



February 6, 2015

Ms. Caitlin Cameron, Planner
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

**Subject: 16 Middle Street and 185 Fore Street Submission
Traffic Impact Study**

Dear Ms. Cameron:

On behalf of Bateman Partners, LLC, please find enclosed the Traffic Impact Study for the 16 Middle and 185 Fore Street Submissions.

We have forwarded a copy of this report to Tom Errico for his review.

If you have any questions regarding this information, please contact our office.

Sincerely,

FAY, SPOFFORD & THORNDIKE

A handwritten signature in black ink, appearing to be 'JAL', written over a horizontal line.

Joseph A. Laverriere, P.E.
Senior Principal Engineer

JAL/cmd

Enclosure

c: Tom Errico, T.Y. Lin

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TRAFFIC IMPACT STUDY

FOR

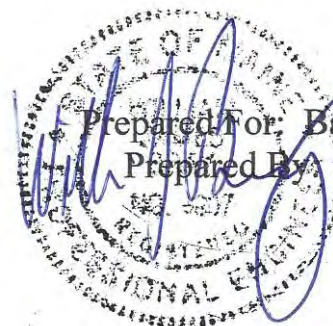
PROPOSED

“Residences at Fore Street”

And

“16 Middle Street”

Mixed-Use Development



Prepared For: Bateman Partners, LLC
Prepared By: William J. Bray, P.E.

February, 2015

INTRODUCTION

Bateman Partners, LLC are proposing to construct two mixed-use buildings at 16 Middle Street and 185 Fore Street in the City of Portland. Both properties, which have been submitted as separate site plan applications, are located within the Gateway Parking garage block, bounded by Middle Street, India Street, Fore Street, and Hancock Street Extension. The “16” Middle Street building, a five story building, will include approximately 5,032 square feet of retail space on the first floor and 39,526 square feet of commercial office space on floors 2 through 5. The proposed “Residences at Fore Street” building, located at 185 Fore Street, is a 4-story (23,856 square foot) building that will include a single-tenant commercial retail space on the first floor and 8 luxury condominiums/townhouses on floors 2 through 4.

A total of 239 deeded off-street parking spaces are provided within the adjoining Gateway Parking garage for the occupants of both proposed mixed-use properties. Full-service vehicular access to the parking garage is maintained from both Middle and Fore Streets.

The purpose of this study is to examine existing traffic conditions in the general vicinity of the proposed project, estimate the total number of site trips generated by the project, and make a determination as to whether the existing transportation system can safely accommodate the added traffic demand generated by the project.

EXISTING CONDITIONS

Existing Traffic: A composite estimate of “peak” 2014 traffic conditions for the Study Area intersections (Middle Street/India Street and India Street/Fore Street) was determined with the collection of traffic data during two separate time periods in 2014. Manual turning movement counts were performed at both intersections between the hours of 6:00 AM to 6:00 PM during the week of January 30, 2014 and a second 12-hour count was performed at the India Street/Fore Street intersection by the City of Portland on June 10, 2014 (Copies of the data summary sheets are attached as an appendix to the report). From a summary of the traffic data, it was determined that the morning peak hour falls between 7:45 and 8:45 AM and the PM peak hour occurs between 4:30 and 5:30 PM.

Traffic data collected during the month of January and June require an adjustment to reflect “peak” travel conditions during the summer months of July and August. MaineDOT provides factors for adjusting traffic data collected during other periods of time. MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. Group I roadways are defined as urban roadways or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Group II roadways or arterial roads are those that see a combination of commuter and recreational traffic and; therefore, experience moderate fluctuations during the year. Group III roads or recreational roadways are typically used for recreational purposes and experience significant seasonal fluctuations. MaineDOT has designated each study area roadway as Group I roadways, which requires the collected traffic data to be adjusted by a factor of approximately 1.23 for the week of January 30 and 1.02 for the week of June 10. Both sets of traffic data were appropriately adjusted for both collection time periods and then a “*side-by-side*” comparison was performed with the higher traffic volume of the two sets of data (January and June data) selected as the appropriate representation of 2014 design hour conditions at the study intersections. Figures 1 & 2 illustratively depict the estimated 2014 AM and PM design hour traffic conditions for both study intersections.

Existing Safety Trends: The Maine Department of Transportation’s (MaineDOT) Accident Records Section provided three-year (2011 through 2013) safety records for the section of India Street between Middle and Fore Streets, Middle Street between India and Hancock Streets, and Fore Street between India and Mountfort Streets. MaineDOT’s report is presented as follows:

**2011 - 2013 Accident Summary
(Portions of Middle Street, India Street, and Fore Street)**

| <u>Location</u> | <u>Number of Accidents</u> | <u>Critical Rate Factor</u> |
|---|----------------------------|-----------------------------|
| 1. India Street @ Middle Street | 6 | 2.15 |
| 2. India Street @ Fore Street | 8 | 2.02 |
| 3. India Street btw. Fore St. and Middle St. | 1 | 0.58 |
| 4. Fore Street btw. Mountfort Street and India Street | 6 | 1.54 |

The MaineDOT considers any roadway segment or intersection a high crash location if both of the following criteria are met:

- 8 or more accidents
- A Critical Rate Factor greater than 1.00

As the data presented in the table shows (location highlighted in yellow), the India Street/ Fore Street intersection meets MaineDOT's criteria for a high crash location. A total of 8 crashes with a Critical Rate Factor (CRF) of 2.02 were reported for the intersection. A more in-depth review (preparation of detailed vehicle collision diagrams) was prepared for the intersection to determine if a clear pattern of accident is occurring (Copies of the collision diagrams are attached as an appendix to the report). Seven of the eight reported crashes were "angle" accidents with drivers in all cases "failing to yield" to a motorist within the intersection.

The City is currently exploring several improvement strategies for the intersection including the installation of sequenced traffic control signals, enhanced pavement markings and directional signing, which appear to be appropriate measures for addressing the higher than expected frequency of crashes reported for the intersection.

SITE TRAFFIC

Site Trip Generation: Trip generation for the proposed buildings were determined based upon trip tables presented in the eighth edition of the Institute of Transportation Engineers "TRIP GENERATION" handbook. Peak hour trip generation for each of the two proposed buildings were estimated based upon the following anticipated site uses and projected building areas:

"16" Middle Street" Building: First floor - 5,032sf retail area and 2nd floor thru 5th floor - 39,526sf commercial office space.

Land Use Code #710 General Office Building

AM Street Peak Hour = 1.55 trips/1,000sf
 AM Generator Peak Hour = 1.55 trips/1,000sf
 PM Street Peak Hour = 1.49 trips/1,000sf
 PM Generator Peak Hour = 1.49 trips/1,000sf

Land Use Code #814 Specialty Retail

AM Street Peak Hour = 0
 AM Generator Peak Hour = 6.84 trips/1,000sf
 PM Street Peak Hour = 2.71 trips/1,000sf
 PM Generator Peak Hour = 5.02 trips/1,000sf

"Residences at Fore Street" Building: First floor - 4,427sf retail/office space (projected tenant has 2000sq ft) and 2nd floor thru 4th floor - a total of 8 luxury residential townhouse/condominiums.

Land Use Code #233 Luxury Condominium/Townhouse

AM Street Peak Hour = 0.56 trips/unit
 AM Generator Peak Hour = 0.65 trips/unit
 PM Street Peak Hour = 0.55 trips/unit
 PM Generator Peak Hour = 0.65 trips/unit

Land Use Code #715 Single-Tenant Office Building

AM Street Peak Hour = 1.80 trips/1,000sf
 AM Generator Peak Hour = 1.73 trips/1,000sf
 PM Street Peak Hour = 1.80 trips/1,000sf
 PM Generator Peak Hour = 1.73 trips/1,000sf

Table 1 below provides a summary of peak hour trip generation for the proposed **Bateman Partners, LLC** development.

Table 1
Bateman Partners, LLC Development
Trip Generation

| <u>Building Name</u> | <u>AM Street Peak Hour Trips</u> | <u>AM Generator Peak Hour Trips</u> | <u>PM Street Peak Hour Trips</u> | <u>PM Generator Peak Hour Trips</u> |
|-----------------------------|----------------------------------|-------------------------------------|----------------------------------|-------------------------------------|
| "16 Middle Street" | 61 | 95 | 73 | 84 |
| "Residences at Fore Street" | 13 | 13 | 13 | 13 |
| Total Trips | 74 | 108 | 86 | 97 |

Site Trip Composition: The following trip composition has been determined for the proposed development uses:

"16 Middle Street" Building

Land Use Code #710 General Office Building
 Primary Trips = 100%

Land Use Code #814 Specialty Retail
 Primary Trips = 100%

"Residences at Fore Street" Building

Land Use Code #233 Luxury Condominium/Townhouse
 Primary Trips = 100%

Land Use Code #715 Single-Tenant Office Building
 Primary Trips = 100%

Additionally, a captured (shared) trip rate of 10% was applied. Table 2 below summarizes the trip composition values for each of the two proposed building.

Table 2
Bateman Partners, LLC
Site Trip Composition

| <u>Building Name</u> | <u>Trip Type</u> | <u>AM Street Peak Hour</u> | <u>AM Generator Peak Hour</u> | <u>PM Street Peak Hour</u> | <u>PM Generator Peak Hour</u> |
|-----------------------------|----------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|
| "16 Middle Street" | Total Building Trips = | 61 | 95 | 73 | 84 |
| | Primary Trips | 55 | 85 | 66 | 76 |
| | Captured Trips | 6 | 10 | 7 | 8 |
| "Residences at Fore Street" | Total Building Trips = | 13 | 13 | 13 | 14 |
| | Primary Trips | 13 | 13 | 13 | 13 |
| | Captured Trips | 1 | 1 | 1 | 1 |
| | Total Development Trips = | 74 | 108 | 86 | 97 |
| | Primary Trips | 67 | 97 | 78 | 88 |
| | Captured Trips | 7 | 11 | 8 | 9 |

Site Trip Distribution: Vehicle trips generated by the proposed development uses were assigned to/from the proposed site based upon the following trip distribution patterns during each designated time period:

"16 Middle Street" Building:

Land Use Code #710 General Office Building

AM Street Peak Hour = 88% enter/12% exit
 AM Generator Peak Hour = 88% enter/12% exit
 PM Street Peak Hour = 17% enter/83% exit
 PM Generator Peak Hour = 17% enter/83% exit

Land Use Code #814 Specialty Retail

AM Generator Peak Hour = 48% enter/52% exit
 PM Street Peak Hour = 44% enter/56% exit
 PM Generator Peak Hour = 56% enter/44% exit

"Residences at Fore Street" Building:

Land Use Code #233 Luxury Condominium/Townhouse

AM Street Peak Hour = 23% enter/77% exit
 AM Generator Peak Hour = 32% enter/68% exit
 PM Street Peak Hour = 63% enter/37% exit
 PM Generator Peak Hour = 60% enter/40% exit

Land Use Code #715 Single-Tenant Office Building

AM Street Peak Hour = 89% enter/11% exit
 AM Generator Peak Hour = 89% enter/11% exit
 PM Street Peak Hour = 15% enter/85% exit
 PM Generator Peak Hour = 15% enter/85% exit

Table 3 summarizes the directional distribution of vehicle trips for each peak time period for both proposed buildings:

Table 3
“Bateman Partners, LLC” Development
Trip Distribution

| <u>Building Location</u> | <u>Peak Hour Time Period</u> | <u>Trip Distribution</u> | | |
|---------------------------------|-------------------------------------|---|---------------------|--------------------|
| | | <u>Total⁽¹⁾ Trips</u> | <u>Enter</u> | <u>Exit</u> |
| “16 Middle Street” | AM Street Peak Hour | 55 | 48 | 7 |
| | AM Generator Peak Hour | 85 | 62 | 23 |
| | PM Street Peak Hour | 66 | 15 | 51 |
| | PM Generator Peak Hour | 76 | 22 | 54 |
| | | | | |
| “Residences at Fore Street” | AM Street Peak Hour | 12 | 7 | 5 |
| | AM Generator Peak Hour | 12 | 8 | 4 |
| | PM Street Peak Hour | 12 | 4 | 8 |
| | PM Generator Peak Hour | 12 | 4 | 8 |
| | | | | |
| | Total Development Trips | | | |
| | AM Street Peak Hour | 67 | 55 | 12 |
| | AM Generator Peak Hour | 97 | 70 | 27 |
| | PM Street Peak Hour | 78 | 19 | 59 |
| | PM Generator Peak Hour | 88 | 26 | 62 |

NOTE: ⁽¹⁾ Total trip value reflects total trip value minus the estimated captured trip value

Site Trip Assignment: Vehicle trips generated by the proposed development project were assigned to the roadway system based upon existing vehicle splits measured at both entrances to the Gateway Garage. Manual vehicle turning movement counts were collected at both garage entrance driveways during the AM and PM peak commuter hours on Thursday, February 20, 2014 (Copy of noted data is attached). From a summary of the data, it was determined that approximately 60% of the vehicle trips entering/exiting the garage use the Middle Street entrance and the remaining trips circulate through the Fore Street entrance. The vehicle trips were further assigned through both study intersections (Middle Street/India Street and Fore Street/India Street) based upon existing traffic data collected during both peak time periods. Figures 3 and 4 are “stick-diagrams” that illustratively present the assignment of the site trips for the AM and PM peak hours.

FUTURE TRAFFIC

Annual Growth: The Traffic Impact Study has been prepared based upon a projected build-out year of 2016. MaineDOT’s historical traffic data for the noted sections of Middle/Fore and India Streets would suggest the appropriateness of a somewhat flat annual traffic growth. However, to insure a conservative assessment of traffic impact, the 2014 through traffic values for both study intersections were increased by an annual growth rate of 2.5%.

Other Development Traffic: Traffic generated by projects that have been approved by the City of Portland Planning Board and/or the MaineDOT, yet are not opened, must be included in the estimate of pre-development traffic. Caitlin Cameron, Urban Designer from Portland’s Planning & Urban Development

Department, identified the following projects whose trip generation should be included in the estimate of other development traffic:

- 203 Fore Street (Opechee Phase II) – extension valid until August 2014
- 100 Federal Street (Sussman) – extension valid until October 2015
- 101-121 Newbury Street (Seaport Lofts) – approved 2013

Figures 5 and 6 graphically present the Other Development traffic included in the Traffic Impact Study.

2016 Pre-Development Traffic: The Other Development traffic projections shown on Figures 5 and 6 were added to the seasonally adjusted 2014 base traffic forecasts to provide an estimate of 2016 Pre-Development traffic conditions. Figures 7 and 8 are line diagrams that present the 2016 Pre-Development AM and PM peak hour traffic forecasts for the two study intersections.

2016 Post-Development Traffic: Estimated 2016 Pre-Development traffic forecasts prepared for both study intersections, as depicted on Figures 7 and 8, were combined with the site traffic projections on Figures 3 and 4 to create estimated 2016 Post-Development traffic estimates for both study intersections. Figures 9 (AM Peak Hour) and 10 (PM Peak Hour) are line diagrams that present the estimated 2016 Post-Development traffic conditions for the study intersections.

MOBILITY ANALYSIS

Capacity analysis of the study intersections was performed utilizing the Synchro and SimTraffic computer models. Two separate analyses were completed for the Middle Street/India Street intersection at the request of the City: 1) Existing two-way stop control on Middle Street approaches and, 2) “Multi Way” stop control for the intersection. The analyses conducted for the India Street/Fore Street intersection was based upon the existing “multi-way” traffic control for the intersection.

Levels of Service rankings are similar to the academic grade system, where an “A” is very good with little delay and “F” represents very poor conditions. The following table summarizes the relationship between delay and Level of Service for an unsignalized intersection:

Level of Service Criteria for Unsignalized Intersections

| <u>Level of Service</u> | <u>Total Control Delay (sec/veh)</u> |
|-------------------------|--------------------------------------|
| A | Up to 10.0 |
| B | 10.1 to 15.0 |
| C | 15.1 to 25.0 |
| D | 25.1 to 35.0 |
| E | 35.1 to 50.0 |
| F | Greater than 50.0 |

The results of the operational analysis are presented in the following tables:

Intersection Level of Service Summary
Middle Street @ India Street (two-way traffic control)
India Street @ Fore Street (multi-way stop control)
(2016 Pre- and Post-Development Travel Conditions)

| | 2016 Pre-Development | | 2016 Post-Development | | 2016 Pre-Development | | 2016 Post-Development | |
|--|----------------------|------------|-----------------------|------------|----------------------|------------|-----------------------|------------|
| | AM Peak Hour | | AM Peak Hour | | PM Peak Hour | | PM Peak Hour | |
| <u>Intersection/Approach</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> |
| 1. India Street @ Fore Street | | | | | | | | |
| Fore Street EB | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| Fore Street WB | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| India Street NB | 5.0 sec. | A | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| India Street SB | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| Overall Intersection | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| 2. India Street @ Middle Street | | | | | | | | |
| Middle Street EB | 5.0 sec. | A | 5.0 sec. | A | 9.0 sec. | A | 9.0 sec. | A |
| Middle Street WB | 5.0 sec. | A | 5.0 sec. | A | 9.0 sec. | A | 8.0 sec. | A |
| India Street NB | 2.0 sec. | A | 1.0 sec. | A | 2.0 sec. | A | 2.0 sec. | A |
| India Street SB | 1.0 sec. | A | 1.0 sec. | A | 1.0 sec. | A | 1.0 sec. | A |
| Overall Intersection | 3.0 sec. | A | 3.0 sec. | A | 3.0 sec. | A | 3.0 sec. | A |

Intersection Level of Service Summary
Middle Street @ India Street (multi-way traffic control)
India Street @ Fore Street (multi-way stop control)
(2016 Pre- and Post-Development Travel Conditions)

| | 2016 Pre-Development ⁽¹⁾ | | 2016 Post-Development | | 2016 Pre-Development ⁽¹⁾ | | 2016 Post-Development | |
|--|-------------------------------------|------------|-----------------------|------------|-------------------------------------|------------|-----------------------|------------|
| | AM Peak Hour | | AM Peak Hour | | PM Peak Hour | | PM Peak Hour | |
| <u>Intersection/Approach</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> | <u>Delay (sec.)</u> | <u>LOS</u> |
| 1. India Street @ Fore Street | | | | | | | | |
| Fore Street EB | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| Fore Street WB | 6.0 sec. | A | 9.0 sec. | A | 8.0 sec. | A | 9.0 sec. | A |
| India Street NB | 5.0 sec. | A | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| India Street SB | 6.0 sec. | A | 9.0 sec. | A | 8.0 sec. | A | 9.0 sec. | A |
| Overall Intersection | 6.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A | 8.0 sec. | A |
| 2. India Street @ Middle Street | | | | | | | | |
| Middle Street EB | 5.0 sec. | A | 4.0 sec. | A | 9.0 sec. | A | 5.0 sec. | A |
| Middle Street WB | 5.0 sec. | A | 4.0 sec. | A | 9.0 sec. | A | 5.0 sec. | A |
| India Street NB | 2.0 sec. | A | 6.0 sec. | A | 2.0 sec. | A | 7.0 sec. | A |
| India Street SB | 1.0 sec. | A | 6.0 sec. | A | 1.0 sec. | A | 7.0 sec. | A |
| Overall Intersection | 3.0 sec. | A | 5.0 sec. | A | 3.0 sec. | A | 7.0 sec. | A |

NOTE: ⁽¹⁾ Traffic control at Middle Street and India Street for 2016 Pre-Development condition remains two-way stop control on Middle Street approach.

Multi-way Stop Warrant Analysis (India Street @ Middle Street Intersection)

The City’s Peer Review Consultant has requested that a “multi-way” stop control analysis be completed for the India Street/Middle Street intersection. The Manual on Uniform Traffic Control Devices (MUTCD), a federal publication, provides specific criteria that should be considered in recommending “multi-way” stop control at an intersection. That criteria, as presented in the 2009 edition of the MUTCD, is listed as follows:

A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

B. A crash problem, as indicated by 5 or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right and left-turn collisions, as well as, right-angle collisions.

C. Minimum Volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day and,

2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours with an average delay to minor street vehicular traffic of a least 30 seconds per vehicle during the highest hour but,

3. If the 85th-percentile approach speed of the major-street traffic exceeds 65 km/h (40 mph), the minimum vehicular volume warrants are 70 percent of the above values.

D. Where no single criterion is satisfied but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Existing 2014 Adjusted Intersection Traffic Volumes⁽¹⁾
Middle Street/India Street (6:00 AM to 6:00 PM)

| <u>Hour of Day</u> | <u>Two-Way Traffic India Street (both approaches)</u> | <u>Two-Way Traffic Middle Street (both approaches)</u> |
|--------------------|---|--|
| 6:00 to 7:00 AM | 42 | 38 |
| 7:00 to 8:00 AM | 160 | 103 |
| 8:00 to 9:00 AM | 236 | 186 |
| 9:00 to 10:00 AM | 284 | 251 |
| 10:00 to 11:00 AM | 311 | 215 |
| 11:00 to 12:00 PM | n/a | n/a |
| 12:00 to 1:00 PM | 381 | 216 |
| 1:00 to 2:00 PM | 470 | 194 |
| 2:00 to 3:00 PM | 447 | 178 |
| 3:00 to 4:00 PM | 487 | 236 |
| 4:00 to 5:00 PM | 556 | 213 |
| 5:00 to 6:00 PM | 627 | 218 |

NOTE: ⁽¹⁾ 2014 adjusted traffic data based upon data collected on January 30, 2014 adjusted by a seasonal factor 1.23 to reflect estimated 2104 design hour traffic conditions.

“Multi-way” Stop Control Warrant Assessment

- Criterion “A” isn’t relevant to this location.
- Criterion “B”, the highest number of reported crashes occurring in a single 12-month time period, is 4 that are susceptible to correction by a multi-way stop installation. (refer to attached vehicle collision diagram prepared for the intersection)

- Criterion C.1 is met between 9:00 and 6:00 PM when the average per hour volume is 447 vehicles.
- Criterion C.2, the combined vehicular, pedestrian and bicycle volume portion of the criterion is met between 9:00 and 6:00 PM when the average per hour volume of vehicular traffic is 215 vehicles (Time of year constraints precluded the collection of meaningful pedestrian and bicycle data. Criterion is met solely on the average hourly volume of vehicular traffic.). The average delay to minor street traffic projected for the 2016 Post-Development condition is 9.0 seconds during the highest hour of the day, which falls well below the criterion value of 30 seconds of average delay. Accordingly, Criterion C.2 is not satisfied.
- Criterion C.3 isn't relevant to this location.
- Criterion D is not met; Criterion B and Criterion C.1 are met with application of the 80% value. Criterion C.2 is not met, the average delay to side-street traffic, calculated at 9 seconds is well below the 80% value of 24 seconds.

In summary, prevailing traffic conditions at the Middle Street/India Street intersection do not currently satisfy the “multi-way” stop control warrants as stated in the 2009 MUTCD.

SUMMARY

1. The proposed two mixed-use buildings combined will generate approximately 74 trips during the AM peak hour and an additional 86 trips during the afternoon peak hour.
2. MaineDOT's Traffic Safety Bureau's latest three-year safety report (2011 through 2013) for the identified portions of India Street, Middle Street, and Fore Street shows that all roadway segments and intersections, with the exception of the India Street/Fore Street intersection, experience fewer traffic crashes than the threshold criteria for identification of a high crash location. The noted traffic intersection, based upon the most recent three-year data, meets both of MaineDOT's criteria for identification of a high crash location. A total of 8 vehicle crashes were reported at the intersection during the study time period and the Critical Rate Factor, which compares operations at the intersection with a statewide average for similar locations, exceeds 1.00 at 2.02. Detailed vehicle collision diagrams were prepared for each of the reported 8 vehicle crashes to determine if a correctible pattern of vehicle crash is occurring at the intersection. The detailed analysis identified a single crash patterns; seven of the reported eight collisions were “*angle*” accidents involving in all cases motorists failing to “*yield the right of way*”.
3. It is the understanding of this report that the City is currently examining the appropriateness of full traffic signalization of the intersection. Previous development projects have been required to fund the installation of the traffic signal system improvements.
3. The intersection mobility analysis conducted for the two study intersections (India Street/Middle Street & India Street/Fore Street), based upon existing intersection traffic control, clearly shows that traffic generated by the proposed mixed-use development has virtually no impact on traffic operations at either of the two study intersections. Both intersections were found to operate at the “*best*” Level of Service A condition under 2016 Post-Development conditions.
4. A separate mobility analysis was completed for both study intersections based upon “multi-way” stop control at the Middle Street/India Street intersection. Again, the analysis demonstrates that if the City determines that prevailing conditions warrant a change in traffic control, the intersection would maintain Level of Service A operations under 2016 Post-Development travel conditions.

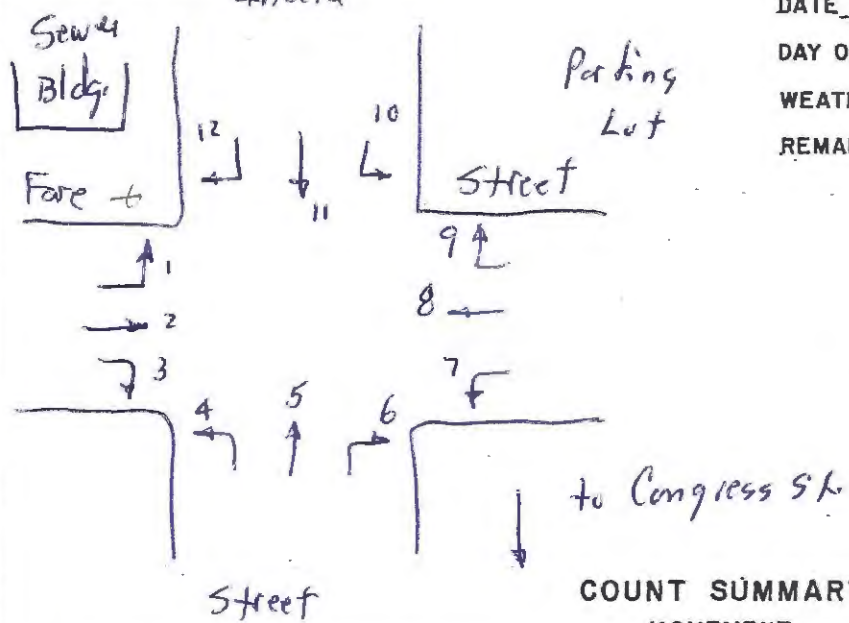
5. A “multi-way” stop control warrant analysis was conducted for the Middle Street/India Street intersection based upon guidelines published in the 2009 edition of the Manual on Uniform Traffic Control Devices. The warrant analysis concluded that prevailing traffic conditions presently do not warrant a change to “multi-way” stop control at the noted intersection.

6. The proposed mixed-use development is expected to generate greater than 100 trips (108 trips) during the morning peak hour of the proposed project; a time period that does not coincide with the street peak hour time periods. As a result, a Maine Department of Transportation Traffic Movement Permit is required. A formal application has been submitted and issuance of the required permit is pending.

LOCATION # 2

JOB NO. _____

**INTERSECTION PLAN
WITH NUMBERED MOVEMENTS:**



INTERSECTION India St @ Fare Street

DATE _____

DAY OF WEEK Friday

WEATHER _____

REMARKS: _____

**COUNT SUMMARY
MOVEMENT**

| AM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL |
|------|---|----|----|----|----|----|----|----|---|----|----|----|-------|
| 6:00 | 0 | 11 | 5 | 3 | 4 | 4 | 7 | 6 | 1 | 0 | 5 | 0 | 46 |
| 6:15 | 0 | 11 | 5 | 3 | 4 | 4 | 7 | 6 | 1 | 0 | 5 | 0 | 46 |
| 6:30 | 3 | 14 | 9 | 3 | 8 | 6 | 4 | 11 | 1 | 0 | 7 | 0 | 66 |
| 6:45 | 4 | 10 | 13 | 9 | 11 | 9 | 3 | 9 | 2 | 0 | 11 | 1 | 82 |
| 7:00 | 1 | 13 | 17 | 7 | 18 | 11 | 8 | 10 | 1 | 0 | 10 | 1 | 97 |
| 7:15 | 6 | 15 | 15 | 11 | 21 | 16 | 6 | 18 | 0 | 3 | 5 | 3 | 119 |
| 7:30 | 3 | 18 | 20 | 14 | 26 | 14 | 10 | 16 | 3 | 2 | 12 | 1 | 139 |
| 7:45 | 1 | 22 | 22 | 12 | 23 | 13 | 13 | 17 | 4 | 2 | 13 | 0 | 142 |
| 8:00 | 2 | 19 | 25 | 8 | 28 | 17 | 11 | 22 | 7 | 1 | 11 | 1 | 152 |
| 8:15 | 5 | 21 | 18 | 12 | 33 | 15 | 15 | 21 | 3 | 2 | 9 | 2 | 156 |
| 8:30 | 9 | 26 | 22 | 15 | 36 | 16 | 18 | 26 | 2 | 6 | 16 | 4 | 196 |
| 8:45 | 7 | 23 | 24 | 14 | 39 | 18 | 22 | 28 | 2 | 3 | 13 | 1 | 194 |
| 9:00 | 5 | 27 | 21 | 18 | 37 | 21 | 23 | 30 | 1 | 1 | 17 | 1 | 202 |

PEAK HOUR COUNT

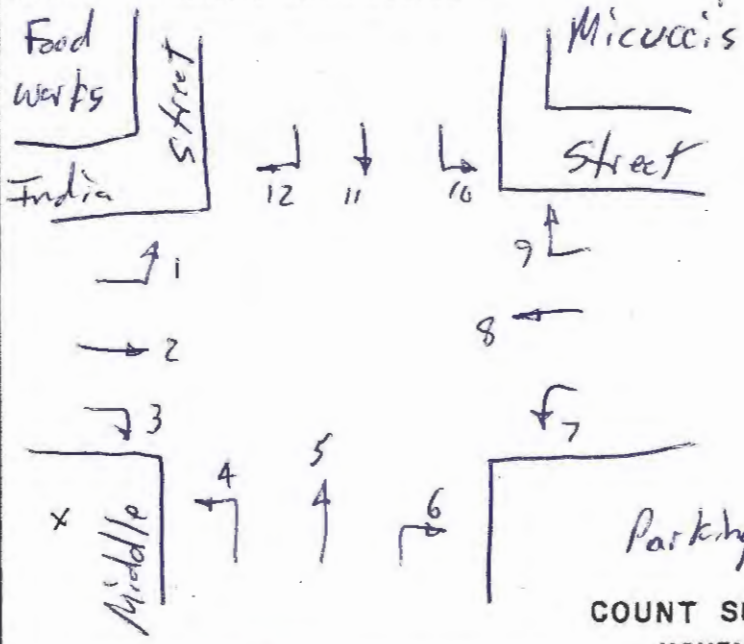
TIME: _____ TO: _____

| | | | | | | | | | | | |
|----|----|----|----|--|--|--|-----|--|--|--|---|
| 26 | 97 | 85 | 59 | | | | 105 | | | | 8 |
|----|----|----|----|--|--|--|-----|--|--|--|---|

LOCATION # 5

JOB NO. _____

**INTERSECTION PLAN
WITH NUMBERED MOVEMENTS:**



INTERSECTION Middle St. @ India St.

DATE 1-30-14

DAY OF WEEK Thursday

WEATHER _____

REMARKS: _____

**COUNT SUMMARY
MOVEMENT**

AM

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL |
|------|---|----|---|---|---|----|---|----|---|----|----|----|-------|
| 6:00 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 4 | 0 | 0 | 2 | 1 | 12 |
| 6:15 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 4 | 0 | 0 | 2 | 1 | 12 |
| 6:30 | 2 | 3 | 1 | 0 | 1 | 3 | 4 | 3 | 0 | 0 | 1 | 3 | 21 |
| 6:45 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 4 | 1 | 13 |
| 7:00 | 1 | 0 | 2 | 1 | 0 | 3 | 2 | 2 | 1 | 0 | 4 | 3 | 19 |
| 7:15 | 1 | 6 | 3 | 1 | 0 | 0 | 2 | 6 | 2 | 0 | 0 | 2 | 23 |
| 7:30 | 4 | 13 | 0 | 2 | 5 | 4 | 5 | 11 | 4 | 0 | 7 | 1 | 56 |
| 7:45 | 0 | 17 | 2 | 1 | 2 | 4 | 1 | 10 | 1 | 0 | 11 | 12 | 61 |
| 8:00 | 0 | 21 | 1 | 3 | 4 | 7 | 4 | 16 | 0 | 0 | 9 | 9 | 74 |
| 8:15 | 2 | 24 | 0 | 1 | 7 | 9 | 1 | 13 | 0 | 2 | 5 | 11 | 75 |
| 8:30 | 4 | 18 | 0 | 1 | 2 | 11 | 3 | 15 | 5 | 0 | 8 | 15 | 82 |
| 8:45 | 3 | 26 | 1 | 0 | 5 | 13 | 3 | 19 | 7 | 1 | 9 | 13 | 90 |
| 9:00 | 1 | 23 | 2 | 0 | 1 | 8 | 1 | 17 | 4 | 0 | 12 | 17 | 86 |

PEAK HOUR COUNT

TIME: _____ TO: _____

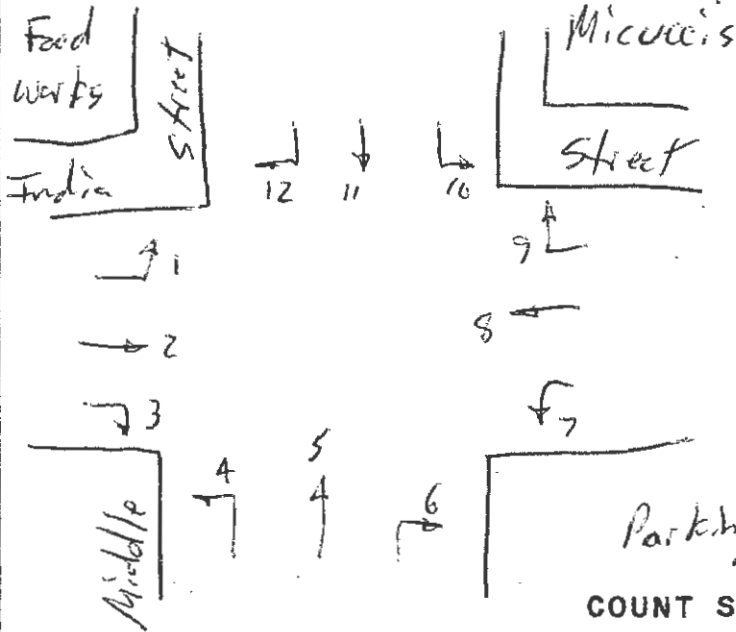
| | | | | | | | | | | | | |
|----|-----|---|---|----|----|----|----|----|---|----|----|--|
| 10 | 91 | 3 | 2 | 15 | 41 | 8 | 64 | 16 | 3 | 34 | 56 | |
| 12 | 112 | 4 | 2 | 18 | 50 | 10 | 79 | 20 | 4 | 42 | 69 | |

Adj:

LOCATION # 5

JOB NO. _____

**INTERSECTION PLAN
WITH NUMBERED MOVEMENTS:**



INTERSECTION Middle St. @ India St.

DATE _____

DAY OF WEEK _____

WEATHER _____

REMARKS: _____

**COUNT SUMMARY
MOVEMENT**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL |
|------|---|----|----|----|----|----|----|----|---|----|----|----|-------|
| 3:00 | | | | | | | | | | | | | |
| 3:15 | 1 | 41 | 6 | 16 | 18 | 12 | 8 | 50 | 1 | 0 | 2 | 8 | 163 |
| 3:30 | 0 | 38 | 4 | 14 | 12 | 10 | 9 | 47 | 0 | 1 | 4 | 10 | 149 |
| 3:45 | 0 | 44 | 9 | 7 | 15 | 6 | 6 | 39 | 0 | 3 | 6 | 6 | 141 |
| 4:00 | 2 | 36 | 7 | 9 | 10 | 7 | 7 | 41 | 0 | 1 | 11 | 4 | 135 |
| 4:15 | 0 | 39 | 11 | 8 | 13 | 9 | 10 | 43 | 2 | 2 | 1 | 0 | 138 |
| 4:30 | 1 | 42 | 13 | 12 | 9 | 11 | 3 | 40 | 1 | 0 | 5 | 3 | 140 |
| 4:45 | 0 | 51 | 15 | 15 | 14 | 13 | 8 | 48 | 2 | 1 | 7 | 7 | 181 |
| 5:00 | 0 | 49 | 9 | 10 | 11 | 8 | 12 | 52 | 1 | 0 | 10 | 4 | 161 |
| 5:15 | 3 | 47 | 13 | 7 | 7 | 4 | 5 | 56 | 1 | 0 | 11 | 11 | 165 |
| 5:30 | 4 | 43 | 12 | 14 | 12 | 9 | 9 | 55 | 3 | 1 | 9 | 3 | 174 |
| 5:45 | 6 | 50 | 9 | 6 | 10 | 14 | 3 | 59 | 0 | 1 | 7 | 6 | 171 |
| 6:00 | 1 | 53 | 11 | 9 | 7 | 15 | 6 | 60 | 1 | 2 | 8 | 4 | 177 |

PEAK HOUR COUNT

TIME: 5:00 TO: 6:00

| | | | | | | | | | | | | |
|----|-----|----|----|----|----|----|-----|---|---|----|----|--|
| 14 | 193 | 45 | 36 | 36 | 42 | 23 | 230 | 5 | 4 | 35 | 24 | |
|----|-----|----|----|----|----|----|-----|---|---|----|----|--|

Adj: 17 237 55 44 44 52 28 283 6 5 43 30



PRECISION
D A T A
INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: India Street
E/W: Fore Street
City, State: Portland, ME
Client: T.Y.Lin/ A. Greenlaw

File Name : 143932 A
Site Code : TBA
Start Date : 6/10/2014
Page No : 1

Groups Printed- Cars - Med Truck - Articulated Truck

| Start Time | India Street From North | | | | Fore Street From East | | | | India Street From South | | | | Fore Street From West | | | | Int. Total |
|------------|-------------------------|------|------|--------|-----------------------|------|------|--------|-------------------------|------|------|--------|-----------------------|------|------|--------|------------|
| | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | Right | Thru | Left | U-Turn | |
| 06:00 AM | 0 | 14 | 1 | 0 | 2 | 6 | 4 | 0 | 3 | 7 | 0 | 0 | 0 | 5 | 0 | 0 | 42 |
| 06:15 AM | 0 | 12 | 2 | 0 | 6 | 2 | 9 | 0 | 1 | 7 | 0 | 0 | 2 | 2 | 3 | 0 | 46 |
| 06:30 AM | 1 | 16 | 3 | 0 | 0 | 10 | 6 | 0 | 10 | 14 | 1 | 0 | 0 | 3 | 4 | 0 | 68 |
| 06:45 AM | 9 | 30 | 3 | 0 | 2 | 10 | 9 | 0 | 5 | 14 | 2 | 0 | 1 | 11 | 3 | 0 | 99 |
| Total | 10 | 72 | 9 | 0 | 10 | 28 | 28 | 0 | 19 | 42 | 3 | 0 | 3 | 21 | 10 | 0 | 255 |
| 07:00 AM | 7 | 29 | 2 | 0 | 4 | 14 | 13 | 0 | 9 | 8 | 1 | 0 | 2 | 9 | 5 | 0 | 103 |
| 07:15 AM | 9 | 32 | 7 | 0 | 3 | 13 | 9 | 0 | 4 | 17 | 2 | 0 | 1 | 10 | 4 | 0 | 111 |
| 07:30 AM | 13 | 39 | 8 | 0 | 5 | 25 | 8 | 0 | 17 | 19 | 5 | 0 | 0 | 8 | 10 | 0 | 157 |
| 07:45 AM | 19 | 45 | 9 | 0 | 10 | 24 | 21 | 0 | 14 | 10 | 6 | 0 | 2 | 23 | 5 | 0 | 188 |
| Total | 48 | 145 | 26 | 0 | 22 | 76 | 51 | 0 | 44 | 54 | 14 | 0 | 5 | 50 | 24 | 0 | 559 |
| 08:00 AM | 17 | 53 | 10 | 0 | 9 | 32 | 16 | 0 | 7 | 17 | 4 | 0 | 1 | 34 | 7 | 0 | 207 |
| 08:15 AM | 23 | 49 | 6 | 0 | 8 | 30 | 27 | 0 | 12 | 9 | 1 | 0 | 2 | 24 | 7 | 0 | 198 |
| 08:30 AM | 20 | 41 | 5 | 0 | 4 | 34 | 23 | 0 | 11 | 14 | 2 | 0 | 1 | 23 | 6 | 0 | 184 |
| 08:45 AM | 19 | 29 | 9 | 0 | 8 | 34 | 18 | 0 | 15 | 22 | 2 | 0 | 4 | 18 | 8 | 0 | 186 |
| Total | 79 | 172 | 30 | 0 | 29 | 130 | 84 | 0 | 45 | 62 | 9 | 0 | 8 | 99 | 28 | 0 | 775 |
| 09:00 AM | 11 | 41 | 9 | 0 | 8 | 20 | 20 | 0 | 16 | 11 | 3 | 0 | 1 | 24 | 8 | 0 | 172 |
| 09:15 AM | 18 | 30 | 8 | 0 | 7 | 22 | 16 | 0 | 9 | 15 | 1 | 0 | 6 | 20 | 8 | 0 | 160 |
| 09:30 AM | 8 | 33 | 7 | 0 | 15 | 18 | 9 | 0 | 14 | 14 | 3 | 0 | 3 | 20 | 8 | 0 | 152 |
| 09:45 AM | 15 | 24 | 11 | 0 | 15 | 24 | 26 | 0 | 15 | 23 | 2 | 0 | 1 | 22 | 8 | 0 | 186 |
| Total | 52 | 128 | 35 | 0 | 45 | 84 | 71 | 0 | 54 | 63 | 9 | 0 | 11 | 86 | 32 | 0 | 670 |
| 10:00 AM | 8 | 27 | 10 | 0 | 10 | 26 | 9 | 0 | 6 | 21 | 1 | 1 | 1 | 12 | 6 | 0 | 138 |
| 10:15 AM | 5 | 18 | 13 | 0 | 9 | 20 | 11 | 0 | 8 | 22 | 1 | 0 | 3 | 16 | 8 | 0 | 134 |
| 10:30 AM | 4 | 22 | 10 | 0 | 9 | 19 | 21 | 0 | 10 | 22 | 0 | 0 | 3 | 19 | 5 | 0 | 144 |
| 10:45 AM | 6 | 19 | 9 | 0 | 8 | 24 | 18 | 0 | 11 | 28 | 3 | 0 | 0 | 15 | 11 | 0 | 152 |
| Total | 23 | 86 | 42 | 0 | 36 | 89 | 59 | 0 | 35 | 93 | 5 | 1 | 7 | 62 | 30 | 0 | 568 |
| 11:00 AM | 9 | 17 | 9 | 0 | 13 | 22 | 18 | 0 | 12 | 20 | 3 | 0 | 2 | 27 | 11 | 0 | 163 |
| 11:15 AM | 7 | 24 | 11 | 0 | 12 | 21 | 20 | 0 | 18 | 18 | 3 | 0 | 2 | 22 | 10 | 1 | 169 |
| 11:30 AM | 12 | 27 | 13 | 0 | 14 | 35 | 22 | 0 | 16 | 22 | 7 | 0 | 5 | 21 | 8 | 2 | 204 |
| 11:45 AM | 12 | 25 | 12 | 0 | 15 | 22 | 25 | 0 | 19 | 21 | 3 | 0 | 4 | 22 | 11 | 0 | 191 |
| Total | 40 | 93 | 45 | 0 | 54 | 100 | 85 | 0 | 65 | 81 | 16 | 0 | 13 | 92 | 40 | 3 | 727 |
| 12:00 PM | 6 | 34 | 16 | 0 | 17 | 35 | 20 | 0 | 16 | 34 | 3 | 0 | 3 | 30 | 12 | 0 | 226 |
| 12:15 PM | 6 | 28 | 9 | 1 | 15 | 22 | 22 | 0 | 12 | 32 | 3 | 0 | 5 | 24 | 13 | 0 | 192 |
| 12:30 PM | 4 | 25 | 6 | 0 | 16 | 28 | 24 | 0 | 12 | 28 | 7 | 0 | 2 | 25 | 5 | 0 | 182 |
| 12:45 PM | 13 | 36 | 9 | 0 | 11 | 30 | 17 | 0 | 16 | 15 | 2 | 0 | 1 | 32 | 16 | 0 | 198 |
| Total | 29 | 123 | 40 | 1 | 59 | 115 | 83 | 0 | 56 | 109 | 15 | 0 | 11 | 111 | 46 | 0 | 798 |
| 01:00 PM | 14 | 34 | 16 | 0 | 8 | 31 | 15 | 0 | 10 | 35 | 6 | 0 | 1 | 26 | 10 | 0 | 206 |
| 01:15 PM | 7 | 16 | 14 | 0 | 12 | 26 | 17 | 0 | 12 | 33 | 3 | 0 | 3 | 25 | 19 | 0 | 187 |
| 01:30 PM | 9 | 32 | 15 | 0 | 18 | 32 | 22 | 0 | 10 | 31 | 1 | 0 | 5 | 29 | 10 | 0 | 214 |
| 01:45 PM | 12 | 20 | 13 | 0 | 7 | 27 | 22 | 0 | 22 | 23 | 5 | 0 | 5 | 24 | 11 | 0 | 191 |
| Total | 42 | 102 | 58 | 0 | 45 | 116 | 76 | 0 | 54 | 122 | 15 | 0 | 14 | 104 | 50 | 0 | 798 |
| 02:00 PM | 4 | 23 | 12 | 0 | 16 | 22 | 18 | 0 | 15 | 37 | 4 | 1 | 1 | 30 | 15 | 0 | 198 |
| 02:15 PM | 3 | 26 | 8 | 0 | 10 | 32 | 25 | 0 | 12 | 25 | 1 | 0 | 2 | 23 | 8 | 1 | 176 |
| 02:30 PM | 8 | 21 | 9 | 0 | 21 | 23 | 18 | 0 | 14 | 23 | 7 | 0 | 1 | 28 | 3 | 0 | 176 |
| 02:45 PM | 9 | 26 | 14 | 0 | 16 | 28 | 20 | 0 | 9 | 27 | 2 | 0 | 1 | 26 | 10 | 0 | 188 |
| Total | 24 | 96 | 43 | 0 | 63 | 105 | 81 | 0 | 50 | 112 | 14 | 1 | 5 | 107 | 36 | 1 | 738 |
| 03:00 PM | 7 | 19 | 16 | 0 | 19 | 35 | 16 | 0 | 15 | 30 | 4 | 0 | 4 | 16 | 6 | 0 | 187 |
| 03:15 PM | 7 | 21 | 14 | 0 | 10 | 39 | 24 | 0 | 16 | 26 | 2 | 0 | 2 | 21 | 14 | 0 | 196 |
| 03:30 PM | 9 | 31 | 3 | 0 | 16 | 32 | 15 | 0 | 17 | 41 | 5 | 0 | 0 | 23 | 15 | 0 | 207 |
| 03:45 PM | 9 | 31 | 10 | 0 | 9 | 34 | 15 | 0 | 27 | 28 | 4 | 0 | 3 | 30 | 8 | 0 | 208 |
| Total | 32 | 102 | 43 | 0 | 54 | 140 | 70 | 0 | 75 | 125 | 15 | 0 | 9 | 90 | 43 | 0 | 798 |



PRECISION DATA INDUSTRIES, LLC

P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

N/S: India Street
E/W: Fore Street
City, State: Portland, ME
Client: T.Y.Lin/ A. Greenlaw

File Name : 143932 A
Site Code : TBA
Start Date : 6/10/2014
Page No : 2

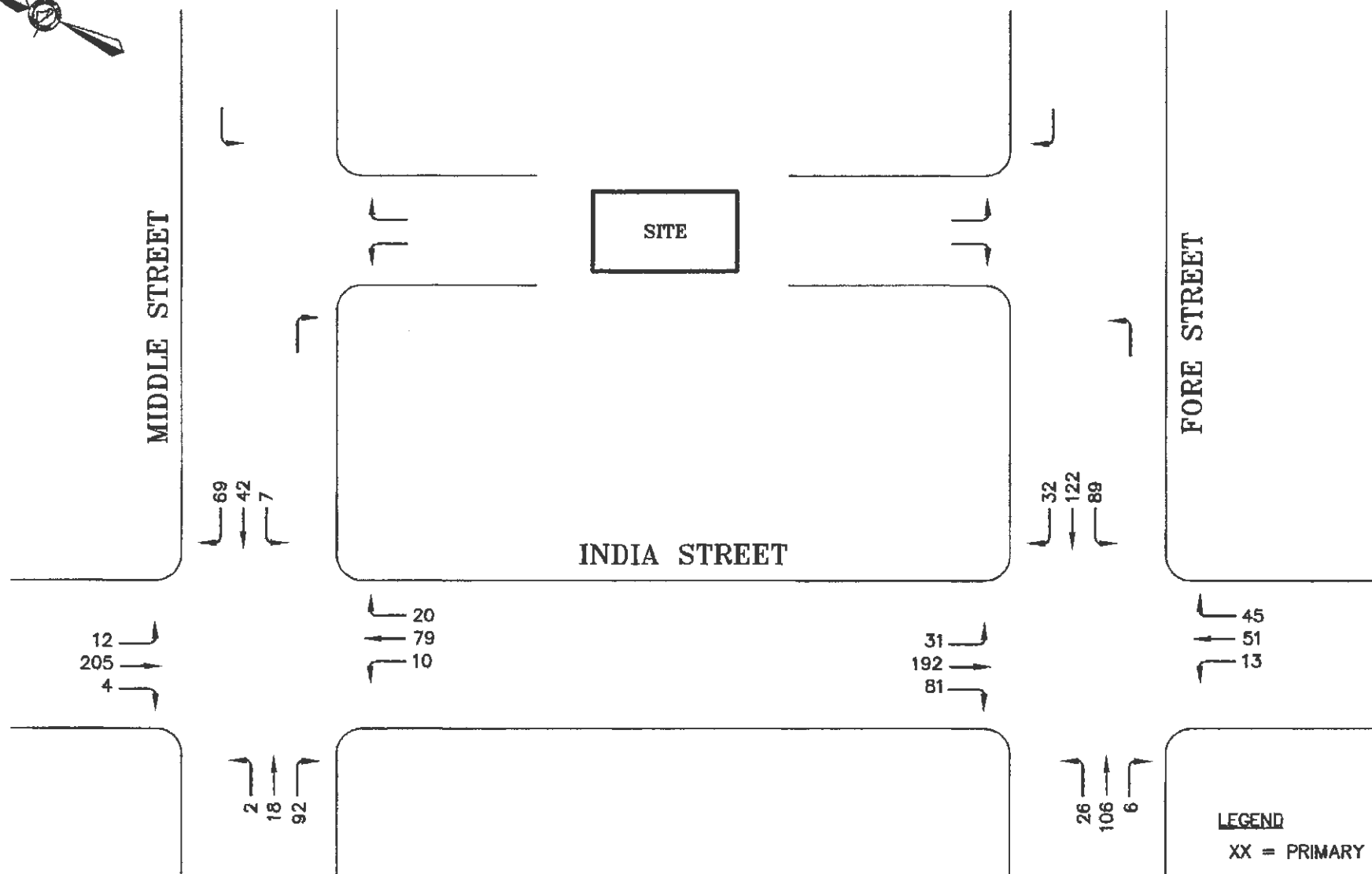
Groups Printed- Cars - Med Truck - Articulated Truck

Table with columns for Start Time, India Street From North (Right, Thru, Left, U-Turn), Fore Street From East (Right, Thru, Left, U-Turn), India Street From South (Right, Thru, Left, U-Turn), Fore Street From West (Right, Thru, Left, U-Turn), and Int. Total. Rows include time intervals from 04:00 PM to 05:45 PM, Grand Total, and vehicle type breakdowns (Cars, Med Truck, Articulated Truck).

Table with columns for Start Time, India Street From North (Right, Thru, Left, U-Turn, App. Total), Fore Street From East (Right, Thru, Left, U-Turn, App. Total), India Street From South (Right, Thru, Left, U-Turn, App. Total), Fore Street From West (Right, Thru, Left, U-Turn, App. Total), and Int. Total. Rows include Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1, Peak Hour for Entire Intersection Begins at 07:45 AM, and PHF values.

Table with columns for Start Time, India Street From North (Right, Thru, Left, U-Turn, App. Total), Fore Street From East (Right, Thru, Left, U-Turn, App. Total), India Street From South (Right, Thru, Left, U-Turn, App. Total), Fore Street From West (Right, Thru, Left, U-Turn, App. Total), and Int. Total. Rows include Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1, Peak Hour for Entire Intersection Begins at 11:30 AM, and PHF values.

xx = Adjusted traffic values

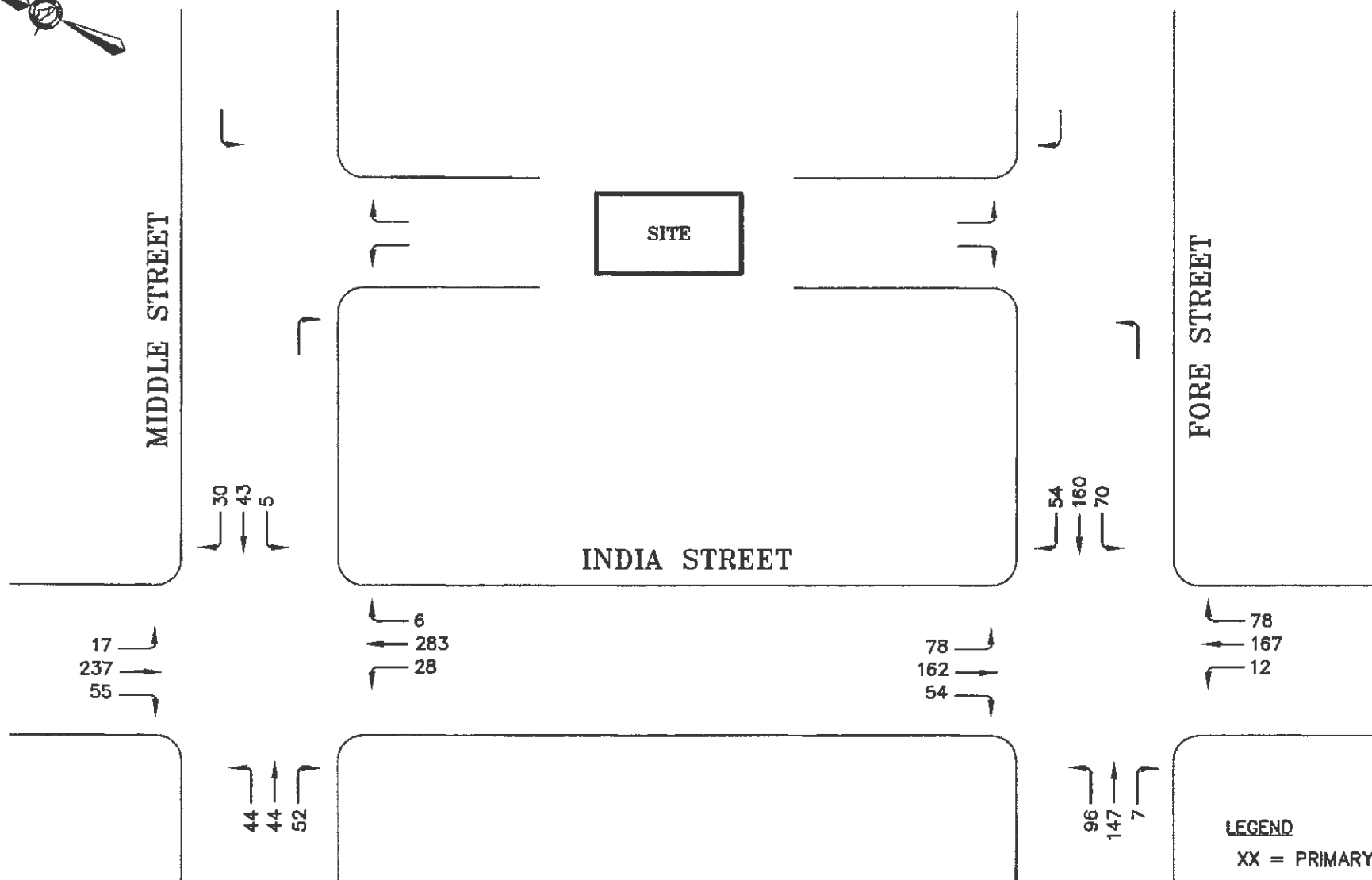


**2014 DESIGN HOUR TRAFFIC
AM PEAK HOUR
FIGURE 1**

©LAND PROJECTS\34000\34399 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.DWG

| | |
|--|-----------|
| <small>Project Name and Location</small> | |
| PROPOSED MIXED USE DEVELOPMENT | |
| INDIA STREET, PORTLAND, MAINE | |
| DATE: FEBRUARY 5, 2015 | FIGURE: 1 |

| |
|--|
| TRAFFIC SOLUTIONS |
| <small>230 BRIDGTON STREET, PORTLAND, MAINE 04107-1739</small> |

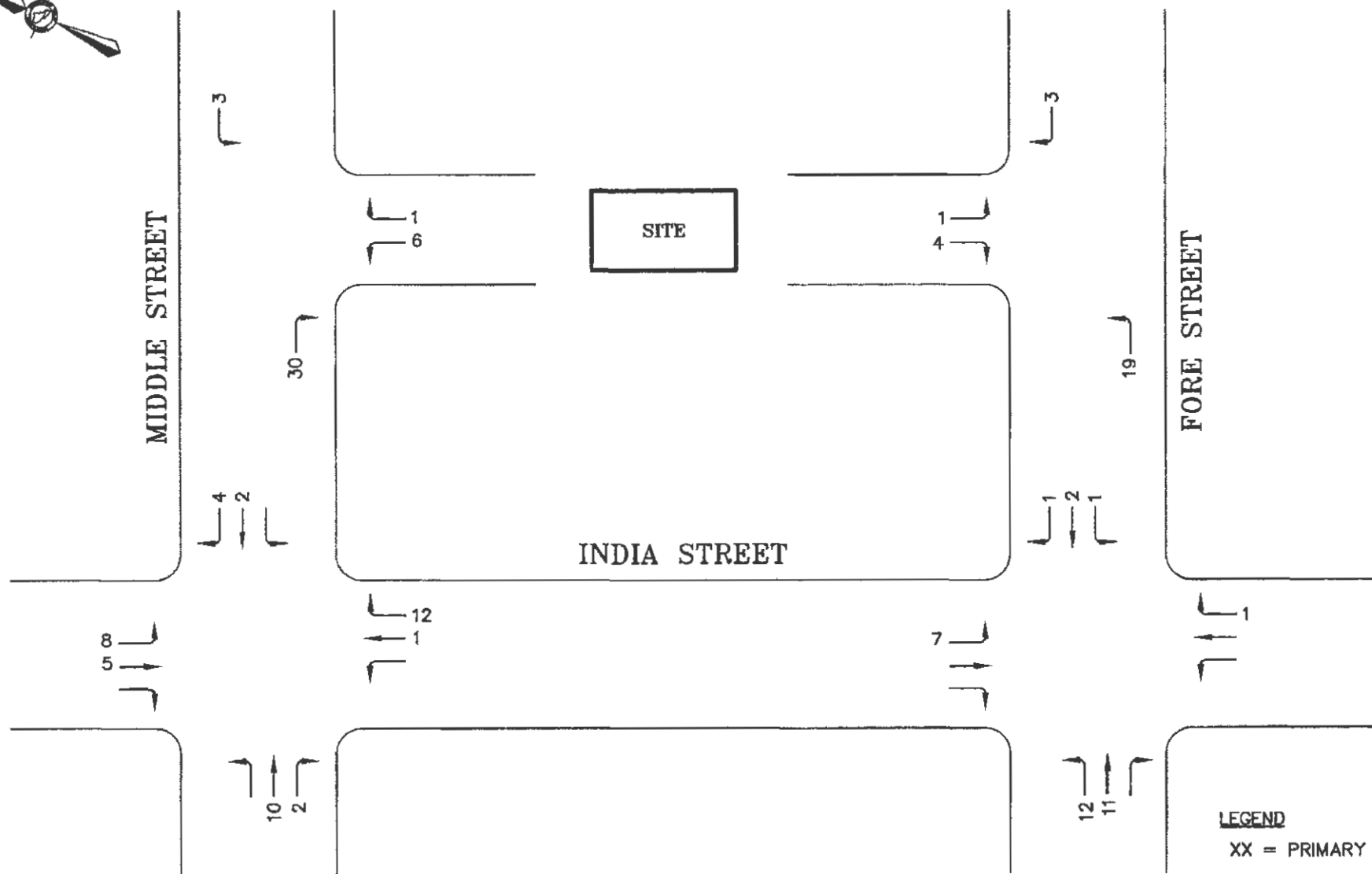


2014 DESIGN HOUR TRAFFIC
PM PEAK HOUR
FIGURE 2

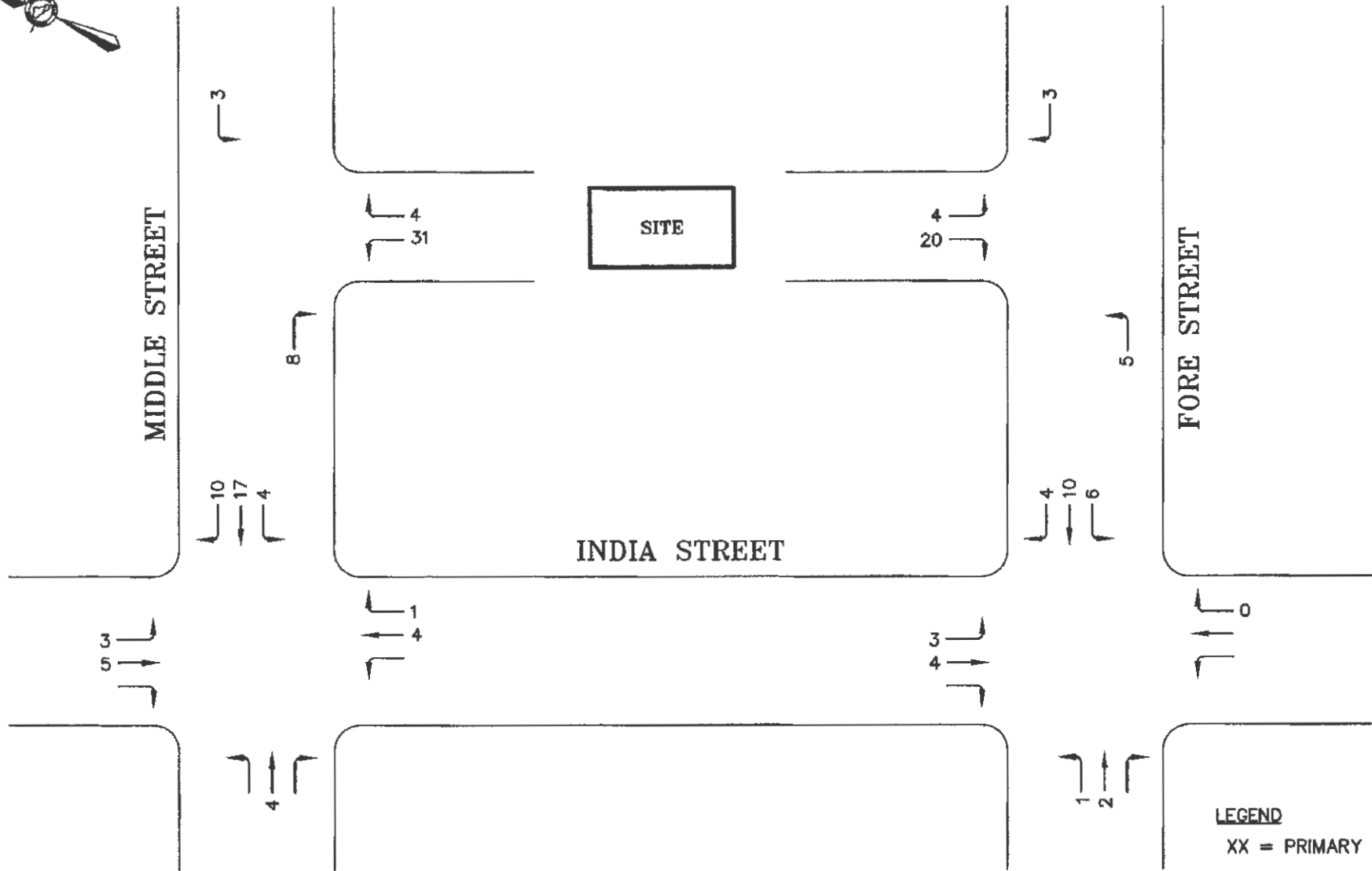
EVLAND PROJECTS\34000\34399 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.TWO

| | |
|--|--------------------------|
| <small>Project Name and Location</small> PROPOSED MIXED USE DEVELOPMENT INDIA STREET, PORTLAND, MAINE | |
| <small>DATE:</small> FEBRUARY 5, 2019 | <small>FIGURE:</small> 2 |

| |
|--|
| TRAFFIC SOLUTIONS <small>235 BROADWAY STREET, PORTLAND, MAINE 04102-1170</small> |
|--|



SITE TRAFFIC ASSIGNMENTS
AM PEAK HOUR
FIGURE 3



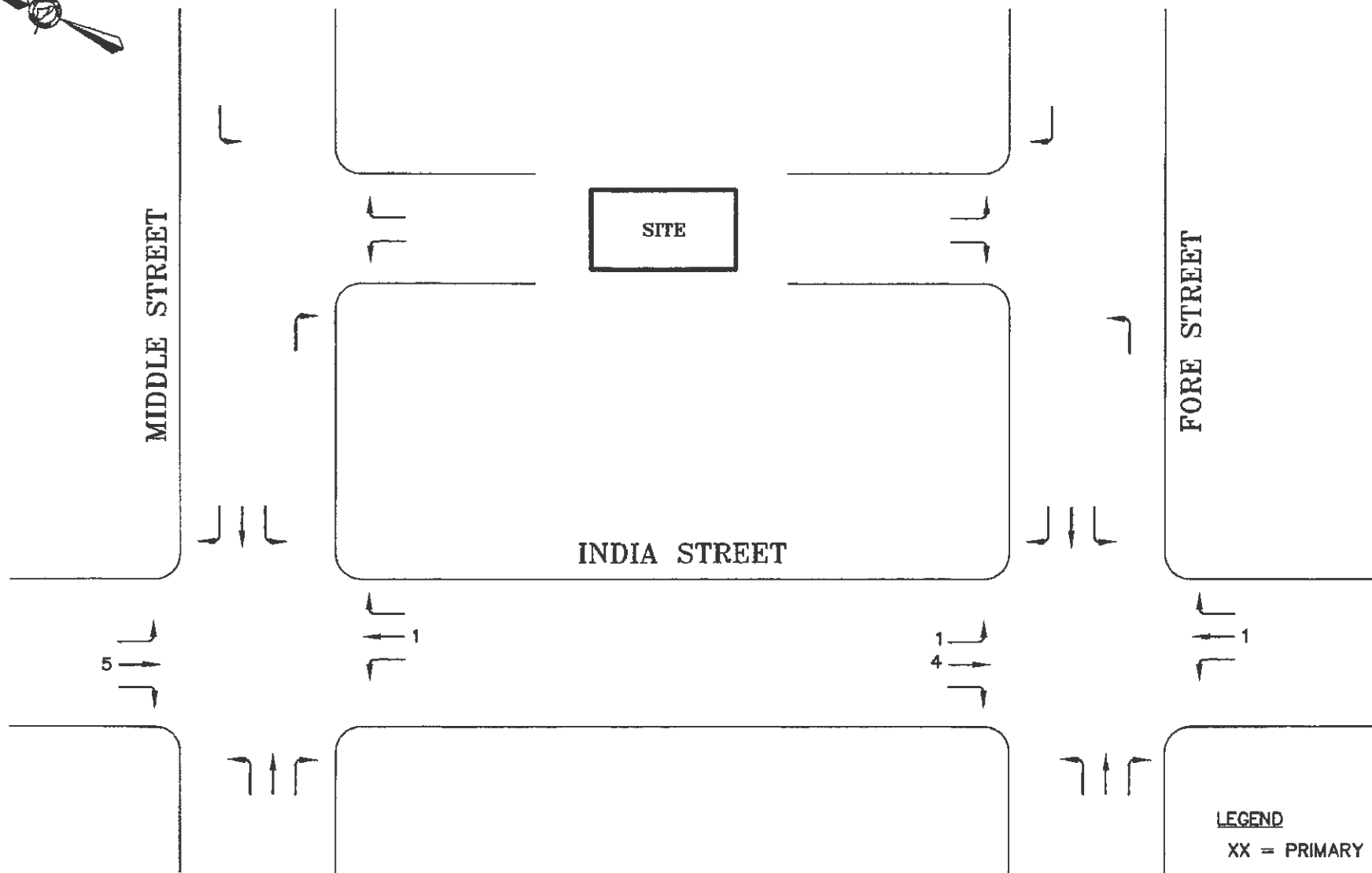
LEGEND
 XX = PRIMARY TRIPS

**SITE TRAFFIC ASSIGNMENTS
 PM PEAK HOUR
 FIGURE 4**

Project Name and Location
PROPOSED MIXED USE DEVELOPMENT
 INDIA STREET, PORTLAND, MAINE
DATE: FEBRUARY 5, 2015

©LAND PROJECTS/LANDS/PLANNING TRAFFIC SOLUTIONS/INDIA STREET/PLANSET/INDIA STREET.DWG
TRAFFIC SOLUTIONS
 235 BRIMCOMB STREET, PORTLAND, MAINE 04102-1730

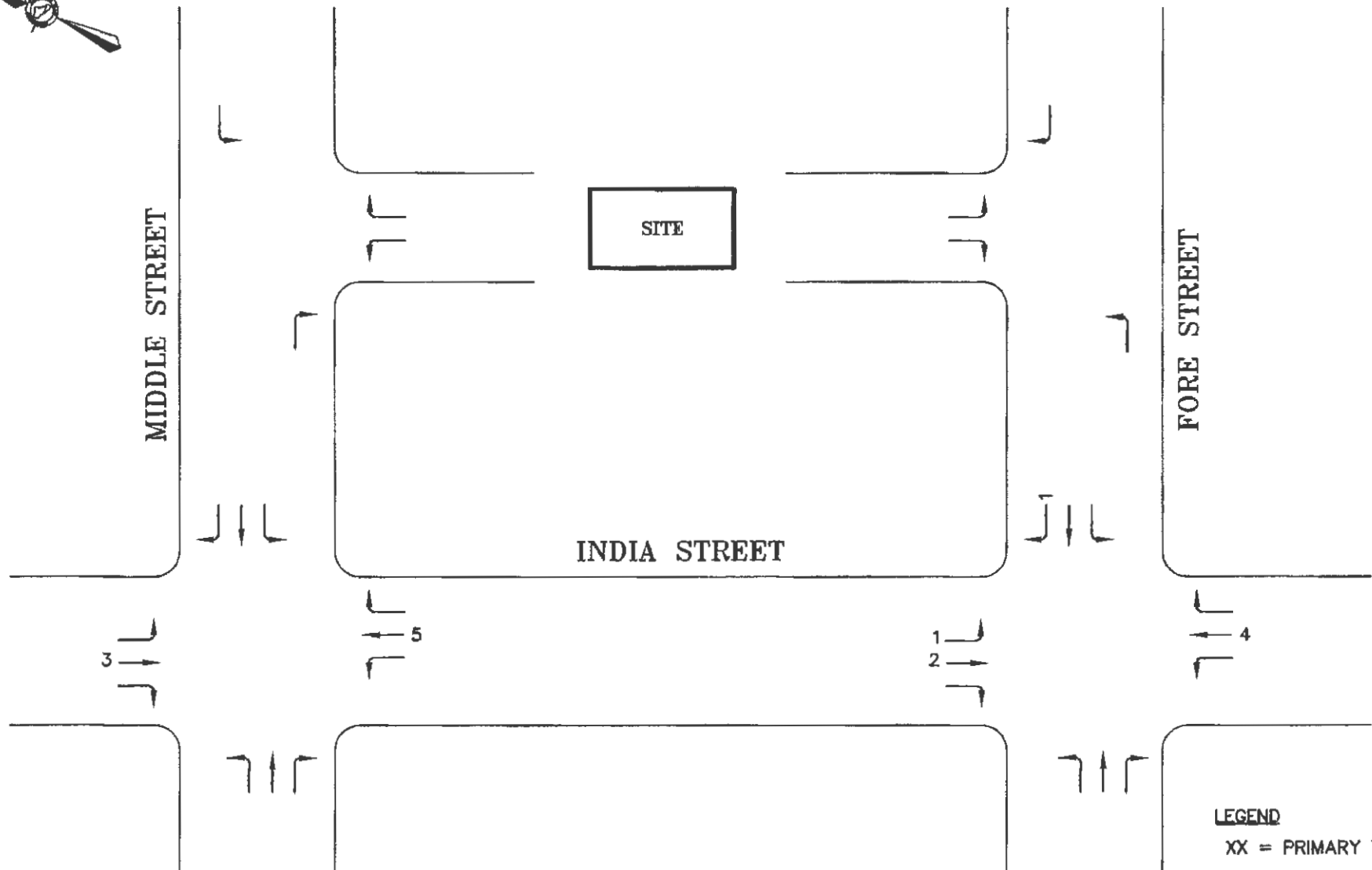
FIGURE 4



OTHER DEVELOPMENT TRAFFIC
AM PEAK HOUR
FIGURE 5

E:\LAND PROJECTS\30007\3139 TRAFFIC SOL\INDIA STREET\PLANSET\INDIA STREET.DWG

| | | |
|--|--------------------------|--|
| <small>Project Name and Number</small> PROPOSED MIXED USE DEVELOPMENT INDIA STREET, PORTLAND, MAINE | | TRAFFIC SOLUTIONS <small>253 BANCROFT STREET, PORTLAND, MAINE 04102-1720</small> |
| <small>DATE:</small> FEBRUARY 4, 2013 | <small>FIGURE:</small> 5 | |



LEGEND
XX = PRIMARY TRIPS

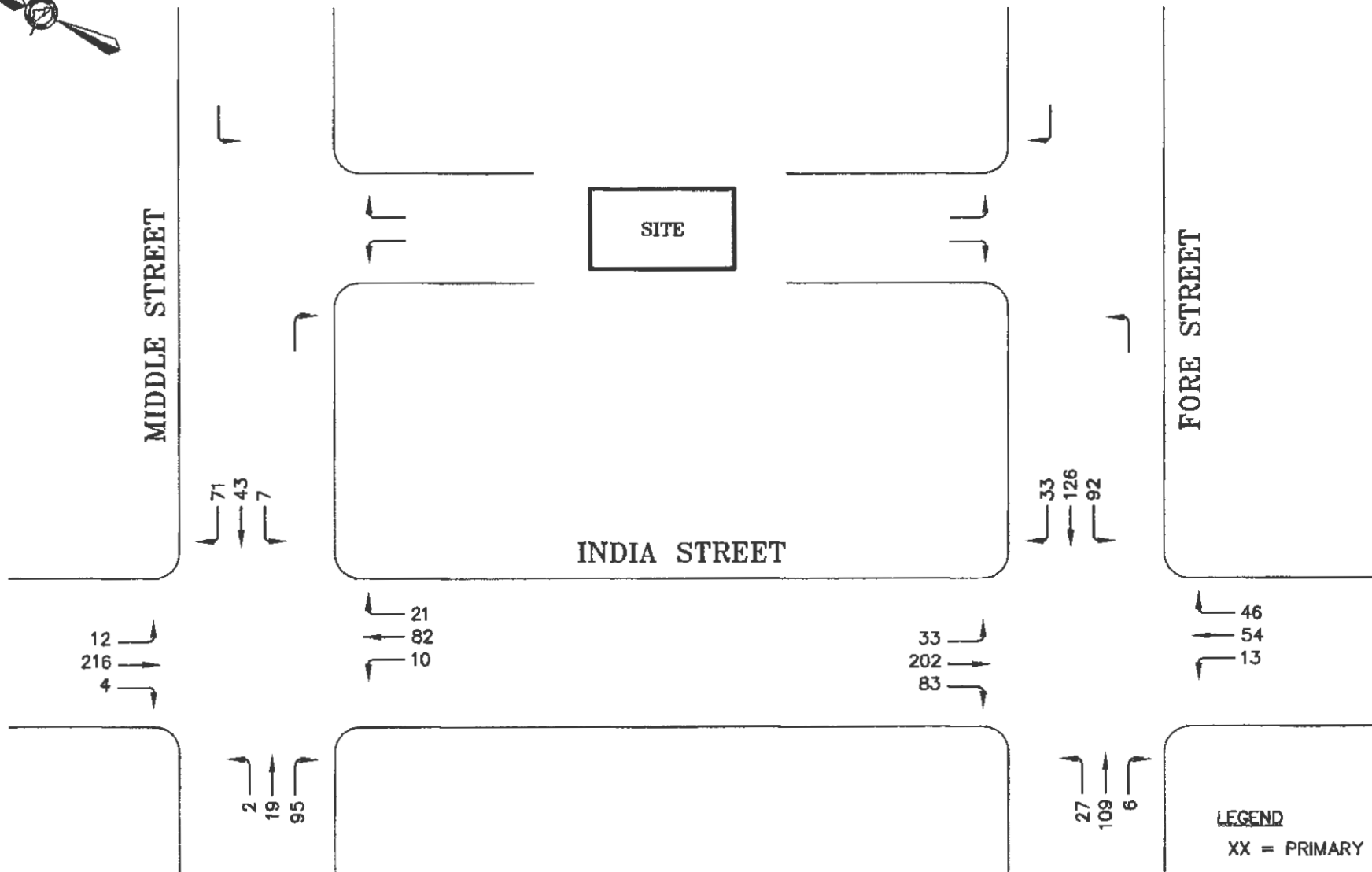
**OTHER DEVELOPMENT TRAFFIC
PM PEAK HOUR
FIGURE 6**

Print Date and Scale:
PROPOSED MIXED USE DEVELOPMENT
INDIA STREET, PORTLAND, MAINE
DATE: FEBRUARY 5, 2015

CALLARD PROJECTS \MODELS\308 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.DWG

TRAFFIC SOLUTIONS
215 BUCKLEY STREET, PORTLAND, MAINE 04102-1720

FIGURE 6



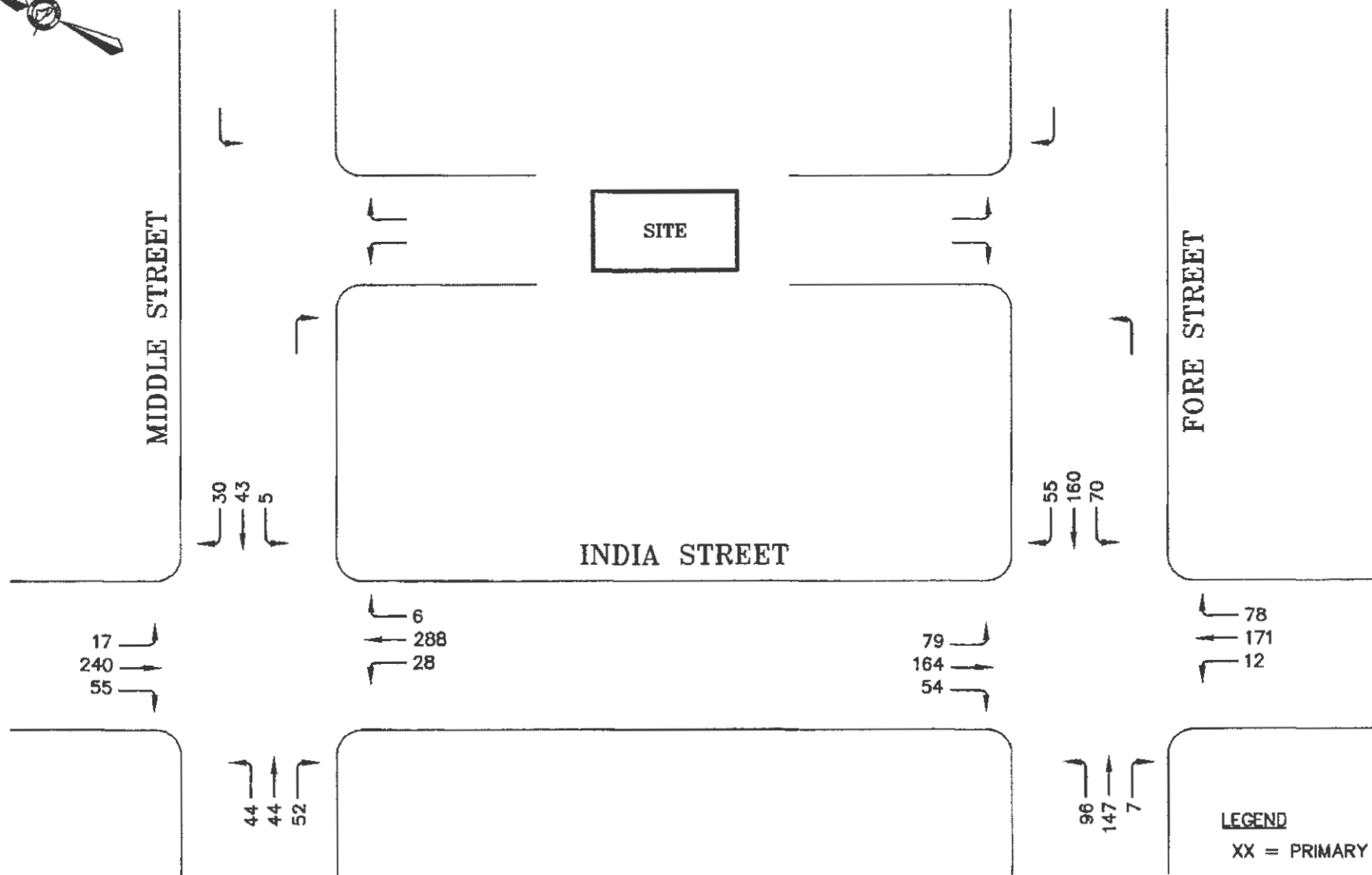
2016 PRE-DEVELOPMENT TRAFFIC
AM PEAK HOUR
FIGURE 7

E:\LAND PROJECTS\4002\2016 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.DWG

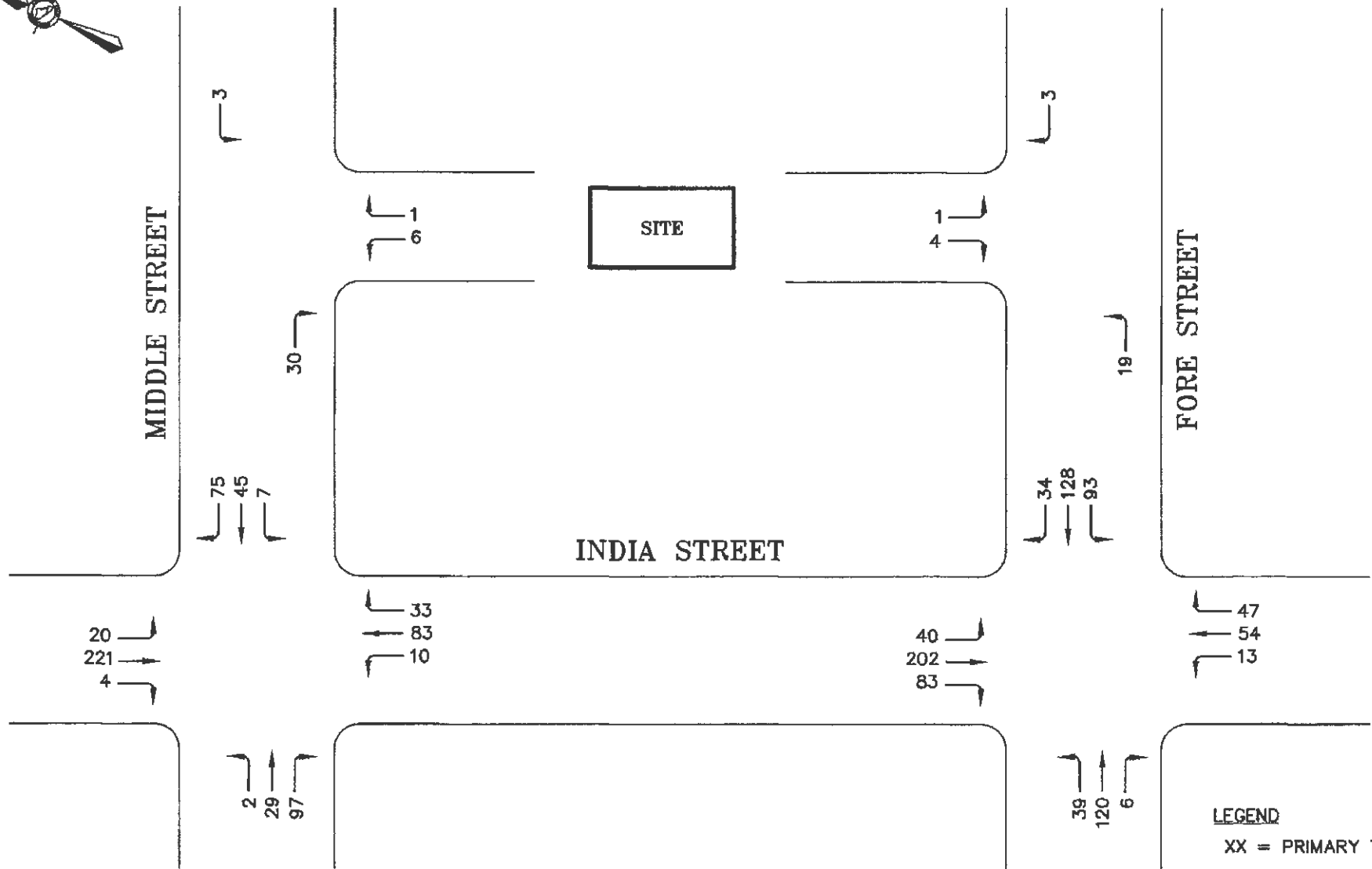
PROPOSED MIXED USE DEVELOPMENT
INDIA STREET, PORTLAND, MAINE
DATE: FEBRUARY 3, 2015

TRAFFIC SOLUTIONS
235 BRICKHOFF STREET, PORTLAND, MAINE 04102-1730

FIGURE 7



2016 PRE-DEVELOPMENT TRAFFIC
PM PEAK HOUR
FIGURE 8



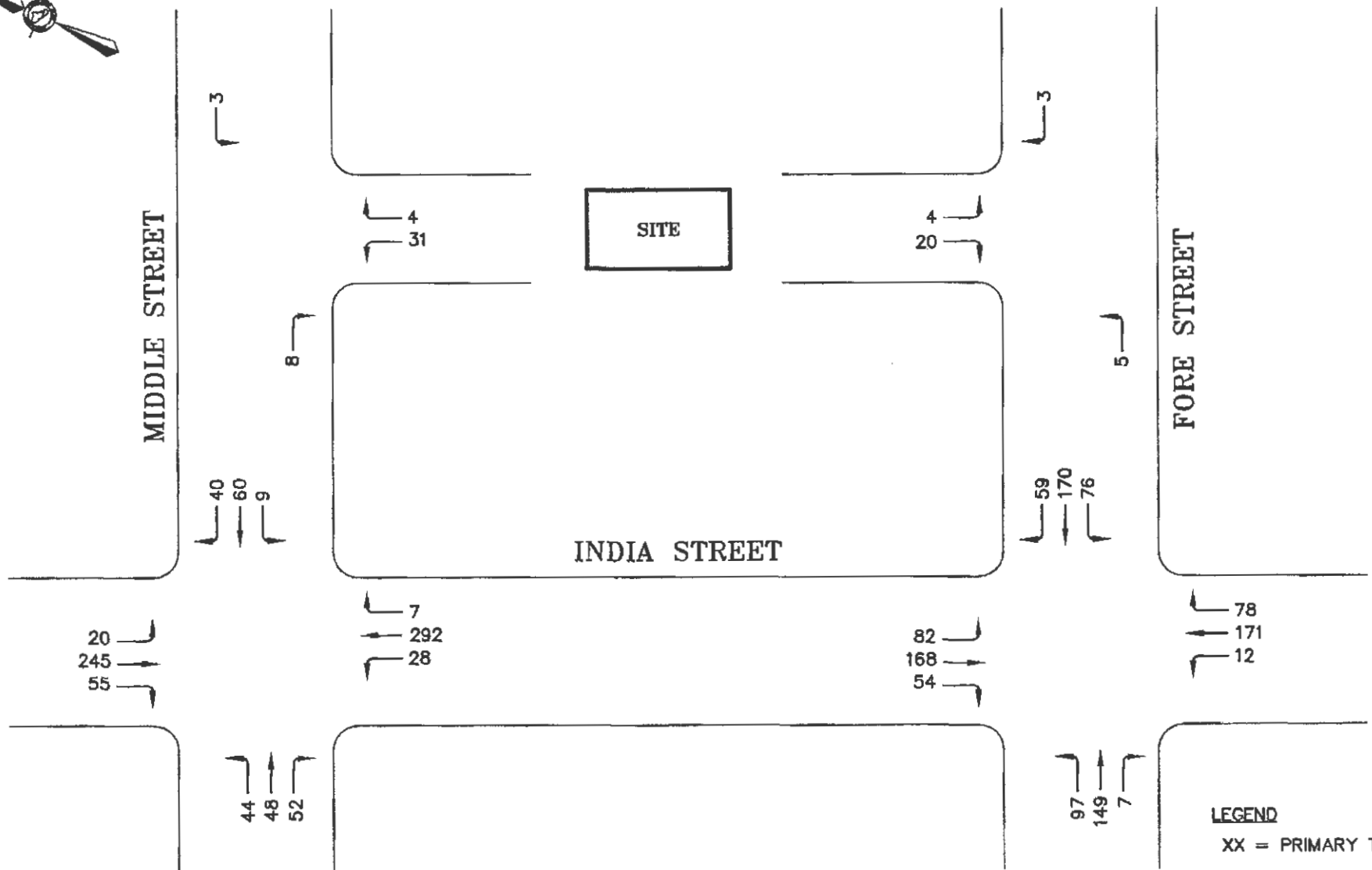
LEGEND
XX = PRIMARY TRIPS

2016 POST-DEVELOPMENT TRAFFIC
AM PEAK HOUR
FIGURE 9

| | |
|--|--------------------------|
| <small>Project Name and Location</small> PROPOSED MIXED USE DEVELOPMENT INDIA STREET, PORTLAND, MAINE | |
| <small>Date:</small> FEBRUARY 8, 2015 | <small>Figure:</small> 9 |

E:\LANC PROJECTS\34000\34388 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.DWG

TRAFFIC SOLUTIONS
232 BANCROFT STREET, PORTLAND, MAINE 04102-1730



2016 POST-DEVELOPMENT TRAFFIC
PM PEAK HOUR
FIGURE 10

E:\LAND PROJECTS\14000\14398 TRAFFIC SOLUTIONS\INDIA STREET\PLANSET\INDIA STREET.DWG

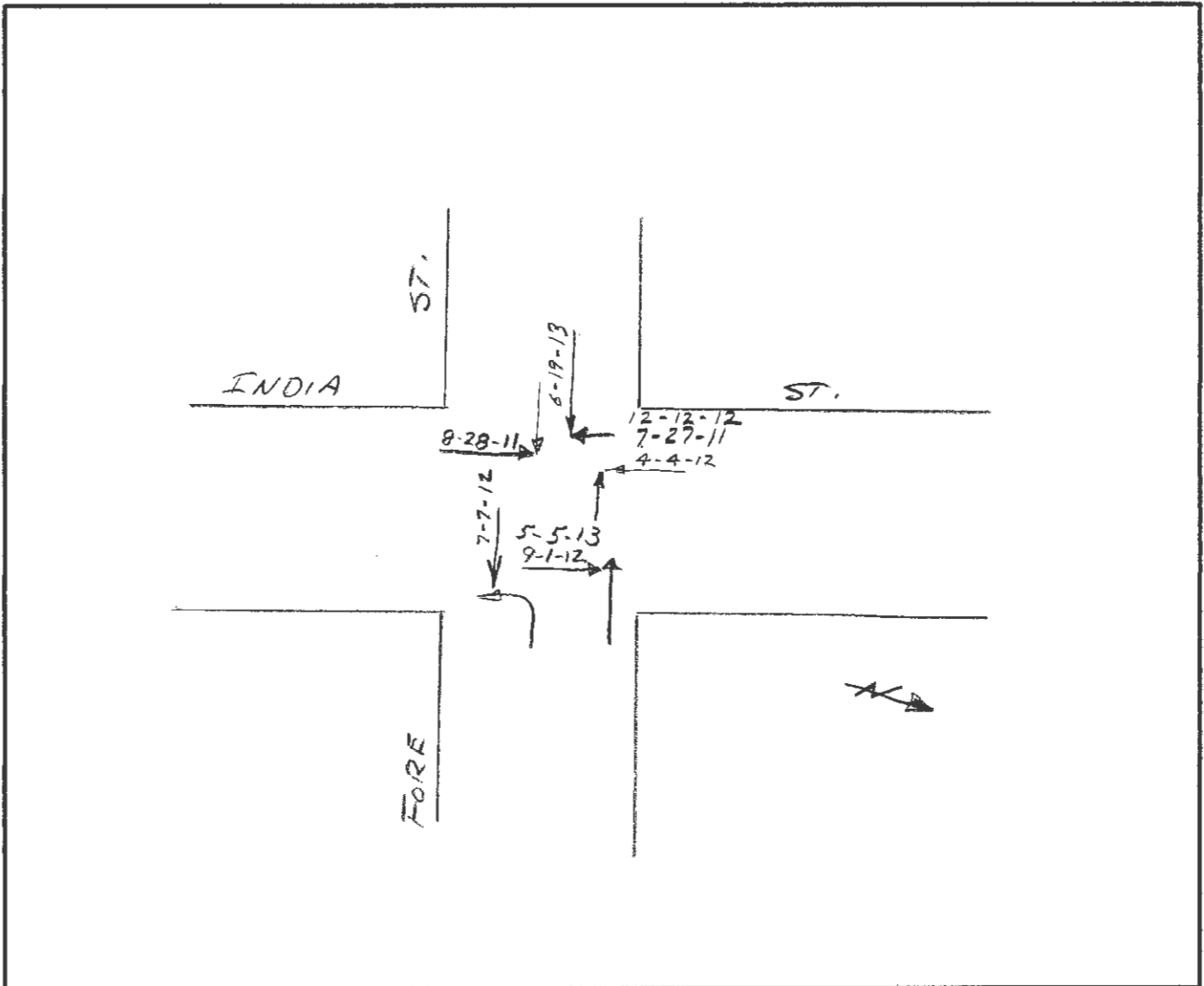
| | |
|--------------------------------|------------|
| Project Name and Location | |
| PROPOSED MIXED USE DEVELOPMENT | |
| INDIA STREET, PORTLAND, MAINE | |
| DATE: FEBRUARY 5, 2015 | FIGURE: 10 |

TRAFFIC SOLUTIONS
230 BANCROFT STREET, PORTLAND, MAINE 04102-1736

COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION INDIA 1/2 FORE STREETS
 TOWN PORTLAND NODE NO(S) 18822
 YEARS REVIEWED 2011-2013 DATE PREPARED 1-30-2015



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

LIGHT

- | | | |
|-------------------------|-------------------------|--------------------------|
| 1. DAWN (MORNING) | 2. DAYLIGHT | 3. DUSK (EVENING) |
| 4. DARK (ST. LIGHTS ON) | 5. DARK (NO ST. LIGHTS) | 6. DARK (ST. LIGHTS OFF) |
| 7. OTHER | | |

ROAD SURFACE

- | | | |
|---------------------------|--------------------------|-----------------------------|
| 1. DRY | 2. WET | 3. SNOW/SLUSH-SANDED |
| 4. ICE/PACKED SNOW-SANDED | 5. MUDDY | 6. DEBRIS |
| 7. OILY | 8. SHOW/SLUSH-NOT SANDED | 9. ICE-PKD. SNOW-NOT SANDED |
| 10. OTHER | | |

APPARENT CONTRIBUTING FACTORS - HUMAN

- | | | |
|------------------------------------|-------------------------------------|--------------------------------------|
| 1. NO IMPROPER ACTION | 2. FAIL TO YLD. RIGHT OF WAY | 3. ILLEGAL UNSAFE SPEED |
| 4. FOLLOW TOO CLOSE | 5. DISREGARD TRAFFIC CONTROL DEVICE | 6. DRIVING LEFT OF CENTER-NO PASSING |
| 7. IMPROPER PASS-OVERTAKING | 8. IMP. UNSAFE LANE CHANGE | 9. IMP. PARKING START/STOP |
| 10. IMPROPER TURN | 11. UNSAFE BACKING | 12. NO SIGNAL OR IMP. SIGNAL |
| 13. IMPEDING TRAFFIC | 14. DRIVER INATTENTION-DISTRACTION | 15. DRIVER INEXPERIENCE |
| 16. PEDEST. VIOLATION ERROR | 17. PHYSICAL IMPAIRMENT | 18. VISION OBSCURED-WINDSHIELD GLASS |
| 19. VISION OBSCURED-SUN/HEADLIGHTS | 20. OTHER VISION OBSCUREMENT | 30. OTHER HUMAN VIOLATION FACTOR |
| 31. HIT AND RUN | 51. UNKNOWN | |

- VEHICULAR

- | | | |
|------------------------------------|----------------------------|--------------------------|
| 41. DEFECTIVE BRAKES | 42. DEFECTIVE TIRE/FAILURE | 43. DEFECTIVE LIGHTS |
| 44. DEFECTIVE SUSPENSION OR FACTOR | 45. DEFECTIVE STEERING | 50. OTHER VEHICLE DEFECT |
| | 51. UNKNOWN | |

SYMBOLS

- | | | | | | |
|----------------|-----|----------------|-----|------------------|-------|
| ANGLE | ↓ | PEDESTRIAN | → P | FATAL ACCIDENT | ● |
| BACKING | ← → | REAR END | → → | VEHICLE (MOVING) | → |
| FIXED OBJECT | → | SIDE SWIPE | → → | BICYCLE | --- B |
| HEAD ON | → ← | TURNING MOVE | → ↗ | ANIMAL | --- A |
| OVERTURN | → | CHANGE LANE | → ↘ | SLED | --- S |
| PARKED VEHICLE | □ | OUT OF CONTROL | → ↗ | | |

C = CLEAR
SL = SLEET

WEATHER

F = FOG
S = SNOW
R = RAIN
CL = CLOUDY
XW = CROSS WINDS

INJURIES

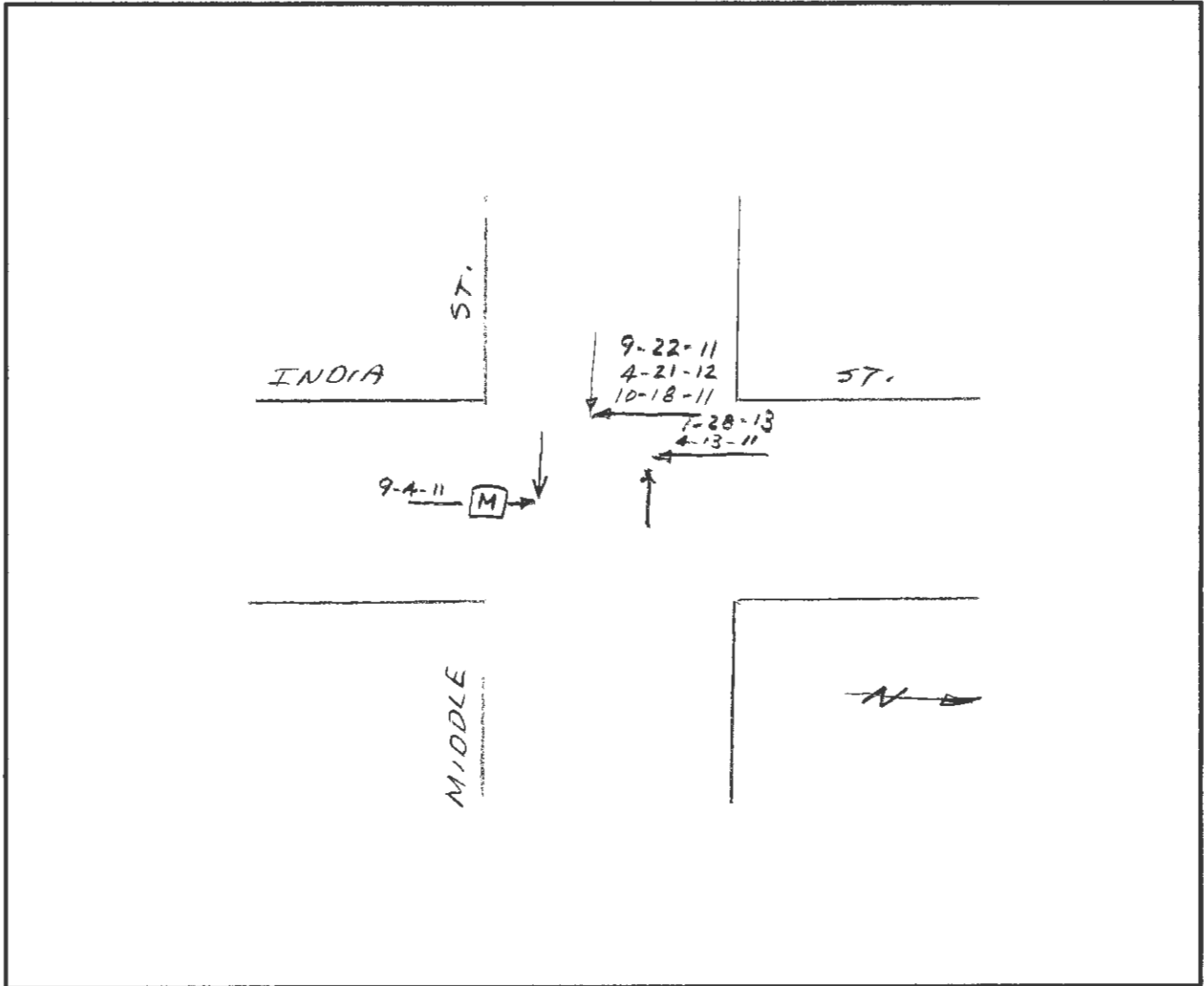
K = FATAL
A = INCAPACITATING
B = NON-INCAPACITATING
C = POSSIBLE INJURY

5. OBJECTS/COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION INDIA & MIDDLE STREETS
 TOWN PORTLAND NODE NO(S) 18817
 YEARS REVIEWED 2011-2013 DATE PREPARED 1-30-2015



CRITICAL RATE FACTOR _____ EQUIV. PROP. DAMAGE ACC/YEAR _____ ACC/MEV _____

- LIGHT**
- | | | |
|-------------------------|-------------------------|--------------------------|
| 1. DAWN (MORNING) | 2. DAYLIGHT | 3. DUSK (EVENING) |
| 4. DARK (ST. LIGHTS ON) | 5. DARK (NO ST. LIGHTS) | 6. DARK (ST. LIGHTS OFF) |
| 7. OTHER | | |
- ROAD SURFACE**
- | | | |
|---------------------------|--------------------------|-----------------------------|
| 1. DRY | 2. WET | 3. SNOW/SLUSH-SANDED |
| 4. ICE/PACKED SNOW-SANDED | 5. MUDDY | 6. DEBRIS |
| 7. OIL | 8. SNOW/SLUSH-NOT SANDED | 9. ICE-PKD. SNOW-NOT SANDED |
| 10. OTHER | | |
- APPARENT CONTRIBUTING FACTORS - HUMAN**
- | | | |
|------------------------------------|-------------------------------------|--------------------------------------|
| 1. NO IMPROPER ACTION | 2. FAIL TO YLD. RIGHT OF WAY | 3. ILLEGAL UNSAFE SPEED |
| 4. FOLLOW TOO CLOSE | 5. DISREGARD TRAFFIC CONTROL DEVICE | 6. DRIVING LEFT OF CENTER-NO PASSING |
| 7. IMP. UNSAFE LANE CHANGE | 8. IMP. PARKING START/STOP | 9. IMPROPER PASS-OVERTAKING |
| 10. UNSAFE BACKING | 11. NO SIGNAL OR IMP. SIGNAL | 12. IMPROPER TURN |
| 13. DRIVER INATTENTION-DISTRACTION | 14. PHYSICAL IMPAIRMENT | 15. DRIVER INEXPERIENCE |
| 16. PEDEST. VIOLATION ERROR | 17. VISION OBSCURED-SUN/HEADLIGHTS | 18. VISION OBSCURED-WINDSHIELD GLASS |
| 19. OTHER VISION OBSCUREMENT | 20. OTHER HUMAN VIOLATION FACTOR | 21. HIT AND RUN |
| 22. UNKNOWN | | |
- VEHICULAR**
- | | | |
|------------------------------------|----------------------------|--------------------------|
| 41. DEFECTIVE BRAKES | 42. DEFECTIVE TIRE/FAILURE | 43. DEFECTIVE LIGHTS |
| 44. DEFECTIVE SUSPENSION OR FACTOR | 45. DEFECTIVE STEERING | 50. OTHER VEHICLE DEFECT |
| 51. UNKNOWN | | |

SYMBOLS

| | | | | | |
|----------------|---------|----------------|-------|------------------|-------|
| ANGLE | ↓ | PEDESTRIAN | → [P] | FATAL ACCIDENT | ● |
| BACKING | ← [K] → | REAR END | → [R] | | |
| FIXED OBJECT | → [O] | SIDE SWIPE | → [S] | VEHICLE (MOVING) | → [V] |
| HEAD ON | → [H] | TURNING MOVE | → [T] | BICYCLE | → [B] |
| OVERTURN | → [O] | CHANGE LANE | → [C] | ANIMAL | → [A] |
| PARKED VEHICLE | → [P] | OUT OF CONTROL | → [O] | SLED | → [S] |

WEATHER

| | | |
|------------|----------|------------------|
| C = CLEAR | F = FOG | R = RAIN |
| SL = SLEET | S = SNOW | CL = CLOUDY |
| | | XW = CROSS WINDS |

INJURIES

| | |
|--------------------|------------------------|
| K = FATAL | B = NON-INCAPACITATING |
| A = INCAPACITATING | C = POSSIBLE INJURY |

S:\PROJECTS\COLLISION DIAGRAM.DWG

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

Crash Summary I Section Detail Crash Summary II 1320 Public 1320 Private 1320 Summary

REPORT DESCRIPTION

Middle St

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: **0560505**

Start Node: **18817**

Start Offset: **0**

Exclude First Node

End Node: **18818**

End Offset: **0**

Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

| Nodes | | | | | | | | | | | | | | | |
|--------------------------|----------------|--------------------------------|---------------------|---------------|----------------|---|---|---|------------------|------------|---------------|-----------------------|------|------|------|
| Node | Route - MP | Node Description | U/R | Total Crashes | Injury Crashes | | | | Percent Annual M | Crash Rate | Critical Rate | CRF | | | |
| | | | | | K | A | B | C | PD | Injury | Ent-Veh | | | | |
| 18817 | 0560505 - 0.40 | Int of INDIA ST MIDDLE ST | 2 | 6 | 0 | 0 | 0 | 1 | 5 | 16.7 | 2.083 | 0.96 | 0.45 | 2.15 | |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.14 | | |
| 18818 | 0560505 - 0.48 | 0509238 POR,HANCOCK,MIDDLE ST. | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.256 | 0.00 | 0.59 | 0.00 | |
| | | | | | | | | | | | | Statewide Crash Rate: | 0.14 | | |
| Study Years: 3.00 | | | NODE TOTALS: | | 6 | 0 | 0 | 0 | 1 | 5 | 16.7 | 2.339 | 0.86 | 0.43 | 1.97 |

Crash Summary I

| Sections | | | | | | | | | | | | | | | | | |
|---------------------|----------|-----------|-----------------------|-----------------------------------|----------------|------|---------------|---|----------------|---|---|----|----------------|-------------|------------|---------------|------|
| Start Node | End Node | Element | Offset Begin - End | Route - MP | Section Length | U/R | Total Crashes | K | Injury Crashes | | | | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF |
| | | | | | | | | | A | B | C | PD | | | | | |
| 18817 | 18818 | 194423 | 0 - 0.08 | 0560505 - 0.40 RD INV 05 60505 | 0.08 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00030 | 0.00 | 1390.88 | 0.00 |
| Int of INDIA ST | | MIDDLE ST | | Statewide Crash Rate: 346.73 | | | | | | | | | | | | | |
| Study Years: | | 3.00 | | Section Totals: | | 0.08 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.00030 | 0.00 | 1390.93 | 0.00 |
| | | | | Grand Totals: | | 0.08 | 6 | 0 | 0 | 0 | 1 | 5 | 16.7 | 0.00030 | 6688.78 | 1710.20 | 3.91 |

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

Crash Summary I Section Detail Crash Summary II 1320 Public 1320 Private 1320 Summary

REPORT DESCRIPTION

India St

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: **0561000**

Start Node: **18817**

Start Offset: **0**

Exclude First Node

End Node: **18822**

End Offset: **0**

Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

| Nodes | | | | | | | | | | | | | | | |
|--------------------------|----------------|---------------------------|---------------------|---------------|----------------|---|---|---|------------------|----------------|---------------|----------------------------|------|------|------|
| Node | Route - MP | Node Description | U/R | Total Crashes | Injury Crashes | | | | Percent Annual M | Crash Rate | Critical Rate | CRF | | | |
| | | | | | K | A | B | C | PD | Injury Ent-Veh | | | | | |
| 18817 | 0561000 - 0.18 | Int of INDIA ST MIDDLE ST | 2 | 6 | 0 | 0 | 0 | 1 | 5 | 16.7 | 2.083 | 0.96 | 0.45 | 2.15 | |
| | | | | | | | | | | | | Statewide Crash Rate: 0.14 | | | |
| 18822 | 0561000 - 0.23 | Int of FORE ST INDIA ST | 2 | 8 | 0 | 0 | 0 | 2 | 6 | 25.0 | 3.357 | 0.79 | 0.39 | 2.02 | |
| | | | | | | | | | | | | Statewide Crash Rate: 0.14 | | | |
| Study Years: 3.00 | | | NODE TOTALS: | | 14 | 0 | 0 | 0 | 3 | 11 | 21.4 | 5.440 | 0.86 | 0.35 | 2.46 |

Crash Summary I

| Sections | | | | | | | | | | | | | | | | | |
|---------------------------|----------|---------|-----------------------|------------------------|----------------|------------------------------|---------------|---|----------------|----|------|---------|----------------|-------------|------------|---------------|------|
| Start Node | End Node | Element | Offset Begin - End | Route - MP | Section Length | U/R | Total Crashes | K | Injury Crashes | | | | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF |
| | | | | | | | | | A | B | C | PD | | | | | |
| 18817 | 18822 | 3106813 | 0 - 0.05 | 0561000 - 0.18 | 0.05 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00083 | 402.22 | 690.78 | 0.00 |
| Int of INDIA ST MIDDLE ST | | | | RD INV 05 61000 | | Statewide Crash Rate: 186.45 | | | | | | | | | | | |
| Study Years: | | 3.00 | | Section Totals: | | 0.05 | 1 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0.00083 | 402.22 | 690.79 | 0.58 |
| Grand Totals: | | | | 0.05 | 15 | 0 | 0 | 0 | 3 | 12 | 20.0 | 0.00083 | 6033.31 | 959.84 | 6.29 | | |

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

Crash Summary I Section Detail Crash Summary II 1320 Public 1320 Private 1320 Summary

REPORT DESCRIPTION

Fore St

REPORT PARAMETERS

Year 2011, Start Month 1 through Year 2013 End Month: 12

Route: **0560286**

Start Node: **18820**

Start Offset: **0**

Exclude First Node

End Node: **18822**

End Offset: **0**

Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

| Nodes | | | | | | | | | | | | | | | |
|--------------------------|----------------|------------------------------|---------------------|---------------|---|----------------|---|---|---|------|-------------------------|------------------|----------------------------|---------------|------|
| Node | Route - MP | Node Description | U/R | Total Crashes | K | Injury Crashes | | | | PD | Percent Annual M Injury | Annual M Ent-Veh | Crash Rate | Critical Rate | CRF |
| 18820 | 0560286 - 0.28 | Int of FORE ST, MOUNTFORT ST | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1.861 | 0.00 | 0.43 | 0.00 |
| | | | | | | | | | | | | | Statewide Crash Rate: 0.13 | | |
| 18822 | 0560286 - 0.45 | Int of FORE ST INDIA ST | 2 | 8 | 0 | 0 | 0 | 2 | 6 | 25.0 | 3.357 | 0.79 | 0.39 | 2.02 | |
| | | | | | | | | | | | | | Statewide Crash Rate: 0.14 | | |
| Study Years: 3.00 | | | NODE TOTALS: | | 8 | 0 | 0 | 0 | 2 | 6 | 25.0 | 5.218 | 0.51 | 0.35 | 1.48 |

Crash Summary I

| Sections | | | | | | | | | | | | | | | | | | |
|------------------------------|----------|---------|-----------------------|-----------------------------------|----------------|-----|---------------|----|----------------|---|---|----|----------------|-------------|------------|---------------|--------|------|
| Start Node | End Node | Element | Offset Begin - End | Route - MP | Section Length | U/R | Total Crashes | K | Injury Crashes | | | | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF | |
| | | | | | | | | | A | B | C | PD | | | | | | |
| 18820 | 18822 | 3106815 | 0 - 0.17 | 0560286 - 0.28 RD INV 05 60286 | 0.17 | 2 | 6 | 0 | 0 | 1 | 3 | 2 | 66.7 | 0.00304 | 657.80 | 428.36 | 1.54 | |
| Int of FORE ST, MOUNTFORT ST | | | | Statewide Crash Rate: 151.35 | | | | | | | | | | | | | | |
| Study Years: | | 3.00 | | Section Totals: | | | 0.17 | 6 | 0 | 0 | 1 | 3 | 2 | 66.7 | 0.00304 | 657.80 | 428.36 | 1.54 |
| | | | | Grand Totals: | | | 0.17 | 14 | 0 | 0 | 1 | 5 | 8 | 42.9 | 0.00304 | 1534.86 | 627.18 | 2.45 |

Summary of All Intervals

| Run Number | 1 | 2 | 3 | 4 | 5 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 7:25 | 7:25 | 7:25 | 7:25 | 7:25 | 7:25 |
| End Time | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 949 | 1006 | 998 | 978 | 967 | 980 |
| Vehs Exited | 953 | 1006 | 998 | 982 | 956 | 979 |
| Starting Vehs | 8 | 9 | 8 | 8 | 1 | 6 |
| Ending Vehs | 4 | 9 | 8 | 4 | 12 | 6 |
| Travel Distance (mi) | 103 | 109 | 109 | 107 | 105 | 106 |
| Travel Time (hr) | 6.8 | 7.1 | 7.1 | 7.0 | 6.7 | 6.9 |
| Total Delay (hr) | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 |
| Total Stops | 1043 | 1119 | 1108 | 1089 | 1047 | 1081 |
| Fuel Used (gal) | 5.1 | 5.4 | 5.4 | 5.3 | 5.1 | 5.3 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 7:25 |
| End Time | 7:30 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 7:30 |
| End Time | 8:30 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 1 | 2 | 3 | 4 | 5 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 949 | 1006 | 998 | 978 | 967 | 980 |
| Vehs Exited | 953 | 1006 | 998 | 982 | 956 | 979 |
| Starting Vehs | 8 | 9 | 8 | 8 | 1 | 6 |
| Ending Vehs | 4 | 9 | 8 | 4 | 12 | 6 |
| Travel Distance (mi) | 103 | 109 | 109 | 107 | 105 | 106 |
| Travel Time (hr) | 6.8 | 7.1 | 7.1 | 7.0 | 6.7 | 6.9 |
| Total Delay (hr) | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 |
| Total Stops | 1043 | 1119 | 1108 | 1089 | 1047 | 1081 |
| Fuel Used (gal) | 5.1 | 5.4 | 5.4 | 5.3 | 5.1 | 5.3 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.2 | 0.1 |
| Total Del/Veh (s) | 4.9 | 5.3 | 1.6 | 0.6 | 2.7 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.3 | 0.1 | 0.0 | 0.1 |
| Total Del/Veh (s) | 5.9 | 6.2 | 4.9 | 6.0 | 5.9 |

Total Network Performance

| | |
|--------------------|-----|
| Denied Del/Veh (s) | 0.2 |
| Total Del/Veh (s) | 7.7 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 88 | 76 | 27 | 34 |
| Average Queue (ft) | 42 | 39 | 3 | 2 |
| 95th Queue (ft) | 69 | 61 | 20 | 18 |
| Link Distance (ft) | 196 | 224 | 198 | 202 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 75 | 99 | 68 | 113 |
| Average Queue (ft) | 41 | 54 | 36 | 57 |
| 95th Queue (ft) | 68 | 84 | 59 | 90 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

| Run Number | 2 | 3 | 4 | 5 | 7 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 6:55 | 6:55 | 6:55 | 6:55 | 6:55 | 6:55 |
| End Time | 8:00 | 8:00 | 8:00 | 8:00 | 8:00 | 8:00 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 1024 | 1080 | 982 | 1016 | 1087 | 1035 |
| Vehs Exited | 1028 | 1076 | 985 | 1010 | 1089 | 1037 |
| Starting Vehs | 9 | 7 | 12 | 6 | 13 | 6 |
| Ending Vehs | 5 | 11 | 9 | 12 | 11 | 10 |
| Travel Distance (mi) | 110 | 117 | 107 | 110 | 117 | 112 |
| Travel Time (hr) | 7.6 | 8.3 | 7.4 | 7.6 | 8.4 | 7.9 |
| Total Delay (hr) | 2.6 | 2.9 | 2.5 | 2.6 | 3.0 | 2.7 |
| Total Stops | 1101 | 1171 | 1060 | 1095 | 1193 | 1124 |
| Fuel Used (gal) | 5.6 | 5.9 | 5.4 | 5.4 | 6.0 | 5.7 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 6:55 |
| End Time | 7:00 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 7:00 |
| End Time | 8:00 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 2 | 3 | 4 | 5 | 7 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 1024 | 1080 | 982 | 1016 | 1087 | 1035 |
| Vehs Exited | 1028 | 1076 | 985 | 1010 | 1089 | 1037 |
| Starting Vehs | 9 | 7 | 12 | 6 | 13 | 6 |
| Ending Vehs | 5 | 11 | 9 | 12 | 11 | 10 |
| Travel Distance (mi) | 110 | 117 | 107 | 110 | 117 | 112 |
| Travel Time (hr) | 7.6 | 8.3 | 7.4 | 7.6 | 8.4 | 7.9 |
| Total Delay (hr) | 2.6 | 2.9 | 2.5 | 2.6 | 3.0 | 2.7 |
| Total Stops | 1101 | 1171 | 1060 | 1095 | 1193 | 1124 |
| Fuel Used (gal) | 5.6 | 5.9 | 5.4 | 5.4 | 6.0 | 5.7 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.2 | 0.2 |
| Total Del/Veh (s) | 4.9 | 5.4 | 1.4 | 0.5 | 2.6 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.3 | 0.2 | 0.0 | 0.1 |
| Total Del/Veh (s) | 8.3 | 8.4 | 6.1 | 7.8 | 7.8 |

Total Network Performance

| | |
|--------------------|-----|
| Denied Del/Veh (s) | 0.2 |
| Total Del/Veh (s) | 9.2 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 79 | 86 | 29 | 55 |
| Average Queue (ft) | 41 | 40 | 2 | 5 |
| 95th Queue (ft) | 66 | 65 | 14 | 28 |
| Link Distance (ft) | 196 | 224 | 198 | 202 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 116 | 134 | 84 | 139 |
| Average Queue (ft) | 52 | 62 | 42 | 68 |
| 95th Queue (ft) | 90 | 102 | 70 | 113 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

| Run Number | 1 | 2 | 3 | 4 | 5 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 |
| End Time | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 1297 | 1361 | 1318 | 1321 | 1289 | 1316 |
| Vehs Exited | 1306 | 1368 | 1318 | 1322 | 1291 | 1322 |
| Starting Vehs | 18 | 18 | 9 | 10 | 9 | 11 |
| Ending Vehs | 9 | 11 | 9 | 9 | 7 | 6 |
| Travel Distance (mi) | 144 | 150 | 146 | 146 | 140 | 145 |
| Travel Time (hr) | 9.9 | 10.5 | 10.2 | 10.4 | 9.6 | 10.1 |
| Total Delay (hr) | 3.4 | 3.8 | 3.6 | 3.8 | 3.3 | 3.6 |
| Total Stops | 1283 | 1374 | 1324 | 1339 | 1286 | 1320 |
| Fuel Used (gal) | 7.2 | 7.7 | 7.4 | 7.5 | 7.0 | 7.4 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 4:25 |
| End Time | 4:30 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 4:30 |
| End Time | 5:30 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 1 | 2 | 3 | 4 | 5 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 1297 | 1361 | 1318 | 1321 | 1289 | 1316 |
| Vehs Exited | 1306 | 1368 | 1318 | 1322 | 1291 | 1322 |
| Starting Vehs | 18 | 18 | 9 | 10 | 9 | 11 |
| Ending Vehs | 9 | 11 | 9 | 9 | 7 | 6 |
| Travel Distance (mi) | 144 | 150 | 146 | 146 | 140 | 145 |
| Travel Time (hr) | 9.9 | 10.5 | 10.2 | 10.4 | 9.6 | 10.1 |
| Total Delay (hr) | 3.4 | 3.8 | 3.6 | 3.8 | 3.3 | 3.6 |
| Total Stops | 1283 | 1374 | 1324 | 1339 | 1286 | 1320 |
| Fuel Used (gal) | 7.2 | 7.7 | 7.4 | 7.5 | 7.0 | 7.4 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.3 | 0.2 |
| Total Del/Veh (s) | 8.6 | 8.6 | 1.9 | 0.6 | 3.2 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.3 | 0.3 | 0.3 | 0.0 | 0.2 |
| Total Del/Veh (s) | 8.0 | 8.0 | 7.8 | 7.8 | 7.9 |

Total Network Performance

| | |
|--------------------|-----|
| Denied Del/Veh (s) | 0.3 |
| Total Del/Veh (s) | 9.5 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 96 | 94 | 72 | 58 |
| Average Queue (ft) | 47 | 38 | 9 | 8 |
| 95th Queue (ft) | 77 | 69 | 42 | 34 |
| Link Distance (ft) | 196 | 224 | 198 | 202 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 141 | 145 | 126 | 148 |
| Average Queue (ft) | 61 | 64 | 63 | 66 |
| 95th Queue (ft) | 103 | 105 | 105 | 111 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | 0 | | | |
| Queuing Penalty (veh) | 0 | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

| Run Number | 1 | 3 | 4 | 6 | 7 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 |
| End Time | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 1385 | 1352 | 1353 | 1449 | 1395 | 1386 |
| Vehs Exited | 1394 | 1352 | 1353 | 1439 | 1400 | 1387 |
| Starting Vehs | 19 | 7 | 9 | 10 | 9 | 9 |
| Ending Vehs | 10 | 7 | 9 | 20 | 4 | 8 |
| Travel Distance (mi) | 151 | 146 | 147 | 157 | 153 | 151 |
| Travel Time (hr) | 10.5 | 9.7 | 10.0 | 11.1 | 10.7 | 10.4 |
| Total Delay (hr) | 4.0 | 3.4 | 3.7 | 4.3 | 4.1 | 3.9 |
| Total Stops | 1368 | 1349 | 1356 | 1446 | 1419 | 1387 |
| Fuel Used (gal) | 8.9 | 8.5 | 8.7 | 9.2 | 9.0 | 8.9 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 4:25 |
| End Time | 4:30 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 4:30 |
| End Time | 5:30 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 1 | 3 | 4 | 6 | 7 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 1385 | 1352 | 1353 | 1449 | 1395 | 1386 |
| Vehs Exited | 1394 | 1352 | 1353 | 1439 | 1400 | 1387 |
| Starting Vehs | 19 | 7 | 9 | 10 | 9 | 9 |
| Ending Vehs | 10 | 7 | 9 | 20 | 4 | 8 |
| Travel Distance (mi) | 151 | 146 | 147 | 157 | 153 | 151 |
| Travel Time (hr) | 10.5 | 9.7 | 10.0 | 11.1 | 10.7 | 10.4 |
| Total Delay (hr) | 4.0 | 3.4 | 3.7 | 4.3 | 4.1 | 3.9 |
| Total Stops | 1368 | 1349 | 1356 | 1446 | 1419 | 1387 |
| Fuel Used (gal) | 8.9 | 8.5 | 8.7 | 9.2 | 9.0 | 8.9 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.3 | 0.1 |
| Total Del/Veh (s) | 8.8 | 8.3 | 1.8 | 0.6 | 3.3 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.3 | 0.3 | 0.3 | 0.0 | 0.2 |
| Total Del/Veh (s) | 8.2 | 8.4 | 8.0 | 7.8 | 8.1 |

Total Network Performance

| | |
|--------------------|-----|
| Denied Del/Veh (s) | 0.3 |
| Total Del/Veh (s) | 9.8 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 125 | 88 | 64 | 53 |
| Average Queue (ft) | 51 | 42 | 10 | 6 |
| 95th Queue (ft) | 87 | 69 | 39 | 30 |
| Link Distance (ft) | 176 | 224 | 198 | 202 |
| Upstream Blk Time (%) | 0 | | | |
| Queuing Penalty (veh) | 0 | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 140 | 153 | 137 | 138 |
| Average Queue (ft) | 63 | 70 | 64 | 66 |
| 95th Queue (ft) | 107 | 119 | 111 | 108 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | | 0 | | |
| Queuing Penalty (veh) | | 0 | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

| Run Number | 1 | 2 | 3 | 5 | 7 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 6:55 | 6:55 | 6:55 | 6:55 | 6:55 | 6:55 |
| End Time | 8:00 | 8:00 | 8:00 | 8:00 | 8:00 | 8:00 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 1006 | 1026 | 1042 | 1030 | 1066 | 1033 |
| Vehs Exited | 1008 | 1033 | 1042 | 1023 | 1071 | 1037 |
| Starting Vehs | 7 | 10 | 8 | 6 | 12 | 5 |
| Ending Vehs | 5 | 3 | 8 | 13 | 7 | 7 |
| Travel Distance (mi) | 108 | 111 | 112 | 111 | 116 | 112 |
| Travel Time (hr) | 8.2 | 8.4 | 8.3 | 8.5 | 8.8 | 8.4 |
| Total Delay (hr) | 3.3 | 3.4 | 3.1 | 3.5 | 3.4 | 3.3 |
| Total Stops | 1422 | 1463 | 1471 | 1467 | 1527 | 1469 |
| Fuel Used (gal) | 5.9 | 6.1 | 6.0 | 6.0 | 6.3 | 6.0 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 6:55 |
| End Time | 7:00 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 7:00 |
| End Time | 8:00 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 1 | 2 | 3 | 5 | 7 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 1006 | 1026 | 1042 | 1030 | 1066 | 1033 |
| Vehs Exited | 1008 | 1033 | 1042 | 1023 | 1071 | 1037 |
| Starting Vehs | 7 | 10 | 8 | 6 | 12 | 5 |
| Ending Vehs | 5 | 3 | 8 | 13 | 7 | 7 |
| Travel Distance (mi) | 108 | 111 | 112 | 111 | 116 | 112 |
| Travel Time (hr) | 8.2 | 8.4 | 8.3 | 8.5 | 8.8 | 8.4 |
| Total Delay (hr) | 3.3 | 3.4 | 3.1 | 3.5 | 3.4 | 3.3 |
| Total Stops | 1422 | 1463 | 1471 | 1467 | 1527 | 1469 |
| Fuel Used (gal) | 5.9 | 6.1 | 6.0 | 6.0 | 6.3 | 6.0 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.3 | 0.2 |
| Total Del/Veh (s) | 3.9 | 4.4 | 5.5 | 6.0 | 5.1 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.3 | 0.2 | 0.0 | 0.1 |
| Total Del/Veh (s) | 7.9 | 8.8 | 6.1 | 9.2 | 8.4 |

Total Network Performance

| | |
|--------------------|------|
| Denied Del/Veh (s) | 0.2 |
| Total Del/Veh (s) | 11.3 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 72 | 70 | 63 | 90 |
| Average Queue (ft) | 37 | 40 | 35 | 52 |
| 95th Queue (ft) | 60 | 61 | 51 | 77 |
| Link Distance (ft) | 196 | 224 | 198 | 202 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 97 | 161 | 78 | 152 |
| Average Queue (ft) | 49 | 68 | 39 | 64 |
| 95th Queue (ft) | 80 | 117 | 65 | 118 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | | 0 | | 0 |
| Queuing Penalty (veh) | | 0 | | 1 |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

| Run Number | 1 | 2 | 3 | 4 | 7 | Avg |
|-------------------------|------|------|------|------|------|------|
| Start Time | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 | 4:25 |
| End Time | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 |
| Total Time (min) | 65 | 65 | 65 | 65 | 65 | 65 |
| Time Recorded (min) | 60 | 60 | 60 | 60 | 60 | 60 |
| # of Intervals | 2 | 2 | 2 | 2 | 2 | 2 |
| # of Recorded Intervals | 1 | 1 | 1 | 1 | 1 | 1 |
| Vehs Entered | 1385 | 1446 | 1352 | 1353 | 1395 | 1387 |
| Vehs Exited | 1394 | 1449 | 1351 | 1354 | 1399 | 1389 |
| Starting Vehs | 23 | 17 | 7 | 10 | 10 | 12 |
| Ending Vehs | 14 | 14 | 8 | 9 | 6 | 9 |
| Travel Distance (mi) | 151 | 157 | 146 | 147 | 153 | 151 |
| Travel Time (hr) | 11.6 | 12.1 | 10.8 | 11.1 | 11.8 | 11.5 |
| Total Delay (hr) | 5.1 | 5.3 | 4.6 | 4.7 | 5.2 | 5.0 |
| Total Stops | 2010 | 2092 | 1955 | 1968 | 2056 | 2018 |
| Fuel Used (gal) | 9.6 | 10.1 | 9.3 | 9.4 | 9.7 | 9.6 |

Interval #0 Information Seeding

| | |
|-------------------------------------|------|
| Start Time | 4:25 |
| End Time | 4:30 |
| Total Time (min) | 5 |
| Volumes adjusted by Growth Factors. | |
| No data recorded this interval. | |

Interval #1 Information Recording

| | |
|-------------------------------------|------|
| Start Time | 4:30 |
| End Time | 5:30 |
| Total Time (min) | 60 |
| Volumes adjusted by Growth Factors. | |

| Run Number | 1 | 2 | 3 | 4 | 7 | Avg |
|----------------------|------|------|------|------|------|------|
| Vehs Entered | 1385 | 1446 | 1352 | 1353 | 1395 | 1387 |
| Vehs Exited | 1394 | 1449 | 1351 | 1354 | 1399 | 1389 |
| Starting Vehs | 23 | 17 | 7 | 10 | 10 | 12 |
| Ending Vehs | 14 | 14 | 8 | 9 | 6 | 9 |
| Travel Distance (mi) | 151 | 157 | 146 | 147 | 153 | 151 |
| Travel Time (hr) | 11.6 | 12.1 | 10.8 | 11.1 | 11.8 | 11.5 |
| Total Delay (hr) | 5.1 | 5.3 | 4.6 | 4.7 | 5.2 | 5.0 |
| Total Stops | 2010 | 2092 | 1955 | 1968 | 2056 | 2018 |
| Fuel Used (gal) | 9.6 | 10.1 | 9.3 | 9.4 | 9.7 | 9.6 |

1: India & Middle Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.3 | 0.2 |
| Total Del/Veh (s) | 5.3 | 5.4 | 7.2 | 6.7 | 6.5 |

2: India & Fore Performance by approach

| Approach | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.3 | 0.3 | 0.3 | 0.0 | 0.2 |
| Total Del/Veh (s) | 8.3 | 8.6 | 7.9 | 8.8 | 8.4 |

Total Network Performance

| | |
|--------------------|------|
| Denied Del/Veh (s) | 0.3 |
| Total Del/Veh (s) | 12.6 |

Intersection: 1: India & Middle

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 80 | 66 | 99 | 137 |
| Average Queue (ft) | 44 | 37 | 50 | 67 |
| 95th Queue (ft) | 69 | 59 | 79 | 106 |
| Link Distance (ft) | 176 | 224 | 198 | 202 |
| Upstream Blk Time (%) | | | | 0 |
| Queuing Penalty (veh) | | | | 0 |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Intersection: 2: India & Fore

| Movement | EB | WB | NB | SB |
|-----------------------|-----|-----|-----|-----|
| Directions Served | LTR | LTR | LTR | LTR |
| Maximum Queue (ft) | 158 | 158 | 134 | 128 |
| Average Queue (ft) | 64 | 72 | 64 | 62 |
| 95th Queue (ft) | 112 | 122 | 107 | 104 |
| Link Distance (ft) | 192 | 217 | 210 | 198 |
| Upstream Blk Time (%) | 0 | | | |
| Queuing Penalty (veh) | 0 | | | |
| Storage Bay Dist (ft) | | | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

Network Summary

Network wide Queuing Penalty: 0