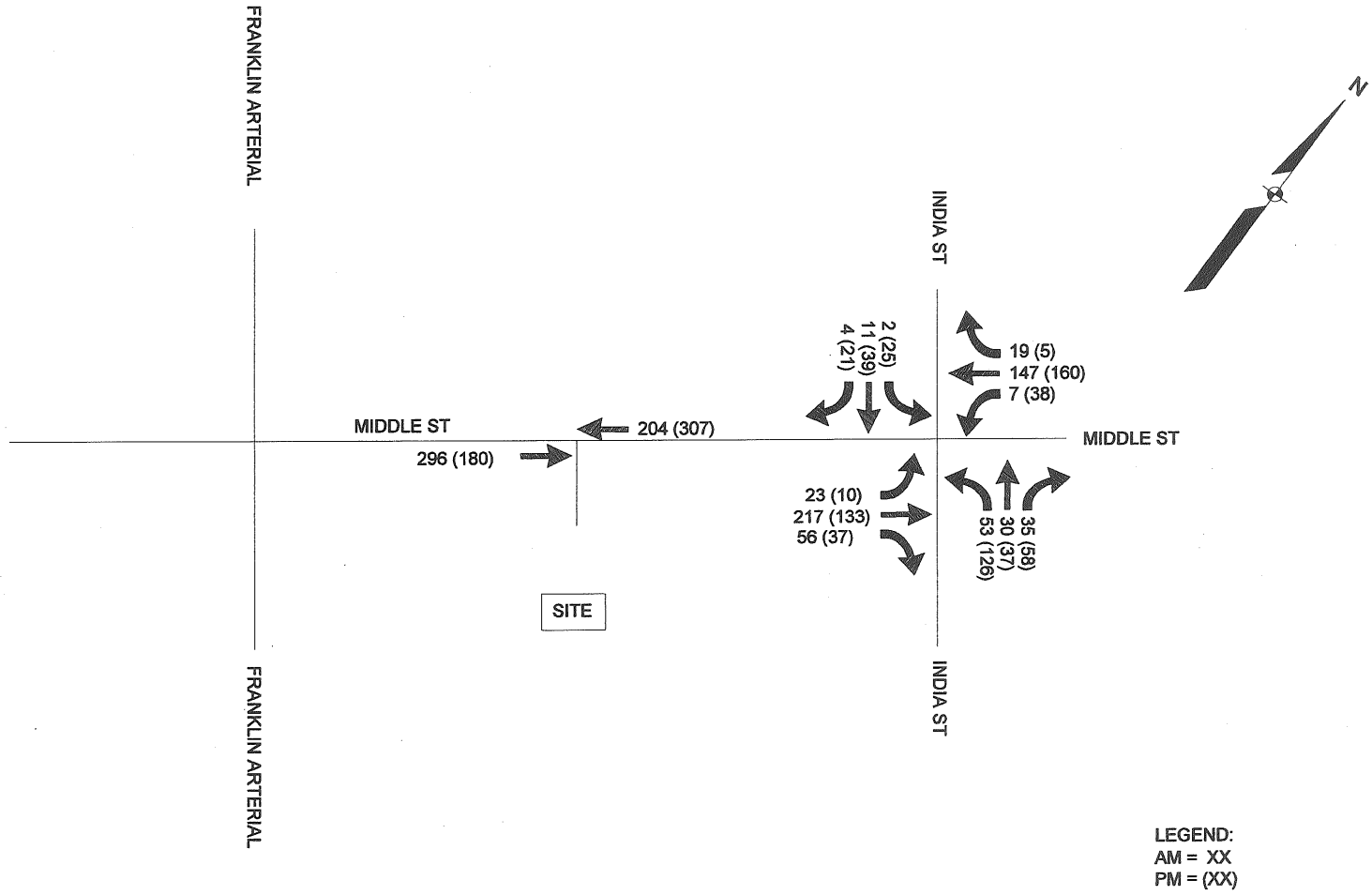
29-L-1
207-209 Fore St.
2 unit Condo.
Opechee Construction



Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

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Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES

MIDDLE STREET AT INDIA STREET

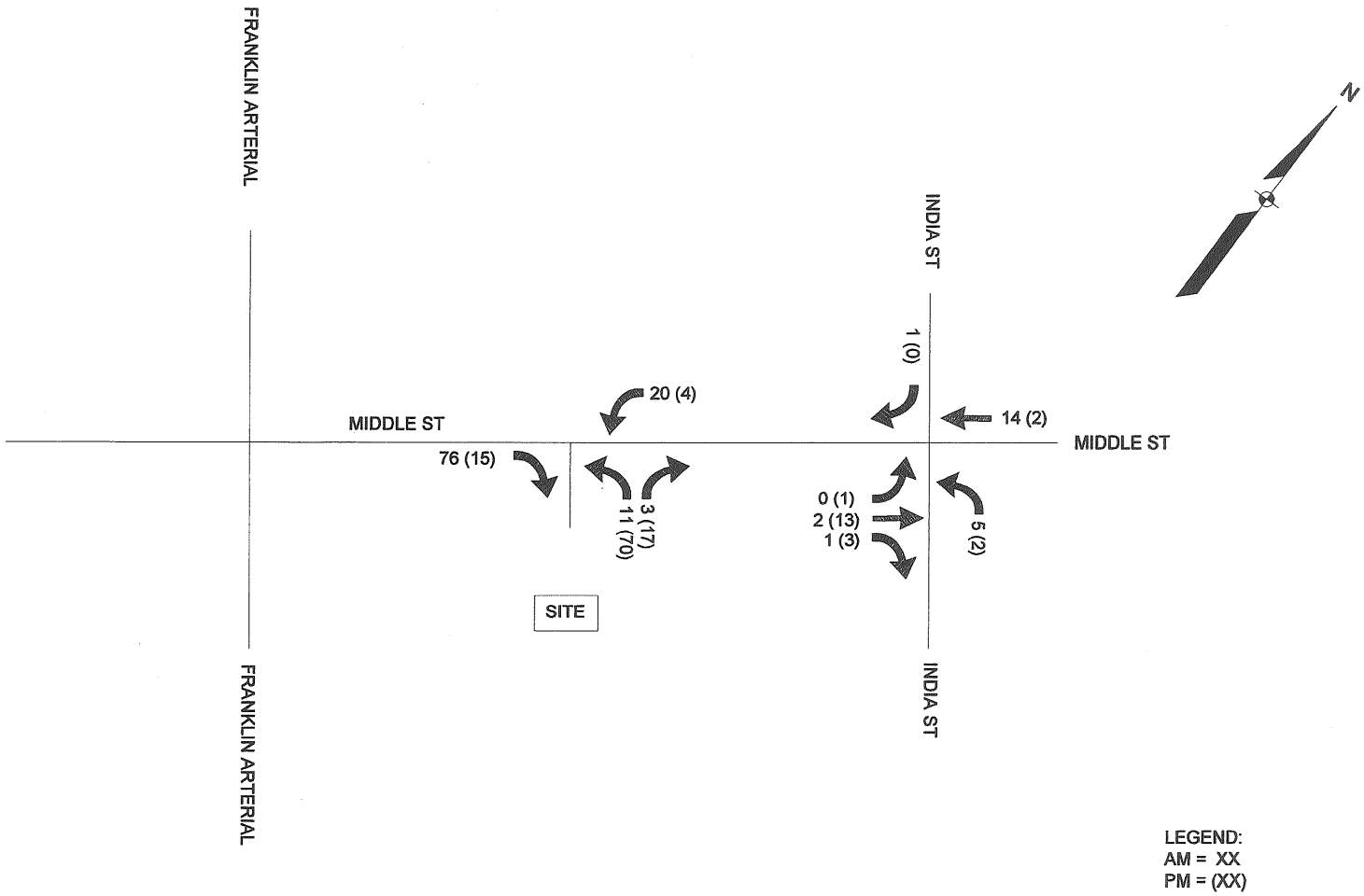
LOCATION:	MIDDLE ST. PORTLAND, MAINE	FOR:	OLD PORT HOSPITALITY, LLC. BELMONT, NH 03220

SCALE: NTS

DATE: 07/22/2010

SHEET: Fig. 1

05090TRAFFIC(PHASE2).DGN



SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES)
AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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Westbrook, Me 04098-1339
Tel (207) 856-0277

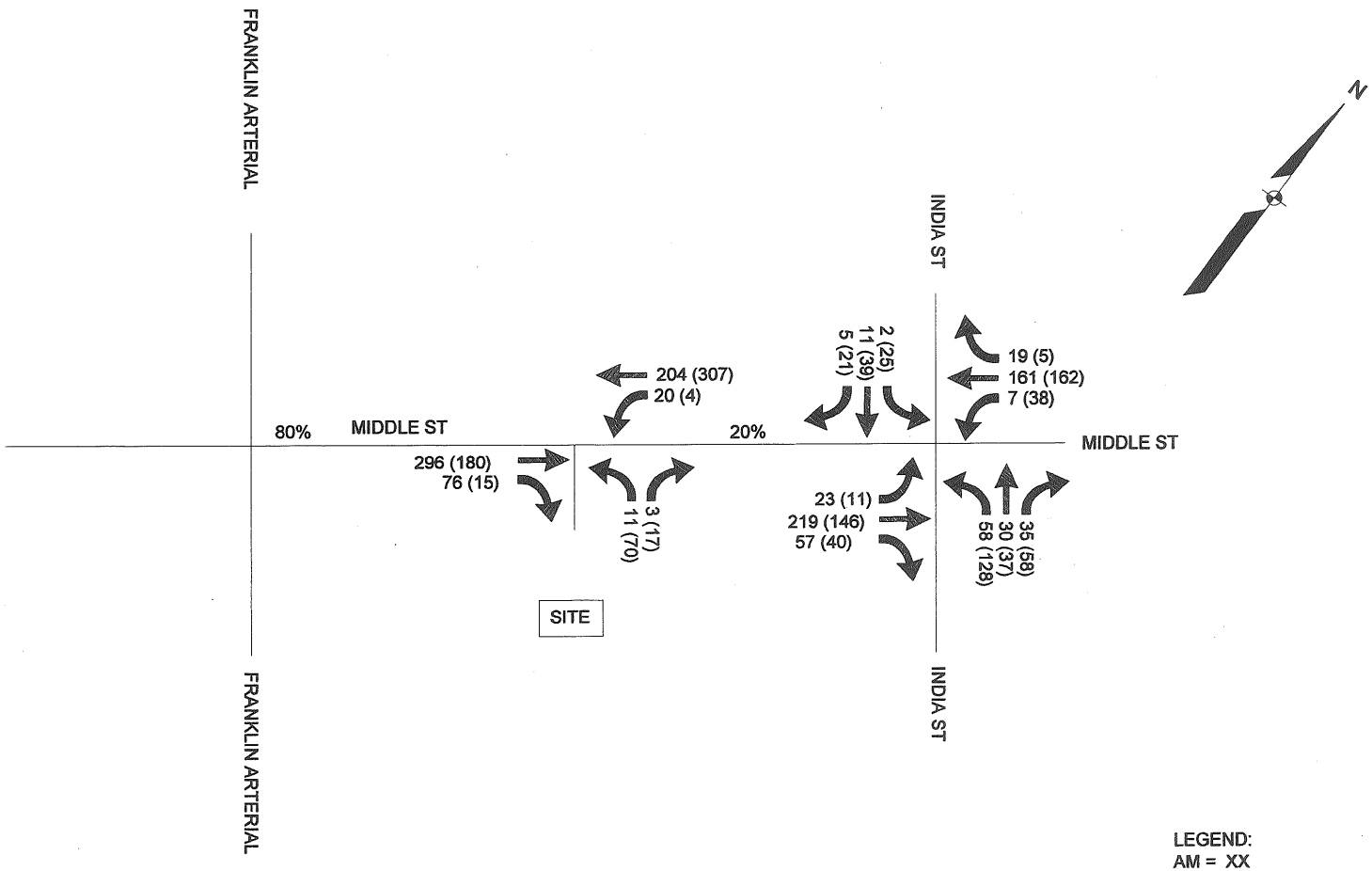
AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 2

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

Sebago Technics
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Westbrook, Me 04098-1339
Tel (207) 856-0277

FULL BUILD VOLUMES

SCALE: NTS

DATE: 07/22/2010

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SHEET: Fig. 3

05090TRAFFIC(PHASE2).DGN

July 8, 2010
August 5, 2010

To: Barbara Barhydt
Jean Fraser
From: David Margolis-Pineo
Public Services Review Comments
Re: 144 Fore Street

The Department of Public Services has the following comments.

1. Applicant should show site surface drainage.
2. Applicant should consider applying some means of stormwater treatment.
There is evidence of ponding water through out the applicant's property. The applicant has the opportunity to improve drainage and improve the longevity of the asphalt surface by reducing ponding areas. The applicant is under no obligation to either improve drainage or provide stormwater treatment.

Public Services have no comments.

Molly Casto - Comments re: 207 Fore Street parking garage

From: Christian MilNeil <c.neal.milneil@gmail.com>
To: Molly Casto <MPC@portlandmaine.gov>, Bill Needelman <WBN@portlandmaine.g...
Date: 7/12/2010 3:05 PM
Subject: Comments re: 207 Fore Street parking garage
CC: Markos Miller <markossmiller@hotmail.com>, <hbassett@portlandlandmarks.o...

Hi planners,

I won't be able to make it to today's planning board workshop, at which you'll be discussing the proposed parking garage on Fore Street, on the site of the old Jordan's factory. But I hope you'll share these thoughts with the developers:

In general, I have strong concerns at the amount of parking being proposed on this site, to the exclusion of other uses. This is a valuable and prominent property in the middle of our city. Putting a parking deck on this block will depress property values on surrounding streets, and undermine the city's goal to create a walkable district with active street-level facades.

Some specific concerns:

- FISCAL: This garage would be built across India Street from the massive city-subsidized Ocean Gateway Garage. This garage is tremendously underutilized. Under a development agreement arranged by Jack Lufkin, the city's former economic development officer, the City of Portland is still making payments of $2,000 - $4,000 a month to the garage operator - guaranteed payments for 110 parking spaces, whether or not they're actually used. Ideally, the City should be able to lease out these 110 spaces to other tenants, and at least break even. That won't happen if Opechee builds 200 more cheap parking spaces right next door.

  A parking deck is also a low-value land use that undermines the City's potential property tax revenue - not just on this parcel, but also on adjacent parcels, where land values will diminish (see below).

- TRAFFIC/COMPREHENSIVE PLANNING: The City's newly-adopted Peninsula Transit Plan calls for moving more people by transit, by foot or by bicycle, instead of by car, in part to reduce traffic on the City's network of streets. Subsidizing the storage of 200 more cars in downtown Portland undermines these goals. It also undermines the efforts underway to transform Franklin Street - which would be one of the main access corridors to this garage - into a pleasant, walkable, and economically vibrant street.

- LAND VALUES AND BUSINESS: In the downtown district, land values are strongly correlated with foot traffic, economic activity, and architectural interest of surrounding buildings and streetscapes. While the proposed townhouses at least mitigate the effect somewhat along Middle Street, the proposal as it stands will abandon long stretches of India, Fore, and Middle Streets to empty, inactive space devoid of any economic activity or visual interest. Foot traffic will suffer, and so will land values and business patronage on surrounding blocks.

I should say that I'm not opposed to any parking at all on this site. I am opposed to building so much

parking without any other active, productive uses of the property and its valuable street frontages. A good compromise might be to remove four 9' wide parking stalls from each row of the proposed garage (losing only 32 spaces) to make room for a new 36' deep building along India Street, for instance. The city would gain new space for housing and/or business, the neighborhood would gain a more active, interesting steetscapes, and the developer would gain greater rental income.

The new peninsula transit plan makes a compelling case that developers can create high-value projects by embracing walkable streetscapes, and saving millions on the construction costs of new parking garages. Opechee should embrace these strategies to create a more profitable project.

-Christian

Attachment 6b

Sebago Technics
Engineering Expertise You Can Build On

Revised Traffic Analysis Memo

Project: 05090

To: **Molly Casto, Planner, City Portland**

From: John Q. Adams, P.E., PTOE, Senior Transportation Engineer
Sebago Technics, Inc.

Date: August 4, 2010

Subject: **Response to Traffic Comments**
Old Port Hospitality, LLC – Phase 2
Fore Street, Portland

This memo serves to respond to comments received from the City's traffic engineer in his e-mail dated July 30, 2010. In his email he had the following comments, which we have written our response to after each.

1. Knowing that several other developments in the area have been permitted it is unclear whether the build traffic volumes include approved projects (Village Café site, Ocean Gateway, Phase Hotel, etc.). These projects should be included.

   Response: *We have included other development trips for the Riverwalk and Bayview projects. The other development trips are shown in Figure 3 enclosed at the end of this report.*

2. Looking at the turning movement volumes, I was surprised at the distribution. Examples include the low volume turning right onto Middle Street from southbound India Street in the morning and the reverse movement in the evening. Please check the data. Also, please note whether there were any substantial traffic detours in the area during the time of the count.

   Response: *We have reviewed our traffic counts from July 21st and made some adjustments. These are shown in Figure 1. We have also attached a copy of the Temporary Traffic Control Plan that was in effect on the date of our traffic counts. It appears from the plan that more vehicle traffic may have been using the intersection of Middle Street at India Street due to Fore Street being closed to thru traffic and only open for local traffic. With this condition in effect we still felt the traffic counts would be valid and may provide a more conservative analysis.*

3. It does not appear that pedestrian volumes were included in the analysis. Did you collect pedestrian volumes? Pedestrians are significant at India/Middle.

Response: *As was discussed with the City's traffic engineer, we made field observations of pedestrian traffic during both the AM and PM peak hours at the intersection of India St and Middle Street on Tuesday August 3, 2010. The pedestrian volumes have been included in the revised traffic operations analysis discussed in Comment 5 below.*

4. Please conduct a four-way STOP sign warrant evaluation with the data you have at the India/Middle intersection. You likely will not have all required hours, but please try to draw some conclusion.

Response: *Listed below in Table 1 are the required warrants for the Four-way Stop from the Manual on Uniform Traffic Control Devices. The combined major street vehicular volumes need to be 300 vehicles for eight hours of the day while the minor street volumes, which includes vehicles and pedestrians needs to total 200 vehicles for the same eight hours.*

Table 1
4-Way Stop Sign Warrants – India St at Middle St

Time	Major St – India St		Minor St – Middle St		Warrant Met For Hour?
	Volume	Warrant	Volume	Warrant	
7 – 8 AM	350	300	89	200	No
8 – 9 AM	507*	300	161*	200	No
4 – 5 AM	349	300	262	200	**Yes**
5 – 6 PM	436*	300	355*	200	**Yes**

*includes bike & ped volumes.

Our analysis of the four hours that we counted indicates that the volume warrants are met for two of the four hours and is close on a 3rd hour. It is likely more hours of the day meet the 4-way stop sign warrant volumes. It may be worthwhile for the City to undertake a full twelve hour count (6 AM to 6 PM) of vehicles and pedestrians at the intersection after the Old Port Hospitality has completed Phases 2 and 3 to verify if the full 8-hour 4-way Stop Sign Warrant is met at that time. In addition it appears that overall the intersection of Middle Street at India St may function better under 4-way stop sign control. This will be covered in more detail below in Comment 5.

5. For the comparison of LOS/Delay, please use SimTraffic results only. It will simply things and I believe is the better data. I would like some reply on how the SimTraffic results compares to field conditions, particularly from a queuing perspective. Talk to the person who did the count. Also, provide LOS/Delay data in tabular form in the Memo for the site drive.

Response: *Listed below are tables which summarize the traffic operations analysis utilizing the SimTraffic results. Table 2, summarizes the intersection of Middle Street at India Street under the existing and Build condition and also shows the Build condition under 4-way stop control. Conflicting pedestrian volumes have been included in this*

analysis. The build condition includes the four townhouses in Phase 2 and the 70,000 s.f. of general office space in Phase 3. Table 3, shows the operations analysis at the proposed site entrance on Middle Street. The site entrance on Middle Street has been revised to be located approximately 240 ft. from India Street.

Table 2
Traffic Operations Analysis
Middle St at India St
(Delay/LOS/95th Queue)

Approach	AM Peak Hour			PM Peak Hour		
	Existing	Build	Build w/ 4-Way Stop	Existing	Build	Build w/ 4-Way Stop
Middle EB	8.2s/A/78'	10.2s/B/93'	5.4s/A/70'	17.1s/C/173'	61.3s/F/225'	15.5s/C/158'
Middle WB	8.8s/A/49'	8.5s/A/51'	6.1s/A/51'	11.2s/B/83'	14.2s/B/102'	8.8s/A/76'
India NB	0.8s/A/27'	1.2s/A/43'	7.8s/A/83'	1.5s/A/47'	2.3s/A/71'	14.8s/B/176'
India SB	1.2s/A/34'	1.5s/A/40'	8.5s/A/112'	1.1s/A/31'	1.1s/A/34'	9.3s/A/102'
Overall	7.9s/A	3.5/A	7.5/A	7.9s/A	24.6s/C	13.1/B

The results indicate that the intersection of India Street functions satisfactory for all approaches under the Build condition for both the AM and PM peak hours except for the Middle Street eastbound approach. All approaches function at LOS "C" or better except for the Middle Street eastbound approach which will experience some delay with an average delay of 61.3 seconds. We also ran the analysis under 4-way stop control and it indicated that overall the intersection would function at a better LOS "B" compared to LOS "C" and the Middle Street eastbound approach would function at LOS "C" compared to LOS "F."

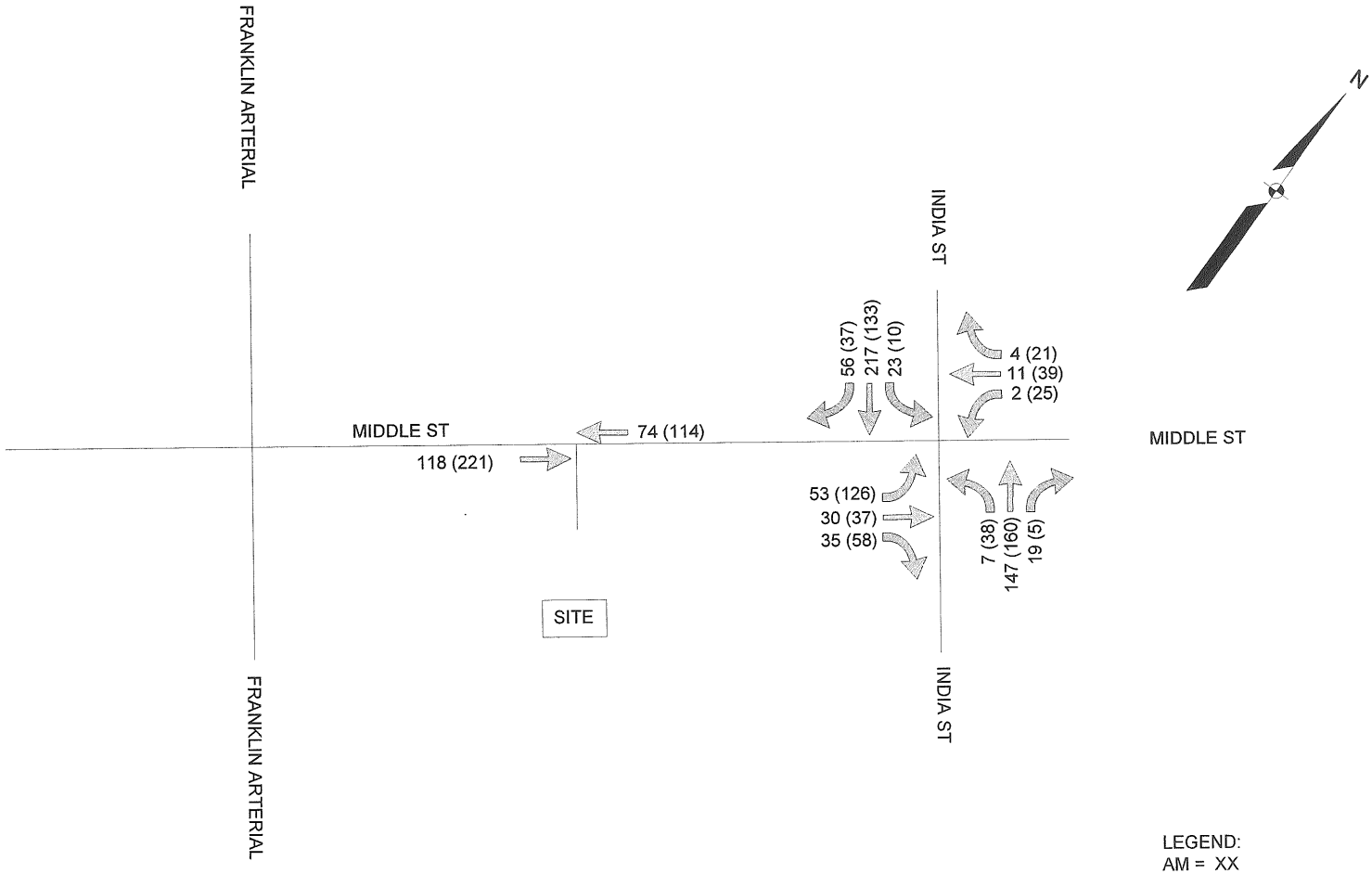
In addition, the 95th percentile queue length for the Middle Street eastbound approach will be approximately 225 ft., which should not block the proposed site entrance on Middle Street which is approximately 240 ft. from the intersection.

Table 3
Traffic Operations Analysis
Site Entrance at Middle St
(Delay/LOS/95th Queue)

Approach	AM Peak Hour		PM Peak Hour	
	Build	Build w/ 4-Way Stop	Build	Build w/ 4-Way Stop
Site NB	2.4s/A/33'	3.7s/A/31'	5.5s/A/64'	5.3S/A/65'
Middle EB	4.8s/A/80'	0.5S/A/0'	1.0s/A/32'	0.6S/A/19'
Middle WB	5.0s/A/48'	1.2S/A/24'	1.0s/A/12'	1.4S/A/14'
Overall	4.8s/A	0.9S/A	1.7s/A	1.6 A

The results indicate that the site entrance will function satisfactory under the build condition with all approaches functioning at LOS "A."

We are confident that we have responded to your comments satisfactorily. Please contact me should you need any further information.



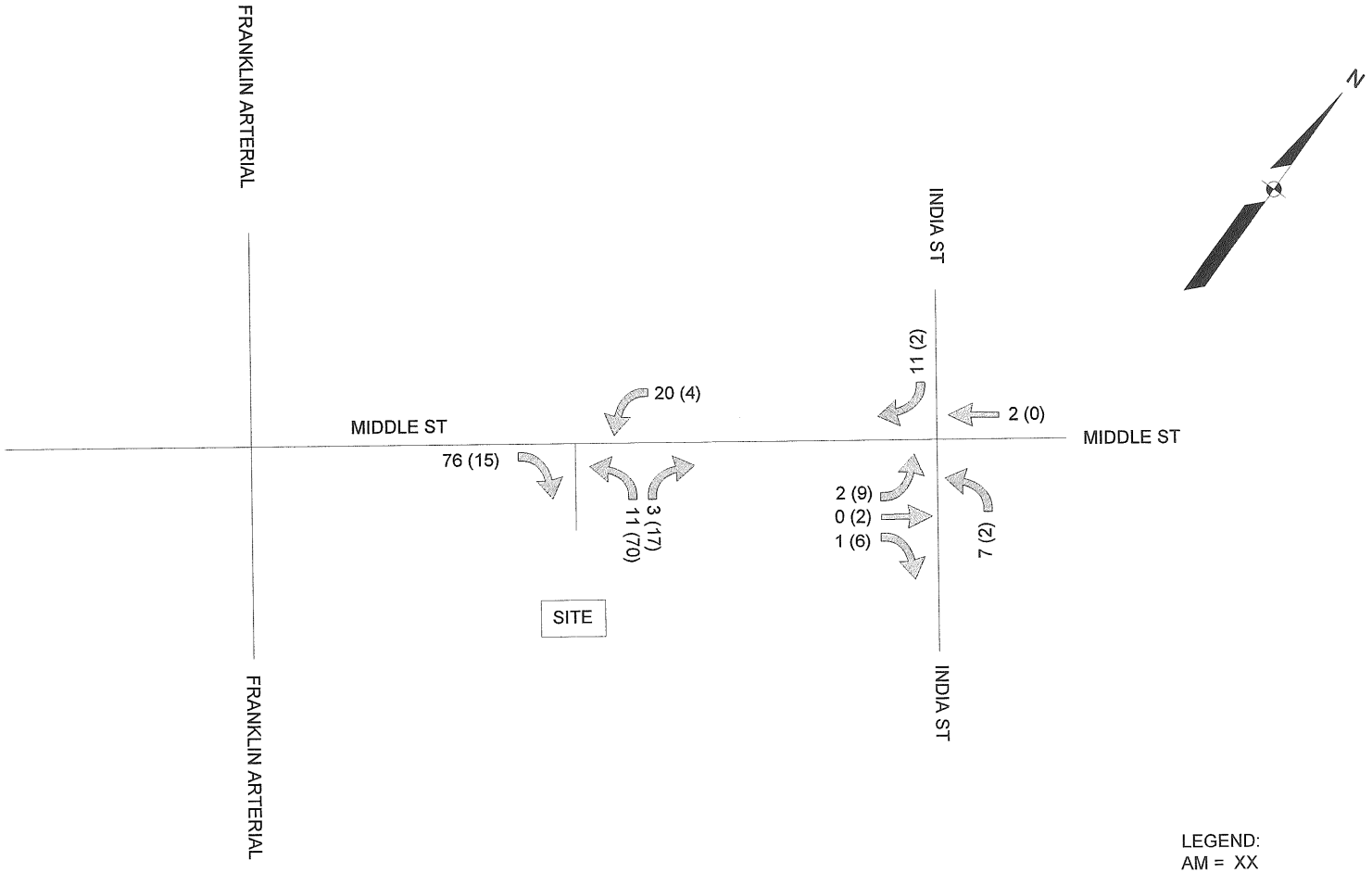
Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES
MIDDLE STREET AT INDIA STREET

LOCATION:	MIDDLE ST. PORTLAND, MAINE
FOR:	OLD PORT HOSPITALITY, LLC. BELMONT, NH 03220
SCALE:	NTS
DATE:	07/22/2010
SHEET:	Fig. 1

05090TRAFFIC(PHASE2).DGN



SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES)
AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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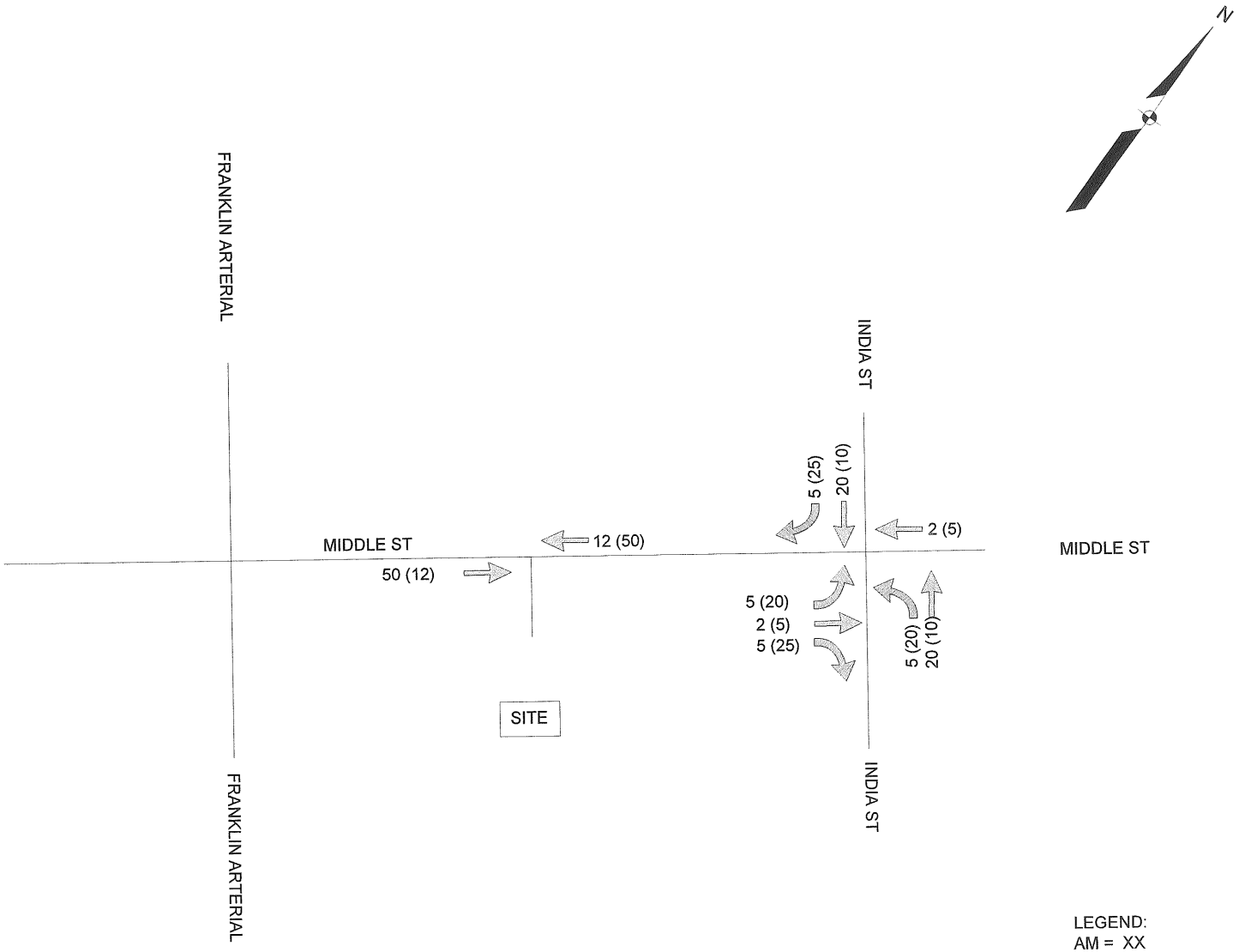
AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 2

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



OTHER DEVELOPMENT TRIPS INCLUDE: BAYVIEW AND RIVERWALK PROJECTS.

OTHER DEVELOPMENT TRIPS

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

LOCATION: MIDDLE ST.
PORTLAND, MAINE

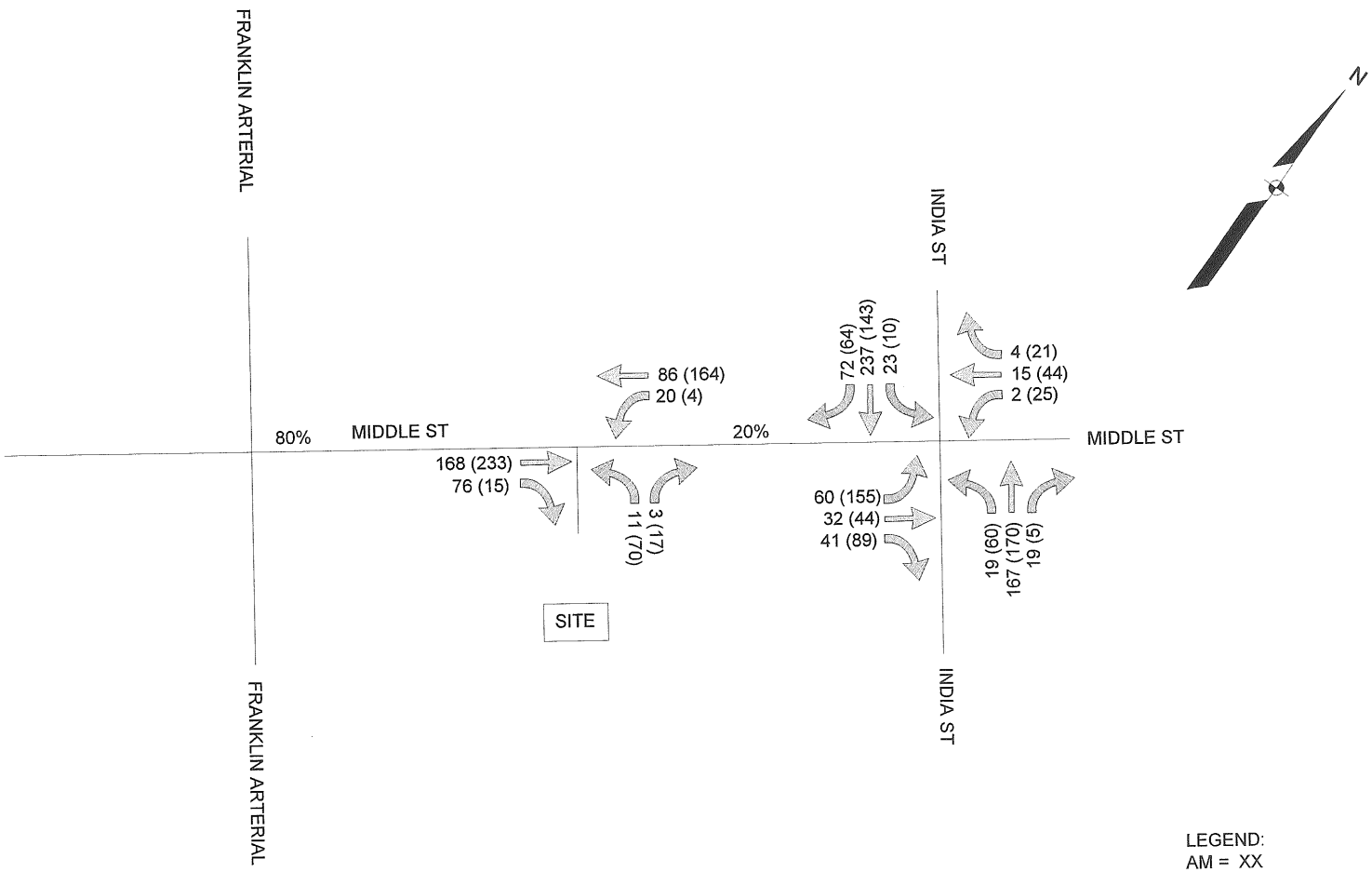
FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS

DATE: 07/22/2010

SHEET: Fig. 3

05090TRAFFIC(PHASE2).DGN



FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

Sebago Technics
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Tel (207) 856-0277

FULL BUILD VOLUMES

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 4

05090TRAFFIC(PHASE2).DGN

Appendix

- Traffic Counts: India Street at Middle Street
- SimTraffic AM and PM Peak Hour Operations Analysis: India Street at Middle Street
    - Existing Conditions
    - Build Conditions
    - Build Conditions with 4-way Stop

TRAFFIC COUNTS
WEEKDAY AM PM PEAK HOUR COUNTS

MIDDLE ST AT INDIA ST
PORTLAND, ME

Time	Middle From North					India From East					Middle From South					India From West					15-Minute Total	Hourly Total
	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings		
7:15	1	2	10			1	13/1	0			5	3	1/1			1	30	4			69	
7:30	0	3	0			1	14	2			6	2	2			4	42	12			88	
7:45	5	6	1			1	32/3	3			5	0	4			0	38	5			98	
8:00	3	4	0			0	37/2	9			5	10	10			7	70/1	17			94	349
8:15	***1***	***0***	***0***	***5***	***3***	***0***	***18***	***8***	***8***	***3***	***12***	***8***	***8***	***8***	***5***	***6***	***51***	***11***	***6***	***3***	***164***	444
8:30	***0***	***3***	***0***	***13***	***10***	***0***	***22***	***4***	***6***	***3***	***8***	***4***	***8***	***5***	***4***	***6***	***58***	***13***	***4***	***4***	***175***	531
8:45	***1***	***3***	***1***	***6***	***4***	***4***	***54/3***	***0***	***2***	***2***	***20***	***7***	***7/1***	***2***	***2***	***4***	***61/1***	***18***	***7***	***4***	***196***	629
9:00	***0***	***5***	***3***	***9***	***6***	***3***	***50***	***7***	***5***	***5***	***13***	***11***	***11***	***11***	***9***	***7***	***46***	***14***	***0***	***0***	***215***	***750***
PEAK HR TOTAL	***2***	***11***	***4***	***33***	***23***	***7***	***147***	***19***	***21***	***13***	***53***	***30***	***35***	***26***	***20***	***23***	***217***	***56***	***17***	***11***		
PHF	**0.53**					**0.71**					**0.84**					**0.88**						
4:15	6	13	0			0	43	3			19	10	35			0	18	6			153	
4:30	1	6	4			8	51	0			24	7	14			1	36	13			165	
4:45	0	9	6			13	51	3			40	5	16			1	32	8			184	
5:00	3	5	3			3	15	5			15	3	18			5	23	11			109	611
5:15	***6***	***20***	***10***	***15***	***10***	***5***	***30***	***0***	***10***	***8***	***44***	***13***	***21***	***13***	***9***	***3***	***29***	***15***	***5***	***4***	***261***	719
5:30	***4***	***7***	***2***	***5***	***5***	***12***	***63***	***3***	***5***	***4***	***29***	***8***	***17***	***11***	***10***	***2***	***43***	***7***	***6***	***3***	***237***	791
5:45	***0***	***9***	***8***	***13***	***10***	***9***	***32***	***0***	***4***	***2***	***30***	***6***	***8***	***15***	***10***	***3***	***26***	***6***	***13***	***4***	***191***	798
6:00	***15***	***3***	***1***	***5***	***5***	***12***	***35***	***2***	***6***	***4***	***23***	***10***	***12***	***10***	***7***	***2***	***35***	***9***	***4***	***3***	***196***	***885***
PEAK HR TOTAL	***25***	***39***	***21***	***38***	***30***	***38***	***160***	***5***	***25***	***18***	***126***	***37***	***58***	***49***	***36***	***10***	***133***	***37***	***28***	***14***		
PHF	**0.59**					**0.65**					**0.71**					**0.87**						

X car
x/y car/truck

COUNTS PERFORMED BY SEBAGO TECHNICS, INC ON JULY 21, 2010 BETWEEN 7-9 am & 4-6 pm, PED COUNTS PERFORMED ON TUESDAY 8/3/10.

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	8.2	8.8	0.8	1.2	2.7

Total Network Performance

Delay / Veh (s)	3.3

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	104	49	57	54
Average Queue (ft)	46	23	5	8
95th Queue (ft)	78	49	27	34
Link Distance (ft)	463	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.960			0.967			0.985			0.974	
Flt Protected		0.978			0.994			0.998			0.996	
Satd. Flow (prot)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Flt Permitted		0.978			0.994			0.998			0.996	
Satd. Flow (perm)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		491			469			454			476	
Travel Time (s)		11.2			10.7			10.3			10.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	53	30	35	2	11	4	7	147	19	23	217	56
Confl. Peds. (#/hr)	11		13	13		11	20		23	23		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.53	0.53	0.53	0.71	0.71	0.71	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	63	36	42	4	21	8	10	207	27	26	247	64
Lane Group Flow (vph)	0	141	0	0	33	0	0	244	0	0	337	0

Intersection Summary

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	17.1	11.2	1.5	1.1	7.9

Total Network Performance

Delay / Veh (s)	8.7

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	207	92	66	54
Average Queue (ft)	97	50	15	6
95th Queue (ft)	173	83	47	31
Link Distance (ft)	697	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
Total Stops	447	479	482	484	489	476
Fuel Used (gal)	16.1	19.8	18.7	21.0	17.3	18.6

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
Total Stops	447	479	482	484	489	476
Fuel Used (gal)	16.1	19.8	18.7	21.0	17.3	18.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.966			0.997			0.972	
Flt Protected		0.972			0.986			0.991			0.997	
Satd. Flow (prot)	0	1745	0	0	1774	0	0	1840	0	0	1805	0
Flt Permitted		0.972			0.986			0.991			0.997	
Satd. Flow (perm)	0	1745	0	0	1774	0	0	1840	0	0	1805	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		725			469			454			476	
Travel Time (s)		16.5			10.7			10.3			10.8	

Intersection Summary

Area Type: Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	126	37	58	25	39	21	38	160	5	10	133	37
Confl. Peds. (#/hr)	14		18	18		14	36		30	30		36
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.71	0.71	0.59	0.59	0.59	0.65	0.65	0.65	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	177	52	82	42	66	36	58	246	8	11	153	43
Lane Group Flow (vph)	0	311	0	0	144	0	0	312	0	0	207	0

Intersection Summary

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	4.8	5.0	2.4	4.8

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	10.2	8.5	1.2	1.5	3.5

Total Network Performance

Delay / Veh (s)	5.9

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	101	53	28
Average Queue (ft)	51	33	11
95th Queue (ft)	80	48	33
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	127	56	62	66
Average Queue (ft)	50	25	11	10
95th Queue (ft)	93	51	43	40
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	984	1000	993	964	946	977
Vehs Exited	985	999	992	968	941	976
Starting Vehs	7	11	11	9	6	6
Ending Vehs	6	12	12	5	11	8
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	159	159	158	156	152	157
Travel Time (hr)	7.6	7.6	7.7	7.7	7.3	7.6
Total Delay (hr)	1.5	1.5	1.6	1.7	1.5	1.6
Total Stops	568	586	667	617	594	606
Fuel Used (gal)	13.5	14.4	15.5	15.2	14.7	14.7

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	984	1000	993	964	946	977
Vehs Exited	985	999	992	968	941	976
Starting Vehs	7	11	11	9	6	6
Ending Vehs	6	12	12	5	11	8
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	159	159	158	156	152	157
Travel Time (hr)	7.6	7.6	7.7	7.7	7.3	7.6
Total Delay (hr)	1.5	1.5	1.6	1.7	1.5	1.6
Total Stops	568	586	667	617	594	606
Fuel Used (gal)	13.5	14.4	15.5	15.2	14.7	14.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.956			0.973			0.987			0.971	
Flt Protected		0.978			0.995			0.995			0.997	
Satd. Flow (prot)	0	1742	0	0	1803	0	0	1829	0	0	1803	0
Flt Permitted		0.978			0.995			0.995			0.997	
Satd. Flow (perm)	0	1742	0	0	1803	0	0	1829	0	0	1803	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			469			454			476	
Travel Time (s)		6.0			10.7			10.3			10.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	60	32	44	2	15	4	19	167	19	23	237	72
Confl. Peds. (#/hr)	11		13	13		11	20		23	23		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.53	0.53	0.53	0.71	0.71	0.71	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	71	38	52	4	28	8	27	235	27	26	269	82
Lane Group Flow (vph)	0	161	0	0	40	0	0	289	0	0	377	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	168	76	20	86	11	3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	183	83	22	93	12	3
Lane Group Flow (vph)	266	0	0	115	15	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.958				0.973	
Flt Protected				0.991	0.962	
Satd. Flow (prot)	1785	0	0	1846	1744	0
Flt Permitted				0.991	0.962	
Satd. Flow (perm)	1785	0	0	1846	1744	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	228			263	107	
Travel Time (s)	5.2			6.0	2.4	

Intersection Summary	
Area Type:	Other

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	1.0	1.0	5.5	1.7

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	61.3	14.2	2.3	1.1	24.6

Total Network Performance

Delay / Veh (s)	24.4

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	71	25	75
Average Queue (ft)	5	1	37
95th Queue (ft)	32	12	64
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			0.00
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	226	130	97	53
Average Queue (ft)	154	56	27	8
95th Queue (ft)	225	102	71	34
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)	0.03			
Queuing Penalty (veh)	8			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 8

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1262	1244	1215	1271	1230	1244
Vehs Exited	1257	1243	1212	1264	1231	1241
Starting Vehs	5	9	6	3	12	5
Ending Vehs	10	10	9	10	11	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	10	3
Travel Distance (mi)	201	195	194	200	196	197
Travel Time (hr)	13.7	14.2	13.8	16.3	22.4	16.1
Total Delay (hr)	5.9	6.6	6.3	8.5	14.8	8.4
Total Stops	691	696	687	729	705	702
Fuel Used (gal)	22.1	24.1	24.3	27.1	29.3	25.4

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1262	1244	1215	1271	1230	1244
Vehs Exited	1257	1243	1212	1264	1231	1241
Starting Vehs	5	9	6	3	12	5
Ending Vehs	10	10	9	10	11	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	10	3
Travel Distance (mi)	201	195	194	200	196	197
Travel Time (hr)	13.7	14.2	13.8	16.3	22.4	16.1
Total Delay (hr)	5.9	6.6	6.3	8.5	14.8	8.4
Total Stops	691	696	687	729	705	702
Fuel Used (gal)	22.1	24.1	24.3	27.1	29.3	25.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.958			0.963			0.997			0.960	
Flt Protected		0.974			0.988			0.987			0.998	
Satd. Flow (prot)	0	1738	0	0	1772	0	0	1833	0	0	1785	0
Flt Permitted		0.974			0.988			0.987			0.998	
Satd. Flow (perm)	0	1738	0	0	1772	0	0	1833	0	0	1785	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			469			454			476	
Travel Time (s)		6.0			10.7			10.3			10.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	155	44	89	21	44	25	60	170	5	10	143	64
Confl. Peds. (#/hr)	14		18	18		14	36		30	30		36
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.71	0.71	0.59	0.59	0.59	0.65	0.65	0.65	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	218	62	125	36	75	42	92	262	8	11	164	74
Lane Group Flow (vph)	0	405	0	0	153	0	0	362	0	0	249	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992				0.974	
Flt Protected				0.999	0.961	
Satd. Flow (prot)	1848	0	0	1861	1744	0
Flt Permitted				0.999	0.961	
Satd. Flow (perm)	1848	0	0	1861	1744	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	228			263	107	
Travel Time (s)	5.2			6.0	2.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	233	15	4	164	70	17
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	253	16	4	178	76	18
Lane Group Flow (vph)	269	0	0	182	94	0

Intersection Summary

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	0.5	1.2	3.7	0.9

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	5.4	6.1	7.8	8.5	7.5

Total Network Performance

Delay / Veh (s)	8.5

Intersection: 1: Middle &

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	36	29
Average Queue (ft)	5	10
95th Queue (ft)	24	31
Link Distance (ft)	211	77
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	86	54	94	138
Average Queue (ft)	44	25	58	71
95th Queue (ft)	70	51	83	112
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	967	999	1006	1000	937	982
Vehs Exited	970	995	1005	1003	929	979
Starting Vehs	10	11	11	8	2	6
Ending Vehs	7	15	12	5	10	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	156	158	160	162	150	157
Travel Time (hr)	8.3	8.3	8.5	8.8	7.9	8.4
Total Delay (hr)	2.3	2.3	2.3	2.6	2.2	2.3
Total Stops	867	872	893	900	825	870
Fuel Used (gal)	16.4	19.5	19.0	19.1	18.8	18.6

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	967	999	1006	1000	937	982
Vehs Exited	970	995	1005	1003	929	979
Starting Vehs	10	11	11	8	2	6
Ending Vehs	7	15	12	5	10	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	156	158	160	162	150	157
Travel Time (hr)	8.3	8.3	8.5	8.8	7.9	8.4
Total Delay (hr)	2.3	2.3	2.3	2.6	2.2	2.3
Total Stops	867	872	893	900	825	870
Fuel Used (gal)	16.4	19.5	19.0	19.1	18.8	18.6

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	0.6	1.4	5.3	1.6

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	15.5	8.8	14.8	9.3	13.1

Total Network Performance

Delay / Veh (s)	14.3

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	29	30	74
Average Queue (ft)	1	2	37
95th Queue (ft)	19	14	65
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			0.00
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	178	84	242	113
Average Queue (ft)	102	47	94	61
95th Queue (ft)	158	76	176	102
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)	0.00			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1277	1292	1248	1222	1207	1250
Vehs Exited	1273	1292	1243	1218	1211	1248
Starting Vehs	5	9	9	4	12	7
Ending Vehs	9	9	14	8	8	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	203	204	197	194	192	198
Travel Time (hr)	12.6	13.8	13.1	12.3	11.8	12.7
Total Delay (hr)	4.6	5.8	5.4	4.7	4.3	5.0
Total Stops	1269	1300	1250	1211	1196	1243
Fuel Used (gal)	25.9	28.6	26.3	26.4	24.5	26.3

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

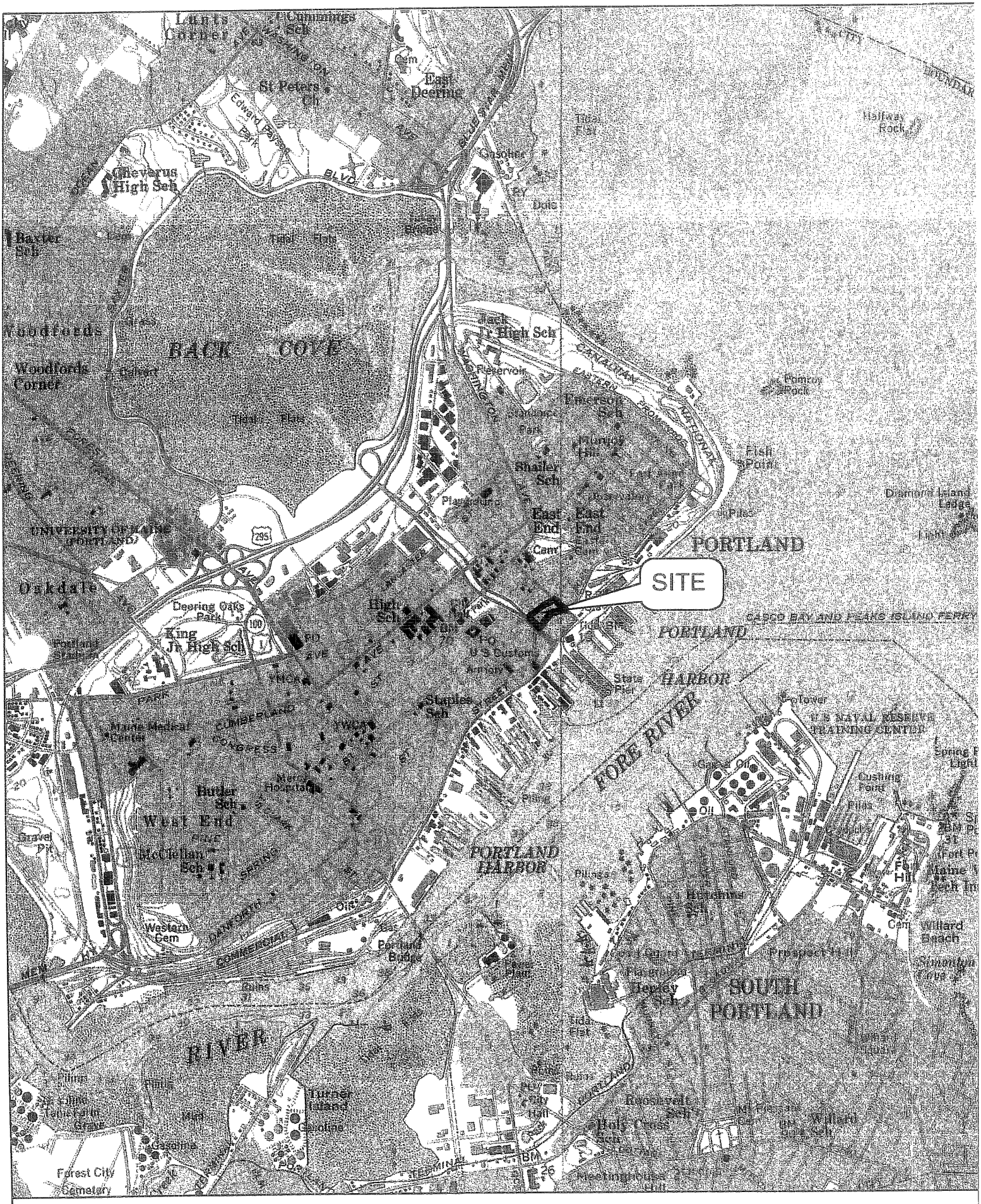
No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1277	1292	1248	1222	1207	1250
Vehs Exited	1273	1292	1243	1218	1211	1248
Starting Vehs	5	9	9	4	12	7
Ending Vehs	9	9	14	8	8	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	203	204	197	194	192	198
Travel Time (hr)	12.6	13.8	13.1	12.3	11.8	12.7
Total Delay (hr)	4.6	5.8	5.4	4.7	4.3	5.0
Total Stops	1269	1300	1250	1211	1196	1243
Fuel Used (gal)	25.9	28.6	26.3	26.4	24.5	26.3



Name: PORTLAND EAST
Date: 2/10/2010
Scale: 1 inch equals 2000 feet

Location: 043° 39' 36.03" N 070° 15' 14.57" W NAD27

Appendix C: Essential Habitat & Historic Preservation Inquiry Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Field Office – Ecological Services
17 Godfrey Drive, Suite #2
Orono, ME 04473
(207) 866-3344 Fax: (207) 866-3351

In Reply Refer To: 53411-2010-SL-0120
FWS/Region5/ES/MEFO

February 24, 2010

Steve Long
Opeechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Dear Mr. Long:

Thank you for your letter dated February 5, 2010 requesting information or recommendations from the U.S. Fish and Wildlife Service. This letter provides the Service's response pursuant to Section 7 of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531-1543), Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) and the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667d).

Project Name/Location: Hotel, Fore Street, Portland, ME

Federally listed species

Based on the information currently available to us, no federally threatened or endangered species under the jurisdiction of the Service are known to occur in the project area. Accordingly, no further action is required under Section 7 of the ESA, unless: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

Other protected species

We have not reviewed this project for state-threatened and endangered wildlife, wildlife species of special concern, and significant wildlife habitats protected under the Maine Natural Resources Protection Act. I recommend that you contact the Maine Department of Inland Fisheries and Wildlife:

Steve Timpano
Maine Department of Inland Fisheries and Wildlife
284 State St.
State House Station 41
Augusta, ME 04333-0041
Phone: 207 287-5258

I recommend that you contact the Maine Natural Areas Program for additional information on state-threatened and endangered plant species, plant species of special concern, and rare natural communities.

Lisa St. Hilaire
Maine Natural Areas Program
Department of Conservation
93 State House Station
Augusta, ME 04333
Phone: 207 287-8046

Bald eagles

Occasional, transient bald eagles (*Haliaeetus leucocephalus*) may occur in the area. Based on the information currently available to use, there are no bald eagle nests near your project. The bald eagle was removed from the federal threatened list on August 9, 2007 and is now protected from take under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. "Take" means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. The term "disturb" under the Bald and Golden Eagle Protection Act was recently defined within a final rule published in the Federal Register on June 5, 2007 (72 Fed. Reg. 31332). "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

Further information on bald eagle delisting and their protection can be found at http://www.fws.gov/migratorybirds/baldeagle.htm.

Please consult with our new national bald eagle guidelines, which can found at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

These Guidelines are voluntary and were prepared to help landowners, land managers and others meet the intent of the Eagle Act and avoid disturbing bald eagles. If you believe your project will result in taking or disturbing bald or golden eagles, please contact our office for further guidance. We encourage early and frequent consultations to avoid take of eagles.

If you have any questions, please call Mark McCollough, endangered species biologist, at (207) 866-3344 ext.115.

Sincerely,

Lori Nordstrom, Project Leader
Maine Field Office

STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

JOHN ELIAS BALDACCI
GOVERNOR

ELIZA TOWNSEND
ACTING COMMISSIONER

February 17, 2010

Steve Long
Opechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Re: Rare and exemplary botanical features in proximity to: Proposed Hotel/Restaurant Development, Portland, Maine.

Dear Mr. Long:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of February 5, 2010 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

www.maine.gov/doc
PHONE: 207-287-4900
FAX: 207-287-2400
TTY: 888-577-6690

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Sarah Demers

Sarah Demers
Environmental Review Coordinator
Maine Natural Areas Program
207-287-8670
sarah.demers@maine.gov

Enclosures

Rare and Exemplary Botanical Features in the Project Vicinity

ocumented within a four-mile radius of the proposed Hotel/Restaurant Development, Portland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Chimaphila maculata	G5	S2	E	11	1991-09	Hardwood to mixed forest (forest, upland)
Viola palmata	G5	SH	PE	1	1908	Hardwood to mixed forest (forest, upland)
Carex polymorpha	G3	S1	E	9	1911-06-29	Dry barrens (partly forested, upland)
Allium canadense	G5	S2	SC	6	1918-07-16	Hardwood to mixed forest (forest, upland)
Allium tricoccum	G5	S3	SC	17	1978-06-28	Forested wetland
Platanthera flava var. herbiola	G4T4Q	S2	SC	27	1907-07-05	Non-tidal rivershore (non-forested, seasonally wet)
Elymus hystrix	G5	S3	SC	10	1905-09-13	Hardwood to mixed forest (forest, upland)
Eleocharis engelmannii	G4G5Q	SH	PE	2	1916-08-31	Open wetland, not coastal nor rivershore (non-forested, wetland)
Adlumia fungosa	G4	S1	T	9	1860-10	Rocky summits and outcrops (non-forested, upland)
Suaeda calceoliformis	G5	S2	T	5	1932-09-12	Tidal wetland (non-forested, wetland)
Zannichellia palustris	G5	S2	SC	9	1913-09-13	Tidal wetland (non-forested, wetland)
Aureolaria pedicularia	G5	S3	SC	13	1902-09-02	Dry barrens (partly forested, upland)
Polygala cruciata var. aquilonia	G5T4	SH	PE	1	1903-08-18	Dry barrens (partly forested, upland)
Lobelia siphilitica	G5	SX	PE	3	1905-09	Forested wetland
Allium canadense	G5	S2	SC	5	1921-07-26	Forested wetland
Saxifraga pensylvanica	G5	S3	SC	3	1913-06-11	Forested wetland

Rare and Exemplary Botanical Features in the Project Vicinity

Documented within a four-mile radius of the proposed Hotel/Restaurant Development, Portland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Proserpinaca pectinata	G5	S1	E	1	1906-09-29	Open wetland, not coastal nor rivershore (non-forested, wetland)
Triosteum aurantiacum	G5	S1	E	5	1910-06-19	Non-tidal rivershore (non-forested, seasonally wet)
Lonicera dioica	G5	S2	E	5	1905-06	Hardwood to mixed forest (forest, upland)
Allium tricoccum	G5	S3	SC	42	2003-06-17	Hardwood to mixed forest (forest, upland)
Wolffia columbiana	G5	S2	SC	2	2002-08-04	Open water (non-forested, wetland)

Planning Board Report #28-10

PLANNING BOARD REPORT
PORTLAND, MAINE

STRUCTURED PARKING
207-209 FORE STREET
MAJOR SITE PLAN, SUBDIVISION
PROJECT ID # 99700003
FORE INDIA MIDDLE, LLC. OPECHEE CONSTRUCTION CORP, APPLICANT

Submitted to:	**Prepared by:**
Portland Planning Board	Molly Casto, Senior Planner
Public Hearing Date: August 10, 2010	**Date:** August 6, 2010

1. Introduction

Opechee Construction Corporation, doing business as Fore India Middle, LLC. requests Planning Board review and approval for a 2 unit condominium project at 207-209 Fore Street. The proposed condominium in comprised of the following:

- A two story parking structure, with each deck representing an individual lot

Please Note: The original proposal presented at the July 13th workshop was for a 6-unit subdivision comprised of the parking structure described above (2 lots) plus four townhouses (4 lots). Based on discussions with Planning staff, the applicant has chosen to bifurcate the review and is bringing forward the parking structure only for Planning Board consideration at this time. The townhouse component of the development will be presented to Board at a future meeting as an individual application.

This project is presented as the second phase of the recently approved hotel, restaurant, and residential development located at 207-209 Fore Street. The project is being reviewed as a major site plan and subdivision.

Notice has been sent to 154 property owners in the vicinity of the project area and was printed in the July 26th and August 2nd editions of the *Portland Press Herald*. Notice of the Public Hearing and a copy of this report were also posted on the City of Portland website.

2. Project Data

Total Site Acreage:	47,473 sq. ft. (1.09 acres)	
Zone:	B-3 Downtown Business	
Existing Uses:	Unconstructed 90 space surface parking lot (approved April, 2010).	
Proposed Use:	2 story structured parking.	
Proposed structure height:	Parking Structure: • 11' higher than the grade at abutting hotel corner on Fore Street.	
Proposed parking:	106 (lower) + 102 (upper) = 208 spaces	
Required Parking		
Proposed bicycle pkg.:	12 spaces at Fore Street	
Impervious surface:	Existing:	19,770 (approved April, 2010)
	Proposed:	36,023

3. Right, Title and Interest

The owner of the property is Fore India Middle, LLC. The applicant provided a copy of a Quitclaim Deed, recorded at the Cumberland County Registry of Deeds (Book 27859 Page 68) demonstrating right, title and interest in the property (Attachment 2).

4. Proposed Development and Background

The subject development parcel encompasses the recently created Lot 2 at 207-209 Fore Street. Lot 2 is approximately 1.09 acres and is bounded by the new subdivision property line with lot 1 to the west, Middle Street to the north, Fore Street to the south and India Street to the east. The surrounding area is a transitional district that links the Old Port District with the India Street neighborhood and Eastern Waterfront District. Existing development on the opposite side of abutting streets includes a mix of surface parking and multi-storied development including retail, office and restaurant with some upper story residential.

The site is currently under construction for the recently approved six-story hotel, residence and restaurant development oriented to the Fore and Franklin Street corner of the site. The April, 2010 approval included a 90 space surface parking lot on Lot 2 buffered by a 35-foot strip of green space at Fore, India and Middle Streets (as required by the B-3 conditional use standards of the Land Use Code). This site plan seeks to accommodate a 2 story parking structure in the place of the approved surface parking.

The site slopes from Middle to Fore Street and is served by all public utilities.

The first floor of the proposed parking structure is accessed from Fore Street. The 106 parking spaces proposed on this floor will be designated for use by the approved hotel and residences located on Lot 1 and will replace the 90 parking spaces that were previously approved. The first level would include 3 uncovered spaces and 103 covered spaces. The 102 space upper parking deck is accessed through a two-lane drive on Middle Street. The

proposed parking spaces are between 8 and 10.5 ft wide by 17 to 18 ft deep. The proposed aisle width is 24 ft, throughout.

Waiver Request: The applicant has requested a waiver from the applicable technical standards for parking stall dimensions. See staff review comments under site plan review for further discussion.

The upper story of the parking structure will be illuminated by three 20 ft light poles, each with four fixtures. This has been revised from the applicant's original proposal, which would have required a waiver from the City of Portland technical standards. The applicant has withdrawn their request for a waiver.

According to the submitted elevation drawings, the upper deck will be enclosed with a partial height wall. This represents a revision to the original proposal, which proposed a decorative fence.

Waiver Request: The applicant has submitted a waiver request to exceed the 5 ft minimum build-to line required in the B3 zone, in order to allow the parking lot to be constructed further than 5 ft from the property line (see Attachments 2 and 10). The applicant is required to demonstrate compliance with Section 14-220(c) of the Land Use Code. Additional discussion is provided under the 'Zoning' and 'Staff review' sections of this memorandum.

The applicant will be constructing brick sidewalk along Fore Street as required of the April, 2010 approval. There is existing brick sidewalk along India Street. The applicant proposes to retain bituminous concrete sidewalk along Middle Street until the proposed townhouses and future office structure at the corner of Middle and India are constructed. The City retained a performance guarantee as part of the April, 2010 approval of Phase 1 for the installation of brick sidewalk along the Middle Street frontage to account for future construction. The condition of Planning Board approval reads as follows:

> *Prior to issuance of a building permit, the applicant shall post a performance guarantee equal to the value of installing brick sidewalk for the entire length of the Middle Street frontage of the subject parcel. The term of the performance guarantee shall be no-longer than 2 years after the date of approval for the subject development, as may be extended at the City's sole discretion. If after 2 years following the date of site plan approval, the applicant has not installed a brick sidewalk along the entire Middle Street lot frontage, the City may draw on the Performance Guarantee funds to complete such an improvement.*

5. Zoning

The following comments, with updates since the July 13th workshop, have been provided by Marge Schmuckal, Zoning Administrator:

> *This new project is located on lot #2 in the B-3 Zone. The proposal is proposing a two story parking garage (which is a listed permitted use) and four town house condominiums (also a listed permitted use).*

The applicant is requesting that the approval be considered for two phases: first the parking garage and then the four residential units.

- The proposal is now for a two story parking garage only. The townhouse phase will return as a separate application.

My count of parking spaces on the plans shows that there are 104 parking spaces on the lower level instead of the 110 spaces stated in the submitted text. There will be 103 spaces on the upper level just as outlined in the narrative. Additionally there are three surface parking spaces that are located 35' from Middle Street.

- The site plan and narrative have been updated to show 106 spaces on the lower level, including the 3 uncovered spaces, and 103 spaces on the upper level.

I believe that the parking garage is exempt from the minimum 35' building height requirement under section 14-220(h)(1) which gives an exemption to the 35' minimum height for "accessory building components and structures such as truck loading docks, covered parking, mechanical equipment and refrigeration units". I have determined that the parking structure meets the requirement of covered parking.

The project does not meet the 5' setback of the street wall build-to line. The Ordinance allows the PB to approve the differences under 14-526(a)(16). The project will need to go to the PB for a subdivision approval on the 4 residential dwelling units.

- The townhouses will return to the Planning Board as a separate application; however subdivision approval is still required for the parking structure.

The project is not in the Historic District nor a PAD district. The street line along Middle Street is a PAD Encouragement area. I believe that all other B-3 Zone requirements are being met. I would like to get a scaled drawing of the town houses for further reviews. Only unscaleable sketches were submitted.

- Scaled elevation drawings have been submitted for the parking structure. The townhouses are not under review at this time.

6. Public Comment and Neighborhood Meeting

Other than at the Planning Board workshop and the required Neighborhood Meeting, one letter public comment was received during this review. This was provided to the Board at the July 13th workshop and is attached to this report (Attachment 14)

The applicants held the required Neighborhood Meeting on Thursday July 29, 2010 at Portland High School. Documentation of this meeting are provided as Attachment 9.

7. July 13th Workshop Summary

At the July 13th workshop, issues were raised by public regarding the project's proposed phasing (at the time when the townhouses were proposed as phase 2 under this application). There was concern over the proposed design of the townhouses and whether the parking structure would result in an overabundance of parking in this neighborhood. This was especially of concern if future proposed development phases did not proceed.

After the workshop, Planning staff met with the applicant. Based on recommendations generated at that meeting, the applicant proposed to revise the townhouse plan and bring that phase forward as a separate application at a future meeting. Parking is a permitted use in the zone by right. At the workshop, the applicant presented their vision for future development phases, which include an office building at the corners of India, Middle and Fore Streets. They are proposing the parking structure at this time in order to establish the necessary infrastructure and base for that future development. The applicant has submitted a plan that addresses applicable site plan and design standards to present the parking structure as a standalone application.

8. Staff Review

The development has been reviewed by staff according to applicable site plan and subdivision standards of Section 14-526 and 14-497 of the Land Use Code.

Documents Reviewed

- Major Site Plan with Subdivision Application dated June 22, 2010 prepared by Opechee Construction Corporation
- Traffic Analysis Memo and revised memo, submitted by Sebago Technics, Inc. on behalf of Fore India Middle, LLC dated July 23, 2010 and August 4, 2010.
- Revised Engineering Plans, Sheets C01 – C03, C04a-C04c, CO5a-CO5c, CO6a-CO6c, CO7a-CO7c, CO8, CO9, C10. Sectional Subdivision Plan SO1 by Opechee Construction on behalf of Fore India Middle, LLC.
- Subdivision Plat, dated April 23, 2010 prepared for Old Port Hospitality, LLC by Sebago Technics.
- Elevation drawings prepared by Opechee Construction, dated July 20, 2010.

(a) Subdivision Standards

The proposed development has been reviewed by staff for conformance with the relevant review standards of the subdivision ordinance. Staff comments are listed below.

1. Will Not Result in Undue Water and Air Pollution (Section 14-497 (a) 1), and Will Not Result in Undue Soil Erosion (Section 14-497 (a) 4)

The revised plans have been reviewed by Dan Goyette, Consulting Engineer and by David Margolis Pineo, Deputy City Engineer. Both their original and final comments are included as Attachments C and D. The applicant has adequately addressed City

review comments. The submitted Stormwater Management Plan is consistent with the Grading and Utilities Plans. The development will not result in undue air and water pollution or undue soil erosion.

2/3. Sufficient Water Available (Section 14-497 (a) 2 and 3)

The applicant has submitted a letter from Portland Water District (PWD) stating that there is adequate capacity for both water and sewer for the proposed development (Attachment 8). Note that the capacity letter incorporates the originally proposed townhouses as well as the proposed parking structure, which is connected to existing water service from India Street.

4. Will Not Cause Unreasonable Traffic Congestion (Section 14-497 (a) 5)

Tom Errico, Consulting Transportation Engineer has reviewed the revised proposal and finds the project to be acceptable. It should be noted that the parking facility will not generate new traffic to the area. The purpose of the traffic study and analysis was to confirm that the Middle Street parking deck driveway is designed to accommodate future development phases (e.g. office space) should they be brought forward. It is Tom Errico's professional opinion that the Middle Street driveway is located such that it maximizes its distance from both Franklin Street and India Street, thus avoiding any backup problems. While it is located in close proximity to Hampshire Street, this condition is not likely to be problematic due to the low volumes turning from Hampshire Street (Hampshire Street is a one-way southerly flow road). The analysis conducted by the applicant indicates the driveway on Middle Street will operate at an excellent level of service. Tom's complete comments are provided as Attachment A.

The applicant has provided a Traffic Study detailing the amount of traffic entering and entering the second floor parking level under full occupancy (during AM and PM peak hours) along with an assessment of conditions relating to traffic operations with respect to the India Street/Middle Street intersection (Attachment 6). Tom Errico has reviewed and approved the submitted traffic study, as discussed above.

Proposed Condition of Approval: The applicant will be responsible for incorporating all changes to parking signs on Middle Street near the proposed driveway. The exact details of on-street parking will be determined by City staff.

Proposed Condition of Approval: In reviewing the submittal , Tom concurs with the applicant that a post development traffic count should be conducted at the subject intersection. Staff recommends that this be included as a condition of approval. If an office building phase is permitted, a monetary contribution and/or off-site mitigation improvements will likely be requested at that time. Note that as part of the Phase 1 approval, there was a condition of approval requiring a contribution of $1,200.00 towards improvements at the India Street/Middle Street intersection.

5. Will Provide for Adequate Sanitary Sewer and Stormwater Disposal (Section 14-497 (a) 6), and Will Not Cause an Unreasonable Burden on Municipal Solid Waste and Sewage (Section 14-497 (a) 7)

See (a) 1 above concerning discussion of stormwater disposal.

6. Scenic Beauty, Natural, Historic, Habitat and other Resources (Section 14-497 (a) 8)

The applicant has provided letters from state agencies showing no significant natural or historic resources in the area. Additionally, the site is not subject to local historic preservation protections. Jeff Tarling, City Arborist has reviewed the revised landscaping plan and approves of the proposed design (Attachment C).

7. Comprehensive Plan (Section 14-497 (a) 9)

The project is designed to be compliant with the B-3 zone which implements the following relevant components of the City's Comprehensive Plan for this portion of the Downtown.

- *Downtown Vision - The overall goals contained in Downtown Vision include:*
    - *Preserve and enhance the livability and walkability of Downtown Portland for residents, workers, shoppers, and visitors.*
    - *Encourage growth and development Downtown while preserving and strengthening the unique identity and character of the Downtown.*
    - *Achieve the highest quality urban experience through high standards of excellence for improvements to the physical environment, including new construction, building alterations, and the enhancement of the pedestrian environment.*
    - *Guide and position the Downtown in response to changing market conditions to maintain its vitality and strength to achieve the above stated goals.*

The proposal addresses applicable design standards for the B3 zone, which are intended to enhance the livability of Portland's Downtown and adjoining neighborhoods through incorporation of façade and landscape treatments and other pedestrian amenities into the design. Applicable design standards are discussed in detail in the Site Plan Review section of this report.

8. Financial Capability (Section 14-497 (a) 10)

The estimated cost of the parking structure development is $1.2 million. The applicant has submitted a written statement citing the following as demonstration of Financial Capacity (Attachment 2):

- Acquisition of the 1.75 acre Fore Street site for 3.8 million with 1.9 million of bank debt (public record).
- Funding necessary engineering, surveying, legal and design work for review and approval of Phase 1 within the past year.
- Obtaining ownership of the Hampton Inn Portland Downtown/Waterfront franchise currently under construction at the site.
- Providing two bank letters of credit to secure performance guarantees for the April, 2010 approval.
- Financing the demolition of the Jordan's Meat production Plant Facility
- Obtaining financing from Bank of New England for Phase 1, currently under construction at the site.

Planning has reviewed and approves of the applicant's statement of financial capacity.

9. Shoreland Impact (Section 14-497 (a) 11) and Flood Hazard (Section 14-497 (a) 13)

The project is not in a Shoreland Zone. The project is not in a 100-year flood zone.

10. Groundwater (Section 14-497 (a) 12), Wetlands (Section 14-497 (a) 14) and Streams (Section 14-497 (a) 15).

No ground or surface water impacts are anticipated.

(b) SITE PLAN STANDARDS

The proposed development has been reviewed by staff for conformance with the relevant review standards of Portland's site plan ordinance and applicable regulations. Staff comments are listed below.

1. Traffic (Section 14-526 (a) 1), Vehicle and Bicycle Parking (Section 14-526 (a) 2 a, b and c)

The applicant proposes to construct 106 spaces on the lower parking deck, including 3 uncovered spaces, and 103 spaces on the upper level. For Phase 1, the applicant submitted a parking analysis citing an anticipated parking demand of 92 vehicles (assuming the 122 room hotel generates a need for 80 parking spaces and the 12 condominium units generate a need for 12 spaces). This proposal expands the approved parking to allocate 106 spaces to the hotel and condominiums. Thus, staff finds the proposed amount of parking to be adequate. Parking on the upper deck would be available for public lease, pending future development phases. In future phases, 8 of the spaces would be dedicated to the proposed townhouses and the remaining 95 would be dedicated to the proposed office building.

As previously stated, the applicant has requested a waiver from the dimensional requirements for parking stalls, as detailed in the City of Portland Technical Manual. Tom Errico has reviewed and supports the applicant's request.

Waiver Request: The applicant requests a waiver from the City of Portland Technical Standards to allow for reduced radii for the driveway along Middle Street. Tom Errico has reviewed and supports the applicant's request.

Proposed Condition of Approval: The applicant has included detectible pedestrian warning devices at the Middle Street driveway. The detectible warning devices should be aligned to orientate pedestrians along the path of travel. Planning Staff proposes a condition of approval requiring that the plan should be revised to meet this standard.

The applicant has included parking for 12 bicycles along Fore Street.

2. Bulk, Location, Health, Safety Air (Section 14-526 (a) 3) and Bulk, Location, Height of Proposed Buildings (Section 14-526 (a) 4)

The bulk height and location of the development is not anticipated to negatively impact surrounding properties.

3. Sewers, Storm drains, Water (Section 14-526 (a) 5), Soils and Drainage (Section 14-526 (a) 8), and Consistent with City Infrastructure (Section 14-526 (a) 11

See Subdivision comments above and the City Engineer comments in Attachments D and E. The development is designed to be consistent with surrounding City infrastructure, including sewers, storm drains, and roadways.

4. Landscaping and Buffering (Section 14-526 (a) 6) and Minimizes Disturbance or Destruction of Existing Vegetation (Section 14-526 (a) 7)

Jeff Tarling, City Arborist has reviewed and approves of the proposed landscape design (Attachment C).

5. Exterior Lighting (Section 14-526 (a) 9)

The submitted exterior lighting plan shows three 20 ft lighting poles, each with four fixtures. The submitted illumination levels meet applicable City technical standards, not exceeding 5.0 fc (maximum), 0.2 fc (minimum) and 1.25 fc (average).

Condition of Approval: There are 6 street lights (total) proposed along the Middle and Fore Street frontages. There is no street lighting proposed along the India Street frontage at this time. Planning staff recommends a condition of approval requiring that these 6 street lights be of the approved lighting type, size and color according to the recently adopted Section 10- Municipal Street Lighting of the 2010 City of Portland Technical Manual.

6. Fire and Emergency Access (Section 14-526 (a) 10)

Captain Keith Gautreau of the City of Portland Fire Department has reviewed and approves of the proposed plan (Attachment B).

7. Industrial Development (Section 14-526 (a) 12)

Not applicable.

8. Existing Natural Resources (Section 14-526 (a) 20) and Significant Groundwater Aquifer (Section 14-526 (a) 21)

No significant natural or ground water resources will be impacted by this development. See subdivision standards, above.

(c) DESIGN REVIEW:

12. B-3 Design Standards (Section 14-526 (a) 16)

The applicant has submitted a narrative describing how the proposal meets applicable design standards (Attachment 10). Planning Staff has conducted a review of the revised plans for conformance with the B-3 Design Standards and the applicable Downtown Urban Design Guidelines and approves of the proposal.

Site Plan Standards14-526 (a)

(16) Development located within the B-3 zone shall also meet the following standards. Adequacy in meeting these standards will be evaluated on the basis of descriptions and illustrations in the Downtown Urban Design Guidelines. Nothing in this section is intended to discourage creative and responsive design or to mandate similarity or mimicry of design in order to achieve the standards herein:

a. *Relationship to the pedestrian environment:*

1. General: The exterior design of portions of buildings within the first thirty-five (35) feet of height shall enhance the character, attractiveness, comfort, security, and usability of the street level pedestrian environment. Factors to be considered include the design, placement, character and quality of the following:

(a) Storefronts and building facades, including such factors as relationship to adjacent or nearby structures or open space, pedestrian character, materials and detailing, transparency and contemporary design;

(b) Building entrances, including such factors as compatibility with the building's façade, prominence along the street, access to the street, and accessibility

for physically handicapped or for those with special needs;

(c) Blank facades; and

The parking structure façade will be brick with concrete detail. The applicant proposes stone wall and landscaping treatments in the revised plan to break up what had been a blank façade along India Street. 4 granite benches are proposed along the Fore and Middle Street frontages as pedestrian amenities. Lighted display windows for artwork and information are located along the Fore Street frontage.

(d) Special features, such as selective use of such features as building arcades and skywalks or elevated walkways.

These types of special features are not proposed as part of this development.

2. *Pedestrian activities district (PAD):*

Not Applicable.

3. *Pedestrian activities district (PAD) encouragement areas: In addition to subsection 1 of this section, proposed development located within the pedestrian activities district (PAD) encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the department of planning and urban development, shall be designed and constructed to be reasonably capable of being converted to accommodate uses permitted in the PAD overlay zone in accordance with the factors set forth in subsection 2 of this section.*

The proposed parking structure is designed to permit additional development on top of and around it, thus meeting the intent of this standard.

4. *Sidewalk areas and open space: The design of publicly accessible sidewalk areas and open space shall complement the general pattern of the downtown pedestrian environment, conform with special City of Portland streetscape programs described in the Technical and Design Standards and Guidelines, and enhance the attractiveness, comfort, security, and usability of the pedestrian environment. Factors to be considered include the design, placement, character, durability, and quality of the following:*

(a) Sidewalk, crosswalk, and street paving materials;

The applicant proposes to install brick sidewalk along the Middle Street frontage at the completion of future phases. As previously stated, as a condition of the April, 2010 approval for the hotel, restaurant and residences, a performance guarantee has been held by the City equal to the value of installing brick sidewalk for the entire length of the Middle Street frontage. The term of the performance guarantee shall be no-longer than 2 years after the date of approval for the subject development, but may be extended at the City's sole discretion. If after 2 years following the date of site plan approval, the applicant has not installed a brick sidewalk along the entire Middle Street lot frontage, the City may draw on the Performance Guarantee funds to complete sidewalk construction.

The vehicle entrance to the upper parking deck along Middle Street includes handicap ramps with detectable warning panels to help facilitate safe pedestrian movements. The relocation of the Middle St entrance towards Hampshire Street will help facilitate the creation of a largely uninterrupted building façade along Middle Street in the future when it is further developed by the applicant or otherwise.

(b) Landscaping, planters, irrigation, and tree guards and grates;

Landscaping and street trees are proposed on all three frontages. See City Arborist comments and discussion under 'staff review'.

(c) Lighting;

See staff review comments addressing lighting. The applicant should anticipate the installation of an electrical distribution system with a metering box suitable for serving all fixtures to be owned by the City rather than leased from CMP. A CMP lease will be considered if it is determined that metering is not practicable.

(d) Pedestrian amenities such as benches and other seating, trash receptacles, kiosks, bus shelters, artwork, directional and informational signage, fountains, and other special features; and

Publicly accessible bicycle parking is proposed along the Fore Street frontage. Granite benches are proposed along the Fore and Middle Street frontages and illuminated display cases are proposed along the Fore Street frontage to display art and/or information.

(e) Sidewalk vendors and sidewalk cafes.

Not applicable.

b. Relationship to existing development:

1. *General: Proposed development shall respect, enhance, and be integrated with the existing character of the general pattern of development in the downtown, surrounding building environment and streetscape, as described and illustrated in the Downtown Urban Design Guidelines. Factors to be considered include the relationship to the following existing patterns:*

(a) Street walls and building setbacks;

The applicant has requested a waiver to exceed the maximum 5 ft building setback. See additional discussion of this below. The proposed design allows for future phasing to be in alignment with existing street walls.

(b) Open space;

Not applicable.

(c) Building form, scale and massing;

(d) Facade proportion and composition;

The building form, scale and massing and the proposed façade proportions are compatible with surrounding development.

(e) Pedestrian circulation and building entrances;

Addressed above.

(f) Parking.

The proposed parking will read as structured parking from Fore Street and will resemble surface parking from Middle Street. There is landscaping and fencing proposed as buffering.

2. *Standards for increasing setback beyond street build-to line: A proposed development may exceed maximum setbacks as required in section 14-220(c) only where the applicant demonstrates to the Planning Board that the introduction of increased building setbacks at the street level:*

(a) Provides substantial and viable publicly accessible open space or other amenity at the street level that supports and reinforces pedestrian activity and interest. Such amenities may include without limitation plazas, outdoor eating spaces and cafes, or wider sidewalk

circulation areas in locations of substantial pedestrian congestion;

(b) Does not substantially detract from the prevailing street wall character by introducing such additional setback at critical building locations such as prominent form-defining corners, or create a sense of discontinuity in particularly consistent or continuous settings;

(c) Does not detract from existing publicly accessible open space by creating an excessive amount of open space in one (1) area or by diminishing the viability or liveliness of that existing open space; and

(d) The area of setback is of high quality and character of design and of acceptable orientation to solar access and wind impacts as to be attractive to pedestrian activity.

The applicant has submitted a waiver request to increase the setback beyond the street build-to line. The proposal includes landscaping and street trees on all four frontages and other amenities including granite benches, display cases and a bicycle rack in portions of the increased setback. It is anticipated that future development at the corner of Middle, India and Fore will establish more form-defining corners. The brick sidewalk along the Fore Street frontage has been extended to provide pedestrian access to the display cases.

c. *Roof top appurtenances: All mechanical equipment, ventilating and air conditioning and other building systems, elevators, stairways, radio or television masts or equipment, or other rooftop elements not intended for human occupancy shall be fully enclosed in a manner consistent with the character, shape and materials of the principal building, as described and illustrated in the Downtown Urban Design Guidelines;*

Not applicable.

d. *Shadow impact on open space: The location, massing and orientation of portions of buildings in excess of sixty-five (65) feet in height shall be such that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided. In determining the impact of shadows, the following factors shall be taken into account: the amount of area shadowed, the time and duration of the shadow, and the importance of sunlight to the utility of the type of open space being shadowed, as described and illustrated in the Downtown Urban Design Guidelines;*

Not applicable.

e. *Wind impacts: The location, massing, orientation and architectural design of a new building or a building addition shall be such that no significant adverse wind impacts are created. In determining the impact of winds, the following factors shall be taken into account: the pre-development and projected post-development wind speeds and their impact on pedestrian movement, comfort and safety; and the impact of projected wind speed on the use of and comfort within existing and proposed pedestrian seating areas and other adverse impacts upon the surrounding area;*

Undue wind impacts are not anticipated.

f. *Setbacks from existing structures: The location and design of proposed structures shall not create a detrimental impact on the structural integrity or the safety of adjacent structures or the occupants thereof;*

Not applicable.

g. *Building tops: Buildings or structures which exceed one hundred fifty (150) feet in height shall be designed so as to provide a distinctive top to the building which visually conveys a sense of interest and vertical termination to the building, as described and illustrated in the Downtown Urban Design Guidelines;*

Not applicable.

9. STAFF RECOMMENDATION

Subject to the conditions suggested below, staff recommends that the Planning Board approve the proposed development subject to conditions. The requested waivers are reasonable accommodations to the specifics of the proposed uses and the site and will not unreasonably impact surrounding properties or the public.

The applicants have provided amenities and site design considerations consistent with the intent of the B3 Design Standards.

10. MOTIONS FOR THE BOARD TO CONSIDER

A. Waivers:

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations, contained in the Planning Board Report for application **# 99700003** relevant to the Portland's Technical and Design Standards and other regulations and the testimony presented at the Planning Board hearing:

1. The Planning Board (waives/does not waive) the Technical Standard for the Driveway curb radius, Section III, 2 (c)

   Subject to the following condition:
   The detectible warning panels at the Middle Street driveway entrance shall be revised to address review comments from Tom Errico, Consulting Engineer, dated August 5, 2010.

2. The Planning Board (waives/ does not waive) the Technical Standards for parking stall dimensions, Section III-1 and III-2.

3. The Planning Board finds that the increased building setback beyond the requirements set forth in Section 14-220 (c), namely that *all buildings or structures shall be located within five (5) feet of the property line along street frontages*:

   (a) (**Does**/Does not) Provide substantial and viable publicly accessible open space or other amenity at the street level that supports and reinforces pedestrian activity and interest;
   (b) (Does/**Does not**) substantially detract from the prevailing street wall character;
   (c) (Does/ **Does not**) detract from existing publicly accessible open space; and,
   (d) The area of setback (**is**/is not) of high quality and character of design and of acceptable orientation to solar access and wind impacts as to be attractive to pedestrian activity.

   Therefore the (**waives**/does not waive) the 5-foot maximum building set back as per Site plan standard 14-526(a)16 b.2.

B. Subdivision:

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for application **# 99700003** relevant to the Subdivision Ordinance and other regulations, and the testimony presented at the Planning Board hearing, the

Planning Board finds that the plan (is/is not) in conformance with the subdivision standards of the land use code subject to the following conditions of approval.

- The applicant shall be responsible for incorporating all changes to parking signs on Middle Street near the proposed driveway. The exact details of on-street parking will be determined by City staff.

- A post development traffic count shall be conducted for the intersection of Middle and India Streets.

C. Site Plan:

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for application **# 99700003** relevant to the Site Plan Ordinance and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan (is/is not) in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

- The 6 street lights proposed as part of the development shall be of the designated lighting type, size and color for the lighting district, as detailed in Section 10 of the 2010 Technical Manual. The appropriate specifications shall be listed on the final plans.

- The detectible warning panels at the Middle Street driveway entrance shall be revised to address review comments from Tom Errico, Consulting Engineer, dated August 5, 2010.

ATTACHMENTS:

City of Portland Staff Submittals:

A. Final Traffic Review Comments, Submitted by Thomas Errico, Consulting Transportation Engineer, TY Lin Associates.
B. Final Fire Department Review, submitted by Captain Keith Gautreau, Portland Fire Department
C. Final Landscape Review, Submitted by Jeff Tarling, City Arborist
D. Final Public Services Review, Submitted by David Margolis Pineo, Deputy Engineer. Department of Public Services
E. Final Stormwater Management Review, Submitted by Dan Goyette, Consulting Engineer. Woodard and Curran.

Applicant's Submittals:

1. Site Plan and Subdivision Application
2. Applicant's Narrative and Written Submittal Package *(*note- this is the original submittal which includes information pertaining to the 4 townhouses, originally proposed as part of the application)*

- Proposed Uses and Site Design
- Land Area
- Easements
- Solid Waste
- Availability of Off-site Facilities
- Stormwater Drainage
- Construction Plan
- Regulatory Approvals
- Financial and Technical Capacity
- Right, Title and Interest

- Natural Areas, Wildlife Habitat and Archeology
- Recyclable Materials
- Catalogue cuts
- Waiver Requests

3. Stormwater Calculations, submitted by Opechee Construction on July 21, 2010
   a. Stormwater Pollution Prevention Plan
   b. Stormwater Management Plan Addendum
   c. Spot Elevations, dated July 16, 2010
4. Temporary Traffic Control Plan
5. Applicant's Response Letter to Staff Comments, dated July 20, 2010
6. Traffic Analysis, submitted by Sebago Technics
   a. Traffic Analysis Memo, dated July 23, 2010
   b. Revised Traffic Analysis Memo, dated August 4, 2010
7. Copy of Applicant's Permit By Rule submittals to Maine DEP, dated July 6, 2010
8. Capacity Letter from Portland Water District, dated July 7, 2010
9. Neighborhood Meeting Documentation, Dated August 3, 2010
10. Revised Narrative addressing Applicable Design Standards, submitted by applicant.
11. Rendering of Proposed Parking Structure
    a. Fore Street view
    b. Fore Street view with Potential Future Building
12. Sectional Subdivision Plan
13. Revised Site Plans
14. Public Comment

Molly Casto - Old Port - Phase 2

From: Thomas Errico <Thomas.Errico@tylin.com>
To: Molly Casto <MPC@portlandmaine.gov>
Date: 8/5/2010 11:24 AM
Subject: Old Port - Phase 2
CC: Katherine Earley <KAS@portlandmaine.gov>, David Margolis-Pineo <DMP@port...

Molly – I have reviewed the revised information transmitted yesterday and offer the following status report on prior comments.

July 1, 2010

- The first and second floor parking levels will require waivers for parking stall size (both width and length). I need to review the layout in greater detail before I render a decision on a waiver.

  Status: I support a waiver from the Technical Standards for the parking stall size.

- I have reviewed the proposed driveway entrance design and find it to be acceptable. In my professional opinion the driveway meets City standards for width (it will serve commercial uses) and therefore a waiver from the City's Technical standards is not needed. I support a waiver for reduced radii for the driveway. The ramps at the driveway shall include detectible warning devices.

  Status: The detectible warning devices should be aligned to orientate pedestrians along the path of travel. The plan should be revised to best meet this standard. Otherwise, I have no further comment.

- The applicant should provide data on the amount of traffic entering and entering the second floor parking level under full occupancy (during AM and PM peak hours) and provide an assessment of conditions as it relates to traffic operations in respect to the India Street/Middle Street intersection.

  Status: A traffic study has been provided and comments are noted below.

- The applicant will be responsible for incorporating all changes to parking signs on Middle Street near the proposed driveway. The exact details of on-street parking will be determined by City staff.

  Status: I have no further comment.

- The applicant should consider pedestrian accessibility between the second floor parking level and destinations toward Fore Street.

  Status: The applicant has provided a response, but I believe this issue is still outstanding.

July 30, 2010

- Knowing that several other developments in the area have been permitted it is unclear whether the build traffic volumes include approved projects (Village Café site, Ocean Gateway, Phase 1 Hotel, etc.).

These projects should be included.

Status: Other development traffic has been included and I have no further comment.

- Looking at the turning movement volumes, I was surprised at the distribution. Examples include the low volume turning right onto Middle Street from southbound India Street in the morning and the reverse movement in the evening. Please check the data. Also, please note whether there were any substantial traffic detours in the area during the time of the count.

  Status: I concur with the applicant that a post development traffic count be conducted at the subject intersection. The City has been collecting funds for traffic studies in the area and the money collected should be used for this discussed purpose. I would further note that when the office building phase is permitted, a monetary contribution and/or off-site mitigation improvements will likely be requested at that time.

- It does not appear that pedestrian volumes were included in the analysis. Did you collect pedestrian volumes? Pedestrians are significant at India/Middle.

  Status: Pedestrian volume counts were conducted and a revised analysis performed. I have no further comment.

- Please conduct a four-way STOP sign warrant evaluation with the data you have at the India/Middle intersection. You likely will not have all required hours, but please try to draw some conclusion.

  Status: The requested analysis has been provided and I have no further comment.

- For the comparison of LOS/Delay, please use SimTraffic results only. It will simply things and I believe is the better data. I would like some reply on how the SimTraffic results compares to field conditions, particularly from a queuing perspective. Talk to the person who did the count. Also, provide LOS/Delay data in tabular form in the Memo for the site drive.

  Status: The above requested information has been provided and I have no further comment.

In conclusion, I find the proposed project to be acceptable. It should be noted that the parking facility will not generate new traffic to the area. The purpose of the traffic study and analysis was to confirm that the Middle Street parking deck driveway is designed to accommodate future development phases (e.g. office space). In my professional opinion the Middle Street driveway is located such that it maximizes its distance from both Franklin Street and India Street, thus avoiding any backup problems. While it is located in close proximity to Hampshire Street, it is my opinion that this condition is not likely to be problematic due to the low volumes turning from Hampshire Street (Hampshire Street is a one-way southerly flow road). I would further note that the analysis conducted by the applicant indicates the driveway on Middle Street will operate at an excellent level of service. Lastly, I am not supportive of locating a truck loading dock adjacent to the proposed entrance. It is my suggestion that this item be considered at the time when the office building phase is permitted.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, P.E.
TY LIN INTERNATIONAL

12 Northbrook Drive
Building A, Suite One
Falmouth, ME 04105

207.347.4354 (Direct)
207.781.4721 (Main)
207.781.4753 (Fax)
207.400.0719 (Mobile)

Attachment B

From: Keith Gautreau
To: Molly Casto
Date: 7/6/2010 4:16 PM
Subject: Re: Opechee- Jordan's Meat site phase 2

Hi Molly,
I just looked at the plans and even though they did not submit the Fire Dept. checklist I think I am okay with what is submitted. Nothing is standing out right now that has me concerned.
Keith

Keith Gautreau, Fire Captain
Fire Prevention Bureau
Portland Fire Department
380 Congress Street
Portland, ME 04101
(207)874-8405
kng@portlandmaine.gov

>>> Molly Casto 7/6/2010 3:15 PM >>>
Hi Keith,
Wanted to check in on the Opechee proposal (phase 2) for the Jordan's Meat Site (parking structure and 4 townhouses). I didn't see a fire dept. checklist in the copy of their application packet that I got. Do you have the information you need to complete your review? This item has a workshop on July 13th. Please get me your comments as soon as possible. I have this on the Dev Rev agenda for Wednesday.

Thanks,
Molly

Molly Casto - OPECHEE Parking Lot Landscape Plan

From: Jeff Tarling
To: Molly Casto
Date: 8/6/2010 12:26 PM
Subject: OPECHEE Parking Lot Landscape Plan
CC: Barbara Barhydt ; David Margolis-Pineo

Hi Molly -

I have reviewed the revised Landscape Plan for the Middle / Fore Street OPECHEE project and find the plan much improved. The revised plan has added landscape buffering along India & Fore Streets.

The revised landscape plan includes the landscape topics discussed in our meeting with the project team at the Planning Office last week.

Jeff Tarling
City Arborist

Attachment D

July 27, 2010

To: Barbara Barhydt
Molly Casto
From: David Margolis-Pineo
Public Services Review Comments
Re: Opechee

Public Services staff has the following comments on this project.

1. The sidewalk on Middle Street in front of the proposed Town Houses should be constructed with brick when the Town Houses are complete.

We have no further comments at this time.

Attachment E.

COMMITMENT & INTEGRITY
DRIVE RESULTS

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F 207.774.6635

MEMORANDUM

WOODARD &CURRAN

TO: Molly Casto

FROM: Dan Goyette, P.E. & Cameron Stuart, E.I.

DATE: July 27, 2010

RE: 207 and 209 Fore Street

Woodard & Curran has reviewed the Development Review Application for the proposed development of 207 and 209 Fore Street. The proposed project includes the construction of a new parking structure and residential townhouses.

Documents Reviewed

- Stormwater Pollution Prevention Plan with attachments Opechee Construction Corporation on behalf Fore India Middle, LLC, dated June 24, 2010.
- Stormwater Management Plan Addendum prepared by Opechee Construction Corporation on behalf Fore India Middle, LLC, revised July 20, 2010.
- Sectional Subdivision plans S01, S02, Parking Lot Engineering Plans, Sheets C01- C03, C04a-C04b,C05a-C05b, C06a-C06b,C07a-C07b,C09-C10, Electrical Plan C08, Townhouses Engineering Plans C01-C06, Architectural Plans A1.1-A1.3, A2.1-2.3, revised July 20, 2010, prepared by Opechee Construction Corporation on behalf Fore India Middle, LLC.
- Subdivision Plan 1, prepared by Sebago Technics received June 4, 2010 on behalf Fore India Middle, LLC.

Comments

- All of our previous comments have been adequately addressed. There are no additional comments at this time.

Please contact our office if you have any questions.

DRG
222804

July 27, 2010

To: Barbara Barhydt
Molly Casto
From: David Margolis-Pineo
Public Services Review Comments
Re: Opechee

Public Services staff has the following comments on this project.

1. The sidewalk on Middle Street in front of the proposed Town Houses should be constructed with brick when the Town Houses are complete.

We have no further comments at this time.

LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

INTENDED USE — Ideal for parking areas, street lighting, walkways and car lots.

CONSTRUCTION — Rugged, die-cast, soft corner aluminum housing with 0.12" nominal wall thickness. Die-cast door frame has impact-resistant, tempered glass lens that is fully gasketed with one-piece tubular silicone.

FINISH — Standard finish is dark bronze (DDB) polyester powder finish, with other architectural colors available.

OPTICAL SYSTEM — Anodized, aluminum hydroformed reflectors. IES full cutoff distributions R2 (asymmetric), R3 (asymmetric), R4 (forward throw) and R5S (square) are interchangeable. High-performance anodized, segmented aluminum reflectors IES full cutoff distributions SR2 (asymmetric), SR3 (asymmetric) and SR4SC (forward throw, sharp cutoff). Segmented reflectors attach with tool-less fasteners and are rotatable and interchangeable.

ELECTRICAL SYSTEM — Ballast: High pressure sodium 70-150W is high reactance, high power factor. Constant wattage autotransformer for 200-400W. Metal halide 70-150W is high reactance, high power factor and is standard with pulse-start ignitor technology (SCWA not required). Constant wattage autotransformer for 175-400W. Super CWA (pulse start ballast) 88% efficient and EISA legislation compliant, is required for metal halide 151-400W (SCWA option for US shipments only. CSA, NOM [illegible] outside of the US. Pulse start ballast (SCWA) required for 200W, 320W, or 350W. Ballast is 100% factory-tested.

Socket: Porcelain, horizontally oriented medium base socket for 70-150M. Mogul base socket for 175M and above, and 70-400S, with copper alloy, nickel-plated screw shell and center contact. UL listed 1500W, 600V.

LISTING — UL Listed (standard). CSA Certified (see Options). UL listed for 25°C ambient and wet locations. IP65 rated in accordance with standard IEC 529.

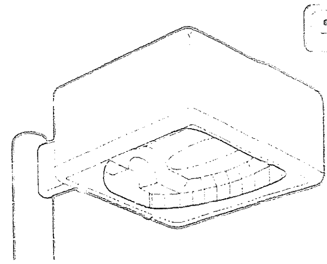
[illegible]

Notes	Type

CONTOUR SERIES

Soft Square Lighting

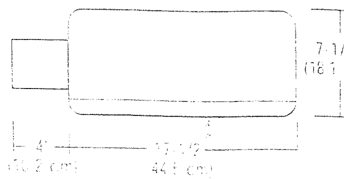
KAD



M.H: 70W-400W
HPS: 70W-400W
20 to 35' Mounting

Specifications

EPA: 1.2 ft²
*Weight: 35.9 lbs (16.28 kg)
Length: 17-1/2" (44.5 cm)
Width: 17-1/2" (44.5 cm)
Depth: 7-1/8" (18.1 cm)
*Weight as configured in example below.



ORDERING INFORMATION

For shortest lead times, configure product using **standard options (shown in bold)**.

Example: KAD 400M R3 TB SCWA SPD04 LPI

KAD

Series
- KAD

Wattage

Metal halide: 70M[1,2], 100M[1], 150M, 175M[20], 200M[3], **250M**[21], 320M[3], 350M[3,20], **400M**[1,21]

High pressure sodium: 70S, 100S, 150S, **250S**, **400S**

Ceramic metal halide: 70MHC[1,2], 100MHC[1], 150MHC

Voltage
- 120
- 208[7]
- 240[7]
- **277**
- **347**
- **480**[7]
- **TB**[6]
- 23050HZ[9]

Mounting

Type		Length[10]	
SPD__	**Square pole**	**04**	**4" arm**
RPD__	Round pole	06	6" arm
WBD__	Wall bracket	**09**	**9" arm**
WWD__	Wood pole or wall	12	12" arm

- DAD12P — Degree arm (pole)[11]
- DAD12WB — Degree arm (wall)[11]
- WBA — Decorative wall bracket[11,12]
- KMA — Mast arm external fitter
- KTMB — Twin mounting bar

Ballast
- (blank) **Magnetic ballast**
- CWI Constant wattage isolated[9]
- **SCWA Super CWA pulse start ballast** (Pulse Start)

NOTE: For shipments to U.S. territories, SCWA must be specified to comply with EISA.

Options

Shipped installed in fixture
- SF Single fuse 120, 277, 347V[7]
- DF Double fuse 208, 240, 480[7]
- PD Power tray[14]
- **PER NEMA twist-lock receptacle only (no photocontrol)**
- QRS Quartz restrike system[15]
- QRSTD QRS time delay[15]
- WTB Terminal wiring block[14]
- HS House-side shield
- **CSA CSA Certified**
- INTL Available for MH probe start shipping outside the U.S.
- REGC1 California Title 20 effective 1/1/2010

Shipped separately[16]
- PE1 NEMA twist-lock PE (120, 208, 240V)
- PE3 NEMA twist-lock PE (347V)
- PE4 NEMA twist-lock PE (480V)
- PE7 NEMA twist-lock PE (277V)
- SC Shortening cap for PER option
- VG Vandal guard
- WG Wire guard

Lamp[1]
- **LPI Lamp included**
- L/LP Less lamp

Finish[17]
- (blank) **Dark bronze**
- **DWH White**
- **DBL Black**
- **DMB Medium bronze**
- **DNA Natural aluminum**

Distribution

Hydroformed reflectors
- R2 IES type II asymmetric[5]
- **R3 IES type III asymmetric**[5]
- **R4 IES type IV forward throw**[5]
- R5S IES type V square

Segmented reflectors[6]
- SR2 IES type II asymmetric[5]
- SR3 IES type III asymmetric[5]
- SR4SC IES type IV forward throw

NIGHTTIME FRIENDLY
Consistent with LEED goals & Green Globes™ criteria for light pollution reduction

NOTES:
1. Not available with SCWA.
2. Not available with 480V.
3. Must be ordered with SCWA.
4. Reduced jacket ED28 required for SR2, SR3 and SR4SC optics.
5. House-side shield available.
6. Segmented reflectors not available with QRSTD.
7. Must specify CWI for use in Canada.
8. Optional multi-tap ballast (120, 208, 240, 277V; in Canada 120, 277, 347V).
9. Consult factory for available wattages.
10. 9" arm is required when two or more luminaires are oriented on a 90° drilling pattern.
11. Ships separately.
12. Available with SPD04 and SPD09.
13. Must specify voltage. N/A with TB.
14. Only available with SR2, SR3, & SR4SC optics.
15. Max allowable wattage lamp included.
16. May be ordered as an accessory.
17. See www.lithonia.com/archcolors for additional color options.
18. Must be specified.
19. Must use RPD09
20. These wattages do not comply with California Title 20 regulations.
21. These wattages require the REGC1 option to be chosen for shipments into California for Title 20 compliance. 250M REGC1 in not available in 347 or 480V

Accessories

Order as separate catalog number

Tenon Mounting Slipfitter — Number of fixtures

Tenon O.D.	One	Two@180°	Two@90°	Three@120°	Three@90°	Four@90°
2-3/8"	T20-190	T20-280	T20-290[19]	T20-320[19]	T20-390[19]	T20-490[19]
2-7/8"	T25-190	T25-280	T25-290[19]	T25-320	T25-390[19]	T25-490[19]
4"	T35-190	T35-280	T35-290[19]	T35-320	T35-390[19]	T35-490[19]

KADVG Vandal guard
KADWG Wire guard

2. I have reviewed the proposed driveway entrance design and find it to be acceptable. In my professional opinion the driveway meets City standards for width (it will serve commercial uses) and therefore a waiver from the City's Technical standards is not needed. I support a waiver for reduced radii for driveway. The ramps at the driveway shall include detectible warning devices.
If the planning board and administration is in agreement with Mr. Errico, the waiver request for driveway width will be withdrawn. Detectible warning devices will be added to the curb ramps on the plan and a detail will be added to the plan set.

3. The applicant should provide data on the amount of traffic entering and entering the second floor parking level under full occupancy (during AM and PM peak hours) and provide an assessment of conditions as it relates to traffic operations in respect to the India Street/Middle Street intersection.
Agreed; the applicant is in the process of developing a traffic analysis..

4. The applicant will be responsible for incorporating all changes to parking signs on Middle Street near the proposed driveway. The exact details on on-street parking will be determined by the City.
Agreed.

5. The applicant should consider pedestrian accessibility between the second floor parking level and destinations toward Fore Street.
An additional pedestrian access can integrated into the Middle Street level of the parking structure at the northerly corner. This will provide pedestrians a direct route to India Street from the parking structure. This will reduce their travel distance to northerly destinations toward Fore Street. For southerly destinations toward Fore Street, pedestrians can utilize the pedestrian access to Middle Street, located at the northeasterly corner of the structure, and reduce their travel by utilizing the half circle stairs and sidewalk that provide access through Lot 1.
As a side note, exterior larger more advanced stair from the second level down to Fore Street is not provided because subsequent development phases will require them to be demolished. However, it is probable that subsequent development phases may provide interior access from the second level parking lot to the Fore Street sidewalk.

Sincerely,

Opechee Construction Corporation

Barry Stowe

Barry Stowe

4. There is not detail for the proposed fencing along the perimeter of the upper parking deck. Please detail the proposed design, color and materials for the fence.
Agreed; a detail of the proposed fencing along the perimeter of the upper parking deck will be included in the revised submission.

5. You noted that the proposal is subject to MDEP Permit by Rule and that you have submitted an application to the state. Please submit a copy of your application for our records.
The approved MDEP Permit by Rule application and supporting documentation will be included in the revised submittal.

6. This proposal will be subject to applicable B3 Design Standards of Section 14-526 the Land Use Code (14-526(a) 16). A detailed design review is pending. Please submit a brief narrative outlining how the proposal addressed the applicable design standards of the B3 Zone.
A narrative addressing the applicable design standards of the B3-Zone will be included in the revised submission.

7. The Planning Authority may request additional information during the continued review of the proposal according to applicable laws, ordinances and regulations.
We intend to provide the planning authority with any additional information they deem necessary.

8. Please submit seven (7) complete sets of revised final plans to address staff comments.
Revised plans will be submitted after the July 13th workshop and (3) weeks prior to the public hearing. This should ensure that we have received all remaining review comments prior to resubmitting.

Woodard & Curran, Dan Goyette, P.E:

1. The total number of parking spaces shown in the plans matches the spaces specified in the application, but not those in the proposed development plan.
The total amount of parking provided on Lot 2 at the Fore Street grade level is 106 spaces; 103 spaces within the structure and 3 spaces as exterior surface parking. Combine Lot 1 & 2 provides 109 dedicated parking spaces to the phase I hotel and residences. The development plan will be revised as follows: "The Fore Street grade level on Lot 2 will have 106 parking spaces which will be dedicated to the hotel and residences on adjacent Lot 1."

2. The ADA requires a minimum of 7 handicap spaces for parking structures with 201 and 300 spaces.
The review of ADA accessible spaces should probably be evaluating the two levels independently. The Fore Street grade level and the Middle Street grade level. When taking into consideration that all of the parking at the Fore Street grade level is dedicated to the hotel and residences, the two accessible spaces on Lot 1 should be considered in satisfying the ADA requirements. With that being said, four (4) accessible spaces have been provided of the total 109 spaces at the Fore Street grade level for the hotel.
At the Middle Street level there are a total of 103 spaces. Eight (8) of those spaces will be dedicated to the residential townhouses which that do not require ADA accessible spaces. However, the remaining 95 spaces available for lease or public fee require four (4) accessible spaces. These 4 spaces have been shown on the on the parking layout at the Middle Street level of the parking structure.

3. The two handicap spaces on the northeast side of the structure should be locates closer to an accessible entrance.
The two ADA accessible spaces on the Middle Street grade level will be relocated closer to an accessible entrance as recommended.

4. The crushed aggregate base course in the Bituminous Sidewalk with Granite curb detail should be MDOT type A.
Agreed; the detail will be revised.

5. Details for catch basins and manholes must be shown.
Agreed; any missing details will be added to the plan set.

6. The submitted Stormwater Management Plan is not consistent with the Grading and Utilities Plans. The Hydro CAD model shows FD5, FD6. FD7, and FD8 connecting to the storm drain line running between Middle Street and Fore Street. Based on the Grading and utilities Plans, it appears that the upper floor drains (FD1-FD4) connect into the storm drain line, and the lower floor drains (FD5-FD8) connect to the sewer. The stormwater management plan should clarify what flow will be entering the stormdrain and sanitary sewer lines.
Agreed; the stormwater management plan will be revised to indicate that FD1 through FD4 connects to the storm drain and that the covered parking (FD5 through FD8) connects to the sewer.

7. An oil/water separator is required for the floor drains.
Agreed; an oil/water separator will be integrated into the design.

Marge Schmuckal, Zoning Administrator, City of Portland:

1. This new project is located on lot #2 in the B-3 Zone. The proposal is proposing an two story parking garage (which is a listed permitted use) and four town house condominiums (also a listed permitted use). The applicant is requesting that the approval be considered for two phases: first the parking garage and then the four residential units.
No response necessary.

2. My count of parking spaces on the plans shows that there are 104 parking spaces on the lower level instead of the 110 spaces stated in the submitted text. There will be 103 spaces on the upper level just as outlined in the narrative. Additionally there are three surface parking spaces that are located 35' from Middle Street.
The total amount of parking provided on Lot 2 at the Fore Street grade level is 106 spaces; 103 spaces within the structure and 3 spaces as exterior surface parking. Combine Lot 1 & 2 provides 109 dedicated parking spaces to the phase I hotel and residences. The development plan will be revised as follows: "The Fore Street grade level on Lot 2 will have 106 parking spaces which will be dedicated to the hotel and residences on adjacent Lot 1."

3. I believe that the parking garage is exempt from the minimum 35' building height requirement under section 14-220(h)(1) which gives an exemption to the 35' minimum height for "accessory building components and structures such as truck loading docks, covered parking, mechanical equipment and refrigeration units". I have determined that the parking structure meets the requirement of covered parking.
Agreed. The Height of parking structure varies with the grade along Fore Street. However, the parking deck will be approximately 10' - 11' higher than the grade at along the abutting hotel corner on fore street. The fence/pilasters will extend about another 42" above the deck.

4. The project does not meet the 5' setback of the street wall build-to line. The Ordinance allows the PB to approve the differences under 14-526(a)(16).
Agreed; a waiver has been requested to allow the parking lot to be constructed further than 5-feet from the property line. However, it is important to keep in mind that subsequent phases will ultimately develop these areas seeking increased building setback. Nonetheless, this proposal will:
(a) supports pedestrian activity by providing pedestrians' a place to park their automobile, and reinforces the pedestrian activity by complimenting the expanded sidewalks with open space that provides landscaped areas of interest. Also, the pedestrian's traveling the Middle Street frontage will be provided with seating benches.
(b) not interrupt the prevailing street walls.
(c) not create any excessive amount of open space that would detract pedestrian activity from any existing open space.
(d) be attractive to pedestrian activity by providing landscaped sitting areas along Middle Street, lawn areas along India Street, and along Fore Street will be landscaped areas reinforced by an attractive brick & concrete block architecture that shields the lower level parking.

5. The project will need to go to the PB for a subdivision approval on the 4 residential dwelling units.
Agreed.

6. The project is not in the Historic District nor a PAD district. The street line along Middle Street is a PAD Encouragement area.
Agreed.

7. I believe that all other B-3 Zone requirements are being met. I would like to get a scaled drawing of the town houses for further reviews. Only unscaleable sketches were submitted.
Scaled elevations of the townhouses will be included in the revised submittal. Addressing the height of townhouses, as measured from the grade along Middle Street, to the average height of the pitched roof will be approximately 38' +/-. Please note the actual height, as defined in the zoning ordinance will be higher, because it will be measured from "grade plane" as measured at the grade surrounding the parking structure. We haven't done that exact calculation yet, but I suspect that the "grade plane" will be approximately 4' to 6' below the grade along Middle Street. Accordingly, the height as defined in the zoning ordinance will be approximately 42' to 44'.

▶ T.Y. Lin International, Thomas A. Errico, PE.

1. The first and second floor parking levels will require waivers for parking stall size (both width and length). I need to review the layout in greater detail before I render a decision on a waiver.
No response necessary.

CONSTRUCTION CORPORATION

July 7, 2010

Ms. Molly Casto, Senior Planner
Planning Division
389 Congress Street, 4th floor
Portland, ME 04101

Re: Response Letter for the July 13th Planning Board Workshop
Parking Structure And Residences; Fore India Middle, LLC
Address: 78 Middle Street CBL: 029 – L-001-001
Applicant: Fore India Middle, LLC

Dear Molly,

Please find below Fore India Middle, LLC responses to the review comments received to date for the above mentioned project. The responses are brought to attention with bold italic text.

▷ Planning Review, City of Portland:

1. The submitted exterior lighting plan includes lighting levels that do not meet City illumination standards. Illumination levels for areas intended to be lighted, as measured at grade shall not excess 5.0 fc(maximum), 0.2 fc (minimum) and 1.25 fc (average). The fixture type and pole height are acceptable. There does not appear to be any additional pole or wall mounted lighting proposed for the development. If this is not the case, all proposed exterior lighting must be shown on the site lighting plan and is subject to review.
We will revaluate the exterior lighting plan. It may be possible that the required illumination levels can be achieved if alternate fixtures are used in combination with including the ambient light from the surrounding street lights proposed in phase I. A request to waive this requirement may be submitted if the required illumination levels cannot be achieved while accommodating probable subsequent development phases. A waiver would be based upon the fact that future lighting from structures would provide the lighting around the majority of the perimeter.

2. On the April, 2010 approved plan (Phase 1) there are street lights that were approved along Middle Street. These do not appear on the revised plan. Please confirm if the approved street lighting is to be retained as part of this application. If so, please show it on the revised plans.
The street lights are proposed to remain as per the originally approved and will be shown on the plan.

3. There does not appear to be a Fire Department Checklist in your application packet. Please submit applicable materials for review by the Portland Fire Department.
Captain Keith Gautreau mentioned that he has adequate information to complete a preliminary review of the proposal. However, he did ask for clarification as to whether the proposed townhouses will be constructed with fire walls and/or if they will be sprinkled. We determined that the IBC 2003 Section 903.2.7 requires that the residential units be provided with an automatic sprinkler system. In addition, Section 708.1 requires that each unit be separated by a fire partition, not a fire wall, with a fire-resistance rating of 1 hour. Captain Gautreau has indicated that these construction methods sound appropriate. Of course, a detailed review of the building design will be required as part of the building permit submission.

11 CORPORATE DRIVE, BELMONT, NH 03220
PHONE (603) 527-9090 FAX (603) 527-9191

Attachment 3

Stormwater Pollution Prevention Plan

For:

Parking Lot and Residences
207 & 209 Fore Street
Portland, ME

Operator:
Opechee Construction Corporation (OCC)
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191

SWPPP Contact:
Opechee Construction Corporation (OCC)
Steve Long
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191

SWPPP Preparation Date:
06-24-10

Estimated Project Dates:

Start of Construction: July 2010
Completion of Construction: July 2011

Contents

SECTION 1 Project/Site Information

1.1 - Project Name and Location: (Latitude, Longitude, or Address)

Parking Lot and Residences
207 & 209 Fore Street
Portland, Cumberland County, ME
Lat: 43° 39' 34.51" N
Long: -070° 15' 04.29" W

1.2 - Owner Name and Address:

Fore Middle India, LLC
11 Corporate Drive
Belmont, New Hampshire 03220

1.3 - Operators Name, Address, Phone Number:

Opechee Construction Corporation
Steve Long
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191
Email: stevel@opechee.com

Description of Operator's Control:

Opechee Construction Corporation (OCC) has been hired by the applicant to design and permit the project and oversee all aspects of the construction phase of the project, including preparation and implementation of the SWPPP to meet Maine's Construction General Permit. OCC will be responsible for general oversight of the project and will retain operational control over construction plans and specifications, including review of the SWPPP and any amendments, inspection reports, corrective actions and changes to stormwater conveyance or control designs. OCC will implement and maintain the best management practices (BMPs) specified in Sections 2 and 3, conduct inspections (Section 5) and address stormwater over the entire site including all areas disturbed by construction activities, areas used for materials storage, discharge points, and construction exits.

1.4 - Nature of Construction Activity:

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

Soil disturbing activities will include following: Demolition, minimal clearing & grubbing, excavation for sewer, storm drainage, underground utilities, building foundations, cuts and fills, grading, and preparation for final seeding and plantings.

1.5 - Project Area:

The site is approximately 1.09 acres size and is currently being developed as a surface parking lot as shown in the previously approved Hotel, Restaurant and Residences project. This project proposes a two-story parking structure and townhouses. The project will disturb approximately 1.07 acres.

1.6 - Construction Site Estimates:

Total Project Area (area of parcel):	1.09 Acres
Construction Site Area to be disturbed (including right-of-way):	1.07 Acres
Impervious area before construction:	70,565 sq.ft.
Runoff coefficient before construction (SCS Method):	95
Impervious area after Phase II construction:	65,469 sq.ft.
Runoff coefficient after Phase I construction (SCS Method):	90

1.7 - Receiving Waters:

The impervious surfaces of the site drain into the municipal system surrounding the site and discharges into the Casco Bay.

1.8 - Sequence and Timing of Major Activities:

1. Clear & grub, and demolish as necessary to install a stabilized construction exit, and the sediment barriers as indicated in the construction details in the site plans.
2. Install stabilized construction exit, sediment barriers, and sediment traps as specified in the construction details.
3. Install sheet piles as necessary
4. Continue to clear & grub, and perform demolition as required.
5. Construct temporary drainage and/or erosion control facilities as necessary (i.e. grassed swales, sediment traps, stone check dams, and/or dirtbags).
6. Inspect fabric silt fence and repair as required.
7. Strip and remove any loam, unsuitable materials, and unsuitable soils from the site. Then where necessary, replace with a clean backfill as specified by a Geotechnical Engineer.
8. Perform cuts and fills as required.
9. Temporary stabilize any exposed soils that will not be worked for more than 7 days with seed, mulch or other non-erodable cover. See Section 2.2 below for direction on temporary stabilization practices.
10. Construct any additional temporary sediment and erosion control facilities as required. (i.e. stone check dams and/or dirtbags).
11. Begin constructing municipal sewer and drainage systems
12. Begin constructing building foundation.
13. Finishing constructing stormwater conveyance systems as required.
14. Install temporary sediment traps around newly constructed catch basins.
15. Finish constructing wastewater conveyance systems as required.
16. Install all other utilities as required.
17. Place bank run gravel course in areas to be paved.
18. Loam, and permanently seed (or sod) all areas that are not to be worked for more than one year or that has been brought to final grade. See Section 2.2 below for direction on permanent stabilization practices.
19. Place crush gravel and construct pads for exterior concrete flatwork and pavement areas.
20. Finish grade, construct, and place all areas of concrete and base course pavement.
21. Install catch basin inlet sediment traps (i.e. silt sacks).
22. Complete loaming, permanent seeding (or sod), and mulching. Reseed any areas that have not been established from prior seeding.
23. Complete final paving (wearing course).
23. When all construction activity is complete and the site is stabilized, remove temporary erosion control measures and reseed (or sod) any areas disturbed by their removal.

1.9 - Potential Sources of Pollution

Potential sources of sediment to stormwater runoff:

- Demolition
- Clearing and grubbing operations
- Topsoil stripping and stockpiling
- Grading and site excavation operations
- Vehicle tracking
- Landscaping operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area – small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area – general building materials, solvents, adhesives, paving materials, paints, aggregates, trash, and so on.
- Construction Activity – paving, curb installation, concrete pouring,/mortar
- Concrete Washout Area

Inventory of Potential construction site pollutants:

- Concrete
- Detergents
- Paints
- Metal Studs
- Steel Beams
- Asphalt
- Fertilizers
- Pesticides
- Cleaning solvents
- Wood Preservatives
- Masonry block
- Roofing Material
- Glue, adhesives
- Brick
- Insulation
- Curing compounds
- Hydraulic oil/fluids
- Sheetrock
- Plaster
- Gasoline
- Diesel fuel
- Kerosene
- Antifreeze/coolant
- Sanitary toilets

1.10 - Non-Stormwater Discharges:

It is expected that the following non-stormwater discharges will occur from the site during the construction period:

- Fire hydrant flushing;
- Potable water including uncontaminated water line flushing;
- Sprinkler testing;
- Pavement & concrete wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Uncontaminated groundwater or spring water;
- Waters used to wash vehicles where detergents are not used;
- Water used to control dust;
- Uncontaminated air conditioning or compressor condensate;
- Uncontaminated excavation dewatering;
- Landscape irrigation;
- Foundation or footing drains where flows are not contaminated with process materials such as solvents.

All non-storm water discharges will be directed through sediment control measures before discharge.

1.11 – Endangered Species Certification

The Maine Department of Inland Fisheries and Wildlife, US Fish and Wildlife Service, Maine Natural Areas Program databases were checked for records of rare species and exemplary natural communities near the project area. The species considered include those listed as threatened or endangered by either the State of Maine or the federal government. Currently there are no recorded occurrences for sensitive species near this project area. Please see Appendix C for supporting documentation.

1.12 - Applicable State, Tribal, or Local Programs

- Local City of Portland Planning Board Approval is required.
- A Stormwater Management Law Permit by Rule (PBR) is required.

1.12 - Maps

Please see Appendix K – For the Grading and Utilities Plan and for the Erosion Control Plan

SECTION 2 Erosion and Sediment Control BMPS

2.1 - Overview of the Stormwater Management System:

Stormwater runoff from the newly constructed impervious areas will be controlled and conveyed by the use of curbing, hooded catch basins with sumps, and drainage manholes. This on-site drainage system will discharge the runoff into the City's combined sewer system and is conveyed to sewer overflow structures in Franklin Street Arterial. At the overflow structure, normal low flows are conveyed to Portland's wastewater treatment plant, and flows from large storms events are diverted to Casco Bay.

The proposed project in phase II will decrease the on-site impervious cover in comparison to the development that was in existence prior to November 16, 2005. Thus detention of stormwater runoff for purposes of mitigating peak flow rates is not required.

Open space areas will be graded as per the site plan and will have permanent seeding or plantings. When construction is completed and the site is stabilized, all accumulated sediment and temporary erosion control devices will be removed from the site and be properly disposed of.

2.2 - Stabilization Practices:

- Temporary Stabilization measures shall be performed with mulch or other non-erodable cover any exposed soils that will not be worked for more than 7 days. Stabilize areas within 75 feet of a wetland or water body within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

If temporary seeding is being utilized, the mixture will vary based on time of seeding:

4/01 – 5/15	oats	2.0 lbs/1,000 sq.ft.
5/16 - 8/14	sudangrass	1.0 lbs/1,000 sq.ft.
5/16 - 8/14	annual ryegrass	2.0 lbs/1,000 sq.ft.
8/15 - 9/15	winter rye	2.5 lbs/1,000 sq.ft.
9/16 - 3/31	winter rye (protect w/ mulch cover)	2.5 lbs/1,000 sq.ft.

Prior to seeding, all stones and trash that will interfere with the seeding should be removed, the soil should be tilled to a depth of 3 inches (where feasible), and the area should be fertilized with a minimum 7 pounds per 1,000 sq.ft. of a 10-10-10 fertilizer. After seeding, the area is to be mulched with straw.

◦Winter Stabilization is necessary when construction activity is performed during the period from November 1st through April 15th. If disturbed areas are not stabilized with permanent measures by November 1st or new soil disturbance occurs after November 1st, but before April 15th, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

◦Permanent Stabilization measures shall be performed if an area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, soil, and moisture conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established. If necessary, areas must be seeded and mulched again if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular.

An area shall be considered permanently stable if:

(a) *Seeded Areas* shall have a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.
(b) *Sodded Areas* shall have a complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
(c) *Permanent Mulched* areas shall have a total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
(d) *Riprap* used to stabilize slopes shall have an appropriate backing of well-graded gravel or approved geotextile to prevent soil movement from behind the stone. The stone must be sized appropriately. It is recommended that angular stone be used.
(e) *Paved areas* shall have competed installing the compacted gravel subbase.
(f) *Ditches, Channels, and Swales* shall have 90% cover of healthy vegetation, with a well-graded riprap lining, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

Use permanent seed mixes and rates between 5/15 and 9/30. Permanent lawn mixtures shall be as follows:

Sun areas:	7 to 9 pounds per 1,000 sq.ft.	50% fine fescue 20% perennial ryegrass 20% Kentucky bluegrass 10% Dutch white clover
Shade areas:	4 to 5 pounds per 1,000 sq.ft.	70% fine fescue 20% perennial ryegrass 10% Kentucky bluegrass * *(shade tolerant variety)

Prior to seeding, apply 100 lbs/1,000 sq.ft. of lime and till into the upper 3 inches of soil. Then rake a starter-type fertilizer into the upper inch of soil that delivers 1 lb. of actual Nitrogen per 1000 sq.ft. After seeding, areas shall be mulched with straw.

2.3 - Temporary Erosion Control Devices:

- Silt Fences are a barrier of geotextile fabric (filter cloth) used to intercept sediment in diffuse runoff. They must be firmly anchored and may require additional support, such as, reinforcing with wire mesh. Used alone, silt fences are usually inappropriate for flows of concentrated high volume or high velocity. They must be carefully maintained to ensure structural stability and be cleaned of excess sediment. Silt fence is installed along all fill side-slopes and down-slope boundaries along all wetland boundaries.

- Silt Sacks are sediment trap devices to be used with catch basin grates to filter out all the sediment-laden stormwater. The suspended solids are allowed to settle out of the slowed flow and are captured by the sack after entering the catch basin inlet.

- Stabilized Construction Exit are a stone stabilized pad located where vehicles leave a construction site. They provide an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud transported onto paved roads.

2.4 - Schedule of Controls/Measures:

- Prior to construction, properly install the Stabilized Construction Exit
- Prior to construction, properly install sediment barriers at the edge of any down gradient disturbed area and adjacent to any drainage channels within the disturbed area.
- Prior to construction, properly install silt sacks in inlets of any down gradient catch basins from the disturbed area.
- Maintain the sediment controls until the disturbed area is permanently stabilized.
- Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed or mulch. After the entire site is stabilized, all accumulated sediment will be removed from any grassed swales, catch basins, riprap, and silt fences.
- Remove any temporary sediment control measures within 30 days after permanent stabilization in attained.
- A log shall be kept to document the timing and description of grading and stabilization activities. Please see Appendix I for the Grading and Stabilization Activities Log.

SECTION 3 Good Housekeeping BMPS

3.1 - Waste Management:

- Construction waste materials

All waste materials will be collected and stored securely in a metal dumpster rented from a local solid waste management company. The dumpster will meet all local and state solid waste management regulations. The dumpster will be emptied as necessary, and the trash will be hauled to the local dump or transfer center. No waste materials generated by construction will be buried onsite. All personnel will be

instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and the site superintendent managing the day-to-day site operations; will be responsible for seeing that these procedures are followed.

- Hazardous waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices and the site superintendent will be responsible for seeing that these practices are followed.

- Sanitary Waste

A local licensed sanitary waste management contractor will collect all sanitary waste from the portable units.

3.2 - Offsite Vehicle Tracking:

A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved street into to the site entrance will be swept as necessary (could be as frequent as daily during heavy earth hauling operations) to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

3.3 - Concrete Washout Area:

Concrete trucks shall only discharge washed out surplus concrete or drum wash water into an above grade concrete washout area. The temporary concrete washout area will be constructed with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area shall be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be properly disposed of off-site. The washout area will be cleaned out once the area is filled to 75 percent of the holding capacity or when the temporary washout area is no longer needed for the construction project. The concrete wastes will be allowed to harden; the concrete wastes will be broken up, removed and taken to a landfill for disposal. If the washout area is needed, the plastic sheeting will be replaced if tears occur during the removal of concrete wastes.

The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

3.4 – Spill Prevention:

- The following are material management practices that will be followed onsite during the construction project to reduce the risk of spills or other accidental exposures of material and substances to stormwater runoff.
  - An effort will be made to store only enough product required to do the job
  - All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
  - Products will be kept in their original containers with the original manufacturer's label
  - Substances will not be mixed with one another unless recommended by the manufacturer

- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturer's recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials
- Products will be kept in original containers unless they are not re-sealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

- The following product specific practices will be followed onsite:
  - Petroleum Products:
    All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

  - Fertilizers:
    Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed or trailer. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

  - Paints:
    All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

- In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:
  - Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
  - Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, absorbent (i.e. clay kitty litter), sand, sawdust, and plastic and metal trash containers specifically for this purpose.
  - All spills will be cleaned up immediately after discovery.
  - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Spills of toxic or hazardous material shall be reported to the appropriated state or local government agency, regardless of the size of the area involved or the quantity of material spilled.
  - The spill prevention plan shall be adjusted to include measures to prevent this type of spill from reoccurring and how to cleanup the spill if it recurs.
  - The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. All site sub-contractors are responsible for providing at least one site personnel apiece who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

SECTION 4 Inspections

4.1 – Inspection Personnel

- Opechee Construction Corporation's on-site project manager is the compliance officer for OCC and is responsible for site compliance with the SWPPP and EPA's Construction General Permit. Opechee Construction Corporation's on-site project manager will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points, and construction exits.

  In absence of an Opechee Construction Corporation's on-site project manager, the SWPPP contact for the operator (OCC) will conduct inspections

4.2 – Inspection Schedule and Procedures:

Schedule:

- Inspections of the site will be performed once every 14 days and within 24-hours of the end of a storm event of one-half inch or greater. The inspections will verify that all BMPs required in this SWPPP are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials. For a copy of the inspection report, see Appendix J.

Procedures:

- Silt fences will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground
- Built-up sediment shall be removed from the silt fences when it has reached one-half the height of the fence (or manufacturer's recommended height, whichever is less).
- Accumulated sediment shall be removed from the dandy sacks when the containment sack is one-third full. Remove the sacks with lifting straps and empty using dumping straps.
- The catch basin sumps will be inspected for sediment build-up and cleaned when sediment has accumulated within 12" of the outlet.
- The underground detention system shall be inspected after significant storm events and/or when the upstream catch basins require maintenance.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts and healthy growth
- A maintenance inspection report will be made after each inspection
- All necessary repairs to erosion control measures must be made as soon as possible.

Corrective Actions:

- If corrective actions are identified by OCC's on-site project manager during the inspection, they will notify and submit a copy of the inspection report to the OCC's project manager. For corrective actions identified, OCC's on-site project manager will be responsible for initiating the corrective action within 24-hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, OCC's on-site project manager will notify the project manager as soon as possible before initiating the corrective action.

- When corrective actions are completed, a log will be kept to describe the repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures

described above. The log entry should reference the specific inspection report related to finding the deficiencies. Please see Appendix H for the Corrective Action Log.

- If changes and updates of the SWPPP are necessary, a log will be kept to describe any additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on. Please see Appendix G for the Corrective Action Log.

SECTION 5 CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Steve Long Title: Project Manager

Signature: Date: 06-24-10

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Stormwater Permit by Rule & Maine Construction General Permit NOI

Appendix B – General Map

Appendix C –Essential Habitat & Historic Preservation Inquiry Results

Appendix D – Delegation of Authority

Appendix E – Subcontractor Certifications/Agreements

Appendix F –General Permit – Construction Activity

Appendix G – SWPPP Amendment Log

Appendix H – Corrective Action Log

Appendix I – Grading and Stabilization Activities Log

Appendix J – Inspection Form

Appendix K – Erosion Control Plans for Demolition & Construction

Appendix A: Stormwater Permit by Rule & Maine Construction General Permit NOI

Maine is a delegated permitting authority for the EPA's NPDES Construction General Permit

– see next page

STORMWATER PBR APPLICATION FORM
PLEASE TYPE OR PRINT IN *INK ONLY*

1. **Name of Applicant:**	Fore India Middle, LLC	5. **Name of Agent: (if applicable)**	Opechee Construction Corporation
2. **Applicant's Mailing Address:**	11 Corporate Drive Belmont, NH 03220	6. **Agent's Mailing Address:**	11 Corporate Drive Belmont, NH 03220
3. **Applicant's Daytime Phone #:**	603-527-9090	7. **Agent's Daytime Phone #:**	603-527-9090
4. **Applicant's Fax #: (if available)**	603-527-9191	8. **Agent's Fax # and email address:**	603-527-9191
9. **Location of Project: (Road, Street, Rt.#)**	207 & 209 Fore Street	10. **Town:**	Portland
		11. **County:**	Cumberland

12. **Is this PBR for renewal of an individual stormwater permit? If yes, skip to Block 27 and signature page.** ☐ Yes ☒ No

13. **Type of Direct Watershed: (Check all that apply)**	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☒ Coastal wetland ☐ Wellhead of public water supply	14. **Amount of Developed Area:**	☒ Total # of 1.07 acres OR ☐ Total # of _____ square feet
		15. **Amount of Impervious Area:**	☐ Total # of _____ acres OR ☒ Total # of (-)5,096 square feet

16. **Creating a common plan of development or sale?**	☒ Yes ☐ No	17. **Name of waterbody(ies) to which the project site drains:**	Casco Bay
18. **Brief Project Description:**	See attached sheet		
19. **Size of Lot or Parcel:**	47,473 ☐ Total of ____ square feet OR ☐ Total of _____ acres	20. **UTM Locations:(if known)**	UTM Northing: 4834609 UTM Easting: 19 0399115
21. **Deed Reference Numbers:**	Book#: 27,850 Page#: 68	22. **Map and Lot Numbers:**	Map #: 29-L Lot #: 1,2,&3

23. **Project started prior to application?**	☐ Yes ☒ No	**If yes, Completed?**	☐ Yes ☒ No	24. **Resubmission of Application?**	☐ Yes ☒ No
25. **Written Notice of Violation?**	☐ Yes ☐ No	**If yes, name of DEP enforcement staff involved:**			

26. **Detailed Directions to the Project Site: (Attach separate sheet if necessary)**	I-295. Exit 7 onto US Route 1 East (Franklin Street Arterial). Site is abandon Jordan's Meats site in the northerly quadrant of the intersection of US Route 1 (Franklin Street Arterial) and Fore Street.

27. **SUBMISSIONS** ▼

☒ This form (signed and dated)	☐ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	☒ Photos of Area	**For Renewal of an individual Stormwater permit only:**
☒ Fee		☒ ESC Plan	☐ This form (signed and dated)
		☒ Location Map	☐ Copy of original stormwater permit
		☒ Site Plan	☐ Fee

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

CERTIFICATIONS / SIGNATURES

Applicant's Statement:

I am applying for a Stormwater PBR and have attached the required PBR submissions. I have read the requirements herein and I affirm that my project satisfies the applicable stormwater management standards. I authorize staff of State and Federal agencies having jurisdiction over this activity, to access the project site for the purpose of determining compliance with the rules.

Signed: _____ **Date:** 6.24.10

Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion. If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign. Signed _____ Date: 6.24.10

Block 18

Fore India Middle, LLC of 11 Corporate Drive, Belmont, NH 03220 has retained Opechee Construction Corporation, located at the same address, to develop the lot adjacent to the previously approved Hotel, Restaurant & Residences – Old Port.

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

The proposed project is the redevelopment of a previous development consisting of existing impervious areas that were created prior to 11/16/05. In the post-development condition, the decrease in impervious area from what currently exists today will be as follows:

Existing development: (Jordan's Meats factory site) = 70,565 sq.ft
Post-development: (Phase I and Phase II) = 65,469 sq.ft.
Net decrease: 5,096 sq.ft.

Because the project results in a decrease of impervious area from the previous development; the project will be submitted to the Maine Department of Environmental Protection for a Stormwater Management Law Permit by Rule. Therefore the "Basic Standards" (section 500.4.A) and the "Other Applicable Standards" (Section 500.5) of the Stormwater Management Law apply.

Runoff from the project site enters the municipal combined sewer system and is conveyed to combined sewer overflow structures in Franklin Arterial. Normal low flow discharges within the system are conveyed to an interceptor in Commercial Street and on to the City of Portland wastewater treatment plant. Combined overflows during large storm events are diverted to a 48" diameter combined sewer overflow drain that runs down the center of Franklin Arterial, eventually discharging to Casco Bay south of Commercial Street.

Appendix B - General Map

Attachment 3a

Stormwater Pollution Prevention Plan

For:

Parking Lot and Residences
207 & 209 Fore Street
Portland, ME

Operator:
Opechee Construction Corporation (OCC)
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191

SWPPP Contact:
Opechee Construction Corporation (OCC)
Steve Long
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191

SWPPP Preparation Date:
06-24-10

Estimated Project Dates:

Start of Construction: July 2010
Completion of Construction: July 2011

Contents

SECTION 1 Project/Site Information

1.1 - Project Name and Location: (Latitude, Longitude, or Address)

Parking Lot and Residences
207 & 209 Fore Street
Portland, Cumberland County, ME
Lat: 43° 39' 34.51" N
Long: -070° 15' 04.29" W

1.2 - Owner Name and Address:

Fore Middle India, LLC
11 Corporate Drive
Belmont, New Hampshire 03220

1.3 - Operators Name, Address, Phone Number:

Opechee Construction Corporation
Steve Long
11 Corporate Drive
Belmont, NH 03220
Office Phone: (603) 527-9090
Office Fax: (603) 527-9191
Email: stevel@opechee.com

Description of Operator's Control:
Opechee Construction Corporation (OCC) has been hired by the applicant to design and permit the project and oversee all aspects of the construction phase of the project, including preparation and implementation of the SWPPP to meet Maine's Construction General Permit. OCC will be responsible for general oversight of the project and will retain operational control over construction plans and specifications, including review of the SWPPP and any amendments, inspection reports, corrective actions and changes to stormwater conveyance or control designs. OCC will implement and maintain the best management practices (BMPs) specified in Sections 2 and 3, conduct inspections (Section 5) and address stormwater over the entire site including all areas disturbed by construction activities, areas used for materials storage, discharge points, and construction exits.

1.4 - Nature of Construction Activity:

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

Soil disturbing activities will include following: Demolition, minimal clearing & grubbing, excavation for sewer, storm drainage, underground utilities, building foundations, cuts and fills, grading, and preparation for final seeding and plantings.

1.5 - Project Area:

The site is approximately 1.09 acres size and is currently being developed as a surface parking lot as shown in the previously approved Hotel, Restaurant and Residences project. This project proposes a two-story parking structure and townhouses. The project will disturb approximately 1.07 acres.

1.6 - Construction Site Estimates:

Total Project Area (area of parcel):	1.09 Acres
Construction Site Area to be disturbed (including right-of-way):	1.07 Acres
Impervious area before construction:	70,565 sq.ft.
Runoff coefficient before construction (SCS Method):	95
Impervious area after Phase II construction:	65,469 sq.ft.
Runoff coefficient after Phase I construction (SCS Method):	90

1.7 - Receiving Waters:

The impervious surfaces of the site drain into the municipal system surrounding the site and discharges into the Casco Bay.

1.8 - Sequence and Timing of Major Activities:

1. Clear & grub, and demolish as necessary to install a stabilized construction exit, and the sediment barriers as indicated in the construction details in the site plans.
2. Install stabilized construction exit, sediment barriers, and sediment traps as specified in the construction details.
3. Install sheet piles as necessary
4. Continue to clear & grub, and perform demolition as required.
5. Construct temporary drainage and/or erosion control facilities as necessary (i.e. grassed swales, sediment traps, stone check dams, and/or dirtbags).
6. Inspect fabric silt fence and repair as required.
7. Strip and remove any loam, unsuitable materials, and unsuitable soils from the site. Then where necessary, replace with a clean backfill as specified by a Geotechnical Engineer.
8. Perform cuts and fills as required.
9. Temporary stabilize any exposed soils that will not be worked for more than 7 days with seed, mulch or other non-erodable cover. See Section 2.2 below for direction on temporary stabilization practices.
10. Construct any additional temporary sediment and erosion control facilities as required. (i.e. stone check dams and/or dirtbags).
11. Begin constructing municipal sewer and drainage systems
12. Begin constructing building foundation.
13. Finishing constructing stormwater conveyance systems as required.
14. Install temporary sediment traps around newly constructed catch basins.
15. Finish constructing wastewater conveyance systems as required.
16. Install all other utilities as required.
17. Place bank run gravel course in areas to be paved.
18. Loam, and permanently seed (or sod) all areas that are not to be worked for more than one year or that has been brought to final grade. See Section 2.2 below for direction on permanent stabilization practices.
19. Place crush gravel and construct pads for exterior concrete flatwork and pavement areas.
20. Finish grade, construct, and place all areas of concrete and base course pavement.
21. Install catch basin inlet sediment traps (i.e. silt sacks).
22. Complete loaming, permanent seeding (or sod), and mulching. Reseed any areas that have not been established from prior seeding.
23. Complete final paving (wearing course).
23. When all construction activity is complete and the site is stabilized, remove temporary erosion control measures and reseed (or sod) any areas disturbed by their removal.

1.9 - Potential Sources of Pollution

Potential sources of sediment to stormwater runoff:

- Demolition
- Clearing and grubbing operations
- Topsoil stripping and stockpiling
- Grading and site excavation operations
- Vehicle tracking
- Landscaping operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area – small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area – general building materials, solvents, adhesives, paving materials, paints, aggregates, trash, and so on.
- Construction Activity – paving, curb installation, concrete pouring,/mortar
- Concrete Washout Area

Inventory of Potential construction site pollutants:

- Concrete
- Detergents
- Paints
- Metal Studs
- Steel Beams
- Asphalt
- Fertilizers
- Pesticides
- Cleaning solvents
- Wood Preservatives
- Masonry block
- Roofing Material
- Glue, adhesives
- Brick
- Insulation
- Curing compounds
- Hydraulic oil/fluids
- Sheetrock
- Plaster
- Gasoline
- Diesel fuel
- Kerosene
- Antifreeze/coolant
- Sanitary toilets

1.10 - Non-Stormwater Discharges:

It is expected that the following non-stormwater discharges will occur from the site during the construction period:

- Fire hydrant flushing;
- Potable water including uncontaminated water line flushing;
- Sprinkler testing;
- Pavement & concrete wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- Uncontaminated groundwater or spring water;
- Waters used to wash vehicles where detergents are not used;
- Water used to control dust;
- Uncontaminated air conditioning or compressor condensate;
- Uncontaminated excavation dewatering;
- Landscape irrigation;
- Foundation or footing drains where flows are not contaminated with process materials such as solvents.

All non-storm water discharges will be directed through sediment control measures before discharge.

1.11 – Endangered Species Certification

The Maine Department of Inland Fisheries and Wildlife, US Fish and Wildlife Service, Maine Natural Areas Program databases were checked for records of rare species and exemplary natural communities near the project area. The species considered include those listed as threatened or endangered by either the State of Maine or the federal government. Currently there are no recorded occurrences for sensitive species near this project area. Please see Appendix C for supporting documentation.

1.12 - Applicable State, Tribal, or Local Programs

- Local City of Portland Planning Board Approval is required.
- A Stormwater Management Law Permit by Rule (PBR) is required.

1.12 - Maps

Please see Appendix K – For the Grading and Utilities Plan and for the Erosion Control Plan

SECTION 2 Erosion and Sediment Control BMPS

2.1 - Overview of the Stormwater Management System:

Stormwater runoff from the newly constructed impervious areas will be controlled and conveyed by the use of curbing, hooded catch basins with sumps, and drainage manholes. This on-site drainage system will discharge the runoff into the City's combined sewer system and is conveyed to sewer overflow structures in Franklin Street Arterial. At the overflow structure, normal low flows are conveyed to Portland's wastewater treatment plant, and flows from large storms events are diverted to Casco Bay.

The proposed project in phase II will decrease the on-site impervious cover in comparison to the development that was in existence prior to November 16, 2005. Thus detention of stormwater runoff for purposes of mitigating peak flow rates is not required.

Open space areas will be graded as per the site plan and will have permanent seeding or plantings. When construction is completed and the site is stabilized, all accumulated sediment and temporary erosion control devices will be removed from the site and be properly disposed of.

2.2 - Stabilization Practices:

•Temporary Stabilization measures shall be performed with mulch or other non-erodable cover any exposed soils that will not be worked for more than 7 days. Stabilize areas within 75 feet of a wetland or water body within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

If temporary seeding is being utilized, the mixture will vary based on time of seeding:

4/01 – 5/15	oats	2.0 lbs/1,000 sq.ft.
5/16 - 8/14	sudangrass	1.0 lbs/1,000 sq.ft.
5/16 - 8/14	annual ryegrass	2.0 lbs/1,000 sq.ft.
8/15 - 9/15	winter rye	2.5 lbs/1,000 sq.ft.
9/16 - 3/31	winter rye (protect w/ mulch cover)	2.5 lbs/1,000 sq.ft.

Prior to seeding, all stones and trash that will interfere with the seeding should be removed, the soil should be tilled to a depth of 3 inches (where feasible), and the area should be fertilized with a minimum 7 pounds per 1,000 sq.ft. of a 10-10-10 fertilizer. After seeding, the area is to be mulched with straw.

• Winter Stabilization is necessary when construction activity is performed during the period from November 1st through April 15th. If disturbed areas are not stabilized with permanent measures by November 1st or new soil disturbance occurs after November 1st, but before April 15th, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

• Permanent Stabilization measures shall be performed if an area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, soil, and moisture conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established. If necessary, areas must be seeded and mulched again if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular.

An area shall be considered permanently stable if:

(a) *Seeded Areas* shall have a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.
(b) *Sodded Areas* shall have a complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
(c) *Permanent Mulched* areas shall have a total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
(d) *Riprap* used to stabilize slopes shall have an appropriate backing of well-graded gravel or approved geotextile to prevent soil movement from behind the stone. The stone must be sized appropriately. It is recommended that angular stone be used.
(e) *Paved areas* shall have competed installing the compacted gravel subbase.
(f) *Ditches, Channels, and Swales* shall have 90% cover of healthy vegetation, with a well-graded riprap lining, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

Use permanent seed mixes and rates between 5/15 and 9/30. Permanent lawn mixtures shall be as follows:

Sun areas:	7 to 9 pounds per 1,000 sq.ft.	50% fine fescue 20% perennial ryegrass 20% Kentucky bluegrass 10% Dutch white clover
Shade areas:	4 to 5 pounds per 1,000 sq.ft.	70% fine fescue 20% perennial ryegrass 10% Kentucky bluegrass * *(shade tolerant variety)

Prior to seeding, apply 100 lbs/1,000 sq.ft. of lime and till into the upper 3 inches of soil. Then rake a starter-type fertilizer into the upper inch of soil that delivers 1 lb. of actual Nitrogen per 1000 sq.ft. After seeding, areas shall be mulched with straw.

2.3 - Temporary Erosion Control Devices:

•Silt Fences are a barrier of geotextile fabric (filter cloth) used to intercept sediment in diffuse runoff. They must be firmly anchored and may require additional support, such as, reinforcing with wire mesh. Used alone, silt fences are usually inappropriate for flows of concentrated high volume or high velocity. They must be carefully maintained to ensure structural stability and be cleaned of excess sediment. Silt fence is installed along all fill side-slopes and down-slope boundaries along all wetland boundaries.

•Silt Sacks are sediment trap devices to be used with catch basin grates to filter out all the sediment-laden stormwater. The suspended solids are allowed to settle out of the slowed flow and are captured by the sack after entering the catch basin inlet.

•Stabilized Construction Exit are a stone stabilized pad located where vehicles leave a construction site. They provide an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud transported onto paved roads.

2.4 - Schedule of Controls/Measures:

- Prior to construction, properly install the Stabilized Construction Exit
- Prior to construction, properly install sediment barriers at the edge of any down gradient disturbed area and adjacent to any drainage channels within the disturbed area.
- Prior to construction, properly install silt sacks in inlets of any down gradient catch basins from the disturbed area.
- Maintain the sediment controls until the disturbed area is permanently stabilized.
- Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed or mulch. After the entire site is stabilized, all accumulated sediment will be removed from any grassed swales, catch basins, riprap, and silt fences.
- Remove any temporary sediment control measures within 30 days after permanent stabilization in attained.
- A log shall be kept to document the timing and description of grading and stabilization activities. Please see Appendix I for the Grading and Stabilization Activities Log.

SECTION 3 Good Housekeeping BMPS

3.1 - Waste Management:

- Construction waste materials

All waste materials will be collected and stored securely in a metal dumpster rented from a local solid waste management company. The dumpster will meet all local and state solid waste management regulations. The dumpster will be emptied as necessary, and the trash will be hauled to the local dump or transfer center. No waste materials generated by construction will be buried onsite. All personnel will be

instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and the site superintendent managing the day-to-day site operations; will be responsible for seeing that these procedures are followed.

- Hazardous waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices and the site superintendent will be responsible for seeing that these practices are followed.

- Sanitary Waste

A local licensed sanitary waste management contractor will collect all sanitary waste from the portable units.

3.2 - Offsite Vehicle Tracking:

A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved street into to the site entrance will be swept as necessary (could be as frequent as daily during heavy earth hauling operations) to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

3.3 - Concrete Washout Area:

Concrete trucks shall only discharge washed out surplus concrete or drum wash water into an above grade concrete washout area. The temporary concrete washout area will be constructed with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area shall be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be properly disposed of off-site. The washout area will be cleaned out once the area is filled to 75 percent of the holding capacity or when the temporary washout area is no longer needed for the construction project. The concrete wastes will be allowed to harden; the concrete wastes will be broken up, removed and taken to a landfill for disposal. If the washout area is needed, the plastic sheeting will be replaced if tears occur during the removal of concrete wastes.

The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

3.4 – Spill Prevention:

- The following are material management practices that will be followed onsite during the construction project to reduce the risk of spills or other accidental exposures of material and substances to stormwater runoff.
  - An effort will be made to store only enough product required to do the job
  - All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
  - Products will be kept in their original containers with the original manufacturer's label
  - Substances will not be mixed with one another unless recommended by the manufacturer

- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturer's recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials
- Products will be kept in original containers unless they are not re-sealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

- The following product specific practices will be followed onsite:
  - Petroleum Products:
    All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

  - Fertilizers:
    Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed or trailer. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

  - Paints:
    All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

- In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:
  - Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
  - Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, absorbent (i.e. clay kitty litter), sand, sawdust, and plastic and metal trash containers specifically for this purpose.
  - All spills will be cleaned up immediately after discovery.
  - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Spills of toxic or hazardous material shall be reported to the appropriated state or local government agency, regardless of the size of the area involved or the quantity of material spilled.
  - The spill prevention plan shall be adjusted to include measures to prevent this type of spill from reoccurring and how to cleanup the spill if it recurs.
  - The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. All site sub-contractors are responsible for providing at least one site personnel apiece who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

SECTION 4 Inspections

4.1 – Inspection Personnel

- Opechee Construction Corporation's on-site project manager is the compliance officer for OCC and is responsible for site compliance with the SWPPP and EPA's Construction General Permit. Opechee Construction Corporation's on-site project manager will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points, and construction exits.

  In absence of an Opechee Construction Corporation's on-site project manager, the SWPPP contact for the operator (OCC) will conduct inspections

4.2 – Inspection Schedule and Procedures:

Schedule:

- Inspections of the site will be performed once every 14 days and within 24-hours of the end of a storm event of one-half inch or greater. The inspections will verify that all BMPs required in this SWPPP are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials. For a copy of the inspection report, see Appendix J.

Procedures:

- Silt fences will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground
- Built-up sediment shall be removed from the silt fences when it has reached one-half the height of the fence (or manufacturer's recommended height, whichever is less).
- Accumulated sediment shall be removed from the dandy sacks when the containment sack is one-third full. Remove the sacks with lifting straps and empty using dumping straps.
- The catch basin sumps will be inspected for sediment build-up and cleaned when sediment has accumulated within 12" of the outlet.
- The underground detention system shall be inspected after significant storm events and/or when the upstream catch basins require maintenance.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts and healthy growth
- A maintenance inspection report will be made after each inspection
- All necessary repairs to erosion control measures must be made as soon as possible.

Corrective Actions:

- If corrective actions are identified by OCC's on-site project manager during the inspection, they will notify and submit a copy of the inspection report to the OCC's project manager. For corrective actions identified, OCC's on-site project manager will be responsible for initiating the corrective action within 24-hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, OCC's on-site project manager will notify the project manager as soon as possible before initiating the corrective action.

- When corrective actions are completed, a log will be kept to describe the repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures

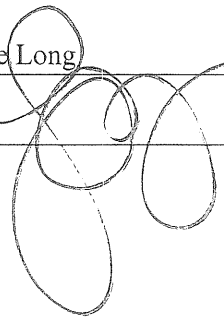
described above. The log entry should reference the specific inspection report related to finding the deficiencies. Please see Appendix H for the Corrective Action Log.

- If changes and updates of the SWPPP are necessary, a log will be kept to describe any additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on. Please see Appendix G for the Corrective Action Log.

SECTION 5 CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Steve Long Title: Project Manager

Signature:  Date: 06-24-10

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Stormwater Permit by Rule & Maine Construction General Permit NOI

Appendix B – General Map

Appendix C –Essential Habitat & Historic Preservation Inquiry Results

Appendix D – Delegation of Authority

Appendix E – Subcontractor Certifications/Agreements

Appendix F –General Permit – Construction Activity

Appendix G – SWPPP Amendment Log

Appendix H – Corrective Action Log

Appendix I – Grading and Stabilization Activities Log

Appendix J – Inspection Form

Appendix K – Erosion Control Plans for Demolition & Construction

Appendix A: Stormwater Permit by Rule & Maine Construction General Permit NOI

Maine is a delegated permitting authority for the EPA's NPDES Construction General Permit

– see next page

STORMWATER PBR APPLICATION FORM
PLEASE TYPE OR PRINT IN *INK ONLY*

1. Name of Applicant:	Fore India Middle, LLC	5. Name of Agent: (if applicable)	Opechee Construction Corporation
2. Applicant's Mailing Address:	11 Corporate Drive Belmont, NH 03220	6. Agent's Mailing Address:	11 Corporate Drive Belmont, NH 03220
3. Applicant's Daytime Phone #:	603-527-9090	7. Agent's Daytime Phone #:	603-527-9090
4. Applicant's Fax #: (if available)	603-527-9191	8. Agent's Fax # and email address:	603-527-9191
9. Location of Project: (Road, Street, Rt.#)	207 & 209 Fore Street	10. Town:	Portland
		11. County:	Cumberland

12. Is this PBR for renewal of an individual stormwater permit? If yes, skip to Block 27 and signature page. ☐ Yes ☒ No

13. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☒ Coastal wetland ☐ Wellhead of public water supply	14. Amount of Developed Area:	☒ Total # of 1.07 acres OR ☐ Total # of _____ square feet
		15. Amount of Impervious Area:	☐ Total # of _____ acres OR ☒ Total # of (-)5,096 square feet

16. Creating a common plan of development or sale?	☒ Yes ☐ No	17. Name of waterbody(ies) to which the project site drains:	Casco Bay
18. Brief Project Description:	See attached sheet		
19. Size of Lot or Parcel:	☐ Total of 47,473 square feet OR ☐ Total of _____ acres	20. UTM Locations:(if known)	UTM Northing: 4834609 UTM Easting: 19 0399115
21. Deed Reference Numbers:	Book#: 27,850 Page#: 68	22. Map and Lot Numbers:	Map #: 29-L Lot #: 1,2,&3
23. Project started prior to application?	☐ Yes ☒ No	If yes, Completed? ☐ Yes ☒ No	24. Resubmission of Application? ☐ Yes ☒ No
25. Written Notice of Violation?	☐ Yes ☐ No	If yes, name of DEP enforcement staff involved:	
26. Detailed Directions to the Project Site: (Attach separate sheet if necessary)	I-295. Exit 7 onto US Route 1 East (Franklin Street Arterial). Site is abandon Jordan's Meats site in the northerly quadrant of the intersection of US Route 1 (Franklin Street Arterial) and Fore Street.		

27. SUBMISSIONS ▼

☒ This form (signed and dated)	☐ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	☒ Photos of Area	For Renewal of an individual Stormwater permit only:
☒ Fee		☒ ESC Plan	☐ This form (signed and dated)
		☒ Location Map	☐ Copy of original stormwater permit
		☒ Site Plan	☐ Fee

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

CERTIFICATIONS / SIGNATURES

Applicant's Statement:
I am applying for a Stormwater PBR and have attached the required PBR submissions. I have read the requirements herein and I affirm that my project satisfies the applicable stormwater management standards. I authorize staff of State and Federal agencies having jurisdiction over this activity, to access the project site for the purpose of determining compliance with the rules.

Signed: _____ **Date:** 6.24.10

Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion. If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign. Signed _____ Date: 6.24.10

Block 18

Fore India Middle, LLC of 11 Corporate Drive, Belmont, NH 03220 has retained Opechee Construction Corporation, located at the same address, to develop the lot adjacent to the previously approved Hotel, Restaurant & Residences – Old Port.

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

The proposed project is the redevelopment of a previous development consisting of existing impervious areas that were created prior to 11/16/05. In the post-development condition, the decrease in impervious area from what currently exists today will be as follows:

Existing development: (Jordan's Meats factory site) = 70,565 sq.ft
Post-development: (Phase I and Phase II) = 65,469 sq.ft.
Net decrease: 5,096 sq.ft.

Because the project results in a decrease of impervious area from the previous development; the project will be submitted to the Maine Department of Environmental Protection for a Stormwater Management Law Permit by Rule. Therefore the "Basic Standards" (section 500.4.A) and the "Other Applicable Standards" (Section 500.5) of the Stormwater Management Law apply.

Runoff from the project site enters the municipal combined sewer system and is conveyed to combined sewer overflow structures in Franklin Arterial. Normal low flow discharges within the system are conveyed to an interceptor in Commercial Street and on to the City of Portland wastewater treatment plant. Combined overflows during large storm events are diverted to a 48" diameter combined sewer overflow drain that runs down the center of Franklin Arterial, eventually discharging to Casco Bay south of Commercial Street.

Appendix B - General Map

Sebago Technics
Engineering Expertise You Can Build On

Traffic Analysis Memo

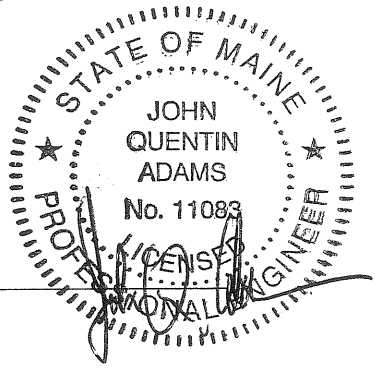
Project: 05090

To: **William Needelman, AICP, Senior Planner, City Portland,**

From: John Q. Adams, P.E., PTOE, Senior Transportation Engineer
Sebago Technics, Inc.

Date: July 23, 2010

Subject: **Requested Traffic Analysis**
Old Port Hospitality, LLC – Phase 2
Fore Street, Portland



Description

Old Port Hospitality has proposed the Phase 2 portion of their project located on Fore Street and Middle Street in Portland. The Phase 2 portion will include the development of 4 Condominium/Townhouses along Fore Street and a 2nd story parking lot. A future Phase 3 will be built and is planned to include 70,000 sf of general office space.

City staff has reviewed the initial submission for the Phase 2 portion of the development. The purpose of this memo is to address the traffic comments from the City's Traffic Engineer. Our understanding is that the following items have been requested from the applicant.

1. A Traffic capacity and queuing analysis has been requested for the intersection of Middle St and India St for both the weekday AM and PM peak hours under full build-out. The full build-out condition will include the 4 townhouses and the future 70,000 sf of general office space.
2. There is also a concern that the proposed site entrance location on Middle Street could be blocked by traffic queuing on the Middle Street eastbound approach to India Street under the full build condition. Therefore, from the analysis in Item 1 we will review the 95th percentile queue lengths on the Middle Street eastbound approach to confirm that the Middle Street site entrance will not be blocked.

Trip Generation

Trip generation calculations were completed for the four Condominium/Townhouses and the 70,000 sf of office space. Land Use Code (LUC) 230 for Residential Condominium/Townhouses and LUC 710 was used for General Office Space. Table 1 below summarizes the results.

Table 1
Trip Generation
Townhouses/General Office Space

PROPOSED USE			
GENERAL OFFICE BUILDING, LUC 710			
BY 1000 SF	**SF**	**RATE (Trips/1000SF)**	**TOTAL**
WEEKDAY AM PEAK HOUR	70,000	1.55	109
WEEKDAY PM PEAK HOUR	70,000	1.49	104

PROPOSED USE			
RESIDENTIAL CONDOMINIUM/TOWNHOUSE, LUC 230			
PER DWELLING UNIT	**Dwelling Units**	**RATE (Dwelling Unit)**	**TOTAL**
WEEKDAY AM PEAK HOUR	4	0.44	2
WEEKDAY PM PEAK HOUR	4	0.52	2

TOTAL TRIP GENERATION			
	TOTAL TRIPS	**ENTER**	**EXIT**
WEEKDAY AM PEAK HOUR	**110**	96	14
WEEKDAY PM PEAK HOUR	**106**	19	87

Reference: ITE Trip Generation Manual, 7th Edition.

The results indicate that the general office space and townhouses will generate 110 AM peak hour trip-ends (96 enter, 14 exit), and 106 PM peak hour trip-ends (19 enter, 87 exit).

Trip Assignment

To determine assignment of trips on Middle Street at the site entrance to/from Franklin Arterial and India Street we reviewed our traffic counts on Franklin Arterial from the Phase 1 Application Submission (3/22/10). This indicated that during the PM peak hour there would be a bi-directional traffic volume of 1,104 vehicles on Franklin Street at Middle Street and 306 vehicles on India Street at Middle Street. In addition, the AM peak hour volumes on India were substantially lower than the PM peak hour with only 135 vehicles. Based on this, we assumed the trip assignment would be approximately 20% utilizing India Street/Middle Street and 80% using the Franklin Arterial/Middle Street intersection. This is consistent with the distribution that was used in the Phase 1 application.

The site generated trips are shown in Figure 2 at the end of this report. Traffic counts were taken for the AM and PM weekday peak hours at the intersection of Middle Street and India Street on Wednesday July 21 and are shown in Figure 1 at the end of the report. A more detailed traffic count table is included in the appendix. Since these counts were taken during the peak time of year (July) that were not seasonally adjusted. The site generated trips were combined with the traffic counts to arrive at the Full-Build traffic volumes shown in Figure 3 at the end of this report.

Traffic Operations

Traffic operations analysis was performed for the AM and PM peak hours for the intersection of Middle Street and India Street. Under the build condition the site entrance on Middle Street was included for analysis. The analysis was completed using existing traffic control, which includes stop signs on both Middle Street approaches and free operation on India Street. We utilized the Synchro software with the Highway Capacity Manual Report for analysis and also reviewed the SimTraffic results for the build condition for comparison purposes. Synchro and SimTraffic analysis outputs are enclosed in the appendix. Table 2 below summarizes the results.

Table 2
Traffic Operations Analysis – 2-Way Stop Condition
Middle St at India St
(Delay/LOS/95thQueue)

Approach	AM Peak Hour			PM Peak Hour		
	Existing (Synchro)	Build (Synchro)	Build SimTraffic	Existing (Synchro)	Build (Synchro)	Build SimTraffic
Middle EB	15.9s/C/75'	16.4s/C/76'	7.3s/A/107'	30.3s/D/94'	35.1s/E/115'	9.8s/A107'
Middle WB	13.7s/B/43'	14.0s/B/44'	5.6s/A/82'	106s/F/297'	123s/F/322'	12.9s/B/137'
India NB	3.5s/A/3'	3.7s/A/3'	1.3s/A/18'	4.8s/A/10'	4.9s/A/10'	2.4s/A/55'
India SB	1s/A/0'	1s/A/0'	1s/A/4'	2.4s/A/2'	2.4s/A/2'	1.4s/A/32'
Overall	12.2s/B	11.6/B	5.4/A	42.3s/E	48.6s/E	7.3/A

The results indicate that the intersection of Middle Street at India Street will function satisfactory during the AM peak hour under the Build condition. The Synchro results indicate that the 95th percentile queue on the Middle Street eastbound approach will be 76 ft long and will not block the proposed site entrance. We also reviewed the SimTraffic results and they indicate that the intersection will function at a better LOS, with an overall LOS "A" with all approaches at LOS "A" or better. Simtraffic estimates a 95th percentile queue of 107 ft on the Middle Street eastbound approach.

During the PM peak hour the intersection of Middle Street at India Street will function at an overall LOS of "E." This is due to the Middle Street stop controlled approaches which will experience some delay. According to the Synchro results the 95th percentile queue on the Middle Street eastbound approach will be 115 ft which will not block the proposed site entrance. We also reviewed the SimTraffic results and they indicate that the intersection will function at a better LOS, with an overall LOS "A" with all approaches at LOS "B" or better. In addition Simtraffic estimates a 95th percentile queue of 107 ft on the Middle Street eastbound approach.

The analysis also indicated that the site entrance will function at LOS "A" and all approaches will function at LOS "B" or better.

As requested we also performed traffic analysis of the intersection of Middle Street at India St with a proposed all-way stop traffic control. Table 2, below, summarizes the results.

Table 3
Traffic Operations Analysis 4-Way Stop Condition
Middle St at India St
(Delay/LOS/95th Queue)

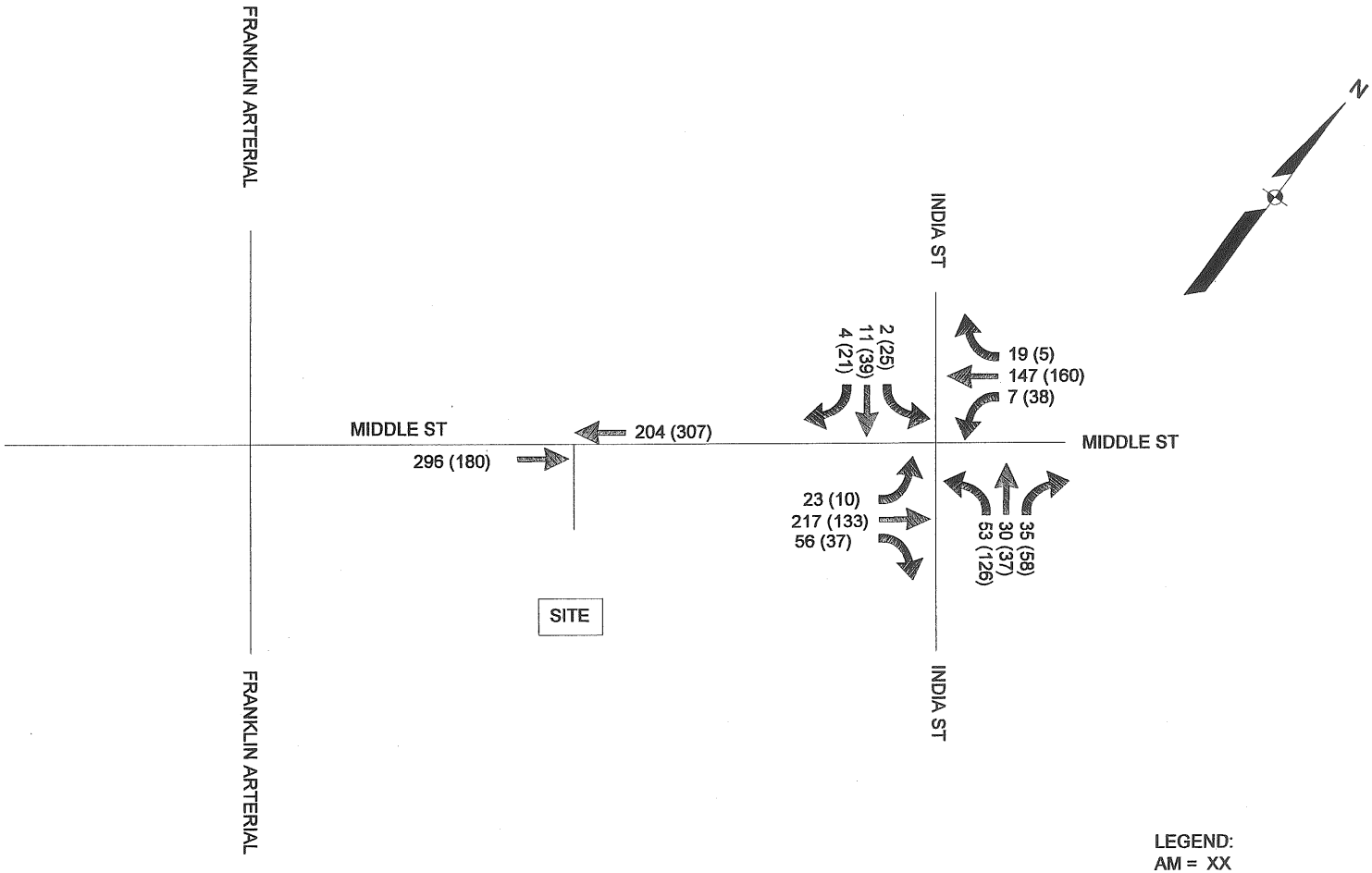
Approach	AM Peak Hour	PM Peak Hour
	Build	Build
Middle EB	11s/B/91'	12s/B/85'
Middle WB	5.6s/A/77'	14.5s/B/102'
India NB	1.3s/A/61'	14.5s/B/98'
India SB	1s/A/44'	11s/B/66'
Overall	5.4s/A	10s/B

*Queue lengths shown are from SimTraffic

The results of the four-way stop analysis indicate that from a LOS standpoint the intersection overall will function at a better LOS ("A" in the AM & "B" in the PM) than with the current two-way stop on Middle Street. Also all of the 95th percentile queues are moderate on all approaches for both the AM and PM peak hours, in the range of 44 to 102 ft. It also indicates that the queues on the Middle Street eastbound approach will not block the site entrance.

Summary/Conclusions

1. This analysis reviewed traffic operations at the intersection of Middle Street at India Street for both the AM and PM peak hours and its impact, if any, of the proposed Phase 2 site entrance on Middle Street. The proposed site entrance is approximately 120 ft from India Street.
2. In performing this analysis we utilized the full-build condition, which included the four townhouses in Phase 2 and the 70,000 sf of general office space in the planned Phase 3.
3. Our trip assignment was consistent with the Phase 1 Traffic Movement Permit and had 80% of vehicles utilizing the Franklin Arterial/Middle intersection and 20% utilizing Middle Street at India Street.
4. Our analysis indicates that the 95th percentile queue on the Middle Street eastbound approach will not block the site entrance under the Build condition during the AM (76 ft.) and PM (115 ft.) peak hours.
5. The Synchro traffic analysis indicated satisfactory LOS during the Build condition for the AM peak hour with an overall LOS of "B" and all approaches at LOS "C" or better. During the Build condition for the PM peak hour the intersection will function at an overall LOS "E" with delay experienced on both Middle Street approaches. We also reviewed the SimTraffic results for the Build Condition and it indicated that the LOS would be better, with an overall LOS "A" in the AM peak hour with all approaches at LOS "A" and during the PM peak hour there would be an overall LOS of "A" with all approaches at LOS "B" or better.
6. We also reviewed traffic operations under the Build condition with Middle Street at India Street under four-way stop control. The results indicated that overall the intersection functioned at an overall LOS "A" during the AM peak hour and "B" during the PM peak hour. In addition the 95th percentile queues would be moderate on all approaches in the range of 44 to 102 ft.



Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES

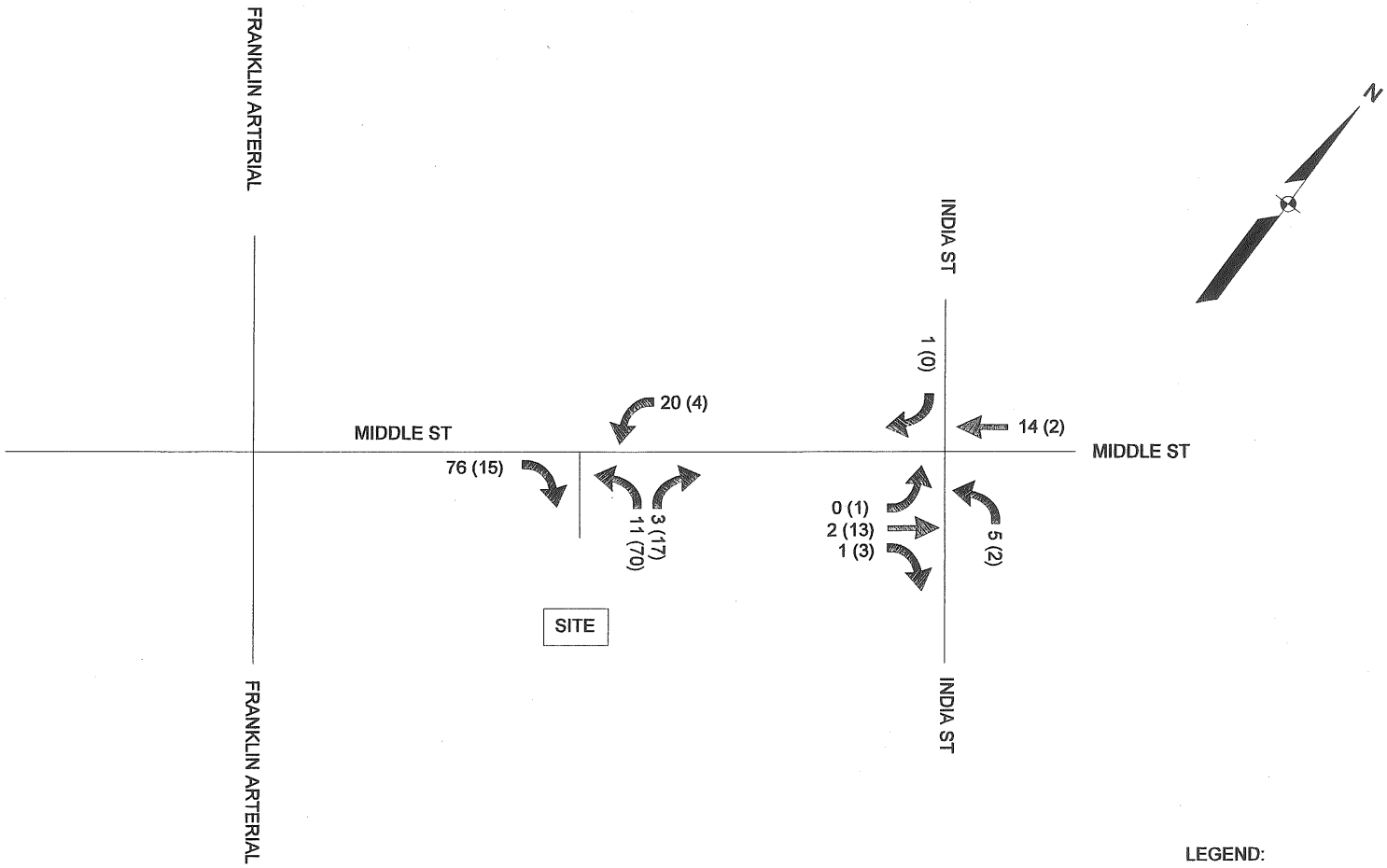
MIDDLE STREET AT INDIA STREET

SCALE:	NTS
DATE:	07/22/2010
SHEET:	Fig. 1

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

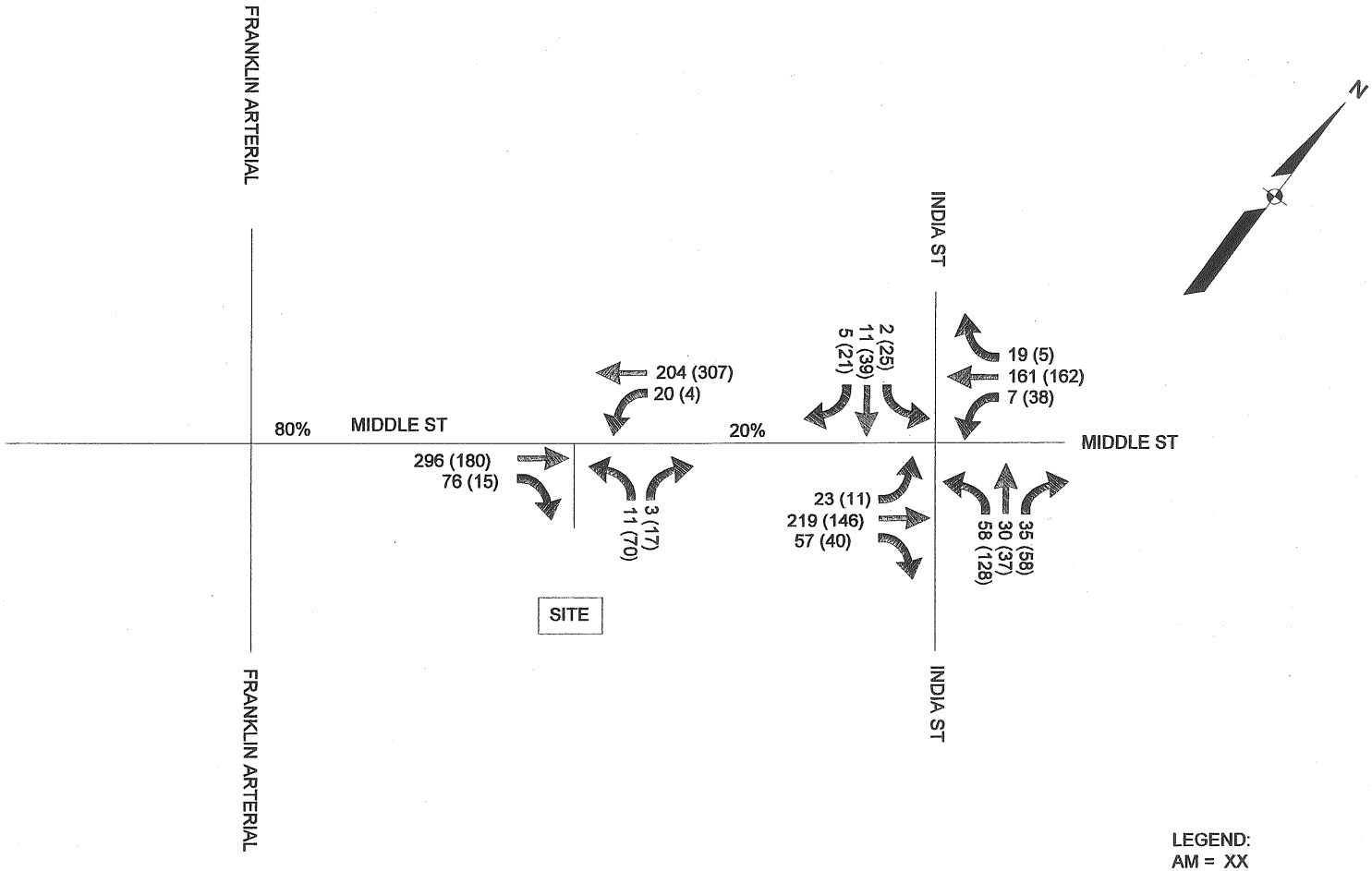
SCALE: NTS
DATE: 07/22/2010

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SHEET: Fig. 2

05090TRAFFIC(PHASE2).DGN



FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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Tel (207) 856-0277

FULL BUILD VOLUMES

SCALE: NTS

DATE: 07/22/2010

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SHEET: Fig. 3

05090TRAFFIC(PHASE2).DGN

Appendix

- **Traffic Counts – Middle St at India St**

- **Traffic Operations Analysis AM & PM Peak Hours**
  - **Existing Conditions: Synchro Analysis**
  - **Build Conditions: Synchro & SimTraffic Analaysis**
  - **Build Condition: 4-Way Stop Middle St at India St**

TRAFFIC COUNTS
WEEKDAY AM PM PEAK HOUR COUNTS

MIDDLE ST AT INDIA ST
PORTLAND, ME

Time	India From North			Middle From East			India From South			Middle From West			15-Minute Total	Hourly Total
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:15	1	2	10	1	13/1	0	5	3	1/1	1	30	4	69	
7:30	0	3	0	1	14	2	6	2	2	4	42	12	88	
7:45	5	6	1	1	32/3	3	5	0	4	0	38	5	98	
8:00	3	4	0	0	37/2	9	5	10	10	7	70/1	17	94	349
8:15	*1*	*0*	*0*	*0*	*18*	*8*	*12*	*8*	*8*	*6*	*51*	*11*	*123*	403
8:30	*0*	*3*	*0*	*0*	*22*	*4*	*8*	*4*	*8*	*6*	*58*	*13*	*126*	441
8:45	*1*	*3*	*1*	*4*	*54/3*	*0*	*20*	*7*	*7/1*	*4*	*61/1*	*18*	*163*	506
9:00	*0*	*5*	*3*	*3*	*50*	*7*	*13*	*11*	*11*	*7*	*46*	*14*	*170*	*582*
PEAK HR TOTAL	*2*	*11*	*4*	*7*	*147*	*19*	*53*	*30*	*35*	*23*	*217*	*56*		
PHF	0.53			0.71			0.84			0.88				

4:15	6	13	0	0	43	3	19	10	35	0	18	6	153	
4:30	1	6	4	8	51	0	24	7	14	1	36	13	165	
4:45	0	9	6	13	51	3	40	5	16	1	32	8	184	
5:00	3	5	3	3	15	5	15	3	18	5	23	11	109	611
5:15	*6*	*20*	*10*	*5*	*30*	*0*	*44*	*13*	*21*	*3*	*29*	*15*	*196*	654
5:30	*4*	*7*	*2*	*12*	*63*	*3*	*29*	*8*	*17*	*2*	*43*	*7*	*197*	686
5:45	*0*	*9*	*8*	*9*	*32*	*0*	*30*	*6*	*8*	*3*	*26*	*6*	*137*	639
6:00	*15*	*3*	*1*	*12*	*35*	*2*	*23*	*10*	*12*	*2*	*35*	*9*	*159*	*689*
PEAK HR TOTAL	*25*	*39*	*21*	*38*	*160*	*5*	*126*	*37*	*58*	*10*	*133*	*37*		
PHF	0.59			0.65			0.71			0.87				

X car
x/y car/truck

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	23	217	56	7	147	19	53	30	35	2	11	4
Peak Hour Factor	0.88	0.88	0.88	0.71	0.71	0.71	0.84	0.84	0.84	0.53	0.53	0.53
Hourly flow rate (vph)	26	247	64	10	207	27	63	36	42	4	21	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	345	236	25	402	219	57	28			77		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	345	236	25	402	219	57	28			77		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	61	94	97	68	97	96			100		
cM capacity (veh/h)	433	637	1052	356	651	1010	1585			1521		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	336	244	140	32
Volume Left	26	10	63	4
Volume Right	64	27	42	8
cSH	662	655	1585	1521
Volume to Capacity	0.51	0.37	0.04	0.00
Queue Length 95th (ft)	72	43	3	0
Control Delay (s)	15.9	13.7	3.5	0.9
Lane LOS	C	B	A	A
Approach Delay (s)	15.9	13.7	3.5	0.9
Approach LOS	C	B		

Intersection Summary			
Average Delay	12.2		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	133	37	38	160	5	126	37	58	25	39	21
Peak Hour Factor	0.87	0.87	0.87	0.65	0.65	0.65	0.71	0.71	0.71	0.59	0.59	0.59
Hourly flow rate (vph)	11	153	43	58	246	8	177	52	82	42	66	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	747	657	84	735	634	93	102			134		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	747	657	84	735	634	93	102			134		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	54	96	68	27	99	88			97		
cM capacity (veh/h)	121	329	975	183	339	964	1490			1451		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	207	312	311	144
Volume Left	11	58	177	42
Volume Right	43	8	82	36
cSH	343	296	1490	1451
Volume to Capacity	0.60	1.05	0.12	0.03
Queue Length 95th (ft)	94	297	10	2
Control Delay (s)	30.3	106.1	4.8	2.4
Lane LOS	D	F	A	A
Approach Delay (s)	30.3	106.1	4.8	2.4
Approach LOS	D	F		

Intersection Summary			
Average Delay	42.3		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	23	219	57	7	147	19	58	30	35	2	11	5
Peak Hour Factor	0.88	0.88	0.88	0.71	0.71	0.71	0.84	0.84	0.84	0.53	0.53	0.53
Hourly flow rate (vph)	26	249	65	10	207	27	69	36	42	4	21	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	358	248	25	417	232	57	30			77		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	358	248	25	417	232	57	30			77		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	60	94	97	67	97	96			100		
cM capacity (veh/h)	421	624	1051	342	637	1010	1583			1521		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	340	244	146	34
Volume Left	26	10	69	4
Volume Right	65	27	42	9
cSH	650	641	1583	1521
Volume to Capacity	0.52	0.38	0.04	0.00
Queue Length 95th (ft)	76	44	3	0
Control Delay (s)	16.4	14.0	3.7	0.8
Lane LOS	C	B	A	A
Approach Delay (s)	16.4	14.0	3.7	0.8
Approach LOS	C	B		

Intersection Summary			
Average Delay	12.5		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	296	76	20	224	11	3
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	370	95	25	280	14	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			465		748	418
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			465		748	418
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		96	99
cM capacity (veh/h)			1096		372	635

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	465	305	18
Volume Left	0	25	14
Volume Right	95	0	4
cSH	1700	1096	408
Volume to Capacity	0.27	0.02	0.04
Queue Length 95th (ft)	0	2	3
Control Delay (s)	0.0	0.9	14.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.9	14.2
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	7.3	5.6	1.3	0.4	5.4

8: Middle & Site Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	1.8	1.4	6.2	1.8

Total Network Performance

Delay / Veh (s)	6.1