



West End Neighborhood Traffic Evaluation – 2018

Produced for The City of Portland



Study Goals

- Assess existing transportation conditions for the West End neighborhood.
- Evaluate alternatives to improve access, circulation, efficiency, and pedestrian/bicycle safety including:
 - Reduce hospital vehicle trips on neighborhood streets
 - Improve intersection safety at key locations
 - Improve pedestrian crossing safety along Bramhall Street
 - Provide improved bicycle accommodations
 - Improve hospital wayfinding
- Determine and assess future conditions with each alternative

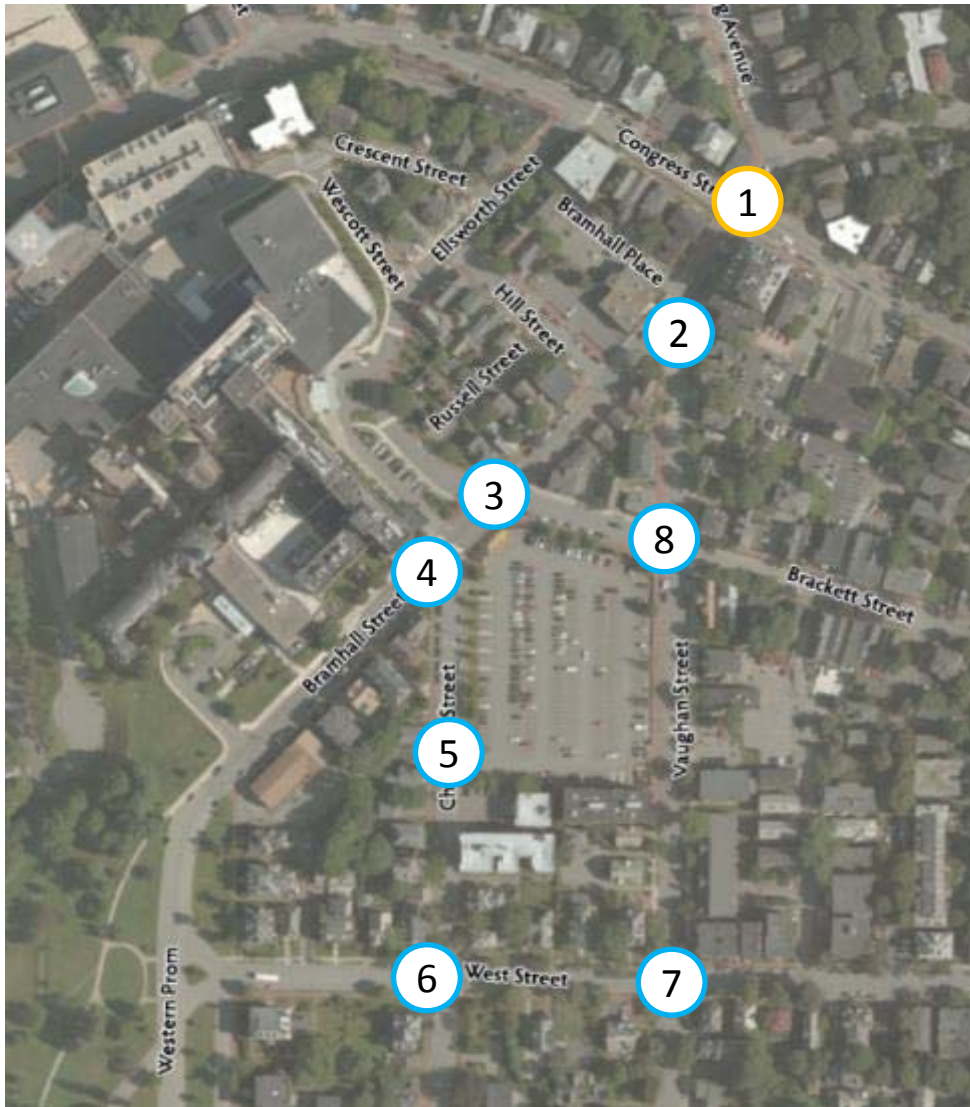
Site Context & Study Area Map



- Major Route
- MMC Institutional Overlay Zone
- Study Area
- - - South Lot
- Western Promenade



Study Area Intersections



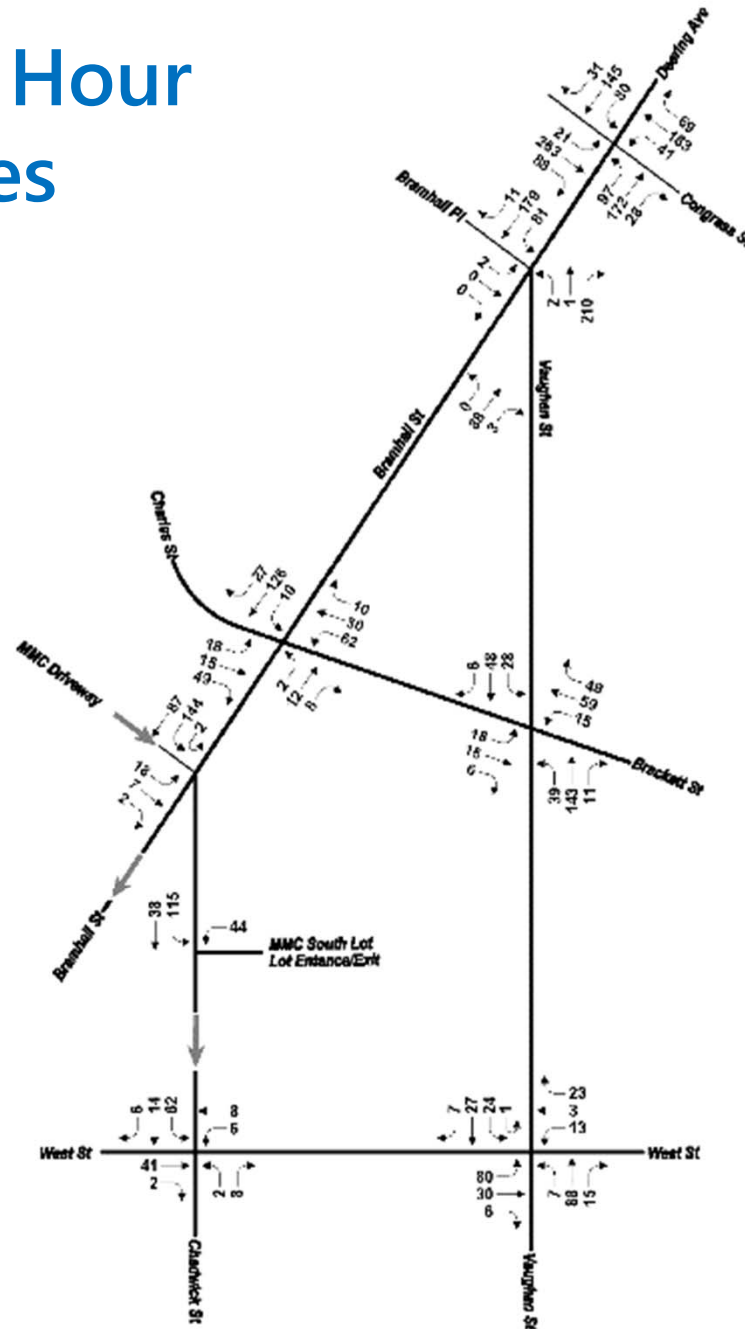
Signalized # Unsignalized

- 1 Congress St / Deering Ave / Bramhall St
- 2 Bramhall St / Vaughan St / Bramhall Pl
- 3 Bramhall St / Brackett St
- 4 Bramhall St / Chadwick St
- 5 Chadwick St
- 6 Chadwick St / West St
- 7 Vaughan St / West St
- 8 Vaughan St / Brackett St

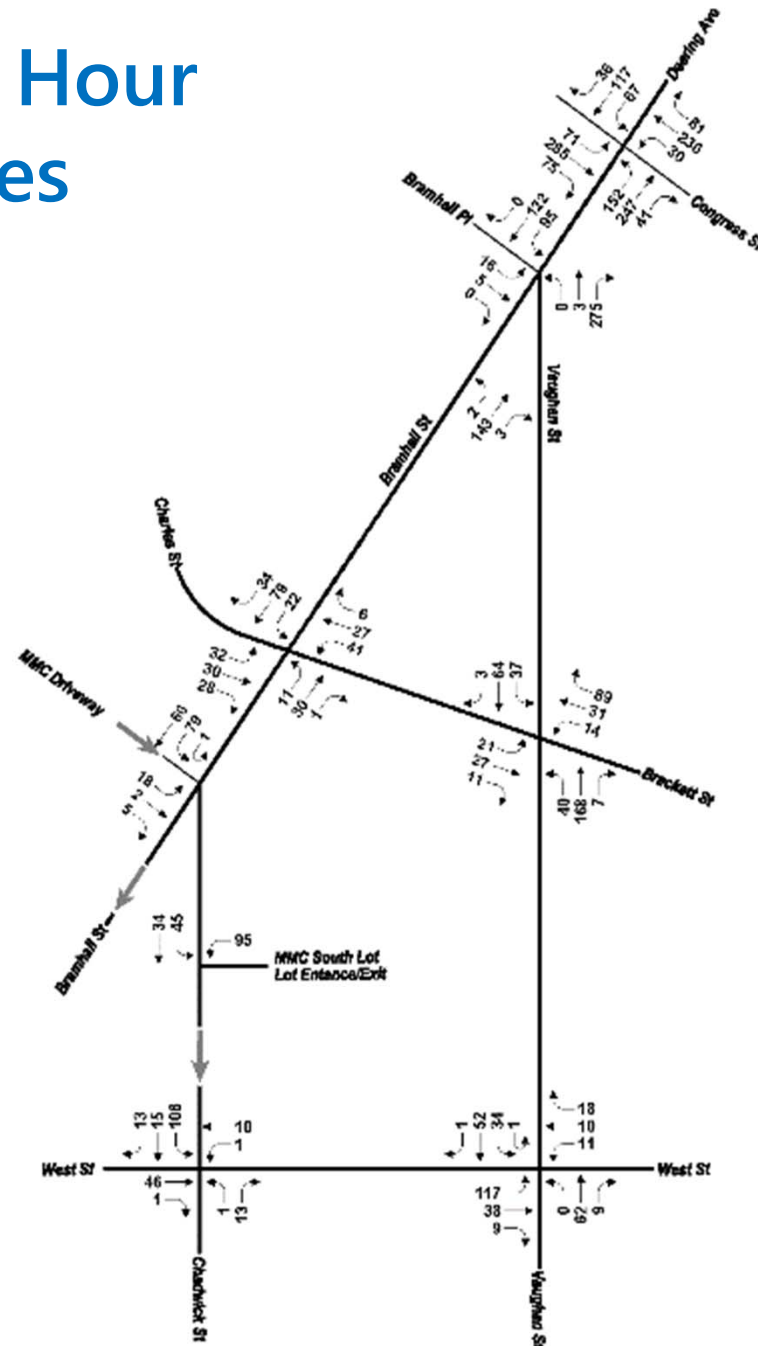
Study Conducted in July 2018



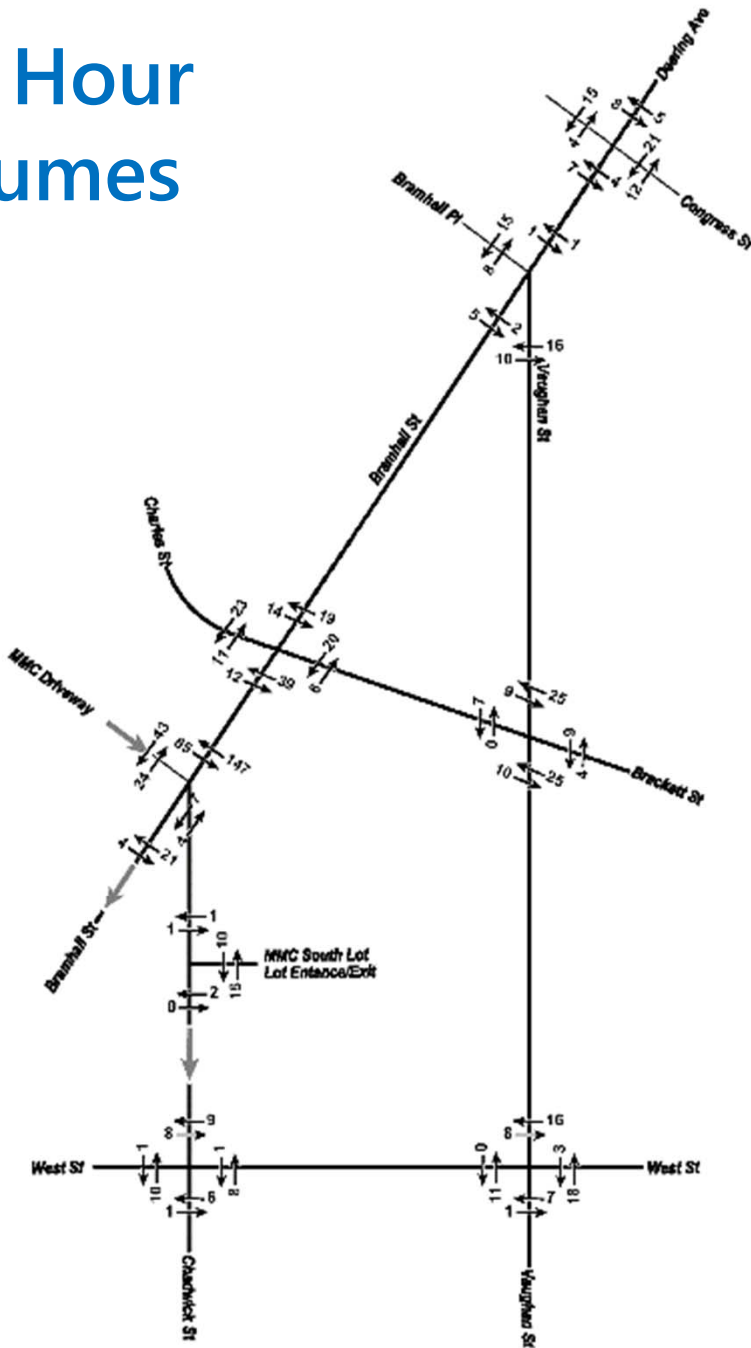
2018 AM Peak Hour Vehicle Volumes (7:30 – 8:30)



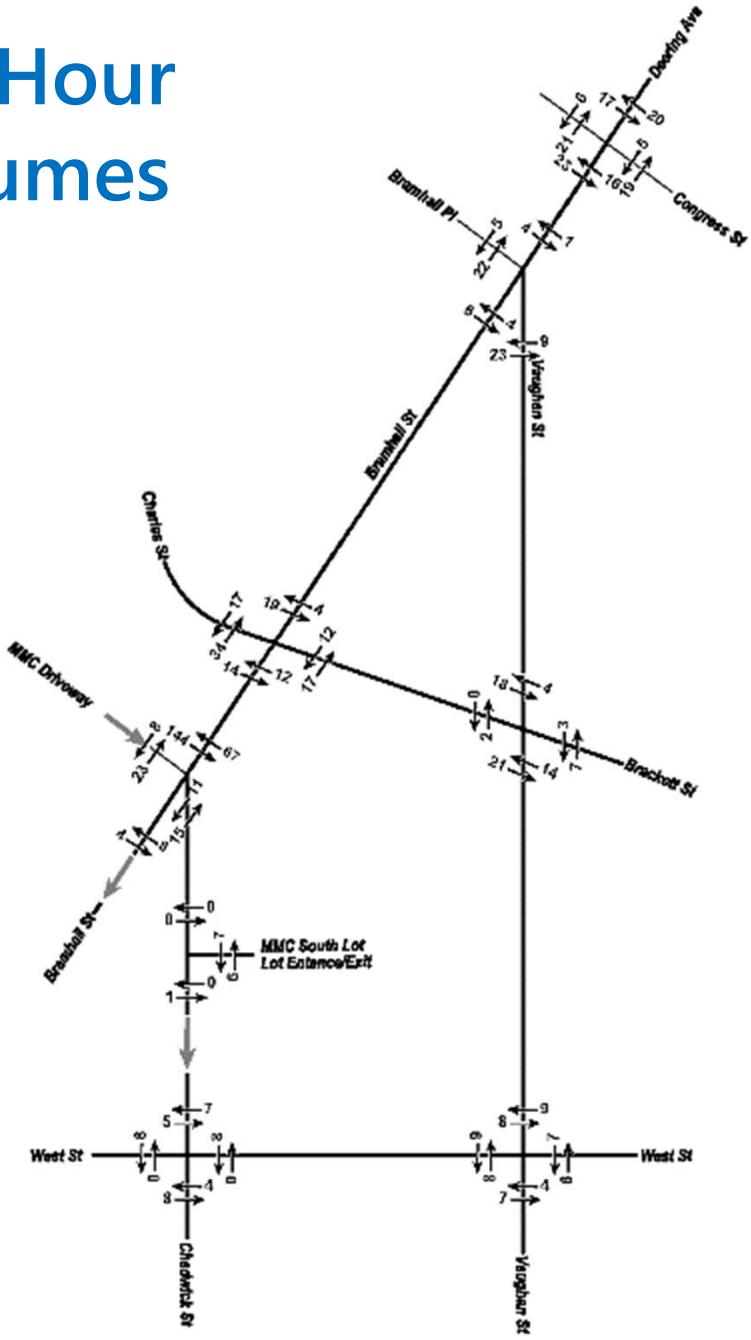
2018 PM Peak Hour Vehicle Volumes (4:00 – 5:00)



2018 AM Peak Hour Pedestrian Volumes (7:30 – 8:30)

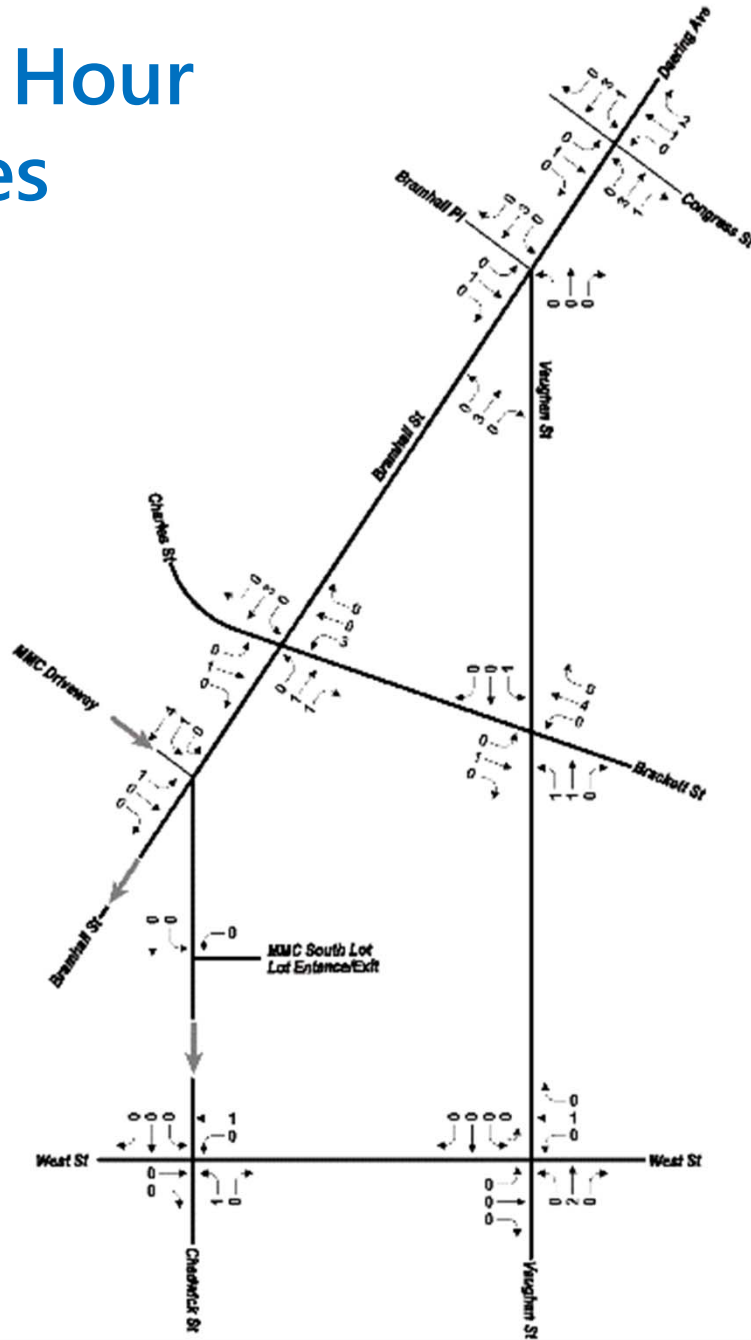


2018 PM Peak Hour Pedestrian Volumes (4:00 – 5:00)

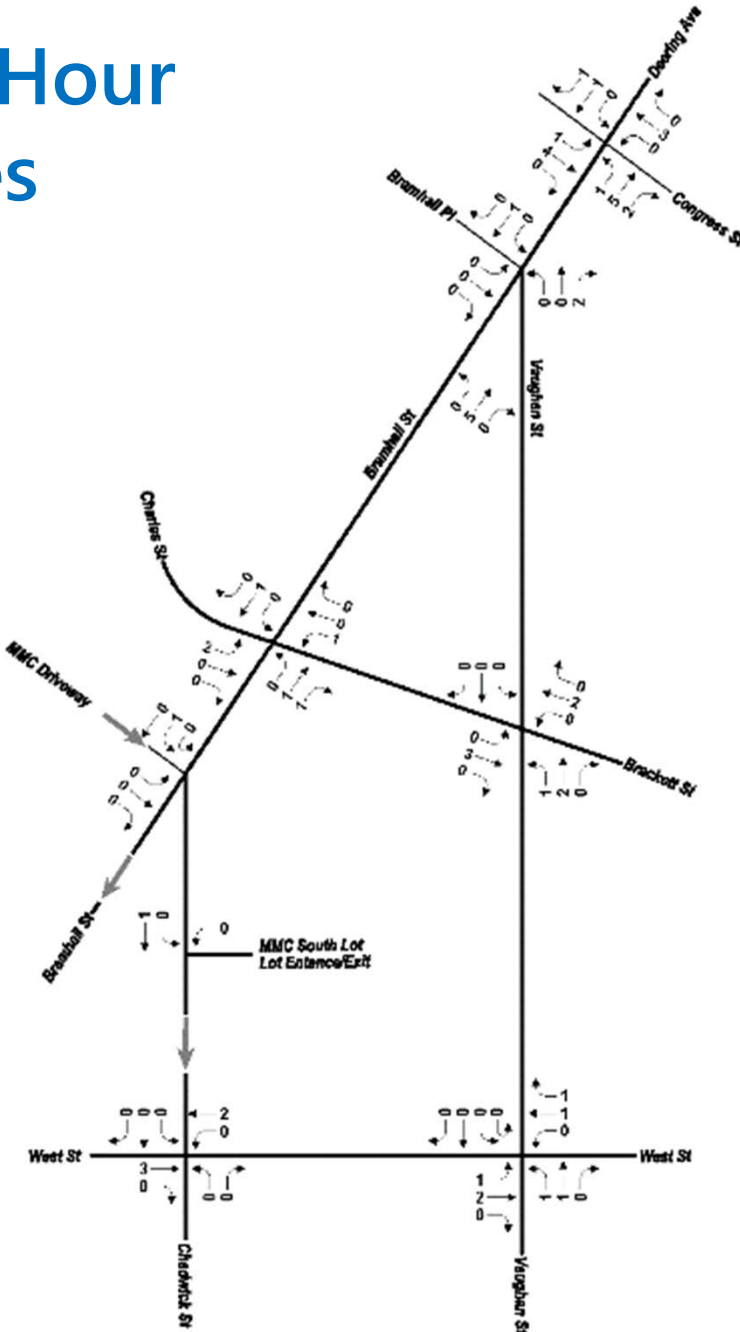


2018 AM Peak Hour Bicycle Volumes

(7:30 – 8:30)



2018 PM Peak Hour Bicycle Volumes (4:00 – 5:00)



Study Area Issues, Challenges, Opportunities

1. Inefficient Traffic Circulation
2. Traffic Control Driver Non-Compliance
3. Intersection Safety
4. Pedestrian Accommodations/ Safety
5. Bicycle Accommodations/ Safety
6. Wayfinding



- Major Route
- MMC Institutional Overlay Zone
- Study Area
- - - South Lot
- Western Promenade



Study Area Issues, Challenges, Opportunities

1. Traffic Circulation



1. Traffic Circulation

- Vehicles exiting South Lot
- Vehicles lost on campus or searching for parking

Traffic circulates West End due to Chadwick St and Bramhall St being one-way.

Percent of total Chadwick St traffic attributed to South Lot egress:

- 53% during AM Peak Hour
- 74% during PM Peak Hour

Percentage of total Vaughan St NB traffic attributed to South Lot egress:

- 42% during AM Peak Hour
- 86% during PM Peak Hour

Additional hospital-related traffic may park on-street or circulate in the West End due to lack of clear signage



Study Area Issues, Challenges, Opportunities

2. Traffic Control: Driver Non-Compliance

1. Traffic Circulation

- Vehicles exiting South Lot
- Vehicles lost on campus or searching for parking

 **2. Traffic Control: Driver Non-Compliance**

Neighborhood concern regarding drivers not complying with STOP control at the intersection of Chadwick Street / West Street




Study Area Issues, Challenges, Opportunities

3. Intersection Safety: Vaughan St at Bramhall St



1. Traffic Circulation
 - Vehicles exiting South Lot
 - Vehicles lost on campus or searching for parking
2. Traffic Control: Driver Non-Compliance
 - STOP

3. Intersection Safety: Vaughan Street at Bramhall Street

- Stop control on Bramhall Street northbound but not Vaughan Street
- Sight distance issues
- Difficult for pedestrians and cyclists to travel through (70-foot crossing on Vaughan Street)

Study Area Issues, Challenges, Opportunities

4. Pedestrian Accommodations/Safety



1. Traffic Circulation
 - Vehicles exiting South Lot
 - Vehicles lost on campus or searching for parking
2. Traffic Control: Driver Non-Compliance
 - STOP
3. Intersection Safety: Vaughan Street at Bramhall Street
 -

4. Pedestrian Accommodations/Safety

- Faded or non-existent crosswalk and lane markings
- Wide Crossings
- Missing Tactile Warning Strip on key corner of hospital to cross to patient parking lot

Bramhall Street crossing

- 50-feet across
- 232 pedestrians during AM Peak

Chadwick Street crossing

- 75-feet across
- 26 pedestrians during AM Peak



Study Area Issues, Challenges, Opportunities

5. Bicycle Accommodations/Safety



1. Traffic Circulation
 - Vehicles exiting South Lot
 - Vehicles lost on campus or searching for parking
 2. Traffic Control: Driver Non-Compliance (STOP sign icon)
 3. Intersection Safety: Vaughan Street at Bramhall Street (Green circle icon)
 4. Pedestrian Accommodations/Safety (Pedestrian icon)
 5. Bicycle Accommodations/Safety (Bicycle icon)
 - Planned On Road Bikeway
 - Planned Neighborhood Byway
- No in-road bicycle accommodations; all still planned

Study Area Issues, Challenges, Opportunities

6. Wayfinding

1. Traffic Circulation

- Vehicles exiting South Lot
- Vehicles lost on campus or searching for parking



2. Traffic Control: Driver Non-Compliance



3. Intersection Safety: Vaughan Street at Bramhall Street



4. Pedestrian Accommodations/Safety



5. Bicycle Accommodations/Safety

— Planned On Road Bikeway

— Planned Neighborhood Byway




6. Wayfinding

Lack of clear signage for patients/visitors accessing drop-off and parking

- Congress Street signage not close enough to indicate where to turn
- No signage at Vaughan Street from Bramhall Street
- Unclear South Lot parking signage



Study Area Issues, Challenges, Opportunities Summary

- 1. Traffic Circulation
 -  Vehicles exiting South Lot
 -  Vehicles lost on campus or searching for parking
- 2. Traffic Control: Driver Non-Compliance
 - 
- 3. Intersection Safety: Vaughan Street at Bramhall Street
 - 
- 4. Pedestrian Accommodations/Safety
 - 
- 5. Bicycle Accommodations/Safety
 - 
 -  Planned On Road Bikeway
 -  Planned Neighborhood Byway
- 6. Wayfinding
 - 



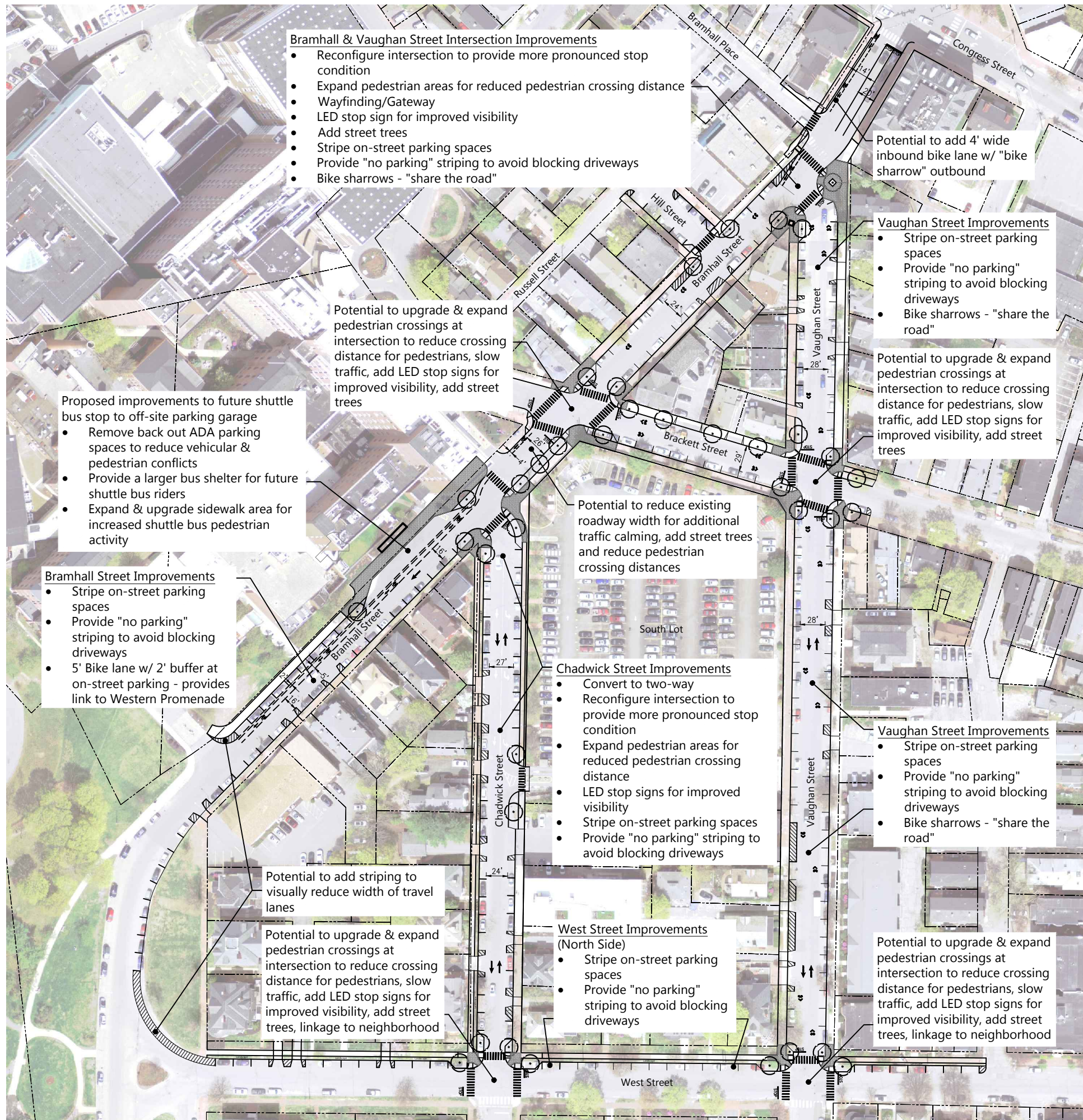
Potential Improvement Actions to Consider

Conceptual Plan:

- Traffic Circulation
 - Make Chadwick Street two-way between West Street and Bramhall Street.
- Pedestrian and Bicycle Safety
 - Provide curb extensions along Bramhall St after/before edge of parking at intersections to extend pedestrian area and shorten crossing distance at Bramhall Street/Chadwick Street, Bramhall Street/Brackett Street.
 - Restripe pedestrian crosswalks so they are fresh and more visible.
 - Install tactile warning strip at key hospital crossing across Bramhall Street.
 - Add sharrows and bike lanes on Bramhall Street, Vaughan Street and Brackett Street where they fit. Consistent with City's neighborhood byway plan.
 - Remove perpendicular on-street handicapped parking at intersection of Bramhall and Chadwick Street.
 - Improve bus stop on Bramhall Street.
- Intersection Safety: Bramhall Street at Vaughan Street
 - Change geometry of Bramhall Street and Vaughan Street by adding curb extensions to improve safety for pedestrians and shorten crossing distance.
 - Restripe pedestrian crosswalks so they are fresh and more visible.
 - Consider Vaughan Street stop control instead of Bramhall St northeast bound due to poor sight distance and re-routed South Lot traffic.
 - Install LED flashing STOP signs and add stop bars.
- Improve Wayfinding
- Increased Patient/Visitor Parking
 - Will help reduce hospital related visitors from circulating looking for parking or getting lost trying to find MMC's South Lot



Questions/Next Steps



Bramhall & Vaughan Street Intersection Improvements

- Reconfigure intersection to provide more pronounced stop condition
- Expand pedestrian areas for reduced pedestrian crossing distance
- Wayfinding/Gateway
- LED stop sign for improved visibility
- Add street trees
- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways
- Bike sharrows - "share the road"

Potential to add 4' wide inbound bike lane w/ "bike sharrow" outbound

Vaughan Street Improvements

- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways
- Bike sharrows - "share the road"

Potential to upgrade & expand pedestrian crossings at intersection to reduce crossing distance for pedestrians, slow traffic, add LED stop signs for improved visibility, add street trees

Potential to upgrade & expand pedestrian crossings at intersection to reduce crossing distance for pedestrians, slow traffic, add LED stop signs for improved visibility, add street trees

Proposed improvements to future shuttle bus stop to off-site parking garage

- Remove back out ADA parking spaces to reduce vehicular & pedestrian conflicts
- Provide a larger bus shelter for future shuttle bus riders
- Expand & upgrade sidewalk area for increased shuttle bus pedestrian activity

Potential to reduce existing roadway width for additional traffic calming, add street trees and reduce pedestrian crossing distances

Bramhall Street Improvements

- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways
- 5' Bike lane w/ 2' buffer at on-street parking - provides link to Western Promenade

Chadwick Street Improvements

- Convert to two-way
- Reconfigure intersection to provide more pronounced stop condition
- Expand pedestrian areas for reduced pedestrian crossing distance
- LED stop signs for improved visibility
- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways

Vaughan Street Improvements

- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways
- Bike sharrows - "share the road"

Potential to add striping to visually reduce width of travel lanes

Potential to upgrade & expand pedestrian crossings at intersection to reduce crossing distance for pedestrians, slow traffic, add LED stop signs for improved visibility, add street trees, linkage to neighborhood

West Street Improvements (North Side)

- Stripe on-street parking spaces
- Provide "no parking" striping to avoid blocking driveways

Potential to upgrade & expand pedestrian crossings at intersection to reduce crossing distance for pedestrians, slow traffic, add LED stop signs for improved visibility, add street trees, linkage to neighborhood

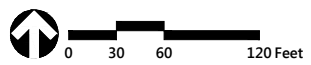
City of Portland

No.	Revision	Date	Appr'd.

Designed by _____ Checked by _____
 Issued for: The City of Portland Date Aug. 8, 2018

Not Approved for Construction

Drawing Title
Streetscape Studies -Conceptual Master Plan Illustrating Potential Improvement Actions to Consider



CSP-1