

Public Information Meetings

MHK ↔ PT

Big Blue River 2nd Connection Cost-Benefit Analysis



Agenda

- **Background**
- **Route Overviews**
- **Design Criteria**
- **Report Findings**
- **Next Steps**
- **Further information**

Background

2009 US-24 Corridor Management Plan

- Addresses needs on Corridor (future 6-lanes)

2012 Marlatt – Junietta Study

- Multiple spur options from US-24 to Marlatt Ave
- New bridge
- \$34 to \$50 million

2017 Bluetooth Study & TDM

- Data projects limited usage of Junietta-Marlatt connection
- KDOT's focus is US-24

Background

Funding



No State (KDOT) \$

Engineering Study



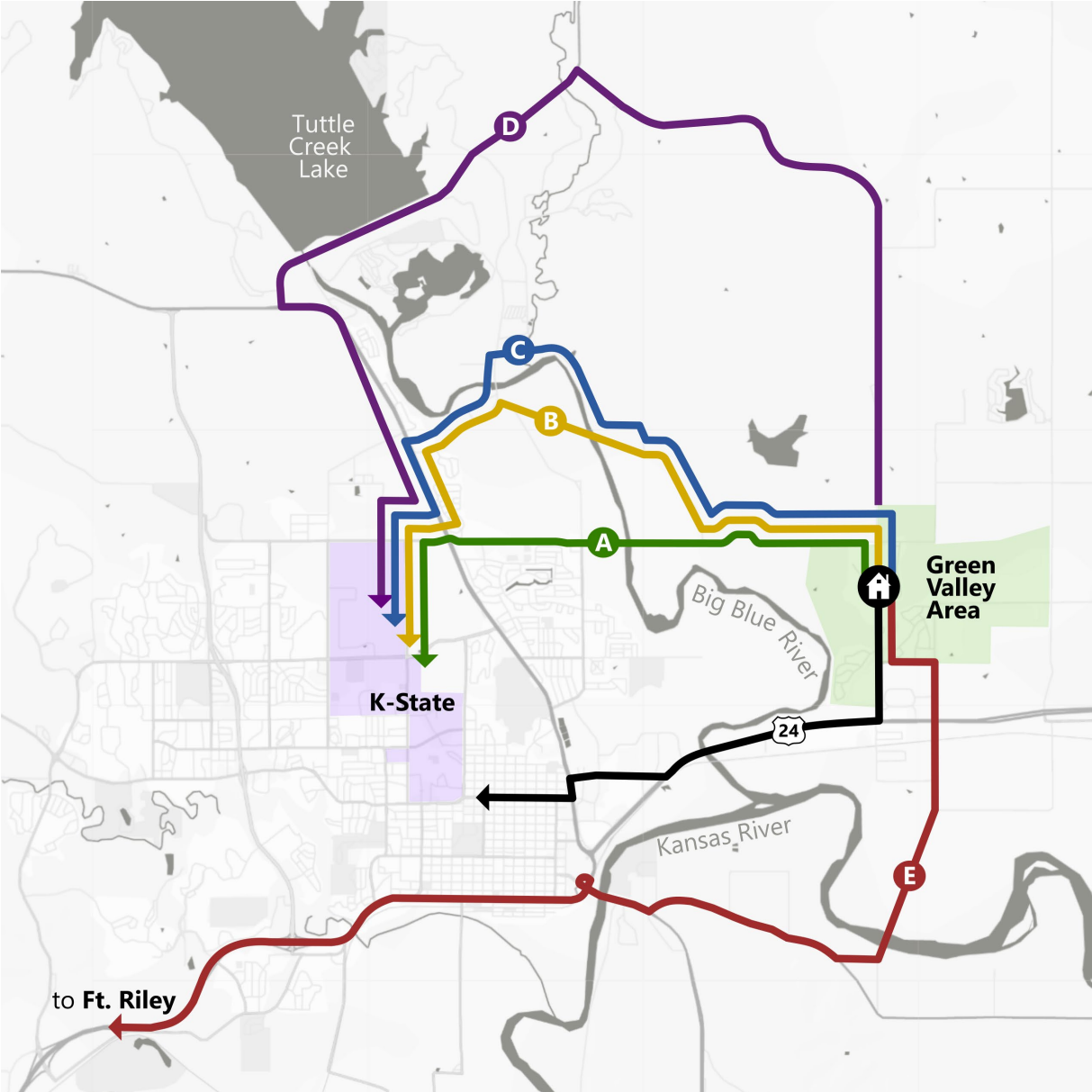
Admin, Final Report, & Public Outreach



This study **does not select a route to be built**, rather the analysis provides facts, figures, and pros & cons of each route.

Route Overviews

- A
- B
- C
- D
- E



Route Overviews

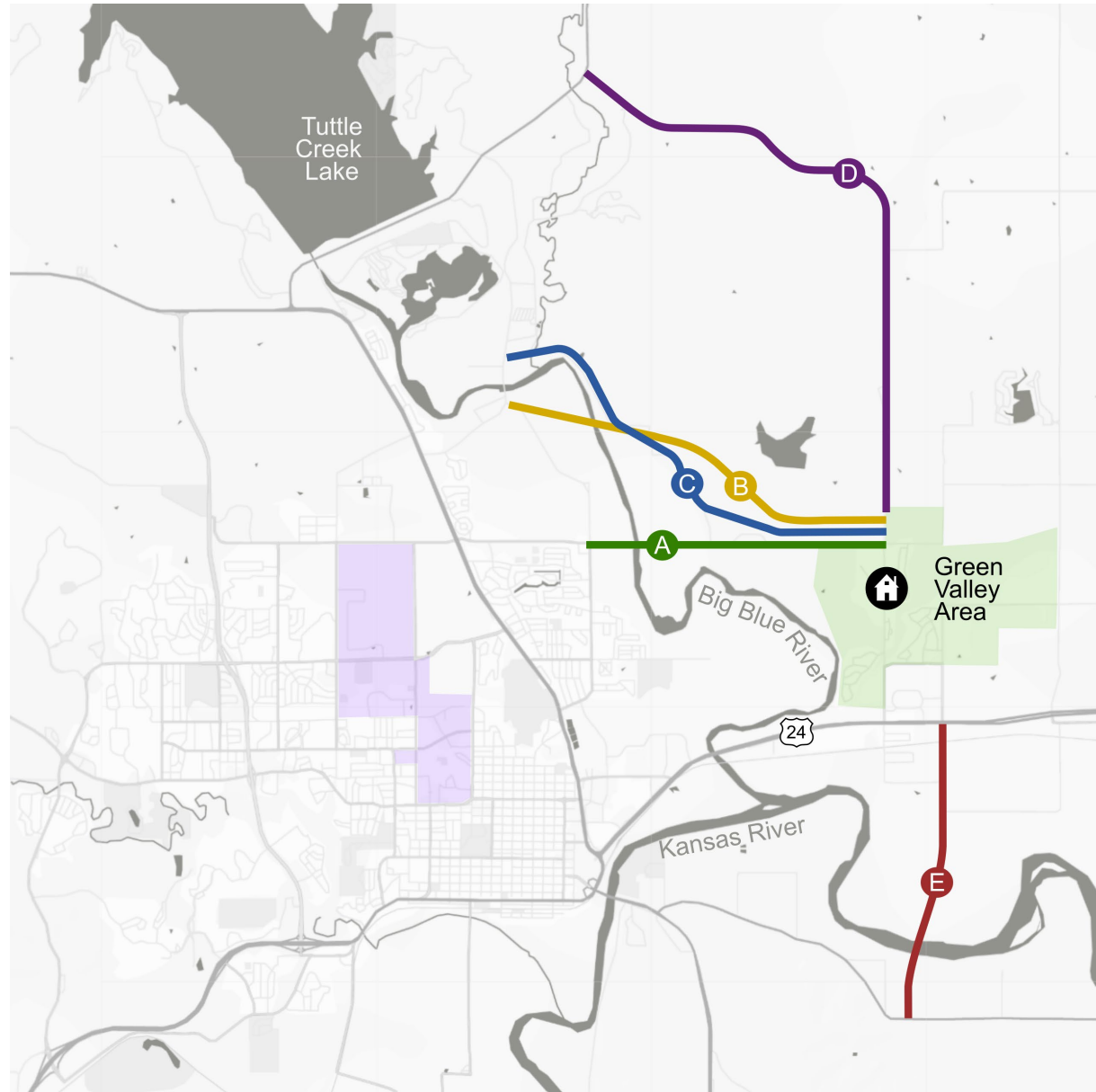
A

B

C

D

E

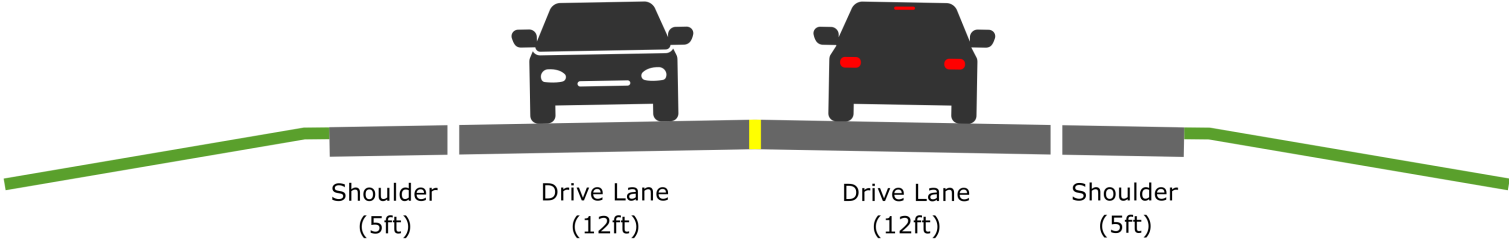


Design Criteria

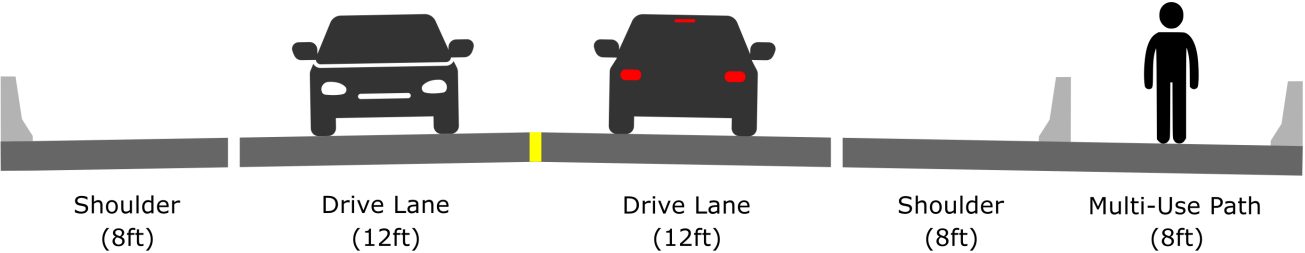
Criteria dictate **roadway design & property impacts...**
which drive project **costs.**

Lanes	2 - with shoulders
Speed Limit	40 mph
Road Classification	Major Collector
Right-of-Way	100+ ft
Max. Vertical Slope	8%

Design Criteria



Road Section



Bridge Section

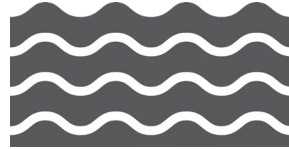
Design Criteria



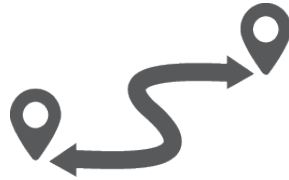
Not a highway, but a rural 2-lane roadway

Report Findings: Metric Criteria

Flooding



Route Length



Bridge Length



**Right-of-Way/
Private Property**

ROW

**Projected Daily
Vehicles**



Travel Time



Cost



Flooding

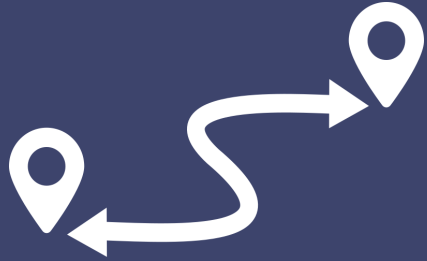


Flooding

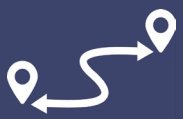
Would the route be open during a 100-year flood?

- A** No, Marlatt Ave & Casement Rd will be closed
- B** Yes, Barnes Rd will be open
- C** No, Dyer Rd & Blue River Rd will be closed
- D** Yes, all roads will be open
- E** No, Excel Rd south of US-24 will be closed

Details: www.FlintHillsMPO.org/2ndConnection

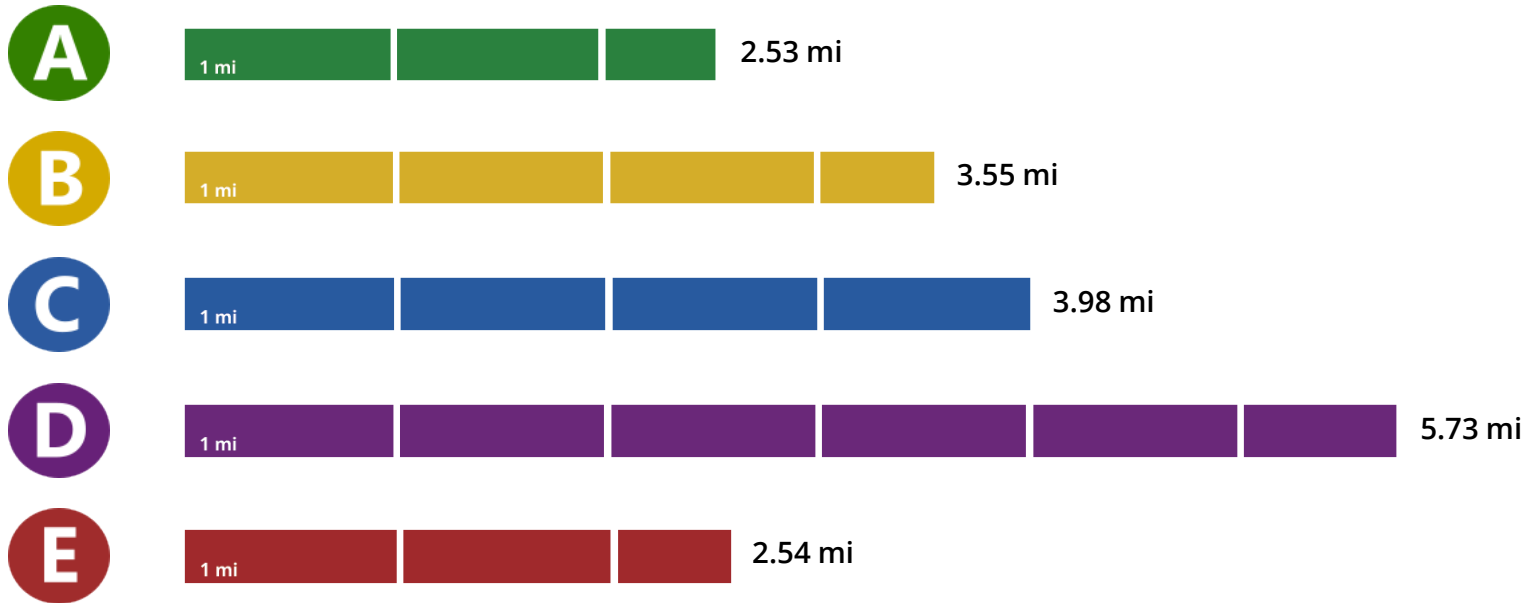


Route Length



Route Length

Length of new or improved road construction, including bridges



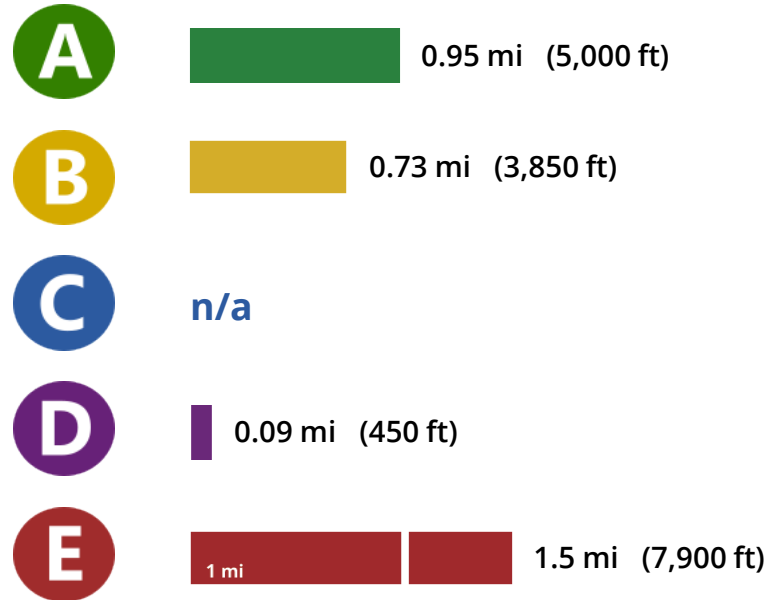
Length of new or improved road construction, including bridges



Bridge Length



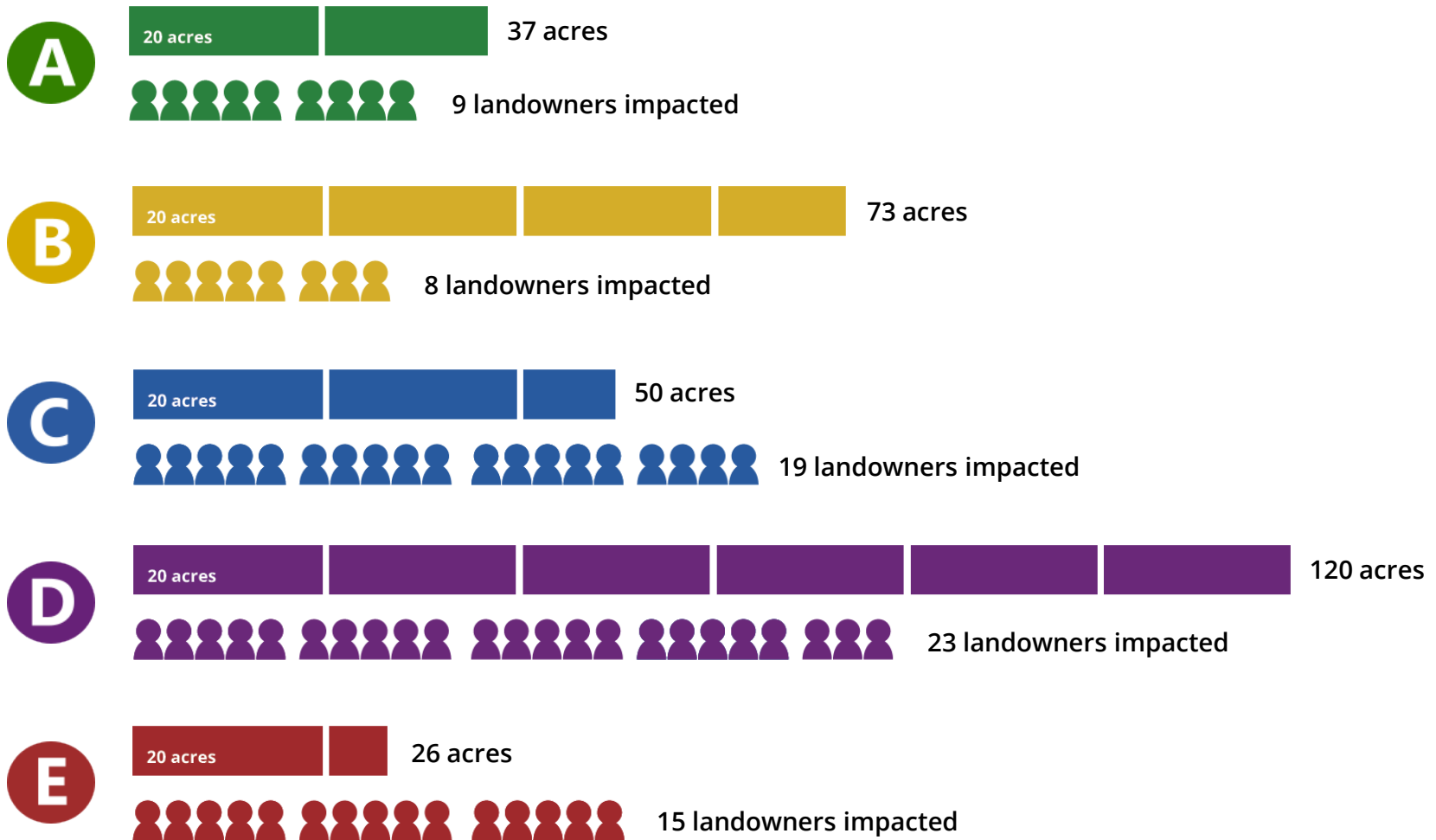
Bridge Length

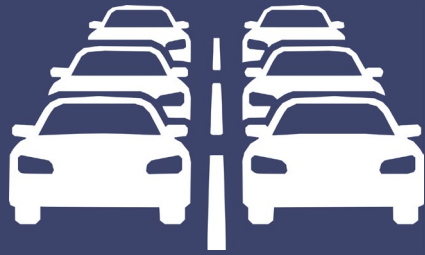


Details: www.FlintHillsMPO.org/2ndConnection

ROW

Right-of-Way
& Property



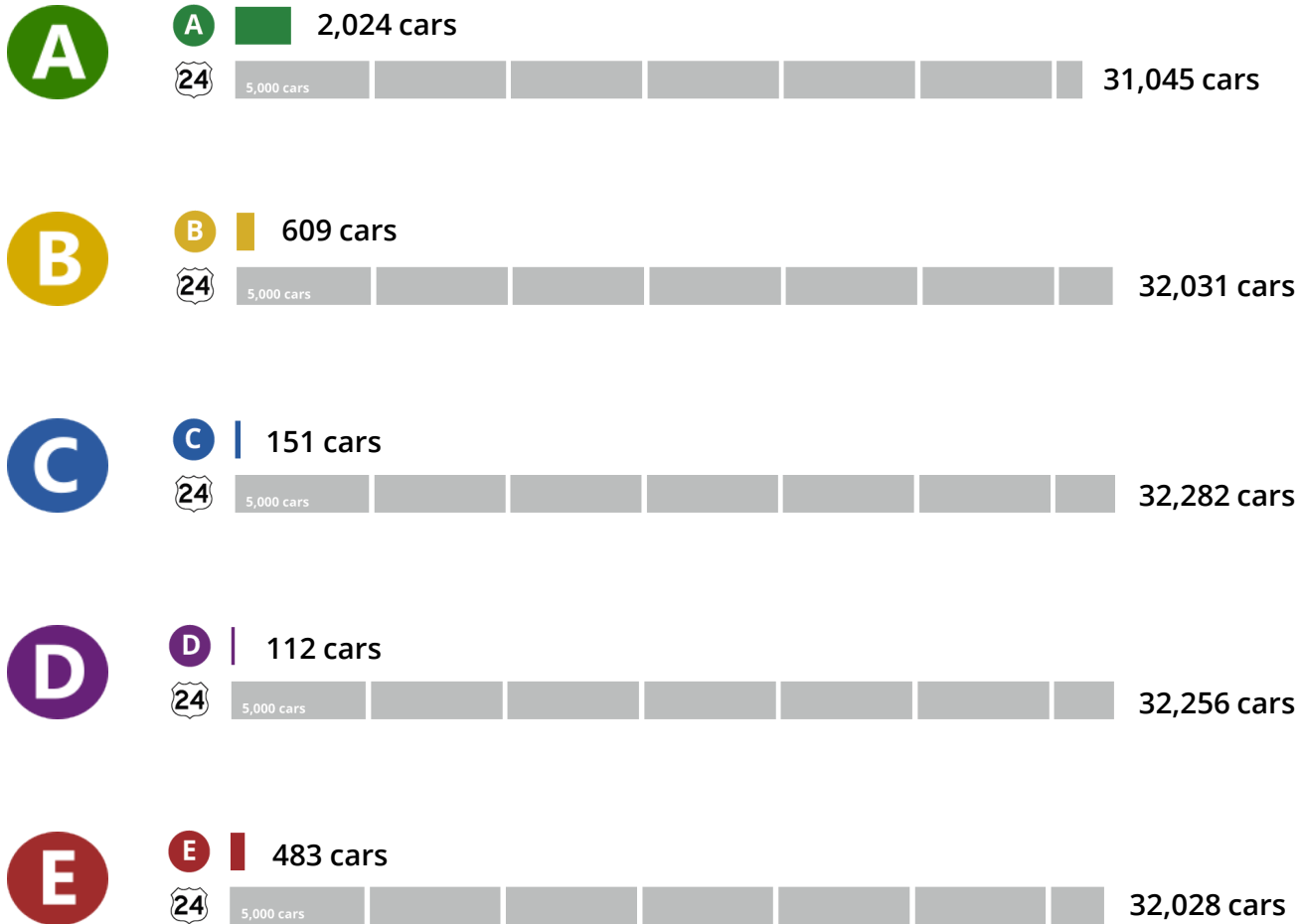


Projected Daily Vehicles



Projected Daily Vehicles

Avg. daily vehicles if the bridge was built **today**



TDM calculation: today's population and E+C network with 2nd Connection route



Projected Daily Vehicles

Avg. daily vehicles with high-end population growth in **2050**

A

A

5,067 cars

24

5,000 cars | 40,640 cars

B

B

2,210 cars

24

5,000 cars | 42,517 cars

C

C

1,071 cars

24

5,000 cars | 43,139 cars

D

D

412 cars

24

5,000 cars | 43,083 cars

E

E

1,933 cars

24

5,000 cars | 42,627 cars

TDM calculation: 2050 high-growth population and E+C network with 2nd Connection route





Projected Daily Vehicles





Today  2,024 cars
2050  5,067 cars



Today  609 cars
2050  2,210 cars





Today  151 cars
2050  1,071 cars



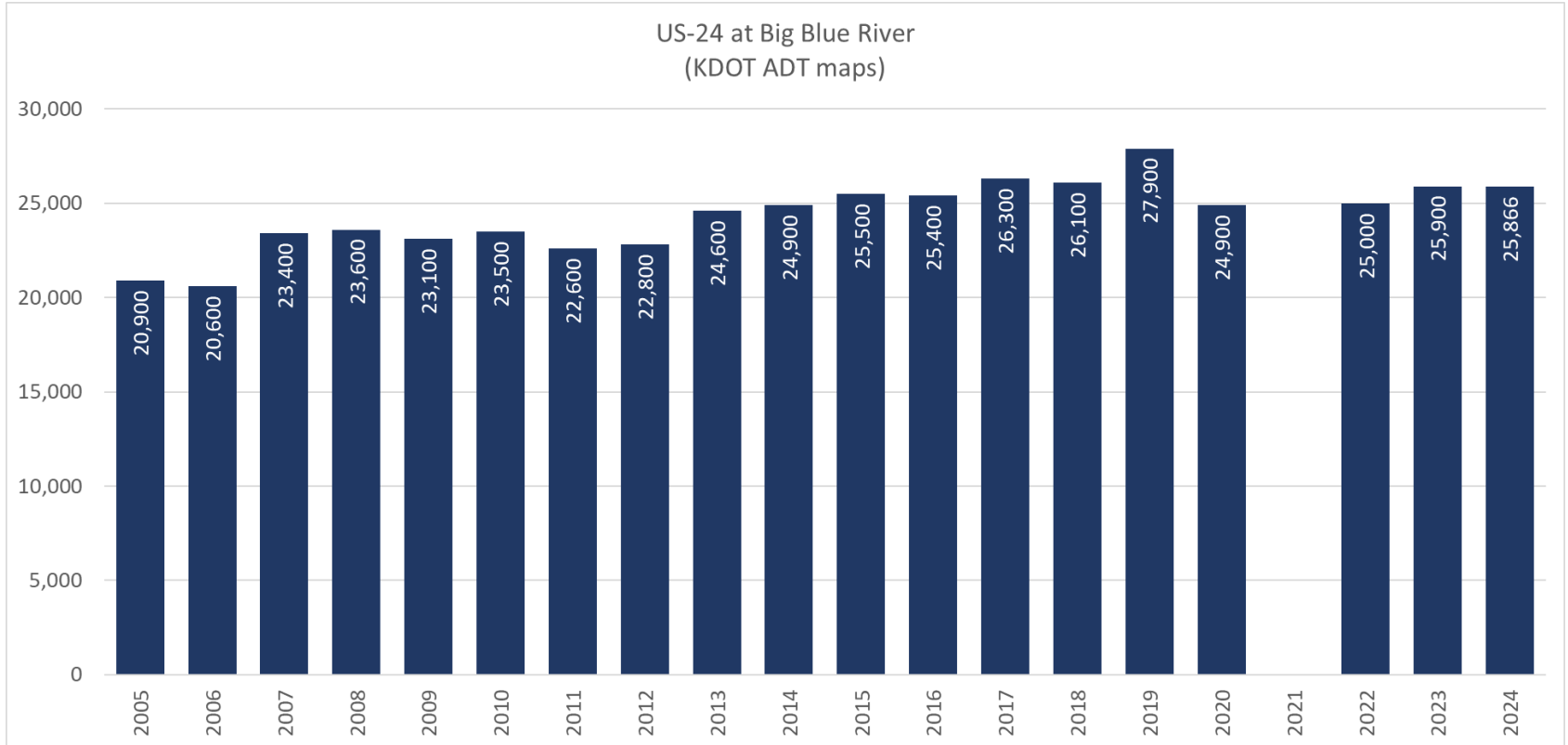
Today  112 cars
2050  412 cars



Today  483 cars
2050  1,933 cars



Daily Vehicles: US-24





Projected Daily Vehicles

Online & interactive



**Traffic Volume
Comparison**

www.flinthillsmmpo.org/2ndConnection

Compare:

- Today vs 2050
- Routes A-E vs US-24
- US-24 (4-lane) vs (6-lane)

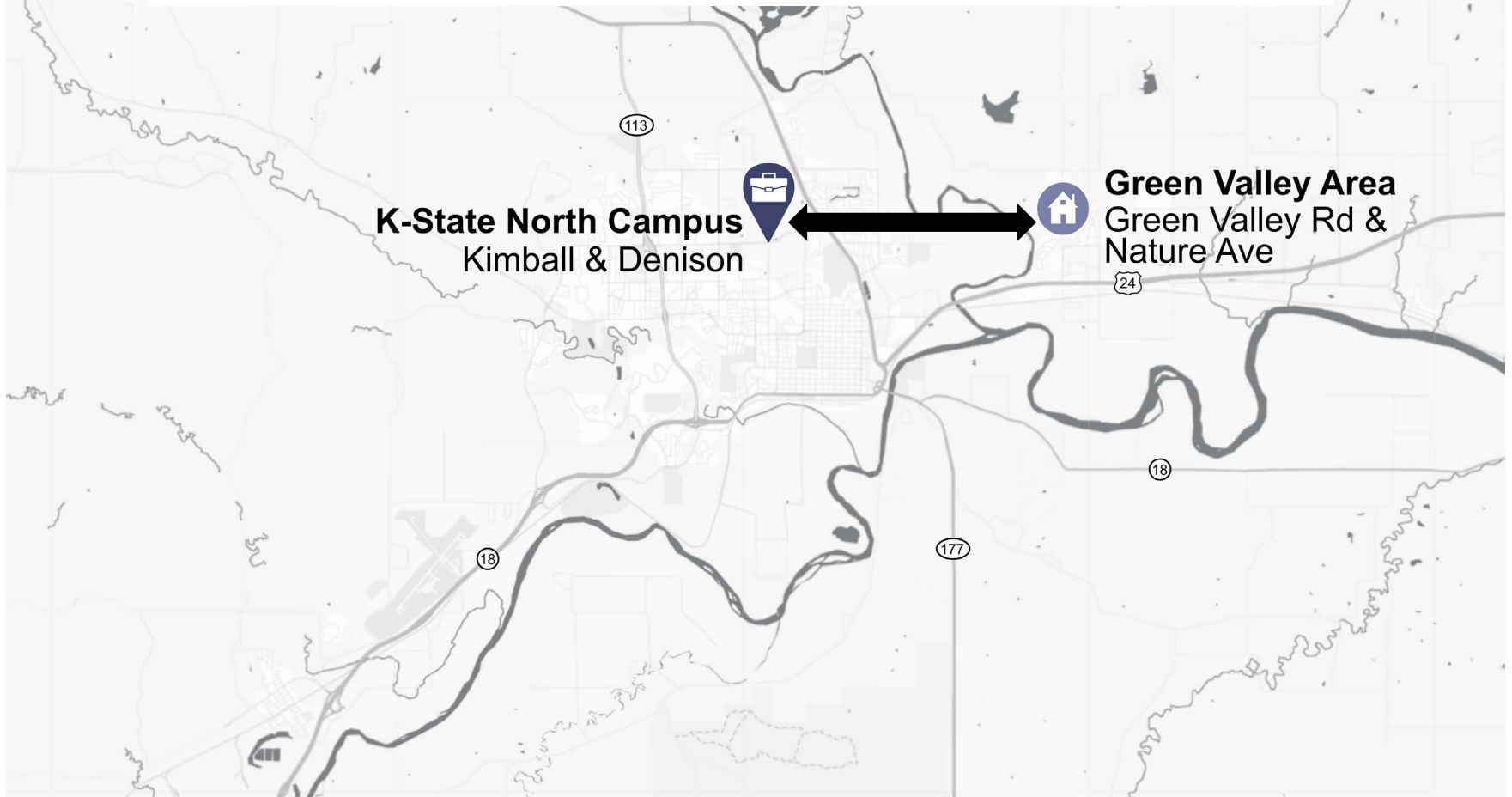


Travel Time



Travel Time

- Data from the Travel Demand Model (TDM)
- Work to Home (5pm)
- Intersection to intersection (not door to door)
- US-24 (4-lanes)

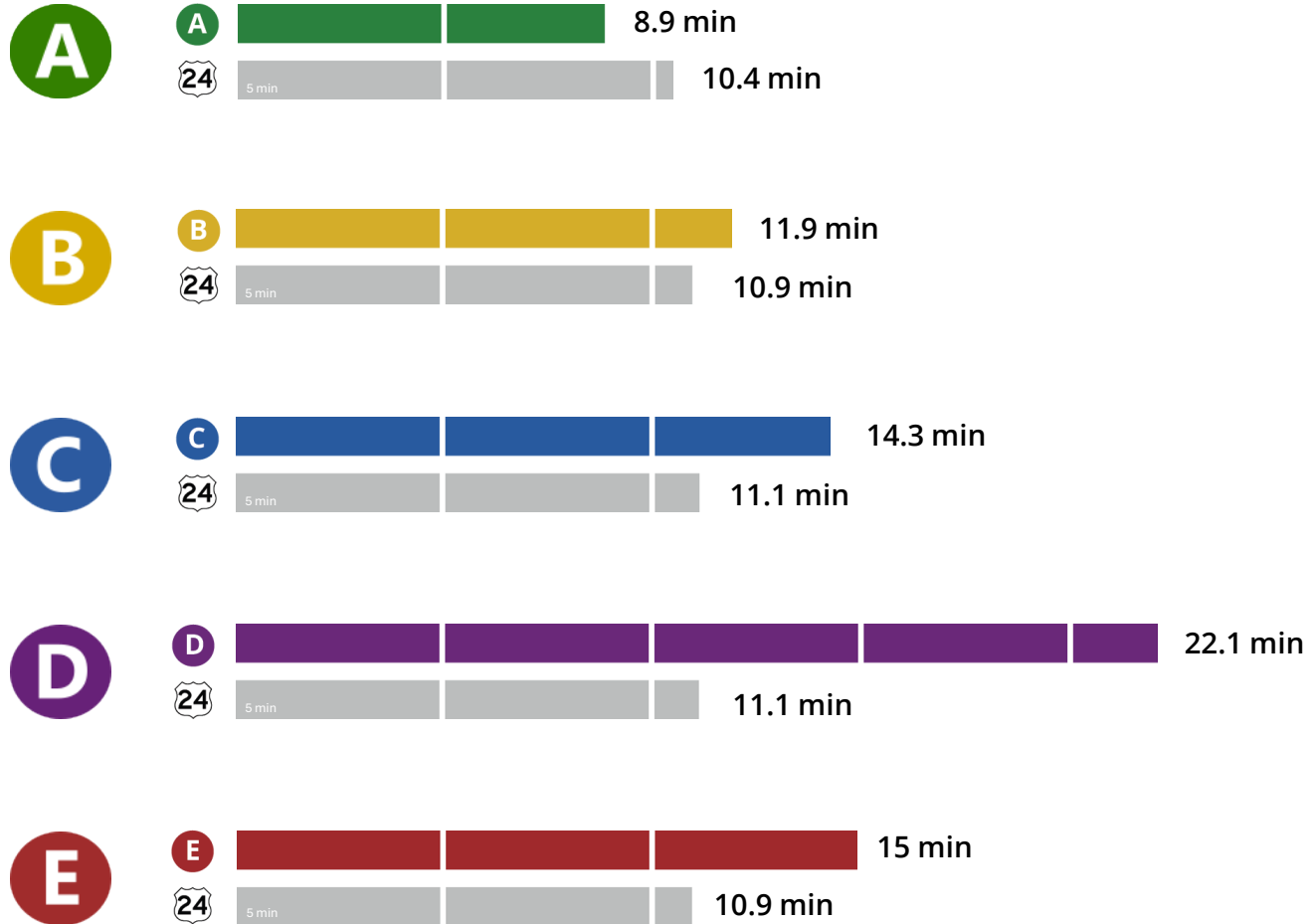




Travel Time



Avg. travel time if the new connection was built **today**



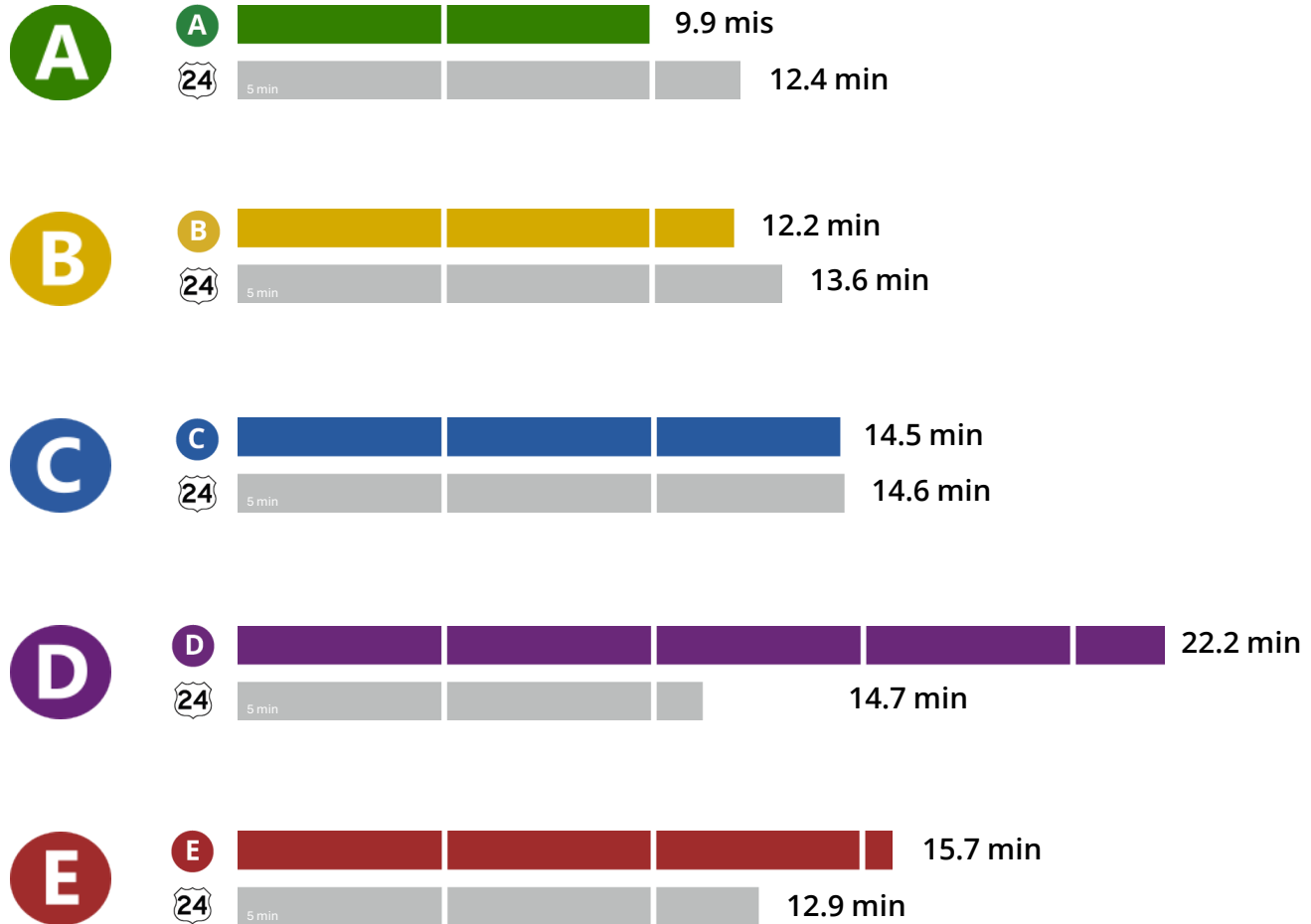
TDM calculation: today's population and E+C network with 2nd Connection route



Travel Time



Avg. travel time with high-end population growth in **2050**



TDM calculation: 2050 high-growth population and E+C network with 2nd Connection route



Travel Time



Avg. travel time

A



B



C



D



E





Travel Time

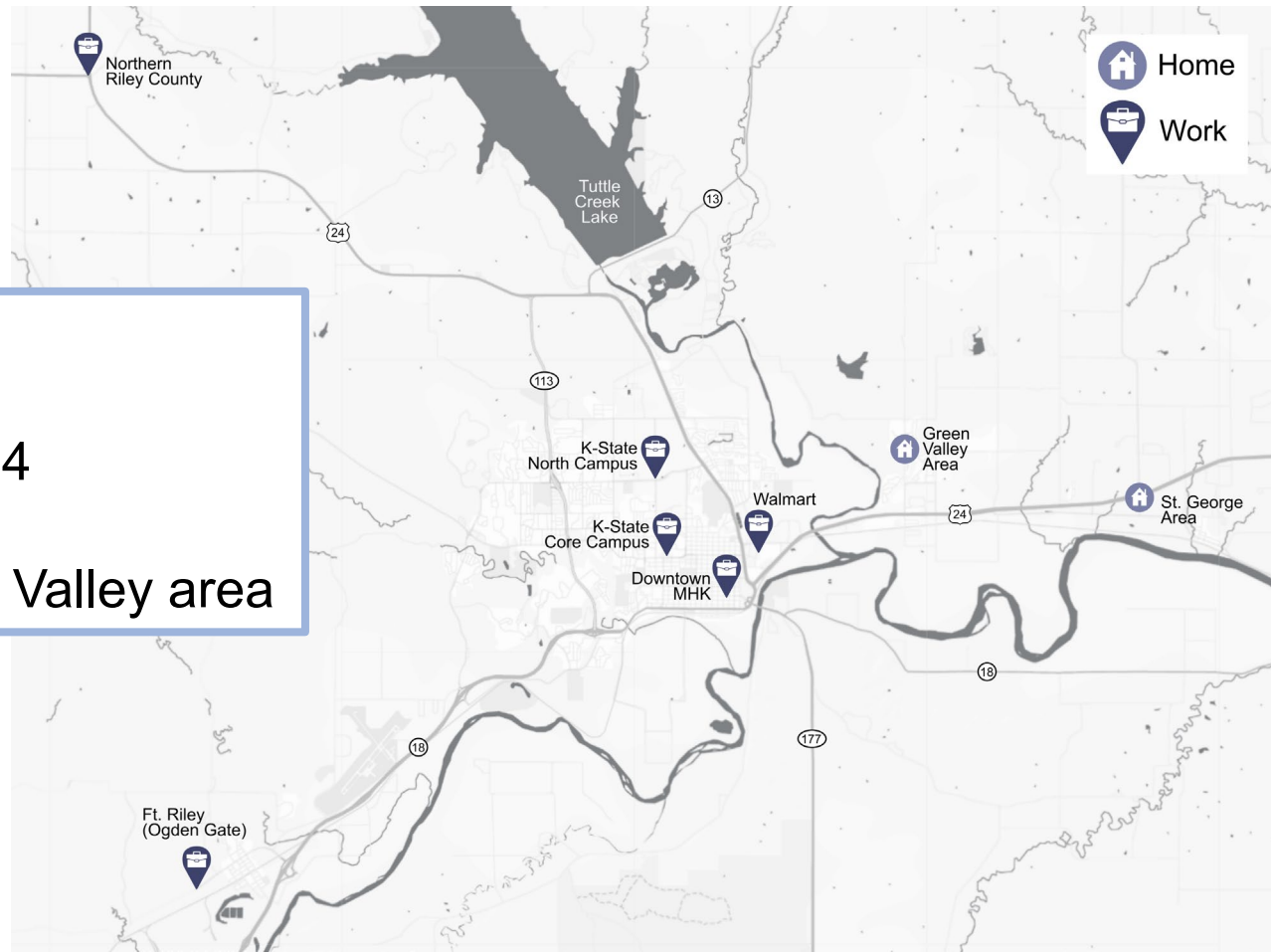
Online & interactive

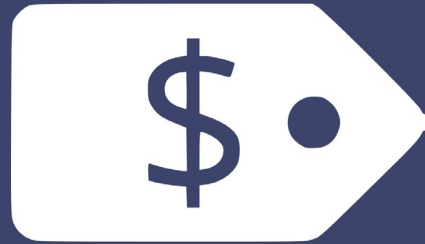


Travel Time Comparison

Compare:

- Today vs 2050
- Routes A-E vs US-24
- 8am vs 5pm
- St. George & Green Valley area



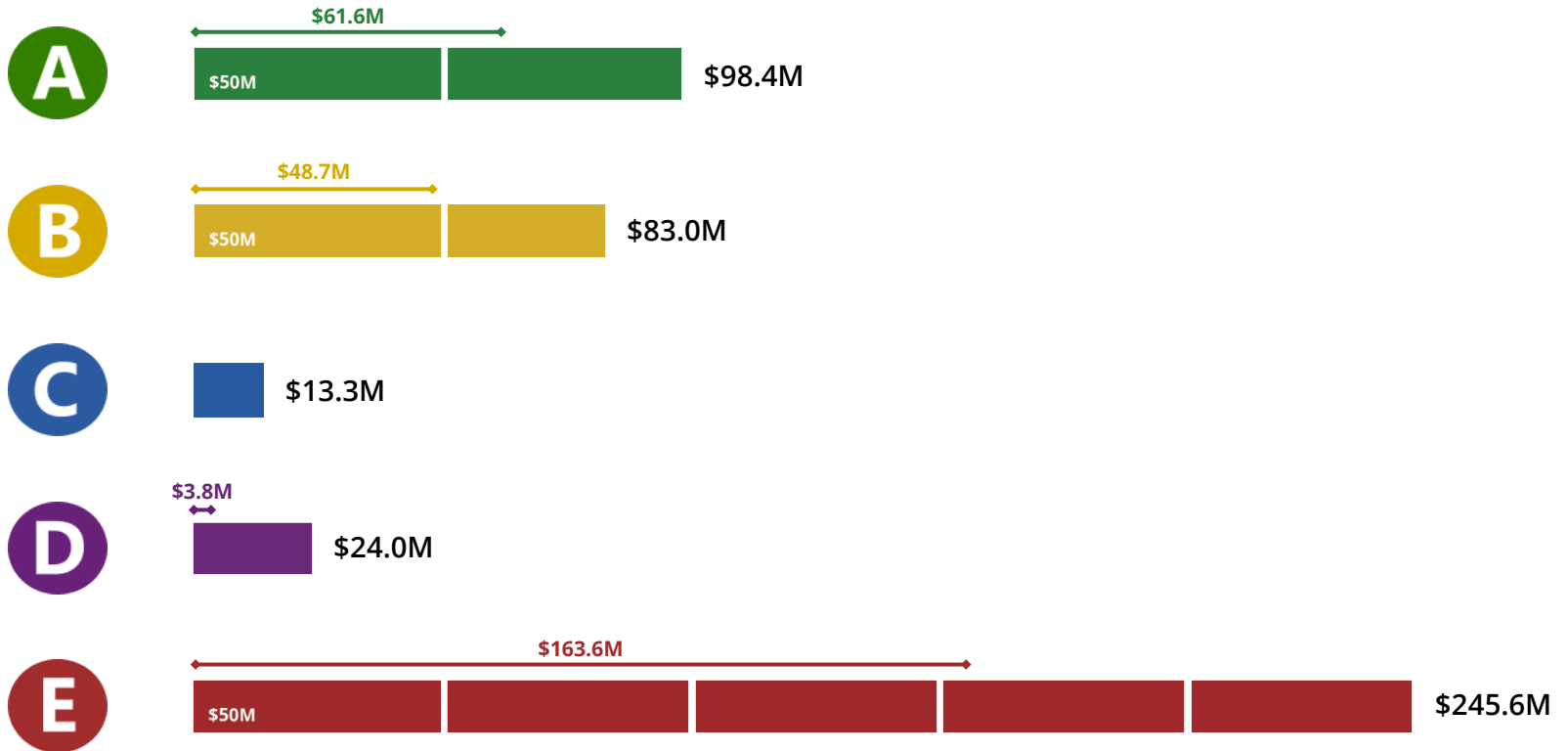


Cost



Cost

ROW + Engineering + Construction + Contingency



Bridge \$

Detailed cost estimates available in report

A**Junietta Rd → New Bridge → Marlett Ave**

Open During 100Y Flood?

**Study Metrics****B****Junietta Rd → New Road → Barnes Rd**

Open During 100Y Flood?

**Study Metrics****C****Junietta Rd → Blue River Rd → Barnes Rd**

Open During 100Y Flood?

**Study Metrics****D****Green Valley Rd → New Road → Cedar Creek Rd**

Open During 100Y Flood?

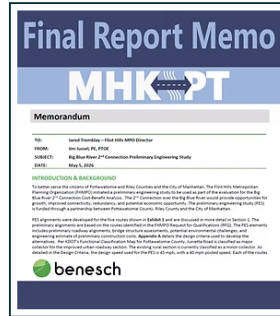
**Study Metrics****E****Excel Rd → New Bridge → K-18**

Open During 100Y Flood?

**Study Metrics**

Next Steps

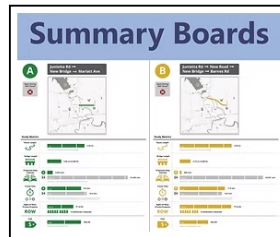


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This memo provides the complete findings on the routes of study.

Items include:

- Summaries of each route option
- Projected vehicle use of each route option
- Design criteria
- Plan drawings of proposed routes
- Profile drawings proposed routes & bridges
- Itemized cost estimates (planning level)



These summary boards visualize the data and findings from the Final Report Memo. They enable quick side-by-side comparisons of the five routes studied.



This interactive web map allows you to see in detail the five routes studied. Layers include:

- Route alignments
- Bridge locations
- Flood zones
- Right-of-Way & property impacts



This interactive tool allows you to compare travel time from Blue Township or St. George to various locations in Manhattan, using 2nd Connection Routes (ie. A vs B vs US-24, etc.). The tool shows predicted travel times for today and under future conditions in 2050.



This tool allows you to compare expected traffic volumes (number of vehicles) on 2nd Connection Routes (A - E), and how those routes impact traffic volumes on US-24. Travel volumes are provided for today and under future conditions in 2050.

Questions & Comments

www.FlintHillsmpo.org/2ndConnection



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Fill out the form below to submit your comments or questions regarding the Big Blue River 2nd Connection Cost-Benefit Analysis.

Comments & Questions

First name *

Last name *

Email

In what community do you live? *

- Manhattan (RL County)
- Green Valley area/Blue Township
- St. George (City or Township)
- Wamego
- PT County (rural)
- RL County (outside of Manhattan)
- Other

Comments

Submit

THANK YOU!



JARED TREMBLAY, Director
tremblay@flinthillsmpo.org

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