Civic Center Circle
Post Construction Review
Alternatives Analysis

City Council Workshop
May 17, 2012

Presentation overview

- Project Background
- Summary of implemented changes
- Concerns with implemented changes
- Potential solutions and considerations
- Evaluation and recommendations
  - Although not a true roundabout, many of the same principles apply

Civic Center Circle Project Background

- City received federal safety grant to improve safety in the Civic Center Circle
- Civic Center Circle is within boundary of Civic Center National Historic District
- GGLO and Transpo Group hired to develop master plan for R.A. Long Park and Civic Center Circle
- Master plan concepts developed through public participation process
- Master plan for R.A. Long Park and Civic Center Circle developed and approved by
  - Historic Preservation Commission
  - Parks & Recreation Board
  - Department of Archeology and Historic Preservation
  - City Council

Civic Center Circle Project Background (cont.)

RA Long/Civic Center Circle Master Plan Goals

Goal #1: **Celebrate the history of the Park**

Goal #2: **Enhance pedestrian and vehicular safety and Park access**

Goal #3: **Increase activity and improve condition of the Park**

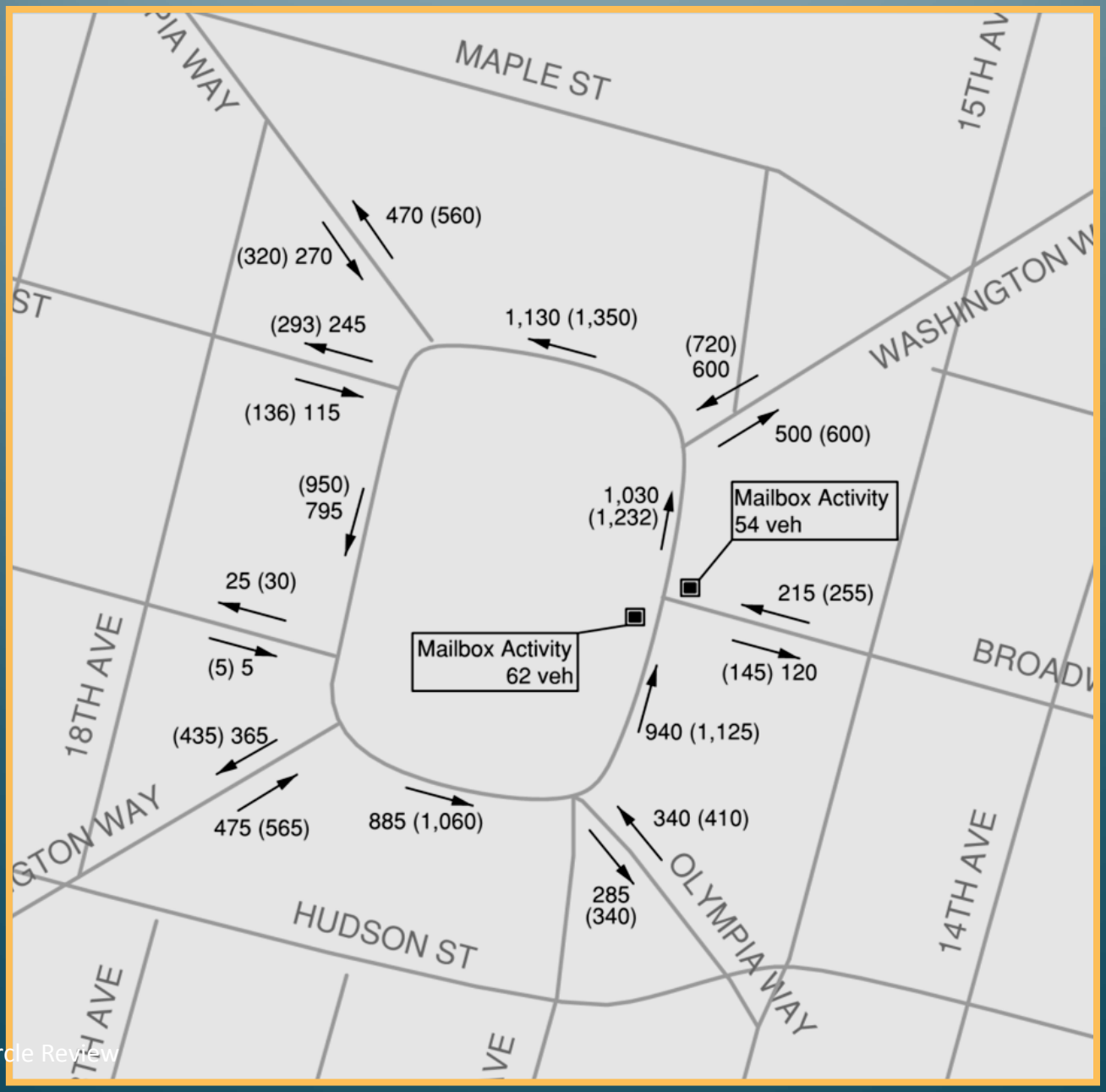
Civic Center Circle Project Background (cont.)

Pre-Project Conditions

- 93% of traffic is through traffic
- 29% of vehicles travel faster than posted speed
- Long pedestrian crossing times
- Inadequate sight distance for pedestrians and vehicles
  - Average of 116 pedestrians use each crosswalk on the Circle between 7 am to 6 pm
  - Average of 64 pedestrians cross WW at SW corner of Circle
- Vehicle weaving created by multiple conflict points
- Many conflict points due to driveways, intersections, and multiple lanes
- Collision history resulted in award of federal safety grant

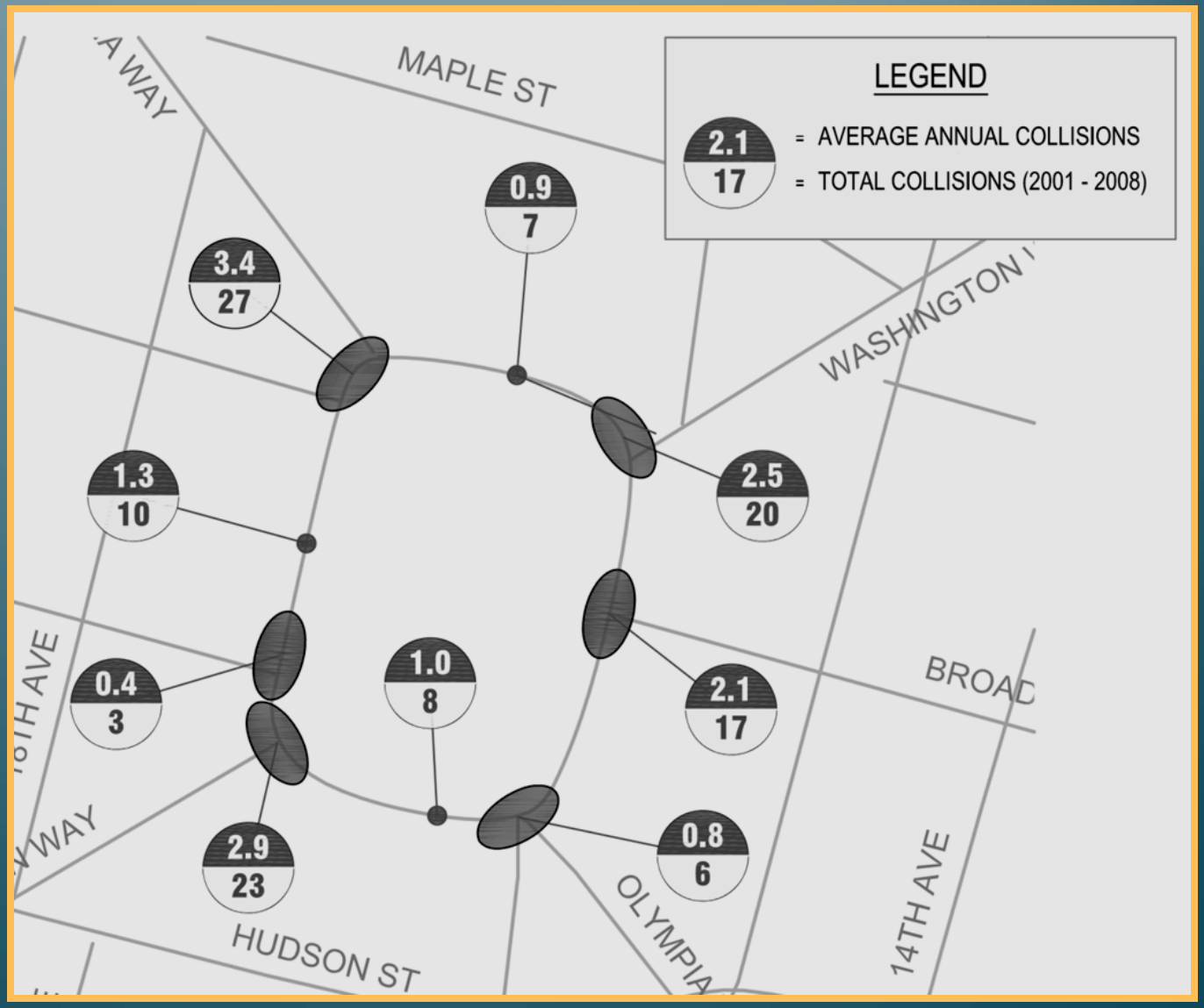
Civic Center Circle Project Background (cont.)

Peak Traffic Volume (2006)



Civic Center Circle Project Background (cont.)

Collision Data before Improvements

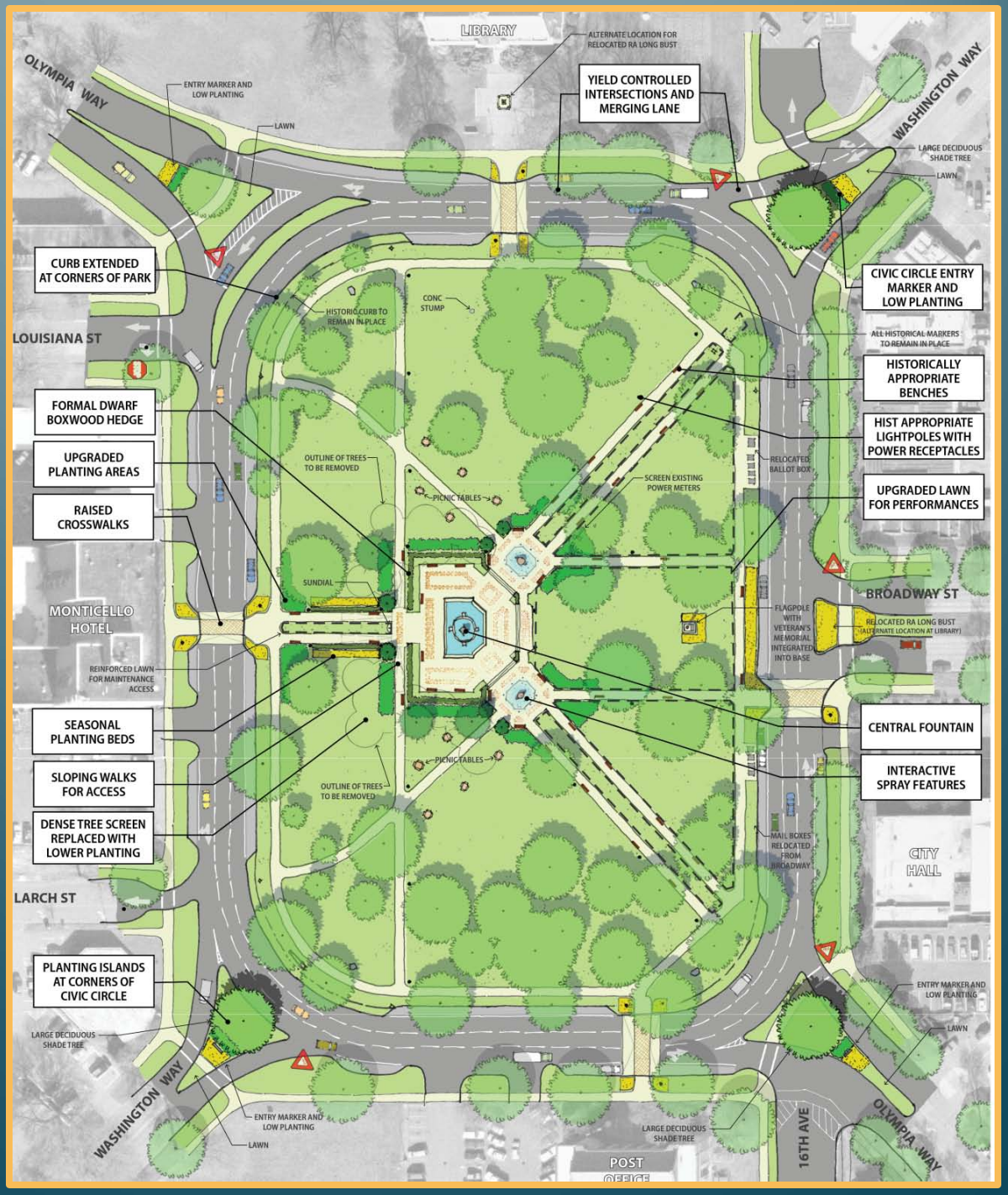


Civic Center Circle Project Background (cont.)

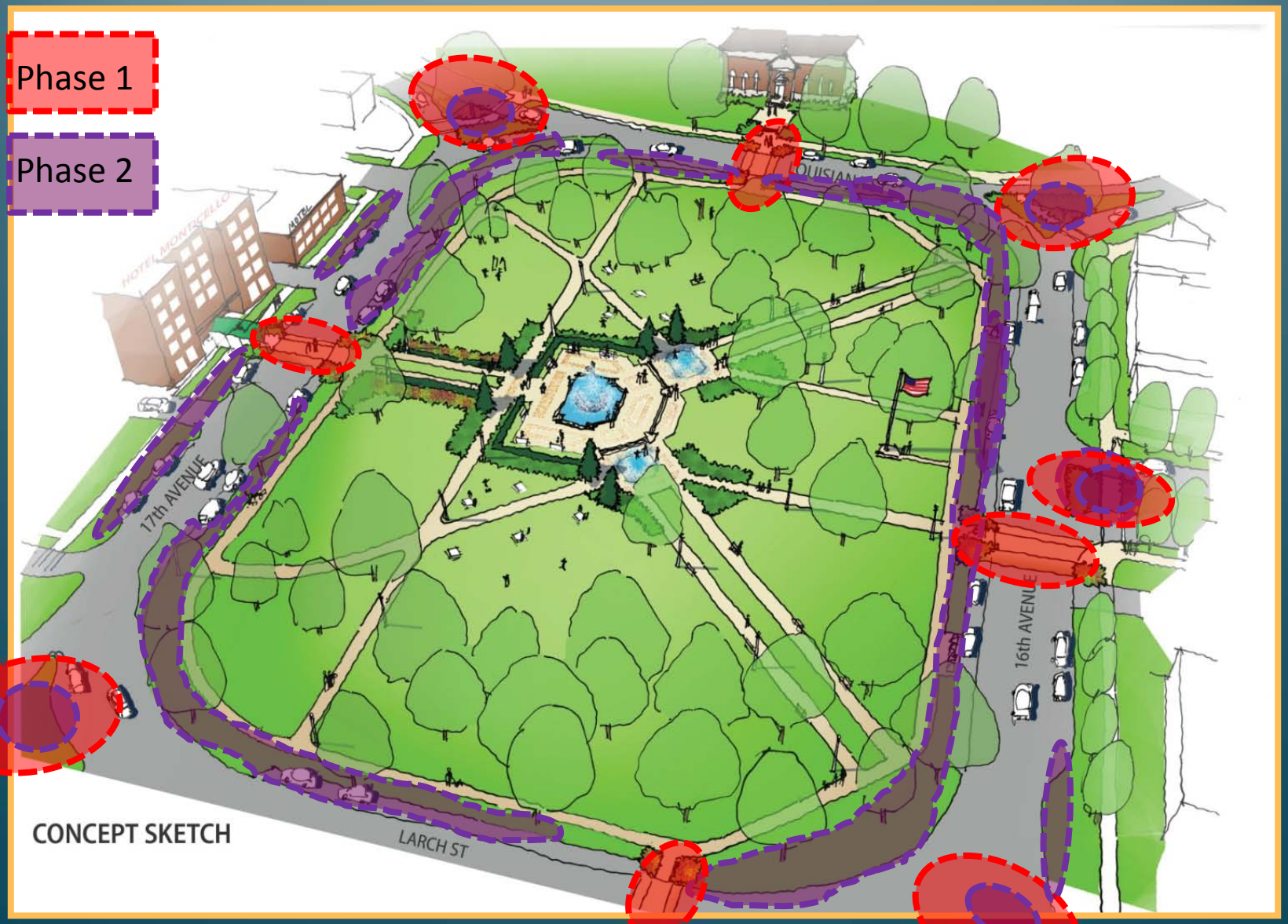
Public Process

- Public Workshop #1 – Project Introduction (October 2009)
  - Determined community values and vision for Park
  - Gathered input for developing concept alternatives
- Public Workshop #2 – Concept Alternatives (December 2009)
  - Presented Concept alternatives for review
- Online Survey
- Public Workshop #3 – Master Plan (January 2010)
  - Presented Preferred Concept for review
- Final Presentation (February 2010)
  - Joint meeting of Historic Preservation Commission, Parks and Recreation Board, and Community Assessment Action Team
- City Council Adopted Master Plan (March 2010)

Adopted
R.A. Long Park
&
Civic Center Circle
Master Plan



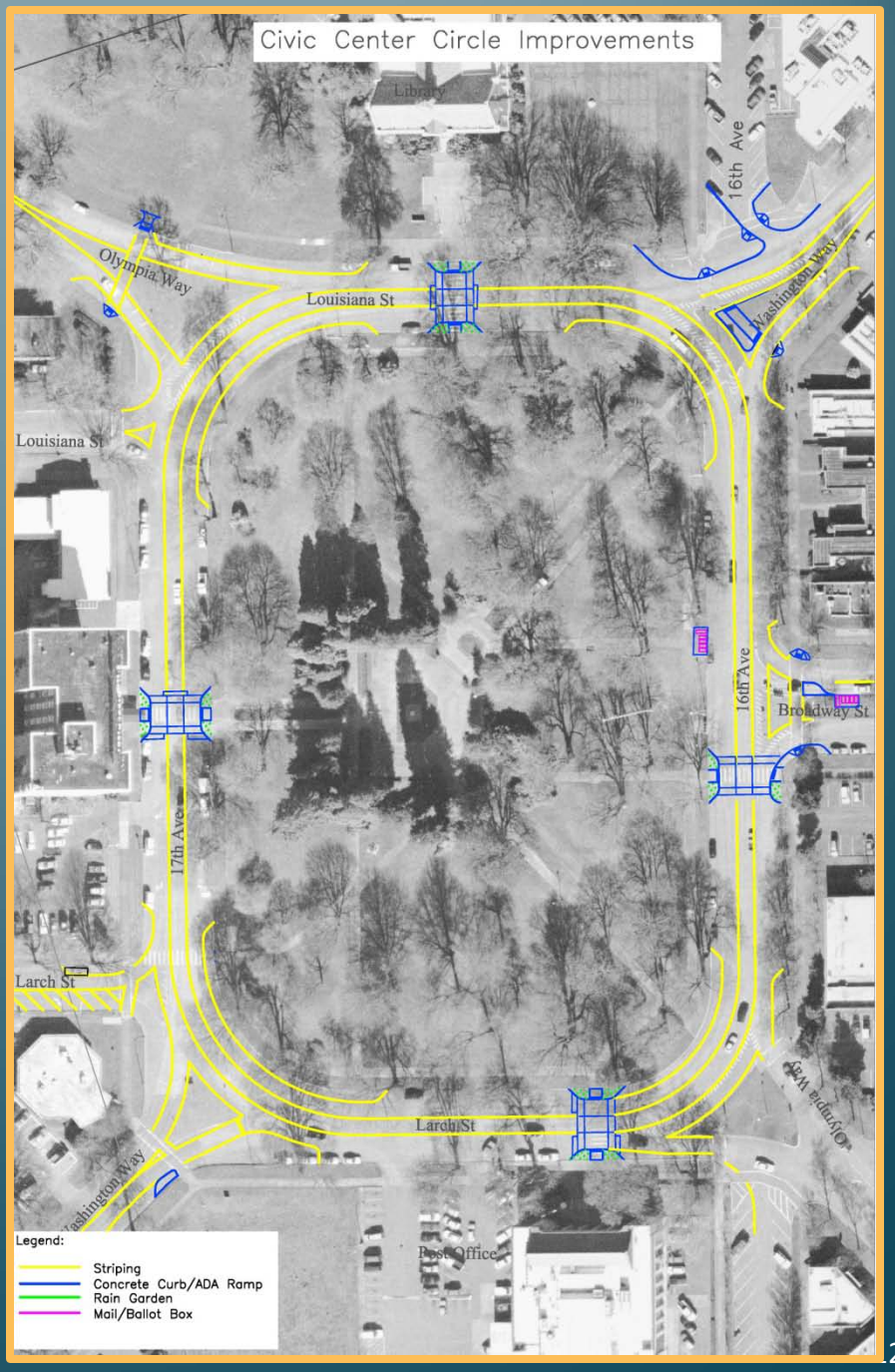
Master Plan Proposed Civic Circle Improvements Phasing



Summary of Implemented Changes

- Pedestrian improvements
  - Raised table-top crossings
  - Crossing beacons
  - Reduced crossing widths
- Entry and exit lanes
  - Washington Way reduced to single-lane entry and exits; entries converted to Yield
    - Improve safety - Minimize conflict points; reduce speeds
    - SB Washington Way remained two-lane entry due to forecasted queue length
- Removed fourth circulating lane where present
- Converted Larch to one-way westbound
- Channelization primarily using paint due to cost constraints

Implemented Civic Center Improvements



Legend:

- Striping
- Concrete Curb
- Rain Garden
- Mail / Ballot Box

Post Construction Performance

- Speed
  - 4% of vehicles travel faster than posted speed (down from 29%)
  - 85th percentile speed dropped from 28 MPH to 23 MPH
- Crash Data
  - One reported crash since construction completed 8 months ago (WW SB exit from middle lane)
- Crosswalks
  - Positive feedback from public on raised crosswalks and flashing signs
- Washington Way Entries
  - Significant queuing rare
  - Lane utilization uneven at NE entry
- Citizen Comments
  - Engineering received 50/50 pro versus con

Citizen Concerns with Implemented Changes

- Pedestrian improvements
  - Raised crossings affected Longview Criterion bicycle races
  - Motorists with low clearance don't like raised crossings
- Reduction in number of entry and exit lanes
  - Lane alignment and continuity
  - Motorist weaving at exits
  - Requested reinstate two-lane entries and exits
- Additional lighting needed at corners

Observed Issues

- NE Corner (Washington Way)
  - Entry alignment: outside entry lane aligned with center lane in Circle
- SW Corner (Washington Way)
  - Middle circulating lane aligned with single-lane exit
  - Entry alignment: Radius makes it difficult to turn into the outside lane

Potential Treatments

- Localized, fine-tuning improvements at Washington Way corners
- Reinstate two-lane entries and exits on Washington Way
- Remove third circulating lane
  - Reduce opportunity for weaving
  - Reduce passing movements
  - Secondary benefit of increased parking opportunities

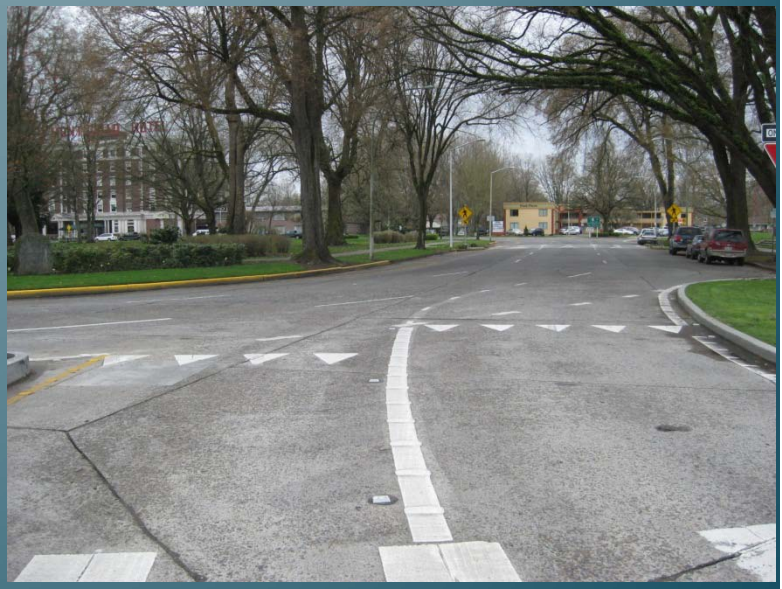
Options Considered

- **Option #1:** Localized improvements (fine-tuning)
  - Address observed issues in SW corner
- **Option #2:** Two-lane exit at SW Corner

  Option #3: Two-lane entry /exit at SW Corner and two-lane exit at NE Corner
- **Option #4:** Reinstate two-lane entries and exits; remove third circulating lane
- **Option #5:** Two lane – One lane hybrid; remove third circulating lane

Option #1: Localized Improvements

- NE Corner (Washington Way)
  - *Issue*: outside entry lane aligned with center lane in Circle
  - *Resolution*: Fix requires either removal of recently installed curb and landscaping *or* removing third lane in Circle
    - No simple fix can be made with striping changes
    - Therefore, no change proposed under Option #1

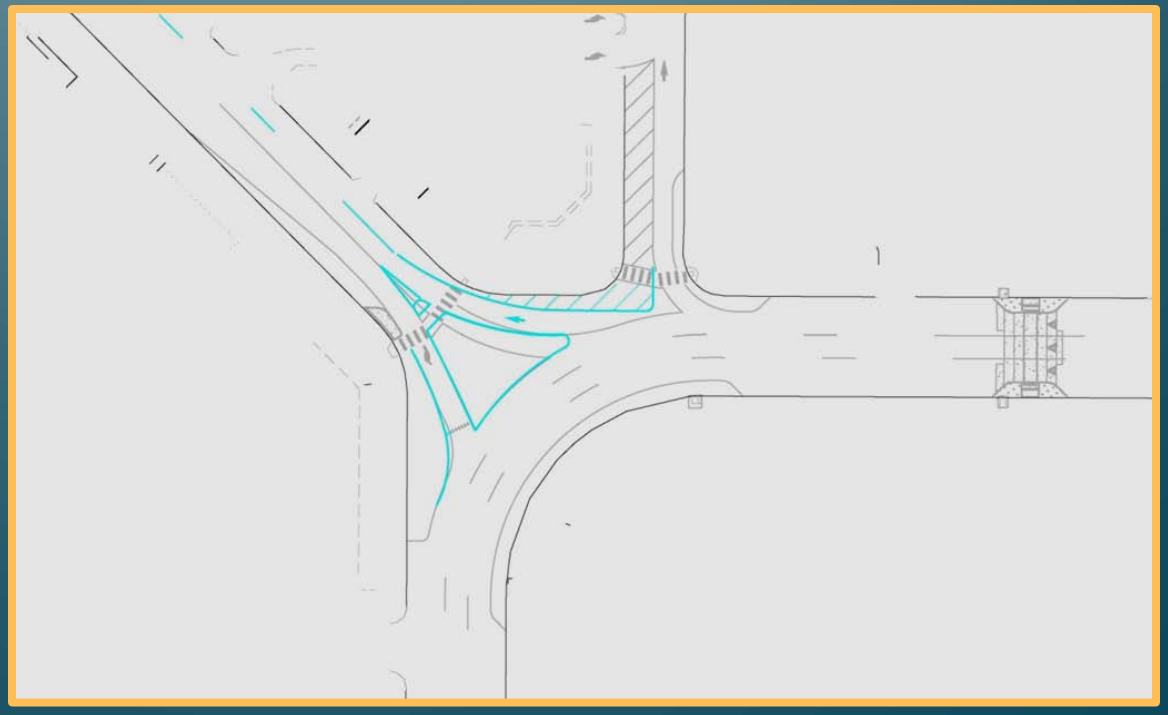


Option #1: Localized Improvements

- SW Corner (Washington Way Exit)
  - *Issue:* Middle circulating lane aligned with single-lane exit
  - *Resolution:* Flatten exit radius
    - Striping change
    - Some concern regarding increased speed on exit in advance of pedestrian crossing
      - Upstream raised crossing mitigates to some extent
      - Maintain single-lane exit width past pedestrian crossing

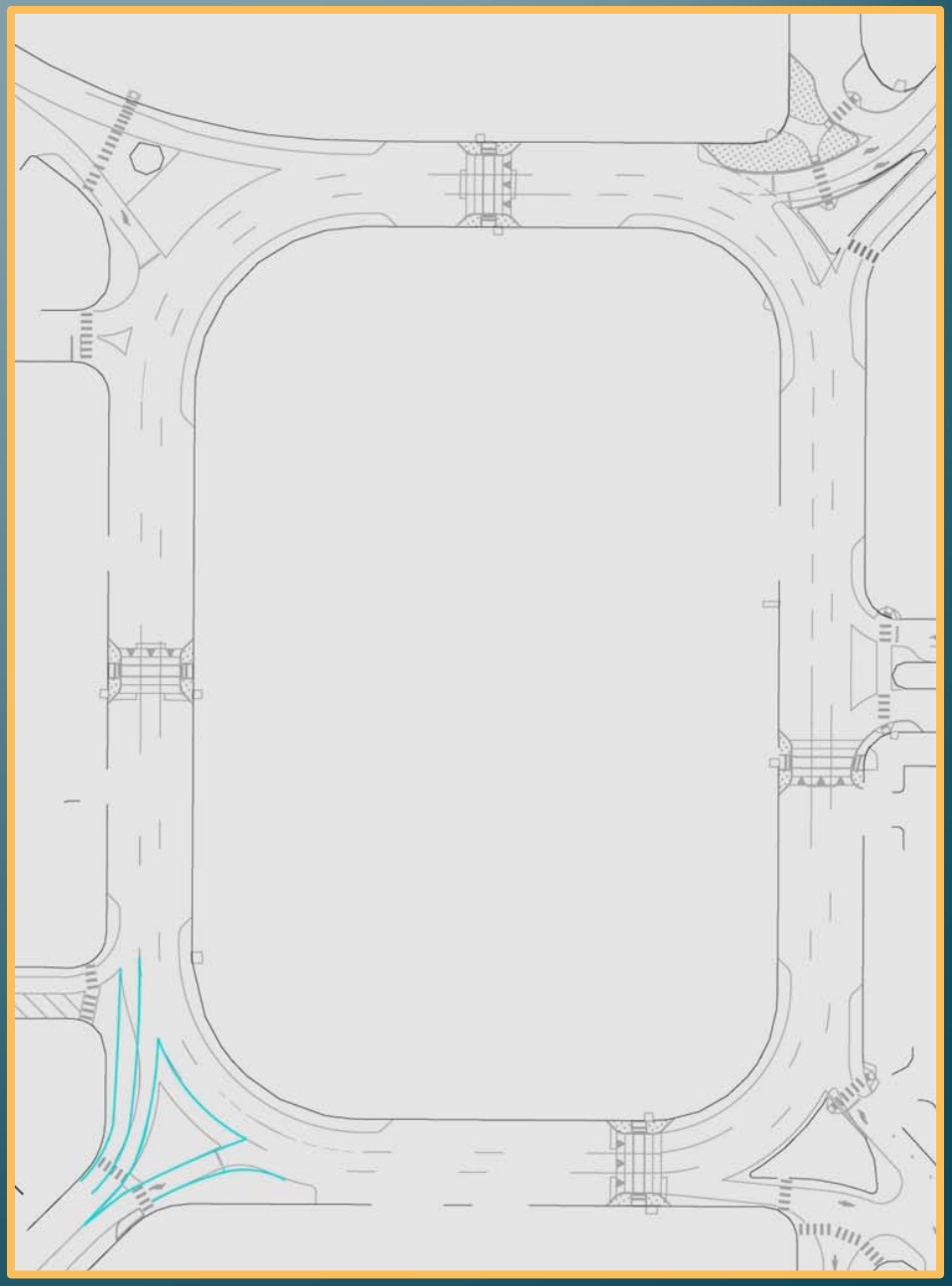
Option #1: Localized Improvements

- SW Corner (Washington Way Entry)
  - *Issue:* Entry alignment and radius makes it difficult to turn into the outside lane
  - *Resolution:* Realign entry
    - Striping change
    - Move Yield sign



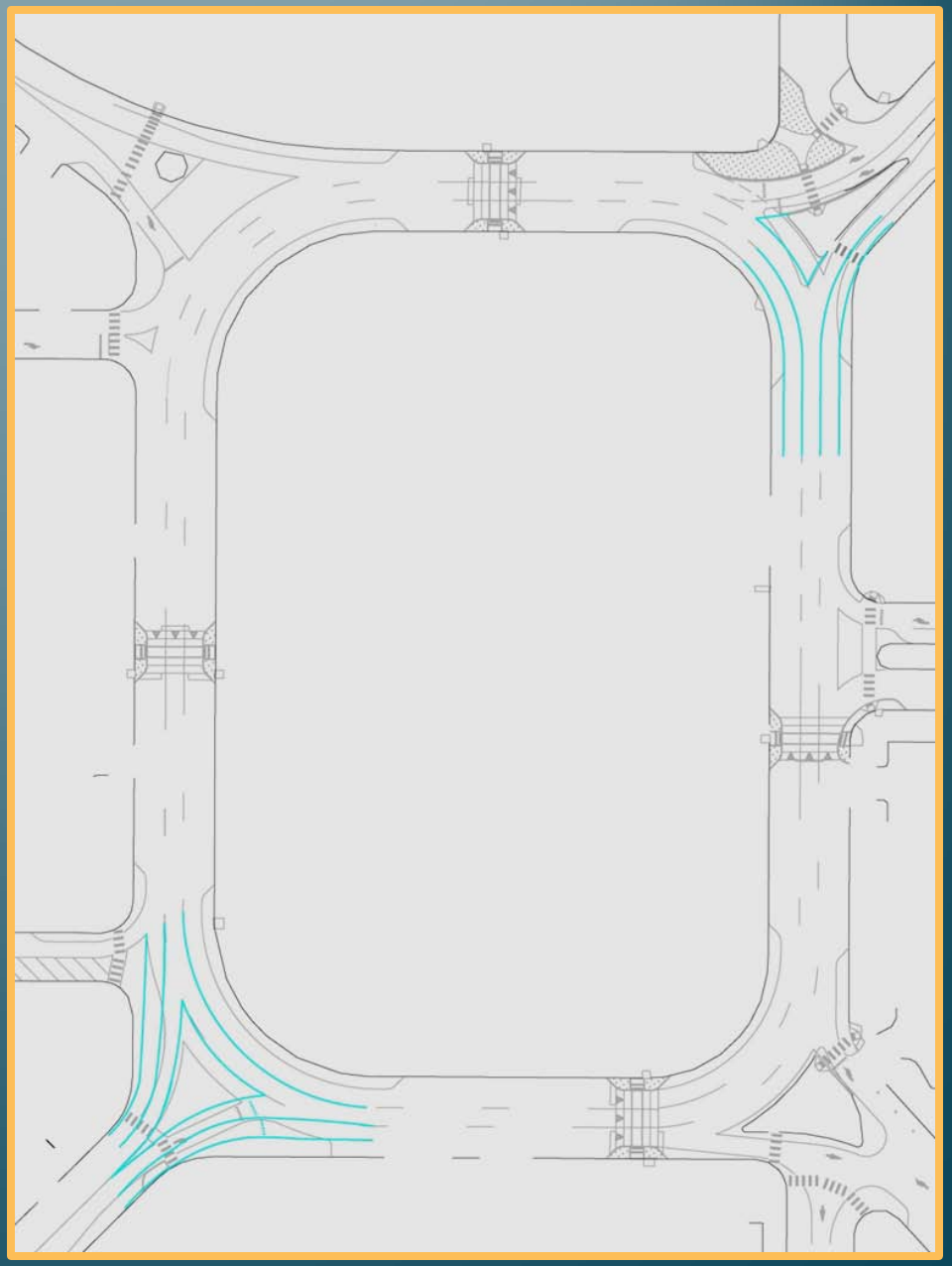
Option #2: Two-lane exit at SW Corner

- Two lane exit on SB WW at SW corner
  - Minimize weave and exit from middle lane
- Flatten entry angle on NB WW at SW corner



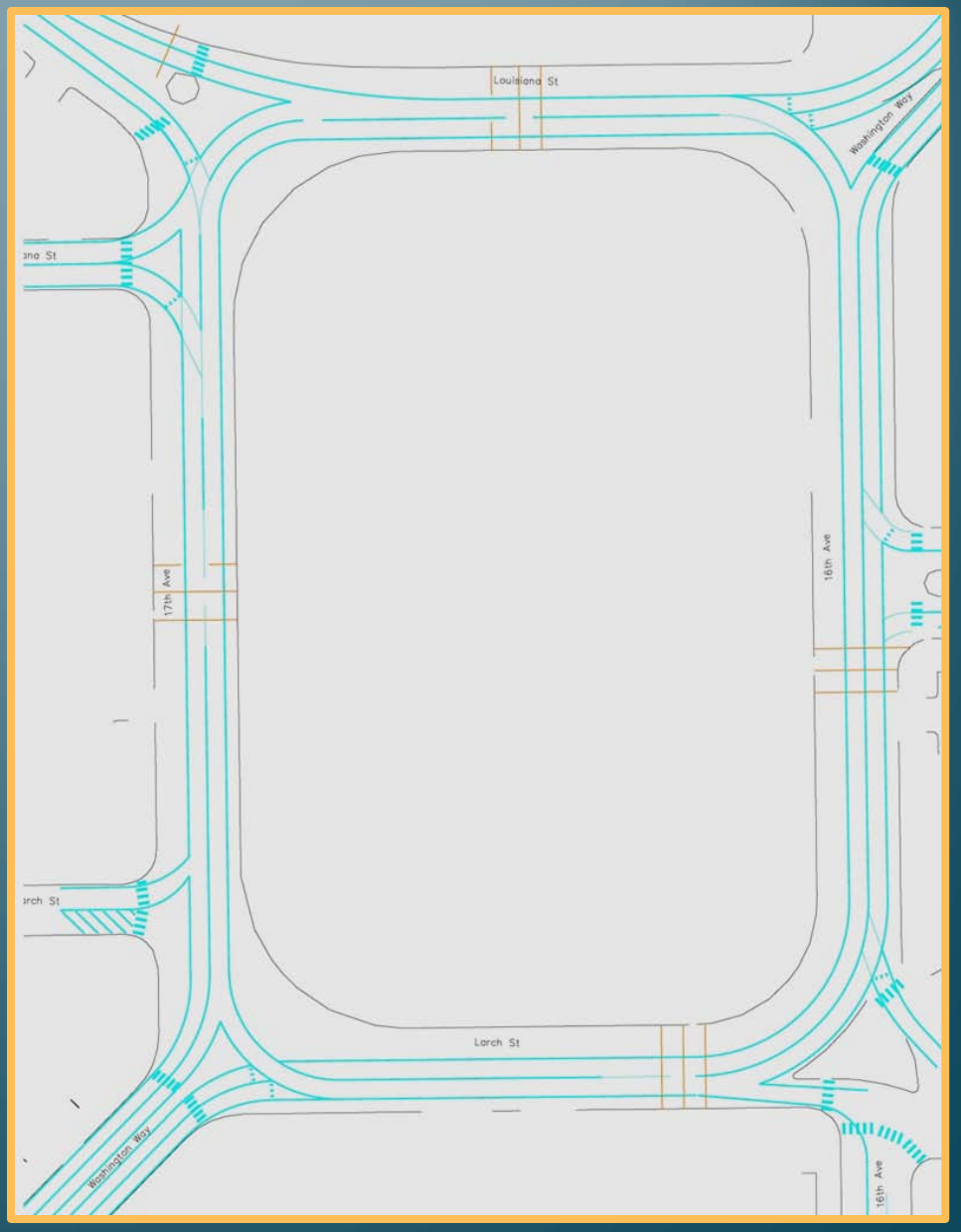
Option #3: Two-lane entry /exit at SW Corner and two-lane exit at NE Corner

- Two lane exit on SB WW at SW corner
  - Minimize weave and exit from middle lane
- Flatten entry angle on NB WW at SW corner
- Allows for two- lane entry / exit traveling northbound



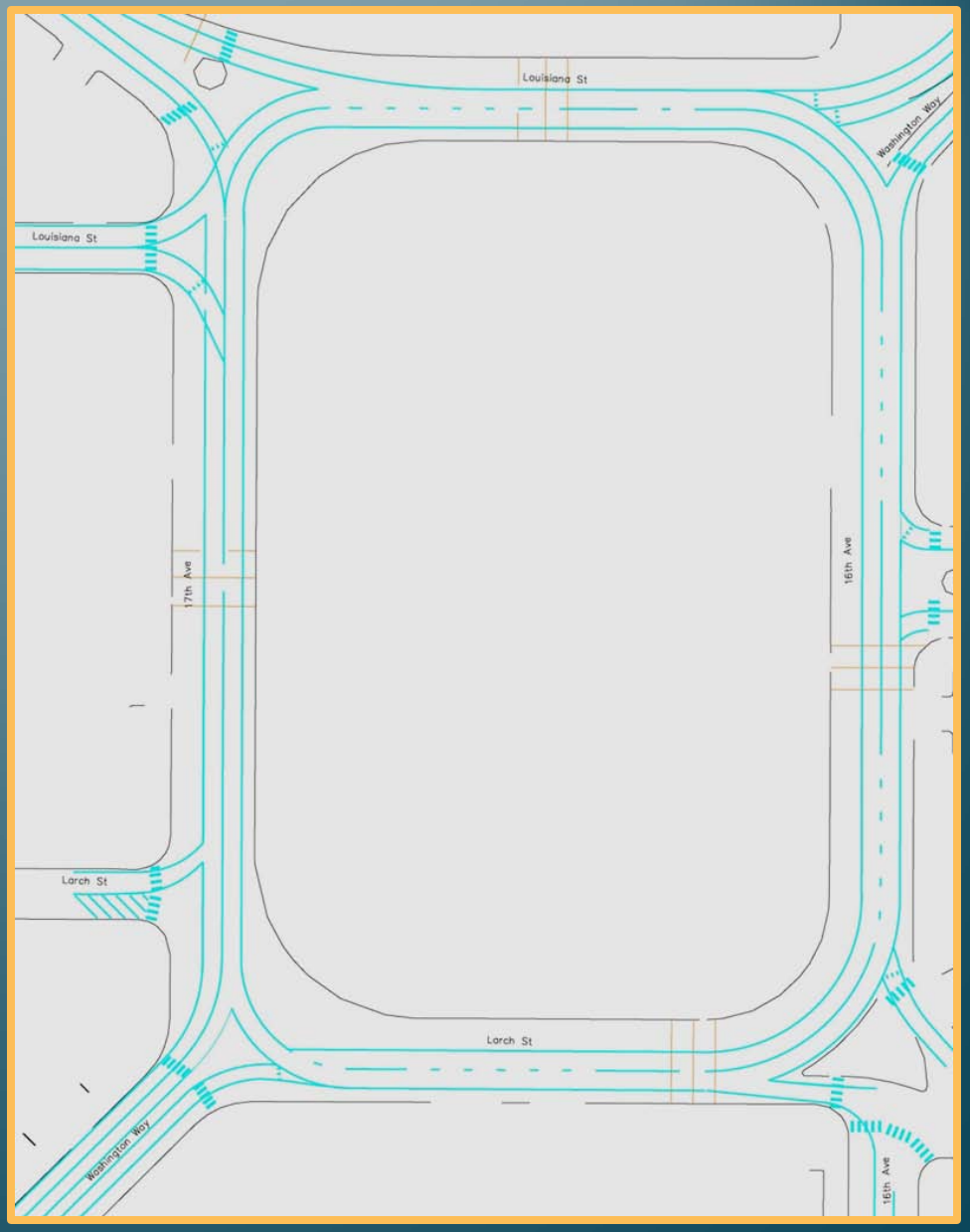
Option #4: Two-lane entries and exits, remove third circulating lane

- Removal of third circulating lane
  - Addresses entry alignment issues
  - Minimizes weaving
  - Reduces pedestrian crossing exposure (fewer traffic lanes)
  - Increases opportunities for parking



Option #5:
Two lane – One lane hybrid; remove third circulating lane

- WW SB entry and exit – two lanes
- WW NB entry and exit - one lane
- Removal of third circulating lane
  - Addresses alignment issues
  - Minimizes weaving
  - Reduces pedestrian crossing exposure
  - Increases opportunities for parking

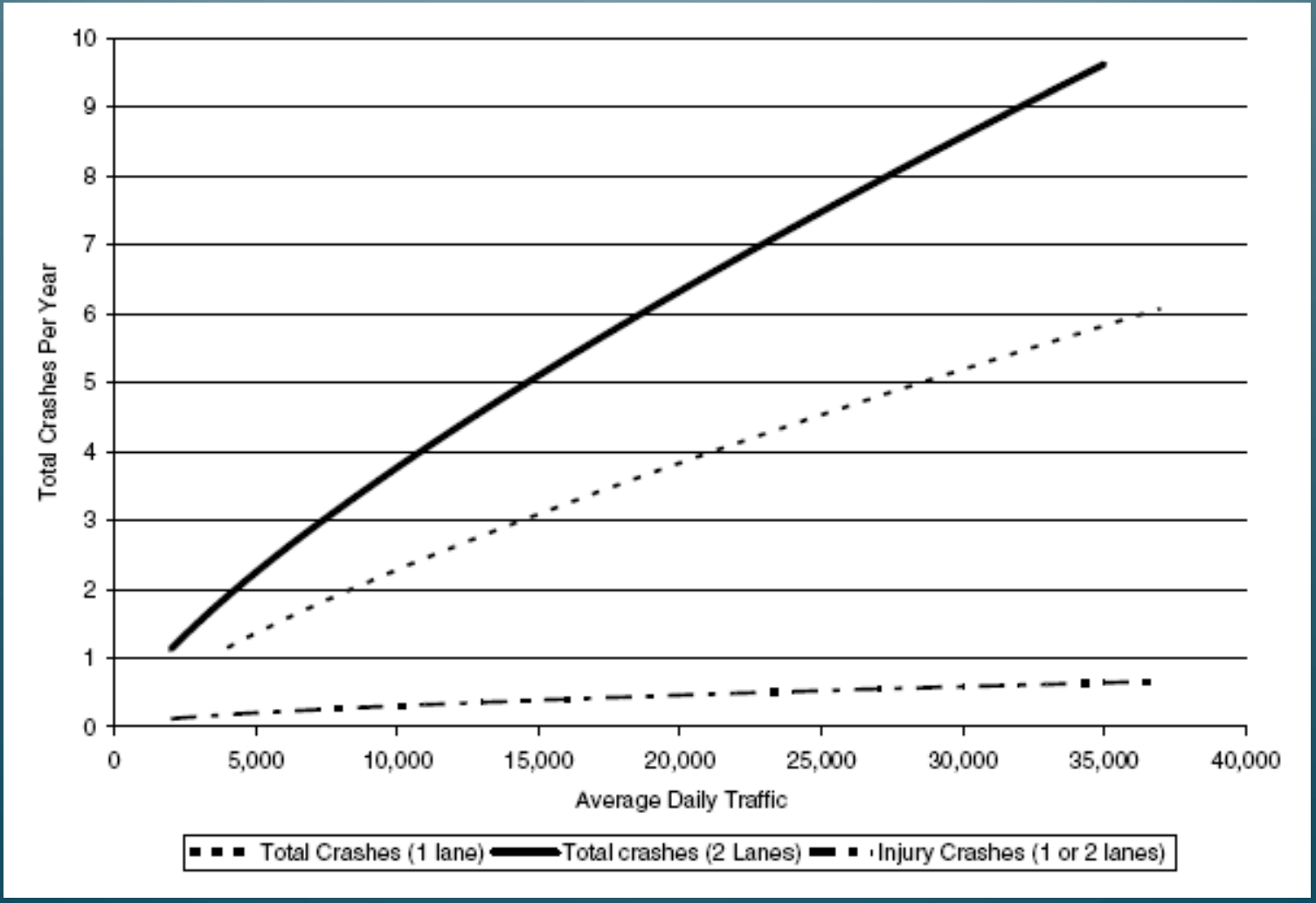


One-lane vs. Two-lane: Safety Performance

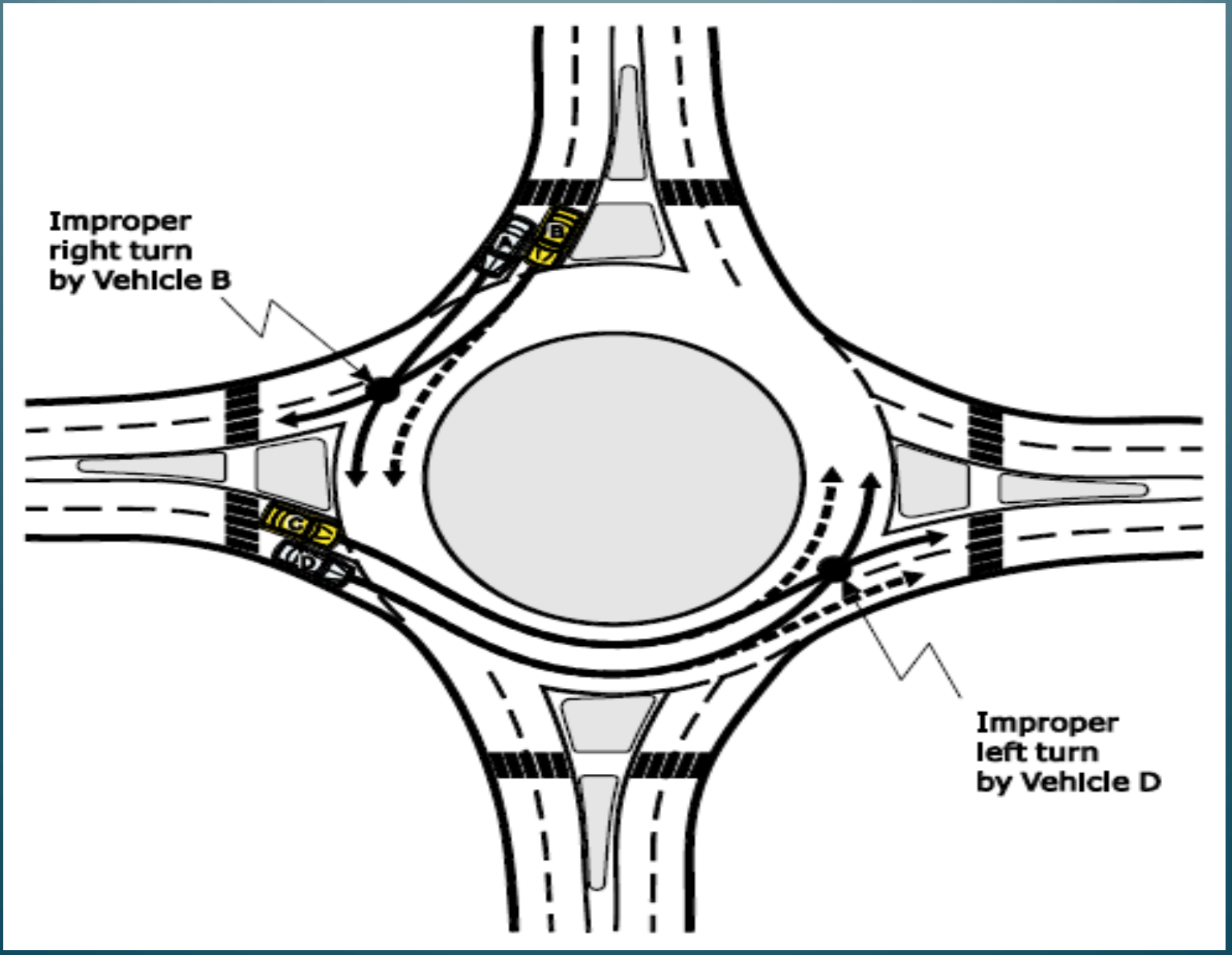
- Increased approach lanes = increased conflict points

  "The number of **vehicular and pedestrian conflict points** in both conventional intersections and roundabouts **increases considerably when there are additional approach lanes**." – *NCHRP 672: Roundabout Guide*
- Increased circulating lanes = increased conflict points
- Sources of conflict
  - Drivers fail to maintain lane position
  - Drivers turn from the incorrect lane

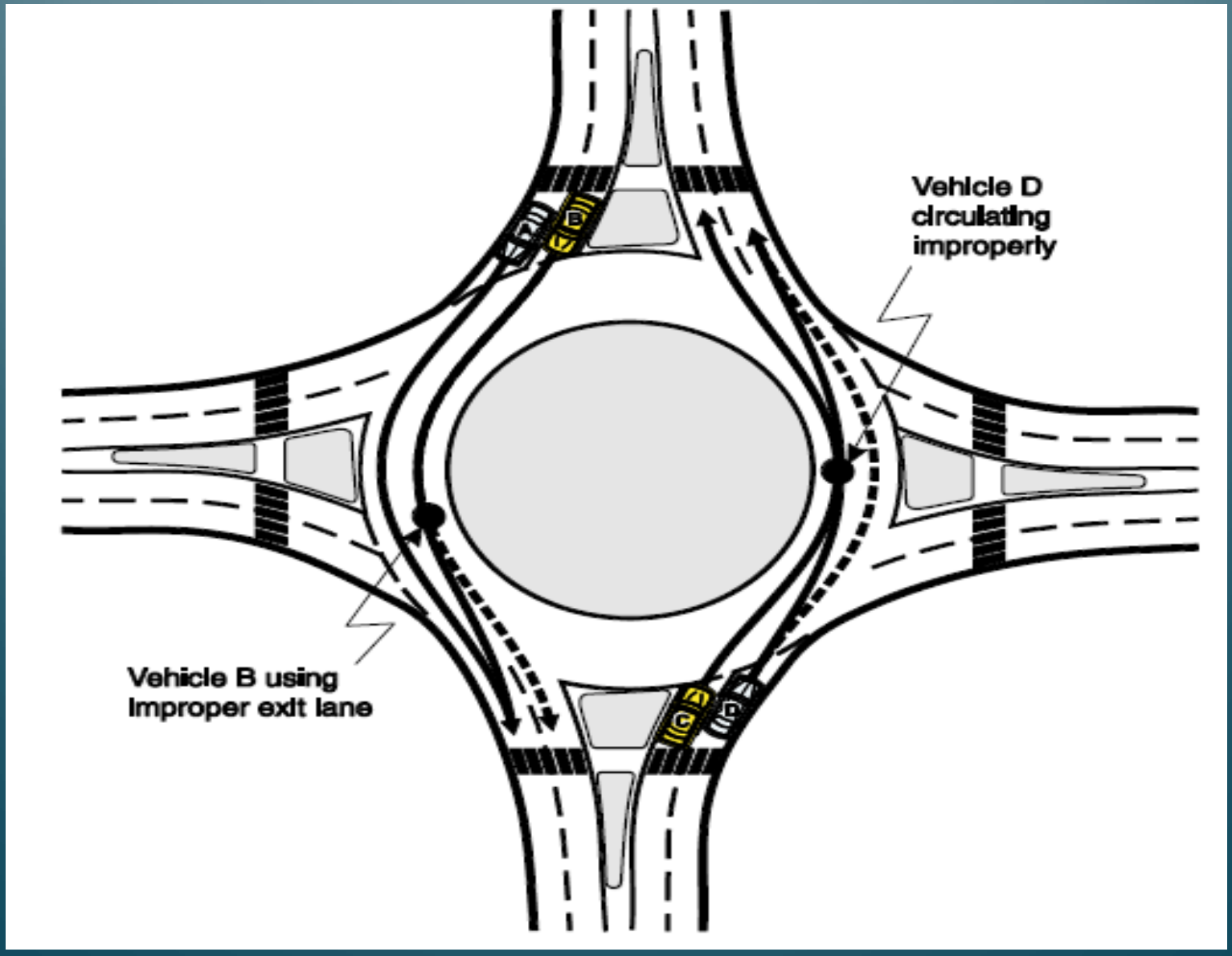
One-lane vs. Two-lane: Safety Performance



One-lane vs. Two-lane: Safety Performance

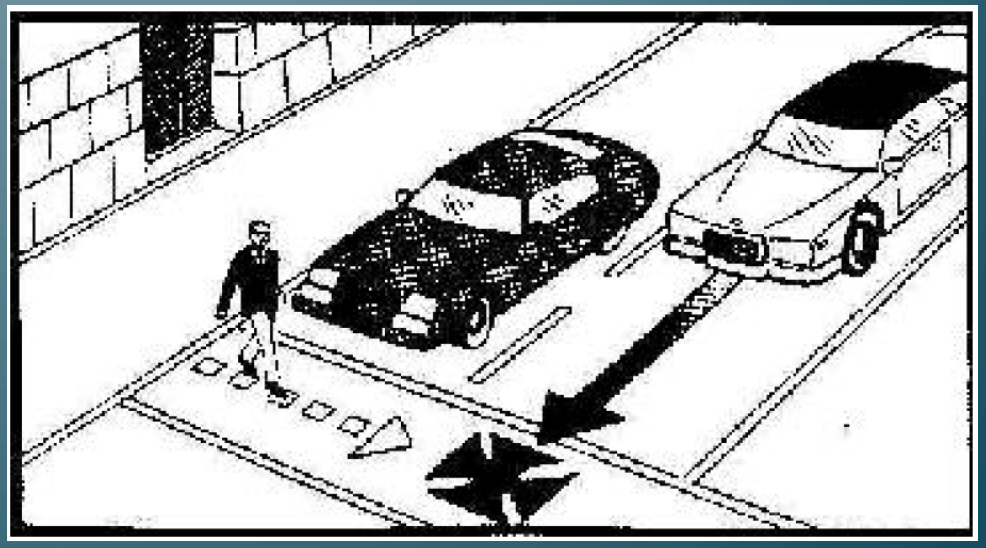


One-lane vs. Two-lane: Safety Performance



One-lane vs. Two-lane: Safety performance

- Pedestrian safety
  - Multiple lanes introduce multiple threats for crash
- Wider approaches encourage faster speeds

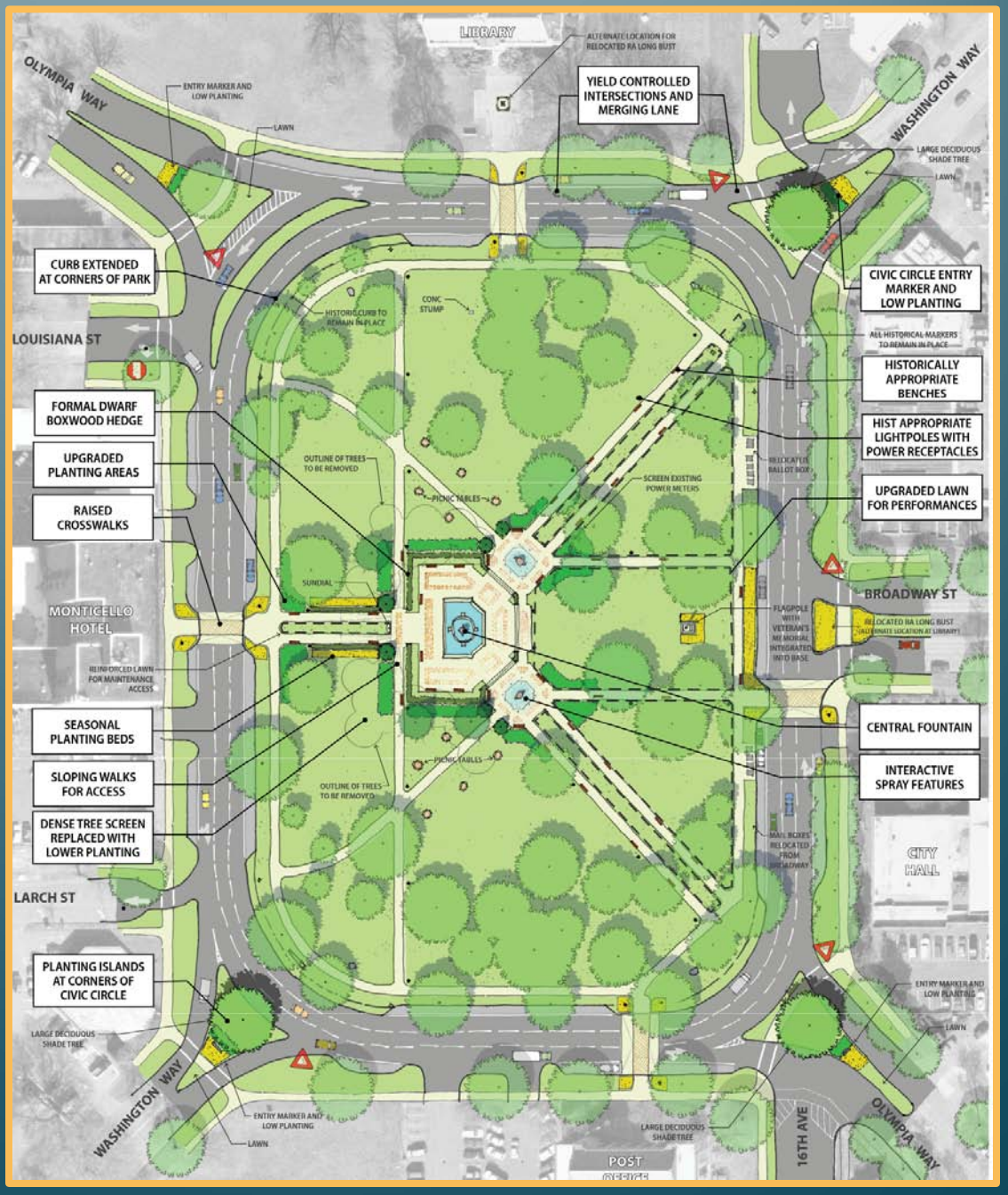


Source: FHWA-RD-01-075, 2002.

One-lane vs. Two-lane: Recommendation

- Recommendation: Minimize number of approach and circulating lanes
  - Minimize conflict points
  - Minimize pedestrian crossing distances
  - Reduce speeds
- Reasons for multilane approach and/or circulating lanes
  - Capacity needs
  - Lane continuity
  - Facilitate movements into and out of parking areas

Discussion


LIBRARY
ALTERNATE LOCATION FOR RELOCATED RA LONG BUST
YIELD CONTROLLED INTERSECTIONS AND MERGING LANE
OLYMPIA WAY
ENTRY MARKER AND LOW PLANTING
LAWN
WASHINGTON WAY
LARGE DECIDUOUS SHADE TREE
LAWN
CURB EXTENDED AT CORNERS OF PARK
HISTORIC CURB TO REMAIN IN PLACE
CONC STUMP
CIVIC CIRCLE ENTRY MARKER AND LOW PLANTING
LOUISIANA ST
ALL HISTORICAL MARKERS TO REMAIN IN PLACE
HISTORICALLY APPROPRIATE BENCHES
FORMAL DWARF BOXWOOD HEDGE
HIST APPROPRIATE LIGHTPOLES WITH POWER RECEPTACLES
UPGRADED PLANTING AREAS
OUTLINE OF TREES TO BE REMOVED
PICNIC TABLES
SCREEN EXISTING POWER METERS
RELOCATE BALLOT BOX
RAISED CROSSWALKS
UPGRADED LAWN FOR PERFORMANCES
SUNDIAL
BROADWAY ST
MONTICELLO HOTEL
FLAGPOLE WITH VETERAN'S MEMORIAL INTEGRATED INTO BASE
RELOCATED RA LONG BUST (ALTERNATE LOCATION AT LIBRARY)
REINFORCED LAWN FOR MAINTENANCE ACCESS
SEASONAL PLANTING BEDS
CENTRAL FOUNTAIN
PICNIC TABLES
SLOPING WALKS FOR ACCESS
OUTLINE OF TREES TO BE REMOVED
INTERACTIVE SPRAY FEATURES
DENSE TREE SCREEN REPLACED WITH LOWER PLANTING
MAIL BOXES RELOCATED FROM BROADWAY
CITY HALL
LARCH ST
PLANTING ISLANDS AT CORNERS OF CIVIC CIRCLE
ENTRY MARKER AND LOW PLANTING
LARGE DECIDUOUS SHADE TREE
LAWN
WASHINGTON WAY
ENTRY MARKER AND LOW PLANTING
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LARGE DECIDUOUS SHADE TREE
16TH AVE
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