



# LEVEL 1 CONCEPT DEVELOPMENT, SCREENING PROCESS, AND RESULTS TECHNICAL REPORT

*Prepared for:*



*Prepared by:*



October 25, 2022

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## 1 LEVEL 1 CONCEPT DEVELOPMENT AND SCREENING PROCESS SUMMARY

During the Level 1 concept development and screening process, the Future64 project team (MoDOT project management staff and consultant team staff) developed a wide range of possible concepts to improve I-64 between Kingshighway Blvd. and Jefferson Ave. based on the project Purpose and Need statement. A set of criteria was developed, and each concept was qualitatively screened to determine how well it addressed the project Purpose and Need. The result was a set of recommendations for the concepts and the most promising elements of the concepts that will be used to develop three distinct corridorwide alternatives for more detailed evaluation in Level 2 screening.

## 2 PURPOSE AND NEED

The project team reviewed the existing conditions data that was collected and developed a draft Purpose and Need statement. The Community Advisory Group (CAG) and Technical Advisory Group (TAG) met May 11 and 12, 2022, respectively, to review the draft Purpose and Need statement. The public had an opportunity to review and comment on the draft Purpose and Need statement during the first public meeting that was held in-person on May 18, 2022, and online throughout the month of May. Additional community input was collected through an extensive outreach effort that included surveys, neighborhood meetings, outreach to elected officials, and pop-up meetings. Based on the comments received, the draft Purpose and Need statement was refined and submitted to FHWA for concurrence. FHWA reviewed the Purpose and Need statement and provided comments on July 11, 2022. The final Purpose and Need statement is as follows:

### PURPOSE

The purpose of the reasonable transportation improvements on Interstate 64 (I-64) between Kingshighway Blvd. and Jefferson Ave. is to renew and modify the transportation system to have safe and reliable facilities for all users that improve access to destinations and support community vitality for the long term.

### NEEDS

The needs are the key problems and the causes of those problems that MoDOT is seeking to address with transportation improvements on I-64 between Kingshighway Blvd. and Jefferson Ave.

1. Increase safety for all users.
2. Improve transportation system with intuitive navigation to, from, and across I-64.
3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users.
4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair.
5. Maintain Interstate function, operations, and capacity for the future.

### 3 LEVEL 1 SCREENING CRITERIA

The criteria for Level 1 were based on the Purpose and Need.

Two criteria were developed for each of the five project Needs. Those criteria were reviewed and revised based on feedback from MoDOT, East-West Gateway, Metro, Great Rivers Greenway, and City of St. Louis. Revisions included the addition of a criterion to identify “Other Challenges to Implementation” related to each concept, which was included to consider fatal flaws outside of the Purpose and Need.

The criteria for each of the Needs are shown in Table 1.

### 4 LEVEL 1 CONCEPT DEVELOPMENT

The initial concepts were developed through Innovation Brainstorm workshops that were attended by FHWA, MoDOT, the consultant team, members of the Steering Committee, and local stakeholder group representatives. There were 26 participants for the Interchange, Intersection, and TSMO workshop held on March 31, 2022. There were 28 participants in the Urban Mobility and Sustainability workshop held on April 1, 2022. These workshops generated several ideas and concepts. A similar group participated in a workshop held June 28, 2022, to refine the initial ideas and develop a range of concepts. The broad group of innovative thinkers from outside of the project team with different areas of expertise helped to expand the potential range of concepts.

The project team took the workshop concepts and developed 15 Level 1 concepts. The concepts focused on the two major interchange complexes on the corridor:

- Four concepts for Boyle Ave., Tower Grove Ave., and Vandeventer Ave. on the west.
- Eleven concepts for Market St., Grand Blvd., and Compton Ave. on the east.

Next, the project team evaluated the 15 concepts and the No Build alternative against the screening criteria and presented the draft screening results for discussion with MoDOT and the FHWA Missouri office on July 20, 2022. Based on that discussion, the screening results were updated.

The concepts were then presented to the CAG and TAG who met separately on July 28, 2022. Based on the feedback from the CAG and TAG discussions, two additional concepts were added for the Boyle Ave., Tower Grove Ave., and Vandeventer Ave. interchange area. The CAG and TAG also provided suggestions for improving upon the existing concepts and most of those suggestions will be applied to the development of the Level 2 alternatives.

The final ratings for the 17 total concepts, plus the No Build alternatives, are shown in Table 1. The table indicates whether a concept performed well (High), poorly (Low), or somewhere in between (Medium) for any given criterion.

Summaries and materials from the Brainstorming Workshops and the CAG and TAG and concept development and refinement meetings are included in Appendix A.

Table 1. Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Concepts											
BTGP_No Build	Low	Low	Medium	High	Low	Medium	Low	Low	Medium	Medium	High
BTGP_Concept 1	High	High	Low	Medium	Medium	High	Medium	High	Low	Low	High
BTGP_Concept 2	Low	Medium	High	High	Medium	High	Low	Low	Medium	Medium	High
BTGP_Concept 3	Low	High	Low	High	Medium	High	High	Medium	Low	Low	High
BTGP_Concept 4	Medium	Medium	High	High	Medium	Medium	Medium	Low	Medium	High	Low
BTGP_Concept 5	Medium	High	Medium	Low	High	High	Medium	Low	High	High	Low
BTGP_Concept 6	Medium	High	Medium	Medium	Medium	Medium	Medium	Low	High	High	Low
MG_No Build	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	Medium	High
MG_Concept 1	Medium	Medium	Medium	Low	Medium	Medium	Low	Medium	Medium	Low	High
MG_Concept 2	Medium	Medium	Low	Low	Medium	Medium	Medium	Low	Medium	Low	High
MG_Concept 3	Medium	High	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	High
MG_Concept 4	Medium	Medium	Low	High	Medium	Medium	High	High	Medium	Medium	High
MG_Concept 5	High	High	Low	High	High	Medium	Medium	Medium	High	Medium	High
MG_Concept 6	Low	Medium	Low	Low	High	High	Medium	Medium	Medium	Medium	High
MG_Concept 7	Medium	Medium	Medium	Medium	High	Medium	Low	Low	Medium	High	High
MG_Concept 8	Medium	Low	High	High	Low	Low	Medium	Low	Medium	High	Low
MG_Concept 9	Medium	Medium	Medium	Low	Medium	Medium	Medium	High	Medium	Medium	High
MG_Concept 10	Low	Medium	Medium	Low	High	Medium	Low	Medium	Medium	Medium	High
MG_Concept 11	Medium	Medium	Low	Medium	High	High	High	Low	Medium	Medium	No

## 4.1 CONCEPT RECOMMENDATIONS

On August 24, 2022, the project team reviewed the results of the Level 1 screening and agreed upon five concepts to be carried forward into Level 2 screening. For the Boyle Ave., Tower Grove Ave., and Vandeventer Ave. interchange area, BTGP Concepts 4 and 5 were recommended to carry forward. For the Market St., Grand Blvd., and Compton Ave. interchange area, the concepts recommended to carry forward are a combination of MG Concepts 3, 5 and 9, as well as MG Concepts 7 and 8.

## 5 LEVEL 1 CONCEPTS SCREENING RATIONALE

This section contains the rationale for the decisions made regarding each of the Boyle Ave., Tower Grove Ave., and Vandeventer Ave. and Market St., Grand Blvd., and Compton Ave. interchange area concepts. The table with an explanation of the rating, the recommendation to carry forward or not carry forward to Level 2 evaluation, along with the data that was used to quantify the evaluation, are provided in Appendix B. The Level 1 concepts are included in Appendix C.

The determination “Carry Forward,” indicates that the concept will be evaluated in Level 2 screening. The determination “Do Not Carry Forward” indicates that a concept or alternative was “reasonable but not recommended” so it would not be further analyzed in the PEL process. However, that concept or alternative could still be revisited during the NEPA phase if there were changes to regulatory requirements, physical changes in the corridor, changes to the Purpose and Need or project goals or other changes that would suggest the concept or alternative might add value to a preferred alternative. These “reasonable but not recommended” concepts and alternatives will be made available for public comment during the NEPA scoping phase to help determine if they require additional analysis.

While some overall concepts were not carried forward, elements from some of the concepts may be incorporated into alternatives for the Level 2 evaluation. These considerations and others for Level 2 evaluation are noted for each concept. In addition, elements from concepts that are carried forward may be refined or excluded during the development and evaluation of Level 2 alternatives.

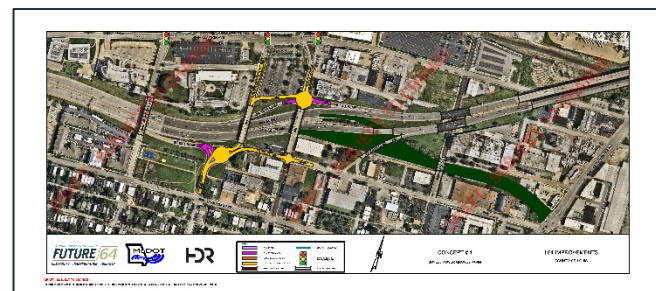
### 5.1 BOYLE/TOWER GROVE/VANDEVENTER CONCEPTS

#### 5.1.1 BTGP Concept 1

**Do Not Carry Forward.** Scored low for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access); and Maintain Interstate Function, Operations, and Capacity for the Future (Capacity and Freight).

Concept 1 did not meet the Purpose and Need based on the following:

- Less direct access to destination further south on Vandeventer. Reduced connection between I-64 and I-44.



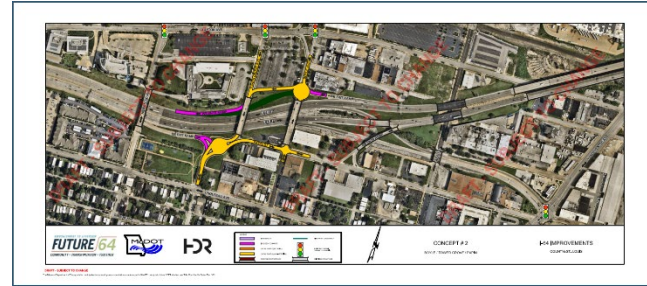
- Elimination of access to Vandeventer Ave. results in out-of-direction travel causing poor level of service at the Boyle Ave. and Tower Grove Ave. ramp terminals, increased travel volumes on other neighborhood streets and increased level of stress for pedestrians and cyclists on those neighborhood streets.

### 5.1.2 BTGP Concept 2

**Do Not Carry Forward.** Scored low for the criterion: Increase Safety For All Users (Regional Vehicular Through Movements).

Concept 2 did not meet the Purpose and Need based on the following:

- The Boyle Ave./Tower Grove Ave. one-way couplet, which could provide more space for pedestrians and cyclists on the structures, increases the number of conflict points and decreases comfort on Tower Grove Ave. due to increased traffic volumes, which degrade the bike and pedestrian experience.
- Relocating the westbound on-ramp to Tower Grove Ave. decreases the distance between ramps and creates safety concerns with westbound off-ramp Kingshighway Blvd. exiting traffic, which was studied and removed from consideration in a previous Access Justification Report.



**In Level 2 evaluation, consider the existing configuration of the Vandeventer Ave. and Boyle Ave./Tower Grove Ave. ramps as part of an alternative.**

### 5.1.3 BTGP Concept 3

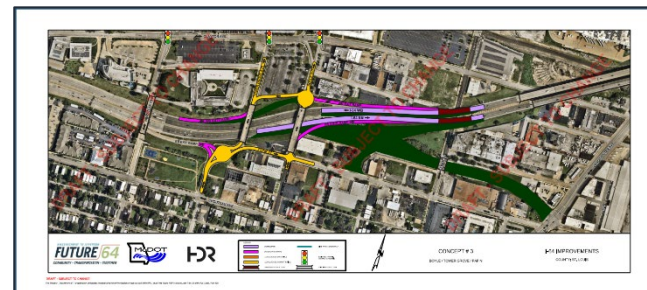
**Do Not Carry Forward.** Scored Low for the criteria: Increase Safety For All Users (Regional Vehicular Through Movements); Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access); and Maintain Interstate Function, Operations, and Capacity for the Future (Capacity and Freight).

Concept 3 did not meet the Purpose and Need based on the following:

- Relocation of the westbound on-ramp to Tower Grove Ave. (see BTGP Concept 2).
- Elimination of access to Vandeventer Ave. (see BTGP Concept 1).

**In Level 2, elements to consider carrying forward include:**

- **Extended westbound exit ramp.**
- **Relocation of eastbound on-ramp from Papin St. to Boyle Ave.**

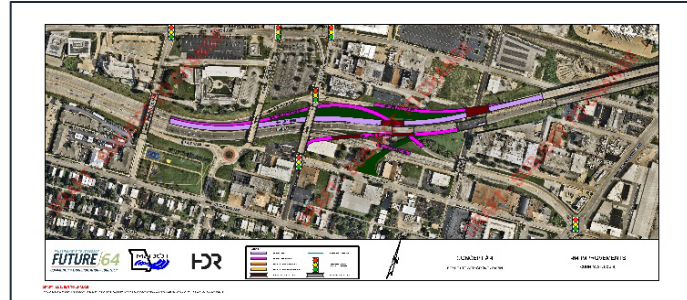




#### 5.1.4 BTGP Concept 4

**Carry Forward.** Scored High for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access and Interstate/Local Network Interface); and Maintain Interstate Function, Operations, and Capacity for the Future (Freight) based on:

- Access to all perpendicular streets is maintained.
- Vandeventer Ave. right-hand entry ramp improves intuitive navigation and safety.
- Extension of the westbound off-ramp to Boyle Ave. which improves safety.
- Relocation of eastbound on-ramp from Papin St. to Boyle Ave. improves intuitive navigation with consolidation of ramps at Tower Grove Ave. and Boyle Ave. as a split diamond.

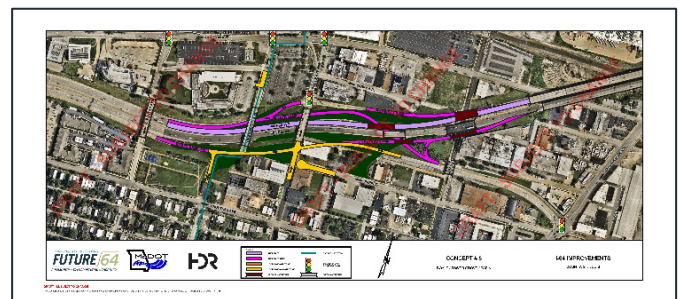


**In Level 2, consider additional bike and pedestrian enhancements for crossings at Sarah St. and Tower Grove Ave.**

#### 5.1.5 BTGP Concept 5

**Carry Forward.** Scored High for the criteria: Increase Safety For All Users (Bike/Ped); Reduce the Barrier Effect of I-64 for Bicycle, Pedestrian, and Transit Users (Support Other Entities Bike/Ped Plans and Transit Access/Effectiveness); and Maintain Interstate Function, Operations, and Capacity for the Future (Capacity and Freight) based on:

- Consolidated access to/from Boyle Ave. as a full diamond interchange.
- Reconstruction of Vandeventer Ave. to westbound I-64 ramp as a right-side entry ramp.
- Addition of ramp connections for Vandeventer Ave. to/from the east.
- Conversion of Tower Grove Ave. bridge to remove vehicles and become a bike/pedestrian only facility.



**In Level 2 evaluation, concerns to be addressed may include:**

- **Modifications to allow for additional turn lane(s) on Boyle Ave.**
- **Grade separation or signalization for bike and pedestrian crossing of eastbound ramp traffic south of I-64.**

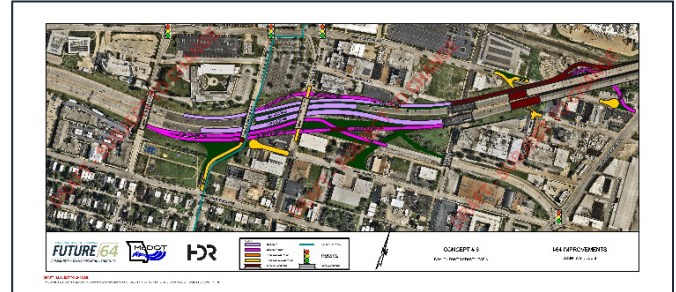
### 5.1.6 BTGP Concept 6

**Do Not Carry Forward.** Scored Low for the criterion: Other Challenges to Implementation; and Medium for several criteria.

Concept 6 did not meet the Purpose and Need and the right-of-way acquisition requirements were considered a fatal flaw based on the following:

- Reconstruction of I-64 in both directions would result in horizontal geometry deficiencies.
- Increased distance between Vandeventer Ave. access points.
- Additional bridges needed on I-64 near Clayton Ave./Sarpy Ave. for local traffic and on-ramp access.
- Modification or reconstruction of Tower Grove Ave. bridge to allow for another lane underneath for off-ramp traffic.
- Substantial right-of-way acquisition requirements along Clayton Ave.

**In Level 2 evaluation, consider a Clayton Ave. to Sarpy Ave. bike and pedestrian connection with an alternative that does not require a new mainline I-64 bridge.**



## 5.2 MARKET/GRAND AND COMPTON CONCEPTS

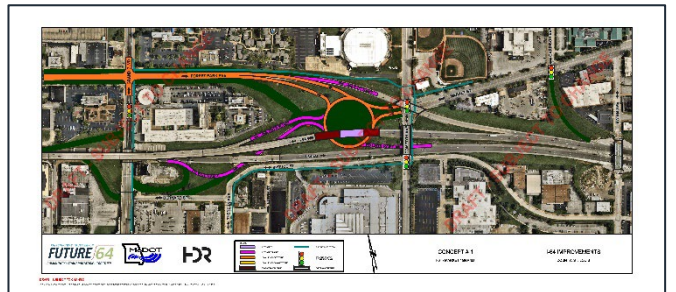
### 5.2.1 MG Concept 1

**Do Not Carry Forward.** Scored low for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (Interstate/Local Network Interface); and Maintain Interstate Function, Operations, and Capacity for the Future (Freight).

Concept 1 did not meet the Purpose and Need based on the following:

- Out-of-direction travel to access Grand Blvd.
- Left side eastbound entrance near Compton Ave.
- Non-conventional complex rotary.

**In Level 2 evaluation, consider an alternative with the conversion to an at-grade intersection at Forest Park Ave. and Grand Blvd.**



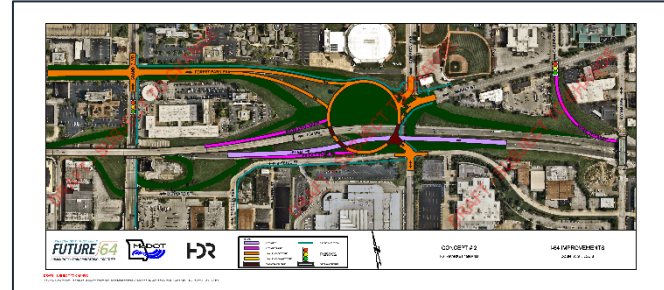


### 5.2.2 MG Concept 2

**Do Not Carry Forward:** Scored Low for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access and Interstate/Local Network Interface); and Maintain Interstate Function, Operations, and Capacity for the Future (Freight).

Concept 2 did not meet the Purpose and Need based on the following:

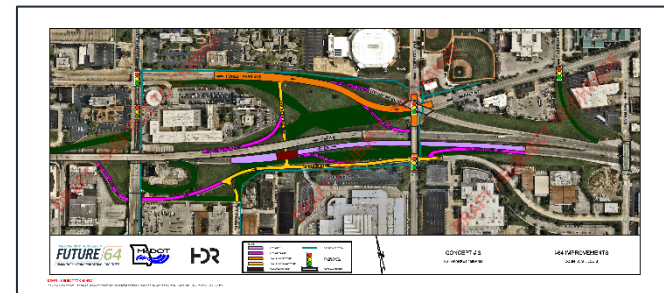
- Out-of-direction travel to access Grand Blvd.
- Left side eastbound entrance near Compton Ave.
- Non-conventional complex rotary which forces Compton Ave. through traffic through rotary and eliminates entrance ramp to eastbound I-64.
- Reintroduces the westbound exit ramp too close to Jefferson Ave. interchange.



### 5.2.3 MG Concept 3

**Carry Forward (Combine Concepts 3, 5 and 9).** Scored High for the criterion: Increase Safety For All Users (Bike/Ped); Low for the criterion: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access); and Medium for the others, based on:

- Improved intersection with more direct connection between Market St. and Forest Park Ave.
- A new Theresa Ave. north-south connection between Grand Blvd. and Compton Ave.
- Opportunities to improve bike and pedestrian connectivity north-south between Grand Blvd. and Compton Ave., along Compton Ave. as well as east-west north of Forest Park Ave. and improves and at-grade access to Grand MetroLink.
- Changes Spruce Street to one-way to allow for slip ramp



In Level 2 evaluation, concerns to be addressed with a combined concept include:

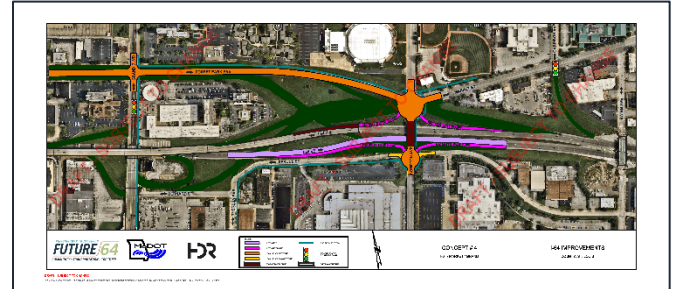
- Introduces an eastbound on-ramp in closer proximity to Jefferson Ave. interchange.
- Possibility to extend Theresa Ave. connection over or under the railroad to the south.

### 5.2.4 MG Concept 4

**Do Not Carry Forward.** Scored Low for the criterion: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access).

Concept 4 did not meet the Purpose and Need based on the following:

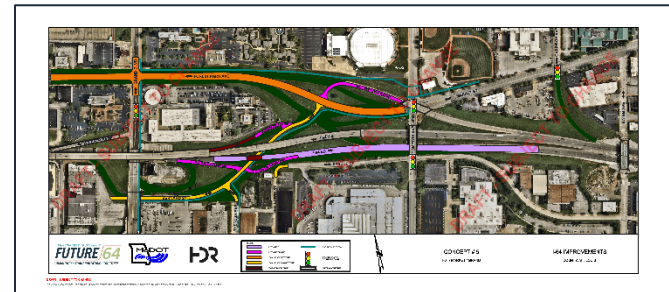
- Out-of-direction travel to access Grand Blvd.
- Introduction of a complicated pair of roundabouts in close proximity on Compton Ave. which complicate operations and bike and ped movements
- New eastbound on-ramp east of Compton Ave. closer to the Jefferson Ave. interchange may cause safety issues



### 5.2.5 MG Concept 5

**Carry Forward (Combine Concepts 3, 5 and 9).** Scored High for the criteria: Increase Safety For All Users (Regional Vehicular Through Movements and Bike/Ped); Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access); Reduce Barrier Effect of I-64 for Bicycle, Pedestrian, and Transit Users (Support Other Entities Bike/Ped Plans); and Maintain Interstate Function, Operations, and Capacity for the Future (Capacity) based on:

- Improved intersection with more direct connection between Market St. and Forest Park Ave.
- A new Bernard St. north-south connection between Grand Blvd. and Compton Ave.
- Opportunities to improve bike and pedestrian connectivity north-south between Grand Blvd. and Compton Ave., as well as east-west north of Forest Park Ave. and improves and at-grade access to Grand MetroLink.
- Local connectivity provided by Bernard St., Theresa Ave., Edwin St., and Spruce St.
- Maintaining the existing westbound I-64 on-ramp from Grand Blvd.
- New shared intersection for eastbound I-64 off and on-ramps.



In Level 2 evaluation, concerns to be addressed with combined concept include:

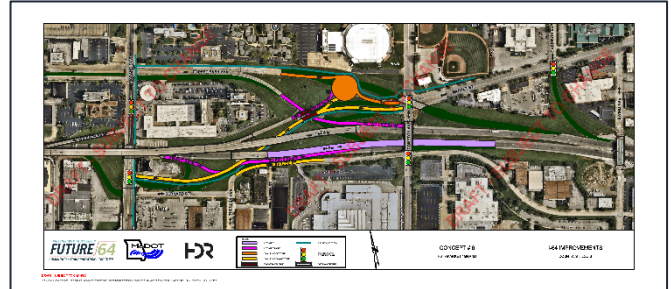
- Reconfigure westbound I-64 off-ramp to Forest Park Ave.
- Intersection spacing on Theresa Ave. between Spruce St. and eastbound I-64 on ramp.

### 5.2.6 MG Concept 6

**Do Not Carry Forward.** Scored Low for the criteria: Increase Safety For All Users (Regional Vehicular Through Movements) and Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access and Interstate/Local Network Interface).

Concept 6 did not meet the Purpose and Need based on the following:

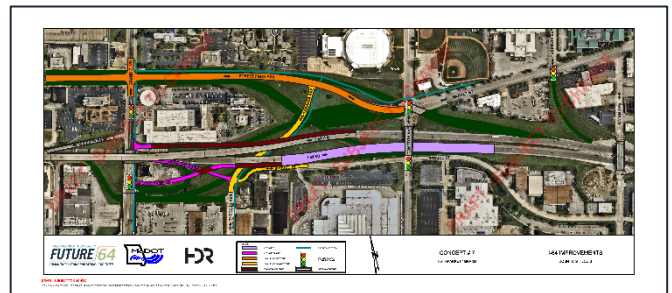
- Complicated access from eastbound I-64 and westbound I-64 to southbound Grand Blvd.
- Complicated movements for westbound I-64 to access Compton Ave. and Market St.



### 5.2.7 MG Concept 7

**Carry Forward.** Scored High for the criteria: Reduce the Barrier Effect of I-64 for Bicycle, Pedestrian, and Transit Users (Support Other Entities Bike/Ped Plans); and Maintain Interstate Function, Operations, and Capacity for the Future (Freight) based on:

- Intuitive ramp arrangement in a relatively small footprint.
- Direct access to/from Grand Blvd. for all but eastbound to southbound movement.
- The Theresa Ave. north-south connection between Grand Blvd. and Compton Ave.
- Opportunities to improve bike and pedestrian connectivity north-south between Grand Blvd. and Compton Ave., as well as east-west north of Forest Park Ave.
- Simplified movements along Compton Ave.



### 5.2.8 MG Concept 8

**Carry Forward.** Scored High for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access and Interstate/Local Network Interface); and Maintain Interstate Function, Operations, and Capacity for the Future (Freight) based on:

- Intuitive full movement tight diamond ramp arrangement to/from Grand Blvd.
- Opportunities to improve bike and pedestrian connectivity north-south along Compton Ave., as well as east-west north of Forest Park Ave.
- Simplified movements along Compton Ave.





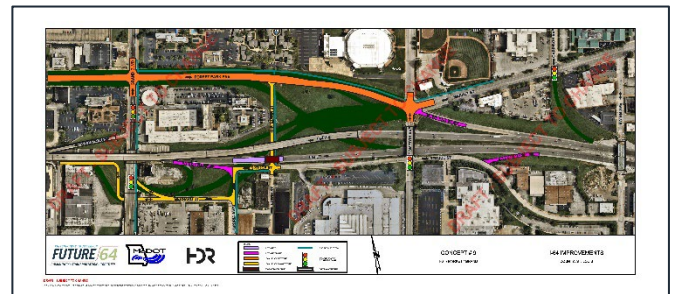
In Level 2 evaluation, concerns to be addressed may include:

- Consider adding a new north-south connection from Theresa Ave. to and across Forest Park Ave.
- Reconfiguration of the eastbound I-64 off-ramp at Grand Blvd.
  - ◆ Market St. west of Grand Blvd. would need to be vacated to accommodate the substructure of the eastbound I-64 off-ramp to Grand Blvd., which was determined not to be a viable solution. Consider revising concept to carry forward the ramp configuration in the northern quadrants. The southern quadrants could be revised to a non-typical folded diamond configuration where both ramps are placed in the southeast quadrant and have access to Grand Blvd. via a local road. Potentially conflicts with planned improvements by Great Rivers Greenway for a new greenway crossing at Spring St.

### 5.2.9 MG Concept 9

**Carry Forward (Combine 3, 5 and 9).** Scored Medium for most if the criteria; Low for the criteria: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (Interstate/Local Network Interface) based on:

- The direct connection between Market St. and Forest Park Ave.
- The Edwin St. north-south connection between Grand Blvd. and Compton Ave.
- Opportunities to improve bike and pedestrian connectivity north-south between Grand Blvd. and Compton Ave., as well as east-west north of Forest Park Ave. and improves and at-grade access to Grand MetroLink.
- I-64 eastbound exit ramp located in the southeast quadrant allows relatively direct access to northbound and southbound Grand Blvd. as well as to/from the local street grid south of I-64 from Grand Blvd.
- Maintaining the existing westbound I-64 on-ramp from Grand Blvd.
- Local connectivity provided by Bernard St., Theresa Ave., Edwin St., and Spruce St.



In Level 2 evaluation, concerns to be addressed may include:

- Bringing westbound ramp to grade at Market St. reduces space for queueing and reduces bike/ped comfort on Compton Ave.
- Introduces an eastbound on-ramp in closer proximity to Jefferson Ave. interchange.

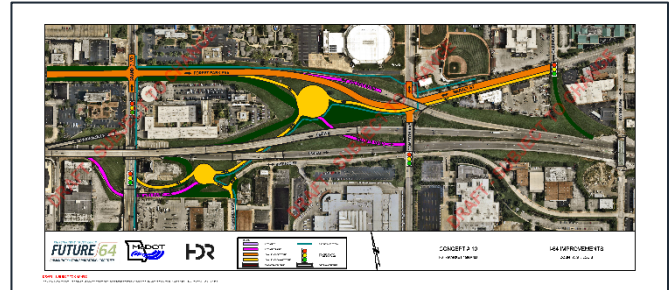
- Introduces local street crossing of Theresa Ave. over railroad tracks to the south of the corridor.

### 5.2.10 MG Concept 10

**Do Not Carry Forward:** Scored Low for the criteria: Increase Safety For All Users (Regional Vehicular Through Movements); and Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (Interstate/Local Network Interface).

Concept 10 did not meet the Purpose and Need based on the following:

- Non-intuitive, out-of-direction travel to access Grand Blvd. through multi-leg roundabouts.
- Left side eastbound entrance near Compton Ave.

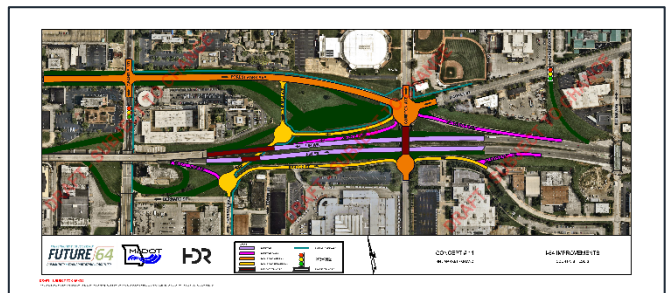


### 5.2.11 MG Concept 11

**Do Not Carry Forward:** Scored Low for the criterion: Improve Transportation System With Intuitive Navigation To, From, and Across I-64 (I-64 Access).

Concept 11 did not meet the Purpose and Need based on the following:

- Non-intuitive, out-of-direction travel to access Grand Blvd. through multi-leg roundabouts.
- Theresa Ave. roundabouts require challenging geometry to connect ramps and local movements.
- Introduction of a complicated pair of roundabouts in close proximity on Compton Ave. which complicate operations and bike and ped movements.
- New eastbound on-ramp east of Compton Ave. closer to the Jefferson Ave. interchange may cause safety issues.



## 6 ENDORSEMENT

This technical report was provided to FHWA on October 5, 2022. FHWA had no comments and provided their endorsement of the Level 1 concept development, screening process, and results on October 24, 2022.

## Appendix A.

Level 1 Evaluation: Summaries and Materials for the Brainstorming Workshops and the Community Advisory Group (CAG), Technical Advisory Group (TAG) Meetings

## INNOVATIVE BRAINSTORMING WORKSHOPS MEMO

# TECHNICAL MEMORANDUM

## FUTURE64 INNOVATIVE BRAINSTORMING WORKSHOPS

Prepared for: Missouri Department of Transportation

Prepared by: HDR

Project: Future64: Communities » Transportation » Together  
*Kingshighway Blvd. to Jefferson Ave.*

Date: September 27, 2022

### PURPOSE

This memorandum summarizes the two brainstorming workshops that were held during the initial phase of the Future64 Planning and Environmental Linkages (PEL) study process. Participants at the workshops identified initial concepts to improve I-64 between Kingshighway Blvd. and Jefferson Ave. for evaluation in the Level 1

### INTRODUCTION

Two 90-minute virtual interactive Innovation Brainstorm Workshops were held with FHWA, MoDOT, the consultant team, members of the TCIG Steering Committee, and local stakeholder group representatives. The purpose of the workshops was to explore concepts that were used to develop the Level 1 concepts for evaluation and screening. The workshops were structured as brainstorm sessions to identify a broad range of innovative concepts.

The first workshop focused on ideas and concepts for Intersections, Interchanges, and TSMO; the second workshop focused on ideas and concepts for Urban Mobility and Sustainability. Participants included individuals who had interest and expertise in these areas.

### APPROACH

Several innovative idea categories were presented to the participants to inspire discussion. These categories included TSMO strategies, transit, bicycle/pedestrian corridors, land use, and short-term and long-term alternatives. Additional focus was placed on equity in transportation, environmental sustainability, and strategies for reducing greenhouse gas emissions.

Both workshops utilized the web-based tool *Mural Board*, which provided an interactive platform for participants to post their ideas and comments and participate in discussion.

### OUTCOMES

80-100 comments were posted to each mural board during each session. The consultant team recorded all comments and then summarized them into categories to identify and synthesize the common themes so that they could be more effectively used to develop the Level 1 concepts.



## INTERSECTION, INTERCHANGE, AND TSMO WORKSHOP, MARCH 31, 2022

### PARTICIPANTS

Participants and their professional affiliation are shown in the following table.

Name	Organization
Felix Gonzalez	FHWA
Aaron Groff	MoDOT
Brian Reagan	MoDOT
Jen Wade	MoDOT
Jennifer Becker	MoDOT
Joe Molinaro	MoDOT
Katy Harlan	MoDOT
Kyle Grayson	MoDOT
Nicole Hood	MoDOT
Ryan Hale	MoDOT
Tim Leaf	MoDOT
Andrew Potthast	HDR
Ben Pierce	HDR
Chris Primus	HDR
Jason Longsdorf	HDR
Jim Hanson	HDR
Lou Kuelker	HDR
Smith Siromaskul	HDR
Eric Bothe	City of St. Louis
John Kohler	City of St. Louis
Kevin Trapp	City of St. Louis
Amir Poorfakhraei	East Water Gateway
Chris Beard	Loch Group
Julie Nolfo	Loch Group
Shawn Dikes	

### MAJOR THEMES

The discussion included topics, such as roadway design, intersections, interchanges, bike and pedestrian facilities, land use, technology and infrastructure, and transit. The major themes that came out of the Intersection, Interchange, and TSMO workshop included:

- Consolidating or removing interchanges.
- Changing the geometry of interchanges and overpasses.
- Diverting traffic to different routes.
- Improving connectivity to community centers.
- Ensuring that capacity can accommodate large events.

- Improving pedestrian and bike facilities and connections.
- Improving parking especially for park and ride facilities.
- Adding technology and infrastructure to help manage traffic flow and way finding.
- Provide better bike and pedestrian facilities.
- Improve transit flow as well as future transit needs and facilities.
- Prioritizing accessibility and multi-use facilities.

Specific comments and the mural board can be found in Attachment A.

## URBAN MOBILITY AND SUSTAINABILITY WORKSHOP, APRIL 1, 2022

### PARTICIPANTS

Participants and their professional affiliation are shown in the following table.

Name	Organization
Felix Gonzalez	FHWA
John Miller	FHWA
Aaron Groff	MoDOT
Aaron Groff	MoDOT
Brian Reagan	MoDOT
Eddie Watkins	MoDOT
James Beattie	MoDOT
Jen Wade	MoDOT
Kyle Grayson	MoDOT
Shaun Tooley	MoDOT
Catherine Werner	City of St. Louis
John Kohler	City of St. Louis
Scott Ogilvie	City of St. Louis
Kim Cella	Citizens for Modern Transit
Lisa Cagle	St. Louis Metro
Lonny Boring	Great Rivers Greenway
Taylor March	Trailnet
Andrew Potthast	HDR
Ben Pierce	HDR
Chris Primus	HDR
Jamie Krzeminski	HDR
Jason Longsdorf	HDR

Name	Organization
Kenna Davis	HDR
Lou Kuelker	HDR
Julie Nolfo	Loch Group
Kevin Neill	Loch Group
Peter Williams	Loch Group

## MAJOR THEMES

The discussion included topics, such as bike and pedestrian facilities, interchanges, intersections, land-use, environmental issues, and mobility/safety concerns. The major themes that came out of the Urban Mobility and Sustainability Workshop include:

- Improve the comfort and safety of pedestrian and bicycle facilities particularly at intersections.
- Remove interchanges.
- Better utilize the land around the interchanges.
- Add separated crossings and signalized crossings.
- Improve the management of curb space.
- Think innovatively about how to make amenities around the highway more desirable (includes adding trees in excess ROW, installing sound walls, set back facilities).
- Include more shared facilities.
- Improve visibility.
- Incorporate mobility hubs and micro-transit.
- Ensure there is space for present and future innovative technology.

Specific comments and the mural board can be found in Attachment B.

**ATTACHMENT A:**  
**INTERCHANGES, INTERSECTIONS AND TSMO WORKSHOP, MARCH 31, 2022**

## INTERCHANGES, INTERSECTIONS AND TSMO WORKSHOP, MARCH 31, 2022

### Comments

#### Interchanges

- Take WB off ramp to Forest Park under the interstate bridge instead of under the intersection of Compton and Market.
- I assume left side on-ramps are safety / familiarity concern... also consider lane continuity
- No "typical" interchange is going to be the answer here. You'll need something more site-specific here
- Eliminate the 15 mph off ramp from I-64 EB to Grand
- Identify key interstate access points--not all that are there today may be required--and provide simple interchange connections
- Eliminate left hand entrances from Vandeventer and Market/Compton
- Convert Market St to one-way EB and connect it to Grand. Add a slip ramp here from EB I-64 to serve as new Grand exit.
- Or do we need Vandeventer exits at all? Just keep major arterial ramps.
- Eliminate left-hand entrance ramp
- Avoid loop ramps in all interchanges in the area
- Consider split diamonds or inverted split diamonds
- Ramp braiding will help
- Consider a multi-block signalized rotary

#### Bike/Ped

- Add greenway path crossing I-64 to connect with Market Street segment from Grand ML Station
- Focus on pedestrian safety and comfort
- Passive Pedestrian Detection & near miss monitoring

#### Land-Use

- Use less land here in spaghetti junction with tighter footprint
- Reduce # and size of structures
- 1 vote
- Increase Parking space in Metrolink Park-and-ride Grand station parking

- Increased Parking space in Grand Park and Ride Parking with emphasis on the Environmental Justice focused groups
- Deck Parks are a great way to reconnect communities
- What about stitches like Austin's I-35 cap and stitch plan or the Columbus, Ohio example of High Street crossing an interstate from downtown to Short North district?

## Technology

- Dynamic Lane control
- Regional transportation data to inform study analysis, can provide emergency travel alerts.
- Use of Regional Data Sharing Initiative (Ridsi)
- Put forth effort to ensure public spaces accommodate enforcement of laws to keep everyone safe (maybe via technology)
- Predictive analytics
- Traffic Incident Management/freeway service patrol - staging areas
- If ramp metering is going to be effective, it needs to be applied across all of the intersections and the ramp meters should be traffic responsive and coordinated.
- MoDOT has I-64 corridor Ramp Metering Feasibility Study 2014 shows there is benefits, but likely requires implementation beyond PEL limits to provide actual benefits
- Ramp metering penalizes short trips and favors long trips. Better application for I-270 circumferential highway
- Active Management for Events
- Lane control signs, allow room for gantries, reversible lanes, staging areas to clear vehicles, stage service controls
- Use center lanes for BRT, or AV/CV, or other new future technologies
- Lane control signs, allow room for gantries, reversible lanes, staging areas to clear vehicles, stage service controls

## Transit

- Consider preserving space for mobility hub at Grand
- Repurpose vehicle lanes into highway running bus rapid transit like Metro Orange Line in Minneapolis / St. Paul
- Micro transit at Central West End, Cortex, and Grand Metrolink Stations
- Center lanes with BRT -- make sure we are thinking about the future of the interstate and that we can accommodate future uses -- reserve center lanes for those possibilities

**Infrastructure:**

- Improve Signing on Interstate and City network
- A series of wide lids, or decks

**Other**

- Consider how unsheltered engage/use public spaces in final design
- After implementation, conduct robust public education campaign
- New and variety of ways to access/egress interstate



## INTERCHANGES, INTERSECTIONS AND TSMO WORKSHOP, MARCH 31, 2022

### Mural Board

# I-64 PEL Innovative Brainstorm Workshop: Interchange, Intersection, and TSMO

March, 31st, 2022

## STUDY AREA MAP



## At-Grade Intersections

### Roundabout



### Double Roundabout



### J-Turn Intersection



### Median U-Turn Crossing



## Innovative Interchanges

### Diverging Diamond Interchange



### Displaced Left Turn/Continuous Flow Interchange



### Echelon Interchange



### Single Point Interchange





## Additional Project Context

**TSMO**

**Central Node: Add your Ideas:**

- Ramp Management:**
  - Use of ramp metering to control traffic flow and prevent congestion.
  - Use of ramp metering to control traffic flow and prevent congestion.
  - Use of ramp metering to control traffic flow and prevent congestion.
- Road Weather Management:**
  - Use of weather data to adjust traffic signals and provide emergency services.
  - Use of weather data to adjust traffic signals and provide emergency services.
- Traveler Information:**
  - Use of traveler information systems to provide real-time traffic updates and route recommendations.
  - Use of traveler information systems to provide real-time traffic updates and route recommendations.
- Variable Speed Limits:**
  - Use of variable speed limits to adjust traffic flow and prevent congestion.
  - Use of variable speed limits to adjust traffic flow and prevent congestion.
- Incident Warning Systems:**
  - Use of incident warning systems to provide real-time traffic updates and route recommendations.
  - Use of incident warning systems to provide real-time traffic updates and route recommendations.
- Managed Lanes:**
  - Use of managed lanes to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of managed lanes to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- Deck Parks:**
  - Use of deck parks to provide recreational space and improve traffic flow.
  - Use of deck parks to provide recreational space and improve traffic flow.
- What about stitches:**
  - Use of stitches to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of stitches to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- If short trips are common:**
  - Use of short trips to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of short trips to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- Downsize the interstate:**
  - Use of downsizing the interstate to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of downsizing the interstate to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- A series of wide lids, or decks:**
  - Use of wide lids or decks to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of wide lids or decks to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- Use center lanes for BRT, or AV/CV, or other new future technologies:**
  - Use of center lanes for BRT, or AV/CV, or other new future technologies to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
  - Use of center lanes for BRT, or AV/CV, or other new future technologies to provide dedicated lanes for high-occupancy vehicles (HOV) and public transit.
- The link to RIDSI platform:**
  - Use of the link to RIDSI platform to provide real-time traffic updates and route recommendations.
  - Use of the link to RIDSI platform to provide real-time traffic updates and route recommendations.

**Source:** 2014 Rapid Transit Plan by EWGCOG and Bi-State / Metro

**Existing Land Use**

**Parks and Trails**

**SANBORN MAP OF MILL CREEK VALLEY - 1932**  
FIGURE GROUND AND OVERLAY OF CURRENT STUDY AREA

**BRICKLINE GREENWAY MAP**  
with focus areas for interstate crossings

**BRICKLINE GREENWAY MAP**  
with focus areas for interstate crossings

**ATTACHMENT B:**  
**URBAN MOBILITY AND SUSTAINABILITY WORKSHOP, APRIL 1, 2022**

## URBAN MOBILITY AND SUSTAINABILITY WORKSHOP, APRIL 1, 2022

### Comments

#### Bike Facilities

- add permanent bike facility on Ewing
- If Compton becomes major interchange - provide a separate bike and pedestrian crossing facility
- Compton might benefit from a fully separated pedestrian and bicycle bridge to avoid conflicts with people driving, like at Kings highway
  - ◆ 1 vote
- add dedicated bike / ped bridge to connect future new Compton Bridge to future Market Street Brickline Greenway
  - ◆ 1 vote
- In support of Brickline crossing I-64: think of the land uses along north and south side of I-64 as a single neighborhood/district. The more crossings, the better it will function as a single district, be more attractive for development, tenants, residents, etc.
  - ◆ 1 vote
- Integrate desired Brickline Crossing
  - ◆ 1 vote
- Need for Bike/Ped/Mobility to provide circulation
- In area between Sarah, Vandeventer, Chouteau, Grand and Forest Park
- Need for Bike/Ped/Mobility to provide circulation
- bikeway is coming on Sarah Street under 64
- Default to bike facility on every bridge
  - ◆ 2 votes

#### Interchanges

- Have exits for Grand Center uses and Chaffetz to be Compton instead of Grand
  - ◆ 2 votes
- Redesign the 'Spaghetti' to unlock developable land for mixed-use developments
  - ◆ 1 vote
- Redesign ramps to open up parcels for mixed used developments. Move exits to Compton?
- Consider redesign of ramp access on and off 64 from and to Vandeventer as the corridor grows in significance in the coming years.
- On Ramp / Off Ramp design details from pedestrian perspective

- Interchange ramp termini at surface streets designed for slow speed movements - bring movements to 90 degrees; keep intersections as compact as possible; use truck aprons to keep intersection corner radii smaller for passenger vehicles
  - ♦ 2 votes
- Better pedestrian infrastructure at on / off ramps
  - ♦ 1 vote
- Remove some ramps to/from IS

### Intersections

- Transit signal priority or other techniques to preference transit at interstate interface
- Make sure any redesign of the Grand intersection prioritizes transit, and gives signal priority to transit vehicles
- Consider roundabouts in place of signals or stop control
- Protected intersections
- IoT sensors at signalized intersections for adaptive signal timing
- Consider channelizing right turns with tight angles (not sweeping free flow) & stop or signal control; use raised crossing from curb to island for peds
- Grade Separated Bike/Ped Crossings
  - ♦ 1 vote

### Land Use

- There are some really cool examples from around the country where underutilized space under highways is used for skateboarding, mountain/"extreme" biking. Obviously, we would need to design it so MoDOT can have access to maintaining the overpass, but it would be great to attract a wider, more diverse user group...provide opportunities for kids and young adults, not just tech workers, Cortex employees.
  - ♦ 1 vote
- All of this industrial land will change to mixed-use as the real estate momentum continues in the central corridor. Bike-ped modes will become key.
- Vandeventer will have more and more mixed-use uses in the future as redevelopments occur along this corridor. Implications on traffic and active modes.
  - ♦ 1 vote
- Curb space management - is parking the best and highest use of our curb space? How can that space better serve adjacent land uses/districts?
- Add Greenspace under interstates

- Regarding utilization of under-highway space for sweet bike play spaces... if your org is interested in a project like that anywhere in the district - reach out to me! We do have some installations already and could consider more!

## **Environmental**

- Add sound wall
- Instead of standard sound wall copy the Gateway Arch land bridge over I-44 that has noise reducing sloped landscaped structure
- Lower profile of roadway and add park lid or widen bridges like Austin stitches with landscaped / noise protected sidewalks between Taylor and Newstead
- Colfax Viaduct project in Denver is reimagining the viaduct as a multimodal and placemaking amenity
- Overlay two additional maps to prioritize/target interventions that can address extreme heat and health issues: air quality and urban heat island effect.
- Native Planting Areas
- Use "windows" in the barrier wall, or geothermal circulating loops, on bridges to help melt snow of the sidewalks in winter
- Daylight historic drainageways
- Set back sidewalks and shared-use paths from road edges, add street/shade trees, landscaping & other ped amenities
- More trees in areas of excess ROW
- Use Green Materials for Construction/resurfacing such as shredded tires instead of sand in concrete
- SMOG eating concrete or other carbon sequestration

## **Pedestrian**

- This Pedestrian Bridge needs to be wider, this gets a LOT of use
- +1 on Better Ped infrastructure at on/off ramps and on crossing over/under I-64
- Wider Sidewalks on any facility crossing over or under I-64
  - ♦ 3 votes

## **Connections/Mobility/Safety**

- Consider connections along the edges -along Grand and Page
- New Modes will be sharing the bike/ped lanes

- Consider using "Shared Mobility" lanes instead of traditional Bike/Ped Lanes with the Greenway
  - ◆ 1 vote
- Shared Use Paths
- Reduce conflict points for non-motorized users on city streets
  - ◆ 1 vote
- Make bikes, peds, rollers visible to vehicles (through signing striping, vertical protection)
  - ◆ 1 vote
- Encourage large(r) employers to establish Transportation Management Districts to encourage their employees / customers to use modes other than the SOV
- Use bike/ped friendly signal timing strategies/features, e.g., short cycle lengths, leading ped intervals, protected left & right turn phases to eliminate turning conflicts
- Micro Mobility Strategic Plan
- Add shared use paths adjacent to and parallel to I-64 (on outside edge of ROW) to add more E/W connectivity
- Colfax Viaduct project in Denver is reimagining the viaduct as a multimodal and placemaking amenity
- Including wheelchairs and motorized wheelchairs!
- N-S Connections -- how we view them and how they cross over or under the highway really needs to be taken into consideration. this area has a lot of transit and served well, but it is the access to that transit that is an issue
- in 2021 crash report, section of Grand was highest incident rate of bike crashes
- The platinum standard for green mobility is the Park Connector project in Singapore, especially the Southern Ridges. I realize it would be cost-prohibitive to have that in its entirety - things like raised bike/ped areas that facilitate wildlife/bird viewing - but perhaps there is an opportunity to have one section to connect with the Missouri Botanical Garden/Tower Grove area.
- Roadway design should evaluate vehicular movements and speeds and include measures to prioritize pedestrians

## Transit

- Get visitors out of car earlier (Forrest Park) and have them use transit
- Mobility Hubs - not just at Grand, also other N-S connections
  - ◆ 2 votes
- Consider Transit Signal Priority / Transit Signal Preemptions for higher volume bus lines adjacent to or in the study area



- Microtransit serving disadvantaged communities, and/or campuses
- Microtransit partnerships with Developments/Large Employers
  - ◆ 1 vote
- Mobility Hubs
  - ◆ 1 vote
- Mobility Hubs -- look at connection that are on the outskirts of the study are because they act as good connectors. The edges of the study should be a focus for connectivity to get people into and out of the study area. Grand and pace.

### Technology and Infrastructure

- EV Charging Stations
- AVCV Vehicles
- Smart Parking
- Cooling infrastructure/centers: Climate change is predicted to cause extreme heat in the Midwest, so urban heat island impacts of lots of concrete must be considered
- Consider opportunities to reduce maintenance for snow removal and path maintenance.
- use freeway ROW for Solar/wind generation of power at lower/no cost to neighborhood homes
- Focus on how to make facilities feel more walkable -- cooling infrastructure like trees and shade. Important to consider how we can make spaces feel more walkable

### Other

- LOVE, LOVE, LOVE the High Street bridge in Columbus...al la Ponte Vecchio in Florence, Italy. Wouldn't it be incredible if Grand or Compton or Taylor could become a nicer ped space with productive uses over the highway? Nashville is doing something similar in the Gulch area south of downtown.
  - ◆ 1 vote
- Funding opportunity to be released later this year by USDOT
- It seems that there's a host of policy / program issues to identify and deal with via partnerships as there are physical infrastructure changes



## URBAN MOBILITY AND SUSTAINABILITY WORKSHOP, APRIL 1, 2022

### Mural Board

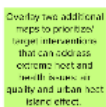
# I-64 PEL Innovative Brainstorm Workshop: Urban Mobility and Sustainability

April 1st 2022

## STUDY AREA MAP









## COMMUNITY ADVISORY GROUP (CAG) MEETING #2

July 28, 2022



**Future64 Study**  
**Community Advisory Group (CAG) Meeting #2**  
**Thursday, July 28, 2022**

Virtual meeting via Zoom

*Prepared by Taylor Bardsley, Vector Communications*

**Overview**

On July 28, 2022, the Missouri Department of Transportation hosted the second of three Community Advisory Group meetings for the Future64 Study.

**Communication**

An email was sent on July 11, 2022 to invite participants to the meeting. That email was followed up by a calendar invitation. The committee received phone calls the week of the meeting to confirm attendance. Three reminder emails were sent to meeting attendees with the pre-meeting documents, instructions on how to access the Mural Board, and Mentimeter during the meeting.

After the meeting, on July 29, 2022, the committee received a follow-up email with meeting documents.

*See all email correspondences to invite, remind, and follow up with CAG members in Appendix A.*

*Please find pre-meeting documents in Appendix B.*

## Meeting Attendees

Name	Organization
Audrey Ellermann	Covenant Blu Grand Center Neighborhood Association
Bob Hilgeman	Botanical Heights Neighborhood Association
Bryan Rogers	Bi-State/Metro Transit
Dan Doelling	Forest Park Southeast Neighborhood Assoc
Deidre Brown	GirlTrek: St. Louis
Imran Hanafi	Cathedral Square Special Business District
James Harris	St. Louis Metropolitan Police Department, Fourth District
Jesse Arevalo	Barnes Jewish Hospital
Lance Knuckles	St. Louis Development Corporation
Mecca Baker	Gate District West Association
Rachel Witt	South Grand Community Improvement District
Will Strang	Grand Center Inc.

CONSULTANTS	
Name	Organization
Justin Carney	Development Strategies
Lou Kuelker	HDR Inc.
Jason Longsdorf	HDR Inc.
Andy Potthast	HDR Inc.
Ylana Padgett	HDR Inc.
Kevin Neill	Lochmueller Group

Julie Nolfo	Lochmueller Group
Tom Blair	MoDOT
Andrew Gates	MoDOT
Tyler Lehde	MoDOT
James Smith	MoDOT
Shaun Tooley	MoDOT
Jen Wade	MoDOT
Gabriela Bloom	Vector Communications
Taylor Bardsley	Vector Communications

<b>INVITED STAKEHOLDERS</b>	
<b>Name</b>	<b>Organization</b>
Abdul-Kaba Abdullah	Park Central CDC
Audrey Ellermann	Covenant Blu Grand Center Neighborhood Association
Becky Reinhart	DeSales Community Housing Corporation
Bob Hilgemann	Botanical Heights Neighborhood Association
Brandon Robnett	Shaw Neighborhood Improvement Association
Bryan Rogers	Bi-State/Metro Transit
Dan Doelling	Forest Park Southeast Neighborhood Assoc
Darius Chapman	100 Black Men
David Nehrt-Flores	Deaconess Foundation
Debra Bagby	Barnes Jewish Hospital
Deidre Brown	GirlTrek: St. Louis
Dr. Pat Adegboyega	Gate District West Association
Elizabeth Goodwin	Rosati-Kain High School
Imran Hanafi	Cathedral Square Special Business District



James Harris	St. Louis Metropolitan Police Department, Fourth District
Jesse Arevelo	Barnes Jewish Hospital
Joel Oliver	Green Street St. Louis
Karen Meirink	Explore St. Louis / Visitors and Convention Bureau
Kate Maher	CWE North CID
Kate Walter	Central West End Association
L. Criss	City of Saint Louis
Lance Knuckles	St. Louis Development Corporation
Linda Ngyuen	Tiffany Community Association
Matt Bauer	Green Street St. Louis
Mecca Baker	Gate District West Association
Michael Hamberg	Pier Properties Group
Miguel & Carla Alexander	JeffVanderLou Neighborhood Association
Monique Williams-Moore	Urban League of Metropolitan St. Louis
Opal Jones	Doorways
Patti Hill	Central West End Association
Rachel Witt	South Grand Community Improvement District
Sal Martinez	Employment Connection for St. Louis
Steve Smith	Lawrence Group
Sundy Whiteside	St. Louis Association of Community Organizations

## Minutes

The virtual meeting started at 5:00 p.m. Andy Potthast of HDR opened the meeting by welcoming the attendees and inviting them to introduce themselves in the chat box, and gave an overview of the agenda. Andy provided PEL Study updates and the project timeline, and a review of the May 2022 Community Advisory Group (CAG) meeting, which included a presentation of the existing conditions of the corridor, the refined draft goals, and the documents shared prior to the meeting. He described the Level 1 Alternatives, which are high-level concepts for interchange improvements, in contrast with Level 2 Alternatives, which will explore and develop the concepts in increased detail. Andy introduced the Mentimeter poll and the Mural Board link and explained their functions.

Andy then explained the Level 1 considerations, which included broad efforts to improve the corridor, and Level 2 considerations, which would take a more detailed approach, and NEPA considerations for environmental impact, which will be studied after the PEL Study is complete.

Next, Jason Longsdorf of HDR presented on the Level 1 alternatives and the visual legends and gave a detailed overview of the four concepts for Boyle/Tower Grove/Papin, and the eleven concepts for Market/Grand.

*Full CAG presentation is attached in Appendix C.*

Lou Kuelker of HDR solicited questions and comments from attendees on the Market/Grand Concepts. Several committee members offered thoughts and questions.

*Questions and Comments can be found in Appendix D.*

### Group Exercise #1: Mentimeter Poll

Jason presented four Mentimeter polls with the following questions:

- Which two alternatives at I-64/Market/Grand would you like to discuss further?
- Which one alternative at Boyle/Tower Grove/Papin would you like to discuss further?
- Out of all the alternatives shown, what features do you like the most?
- Out of all the alternatives shown, what features do you like the least?

*Results from the Mentimeter polls can be found in Appendix E.*

The HDR and MODOT teams then answered questions about the concepts for I-64/Market/Grand and Boyle/Tower Grove/Papin. Lou shared the Mural Board on the screen, which participants could use to examine concepts more closely and leave “sticky note” comments.

*Questions and comments from this discussion can be found in Appendix F.*

Andy closed the meeting by reminding CAG members of the shared exhibits, which detail the high, medium and low ratings, and that tonight’s discussion will add context to those documents. Andy shared that the PowerPoint would be distributed to CAG members after the meeting and questions and comments could be submitted via the Mural Board and via email to Chandra Taylor of Vector Communications at [ctaylor@vectorstl.com](mailto:ctaylor@vectorstl.com). If questions or comments are emailed, participants are asked to include the concept number and name. The next CAG meeting will occur in Fall 2022.

Jen Wade of MoDOT thanked everyone for their participation and time, and reflected upon the CAG discussions.

Andy adjourned the meeting at 7:00 p.m.

## Appendix

### Appendix A: Meeting invitations, reminders, and follow up correspondences

8/3/22, 11:20 AM

Vector Communications Mail - Future64 CAG Meeting #2



Gabriela Bloom <gbloom@vectorstl.com>

#### Future64 CAG Meeting #2

Chandra Taylor <ctaylor@vectorstl.com>

Mon, Jul 11, 2022 at 4:14 PM

To: Abdul-Kaba <abdul@pcd-stl.org>, achumbley@cortexstl.com, becky@desalescd.com, botanicalheightsneighborhood@gmail.com, brodei225 <brodei225@aol.com>, crissl@stlouis-mo.gov, "David Nehrt-Flores (davidn@deaconess.org)" <davidn@deaconess.org>, Debra Bagby <debra.bagby@bjc.org>, downstairsmeeting@grgstl.org, drpat555@gmail.com, egoodwin@rosati-kain.org, Forest Park Southeast <forestparksoutheast@gmail.com>, Imran Hanafi <ihanafi@yahoo.com>, info@100blackmenstl.com, info@doorwayhousing.org, jaharris@slmpd.org, jesse.arevalo@bjc.org, joel@greenstreetstl.com, kate.haher@cwenorthcid.com, kmeirink@explorestlouis.com, knucklesl@stlouis-mo.gov, Sal <martinezs@employmentstl.org>, Mecca Baker <meccawov@gmail.com>, "Starkey, Melinda" <melinda.starkey@thelawrencegroup.com>, michael@pierpropertygroup.com, mwilliams@urbanleague-stl.org, Audrey Ellermann <nurseauby@gmail.com>, Patti Hill <pdh@pattidhill.com>, Rachel Witt <rachel@southgrand.org>, rfeder@cid.edu, sew92@yahoo.com, "Smith, Steve" <steve.smith@thelawrencegroup.com>, swwhiteside@slaco-mo.org, tiffanycommassoc@gmail.com, MiguelCarla Alexander <tilliescorner@gmail.com>, "Smith, Will" <will.smith@newandfound.com>, Will Strang <will@grandcenter.org>  
Cc: Aaron J Groff <aaron.groff@modot.mo.gov>, ANDREW M GATES <andrew.gates@modot.mo.gov>, James E Smith <james.smith@modot.mo.gov>, "Longsdorf, Jason" <jason.longsdorf@hdrinc.com>, Justin Carney <jcarney@development-strategies.com>, "Jennifer A. Wade" <jennifer.wade@modot.mo.gov>, "Hochlan, Jessica" <jessica.hochlan@hdrinc.com>, Julie Nolfo <jnolfo@lochgroup.com>, Kevin Neill <kneill@lochgroup.com>, "Kyle E. Grayson" <kyle.grayson@modot.mo.gov>, "Kuelker, Lou" <lou.kuelker@hdrinc.com>, Melissa Scheperle <melissa.scheperle@modot.mo.gov>, Rojan Thomas Joseph <rjoseph@development-strategies.com>, "Shaun E. Tooley" <shaun.tooley@modot.mo.gov>, THOMAS K BLAIR <thomas.blair@modot.mo.gov>, THOMAS J EVERS <thomas.evers@modot.mo.gov>, "Potthast, Andrew" <Andrew.Potthast@hdrinc.com>, Gabriela Bloom <gbloom@vectorstl.com>

Hello, Community Advisory Group:

We listened to what you had to say, and it helped shape the findings of the Purpose and Need. Now we want to discuss the first-level strategies that resulted, as well as how we're building alternatives and the screening process. Our next Zoom meeting is scheduled for **July 28, 2022, from 5:00 to 7:00pm**. Prepare to hear what's going on and to provide comments.

If you plan to be there, please RSVP to [ctaylor@vectorstl.com](mailto:ctaylor@vectorstl.com) and [gbloom@vectorstl.com](mailto:gbloom@vectorstl.com). Meeting details below.

#### Future64 Community Advisory Group Meeting #2

July 28 5-7 PM CT

<https://us06web.zoom.us/j/84588600617?pwd=ZHR0b241RnpBcXJvemY0Vk9OS04xZz09>

Meeting ID: 845 8860 0617

Passcode: 2022

Dial in: +1 312 626 6799, enter Meeting ID and Passcode when prompted

Thank you and we look forward to seeing you.

Chandra

--

**Chandra Z. Taylor**

Consultant

Vector Communications

The Power House at Union Station

401 South 18th St.

Suite 325

St. Louis, MO 63103

(w) 314.621.5566 x102

(fax) 314.621.5599

[ctaylor@vectorstl.com](mailto:ctaylor@vectorstl.com)

<http://www.vectorstl.com>

<https://mail.google.com/mail/u/0/?ik=c08bd6bbe3&view=pt&search=all&permmsgid=msg-f%3A1738088598516464449&simpl=msg-f%3A1738088598516464449>

1/2



Gabriela Bloom &lt;gbloom@vectorstl.com&gt;

## Invitation: Future64 CAG Meeting #2 @ Thu Jul 28, 2022 5pm - 7pm (CDT) (gbloom@vectorstl.com)

Gabriela Bloom &lt;gbloom@vectorstl.com&gt;

Tue, Jul 26, 2022 at 3:19 PM

Cc: Chandra Taylor <ctaylor@vectorstl.com>, Taylor Bardsley <tbardsley@vectorstl.com>  
 Bcc: rfeder@cid.edu, egoodwin@rosati-kain.org, Pat Adegboyega <drpat555@gmail.com>, jaharris@slmpd.org, brodei225 <brodei225@aol.com>, jesse.arevalo@bjc.org, botanicalheightsneighborhood@gmail.com, Forest Park Southeast <forestparksoutheast@gmail.com>, Patti Hill <pdh@pattidhill.com>, joel@greenstreetstl.com, becky@desalescd.com, crissl@stlouis-mo.gov, Abdul-Kaba <abdul@pcd-stl.org>, Sundy Whiteside <swhiteside@slaco-mo.org>, info@100blackmenstl.com, Imran Hanafi <ihanafi@yahoo.com>, "David Nehrt-Flores (davidn@deaconess.org)" <davidn@deaconess.org>, Rachel Witt <rachel@southgrand.org>, knucklesl@stlouis-mo.gov, kmeirink@explorestlouis.com, Kate Haheer <kate.haheer@cwenorthcid.com>, Audrey Ellermann <nurseauby@gmail.com>, tiffanycommassoc@gmail.com, Monique Williams <mwilliams@urbanleague-stl.org>, Mecca Baker <meccawov@gmail.com>, "Starkey, Melinda" <melinda.starkey@thelawrencegroup.com>, Sal <martinezs@employmentstl.org>, michael@pierpropertygroup.com, "Smith, Steve" <steve.smith@thelawrencegroup.com>, Will Strang <will@grandcenter.org>, sew92@yahoo.com, "Smith, Will" <will.smith@newandfound.com>, MiguelCarla Alexander <tilliescorner@gmail.com>, Debra Bagby <debra.bagby@bjc.org>, achumbley@cortexstl.com, info@doorwayshousing.org

Good afternoon,

We look forward to seeing you at the Future64 Community Advisory Group Meeting on **Thursday, July 28 at 5:00 p.m.**  
 This meeting will be remote. **Please RSVP by responding to this email or calling 314-621-5566 x7 prior to July 28.**

### Future64 Community Advisory Group Meeting #2 July 28 5-7 PM CT

<https://us06web.zoom.us/j/84588600617?pwd=ZHR0b241RnpBcXJvemY0Vk9OS04xZz09>

Meeting ID: 845 8860 0617  
 Passcode: 2022

Dial in: +1 312 626 6799, enter Meeting ID and Passcodewhen prompted

Kind regards,

**Gabriela Bloom**  
 Associate Consultant

Vector Communications  
 The Power House at Union Station  
 401 South 18th St.  
 Suite 325  
 St. Louis, MO 63103  
 (w) 314.621.5566 x 7  
 (c) 609.658.0494  
[gbloom@vectorstl.com](mailto:gbloom@vectorstl.com)  
<http://www.vectorstl.com>

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Hello,

This is just a reminder that our second Future64 Community Advisory Group (CAG) is scheduled for **tomorrow** (July 28) from 5:00-7:00 p.m. You should have received a separate calendar invite with a Zoom link. Please let me know if you do not have this link.

This meeting will focus on Initial Alternative Development and Evaluation. This will be a virtual only meeting.

Below is a link to download some of the material we plan to discuss tomorrow. Since we have a lot of information to present, it would be beneficial if you familiarize yourself with the material ahead of the meeting. The documents include the finalized Purpose and Need flyer, a draft of the Initial Level 1 Alternatives and Evaluation. Please let me know if you have trouble accessing the Dropbox link.

<https://www.dropbox.com/sh/8edm3el2o8cd90e/AADRFWTBjZRLt-LVn7p1DT6Ga?dl=0>

We will also be collaborating on a "Mural" Board during the meeting. You will need to have a free Mural account in order to collaborate. **Please take 5 minutes to confirm your access prior to the meeting so you will be able to collaborate and let us know if you have any questions.** The Mural link for the meeting is below:

<https://app.mural.co/invitation/mural/hdrsandbox9982/1658866617525?sender=u2f083869fd58cb5cf8be6219&key=f8099532-99c9-4310-a4b2-76f1bd59325>

- **If you have a Mural account already**, all you need to do is click the link above and then you should see the mural board titled "Future64 CAG Meeting #2" on your dashboard, you may then edit and add comments using the tools provided on the left side of the board.
- **If you do not have a Mural account**, click the link above and please follow the instructions below to create a free account prior to the meeting. Once you create an account you should see a board with the title "**Future64 CAG Meeting #2**" on your dashboard. If you click on that board, it will bring you to the collaboration space. Now that you are in the mural board you can add sticky notes and type onto them, add symbols, or make comments using the tools provided on the left side of the mural board.

If you run into any issues, or have any questions please do not hesitate to reach out.

This is the second of three CAG meetings that will be held as part of the Future64 Study. A third, and final meeting, will be held in the fall.

Thank you for your consideration and we hope to see you at tomorrow's CAG meeting.

Sincerely,

The Future64 Study Team

**Gabriela Bloom**

Associate Consultant

Vector Communications  
The Power House at Union Station  
401 South 18th St.  
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St. Louis, MO 63103  
(w) 314.621.5566 x 7  
(c) 609.658.0494  
[gbloom@vectorstl.com](mailto:gbloom@vectorstl.com)  
<http://www.vectorstl.com>



Gabriela Bloom &lt;gbloom@vectorstl.com&gt;

## Important Information & Action Items for TODAY's Future64 CAG Meeting

Gabriela Bloom &lt;gbloom@vectorstl.com&gt;

Thu, Jul 28, 2022 at 3:39 PM

To: info@100blackmenstl.com, jesse.arevalo@bjc.org, Debra Bagby <debra.bagby@bjc.org>, botanicalheightsneighborhood@gmail.com, Imran Hanafi <ihanafi@yahoo.com>, Patti Hill <pdh@pattidhill.com>, rfeder@cid.edu, crissl@stlouis-mo.gov, achumbley@cortexstl.com, Audrey Ellermann <nurseauby@gmail.com>, Kate HaHer <Kate.HaHer@cwenorthcid.com>, David Nehrt-Flores <davidn@deaconess.org>, becky@desalescd.com, jcarney@development-strategies.com, rjoseph@development-strategies.com, info@doorwayshousing.org, Sal <martinezs@employmentstl.org>, kmeirink@explorestlouis.com, Forest Park Southeast <forestparksoutheast@gmail.com>, Pat Adegboyega <drpat555@gmail.com>, Mecca Baker <meccawov@gmail.com>, brodei225 <brodei225@aol.com>, Will Strang <will@grandcenter.org>, mbauer@greenstreetstl.com, joel@greenstreetstl.com, "Kuelker, Lou" <lou.kuelker@hdrinc.com>, "Longsdorf, Jason" <Jason.Longsdorf@hdrinc.com>, MiguelCarla Alexander <tilliescorner@gmail.com>, kneill@lochgroup.com, jnolfo@lochgroup.com, andrew.gates@modot.mo.gov, kyle.grayson@modot.mo.gov, Aaron J Groff <Aaron.Groff@modot.mo.gov>, melissa.scheperle@modot.mo.gov, james.smith@modot.mo.gov, "Shaun E. Tooley" <shaun.tooley@modot.mo.gov>, Abdul-Kaba Abdullah <abdul@pcd-stl.org>, michael@pierpropertygroup.com, egoodwin@rosati-kain.org, Shaw Neighborhood Improvement Association <snia@shawstlouis.org>, Rachel Witt <rachel@southgrand.org>, Sundy Whiteside <swhiteside@slaco-mo.org>, knucklesl@stlouis-mo.gov, jaharris@slmpd.org, "Starkey, Melinda" <melinda.starkey@thelawrencegroup.com>, tiffanycommassoc@gmail.com, Monique Williams <mwilliams@urbanleague-stl.org>, rhilgemann@yahoo.com  
Cc: Chandra Taylor <ctaylor@vectorstl.com>, Taylor Bardsley <tbardsley@vectorstl.com>, "Hochlan, Jessica" <Jessica.Hochlan@hdrinc.com>, Laura Godwin <lgodwin@vectorstl.com>, "Potthast, Andrew" <Andrew.Potthast@hdrinc.com>

Good afternoon,

We are looking forward to seeing you tonight at **5:00 p.m.** for the Future64 CAG Meeting #2.

We will be using a mural board during the meeting. **Please click on the link below to ensure you can access the mural board prior to the meeting.** If you are unable to access the site with your work email, try logging in/creating a free account with a personal email – this seemed to resolve the access issue. If you continue to have trouble accessing it, please let me know.

Here is the link to the mural board for the CAG meeting this afternoon: <https://app.mural.co/invitation/mural/hdrsandbox9982/1658866617525?sender=u2f083869fd58cb5cf8be6219&key=f8099532-99c9-4310-a4b2-76f1fdb59325>

For your convenience, the Zoom information is listed below. Please reach out if you have any questions.

<https://us06web.zoom.us/j/84588600617?pwd=ZHR0b241RnpBcXJvemY0Vk9OS04xZz09>

Meeting ID: 845 8860 0617

Passcode: 2022

Kind regards,

**Gabriela Bloom**

Associate Consultant

Vector Communications  
The Power House at Union Station  
401 South 18th St.  
Suite 325  
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(c) 609.658.0494  
[gbloom@vectorstl.com](mailto:gbloom@vectorstl.com)  
<http://www.vectorstl.com>

On Wed, Jul 27, 2022 at 2:03 PM Gabriela Bloom &lt;gbloom@vectorstl.com&gt; wrote:

<https://mail.google.com/mail/u/0/?ik=c08bd6bbe3&view=pt&search=all&permmsgid=msg-a%3Ar4083277911100517836&simpl=msg-a%3Ar4083277911100517836> 1/2



Gabriela Bloom &lt;gbloom@vectorstl.com&gt;

## Future64 CAG Meeting #2 Follow-Up

Taylor Bardsley &lt;tbardsley@vectorstl.com&gt;

Fri, Jul 29, 2022 at 11:12 AM

To: info@100blackmenstl.com, jesse.arevalo@bjc.org, Debra Bagby <debra.bagby@bjc.org>, botanicalheightsneighborhood@gmail.com, Imran Hanafi <ihanafi@yahoo.com>, Patti Hill <pdh@pattidhill.com>, rfeder@cid.edu, crissl@stlouis-mo.gov, achumbley@cortexstl.com, Audrey Ellermann <nurseauby@gmail.com>, Kate Haheer <Kate.Haheer@cwenorthcid.com>, David Nehrt-Flores <davidn@deaconess.org>, becky@desalescd.com, jcarney@development-strategies.com, rjoseph@development-strategies.com, info@doorwayshousing.org, Sal <martinez@employmentstl.org>, kmeirink@explorestlouis.com, Forest Park Southeast <forestparksoutheast@gmail.com>, Pat Adegboyega <drpat555@gmail.com>, Mecca Baker <meccawov@gmail.com>, brodei225 <brodei225@aol.com>, Will Strang <will@grandcenter.org>, mbauer@greenstreetstl.com, joel@greenstreetstl.com, "Kuelker, Lou" <lou.kuelker@hdrinc.com>, "Longsdorf, Jason" <Jason.Longsdorf@hdrinc.com>, MiguelCarla Alexander <tilliescorner@gmail.com>, kneill@lochgroup.com, jnolfo@lochgroup.com, andrew.gates@modot.mo.gov, kyle.grayson@modot.mo.gov, Aaron J Groff <Aaron.Groff@modot.mo.gov>, melissa.scheperle@modot.mo.gov, james.smith@modot.mo.gov, "Shaun E. Tooley" <shaun.tooley@modot.mo.gov>, Abdul-Kaba Abdullah <abdul@pcd-stl.org>, michael@pierpropertygroup.com, egoodwin@rosati-kain.org, Shaw Neighborhood Improvement Association <snia@shawstlouis.org>, Rachel Witt <rachel@southgrand.org>, Sundy Whiteside <swhiteside@slaco-mo.org>, knucklesl@stlouis-mo.gov, jaharris@slmpd.org, "Starkey, Melinda" <melinda.starkey@thelawrencegroup.com>, tiffanycommassoc@gmail.com, Monique Williams <mwilliams@urbanleague-stl.org>, rhilgemann@yahoo.com  
Cc: "Hochlan, Jessica" <Jessica.Hochlan@hdrinc.com>, Gabriela Bloom <gbloom@vectorstl.com>, "tbardsley@vectorstl.com" <tbardsley@vectorstl.com>, ctaylor@vectorstl.com, Laura Godwin <lgodwin@vectorstl.com>, Andrew.Pothast@hdrinc.com

Hello TAG &amp; CAG Members,

Thank you all for your participation in the 7.28.22 Community Advisory Group meeting for the Future64 Project!

- **Additional or general feedback** can be sent through **Wednesday, August 2nd**:
  - Use the **Mural Board** to submit feedback - see the link here: <https://bit.ly/3bj64SP>. To use Mural Board, create a free account using your work email.
  - You can also send **feedback via email** to Chandra Taylor at [ctaylor@vectorstl.com](mailto:ctaylor@vectorstl.com).
- The **PowerPoint** for the meeting is attached to this email as a PDF. It can also be found here: <https://bit.ly/3zac3Bi>
- Please see the following link to access the finalized Purpose and Need flyer and a draft of the Initial Level 1 Alternatives and Evaluation: <https://bit.ly/3oCpVzy>

The Future64 website can be found here: <http://future64.com/>

Please reach out with questions or issues accessing the above information, and thank you again for your participation.

--

**Taylor Bardsley**

Associate Consultant

Vector Communications

The Power House at Union Station

401 South 18th St.

Suite 325

St. Louis, MO 63103

(w) 314.621.5566 x 6

(fax) 314.621.5599

[tbardsley@vectorstl.com](mailto:tbardsley@vectorstl.com)<http://www.vectorstl.com>

Future64 CAG-TAG Presentation 7-28-2022\_CAG.pdf

4409K





# KINGSHIGHWAY TO JEFFERSON **FUTURE** 64

COMMUNITY ► TRANSPORTATION ► TOGETHER

## PROJECT PURPOSE

The purpose of the reasonable transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave is to renew and modify the transportation system to have safe and reliable facilities for all users that improve access to destinations and support community vitality for the long term.

## PROJECT NEEDS

The needs are the key problems and the causes of those problems that MoDOT is seeking to address with transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave.

Increase safety for all users

- Vehicles
- Bicycles
- Pedestrians



Improve transportation system with intuitive navigation to, from, and across I-64



Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users



Optimize bridge maintenance by improving structural conditions to maintain a good state of repair



Maintain Interstate function, operations, and capacity for the future



## PROJECT GOALS

Project outcomes beyond the identified transportation needs are included as goals. The goals help balance environmental, transportation and other community values.



Right-size I-64 to reuse available space to benefit the community.



Support improved land use near transit stations and trails.



Improve equitable outcomes for disadvantaged communities.



Coordinate with regional partners to enhance the local transportation network.



Integrate bicycle and pedestrian facility design best practices into project designs.



Consolidate access points from interstate to local system.



Invest in projects that provide good cost benefit improvements.



Integrate ecology best practices into project designs and right-of-way use.



Integrate improved aesthetics and visual environment into project designs.

# Draft Future64 Level 1 Alternative Screening

Need	Increase safety for all users		Improve transportation system with intuitive navigation to, from, and across I-64		Reduce the barrier effect of I-64 for bicycle, pedestrians, and transit users		Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		Maintain interstate function, operations, and capacity for the future		Other Challenges to Implementation
Sub Need	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Familial Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	
	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals?  Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit access across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Question(s) to ask	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess per of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (high circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Resurfacing and the number of bridges requiring a minor amount of work (overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
Data to be used											
Alternatives											
BTGP - No Action	Low	Low	Medium	High	Low	Medium	Low	Low	Medium	Medium	High
BTGP - Concept 1	High	High	Low	Medium	Medium	High	Medium	Low	Low	Low	High
BTGP - Concept 2	Low	High	High	High	Medium	High	Low	Low	Medium	Medium	High
BTGP - Concept 3	Low	High	Low	High	Medium	High	Medium	Low	Low	Low	High
BTGP - Concept 4	Medium	Medium	High	High	Medium	Medium	Medium	Low	Medium	High	Low

## DRAFT - SUBJECT TO CHANGE

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into Future NEPA studies, per Title 23 of the US Code, Part 108

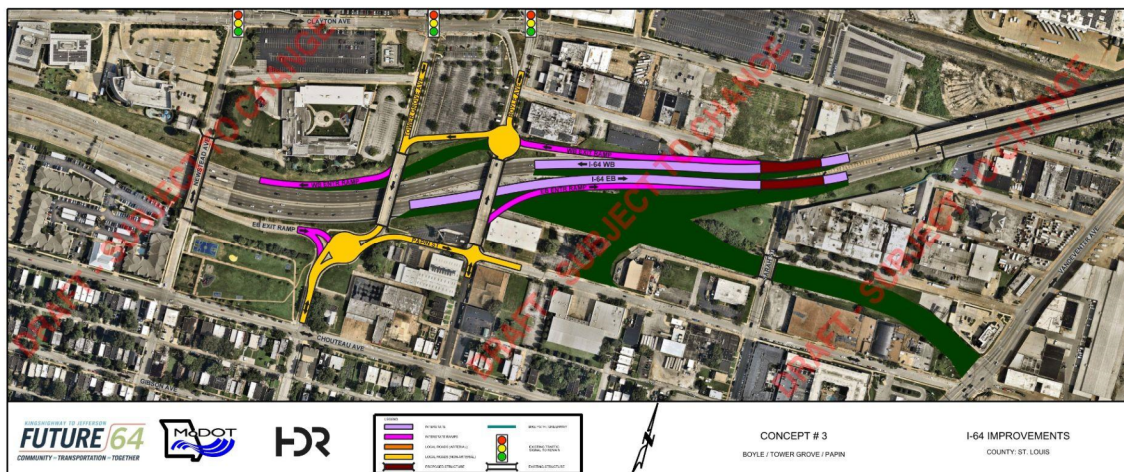
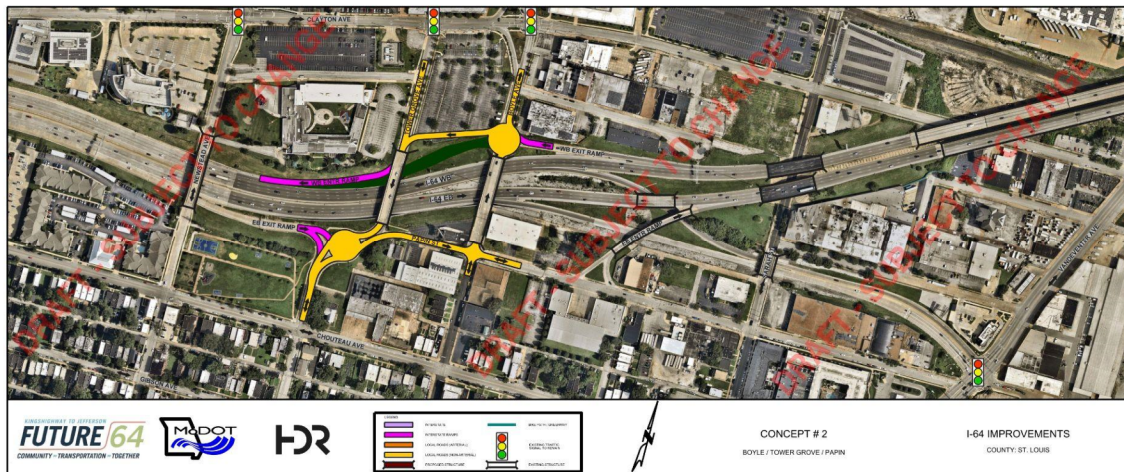
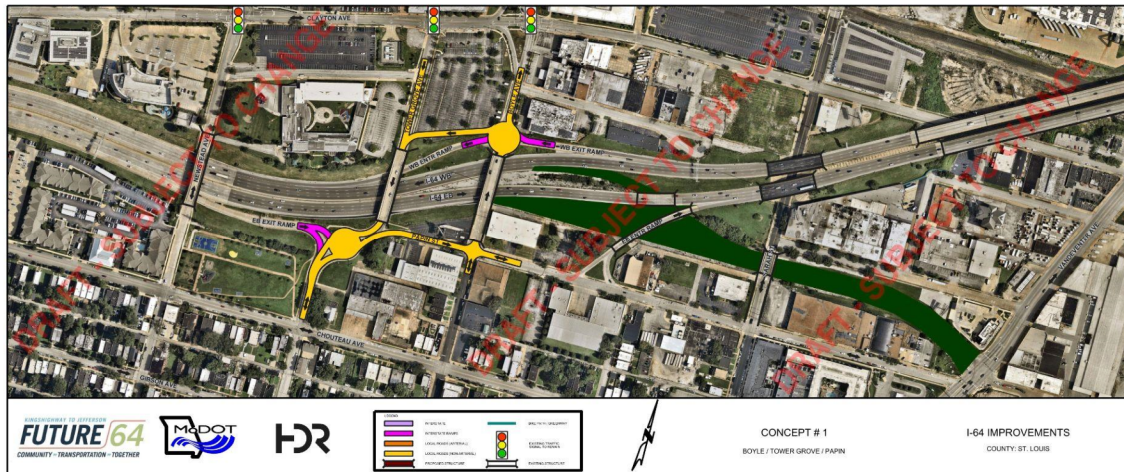
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Sub Need	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	
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Data to be used											
Alternatives											
MG - No Action	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	Medium	High
MG - Concept 1	Medium	Medium	Medium	Low	Medium	Medium	Low	Medium	Medium	Low	High
MG - Concept 2	Medium	Medium	Low	Low	Medium	Medium	Medium	Low	Medium	Low	High
MG - Concept 3	Medium	High	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	High
MG - Concept 4	High	Medium	Low	High	Medium	Medium	High	High	Medium	Medium	High
MG - Concept 5	High	High	Low	High	High	Medium	Medium	Medium	High	Medium	High
MG - Concept 6	Low	Medium	Low	Low	High	High	Medium	Medium	Medium	Medium	High
MG - Concept 7	Medium	Medium	Medium	Medium	High	Medium	Low	Low	Medium	High	Low
MG - Concept 8	Medium	Low	High	High	Low	Low	Medium	Low	Medium	High	Low
MG - Concept 9	Medium	Medium	Medium	Low	Medium	Medium	High	High	Medium	Medium	High
MG - Concept 10	Low	Medium	Medium	Low	High	Medium	Low	Medium	Medium	Medium	High
MG - Concept 11	High	High	Low	Medium	High	High	High	Low	Medium	Medium	No

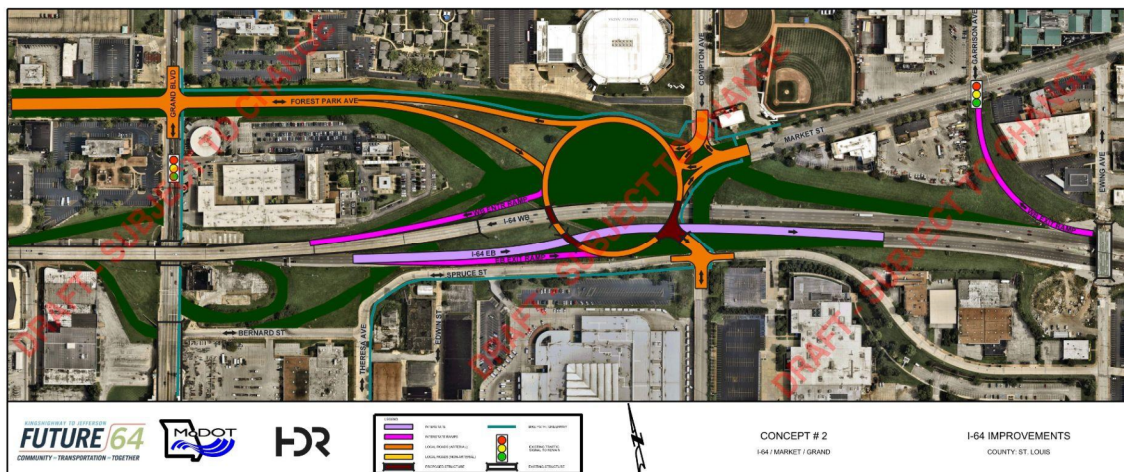
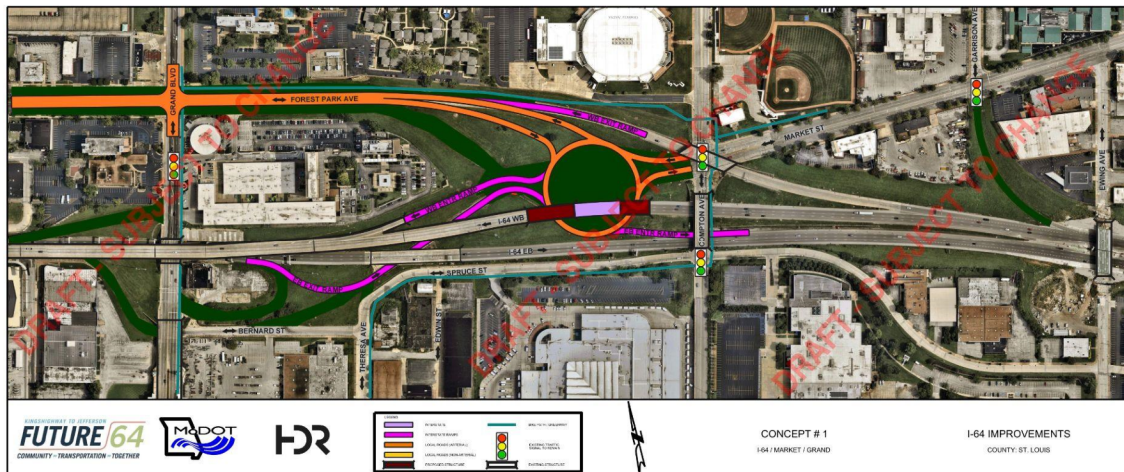
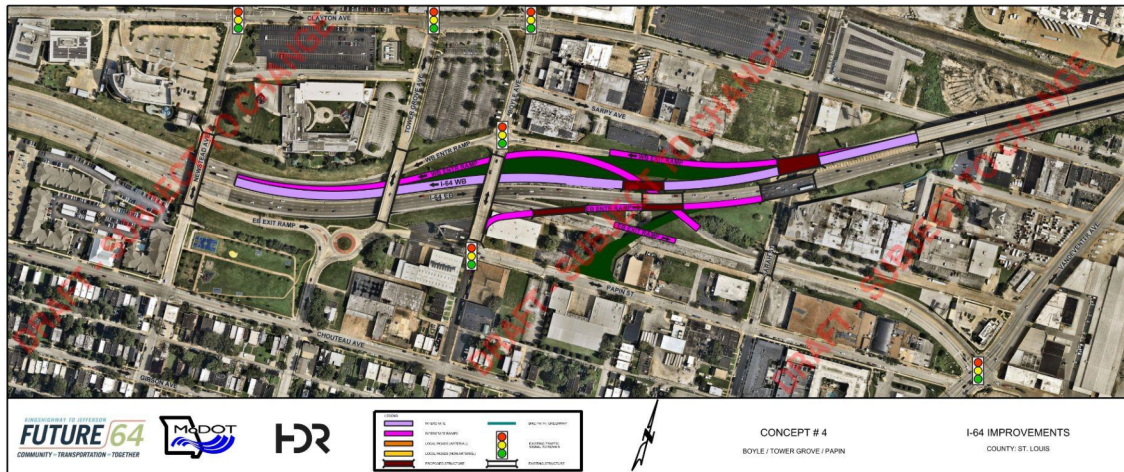
## DRAFT - SUBJECT TO CHANGE

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into Future NEPA studies, per Title 23 of the US Code, Part 108

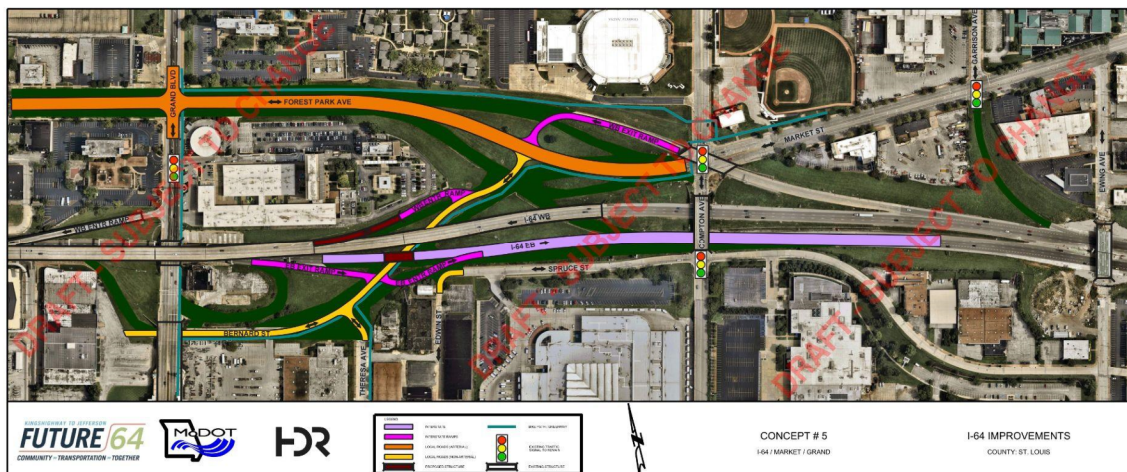
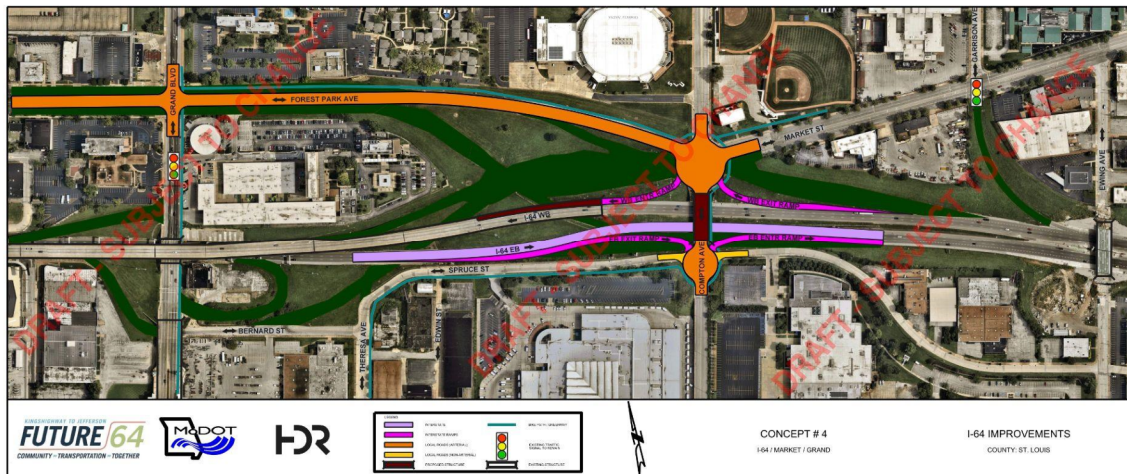
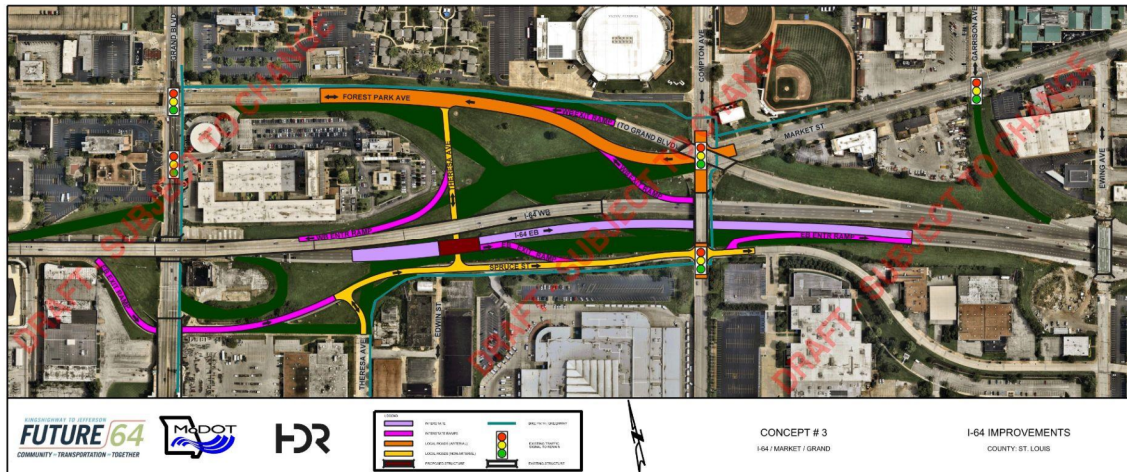




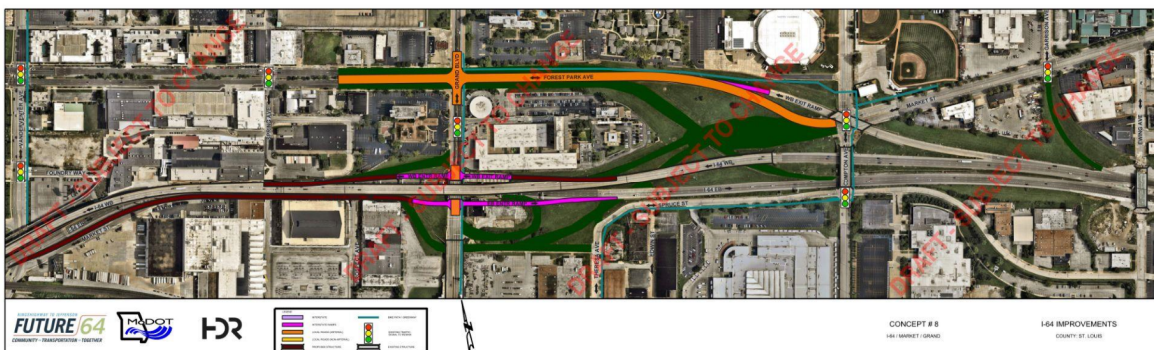
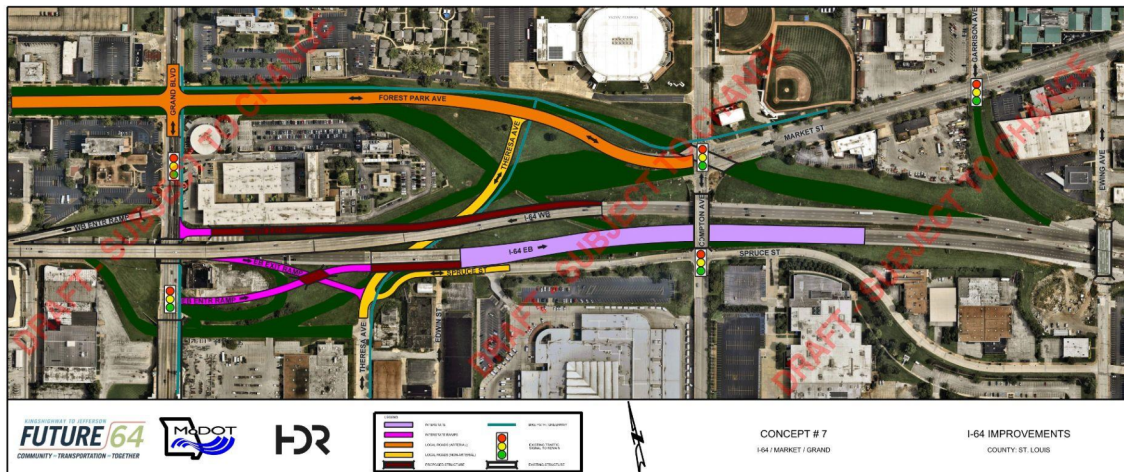
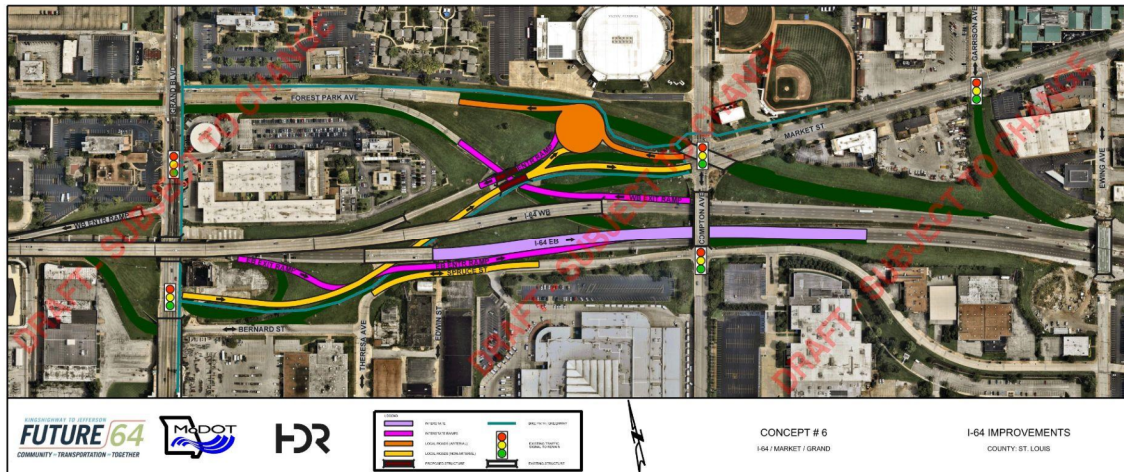




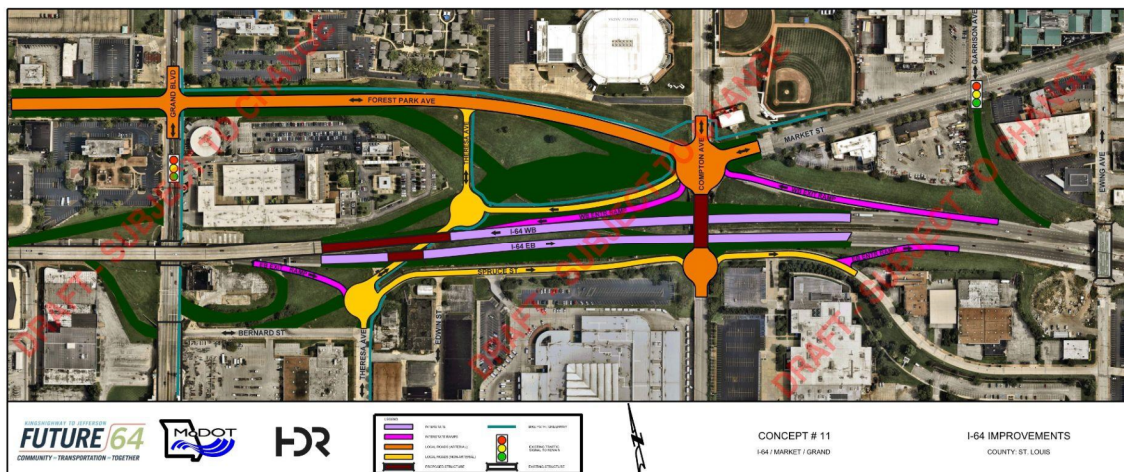
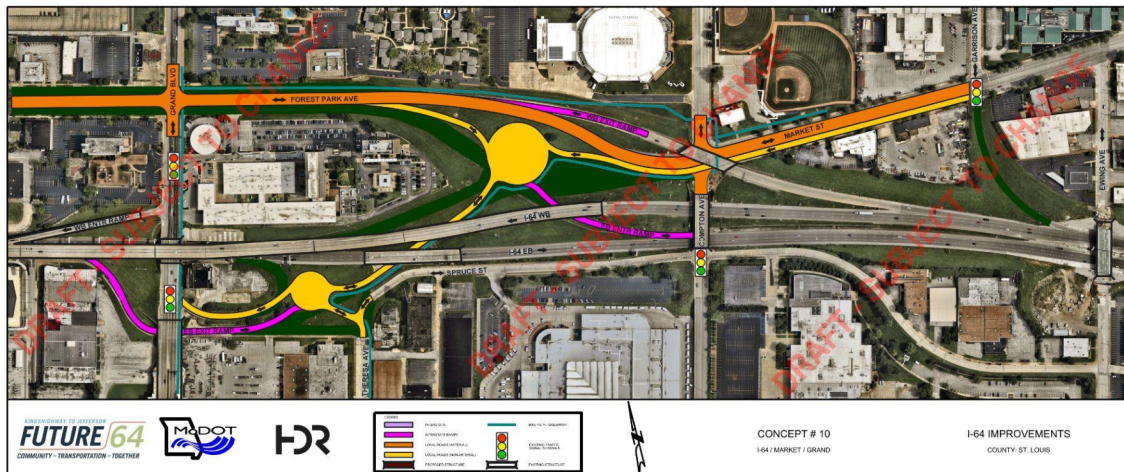
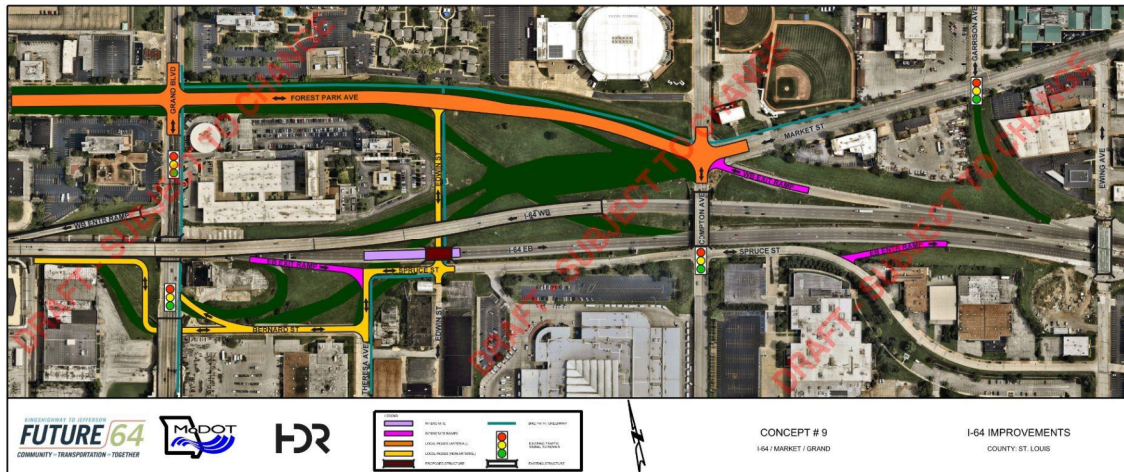














# Future64 Study

*Community Advisory Group Meeting #2  
July 28, 2022*

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into future NEPA studies, per Title 23 of the US Code, Part 168



Appendix C: Presentation

## Agenda

- Introductions (via Chat)
- Study Update
- Orientation for Interactive Activities
- Overview of Corridor Strategies
- Discussion of Level 1 Alternatives
- Menti Exercise
- Detailed Discussion of Alternatives
- Mural Board Exercise
- Wrap Up



## PEL Study Update



### Finalized Future64 Purpose and Need

- Advisory Group and Public Meetings Led to Refinement
- Provides Basis for Alternative Development

### PROJECT PURPOSE

The purpose of the reasonable transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave is to renew and modify the transportation system to have safe and reliable facilities for all users that improve access to destinations and support community vitality for the long term.



## Alternative Development

### PROJECT NEEDS

The needs are the key problems and the causes of those problems that MoDOT is seeking to address with transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave.

Increase safety for all users

- Vehicles
- Bicycles
- Pedestrians



Improve transportation system with intuitive navigation to, from, and across I-64



Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users



Optimize bridge maintenance by improving structural conditions to maintain a good state of repair



Maintain Interstate function, operations, and capacity for the future



### LEVEL 1 ALTERNATIVES

- High Level Concepts for Interchange Improvements
  - Type of Facility and Direction of Travel
  - Corridor Strategies Integrated
- Screened Against Project Needs Only
  - Qualitative Analysis
- Focus of Today's Meeting



## Alternative Development

### LEVEL 2 ALTERNATIVES

- Increased Detail
  - Design Standards Utilized
  - Number of Lanes/Shoulders
  - Cost Considerations
- Three Corridor Wide Alternatives
  - Corridor Strategies Integrated
  - Traffic Analysis Performed
- Screened Against Needs and Goals
  - Quantitative Analysis Added
- Focus of Meeting #3



### PROJECT GOALS

Project outcomes beyond the identified transportation needs are included as goals. The goals help balance environmental, transportation and other community values.



Right-size I-64 to reuse available space to benefit the community.



Support improved land use near transit stations and trails.



Improve equitable outcomes for disadvantaged communities.



Coordinate with regional partners to enhance the local transportation network.



Integrate bicycle and pedestrian facility design best practices into project designs.



Consolidate access points from interstate to local system.



Invest in projects that provide good cost benefit improvements.



Integrate ecology best practices into project designs and right-of-way use.



Integrate improved aesthetics and visual environment into project designs.

## Orientation

### Menti Poll

Please Go to [www.Menti.com](http://www.Menti.com)

### Mural Board Link and Function



## Corridor Strategies

### Level 1 Considerations

- Provide adequate acceleration/deceleration length at interchange ramps
- Increase inside shoulder width
- Reduce number of interchange ramp access points
- Provide at-grade intersection at Forest Park and Grand
- Eliminate traffic signals at ramp terminals
- Remove Left Side Ramps to I-64
- Remove Loop Ramps (Low Speed)
- Exits from I-64 are consistent with cross streets
- Utilize collector-distributor roadways to reduce weaving on I-64



## Corridor Strategies

### Level 2 Considerations

### NEPA Considerations (after PEL)

- Simplify Intersections
- Improved or Increased Crossings for Peds and Bikes
- Road Diets on Cross Streets
- Continuous Sidewalk Paths
- Minimize Environmental Impacts
- Guide Signing Plan
- Pro-active Pedestrian Safety Countermeasures
- Enhanced Lighting
- Define Environmental Impacts and Mitigation





## Corridor Strategies

### Corridor Strategies

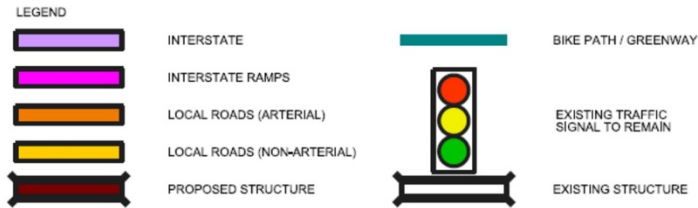
- Upgrade roadside safety devices (Guardrail/Barrier) to Standard
- Improve Guide Signing and Wayfinding
- Improved Pedestrian Lighting



# Level 1 Alternatives



# Level 1 Overview



## Common Themes:

- When ramps/signals are removed from Grand, our assumption was that ped/bike facilities improvements and bus priority upgrades would improve on time performance as well as transit user access to/from Metrolink
- Roundabouts reduce severity of crashes but are not preferred by freight operators – and may be difficult for bicyclists to navigate
- When access changes require more out of direction, we documented that as a negative impact

## Concept #1 – Boyle/Tower Grove/Papin



- New Boyle roundabout
  - PRO: Safer for all movements
  - CON: Not preferred for freight
- Tower Grove Ave and Boyle Ave are a one-way couplet
  - PRO: Reallocate space for bike/peds on bridges
- Removal of Vandeventer Ave ramps
  - PRO: Improved safety with removal of left-hand ramps
  - CON: Less direct access
  - CON: Volume from Vandeventer EB exit potentially shifts to Tower Grove Roundabout
  - PRO: Removes infrastructure in developable area

Please use the Teams "Reactions" to indicate your initial nonbinding response to each alternative

## Concept #2 – Boyle/Tower Grove/Papin



- New Boyle roundabout
  - PRO: Safer for all movements
  - CON: Not preferred for freight
- Tower Grove Ave and Boyle Ave are a one-way couplet.
  - PRO: Reallocate space for bike/peds on bridges
- Moves WB entry ramp to split diamond location
  - CON: Shorter weave with Kingshighway
- No change to Vandeventer access
  - CON: Does not remove infrastructure in developable area

## Concept #3 – Boyle/Tower Grove/Papin



- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• New Boyle roundabout               <ul style="list-style-type: none"> <li>○ PRO: Safer for all movements</li> <li>○ CON: Not preferred for freight</li> </ul> </li> <li>• Tower Grove Ave and Boyle Ave are a one-way couplet.               <ul style="list-style-type: none"> <li>○ PRO: Reallocate space for bike/peds on bridges</li> </ul> </li> <li>• Moves WB entry ramp               <ul style="list-style-type: none"> <li>○ CON: Shorter weave with Kingshighway</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Papin ramp moved to Boyle               <ul style="list-style-type: none"> <li>○ PRO: More intuitive interchange design</li> <li>○ CON: Possible property relocations needed</li> </ul> </li> <li>• Remove Vandeventer Ave ramps               <ul style="list-style-type: none"> <li>○ PRO: Improved safety with removal of left-hand ramps</li> <li>○ PRO: Removes infrastructure in developable area</li> <li>○ CON: Less direct access</li> </ul> </li> </ul> |
|---|--|



## Concept #4 – Boyle/Tower Grove/Papin



- No change to Tower Grove Ave
- Changes Vandeventer to a right side entrance
  - PRO: Maintains access
  - PRO: Improved safety and intuitiveness
  - CON: Challenge with weave to WB Kingshighway off ramp
  - CON: Does not remove infrastructure in developable area
- Moves EB ramp from Papin to Tower Grove.
  - PRO: Improved safety and intuitiveness
  - CON: Property relocations needed
- Improves WB mainline operations but not EB mainline

# Questions about west side recommendations

## Concept #1 – Market/Grand



- Modifications to Grand
  - PRO: Removes 3 signals on Grand
  - PRO: Addresses crash hotspot
  - PRO: Improves bike /ped space along Grand
  - CON: No direct access to Grand
  - PRO: Grand and Forest Park at grade is easier for bikes and peds to navigate
- New roundabout
  - CON: Does not provide news N/S connection between Grand and Compton
- Provides more direct access to Compton
  - CON: Keeps EB I-64 left hand entry ramp

## Concept #2 – Market/Grand



- Modifications to Grand
  - PRO: Removes 3 signals on Grand
  - PRO: Addresses crash hotspot
  - PRO: Improves bike/ped space along Grand
  - CON: No direct access to Grand
  - PRO: Grand and Forest Park at grade is easier for bikes and peds to navigate
  - CON: Does not provide news N/S connection between Grand and Compton
- Large roundabout to consolidate ramp movements.
  - CON: Compton traffic forced through roundabout
- Moves WB access to Market to Garrison intersection.
  - CON: Reintroduces short weave



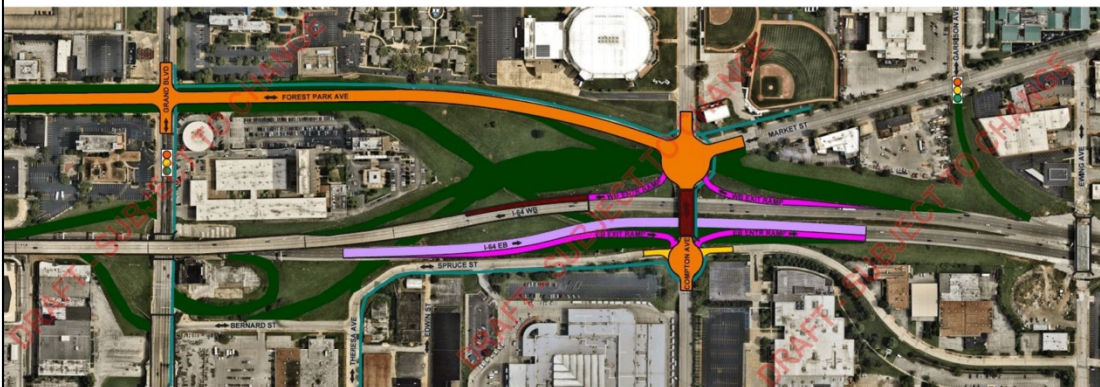
### Concept #3 – Market/Grand



Theme - Distribution Road System

- PRO: Removes 2 signals on Grand
- PRO: Assumes new pedestrian facilities along Theresa and Spruce and north of Forest Park
- PRO: Provides right hand exit and entrance ramps EB at Compton
- CON: No direct access to Grand

### Concept #4 – Market/Grand



Theme - Compton Avenue Roundabout Ramp Terminals

- PRO: Removes 3 signals on Grand
- PRO: Grand and Forest Park at grade is easier for bikes and peds to navigate
- PRO: Eliminates left hand entrance
- CON: No direct access to Grand
- PRO: Creates traditional diamond interchange at Compton that facilitates access for all directions on I-64
- PRO: Removes infrastructure in large developable area
- CON: Does not provide news N/S connection between Grand and Compton

## Concept #5 – Market/Grand



### Theme - Distribution Road System

- PRO: More intuitive WB movement along Market and Forest Park
- CON: No direct access to Grand
- PRO: Grand and Forest Park at grade intersection is easier for bikes and peds to navigate
- PRO: Removes left side entrance ramp
- PRO: Provides N/S connection midway between Grand and Compton
- CON: Does not remove infrastructure in developable area

## Concept #6 – Market/Grand



### Theme - Forest Park Roundabout

- PRO: Removes left hand entrance
- CON: No direct access to Grand
- PRO: Creates connection to the area South of I-64 east of Grand
- PRO: Provides new bike/ped N/S connection between Grand and Compton
- CON: Several new and remaining structures
- CON: Does not remove infrastructure in developable area



## Concept #7 – Market/Grand



### Theme - Theresa Ave Extension

- PRO: New WB I-64 to Grand ramp removes freeway traffic from Forest Park
- CON: Creates challenging traffic operations on Grand
- CON: More conflict points for bike/ped on Grand
- CON: No direct access to Grand from EB I-64
- PRO: Provides a new N/S Theresa connection with bike/ped as well as bike/ped along Forest Park Ave.
- PRO: Reduced conflict points on I-64, removal of left side entrance ramp
- PRO: Improves mainline flow and freight

## Concept #8 – Market/Grand



### Theme - Tight Diamond at Grand

- PRO: Provides direct access from all directions to Grand with traditional diamond interchange
- CON: Creates challenging traffic operations on Grand
- CON: More conflict points for bike/ped on Grand
- CON: Maintains partial interchange by retaining exit ramp from WB I-64 to Forest Park Ave
- CON: Requires long EB off ramp and moves exit far to the west
- PRO: Removes infrastructure in large developable area
- CON: Does not provides new N/S connection between Grand and Compton

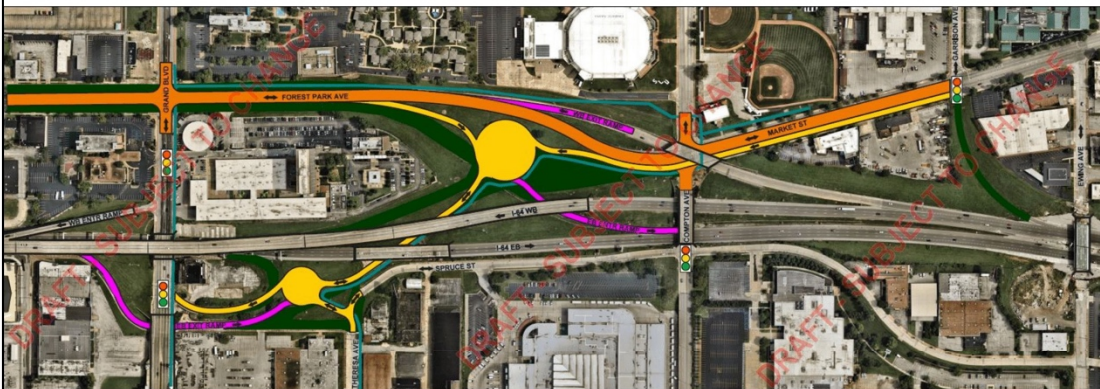
## Concept #9 – Market/Grand



### Theme - Bernard St Connection

- CON: Removal of loop ramp requires out of direction travel for EB 64 traffic to Grand
- PRO: Concept is well connected to local grid
- CON: Reduces logical access to and from grid
- PRO: Removal of 6 structures and construction of 1 new structure
- PRO: Removes infrastructure in large developable area
- PRO: Adds new local traffic and bike/ped N/S connection between Grand and Compton

## Concept #10 – Market/Grand



### Theme - Theresa to Forest Park Roundabout Connection

- PRO: Removes loop ramp
- CON: Left hand entry remains.
- PRO: Access to the street grid south of I-64 between Grand and Compton
- CON: Nontraditional intersection may not be logical for unfamiliar drivers
- PRO: Increased connectivity with new connection from Theresa to Compton & Market and along Forest Park
- CON: Still traveling parallel to what would be an interstate ramp and (traffic circle interchange)
- CON: Does not remove infrastructure in developable area



## Concept #11 – Market/Grand



### Theme - Brickline Enhancements

- PRO: Removes 3 signals from Grand
- PRO: Removed left side on ramp
- PRO: Roundabouts improve safety at ramp terminals, assumes bicycle friendly roundabouts
- PRO: Addresses Grand accident hotspot
- CON: No direct access to Grand
- CON: EB entrance from Compton reduces weave distance approaching Jefferson

# Questions about east side recommendations



# Menti Exercise



# Discussion of Alternatives

# Mural Board Exercise



Thank You!

For more information, visit

[www.future64.com](http://www.future64.com)

or

Email: Chandra Taylor

[ctaylor@vectorstl.com](mailto:ctaylor@vectorstl.com)



## Appendix D: Questions and comments

### West side recommendations: Boyle/Tower Grove/Papin

- I always cringe at one-way streets because it seems to enable speeding for motorists. Why is the couplet so prominent in the options?
  - It creates an intuitive access for the interchange. Some options have a west-bound ramp moved over to Tower Grove, so it's a more traditional split diamond configuration. It also separates traffic so it's not all concentrated on one of the those routes, so you get the north-bound movement on Boyle and south-bound on Tower Grove to help it operate a little better. And the one way couplet allows us to reduce the number of vehicle lanes on the bridges so we can reallocate that space to bike and pedestrian crossing of I-64.
  - The intent is not to use those two lanes that go one in each direction to make two lanes of one direction. The intent is that we would only have one lane of traffic on there. And then we'd be using other areas of the bridge or the roadway to provide better facilities for multi-modal purposes. Not a big, wide-open street.
- And a follow up to that, what sorts of features would be considered to address the speeding concerns that come with one-ways?
- This is all very exciting. There's a lot of development happening in the Grove, about 115 units. How would that be with back-up with people coming and going through the grove with this? We want to have a better experience, representing a business district. We want to see traffic slow down, people going to the speed limit, fewer fatalities. How would this affect Manchester with all the new on and off ramps? How would it be to help with the flow in the Grove? Would this be something positive or would it cause back up and drive people to Kingshighway instead.
  - We can't answer it explicitly at this point. As we move into Level 2, our analysis and modeling goes all the way down to Rt 100 (Manchester) and includes everything from Kingshighway to Jefferson, so we can look for those types of situations. If that's the case, then figure out a way to address them, or it becomes a way that makes the alternative not viable. That would be part of Level 2.
- To give my input on there as somebody who uses the area a lot, I like the flexibility of bidirectional streets everywhere so if one lane has an accident, you can go a few hundred feet and there's another turn you can take. When you take away the flexibility of the grid, even if you're balancing it with bike/other modalities, is something to think about. When they put in those bridges over Boyle and Tower Grove, it reconnected those neighborhoods across the highway. Now that you have it, it seems it would be a negative when you take it away.

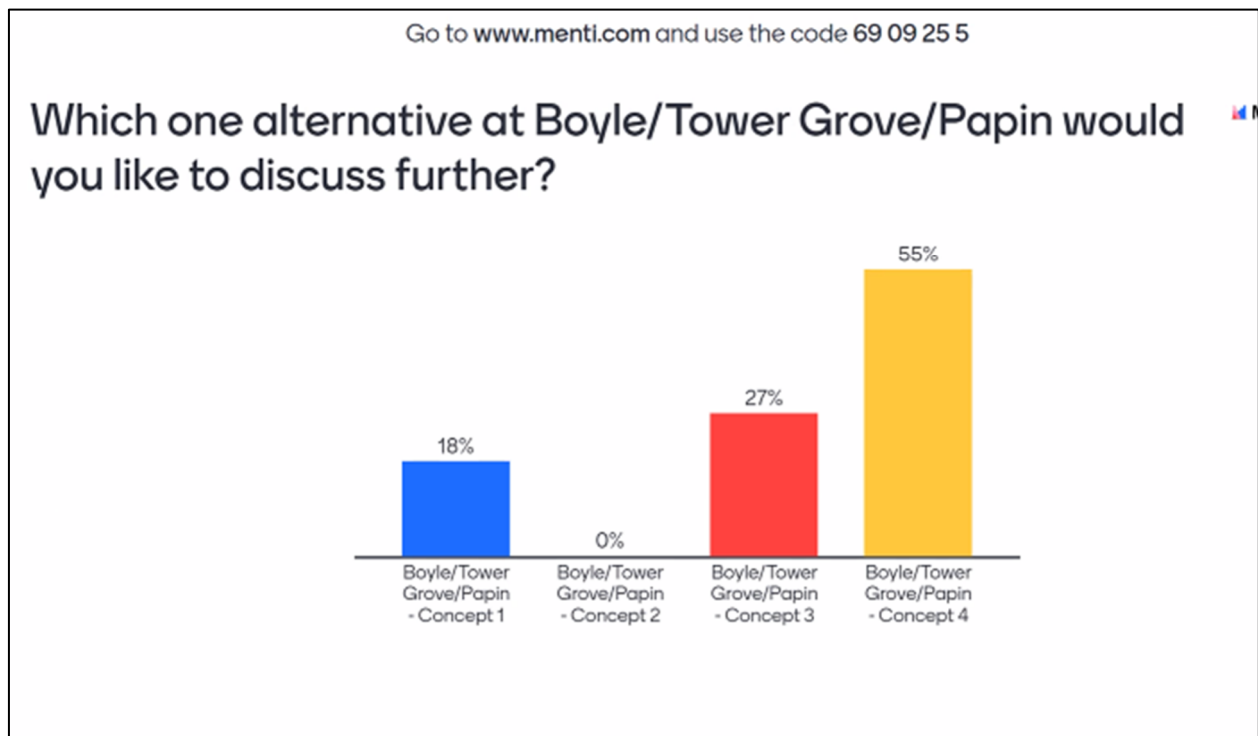
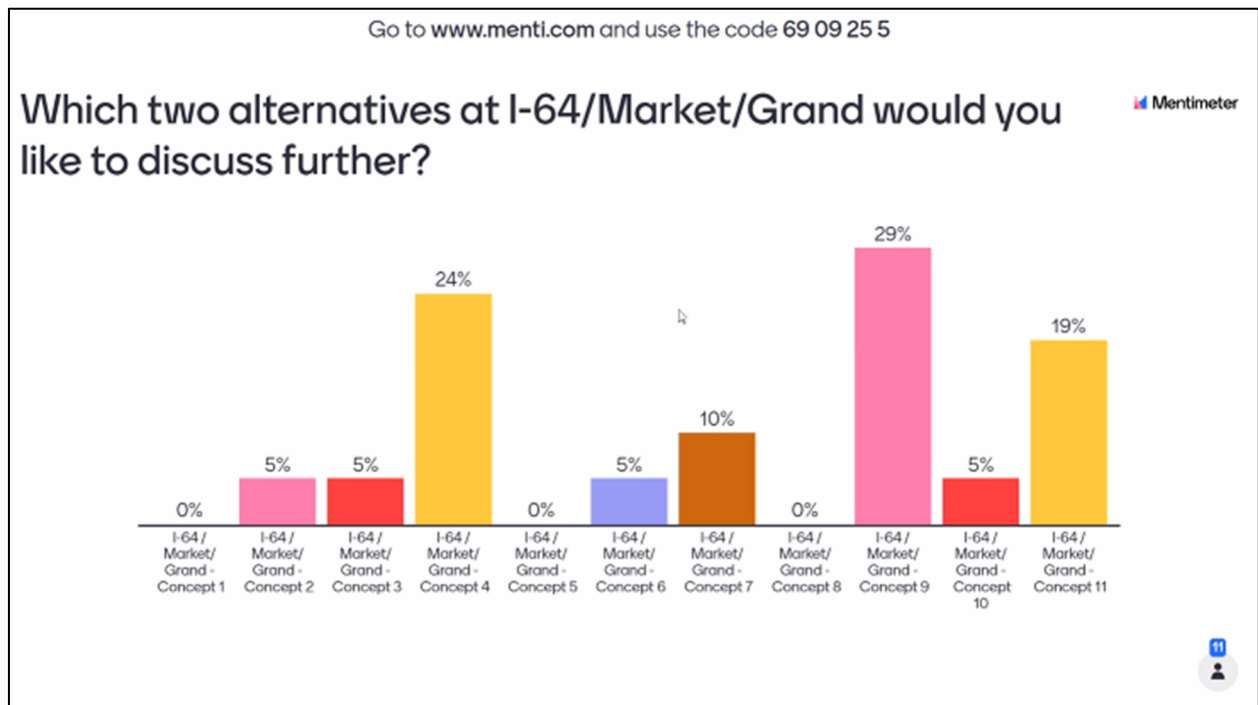
#### East side recommendations: Market/Grand

- Where else have you seen a design like this (Concept #2)?
  - This large rotary exists in Europe and Far East, also in Massachusetts. It is a larger, above-grade facility that people would go up to, circulate, and have a slow speed elevated facility that they would use to navigate to get on or off at multiple locations.
- Is the large roundabout (Concept #2) one lane? As someone who moved from a country that has large roundabout, they are great when there is a low amount of traffic. As traffic grows and lanes are added, you can imagine people weaving from inside to outside lane. If you put all the Compton traffic onto this rotary, it could be a problem.
  - We haven't determined the lanes for any of these. More detailed analysis in Level 2 will consider this.
- People would be really happy to see Forest Park and Grand at grade. It has worked well at Lindell and Forest Park, so looking forward to that. Any proposal that has Forest Park and Grand at grade is great.
- I like that Concept #9 has grid-like flexibility with the cross-street introduced in the middle.
- Proposals without the large roundabout open up more land and are less sprawling. Maybe other proposals will be easier to maintain in 40 to 50 years compared to the elevated superstructure. The project team needs to think about how much money it will take to maintain the system 40 years from now.
- Any design that is elegant and streamlined and opens up land gets my vote.
- Thank you for the hard work. This was a lot to mentally go through and absorb.
- I'm OK with eliminating Grand as an exit on ramp. There's a lot of synergy happening on Grand right now with Armory, City Foundry, SLU, Grand Center, three hospitals, and business district.
- There were two fatalities on Grand Blvd last week – one on South Grand, one on North Grand. I support creating a design that can help slow down traffic and make it more pedestrian-friendly. Grand is the #1 bus route in the state with three million riders a year. How can we make it safer for those taking transit and encourage people to take transit, especially with the Armory's project and City Foundry. There could be great synergy with community and visitors and those who work in the area to encourage transit.
- Grand is a great street to introduce bus rapid transit. It's something to connect all the great attractions and synergy with what's being developed on Grand, and adds to it being the #1 bus route and having Grand Viaduct there with the Metrolink – it would be a great connector. Out of the 11 options, which one is the best approach for having bus rapid transit?

- There are several candidates that allow for bus rapid transit.
- It would be great to eliminate the ramps at Grand. There is a lot of speeding through there. People engaging in drug transactions can jump onto Forest Park and head across the highway. Limiting the access to getting off and on is going to lessen a lot of vehicle traffic with the cars that speed up and down Grand starting at Chouteau.
- Does the large rotary design allow for easier use for commercial vehicles?
  - Having larger radius on the roadway would alleviate some of the issues that freight/tractor trailer would have on the rotary. It's probably better than a roundabout but large commercial vehicles prefer standard interchanges/intersections/turning radii. They would probably choose something else if there was another option.



## Appendix E: Mentimeter polls results



Out of all the alternatives shown, what features do you like the most?

Mentimeter



Out of all the alternatives shown, what features do you like the least?

Mentimeter



## Appendix F: Mural Board activity questions and comments

### West side recommendations: Boyle/Tower Grove/Papin

#### Concept 4

- What would happen to the building at Papin and Boyle?
  - One disadvantage about this concept is that the ramp would involve property relocation or taking.
- Can you say how bike/ped access is impacted by one-way couplets? What are the concepts that slow vehicles down? Do we have the ability to have north-south connection for bike/ped if it's on a one-way street?
  - Existing bridges have sidewalks for pedestrian use but no separate section for cyclists. In this configuration, it'd be tough to have both bike and pedestrian access in the existing structure. Some of the things mentioned to control speed on the one-ways includes having narrow lanes at the intersections, introducing bump out curb ramps, and other strategies. These can be implemented with any of these options.
- Can you hang bike structures along the sides of bridges since these are low-weight vehicles? This would give us the best of both worlds?
  - There's the option with these bridges to provide widening or a pedestrian-only structure. When you get back on to Boyle Avenue or Tower Grove, you have to make sure that you have that space to continue that facility. This would have to be investigated if we were to add a separate facility. If you're changing or reducing the lanes, you open up area in the existing ROW that is out there today.
- I basically chose this because of the the only option with the absence of the one-way couplet

#### Concept 3

- I struggle with providing a strong view on any one of these concepts. I think that eliminating the on and off ramp from Vandeventer makes that stretch safer. On the other hand, where that traffic goes is hard to determine. I'd imagine much of it would go down Chouteau or Papin to a degree. It's a lot to weigh right now.
  - If you take out those Vandeventer ramps, some of that traffic will filter down to Chouteau and Papin to try to get back over to Vandeventer naturally.
- Ten to fifteen years ago there were renderings and talk of adding a median on Chouteau to make that stretch a little more pedestrian friendly and calm traffic a little bit. and if we think about just the scope of just these on and off ramps here, we could still be able to put in a median on Chouteau to calm traffic. This stretch is used by a lot of people to access Forest Park and ride their bikes. An option like this or Concept 1, which is similar, would be acceptable.

- These alternatives focus mostly on access to 64. When we get to Level 2, we have a whole tier that's included in the modeling and study that goes all the way to Route 100, Forest Park Avenue, Kingshighway. We start here and figure out how we're diverting and changing the traffic patterns, and we make recommendations for what's necessary to offset those impacts.
- I'm for keeping the Vandeventer exit. Grand is always a little too hectic. If we take Vandeventer away, that would put a lot of stress on Grand, and Boyle, and Kingshighway to go north. I could see maybe doing something different, but I think it's important to keep the Vandeventer exit.
  - Do you have a strong feeling on the left versus right ramp?
    - The right one works for me.
  - This one pulls in the Westbound lane for the ramp to go underneath, and it currently comes up in between. We'd be pulling that in with traffic going both directions.
    - I think that could work, I could just see it getting really bottled up. Sometimes even when you go west on Kingshighway, you get that Boyle group coming in...it seems to work, but I'm not driving it everyday. I use it frequently, but I have alternative routes, too. I live right off Vandeventer, so it makes it convenient for me, but Grand is too much with the SLU students. It gets really, really heavy. And then Compton is kind of weird to go all the way down there.

#### East side recommendations: Market/Grand

##### Concept 9

- I like the simplicity of this. It's not overly complicated, you won't tear up your car trying to figure out where you're going.
- How does this impact the new Jefferson exit? Will it cause back up?
  - We haven't done operational analysis to answer this question, yet. It does cause concern. If you look at this concept as a whole, there's beauty in the simplicity of this. But the east-bound on ramp most likely won't function here. We may have to shift the exit west but retain the rest of the concept designs.
- I love the design because it's simple and you can tweak it. It takes the best of what you see here to allow for easy access from Grand. It's elegant and intuitive.
- Will the land that's being freed up in this concept, which is owned by MoDOT, be available for future development? Or will it remain a future expansion site? Keep for stormwater detention?



- Stormwater detention is always an issue and important. If it was deemed accessible and MoDOT didn't need it for our mission, we would look to sell this property as excess ROW for development.
- It's a goal of this project to see how MoDOT can minimize our footprint, reducing the barrier effect.

#### Concept 4

- My concern with this design is around the hospital on Grand, making sure emergency vehicles can get to and from hospital easily. There's a lot of development coming: Target, Top Golf. Traffic will increase as a result of this development and will really increase the flow of traffic on Compton.
  - We heard from City staff about north-south bike facilities being added to Compton, too. It's something to taking into consideration.
- Concept 9 had the north-south road in that area. There is a bike facility going under the EB/WB 64, as part of the roadway. Would anything preclude bike/ped facilities being put up independent of a new road there?
  - There are some minor complications because where the rebuild begins may block access to the bridge, but it could make it easier to create the underpass.
    - If the double roundabouts complicate Compton bike/ped, could you have a mirror/alt bike/ped facility.
- Compared to previous alternatives, this concept focuses all the energy on the Compton node. In terms of stress points, I think that distributing the pain is always a good idea. This one seems more lopsided to me.

## TECHNICAL ADVISORY GROUP (TAG) MEETING #2

July 28, 2022



**Future64 Study**  
**Technical Advisory Group (TAG) Meeting #2**  
**Thursday, July 28, 2022**  
Virtual meeting via Teams  
*Prepared by Jessica Hochlan, HDR*

## Overview

On July 28, 2022, the Missouri Department of Transportation hosted the second of three Technical Advisory Group (TAG) meetings for the Future64 Study.

## Communication

An email was sent on July 11, 2022, to invite participants to the meeting. That email was followed up by a calendar invitation. A second email was sent on July 27, 2022, to remind participants for the meeting and to send them pre-meeting documents and a link to the Mural Board.

After the meeting, on July 29, 2022, a follow-up thank you email was sent with links to all meeting documents.

*Copies of all email correspondences can be found in Appendix A. Copies of the pre-meeting documents sent to the TAG members can be found in Appendix B.*

## Meeting Attendees

<u>Name</u>	<u>Organization</u>
Alvin Nieves-Rosario	MoDOT
Amanda Burke	MoDNR
Amy Parker	Metro
Andy Potthast	HDR
Brooks Goedeker	SLU
Cindy Simmons	MoDOT

Colleen Autry	Cortex
Jason Longsdorf	HDR
Jeffrey Alvey	SHPO
Jennifer Wade	MoDOT
Jessica Hochlan	HDR
John Kohler	City of St. Louis
John Langa	Bi-State Development
Jonathan Deves	HDR
Julie Nolfo	Lochmueller Group
Kevin Neill	Lochmueller Group
Kyle Grayson	MoDOT
Lou Kuelker	HDR
Mark Vogl	GRG
Michael Lucido	SLU
Michael Richards	SSM
Paul Hubberman	EW Gateway
Rob Orr	City of St. Louis
Rojan Thomas Joseph	Development Strategies
Samantha Young	HDR
Sara Lefebvre	MoDOT
Scott Ogilvie	St. Louis City
Shaun Tooley	MoDOT
Steve Sobo	Washington University
Taylor March	Trailnet
Todd Antoine	GRG
Tom Blair	MoDOT
Tyler Lehde	MoDOT
Ylana Padgett	HDR

## Meeting Content

The virtual meeting began with Andy Potthast (HDR) welcoming the TAG members and laying out the agenda. He asked the attendees to introduce themselves in the chat box.

*A list of those introductions and all comments made in the chat during the meeting can be found in Appendix C.*

Andy then provided an update on the Future64 study:

- Study Update
- Orientation for Interactive Activities
- Overview of Corridor Strategies



Jason Longsdorf (HDR) gave an overview and explanation of the Level 1 concepts.

Lou Kuelker (HDR) presented the four west side concepts for Boyle/Tower Grove/Papin. He then opened it up for comments and questions on those concepts.

*A list of questions and comments from the west side concepts can be found in Appendix D.*

Jason Longsdorf (HDR) presented the eleven east side concepts for Market/Grand. He then opened it up for comments and questions on those concepts.

*A list of questions and comments from the east side concepts can be found in Appendix E.*

Jessica Hochlan (HDR) then presented the Mentimeter Poll. The questions asked were:

- Which two alternatives at I-64/Market/Grand would you like to discuss further?
- Which one alternative at Boyle/Tower Grove/Papin would you like to discuss further?
- Out of all the alternatives shown, what features do you like the most?
- Out of all the alternatives shown, what features do you like the least?

*Results from the Mentimeter poll can be found in Appendix F.*

The HDR and MODOT teams then answered questions and took comments about the concepts selected during the Mentimeter poll.

*A list of questions and comments can be found in Appendix G.*

Andy closed the meeting by thanking the TAG members and noting all the meeting materials would be sent out via email for a closer review.

*A copy of the PPT and all meeting materials can be found in Appendix H.*

*A copy of comments received after the meeting can be found in Appendix I.*

# Appendix

# Appendix A

*Copies of all email correspondences*

**From:** [Hochlan, Jessica](#)  
**To:** [tcpeoples@grgstl.org](#); [donna.ware@bjc.org](#); [cautry@cortexstl.org](#); "Mark Vogl"; [mfoley@cmt-stl.org](#); "Paul Hubbman"; [Orrr@stlouis-mo.gov](#); [ogilvies@stlouis-mo.gov](#); [tantoine@grgstl.org](#); [williamsbeth@stlouis-mo.gov](#); [adacoordinator@metrostlouis.org](#); [wilsonj@stlouis-mo.gov](#); [irlanga@bistatedev.org](#); [lucidoma@slu.edu](#); [sobos@wustl.edu](#); [taylor@trailnet.org](#); [KohlerJ@stlouis-mo.gov](#); [williamsbeth@stlouis-mo.gov](#); [wilsonj@stlouis-mo.gov](#); [Orrr@stlouis-mo.gov](#); [planning@metrostlouis.org](#); [engineering@metrostlouis.org](#); [irlanga@bistatedev.org](#); [metrobus@metrostlouis.org](#); [paratransit@metrostlouis.org](#); [kcella@cmt-stl.org](#); [taylor@trailnet.org](#); [aweheimer@paraquad.org](#); [philipb@wustl.edu](#); [sobos@wustl.edu](#); [lucidoma@slu.edu](#); [bgoedeker@stlmrc.com](#); [WernerC@stlouis-mo.gov](#); "Brooks Goedeker"; [Chandra Taylor](#); [adacoordinator@metrostlouis.org](#); [tantoine@grgstl.org](#)  
**Cc:** [aaron.groff@modot.mo.gov](#); [Potthast, Andrew](#); [Longsdorf, Jason](#); [jennifer.wade@modot.mo.gov](#); [Julie Nolfo](#); "Kevin Neill"; "Kyle E. Grayson"; [Kuelker, Lou](#); "THOMAS K BLAIR"; "EDDIE WATKINS JR"; "Melissa Scheperle"; [Rojan Thomas Joseph](#)  
**Bcc:** [Hochlan, Jessica](#)  
**Subject:** Invitation: Future64 - TAG Meeting #2  
**Date:** Monday, July 11, 2022 5:32:00 PM

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Hello Future64 Technical Advisory Group,

The Missouri Department of Transportation (MoDOT) is conducting a Planning and Environmental Linkages (PEL) study on the Interstate 64 central corridor. The Future64 PEL will provide a platform for the community to discuss and prioritize transportation issues and improvements, help develop a vision, and create a more unified decision-making process.

We will be holding the second of three Future64 Technical Advisory Group (TAG) meetings on Thursday, July 28 from 10 a.m.-12 p.m. This meeting will focus on Initial Alternative Development and Corridor Strategies. This will be a virtual only meeting.

[Click here to join the meeting](#)

Please RSVP to the meeting by emailing Jessica Hochlan at [Jessica.Hochlan@hdrinc.com](mailto:Jessica.Hochlan@hdrinc.com) or by calling 314-425-8316

This is the second of three meetings. The first meeting was held on May 11. A final meeting will be held in early fall.

All three meetings are interactive working sessions that will help MoDOT formulate the purpose, need, and goals of the Study.

Thank you for your consideration and we hope to see you at our second TAG meeting.

Sincerely,

The Future64 Study Team



**From:** [Hochlan, Jessica](#)  
**To:** [Hochlan, Jessica](#)  
**Bcc:** [tcpeoples@grgstl.org](#); [donna.ware@bjc.org](#); [cautry@cortexstl.org](#); "Mark Vogl"; [mfoley@cmt-stl.org](#); "Paul Hubbman"; [Orrr@stlouis-mo.gov](#); [ogilvies@stlouis-mo.gov](#); [tantoine@grgstl.org](#); [williamsbeth@stlouis-mo.gov](#); [adacoordinator@metroslouis.org](#); [wilsonj@stlouis-mo.gov](#); [jrlanga@bistatedev.org](#); [lucidoma@slu.edu](#); [sobos@wustl.edu](#); [taylor@trailnet.org](#); [KohlerJ@stlouis-mo.gov](#); [planning@metroslouis.org](#); [engineering@metroslouis.org](#); [metrobus@metroslouis.org](#); [paratransit@metroslouis.org](#); [kcella@cmt-stl.org](#); [awehmeier@paraquad.org](#); [philipb@wustl.edu](#); [bgoedeker@stlmrc.com](#); [WernerC@stlouis-mo.gov](#); "Brooks Goedeker"; [ctaylor](#); [michael.richards@ssmhealth.com](#); [aaron.groff@modot.mo.gov](#); [Potthast, Andrew](#); [Longsdorf, Jason](#); [jennifer.wade@modot.mo.gov](#); [Julie Nolfo](#); [Kevin Neill](#); "Kyle E. Grayson"; [Kuelker, Lou](#); [THOMAS K BLAIR](#); [EDDIE WATKINS JR](#); [Melissa Scheperle](#); [Rojan Thomas Joseph](#); [Sobo, Steven](#); [adadirector](#); [Michael Lucido](#); [Gonzalez, Felix \(FHWA\)](#); [Shaun E. Tooley](#); [Prawl, Toni](#); [Tyler J. Lehde](#); [CYNTHIA R SIMMONS](#); [Padgett, Ylana](#); [Deves, Jonathan](#)  
**Subject:** Important Information for Tomorrow's Future64 TAG Meeting  
**Date:** Wednesday, July 27, 2022 12:08:00 PM  
**Attachments:** [image001.png](#)

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Hello,

This is just a reminder that our second Future64 Technical Advisory Group (TAG) meeting is scheduled for **tomorrow** (June 28) from 10 a.m.-12:00 p.m. You should have received a separate calendar invite with a link. Please let me know if you do not have this link.

This meeting will focus on Initial Alternative Development and Evaluation. This will be a virtual only meeting.

Below is a link to download some of the material we plan to discuss tomorrow. Since we have a lot of information to present, it would be beneficial if you familiarize yourself with the material ahead of the meeting. The documents include the finalized Purpose and Need flyer and a draft of the Initial Level 1 Alternatives and Evaluation. Please let me know if you have trouble accessing the link.

☐ [Future64 Tag Meeting Materials](#)

We will also be collaborating on a "Mural" Board during the meeting. You will need to have a free Mural account in order to collaborate. **Please take 5 minutes to confirm your access prior to the meeting.**

The link for the meeting is below:

<https://app.mural.co/invitation/mural/hdrsandbox9982/1658869678009?sender=u2f083869fd58cb5cf8be6219&key=9ff8ea78-bb0b-4f78-aff9-b89b0ee499fe>

1. **If you have a Mural account already**, all you need to do is click the link above and then you should see the mural board titled **"Future64 TAG Meeting #2"** on your dashboard, you may then edit and add comments using the tools provided on the left side of the board.
2. **If you do not have a Mural account**, click the link above and please follow the instructions below to create a free account prior to the meeting. Once you create an account you should see a board with the title **"Future64 TAG Meeting #2"** on your dashboard. If you **click on that board**, it will bring you to the collaboration space. Now that you are in the mural board you can add sticky notes and type onto them, add

symbols, or make comments using the tools provided on the left side of the mural board.

If you run into any issues, or have any questions please do not hesitate to reach out.

This is the second of three TAG meetings that will be held as part of the Future64 Study. A third, and final meeting, will be held in the fall. Thank you for your consideration and we hope to see you at tomorrow's TAG meeting.

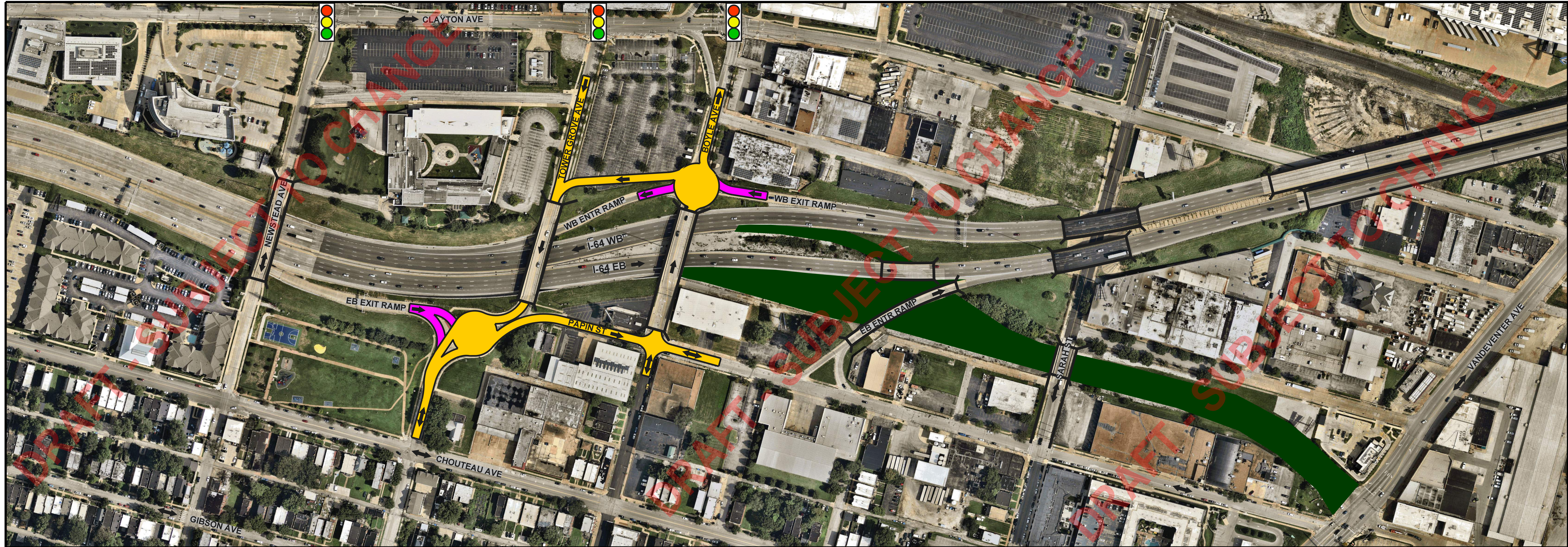
Sincerely,

The Future64 Study Team

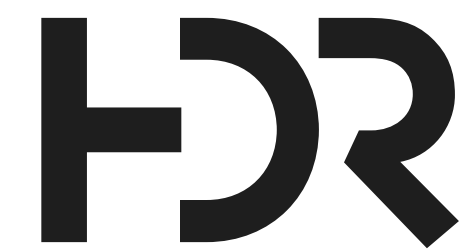
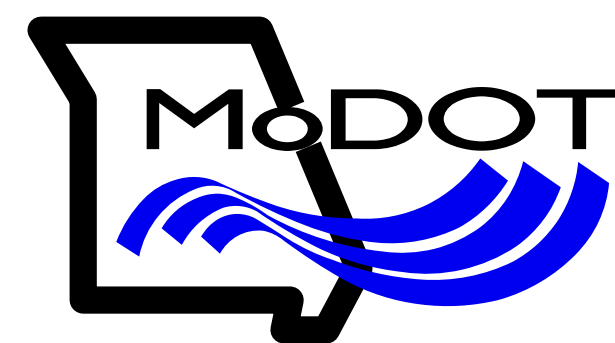
# Appendix B

*Copies of all documents sent to the TAG members*

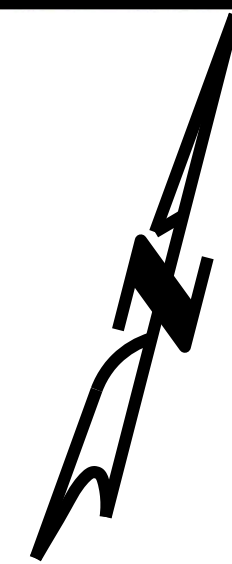




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND	
	INTERSTATE
	INTERSTATE RAMPS
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
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	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE



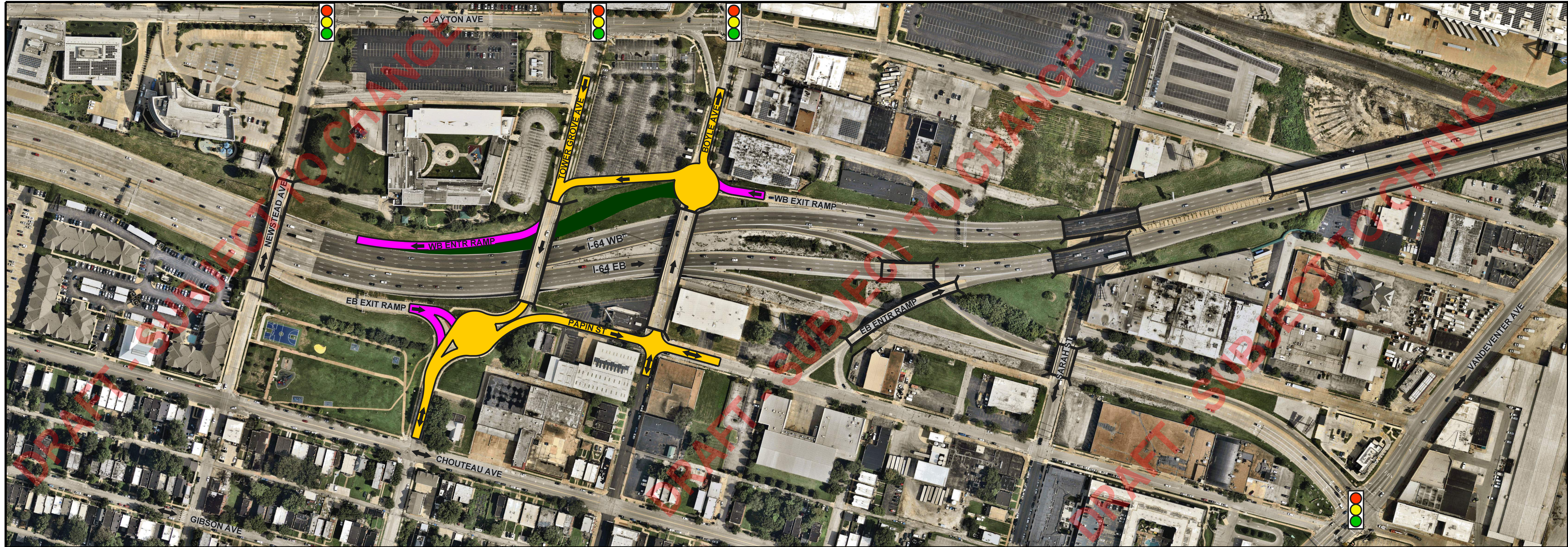
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BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

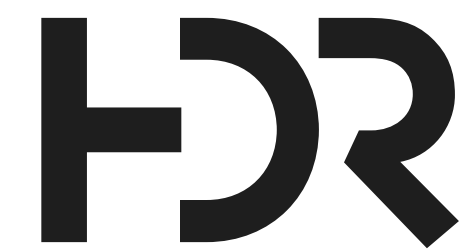
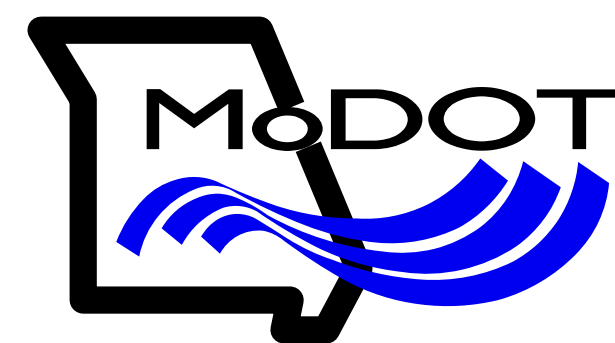
DRAFT - SUBJECT TO CHANGE

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into future NEPA studies, per Title 23 of the Us Code, Part 168

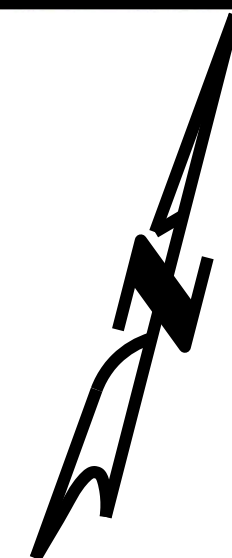




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	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE



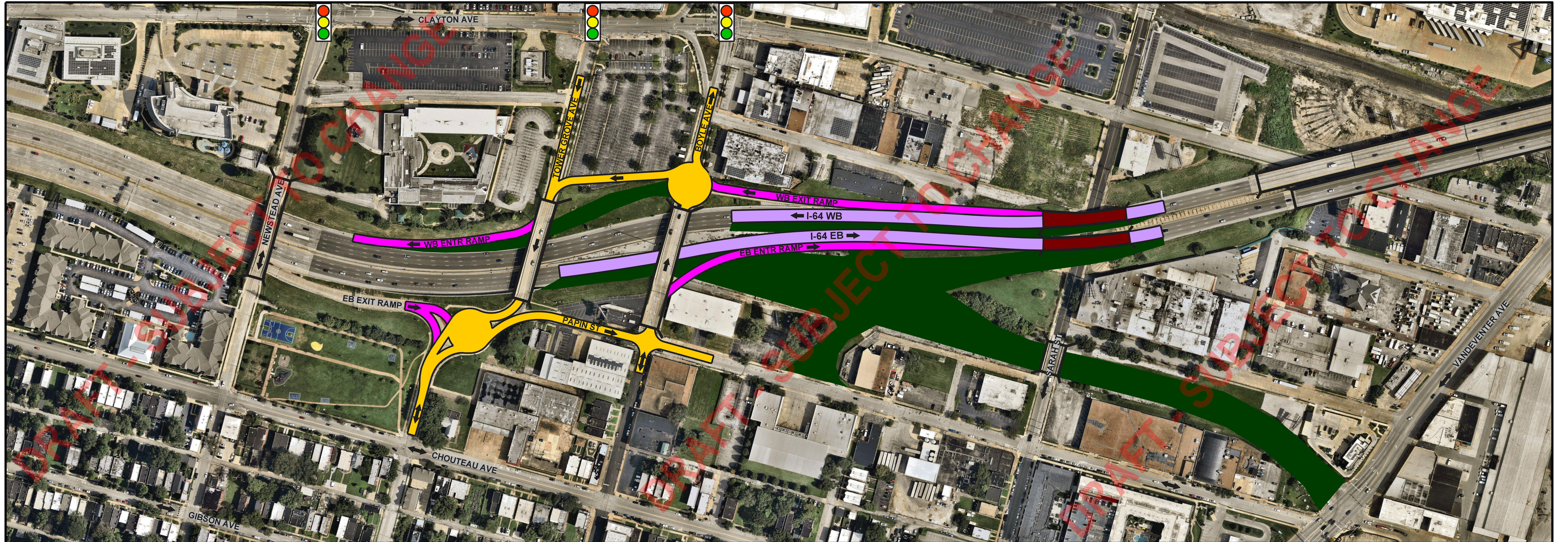
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BOYLE / TOWER GROVE / PAPIN

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COUNTY: ST. LOUIS

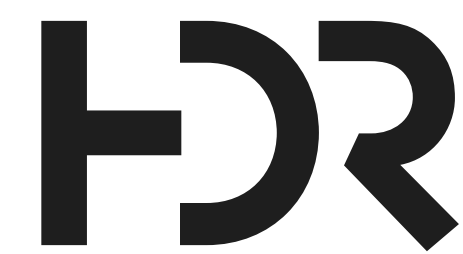
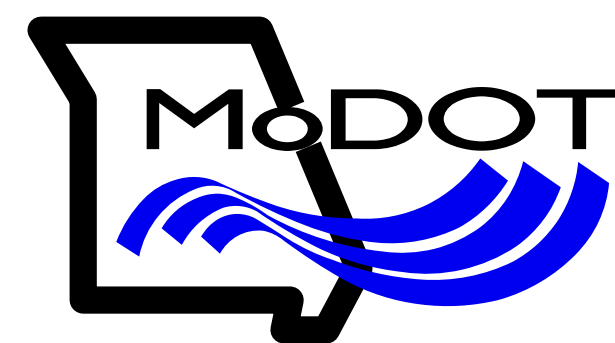
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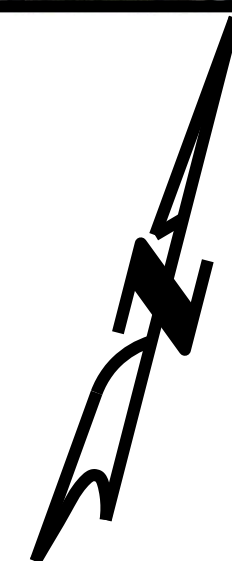




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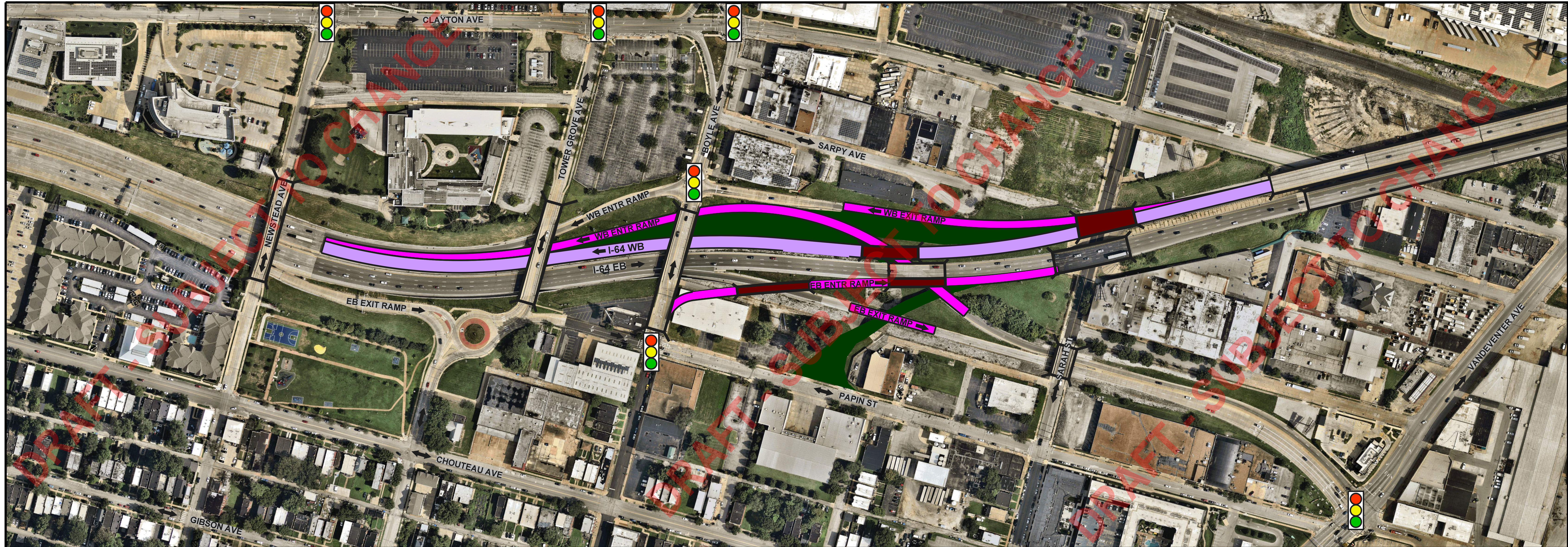
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COUNTY: ST. LOUIS

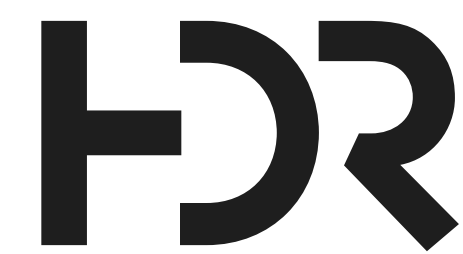
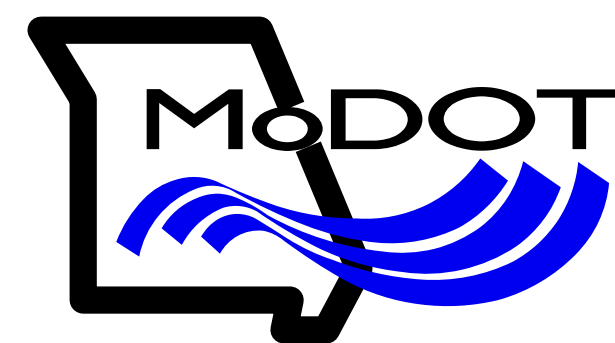
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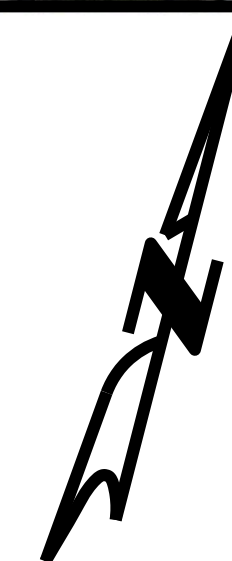




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LEGEND			
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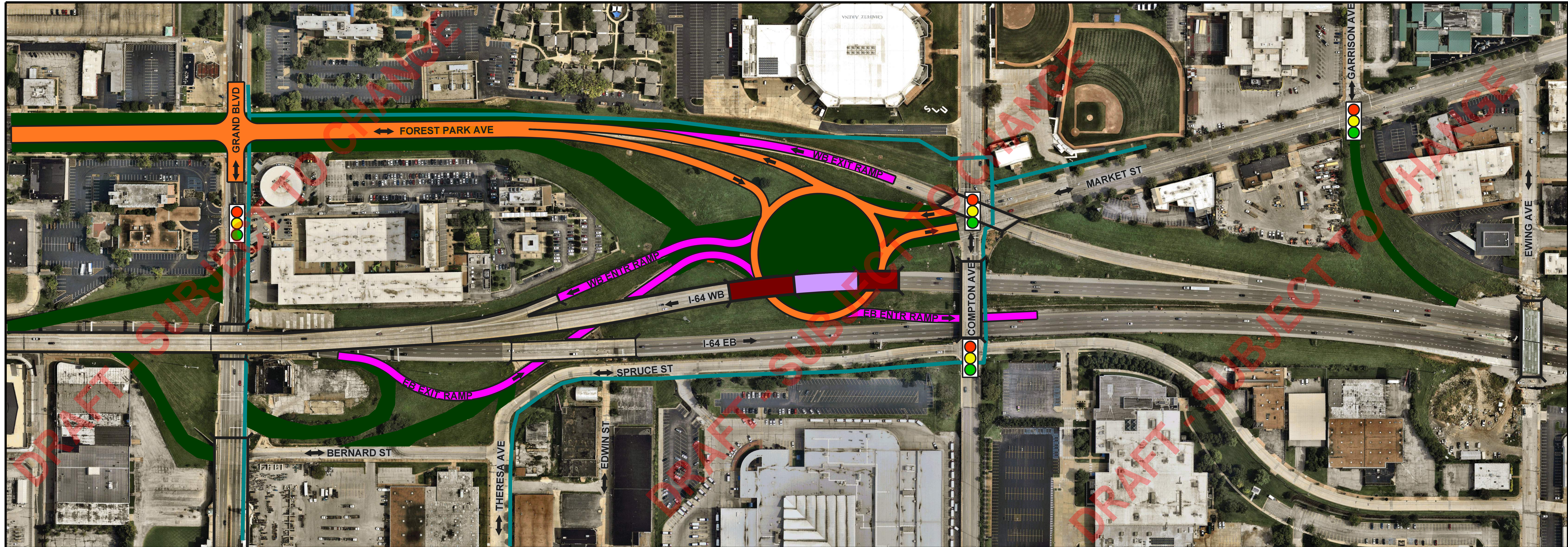
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COUNTY: ST. LOUIS

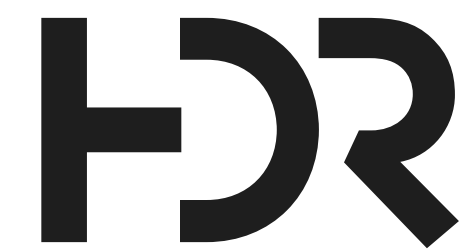
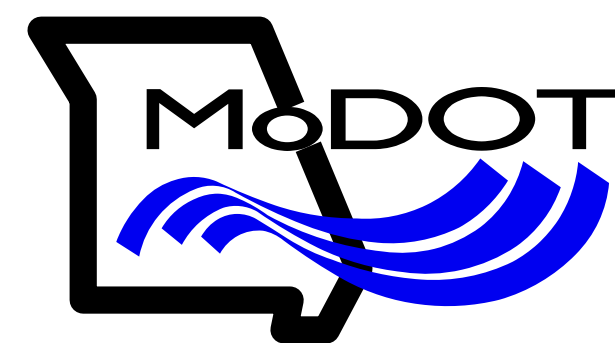
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LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
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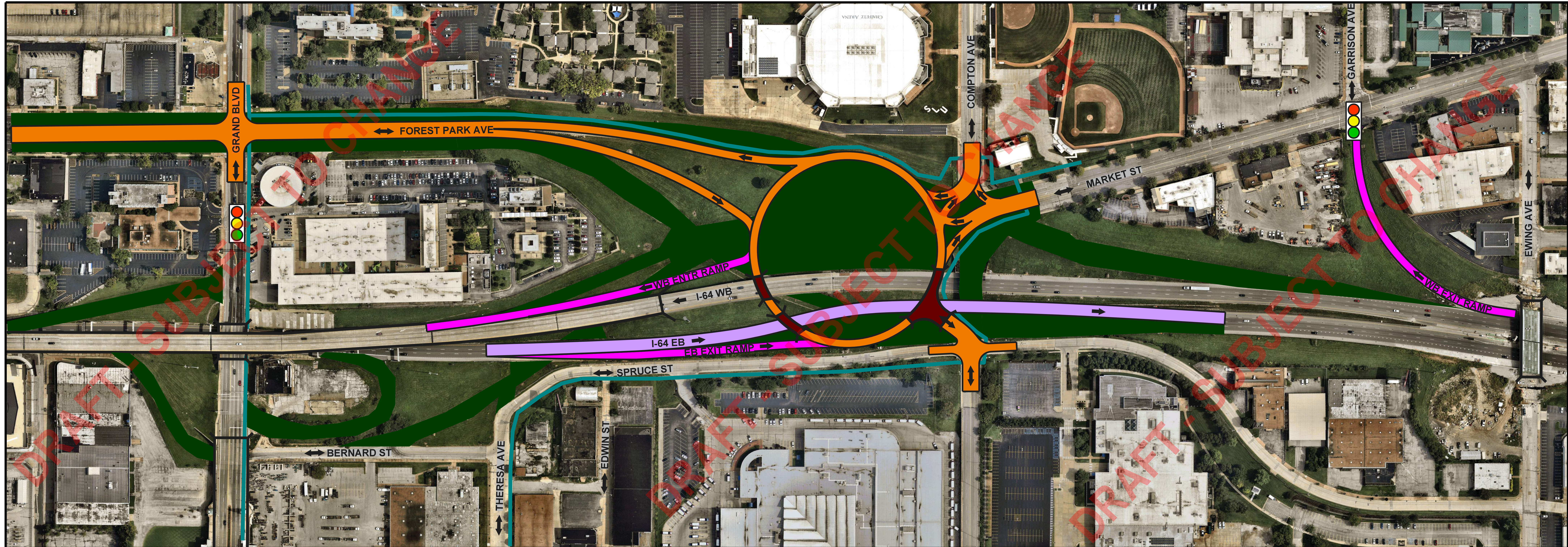
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COUNTY: ST. LOUIS

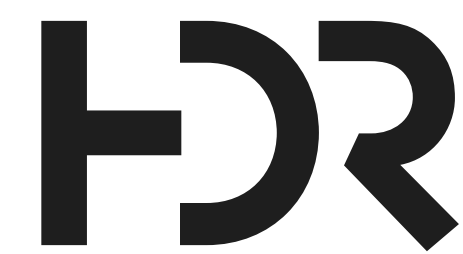
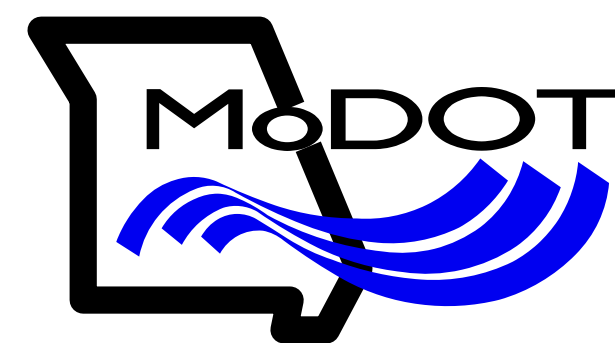
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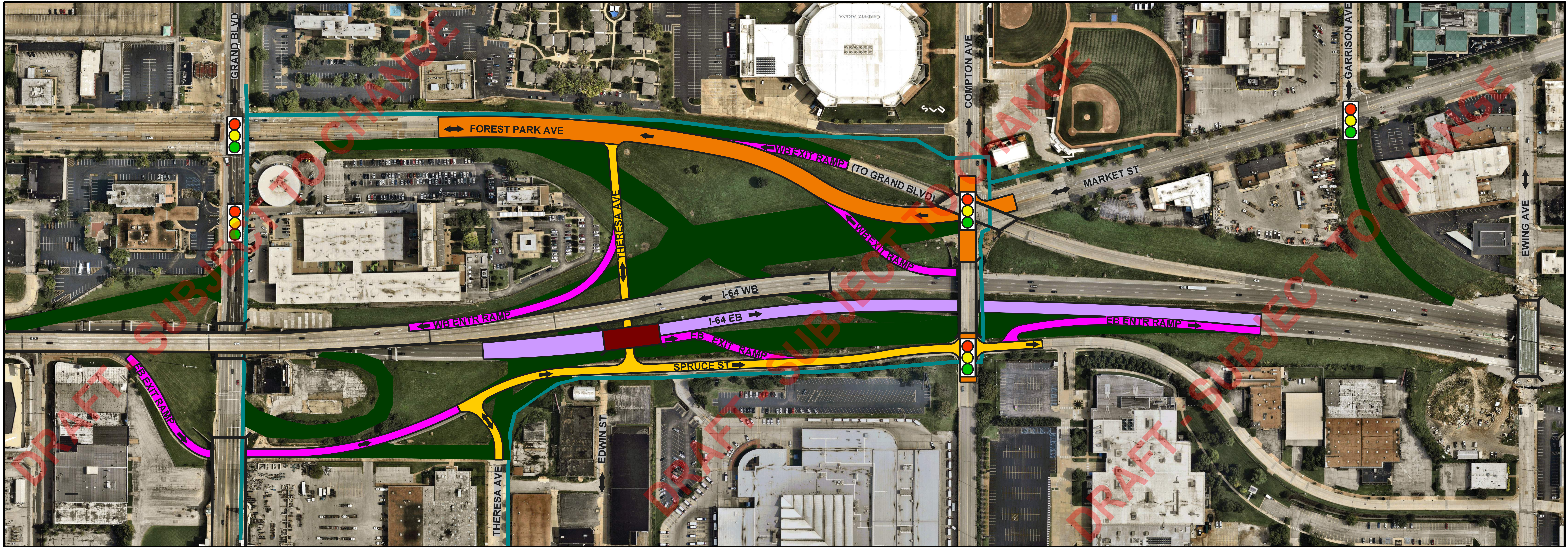
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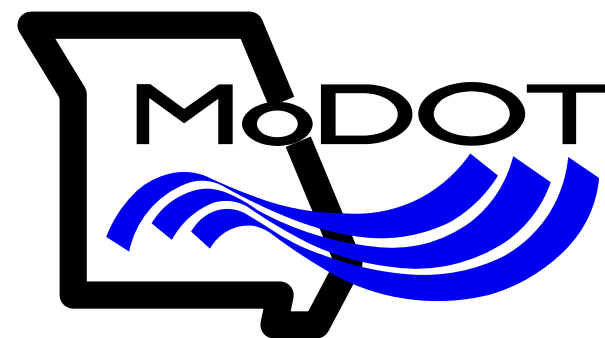
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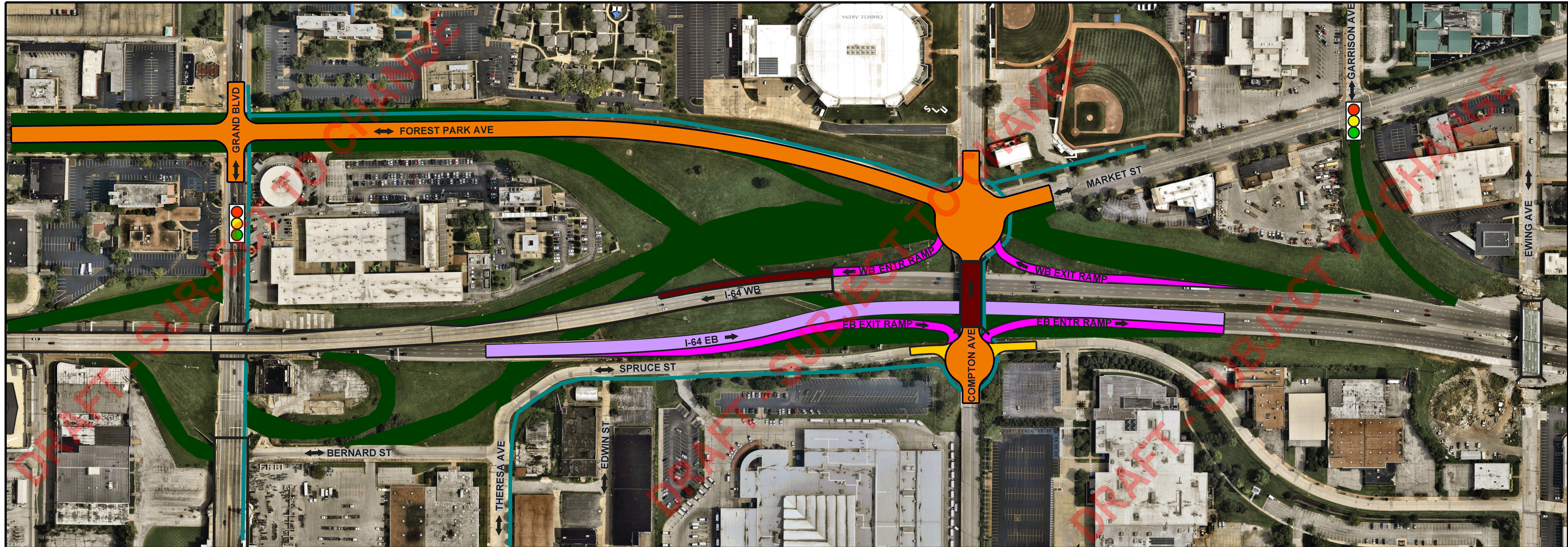


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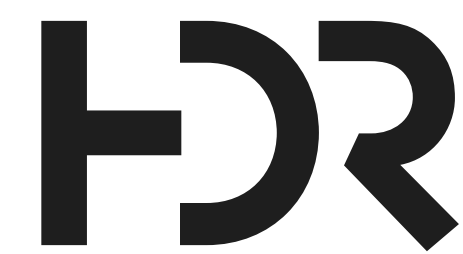
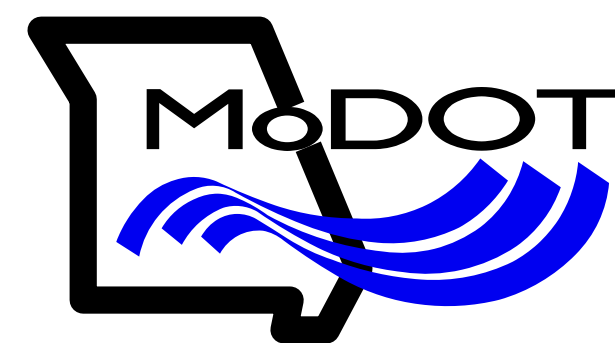
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I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS





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LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
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	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
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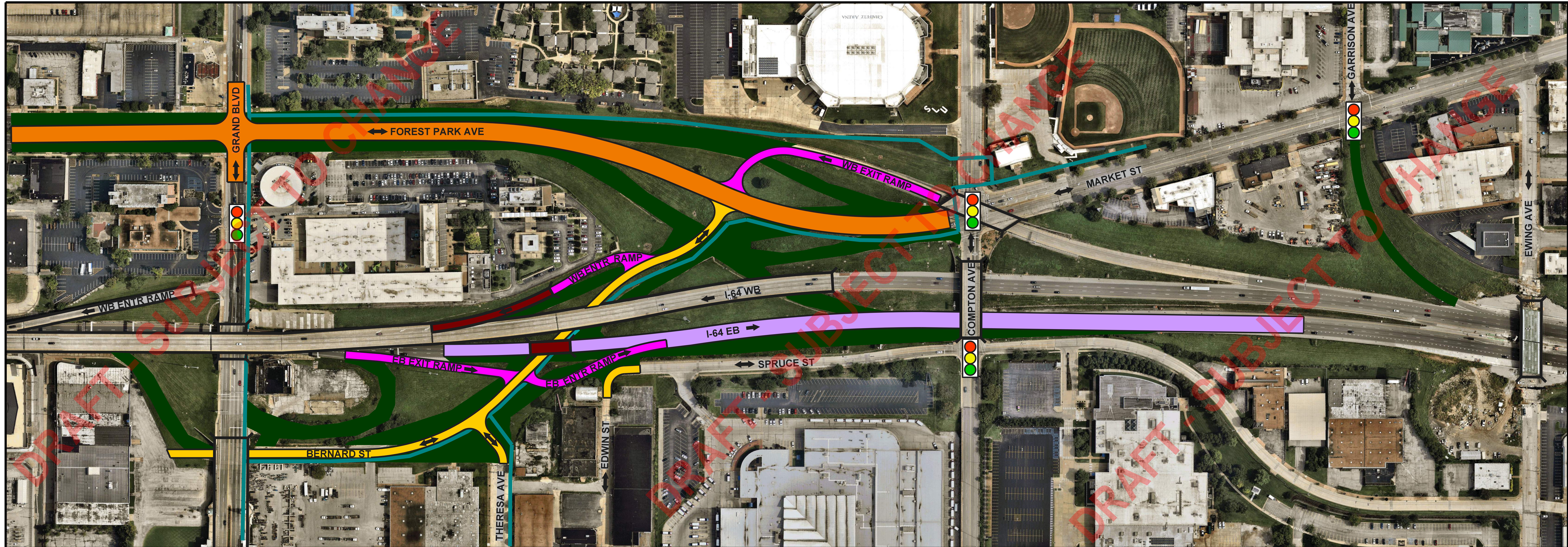
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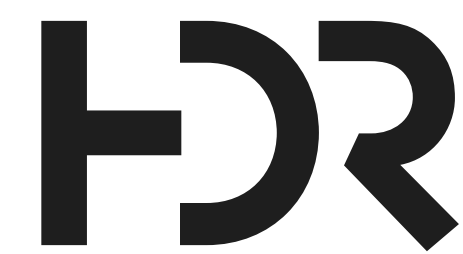
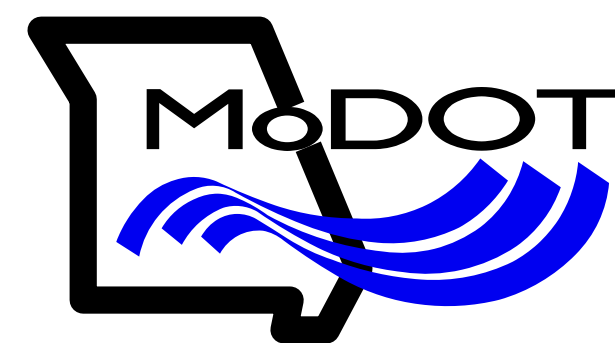
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LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
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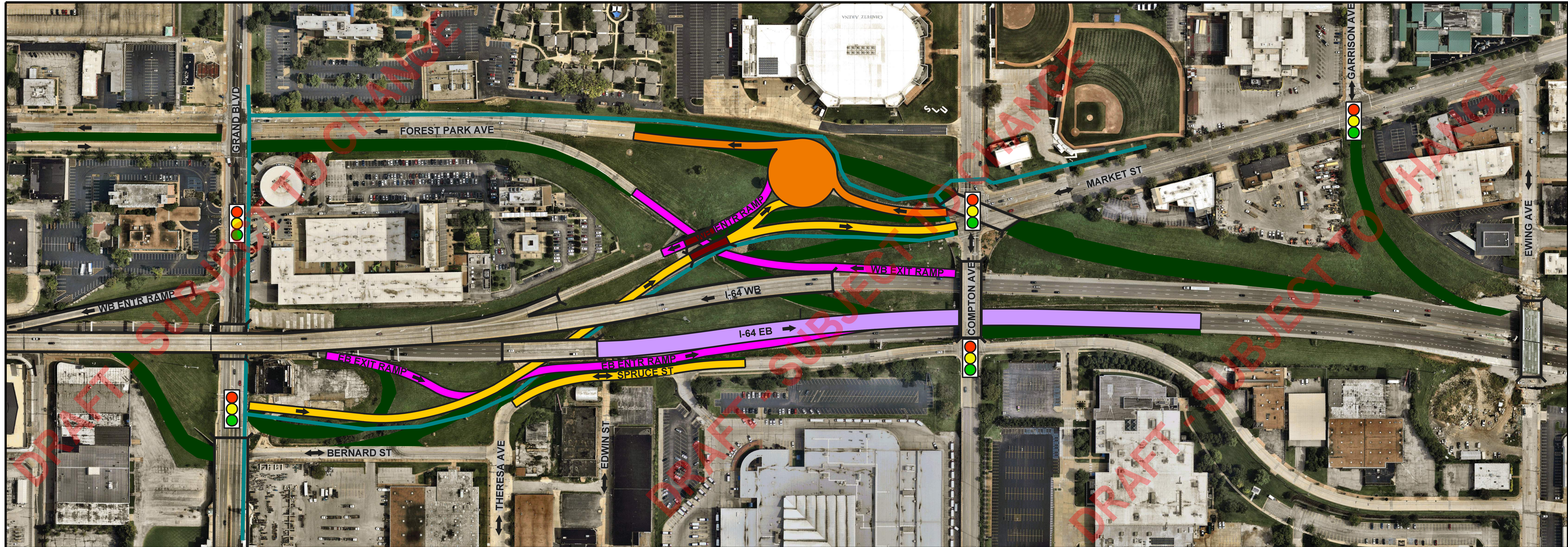
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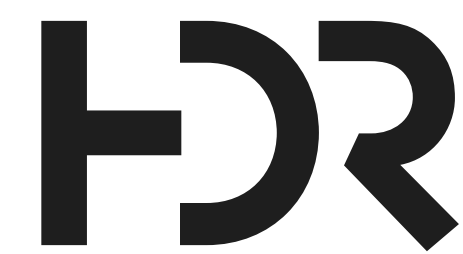
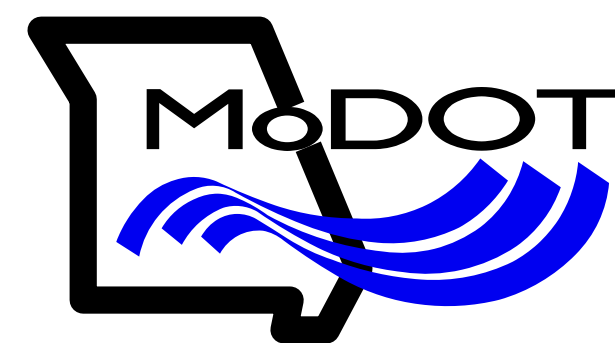
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KINGSHIGHWAY TO JEFFERSON  
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LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

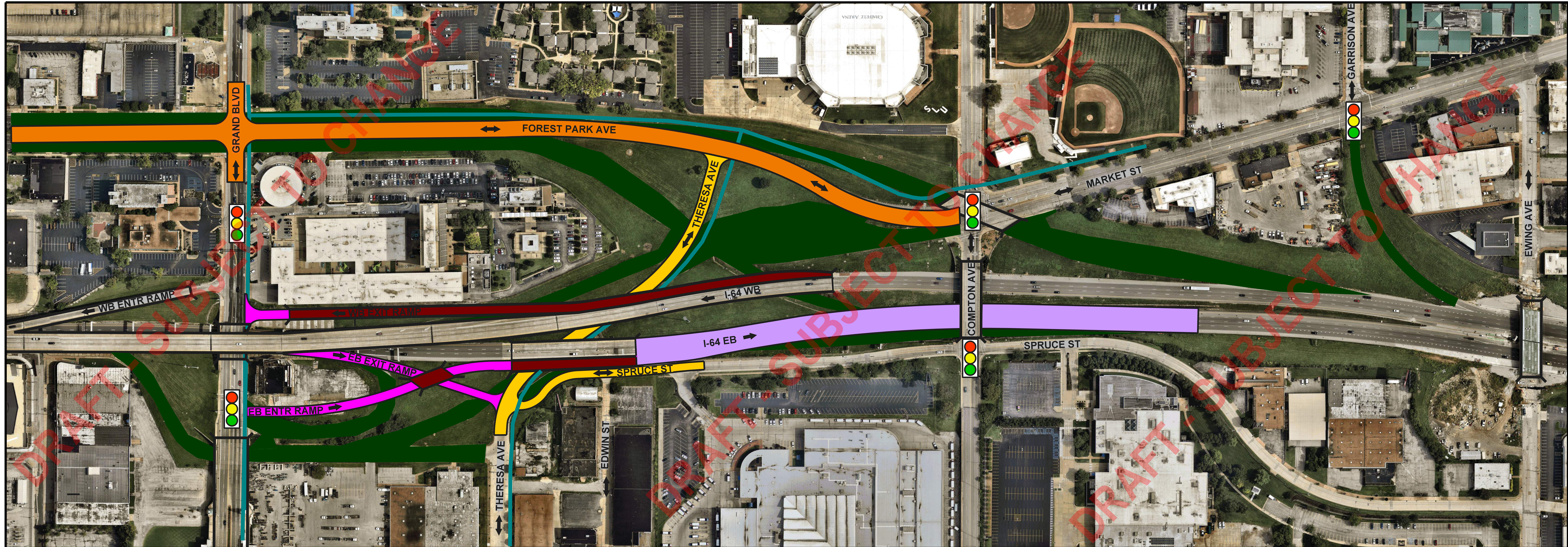
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I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

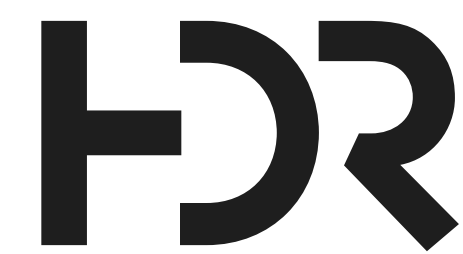
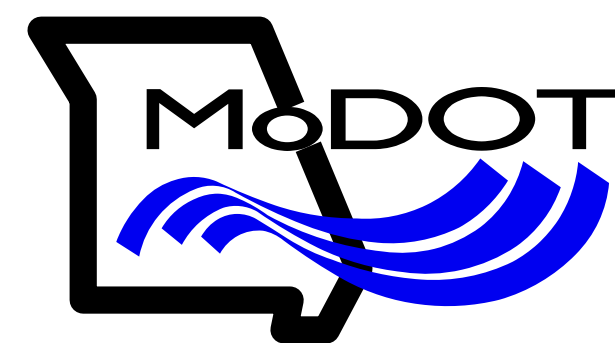
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LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

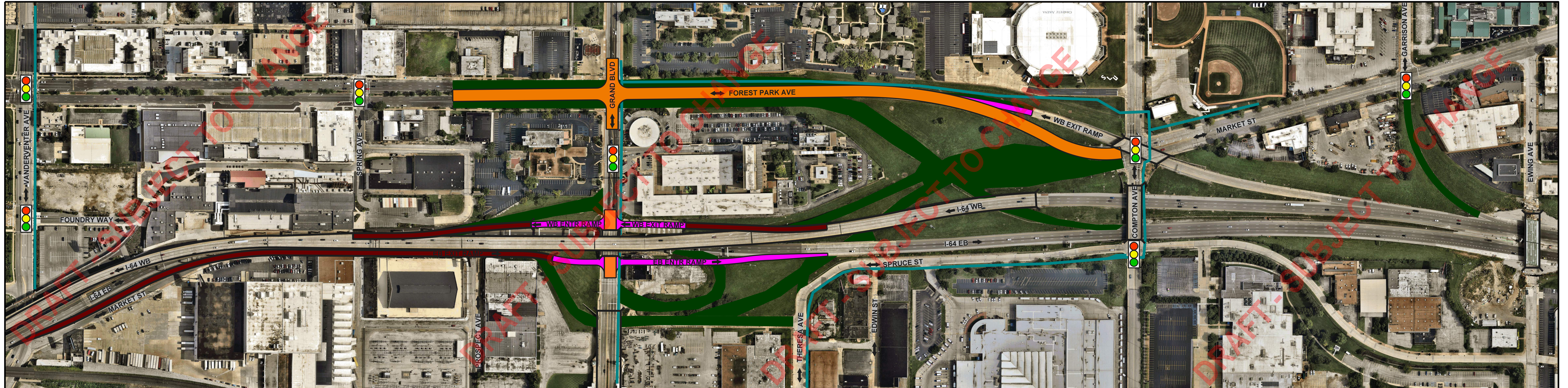
CONCEPT # 7  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

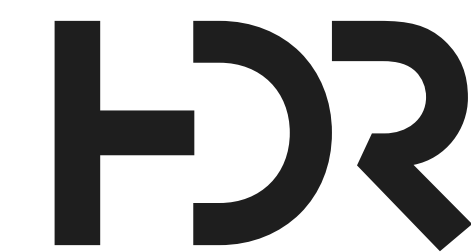
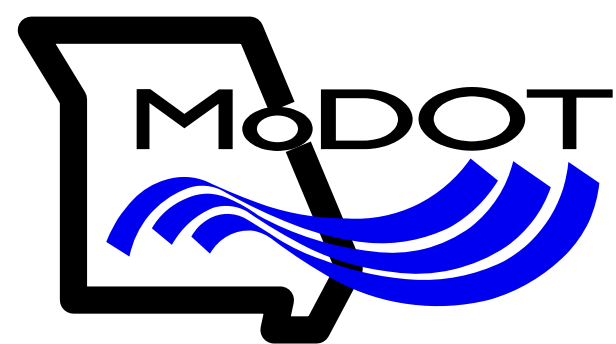
DRAFT - SUBJECT TO CHANGE

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into future NEPA studies, per Title 23 of the Us Code, Part 168





KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND	
	INTERSTATE
	INTERSTATE RAMP
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
	PROPOSED STRUCTURE
	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE

CONCEPT # 8

I-64 / MARKET / GRAND

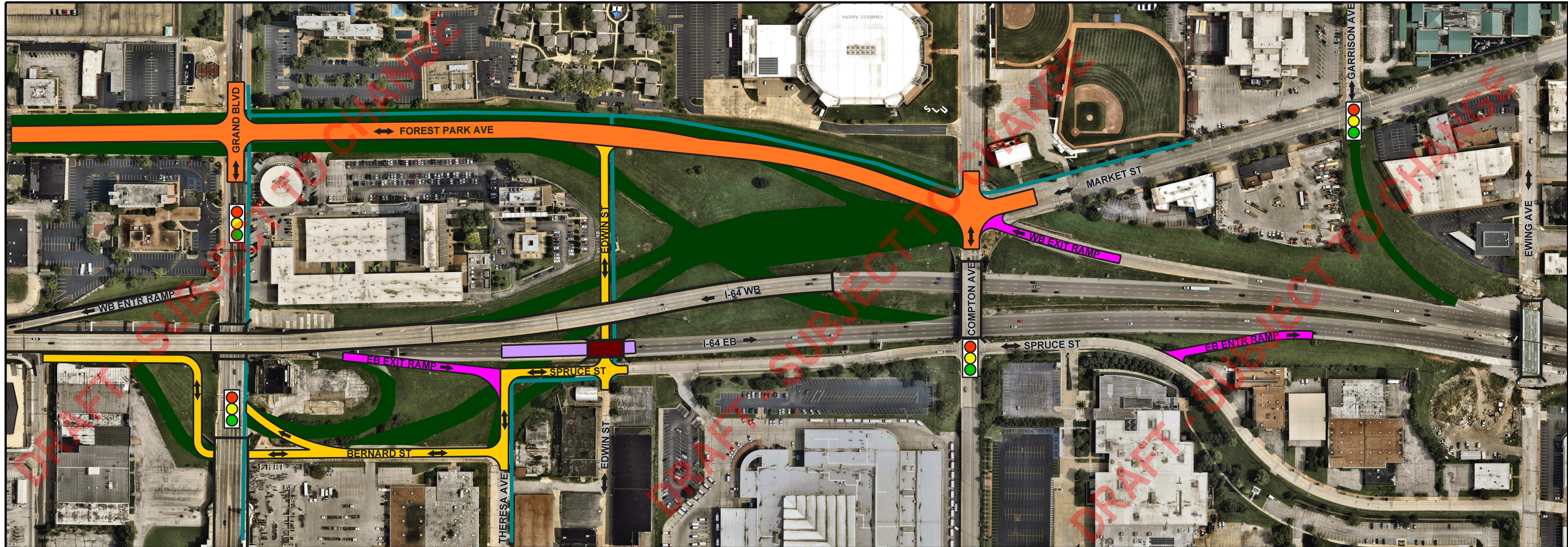
I-64 IMPROVEMENTS

COUNTY: ST. LOUIS

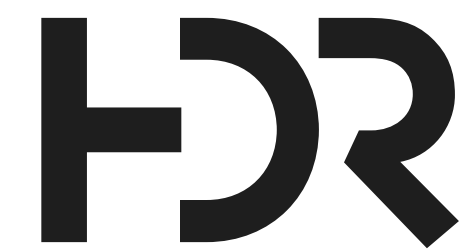
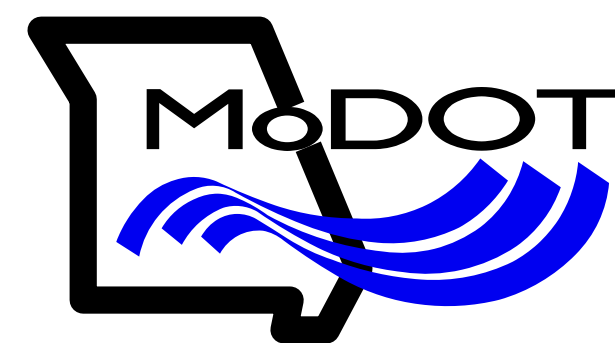
DRAFT - SUBJECT TO CHANGE

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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

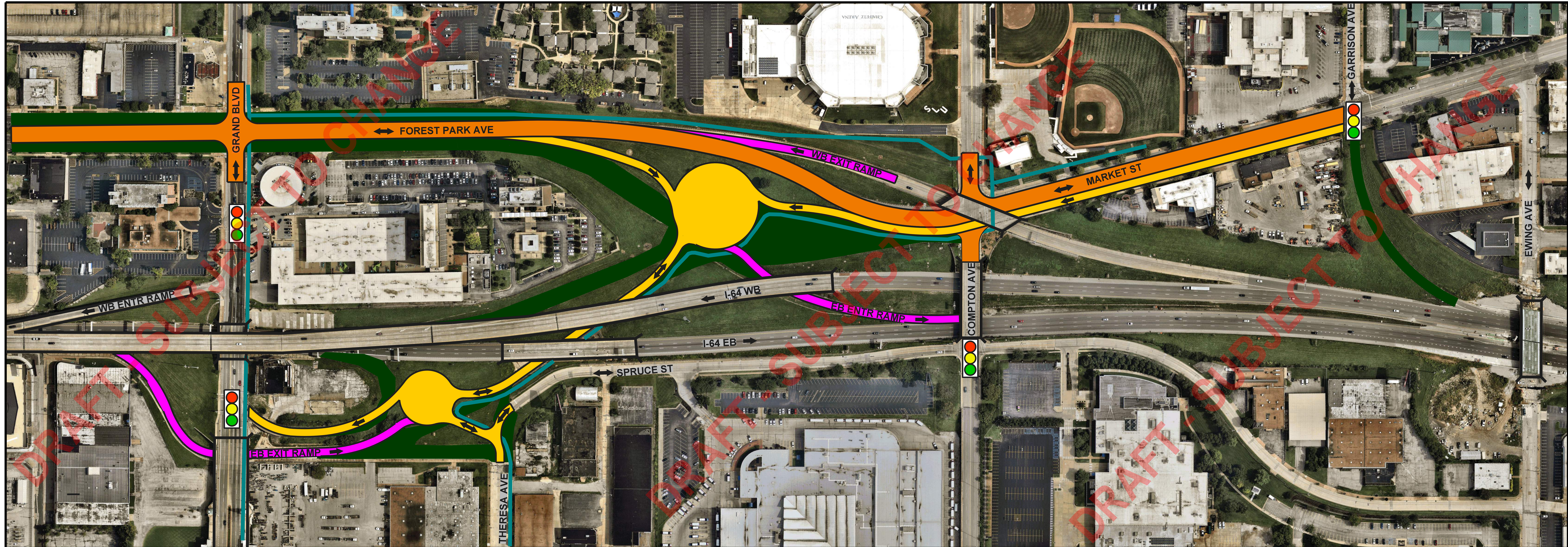
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

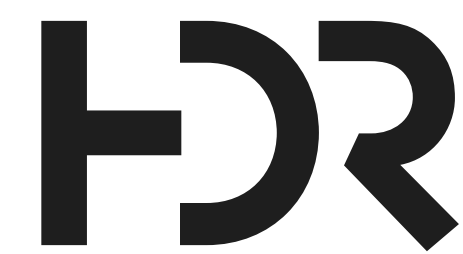
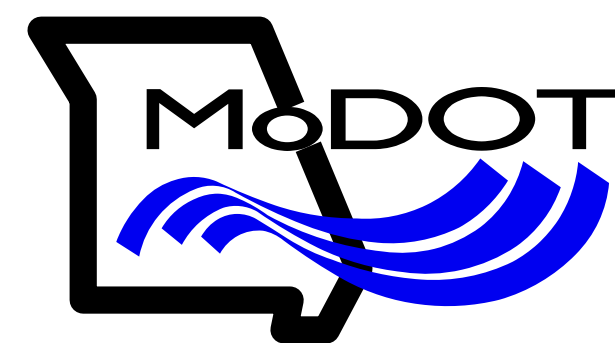
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

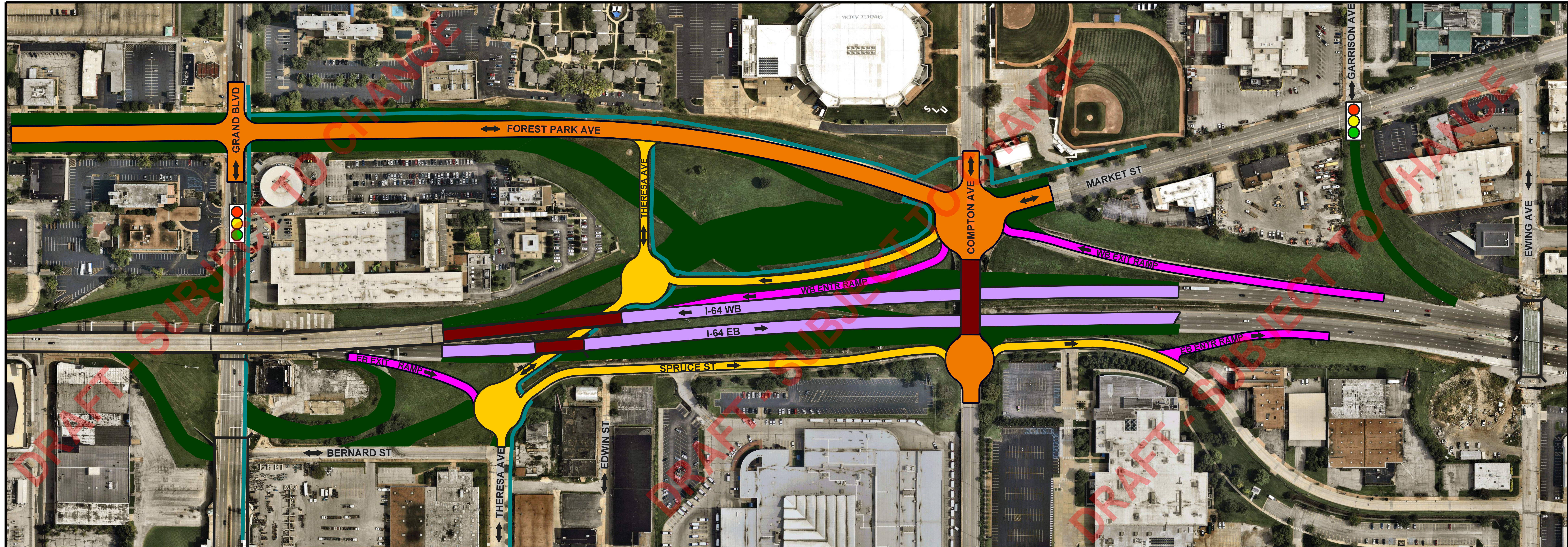
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

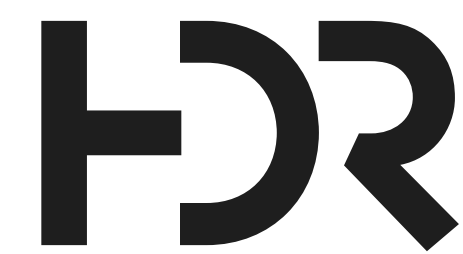
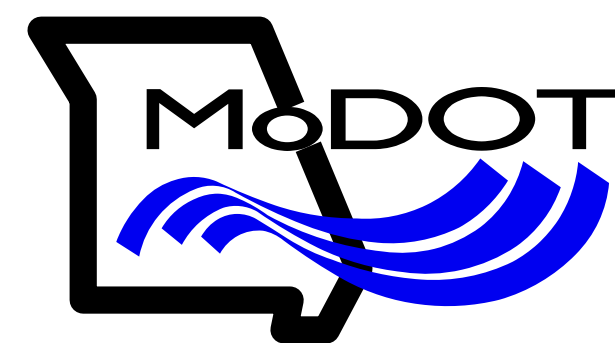
DRAFT - SUBJECT TO CHANGE

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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

CONCEPT # 11  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

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## Draft Future64 Level 1 Alternative Screening

Need	Increase safety for all users		Improve transportation system with intuitive navigation to, from, and across I-64		Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		Maintain Interstate function, operations, and capacity for the future		Other Challenges to Implementation
Sub Need	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
Alternatives											
BTGP_No Action	Low	Low	Medium	High	Low	Medium	Low	Low	Medium	Medium	High
BTGP_Concept 1	High	High	Low	Medium	Medium	High	Medium	High	Low	Low	High
BTGP_Concept 2	Low	High	High	High	Medium	High	Low	Low	Medium	Medium	High
BTGP_Concept 3	Low	High	Low	High	Medium	High	High	Medium	Low	Low	High
BTGP_Concept 4	Medium	Medium	High	High	Medium	Medium	Medium	Low	Medium	High	Low

**DRAFT - SUBJECT TO CHANGE**



## Draft Future64 Level 1 Alternative Screening

Need	Increase safety for all users		Improve transportation system with intuitive navigation to, from, and across I-64		Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		Maintain Interstate function, operations, and capacity for the future		Other Challenges to Implementation
Sub Need	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
Alternatives											
MG_No Action	Low	Low	Medium	Low	Low	Low	Low	Low	Medium	Medium	High
MG_Concept 1	Medium	Medium	Medium	Low	Medium	Medium	Low	Medium	Medium	Low	High
MG_Concept 2	Medium	Medium	Low	Low	Medium	Medium	Medium	Low	Medium	Low	High
MG_Concept 3	Medium	High	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	High
MG_Concept 4	High	Medium	Low	High	Medium	Medium	High	High	Medium	Medium	High
MG_Concept 5	High	High	Low	High	High	Medium	Medium	Medium	High	Medium	High
MG_Concept 6	Low	Medium	Low	Low	High	High	Medium	Medium	Medium	Medium	High
MG_Concept 7	Medium	Medium	Medium	Medium	High	Medium	Low	Low	Medium	High	High
MG_Concept 8	Medium	Low	High	High	Low	Low	Medium	Low	Medium	High	Low
MG_Concept 9	Medium	Medium	Medium	Low	Medium	Medium	Medium	High	Medium	Medium	High
MG_Concept 10	Low	Medium	Medium	Low	High	Medium	Low	Medium	Medium	Medium	High
MG_Concept 11	High	High	Low	Medium	High	High	High	Low	Medium	Medium	No

**DRAFT - SUBJECT TO CHANGE**



# KINGSHIGHWAY TO JEFFERSON **FUTURE** 64

## COMMUNITY ▶ TRANSPORTATION ▶ TOGETHER

### PROJECT PURPOSE

The purpose of the reasonable transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave is to renew and modify the transportation system to have safe and reliable facilities for all users that improve access to destinations and support community vitality for the long term.

### PROJECT NEEDS

The needs are the key problems and the causes of those problems that MoDOT is seeking to address with transportation improvements on I-64 between Kingshighway Blvd and Jefferson Ave.

Increase safety for all users

- Vehicles
- Bicycles
- Pedestrians



Improve transportation system with intuitive navigation to, from, and across I-64



Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users



Optimize bridge maintenance by improving structural conditions to maintain a good state of repair



Maintain Interstate function, operations, and capacity for the future



### PROJECT GOALS

Project outcomes beyond the identified transportation needs are included as goals. The goals help balance environmental, transportation and other community values.



Right-size I-64 to reuse available space to benefit the community.



Support improved land use near transit stations and trails.



Improve equitable outcomes for disadvantaged communities.



Coordinate with regional partners to enhance the local transportation network.



Integrate bicycle and pedestrian facility design best practices into project designs.



Consolidate access points from interstate to local system.



Invest in projects that provide good cost benefit improvements.



Integrate ecology best practices into project designs and right-of-way use.



Integrate improved aesthetics and visual environment into project designs.



# Appendix C

*List of Teams chat introductions and all comments*



[9:03 AM] Kuelker, Lou  
Lou Kuelker - HDR

[9:03 AM] Jennifer A. Wade  
Jen Wade - MoDOT Area Engineer in city of St. Louis

[9:03 AM] Jeffrey Alvey, MoSHPO (Guest)  
Jeffrey Alvey, Archaeologist at MoSHPO

[9:03 AM] Paul Hubbman (Guest)  
Paul Hubbman, East West Gateway

[9:03 AM] Julie Nolfo  
Julie Nolfo - Lochmueller Group

[9:03 AM] Taylor March - Trailnet (he/him)) (Guest)  
Taylor March (he/him) - Programs Director, Trailnet

[9:03 AM] Richards, Michael  
Michael Richards---SSM Health

[9:03 AM] Amanda Burke MOSHPO (Guest)  
Amanda Burke, MoSHPO

[9:03 AM] Colleen Autry  
Colleen Autry, Director of District Operations at Cortex

[9:03 AM] Kevin Neill  
Kevin Neill - Lochmueller Group

[9:03 AM] Kyle E. Grayson  
Kyle Grayson, MoDOT Central Office Design Environmental

[9:03 AM] John Kohler (Guest)  
John Kohler - City of St. Louis BPS - Planning & Programming

[9:03 AM] Michael Lucido  
Michael Lucido - Saint Louis University

[9:03 AM] Young, Samantha  
Sammi Young- HDR

[9:03 AM] Deves, Jonathan  
Jonathan Deves - HDR

[9:03 AM] Mark Vogl / GRG (Guest)



Mark Vogl, Great Rivers Greenway

[9:03 AM] Alvin I. Nieves-Rosario  
Alvin Nieves-Rosario, MoDOT Project Manager

[9:04 AM] THOMAS K BLAIR  
Tom Blair - MoDOT District Engineer

[9:04 AM] Todd Antoine  
Todd Antoine--Great Rivers Greenway

[9:04 AM] CYNTHIA R SIMMONS  
Cindy Simmons, MoDOT SL Planning & LPA Program Manager

[9:12 AM] Amy Parker (Guest)  
I am having trouble getting into mural. I have reset my password and it just loops back around.

[9:12 AM] Amanda Burke MOSHPO (Guest)  
I am having trouble getting into mural it keeps asking me to sign in over and over

[9:12 AM] Amy Parker (Guest)  
thank you

[9:13 AM] Paul Hubbman (Guest)  
i'm unable to get into the mural

[9:14 AM] Longsdorf, Jason  
If you have another email address (such as a gmail) you can use, sometimes that enables easier access to Mural

[9:14 AM] Taylor March - Trailnet (he/him)) (Guest)  
I'm also unable to get into the Mural, keeps bringing me back to the login page

[9:15 AM] John Kohler (Guest)  
Same login problem for me.



# Appendix D

List of questions and comments from the west side concepts



1. Need to focus on Tower Grove being the north/south bike path. It should not be Boyle.
2. Don't forget that there is a grant location on Sarah.
3. There are a lot of nuances to look into. This feels remedial (minor) and doesn't feel like overall improvements.
4. It feels like the team didn't look at the goals of the Wash U campus and these feel uncomfortable.
  - a. Julie noted Lochmueller shared their concerns
5. Have previous traffic studies been reviewed by the team? Wash U partnered on an interchange to service their complex. The goal is patients take Kingshighway, staff take Boyle and freight also uses Boyle. Has the team looked at what has happened since?
  - a. Lou noted the team has looked at the AJR
6. Boyle has a wide separated sidewalk so it may be a tough mix with bike/ped traffic and the highway traffic.
7. It is worth considering how redevelopment land would be by removing direct access to Vandeventer. That puts a lot of traffic onto Papin and Clayton and makes an entrance ramp very close to an elementary school.
8. Was there a no build scored with these concepts?



# Appendix E

List of questions and comments from the east side concepts



1. Do you have current counts of number of cars utilizing each one of the current ramps?  
That could be helpful to know current use of the Grand loop ramp, since so many of the concepts remove or alter that movement
  - a. There is current data as well as Year 2050 projections. In Year 2050 that eastbound loop off ramp is projected to have 467 vehicles in the AM Peak Hour and 385 in PM Peak Hour.
2. There is concern about limiting access on Grand to SLU Hospital and Cardinal Glennon. There needs to be a better understanding on the impact on EMS services coming east and west on I-64.
3. Have you met with Green Streets? They are developing the armory project west of Grand, and this could affect that development.
  - a. Green Streets is part of the CAG team.
4. Compton Bridge is an important upcoming connection for people walking and biking.
  - a. Several of the concepts don't show the Brickline connection.
5. Grand needs to be a key bus corridor.
6. Is there an assumption for an individual lane for bike/ped in the roundabout? There would be a conflict of the bike path and exiting traffic.
7. Options 3 and 9 clip a listed historic site Council Plaza – it's the whole lot not just a building.
8. How would concept 1 impact EMS access to Cardinal Glennon and SLU.
9. The city is investing in a cycle track and pedestrian facilities. There needs to be a direct connection to the Brickline.

#### Concept #1

- Roundabout near Compton
- Modifications to Grand
  - Single intersection now
  - Addresses
- Provides more direct access

#### Concept #2

- Modifications to grand
- Large roundabout to consolidate ramp movements
- Moves WB Access to market to garrison intersection

#### Concept #3

- New distribution road system
- Provides new N/S local access that would likely have pedestrian facilities as well
- Right hand entry ramp, access from Compton
- No direct access to grand – would have to use Theresa

#### Concept #4



- Moving all of the ramps that connect to and from grand – consolidating these movements to a simpler pair of roundabouts

#### Concept #5

- Similar distribution to #4 but takes better advantage of some of the space
- Limits decision making necessary for those moving west
- No direct access to grand so it is removing ramps
- WB access – new at Bernard, right hand access point

#### Concept #6

- Removes E. Bound entrance ramp
- No direct access to grand
- Provides n/s access to grand from Compton
- Requires quite a few structures and takes advantage of existing infrastructure

#### Concept #7

- New WB I-64 ramp to grand removes freeway traffic from Park Ave
- Streamline e/w movements
- Provides new n/s Theresa connection
- Improves mainline and freight flow as they occur on the mainline and to and from grand

#### Concept #8

- Provides direct access to grand
- Potential conflict with so many signals close to each other
- Requires a long off ramp
- Allows for potential TOD

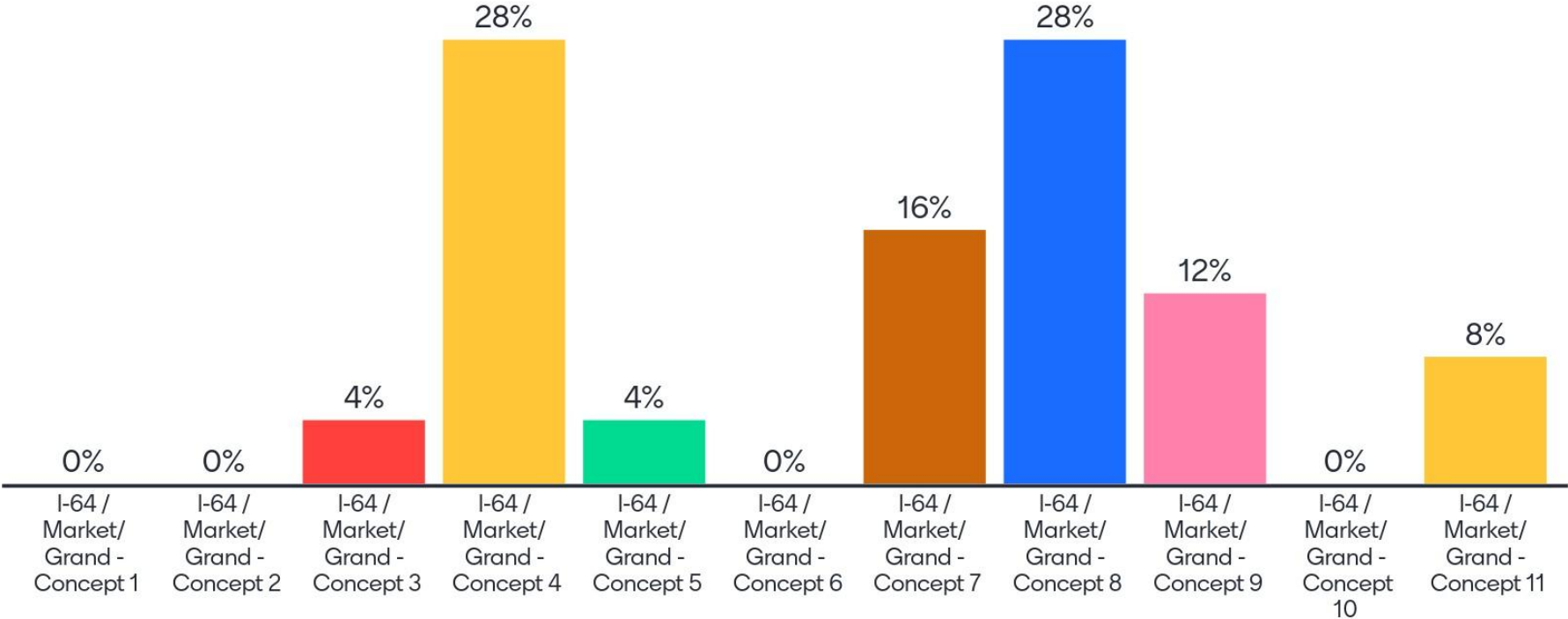


# Appendix F

Results from the Mentimeter poll.

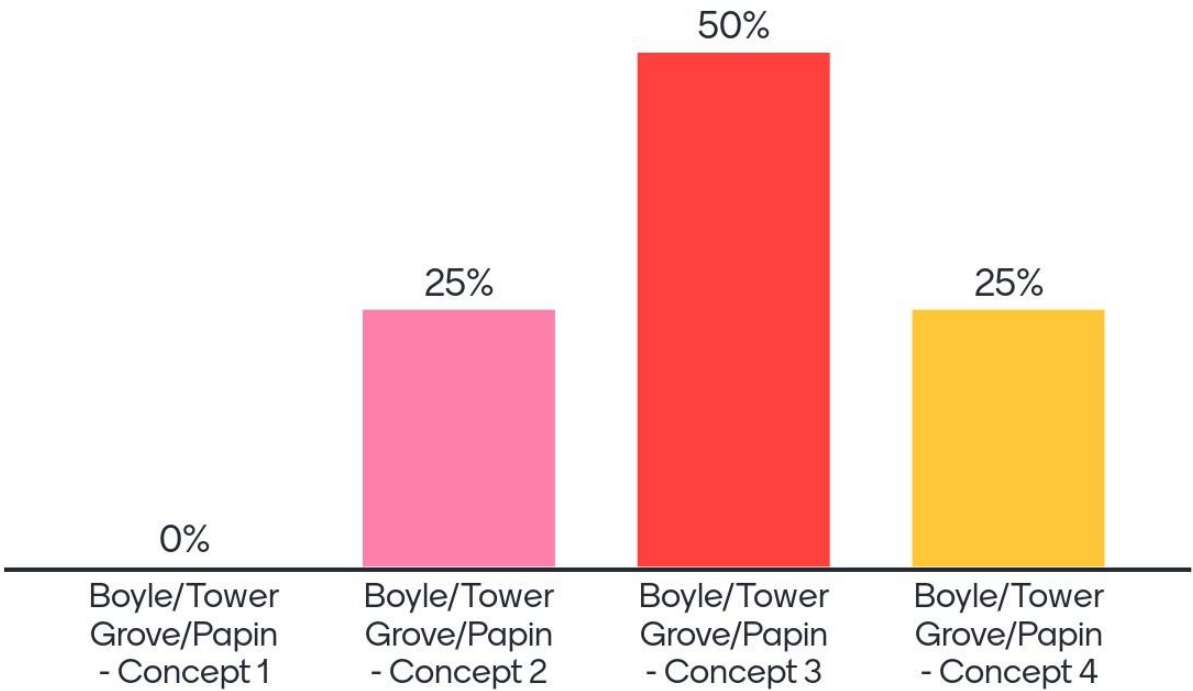


# Which two alternatives at I-64/Market/Grand would you like to discuss further?





# Which one alternative at Boyle/Tower Grove/Papin would you like to discuss further?





# Out of all the alternatives shown, what features do you like the most?





# Out of all the alternatives shown, what features do you like the least?

complicated interchanges  
long access ramps left side ramps  
disconnected to grand one ways  
long ramps roundabouts indirect  
not prioritizing transit  
confusion huge roundabouts traffic signals  
no big ideas lack of street connection  
multimodal conflicts concrete spaghetti  
decreased pedestrian use



# Appendix G

List of questions and comments



1. Concept #3
  - a. Having an access close to the school is problematic
  - b. It should dead end at Clayton to keep traffic going to Tower Grove.
  - c. This would push the need to acquire land and ROW
2. Concept #4
  - a. South roundabout seems impossibly tight given all of its access points
  - b. Although we want transit to work well along grand, the bike and ped access might be a higher priority on Compton
3. Concept #8
  - a. Potentially leaves the most developable property
  - b. Is the land actually redevelopable in the Vandeventer area?
  - c. There is a benefit to thinking about connecting surface streets south of the highway up to grand – there is going to be more development activity on those lower surface streets – connection will make those developments more attractive in the long run.
4. Concept #7
  - a. Doesn't show bike/ped connection n/s along Compton or to the Metrolink or market at Harris Stowe.
  - b. We understand the Compton is a critical n/s bike and pedestrian connections



# Appendix H

Copy of the PPT and all meeting materials can be found in Appendix H.



# Appendix I

*Copy of comments received after the meeting.*



## GRG Comments on July 28 TAG Presentation

### **Boyle/Tower Grove/Papin**

Overall comment: Why is Bike/Ped not addressed in any of these options? At the very least, Sarah should be acknowledged but the other existing Bike St. Louis routes are not shown. Why?

#### Concept #1

- Removing all access from Vandeventer is not a good idea, particularly for EB-I-64 as the diversion off of Papin would take all the exiting traffic onto a local road for several blocks and the existing Vandeventer off ramp provides good connectivity without disrupting existing land uses. The existing WB I-64 on ramp to Vandeventer is not ideal, but to simply remove it entirely is not a good option and this option does not provide for any way to get onto I-64 WB except for taking Clayton to Tower Grover to Papin to Boyle to I-64 which is not convenient. Additionally, any excess ROW is limited for redevelopment opportunities.
- Is Papin Street (from the EB I-64 off ramp to Vandeventer) adequate to accommodate all the additional traffic proposed without street widening? Also what traffic calming measures would be proposed?
- Does “reallocation” of space for bike/ped on bridges require rebuilding, expanding or are there lane reductions to accommodate bike/ped space?
- Dual one-way pairs (Papin-north outer road/Tower Grove-Boyle) appear to function as a massive roundabout. Traffic flow might make sense but it would also appear to generate a significant increase in VMT.

#### Concept #2

- Keeps Vandeventer access intact and seems like a better solution.
- Does “reallocation” of space for bike/ped on bridges require rebuilding, expanding or are there lane reductions to accommodate bike/ped space?
- Dual one-way pairs (Papin-north outer road/Tower Grove-Boyle) appear to function as a massive roundabout. Traffic flow might make sense but it would also appear to generate a significant increase in VMT.
- 

#### Concept #3

- Same concerns as Concept #1 with Vandeventer and use of Papin Street.
- Only advantage to Concept # is more intuitive onramp to EB I-64 and developable property on Papin. Same concerns as above.

#### Concept #4

- Keeps Vandeventer access intact and provides a better WB I-64 access which is good. And removing that short EB I-64 on ramp from Papin is good but requires additional ROW.
- Seems to have least negative bike/ped impacts.



## Market/Grand

Overall comment: There don't appear to be easy solutions here that fix all problems. Simplicity seems like the best strategy to take. It does not make sense to spend \$ millions to replace a complex imperfect interchange with another complex imperfect interchange.

### Concept #1

- Traffic flow in the model probably works fine but from a human perspective it is not intuitive and replaces a complex interchange with another complex interchange.
- Interchange still takes up a lot of space and creates no new developable real estate.

### Concept #2

- Similar concerns as Concept #1 but it's even less intuitive and looks very expensive.
- Interchange still takes up a lot of space and creates no new developable real estate. Land within the roundabout is a complete waste.
- Forcing NB/SB Compton traffic through the roundabout is unreasonable and further exacerbates NB/SB movements in the corridor, especially with no new NB/SB route between Compton and Grand. Looks like a huge increase in VMT. This option should not be considered.

### Concept #3

- Improvements seem somewhat modest for a pretty big investment.
- Assume space between new Theresa and Grand is developable?
- Bike/ped along Theresa is listed in 2<sup>nd</sup> bullet but not shown on diagram. Might be an uncomfortable/unwelcoming space if not designed well.

### Concept #4

- Don't quite understand bullet 5 describing the Compton interchange as "traditional diamond" although it seems like it could be designed as such
- Last bullet: no new NB/SB connection between Compton and Grand. Can't one be included in this concept by lowering Spruce as in Concept #3
- Two roundabouts on Compton might be confusing—is it possible to modify them into a single, elongated roundabout?
- Bike/ped circulation seems to work as well on this option as any other.
- Large developable area is a big potential benefit—but would be even better with NB/SB Theresa.

### Concept #5

- Bullet #1 about more intuitive movement—agree at the intersection of Compton-FP/Market, but I-64 access west of the intersection is not intuitive.
- Bullet #3 about easy bike/ped access is true along Grand and Forest Park but the Bernard St. route into the interchange does not look comfortable or welcoming for bikes/peds.
- Bullet #5 is not quite true about providing NB/SB connection between Compton and Grand. It is much more of an EB/WB movement.



- Generally this option looks like it is replacing existing concrete spaghetti with different configuration of concrete spaghetti, solving some problems while creating others.

#### Concept #6

- This option looks confusing and is not intuitive for average commuters.
- How do EB vehicles on Forest Park get to Market or Compton?
- Same issue as Concept #5 that bike/peds might have a safe route in the interchange but it's no-man's land and not welcoming/comfortable.

#### Concept #7

- Bullet #1 about more intuitive movement—agree at the intersection of Compton-FP/Market, but I-64 access west of the intersection is not intuitive.
- Interesting connection of Theresa to Forest Park—could make residual land within interchange more accessible and valuable for development
- Additional conflict points for bikes/peds on Grand is not acceptable

#### Concept #8

- Option is not viable. New ramps west of Grand would make proposed Brickline Greenway connection between Foundry and Armory impossible.
- Bullets #2 and #3 re: more challenging traffic operations and conflict points for bikes/peds on Grand are not acceptable trade-offs for any benefits provided by this option

#### Concept #9

- Concerned that the apparent decrease in access to I-64 will shift congestion elsewhere in the network (east and west) putting more pressure and VMT on local grid.
- Edwin NB/SB connection makes a lot of sense and provides good access to residual land within interchange, potentially making it more valuable for development.
- Option does not appear to provide any benefits to circulation, bike/ped or conflict points on Grand—perhaps makes them worse

#### Concept #10

- Bullet #4 is true—this option might work well in a traffic model but does appear to be very confusing and not intuitive for actual drivers
- Bike/ped route through interchange is not welcoming/comfortable and appears to have some potential conflict points with higher speed traffic
- Generally do not see the how benefits of this option outperform what is there now.

#### Concept #11

- Option appears to consider bike/ped movements, safety and comfort better than (or as well as) other options.
- Appears to be an enhanced version of Option #4 but does Compton access work as well?
- Theresa NB/SB extension provides access to residual land and potentially makes it more valuable for development





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Through our exceptional  
health care services,  
we reveal the healing  
presence of God.

August 29, 2022

To Missouri Department of Transportation Advisory Group Leadership:

The purpose of this letter is to provide initial formal comments on behalf of SSM Health regarding the proposed concept alternatives presented at the July 28, 2022 Transportation Advisory Group (TAG) meeting for the *Kingshighway to Jefferson Future 64 Project*. As the only adult and children's hospital campus in downtown St. Louis, access to care, especially in time critical situations, is of utmost importance.

For background purposes, the *Kingshighway to Jefferson Future 64 Project* area will have an impact on our SSM Health Saint Louis University Hospital and our SSM Health Cardinal Glennon Children's Hospital campuses. Between the two campuses, we see over 400,000 medical visitors each year, which includes well over 100,000 emergency room visits per annum. Our campus also sees thousands of emergency medical transports from within the city and Metro East, as well as from rural portions of Missouri and Illinois.

SSM Health also employ both medical and non-medical personnel on our campus, which is staffed 24 hours a day, seven days per week all year long. In total, we employ around 5,000 employees. These statistics do not include the multitude of friends, family, and suppliers who also come to our facilities every day and all times of the day.

We agree with the stated project purpose, "...to have safe and reliable facilities for all users that improve access to destination and support community vitality for the long term." However, as an anchor institution, and one of the largest employers in both St. Louis City and County, convenient and direct access to care is of utmost importance to ensure our patients, their families, and our staff can reach our medical facilities.

We agree with the interest and intent for rehabbing and improving the Grand Avenue/I-64 Interchange to take into consideration the increased utilization and safety concerns at, and along, the I-64 corridor between Kingshighway and Jefferson. The traffic to our SSM Health facilities — Saint. Louis University Hospital and Cardinal Glennon Children's Hospital — as well as to Saint. Louis University, the City Foundry, the Armory, The Steelcoate Complex, Top Golf, Target, and the likely development of the land west of Grand Avenue on Choteau, which had been slated as a TIF development prior to the pandemic, will all require direct and improve ingress and egress on I-64 on Grand Avenue.

Of the proposed 11 concepts outlined in the June 28 meeting, only one of the concepts continues access for both on and off ramp access at the Grand/I-64 interchange. We believe it is a short-sighted approach. Not only does it limit access to major North-South access road in the City of St. Louis (Grand Avenue), but it also creates significant barriers for patients, emergency personnel, visitors and staff to SSM Health and the many other anchor institutions along the Grand Avenue corridor.



Though we believe Compton Avenue is an important intersection that too could benefit from a thoughtful and deliberate study, we cannot support all or nothing approach as it relates to the Grand Avenue exit. In the spirit of time-critical access to healthcare, we do not and cannot support the closing of the Grand Avenue exit and the diversion of traffic to the Compton Avenue intersection for healthcare access.

The only concept at this point we can support would create a four-way intersection on Grand Avenue. Based on the renderings, it is difficult at this point to determine the overall impact and stress on the interchange and overall traffic flow. We believe more work needs to be done to better assess the alternative as well as any enhancements to the existing interchange.

On another note, we do appreciate the:

- Focus on safety and long-term planning to ensure the interchange is developed with both the short- and long-term in mind.
- Connectivity options both across the Grand Avenue bridge for all modes: car, commercial, pedestrian, bike and as well as public transit. We believe all options are important in serving our patients and the community — especially with a focus of reducing the single motor vehicle impact on our roads.
- Understanding by the transportation team, the impact the build environment may have on the overall health and well-being of the community. We understand I-64 is an essential connection point through the City and County, but it also is an important connection point for national access.

Because of the significance of access to our health care campuses and the economic impact of losing the Grand access not only for current businesses but also future development, we are requesting a more in-depth discussion with you. We believe this will allow us to share our concerns, more details about our future plans and projects, and we hope this will allow for more open dialogue and discussion between us so that we can find a mutually beneficial agreement for the long-term.

Thank you for your consideration. We look forward to future discussion on this very important topic.

Sincerely,



Michael Richards  
System Vice President

CC: Steven Scott, President, SSM Health Saint Louis University Hospital  
Steven Burghart, President, SSM Health Cardinal Glennon Children's Hospital  
Michael Lucido, Vice President, Saint Louis University  
Brooks Goedeker, Midtown Redevelopment



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**SCHOOL OF MEDICINE**

Ms. Jennifer Wade, PE  
Area Engineer – City of St. Louis  
Missouri Department of Transportation

Dear Ms. Wade:

Washington University School of Medicine (WUSM) and BJC HealthCare appreciate the opportunity to participate in the Future I-64 Planning and Environmental Linkages Study. During the virtual meeting of the Technical Advisory Group held on July 28<sup>th</sup>, our representative Mr. Steve Sobo was able to provide feedback on the Level 1 Alternatives that were shared. With this letter, we'd like to formally submit our comments on those alternatives for the project record. Our comments are as follows:

- BJC and WUSM partnered with MoDOT in funding construction of the current Boyle Ave/Tower Grove Ave interchange on I-64, which opened in 2014. This interchange is very important to the Washington University Medical Campus, as it serves as the primary access point on I-64 for employees and for service/deliveries. In that regard, it provides important relief to Kingshighway, which serves as the primary access point for patients and visitors.
- Since that time, BJC and WUSM self-funded improvements to the Boyle Ave and Clayton Ave intersection to alleviate traffic congestion and enhance the flow of traffic to the Boyle Ave/Tower Grove Ave interchange.
- Great Rivers Greenway is proposing an alignment of the Brickline Greenway along the west side of Boyle Ave between MetroLink and Clayton Ave and then along the south side of Clayton Ave from Boyle Ave west into Forest Park. Care should be taken to ensure the traffic impacts of the Level 1 Alternatives allow for safe pedestrian and bicycle mobility along the Greenway and afford appropriate pedestrian street crossing intervals without undue impacts to traffic flow on the Medical Campus.
- Alternatives that propose new roundabouts should be avoided, as roundabouts are difficult for semi-trucks to navigate. With the Boyle Ave/Tower Grove Ave interchange serving as the primary access point for service and deliveries, the interchange does experience significant truck traffic. Tire marks and damage to the outside curb of the existing roundabout at Tower Grove Ave and the I-64 Eastbound Ramp are evidence of the challenge this intersection poses for large vehicles.
- Alternatives that propose one-way traffic on Boyle Ave and/or Tower Grove Ave should be discouraged. This configuration is not intuitive, results in adverse travel to access the I-64 ramps (traffic must go south and then return back north to get on I-64), adversely affects circulation for Stix School, and can contribute to higher speed traffic. WUSM and BJC support maintaining intuitive access between the Medical Campus and ramps leading to/from I-64.



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## SCHOOL OF MEDICINE

- Alternative #3 that removes the I-64 ramps to Vandeventer Ave will divert significant volumes of traffic to the Boyle Ave/Tower Grove Ave interchange with I-64, resulting in major congestion and significant impacts to the Washington University Medical Campus and to the surrounding neighborhoods (Cortex, Forest Park Southeast). For this reason, Alternative 3 should be eliminated from further consideration.
- WUSM and BJC support alternatives that lengthen the westbound I-64 off-ramp at Boyle Ave or otherwise address weekday morning peak period traffic congestion exiting I-64.
- WUSM and BJC support alternatives that establish an eastbound I-64 on-ramp directly from Boyle Ave and view continuity between the I-64 eastbound off-ramp and I-64 eastbound on-ramp as being advantageous.
- WUSM and BJC advise the Future I-64 project team to reference forecasted traffic volumes from Medical Campus's Traffic Model currently maintained by Lochmueller Group. These volumes reflect planned growth of the Medical Campus out to 2030 and should capture anticipated increases in Medical Campus traffic utilizing the Boyle Ave/Tower Grove Ave interchange with I-64. In particular, the Future I-64 project team should be careful to estimate traffic diversions due to the Level 1 Alternatives to ensure any adverse impacts to the Medical Campus' street network are identified and properly mitigated.

We appreciate this opportunity to be part of the Future I-64 Planning and Environmental Linkages Study and we look forward to continued dialog regarding the Level 1 Alternatives. We would appreciate the opportunity to be part of refining these alternatives so that the ultimate recommendations of the Study reflect the mobility needs of the Medical Campus. Please don't hesitate to contact me if I can be of further assistance.

Sincerely,

**Steven S. Sobo, PE | Executive Director – Strategic Projects**  
**Office of the Assistant Vice-Chancellor, Assistant Dean of Operations & Facilities Management**  
**Washington University School of Medicine**  
660 South Euclid Avenue | Campus Box 8010 | St. Louis, MO 63110  
Office: 314.362.5251 | Cell: 314.307.2167 | Fax: 314.362.9952  
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## Appendix B.

### Level 1 Evaluation: Screening Results



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
Concepts											
BTGP_No Build	Low	Low	Medium	High	Low	Medium	Low	Low	Medium	Medium	High
	There is no improvement to local road network or an improvement that addresses crash hot spots.	There is no improvement from the existing condition for people walking, biking, and/or transit users.	Concept maintains current access.	Access to all perpendicular streets maintained.	Concept maintains existing connectivity. Existing facilities include sidewalks but is not separated from those biking.	No change in access	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)	There is no reduction of the total number of structures existing structures will be used in place and rehabilitated.	Maintains existing capacity and operations.	Maintains existing freight movements but does not improve maneuverability along, to and from I-64.	No impacts.
BTGP_Concept 1	High	High	Low	Medium	Medium	High	Medium	High	Low	Low	High
	Improved geometry, removing left hand on ramp, removed two ramps, improve ramp terminals, improves Vandeventer/Papin intersection.	Assumes that conversion to one-way travel allows extra space is available on the Tower Grove and Boyle bridges to improve bike/ped crossings	Very minor out of direction caused by Tower Grove / Boyle one way couplet. Removal of Vandeventer causes less direct access to Ikea, Foundry, SLU and other destinations further south on Vandeventer. Reduces direct connection between 64 and 44.	Yes, still provides access to/from all streets from I-64. Adds 600 vehicles exiting in am peak at EB off ramp at Tower Grove (which already has 900 vehicles). Inv PM peak adds potentially 500 vehicles to existing 700.	Potential improved crossing on Tower Grove and Boyle due to reallocation of roadway width to multimodal.	Potential improved access to Cortex Metrolink station and Tower Grove bus stops	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 2 MINOR REPAIRS (A3651,A3893)	Removal of 2 structures and construction of no new structures.	Increased volumes on ramps to and from I-64 with elimination of Vandeventer ramp (+/- 1500 vpd total volume each ramp).	Reduced conflict points and left hand entrance ramps improve freight on mainline. Removes direct access to Vandeventer. Out of direction travel may slow certain freight movements to and from 64.	Noise and cut through traffic are concerns but not unmanageable
Do Not Carry Forward											



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
BTGP_Concept 2	Low	Medium	High	High	Medium	High	Low	Low	Medium	Medium	High
	Improved ramp terminal at Boyle with roundabout, reduced weave length WB between Tower Grove and Kingshighway, keeps left hand Vandeventer on-ramps	Assumes that conversion to one-way travel allows extra space is available on the Tower Grove and Boyle bridges to improve bike/ped crossings. Adds two conflict points on Tower Grove and decreases comfort due to traffic volumes increasing.	Very minor out of direction caused by Tower Grove / Boyle one way couplet. All other direct access maintained.	Yes, still provides access to/from all streets from I-64.	Potential improved crossing on Tower Grove and Boyle due to reallocation of roadway width to multimodal.	Potential improved access to Cortex Metrolink station and Tower Grove bus stops	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)	There is no reduction of the total number of structures existing structures will be used in place and rehabilitated.	Maintains left hand entrance ramps at Vandeventer and reduces west weave at Tower Grove - both of which impact operations.	Maintains left hand entrance ramps at Vandeventer, but left hand entrance is problematic. New roundabout is also not preferred for freight.	No identified issues
BTGP_Concept 3	Low	High	Low	High	Medium	High	High	Medium	Low	Low	High
	Removes left entrance. Adversely pushes weave from Tower Grove WB closer to the Kingshighway Exit. This could have a negative affect on an accident hot spot.	Assumes that conversion to one-way travel allows extra space is available on the Tower Grove and Boyle bridges to improve bike/ped crossings	Less direct access to Ikea, Foundry, SLU and other destinations further south on Vandeventer. Reduces direct connection between 64 and 44.	Converts interchange to a true split diamond.	Potential improved crossing on Tower Grove and Boyle due to reallocation of roadway width to multimodal	Potential improved access to Cortex Metrolink station and Tower Grove bus stops	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  No Repairs either removing or replacing due to geometry changes.	Removal of 4 structures and construction of 2 new structures.	Concerns with the weave between Tower Grove Ave on-ramp to WB I-64 with the exit WB to Kingshighway. Additionally increases volume to ramps to and from I-64 with elimination of Vandeventer ramp (+/- 1500vpd total volume each ramp).	Reduced conflict points and left hand entrance ramps improve freight on mainline. Removes direct access to Vandeventer. Out of direction travel may slow certain freight movements to and from 64. Creates weaving issue WB between Tower Grove and Kingshighway. Adds second roundabout.	Noise and cut through traffic are concerns but not unmanageable
<b>Do Not Carry Forward</b>											



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
<b>BTGP_Concept 4</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Low</b>
	Changes Vandeventer to a right hand entrance. Removes EB Papin ramp and introduces new EB ramp from Tower Grove. Does not address lane drops at EB Tower Grove and Vandeventer.	No change sidewalk provided will be maintained.	All access maintained	Access to all perpendicular streets maintained.	Introduces new ramp crossing on Boyle but improves Papin.	No change in access	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 1 MINOR REPAIRS (A3893,A3651)	Removal of 2 structures and construction of 2 new structures and widening of existing L0669.	Improves westbound operation but not EB.	No left hand entry ramps or roundabouts. Moves EB ramp to more intuitive Boyle.	Possible property relocations needed
<b>BTGP_Concept 5</b>	<b>Medium</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>Low</b>
	Removes left entrance from the Vandeventer Ramps. All existing Tower Grove and Vandeventer traffic will now have to exit at Tower Grove, potential causing weave issue between Kingshighway and Tower Grove. Vandeventer ramp now enters on the right. I-64 WB would now need to change two lanes to exit at Kingshighway.	Repurposes Tower Grove bridge into a pedestrian/bike only crossing. Assumes grade seperated if not traffic calming and signalization would be needed.	Maintains all of the existing direct access from the Interstate. With the cul-de-sac of Papin and the repurposing of the Tower Grove bridge there will be some out of direction travel required by existing users.	Removes the crossing of Tower Grove from the Grid and Cul-de-Sacs Papin.	The repurposing of Tower Grove bridge into a pedestrian/bike only crossing creates a low stress crossing of the interstate that will provide a direct connection to the Brickline running east/west along Clayton.	Potential improved access to Cortex Metrolink station and Tower Grove bus stops	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 2 MINOR REPAIRS (L0669,A3893)	Removal of 2 structures and the construction of 4 new structures.	Potentially improves WB I-64 by providing more storage for the off ramp to Boyle and removing left entrance ramp from Vandeventer. There may be improvements to the east bound as well from the consolidation of the off ramps to Boyle and Vandeventer and the lengthening of the on Ramp from Boyle. This concept may also allow eastbound access from Vandeventer.	No left hand entry ramps or roundabouts. Moves EB ramp to more intuitive Boyle. Removes roundabout from Tower Grove exit. Longer ramp lengths allow heavier freight vehicles additional length to accelerate/decelerate.	Possible property relocations needed



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
Concepts											
BTGP_Concept 6	Medium	High	Medium	Medium	Medium	Medium	Medium	Low	High	High	Low
	Reconstruction of I-64 in both directions would result in horizontal geometry deficiencies. Removes left entrance from the Vandeventer Ramps. All existing Tower Grove and Vandeventer traffic will now have to exit at Tower Grove, potential causing weave issue between Kingshighway and Tower Grove. Vandeventer ramp now enters on the right. I-64 WB would now need to change two lanes to exit at Kingshighway. Improves safety with the C-D road on the westbound side.	The ramp traffic is removed from the Tower Grove crossing lowering the stress put on bike and ped users along this route.	Maintains all of the existing direct access points to and from the interstate with the exception of Tower Grove. Creates a traditional diamond interchange at Boyle Ave.	With the cul-de-Sac of Papin and Clayton there connectivity points would be removed from the existing grid. There is a new connection at the intersection of Sarpy and Bernard but it is not as logical as the existing connections.	Maintains the existing connectivity for bike and ped users. Could see some improvements on Towergrove with potential decrease in traffic volume.	No change in access	No Build Requires: 3 MINOR REPAIRS (L0669,A3651,A3893) 1 MAJOR REPAIRS (A3735)  Concept Requires: 2 MINOR REPAIRS (A3651,A3893)	Removal of 2 structures and the construction of 5 new structures.	Concept maintains the capacity of the mainline and with the CD roads on the north and south increases storage length at the I-64 WB and EB exit to Boyle.	No left hand entry ramps or roundabouts. Moves EB ramp to more intuitive Boyle. Removes roundabout from Tower Grove exit. Longer ramp lengths allow heavier freight vehicles additional length to accelerate/decelerate.	Possible substantial property relocations needed



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
<b>MG_No Build</b>	<b>Low</b>	<b>Low</b>	<b>Medium</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Low</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>
	There is no improvement to local road network or an improvement that addresses crash hot spots.	There is no improvement from the existing condition for people walking, biking, and/or transit users.	Concept maintains current access.	Existing configuration leads to circuitous travel to reach destination also leads to shorter than desired sign spacing.	Existing configuration does not provide a North/South connection between Grand and Compton nor an at grade crossing.	Existing configuration does not provide good connectivity for those using Transit to the surrounding area.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835)  Concept Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS	No reduction in total number of structures.	Maintains existing capacity and operations.	Maintains existing freight movements but does not improve maneuverability along, to and from I-64.	No impacts.
<b>MG_Concept 1</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>High</b>
	Improved geometry, removes loop ramp, addresses Grand hotspot	Improved connectivity on Grand; removal of ramp terminal crossings; at grade FP/G allows for one crossing for bike/ped versus two separate crossings	Facilitates all movements except EB I-64 to Grand. Requires out of direction travel to SLU hospital and Grand Center when traveling from the west.	No direct access to Grand. Roundabout provides access to Compton.	Reduces conflict points on Grand (5 signals to 2 on Grand). New pedestrian bridge at Compton.	More comfortable access from Grand. Assumes bus priority on Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835)  Concept Requires: 2 MINOR REPAIRS (A7080,A7081) 4 MAJOR REPAIRS (A3594,L0638,A0832,	Removal of 4 structures and potential construction of 1-2 new structures or widening.	Still has one left hand entrance. Eliminates one merge from WB Grand to mainline.	Problems for freight include one left hand entrance, new large roundabout, and out of direction travel to access Grand.	No issues



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future			
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation	
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?	
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.	
Concepts												
MG_Concept 2	Medium	Medium	Low	Low	Medium	Medium	Medium	Low	Medium	Low	High	Do Not Carry Forward
	Moves WB access to Market to Garrison intersection. Eliminates EB access. Removes loop ramp exit to Grand and EB left hand entry ramp. Addresses Grand accident hotspot.	Improved connectivity on Grand	Facilitates all movements except EB I-64 to Grand and Grand/Compton to EB 64. Requires out of direction travel to SLU hospital and Grand Center when traveling from the West and more turns from the east.	Compton traffic is forced through roundabout and no direct access to Grand.	Reduces conflict points on Grand (5 signals to 2 on Grand). New, but more circuitous pedestrian bridge at Compton.	More comfortable access from Grand. Assumes bus priority on Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,I0638,A0832,A3741,A0835)  Concept Requires: 0 MINOR REPAIRS 4 MAJOR REPAIRS (A3594,I0638,A0832,A3741)	Removal of 4 structures and possible modification to A3741 and construction of 2 new structures.	No EB entrance to 64. No left hand entrance ramp. Potential weaving issue with new ramp to Market with Jefferson WB on ramp. Concerns about the interaction at east side where Compton/Market intersect with roundabout and one another	Problems for freight include new large roundabout, no EB 64 on ramp and out of direction travel to access Grand.	No issues	
MG_Concept 3	Medium	High	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	High	Carry Forward
	Eliminates left hand entrance. Removes loop ramp and removes WB on ramp from Grand. Doesn't address grade separated FP/G intersection and existing signal control. Need to segregate WB 64 traffic to Grande from WB 64 traffic destined to FP/Teresa	Eliminates two ramp crossing on Grand. Still have to cross two intersections over Forest Park. Assumes pedestrian facilities along Theresa and Spruce and north of Forest Park.	Requires out of direction travel to SLU hospital and Grand Center when traveling to and from the west.	Removal of loop ramp requires out of direction travel for EB 64 traffic to Grand. Slight out of direction for access to WB 64. Adds more access to and from Compton.	Reduces from 5 signals on Grand to 3. Assumes pedestrian facilities along Theresa and Spruce and north of Forest Park.	More comfortable access from Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,I0638,A0832,A3741,A0835)  Concept Requires: 2 MINOR REPAIRS (A7080,A7081) 3 MAJOR REPAIRS (A3594,I0638,	Removal of 5 structures and construction of 1 new structure.	No left hand entrance ramp. New ramps to and from Compton. Concern about new shortened EB weave from Jefferson interchange.	No direct access to Grand. Improvements include no left entry ramp and direct access EB to and from Compton.	No issues	



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
<b>MG_Concept 4</b>	<b>Medium</b>	<b>Medium</b>	<b>Low</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>
	Eliminates left hand entrance. Removes loop ramp exit to Grand and removes left hand entrance from Grand. addresses Grand hotspot. New EB ramp west of Compton closer to the Jefferson interchange may cause safety issues.	Eliminates two ramp crossing on Grand. Converts Grand and Forest Park Ave to an at grad intersection. Assumes bus lane on Grand. The only thing missing is a N/S connection between Grand and Compton. Roundabouts complicate operations and bike/ped movements.	Requires out of direction travel to SLU hospital and Grand Center when traveling to and from the west.	Creates traditional diamond interchange at Compton that facilitates access for all directions on I-64.	Reduces 5 signals to 2 on Grand. New, but more circuitous pedestrian bridge at Compton.	More comfortable access from Grand. Assumes bus priority on Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835)  Concept Requires: 0 MINOR REPAIRS 3 MAJOR REPAIRS (A3594,L0638,A0832.)	Removal of 7 structures and construction of 1 new structure. Widening or modification to A3741	Maintains capacity and new ramp spacing may improve operations. Concern about new shortened EB weave from Jefferson interchange.	Reduced conflict points, removal of left hand entrance ramp, and removal of loop ramp improves freight on mainline. Roundabouts may slow certain freight movements to and from 64.	No issues
<b>MG_Concept 5</b>	<b>High</b>	<b>High</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>Medium</b>	<b>High</b>
	Removes loop ramp and removes left hand entrance from Forest Park.	Eliminates one ramp crossing on Grand. Converts Grand and Forest Park Ave to an at grade intersection. Allows for a N/S connection between Grand and Compton with minimal conflicts.	Requires out of direction travel to SLU hospital and Grand Center when traveling to and from the west.	Creates close to a traditional diamond at Bernard St.to distribute traffic east and west through Forest Park Ave. Also gives NS connection to the Grid South of I-64 from both Grand and Compton.	Reduces conflict points on Grand south of I-64. Provides N/S connection midway between Grand and Compton. Assumes pedestrian facilities along Bernard St. and Spruce and north of Forest Park.	More comfortable access from Grand. Assumes bus priority on Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835)  Concept Requires: 2 MINOR REPAIRS (A7080,A7081) 3 MAJOR REPAIRS (A3594,L0638,A3741.)	Removal of 5 structures and construction of 1 new structures and modifications to A3741.	No left hand entrance ramp. New ramps to and from Bernard. Non-traditional off ramp WB I-64 to Bernard. Provides better EB weave distance relative to Jefferson. WB 64 on traffic distributed between two ramps	Reduced conflict points, removal of left hand entrance ramp, and removal of loop ramp improves freight on mainline. Out of direction travel for EB Freight to Grand.	No issues
											<b>Do Not Carry Forward</b>
											<b>Carry Forward</b>



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
<b>MG_Concept 6</b>	<b>Low</b>	<b>Medium</b>	<b>Low</b>	<b>Low</b>	<b>High</b>	<b>High</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>
	Removes loop ramp exit to Grand and removes left hand entrance from Grand. May be some concern with the length of the I-64 EB Exit Ramp. Forest Pard and Grand are still Grade Separated. Number of legs coming in and out of the roundabout will be a challenge geometrically	Creates a connection from Grand to a NS connector that connects to a east west route along Forest Park Ave.	Missing a direct connection for EB I-64 traffic to Grand. Requires out of direction travel to SLU hospital and Grand Center when traveling to and from the west.	Forest Park between Grand and Compton would be converted to One-Way West bound. Would create additional indirect movements.	Creates connection from Grand to the area South of I-64 east of Grand. Also creates a N/S connection between Grand and Compton.	Creates a connection to the Transit center directly from Grand.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080, A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638, A0832,A3741,A0835)  Concept Requires: 2 MINOR REPAIRS (A7080,A7081) 3 MAJOR REPAIRS (A3594,L0638,A3741,)	Removal of 5 structures and construction of 2 new structures.	Concern with potential storage length issues on EB Exit Ramp from I-64.	Gets rid of Left had exit. Roundabout could cause issues with some freight and causes indirect travel when accessing I-64 EB from North of I-64 from Grand or Forest Park Ave.	No Issues
<b>MG_Concept 7</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>High</b>
	Eliminates 20 mph exit and left hand entrance from Forest Park. Potential to add three new signals; one of which would be on Grand. WB Entrance on Grand should be aligned with WB off ramp	Converts Grand/FP Ave intersection to at-grade. And adds additional signals to Grand. Assumes bus lane on Grand, new brickline alignment connections	Facilitates all movements except EB I-64 to Grand. Requires out of direction travel to SLU hospital and Grand Center when traveling from the West.	3 out of 4 ramps provide direct access to Grand.	Provides a new north south connection as well as a facility along Forest Park Ave.	Provides additional north/south access to the Grand Metrolink Transit center, but increases volume directly to Grand in the vicinity of the Transit Center which could affect OTP.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080, A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638, A0832,A3741,A0835)  Concept Requires: 3 MINOR REPAIRS (A3740,A7081,A7080) 4 MAJOR REPAIRS (A3594,A3741,A0832,	Removal of 3 structures and construction of 2 new structures and widening of existing A3741. May need an additional structure if access to sign building needs to be maintained in the South East quad of I-64 Grand Intersection.	Increases spacing on I-64 to adjacent Interchanges. Decreases intersection spacing on Grand between ramp terminals.	Reduced conflict points, removal of left hand entrance ramp, and removal of loop ramp improves freight on mainline. Provides direct connection to EB I-64 from Grand and WB I-64 to Grand.	There is a noise concern with the WB Ramp from I-64 to Grand.



## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future		
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.
<b>Concepts</b>											
MG_Concept 8	Medium	Low	High	High	Low	Low	Medium	Low	Medium	High	Low
	Eliminates left hand entrance from FP. Removes EB loop ramp to Grand. Creates a tight diamond urban interchange. Closely spaced signals along Grand. Closely spaced signals at Grand ramps closely mimic configuration at Forest Park where safety issues are present - care would be needed in terms of timing.	Has the Potential to create traffic and operation issues on Grand decreases the comfort level of users on a corridor that already scores low.	Creates direct access from all directions on I-64 to SLU hospital and Grand Center.	Creates traditional diamond interchange at Grand Facilitating all movements. Concept also maintains existing WB exit Ramp from I-64 to Forest Park Ave.	Potential to add additional signals to Grand and draw more traffic volume.	Potential to add additional signals to Grand and draw more traffic affecting reliability of bus routes.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835) Concept Requires: 2 MINOR REPAIRS (A7080,A7081) 3 MAJOR REPAIRS (A3594,L0638,A3741,)	Removal of 5 structures and construction of 3 new structures and modifications to existing A3741. 3 new structures are of significant length.	Increases spacing on I-64 to adjacent Interchanges. Decreases intersection spacing on Grand between ramp terminals.	Creates Direct access to Grand.	Noise concerns with the I-64 WB Exit ramp. Alternative would also necessitate the taking of the sign building in the south east quadrant of Grand and I-64.
MG_Concept 9	Medium	Medium	Medium	Low	Medium	Medium	Medium	High	Medium	Medium	High
	Removes loop ramp and removes left hand entrance from FP. Length of exit ramp to Theresa/Spruce may be an issue. EB entrance ramp from Spruce introduces shortened weaving area to Jefferson/22nd.	Creates a connection from Grand to a NS connector that connects to a east west route along Forest Park Ave.	Requires out of direction travel to SLU hospital and Grand Center when traveling to and from the west but mimics the same travel pattern as the loop ramp but would not need to go through possibly two controlled intersections.	Removal of loop ramp requires out of direction travel for EB 64 traffic to Grand. Slight out of direction for access to WB 64. Concept helps connect the local grid but reduces logical access to and from grid.	Assumes pedestrian facilities along Theresa and Spruce and north of Forest Park.	Provides a connection directly from Grand to the transit center on the south side of I-64.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835) Concept Requires: 1 MINOR REPAIRS (A7081) 3 MAJOR REPAIRS (A3594,L0638,A3741,)	Removal of 6 structures and construction of 1 new structure.	No left hand entrance ramp or loop ramp. Concern about new shortened EB weave from Jefferson interchange.	No direct access to Grand when traveling east bound. Improvements include no left entry ramp and direct access EB from Compton.	No issues



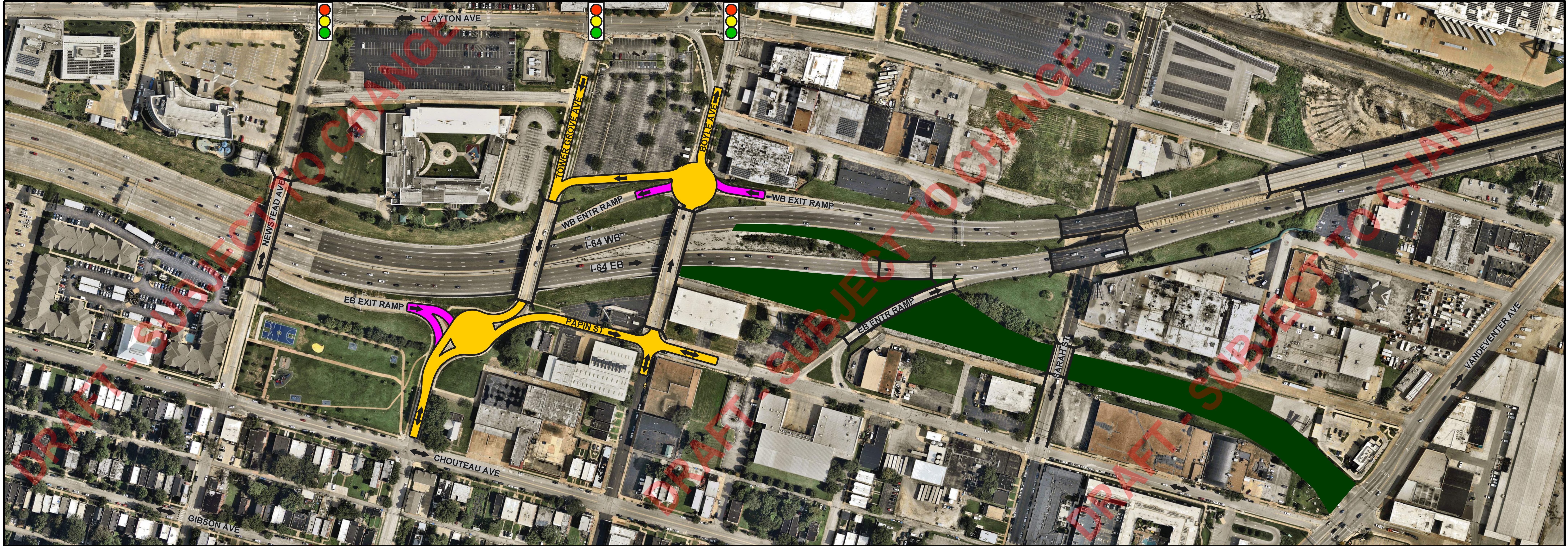
## Future64 Level 1 Concept Screening Results

NEED	1. Increase safety for all users		2. Improve transportation system with intuitive navigation to, from, and across I-64		3. Reduce the barrier effect of I-64 for bicycle, pedestrian, and transit users		4. Optimize bridge maintenance by improving structural conditions to maintain a good state of repair		5. Maintain Interstate function, operations, and capacity for the future			
CRITERIA	Regional Vehicular Through Movements	Bike/Ped	I-64 Access	Interstate / Local Network Interface	Support other entities bike/ped plans	Transit Access/Effectiveness	Structure Repair	Reduce Structures	Capacity	Freight	Other Challenges to Implementation	
Question(s) to ask	Does the concept improve safety on I-64 mainline, ramps and/or ramp terminals? Does the concept improve safety within the local road network within the study area? Does the improvement address identified crash hot spots?	Does the concept improve safety for people walking and biking and/or transit users across I-64 and throughout the study area?	Does the concept maintain access or provide access to current and known future destinations?	Does the concept provide logical access to the perpendicular street grid and provide for all traffic movements (on and off in both directions)?	Does the concept facilitate connectivity for transit users and people walking and biking across I-64 and within the study area?	Does the concept facilitate transit access, connectivity to other non motorized modes and/or operations?	How much additional structural repair (not part of a reconfiguration) is necessary to extend all MoDOT bridges life span to 2050?	Does the alternative reduce the total number of MoDOT Maintained structures?	Does the concept maintain capacity on I-64 mainline, ramps and/or ramp terminals?	Does the alternative have the potential to facilitate freight movements and improve maneuverability along, to and from I-64?	Does the alternative impact resources that make the concept extremely challenging to approve or construct?	
Data to be used	Scaled measure of the number of potential safety improvements - Low / Med / High (ex. Improved weave movements, lengthened ramps, reduced/consolidated access points on I-64 geometry improvements, addressed conflict point)	Scaled measure of the number of potential safety and comfort improvements - Low / Med / High (ex. Improved crosswalk visibility, ADA improvements, addressed conflict point)	Low/Med/High - Assess out of direction travel by counting turns and signalized intersections to reach major destinations (ex. Hospital Districts, Universities, IKEA/Foundry, Armory, Grand Center)	Qualitative measure of how well the alternative improves the logical and direct (non-circuitous) access/egress from I-64 including consideration of lane balance, driver/user expectations, etc.	Low / Med / High - Qualitative measure of how well the alternative improves connectivity at existing crossings and/or preserves opportunities for planned crossings or creates other new crossings.	Qualitative measure of how well the alternative facilitates connectivity to and from transit stations and stops on a scaled measure of the same - Low / Med / High	In order to achieve at least a 25 year life span, quantify the number of bridges requiring major improvements (Redecking) and the number of bridges requiring a minor amount of work (Overlay, Spot Repairs, etc.).	Total number of structures in the corridor.	Qualitative measure of how well the alternative maintains capacity or improves operations - Low / Med / High	Qualitative measure of yes or no (ex. assessing vertical clearances, weave/merge lengths, ramp grades and turn radii, standard entrance ramps)	High /Medium /Low - 4f and historic resources, new bridges. Substantial community or environmental impact. Substantial public or political resistance.	
Concepts												
MG_Concept 10	Low	Medium	Medium	Low	High	Medium	Low	Medium	Medium	Medium	High	Not Not Carry Forward
	Removes loop ramp but Left hand entry remains. A concern is a non-traditional intersection will be needed for the westbound Market through movement to the roundabout.	Creates a connection from Grand to a NS connector that connects to a east west route along Forest Park Ave. Would need some type of grade separated structure to get ped/bike over ramps and Forest Park Ave.	Maintains but does not improve current Access to SLU hospital and Grand Center. EB I-64 Grand would be required to go through roundabout as opposed to the current connect with the loop ramp.	Concept provides access to the street grid south of I-64 between Grand and Compton. With the traveling through roundabouts and non traditional intersection at Market and Compton it may not be logical to non-frequent users.	Increased connectivity with new connection from Theresa to Compton & Market and along FP Ave, but still traveling parallel to what would be an interstate ramp and (traffic circle interchange).	Provides additional north/south access to the Grand Metrolink Transit center.	No Build Requires: 4 MINOR REPAIRS (A3740,A3636,A7080,A7081) 6 MAJOR REPAIRS (A3594,A0549,L0638,A0832,A3741,A0835)  Concept Requires: 3 MINOR REPAIRS (A3740,A7080,A7081) 4 MAJOR REPAIRS (A3594,L0638,A3741,	Removal of 3 structures. No new structures.	Still has one left hand entrance. Eliminates one merge from WB Grand to mainline.	Roundabouts and out of direction travel may slow certain freight movements to and from 64.	No issues	
MG_Concept 11	Medium	Medium	Low	Medium	High	High	High	Low	Medium	Medium	No	Not Not Carry Forward

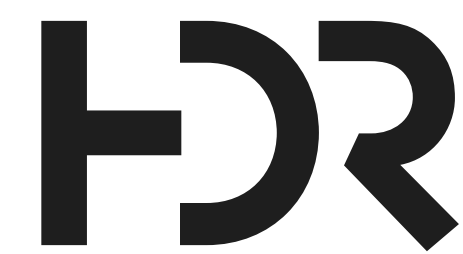
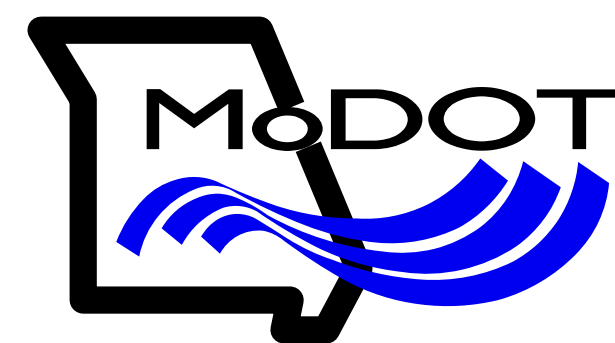


Appendix C.  
Level 1 Evaluation: Concept Exhibits

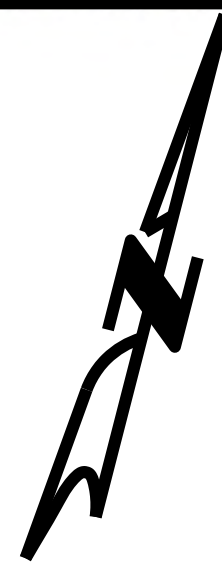




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		



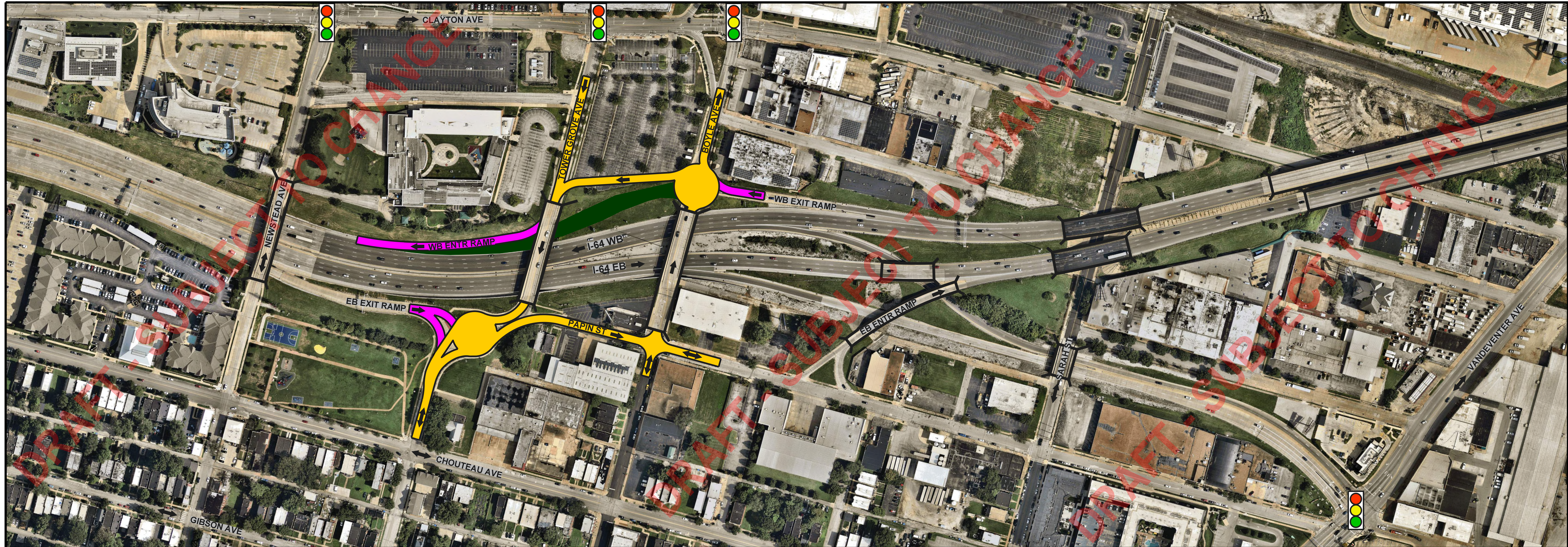
CONCEPT # 1  
BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

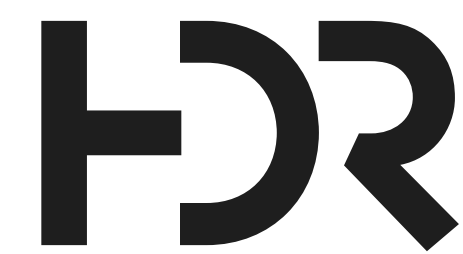
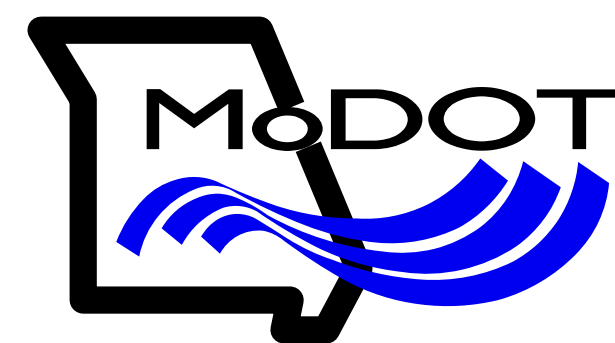
DRAFT - SUBJECT TO CHANGE

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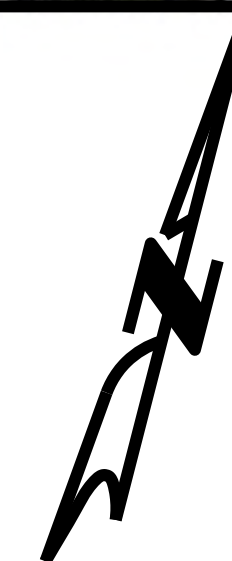




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND	
	INTERSTATE
	INTERSTATE RAMPS
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
	PROPOSED STRUCTURE
	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE



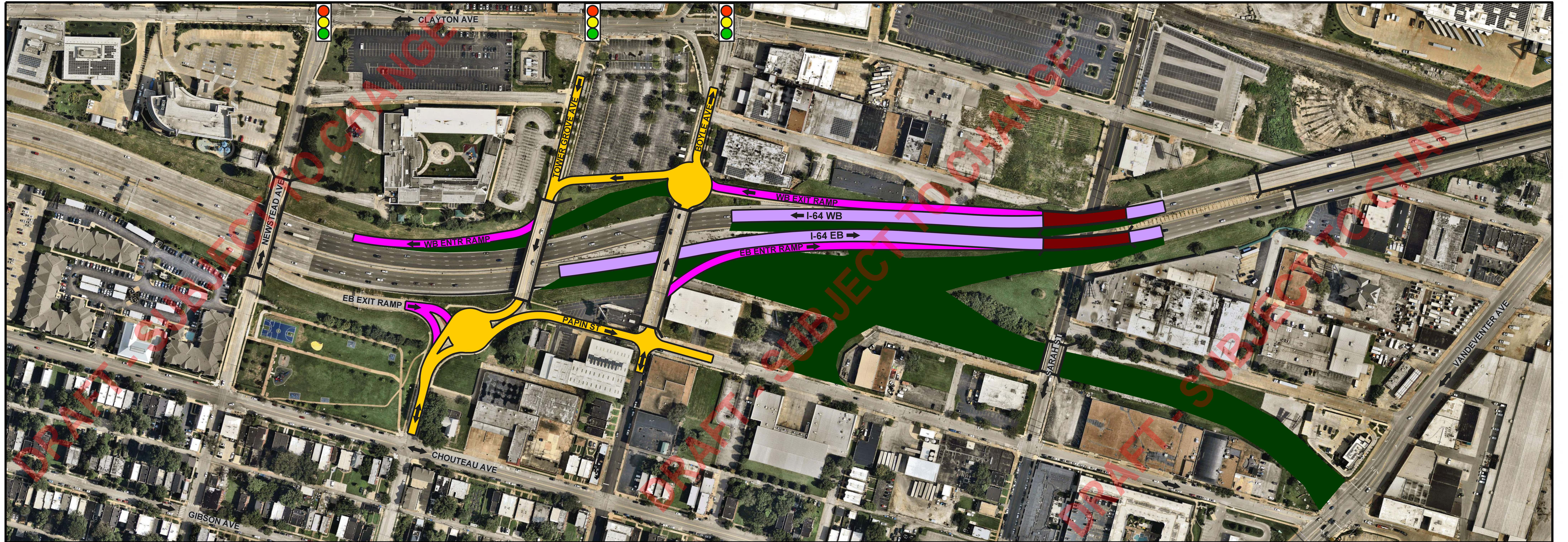
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BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

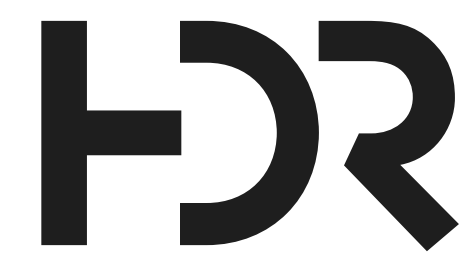
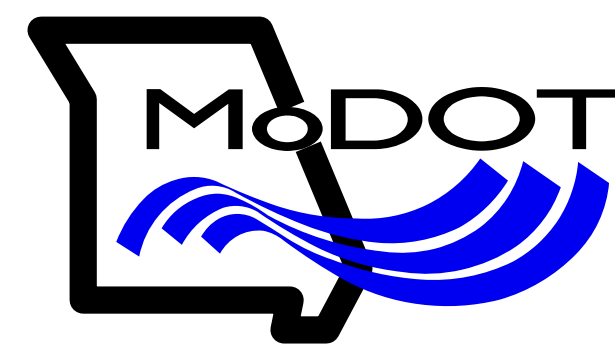
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

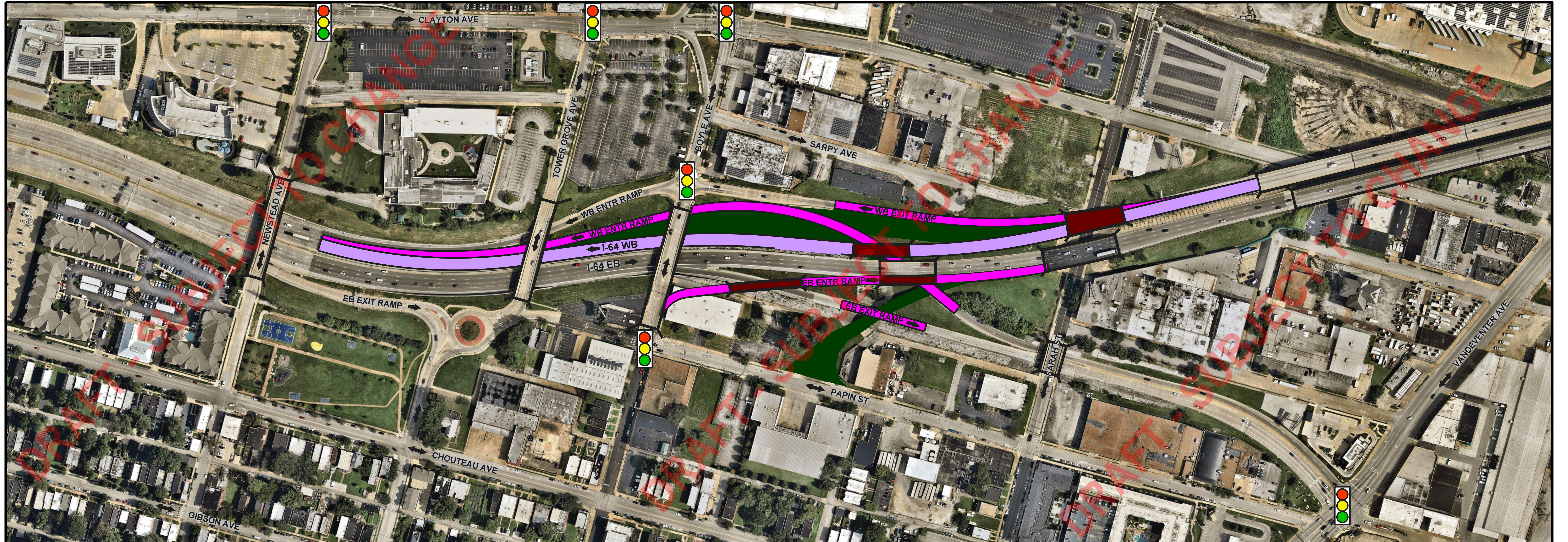
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BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

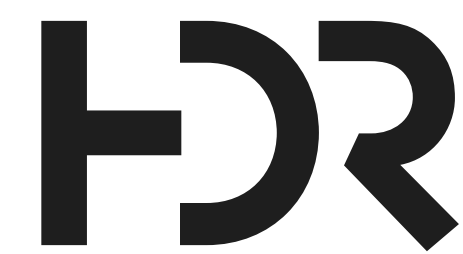
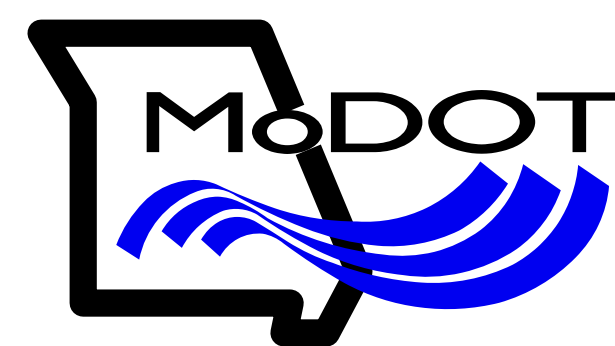
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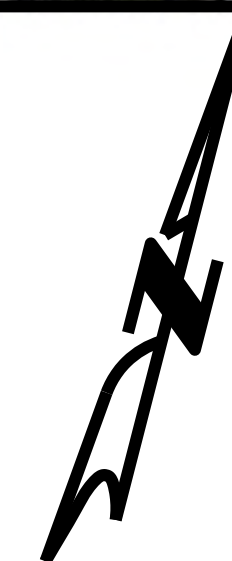




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND	
	INTERSTATE
	INTERSTATE RAMPS
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
	PROPOSED STRUCTURE
	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE



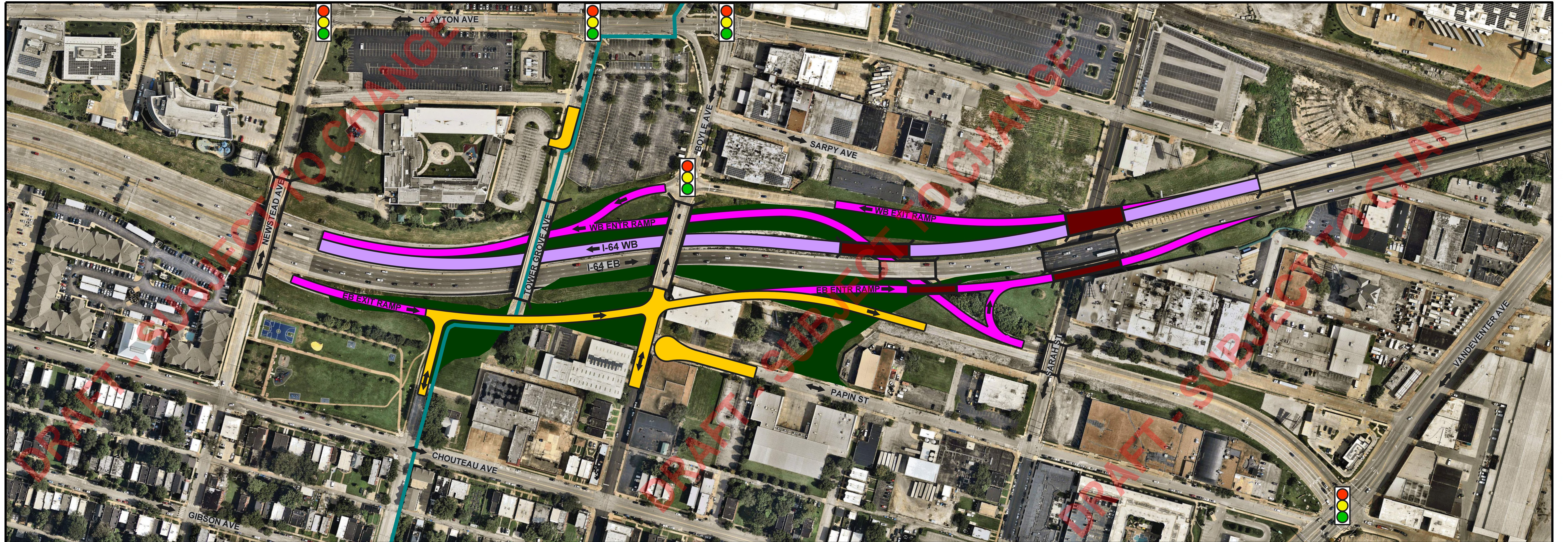
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BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

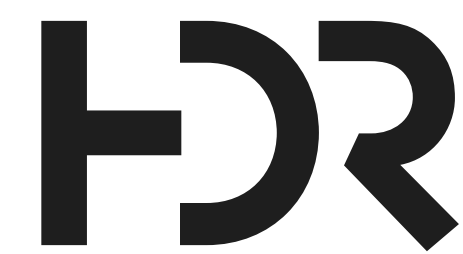
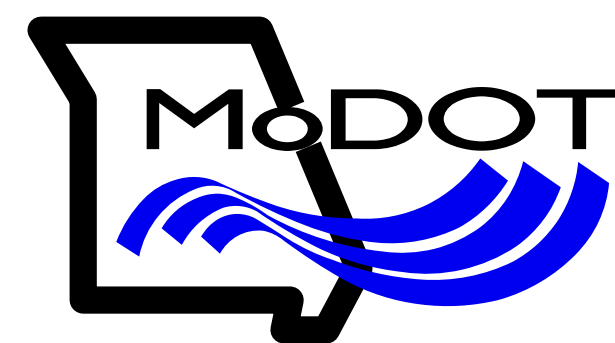
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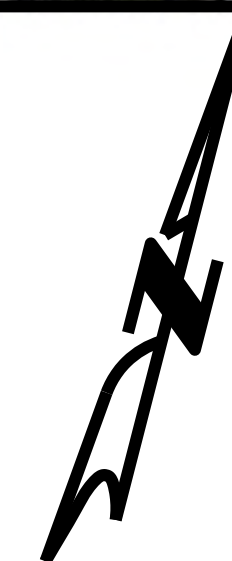




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		



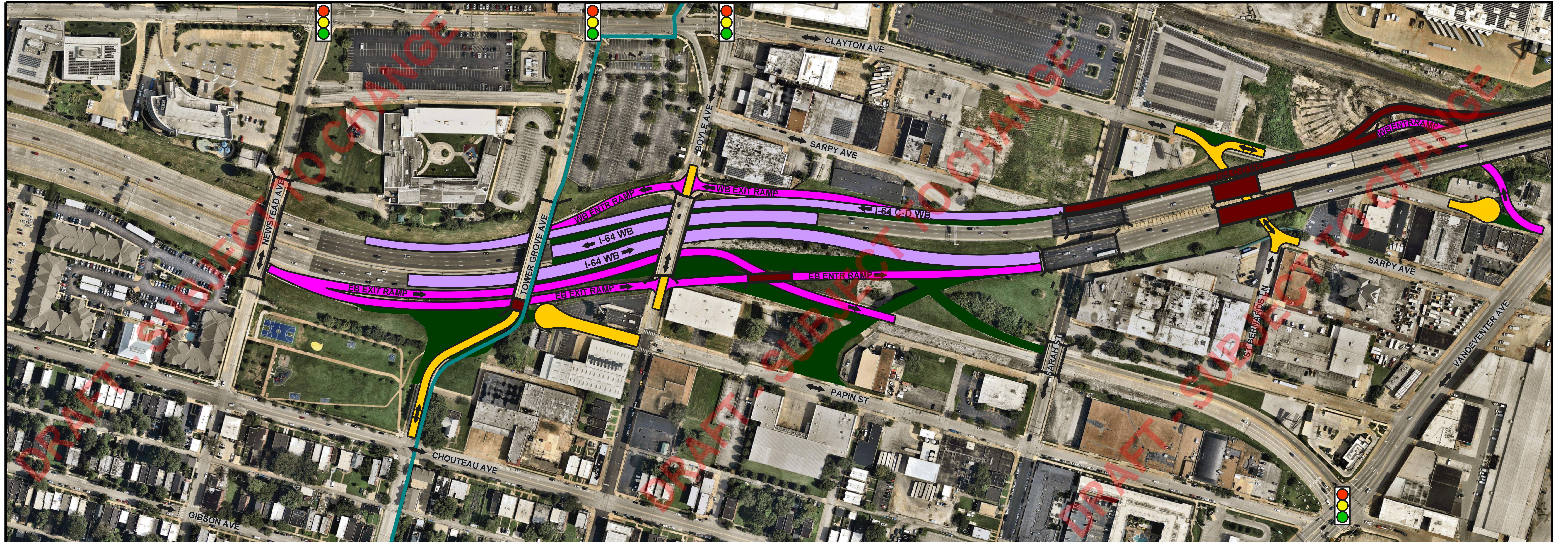
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I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

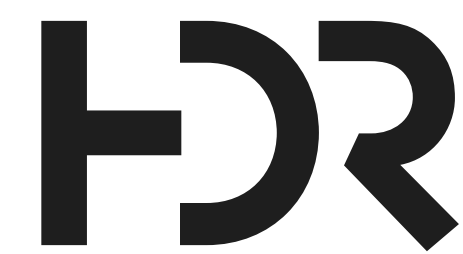
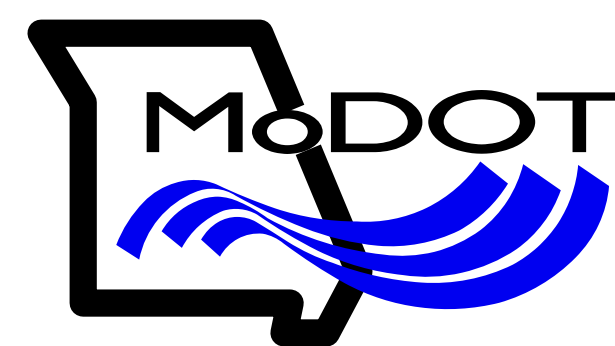
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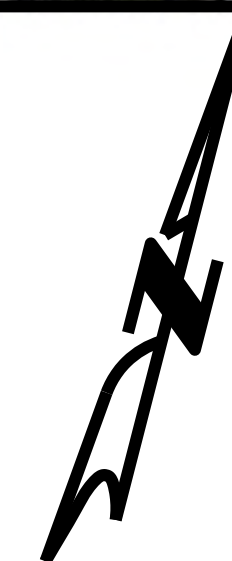




KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND	
	INTERSTATE
	INTERSTATE RAMPS
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
	PROPOSED STRUCTURE
	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE



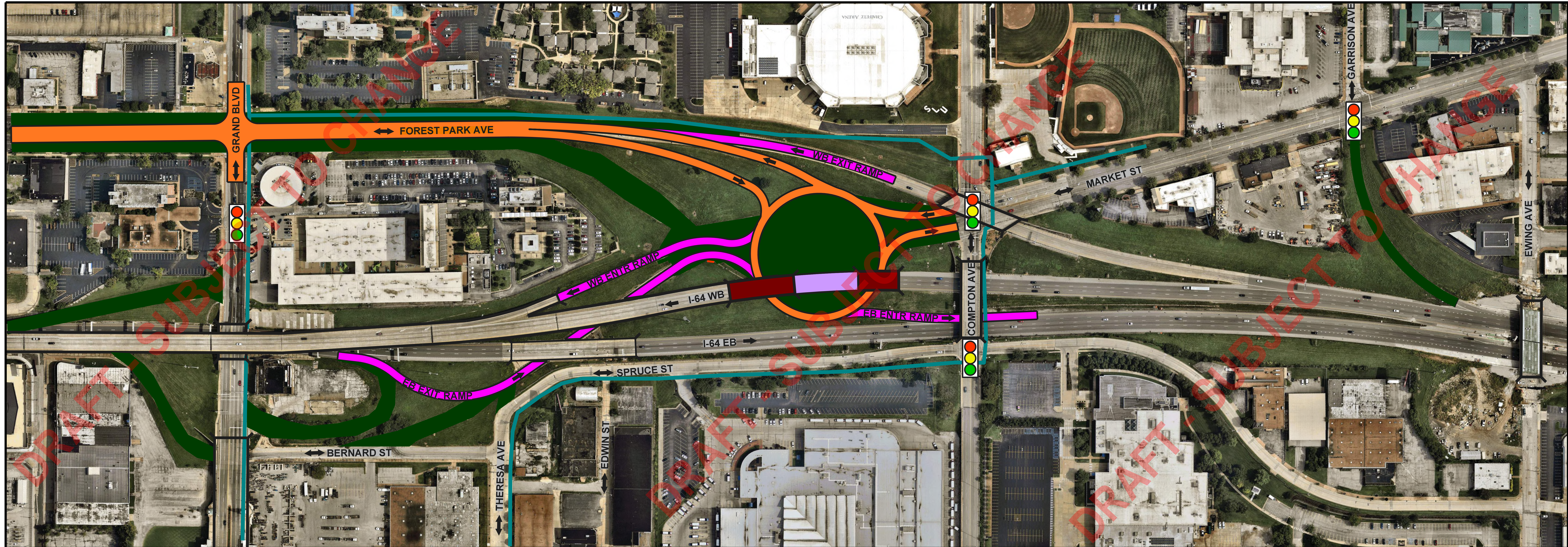
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BOYLE / TOWER GROVE / PAPIN

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

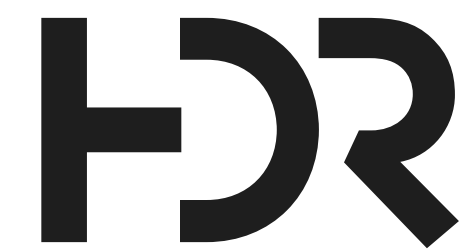
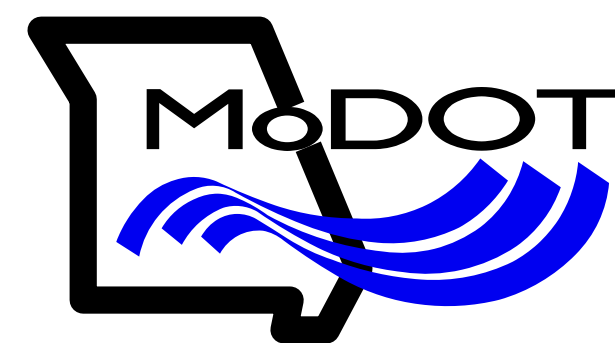
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

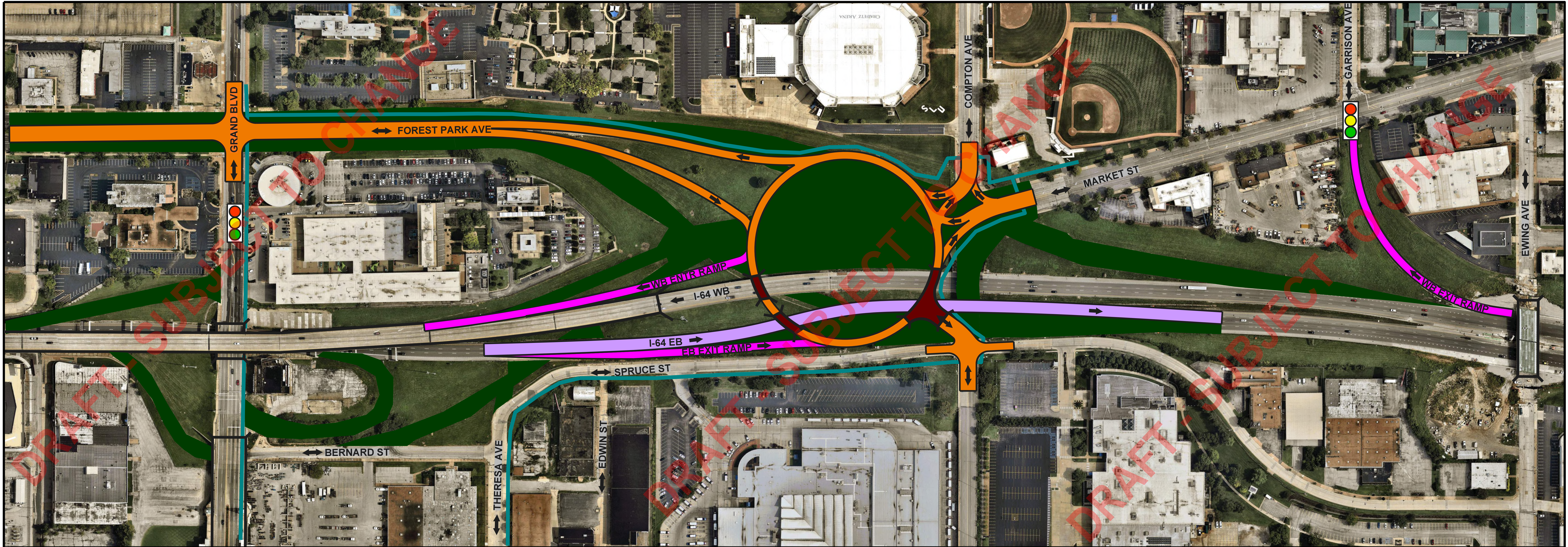
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

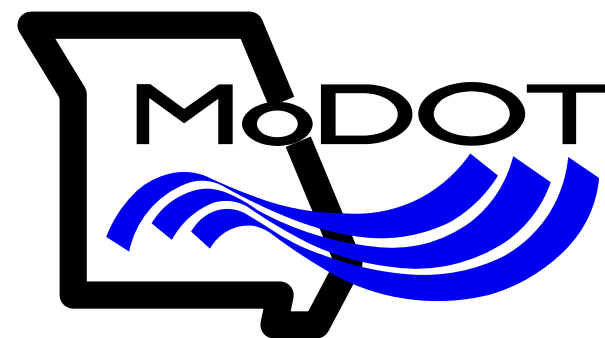
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**FUTURE 64**  
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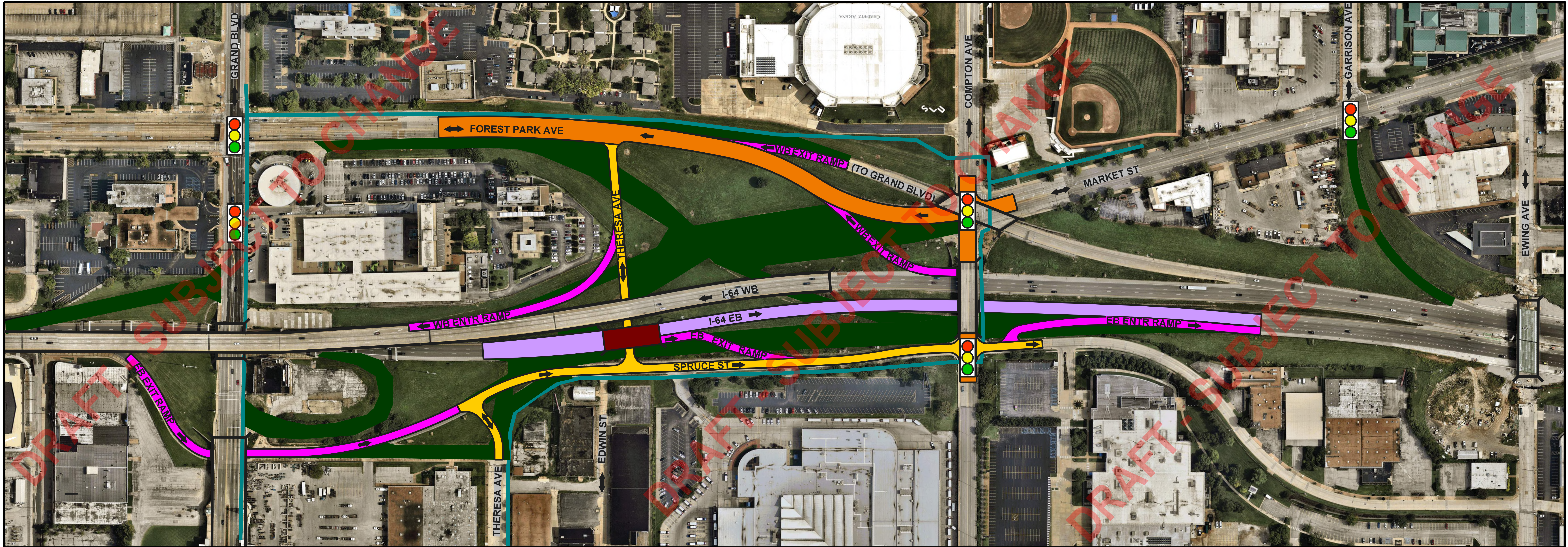


LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

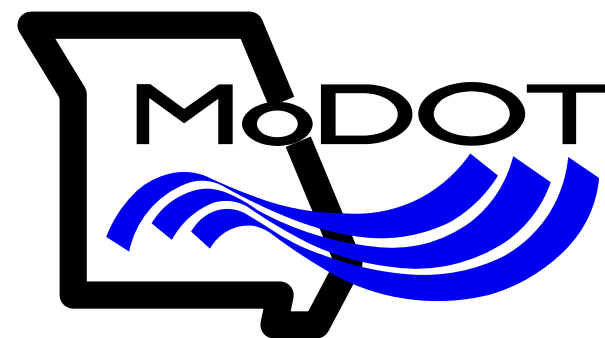
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS





KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER

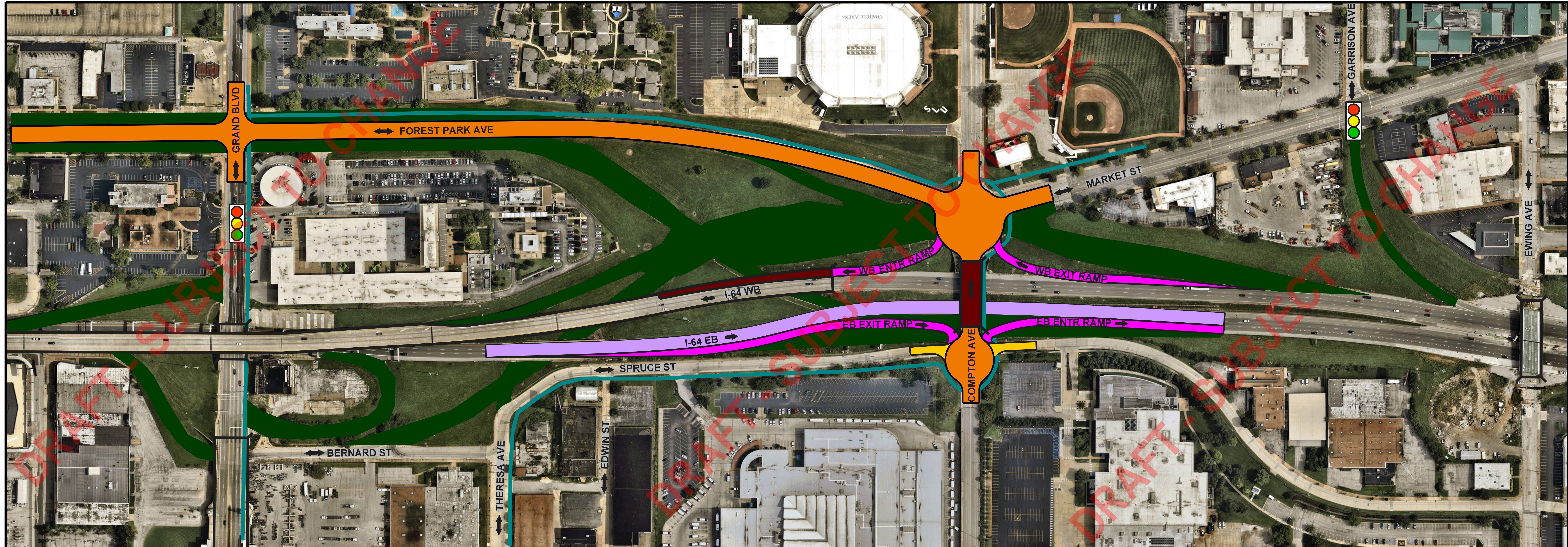


LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

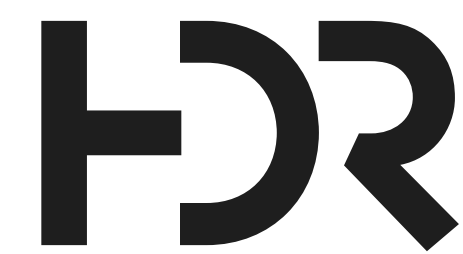
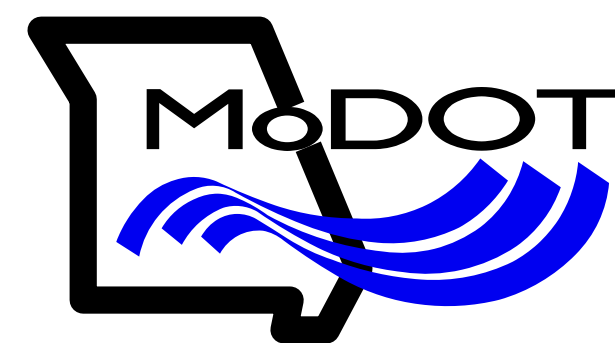
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS





KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

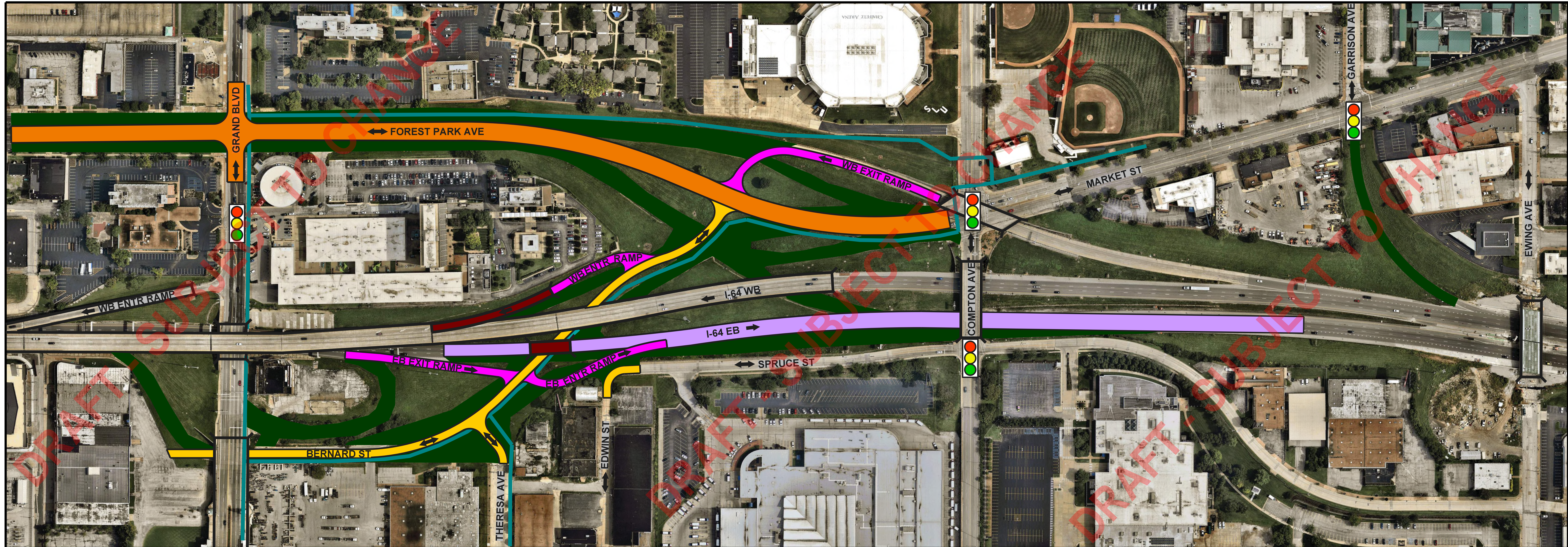
CONCEPT # 4  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

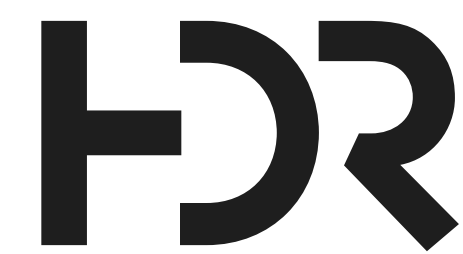
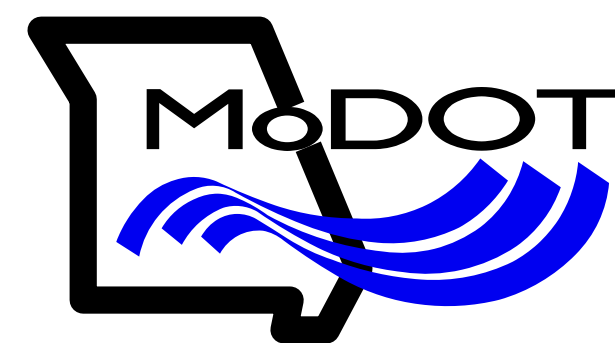
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMP		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

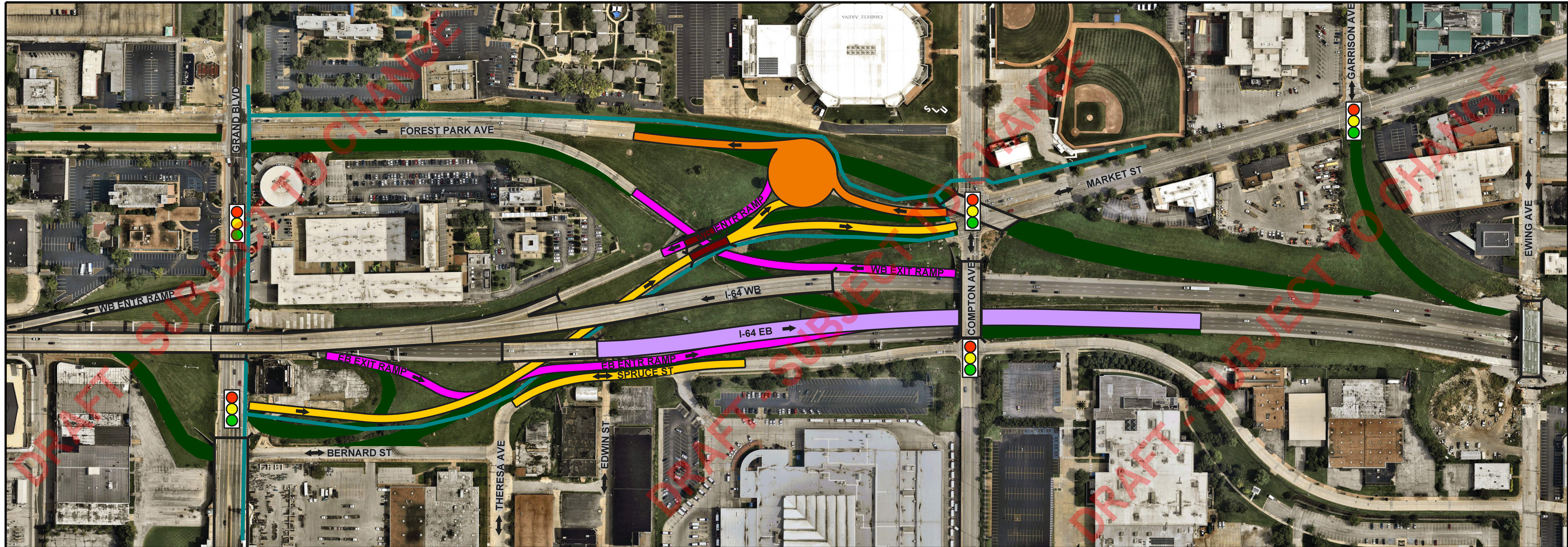
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I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

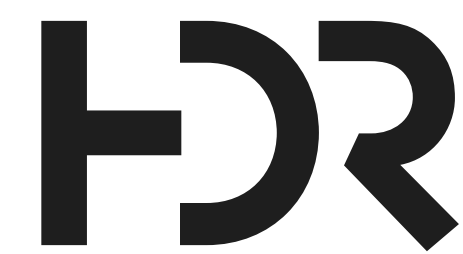
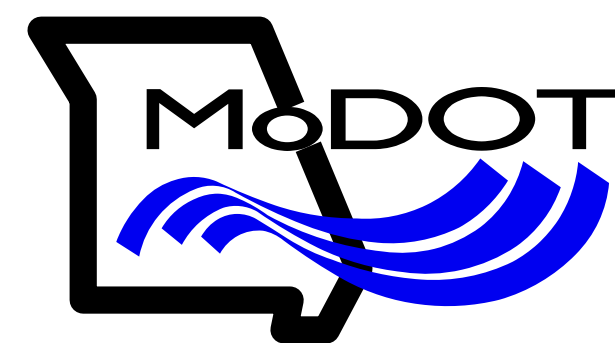
DRAFT - SUBJECT TO CHANGE

The Missouri Department of Transportation anticipates incorporating recommendations made as part of the PEL study into future NEPA studies, per Title 23 of the Us Code, Part 168





KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

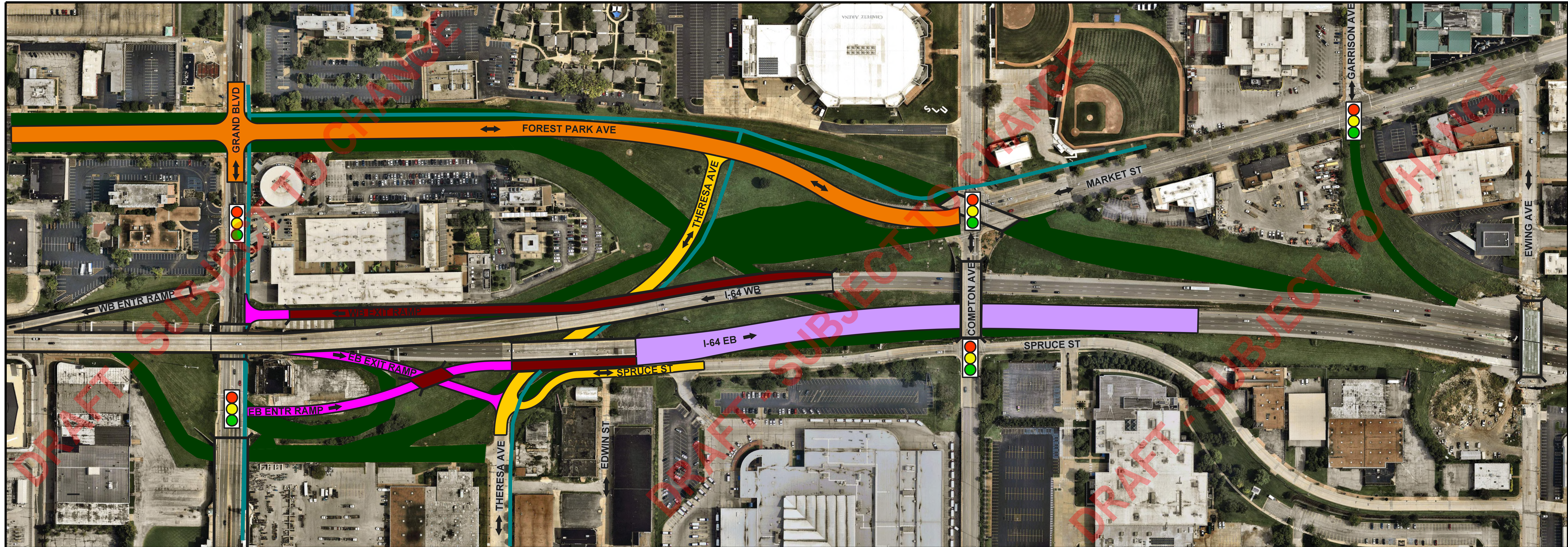
CONCEPT # 6  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

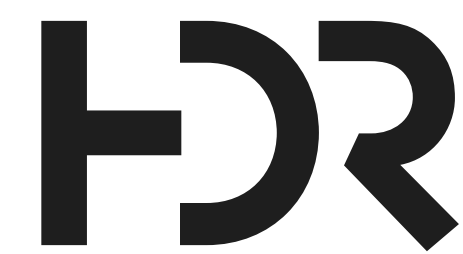
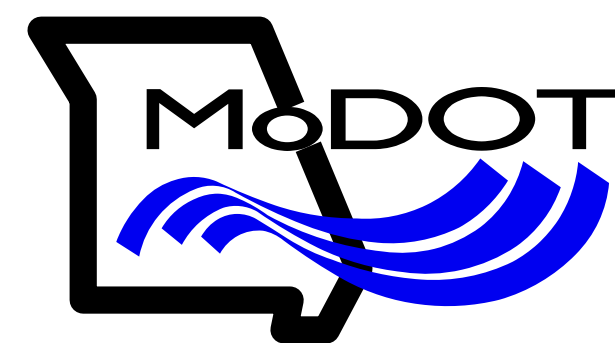
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

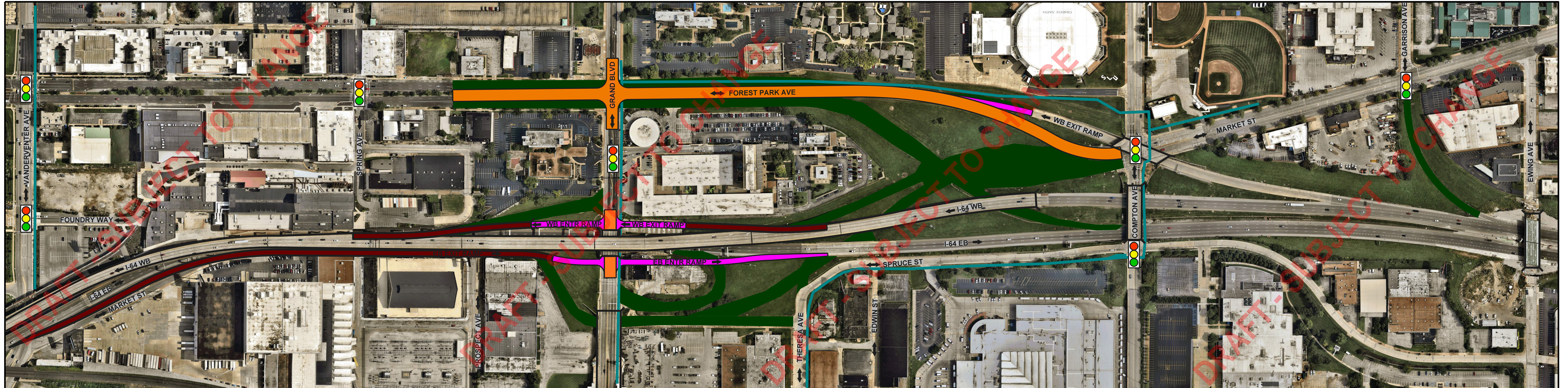
CONCEPT # 7  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



HR

LEGEND	
	INTERSTATE
	INTERSTATE RAMP
	LOCAL ROADS (ARTERIAL)
	LOCAL ROADS (NON-ARTERIAL)
	PROPOSED STRUCTURE
	BIKE PATH / GREENWAY
	EXISTING TRAFFIC SIGNAL TO REMAIN
	EXISTING STRUCTURE

CONCEPT # 8

I-64 / MARKET / GRAND

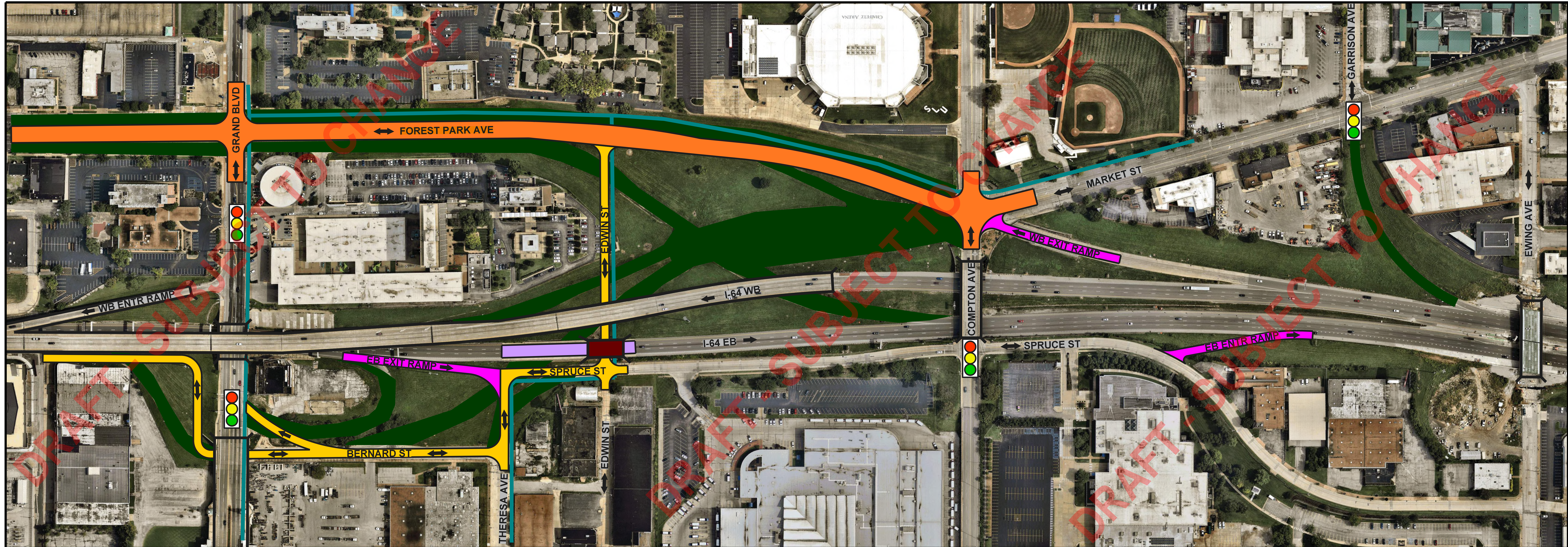
I-64 IMPROVEMENTS

COUNTY: ST. LOUIS

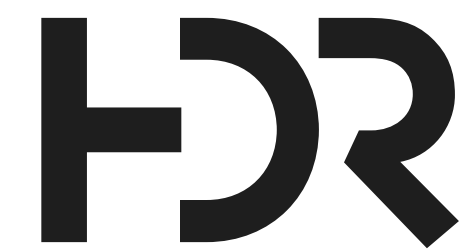
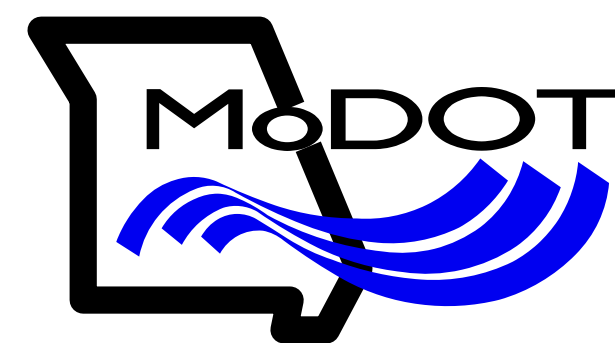
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

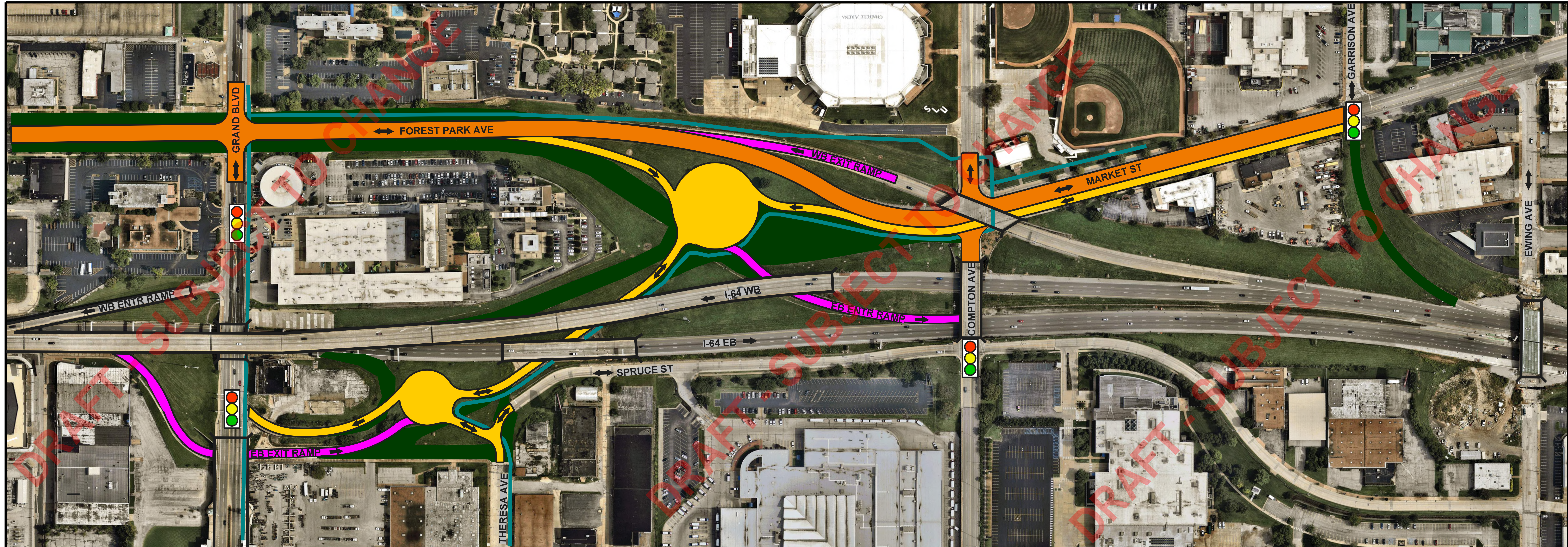
CONCEPT # 9  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

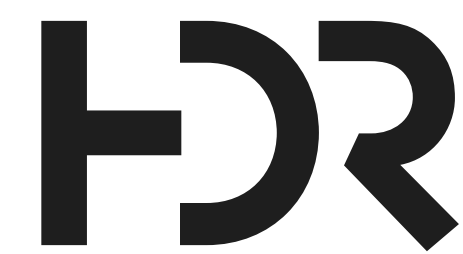
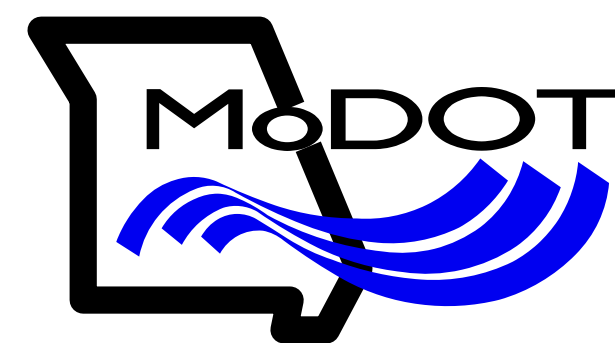
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

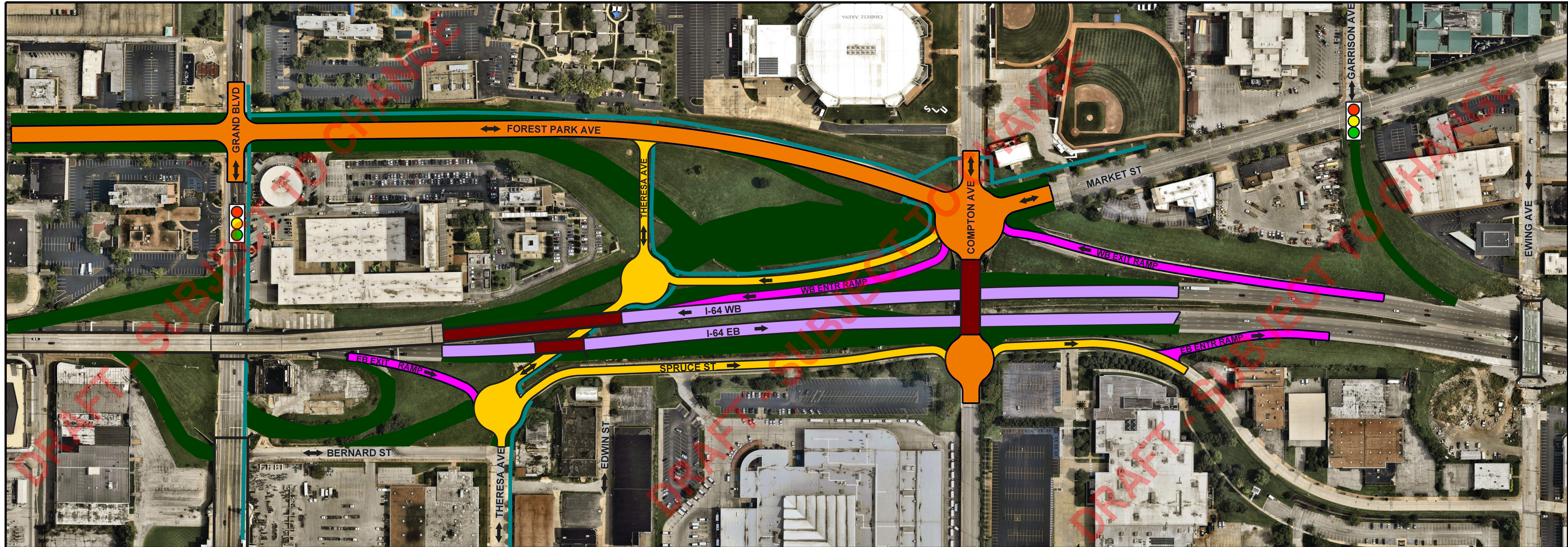
CONCEPT # 10  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

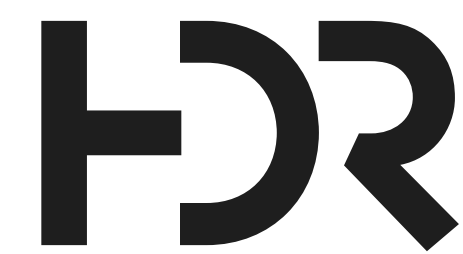
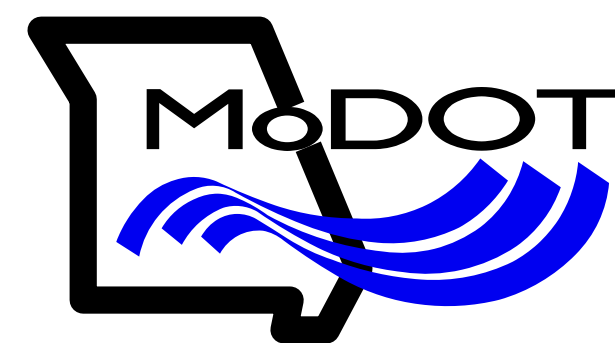
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KINGSHIGHWAY TO JEFFERSON  
**FUTURE 64**  
COMMUNITY » TRANSPORTATION » TOGETHER



LEGEND			
	INTERSTATE		BIKE PATH / GREENWAY
	INTERSTATE RAMPS		EXISTING TRAFFIC SIGNAL TO REMAIN
	LOCAL ROADS (ARTERIAL)		EXISTING STRUCTURE
	LOCAL ROADS (NON-ARTERIAL)		
	PROPOSED STRUCTURE		

CONCEPT # 11  
I-64 / MARKET / GRAND

I-64 IMPROVEMENTS  
COUNTY: ST. LOUIS

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