



OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Technical Planning Committee MEETING AGENDA

FEBRUARY 15, 2023
1:30 - 3:00 PM

OTO CONFERENCE ROOM, SUITE 101
2208 W. CHESTERFIELD BLVD., SPRINGFIELD



OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Technical Planning Committee Meeting Agenda

Wednesday, February 15, 2023 1:30 p.m.

The TPC will convene in person –

OTO Offices Chesterfield Village

2208 W Chesterfield Boulevard, Suite 101 Springfield, MO

The public may view the meeting in-person or on Facebook:

<https://www.facebook.com/ozarkstransportationorganization>

Call to Order 1:30 PM

I. Administration

A. Introductions

B. Approval of the Technical Planning Committee Meeting Agenda

(1 minute/Roussell)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE THE AGENDA

C. Approval of December 21, 2022 Meeting Minutes Tab 1

(1 minute/Roussell)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE PRIOR MEETING MINUTES

D. Public Comment Period for All Agenda Items Tab 2

(5 minutes/Roussell)

Individuals requesting to speak are asked to state their name and organization (if any) they represent before making comments. Individuals and organizations have up to five minutes to address the Technical Planning Committee.

E. Staff Report

(5 minutes/Fields)

Sara Fields will provide a review of Ozarks Transportation Organization (OTO) staff activities since the last Technical Planning Committee meeting.

F. Legislative Reports

(5 minutes/Legislative Staff)

Representatives from the OTO area congressional delegation will have an opportunity to give updates on current items of interest.

G. MoDOT Report

(10 minutes/Miller)

Representatives from MoDOT will provide an update on activities in the District and State, as well as provide an update on the FY 2024-2028 Statewide Transportation Improvement Program development process.

H. Committee Reports

(5 minutes/Longpine)

Staff will provide an update on OTO Committee work activities.

II. New Business

A. Route FF Corridor Study Tab 3
(15 minutes/Fields)

CMT will present the final Route FF Corridor Study, which includes Route FF from Republic Road to the Christian County line.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND ACCEPTANCE OF THE INCLUDED ROUTE FF CORRIDOR STUDY TO THE BOARD OF DIRECTORS

B. OTO Growth Trends Report Tab 4
(15 minutes/Faucett)

Staff will present highlights of the OTO Growth Trends Report.

NO ACTION REQUESTED – INFORMATIONAL ONLY

C. MoDOT Sidewalk Cost Share Recommendations Tab 5
(5 minutes/Longpine)

Two projects were recommended by the Bicycle and Pedestrian Advisory Committee to receive TAP funding as part of a cost share program with MoDOT.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF TAP FUNDING FOR SIDEWALK COST SHARE PROJECTS TO THE BOARD OF DIRECTORS

D. FY 2023-2026 TIP Administrative Modification One Tab 6
(2 minutes/Longpine)

Two changes have been made to the FY 2023-2026 Transportation Improvement Program.

NO ACTION REQUESTED – INFORMATIONAL ONLY

E. FY 2023-2026 TIP Amendment Four Tab 7
(5 minutes/Longpine)

Four changes are proposed to the FY 2023-2026 Transportation Improvement Program.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF FY 2023-2026 TIP AMENDMENT FOUR TO THE BOARD OF DIRECTORS

F. STBG-U Advance Agreement Revisions Tab 8
(10 minutes/Longpine)

Staff is proposing revisions to the OTO STBG-Urban Advance Agreement.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF THE REVISED ADVANCE AGREEMENT TO THE BOARD OF DIRECTORS

G. UPWP Subcommittee

(2 minutes/Parks)

OTO is requesting the appointment of a subcommittee to prepare the FY 2023 Unified Planning Work Program.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPOINT THE UPWP SUBCOMMITTEE

H. TIP Subcommittee

(2 minutes/Longpine)

OTO is requesting the appointment of a subcommittee to prepare the FY 2024-2027 Transportation Improvement Program.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPOINT THE TIP SUBCOMMITTEE

III. Other Business

A. Technical Planning Committee Member Announcements

(5 minutes/Technical Planning Committee Members)

Members are encouraged to announce transportation events being scheduled that may be of interest to OTO Technical Planning Committee members.

B. Transportation Issues for Technical Planning Committee Member Review

(5 minutes/Technical Planning Committee Members)

Members are encouraged to raise transportation issues or concerns they have for future agenda items or later in-depth discussion by the OTO Technical Planning Committee.

C. Articles for Technical Planning Committee Member Information..... Tab 9

IV. Adjournment

Targeted for 3:00 P.M. The next Technical Planning Committee meeting is scheduled for Wednesday, April 19, 2023 at 1:30 P.M. in person at the OTO Offices, 2208 W. Chesterfield Blvd, Suite 101.

Si usted necesita la ayuda de un traductor, por favor comuníquese con Nicole Stokes al (417) 865-3042, al menos 48 horas antes de la reunión.

Persons who require special accommodations under the Americans with Disabilities Act or persons who require interpreter services (free of charge) should contact Nicole Stokes at (417) 865-3042 at least 24 hours ahead of the meeting.

If you need relay services please call the following numbers: 711 - Nationwide relay service; 1-800-735- 2966 - Missouri TTY service; 1-800-735-0135 - Missouri voice carry-over service.

OTO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. For more information or to obtain a Title VI Complaint Form, see www.ozarkstransportation.org or call (417) 865-3042.

TAB 1

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM I.C.

December 21, 2022 Meeting Minutes

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

Attached for Committee member review are the minutes from the December 21, 2022 meeting. Please review these minutes prior to the meeting and note any changes that need to be made. The Chair will ask during the meeting if any member has any amendments to the attached minutes.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

A member of the Technical Planning Committee is requested to make one of the following motions:

“Move to approve the Technical Planning Committee December 21, 2022 meeting minutes.”

OR

“Move to approve the Technical Planning Committee meeting minutes with the following corrections...”

**OZARKS TRANSPORTATION ORGANIZATION
TECHNICAL PLANNING COMMITTEE MEETING MINUTES
DECEMBER 21, 2022**

The Technical Planning Committee of the Ozarks Transportation Organization met at its scheduled time in person. Chairman VanHorn began the meeting at approximately 1:35 p.m.

The following members were present:

Mr. Garrett Brickner (a), City of Republic	Mr. Frank Miller, MoDOT
Ms. Paula Brookshire (a), City of Springfield	Mr. Jeremy Parsons, City of Ozark
Mr. King Coltrin (a), City of Springfield	Mr. Jeff Roussell, City of Nixa (Vice-Chair)
Mr. Kirk Juranas, City of Springfield	Ms. Beth Schaller, MoDOT
Mr. Joel Keller (a), Greene County	Mr. Tommy VanHorn, City of Battlefield (Chair)
Ms. Mary Kromrey, Ozark Greenways	

(a) Denotes alternate given voting privileges as a substitute when voting member not present

The following members were not present:

Mr. Rick Artman, Greene County	Mr. David Schaumburg, Springfield-Branson Airport
Ms. Emily Denniston, Spfld Chamber of Commerce	Mr. Mark Schenkelberg, FAA
Mr. Scott Hayes, City of Willard	Mr. Travis Shaw, Springfield Public Schools
Mr. Adam Humphrey, Greene County	Ms. Aishwarya Shrestha, SMCOG
Mr. John Matthews, MSU	Mr. Jeremy Wegner, BNSF
Mr. Ahmad Mokhtee, FTA	Mr. Todd Wiesehan, Christian County

Others present were: Ms. Kimberly Ader, Ms. Ashley Buechter, and Mr. Doug Hood, MoDOT; Mr. Mark Webb, Greene County; Mr. Tom Dancey, City of Springfield; Mr. Neil Brady, Bartlett West; Mr. David Faucett, Ms. Sara Fields, Ms. Natasha Longpine, Ms. Debbie Parks, Mr. JD Stevenson, and Ms. Nicole Stokes, Ozarks Transportation Organization.

I. Administration

A. Introductions

Chairman VanHorn welcomed everyone.

B. Approval of the Technical Planning Committee Meeting Agenda

Mr. Roussell made a motion to approve the Technical Planning Committee Meeting Agenda for December 21, 2022. Ms. Schaller seconded the motion. The motion passed.

C. Approval of June 15, August 17, August 29, October 19, and November 3, 2022 Meeting Minutes

Ms. Kromrey made a motion to approve the minutes from the June 15, August 17, August 29, October 19, and November 3, 2022 Technical Planning Committee Meetings. Ms. Schaller seconded the motion. The motion passed.

D. Public Comment Period for All Agenda Items

Chairman VanHorn advised there were public comments included in the packet. Chairman VanHorn asked for comments or questions.

E. Staff Report

Ms. Fields stated OTO staff have been working to bring more funding to the region. Interstate 44 is still the top priority. Staff is still waiting to hear on the MEGA Grant that was submitted for the I-44 project. A general revenue request is being submitted with the State of Missouri for \$28 million for part of the I-44 project.

Staff will be submitting another application for a RAISE Grant for the MM Corridor in Republic. The NOFO just came out and is due in February.

The City of Springfield is submitting an application again for the Jefferson Avenue footbridge, as well.

In partnership with the City of Ozark, a request was submitted to the DED for tourism dollars for the Chadwick Flyer US65 Overpass Trail Bridge (for pedestrians and bicyclists only). The request is for \$1.5 million of a \$3.75 million project. The announcement for this request will be in January.

Jurisdictions are encouraged to let the OTO staff know if they have match dollars available for a project, staff will be looking for funding opportunities.

Transportation Alternatives Program and Carbon Reduction Program funding of approximately \$12 million was allocated to the OTO area, \$3 million was designated for a Sidewalk Cost-Share. Applications for the Sidewalk Cost-Share are due January 10th. A portion of the funding was allocated to Ozark Greenways for trail planning services. An allocation of \$1.5 million was made to match the grant request for the Chadwick Flyer US65 Overpass. The OTO Bicycle and Pedestrian Advisory Committee met and recommended another \$1.3 million for immediately ready trail projects. The OTO Executive Committee is recommending \$750,000 be set aside for Electric Vehicle charging stations. An open application for the EV charging stations is projected for spring of 2023. After all of those allocations, it leaves \$5.7 million towards a call for projects in the spring.

Mr. Thomason is no longer with OTO, he is now with City Utilities of Springfield. A job opening will be posted at the beginning of 2023.

Prioritization meetings are scheduled for February 8th, 15th, and 22nd. MoDOT should have funding projections in January.

A request for updated appointment letters for each voting seat were sent out. Jurisdictions were reminded to send updated letters.

There is a public meeting set January 24th for the FF Corridor Study in Battlefield. A Route 66 Trail Study, from Springfield to Strafford, is scheduled for next year. Another study for next year will be the FF Extension coming out of Battlefield to look at the alignment.

F. Conflict of Interest Statement

Ms. Fields advised the Committee that OTO is a recipient of federal funds and is a subrecipient of USDOT grant funding through MoDOT. As a grant recipient, the OTO must adhere to grant guidance that is outlined in Title 2 § CFR 200 of the Code of Federal Regulations. One of the items required for

grant standards protocol is a signed conflict of interest policy from OTO's employees, committee members, and board members.

OTO staff prepared a conflict of interest policy and declaration of conflict statement to be signed by employees, committee members, and board members. The Conflict of Interest Policy has been previously approved in the OTO's Procurement Policy. The Conflict of Interest Policy will be reviewed and signed on an annual basis. Each member in attendance was given a copy of the Conflict of Interest Policy to review and sign. The Policy will be sent by DocuSign, as well, to each member that has not signed one.

G. Legislative Report

There were no legislative representatives in attendance.

H. MoDOT Report

Mr. Miller reported that Steve Campbell, MoDOT SW District Engineer, would be retiring at the end of the month. The MoDOT High Priority Unfunded Needs List is out for public comment. The comment period ends December 21, 2022. The Missouri Highways and Transportation Commission Meeting should be approving the Governor's Cost Share project list at the January meeting as well as the funding targets for the next Statewide Transportation Improvement Program. Project costs have increased due to inflation.

Ms. Schaller shared that the SW District is moving resources to Kansas City to help with the upcoming winter weather. The SE District is moving resources to St. Louis. With the upcoming weather, MoDOT is advising people to stay home if possible and if not possible, then have winter weather supplies, extra warm clothing, and water in the vehicle. The SW District is short snowplow drivers, approximately 20%.

I. Committee Reports

Ms. Longpine shared the OTO Local Coordinating Board for Transit (LCBT) has applications out for 5310 Funding for Vehicles for elderly and disabled transportation. The information is on the OTO website.

The Bicycle and Pedestrian Advisory Committee (BPAC) is focusing on the Requests for Expressions of Interest on trails mentioned in the Staff Report. The trails are included in the TIP Amendment on the Agenda. They are for the Chadwick Flyer Spur to Ozark High School, the Garrison Springs Trail, the LeCompte Trail, and the Grand Street Trail. In the Spring there will be an application available for sidewalks and trails.

II. New Business

A. FY 2023-2026 TIP Amendment Three

Ms. Longpine stated there were seven items included in the Amendment Number Three to the FY 2023-2026 Transportation Improvement Program.

1. *Revised* Route CC Capital Improvements (OK2102-23A3)
The City of Ozark received MoDOT Cost Share funding in June and the project has been updated to reflect current costs, funding responsibilities, and construction in FY 2025. The total programmed cost is \$5,481,122 plus \$100,000 in prior funding.

2. ***New* Project Development for Route CC Capital Improvements (OK2301-23A3)**
This is a companion project to OK2102 and reflects the phases before construction, including design, ROW, and utilities. The total programmed amount is \$1,671,536.
3. ***New* Chadwick Flyer US65 Crossing (OK2304-23A3)**
At its November meeting, the OTO Board of Directors approved the use of TAP funds on the Chadwick Flyer US65 Crossing project, which has been submitted for a grant through DED ARPA funding. While an announcement has not been made regarding the grant funding, staff wanted to ensure the TIP amendment process was underway so as to be ready. The total programmed cost is \$3,750,000.
4. ***New* Chadwick Flyer Spur to Ozark High School (OK2302-23A3)**
This City of Ozark project will provide a 10-foot wide trail that connects the Chadwick Flyer to the Ozark High School. The total programmed cost is \$155,250, with \$124,000 in TAP funds.
5. ***New* Garrison Springs Trail (OK2303-23A3)**
This City of Ozark project will provide a 10-foot wide trail following Garrison Springs from 3rd Street to the community forest. The total programmed cost is \$550,000, with \$440,000 in CRP funds.
6. ***New* LeCompte Trail (SP2313-23A3)**
This City of Springfield project will add a trail to parallel the LeCompte Road improvement project from Division north to the BNSF railroad. The total programmed amount is \$478,950 with \$383,160 in TAP funds.
7. ***New* Grand Street Trail (SP2314-23A3)**
This City of Springfield project will replace sidewalk along Grand Street with a 10-foot wide trail, between Kansas Expressway and Grant Avenue. The total programmed amount is \$550,000 with \$440,000 in CRP funds.

Mr. Parsons made a motion to recommend the Board of Directors approve Amendment 3 to the FY 2023-2026 Transportation Improvement Program. Mr. Brickner seconded the motion. The motion passed.

B. Federal Functional Classification Change Request

Ms. Longpine shared that pursuant to §470.105.b, the State of Missouri, in conjunction with OTO, must maintain a functional classification map. This map is different from the Major Thoroughfare Plan, which is part of the Long Range Transportation Plan. The Federal Functional Classification System designates Federal Aide Highways, i.e., those eligible for federal funding.

The OTO has requested the following changes to the federal functional classification system.

1. **Roadway Name** – West Ave., US 60 to Miller Rd
Current Functional Classification – Local
Requested Functional Classification – Minor Collector
Major Thoroughfare Plan – Collector
2. **Roadway Name** – Miller Rd., Western Terminus to West Ave.

Current Functional Classification – Major Collector
Requested Functional Classification – Local
Major Thoroughfare Plan – Collector

Ms. Longpine reviewed the details of the applications for the Committee.

Mr. Miller made a motion to recommend the Board of Directors approve the Federal Functional Classification Change requests. Mr. Roussell seconded the motion. The motion passed.

C. National Performance Targets

Ms. Longpine reported that MAP-21 established, and the FAST ACT maintained a performance-based approach to transportation investments, creating National Performance Goals. In keeping with these goals, State Departments of Transportation and Metropolitan Planning Organizations are required to establish targets. Each target has its own requirements and timelines. This year all targets will be reviewed. So far, OTO has elected to plan and program in support of the MoDOT targets, rather than set OTO-level targets and the CU targets for Transportation and Safety. These are all summarized below.

Safety

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled
3. Number of serious injuries
4. Rate of serious injuries per 100 million vehicle miles traveled
5. Number of non-motorized fatalities and non-motorized serious injuries

System Condition

1. Percentage of NHS Bridges Classified as in Good Condition
2. Percentage of NHS Bridges Classified as in Poor Condition
3. Percentage of Pavements of the Interstate System in Good Condition
4. Percentage of Pavements of the non-Interstate NHS in Good Condition
5. Percentage of Pavements of the Interstate System in Poor Condition
6. Percentage of Pavements of the non-Interstate NHS in Poor Condition

System Performance

1. Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Interstate that are Reliable (NPMRDS)
2. Non-Interstate Travel Time Reliability Measure: Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable (NPMRDS)
3. Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index (NPMRDS)

Transit Asset Management

1. Equipment
2. Rolling Stock
3. Facilities
4. Infrastructure

Transit Safety

City Utilities elected to develop their own Public Transportation Agency Safety Plan rather than participate in the statewide plan.

1. Fatalities: Total number of reportable fatalities and rate per total revenue miles by mode
2. Injuries: Total number of reportable and rate per total vehicle revenue miles by mode
3. Safety Events: Total number of reportable events and rate per total vehicle revenue miles by mode
4. System reliability: State of Good Repair – Mean distance between major mechanical failures by mode

Ms. Longpine reviewed the Performance Targets for the Committee.

Ms. Schaller made a motion to recommend the Board of Directors support the statewide targets, as well as the safety targets set by City Utilities. Mr. Parsons seconded the motion. The motion passed.

D. Obligation Limitation Discussion with MoDOT

Mr. Hood with MoDOT gave a presentation entitled Apportionments & Obligation Limitations – The Fish Analogy. Mr. Hood detailed obligation limitations, the August redistribution, and fund balances for the Committee.

E. Chair Rotation

Ms. Fields shared that in 2003, the TPC voted to establish a rotation schedule for the chairmanship of the Committee. This rotation has been followed since. The Chairman-Elect serves as the Chair in the absence of the Chairman. Jeff Roussell, City of Nixa, was elected as the Chairman-Elect at the December 2021 meeting and will serve as Chair in 2023. The next in rotation for Chairman-Elect would be Adam Humphrey with Greene County.

Mr. Parsons made a motion to elect Adam Humphrey as the Chairman-Elect position for 2023 for the Technical Planning Committee. Ms. Schaller seconded the motion. The motion passed.

F. TPC 2023 Meeting Schedule

Ms. Longpine presented the 2023 meeting schedule to the Committee.

This was informational only. No action was required.

III. Other Business

A. Technical Planning Committee Member Announcements

Mr. VanHorn shared the City of Battlefield will have a public meeting on the Route FF Study.

Mr. Roussell stated that the City of Nixa has been receiving a lot of calls regarding the intersection of Highway CC and Old Castle Road.

B. Transportation Issues for Technical Planning Committee Review

There were no transportation issues for Committee review.

C. Articles for Technical Planning Committee Member Information

Chairman VanHorn noted there were articles of interest included in the Agenda Packet.

IV. Adjournment

The meeting was adjourned at approximately 3:00 p.m.

Tommy VanHorn
Technical Planning Committee Chair

DRAFT

TAB 2

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM I.D.

Public Comment

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

Attached for Committee member review are Public Comments for the time frame between December 21, 2022 and February 8, 2023.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

This item is informational only, no action is required.



PUBLIC COMMENT



Area of concern: Highway CC and Old Castle Road

City/County of concern: Nixa/Christian County

Date received: 12/16/2022

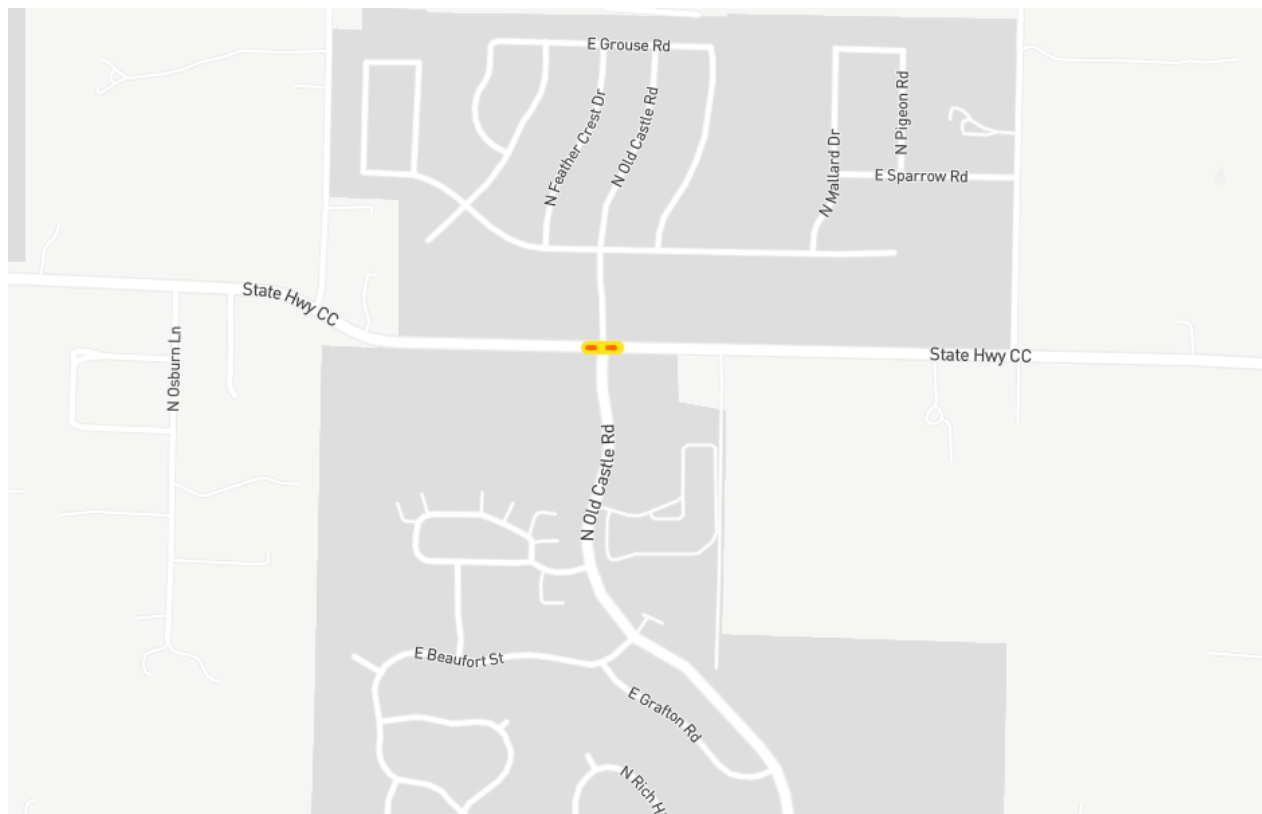
Received through: Map-A-Concern (OTO website)

Contact Name: Kara Waterman

Contact Email/Ph #:

Comment: Per MODOT, the study was done in Nov of 2019 and warranted a signal. Can you please give an update for this dangerous intersection? We have no street light and no signal. The way this area is growing and the amount of traffic at such a dark intersection, it is only a matter of time before someone is killed. Please let me know what i can do to get this pushed up on the priority list. Thank you! Please feel free to call me. Kara Waterman 417-860-4279

Map



OTO Response: Ms. Fields contacted Ms. Waterman.



PUBLIC COMMENT



Area of concern: Highway CC & Old Castle Road

City/County of concern: Nixa/Christian County

Date received: 12/16/2022

Received through: Email

Contact Name: K Waterman

Contact Email/Ph #: kwaterman@hcblawfirm.com

Email

The intersection of CC and Old Castle Road in Nixa is so very dangerous! No street light and no signal. I have talked to MODOT and they said it deemed a light from the Nov 2019 study. There are only 2 ways to get to 65 and this is the best option of the two (the road to the south is worse than this one!). A round-about was put in on Old Castle Road this last year. It is jaw dropping that a roundabout was installed on OCR before a signal at CC/OCR when the traffic is so heavy on CC and they are going 45-55mph. There are tons of people living in this growing area and even a senior center there at that intersection. Please help me know what, if anything, I can do to help get this prioritized. Thank you!

OTO Response: Ms. Fields contacted K. Waterman.



PUBLIC COMMENT



Area of concern: Cox Road

City/County of concern: Springfield/Greene County

Date received: 12/17/2022

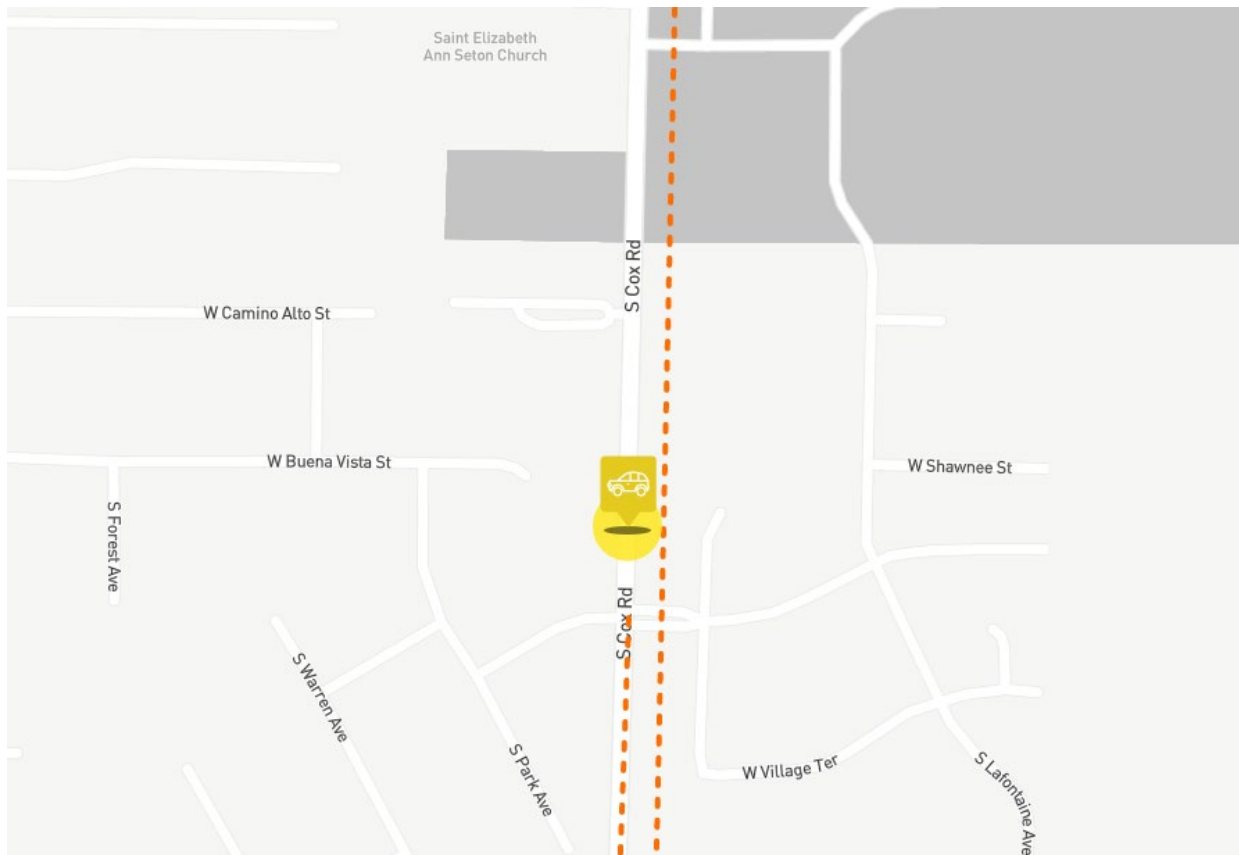
Received through: Map-A-Concern (OTO website)

Contact Name: Brenda

Contact Email/Ph #:

Comment: And many people walk that road (Cox Road). It's dangerous in my opinion. The narrow sidewalk is within a foot or on the curb. A few considerate drivers slow down & move over into the middle lane. I suggest a wider sidewalk. Perhaps remove the turning lane & increase the buffer btwn road & sidewalk.

Map



OTO Response: Unable to respond through the Map-A-Concern feature.



PUBLIC COMMENT



Area of concern: Fremont Avenue and Independence Street

City/County of concern: Springfield/Greene County

Date received: 12/22/2022

Received through: Map-A-Concern (OTO website)

Contact Name: David Miller

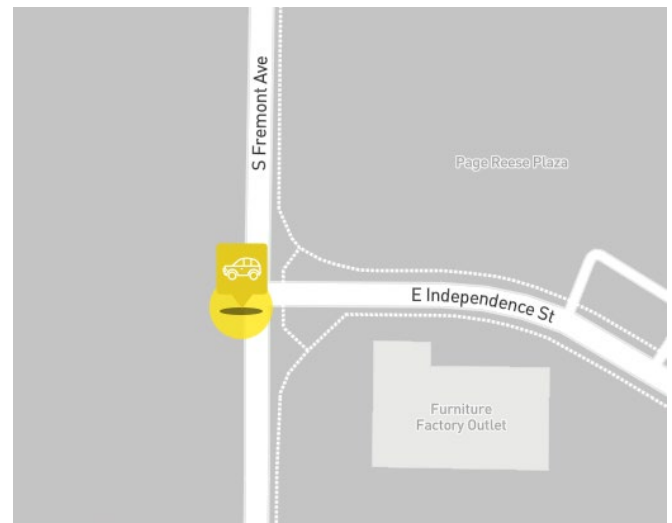
Contact Email/Ph #:

Comment: The dual WB to SB left turn lanes are narrow. As vehicles make the turn, there is conflicts as the left lane vehicles swing wide and the right lane vehicle cut the corner. A easy low-cost solution would be to bump-out the west curb of Fremont - beginning near the intersection and running south to the existing guardrail. Even if it was only bumped-out 3 or 4 feet it would make a big difference on safety by having more space for the left turning vehicles to swing wide and have ample lane width.

Commenter Submitted Photo/Drawing



Map



OTO Response: Unable to respond through the Map-A-Concern feature.



PUBLIC COMMENT



Area of concern: Seminole Street & Golden Avenue

City/County of concern: Springfield/Greene County

Date received: 01/05/2023

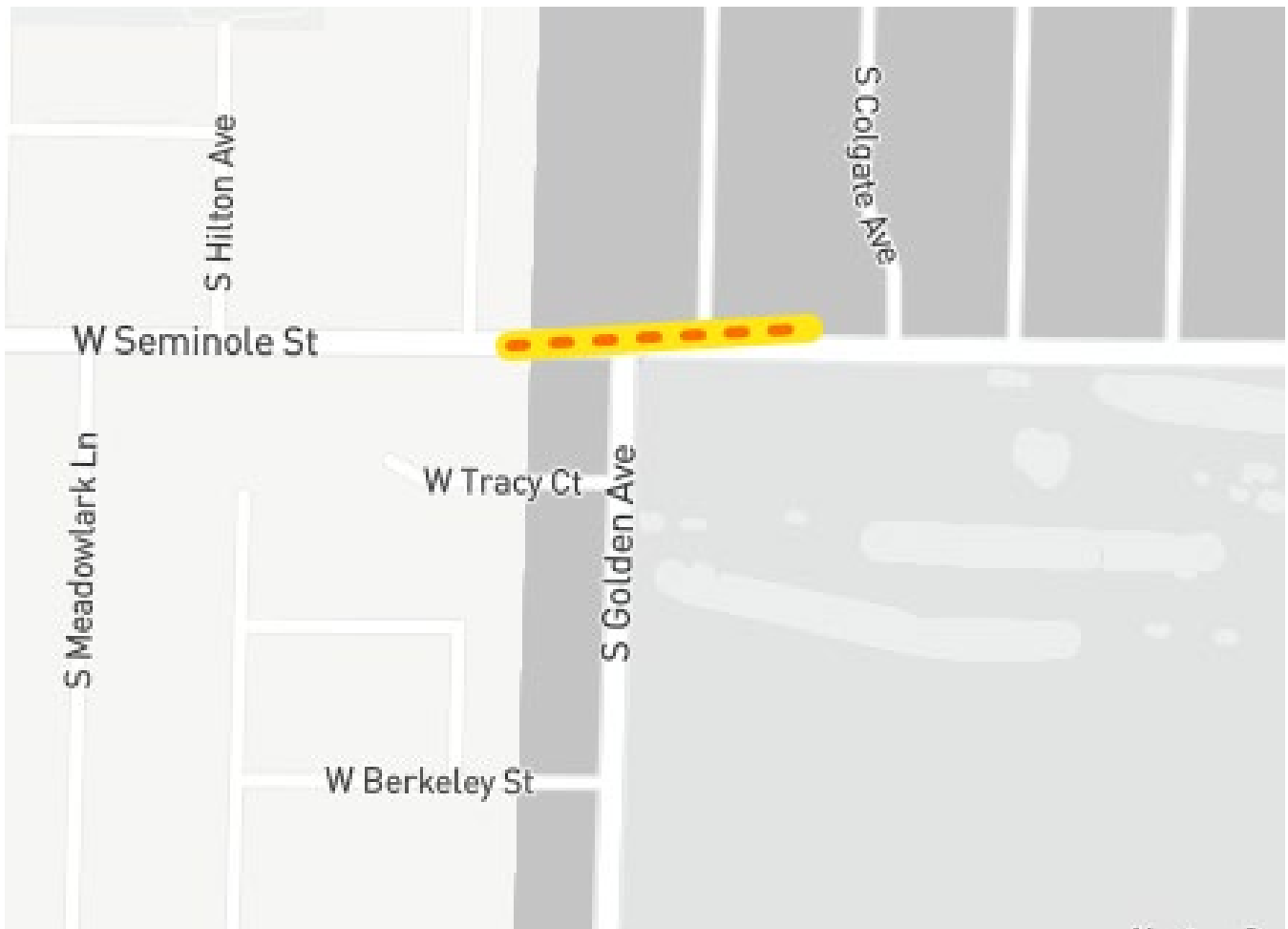
Received through: Map-A-Concern (OTO website)

Contact Name: Anonymous

Contact Email/Ph #: N/A

Comment: Intersection could be improved.

Map



OTO Response: Unable to respond through the Map-A-Concern feature



PUBLIC COMMENT



Area of concern: Highway 160 at I-44

City/County of concern: Springfield/Greene County

Date received: 01/05/2023

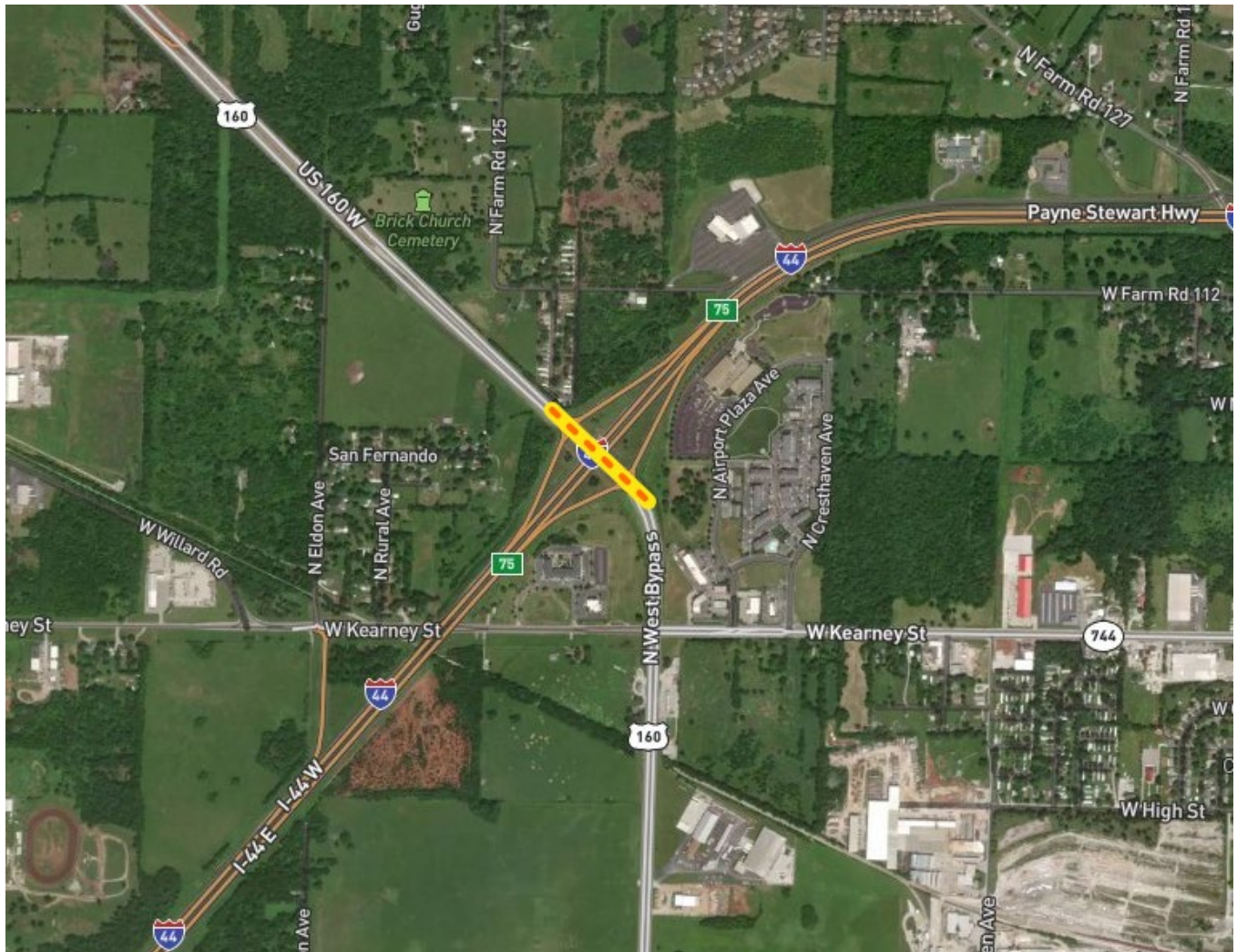
Received through: Map-A-Concern (OTO website)

Contact Name: Anonymous

Contact Email/Ph #: N/A

Comment: This intersection needs to be a diverging diamond for safety and traffic flow.

Map



OTO Response: Unable to respond through the Map-A-Concern feature



PUBLIC COMMENT



Area of concern: Bike Lane – Sunshine St between National & Grand

City/County of concern: Springfield/Greene County

Date received: 01/09/2023

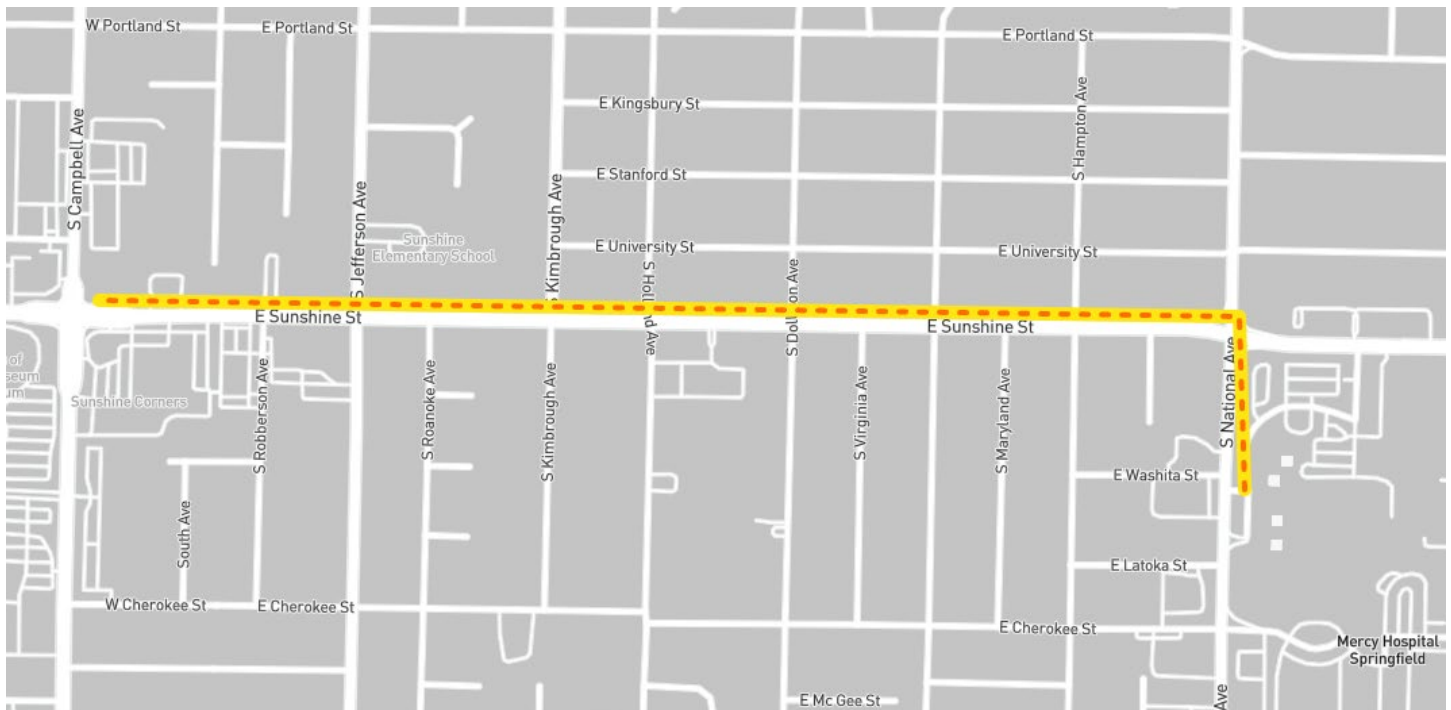
Received through: Map-A-Concern (OTO website)

Contact Name: Kevin Evans

Contact Email/Ph #: N/A

Comment: Can you place bike lanes on Sunshine Street between National and Grand Avenue to further commuter transportation beyond the Grant Avenue corridor?

Map



OTO Response: Unable to respond through the Map-A-Concern feature



PUBLIC COMMENT



Area of concern: Hwy 60 / JRF / ZZ / FR 168 / Main / 174

City/County of concern: Republic/Greene County

Date received: 01/10/2023

Received through: Email

Contact Name: Joyce Lopez

Contact Email/Ph #: joycelopez1622@gmail.com

Website comment

As Republic continues its rapid growth, I believe improvements to highway and county roads are imperative. I've listed a few I see as important to the growth of the community

1. expansion of Hwy 60 from James River Freeway thru Republic west to or past Billings including outer road construction eliminating the numerous entrances to businesses as they currently exist. The addition of a pedestrian overpass or tunnel would be helpful as many children are pedestrians trying to cross that highway before and after school.
2. MM widening and re-routing past 60 to ZZ to eliminate the railroad crossings currently creating traffic issues. Elimination of or improvements to allow better traffic flow throughout republic around railroad crossings. There is only one overpass at 174 that allows traffic to avoid railroad delays.
3. Improvement of intersection at N and Farm Rd 168. Blind hilltop coming up on the intersection as drivers on N approach 168. Very Dangerous especially for those trying to travel across N.
4. Improvements to intersection of 174 and Main/N hwy to better allow traffic flow around the schools. Dangerous 2 lane
5. ZZ improvements around high school to assist traffic flow with all the new subdivisions in the area and school traffic.

Thank you. As we grow, I know there will be many more projects required but these I believe as immediate, urgent needs.

Joyce Lopez
Faculty Emeritus, MSU
Republic Chamber of Commerce Board Member

OTO Response: Thank you for your comments. Public input is vital to the planning process. This information will be shared with our Board of Directors and Technical Planning Committee as well as MoDOT and the City of Republic. These suggestions will be added to our list of possible recommendations for funding to MoDOT. Thank you again!



PUBLIC COMMENT



Area of concern: Highway 174 to Hwy 60 / Rose Hill Road

City/County of concern: Republic/Greene County

Date received: 01/10/2023

Received through: Website

Contact Name: Corinne Barnes

Contact Email/Ph #: rbarnes108@gmail.com

Website comment

I am a resident of Billings, Mo just 6 miles from Republic. Lived in Republic for 2 years. I love this area, but as you know Republic is booming. Two suggestions, an alternate road from 174 to Lowes parallel to 60 hwy and 4 lane extension from Republic through Billings. Also a traffic light at 60 hwy and Rose Hill Rd. Impossible to access 60 from Rose Hill during rush hours and actually anytime. Thank you for your consideration.

OTO Response: Thank you for your comments. Public input is vital to the planning process. This information will be shared with our Board of Directors and Technical Planning Committee as well as MoDOT and the City of Republic. These suggestions will be added to our list of possible recommendations for funding to MoDOT. Thank you again!



PUBLIC COMMENT



Area of concern: Mt. Vernon / Scenic / Kansas Exp / W. Bypass / Clifton / Madison

City/County of concern: Springfield/Greene County

Date received: 01/10/2023

Received through: Website

Contact Name: Sharon L. Brooks **Contact Email/Ph #:** sbrooks@basspro.com

Website comment

Hello,

I am the Vice President of the Westside Neighborhood Betterment Association, which is the area of Springfield East of West Bypass, South of Chestnut Expressway, West of Kansas Expressway & South of Grand Ave. Last night at our meeting we discussed some traffic improvements that would benefit our neighborhood.

First is a continuous sidewalk along West Mt Vernon Street from Scenic Avenue to Kansas Expressway. We have a lot of foot traffic in our neighborhood, and when people are walking, pushing carts etc. it is dangerous for them to be in the street.

Second would be to have something done with the traffic backup on Mt Vernon at West Bypass, in the morning and evening this intersection on the east side of the Bypass on Mt Vernon gets so far backed up, it would be nice to alleviate this congestion for the motorists. Thank you for your time. If it matters your email was sent to our president Lydia Austin, but she was out sick at our meeting, so I am replying for her.

Thank you,

Sharon Brooks

Westside Neighborhood Betterment Association

Sorry, I forgot another thing we discussed last night. At the corner of Clifton & Madison, we would like a flashing stop sign to replace the stop sign on Clifton. There have been several near misses, from people not seeing the stop signs on Clifton.

Thank you,

Sharon Brooks

OTO Response: Thank you for your comments. Public input is vital to the planning process. This information will be shared with our Board of Directors and Technical Planning Committee as well as MoDOT and the City of Springfield. These suggestions will be added to our list of possible recommendations for funding to MoDOT. Thank you again!



PUBLIC COMMENT



Area of concern: Hwy 60 / JRF / MM / ZZ / Hwy 174 / Main St / Hwy 65

City/County of concern: Republic/Greene County

Date received: 01/10/2023

Received through: Website

Contact Name: Matt Pearce

Contact Email/Ph #: matt.pearce@republicschools.org

Website comment

Hello,

I would like to provide input into some transportation items in Greene County.

1. We need to emphasize the expansion of highway 60 to three lanes between Republic and James River Expressway.
2. Additionally, we need some serious master planning on highway 60 where the city and school district have purchased property and plan to build. We need two efficient entrance and exits to/from this area. During the next 15 years we could have at least three school buildings in this area, which will mean buses, employee traffic, and probably 200 car riders per school twice per day during the school year.
3. Need to prioritize MM connecting to ZZ in Republic as the new city/MODOT graphs demonstrate.
4. We need help expanding the intersection of highway 174 and main street in Republic. This is a very busy area and backs up frequently during the mornings, afternoon dismissal, and during 5pm travel home.
5. Big picture - what about expanding James River Freeway to the North near Willard and Ash Grove and then eventually connecting to highway 65?

Hope these help

Matt

--

Matt Pearce
Superintendent
@mpearce62
636 North Main
Republic, Missouri 65738
417-732-3605

OTO Response: Executive Director Sara Fields responded to the email.



PUBLIC COMMENT



Area of concern: Glenstone & Cherry Crosswalk

City/County of concern: Springfield/Greene County

Date received: 01/11/2023

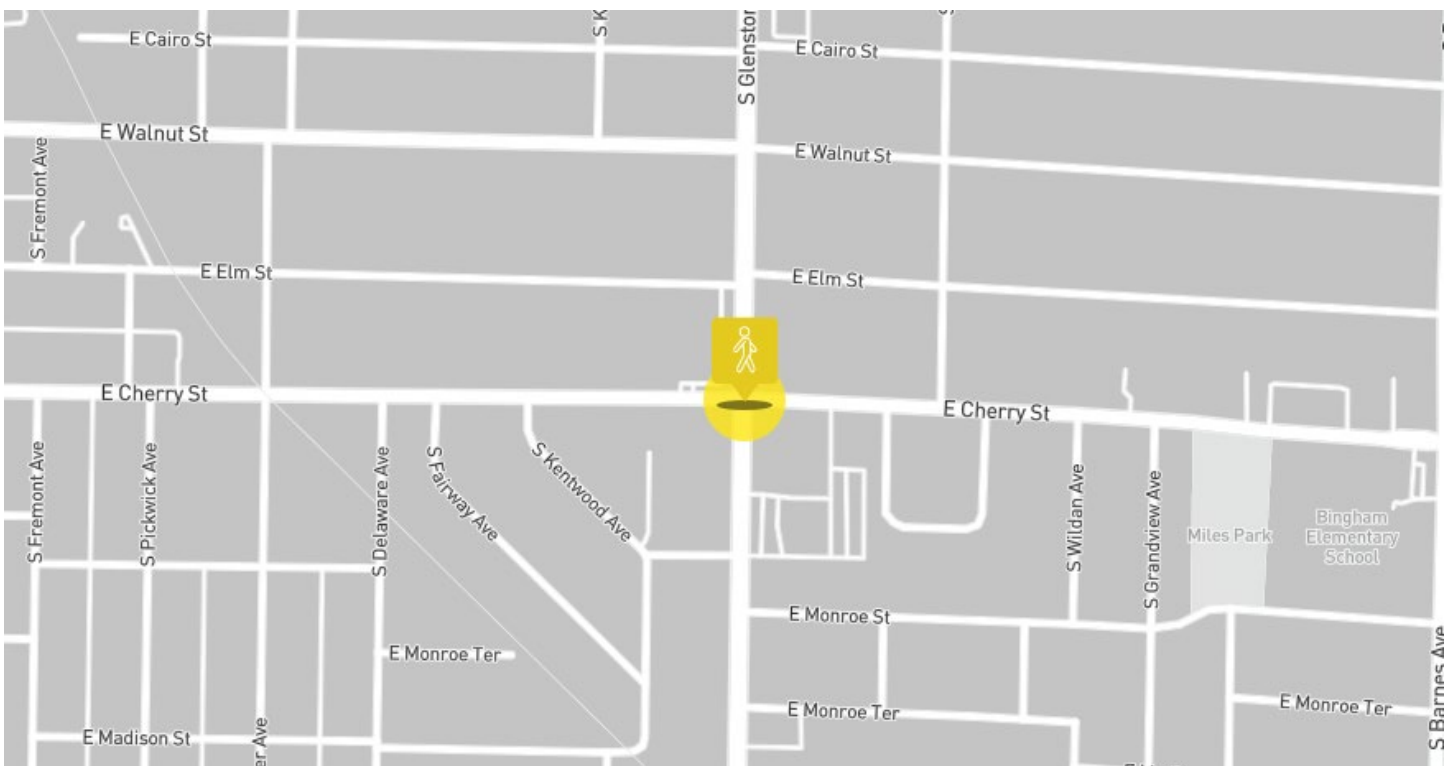
Received through: Map-A-Concern (OTO website)

Contact Name: Sara Rabberman

Contact Email/Ph #: N/A

Comment: There is no crosswalk at this intersection which makes crossing glenstone from the northbound bus stop to Rountree neighborhood risky.

Map



OTO Response: Unable to respond through the Map-A-Concern feature



PUBLIC COMMENT



Area of concern: Glenstone & Erie

City/County of concern: Springfield/Greene County

Date received: 01/11/2023

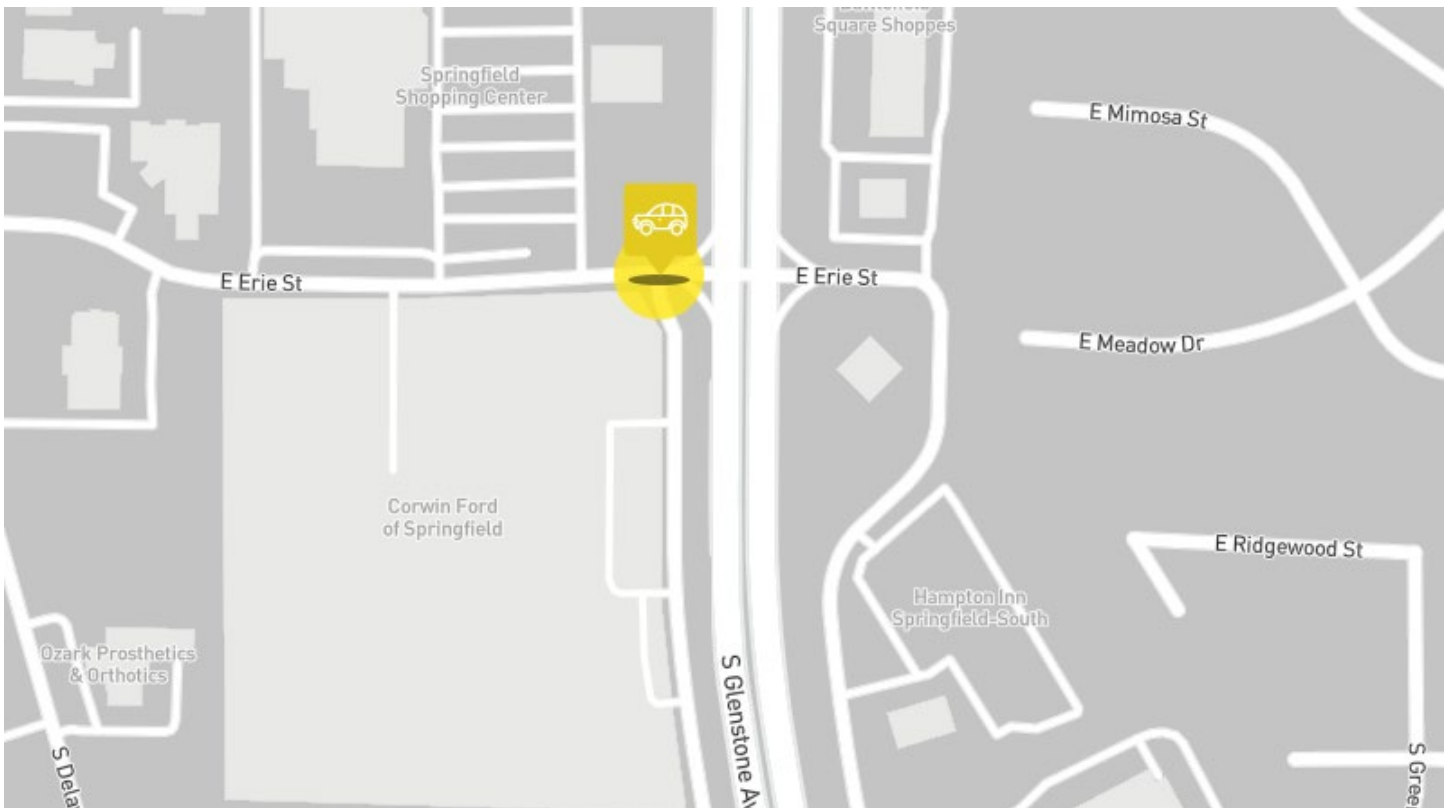
Received through: Map-A-Concern (OTO website)

Contact Name: Sara R

Contact Email/Ph #: N/A

Comment: this interchange is challenging for cars exiting the sideroad from glenstone marketplace. the short distance from the entrance to the side road to the left turn lane (from earie onto glenstone) often causes vehicles to block the straight and right turn from erie on/through glenstone. cars in the turning lane also block visibility of cars turning R. onto erie from s bound glenstone. It is a scary place to exit no matter which way you're going.

Map



OTO Response: Unable to respond through the Map-A-Concern feature



PUBLIC COMMENT



Area of concern: Trails around Lake Springfield

City/County of concern: Springfield/Greene County

Date received: 01/21/2023

Received through: Email

Contact Name: Greg Wadley

Contact Email/Ph #: gwadley80@gmail.com

Email comment

Would love to be on the contact list for development of Trails around the lake! My family worked the railroad back into the 1800's. My great uncle Charlie was one of the early conductors and his wife Suzie Wicker fixed chicken dinners and sold them on the passenger train. I Love the Sequiota Park and Trail of Honor and look forward to the expansion of the Chadwick Flyer to Ozark Connecting all of these together making Springfield a Trail destination. I live along the Chadwick Branch right of way in Fremont Hills. I have ridden all the Greater Springfield Trails and wanted to pass along great shots from last week along present and future trails.

Greg

Submitter sent the email to:

- Mary Kromrey, Ozark Greenways
- LakeSGFMasterPlan@springfieldmo.gov
- Bob Belote, City of Springfield
- Steve Pokin, Springfield Daily Citizen

Submitter included several photos of the trails.

OTO Response: Thank you for your enthusiasm for our local trail system. It looks like you included some great people in the email that may be able to get you connected. We will add you to our interested parties list.

Thank you, again. Have a wonderful day!



PUBLIC COMMENT



Area of concern: Route FF Study

City/County of concern: Battlefield/Greene County

Date received: 01/2023

Received through: Facebook

Contact Name: Multiple

Contact Email/Ph #: not available

OTO's Original Posting

Route FF Study Community Open House - The City of Battlefield, in cooperation with the Ozarks Transportation Organization, is hosting a community open house to show the recommendations of the Route FF Study on Tuesday, January 24th from 4:00-6:00pm in the Community Room at Battlefield City Hall, 5434 Tower Drive. The public will have the opportunity to review the study recommendations and give input.

COMMUNITY OPEN HOUSE

City of Battlefield - Community Room
5434 S. Tower Drive
Battlefield, MO

Tuesday, January 24, 2023 4:00-6:00 pm

ROUTE FF CORRIDOR STUDY RECOMMENDATIONS SHOWCASE!
COME AND GO MEETING, NO FORMAL PRESENTATION

Route FF Study Open House
OTO is a metropolitan planning organization serving the Ozarks region. Find...

[Learn more](#)

Facebook Comments

- Laura Starkey**
I'm worried about this data when they can't even get the schools right. (The easiest data to look up.)
Like Reply 1w
- Angie Roth**
What will be done at Williams St and FF? We lived 2 houses off FF for 30+ yrs. Hopefully it will be done right.
Like Reply 1w Edited
- Christopher Mann**
It's not like they will take our input, they already have a plan and nothing will change their mind.
Like Reply 1w
- Jim Parsons**
Go to the meeting and voice your opinions. This is only a recommendation.
Like Reply 1w
- Kelly Day**
I HATE Roundabouts!
Like Reply 1w
- Janae Spencer**
Kelly Day me too
Like Reply 1w
- Louise McCullough**
Kelly Day not a good place for roundabouts.
Like Reply 1w
- Rita Clemons Scherler**
Pam Schroeder Phelps
Like Reply 1w

- Angela Perrin**
Will this be streaming live on this page or Battlefield Facebook?
Like Reply Send Message 5d
- Fred Janes**
Angela Perrin great idea!
Like Reply Send Message 4d
- Angela Perrin**
Yes, they should be able to take questions from this platform too!
Like Reply Send Message 3d
- Ozarks Transportation Organization**
Angela Perrin Thank you for your inquiry. The Open House will not be livestreamed since it is a come & go event and there will not be a presentation. The information that will be available for review and comment at the meeting will be on this website later this afternoon: <https://www.ozarkstransportation.org/routeff>. Also, on that website is a comment card where you can submit comments and questions. The study is on the website, as well. Thanks!

- Maribeth Storey**
What are the plans?
Like Reply 1w
- Louise McCullough**
Dilshoda Rakhimova and Herschel Gene Mynatt
Like Reply 1w
- Tracy Parsons**
Jim Parsons
Like Reply 1w
- Janae Spencer**
Michelle M Spencer
Like Reply 1w
- Christina Harter**
Matt
Like Reply Send Message 3d



PUBLIC COMMENT



Area of concern: Ranking of FF Corridor Projects

City/County of concern: Battlefield/Greene County

Date received: 01/26/2023

Received through: Email

Contact Name: John Michno

Contact Email/Ph #: jbmichno@gmail.com

Email comment

I am inclined to support work on segment one before segment two and three.

OTO Response: Thank you for your comment. Public input is vital to the planning process. This information will be shared the Project Team. Thank you!



PUBLIC COMMENT



Area of concern: Farm Road 131 between Weaver & Elm

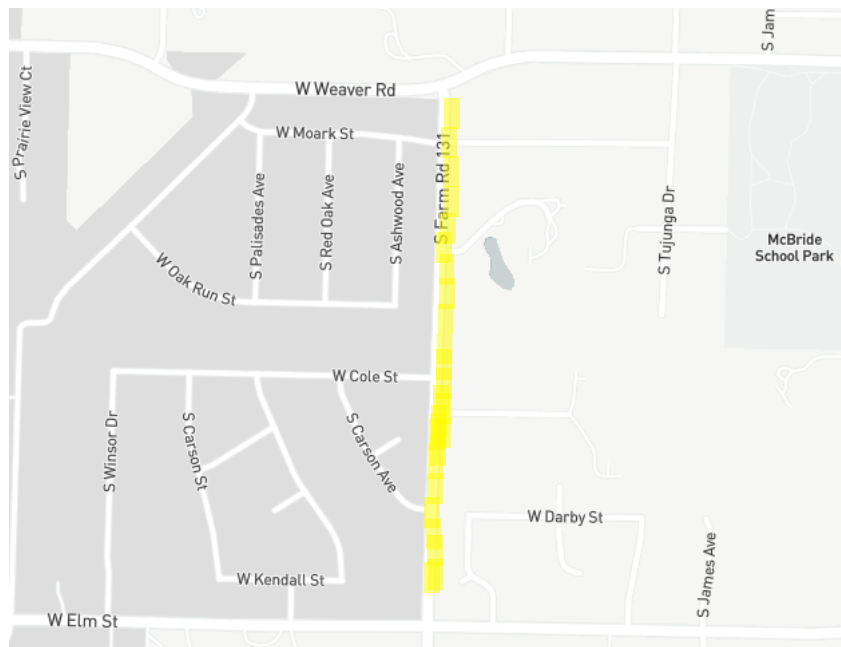
City/County of concern: Battlefield/Springfield/Greene County

Date received: 01/29/2023 **Received through:** contact form at <http://map.ototrailstudy.com>

Contact Name: Sonny McNeilis **Contact Email/Ph #:** sonny.mcneilis@gmail.com

Comment: Farm Road 131 between Weaver Road and Elm Street needs a sidewalk for connectivity. Children walking from Walker Ridge Subdivision to McBride Elementary School and to Wilson Creek Elementary School must walk on the street or in the grass to reach existing sidewalks. Rezoning of buses seems like there are more children walking. City of Battlefield Sidewalk Project from 2019 plans on adding a sidewalk on Elm Street which would be helpful to connect to a new sidewalk on FR 131. This would also connect this subdivision and homes to parks in the area such as McBride Elementary Park and Battlefield City Park allowing for all ages and families to walk safely. There are also a lot of bikers in this area as well.

Map



OTO Response: Thank you for your comment. Public input is vital to the planning process. This information will be shared with our Technical Planning Committee and our Board of Directors.



PUBLIC COMMENT



Area of concern: Farm Road 131 between Weaver & Elm

City/County of concern: Battlefield/Springfield/Greene County

Date received: 02/01/2023

Received through: Email

Contact Name: Ashley Riecke

Contact Email/Ph #: ashley.riecke@yahoo.com

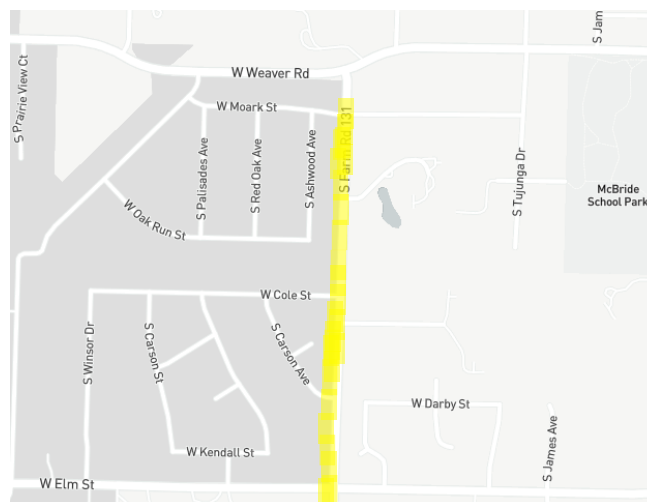
Comment

I am a resident in Battlefield, Missouri. I want to express the need for a sidewalk along Farm Road 131 between the cross roads of Weaver and Elm St. Cars fly down this road and they're children walking down this street to go to school. There is a slight hill and sometimes makes it hard to see if a car is coming or if someone is in the road. I live in the Waller Ridge subdivision and there are no sidewalks that lead out of our subdivision for walking or biking.

Please consider a sidewalk along Farm Road 131.

Thanks,
Ashley Riecke

Map



OTO Response: Thank you for your comment. Public input is vital to the planning process. This information will be shared with our Technical Planning Committee and our Board of Directors.



PUBLIC COMMENT



Area of concern: MM & Sawyer Road – Crosswalk button

City/County of concern: Republic/Greene County

Date received: 02/04/2023

Received through: City of Republic

Contact Name: Lowell Davidson

Contact Email/Ph #: lowell.davidson@icloud.com ; (314) 957-8830

Email comment received by the City of Republic and forwarded to MoDOT

I am requesting a pedestrian crosswalk button to be installed at the current intersection at Amazon. I commute on my bicycle using E Sawyer RD & cross over S State Hwy MM. Currently it's very hard for me to cross Hwy MM. When the light turns green at Sawyer Rd it will turn yellow followed by red before I can make it across the road. For my safety and all other cyclists I would like to see something done before someone gets hurt.

Lowell Davidson
(314) 957-8830

City of Republic responded to the commenter that the comment would be shared with MoDOT and suggested they fill out a concern form on the MoDOT website

Per MoDOT: We currently have the signal with a 10 second minimum green for NB/SB MM and a 7 second minimum green for all the other approaches. We will have someone look to see what changes can be made from a signal timing standpoint and have them reach out to the customer if needed for additional information.

Update - MoDOT: The min green time was bumped up and talked to the customer about the timing changes and also that we won't install ped facilities with the lack of sidewalks.



PUBLIC COMMENT



Area of concern: North Highway 13 Corridor Study

City/County of concern: Springfield/Greene County

Date received: 02/08/2023

Received through: Email

Contact Name: Grant Holcomb

Contact Email/Ph #: grantsholcomb@gmail.com

Email comment

Any update on the NORTH HWY 13 CORRIDOR STUDY? Has there been a finalized plan and an identified path forward to improve this intersection?

Greg

OTO Response

Good afternoon,

Thank you for your inquiry. The I-44/Route 13 Interchange study has been completed. I have included a link below to the study.

I-44/Route 13 Interchange Conceptual Report:

https://www.ozarkstransportation.org/uploads/documents/2022-08-02_I-44_Route-13-Concept-Report_FINAL_220916_183411.pdf

Recommendations can be found on page 27 of the Study. Let us know if you have any more questions.

Have a wonderful day!

Nicole Stokes

TAB 3

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.A.

Route FF Corridor Study

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The Ozarks Transportation Organization (OTO) contracted with Crawford, Murphy, & Tilly (CMT) in October of 2021 to conduct a study to determine the future function and classification of the Route FF Corridor through the City of Battlefield, Missouri. In coordination with OTO, the City of Battlefield, and MoDOT, CMT has completed the study and developed a draft report of the findings that includes key recommendations for design, traffic calming, and planning. A 15-day public review and comment period was initiated January 24 through February 7, 2023.

Summary of the key recommendations:

DESIGN RECOMMENDATIONS

- 3-lane typical section (80 ft right of way (ROW) - Weaver to Blue Springs)
- Design speed 35 mph (secondary arterial status)
- Multimodal 10 ft Shared Use Path (east) & sidewalk (west)
- Updated pedestrian crossing at intersections & Trail of Tears crossing near Somerset
- Corridor wide traffic calming enhancements (narrowed lanes/raised medians)
- 80 ft ROW to accommodate typical secondary arterial design standards

PLANNING RECOMMENDATIONS

- Reclassify Route FF as a secondary arterial on OTO Major Thoroughfare Plan (MTP)
- Update Battlefield Subdivision Regulations
 - 405.390 Access Management
 - 405.400 OTO MTP update text
 - 405.400 Design standards
 - 405.410 sidewalk provision
- Assign roadway improvement needs for future development
- Explore street renaming & branding
- Corridor wide traffic calming

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

A member of the Technical Planning Committee is requested to make one of the following motions:

“Move to recommend that the Board of Directors accept the Route FF Corridor Study.”

OR

“Move to recommend the Board of Directors accept the Route FF Corridor Study, with these changes...”



Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

JANUARY 2023

PREPARED BY



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Executive Summary

The Route FF corridor within the City of Battlefield serves a key function to move people through and within the community, as well as to the greater Springfield region. As such, the Route FF corridor needs a vision that focuses on the corridor as a community asset, which when developed correctly, can enhance livability, drive economic development, and better connect residents to goods and services within Battlefield. As a key artery within the community, the Route FF corridor should be well planned and match the future vision for the growth of Battlefield.

We know that streets serve several purposes within the built environment. Mobility, first and foremost is at the heart of our transportation system. Connecting people to destinations keeps our communities going. Additionally, the movement of goods serves an important purpose in connecting people to their basic needs as well as working to sustain the economy. When designed and developed correctly, streets can also promote a better quality of life within communities through factors such as improved health outcomes, better air quality, sustainable design features, and placemaking/branding components. All these items were considered when embarking on this study for the Route FF corridor.

There were several key goals of the project. First, the goal of slowing down motor vehicles travelling through Route FF is a priority. It is also important that Route FF help foster the vision of the Battlefield community. Another goal is to enhance intersections throughout the corridor, with roundabouts being a preferred treatment. Finally, there is a need to better accommodate pedestrian connectivity, as well as plan for future needs of the Trail of Tears trail crossing and the future Farm Road 190.

The recommendations for the Route FF Corridor are divided into two groups: design and planning. Design recommendations were based on traffic modeling in multiple scenarios to project future vehicular traffic volumes along Route FF. Planning recommendations are based on the vision of the corridor as a key component in the creation of Downtown Battlefield. The design recommendations are specific to roadway cross section and intersection enhancements, as well as potential traffic calming along the corridor. Planning recommendations focus on policy solutions and branding opportunities on the Route FF corridor.

We heard several times throughout the study process that Battlefield lacked an identity or that there seemed to be a tale of 'two Battlefields' (one to the north and one to the south). Through this planning process and recommended transportation updates, Route FF can foster a stronger sense of cohesion within Battlefield, and better connect the components of the local fabric.

KEY PROJECT GOALS



Reduce speeds
(not to exceed 35mph)



Foster vision of the local
Battlefield Community



Traffic calming
corridor wide



Intersection
enhancements



Pedestrian connectivity



Accommodate future
trail crossings



Accommodate future
FR 190

This study process included detailed traffic analysis to better understand future growth within the community and how traffic volumes on the corridor will be impacted, and what this increase in volume will do to efficiency and safety of the roadway. The process included the development of sample typical sections based on the findings of the traffic analysis. The typical sections were vetted with the public at a public meeting and needs/opportunities of the corridor were prioritized with an online survey. Key ideas were then considered and reviewed with a team consisting of consultant representatives, Ozark Transportation Organization (OTO) staff, Missouri Department of Transportation representatives (MoDOT), and City of Battlefield staff to finalize recommendations outlined within this report.

The goal of this report is two-fold – to outline specific projects that can move to next steps for design, and two, provide items for policy updates as the corridor develops. Specific projects have been identified that are directly related to updated roadway design needs. These projects should be included and prioritized on the State Transportation Improvement Program (STIP) when developing needs for Route FF through the City of Battlefield. Design recommendations, policy ideas and regulatory recommendations are included so that Battlefield is well prepared to handle any future growth and development pressures along the Route FF corridor. No funding is been identified for implementation, but this plan positions Battlefield to be competitive for funding for corridor design projects.

Route FF can be a key destination for the City of Battlefield, serving residents and visitors alike, and this is the vision found in this report.

This study was prepared in cooperation with the USDOT, including FHWA and FTA, as well as the Missouri Department of Transportation. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Missouri Highways and Transportation Commission, the Federal Highway Administration, or the Federal Transit Administration.

Recommendations

DESIGN

- 3 – lane typical section (80' ROW Weaver to Blue Springs)*
- Design speed 35 mph (secondary arterial status)
- Multimodal - 10 ft' Shared Use Path (east) & sidewalk (west)
- Roundabouts at Weaver, 3rd, Azalea, Blue Springs
- Updated ped crossings at intersections & Trail of Tears crossing near Somerset
- Corridor wide traffic calming enhancements (narrowed lanes/ raised medians)
- 80' ROW to accommodate typical secondary arterial design standards

PLANNING

- Reclassify FF as a secondary arterial on OTO Major Thoroughfare Plan (MTP)
- Update Battlefield Subdivision Regulations
 - 405.390 Access Management
 - 405.400 OTO MTP update text
 - 405.400 Design standards
 - 405.410 sidewalk provisions
- Assign roadway improvement needs for future development
- Explore street renaming & branding
- Corridor wide traffic calming

* 4-lane typical section recommended from FR 123 to Weaver; 3-lane section may incorporate center medians in future downtown Battlefield for traffic calming and access management

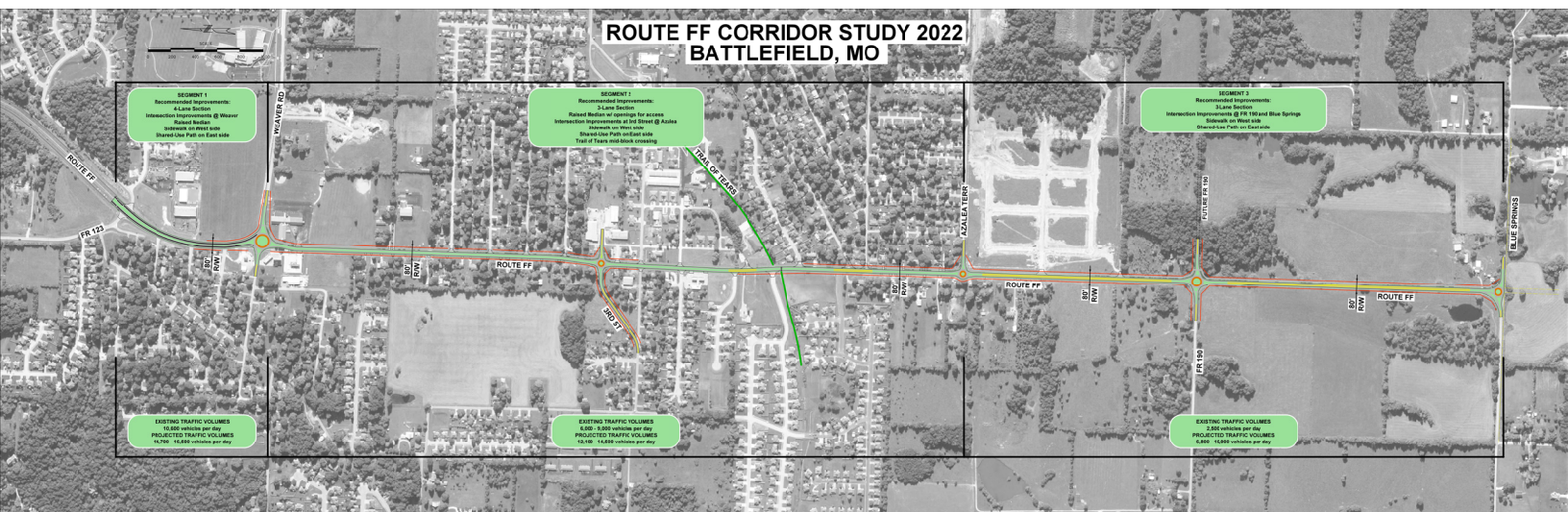


Figure 1- Route FF Corridor Wide Design Needs Map

Introduction

The City of Battlefield is the fourth largest city in Greene County. Located adjacent to the City of Springfield, the city has experienced significant residential growth since 2000. According to the 2000 US Census, the population in Battlefield was 2,385. The population more than doubled by 2010, reaching 5,590 people. The 2020 population grew slightly and is now 5,990. From 2020 - 2022, 104 building permits were issued for new single family residential units. Growth pressures and a developing sense of identity require a focus on planning for the future vision of the community.

The Southwest Missouri Council of Governments (SMCOG) in 2021 updated the City's 2002 comprehensive plan. In response to the updated Comprehensive Plan, the City of Battlefield developed a plan implementation committee to work toward implementing several of the recommended items from the outlined goals and objectives for the City of Battlefield. In conjunction with that planning effort, the Ozark Transportation Organization (OTO) collaborated with the City to develop a scope of work for studying the future of the Route FF corridor within its boundaries. The Missouri Department of Transportation (MoDOT) was engaged in the process as the roadway owner. Together, all three agencies collaborated on needs and opportunities along the corridor, coupled with growth and development demand, to develop concepts for the future of the roadway through the community.

The Route FF Corridor Study process kicked off in January 2022. Integral to the study process are members of the Core team, comprised of consulting team members (CMT), OTO staff, City of Battlefield Representatives and MoDOT staff. The core team met regularly throughout the study process to review key milestones and project development. The goal of the Route FF corridor study is to determine the future vision for the corridor. From the City perspective, local Battlefield officials are concerned with how the road develops in the future, and primarily answering the question if it looks more like an expressway or corridor that develops as more of a place with the characteristics of a live/work/play environment. MoDOT staff are interested in project specific upgrades along the corridor as well as at key intersections. And finally, OTO staff are interested in the corridor from a planning perspective and seek to better understand how the region's transportation system can support desired growth in Battlefield.

The Route FF Corridor Study began with a detailed look at existing conditions along the corridor. Traffic volumes, typical section, right-of-way space, environmental considerations, future developments, and many other items were reviewed. For study purposes, Route FF was broken down into three segments, based on initial review of the roadway characteristics, coupled with adjacent land uses. These three segments are:

1. FR 123 to Weaver Road
2. Weaver Road to Azalea Terrace
3. Azalea Terrace to Blue Springs Road



Figure 2- Trail of Tears Park

After initial review of the traffic analysis, potential typical sections were examined, as well as what intersection upgrades may look like along the FF corridor. Cross sections were examined by corridor segment, as each segment may require different needs in the future based on development patterns. Roundabouts are preferred treatment on the corridor by agency officials. In addition to serving to move traffic efficiently along the corridor, roundabouts can be an effective treatment for traffic calming, as well as provide an opportunity to serve as a gateway feature with a possible branding opportunity. The core team meeting reviewed the initial findings and concepts were finalized to take to the public.

Public engagement started in August 2022 with a public open house where concepts by segment were presented. Interactive voting exercises were completed, and an online survey was launched. The online survey was open for two weeks following the public open house. Feedback from the public was compiled and taken to the core team in September for review of final recommendations.

Using the input from the public, coupled with the existing conditions analysis and input from Battlefield, MoDOT and OTO, the team finalized recommendations for the future vision for the Route FF corridor. These recommendations are included in this report and are intended to help inform infrastructure decisions for Route FF that can foster a strong community with potential for growth and development. At the time the Route FF Corridor study was wrapping up, the City of Battlefield started an economic development and housing plan as an outgrowth of the 2021 Comprehensive Plan implementation strategy. The goal of that study is to determine market capacity for various types of new commercial uses as well as future housing needs within the Battlefield Community.

The recommendations for Route FF have been structured to encourage collaboration between local and state officials. Design recommendations highlight potential construction projects on which the city and MoDOT can collaboratively develop design concepts and reliable cost estimates. Additionally, policy recommendations have been crafted to ensure future development supports the efficient operation of Route FF.

The goal of these recommendations, both design and planning are to enhance safety along the corridor, reduce motorists speeds, and respond to demand based on 2045 future traffic projections.



Figure 3- City of Battlefield Sign

Existing Conditions

The first step in the Route FF study involved reviewing existing conditions of the corridor, as well as any plans or known future developments on the route. Because the corridor was broken into three segments during the study process, the existing conditions section discusses each component in those same three segments.

- FR 123 to Weaver Road
- Weaver Road to Azalea Terrace
- Azalea Terrace to Blue Springs

General Corridor Needs

Located adjacent to Springfield, the Battlefield community is a mainly residential community that offers an appealing setting to locate within the area, but outside of the City of Springfield. Given the growth of Battlefield since 2000, it is evident the community continues to attract residents. At the same time, this growth means increased development pressures within the City of Battlefield. On the heels of the comprehensive plan, the need to study and plan for the future of Route FF is an important next step.

Route FF is the critical north/south, state-owned roadway through Battlefield. As a state-owned road, the Missouri Department of Transportation (MoDOT) owns and maintains the road but collaborates locally with the City of Battlefield and the Ozark Transportation Organization (OTO) on priority projects given the local context. The limits of the Route FF study are from FR 123 on the north to Blue Springs Road on the south. Just north of the study area two fairly new residential developments have been built. Silverleaf apartments and condos opened spring of 2021 and is located in the northeast quadrant of the intersection at Republic Road and Route FF. The Township Senior Living opened in the spring of 2019 and is located in the southwest quadrant of Republic and Route FF. Wire Road Brewery is located north of Farm Road 172 and opened in January 2022. The brewery is a popular destination for many residents of the Springfield metro area.



Figure 4- (left to right) FR 123 to Weaver Road, Weaver Road to Azalea Terrace, Azalea Terrace to Blue Springs

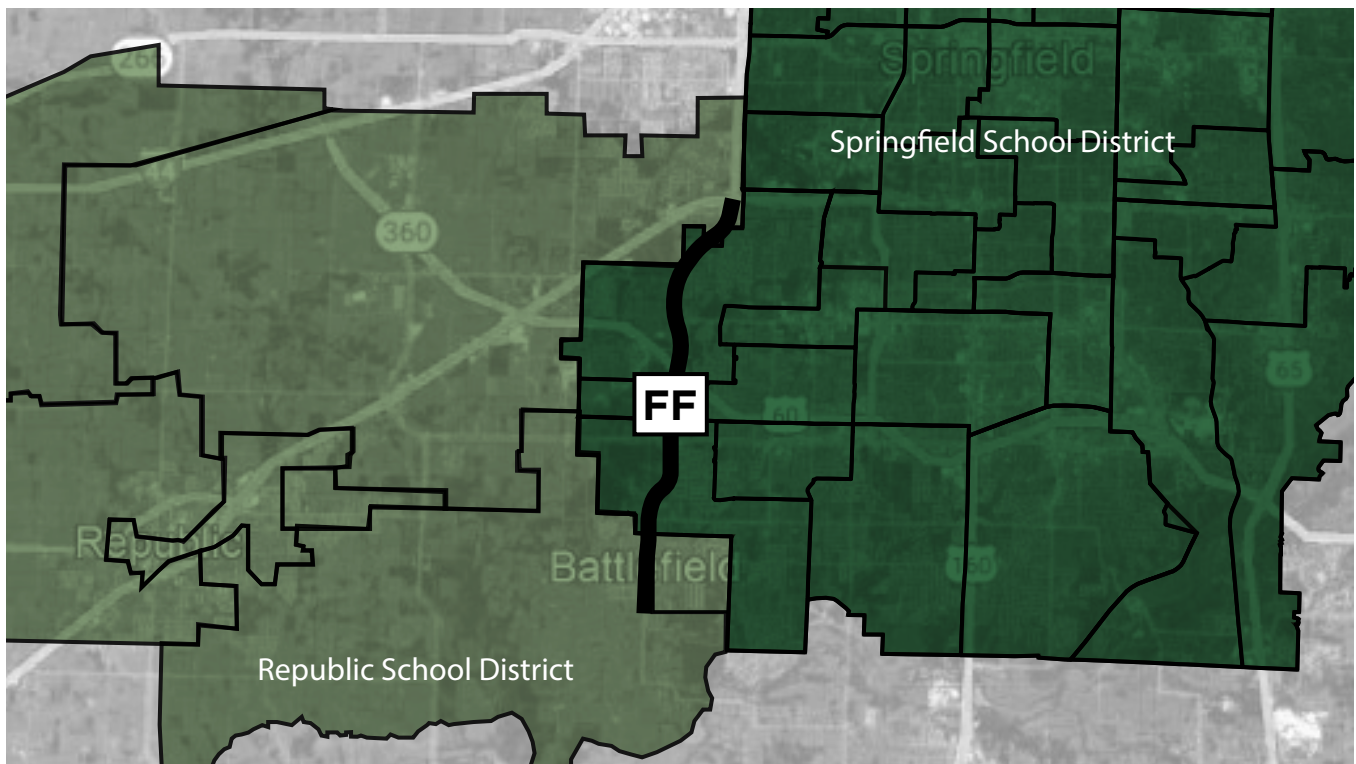


Figure 5- Map of Republic & Springfield School Districts

The City of Battlefield is serviced by eight schools within both the Republic and Springfield School districts. Route FF encompasses children from McCulloch and Lyon Elementary (Republic schools), and McBride Elementary (Springfield schools). Additionally, Republic Middle School (Republic schools), Wilson's Creek Intermediate (Springfield schools) and Cherokee Middle School (Springfield schools) service the area. Finally, both Republic High School (Republic schools) and Kickapoo High School (Springfield schools) serve Battlefield. Figure 5 shows Republic School District in light green and Springfield School District in dark green. Pedestrian connectivity for children walking to school is a concern for the Battlefield community. Some students can walk to school on Weaver. Others have to drive to Republic. With the potential for a new school to serve the growing Battlefield population, providing safe routes to school for children is a priority.

The corridor serves to move vehicles efficiently through the Battlefield community. However, with limited wayfinding and signage along the corridor, one might not be clear when they have arrived in Battlefield. Posted speed limits at the north and south of the study area are 55 mph, whereas the posted speed limit is 45 mph within the Battlefield City limits. A continuous sidewalk exists consistently on the east side of Route FF from Weaver to Green Ridge Terrace, but no striped crossings exist to cross Route FF. Most of the current uses along Route FF are residential, with a few commercial nodes located at Republic Road, Weaver Road, 3rd Street and 2nd Street. A comprehensive plan for Battlefield completed in 2021 outlined existing land uses but did not provide a future land use map. At the time the Route FF study is culminating, the City of Battlefield is launching an economic development and housing study to develop a future land use map and examine the market for various retail and housing needs within Battlefield.

Traffic control along Route FF is primarily side street stop control except for a traffic signal at Republic Road. Intersection traffic control on the Route FF corridor is an important question of this study. MoDOT, OTO and City officials are very interested in understanding what traffic control makes the most sense at some of the important commercial nodes along the corridor, including the assessment and feasibility of potential roundabouts.

Limited driveways exist in segments 1 and 3, however, many driveways access Route FF in segment 2. These driveways serve single-family residential homes, as well as the limited commercial lots currently adjacent to Route FF. Overhead utilities exist throughout the study area, alternating sides of Route FF. Mailboxes to the residential houses along the corridor face FF. Finally, with any major roadway changes or expansion of existing pavements, drainage will need to be considered.

Functional Classification

Roadway functional classification is governed by federal guidelines and refers to the process by which roads, streets and highways are grouped into classes according to the type of vehicular service they are intended to provide. The functional classification network outlines the role a particular street or road is intended to serve within the transportation network. Because the functional classification refers to the role a particular road, street or highway is to have within the system, it also carries with it expectations about roadway design, including speed, capacity, and relationship to future land use development. Roadways serve two primary travel needs: access to and from specific locations and mobility. The classification of roadways progresses from a lower classification, handling these shorter trips with more access, to a higher classification, intended for longer trips to connect regional traffic. Functional classification is assigned based on how the roadway currently functions and is maintained by MoDOT. OTO endorses any functional classification changes within their planning region and maintains the OTO Major Thoroughfare Plan. That plan shows how OTO sees function changing over time.

The hierarchy of the functional classification system, from highest mobility to greater access is:

- Interstate – highest level of mobility and designed with long distance travel in mind
- Freeway/expressway – designed to maximize mobility with specific on/off ramp locations for access to local transportation networks
- Principal Arterial – provides high level of mobility within urban areas, including access to local driveways.
- Minor Arterial – serving moderate length trips, connecting principal arterials in an urban setting
- Major Collector – moves traffic from local roads to arterials
- Minor Collector – moves traffic from local roads to arterials, shorter in length and lower posted speed than their major counterpart
- Local road – most access, short trips on the local roadway network, within neighborhoods.

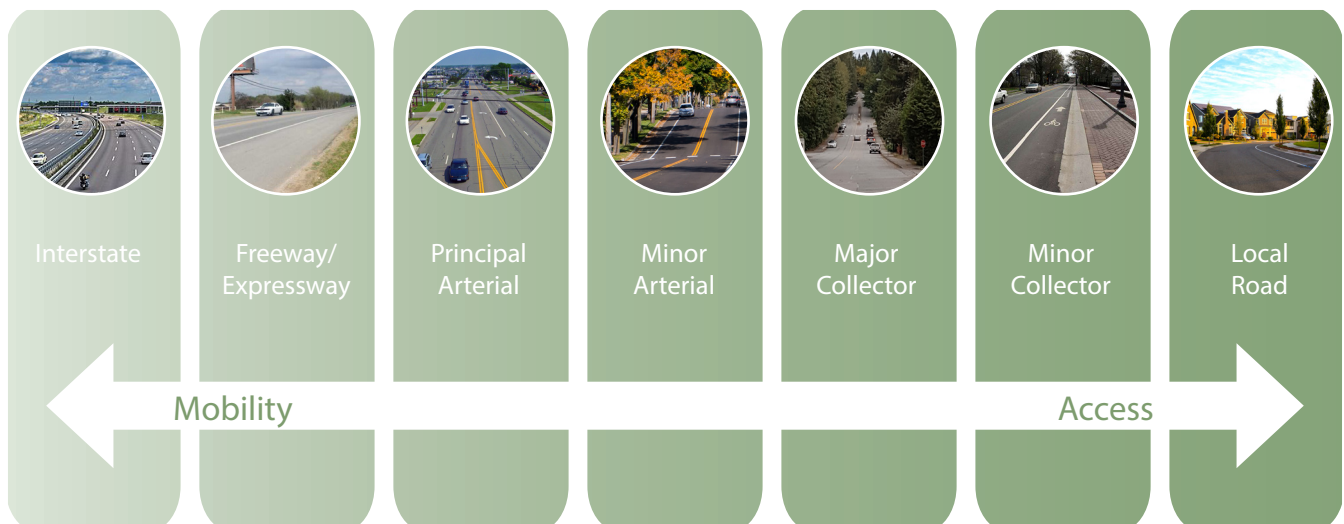


Figure 6- Hierarchy of the Functional Classification System

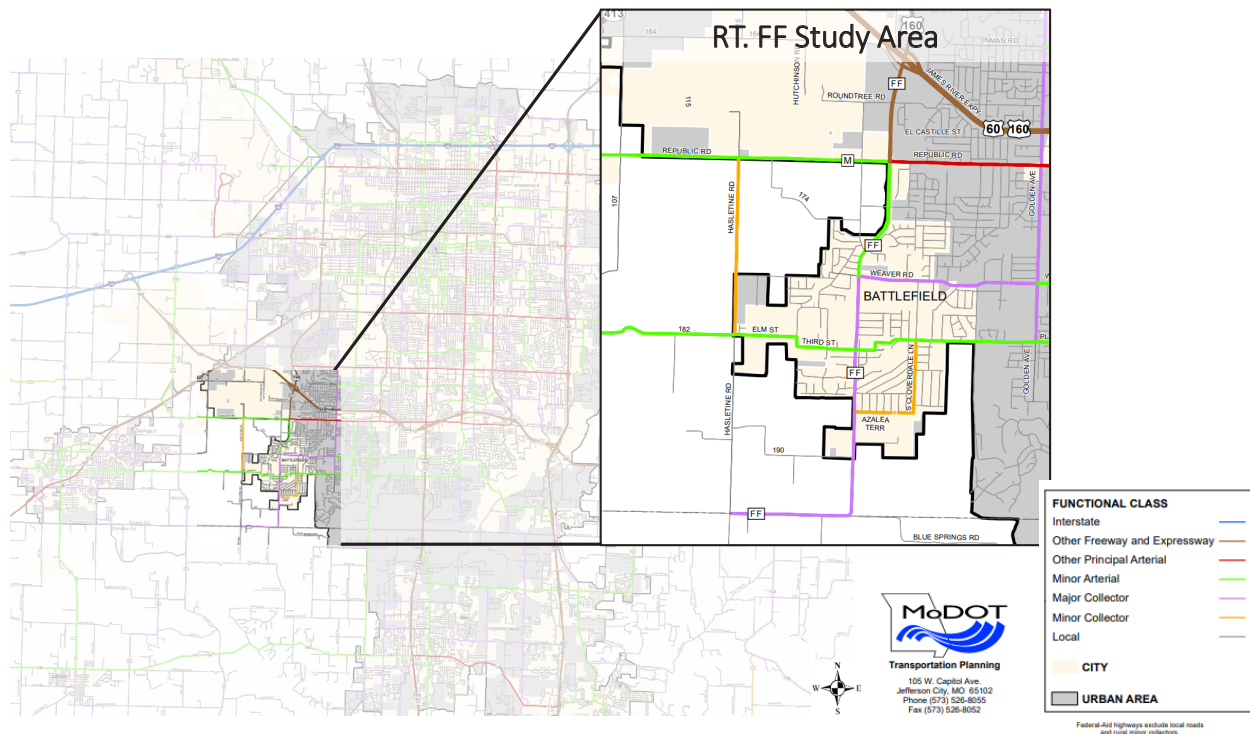


Figure 7- Route FF Study Area

Route FF from FR 123 to Weaver Road is classified as a principal arterial, which means it currently functions to provide a high level of mobility within the Springfield metro area, but still provides direct access to driveways for adjacent land uses. Route FF from Weaver Road to Blue Springs Road is classified as a Major Collector. This segment of the road is intended to connect trips from the local roadway network to the arterial system.

Republic Road is classified as a minor arterial west of Route FF and a principal arterial east of Route FF. Weaver Road is classified a major collector east of Route FF. Third Street is classified as a minor arterial east and west of Route FF. Azalea Terrace is classified as a minor collector east of Route FF.

Roadway Design/Typical Section

Existing typical sections are described here.

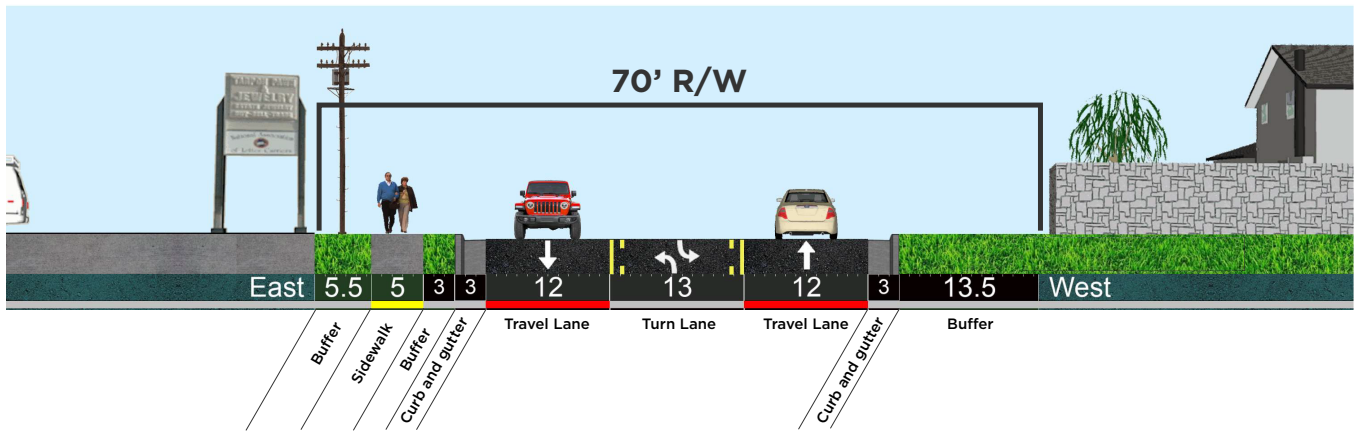
SEGMENT 1: REPUBLIC ROAD TO WEAVER ROAD

* Study area begins at FR 123, but for the purposes of corridor transitions the section is described starting at Republic Road

The intersection at Republic Road and Route FF is the only signalized intersection within the study area. There are two thru lanes and a left turn lane (protected signal) in the north and south direction, as well as channelized right-turn lanes to access Republic Road from Route FF. On Republic Road there is one thru lane and a left-turn lane (protected/permissive) in the east/west direction. Route FF from Republic Road to FR 123 is divided four-lane segment. The posted speed limit is 55 mph and there is an outside shoulder on each side of the street. Existing right-of-way (ROW) is 220 ft. No pedestrian or bicycle facilities exist in this segment of the road and directional signage is limited. There are no driveways and only access to intersecting roads, where turn lanes exist.

At FR 123, the typical section transitions to a three-lane section with two-thru lanes and a center two-way-left-turn-lane (TWTL) for more access to driveways. The posted speed limit changes to 45 mph. One sidewalk segment exists from the Freedom Health Systems development to Weaver Road on the east side of Route FF. Overhead utilities are located on the east side of Route FF.

Figure 8- Route FF - Segment 1 - Existing



SEGMENT 2: WEAVER ROAD TO AZALEA TERRACE*

The intersection at Weaver Road and Route FF is side street stop control. The posted speed east of Route FF is 30 mph and the posted speed west of Route FF is 25 mph. The intersection is a commercial node along the corridor with a convenience store/gas station (SW), a real estate agency (NW) and a church (SE). The typical section is a two-lane road with a single lane in each direction. A newer sidewalk has been installed on the east side of the road from Weaver to Green Ridge Terrace and is in good condition. The existing ROW is 70 ft. Overhead utilities transition from the east to the west side of the road from Weaver to 3rd Street and are located on both sides of Route FF south of 3rd. This segment of the corridor is primarily residential with driveways off Route FF serving single-family homes. Commercial nodes exist at 3rd (side street stop) and 2nd (side street stop) streets. The posted speed is 45 mph. Limited wayfinding and directional signage exists, and residential mailboxes abut Route FF. There is a future trail crossing planned across Route FF near Somerset in this section of the study area.

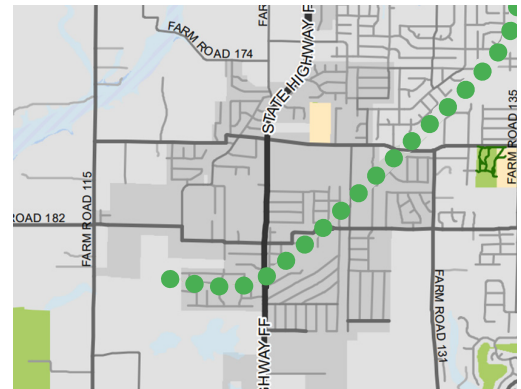
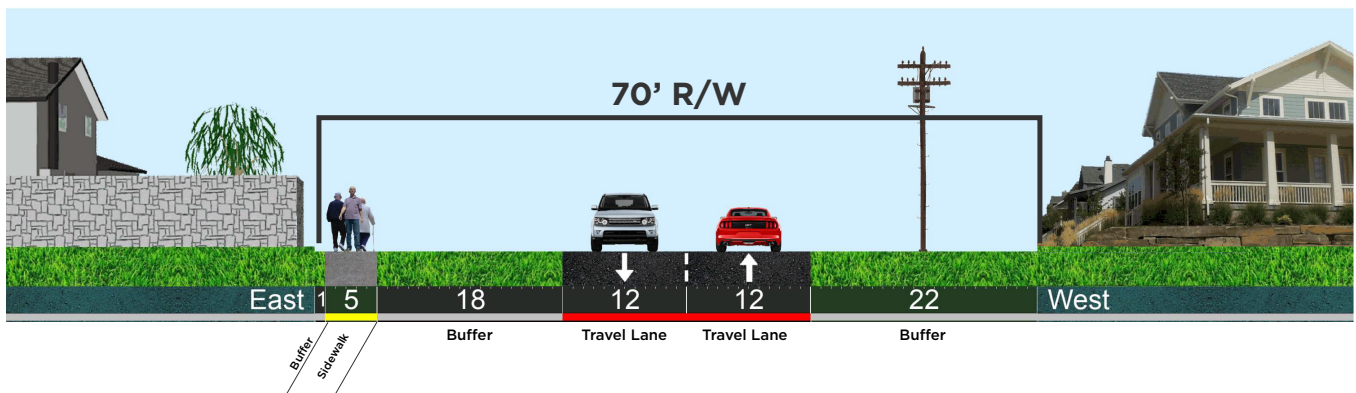


Figure 9- Future trail crossing over Route FF

Figure 10- Route FF - Segment 2 - Existing

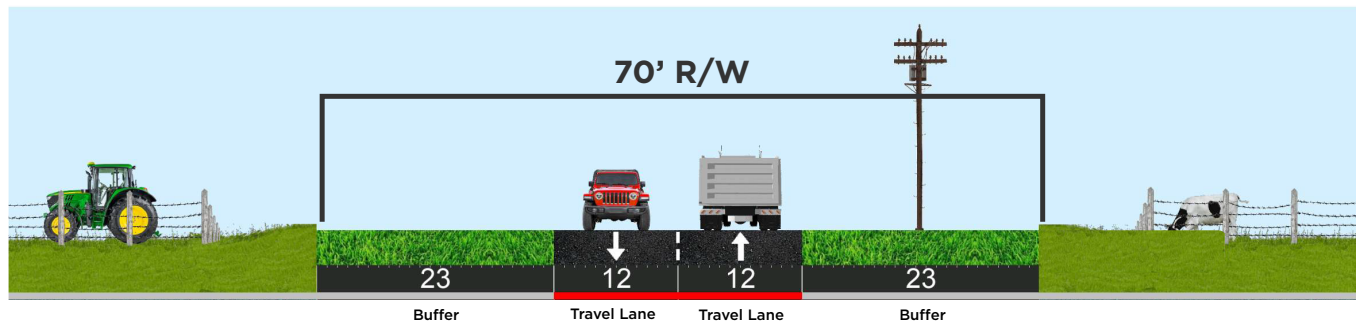


SEGMENT 3: AZALEA TERRACE TO BLUE SPRINGS ROAD

The intersection at Azalea Terrace is a T-Intersection connecting to Route FF and is a side-street stop. South of Azalea Terrace Route FF is a two-lane segment with one thru lane of traffic in each direction. This segment of road is mostly residential land uses, with the potential for developable land south of Green Ridge Terrace. The driveways on the northern part of this segment function to serve the single-family residential homes located adjacent to Route FF. Existing ROW is 70 ft. The

posted speed limit is 45 mph from Azalea Terrace to Farm Road 190, where the posted speed changes to 55 mph. The only pedestrian facility that exists is the continuation of the new sidewalk on the east side of Route FF from Azalea Terrace to Green Ridge Terrace. No bicycle facilities exist, and directional signage and wayfinding is minimal. Overhead utilities are on both sides of Route FF until Farm Road 190 where they transition to the west side of Route FF. The road curves to the west as it meets Blue Springs Road with no stop for vehicular traffic on Route FF, and only stop signs for those continuing on Blue Springs Road or entering Route FF from Blue Springs Road.

Figure 11- Route FF- Segment 3 - Existing



Traffic Volumes

Battlefield has significantly grown in population since 2000. Additionally, the Springfield Metropolitan area is continuing to experience significant growth, adding over 100,000 residents since 2000. According to the 2020 US Census, the Springfield Metropolitan area increased in population by nearly 9%. As such, projecting future traffic volumes associated with development patterns is key for determining the future buildout of Route FF.

OTO provided existing travel demand data for analysis of three different scenarios impacting the future volumes along Route FF. Modeling traffic patterns in these scenarios assisted with making informed decisions about the future mobility needs along Route FF. The three scenarios modeled are:

- Completion of Kansas Expressway south of James River Freeway (US60) – The Kansas Expressway scenario included shifting N/S travel patterns to the new 4-lane Kansas Expressway extension. (This project is currently under construction)
- Farm Road 190 Extension (E/W arterial connector) – This scenario included the addition of an E/W arterial road connection somewhere near FR 190 on the east side of FF.
- Route FF extension to Route 14 (N/S connection extension) – This scenario included FF as a direct connection to Nixa via south expansion. The scenario modeled both the 2-lane and 4-lane section to test latent demand on the corridor.

In all of these scenarios the future traffic volumes did not necessitate 4-lanes of vehicular traffic on Route FF.

Route FF Corridor Study



Figure 12- Route FF Corridor Study

TABLE 1- TRAFFIC PROJECTIONS

Roadway Segment	Existing Traffic Volumes	Future Traffic Projections*
Segment 1 - FR 123 to Weaver Rd	10,600 ADT	14,700 ADT to 16,500 ADT
Segment 2 - Weaver Rd to Azalea Terr	6,000 ADT Weaver to 3rd 9,000 ADT 3rd to Azalea	12,100 ADT to 14,500 ADT
Segment 3 - Azalea Terr to Blue Springs Rd	2,500 ADT	6,800 ADT to 10,900 ADT

*Future Traffic projections based on the following traffic scenarios:

1. The extension of Kansas Expressway to the South
2. Construction of an East-West connector roadway near FR 190
3. Extending Route FF to the South and connecting to Route 14

ADT- Average Daily Traffic Volume

Safety

Safety along the corridor is another key factor in the Route FF Study Process. A high level review of crashes was completed and those heat maps are shown here. Crash data pulled for the past 5 years shows there were 132 crashes within the study area. Of those crashes, 10 were serious injury crashes, and 32 were minor injury crashes. There were no fatalities.

By intersection Weaver had the most crashes (37), followed by 3rd (21), Blue Springs (9) and FR 190 (3).

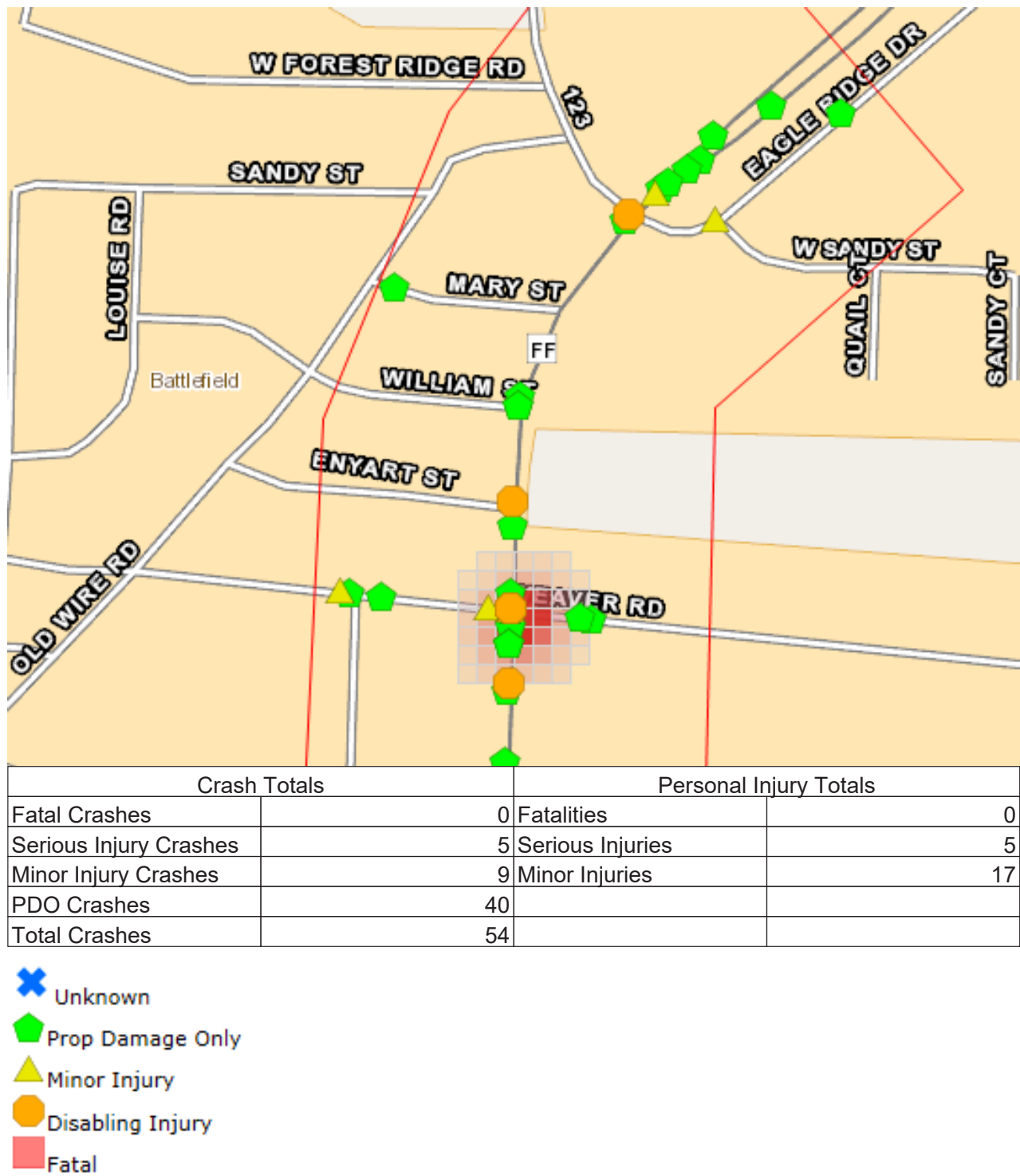
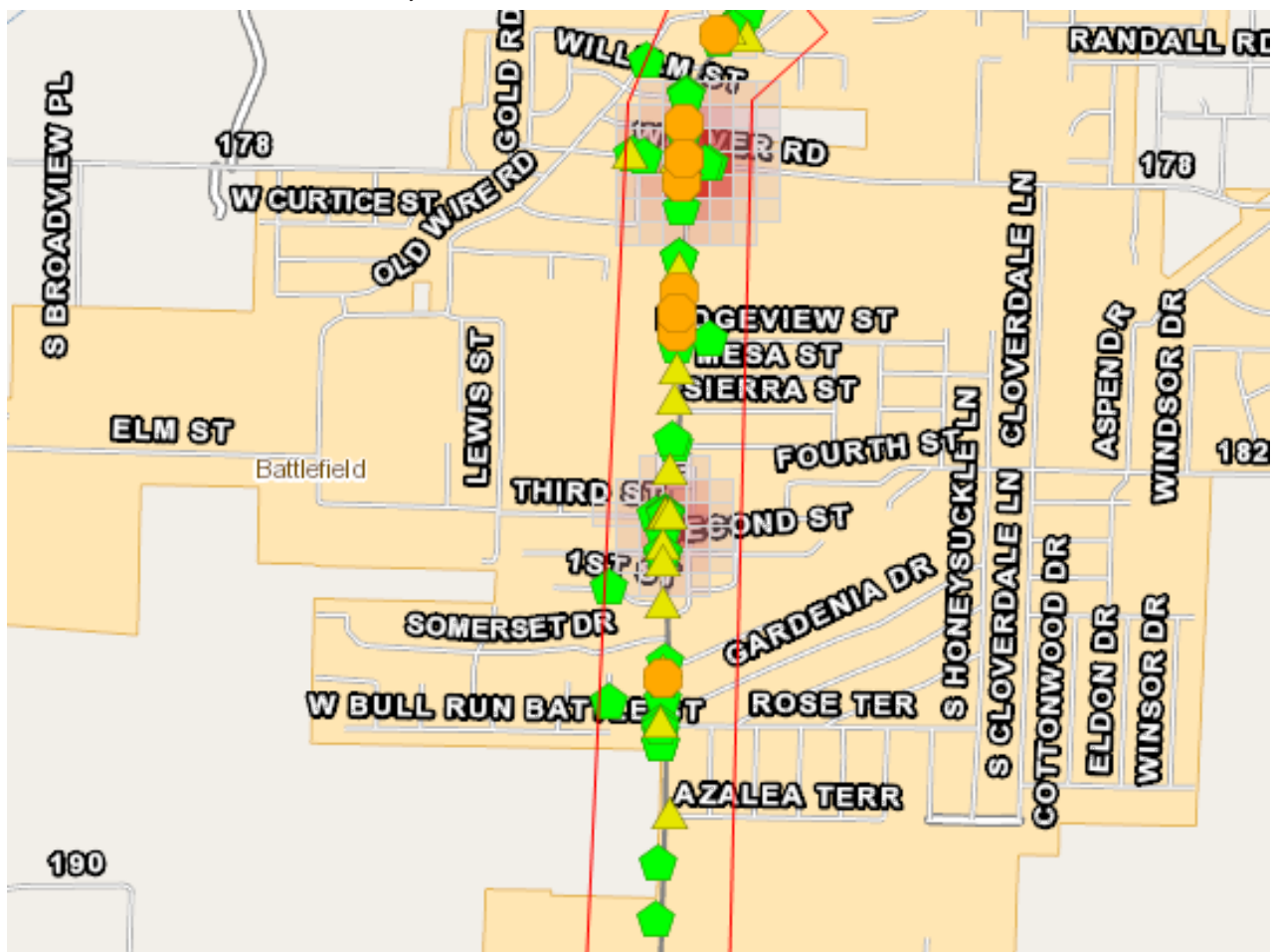


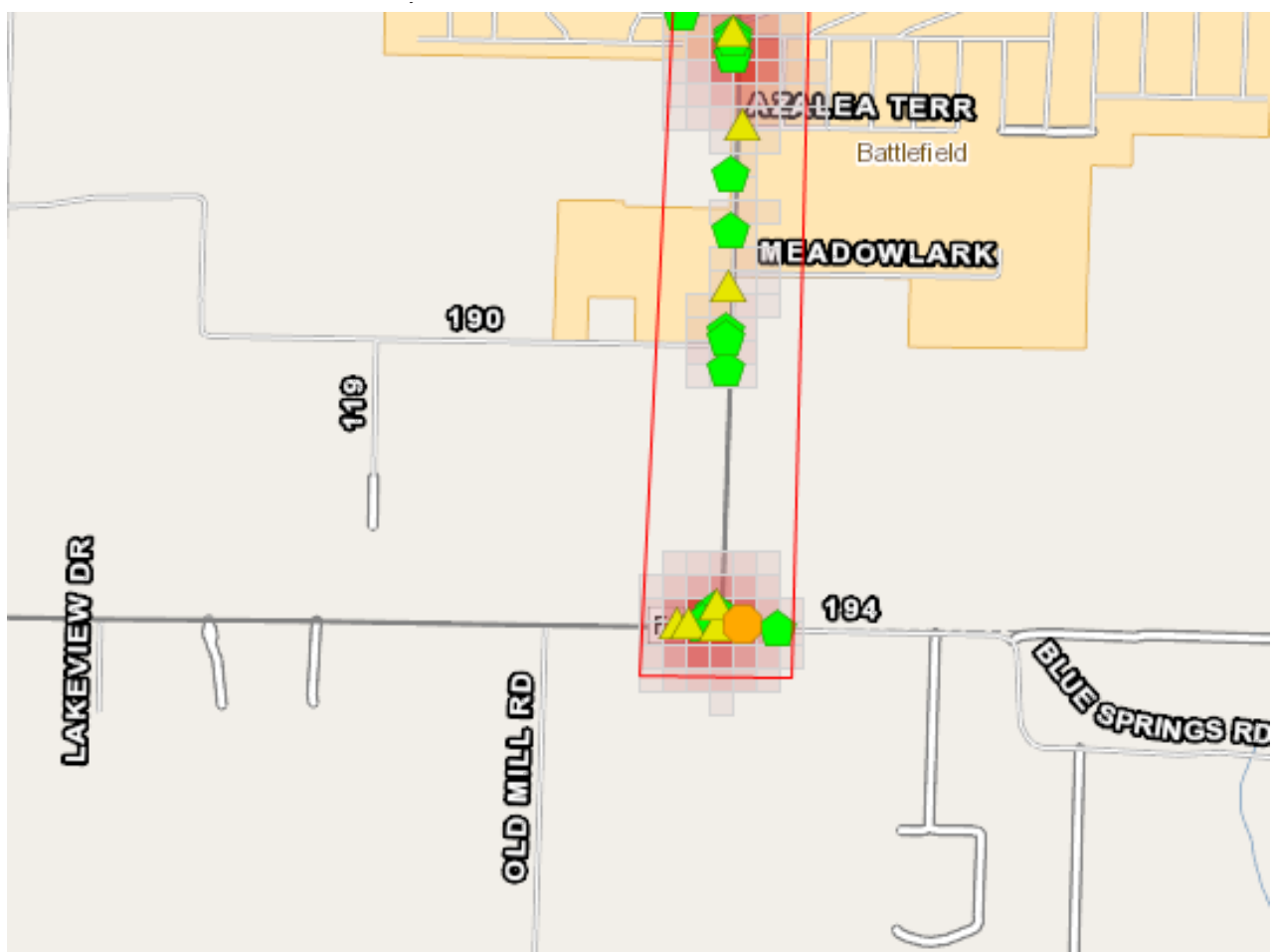
Figure 13- Crashes for Segment 1 (FR 123 to Weaver Road)



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	8	Serious Injuries	8
Minor Injury Crashes	24	Minor Injuries	39
PDO Crashes	71		
Total Crashes	103		

- ✕ Unknown
- ▬ Prop Damage Only
- ▲ Minor Injury
- Disabling Injury
- Fatal

Figure 14- Crashes for Segment 2 (Weaver Rd to Azalea Terrace)



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	1	Serious Injuries	1
Minor Injury Crashes	6	Minor Injuries	7
PDO Crashes	9		
Total Crashes	16		

- ✖ Unknown
- ⬠ Prop Damage Only
- ▲ Minor Injury
- Disabling Injury
- Fatal

Figure 15- Crashes for Segment 3 (Azalea Terrace to Blue Springs Road)

Adjacent Land Use

The Battlefield Comprehensive Plan from 2021 outlined existing commercial land use along the Route FF corridor. In addition to outlining the adjacent land uses, goals were outlined related to economic development and attracting new businesses to the city, including the area of Downtown Battlefield. Currently, little of the land along Route FF is used for commercial uses, but there is room for potential development or redevelopment along the corridor.

The Future Land use Map is included here, but does not address potential uses outside of existing Battlefield City Limits. As an outgrowth to the 2021 Comprehensive Plan process, the City of Battlefield is starting a housing and economic development study to address land consumption needs for future residential and commercial uses. The area around Route FF that is not within the city limits will be included in that work.

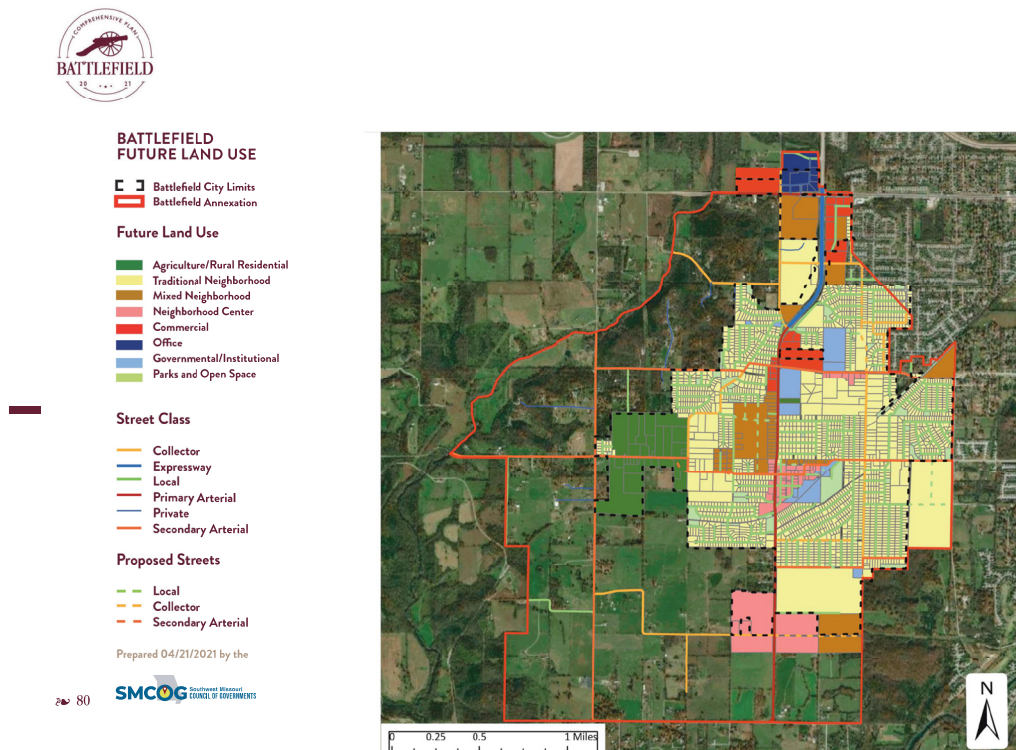


Figure 16- Battlefield Comprehensive Plan 2021

Environmental Considerations & Constraints

A desktop review of environmental considerations for the study corridor was completed. These impacts should be considered with any future design modifications to the corridor. Full environmental documentation is included in the appendix with key takeaways summarized here.

WETLANDS/STREETS (404 PERMITTING)

Multiple National Hydrography Dataset (NHD) streams and National Wetland Inventory (NWI) wetlands are mapped within the study area boundaries. These include: two mapped intermittent streams, seven freshwater ponds, and one freshwater emergent wetland. Based on aerial imagery, some of these features may no longer be present along the alignments. Field investigation will be required to determine if streams and wetlands are present. Impacts to federally jurisdictional streams and/or wetlands will require compliance with 404/401 permitting.

THREATENED & ENDANGERED SPECIES

According to USFWS Information for Planning and Consultation (IPaC) review, the following federally listed species may occur in the study area:

- Indiana bat (*Myotis sodalis*, endangered), Northern long-eared bat (*Myotis septentrionalis*, threatened), Tricolored Bat (*Perimyotis subflavus*, proposed endangered)

- During any future roadway projects on Route FF, tree clearing of suitable habitat will require seasonal restrictions (November 1- March 31)
- Gray bat (*Myotis grisescens*, endangered)
 - The final project alignment will need to be assessed for suitable cave habitat
 - MDNR GeoSTRAT reports no sinkholes in study area
- Ozark cavefish (*Amblyopsis rosae*, threatened)
 - Based on a desktop review, cave streams are not likely to be located within the study area
- Alligator snapping turtle (*Macrochelys temminckii*, proposed threatened)
 - Candidate, no current recovery plans or special rules, no critical habitat identified
 - The final project alignment will need to be assessed for suitable aquatic habitat
- Virginia sneezeweed (*Helenium virginicum*, threatened)
 - No critical habitat identified, currently only found in Virginia, historical range in Missouri
 - The final project alignment will need to be assessed for habitat- shores of shallow, seasonally flooded ponds/ wetlands

Further coordination will be required to MDC Natural Heritage Review to determine if there are records of federally- or state-listed species or state-ranked species near the project boundaries.

CULTURAL RESOURCES

No National Register sites are located within the project area. During future project design, the area will likely need to be reviewed for buildings and structures that are over 45 years of age.

HAZARDOUS WASTE SITES

- Operating UST with no known releases: 3 (orange)
- Facility closed prior to implementation of 2004 tanks RBCA: 1 (Purple)
- Administrative closure: 1 (Black)
- If right-of-ways or easements will be required from these properties, additional investigation will likely be necessary.

FLOODPLAIN

Most of the project area is outside of the floodplain. There are two small areas toward the Southwestern edge of the study area that are in Zone A (1% annual chance of flooding). Any construction within a floodplain will require a floodplain development permit.

PARKLAND/4(F) PROPERTIES

There are no parks or potential recreation 4(f) properties were identified within the study area.

FARMLAND

The study area encompasses farmland in the southern portion. Impacts to farmland may require coordination with NRCS.

NOISE

If the project is classified as a Type I or Type II project, a noise analysis may be required.

Utility Considerations & Constraints

A preliminary MO One Call search was performed along the Route FF corridor from north of Weaver Road to the Greene/Christian County Line. The results of the search revealed the following companies as possibly having facilities within the project limits:

- AT&T Distribution – Copper & Fiber Communications
- City of Battlefield – Sanitary Sewer
- Brightspeed – Fiber Optic Communications
- City Utilities – Electric (Power)
- City Utilities – Gas
- SpringNet – CU Fiber Optic Communications
- Greene County PWSD1 – Water
- Verizon – Fiber Optic Transmission
- Ozark Electric Cooperative – Power
- Southern Star Central Gas Pipeline – Gas Transmission
- Mediacom – Coaxial and Fiber Communications

Most of the facilities noted above are used for distribution. City Utilities has overhead 3 Phase running parallel to Route FF along the majority of the corridor. Ozark Electric also has parallel 3 Phase from 3rd Street going south to the County Line. It appears CU’s distribution power is within existing public R/W but Ozark Electric’s facilities are in private easement beyond public R/W. AT&T’s and Mediacom’s facilities appear to be within public R/W. Greene County PWSD#1 has parallel water mains ranging from 4” to 10” dia. along the corridor. It should be assumed that the majority of the water facilities are within private easement beyond the limits of public R/W. City Utilities has a parallel 6” steel gas main along Route FF. Mapping indicates this facility falls within existing R/W.

The three known transmission facilities include Southern Star’s gas main crossing on the north side of Weaver Road, Verizon’s toll fiber crossing approximately 1650 ft south of 3rd Street, and City Utilities’ 161kV powerline crossing approximately 1050 ft south of Azalea Terrace. It should be assumed that all three of these transmission facilities fall within private easements. The relocation of gas transmission mains are typically limited to the summer months when demand is low. Likewise, electrical transmission relocations are typically performed during the spring or summer months when the demand is low. It should be noted that the relocation of gas or electrical transmission facilities can impact project schedule.

The topographic survey should be compared to the individual utility mapping to make sure that all known utilities have been accounted for on the survey. Any missing facilities are to be located utilizing the MO One Call system and picked up on the topographic survey. The individual utility companies should be informed as the roadway design progresses. The roadway design should make an effort to eliminate or minimize the impacts to all high-profile facilities. Any reimbursable utility relocation should be accounted for within the overall project budget. The individual utility owners need to be apprised of the project schedule so they can budget for any non-reimbursable relocation expenses.

KEY TAKEAWAYS

- 3 known transmission facilities
- Relocations typically during spring or summer months when demand is low
- Can impact project schedule
- Will have to move overhead utility power due to expanded roadway footprint

Right of Way Considerations & Constraints

Typically, the corridor is 70 ft of ROW along Route FF. There are a few exceptions at points throughout the corridor. At a minimum, 5 ft of ROW will need to be acquired on both sides of Route FF for the recommended design treatments and accommodate recommended update to functional classification . In some cases, more will be required, including at the intersections where additional space will be needed to accommodate site distance. Exceptions to the 70 ft ROW along Route FF include:

- Narrows to 50 ft just south of Monterrey, widens to 70 ft approx. 265 ft north of 3rd
- 80 ft south of 3rd and widening to 95 ft midway between 2nd and 1st
- 75 ft narrowing to 70 ft between 1st and Sommerset
- 65 ft between Sommerset and Azalea

Existing Plans

Existing plans that included Route FF within their planning area were reviewed to get a better sense of the planned growth and development along the corridor. As indicated previously, at the culmination of the Route FF study, the City of Battlefield was working on an economic development and housing study to better understand the market needs related to commercial and housing needs.

BATTLEFIELD COMPREHENSIVE PLAN

In 2021, the City of Battlefield collaborated with the Southwest Missouri Council of Governments (SMCOG) to update the City's 2002 Comprehensive Plan. This document is to serve as the official guide for the community's future growth, land use and developments. Future policy and infrastructure decisions should be consistent with what is included in the adopted comprehensive plan. The City of Battlefield has a plan implementation team that has been meeting regularly to get items from the comprehensive plan accomplished. Items related to Route FF Include:

- Improve traffic flow in Battlefield (identify intersections for improvement; maximize capacity by maintaining good access and bike/ped facilities
- Provide all modes of transportation to reduce the number of vehicles on the roadway
- Create a Downtown Battlefield area as one of the major economic centers and attractive urban lifestyle center (improve infrastructure to include pedestrian friendly environment

DESTINATION 2045

(Long Range Transportation Plan (LRTP) for the OTO Planning area)

Adopted in 2021, Destination 2045 lays out priorities for the transportation network in the Springfield Metropolitan area. The LRTP is updated every 5 years and maintained by OTO. Included in Destination 2045 was a major throughfare plan for the region, as well as design standards for typical sections by roadway classification. Route FF is included in this throughfare plan and is identified as an expressway and a minor arterial. Route FF is also included as a priority route for sidewalks on both sides of the street. Recommendations for how Route FF should be classified in future OTO thoroughfare plans is included in this report.

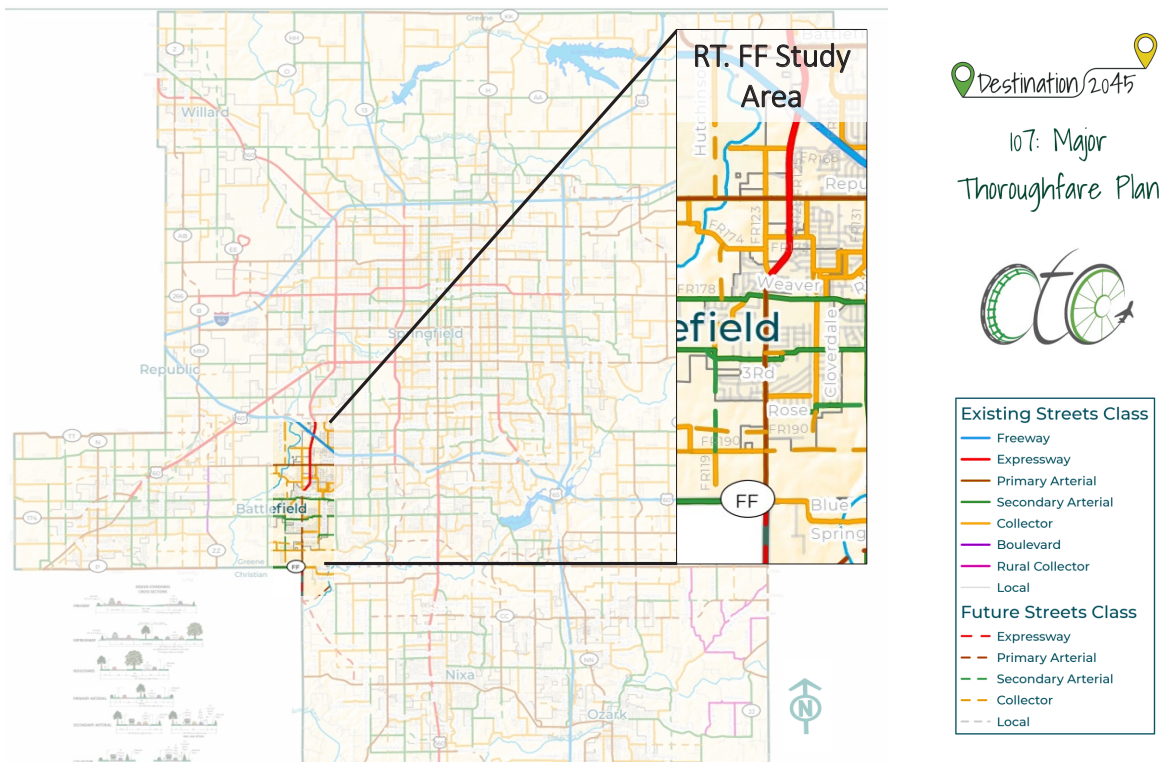


Figure 17- Destination 2045 Major Thoroughfare Plan

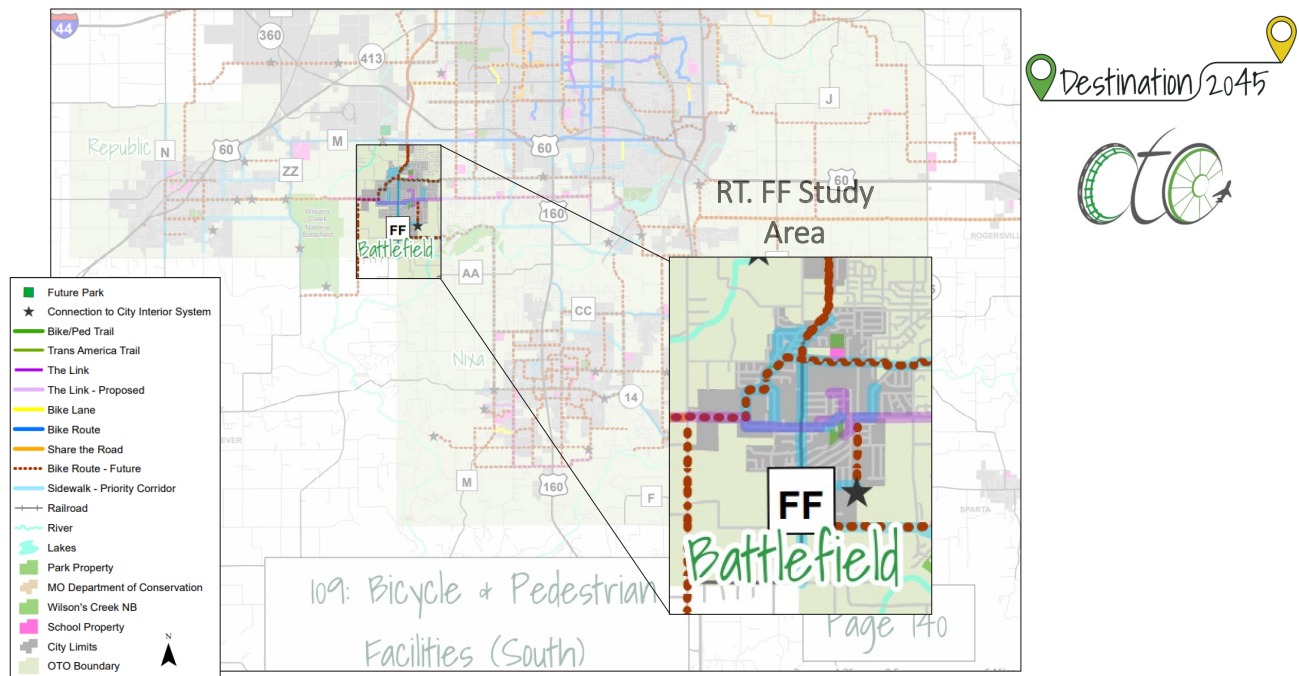


Figure 18- Destination 2045 Bicycle & Pedestrian Facilities

Engagement

The Route FF study included a multipronged approach to engagement with routine checks on milestones with a technical committee, and an outreach to the public that included online engagement and in-person project discussion.

Core Team

The core team met key milestones during the Route FF corridor study. Agencies represented on the core team included members of the consulting team, as well as representatives from OTO, MoDOT and the City of Battlefield. The first meeting of the core team was held in January 2022 to review the study scope and review project needs and expectations.

The second core team meeting reviewed existing conditions, including traffic volumes and projections. Additionally, the corridor was reviewed in more detail using the 3-segment discussion, and potential options for the roadway concepts were discussed. Dates and times for the public open house and survey launch were set. Core team meeting 3 discussed potential roadway design updates to present to the public.

A public meeting on August 2nd.

The fourth core team meeting was held in September 2022 and reviewed public input from both the survey and the open house. Priorities with all agencies were discussed and final steps to close out the study were detailed. Information garnered from the public input did not indicate a clear preference about roadway design. However, using the general feedback with core team input, the recommendations were developed.

The complete public input presentation reviewed at the fourth core team meeting is included here as an appendix to this report.

Online Survey

An online survey was launched on August 2, 2022, and open for two weeks. Between participants taking the survey online and individuals that filled out the survey at the public meeting, 59 respondents participated in the Route FF corridor study. A blank copy of the survey is included in the engagement section appendix of this report. The survey was mostly completed by those that live in Battlefield and use Route FF regularly (80%). Additionally 41% of survey respondents were aged 65 – 74, with the next largest age group of respondents being ages 35 – 54 (32%).

The survey asked participants questions about how frequently they travelled along Route FF, as well as how they traveled (car, bike, walk, other) and for what type of reasons they travelled. In addition to usage patterns and basic demographic information, the survey asked questions by each of the 3 segments related to concerns, their perceived necessary transportation improvements, and the type of development the respondents were interested in along the Route FF corridor. Additionally, people were also asked to leave general comments or concerns. All of these responses are detailed in the engagement appendix attached to this report.

Public Meeting

A community open house was held on Tuesday, August 2, 2022, from 4:30 – 6:30pm at Battlefield City Hall. The meeting was advertised to Battlefield residents and those individuals that use Route FF. The meeting was held prior to the City's celebration of National Night Out. Eighty-six people attended that meeting and listened to the project team discuss the Route FF study, including existing conditions and initial options/concepts for the future design on Route FF. After a brief presentation, members of the public were asked to review project boards and vote on their preference for what vision of Route FF most inspired them. The public engagement summary from Core Team Meeting 4 is included in the engagement appendix attached to this report.

There were five boards that were available for the public to view following the Route FF study presentation. Participants were encouraged to leave post-it notes with their thoughts and opinions as well as were provided with dots to vote on treatments or concepts they were interested in seeing along the Route FF corridor. An outline of these boards is included here and the images of the boards with comments is included in the engagement appendix.

- BOARD 1: General Corridor Information – mapping by segment, as well as existing and projected traffic volumes
- BOARD 2: Route FF Major Intersection Concepts – Concepts on treatments available for major intersections (roundabout, signalized, limited access or no improvement)

- BOARD 3: Segment 1 design options & voting on specific treatments individuals liked from each option (multi-use path, sidewalks on both sides, landscaped median, access control)
- BOARD 4: Segment 2 design options & voting on specific treatments individuals liked from each option (sidewalks on both sides, walkable business district, multi-use path, bike lanes, raised median, access control)
- BOARD 5: Segment 3 design options & voting on specific treatments individuals liked from each option (multi-use path, sidewalk on one side, sidewalks on both sides, bike lanes, landscaped median, access control).

The feedback from the public meeting was generally mixed and provided no strong opinion on preferred design concepts for the Route FF corridor. Most attendees at the public meeting lived on Route FF and had a higher level of interest in the project due to their property being adjacent to the corridor. Based on input from the city, the level of response received for the Route FF corridor study is similar to the level of engagement received during the update to the comprehensive plan. Using this information, the Core Team was able to finalize concepts to move forward after the FF study, as well as possible implementation of timing of future roadway projects. The recommendations for the future vision of Route FF are included in the next section.



Figure 19- Public Meeting Pictures

Corridor Recommendations

Recommendations for this corridor have been separated into two categories. Both categories are framed with the overall recommendation Route FF should be classified as a secondary arterial. First, we offer a set of design focused recommendations to enhance safety, while efficiently moving people through the corridor. These design concepts focus on vehicular traffic, as well as those walking or biking within the local Battlefield community. These design concepts are governed by the re-classification of Route FF as a secondary arterial. The primary benefits of the updated cross section, as well as the roundabout treatments are to reduce vehicular speeds and increase safety.

The second set of recommendations is planning focused solutions. Given the future development potential along the corridor, including the focus on a future Downtown Battlefield, these policy solutions are necessary, so infrastructure improvements match mobility needs in the future. The idea of a rebranding is also included as a way to foster more of a place within Battlefield.

Based on future traffic projections, a 3-lane section is sufficient to serve capacity on Route FF and move people efficiently within and through the corridor. This requires 80' ROW with a design speed of 35mph as governed by the status as a secondary arterial on the OTO MTP. Four lanes are recommended north of Weaver Road. In segment 2 (downtown), a 2-lane section is recommended using a center median to provide additional traffic calming and access management.

TABLE 2- ROUTE FF CORRIDOR RECOMMENDATIONS

Recommended Design Treatments	Timing	Recommended Planning Treatment	Timing
3-lane typical section; 80' ROW (secondary arterial design guidance)	ADT threshold of 11,000 is reached	Reclassify Route FF as a secondary arterial on the MTP (OTO)	Early 2023
Design speed 35mph (governed by secondary arterial)	During corridor redesign (ADT threshold reached)		
10' SUP on E Side & sidewalk on W side	During corridor redesign (ADT threshold reached)	Explore a name change/ street rebranding	Start now
Roundabouts at Weaver, 3rd, Azalea, & Blue Springs	(1st) Weaver -high crash location (2nd) 3rd-high crash location & complement to R/A at Weaver	Update Battlefield Street Design Standards/subdivision regulations	2023
Trail of Tears crossing at Somerset	During corridor redesign (ADT threshold reached)		
Updated high visibility crosswalks throughout	During corridor redesign (ADT threshold reached)	Assign roadway improvements for future development needs	After subdivision regulation updates
Corridor-wise traffic calming	Depending on specific treatment, during corridor redesign or as adjacent developments occur		

Design Focused

CORRIDOR TYPICAL SECTION

Given the future growth along the corridor and traffic volume projections, a three-lane section is sufficient to serve capacity on Route FF and move people efficiently through and within the corridor for most segments. However, from FR 123 to Weaver Road 4-lanes is recommended. In the downtown area, a 2-lane segment is recommended, with the installation of a center turn lane to provide additional traffic calming and access management. More details about these segments are included here.

Future traffic volumes are projected to be between 6,800 ADT (segment 3) and 16,500 ADT (segment 1). According to the OTO Destination 2045, these volumes fall well within the range of what is classified as a secondary arterial and require a minimum of 80 ft of ROW.

The corridor re-design is important as Route FF reaches a threshold of 11,000 ADT. The 3-lane section will accommodate an ADT up to 20,000. In some segments of the Route FF corridor, where traffic calming treatments are recommended, such as center medians, the 2-lane segment can accommodate the future project traffic volumes. On roadways with access management and roundabouts at intersections, 2-lane sections can accommodate higher volumes of traffic (18,000 – 20,000 ADT). Access management/median location and median openings will require further study during the design phase. As indicated in the typical sections included here, 11 ft lanes are recommended throughout Route FF. Designing thru lanes at this width is a strategy to slow down vehicular traffic on the corridor as it travels through Battlefield.

Within the 80 ft of ROW, the typical section should accommodate three lanes, one thru-lane in each direction and a center two-way-left-turn lane (TWTL), and curb and gutter. The TWTL will more safely accommodate turning movements off Route FF. A 10ft. shared use path is recommended on one side of the street and a 5 ft sidewalk is recommended on the other side of the street. The implementation of the sidewalk and shared use path should be a priority in segments of the corridor where no pedestrian facility currently exists, as well as in the future Downtown Battlefield area.

The only segment of the Route FF within the study area that is recommended for a 4-lane section is Segment 1, from Weaver Road to Farm Road 123. The recommendation for that segment is to continue the typical section north of FR123, with 4 vehicular travel lanes and a center median, with the installation of a 5ft sidewalk on west side and 10 ft shared use path (SUP) on east side of the road.

Designing for this typical section allows for some flexibility in terms of additional traffic calming or access management along the corridor. A center median may be installed in the future where a turn lane is not needed to prohibit certain turning movements, or used as a physical deterrent to slow down motorists as they travel through Battlefield on Route FF.

Figure 20- Route FF- Section 1 - Proposed

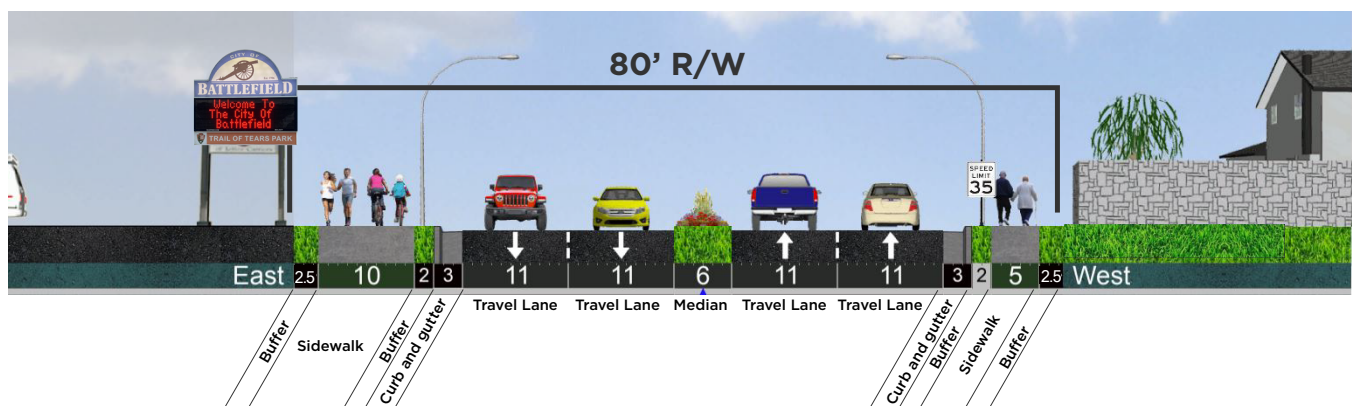
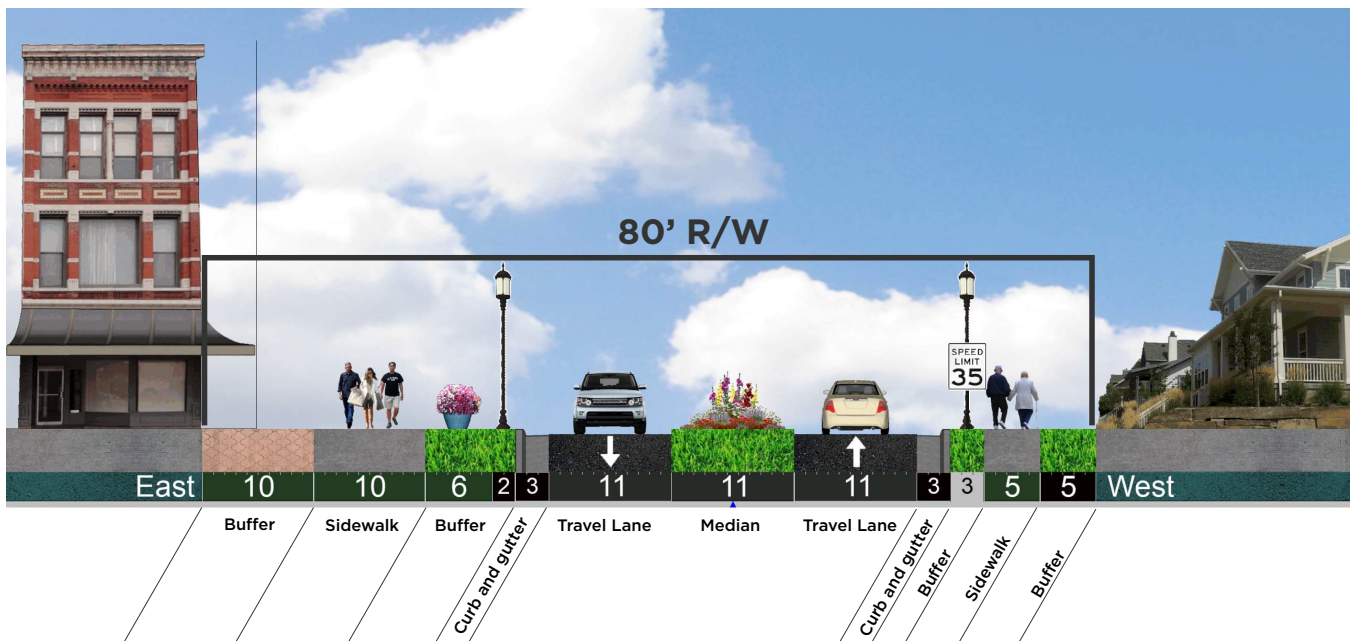
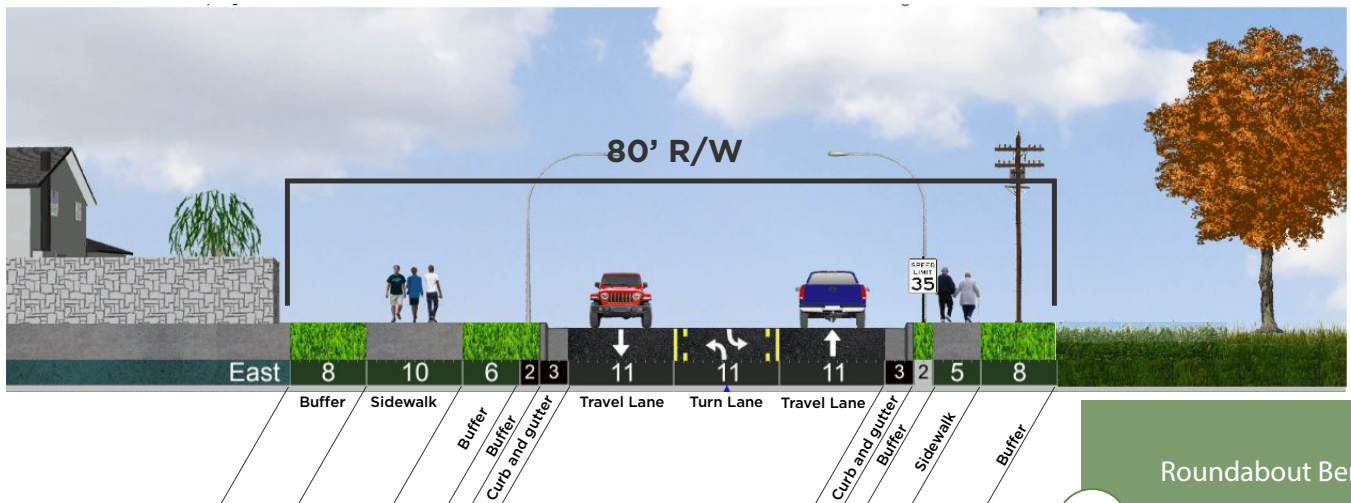


Figure 21- Route FF - Section 2 - Proposed



As seen here, a center median is taking up the space of the 3rd lane. This treatment is recommended in the Downtown area, where traffic calming, and access management will be important for increased pedestrian volumes.

Figure 22- Route FF - Section 3 - Proposed



DESIGNS AT INTERSECTIONS

Currently all the intersections along Route FF are side stop controlled, meaning that vehicular traffic along Route FF travelling north or south does not stop at any intersection within the study area. We heard several times during the study process that crossing Route FF as a motorist, or a pedestrian is difficult. Furthermore, we heard that crossing the street for children is nearly impossible. Additionally, no marked crossings to get across Route FF as pedestrians currently exist.

Roundabout Benefits



Crash reduction
(76% injury crash reduction)



Lower vehicle speeds
(2.5mph lower at intersection entry)



Lower long-term
maintenance costs

Redesigning the traffic control at key intersections will assist with slowing traffic down as it moves through the corridor, as well as provide for safer crossings (motorists and pedestrians) to get across Route FF. Updating key intersections along the Route FF corridor will also provide the opportunity for gateway treatments at development nodes within the City of Battlefield. Intersection enhancements will provide for better access at key nodes for commercial activity.

Conceptual intersection updates are identified here, as well as key next steps toward implementation to move these concepts to design. The final section of this report is an implementation plan. Locations have been prioritized based on input from the core team as well as what feedback was received during the public meeting.

Roundabouts provide significant safety benefits. In addition to reducing crashes, these promote slower speeds. According to Federal Highway Administration, Roundabouts are found to decrease speeds coming through intersections by 2.5 mph.

Safety Benefits of Roundabouts*

90% reduction in fatalities

76% reduction in injury

30-40% reduction in pedestrian crashes

10% reduction in bicycle crashes

*Institute for Highway Safety



Weaver Road (Initial Priority)

The Weaver Intersection Improvements are recommended as an initial project for multiple reasons including having the most number of crashes and the planned development between Weaver and 3rd. The intersection is a priority for MoDOT to enhance safety. The location of Weaver Road makes updates to the intersection an important gateway for motorists travelling south from Springfield on Route FF. The updated intersection can provide a visual cue to people that they have arrived at a place. This visual cue can help improve motorist behavior while travelling through the Battlefield Community.

In addition to serving as an important gateway for the area, the intersection is considered a priority due to the lack of opportunities to cross Route FF, either in a car or on foot. The updated intersection here will provide a safe crossing opportunity on the northern end of the corridor. Given the vision for a downtown Battlefield in Segment 2 of the corridor, the ability to safely cross Route FF at Weaver is critical to the economic vitality of the businesses at this node. The location of Wilson's Creek Intermediate School off Weaver Road and the safety concerns expressed at the August 2, 2022, open house meeting in enabling children to safely cross make this location as an immediate need for updates on the Route FF corridor. It should be noted that Weaver Road currently meets signal warrants. However, a roundabout here, coupled with a roundabout proposed at 3rd street, serves as an effective intersection treatment for safety and efficiency, while serving as a gateway treatment for the Battlefield community.

A roundabout at Weaver and Route FF will assist with safely and efficiently moving motor vehicle from all directions, while providing safe crossing opportunities for Route FF. Additionally, the roundabout treatment provides more branding and gateway treatment opportunities within the infrastructure updates. To advance this project, the City of Battlefield should work with MoDOT on advancing conceptual level designs at this location. The concepts should examine utility impacts, specific location with ROW, and what ROW needs to be purchased to advance the concept toward implementation. In collaborating with MoDOT and OTO, the City of Battlefield can advance this project as a priority project for the district. These improvements are estimated to cost approximately \$3.8 million, and a complete detailed cost estimate is located in the appendix.

3rd Street (Initial Priority)

Like Weaver Road, the intersection at 3rd Street is a priority for advancing the vision for a Downtown Battlefield. The addition of a new residential development presents an opportunity to update efficiency at the intersection and provide better opportunities to cross Route FF. The location of 3rd Street near Weaver Road presents an opportunity to effectively calm traffic in a repetitive way along the corridor. Traffic calming is an effective strategy when used in repetition, due to the need for motorists to alter their travel behavior.

The 3rd Street intersection is another gateway opportunity for the City of Battlefield as it works toward a downtown development. Thus, the location is ideal location for another roundabout. This roundabout, when coupled with the roundabout at Weaver will serve as effective corridor transition points from other locations on Route FF to the downtown area. The vision is that while Weaver Road serves as the gateway to downtown Battlefield from the north, 3rd Street serves as the gateway to downtown Battlefield from the south. Working together, the branding treatments at these intersections enforce the idea that you have arrived at a place, as opposed to a 'pass-thru' town.

A roundabout will functionally serve to move traffic safely and efficiently in all directions, as well as people across route FF. Aesthetically, a roundabout treatment provides gateway and branding opportunities that are in line with the future vision for downtown Battlefield. The installation of roundabouts throughout the corridor will require ROW acquisition. Existing space constraints may necessitate alternative roundabout design, such as mini roundabouts. These are smaller scale traffic circles that serve as traffic calming tools and efficiently move vehicular traffic at intersections. These mini roundabouts can be designed in a way that allows for the design vehicle (large trucks) to traverse over the roundabout mountable area, but so that cars still circle around them.



Figure 23- Trail of Tears alignment



Figure 24- Azalea Terrace

190. A roundabout will functionally serve to move traffic safely and efficiently in all directions, as well as people across Route FF. Aesthetically, the roundabout treatment provides gateway and branding opportunities that are in line with the future vision for downtown Battlefield. To advance this project, the City of Battlefield should work with MoDOT on advancing conceptual level designs at this location. The concepts should examine utility impacts, specific location with ROW, and what ROW needs to be purchased to advance the concept toward implementation. In collaborating with MoDOT and OTO, the City of Battlefield can advance this project as a priority project for the district.

*only necessary if the connection of Azalea Terrace is built

Trail of Tears/Route FF Crossing (Initial Project)

The future Trail of Tears alignment crosses Route FF at Somerset. Thus, some sort of enhanced crossing to allow for connections across Route FF should be included. This design should include high visibility crosswalk markings for improved safety. Additionally, the installation of a center median at this crossing will allow for a refuge area for people crossing FF using the trail. Enhanced signage should be included, and possible the addition of Rectangular Rapid Flashing Beacon (RRFB). The RRFB is a pedestrian activated signal that is routinely used at pedestrian crossings located outside of an intersection.

Azalea Terrace (Secondary Priority)*

A roundabout at Azalea terrace should follow the intersection upgrades downtown at Weaver and 3rd Street. As the next intersection goes to the south, this continues to build on the idea that you are entering a place. Visual cues like this work to improve more awareness among motorists and enhance the sense of place within a community. In addition to serving our mobility needs, streets are spaces within a community that can foster vibrant, healthy, and economically successful places. Building concepts such as these are important for the future development of Battlefield along Route FF.

The location at Azalea is important due to the new residential development between Azalea Terrace and Future Farm Road

FR 123 and Blue Springs (final priority)

As northern and southern entry points into Battlefield, updating intersections at FR 123 and Route FF, as well as Blue Springs and Route FF, are important for efficiency along the corridor. The recommended treatment at Blue Springs and Route FF is a roundabout. This unconventional intersection would be a candidate for a roundabout as well. The free movement southbound to westbound could be maintained with a bypass lane to the northwest quadrant of the roundabout allowing for that movement to maintain the existing free flow, while increasing safety for the other movements.

Future FR 190 (final priority)

The intersection at FR 190 should be designed to accommodate a future E/W collector route to the east of Route FF. As development happens in this area, access should be designed connecting to the E/W arterial rather than Route FF. The still unknown preferred alignment and traffic projections for this FR 190 E/W collector will guide the design of this intersection. Future development in the area will require additional study of this intersection and roadways to determine the most effective intersection type.

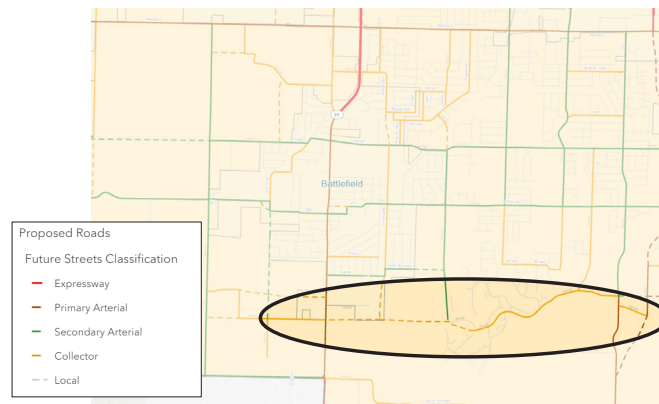


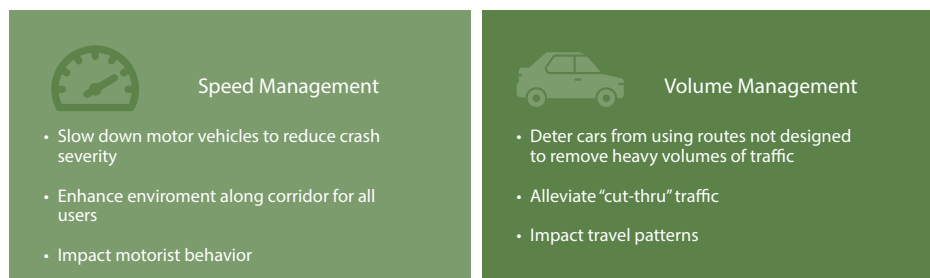
Figure 25- Proposed Future Roads

CORRIDOR WIDE TRAFFIC CALMING

Traffic calming is the combination of mostly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. The goals of traffic calming along a corridor include enhancing the quality of life along and within the corridor, creating safe and attractive streets, and promoting walking and biking as more viable modes of transportation. Objectives of traffic calming include slowing down motor vehicles, reducing crashes, increasing the safety of the road for non-motorized users, increasing access for all modes of transportation, and reducing cut-thru traffic.

Traffic calming is accomplished by focusing on (1) Speed management and/or (2) volume management. Speed management focuses on slowing down motorists on the roadway to minimize severity in any crashes. Speed management strategies focus on impacting motorists' behavior in how they are operating their vehicle on the roadway. Volume management strategies focus on deterring 'cut-thru' trips, or trips not specifically designed for how a road is to operate within the functional classification system. These strategies are physical ways to alter individual travel patterns.

Based on input from the core team, as well as input received at the public meeting, Route FF will benefit from corridor wide traffic calming tools that focus on speed management.



Speed Management Strategies

Within the traffic calming category of speed management, treatments are broken down by horizontal deflection, vertical deflection and signage and striping.

- Horizontal deflection devices encourage drivers to slow down by introducing a physical obstacle in the road that drivers must carefully navigate, resulting in slower travel speeds. The horizontal shift in the geometry of the roadway may also provide an optical narrowing of the roadway. An example of a horizontal deflection is a center median island or a curb extension. These are optimal treatments for the Route FF corridor.
- Vertical deflection devices encourage slower speeds by introducing raised sections of pavement within the road that vehicles have to drive over. Examples of these devices include speed humps and speed tables, as well as raised intersections or crosswalks. Vertical treatments are not preferred on arterial roads. Horizontal deflection devices are more likely preferred on arterial roads.

Signage and striping reinforce rules of the road. Examples of signing and striping include marked crosswalks, edgeline striping, or speed radar signs. These tools are low cost, but also low impact as there is no physically enforcing component to signage and striping.

Recommended Route FF Traffic Calming Tools

In order to achieve the desired aesthetics and traffic calming along Route FF, specific recommendations for corridor wide traffic calming are included here. These traffic calming treatments should be done in a repetitive manner that reinforces the need to travel slowly through Battlefield. When designed in a consistent and aesthetically pleasing way, these treatments can also add to the branding and sense of place along Route FF. Specific treatments recommended for Route FF are center medians, marked crosswalks, gateway/branding, and a sidewalk on both sides of the street



Figure 26- Center median

CENTER MEDIANS

Center medians are horizontal deflection that will visually and physically narrow the roadway during key segments along route FF. These medians can be installed where a TWLT is not needed. Due to the use of medians and access management within the Route FF corridor, reducing from 3-lanes to 2-lanes in key segments, such as Downtown, is feasible for an ADT up to 20,000. Where these are installed, mid-block crossings may be considered with appropriate signage, such as a rectangular rapid flashing beacon (RRFB) to allow for more crossing points for people across Route FF. For example, between Weaver and 3rd, where traffic should be moving slowly in Downtown, a mid-block crossing connecting to a center median may make sense at the time of future development. Medians may also be landscaped to add to the overall environment on Route FF. Any landscaping added would be maintained by the City of Battlefield, according to relevant maintenance agreements. Center medians should be installed in the future Downtown area and at pedestrian crossings outside of intersections (trail connection at Somerset).

MARKED CROSSWALKS

Due to the lack of locations to cross Route FF currently, the addition of marked crossings is key to enhancing mobility along the corridor for all users. The addition of highly visible, continental crosswalk markings will provide a space for people on foot to cross, as well as serve as a visual cue to motorists to be more aware of the activity in the area. As Route FF develops with more commercial properties, crossing the road will become increasingly necessary for people travelling on foot. Crosswalks should be striped at each approach to all major intersections, as well as considered at a few important mid-block locations, coupled with a center refuge median. Marked crosswalks should be installed at all intersections along the corridor and at the trail crossing at Somerset.



Figure 27- Marked crosswalk



Figure 28- Gateway branding

ON-STREET PARALLEL PARKING

The City of Battlefield should consider the addition of on-street parallel parking on Route FF in the Downtown area as it develops. On-street parking adds another layer of friction to thru motorists and can serve as a traffic calming tool when designed and used properly. Coordination with MoDOT will be necessary in allowing on-street parking. On-street parking would be recommended if a downtown area were to develop. This would require additional right of way at a future date once the area is more developed.

GATEWAY/BRANDING

While more traditional traffic calming tools (horizontal and vertical deflection strategies) are important treatments in slowing down traffic, the identity or sense of place surrounding a corridor is also an important component of a safe street. Developing Route FF as a place where people feel they have arrived, versus a pass-through corridor on the map, is a strategy to use when it comes to aesthetic treatments within traffic calming features along the

corridor. Examples of placemaking/branding ideas include decorative pedestrian scale lighting, branded wayfinding and signage, monumental treatments in roundabout locations, and the potential for enhanced landscaping within median space near intersection plantings. All of these components work together to provide a Route FF that is comfortable and safe, and a destination for people to visit and stay, not just drive through. Any gateway/branding treatments will need to be approved by MoDOT. Gateway branding treatments should be included at corridor entry points and within the Downtown area.

SHARED USE PATH (SUP) & SIDEWALK

Enhancing mobility on Route FF for users of all ages and abilities is another important component of the future growth in Battlefield. Walking is a proven strategy to enhance health within our communities, and houses located in walkable neighborhoods are more attractive for purchasing. A continuous sidewalk (5ft) along the Route FF on one side of the road, and a continuous SUP (10ft) along the other side of the road within the corridor is necessary to better connect neighborhoods adjacent to Route FF to future development that transpires along the corridor. This is an important project for the corridor as Route FF is identified as a priority corridor for sidewalks in OTO's Destination 2045 Bicycle & Pedestrian facilities map. Additionally, the sidewalk is a visual cue to motorists that people have space here, and thus driving behaviors should reflect the corridor as a shared space.



Figure 29- Shared use path

Planning Focused

Design focused recommendations are important for identifying necessary transportation and infrastructure projects along the Route FF corridor. While those projects should be prioritized with both the OTO and MoDOT, policy recommendations are vital for the long-term success of Route FF as a vibrant corridor. These planning and policy recommendations will ensure Route FF develops as a safe and functional corridor that efficiently moves traffic and serves the mobility needs of users of all ages and abilities.

UPDATE ROUTE FF ON OTO MAJOR THOROUGHFARE PLAN

Currently in the OTO Major Thoroughfare Plan, Route FF is identified as a primary arterial. A primary arterial in OTO design standards is described as a corridor with a design service volume between 10,000 and 30,000 ADT and a design speed of 35 – 45mph. Additionally the required minimum ROW is 110 ft to accommodate corridor mobility needs.

Given the future forecasted ADT along Route FF between 6,800 on the south end and 16,500 on the north end, the designation of primary arterial does not reflect the mobility needs of the corridor. The OTO Major Thoroughfare Plan should be

Subdivision Regulation Updates

- Section 405.390 - access management standards
- Section 405.400 - OTO MTP text adherence update
- Section 405.400 - design standards compared to MoDOT
- Section 405.410 - sidewalk code provision

updated to reflect Route FF as a SECONDARY ARTERIAL. According to the OTO design standards, a secondary arterial service between 6,000 and 20,000 ADT. The design speed of secondary arterials is 30 – 35mph and the minimum ROW required for proper facility design is 80ft.

Given the future vision of Route FF as a vibrant corridor that feels more like a place, the design components associated with the secondary arterial classification fit the future needs of Route FF. The goal to enhance Route FF as a safe street for users of all ages and abilities is more achievable when planning the road as a secondary arterial. For example, a design speed of 30 – 35mph for a secondary arterial is more compatible for active transportation users (walking or biking) as opposed to the design speed of 35 – 45mph on a primary arterial. Additionally, a narrower curb to curb roadway cross section includes more friction within the driving space, which will slow down motorist speeds along Route FF. Updating this standard is a necessary first step in developing the roadway design of Route FF moving forward.

UPDATE BATTLEFIELD SUBDIVISION REGULATIONS & STREET DESIGN STANDARDS

In achieving the long-term Route FF Corridor Study objectives detailed in this report, it is important that the City of Battlefield's Land Use Regulations (Chapter 405 of the Municipal Code) be amended to allow for consistency and effective implementation of these objectives as land develops or re-develops in the years ahead.

In assessing Battlefield current Subdivision Regulations, it is important to note that this review is narrowly focused on potential subdivisions which have frontage on Route FF or will derive public street access to Route FF corridor in the future. It is recommended that the City's Planning and Zoning Commission and Council give further consideration as to how recommended Subdivision Code changes for Route FF may impact subdivisions elsewhere in Battlefield.

By way of background, the majority of Battlefield's Subdivision Regulations were adopted in October 2002 by Ordinance No. 02-19 §§ 1 — 5. Numerous additional changes have been made to these regulations since 2002, the most significant of them being Ord. No. 08-16 § 1 from August 2008 and Ord. No. 10-10 §§ 1 — 3 from July 2010.

A full review of the language to the subdivision code is included in the appendix, but key regulations for review include:

- Section 405.390 – adopt OTO Access Management standards for secondary arterials
- Section 405.400 – amend text to reflect adherence to OTO MTP
- Section 405.400 – review Battlefield design standards and address any major differences in MoDOT standards where ownership transitions (impacts to FF)
- Section 405.410 – Update exterior sidewalk code provision to include installation of SUP and clarify responsibility of constructing or adopt corridor overlay district clearly detailing needs specific to FF

ASSIGN ROADWAY IMPROVEMENT NEEDS FOR FUTURE DEVELOPMENT

As the City of Battlefield embarks on its current land use and economic development study, development processes should be reviewed for requirements associated with impacts of new developments. The right mix of uses will work in tandem to create a healthy and vibrant Route FF. However, these new uses, as they create more trips, will have higher impacts on the transportation infrastructure along the corridor. Reviewing development standards and potential impact fees is important for providing necessary upgrades in the future as they are needed with new developments.

As an example, the City of Battlefield may assess a development impact fee as new developments are working through

the planning process. This impact fee then goes back into the street improvements along the Route FF corridor, to make infrastructure enhancements needed for the increase in trips. These enhancements do not have to be specific to vehicular trips but could also provide for updated pedestrian and bike facilities.

Another consideration is to review Battlefield Parking Standards. Traditional parking minimums are barriers to mode shift as they are likely to cause an oversupply of parking and create underutilized spaces (reserved for parked cars) within communities. In a mixed-use development model, typical parking standards may not be needed for each use when viewed as a separate entity. As the City embarks on its economic development and land use plan, these fees and standards should be updated to reflect the type of growth that is desired along the Route FF corridor.

MoDOT access management standards should also be reviewed to ensure vehicular access to future commercial businesses is appropriate. Driveways should be minimized to reduce the number of conflict zones where the sidewalks cross driveways along Route FF. In creating a walkable and healthy street, minimizing conflicts between people walking/biking or driving is important. The city should review the current standards and ensure design guidance will match the planned characteristics along the route.

EXPLORE THE POTENTIAL FOR STREET REBRANDING

Several times throughout the course of the planning process, the comment was made that Battlefield lacks an identity. City staff indicated that individuals that live in Battlefield consider themselves Springfield Residents, which adds challenges to planning for the future of the community. When planned and designed appropriately, streets can function as community spaces that are vibrant and attractive destinations. People can stop travelling through a place and start travelling to a place.

The city should explore the possibility of renaming Route FF to a name that draws more on the history and culture of the community within the Battlefield City limits. This renaming process will re-brand the street from a pass-through corridor to a place that can foster a stronger sense of community.

With the future idea of a Downtown Battlefield along Route FF, the corridor emerges as the destination corridor within the Battlefield community. As a key north/south route within the Springfield area, the corridor has the potential to attract not only residents within Battlefield, but individuals from the larger region.

Design treatments and streetscape enhancements are one component of turning Route FF into a place you travel to versus travel through, but branding is also a critical component. Route FF gives the connotation of a state-owned route, a pass through that connects you from place to place, but in and of itself is not a place you travel to.

Implementation Plan

In order to move toward implementing these recommendations, the City of Battlefield should approach achieving both the design and planning recommendations concurrently.

For design recommendations, continued collaboration with MoDOT and OTO is necessary for advancing the projects. With the initial priorities being Weaver Road and 3rd Street (for safety concerns and speed management), the City of Battlefield should engage with MoDOT on the scope of work for developing concept plans at both of these locations. These concept plans should include proper identification of any ROW needs, as well as utility coordination for the future roundabout design. Battlefield should identify this project as a priority need for the community that can move through the Transportation Improvement Program within OTO.

A potential timeline for implementation is:

- MTP amendment (primary to secondary arterial)– first half of 2023 (initial need)
- FF & Weaver Upgrades– prioritize for inclusion in 2024-28 MoDOT Statewide Transportation Improvement Program (STIP) (winter/spring 2023) - pending available funding
- 3rd & Azalea – push for inclusion in next MoDOT unfunded road and bridge needs (summer/fall 2023)
- Battlefield policy timeline – TBD pending economic development study

For planning recommendations, the first priority is to update the functional classification of Route FF on the major thoroughfare plan to a secondary arterial (first half of 2023). This will be needed before any improvements can be made so that infrastructure is being designed in accordance with the Metropolitan Planning Organization (MPO) street functional classification system.

The second priority is to review existing transportation improvement standards that accompany the development process. These standards should be updated within the Downtown District in order to achieve the look and feel of that part of the community that Battlefield desires. This is a key first step in assuring new development requirements will support enhanced infrastructure and mobility needs.

Next, the City of Battlefield should review the OTO Street Design Standards and consider adopting those standards within their community. Not only is it important to provide mobility needs on FF, but it is also important to ensure connections within the community to Route FF exist for users of all ages and abilities. During this process, Battlefield should review existing sidewalk network and gaps, ensuring sidewalk connectivity along Route FF.

Finally, it is important that Route FF recommendations work in conjunction with the Battlefield Economic and Housing Study (starting October 2022), especially those areas that are currently outside city limits but are likely to develop over the next 10-20 years. Road, bicycle, and pedestrian connections to the Route FF corridor from these new developments will be critical.

Ensuring a vibrant, safe and efficient Route FF will require approaching implementation for the design and planning recommendations in tandem. When done properly, Route FF will be an efficient and vibrant place for Battlefield and the entire region. A place that people travel to and not just through.

This study was prepared in cooperation with the USDOT, including FHWA and FTA, as well as the Missouri Department of Transportation. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the Missouri Highways and Transportation Commission, the Federal Highway Administration, or the Federal Transit Administration.



Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

Appendix

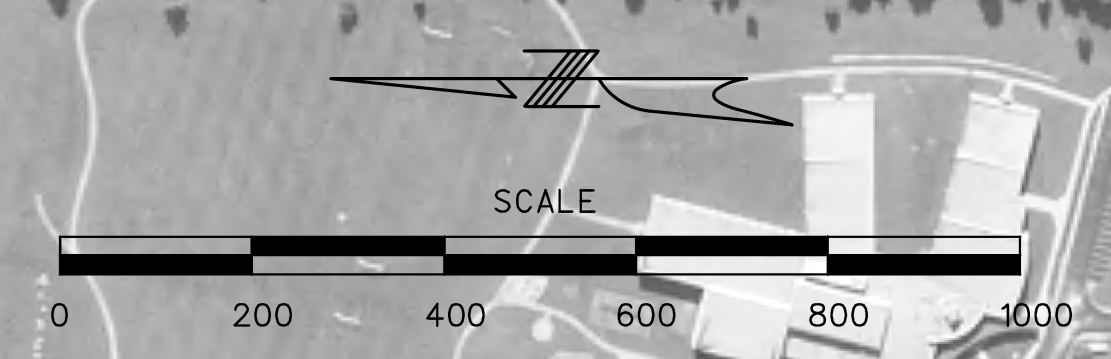
JANUARY 2023

PREPARED BY



ROUTE FF CORRIDOR STUDY 2022

BATTLEFIELD, MO



SEGMENT 1
Recommended Improvements:
4-Lane Section
Intersection Improvements @ Weaver
Raised Median
Sidewalk on West side
Shared-Use Path on East side

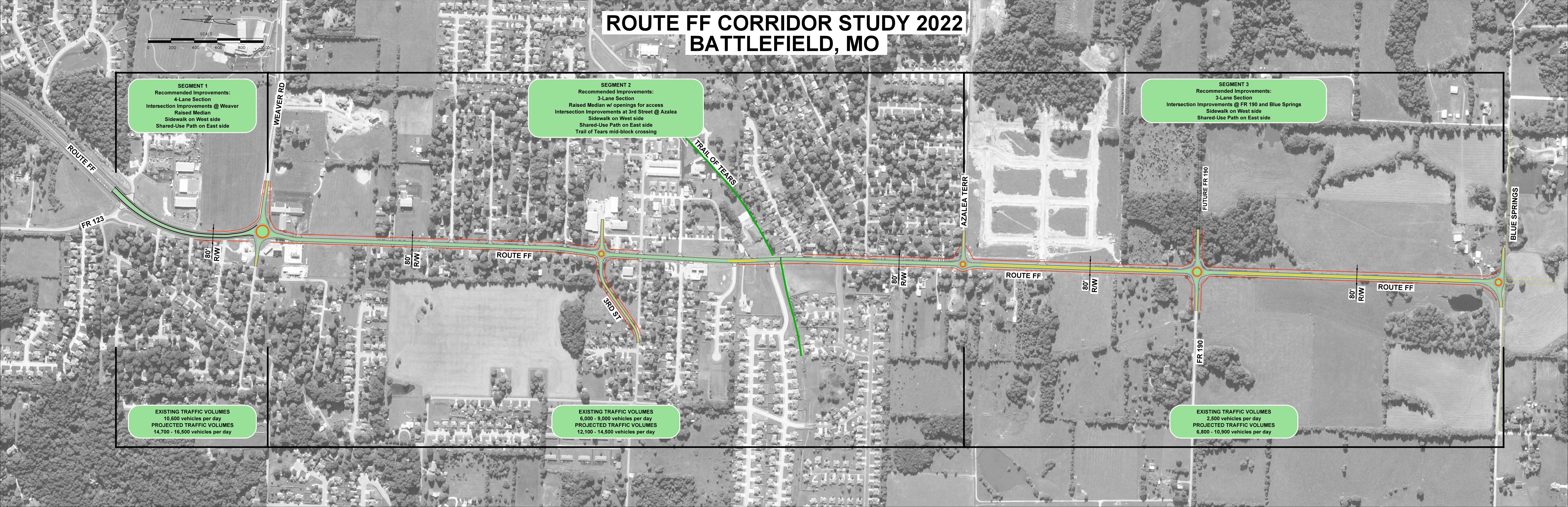
SEGMENT 2
Recommended Improvements:
3-Lane Section
Raised Median w/ openings for access
Intersection Improvements at 3rd Street @ Azalea
Sidewalk on West side
Shared-Use Path on East side
Trail of Tears mid-block crossing

SEGMENT 3
Recommended Improvements:
3-Lane Section
Intersection Improvements @ FR 190 and Blue Springs
Sidewalk on West side
Shared-Use Path on East side

EXISTING TRAFFIC VOLUMES
10,600 vehicles per day
PROJECTED TRAFFIC VOLUMES
14,700 - 16,500 vehicles per day

EXISTING TRAFFIC VOLUMES
6,000 - 9,000 vehicles per day
PROJECTED TRAFFIC VOLUMES
12,100 - 14,500 vehicles per day

EXISTING TRAFFIC VOLUMES
2,500 vehicles per day
PROJECTED TRAFFIC VOLUMES
6,800 - 10,900 vehicles per day



COST ESTIMATE

(Weaver & Route FF)



Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

Appendix

Bid Report

Project: Route FF & Weaver Road Intersection Improvements	Job Number: JSU0004	Bid Date: 12/12/2022	State: MO
Location: Greene County			

Project Settings

Primary County:	GREENE	Urban / Rural:	URBAN ROUTE
Addl Counties:		Project Type:	GRADING, DRAINAGE & PAVING
District:	Southwest	Work Type:	NEW CONSTRUCTION
Latitude:	37° 07' 27"	Traffic:	
Longitude:	93° 22' 12"	Estimator:	rstehn@cmtengr.com
Log Mile:	Beg: 1.700	Constr Eng:	25.00%
	End: 2.117	Priced Date:	12/12/2022
Station:	Beg:	Create Date:	12/12/2022
	End:	Fed Project No:	
Project Length:	0.4170 miles	Mobe Percent:	5.00%
Route:	FF	Survey Percent:	1.50%

Project Sections

1 Roadway	\$2,157,699.88	94.32%
20 Lighting	\$80,000.00	3.50%
40 Signing	\$50,000.00	2.19%
Total	\$2,287,699.88	100.0%

Major Categories

BRIDGE	\$0.00	0.00%
GRADE/DRAIN	\$378,000.00	16.52%
MISC.	\$1,081,574.88	47.28%
PAVEMENT/BASE	\$828,125.00	36.20%
Total	\$2,287,699.88	100.0%

STIP Information

Construction Cost	\$2,287,699.88	59.94%
PE (18.00% of construction cost)	\$411,785.98	10.79%
CE (25.00% of construction cost)	\$571,924.97	14.99%
R/W	\$80,000.00	2.10%
R/W Incidentals	\$65,000.00	1.70%
Utilities	\$400,000.00	10.48%
Incentive	\$0.00	0.00%
Total	\$3,816,410.83	100.0%

Bid Report

Date: 01/10/2023

Time: 06:57:23 AM

Project: Route FF & Weaver Road Intersection Improvements	Job Number: JSU0004	Bid Date: 12/12/2022	State: MO
Location: Greene County			

Section: Roadway

Sort	Pay Item	Description	Count	Quantity	Unit	Unit Price	Extension
0	2022010	REMOVAL OF IMPROVEMENTS	--	1.000	L.S.	100,000.00	100,000.00
10	2035000	UNCLASSIFIED EXCAVATION	--	18,000.000	C.Y.	16.00	288,000.00
20	2036000	COMPACTING EMBANKMENT	--	3,000.000	C.Y.	5.00	15,000.00
30	3040504	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	--	13,150.000	S.Y.	12.50	164,375.00
40	4019905	MISC. {12 IN. BITUMINOUS PAVEMENT}	--	10,500.000	S.Y.	60.00	630,000.00
50	5029905	MISC. {8 IN. TRUCK APRON}	--	450.000	S.Y.	75.00	33,750.00
70	6081000	CONCRETE MEDIAN	--	600.000	S.Y.	80.00	48,000.00
60	6081010	CONCRETE CURB RAMP	--	130.000	S.Y.	165.00	21,450.00
80	6086004	"CONCRETE SIDEWALK, 4 IN."	--	2,650.000	S.Y.	55.00	145,750.00
90	6091052	CURB AND GUTTER TYPE B	--	7,500.000	L.F.	45.00	337,500.00
100	6092011	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A	--	200.000	L.F.	40.00	8,000.00
110	6092031	CONCRETE CURB LOW PROFILE TYPE E	--	300.000	L.F.	25.00	7,500.00
120	6169901	MISC. {TRAFFIC CONTROL}	--	1.000	L.S.	80,000.00	80,000.00
130	6181000	MOBILIZATION	--	1.000	L.S.	107,403.75	107,403.75
140	6209901	MISC. {PAVEMENT MARKING}	--	1.000	L.S.	15,000.00	15,000.00
150	6274000	CONTRACTOR FURNISHED SURVEYING AND STAKING	--	1.000	L.S.	32,221.13	32,221.12
160	7339901	MISC. {DRAINAGE}	--	1.000	L.S.	75,000.00	75,000.00
170	8031000A	TURF TYPE TALL FESCUE SODDING	--	1,250.000	S.Y.	15.00	18,750.00
180	8069901	MISC. {EROSION CONTROL}	--	1.000	L.S.	30,000.00	30,000.00

Category: Roadway **\$2,157,699.87**

Section: Lighting

Sort	Pay Item	Description	Count	Quantity	Unit	Unit Price	Extension
190	9019901	MISC. {LIGHTING}	--	1.000	L.S.	80,000.00	80,000.00

Category: Lighting **\$80,000.00**

Section: Signing

Sort	Pay Item	Description	Count	Quantity	Unit	Unit Price	Extension
200	9039901	MISC. {SIGNING}	--	1.000	L.S.	50,000.00	50,000.00

Category: Signing **\$50,000.00**

Total: \$2,287,699.87

REPORT PARAMETERS

Project JSU0004 - Route FF & Weaver Road Intersection Improvements

Bid Report

Project: Route FF & Weaver Road Intersection
Improvements**Job Number:** JSU0004**Bid Date:** 12/12/2022**State:** MO**Location:** Greene County

Comparison

Bid Price

SAFETY



Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

Appendix

NCHRP

REPORT 672

Roundabouts: An Informational Guide

Second Edition

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

**NATIONAL
COOPERATIVE
HIGHWAY
RESEARCH
PROGRAM**

In Cooperation with



U.S. Department
of Transportation

**Federal Highway
Administration**

3.4.5 SCHOOLS

Roundabouts may be an optimal choice for intersection control in the vicinity of schools (see Exhibit 3-6). One primary benefit is the reduction of vehicle speeds in and around the roundabout. Roundabouts improve pedestrian crossing opportunities, providing mid-block refuge and the ability for pedestrians to focus on one traffic stream at a time while crossing. Lower speeds also reduce the severity of vehicle–pedestrian crashes. Near schools, single-lane roundabouts are generally preferable to multilane roundabouts due to simpler crossings for children. However, if the traffic volume is sufficiently high, a multilane roundabout may still be preferable to a large signalized intersection.



Clearwater, Florida

Exhibit 3-6
Schools

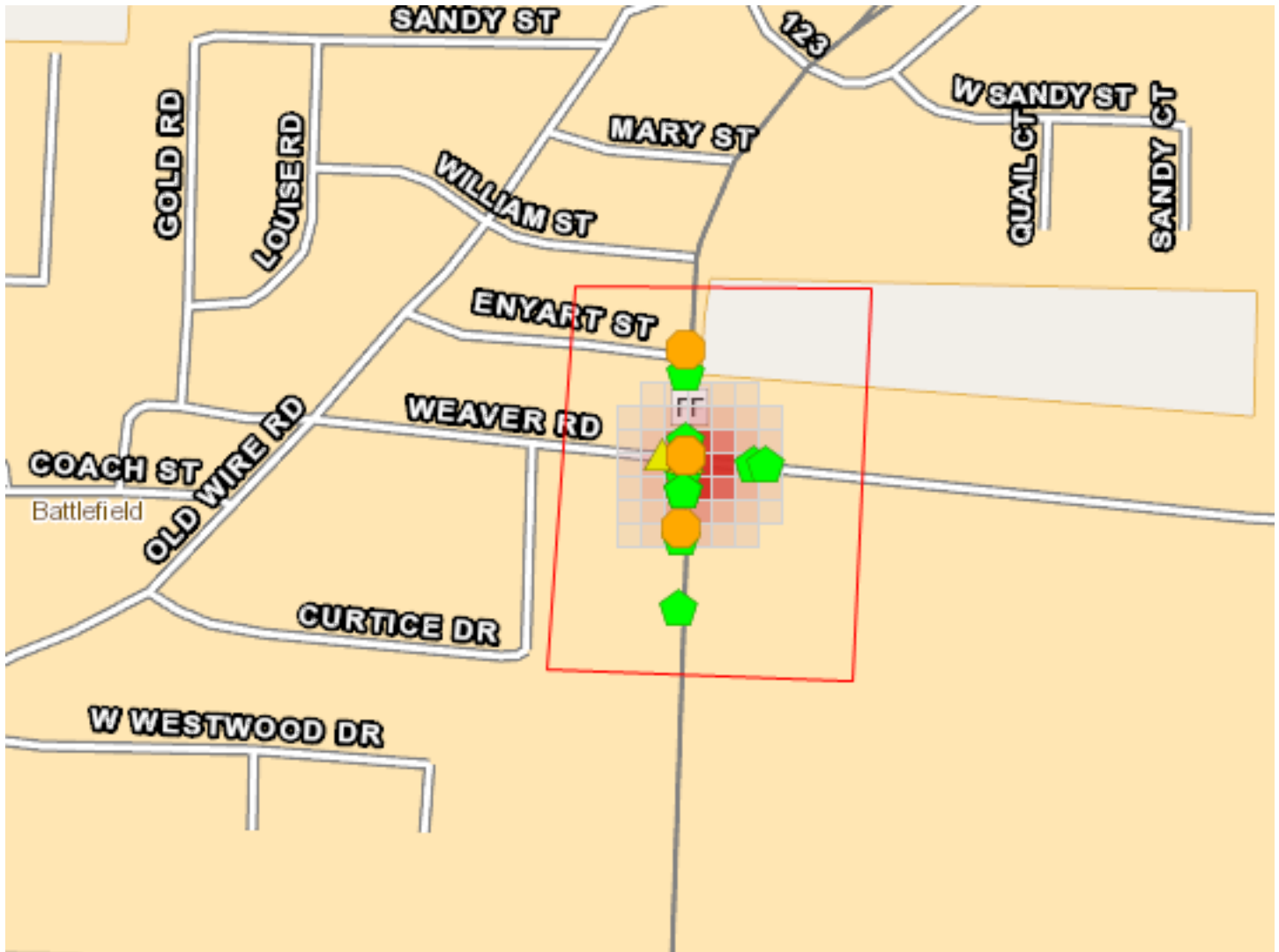
Benefits	Considerations
<ul style="list-style-type: none">• Lower vehicle speeds in and around intersection• Improved pedestrian and vehicle safety• Landscaping and gateway treatment	<ul style="list-style-type: none">• Design vehicle (school bus, emergency vehicles)• Right-of-way• User education and outreach• If crossing guards are used, the distance between crosswalks may require two crossing guards instead of one.

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 1, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.

FF/Weaver



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	4	Serious Injuries	4
Minor Injury Crashes	6	Minor Injuries	14
PDO Crashes	27		
Total Crashes	37		

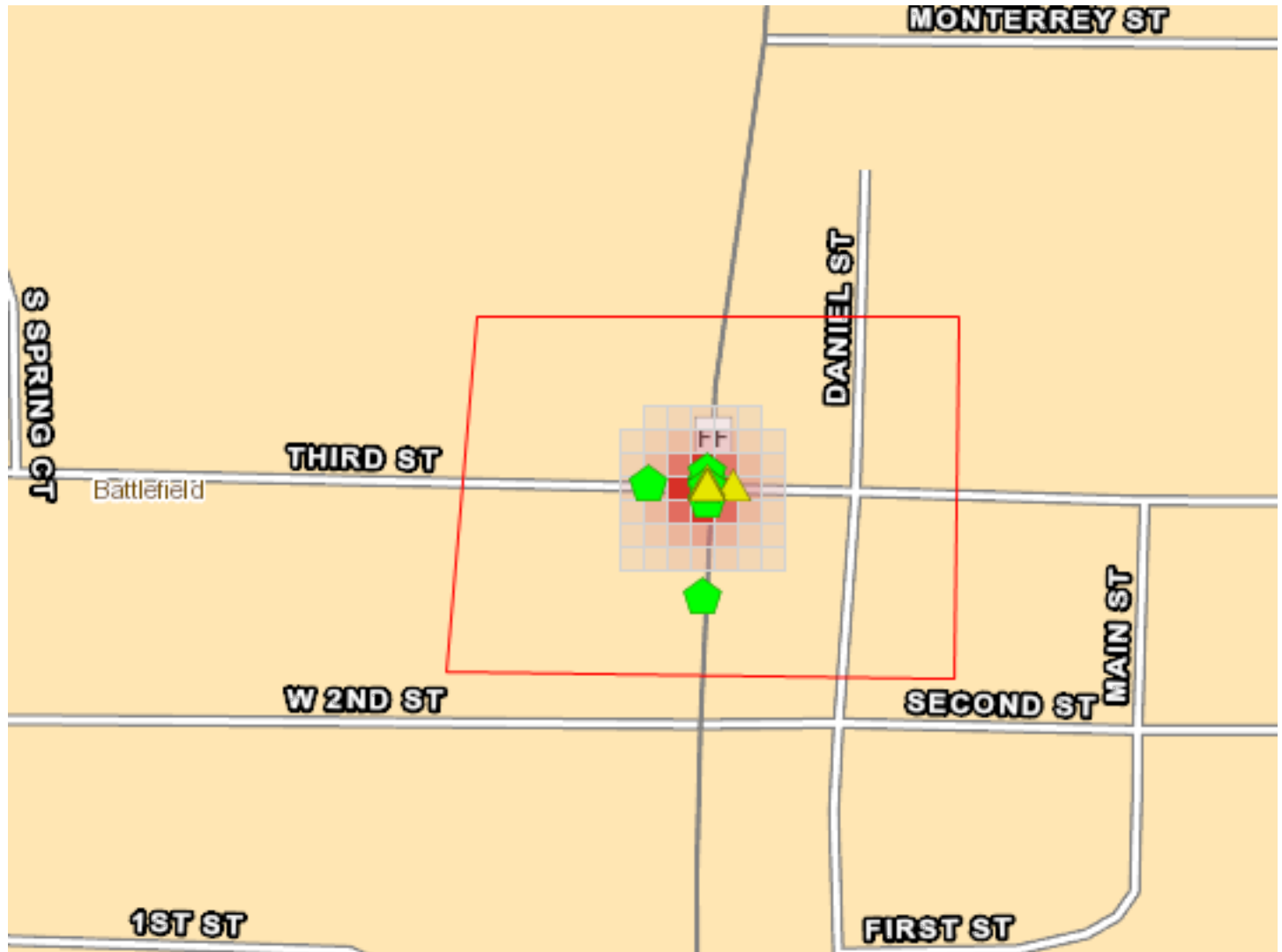
- Unknown
- Prop Damage Only
- Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 1, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.

FF/3rd



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	0	Serious Injuries	0
Minor Injury Crashes	7	Minor Injuries	9
PDO Crashes	14		
Total Crashes	21		

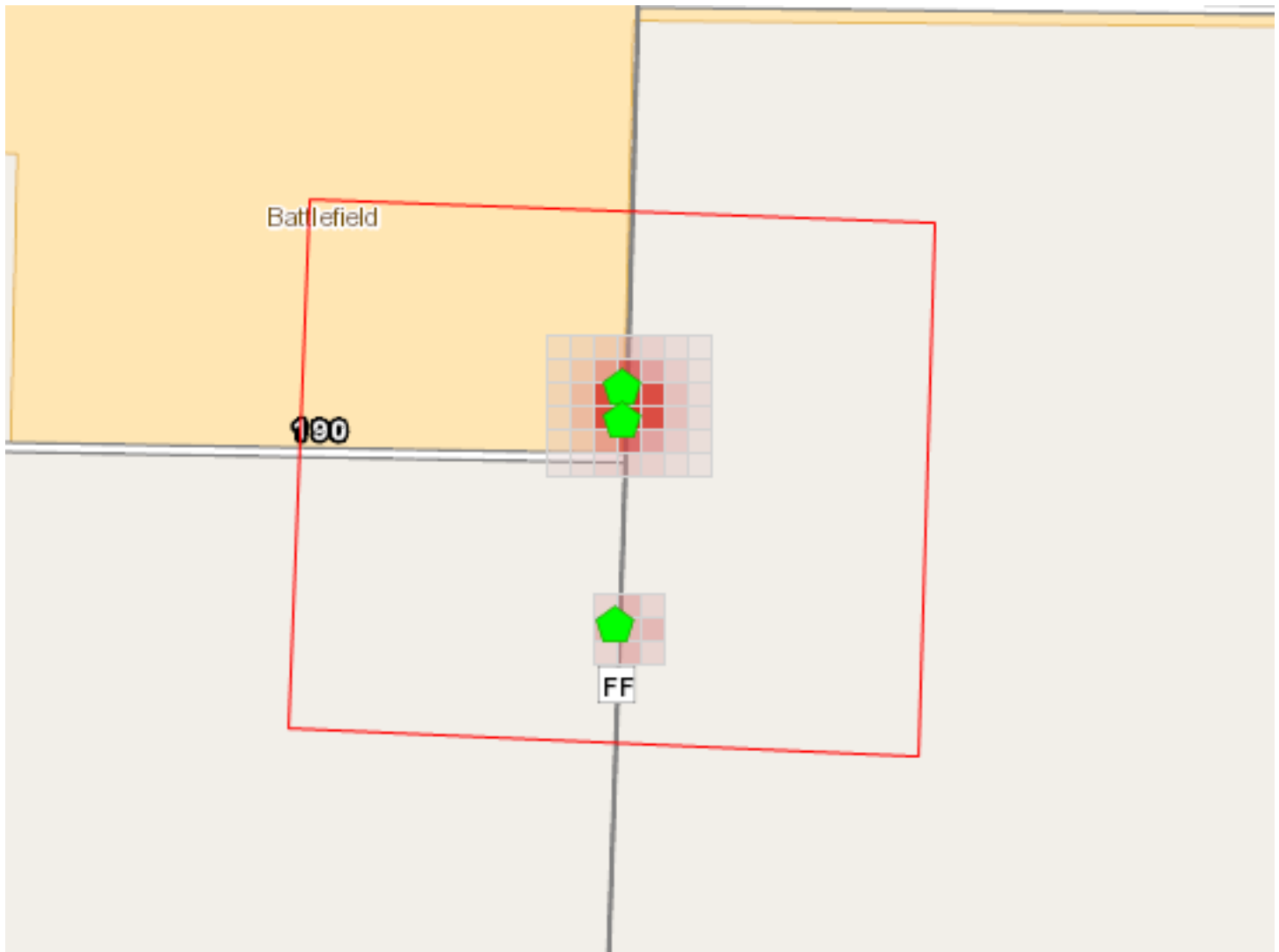
- Unknown
- Prop Damage Only
- Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 1, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.

FF/190



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	0	Serious Injuries	0
Minor Injury Crashes	0	Minor Injuries	0
PDO Crashes	3		
Total Crashes	3		

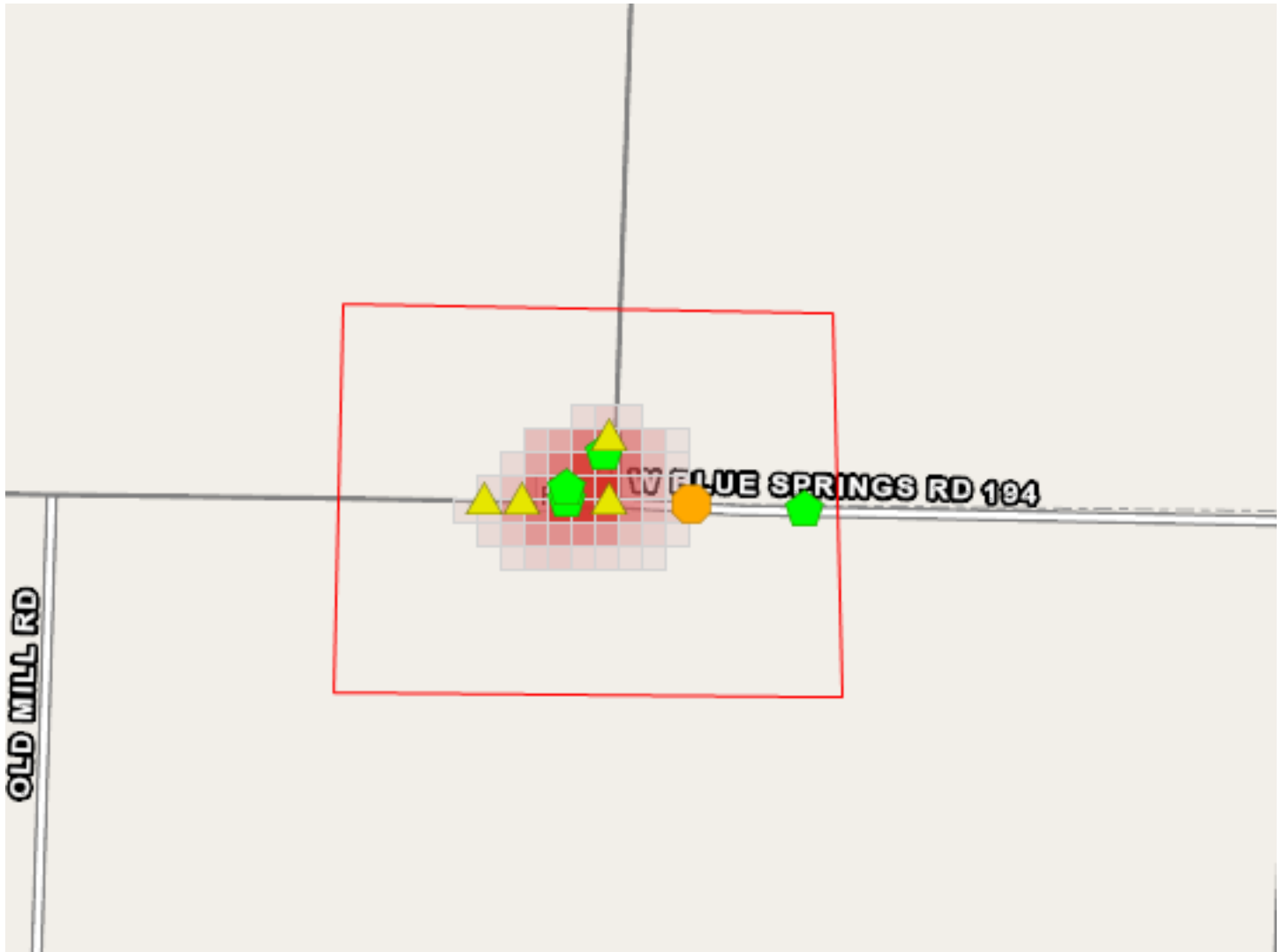
- Unknown
- Prop Damage Only
- Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 1, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.

FF/BlueSprings



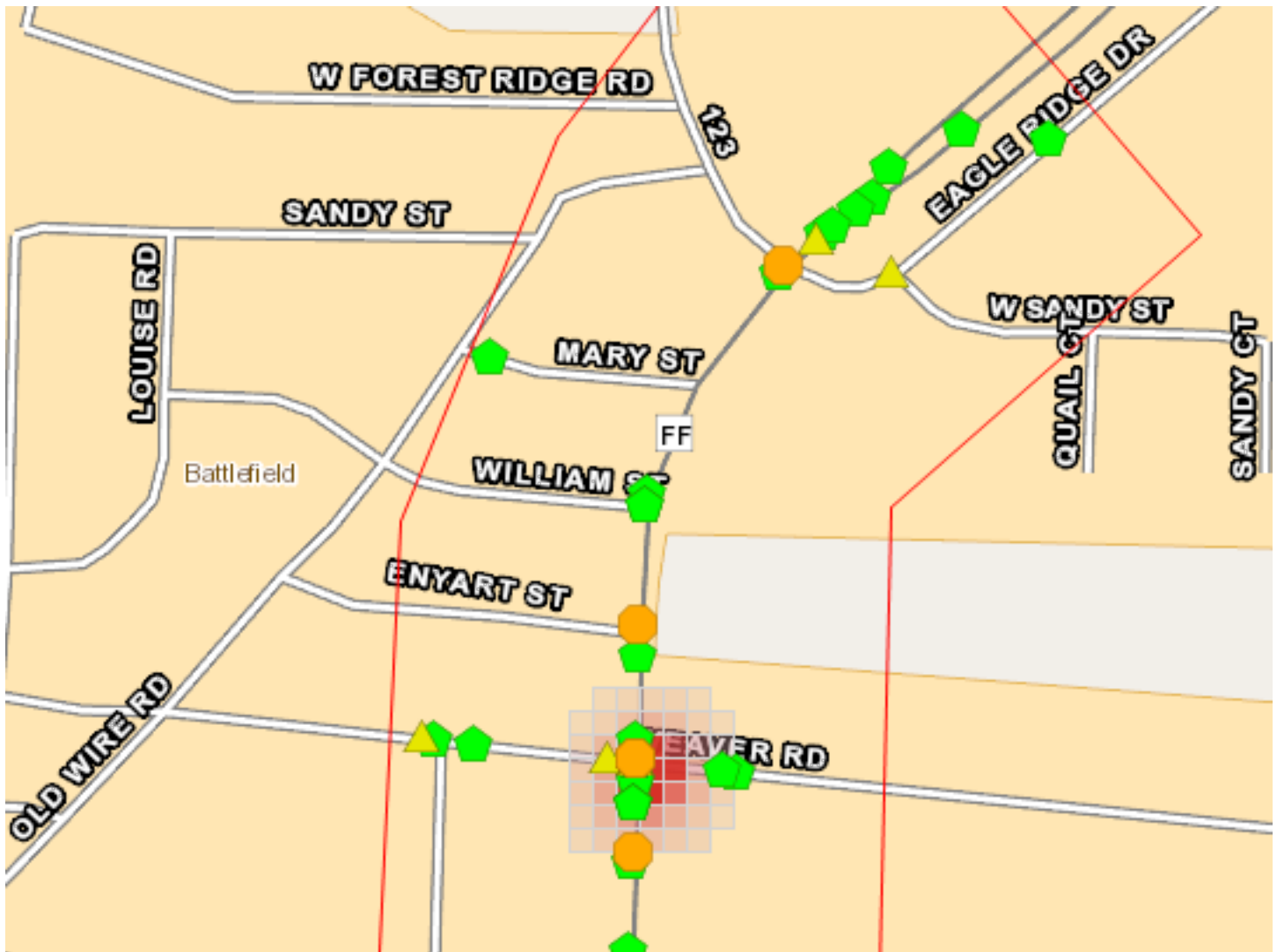
Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	1	Serious Injuries	1
Minor Injury Crashes	4	Minor Injuries	4
PDO Crashes	4		
Total Crashes	9		

- Unknown
- Prop Damage Only
- Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 17, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.



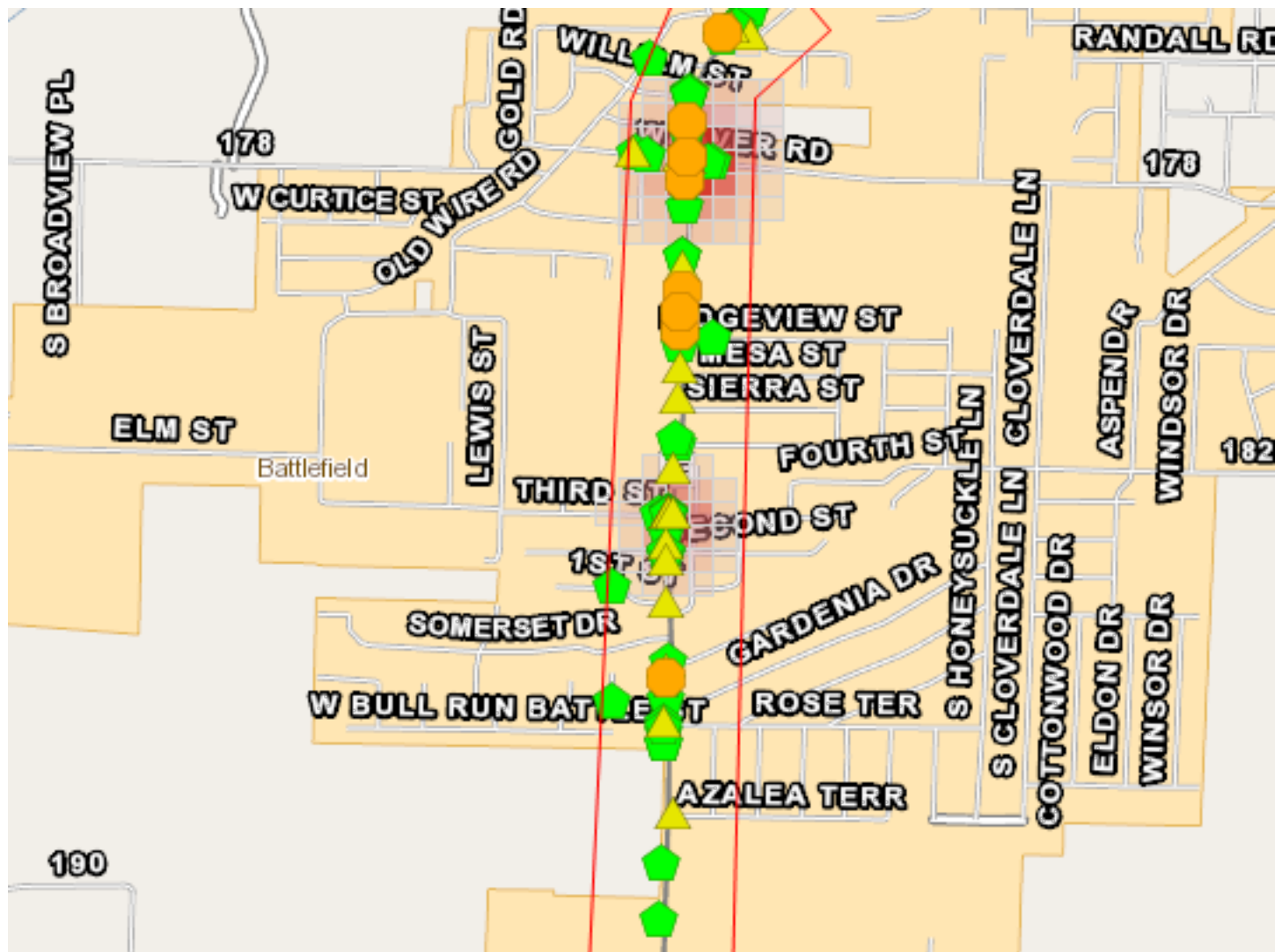
Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	5	Serious Injuries	5
Minor Injury Crashes	9	Minor Injuries	17
PDO Crashes	40		
Total Crashes	54		

- ✕ Unknown
- ▬ Prop Damage Only
- ▲ Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 17, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.



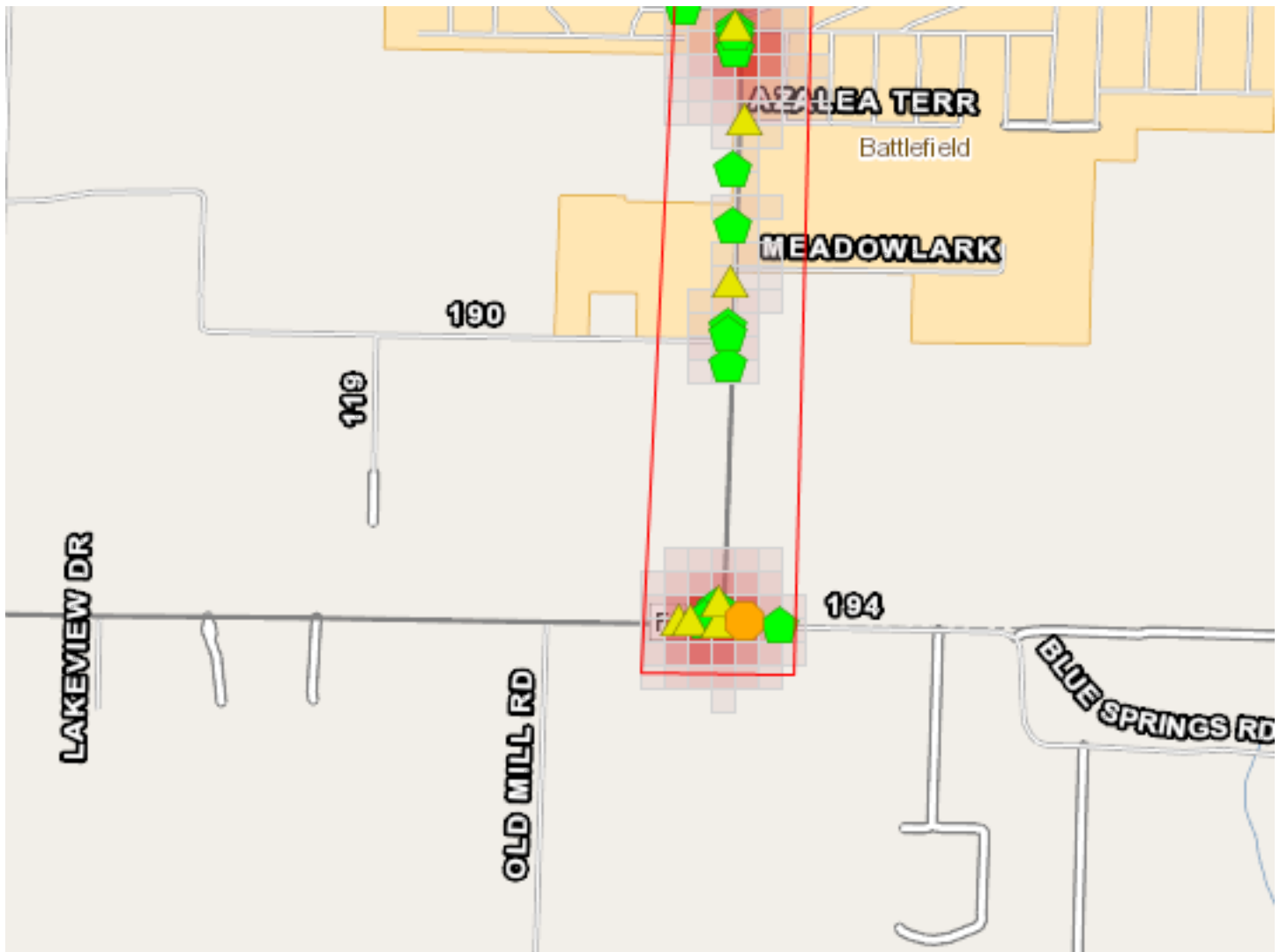
Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	8	Serious Injuries	8
Minor Injury Crashes	24	Minor Injuries	39
PDO Crashes	71		
Total Crashes	103		

- ✖ Unknown
- ⬠ Prop Damage Only
- ▲ Minor Injury
- Disabling Injury
- Fatal

MoDOT Safety Data Zone Crash Tool

This PDF generated on November 17, 2022.

NOTE: The crash data contained in this PDF may not be as current as the date of this PDF.



Crash Totals		Personal Injury Totals	
Fatal Crashes	0	Fatalities	0
Serious Injury Crashes	1	Serious Injuries	1
Minor Injury Crashes	6	Minor Injuries	7
PDO Crashes	9		
Total Crashes	16		

- Unknown
- Prop Damage Only
- Minor Injury
- Disabling Injury
- Fatal

ENGAGEMENT



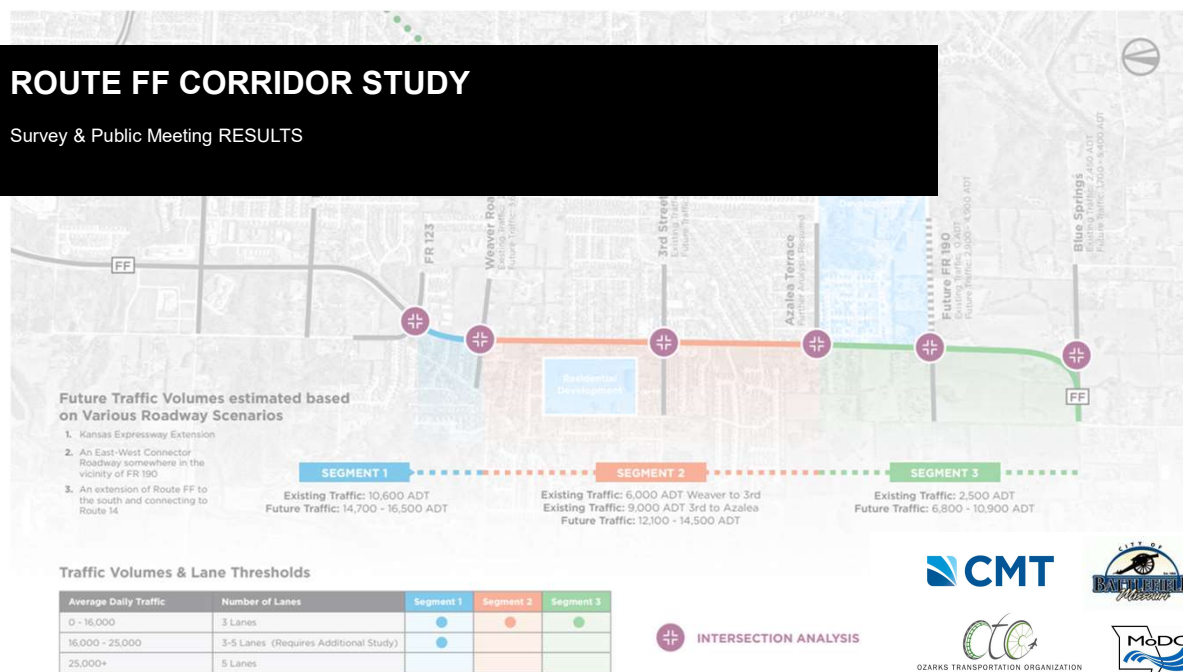
Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

Appendix

ROUTE FF CORRIDOR STUDY

Survey & Public Meeting RESULTS

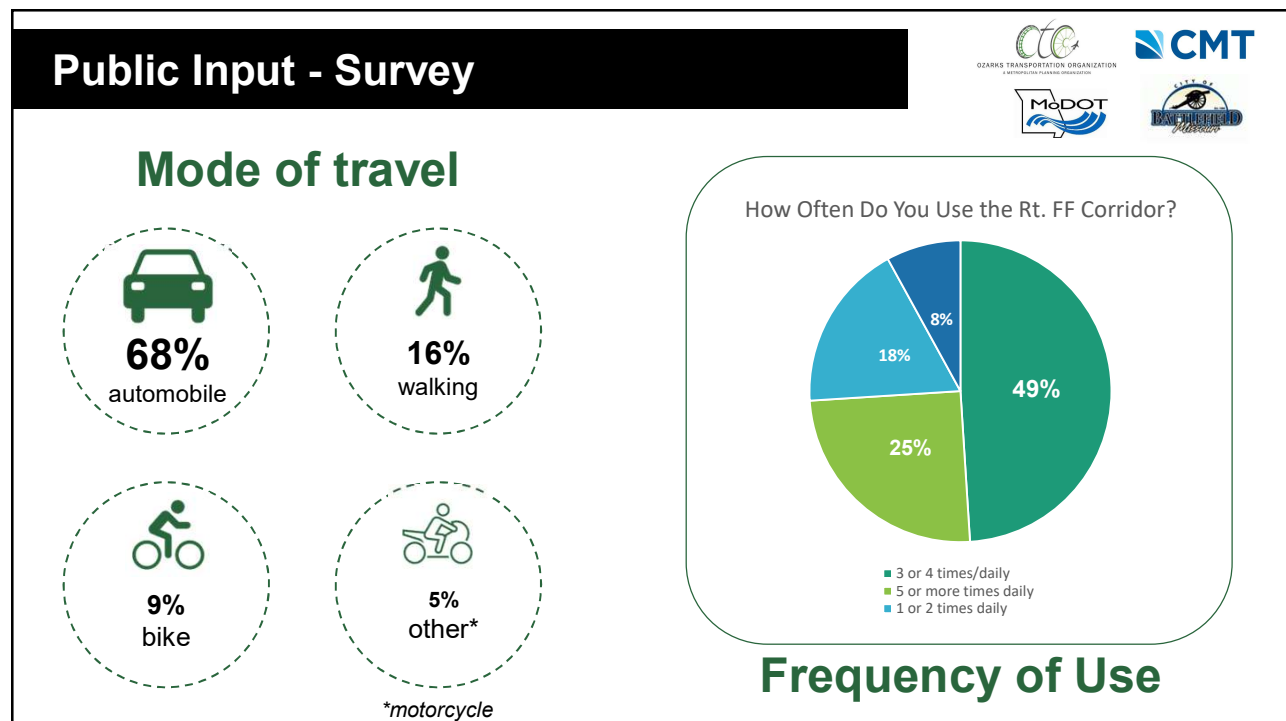


Public Input - Survey



- Dates Available: 8/2 – 8/16
- 59 responses
- Age demographics:
 - 41% (65 – 74)
 - 32% (35 – 54)
- 80% live in Battlefield & regularly use Rt. FF





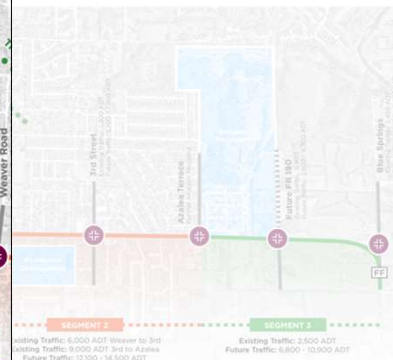
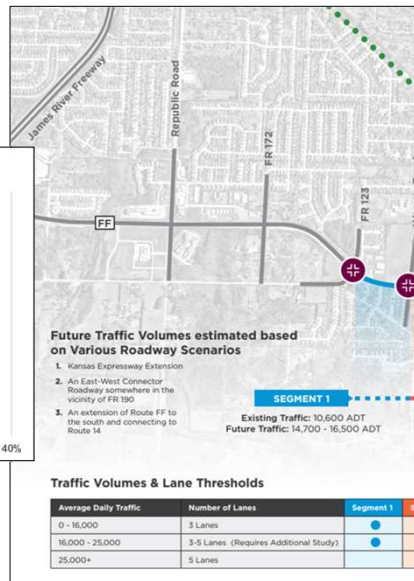
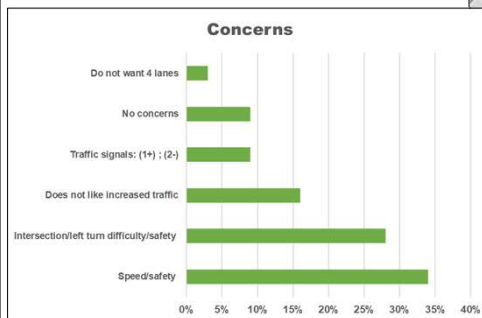
Public Input - Survey



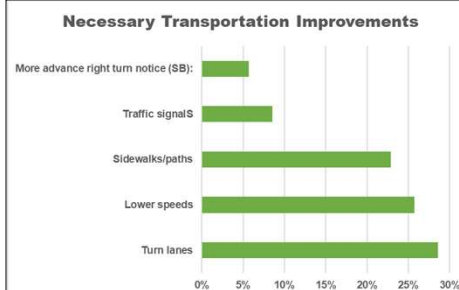
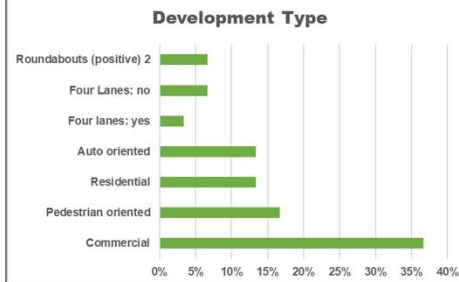
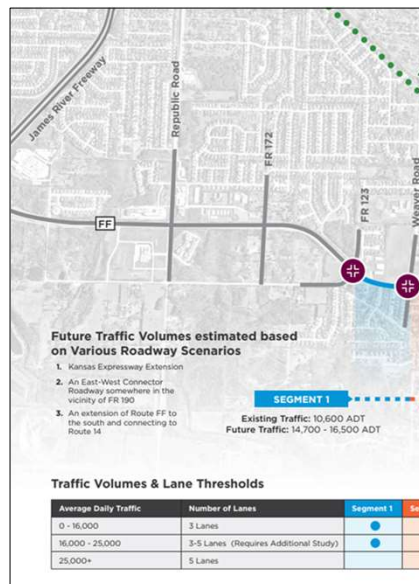
Why do you use the Route FF Corridor?



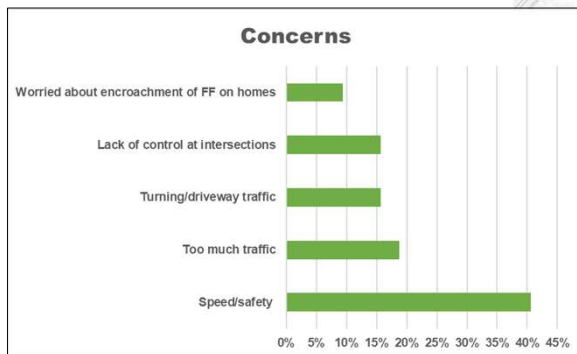
Public Input - Survey – Segment 1



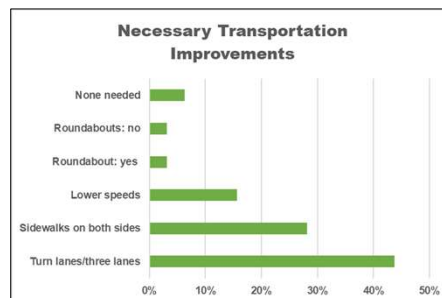
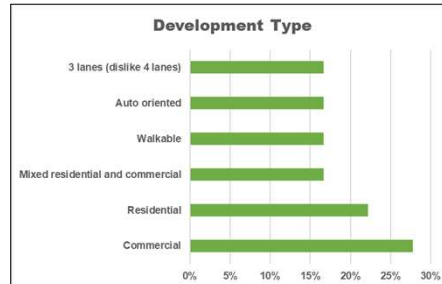
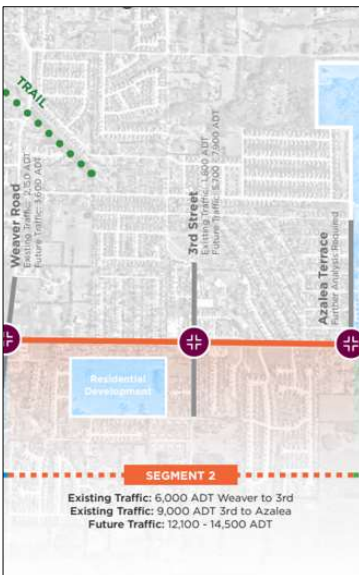
Public Input - Survey – Segment 1



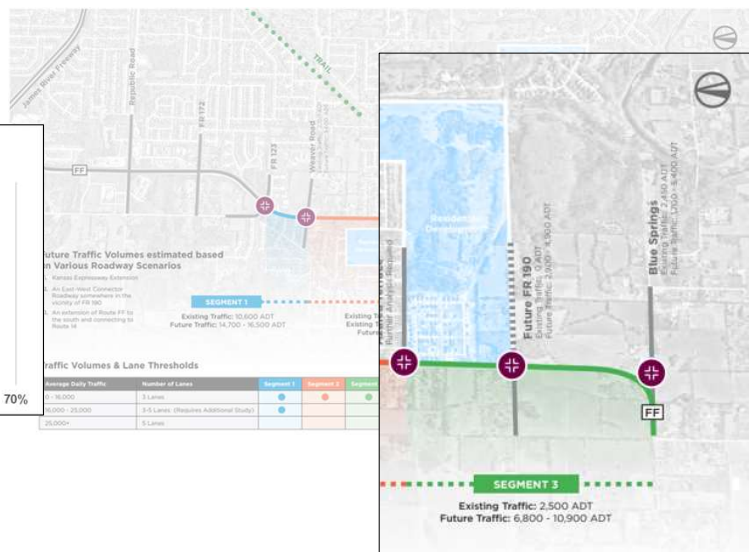
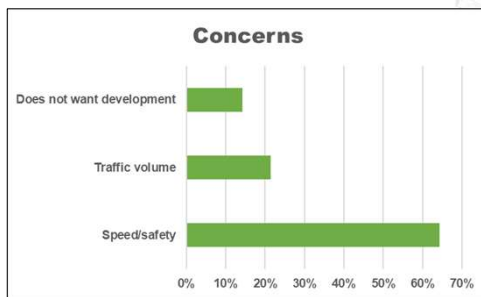
Public Input – Segment 2



Public Input – Segment 2



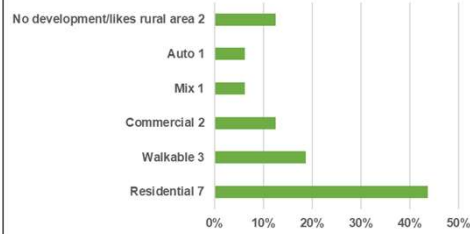
Public Input – Segment 3



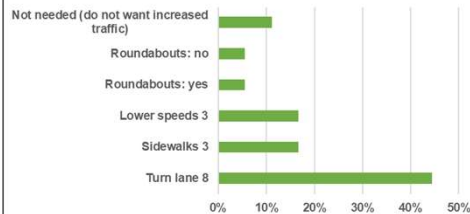
Public Input – Segment 3



Development Type



Necessary Transportation Improvements



Public Input – Comment Cards



- **5 comment cards**
- Concern over how roundabouts impact emergency response times
- What is focus of potential roadway expansion (industry or population growth?)
- Who is paying for the project?
- Desire to keep residential
- Would like to see sidewalks and bike lanes along Rt. FF
- Slow traffic in what may be future Downtown area of Battlefield
- Need traffic control (signal or roundabout) at Farm Road 172 and Rt. FF
- Slow down traffic



Public Input – Public Meeting



- Board comments
 - Access to FF south of Weaver is problem in AM
 - Safety concerns at Weaver
- Segment 1
 - SUP maintenance? Who does it?
 - Hard to cross FF
 - Intersection improvement at Weaver needed
 - Extend sidewalk to Republic Road
 - Advance notice of right turn needed
- Segment 2
 - Roundabout at Weaver is a good idea
 - 3 lanes + right turn lanes
 - Lower speeds
 - Love to see Downtown area developed
 - Bike friendly
 - Create destinations
- Segment 3
 - Don't want developed
 - Stay farmland



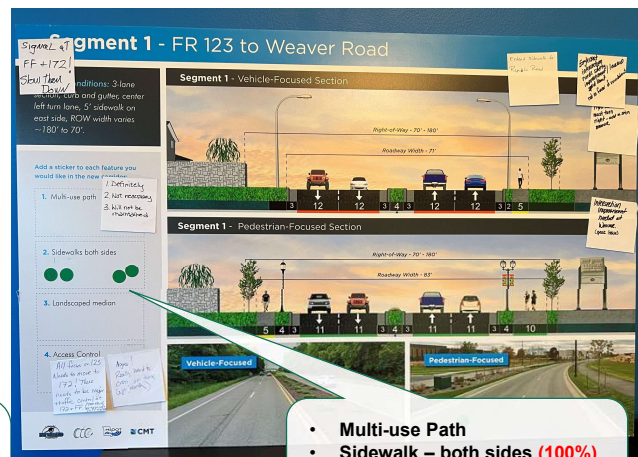
86 attendees



Public Input – Public Meeting



- **Roundabout**
 - Weaver, 3rd
- **Signalized**
 - Weaver, 3rd, Farm Road 190
- **No improvement**
 - Azalea Terrace

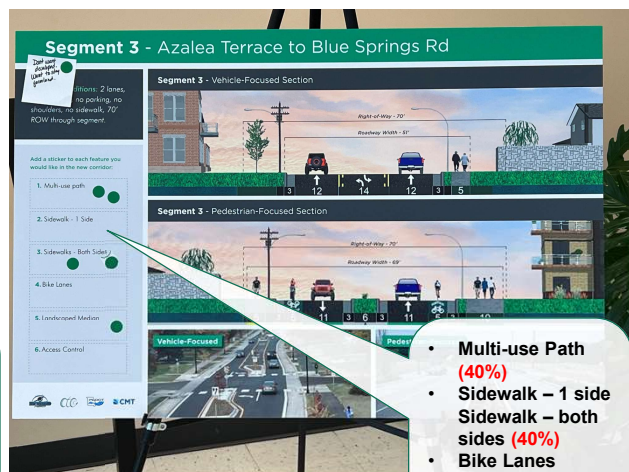


- **Multi-use Path**
- **Sidewalk – both sides (100%)**
- **Landscaped Medians Access Control**

Public Input – Public Meeting



- Sidewalk both sides (30%)
- Walkable Business District (30%)
- Multi-use Path - 10'
- Bike Lanes (30%)
- Raised Medians (10%)
- Access Control



- Multi-use Path (40%)
- Sidewalk – 1 side
- Sidewalk – both sides (40%)
- Bike Lanes
- Landscaped Medians (20%)
- Access Control

Public Input – Public Meeting



General Consensus

- Maintain residential character of city
- Slower speeds on Route FF
- Limited ROW expansion
- Safety Concerns
 - Intersections
 - Pedestrians/Non-motorized traffic
 - Traffic growth
- Added Turn Lanes/3-lane section

Route FF Corridor Study



Traffic Volumes & Lane Thresholds

Average Daily Traffic	Number of Lanes	Segment 1	Segment 2	Segment 3
0 - 16,000	3 Lanes	●	●	●
16,000 - 25,000	3-5 Lanes (Requires Additional Study)	●		
25,000+	5 Lanes			



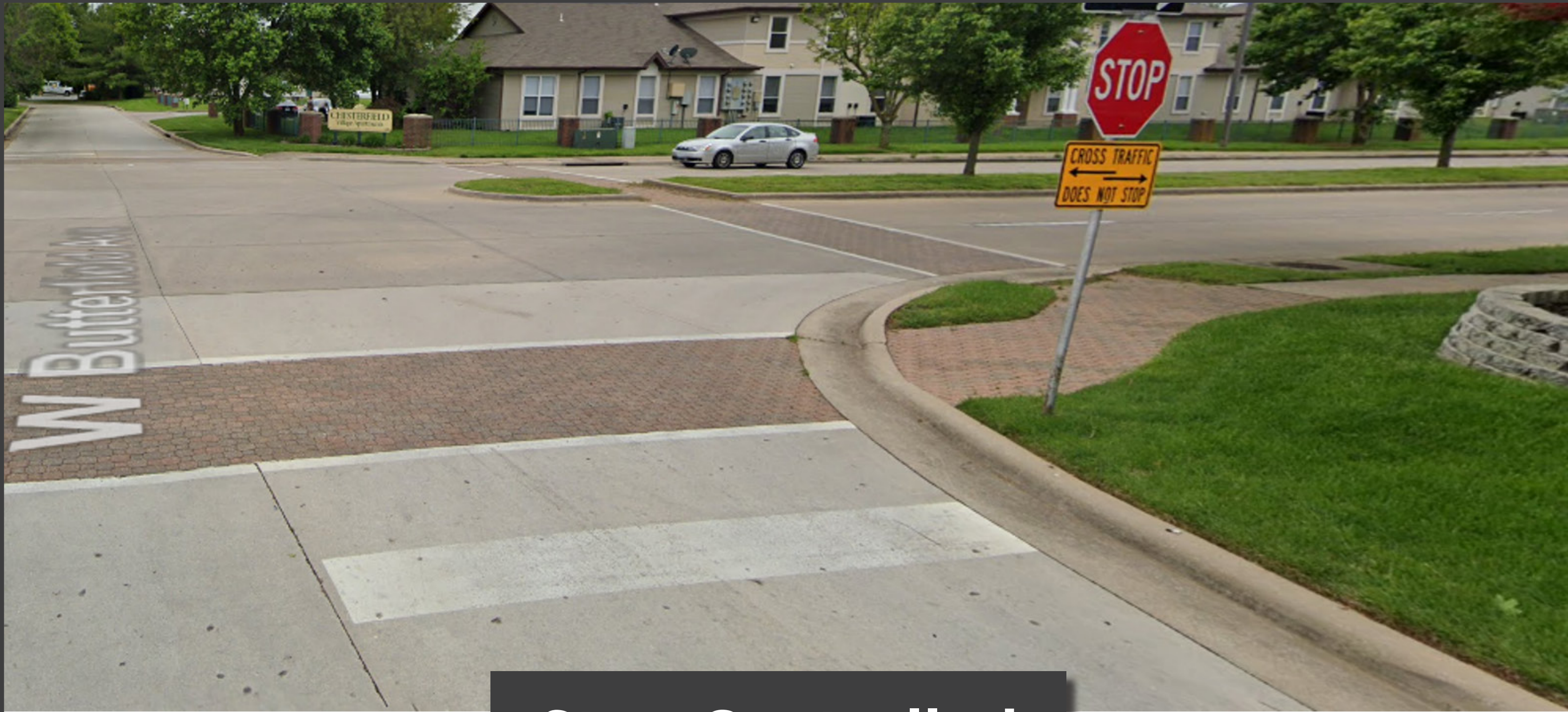
INTERSECTION ANALYSIS



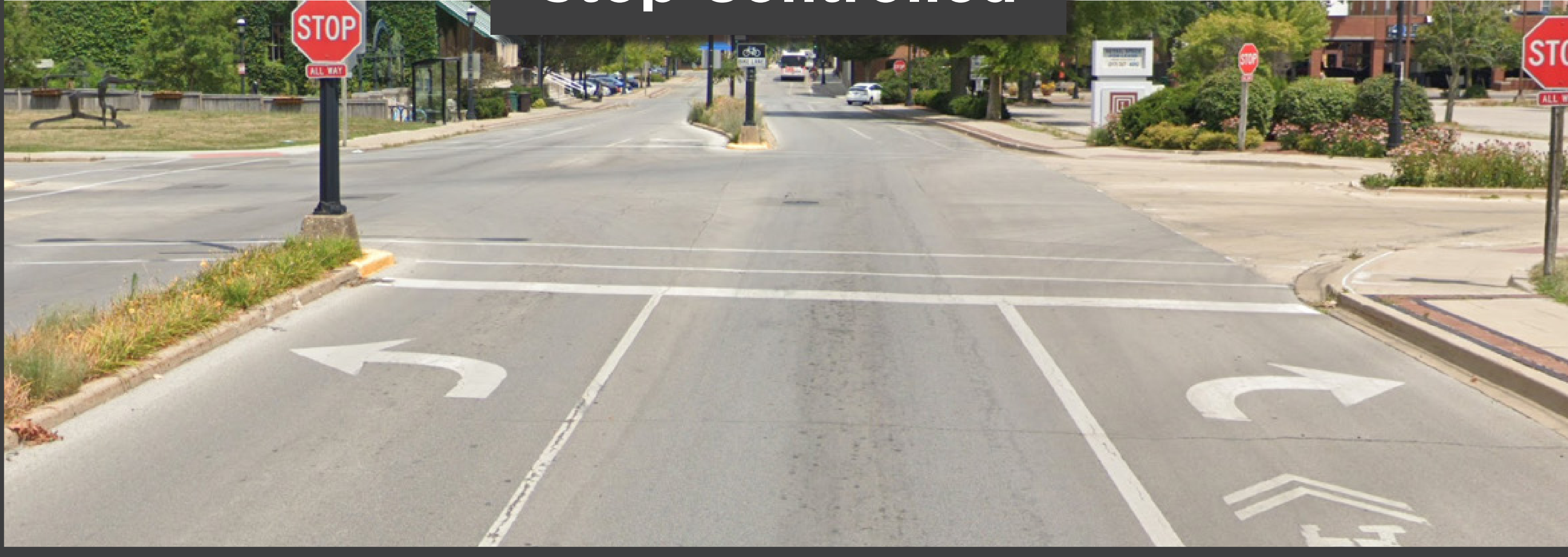
Route FF Major Intersection Concepts

Major Intersections	Roundabout	Signalized	Stop Controlled	Limited Access (Right-in, Right-Out)	No Improvement
FR 123			●	●	●
Weaver Road	●	●			
3rd Street	●	●			
Azalea Terrace	●		●		●
Farm Road 190	●	●			
Blue Springs			●		●

Note : Further analysis of the intersections will be required to determine what the most effective intersection type would be at each intersection.



Stop Controlled



Roundabout



Signalized

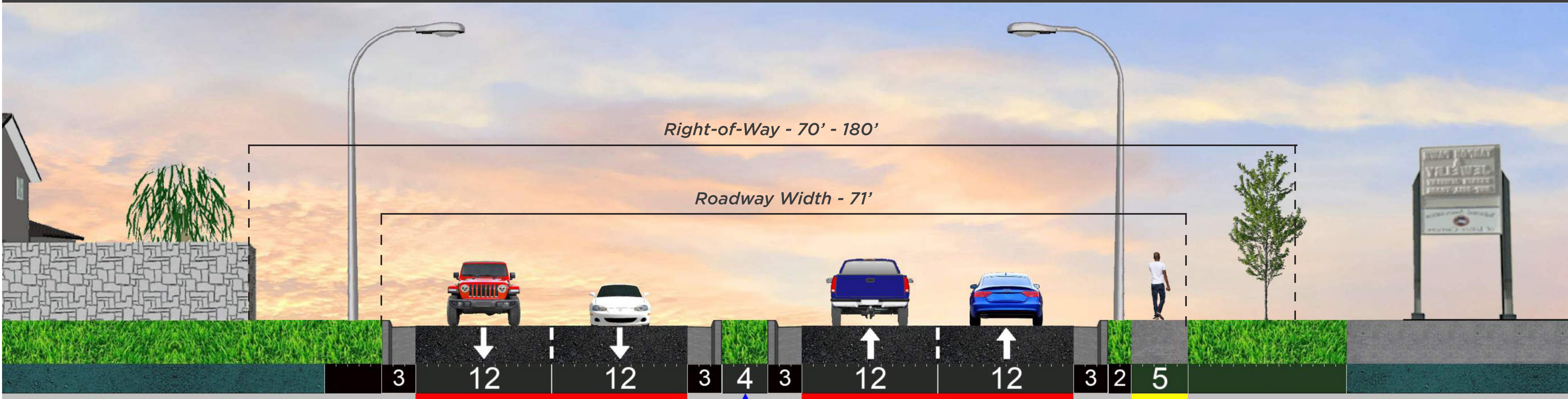
Segment 1 - FR 123 to Weaver Road

Existing Conditions: 3-lane section, curb and gutter, center left turn lane, 5' sidewalk on east side, ROW width varies ~180' to 70'.

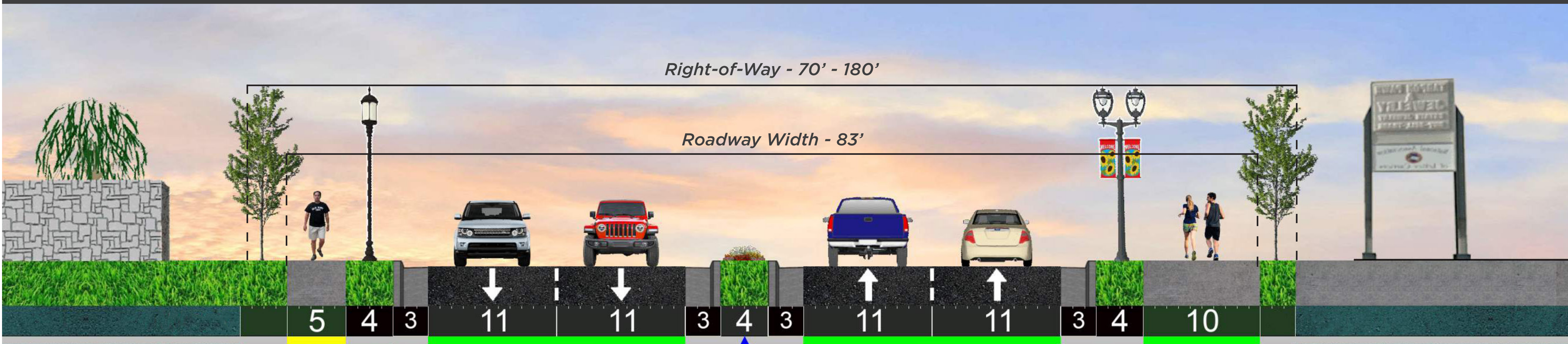
Add a sticker to each feature you would like in the new corridor:

1. Multi-use path
2. Sidewalks both sides
3. Landscaped median
4. Access Control

Segment 1 - Vehicle-Focused Section



Segment 1 - Pedestrian-Focused Section



Vehicle-Focused



Pedestrian-Focused



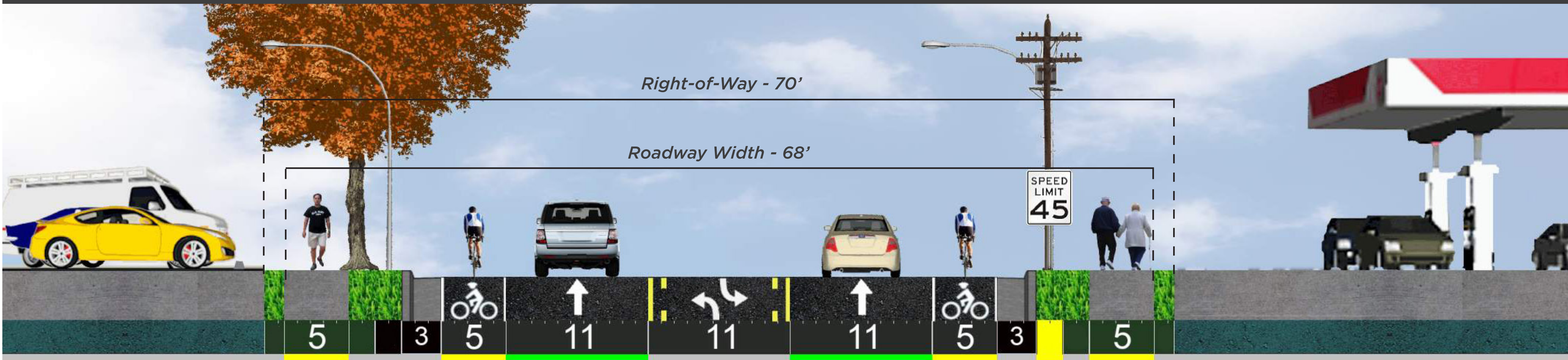
Segment 2 - Weaver Road to Azalea Terrace

Existing Conditions: 2 lanes, no shoulders, sidewalk along east side, ROW width varies 70-80' through segment.

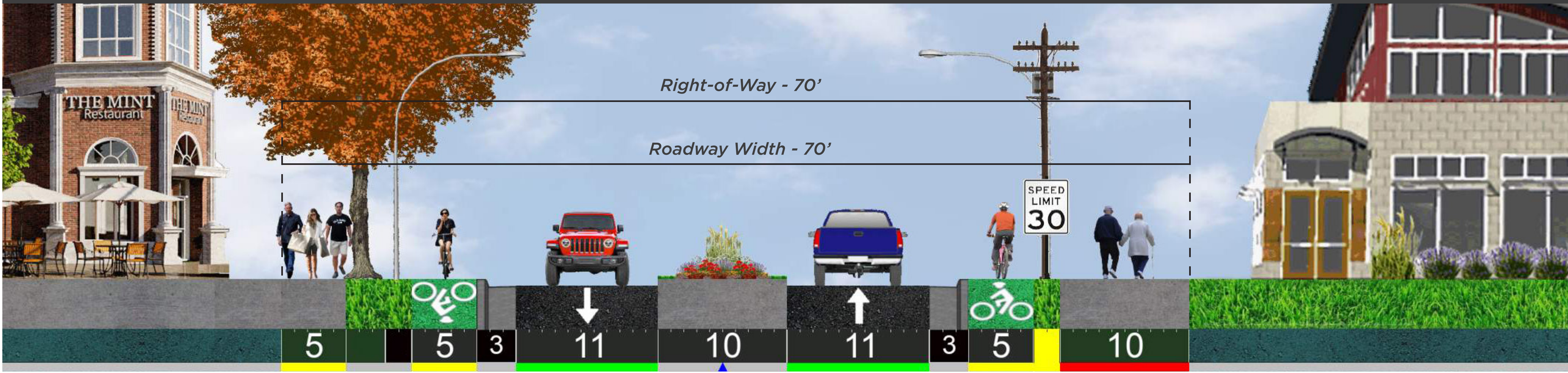
Add a sticker to each feature you would like in the new corridor:

1. Sidewalks both sides
2. Walkable Business District
3. Multi-use Path (10' wide)
4. Bike Lanes
5. Raised Medians
6. Access Control

Segment 2 - Vehicle-Focused Section



Segment 2 - Pedestrian-Focused Section



Segment 3 - Azalea Terrace to Blue Springs Rd

Existing Conditions: 2 lanes, open ditches, no parking, no shoulders, no sidewalk, 70' ROW through segment.

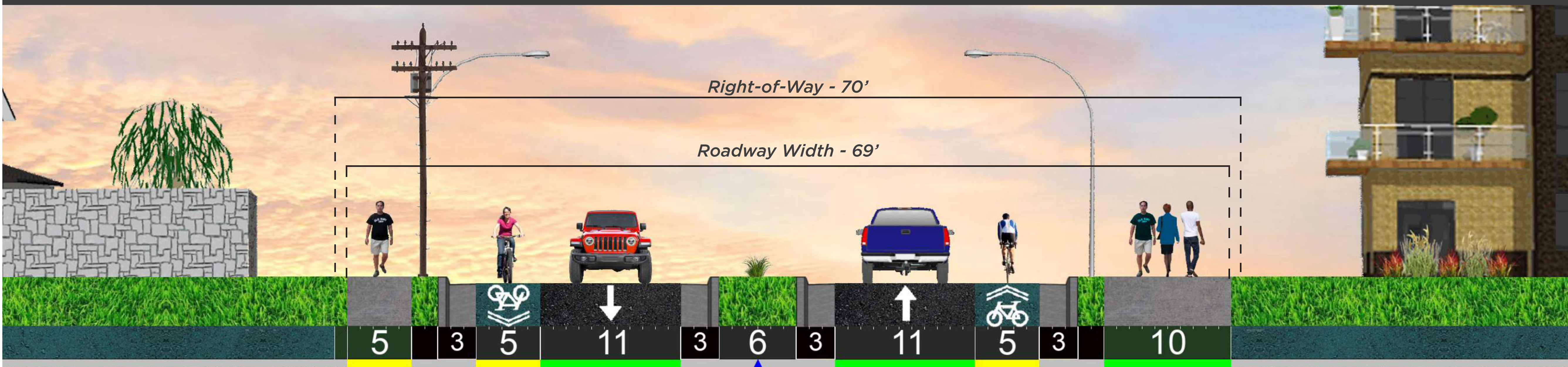
Add a sticker to each feature you would like in the new corridor:

1. Multi-use path
2. Sidewalk - 1 Side
3. Sidewalks - Both Sides
4. Bike Lanes
5. Landscaped Median
6. Access Control

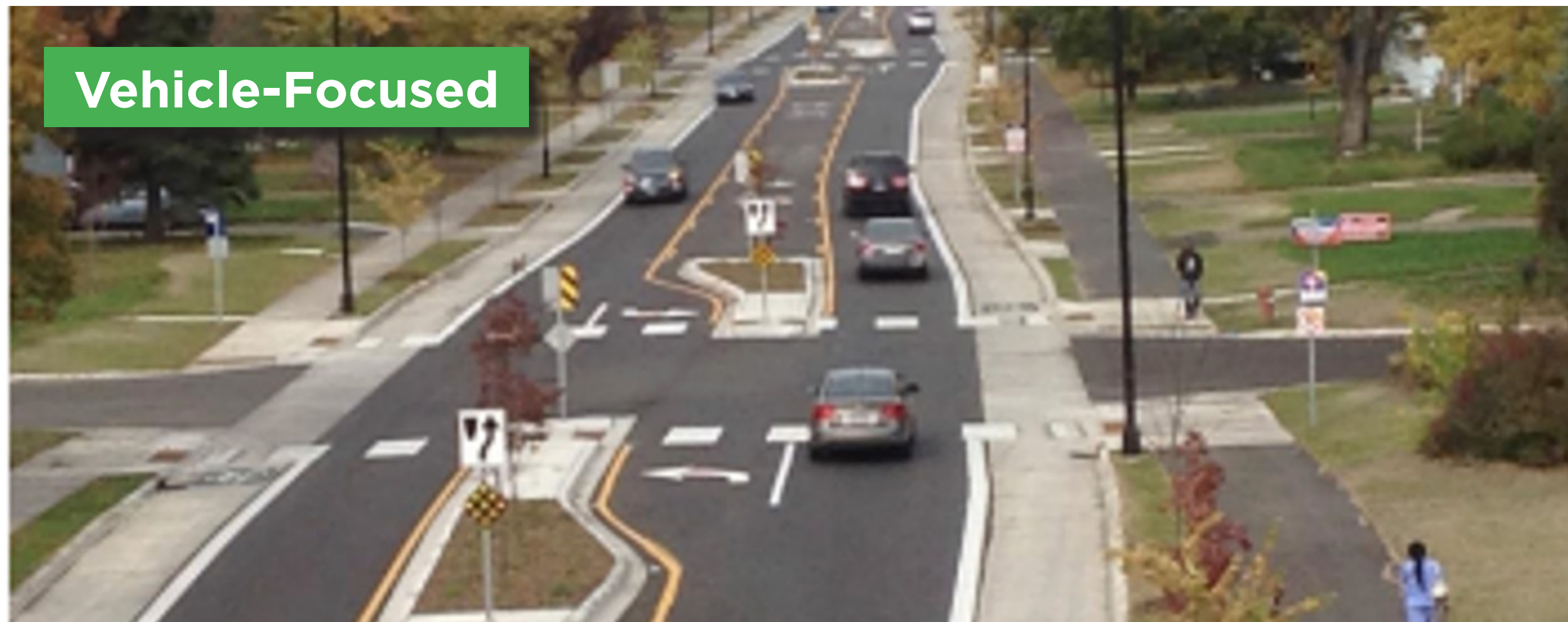
Segment 3 - Vehicle-Focused Section



Segment 3 - Pedestrian-Focused Section



Vehicle-Focused



Pedestrian-Focused





OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Route FF Corridor Study
Community Open House

08/02/2022
4:30 - 6:30pm

SIGN IN SHEET

NAME (PLEASE PRINT)	PHONE	EMAIL
<i>[Signature]</i>	417-839-3904	N/A
Richard + Barbara Stokes	417-881-3863	—
FRANK NORTON	417-861-1038	
Patricia Rogers	417-840-4555	
Robert W. White	417-883-8146	
Patricia Webb	(417) 234-4605	pwebbnp85@gmail.com
Owen Wilkie	417 849-3561	owenwilkie45@gmail.com
Gene & Julie Perryman	417-838-9734	
Dean & Jan Runk	417-764-1990	dejarund@hotmail.com
Kristen Jay	417-518-7645	ty73@msn.com
Philip Gulpin	417-880-3931	p-gulpin@msn.com
Carla Earley	417-689-0883	mstgearley@yahoo.com

Over >

NAME (PLEASE PRINT)

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EMAIL

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Shawna Newton 417-268-5836 swinsea@hotmail.com

Alan Brooker 417 861-1209 abrooker2751@gmail.com

Amanda Brooker 417 416-7583 abrooker2751@gmail.com

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Andy Nungesser 417-866-2741 anungesser@ae-inc.com

Scott Moore 417-881-2018 smooresbatt@att.net

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Klopfer@emson.com

Jane Klopfer

"

"

Terrill Scott O'Reilly

417-839-8006

terrioreilly198@gmail.com



OZARKS TRANSPORTATION ORGANIZATION
A METROPOLITAN PLANNING ORGANIZATION

Route FF Corridor Study
Community Open House

08/02/2022

4:30 - 6:30pm

SIGN IN SHEET

NAME (PLEASE PRINT)	PHONE	EMAIL
COLBY CAREY	417 569 3751	COLBYINDESIGN@MSN.COM
Lisa Bender	417 209 2820	Singinlisa@hotmail.com
Tarri Bradley	417 849-9755	Taritoy@SBCglobal.net
Stacy Bradley	417 234-2663	wooley55@SBCglobal.NET
JOE KELTNER	417-719-8909	JOEKELTNER@SBCGLOBAL.NET
JOHNNY JACKSON	417-576-1164	JOHNNY NANCY2006@SBCGLOBAL
Sean Hinziker	417 425 3610	Sean@CopperCanyonCoffee.com
Cheryl Day	417-848-4451	cmday59@yahoo.com
Kate & Todd Whitson	417-844-1125	kwhitson@SBCglobal.net
Don: Suzanne Spivey	(417) 234-3502	dsigou@SBCglobal.net
Bradley & Susan Baker	417 920-7290	Sjbaker1@yahoo.com
DERROL HAZEN	417-425-4801	DERROLH@AOL.com

Over >

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Laz Bala 417-826-2109

Barbara George 417-827-3347 BarbaraAnnGeorge@gmail.com

Michelle Collins 417-880-3015 msc65301446@gmail.com

Leigh Anger 417-522-5889 leighudgings@yahoo.com

Jay Anger 417-860-1858 Jayanger@gmail.com

Amy Mendota 417-655-0593 arapp8@yahoo.com

Crystal Chambers 417-526-1213 Crystalchambers88@gmail.com

Dan Willis 417-844-1766 beagleshouse2001@msn.com

Melissa Tiller 417-773-1665 ifuntteacher@hotmail.com

Dorothy Knowles TheKnowles@att.net

Amy Carter amy.d.howe@gmail.com

MARK MAIS mclmmais@gmail.com

Jim Quade 417-844-4003 Jimquade76@gmail.com

MARYJANE KONKOWSKI 417-366-1530 mjboyd-70@yahoo.com

Darlene Boyd 417-882-7532 darlene.boyd1208@gmail.com

Theron Guiltner 417-343-3148 theronguiltner@hotmail.com

NAME (PLEASE PRINT)

PHONE

EMAIL

Bob & Karen Groves 417-818-3234 karobgroves@yahoo.com

Rick & Charin Rapka 417-425-1502 rfrapka@gmail.com

Debbie Hicky

NAME (PLEASE PRINT)

PHONE

EMAIL

Karen Tate

417-559-5824

love-my-kids-2@hotmail.com

Tony Vaughn

573-703-2794

TLVaughn1@hotmail.com

Mark & Cindi Crabtree

(417) 224-2437

mark@crabtree91.us

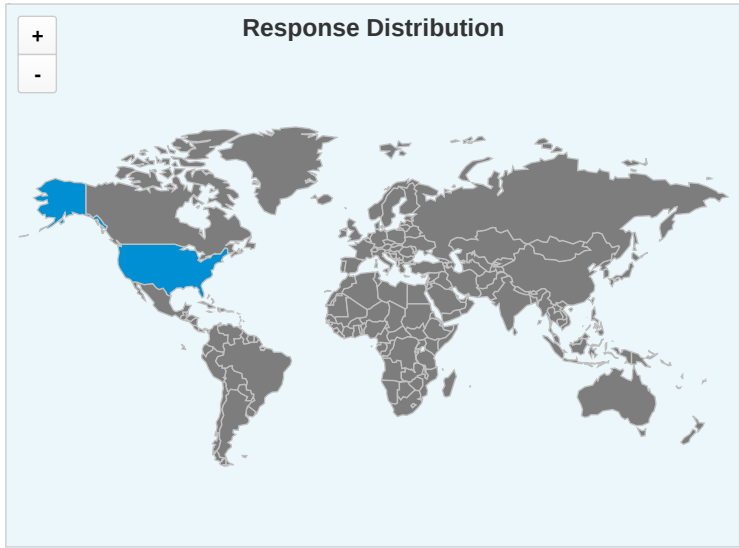
Amy Ricke

913-548-7328

adisharda@gmail.com

Rt FF Comment Card - Dashboard

32	5	5	100%	0	10 min
Viewed	Total Responses	Completed	Completion Rate	Dropouts	Average Time



Countries	Responses
US	100.00%
Total	100.00%

Contact Information

08/03/2022 58240797 Steve and Tracy
Arnold
retired16@att.net

08/03/2022 58239661 Danny
Klopper
515-208-2019
klopperd@msn.com

08/03/2022 58234079 John
O'Reilly
417-839-8007
scott@oreilly.net

08/02/2022 58231181 Robert
Laws
217-972-3554
Lawsrobert927@gmail.com

07/31/2022 58196532 Y
Jackson
417-576-1164
johnnynancy2006@sbcglobal.net

Comments:

08/03/2022	58240797	Firstly, it would have been nice if there had been notification sent to Battlefield residents regarding the expansion of the Route FF and any community input towards the expansion would have been helpful. Secondly, for emergency response purposes, thoroughfares are your best options: ie: stop signs, stop lights, turn lanes and NO round a-bouts. It slows response times for emergency vehicles and personnel. It is hard for them to maneuver around them. Thirdly, is this expansion discussion for population growth or industry? In reading this study, there is no mention of speed considerations for this corridor. In addition to the widening of Route FF has there been any considerations for the arterial roads to the FF? I have not read in any of the study, who will be monetarily responsible for the relocation and/or addition of water, sewer or any other public utilities. On a personal note, as daily drivers on Route FF, at FR123 where it expands to two lanes, you find little to no traffic buildup. Now, however, emerging from the side streets onto Route FF traffic has become more congested and getting onto FF has become more difficult. Battlefield is a destination for people to commute to and from. We see Battlefield as a residential, working/retired class community, not a brick and mortar town. Regards, Steve and Tracy Arnold
08/03/2022	58239661	My wife and I attended meeting in Battlefield last evening. I'm attempting to answer the survey as we did not fill one out last night. We live in Battlefield and drive FF regularly. We normally use our automobile, but I occasionally use electric scooter as I'm handicapped. But only on residential sidewalks. We use FF as pleasure. I believe the end of the four-lane divided roadway should remain at Sandy and three lane roadway with sidewalks on both sides with a dedicated bicycle land be included. The Bicycle land can be an extra wide sidewalk on one side. A round about at weaver is it is three lanes will work. Some think they are silly, but you know if they will handle the traffic flow. From Weaver all the way to Blue Springs the configuration can be the same three lane with sidewalk and bicycle path. Need to keep in mind that the downtown area of Battlefield may redevelop, and you may need to slow the speed from Montgomery to Somerset. Love to keep informed of progress on this project. Thanks
08/03/2022	58234079	I believe the intersection of Farm Road 172 and FF Hwy is in need of traffic control, whether by signal or roundabout.
08/02/2022	58231181	I live on FF the traffic is very fast 45 mph think that is to fast through the middle of town sometimes hard to get out or in driveway also have grandkids that live with me if someone was to loose control or the would end up in my yard or worse my house just think this needs to be taken into consideration thank you for your time to read

65

Viewed

59

Total Responses

50

Completed

84.75%

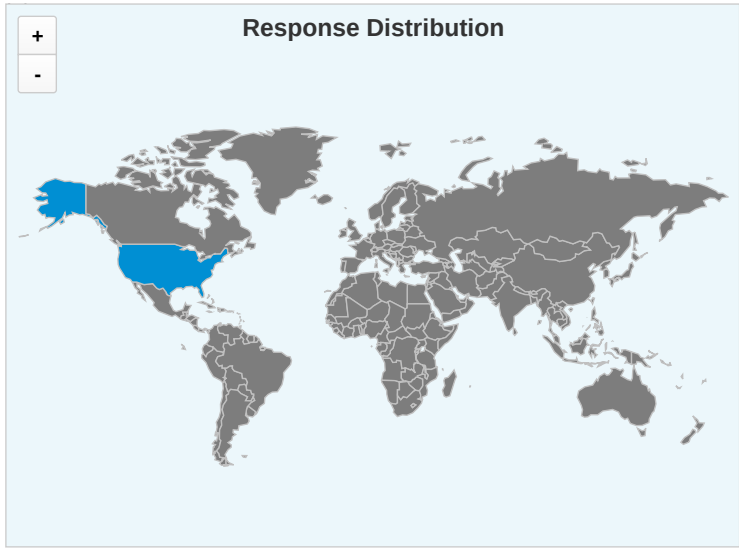
Completion Rate

9

Dropouts

4 min

Average Time



Countries	Responses
US	100.00%
Total	100.00%

Please provide some basic information about yourself.Contact Information

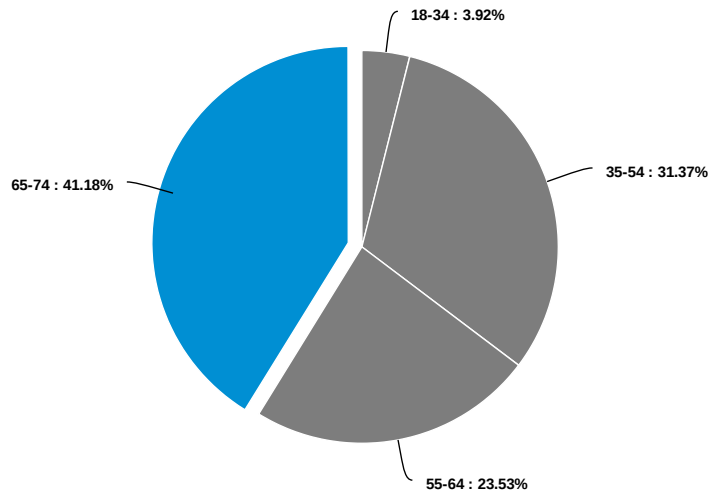
08/08/2022	58276546	David Byrd* 417-827-6352 davidbyrd@missouristate.edu 65619
08/07/2022	58270393	Jack White 417-569-3332 65714
08/07/2022	58269264	Gene Parrigon 417-838-2839 gparrigo@sbcglobal.net 65619
08/05/2022	58264269	Matt Venaas matthew.venaas@icloud.com 65802
08/05/2022	58263049	Les Bentz 417-813-0682 lrb777t@yahoo.com 65619
08/05/2022	58262805	Tanya Clark 602-738-1340 Tanya_clark12@comcast.net 65619
08/03/2022	58241038	Mary Emeric 417-840-9823 65810
08/03/2022	58237280	Randy Burton* 417-343-2076 rancarbur@sbcglobal.net 65619
08/03/2022	58237264	Johnny Jackson* 417-576-1164 johnnynancy2006@sbcglobal.net 65619
08/03/2022	58237202	Kristen Joy* 941-518-7645 ty73@msn.com 65619
08/03/2022	58237111	Mark and Patricia Webb* 417-234-4605 pwebbpvp@gmail.com 65619
08/03/2022	58237069	Patricia Rogers* 417-840-4555 trishrogersmail@gmail.com 65619
08/03/2022	58237047	Amy Ricke 913-548-7328 abishard@gmail.com 65619

08/03/2022	58237034	Colby Carey* 417-569-3751 colbyindesign@msn.com 65619
08/03/2022	58236995	Linda Bridges* 417-987-8180 mistysueandshadowtoo@gmail.com 65619
08/03/2022	58236944	Fedra Baker* 417-920-7290 fybaker1@yahoo.com 65619
08/03/2022	58236906	Brady S. Baker 417-224-3779 bowhuntrocks@yahoo.com 65619
08/03/2022	58236846	Richard & Barbara Stokes 417-881-3863 stokesinbattlefield@yahoo.com 65619
08/03/2022	58236801	Carol S. Kissee* 417-887-5930 carolkissee@sbcglobal.net 65619
08/03/2022	58236534	Shelly Willis 417-839-7283 naturegeek735@gmail.com 65619
08/03/2022	58236464	Dan Willis* 417-884-1766 beagleshouse2001@msn.com 65619
08/03/2022	58236159	Derrol Hutton* 417-425-4801 derrolh@aol.com 65619
08/03/2022	58236142	John Mammovella* 417-887-8831 jmammovella@gmail.com 65619
08/03/2022	58236107	Steve & Terri Bradley* 417-234-2663 wooley55@sbcglobal.net 65619
08/03/2022	58236054	Sean Hunziker* 417-425-3610 sean@coppercanyoncoffee.com 65619
08/03/2022	58235990	Cecilia Early* 417-689-0883 mstigearlyly@yahoo.com 65619

08/03/2022	58235951	Gerry and Carole Clemmons* 417-861-4028 gerry.clemmons@gmail.com 65619
08/03/2022	58235897	Michelle Collins* 417-880-3015 msc653014466@gmail.com 65619
08/03/2022	58235876	Crystal Chambers* 417-536-1213 crystalchambers889@gmail.com 65619
08/03/2022	58235847	Adam Brookes* 417-416-7583 abrookes2251@gmail.com 65619
08/03/2022	58235841	Cheryl Day* 417-848-4451 cmday59@yahoo.com 65619
08/03/2022	58235810	Allen Busick* 870-378-6043 abusick07@hotmail.com 65619
08/03/2022	58235784	David Williams* 417-839-4150 DandVWilliams@sbcglobal.com 65619
08/03/2022	58235755	Dan & Suzanne Igou* 417-234-3502 dsigou@sbcglobal.net 65619
08/03/2022	58235730	Don Smith* 417-848-7233 dsbs0225@yahoo.com 65619
08/03/2022	58235707	Kelly Burk* 417-848-6220 burk@burkirectors.com 65619
08/03/2022	58235684	Andrew Novinger* 417-866-2741 anovinger@ae-inc.com 65807
08/03/2022	58235641	Amy Mendola* 417-655-0593 arapp8@yahoo.com 65619
08/03/2022	58235573	Darlene Boyd* 417-882-7532 darleneboyd1208@gmail.com 65619

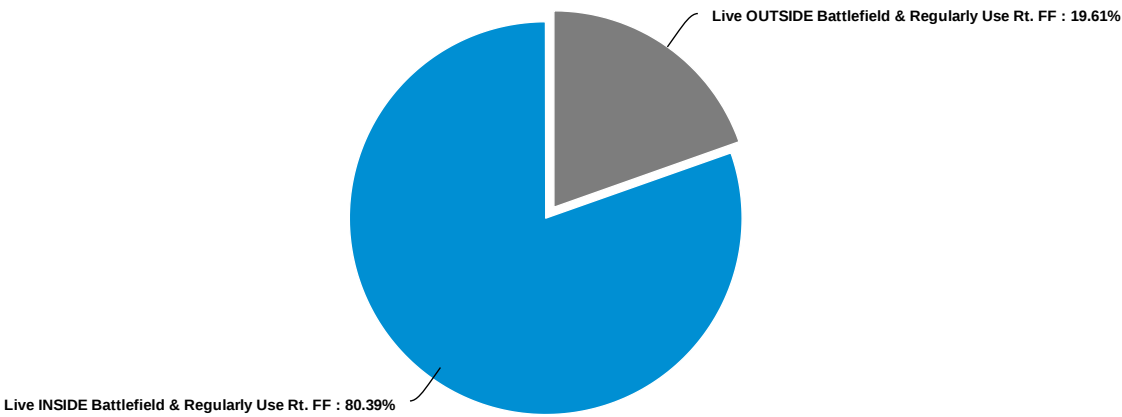
08/03/2022	58235543	Shane Anderson* 417-489-4554 f_14@hotmail.com 65619
08/03/2022	58235522	Mark & Cindy Crabtree* 417-224-2437 mark@crabtree91.us 65619
08/03/2022	58235487	Mark Mais* 417-429-7077 mclmmais@gmail.com 65619
08/03/2022	58235471	Karen Tate* 417-559-5824 love-my-kids-2@hotmail.com 65619
08/03/2022	58235319	Tony Vaughn* 573-703-2794 TLVaughn1@hotmail.com 65739
08/03/2022	58235281	Chanin Ropka* 417-425-1501 cropka@parkcrestdental.com 65619
08/03/2022	58235264	Karen Groves* 417-818-3234 karobgroves@sbcglobal.net 65619
08/03/2022	58235245	Robert W Groves* 417-379-5858 karobgroves@sbcglobal.net 65619
08/03/2022	58235229	Theron Guiltner* 417-343-3148 theronguiltner@hotmail.com 65619
08/03/2022	58235173	Scott Moore* 417-881-9018 smoore@battlefieldfire.com 65619
08/03/2022	58235124	Rocky Compton* 417-576-2556 rcompton2557@gmail.com 65619
08/03/2022	58234055	Terri OReilly 417-839-8006 Terrioreilly198@gmail.com 65619-8279
08/02/2022	58231230	Heidi Fisher 417-576-1013 twosashquilts@sbcglobal.net 65619

How Old Are You?



Answer	Count	Percent	20%	40%	60%	80%	100%
Under 18	0	0%					
18-34	2	3.92%					
35-54	16	31.37%					
55-64	12	23.53%					
65-74	21	41.18%					
75+	0	0%					
Total	51	100 %					

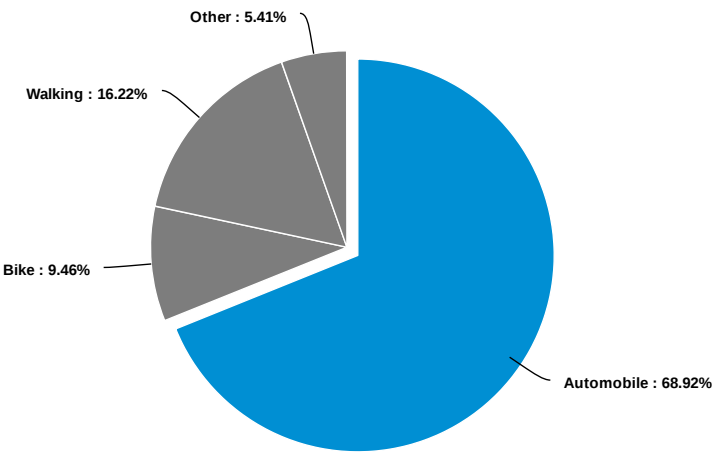
Please help us understand how you use the Route FF Corridor. Which Statement Best Describes You?



Answer	Count	Percent	20%	40%	60%	80%	100%
Live OUTSIDE Battlefield & Regularly Use Rt. FF	10	19.61%	<div></div>				
Live INSIDE Battlefield & Regularly Use Rt. FF	41	80.39%	<div></div>				
Live inside Battlefield & AVOID Using Rt. FF	0	0%	<div></div>				
Other	0	0%	<div></div>				
Total	51	100 %					

Please help us understand how you use the Route FF Corridor. Which Statement Best Describes You? - Text Data for Other

What Mode(s) of Transportation Do You Currently Use Along The Rt. FF Corridor? (Select All That Apply)

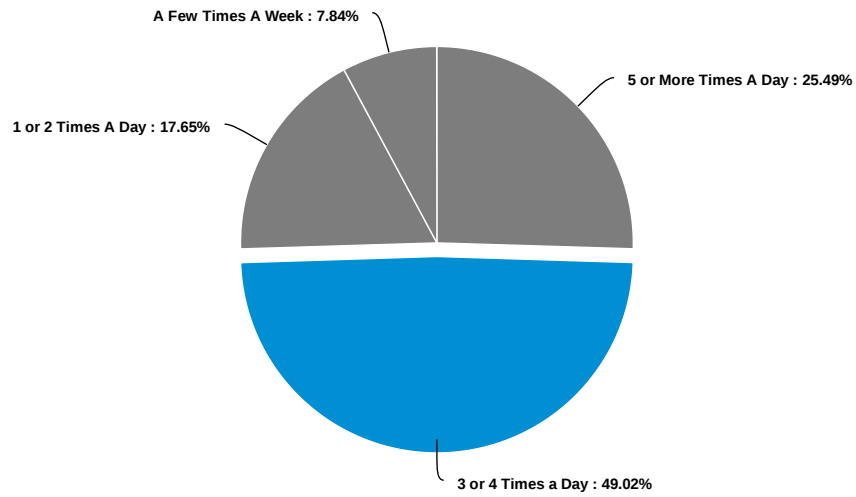


Answer	Count	Percent	20%	40%	60%	80%	100%
Automobile	51	68.92%	<div></div>				
Bike	7	9.46%	<div></div>				
Walking	12	16.22%	<div></div>				
Other	4	5.41%	<div></div>				
Total	74	100 %					

What Mode(s) of Transportation Do You Currently Use Along The Rt. FF Corridor? (Select All That Apply) - Text Data for Other

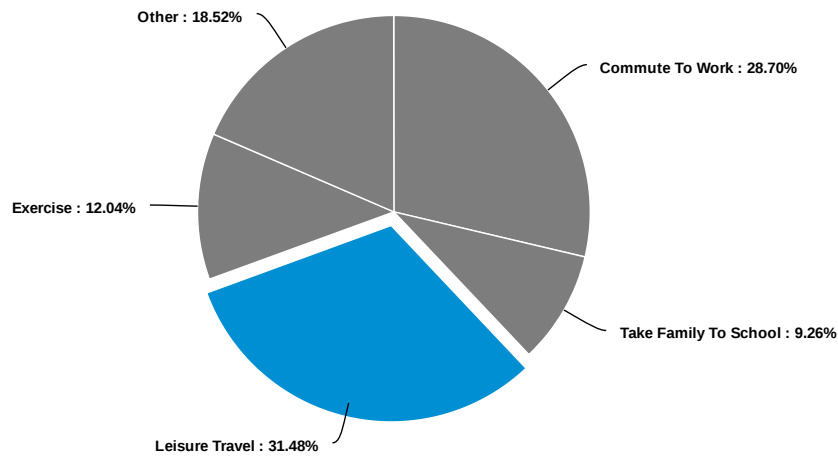
08/03/2022 58236846 motorcycle	
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How Often Do You Use the Rt. FF Corridor?



Answer	Count	Percent	20%	40%	60%	80%	100%
5 or More Times A Day	13	25.49%	<div></div>				
3 or 4 Times a Day	25	49.02%	<div></div>				
1 or 2 Times A Day	9	17.65%	<div></div>				
A Few Times A Week	4	7.84%	<div></div>				
Total	51	100 %					

Why Do You Use The Rt. FF Corridor? (Select All That Apply)



Answer	Count	Percent	20%	40%	60%	80%	100%
Commute To Work	31	28.7%	<div></div>				
Take Family To School	10	9.26%	<div></div>				
Leisure Travel	34	31.48%	<div></div>				
Exercise	13	12.04%	<div></div>				
Other	20	18.52%	<div></div>				
Total	108	100 %					

Why Do You Use The Rt. FF Corridor? (Select All That Apply) - Text Data for Other

08/07/2022	58269264	Shop, Restaurants, Go out of town
08/05/2022	58264269	Travel to Businesses
08/05/2022	58262805	Live on the east side of FF
08/03/2022	58241038	Major road to get to shopping, eating and visiting friends.
08/03/2022	58237280	shopping
08/03/2022	58237264	Live off of FF
08/03/2022	58237111	Doctor appts
08/03/2022	58236944	church
08/03/2022	58236846	required travel
08/03/2022	58236534	personal business
08/03/2022	58236159	Shop & Dining
08/03/2022	58235951	church, shopping, errands
08/03/2022	58235876	Live right off Hwy FF
08/03/2022	58235319	Stores
08/02/2022	58231230	Shopping



Route FF - Farm Rd. 123 to Weaver Rd. 1. What Concerns Do You Have About This Segment? (Ex. - Speed, Safety, Specific Intersections)

08/08/2022 58276546 None

08/07/2022 58269264 There is a lot of traffic in this area. It is difficult to get onto FF from Weaver.

08/05/2022 58263049 Taking my HOME away I just bought it back in Sept of 2020. I will be on the street .Im cripple you dont care

08/05/2022 58262805 No concerns

08/03/2022 58237069 Traffic entering Battlefield & the right turn lane. Living on Mary Street you about get run over trying to exit FF.

08/03/2022 58237047 Cars merging from 2 to 1 lanes, traffic back up.

08/03/2022 58237034 Not interested in traffic signals

08/03/2022 58236944 No 4 Lanes ANYwhere

08/03/2022 58236801 All of the above concerns

08/03/2022 58236534 Speed - cars not slowing down into town.

08/03/2022 58236464 Speed, safety

08/03/2022 58236054 Widen all corner for ease if turning, fire truck access

08/03/2022 58235990 Keep Battlefield a small town. 4 way stop at Weaver & FF. Reduce speed coming in from Republic Road to the current 45 speed limit to 30-35

08/03/2022 58235897 We need a stoplight at Weaver & FF. Stop the residential building permits and you won't need more traffic control. This is a small community and we want it to stay that way. Bussell Building should not be able to congest our nice town with houses. Take a vote on if we want more residential subdivisions. That will take care of the traffic issue.

08/03/2022 58235847 Safety at the intersection of FF & Weaver

08/03/2022 58235810 Safety at FF & Eaglecrest, needs to reduce speed prior to intersection/signal

08/03/2022 58235784 Speed, volume

08/03/2022 58235755 Speed

08/03/2022 58235573 Increased traffic & speeding

08/03/2022 58235543 Traffic speed

08/03/2022 58235487 Need longer SB left turn lane

08/03/2022 58235281 Difficult left turns north onto Weaver. Some issues with right turn off Weaver south during rush hours.

08/03/2022 58235173 Speed and vehicles entering & exiting the side streets.

08/03/2022 58235124 Safety

08/03/2022 58234055 Speed, difficulty to cross or make a left turn, school children who must cross to go to and from school

08/02/2022 58231230 None

2. What Type Of Development Makes Sense Along This Segment? (Ex. - Residential or Commercial; Walkable vs Auto-Oriented)

08/08/2022 58276546 Commercial, Auto

08/07/2022 58269264 Commercial. Walkable.

08/05/2022 58263049 none

08/05/2022 58262805 Commercial as this is what is there now

08/03/2022 58237069 Commercial & Residential

08/03/2022 58237047 Commercial

08/03/2022	58237034	Pedestrian & no traffic lights
08/03/2022	58236944	No 4 Lanes ANYwhere
08/03/2022	58236846	Intersection at FF and 123 (?) (at the wireroad brewery) - increased traffic
08/03/2022	58236801	Prefer residential, both auto and walkable
08/03/2022	58236534	Walkable, sidewalks both side of street
08/03/2022	58236159	3 lanes with right turn lane and center turn
08/03/2022	58236054	Commercial
08/03/2022	58235847	Residential
08/03/2022	58235810	Residential, light commercial, low noise, traffic
08/03/2022	58235784	Commercial
08/03/2022	58235755	More commercial
08/03/2022	58235573	4 lanes
08/03/2022	58235543	Commercial
08/03/2022	58235281	Auto - roundabout would work!
08/03/2022	58235264	Roundabouts
08/03/2022	58235173	Commercial
08/03/2022	58234055	Commercial development makes the most sense but it needs to be bike and pedestrian friendly. Rogers, Bentonville and Fayetteville Arkansas have wonderful bike trails that have dedicated crossings with lights.
08/02/2022	58231230	Auto oriented
3. What Kind Of Transportation Improvements Are Needed Along This Segment? (Ex. - Lower Speeds, More Sidewalks, On-Street Parking, Turn Lanes, Medians, Trails)		
08/08/2022	58276546	Southbound - move sign indicating right lane must turn right farther to north to give more time for drivers to adjust.
08/07/2022	58269264	Stop controlled at FR 123. Signal at Weaver. Sidewalks both sides. Turn lanes.
08/05/2022	58263049	Slow the trffic down cant get my mail safe.
08/05/2022	58262805	Stop light for traffic control
08/03/2022	58237069	Sidewalks, lower speeds, better turn lanes, trails
08/03/2022	58237047	Turn lanes are desperately needed
08/03/2022	58237034	Bike lane & sidewalks
08/03/2022	58236944	No 4 Lanes ANYwhere
08/03/2022	58236801	Definitely lower speeds, no on street parking, you can barely drive down some streets for all the cars parked on the side.
08/03/2022	58236534	Lower speed to 35, medians, trains coming into town, put a "Right Lane Must Turn Right" BEFORE the bend in the road.
08/03/2022	58236054	Turn lanes
08/03/2022	58235847	Lower speeds, turn lanes
08/03/2022	58235810	Lower speeds, sidewalks
08/03/2022	58235784	Lower speeds, turn lane, both sides need sidewalks all the way to Republic Road
08/03/2022	58235755	Lower speeds, turn lanes
08/03/2022	58235573	Sidewalks Turning lanes
08/03/2022	58235543	Traffic lights, median/turn lane

08/03/2022 58235487 Weaver @ Rte FF has always been a problem. Been here for +20 years and seen several bad wrecks.

08/03/2022 58235173 Lanes & lane width*

08/03/2022 58235124 Trails

08/03/2022 58234055 Lower speeds would be great! Sidewalks, bike trails and turn lanes would help as well.

08/02/2022 58231230 None



08/08/2022	58276546	Safety - Residential houses backing onto FF
08/07/2022	58269264	Traffic growth.
08/05/2022	58263049	speed
08/05/2022	58262805	Water drainage on the east side of FF, displacement of the homes along FF,
08/03/2022	58237202	Biggest problem area. Speed, safety, no shoulder, no lights /4 way stops @ gas stations & Elm
08/03/2022	58237047	Speed, traffic backups
08/03/2022	58237034	Better turn lanes at intersections
08/03/2022	58236995	Lots of traffic coming into Battlefield with no turn lane backing up traffic
08/03/2022	58236944	Weaver by Conco needs signal & intersection needs to be redone
08/03/2022	58236906	Signal at Weaver Rd
08/03/2022	58236846	Left turning traffic, drivers backing from driveways
08/03/2022	58236534	Speed - cars not slowing down into town
08/03/2022	58235990	Reduce speed to 30-35, 4 way stop at FF & Elm
08/03/2022	58235784	Speed, volume
08/03/2022	58235755	Speed, intersection by Godfather's. People taking chances crossing FF there.
08/03/2022	58235573	Increased traffic & speeding
08/03/2022	58235543	Traffic speed
08/03/2022	58235487	Road is narrow. Shoulders would improve safety. The numerous driveways entrances are an issue.
08/03/2022	58235173	School traffic Utilities above ground
08/03/2022	58235124	Safety
08/03/2022	58234055	Speed is the main concern. 35 or 40 would be a better speed for this area unless it's widened.
08/02/2022	58231230	Want to keep 2 lanes - it's one of the main reasons we purchased our new home that backs up to Hwy Ff in green ridge estates. The small town country feeling. If I wanted heavy traffic we would have chosen Springfield or republic

2. What Type Of Development Makes Sense Along This Segment? (Ex. - Residential or Commercial; Walkable vs Auto-Oriented)

08/08/2022	58276546	Commercial, Auto
08/07/2022	58269264	Mix of residential and commercial. Walkable.
08/05/2022	58263049	drained ditches my back yard is like a lake. it come from the front yard of my Neighbor 3 3inch pips in his front yard to between the houses water runs through the pips in between the houses & into my back yard.
08/05/2022	58262805	Not sure, we just moved here and like it residential
08/03/2022	58237202	Road widening, traffic signals, center turn lane
08/03/2022	58237047	Commercial, auto-oriented. There are no businesses.
08/03/2022	58236995	Turn lane, stop light at Weaver, NO FOUR LANES
08/03/2022	58236906	3 Lane no 4 lane
08/03/2022	58236846	Left turning lane, curbs and sidewalks (both sides of roadway) Weaver & FF dangerous & going to get worse
08/03/2022	58236534	Walkable, sidewalks both sides of streets

08/03/2022	58236159	3 lanes with right turn lane and center turn
08/03/2022	58236054	Commercial
08/03/2022	58235990	Residential
08/03/2022	58235810	Residential, light commercial, low noise, traffic
08/03/2022	58235784	Residential
08/03/2022	58235755	More commercial
08/03/2022	58235641	Stop light at 3rd. The buses have a hard time turning into resident, traffic-timing is off and hard to get from 3rd to FF. Stoplight @ Wilson Creek School Street - impossible traffic area someone is always pulling out or slamming on brakes at this intersection.
08/03/2022	58235573	Roundabout
08/03/2022	58235543	Commercial
08/03/2022	58235264	Roundabouts
08/03/2022	58235173	Mixed
08/03/2022	58234055	It's already mostly residential.
08/02/2022	58231230	None
3. What Kind Of Transportation Improvements Are Needed Along This Segment? (Ex. - Lower Speeds, More Sidewalks, On-Street Parking, Turn Lanes, Medians, Trails)		
08/08/2022	58276546	3 lane road - no median, stoplight at Weaver Rd, stoplight at 3rd Street, 35 mph speed limit, no round abouts
08/07/2022	58269264	Signal at 3rd St. Roundabout at Azalea Terrace. Five foot sidewalks both sides. Turn lane.
08/05/2022	58262805	None
08/03/2022	58237047	We need turn lanes to reduce traffic back up
08/03/2022	58237034	Bike lane & sidewalks
08/03/2022	58236995	3 Lanes
08/03/2022	58236944	3-lanes
08/03/2022	58236906	Sidewalks both sides
08/03/2022	58236846	Left turn lanes, sidewalks both sides of roadway and curbs plus water control
08/03/2022	58236534	Lower speeds to 35, medians
08/03/2022	58236054	Turn lanes
08/03/2022	58235990	Turn lanes
08/03/2022	58235847	Center turn lane
08/03/2022	58235810	Sidewalks, bike lanes
08/03/2022	58235784	Lower speed, turn lane
08/03/2022	58235755	Lower speeds, turn lanes
08/03/2022	58235641	Sidewalk on 3rd Street. Put storm sewers under yard drain, extend road, there is a huge drop off on both sides North and South. Heavy traffic - buses, heavy trucks, trailers w/mowers no room no way for residents to walk to FF. Apt complex has residents who walk to stores.
08/03/2022	58235543	Traffic lights, median/turn lane
08/03/2022	58235264	Sidewalks on 3rd Street
08/03/2022	58235173	Lanes and access to side roads
08/03/2022	58234055	Sidewalks on both sides of the road, bike trails and turn lanes coupled with lower speed



Route FF - Azalea Ter. to Blue Springs Rd. Please answer the following three questions about the segment of Rt. FF between Azalea Ter. and Blue Springs Rd. 1. What Concerns Do You Have About This Segment? (Ex. - Speed, Safety, Specific Intersection)

08/08/2022	58276546	1. Need FR 190 to east to alleviate excessive traffic on FR 194 (Blue Springs Road) 2. Need to move stop sign on FR 194 going west on FF to the east so that drivers can still see what's coming south on FF
08/07/2022	58269264	Traffic growth. Blue Springs is a dangerous intersection.
08/05/2022	58262805	End of FF is a little awkward intersection.
08/03/2022	58237047	Speed
08/03/2022	58236534	Speed - cars not slowing down into town.
08/03/2022	58235990	Reduce speeds to 30-35
08/03/2022	58235876	Safety
08/03/2022	58235847	Future development of a rural area. Farm land should be left alone, people purposely move to country setting to no be near subdivisions.
08/03/2022	58235784	Volume
08/03/2022	58235755	Speed
08/03/2022	58235730	Speed
08/03/2022	58235573	Increased traffic & speeding
08/03/2022	58235543	Traffic speed
08/03/2022	58234055	Speed is probably ok as long as people are aware of the big turn to the west. That intersection is a bit weird for anyone coming from the east turning north.
08/02/2022	58231230	No more development other than green ridge estates

2. What Type Of Development Makes Sense Along This Segment? (Ex. - Residential or Commercial; Walkable vs Auto-Oriented)

08/08/2022	58276546	Commercial & Residential, Auto
08/07/2022	58269264	Residential. Walkable.
08/05/2022	58262805	Residential
08/03/2022	58237047	Commercial
08/03/2022	58236534	Walkable, sidewalks both side of streets
08/03/2022	58236159	3 lanes with right turn lane and center turn
08/03/2022	58235990	Residential
08/03/2022	58235876	Residential, walkable
08/03/2022	58235847	None. Area is rural and doesn't need developed. As well as the abundance of sink holes.
08/03/2022	58235810	Residential
08/03/2022	58235784	Commercial
08/03/2022	58235573	To help disperse traffic from or away from Blue Springs Road
08/03/2022	58235543	Residential
08/03/2022	58235264	Roundabouts
08/03/2022	58235173	Residential
08/02/2022	58231230	None

3. What Kind Of Transportation Improvements Are Needed Along This Segment? (Ex. - Lower Speeds, More Sidewalks, On-Street Parking, Turn Lanes, Medians, Trails)

08/08/2022	58276546	3 lane road - no median, stoplight at FR 190 - if and when put thru to East, no roundabouts
08/07/2022	58269264	Turn lane. Light at FR 190. Stop controlled at Blue Springs. Five Foot sidewalks each side.
08/05/2022	58262805	Round about
08/03/2022	58237047	Turn lanes
08/03/2022	58237034	Bike lane & sidewalks
08/03/2022	58236534	Lower speed to 35, medians
08/03/2022	58236054	Turn lanes
08/03/2022	58235990	Turn lanes
08/03/2022	58235876	Lower speed limit
08/03/2022	58235847	No development equals no increased traffic.
08/03/2022	58235810	Sidewalks, bike lanes
08/03/2022	58235784	Turn lane
08/03/2022	58235755	Lower speeds, turn lanes
08/03/2022	58235573	New roads?
08/03/2022	58235543	Traffic lights, median/turn lane
08/03/2022	58235173	Open mind*
08/03/2022	58234055	Speed should be determined by the type of development that takes place. Commercial or industrial - higher speed, residential - lower speed with a middle turn lane. I'm always in favor of sidewalks, biking and hiking trails.
08/02/2022	58231230	None

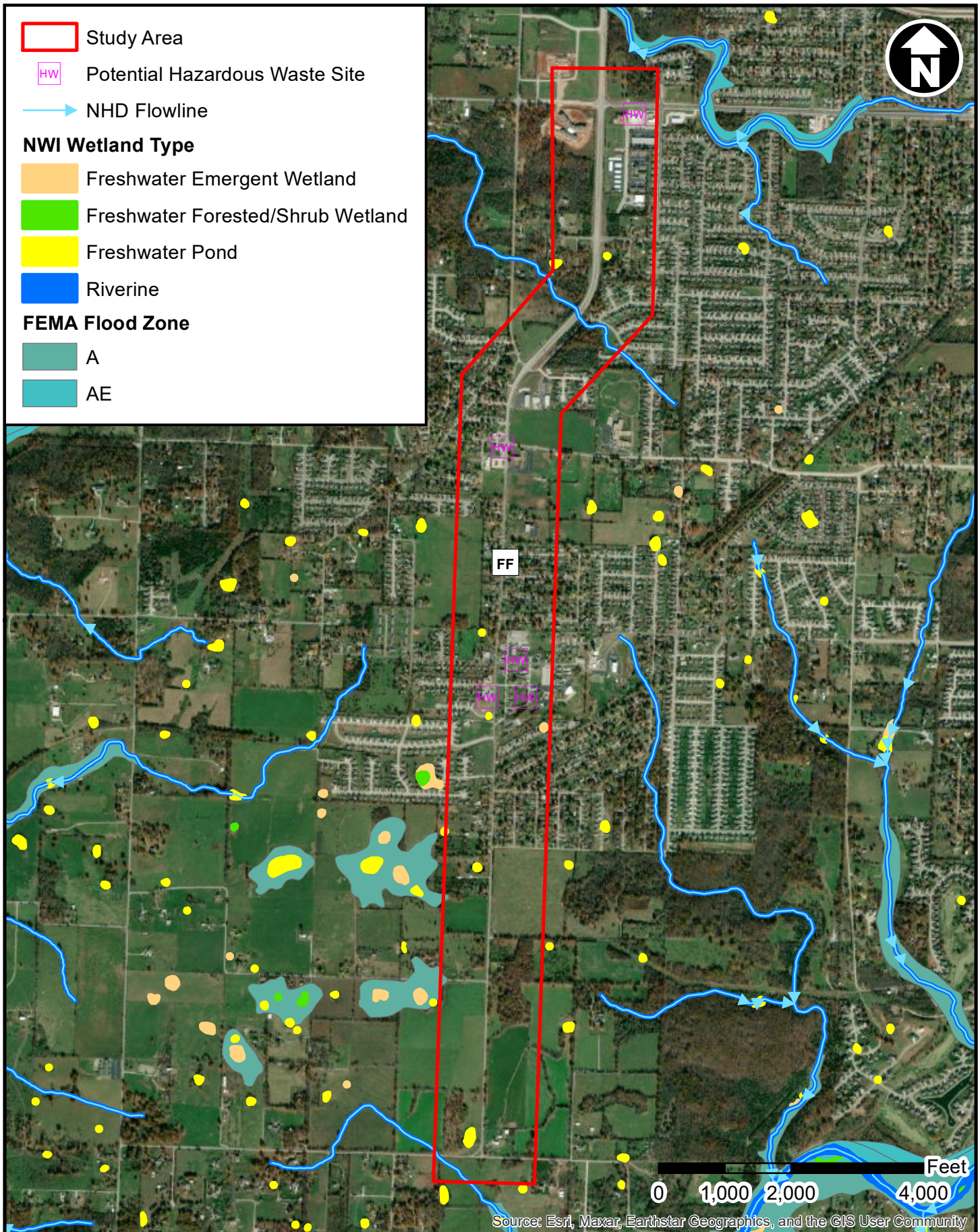
ENVIRONMENTAL



Report for Battlefield, MO

ROUTE FF CORRIDOR STUDY

Appendix



Route FF Project Corridor - Battlefield, MO

Environmental Resources Map



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181



In Reply Refer To:
Project Code: 2023-0003815
Project Name: Battlefield MO Route FF Corridor Study

October 12, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects:

projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features – particularly within stream corridors, riparian areas, or associated upland woodlots –gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 5 inches diameter at breast height (dbh) for Indiana bat, and ≥ 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see #3 below) – then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) through the S7 Technical Assistance website.
3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:
 - a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
 - b. Any activity in or near the entrance to a cave or mine;
 - c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
 - d. Construction of one or more wind turbines; or
 - e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the [Range-wide Indiana Bat Summer Survey Guidelines](#).

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA

to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Karen Herrington

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

Project Summary

Project Code: 2023-0003815
Project Name: Battlefield MO Route FF Corridor Study
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Route FF study will consider existing and future development patterns to determine the most appropriate roadway design for this vital corridor. This study will focus on Rt FF between Farm Rd 123 and the county line/Blue Springs Rd. Project deliverables will include recommendations on the most suitable Major Thoroughfare Plan classification and roadway cross-sections for various points along the corridor.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.117212699999996,-93.37003651285133,14z>



Counties: Christian and Greene counties, Missouri

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/IUGURUFRDRA2PKN6KUG7OYF4LA/documents/generated/6868.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/IUGURUFRDRA2PKN6KUG7OYF4LA/documents/generated/6868.pdf	Threatened
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Reptiles

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

Fishes

NAME	STATUS
Ozark Cavefish <i>Amblyopsis rosae</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6490	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Virginia Sneezeweed <i>Helenium virginicum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6297	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- [Riverine](#)

FRESHWATER EMERGENT WETLAND

- [Palustrine](#)
-

IPaC User Contact Information

Agency: Ozarks Transportation Organization

Name: Madalyn Hatch

Address: 2750 W Washington

City: Springfield

State: IL

Zip: 62702

Email: mhatch@cmtengr.com

Phone: 2176919107

Lead Agency Contact Information

Lead Agency: Surface Transportation Board

TAB 4

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.B.

OTO Growth Trends Report

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

The Growth Trends report is based on the most recent census data and building permit information collected from area jurisdictions.

This report includes information for residential units permitted, growth trend maps, as well as demographic and employment data providing a view of growth for the OTO service area and the five county Metropolitan Statistical Area (Christian, Dallas, Greene, Polk and Webster counties). The report is published for information purposes and can be viewed in full on the OTO website <https://www.ozarkstransportation.org/uploads/documents/2022-Growth-Trends-Report.pdf>.

Conclusions from the report include:

- In 2022, single-family housing permitting dropped to its lowest level (833) since 2017 (816). The decrease comes on the heels of previous years of increasing construction. Greene County had the largest growth in single-family residential units in 2022 (220) for the OTO area followed by Republic (208), Nixa (189), and Ozark (134).
- The total number of multi-family units permitted was slightly higher than the average for the period from 2012 - 2022. Ozark had the most multi-family units added (278) followed by Springfield (235) and Nixa (99) Most multi-family permitting occurred near U.S. Highway 65 in Ozark.
- Natural Increase (births minus deaths) in Greene County has been on the decline over the past decade although births still outnumbered deaths until 2021 which was the first time deaths outnumbered births. Natural increase was the lowest in Christian County in the same year. This is most likely a response to the Covid-19 pandemic.
- The annual average number of jobs in the MSA was lower in 2021 returned to pre-pandemic totals in 2019. Increases occurred in all MSA counties except for Greene which had a slightly lower average annual jobs number than 2019.
- Vehicle miles travelled in the OTO area were up 8.7% in 2021 recovering the decrease of 8.7% in 2020.

If there is additional information that the Technical Planning Committee is interested in seeing in the annual growth trends report, members are asked to let staff know.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

This item is informational only, no action is required.

Growth Trends Report

Through December 31, 2022

2208 W. Chesterfield Blvd, Suite
101

Springfield, Missouri 65807



OZARKS TRANSPORTATION
ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

Disclaimer

The information compiled in this report was retrieved from a variety of sources. Permit data and employment information were derived from federal and local administrative records and should be considered fairly reliable.

It is important to note that demographic information from the American Community Survey is derived from sampling methods used by the U.S. Census Bureau and is reported with a margin of error. For the sake of presentation, margins of error are not included in the tables and charts.

To account for margins of error, five-year comparisons of ACS data and tests for statistical differences are addressed in the narrative sections where appropriate.

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Introduction

Each year, the Ozarks Transportation Organization (OTO) analyzes residential construction activity and demographic information for the MPO study area and member jurisdictions.

This report is comprised of three sections that include tables, charts, and maps along with narrative descriptions of noteworthy trends within the OTO.

This year's report includes information from the U.S. Census Local Employment and Household Dynamics (LEHD) data for the Springfield, MO MSA at the county level.

- Residential Units

Single-family and multi-family residential construction and demolition activity for each jurisdiction within the OTO study area is tabulated and discussed here.

- Growth Trend Maps

Maps displaying the distribution of permitted residential construction within the OTO Study area and county-level migration trends are presented in this section. In addition, In- and out-migration maps are included depicting information from the IRS and other data from the American Community Survey.

- Demographics & Employment

Historical and current population, income, poverty, education, commuting, employment, and workforce statistics are presented in charts and graphs to identify trends.

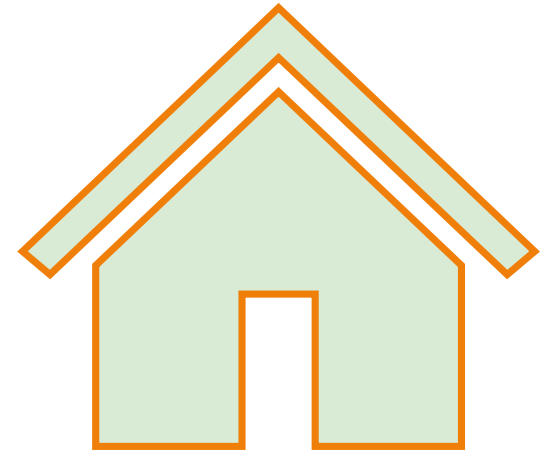
Residential Units

Building Permit Activity

Building permit data for new single-family, duplex, and multi-family structures were collected for each county and municipality in the OTO area during 2022. For the purpose of this report, single-family structures represent one residential unit and any structures divided into more than one residence are counted as multi-family units including duplexes.

In addition, permits for demolitions of existing residential units were included and subtracted from the total of newly constructed residential structures or existing structures converted to residential use to produce a net total of housing units added in each city or county within the OTO area. Only permit activity within the OTO boundary is included for unincorporated portions of counties in this report.

The new housing units added in 2022 for each permitting jurisdiction are compared to the previous ten years of building permit activity by jurisdiction for single-family, multi-family, and total residential units in this section of the report. A table of permit activity in the OTO area from 2001 – 2021 is included as an appendix.



Residential Units

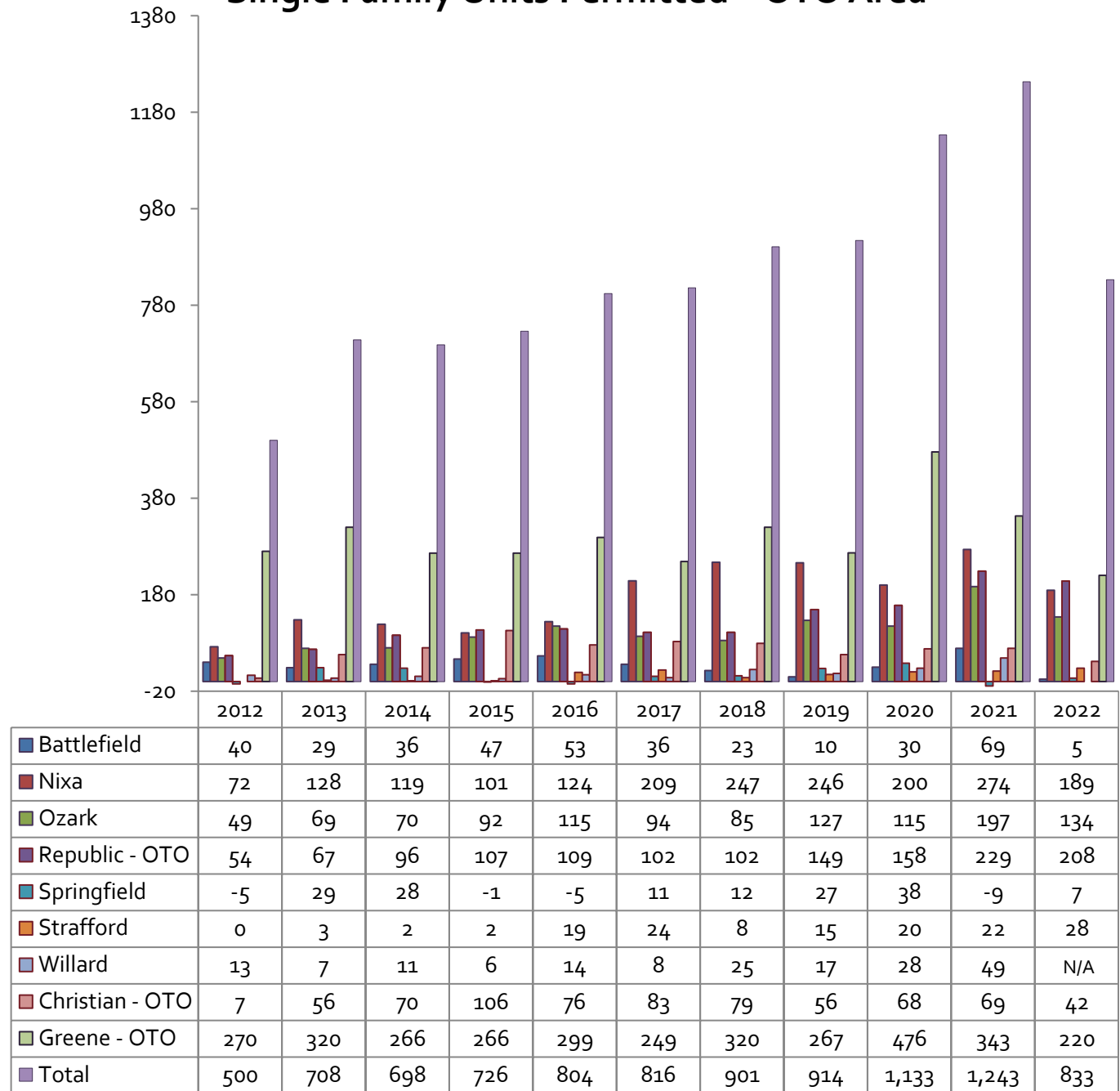
Single-Family

The information on this page depicts permitted construction of single-family housing in the OTO area from 2012 – 2022.

In 2022, single-family housing permitting dropped to its lowest level (833) since 2017 (816). The decrease comes on the heels of previous years of increasing construction.

The permit total for new single-family structures in the OTO Area was offset by the demolition 132 houses. Most demolitions occurred in Springfield (103) and Greene County (17).

Single Family Units Permitted – OTO Area



Residential Units

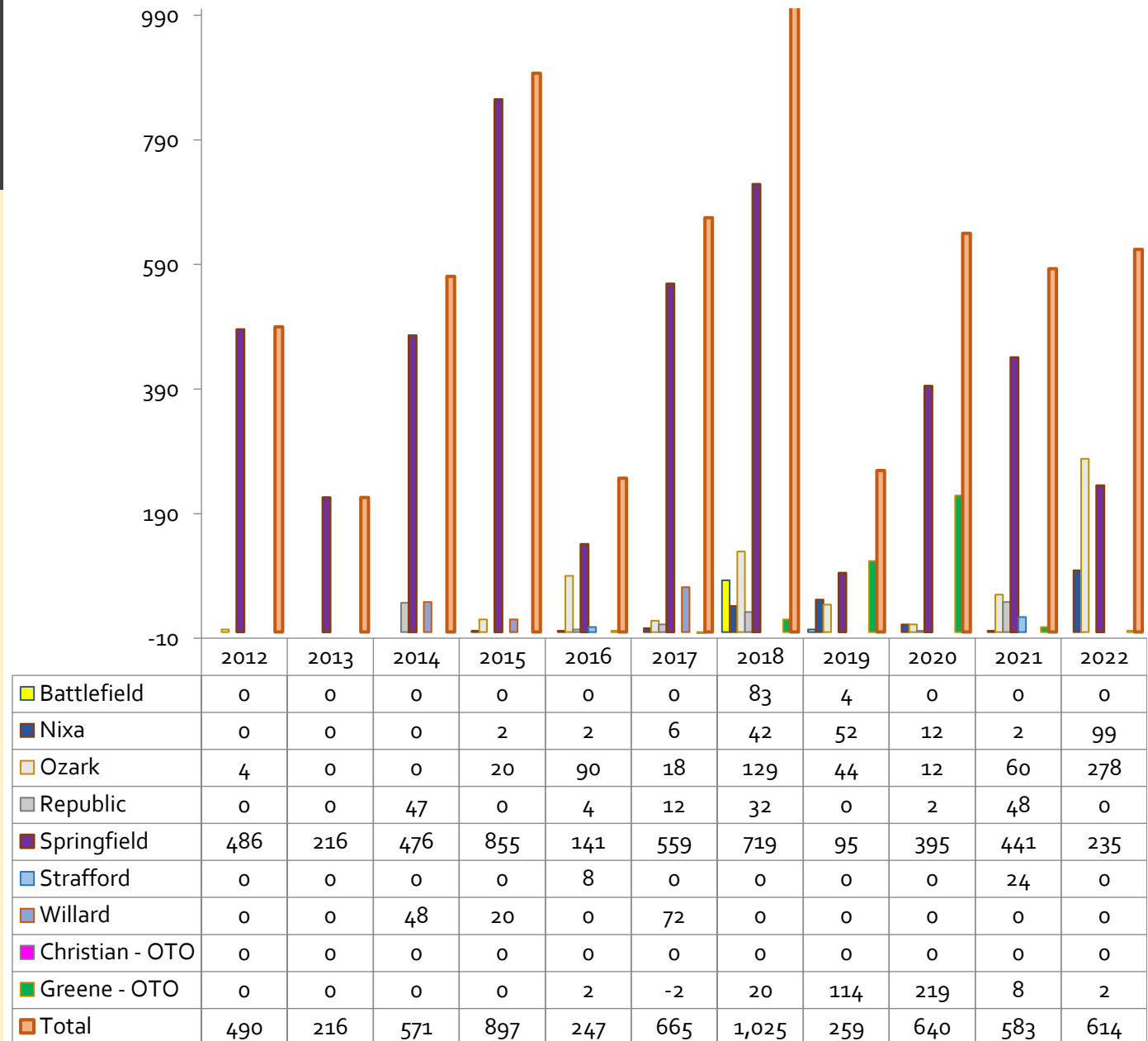
Multi-Family

From 2012 to 2021, most multi-family housing construction permits were issued in the city of Springfield.

In 2022, the total number of multi-family units permitted was slightly higher than the average for the period from 2012 - 2022. The largest number of the 614 multi-family units added in the OTO area were in the city of Ozark followed by Springfield, and Nixa.

The largest multi-family developments permitted were for a 100-unit complexes near US 65 in Ozark and Main & Tracker in Nixa.

Multi-Family Units Permitted - OTO Area



Residential Units Totals

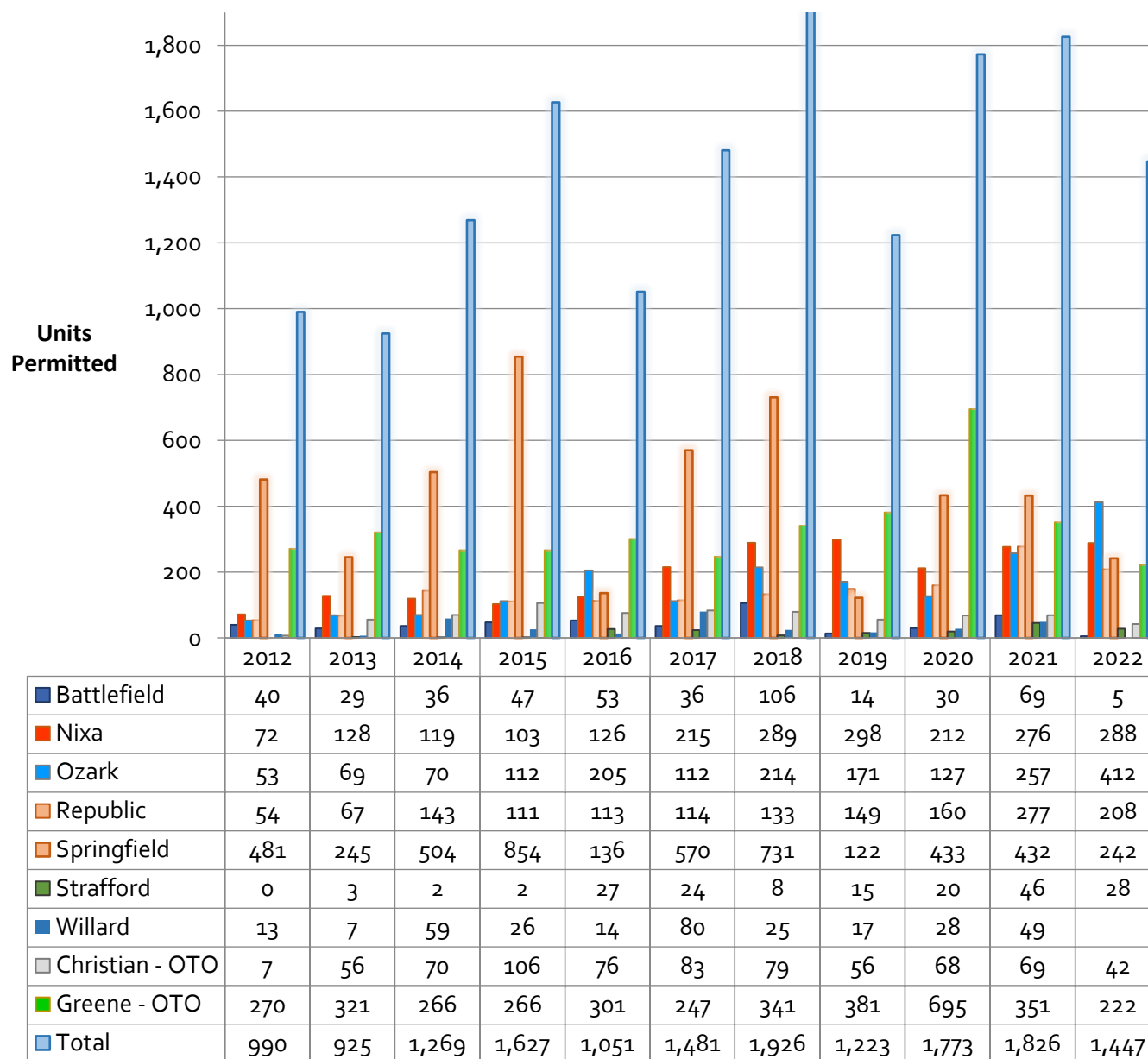
The information on this page depicts the net total of housing units permitted for the entire OTO area and each jurisdiction within it for 2022 and the prior ten years.

While residential unit construction peaked in the mid-2000s, it had dropped considerably by 2011 during the “great recession” (see Appendix A).

Growth in residential structure permits recovered somewhat in the last few years driven by single-family developments in Nixa, Republic, Greene County & 55+ developments.

In 2022, however, the number of single-family residential structures permitted dropped well below previous years.

OTO Area Total Residential Units Permitted



Growth Trend Maps

Changes in Housing Units

The maps on the following pages illustrate the locations of housing units added in 2022 as well as the period from 2010 to 2022.

Additionally, heat map symbology has been added to demonstrate densities of new residential structure development. A layer of geocoded permit address points aggregated into a grid of hexagons was added as an overlay to provide more information about the location and magnitude of residential development in 2022 as well as 2010 - 2022.

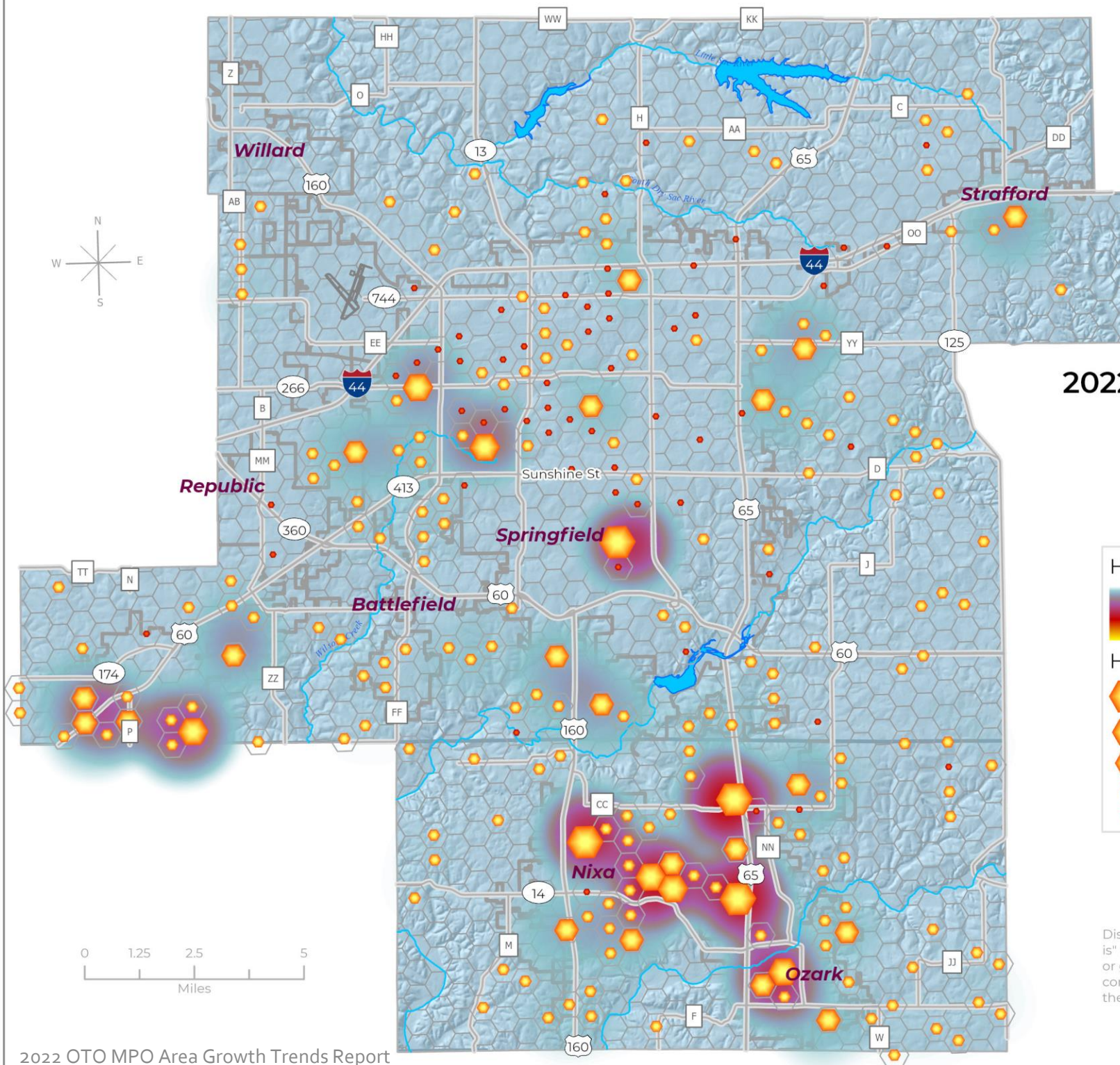
Migration Flows

County-to-County flow maps for in- and out-migration to and from Greene and Christian counties prepared with IRS tax statistics from 2019 – 2020 are included. In addition, migration flows based on the American Community Survey 5-yr estimates for 2011 – 2015 & 2016 -2020 aggregated at the state-level are included to identify trends in migration over the last decade of available data .





2022 Housing Permit Heat Map



Housing Unit Density

Sparse

Dense

Housing Units Added

120 - 70

70 - 35

35 - 10

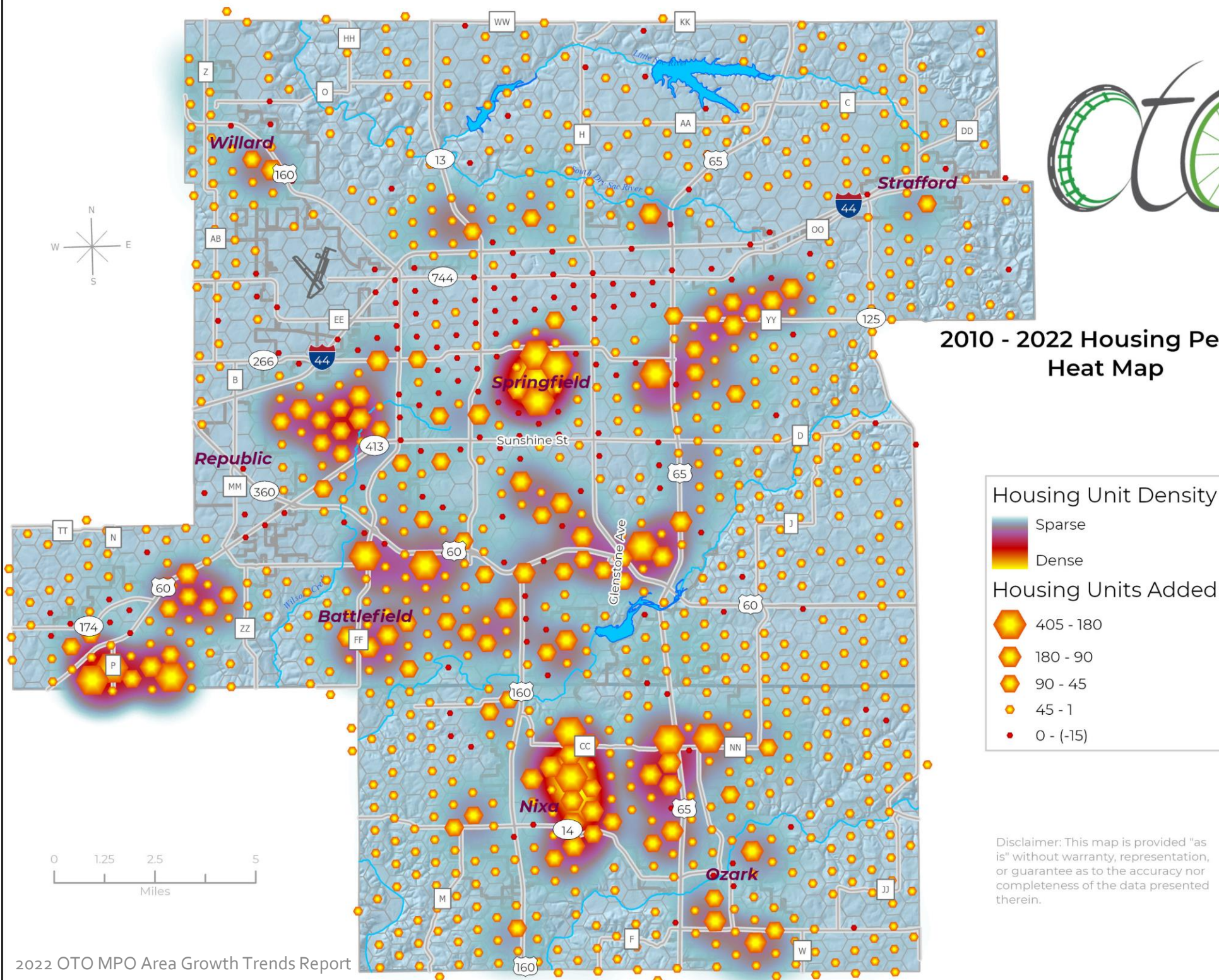
10 - 1

-1 - -10

Disclaimer: This map is provided "as is" without warranty, representation, or guarantee as to the accuracy nor completeness of the data presented therein.



2010 - 2022 Housing Permit Heat Map



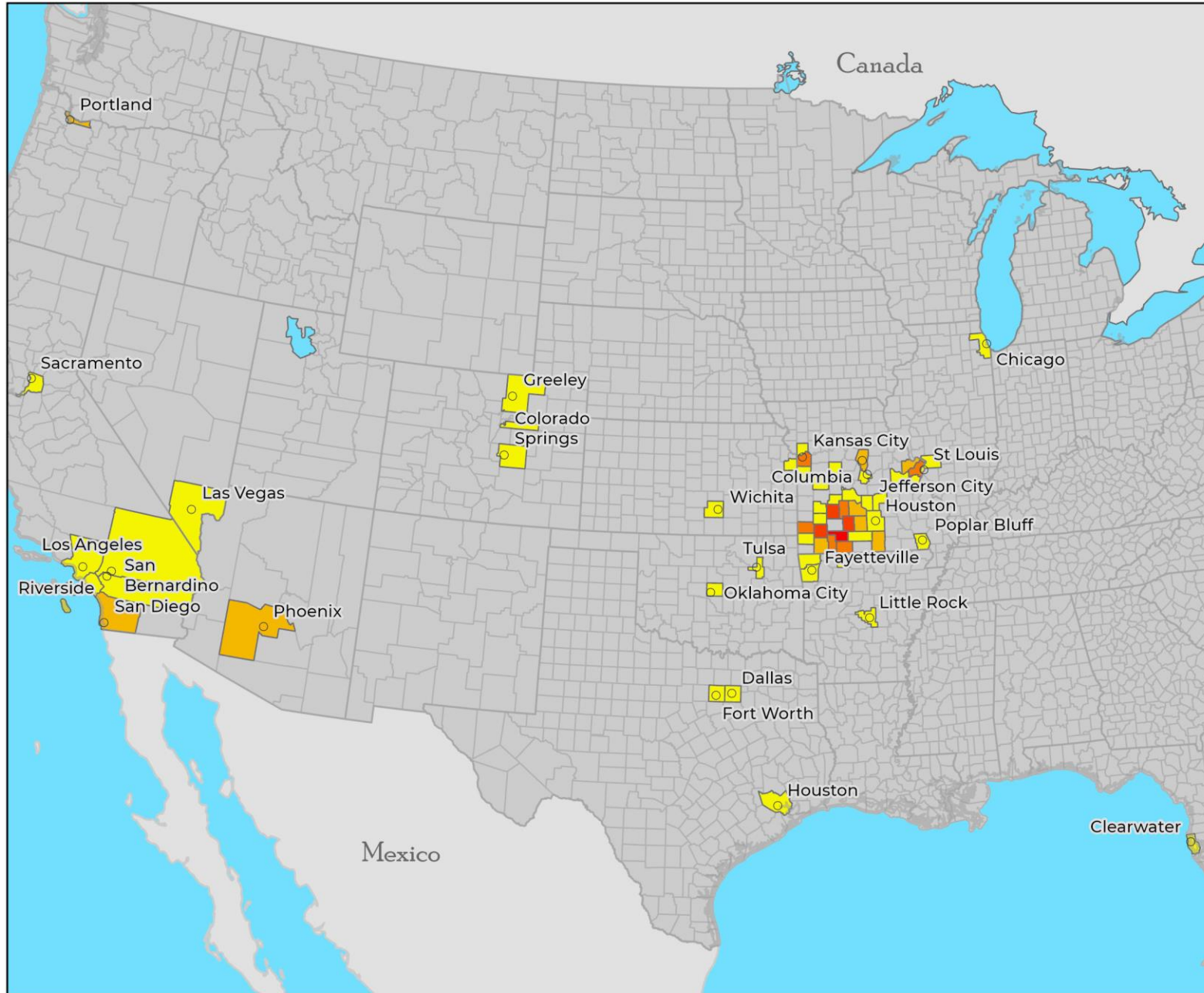
Greene County Migration Flow by State

2015 ACS 5-yr Estimates			
IN-Migrants		OUT-Migrants	
Missouri	16,305	Missouri	10,851
Texas	725	Arkansas	820
Illinois	676	Kansas	737
Kansas	642	California	617
Oklahoma	560	Oklahoma	514
California	533	Florida	455
Arkansas	457	Illinois	451
Colorado	429	Texas	430
Ohio	405	Michigan	300
Virginia	271	Colorado	282
North Carolina	258	Arizona	214

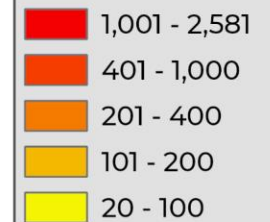
2020 ACS 5-yr Estimates			
IN-Migrants		OUT-Migrants	
Missouri	13,671	Missouri	10,626
Arkansas	726	Texas	1,117
Illinois	717	California	697
Texas	691	Kansas	626
California	548	Arkansas	521
Kansas	473	Florida	451
Florida	427	Illinois	435
Oklahoma	330	Wisconsin	409
Alaska	323	Oklahoma	394
Iowa	294	Colorado	278
Ohio	176	New York	210

IRS Migration Statistics

County-to-County Inflow Greene County 2019-2020



County Inflows



Returns Filed: 8,118
 Total Exemptions: 15,228
 Total Income*: \$395,855,000
 Income per Return: \$48,762
 *Adjusted Gross Income

Regional inflow from other counties that did not meet a 20 return threshold:

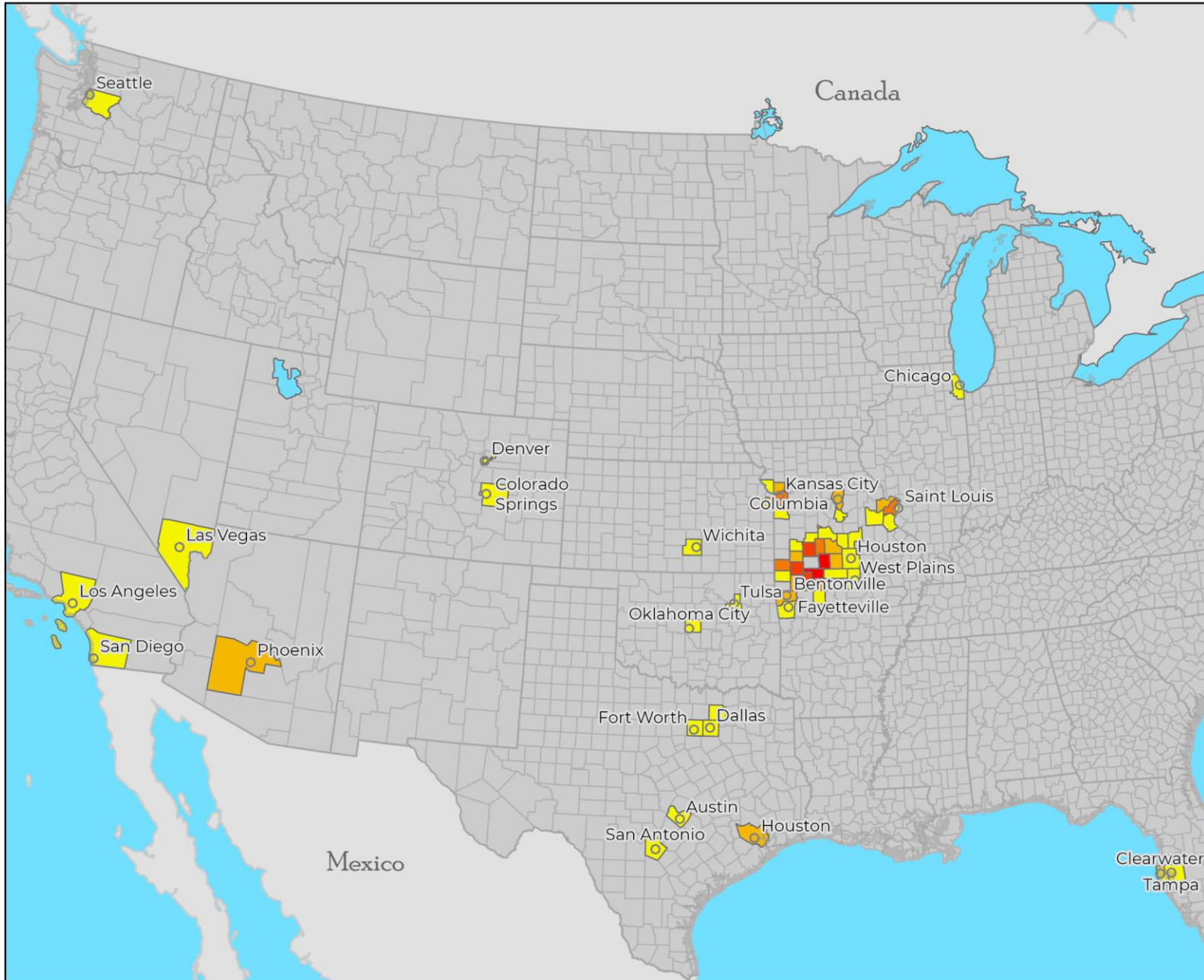
Northeast - 261
 Midwest - 1,310
 South - 2,143
 West - 1,223

Source: Internal Revenue Service
<https://www.irs.gov/statistics/soi-tax-stats-migration-data>
 Disclaimer: This map is provided without warranty, representation, or guarantee as to the accuracy and completeness of the data presented therein.

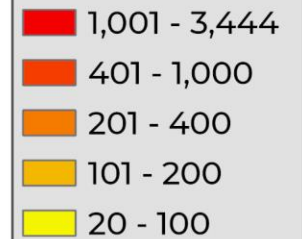


IRS Migration Statistics

County-to-County Outflow Greene County 2019-2020



County Outflows



Returns Filed: 8,570
 Total Exemptions: 16,404
 Total Income*: \$417,708,000
 Income per Return: \$48,740
 *Adjusted Gross Income

Regional outflow to other counties that did not meet a 20 return threshold:

Northeast - 199
 Midwest - 1,140
 South - 2,165
 West - 830

Source: Internal Revenue Service
<https://www.irs.gov/statistics/soi-tax-stats-migration-data>
 Disclaimer: This map is provided without warranty, representation, or guarantee as to the accuracy and completeness of the data presented therein.



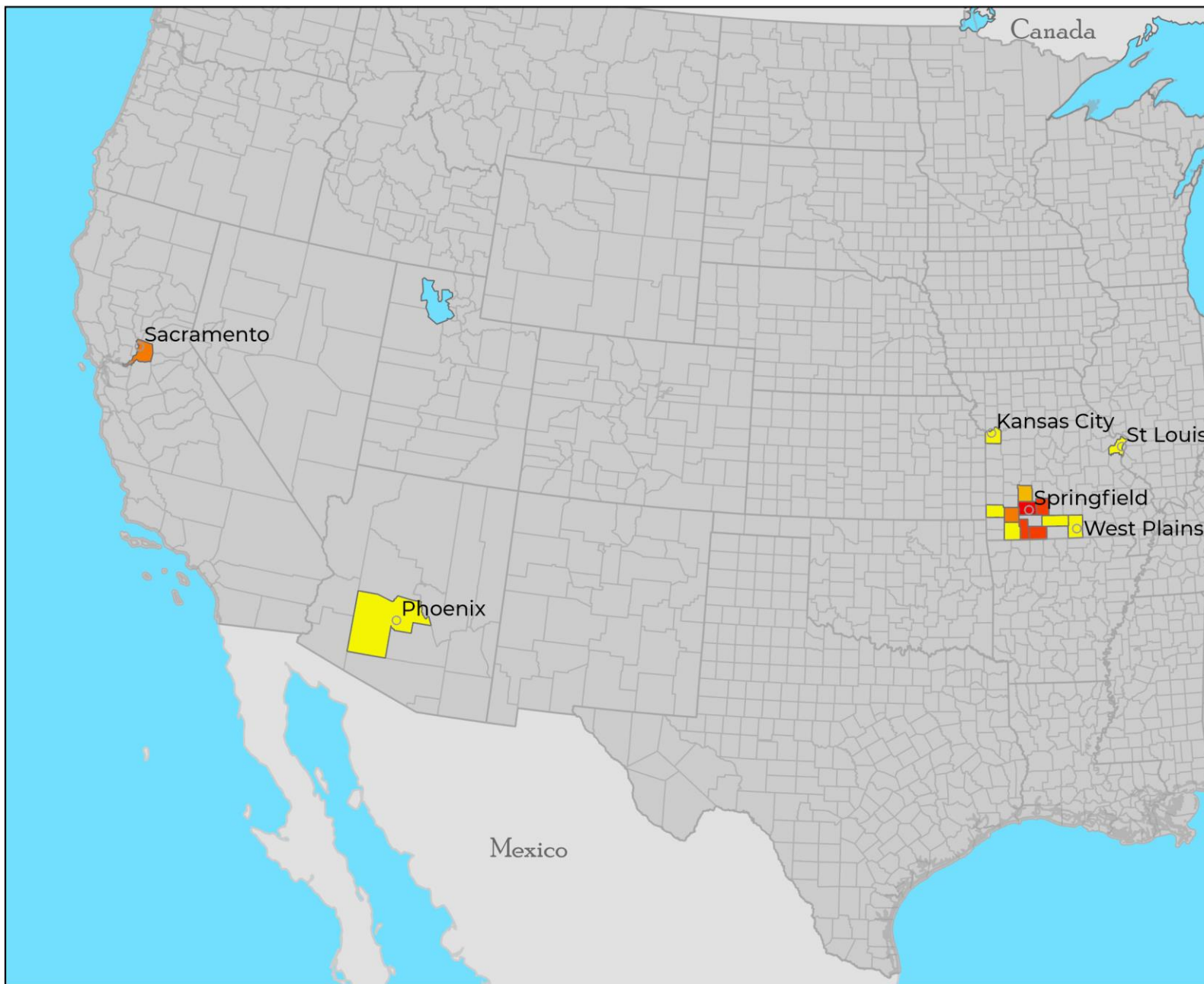
Christian County Migration Flow by State

2015 ACS 5-yr Estimates			
IN-Migrants		OUT-Migrants	
Missouri	4,685	Missouri	4,627
Kansas	213	Arkansas	158
Florida	180	Colorado	155
Illinois	173	Florida	122
Oklahoma	124	Texas	119
Arkansas	113	Washington	103
California	110	Kansas	101
Georgia	106	Virginia	95
Oregon	99	California	88
New Hampshire	89	Wisconsin	74
Colorado	83	Ohio	68

2020 ACS 5-yr Estimates			
IN-Migrants		OUT-Migrants	
Missouri	4,223	Missouri	3,828
Texas	327	Texas	195
California	291	Oklahoma	193
Wisconsin	254	Hawaii	134
Illinois	166	Arkansas	116
Georgia	150	Tennessee	70
Oklahoma	93	Wisconsin	57
Arkansas	87	North Carolina	53
Tennessee	64	Arizona	50
Oregon	61	Florida	45
Utah	59	Virginia	38

IRS Migration Statistics

County-to-County Inflow Christian County 2019-2020



County Inflow	
■	401 - 3,444
■	201 - 400
■	101 - 200
■	63 - 100
■	36 - 62

Returns Filed: 3,688
 Total Exemptions: 8,235
 Total Income*: \$219,188,000
 Income per Return: \$59,430
 *Adjusted Gross Income

Regional inflow from other counties that did not meet a 20 return threshold:

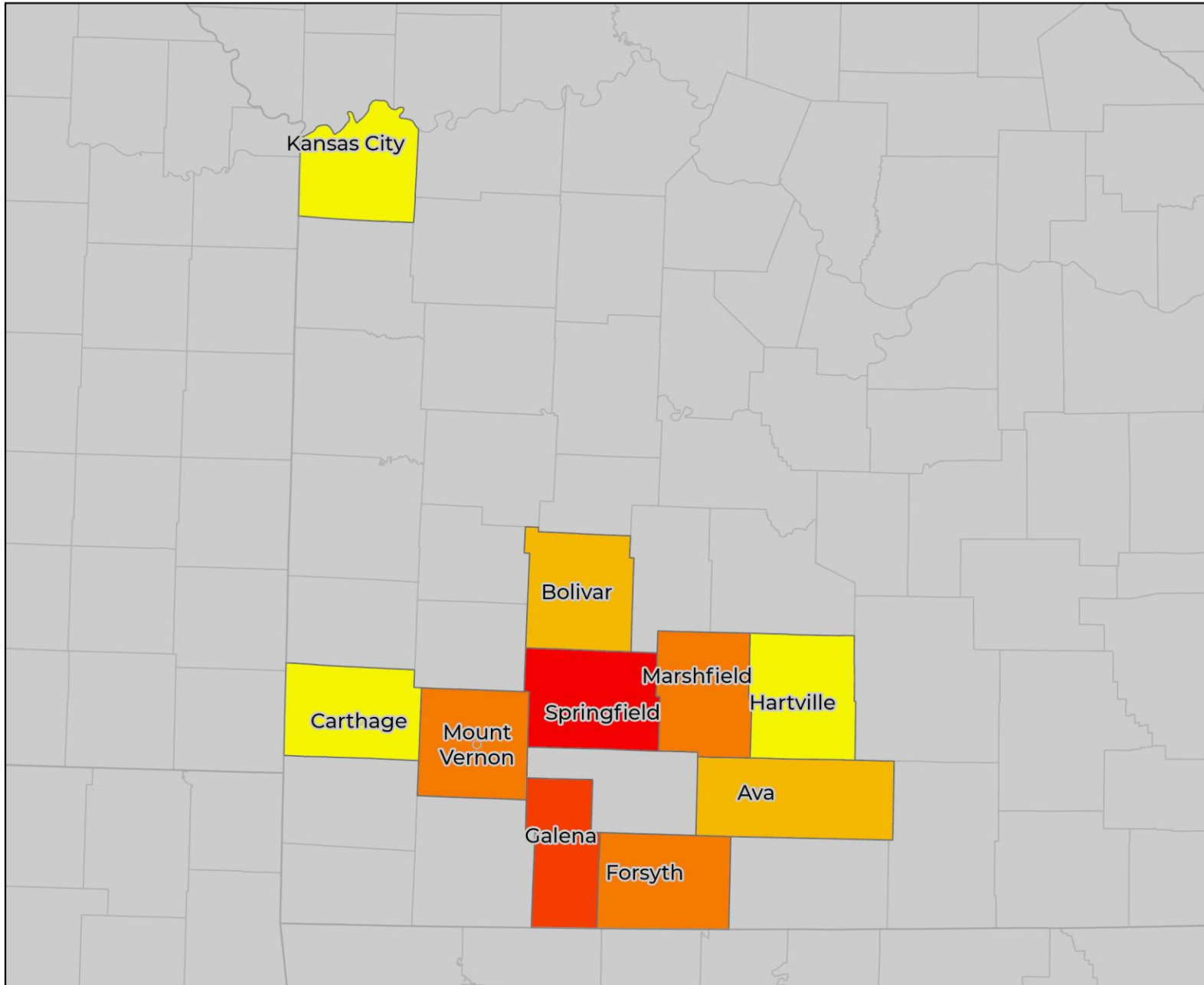
Northeast - 97
 Midwest - 607
 South - 1,050
 West - 745

Source: Internal Revenue Service
<https://www.irs.gov/statistics/soi-tax-stats-migration-data>
 Disclaimer: This map is provided without warranty, representation, or guarantee as to the accuracy and completeness of the data presented therein.



IRS Migration Statistics

County-to-County Outflow Christian County 2019-2020



County Outflows	
	401 - 2,581
	276 - 400
	101 - 275
	59 - 100
	43 - 58

Returns Filed: 3,049
 Total Exemptions: 6,165
 Total Income*: \$162,376,000
 Income per Return: \$53,255
 *Adjusted Gross Income

Regional outflows from other counties that did not meet a 20 return threshold:

Northeast - 44
 Midwest - 387
 South - 904
 West - 311

Source: Internal Revenue Service
<https://www.irs.gov/statistics/soi-tax-stats-migration-data>
 Disclaimer: This map is provided without warranty, representation, or guarantee as to the accuracy and completeness of the data presented therein.



Demographics & Employment

Population Change

This section contains information about the population of the Springfield, Missouri Metropolitan Statistical Area (MSA). The Springfield MSA is made up of Christian, Dallas, Greene, Polk, and Webster counties in southwest Missouri. Metropolitan Statistical Areas are designated by the U.S. Census Bureau based on the economic ties to a large population center. The number of commuters from the five counties in the MSA that are employed in the OTO area have a tremendous impact on the transportation system and local economies.

The OTO prepares the Growth Trends report annually to keep stakeholders and the public informed of changes and trends in population and employment aimed at facilitating cooperative decision making in support of an excellent regional transportation system.

Other transportation related demographics for municipalities and counties in the OTO area as well as the MSA, such as population growth, income, poverty, mean travel time, workforce by industry, and job growth by jurisdiction are presented in this section.



Springfield MSA

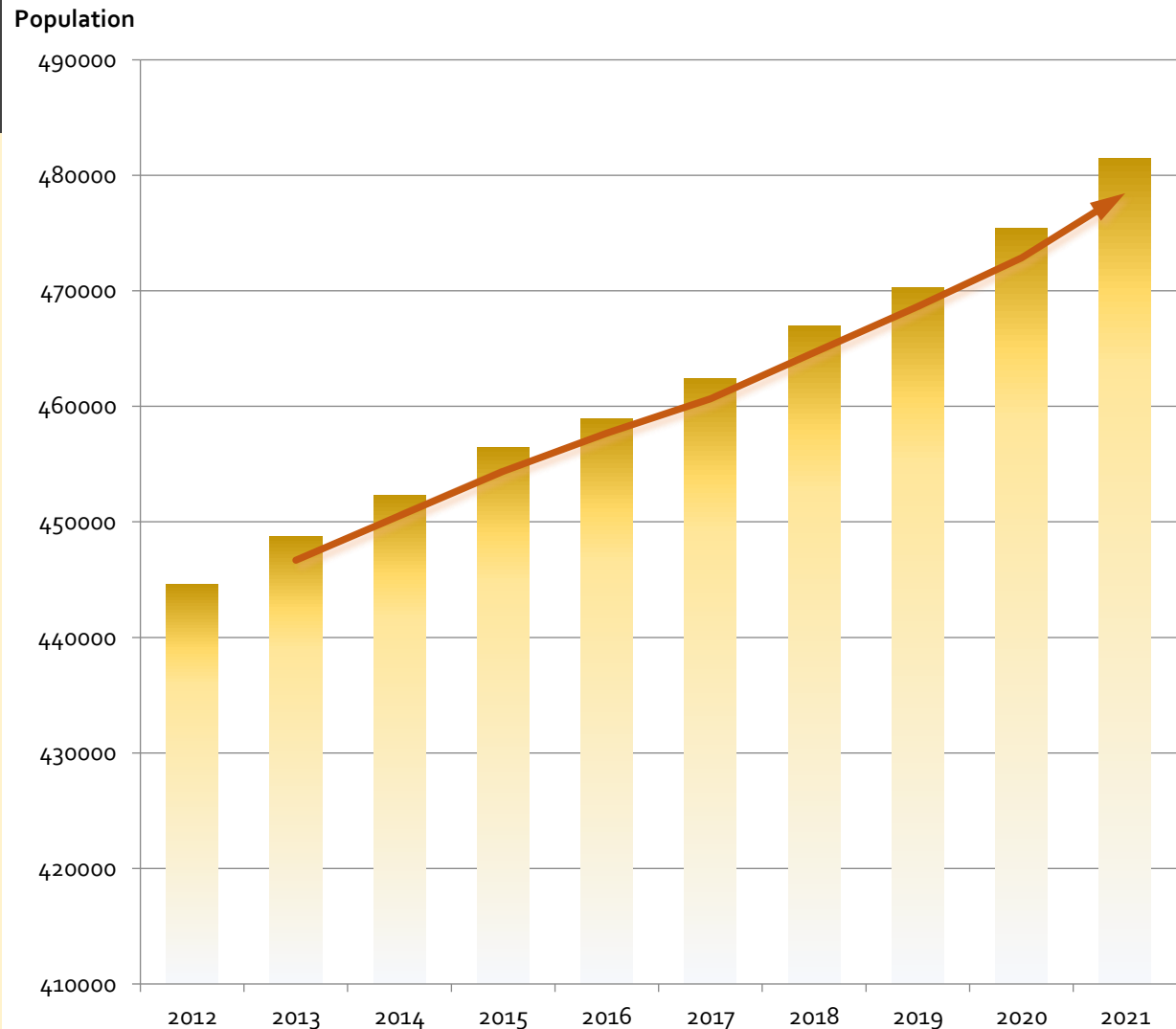
The Springfield, Missouri Metropolitan Statistical Area (MSA) includes Greene, Christian, Webster, Polk, and Dallas Counties.

The chart on this page shows the steady increase of the combined MSA county populations.

From 2012 to 2021, the MSA population has increased from 444,617 to 481,483. Increasing 8.2%, equaling a 0.82% annual rate of growth.

Using the rule of 70, at an annual growth percent of 0.82, it will take the Springfield MSA over 85 years to double in population to 962,966.

Springfield MSA Population (Greene, Christian, Webster, Polk and Dallas Counties) Source: U.S. Census Bureau Population Estimates Program & 2020 Decennial Census



Springfield MSA

Continued

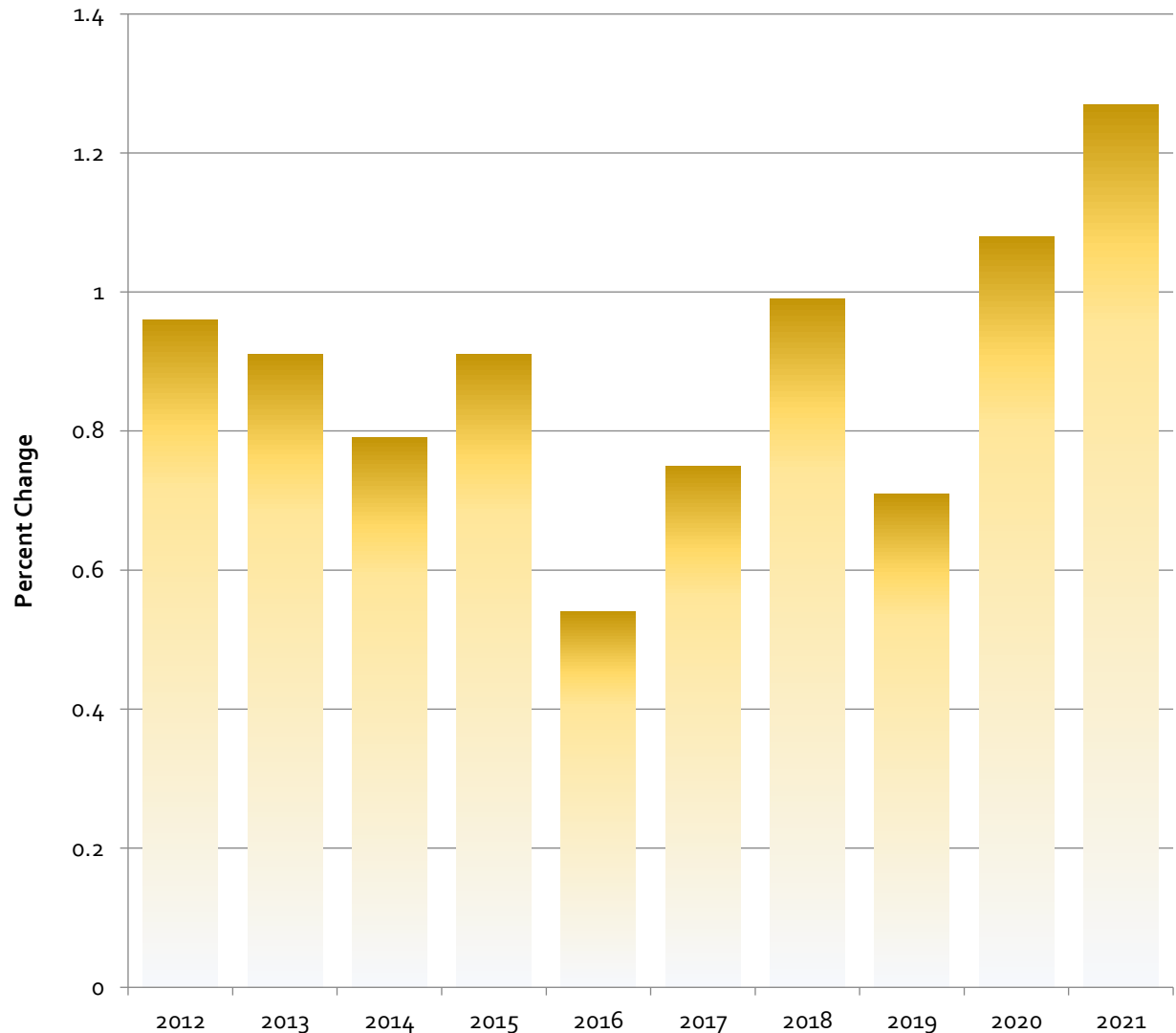
Information for the year-over-year population percent change for the five-county Springfield MSA is presented here.

Although population growth within the MSA has been consistently positive, the percent of change varies from year-to-year. The highest year-over-year percent change during the 10-year period from 2012 to 2021 was from 2020 to 2021.

The lowest year-over-year percent change was from 2015 to 2016 at 0.52%. The percent change in population from 2019 to 2020 is the first time it had been over 1% since 2009 to 2010.

Year-over-Year Population Percent Change Springfield MSA

Source: US Census Bureau Population Estimates Program & 2020 Decennial Census



Individual Counties

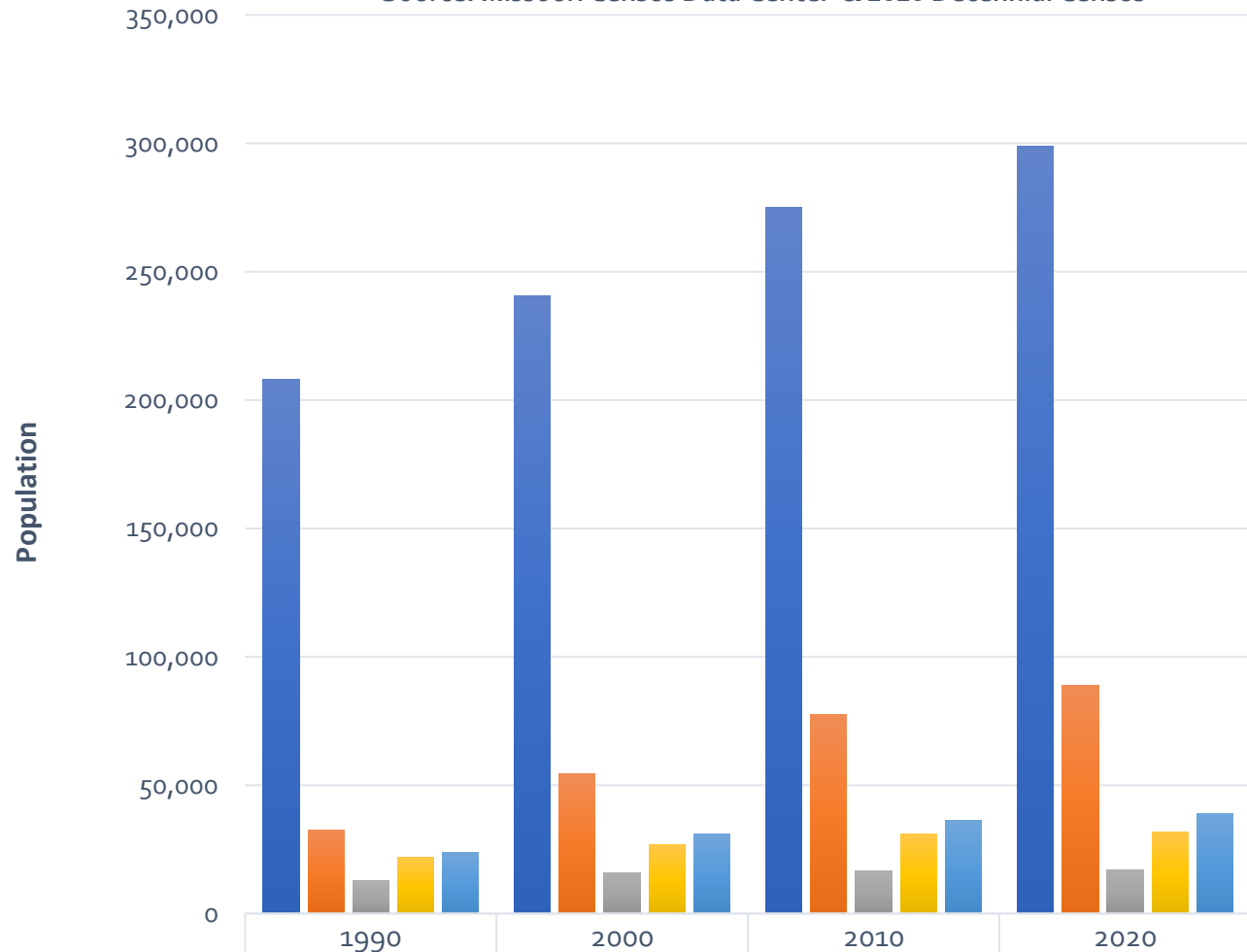
The chart on this page shows population growth for individual counties in the Springfield MSA for each decennial census from 1990 to 2020.

Christian county was the fastest growing county in the MSA in terms of percent change during the 30-year period adding 56,198 people. Greene county grew the most in terms of raw numbers adding 90,966 people.

Since 2010, the proportion of the total MSA population has decreased for Greene, Dallas, and Polk, counties while increasing for Christian and remaining constant in Webster counties.

Population Increase Springfield MSA Counties 1990-2020

Source: Missouri Census Data Center & 2020 Decennial Census



■ Greene County	207,949	240,391	275,174	298,915
■ Christian County	32,644	54,285	77,422	88,842
■ Dallas County	12,646	15,661	16,777	17,071
■ Polk County	21,826	26,992	31,137	31,519
■ Webster County	23,753	31,045	36,202	39,085

Cities in the OTO Area

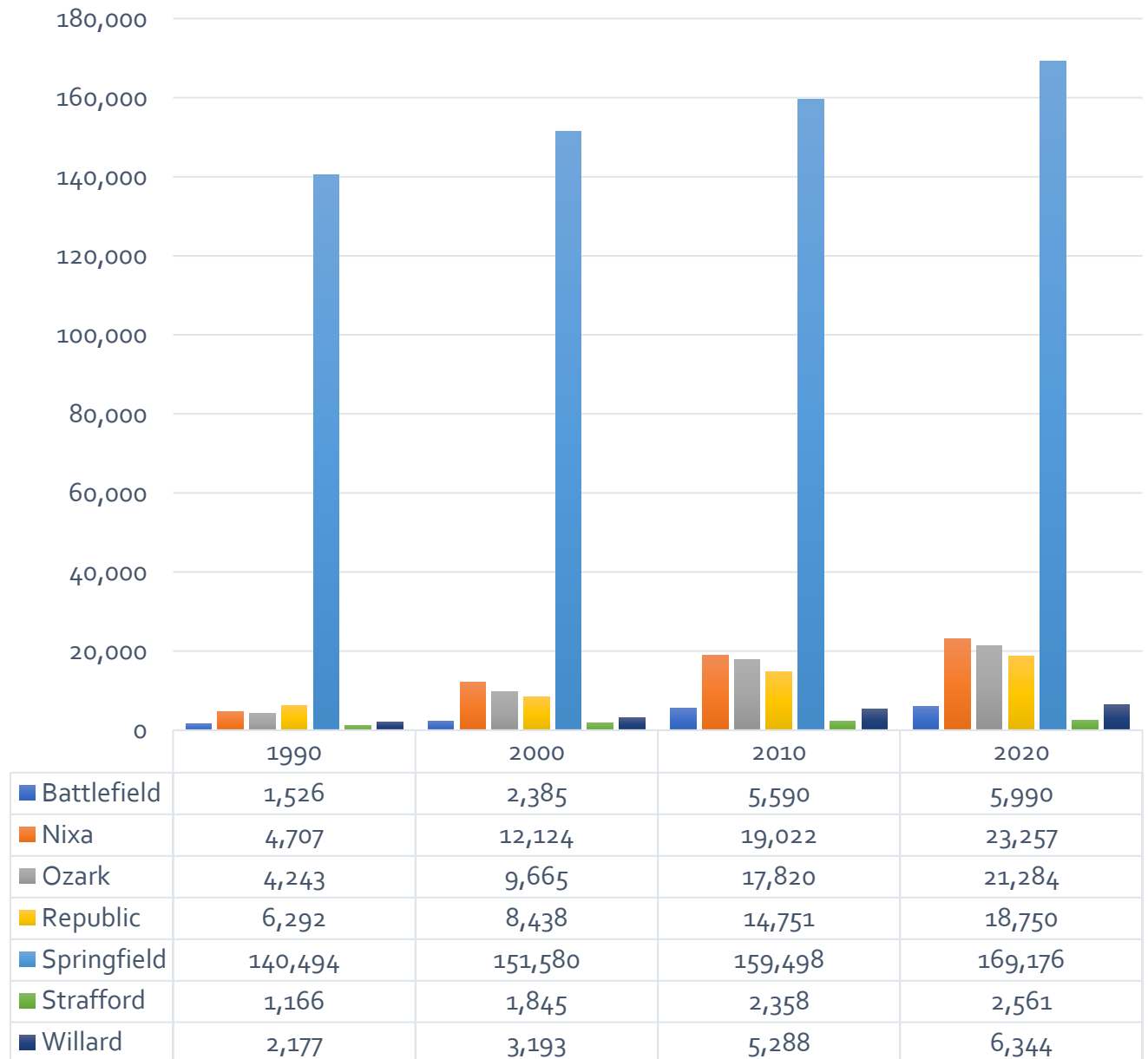
The information on this page shows population growth for cities within the OTO area from 1990 to 2020.

The City of Springfield has experienced steady growth since 2010 adding the most people (9,678) over the past decade to its population and remains the employment and activity hub for the OTO area.

Over three times as many people were added in cities other than Springfield from 2000 to 2010, 27,179 to 7,918.

During the period from 2010 to 2020, all cities other than Springfield added 13,357 people combined.

Population Growth for Cities in the OTO Area From 1990 to 2020



Cities in the OTO Area

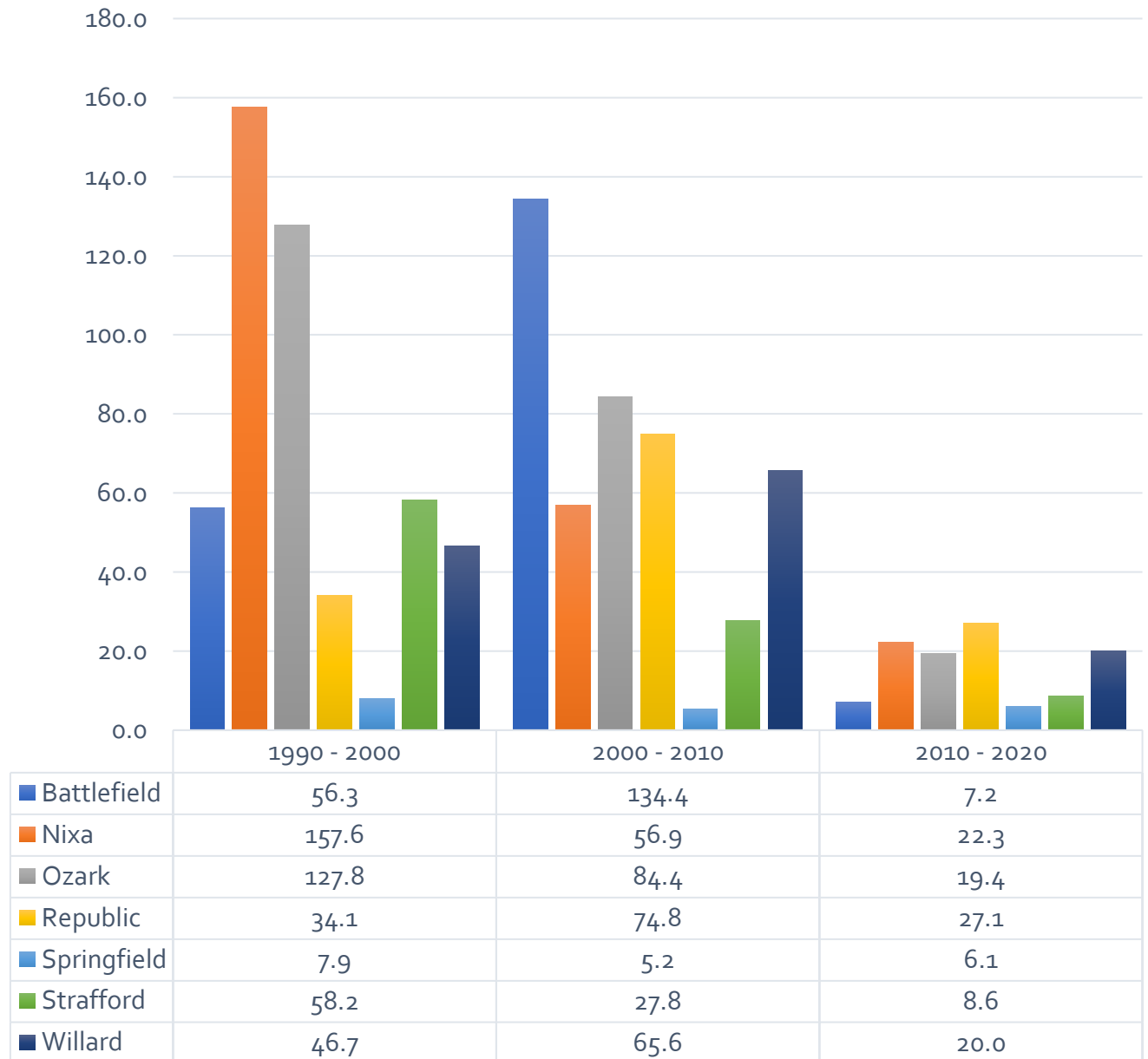
The information on this page shows population percent change for cities within the OTO for each decade from 1990 to 2020.

Although the City of Springfield has the most people to its population than any other city in each decade, its rate of growth has been the smallest.

This chart demonstrates the rapid growth in cities outside of Springfield in the 1990s and 2000s. These decades mark a period of urban sprawl in the metro area.

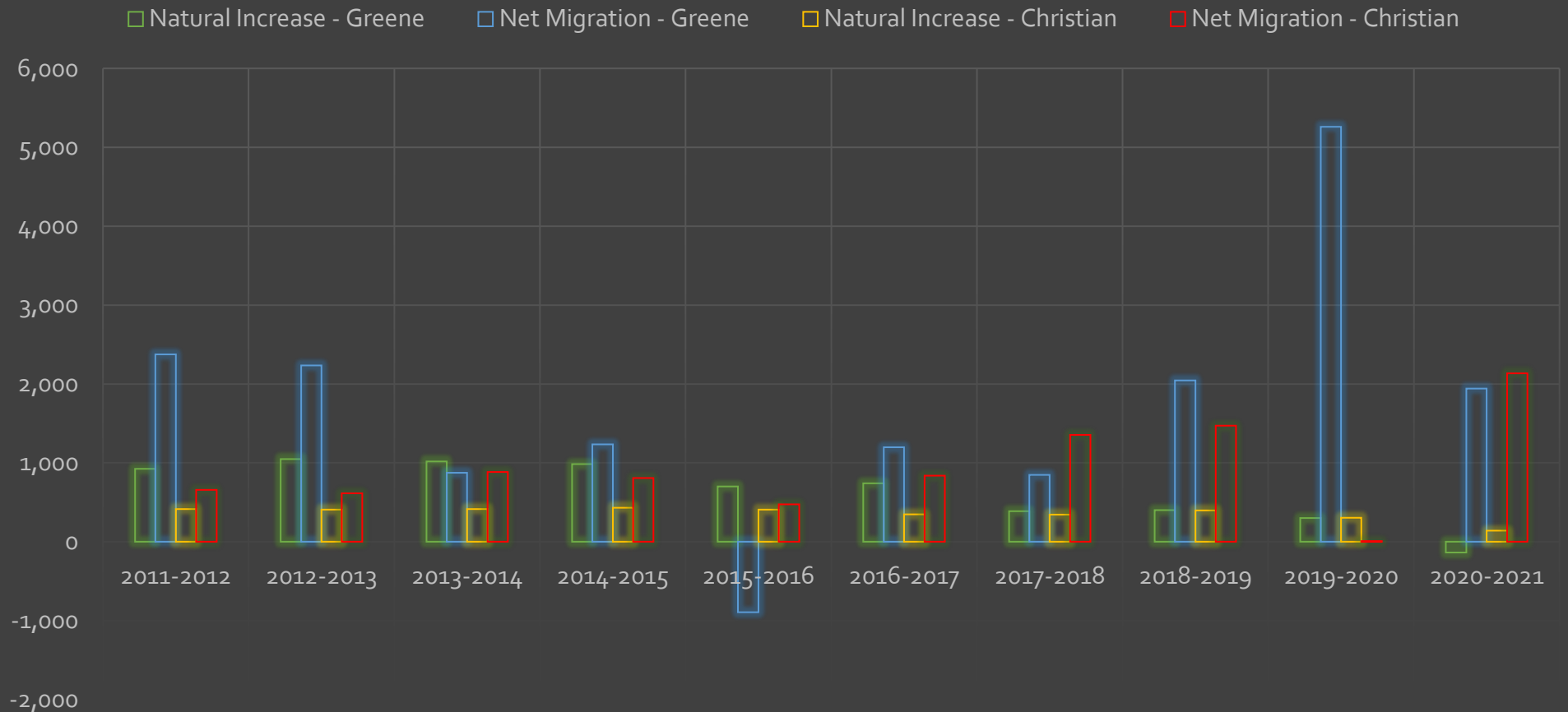
From 2010 – 2020, all cities experienced a significant decline in the rate of growth from prior decades apart from Springfield where the growth rate increased from the previous decade.

Population Percent Change for Cities in the OTO Area by Decade from 1990 to 2020



Components of Population Change

US Census Bureau Population & Housing Estimates



Natural Increase & Net Migration

Components of population change for Greene and Christian counties from 2011 to 2021 are presented on this page. Natural Increase, births minus deaths, in Greene County has been on the decline over the past decade although births still outnumbered deaths until 2021 which was the first time deaths outnumbered births. Natural increase was the lowest in Christian County in the same year. This is most likely a response to the Covid-19 pandemic. Net migration has been steadily climbing since reaching a low point in 2016 for both counties apart from 2019 to 2020. The extreme outliers for both counties during this period is due to the Covid-19 pandemic.

Median Household Income

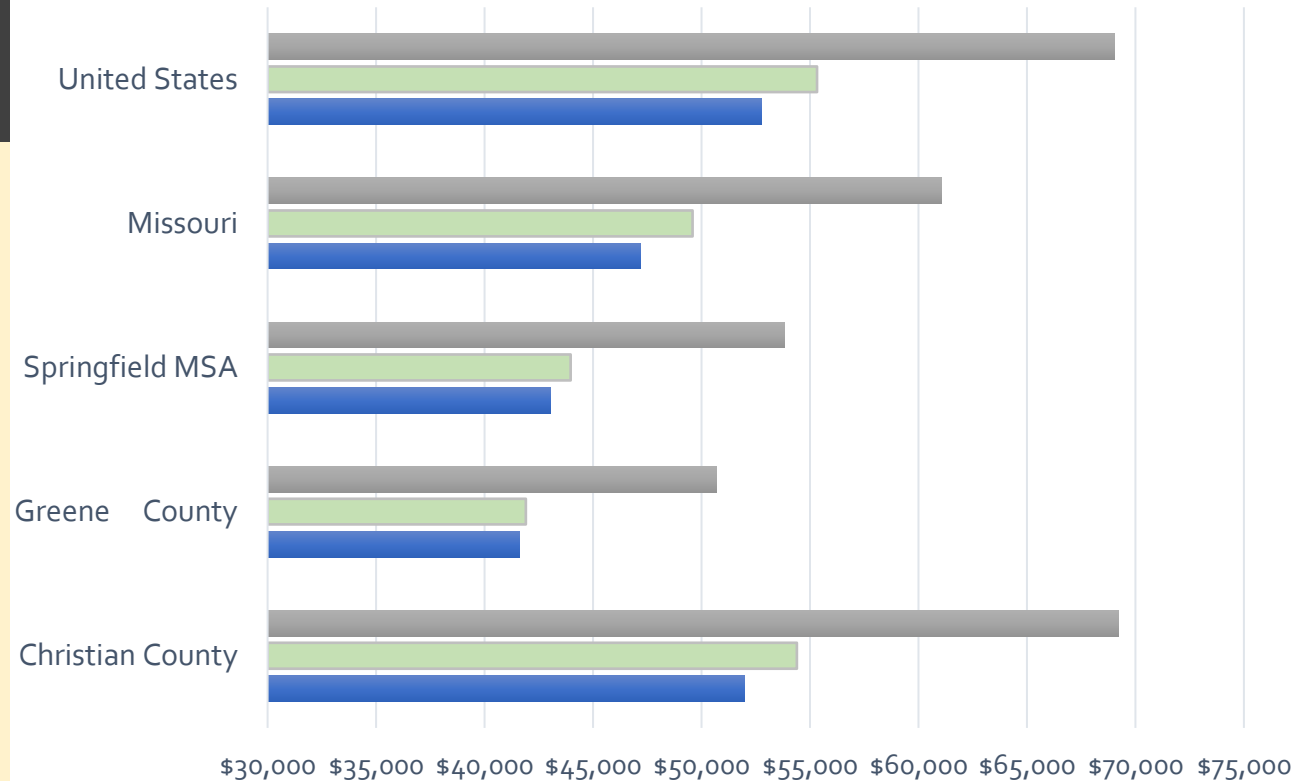
Median household income for Greene and Christian Counties, the Springfield MSA, Missouri, and the United States for each year from 2011, 2016, & 2021 American Community Survey 5-year estimates are presented here.

The ACS estimates are based on sampling and are reported within a margin of error. The ACS estimates should only be compared at 5-year intervals to ensure the population sampled is not included in any other survey.

A comparison of survey estimates between survey years indicates that the rise in median household incomes is statistically different in 2021. Based on the sample margins of error, the median income of households in all geographies is significantly higher than 2011 & 2016 estimates and even outpace the rate of inflation.

Median Household Income Springfield MSA Counties

Source: American Community Survey 5-Year Estimates



	Christian County	Greene County	Springfield MSA	Missouri	United States
2021	\$69,212	\$50,682	\$53,827	\$61,043	\$69,021
2016	\$54,392	\$41,908	\$43,973	\$49,593	\$55,322
2011	\$51,961	\$41,622	\$43,042	\$47,202	\$52,762

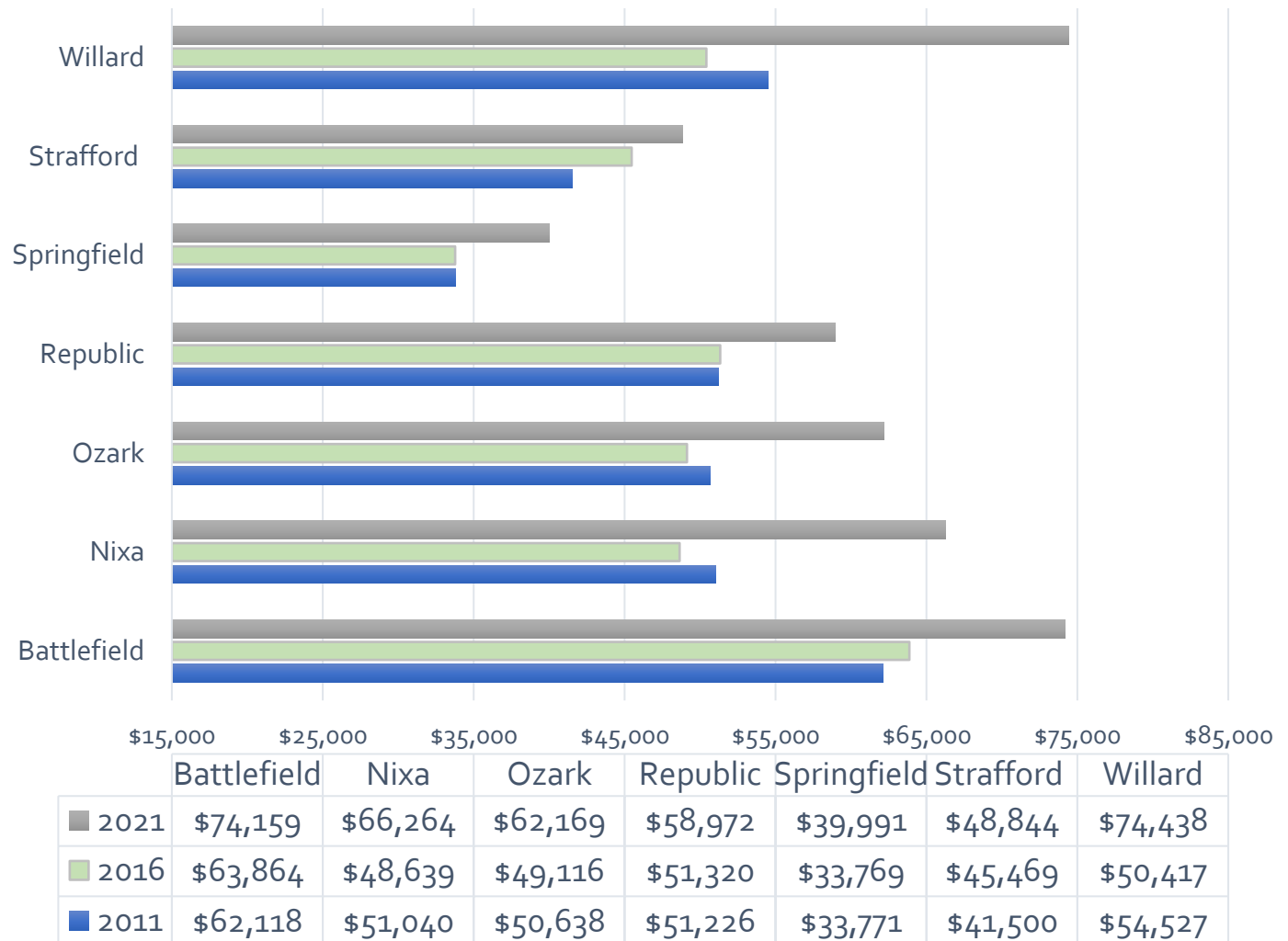
Median Household Income

The chart to the right shows median household income for each city within the OTO planning area.

The ACS estimate for 2021 is higher for all cities. However, there is no statistical difference in any of the estimates for Republic or Strafford. In the cases of Springfield, Battlefield, Ozark, Nixa, & Willard there is no significant difference between 2011 & 2016, but the 2021 estimate is statistically different from the earlier five-year samples.

Median Household Income OTO Area Cities

Source: American Community Survey 5-Year Estimates



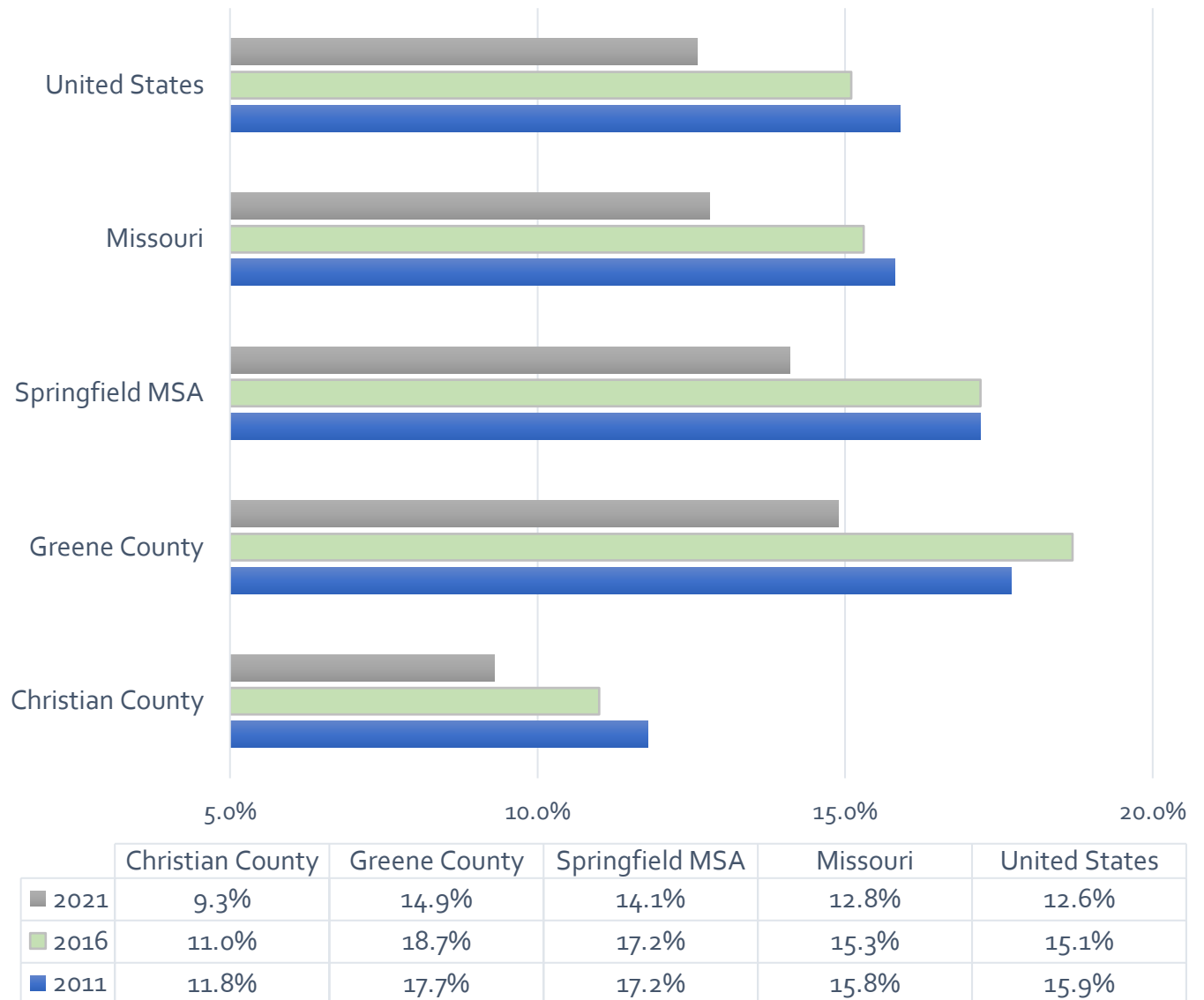
Individuals Living Below Poverty

In 2021, the percentage of people living at or below the poverty level had dropped below 2011 & 2016 levels for the US & Missouri. This represents a near complete recovery from the surge of people living at or below poverty resulting from the great recession.

Survey estimates for 2021 are statistically different from 2011 & 2016 estimates for all geographies. This indicates that percentages of people living below poverty level were reduced over the past decade but also impacted by financial stimulus during the pandemic.

Persons Living Below Poverty Level Springfield, MO MSA and Counties

American Community Survey 5-Year Estimates



Children Living in Poverty

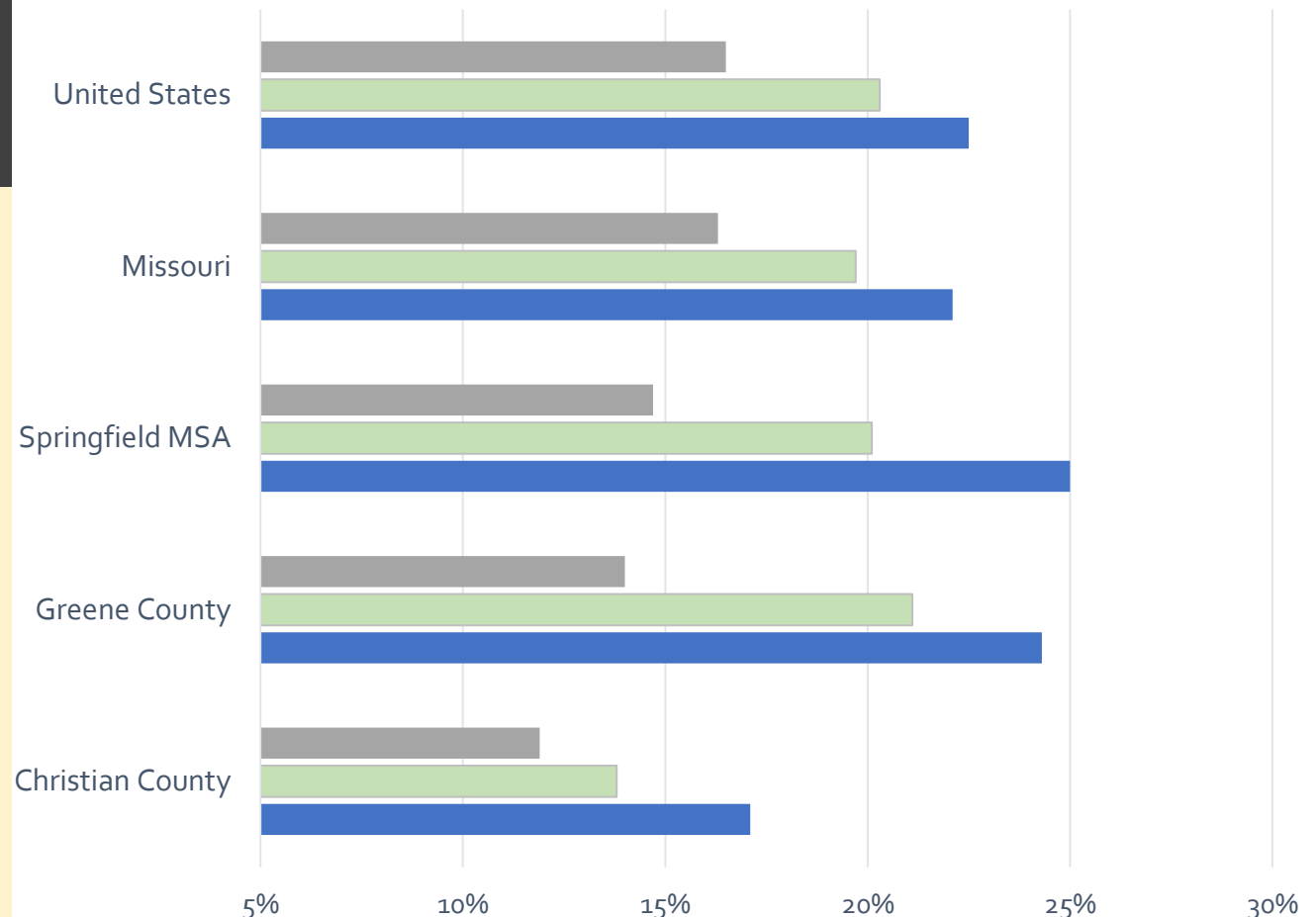
Estimates for the number of Children ages 17 and younger living at or below the poverty level for the Springfield MSA, Greene, and Christian Counties are compared with Missouri and the United States in the chart.

The estimates for the percentage of children living at or below the poverty level in 2011 & 2016 samples are not statistically different across all geographies. The five-year estimates for 2016 are significantly different from the 2021 sample in all geographies.

This indicates that children living at or below poverty level has returned to pre-recession levels or better across the board.

Children Living in Poverty

Source: American Community Survey 5-Year Estimates



	Christian County	Greene County	Springfield MSA	Missouri	United States
2021	11.9%	14.0%	14.7%	16.3%	16.5%
2016	13.8%	21.1%	20.1%	19.7%	20.3%
2011	17.1%	24.3%	25.0%	22.1%	22.5%

Workforce Education Levels

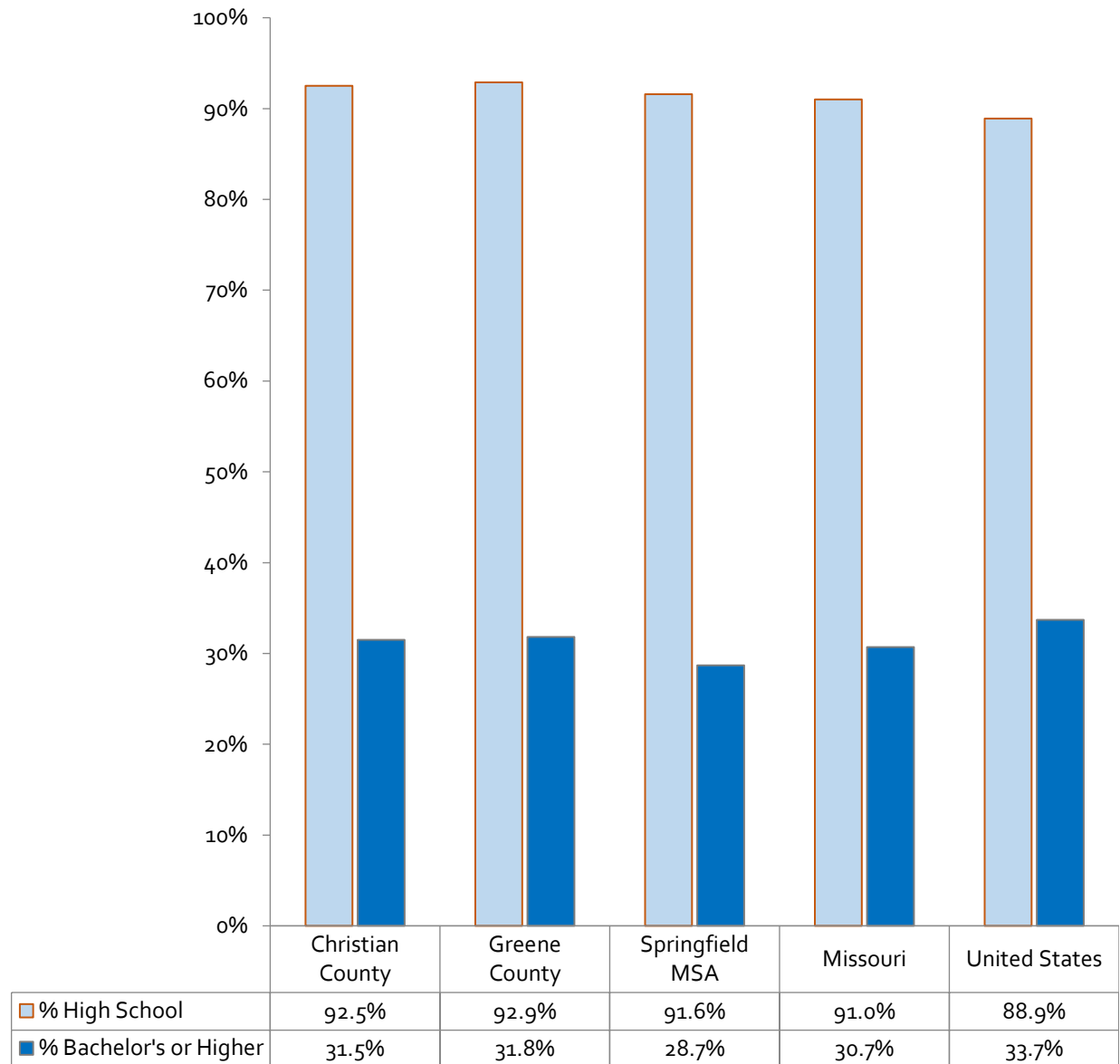
Workforce education levels affect employment and earning levels within communities.

Christian and Greene Counties have higher percentages of residents 25 years of age or older with a high school diploma than the MSA, State, or the U.S. Greene County has the higher percentage of residents 25 years of age or older with a four-year college degree at 31.5 percent compared to all other geographies except for the U.S.

The Springfield MSA as a whole, has the lowest percentage of people over 25 with a bachelor's degree or higher while all areas have a higher percentage of high school graduates than the U.S.

Workforce Education Levels Percent with High School Diploma and College Degrees in Springfield MSA Counties

Source: 2021 ACS 5-Year Estimates



Commuting Patterns

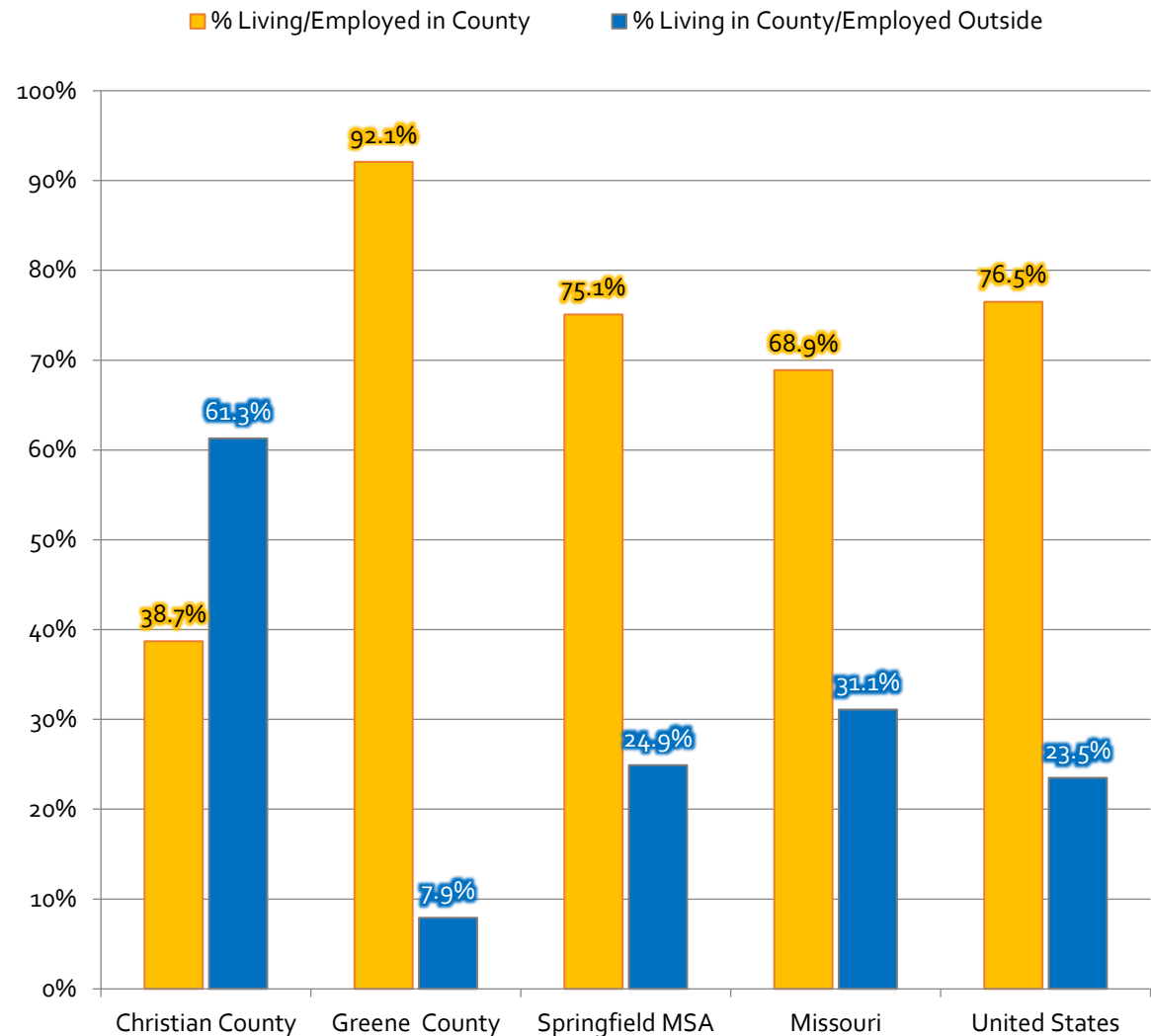
The chart to the right shows the percentage of workers who work in their county of residence compared to the percentage who work in a different county.

Of the people who work in Greene County, 92.1 percent also live in Greene County. Conversely, the majority (61.3%) of Christian County residents commute to another county for work.

The MSA percentage of workers living in the same county as they are employed is comparable to that of the United States but greater than Missouri as a whole.

County of Residence vs. County of Employment

Source: 2021 ACS 5-Year Estimates



Mean Travel Time to Work

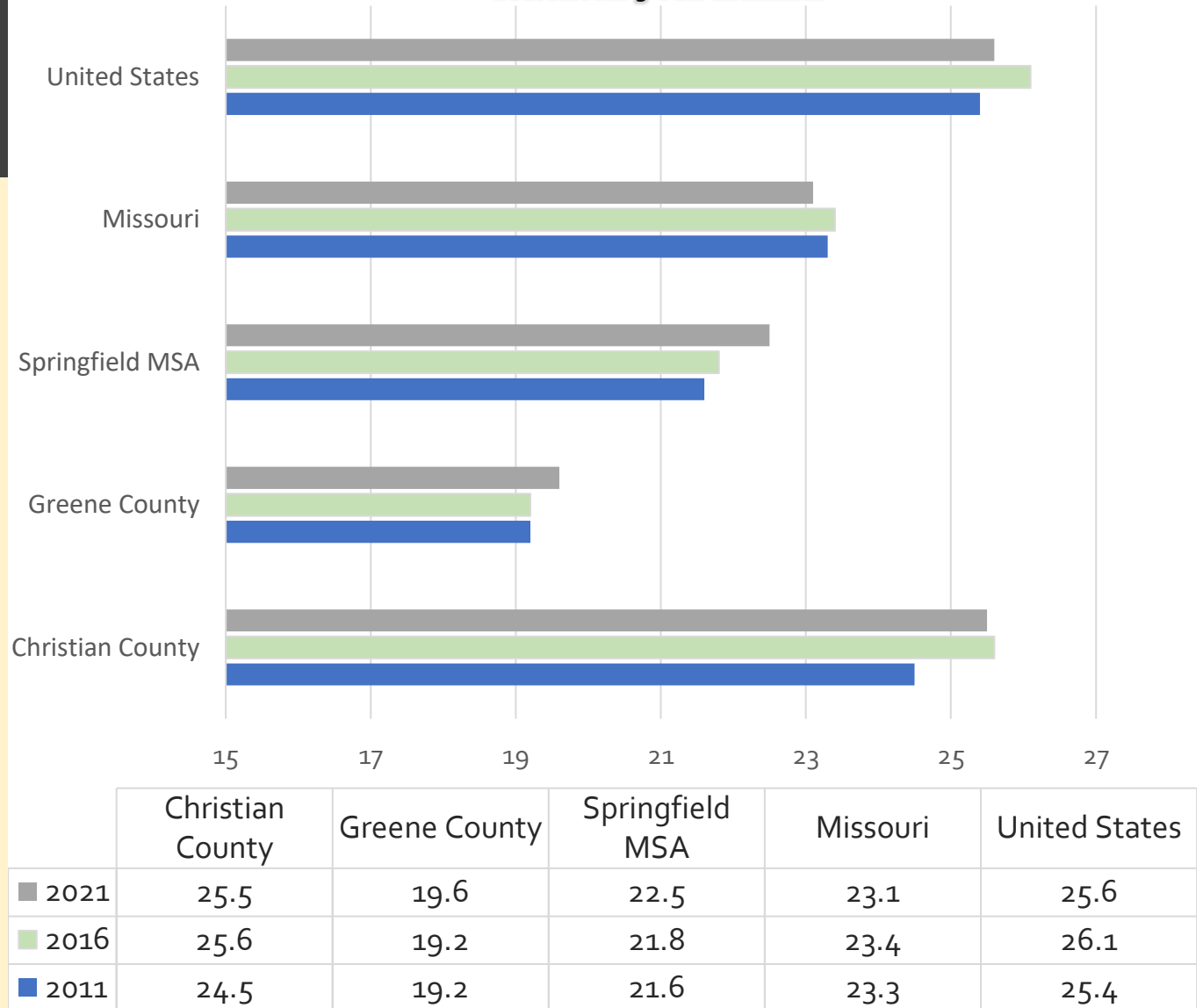
The chart to the right shows the average commute time for individuals living in Greene and Christian Counties, Missouri, the United States, and the Springfield, MO MSA.

Residents of Greene County have the shortest commutes to work at 19.6 minutes. Workers living in Christian County have the longest commutes with an estimated mean of 25 minutes. This is comparable to the United States as a whole.

The travel time estimates for the United States are statistically different and have increased across all five-year samples. The Missouri estimate for 2021 is significantly more than previous estimates. Greene and Christian Counties are not statistically different across all samples.

Mean Travel Time to Work in Minutes Counties & MSA

Source: ACS 5-Year Estimates



Mean Travel Time to Work

The chart to the right shows the average commute time for residents living in the seven cities within the OTO area.

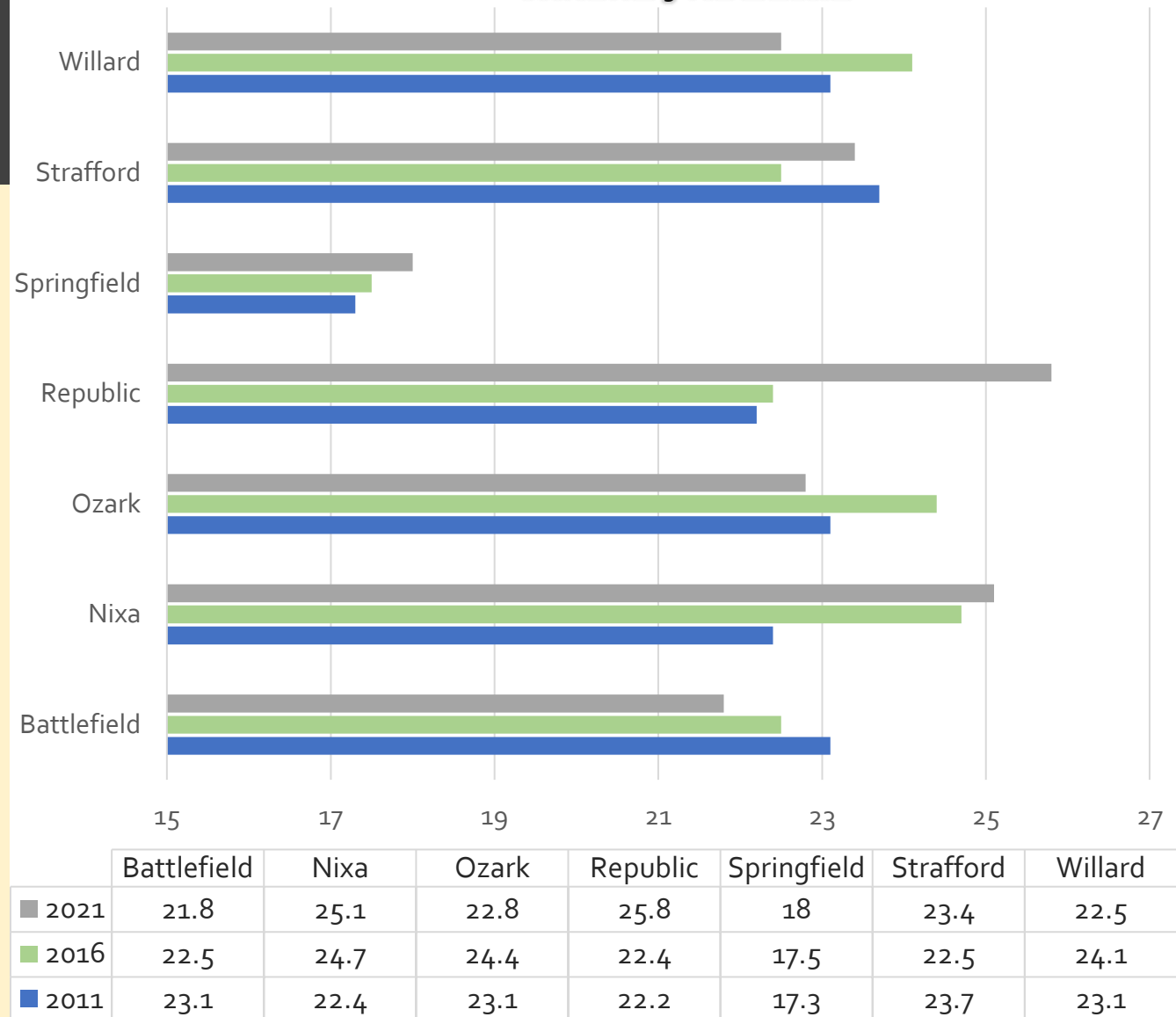
The 2021 estimates for Springfield & Republic are statistically different from 2016 showing an increase but the 2016 estimate is not statistically different from 2011.

The 2021 estimate is significantly higher than 2011 but no different than 2016 for Nixa. The estimates for Ozark indicate an increase in travel time from 2011 to 2016 and then back down to 2011 levels in 2021.

There is no statistical difference between any of the estimates for Battlefield, Strafford, or Willard.

Mean Travel Time to Work in Minutes OTO Area Cities

Source: ACS 5-Year Estimates



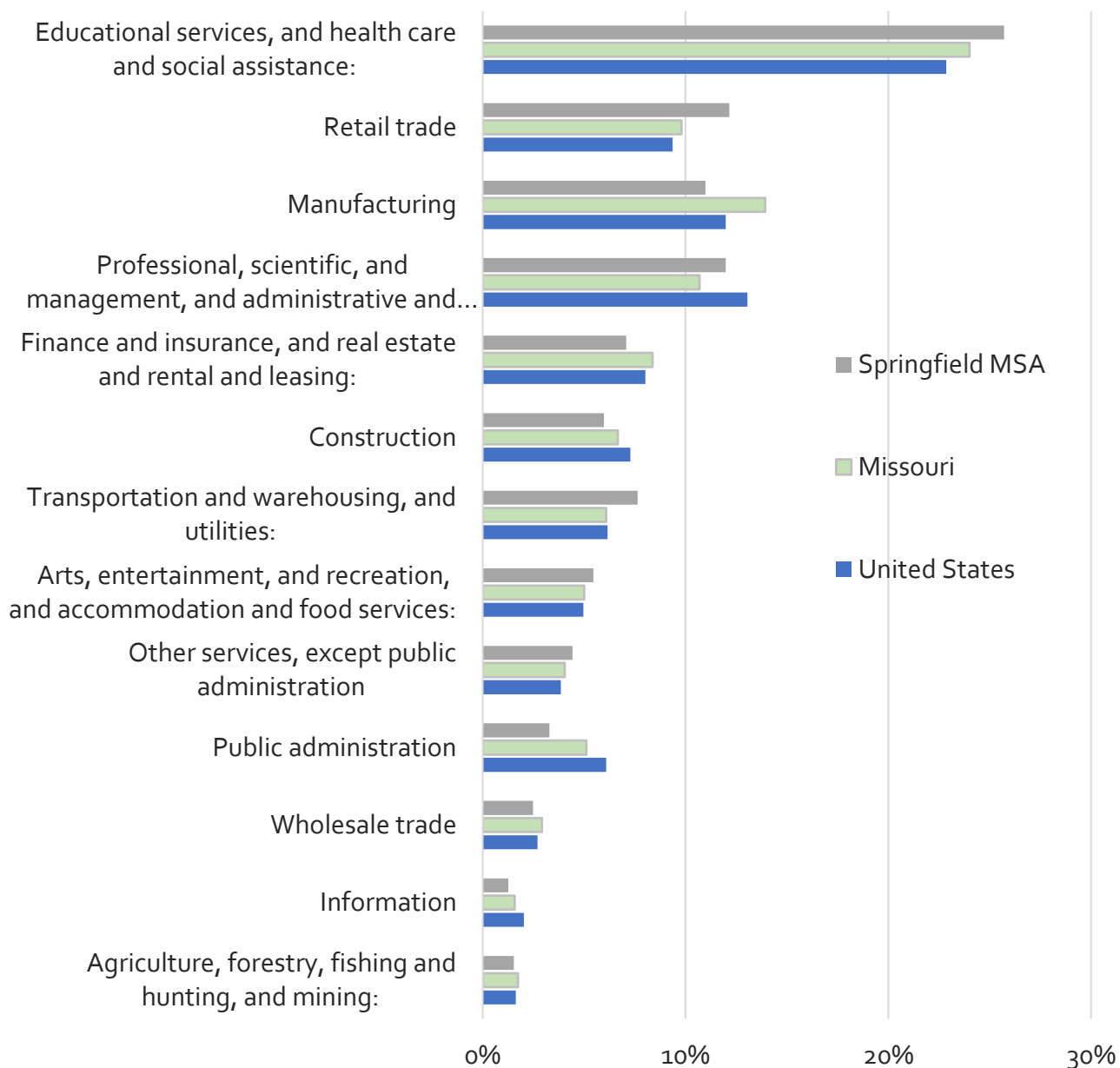
Workforce By Industry

The chart to the right compares industry employment percentages for the workforce for the Springfield, MO MSA, Missouri, & the United States.

The percent of industry employment in the Springfield MSA is greater than MO & the U.S. in Educational service, health care, and social assistance, Retail trade, Other services except public administration, & Wholesale trade.

The MSA percentages lag MO & the U.S., Manufacturing, Public Administration, and Information industries. The MSA percentage of Professional & Scientific workers is greater than MO but still falls short of the U.S.

Springfield MSA Percentage of Workers by Industry
Source: ACS 2021 5-Year Estimates



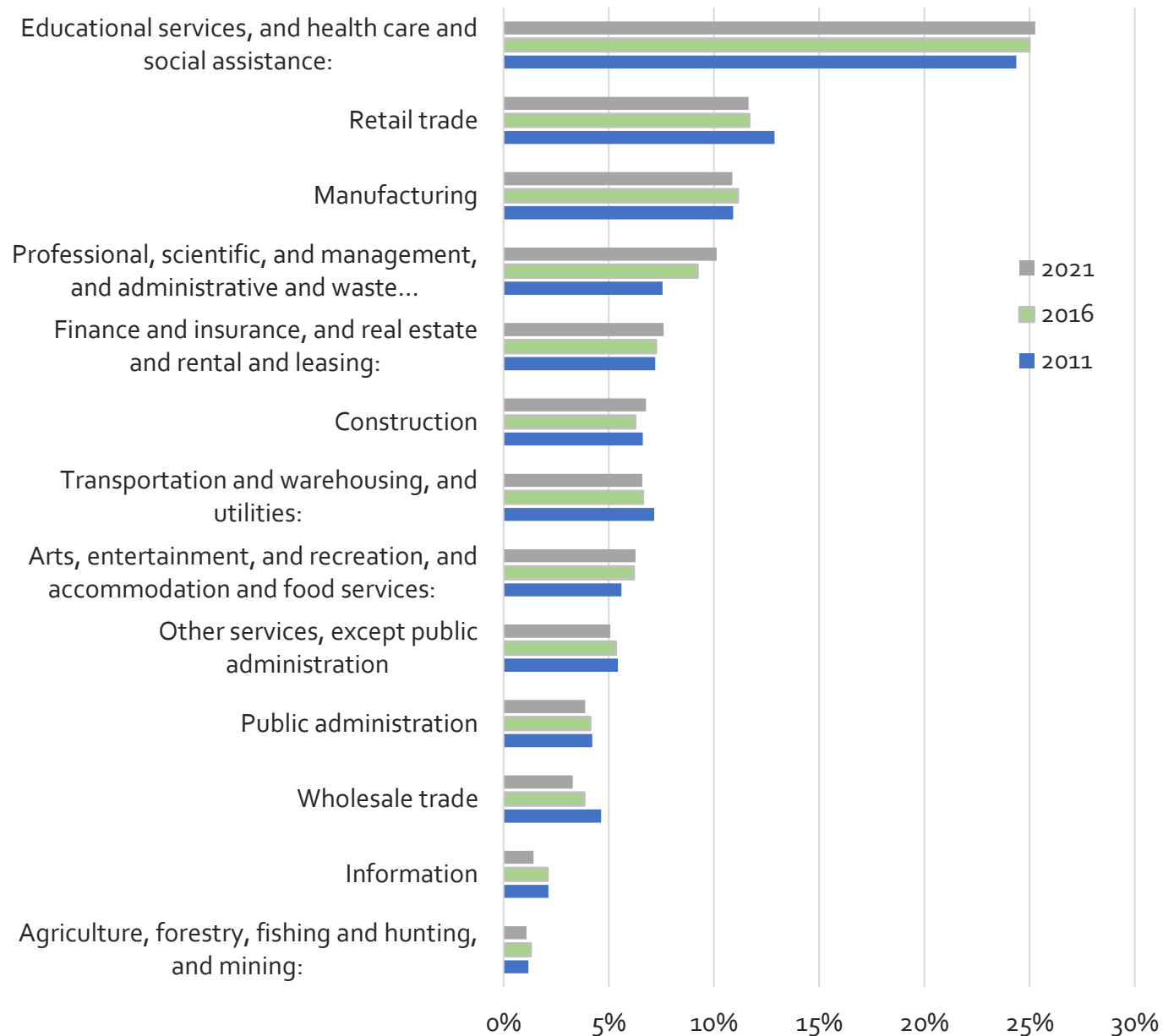
Workforce By Industry Springfield MSA

The chart to the right shows the 5-year estimates for the percentage of workers by industry in the Springfield MSA for 2021, 2016, & 2011.

There is no statistical difference for most industries amongst the surveys. However, the estimates are significantly different for Education & Healthcare and Construction Industries from prior 5-year samples, 2011 & 2016, respectively.

Employment percentages in the Wholesale Trade, Public Administration, & Information sectors declined from 2016 to 2021 while employment in the Professional, Scientific, etc. sector increased.

Springfield MSA Percentage of Workers by Industry Source:
ACS 5-Year Estimates



Springfield MSA Workforce Change by Industry 2011 – 2021, American Community Survey 5-yr Estimates

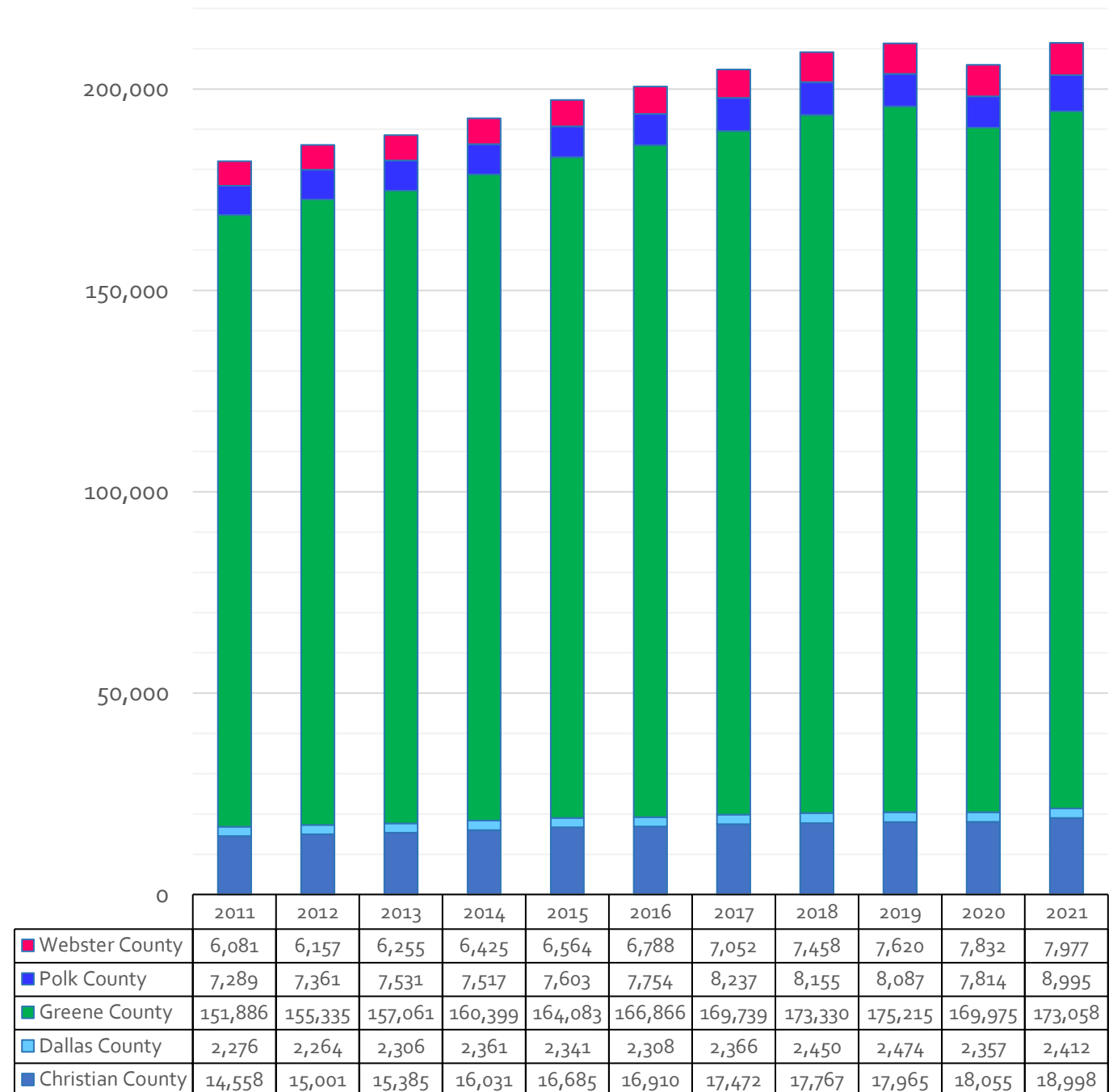
	2011	2021	Difference	% Change
Full-time, year-round civilian employed population 16 years and over	135,123	159,086	23,963	17.7
Agriculture, forestry, fishing and hunting, and mining:	1,602	1,738	136	8.5
Agriculture, forestry, fishing and hunting	1,450	1,544	94	6.5
Mining, quarrying, and oil and gas extraction	152	194	42	27.6
Construction	8,949	10,784	1,835	20.5
Manufacturing	14,755	17,299	2,544	17.2
Wholesale trade	6,267	5,236	-1,031	-16.5
Retail trade	17,490	18,607	1,117	6.4
Transportation and warehousing, and utilities:	9,680	10,493	813	8.4
Transportation and warehousing	7,858	8,842	984	12.5
Utilities	1,822	1,651	-171	-9.4
Information	2,887	2,266	-621	-21.5
Finance and insurance, and real estate and rental and leasing:	9,739	12,102	2,363	24.3
Finance and insurance	7,383	9,486	2,103	28.5
Real estate and rental and leasing	2,356	2,616	260	11.0
Professional, scientific, and management, and administrative and waste management services:	10,215	16,125	5,910	57.9
Professional, scientific, and technical services	5,741	9,727	3,986	69.4
Management of companies and enterprises	269	292	23	8.6
Administrative and support and waste management services	4,205	6,106	1,901	45.2
Educational services, and health care and social assistance:	32,925	40,192	7,267	22.1
Educational services	10,786	14,008	3,222	29.9
Health care and social assistance	22,139	26,184	4,045	18.3
Arts, entertainment, and recreation, and accommodation and food services:	7,570	9,975	2,405	31.8
Arts, entertainment, and recreation	1,102	1,900	798	72.4
Accommodation and food services	6,468	8,075	1,607	24.8
Other services, except public administration	7,345	8,082	737	10.0
Public administration	5,699	6,187	488	8.6

Number of Jobs by MSA County

The data contained in the chart on this page was retrieved from the U.S. Census Bureau The Local Employment and Household Dynamics (LEHD) Quarterly Workforce Indicators.

The data show job losses from 2019 to 2020. Beginning in 2011, jobs numbers start to climb every year through 2019. The overwhelming number of jobs in the MSA are in Greene County.

Although jobs numbers have risen in every county in the MSA, the proportion of MSA jobs within Greene County from 2010 to 2020 has remained relatively constant.



Data Sources

The figures provided in this report are for informational purposes only. The Ozarks Transportation Organization (OTO) offers no warranty, either expressed or implied, that the population and housing unit numbers published here are accurate and assumes no liability for any use to which the data may be put.

Building permit data were provided by the Springfield Department of Building Development Services, the Greene County Department of Building Regulations, the Christian County Planning and Development Department, and the cities of Battlefield, Republic, Nixa, Ozark, Strafford, and Willard.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns.

Other data sources include:

U.S. Census Bureau, 2020 Decennial Census. P.L. 94_171 Redistricting Data

U.S. Census Bureau, 2020. Quarterly Workforce Indicators. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on 3/29/2022
<https://lehd.ces.census.gov/data/#qwi>.

U.S. Census Bureau. 2022. LEHD Origin-Destination Employment Statistics (2002-2021) LEHD Origin-Destination Employment Statistics (2002-2021) at <https://onthemap.ces.census.gov>. LODS 7.4 [version]

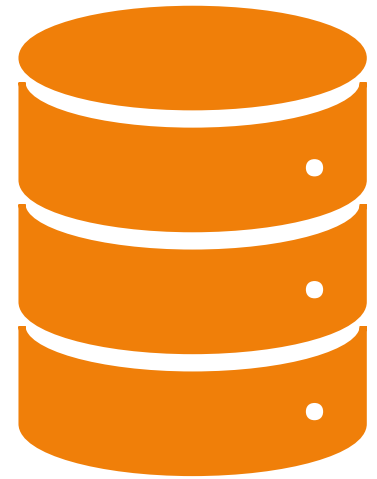
Missouri Census Data Center, (2020). <http://mcdc.missouri.edu/decennial-census/1980-1990.shtml>

Missouri Census Data Center, (2020). <http://mcdc.missouri.edu/decennial-census/2000.shtml>

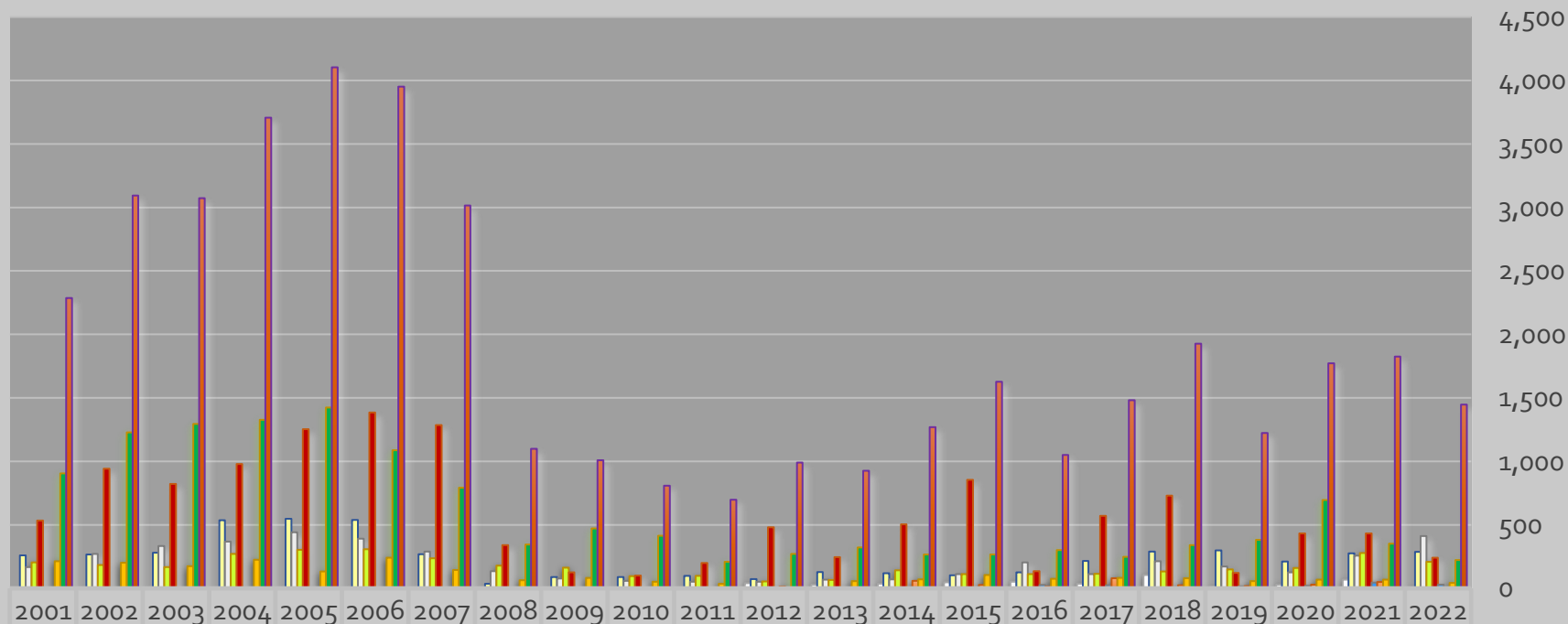
Missouri Census Data Center. (2022). *State/County Annual Population Change* [dataset application]. Available from <https://mcdc.missouri.edu/applications/population/change/>.

U.S. Census Bureau, 2020, 2019, 2015, 2014, 2010 American Community Survey 5-Year Estimates.
<https://data.census.gov/cedsci/>

[Internal Revenue Service, SOI Tax Stats – Migration Data](#), 2022.

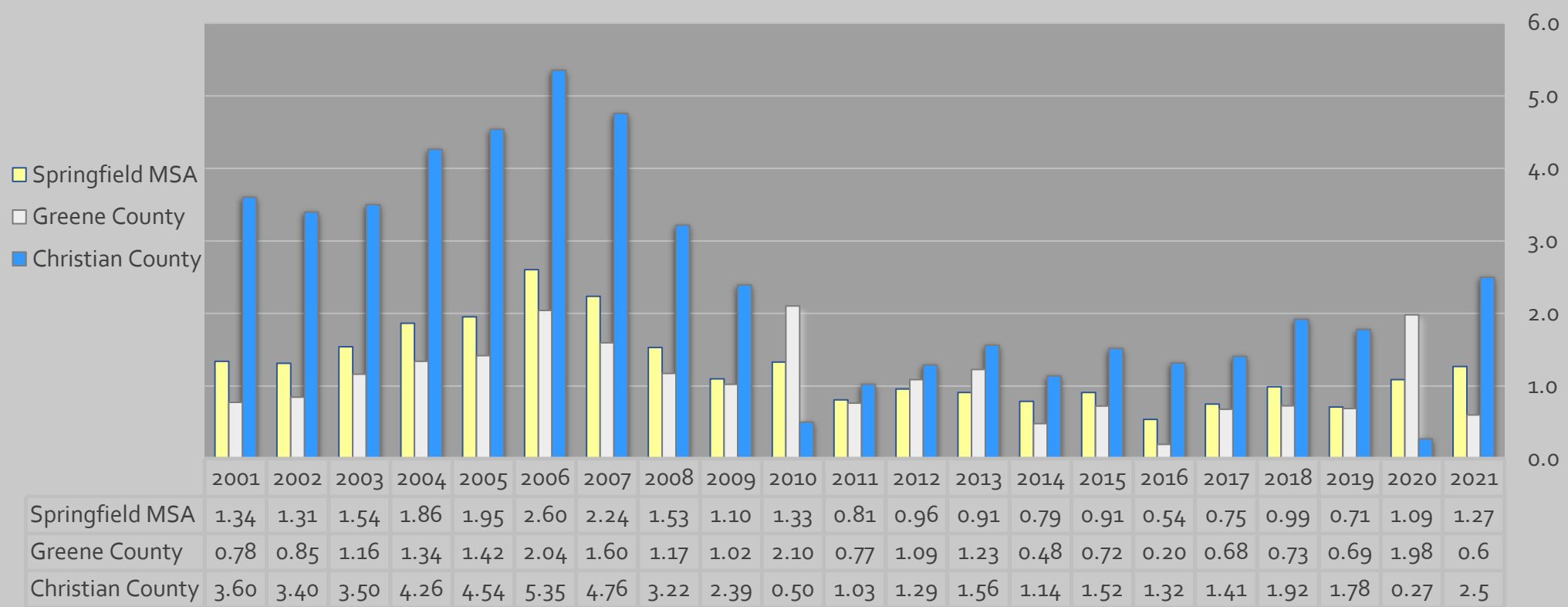


Appendix A: OTO Area Permit Activity 2001 - 2022

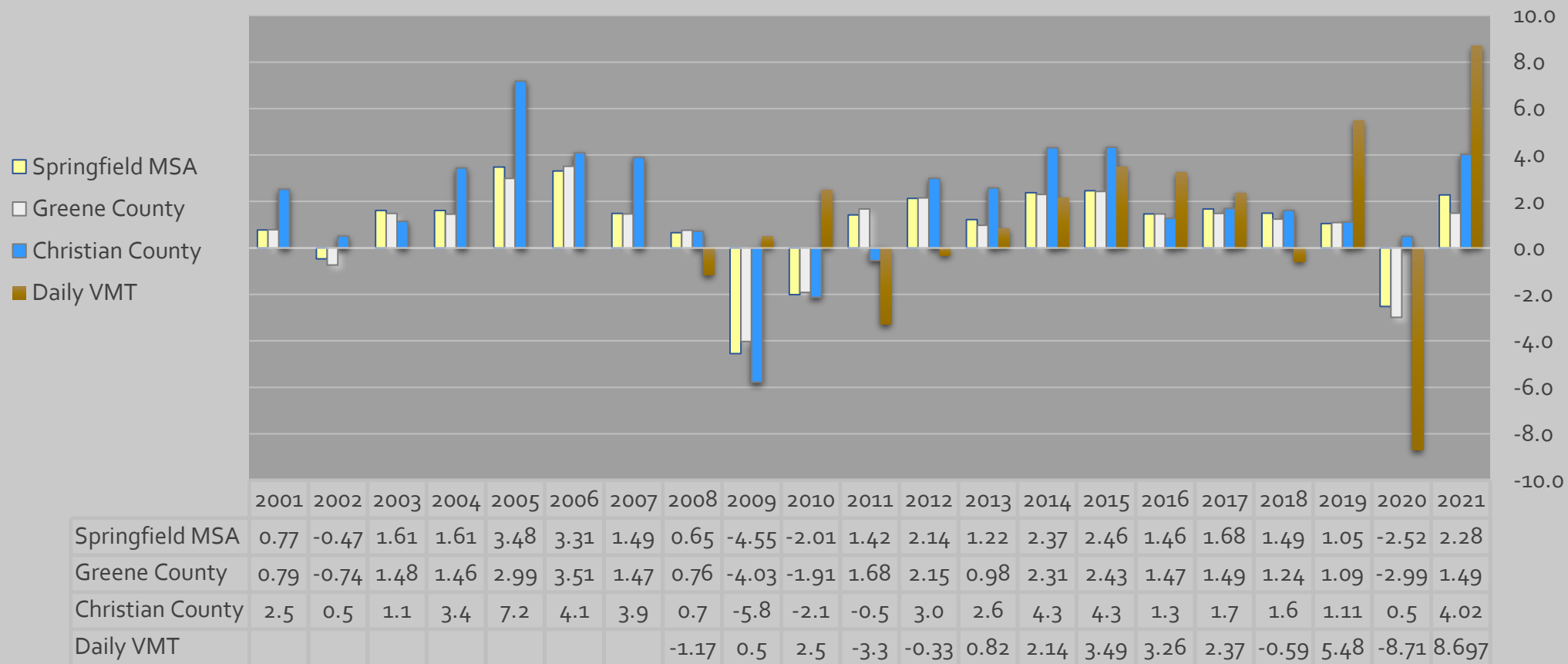


	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Battlefield	-	-	-	-	-	-	-	-	-	-	-	40	29	36	47	53	36	106	14	30	69	5
Nixa	260	267	281	536	547	539	268	36	88	89	99	72	128	119	103	126	215	289	298	212	276	288
Ozark	168	271	333	367	441	391	290	134	77	60	53	53	69	70	112	205	112	214	171	127	257	412
Republic	205	183	168	271	304	307	236	179	162	95	99	54	67	143	111	113	114	133	149	160	277	208
Springfield	535	943	823	980	1,254	1,386	1,285	341	127	100	200	481	245	504	854	136	570	731	122	433	432	242
Strafford												0	3	2	2	27	24	8	15	20	46	28
Willard												13	7	59	26	14	80	25	17	28	49	
Christian - OTO	213	201	174	224	133	241	145	64	82	51	37	7	56	70	106	76	83	79	56	68	69	42
Greene - OTO	906	1,229	1,294	1,328	1,424	1,087	792	345	472	413	210	270	321	266	266	301	247	341	381	695	351	222
Total	2,287	3,094	3,073	3,706	4,103	3,951	3,016	1,099	1,008	808	698	990	925	1,269	1,627	1,051	1,481	1,926	1,223	1,773	1,826	1,447

Appendix B: Year-over-Year Population Percent Change 2000 - 2021



Appendix C: Year-over-Year Total Jobs Percent Change 2000 – 2021 & Daily Vehicle Miles Travelled



TAB 5

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.C.

MoDOT/OTO Sidewalk Cost Share Program Recommendations

Ozarks Transportation Organization (Springfield, MO Area MPO)

AGENDA DESCRIPTION:

Background

At its meeting on September 15, 2022, the OTO Board of Directors voted to partner with MoDOT on a sidewalk cost share program to benefit the state system. The Board approved the use of \$3 million from OTO's 2022-2026 Transportation Alternatives and Carbon Reduction Program funding, that when matched by the local jurisdiction, would cover 50 percent of proposed sidewalk projects along state routes, with MoDOT covering the other 50 percent.

OTO solicited projects between November 7, 2022 and January 10, 2023. The City of Ozark submitted four applications and the City of Strafford submitted one. A meeting was held between OTO staff, Ozark, and Strafford to discuss the details of each project. The Bicycle and Pedestrian Advisory Committee met February 1, 2023 to review the applications and make a recommendation for funding. MoDOT has also clarified that proposed sidewalk cost shares need to be part of an existing roadway project. Two projects were recommended for funding, while the remaining projects either need additional scoping or are not part of a planned roadway project.

Recommended Projects

City of Ozark – Route 14 (South) from 6th to 14th on both sides.

This project will be added to the TIP with the annual update, as MoDOT Project 8P0583B (OK2201) is not scheduled until 2026 and this will allow MoDOT time to accordingly update the STIP.

Total Cost:	\$337,090
MoDOT Share:	\$134,836
TAP/CRP Share:	\$134,836
Ozark Share:	\$67,417

City of Strafford – Route OO from Route 125 to just east of Dollar General

While MoDOT does not have a project planned along this section of Route 125, this project can be let with additional improvements planned for Route OO/125. MoDOT will not cost share on this section, but it was recommended that OTO support the advantage of combining projects by funding 80% of the project cost with TAP/CRP funds. Strafford agreed to provide the total match for the project. This project is recommended as part of FY 2023-2026 TIP Amendment 4, as this will be in addition to the project MoDOT has in the STIP.

Total Cost:	\$245,008
MoDOT Share:	\$0
TAP/CRP:	\$196,006
Strafford:	\$49,002

The application will remain open for additional requests to be considered as they are received.

BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE ACTION TAKEN:

At its meeting on February 1, 2023, the OTO Bicycle and Pedestrian Advisory Committee recommended that the Ozark Route 14 (South) Street Project receive \$134,836 in TAP/CRP funds and that Strafford's Route OO Project receive \$196,006 in TAP/CRP funds.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

A member of the Technical Planning Committee is requested to make one of the following motions:

"Move to recommend TAP/CRP funding for Ozark in the amount of \$134,836 for a sidewalk cost share with MoDOT along South Street from 6th to 14th and for Strafford in the amount of \$196,006 to construct sidewalk along Route OO between 125 and the east side of Dollar General."

OR

"Move to recommend the following..."

2022 OTO/MoDOT Sidewalk Cost-Share Program Application

Ozarks Transportation Organization

Applicant Information

Community: [City of Ozark](#)

Point of Contact: [John McCart](#)

Phone: [417 581 2407](#)

Email: jmccart@ozarkmissouri.org

State System and Project Information

Which MoDOT Road will this project occur along? [Jackson/3rd/South \(MO 14\)](#)

Will this project fit within the existing MoDOT right-of-way? ☒ Yes ☐ No

Will this be a part of an existing MoDOT improvement project? ☒ Yes ☐ No

- ☐ Glenstone Avenue: Operational and pedestrian improvements from Valley Water Mill Road to Rte. 60 (SU0003, 2024)
- ☐ Glenstone Avenue: ADA Transition Plan improvements from Valley Water Mill Rd. to Rte. 60 in Springfield (8S3160, 2023)
- ☐ Chestnut Expressway: Safety improvements from I-44 to Rte. 65 in Springfield (8P3144, 2024)
- ☐ Sunshine Street: ADA Transition Plan on from Bus. 65 (Glenstone Avenue) to Blackman Road (8S3153, 2024)
- ☐ Sunshine Street: Safety and operational improvements from Bus. 65 (Glenstone Avenue) to 0.3 mile east of County Road 199 (8S3133, 2024)
- ☐ Kansas Expressway: Upgrade pedestrian facilities to comply with the ADA Transition Plan and add sidewalks at various locations from north of I-44 to Rte. 60 (8S3173, 2023)
- ☐ Kearney Street: Upgrade pedestrian facilities to comply with the ADA Transition Plan from Rte. 160 (West Bypass) to Rte. 13 (Kansas Expressway) in Springfield. (8S3190, 2023)
- ☐ Kearney Street: Add lanes and modify signals from Springfield-Branson National Airport to LeCompte Avenue. (SU0085, 2023)
- ☐ Route MM: Add lanes on from I-44 to Rte. 360 (James River Freeway) in Republic (8S0836B, 2024)
- ☐ MO 125: Intersection improvements at various locations from 0.2 mile north of Evergreen Street to 0.1 mile west of Washington Avenue in Strafford (8S3238, 2024)
- ☒ MO 14: Roadway improvements from 6th Avenue to 14th Avenue in Ozark (8P0583B, 2026)
- ☐ Route CC: Add roundabout at Main Street in Nixa (8S0736F, 2024)
- ☐ US 60: Capital improvement from west of County Road 103 to Rte. 360 (James River Freeway) in Republic (SU0078, 2027)
- ☐ Other : Click or tap here to enter text.

Funding Request

Expected Total Project Cost: \$ 337,090.00

Expected OTO Cost Share Funding Request: \$296,672.00

Expected Local Match Percentage: 20 %

Please Provide Project Budget Information In The Table Below:

Category	Community Funds		MoDOT Funds	Other Funding Sources	Totals
	Local Match	Requested Cost Share Funds			
Engineering	23596.2	47192.4	47192.4	0	117,981.
ROW	0	0	0	0	0
Construction	43,821.70	87,643.40	87,643.40	0	219,108.5
Totals	67417.9	134.835.8	134.835.8	0	337090

Please list other funding sources included in project budget: Click or tap here to enter text.

Source of Budget Information: ☒ Program Estimate ☐ Engineer's Estimate (w/quantities)

Please include copies of estimates used in this application

Project Details

Please provide the following project details and **provide a map** showing the location of each planned sidewalk segment.

Total Length of Proposed Sidewalk(s): 5186

	Segment Length (ft)	Side of Road	Within Existing /Planned ROW?	Sidewalk Width (ft)	Distance off back of curb (ft)
Segment #1	2593	<input type="checkbox"/> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5	0-5
Segment #2	2593	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5	0-5
Segment #3		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		
Segment #4		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		
Segment #5		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		

*Provide a map that shows the location of each planned sidewalk segment, including proposed sidewalk connections and ROW lines if available.

Source of Alignment Information: ☒ Program Estimate ☐ Engineer's Estimate

Who is expected to administer and deliver this project? ☐ Applicant ☐ MoDOT ☒ TBD

Project Description

Please describe how this project will enhance your community's overall sidewalk network, including any new connections made.

This connection will continue the north and south sidewalks located on Mo 14. This sidewalk will continue the new existing sidewalks that ended at 6th Ave. They will continue east connecting many residents to commercial elements in our community.

Please describe how this project meets a known community need, especially a safety need.

Feel free to attach images of worn paths, discuss known accident patterns, or existing engineering studies.

Ozark's current residents continue to walk along Hwy 14 or within ditches to access commercial shopping within the community. Hwy 14 has narrow shoulders with little to no space for a citizen to walk. This prevents safety for the pedestrians in an already heavily driven roadway that continues to see increased traffic.

Please discuss if this project will create safer routes to school. Include distance to nearest school.

The nearest school is located .75 miles away. The sidewalks built in the safe route to school in 2016 will be within 1000'. 14th Ave will require sidewalks to make the connection between the two projects.

Please describe the level of community support for this project.

Feel free to attach relevant public comments or community plans/surveys.

Ozark citizens voice their desire for pedestrian pathways along arterials to create safe routes for citizens that choose to walk/bike. In 2017 the Ozark Citizens passed a Transportation Tax to assist in projects that would provide not only vehicular but also pedestrian safety. The project will have two large high density developments within less than .25 mile of the project

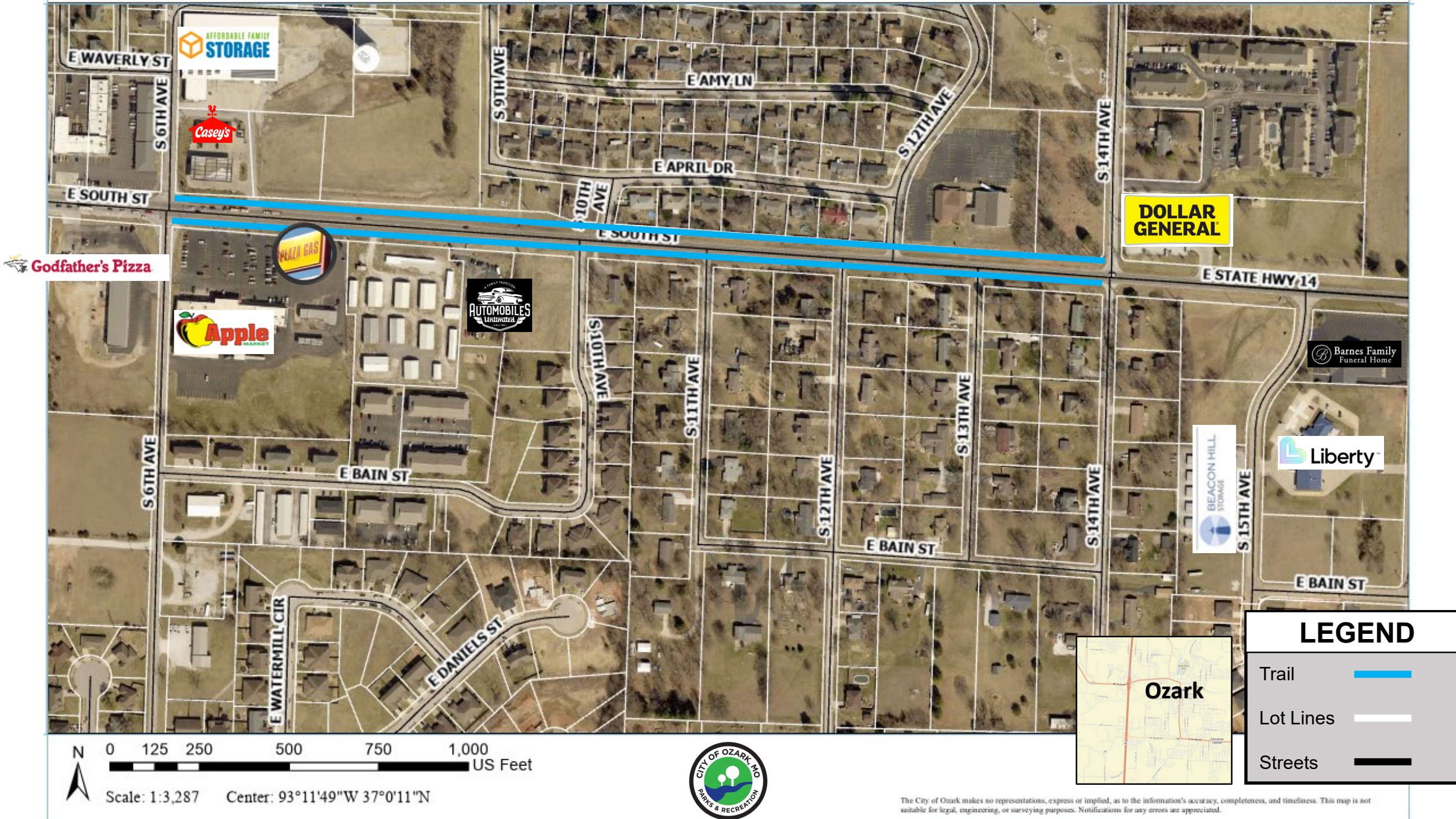
Please describe how this project will create connections to community facilities or social service agencies.

This potential project will provide connections to large churches, a funeral home, advance our goal of connecting Hwy 14 to our downtown, elementary schools and community facilities

Please describe how this project will create connections to shopping and essential services, such as grocery stores, convenience stores, restaurants, or medical clinics.

This potential project will provide safer routes to multiple commercial developments. The commercial businesses adjacent to the project include a large grocery store (Apple Mart) 2 convenience stores, multiple restaurants and a day care facility. Ozark citizens voice their needs for pedestrian pathways along arterials to create safe routes for citizens that choose to walk/bike. In 2017 the Ozark Citizens passed a Transportation Tax to assist in projects that would provide not only vehicular but also pedestrian safety. .

DRAFT



AFFORDABLE FAMILY
STORAGE

Casey's

PLAZA GAS

Apple
MARKET

AUTOMOBILES
Unlimited

**DOLLAR
GENERAL**

Barnes Family
Funeral Home

Liberty

BEACON HILL
STORAGE

LEGEND

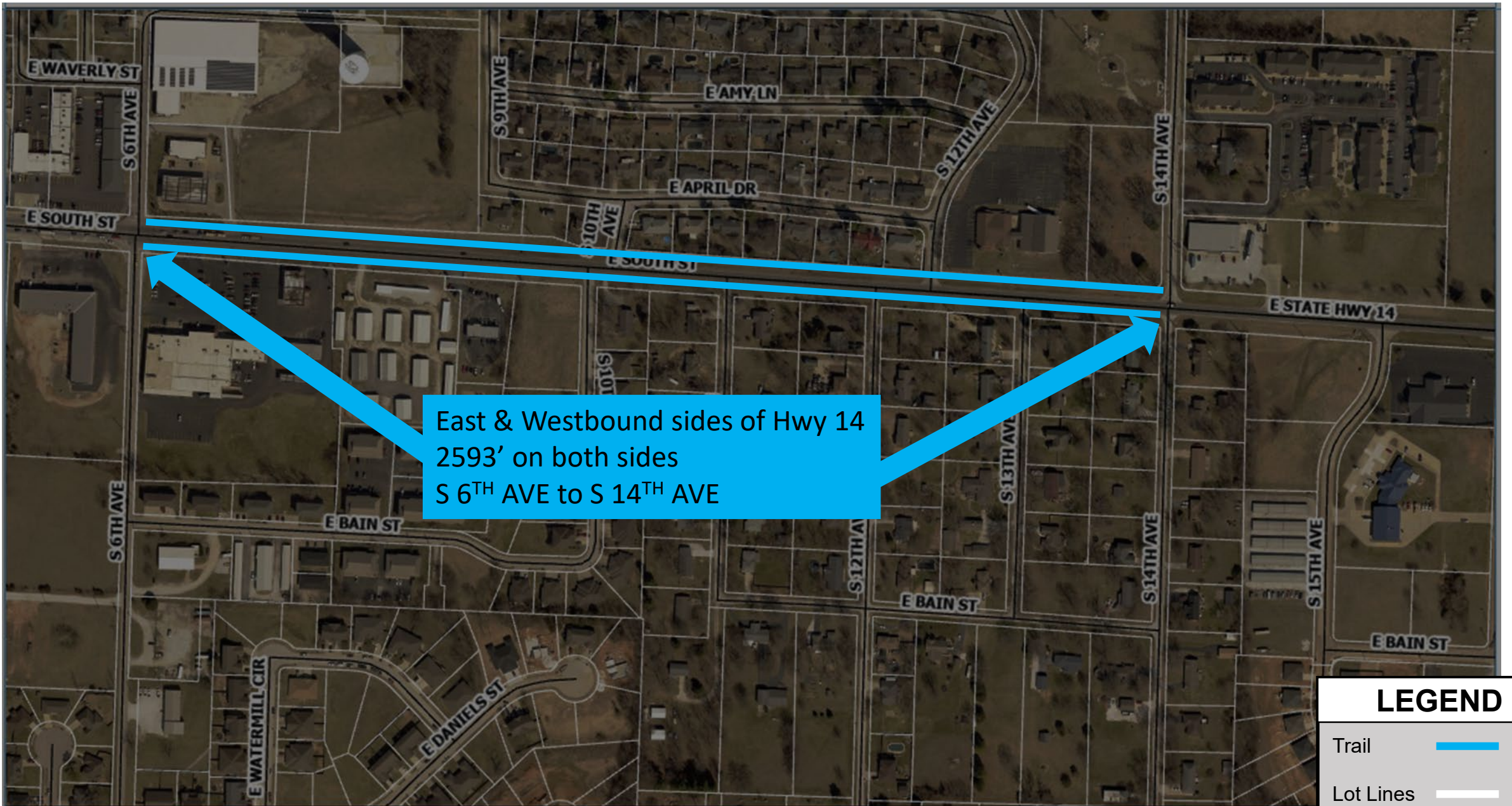
- Trail
- Lot Lines
- Streets



N
0 125 250 500 750 1,000 US Feet
Scale: 1:3,287 Center: 93°11'49"W 37°0'11"N






The City of Ozark makes no representations, express or implied, as to the information's accuracy, completeness, and timeliness. This map is not suitable for legal, engineering, or surveying purposes. Notifications for any errors are appreciated.



East & Westbound sides of Hwy 14
2593' on both sides
S 6TH AVE to S 14TH AVE

LEGEND

- Trail 
- Lot Lines 
- Streets 



Scale: 1:3,287 Center: 93°11'49"W 37°0'11"N



The City of Ozark makes no representations, express or implied, as to the information's accuracy, completeness, and timeliness. This map is not suitable for legal, engineering, or surveying purposes. Notifications for any errors are appreciated.

2022 OTO/MoDOT Sidewalk Cost-Share Program Application

Ozarks Transportation Organization

Applicant Information

Community: [City of Strafford](#)

Point of Contact: [Martha Smartt, City Administrator](#)

Phone: [417-736-2154](#)

Email: ca@straffordmo.net

State System and Project Information

Which MoDOT Road will this project occur along? [Route OO](#)

Will this project fit within the existing MoDOT right-of-way? ☒ Yes ☐ No

Will this be a part of an existing MoDOT improvement project? ☐ Yes ☒ No

- ☐ Glenstone Avenue: Operational and pedestrian improvements from Valley Water Mill Road to Rte. 60 (SU0003, 2024)
- ☐ Glenstone Avenue: ADA Transition Plan improvements from Valley Water Mill Rd. to Rte. 60 in Springfield (8S3160, 2023)
- ☐ Chestnut Expressway: Safety improvements from I-44 to Rte. 65 in Springfield (8P3144, 2024)
- ☐ Sunshine Street: ADA Transition Plan on from Bus. 65 (Glenstone Avenue) to Blackman Road (8S3153, 2024)
- ☐ Sunshine Street: Safety and operational improvements from Bus. 65 (Glenstone Avenue) to 0.3 mile east of County Road 199 (8S3133, 2024)
- ☐ Kansas Expressway: Upgrade pedestrian facilities to comply with the ADA Transition Plan and add sidewalks at various locations from north of I-44 to Rte. 60 (8S3173, 2023)
- ☐ Kearney Street: Upgrade pedestrian facilities to comply with the ADA Transition Plan from Rte. 160 (West Bypass) to Rte. 13 (Kansas Expressway) in Springfield. (8S3190, 2023)
- ☐ Kearney Street: Add lanes and modify signals from Springfield-Branson National Airport to LeCompte Avenue. (SU0085, 2023)
- ☐ Route MM: Add lanes on from I-44 to Rte. 360 (James River Freeway) in Republic (8S0836B, 2024)
- ☐ MO 125: Intersection improvements at various locations from 0.2 mile north of Evergreen Street to 0.1 mile west of Washington Avenue in Strafford (8S3238, 2024)
- ☐ MO 14: Roadway improvements from 6th Avenue to 14th Avenue in Ozark (8P0583B, 2026)
- ☐ Route CC: Add roundabout at Main Street in Nixa (8S0736F, 2024)
- ☐ US 60: Capital improvement from west of County Road 103 to Rte. 360 (James River Freeway) in Republic (SU0078, 2027)
- ☒ Other : [on the north side of Hwy OO, from Hwy 125 to the east property line of Dollar General](#)

Funding Request

Expected Total Project Cost: \$ 245,008

Expected OTO Cost Share Funding Request: \$98,003

Expected Local Match Percentage: 10 %

Please Provide Project Budget Information In The Table Below:

Category	Community Funds		MoDOT Funds	Other Funding Sources	Totals
	Local Match	Requested Cost Share Funds			
Engineering	2,429.80	9,719.20	12,149.00	0	24,298.00
ROW	0	0	0	0	0
Construction	22,071.00	88,284.00	110,355.00	0	220,710.00
Totals	24,500.80	98,003.20	122,504.00	0	245,008.00

Please list other funding sources included in project budget: Click or tap here to enter text.

Source of Budget Information: ☐ Program Estimate ☒ Engineer's Estimate (w/quantities)

Please include copies of estimates used in this application

Project Details

Please provide the following project details and **provide a map** showing the location of each planned sidewalk segment.

Total Length of Proposed Sidewalk(s): 1,910 L.F.

	Segment Length (ft)	Side of Road	Within Existing /Planned ROW?	Sidewalk Width (ft)	Distance off back of curb (ft)
Segment #1	1,910	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	5	20
Segment #2		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		
Segment #3		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		
Segment #4		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		
Segment #5		<input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	<input type="checkbox"/> Y <input type="checkbox"/> N		

*Provide a map that shows the location of each planned sidewalk segment, including proposed sidewalk connections and ROW lines if available.

Source of Alignment Information: ☐ Program Estimate ☒ Engineer's Estimate

Who is expected to administer and deliver this project? ☒ Applicant ☐ MoDOT ☐ TBD

Project Description

Please describe how this project will enhance your community's overall sidewalk network, including any new connections made.

The City of Strafford is requesting funds to construct approximately 1,910 lineal feet of ADA compliant sidewalks along the north side of Hwy 00, from Hwy 125 to the east property line of Dollar General. Currently, there are no sidewalks along this stretch of Hwy 00 and pedestrians are forced to walk in the grass. This project is part of the City's long term goal to provide sidewalks throughout the City to encourage walking and safety. This project will provide a much needed ADA compliant pedestrian facility for the many residents in this area. Specifically, this project will connect sidewalks to the Harter House grocery store and Dollar General and the downtown Central Business District along Hwy 125. In addition, this project will directly connect to the new sidewalks to be installed as part of MoDOT's "Missouri Route 125 Intersection Improvements," scheduled for construction in 2024. See attached MoDOT Fact Sheet and Project Map.

Please describe how this project meets a known community need, especially a safety need.

Feel free to attach images of worn paths, discuss known accident patterns, or existing engineering studies.

The goal of this project is to not only encourage walking and safety between the numerous activity centers, neighborhoods and businesses in the area, but also to provide safe passage for numerous pedestrians, senior citizens and school age children specifically, which can be seen walking daily to the grocery store and Dollar General.

Please discuss if this project will create safer routes to school. Include distance to nearest school.

This project will not create a safer route for school children walking to school, however will provide a safer route for children who are walking from the school to the grocery store and Dollar General after school.

Please describe the level of community support for this project.

Feel free to attach relevant public comments or community plans/surveys.

There is significant community support for this project as there are local citizens who do not drive an automobile and must to obtain some of their daily needs by navigating on foot.

Please describe how this project will create connections to community facilities or social service agencies.

The proposed sidewalk would also provide connection to the Mercy medical clinic which is in the heart of the corridor where this sidewalk is proposed.

Please describe how this project will create connections to shopping and essential services, such as grocery stores, convenience stores, restaurants, or medical clinics.

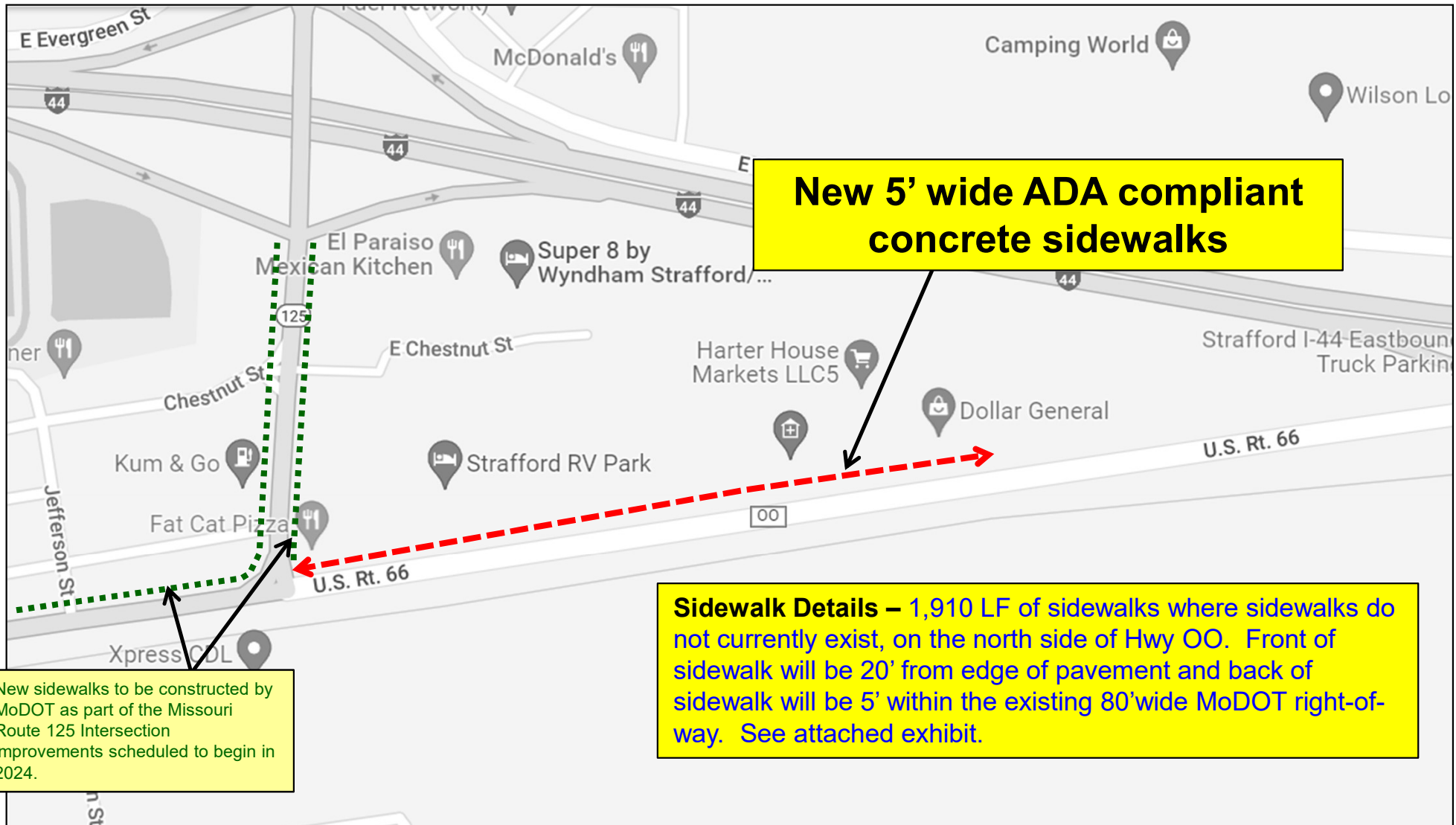
Harter House grocery store and the Strafford Dollar General store are key facilities that the proposed sidewalk will provide connection to. Citizens who do not drive and must navigate on foot for daily needs will benefit from a safe key connection between the center hub of the business district and the grocery store and Dollar General.

DRAFT

City of Strafford – Project Map

OTO/MoDOT Sidewalk Cost Share:

- Hwy 125 to East Property Line of Dollar General





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314-842-5957 (tel.)
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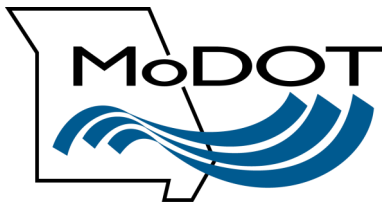
ENGINEERING CERTIFICATE OF AUTHORITY NUMBER: 20090637
LAND SURVEYING CERTIFICATE OF AUTHORITY NUMBER: 2007084529

Estimate - 2022 OTO/MoDOT Sidewalk Cost Share Application

Application Due - January 10, 2023

City of Strafford - Hwy OO Sidewalks

No.	Description	Unit	Quantity	Unit Cost	Cost
1	Construction Mobilization	LS	1	20,000.00	\$20,000.00
2	Linear Grading	STA	19.5	750.00	\$14,625.00
3	ADA Compliant Sidewalks, 5' wide	SF	9,250	7.00	\$64,750.00
4	Concrete Approaches	SF	6,300	9.00	\$56,700.00
5	Restoration	LS	1	15,000.00	\$15,000.00
6	Construction Traffic Control	LS	1	5,000.00	\$5,000.00
Project Notes: 1. Project length equals approx. 0.38 miles 2. Sidewalks on Hwy OO - Hwy 125 to east side of Dollar General			Construction Sub-Total		\$176,075
			15% Contingency		\$26,411
			Design Engineering		\$24,298
			Construction Engineering		\$18,224
			Project Total =		\$245,008
			MoDOT Share @ 50% =		\$122,504
			OTO Share @ 40% =		\$98,003
			Strafford's Local Match @ 10% =		\$24,501



MISSOURI ROUTE 125 INTERSECTION IMPROVEMENTS IN STRAFFORD



PROJECT FACTS

MoDOT is seeking public input on six proposed Missouri Route 125 improvement concepts that are being evaluated to reduce traffic delays and increase safety at various intersections in Strafford.

Route 125 intersections being evaluated are:

- I-44
- North Outer Road (Evergreen St)
- Route 125 between Chestnut Street and Washington Avenue



CONSTRUCTION

- Construction of the first phase of these improvements is scheduled to begin in 2024 with potential future projects being developed from the remaining prioritized concepts.
- Estimated Total Cost: \$2,140,000



For more information, contact the MoDOT Southwest District at:

417.895.7600 tel | swcr@modot.mo.gov | www.modot.org/southwest



MoDOT.Southwest



MoDOT_Southwest



@MoDOT_Southwest

LEGEND

- RAISED MEDIAN
- PAVEMENT
- NEW R/W
- SIDEWALK/CONCRETE APRON
- EXISTING R/W
- PROPERTY LINE
- CURB & GUTTER





City of Strafford

126 S Washington – PO Box 66 • Strafford, MO 65757
Phone 417-736-2154 • Fax 417-736-2390

January 9, 2023

RE: Proposed sidewalk – Hwy OO from Hwy 125 to east property line of Dollar General

To Whom It May Concern:

It is with great enthusiasm I am writing in support of the much-needed sidewalk improvement along Highway OO, from Highway 125 to the east property line of Dollar General.

Strafford has numerous pedestrians – some travel on foot by choice and some do so out of necessity to fulfill daily needs. These include senior citizens that live in the downtown area as well as school age children who are walking to the grocery stores after school. Currently, these folks must walk in the grass or along the edge of the road once they leave the intersection of North Highway 125 and Highway OO and walk east.

As business and industry continue to increase, so does traffic. It is the City's desire to serve and accommodate the vulnerable of our community. One way we feel this can be accomplished is to continue providing our citizens more and safer pedestrian routes to local venues. City Strafford sees the 2022 OTO/MoDOT Sidewalk Grant as a great opportunity to partner together for a sidewalk that would be utilized significantly by our citizens.

Thank you for your consideration.

Sincerely,

Martha E. Smartt
City Administrator

Informational	Jurisdiction	Ozark 3	Strafford
	Project Title	Route 14, 6th to 14th	Route OO, 125 to Dollar General
	Eligible Project Type	Numbered State Routes	Lettered State Routes
	Eligible Road	Yes	Yes
	Roadway	Jackson/3rd/South (MO 14)	Route OO
	From	6th	Route 125
	To	14th	Dollar General
	Description	2,593 feet of sidewalk on both sides of 14	1,950 feet of sidewalk on north side of OO
	Existing MoDOT Project	8P0583B, 2026	No
	Total Cost	\$337,090	\$245,008
	TAP/CRP Share	\$134,836	\$196,006
	MoDOT Share	\$134,836	\$0
	Local Share	\$67,418	\$49,002
Scoring	TAP/CRP Match Percentage	40.00	40.00
	Match Points	2	2
	Budget Source	Other	Engineer's Estimate
	Budget Points	0	1
	Fits within Existing MoDOT ROW	Yes	Yes
	ROW Points	1	1
	Buffer between Curb and Sidewalk	No	Yes
	Curb Points	0	1
	Alignment Source	Other	Engineer's Estimate
	Alignment Points	0	1
	Sidewalk Network	New Sidewalk Segment	New Sidewalk Segment
	Network Points	1	1
	Meets Need	Other	Evidence of Unmet Demand
	Need Points	0	2
	School Route	Other	Within 1/2 mile
	School Points	0	1
	Community Support	Other	Other
	Support Points	0	0
	Community Facilities	Other	Connects Vulnerable Population Facilities
	Facilities Points	0	2
	Shopping and Essential Services	Connections to Pedestrian Major Generators	Connections to Pedestrian Major Generators
	Services Points	2	2
	TOTAL POINTS	6	14

TAB 6

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.D.

Administrative Modification 1 to the FY 2023-2026 Transportation Improvement Program

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

There are 2 items included as part of Administrative Modification 1 to the FY 2023-2026 Transportation Improvement Program. These changes do not affect Fiscal Constraint as the funding sources and funding years remain the same.

1. Wilson's Creek Boulevard Trail (EN2205-23AM1)

Moving funding from Construction to Right-of-Way for temporary construction easements.

Basis for Administrative Modification

- *Adding or deleting a project development phase of a project (Environmental Assessment, PE Design, ROW, Construction, or other) without major changes to the scope of the project.*

2. J-Turns on US 65 at Bluegrass Road (SP2308-23AM1)

Moving funding from Construction to Right-of-Way for temporary construction easements.

Basis for Administrative Modification

- *Adding or deleting a project development phase of a project (Environmental Assessment, PE Design, ROW, Construction, or other) without major changes to the scope of the project.*

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

NO ACTION REQUESTED – INFORMATIONAL ONLY



OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

2208 W. CHESTERFIELD BOULEVARD, SUITE 101, SPRINGFIELD, MO 65807
417-865-3047

6 February 2023

Ms. Britni O'Connor
Transportation Planning
Missouri Department of Transportation
P. O. Box 270
Jefferson City, Missouri 65102

Dear Ms. O'Connor:

I am writing to advise you that the Ozarks Transportation Organization approved Administrative Modification Number One to the OTO FY 2023-2026 Transportation Improvement Program (TIP) on February 2, 2023. Please find enclosed the administrative modification, which is outlined on the following pages.

Please let me know if you have any questions about this or the administrative modification or need any other information.

Sincerely,

Natasha L. Longpine, AICP
Transportation Planning Manager

Enclosure



Project Overview

2 Projects Listed

EN2205-23AM1 - WILSON'S CREEK BOULEVARD TRAIL

Plan Revision 23AM1	Section Sponsored by MoDOT	Project Type Bicycle and Pedestrian	Lead Agency MoDOT
County Greene County	Municipality Republic	Status Programmed	Total Cost \$1,872,480
MoDoT ID JSU0054	Federal ID -	Project From Rte. M	Project To Farm Road 182

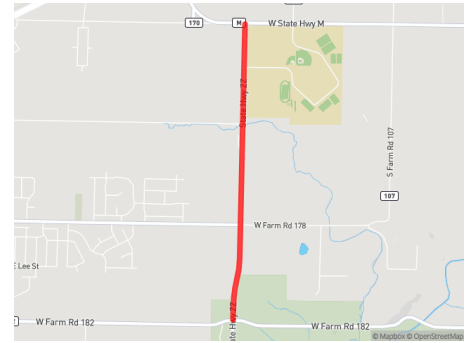
Project Considerations
Environmental Justice Area,
Bike/Ped Plan, Regional Trail
Plan Priority, Advance
Construction

Project Description
Bicycle and pedestrian improvements on Rte. ZZ from Rte. M to Farm Road 182 in Republic.

Funding Source Notes
Non-Federal Funding Source: State Transportation Revenues; FYI: Federal Funding Category upon Anticipated Advanced Construction (AC) Conversion - STBG; \$1,246,730 Coronavirus Response and Relief Supplemental Appropriations Act, up to \$384,600 STBG Large Urban and up to \$96,150 Ozark Greenways funds.

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Engineering	MoDOT	-	\$82,800	-	-	-	-	\$82,800
Engineering	MoDOT-AC	-	\$331,200	-	-	-	-	\$331,200
Total Engineering		-	\$414,000	-	-	-	-	\$414,000
ROW	CRRSAA (FHWA)	-	\$18,330	-	-	-	-	\$18,330
Total ROW		-	\$18,330	-	-	-	-	\$18,330
Construction	CRRSAA (FHWA)	-	\$1,228,400	-	-	-	-	\$1,228,400
Construction	STBG-U (FHWA)	-	\$169,400	-	-	-	-	\$169,400
Construction	Local	-	\$42,350	-	-	-	-	\$42,350
Total Construction		-	\$1,440,150	-	-	-	-	\$1,440,150
Total Programmed		-	\$1,872,480	-	-	-	-	\$1,872,480

CURRENT CHANGE REASON	Schedule / Funding / Scope- Update Adding or deleting a project development phase of a project (Environmental Assessment, PE Design, ROW, Construction, or other) without major changes to the scope of the project
PROJECT CHANGES	ID changed from "EN2205-22AM1" to "EN2205-23AM1" Plan Revision Name changed from "23Adopted" to "23AM1"
FUNDING CHANGES	CRRSAA (FHWA) + Increase funds in FY 2023 in ROW from \$0 to \$18,330 - Decrease funds in FY 2023 in CON from \$1,246,730 to \$1,228,400
FEDERAL PROJECT COST	Stays the same \$1,416,130
TOTAL PROJECT COST	Stays the same \$1,872,480



SP2308-23AM1 - J-TURNS ON US 65 AT BLUEGRASS ROAD

Plan Revision
23AM1

Section
Sponsored by MoDOT

Project Type
Safety

Lead Agency
MoDOT

County
Greene County

Municipality
Springfield

Status
Programmed

Total Cost
\$1,772,000

MoDoT ID
JSU0101

Federal ID
-

Project From
at Bluegrass Road (County Road 94)

Project To
-

Project Considerations
Environmental Justice Area,
Bike/Ped Plan

Project Description
Add J-turn at Bluegrass Road (Farm Road 94).

Funding Source Notes
Non-Federal Funding Source: State Transportation Revenues; \$840,000 Open Container Funds

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Engineering	SAFETY (FHWA)	-	\$90,000	\$272,700	-	-	-	\$362,700
Engineering	MoDOT	-	\$10,000	\$30,300	-	-	-	\$40,300
Total Engineering		-	\$100,000	\$303,000	-	-	-	\$403,000
ROW	SAFETY (FHWA)	-	-	\$25,200	-	-	-	\$25,200
ROW	MoDOT	-	-	\$2,800	-	-	-	\$2,800
Total ROW		-	-	\$28,000	-	-	-	\$28,000
Construction	SAFETY (FHWA)	-	-	\$1,206,900	-	-	-	\$1,206,900
Construction	MoDOT	-	-	\$134,100	-	-	-	\$134,100
Total Construction		-	-	\$1,341,000	-	-	-	\$1,341,000
Total Programmed		-	\$100,000	\$1,672,000	-	-	-	\$1,772,000

CURRENT CHANGE REASON	Schedule / Funding / Scope- Update Adding or deleting a project development phase of a project (Environmental Assessment, PE Design, ROW, Construction, or other) without major changes to the scope of the project
PROJECT CHANGES	ID changed from "SP2308-23" to "SP2308-23AM1" Plan Revision Name changed from "23Adopted" to "23AM1"
FUNDING CHANGES	MoDOT + Increase funds in FY 2024 in ROW from \$0 to \$2,800 - Decrease funds in FY 2024 in CON from \$136,900 to \$134,100 SAFETY (FHWA) + Increase funds in FY 2024 in ROW from \$0 to \$25,200 - Decrease funds in FY 2024 in CON from \$1,232,100 to \$1,206,900
FEDERAL PROJECT COST	Stays the same \$1,594,800
TOTAL PROJECT COST	Stays the same \$1,772,000



TAB 7

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.E.

Amendment Number Four to the FY 2023-2026 Transportation Improvement Program

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

There are four items included as part of Amendment Number Four to the FY 2023-2026 Transportation Improvement Program.

1. ***Revised*** Various ADA Enhancement Projects (CU2205-23A4)
City Utilities applied for FY 2021-2023 FTA 5310 funding, which will be considered for award by the OTO Board of Directors at their March meeting. Projects will address ADA enhancements throughout the CU Transit system for a total programmed amount of \$566,251.
2. ***New*** FY 21 5307 ARP Capital Funding (CU2304-23A4)
City Utilities is programming additional funding received through the FTA Section 5307 ARP apportionment for a total programmed amount of \$4,447,855.
3. ***Revised*** I-44 Pavement Improvements (GR2302-23A4)
MoDOT is programming additional funding to address an increase in construction costs due to pavement pricing and inflation for a new total programmed amount of \$4,708,200.
4. ***New*** Route OO East Sidewalks (ST2302-23A4)
Strafford has been recommended for TAP funds to construct sidewalks along Route OO from Route 125 to east of the Dollar General for a total programmed amount of \$245,008.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

A member of the Technical Planning Committee is requested to make one of the following motions:

“Move to recommend that the Board of Directors approve Amendment 4 to the FY 2023-2026 Transportation Improvement Program.”

OR

“Move to recommend the Board of Directors approve Amendment 4 to the FY 2023-2026 Transportation Improvement Program, with these changes...”

Project Overview
4 Projects Listed

CU2205-23A4 - VARIOUS ADA ENHANCEMENT PROJECTS

Plan Revision
23A4

Section
Transit

Project Type
Transit Capital

Lead Agency
City Utilities

County
Greene County

Municipality
Springfield

Status
Programmed

Total Cost
\$566,251

MoDoT ID
-

Federal ID
-

Project From
-

Project To
-

Project Considerations
Environmental Justice Area,
Bike/Ped Plan

Project Description
FTA FY 2021, 2022, and 2023 Non-Traditional 5310 Projects including Main/Chestnut sidewalk connection, Cardinal/Camino Alto sidewalk connection, shelter pad upgrades, shelter upgrades, and wheelchair securement stations.

Funding Source Notes
Federal Funding Source: FTA Section 5310 FY 2021 Funding; Non-Federal Funding Source: CU Advertising and Utility Ratepayers

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Capital	Local	-	\$113,250	-	-	-	-	\$113,250
Capital	5310-Capital (FTA)	-	\$453,001	-	-	-	-	\$453,001
Total Capital		-	\$566,251	-	-	-	-	\$566,251
Total Programmed		-	\$566,251	-	-	-	-	\$566,251

CURRENT CHANGE REASON	Schedule / Funding / Scope- Update Changes in a project's total programmed amount greater than 25% (or any amount greater than \$2,000,000), Awarded funding through competitive application process. due to Added funding for FY 2021, 2022, and 2023 and defined projects.
PROJECT CHANGES	<p>Title changed from "FY 2022 ADA PROJECT" to "VARIOUS ADA ENHANCEMENT PROJECTS"</p> <p>Description changed from "Project will improve mobility for seniors and individuals with disabilities by removing barriers to transportation services." to "FTA FY 2021, 2022, and 2023 Non-Traditional 5310 Projects including Main/Chestnut sidewalk connection, Cardinal/Camino Alto sidewalk connection, shelter pad upgrades, shelter upgrades, and wheelchair securement stations."</p> <p>ID changed from "CU2205-22" to "CU2205-23A4"</p> <p>Plan Revision Name changed from "23Adopted" to "23A4"</p> <p>Performance Measure changed from "Transit Safety" to "Transit Safety, Transit Asset Management"</p> <p>Funding Source Notes changed from "Federal Funding Source: FTA Section 5310 FY 2021 Funding; Non-Federal Funding Source: CU Advertising and Utility Ratepayers; FYI: Pending approval from the Local Coordinating Board for Transit" to "Federal Funding Source: FTA Section 5310 FY 2021 Funding; Non-Federal Funding Source: CU Advertising and Utility Ratepayers"</p>
FUNDING CHANGES	<p>5310-Capital (FTA)</p> <p>+ Increase funds in FY 2023 in CAP from \$120,000 to \$453,001</p> <p>Local</p> <p>+ Increase funds in FY 2023 in CAP from \$30,000 to \$113,250</p>
FEDERAL PROJECT COST	Increased from \$120,000 to \$453,001 (277.50%)
TOTAL PROJECT COST	Increased from \$150,000 to \$566,251 (277.50%)

CU2304-23A4 - FY21 5307 ARP CAPITAL FUNDING

Plan Revision
23A4

Section
Transit

Project Type
Transit Capital

Lead Agency
City Utilities

County
Greene County

Municipality
Springfield

Status
Programmed

Total Cost
\$4,447,855

MoDoT ID
-

Federal ID
-

Project From
N/A

Project To
N/A

Project Considerations
Environmental Justice Area

Project Description
ARP Funding for Capital Replacement Projects

Funding Source Notes
Non-Federal Funding Source: CU Transit Advertising and Utility Ratepayers; FYI: Local Share does not include farebox revenue, depreciation, or amortization

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Capital	5307-ARP (FTA)	-	\$4,447,855	-	-	-	-	\$4,447,855
Total Capital		-	\$4,447,855	-	-	-	-	\$4,447,855
Total Programmed		-	\$4,447,855	-	-	-	-	\$4,447,855

CURRENT CHANGE REASON	New Project
FEDERAL PROJECT COST	Stays the same \$4,447,855
TOTAL PROJECT COST	Stays the same \$4,447,855

GR2302-23A4 - I-44 PAVEMENT IMPROVEMENTS

Plan Revision 23A4	Section Sponsored by MoDOT	Project Type Asset Management - Pavement	Lead Agency MoDOT
County Greene County	Municipality Unincorporated Greene County	Status Programmed	Total Cost \$4,708,200
MoDOT ID JSU0146	Federal ID -	Project From 0.7 mi east of Rte. 125	Project To 2.1 miles east of Rte. 125

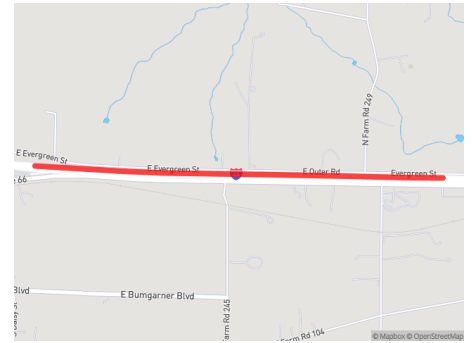
Project Considerations
Environmental Justice Area

Project Description
Rebuild pavement from 0.7 miles east of Rte. 125 to 2.1 miles east of Rte. 125 near Strafford.

Funding Source Notes
Non-Federal Funding Source: State Transportation Revenues

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Engineering	NHPP (FHWA)	-	\$256,000	-	-	-	-	\$256,000
Engineering	MoDOT	-	\$64,000	-	-	-	-	\$64,000
Total Engineering		-	\$320,000	-	-	-	-	\$320,000
Construction	NHPP (FHWA)	-	\$3,981,200	-	-	-	-	\$3,981,200
Construction	MoDOT	-	\$407,000	-	-	-	-	\$407,000
Total Construction		-	\$4,388,200	-	-	-	-	\$4,388,200
Total Programmed		-	\$4,708,200	-	-	-	-	\$4,708,200

CURRENT CHANGE REASON	Schedule / Funding / Scope- Update Changes in a project's total programmed amount greater than 25% (or any amount greater than \$2,000,000), Increased pavement costs due to Increase in construction costs due to pavement pricing and inflation.
PROJECT CHANGES	ID changed from "GR2302-23" to "GR2302-23A4" Plan Revision Name changed from "23Adopted" to "23A4"
FUNDING CHANGES	MoDOT + Increase funds in FY 2023 in CON from \$325,800 to \$407,000 NHPP (FHWA) + Increase funds in FY 2023 in CON from \$1,303,200 to \$3,981,200
FEDERAL PROJECT COST	Increased from \$1,559,200 to \$4,237,200 (171.75%)
TOTAL PROJECT COST	Increased from \$1,949,000 to \$4,708,200 (141.57%)



ST2302-23A4 - ROUTE 00 EAST SIDEWALKS

Plan Revision
23A4

Section
Cost Shares

Project Type
Bicycle and Pedestrian

Lead Agency
MoDOT

County
Greene County

Municipality
Strafford

Status
Programmed

Total Cost
\$245,008

MoDOT ID
-

Federal ID
-

Project From
Route 125

Project To
East of Dollar General

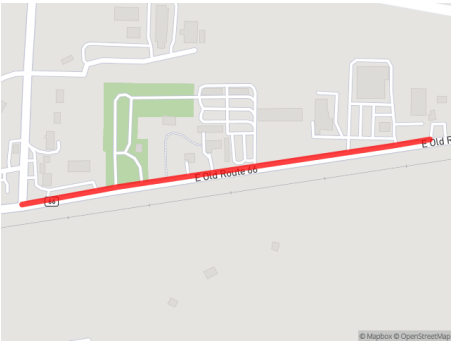
Project Considerations
Bike/Ped Plan

Project Description
Sidewalk along Route 00 from Route 125 to just east of Dollar General.

Funding Source Notes
Non-Federal Funding Source: City of Strafford; Let with ST2201

PHASE	FUND SOURCE	PRIOR	FY2023	FY2024	FY2025	FY2026	FUTURE	TOTAL
Engineering	TAP (FHWA)	-	\$34,017	-	-	-	-	\$34,017
Engineering	Local	-	\$8,505	-	-	-	-	\$8,505
Total Engineering		-	\$42,522	-	-	-	-	\$42,522
Construction	TAP (FHWA)	-	-	\$161,989	-	-	-	\$161,989
Construction	Local	-	-	\$40,497	-	-	-	\$40,497
Total Construction		-	-	\$202,486	-	-	-	\$202,486
Total Programmed		-	\$42,522	\$202,486	-	-	-	\$245,008

CURRENT CHANGE REASON	New Project
FEDERAL PROJECT COST	Stays the same \$196,006
TOTAL PROJECT COST	Stays the same \$245,008



REVENUE

Revenue Source	Carryover	2023	2024	2025	2026	Total
MoDOT State/Federal	\$19,735,000	\$113,486,000	\$67,927,000	\$93,213,000	\$68,902,007	\$363,263,007
Suballocated STBG-U	\$13,862,865	\$7,583,829	\$7,735,505	\$7,890,216	\$8,048,020	\$45,120,435
Suballocated TAP	\$1,471,208	\$1,534,360	\$1,551,388	\$1,568,998	\$1,587,191	\$7,713,145
Suballocated CRP	\$867,833	\$905,124	\$923,226	\$941,691	\$960,525	\$4,598,399
Aviation - FAA	\$0	\$13,212,000	\$15,075,000	\$6,255,000	\$5,031,000	\$39,573,000
FTA 5307	\$0	\$3,547,752	\$3,618,707	\$3,691,081	\$3,764,903	\$14,622,442
FTA 5310	\$580,425	\$435,799	\$444,515	\$453,405	\$462,473	\$2,376,618
FTA 5339	\$1,124,260	\$348,762	\$354,737	\$360,832	\$367,049	\$2,555,640
Transit MO HealthNet Contract	\$0	\$103,000	\$103,000	\$103,000	\$103,000	\$412,000
Transit State Operating Funding	\$0	\$43,500	\$43,500	\$43,500	\$43,500	\$174,000
CU Transit Utility Ratepayers	\$0	\$8,655,203	\$7,663,762	\$8,489,801	\$8,489,801	\$33,298,567
CU Transit Farebox and Ads	\$0	\$951,750	\$951,689	\$951,891	\$951,891	\$3,807,221
Human Service Agencies	\$100,246	\$59,922	\$61,121	\$62,343	\$63,590	\$347,222
TOTAL	\$37,741,837	\$150,867,001	\$106,453,151	\$124,024,758	\$98,774,950	\$517,861,696

LOCAL PUBLIC AGENCY CAPACITY

LPA Capacity	2023	2024	2025	2026	Total
CART All Jurisdictions (Projected)	\$15,216,048	\$15,216,048	\$15,216,048	\$15,216,048	\$60,864,192
O&M (620.35 miles * \$5,291/mile)	(\$3,282,272)	(\$3,331,506)	(\$3,381,479)	(\$3,432,201)	(\$13,427,458)
TIP Programmed Funds All Jurisdictions	(\$16,676,815)	(\$11,178,795)	(\$1,162,170)	(\$1,077,005)	(\$30,094,785)
Other Committed Funds All Jurisdictions	\$53,997,353	\$53,997,353	\$53,997,353	\$53,997,353	\$215,989,412
TOTAL	\$49,254,314	\$54,703,100	\$64,669,752	\$64,704,195	\$233,331,361

Transit Capacity	2023	2024	2025	2026	Total
Total System Operations	\$10,034,000	\$10,234,000	\$10,438,000	\$10,647,000	\$41,353,000
Total System Maintenance	\$1,144,000	\$1,166,900	\$1,190,000	\$1,214,000	\$4,714,900
Total Programmed O&M	(\$8,780,598)	(\$8,780,598)	(\$8,780,598)	(\$8,780,598)	(\$35,122,392)
Additional O&M Costs	\$2,397,402	\$2,620,302	\$2,847,402	\$3,080,402	\$10,945,508

FINANCIAL CONSTRAINT

FHWA Sponsored Projects

Fund Type	Programmed (2023)	Programmed (2024)	Programmed (2025)	Programmed (2026)	
FEDERAL					
130 (FHWA)	\$1,240,000	\$0	\$0	\$0	
BRO (FHWA)	\$924,000	\$1,988,270	\$48,000	\$36,000	
CRISI (FRA)	\$343,000	\$0	\$0	\$0	
CRP (FHWA)	\$880,000	\$0	\$0	\$0	
CRRSAA (FHWA)	\$2,684,230	\$0	\$0	\$0	
FLAP (FHWA)	\$870,000	\$0	\$0	\$0	
I/M (FHWA)	\$90,000	\$90,000	\$135,000	\$135,000	
NHPP (FHWA)	\$45,741,202	\$16,161,600	\$49,382,700	\$22,444,000	
SAFETY (FHWA)	\$21,365,243	\$6,519,600	\$815,100	\$27,000	
STAP (FHWA)	\$644,000	\$331,000	\$0	\$0	
STBG (FHWA)	\$8,894,671	\$4,351,002	\$179,200	\$19,200	
STBG-U (FHWA)	\$15,097,573	\$10,869,580	\$4,596,679	\$268,018	Pending in Green (23A3)
TAP (FHWA)	\$2,810,970	\$161,989	\$374,000	\$0	
Federal Subtotal	\$101,584,889	\$40,473,041	\$55,530,679	\$22,929,218	
STATE					
MoDOT	\$20,537,221	\$13,096,848	\$15,013,701	\$7,509,200	
MoDOT-AC	\$20,923,791	\$28,341,188	\$30,275,208	\$6,273,600	
MoDOT-GCSA	\$653,000	\$0	\$0	\$0	
MoDOT O&M	\$5,935,528	\$6,024,561	\$6,114,930	\$6,206,654	
State Subtotal	\$48,049,540	\$47,462,597	\$51,403,839	\$19,989,454	
LOCAL/OTHER					
Local	\$16,676,815	\$11,178,795	\$1,162,170	\$1,077,005	
Other	\$10,356,010	\$0	\$0	\$0	
Local/Other Subtotal	\$27,032,825	\$11,178,795	\$1,162,170	\$1,077,005	
Total	\$176,667,254	\$99,114,433	\$108,096,688	\$43,995,677	

	Prior Year	FY 2023	FY 2024	FY 2025	FY 2026	TOTAL
Available State and Federal Funding	\$19,735,000	\$113,486,000	\$67,927,000	\$93,213,000	\$68,902,007	\$363,263,007
Federal Discretionary Funding	\$1,213,000	\$0	\$0	\$0	\$0	\$1,213,000
Available Operations and Maintenance Funding	\$0	\$5,935,528	\$6,024,561	\$6,114,930	\$6,206,654	\$24,281,673
Funds from Other Sources (inc. Local)	\$0	\$27,032,825	\$11,178,795	\$1,162,170	\$1,077,005	\$40,450,795
Available Suballocated Funding	\$15,364,104	\$9,352,020	\$9,539,060	\$9,729,841	\$9,924,438	\$53,909,464
TOTAL AVAILABLE FUNDING	\$36,312,104	\$155,806,373	\$94,669,417	\$110,219,941	\$86,110,104	\$483,117,939
Carryover		\$36,312,104	\$15,451,223	\$11,006,206	\$13,129,460	--
Programmed State and Federal Funding		(\$176,667,254)	(\$99,114,433)	(\$108,096,688)	(\$43,995,677)	(\$427,874,052)
TOTAL REMAINING	\$36,312,104	\$15,451,223	\$11,006,206	\$13,129,460	\$55,243,887	\$55,243,887

FINANCIAL CONSTRAINT

FTA-Sponsored Projects

	Federal Funding Source			Local	MoDOT	TOTAL
	5307	5310	5339			
PRIOR YEAR						
Balance	\$ 6,081,054	\$ 977,171	\$ 1,124,260	\$ -	\$ -	\$ 8,182,485
FY 2023						
Funds Anticipated	\$ 3,547,752	\$ 435,799	\$ 298,762	\$ 5,840,824	\$ 50,000	\$10,173,137
Funds Programmed	(\$9,559,242)	(\$1,182,748)	(\$311,756)	(\$5,840,824)	(\$43,500)	(\$16,938,070)
Running Balance	\$69,564	\$230,222	\$1,111,266	\$0	\$6,500	\$1,417,552
FY 2024						
Funds Anticipated	\$ 3,618,707	\$ 444,515	\$ 304,737	\$ 5,688,980	\$ 50,000	\$10,106,939
Funds Programmed	(\$3,478,188)	(\$225,124)	(\$720,000)	(\$5,688,980)	(\$43,500)	(\$10,155,792)
Running Balance	\$210,083	\$449,613	\$696,003	\$0	\$13,000	\$1,368,699
FY 2025						
Funds Anticipated	\$ 3,691,081	\$ 453,405	\$ 310,832	\$ 5,794,733	\$ 50,000	\$10,300,051
Funds Programmed	(\$3,478,188)	(\$277,081)	(\$880,000)	(\$5,794,733)	(\$43,500)	(\$10,473,502)
Running Balance	\$422,975	\$625,938	\$126,835	\$0	\$19,500	\$1,195,248
FY 2026						
Funds Anticipated	\$ 3,764,903	\$ 462,473	\$ 317,049	\$ 5,575,980	\$ 50,000	\$10,170,405
Funds Programmed	(\$3,478,188)	(\$282,622)	\$0	(\$5,575,980)	(\$43,500)	(\$9,380,290)
Running Balance	\$709,690	\$805,789	\$443,884	\$0	\$26,000	\$1,985,363

TAB 8

TECHNICAL PLANNING COMMITTEE AGENDA 2/15/2023; ITEM II.F.

Amendment to the STBG-Urban Advance Policy

**Ozarks Transportation Organization
(Springfield, MO Area MPO)**

AGENDA DESCRIPTION:

In an effort to reduce the OTO STBG-Urban fund balance, a policy was approved that allows for jurisdictions to spend up to three years funding in advance. This policy has been previously amended to allow jurisdictions receiving less than \$2 million per year to spend up to three years in advance, while those receiving more than \$2 million can spend up to one year in advance.

Staff is proposing an amendment to the policy to allow the OTO Executive Director to sign Advance Agreements, since the agreement itself states that Board of Directors approval of the funding through the TIP demonstrates their concurrence. Additional text was modified for clarification.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

A member of the Technical Planning Committee is requested to make one of the following motions:

“Move to recommend that the Board of Directors approve the amended STBG-U Advance Policy.”

OR

“Move to recommend the following...”

Agreement for STBG-Advance Funding

This agreement is made between the Ozarks Transportation Organization (hereinafter, "OTO") and _____ (hereinafter referred to as "MEMBER") for the purpose of reducing the balance of STBG-Urban funding allocated to OTO that is restricted to a maximum three year allocation balance.

WITNESSETH:

WHEREAS, current federal surface transportation legislation, codified at 23 USC 133, allocates STBG-Urban funding to the OTO region for the purpose of improving and maintaining the transportation system.

WHEREAS, OTO currently sub-allocates STBG-Urban funding to member jurisdictions on the basis of population.

WHEREAS, the maximum allowed to be advanced will be three years of the jurisdiction's allocation for those jurisdictions receiving less than \$2 million annually and one year of the jurisdiction's allocation for those receiving more than \$2 million annually;

WHEREAS, funding will be programmed on a first come first served basis, subject to OTO staff financial projections and MoDOT's policies;

WHEREAS, the allowance to program future funding may be discontinued at any time, but not for projects with signed agreements.

NOW, THEREFORE, OTO and MEMBER agree as follows:

OTO will allow the programming of future year allocations of STBG-Urban funding upon signing this agreement and pursuant to the following:

1. MEMBER will be required to repay any amount expended beyond the current and prior year allocations in the event that the program is discontinued or funds are rescinded by the Federal Highway Administration. The repayment will be coordinated by OTO staff.
2. MEMBER has submitted the TIP project programming form and OTO has placed the project programming on a Technical Committee and Board of Directors agenda.
3. Board of Directors approval of the project's inclusion in the TIP will be considered approval of the use of advance funding.
4. The project will not be considered programmed until TIP approval is received from the Federal Highway and/or Federal Transit Administration.

MEMBER hereby agrees to repay any amounts received that use future year STBG-Urban allocations in the event the funding is no longer available and has submitted proof of governing board approval.

Signature of Authorized Representative

Date

I hereby agree to receipt of this agreement and that OTO staff has verified funding availability.

OTO Executive Director

Date

Agreement for STP-Advance Funding

This agreement is made between the Ozarks Transportation Organization (hereinafter, "OTO") and _____ for the purpose of reducing the balance of STP-Urban funding allocated to OTO that is restricted to a maximum three year allocation balance.

WITNESSETH:

WHEREAS, Moving Ahead for Progress in the 21st Century allocated STP-Urban funding to the OTO region for the purpose of improving and maintaining the transportation system.

WHEREAS, OTO currently sub-allocates STP-Urban funding to member jurisdictions on the basis of population.

WHEREAS, the maximum allowed to be advanced will be three years of the jurisdiction's allocation, or up to one year in advance for any jurisdiction receiving more than \$2 million annually;

WHEREAS, funding will be programmed on a first come first served basis, subject to OTO staff financial projections and MoDOT's policies;

WHEREAS, the allowance to program future funding may be discontinued at any time, but not for projects with signed agreements.

NOW, THEREFORE, OTO and _____ agree as follows:

OTO will allow the programming of future year allocations of STP-Urban funding upon signing this agreement and pursuant to the following:

1. _____ will be required to repay any amount expended beyond the current and prior year allocations in the event that the program is discontinued or funds are rescinded by the Federal Highway Administration. The repayment will be coordinated by OTO staff.
2. _____ has submitted the TIP project programming form and OTO has placed the project programming on a Technical Committee and Board of Directors agenda. Board of Directors approval of the project's inclusion in the TIP will be considered approval of the use of advance funding.
3. The project will not be considered programmed until TIP approval is received from the Federal Highway and/or Federal Transit Administration.

_____ hereby agrees to repay any amounts received that use future year STP-Urban allocations in the event the funding is no longer available and has submitted proof of governing board approval.

Signature of Authorized Representative

Date

I hereby agree to receipt of this agreement and that OTO staff has verified funding availability.

OTO Executive Director

Date

TAB 9

https://www.komu.com/news/state/missouri-to-receive-4-4-million-for-road-improvement/article_f22b577a-a238-11ed-a451-6b41666ce373.html

Missouri to receive \$4.4 million for road improvement

Mikaela Schlueter, KOMU 8 Digital Producer

Feb 1, 2023

WASHINGTON, D.C. - The US Department of Transportation announced it will allocate \$800 million in grant money towards improving road conditions across the country.

According to a news release Wednesday, communities in Missouri are set to receive \$4.4 million.

Awards will be distributed through the Safe Streets and Roads for All (SS4A) Grant Program, which was established through the 2021 Bipartisan Infrastructure Law. Funds will be used to improve roadway safety in hopes of preventing deaths and injuries, according to a press release from the US DOT.

According to the release, 10 grants will be distributed to communities in Missouri. They include:

- Columbia
- Cape Girardeau
- Carthage
- Gower
- Kansas City
- Kirkwood
- Sedalia
- East-West Gateway Council of Governments
- Northeast Missouri Regional Planning Commission
- Ozarks Transportation Organization

Mikaela Schlueter

Digital Producer

Missouri

Lead Applicant	Project Title	Type of Plan	Urban/ Rural	Funding Award
City of Cape Girardeau	Southeast Metropolitan Planning Organization’s application to the Safe Streets and Roads for All - Action Plan Grant	Action Plan	Rural	\$160,000.00
City of Carthage	City of Carthage Comprehensive Safety Action Plan	Action Plan	Rural	\$200,000.00

Lead Applicant	Project Title	Type of Plan	Urban/ Rural	Funding Award
City of Columbia	City of Columbia, Missouri Safe Streets for All Supplemental Action Planning	Supplemental Action Plan	Rural	\$1,440,000.00
City of Gower	Safety Action Plan for the City of Gower, MO	Action Plan	Rural	\$50,000.00
City of Kansas City	Vision Zero KC: Supplemental Action Planning	Supplemental Action Plan	Urban	\$880,000.00
City of Kirkwood	City of Kirkwood Toward Zero: Advancing the Kirkwood Vision Zero Action Plan	Supplemental Action Plan	Urban	\$480,000.00
City of Sedalia	City of Sedalia Safe Streets and Roads 4 All Action Plan	Action Plan	Rural	\$200,000.00
East-West Gateway Council of Governments	SS4A Action Plan Grant for St. Louis Region	Action Plan	Urban	\$580,551.92
Northeast Missouri Regional Planning Commission	Northeast Missouri Action Plan to Prevent Roadway Fatalities	Action Plan	Rural	\$200,000.00
Ozarks Transportation Organization	Ozarks Transportation Organization’s Safe Streets and Roads for All Action Plan Application	Action Plan	Urban	\$228,800.00
Total Missouri				\$4,419,351.92


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- [Bipartisan Infrastructure Law](#)

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If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Biden-Harris Administration Announces Historic \$800 Million for More than 500 Projects to Improve Roads at the Local Level and Tackle National Traffic Fatalities

Wednesday, February 1, 2023

Bipartisan Infrastructure Law funding targets high-crash sites in cities and counties; also supports the U.S. Department of Transportation’s comprehensive strategy to reduce roadway deaths, a crisis claiming more than 40,000 lives each year

WASHINGTON – Today, U.S. Transportation Secretary Pete Buttigieg announced a historic \$800 million in grant awards for 510 projects through the new **Safe Streets and Roads for All (SS4A) Grant Program**, a record amount of funding to improve roads and address traffic fatalities. The competitive grant program, established by President Biden’s historic infrastructure law, provides \$5 billion over five years for regional, local, and Tribal initiatives — from redesigned roads to better sidewalks and crosswalks — to prevent deaths and serious injuries on the nation’s roadways. The Department also launched a [data visualization tool](#) that shows crash hotspots that can help target needed resources.

The SS4A awards fund improved safety planning for over half the nation’s population, and will fundamentally change how roadway safety is addressed in communities through local and regional efforts that are comprehensive and data-driven. This investment comes at an important junction as traffic fatalities reached a [16-year high in 2021](#) and preliminary data indicates will remain near those levels in 2022, while getting worse for people walking, biking, or rolling as well as incidents involving trucks. In addition, traffic crashes are costly to American society. A [new report](#) shows the economic impact of traffic crashes was \$340 billion in 2019 alone.

“Every year, crashes cost tens of thousands of American lives and hundreds of billions of dollars to our economy; we face a national emergency on our roadways, and it demands urgent action,” said **U.S. Transportation Secretary Pete Buttigieg**. “We are proud that these grants will directly support hundreds of communities as they prepare steps that are proven to make roadways safer and save lives.”

The Safe Streets and Roads for All program grants announced today support the Department’s vision of zero roadway deaths and its National Roadway Safety Strategy: a comprehensive approach launched in January 2022 to make our nation’s roadways safer for everyone, including drivers, cyclists, pedestrians, and emergency and construction workers, by stressing responsible driving, safer roadway designs, appropriate speed-limit setting, and improved post-crash care, among other strategies.

As part of SS4A, the Department is awarding grants for both planning and implementation projects. Action plan grants assist communities that do not currently have a roadway safety plan in place to reduce roadway fatalities, laying the groundwork for a comprehensive set of actions. Implementation grants provide funding for communities to implement strategies and projects that will reduce or eliminate transportation-related fatalities and serious injuries.

The Department is awarding 473 action plan grants and 37 grants for implementation projects in this first round of the program.

Here is a snapshot of the types of communities being funded through these awards:

- **\$1.52 million for Pima County, Arizona**, to develop its Safe Streets for All Action Plan, focused on creating a culture of safety for all residents.

- **\$12.9 million for Modoc County and Fort Bidwell Tribal Reservation, California**, to improve safety along two corridors in rural, disadvantaged communities and Tribal areas by implementing community requests for bicycle lanes, pedestrian crosswalks, speed control, and mobility-assisted support infrastructure.
- **\$680,000 for the City of San Diego, California**, to advance its Safe Streets for All San Diegans proposal, which will build upon the existing safety action plan to develop a speed management plan, pursue quick-build projects, and develop a Slow Streets Program.
- **\$19.7 million for Hillsborough County, Florida**, to implement low-cost and proven safety measures including sidewalks, bicycle lanes and speed management to improve safety for pedestrians, bicyclists, transit users and drivers at approximately 22 locations in the county.
- **\$10.4 million for Favette County, Iowa**, to address roadway departure crashes along

cost treatments. Lane departure crashes account for nearly 60% of the fatalities and serious injuries in the area.

- **\$24.8 million for the City of Detroit, Michigan**, to redesign existing transportation infrastructure in high crash areas and places with inadequate pedestrian infrastructure to focus on pedestrian and bicycle safety, and safer speeds for vehicle traffic.
- **\$4.4 million for the City of Charlotte, North Carolina**, to help implement the city’s Vision Zero strategies to reduce risky roadway behavior through infrastructure improvements, with a focus on safer intersections and pedestrian-involved crashes.
- **\$4.4 million for the City of San Antonio, Texas**, to install eight mid-block crossings with pedestrian refuge islands and pedestrian hybrid beacons on Zarzamora Street in the city’s historically underserved Westside.

The full list of awards can be viewed [HERE](#). The next funding opportunity of \$1.1 billion is expected to be released in April of this year.

In addition to SS4A grants, tomorrow the Federal Highways Administration will award a total of \$21 million to 70 Tribes to improve road safety on Tribal lands, addressing issues such as roadway departures and the need for better pedestrian crossings.

For more information about SS4A, including additional resources and information for interested applicants and stakeholders, click [HERE](#).

To read more about the Department’s National Roadway Safety Strategy, including the Safe Systems Approach, click [HERE](#).

###

U.S. DEPARTMENT OF TRANSPORTATION

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Transportation Projects Selected Under Governor Parson's Cost-Share Program

JEFFERSON CITY – Today, the Missouri Highways and Transportation Commission approved the funding of 28 local transportation projects using \$75 million in budget stabilization funds under Governor Mike Parson’s Transportation Cost-Share Program. The Missouri Department of Transportation (MoDOT) and Missouri Department of Economic Development (DED) selected the projects with the goal of building partnerships with local entities to deliver road and bridge projects that have the greatest economic benefit to the state.

“Our Transportation Cost-Share program provides an innovative opportunity to leverage public and private investments to strengthen Missouri’s infrastructure and boost workforce development across our state,” said Governor Parson. “The number of applications demonstrates that these partnerships are not only of great interest but of great benefit to Missourians. While there are many unfunded transportation needs remaining across our state, we’ve come a long way and are committed to doing more.”

Projects awarded include road and bridge projects across the state including urban areas and small towns, all of which support economic development.

MoDOT’s Cost-Share Committee, made up of MoDOT’s Chief Engineer, Chief Financial Officer, Assistant Chief Engineer, and two Director-appointed employees along with DED staff, reviewed 41 applications requesting more than \$150.4 million. Five applications did not meet program guidelines. The committee selected 28 applications to receive the \$75 million, which will deliver \$176 million in projects.

During the legislative session, the Missouri General Assembly appropriated \$75 million to create the Governor’s transportation cost-share program, which provides financial assistance to public and private applicants for public road and bridge projects. The program matches up to 50 percent of the construction contract costs for selected projects.

Twenty percent of the funds are set aside for projects that demonstrate economic development. MoDOT and DED worked with project sponsors to determine when projects may generate economic development. The departments may contribute up to 100 percent of the construction contract costs from the 20 percent set aside for these projects.

For the full list of selected projects, please visit <https://www.modot.org/governors-transportation-cost-share-program>.

####

For more information, call MoDOT at 888-ASK-MODOT (275-6636) or visit www.modot.org. To receive the latest statewide news and text alerts, signup for [e-updates](#).

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Districts Involved

STATEWIDE

Published On: Wed, 01/04/2023 - 10:18

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105 W. Capitol Avenue Jefferson City, MO 65102 1-888-ASK-MODOT (275-6636) 1-866-831-6277 (Motor Carrier Services)	Report a Road Concern
Our Mission, Values and Tangible Results	Report a blocked highway-railroad crossing
Missouri Highways and Transportation Commission	Rate a work zone
	Request a highway map
	Request a Speaker
	Request Open Records
	Adopt a section of highway
	Renew my driver's license
	File a claim

**Governor's Transportation Cost Share Program
Selected Projects**

Project Sponsor	Project Description	Total
Hunt Midwest Real Estate Development, LLC	Mexico City Avenue/I-29 Interchange Improvements	\$2,574,149
City of Springfield	Eastgate Avenue Extension	\$3,480,858
Big Cedar Lodge, LLC	Route 86 Improvements	\$9,540,000
City of Raymore	Dean and 195 th Street Roadway Improvements	\$4,094,666
Warren County Commission	American Foods Group-Liberty Village Drive Roadway Improvements	\$2,725,500
City of Harrisonville	South Commercial Street Extension	\$1,340,867
Pemiscot County	Route 84 Bridge Widening Project	\$822,834
City of Saint Charles	Riverpointe Block 100, 200, and 300 Improvements	\$4,625,000
Kingsway Development Corp	Delmar Streetscape Improvements	\$3,281,550
St. Francois County	Berry Road Bridge	\$1,825,000
Jefferson County	Project Redbird Roadway Improvements	\$7,281,000
City of Platte City	Route 92 Capacity and Safety Improvements	\$6,667,950
Polk County	Parkview Street and 430 th Road Widening and Safety Improvements	\$2,000,000
City of Carthage	Hazel Street and Airport Drive Roadway Improvements	\$656,649
City of Parkville	Route 9 Corridor Complete Streets Improvements	\$1,787,950

Project Sponsor	Project Description	Total
City of Independence	Little Blue Parkway	\$866,900
Noles Properties	Bryan Road Commercial Development	\$450,000
City of Moberly	Moberly Industrial Park Street Extension	\$555,560
City of Perryville	Progress Drive Extension	\$1,436,500
City of Monett	Lowes Lane Improvement Project	\$536,876
City of Joplin	Zora Street Widening	\$4,000,000
City of New Madrid	Bloomfield Road Improvements	\$874,250
City of Harrisonville	Royal Street Extension	\$4,486,556
Herzog Contracting Corp	Route AC and Messanie Street Intersection Improvements	\$800,000
City of Owensville	Springfield Road Realignment	\$313,027
City of St. Joseph	Pickett Road and AG Expo Reconstruction	\$2,793,303
Montgomery County Commission	Mega Site Roadway Improvements	\$1,832,000
City of Bolivar	Bolivar East Loop Road	\$3,351,055
Total		\$75,000,000

TRANSPORTATION

Ain't no Sunshine on this street; too much danger in the driveway

Study of eastern Springfield corridor shows need to reduce left turns and access points



by Rance Burger
February 3, 2023



Sunshine Street has back-to-back signalized intersections with Oak Grove Avenue and Ventura Avenue that can be confusing and sometimes dangerous at times of heavy traffic. (Photo by Rance Burger)

Close calls and frustrations on the route to some fried foods have become the hallmark of a half-mile stretch of East Sunshine Street.

If you've tried to make your way from Lone Pine Avenue to Oak Grove, or caught a craving for food from Captain D's or the Peking House at the wrong time, you've probably been caught at the oddly spaced stoplights on East Sunshine Street. Sunshine was the subject of a Missouri Department of Transportation-commissioned study and an in-depth discussion by the Springfield City Council Jan. 31.

The Missouri Department of Transportation employed engineers from Garver, a transportation consulting firm that does traffic and road design studies. Mike Spayd, a senior consultant with Garver, said the intersections at Oak Grove, Ventura and Plaza avenues would be reconfigured immediately, “if we had more money and it was easy and we could do it right away.”

According to the Federal Highway Administration, well-managed arterial roads are overall 40-50 percent safer than poorly managed arterial roads. According to the study data, parts of Sunshine Street are downright dangerous. From 2016 to 2022, there were 728 traffic accidents on East Sunshine Street. Five persons were killed, and 13 more suffered disabling injuries. There were 11 accidents involving pedestrians and seven accidents with bicyclists. Two of the five fatalities were pedestrian or bicycle accidents.

“When you look at common crash types, left turn angle collisions happening at those access points and driveways, there were some — because of our unique signal configuration, some instances of red light runs and a need to make those more visible,” Spayd said.

Sunshine will get some upgrades

As part of its statewide transportation improvement plan, MoDOT plans to resurface Sunshine from Glenstone Avenue to Highway 125, improving sidewalks, traffic signals, intersections and general safety and traffic operations. It’s an **estimated \$8 million project**.

“With inflation, you’ll see an increase in that to about \$10.7 million,” MoDOT project manager Kristi Bachman said.

The engineers recommended adding medians to divide Sunshine between Luster Avenue and Oak Grove Avenue, and medians extending on each side of U.S. Highway 65 from Mayfair Avenue to Eastgate Avenue. Medians are meant to prevent left turns in certain places, which reduces the likelihood of a collision.

“As part of our study, we took a really deep dive into safety, specifically crash reports and crash data over the five most recent years that we had access to,” Spayd said. “There are likely more minor fender-benders that don’t get reported, or near misses.”

Car counts and traffic flows



The intersection of Sunshine Street and Plaza Avenue (Photo by Rance Burger)

East Sunshine Street accommodates about 32,000 cars per day, which is above the recommended threshold of 28,000 cars per day for a two-way road with five lanes.

“We looked at more than just safety, we also looked at operations,” Spayd said. “We did an inspection of every signal, its condition, its functionality, where upgrades would be needed.”

From Glenstone Avenue to Farm Road 199, there are 11 traffic signals on Sunshine Street. About 2.5 miles of the road are urbanized, and another 2 miles are a more rural, two-lane road. The big issues the transportation consultants identified are a high number of driveway access points, heavy development in some areas, limited and inconsistent pedestrian sidewalks, and uneven spacing of traffic signals.

At the end of the study, Garver made 112 project recommendations valued at more than \$14.3 million in today’s dollars. Then they ranked the projects.

“Obviously, the funding doesn’t exist to do that, so we had the prioritization process,” Spayd said.

Widening the corridor is not part of the considerations. The top recommendation is a complete traffic signal rebuild at Sunshine Street and Enterprise Avenue.

Garver also recommends the installation of a pedestrian hybrid beacon just east of Woodward Avenue near a City Utilities bus stop.

“There is about a half-mile stretch where there isn’t a traffic signal and there is pedestrian activity and a bus stop,” Spayd said.

Zooming out for a wider angle



The East Sunshine Street corridor will be resurfaced at an estimated cost of \$8 million in 2024. (Photo by Rance Burger)

Street access, intersection design and pedestrian safety are all top-of-mind in several spots in Springfield. From the soon-to-be improved Glenstone Avenue to Grant Avenue Parkway and the contentious zones on Sunshine Street at University Heights and Seminole/Holland, Springfield residents voice concerns about safety, and developers and engineers alike have to account for it.

City Councilman Richard Ollis owns a business on East Sunshine Street. At the council luncheon Jan. 31, he asked what assistance, if any, MoDOT would plan to offer business owners who stand to lose their driveways in the name of street reconstruction.

“The closure of access to some of these entrances is going to create the necessity for these businesses to do additional work to their premise in order for customers to be able to access their facility,” Ollis said.

Ollis asked what could be done to help businesses that run a perceived risk of losing clients, or if the traffic engineering would limit their ability to operate. Sometimes, Bachman said, there is a valid reason to keep a driveway open, like if it is the only way for larger delivery trucks to access a business.

“What we’ve done on some of the other projects in Springfield on Glenstone and Kearney Street is met with those business owners who had concerns about closing an entrance,” Bachman said. “We want to look at each one specifically, talk with the business owner, get their concerns, see if there’s something else that we can do to still get the safety benefit if there is a reason to keep that business open.”

Bachman said there have been 25 driveway closures on Glenstone Avenue and more than 30 driveway closures on Kearney Street.

Ollis said he still has a hard time with putting a cost burden on businesses.

Springfield Traffic Engineer Brett Foster said there are some simple solutions. One is a behavioral change. Drivers in Springfield simply avoid turning across lanes of traffic at certain times of the day, acknowledging that it’s not feasible when traffic is heavy.

“Very few people are making that left hand turn, because you can’t make it,” Foster said.

Another option is to legalize U-turns in more places on Sunshine. U-turns at stop lights, Foster said, can actually be very safe.

“You can make a U-turn at a traffic signal very safely if it’s a protected left hand turn,” Foster said.

Prepare for orange cones

Construction on the East Sunshine corridor project is scheduled to begin in the spring of 2024, **according to MoDOT**. An exact timeline for the project to resurface the road from Glenstone Avenue to Missouri Highway 125 will be made available as the start date nears.



Rance Burger

Rance Burger covers local government for the Daily Citizen. His goal is to help people know more about what projects their government is involved in, and how their tax dollars are being spent. He is a graduate of the University of Missouri–Columbia with 15 years experience in journalism. Reach him at rburger@sgfcitizen.org or by calling 417-837-3669. Twitter: @RanceBurger **More by Rance Burger**



TRANSPORTATION

Cutting through Parkcrest? Think again. Traffic slowing effort annoyingly works

Parkcrest complains the loudest, sees results from chicanes designed to slow and deter drivers



by Rance Burger
January 19, 2023



One of the chicanes on Broadway Street in the Parkcrest neighborhood near Mann Elementary School. (Photo by Shannon Cay)

Of Springfield's **35 neighborhoods**, the southwest dominion of Parkcrest ranks first in voicing complaints about fast cars.

In engineer Mandy Buettgen's 20 years of working for the city of Springfield, Parkcrest rates No. 1 in being a squeaky wheel in speeding complaints. No neighborhood is louder than Parkcrest when it comes to contacting the Springfield Department of Public Works about speeders.

"We hear from the Parkcrest neighborhood a lot, and so we've done some studies, and we've confirmed that, as well," Buettgen said.

As the result of some efforts to calm speeds on and between Campbell Avenue, Republic Road, South Broadway Avenue and Westview Street, a new breed of complainer emerged. People called to complain that they weren't going to cut through the neighborhood ever again. While Buettgen said the engineers stayed polite on the telephone, they celebrated upon hanging up the calls.

People complained that traffic chicanes are hard to maneuver, which is exactly the desired result.

What is a chicane? A serpentine curve in a road, added by man-made design rather than dictated by geography.



A one-lane chicane designed for 'traffic calming' in Seattle, Washington. (Photo: Richard Drdul, WikiCommons)

"It works by inconveniencing people," Springfield Traffic Engineer Brett Foster said.

The response to speeders in Parkcrest is likely to influence traffic in other parts of Springfield. Engineers gave a presentation on traffic calming to the Springfield City Council Jan. 17, outlining efforts to reduce speeds, and thereby reduce accidents. It fits with the "quality of place" mission found throughout the pages of Forward SGF, Springfield's comprehensive plan for growth and development over the next 20 years.

Part of the plan calls for neighborhoods to be made more livable and cohesive by making streets more walkable for pedestrians. In order for streets to be walkable, they must be safe. Foster explained the three E's of public safety: engineering, education and enforcement.

"One thing to note is it takes all three of these in national research to really be effective; not one can stand on its own," Foster said.

Pilot study in Parkcrest

Traffic engineers held neighborhood meetings with people from Parkcrest in May and August of 2021. Upon gathering input from concerned residents, they came up with plans to put four chicanes at problem speed spots, and traffic Islands at key entry points to the

neighborhood.

“The islands not only narrow the streets down,” Buettgen said. “Folks are less likely to speed when the lanes are narrow. And then also, it also changes the character of the neighborhood.”

Traffic engineers found a relatively cheap and modifiable solution for the pilot study, rubber curbs that are bolted to the pavement. The curbs were bolted down in Parkcrest on April 22, 2022.

“When the project is done, we can take those curbs and use them somewhere else to simulate another design that we want to try,” Buettgen said. “That gives us an opportunity to collect data and decide it works before we put a lot of money into a permanent project.”

Buettgen told the City Council that the feedback the engineers received in person differed strongly from the feedback people shared on Facebook, which was a “totally different animal.”

“For months, we had a lot of support, and then when we actually got within two weeks of actually installing this, that’s when a lot of opposition became apparent,” Buettgen said.

The city of Springfield held a public test driving event, where the spots for chicanes were marked with cones and lines on the road. They also brought emergency vehicles and a school bus to pass through the mocked-up chicanes.

Why care?

“We care because these are the citizens that use our streets,” Foster said, looking at a photograph of people who attended a public gathering in the Parkcrest neighborhood. “They are the people that use our neighborhoods, they are people that walk, bike, ride, generally spend their day-to-day lives in our neighborhoods throughout our town.”

Foster shared a statistic that 1 in 10 pedestrians struck by vehicles going 20 miles per hour are killed. When the speed increased to 40 miles per hour, the death ratio jumped up to 9 out of 10.

“At the lower speed, you have a much greater likelihood of being able to slow down and avoid that accident altogether,” Foster said. “Stopping distance is not linear, it’s exponential. As your speed increases, it takes you more time to react and stop.”

After the rubber curbs were installed, researchers from University of Missouri S&T collected data on Parkcrest driving. They reported a 50-percent overall reduction in speeding through the neighborhood. On Broadway Avenue, the rate of speeding dropped from 51 percent to 26 percent.

“That is huge, and so we’re really excited about that,” Buettgen said.

Springfield Police Chief Paul Williams said before the pilot study, Broadway Avenue was a regular source for complaints about speeding.

“We would do enforcement, and it would eliminate the speeding, and then a week or two later, we would quit enforcement and the complaints would come back in,” Williams said. “Since this implementation of traffic calming, we’ve had zero complaints of speeding from anybody living up and down Broadway.”

More than MPH to consider



General traffic of South Campbell and James River Freeway. (Photo by Shannon Cay)

Long-term decisions on traffic calming are as financial as they are philosophical. The city of Springfield has about \$800,000 budgeted for traffic calming and speed reduction measures for the next four years.

Some chicanes will stay in place, as the Missouri Department of Transportation oversees a **project to widen Republic Road** to five lanes and add turn lanes to the intersection of Republic Road and South Campbell.

The final completion date for the \$5.36 million project is Nov. 1, 2024. It's a long time for drivers who regularly travel through the area to seek alternate routes — and possibly go fast on side streets as they cut through.

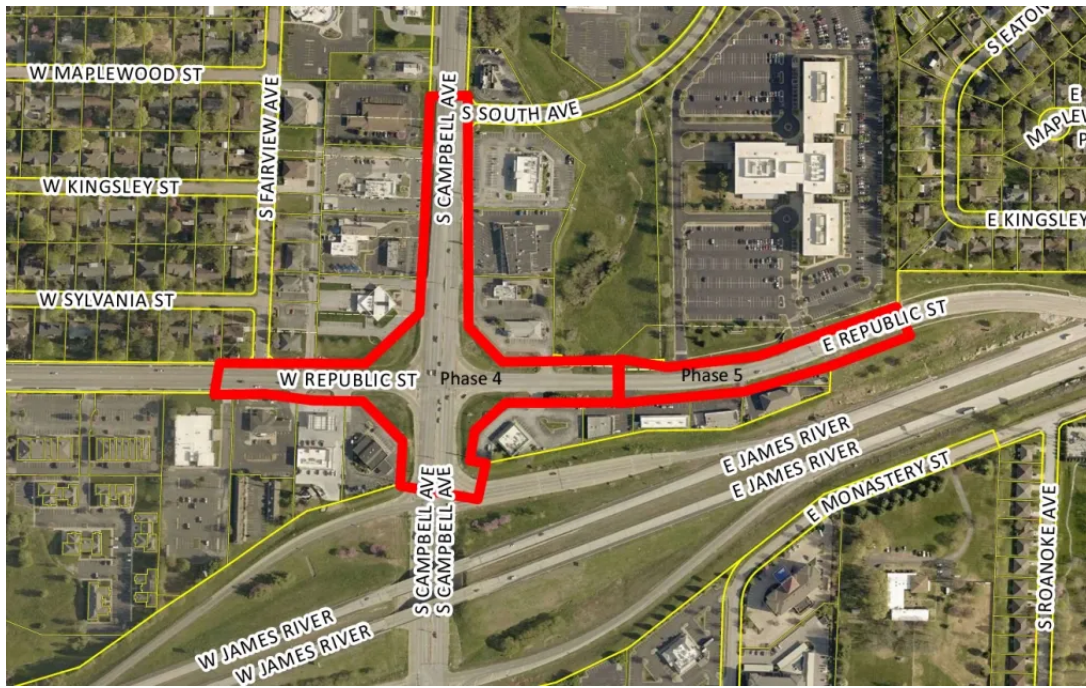
“As the last phase of the Republic Road widening project is going to come, there might be a lot of traffic that is displaced onto Broadway,” Buettgen said. “In the future, there is the potential for some time that there will be a whole lot of cut through traffic.”

Speeding is a top concern citizens of Springfield express to their city government, and so Buettgen said she hopes traffic calming measures will become “more mainstream” and more accepted as ways to address concerns with speeding.

Addressing concerns comes at a cost. The curbs in Parkcrest will run about six figures.

“These are not cheap, I am not going to lie,” Buettgen said. “We’re talking about \$80,000 to \$120,000 just for a couple of streets of traffic calming, which is a big portion out of our budget, so we want to make sure this is something people really want. We want to make sure it’s needed.”

What is traffic calming?



Republic Road and South Campbell Avenue (Illustrated map by the Missouri Department of Transportation)

Engineer Grady Porter explained the two types of traffic calming devices: horizontal and vertical. Horizontal devices cause drivers to turn their steering wheels to negotiate an obstacle. They include chicanes, roundabouts, curb extensions or bulbouts and “chokers.”

“They narrow the roadway using curb extensions or islands,” Porter said. “These are also beneficial, they can bring more awareness to pedestrians where there is a crosswalk at the location.”

Vertical traffic calming devices include speedbumps, speed humps or cushions, dips, and speed tables.

“They can be hard on vehicles and drivers,” Porter said. “Fire trucks and ambulances have to slow down for these, as well.”

Cherry Street has both speed tables and chokers at its intersections with Pickwick Avenue.

“Done correctly, I think it actually adds to the appeal,” Councilman Richard Ollis said of the speed tables and pedestrian crossings at Cherry and Pickwick. “People are more courteous when they’re driving, and they’re stopping and allowing you to cross.”

The traffic calming devices at Cherry and Pickwick are viewed as a big success story for the Springfield Department of Public Works.

Neighborhood efforts don’t always work to calm traffic

Some complaints about speeding are very obvious, like when drivers go more than double the speed limit and do so at night or in busy areas, like at Mann Elementary School.

“In some cases, people are going 70 miles an hour — never mind that there’s an elementary school there on Broadway,” Buettgen said.

When people complain about speeding, one of the most common requests they make is for more stop signs to be placed along the street in question. Foster says this can lead to stop signs being used in places where they probably should not be, which leads drivers to run or roll through stop signs they deem to be unnecessary.

Complainers also contact the Springfield Police Department or the Springfield Department of Public Works and ask for law enforcement officers to patrol the neighborhood more. Foster said enforcement works, but it's also not possible to put a cop on every problem street at all times.

“We also understand that there is a practical issue of having enough officers to do enforcement,” Foster said.

A six-day study of Broadway Avenue conducted in June 2022 found that an average of 2,561 vehicles go up and down the street each day. That **number is expected to climb** as work progresses on Republic Road and Campbell Avenue. The stretch of Republic Road between Broadway and Campbell took an average of more than 18,000 vehicles per day in a study in March 2022.



Rance Burger

Rance Burger covers local government for the Daily Citizen. His goal is to help people know more about what projects their government is involved in, and how their tax dollars are being spent. He is a graduate of the University of Missouri-Columbia with 15 years experience in journalism. Reach him at rburger@sgfcitizen.org or by calling 417-837-3669. Twitter: @RanceBurger **More by Rance Burger**



TRANSPORTATION

As more Springfieldians buy electric cars, airport leaders plan ahead

Charging stations are coming to Springfield-Branson National, rental car operators to get first dibs



by Rance Burger
January 24, 2023



The rental car lot at the Springfield-Branson National Airport will be equipped with four direct current fast chargers for electric vehicles. (Photo by Rance Burger)

So when will you, the proud owner of an electric car, be able to park in long-term parking at the airport, plug in the car, enjoy a five-day trip to Florida and fly back home to a fully-charged battery? Maybe in 2025.

Electric vehicle charging stations are coming to the Springfield-Branson National Airport. Rental car operators will get the first batch in the public terminal, with passenger parking lot stations coming later.

For now, rental car companies are mostly responsible for the demand, as they are stocking more and more electric vehicles in their fleets, said Dave Schaumburg, the airport's assistant director of aviation.

"The local market does not necessarily have that, because we don't have the infrastructure, but (rental car companies) are purchasing more and more of them," Schaumburg said.

Springfield Director of Aviation Brian Weiler said the airport aims to put charging stations in its passenger parking lots, but is seeking out some financial assistance before the purchases go into the airport's budget.

“We still want to aggressively pursue (putting electric vehicle chargers) in our paid parking lots,” Weiler said. “As you know, you’re seeing Teslas and other electric vehicles all around town. However, there are grant opportunities for that, and we are exploring those, and I actually feel like we are in a pretty good position.”

Industry demand matches consumer demand



Hertz is one of the three major rental car operators at the Springfield-Branson National Airport. (Photo by Rance Burger)

Rental car company executives say the demand to power electric vehicles matches a consumer demand to buy and try the cars.

In 2021, Hertz announced a \$4.2 billion deal with Tesla to purchase 100,000 vehicles. This set off reactions across the industry. Enterprise executives have not gone into specific figures, but CEO Chrissy Taylor discussed electric vehicles during the company’s 2022 fiscal year earnings report, issued in October.

“Our approach is focused on ensuring we deliver a great experience and investing purposefully to support the long-term viability of new technologies,” Taylor said.

Avis executives also discussed EVs with their shareholders at least four times per year, most recently in a third-quarter earnings report in 2022. While Avis rents cars from the Springfield airport, it also has a lot on West Sunshine Street.

“While we won’t get into specific figures, new electric vehicles will make up a growing portion of our 2023 fleet buys,” Avis CEO Joseph Ferraro said on Nov. 1. “When I talked about this last year, I said it was very important to make sure we follow consumer demand, maintain targeted utilization and ensure the stability of the economics throughout the life cycle of a vehicle from purchase to vehicle use and maintenance to end-of-life residual values.”

Eight companies have rental car counters at the Springfield-Branson National Airport.

What’s next at the airport?

The Springfield-Branson National Airport has a contract with Olsson Engineers, which subcontracted with the firm of Crawford, Murphy and Tilley to study electric vehicle infrastructure and make recommendations to the Springfield Airport Board.

The consulting engineers held several meetings with the rental car operators at the airport, and landed on a plan to install four direct current fast chargers (DCFCs), which can charge an electric car in about 20 minutes

“What makes the most sense for each one of those brand families — we thought that we were going to be more restricted because those (DCFCs) are significantly higher in costs,” Schaumburg said.

However, the estimated costs of moving a power transformer and running the necessary electrical lines in the rental car lots came in lower than expected, leading the engineers and the airport staff to recommend the Springfield Airport Board prepare to put four fast chargers in the rental lot.

Each of Springfield-Branson National’s three rental car operators with electric vehicles will have a designated charging station, and the airport will have a fourth station that can be used as a backup or in times when there is a rush to charge several electric vehicles at the same time.

The board voted for a \$58,470 budget amendment to pay Crawford, Murphy and Tilley to do the design and bidding work for the electric vehicle chargers, and to help with the construction phase of the installation project.

Brian Marshall, a consulting engineer with Olsson, is recognized as an expert in the infrastructure required to operate electric vehicles on a large scale. The airport will pay for power from City Utilities, and will bill rental car companies according to how much electricity their cars consume.

“The idea is to be able to track charges to individual rental fleets, so there’ll be one meter with City Utilities,” Marshall said. “The airport would pay that meter, but each device or each charging station has the ability to link specifically to each operator, you know, how often they use it, what amount of electricity they use, and that can be used to sub-bill however the airport decides.”

In years to come, slower chargers will likely be installed in passenger parking lots, where drivers park for longer spans of time. It’s also possible that the airport could put in a valet service unique for electric vehicles, where EVs would be charged while an owner is gone on a trip, but the vehicle is moved out of a parking space next to a charging station.

It may be more economical for the airport to install a higher volume of slower chargers, to make up for the potential loss of sales when an electric car sits parked at a charging station for several days.

Marshall said charging stations range in costs from \$500 to \$100,000 per unit depending on how much power they deliver, how quickly they work, and what sort of features they have.



Springfield Assistant Director of Aviation Dave Schaumburg (standing, center) discusses electric vehicle charging stations with the Springfield Airport Board Jan. 19, 2023. (Photo by Rance Burger)



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TRANSPORTATION

Electric Vehicle Charging Networks Trend Toward Convenience

Public charging networks like EVCS are turning to technology to make their platforms easily accessible and interoperable across a range of charging operators.

February 07, 2023 • Skip Descant



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Just as **electric vehicles** are becoming increasingly common, public charging opportunities continue to grow, are becoming more interoperable, and are being structured across a range of service plans.

"We think that our business model is going to be very smooth for renters," said Karim Farhat, vice president for partnerships at **EVCS**, an EV charging network with locations in California, Oregon and Washington.

EVCS, like other charging networks, understands the need to structure business models and partnerships to serve residents living in multifamily housing for EVs to become a workable mobility option for the millions of residents in apartments. Like other charging networks, drivers can use the EVCS system and pay per kilowatt. Or, they can sign up for a subscription plan, set up as a fixed allotment of kilowatts provided per month, or an unlimited package.

"You can either drive and pay as you go, or you can have a subscription, where you can rely on that charger next to you and you can use it over and over again," Farhat explained. "All of that is driving toward our strategy, which is really being open to as many EV drivers as possible."

Making charging available and convenient for residents living in multifamily housing has been a central conversation piece among policymakers and others, particularly since the rollout of the large federal infrastructure investment package which is helping to spur the build-out of national charging networks along major corridors, as well as to grow the number of "community" chargers.

The placement of public chargers, and the structure of their business models, is seen as a key component in ensuring equitable access to EVs. Up to 25 percent of drivers will rely solely on public charging infrastructure, said **Geoff Gibson**, senior program manager at Forth, an Oregon-based EV advocacy and public policy organization.

"And that is a large amount of people that will be very dependent on what we're all talking about here today," said Gibson, during a recent webinar to discuss public charging and policymaking.

The location of community chargers should be thought through and data-based using a range of metrics, said experts.

"Just throwing a charger into somebody's neighborhood and saying, 'Hey there's a charger there now,' I don't believe that's necessarily equity," said **Gabe Klein**, who heads up the newly formed Joint Office of Energy and Transportation, speaking at the January **Micromobility World Conference**. "So we're looking at the outcomes, the mobility outcomes that we're creating for people. And we've been encouraging states and cities to think about outcomes, versus just chargers."

EVCS takes the position to work with apartment buildings and property managers to locate charging onsite. However, it also looks for opportunities to locate charging nearby, and at locations like gyms, grocery stores and other services that may be in close proximity to an apartment building, making the charger easily accessible.

"The charger may not be exactly at the apartment complex, but it's going to be close enough for the people to go and do their other economic activities and still be able to get the charge," said Farhat.

Other charging operators like **Volta** are also looking to shopping centers and similar locations to site charging. The Volta business model depends largely on its advertising displays — large flatscreens attached to the chargers, which are generally free to use.

To make the charging experience more convenient, EVCS has partnered with Hubject, a technology company which enables the interoperability among charging networks.

"EVCS has an app. We love our app. We think we have a great app. But the driver does not have to use our app," said Farhat. "They can use another app that they prefer to be able to come to our charger, start a charging session, and pay for that charging session."

Hubject works as the "intermediary" that allows the connection between a charging network like EVCS and whatever app the driver is using to locate, access and pay for a charging cycle.

EVCS recently signed an \$8.1 million deal with the Washington State Department of Transportation (WSDOT) to build and retrofit 21 electric vehicle fast-charging stations in the state. The company also worked with the Oregon Department of Transportation (ODOT) to upgrade 44 existing car charging stations to DC high speed. The chargers also have 110-volt outlets, making them suitable for charging other devices like e-bikes and scooters.

"We work collaboratively with the DOTs across all three states," said Farhat. "The collaboration is customized to fit the needs of the DOT, and it's always dependent on the program that we're participating with, as part of those DOTs."

Tags: Electric Vehicles, Transportation, Policy



Skip Descant

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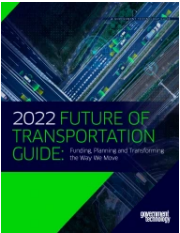
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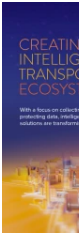
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