



HIDALGO COUNTY STREET INVENTORY & GASB

PROJECT SCOPE

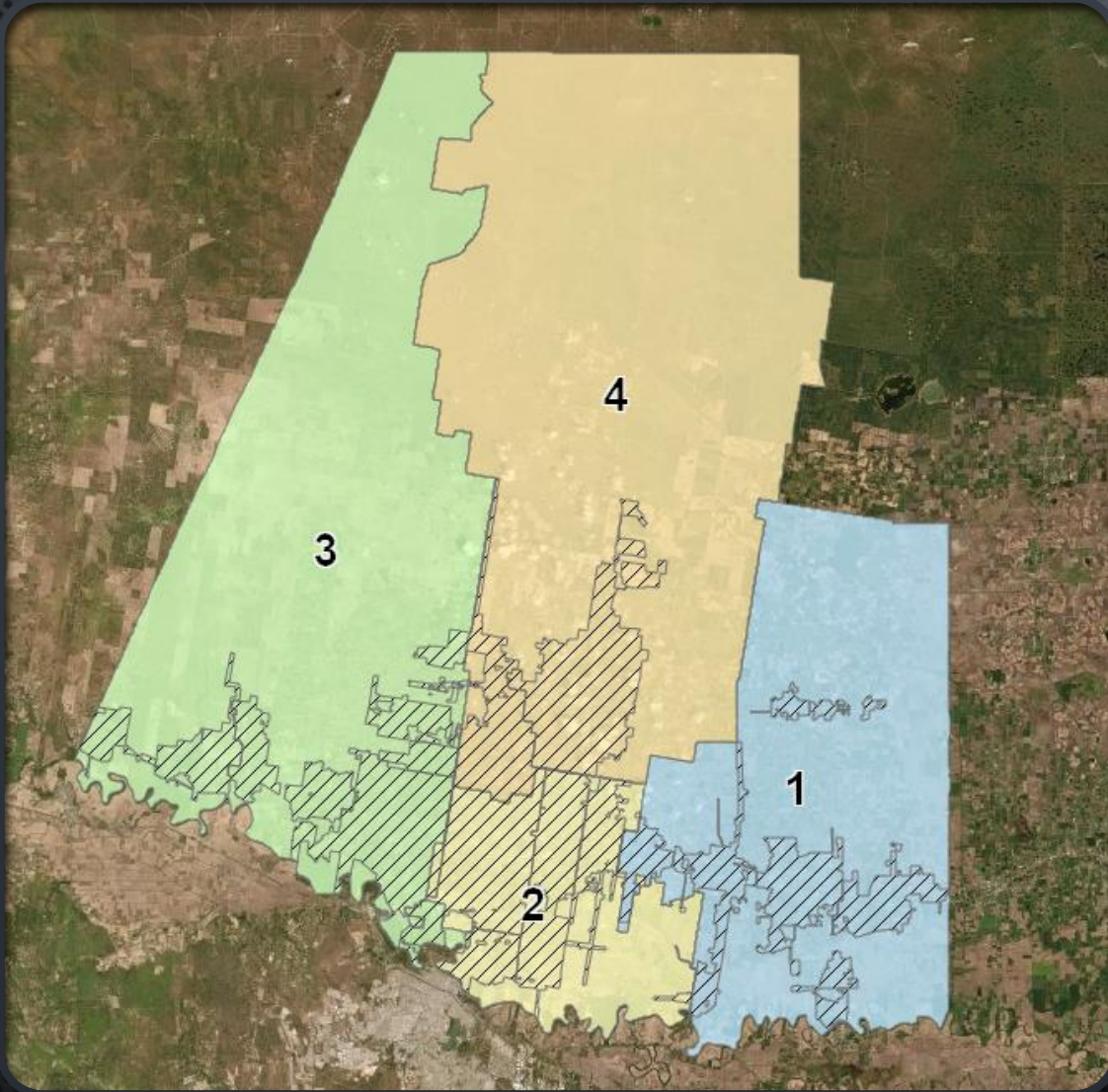
- STREET INVENTORY
- GASB-34 REPORT

DELIVERABLES

- DATABASE
- GIS MAP
- PAVEMENT CONDITION INDEX (PCI)
- GASB-34 REPORT

OVERVIEW

- APPROXIMATELY 2,000 MILES OF COUNTY ROADS.
- INVENTORY OF ALL COUNTY ROADS TO PRODUCE AN ELECTRONIC DATABASE AND GIS MAP THAT WILL ALLOW THE COUNTY TO QUICKLY ACCESS DATA ON THE CURRENT STATE OF THE TRANSPORTATION INFRASTRUCTURE TO IDENTIFY WHERE TO ALLOCATE RESOURCES.
- COLLECTION OF DATA ON ROAD DEFECTS AND ROAD ELEMENTS.
- PAVEMENT CONDITION INDEX'S (PCIS) THAT WILL HELP COUNTY AUTHORITIES ANALYZE AND STRATEGIZE THE ALLOCATION OF FUNDS INTO THEIR TRANSPORTATION INFRASTRUCTURE.
- FINAL REPORT OF ROADWAY ASSESSMENT ASSOCIATED WITH THE REQUIREMENTS OF GASB-34.



ROAD INSPECTION BREAKDOWN

- BREAKDOWN INTO A MAXIMUM OF 1-MILE SEGMENTS



DATA COLLECTION

- DATA COLLECTION TO IDENTIFY ROAD DEFECTS AND ROAD ELEMENTS
- DEFECTS TO BE CLASSIFIED ON A LOW, MEDIUM, HIGH SCALE. ACCORDING TO THEIR SEVERITY

Depression
Low X ▼

Edge Cracking
Medium X ▼

Joint Reflection
High X ▼

Date

Street Name

Precinct

Posted Street Name

City

Starting Point

End Point

Subdivision Name

Age of Street

Roadway Classification

Street Width

Street Length

Number of Lanes

Sidewalks

Curb & Gutter

Street Signage

Street Striping

Culverts

Roadside Ditch

Deficient Drainage

Speed Limits

Existing Row

Apparent ROW

Alligator Cracks

Bleeding

Block Cracking

Bumps and Sags

Corrugation

DATA COLLECTION (CONTINUED)

Date	Street Name	Precinct	Posted Street	City	Starting Point	End Point	Subdivision	Age of Street	Roadway Class	Street Width	Street Length	Number of Lanes	Pavement Type	Sidewalks
07/16/21	1/2 Mile 17th Rd	1		Edinburg	37.132840 -95.7	26.331936 -98.2			Local	21 ft	6.3m	2	Asphalt	
07/16/21	Mile 17th	1	Dalinda Ramos	Edinburg					Local	21 ft	1 mile	2	Asphalt	
07/21/21	W Russell Rd	4	W Mile 17 1/2		26.325050 -98.1	26.325584 -98.1			Collector	24		2	Asphalt	
07/21/21	N mile 17 1/2 s	4	w mile 17 1/2 s	Edinburg		37.132840 -95.7			Collector	24	0.5	2	Asphalt	
07/21/21	N mile 17 1/2 s	4	N mile 17 1/2 s	Edinburg	26.327394 -98.1	26.328447 -98.1			Collector	22	.5 mile	2	Asphalt	
07/21/21	Russell Rd	4	N Mile 17 1/2 S	Edinburg	26.329513 -98.2	26.330761 -98.2			Collector	22	.48 mile	2	Asphalt	
07/21/21	Russell Rd	4	N Mile 17 1/2 s	Edinburg	26.330844 -98.2	26.331929 -98.2	suspended by ra							

Road Information

Curb & Gutter	Street Signage	Street Striping	Culverts	Roadside Ditch	Deficient Drains	Speed Limits	Existing Row	Apparent ROW
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30		40ft
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30		40 ft
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	30		44
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30		62
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30		68
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	30		32
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Road Elements

Alligator Cracks	Bleeding	Block Cracks	Bumps and Settling	Corrugation	Depressions	Edge Cracking	Joint Reflectors	Longitudinal Cracks	Patching	Polished Aggregate	Potholes	Rail Road Cracks	Raveling	Rutting	Shoving	Shrinkage Cracks	Slippage Cracks
Medium	High	None	Low	None	None	High	None	Low	High								
Medium	Low	None	Low	Low	None	High	None	Low	High	None	Low	None	High	None	Low	None	None
High	Low	Low	None	None	Low	High	None	Medium	Low	Low	Low	None	Low	High	Low	Low	None
Medium	Low	None	Low	None	Low	High	None	Low	Low	Low	None	None	None	High	Low	None	None
Low	None	None	None	None	None	Low	None	None	Low	Low	Low	None	Low	Medium	Low	None	None
Low	None	Low	None	None	Low	Low	None	None	Low	Low	High	None	Low	None	Low	None	None

Road Defects

DEFECTS CLASSIFICATION

ALLIGATOR OR FATIGUE CRACKING

Description

Interconnected cracks forming a series of small polygons that propagate to the surface of the road, the pattern resembling an alligator's skin. The pieces are less than 2 feet on the longest side. Alligator cracking occurs only in areas subjected to repeated traffic loadings, such as wheel paths. Therefore, it would not occur over an entire area unless the entire area was subjected to traffic loading. (Pattern-type cracking, which occurs over an entire area that is not subject to loading, is rated as block cracking).

Severity Levels/quantification Criteria



LOW

Fine, longitudinal hairline cracks running parallel to each other with no or only a few interconnecting cracks. Cracks are not spalled.

1.5 ft < 2.0 ft



Medium

Further development of light alligator cracking into a pattern or network of cracks that may be a lightly spalled. Medium severity is defined by a well-defined pattern of interconnecting cracks, where all pieces (aggregate) are securely held in place.

0.5 ft < 1.5 ft



High

Network or pattern cracking progressed so that pieces are well-defined and spalled at the edges; some of the pieces are missing under traffic and may cause FOD potential.

< 0.5 ft

Potholes

Description

Bowl-shaped depressions in the pavement, usually less than 30 inches in diameter. Generally, they have sharp edges and vertical sides near the top of the hole.

Severity

Maximum Depth of Pothole	Average Diameter (in.)		
	4 to 8 inches	8 to 18 inches	18 to 30 inches
½ to 1 inch	Low	Low	Medium
1 to 2 inches	Low	Medium	High
2 inches >	Medium	Medium	High

Levels/quantification Criteria



Low

Pothole is visible but does not affect ride quality.



Medium

Pothole is visible, it can be avoided and somehow affects ride quality.

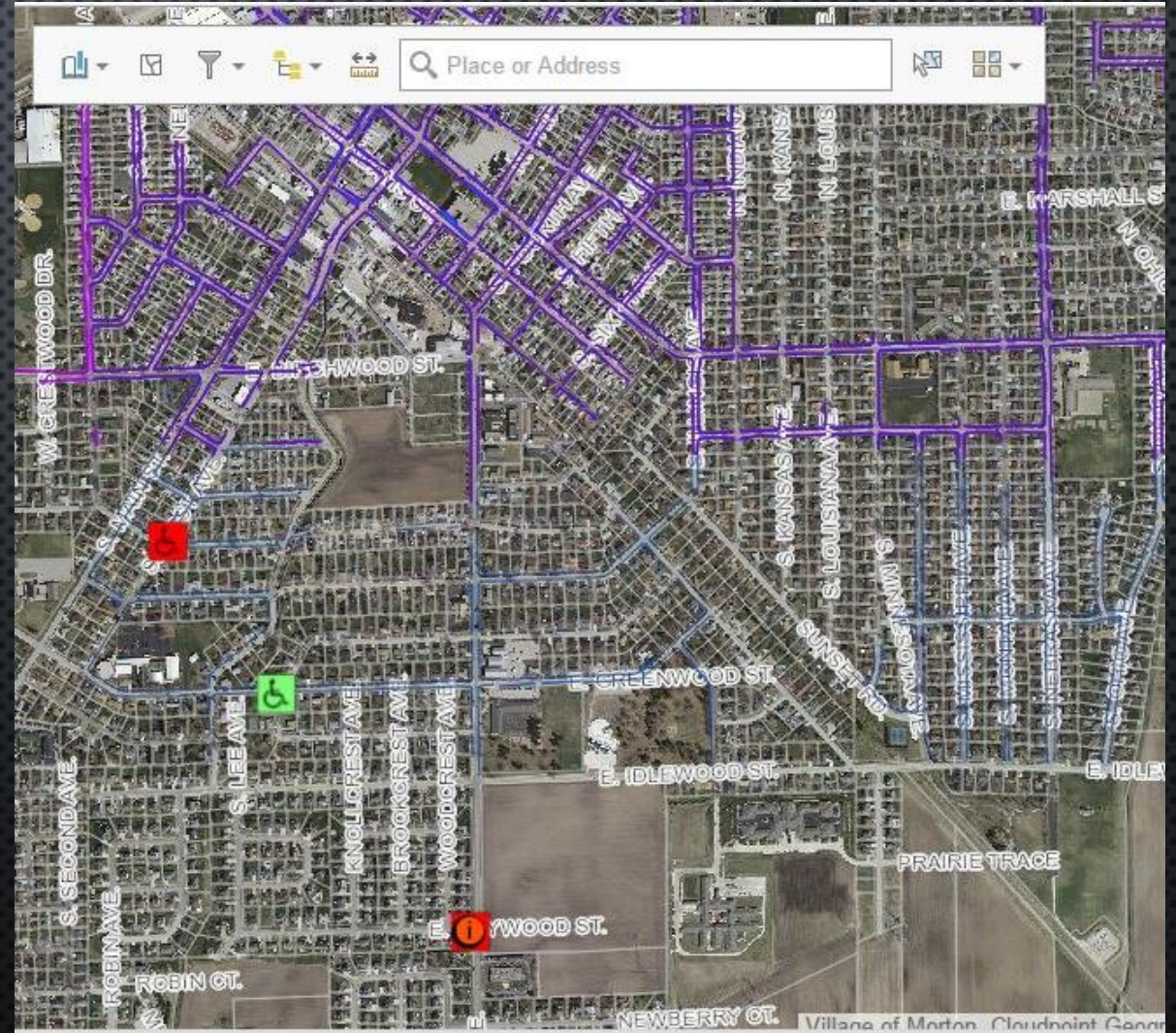
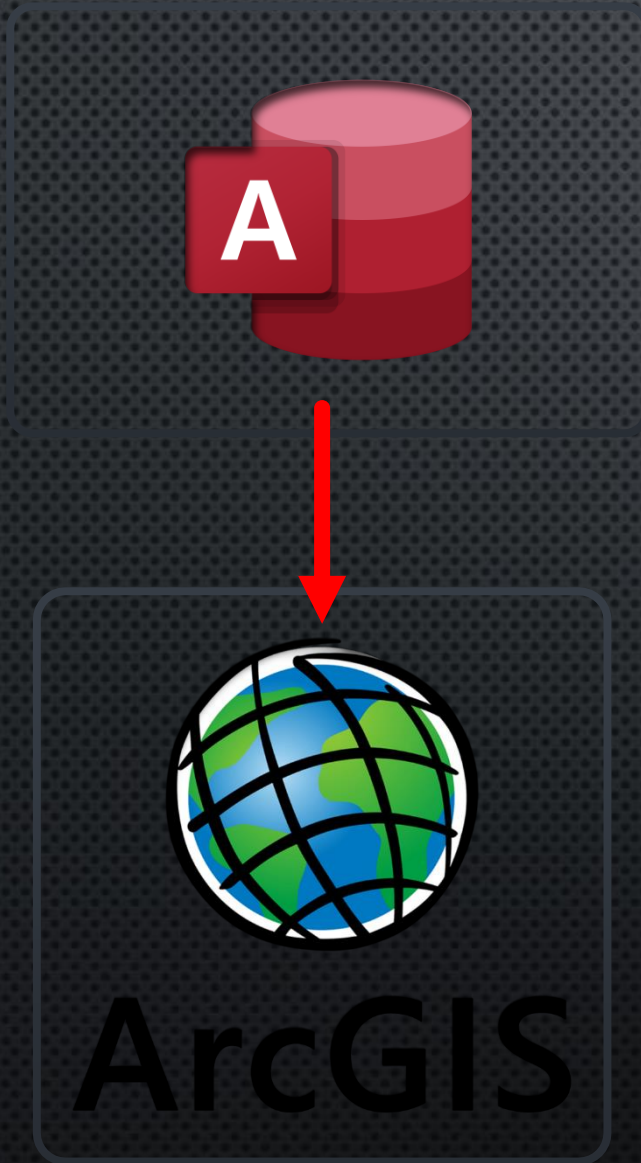


High

Pothole is visible, not easily avoidable and greatly affects ride quality.

MAPPING SYSTEM

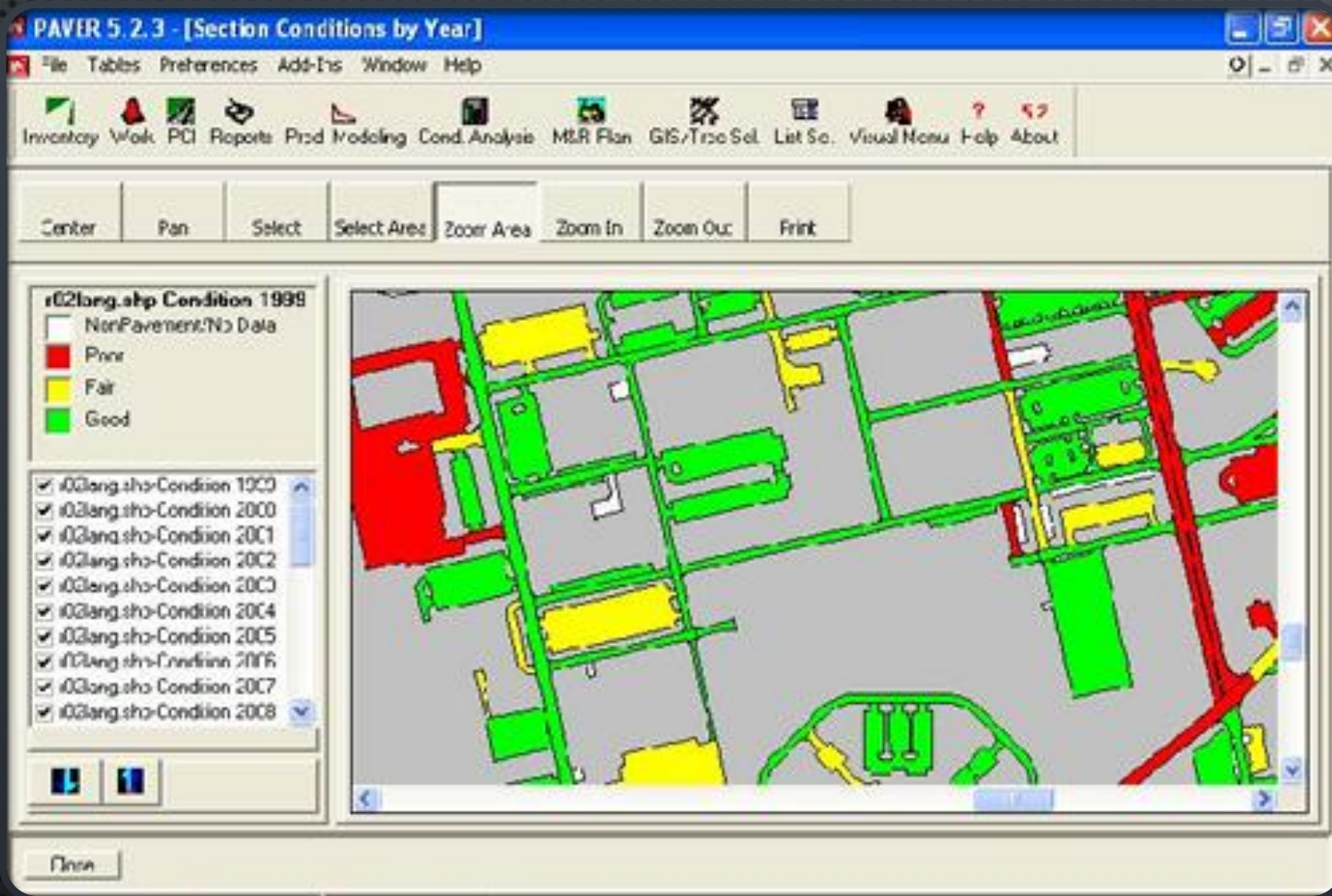
- ARCGIS COMPATIBLE WITH ACCESS DATA TO PRODUCE AN ONLINE MAPPING SYSTEM



FIELD DATA CAPTURE

- QUICKCAPTURE APP TO TAKE AND UPLOAD PICTURES INTO THE MAIN MAP TO PRODUCE GEOREFERENCED IMAGES OF THE DEFECTS PRESENT IN THE ROADS

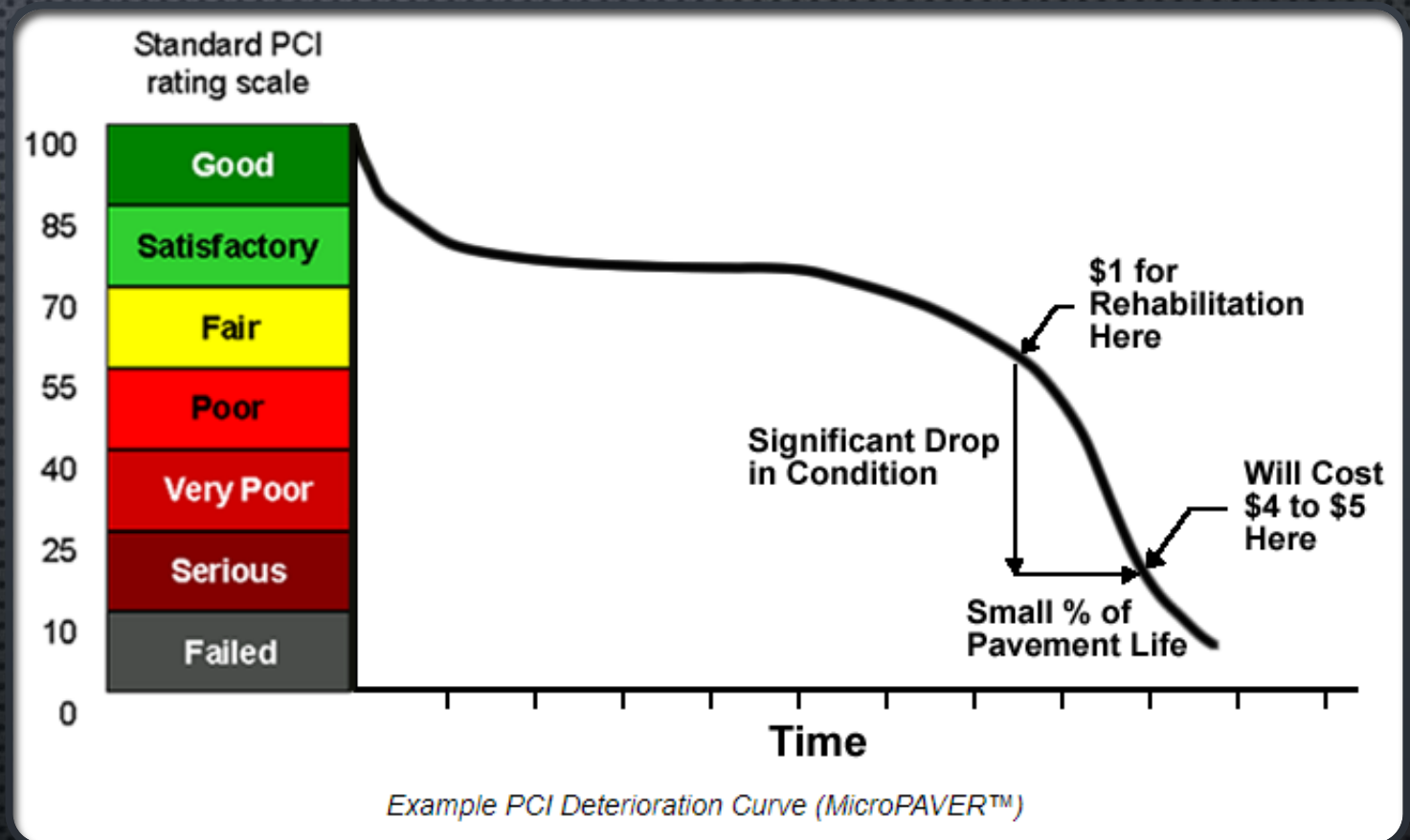




PAVEMENT CONDITION INDEX (PCI)

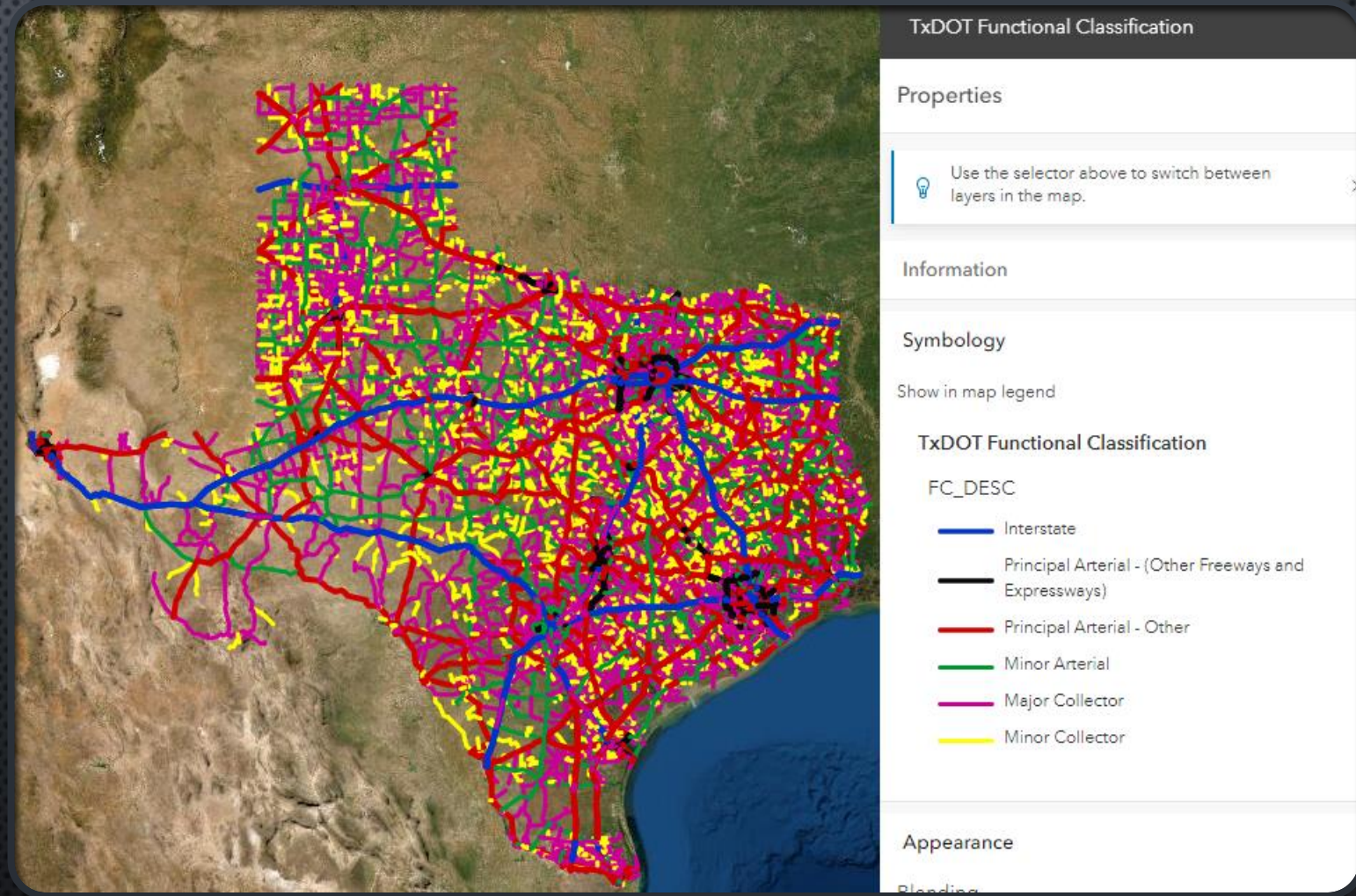
GASB-34 REPORT OVERVIEW:

- HISTORICAL VALUE OF COUNTY ROAD INFRASTRUCTURE
- ROAD CONDITIONS IN TABULATED & GRAPHIC FORMATS



ROADWAY CLASSIFICATION (TXDOT STANDARDS)

- INTERSTATE
- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- COLLECTORS
- LOCAL ROADS AND STREETS



MAINTENANCE UPDATES

- PRECINCTS GET A WORK ORDER TO REPAIR A STREET
- PRECINCTS COMPLETE THE WORK
- PRECINCTS NOTIFY *SAMES* VIA AN *INVENTORY UPDATE FORM*
- *SAMES* RE-INSPECTS/RE-EVALUATES THE ROAD
- SYSTEM IS UPDATED

PROCESS FOR NEW SUBDIVISIONS

- ONGOING DEVELOPMENT PROJECTS.
- SAMES, INC WILL LOOK FOR NEWLY APPROVED SUBDIVISIONS ON A MONTHLY BASIS
- SAMES, INC WILL KEEP TRACK ON THE STATUS OF CONSTRUCTION
- ONCE SUBDIVISION IS COMPLETED AND IN OPERATION, SAMES, INC WILL CONDUCT ASSESSMENT ON THE NEW ROAD
- SAMES, INC WILL UPDATE INVENTORY MAP

YOUR BENEFITS

- VALUABLE DATA TO BE USED FOR FINANCIAL REPORTING THAT MEETS THE GASB-34 REQUIREMENTS
- MAXIMIZE THE ALLOCATION OF FUNDS FOR ROAD IMPROVEMENTS/MAINTENANCE
- GIS MAPPING CAPABILITIES WITH GEOREFERENCED LOCATIONS INDICATING THE CONDITIONS OF THE ROADS
- DATABASE WITH LATEST STREETS AND FEATURES
- BETTER ROAD CONDITIONS THROUGHOUT THE COUNTY

EXHIBIT

<https://sensu.maps.arcgis.com/apps/webappviewer/index.html?id=e5313503ba574210838ffb729d6ff350>