



Transportation System Update

Council Study Session

June 17, 2025

Presenters

John Firouzi – Transportation & Mobility Manager

Isaac Lopez – Streets Superintendent

Miguel Aguilar – Pr. Transportation Planner

Nick Wagner – Transportation Engineer



Agenda

1. Transportation System

- *Planning*
- *Operations*
- *Safety*
- *Maintenance*

2. Status Report

3. Strategic Initiatives

4. Budget

5. Discussion





Transportation System & Status Report

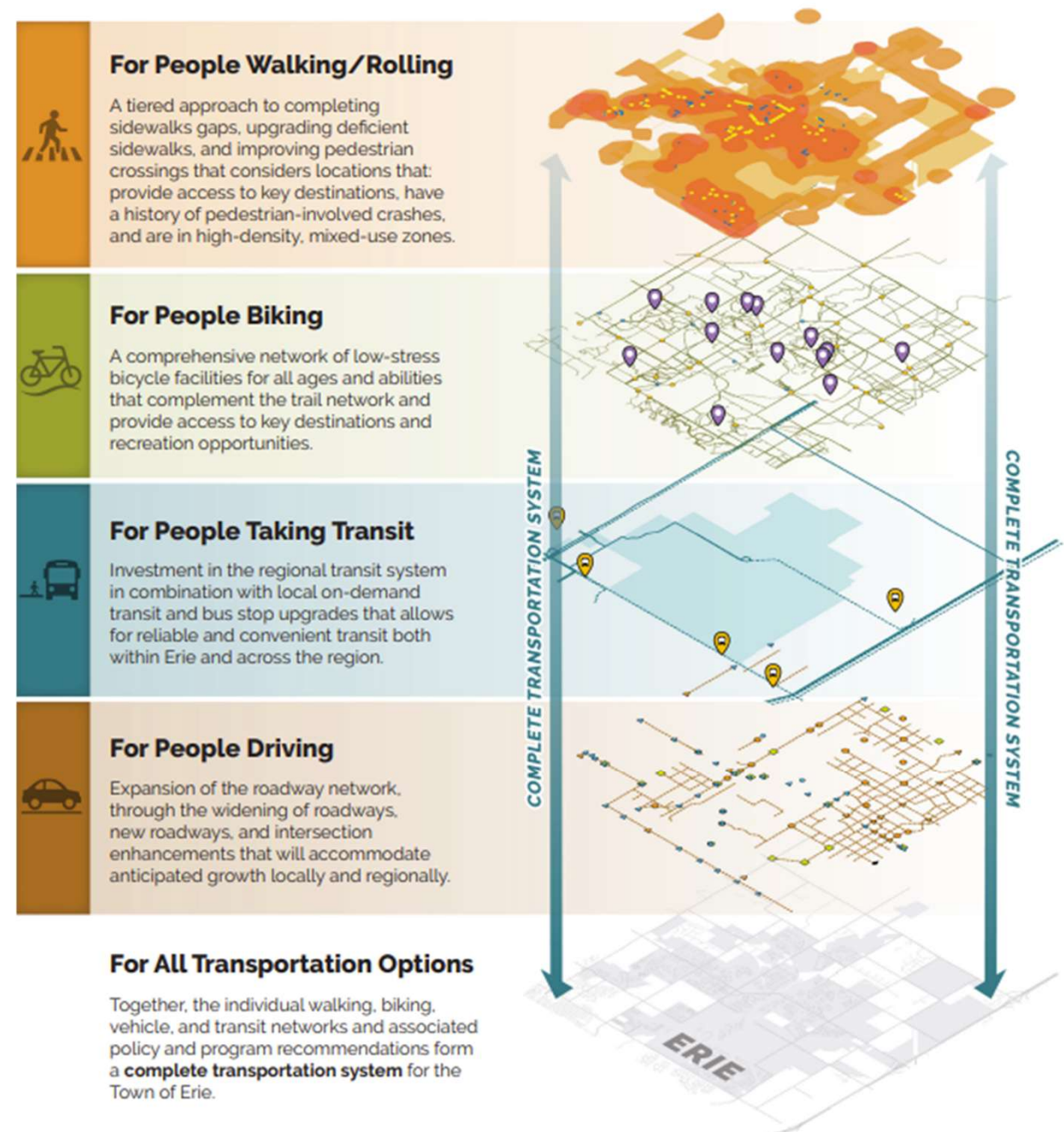
Part I



- Socioeconomic Trends, Vision
- State / MPO / Regional Trends
- Town of Erie TMP (2050)
- Unfunded CIPs (5-10 Years)
- Funded CIPs (Annual-5 Years)
- Site Development TIAs
- System Enhancements

Planning

How will Erie Achieve its Vision for Transportation?





- Public Engagement Events
- Planning Documentation / Public Hearings
- ErieSubmit
- TaskForce / HOA Input
- Neighborhood Surveys

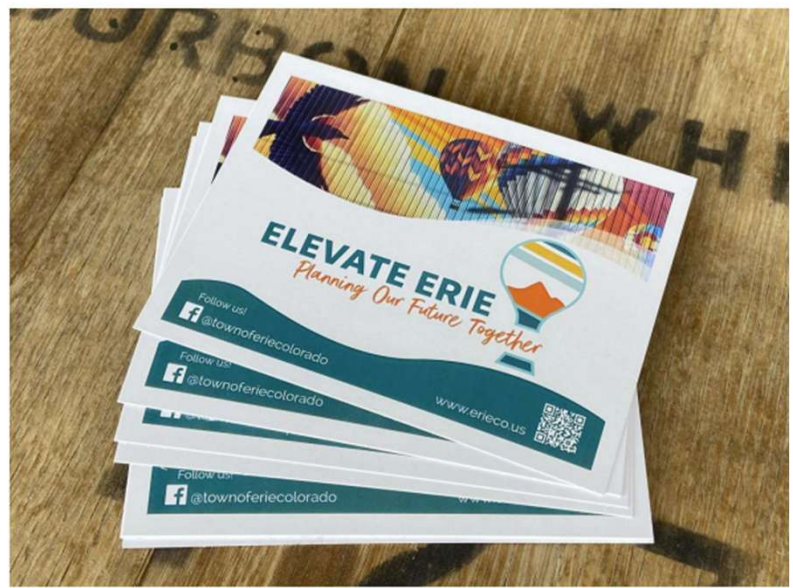


In-Person Engagement

The project team was present at several in-person events throughout Erie during the life of the project. Cumulatively, these events reached over 1,000 people. Events consisted of the list below:

- Arbor Day Celebration Event, April 29, 2023
- Strider Derby Event, April 29, 2023
- Erie Town Fair Event, May 13, 2023
- Community Pop-Up Events, multiple dates
- Fox Dog Coffee, April 7, 2023
- Erie Social Club, April 12, 2023
- Erie Community Center, April 20, 2023
- Bring your child to work day, April 27, 2023
- Erie Community Center pop-up, April 10, 2024
- Active Adults Lunch, April 11, 2024
- Arbor Day, April 27, 2024
- Town Fair, May 18, 2024
- Erie Community Center Pop-Up Event, July 24, 2024
- Fox Dog Coffee Pop-Up Event, July 30, 2024

- Erie Community Center Pop-Up Event, July 31, 2024
- Fox Dog Coffee Pop-Up Event, August 7, 2024
- Erie Farmers Market Pop-Up Event, August 8, 2024



Showing Results from 3/1/2025 to 4/1/2025

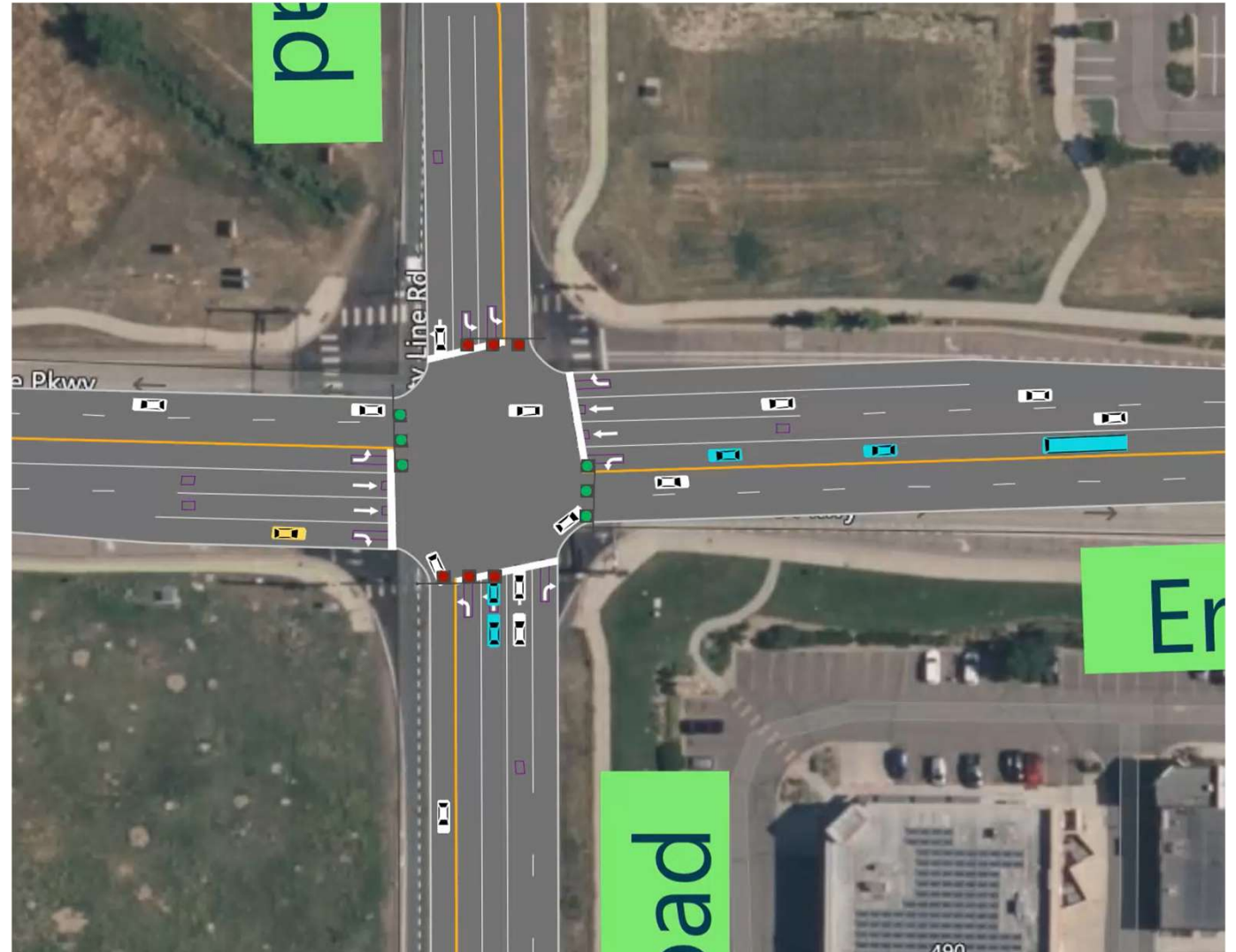


285 Customer Interactions in 2024

- HCM, CMAQ Programs
- Federal MUTCD
- State Model Traffic Code
- TOE Muni Code
- TMP Road Classifications
- Traffic Engineering (CS Design)
- Traffic Enforcement

Operations

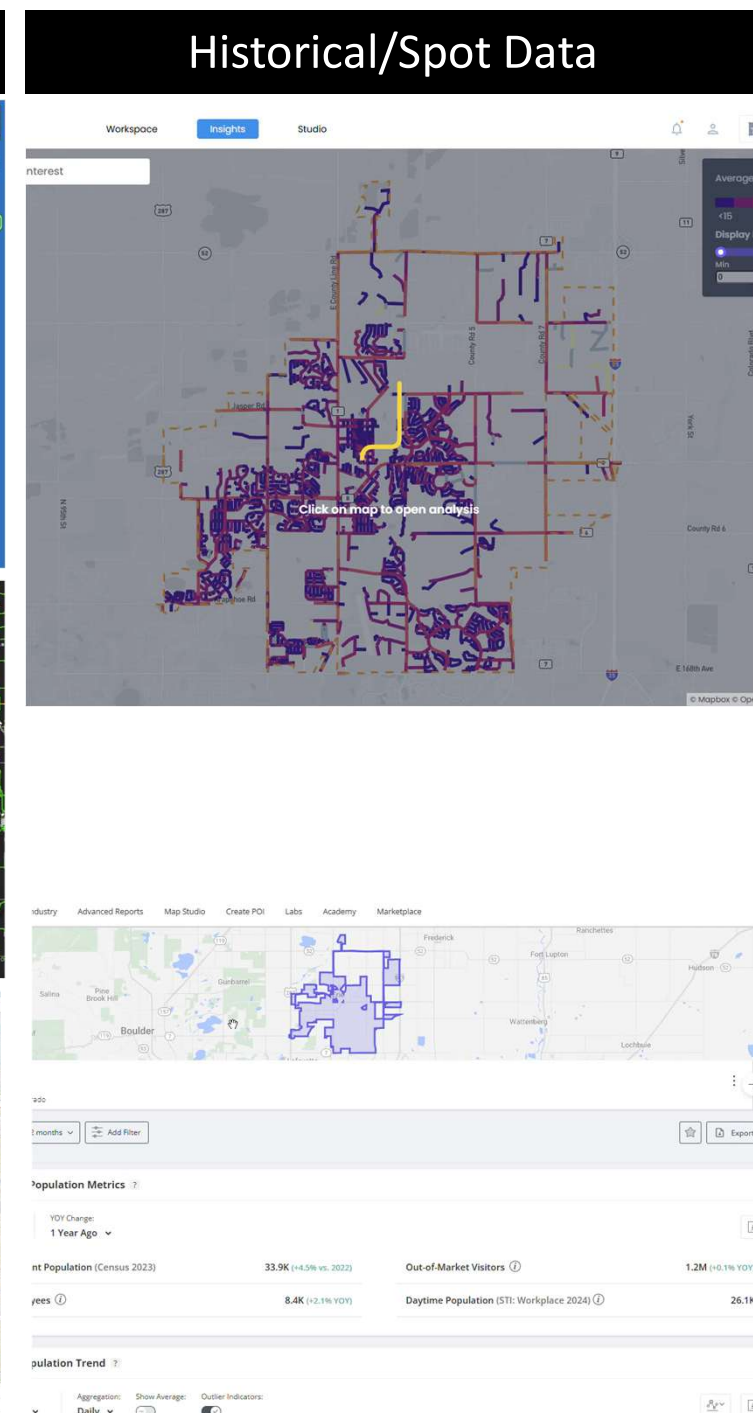
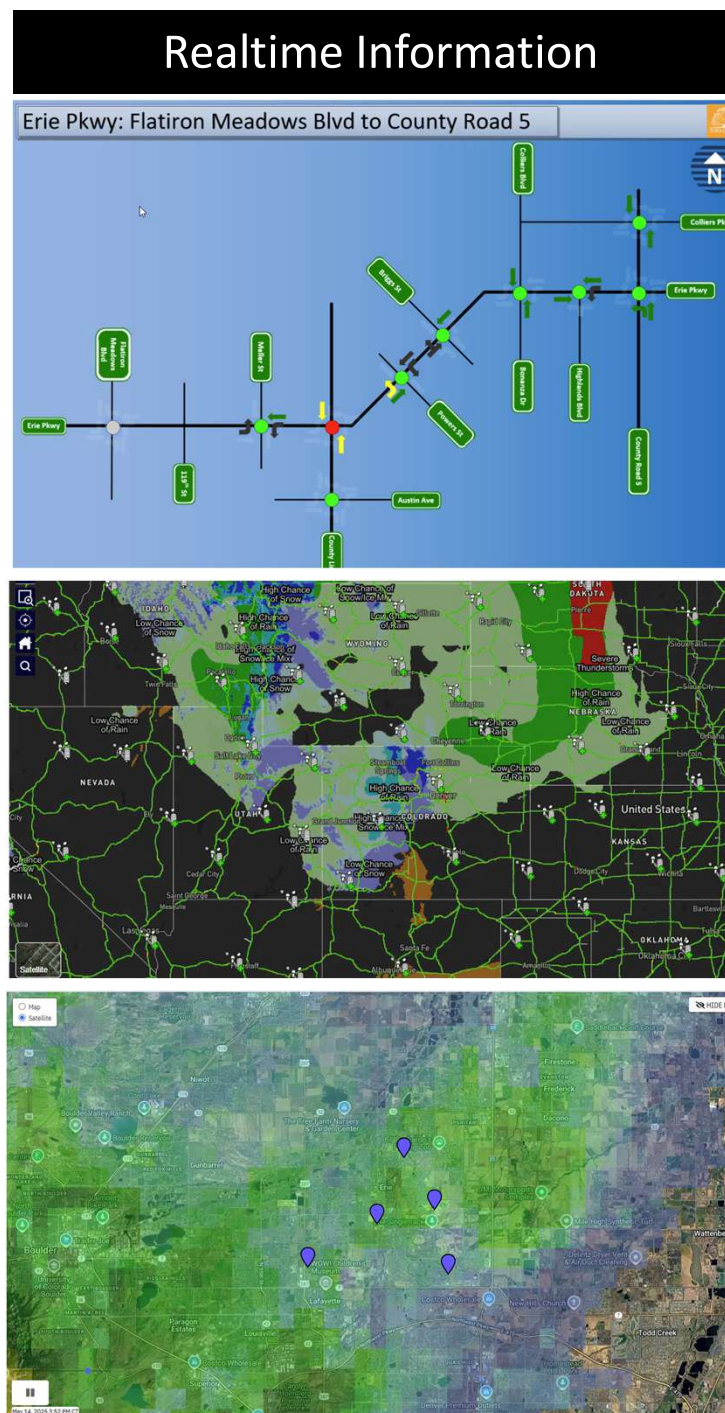
Synchro Transportation Model – Existing Conditions





- Corridor Signal Coordination
- Intersection Scenario Planning
- Monitoring Speeds/Weather
- Traffic Enforcement
- Resource Management

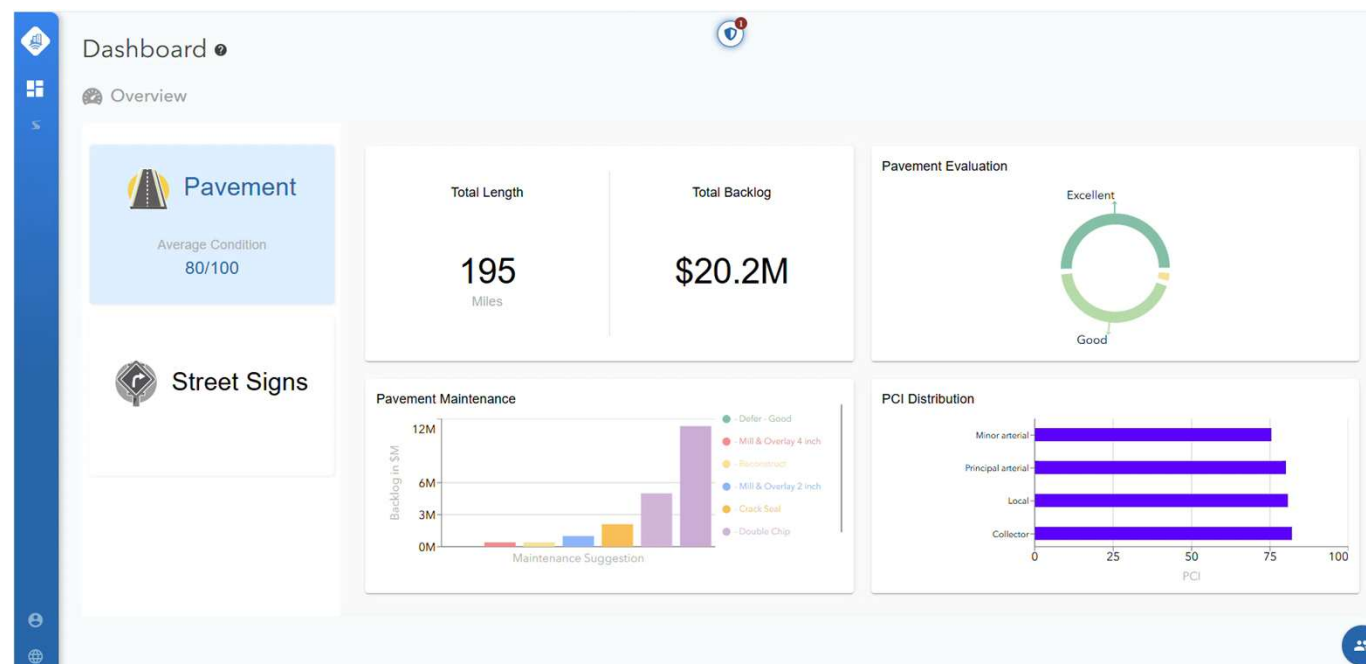
Operations

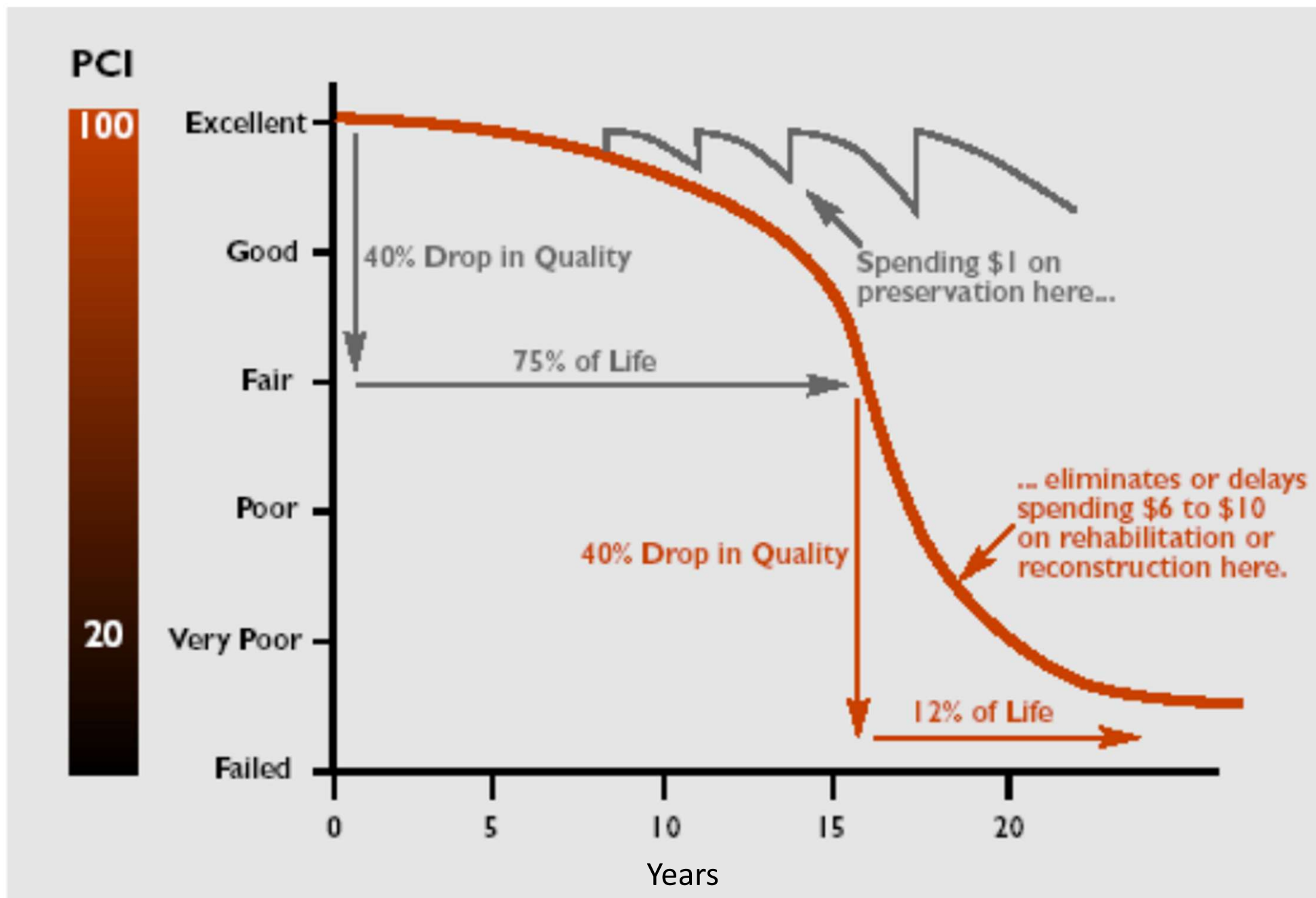




- “TLC” Philosophy
- Asset Management
- Ice/Snow Program
- Paving Program
- Concrete Program
- Signal Maint. Program
- Streetlight Program

Maint.



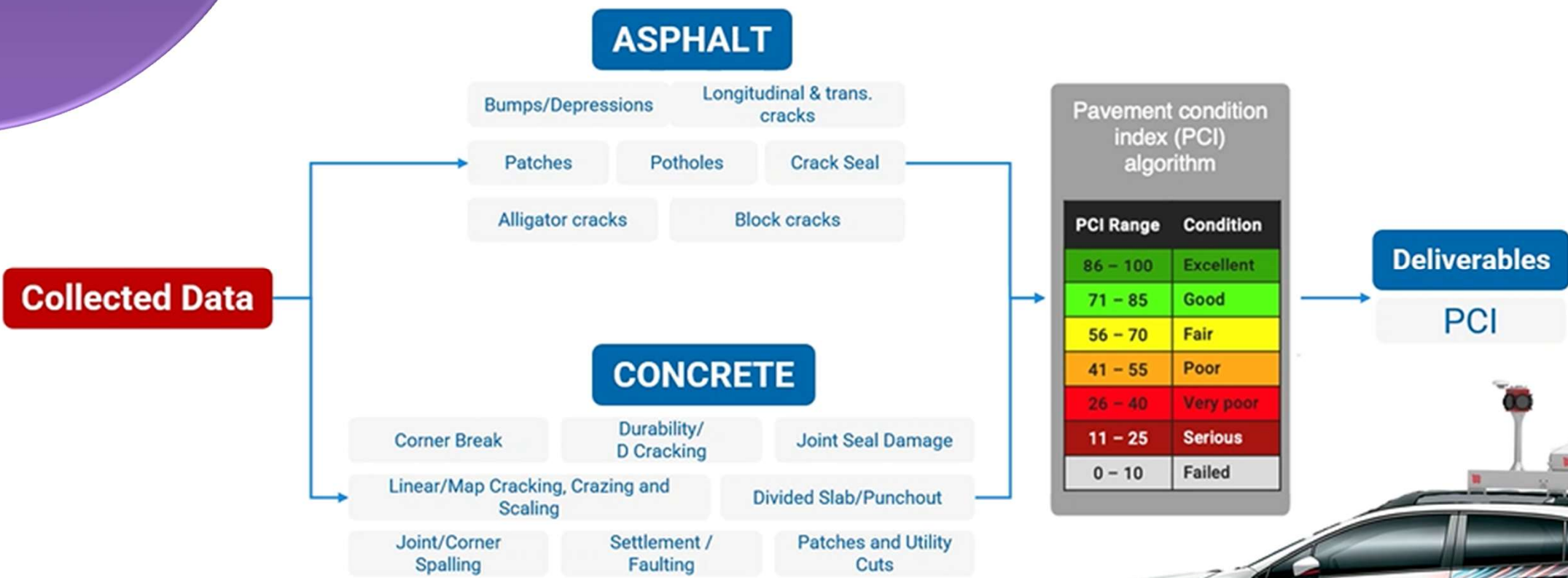


Pavement Option Curve (Example). (PCI=Pavement Condition Index.)



Maint.

Pavement Condition Index

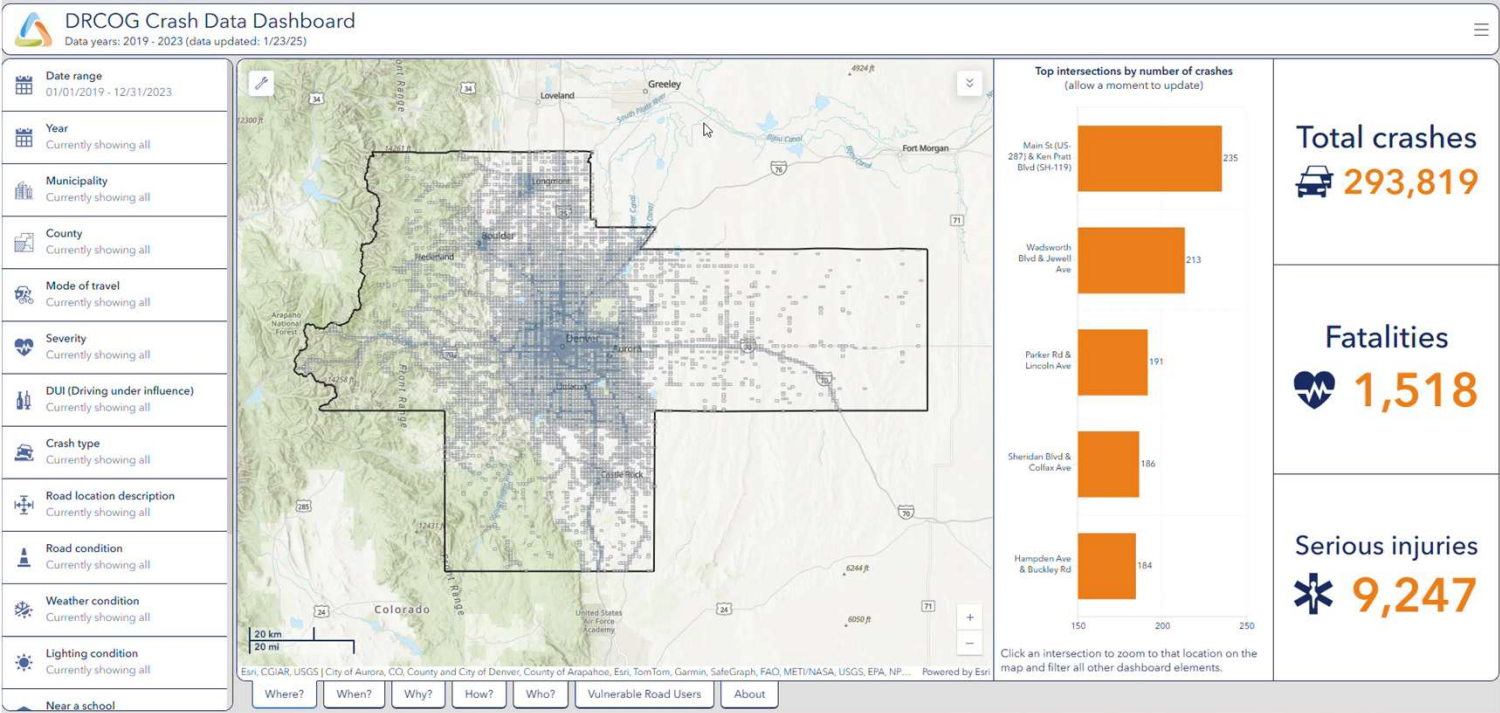
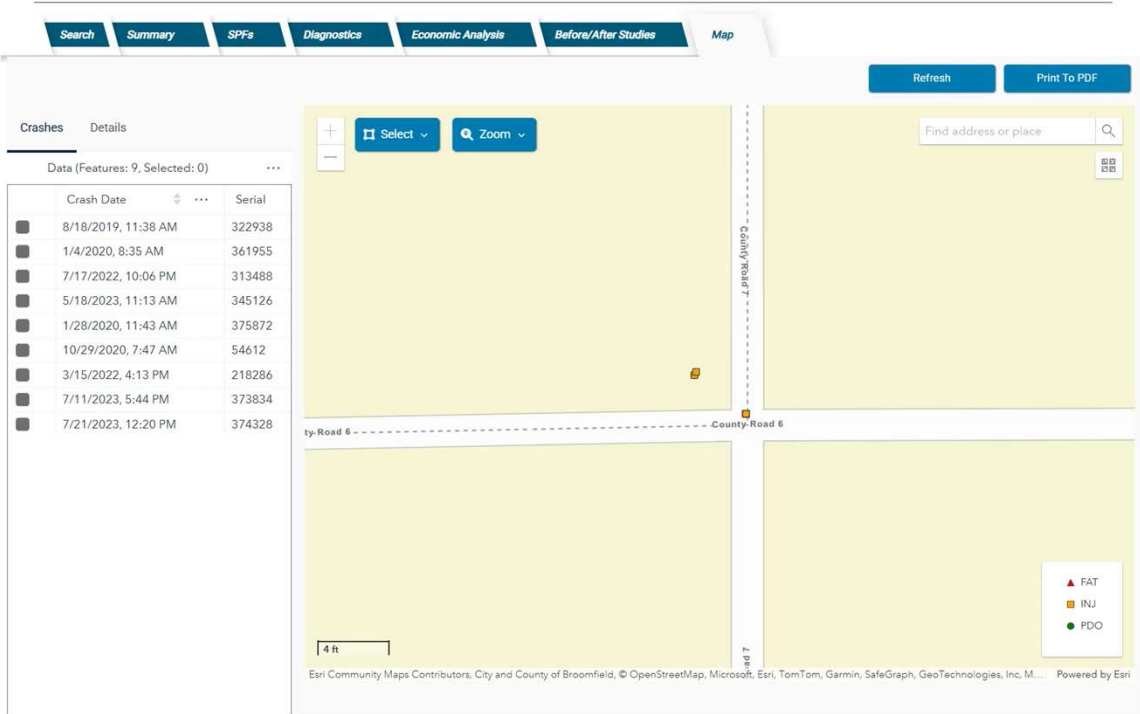


StreetScan | streetlogix
POWERED BY citylogix





- Vision Zero Policy
- Safe System Design
- Vulnerable Roadway Users (VRUs)
- Historical Trends – Benchmarking
- Statistical Analysis / Forecasting
- Partnerships – 5Es





Strategic Initiatives

Digital Twin

Technical Environment (Sandbox) for Testing Changes; *Decision Making Tools*.

Regional Investments

Taxpayer ROI, Keeping Regional Traffic on Regional Roads; *Political Leadership*.

Vulnerable Users

Emergency Evac. Planning, Safe Routes to School; *Resilient Community*.

Advanced Traffic Technologies

Innovative Solutions, Monitoring, Data-Driven Decisions; *Resource Management*.





Transportation Budget & Funding Mechanisms

Part II



The ASCE (American Society of Civil Engineers) utilizes a cost estimate classification system with five classes, ranging from **Class 5 (least accurate) to Class 1 (most accurate)**. These classes are based on the level of project definition and the expected accuracy of the estimate. [🔗](#)

Here's a breakdown of the ASCE cost estimate classes:

Class 5 (Order of Magnitude):

A very high-level estimate, used for feasibility studies and conceptual design. Accuracy is typically within -50% to +100%.

Class 4 (Study or Feasibility):

Used for preliminary budget approval and has an accuracy range of -30% to +50%.

Class 3 (Budget Authorization):

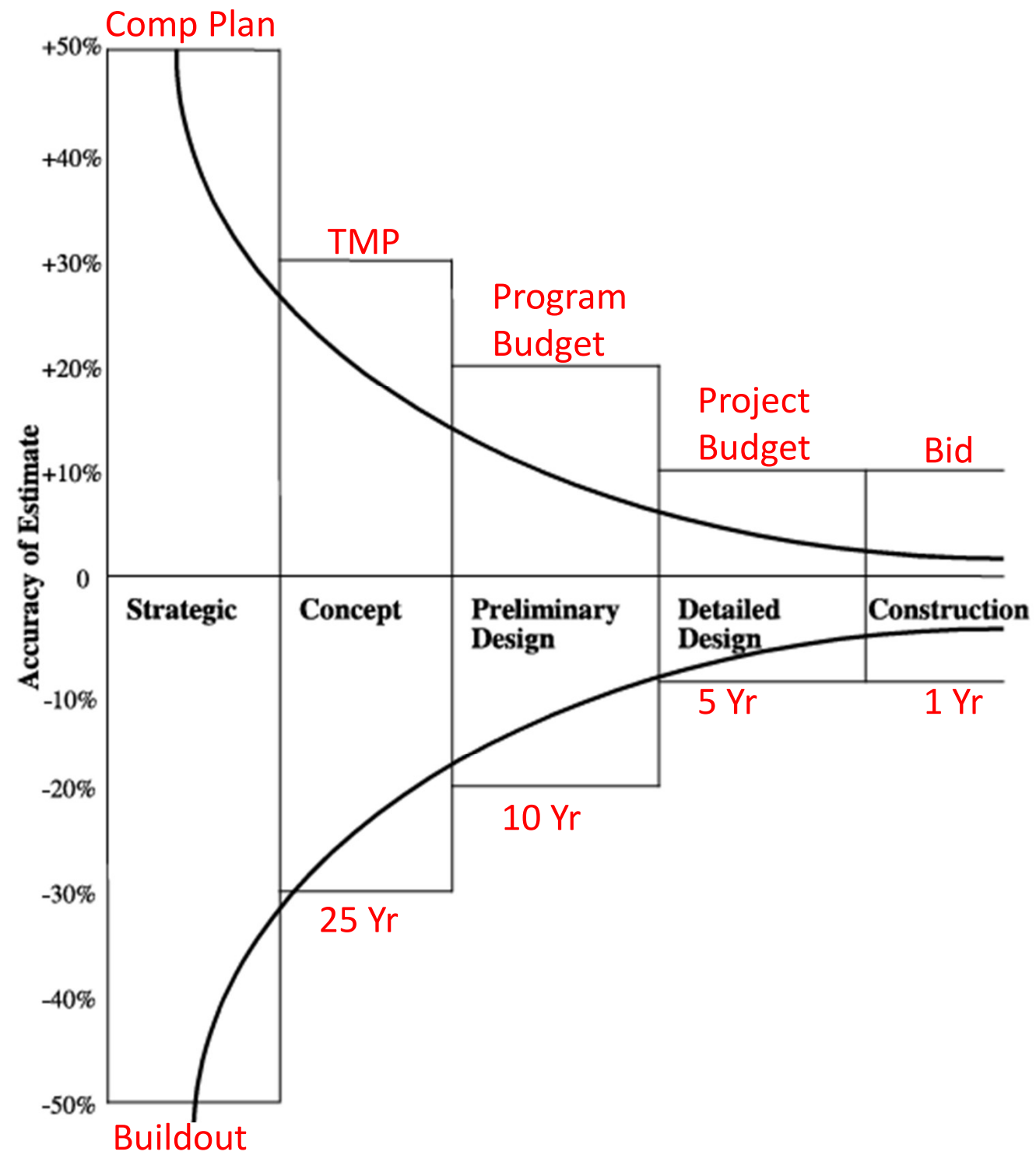
Used for detailed design and funding approval, with an expected accuracy range of -20% to +30%.

Class 2 (Control or Bid):

Used for construction planning and control budgets, with an accuracy range of -15% to +20%.

Class 1 (Definitive):

Used for procurement, construction, and control, with the highest accuracy of -10% to +15%. [🔗](#)



CAPA SURVEY RESULTS

Local Agency	Paved Lane Miles	Year	Annual Asphalt Program		PCI	Public Works CIP
			Mill/Overlay + Preventive + Crack Seal	\$ / lane mile		
Adams County	1553	2023	\$10,000,000	\$6,439	69	\$15,000,000
Alamosa	118	2023	\$50,000	\$424	60	\$1,864,959
Alamosa County	350	2025	\$1,000,000	\$2,857		
Arapahoe County	1216	2025	\$8,799,229	\$7,236	64	
Arvada	1515	2025	\$10,000,000	\$6,601	44	
Aspen	72	2019	\$820,000	\$11,389		
Aurora	4868	2025	\$23,000,000	\$4,725	73	\$31,000,000
Avon	63	2023	\$4,357,000	\$69,159	83	\$3,900,000
Basalt	43	2023	\$199,829	\$4,647	86	\$90,000
Boulder County	1049	2025	\$1483,700	\$1,414	64	\$26,590,000
Boulder	628	2023	\$4,000,000	\$6,369	77	
Broomfield	750	2022	\$4,600,000	\$6,133	75	\$14,000,000
Breckenridge	120	2017	\$750,000	\$6,250	78	
Cañon City	194	2025	\$550,000	\$2,835	39	\$6,550,000
Castle Pines	110	2024	\$1,750,000	\$15,909	81	\$6,500,000
Castle Rock	766	2025	\$11,200,000	\$14,621	82	\$4,100,000
Centennial	1050	2025	\$8,350,000	\$7,952	69	\$3,500,000
Cherry Hills Village	90	2025	\$1,750,000	\$19,444	78	
Clear Creek County	150	2025	\$1,075,000	\$7,167	94	\$2,700,000
Colorado Springs	6417	2024	\$42,500,000	\$6,623	60	\$28,000,000
Commerce City	606	2024	\$3,050,000	\$5,033	77	\$7,091,000
Cortez	109	2020	\$825,000	\$7,569		\$1,005,000
Dacapo	65	2025	\$10,200,000	\$156,923		
Delta	137	2024				\$100,000
Delta County	781	2020	\$735,000	\$941	73	\$760,000
DEN Airport		2019				\$22,000,000
Denver	5897	2025	\$23,700,000	\$4,019	76	
Douglas County	2951	2025	\$13,000,000	\$4,405	78	\$61,743,400
Durango	164	2020	\$1,350,000	\$8,232	63	\$2,700,000
Eaton	63	2025	\$700,000	\$11,111		
Eagle	77	2019	\$575,000	\$7,468		
Eagle County	286	2025	\$2,000,000	\$6,993	71	
Eaton	63	2023	\$500,000	\$7,937	60	
El Paso County	2368	2024	\$22,000,000	\$9,291	68	\$8,500,000
Englewood	330	2024	\$7,000,000	\$20,646	54	
Erie	321	2024	\$3,742,900	\$11,660	80	\$5,519,000
Estes Park	114	2025	\$1,530,000	\$13,421	81	
Evans	191	2024	\$600,000	\$3,141	68	\$5,800,000
Federal Heights	39	2024	\$1,650,000	\$42,308	75	\$2,929,250
Fort Morgan	104	2020	\$3,200,000	\$30,769	60	\$1,000,000
Fountain	226	2024	\$800,000	\$3,540	31	
Frederick	223	2025	\$1,000,000	\$4,484	80	
Fruita	129	2022	\$250,000	\$1,938	70	\$4,100,000
Ft. Collins	1994	2025	\$13,700,000	\$6,871	73	
Garfield County	716	2019	\$3,644,270	\$5,090		\$1,128,000
Glenwood Springs	88	2023	\$805,000	\$9,148	35	\$2,900,000
Golden	159	2020	\$1,800,000	\$11,321	84	
Grand County	160	2023	\$1,540,000	\$9,625		
Grand Junction	1068	2025	\$7,890,000	\$7,388	74	\$20,000,000
Greeley	855	2025	\$14,300,000	\$16,725	69	
Greenwood Village	207	2024	\$3,999,350	\$19,321	83	
Gunnison	130	2019	\$200,000	\$1,538	67	\$400,000
Gunnison County	293	2024	\$480,000	\$1,638		\$500,000

Funding

75th Percentile = \$10.879 lane mile
 Weighted Average = \$6,756 lane mile
 25th Percentile = \$3,866 lane mile

Pavement Condition

75th Percentile = PCI 78
 Weighted Average = PCI 70
 25th Percentile = PCI 64

Trends for 2025

- Approx. **66,650 lane miles** managed by Local Agencies captured in this survey.
- Representing **99%** of Local Agency asphalt paved roads statewide.
- **Over \$434M** budgeted for Annual Street Improvement Programs.
- **Over \$437M** budgeted for Capital Improvement Programs.
- Mill & Overlay program funding is flat vs. 2024.
- Funding \$ / lane mile decreased **-4%** from \$7,082 in 2024.

107 Agencies included in 2025 summary

Local Agency	Paved Lane Miles	Year	Annual Asphalt Program		PCI	Public Works CIP
			Mill/Overlay + Preventive + Crack Seal	\$ / lane mile		
Gypsum	92	2023	\$115,000	\$1,250		\$970,386
Hayden	30	2025	\$150,000	\$5,000		\$660,000
Jefferson County	2976	2025	\$18,000,000	\$6,048	69	\$11,000,000
La Plata County	222	2023	\$8,919,857	\$40,180	66	\$5,000,000
Lafayette	236	2021	\$1,600,000	\$6,780		
Lake County	180	2023	\$282,000	\$1,567		
Lakewood	1323	2025	\$7,638,144	\$5,773	76	\$10,000,000
Larimer County	894	2025	\$7,300,000	\$8,166	88	
Lamar	112	2017	\$440,000	\$3,929	55	\$45,000
Littleton	351	2023	\$330,000	\$940	54	\$6,500,000
Lochbuie	70	2024	\$200,000	\$2,857		
Lone Tree	167	2025	\$1,000,000	\$5,988	79	
Longmont	1189	2024	\$5,900,000	\$4,962	67	\$13,000,000
Louisville	263	2025	\$2,800,000	\$10,646	72	
Loveland	1190	2022	\$12,400,000	\$10,420	74	\$9,600,000
Manitou Springs	53	2016		\$0	56	\$298,000
Mead	95	2025	\$5,000,000	\$52,632	67	
Mesa County	1737	2025	\$5,150,000	\$2,965	71	\$15,325,000
Montezuma County	539	2020		\$9,276		\$5,000,000
Montrose	303	2025	\$5,700,000	\$18,812	68	\$4,200,000
Montrose County	596	2022	\$7,000,000	\$11,745	65	\$2,500,000
Monument	105	2024	\$450,000	\$4,286		
Morgan County	1056	2016				\$5,000,000
Mountain Village	42	2025	\$500,000	\$11,905		
Northglenn	230	2024	\$875,000	\$3,804	65	\$950,000
Pagosa Springs	43	2022	\$950,000	\$22,093	55	\$400,000
Palisade	25	2019	\$155,000	\$6,200	67	\$65,000
Park County	320	2023	\$329,914	\$1,031	48	\$217,330
Parker	550	2022	\$4,900,000	\$8,909	76	\$2,000,000
Pitkin County	241	2022	\$3,220,000	\$13,361	76	
Pueblo	1072	2024	\$8,000,000	\$7,463	62	\$10,000,000
Pueblo County	1234	2022	\$3,100,000	\$2,512		
Pueblo West	416	2022	\$350,000	\$841		
Rifle	45	2021	\$700,000	\$15,556	61	\$2,200,000
Rio Blanco County	419	2020	\$2,000,000	\$4,773		
Routt County	336	2023	\$2,490,000	\$7,411	79	
Salida	74	2020	\$350,000	\$4,730	60	\$800,000
Severance	112	2021				\$1,000,000
Sheridan	45	2019	\$325,000	\$7,222	97	\$100,000
Silt	36	2021	\$90,000	\$2,500	50	\$400,000
Snowmass Village	70	2017	\$206,000	\$2,943	72	\$2,000,000
Steamboat Springs	160	2025	\$85,000	\$531	80	\$6,000,000
Summit County	219	2025	\$617,000	\$2,817	69	\$9,500,000
Superior	87	2022	\$1,150,000	\$13,218	86	
Timnath	159	2025	\$850,000	\$5,346	70	\$9,200,000
Thornton	1316	2025	\$6,483,786	\$4,927	73	\$0
Weld County	1562	2025	\$4,500,000	\$2,881	61	
Wellington	102	2025	\$500,000	\$4,902		
Vail	64	2021	\$60,000	\$938	80	\$5,500,000
Westminster	1136	2025	\$9,562,322	\$8,418	54	\$2,500,000
Wheat Ridge	283	2019	\$4,210,000	\$14,876	78	\$2,000,000
Windsor	282	2025	\$4,030,000	\$14,291	79	
Winter Park	30	2025	\$300,000	\$10,000	86	
Woodland Park	120	2020	\$333,000	\$2,775	56	\$1,800,000



Table 21. Funding Distribution Across Modes and Time Horizons

Plan Component	Percent of Distribution	Funding		
		2027-2031	2032-2040	2041-2050
Pedestrian corridor improvements	13%	\$15,845,482	\$37,841,459	\$104,721,811
Bicycle corridor improvements	13%	\$15,845,482	\$37,841,459	\$104,721,811
Transit improvements	5%	\$6,094,416	\$14,554,407	\$40,277,620
Roadway corridor improvements	58%	\$70,695,226	\$168,831,126	\$467,220,387
Multimodal intersection improvements	10%	\$12,188,832	\$29,108,815	\$80,555,239
Program analysis	1%	\$1,218,883	\$2,910,881	\$8,055,524
Total	100%	\$121,888,322	\$291,088,147	\$805,552,391

Table 22. Maintenance Costs for New or Expanded Facilities Across Modes and Time Horizons

Plan Component	Added Maintenance Costs		
	2027-2031	2032-2040	2041-2050
Bicycle corridor improvements	\$ 756,000	\$1,959,000	\$3,386,500
Roadway corridor improvements	\$1,274,900	\$3,648,450	\$382,200
Multimodal intersection improvements	\$57,500	\$88,000	\$203,500
Total	\$2,088,400	\$5,695,450	\$3,972,200



Strategic Initiatives, ROI

Part III



Risks

Emergency Preparedness – Requires Connected Network (TMP)

ADA Non-Compliance – Liability, Unfunded Mandates

Regional (DRCOG, CDOT, RTD) – “Disinvestment” when Erie taxpayer investments go to other parts of the system, and Erie roads impacted.

Opportunities

Streetlights – ITS devices, Safety, Quality of Life (Smart Cities Solutions)

Taking Lasting Care (TLC) – project bundling, “adjacencies”

Customer Service – Communication, Proactive Measures, Managing Expectations



Recommendations

TMP/Transportation Model Based Budgeting

- *Maintain the Course: \$6M/yr CIP, Developer \$, +10% Escalator*
- *Maintain the Grant Pipeline: Offset Unfunded Mandates*

Continued Leadership at Regional Coalitions

- *“Regional Traffic on Regional Roads, Local Traffic on Local Streets”*

Taking Lasting Care (TLC)

- *Maintain the Course: \$4.5M/yr Operations, TMP Escalator*
- *Manage Expectations: More Roads = More Maintenance Costs*

Questions & Discussion

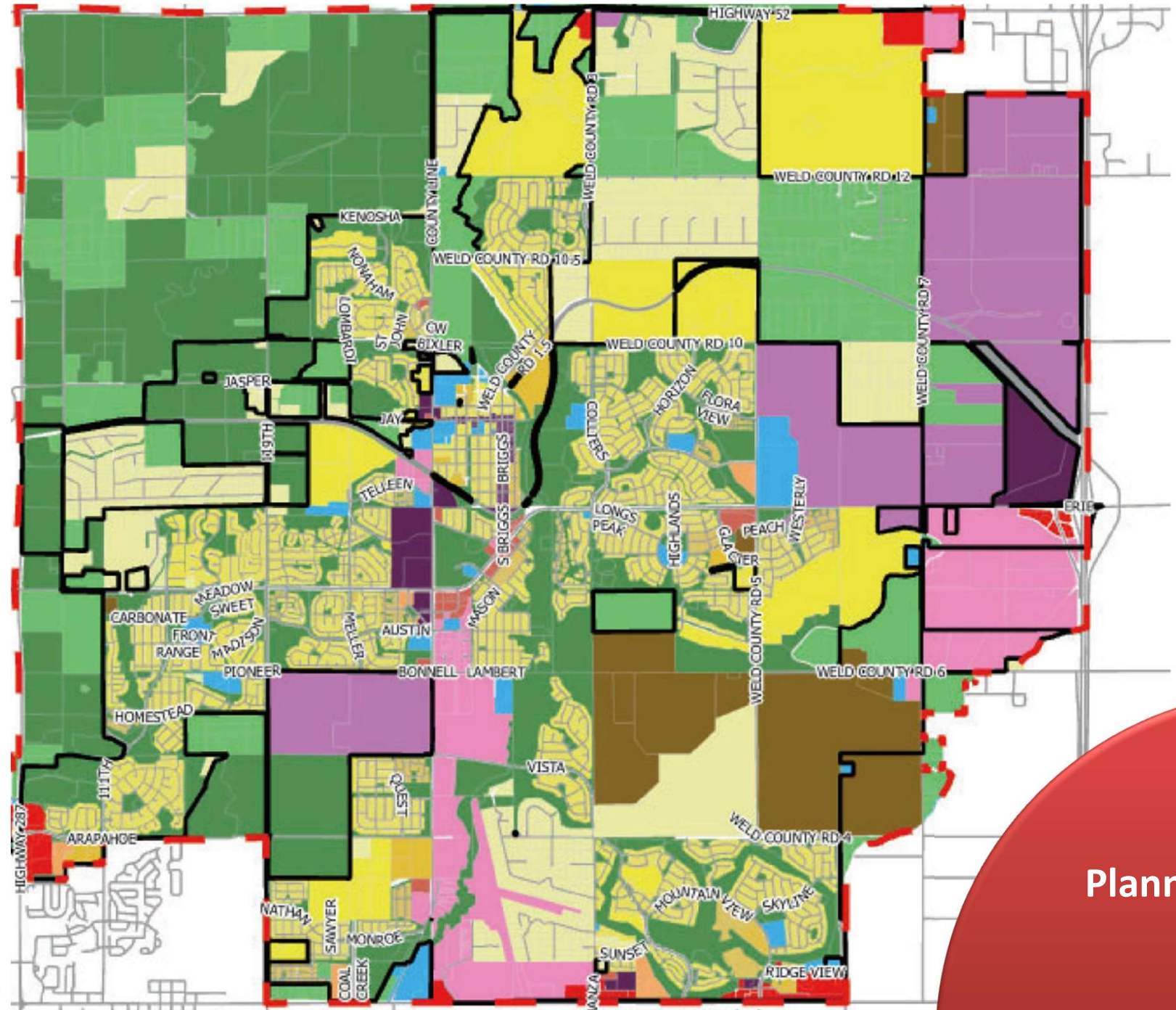


Supplemental Slides



Land-Use / Trip Generation

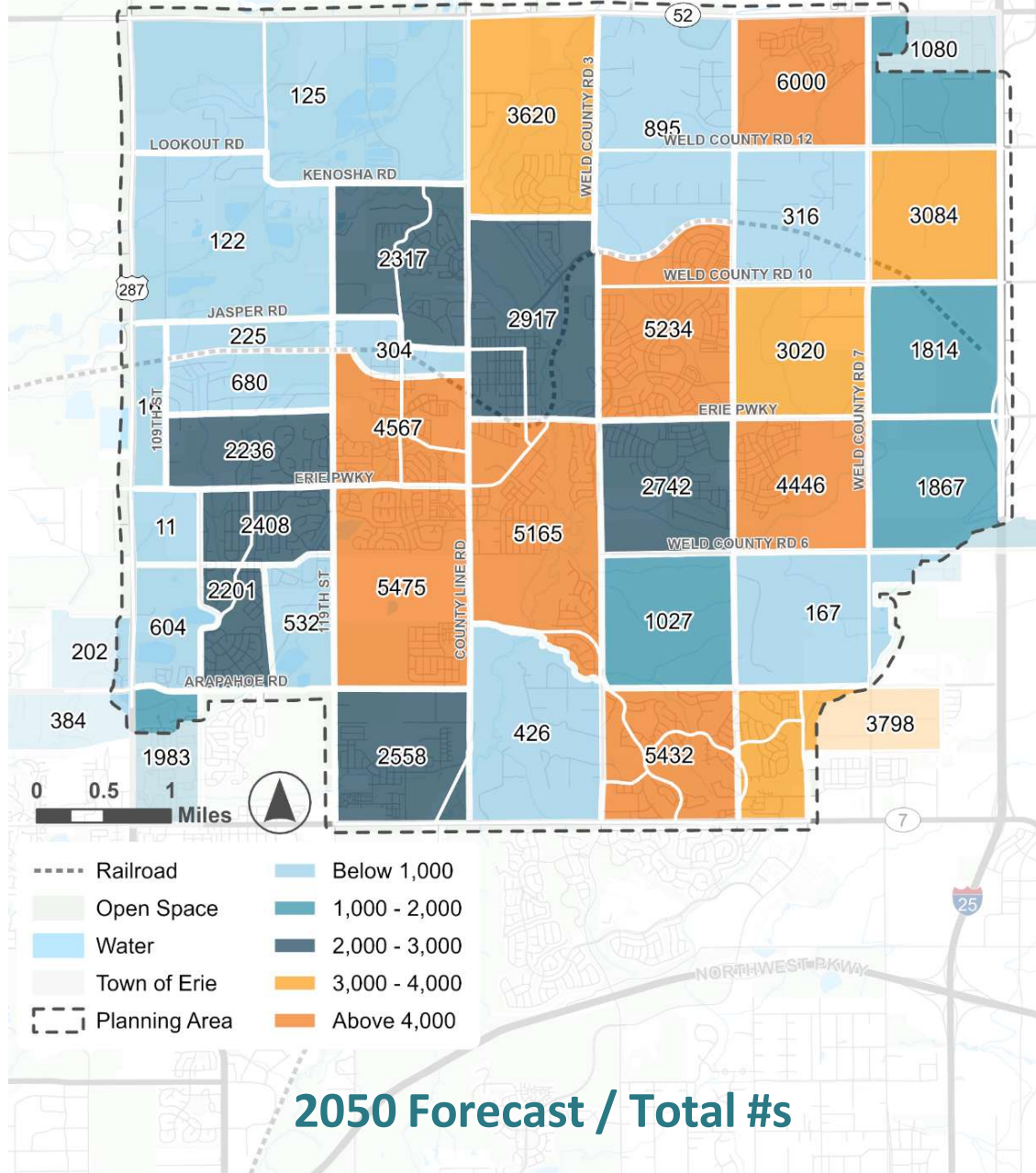
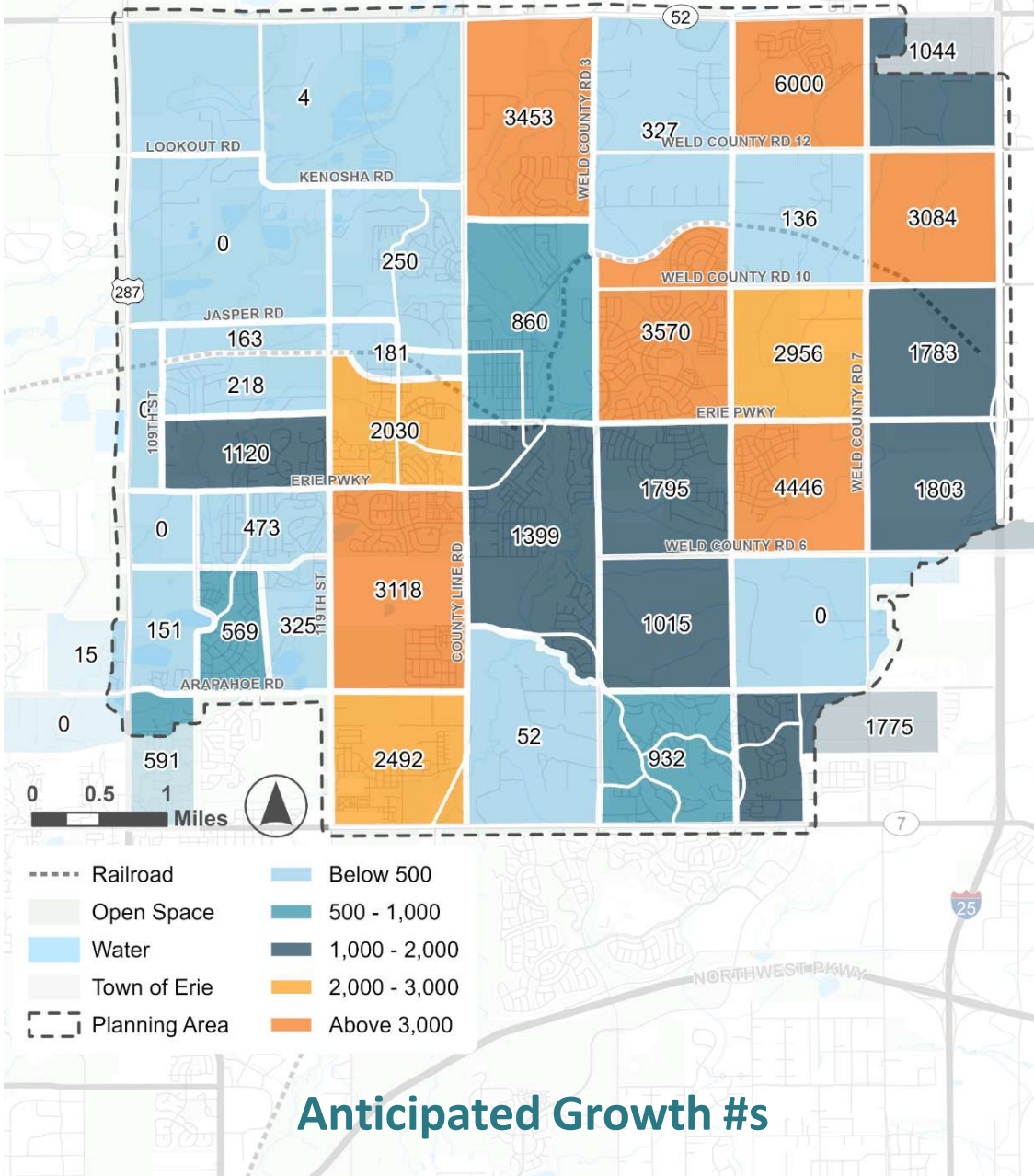
- Planning Area Boundary
- Town Boundary
- Residential - Rural
- Residential - Low
- Residential - Medium
- Residential - High
- Corridor Commercial
- Neighborhood Commercial
- Mixed Use Neighborhood
- Mixed Use Village
- Employment
- Heavy Industrial
- Public / Quasi-Public
- Parks, Open Space, and Protected Land
- Agriculture
- RTD Right of Way





Travel Analysis Zones (TAZs)

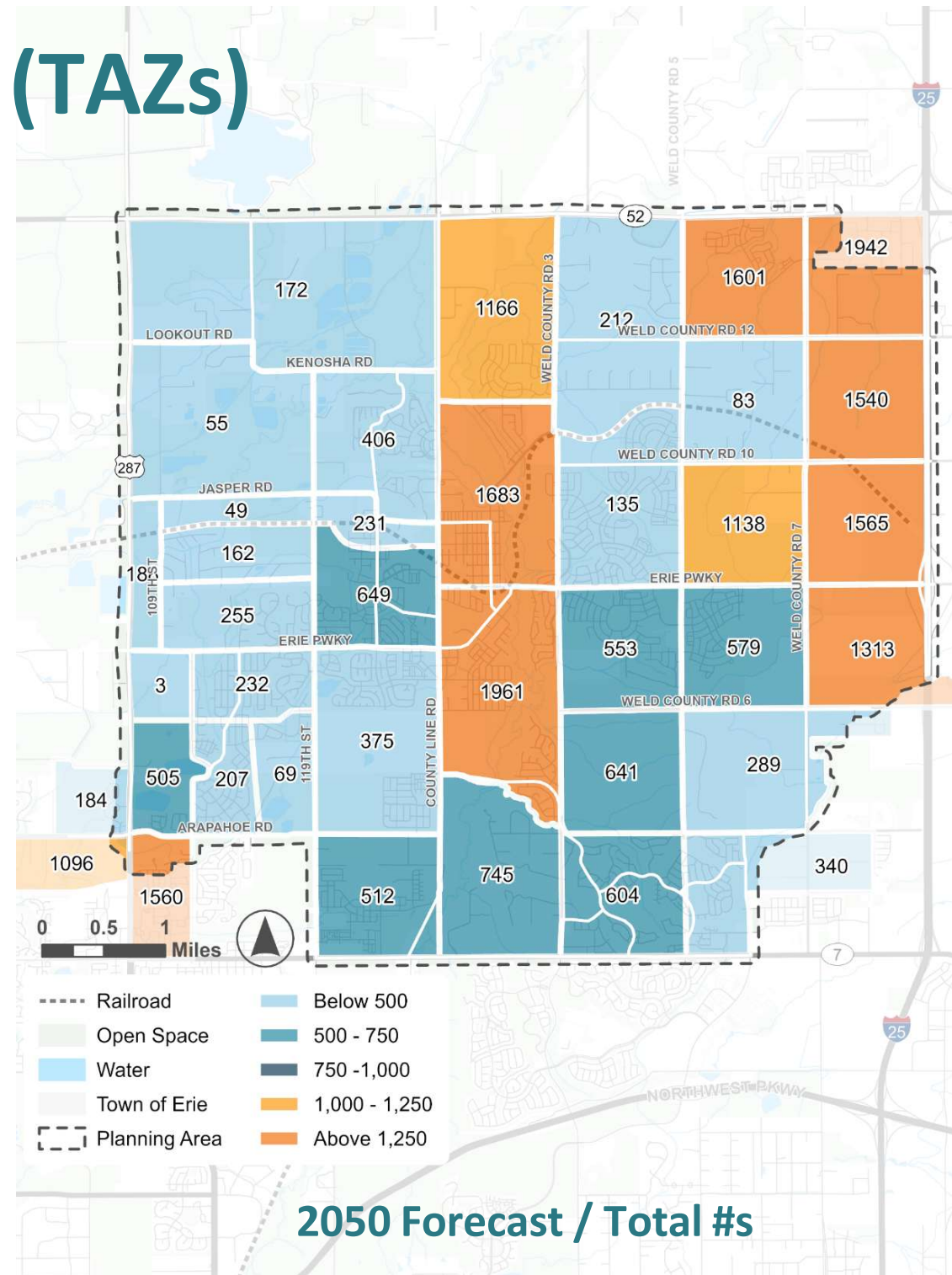
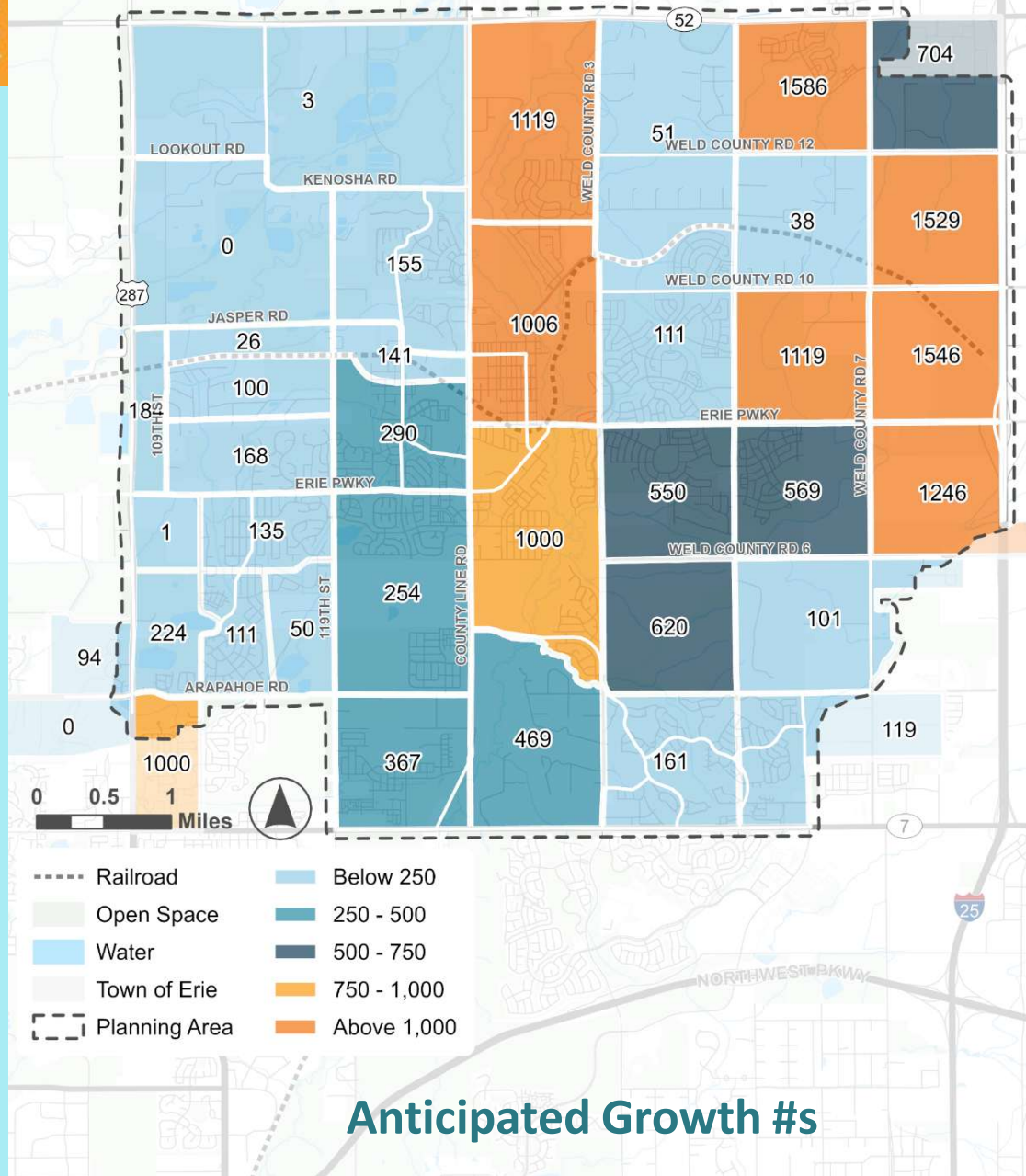
POPULATION





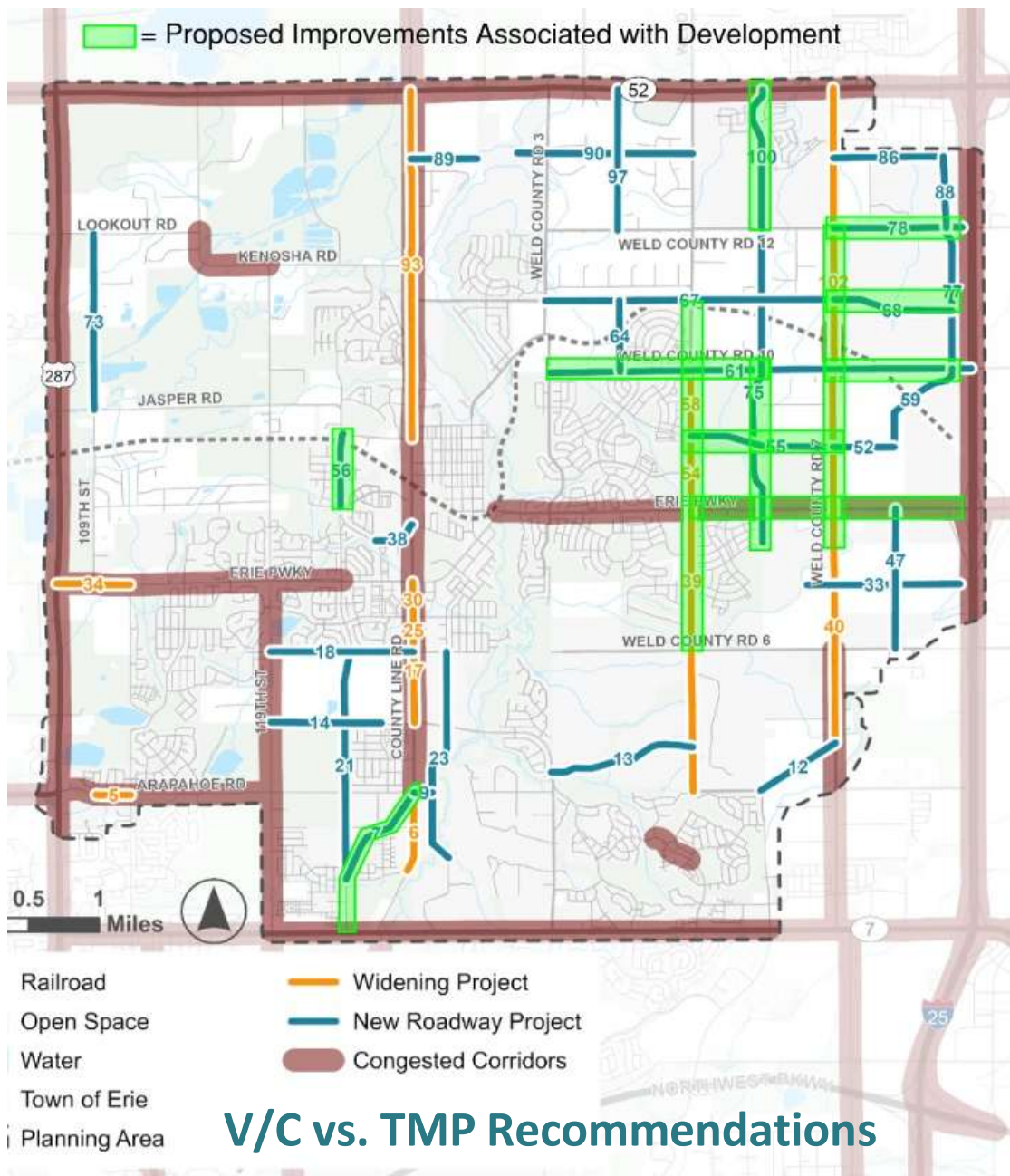
Travel Analysis Zones (TAZs)

EMPLOYMENT

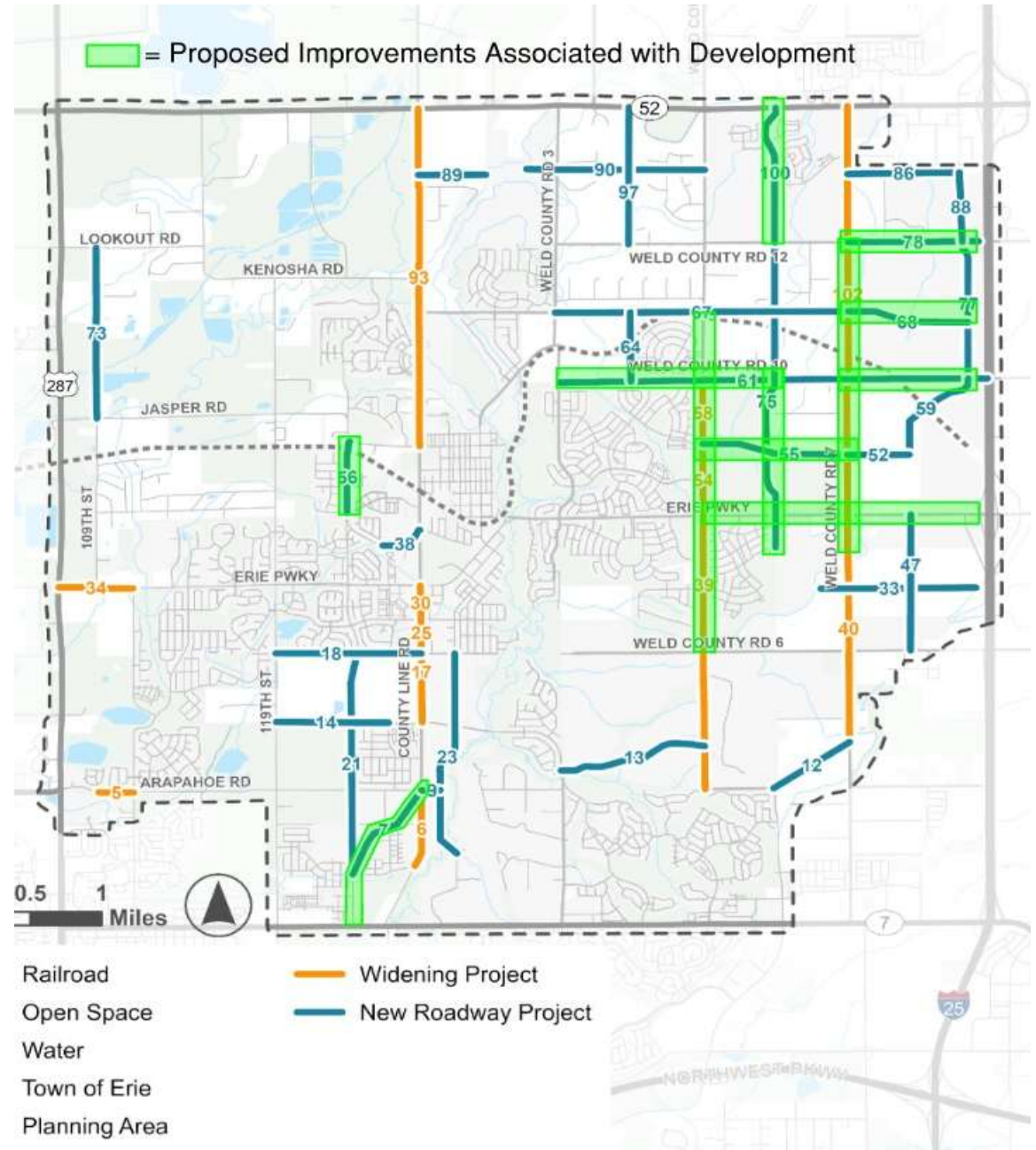




Volume/Capacity Ratio (+Identified Projects)



V/C vs. TMP Recommendations





TRANSPORTATION MODEL

Excel Spreadsheet: Realtime Updates & Cost Adjustments

TMP 5-10 Year Updates: Demographic, Economic, and Census Data
Updates with Comp Plan

Synchro Model: Operational Analysis & Fact Checking Developer TIAs



Crash Analysis

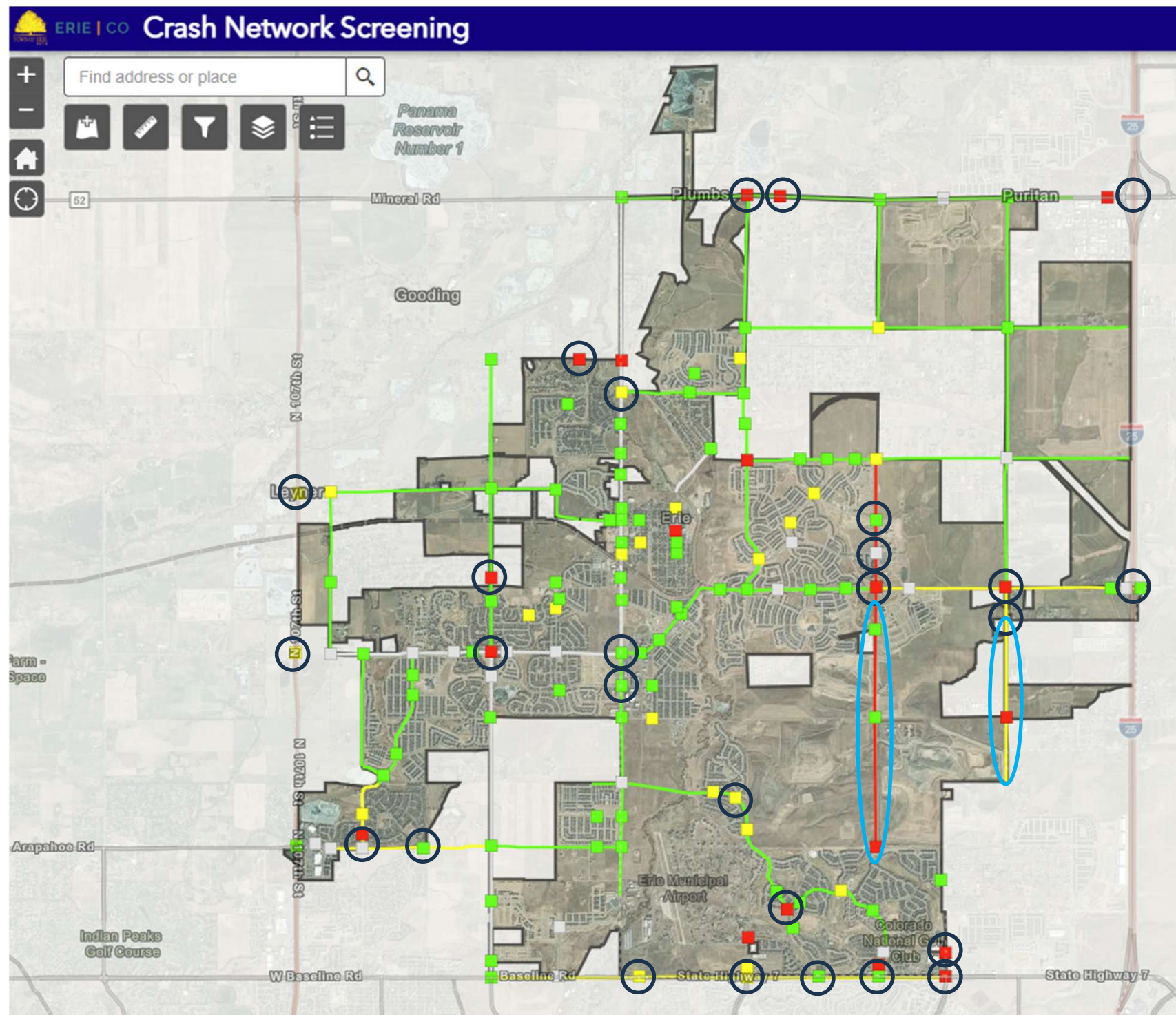
Erie Network Screening - Intersections (Total Crashes)

- LOSS 4
- LOSS 3
- LOSS 2
- LOSS 1

Erie Network Screening - Segments (Total Crashes)

- LOSS 4
— LOSS 3
— LOSS 2
— LOSS 1

- Active Transportation Safety Project
- Planned Transportation Safety Project





2050 Buildout Budget (ASCE 5)

Fiscally Constrained TMP –

- 25 Yrs @ \$6M/yr Inv. Pattern, +3% Escalator, +Added Maint. (CIP Budget)
- \$4.5M/yr in Maint. Costs (General Fund Budget)
- Projects Totals = \$1.2B in 25 Years
- 3 Staging Years with Prioritized Projects (**ASCE Level 5 Cost Est.**)

Program Budget (ASCE 3-4)

Transportation Operations Model – Scenarios w/Operational Analysis (LOS)

StreetLogix – 3 Year Scans, 5-Year Pavement and Concrete Program

Signs, Streetlights, Bridges, Other – Erie Asset Management (EAM) Reports

Annual Budget (ASCE 1-2)

Project Budget – Projects, aligned with Staffing Resources, Presented to Council



TMP – 5 Year Priorities

Short-term: 2027-2031

Bicycle Projects

Table 23. Short-term (2027-2031) Bicycle Projects

Project ID	Corridor	From	To	Facility Type	Length (Miles)	Cost Per Mile	Total Cost
8	E County Line Rd	N/O SH 52	E Baseline Rd	Buffered Bike Lane	7.5	\$110,000	\$828,720
7	County Line Rd	SH 52	Arapahoe Rd	Multi-use Path	6.5	\$2,100,000	\$13,582,754
3	US 287	N/O SH 52	Arapahoe Rd	Buffered Bike Lane	6.7	\$110,000	\$731,733
5	Unnamed	County Road 16 1/2	Telleen Ave	Bike Lane	4.3	\$100,000	\$ 431,628
71	Unnamed	Erie Pkwy	County Road 3	Buffered Bike Lane	1.7	\$110,000	\$188,746
103	Unnamed	Briggs St	Coal Creek	Bike Lane	0.2	\$100,000	\$ 18,202
178	Unnamed	E County Line Rd	Lasnik St	Buffered Bike Lane	0.5	\$110,000	\$58,618
Total Estimated Cost							\$15,840,400.85



TMP – 5 Year Priorities

Roadway Projects

Table 24. Short-term (2027-2031) Roadway Projects

Project ID	Roadway	Segment	Project Type	Cost per Mile	Total Cost
93	E County Line Road	Mineral Rd to Jay Rd	Widening	\$2,000,000	\$4,942,644
1	State Highway 7	N 119th St to I-25	Reconstruction	\$2,000,000	\$9,947,830
10	Arapahoe Rd	111th St to 119th St			
48	County Line Rd	Erie Pkwy to Telleen Ave			
53	County Line Rd	Telleen Ave to N 119th St			
5	Arapahoe Rd	Beasley Dr to I-25			
30	County Line Rd	Austin to Erie Pkwy			
34	Erie Pkwy	US 287 to 111th St			
94	N 109th St	Mineral Rd to I-25			
22	WCR 6	WCR 5 to WCR 7			
32	Erie Pkwy	Meadowview Rd to I-25			
92	115th St	SH52 to Lookout Rd			
6	E County Line Rd	Arapahoe Rd to I-25			
11	N 119th St	Arapahoe Rd to I-25			
25	County Line Rd	Bonnell Ave to I-25			
39	WCR 5	WCR 10 to WCR 7			
54	County Road 5	New Roadway			
56	Jasper Rd Extension	Telleen Ave to I-25			
Project ID	Roadway	Segment	Project Type	Cost per Mile	Total Cost
7	New Roadway	Coal Creek Blvd to E County Line Rd	New Roadway	\$3,000,000	\$2,417,966
17	County Line Rd	Erie Pkwy to Bonnell Ave to Arapahoe Rd	Widening	\$2,000,000	\$2,011,675
23	Mason St	Bonnell Ave to County Line Rd & Arapahoe Rd Intersection	New Roadway	\$3,000,000	\$5,534,738
41	Erie Pkwy	WCR 5 1/2 to WCR 7	Reconstruction	\$2,000,000	\$1,011,194
58	County Road 5	County Road 10 to New Roadway	Widening	\$2,000,000	\$923,930
73	109th St	Lookout Rd to Jasper	New Roadway	\$3,000,000	\$3,819,949
102	WCR 7	SH 52 to Erie Pkwy	Widening	\$2,000,000	\$6,023,869
8	New Roadway	Arapahoe Rd to unnamed	New Roadway	\$3,000,000	\$752,817
18	New Roadway	N 119th St to E County Line Rd	New Roadway	\$3,000,000	\$3,053,392
21	New Roadway	Westin Dr to Monroe St	New Roadway	\$3,000,000	\$4,922,246
38	Jasper Rd	Stewart Way to County Line Rd	New Roadway	\$3,000,000	\$906,749
40	WCR 7	Erie Pkwy to Sheridan Blvd	Widening	\$2,000,000	\$3,320,253
42	Erie Pkwy	WCR 5 to WCR 5 1/2	Reconstruction	\$2,000,000	\$1,006,463
45	Erie Pkwy	WCR 7 1/2 to I-25 SB ramps	Reconstruction	\$2,000,000	\$839,869
46	Erie Pkwy	WCR 7 to (new) WCR 7 1/2	Reconstruction	\$2,000,000	\$1,007,380
79	New Roadway	New Roadway to County Road 3	New Roadway	\$3,000,000	\$551,057
Total Estimated Cost					\$70,568,000



TMP – 5 Year Priorities

Pedestrian Projects

The pedestrian program has **\$15,845,482** dedicated to it in the short-term. At \$1,700,000/mile for new sidewalk, Erie should implement 9.3 miles of new sidewalk in the short-term. Per [Chapter 5](#), sidewalk gaps should be completed before existing sidewalks are upgraded.

Multimodal Intersection Projects

Table 25. Short-term (2027-2031) Multimodal Intersection Projects

Project ID	Category	Intersection	Description	Cost Estimate
17	Enhanced Crossing	WCR 3 & WCR 1 1/2	Enhanced Ped Crossing	\$16,000
29	Enhanced Crossing	WCR 5 & WCR 6	Grade Separated Crossing	\$8,000,000
41	Intersection Project	Erie Pkwy & County Line Rd	Safety Improvements	\$19,500
33	Enhanced Crossir			
42	Intersection Proje			
52	Intersection Proje			
11	Enhanced Crossir			
20	Intersection Proje			
36	Intersection Proje			
38	Intersection Proje			
39	Intersection Proje			
23	Enhanced Crossir			
Project ID	Category	Intersection	Description	Cost Estimate
57	Intersection Project	Mtn View Blvd to Parkdale S Cir	Roundabout Improvements	\$150,000
64	Intersection Project	Arapahoe Rd & 119th St	Intersection Improvements	\$195,000
3	Intersection Project	Highway 52 and County Road 5	Intersection Improvements	\$195,000
43	Intersection Project	E County Line Rd & Bonnell Ave	Intersection Improvements	\$195,000
49	Intersection Project	Mtn View Blvd to Parkdale S Cir	Roundabout Improvements	\$150,000
12	Intersection Project	County Road 3 & County Road 10 1/2	Roundabout	\$1,000,000
63	Intersection Project	Erie Pkwy & County Road 5	Intersection Improvements	\$195,000
20	Enhanced Crossing	Mountain View Blvd & Skyline Dr	Enhanced Ped Crossing	\$16,000
5	Intersection Project	Highway 52 & County Road 7	Intersection Improvements	\$195,000
Total Estimated Cost				\$12,129,000