Kittery Foreside Land Use, Parking, and Transportation Study

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Kittery Foreside Land Use, Parking, and Transportation Study

Agenda

1. Introductions
2. Review of Study Goals, Methodology and Scope of Work
3. Existing Transportation Conditions
4. Existing Land Use, Zoning, Built Environment
5. MaineDOT Route 103 Project – Working Group Feedback
6. Transportation Study Assumptions for Study Recommendations
7. Land Use/Build-Out Considerations for Study Recommendations
8. Schedule/Next Steps

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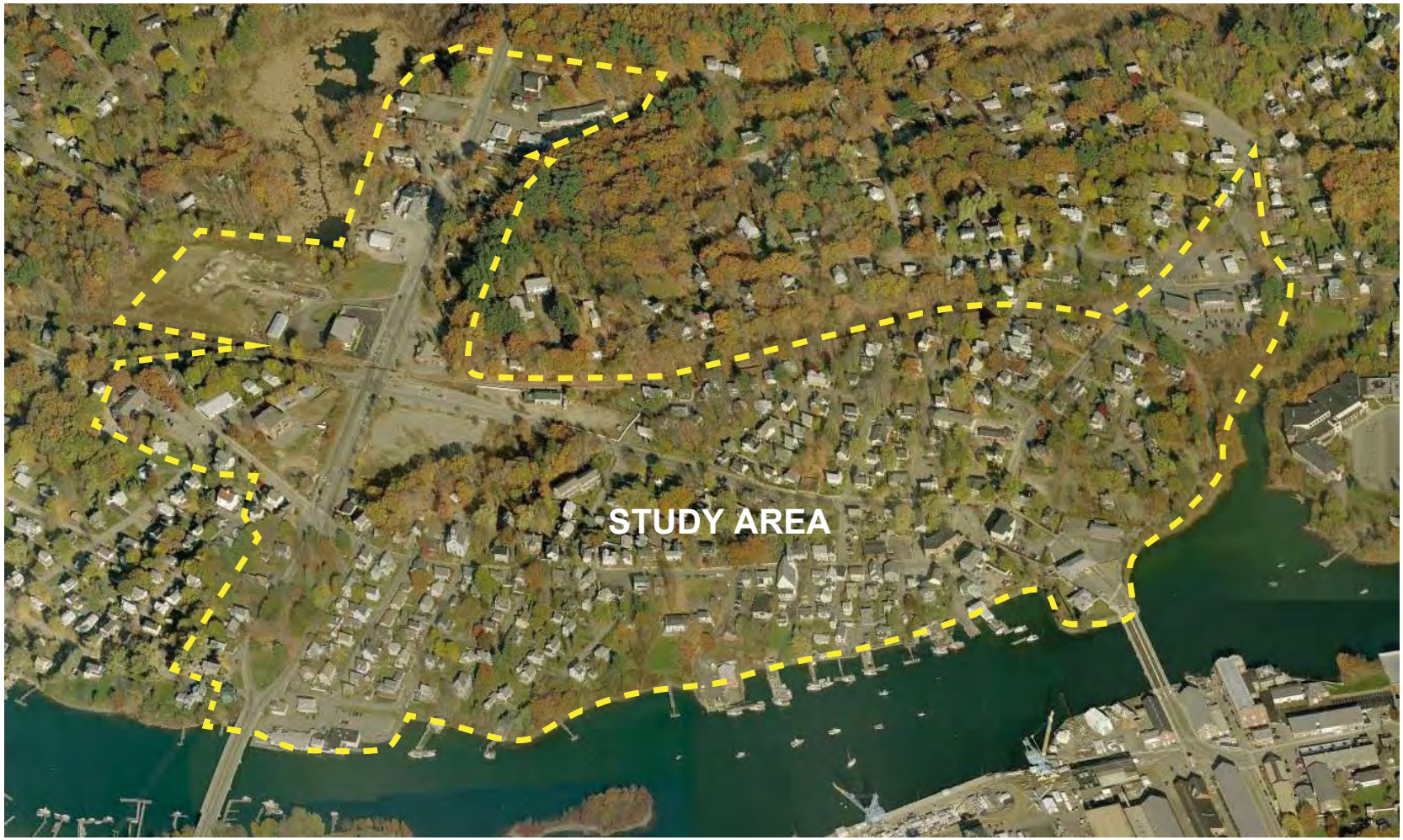

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Goal:

The goal of this Study is to determine a reasonable and palatable build-out scenario to use as a model to conclude what land use regulations, traffic patterns, bicycle and pedestrian accommodations, and parking resources are necessary to support and sustain future growth while not diminishing community character and residential qualities.

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Methodology:

1. Existing Conditions: Review previous studies and planning efforts, study existing zoning and policies, map existing land use, urban design, transportation, and parking uses.

2. Visioning: Gather input from community and stakeholders to shape vision for desired future growth

3. Model Growth: Develop build-out scenarios

4. Guide Growth: Develop zoning and transportation recommendations supporting desired build-out an redevelopment

SCOPE OF WORK

TASK 1: EXISTING CONDITIONS

- Examine and define the existing transportation context.
- Existing Transportation Performance Analysis.
- Document existing zoning, land uses, and the scale and pattern of development in the study area.

TASK 2: PUBLIC OUTREACH

- Working Group
- Public Meetings
- Open House
- Planning Board
- Town Council

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TASK 3: DRAFT RECOMMENDATIONS

- A land use model for three build-out scenarios
- Recommendations and Cost for public parking improvements and/or additional capacity including short, medium and long term options.
- Recommendations on changes to land use regulations required for the types of economic development anticipated by the alternative build-out scenarios.
- Plans that summarize transportation recommendations, including intersection configurations, pedestrian and bicycle facilities enhancements, and general traffic engineering improvements.

TASK 4: PREPARE FINAL DOCUMENTS

EXISTING TRANSPORTATION CONDITIONS

- Existing Average Annual Daily Traffic Volumes
- Intersection Turning Movement Volumes
- Vehicle Classification
- Pedestrian and Bicycle Volumes
- Speed Study
- Crash History
- Intersection Level of Service
- Roadway Circulation
- Bicycle Facilities
- Sidewalks and Crosswalks
- Access Management
- Parking

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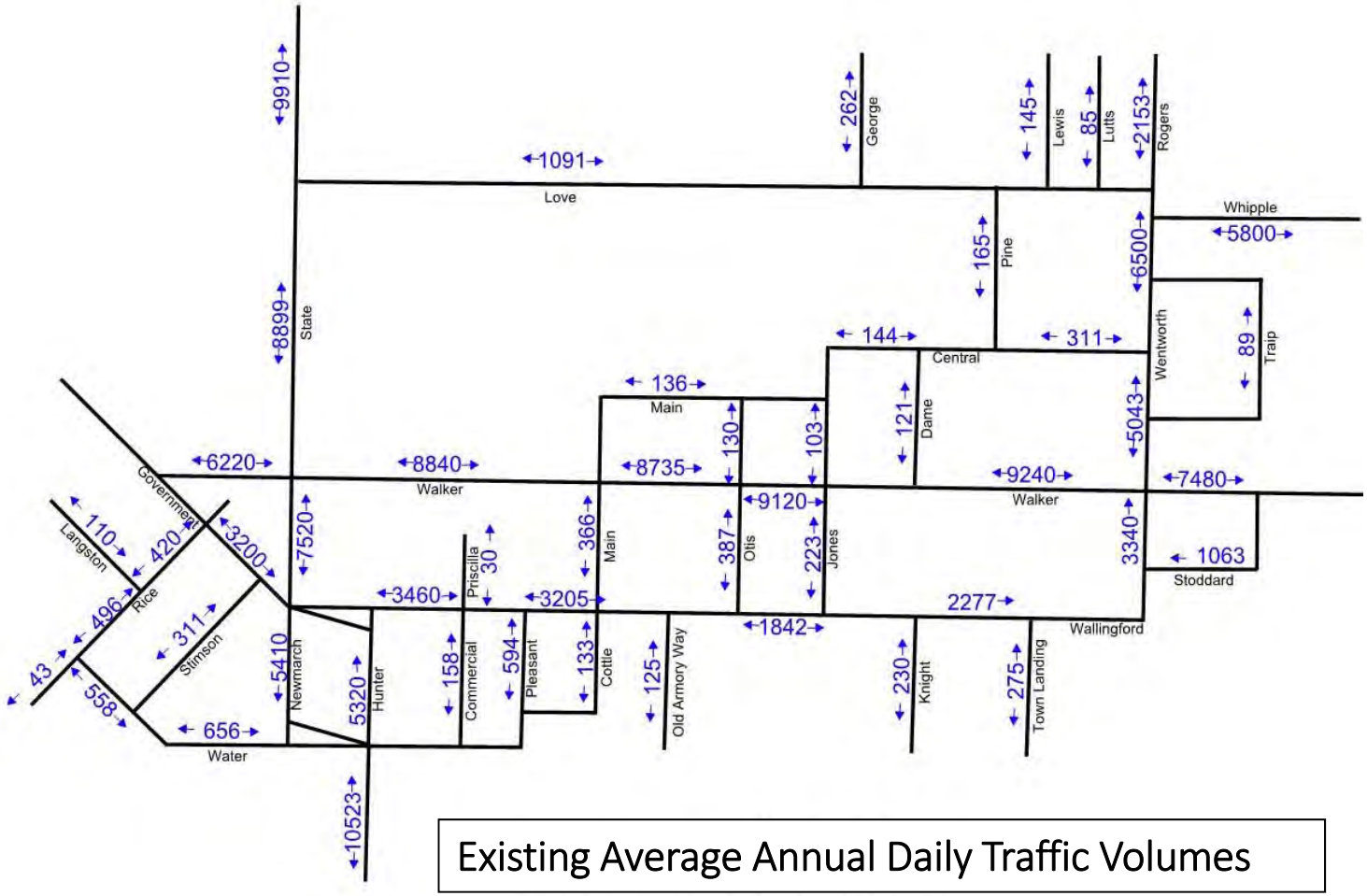

Existing Average Annual Daily Traffic Volumes

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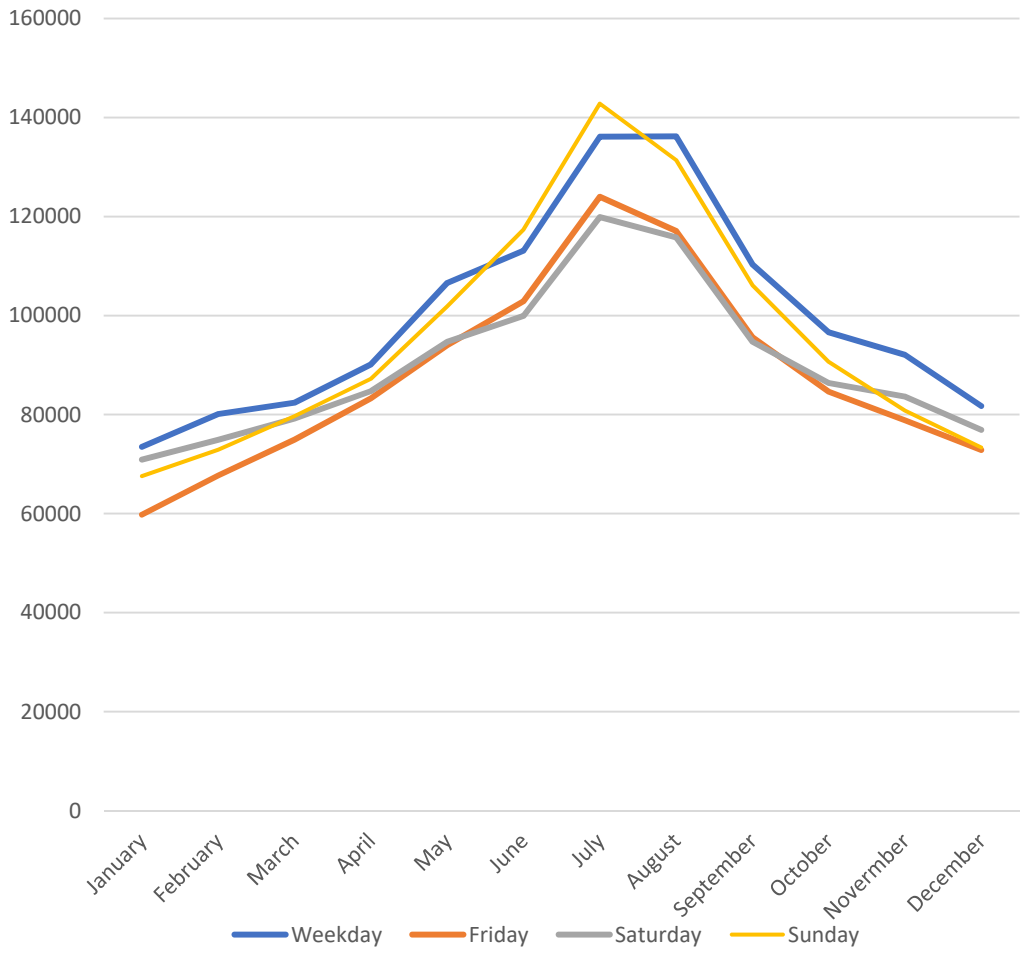
Seasonal Variation by Day of the Week



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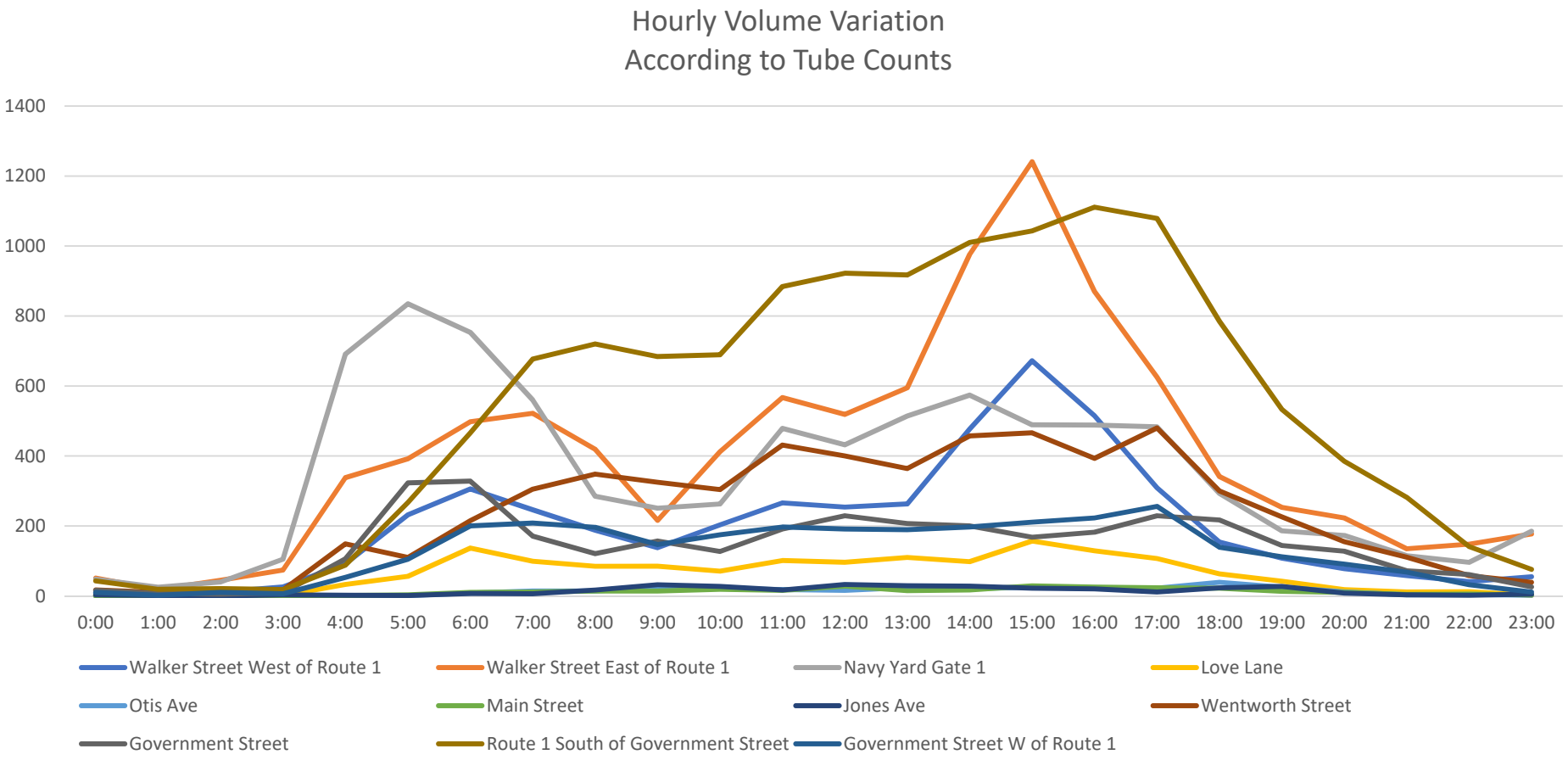

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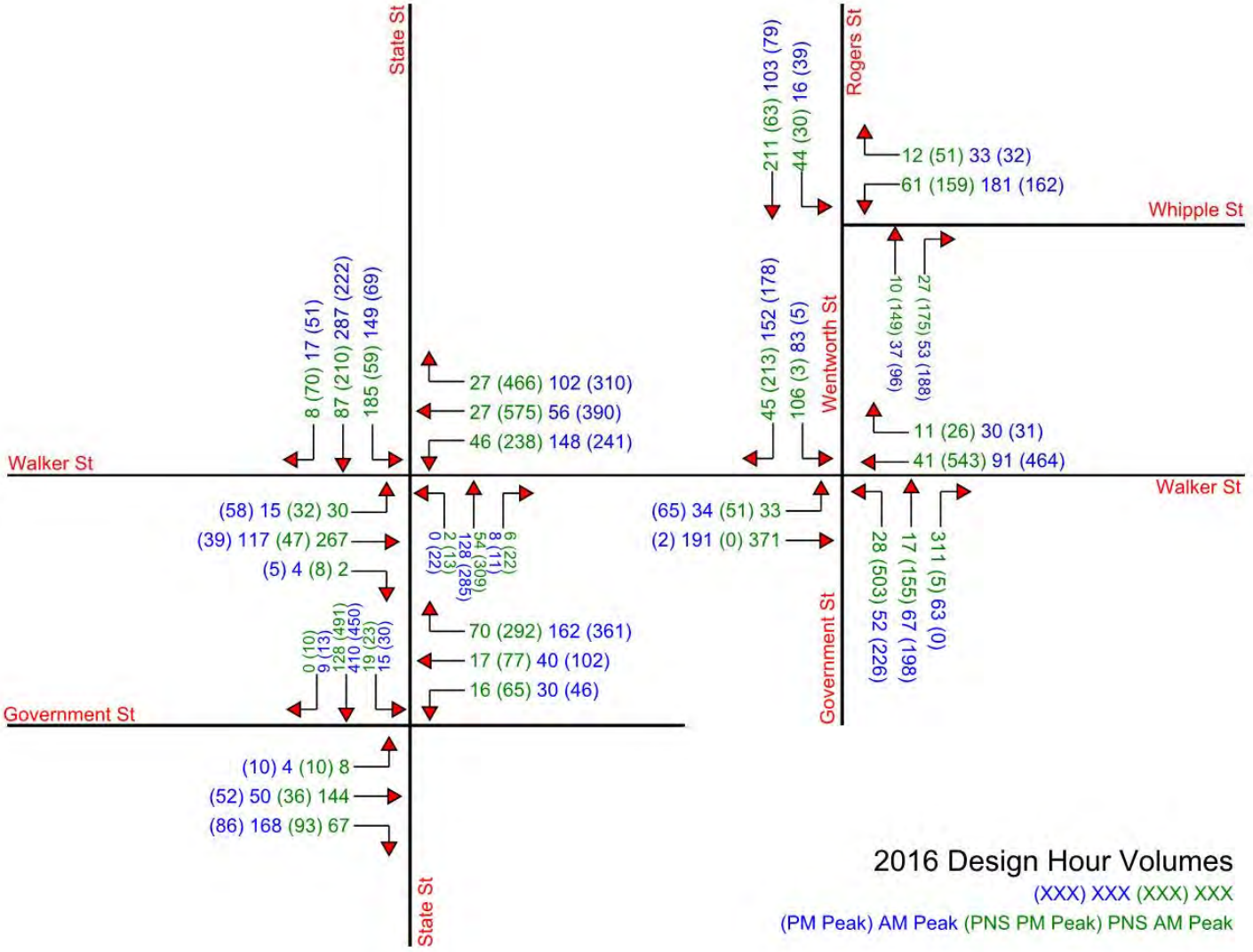

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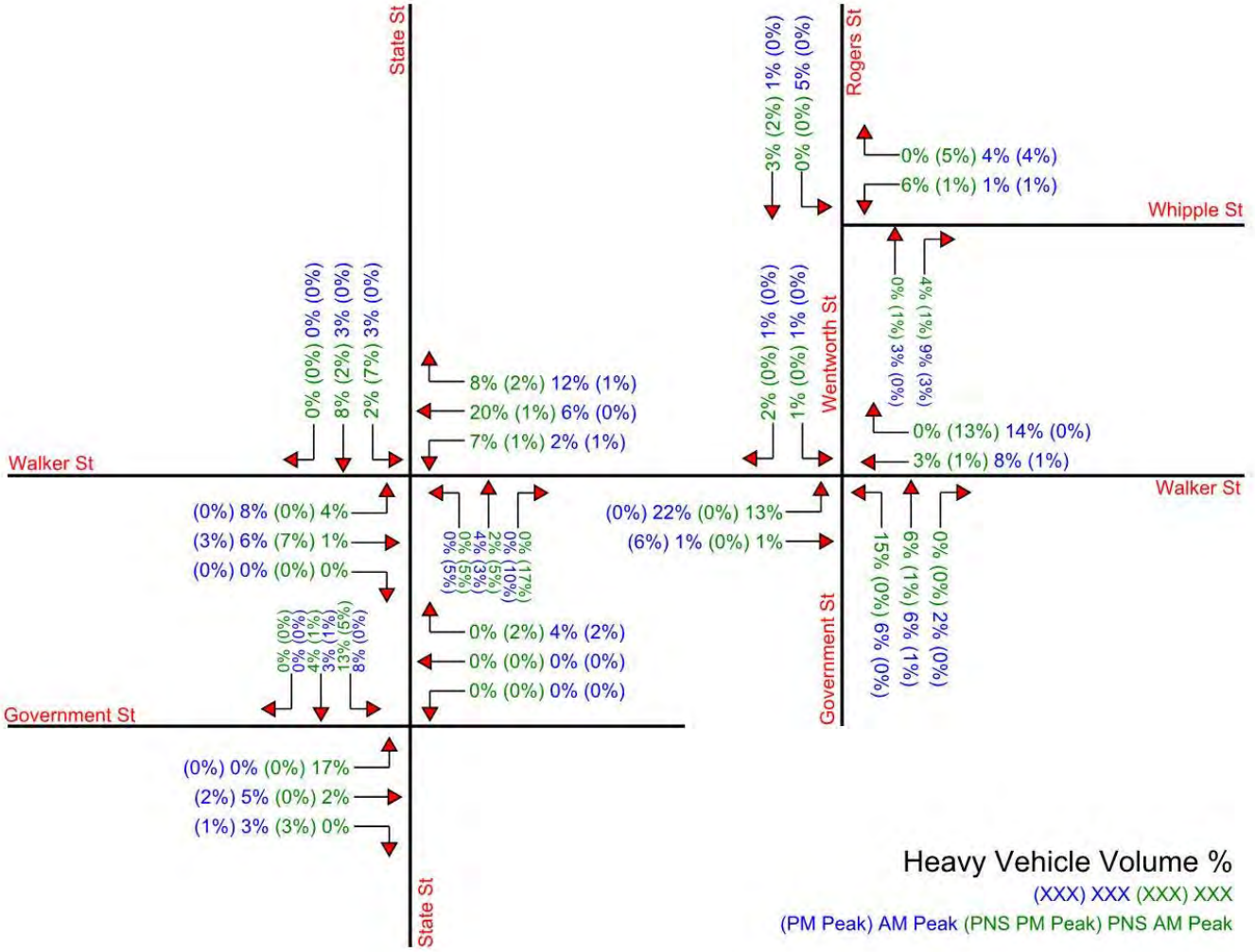

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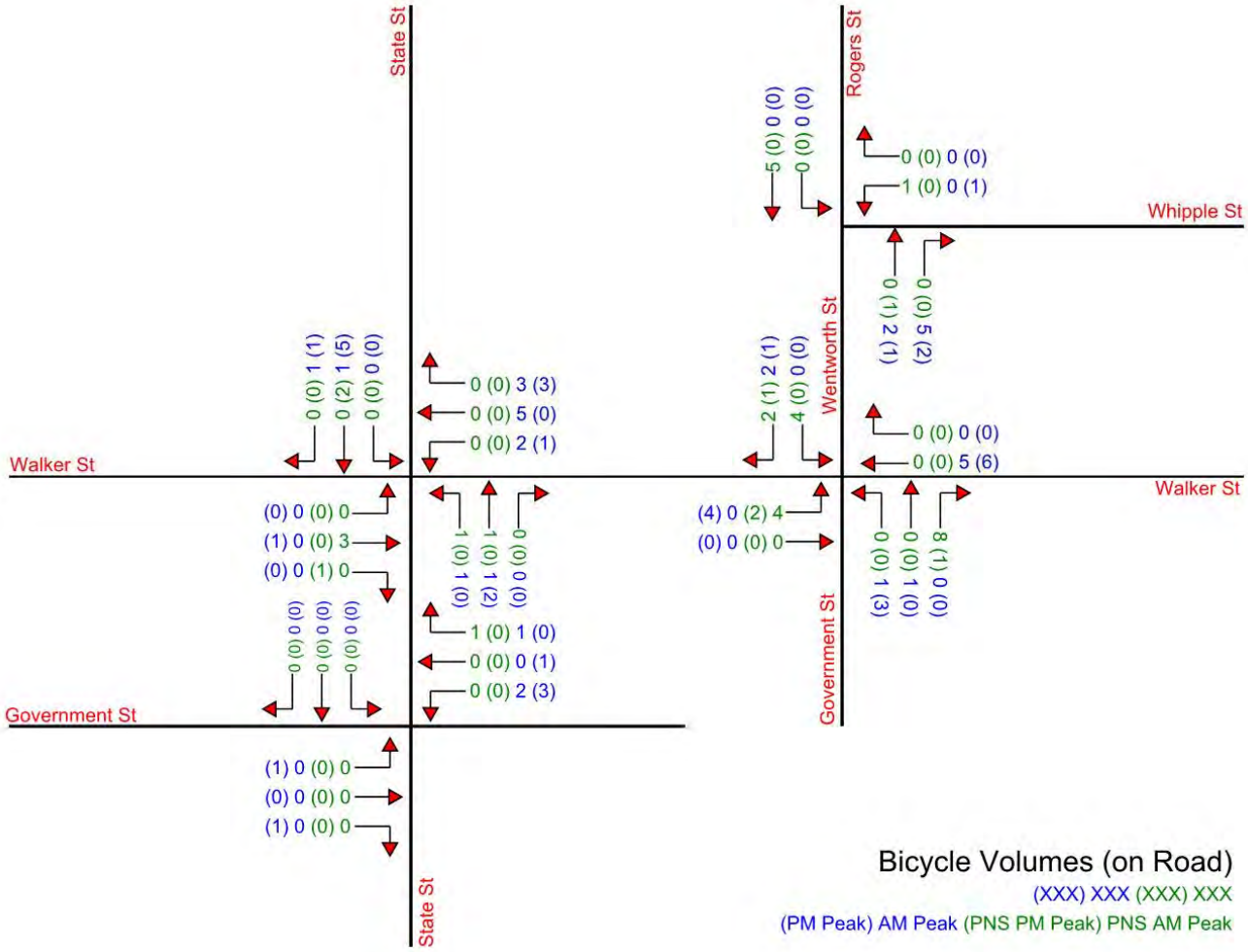

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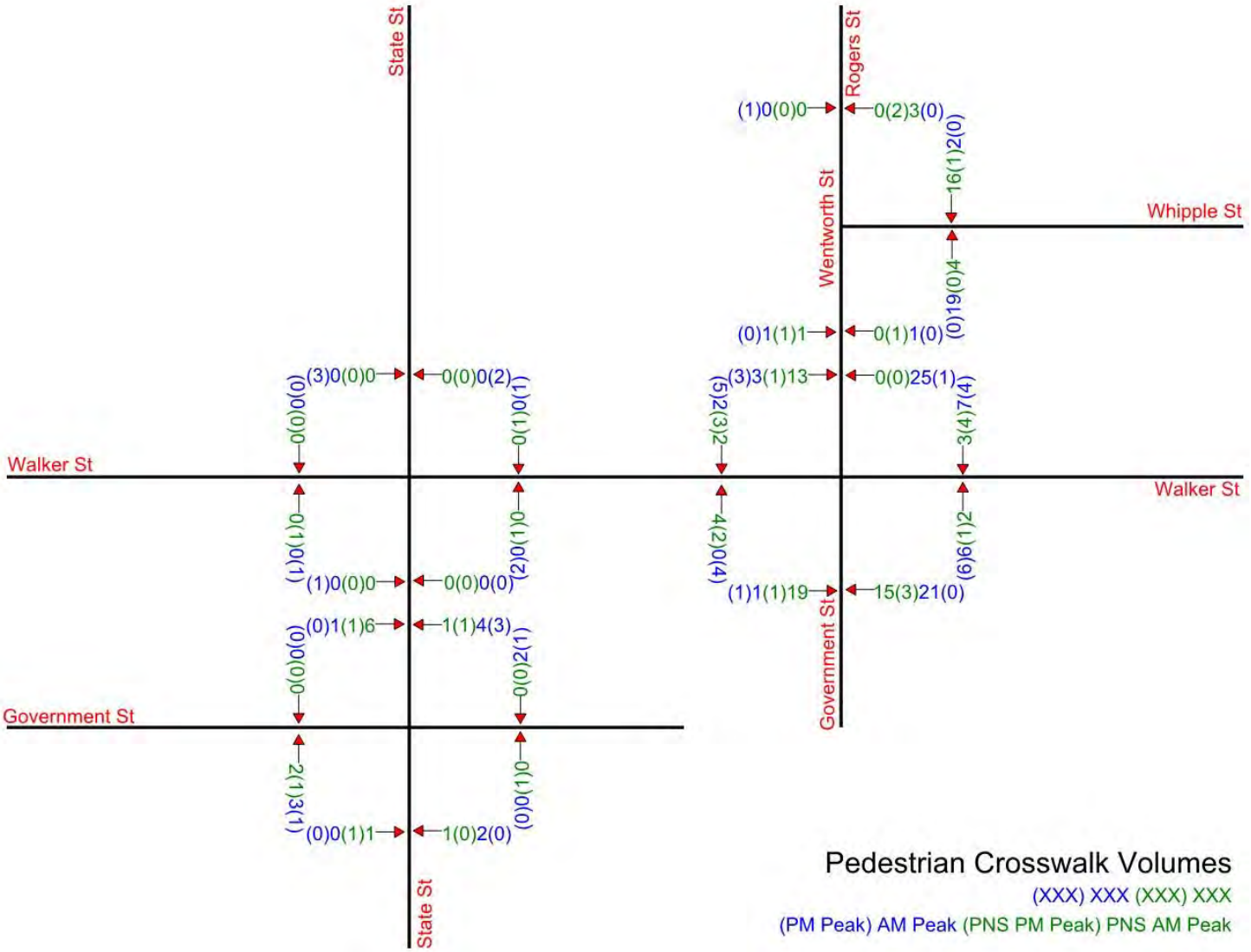

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KITTERY FORESIDE SPEED STUDY RESULTS					
		Start Date	End Date	Avg	85th %
Walker Street West of Route 1		10/11/2016	10/12/2016	28.9 mph	33 mph
Walker Street East of Route 1		11/1/2016	11/2/2016	30.1 mph	35 mph
PNS Gate 1		10/26/2016	10/27/2016	11.8 mph	18 mph
Love Lane		10/26/2016	10/27/2016	24.1 mph	30 mph
Otis Avenue		10/25/2016	10/26/2016	17.3 mph	22 mph
Main Street		10/25/2016	10/26/2016	19.7 mph	24 mph
Jones Avenue		10/25/2016	10/26/2016	11.7 mph	17 mph
Wentworth Street		11/1/2016	11/2/2016	25.9 mph	31 mph
Gov't Street West of Route 1		11/1/2016	11/2/2016	26 mph	31 mph

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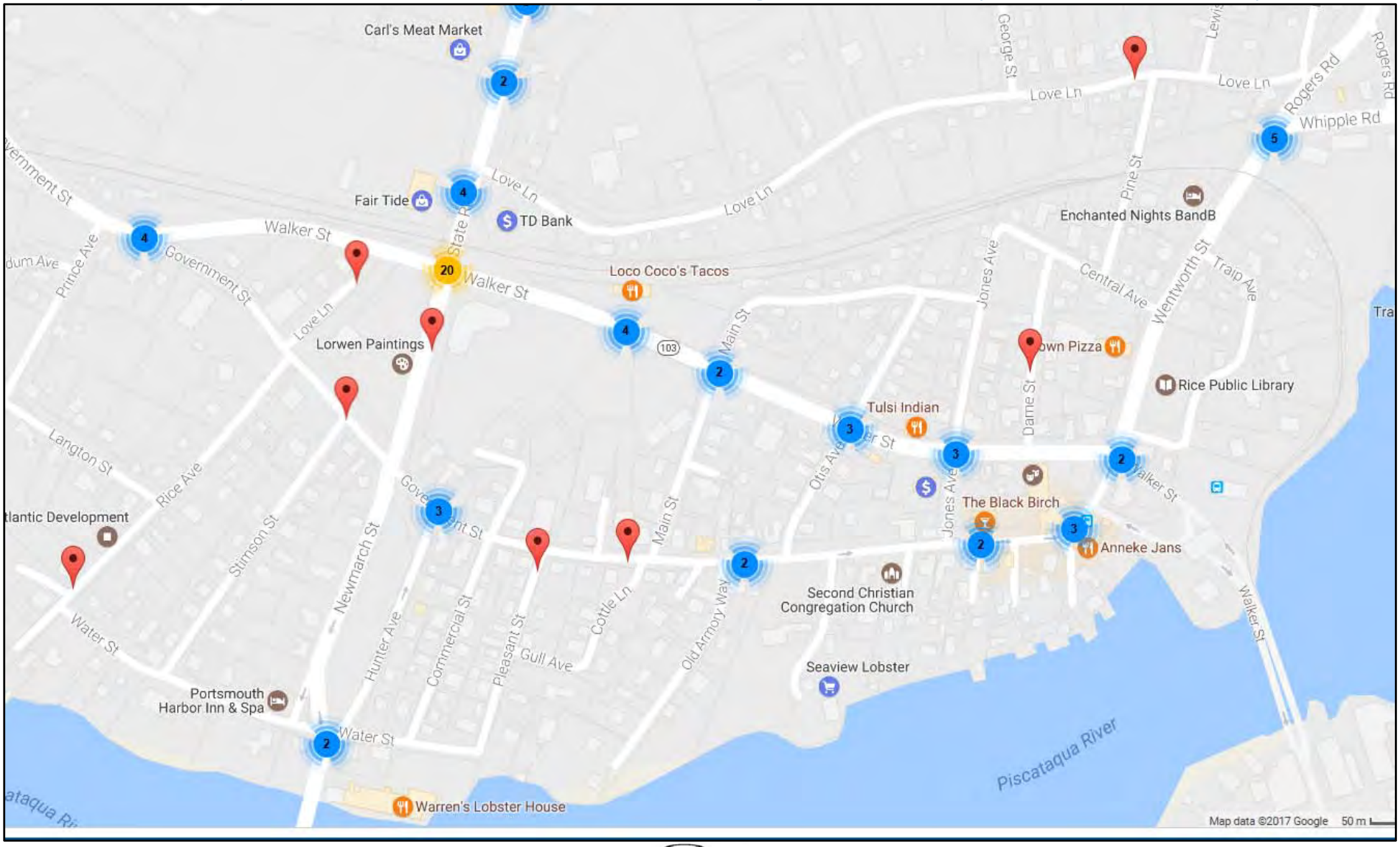

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EXISTING LEVEL OF SERVICE SUMMARY
STATE ROAD AND WALKER STREET

			Eastbound			Westbound			Northbound			Southbound			All
			Walker Street			Walker Street			State Road			State Street			
			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	Shipyard AM Peak Hour	Vol	30	267	2	46	27	27	2	54	6	185	87	8	741
		Delay (sec)	10.4	17.5		20.2	12.1	2.8	0	7.6	0.7	7.4	4.3		11.2
		LOS	B	B		B	B	A	A	A	A	A	A		B
	AM Peak Hour	Vol	15	117	4	148	56	102	0	128	8	149	284	18	1029
		Delay (sec)	17	22.8		18.7	12	2.8	0	8.5	0.6	7.6	5.3		10.2
		LOS	B	B		B	B	A	A	A	A	A	A		B
	Shipyard PM Peak Hour	Vol	32	47	8	236	575	466	13	309	22	59	210	70	2047
		Delay (sec)	27.6	30		11.4	17.3	4.1	22.9	28.7	28.5	26.4	21.1		17
		LOS	C	C		B	B	A	B	C	C	C	B		B
	PM Peak Hour	Vol	58	39	5	241	390	310	22	285	11	69	222	51	1703
		Delay (sec)	26.1	27.5		14.3	23.4	3.3	13.4	16.9	2.8	16.4	18.2		15.8
		LOS	C	C		B	B	A	B	B	A	B	B		B

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EXISTING LEVEL OF SERVICE SUMMARY
WALKER STREET/WENTWORTH STREET/GOVERNMENT STREET/PORTSMOUTH NAVAL SHIPYARD GATE 1

		Eastbound		Westbound		Northbound			Southbound		All
		Walker St.		PNS Gate 1		Government St.			Wentworth St.		
		Left	Thru	Thru	Right	Left	Thru	Right	Left	Right	
Shipyard AM Peak Hour	Volume	22	371	41	11	28	17	311	106	45	952
	Delay (sec)	7.9	6.7	5.2		7.7	5.4		10.7	1.2	6.9
	LOS	A	A	A		A	A		B	A	A
AM Peak Hour	Volume	34	191	91	30	52	67	63	83	152	763
	Delay (sec)	8.1	6.2	6		6.7	3.2		7.5	1.3	5.2
	LOS	A	A	A		A	A		A	A	A
Shipyard PM Peak Hour	Volume	3	0	543	26	155	503	5	3	213	1451
	Delay (sec)	55.4	0.4	13.9		27.8	158.3		76.1	4.7	30.5
	LOS	E	A	B		C	F		E	A	C
PM Peak Hour	Volume	65	2	464	31	226	198	0	5	178	1169
	Delay (sec)	24.4	1.3	8.9		14.8	8.4		12.6	3.8	9.7
	LOS	B	A	A		B	A		B	A	A

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EXISTING LEVEL OF SERVICE
STATE ROAD AND GOVERNMENT STREET

		Eastbound			Westbound			Southbound			All
		Government Street			Government Street			State Road			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Shipyard AM Peak Hour	Volume	8	144	67	16	17	70	19	128	0	469
	Delay (sec)		11.7						8.8		
	LOS		B						A		
AM Peak Hour	Volume	4	50	168	30	40	162	15	410	9	888
	Delay (sec)		9.7						9.8		
	LOS		A						A		
Shipyard PM Peak Hour	Volume	10	36	93	65	77	292	23	491	10	1097
	Delay (sec)		10.3						9.2		
	LOS		B						A		
PM Peak Hour	Volume	10	52	86	46	102	361	30	450	13	1150
	Delay (sec)		15.3						12.4		
	LOS		B						B		

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Existing Level of Service Wentworth Street/Rogers Street/Whipple Street											
			Westbound		Northbound		Southbound		All
			Whipple St.		Wentworth St.		Rogers St.		
			Left	Right	Thru	Right	Left	Thru	
	Shipyard AM Peak Hour	Volume	61	12	10	27	44	211	365
		Delay (sec)	4.2				0.3		
		LOS	A				A		
	AM Peak Hour	Volume	181	33	37	53	16	103	423
		Delay (sec)	4				0.3		
		LOS	A				A		
	Shipyard PM Peak Hour	Volume	159	51	149	175	30	63	627
		Delay (sec)	6.3				0.2		
		LOS	A				A		
		Queue (ft)	89				31		
	PM Peak Hour	Volume	162	32	96	188	39	79	596
		Delay (sec)	6.1				0.3		
		LOS	A				A		

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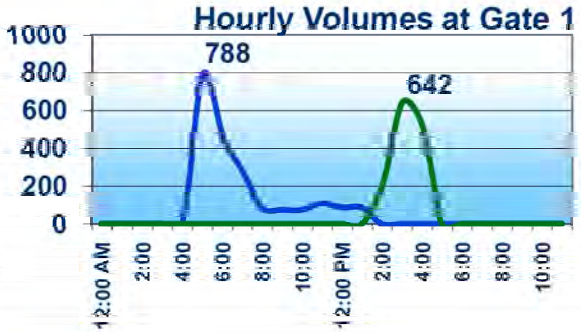
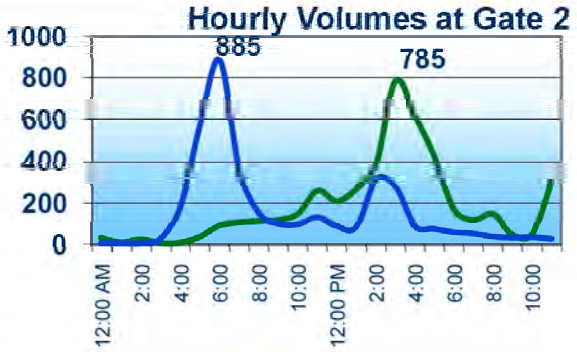
Weeklong Gates 1 and 2 Hourly Summary

- November 3-9, 2010

Gate 1



Gate 2



- During the AM Peak Period:
  - 90% single occupant
  - 8% two occupants
  - 2% three+ occupants including vanpools
- 1,830 in / 90 out during AM peak
- 1,550 out / 290 in during PM peak

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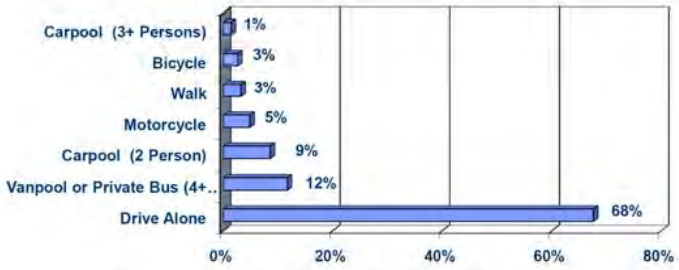
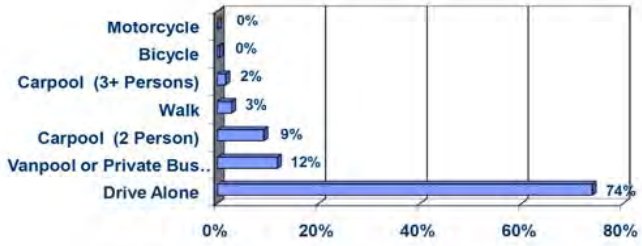
Portsmouth Naval Shipyard Pedestrian and Traffic Study

To determine how the weather might affect employees' choice of mode, two questions were asked. Results were generally as could be expected. Specifically, during warm and/or dry weather the 2,240 respondents indicated that "drive alone" was the most common mode choice at 68%, followed by "vanpool or private bus" at 12%, "carpool (2 person)" at 9%, "motorcycle" at 5%, "walk" at 3%, "bicycle" at 3%, and "carpool (3+ persons)" at 1%. However, during periods of cold and/or wet weather, changes in modes become evident. "Drive alone" increases to 74%, "vanpool or private bus" remains the same at 12%, "carpool (2-person)" remains the same at 9%, "walk" remains the same at 3%, "carpool (3+ persons) increases to 2%, and both "bicycle" and "motorcycle" decrease to 0% according to the 2,285 respondents to this question.



Summary of Reported Commute Modes During Warm/Dry Weather



Summary of Reported Commute Modes During Wet/Cold Weather

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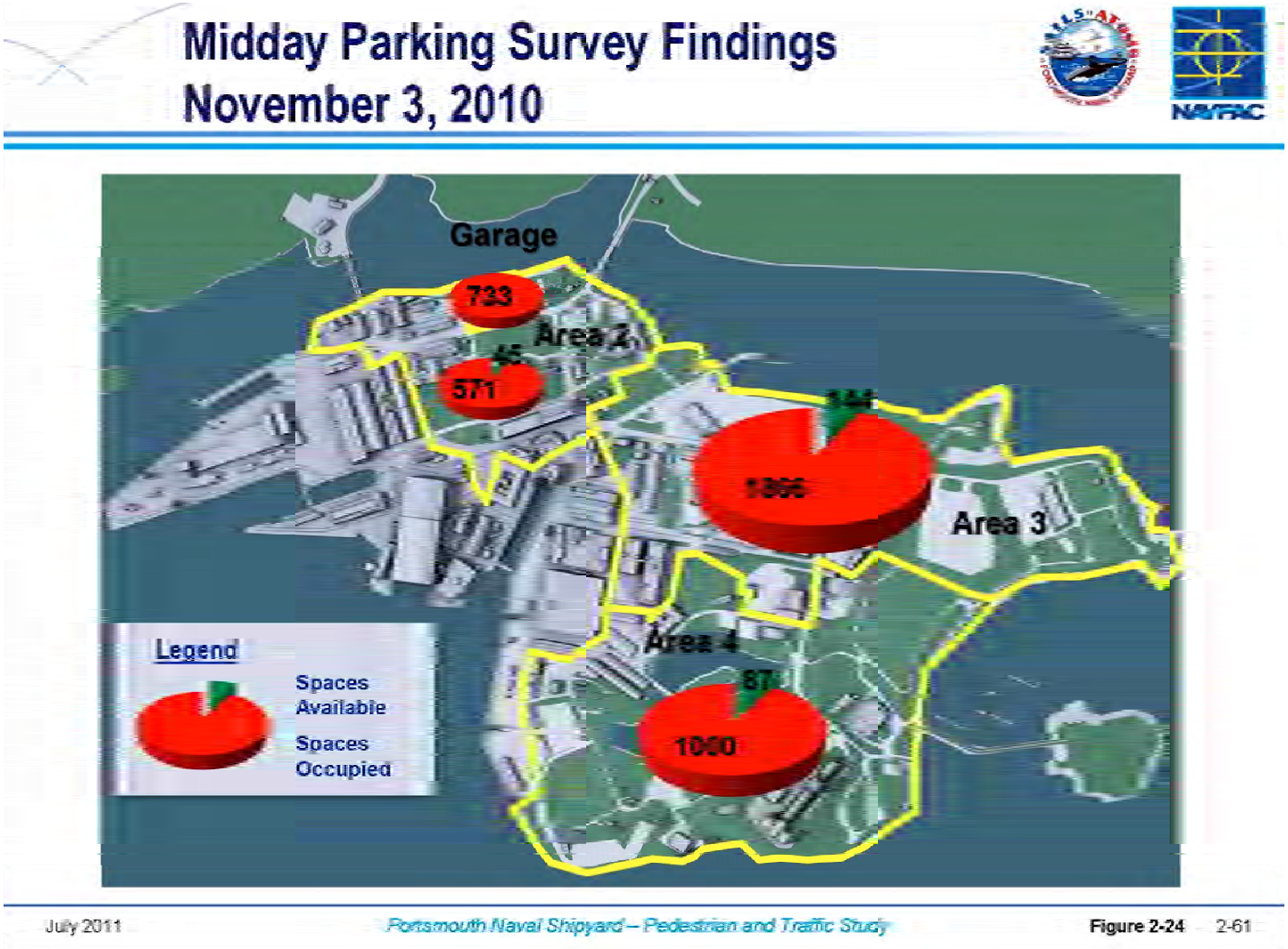

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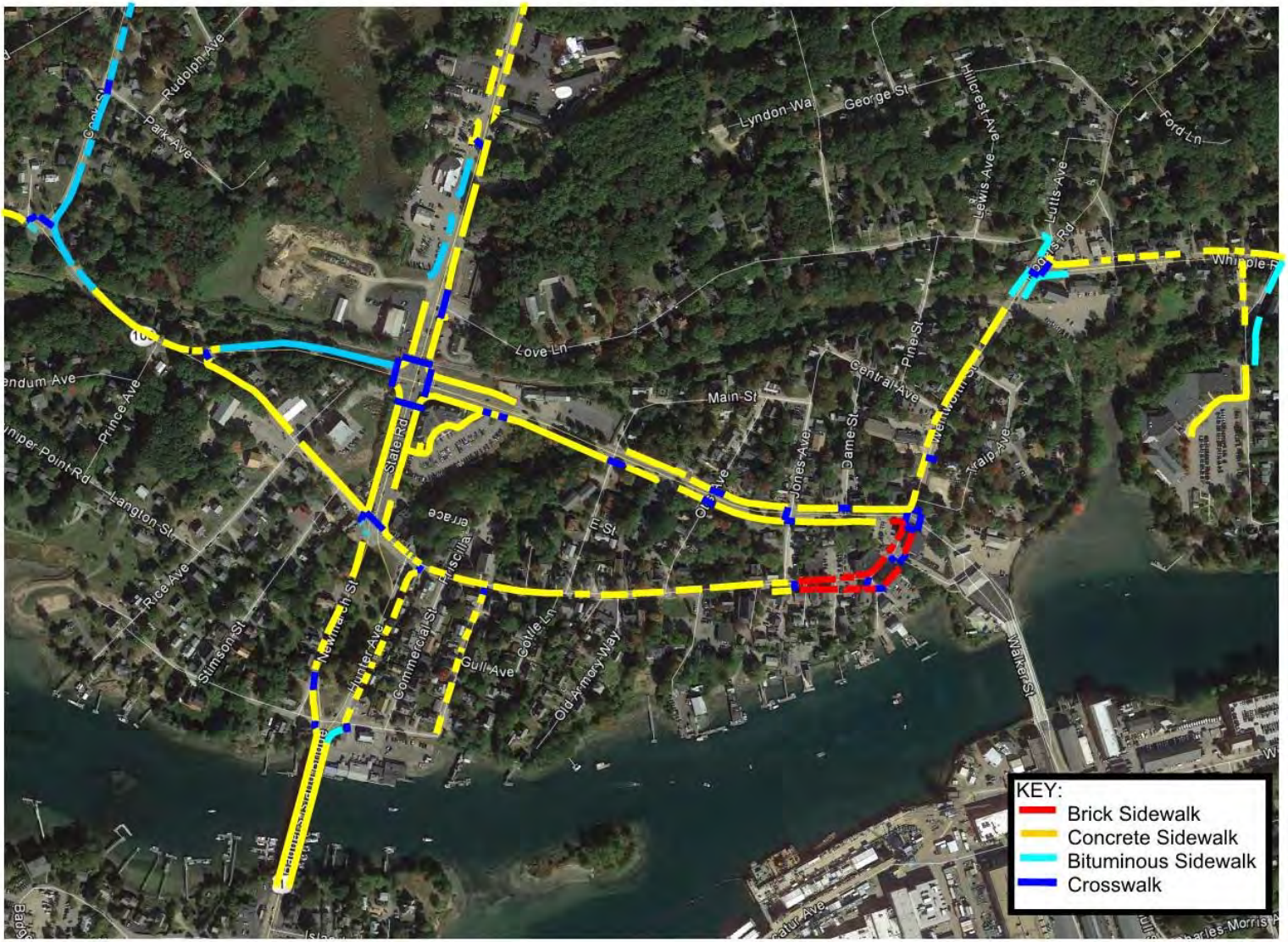

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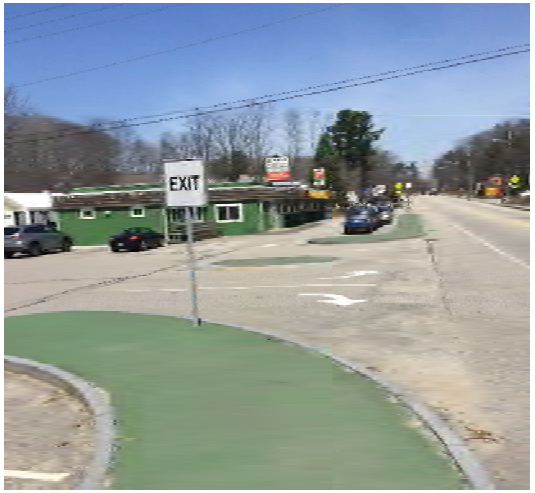

Obstacles in sidewalk and ADA compliance

Lack of crosswalk and ADA compliance.
Long crossing distance for pedestrians.

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Wide driveway opening creates unsafe crossing.

Sidewalk gap and ADA compliance

Sidewalk ends and ADA compliance.

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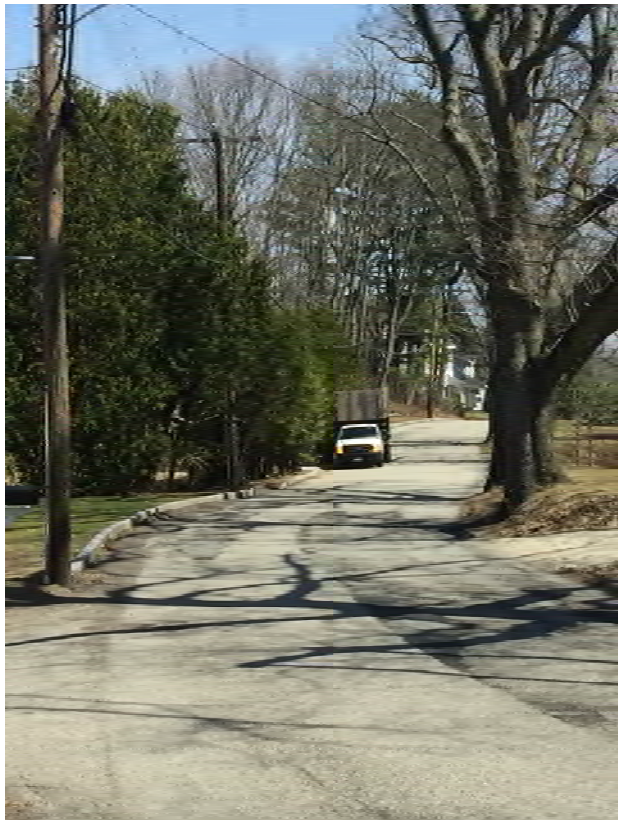

No sidewalk or other pedestrian facilities on Love Lane or side streets.

ADA Compliance

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Non-compliant ADA conditions and marking visibility

Crosswalk leads to tree

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Lack of crosswalks for side streets and ADA compliance

Sidewalk obstruction

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Crosswalk paint is fading and hard to see in some locations

Sidewalk gap

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Limited sight visibility at mid-block crossing and ADA compliance

Crosswalk is not oriented with the ramp

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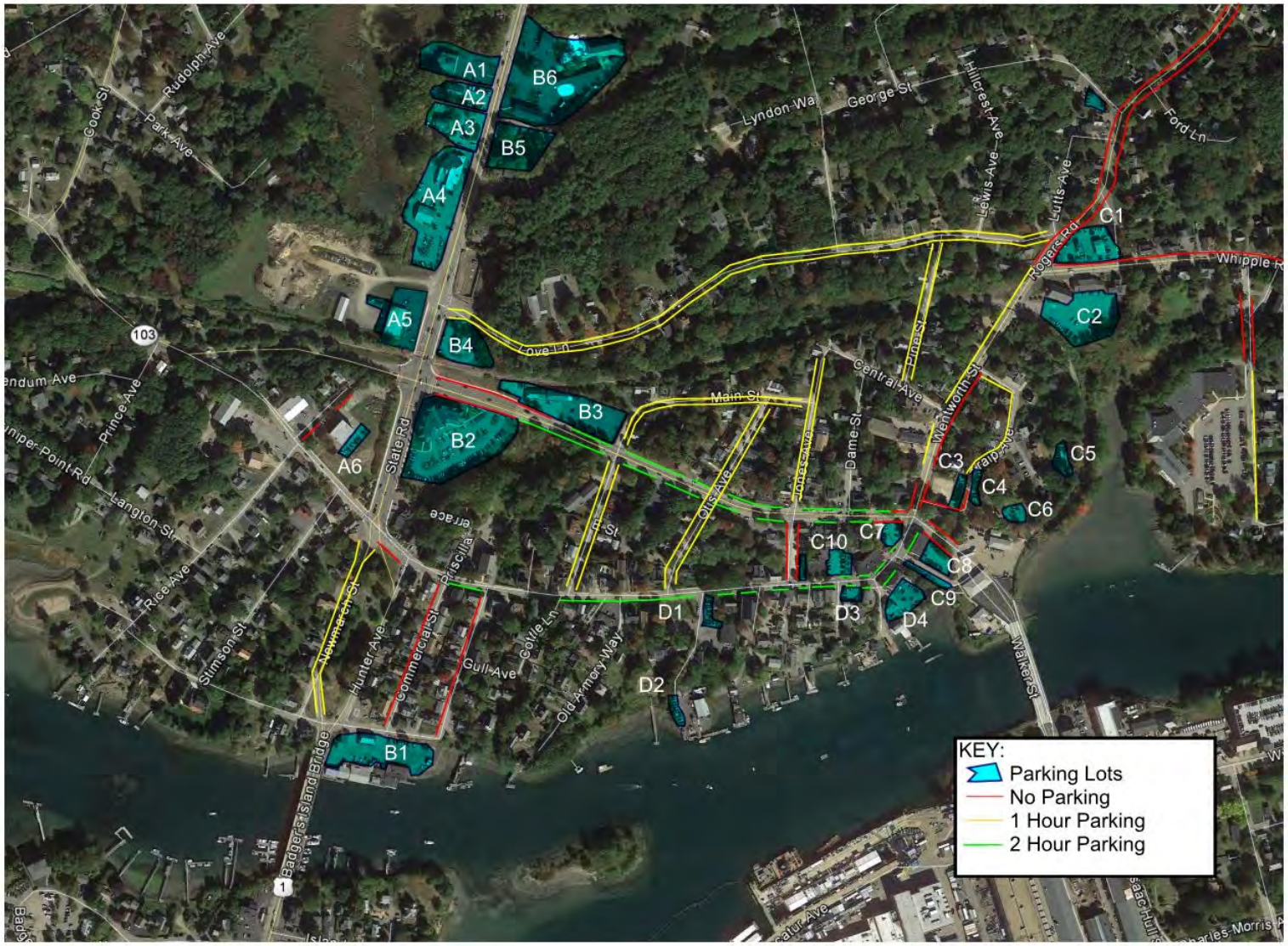
Parking Lot	Supply
A1	22
A2	18
A3	30
A4	70
A5	41
A6	13
B1	80
B2	96
B3	53
B4	8
B5	20
B6	82
C1	40
C2	61
C3	16
C4	11
C5	14
C6	15
C7	12
C8	15
C9	9
C10	17
D1	20
D2	10
D3	6
D4	18
Total	797



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Kittery NHPP-1865(300)

State Route 103 (Walker St. and Wentworth St.) Pedestrian Facility, Access Management, Safety, Traffic Signal Improvements

MaineDOT

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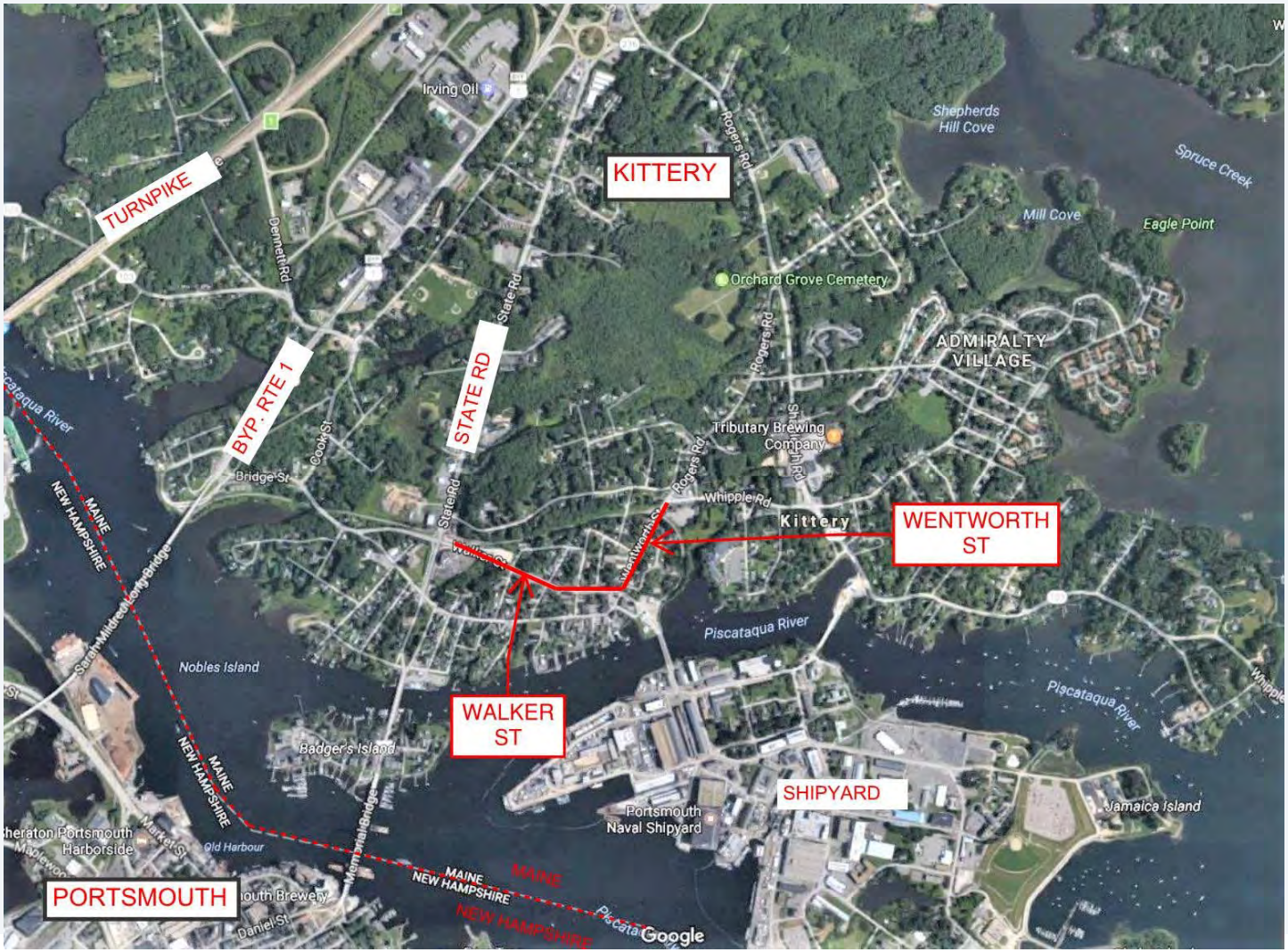
March 23, 2017

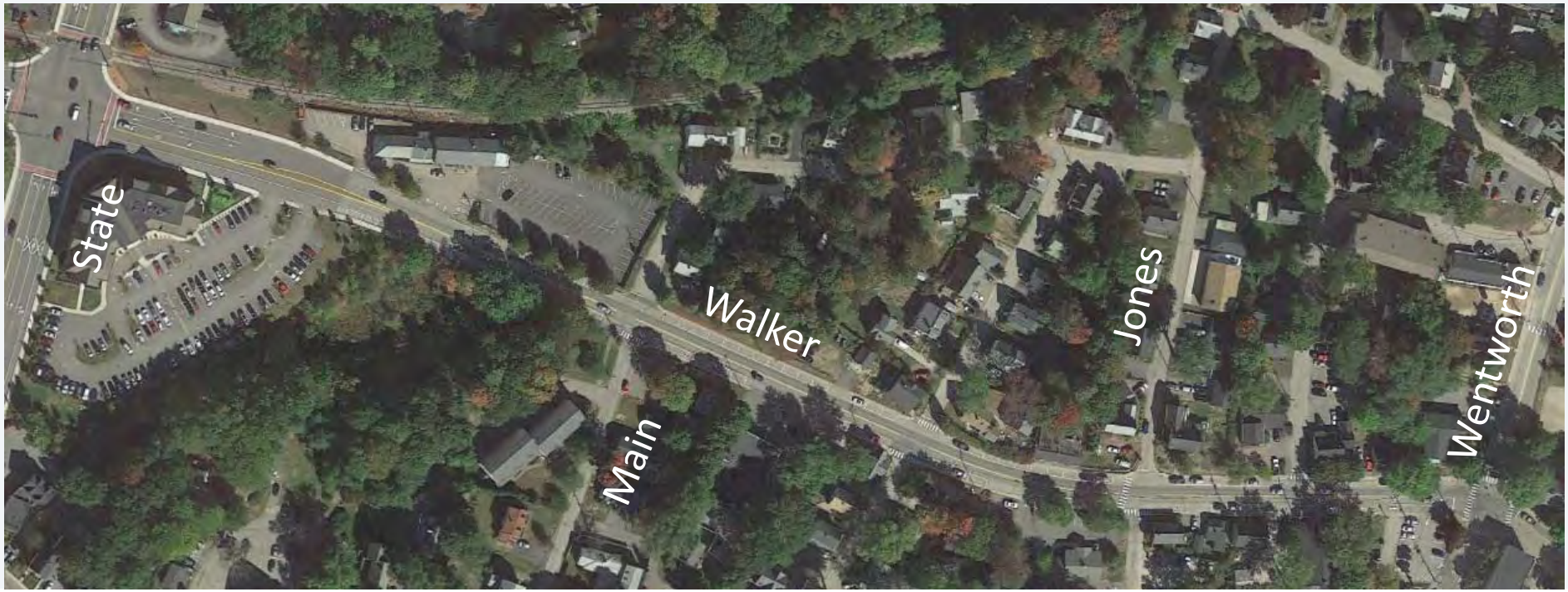
Project Location



- Begins 400’ east of State Rd
- 0.31 mile on Walker Rd
- 0.19 miles on Wentworth St
- Ends at Whipple Rd
- Includes Intersection at Walker / Wentworth / Wallingford Square

Overview

- Existing Conditions:
  - Walker St
    - Right of Way = 52’ +/-
    - Travel Lanes = 11.5’ +
    - Parking = 8’ +/-
    - Sidewalk = varies 3.5’ to 5’



Overview

- Existing Conditions:
  - Wentworth St
    - Right of Way = 40’ +/-
    - Pavement Width (Travel Lanes + Shoulder) = 31’ – 32’ (widens at intersection)
    - Parking = no formal striping
    - Sidewalk = varies 5’ to 6’

Overview

- Proposed Design - General:
  - Meets MaineDOT and Town Standards
  - Generally Fits Within Existing Right of Way
  - Meets ADA Requirements
  - Meets Standards for Offsets (Side road to Parking, Crosswalk to Parking)
  - Avoids Impact to Oldest Cork Tree at Intersection
  - Considers Local and Shipyard Peak Traffic Conditions

Overview

- Proposed Design - Details:
  - Standardizes Widths for Travel Lane, Parking, Sidewalk
  - Replaces or Resets Curb to Appropriate Height
  - Adds ADA Compliant Ramps / Detectable Warning Surface
  - Installs Crosswalks on Side streets / Wide Driveways
  - Overlay Pavement on Roadway / Shoulder / Parallel Parking
  - Traffic Signal Improvements

Overview

- Options:
  - Two Options Developed
  - Walker Street Same for Both Options
  - Wentworth St Different for Two Options:
    - Number of Sidewalks
    - Inclusion of On-Street Parking or not

Overview

- Proposed Design – Option A:
  - Walker St
    - 5’ Sidewalk both sides
    - 8’ Parking both sides
    - 11’ Travel Lane both sides

Overview

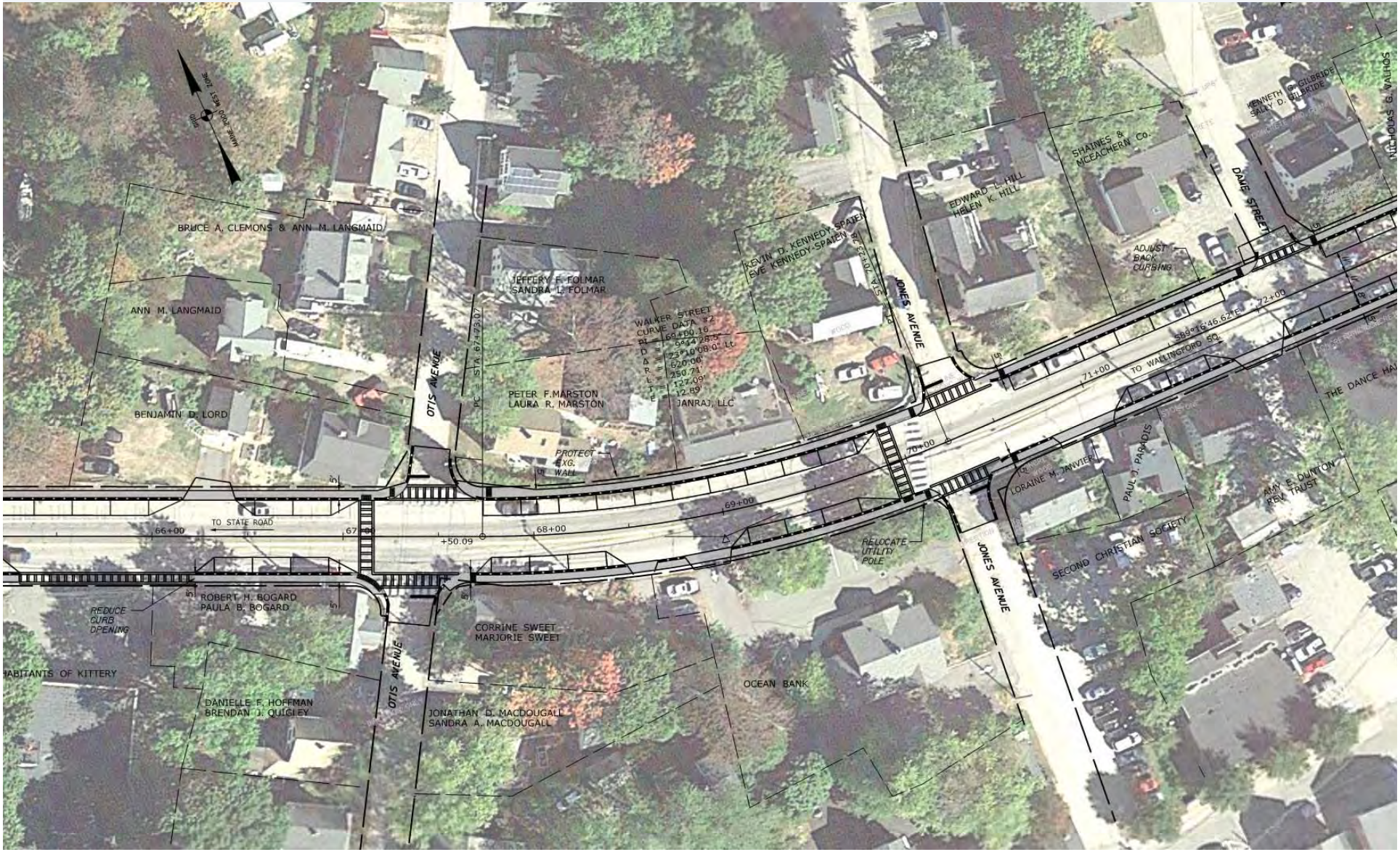
- Proposed Design – Option A:
  - Wentworth St
    - 6’ Sidewalk west side only
    - 8’ Parking west side only
    - 11’ Travel Lane both sides
    - 4’ Shoulder east side only

Overview

- Option A

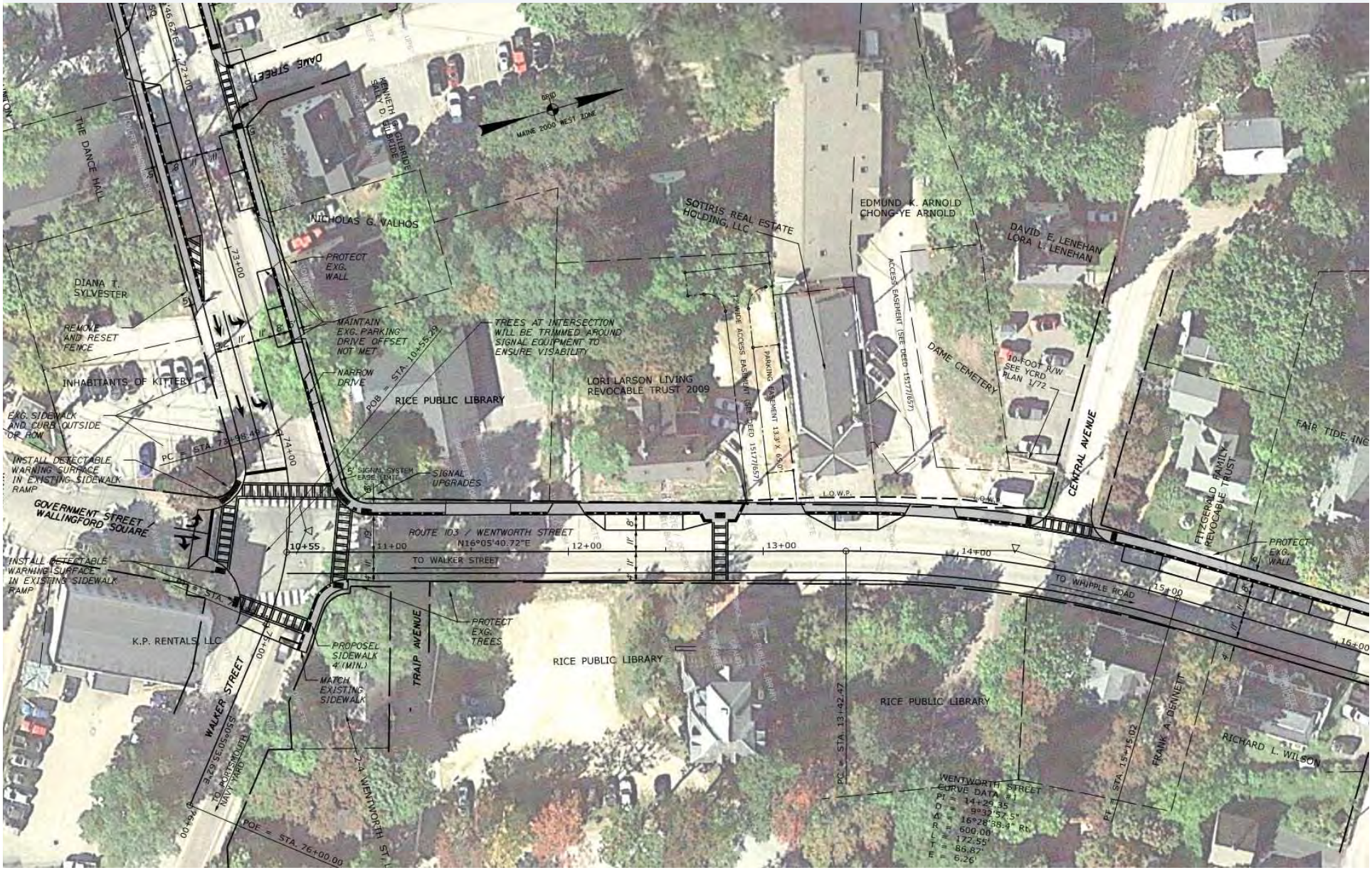
Overview

Option A



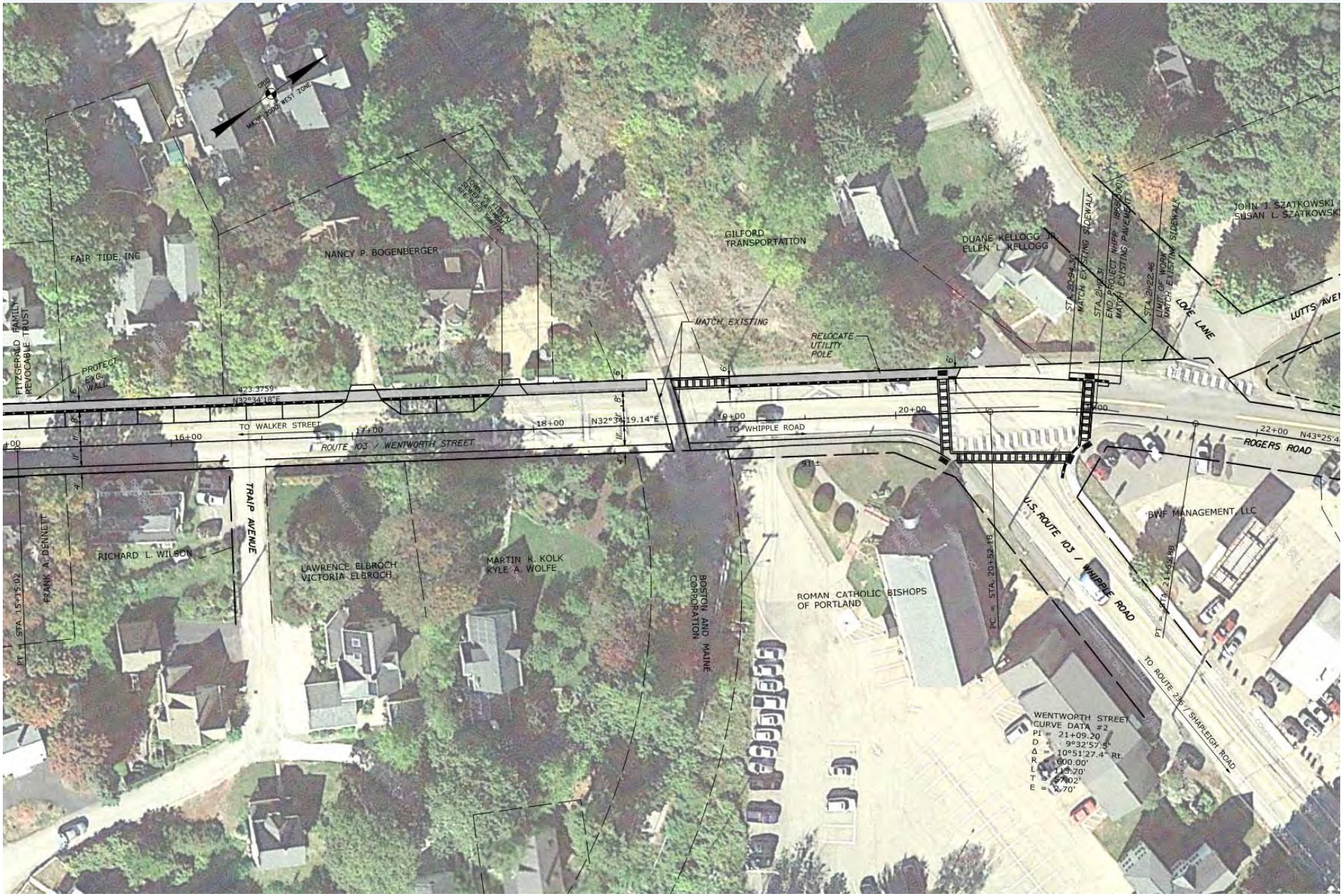
Overview

- Option A



Overview

Option A

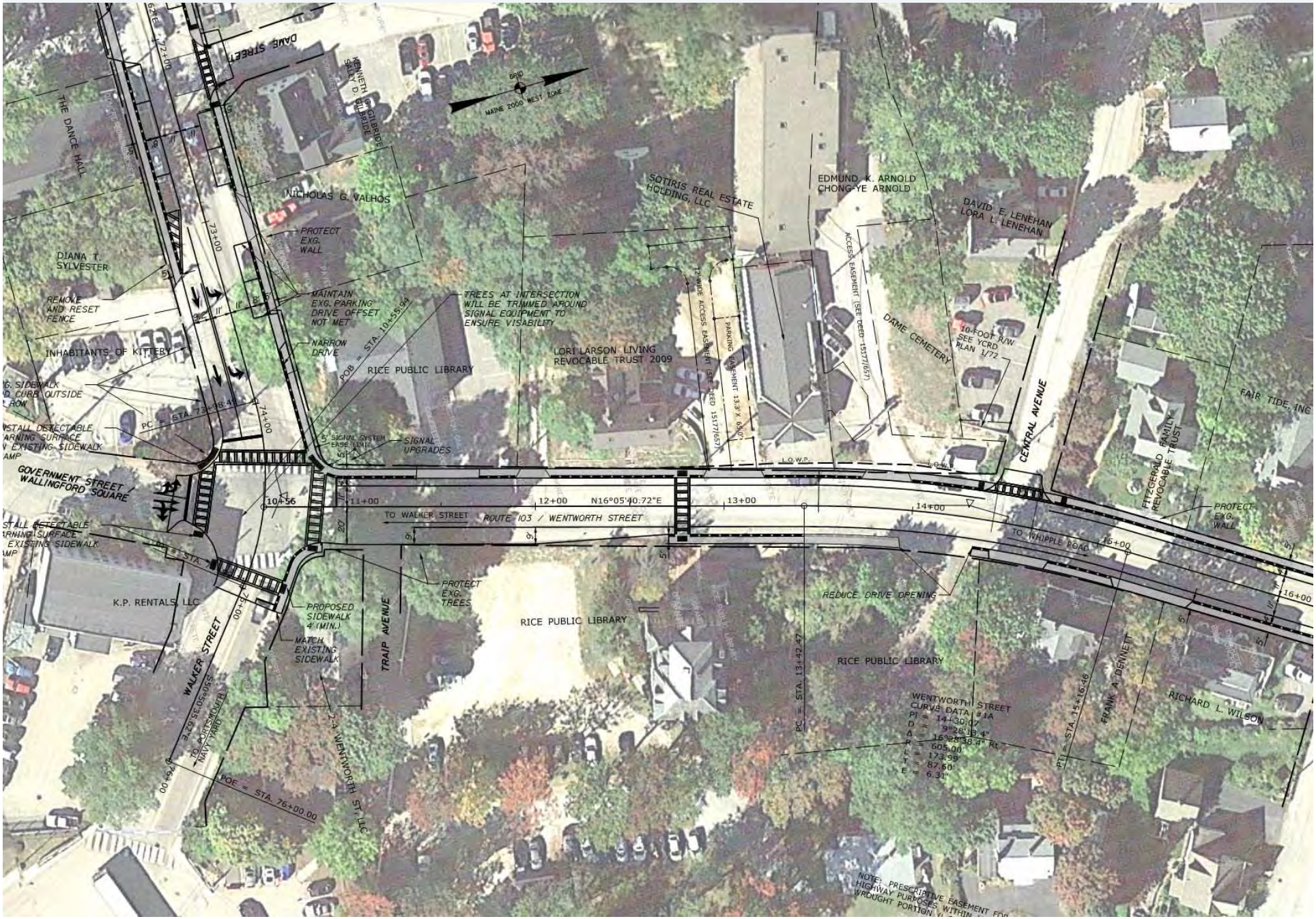


Overview

- Proposed Design – Option B:
  - Walker St - Same as Option A
  - Wentworth St
    - 5’ Sidewalk both sides (with exceptions)
    - 11’ Travel Lane both sides
    - 4’ Shoulder both sides

Overview

- Option B



Overview

- Option B

Overview

- Proposed Design:
  - Wentworth St – Option B - Proposal from Town being Studied
    - Removed proposed 4’ shoulders
    - Add 8’ Parking on west side only
    - Requires Design Exception / to go through MaineDOT Approval Process

Overview

- Bicycle Provisions:
  - Use Shoulders Where Available
  - Potential Use of Sharrows
    - Reinforces Bicyclist is allowed to Share the Lane
    - Indicates Safest Location to Bicycle near Parking

Brunswick, Maine

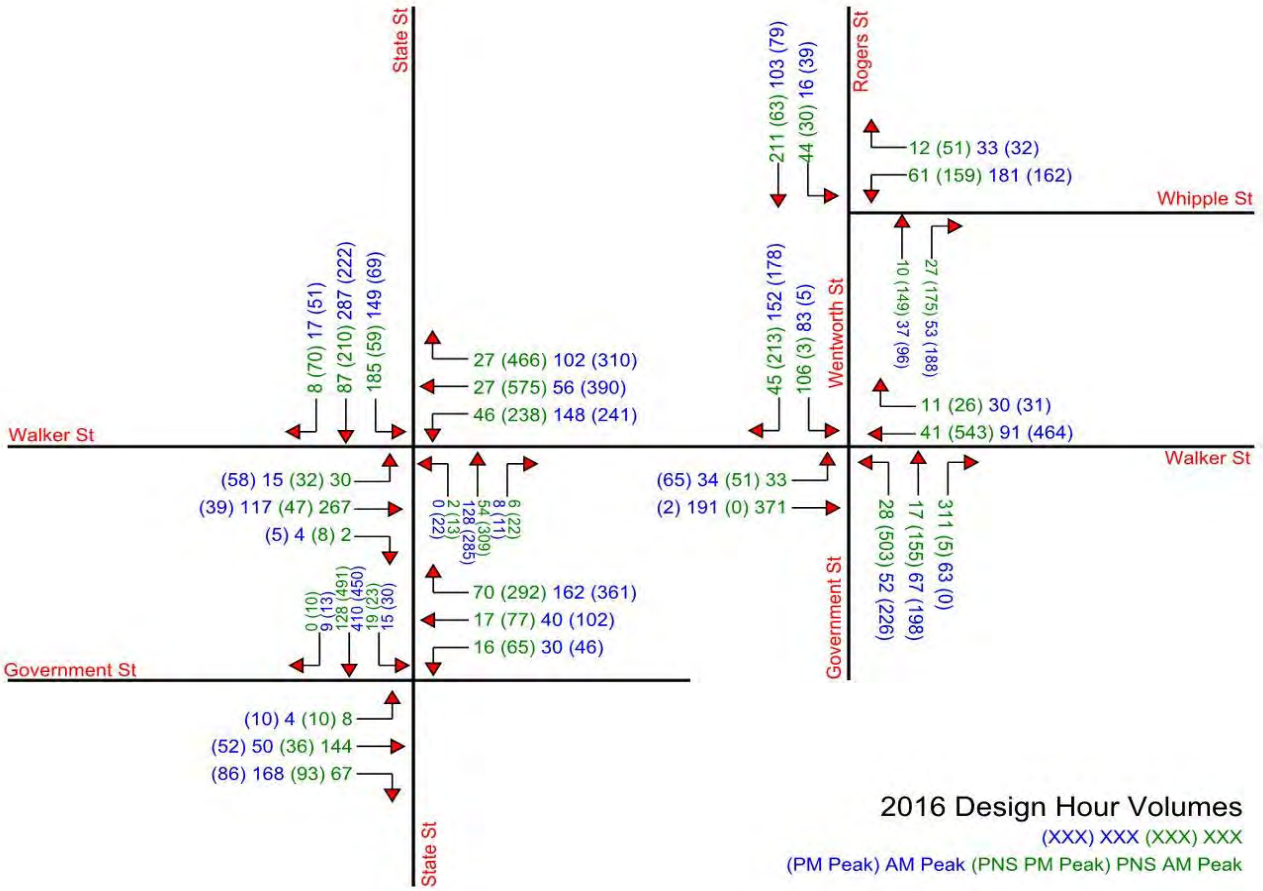
Transportation Assumptions Supporting Recommendations

❑ Government Street Traffic Circulation

- Existing One-Way Direction
- Reverse One-Way Direction
- Conversion to Two-Way Flow

Transportation Assumptions Supporting Recommendations

- **Design Hour Traffic Volume -** Shipyard or Non-Shipyard traffic volumes



Transportation Assumptions Supporting Recommendations

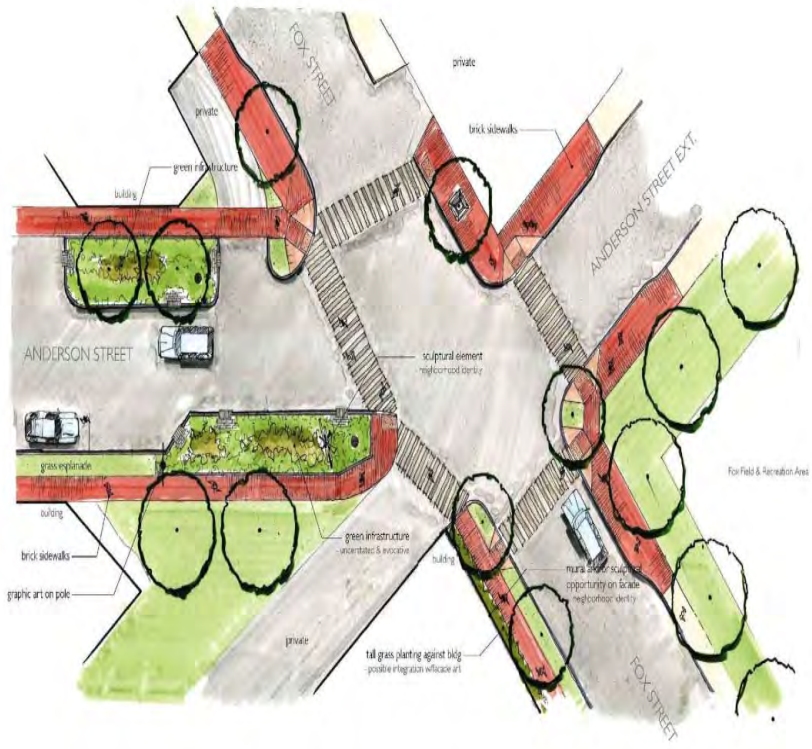
❑ Wentworth Street Options (MaineDOT Project)

- Option A - 6’ SW/8’ parking/11’ lane/11’ lane/4’ shoulder (40’ total)
- Option B - 5’ SW/4’ shoulder/11’ lane/11’ lane/4’ shoulder/5’ shoulder (40’ total)
- Town Option - 5’ SW/8’ parking/11’ lane/11’ lane/5’ SW (40’ total)

Transportation Assumptions Supporting Recommendations

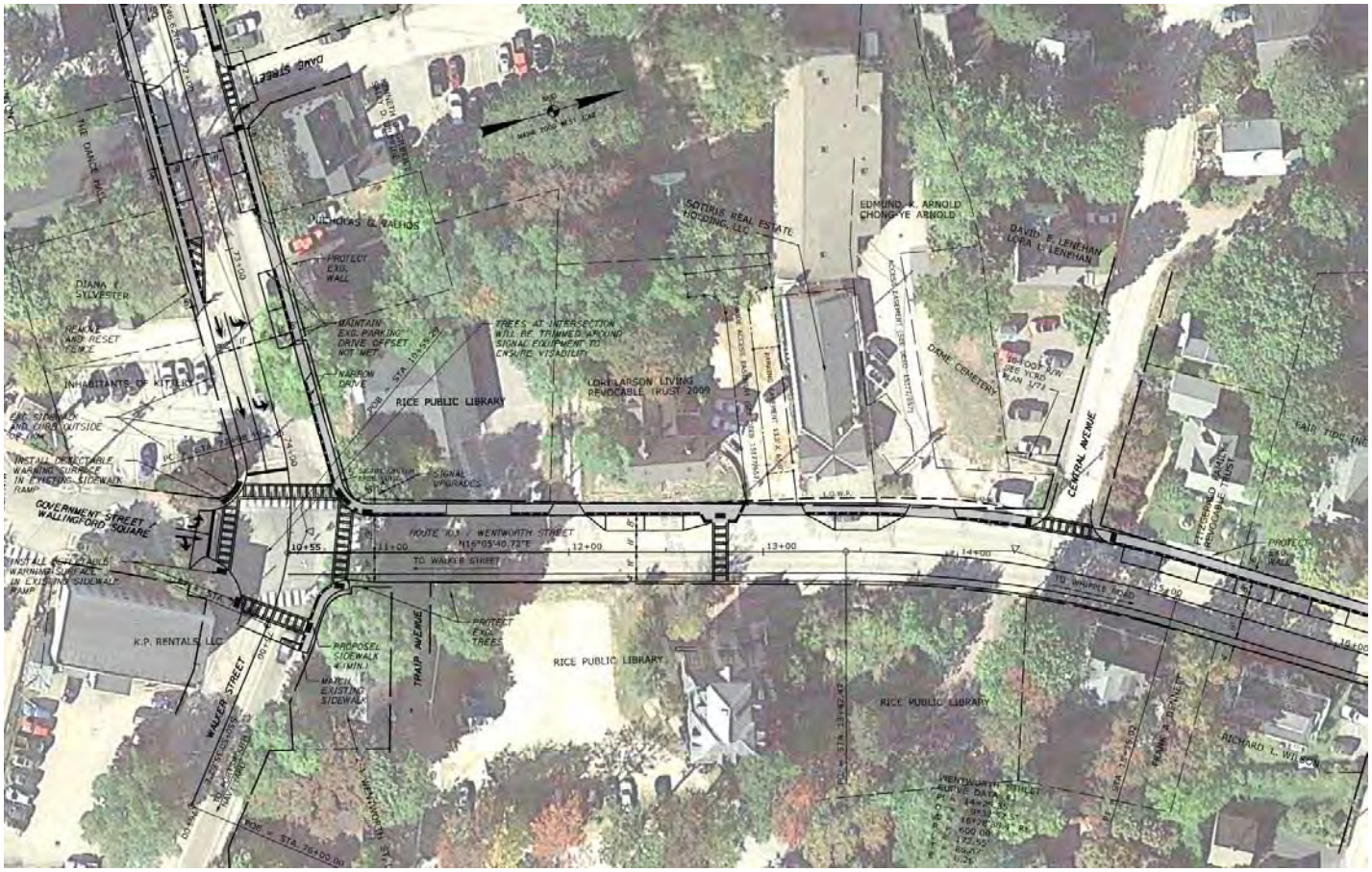
❑ Curb Extensions

- Reduces Pedestrian Crossing Distance
- Increases pedestrian visibility
- Prevents vehicle encroachment on crosswalk
- Encourages slower speeds by tightening corner radii
- Provides improved opportunity for ADA Ramps
- May increase drainage costs as well due to need for additional basins at low points created by bump-outs
- Increased maintenance effort/cost
- May reduce parking supply



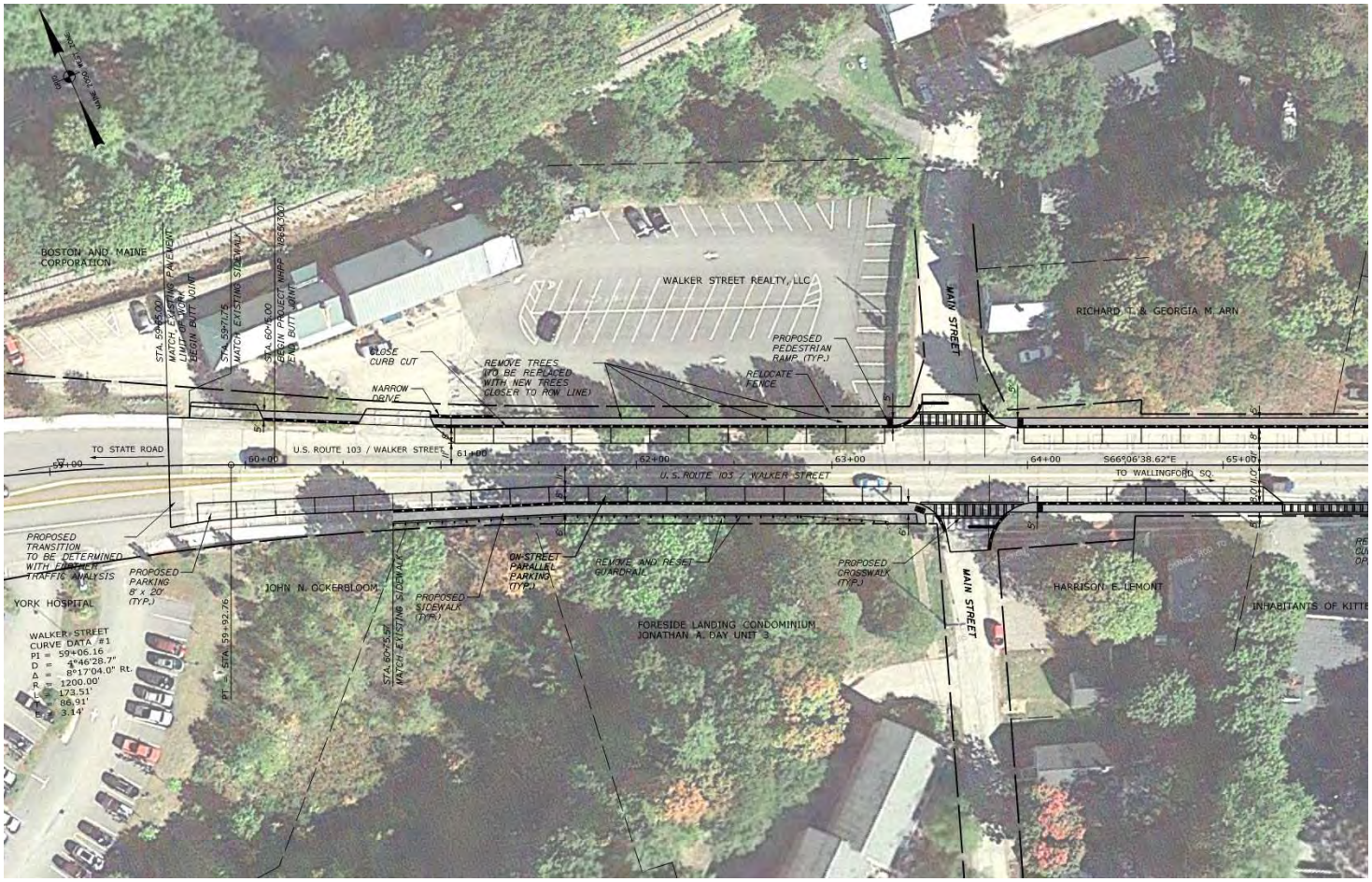
Transportation Assumptions Supporting Recommendations

- **Single approach lane on Walker at Wentworth**



Transportation Assumptions Supporting Recommendations

- **Walker Street crosswalk locations**



Transportation Assumptions Supporting Recommendations

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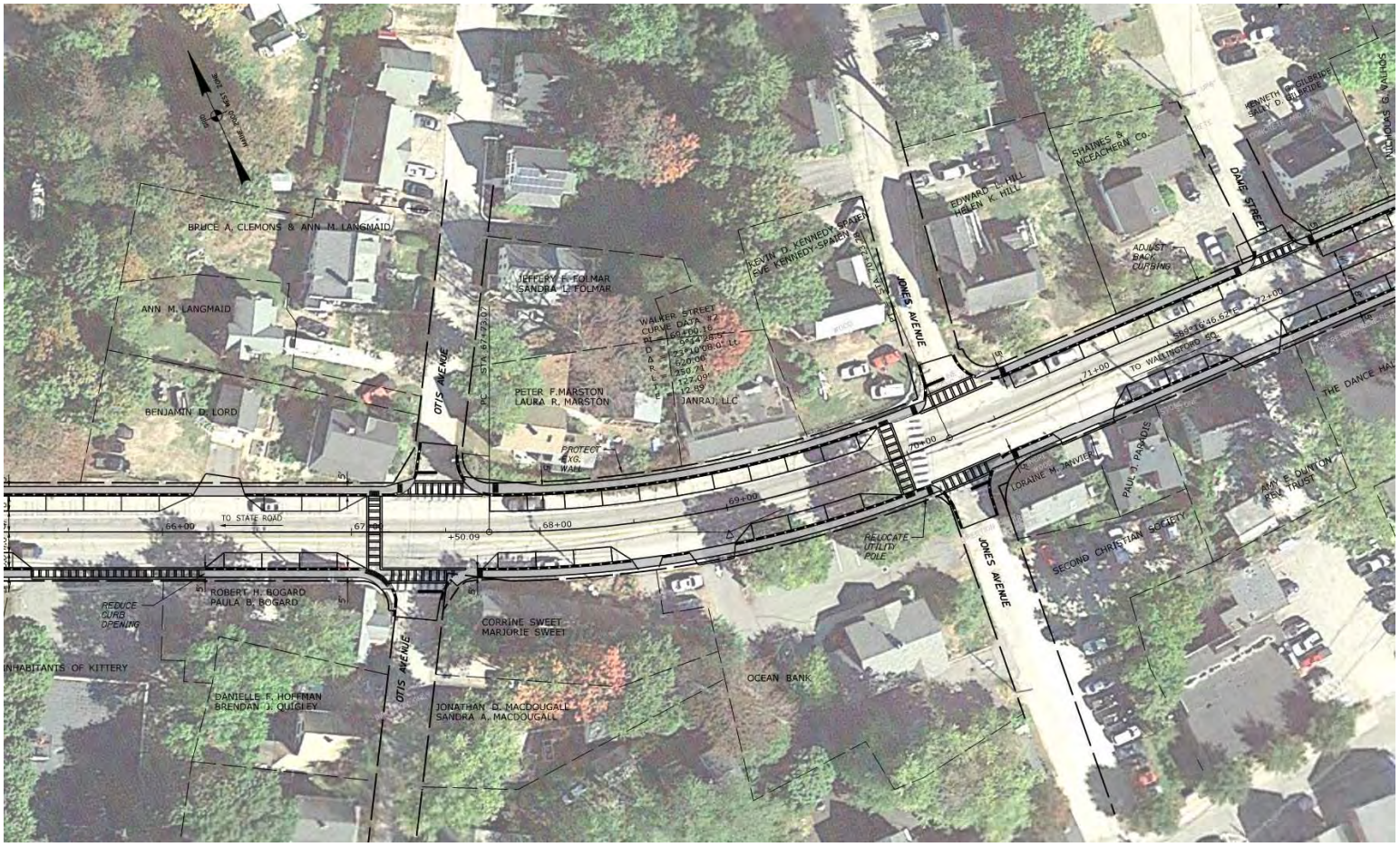
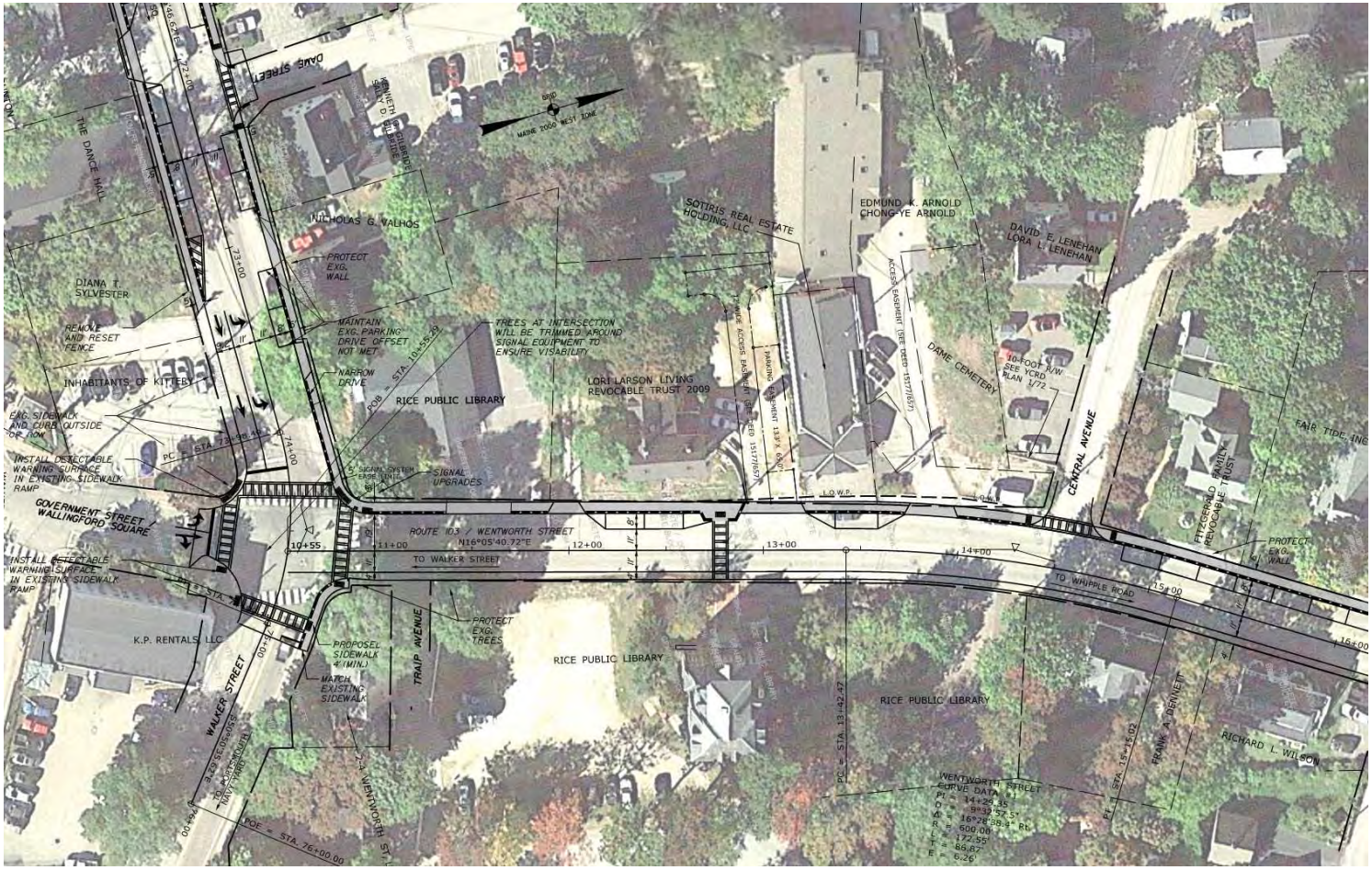


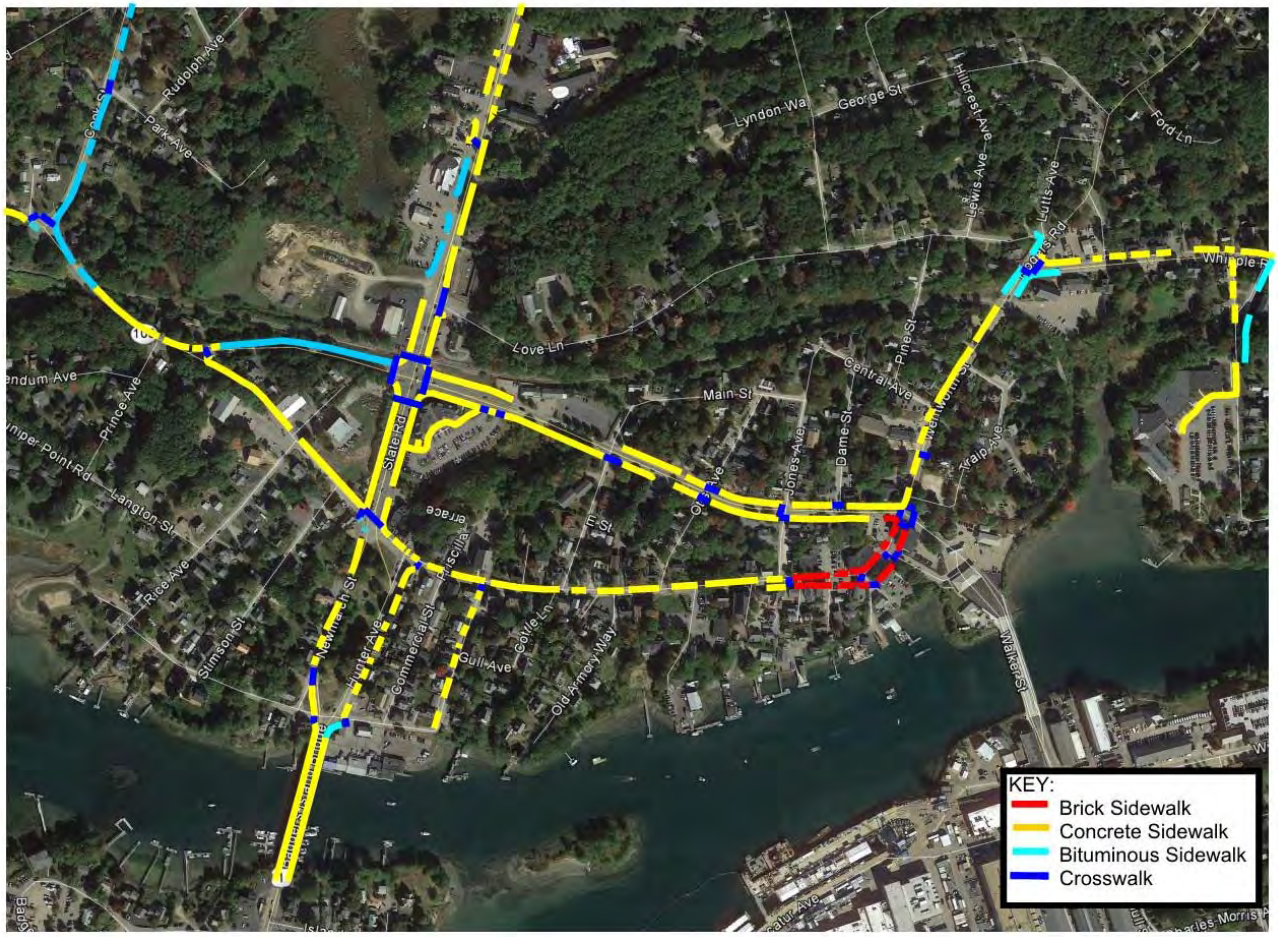
Transportation Assumptions Supporting Recommendations

- **Walker Street crosswalk locations**



Transportation Assumptions Supporting Recommendations

❑ Other Crosswalk Locations



Land Use Assumptions Supporting Recommendations

- The RFP asks for three build-out models based on a vision for the study area. What are vision(s) for the future of the Foreside and can particular parcels be identified for redevelopment addressing different issues – and development at different scales?

- The study area is comprised of three zones, MU-KF, LB, and LB-1. In your experience with these zones, are there land use, design standards, or dimensional standards that are of concern? For example, in the Foreside, should an existing building be allowed to be torn down to create a surface parking lot? This is currently allowed.

Land Use Assumptions Supporting Recommendations

- Are there examples of recent (re)development in the study area that you consider ideal in terms of use and form? Are there examples that are considered less than ideal?
- Are design standards appropriate, too restrictive, or too vague?
- Are the street / public realm design standards adequate or do they need to be more specific?
- How do you currently "identify" locations in the study area: use, intersection, natural feature, architecture, street, a combination of these?

Kittery Foreside Land Use, Parking, and Transportation Study

Schedule:

- Notice To Proceed – December 19, 2016
- Staff Kick-Off Meeting – January 10, 2017
- Public #1 Kick-Off Meeting – February 8, 2017
- Kick-Off Working Group Meeting #1 Site Walk – March 6, 2017
- Existing Conditions Technical Memorandum – March 2017
- Working Group Meeting #2 to Review Existing Conditions – **May 3, 2017**
- Public Meeting #2 Listening Session and Design Workshop – May/June 2017
- Working Group Meeting #3 to Review Draft Scenarios – May/June 2017
- Open House/Stakeholder Meeting – June 2017
- Present Draft Recommendations to Planning Board – June/July 2017
- Present Draft Recommendations to Town Council – August 2017
- Prepare Draft Report – September 2017
- Working Group Meeting #4 – September 2017
- Final Report – December 2017