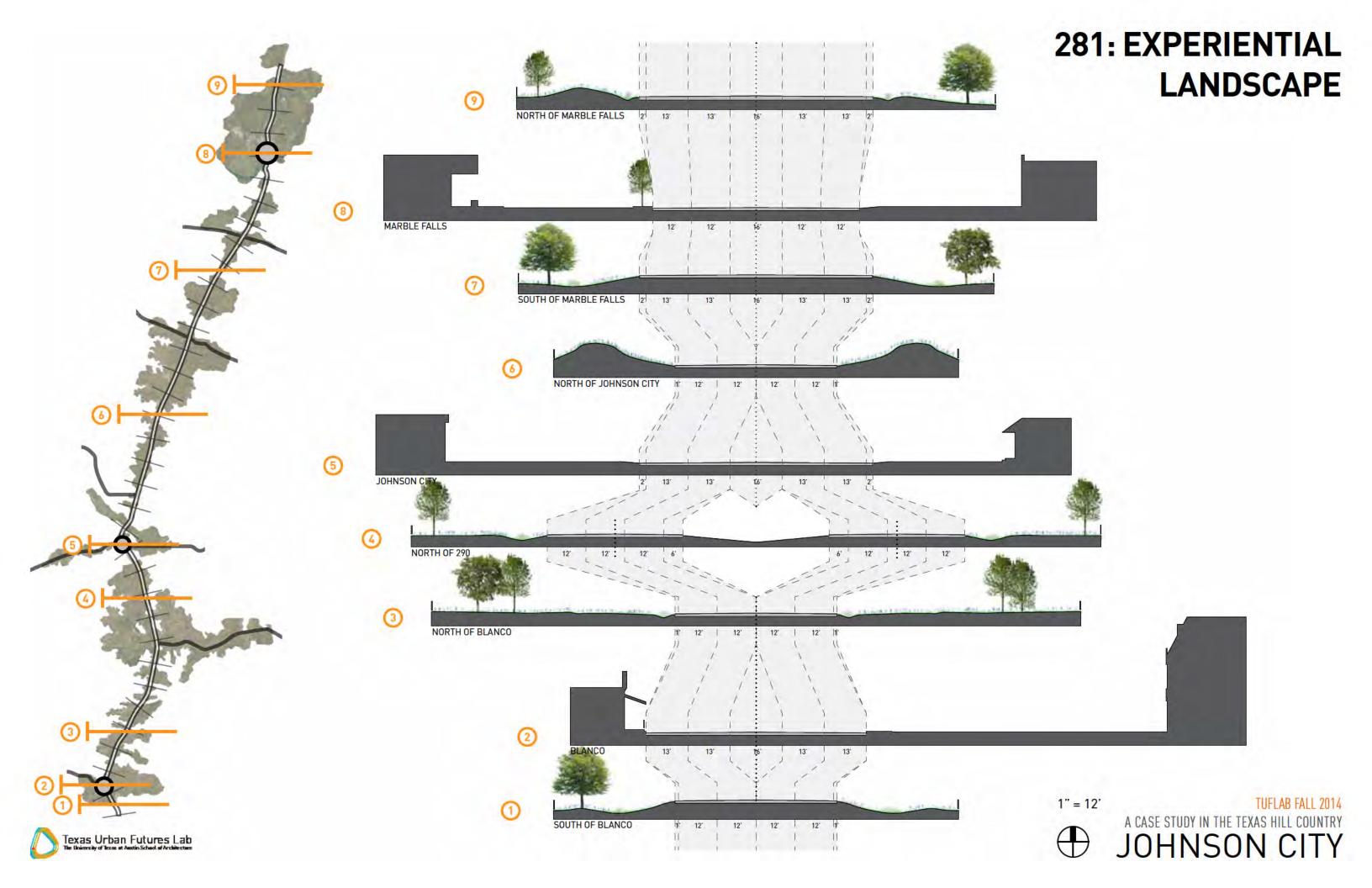
MOBILITY & TRANSIT

"Adequate transportation planning is a key part of the Hill Country's future. Our growing population of residents must travel to and from work and school. Visitors travel our roads to enjoy the beauty of our landscape. If our roads are to remain the assets we enjoy today, transportation planning must consider not only mobility and safety, but also preservation of the historic, scenic and natural environment."

- The Hill Country Alliance

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PURSUIT OF A CHARACTER

Through engaging the Johnson City community we recieved feedback expressing the desire to avoid the loss of identitythat happens when development takes place with little planning. Cities quickly become a sea of asphalt and concrete losing any semblance of place. Specifically, residents identified Marble Falls as having a character they wish to avoid.

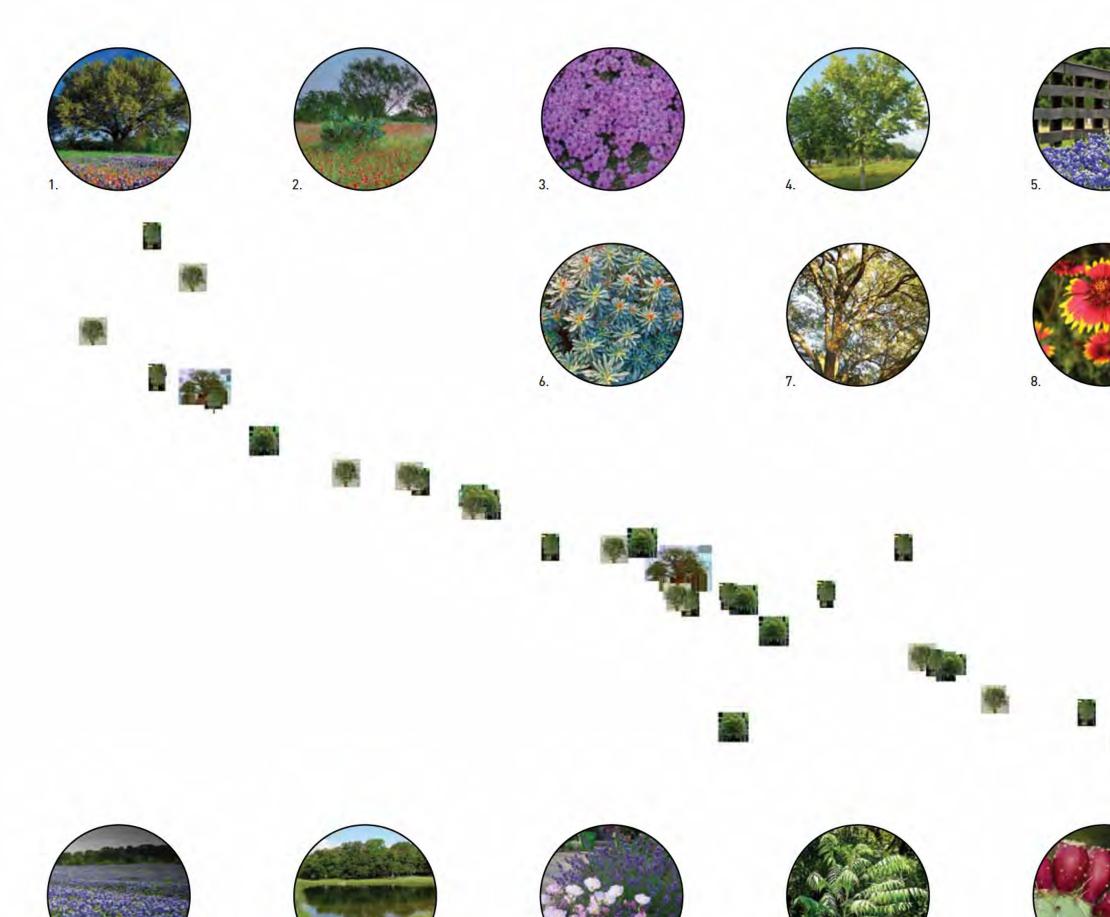
PREFERED CHARACTER







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AN EMBEDDED **LANDSCAPE**

Traditional development patterns have created a disossciation between towns in the Hill Country and the greater Hill Country landscape. Driving through Marble Falls it is quite easy to understand how this break in the regional identity leads to a seperation between identity and space.

Johnson city has the opportunity to root itself as not only a town in the Hill Country, but more importantly, a Hill Country town by reengaging the identity of the Hill Country through tactically pulling the Hill Country landscape through the town along 281. This move to thread the landscape through the town is accomplished by gradually creating a landscape buffer along 281 which overtakes existing surface parking lots and curb cuts. The framework for this will be a 100' offset from the 281 centerline. Further rooting itself into Johnson City as a whole, this highway landscape will intersect with creek landscape systems at multiple points creating unique opportunities for landscape interfaces. In line with best practices, we are proposing the creek landscape buffer is 50' to reduce polluted run off from entering the watershed in storm events prior to being cleaned but sustainable landscape systems.

By creating continuity with the landscape as you travel through town Johnson City will root itself in place and reinforce the towns identity at the heart of the Hill Country acting as a gateway to the regions natural and cultural offerings.

HILL COUNTRY LANDSCAPE

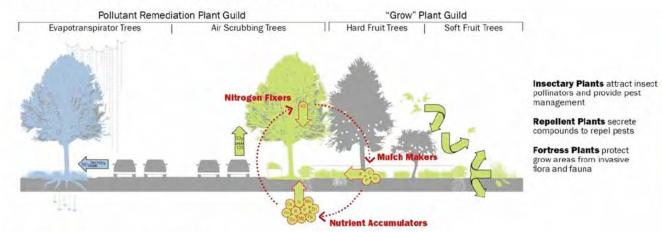
Identified are a few examples of the character that would exist within this landscape zone pulled through Johnson City:

- 1. Live Oak
- 2. Indian Paint Brush Wild Flowers & Mesquite Trees
- 3. Verbena Wild Flowers
- 4. Pecan Trees
- 5. Delineated Fencing from Natural Materials
- 6. Various Mimosas
- 7. Mature Shade Trees
- 8. Indian Blanket Wild Flowers
- 9. Bluebonnet Wild Flowers
- 10. Retention Ponds
- 11. Pink Evening Primrose & Lavender
- 12. Flame Leaf Sumac
- 13. Prickly Pear Cactii

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Character Example of Commercial Strip Buffer



Benefits of Highway Landscape Systems





Character Example of Landmark Signage



281 Section Showing Landscape Systems







GATEWAY TO THE

HILL COUNTRY

GRID INTERFACE:

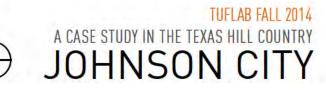
NEED FOR A CONNECTING JOINT

Due to the historical development patterns, currently two distrinct typologies exist in Johnson City. First is that of the historical grid which was surveyed based on a 300'x300' block and laid out in a uniform fashion. Following the retoute of the 281 spur a new type of Highway development began to crop up along the highway. This development reoriented structurs and roads to itself forming rather than aligning to the traditional grid. What happened was the space between these two zones became jumbled and does not speak clearly as an interface between the two. This disconnect is a part of the problem with the the issues of not having a front door and offering a poor first impression, two issues that Johnson City residents helped our studio to identify.

With the move to create a new identity for Johnson City through landscape along 281 and the strategies for place making taking place along Main Street (290) and Pecan, There is a very clear need for a joint to help establish a legible and functional connection between 281 and the grid.









1. 281 LANDSCAPE BUFFER & INTERFACE



2. GRID SETBACK & SERVICE ROAD NETWORK



3. WAREHOUSE TYPOLOGY (TRANSITION PROGRAM)



4. NEW NEIGHBORHOOD CENTERS CONNECTING TO GRID





JOINT FRAMEWORK

The joint is structured around two primary setbacks which both serve dual roles as a distrinct threshold as well as a bonding agent. The first is the continuation of the 281 highway landscape buffer which wraps onto main street (290) signaling the intersection as a special place: entry to Johnson City. Two larger landscape zones exist to the north and south which each include a retention bond and signage helping to create a typological variation in the landscape which signals to motorists that they have reached a place. Symbolically, rooting the signage into the landscape reinforces the identity of Johnson City as a Hill Country town.

The second setback is a 35' grid offset on the west side of the site. This setback was generated from the consistant building setback that exists from the road right of way. By codifying this as a formal setback where no new development can take place, Johnson City can begin to make infrastructural improvements and have future development conform. Within this zone a new sidewalk, bioswale, and tree plantings will take place. It is also possible to include street parking within this zone as the need arises. Key to the legibility of this zone however is the solid allay of trees running north-south which visually signifies that the historical grid has ended and a new system, that of the joint, is taking over to direct the town towards the highway structure.

Becasue of its location at the entrance to Johnson City, and by extension the Hill Country, we have identified the 281-290 intersection as having the potential to be a major win distribution, touring, and tasting center. Programed into this space as "Regional Commercial" is a series of warehouse typologies which physically (by reorienting its direction from that of the highway to that of the grid) and culturally help bridge the identity gap between 281 and the grid.

Lastly, building off the new wine attraction and the new identity along Pecan Street, a public square will be created at the heart of the joint which could include frontages such as a hotel, wine tasting, and incubator commercial amoung other programs.

STANDARD FUTURE LAND USE KEY

Resource Conservation

Civil

Regional Commercial(Warehousing)

Community Commercial (Highway Commercial)

Single Family

Multi Family

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Texas Urban Futures, Lab

LOCAL FESTIVALS GATHERING IN JOHNSON CITY

The Blanco County Fairgrounds hosts many festivals and events throughout the year. Additionally, the Blanco Courthouse is a popular location for local gathering. During the holiday season, the courthouse is illuminated with thousands of lights to kick of Johnson City's participation in the annual Hill Country Festival of Lights.





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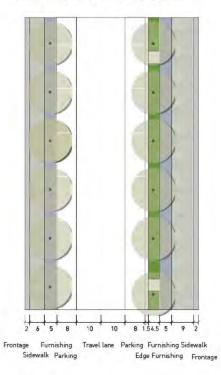
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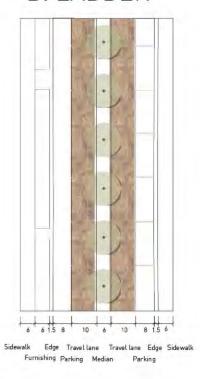


STREET TYPOLOGIES

A. MAIN STREET



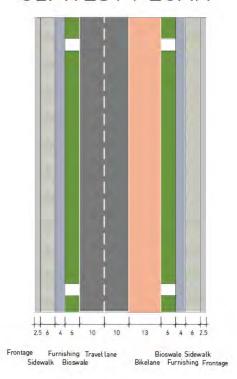
B. LADDER



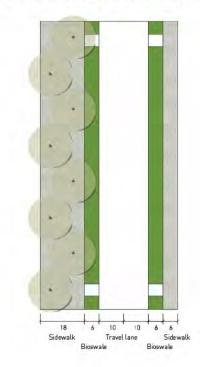
C1. EAST PECAN



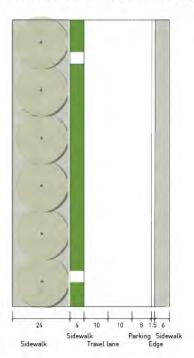
C2. WEST PECAN



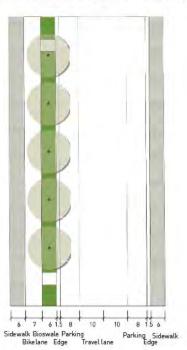
D1.PEREPHERAL ROAD



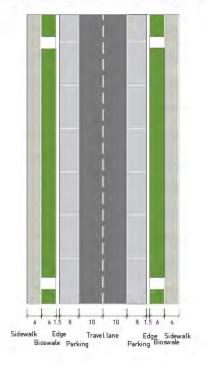
D2.SOUTH NUGENT



E1. RESIDENT TYPE1



E2. RESIDENT TYPE2





MAIN STREET Analysis







Johnson City Main Street



Johnson City Main Street

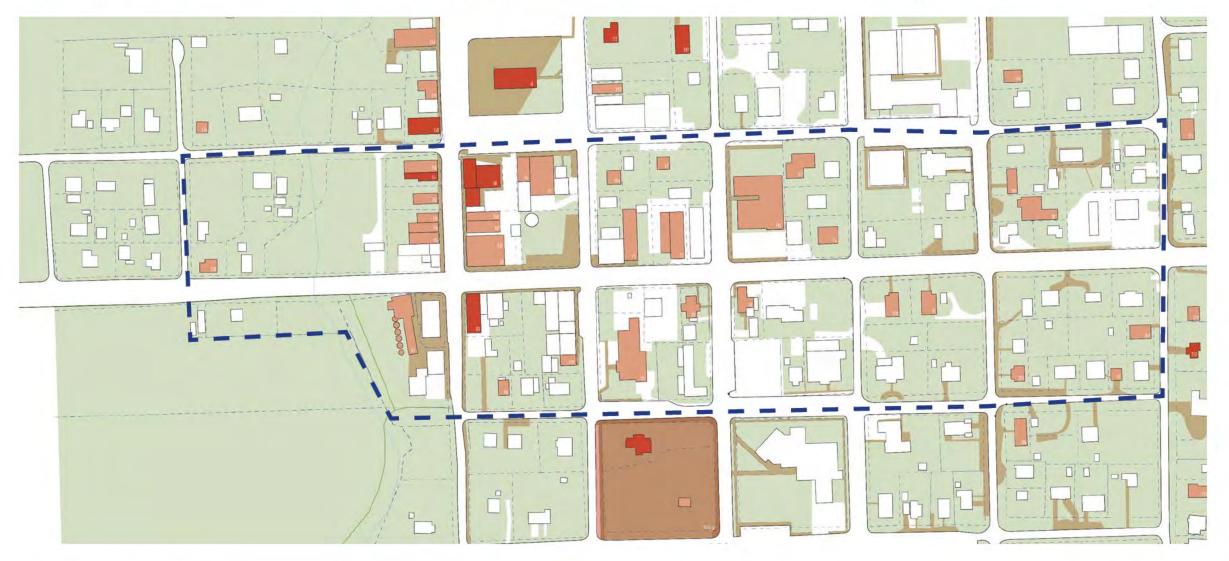


Key

- - Main Street Study Area
 - Historical Buildings
- High Priority
- Medium Priority
- Existing Parcel Lines (Assumed)

Paths

- Surface Materials
- Impervious
- Pervious



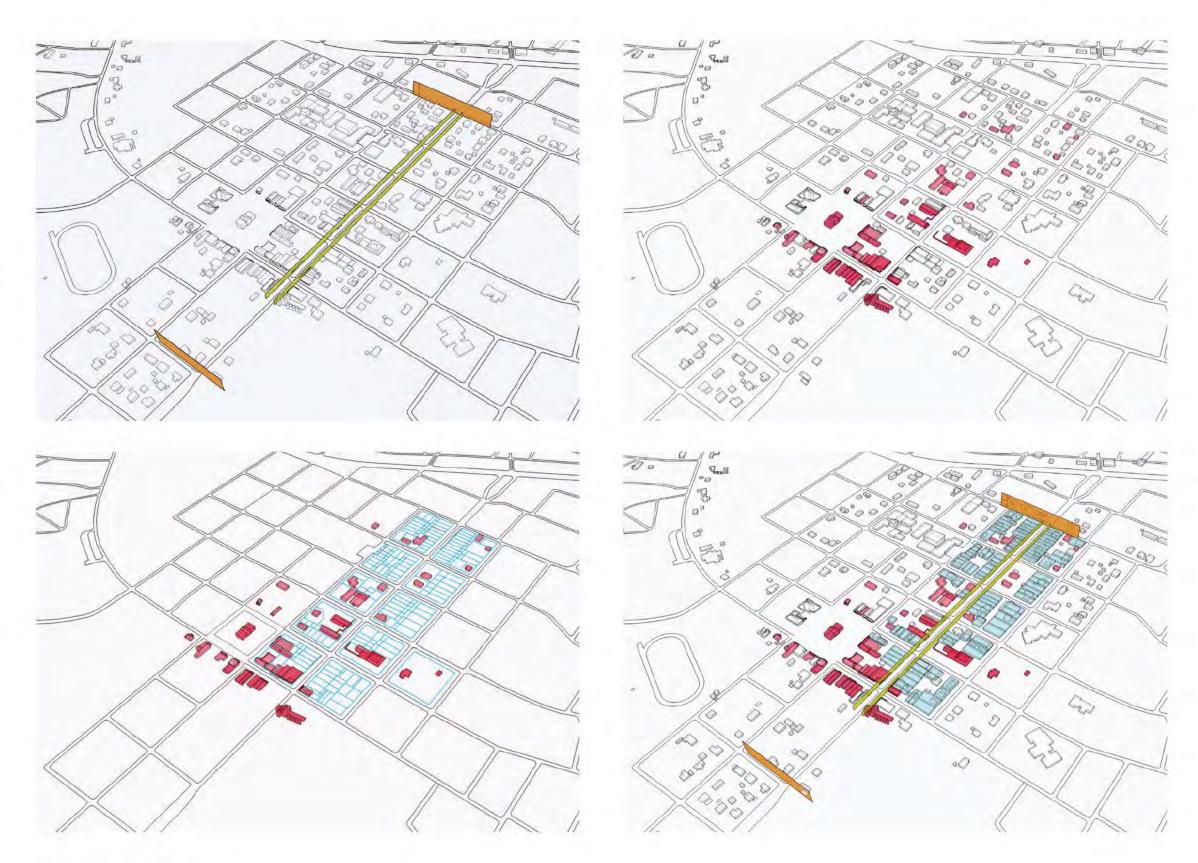
SCALE 1:250

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MAIN STREET Strategy



Goals

- 1. Define entry and edge thresholds of Johnson City's commercial Main Street
 - · Resurrect traces of the Historical Grid
 - · Suggest unique conditions for specific edges
- 2. Develop the **character** of Main street:
 - · Create opportunites for microeconomic development
 - · Make walking along Main Street a pleasant experience
 - · Slow down traffic
 - Create a memorable and unique Urban environment for both cars and pedestrians.
- 3. Direct people to Pecan Street
 - Visual and material markers
 - · Designation of the 'district' behind Main street

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MAIN STREET Strategy

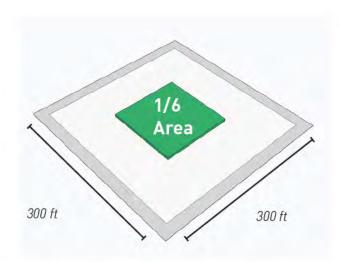
Block Perfomance

• Land-use plan

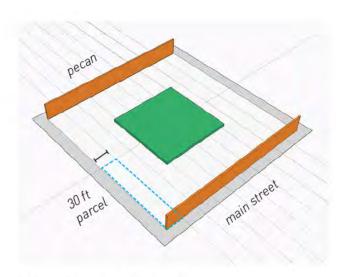
Water conservation

private development

• Parcelization - shaping indeterminate



average block size = 900,000 sq ft recommended pervious cover for drainage = 1/6 area

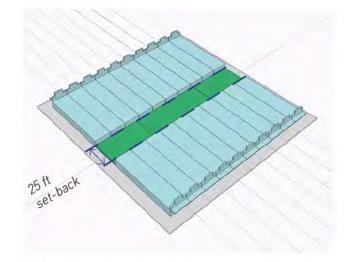


average store front width = 30 ft maximized frontage to main street = 10 units

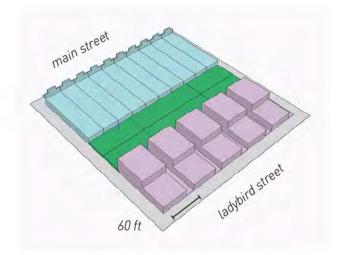


Fredericksburg Main Street





rationalized block type (north main) = 20 no. commercial units with sufficient pervious cover for a rain garden



rationalized block type (south main) = 10 no. commercial units and 5 no. livework units with sufficient pervious cover for a rain garden

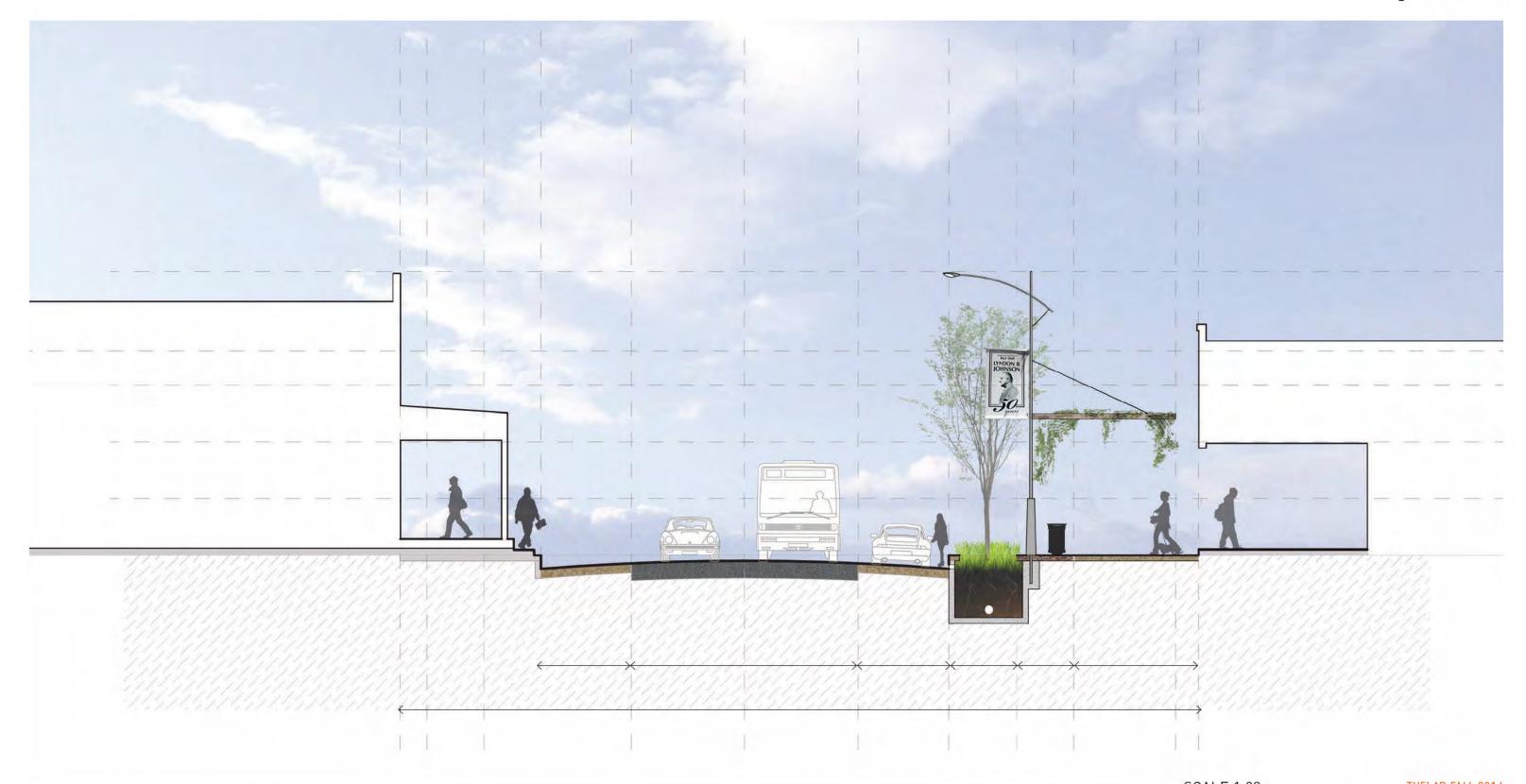


Johnson City Main Street





MAIN STREET Proposals





MAIN STREET Proposals









PECAN STREET

LIVING IN A RURAL SETTING EXPOSES YOU TO SO MANY MARVELOUS THINGS - THE NATURAL WORLD AND THE PARTICULAR TEXTURE OF SMALL-TOWN LIFE, AND THE EXHILARATING EXPERIENCE OF OPEN SPACE. -SUSAN ORLEAN

PECAN STREET PROPOSED VS EXISTING

PROPOSED



EXISTING / HISTORIC MARKERS



Pecan Street serves as one of the main the cultural avenues of Johnson City. The street is organized into a series of spaces that can be used for different functions. During typical daily functions, the street is a shared space between cars, bikes, pedestrians, school buses, and tourist buses. On festival and parade days, the street can be occupied in various zones for vendors, parade routes, and business front porches.



CARTS Capital Area Rural Transportation System

The CARTS District is a rural/urban transit district organized under Chapter 458 of the Texas Transportation Code as a political subdivision of the state and an entity responsible for transit services in a 7200 square mile nine-county area surrounding Austin. The District includes the non-urbanized areas of Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Travis and Williamson counties, and the San Marcos urbanized area.

CARTS buses operate from seven transit stations located strategically throughout the CARTS District, which are also Greyhound stations. These stations are located in Austin, Bastrop, Round Rock, Georgetown, Taylor, San Marcos and Smithville. Pecan Street could serve as the ninth transit station. Because of its proximity to various landmarks, attractions, and wine country, Johnson City has the perfect opportunity to become the gateway to the hill country.

1:170

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PECAN STREET SPACES

PROPOSED SPACES Avenue C LBJ Driv Bluebonnet Lane Main / 290

The design of Pecan Street utilizes the existing large oak trees to provide shade in the public plazas. Bioswales collect and filter the rain water and serve as pockets of grassy green space. Formal parking spaces have been moved to the ladder streets, with the exception of the spaces in front of the school. During school hours and church days, there is space for informal parking the newly developed adjacent plazas.

1 CARTS STOP / PLAZA

The CARTS stop is located on one corner of this public plaza, across from the seating shaded by the hotel's oak trees.

(2) SCHOOL PARKING

During school hours, this space serves as a parking area. When events are happening along Pecan, the smaller open space functions as a zone for vendors to set up and showcase their products

(3) CHURCH SQUARE

The church's address is located on the new Pecan square. A bosque of trees provides seating and a space for gathering before and after church and/or nearby events.

(4) SCHOOL ENTRY

Located on a historic corner of the town, the paving of Pecan Street extends to encompass the entry of the school.

(5) BUSINESS PORCH

Nearby small business can utilize this open space for tables, additional set-up space, or as an area for promotional events.

(6) WINE CENTER

The wine center for Johnson City serves as the endpoint for Pecan Street and as the threshold between the localized street to 281.

KEY

CONTINUOUS SURFACE

OVERLAP OF BUSINESS AND RIGHT OF WAY

RIGHT OF WAY

BUSINESS FRONT PORCH

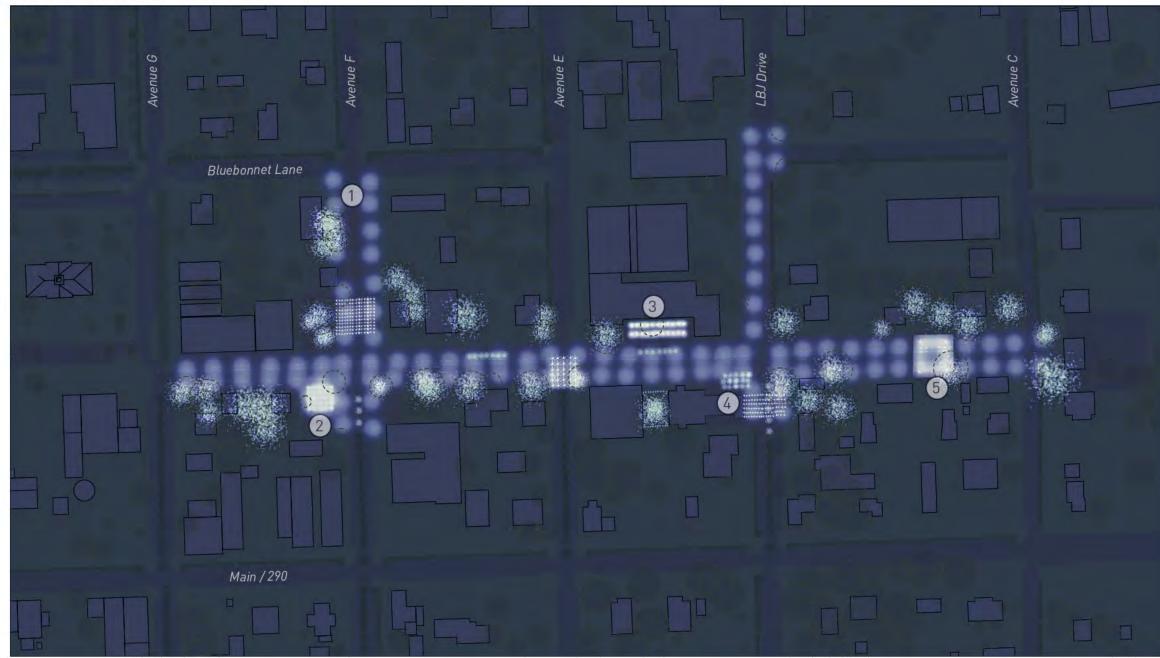
HISTORIC PRIORITY: HIGH
HISTORIC PRIORITY: MEDIUM

Texas Urban Futures Lab
The University of Texas at Austin School of Architecture



PECAN STREET FESTIVAL OF LIGHTS

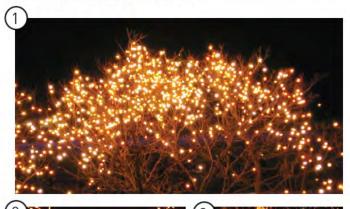
PROPOSED LIGHTING PLAN



JOHNSON CITY - FESTIVAL OF LIGHTS



LIGHTING TECHNIQUES

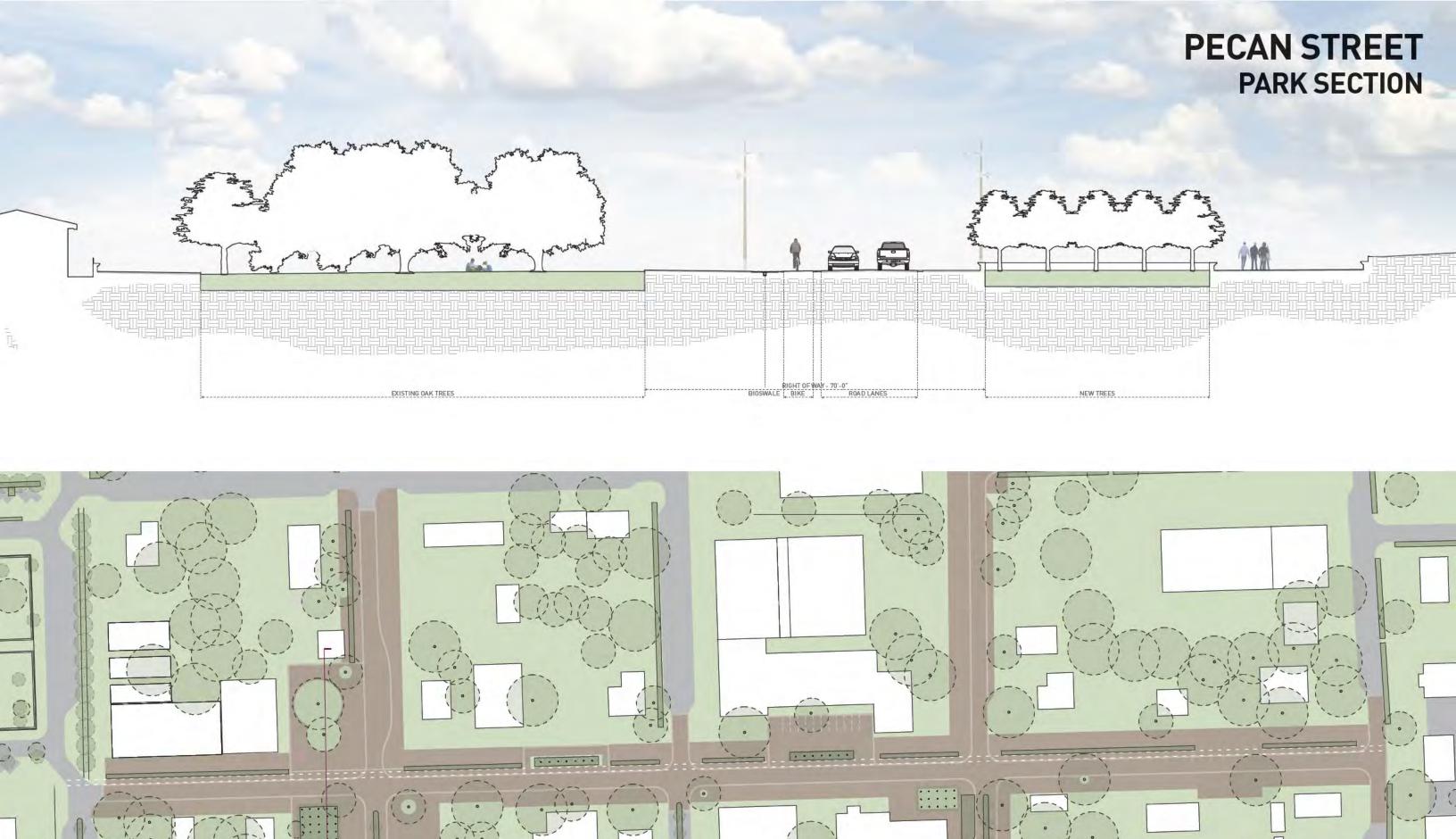






1:170





L (3)

Texas Urban Futures Lab

PECAN STREET EVERYDAY VS FESTIVAL

TYPICAL DAY FESTIVAL DAY





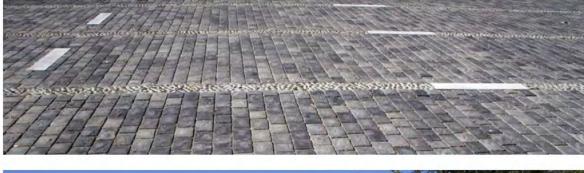




CONTINUOUS SURFACE
Parade and gathering spaces

BUSINESS FRONT PORCH
Small businesses can open their porches as additional seating for parades while still keeping their shops open

RIGHT OF WAY
Allowable surface for events to occupy







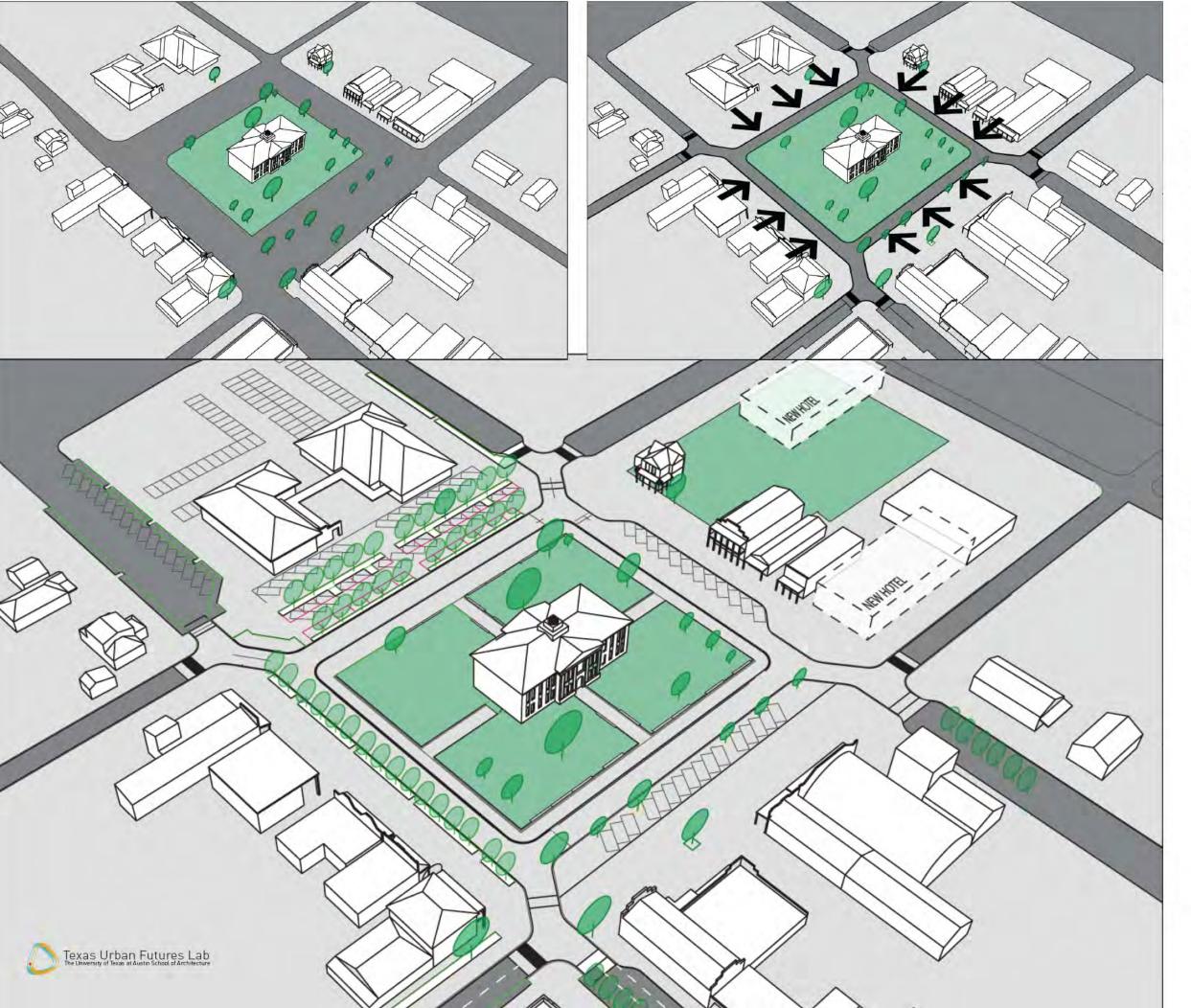


PECAN STREET PARK





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Court House Sq.

<u>Visual</u>

Low impact, maintaining the focus on the courthouse

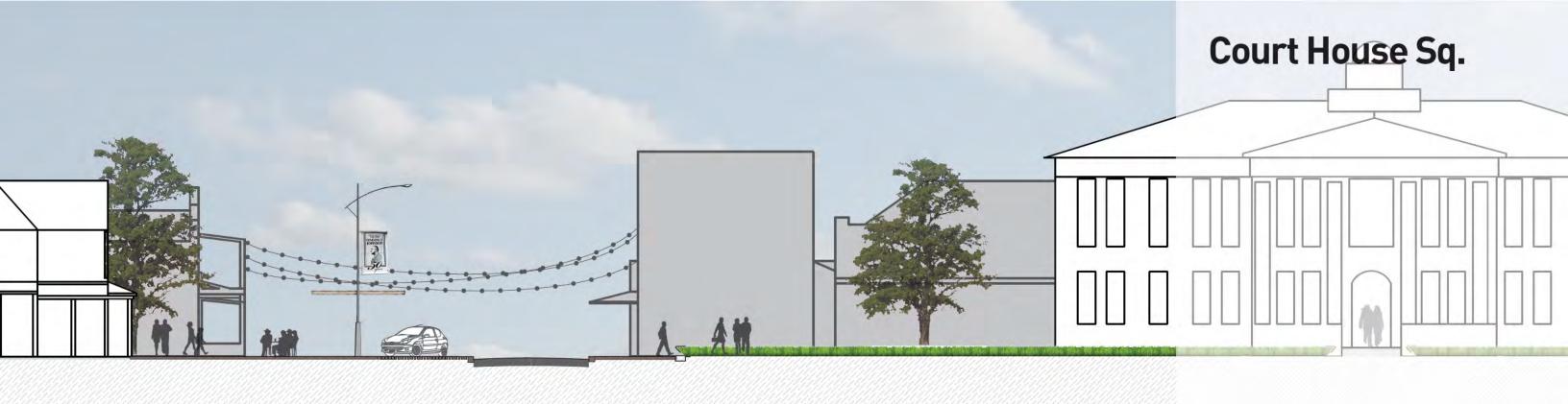
Usage

Reduce the speed around the sq. Improve the overall usage quality for residents and tourists, with Flexibility

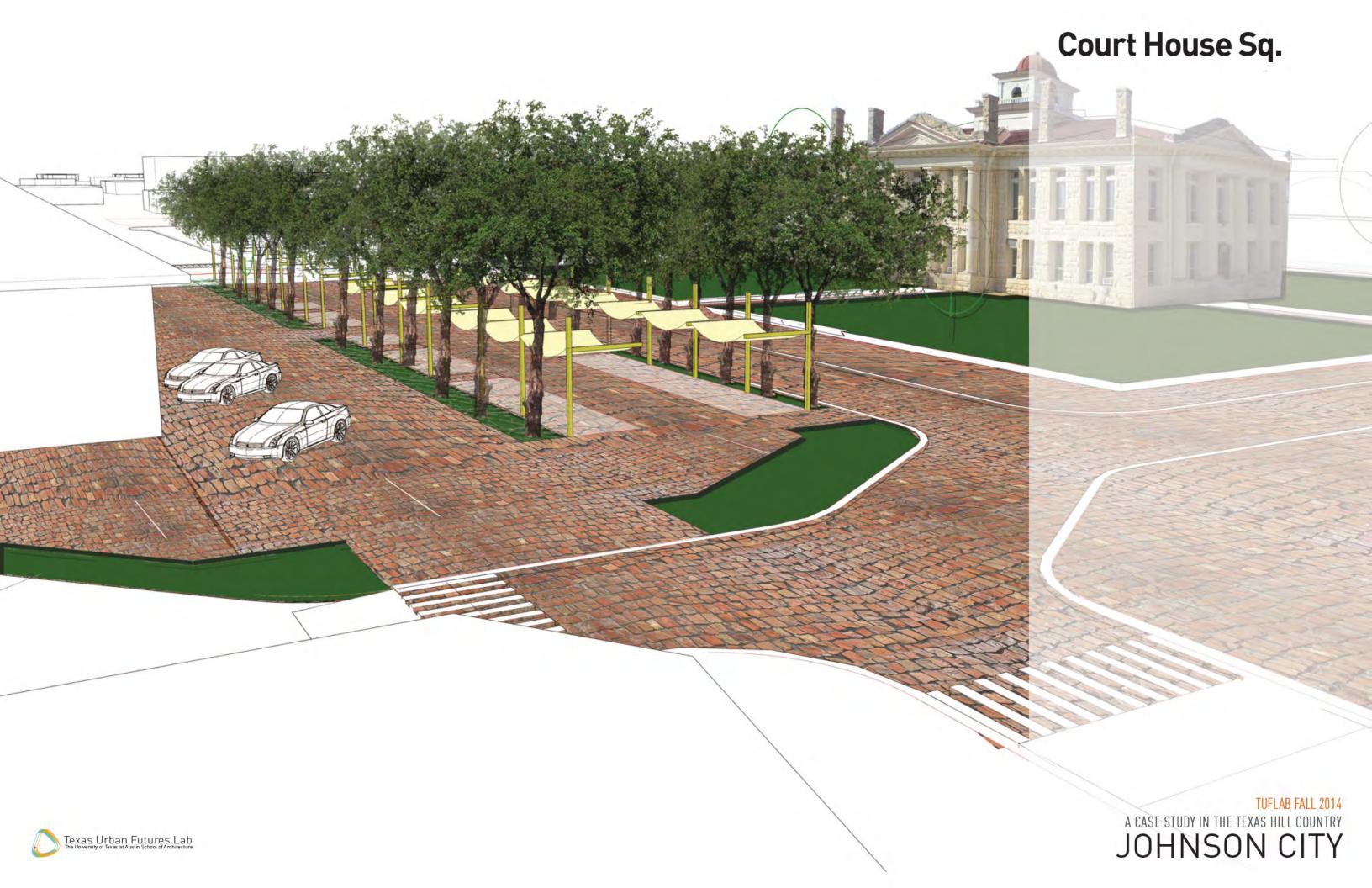
Residents: everyday use Tourists: Market days, Light Spectacular

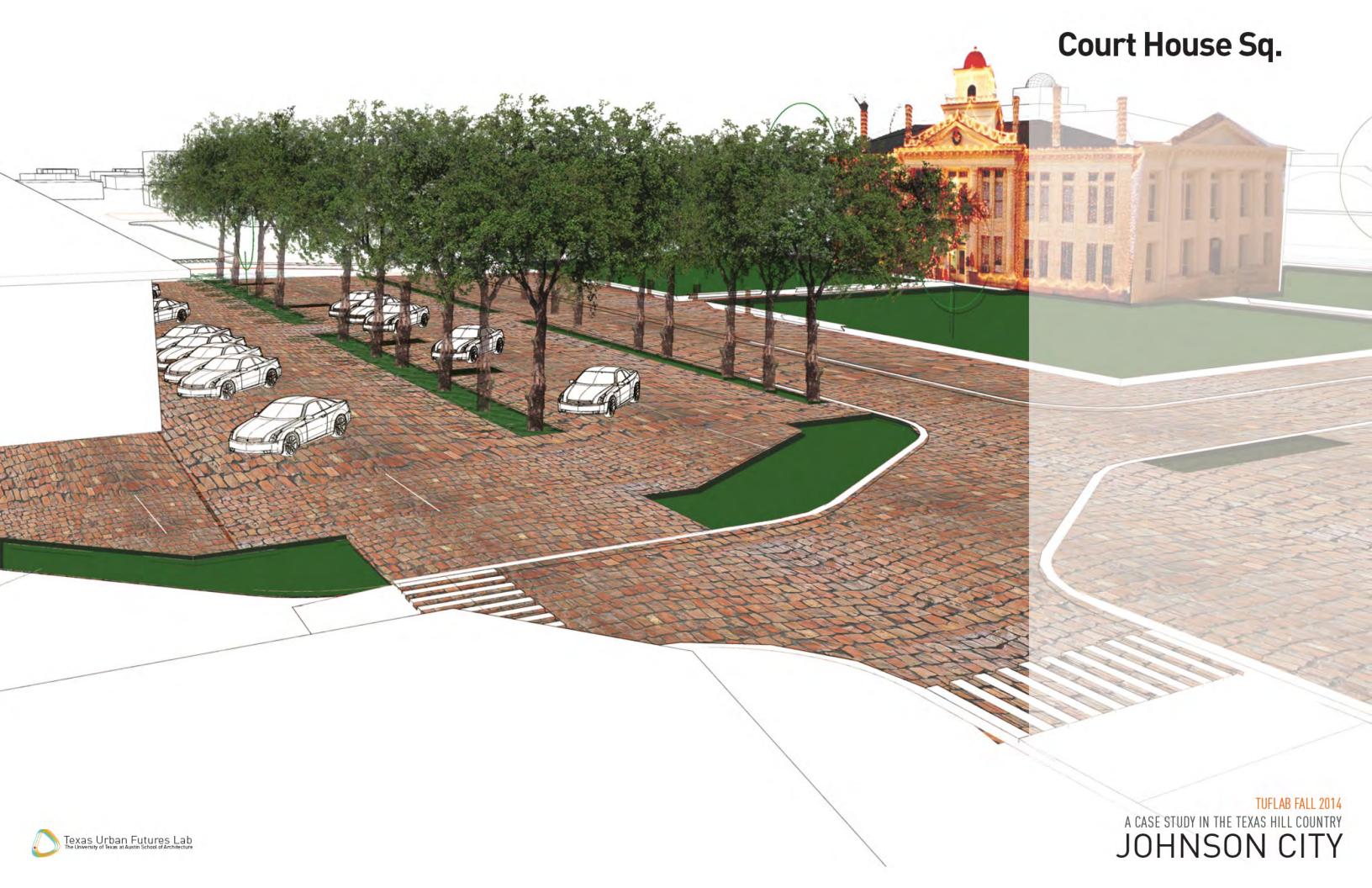
Foliage

Using rows of trees to make visual closure, and to provide a natural canopy for the market days





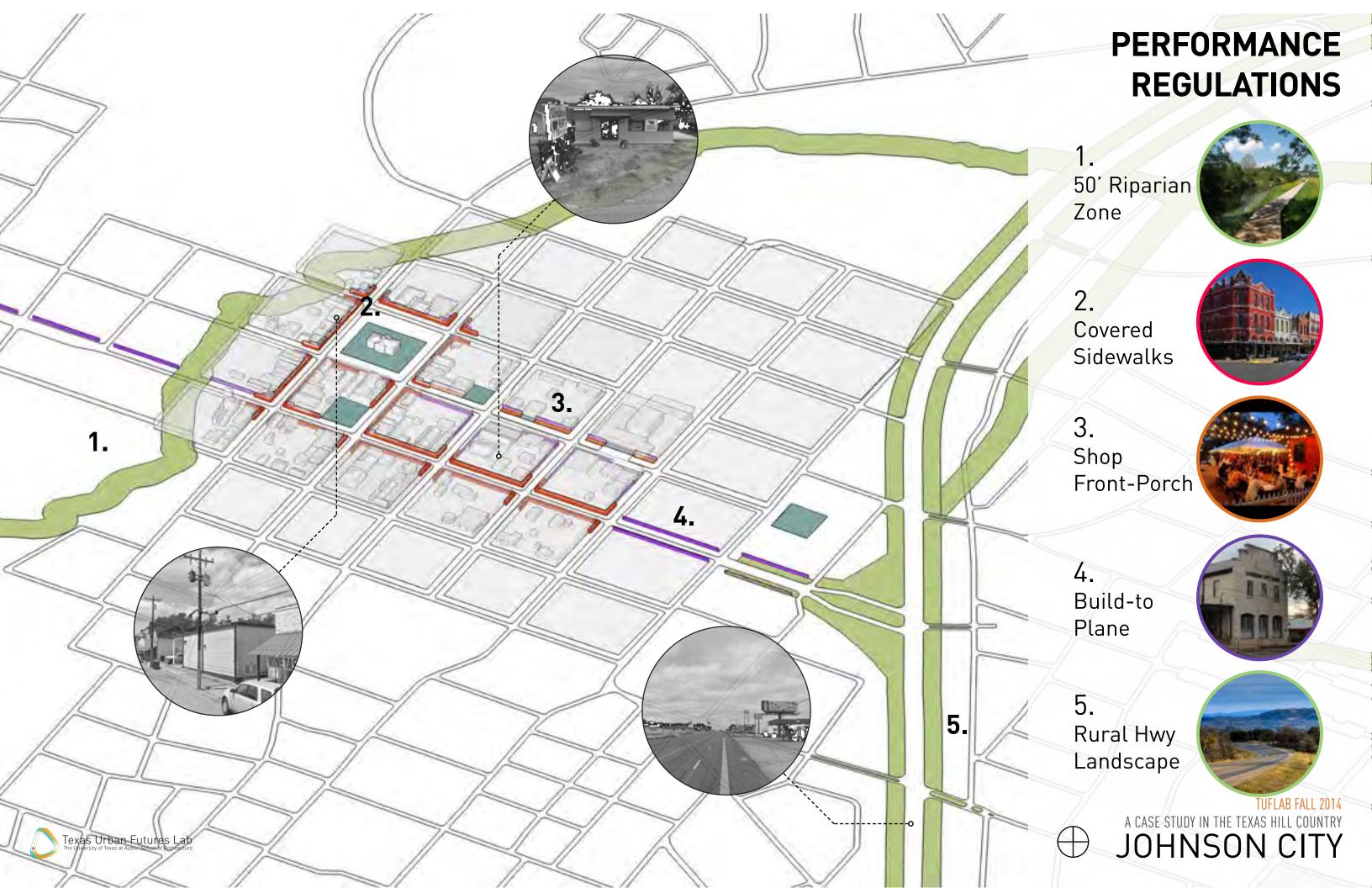


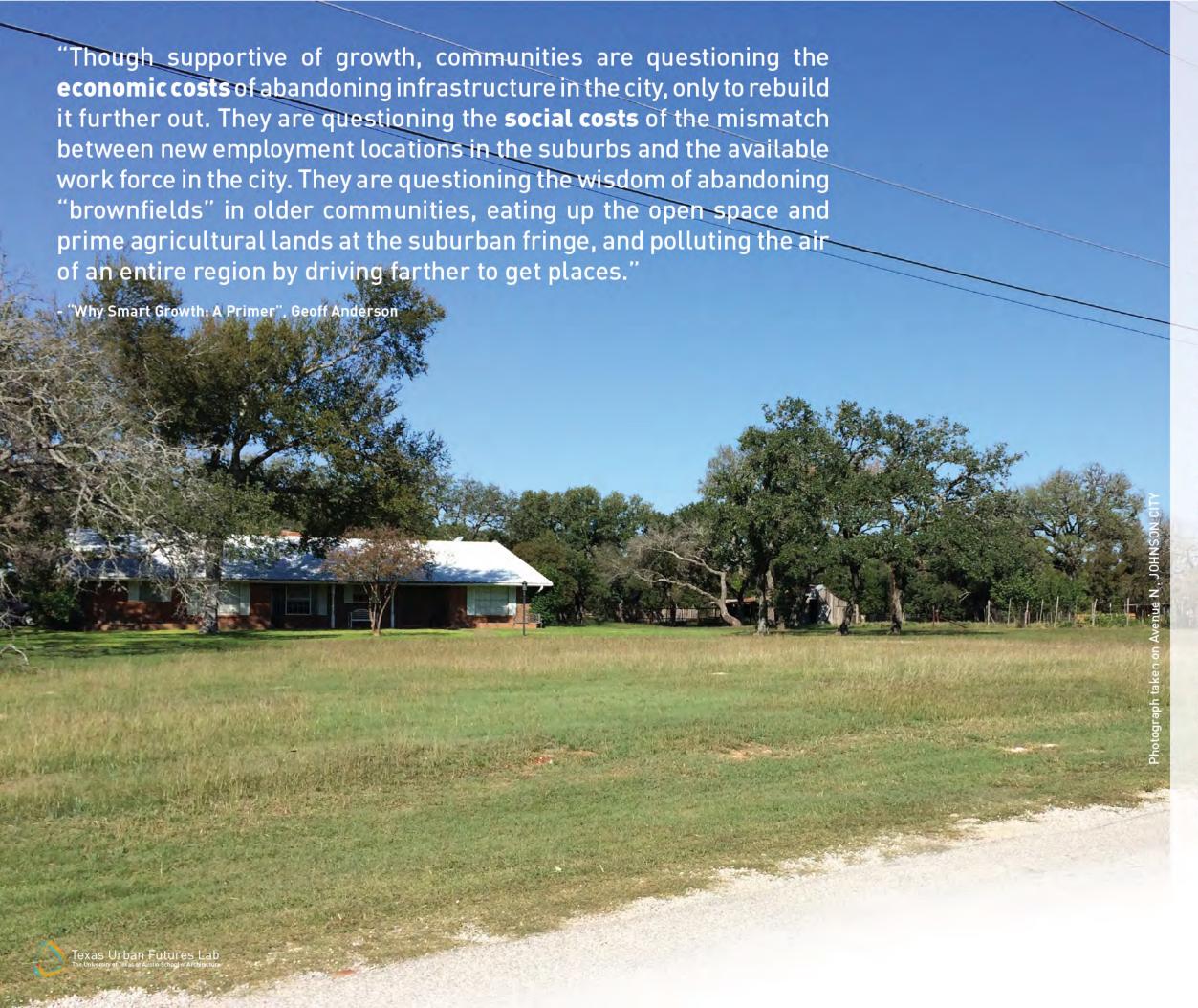












HOUSING: DILEMMA social costs of sprawl

"The typical post-war subdivision has 4-7 units of housing per acre, consuming large areas of land, making it hard for the residents to get around on foot...

"Low density development makes it difficult for small businesses to operate successfully within [and near] residential areas, requiring instead that they locate on major roadways...to obtain sufficient access to customers to remain viable. The resulting segregation of land uses reinforces the need for and use of cars – without one, access to even local services is severely constrained.

"It is this sprawling, low density style of development which is chiefly responsible for the loss of farmland, the weakening of the sense of community, and rising CO2 emissions from local travel."

- "12 Features of Sustainable Community Development: Social, Economic and Environmental Benefits and Two Case Studies" by Steven Peck & Guy Dauncey, Sustainable Communities Consultancy

LARGE MULTI-ACRE ESTATES IN SURROUNDING HILL COUNTRY LARGE MULTI-ACRE ESTATES IN SURROUNDING HILL COUNTRY

HOUSING: DILEMMA

segregated landscape

THE ISSUES:

- 1 Low density, underdeveloped residential areas dominate Johnson City and the surrounding areas. Neighborhoods lack amenities, connectivity and sense of place, and are spread too thin to support the downtown as a place of business.
- 2 In order to survive and capture an adequate customer base, commerce and employment areas are being pushed to major highways, rather than locating downtown nearer to neighborhoods.
- 3 Segregated housing and commerce zones reinforce needs for driving and lead to loss of character and community. Walking becomes less practical as development continues to spread outward and people lead less active, healthy lives.
- 4 City faces increased costs to simply extend and service infrastructure to expanding city limits. As a result, downtown and neighborhoods lack funds for improvements that contribute to a sense of place.

SOLUTION:

Encourage infill residential development and connect existing street networks in current city limits to build residential population closer to the downtown. This will work to save costs on infrastructure, encourage walking and healthier daily lifestyles, and support infill commercial development at the heart of the city.

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JOHNSON CITY

placelessness driving encouraged isolation xas Urban Futures Lab DIMMINISTY.



HOUSING : DILEMMA identifying goals

EXISTING JOHNSON CITY RESIDENTIAL FABRIC

- Lack of housing variety and options, including apartments, duplexes, townhomes
- Undefined streets that do not encourage alternate modes of transportation, such as walking or cycling
- Many vacant lots within city limits
- Placelessness and lack of character make it difficult to distinguish different areas and build upon assets
- Lack of neighborhood amenities, such as parks, playgrounds, gathering spaces or corner stores



CONNECTED, VIBRANT NEIGHBORHOODS

- Diversity of housing options, sizes and configurations
- Cycling & walking encouraged on all streets
- Smart use and development of buildings and land for the longterm satisfaction of both residents and city
- Memorable sense of place exists at different neighborhoods and streets
- Strategically located commercial & recreation opportunities to serve neighborhoods & build community

SOURCE: DEPARTMENT OF TRANSPORT, PLANNING AND LOCAL INFRASTRUCTURE, 2013



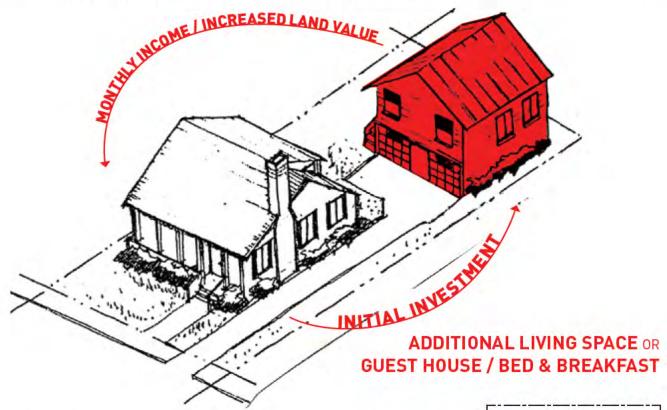
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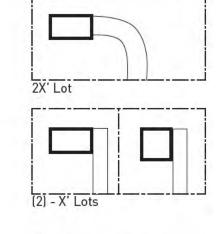
SCENARIO 1: Accessory Dwelling Unit

- A homeowner has excess space on their lot and would like to add value to their land by building a questhouse B&B to lease for extra income.
- A homeowner would like to build a detached office, as well as first floor cottage space for their recently retired parents.

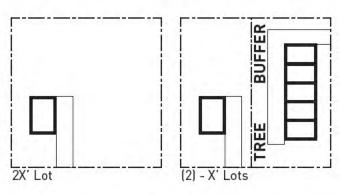


SCENARIO 2: Oversized Lot

 A home occupies half of a lot, the rest of which is a large lawn that the owner's kids used to play on. The owner decides to reconfigure their driveway and to help send their kids to college, sells half of the lot to a family that is able to build a new house.



 A homeowner is tired of doing constantupkeepandmaintenance on their large corner lot. They decide to sell half of their lot to a townhome developer and in the deed require an allay of trees at the new dividing property line.



HOUSING: STRATEGY

use underdeveloped land

INFILL DEVELOPMENT

Integration of additional housing within existing neighborhoods on underdeveloped lots.

REPARCELIZATION

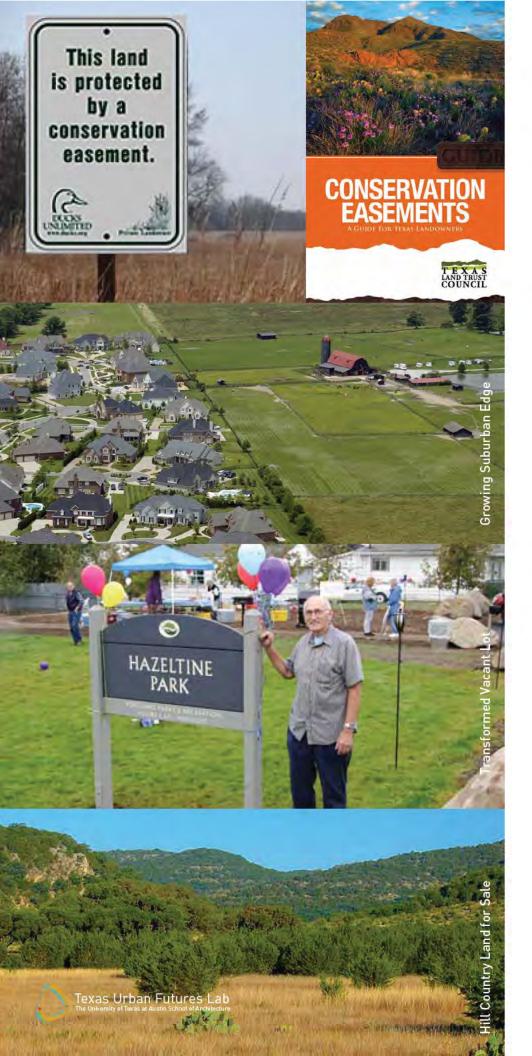
Revising existing parcel lines to allow for the reconfiguration (sale of and/or combination) of land.

WHO BENEFITS?

- The city by increasing the population and tax base
- The individual land owner by increasing land values and profit from rentals and land sales
- The liveliness of a neighborhood by injecting slow growth into the area

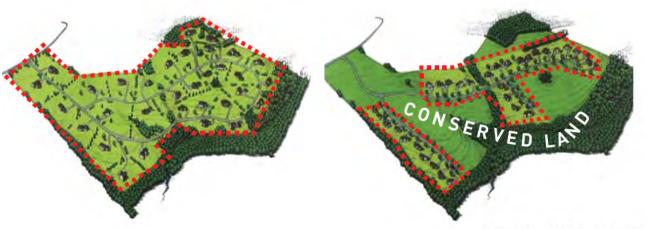
MUNICIPAL & FINANCIAL STRATEGIES

- Create favorable policies to encourage development in existing areas and allow for infill/reparcelization
- Target, map and set quantifiable goals for potential sites and neighborhoods/districts where infill is needed
- Provide desired infill prototypes and general design quidelines for implementation in neighborhoods
- Facilitate developer and resident roles by streamlining the entitlement/permitting process
- Educate residents and the community at large about the overall vision for infill in neighborhoods and the public benefits of infill housing, including increased property values and the bolstering of community
- Provide financial incentives for developing market rate infill projects and disincentive for sprawl development.
 This can be accomplish by adjusting development fees based on radial zones from the city center, with prices lowest near the city center and highest at the city edge



SCENARIO 1: Conservation Easement

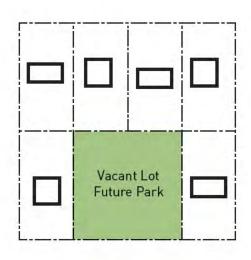
- The owners of a 19th century heritage ranch, concerned with the loss of nearby hill
 country lands due to sprawl, protect the land under a conservation easement to
 ensure their land maintains its natural character beyond their lifetimes.
- A large piece of land, instead of typical estate subdivision, is planned under the conservation development principle, in which dwellings are clustered on smaller lots and the majority of the acreage is conserved for public recreational use.



Conservation Development Design

SCENARIO 2: Public Park Land

- Residents notice a vacant piece of land with several heritage oaks at the center of a neighborhood. As a function of the in-place Neighborhood Improvement District, the citizens petition the city to purchase and designate the lot as a park.
- Half of a large single family lot is donated to the city as park land. The city polls the neighborhood which then votes to turn it into a **community garden.**





HOUSING: STRATEGY

conserve natural landscape

CONSERVATION EASEMENTS

A conservation easement is a restriction placed on a piece of property to protect its natural, inherent qualities. The easement can be donated or sold by the landowner and serves as a legal tool to permanently limit certain types of uses or development on the land in perpetuity while the land remains in private ownership.

REASONS & BENEFITS

As cited by the Nature Conservancy:

- Buffer public lands
- Maintain landscapes for tourism
- Maintain character of rural communities
- Protect water quality
- Conserve wildlife habitat
- Preserve open space
- Preserve farmland, ranchland, timberland
- Stretch public conservation dollars

CREATING A CONSERVATION STRATEGY

In order to support encouraged infill development and discourage extensive turnover of farm or ranch lands to subdivisions and its haphazard effects, conservation easements should be investigated for outlying lands of the ETJ to create an open space buffer surrounding Johnson City.

The munipality should work with local land trusts to educate land owners on the benefits and relationship between open versus developed lands and encourage the use of easements in the long-term vision of Johnson City and the surrounding area.

In addition to easements, Johnson City should identify prime property for city or neighborhood parks, as well as areas surrounding natural water systems, and preserve them for long-term use through NIDs, LIDs or purchase.

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IDENTIFIED NEEDS IN JOHNSON CITY **NEIGHBORHOODS & COMMUNITY AT LARGE**

- · Connected residential streets; cul-de-sacs in some areas decrease connectivity
- Residential streets that encourage walking and biking with sidewalks and slower speeds
- Smaller public spaces for communal gathering specific to the area, such as neighborhood parks
- Smaller neighborhood commerce, such as corner stores, coffee shops or live/work units
- Encouraged consistency in building setbacks and landscape to frame the street
- Attention to landscaping and the use of native, drought resistant planting

pocket park

neighborhood green

community & identity connected streets

sidewalks & trails

corner store live/work



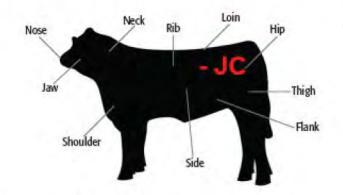
Neighborhood, National 4-H Council

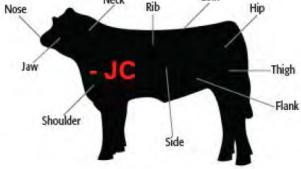
THE IMPORTANCE OF COMMUNITY & PLACE BRANDING

"A well-articulated place branding strategy should help a community better understand what industries and types of investment it's trying to attract, and what kinds of people and markets it should be looking for...Best of all, it helps destinations chart not only who they are but who they want to become. That's part of its power...

"A place brand reflects what a place currently is and inspires what it can be in the future."

-Chris Fair, Resonance President





"The best rule to follow is to keep the image simple." How to Design a Brand, Texas and Southwestern Cattle Association

HOUSING: STRATEGY

improve existing neighborhoods

Creating an improved sense of identity is an effective strategy to help encourage development and public improvements in specific existing neighborhoods. This can be accomplished through the creation and branding of public funding mechanisms, such as Neighborhood Improvement Districts (NIDs).

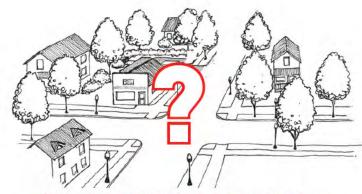
NIDs allocate a portion of the neighborhood's property taxes towards the funding of projects and facilities that benefit property within the district and are used by the public.

POSSIBLE NID PROJECTS

- Streets, street trees, sidewalks, and crosswalks
- Drainage, storm and sanitary sewer systems
- Traffic lights and street lighting systems
- Parks, playgrounds and recreational facilities
- Flood control and water works
- Pedestrian and vehiclular bridges

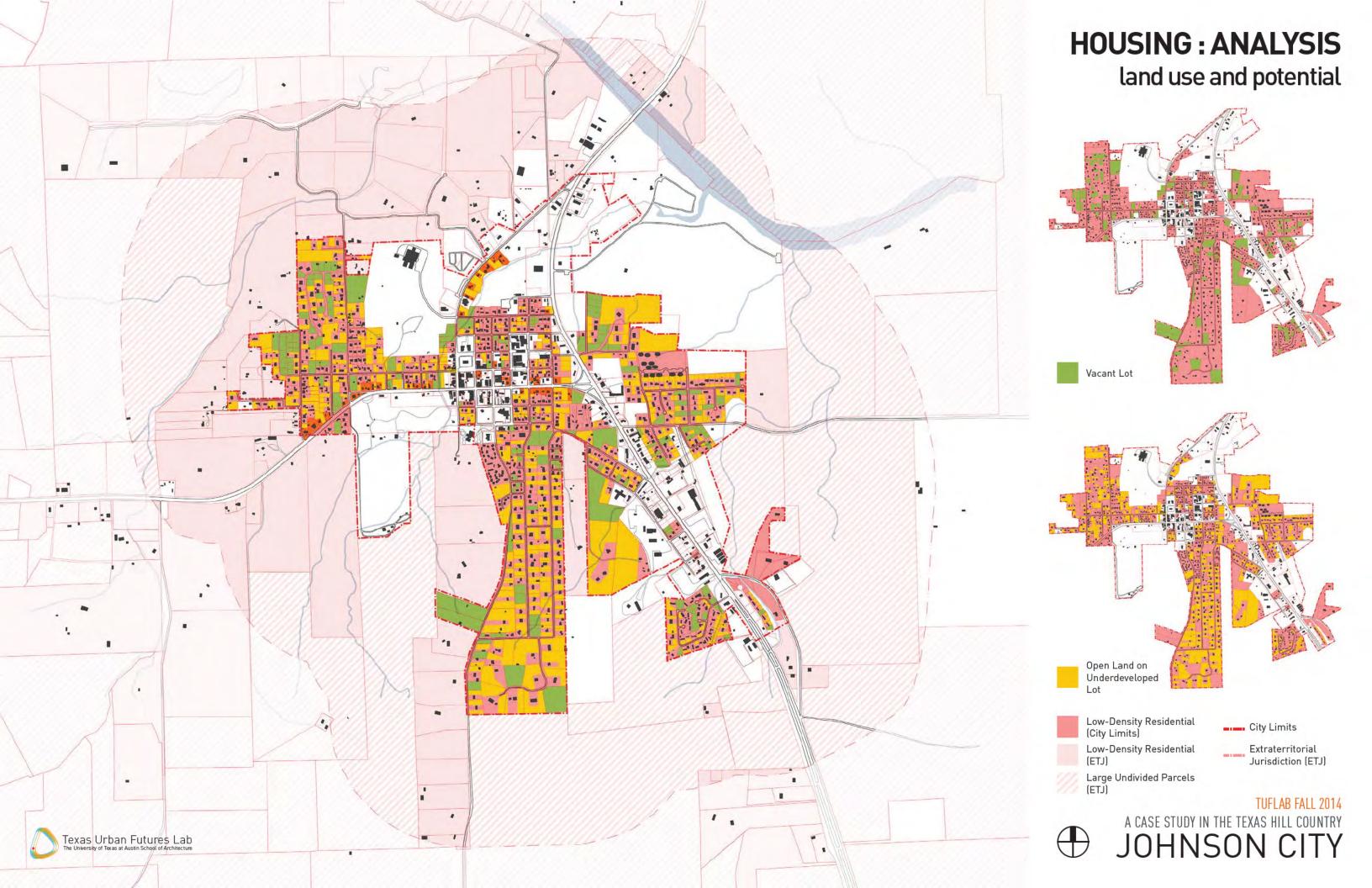
PROPOSED JOHNSON CITY NIDs

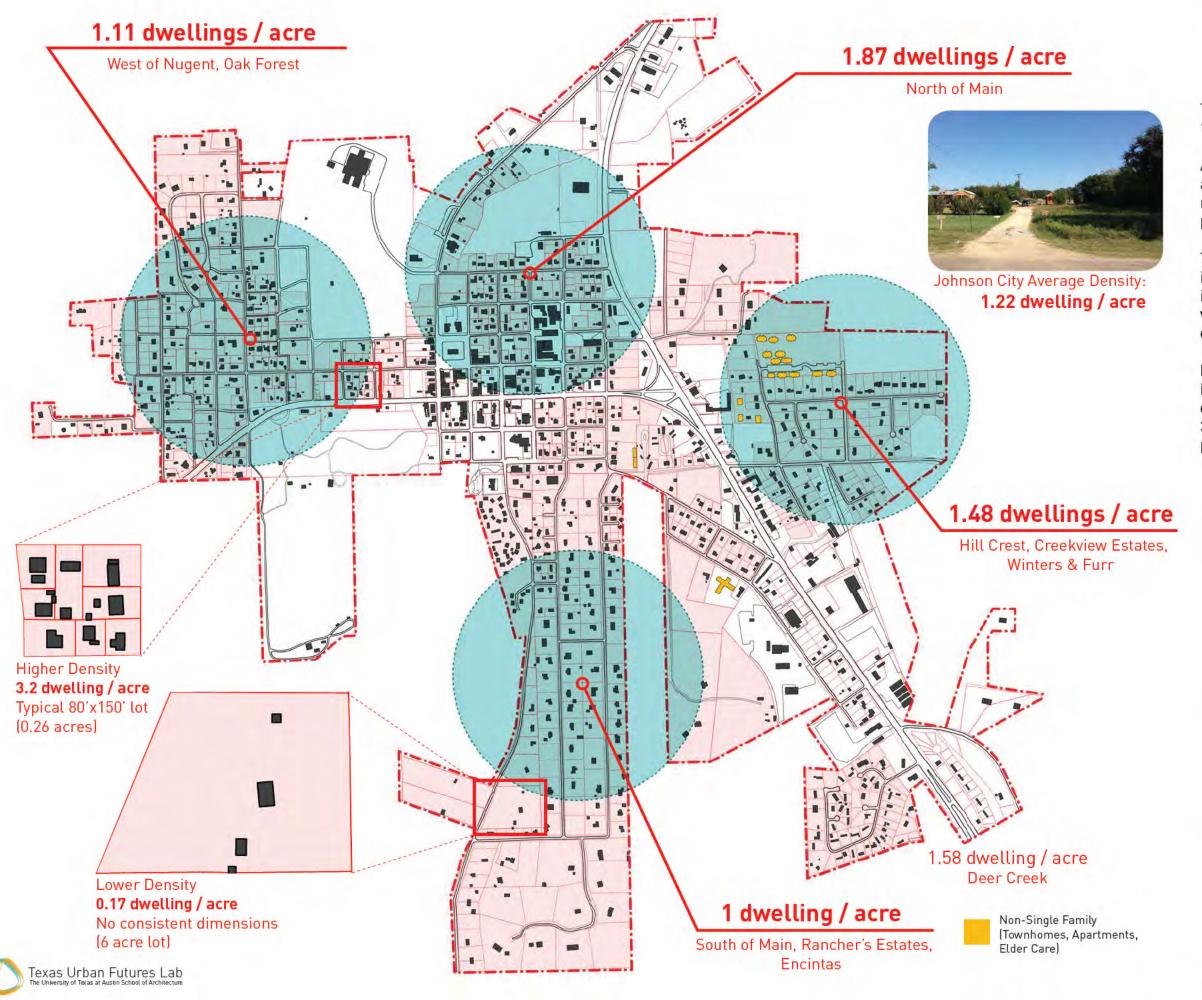
- Oak Forest NID
- Ranchers Estates NID
- Downtown Residential NID



Building Johnson City Neighborhoods, Investing in Character

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HOUSING: ANALYSIS existing densities & goals

The average residential density in Johnson City is **1.22 dwelling units per acre.**

According to the Lincoln Land Institute, given a pleasant environment, walking begins to noticeably increase at levels of 6 dwelling units per acre and greater.

This is due to percieved shorter distances and improves when commerce is viably integrated into a housing area. Whenever density is doubled, vehicular trips are reduced by 40% and local commerce is more likely to thrive.

If Johnson City's current housing areas were infilled to reach 6 dwelling units an acre, the existing city land could support more than 3,400 residents, more than double the current population.

12 DU/Acre



Langley, WA

3.2 DU/Acre



Johnson City

0.17 DU/Acre



Johnson City

Few Sidewalks Downtown; No Sidewalks Nearest Grocery Durside Downtown (2.2 Miles) 30 Minute Walk to City Library (1.5 Miles) **GROCERY** Large unbroken blocks discourage walking & limit real estate access 35 Minute Walk to Community Park & Pool 45 Minute Walk to Nearest School [1.7 Miles] Texas Urban Futures Lab

HOUSING: ANALYSIS (dis)connectivity

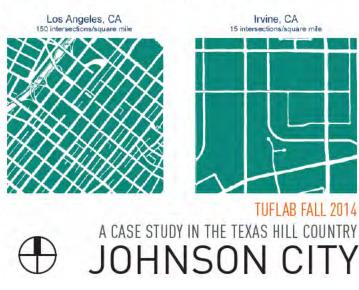
Johnson City's historic town center is structured by an average structure of 320' x 320' blocks. According to a multitude of studies, this is an ideal block size for walking, slowing of traffic with increased intersections, as well as ratio of land to street frontage for commerce or housing.

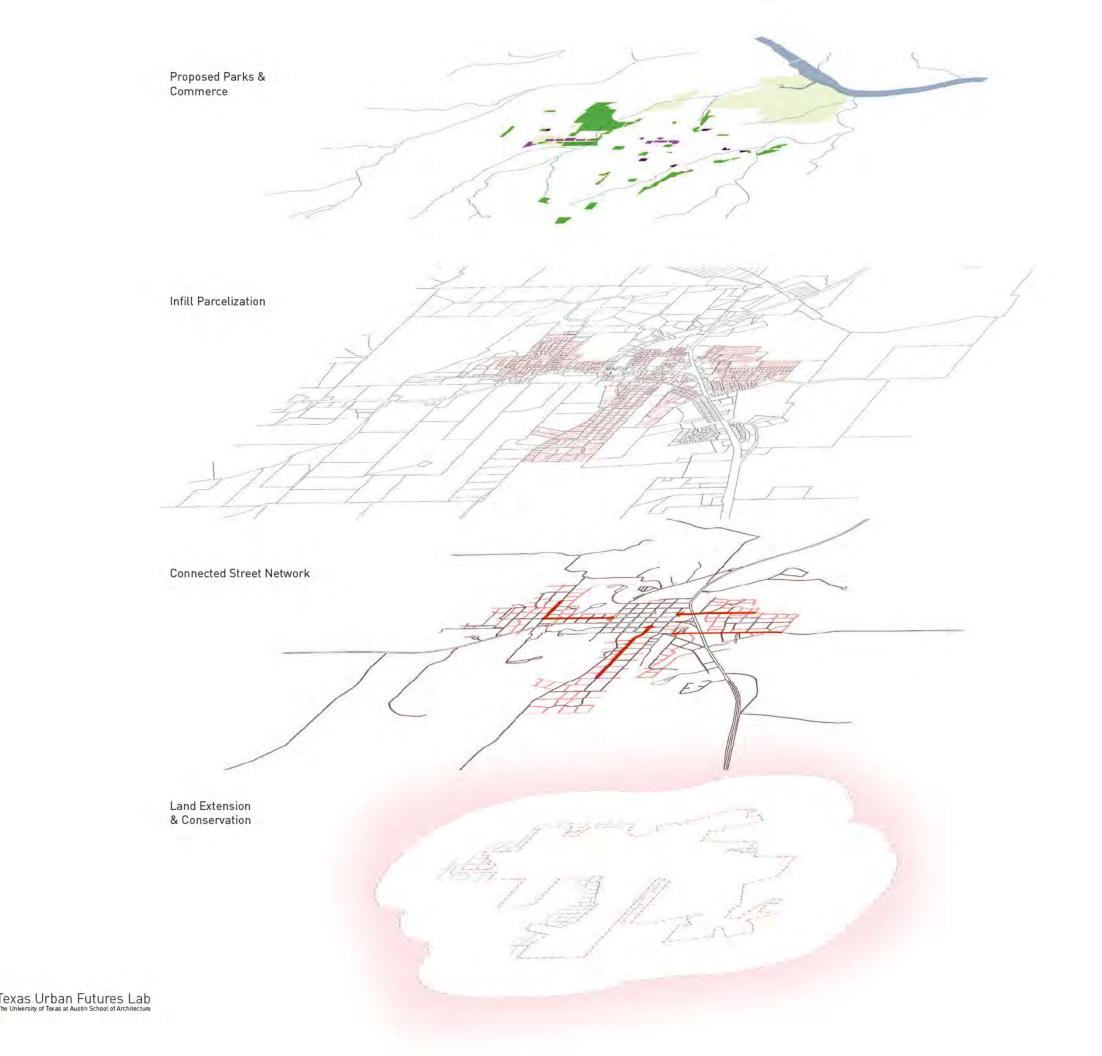
In contrast, recent growth in Johnson City is characterized by large, undivided blocks ranging from 300' x 700' up to 500' x 2800'. Cul-de-sacs and dead end roads have also emerged in the last 50 years, leading to longer single-path travel.

According to the EPA's Primer for Smart Growth, any block larger than 600' encourages automobile use over walking. Psychologically, larger block lengths feel longer to walk down and are at the same time easier to speed past when unbroken by street lights or stop signs. Larger blocks also create less street frontage for accessible real estate, making less efficient use of land.

In addition, non-existent sidewalks outside the downtown lead to pedestrian discomfort and reinforce residents' urge to drive.

If existing larger blocks were broken down into smaller, more pedestrian friendly blocks by inserting streets through undeveloped land, street frontage in neighborhoods could be more than doubled. This would result in new infill opportunities on previously inaccessible land and increased walkability throughout.





HOUSING: FUTURE johnson city action plan

Six recommended steps to create connected, vibrant housing & neighborhoods for the future:

- **Define connections** between existing neighborhoods and downtown.
- 2 Improve walkability in neighborhoods through new street connections, decreased block sizes, and installation of sidewalks.
- 3 Encourage infill development on undeveloped land and reparcelization of oversized lots within the existing city limits.
- 4 Enhance neighborhood identity and vitality through the creation of programmed parks and gardens and encouragement of mixed-uses, such as corner stores and live/work units. Repurpose/redevelop single-family homes to commercial uses along high traffic streets.
- Prioritize future annexations that provide connectivity, a diversity of housing options and are centrally located to the existing city. Require future annexed lands to incorporate connected block structures and minimum densities to ensure they contribute positively to the quality and health of Johnson City and are worthwhile investments for the city.
- Assess surrounding lands within the ETJ and beyond for potential conservation outreach to preserve Johnson City's relationship to the hill country.

Primary Neighborhood Connectors (Focused Improvements & Build-To Lines) Reparcelized Residential Fabric (Light = Vacant, Dark = Buildings Present) Proposed Neighborhood Commerce Sites Proposed Redeveloped Commercial Use Proposed Neighborhood Parks Potential Conservation Land (Beyond City Limits) OAK FOREST NID CREEK VIEW NID **EXISTING** RANCHER'S ESTATES NID Texas Urban #utures Lab

HOUSING: FUTURE proposed infill plan

Through a combination of infill development, increased street frontage, reparcelization and the creation of enhanced housing options, the land currently held by the city of Johnson City could accomplish the following.

- Double the current number of dwelling units and resident population
- Utilize vacant land to create a valuable, low-maintenance park system to provide community gardens, playgrounds and sporting opportunities
- Preserve open land & areas surrounding streams to protect the long-term health of the surrounding lands and aquifer
- Create a legacy neighborhood structure to guide future growth

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PROPOSED OAK FOREST NEIGHBORHOOD STRUCTURE

HOUSING: FUTURE





PROPOSED RANCHER'S ESTATES NEIGHBORHOOD STRUCTURE

HOUSING: FUTURE





PROPOSED CREEK VIEW ESTATES NEIGHBORHOOD STRUCTURE

HOUSING: FUTURE









