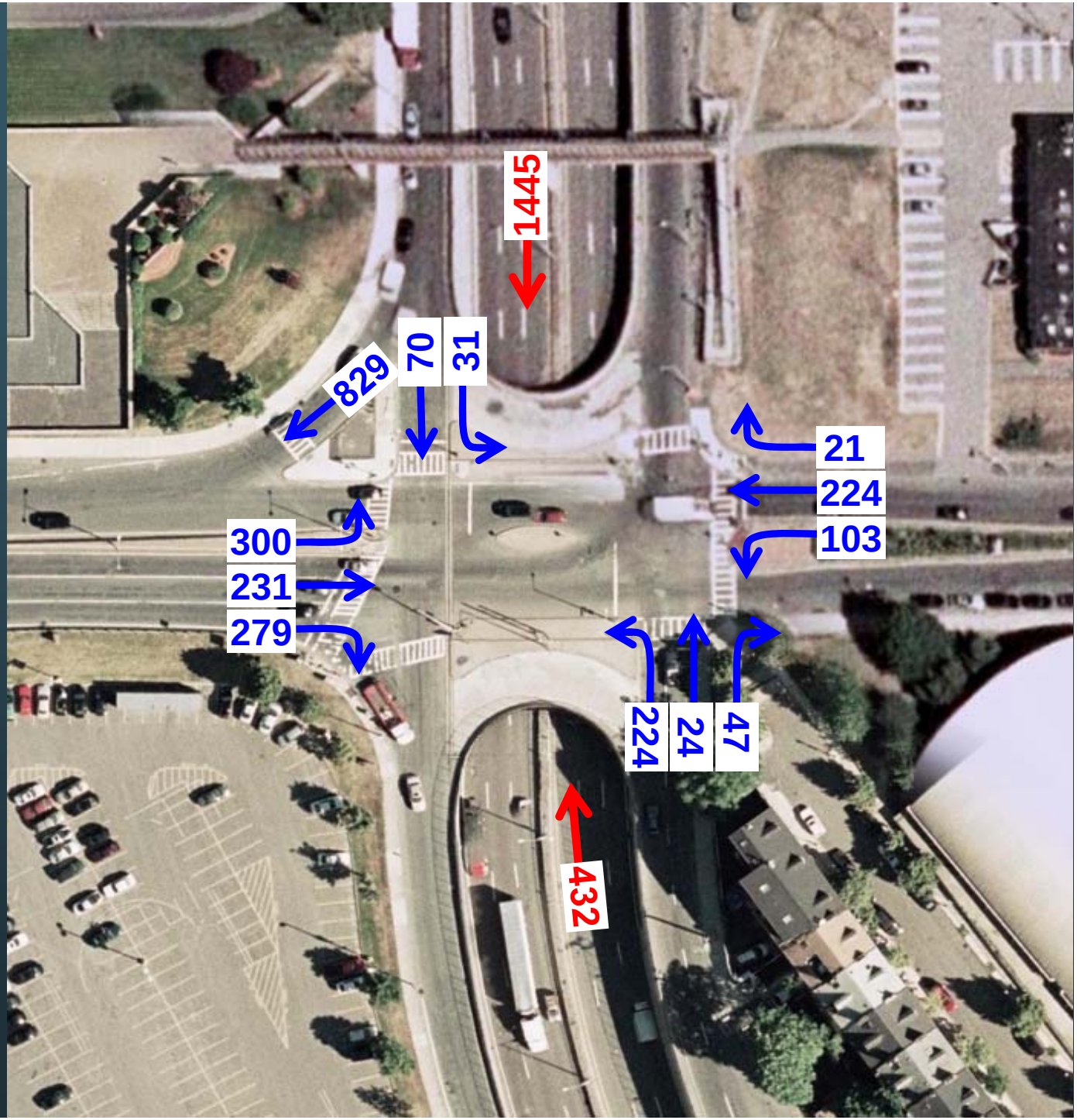
Austin Street – Preliminary Traffic Signal Data

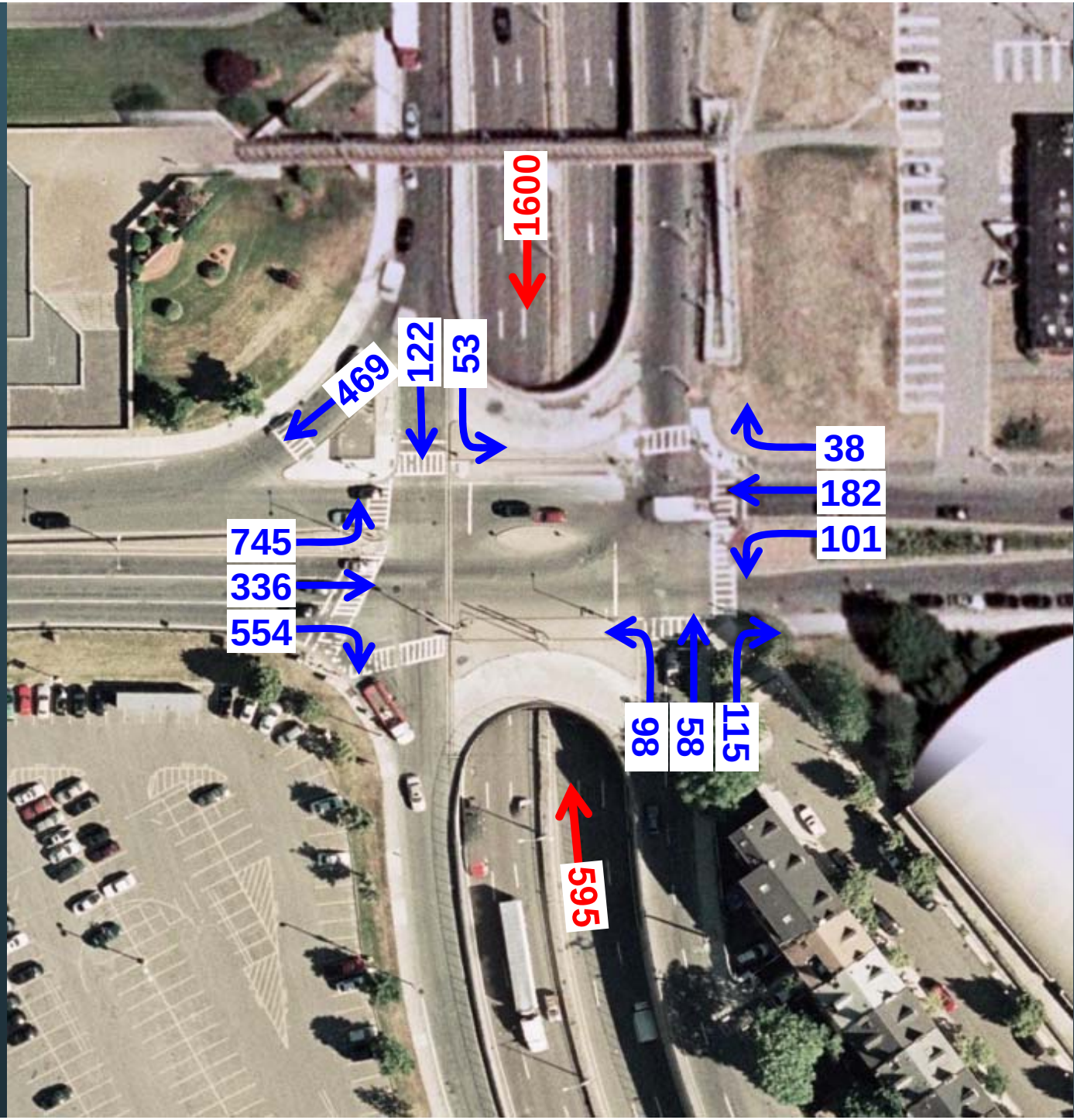
General Information

- Capacity of one thru lane = approximately 1,000 vehicles per hour
- To accommodate all traffic movements existing signal is programmed to complete cycle in 105 seconds
- Future cycle for both design options = 120 seconds.

Austin Street – Existing AM Peak Hour Volumes



Austin Street – Existing PM Peak Hour Volumes



Existing Signal Times – AM Peak

Austin Street approach

- 29 of 105 seconds (27% of signal time)
- 22% of volume at signal

Gilmore Bridge appraoch

- 56 of 105 seconds (54%)
- 52% of volume at signal

Rutherford Ave NB & SB approaches

- 20 of 105 seconds (19%)
- 26% of volume at signal

Existing Signal Times – PM Peak

Austin Street approach

- 29 of 105 seconds (27% of signal time)
- 13% of volume at signal

Gilmore Bridge approach

- 56 of 105 seconds (54%)
- 68% of volume at signal

Rutherford Ave NB & SB approaches

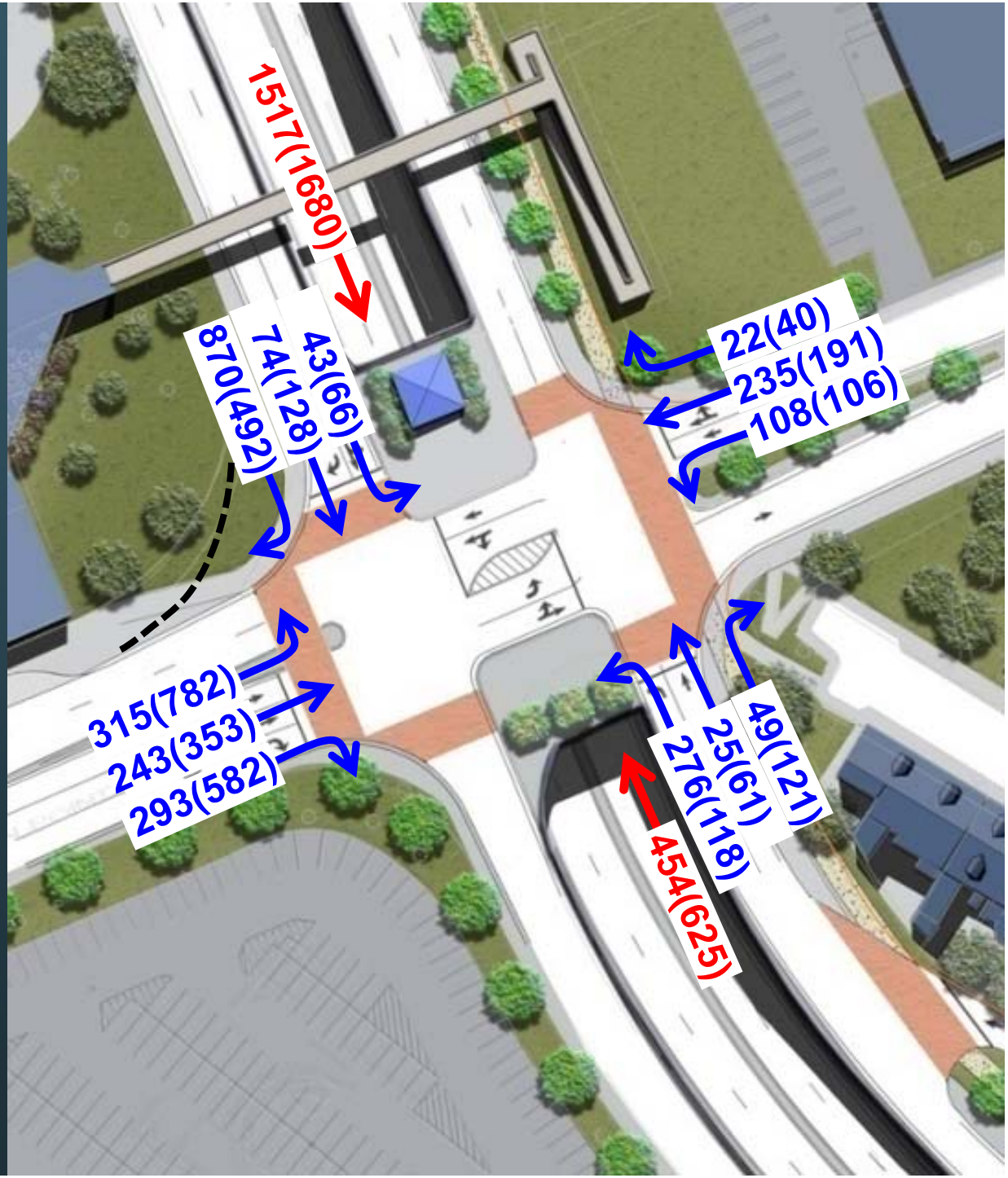
- 20 of 105 seconds (19%)
- 19% of volume at signal

2030 Traffic Projections

- 2008 Traffic Counts (similar to 2011)
- Increase by 5% to account for regional growth and redevelopment in the Rutherford Avenue corridor
- Add in traffic from Assembly Square Project in Somerville

Austin Street Underpass Concept Design

Future 2030 AM (PM) Peak Hour Traffic Volumes



Underpass Option Signal Times – AM Peak

Austin Street approach

- 32 of 120 seconds (26% of signal time)
- 14% of volume at signal

Gilmore Bridge approach

- 45 of 120 seconds (38%)
- 34% of volume at signal

Rutherford Ave NB & SB approaches

- 43 of 120 seconds (37%)
- 52% of volume at signal

Underpass Option Signal Times – PM Peak

Austin Street approach

- 30 of 120 seconds (25% of signal time)
- 11% of volume at signal

Gilmore Bridge approach

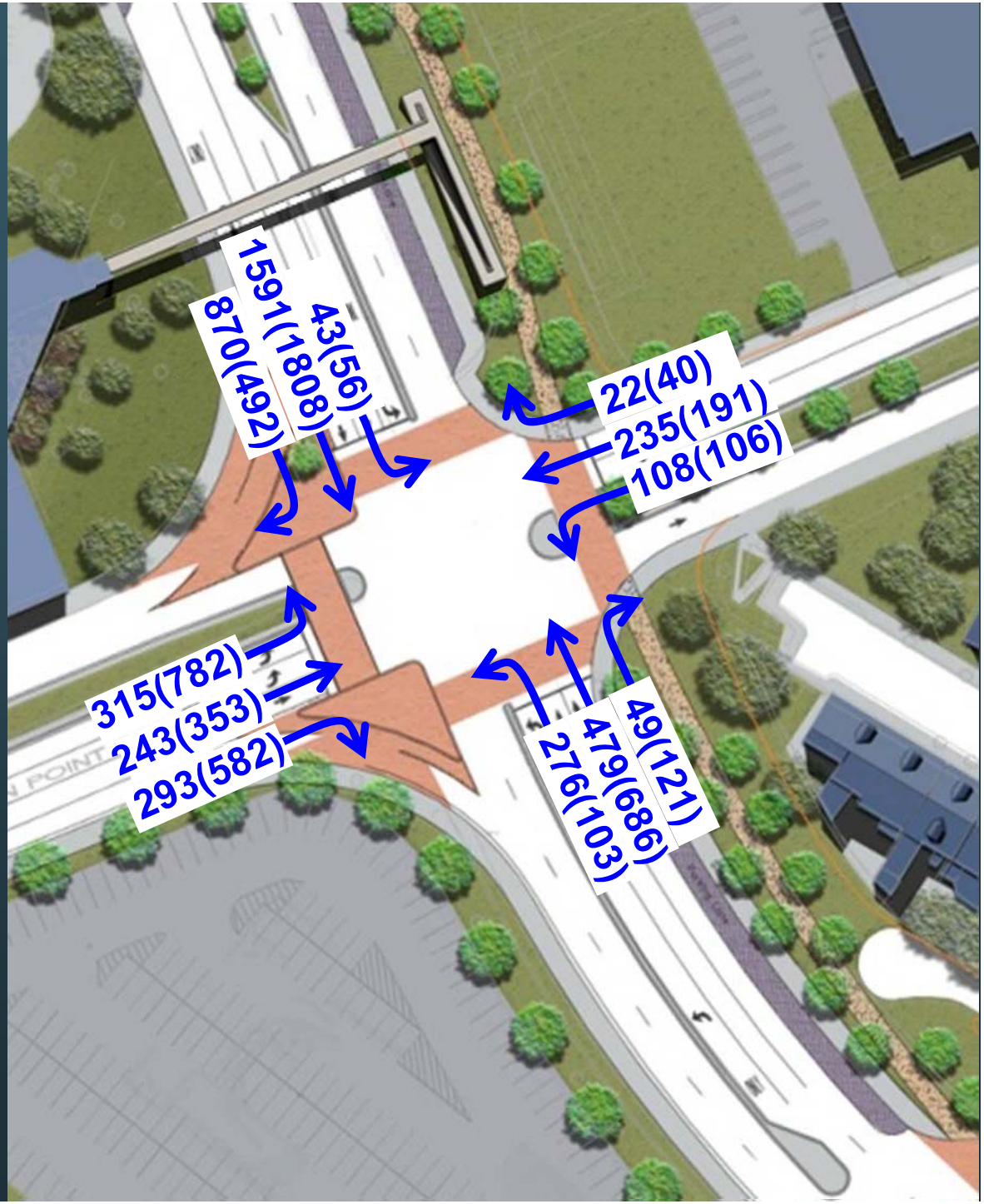
- 46 of 120 seconds (38%)
- 57% of volume at signal

Rutherford Ave NB & SB approaches

- 44 of 120 seconds (37%)
- 32% of volume at signal

Austin Street Surface Option Concept Design

Future 2030 AM (PM) Peak Hour Traffic Volumes



Surface Option Signal Times – AM Peak

Exclusive Pedestrian Phase = 20 of 120 seconds (17%)

Austin Street approach

- 26 of 120 seconds (22% of signal time)
- 8% of volume at signal

Gilmore Bridge approach

- 20 of 120 seconds (17%)
- 19% of volume at signal

Rutherford Ave NB & SB approaches

- 54 of 120 seconds (44%)
- 73% of volume at signal

Surface Option Signal Times – PM Peak

Exclusive Pedestrian Phase = 20 of 120 seconds (17%)

Austin Street approach

- 24 of 120 seconds (20% of signal time)
- 6% of volume at signal

Gilmore Bridge approach

- 24 of 120 seconds (20%)
- 33% of volume at signal

Rutherford Ave NB & SB approaches

- 52 of 120 seconds (43%)
- 61% of volume at signal

Comparison of Signal Times – Austin Street Approach

Condition	AM Peak Hour	PM Peak Hour
Existing	• 29 of 105 seconds (27%) • 22% of traffic volume	• 29 of 105 seconds (27%) • 13% of traffic volume
Underpass Option	• 32 of 120 seconds (26%) • 14% of traffic volume	• 30 of 120 seconds (25%) • 11% of traffic volume
Surface Option	• 26 of 120 seconds (22%) • 8% of traffic volume	• 24 of 120 seconds (20%) • 6% of traffic volume

Note: To accommodate all traffic movements existing signal is programmed to complete cycle in 105 seconds. Future cycle for both design options = 120 seconds.