BANNING STUDY

Preliminary Transportation Improvements and Existing Conditions

> IN-PROGRESS DRAFT October 2024

Note to Readers:

This 'Preliminary Transportation Improvements and Existing Conditions' is the first deliverable (product) for the aRT3 Planning Study. This interim document focuses on:

- Overview of Planning Process
- Existing Conditions
- Preliminary Transportation Improvements

This report should be considered an <u>"In-Progress" document</u> and will be updated and edited, as needed, for the final plan. The intent of this document is to provide a foundation of existing conditions and initial draft strategies for transportation improvements.

It is important to note that this initial document represents the findings, data, and opinions of the Planning Team and is for informational and discussion purposely only. This document should not imply any current endorsement by the Illinois Department of Transportation (IDOT) or members of the Advisory Committee.

Thank you for taking the time to read this document and be part of the planning process. Future deliverables include:

- Final Transportation Improvements Plan (Spring 2025)
- Preliminary Enhancements and Art Master Plan (Late Spring 2025)
- Final Enhancements and Art Master Plan (Fall 2025)

Updates during the planning process are available at: www.aRT3Plan.com

ACKNOWLEDGMENTS

Advisory Committee

Rich Barbee, IDOT Sam Beelman, Beelman Truck Company Kirk Brown, IDOT **Rosemarie Brown**,* Chamber of Commerce Southwestern Madison County Tyrone Echols, Mayor, City of Venice Amy Elik, State Representative 111th District Matt Fitterer, Friedman Industries Tracey Glenn, Illinois Department of Commerce and Economic Opportunity John W. Hamm III, Mayor, City of Madison **Erica Harriss**. State Senator 56th District **Dennis Heepke**, Moreland Properties Paul Hubbman, East-West Gateway Council of Governments Jessica Iberg, Riechmann Transport Inc Cory lobe, Great Rivers and Routes Michelle Khani, Dynamic Transit Company Holly Klausing, Madison County Economic Development Gwen Lagemann, IDOT Mary Lamie, St. Louis Regional Freightway District SJ Morrison, Madison County Transit John Nations, Doster Nations Ullom & Boyle, LLC Mike Parkinson, Mayor, City of Granite City Paul Wellhausen,* Retired, SCF Lewis and Clark Marine Bryan Werner, Metro East Park and Recreation District Brenda Whitaker, Business Owner Dennis Wilmsmeyer, America's Central Port Thomas Wobbe,* Retired, America's Central Port

(*) Founding Route 3 (Chamber's "It Starts Here Foundation") Committee Member

America's Central Port

Dennis Wilmsmeyer, Executive Director Christie Voelker, AICP, Planner

Planning Team

The i5Group Stephen Ibendahl, AICP, ASLA Katie McLaughlin

Oates Associates Tom Cissell, PE, PTOE, LEEP AP Ryan Gueldener, PE

VIA Partnership Meridith McKinley

Added Dimension MaryAnn Taylor-Crate Kayla Allen Reggie Harris

Artist Noah Kirby

OVERVIEW OF PLANNING PROCESS

- Overview and Schedule
- The Importance of Route 3
 - Tourism
 - Economic Development
 - Community Gateways
 - Leveraging Existing Enhancements

OVERVIEW: aRT3 PLANNING STUDY

With a focus on traffic calming and place making, the aRT3 planning study involves identifying locations for enhancements, such as art installations and other transportation features, along the Route 3 corridor and its neighboring areas bordering the right-of-way. The study will also recommend transportation improvements to address safety for various modes of transportation (including vehicles, semi-trucks, and other modes of transportation).

The aRT3 planning study area encompasses the 8.5-mile stretch of Illinois Route 3 from the McKinley Bridge to Interstate 270. The planning process began in Spring 2024 and is anticipated to last 18 months.

The anticipated outcomes of the planning study will be a plan to:

- Enhance the image of Route 3.
- Improved transportation safety along Route 3.
- Attract infrastructure funding for Route 3 improvements.
- Foster economic development and job creation.

America's Central Port is facilitating a 'Planning and Research' grant from the Illinois Department of Transportation (IDOT) to conduct the planning study.

The name "aRT3" honors the Route 3 corridor and the significance of existing art along the corridor. While improving transportation safety will be a key objective, the plan will also concentrate on elevating the image of Route 3 through art and enhancements.

SCHEDULE

The planning process for the aRT3 Plan began in the Spring of 2024 and is expected to conclude in the Fall of 2025.

* = Key Public Engagement Events

Spring/Summer 2024	Fall 2024	Winter 2024/2025	Spring 2025	Summer/Fall 2025		
Planning Process	Preliminary	Final Transportation	Preliminary	Final Enhancements		
Kickoff	Transportation	Improvements Plan	Enhancements and	and Art Master Plan		
Formation of	Improvements Plan	• Begin	Art Master Plan	• Public Open House ★		
Stakeholder-Advisory	 Development of 	Enhancements and	• Art Working Group ★	 Implementation 		
Committee	Corridor Aesthetic	Art Master Plan	Corridor Business	Strategy		
Collect Corridor Data	Themes and		and Property Owners	Resolutions of		

Meeting #2 ★

Support

IMPLEMENTATION!

IN-PROGRESS DRAFT (October 25, 2024)

- **Begin Transportation** • Improvements Plan
- Corridor Business and Property Owners Meeting #1 苯

Principles

6 | aRT3 Planning Study: **Preliminary Transportation Improvements and Existing Conditions**

 Community Pop-up Engagement Events ★



THE IMPORTANCE OF ROUTE 3

WHY THIS SEGMENT OF ROUTE 3

As outlined on the following pages, this 8.5-mile stretch of Route 3 should be a priority for enhancements, safety improvements, and investment because of:

- Tourism
- Economic Development
- Community Gateways
- Leveraging Existing Enhancements

aRT3 PLANNING AREA

The aRT3 plan study area encompasses the 8.5-mile stretch of Illinois Route 3 from the McKinley Bridge to Interstate 270.

NEARBY ROUTE 3 INVESTMENTS

EW Gateway Transportation Improvement Program (FY 2024-2027) includes a \$65.5 million project of IL 3 from New Poag Road to Industrial Drive. This project overlaps the north end of the aRT3 study area.

EW Gateway Transportation Improvement Program (FY 2024-2027) includes a \$104 million IL 3 Connector from Collinsville Avenue to IL 3/203. This project is just south of the aRT3 study area.

\$325 million Route 3 improvements from Riverpark Connector to Monsanto Avenue is funded and included in IDOT's FY 2024-2029 Proposed Highway Program. The project is included in the 'Long Range Transportation Plan for the St. Louis Region Connected 2050.' This project is south of the aRT3 study area.



TOURISM

Route 3 serves as an important transportation link for regional tourism, attracting visitors from across the region, nation, and even internationally. It provides a vital route for travelers to access tourism destinations in both Illinois and Missouri.



(7) MCT Confluence Multi-Use Trail

(8) Horseshoe Lake State Park

(9) Gateway Arch National Park



ECONOMIC DEVELOPMENT

JOBS AND MAJOR EMPLOYERS

This segment of Route 3 (highlighted area) has a total of **4,500 jobs** and close to **20%** of the total manufacturing jobs in Madison County according to 2021 Census data.

1 Green Plains		(9) VEGA Transport
2 ASF-Keystone Rail	/Amsted	Northgate Business and Industrial Park
 Baily Internat 	ional	1 Riechmann Transport
④ Dynamic Trar	ısit	12 Kraft Heinz-Granite City
5) Friedman Ind	ustries, Inc.	(3) Wieland Recycling
6 Lewis and Cla	rk Marine	1 Precoat Metals- MMC
⑦ Weber Chevro	olet - Ford	(5) GEODIS Contract Logistics
8 Walmart		6 America's Central Port

• FUTURE DEVELOPMENT

The corridor has numerous available sites for future development, especially in the northern part of the corridor.

TRANSPORTATION HUB

The corridor is served by multiple modes of transportation serving the regional economy, including multiple river facilities, railroads, and over 2,500 trucks per day on Route 3. Truck traffic represents almost 20% of all traffic volumes on Route 3.

River Terminals and Docks

Potential Areas of Future Development



COMMUNITY GATEWAYS

Route 3 serves as the primary access point for the communities of Venice, Madison, and Granite City. Together, these cities have a combined population exceeding 32,000, with Granite City being the most populous at 27,549 as of the 2020 Census. Situated at the southern end of the Route 3 planning area, the McKinley Bridge holds significant importance as a gateway both to Missouri and the City of St. Louis. This bridge facilitates the passage of vehicles, bicyclists, and pedestrians, playing a crucial role in the regional bicycle network. The next Mississippi River crossing to the north for bicyclists and pedestrians is the Chain of Rocks Bridge.

The aRT3 planning study presents a unique opportunity to:

- Enhance the aesthetic appeal of each community entry.
- Improve overall transportation safety.

The focus on enhancing traffic safety is paramount. Facilitating safe transportation options is especially crucial given that a significant portion of residents in Venice (38%), Madison (18%), and Granite City (19%) live below the poverty line, according to Census estimates, and heavily rely on alternative modes of transportation such as public transit, walking, and bicycling. The aRT3 planning study aims to address these challenges by recommending measures for traffic calming and improving safety, particularly at intersections.

···· COMMUNITY GATEWAYS / ENTRANCES



11 | aRT3 Planning Study: Preliminary Transportation Improvements and Existing Conditions

LEVERAGING EXISTING ENHANCEMENTS

With the existing 'Salute to Steel' sculpture at the base of the McKinley Bridge and the investments in sculpture made by America's Central Port, corridor stakeholders have recognized the significance of aesthetic improvements along Route 3.



TRANSPORTATION EXISTING CONDITIONS

- Traffic Volumes
- Speed Limits
- Crash Data
- Lane Widths
- Transit
- Bicycle and Pedestrians

Existing Traffic Volumes

A significant traffic volume enters and exits the Route 3 corridor from I-270 at the north end of the study area. The average daily traffic is highest immediately south of I-270 and Chain of Rocks Road. As one moves south along Route 3, traffic volumes decrease as the number of vehicles traveling to or from I-270 decreases.

The average daily traffic ranges from 13,000 to 15,600 vehicles per day north of Rock Road. A significant commuter traffic volume to and from Granite City uses the Rock Road intersection. The average daily traffic south of Rock Road is considerably lower, ranging from 10,500 to 11,800 vehicles per day.



Existing Speed Limits

The Route 3 corridor generally has a posted speed limit of 55 MPH, except for the northern and southern ends. A 35 MPH speed zone exists just before the McKinley Bridge, and a 50 MPH speed zone is present north and south of the I-270 interchange.

It is important to note that while 55 MPH is the posted speed limit, feedback from stakeholders along the corridor indicates that traffic speeds are frequently much higher than 55 MPH.



Crash Data (2018-2022)

Crash Data was collected for a 5-year period from 2018 to 2022, which was used to calculate the average crash rate at each intersection and prioritize the most dangerous intersections. Crash rates for intersections are measured using a rate of Crashes / Million Entering Vehicles. The average crash rate is approximately 1.0, and an intersection with a crash rate of 1.0 or higher is considered a high crash rate intersection.

Six intersections along the Route 3 corridor had crash rates of 1.0 or higher, including Chain of Rocks Road, Missouri Avenue, Pontoon Road, Rock Road, Niedringhaus Avenue, and Broadway. Three of these intersections had crash rates of 1.5 or higher, including Missouri Avenue, Pontoon Road, and Rock Road. Improvements are suggested for each of the high crash rate intersections.



Crash Data (2018-2022)

The chart on this page provides details of crash data for each intersection in the Route 3 project corridor. The chart includes the number of daily entering vehicles, top three crash types, and top three crash causes.

	Daily Entering Vehicles					Crash Rates	Top 3 Crash Types			Top 3 Crash Causes			
Intersection	North Leg ADT	South Leg ADT	East Leg ADT	West Leg ADT	Daily Entering Vehicles	Total Crashes 2018 to 2022	(Crashes / Million Entering Vehicles)	1	2	3	1	2	3
Broadway	12000	14300	8200	0	17250	38	1.21	Turning	Rear End	Sideswipe Same Direction	Disregarding Traffic Signals	Following too Closely	Improper Lane Usage
Bissell St	11700	12000	1700	1450	13425	17	0.69	Turning	Sideswipe Same Direction	Rear End	Failure to Reduce Speed	Failure to Yield Right of Way	Following too Closely
Niedringhaus Ave	11300	11700	2250	1600	13425	27	1.10	Rear End	Turning	Sideswipe Same Direction	Failure to Reduce Speed	Disregarding Traffic Signals	Following too Closely
W 20th St	10500	11300	1900	700	12200	17	0.76	Fixed Object	Angle	Rear End	Failure to Reduce Speed	Disregarding Traffic Signals	Failure to Yield Right of Way
Rock Rd	13000	10500	3800	525	13912.5	38	1.50	Turning	Rear End	Angle	Following too Closely	Failure to Reduce Speed	Disregarding Traffic Signals
North St	13000	13000	350	150	13250	13	0.54	Turning	Rear End	Sideswipe Same Direction	Failure to Reduce Speed	Failure to Yield Right of Way	Equipment-Vehicle Condition
W Pontoon Rd	10300	13000	5650	900	14925	51	1.87	Turning	Rear End	Sideswipe Same Direction	Failure to Reduce Speed	Failure to Yield Right of Way	Disregarding Traffic Signals
Missouri Ave	14600	10300	4350	500	14875	52	1.92	Turning	Rear End	Angle	Failure to Yield Right of Way	Failure to Reduce Speed	Improper Turning / No Signal
Northgate Industrial Dr	14600	14600	0	500	14850	10	0.37	Rear End	Turning	Fixed Object	Failure to Reduce Speed	Disregarding Traffic Signals	Distraction from Inside Vehicle
St Thomas Rd	14300	14600	1000	100	15000	23	0.84	Turning	Rear End	Angle	Following too Closely	Failure to Reduce Speed	Failure to Yield Right of Way
W Chain of Rocks Rd	10900	14300	1950	950	14050	35	1.36	Rear End	Sideswipe Same Direction	Angle	Failure to Reduce Speed	Following too Closely	Disregarding Traffic Signals

* Crash Data was obtained from IDOT at gis-idot.opendata.arcgis.com

Existing Number of Lanes

North of 20th Street, Route 3 consists of two lanes in each direction. Between Bissell Street and 20th Street, it expands to three lanes in each direction. South of Bissell Street to the McKinley Bridge, Route 3 alternates between two and three lanes, creating areas with wide lane widths where the number of lanes transitions.



Above: Segment or 2-lanes near North Street.



Above: Segment of 3-lanes in front of America's Central Port.



Above: Segment of a mix of 2-lanes and 3-lanes.



Granite City Shuttle Bus Route

Three bus routes serve this section of Route 3, including:

- Granite City Shuttle
- Riverbend
- **Riverbend Express**

This page provides an overview of the Granite City Shuttle Bus Route. The following pages cover the Riverbend and Riverbend Express routes.

The Granite City Shuttle Bus Route serves portions of Granite City, Madison, and Venice. The northern limit of the route includes Northgate Industrial, providing access to several businesses and Chestnut Health Systems. It also connects to the Granite Park retail complex (featuring stores like Aldi and Walmart) and America's Central Port. The southern limit of the route covers areas in Venice and Madison.



Above: Northgate Industrial Park



Above: Schaefer Rd including Aldi and Walmart.



Above: Residential area of America's Central Port.



Above: Venice Park District building.



Riverbend Bus Route

The Riverbend route connects the MCT station in Alton with the MCT station in Granite City.

Along Route 3, the route includes stops at Chain of Rocks Road, Northgate Industrial, and the Granite Park retail complex (featuring stores like Aldi and Walmart). The stops at Chain of Rocks and Northgate Industrial are located directly adjacent to Route 3, with no dedicated pedestrian facilities connecting them to nearby businesses.



Above: Chain of Rocks Road. Stop is adjacent to Route 3.



Above: Northgate Industrial complex. Stop is adjacent to Route 3.



Above: Schaefer Rd including Aldi and Walmart.



Map: Riverbend Bus Route

Riverbend Express Bus Route

The Riverbend Express is an express route serving Godfrey, Alton, Bethalto, and other Route 3 communities, connecting them to downtown and midtown St. Louis.

This route has limited stops, with the only stop in the aRT3 study area located at the River's Edge Park & Ride in America's Central Port.



Existing Bike Facilities

The aRT3 study area overlaps an important area of the regional bicycle network, featuring several key trails. Notably, it includes important north-south connections across the Mississippi River: the Chain of Rocks Bridge to the north and the McKinley Bridge to the south, both of which create a loop for the shared-use path network.

Existing Bike Facilities

- MCT Confluence Trail
- (2) Old Chain Of Rocks Bridge Trail
- (3) McKinley Bridge Bikeway
- (4) MEPRD Eagle Points Trail
- (5) MCT Schoolhouse Trail
- (6) Wilson Park Trail
- (7) MCT Nature Trail Spur
- (8) Riverfront Trail

Future Bike Facilities

- A Metro East Riverfront Trail Connection Connection to the Metro East Riverfront Trail is expected to be completed in 2026.
- B Schoolhouse Trail Connection Planning is on-going for connecting the Schoolhouse Trail to the Confluence Trail. Alignment and schedule to be determined.



Map: Existing Bike Trails

Existing Active Recreation

The maps on this page include Strava heat maps showing pedestrian (walking, running, etc.) and cycling activity in and around the aRT3 study area.

It's important to note that this data comes from Strava, a social network and app for athletes that allows users to track and record their physical activities. As the data is self-reported, it primarily reflects individuals exercising. It likely does not capture those walking or cycling for commuting purposes (e.g., traveling to a transit stop or business).

Despite this limitation, the data provides an interesting snapshot of active recreation in the study area.



Map: Strava Heat Map - All Pedestrian Traffic (Running, Walking, Hiking, etc)

Map: Strava Heat Map - All Cycling

Leewis and

Nameoki

TRANSPORTATION PRELIMINARY SAFETY STRATEGIES

- Draft Traffic Safety Strategies
- Intersection Options
- Road Diet

Draft Traffic Safety Strategies

The Route 3 corridor can be divided into two main sections:

- The northern half from Rock Road to I-270
- The southern half from the McKinley Bridge approach to Rock Road

The northern half of the Route 3 corridor is designed like a rural highway, with wide, depressed medians and paved shoulders, faster speed limits, and high traffic volumes. This section includes most of the high crash rate intersections, including Missouri Avenue, Pontoon Road, and Rock Road. This study includes recommended geometric changes to these intersections to reduce the hazardous crash types identified from the historical crash data.

The southern half of the Route 3 corridor is designed like an open suburban highway, with narrower raised medians, frequent signalized intersections, and lower traffic volumes. This section includes several lower crash rate intersections, and speeding was identified as a common factor for the crashes that occurred. This study includes recommendations for a road diet from the McKinley Bridge approach to Rock Road. A road diet would consist of removing a lane in either direction to reduce traffic speeds by visually narrowing the corridor and physically making it more difficult for vehicles to pass one another. The extra greenspace can be used to add visual traffic calming features such as wayfinding, landscaping, or art for aesthetic improvements.

•

.

Most of the existing grass median south of Rock Road features a raised curb (except for the wide grass median just north of Broadway). The transition from three to two lanes occurs between 20th Street and Rock Road, making Rock Road the northern extent of the road diet recommendation.



Map: Segments for Transportation Recommendations

Draft Traffic Safety Strategies

The chart on this page provides an overview of draft strategies for each intersection, which will be further evaluated in collaboration with corridor stakeholders. Some intersections feature multiple options.

Five intersections include options for geometric changes.

The following pages include:

- Existing aerial of the five selected intersections.
- Restricted Crossing U-Turn (RCUT) / J-Turn
- Median U-Turn (MUT)
- Continuous Green T
- Roundabout
- Realignment

		Restricted Crossing U-Turn (RCUT) / J-Turn	Median U-Turn (MUT)	Continuous Green-T	Roundabout	Realignment	Corridor Road Diet		
orth	Chain of Rocks Rd	future IDOT project (not part of study)							
ž ♠	St. Thomas Rd	x						ıges	
	Northgate Industrial			Х				c Char	
	Missouri Ave	X	Х	X	Х			ometri	
	Pontoon Rd				X	Х		on Geo	
	North St							rsectio	
	Rock Rd	X			X			Intel	
	20th Street						Х	toad	
	Niedringhaus Ave	X							
th	Bissell St X							Cori	
Sout	Broadway	future IDOT project (not part of study)							

Existing Condition St. Thomas Road



Existing Condition Northgate Industrial Drive



Existing Condition Missouri Avenue



Existing Condition Pontoon Road



Existing Condition Rock Road



Draft Intersection Strategy: Restricted Crossing U-Turn (RCUT) / J-Turn



Source: Virginia Dept of Transportation

Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

BENEFITS: RCUT

- Reduces fatal and injury crashes by approximately <u>22%</u> (FHWA data).
- Lowers number of conflict points from 42 to 18.
- Remove risk of far-side right-angle collisions.
- Each street (NB/SB/ operates independently, with fewer signal phases and higher intersection capacity.

BENEFITS: J-Turn

- Reduces fatal and injury crashes by approximately <u>63%</u> (FHWA data).
- Lowers number of conflict points from 42 to 24.
- Remove risk of far-side right-angle collisions.



Draft Intersection Strategy: Restricted Crossing U-Turn (RCUT) Missouri Ave





MISSOURI AVE - RCUT CONCEPTUAL LAYOUT

Draft Intersection Strategy: Restricted Crossing U-Turn (RCUT) Rock Rd



ROCK RD - RCUT CONCEPTUAL LAYOUT

OATES ASSOCIATES

Draft Intersection Strategy: J-Turn St Thomas Rd





ST THOMAS RD - J-TURN CONCEPTUAL LAYOUT

Draft Intersection Strategy: Median U-Turn (MUT)



Source: Virginia Dept of Transportation

Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

BENEFITS: Median U-Turn (MUT)

- Reduces fatal & injury crashes by approximately <u>30%</u> (FHWA data).
- Lowers number of conflict points from 42 to 16.
- Remove risk of far-side right-angle collisions.
- Eliminates Left-Turn movements from the main intersection, reducing the number of signal phases which reduces delay and increases intersection capacity.



Draft Intersection Strategy: Median U-Turn (MUT) Missouri Ave



MISSOURI AVE - MODIFIED MUT CONCEPTUAL LAYOUT

Draft Intersection Strategy: Continuous Green-T



BENEFITS: Continuous Green-T

- Reduces Total crashes by 4% (FHWA data).
- Reduces Fatal & Injury crashes by **<u>15%</u>** (FHWA data).
- Reduces Rear-End, Angle, & Sideswipe crashes by **8%** (FHWA data).
- Remove risk of far-side right-angle collisions.
- Lowers number of conflict points.
- Left-turning vehicles have channelized lanes, which reduces the potential of Angle crashes.
- The NB direction along Route 3 is in free-flow, which reduces the number of signal phases, reducing intersection delays.



Draft Intersection Strategy: Continuous Green-T Northgate Industrial Dr



NORTHGATE INDUSTRIAL DR - CONTINUOUS GREEN TEE CONCEPTUAL LAYOUT



Draft Intersection Strategy: Continuous Green-T Missouri Ave





OATES ASSOCIATES

Draft Intersection Strategy: Roundabout



BENEFITS: Roundabout

- Reduce fatalities by up to 90% (FHWA data).
- Reduce injury crashes by up to 76% (FHWA data).
- Lowers number of conflict points from 42 to 24.
- Traffic must yield to vehicles in the roundabout.
- Reduce speed along Route 3 due to deflection in the alignment and yielding to other vehicles.



Roundabout Precedent Research

The use of roundabouts in Illinois has increased significantly over the past decade. However, most roundabouts in the Metro East, Southern Illinois, and the greater St. Louis region have predominantly been single-lane designs. There are few examples of two-lane roundabouts in Illinois and Missouri.

The safety benefits of roundabouts (such as a 90% reduction in fatalities and a 76% reduction in injury crashes) underscore the need to evaluate their implementation on Route 3. In addition to enhancing safety at intersections, roundabouts can help calm traffic between intersections, as vehicles must slow down when approaching and navigating through them.

The following pages present four precedent examples of two-lane roundabouts from different parts of the country. Three of these roundabouts handle traffic volumes much higher than those on Route 3, and all feature a significant amount of truck traffic, though still less than the truck traffic on Route 3.

The precedent roundabouts on the following pages include:

- South Carolina SC46 and Okatie Hwy
- New York I-587 and NY28
- Georgia GA-HWY 88
- Vermont NH-9 and Putney Rd



Above: A truck navigating a two-lane roundabout. The following pages provide precedent examples of two-lane roundabouts that handle high traffic volumes and substantial truck traffic.

Roundabout Precedent: South Carolina SC46 and Okatie Hwy

Coordinates: 32.241717, -80.981110

Traffic Volumes

- 26,300 to 15,700 AADT
- 8% Truck Traffic





Looking west along SC46 approaching roundabout.



Looking west along Okatie Hwy approaching roundabout.

Roundabout Precedent: New York I-587 and NY28

Coordinates: 41.943884, -74.028389

Interstate-587 ends at the roundabout.

Traffic Volumes

- 25,065 to 14,006 AADT
- 7% Truck Traffic







Looking northwest at end of I-587 approaching roundabout. Interstate 587 ends at the roundabout.

Looking northwest entering roundabout from I-587.

Roundabout Precedent: Georgia GA-HWY 88

Coordinates: 32.993879, -82.771448

Limited access rural highway. GA-88 has 55 mph speed limit.

Traffic Volumes

- 3,950 to 2,400 AADT
- 30% Truck Traffic

Although this example features much lower traffic volumes, it demonstrates the use of a two-lane roundabout on a limited-access rural highway with a high speed limit (55 mph)





Looking east along GA-HWY 88 toward roundabout.

Roundabout Precedent: Vermont NH-9 and Putney Rd

Coordinates: 42.885217, -72.556725

Traffic Volumes

- 15,746 to 10,566 AADT
- 8% Truck Traffic



Looking at north exit from roundabout with truck navigating through roundabout.

Draft Intersection Strategy: Roundabout Missouri Ave



MISSOURI AVE - ROUNDABOUT CONCEPTUAL LAYOUT

Draft Intersection Strategy: Roundabout Pontoon Rd





W PONTOON RD - ROUNDABOUT CONCEPTUAL LAYOUT

Draft Intersection Strategy: Roundabout Rock Rd



ROCK RD - ROUNDABOUT CONCEPTUAL LAYOUT

OATES ASSOCIATES

Draft Intersection Strategy: Realignment

Another possible improvement to the Pontoon Road intersection is to realign the westbound approach so that all four legs are at perpendicular angles from one another and to remove the northbound-right turn slip lane. This intersection design does not require significant changes to the northbound, southbound, or eastbound approaches and is generally less expensive to implement.

The existing westbound approach is at a 67-degree angle from the Pontoon Road intersection. Perpendicular approaches are safer than skewed approaches, and the existing skew reduces the visibility of vehicles on the southbound approach. Realigning the westbound approach improves visibility by moving the field-of-view of drivers on the westbound approach. The Federal Highway Administration published a report concerning the impacts of intersection angles on highway safety and found that the critical angle at which consideration should be given to realigning an intersection is between 60 – 75 degrees.

The existing northbound-right slip lane has a 700 ft radius and existing superelevation, with a design speed of 45 mph. This allows vehicles to bypass the Pontoon Road intersection at high speeds and creates a conflict point when the slip lane merges with Pontoon Road. Vehicles traveling along the slip lane may drive at or faster than 45 mph while vehicles traveling east from the intersection are still accelerating.

BENEFITS: Realignment

- Remove free flow NB Right lane and greatly reduce the turn radius, reducing driver speeds.
- Realign the WB approach so that each leg of the intersection is at 90 degrees.



Draft Intersection Strategy: Realignment Pontoon Rd





W PONTOON RD - EB REALIGNMENT CONCEPTUAL LAYOUT

Road Diet Strategy: Existing Conditions McKinley Bridge to Rock Road





The existing typical sections between the McKinley Bridge approach and Rock Road are inconsistent: some segments include two lanes in each direction, and others include three lanes. One segment includes a depressed grass median, a second includes a raised median barrier, and a third includes a raised curb median (see this page and following pages for examples of the existing conditions).

Road Diet Strategy: Existing Conditions McKinley Bridge to Rock Road





Road Diet Strategy: Existing Conditions McKinley Bridge to Rock Road



EXISTING IL-3 TYPICAL SECTION - 4 LANES AND DEPRESSED GRASS MEDIAN

Road Diet Strategy: Proposed Conditions (Draft) McKinley Bridge to Rock Road



PROPOSED IL-3 TYPICAL SECTION - DEPRESSED MEDIAN

This study includes two typical sections that apply to the entire segment between the McKinley Bridge approach and Rock Road. Both options include two 12-ft wide lanes with a 10-ft wide shoulder in each direction, with the main difference being the median type. Both designs would also require frequent turnarounds for emergency and maintenance vehicles. The existing sections north of Rock Road would remain unchanged. The first option includes a raised curb median and no inner shoulder, matching the existing median between Rock Road and Niedringhaus Avenue. This layout is consistent with the IDOT *Bureau of Design and Environment Manual's* (BDE) design guidelines for an open suburban highway. The BDE suggests an 18-ft wide minimum width for such a median, with design speeds of 45 mph or less.

The second option includes a depressed grass median with a 4-ft wide paved shoulder in each direction, which matches the design between Broadway and Bissell Stree. The BDE suggests typical median widths of 44 ft to 50 ft, though these do not fit within the existing right-of-way corridor.

Other Items

Utility Information

Utility information is being collected and will be reviewed as conceptual options are refined and selected. At this time, the planning teams has obtained information from Ameren, AT&T, Charter Spectrum, Clearwave Fiber, Everstream, and Illinois American Water.

Stormwater

The northbound and southbound lanes along Route 3 are crowned, and water sheet flows towards the shoulders and the median. Grate inlets and storm sewer existing along the existing median curb and median barrier, allowing water to drain to the outside of the corridor. There are no outer curbs between Broadway and I-270, allowing the sheet flow to draing to the adjacent grass swales. Water is eventually directed to the Mississippi River.

Granite City feedback mentioned drainage and flooding issues along the east side of Route 3 between 20th St and Rock Rd.

Initial Considerations

Other items for review resulted from community and committee feedback:

- Truck user feedback indicated a major problem on the corridor with trucks stopping and starting from 55 mph at traffic signals.
- Truck user feedback indicated u-turns are a concern due to slow starts from stop speeds.
- Truck user feedback did not indicate opposition to large diameter, multi-lane roundabouts.
- The advisory committee asked that study feedback be considered into the Broadway and Chain of Rocks intersection designs that IDOT is currently developing.
- Madison County Transit is studying a shared-use path crossing in Venice to the Confluence Trail.

OTHER EXISTING CONDITIONS

- Grass Maintenance
- Land Use and Zoning
- Jobs
- Natural Resources

Existing Route 3 Right-of-Way Grass Maintenance

A frequently mentioned priority in terms of corridor aesthetics for property owners, businesses, and stakeholder along Route 3 is the simple act of grass mowing and litter pick-up. This section attempts to quantify areas of grass within the Route 3 that requires mowing and potential costs involved to increase mowing frequency.

Corridor Businesses and Property Owners Already Provide Significance Maintenance

Almost 20% of grass is the Route 3 right-of-way is already maintained by adjacent property owners or businesses. This value of this existing maintenance is approximately \$40,000 - \$50,000 a year. If only high priority areas (highly visible areas like medians, in front of businesses, etc.) are considered, approximately 35% of the areas are maintained by corridor stakeholders.

Not All Areas are Highly Visible

Budgetary Mowing Costs

While there are approximately 120 acres of grass within the Route 3 right-of-way, not all these areas highly visible. This analysis breaks the corridor down into 'High Priority,' 'Medium Priority,' and 'Low Priority,' areas based on their visibility. Thus, funds to increase mowing and maintenance can be targeted toward the highest priority locations.

This analysis of grass mowing was conducted in Summer 2024 and is based on site visits, Google street views, and discussions with property/business owners. Assumptions have been made based on maintenance and as more detailed information becomes available, quantities may change. Acres of grass in the Route 3 right-of-way does not include all areas in the right-of-way (some areas may are natural habitats, rock, or other non-grass surfaces).

Costs shown should be considered approximate budgetary numbers. Actual costs can vary significantly based on economy of scale for the mowing contractor and access to certain parts of the right-of-way.

Existing 3rd High Medium Low Party Priority Priority Priority Maintenance Areas Areas Areas 129 Acres 26 48 37 18 total acres Mows per 16 8 4 varies year Cost per \$105 \$105 varies \$105 mow/acre \$40,000 -\$75.000 -\$25,000 -\$7,000 -\$50,000 \$85,000 \$35,000 \$9,000





Above: Existing mowing along Route 3.





Segment 1: Existing Grass Maintenance



Segment 1: Existing Grass Maintenance

Segment 2: Existing Grass Maintenance



Segment 2: Existing Grass Maintenance

Legend

Existing 3rd Party Maintenance High Priority Mowing Areas Medium Priority Mowing Areas



Segment 3: Existing Grass Maintenance





Segment 3: Existing Grass Maintenance

Segment 4: Existing Grass Maintenance







Legend

High Priority Mowing Areas Medium Priority Mowing Areas Low Priority Mowing Areas



Segment 4: Existing Grass Maintenance

Segment 5: Existing Grass Maintenance





Legend

Existing 3rd Party Maintenance
 High Priority Mowing Areas
 Medium Priority Mowing Areas
 Low Priority Mowing Areas



Segment 5: Existing Grass Maintenance

Existing Land Use

The map on this page illustrates the existing land use along the Route 3 corridor, based on parcel designations from the Madison County Assessor.

The existing land use map highlights the diverse land uses in the area, including residential, industrial, manufacturing, parks, and agricultural zones.

Residential areas are primarily located adjacent to Route 3, especially south of North Street. The southern portion of the corridor is dominated by industrial and port activities, while the northern section features large expanses of agricultural land interspersed with industrial and commercial areas.



Existing Zoning

The map on this page is the existing zoning map for the City of Granite City, which covers most of the plan study area.

Most of the area west of Route 3 is zoned River/Port Industrial District or Planned Industrial District. Areas east of Route 3 includes several zoning districts including Planned Industrial District, Heavy Industrial District, Single-Family Residential District, and Light Industrial District.



Map: Existing Zoning

Future Development and Jobs (Full Build Out)

An important consideration for the future of Route 3 is ensuring the corridor can accommodate potential increases in traffic volumes resulting from future development and job growth. The map on this page highlights areas along Route 3 with potential for development.

Typically, the analysis of future development begins with a review of the local future land use plan. However, most of the land within the Route 3 study area falls within Granite City's limits, whose last comprehensive plan (including the future land use plan) was completed in 1990—over 34 years ago. As a result, the existing future land use plan is outdated and less useful for assessing potential future development.

In the absence of an updated local future land use plan, the planning team made development assumptions based on current zoning, adjacent land uses, and areas currently being marketed for development along the corridor. It's important to note that the areas shown on the map as potential development are based on identified vacant parcels. However, market demand and absorption rates remain unknown. This analysis should be viewed as a potential maximum development scenario rather than a market forecast predicting a specific amount of development over time. Additionally, this analysis does not account for new development or the redevelopment of already developed parcels. The planning team may incorporate growth rates of existing traffic volumes to account for the expansion of current businesses along the corridor.

Below: A brochure by Jones Lang LaSalle marketing sites along Route 3 for industrial development.

Land Sale Opportunities | ±73 - 715 ACRE | I-270 & IL-3, Granite City, IL (Metro St. Louis)

RTE 3 Industrial is a ±715 acre, three site, industrial development area along the IL RTE 3 Corridor between downtown St. Louis and Interstate 270. With unmatched rail access, available utilities and heavy industrial zoning, the sites can handle nearly all distribution and manufacturing needs.

Located in the path of progress, the sites offer companies and developers access to largescale development sites, with excellent market connectivity and road access, in a business-friendly environment.





Potential Future Jobs for Areas of New Development (Route 3)

Acres	Jobs Per Acre	Total Jobs	
728	4	2,912	
399	8	3,190	
8	15	125	
60	10	601	
1.195		6.828	
	Acres 728 399 8 60 1,195	Acres Jobs Per Acre 728 4 399 8 8 15 60 10 1,195	

The chart on this page illustrates the potential number of new jobs that could be created in areas of new development along Route 3. Job density predictions can vary significantly, even within similar economic sectors. The estimate for jobs per acre in the "Manufacturing - Logistics" sector is based on the planning team's analysis of the Gateway Commerce Center, which has a job density of 4.1 jobs per acre.

There are approximately 4,500 existing jobs along the Route 3 corridor. Full build-out of the Route 3 corridor could include an additional 6,800 jobs for a total of over 11,000 jobs along the Route 3 corridor.

Natural Resources

The land cover maps on this page illustrate how Route 3 serves as a transition area, from the industrial urban areas of Granite City to the natural ecological habitats of the Mississippi River and Chouteau Island.

Along Route 3, several stretches of the highway curve through open spaces and wooded areas, particularly north of North Street.

America's Central Port contains a significant amount of open space, owing to its legacy as a former army base with planned grounds and other features.

The land cover maps also highlight the considerable acreage under agricultural production in the northern parts of the corridor. As noted in the "Future Jobs" section of this document, much of this farmland is actively being marketed for development.

Urban land cover consists of two categories: "High Intensity" and "Medium Intensity." "High Intensity" areas are almost entirely impervious surfaces, while "Medium Intensity" areas are a mix of impervious and permeable surfaces. Many residential areas fall into the "Medium Intensity" category, as they contain a combination of impervious surfaces like rooftops, sidewalks, and streets, along with permeable surfaces such as lawns and gardens.



Natural Resources: Ecological Significance

The map on the previous page shows the types of natural resources (e.g., woodland, grassland), while the map on this page highlights the *quality*, or ecological significance, of those resources. The East-West Gateway Council of Governments compiles data on ecological significance. Areas with high ecological significance are characterized by biologically diverse vegetation and habitats, the presence of native species, and, most importantly, connectivity in larger patches.

As shown on the map, Chouteau Island and areas near the levee contain natural habitats with significant ecological value. Some smaller ecologically significant areas also exist near North Street and east of St. Thomas Road.

Below: Chouteau Island. The Mississippi River corridor is important for its ecological significance.





Map: Natural Resources: Ecological Significance

www.aRT3Plan.com

last updated 10/25/2024