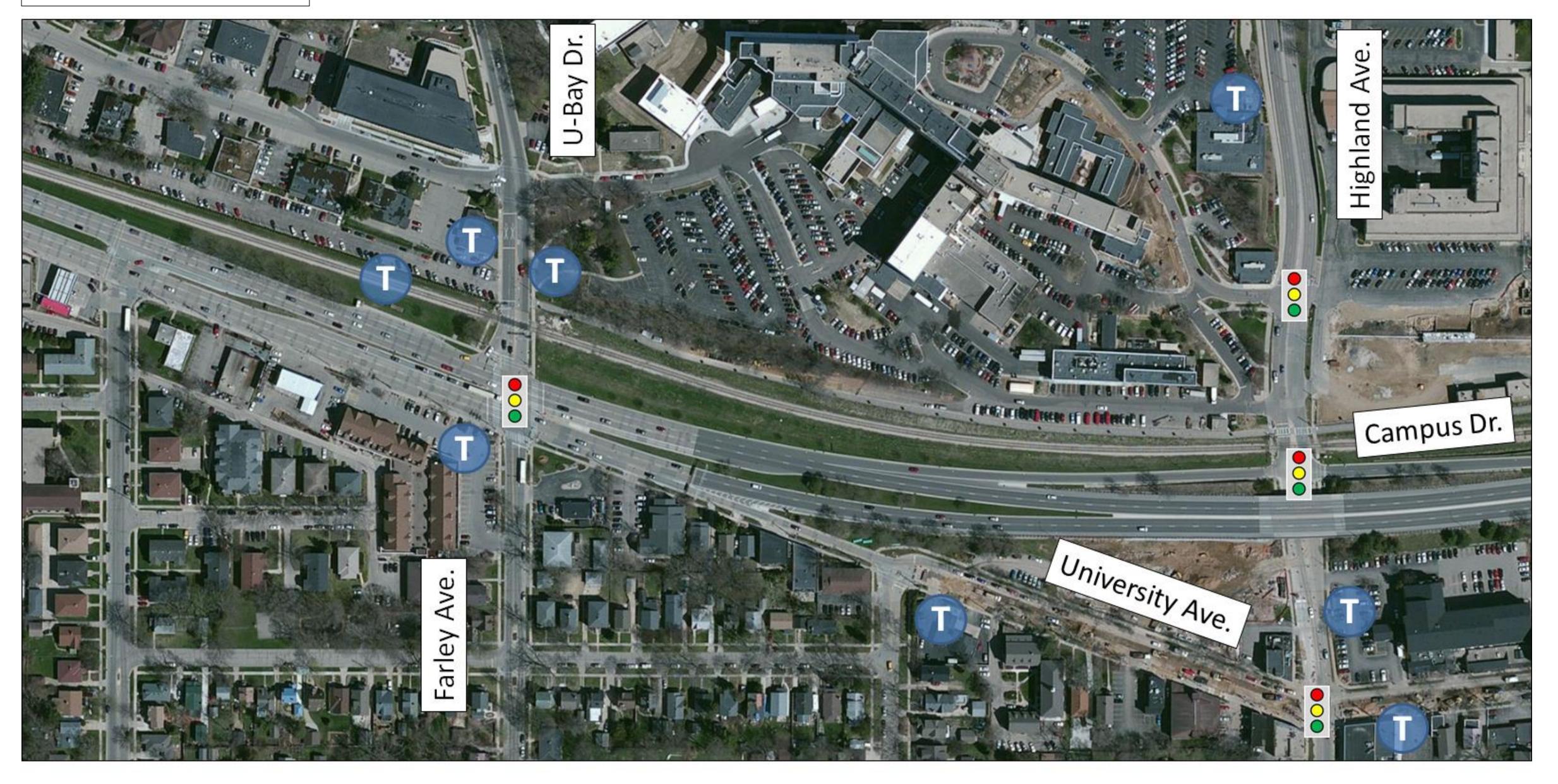
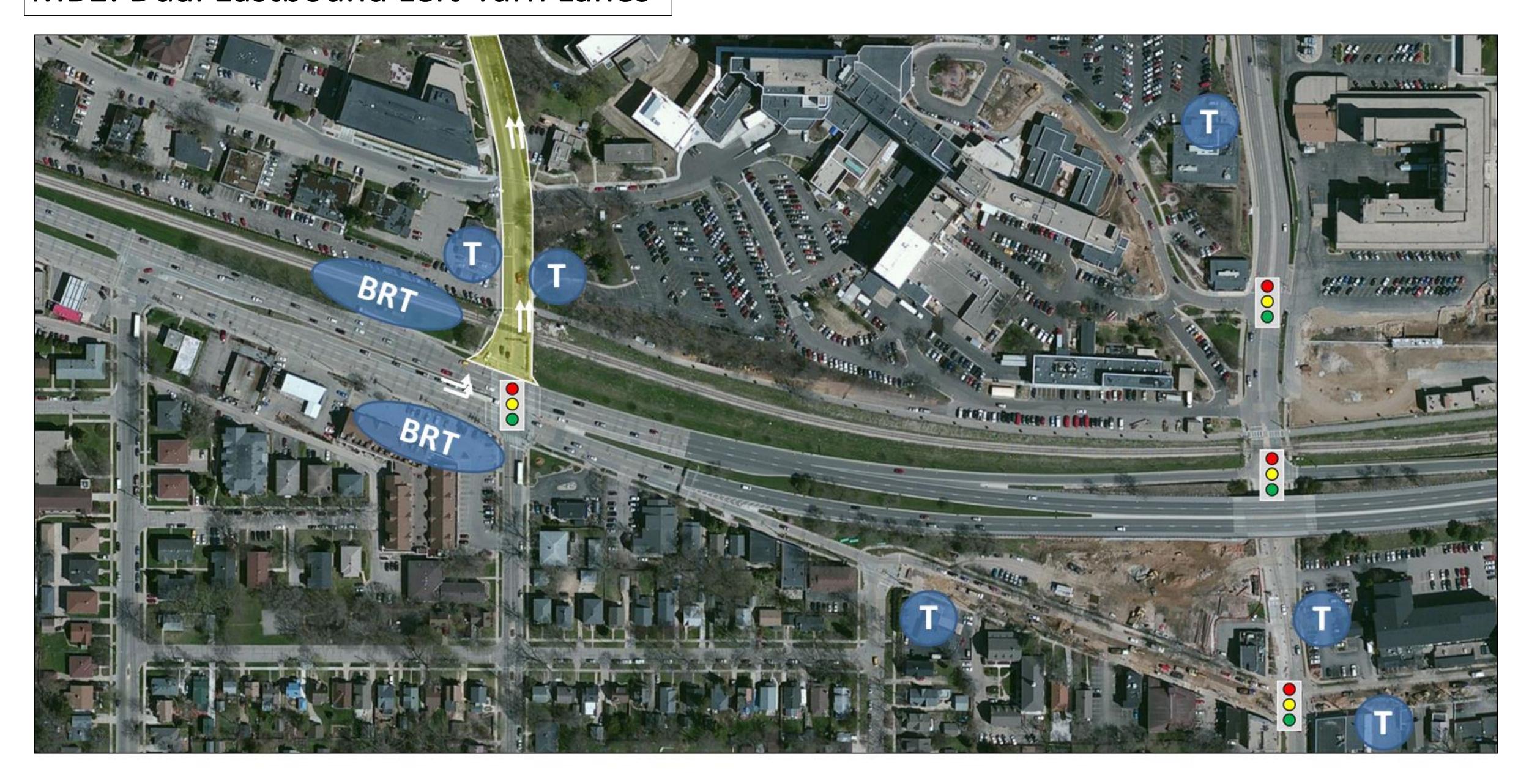
Scenario

Base Conditions



MB1: Dual Eastbound Left-Turn Lanes



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

<u>Bicycle</u>

<u>Transit</u>

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.

 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- - North of Campus Drive on Farley Ave./ U-Bay Dr.

- East of Grand Ave.
- Northbound
- Southbound
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

University Ave. & Farley Ave./ U-Bay Generally compatible with BRT and local service

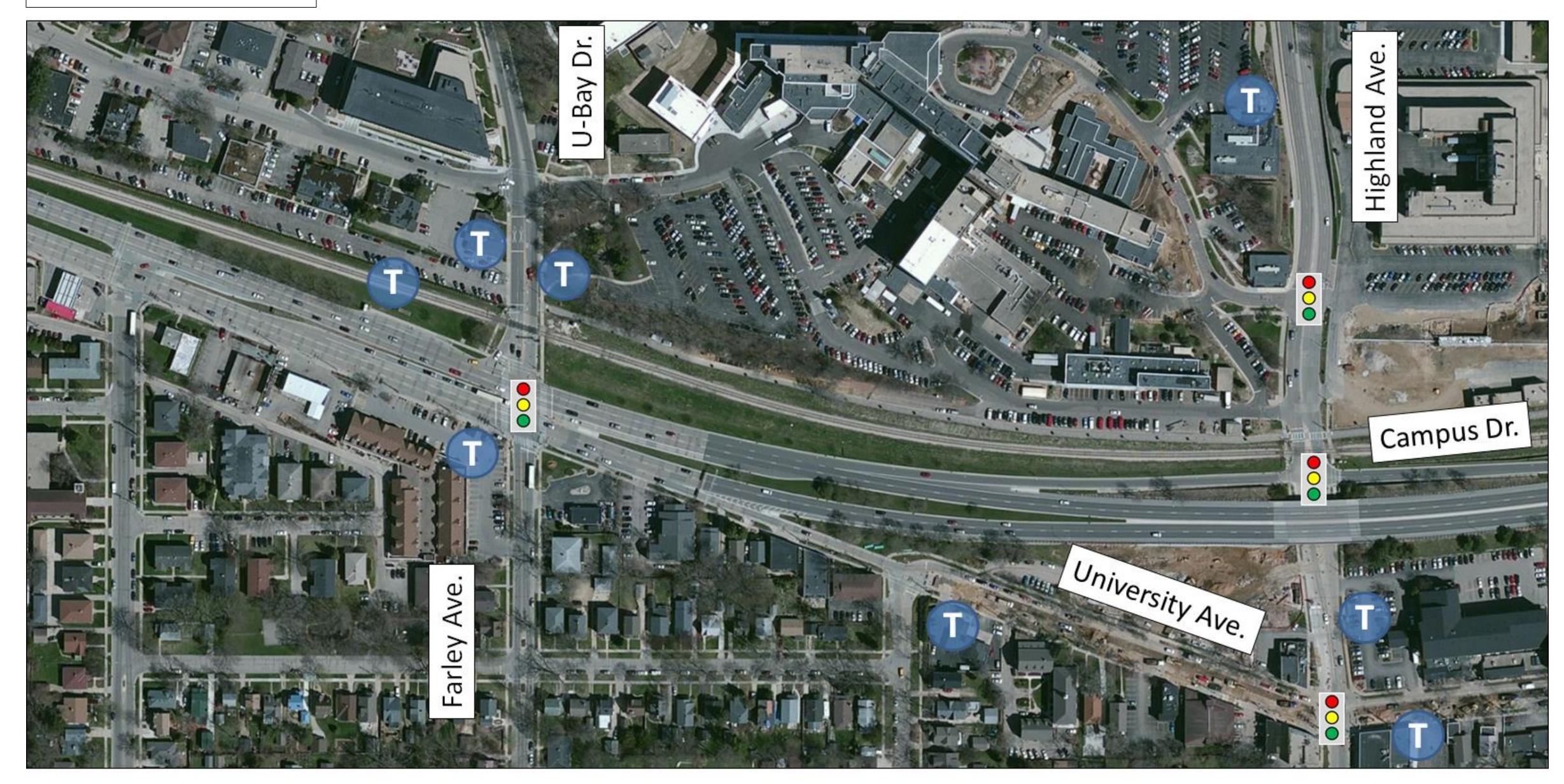
- Overall Intersection LOS D (38.8 s/vh)
- 1 movement at LOS F
- 3 add'l movements approaching LOS F
- Requires expansion of U-Bay Dr.
- No changes at remaining signals

Longer crossing distances on west and north legs

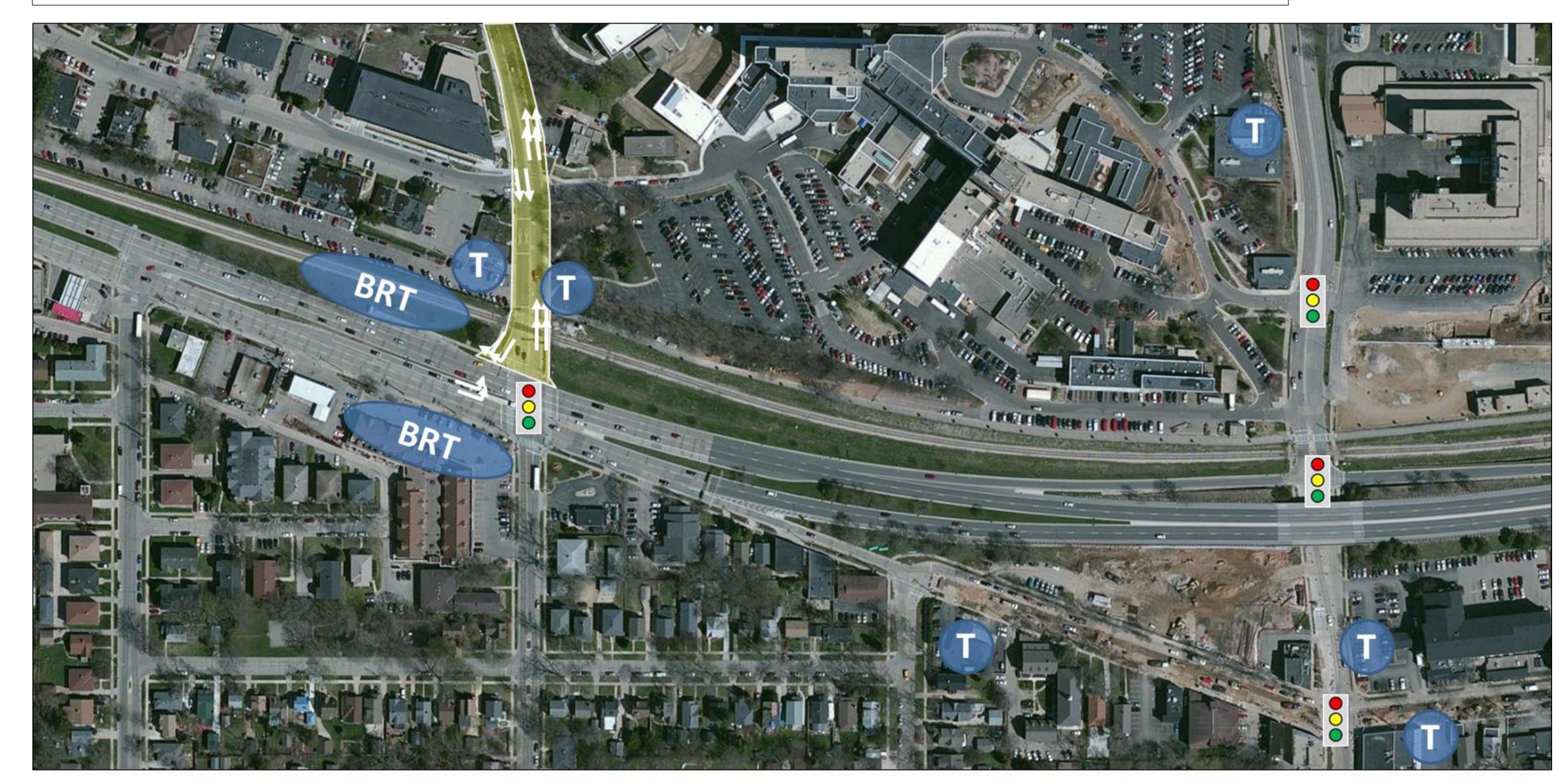
Longer crossing distances on west and north legs

Scenario

Base Conditions



MB2: Dual Eastbound Left-Turn Lanes and Southbound Right-Turn Lanes



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along

<u>Bicycle</u>

<u>Transit</u>

University Ave.

Existing Metro stops:

- Inbound
- West of Farley Ave./ U-Bay Dr.
- East of Grand Ave.
- East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

- Overall Intersection LOS D (40.6 s/vh)
- 1 movement at LOS F

Dr.

 1 add'l movement approaching LOS F

Motor Vehicles (115% of existing traffic)

University Ave. & Farley Ave./ U-Bay

- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

Generally compatible with BRT and local service

- University Ave. & Farley Ave./ U-Bay
 - Overall Intersection LOS C (29.9 s/vh)
 - Requires expansion of U-Bay Dr.
- No changes at remaining signals

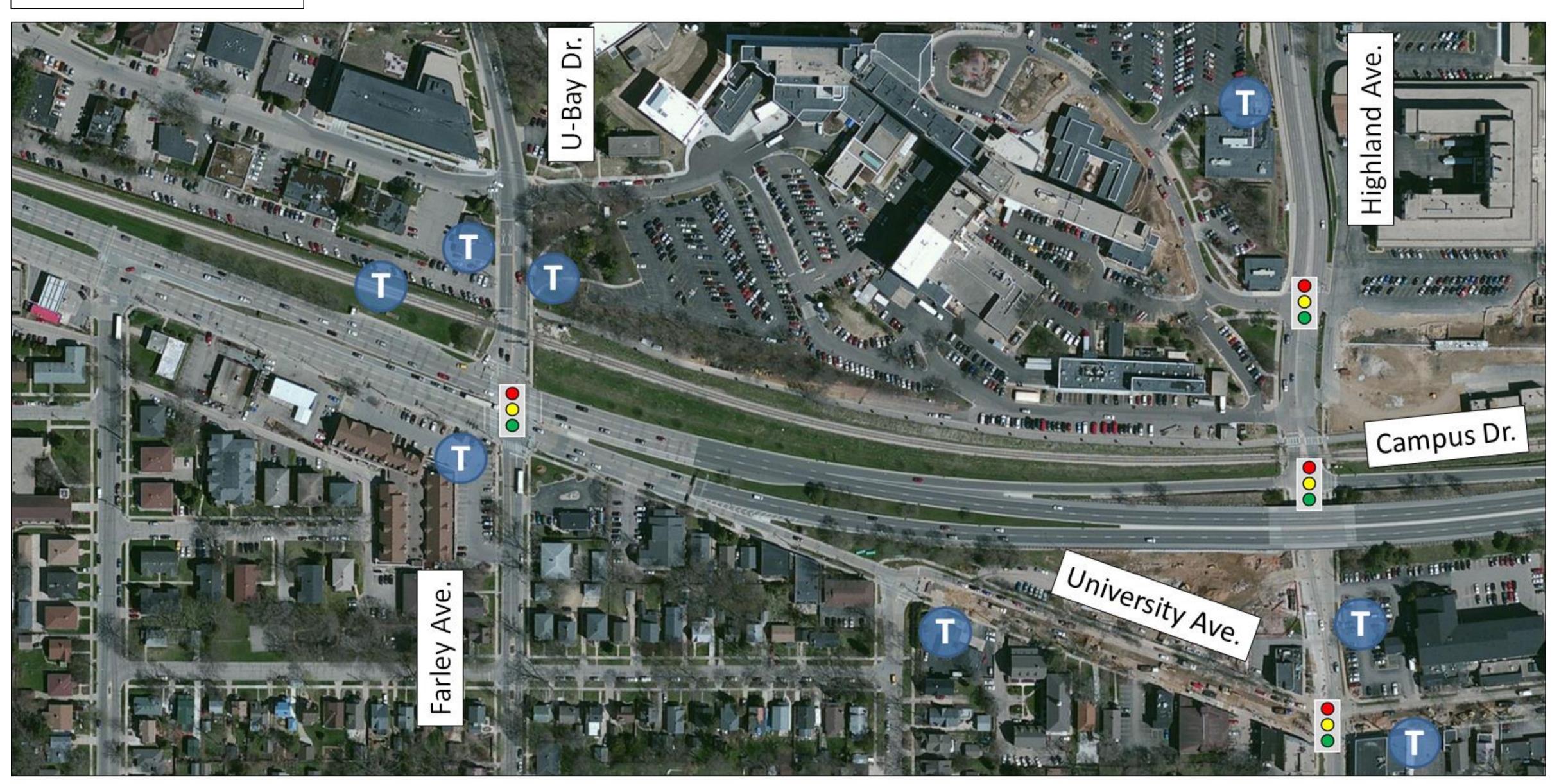
Longer crossing distances on west and north legs.

Longer crossing distances on west and north legs.

Scenario

Base Conditions

Image Sources: Bing.com, Google.com



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

<u>Bicycle</u>

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

Transit

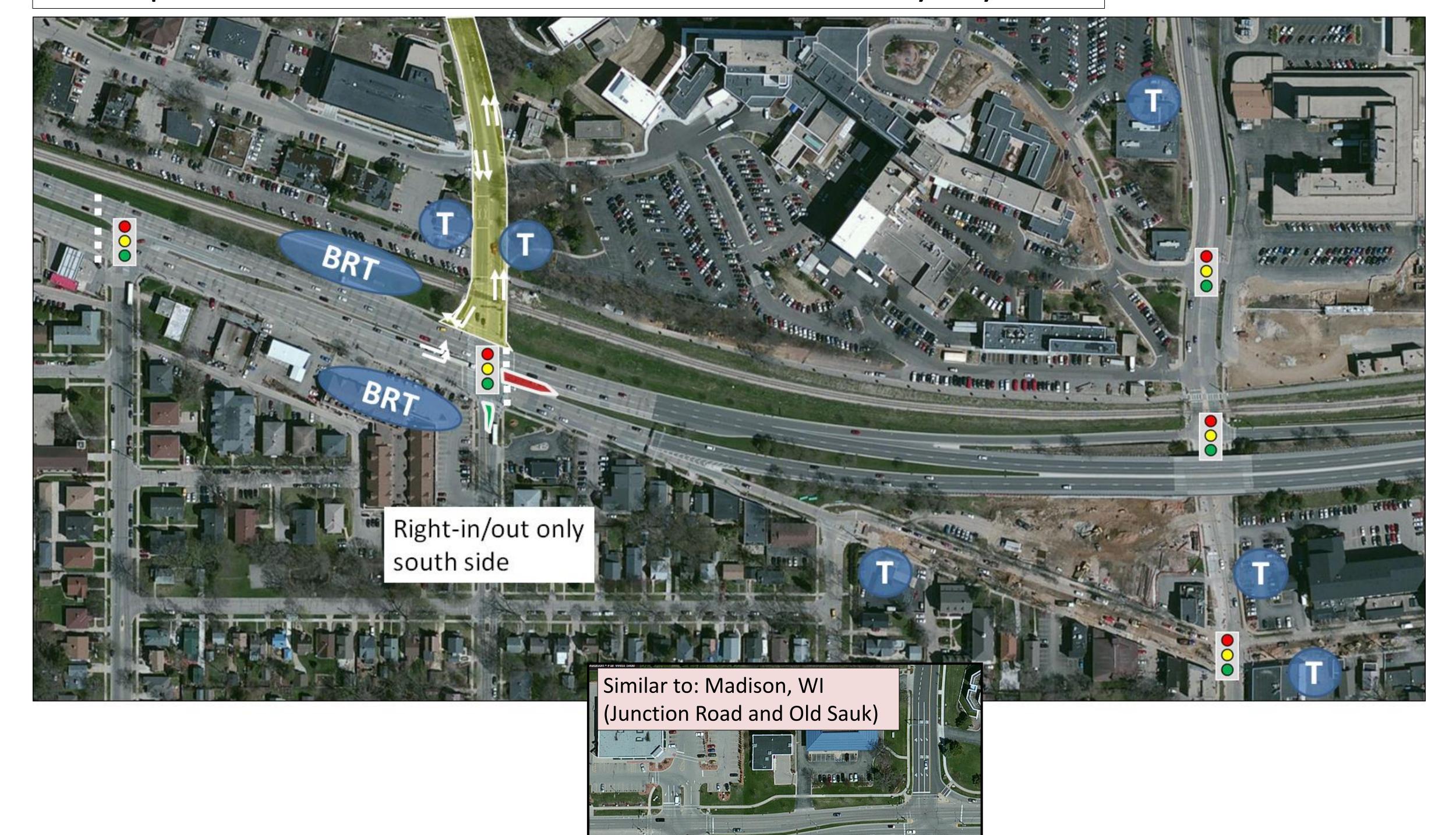
Existing Metro stops:

- Inbound
- West of Farley Ave./ U-Bay Dr.
- East of Grand Ave.
- East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

MB3: Split Tee Intersections with full access to University Bay Drive



- Crossing only on east side of Farley Ave./ U-Bay Dr.
- Two-stage crossing with large refuge possible
- Adds signalized crossing at Franklin Ave. tee intersection pending completion of sidewalk on north side

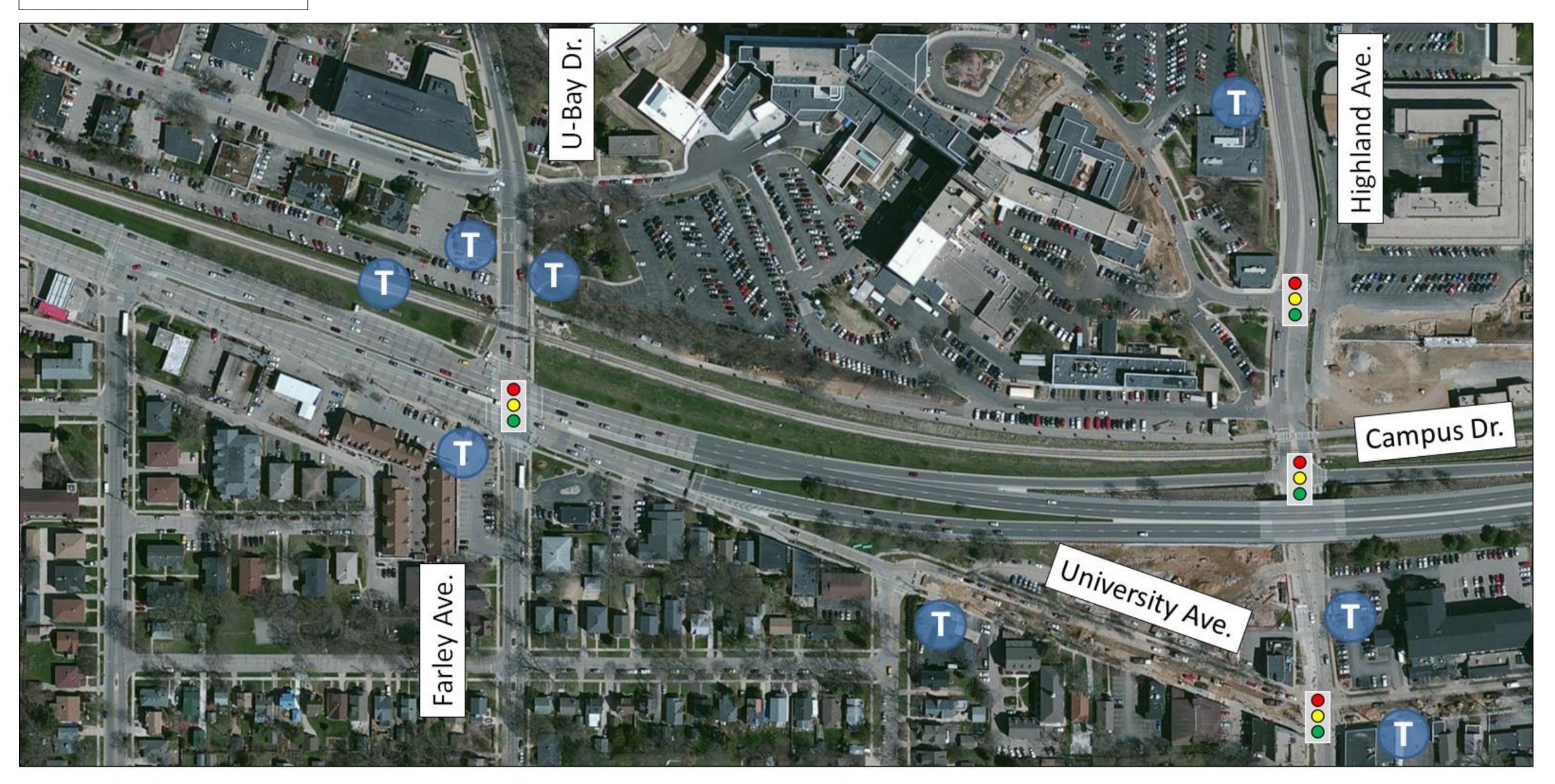
 Two stage northsouth crossing on east side only

Generally compatible with BRT and local service

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS C (24.0 s/vh)
 - Requires expansion of U-Bay Dr.
- University Ave. & Franklin Ave. (south Tee)
 - Overall Intersection LOS A (7.1 s/vh)
- No changes at remaining signals

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

<u>Bicycle</u>

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

MB4: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)



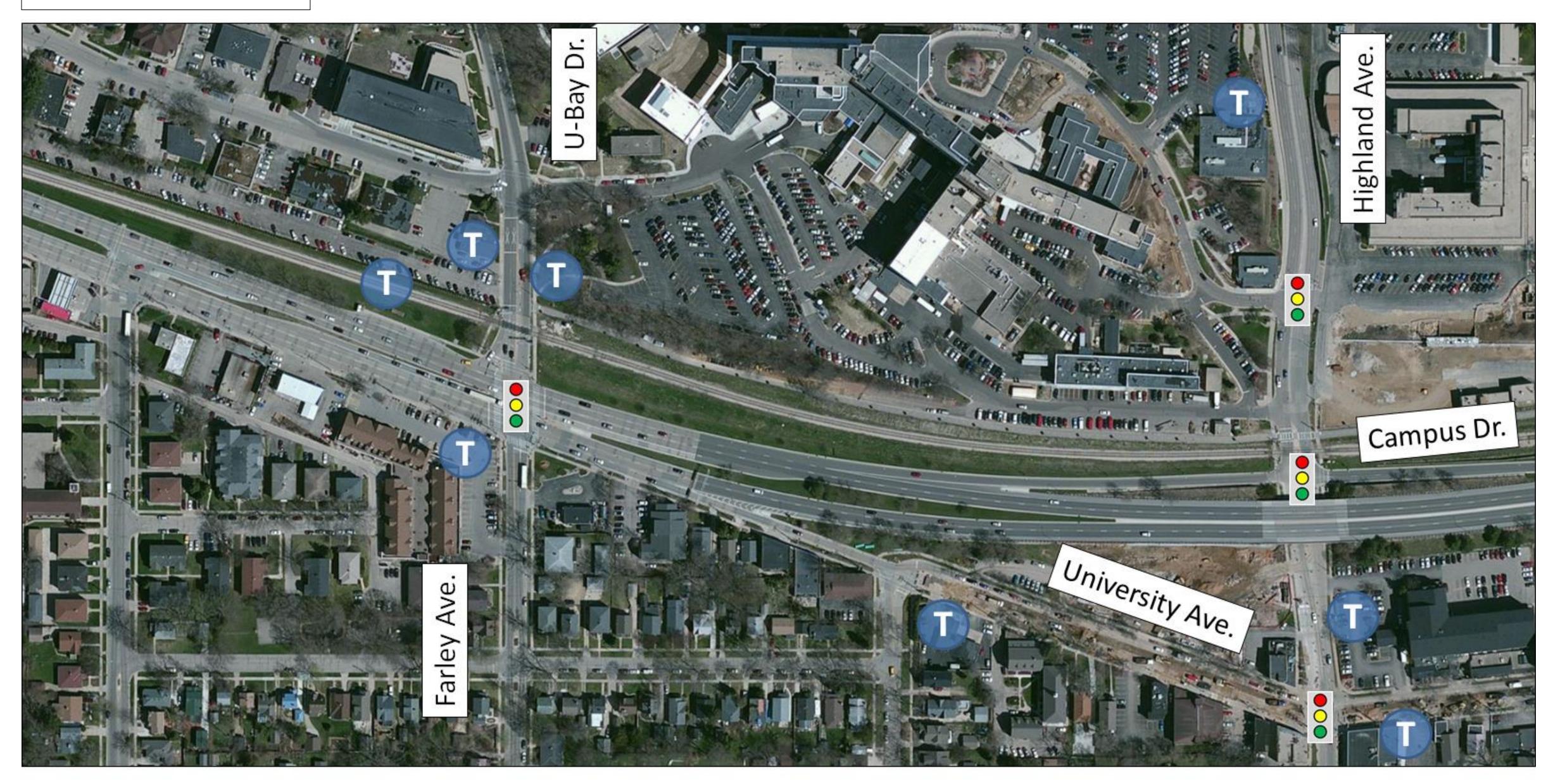
- Longer distances to cross
- Little/no terrace
 along University
 Avenue for
 eastbound and
 westbound
 pedestrians west of
 Farley Avenue
- Longer distances to cross
- More lanes to navigate eastbound and westbound west of Farley Avenue
- Wider on-street
 east-west
 accommodation,
 but shared with
 buses and right
 turns

Improves travel time and reliability for BRT and local service

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- No changes at remaining signals

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

<u>Bicycle</u>

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

<u>Transit</u>

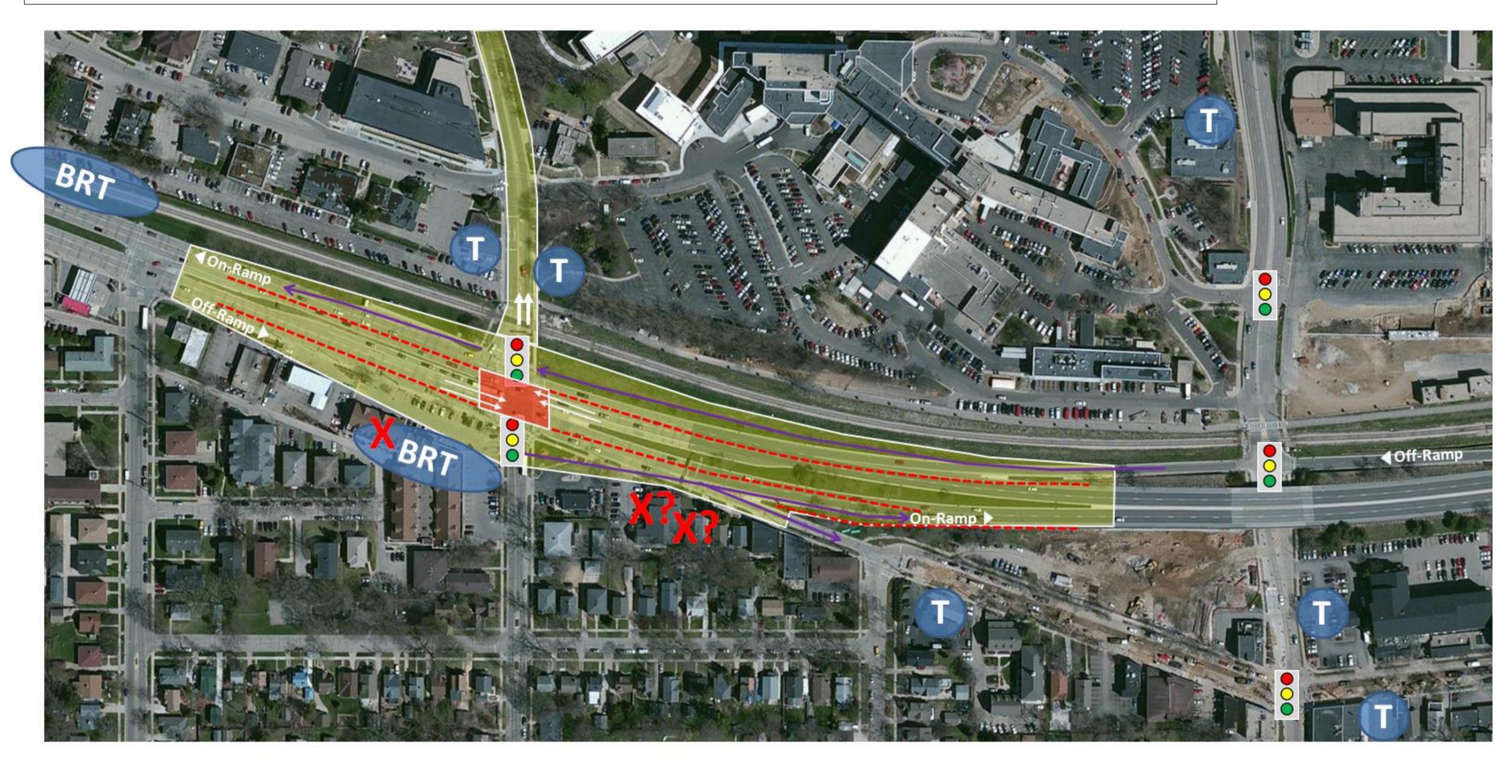
Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

HB1: Modified Diamond Interchange (possible Campus Drive extension)



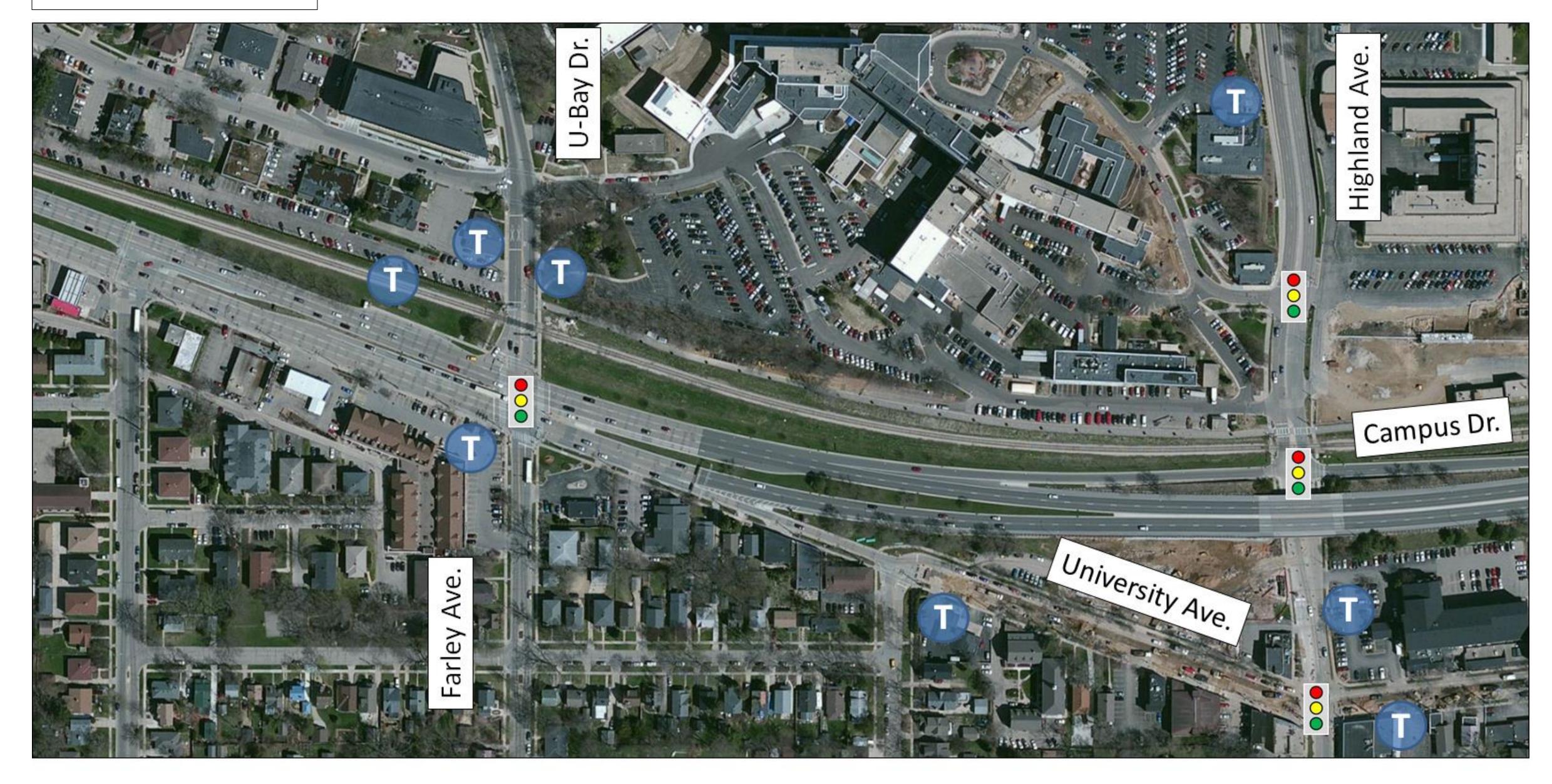
- Short crossing lengths and reduced traffic through signals
- Two signalized intersections to cross rather than one
- Less traffic through signals

Two signalized

- intersections to cross rather than one
- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops
- University Ave. & Westbound Campus
 Drive Ramps
 - Overall Intersection LOS C (29.4 s/vh)
- University Ave. & Eastbound Campus
 Drive Ramps
 - Overall Intersection LOS C (26.9 s/vh)
- No changes at remaining signals.

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

<u>Bicycle</u>

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

<u>Transit</u>

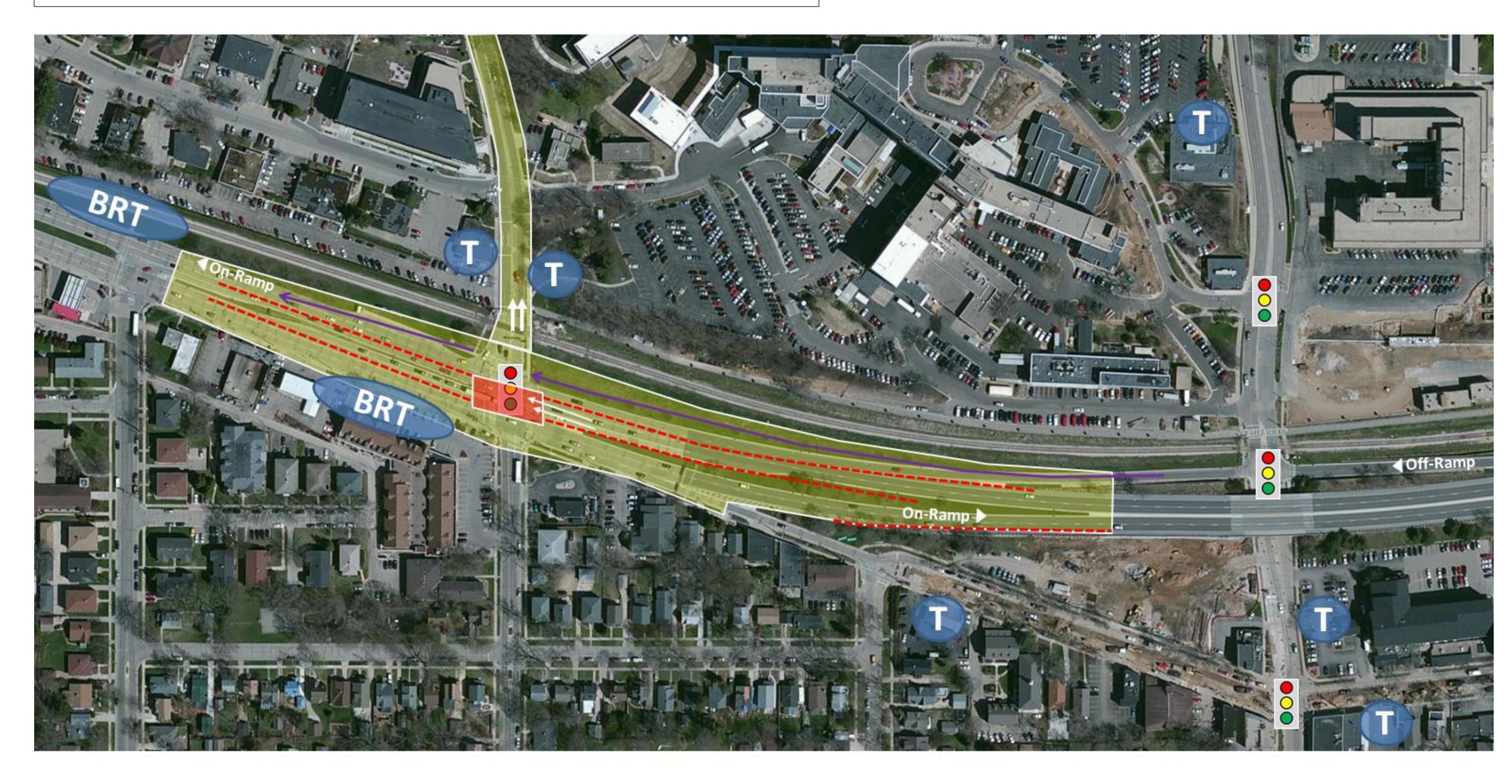
Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
- Overall Intersection LOS B (17.4 s/vh)

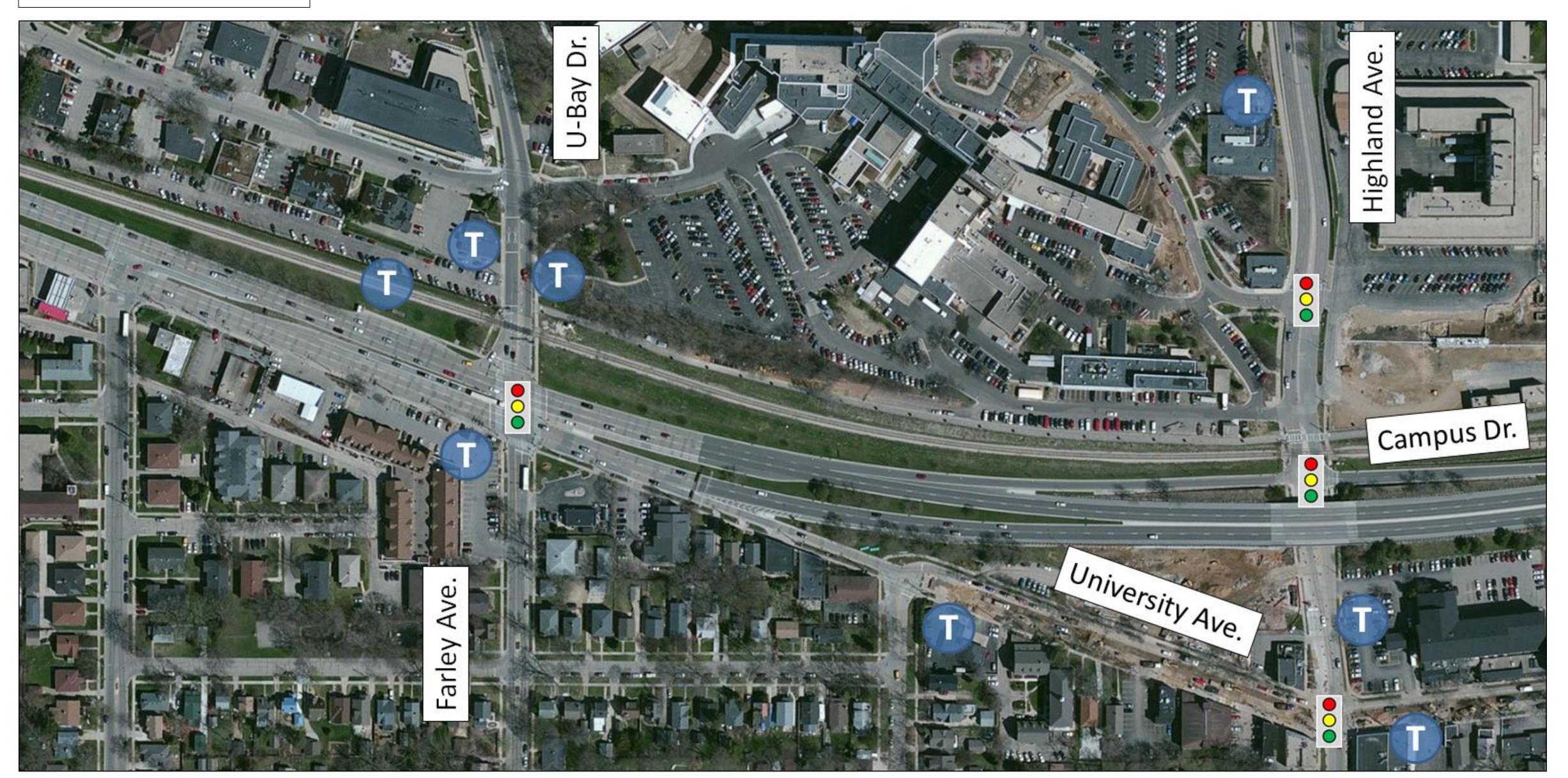
HB2: Westbound Campus Drive extension only



- Longer crossing distances to accommodate structure and walls
- Less traffic through signal
- Longer crossing distances to accommodate structure and walls
- Less traffic through signal
- Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
- Frequent entering and exiting along the corridor to make stops
- University Ave. & Westbound Campus
 Drive Ramps
 - Overall Intersection LOS C (37.3 s/vh)
 - 2 movements at LOS F
- No changes at remaining signals.

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

<u>Bicycle</u>

Multiple concerns including northbound/ inbound bike access to hospital complexes, eastwest campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

- Inbound
 - West of Farley Ave./ U-Bay Dr.
 - East of Grand Ave.
 - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
 - North of Campus Dr. on Farley Ave./ U-Bay Dr.
 - North of University Ave. on Highland Ave.
- Southbound
 - North of Campus Drive on Farley Ave./ U-Bay Dr.
 - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay
 Dr.
 - Overall Intersection LOS D (40.6 s/vh)
 - 1 movement at LOS F
 - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
 - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
 - Overall Intersection LOS C (24.0 s/vh)
 - Highland Ave. & VA Hospital
 - Overall Intersection LOS B (17.4 s/vh)

Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion
 (Poor operations without significant MV demand reduction)
- Prohibit Eastbound Left at University Bay Drive and reroute traffic to Highland Ave.
 (eastbound traffic fails in the AM peak along Highland)
- Tee Intersection with Full Access to Farley Ave.
 (eastbound traffic fails in the AM peak along Highland)
- Expanded At-Grade Farley Ave./ U-Bay Dr. Intersection with Direct Ramp to UW/VA (Cost prohibitive)