



# EASTERN CORRIDOR SEGMENTS II AND III (PID 86462)

## COMBINED LINWOOD/EASTERN INTERCHANGE & US 50/RED BANK INTERCHANGE FOCUS AREA

### ADVISORY COMMITTEE MEETING NOTES

## MEETING #4 NOTES

### Meeting Date

Dec. 12, 2018

### Meeting Location

R. G. Cribbet Recreation Center, Fairfax

### Meeting Objectives

- Review results of the signal timing improvements made along SR 32 and US 50 within the Segments II and III study area and in the Village of Newtown.
- Review feedback received from the public at the Oct. 24 and 25 Open House meetings and during the subsequent public comment period.
- Discuss:
  - Possible refinements to alternatives based on feedback received and determine which, if any, alternatives should be removed from further consideration.
  - Prioritization preferences for remaining alternatives
  - Possible funding sources
- Discuss ODOT's Implementation Plan strategy and next steps

### Meeting Summary

Tommy Arnold, ODOT, opened the meeting and shared the following:

- This is the fourth and final Advisory Committee meeting for this focus area. Thank you to all who have invested many hours over the past year to discuss transportation needs, develop possible solutions, review and discuss concept evaluation results, and provide input that will be used to help inform the development of the Implementation Plan.
- The Implementation Plan will identify the projects ODOT recommends for future development and construction. Projects will be designated as high, medium or low priorities. Possible project sponsors and potential funding options will also be identified in the plan.
- While ODOT may be able to assist with the funding and implementation of some of the projects, it is anticipated that the

responsibility for many projects will fall under the purview of local jurisdictions. The Implementation Plan will serve as a tool that jurisdictions can use to assist with their planning efforts.

- ODOT and its consultant team will be developing the Implementation Plan during the upcoming weeks and expects to have a draft completed in early 2019.

Matt Crim, Stantec, shared Signal Timing Study updates and discussed how traffic flow has been affected since signal timing adjustments were completed in October and November. The information shared is summarized on the Signal Timing Study (STS) page of these notes.

Steve Shadix, Stantec, distributed a packet of concept comparison matrices for each of the proposed concepts. Copies of each matrix is provided with the discussion notes for each concept on the following pages. He also passed out copies of a draft report that summarized input received on the improvement concepts proposed for this focus area and were presented to the public at the Oct. 24 and 25 Open House meetings. The content of the report was reviewed as part of the meeting's subsequent discussion of concepts. Mr. Shadix also shared the following introductory comments:

- A total of 175 people signed in at the Open Houses. However, because some people opted not to sign in, the total number of attendees was slightly higher.
- 125 people submitted comment forms. Approximately 54% of the comment forms were submitted at the Open House meetings or sent in via email after the meetings had concluded. The remaining 46% were submitted online using a digital version of the comment form (links to the online comment form were provided on the project website, in meeting materials, and email notices). All responses received at the Open Houses and via mail or email were entered into the online comment form database to facilitate analysis.
- Approximately 52% of respondents (64 people) said they lived in either the 45227 (Mariemont, Fairfax, Madisonville; 26%) or 45244 (Newtown, Anderson Township, Union Township; 26%) zip codes.
- When asked how they heard about the Open House meetings, emails from Eastern Corridor, Facebook posts and Other were most frequently reported as sources. Emails from community councils and/or community representatives, friends/relatives, the Nextdoor community-based social network, and a local bike were most frequently cited as information sources for "Other." He thanked the Advisory Committee members for assisting in getting the word out to their constituents about the public Open Houses.

- The comment form asked respondents to indicate the degree to which they support each proposed concept using a five point scale (strongly support, like, neutral, dislike and strongly oppose). The summary report focuses on the distribution of responses received for each concept.
- Respondents were also invited to share any comments they may have regarding the proposed concepts. Comments received on the forms, as well as any submitted separately via email and mail, were recorded and are included in the summary report.

Discussion notes for each proposed concept in this focus area are documented on the following pages.

## MEETING PARTICIPANTS

Nathan Alley, Sierra Club

Caroline Ammerman, Stantec

Tom Arnold, ODOT

Brittnay Bell, Rasor Marketing Communications

Matt Crim, Stantec

Tom Fiorini, Cincinnati Sports Club

Todd Gadbury, Hamilton County Engineer's Office

Wade Johnston, Green Umbrella

Jenny Kaminer, Village of Fairfax

Martha Kelly, City of Cincinnati, DOTE

Becky Orsinski, Great Parks of Hamilton County

Ken Pulskamp, H. Hafner & Sons

Charlie Rowe, ODOT

Steve Shadix, Stantec

Reggie Victor, City of Cincinnati, DOTE

Laura Whitman, Rasor Marketing Communications

Matt Yauch, Columbia Tuscolum Community Council



# Eastern Corridor Segments II and III

Combined Linwood/Eastern Interchange and US 50/Red Bank Interchange Focus Area

## Theme

# SR 125/US 50/EASTERN AVENUE CONNECTIVITY

### Primary Needs identified for this theme:

P1) Address lack of connectivity from SR 125 to eastbound US 50 and from westbound US 50 to SR 125.

### Secondary Needs identified for this theme:

- S1) Address deficient roadway curves on SR 125 and interchange ramps.
- S2) Address deficient roadway grade on SR 125 and on US 50.
- S3) Address deficient sight distance at the eastbound US 50 exit ramp intersection with SR 125.
- S4) Address deficient weave on the eastbound US 50 exit ramp to SR 125.
- S5) Address lack of/limited wayfinding to improve regional connectivity.
- S6) Address deficient roadway grade east of the viaduct.
- S7) Address physical connectivity between the SR125/US 50 interchange and Beechmont Avenue.

Concept drawn with: X-3a-1, X-3a-2, I-29a, and I-29b (D3).

DESCRIPTION

- Close deficient ramps from Eastern Avenue to the eastbound US 50 exit ramp.
- This concept eliminates the ramp connection (Phyllis Lane) between Eastern Avenue and SR 125.

NEEDS ADDRESSED

S4) Address deficient weave on the eastbound US 50 exit ramp to SR 125.

5/22 MEETING DISCUSSION AND COMMENTS

- Removal of this ramp would address safety concerns.
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- The ramp has sight distance deficiencies that result in safety issues and impede operations on eastbound Columbia Parkway.
- This concept is tied to multiple alternatives that make new connections to replace the ramp (see EW-2, I-29a, I-29b and X-2b-2a). If the ramp is eliminated, that connection will need to be addressed with one of these alternatives.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

The discussion for this concept was held in conjunction with the discussion for concept I-29a (D3):

- The primary need that this concept was developed to address is to improve connectivity from Eastern Avenue to SR 125.
- Concerns were expressed from the Columbia Tusculum Community Council representative regarding the proposed closure of the ramp from Eastern Avenue to SR 125 (located near Terry’s Turf Club) which would be part of this concept.
  - ODOT and Stantec stated that the ramp closure was proposed due to safety concerns; vehicles traveling up the ramp to SR 125 cannot be seen by vehicles traveling down the ramp from US 50, and vice versa. However, the closure would only occur if a replacement connection is established.
  - The City of Cincinnati emphasized that it cannot improve connections between US 50 and SR 125 without improving connections within the neighborhoods. Therefore, the ramp in question would not be closed unless another suitable option were available. Because this project would be located within City limits, the City would have jurisdiction over this project.
  - The City of Cincinnati stated that any new connections would be thoroughly vetted among the public before any decisions were made and public input would be used to help shape those decisions.

NEXT STEPS/RECOMMENDATION

- No further study unless a crash history develops that is not present today. Even if that were to occur, the ramps should not be closed unless other accommodations to restore lost access are provided.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
	US 50 NB Off-Ramp	AM	Average Travel Speed			29.3 mph	B	-1%	See EW-2, I-29a, I-29b or X-2b-2a	0	\$0	C1	No Impacts	Neutral	Degrades	Degrades
		PM	Average Travel Speed			24.4 mph	C	-7%								

RECOMMENDATION: NO FURTHER STUDY

Concept drawn on the following page.

DESCRIPTION

- Install a roundabout at the Beechmont (SR 125)/Linwood intersection.

NEEDS ADDRESSED

- S4) Address deficient weave on the eastbound US 50 exit ramp to SR 125.

5/22 MEETING DISCUSSION AND COMMENTS

- Roundabouts can serve as gateways to communities or neighborhoods. They also slow traffic while allowing it to flow continuously.
- Initial analysis indicates this concept works well:
  - 50 percent decrease in evening peak-hour delays.
  - Neutral for morning peak-hour delays (still LOS A/B)
- A roundabout at this location would provide a better neighborhood connection to Armleder.
- Pedestrian access across a two-lane roundabout is challenging, but this is not identified as a high-pedestrian area.
- The sight distance approaching the proposed roundabout is shorter than desired.
- Need to determine if a signalized intersection would work better at this location (See concept I-29b)
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept should be evaluated as an alternative to Concept I-29b. Either alternative would need to be constructed with EW-2 and/or X-3b.
- The roundabout requires two through lanes (one lane won’t work); the right

lane would essentially serve as a ramp to US 50.

- The concept would require a small retaining wall on the northwest side of the roundabout, which would also require building into the existing hillside.
- During AM peak hours, the roundabout would increase the delay, as vehicles are essentially free flowing today. The projected delay would be roughly between 4 to 9 seconds, which still provides a high level of overall service.
- One Committee member expressed concern regarding pedestrians crossing a two-lane roundabout; however, there are no crosswalks today on Linwood. An island could be constructed in the roundabout for a two-stage crosswalk.
- The roundabout is significantly (nearly 10 times) more costly than the signalized alternative (I-29b), which also works well to improve delays. However, roundabouts provide other safety benefits, such as slowing traffic as it enters the Mt. Lookout neighborhood.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D3 at the October Open House meetings.

- The primary need that this concept was developed to address is to improve connectivity from Eastern Avenue to SR 125.
- Concerns were expressed from the Columbia Tusculum Community Council representative regarding the proposed closure of the ramp from Eastern Avenue to SR 125 (located near Terry’s Turf Club), which would be part of this concept.
  - ODOT and Stantec stated that the ramp closure was proposed due to safety concerns; vehicles traveling up the ramp to SR 125 cannot be seen by vehicles traveling down the ramp from US 50, and vice versa. However, the closure would only occur if a replacement connection is established.
  - The City of Cincinnati emphasized that it cannot improve connections

between US 50 and SR 125 without improving connections within the neighborhoods. Therefore, the ramp in question would not be closed unless another suitable option were available. Because this project would be located within City limits, the City would have jurisdiction over this project.

- The City of Cincinnati stated that any new connections would be thoroughly vetted among the public before any decisions were made and public input would be used to help shape those decisions.
- The City of Cincinnati stated that this concept does not meet purpose and need for Beechmont (improve poor connectivity); it also does not have the funding for implementation. Therefore, while the City is not rejecting the proposed projects at this time, it is not endorsing them either. ODOT noted that the work being completed at this time is a planning-level effort; projects included in the Implementation Plan will be available for future planning purposes. The Implementation Plan includes projects that are known at this time; other projects identified in the future could be considered in their place following the requisite public involvement.
- Currently, public feedback regarding the proposed improvements in this area indicate a preference for a roundabout at the Beechmont and Linwood intersection (as compared to a traffic light). The traffic calming features of a roundabout is attractive to the neighborhoods.
- Overall, however, there is a general feeling that concepts I-19a (D3) and I-19b (D4) are not needed at this time. Therefore, these projects will be designated as low priorities.

NEXT STEPS/RECOMMENDATION

- Include concept in the Implementation Plan as a low priority.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
		AM	9.5	A	-93%	16.9	C	41%	\$4M to \$6M	0	\$60K to \$120K	C2	R/W Impacts, Potential T&E, Noise	Neutral	Neutral	Neutral
		PM	13.7	B	51%	24.5	C	15%								





**Roundabout at Beechmont and Linwood Intersection**

- \$4.0M to \$6.0M construction cost
- New R/W needed from 5 parcels; no buildings impacted
- Close deficient ramp from Eastern to SR 125
- Reduces WB approach AM peak delay by approximately 90%; reduces WB approach PM peak delay by approximately 95%
- Provides gateway to residential area
- Improves safety
- Eliminates parking between Linwood and Sheffield

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
6%	20%	17%	22%	35%

(percentages have been rounded)

Concept drawn on the following page.

DESCRIPTION

- Signalize the Beechmont (SR 125)/Linwood intersection.

- The signalized intersection could allow for a pedestrian /crossing at the north leg of the intersection across Linwood Avenue, which could be accommodated into the signal phasing.
- No additional comments received following the 9/7.

NEEDS ADDRESSED

S4) Address deficient weave on the eastbound US 50 exit ramp to SR 125.

5/22 MEETING DISCUSSION AND COMMENTS

- Requires two westbound lanes on Linwood Avenue.
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept should be evaluated as an alternative to Concept I-29a. Either alternative would need to be constructed with EW-2 and/or X-3b.
- Two lanes are required through the signal, though the assumption is a small number of vehicles will use the right lane; a Committee member suggested dropping the second lane after the intersection instead of transitioning to a right-turn only lane to Sheffield. This would discourage cut-through traffic using Sheffield.
- The roundabout (I-29a) is significantly (nearly 10 times) more costly than signalizing the intersection, but also works fairly well to improve delays.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D4 at the October Open House meetings.

- The primary need that this concept was developed to address is to improve connectivity from Eastern Avenue to SR 125.
- Concerns were expressed from the Columbia Tusculum Community Council representative regarding the proposed closure of the ramp from Eastern Avenue to SR 125 (located near Terry’s Turf Club) which would be part of this concept.
  - ODOT and Stantec stated that the ramp closure was proposed due to safety concerns; vehicles traveling up the ramp to SR 125 cannot be seen by vehicles traveling down the ramp from US 50, and vice versa. However, the closure would only occur if a replacement connection is established.
  - The City emphasized that it cannot improve connections between US 50 and SR 125 without improving connections within the neighborhoods. Therefore, the ramp in question would not be closed unless another suitable option were available. Because this project would be located within City limits, the City would have jurisdiction over this project.
  - The City stated that any new connections would be thoroughly vetted among the public before any decisions were made and public input would be used to help shape those decisions.
- The City stated that this concept does not meet purpose and need for

Beechmont (improve poor connectivity); it also does not have the funding for implementation. Therefore, while the City is not rejecting the proposed projects at this time, it is not endorsing them either. ODOT noted that the work being completed at this time is a planning-level effort; projects included in the Implementation Plan will be available for future planning purposes. The Implementation Plan includes projects that are known at this time; other projects identified in the future could be considered in their place following the requisite public involvement.

- Currently, public feedback regarding the proposed improvements in this area indicate a preference for a roundabout at the Beechmont and Linwood intersection (as compared to a traffic light). The traffic calming features of a roundabout is attractive to the neighborhoods.
- Overall, however, there is a general feeling that concepts I-19a (D3) and I-19b (D4) are not needed at this time. Therefore, these projects will be designated as low priorities.

NEXT STEPS/RECOMMENDATION

- Include concept in the Implementation Plan as a low priority.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
		AM	14.9	B	-203%	18.4	B	36%	\$320K to \$450K	0	\$20K to \$40K	C2	R/W Impacts	Neutral	Neutral	Neutral
		PM	33.7	C	-21%	40.6	D	-80%								





**Signalized Intersection at Beechmont and Linwood**

- \$320,000 to \$450,000 construction cost
- New R/W needed from 3 parcels; no buildings impacted
- Close deficient ramp from Eastern Avenue to SR 125
- Reduces WB approach AM and PM peak delay by approximately 90%
- Eliminates parking between Linwood and Sheffield

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
13%	18%	28%	36%	4%

(percentages have been rounded)



## Eastern Corridor Segments II and III

Combined Linwood/Eastern Interchange and US 50/Red Bank Interchange Focus Area

### Theme

# WOOSTER ROAD AND WILMER AVENUE

#### Primary Needs identified for this theme:

- P2) Address localized connectivity travel patterns within Beechmont Circle.
- P9) Address pedestrian safety issues crossing SR 125 at bus stops.

#### Secondary Needs identified for this theme:

- S9) Address lack of/limited wayfinding to improve regional connectivity.
- S10) Address roadway curve and grade deficiencies.
- S11) Support access to future transit connections.



Concept drawn for the 9/7 meeting (Meeting #3).

DESCRIPTION

- Add better wayfinding signing for auto connectivity.

NEEDS ADDRESSED

- P2) Address localized connectivity travel patterns within Beechmont Circle.

5/22 MEETING DISCUSSION AND COMMENTS

- None discussed.

Comments Submitted Following the 5/22 Meeting  
(Comments are presented as submitted by Committee members; no edits to content were made.)

- Mariemont supports improved wayfinding.

9/7 MEETING DISCUSSION AND COMMENTS

- While there are a variety of signs in the area, there is not a lot of consistency regarding how the signs look, particularly in terms of Lunken Airport signage.
- Proposed new signs are shown in bold on the concept exhibit; signs recommended for removal are drawn with an "X" through them.
- The Committee suggested that the signs be shown in color for the public meeting.
- One Committee member requested making it more obvious to drivers turning onto Wooster from the Beechmont Circle that they have the

right-of-way; many think they must yield to drivers coming off of the Beechmont Levee. Others agree that it would be an improvement to add signage to more clearly define who has the right-of-way at this location.

- The best way to address the confusion regarding driver right-of-way at the Beechmont Circle/Wooster location is to add a second lane (see I-26b). This could be accomplished by expanding onto the shoulder and removing the median on Wooster.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

- No substantial discussion held.

NEXT STEPS/RECOMMENDATION

- Include in Implementation Plan as a high priority.
- Can be packaged with signal upgrades on US 50, SR 32 and near Red Bank interchange. Also combine with additional signal backplates on US 50, similar wayfinding signage at Red Bank and advanced warning signage on US 50 eastbound.
- Possible HISP funding.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$10.5K to \$16K	0	\$0	C1	No Impacts	Neutral	Improves	Neutral

Concept drawn on the following page.

DESCRIPTION

- This concept extends the ramp from SR 125 onto Wooster, creating a continuous right turn lane from Beechmont/SR 125 onto Wooster. The ramp would no longer need to yield to the southbound left lane from Beechmont Circle.

NEEDS ADDRESSED

- P2) Address localized connectivity travel patterns within Beechmont Circle.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D1 at the October Open House meetings.

- There have not been many accidents/crashes have been recorded in this area.
- The City of Cincinnati completed improvements in this area from Beechmont Circle to Hutton Street (including the addition of new sidewalks) this past fall.

NEXT STEPS/RECOMMENDATION

- Include concept in the Implementation Plan as a low priority.

5/22 MEETING DISCUSSION AND COMMENTS

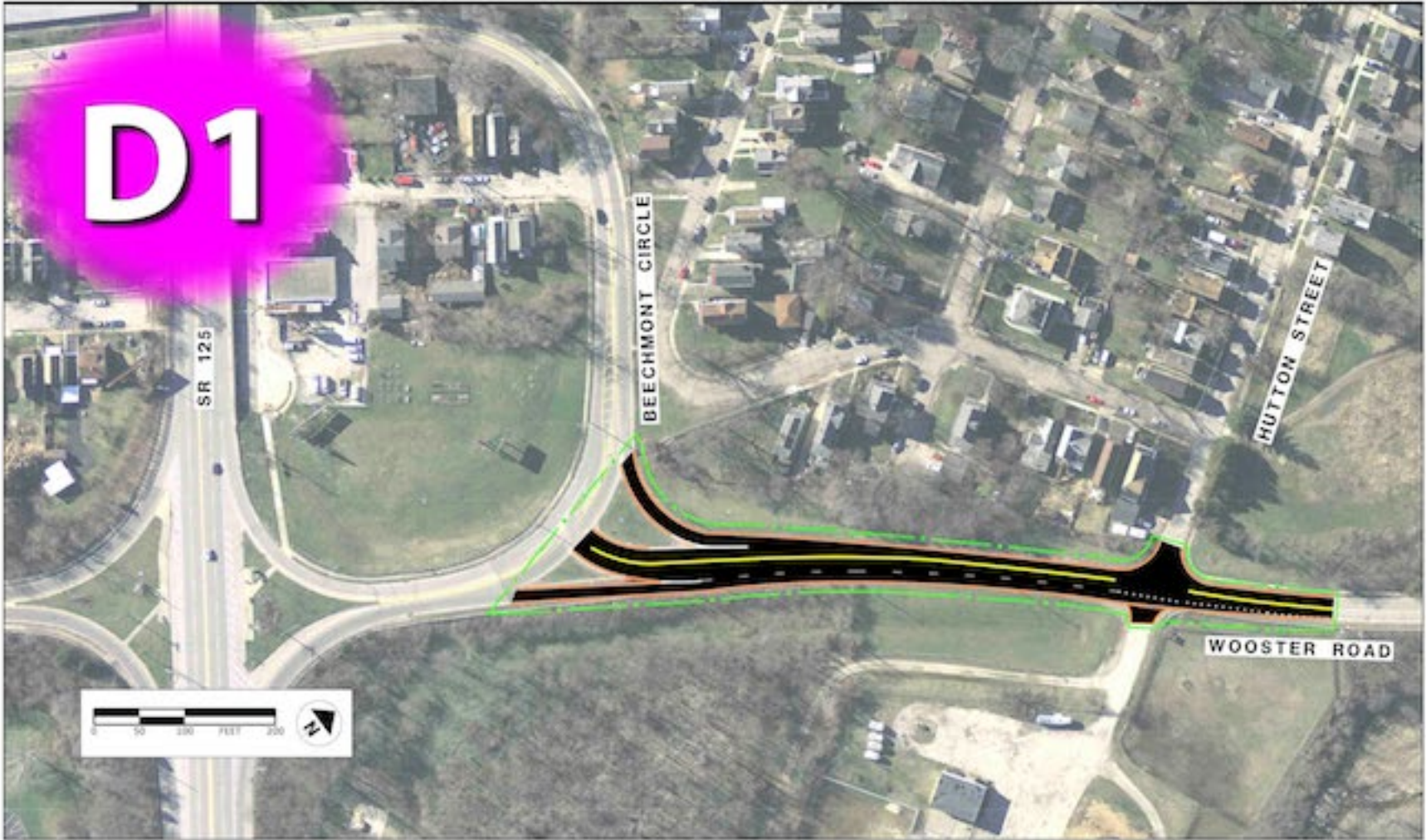
- Right turning vehicles must yield to left turning vehicles.
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- Concept removes the median on Wooster to allow for two lanes. This creates a continuous right turn lane at Beechmont Circle for turns onto Wooster from SR 125, so those drivers can merge instead of coming to a yield line. The concept includes minimal widening.
- No additional comments received following the 9/7 meeting.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$320K to \$480K	0	\$0	C2	R/W Impacts, Noise, ESA Issues	Neutral	Improves	Neutral

PRIORITY: LOW



**Continuous Right Turn  
Lane From SR 125 to  
Wooster**

- \$320,000 to \$480,000 construction cost
- No new R/W required
- Converts current yield condition to a merge

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
8%	2%	27%	41%	23%

(percentages have been rounded)



Concept drawn on the following page.

DESCRIPTION

- Create a grade-separated interchange to connect Wilmer and Wooster.
  - This alternative creates three-way signalized ramp intersections.

NEEDS ADDRESSED

- P2) Address localized connectivity travel patterns within Beechmont Circle.
- P9) Address pedestrian safety issues crossing SR 125 at bus stops.
- S11) Support access to future transit connections.

5/22 MEETING DISCUSSION AND COMMENTS

- This concept offers a lower speed connection to Wilmer Avenue and Wooster as compared to concept X-2b-3.
- The Wooster/Wilmer interchange would bridge over SR 125.
- Offers a clear connection between Wilmer and Wooster.
- Concept would take through-traffic off Beechmont Circle; streets within Beechmont Circle would be used for local traffic.
- Would need to add a turn lane to Hutton Street from Wooster.
- Concept would impact the locations of existing bus stops; bus stops would have to be relocated.

**Comments Submitted Following the 5/22 Meeting**  
(Comments are presented as submitted by Committee members; no edits to content were made.)

- Will the three-way intersections on either side (East and West) of the proposed grade change connection of Wilmer and Wooster be signalized, or stop signs? Concern this will slow flow of traffic compared to current design.

- ODOT Response:
- The intersections would either be signalized intersections or reconfigured into roundabouts.

9/7 MEETING DISCUSSION AND COMMENTS

- This alternative should be evaluated with X-2b-2a and X-2b-5.
- The concept connects Wooster and Wilmer over SR 125. Wooster and Wilmer would connect with SR 125 using T-intersections (although the Wilmer/SR 125 connection may have to be adjusted somewhat).
- This option would pull commuter traffic out of two small subdivisions. (Note: A goal of the Linwood Neighborhood Plan is to remove commuter traffic from the neighborhood).
- This concept would result in the loss of parking spaces in the Lunken Playfield parking lot, though the number of spaces lost is not yet known.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D5 at the October Open House meetings.  
The discussion addressed concepts X-2b-2 (D5) and X-2b-2a (D6) concurrently:

- A key difference between the two concepts is that X-2b-2a (D6) includes an at-grade railroad crossing and creates four-way signalized ramp intersections while X-2b-2 (D5) creates three-way signalized ramp intersections.
- Concept X-2b-2a (D6) appeared to have more interest from the public, but this concept would be difficult to fund.

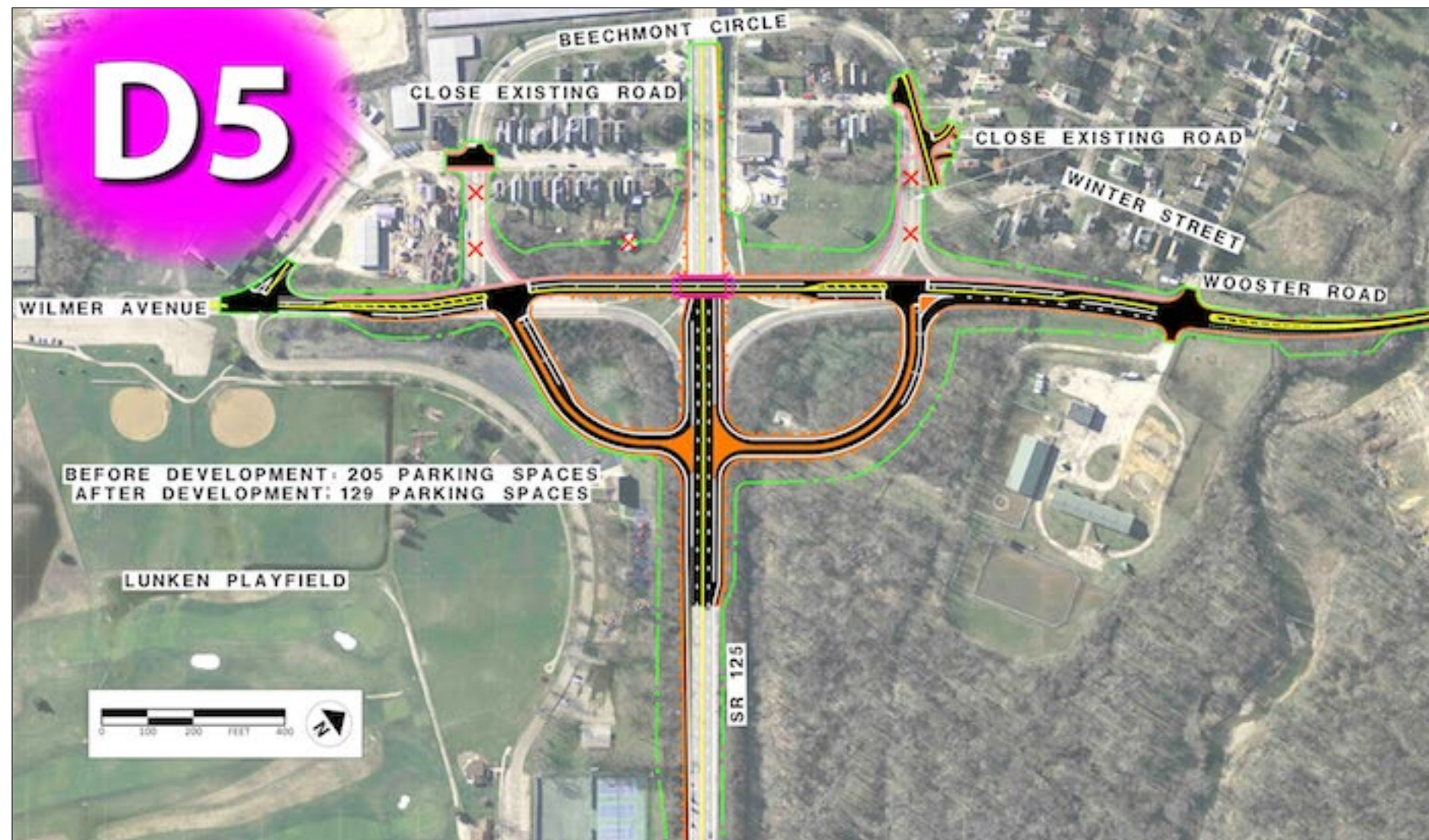
- The City noted that they don’t see these projects as high priorities.
- It was suggested that ODOT/Stantec explore separate alternatives that would protect pedestrians without the road improvement components (i.e. a refuge island, improved signage, traffic calming, etc.).
  - For some committee members, a primary concern relative to pedestrian safety was the location of the bus stop on Beechmont Circle. The group discussed the possibility of adjusting the bus stop to provide space for buses to pull off the road instead of stopping on the shoulder.
  - The group also discussed adding more signage to alert drivers that the speed limit is reduced in this area from 45 mph to 35 mph, which could help to improve pedestrian safety and make crossing Beechmont easier and safer.
  - It was noted that the study team has already looked at overpass, underpass and HAWK options; however, those fell out of consideration following discussions during previous meetings. Based on feedback from the City, the consultant team will look for other low cost alternatives.

NEXT STEPS/RECOMMENDATION

- Revisit concepts/perform additional study to determine if a lower-cost option can be developed to improve pedestrian safety.
- Engage the Linwood Community Council to further vet the two concepts [X-2b-2 (D5) and X-2B-2A (D6)].
- Include X-2b-2 (D5) and X-2B-2A (D6) in the Implementation Plan as low priorities.

Safety ECAT Benefit/ Cost Ratio	Traffic Operations								Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
	Location	Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
	Wooster Road & SR 125 WB Ramps Signalized Intersection	AM	18.4	B		13.9	B		\$7M to \$10.5M	0	\$875K to \$1.8M	D1	Section 4(f)	Improves	Improves	Improves
		PM	39.5	D		46.4	D									
	Wilmer Avenue & SR 125 EB Ramps Signalized Intersection	AM	15.9	B		10.8	B									
		PM	35.0	D		39.3	D									





### Grade Separated Interchange Connecting Wilmer and Wooster

- \$7.0M to \$10.5M construction cost
- New R/W needed from 21 parcels; 1 garage impacted
- 76 parking spaces eliminated in Lunken Playfield parking lot
- Relocates bus stop on SR 125
- Connects Beechmont Circle to Winter
- Signalized intersections at the ends of each ramp
- Connect Wilmer and Wooster which removes through traffic from Beechmont Circle

### PUBLIC FEEDBACK RATINGS SUMMARY

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
8%	11%	31%	39%	11%

(percentages have been rounded)



Concept drawn on the following page.

DESCRIPTION

- Create a grade-separated interchange to connect Wilmer and Wooster.
  - This alternative creates four-way signalized ramp intersections.

NEEDS ADDRESSED

- P2) Address localized connectivity travel patterns within Beechmont Circle.
- P9) Address pedestrian safety issues crossing SR 125 at bus stops.
- S11) Support access to future transit connections.
- S16) Address bicycle and pedestrian connectivity across railroad tracks to existing Armleder and Lunken bike paths.

9/7 MEETING DISCUSSION AND COMMENTS

- This alternative should be evaluated with X-2b-2 and X-2b-5.
- It connects Wooster and Wilmer over SR 125. Wilmer and Wooster would connect with SR 125 and the Beechmont Circle using four-way intersections.
- The concept is shown with concept EW-2, which would create a new extension of Linwood (where it currently dead ends into Eastern Avenue) through the parking lot of the Company on Eastern building, across the railroad tracks (at-grade) and through to the eastern-most portion of Beechmont Circle.
- The two subdivisions within Beechmont Circle remain separated; however most commuter traffic would be removed from neighborhood streets (Note: a goal of the Linwood Neighborhood Plan is to remove commuter traffic from the neighborhood).

- This concept would result in the loss of parking spaces in the Lunken Playfield parking lot, though the number of spaces lost is not yet known.
- This alternative is more expensive than X-2b-2 and would require one commercial relocation.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D6 at the October Open House meetings.

- A key difference between the two concepts is that X-2b-2a (D6) includes an at-grade railroad crossing and creates four-way signalized ramp intersections while X-2b-2 (D5) creates three-way signalized ramp intersections.
- Concept X-2b-2a (D6) appeared to have more interest from the public, but this concept would be difficult to fund.
- The City noted that they don’t see these projects as high priorities.
- It was suggested that ODOT/Stantec explore separate alternatives that would protect pedestrians without the road improvement components (i.e. a refuge island, improved signage, traffic calming, etc.).
  - For some committee members, a primary concern relative to pedestrian safety was the location of the bus stop on Beechmont Circle. The group discussed the possibility of adjusting the bus stop to provide space for buses to pull off the road instead of stopping on the shoulder.
  - The group also discussed adding more signage to alert drivers that the speed limit is reduced in this area from 45 mph to 35 mph, which could help to improve pedestrian safety and make crossing Beechmont easier and safer.

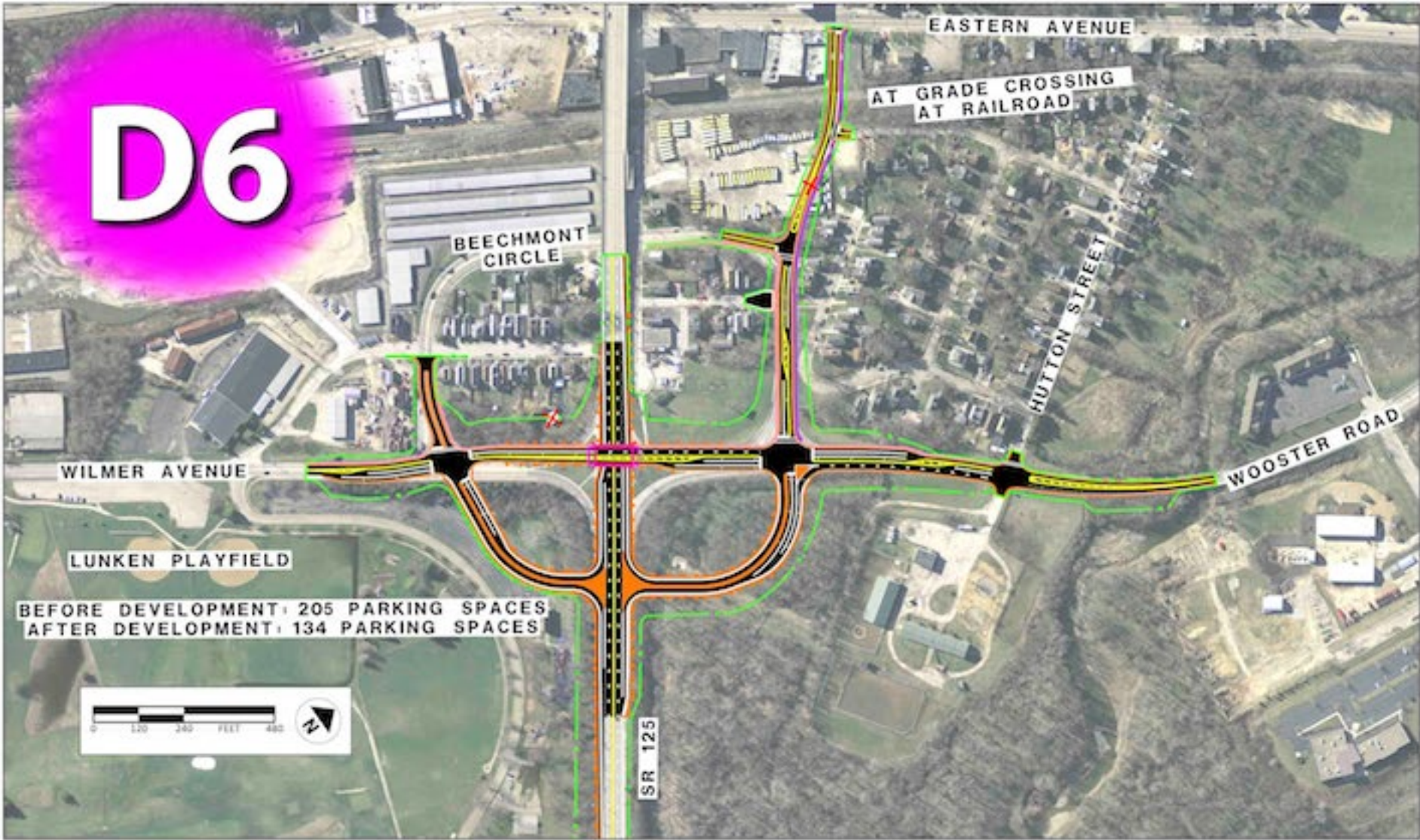
- It was noted that the study team has already looked at overpass, underpass and HAWK options; however, those fell out of consideration following discussions during previous meetings. Based on feedback from the City, the consultant team will look for other low cost alternatives.

NEXT STEPS/RECOMMENDATION

- Revisit concepts/perform additional study to determine if a lower-cost option can be developed to improve pedestrian safety.
- Engage the Linwood Community Council to further vet the two concepts [X-2b-2 (D5) and X-2B-2A (D6)].
- Include X-2b-2 (D5) and X-2B-2A (D6) in the Implementation Plan as low priorities.

Safety ECAT Benefit/ Cost Ratio	Traffic Operations								Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi- Modal	Improve Regional Connectivity	Improve Local Access
	Location	Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
	Wooster Road & SR 125 WB Ramps Signalized Intersection	AM	18.2	B					\$8M to \$12M	1 Commercial	\$1.3M to \$2.5M	D1	R/W Impacts, Section 4(f)	Improves	Improves	Improves
		PM	22.1	C												
	Wilmer Avenue & SR 125 EB Ramps Signalized Intersection	AM	20.1	C												
		PM	39.6	D												





**Grade Separated Interchange  
Connecting Wilmer, Wooster,  
and Eastern**

- \$8.0 to \$12.0M construction cost
- New R/W needed from 35 parcels; 1 commercial building and 1 garage impacted
- Connection to Eastern has at-grade railroad crossing
- Connection to Eastern includes shared-use path
- 71 parking spaces eliminated in Lunken Playfield parking lot
- Relocates bus stop on SR 125
- Signalized intersections at the ends of each ramp
- Connect Wilmer and Wooster which removes through traffic from Beechmont Circle

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
6%	13%	29%	27%	25%

(percentages have been rounded)



## Eastern Corridor Segments II and III

Combined Linwood/Eastern Interchange and US 50/Red Bank Interchange Focus Area

Theme

# US 50/RED BANK CONNECTIVITY

### Primary Needs identified for this theme:

- P3) Address localized connectivity travel patterns within the interchange.
- P4) Address capacity issues and long queues on northbound and westbound approaches of the Red Bank/Colbank intersection.

### Secondary Needs identified for this theme:

- S12) Address lack of/limited wayfinding to improve regional connectivity.



Concept drawn on the following page.

DESCRIPTION

- Improve signal timing.
- Lengthen storage lanes (storage refers to the amount of space available for vehicles to line up in a designated turn lane).
- Add dual westbound right turn lanes from Colbank to northbound Red Bank.
- Add dual northbound through lanes on Colbank to northbound Red Bank at the Red Bank/Colbank intersection.

NEEDS ADDRESSED

- P4) Address capacity issues and long queues on northbound and westbound approaches of the Red Bank/Colbank intersection.

improvements to traffic operations, reducing AM peak hour delays by 85 percent and PM peak hour delays by 43 percent.

- The committee discussed installing a traffic signal to stop the northbound movement at the intersection of Colbank and US 50 ramp and provide a turn arrow so that drivers turning left from Colbank to the westbound US 50 ramp don't have to stop a second time but could move continually through the intersection (similar to the existing intersection at Glenway and Glenhills Way). The signal could be equipped with a sensor to display an arrow only when the queue is long.
- The committee discussed whether or not two travel lanes were needed on the ramp to eastbound US 50 past the Colbank/US 50 ramp intersection. Restriping could reduce the lanes to one if it's warranted.
- No additional comments received following the 9/7 meeting.

5/22 MEETING DISCUSSION AND COMMENTS

- The needs of bicyclists should be considered as part of this concept.
- No additional comments received following the 5/22 meeting

9/7 MEETING DISCUSSION AND COMMENTS

- This concept is an alternative to others designed to improve operations at the Red Bank/US 50 interchange: I-25c, X-4a, X-4c-2, X-4d and X-4d-1.
- Simulations demonstrate this concept would provide good

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as E1 at the October Open House meetings.

- Committee members felt that this concept was a good, simple solution for the challenges in this area.
- The public also appeared to like or be neutral toward this concept; see Public Feedback Ratings Summary, next page.

NEXT STEPS/RECOMMENDATION

- Include concept in the Implementation Plan as a high priority.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
	Red Bank Rd. & Colbank Rd.	AM	19.5	B	85%				\$675K to \$1M	0	\$17K to \$34K	C2	R/W Impacts, Noise, ESA Issues	Neutral	Neutral	Neutral
		PM	18.8	B	43%											





## Red Bank and Colbank Intersection Improvements

- \$675,000 to \$1.0M construction cost
- New R/W needed from 2 parcels; no buildings impacted
- Reduces AM peak delay by approximately 75%; PM peak delay by approximately 40%
- New signal at ramps coordinated with existing signal to allow protected left turn onto US 50 westbound ramp

## PUBLIC FEEDBACK RATINGS SUMMARY

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
5%	15%	42%	26%	12%

(percentages have been rounded)

Concept drawn for the 9/7 meeting (Meeting #3).

DESCRIPTION

- Add wayfinding signage.

NEEDS ADDRESSED

S12) Address lack of/limited wayfinding to improve regional connectivity.

directional signage located on Red Bank, as the road approaches US 50.

- Overhead signage is recommended approaching the Red Bank/Colbank intersection, and again at the intersection to reduce unnecessary weaving by drivers in the area.
- The committee discussed the possibility of adding pavement tatoos/markings, but it was determined that while those tend to work well on highways, they would likely be blocked by slow moving or idling vehicles when/if there is a queue.
- No additional comments received following the 9/7 meeting.

5/22 MEETING DISCUSSION AND COMMENTS

- This concept would address the lack of signage uniformity in this area.

Comments Submitted Following the 5/22 Meeting

(Comments are presented as submitted by Committee members; no edits to content were made.)

- Mariemont supports improved wayfinding.

12/12 MEETING DISCUSSION AND COMMENTS

- No substantial discussion held.

NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as a high priority.
- Can be packaged with signal upgrades on US 50, SR 32 and near the Red Bank interchange. Also can be combined with additional signal backplates on US 50, similar wayfinding signage at Beechmont Circle and advanced warning signage on US 50 eastbound.
- Possible HSIP funding.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept is a supplement to other concepts designed to improve operations at the Red Bank/US 50 interchange. Other concepts that could be combined with this concept include: I-25c, I-25b, X-4c-2, X-4d and X-4d-1.
- Signage would ensure dual left-turn lanes are well-marked and would add missing signage referring drivers to US 50 (Columbia Parkway). It would also replace Milford with Mariemont as the next village on

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$20.2K to \$30.4K	0	\$0	C1	No Impacts	Neutral	Improves	Neutral

PRIORITY: HIGH



Concept drawn on the following page.

DESCRIPTION

- Extend Wooster to tie directly into Colbank Road.
  - The road would be tied directly into Red Bank at Woodland Road via the eastbound US 50 ramps (east of Hyde Park Lumber).
  - The concept includes a signal at the first ramp location, an unsignalized connection at the US 50 and eastbound ramps, and a roundabout at Red Bank Road and Wooster Road.

NEEDS ADDRESSED

- P4) Address capacity issues and long queues on northbound and westbound approaches of Red Bank/Colbank intersection.
- P7) Address capacity issue for northbound left turn movement at the Wooster/Red Bank intersection.
- S16) Address bicycle and pedestrian connectivity across railroad tracks to existing Armleder and Lunken bike paths.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept is an alternative to other concepts designed to improve operations at the Red Bank/US 50 interchange including I-25b, I-25c, X-4a, X-4c-2, X-4d and X-4d-1.
- This concept is very similar to X-4d-1. X-4d incudes signals at all three intersections; X-4d-1 has a signal at one intersection, is stop-controlled at another and and has a roundabout at the third. Both concepts work well.
- The roundabout portion of this concept provides an advantage over the signalized intersection by providing a continuous flow connection from Wooster Road to Red Bank Road. It also eliminates the need for the existing left turn lane on the Wooster bridge, allowing space for a shared-use path without widening the bridge.
- This concept includes an option to construct a shared-use path along the south side of Colbank and its new connection to Wooster Road. The grade of the new roadway is flat.
- The concept does not preclude future rail use in the area, but would require building a new bridge. The cost of constructing a new bridge has not been estimated.
- The roundabout is designed for full semi-truck utilization.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

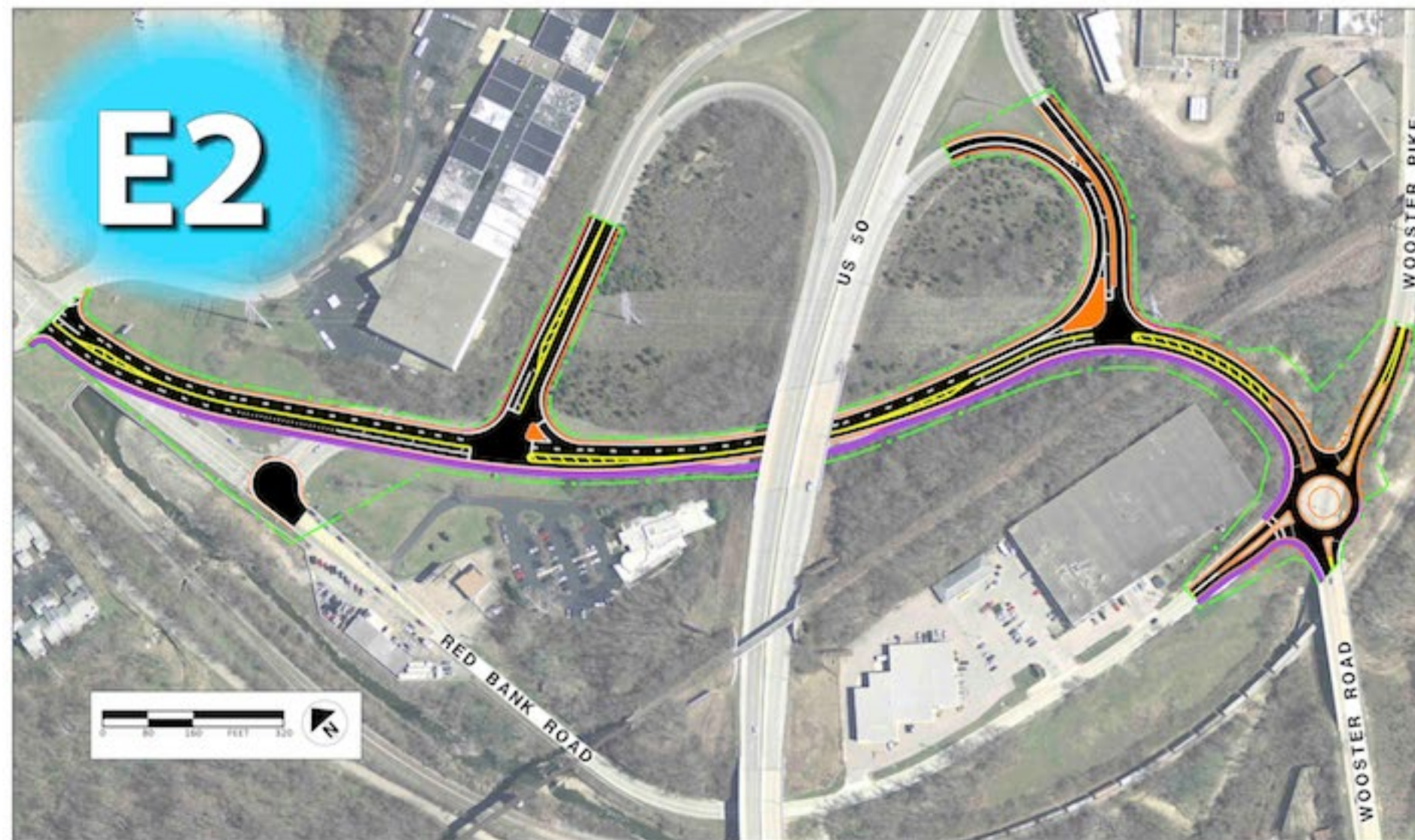
- This concept was presented as E2 at the October Open House meetings.
- A benefit of this concept is that it opens up a new bicycle/pedestrian corridor option.
  - The committee agreed to no longer pursue the roadway element of this concept.
  - The committee agreed that the roundabout at Wooster Road and the addition of the shared-use path in this alignment should be advanced as part of other projects [I-20b (E4) or BIKE-4a (E7)].

NEXT STEPS/RECOMMENDATION

- No further study.

Safety ECAT Benefit/ Cost Ratio	Traffic Operations								Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi- Modal	Improve Regional Connectivity	Improve Local Access
	Location	Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
	Red Bank Rd & US 50 WB Ramps	AM	15.3	B	88%	10.8	B	82%	\$2.7M to \$4.1M	0	\$160K to \$320K	C2	R/W Impacts, Stream Impacts, Waterway Permit, Potential T&E, Noise, ESA Issues	Improves	Improves	Neutral
		PM	16.8	B	49%	13.6	B	66%								
	Red Bank Rd & US 50 EB Ramps	AM	1.0	A		7.2	A									
		PM	1.4	A		2.1	A									
	Red Bank Rd & Wooster Rd/Old Red Bank Rd	AM	21.1	C	5%	15.7	C	42%								
		PM	18.3	C	-23%	14.1	B	55%								





## Extend Wooster to Tie Into Red Bank

- \$2.7M to \$4.1M construction cost
- New R/W needed from 5 parcels; no buildings impacted
- Reduces AM peak delay by approximately 75%; PM peak delay by approximately 45%
- Provides pedestrian and bicycle connectivity from Red Bank to Wooster
- Relocates signalized intersection to the end of the US 50 westbound ramps
- Requires removal of old railroad bed and embankment

## PUBLIC FEEDBACK RATINGS SUMMARY

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
8%	11%	24%	33%	24%

(percentages have been rounded)



## Eastern Corridor Segments II and III

Combined Linwood/Eastern Interchange and US 50/Red Bank Interchange Focus Area

### Theme

# US 50/Wooster/Meadowlark

#### Primary Needs identified for this theme:

- P5) Address safety issues related to the end of the freeway section on US 50.
- P6) Address eastbound PM peak-hour queues at the US 50/Meadowlark intersection.
- P7) Address capacity issue for northbound left turn movement at the Wooster/Red Bank intersection.
- P8) Address sight distance within the Wooster/Red Bank intersection.

#### Secondary Needs identified for this theme:

- S13) Address deficient roadway grade just east and west of the Red Bank Road/Wooster Road intersection.
- S14) Address deficient roadway grade at the Wooster/Red Bank intersection.
- S15) Support access to future transit connections.



Concept drawn for the 9/7 meeting (Meeting #3).

DESCRIPTION

- Add signage indicating "freeway ends." Add flashing beacon to alert drivers to long queues at the Meadowlark intersection.

NEEDS ADDRESSED

- P5) Address safety issues related to the end of the freeway section on US 50.

5/22 MEETING DISCUSSION AND COMMENTS

- None discussed.

Comments Submitted Following the 5/22 Meeting

(Comments are presented as submitted by Committee members; no edits to content were made.)

- Mariemont supports improved wayfinding and signage.

9/7 MEETING DISCUSSION AND COMMENTS

- A sign noting the end of the US 50 “freeway” would be placed approximately one mile west of Meadowlark Lane.
- The existing flashing beacon would be moved backed as well to be closer to the end of queued traffic.
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

- A concern was expressed that posting a sign on US 50 stating “Freeway Ends” may cause people to misconstrue US 50 as a freeway and treat it as such. However, the committee discussed that the wording on the signage can be adjusted. ”Expressway Ends” was suggested.
- The committee agreed that this concept should be advanced as a high priority.

NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as a high priority. Can be packaged with signal upgrades on US 50, SR 32 and near Red Bank interchange. Also combine with additional signal backplates on US 50, wayfinding signage at Beechmont Circle and Red Bank, and similar advanced warning signage on US 50 eastbound.
- Possible Highway Safety Improvement Program (HSIP)

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$10.6K to \$16K	0	\$0	C1	No Impacts	Neutral	Neutral	Neutral

PRIORITY: HIGH



Concept drawn for the 9/7 meeting (Meeting #3).

DESCRIPTION

- Add advance signing to alert drivers to right lane reduction on eastbound US 50 at Wooster Pike.

- very helpful to drivers.
- No additional comments received following the 9/7 meeting.

NEEDS ADDRESSED

- P5) Address safety issues related to the end of the freeway section on US 50.

5/22 MEETING DISCUSSION AND COMMENTS

- It’s possible to restrict right turns on red, but there have been no crashes documented at this location.

Comments Submitted Following the 5/22 Meeting

(Comments are presented as submitted by Committee members; no edits to content were made.)

- Mariemont supports improved wayfinding and signage.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept proposes overhead signage to further alert drivers that the right lane is a turn only lane. It also adds a dotted line pavement marking to indicate the turn lane.
- A committee member expressed that this advanced warning would be

12/12 MEETING DISCUSSION AND COMMENTS

- The committee agreed that this concept should be advanced forward as a high priority.

NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as a high priority. Can be packaged with signal upgrades on US 50, SR 32 and near Red Bank interchange. Also combine with additional signal backplates on US 50, wayfinding signage at Beechmont Circle and Red Bank, and similar advanced warning signage on US 50 eastbound.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$15.4K to \$23.2K	0	\$0	C1	No Impacts	Neutral	Neutral	Neutral

PRIORITY: HIGH

Concept drawn on the following page.

DESCRIPTION

- Install a roundabout at the Meadowlark/US 50 intersection.

NEEDS ADDRESSED

- P6) Address eastbound PM peak-hour queues at the US 50/Meadowlark intersection.

5/22 MEETING DISCUSSION AND COMMENTS

- A roundabout could serve as a gateway to Fairfax.
- The roundabout could include a truck lane and would be designed to handle trucks and emergency vehicles.
- Roundabouts offer better lane utilization.
- Initial analysis suggests the roundabout would:
  - Reduce morning peak-hour delays by 60 percent.
  - Reduce evening peak-hour delays by 60 percent.
- It’s possible that drivers may try to avoid the roundabout by taking Dragon Way to Watterson; once people become familiar with the roundabout and delays are reduced, this behavior may be insignificant.
- Specific alignments may need to be refined.

Comments Submitted Following the 5/22 Meeting

(Comments are presented as submitted by Committee members; no edits to content were made.)

- Verify roundabout shown is drawn to scale and that it will accommodate life safety and semi-truck traffic. Have all other options for this intersection been eliminated? Additional input from Mariemont businesses will be needed to address other potential concerns. The

Haney Building (formerly Streitman Biscuit Company) and the Mariemont Industrial District are listed on the National Registry of Historic Places, and Section 106 shall be incorporated into the process.

ODOT Response:

- Roundabouts can accommodate truck traffic.
- The Federal Highway Administration has identified roundabouts as a proven safety counter-measure.
- All National Environmental Policy Act (NEPA) guidelines will be followed.

9/7 MEETING DISCUSSION AND COMMENTS

- Simulations demonstrate that the roundabout provides better traffic operations than the No Build option.
- A roundabout could also cut down on the number of people who use Dragon Way to try to avoid the existing traffic signal at US 50 and Meadowlark.
- The committee discussed whether the traffic signal at Watterson could back drivers up into the roundabout. Traffic simulations show that for 95 percent of queues, this would not be an issue. However, given signal timing adjustments and the fact that closures on Wooster Pike have resulted in more traffic on US 50, these simulations will need to be re-evaluated once Wooster reopens to ensure that is still the case.
- The committee discussed whether it would be simpler to reconfigure the lanes in front of the Mainliner and eliminate the curb bump-outs to allow for two lanes of westbound traffic. This could provide a more immediate solution, with the roundabout phased in later. Long term, however, the roundabout offers other benefits (slower travel speeds, increased safety) and could serve as a gateway to Fairfax.
- No additional comments received following 9/7 meeting.

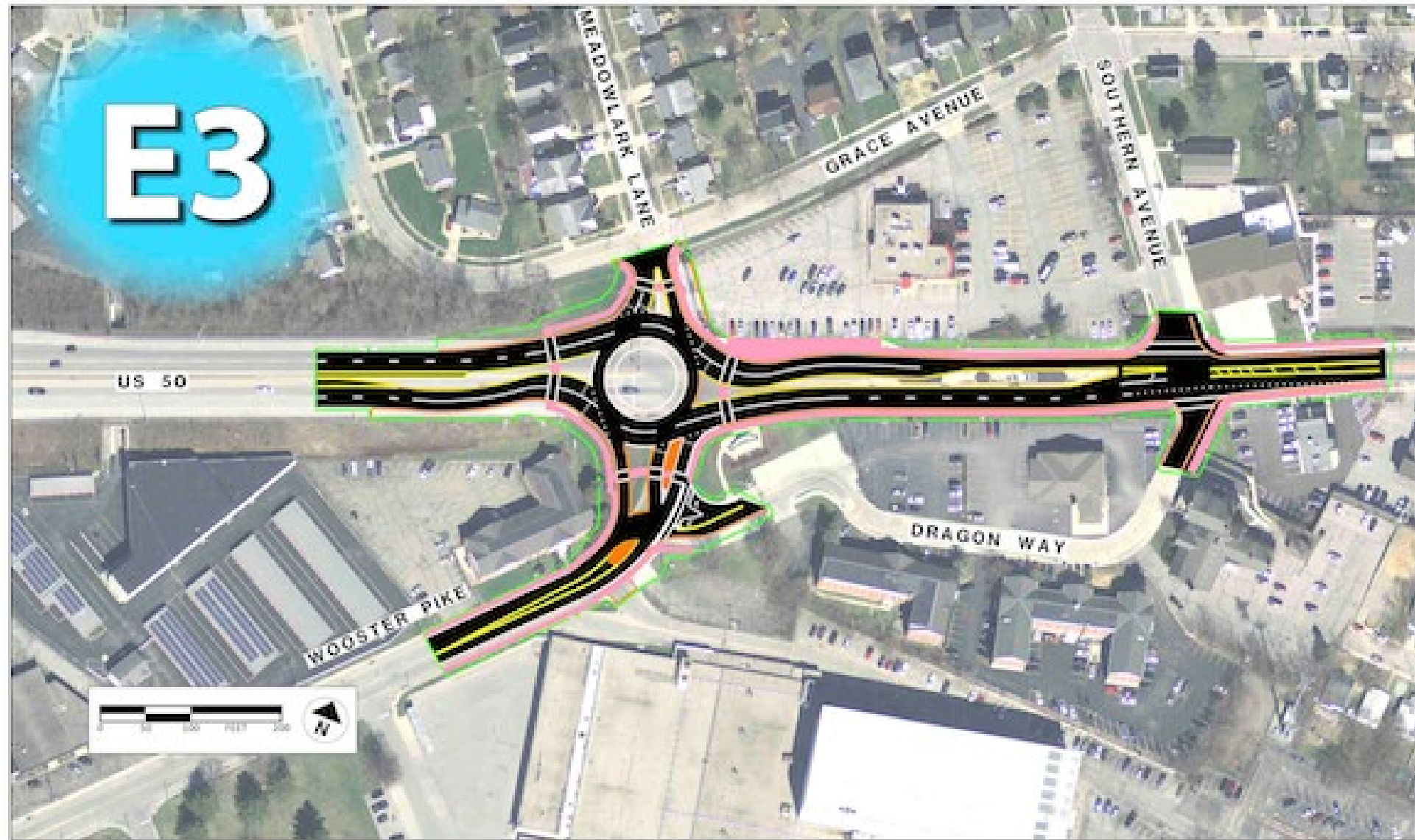
12/12 MEETING DISCUSSION AND COMMENTS

- This concept was presented as E3 at the October Open House meetings.
- Public comment appears to be favorable toward the roundabout concept (see Public Feedback Ratings Summary, next page).
- There was some discussion about how the roundabout may impact the ability for vehicles to turn onto US 50 from side streets. ODOT/Stantec acknowledged that turning left onto US 50 during peak hours might be challenging.
- The committee agreed that the best approach going forward would be to implement other, lower-cost traffic improvement concepts first and evaluating their effectiveness before pursuing the construction of a roundabout at this intersection.

NEXT STEPS/RECOMMENDATION

- Include concept in the Implementation Plan as a medium priority.
- Pursue implementation of signage improvements and adding advanced signal detection improvements first before advancing a roundabout at the Meadowlark/US 50 intersection.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
1.0		AM	8.0	A	66%	14.2	B	1%	\$1.2M to \$1.8M	0	\$12.5K to \$25K	D2	Section 4(f)	Neutral	Neutral	Neutral
		PM	8.5	A	66%	16.9	C	55%								



## Roundabout at Meadowlark and US 50

- \$1.2M to \$1.8M construction cost
- New R/W needed from 3 parcels; no buildings impacted
- Reduces AM peak delay by approximately 35%; PM peak delay by approximately 60%
- Eliminates existing traffic signal
- Provides gateway to Fairfax business district
- Improves safety

## PUBLIC FEEDBACK RATINGS SUMMARY

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
8%	18%	27%	23%	24%

(percentages have been rounded)



Concept not drawn.

DESCRIPTION

- Improve signal timing on US 50 and Red Bank in Fairfax.

NEEDS ADDRESSED

- P6) Address eastbound PM peak-hour queues at the US 50/Meadowlark intersection.

5/22 MEETING DISCUSSION AND COMMENTS

- None discussed.

Comments Submitted Following the 5/22 Meeting

(Comments are presented as submitted by Committee members; no edits to content were made.)

- Mariemont supports improved signal timing.

9/7 MEETING DISCUSSION AND COMMENTS

- Signal timing improvements are underway throughout the corridor along SR 32, US 50 and at the Church/Valley intersection in Newtown.
- Continued evaluation is necessary to tweak improvements. There is more traffic in the area now, likely the result of seasonal fluctuations (back to school), current construction on I-275 and temporary road closures within nearby areas.
- ODOT recommends adding advanced detection and wireless signal interconnects at the following locations so that the signals are more responsive and adaptive to fluctuations in traffic.
  - Red Bank & Colbank
  - Red Bank & Wooster
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

Matt Crim, Stantec, shared Signal Timing Study updates and discussed how traffic flow has been affected since signal timing adjustments were completed in October and November:

- Earlier this year, Stantec, ODOT’s consultant team, conducted a Signal Timing Study within the Segments II and III study area along the SR 32 and US 50 corridors and in the Village of Newtown (from Newtown Road to Valley Avenue to Round Bottom Road).
- A “before study” was conducted in March and, following comprehensive analysis, a series of timing adjustments were implemented in August and September. Additional fine-tuning adjustments were made in October and November. An “after study” was completed in November.
- Stantec compared data from the “after study” with data from the “before study.” Results included the following:
  - US 50 Corridor: Overall, travel time decreased by 9%, vehicle delays decreased by 32%, stop delays decreased by 42% and the average number of stops decreased by 33%. The average travel speed increased by 13%. Using ODOT’s evaluation metrics, benefits of these improvements were determined to be:
    - Benefit/Cost Ratio: 26:1
    - Delay savings: 49,564 hours / \$1,014,262
    - Emission savings: 2.9 kg / \$10,221
    - Crash Reductions: 5 crashes / \$121,800
    - Fuel Savings: 20,623 gallons / \$45,061

Travel in both east and west directions improved in during morning, mid-afternoon and evening peak travel times.

- Village of Newtown: Overall, travel time decreased by 11%, vehicle delays decreased by 33%, stop delays decreased by 37% and the average number of stops decreased by 33%. The average travel speed increased by 13%. Using ODOT’s evaluation metrics, benefits of these improvements were determined to be:
  - Benefit/Cost Ratio: 51:1
  - Delay savings: 22,868 hours / \$486,045
  - Emission savings: 0.8 kg / \$2,736
  - Crash Reductions: 1 crash / \$13,938
  - Fuel Savings: 3,298 gallons / \$7,205

Travel in both east and west directions improved in during morning, mid-afternoon and evening peak travel times.

- SR 32 Corridor: Overall, travel time decreased by 10%, vehicle

delays decreased by 38%, stop delays decreased by 51% and the average number of stops decreased by 45%. The average travel speed increased by 9%. Using ODOT’s evaluation metrics, benefits of these improvements were determined to be:

- Benefit/Cost Ratio: 28:1
- Delay savings: 21,901 hours / \$490,201
- Emission savings: 0.03 kg / \$2,820
- Crash Reductions: 2 crashes / \$53,205
- Fuel Savings: 6,484 gallons / \$14,166

Travel in both east and west directions improved during morning, mid-afternoon and evening peak travel times. However, westbound traffic (in the off-peak direction) has experienced slight increases in travel time and vehicle delays during the evening peak period. These increases were intentional to improve travel in the peak direction.

- ODOT suggested that additional benefit can be gained by installing additional detection and modems in the controllers to allow the lights to be interconnected and adaptive. With this technology, the lights would be able to better respond to variable traffic conditions and would automatically switch to different timing plans to help improve traffic flow. Committee agreed that considering the cost/benefit ratio, this is a recommendation to continue advancing.

NEXT STEPS/RECOMMENDATION

- Include in Implementation Plan as a high priority.
- Enhance signals to provide advanced detection and wireless signal interconnect. Can be packaged with similar signal upgrades on SR 32 and near Red Bank interchange. Also combine with additional signal backplates on US 50, wayfinding signage at Beechmont Circle and Red bank and advanced warning signage on US 50 eastbound.
- Possible Highway Safety Improvement Program (HSIP) funding.

US-50						
Pre-Study vs Optimized Timings						
Peak Hour Analysis						
Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)
CUMULATIVE						
Pre-Study		382	102	66	3.0	23.2
Optimized		349	69	38	2.0	26.3
% Change		-9%	-32%	-42%	-33%	13%
AM Peak						
Pre-Study	EB	336	51	31	1.8	26.2
Optimized	EB	312	27	29	1.2	28.3
EB % Change		-7%	-47%	-6%	-33%	8%
Pre-Study	WB	426	150	97	4.2	21.1
Optimized	WB	347	71	50	1.8	25.5
WB % Change		-19%	-53%	-48%	-57%	21%
MIDDAY Peak						
Pre-Study	EB	376	91	63	3.2	23.5
Optimized	EB	318	33	24	1.6	27.7
EB % Change		-15%	-64%	-62%	-50%	18%
Pre-Study	WB	385	109	62	3.8	22.8
Optimized	WB	397	121	38	1.4	27.3
WB % Change		3%	11%	-39%	-63%	20%
PM Peak						
Pre-Study	EB	390	106	74	4.2	22.7
Optimized	EB	380	95	56	1.6	23.5
EB % Change		-3%	-10%	-24%	-62%	4%
Pre-Study	WB	380	104	68	3.5	23.1
Optimized	WB	342	66	31	1.6	25.6
WB % Change		-10%	-37%	-54%	-54%	11%

	Reduction
	No Change
	Increase

(Note: in the case of average speed, green means an increase in overall travel speed, whereas red means a reduction in overall travel speed)



Estimated Annual Signal Retiming Benefits  
Corridor: US-50

Delay Savings

49,564 Hours  
\$1,014,262



Emissions Savings

2.9 kg  
\$10,221



Crash Reductions

5 Crashes  
\$121,800



Fuel Savings

20,623 Gallons  
\$45,061



Benefit Cost Ratio

26:1



Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$57.5K to \$86.5K	0	\$0	C1	No Impacts	Neutral	Neutral	Neutral

**Newtown (Newtown Rd/Valley Ave/Round Bottom Rd)**  
***Pre-Study vs Optimized Timings***  
**Peak Hour Analysis**

Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)
<b>CUMULATIVE</b>						
Pre-Study		236	80	76	3.0	19.3
Optimized		211	54	48	2.0	21.8
<b>% Change</b>		<b>-11%</b>	<b>-33%</b>	<b>-37%</b>	<b>-33%</b>	<b>13%</b>
<b>AM Peak</b>						
Pre-Study	NB	237	63	70	2.6	19.2
Optimized	NB	234	60	62	2.0	19.1
<b>NB % Change</b>		<b>-1%</b>	<b>-5%</b>	<b>-11%</b>	<b>-23%</b>	<b>-1%</b>
Pre-Study	SB	273	134	114	3.1	16.5
Optimized	SB	216	76	59	1.6	21.5
<b>SB % Change</b>		<b>-21%</b>	<b>-43%</b>	<b>-48%</b>	<b>-48%</b>	<b>30%</b>
<b>MIDDAY Peak</b>						
Pre-Study	NB	203	28	39	2.7	21.9
Optimized	NB	193	19	39	2.1	23.3
<b>NB % Change</b>		<b>-5%</b>	<b>-32%</b>	<b>0%</b>	<b>-22%</b>	<b>6%</b>
Pre-Study	SB	209	70	48	1.9	21.5
Optimized	SB	191	52	33	1.4	23.8
<b>SB % Change</b>		<b>-9%</b>	<b>-26%</b>	<b>-31%</b>	<b>-26%</b>	<b>11%</b>
<b>PM Peak</b>						
Pre-Study	NB	214	40	57	2.0	20.7
Optimized	NB	187	12	30	1.6	24
<b>NB % Change</b>		<b>-13%</b>	<b>-70%</b>	<b>-47%</b>	<b>-20%</b>	<b>16%</b>
Pre-Study	SB	281	142	126	3.5	16.1
Optimized	SB	242	102	65	2.2	19.2
<b>SB % Change</b>		<b>-14%</b>	<b>-28%</b>	<b>-48%</b>	<b>-37%</b>	<b>19%</b>

	Reduction
	No Change
	Increase



**Estimated Annual Signal Retiming Benefits**  
**Corridor: Newtown Rd/Valley Ave/Round Bottom Rd**

**Delay Savings**

22,868 Hours  
\$486,045



**Emissions Savings**

0.8 kg  
\$2,736



**Benefit Cost Ratio**

51:1



**Crash Reductions**

1 Crashes  
\$13,938



**Fuel Savings**

3,298 Gallons  
\$7,205





SR-32

*Pre-Study vs Optimized Timings*

Peak Hour Analysis

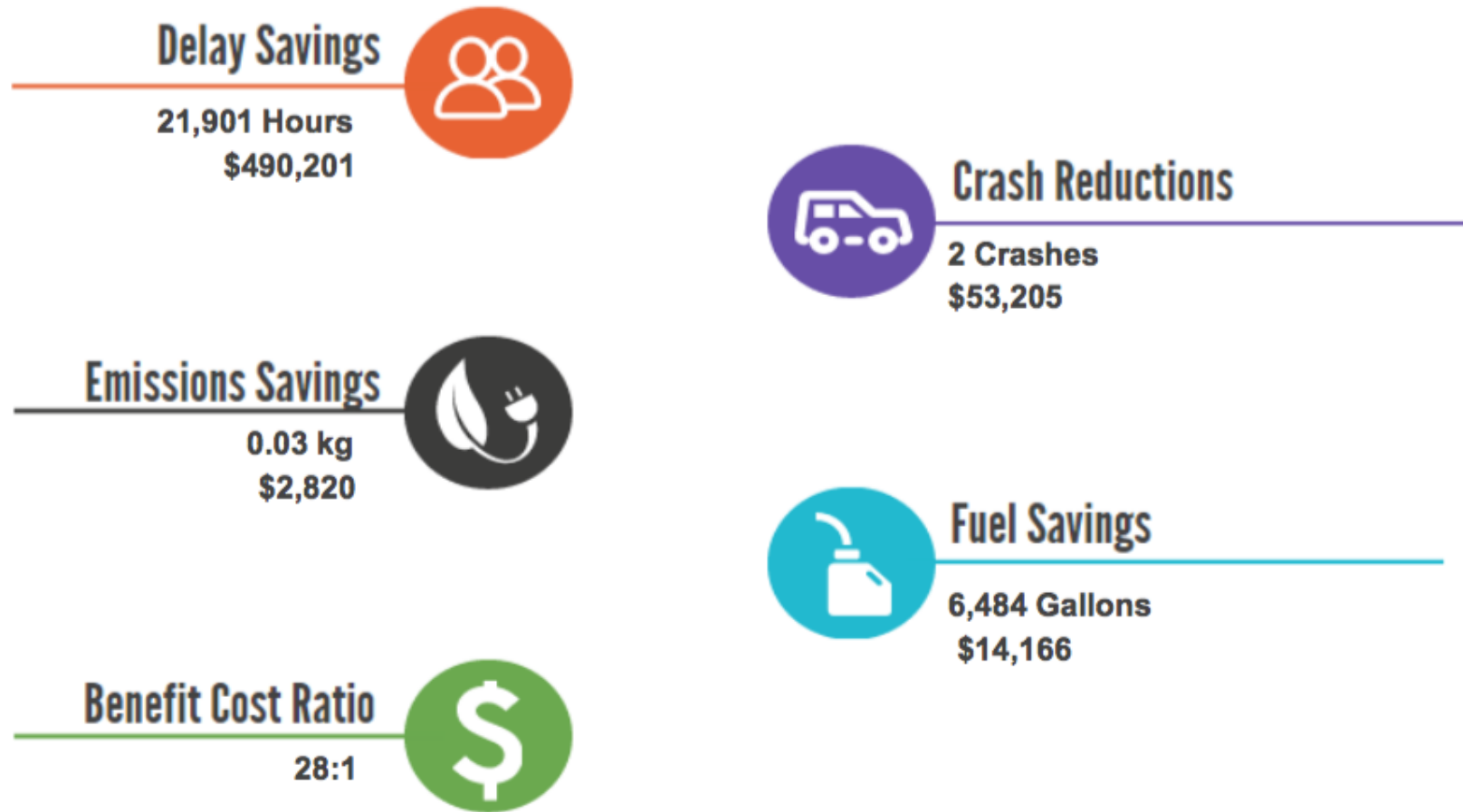
Timing	Direction	Travel Time (sec)	Vehicle Delay (sec)	Stopped Delay (sec)	Stops	Average Speed (mph)
CUMULATIVE						
Pre-Study		172	45	39	1.1	24.7
Optimized		155	28	19	0.6	26.8
% Change		-10%	-38%	-51%	-45%	9%
AM Peak						
Pre-Study	EB	139	26	11	0.4	29.0
Optimized	EB	139	26	11	0.4	29.1
EB % Change		0%	0%	-1%	-6%	0%
Pre-Study	WB	203	62	50	1.2	21.0
Optimized	WB	182	42	29	1.0	22.9
WB % Change		-10%	-32%	-42%	-17%	9%
MIDDAY Peak						
Pre-Study	EB	142	29	15	0.8	28.3
Optimized	EB	129	16	0	0	30.7
EB % Change		-9%	-45%	-100%	-100%	8%
Pre-Study	WB	170	29	45	1.3	23.8
Optimized	WB	148	7	18	1.0	27.6
WB % Change		-13%	-76%	-60%	-23%	16%
PM Peak						
Pre-Study	EB	210	98	71	1.8	20.1
Optimized	EB	156	43	13	0.5	25.9
EB % Change		-26%	-56%	-82%	-72%	29%
Pre-Study	WB	167	26	44	1.0	25.9
Optimized	WB	174	33	44	1.0	24.7
WB % Change		4%	27%	1%	0%	-5%

	Reduction
	No Change
	Increase



Estimated Annual Signal Retiming Benefits

Corridor: SR-32



Concept drawn on the following page.

DESCRIPTION

- Install a roundabout at the Wooster Pike/Red Bank intersection.

NEEDS ADDRESSED

- P7) Address capacity issue for northbound left turn movement at the Wooster/Red Bank intersection.
- S16) Address bicycle and pedestrian connectivity across the railroad tracks to existing Armleder and Lunken bike paths.

5/22 MEETING DISCUSSION AND COMMENTS

- A roundabout would be designed to comfortably accommodate trucks.
- Would only need to use two lanes instead of three on the bridge, and it would be possible to get a bike lane across the bridge over the railroad without widening the existing bridge.
- Initial analysis indicates:
  - No change in delays during morning peak-hours.
  - A 20 percent increase in delays during evening peak-hours.
- Team will consider how best to incorporate multi-use path connections into this concept.
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- No substantive discussion.
- No additional comments received following the 9/7 meeting.

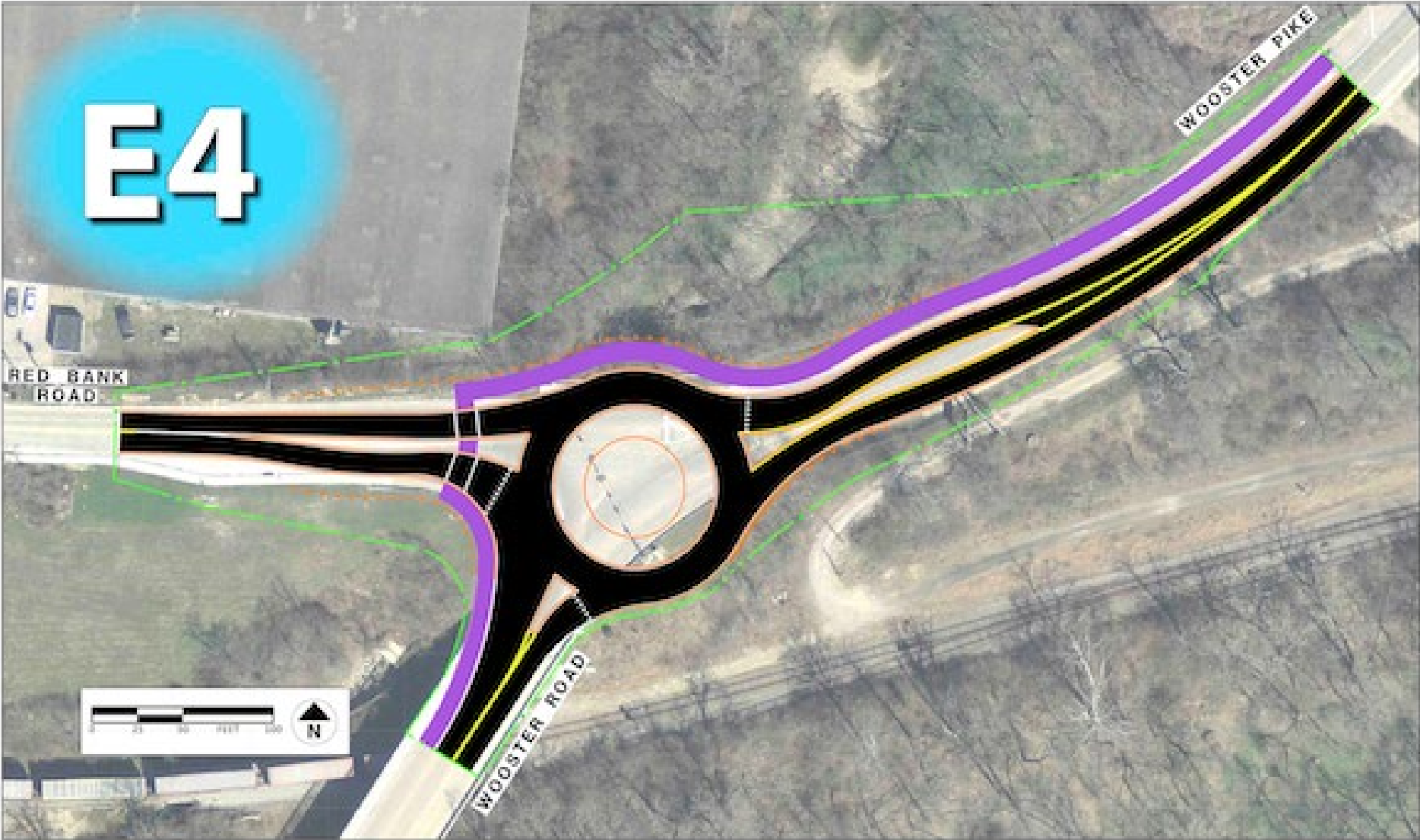
12/12MEETING DISCUSSION AND COMMENTS

- This concept was presented as E4 at the October Open House meetings.
- In general, feedback received from the public on this concept was favorable (see Public Feedback Ratings Summary, next page).
  - This roundabout wasn’t specifically proposed to address safety concerns; there are not a lot of accidents recorded in the area. Its purpose is to better manage traffic flow. It would also improve bicycle and pedestrian connections.
  - The roundabout will be designed to accommodate truck use.

NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as a medium priority.

Safety ECAT Benefit/ Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi- Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
		AM	23.7	C	-6%				\$1.2M to \$1.8M	0	\$40K to \$80K	C2	R/W Impacts, Stream Impacts, Waterway Permit	Improves	Neutral	Neutral
		PM	18.1	C	-21%											



**Roundabout at Wooster and Red Bank**

- \$1.2M to \$1.8M construction cost
- New R/W needed from 2 parcels; no buildings impacted
- No significant change in peak delay
- Eliminates existing traffic signal
- Improves safety
- Provides room to carry shared-use path across existing bridge

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
7%	5%	26%	31%	31%

(percentages have been rounded)





## Eastern Corridor Segments II and III

Combined Linwood/Eastern Interchange and US 50/Red Bank Interchange Focus Area

Theme

# Bicycle and Pedestrian

### Primary Needs identified for this theme:

- P9) Address pedestrian safety issues crossing SR 125 at bus stops.
- P10) Address bicycle connectivity (designated US Bicycle Route 21).

### Secondary Needs identified for this theme:

- S16) Address bicycle and pedestrian connectivity across the railroad tracks to existing Armleder and Lunken bike paths.

Concept drawn on the following page.

DESCRIPTION

- Connect Eastern Avenue to Armleder Park with shared-use path east of Linwood Park
- Is a modification of the BIKE-1 concept

NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as component of concept BIKE-2a (E5) as a medium priority.

NEEDS ADDRESSED

P10) Address bicycle connectivity (designated US Bicycle Route 21)

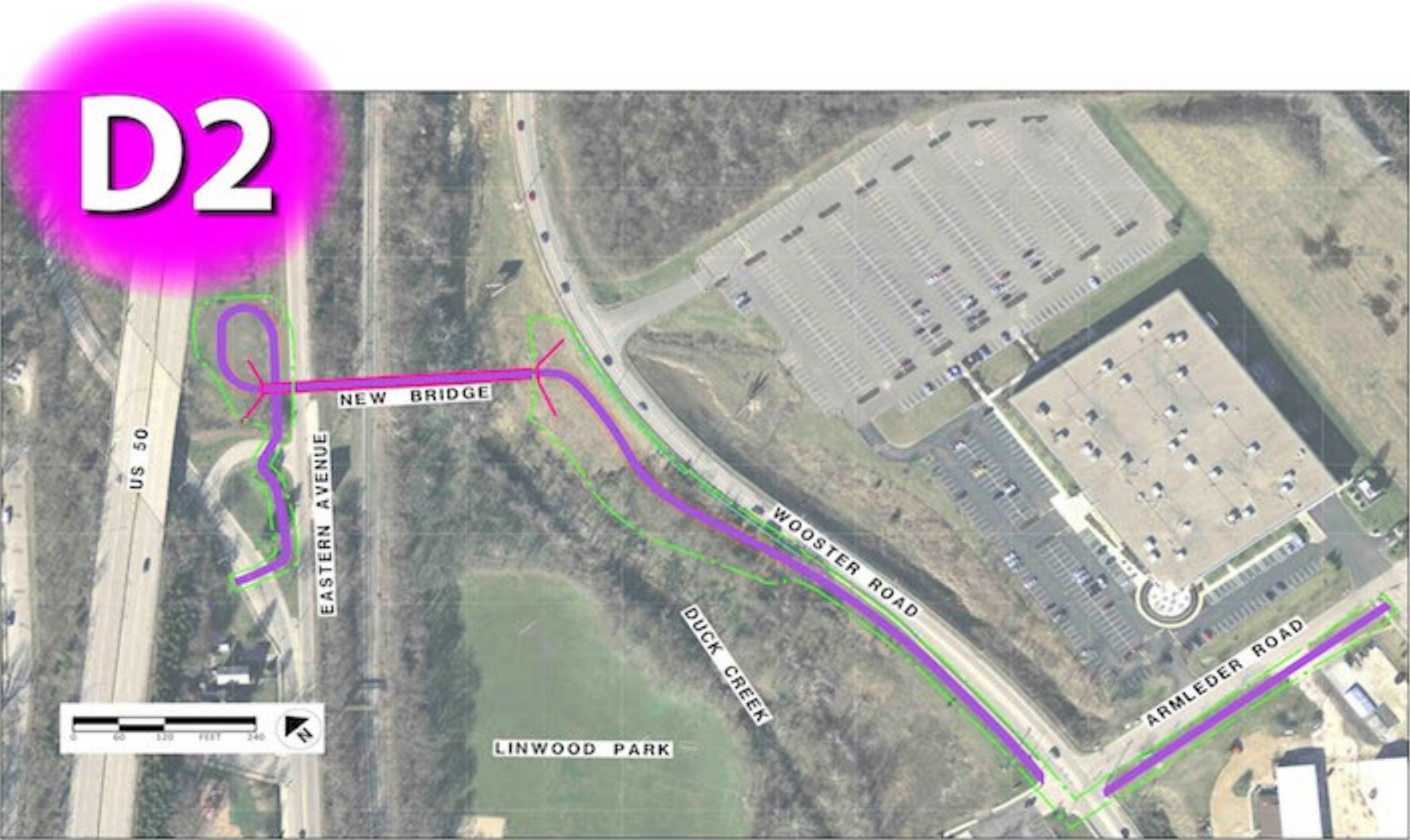
12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as D2 at the October Open House meetings.

- Public comment on this concept tended toward favorable (see the Public Feedback Ratings Summary, next page).
- ODOT restated the committee’s conclusion from the 9/7 meeting that using the existing pedestrian bridge is not desired because it would need to be retrofitted to accommodate bikes and doing so would be very costly. The bridge also does not cross the creek. Instead, this new concept features a new bridge that spans across Eastern Avenue, the railroad and the creek.
- The City of Cincinnati expressed concern that this new concept does not connect local neighborhoods.
  - It does provide a connection between the Linwood neighborhood and Armleder Park, but not communities north of Eastern Avenue.
- This concept resolves only one piece of bicycle connectivity needs in the area; it is also the only connection being considered that links the neighborhood to Armleder Park.
- This concept should be considered as one piece of a larger, regional bicycle/pedestrian connectivity strategy. It has less utility if not connected to other bicycle/pedestrian projects such as BIKE-2a (E5).

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$2.25M to \$3.4M	0	\$370K to \$740K	D1	Section 4(f)	Improves	Improves	Improves

PRIORITY: MEDIUM



**Shared-Use Path from Eastern to Armleder Park**

- \$1.4M to \$2.1M\* construction cost
- New R/W needed from 10 parcels; no buildings impacted
- Requires new bridge over Eastern, railroad tracks and Duck Creek

\* Note: The cost estimate for this concept was updated following the Oct. 24 & 25, 2018, Open House meetings to \$2.25M - \$3.4M.

**PUBLIC FEEDBACK RATINGS SUMMARY**

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
6%	8%	21%	18%	47%

(percentages have been rounded)



Concept is shown with concepts E6 and E7 on the next page.

DESCRIPTION

- Connect Wasson Way Trail to the Armleder Road entrance with a shared-use path along US 50.
  - This concept brings Wasson from Ault Park along Columbia Parkway to Eastern, where it could tie into Concept BIKE-1.

NEEDS ADDRESSED

P10) Address bicycle connectivity (designated US Bicycle Route 21).

suggested that, even with the concrete barrier, cyclists might not feel safe, particularly with children traveling so close to vehicular traffic on US 50.

- The BIKE-2b, BIKE-4a and BIKE-4b concepts would need to be construction in conjunction with other projects to complete a full connection. Cost estimates for the necessary combinations are:
  - BIKE-2a: \$3.1M to \$4.7M
  - BIKE-2b, X-4d-1, BIKE-4a: \$4.53M to \$7M
- BIKE 2b, X-4d-1, BIKE-4b: \$4.43M to \$6.8M
- No additional comments received following the 9/7 meeting.

5/22 MEETING DISCUSSION AND COMMENTS

- A barrier-protected shared-use path would be located along right side of westbound US 50.
- The path would follow the existing exit ramp (5% grade) from US 50 to Eastern Avenue, then cross to Armleder Road using the connection established in the BIKE-1 concept.
- No additional comments received following the 5/22 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was presented as E5 at the October Open House meetings.

- This project would connect the bike path to Ault Park’s hiking trails, which opens up a larger commuter network to local neighborhoods.
- Consider incorporating the spur to the Murray Trail (as outlined in concepts E6 and E7) into this concept.
- The priority of this concept will depend on the status and advancement of the Wasson Way trail.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept requires construction of a new bridge crossing from Eastern Avenue to Wooster Road. The bridge would be located immediately east of Linwood Park.
- A shared-use path located next to US 50 would need to be separated by a physical barrier; concrete barriers are proposed. Installing concrete barriers would not impact the hillside or shoulder along US 50, but would require modification of the city gateway.
  - One Committee member expressed concern that cyclists would be traveling a long way without an option to exit the path. Another

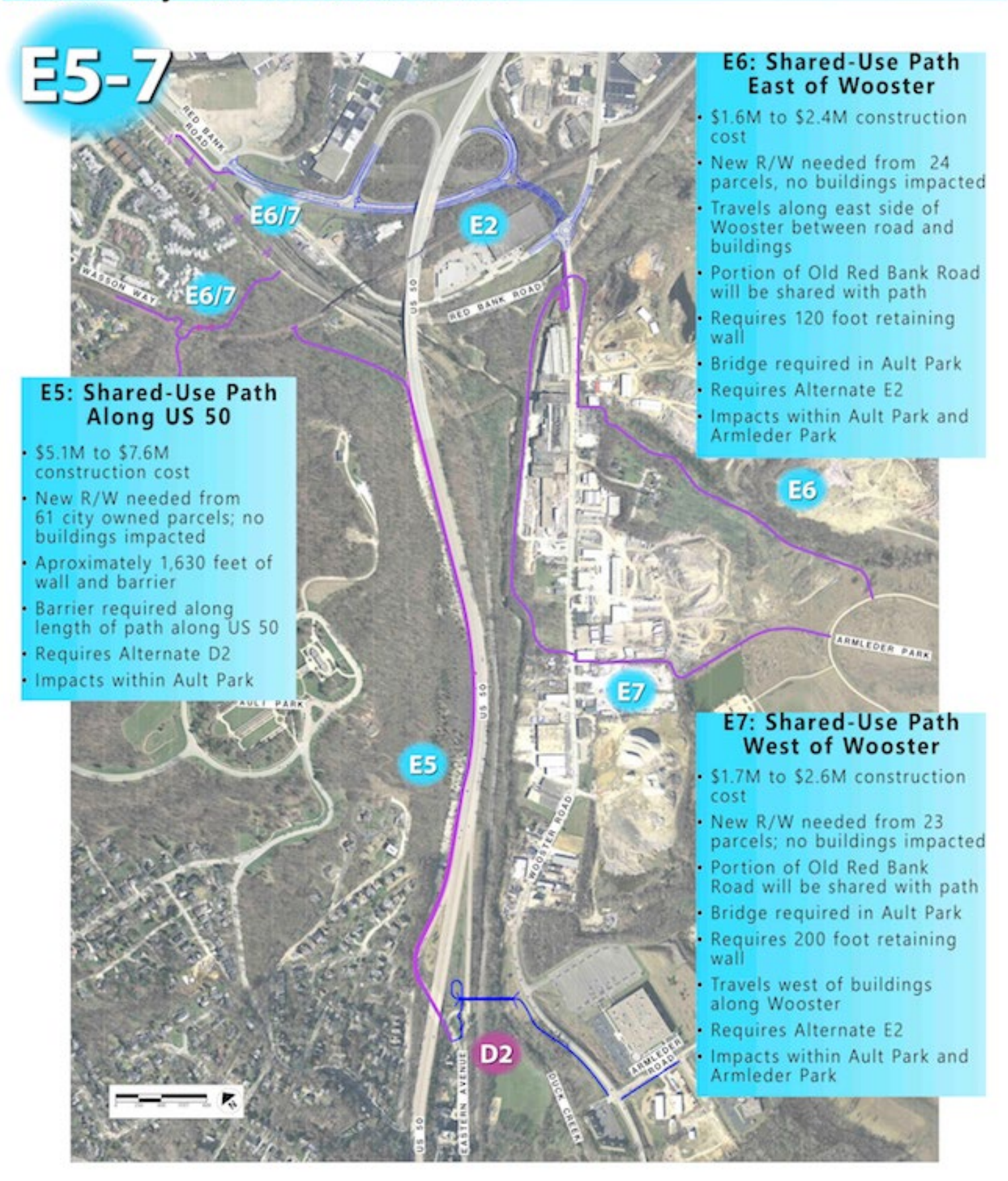
NEXT STEPS/RECOMMENDATION

- Include in the Implementation Plan as a medium priority, including BIKE-2a (E5) and BIKE-1a (D2) to fully connect Wasson Way Trail to Armleder Park.
- Consider connecting Murray Trail spur.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$5.1M to \$7.6M	0		D1	Section 4(f)	Improves	Improves	Improves



Alternatives to address pedestrian and bicycle connectivity from Wasson Way Trail to Armleder Park



PUBLIC FEEDBACK RATINGS SUMMARY (E5)

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
6%	11%	24%	23%	36%

(percentages have been rounded)

PUBLIC FEEDBACK RATINGS SUMMARY (E6)

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
9%	2%	23%	25%	42%

(percentages have been rounded)

PUBLIC FEEDBACK RATINGS SUMMARY (E7)

Strongly Oppose	Dislike	Neutral	Like	Strongly Support
14%	3%	29%	20%	34%

(percentages have been rounded)



Concepts are shown with concept BIKE-2a (E5) on the preceding page.

DESCRIPTION

- Connect the Wasson Way Trail to Armleder Road with shared-use path running on a gravel path in Ault Park to Old Red Bank Road over to Red Bank.
  - This shared-use path would drop out of Ault Park at the first railroad trestle and follow the tracks north to a connection with Red Bank Road.
  - Path would then follow Red Bank south to Wooster Road. Path would continue southwest on Wooster Road to Armleder Road.

NEEDS ADDRESSED

P10) Address bicycle connectivity (designated US Bicycle Route 21).

5/22 MEETING DISCUSSION AND COMMENTS

- An on-street bike path on Wooster would be challenging because businesses are located close to the road on both sides in this area.
- Commercial use of the road would make it a challenge to keep the bike path clean. Road debris (gravel, dirt, sand, trash, etc.) would likely collect in the bike path.
- Running the bike path behind the businesses located on the north side of Wooster may be a challenge. Space availability is limited by a creek and old rail tracks (not used since 1982) and buildings. Ownership of the rail tracks may be split between SORTA and Norfolk Southern.
- The consultant team will confirm whether routing a bike path behind businesses on the north side of Wooster may be an option.
- The consultant team will determine who owns the railroad tracks in this area.
- No additional comments received following the 5/22 meeting.

9/7 MEETING DISCUSSION AND COMMENTS

- This concept would be part of a phased-approach to connecting the Wasson Way Trail to Armleder Road using X-4d-1 (Wooster extension to Colbank with roundabout at Red Bank Road and Wooster Road) and BIKE-4a or BIKE-4b.
- The path would connect with the gravel path in Ault Park, drop under the railroad trestle at the back of the park and go north parallel to Old Red Bank road, then over the creek before turning south to follow along the new X-4d or X-4d-1 connector.
- A Committee member asked if instead of following the new connector, would it be possible to continue the path along Old Red Bank Road US 50 of the US 50 ramp. ODOT shared that there is an existing abutment wall under US 50 that is a barrier to a bike path connection.
- The BIKE-2b, BIKE-4a and BIKE-4b concepts would need to be construction in conjunction with other projects to complete a full connection. Cost estimates for the necessary combinations are:
  - BIKE-2a: \$3.1M to \$4.7M
  - BIKE-2b, X-4d-1,BIKE-4a: \$4.53M to \$7M
  - BIKE 2b, X-4d-1, BIKE-4b: \$4.43M to \$6.8M
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

- This concept was combined with other concepts when presented at the October Open House meetings:*
  - Concepts BIKE-2b, X-4d-1 and BIKE-4a were presented together as concept E6*
  - Concepts BIKE-2b, X-4d-1 and BIKE-4b were presented together as concept E7*
- Of the three bike path options in this area E5, E6 and E7, concept E6 received the highest amount of support from the public.

- The committee surmised that this is because, as drawn, the bike path would travel along a vegetated corridor and creek before linking with the Armleder bike path.
- H. Hafner & Sons expressed concern with having the bike path cross the company’s driveway. They reported that 800 trucks come in and out of the driveway on a daily basis and it is hard to see bikes from the trucks. There is also typically a lot of debris in area.
- The committee discussed eliminating E6 due to the concerns of connecting the bike path across the Hafner driveway.
- Cost estimates for E6 and E7 do not include the cost of constructing the proposed roundabout at Wooster and Red Bank (concept E4). The committee agreed that the concepts needs to include the roundabout.
  - Cost estimates for E7 should be updated for inclusion in the Implementation Plan.
- The priority of this concept will depend on the status and advancement of the Wasson Way Trail.
- No further study on E6; include E7 in the Implementation Plan as a medium priority.

NEXT STEPS/RECOMMENDATION

- No further study on concept E6.
- Include E7 in the Implementation Plan as a medium priority. This includes a connection from Wasson Way Trail to Murray Trail, a shared-use path on the X-4d-1 alignment without the roadway improvements and the roundabout at Wooster and Red Bank.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$530K to \$800K	0	\$380K to \$760K	C2	R/W Impacts, Stream Impacts, Waterway Permit, Potential T&E, Section 4(f), ESA Issues	Improves	Improves	Improves



Concepts are shown with concepts E5, E6 and E7).

DESCRIPTION

- Add shared-use path along Wooster Pike behind Cincinnati Paperboard and then crossing Wooster at the greenspace to the Armleder Trail loop.

NEEDS ADDRESSED

P10) Address bicycle connectivity (designated US Bicycle Route 21).

9/7 MEETING DISCUSSION AND COMMENTS

- This concept could be combined with X-4d-1 (Wooster extension to Colbank with roundabout at Red Bank Road and Wooster Road) and BIKE-2b to connect the Wasson Way Trail to the Armleder Trail Loop.
- This concept would include a mid-block crossing on Wooster (west of Cincinnati Paperboard’s greenspace) with a rectangular rapid flash beacon (RRFB).
- Running the shared-use path behind Cincinnati Paperboard but south of the creek is a tight fit.
- A Committee member asked if it might be possible to take the trail through the existing Norfolk-Southern railyard in Mariemont (Clare Yard). It was reported however, that that area is being preserved for potential future rail use.
- A Committee member asked whether it was possible to rate Concept BIKE-4a and BIKE-4b as to which is more feasible from a construction standpoint. Additional engineering analysis would be required in order

to make that determination.

- The BIKE-2b, BIKE-4a and BIKE-4b concepts would need to be construction in conjunction with other projects to complete a full connection. Cost estimates for the necessary combinations are:
  - BIKE-2a: \$3.1M to \$4.7M
  - BIKE-2b, X-4d-1,BIKE-4a: \$4.53M to \$7M
  - BIKE 2b, X-4d-1, BIKE-4b: \$4.43M to \$6.8M
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND COMMENTS

This concept was combined with concepts BIKE-2b and X-4d-1 and presented as concept E7 at the October Open House meetings.

The following notes are the same as those documented under BIKE-2b:

- Of the three bike path options in this area (E5, E6 and E7), E6 received the highest amount of support from the public.
  - The committee surmised that this is because, as drawn, the bike path would travel along a vegetated corridor and creek before linking with the Armleder bike path.
  - H. Hafner & Sons expressed concern with having the bike path cross the company’s driveway. They reported that 800 trucks come in and out of the driveway on a daily basis and it is hard to see bikes from the trucks. There is also typically a lot of debris in area.
  - The committee discussed eliminating E6 due to the concerns of connecting the bike path across the Hafner driveway.

- Cost estimates for E6 and E7 do not include the cost of constructing the proposed roundabout at Wooster and Red Bank (concept E4). The committee agreed that the concepts needs to include the roundabout.
  - Cost estimates for E7 should be updated for inclusion in the Implementation Plan.
- The priority of this concept will depend on the status and advancement of the Wasson Way Trail.
- No further study on E6; include E7 in the Implementation Plan as a medium priority.

NEXT STEPS/RECOMMENDATION

- Include BIKE-4a in the Implementation Plan as part of E7 as a medium priority.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$1.3M to \$2M	0	\$390K to \$780K	C2	R/W Impacts, Stream Impacts, Waterway Permit, Potential T&E, Section 4(f), ESA Issues	Improves	Improves	Improves

DESCRIPTION

- Add shared-use path along the south side of Wooster Pike past Hafner parcel to Armleder Trail Loop.

NEEDS ADDRESSED

P10) Address bicycle connectivity (designated US Bicycle Route 21).

9/7 MEETING DISCUSSION AND COMMENTS

- This concept could be combined with X-4d-1 (Wooster extension to Colbank with roundabout at Red Bank Road and Wooster Road) and BIKE-2b to connect the Wasson Way Trail to the Armleder Trail Loop.
- This concept uses the existing Wooster bridge and then crosses under the bridge to get to the east side of Wooster, near the Hafner driveway.
- The path would weave between parking lots, past the Miami Avenue residential area and follow a swale to an eventual connection with the Armleder trail.
- A Committee member asked whether it was possible to rate Concept 4-a and Concept 4-b as to which was more feasible from a construction standpoint. However, additional engineering analysis would be required in order to make that determination.
- The BIKE-2b, BIKE-4a and BIKE-4b concepts would need to be

constructed in conjunction with other projects to complete a full connection. Cost estimates for the necessary combinations are:

- BIKE-2a: \$3.1M to \$4.7M
- BIKE-2b, X-4d-1, BIKE-4a: \$4.53M to \$7M
- BIKE 2b, X-4d-1, BIKE-4b: \$4.43M to \$6.8M
- No additional comments received following the 9/7 meeting.

12/12 MEETING DISCUSSION AND NOTES

*This concept was combined with concepts BIKE-2b and X-4d-1 and presented as concept E7 at the October Open House meetings.*

*The following notes are the same as those documented under BIKE-2b:*

- Of the three bike path options in this area (E5, E6 and E7), E6 received the highest amount of support from the public.
  - The committee surmised that this is because, as drawn, the bike path would travel along a vegetated corridor and creek before linking with the Armleder bike path.
  - H. Hafner & Sons expressed concern with having the bike path cross the company’s driveway. They reported that 800 trucks come in and out of the driveway on a daily basis and it is hard to see bikes from the trucks. There is also typically a lot of debris in area.
  - The committee discussed eliminating E6 due to the concerns of connecting the bike path across the Hafner driveway.
- Cost estimates for E6 and E7 do not include the cost of constructing

Concepts are shown with Concept BIKE-2b (E6 and E7).

the proposed roundabout at Wooster and Red Bank (concept E4). The committee agreed that the concepts needs to include the roundabout.

- Cost estimates for E7 should be updated for inclusion in the Implementation Plan.
- The priority of this concept will depend on the status and advancement of the Wasson Way Trail.
- No further study on E6; include E7 in the Implementation Plan as a medium priority.

NEXT STEPS/RECOMMENDATION

- No further study for concept E6.

Safety ECAT Benefit /Cost Ratio	Location	Traffic Operations							Construction Cost	R/W Impacts		Environmental Impacts		Support and/or Facilitate Multi-Modal	Improve Regional Connectivity	Improve Local Access
		Time Period	HCS Results			TransModeler Results				Number of Relocations	R/W Cost	Anticipated Environmental Document	Red Flag Triggers			
			2042 Delay (seconds)	2042 LOS	% Reduction from No Build	2042 Delay (seconds)	2042 LOS	% Reduction from No Build								
									\$1.2M to \$1.8M	0	\$450K to \$900K	C2	R/W Impacts, Stream Impacts, Waterway Permit, Potential T&E, Section 4(f), ESA Issues	Improves	Improves	Improves