WELLS + ASSOCIATES

THE RIVER SCHOOL UPDATE

ANC 3E Meeting

September 9, 2021

Agenda

- Updated Trip Generation
- Additional TDM Commitments
- On-Site Queuing Analysis
- Site Traffic on Area Roadways
- Updated Mitigation Measures
- Next Steps
- Questions

Updated Trip Generation

Vehicle Trip Generation – No TDM Plan

	AM Peak Hour (8:00-9:00 AM)		PM School Peak Hour (2:45 – 3:45 PM)		PM Cmmtr Peak Hour (5:00-6:00 PM)	
	In	Out	In	Out	In	Out
Students	204	204	87	87	33	33
Faculty/Staff	0	0	0	0	0	39
Clinic	0	0	0	0	2	2
Total	204	204	87	87	35	74

Vehicle Trip Generation – Original TDM Plan

	AM Peak Hour (8:00-9:00 AM)		PM School Peak Hour (2:45 – 3:45 PM)		PM Cmmtr Peak Hour (5:00-6:00 PM)	
	In	Out	In	Out	In	Out
Students	173	173	74	74	28	28
Faculty/Staff	0	0	0	0	0	32
Clinic	0	0	0	0	2	2
Total	173	173	74	74	30	62

Represents a 15% reduction during all three peak hours

Vehicle Trip Generation – Original TDM Plan

	AM Peak Hour (8:00-9:00 AM)		PM School Peak Hour (2:45 – 3:45 PM)		PM Cmmtr Peak Hour (5:00-6:00 PM)	
	In	Out	In	Out	In	Out
Students	173	173	74	74	28	28
Faculty/Staff	0	0	0	0	0	32
Clinic	0	0	0	0	2	2
Total	173	173	74	74	30	62

Vehicle Trip Generation – Current TDM Plan

	AM Peak Hour (8:00-9:00 AM)		PM School Peak Hour (2:45 – 3:45 PM)		PM Cmmtr Peak Hour (5:00-6:00 PM)	
	In	Out	In	Out	In	Out
Students	112	112	74	74	28	28
Faculty/Staff	0	0	0	0	0	32
Clinic	0	0	0	0	2	2
Total	112	112	74	74	30	62

Represents a **35% Reduction** in AM Peak Hour Vehicular Trips compared to our last proposal

Represents a **45% Reduction** in AM Peak Hour Vehicle Trips compared to No TDM Plan

Transportation Management Plan

How Will River School Achieve Reduction?

New Commitments:

- Implement one of the following or some combination of the following:
  - Shuttle students in grades K – 6 from off site location in AM
    - Potential location – Wells Fargo or other commercial property on MacArthur Blvd
  - Increase mandatory carpooling for Kindergarten or older from 2 students per car to 3 students per car
  - Provide tuition discounts or subsidies for families who use Metro, walk, or bike to school

How Will River School Achieve Reduction?

Current Commitments:

- Bicycle amenities and incentives
  - Provide covered/secure bicycle parking
  - Provide bicycle repair station on campus
  - Provide bicycle subsidies or annual CaBi membership for faculty/staff Incorporate bicycle education into the phys ed curriculum
  - Host bike and walk to school events
  - Participate in Safe Routes to School Program
- Transit Incentives
  - Provide monthly transit subsidy for faculty/staff who take transit
  - Enroll in Guaranteed Ride Home
- Carpooling Initiatives
  - Provide carpool matching assistance for students and faculty/staff
  - Register with Commuter Connections School Pool Program
  - Implement mandatory carpooling program with at least 2 students per car for grades K - 6

Monitoring Plan

- Meet with ANC quarterly to discuss any transportation related concerns of the community
- Conduct annual studies to ensure transportation commitments are being met
- If commitments are met over time, studies gradually phase out
- If study reveals deficiencies, School will meet with ANC and DDOT to develop and implement remedial strategies to correct issues

Monitoring Plan - Enhancements

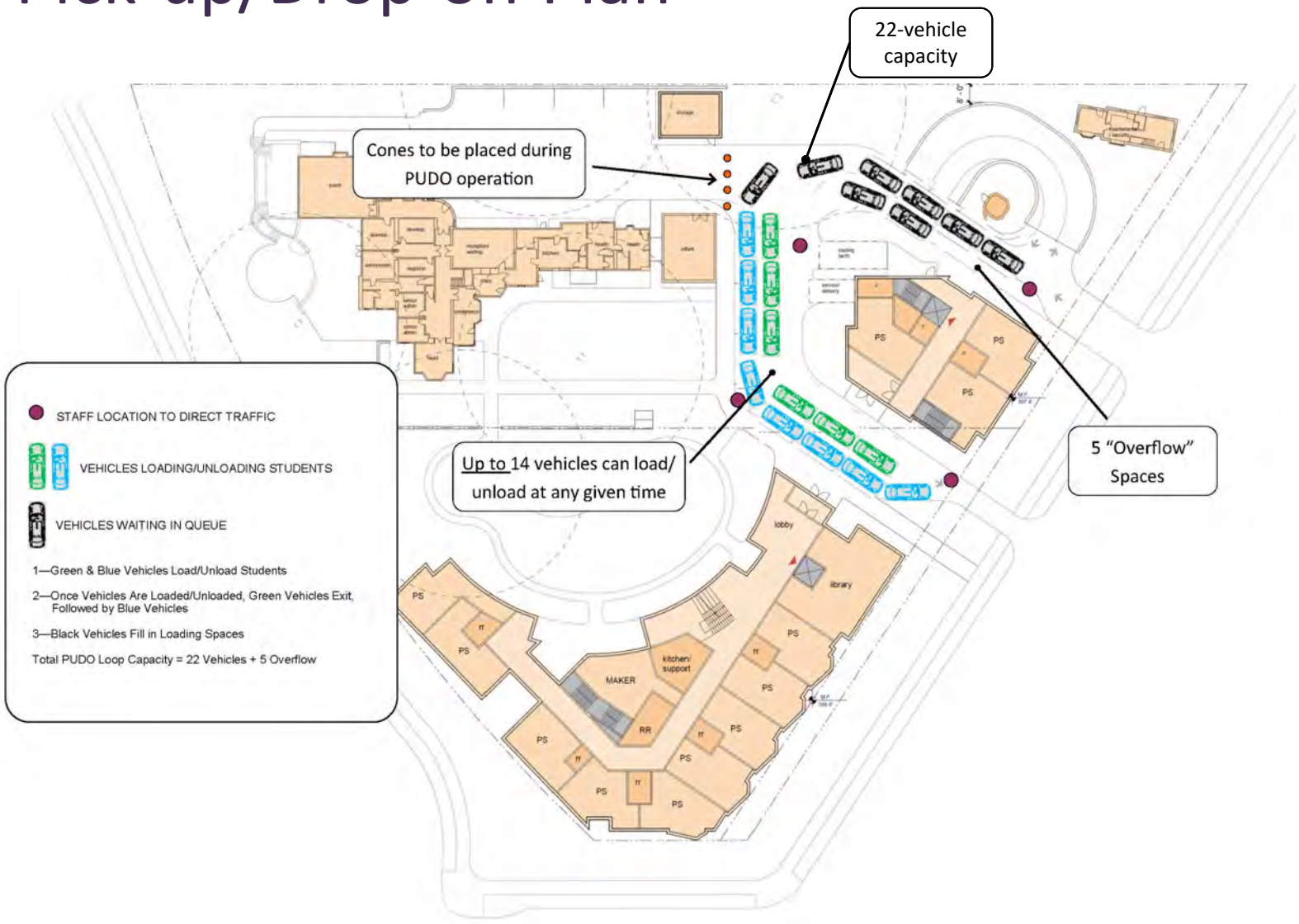
- More aggressive timeline for monitoring
  - Year 1: two times each semester, 1st monitoring study must be completed by October 15th
  - Beginning Year 2: monitoring study must be completed by October 15th
  - If requirements are not met:
    - Five days after submission of study to request meeting with ANC 3E and DDOT
    - 30 days to hold meeting (subject to availability of ANC 3E reps and DDOT)
    - River School shall make diligent efforts to implement remedial strategies (Enhanced Strategies) within 30 days of meeting
    - 2nd monitoring study must be completed in Spring Semester to ensure Enhanced Strategies are working

Monitoring Plan - Enhancements

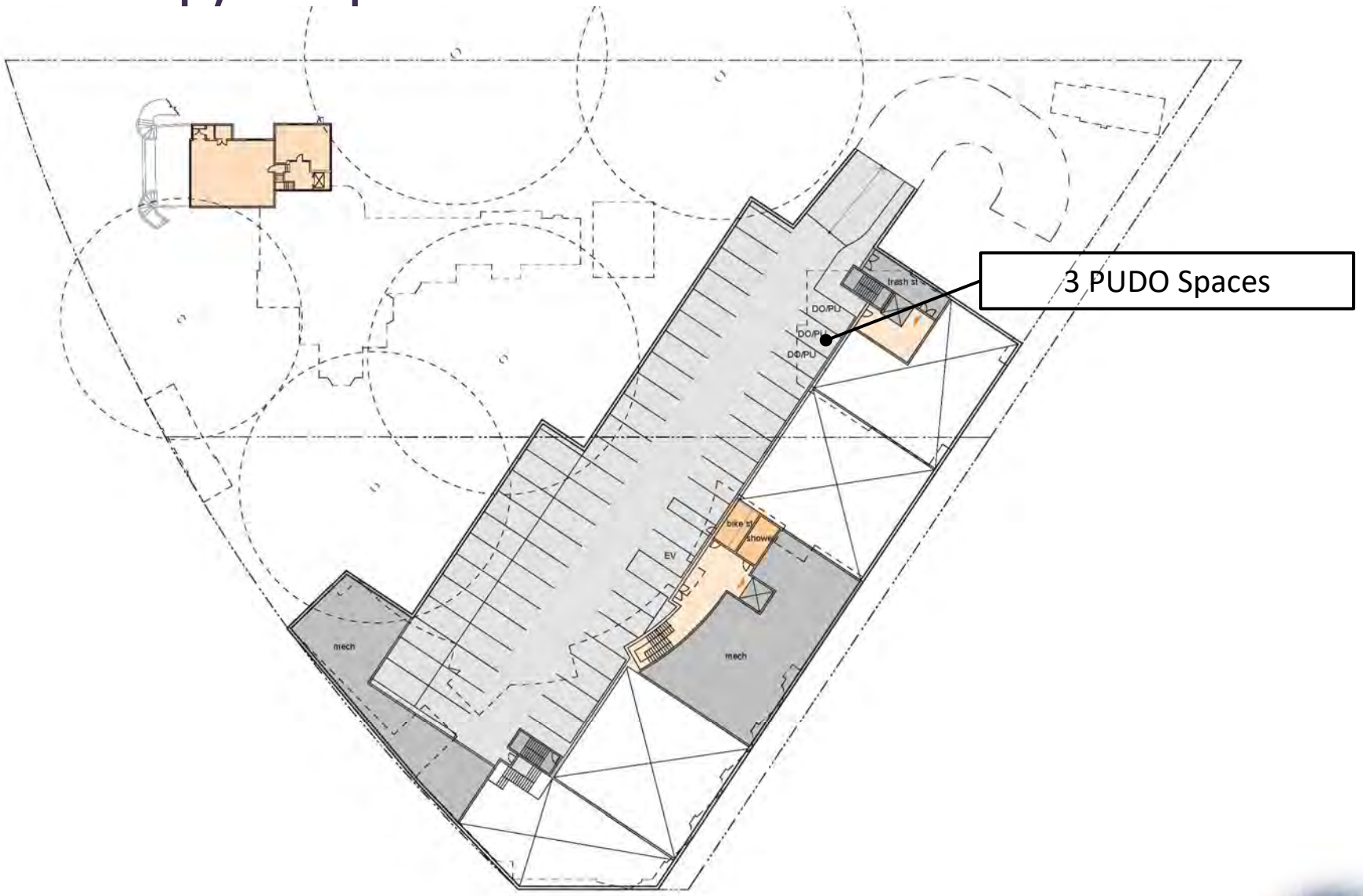
- Identification of specific Enhanced Strategies to be implemented if requirements are not met
  - Enhanced Strategy #1
    - Reduce the number of PUDO passes issued to parents
    - Lease off-site parking within ⅓-mile at the school's expense for use as short-term parking/PUDO spaces for parents
  - Enhanced Strategy #2
    - Convert all spaces in the garage except for tandem spaces and the ADA spaces to short-term parking for PUDO operation
    - Lease off-site parking within ⅓-mile at the school's expense for River School faculty and staff
    - Modify the PUDO lane to use a single stacking lane with a bypass lane to allow garage PUDO traffic to bypass the queue lane
  - Enhanced Strategy #3
    - Increase mandatory carpooling requirement from two students per vehicle to three students per vehicle for families still dropping off or picking up students on campus

On-Site Queuing Analysis

Pick-up/Drop-off Plan



Pick-up/Drop-off Plan

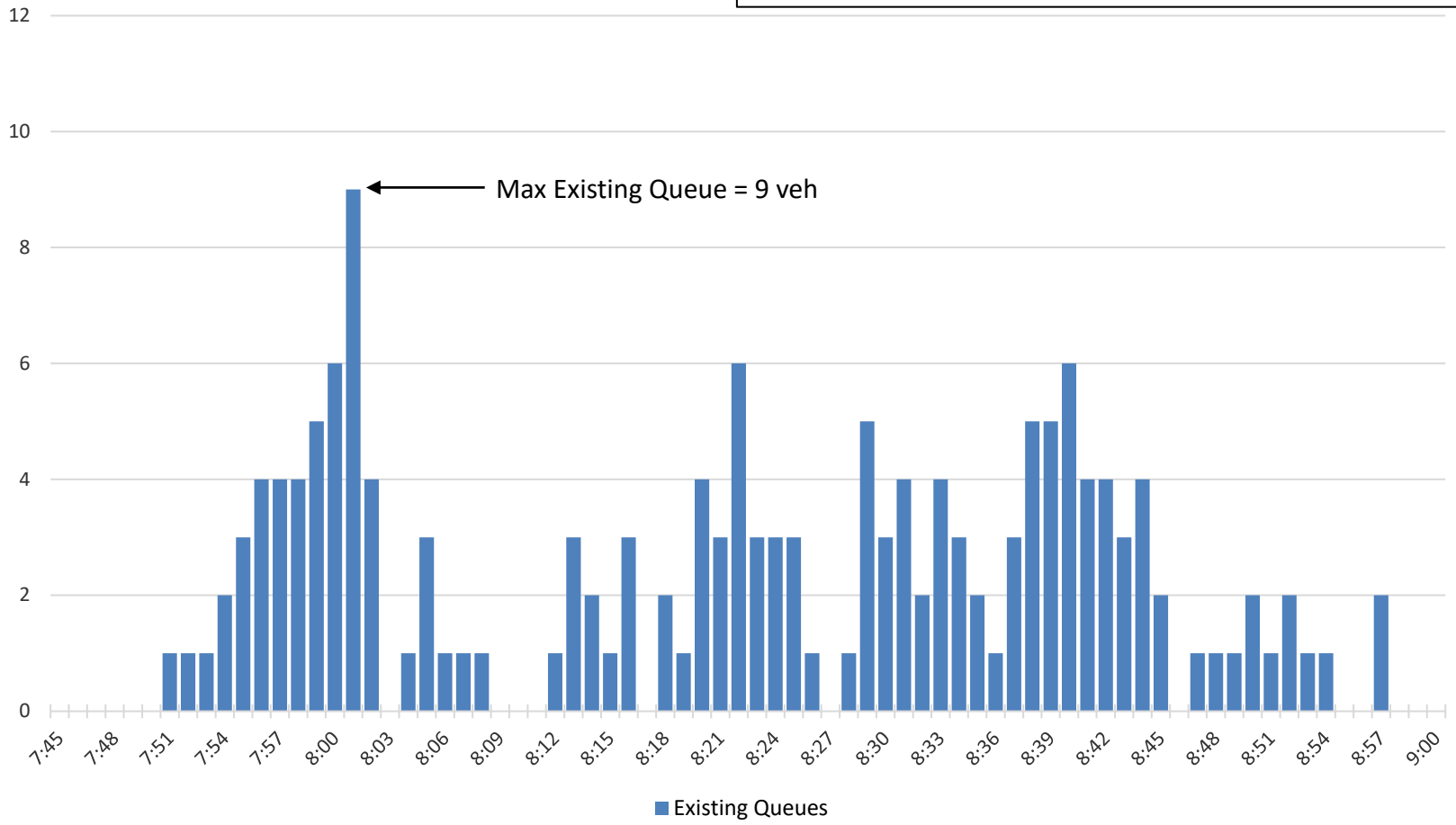


Queuing Model – Two Methods

- M/M/1 Queue Model
  - $Q_{99} = [\ln (1-0.99)/\ln (\rho)] - 1$
  - Statistical model based on exponential arrivals
  - All arrivals occur randomly and independent of each other
  - First-In/First-Out service
  - Calibrated based on data collected at existing school
- Extrapolation Method
  - Uses minute-by-minute queues at existing school
  - Extrapolates projected queues based on projected trip generation for the new school

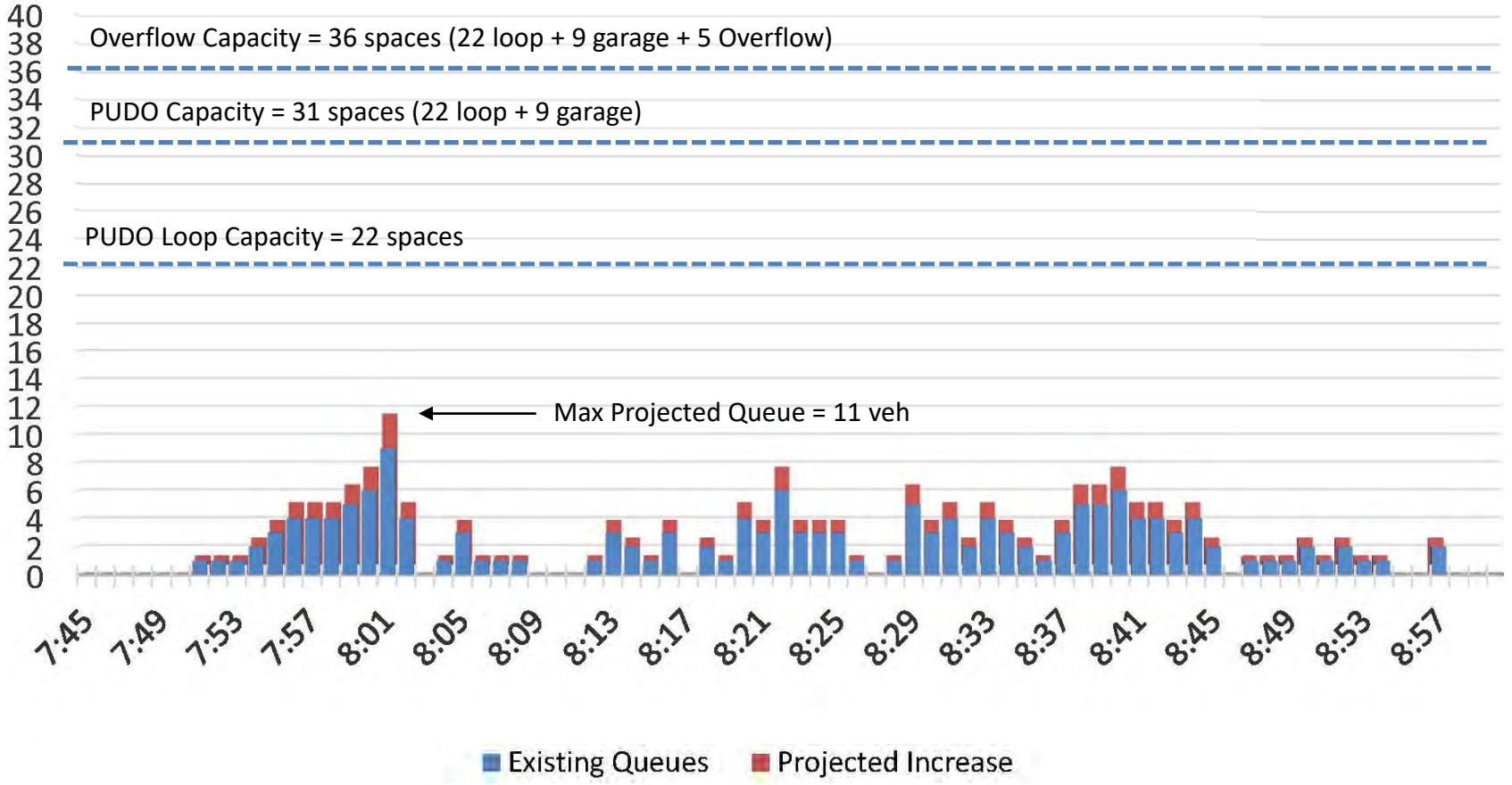
Existing AM Peak Hour

Total number of vehicles dropping off = 88



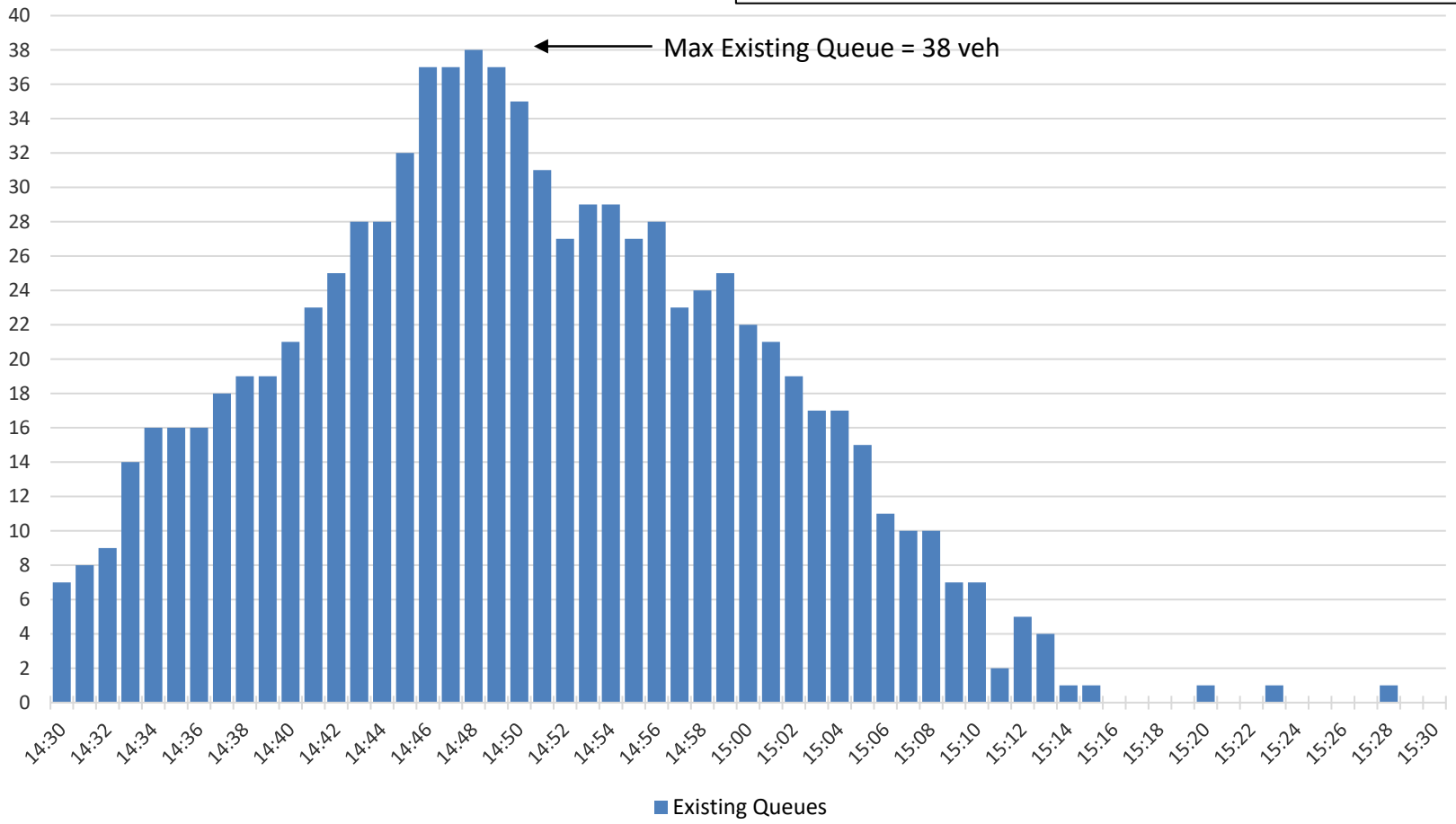
Projected AM Peak Hour

Total number of vehicles dropping off = 112



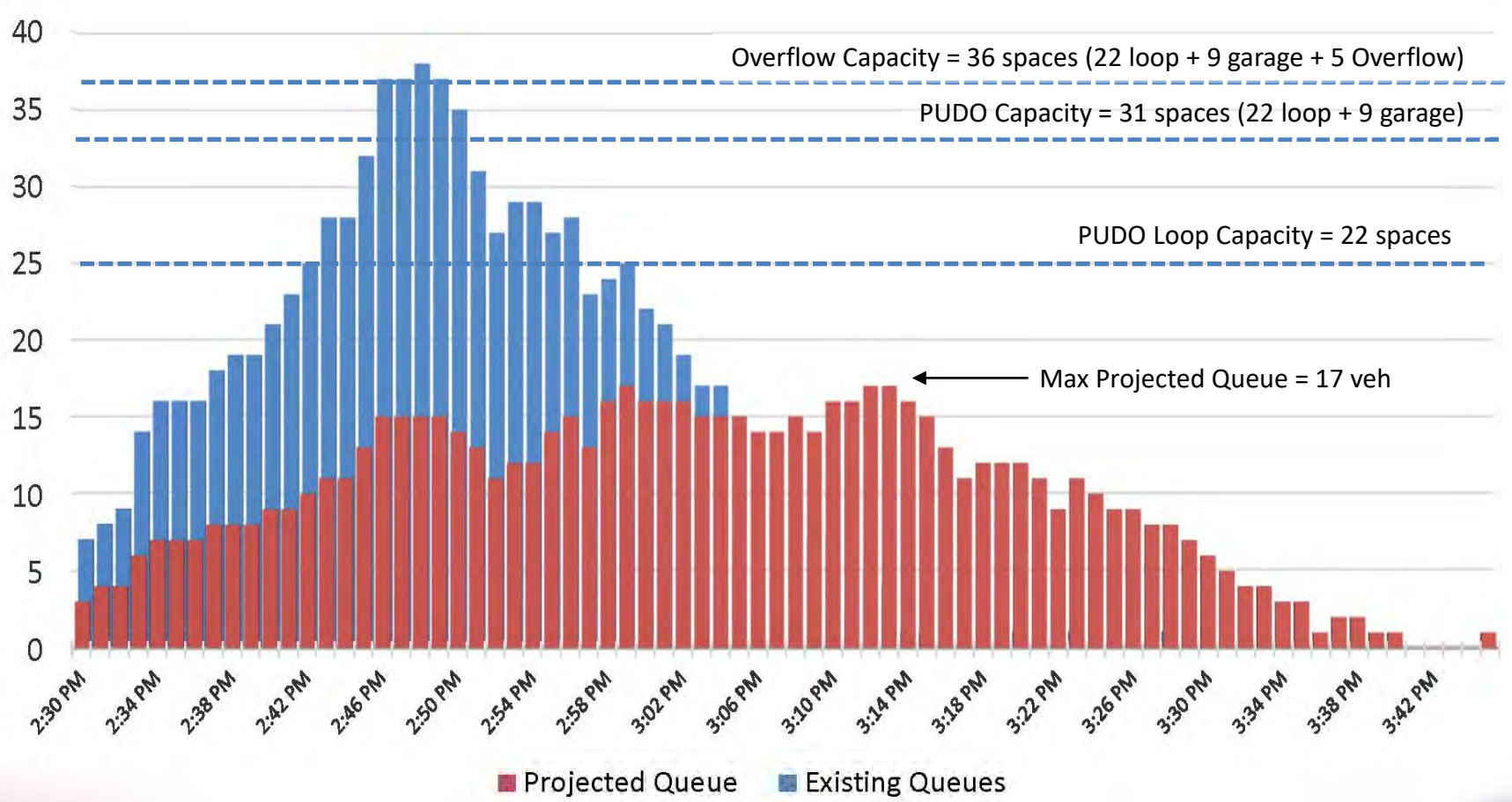
Existing PM Peak Hour

Total number of vehicles picking up = 95



Projected PM Peak Hour

Total number of vehicles picking up = 74



Summary

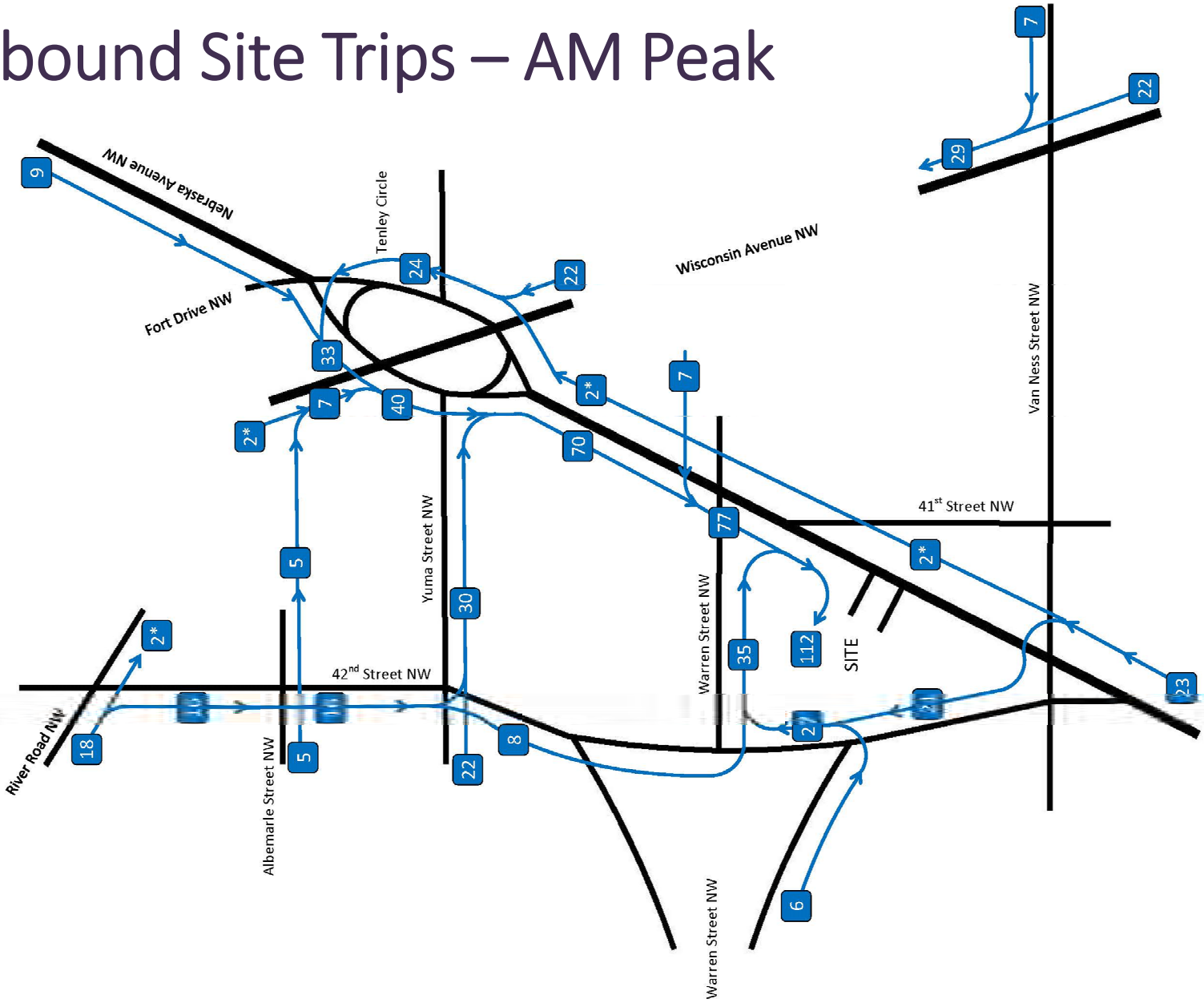
	M/M/1 Model	Extrapolation	Capacity*
AM Peak Hour	12	11	31
PM Peak Hour	11	17	31

* Capacity includes loop capacity plus three spaces in garage. It does not include overflow capacity of 5-7 vehs

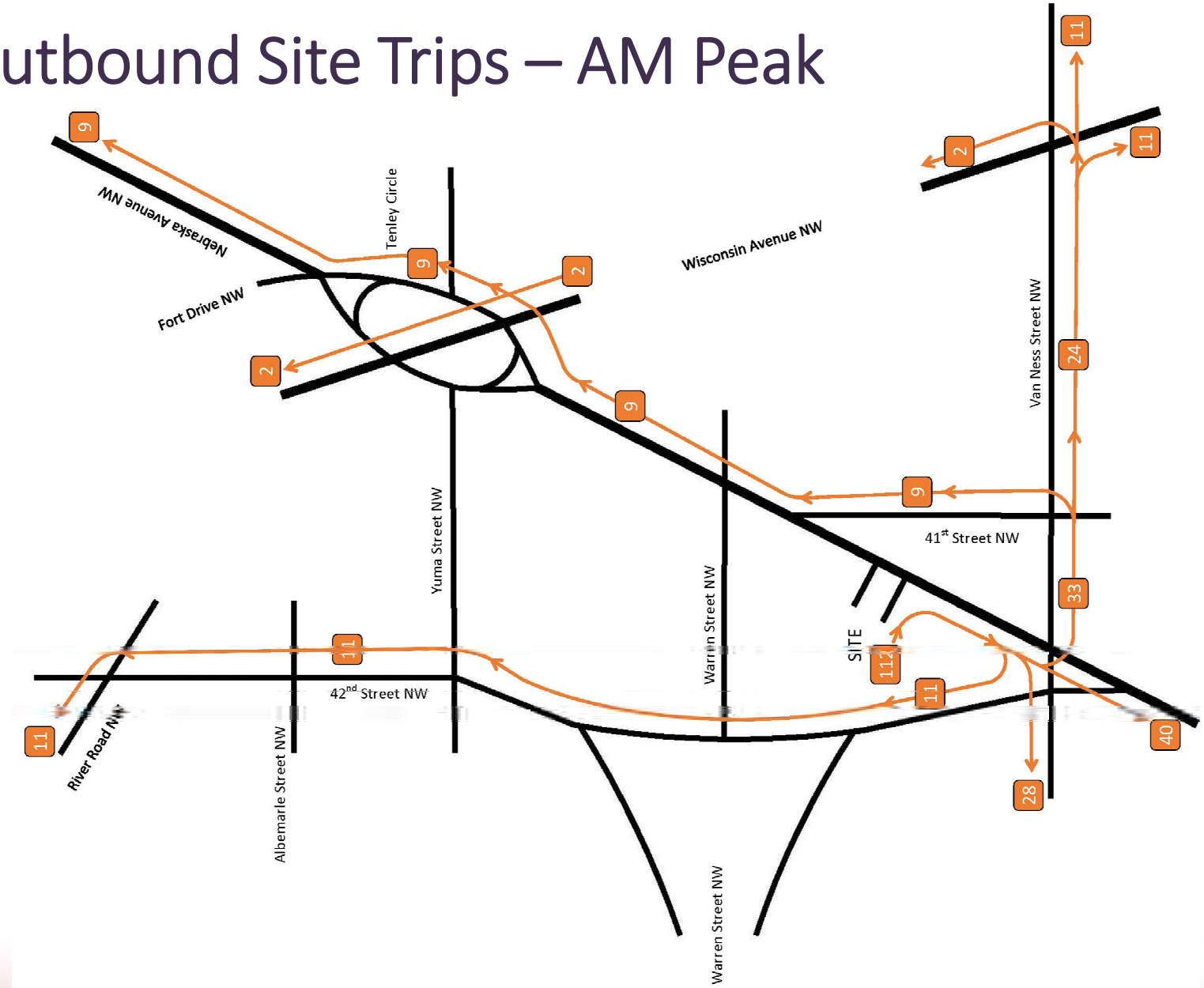
With a maximum projected queue of 17 vehicles, the proposed PUDO capacity will be 82% higher than needed to accommodate the queue.

Proposed Site Traffic

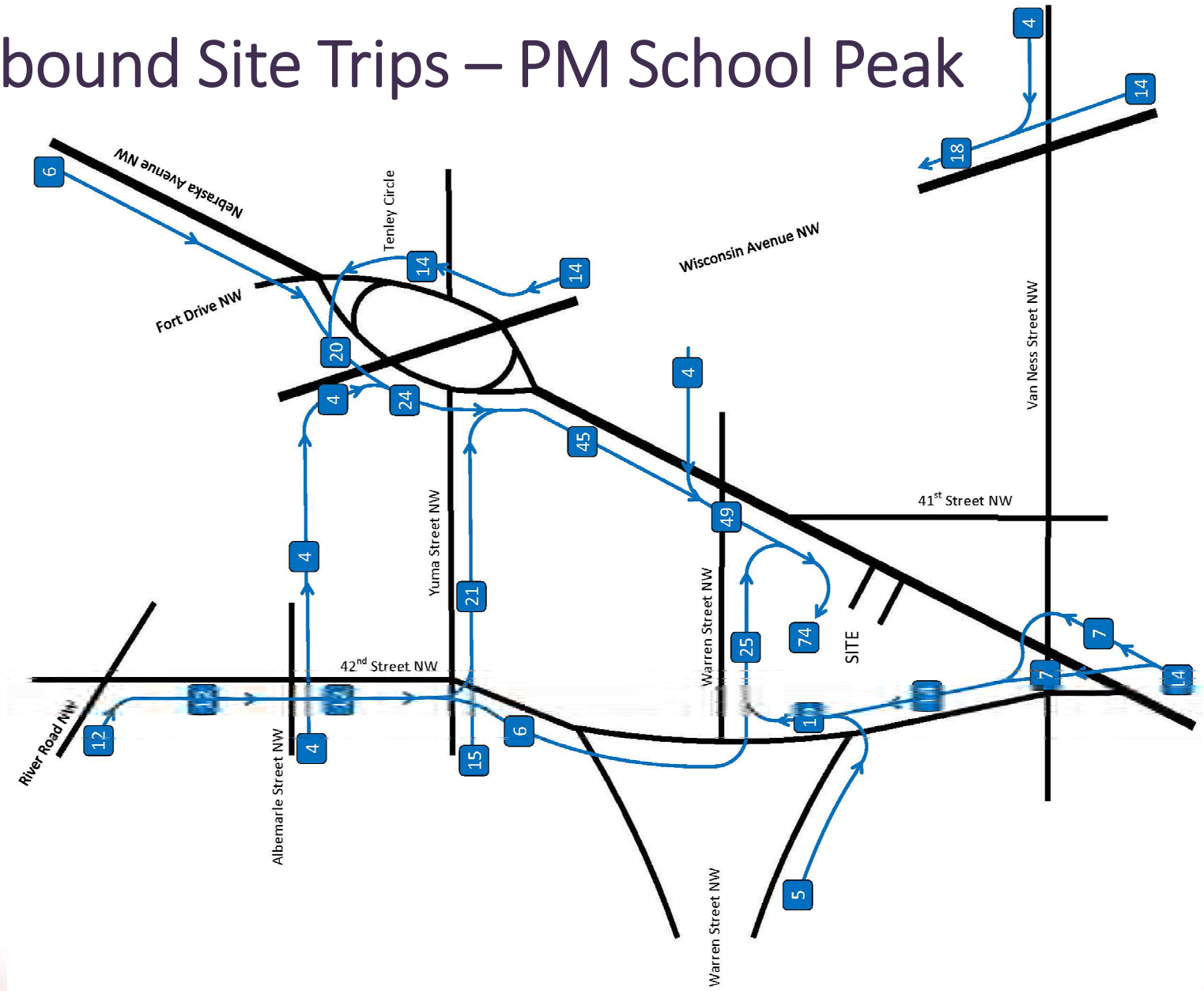
Inbound Site Trips – AM Peak



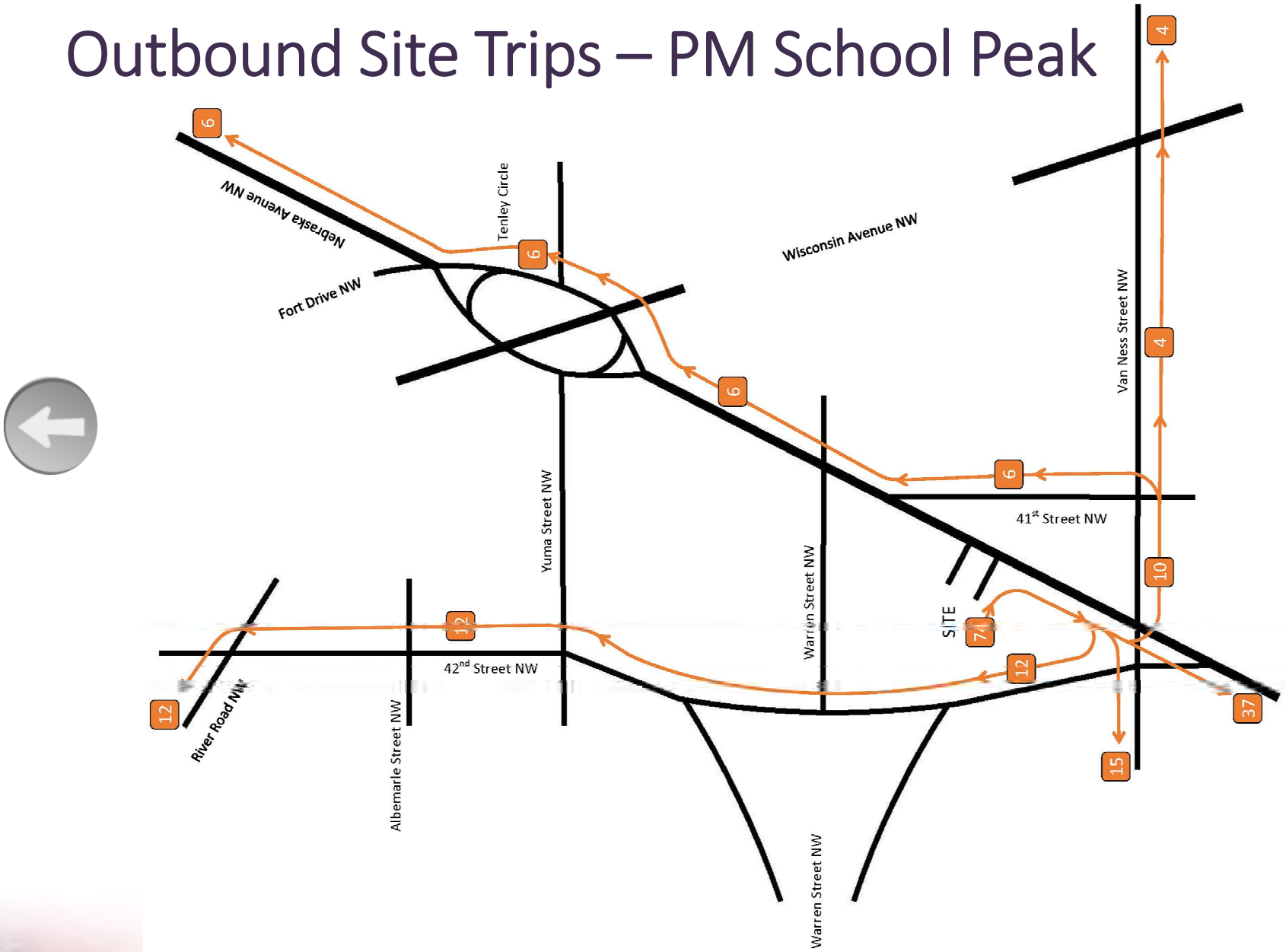
Outbound Site Trips – AM Peak



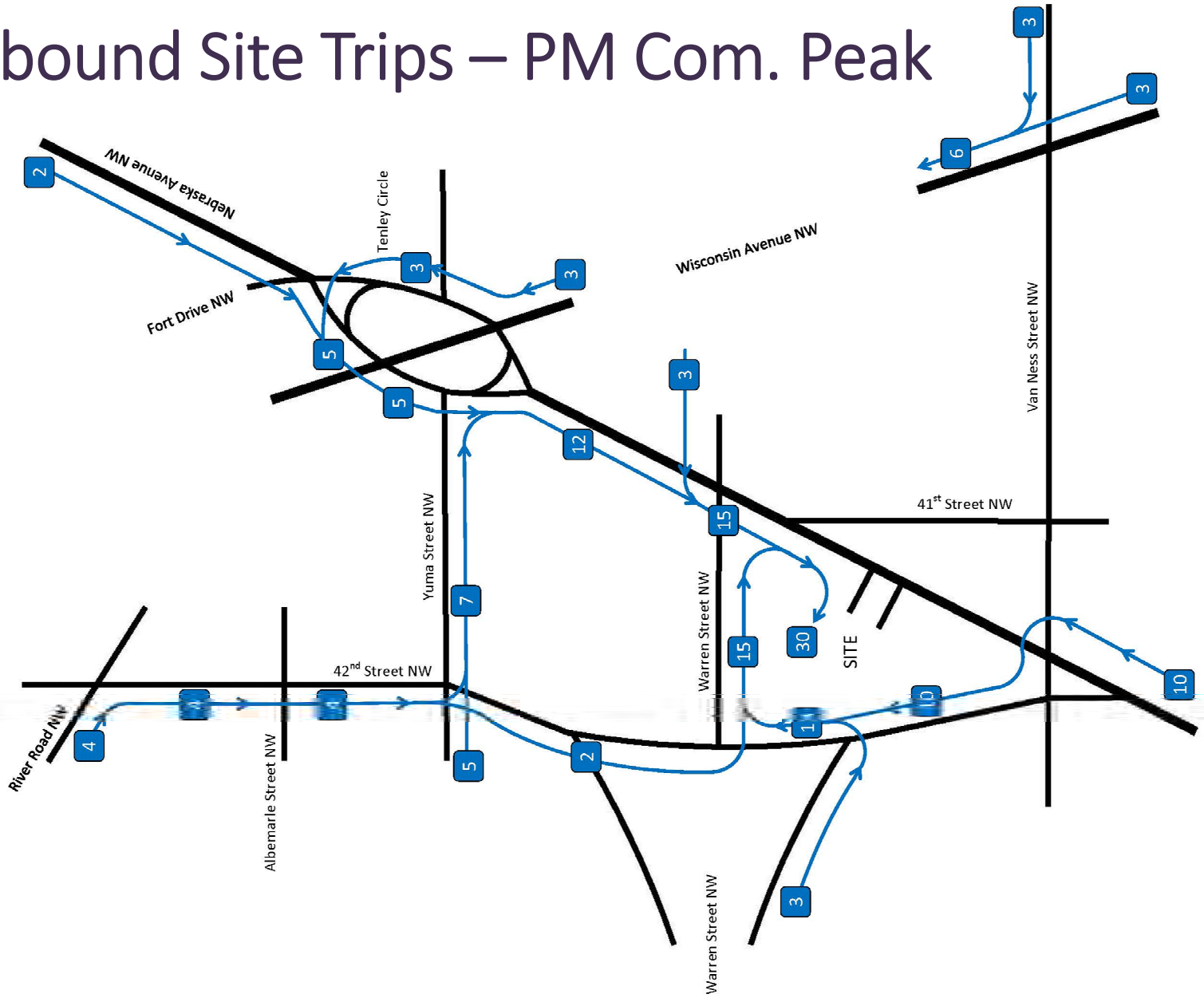
Inbound Site Trips – PM School Peak



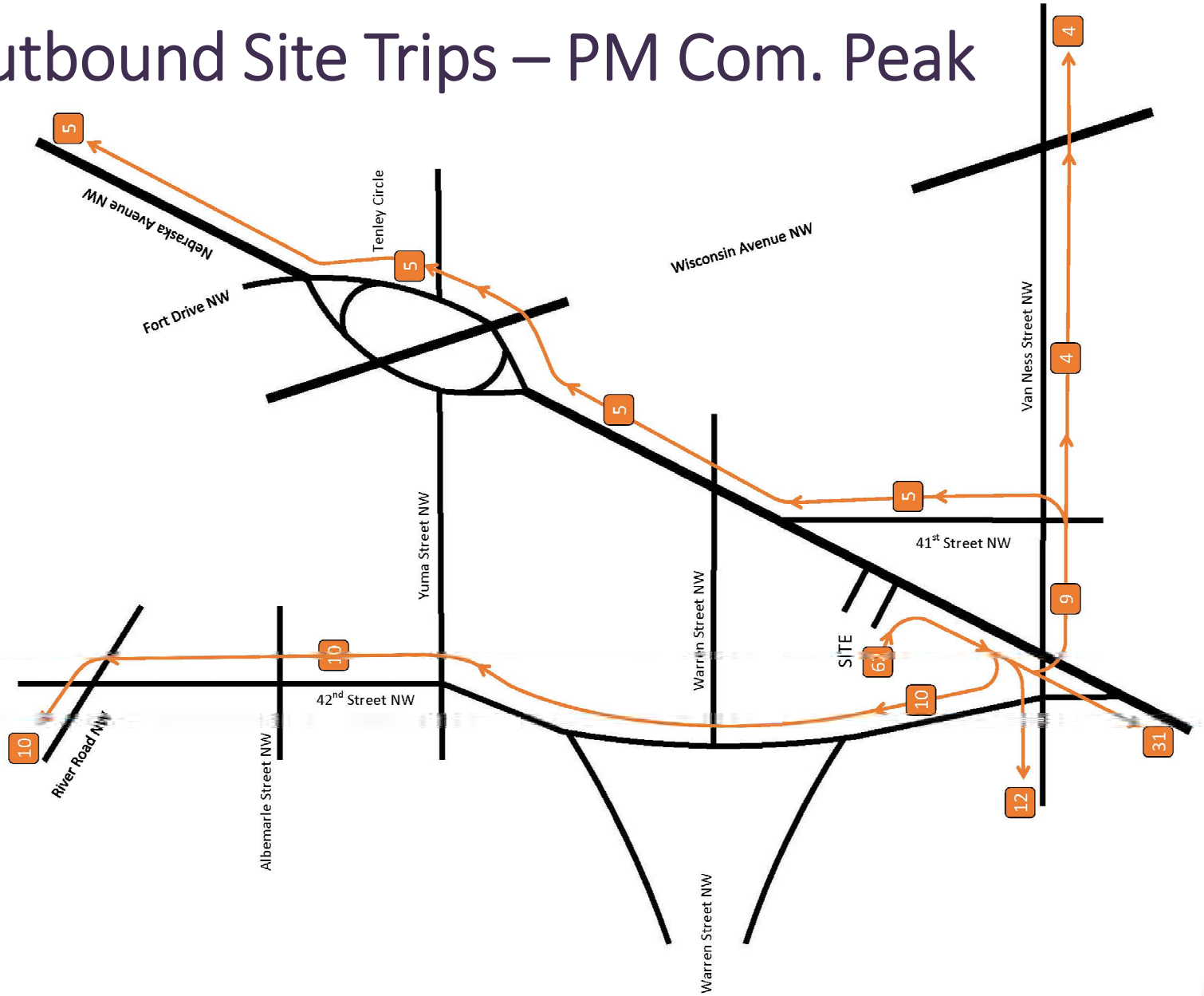
Outbound Site Trips – PM School Peak



Inbound Site Trips – PM Com. Peak

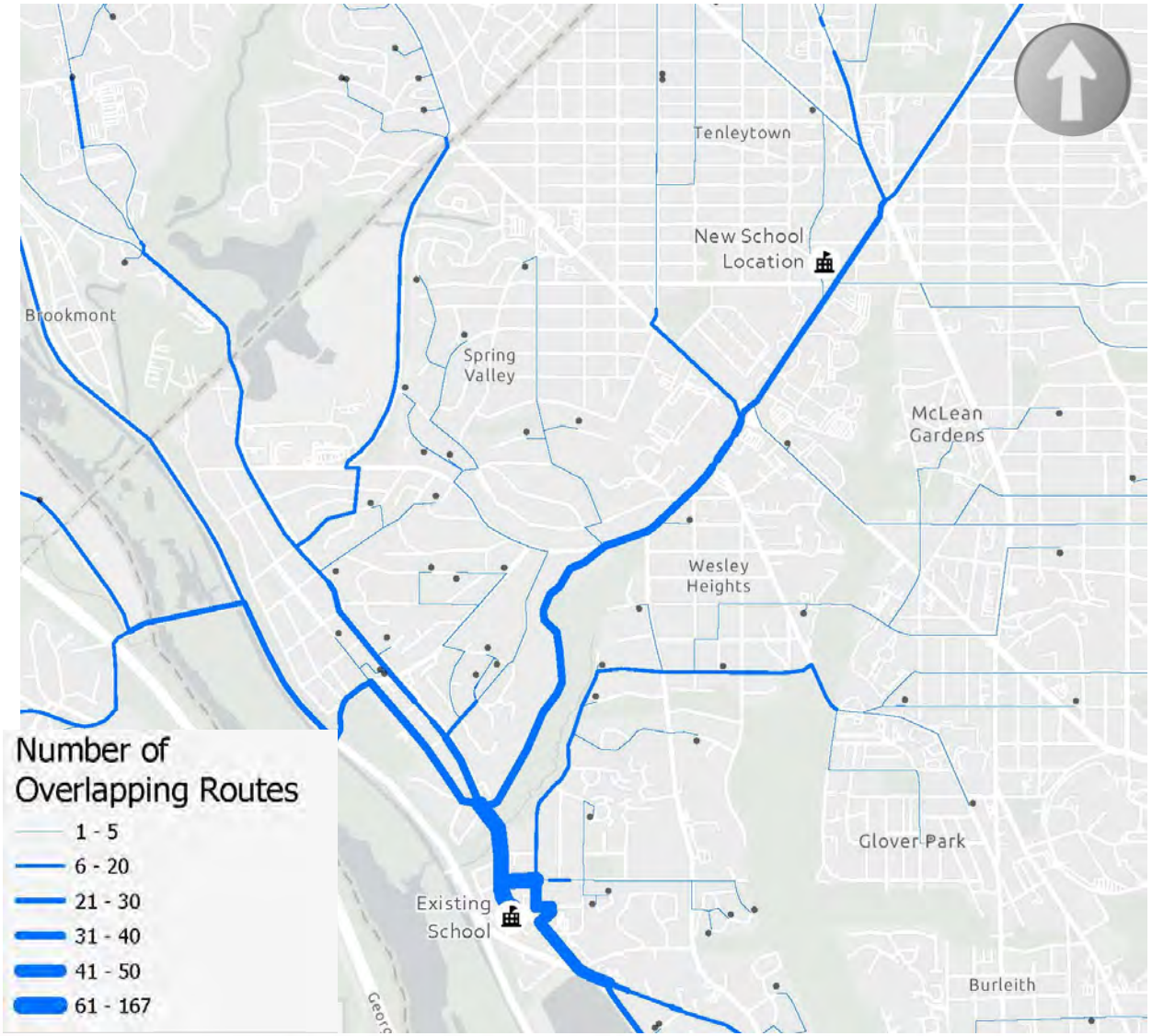


Outbound Site Trips – PM Com. Peak



Existing Site Traffic

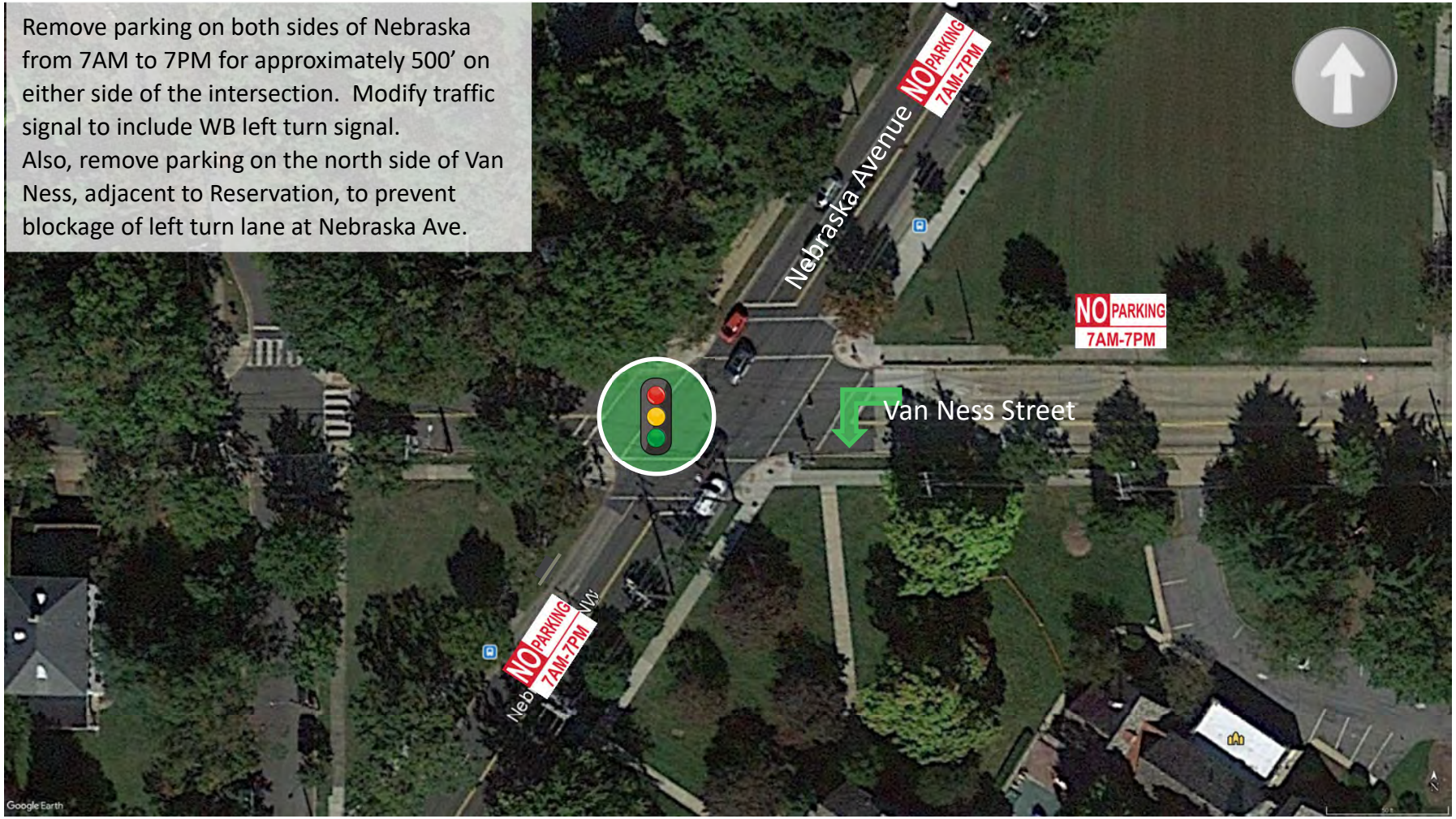
Trips to Existing School



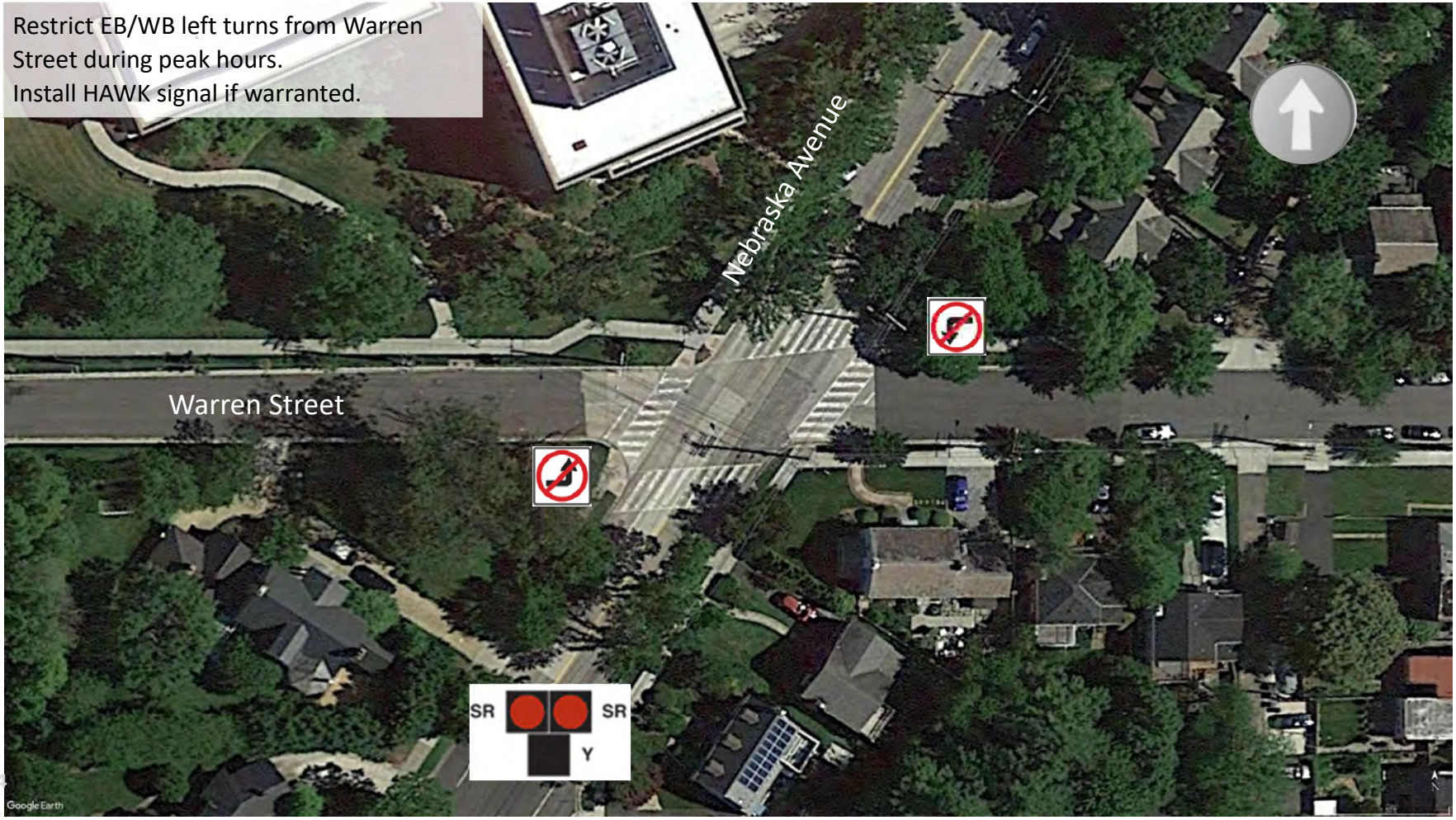
Proposed Mitigation Measures

Proposed Capacity Improvements – Nebraska/Van Ness

Remove parking on both sides of Nebraska from 7AM to 7PM for approximately 500’ on either side of the intersection. Modify traffic signal to include WB left turn signal.
Also, remove parking on the north side of Van Ness, adjacent to Reservation, to prevent blockage of left turn lane at Nebraska Ave.



Proposed Capacity Improvements – Nebraska/Warren



Other Improvements

- 41st Street and Nebraska Avenue
  - Replace YIELD Sign with STOP sign and install No Left Turn Sign

- 42nd Street
  - Potential Traffic Calming

Next Steps

Next Steps

- Submit CTR to DDOT – September 10th
- October 6th ANC 3D meeting
- October 14th ANC 3E meeting
- October 27th BZA Hearing

QUESTIONS?