Trail Alternatives

GENERAL ASSUMPTIONS

• Where separated bicycle and pedestrian facilities exist, the bike facilities will be located closest to the street, and pedestrian facilities will be located closest to buildings.
• Proposed trees will be located just inside the curb and will provide a buffer between the trail and the street.

ALTERNATIVE 1: SHARED USE PATH

Pros:
• Accommodates both bikes and pedestrians
• Minimizes the need to utilize private property or move the curb
• Does not require substantial re-grading and construction of retaining walls

Cons:
• Does not achieve the Master Plan/Design Guidelines vision of separated bicycle and pedestrian facilities
• Potential conflicts between bicyclists and pedestrians unless accompanied by on-road bike facility
• Not conducive to higher speed bicycle travel (10-12 mph) unless accompanied by on-road bike facility

ALTERNATIVE 1B: SHARED USE PATH WITH ON-ROAD BICYCLE FACILITY

Pros:
• Minimizes the need to utilize private property
• Does not require substantial re-grading and construction of retaining walls
• Provides a safer and more comfortable experience for both bicyclists and pedestrians
• Reduces potential for conflicts between bicycles and pedestrians
• Conducive to higher speed bicycle travel (10-12 mph) speed bicycle travel in separated facility

Cons:
• Differs from the Master Plan/Design Guidelines vision of separated two-way bicycle and pedestrian facilities
• May require moving curbs and shifting lane widths to accommodate protected bike facility

ALTERNATIVE 2: DIVIDED BIKE PATH AND SIDEWALK

Pros:
• Achieves Master Plan/Design Guidelines vision of providing separated bicycle and pedestrian facilities
• Provides a safer and more comfortable experience for both bicyclists and pedestrians
• Reduces potential for conflicts between bicycles and pedestrians

Cons:
• Requires either utilizing some adjacent private property or moving the curb to implement in most locations
• Will require some re-grading and construction of retaining walls
• Lack of buffer between bicycle and pedestrian facilities

ALTERNATIVE 3: DIVIDED BIKE PATH AND SIDEWALK WITH BUFFER

Pros:
• Achieves Master Plan/Design Guidelines vision of providing separated bicycle and pedestrian facilities
• Provides maximum safety and comfort for bicycles and pedestrians by separating and buffering bicycle and pedestrian facilities
• Greatest potential for placemaking features and amenities

Cons:
• Requires the most additional space through either utilizing private property or moving the curb
• Requires the most intensive re-grading and construction of retaining walls
Trail Alternatives

ALT 1: SHARED USE PATH
(MINIMUM LOOP TRAIL WIDTH)

PROS:
• Accommodates both bikes and pedestrians
• Minimizes the need to utilize private property or move the curb
• Does not require substantial re-grading and construction of retaining walls

CONS:
• Does not achieve the Master Plan/Design Guidelines vision of separated bicycle and pedestrian facilities
• Potential conflicts between bicyclists and pedestrians unless accompanied by on-road bike facility
• Not conducive to higher speed bicycle travel (10-12 mph) unless accompanied by on-road bike facility
Trail Alternatives

ALT 1B: SHARED USE PATH WITH ON-ROAD BICYCLE FACILITY (ONE-WAY PAIRS)

PROS:
- Minimizes the need to utilize private property
- Does not require substantial re-grading and construction of retaining walls
- Provides a safer and more comfortable experience for both bicyclists and pedestrians
- Reduces potential for conflicts between bicycles and pedestrians
- Conducive to higher speed bicycle travel (10-12 mph) in separated facility

CONS:
- Differs from the Master Plan/Design Guidelines vision of separated two-way bicycle and pedestrian facilities
- May require moving curbs and shifting lane widths to accommodate protected bike facility

VARIATIONS:
- No grade separation at sidewalk level
- No grade separation at street level

Netherlands
Missoula, MT
Chicago, IL
Trail Alternatives

ALT 2: DIVIDED BIKE PATH & SIDEWALK

PROS:
- Achieves Master Plan/Design Guidelines vision of providing separated bicycle and pedestrian facilities
- Provides a safer and more comfortable experience for both bicyclists and pedestrians
- Reduces potential for conflicts between bicycles and pedestrians

CONS:
- Requires either utilizing some adjacent private property or moving the curb to implement in most locations
- Will require some re-grading and construction of retaining walls
- Lack of buffer between bicycle and pedestrian facilities

VARIATIONS:
Trail Alternatives

ALT 3: DIVIDED BIKE PATH & SIDEWALK WITH BUFFER
(MAXIMUM LOOP TRAIL WIDTH)

PROS:
• Achieves Master Plan/Design Guidelines vision of providing separated bicycle and pedestrian facilities
• Provides maximum safety and comfort for bicycles and pedestrians by separating and buffering bicycle and pedestrian facilities
• Greatest potential for placemaking features and amenities

CONS:
• Requires the most additional space through either utilizing private property or moving the curb
• Requires the most intensive re-grading and construction of retaining walls

VARIATIONS:

Plantings in Buffer

Furnishings in Buffer

Indianapolis Cultural Trail, Indianapolis, IN

Indianapolis Cultural Trail, Indianapolis, IN

Green Trail, Silver Spring, MD
Loop Segments

DECOVERLY DRIVE
(North of diamondback drive)

DECOVERLY DRIVE
(South of diamondback drive)

BELWARD CAMPUS DRIVE

JOHNS HOPKINS DRIVE

PSTA PROPERTY: NEW ROAD

OMEGA DRIVE
(Northern Segment)

OMEGA DRIVE
(Southern Segment)

MEDICAL CENTER DRIVE

Challenges:
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities:
- Possible loop spur
- Space for wider trail
- CCT/roadway reconstruction
- Possible loop extension

Potential loop trail
Proposed CCT
Targeted statement
Proposed CCT station

LSC Loop Trail: GSSC IAC Meeting #2 • March 26, 2015
Alternatives by Loop Segment

OMEGA DRIVE
(NORTHERN SEGMENT)

Existing Conditions

Oppportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension

Existing Conditions

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ALT 1

ALT 2

ALT 3

Opportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension

Existing Conditions

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ALT 1

ALT 2

ALT 3

Opportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension

Existing Conditions

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ALT 1

ALT 2

ALT 3

Opportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension

Existing Conditions

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ALT 1

ALT 2

ALT 3
Alternatives by Loop Segment

OMEGA DRIVE
(SOUTHERN SEGMENT)

Existing Conditions

Opportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension
- CCT/roadway reconstruction

EXISTING CONDITIONS

ALT 1

WIDTH

12’

16’ +4’ OR 16’ +10’

ALT 2

22’ +10’

ALT 3

25’ +13’

Existing sidewalk edge

Road (Inner loop)

Existing Conditions

LOAD WIDTH EXISTING CONDITIONS

ALT 1 16’ +4’ OR 16’ +10’

ALT 2 22’ +10’

ALT 3 25’ +13’

Opportunities & Constraints

Challenges
- Slope at inner edge
- Mature trees
- Structure
- Missing connection
- Major road crossing

Opportunities
- Possible loop spur
- Space for wider trail
- Possible loop extension
- CCT/roadway reconstruction

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Alternatives by Loop Segment

OMEGA DRIVE: CONSTRAINTS

- Utilities and slip lane crossing may require reduced loop trail width if not relocated or configured
Alternatives by Loop Segment

MEDICAL CENTER DRIVE: TREES PRESERVED

Existing Conditions

Opportunities & Constraints

EXISTING CONDITIONS

ALT 1

ALT 2

ALT 3

WIDTH

14’ +6’

20’

26’ +12’

29’ +15’

Potential loop trail
Proposed CCT
Transit assessment
Proposed CCT station

Challenges

- Slope at inner edge
- Mature trees
- Structure

Missing connection
Major road crossing

Opportunities

- Possible loop spur
- Space for wider trail
- CCT/roadway reconstruction
- Possible loop extension

1’ 3’ 5’ 7’

13’

12’

15’

12’

14’

14’

14’

14’

14’

14’

14’

14’

14’

14’

14’

14’

14’
Alternatives by Loop Segment

MEDICAL CENTER DRIVE: TREES REMOVED

Existing Conditions

Opportunities & Constraints

Challenges

- Slope at inner edge
- Mature trees
- Structure

Missing connection
- Major road crossing

Opportunities

- Possible loop spur
- Space for wider trail
- Potential loop trail
- Proposed CCT
- Transit easement
- Proposed CCT station

EXISTING CONDITIONS

ALT 1

- Existing sidewalk edge
- Width: 16’ +2’

ALT 2

- Width: 22’ +8’

ALT 3

- Width: 25’ +11’

Potential loop trail

Proposed CCT

Transit easement

Proposed CCT station

CCT/roadway reconstruction

Possible loop extension

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Alternatives by Loop Segment

MEDICAL CENTER DRIVE: CONSTRAINTS

- Drainage areas and entry walls create pinch points that may require reduced loop trail width
Alternatives by Loop Segment

PSTA PROPERTY: NEW ROAD

Existing Conditions

Opportunities & Constraints

STREET CROSS SECTION (150’ ROW PER MASTER PLAN)

ALT 1

ALT 3A

ALT 3B

WIDTH

18’

33’

36’

+8’

+11’

Opportunities

Possible loop spur

CCT/roadway reconstruction

Possible loop extension

Challenges

Slope at inner edge

Mature trees

Structure

Missing connection

Major road crossing

Space for wider trail

Potential loop trail

Proposed CCT

Transit assessment

Proposed CCT station

Travel Lanes

Sidewalk Space (25’)

Transitway

Travel Lanes

Sidewalk Space (25’)

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Alternatives by Loop Segment

JOHNS HOPKINS DRIVE

Existing Conditions

Opportunities & Constraints

ALT 1 (per CCT 15% plans)

- Width: 14'
- Challenges: Slope at inner edge, Mature trees, Structure
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

ALT 2

- Width: 22' +8'
- Challenges: Missing connection, Major road crossing
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

ALT 3

- Width: 25' +11'
- Challenges: Missing connection, Major road crossing
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

Challenges:
- Slope at inner edge
- Mature trees
- Structure

Opportunities:
- Possible loop spur
- Space for wider trail
- Proposed CCT station

Alternatives by Loop Segment

First, the Alternatives by Loop Segment section describes the options for the loop segment, including the existing conditions and opportunities and constraints.

Existing Conditions
- A photo of the existing conditions is shown, with various features marked, such as existing conditions and problems.

Opportunities & Constraints
- The opportunities and constraints are listed for each alternative, including potential loop trail, proposed CCT transit, and transit station.

ALT 1 (per CCT 15% plans)
- Width: 14'
- Challenges: Slope at inner edge, Mature trees, Structure
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

ALT 2
- Width: 22' +8'
- Challenges: Missing connection, Major road crossing
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

ALT 3
- Width: 25' +11'
- Challenges: Missing connection, Major road crossing
- Opportunities: Possible loop spur, Space for wider trail, Proposed CCT station

Overall, the Alternatives by Loop Segment section provides a comprehensive overview of the possible solutions for the loop segment, including the existing conditions and the challenges and opportunities associated with each alternative.
Alternatives by Loop Segment

BELWARD CAMPUS DRIVE

Existing Conditions

Opportunities & Constraints
Alternatives by Loop Segment

BELWARD CAMPUS DRIVE TO DECOVERLY DRIVE

- Missing roadway connection (per GSSC Master Plan) between Belward Campus Drive and Great Seneca Highway/Decoverly Drive leaves a gap in the loop trail
- Continuation of loop trail is constrained by existing topography and vegetation
- No existing crossing at Great Seneca Highway

Option A: Loop Continuation per Master Plan

- Achieves Master Plan loop trail alignment
- Provides direct connection between Belward Campus Drive and Decoverly Drive

PROS:

CONS:
- Requires significant regrading and removal of existing vegetation
- May require encroachment into forest conservation easement
- No existing crossing at Great Seneca Highway (would need to be coordinated with SHA)

Option B: Alternate or Interim Route

- Does not require significant regrading and removal of existing vegetation
- Does not require new crossing at Great Seneca Highway

PROS:

CONS:
- Creates “dead end” at Belward Campus Drive
- Does not achieve Master Plan loop trail alignment
- Existing sidewalks may not be sufficient to support shared use

Existing Conditions: Key West Avenue (L) and Great Seneca Highway (R)
Alternatives by Loop Segment

DECOVERLY DRIVE
(SOUTH OF DIAMONDBACK DRIVE)

Existing Conditions

Opportunities & Constraints

- **Challenges**: Slope at inner edge, Mature trees, Missing connection, Major road crossing
- **Opportunities**: Possible loop spur, Space for wider trail, Possible loop extension

### Existing Conditions

<table>
<thead>
<tr>
<th>WIDTH</th>
<th>ALTERNATIVE</th>
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</thead>
<tbody>
<tr>
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<td>ALT 1</td>
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<td>16'</td>
<td>ALT 2</td>
</tr>
<tr>
<td>22'</td>
<td>ALT 3</td>
</tr>
</tbody>
</table>

- **ALT 1**: 16' (Existing Sidewalk Edge +0')
- **ALT 2**: 22' (Existing Sidewalk Edge +6')
- **ALT 3**: 25' (Existing Sidewalk Edge +9')

- Potential loop trail
- Proposed CCT
- Transit assessment
- Proposed CCT station

- Missing connection
- Major road crossing

**CCT/roadway reconstruction**

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Alternatives by Loop Segment

DECOVERLY DRIVE
(NORTH OF DIAMONDBACK DRIVE)

Existing Conditions

Opportunities & Constraints

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Opportunities</th>
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</thead>
<tbody>
<tr>
<td>Slope at inner edge</td>
<td>Potential loop trail</td>
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<td>Mature trees</td>
<td>Possible loop spur</td>
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<tr>
<td>Major road crossing</td>
<td>Space for wider trail</td>
</tr>
<tr>
<td>Structure</td>
<td>Possible loop extension</td>
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</tbody>
</table>

**EXISTING CONDITIONS**

- Width: 16-20’

**ALT 1**

- (per CCT 15% plans)
- Width: 15’

**ALT 2**

- Width: 22’ +7’

**ALT 3**

- Width: 25’ +10’

Challenges

- Slope at inner edge
- Mature trees
- Major road crossing
- Structure

Opportunities

- Potential loop trail
- Possible loop spur
- Space for wider trail
- Possible loop extension

Proposed CCT

Proposed station

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