

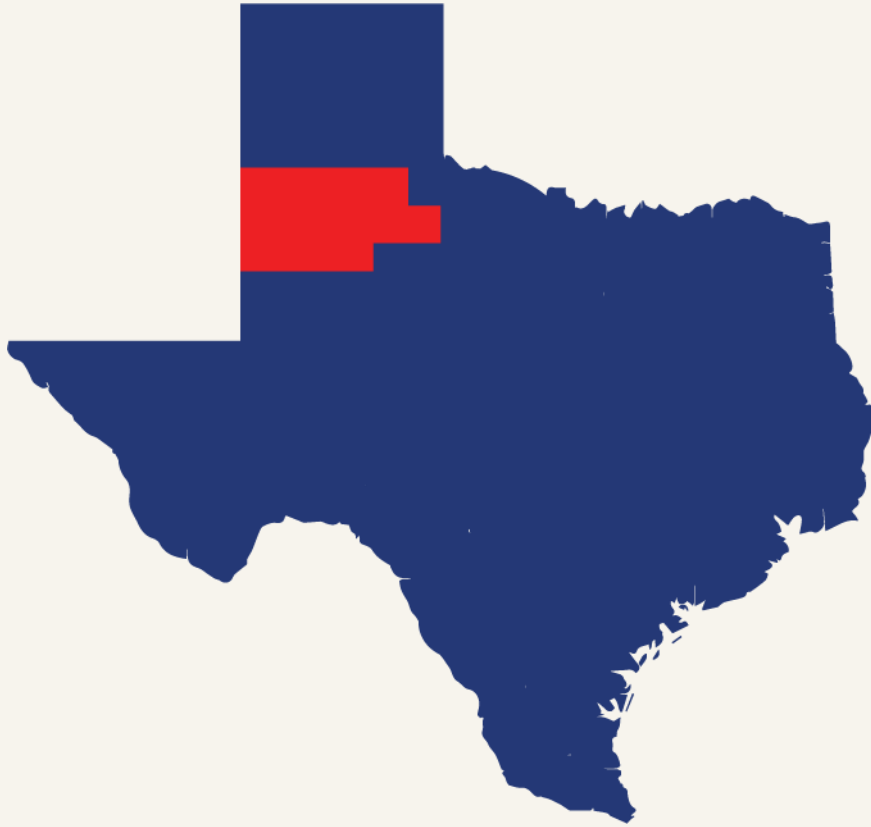
# South Plains Regional Commuter Mobility and Transit Demand Screening Study

Rural Transit and Mobility Initiatives | NADO 2026 Excellence in Regional Transportation Award

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# South Plains Association of Governments (SPAG)



## Quick Facts

- Council of Governments (Ch 391, Texas Local Govt. Code)
- 13,737 square miles
- 15 Counties
- 46 Cities
- Population of 438,104
- One large urban City (60% of the population)
- Very Rural

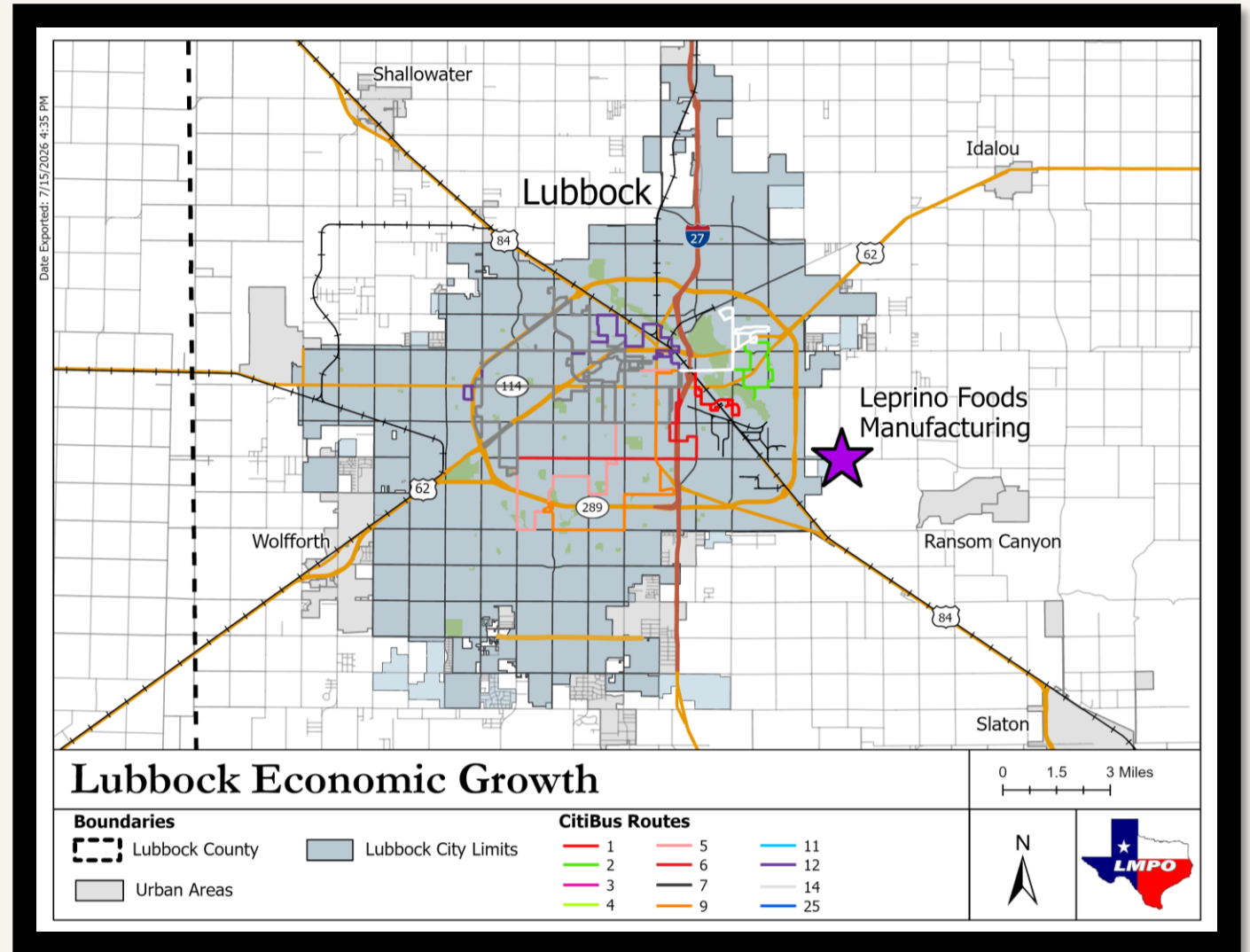
# Project Overview



Grant funding through TxDOT for commuter demand model study and mapping to better understand traffic flow of employees from location to location to provide local public transit providers with the information needed to pursue funding to enhance, support and grow current bus routes and strengthen regional public transit opportunities.

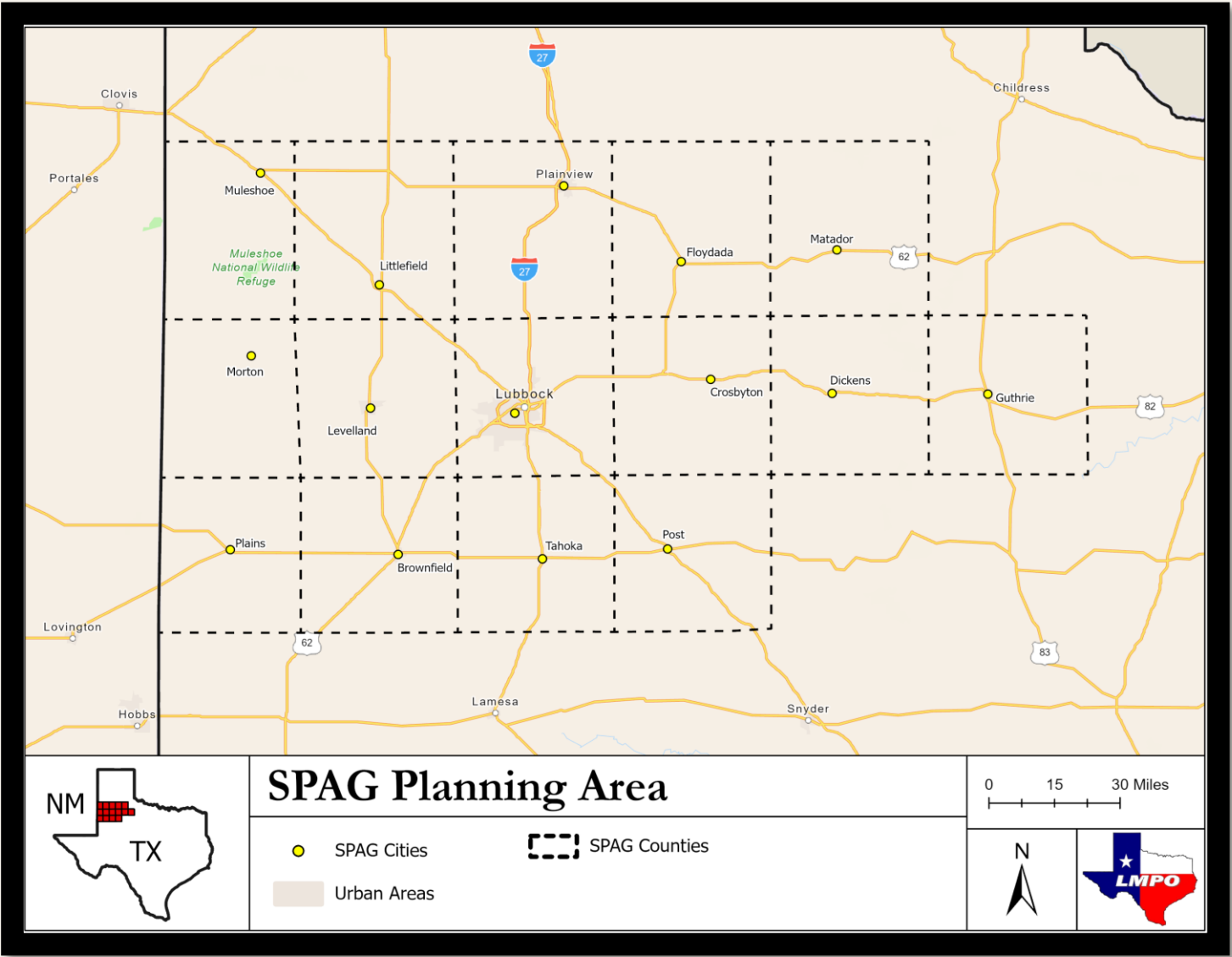
# Organic Start

- Local Economic Development Corporation (EDC) identified workforce transportation concerns for a major employer.
- SPAG ensured all regional public transit providers met with EDC to discuss potential solutions.



# Organic Start

- Stakeholders determined the issue extended beyond one community and was a regional challenge



# An Organic Start

- SPAG elevated the issue to the South Plains Transportation Advisory Committee (SPTAC) and TxDOT.
- Regional partners agreed additional data was needed to understand commuting patterns.



# Organic Start

- SPAG partnered with the Lubbock Metropolitan Planning Organization (LMPO) to develop a regional commuter study.
- SPAG coordinated partners and authored a successful grant application to TxDOT to fund the research project.



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**15**

SPAG counties

**0.115**

probe penetration

**8.697x**

expansion factor

**928**

local TAZ rows

**3 tiers**

service screen

## What this package does

It turns observed OD movement, ACS need indicators, TAZ growth controls, service inventory, and TxDOT validation into a clear planning screen for rural commuter, regional connector, and human-service mobility decisions.

# The planning problem

Population trend alone does not explain rural mobility need.

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## Why demand persists

When jobs, healthcare, education, retail, and public services centralize in Lubbock, surrounding residents can travel farther even where local population is stable or declining.

## What “screen” means

A screen is a planning filter. It sorts places into likely commuter, connector, or rural-access service questions before route design, operating costs, and ridership forecasts are developed.

## Goal

Identify where public transportation demand is most likely to exist, which communities should move forward into corridor planning, and which service type is realistic at a scale the region can operate.

# How the evidence layers build

Each layer answers a different part of the service question.

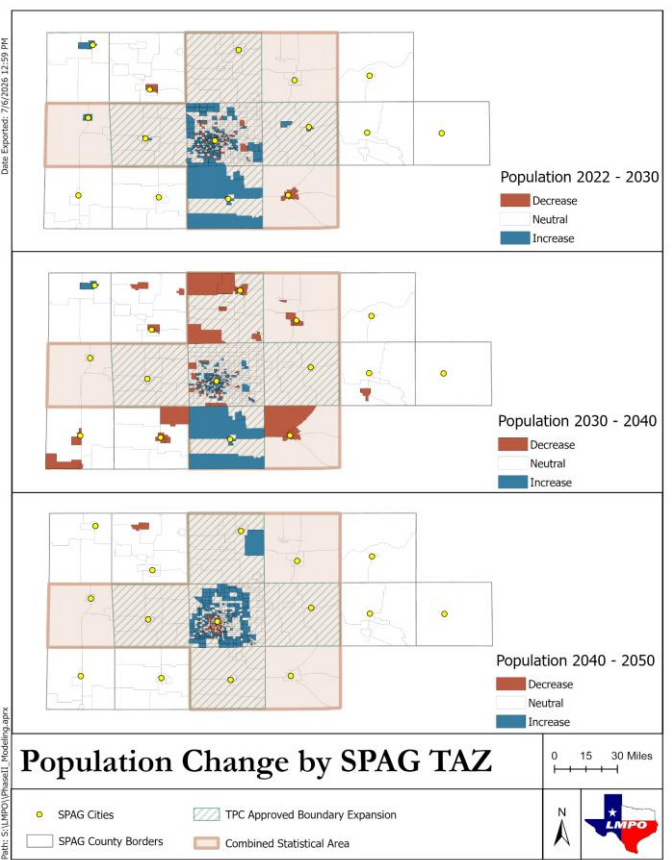
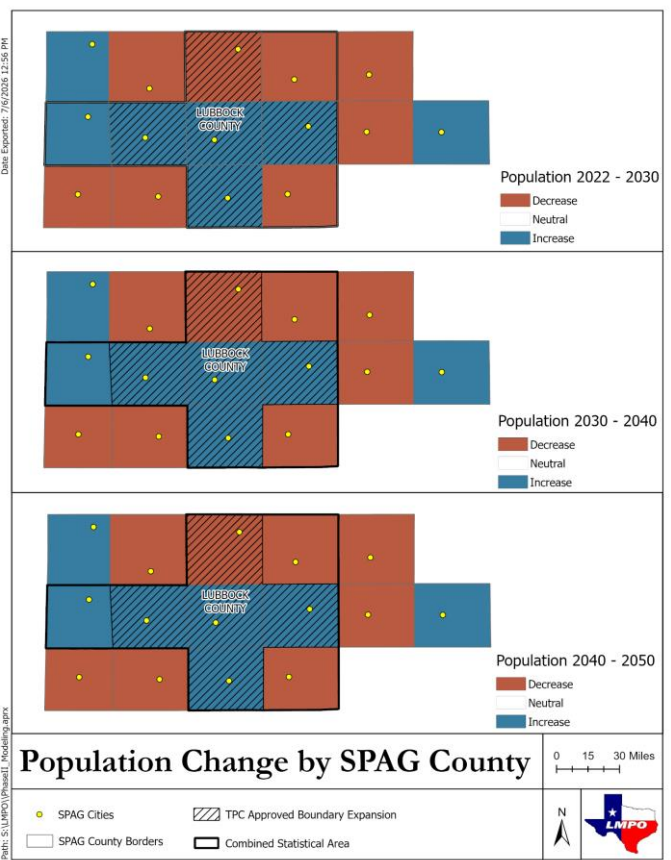


## Decision rule

The screen does not declare a route. It tells the region which market should receive corridor design, rider testing, operator review, or rural access coordination next.

# County and TAZ maps have different jobs

County change frames the policy problem. TAZ detail protects local geography.



## Do the maps change over time?

Yes. The color classes change by forecast interval. Boundary layers stay constant; projected growth and decline patterns change by period.

## Why TAZ detail matters

Local growth and decline can coexist inside the same county. TAZ geography prevents blank joins from being read as no demand.

## How to use them

Use county maps for policy framing. Use TAZ controls with OD, ACS, and service inventory before service design.

# Need index and community anchors

Need identifies access constraints. Anchors turn county need into places that can be planned.

## How the need index is found

The index combines normalized ACS indicators: older adults, disability, zero-vehicle households, poverty, limited English proficiency, youth, and non-driving-age population. It ranks access constraint; it is not a ridership forecast.

## What a community anchor means

A Census place or local node that can organize pickup points, local partners, employer links, medical trips, or park-and-ride access.

## County need index examples

|         |      |
|---------|------|
| Dickens | 41.1 |
| Cochran | 38.4 |
| Bailey  | 36.5 |
| Floyd   | 34.0 |
| Crosby  | 31.6 |
| Terry   | 29.1 |
| Hale    | 28.7 |
| Hockley | 24.5 |

## Community anchor examples

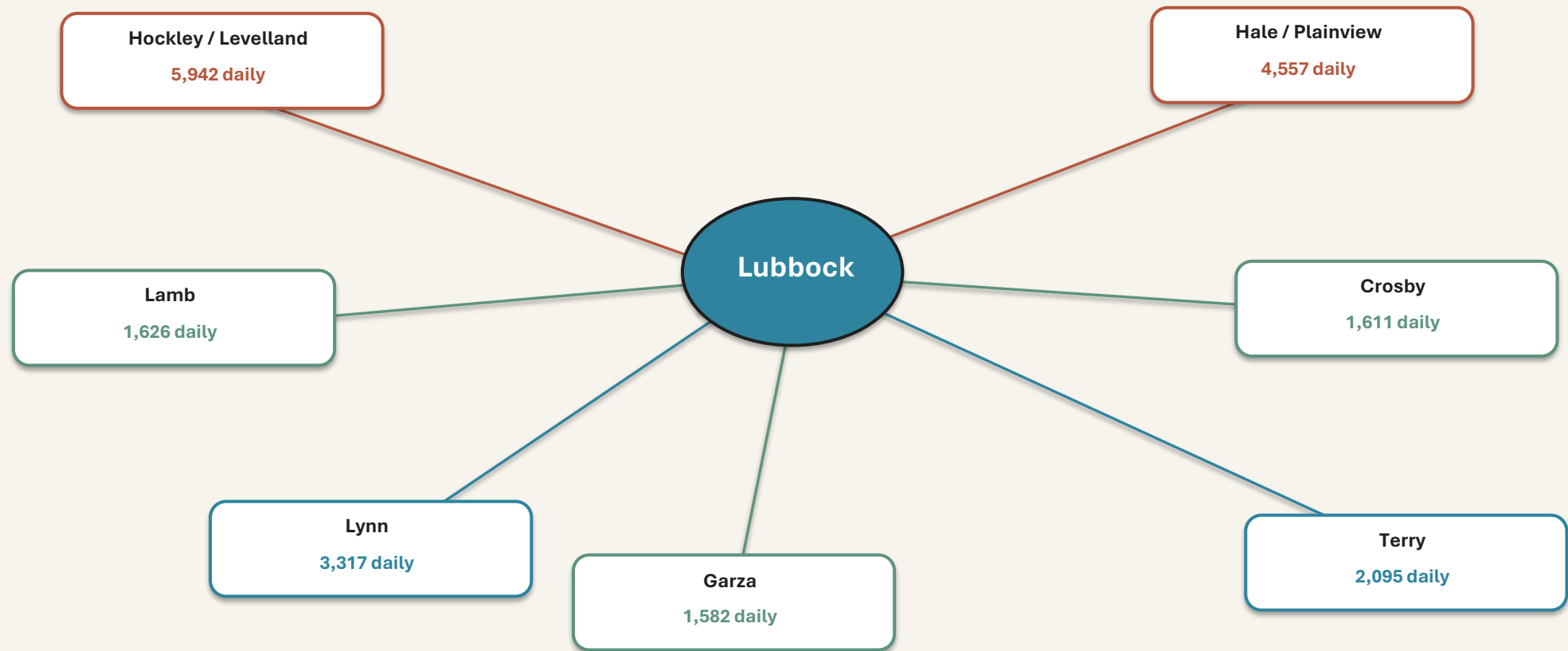
|             |      |
|-------------|------|
| Plainview   | 56.0 |
| Levelland   | 37.5 |
| Muleshoe    | 34.5 |
| Brownfield  | 31.8 |
| Morton      | 29.9 |
| Hale Center | 29.5 |
| Crosbyton   | 29.4 |
| Post        | 20.7 |

## How to read it

High need in a low-volume county points first to demand-response coordination. High need along a high-volume Lubbock corridor points toward commuter or connector testing.

# Observed Lubbock-bound markets define the first tests

A market is a repeated OD travel pattern, not a count of likely transit riders.



## Planning interpretation

Hockley and Hale are the first design tests because OD volume, community anchors, and corridor visibility overlap. Other counties retain Lubbock linkages, but require different service tools.

# The output is a three-tier service typology

The region does not need the same service answer everywhere.

## First-tier commuter shed

Hockley and Hale. High observed Lubbock-bound travel and community anchors. Test commuter pilot, standing reservation, park-and-ride, and employer or medical links.

## Second-tier regional connector

Lynn, Terry, Garza, Lamb, and Crosby. Meaningful Lubbock-bound travel with lower density. Test scheduled trip windows, vanpool, standing reservation, and limited connector service.

## Rural access coordination

Bailey, Cochran, Dickens, Floyd, King, Motley, Yoakum, and rural parts of all counties. Test demand response, medical access, county-to-county coordination, and dispatch reliability.

**Key point: rural transit demand screening must separate recurrent corridor markets from broad human-service mobility need.**

# Guardrails keep the work useful and defensible

Each decision must be matched to the data layer that can legitimately support it.

## What the matrix can support

Base demand, affected OD movements, vehicle class separation, trip length, corridor market screening, VMT/VHT exposure framing, and route-capture assumptions for later analysis.

## What requires added analysis

Final ridership forecasts, build-condition travel times, route-level AADT, commodity value, fleet, drivers, fares, operating costs, ADA/Title VI review, funding eligibility, and pilot performance measures.

## Next step

Move from screen to service design: stops, span, frequency, reservation rules, transfer points, travel time, operating cost, funding source, and pilot evaluation. Start with Levelland-Lubbock and Plainview-Lubbock.

# Next Application

A focus on higher education paths.

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## New Focus

Recommended project builds upon the current Coordinated Call study by identifying transportation barriers for students traveling to workforce training, CTE, certification, and healthcare programs, helping improve access to education, employment, and regional transit services.

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# Questions?