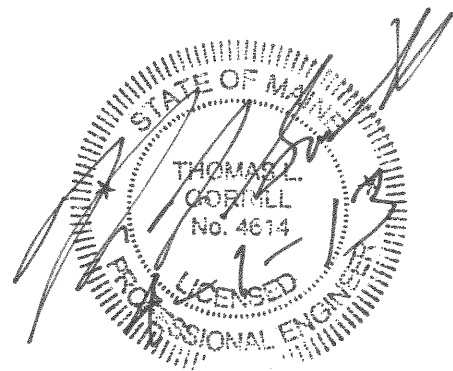


**Traffic Permit Application  
Request for Scoping Meeting  
Service Center  
2282 Congress Street  
Portland, Maine**

**Prepared for:**

**C.J. Developers, Inc.  
35 Primrose Lane  
Freeport, ME 04032**

**April 2013**



**Prepared by:**

***GP*** Gorrill-Palmer Consulting Engineers, Inc.

*Engineering Excellence Since 1998*

PO Box 1237  
15 Shaker Road  
Gray, ME 04039

(207) 657-6910  
Fax: (207) 657-6912  
E-mail: mailbox@gorrillpalmer.com

Department of Transportation  
Traffic Engineering Division  
16 State House Station  
Augusta, Maine 04333  
Telephone: 207-287-3775

FOR MDOT USE  
ID# \_\_\_\_\_  
Total Fees: \_\_\_\_\_  
Date Received: \_\_\_\_\_

12/99

\*\*\*\*\*

**PERMIT APPLICATION – TRAFFIC  
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. §704-A**

**Please type or print:**

This application is for (check all that apply):  
Traffic 100-200 PCE's   
Traffic 200 + PCE's

Name of Applicant CJ Developers, Inc. Attn: Mr. David Latulippe

Address: 35 Primrose Lane - Freeport, Maine 04032 Telephone: (207) 865-4323

Name of local contact or agent: Thomas L. Gorrill, P.E.- Gorrill-Palmer Consulting Engineers, Inc.

Address: PO Box 1237 Gray, ME 04039 Telephone: (207) 657-6910

Name and type of development: Proposed Convenience Store with Fuel Pumps

Location of development including road, street, or nearest route number: The site is located at 2282 Congress Street opposite Blueberry Lane.

City/Town/Plantation: Portland County: Cumberland Tax Map 237 Lot A012

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)?  
Yes \_\_\_\_\_ No X

Was this development started prior to obtaining a traffic permit? \_\_\_\_\_ No \_\_\_\_\_

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30-A, chapter 187)?  
Yes \_\_\_\_\_ No X

Is this project located within a compact area of an urban compact municipality? Yes \_\_\_\_\_ No X

Is this development or any portion of the site currently subject to state or municipal enforcement action?  
\_\_\_\_\_ No \_\_\_\_\_

Existing DEP or MDOT permit number (if applicable): \_\_\_\_\_ None Known \_\_\_\_\_

Name(s) DOT staff person(s) contacted concerning this application: \_\_\_\_\_ Delegated Review-City of Portland \_\_\_\_\_

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants: \_\_\_\_\_

CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: [Handwritten Signature] Re/Cert/Lic No.: \_\_\_\_\_  
Name (print): Thomas L. Gorrill Engineer: Maine PE # 4614  
Date: 4-1-13 Other: \_\_\_\_\_

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

[Handwritten Signature]  
Signature of applicant

7/14/13  
Date

TRUE WATERMARK PAPER HOLD TO LIGHT TO VIEW HEAT SENSITIVE RED IMAGE DISAPPEARS WITH HEAT

1410

**GORRILL-PALMER  
CONSULTING ENGINEERS, INC.**

15 SHAKER ROAD  
P.O. BOX 1237  
GRAY, MAINE 04039  
(207) 657-6910



America's Most Convenient Bank®  
52-7445-2112

4/1/2013

PAY TO THE  
ORDER OF

City of Portland

\$ \*\*1,000.00

One Thousand and 00/100\*\*\*\*\* DOLLARS

City of Portland  
389 Congress Street  
Portland, ME 04101



*[Handwritten Signature]*  
AUTHORIZED SIGNATURE

MEMO

2672 - TMP Application for 2282 Congress Street

⑈014100⑈⑆1:211274450⑆029185122⑈

GORRILL-PALMER CONSULTING ENGINEERS, INC.

City of Portland

4/1/2013

1410

2672 - TMP Application for 2282 Congress Street

1,000.00

Cash - Checking

2672 - TMP Application for 2282 Congress Stree

1,000.00



## NOTICE OF INTENT TO FILE

Please take notice that:

**C.J. Developers, Inc.**  
**35 Primrose Lane**  
**Freeport, ME 04032**  
**(207) 865-4323**

is intending to file a MaineDOT Traffic Permit Application with the City of Portland, Maine under their delegated review authority, pursuant to the provisions of 23 M.R.S.A. §704 – A on or about:

**April 2, 2013.**

(anticipated filing date)

This application is for:

**A proposed 3,850 square foot convenience store with twelve fueling stations, two diesel fueling stations and an ATM. The proposed facility will be completed by the end of 2013 and generate 211 trip ends during the AM peak hour; 277 trip ends during the PM peak hour and 189 trip ends during the Saturday peak hour of the adjacent street traffic.**

(Summary of project: specifying trip generation at peak hour for the proposed development and the year the project is proposed to be completed and occupied)

at the following location:

**at 2282 Congress Street opposite Blueberry Road in Portland, Maine. Tax Map 237, Lot A012.**

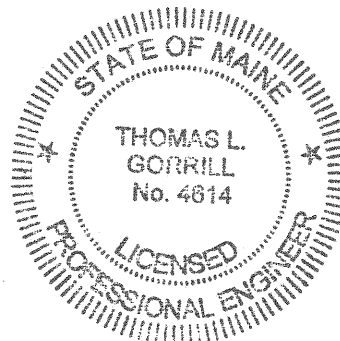
(Project Location)

A request for a public hearing must be received by the City of Portland, in writing no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland Planning Office in Portland, Maine during normal working hours.

Written public comments may be sent to the following address: City of Portland, Planning Department, 389 Congress Street, 4<sup>th</sup> Floor, Portland, Maine 04101.

  
Thomas L. Gorrill, P.E., PTOE



JN 3118 - CONVENIENCE STORE, 2282 CONGRESS STREET, PORTLAND, ME

DIRECT ABUTTERS 2282 CONGRESS STREET

| Map/Lot      | Owner                                    | Co-Owner | Address              | City     | State | Zip   |
|--------------|--|----------|----------------------|----------|-------|-------|
| 237/A012001  | Hutchcourt LLC                           |          | 2282 Congress Street | Portland | ME    | 04102 |
| 237/A004001  | Maine Turnpike Authority                 |          | 430 Riverside Street | Portland | ME    | 04103 |
| 231/A005001  | Maine Turnpike Authority                 |          | 430 Riverside Street | Portland | ME    | 04103 |
| 237/B011001  | Mason Veterinary Realty LLC              |          | 2255 Congress Street | Portland | ME    | 04102 |
| 238A/A00500A | Portland Board of Realtors               |          | 2271 Congress Street | Portland | ME    | 04102 |
| 238A/A005001 | REW Realty LLC                           |          | PO Box 3889          | Portland | ME    | 04104 |
| 238A/A00500B | REW Realty LLC                           |          | PO Box 3889          | Portland | ME    | 04104 |
| 237/A008001  | Twenty Three Hundred Congress Street LLC |          | PO Box 403           | Portland | ME    | 04112 |

1.

## Section 1 Site and Traffic Information

### 1.A. Site Description and Site Plan

The project is located on Outer Congress Street opposite Blueberry Road in Portland, Maine. The site is identified on the City Tax Map 237, Lot A012.

A site location map has been included in Attachment 1B.

### 1.B. Existing and Proposed Site Uses

The site is currently undeveloped. A single driveway opposite Blueberry Road provides access to the Maine Turnpike Authority property and this site.

The site is proposed to include a 3,850 sf convenience store with 12 fueling positions, a diesel pumps with 2 fueling positions, and an ATM.

Access to the site will be provided via an improved unsignalized driveway opposite Blueberry Road.

### 1.C. Site and Vicinity Boundaries

A site location map showing the development area is included in Attachment 1B. The site is bound to the north by the Maine Turnpike property and Congress Street, to the south by Skyway Drive, to the east by the Maine Turnpike, and to the west by a commercial use.

### 1.D. Proposed uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Gorrill-Palmer Consulting Engineers, Inc. contacted the City of Portland planning department to determine whether there are any other projects that have been approved or are ahead in the approval process whose traffic should be considered as background traffic in the study for this project. Based on our conversation, it is our understanding that there are currently two active projects in this area which need to be added to our background traffic which are summarized below:

144 Hutchins Drive- This facility is forecast by others to have an average of 5 employees which will generate 5 peak hour trip ends in both the weekday AM and PM peak hours. We have added the 5 employee trip ends due during

both the AM and PM peak hours to the pre-development traffic levels in our study.

ECOMAINE has a project in the approval process, but it is our understanding from City staff that it will not result in an increase in traffic.

The veterinarian on the corner of Hutchins had an expansion approved several years ago but it is our understanding from City staff that their approval has lapsed so the project was not considered in our analysis.

### 1.E. Trip Generation

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 8<sup>th</sup> Edition as the source for determining the potential trip generation for the site. The 8<sup>th</sup> Edition was used because it provided a Saturday Peak Hour trip generation for the Convenience Store with fueling positions whereas the 7<sup>th</sup> Edition does not. To determine the trip generation for the Convenience Store with fueling positions we used Land Use Code 853, averaging the trip generation from fueling positions and size of store. Land Use Code 912 was used to forecast the ATM, which forecasts 10 and 28 trip ends during the AM and PM peak hours of adjacent street traffic respectively.

The trip generation calculations are included in Appendix C and are summarized as follows for the peak hour of the adjacent street traffic:

|                      |               |
|----------------------|---------------|
| AM Peak Hour Adj St: | 211 trip ends |
| PM Peak Hour Adj St: | 277 trip ends |
| Saturday Peak Hour:  | 189 trip ends |

This level of trip generation requires a MaineDOT Traffic Movement Permit which has been delegated to the City of Portland. Our analyses focused on the weekday AM and PM peak hours since the traffic levels are less during a Saturday.

### 1.F. Trip Distribution

Gorrill-Palmer Consulting Engineers, Inc. has obtained the ratio of entering and exiting traffic from the Institute of Transportation Engineers publication *Trip Generation*, 8<sup>th</sup> Edition (7<sup>th</sup> Edition is the same). Based on the ITE information, the trip distribution would be the following for the AM, PM, and Saturday peak hours:

|                      |                           |
|----------------------|---------------------------|
| Weekday AM peak hour | 50% entering, 50% exiting |
| Weekday PM peak hour | 50% entering, 50% exiting |

## 1.G. Trip Composition and Assignment

Gorrill-Palmer Consulting Engineers, Inc. has estimated trip composition for the facility based on the ITE *Trip Generation Handbook*. For LUC 853 – Convenience Market with Gasoline Pumps the trip composition would be the following:

Weekday AM - 12% Primary, 25% Diverted, 63% Pass-By  
Weekday PM – 16% Primary, 18% Diverted, 66% Pass-By

For the purpose of this project, we combined the Primary and Diverted and rounded to the following, which is conservative since it increases the primary trips and reduces the pass-by trips:

Weekday AM / PM – 40% Primary / Diverted, 60% Pass-By

For LUC 912-Drive-In Bank, the shared trips are forecast to be 50% with the convenience store. Thus, trips at the driveway would be 5 and 14 during the AM and PM peak hours respectively with 50% being pass-by and 50% being a combination of pass-by and diverted trips.

The total trip distribution is summarized on the following table:

| Trip Type          | Entering   |            | Exiting    |            | Total      |            |
|--------------------|------------|------------|------------|------------|------------|------------|
|                    | AM         | PM         | AM         | PM         | AM         | PM         |
| Primary / Diverted | 42         | 54         | 41         | 53         | 83         | 107        |
| Pass-By            | 62         | 77         | 61         | 78         | 123        | 155        |
| <b>Total</b>       | <b>104</b> | <b>131</b> | <b>102</b> | <b>132</b> | <b>206</b> | <b>263</b> |

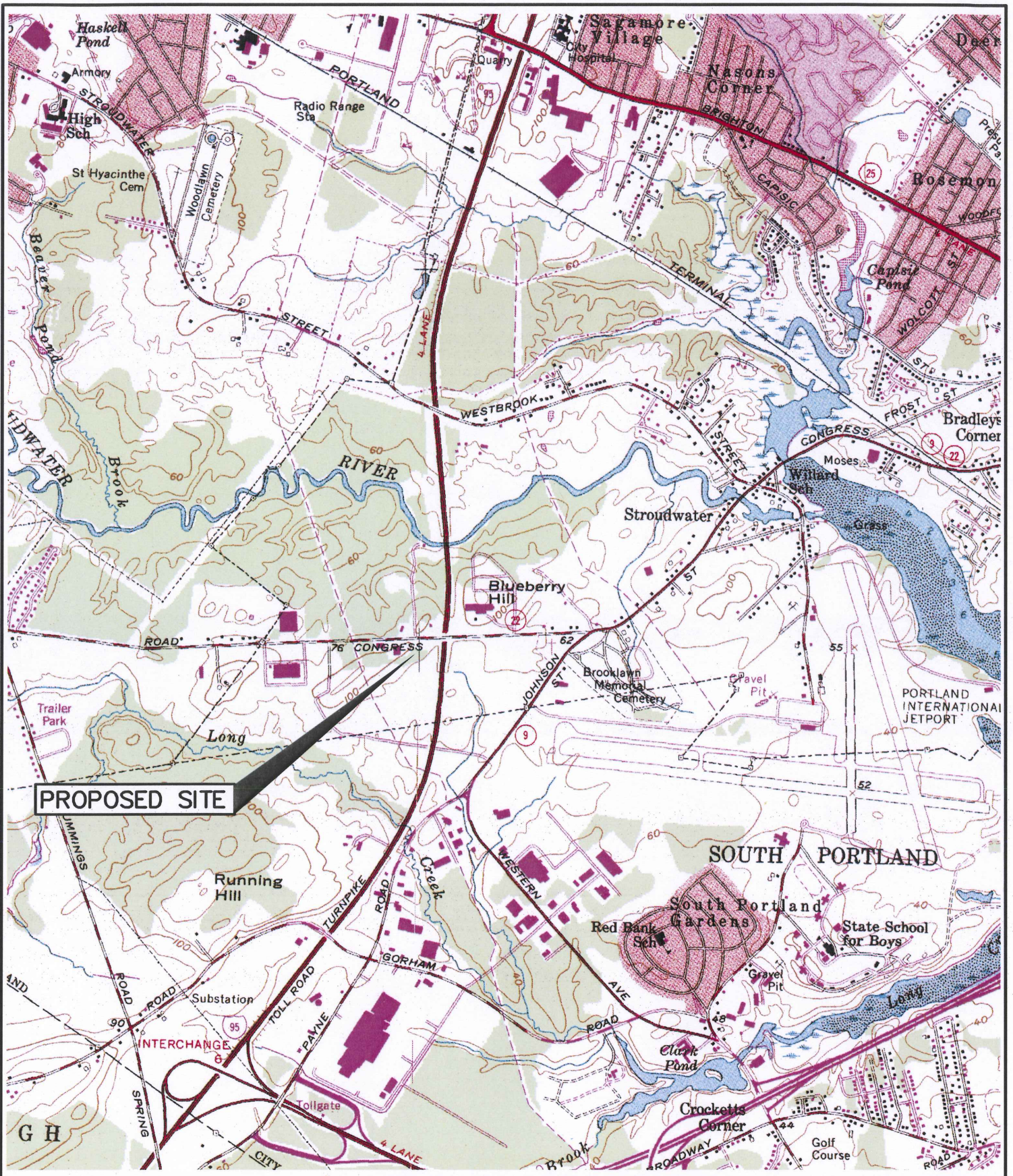
The trip assignment percentages are based on existing traffic patterns as derived from the turning movement counts and are included in Appendix A of Section 7, the Traffic Impact Study.

## 1.H. Attachments

Attachment 1A – Site Survey, Proposed Site Plan


Attachment 1B – Site Location Map





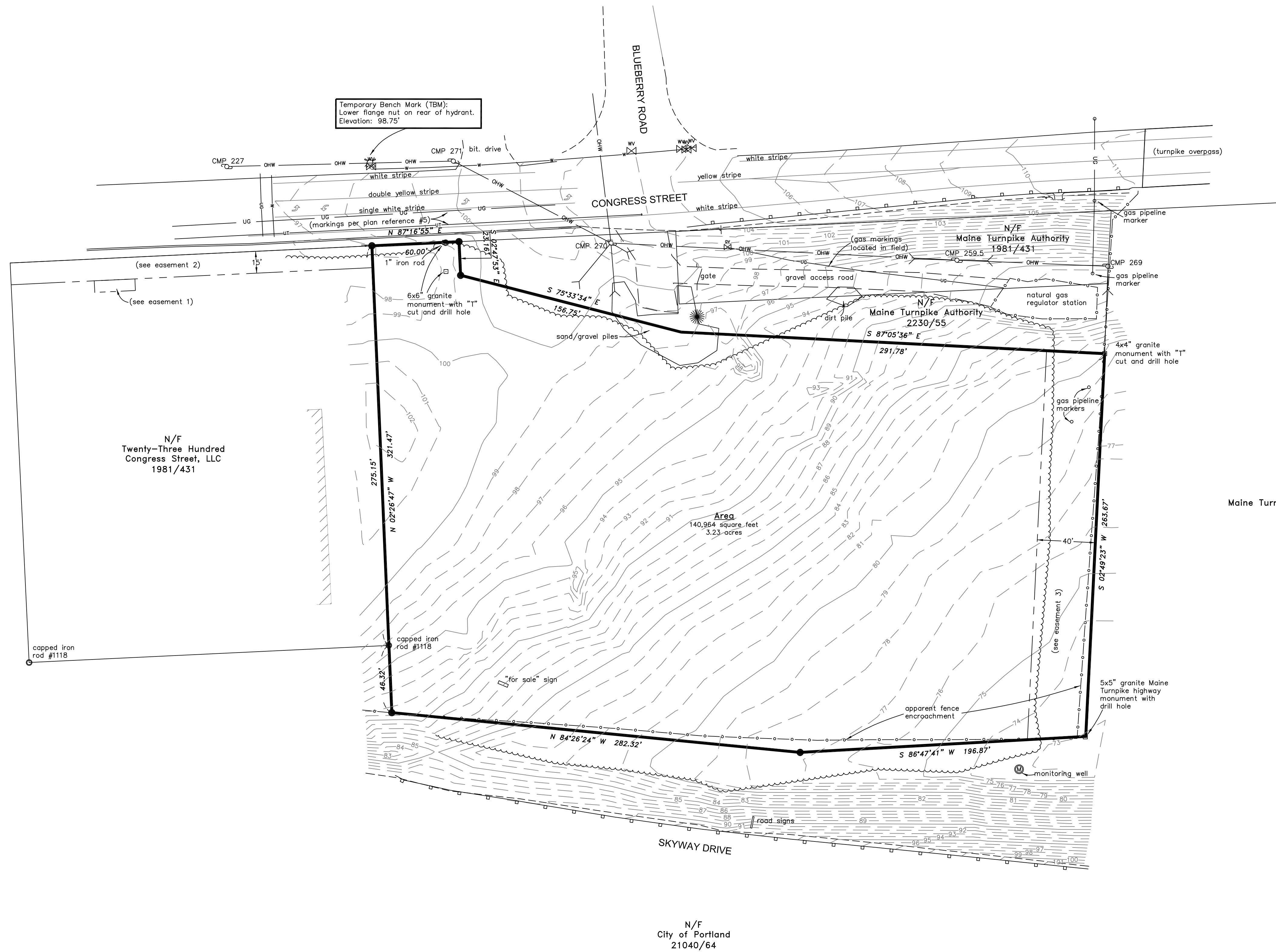
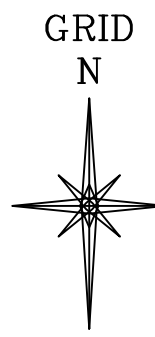
**U.S.G.S. Location Map**  
 2282 Congress Street - Portland, Maine  
 U.S.G.S. Portland West, Maine -7.5 Minute Series (Topographic)

|                              |                  |
|------------------------------|------------------|
| Design: TLG                  | Date: APRIL 2013 |
| Draft: CG                    | Job No.: 2672    |
| Checked: TLG                 | Scale: 1"=2000'± |
| File Name: 2672-LOCATION.dwg |                  |


**Gorrill-Palmer Consulting Engineers, Inc.**  
*Engineering Excellence since 1998*

PO Box 1237  
 15 Shaker Road  
 Gray, ME 04039  
 207-657-6910  
 FAX: 207-657-6912  
 E-Mail: mailbox@gorrillpalmer.com





**LEGEND**

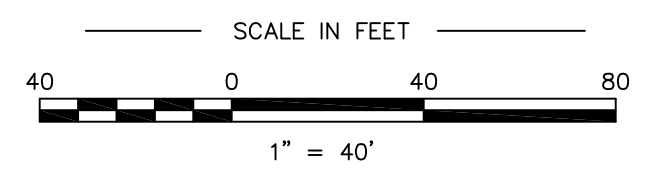
|  |                                    |
|--|------------------------------------|
|  | Monument - found                   |
|  | Iron marker - found                |
|  | Iron marker - to be set (#5 rebar) |
|  | Property line (locus)              |
|  | Property line (abutter)            |
|  | Easement line                      |
|  | Chain link fence                   |
|  | Guard rail                         |
|  | Edge of pavement                   |
|  | Edge of gravel                     |
|  | Curb                               |
|  | Sign                               |
|  | Utility pole                       |
|  | Guy wire                           |
|  | Gas valve                          |
|  | Water valve                        |
|  | Fire hydrant                       |
|  | Overhead utility line              |
|  | Underground water line             |
|  | Underground gas line               |
|  | Underground telephone line         |
|  | Contours (1ft)                     |
|  | Contours (5ft)                     |
|  | Now or formerly of                 |
|  | Dead reference (Book/Page)         |
|  | Tree line                          |
|  | Coniferous tree                    |
|  | Existing building                  |

- NOTES**
- 1) Book and Page references are to the Cumberland County Registry of Deeds, unless otherwise noted.
  - 2) Bearings are referenced to grid north, Maine State Plane Coordinate System, NAD83, West Zone.
  - 3) Elevations are based on NGVD 1929. Benchmark is a flange bolt on a fire hydrant. Elev. 98.75'.
  - 4) Utility information on this plan is approximate, based on location of visible features and information contained on plans and drawings provided by others. DigSafe and/or the appropriate utilities should be contacted prior to any construction.
  - 5) Property lies within Zone X based on FIRM Community #230051 Panel #12-C, dated Dec. 8, 1998. It does not lie within a special flood hazard area.
  - 6) Project area was covered by snow and ice at the time of the survey and some features may have been obscured and not shown on this plan.

- PLAN REFERENCES**
- 1) Maine Turnpike Authority plan of Section 1 - Kittery to Portland, Supplemental Sheet No. 2, made by Howard, Needles, Tammen & Bergendoff, dated August 1947.
  - 2) Maine Turnpike Authority plan of Section 1 - Kittery to Portland, Congress Street Property Plan Supplemental Sheet No. 11, made by Howard, Needles, Tammen & Bergendoff, dated July 1954, recorded in Plan Book 41, Page 66.
  - 3) Maine Turnpike Authority plan of Property and Right of Way Plans Section 1 - Kittery to Portland, Jetport Interchange Project drawing number ROW01, ROW02, ROW04 and ROW05, dated February 1997.
  - 4) Maine Turnpike Authority plan of Property and Right of Way Plans Section 1 - Kittery to Portland, Jetport Interchange Project drawing number Supplemental 101 and Supplemental 102.
  - 5) Standard Boundary & Topographic Survey made for Hutchcourt, L.L.C. by CEST Associates, Inc. dated March 1999 and revised through September 2, 1999, recorded in Plan Book 199, Page 412.

- EASEMENTS OF RECORD**
- 1) Sewer easement conveyed to Hutchcourt, L.L.C. by Robert E. Baldacci, Jr. in Book 15032, Page 299.
  - 2) Sewer line easement reserved by Harry A. Harmon and George M. Hutchins in Book 3426, Page 278.
  - 3) Utility easement conveyed to Northern Utilities, Inc. by Harry A. Harmon and George M. Hutchins.

**OWNERS OF RECORD**  
Hutchcourt, L.L.C. Book 15017, Page 281



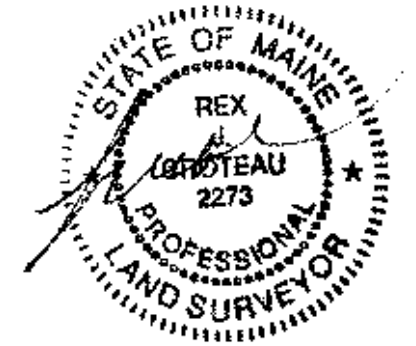
PLAN OF  
**Boundary Survey**  
2282 Congress Street Portland, Maine  
MADE FOR  
**Priority Group, LLC**  
2 Main Street Topsham, Maine

|                |                     |                 |
|----------------|---------------------|-----------------|
| JOB #213008    | DATE: Mar. 13, 2013 | SCALE: 1" = 40' |
| BOOK #838      |                     |                 |
| CP/2013/213008 |                     |                 |
| FILE #9642     |                     |                 |



**CERTIFICATION**  
This survey conforms to the current standards of practice set forth by the Maine State Board of Licensure for Land Surveyors.

Rex J. Croteau, P.L.S. #2273

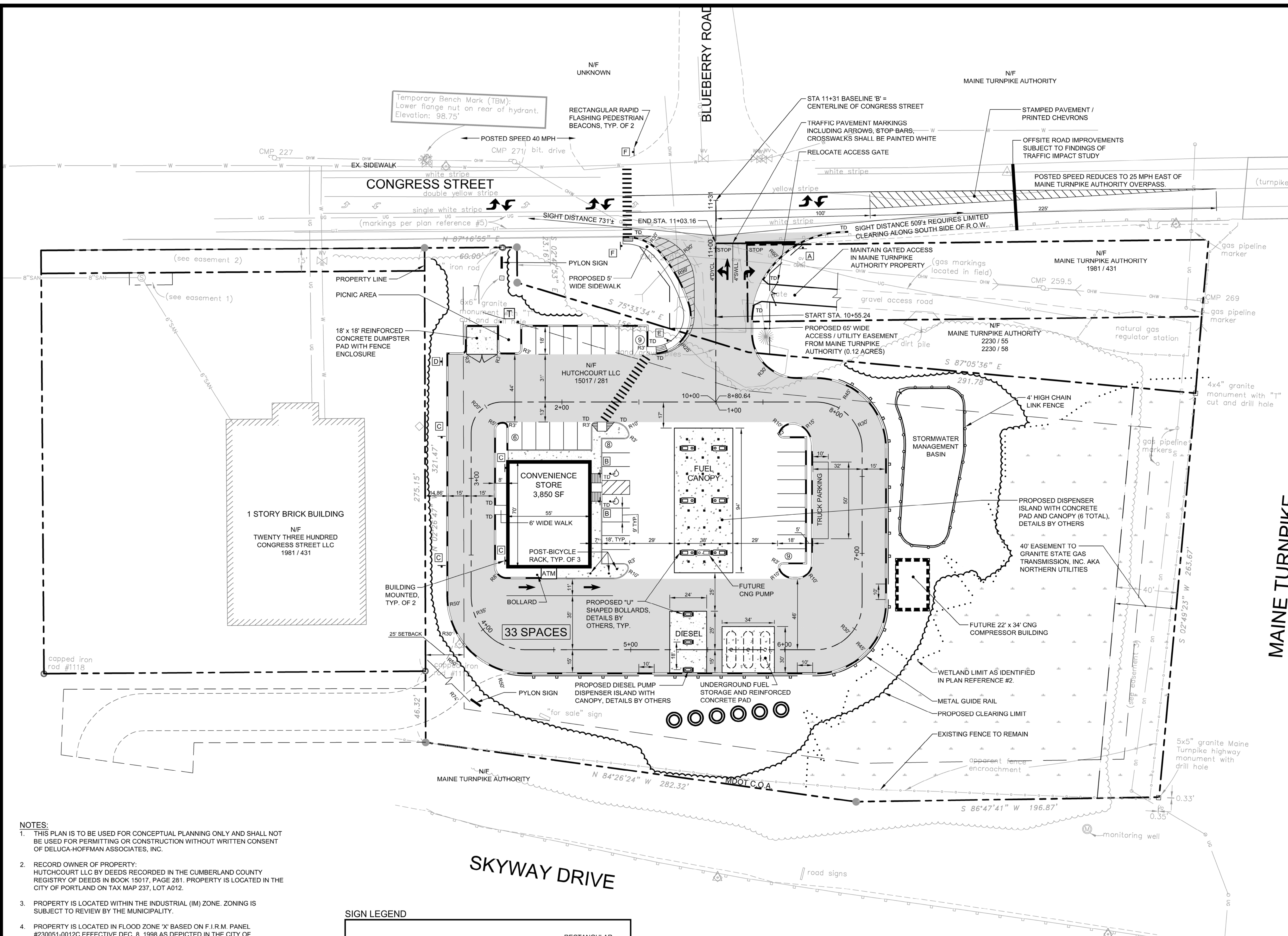


N/F  
City of Portland  
21040/64

N/F  
Twenty-Three Hundred  
Congress Street, LLC  
1981/431

Maine Turnpike Authority



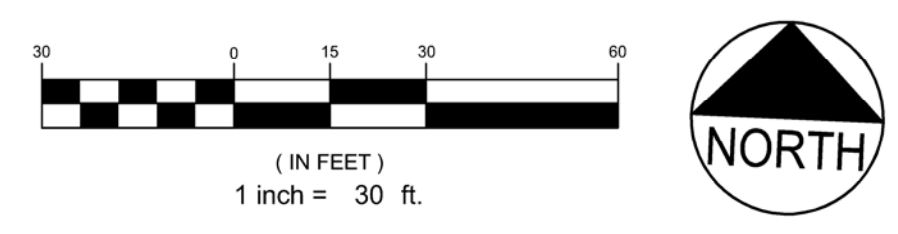


| CRITERIA                                 | REQUIRED   |
|--|--|
| USE - CONVENIENCE STORE W/ FUEL STATIONS | PERMITTED BY CONDITIONAL ZONING                                    |
| MINIMUM LOT SIZE                         | NONE   |
| FRONT YARD SETBACK                       | 1' FROM THE FRONT PROPERTY LINE FOR EACH 1' OF BUILDING HEIGHT     |
| REAR YARD SETBACK<br>SIDE YARD SETBACK   | 1' FROM EACH SIDE OR REAR FOR EACH 1' OF BUILDING HEIGHT UP TO 25' |
| MAXIMUM HEIGHT                           | 75'  |
| MAXIMUM IMPERVIOUS SURFACE RATIO         | 75%  |
| PAVEMENT SETBACK FROM LOT BOUNDARIES     | 10'  |
| MINIMUM STREET FRONTAGE                  | 60'  |
| MAXIMUM FLOOR AREA RATIO                 | -  |
| MINIMUM LOT WIDTH                        | -  |

| SURFACE MATERIAL LEGEND |  |
|-------------------------|--|
|                         | HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT    |
|                         | STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT |
|                         | PORTLAND CEMENT CONCRETE                   |

| CURB LEGEND |  |
|-------------|--|
|             | MONOLITHIC CONCRETE CURB - PART OF SIDEWALK                                |
|             | C.I.P. SLIPFORM CONCRETE CURB - SLOPED MOLD WHERE NOT ADJACENT TO SIDEWALK |
|             | TYPE 1 VERTICAL GRANITE CURB - MDOT 609.11                                 |
|             | TD TIPDOWN   |

| SIGN LEGEND    |                 |                |                 |                 |   |
|----------------|-----------------|----------------|-----------------|-----------------|---|
|                |                 |                |                 |                 |   |
| 24" x 24" R1-1 | 12" x 18" R7-8A | 12" x 18" R7-1 | 12" x 18" ATM-1 | 12" x 18" ATM-2 | RECTANGULAR RAPID FLASHING PEDESTRIAN BEACONS, SEE DETAIL |



**NOTES:**

- THIS PLAN IS TO BE USED FOR CONCEPTUAL PLANNING ONLY AND SHALL NOT BE USED FOR PERMITTING OR CONSTRUCTION WITHOUT WRITTEN CONSENT OF DELUCA-HOFFMAN ASSOCIATES, INC.
- RECORD OWNER OF PROPERTY: HUTCHCOURT LLC BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 15017, PAGE 281. PROPERTY IS LOCATED IN THE CITY OF PORTLAND ON TAX MAP 237, LOT A012.
- PROPERTY IS LOCATED WITHIN THE INDUSTRIAL (IM) ZONE. ZONING IS SUBJECT TO REVIEW BY THE MUNICIPALITY.
- PROPERTY IS LOCATED IN FLOOD ZONE 'X' BASED ON F.I.R.M. PANEL #230051-0012C EFFECTIVE DEC. 8, 1998 AS DEPICTED IN THE CITY OF PORTLAND, MAINE CUMBERLAND COUNTY. ZONE 'X' IS NOT DESIGNATED AS AN AREA OF SPECIAL FLOOD HAZARD.

**PLAN REFERENCES:**

- STANDARD BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY TITCOMB ASSOCIATES, INC. DATED MARCH 13, 2013.
- COMPOSITE PLAN PREPARED FOR CJ DEVELOPERS, INC. BY ALBERT FRICK ASSOCIATES, INC. DATED 04.02.12.

| REV | DATE     | DESCRIPTION                   |
|-----|----------|-------------------------------|
| 1   | 03.28.13 | SUBMITTED TO CITY OF PORTLAND |

STATE OF MAINE  
 P.E. STEPHEN BUSHEY  
 7429  
 PROFESSIONAL ENGINEER  
 LIC. # 7429

PROJECT: MULTI-USE DEVELOPMENT  
 2282 CONGRESS ST., PORTLAND, ME  
 SHEET TITLE: SITE LAYOUT PLAN  
 CLIENT: CJ DEVELOPERS, INC.  
 35 PRIMROSE LANE, FREEPORT, MAINE 04032

DeLUCA-HOFFMAN ASSOCIATES, INC.  
 778 MAIN STREET, SUITE 8  
 SOUTH PORTLAND, ME 04106  
 WWW.DELUCAHOFFMAN.COM  
 DRAWN: CMW DATE: MAR. 2013  
 DESIGNED: SRB SCALE: 1" = 30'  
 CHECKED: SRB JOB NO. 3118  
 FILE NAME: 3118-SP  
 SHEET: C-2.0

PRELIMINARY - NOT FOR CONSTRUCTION

2.

## Section 2 Traffic Crashes

### 2.A. Crash Summary Data

Gorrill-Palmer Consulting Engineers, Inc. obtained the crash data from MaineDOT for the period of 2009-2011, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersection in the state. A CRF of less than 1.00 indicates a rate of less than average) **and:**
2. A minimum of eight crashes over a three-year period.

Based on the available data, there are no High Crash Locations within the study area.

### 2.B. Attachments

See Appendix C of Section 7-Traffic Impact Study – MaineDOT Collision Data

3.

## Section 3 Development Entrances and Exits

### 3.A. Entrance and Exit Locations

Access to the site will be provided via a single unsignalized driveway on Congress Street opposite Blueberry Road. The Maine Department of Transportation has guidelines for sight distances as follows:

**MaineDOT Standards for Sight Distance**

| Posted Speed (mph) | Sight Distance |
|--------------------|----------------|
| 25                 | 200            |
| 30                 | 250            |
| 35                 | 305            |
| 40                 | 360            |

The MaineDOT standards are as follows:

|                                |                                    |
|--------------------------------|------------------------------------|
| Driveway observation point:    | 10 feet off major street travelway |
| Height of eye at driveway:     | 3 ½ feet above ground              |
| Height of approaching vehicle: | 4 ¼ feet above road surface        |

Gorrill-Palmer has reviewed the sight lines at the driveway proposed opposite Blueberry Road. The posted speed limit on Congress Street fronting the site is 40 mph, and is reduced to 35 mph 275 feet to the east of the site. The available sight lines exiting the driveway are over 750 feet looking to the left and 490 feet looking to the right to the overpass with the clearing of some vegetation along the site frontage. Thus, sight lines exceed standards at the proposed driveway location.

### 3.B. Plan View

Attachment 1A of Section 1, the proposed site and survey plans include the following information:

- Names of intersecting roads
- Location of the driveways in the vicinity of the development site.

4.

**Section 4**  
**Title, Right or Interest**

**4.A. Evidence of Title, Right or Interest**

Evidence of Purchase and Sale agreement is included in Attachment 4A

**4.B. Attachments**

Attachment 4A – Purchase and Sale Agreement

**OPTION AGREEMENT**

THIS OPTION AGREEMENT ("Agreement") is made and entered into this 19<sup>th</sup> day of March, 2012, by and between Hutchcourt, L.L.C., a New Hampshire limited liability company, with a mailing address of 1000 Market St. Building 1, Portsmouth, NH, 03801 as optionor (hereinafter referred to as "Optionor"), and CJ Developers, Inc., a Maine corporation, with a mailing address 35 Primrose Lane, Freeport, Maine 04032, as optionee (hereinafter referred to as "Optionee").

**WITNESSETH:**

WHEREAS, Optionor is the owner of that certain parcel of real property situate, lying and being in Cumberland County, Maine, containing approximately 3.232 acres of land, located at 2282 Congress Street, Portland, Maine being depicted as Tax Map 237, Lot 12 (the "Real Property"); and

WHEREAS, the Optionee desires to obtain an option to purchase the Real Property; and

WHEREAS, the Optionor is willing to grant to the Optionee the option to purchase the Real Property pursuant to the stipulations, agreements, conditions and covenants contained and set forth herein.

NOW, THEREFORE, in consideration of the Real Property, the payment by the Optionee of an option fee in the amount of ~~2000.00~~ and No/100 ~~(2000.00)~~ Dollars (the "Option Fee") to Malone Commercial Brokers (the "Escrow Agent"), whose address is 5 Moulton Street, Portland, Maine 04101, which Option Fee shall be paid to the Escrow Agent within three business days after the Effective Date, as defined hereinbelow, and for other good and valuable considerations, the receipt and sufficiency of which considerations is hereby absolutely and unconditionally acknowledged by the parties, the parties hereby agree as follows.

1. **GRANT OF OPTION** Optionor hereby grants to Optionee the exclusive and irrevocable option to purchase the Real Property (the "Option") on the terms and conditions contained in this Agreement.

2. **TERM OF OPTION, EXPIRATION OF OPTION AND EXTENSION OF OPTION; DEPOSIT** The Option shall remain in full force and effect during the period (the "Option Period") commencing on the Effective Date and expiring on that date which is ~~90~~ days from the Effective Date. Optionee may extend the Option Period for an additional ~~90~~ days by furnishing written notice to the Optionor (the "Option Extension Notice") on or before 6:00 PM (Portland, Maine time) on that date which is the third business day next following the expiration of the Option Period. The Option Extension Notice shall be accompanied with an additional deposit in the amount of ~~2000.00~~ and ~~2000.00~~ Dollars (the "Additional Option Fee") payable to the Escrow Agent. Upon such timely payment of the





Additional Option Fee, the Option Fee and the Additional Option Fee shall become non-refundable. The term "Effective Date" when used herein means that date on which the last one of the Optionor and the Optionee executes this Agreement and furnishes an unaltered counterpart hereof to the other party.

3. **NOTICE OF EXERCISE** The Option shall be exercisable by Optionee by furnishing written notice (the "Closing Notice") to the Optionor and to the Escrow Agent of the election of the Optionee to exercise the Option, which Closing Notice, if furnished, must be furnished prior to the expiration of the Option Period.

4. **EXERCISE** If, and only in the event that Optionee exercises this Option by timely furnishing the Closing Notice, the following provisions shall be applicable:

a. **Purchase Price** Subject to any adjustments and prorrations hereinafter described, the purchase price for the Real Property (the "Purchase Price") shall be ~~\_\_\_\_\_~~ and shall be paid by bank cashier's check (drawn on a bank which maintains an office in Portland, Maine) or by bank wire transfer at the closing (the "Closing") of the purchase and sale of the Real Property pursuant to this Agreement. The Option Fee and the Additional Option Fee (if ever paid) shall be credited against the Purchase Price at the Closing.

b. **Title and Condition of Real Property** Optionor shall convey the fee simple title to the Real Property to Optionee at the Closing by Quitclaim Deed (the "Deed") with good marketable title, free of clear of all liens, encumbrances, and mortgages, but subject, however, to certain restrictions of record and to an express prohibition against use of the Real Property for a conference center, hotel or hotel related purposes, which restrictions are a specifically-negotiated consideration for and a material inducement for the execution and delivery of this Agreement by the Optionor and a will be set forth in the Deed, will run with the Real Property in perpetuity, and will be expressed in language set forth in the Deed as follows, to-wit:


"The Grantee and the successors and assigns of the Grantee (collectively the "Grantee"), hereby covenant and agree that no part of the Real Property will be developed as a hotel; nor shall any part of the Real Property be incorporated into or form any part of any site plan for development of the Real Property which includes a hotel; nor shall any unit constructed upon the Real Property be used for the purpose of providing sleeping or housekeeping accommodations to transient guests for periods of less than sixty (60) days whether or not arrangements for occupants of any unit constructed upon the Real Property are negotiated by the Grantee, pursuant to contracts or other arrangements with a term in excess of sixty (60) days, or whether or not the occupancy by a particular individual is pursuant to a contract or other arrangement for the occupancy of units constructed upon the Real Property by numerous individuals; it being specifically understood and agreed that these restrictions prohibit the construction, maintenance, management, operation or establishment upon the Real Property, or any portion thereof, by the Grantee or its successors or assigns or any other person or entity, whomsoever (including, without limitation, tenants or licensees or invitees) of: (a) any building

containing sleeping rooms in which transient guests are lodged whether or not provision is made for cooking in any individual room or suite and whether or not any dining rooms, restaurants, cafes or accessory uses are provided and whether or not such sleeping rooms are advertised or held out to the public as a place regularly rented to any patron, customer, tenant, lodger, boarder, or occupant, and/or (b) any hotel, public lodging establishment or other unit, group of units, dwelling, building or group of buildings within a single complex of buildings, which is rented to guests for periods of less than sixty (60) days or which is advertised or held out to the public as a place regularly rented to any patron, customer, tenant, lodger, boarder, or occupant. The Grantee, and the successors and assigns of the Grantee, hereby agree to pay all costs, charges and expenses, including the reasonable attorneys' fees at all trial and appellate levels, of the Grantor, and the successors and assigns of the Grantor (collectively the "Grantor"), in the event that the Grantor prevails in the enforcement of these restrictive covenants."

Full possession of the Real Property free of all tenants and occupants and not in violation of any applicable environmental law or regulation is to be delivered at the Closing. Optionor shall not construct any substantial improvements on or materially alter the Real Property during the pendency of this Agreement. In the event that Optionor is unable to convey title to the Real Property as aforesaid, Optionor shall be given a reasonable period of time, not to exceed sixty (60) days, after receipt of written notice of any such defects from Optionee, to remedy any title defects, failing which, this Agreement shall automatically terminate upon the expiration of the aforesaid sixty-day period unless the parties agree otherwise, in writing; provided, however, that Optionee may elect to close without any adjustment in the Purchase Price notwithstanding such title defects as may exist. Optionor agrees to use commercially-reasonable efforts to cure any such title defects.

c. No Representations Without limiting Optionor's obligations to deliver the Real Property as provided herein, the Optionor has made no representations, covenants, or warranties as to the physical condition of the Real Property. Optionee acknowledges that it is not relying upon any representations, covenants or warranties whatsoever of Optionor. Optionor agrees to provide Optionee full access to the Real Property during the Option Period for the purpose of making any investigation that it deems necessary to determine whether it wishes to exercise the Option. Optionee, at Optionee's expense, shall restore the Real Property to substantially its prior condition following any disturbance caused by any such investigation. Optionee agrees to indemnify and hold harmless Optionor from the claims of any person for any an all damage or injury to persons or to the Real Property caused by Optionee's investigations or the conduct thereof.

d. Closing The Closing shall take place at the office of Optionee's lender's counsel or at such other place as the Optionee and Optionor may mutually agree, in writing, forty five (45) days after the date of the Closing Notice if timely furnished. Documents to be provided by Optionor to Optionee at the Closing shall include the Deed and such other documents as the Optionee's lender and the title company insuring the title may reasonably request, including, without limitation, a Mechanic's Lien and Persons in Possession Affidavit, a Taxpayer Information (1099S) Form, an Affidavit of Non-Foreign



Status, a settlement statement, and such other documents as may reasonably be required by the closing agent. It is agreed that time is of the essence with respect to all of the terms and conditions of this Agreement. Notwithstanding the references herein to the Optionee's lender, it is specifically understood and agreed that the payment of the Purchase Price by the Optionee is, as between the Optionor and the Optionee, an all-cash transaction not subject in any manner whatsoever to the creditworthiness of the Optionee and/or to the ability or inability of the Optionee to borrow any portion whatsoever of the Purchase Price from any person or entity whomsoever.

e. Adjustments, Prorations and Closing Costs

- (i) Real estate taxes and assessments shall be prorated as of the date of Closing on the basis of the latest available tax bill.
- (ii) The Maine real estate transfer tax shall be paid by Optionor and Optionee in accordance with 36 M.R.S.A. 4641-A.
- (iii) The recording fee for the Deed and any expenses related to any mortgage that Optionee may grant to a lender in connection with the purchase of the Real Property shall be paid for by the Optionee.

f. Brokerage Optionor and Optionee each represents and warrants to the other that they have not dealt with any real estate broker, agent or salesperson in connection with this transaction other than Joe Malone of Malone Commercial Brokers, of Portland, Maine (the "Broker"), whose fees shall be paid by the Optionor, payable pursuant to a separate agreement which stipulates that such fees shall be payable to the Broker only if the Closing occurs in accordance with the terms hereof. Optionor and Optionee each hereby agrees to indemnify and hold the other harmless from any breach of its warranty and representation set forth in this subsection f which warranty and representation shall survive the Closing.

5. CANCELLATION Notwithstanding anything contained herein to the contrary, Optionee shall have the right, at any time prior to the expiration of the Option Period (as it may be extended pursuant to the terms hereof) to cancel this Agreement by written notice to Optionor (the "Cancellation Notice"), and upon the sending of a Cancellation Notice, this Agreement shall be of no further force and effect, without recourse to the parties hereto except with respect to the obligations of the Optionee pursuant to Section 4 c., if applicable. Should the Cancellation Notice be sent prior to the payment of the Additional Option Fee, the Option Fee (if paid) shall be promptly returned to the Optionee.

6. CONFIDENTIALITY Optionor and Optionee each hereby covenants and agrees to use commercially-reasonable efforts to preserve the confidentiality of the transaction contemplated by this Agreement, to prevent disclosure of the existence of this Agreement, the price and other terms of the transaction set forth in this Agreement, to any party other than to its respective stockholders, officers, directors, members, managers, employees, attorneys, auditors, lenders, financial advisors and accountants, who shall agree to hold such information as proprietary and confidential and not to be

disclosed to others, except: (i) as may be approved in writing in advance by the other party in each instance; (ii) such reports as may be required by applicable statute (as for instance in the case of such reports relating to Oil and Hazardous Materials); (iii) as may be ordered by a court of competent jurisdiction; or (iv) the disclosure of any such information to any prospective assignee of the Optionee.

During the Option Period and so long as this Agreement is in full force and effect, Optionor covenants and agrees to take the Real Property off the market and not to offer the Real Property for sale or lease to any other person or entity, nor to accept, invite, or respond to offers for the purchase or leasing of the Real Property. Accordingly, during the Option Period and so long as this Agreement is in full force and effect, Optionor shall forward any inquiry or offer with respect to the Real Property to Optionee.

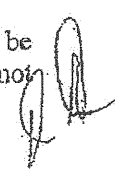
## 7. MISCELLANEOUS

a. Time Time is of the essence hereof.

b. Notices All notices, demand and other communications hereunder shall be in writing and sent by hand delivery, by certified or registered mail, or by Federal Express or equivalent overnight courier, addressed to other party at the address set forth above, or at such other address as the other party shall have provided notice of according to this provision. Any such notice shall be deemed to have been given upon the date of actual receipt or upon the first refusal of the addressee to accept delivery.

c. Default In the event of breach or failure of performance by Optionor of any of its obligations hereunder, and Optionor's failure to cure such breach or failure within ten (10) business days after receiving notice thereof from Optionee, the Optionee may elect as its sole remedies for such breach or failure of performance to: (i) waive said Default, or (ii) terminate this Agreement and demand and obtain the return of the Option Fee (and the Additional Option Fee, if applicable), and the obligations of the parties hereunder shall terminate forthwith, or (iii) seek all remedies available under this Agreement and/or at law or in equity, including, without limitation, specific performance of this Agreement, and/or recourse for any and all of its losses, expenses, costs, and claims of same, including without limitation, reasonable attorneys fees and costs. In the event of breach or failure of performance by Optionee of any of its obligations hereunder and Optionee's failure to cure such breach or failure within ten (10) business days after receiving notice thereof from Optionor, the Optionor may elect as its sole remedies for such breach or failure of performance to may (i) terminate this Agreement by written notice to Optionee or (ii) seek all remedies available under this Agreement and/or at law or in equity, including, without limitation, specific performance of this Agreement, and/or recourse for any and all of its losses, expenses, costs, and claims of same, including without limitation, reasonable attorneys fees and costs.

d. Assignment Optionee's rights under this Agreement may not be assigned to another party without written consent of the Optionor which consent shall not



be unreasonably withheld. Optionee may, following exercise of the Option, designate a nominee to take title to the Real Property at the Closing.

e. Entire Agreement This Agreement constitutes the entire agreement between Optionor and Optionee and there are no agreements or understandings between the parties except as set forth herein.

f. Binding Effect This Agreement will inure to the benefit of and bind the respective successors and assigns of Optionor and Optionee.

g. Construction As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine.

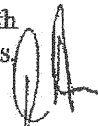
h. Partial Invalidity If any term, covenant or condition of this Agreement, or the application thereof to any person or circumstance, shall be determined to be unenforceable by a court of competent jurisdiction (the "Offending Provision"), then the remainder of this Agreement, or the application of such term, covenant or condition to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby and each term, covenant and condition of this Agreement shall be valid and enforced to the fullest extent permitted by law; provided, however, that the parties affected by the Offending Provision shall endeavor in good faith, within sixty (60) days after the date such determination is made, to agree upon alternative provisions which shall have the same practical effect as the Offending Provision and upon any agreement being reached, the new provision shall be incorporated into and form a part of this Agreement.

i. Non-Waiver The parties acknowledge and agree that their waiver of any default under the terms of this Agreement at any time on certain circumstances shall not be construed or deemed to be a waiver of any subsequent or other default occurring either before or after the waived default, and that such parties shall be entitled to enforce their rights in the event of default regardless of any prior waivers thereof.

j. Modification and Amendment This Agreement may only be amended, altered or modified by a written instrument signed by each of the parties.

k. Attorneys' Fees In the event that any party is required to engage the services of legal counsel to enforce rights under this Agreement, the prevailing party shall be entitled to reasonable attorney's fees from non-prevailing parties. In the event of litigation, said attorney's fees shall include fees and costs, both at trial and on appeal.

l. Execution of Additional Instruments Each party hereby agrees to execute such other or further instruments of whatsoever kind or nature necessary to comply with any applicable laws, rules or regulations or to comply with the stipulations, agreements, conditions and covenants contained and set forth in this Agreement.



m. Third Parties None of the provisions of this Agreement shall be for the benefit of or enforceable by any third party.

n. Recordation Upon the payment of the Option Fee, the Optionee shall have and is hereby granted the right to record a memorandum of this Agreement in all applicable public records in order to place third parties on notice of the rights, interests and options of the Optionee contained and set forth herein and the Optionor agrees to fully cooperate with the Optionee in connection therewith including the agreement of the Optionor to execute a memorandum of this Agreement in recordable form (without the payment to the Optionor of additional consideration therefor) which memorandum shall provide, on its face, that the Optionor may record an affidavit executed by the Optionor which states, if true: (a) that the Optionor fully complied with the stipulations, agreements, conditions and covenants contained and set forth in this Agreement, and (b) notwithstanding such performance by the Optionor, the Optionee failed to purchase the Real Property on or before the date of Closing. It is specifically understood and agreed that the mere recordation of such affidavit by the Optionor shall, as to third parties, render this Agreement null and void and of no further force and effect whatsoever.

o. Counterparts This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument. Counterparts of this Agreement with facsimile or electronic signatures shall be deemed original counterparts for all purposes; however, each party shall promptly furnish counterparts with original signatures upon request.

IN WITNESS WHEREOF, Optionor and Optionee have executed this Agreement as of the Effective Date of 3-19-12.

Optionee :  
CJ Developers, Inc.

By:

David Latulippe  
David Latulippe

Optionor:  
Hutchcourt, L.L.C.

By:

Its:

Richard C. Allen

Richard C. Allen  
Manager

5.

**Section 5**  
**Public or Private Right-of-Way**

**5.A. Public or Private Rights-of-Way**

Access to the site will be provided via only one driveway located opposite Blueberry Road. The Developer has obtained an easement from the Maine Turnpike Authority for access across the land fronting the development property.



6.

## Section 6 Schedule

### 6.A. Schedule

The applicant proposes completion of the project by end of 2013.

7.

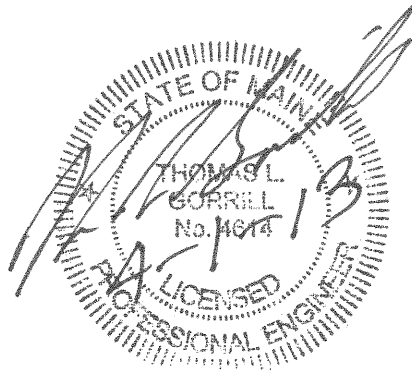
## Traffic Impact Study

Service Center at  
2282 Congress Street  
Portland, Maine

Prepared for:  
C.J. Developers, Inc.  
35 Primrose Lane  
Freeport, ME 04032

April 2013

Prepared by:



Gorrill-Palmer Consulting Engineers, Inc.

*Engineering Excellence Since 1998*

P.O. Box 1237  
15 Shaker Road., Gray, ME 04039

(207) 657-6910  
FAX (207) 657-6912  
E-Mail: [mailbox@gorrillpalmer.com](mailto:mailbox@gorrillpalmer.com)

**Traffic Impact Study  
CJ Developers, Inc.  
Portland, Maine**

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***Appendix A***

Site Location Map  
Traffic Count Data Sheets  
Turning Movement Diagrams

***Appendix B***

Capacity and Queuing Analyses Results

***Appendix C***

MaineDOT Crash Data  
Trip Generation Calculations  
Lane Warrant Sheet

## Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill-Palmer Consulting Engineers, Inc. has been retained by CJ Developers, Inc. to prepare this traffic impact study for a proposed development in Portland, Maine. The site is located on Congress Street opposite Blueberry Road and is currently undeveloped. The proposed development includes a convenience store with 12 regular fueling positions, 2 diesel fueling positions and an ATM. Access to the site will be via a driveway opposite Blueberry Road. The project is anticipated to be completed by the end of 2013.

The following is a summary of the findings and conclusions of the study:

1. The proposed development is forecast to generate 211, 277, and 189 trip ends for the weekday AM and PM, and Saturday peak hours of adjacent street traffic, respectively. (Note: A trip end is either a trip in or out of the site. Therefore a single customer making a round trip would equal two trip ends). The project will require a MaineDOT Traffic Movement Permit since it generates over 99 trip ends during a peak hour. The MaineDOT has delegated their permit process to the City.
2. The capacity analyses show the site traffic can be accommodated with the restriping of Congress Street in the immediate area of the site to accommodate a short left turn lane into the site.
3. Gorrill-Palmer Consulting Engineers, Inc. obtained the latest three year crash history (2009-2011) from MaineDOT to identify if there were High Crash Locations (HCL's) within the immediate area. Based on this information, there are no high crash locations.
4. The sight lines at the proposed driveway exceeds MaineDOT requirements. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the adjacent street system can accommodate the traffic generated by the site with the recommended improvements.

## **I. *Existing and Proposed Site***

The project is located on Outer Congress Street opposite Blueberry Road in Portland, Maine. The site is identified on the City Tax Map 237, Lot A012. A site location map has been included in Appendix A.

The site is currently undeveloped. A single driveway opposite Blueberry Road provides access to the Maine Turnpike Authority property and this site. The site is proposed to include a 3,850 sf convenience store with 12 fueling positions, a diesel pumps with 2 fueling positions and one ATM.

Access to the site will be provided via an improved un-signalized driveway opposite Blueberry Road. A site location map showing the development area is included in Appendix A. The site is bound to the north by the Maine Turnpike property and Congress Street, to the south by Skyway Drive, to the east by the Maine Turnpike, and to the west by a commercial use.

## **II. *Background Traffic Conditions***

Gorrill-Palmer Consulting Engineers, Inc. based this study on the following information:

- A site plan prepared by DeLuca-Hoffman Associates, Inc..
- High Crash Listings for 2009-2011 provided by the Maine Department of Transportation.
- Turning movement counts completed by our office in July 2012 and March 2013.

### **Predevelopment Traffic Volumes**

#### *Seasonal Adjustment*

The MaineDOT utilizes highway classifications of I, II, or III for state and local roadways. Type 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. Type II roadways, or arterial roadways are those that see a combination of commuter and recreational traffic and therefore experience moderate fluctuations during the year. Type III roadways, or recreational roadways are typically used for recreational purposes and experience dramatic seasonal fluctuation. Congress Street is classified as a Group I roadway and since the counts were collected in July, no seasonal adjustment is necessary.

#### *Annual Growth*

The proposed development is anticipated to be fully operational by the end of 2013. Traffic volumes in the Portland area and on Congress Street have not increased in recent years, therefore no adjustment for annual growth was made.

### *Other Development*

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Gorrill-Palmer Consulting Engineers, Inc. contacted the City of Portland planning department to determine whether there are any other projects that have been approved or are ahead in the approval process whose traffic should be considered as background traffic in the study for this project. Based on our conversation, it is our understanding that there are currently two active projects in this area which need to be added to our background traffic which are summarized below:

144 Hutchins Drive- This facility is forecast by others to have an average of 5 employees which will generate 5 peak hour trip ends in both the weekday AM and PM peak hours. We have added the 5 employee trip ends due during both the AM and PM peak hours to the pre-development traffic levels in our study.

ECOMAINE has a project in the approval process, but it is our understanding from City staff that it will not result in an increase in traffic.

The veterinarian on the corner of Hutchins had an expansion approved several years ago but it is our understanding from City staff that their approval has lapsed so the project was not considered in our analysis.

### **III. *Trip Generation***

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 8<sup>th</sup> Edition as the source for determining the potential trip generation for the site. The 8<sup>th</sup> Edition was used because it provided a Saturday Peak Hour trip generation for the Convenience Store with fueling positions whereas the 7<sup>th</sup> Edition does not. To determine the trip generation for the Convenience Store with fueling positions we used Land Use Code 853, averaging the trip generation from fueling positions and size of store. Land Use Code 912 was used to forecast the ATM, which forecasts 10 and 28 trip ends during the AM and PM peak hours of adjacent street traffic respectively.

The trip generation calculations are included in Appendix C and are summarized as follows for the peak hour of the adjacent street traffic:

|                      |               |
|----------------------|---------------|
| AM Peak Hour Adj St: | 211 trip ends |
| PM Peak Hour Adj St: | 277 trip ends |
| Saturday Peak Hour:  | 189 trip ends |

This level of trip generation requires a MaineDOT Traffic Movement Permit which has been delegated to the City of Portland. Our analyses focused on the weekday AM and PM peak hours since the traffic levels are less during a Saturday.



#### IV. *Trip Distribution*

Gorrill-Palmer Consulting Engineers, Inc. has obtained the ratio of entering and exiting traffic from the Institute of Transportation Engineers publication *Trip Generation*, 8<sup>th</sup> Edition (7<sup>th</sup> Edition is the same). Based on the ITE information, the trip distribution would be the following for the AM, PM, and Saturday peak hours:

Weekday AM peak hour      50% entering, 50% exiting  
 Weekday PM peak hour      50% entering, 50% exiting

#### V. *Trip Composition and Assignment*

Gorrill-Palmer Consulting Engineers, Inc. has estimated trip composition for the facility based on the ITE *Trip Generation Handbook*. For LUC 853 – Convenience Market with Gasoline Pumps the trip composition would be the following:

Weekday AM - 12% Primary, 25% Diverted, 63% Pass-By  
 Weekday PM – 16% Primary, 18% Diverted, 66% Pass-By

For the purpose of this project, we combined the Primary and Diverted and rounded to the following, which is conservative since it increases the primary trips and reduces the pass-by trips:

Weekday AM / PM – 40% Primary / Diverted, 60% Pass-By

For LUC 912-Drive-In Bank, the shared trips are forecast to be 50% with the convenience store. Thus, trips at the driveway would be 5 and 14 during the AM and PM peak hours respectively with 50% being pass-by and 50% being a combination of pass-by and diverted trips.

The total trip distribution is summarized on the following table:

| <b>Proposed Trip Composition</b> |                 |            |                |            |              |            |
|----------------------------------|-----------------|------------|----------------|------------|--------------|------------|
| <b>Trip Type</b>                 | <b>Entering</b> |            | <b>Exiting</b> |            | <b>Total</b> |            |
|                                  | <b>AM</b>       | <b>PM</b>  | <b>AM</b>      | <b>PM</b>  | <b>AM</b>    | <b>PM</b>  |
| <b>Primary / Diverted</b>        | 42              | 54         | 41             | 53         | 83           | 107        |
| <b>Pass-By</b>                   | 62              | 77         | 61             | 78         | 123          | 155        |
| <b>Total</b>                     | <b>104</b>      | <b>131</b> | <b>102</b>     | <b>132</b> | <b>206</b>   | <b>263</b> |

The trip assignment percentages are based on existing traffic patterns as derived from the turning movement counts and are included in Appendix A.

## **VI. *2013 Postdevelopment Traffic***

The anticipated year 2013 predevelopment AM and PM peak hour traffic volumes shown on Figure 4 of Appendix A have been combined with the AM and PM peak hour traffic forecast for the development shown on Figures 5-7 of Appendix A to yield the 2013 postdevelopment AM and PM traffic volumes shown on Figure 8 of Appendix A.

## **VII. *Study Area***

The study area was defined by the City. The study area was identified as including the intersection of Congress Street/Blueberry Road and the proposed driveway as well as the intersection of Congress Street/Hutchins Drive and Skyway Drive.

## **VIII. *Auxiliary Lanes***

Our office completed right-turn and left-turn lane warrant analysis for the proposed driveway to identify if auxiliary lanes should be considered. To complete the review, our office utilized curves provided in the MaineDOT Highway Design Guide. The curves are provided in Appendix C.

Left-Turn Lanes – Both the AM and PM peak hours met the criteria for considering left turn treatment. As a result, re-striping Congress Street to provide a 75 foot long left turn lane for vehicles turning left into the site is recommended. A concept plan for this re-striping is shown on the site plan prepared by DeLuca Hoffman Associates, inc.

Right-Turn Lanes – Based on a review of the MaineDOT curves, a right turn treatment should be considered. The site has been designed with a wide radius to facilitate a vehicle turning right into the site.

## **IX. *Capacity Analyses***

Gorrill-Palmer Consulting Engineers, Inc. completed capacity analyses for the intersections listed in Section VII.

The analysis was completed with the Synchro/SimTraffic analysis software. Levels of service rankings are similar to the academic ranking system where an 'A' represents little control delay and an 'F' represents significant delay. At an unsignalized intersection, if the level of service falls below a 'D', an evaluation should be made to determine if further mitigation is warranted, and if not, a low level of service is acceptable. It should be noted that the capacity analysis was completed assuming re-striping of Congress Street to include a 75 foot left turn lane as discussed in the previous Section VIII.

The following table summarizes the relationship between delay and level of service for an unsignalized and a signalized intersection:

**Level of Service Criteria for Unsignalized Intersections**

| Level of Service | Control Delay per Vehicle (sec) |
|------------------|---------------------------------|
| 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               |

**Level of Service Criteria for Signalized Intersections**

| Level of Service | Control Delay per Vehicle (sec) |
|------------------|---------------------------------|
| A                | Up to 10.0                      |
| B                | 10.1 to 20.0                    |
| C                | 20.1 to 35.0                    |
| D                | 35.1 to 55.0                    |
| E                | 55.1 to 80.0                    |
| F                | Greater than 80.0               |

The results of the capacity analyses for the 2013 post-development conditions are summarized as follows, followed by a discussion of the results. The detailed analyses are included in Appendix B.

**Site Access Road / Congress Street/Blueberry Rd (Unsignalized)**

| Lane Group               | 2013 Peak Hours    |     |                    |     |
|--------------------------|--------------------|-----|--------------------|-----|
|                          | AM Postdevelopment |     | PM Postdevelopment |     |
|                          | Delay (sec)        | LOS | Delay              | LOS |
| Congress St Eastbound    | 4                  | A   | 4                  | A   |
| Congress St Wesbound     | 2                  | A   | 2                  | A   |
| Site Driveway Northbound | 22                 | C   | 23                 | C   |
| Blueberry Rd Southbound  | 17                 | C   | 17                 | C   |

As can be seen from the above table, each of the approaches are forecast to operate at acceptable levels of service in both the weekday AM and PM peak hours with the left turn lane as proposed. This level of service and the maximum forecast PM peak hour traffic level of 68 turning left out of the site does not warrant the installation of a traffic signal.

**Skyway Drive/Congress Street/Hutchins St (Signalized)**

| Lane Group              | 2013 Peak Hours    |     |                    |     |
|-------------------------|--------------------|-----|--------------------|-----|
|                         | AM Postdevelopment |     | PM Postdevelopment |     |
|                         | Delay              | LOS | Delay              | LOS |
| Congress St Eastbound   | 48                 | E   | 25                 | C   |
| Congress St Wesbound    | 21                 | C   | 26                 | D   |
| Skyway Drive Northbound | 25                 | C   | 120                | F   |
| Hutchins St Southbound  | 33                 | D   | 30                 | D   |

As can be seen from the above table, Congress Street eastbound (inbound) experiences delay during the morning commute and with the westbound direction (outbound) experiencing delay during the evening commute. However, the majority of the traffic associated with the proposed project is pass-by traffic with very little traffic being added to Congress Street which will not significantly affect the operation of this intersection.

## X. *Queue Analyses*

Gorrill-Palmer Consulting Engineers, Inc. has evaluated the queue lengths at the intersection of the proposed driveway and Congress Street based on the SimTraffic analyses. The analyses consider the improvements indicated in the capacity analysis section. The queue analyses are included in the capacity analyses in Appendix B of this report and show the 95% length of queue for traffic entering the site will be 3 vehicles which is accommodated by the proposed 75 foot storage length.

## XI. *Crash Data*

Gorrill-Palmer Consulting Engineers, Inc. obtained the crash data from MaineDOT for the period of 2009-2011, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as a HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersection in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:
2. A minimum of eight crashes over a three-year period.

Review of the collision history furnished by the MaineDOT shows there are no high crash locations in the vicinity of the project.

## XII. *Sight Line Analysis*

The Maine Department of Transportation has guidelines for sight distances as follows:

**MaineDOT Standards for Sight Distance**

| Posted Speed (mph) | Sight Distance |
|--------------------|----------------|
| 25                 | 200            |
| 30                 | 250            |
| 35                 | 305            |
| 40                 | 360            |

The MaineDOT standards are as follows:

|                                |                                    |
|--------------------------------|------------------------------------|
| Driveway observation point:    | 10 feet off major street travelway |
| Height of eye at driveway:     | 3 ½ feet above ground              |
| Height of approaching vehicle: | 4 ¼ feet above road surface        |

Gorrill-Palmer has reviewed the sight lines at the driveway proposed opposite Blueberry Lane. The posted speed limit on Congress Street fronting the site is 40 mph, and is reduced to 35 mph 275 feet to the east of the site. The available sight lines exiting the driveway are over 750 feet looking to the left and 490 feet looking to the right to the overpass with the clearing of some vegetation along the site frontage. Thus, sight lines exceed standards at the proposed driveway location.

Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

### **XIII. *Conclusions and Recommendations***

The following is a summary of the findings and conclusions of the study:

1. The proposed development is forecast to generate 211, 277, and 189 trip ends for the weekday AM and PM, and Saturday peak hours of adjacent street traffic, respectively. (Note: A trip end is either a trip in or out of the site. Therefore a single customer making a round trip would equal two trip ends). The project will require a MaineDOT Traffic Movement Permit since it generates over 99 trip ends during a peak hour. The MaineDOT has delegated their permit process to the City.
2. The capacity analyses show the site traffic can be accommodated with the restriping of Congress Street in the immediate area of the site to accommodate a short left turn lane into the site.
3. Gorrill-Palmer Consulting Engineers, Inc. obtained the latest three year crash history (2009-2011) from MaineDOT to identify if there were High Crash Locations (HCL's) within the immediate area. Based on this information, there are no high crash locations.
4. The sight lines at the proposed driveway exceeds MaineDOT requirements. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the adjacent street system can accommodate the traffic generated by the site with the recommended improvements.

A.

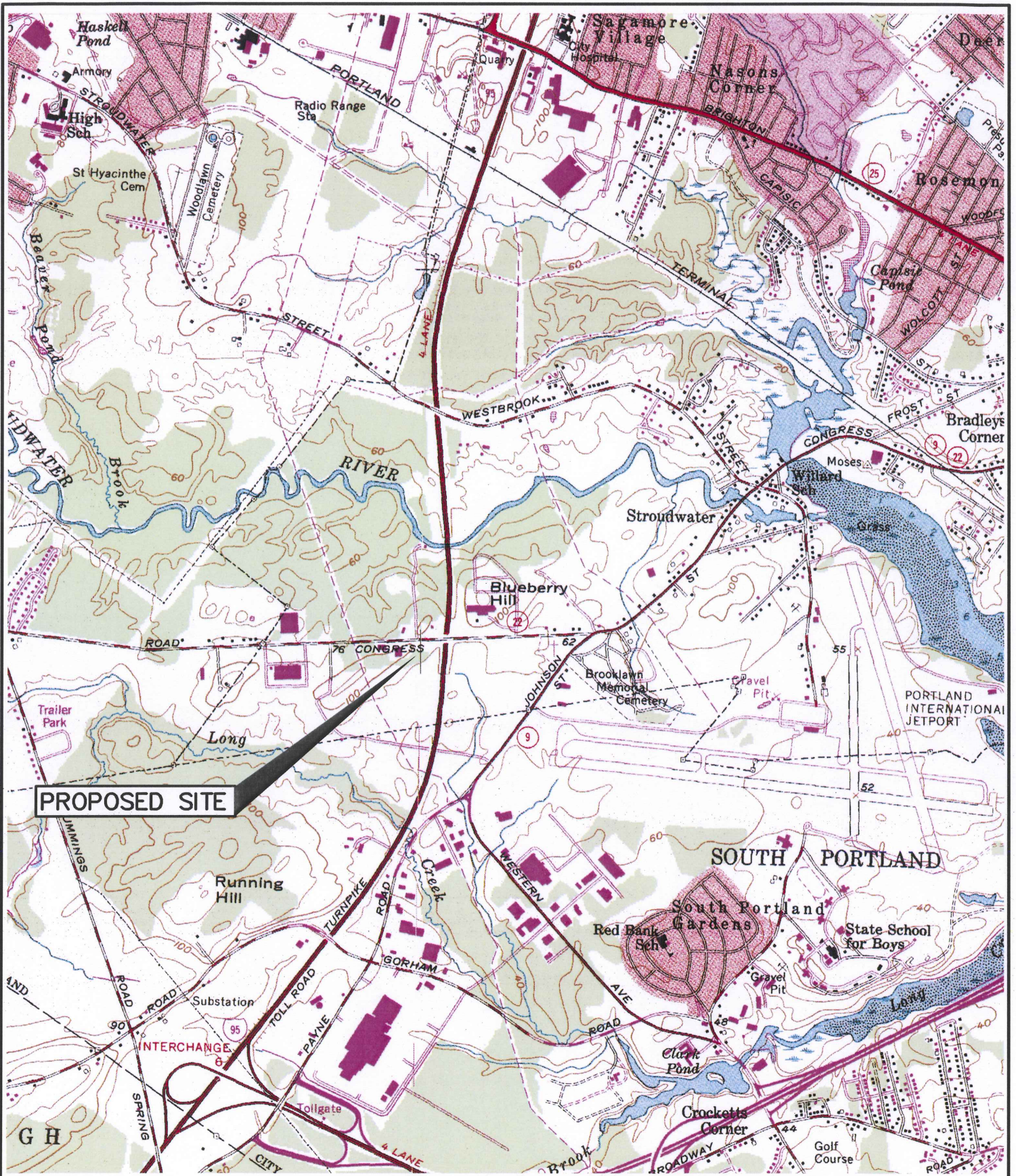
**Appendix A**

***Site Location Map***

***Traffic Count Data Sheets***


***Turning Movement Diagrams***





**U.S.G.S. Location Map**  
 2282 Congress Street - Portland, Maine  
 U.S.G.S. Portland West, Maine -7.5 Minute Series (Topographic)

|                              |                  |
|------------------------------|------------------|
| Design: TLG                  | Date: APRIL 2013 |
| Draft: CG                    | Job No.: 2672    |
| Checked: TLG                 | Scale: 1"=2000'± |
| File Name: 2672-LOCATION.dwg |                  |


**Gorrill-Palmer Consulting Engineers, Inc.**  
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# Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237, 15 Shaker Road

Gray, ME 04039

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Location: Blueberry Rd @ Congress St

Counter: IAM

Board: DB400

Weather: Sunny

File Name : Blueberry@Congress\_AM Raw

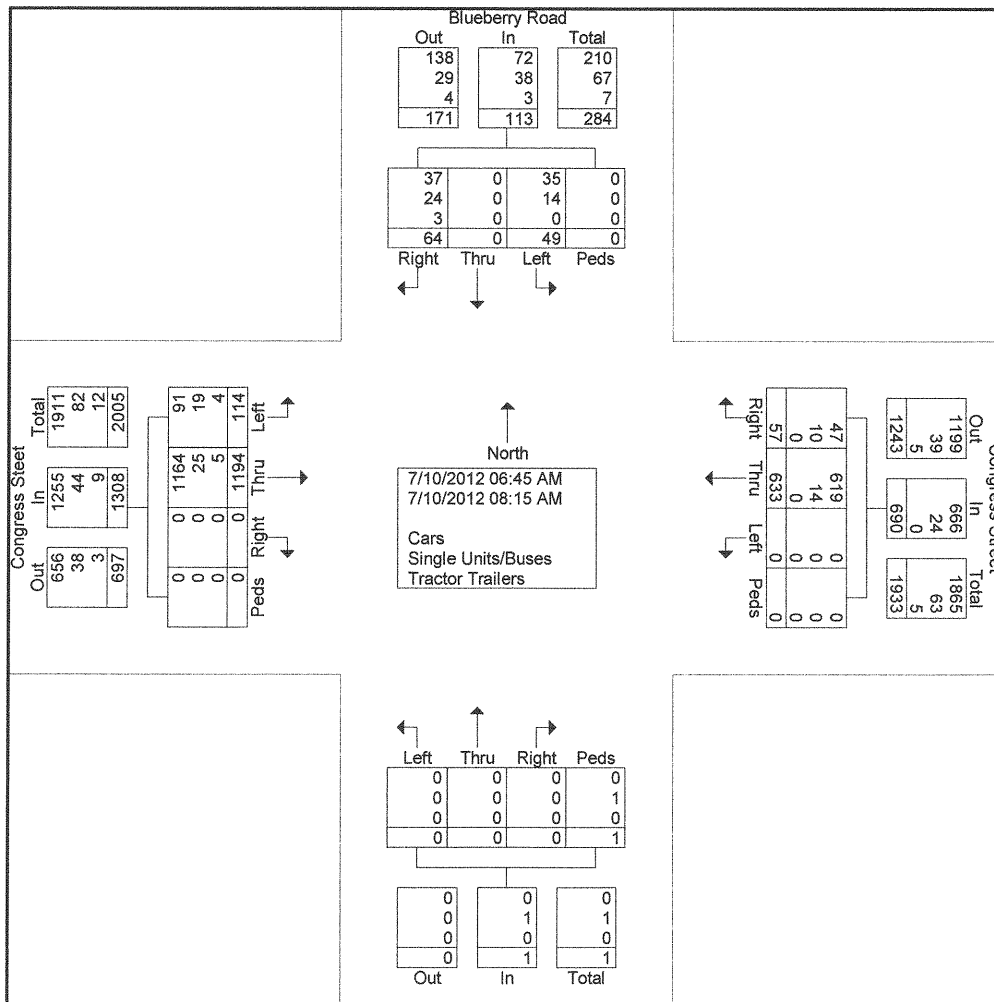
Site Code : 2672

Start Date : 7/10/2012

Page No : 1

## Groups Printed- Cars - Single Units/Buses - Tractor Trailers

| Start Time           | Blueberry Road From North |      |       |      |            | Congress Street From East |      |       |      |            | From South |      |       |      |            | Congress Street From West |      |       |      |            | Int. Total |
|----------------------|---------------------------|------|-------|------|------------|---------------------------|------|-------|------|------------|------------|------|-------|------|------------|---------------------------|------|-------|------|------------|------------|
|                      | Left                      | Thru | Right | Peds | App. Total | Left                      | Thru | Right | Peds | App. Total | Left       | Thru | Right | Peds | App. Total | Left                      | Thru | Right | Peds | App. Total |            |
| 06:45 AM             | 4                         | 0    | 6     | 0    | 10         | 0                         | 63   | 10    | 0    | 73         | 0          | 0    | 0     | 1    | 1          | 14                        | 170  | 0     | 0    | 184        | 268        |
| Total                | 4                         | 0    | 6     | 0    | 10         | 0                         | 63   | 10    | 0    | 73         | 0          | 0    | 0     | 1    | 1          | 14                        | 170  | 0     | 0    | 184        | 268        |
| 07:00 AM             | 12                        | 0    | 14    | 0    | 26         | 0                         | 79   | 7     | 0    | 86         | 0          | 0    | 0     | 0    | 0          | 13                        | 167  | 0     | 0    | 180        | 292        |
| 07:15 AM             | 6                         | 0    | 7     | 0    | 13         | 0                         | 93   | 2     | 0    | 95         | 0          | 0    | 0     | 0    | 0          | 17                        | 173  | 0     | 0    | 190        | 298        |
| 07:30 AM             | 7                         | 0    | 7     | 0    | 14         | 0                         | 76   | 13    | 0    | 89         | 0          | 0    | 0     | 0    | 0          | 22                        | 177  | 0     | 0    | 199        | 302        |
| 07:45 AM             | 4                         | 0    | 10    | 0    | 14         | 0                         | 134  | 9     | 0    | 143        | 0          | 0    | 0     | 0    | 0          | 14                        | 173  | 0     | 0    | 187        | 344        |
| Total                | 29                        | 0    | 38    | 0    | 67         | 0                         | 382  | 31    | 0    | 413        | 0          | 0    | 0     | 0    | 0          | 66                        | 690  | 0     | 0    | 756        | 1236       |
| 08:00 AM             | 7                         | 0    | 8     | 0    | 15         | 0                         | 116  | 5     | 0    | 121        | 0          | 0    | 0     | 0    | 0          | 17                        | 199  | 0     | 0    | 216        | 352        |
| 08:15 AM             | 9                         | 0    | 12    | 0    | 21         | 0                         | 72   | 11    | 0    | 83         | 0          | 0    | 0     | 0    | 0          | 17                        | 135  | 0     | 0    | 152        | 256        |
| Grand Total          | 49                        | 0    | 64    | 0    | 113        | 0                         | 633  | 57    | 0    | 690        | 0          | 0    | 0     | 1    | 1          | 114                       | 1194 | 0     | 0    | 1308       | 2112       |
| Apprch %             | 43.4                      | 0    | 56.6  | 0    |            | 0                         | 91.7 | 8.3   | 0    |            | 0          | 0    | 0     | 100  |            | 8.7                       | 91.3 | 0     | 0    |            |            |
| Total %              | 2.3                       | 0    | 3     | 0    | 5.4        | 0                         | 30   | 2.7   | 0    | 32.7       | 0          | 0    | 0     | 0    | 0          | 5.4                       | 56.5 | 0     | 0    | 61.9       |            |
| Cars                 | 35                        | 0    | 37    | 0    | 72         | 0                         | 619  | 47    | 0    | 666        | 0          | 0    | 0     | 0    | 0          | 91                        | 1164 | 0     | 0    | 1255       | 1993       |
| % Cars               | 71.4                      | 0    | 57.8  | 0    | 63.7       | 0                         | 97.8 | 82.5  | 0    | 96.5       | 0          | 0    | 0     | 0    | 0          | 79.8                      | 97.5 | 0     | 0    | 95.9       | 94.4       |
| Single Units/Buses   | 14                        | 0    | 24    | 0    | 38         | 0                         | 14   | 10    | 0    | 24         | 0          | 0    | 0     | 1    | 1          | 19                        | 25   | 0     | 0    | 44         | 107        |
| % Single Units/Buses | 28.6                      | 0    | 37.5  | 0    | 33.6       | 0                         | 2.2  | 17.5  | 0    | 3.5        | 0          | 0    | 0     | 100  | 100        | 16.7                      | 2.1  | 0     | 0    | 3.4        | 5.1        |
| Tractor Trailers     | 0                         | 0    | 3     | 0    | 3          | 0                         | 0    | 0     | 0    | 0          | 0          | 0    | 0     | 0    | 0          | 4                         | 5    | 0     | 0    | 9          | 12         |
| % Tractor Trailers   | 0                         | 0    | 4.7   | 0    | 2.7        | 0                         | 0    | 0     | 0    | 0          | 0          | 0    | 0     | 0    | 0          | 3.5                       | 0.4  | 0     | 0    | 0.7        | 0.6        |



# Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237, 15 Shaker Road

Gray, ME 04039

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Location: Blueberry Rd @ Congress St

File Name : Blueberry@Congress\_AM Raw

Counter: IAM

Site Code : 2672

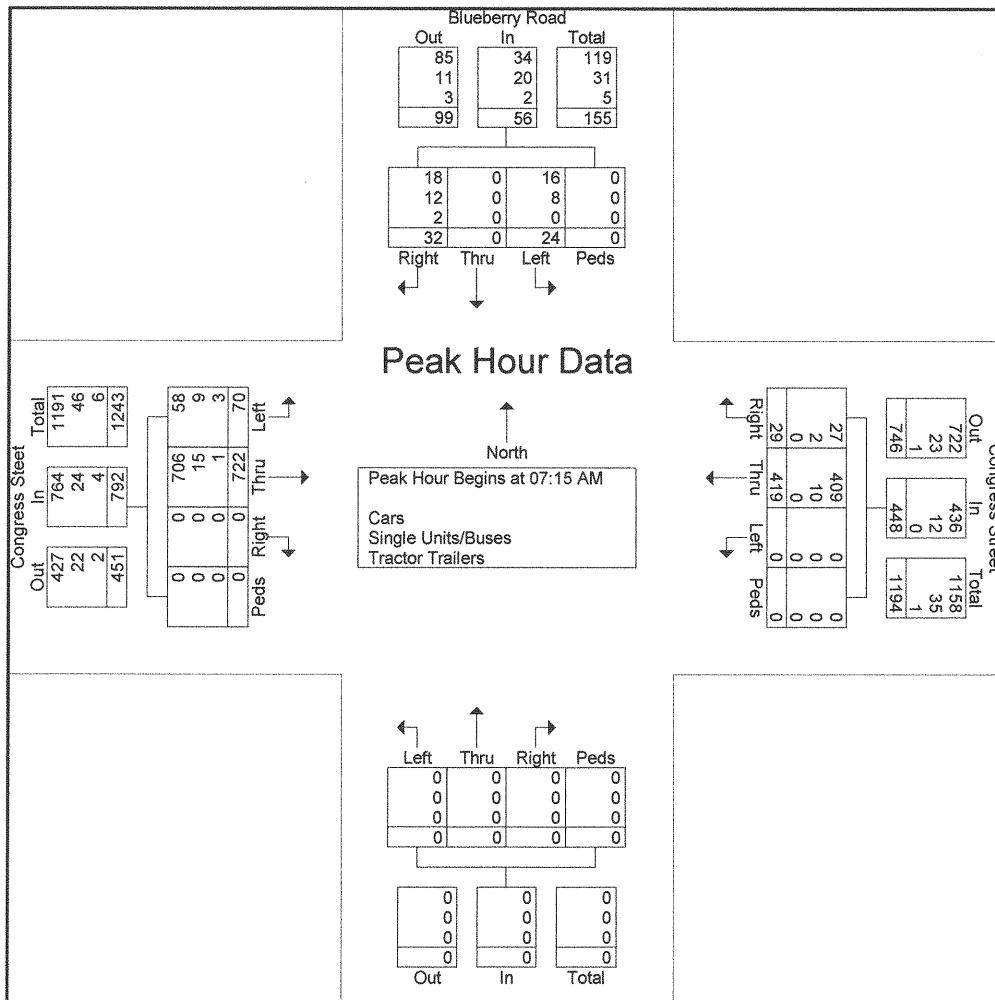
Board: DB400

Start Date : 7/10/2012

Weather: Sunny

Page No : 2

| Start Time   | Blueberry Road From North |      |       |      |            | Congress Street From East |      |       |      |            | From South |      |       |      |            | Congress Steet From West |      |       |      |            | Int. Total |
|--|---------------------------|------|-------|------|------------|---------------------------|------|-------|------|------------|------------|------|-------|------|------------|--------------------------|------|-------|------|------------|------------|
|  | Left                      | Thru | Right | Peds | App. Total | Left                      | Thru | Right | Peds | App. Total | Left       | Thru | Right | Peds | App. Total | Left                     | Thru | Right | Peds | App. Total |            |
| Peak Hour Analysis From 06:45 AM to 08:15 AM - Peak 1 of 1 |                           |      |       |      |            |                           |      |       |      |            |            |      |       |      |            |                          |      |       |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:15 AM       |                           |      |       |      |            |                           |      |       |      |            |            |      |       |      |            |                          |      |       |      |            |            |
| 07:15 AM   | 6                         | 0    | 7     | 0    | 13         | 0                         | 93   | 2     | 0    | 95         | 0          | 0    | 0     | 0    | 0          | 17                       | 173  | 0     | 0    | 190        | 298        |
| 07:30 AM   | 7                         | 0    | 7     | 0    | 14         | 0                         | 76   | 13    | 0    | 89         | 0          | 0    | 0     | 0    | 0          | 22                       | 177  | 0     | 0    | 199        | 302        |
| 07:45 AM   | 4                         | 0    | 10    | 0    | 14         | 0                         | 134  | 9     | 0    | 143        | 0          | 0    | 0     | 0    | 0          | 14                       | 173  | 0     | 0    | 187        | 344        |
| 08:00 AM   | 7                         | 0    | 8     | 0    | 15         | 0                         | 116  | 5     | 0    | 121        | 0          | 0    | 0     | 0    | 0          | 17                       | 199  | 0     | 0    | 216        | 352        |
| Total Volume   | 24                        | 0    | 32    | 0    | 56         | 0                         | 419  | 29    | 0    | 448        | 0          | 0    | 0     | 0    | 0          | 70                       | 722  | 0     | 0    | 792        | 1296       |
| % App. Total   | 42.9                      | 0    | 57.1  | 0    |            | 0                         | 93.5 | 6.5   | 0    |            | 0          | 0    | 0     | 0    |            | 8.8                      | 91.2 | 0     | 0    |            |            |
| PHF  | .857                      | .000 | .800  | .000 | .933       | .000                      | .782 | .558  | .000 | .783       | .000       | .000 | .000  | .000 | .000       | .795                     | .907 | .000  | .000 | .917       | .920       |
| Cars   | 16                        | 0    | 18    | 0    | 34         | 0                         | 409  | 27    | 0    | 436        | 0          | 0    | 0     | 0    | 0          | 58                       | 706  | 0     | 0    | 764        | 1234       |
| % Cars   | 66.7                      | 0    | 56.3  | 0    | 60.7       | 0                         | 97.6 | 93.1  | 0    | 97.3       | 0          | 0    | 0     | 0    | 0          | 82.9                     | 97.8 | 0     | 0    | 96.5       | 95.2       |
| Single Units/Buses   |                           |      |       |      |            |                           |      |       |      |            |            |      |       |      |            |                          |      |       |      |            |            |
| % Single Units/Buses                                       | 33.3                      | 0    | 37.5  | 0    | 35.7       | 0                         | 2.4  | 6.9   | 0    | 2.7        | 0          | 0    | 0     | 0    | 0          | 12.9                     | 2.1  | 0     | 0    | 3.0        | 4.3        |
| Tractor Trailers   | 0                         | 0    | 2     | 0    | 2          | 0                         | 0    | 0     | 0    | 0          | 0          | 0    | 0     | 0    | 0          | 3                        | 1    | 0     | 0    | 4          | 6          |
| % Tractor Trailers   | 0                         | 0    | 6.3   | 0    | 3.6        | 0                         | 0    | 0     | 0    | 0          | 0          | 0    | 0     | 0    | 0          | 4.3                      | 0.1  | 0     | 0    | 0.5        | 0.5        |



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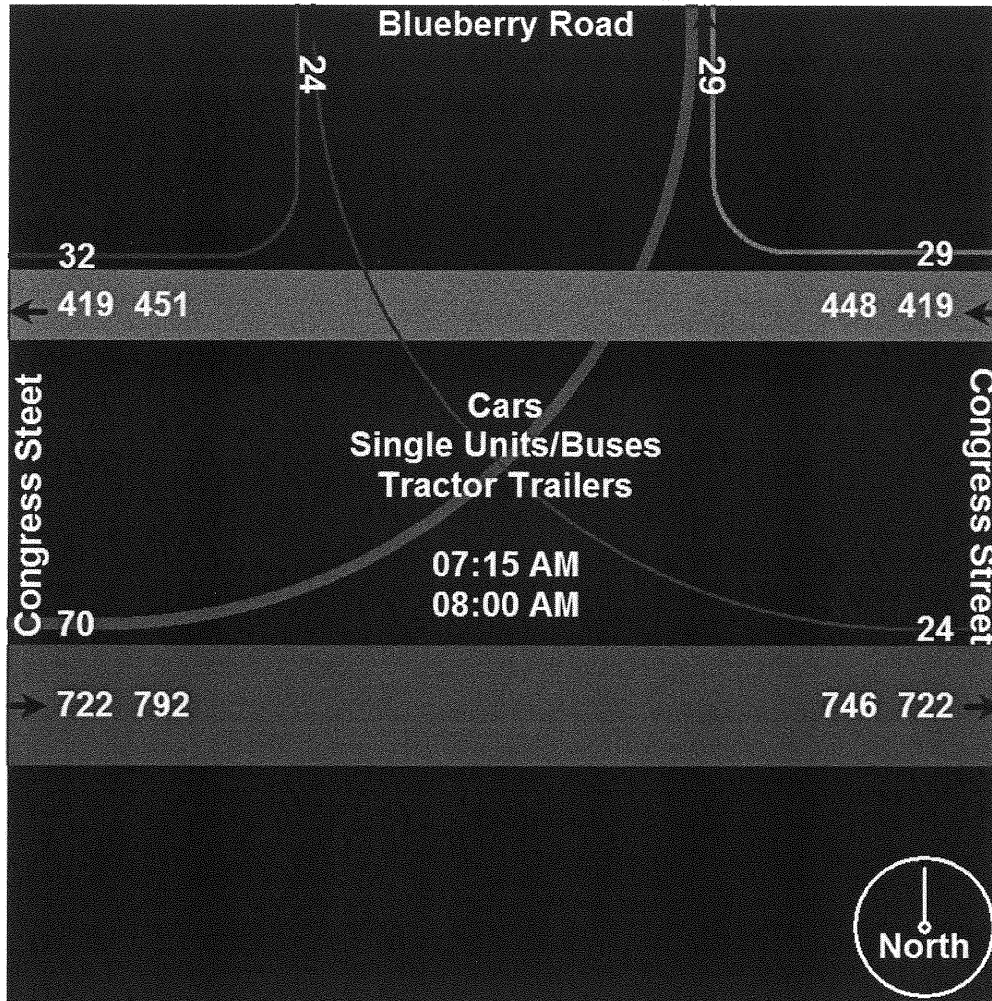
Weather: Sunny

File Name : Blueberry@Congress\_AM Raw

Site Code : 2672

Start Date : 7/10/2012

Page No : 3



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Counter: IAM

Board: DB400

Weather: Sunny

File Name : Blueberry@Congress\_PM Raw

Site Code : 2672

Start Date : 7/9/2012

Page No : 1

## Groups Printed- Cars - Single Units/Buses - Tractor Trailers

| Start Time           | Blueberry Road From North |          |            |          |            | Congress Street From East |             |           |          |             | Congress Street From South |          |          |           |            | Congress Street From West |            |          |          |            | Int. Total  |
|----------------------|---------------------------|----------|------------|----------|------------|---------------------------|-------------|-----------|----------|-------------|----------------------------|----------|----------|-----------|------------|---------------------------|------------|----------|----------|------------|-------------|
|                      | Left                      | Thru     | Right      | Peds     | App. Total | Left                      | Thru        | Right     | Peds     | App. Total  | Left                       | Thru     | Right    | Peds      | App. Total | Left                      | Thru       | Right    | Peds     | App. Total |             |
| 03:30 PM             | 2                         | 0        | 6          | 0        | 8          | 0                         | 153         | 2         | 0        | 155         | 0                          | 0        | 0        | 0         | 0          | 6                         | 101        | 0        | 0        | 107        | 270         |
| 03:45 PM             | 7                         | 0        | 11         | 0        | 18         | 0                         | 141         | 6         | 0        | 147         | 0                          | 0        | 0        | 1         | 1          | 6                         | 88         | 0        | 0        | 94         | 260         |
| <b>Total</b>         | <b>9</b>                  | <b>0</b> | <b>17</b>  | <b>0</b> | <b>26</b>  | <b>0</b>                  | <b>294</b>  | <b>8</b>  | <b>0</b> | <b>302</b>  | <b>0</b>                   | <b>0</b> | <b>0</b> | <b>1</b>  | <b>1</b>   | <b>12</b>                 | <b>189</b> | <b>0</b> | <b>0</b> | <b>201</b> | <b>530</b>  |
| 04:00 PM             | 1                         | 0        | 20         | 0        | 21         | 0                         | 193         | 3         | 0        | 196         | 0                          | 0        | 0        | 1         | 1          | 6                         | 79         | 0        | 0        | 85         | 303         |
| 04:15 PM             | 15                        | 0        | 13         | 0        | 28         | 0                         | 176         | 3         | 0        | 179         | 0                          | 0        | 0        | 2         | 2          | 4                         | 67         | 0        | 0        | 71         | 280         |
| 04:30 PM             | 4                         | 0        | 11         | 0        | 15         | 0                         | 206         | 2         | 0        | 208         | 0                          | 0        | 0        | 0         | 0          | 4                         | 103        | 0        | 0        | 107        | 330         |
| 04:45 PM             | 7                         | 0        | 10         | 0        | 17         | 0                         | 170         | 2         | 0        | 172         | 0                          | 0        | 0        | 2         | 2          | 9                         | 89         | 0        | 0        | 98         | 289         |
| <b>Total</b>         | <b>27</b>                 | <b>0</b> | <b>54</b>  | <b>0</b> | <b>81</b>  | <b>0</b>                  | <b>745</b>  | <b>10</b> | <b>0</b> | <b>755</b>  | <b>0</b>                   | <b>0</b> | <b>0</b> | <b>5</b>  | <b>5</b>   | <b>23</b>                 | <b>338</b> | <b>0</b> | <b>0</b> | <b>361</b> | <b>1202</b> |
| 05:00 PM             | 8                         | 0        | 13         | 0        | 21         | 0                         | 200         | 1         | 0        | 201         | 0                          | 0        | 0        | 5         | 5          | 3                         | 93         | 0        | 0        | 96         | 323         |
| 05:15 PM             | 4                         | 0        | 17         | 0        | 21         | 0                         | 168         | 1         | 0        | 169         | 0                          | 0        | 0        | 1         | 1          | 9                         | 105        | 0        | 0        | 114        | 305         |
| 05:30 PM             | 5                         | 0        | 8          | 0        | 13         | 0                         | 160         | 2         | 0        | 162         | 0                          | 0        | 0        | 1         | 1          | 7                         | 99         | 0        | 0        | 106        | 282         |
| 05:45 PM             | 2                         | 0        | 6          | 0        | 8          | 0                         | 105         | 1         | 0        | 106         | 0                          | 0        | 0        | 1         | 1          | 5                         | 66         | 0        | 0        | 71         | 186         |
| <b>Total</b>         | <b>19</b>                 | <b>0</b> | <b>44</b>  | <b>0</b> | <b>63</b>  | <b>0</b>                  | <b>633</b>  | <b>5</b>  | <b>0</b> | <b>638</b>  | <b>0</b>                   | <b>0</b> | <b>0</b> | <b>8</b>  | <b>8</b>   | <b>24</b>                 | <b>363</b> | <b>0</b> | <b>0</b> | <b>387</b> | <b>1096</b> |
| <b>Grand Total</b>   | <b>55</b>                 | <b>0</b> | <b>115</b> | <b>0</b> | <b>170</b> | <b>0</b>                  | <b>1672</b> | <b>23</b> | <b>0</b> | <b>1695</b> | <b>0</b>                   | <b>0</b> | <b>0</b> | <b>14</b> | <b>14</b>  | <b>59</b>                 | <b>890</b> | <b>0</b> | <b>0</b> | <b>949</b> | <b>2828</b> |
| Apprch %             | 32.4                      | 0        | 67.6       | 0        |            | 0                         | 98.6        | 1.4       | 0        |             | 0                          | 0        | 0        | 100       |            | 6.2                       | 93.8       | 0        | 0        |            |             |
| Total %              | 1.9                       | 0        | 4.1        | 0        | 6          | 0                         | 59.1        | 0.8       | 0        | 59.9        | 0                          | 0        | 0        | 0.5       | 0.5        | 2.1                       | 31.5       | 0        | 0        | 33.6       |             |
| Cars                 | 54                        | 0        | 97         | 0        | 151        | 0                         | 1648        | 20        | 0        | 1668        | 0                          | 0        | 0        | 2         | 2          | 50                        | 878        | 0        | 0        | 928        | 2749        |
| % Cars               | 98.2                      | 0        | 84.3       | 0        | 88.8       | 0                         | 98.6        | 87        | 0        | 98.4        | 0                          | 0        | 0        | 14.3      | 14.3       | 84.7                      | 98.7       | 0        | 0        | 97.8       | 97.2        |
| Single Units/Buses   | 0                         | 0        | 16         | 0        | 16         | 0                         | 22          | 3         | 0        | 25          | 0                          | 0        | 0        | 12        | 12         | 5                         | 11         | 0        | 0        | 16         | 69          |
| % Single Units/Buses | 0                         | 0        | 13.9       | 0        | 9.4        | 0                         | 1.3         | 13        | 0        | 1.5         | 0                          | 0        | 0        | 85.7      | 85.7       | 8.5                       | 1.2        | 0        | 0        | 1.7        | 2.4         |
| Tractor Trailers     | 1                         | 0        | 2          | 0        | 3          | 0                         | 2           | 0         | 0        | 2           | 0                          | 0        | 0        | 0         | 0          | 4                         | 1          | 0        | 0        | 5          | 10          |
| % Tractor Trailers   | 1.8                       | 0        | 1.7        | 0        | 1.8        | 0                         | 0.1         | 0         | 0        | 0.1         | 0                          | 0        | 0        | 0         | 0          | 6.8                       | 0.1        | 0        | 0        | 0.5        | 0.4         |



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Weather: Sunny

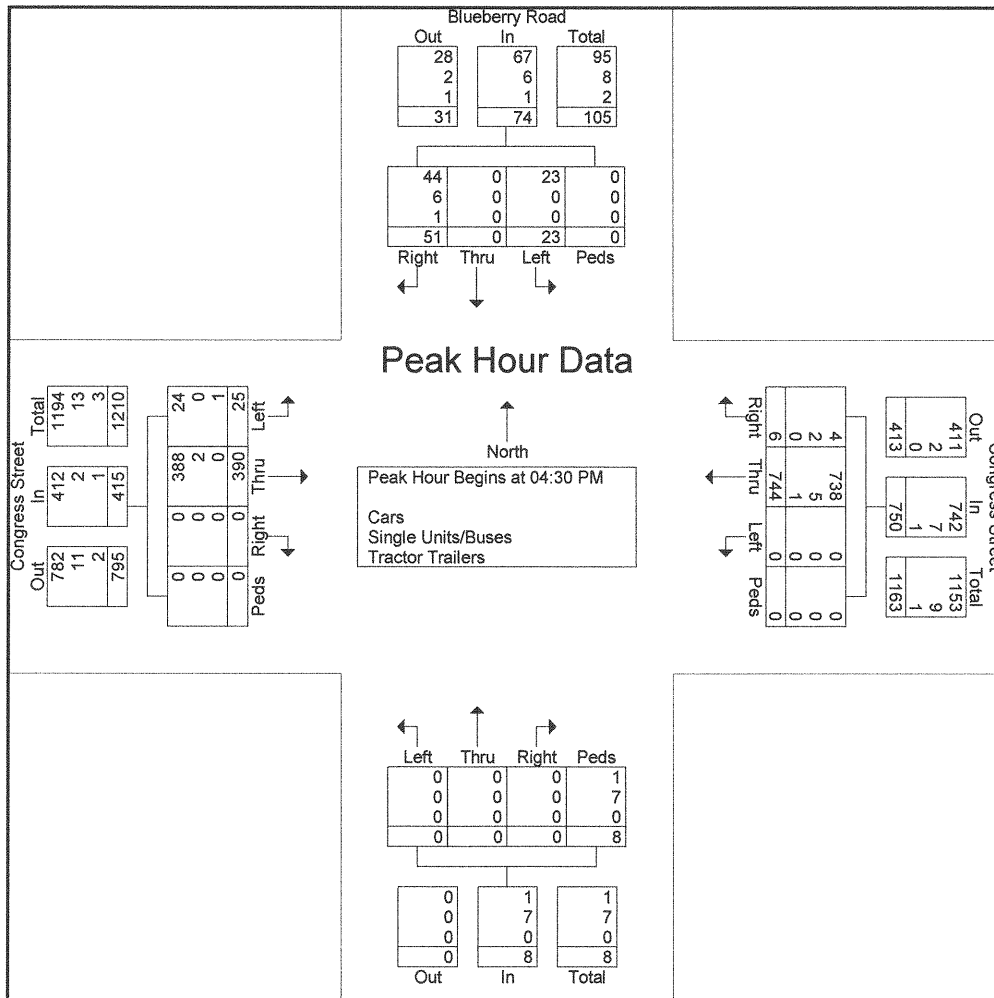
File Name : Blueberry@Congress\_PM Raw

Site Code : 2672

Start Date : 7/9/2012

Page No : 3

| Start Time   | Blueberry Road From North |      |       |      |            | Congress Street From East |      |       |      |            | From South |      |       |      |            | Congress Street From West |      |       |      |            | Int. Total |
|--|---------------------------|------|-------|------|------------|---------------------------|------|-------|------|------------|------------|------|-------|------|------------|---------------------------|------|-------|------|------------|------------|
|  | Left                      | Thru | Right | Peds | App. Total | Left                      | Thru | Right | Peds | App. Total | Left       | Thru | Right | Peds | App. Total | Left                      | Thru | Right | Peds | App. Total |            |
| Peak Hour Analysis From 03:30 PM to 05:45 PM - Peak 1 of 1 |                           |      |       |      |            |                           |      |       |      |            |            |      |       |      |            |                           |      |       |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                           |      |       |      |            |                           |      |       |      |            |            |      |       |      |            |                           |      |       |      |            |            |
| 04:30 PM   | 4                         | 0    | 11    | 0    | 15         | 0                         | 206  | 2     | 0    | 208        | 0          | 0    | 0     | 0    | 0          | 4                         | 103  | 0     | 0    | 107        | 330        |
| 04:45 PM   | 7                         | 0    | 10    | 0    | 17         | 0                         | 170  | 2     | 0    | 172        | 0          | 0    | 0     | 2    | 2          | 9                         | 89   | 0     | 0    | 98         | 289        |
| 05:00 PM   | 8                         | 0    | 13    | 0    | 21         | 0                         | 200  | 1     | 0    | 201        | 0          | 0    | 0     | 5    | 5          | 3                         | 93   | 0     | 0    | 96         | 323        |
| 05:15 PM   | 4                         | 0    | 17    | 0    | 21         | 0                         | 168  | 1     | 0    | 169        | 0          | 0    | 0     | 1    | 1          | 9                         | 105  | 0     | 0    | 114        | 305        |
| Total Volume   | 23                        | 0    | 51    | 0    | 74         | 0                         | 744  | 6     | 0    | 750        | 0          | 0    | 0     | 8    | 8          | 25                        | 390  | 0     | 0    | 415        | 1247       |
| % App. Total   | 31.1                      | 0    | 68.9  | 0    |            | 0                         | 99.2 | 0.8   | 0    |            | 0          | 0    | 0     | 100  |            | 6                         | 94   | 0     | 0    |            |            |
| PHF  | .719                      | .000 | .750  | .000 | .881       | .000                      | .903 | .750  | .000 | .901       | .000       | .000 | .000  | .400 | .400       | .694                      | .929 | .000  | .000 | .910       | .945       |
| Cars   | 23                        | 0    | 44    | 0    | 67         | 0                         | 738  | 4     | 0    | 742        | 0          | 0    | 0     | 1    | 1          | 24                        | 388  | 0     | 0    | 412        | 1222       |
| % Cars   | 100                       | 0    | 86.3  | 0    | 90.5       | 0                         | 99.2 | 66.7  | 0    | 98.9       | 0          | 0    | 0     | 12.5 | 12.5       | 96.0                      | 99.5 | 0     | 0    | 99.3       | 98.0       |
| Single Units/Buses   | 0                         | 0    | 11.8  | 0    | 8.1        | 0                         | 0.7  | 33.3  | 0    | 0.9        | 0          | 0    | 0     | 87.5 | 87.5       | 0                         | 0.5  | 0     | 0    | 0.5        | 1.8        |
| % Single Units/Buses                                       | 0                         | 0    | 1     | 0    | 1          | 0                         | 1    | 0     | 0    | 1          | 0          | 0    | 0     | 0    | 0          | 1                         | 0    | 0     | 0    | 1          | 3          |
| Tractor Trailers   | 0                         | 0    | 2.0   | 0    | 1.4        | 0                         | 0.1  | 0     | 0    | 0.1        | 0          | 0    | 0     | 0    | 0          | 4.0                       | 0    | 0     | 0    | 0.2        | 0.2        |



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PO Box 1237, 15 Shaker Road

Gray, ME 04039

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Location: Blueberry Road @ Congress St

Counter:IAM

Board:DB400

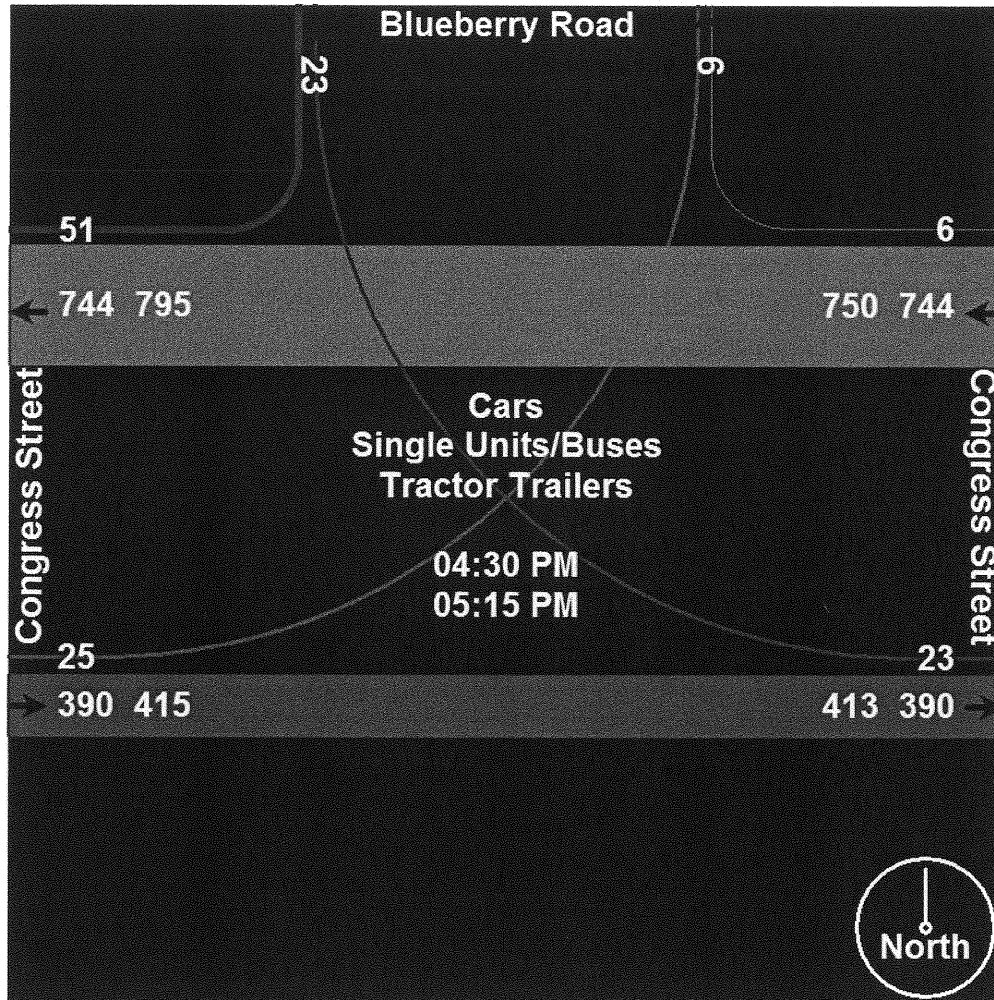
Weather:Sunny

File Name : Blueberry@Congress\_PM Raw

Site Code : 2672

Start Date : 7/9/2012

Page No : 4







# Gorrill-Palmer Consulting Engineers, Inc.

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Location: Huchins/cong-ptld

Counter:PO

Board:3364

Weather:Ptly cloudy

File Name : Congress@Hutchins-skyway AM

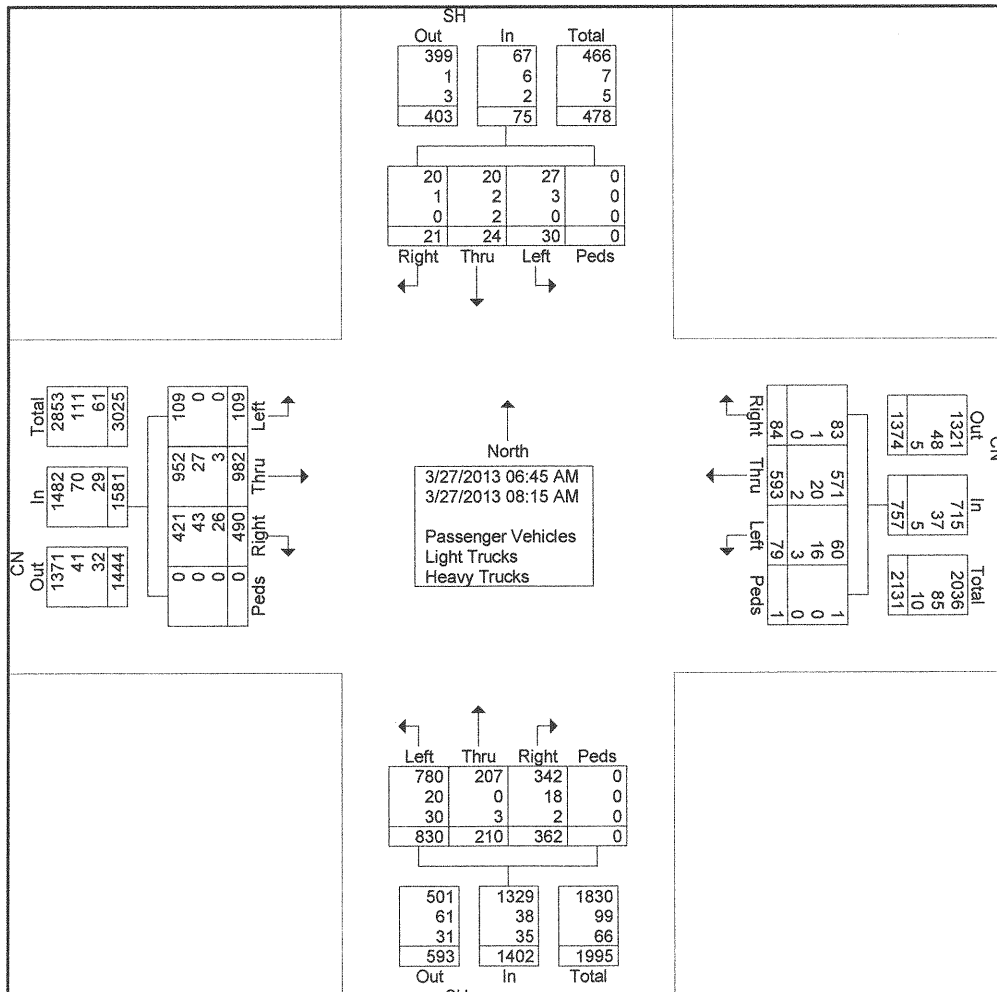
Site Code : 00000000

Start Date : 3/27/2013

Page No : 1

### Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

| Start Time           | SH From North |            |            |          |            | CN From East |             |             |            |             | SH From South |            |             |          |             | CN From West |             |            |          |             | Int. Total  |
|----------------------|---------------|------------|------------|----------|------------|--------------|-------------|-------------|------------|-------------|---------------|------------|-------------|----------|-------------|--------------|-------------|------------|----------|-------------|-------------|
|                      | Right         | Thru       | Left       | Peds     | App. Total | Right        | Thru        | Left        | Peds       | App. Total  | Right         | Thru       | Left        | Peds     | App. Total  | Right        | Thru        | Left       | Peds     | App. Total  |             |
| 06:45 AM             | 4             | 2          | 2          | 0        | 8          | 4            | 70          | 11          | 0          | 85          | 31            | 35         | 100         | 0        | 166         | 56           | 129         | 19         | 0        | 204         | 463         |
| <b>Total</b>         | <b>4</b>      | <b>2</b>   | <b>2</b>   | <b>0</b> | <b>8</b>   | <b>4</b>     | <b>70</b>   | <b>11</b>   | <b>0</b>   | <b>85</b>   | <b>31</b>     | <b>35</b>  | <b>100</b>  | <b>0</b> | <b>166</b>  | <b>56</b>    | <b>129</b>  | <b>19</b>  | <b>0</b> | <b>204</b>  | <b>463</b>  |
|                      |               |            |            |          |            |              |             |             |            |             |               |            |             |          |             |              |             |            |          |             |             |
| 07:00 AM             | 1             | 2          | 0          | 0        | 3          | 6            | 49          | 11          | 0          | 66          | 38            | 8          | 82          | 0        | 128         | 86           | 148         | 5          | 0        | 239         | 436         |
| 07:15 AM             | 2             | 0          | 4          | 0        | 6          | 13           | 59          | 8           | 0          | 80          | 46            | 34         | 100         | 0        | 180         | 71           | 153         | 16         | 0        | 240         | 506         |
| 07:30 AM             | 6             | 4          | 12         | 0        | 22         | 8            | 98          | 15          | 1          | 122         | 72            | 29         | 122         | 0        | 223         | 73           | 136         | 15         | 0        | 224         | 591         |
| 07:45 AM             | 5             | 3          | 3          | 0        | 11         | 16           | 120         | 8           | 0          | 144         | 74            | 46         | 175         | 0        | 295         | 84           | 145         | 26         | 0        | 255         | 705         |
| <b>Total</b>         | <b>14</b>     | <b>9</b>   | <b>19</b>  | <b>0</b> | <b>42</b>  | <b>43</b>    | <b>326</b>  | <b>42</b>   | <b>1</b>   | <b>412</b>  | <b>230</b>    | <b>117</b> | <b>479</b>  | <b>0</b> | <b>826</b>  | <b>314</b>   | <b>582</b>  | <b>62</b>  | <b>0</b> | <b>958</b>  | <b>2238</b> |
|                      |               |            |            |          |            |              |             |             |            |             |               |            |             |          |             |              |             |            |          |             |             |
| 08:00 AM             | 1             | 4          | 5          | 0        | 10         | 17           | 106         | 11          | 0          | 134         | 57            | 41         | 141         | 0        | 239         | 68           | 150         | 18         | 0        | 236         | 619         |
| 08:15 AM             | 2             | 9          | 4          | 0        | 15         | 20           | 91          | 15          | 0          | 126         | 44            | 17         | 110         | 0        | 171         | 52           | 121         | 10         | 0        | 183         | 495         |
| <b>Grand Total</b>   | <b>21</b>     | <b>24</b>  | <b>30</b>  | <b>0</b> | <b>75</b>  | <b>84</b>    | <b>593</b>  | <b>79</b>   | <b>1</b>   | <b>757</b>  | <b>362</b>    | <b>210</b> | <b>830</b>  | <b>0</b> | <b>1402</b> | <b>490</b>   | <b>982</b>  | <b>109</b> | <b>0</b> | <b>1581</b> | <b>3815</b> |
| <b>Apprch %</b>      | <b>28</b>     | <b>32</b>  | <b>40</b>  | <b>0</b> |            | <b>11.1</b>  | <b>78.3</b> | <b>10.4</b> | <b>0.1</b> |             | <b>25.8</b>   | <b>15</b>  | <b>59.2</b> | <b>0</b> |             | <b>31</b>    | <b>62.1</b> | <b>6.9</b> | <b>0</b> |             |             |
| <b>Total %</b>       | <b>0.6</b>    | <b>0.6</b> | <b>0.8</b> | <b>0</b> | <b>2</b>   | <b>2.2</b>   | <b>15.5</b> | <b>2.1</b>  | <b>0</b>   | <b>19.8</b> | <b>9.5</b>    | <b>5.5</b> | <b>21.8</b> | <b>0</b> | <b>36.7</b> | <b>12.8</b>  | <b>25.7</b> | <b>2.9</b> | <b>0</b> | <b>41.4</b> |             |
|                      |               |            |            |          |            |              |             |             |            |             |               |            |             |          |             |              |             |            |          |             |             |
| Passenger Vehicles   | 20            | 20         | 27         | 0        | 67         | 83           | 571         | 60          | 1          | 715         | 342           | 207        | 780         | 0        | 1329        | 421          | 952         | 109        | 0        | 1482        | 3593        |
| % Passenger Vehicles |               |            |            |          |            |              |             |             |            |             |               |            |             |          |             |              |             |            |          |             |             |
| Light Trucks         | 1             | 2          | 3          | 0        | 6          | 1            | 20          | 16          | 0          | 37          | 18            | 0          | 20          | 0        | 38          | 43           | 27          | 0          | 0        | 70          | 151         |
| % Light Trucks       | 4.8           | 8.3        | 10         | 0        | 8          | 1.2          | 3.4         | 20.3        | 0          | 4.9         | 5             | 0          | 2.4         | 0        | 2.7         | 8.8          | 2.7         | 0          | 0        | 4.4         | 4           |
| Heavy Trucks         | 0             | 2          | 0          | 0        | 2          | 0            | 2           | 3           | 0          | 5           | 2             | 3          | 30          | 0        | 35          | 26           | 3           | 0          | 0        | 29          | 71          |
| % Heavy Trucks       | 0             | 8.3        | 0          | 0        | 2.7        | 0            | 0.3         | 3.8         | 0          | 0.7         | 0.6           | 1.4        | 3.6         | 0        | 2.5         | 5.3          | 0.3         | 0          | 0        | 1.8         | 1.9         |



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PO Box 1237, 15 Shaker Road

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Location: Huchins/cong-ptld

Counter:PO

Board:3364

Weather:Ptly cloudy

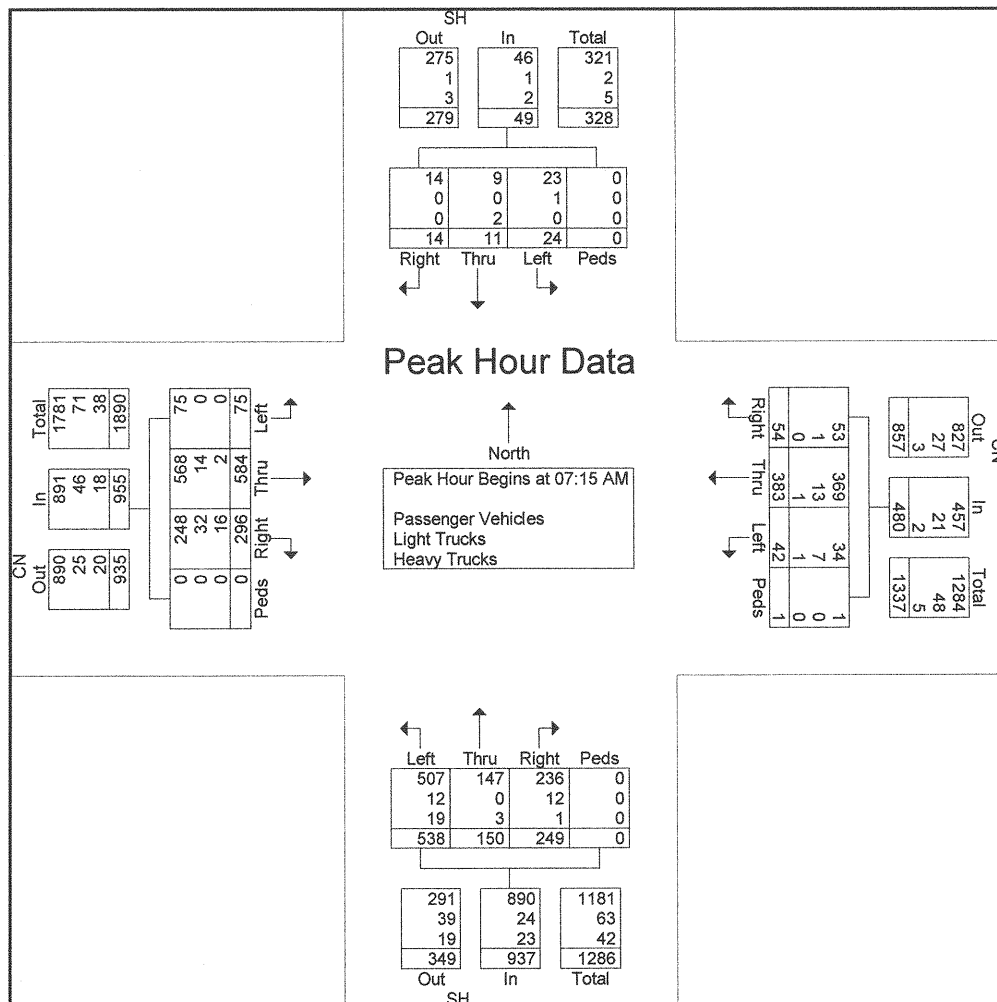
File Name : Congress@Hutchins-skyway AM

Site Code : 00000000

Start Date : 3/27/2013

Page No : 2

| Start Time   | SH From North |      |      |      |            | CN From East |      |      |      |            | SH From South |      |      |      |            | CN From West |      |      |      |            | Int. Total |
|--|---------------|------|------|------|------------|--------------|------|------|------|------------|---------------|------|------|------|------------|--------------|------|------|------|------------|------------|
|  | Right         | Thru | Left | Peds | App. Total | Right        | Thru | Left | Peds | App. Total | Right         | Thru | Left | Peds | App. Total | Right        | Thru | Left | Peds | App. Total |            |
| Peak Hour Analysis From 06:45 AM to 08:15 AM - Peak 1 of 1 |               |      |      |      |            |              |      |      |      |            |               |      |      |      |            |              |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:15 AM       |               |      |      |      |            |              |      |      |      |            |               |      |      |      |            |              |      |      |      |            |            |
| 07:15 AM   | 2             | 0    | 4    | 0    | 6          | 13           | 59   | 8    | 0    | 80         | 46            | 34   | 100  | 0    | 180        | 71           | 153  | 16   | 0    | 240        | 506        |
| 07:30 AM   | 6             | 4    | 12   | 0    | 22         | 8            | 98   | 15   | 1    | 122        | 72            | 29   | 122  | 0    | 223        | 73           | 136  | 15   | 0    | 224        | 591        |
| 07:45 AM   | 5             | 3    | 3    | 0    | 11         | 16           | 120  | 8    | 0    | 144        | 74            | 46   | 175  | 0    | 295        | 84           | 145  | 26   | 0    | 255        | 705        |
| 08:00 AM   | 1             | 4    | 5    | 0    | 10         | 17           | 106  | 11   | 0    | 134        | 57            | 41   | 141  | 0    | 239        | 68           | 150  | 18   | 0    | 236        | 619        |
| Total Volume   | 14            | 11   | 24   | 0    | 49         | 54           | 383  | 42   | 1    | 480        | 249           | 150  | 538  | 0    | 937        | 296          | 584  | 75   | 0    | 955        | 2421       |
| % App. Total   | 28.6          | 22.4 | 49   | 0    |            | 11.2         | 79.8 | 8.8  | 0.2  |            | 26.6          | 16   | 57.4 | 0    |            | 31           | 61.2 | 7.9  | 0    |            |            |
| PHF  | .583          | .688 | .500 | .000 | .557       | .794         | .798 | .700 | .250 | .833       | .841          | .815 | .769 | .000 | .794       | .881         | .954 | .721 | .000 | .936       | .859       |
| Passenger Vehicles   | 14            | 9    | 23   | 0    | 46         | 53           | 369  | 34   | 1    | 457        | 236           | 147  | 507  | 0    | 890        | 248          | 568  | 75   | 0    | 891        | 2284       |
| % Passenger Vehicles                                       |               |      |      |      |            |              |      |      |      |            |               |      |      |      |            |              |      |      |      |            |            |
| Light Trucks   | 0             | 0    | 1    | 0    | 1          | 1            | 13   | 7    | 0    | 21         | 12            | 0    | 12   | 0    | 24         | 32           | 14   | 0    | 0    | 46         | 92         |
| % Light Trucks   | 0             | 0    | 4.2  | 0    | 2.0        | 1.9          | 3.4  | 16.7 | 0    | 4.4        | 4.8           | 0    | 2.2  | 0    | 2.6        | 10.8         | 2.4  | 0    | 0    | 4.8        | 3.8        |
| Heavy Trucks   | 0             | 2    | 0    | 0    | 2          | 0            | 1    | 1    | 0    | 2          | 1             | 3    | 19   | 0    | 23         | 16           | 2    | 0    | 0    | 18         | 45         |
| % Heavy Trucks   | 0             | 18.2 | 0    | 0    | 4.1        | 0            | 0.3  | 2.4  | 0    | 0.4        | 0.4           | 2.0  | 3.5  | 0    | 2.5        | 5.4          | 0.3  | 0    | 0    | 1.9        | 1.9        |



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Gray, ME 04039

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Location: Congress/Hutchins-Ptld

Counter: PO

Board: 3364

Weather: cloudy

File Name : Congress@Hutchins-skywayPM

Site Code : 00000000

Start Date : 3/26/2013

Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

| Start Time           | HUTCH SKY<br>From North |      |      |      |            | COONGRESS<br>From East |      |      |      |            | HUTCH SKY<br>From South |      |      |      |            | COONGRESS<br>From West |      |      |      |            | Int. Total |
|----------------------|-------------------------|------|------|------|------------|------------------------|------|------|------|------------|-------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------|
|                      | Right                   | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                   | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total |            |
| 03:30 PM             | 26                      | 24   | 13   | 0    | 63         | 3                      | 146  | 24   | 0    | 173        | 10                      | 6    | 77   | 0    | 93         | 90                     | 70   | 4    | 0    | 164        | 493        |
| 03:45 PM             | 6                       | 14   | 7    | 0    | 27         | 7                      | 116  | 22   | 0    | 145        | 8                       | 2    | 57   | 0    | 67         | 64                     | 75   | 4    | 0    | 143        | 382        |
| Total                | 32                      | 38   | 20   | 0    | 90         | 10                     | 262  | 46   | 0    | 318        | 18                      | 8    | 134  | 0    | 160        | 154                    | 145  | 8    | 0    | 307        | 875        |
| 04:00 PM             | 9                       | 19   | 12   | 0    | 40         | 4                      | 160  | 63   | 0    | 227        | 8                       | 10   | 62   | 0    | 80         | 119                    | 97   | 5    | 0    | 221        | 568        |
| 04:15 PM             | 12                      | 15   | 9    | 0    | 36         | 3                      | 140  | 39   | 0    | 182        | 8                       | 9    | 61   | 0    | 78         | 86                     | 73   | 2    | 0    | 161        | 457        |
| 04:30 PM             | 26                      | 27   | 15   | 1    | 69         | 5                      | 175  | 69   | 0    | 249        | 7                       | 9    | 70   | 0    | 86         | 141                    | 88   | 11   | 0    | 240        | 644        |
| 04:45 PM             | 10                      | 28   | 8    | 0    | 46         | 3                      | 140  | 51   | 0    | 194        | 5                       | 8    | 95   | 0    | 108        | 135                    | 69   | 8    | 0    | 212        | 560        |
| Total                | 57                      | 89   | 44   | 1    | 191        | 15                     | 615  | 222  | 0    | 852        | 28                      | 36   | 288  | 0    | 352        | 481                    | 327  | 26   | 0    | 834        | 2229       |
| 05:00 PM             | 20                      | 37   | 19   | 0    | 76         | 3                      | 168  | 58   | 0    | 229        | 9                       | 6    | 75   | 0    | 90         | 150                    | 94   | 6    | 0    | 250        | 645        |
| 05:15 PM             | 11                      | 28   | 9    | 0    | 48         | 4                      | 155  | 46   | 0    | 205        | 6                       | 7    | 84   | 0    | 97         | 146                    | 101  | 5    | 0    | 252        | 602        |
| 05:30 PM             | 6                       | 21   | 5    | 0    | 32         | 5                      | 136  | 37   | 0    | 178        | 5                       | 9    | 75   | 0    | 89         | 101                    | 78   | 3    | 0    | 182        | 481        |
| 05:45 PM             | 6                       | 9    | 7    | 0    | 22         | 2                      | 98   | 25   | 0    | 125        | 6                       | 9    | 47   | 0    | 62         | 71                     | 54   | 6    | 0    | 131        | 340        |
| Total                | 43                      | 95   | 40   | 0    | 178        | 14                     | 557  | 166  | 0    | 737        | 26                      | 31   | 281  | 0    | 338        | 468                    | 327  | 20   | 0    | 815        | 2068       |
| Grand Total          | 132                     | 222  | 104  | 1    | 459        | 39                     | 1434 | 434  | 0    | 1907       | 72                      | 75   | 703  | 0    | 850        | 1103                   | 799  | 54   | 0    | 1956       | 5172       |
| Apprch %             | 28.8                    | 48.4 | 22.7 | 0.2  |            | 2                      | 75.2 | 22.8 | 0    |            | 8.5                     | 8.8  | 82.7 | 0    |            | 56.4                   | 40.8 | 2.8  | 0    |            |            |
| Total %              | 2.6                     | 4.3  | 2    | 0    | 8.9        | 0.8                    | 27.7 | 8.4  | 0    | 36.9       | 1.4                     | 1.5  | 13.6 | 0    | 16.4       | 21.3                   | 15.4 | 1    | 0    | 37.8       |            |
| Passenger Vehicles   | 130                     | 220  | 103  | 1    | 454        | 36                     | 1412 | 422  | 0    | 1870       | 65                      | 71   | 645  | 0    | 781        | 1072                   | 787  | 52   | 0    | 1911       | 5016       |
| % Passenger Vehicles | 98.5                    | 99.1 | 99   | 100  | 98.9       | 92.3                   | 98.5 | 97.2 | 0    | 98.1       | 90.3                    | 94.7 | 91.7 | 0    | 91.9       | 97.2                   | 98.5 | 96.3 | 0    | 97.7       | 97         |
| Light Trucks         | 2                       | 2    | 1    | 0    | 5          | 3                      | 20   | 11   | 0    | 34         | 6                       | 4    | 25   | 0    | 35         | 13                     | 12   | 2    | 0    | 27         | 101        |
| % Light Trucks       | 1.5                     | 0.9  | 1    | 0    | 1.1        | 7.7                    | 1.4  | 2.5  | 0    | 1.8        | 8.3                     | 5.3  | 3.6  | 0    | 4.1        | 1.2                    | 1.5  | 3.7  | 0    | 1.4        | 2          |
| Heavy Trucks         | 0                       | 0    | 0    | 0    | 0          | 0                      | 2    | 1    | 0    | 3          | 1                       | 0    | 33   | 0    | 34         | 18                     | 0    | 0    | 0    | 18         | 55         |
| % Heavy Trucks       | 0                       | 0    | 0    | 0    | 0          | 0                      | 0.1  | 0.2  | 0    | 0.2        | 1.4                     | 0    | 4.7  | 0    | 4          | 1.6                    | 0    | 0    | 0    | 0.9        | 1.1        |

# Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237, 15 Shaker Road

Gray, ME 04039

Engineering Excellence Since 1998

Location: Congress/Hutchins-Ptld

Counter: PO

Board: 3364

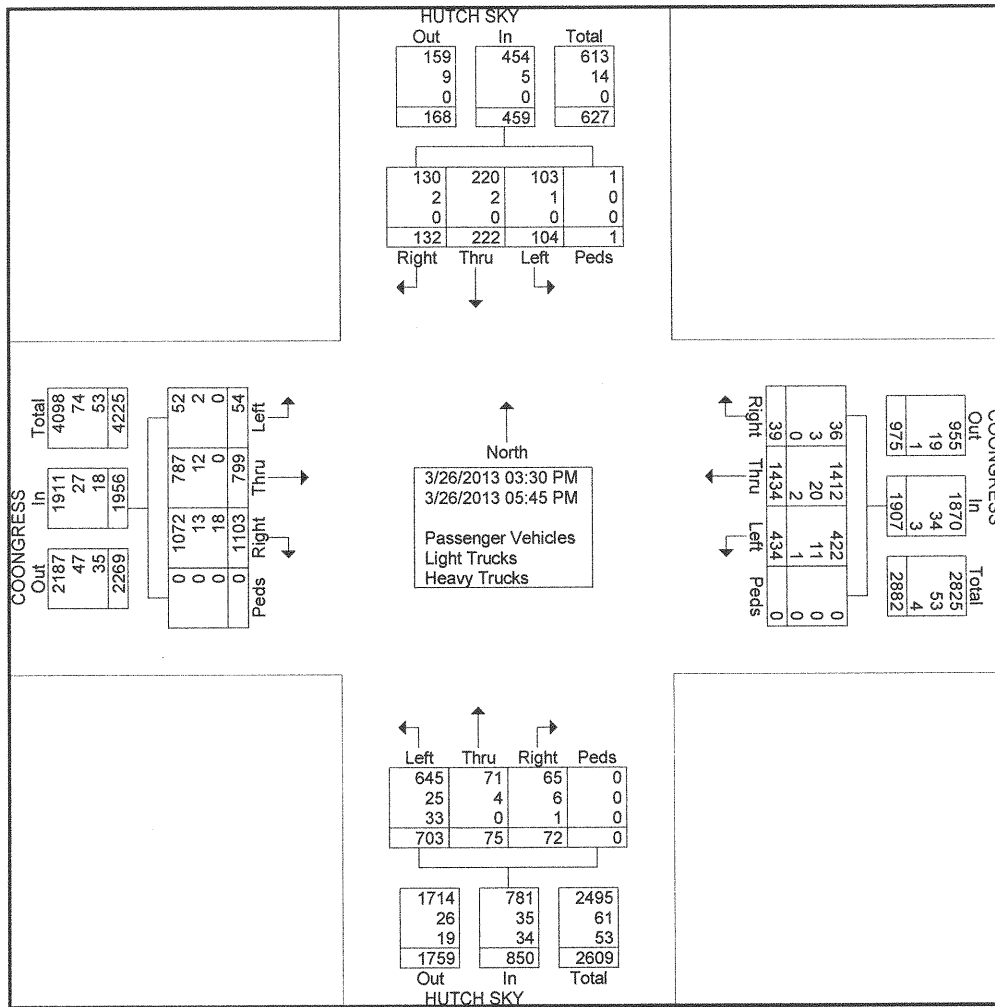
Weather: cloudy

File Name : Congress@Hutchins-skywayPM

Site Code : 00000000

Start Date : 3/26/2013

Page No : 2



|  | HUTCH SKY<br>From North |      |      |      |            | COONGRESS<br>From East |      |      |      |            | HUTCH SKY<br>From South |      |      |      |            | COONGRESS<br>From West |      |      |      |            | Int. Total |
|--|-------------------------|------|------|------|------------|------------------------|------|------|------|------------|-------------------------|------|------|------|------------|------------------------|------|------|------|------------|------------|
|  | Right                   | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total | Right                   | Thru | Left | Peds | App. Total | Right                  | Thru | Left | Peds | App. Total |            |
| Peak Hour Analysis From 03:30 PM to 05:45 PM - Peak 1 of 1 |                         |      |      |      |            |                        |      |      |      |            |                         |      |      |      |            |                        |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                         |      |      |      |            |                        |      |      |      |            |                         |      |      |      |            |                        |      |      |      |            |            |
| 04:30 PM   | 26                      | 27   | 15   | 1    | 69         | 5                      | 175  | 69   | 0    | 249        | 7                       | 9    | 70   | 0    | 86         | 141                    | 88   | 11   | 0    | 240        | 644        |
| 04:45 PM   | 10                      | 28   | 8    | 0    | 46         | 3                      | 140  | 51   | 0    | 194        | 5                       | 8    | 95   | 0    | 108        | 135                    | 69   | 8    | 0    | 212        | 560        |
| 05:00 PM   | 20                      | 37   | 19   | 0    | 76         | 3                      | 168  | 58   | 0    | 229        | 9                       | 6    | 75   | 0    | 90         | 150                    | 94   | 6    | 0    | 250        | 645        |
| 05:15 PM   | 11                      | 28   | 9    | 0    | 48         | 4                      | 155  | 46   | 0    | 205        | 6                       | 7    | 84   | 0    | 97         | 146                    | 101  | 5    | 0    | 252        | 602        |
| Total Volume   | 67                      | 120  | 51   | 1    | 239        | 15                     | 638  | 224  | 0    | 877        | 27                      | 30   | 324  | 0    | 381        | 572                    | 352  | 30   | 0    | 954        | 2451       |
| % App. Total   | 28                      | 50.2 | 21.3 | 0.4  |            | 1.7                    | 72.7 | 25.5 | 0    |            | 7.1                     | 7.9  | 85   | 0    |            | 60                     | 36.9 | 3.1  | 0    |            |            |
| PHF  | .644                    | .811 | .671 | .250 | .786       | .750                   | .911 | .812 | .000 | .881       | .750                    | .833 | .853 | .000 | .882       | .953                   | .871 | .682 | .000 | .946       | .950       |
| Passenger Vehicles   | 65                      | 119  | 51   | 1    | 236        | 15                     | 631  | 223  | 0    | 869        | 27                      | 27   | 305  | 0    | 359        | 557                    | 347  | 28   | 0    | 932        | 2396       |
| % Passenger Vehicles                                       |                         |      |      |      |            |                        |      |      |      |            |                         |      |      |      |            |                        |      |      |      |            |            |
| Light Trucks   | 2                       | 1    | 0    | 0    | 3          | 0                      | 7    | 0    | 0    | 7          | 0                       | 3    | 6    | 0    | 9          | 6                      | 5    | 2    | 0    | 13         | 32         |
| % Light Trucks   | 3.0                     | 0.8  | 0    | 0    | 1.3        | 0                      | 1.1  | 0    | 0    | 0.8        | 0                       | 10.0 | 1.9  | 0    | 2.4        | 1.0                    | 1.4  | 6.7  | 0    | 1.4        | 1.3        |
| Heavy Trucks   | 0                       | 0    | 0    | 0    | 0          | 0                      | 0    | 1    | 0    | 1          | 0                       | 0    | 13   | 0    | 13         | 9                      | 0    | 0    | 0    | 9          | 23         |
| % Heavy Trucks   | 0                       | 0    | 0    | 0    | 0          | 0                      | 0    | 0.4  | 0    | 0.1        | 0                       | 0    | 4.0  | 0    | 3.4        | 1.6                    | 0    | 0    | 0    | 0.9        | 0.9        |

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PO Box 1237, 15 Shaker Road

Gray, ME 04039

Engineering Excellence Since 1998

Location: Congress/Hutchins-Ptld

Counter:PO

Board:3364

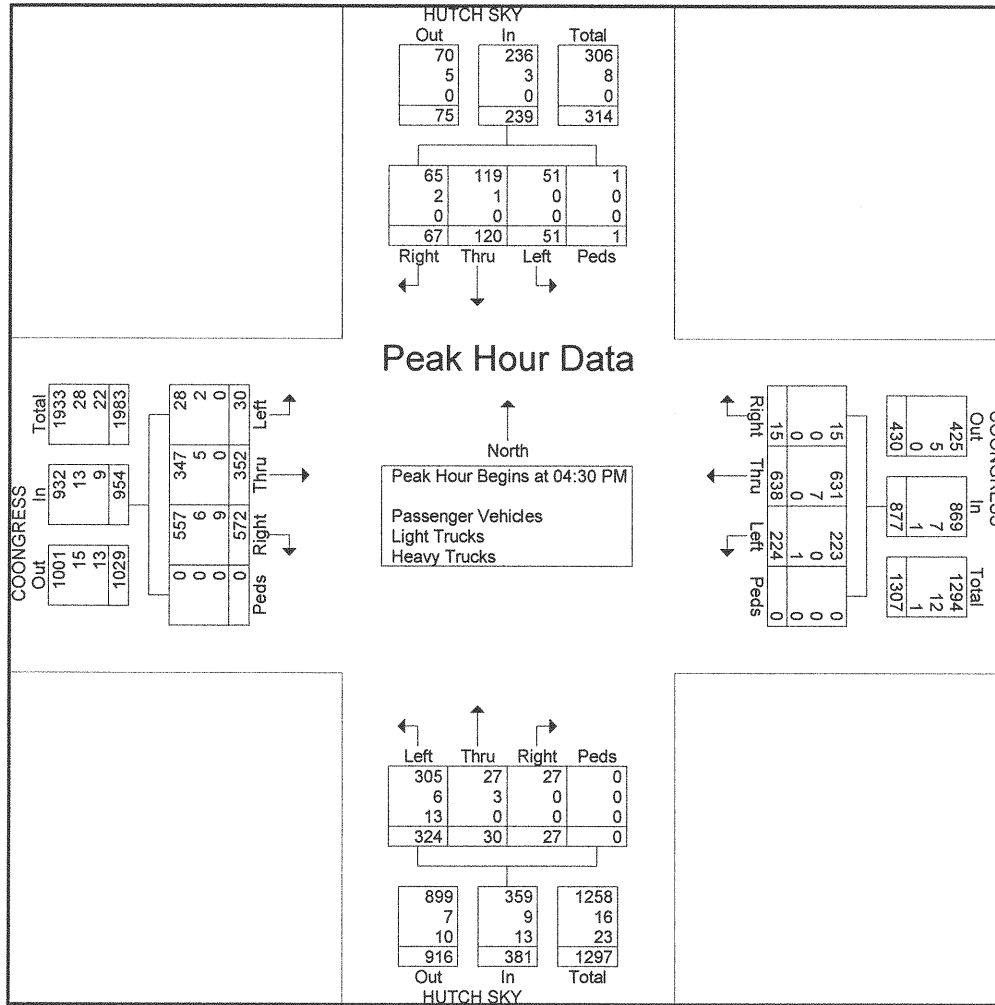
Weather:cloudy

File Name : Congress@Hutchins-skywayPM

Site Code : 00000000

Start Date : 3/26/2013

Page No : 3

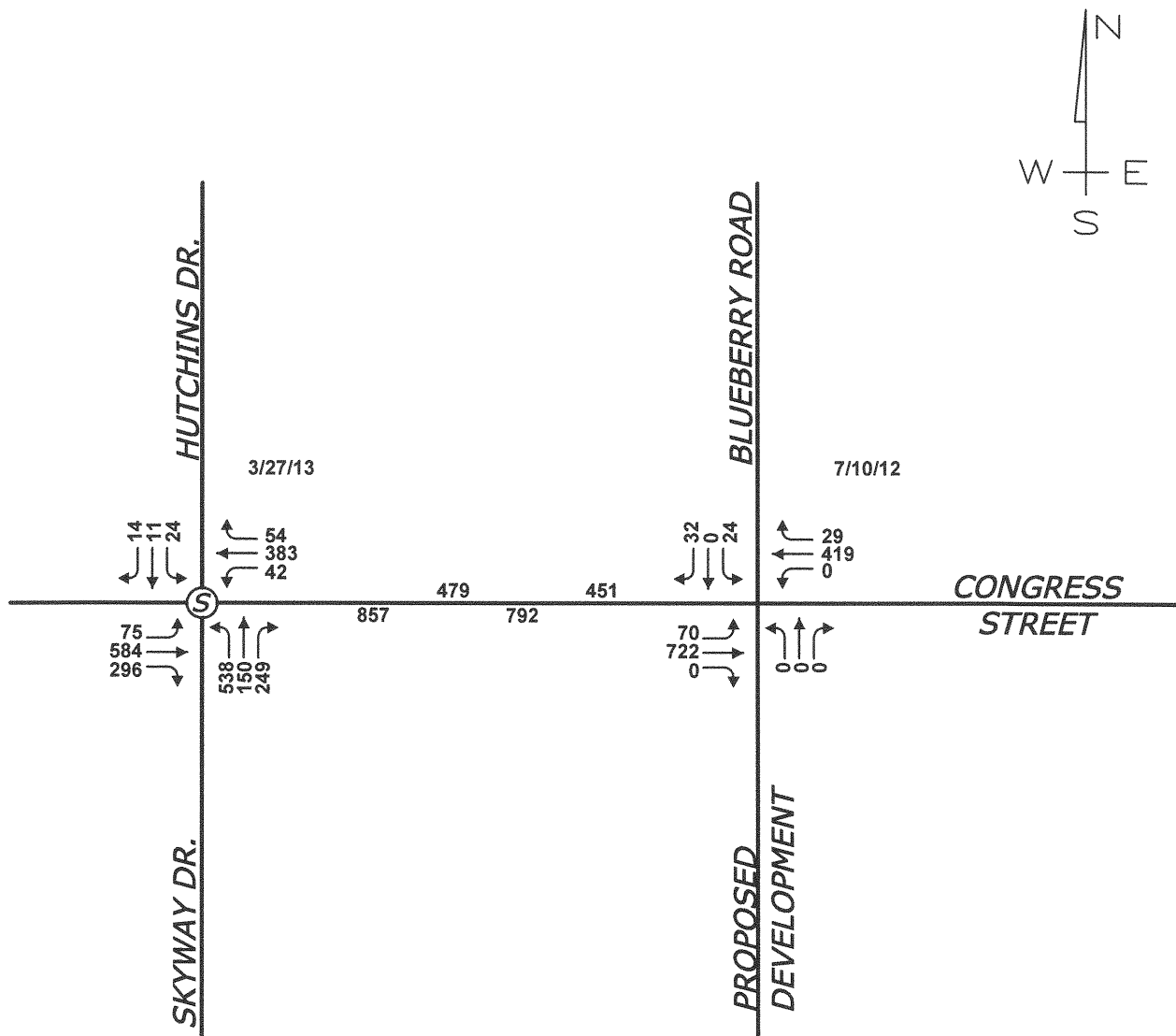




# Unadjusted Raw Traffic Counts - AM Peak Hour

Figure No.

1



AM PEAK HOUR: 7:15 - 8:15 AM

Ⓢ DENOTES SIGNAL

## 2282 CONGRESS STREET, PORTLAND, MAINE

Design: TLG Scale: NONE  
 Draft: DB Date: MAR 2013  
 Checked: TLG File Name: 2672-TRAFF2.dwg

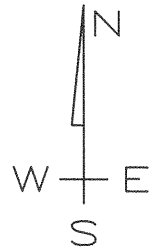
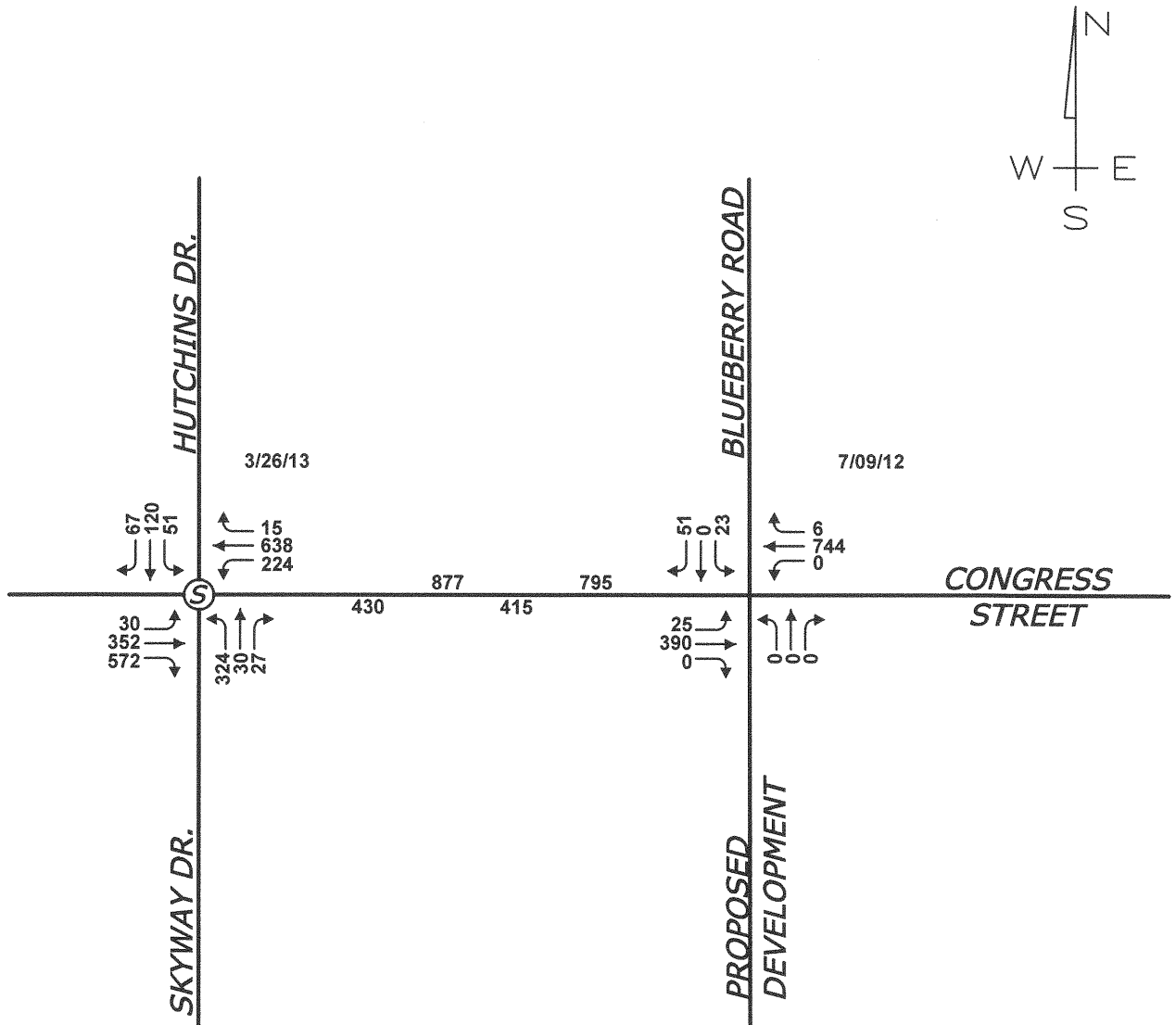
**GP** Gorrill-Palmer Consulting Engineers, Inc.  
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 15 Shaker Road Fax: 207-657-6912  
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# Unadjusted Raw Traffic Counts - PM Peak Hour

Figure No.

# 2



PM PEAK HOUR: 4:30-5:30 PM

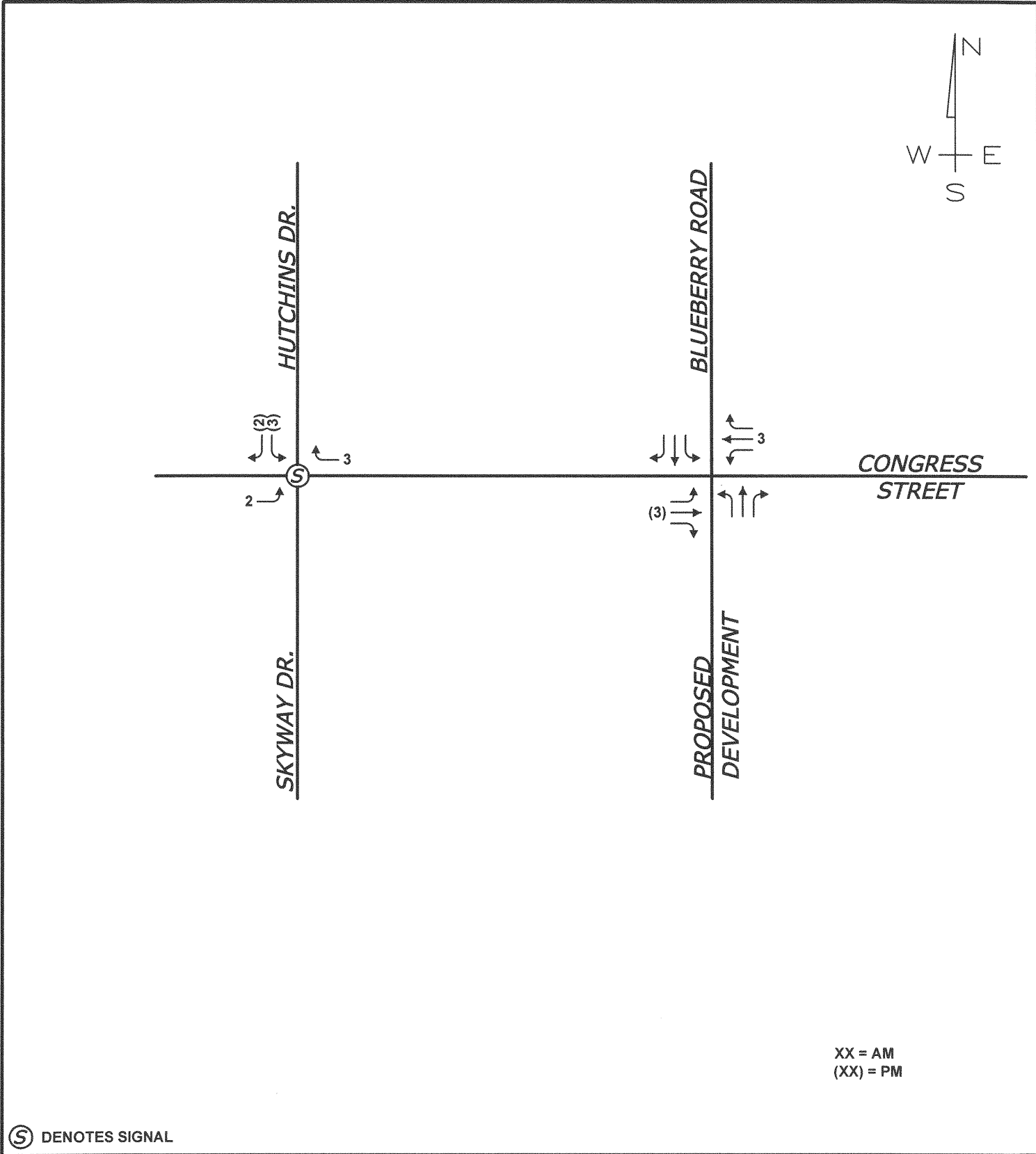
Ⓢ DENOTES SIGNAL

## 2282 CONGRESS STREET, PORTLAND, MAINE

Design: TLG Scale: NONE  
 Draft: DB Date: MAR 2013  
 Checked: TLG File Name: 2672-TRAFF2.dwg

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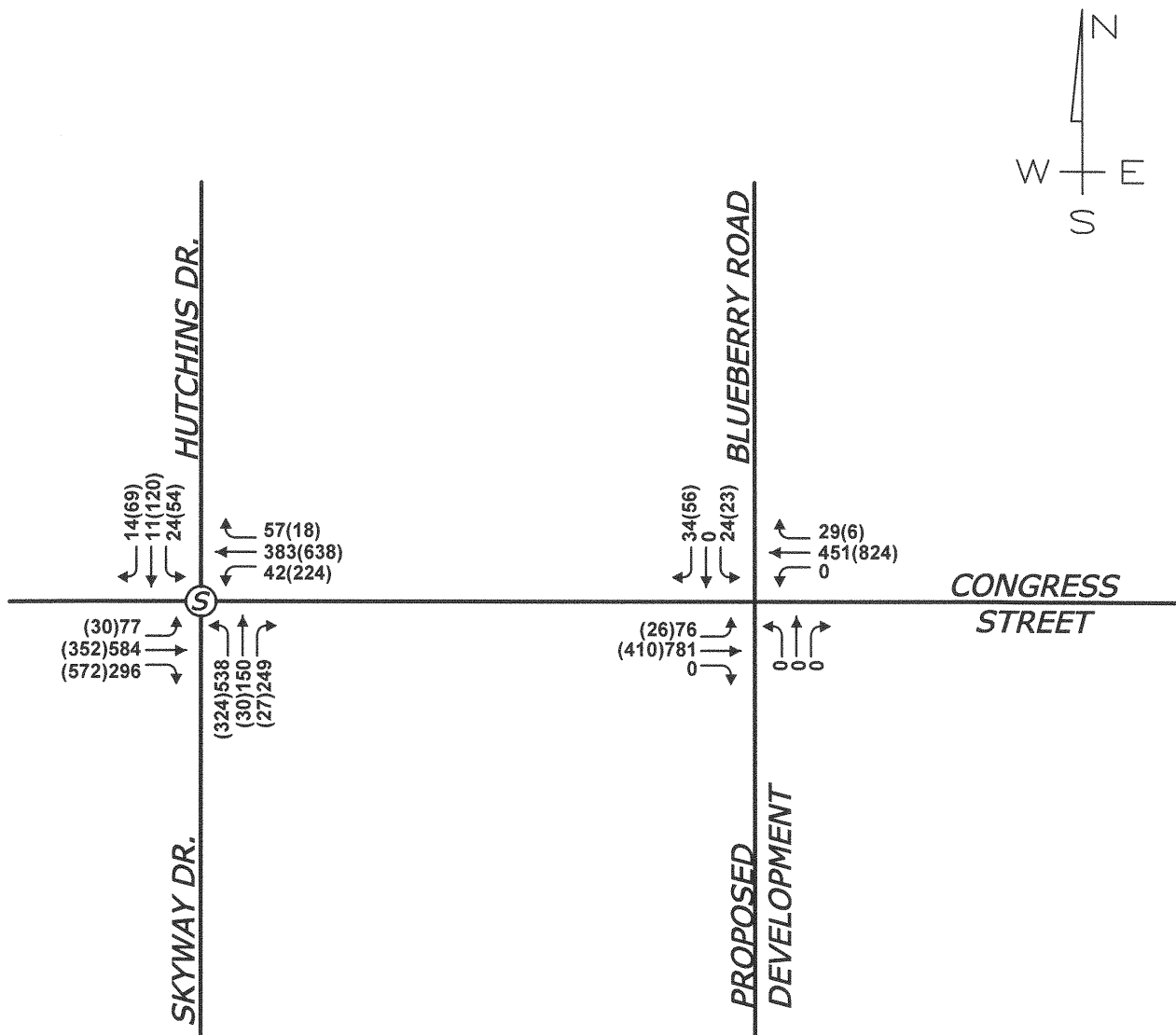
# Traffic from Other Approved Development



## 2282 CONGRESS STREET, PORTLAND, MAINE

Design: TLG    Scale: NONE  
 Draft: DB    Date: MAR 2013  
 Checked: TLG    File Name: 2672-TRAFF2.dwg

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XX = AM  
 (XX) = PM

Ⓢ DENOTES SIGNAL

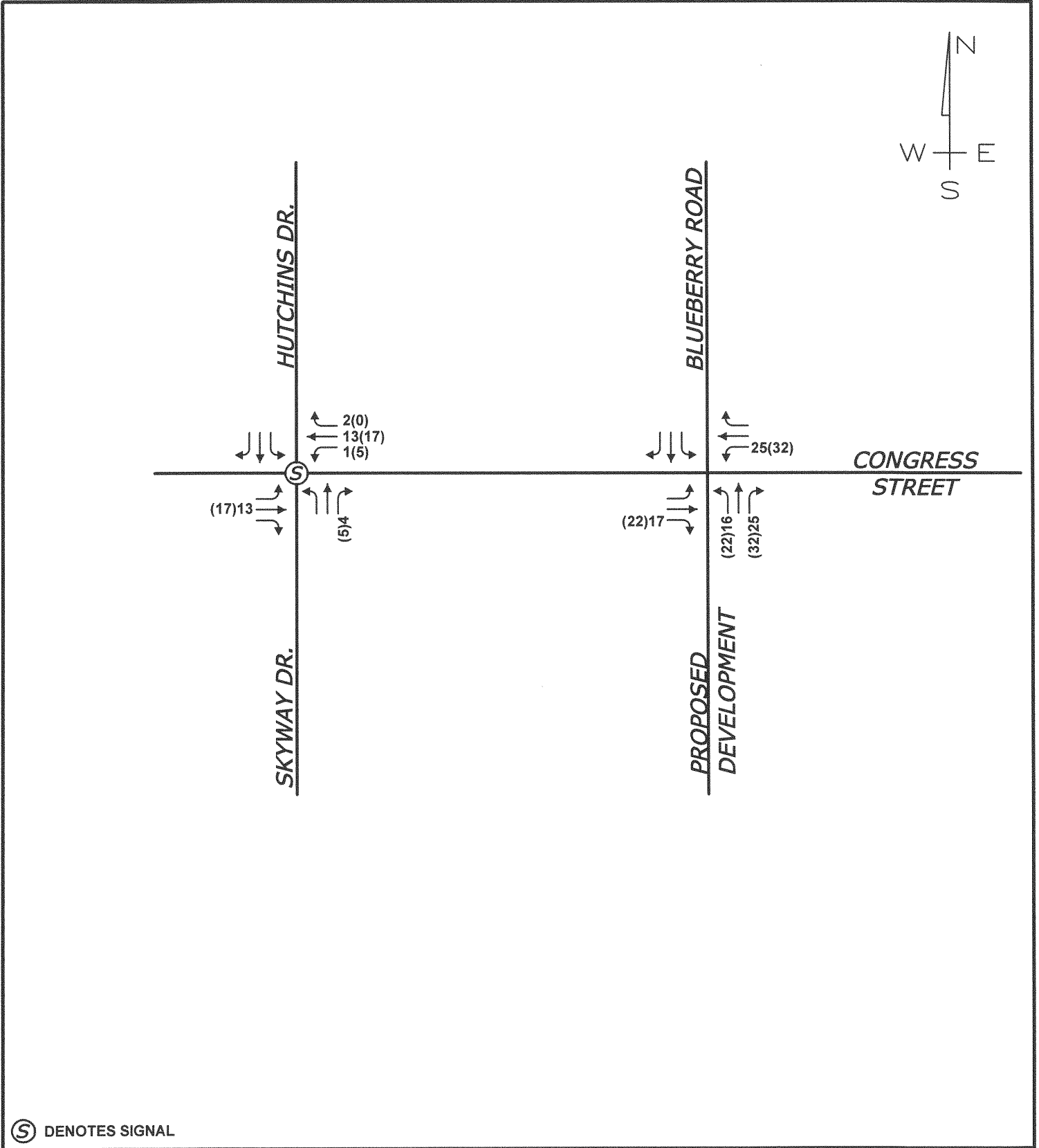
## 2282 CONGRESS STREET, PORTLAND, MAINE

Design: TLG    Scale: NONE  
 Draft: DB    Date: MAR 2013  
 Checked: TLG    File Name: 2672-TRAFF2.dwg

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# Primary Traffic Volumes

Figure No **5**



## 2282 CONGRESS STREET, PORTLAND, MAINE

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Design: TLG Scale: NONE  
 Draft: DB Date: MAR 2013  
 Checked: TLG File Name: 2672-TRAFF2.dwg

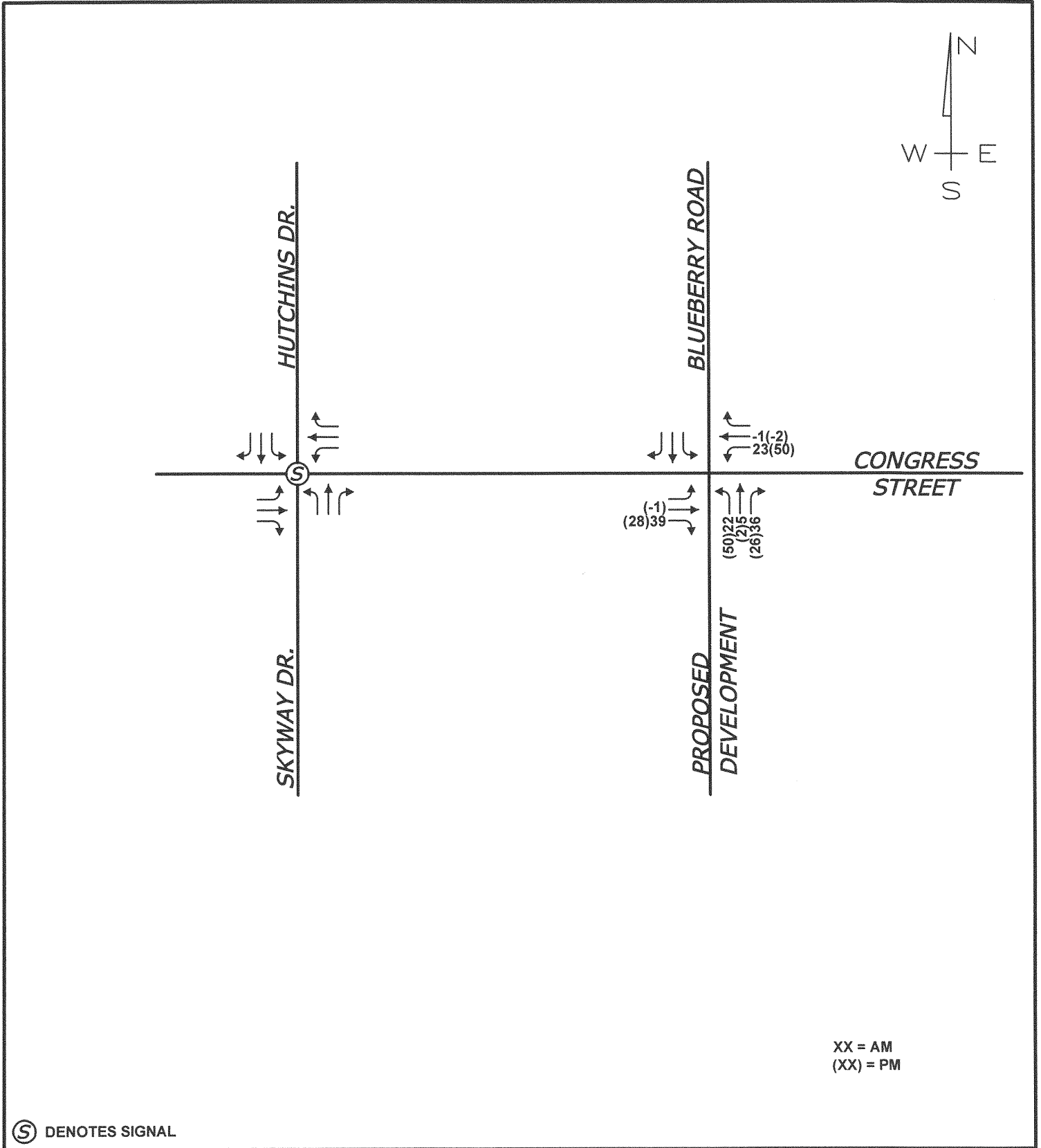
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# Development Pass-by Traffic - Peak Hour

Figure No

# 6



## 2282 CONGRESS STREET, PORTLAND, MAINE



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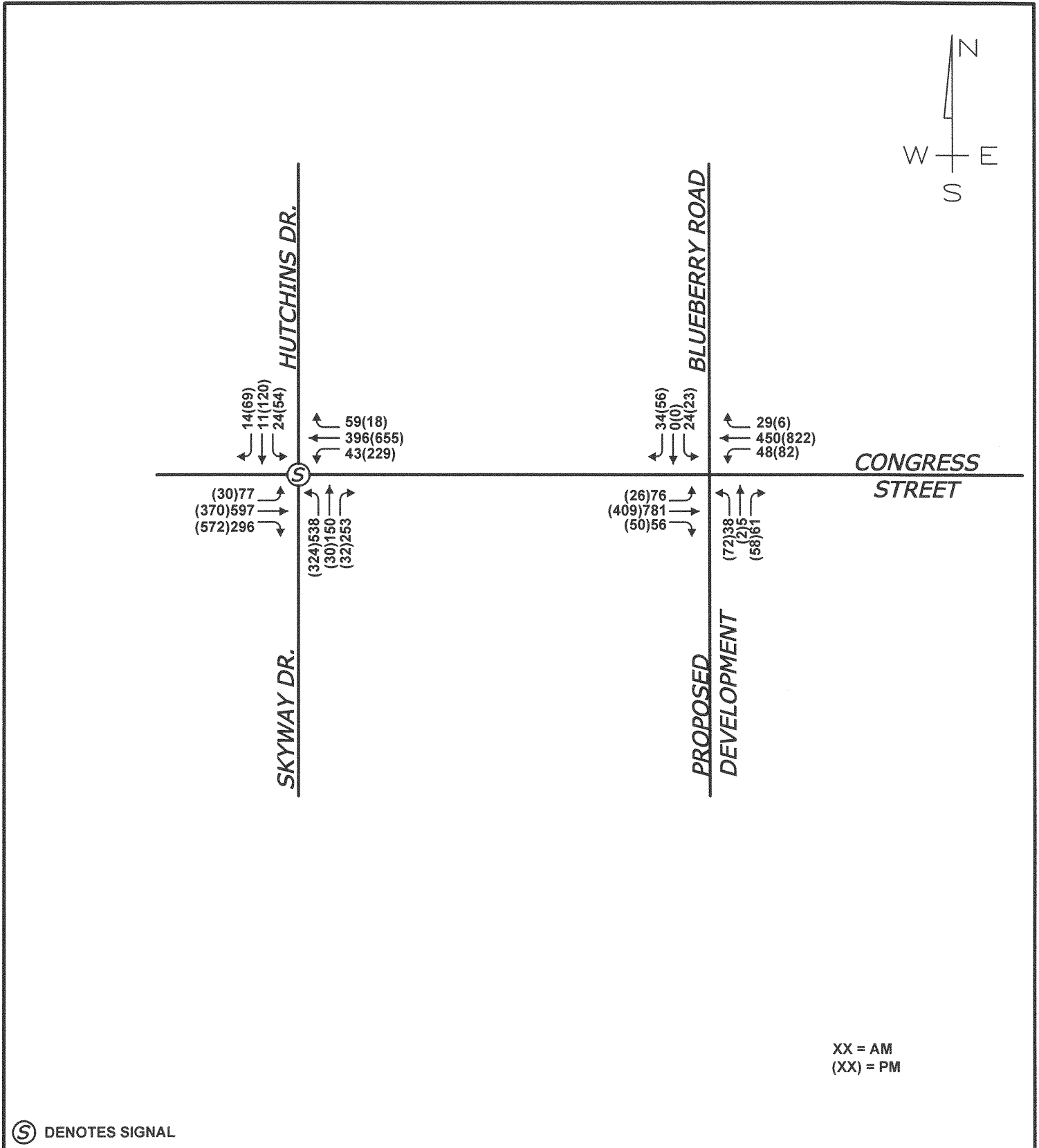
Design: TLG Scale: NONE  
 Draft: DB Date: MAR 2013  
 Checked: TLG File Name: 2672-TRAFF2.dwg

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# Post Development Traffic Volumes

Figure No. **7**



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3.

*Appendix B*  
*Capacity Analyses*



**3: Site /Blueberry Road & Congress Street Performance by approach**

| Approach           | EB  | WB  | NB   | SB   | All |
|--------------------|-----|-----|------|------|-----|
| Denied Delay (hr)  | 0.0 | 0.1 | 0.0  | 0.0  | 0.1 |
| Denied Del/Veh (s) | 0.1 | 0.7 | 0.1  | 0.1  | 0.3 |
| Total Delay (hr)   | 1.0 | 0.3 | 0.6  | 0.2  | 2.1 |
| Total Del/Veh (s)  | 3.8 | 1.8 | 26.6 | 16.6 | 4.8 |

**6: Skyway/Hutchins & Congress Street Performance by approach**

| Approach           | EB   | WB   | NB   | SB   | All  |
|--------------------|------|------|------|------|------|
| Denied Delay (hr)  | 1.5  | 0.0  | 0.1  | 0.0  | 1.6  |
| Denied Del/Veh (s) | 5.5  | 0.0  | 0.4  | 1.6  | 2.4  |
| Total Delay (hr)   | 11.7 | 3.0  | 6.9  | 0.4  | 22.0 |
| Total Del/Veh (s)  | 42.4 | 21.1 | 26.3 | 34.0 | 31.8 |

**Total Network Performance**

|                    |      |
|--------------------|------|
| Denied Delay (hr)  | 1.7  |
| Denied Del/Veh (s) | 2.4  |
| Total Delay (hr)   | 25.3 |
| Total Del/Veh (s)  | 33.7 |

**Intersection: 3: Site /Blueberry Road & Congress Street**

| Movement              | EB  | EB   | WB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|------|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | TR   | L   | TR  | LT  | R   | LT  | R   |
| Maximum Queue (ft)    | 57  | 10   | 46  | 13  | 109 | 57  | 65  | 44  |
| Average Queue (ft)    | 19  | 0    | 18  | 0   | 39  | 25  | 20  | 19  |
| 95th Queue (ft)       | 46  | 4    | 42  | 6   | 88  | 51  | 53  | 45  |
| Link Distance (ft)    |     | 1011 |     | 867 | 134 | 134 | 764 | 764 |
| Upstream Blk Time (%) |     |      |     |     | 1   |     |     |     |
| Queuing Penalty (veh) |     |      |     |     | 0   |     |     |     |
| Storage Bay Dist (ft) | 500 |      | 100 |     |     |     |     |     |
| Storage Blk Time (%)  |     |      |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |      |     |     |     |     |     |     |

**Intersection: 6: Skyway/Hutchins & Congress Street**

| Movement              | EB  | EB  | EB  | WB  | WB   | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Directions Served     | L   | T   | R   | L   | TR   | L   | TR  | LT  | R   |
| Maximum Queue (ft)    | 90  | 814 | 175 | 64  | 288  | 436 | 304 | 70  | 56  |
| Average Queue (ft)    | 54  | 475 | 142 | 25  | 165  | 245 | 137 | 26  | 14  |
| 95th Queue (ft)       | 103 | 861 | 235 | 54  | 264  | 397 | 234 | 59  | 44  |
| Link Distance (ft)    |     | 802 |     |     | 1011 | 838 | 838 | 276 |     |
| Upstream Blk Time (%) |     | 7   |     |     |      |     |     |     |     |
| Queuing Penalty (veh) |     | 0   |     |     |      |     |     |     |     |
| Storage Bay Dist (ft) | 65  |     | 150 | 500 |      |     |     |     | 155 |
| Storage Blk Time (%)  | 3   | 45  | 0   |     |      |     |     |     |     |
| Queuing Penalty (veh) | 28  | 169 | 2   |     |      |     |     |     |     |

**Network Summary**

Network wide Queuing Penalty: 200

Intersection: 6: Skyway/Hutchins & Congress Street

| Phase                | 2     | 3     | 4    | 5    | 6     | 7     | 8    |
|----------------------|-------|-------|------|------|-------|-------|------|
| Movement(s) Served   | NBTL  | WBL   | EBTL | NBL  | SBTL  | EBL   | WBTL |
| Maximum Green (s)    | 42.0  | 4.0   | 29.0 | 20.0 | 17.0  | 4.0   | 29.0 |
| Minimum Green (s)    | 4.0   | 4.0   | 4.0  | 4.0  | 4.0   | 4.0   | 4.0  |
| Recall               | None  | None  | None | None | None  | None  | None |
| Avg. Green (s)       | 30.1  | 4.0   | 30.1 | 22.1 | 10.8  | 4.3   | 29.1 |
| g/C Ratio            | -0.01 | -0.01 | NA   | NA   | -0.01 | -0.01 | NA   |
| Cycles Skipped (%)   | 10    | 65    | 0    | 0    | 52    | 51    | 0    |
| Cycles @ Minimum (%) | 0     | 35    | 0    | 0    | 0     | 47    | 0    |
| Cycles Maxed Out (%) | 12    | 35    | 92   | 88   | 8     | 49    | 77   |
| Cycles with Peds (%) | 0     | 0     | 0    | 0    | 0     | 0     | 0    |

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0



**3: Site /Blueberry Road & Congress Street Performance by approach**

| Approach           | EB  | WB  | NB   | SB   | All |
|--------------------|-----|-----|------|------|-----|
| Denied Delay (hr)  | 0.0 | 0.3 | 0.0  | 0.0  | 0.3 |
| Denied Del/Veh (s) | 0.0 | 1.2 | 0.1  | 0.1  | 0.7 |
| Total Delay (hr)   | 0.5 | 0.5 | 0.9  | 0.4  | 2.3 |
| Total Del/Veh (s)  | 3.8 | 2.1 | 24.5 | 17.4 | 5.2 |

**6: Skyway/Hutchins & Congress Street Performance by approach**

| Approach           | EB   | WB   | NB   | SB   | All  |
|--------------------|------|------|------|------|------|
| Denied Delay (hr)  | 0.8  | 0.0  | 0.2  | 0.1  | 1.0  |
| Denied Del/Veh (s) | 2.9  | 0.0  | 1.6  | 1.4  | 1.5  |
| Total Delay (hr)   | 6.3  | 6.7  | 9.2  | 2.0  | 24.3 |
| Total Del/Veh (s)  | 23.6 | 25.3 | 85.3 | 31.5 | 34.4 |

**Total Network Performance**

|                    |      |
|--------------------|------|
| Denied Delay (hr)  | 1.4  |
| Denied Del/Veh (s) | 1.8  |
| Total Delay (hr)   | 28.0 |
| Total Del/Veh (s)  | 36.4 |

**Intersection: 3: Site /Blueberry Road & Congress Street**

| Movement              | EB  | EB   | WB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|------|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | TR   | L   | TR  | LT  | R   | LT  | R   |
| Maximum Queue (ft)    | 44  | 8    | 50  | 4   | 117 | 56  | 52  | 75  |
| Average Queue (ft)    | 13  | 0    | 18  | 0   | 48  | 29  | 20  | 30  |
| 95th Queue (ft)       | 37  | 4    | 42  | 3   | 96  | 53  | 48  | 61  |
| Link Distance (ft)    |     | 1010 |     | 867 | 134 | 134 | 764 | 764 |
| Upstream Blk Time (%) |     |      |     |     | 0   |     |     |     |
| Queuing Penalty (veh) |     |      |     |     | 0   |     |     |     |
| Storage Bay Dist (ft) | 500 |      | 100 |     |     |     |     |     |
| Storage Blk Time (%)  |     |      |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |      |     |     |     |     |     |     |

**Intersection: 6: Skyway/Hutchins & Congress Street**

| Movement              | EB | EB  | EB  | WB  | WB   | NB  | NB  | SB  | SB  |
|-----------------------|----|-----|-----|-----|------|-----|-----|-----|-----|
| Directions Served     | L  | T   | R   | L   | TR   | L   | TR  | LT  | R   |
| Maximum Queue (ft)    | 90 | 607 | 175 | 282 | 475  | 596 | 273 | 208 | 178 |
| Average Queue (ft)    | 28 | 223 | 137 | 117 | 243  | 290 | 53  | 100 | 38  |
| 95th Queue (ft)       | 77 | 468 | 215 | 229 | 423  | 620 | 275 | 173 | 94  |
| Link Distance (ft)    |    | 675 |     |     | 1010 | 970 | 970 | 275 |     |
| Upstream Blk Time (%) |    | 1   |     |     |      | 2   | 2   | 0   |     |
| Queuing Penalty (veh) |    | 0   |     |     |      | 0   | 0   | 0   |     |
| Storage Bay Dist (ft) | 65 |     | 150 | 500 |      |     |     |     | 155 |
| Storage Blk Time (%)  | 1  | 36  | 7   |     | 1    |     |     | 2   | 0   |
| Queuing Penalty (veh) | 9  | 218 | 29  |     | 2    |     |     | 1   | 0   |

**Network Summary**

Network wide Queuing Penalty: 260

Intersection: 6: Skyway/Hutchins & Congress Street

| Phase                | 2     | 3     | 4    | 5    | 6     | 7     | 8    |
|----------------------|-------|-------|------|------|-------|-------|------|
| Movement(s) Served   | NBTL  | WBL   | EBTL | NBL  | SBTL  | EBL   | WBTL |
| Maximum Green (s)    | 35.0  | 10.0  | 30.0 | 12.0 | 18.0  | 5.0   | 35.0 |
| Minimum Green (s)    | 4.0   | 4.0   | 4.0  | 4.0  | 4.0   | 4.0   | 4.0  |
| Recall               | None  | None  | None | None | None  | None  | None |
| Avg. Green (s)       | 31.4  | 9.6   | 28.9 | 11.9 | 13.9  | 5.1   | 39.9 |
| g/C Ratio            | -0.01 | -0.01 | NA   | NA   | -0.01 | -0.01 | NA   |
| Cycles Skipped (%)   | 52    | 5     | 0    | 0    | 2     | 71    | 0    |
| Cycles @ Minimum (%) | 0     | 0     | 0    | 0    | 0     | 0     | 0    |
| Cycles Maxed Out (%) | 17    | 77    | 77   | 93   | 28    | 29    | 88   |
| Cycles with Peds (%) | 0     | 0     | 0    | 0    | 0     | 0     | 0    |

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

C.



*Appendix C*

*MaineDOT Crash History*

*Trip Generation Calculations*

*Lane Warrant Sheets*

4/20/12

# Crash Summary Report

## Report Selections and Input Parameters

REPORT SELECTIONS

- Crash Summary I
- Section Detail
- Crash Summary II
- 1320 Included
- 1320 & Driver Report Included

REPORT DESCRIPTION

Congress St

REPORT PARAMETERS

Year 2009, Start Month 1 through Year 2011 End Month: 12

Route: 0022X

Start Node: 10097

Start Offset: 0

Exclude First Node

End Node: 18490

End Offset: 0

Exclude Last Node

### Crash Summary I

**Nodes**

| Node                     | Route - MP   | Node Description                               | U/R | Total Crashes | K | A | B | C | PD | Injury | Percent Annual M Ent-Veh | Crash Rate | Critical Rate | CRF  |
|--------------------------|--------------|--|-----|---------------|---|---|---|---|----|--------|--------------------------|------------|---------------|------|
| 18488                    | 0022X - 3.58 | Int of BLUEBERRY RD CONGRESS ST                | 2   | 1             | 0 | 0 | 0 | 0 | 1  | 0.0    | 5.027                    | 0.07       | 0.32          | 0.00 |
| 18490                    | 0022X - 3.78 | Int of CONGRESS ST EXIT 7A CONN RD HUTCHINS DR | 9   | 18            | 0 | 0 | 1 | 7 | 10 | 44.4   | 7.811                    | 0.77       | 1.02          | 0.00 |
| <b>Study Years: 3.00</b> |              |  |     |               |   |   |   |   |    |        |                          |            |               |      |
|                          |              | <b>NODE TOTALS:</b>                            |     | 19            | 0 | 0 | 1 | 7 | 11 | 42.1   | 12.838                   | 0.49       | 0.68          | 0.72 |

Statewide Crash Rate: 0.12  
 Statewide Crash Rate: 0.62

# Crash Summary I

## Sections

| Start Node | End Node | Element  | Offset Begin - End | Route - MP                | Section U/R Length | Total Crashes | Injury Crashes A B C | PD | Percent Injury | Annual HMVM | Crash Rate | Critical Rate | CRF  |
|------------|----------|--|--------------------|---------------------------|--------------------|---------------|----------------------|----|----------------|-------------|------------|---------------|------|
| 10097      | 18488    | 3105101<br>Int of CONGRESS ST, ENT TO UNMUTUAL | 0 - 0.30           | 0022X - 3.28<br>ST RTE 22 | 0.30               | 1             | 0 0 0                | 1  | 0.0            | 0.01469     | 22.69      | 320.06        | 0.00 |
| 18488      | 18490    | 3106664<br>Int of BLUEBERRY RD CONGRESS ST     | 0 - 0.20           | 0022X - 3.38<br>ST RTE 22 | 0.20               | 4             | 0 0 0                | 2  | 50.0           | 0.00982     | 135.72     | 350.19        | 0.00 |

**Study Years:** 3.00      **Section Totals:** 0.50      5      0      0      0      0      2      3      40.0      0.02451      67.99      288.36      0.24

**Grand Totals:** 0.50      24      0      0      0      1      9      14      41.7      0.02451      326.35      412.80      0.79

## Crash Summary

| Section Details |          |         |                    |              |               |          |          |          |          |          |              |            |                  |               |  |
|-----------------|----------|---------|--------------------|--------------|---------------|----------|----------|----------|----------|----------|--------------|------------|------------------|---------------|--|
| Start Node      | End Node | Element | Offset Begin - End | Route - MP   | Total Crashes | K        | A        | B        | C        | PD       | Crash Report | Crash Date | Crash Mile Point | Injury Degree |  |
| 10097           | 18488    | 3105101 | 0 - 0.30           | 0022X - 3.28 | 1             | 0        | 0        | 0        | 0        | 1        | 2010-30437C  | 12/21/2010 | 3.29             | PD            |  |
| 18488           | 18490    | 3106664 | 0 - 0.20           | 0022X - 3.58 | 4             | 0        | 0        | 0        | 2        | 2        | 2011-5798C   | 03/26/2011 | 3.68             | PD            |  |
|                 |          |         |                    |              |               |          |          |          |          |          | 2010-14623C  | 07/13/2010 | 3.70             | C             |  |
|                 |          |         |                    |              |               |          |          |          |          |          | 2010-30418C  | 12/20/2010 | 3.74             | PD            |  |
|                 |          |         |                    |              |               |          |          |          |          |          | 2010-3515C   | 02/16/2010 | 3.77             | C             |  |
| <b>Totals:</b>  |          |         |                    |              | <b>5</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>3</b> |              |            |                  |               |  |



Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**

**Crashes by Driver Action at Time of Crash**

| Driver Action at Time of Crash   | Dr 1      | Dr 2     | Dr 3     | Dr 4     | Dr 5     | Other    | Total     |
|--|-----------|----------|----------|----------|----------|----------|-----------|
| No Contributing Action   | 1         | 2        | 1        | 0        | 0        | 0        | 4         |
| Ran Off Roadway  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Failed to Yield Right-of-Way   | 2         | 1        | 0        | 0        | 0        | 0        | 3         |
| Ran Red Light  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Ran Stop Sign  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Disregarded Other Traffic Sign   | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Disregarded Other Road Markings  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Exceeded Posted Speed Limit  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Drove Too Fast For Conditions  | 1         | 0        | 0        | 0        | 0        | 0        | 1         |
| Improper Turn  | 1         | 0        | 0        | 0        | 0        | 0        | 1         |
| Improper Backing   | 1         | 0        | 0        | 0        | 0        | 0        | 1         |
| Improper Passing   | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Wrong Way  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Followed Too Closely   | 4         | 6        | 0        | 0        | 0        | 0        | 10        |
| Failed to Keep in Proper Lane  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner            | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Over-Correcting/Over-Steering  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Other Contributing Action  | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| Unknown  | 0         | 0        | 0        | 1        | 0        | 0        | 1         |
| <b>Total</b>   | <b>10</b> | <b>9</b> | <b>1</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>21</b> |

**Crashes by Apparent Physical Condition And Driver**

| Apparent Physical Condition                      | Dr 1      | Dr 2      | Dr 3     | Dr 4     | Dr 5     | Other    | Total     |
|--|-----------|-----------|----------|----------|----------|----------|-----------|
| Apparently Normal                                | 23        | 24        | 3        | 1        | 0        | 0        | 51        |
| Physically Impaired or Handicapped               | 0         | 0         | 0        | 0        | 0        | 0        | 0         |
| Emotional(Depressed, Angry, Disturbed, etc.)     | 0         | 0         | 0        | 0        | 0        | 0        | 0         |
| Ill (Sick)                                       | 0         | 0         | 0        | 0        | 0        | 0        | 0         |
| Asleep or Fatigued                               | 0         | 0         | 0        | 0        | 0        | 0        | 0         |
| Under the Influence of Medications/Drugs/Alcohol | 1         | 0         | 0        | 0        | 0        | 0        | 1         |
| Other  | 0         | 0         | 0        | 0        | 0        | 0        | 0         |
| <b>Total</b>                                     | <b>24</b> | <b>24</b> | <b>3</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>52</b> |

**Driver Age by Unit Type**

| Age          | Driver    | Bicycle  | Snow/Mobile | Pedestrian | ATV      | Total     |
|--------------|-----------|----------|-------------|------------|----------|-----------|
| 09-Under     | 0         | 0        | 0           | 0          | 0        | 0         |
| 10-14        | 0         | 0        | 0           | 0          | 0        | 0         |
| 15-19        | 1         | 0        | 0           | 0          | 0        | 1         |
| 20-24        | 6         | 0        | 0           | 0          | 0        | 6         |
| 25-29        | 7         | 0        | 0           | 0          | 0        | 7         |
| 30-39        | 10        | 0        | 0           | 0          | 0        | 10        |
| 40-49        | 12        | 0        | 0           | 0          | 0        | 12        |
| 50-59        | 10        | 0        | 0           | 0          | 0        | 10        |
| 60-69        | 3         | 0        | 0           | 0          | 0        | 3         |
| 70-79        | 3         | 0        | 0           | 0          | 0        | 3         |
| 80-Over      | 0         | 0        | 0           | 0          | 0        | 0         |
| Unknown      | 0         | 0        | 0           | 0          | 0        | 0         |
| <b>Total</b> | <b>52</b> | <b>0</b> | <b>0</b>    | <b>0</b>   | <b>0</b> | <b>52</b> |

## Crash Summary II - Characteristics

| Most Harmful Event  |   | Total |
|---|---|-------|
| 1-Overturn / Rollover   | 0 | 0     |
| 2-Fire / Explosion  | 0 | 2     |
| 3-Immersion   | 0 | 0     |
| 4-Jackknife   | 0 | 0     |
| 5-Cargo / Equipment Loss Or Shift   | 0 | 6     |
| 6-Fell / Jumped from Motor Vehicle  | 0 |       |
| 7-Thrown or Falling Object  | 0 |       |
| 8-Other Non-Collision   | 0 |       |
| 9-Pedestrian  | 0 |       |
| 10-Pedalcycle   | 0 |       |
| 11-Railway Vehicle - Train, Engine  | 0 |       |
| 12-Animal   | 0 |       |
| 13-Motor Vehicle in Transport   | 1 |       |
| 14-Parked Motor Vehicle   | 2 |       |
| 15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle | 0 |       |
| 16-Work Zone / Maintenance Equipment  | 0 |       |
| 17-Other Non-Fixed Object   | 0 | 19    |
| 18-Impact Attenuator / Crash Cushion  | 0 | 0     |
| 19-Bridge Overhead Structure  | 0 | 0     |
| 20-Bridge Pier or Support   | 0 | 0     |
| 21-Bridge Rail  | 0 | 1     |
| 22-Cable Barrier  | 0 | 0     |
| 23-Culvert  | 0 | 0     |
| 24-Curb   | 0 | 0     |
| 25-Ditch  | 0 | 0     |
| 26-Embankment   | 0 | 0     |
| 27-Guardrail Face   | 0 | 0     |
| 28-Guardrail End  | 0 | 0     |
| 29-Concrete Traffic Barrier   | 0 | 0     |
| 30-Other Traffic Barrier  | 0 | 4     |
| 31-Tree (Standing)  | 0 | 0     |
| 32-Utility Pole / Light Support   | 0 |       |
| 33-Traffic Sign Support   | 0 |       |
| 34-Traffic Signal Support   | 1 |       |
| 35-Fence  | 0 |       |
| 36-Mailbox  | 0 |       |
| 37-Other Post Pole or Support   | 0 |       |

| Injury Data   |                | Total              |
|---------------|----------------|--------------------|
| Severity Code | Injury Crashes | Number Of Injuries |
| K             | 0              | 0                  |
| A             | 0              | 0                  |
| B             | 1              | 1                  |
| C             | 9              | 12                 |
| PD            | 14             | 0                  |
| <b>Total</b>  | <b>24</b>      | <b>13</b>          |

| Road Character   |  | Total     |
|------------------|--|-----------|
| Road Grade       |  |           |
| 1-Level          |  | 20        |
| 2-On Grade       |  | 4         |
| 3-Top of Hill    |  | 0         |
| 4-Bottom of Hill |  | 0         |
| 5-Other          |  | 0         |
| <b>Total</b>     |  | <b>24</b> |

| Light Condition           |  | Total     |
|---------------------------|--|-----------|
| Light Condition           |  |           |
| 1-Daylight                |  | 14        |
| 2-Dawn                    |  | 3         |
| 3-Dusk                    |  | 1         |
| 4-Dark - Lighted          |  | 6         |
| 5-Dark - Not Lighted      |  | 0         |
| 6-Dark - Unknown Lighting |  | 0         |
| 7-Unknown                 |  | 0         |
| <b>Total</b>              |  | <b>24</b> |

| Traffic Control Devices           |  | Total     |
|-----------------------------------|--|-----------|
| Traffic Control Device            |  |           |
| 1-Traffic Signals (Stop & Go)     |  | 19        |
| 2-Traffic Signals (Flashing)      |  | 0         |
| 3-Advisory/Warning Sign           |  | 0         |
| 4-Stop Signs - All Approaches     |  | 0         |
| 5-Stop Signs - Other              |  | 1         |
| 6-Yield Sign                      |  | 0         |
| 7-Curve Warning Sign              |  | 0         |
| 8-Officer, Flagman, School Patrol |  | 0         |
| 9-School Bus Stop Arm             |  | 0         |
| 10-School Zone Sign               |  | 0         |
| 11-R.R. Crossing Device           |  | 0         |
| 12-No Passing Zone                |  | 0         |
| 13-None                           |  | 4         |
| 14-Other                          |  | 0         |
| <b>Total</b>                      |  | <b>24</b> |



## Crash Summary II - Characteristics

### Crashes by Year and Month

| Month        | 2009     | 2010      | 2011     | Total     |
|--------------|----------|-----------|----------|-----------|
| JANUARY      | 1        | 1         | 2        | 4         |
| FEBRUARY     | 0        | 1         | 0        | 1         |
| MARCH        | 0        | 0         | 1        | 1         |
| APRIL        | 0        | 0         | 0        | 0         |
| MAY          | 2        | 0         | 1        | 3         |
| JUNE         | 1        | 0         | 0        | 1         |
| JULY         | 0        | 1         | 0        | 1         |
| AUGUST       | 1        | 2         | 1        | 4         |
| SEPTEMBER    | 1        | 1         | 0        | 2         |
| OCTOBER      | 0        | 1         | 0        | 1         |
| NOVEMBER     | 0        | 2         | 0        | 2         |
| DECEMBER     | 0        | 3         | 1        | 4         |
| <b>Total</b> | <b>6</b> | <b>12</b> | <b>6</b> | <b>24</b> |

Report is limited to the last 10 years of data.

# Crash Summary II - Characteristics

## Crashes by Crash Type and Type of Location

| Crash Type               | Straight Road | Curved Road | Three Leg Intersection | Four Leg Intersection | Five or More Leg Intersection | Driveways | Bridges  | Interchanges | Other    | Parking Lot | Private Way | Cross Over | Railroad Crossing | Total     |
|--------------------------|---------------|-------------|------------------------|-----------------------|-------------------------------|-----------|----------|--------------|----------|-------------|-------------|------------|-------------------|-----------|
| Object in Road           | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Rear End / Sideswipe     | 2             | 0           | 1                      | 16                    | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 19        |
| Head-on / Sideswipe      | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Intersection Movement    | 0             | 0           | 0                      | 2                     | 0                             | 2         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 4         |
| Pedestrians              | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Train                    | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Went Off Road            | 1             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 1         |
| All Other Animal         | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Bicycle                  | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Other                    | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Jackknife                | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Rollover                 | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Fire                     | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Submersion               | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Thrown or Falling Object | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Bear                     | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Deer                     | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Moose                    | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| Turkey                   | 0             | 0           | 0                      | 0                     | 0                             | 0         | 0        | 0            | 0        | 0           | 0           | 0          | 0                 | 0         |
| <b>Total</b>             | <b>3</b>      | <b>0</b>    | <b>1</b>               | <b>18</b>             | <b>0</b>                      | <b>2</b>  | <b>0</b> | <b>0</b>     | <b>0</b> | <b>0</b>    | <b>0</b>    | <b>0</b>   | <b>0</b>          | <b>24</b> |

Maine Department Of Transportation - Traffic Engineering, Crash Records Section  
**Crash Summary II - Characteristics**  
**Crashes by Weather, Light Condition and Road Surface**

| Weather Light                   | Dry | Ice/Frost | Mud, Dirt, Gravel | Oil | Other | Sand | Slush | Snow | Unknown | Water (Standing, Moving) | Wet | Total |
|---------------------------------|-----|-----------|-------------------|-----|-------|------|-------|------|---------|--------------------------|-----|-------|
| <b>Blowing Sand, Soil, Dirt</b> |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted              | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                        | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dusk                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Blowing Snow</b>             |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted              | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                        | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dusk                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Clear</b>                    |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted                  | 2   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 1   | 3     |
| Dark - Not Lighted              | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                            | 3   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 3     |
| Daylight                        | 6   | 1         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 7     |
| Dusk                            | 1   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 1     |
| Unknown                         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Cloudy</b>                   |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted              | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                        | 2   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 2     |
| Dusk                            | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                         | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |

# Crash Summary II - Characteristics

## Crashes by Weather, Light Condition and Road Surface

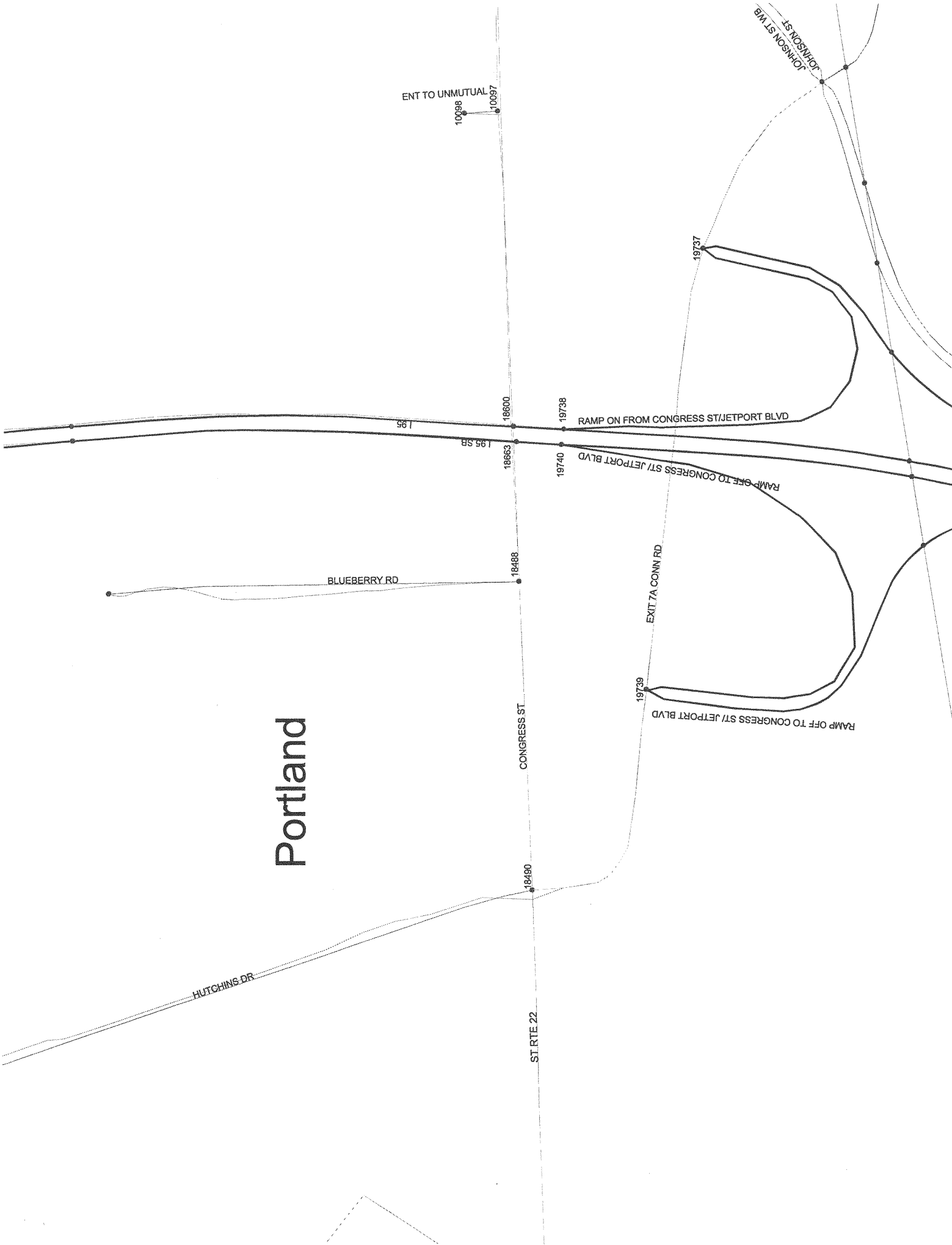
| Weather Light            | Dry | Ice/Frost | Mud, Dirt, Gravel | Oil | Other | Sand | Slush | Snow | Unknown | Water (Standing, Moving) | Wet | Total |
|--------------------------|-----|-----------|-------------------|-----|-------|------|-------|------|---------|--------------------------|-----|-------|
| <b>Fog, Smog, Smoke</b>  |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted           | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted       | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                 | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dusk                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Other</b>             |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted           | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted       | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                 | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dusk                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Rain</b>              |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted           | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted       | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                 | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 4   | 4     |
| Dusk                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| <b>Severe Crosswinds</b> |     |           |                   |     |       |      |       |      |         |                          |     |       |
| Dark - Lighted           | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Not Lighted       | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dark - Unknown Lighting  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dawn                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Daylight                 | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Dusk                     | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |
| Unknown                  | 0   | 0         | 0                 | 0   | 0     | 0    | 0     | 0    | 0       | 0                        | 0   | 0     |

# Crash Summary II - Characteristics

## Crashes by Weather, Light Condition and Road Surface

| Weather Light                                 | Dry       | Ice/Frost | Mud, Dirt, Gravel | Oil      | Other    | Sand     | Slush    | Snow     | Unknown  | Water (Standing, Moving) | Wet      | Total     |
|---|-----------|-----------|-------------------|----------|----------|----------|----------|----------|----------|--------------------------|----------|-----------|
| <b>Sleet, Hail (Freezing Rain or Drizzle)</b> |           |           |                   |          |          |          |          |          |          |                          |          |           |
| Dark - Lighted                                | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dark - Not Lighted                            | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dark - Unknown Lighting                       | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dawn  | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Daylight                                      | 0         | 1         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 1         |
| Dusk  | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Unknown                                       | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| <b>Snow</b>                                   |           |           |                   |          |          |          |          |          |          |                          |          |           |
| Dark - Lighted                                | 0         | 3         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 3         |
| Dark - Not Lighted                            | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dark - Unknown Lighting                       | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dawn  | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Daylight                                      | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Dusk  | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| Unknown                                       | 0         | 0         | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                        | 0        | 0         |
| <b>TOTAL</b>                                  | <b>14</b> | <b>5</b>  | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                 | <b>0</b> | <b>24</b> |

# Portland





JN:  
 Project Description:  
 Project Location:  
 Date:

Gorill-Palmer Consulting Engineers, Inc.  
 P.O. Box 1237  
 15 Shaker Road  
 Gray, Maine 04039

Convenience Market with Gasoline Pumps  
 Land Use Code (LUC) 853

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Vehicle Fueling Positions:

| Time Period                             | ITE Trip Rate<br>(Average Rate) | # of Sources | Trip Ends | Directional Split *<br>IN OUT | Directional Distribution<br>IN OUT | R <sup>2</sup> |
|---|---------------------------------|--------------|-----------|-------------------------------|------------------------------------|----------------|
| Weekday                                 | T = 542.60 (X)                  | 10           | 7596      | 50% 50%                       | 3798 3798                          | N/A            |
| AM Peak Hour of Adjacent Street Traffic | T = 16.57 (X)                   | 28           | 232       | 50% 50%                       | 116 116                            | N/A            |
| PM Peak Hour of Adjacent Street Traffic | T = 19.07 (X)                   | 54           | 267       | 50% 50%                       | 134 133                            | N/A            |
| AM Peak Hour of Generator               | T = 17.03 (X)                   | 26           | 238       | 50% 50%                       | 119 119                            | N/A            |
| PM Peak Hour of Generator               | T = 19.98 (X)                   | 46           | 280       | 50% 50%                       | 140 140                            | N/A            |
| Saturday                                | T = 204.47 (X)                  | 3            | 2863      | 50% 50%                       | 1432 1431                          | N/A            |
| Sat Peak Hr Gen                         | T = 10.00 (X)                   | 2            | 140       | 50% 50%                       | 70 70                              | NA             |
| Sunday                                  | T = 166.88 (X)                  | 3            | 2336      | 50% 50%                       | 1168 1168                          | N/A            |

\* Percentages rounded to nearest 5%

Gross Floor Area (ft<sup>2</sup>): 3,850

| Time Period                             | ITE Trip Rate<br>(Average Rate) | # of Sources | Trip Ends | Directional Split *<br>IN OUT | Directional Distribution<br>IN OUT | R <sup>2</sup> |
|---|---------------------------------|--------------|-----------|-------------------------------|------------------------------------|----------------|
| Weekday                                 | T = 845.60 (X)                  | 10           | 3256      | 50% 50%                       | 1628 1628                          | N/A            |
| AM Peak Hour of Adjacent Street Traffic | T = 43.90 (X)                   | 29           | 169       | 50% 50%                       | 85 84                              | N/A            |
| PM Peak Hour of Adjacent Street Traffic | T = 59.69 (X)                   | 55           | 230       | 50% 50%                       | 115 115                            | N/A            |
| AM Peak Hour of Generator               | T = 45.23 (X)                   | 26           | 174       | 50% 50%                       | 87 87                              | N/A            |
| PM Peak Hour of Generator               | T = 62.57 (X)                   | 46           | 241       | 50% 50%                       | 121 120                            | N/A            |
| Saturday                                | T = 1448.33 (X)                 | 3            | 5576      | 50% 50%                       | 2788 2788                          | N/A            |
| Sat Peak Hr Gen                         | T = 45.94 (X)                   | 3            | 177       | 50% 50%                       | 89 88                              | N/A            |
| Sunday                                  | T = 1182.08 (X)                 | 3            | 4551      | 50% 50%                       | 2276 2275                          | N/A            |

\* Percentages rounded to nearest 5%

Average

| Time Period                             | ITE Trip Rate<br>(Average Rate) | # of Sources | Trip Ends | Directional Split *<br>IN OUT | Directional Distribution<br>IN OUT | R <sup>2</sup> |
|---|---------------------------------|--------------|-----------|-------------------------------|------------------------------------|----------------|
| Weekday                                 | N/A                             | N/A          | 5426      | 50% 50%                       | 2713 2713                          | N/A            |
| AM Peak Hour of Adjacent Street Traffic | N/A                             | N/A          | 201       | 50% 50%                       | 100 101                            | N/A            |
| PM Peak Hour of Adjacent Street Traffic | N/A                             | N/A          | 249       | 50% 50%                       | 124 125                            | N/A            |
| AM Peak Hour of Generator               | N/A                             | N/A          | 206       | 50% 50%                       | 103 103                            | N/A            |
| PM Peak Hour of Generator               | N/A                             | N/A          | 261       | 50% 50%                       | 130 131                            | N/A            |
| Saturday                                | N/A                             | N/A          | 4220      | 50% 50%                       | 2110 2110                          | N/A            |
| Sat Peak Hr Gen                         | N/A                             | N/A          | 159       | 50% 50%                       | 79 80                              | N/A            |
| Sunday                                  | N/A                             | N/A          | 3444      | 50% 50%                       | 1722 1722                          | N/A            |

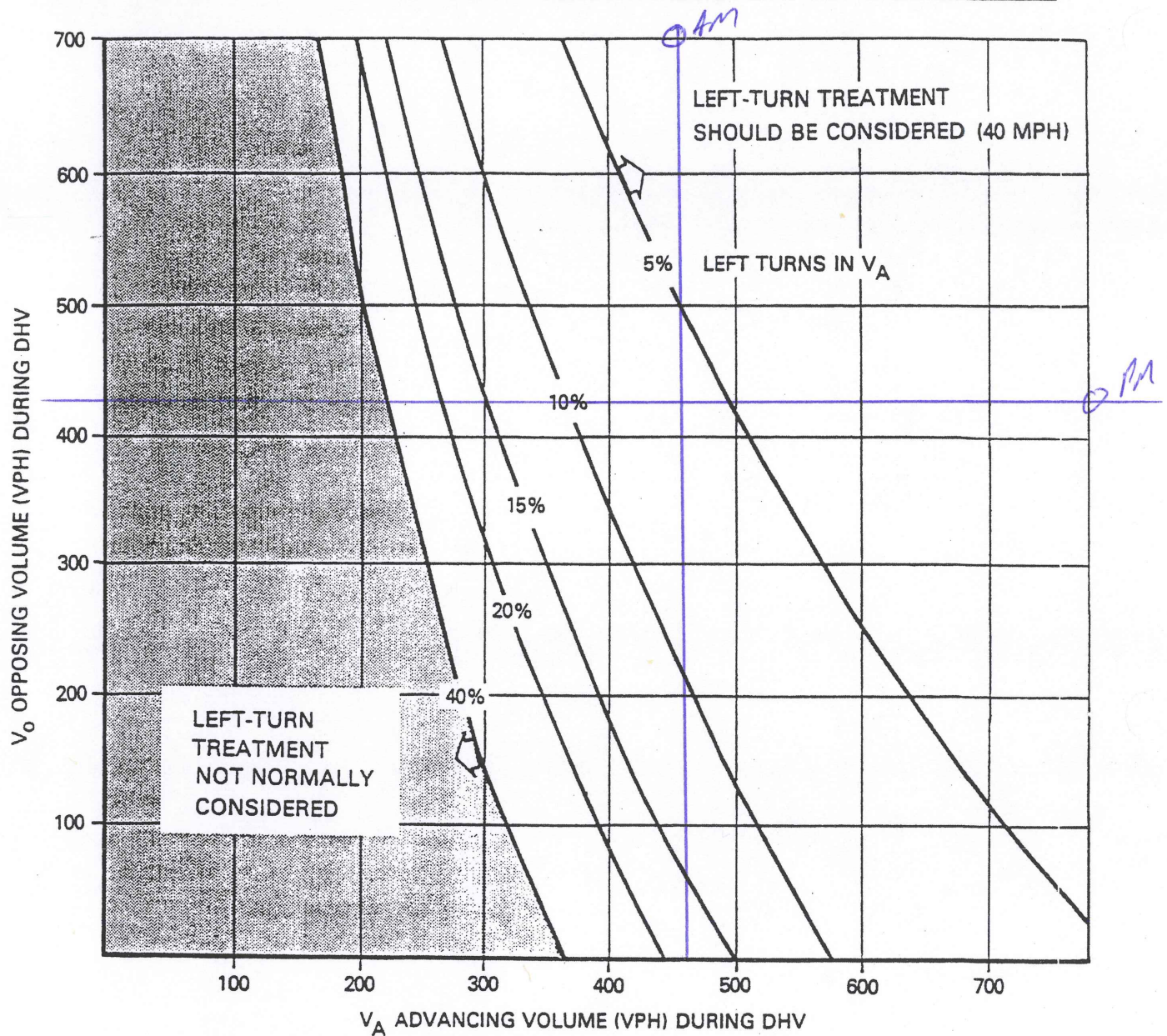
\* Percentages rounded to nearest 5%





December 2004

## AUXILIARY TURNING LANES



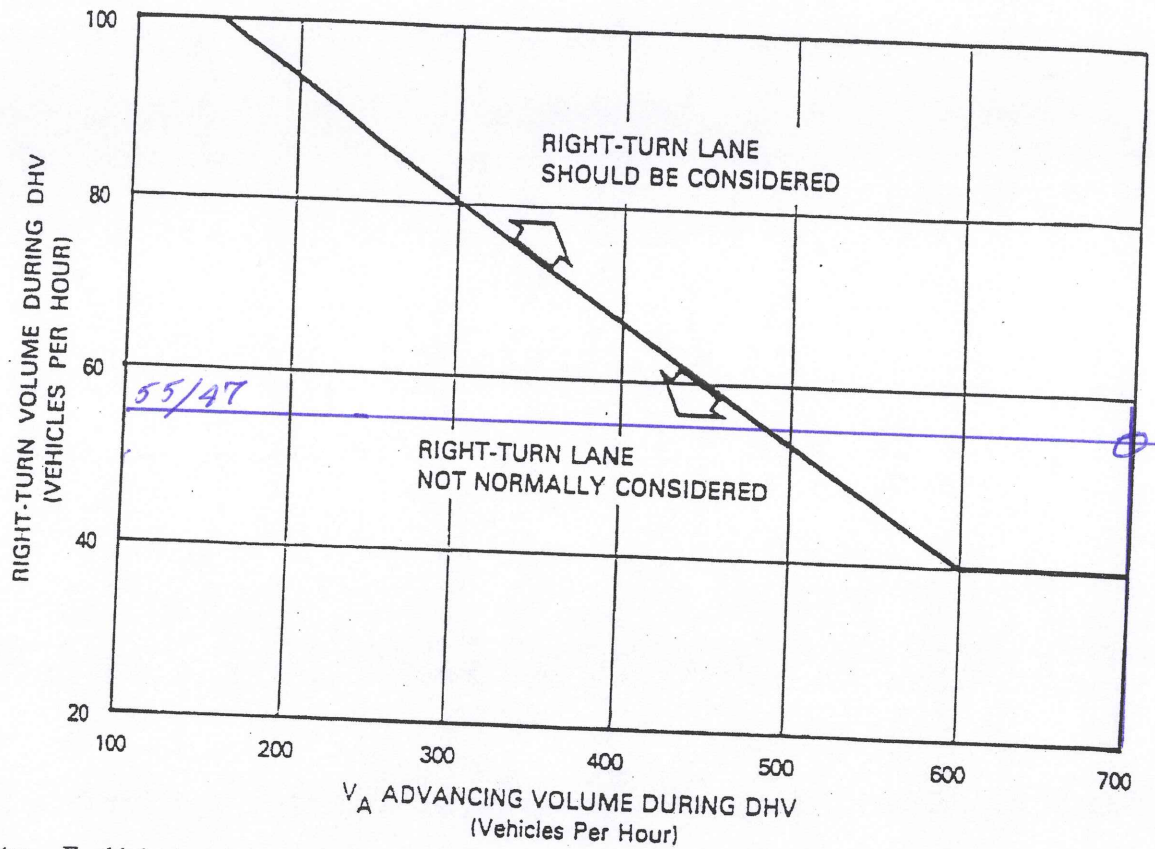
- Instructions:**
1. The family of curves represent the percent of left turns in the advancing volume ( $V_A$ ). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
  4. Read  $V_A$  and  $V_O$  into the chart and locate the intersection of the two volumes.
  5. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

**VOLUME WARRANTS FOR LEFT-TURN LANES  
AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS  
(40 mph)**

Figure 8-19

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## AUXILIARY TURNING LANES



**Note:** For highways with a design speed below 50 mph and  $DHV < 300$  and Right Turns  $> 40$ , an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

**Example**

Given: Design Speed = 40 mph  
 $V_A = 250$  vph  
 Right Turns = 100 vph

Problem: Determine if a right-turn lane should be considered.

Solution: To read the vertical axis, use  $100 - 20 = 80$  vph. The figure indicates that a right-turn lane should not normally be considered, unless other factors (e.g., high accident rate) indicate a lane is needed.

**GUIDELINES FOR RIGHT-TURN LANES  
 AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS**

Figure 8-16