

Memorandum
Department of Planning and Development
Planning Division



To: Chair Delogu and Members of the Portland Planning Board
From: Rick Seeley, Senior Planner, GPCOG
Date: April 27, 2004
Re: **Maine Medical Center Contract Zone**
Building Addition, Helipad, Parking Garage, and Central Utility Plant
Vicinity of Bramhall, Charles, Wescott, Ellsworth, Crescent,
Gilman and Congress Streets

Responses to Planning Board Issues Since the March 23rd Workshop

Since this application was first heard by the Planning Board at the March 23, 2004 workshop, at which Planning Board members identified several categories of issues they would like to see more work on by the applicant and staff, several actions have been taken and are underway as described below and in the attachments to this memo.

Site Walk

The site walk requested by the Planning Board has been scheduled for Tuesday, May 4, 2004, beginning at 3:30 pm. The workshop will include a tour of the Maine Medical Center campus followed by a presentation by Maine Medical Center on three critical aspects of their helipad proposal – clinical necessity, safety, and noise.

Subsequent Planning Board Workshop

It is very likely that the April 27th workshop and the May 4th site walk will not completely cover the range of issues associated with this application for a contract zone, and that at least one more workshop session will need to be held before the Board is ready to bring this project to a public hearing. Accordingly, the Planning Division's tentative schedule shows one more session on this project at the May 11, 2004 Planning Board workshop.

Master Planning

On March 30th, at the applicant's request, the Planning Director and other City staff met with Paul Gray, Michael Ryan and Hank Dunn of Maine Medical Center to request an expanded Master Plan for the hospital's Bramhall campus. Requested Master Plan elements include:

Longer timeframe

Long term outer boundary

How the Vaughn Street lot will be used

How the Plan will be integrated with the Neighborhood

Parking, traffic, and campus wide pedestrian circulation plan

Role envisioned for MMC as landlord and reasons for it.

How impacts of the present project on Congress Street will advance revitalization of that area.

To date a revised master plan, though in the works, has not yet been submitted to the City for review.

Helipad

Planning Board members expressed a desire for a more thorough explanation of the need for and study of the noise and safety issues and impacts associated with the proposed helipad. In addition to the May 4th workshop presentation to be provided by Maine Medical Center, City planning staff have been in contact with Bob Miller, the City's noise consultant for the Jetport, to arrange for a professional review of the noise study report described to the Planning Board on March 23rd and included as an Attachment to the staff memo for that workshop. Because the Planning Board has also requested evaluation of the safety issues and an explanation of FAA review and operational requirements for a helipad, discussions between Planning staff and the consultant to fully scope out the rest of the review are continuing at this writing. Bob Miller has agreed to attend the May 4th workshop to hear the hospital's presentations on the helipad.

Housing Replacement

As of this writing, Maine Medical Center is continuing to explore and evaluate options for how best to address their housing replacement responsibilities under the City code. No additional submissions have been made concerning their housing replacement plan for this project.

Congress Street

Although no additional plans for the Congress Street area have yet been submitted, Maine Medical Center is continuing to work with their architect and the Neighborhood Advisory Committee on the garage façade issues, and they plan to submit an elevation view of the new parking garage. Currently a façade with portions showing exposed aggregate, to break up and soften the visual impact of the façade are being considered. Also see Traffic and Parking and Landscaping below.

Traffic and Parking

Access to and from the new parking garage will be possible from both Congress Street and Crescent Street, and circulation within the garage from top to bottom and vice versa will be possible. There will be only one connection between the existing and new garage, which will be on the ground level and will be kept gated, effectively prohibiting all but authorized personnel from moving between the two garages from within.

Maine Medical Center and the City have continued to have a dialogue on parking needs. A revised Traffic Study (Attachment 1), a revised Parking Study (Attachment 2), and memos from Paul Gray in response to Tom Errico's questions have been submitted (Attachment 3 and 4) and found acceptable by Tom Errico (Attachment 5). John Peverada, the City's Parking Director has also reviewed the Parking Study and has additional comments and requests (Attachment 6).

Utility Plant

In response to the Planning Board's comments, the hospital is looking at additional options for softening the visual impact beside those shown on the elevation plan presented on March 23rd.

Landscaping

On April 14th, Maine Medical submitted a set of plans (Attachment 7) showing
Site plan for the new proposed curve at the top of Gilman Street
Grading plan for the new curve at the top of Gilman Street
Landscaping of the proposed new embankment of the curve at the top of Gilman Street
Proposed landscaping for several areas on the campus including the triangle of land in front of the existing garage at Congress and Gilman Streets
Landscaping on the hospital side of Gilman, uphill of the Central Utility Plant
Concept plan for pedestrian access by a stairway to Congress Street (This is only a concept plan; title issues need to be researched to determine if it is possible to do).

The overall Landscape Plan for the project is not yet complete in part because the applicants are interested to learn the Planning Board's response to the present plan. A copy of the plan has been submitted to Parks and Recreation for review, but comments have not yet been returned.

Right-of Way Plans and Recording Plat

Because this project as proposed would necessitate some transfers of land between the City and Maine Medical Center, there will be a need to document these transfers on a recording plat that can be registered in the Registry of Deeds. When finalized, the recording plat will have a signature block, similar to that on a subdivision plan, even though this project does not require subdivision review, which the Planning Board can sign to indicate approval. After signature the recording plat can then be recorded at the Registry of Deeds.

Charles, Ellsworth, Wescott Streets

A plan showing revised Bracket, Ellsworth and Wescott Street ROW locations and widths, the proposed vacation of Charles Street, and a slightly shortened Russell Street ROW has been submitted to the City. The ROW widths have been increased from 40 feet to 60 feet in most locations, and to the widest lesser width possible at a few locations. Charles Street is proposed to be completely eliminated and instead, from Bramhall a widened Brackett Street ROW will cross the end of the Russell Street ROW, extend into a slightly relocated Ellsworth St. ROW until it joins a widened and somewhat relocated Wescott Street ROW. This plan has been found acceptable to the City Engineer, Public Works ROW staff and Lt. Gaylen McDougal of the Fire Department.

City Legal, Planning and Engineering staff and Maine Medical Center are cooperating to prepare a recording plat outlining land parcels to be transferred between the City and Maine Medical Center as needed to document land transfers, street vacation, and related utility changes, locations of licensing agreements for Maine Medical Center improvements, such as directional signage and underground building corner footing encroachments on the revised Wescott Street ROW. The applicant is now incorporating the latest revisions.

Gilman Street

The applicant has now provided a proposed plan for revisions to the street grading and ROW width for the intersection of Gilman Street and the loop road through the campus. As anticipated, this plan also shows the proposed sliver of land that is currently part of the Western Promenade Park and is proposed for transfer to the Gilman Street ROW, including new landscaping on a 1-to-1 slope on the new curve embankment, and a relocated existing footpath at the top of the new curve embankment. A copy of this plan is included as Attachment 7.

The new plan for Gilman Street is designed to meet specific measurements of the fire apparatus that would possibly use the new curve as an alternate rear access to and egress from the Gilman Street side of the MMC campus. It has been reviewed and found acceptable by Lt. Gaylen McDougal of the Fire Department and by the City Engineer, Eric Labelle. A copy of the Plan has been sent to Jeff Tarling of the Parks and Recreation Department for his review, but to date his comments have not been returned to the Planning Division.

In the course of reviewing the new ROW plan for the Gilman Street-Loop road connection, the Public Works Department and the applicant's consultant discovered that a portion of the present cul-de-sac of Gilman Street is owned by Maine Medical Center. This portion is a remnant of land that reverted to Maine Medical Center many years ago, when the City discontinued Arsenal Street, which ran parallel to Bramhall through the present Gilman cul-de-sac location. For some unknown reason it was not included in the Gilman St. ROW when that became public, and half the width of the old Arsenal Street was not included in the Gilman St ROW. The contract zone provides an opportunity to correct this oversight and transfer this odd piece of land in the middle of the cul-de-sac to the City.

Update on Contract Zone Issues

Logistical/Procedural

Corporation Counsel Penny Littell and Maine Medical Center's Attorney for this project, Christopher Vaniotis, of Bernstein, Shur, Sawyer & Nelson are preparing a draft contract zone agreement. The City's GIS Director Jon Giles is preparing a contract zone base map. And Maine Medical is working on defining the area to which they want to ask that the contract zone agreement will apply.

The draft agreement itself will address deviations from zoning requirements listed in my memo to you for the March 23rd Planning Board workshop, the helipad overlay zone, various licensing agreements for signage, building footings and other improvements by Maine Medical that need to be installed or constructed in the street rights of way, and the land transfers associated with them, among other possible elements yet to be negotiated.

Contract Zone Criteria to Use

Section 14-60 through 14-62 of the City's Land Use Code (Attachment 8) set forth the authority, purpose, procedure and permissible types of conditions and restrictions that the City can apply in negotiating a contract zoning agreement. The common authority governing the nature of the conditions and restrictions applied through such an agreement is that they conform to the State enabling statute, now 30-A MRSA Section 4352(8), below. (30-A MRSA Section 4503(9) has been repealed.) and that they are consistent with the City's Comprehensive Plan.

30-A MRSA Section 4352 (8):

8. Conditional and contract rezoning. A zoning ordinance may include provisions for conditional or contract zoning. All rezoning under this subsection must:

- A. Be consistent with the growth management program adopted under this chapter;
- B. Establish rezoned areas that are consistent with the existing and permitted uses within the original zones; and
- C. Only include conditions and restrictions that relate to the physical development or operation of the property.

The municipal reviewing authority shall conduct a public hearing before any property is rezoned under this subsection. Notice of this hearing must be posted in the municipal office at least 13 days before the public hearing. Notice must also be published at least 2 times in a newspaper having general circulation in the municipality. The date of the first publication must be at least 7 days before the hearing. Notice must also be sent to the owner or owners of the property to be rezoned and to the owners of all property abutting the property to be rezoned at the owners' last known addresses. Notice also must be sent to a public drinking water supplier if the area to be rezoned is within its source water protection area. This notice must contain a copy of the proposed conditions and restrictions with a map indicating the property to be rezoned.

Within that framework the Planning Board may negotiate and apply conditions or restrictions to any contract rezoning as needed and as authorized by Section 14-62 to further the public purposes set forth in and/or consistent with the Comprehensive Plan.

Pursuant to advice from Alex Jaegerman, Maine Medical Center is preparing a memo on the subject of how what is proposed conforms to the Comprehensive Plan for the Planning Board's consideration.

My March 23rd memo identified some Comprehensive Plan goals and policies that seem especially relevant to describing what the Plan intends for the Bramhall Campus/Congress Street area. That should not, however, limit your consideration of other parts of the Comprehensive Plan in guiding the final form of the Planning Board's recommended contract zone agreement for consideration by the City Council.

Neighborhood Advisory Committee Meeting Notes

The hospital has continued to meet with the Neighborhood Advisory Committee in discussions facilitated and recorded by Pam Plumb. Meeting notes from meetings held since March 23rd are attached (Attachment 9). Meeting notes from the March 8th NAC meeting, which were inadvertently not included in the attachments to my March 23rd memo are also attached (Attachment 10). I have not yet received notes from the April 16th NAC meeting.

Attachments

1. Traffic Study
2. Parking Study
3. Memo from Paul Gray on Anticipated Uses of Bramhall Lot and Existing and Proposed Garages
4. Memo from Paul Gray on Building Addition and Traffic Volume
5. Tom Errico's Report on Traffic and Parking Studies
6. John Peverada's Report on Park Study
7. Site Plan
8. Section 14-60 through 14-62 of the Land Use Code
9. Meeting Notes from Meetings held since March 23, 2004
10. Meeting Notes dated March 8th, 2004

Att. 1

**Traffic Impact Study
Proposed Expansion
Bramhall Campus
Portland, Maine**

Prepared for:

**Maine Medical Center
22 Bramhall Street
Portland, Maine, 04102**

Revised April 2004

Prepared by:

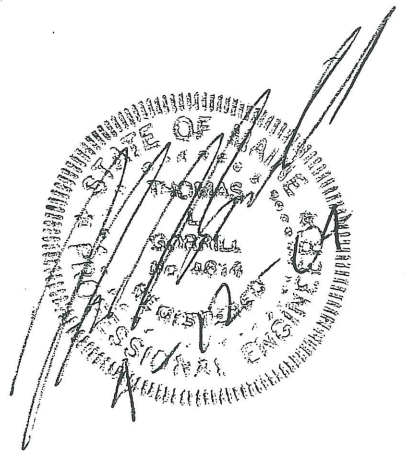


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**Traffic Impact Study
Proposed Maine Medical Center Expansion
Bramhall Campus
Portland, Maine**

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Appendix A

Site Location Diagram
Turning Movement Diagrams

Appendix B

Capacity Analyses

Appendix C

Collision Diagrams
Trip Generation Counts

Executive Summary

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

Gorrill-Palmer Consulting Engineers, Inc. was retained by Maine Medical Center to complete a traffic impact study for a proposed Charles Street project planned at the Maine Medical Center (MMC) in Portland, Maine. The project includes the addition of a 192,000 s.f. building for the Obstetrics and Newborn Center, which would be bordered by reconfigured Charles, Ellsworth and Wescott Streets. Many of the functions for the new center already exist within the campus but are overcrowded and do not meet current industry layout standards. In addition, Maine Medical Center proposes to expand the existing ramp parking garage on the corner of Gilman Street and Congress Street to include an additional 512 parking spaces. The expansion will include a new driveway on Congress Street across from the Medical Office Building Garage. The location of the site is shown on Figure 1 in Appendix A.

The following is a summary of the major findings of the traffic study:

- 1) The proposed expansion is forecast to generate 19 and 25 new trip ends during the AM and PM peak hours, respectively. In addition, our office anticipates that 164 and 160 trip ends will be relocated from other areas on or near the campus to the proposed parking garage. As the campus will generate less than 100 net new trips ends, this project does not require a traffic movement permit from MDOT.
- 2) The level of service analyses show that all existing intersections in the study area are anticipated to operate at an acceptable level of service in the post development condition, with the exception of Congress Street at Gilman Street. However, the Gilman Street approaches have operated at low levels of service for some time, which is common for an unsignalized road entering to an arterial. This location is not forecast to warrant a traffic signal, and its close proximity to the signals at Valley Street result in gaps in traffic beyond those indicated in the level of service analysis.

Delay is also anticipated for left turning traffic exiting the proposed garage drive, but this location is not anticipated to satisfy signal warrants. As with traffic exiting Gilman Street, nearby traffic signals will result in gaps in traffic that are anticipated to result in noticeably less delay for exiting traffic than the model indicates.

- 3) The crash data indicates that there are several high crash locations in or near the study area. Based on an analysis of these areas, Gorrill-Palmer Consulting Engineers, Inc. recommends the following:
 - Consideration of relocating the bus stop on the east side of St. John Street.
 - Placement of "ONLY" and left arrow pavement markings in the left lane of the northbound approach of St. John Street at Park Avenue. Installation of a

green arrow section under the green ball of the left signal head of both St. John Street approaches.

- Maintaining skip marks through intersection for left turn from St. John Street northbound onto Park Avenue westbound.
 - That the broken white line be replaced by a solid white line to just beyond the Fairfield Inn driveway and two sets of thru-right and thru-left pavement marking arrows be installed in each lane approaching the Inn. In addition, a "ONE WAY" sign on Park Avenue west of St. John Street to alert drivers that this is a one-way road.
 - Strict enforcement of parking regulations on Weymouth Street near Congress Street.
 - Placement of signs on the eastbound approach of Congress Street in advance of Gilman Street warning of the merging lanes ahead.
- 4) The sight lines at the site drive exiting onto Congress Street are in excess of Maine DOT requirements provided parking is prohibited within 75 feet of the new garage entrance. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed 3 feet in height and be maintained at or below that height. Planned signage associated with the development should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these conclusions, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the existing traffic network can safely and effectively accommodate the traffic generated by the proposed development with measures taken as noted above.

I. Existing Conditions

The site for the proposed expansion is currently a paved lot on the corner of Charles Street, Ellsworth Street and Wescott Street. A 192,000 s.f. Obstetrics and Newborn Center is proposed as an expansion to Maine Medical Center with completion planned for 2007.

A 512 space-parking garage is also planned to be constructed as part of the project adjacent and to the east of the existing 1276 space garage at the corner of Gilman and Congress. Access to the proposed garage is planned from Congress Street opposite the Medical Office Building and an additional access provided on Crescent Street.

II. Background Traffic Conditions

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

- A concept plan prepared for Maine Medical Center by Sebago Technics.
- Crash data for the period 2000-2002 supplied by the Maine DOT.
- Turning movement volumes collected on Tuesday, July 29, 2003 from 6:30 – 8:30 AM and again on Tuesday, August 5 from 3:30 – 6:00 PM at the following locations:
 - Congress Street/Deering Avenue/Bramhall Street
 - Congress Street/Ellsworth Street
 - Congress Street/Forest Street
 - Congress Street/Valley Street
 - Congress Street/Saint John Street
- Turning movement volumes collected on Wednesday, July 30, 2003 from 6:30 – 8:30 AM and on Wednesday, August 6 from 3:30 – 6:00 PM at the following locations:
 - Park Avenue/Saint John Street
 - Park Avenue/Deering Avenue
- Trip generation counts collected on Thursday and Friday, February 26 and 27, 2004 from 7:30 – 8:30 AM and again at 4:30 – 5:30 PM at the following locations:
 - MMC Shuttle Lot off of St. John Street
 - Bramhall Street MMC Visitor's Lot

Predevelopment Traffic Volumes

The project is expected to be complete in the year 2007. The year 2007 predevelopment design hour volumes were determined utilizing the following methodology:

- The raw turning movement volumes were seasonally adjusted for a Group I arterial using information furnished by the Maine DOT to reach the estimated 30th highest hour.
- Volumes were annually adjusted by two percent per year, based on previous studies in the area and historic count data published by Maine DOT.
- Gorrill-Palmer Consulting Engineers, Inc. contacted the City of Portland to determine if any other projects, either in the approval process or under construction, would influence volumes within the study area. According to City, a proposed congregate housing facility is anticipated at the end of Frederic Street. However, traffic from this project is minimal, and has been included in the background growth. In addition, several projects are planned for the future, which would reduce traffic volumes in the study area. A new connector road is proposed to run from I-295 to the traffic circle at the intersection of St. John Street and Commercial Street. This new road will allow vehicles to get from I-295 to Commercial Street and the Casco Bay Bridge without having to use Congress Street, Park Street or St. John Street. This should significantly reduce volumes along these corridors. In addition, Mercy Hospital is proposing to relocate its entire campus to Commercial Street west of the Veterans Memorial Bridge. The hospital will be accessible from the new connector road, therefore, its traffic will no longer need to use the Congress Street and St. John Street corridors. Both of these projects are anticipated to reach completion after the expansion of the Maine Medical Center's Bramhall Campus. Therefore, the reductions in traffic have not been included in the predevelopment volumes although they are anticipated to reduce future traffic volumes in the study area.

The raw volumes shown on Figures 2 and 3 of Appendix A were seasonally and annually adjusted to reflect anticipated 2007 predevelopment traffic volumes on Figures 4 and 5 of Appendix A for the AM and PM peak hours, respectively.

Crash Information

Gorrill-Palmer Consulting Engineers, Inc. examined the High Crash Locations from Maine DOT for the period of 2000 to 2002, the most recent period available.

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

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar

intersection in the state. A CRF of less than 1.00 indicates a rate of less than average) and:

2. A minimum of 8 crashes over a three-year period.

Based on the published history, the following locations within the study area were determined to be High Crash Locations:

Maine DOT High Crash Locations: 2000-2002

Node	Location	# of Crashes	CRF
08991	Congress Street/Gilman Street	15	1.49
07245	Congress Street/Weymouth Street	8	1.00
07187	Park Avenue/ St. John Street	34	1.01
07181	St. John Street/ A Street	10	1.28
7187-7188	Park Ave from St. John to Marston	9	1.13
7181-7182	St John from A to Congress	16	2.57
7182-7187	St John from Congress to Park	38	3.03

The Maine DOT crash printouts as well as the collision diagrams can be found in Appendix C. A discussion of each location follows:

St. John Street at A Street

This intersection is a high crash location with a critical rate factor of 1.28 and 10 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are two apparent collision types at this location. The first type of collision occurs when an oncoming vehicle strikes a pedestrian attempting to cross from Union Station Plaza to A Street at night. Lighting in this location is poor at night and no crosswalks or pedestrian crossing signs exist. This location has been reviewed by the Portland Crosswalk Committee and found to be an appropriate location for pedestrians to cross therefore Gorrill-Palmer Consulting Engineers, Inc. recommends installation of signs directing pedestrians to cross St. John Street at the Congress Street traffic signal. The second type of collision occurs when vehicles crossing between Union Station Plaza and A Street collide with vehicles going straight on St. John Street. There was no pattern involving any one particular movement. The remaining collision was a rear-end collision and involved a driver under the influence of prescription drugs.

St. John Street from A Street to Congress Street

This location is an HCL with a critical rate factor of 2.57 and 16 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are three apparent collision types at this location. The first type of collision occurs when vehicles exiting Union Station Plaza collide with vehicles on St. John Street. There were four of these collisions with no apparent correctable conditions. The second type of collision occurs when vehicles turning into a driveway collide with other vehicles. Out of the four collisions of this type, three occurred at the D'Angelo's driveway. Vehicles making a right turn from the inner lane into the

D'Angelo's driveway caused two of these collisions and the third was a southbound rearend. Clear pavement markings would address the improper turns. The provision of a more visible sign for D'Angelo's may reduce the collisions occurring with vehicles making the right turn from the inner lane. The third type of collision occurred when vehicles heading south on Saint John Street stopped for pedestrians crossing from Union Station Plaza and were subsequently rear-ended. As mentioned above, signs should be placed to direct pedestrians to cross at Congress Street. The remaining collisions are random in nature and do not indicate a collision pattern.

St. John Street from Congress Street to Park Avenue

This location is an HCL with a critical rate factor of 3.03 and 38 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are three apparent collision types at this location. The first type of collision occurs when vehicles making a left turn out of a driveway collide with vehicles going straight on St. John Street. Three such collisions occurred at Amato's, three occurred at McDonald's, three occurred at the Tire Center, six occurred at Dunkin' Donuts, and one occurred at Lang's Express. The second collision type occurs when vehicles making a left turn into a driveway collide with oncoming traffic or are rear-ended by a following vehicle. Three such collisions occurred at Amato's, one occurred at McDonald's, and three occurred at Dunkin' Donuts. Traffic volumes are high on St. John Street during peak hours and few adequate gaps in traffic exist to allow for a left turn. Additionally several collisions resulted from stacked traffic in one lane blocking the view to turning drivers of flowing traffic in the second lane. These could be addressed by restricting left turns. The third type of collision occurs when vehicles stopping or slowing for a bus at the bus stop on the eastern side of St. John Street are rear-ended by following vehicles. Consideration should be given to relocating the bus stop. The remaining collisions are random in nature and do not indicate an apparent collision pattern.

St. John Street at Park Avenue

This intersection is an HCL with a critical rate factor of 1.01 and 34 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are three apparent collision types at this location. The first type of collision occurs when vehicles making the left turn from St. John Street onto Park Avenue collide with other vehicles making this same turn. Currently, there is a left turn lane and a left/thru lane on the northbound approach of St. John Street. Although skip marks are painted through the intersection, the lines have become faint and drivers often do not know in which lane they need to be. Gorrill-Palmer Consulting Engineers, Inc. recommends maintaining skip marks through the intersection. The second type of collision occurs when vehicles in the left turn only lane on the northbound approach of St. John Street decide to go straight and are struck by vehicles making a left-turn from the left/thru lane. Gorrill-Palmer Consulting Engineers, Inc. recommends installation of "ONLY" and left arrow pavement markings in the left lane. Additionally, a green arrow section should be added to the left signal head on both St. John Street approaches. The third type of collision occurs when vehicles stopped or slowing in traffic on the northbound

approach of St. John Street are rear-ended by following vehicles. This type of collision is typical at intersections where a free-right turn exists.

Park Avenue from St. John Street to Marston Street

This location is an HCL with a critical rate factor of 1.13 and 9 collisions occurring during the years 2000-2002. Upon examination of the collision reports, it was found that one of the nine collisions actually occurred along St. John Street. The remaining eight collisions are shown on the collision diagram in Appendix C. As shown in the collision diagram, all of the eight collisions occur at the entrance to the Fairfield Inn. They all occur when a vehicle in the right hand lane attempts to make a left turn into the driveway and is struck by a vehicle going straight in the left lane. This driveway is in close proximity to the intersection of St. John Street and Park Avenue and drivers often do not know which lane to use to get to their hotel. Gorrill-Palmer Consulting Engineers, Inc. recommends that the broken white line be replaced by a solid white line to just beyond the Fairfield Inn driveway and two sets of thru-right and thru-left pavement marking arrows be installed in each lane approaching the Inn. In addition, a "ONE-WAY" sign should be posted along Park Avenue so that drivers know that this section of Park Avenue is a one-way road.

Congress Street at Weymouth Street

This location is an HCL with a critical rate factor of 1.00 and 8 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are two collision types apparent at this location. The first type of collision occurs when vehicles turning from Congress Street onto Weymouth Street collide with vehicles parked illegally on Weymouth Street. Gorrill-Palmer Consulting Engineers, Inc. recommends strict enforcement of parking regulations on this street. The second type of collision occurs when vehicles waiting to make the left turn from Congress Street onto Weymouth Street are rear-ended by following vehicles. Congress Street could be re-stripped to allow a short left turn lane or by-pass lane. However this would require removal of approximately ten parking spaces and would increase speeds around the curve in Congress Street.

Congress Street at Gilman Street

This location is an HCL with a critical rate factor of 1.49 and 15 collisions occurring during the years 2000-2002. Based on the collision diagram included in Appendix C, there are four collision types apparent at this intersection. The first collision type occurs when vehicles turning left from Gilman Street onto Congress Street collide with vehicles going straight on Congress Street. There do not appear to be any specific contributing factors that could be addressed for these collisions. The second type of collision occurs when vehicles headed east on Congress Street and slowing in traffic are rear-ended by a following vehicle. The eastbound approach of Congress Street drops from two lanes to one lane immediately to the east of the intersection with Gilman Street, which leads to several rear-end collisions as vehicles merge. Gorrill-Palmer Consulting Engineers, Inc. recommends advance signage that Congress Street reduces to a single lane ahead.

III. Trip Generation

The current Bramhall campus consists of approximately 900,000 s.f. of hospital space (inpatient and outpatient) as well as medical office space. Much of the hospital space does not meet current industry standards. Therefore, the Obstetrics and Newborn Center is proposed largely to allow for some decompression of the campus. The facility is to be a total of 165,000 s.f. of space, with another 27,000 s.f. devoted to the mechanical penthouse. The expansion will allow for some increase in patient population, from 480 in 2003 to 490 in 2007, or approximately two percent.

New Trips for Obstetrics and Newborn Center

Our office utilized the Institute of Transportation Engineers (ITE) publication, *Trip Generation*, 7th Edition to determine the campus increase in trips from 480 to 490 patients. Our office referenced Land Use Code 610, Hospital, to determine the increase based on the increase of ten beds for the campus. The net increase is shown as follows:

Trip Generation from 480 to 490 Beds* Due to Hospital Expansion

LUC 610: Hospital**	Weekday	AM Peak Hour	PM Peak Hour	Saturday
480 Beds	16,087	921	1,205	10,099
490 Beds	15,758	902	1,230	10,310
Net Increase	329	19	25	211

*Occupied beds for the Bramhall campus.

**Based on the maximum observed rate in the ITE database to provide conservative results.

As can be seen from the above table, the addition of ten beds is anticipated to add an additional 19 and 25 trip ends for the AM and PM peak hours, respectively. This level of additional trip generation is lower than the 100-trip threshold triggering the need for an MDOT traffic movement permit.

Total Trips to Proposed Garage

To determine the total activity for the proposed garage, Gorrill-Palmer Consulting Engineers, Inc. completed trip generation counts on Thursday, February 26, 2004 at the MMC Shuttle Lot off of St. John Street. In addition, trip generation counts were completed at the Bramhall Street Visitor's Lot on Friday, February 27, 2004. According to Steven Hobart, Operations Manager for Security and Parking, these were representative of typical times for these lots. The trip generation rates were compiled for each lot and averaged to determine a rate for the proposed garage. These trip rates and generation are shown in the following table:

Trip Rates and Generation for Existing Lots and Proposed Garage

Location	AM Peak (7:30-8:30)		PM Peak (4:30-5:30)	
	Rate	Trips	Rate	Trips
Shuttle Lot (280 spaces)	0.429	120	0.279	78
Visitor's Lot (328 spaces)	0.287	94	0.445	146
Proposed Garage (512 spaces)	0.358	183	0.362	185

VIII. Study Area

For the purposes of this study, we have analyzed the following intersections:

- Congress Street/Deering Avenue/Bramhall Street
- Congress Street/Ellsworth Street
- Congress Street/Forest Street
- Congress Street/Valley Street
- Congress Street/Saint John Street
- Saint John Street/Park Avenue
- Park Avenue/Deering Avenue
- Congress Street/Gilman Street
- Congress Street/MOB Garage Access/Garage Driveway

IX. Capacity Analysis

Gorrill-Palmer Consulting Engineers, Inc. completed capacity analyses using Synchro 5, Traffic Signal Coordination Software. Levels of service rankings are similar to the academic ranking system where an 'A' is very good with little control delay and an 'F' represents very poor conditions. At an unsignalized intersection, if the level of service falls below a 'D', an evaluation should be made to determine if a traffic signal is warranted.

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

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

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

Level of Service	Control Delay per Vehicle (sec)
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Gorrill-Palmer Consulting Engineers, Inc. based our analyses on the existing roadway configurations. The analyses were based on Figures 4 and 5 for the predevelopment scenario and Figures 10 and 11 for the post development scenario. The results of the capacity analyses are summarized as follows. The detailed analyses are included in Appendix B.

Level of Service for Congress Street at Bramhall/Deering - Signalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Bramhall NBL	34	C	34	C	14	B	14	B
Bramhall NBTR	20	C	20	B	12	B	12	B
Deering SB	19	B	19	B	39	D	39	D
Congress EBL	11	B	11	B	19	B	20	B
Congress EBTR	15	B	16	B	49	D	51	D
Congress WBL	7	A	7	A	14	B	14	B
Congress WBTR	6	A	6	A	15	B	16	B

Note: Signal splits and phases were optimized for both the pre and post condition.

Level of Service for Congress Street at Valley Street - Signalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Valley NBL	8	A	9	A	10	A	10	A
Valley NBTR	6	A	7	A	8	A	8	A
Congress EB	29	C	27	C	13	B	13	A
Congress WBLT	28	C	28	C	21	C	36	D
Congress WBR	13	B	13	B	6	B	7	A

Note: Signal splits and phases were optimized for both the pre and post condition.

Level of Service for Congress Street at St. John Street - Signalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
St. John NB	26	C	26	C	20	B	20	B
St. John SB	19	B	20	B	21	C	22	C
Congress EBL	36	D	36	D	42	D	42	D
Congress EBTR	15	B	16	B	18	B	18	B
Congress WBL	39	D	45	D	38	D	46	D
Congress WBR	8	A	8	A	25	C	37	D

Note: Signal splits and phases were optimized for both the pre and post condition.

Level of Service for Park Avenue at St. John Street – Signalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
St. John NBL	23	C	24	C	43	D	49	D
St. John NBLT	24	C	24	C	46	D	54	D
St. John NBR	4	A	4	A	8	A	8	A
St. John SBLT	56	E	62	E	40	D	43	D
St. John SBR	7	A	8	A	18	B	19	B
Park WBLT	26	C	27	C	44	D	46	D
Park WBR	7	A	7	A	4	A	4	A

Note: Signal splits and phases were optimized for both the pre and post condition.

Level of Service for Park Avenue at Deering Avenue - Signalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Deering NBL	18	B	18	B	23	C	23	C
Deering NBTR	17	B	18	B	23	C	24	C
Deering SBL	16	B	17	B	24	C	24	C
Deering SBTR	16	B	17	B	23	C	24	C
Park EB	15	B	15	B	15	B	15	B
Park WBLT	16	B	17	B	17	B	17	B
Park WBR	4	A	4	A	2	A	2	A

Note: Signal splits and phases were optimized for both the pre and post condition.

Level of Service for Congress Street at Forest Street - Unsignalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Forest SB	24	C	36	E	16	C	19	C
Congress EB	1	A	2	A	2	A	2	A
Congress WB	<1	A	<1	A	<1	A	<1	A

Level of Service for Congress Street at Gilman Street - Unsignalized

Approach	2007 AM Peak Hour				2007 PM Peak Hour			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Gilman NBL	63	F	>80	F	68	F	>80	F
Gilman NBR	18	C	24	C	16	C	17	C
Gilman SB	22	C	40	E	22	C	28	D
Congress EBTR	<1	A	<1	A	<1	A	<1	A
Congress WBTL	2	A	2	A	1	A	1	A

Level of Service for Congress Street at Site Drive - Unsignalized

Approach	2007 AM Peak Hour *				2007 PM Peak Hour *			
	Pre		Post		Pre		Post	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Existing Drive SB	13	B	14	B	20	C	25	C
Site Drive NBL	-	-	69	F	-	-	>80	F
Site Drive NBR	-	-	15	B	-	-	13	B
Congress EBL	8	A	8	A	9	A	9	A
Congress EBT	<1	A	-	-	<1	A	-	-
Congress EBTR	-	-	<1	A	-	-	<1	A
Congress WBL	-	-	10	A	-	-	9	A
Congress WBTR	<1	A	<1		<1	A	<1	A

* (-) indicates movements or lane groups that do not exist in the pre or post development condition.

As shown in the table above, all existing locations in the study area are anticipated to operate at acceptable levels of service, with the exceptions of Congress Street at Gilman Street as well as the garage drive at Congress Street. However, the Gilman Street approaches have operated at low levels of service for some time, which is common for an unsignalized road coming into a high-volume arterial. This location is not forecast to warrant a traffic signal, and the existing approach geometry on each leg of Gilman Street is appropriate to the volumes.

In addition, left turning traffic exiting the proposed garage will face potential delay. As with the traffic at Gilman Street, volumes do not warrant a traffic signal, and the garage exit volume is forecast to be only about one vehicle per two minutes.

Our office examined operations at the garage access to Congress Street with SimTraffic, and based on the simulation, the site is not forecast to experience delay as great as the unsignalized analysis indicates. This is due to the fact that gaps are created in traffic along Congress Street by signals to both the east and west of the driveway.

Based on the capacity analyses shown in the tables above, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the existing roadway network can accommodate the additional traffic generated by the proposed expansion.

X. Sight Lines

The Maine Department of Transportation has guidelines for driveway sight distances within an urban compact. These sight distances are as follows:

MDOT Standards for Sight Distance – Urban Compact

Posted Speed (mph)	Sight Distance
25	200
30	250
35	305
40	360
45	425
50	495

Gorrill-Palmer Consulting Engineers, Inc. has evaluated the available sight lines at the proposed driveway in accordance with Maine DOT standards. The Maine DOT standards are as follows:

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

The results of this sight line analysis exiting onto Congress Street are summarized in the following table:

Driveway Sight Line Evaluation

Direction	Posted Travel Speed (mph)	Recommended Sight Line (ft)	Actual Sight Line (ft)
Exiting onto Congress Street Looking:			
Left	25	200	>200*
Right	25	200	>200*

*Exceeds 200 ft if no on-street parking is nearby.

As shown, the sight lines for these locations exceed Maine DOT requirements. Our office recommends prohibiting on-street parking within 75 feet of the new entrance to improve sight lines and safety. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed 3 feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

XII. Conclusions

The following is a summary of the major findings of the traffic study:

- 1) The proposed expansion is forecast to generate 19 and 25 new trip ends during the AM and PM peak hours, respectively. In addition, our office anticipates that 164 and 160 trip ends will be relocated from other areas on or near the campus to the proposed parking garage. As the campus will generate less than 100 net new trips ends, this project does not require a traffic movement permit from MDOT.
- 2) The level of service analyses show that all existing intersections in the study area are anticipated to operate at an acceptable level of service in the post development condition, with the exception of Congress Street at Gilman Street. However, the Gilman Street approaches have operated at low levels of service for some time, which is common for an unsignalized road entering to an arterial. This location is not forecast to warrant a traffic signal, and its close proximity to the signals at Valley Street result in gaps in traffic beyond those indicated in the level of service analysis.

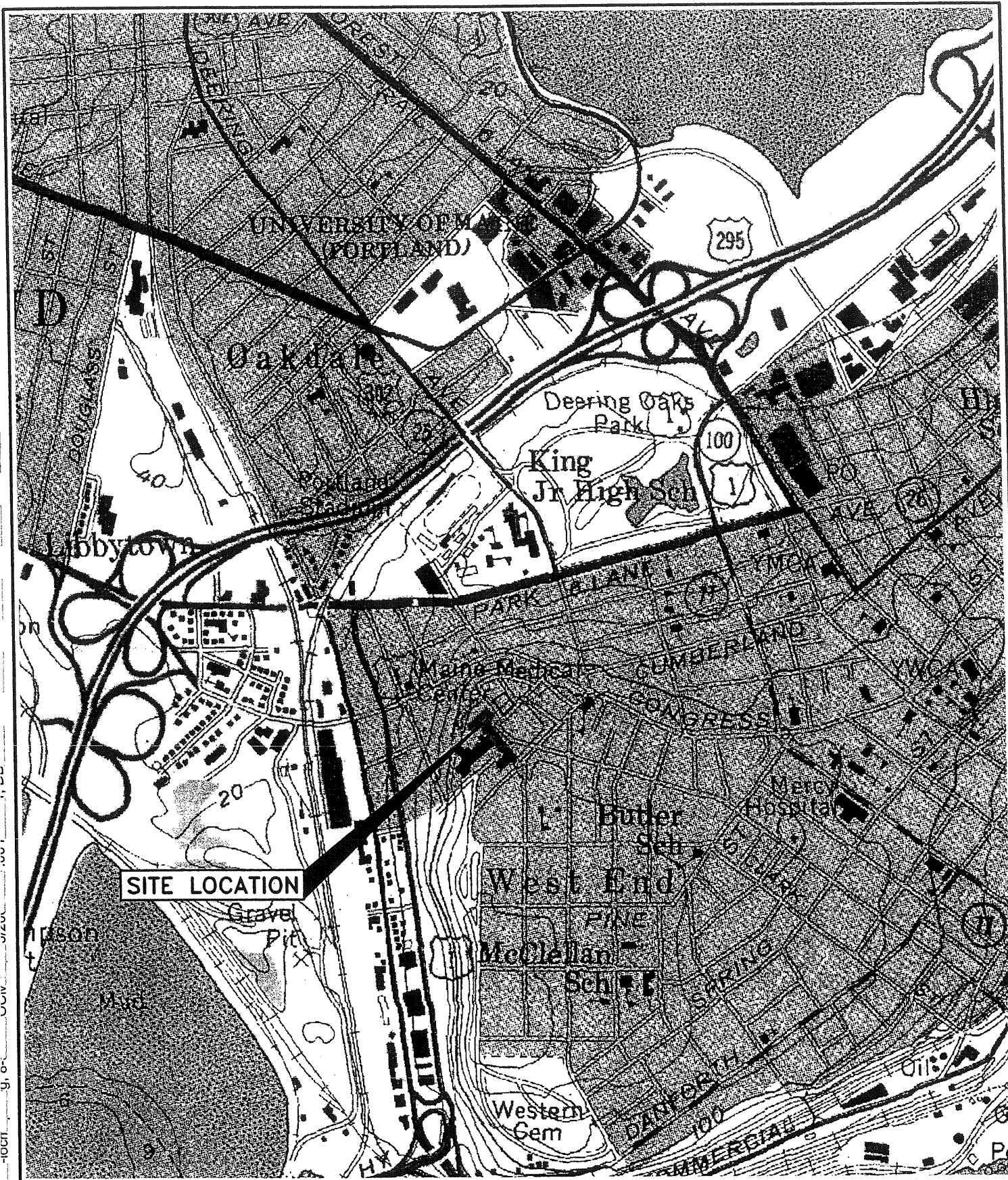
Delay is also anticipated for left turning traffic exiting the proposed garage drive, but this location is not anticipated to satisfy signal warrants. As with traffic exiting Gilman Street, nearby traffic signals will result in gaps in traffic that are anticipated to result in noticeably less delay for exiting traffic than the model indicates.

- 3) The crash data indicates that there are several high crash locations in or near the study area. Based on an analysis of these areas, Gorrill-Palmer Consulting Engineers, Inc. recommends the following:
 - Consideration of relocating the bus stop on the east side of St. John Street.
 - Placement of "ONLY" and left arrow pavement markings in the left lane of the northbound approach of St. John Street at Park Avenue. Installation of a green arrow section under the green ball of the left signal head of both St. John Street approaches.
 - Maintaining skip marks through intersection for left turn from St. John Street northbound onto Park Avenue.
 - That the broken white line be replaced by a solid white line to just beyond the Fairfield Inn driveway and two sets of thru-right and thru-left pavement marking arrows be installed in each lane approaching the Inn. In addition, a "ONE WAY" sign on Park Avenue west of St. John Street to alert drivers that this is a one-way road.
 - Strict enforcement of parking regulations on Weymouth Street near Congress Street.
 - Placement of signs on the eastbound approach of Congress Street in advance of Gilman Street warning of the merging lanes ahead.

- 4) The sight lines at site drive exiting onto Congress Street are in excess of Maine DOT requirements provided parking is prohibited within 75 feet of the new garage entrance. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed 3 feet in height and be maintained at or below that height. Planned signage associated with the development should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.


Based on these conclusions, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the existing traffic network can safely and effectively accommodate the traffic generated by the proposed development with measures taken as noted above.

Appendix A
Site Location Diagram
Turning Movement Diagrams



U.S.G.S. Location Map
 Maine Medical Center - Portland, Maine
 U.S.G.S. Portland-West, Maine-7.5 Minute Series (Topographic)

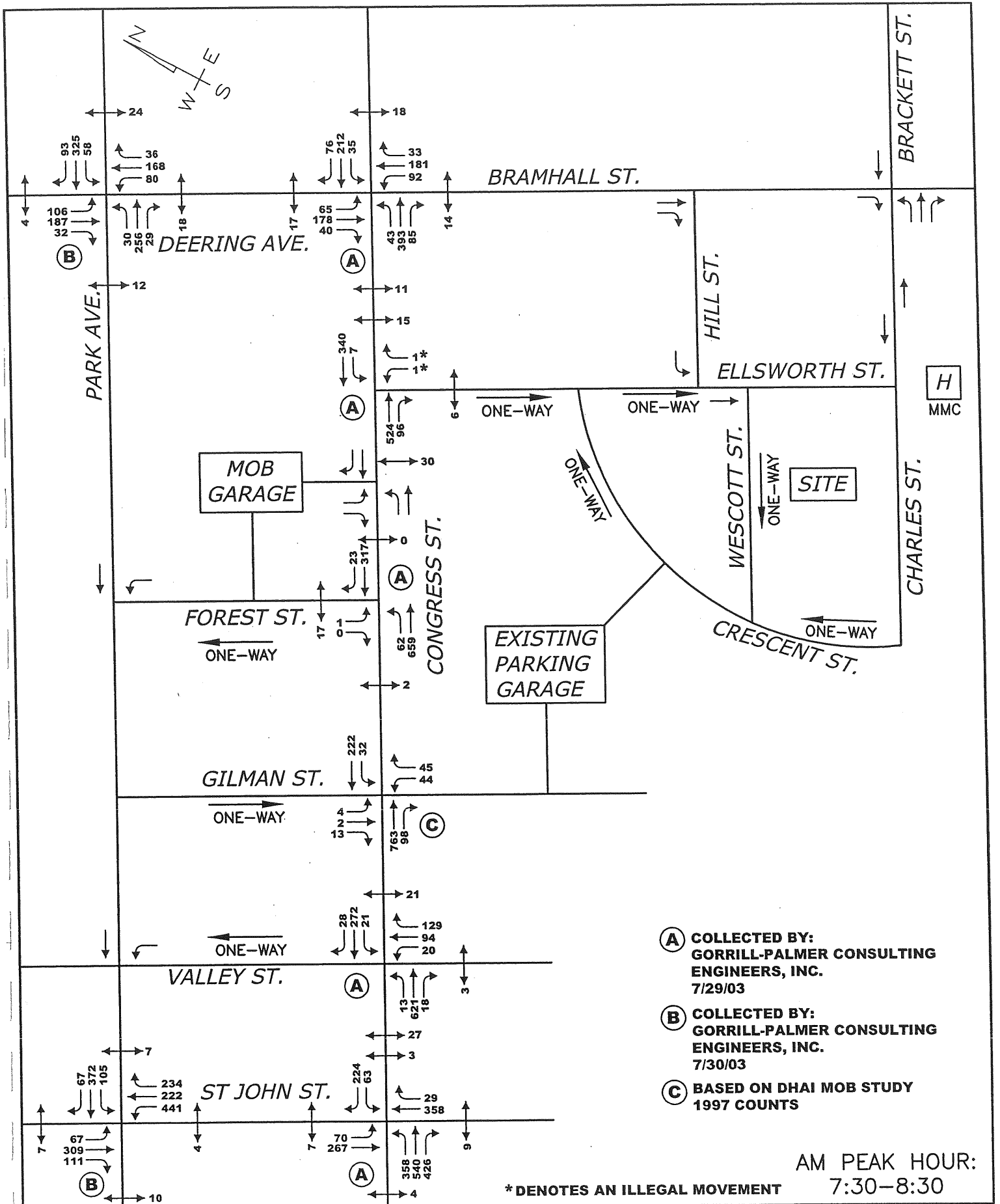
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Figure
1

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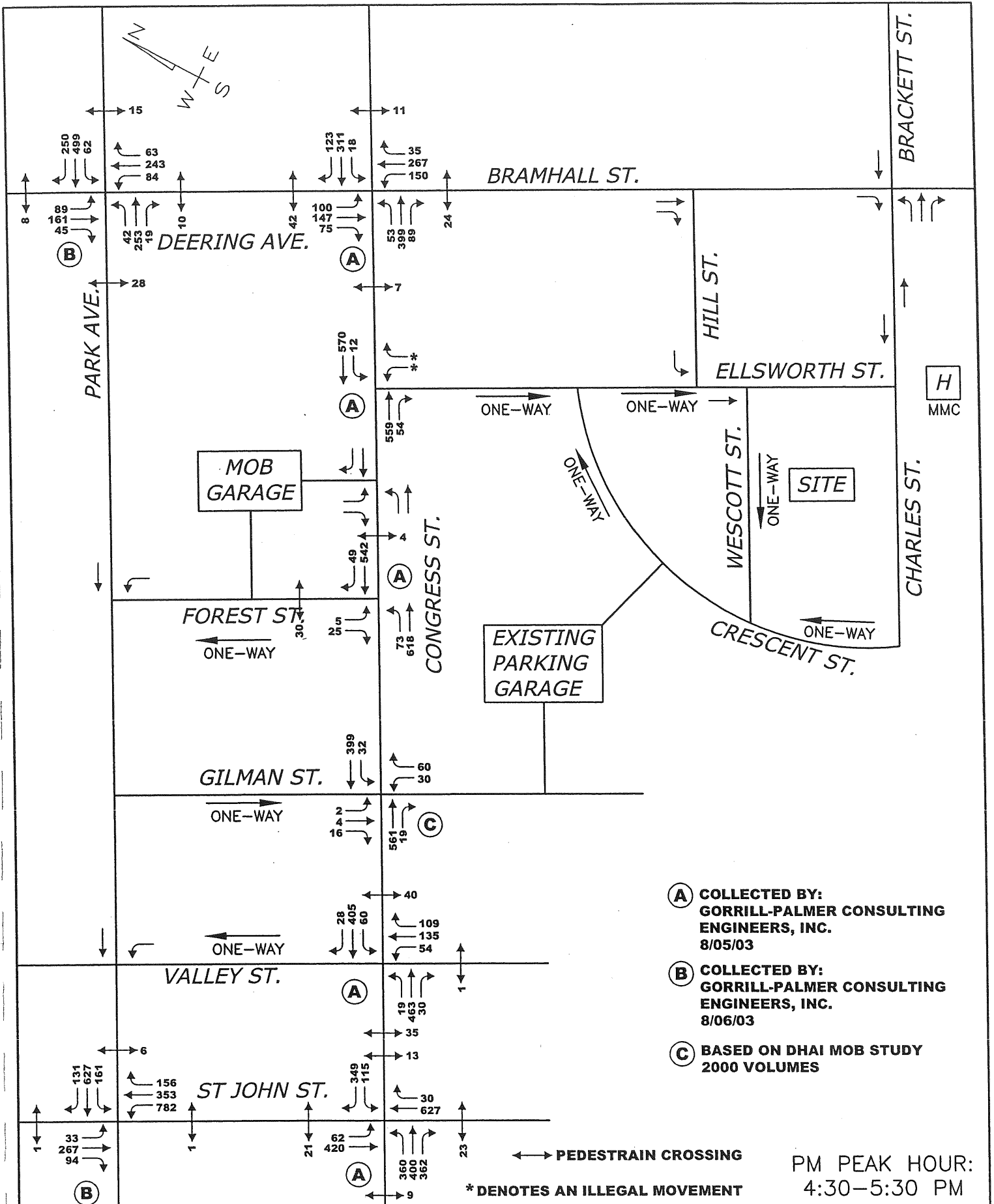
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Drawing Name:	Raw Data
Project:	MAINE MEDICAL CENTER

Figure No.	2
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Draft: DB	Job No.: 317
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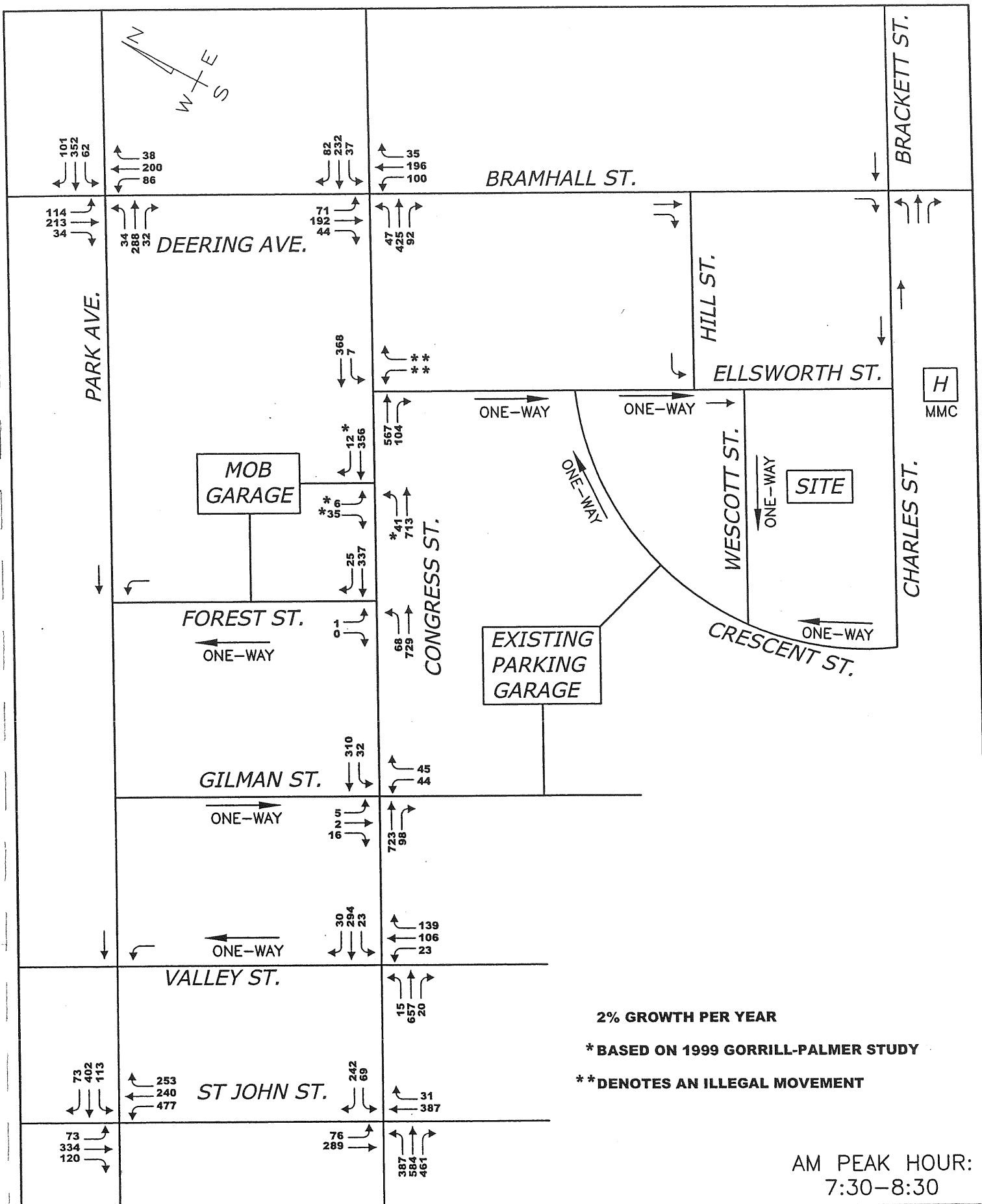
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Drawing Name: Raw Data

Project: MAINE MEDICAL CENTER

Figure No.
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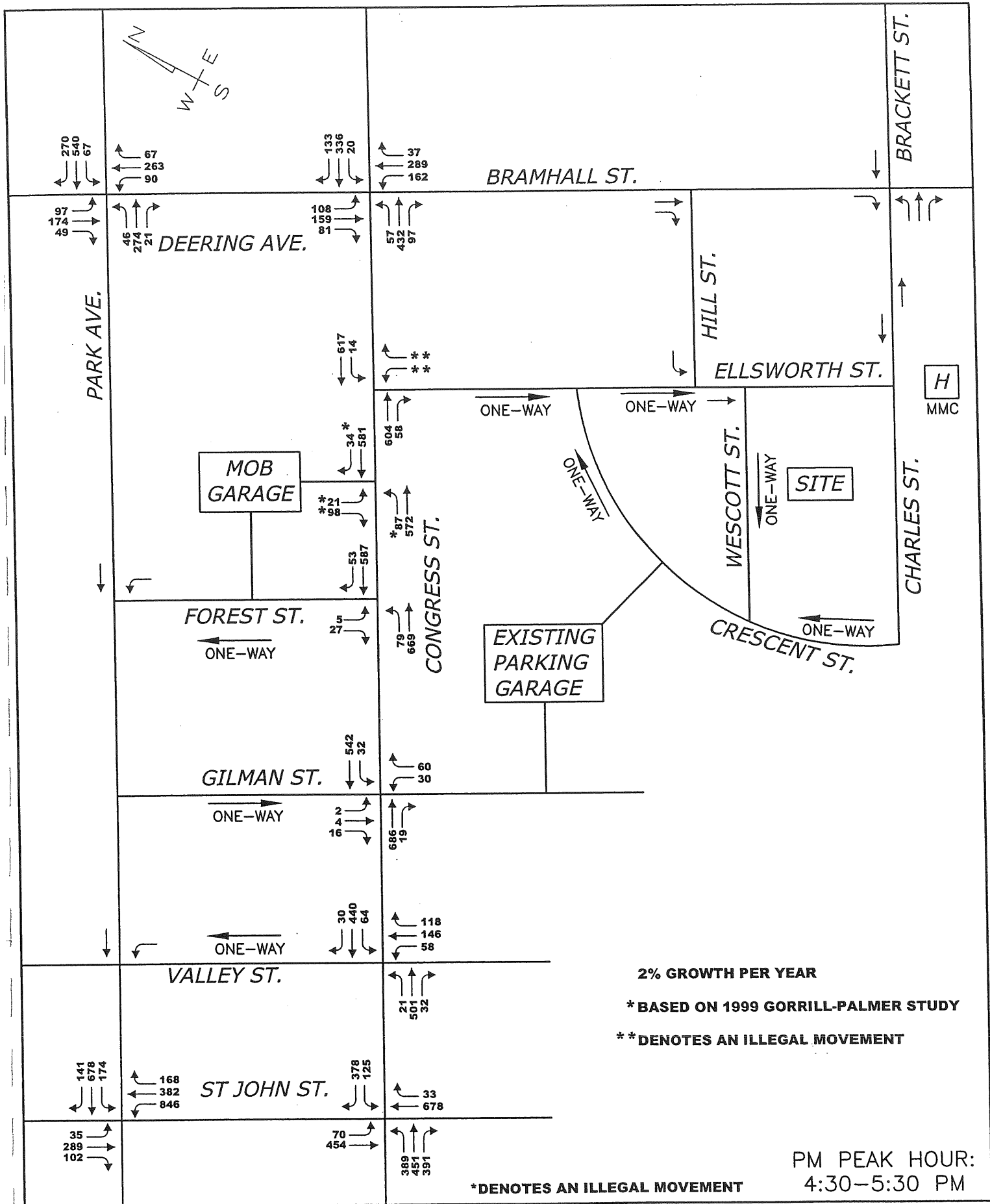
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Drawing Name:
 2007 Predevelopment Volumes

Project:
 MAINE MEDICAL CENTER

Figure No.
 4



Design: MJM	Date: JAN 04
Draft: DB	Job No.: 317
Checked: RCN	Scale: NONE
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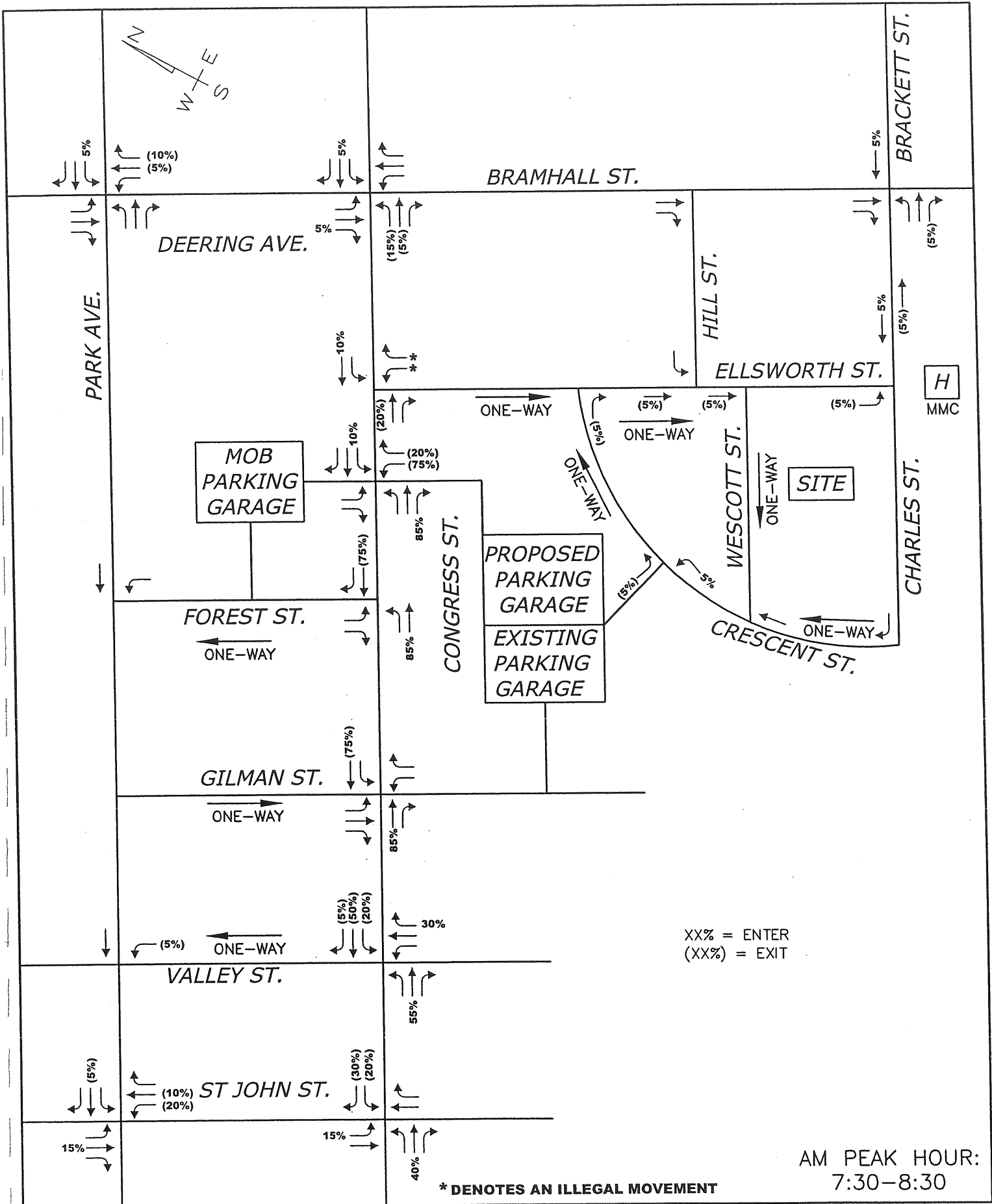
PO Box 1237
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Phone: 207-657-6910
 Fax: 207-657-6912
 Email: mailbox@gorrillpalmer.com

Drawing Name:
2005 Predevelopment Volumes

Project:
MAINE MEDICAL CENTER

Figure No.
5



XX% = ENTER
 (XX%) = EXIT

* DENOTES AN ILLEGAL MOVEMENT

AM PEAK HOUR:
 7:30-8:30

Design: MJM	Date: JAN 04
Draft: DB	Job No.: 317
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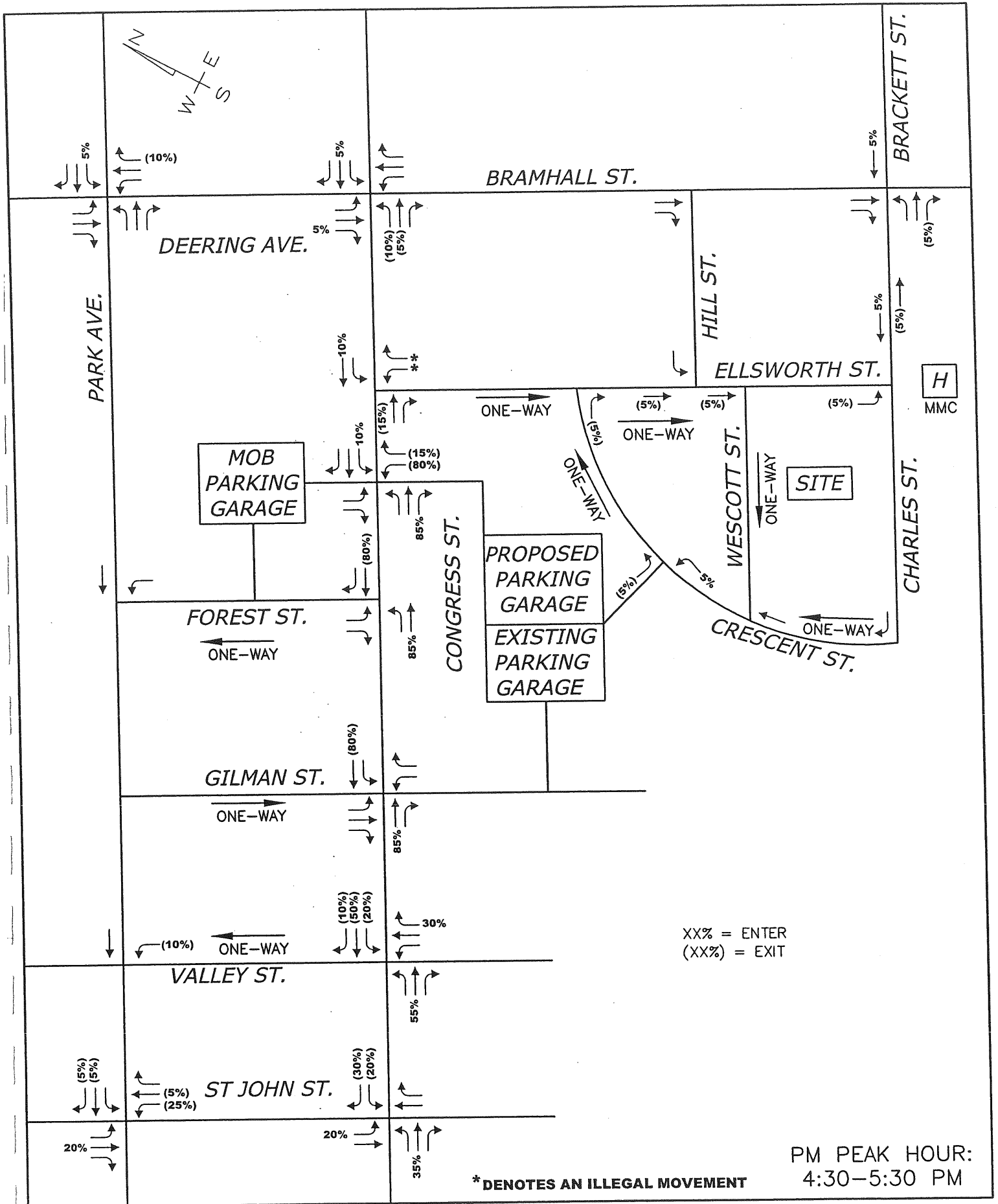
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Drawing Name:
Primary Trip Distribution

Project:
MAINE MEDICAL CENTER

Figure No.
6



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Draft: DB	Job No.: 317
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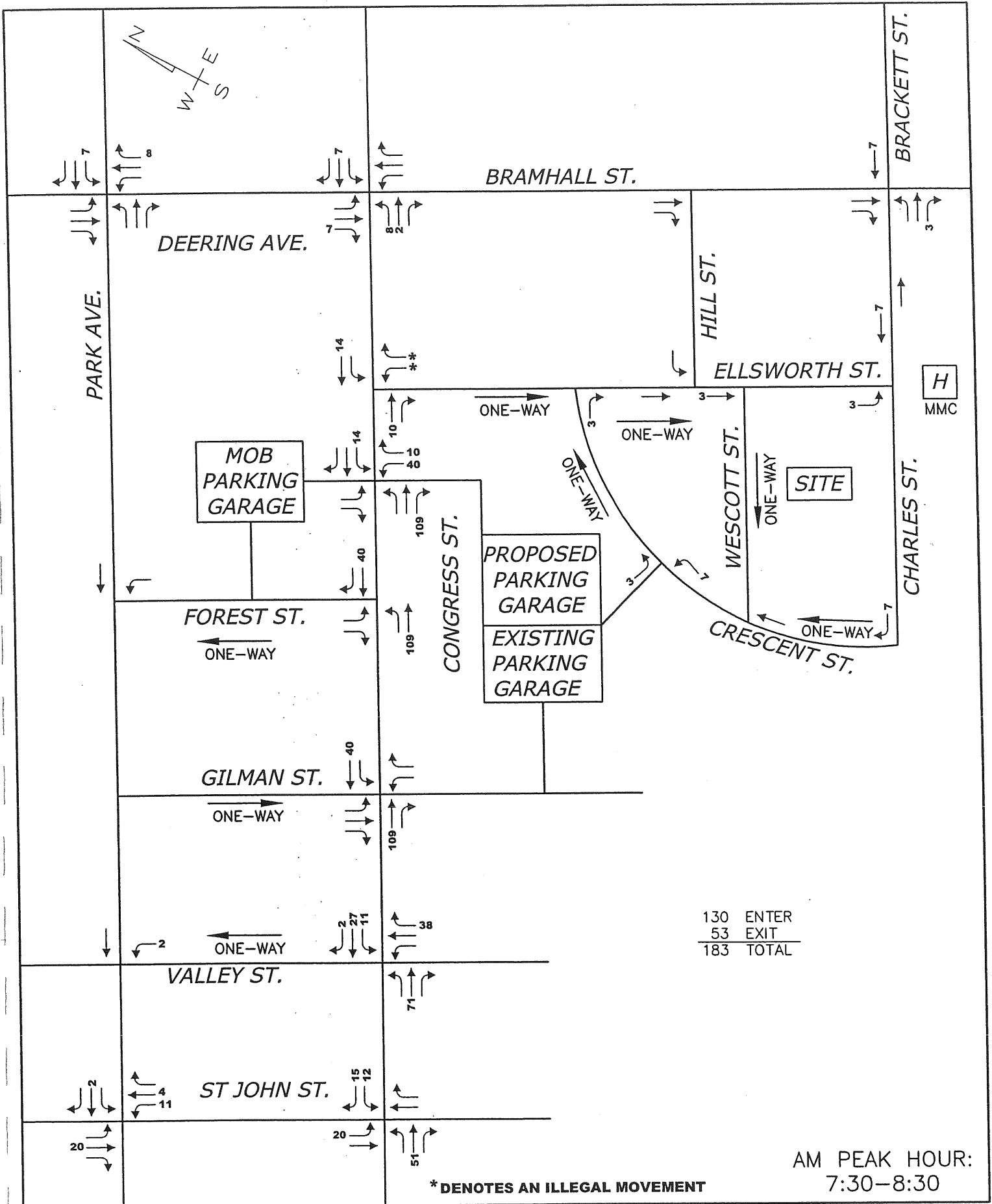
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Drawing Name:
Primary Trip Distribution

Project:
MAINE MEDICAL CENTER

Figure No.
7



130	ENTER
53	EXIT
183	TOTAL

AM PEAK HOUR:
7:30-8:30

* DENOTES AN ILLEGAL MOVEMENT

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File Name: 317-TRAF2.DWG	

GP Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

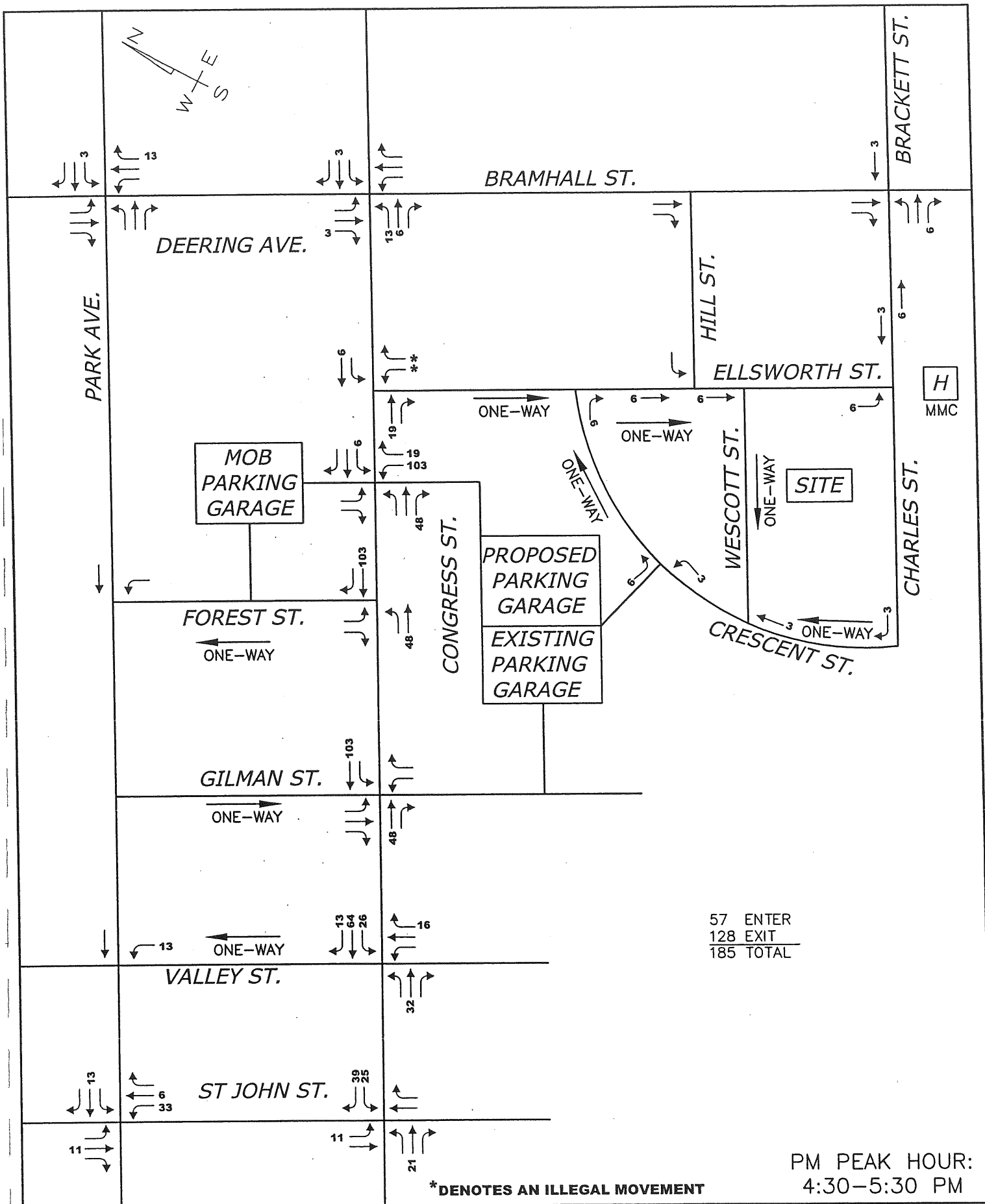
PO Box 1237
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Gray, ME 04039

Phone: 207-657-6910
Fax: 207-657-6912
Email: mailbox@gorrillpalmer.com

Drawing Name:
Primary Trip Assignment

Project:
MAINE MEDICAL CENTER

Figure No.
8

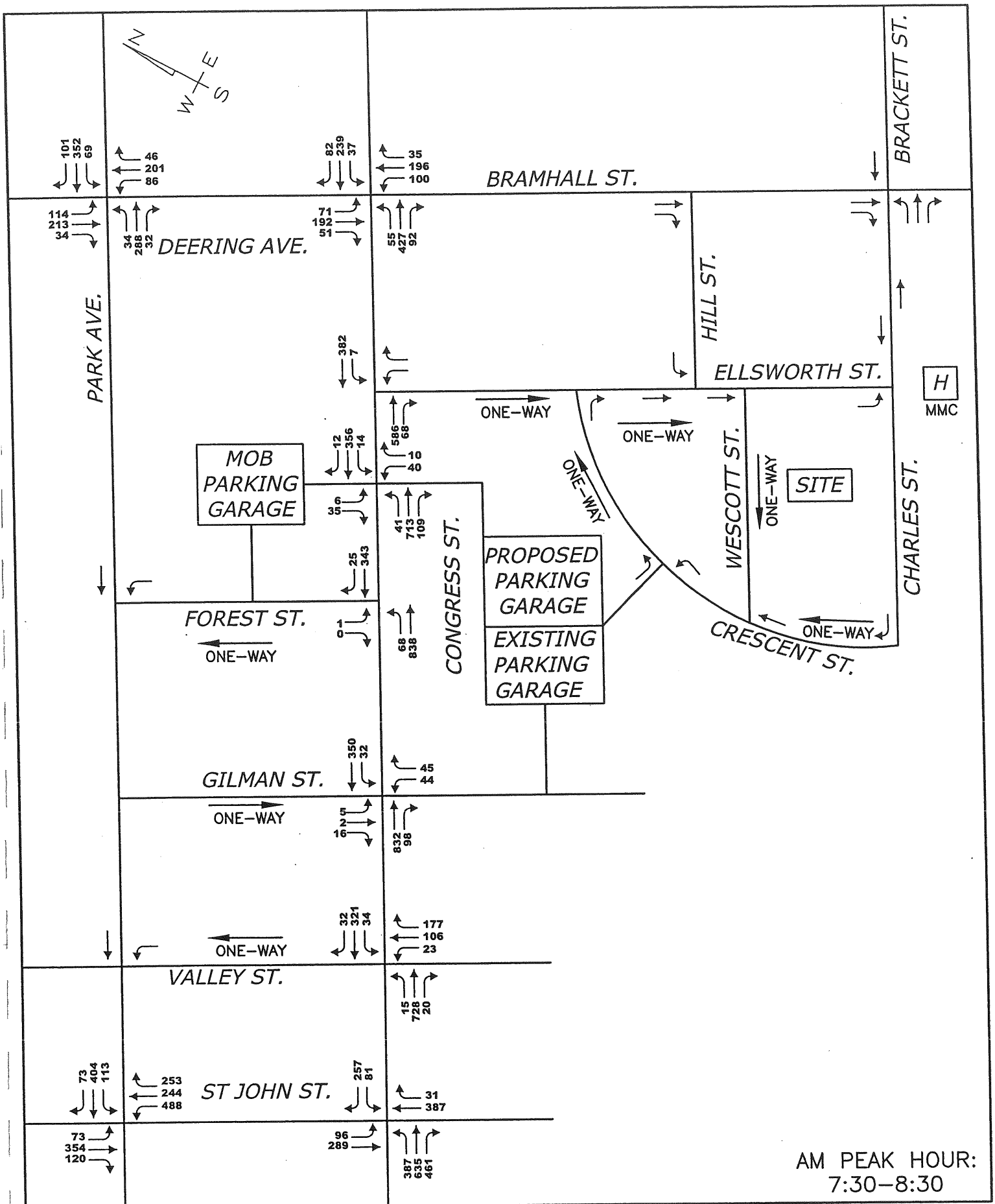


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Drawing Name:
 Primary Trip Assignment
 Project:
 MAINE MEDICAL CENTER

Figure No.
 9



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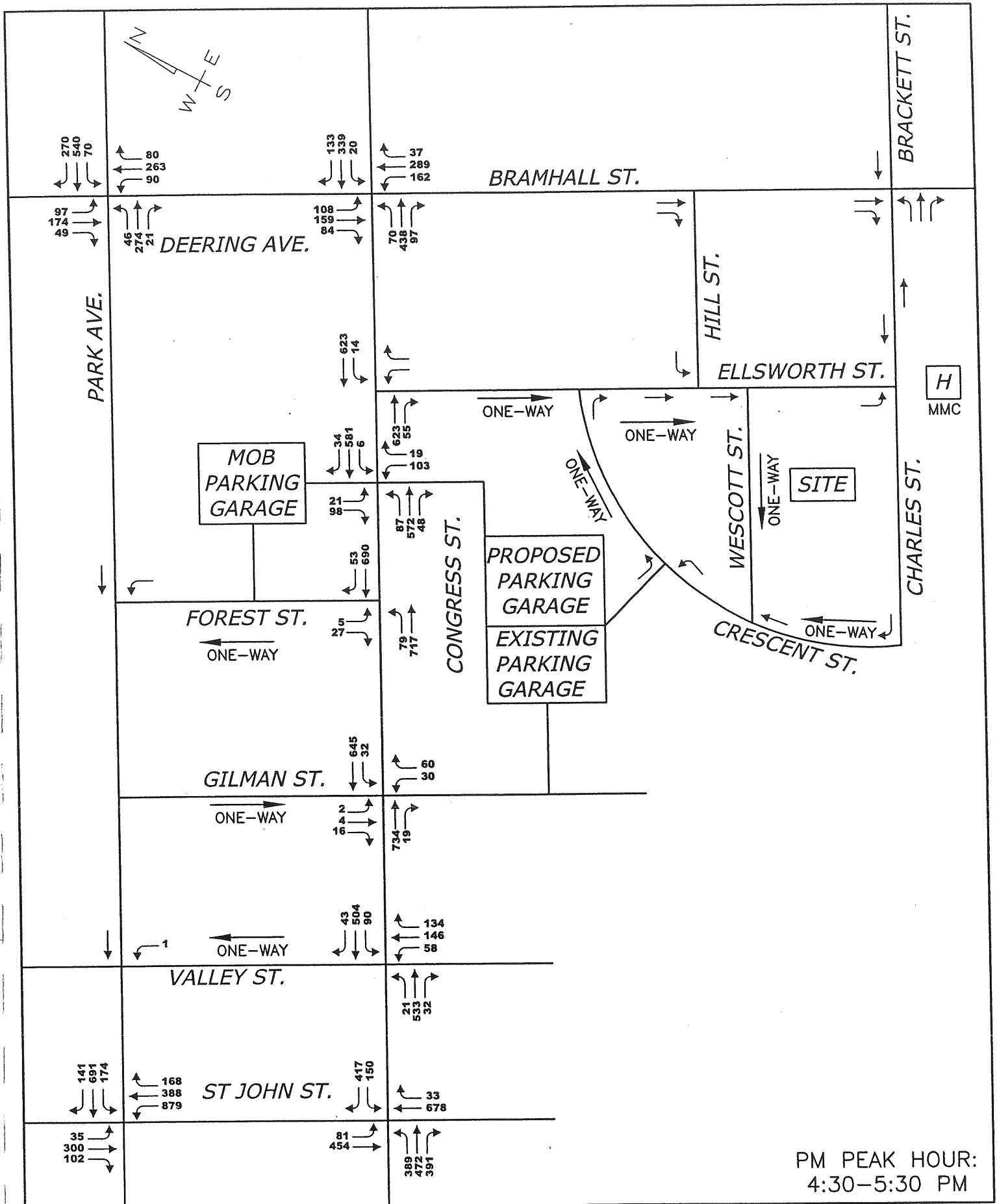
PO Box 1237
 15 Shaker Road
 Gray, ME 04039

Phone: 207-657-6910
 Fax: 207-657-6912
 Email: mailbox@gorrillpalmer.com

Drawing Name:
2007 Postdevelopment Volumes

Project:
MAINE MEDICAL CENTER

Figure No.
10



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Draft: DB	Job No.: 317
Checked: RCN	Scale: NONE
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Traffic and Civil Engineering Services

PO Box 1237
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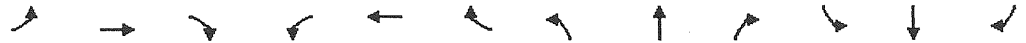
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 Email: mailbox@gorrillpalmer.com

Drawing Name:
2007 Postdevelopment Volumes

Project:
MAINE MEDICAL CENTER

Figure No.
11

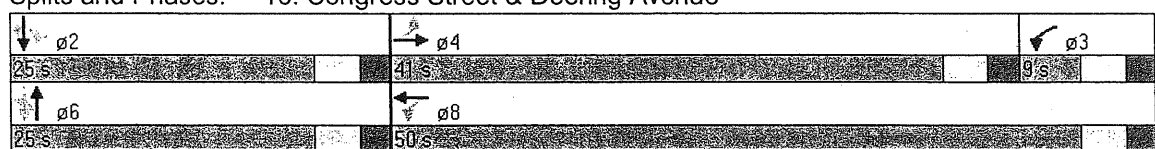
Appendix B
Capacity Analyses



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1425	1550	0	1464	1547	0	1425	1564	0	0	1656	1411
Flt Permitted	0.517			0.286			0.390				0.000	
Satd. Flow (perm)	776	1550	0	441	1547	0	585	1564	0	0	0	1411
Satd. Flow (RTOR)		22			49			13				57
Volume (vph)	47	425	92	37	232	82	100	196	35	71	192	44
Peak Hour Factor	1.00	0.89	0.83	1.00	0.96	0.86	0.88	0.89	0.83	1.00	0.84	0.77
Heavy Vehicles (%)	14%	4%	21%	11%	7%	3%	14%	4%	21%	2%	2%	3%
Lane Group Flow (vph)	47	589	0	37	337	0	114	262	0	0	300	57
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	8			6			2	
Permitted Phases	4			8			6			2	6	2
Total Split (s)	41.0	41.0	0.0	9.0	50.0	0.0	25.0	25.0	0.0	25.0	25.0	25.0
Act Effct Green (s)	26.3	26.3		33.1	30.5		16.7	16.7			16.7	16.7
Actuated g/C Ratio	0.46	0.46		0.55	0.54		0.29	0.29			0.29	0.29
v/c Ratio	0.13	0.81		0.11	0.39		0.66	0.56			0.62	0.13
Uniform Delay, d1	9.1	13.0		5.6	5.5		18.2	16.6			17.9	0.0
Delay	10.6	15.3		6.6	6.2		33.7	20.1			21.3	6.7
LOS	B	B		A	A		C	C			C	A
Approach Delay		15.0			6.2			24.2			19.0	
Approach LOS		B			A			C			B	
Queue Length 50th (ft)	11	202		6	57		43	90			111	0
Queue Length 95th (ft)	29	330		16	101		#124	171			186	18
Internal Link Dist (ft)		756			1600			1360			1184	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)	75			75								
50th Bay Block Time %		37%										
95th Bay Block Time %		41%			15%							
Queuing Penalty (veh)		18			3							

Intersection Summary
 Cycle Length: 75
 Actuated Cycle Length: 56.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 15.9
 Intersection LOS: B
 Intersection Capacity Utilization: 78.9%
 ICU Level of Service: C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 16: Congress Street & Deering Avenue



	↖	→	↘	↙	←	↖	↙	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕				↕	↕	↕	↕				
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	3400	0	0	1778	1553	1805	1653	0	0	0	0
Flt Permitted	0.930				0.906		0.950					
Satd. Flow (perm)	0	3171	0	0	1618	1553	1805	1653	0	0	0	0
Satd. Flow (RTOR)	6				15		91					
Volume (vph)	15	657	20	23	294	30	23	106	139	0	0	0
Peak Hour Factor	0.41	0.98	0.90	0.75	0.86	1.00	0.63	0.90	0.79	0.92	0.92	0.92
Heavy Vehicles (%)	8%	5%	11%	0%	7%	4%	0%	4%	5%	2%	2%	2%
Lane Group Flow (vph)	0	729	0	0	373	30	37	294	0	0	0	0
Turn Type	pm+pt			Perm		Perm		Perm				
Protected Phases	7	4			8			2				
Permitted Phases	4			8		8	2					
Total Split (s)	20.0	55.0	0.0	35.0	35.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0
Act Effct Green (s)		25.5			25.5	25.5	56.4	56.4				
Actuated g/C Ratio		0.28			0.28	0.28	0.63	0.63				
v/c Ratio		0.81			0.81	0.07	0.03	0.27				
Uniform Delay, d1		29.7			30.0	11.7	6.4	4.9				
Delay		29.1			29.4	13.3	8.0	6.0				
LOS		C			C	B	A	A				
Approach Delay		29.1			28.2			6.3				
Approach LOS		C			C			A				
Queue Length 50th (ft)		198			195	6	7	45				
Queue Length 95th (ft)		241			259	24	15	100				
Internal Link Dist (ft)		776			1008			870			1150	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						50	125					
50th Bay Block Time %						55%						
95th Bay Block Time %						53%						
Queuing Penalty (veh)						16						

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6., Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

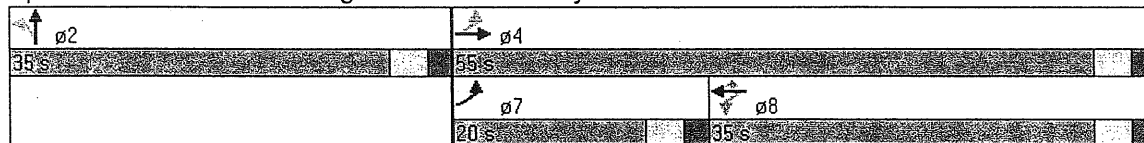
Intersection Signal Delay: 23.7

Intersection LOS: C

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Splits and Phases: 9: Congress Street & Valley Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖		↗		↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1703	3214	0	1492	0	1583	0	3332	0	0	3447	0
Flt Permitted	0.950			0.950							0.591	
Satd. Flow (perm)	1703	3214	0	1492	0	1583	0	3332	0	0	2066	0
Satd. Flow (RTOR)		329				210		11				
Volume (vph)	387	584	461	69	0	242	0	387	31	76	289	0
Peak Hour Factor	0.84	0.90	0.87	1.00	0.92	0.93	0.92	0.88	0.73	0.70	1.00	0.92
Heavy Vehicles (%)	6%	3%	7%	21%	2%	2%	2%	3%	48%	4%	3%	2%
Lane Group Flow (vph)	461	1179	0	69	0	260	0	482	0	0	398	0
Turn Type	Prot			Prot			custom			custom		
Protected Phases	3	8		7		4		2		1	6	
Permitted Phases				4						1		
Total Split (s)	29.0	39.0	0.0	11.0	0.0	21.0	0.0	21.0	0.0	9.0	30.0	0.0
Act Effct Green (s)	24.1	31.9		7.0		12.6		22.4			31.4	
Actuated g/C Ratio	0.30	0.40		0.09		0.16		0.28			0.39	
v/c Ratio	0.90	0.80		0.53		0.61		0.51			0.44	
Uniform Delay, d1	26.8	14.8		36.0		5.5		24.4			17.5	
Delay	36.3	14.9		38.9		7.5		25.5			18.7	
LOS	D	B		D		A		C			B	
Approach Delay	20.9			14.1			25.5			18.7		
Approach LOS	C			B			C			B		
Queue Length 50th (ft)	215	201		34		22		106			72	
Queue Length 95th (ft)	#338	258		#84		85		161			116	
Internal Link Dist (ft)	1004			776			849			1196		
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)												
50th Bay Block Time %												
95th Bay Block Time %												
Queuing Penalty (veh)												

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 6 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 20.6

Intersection LOS: C

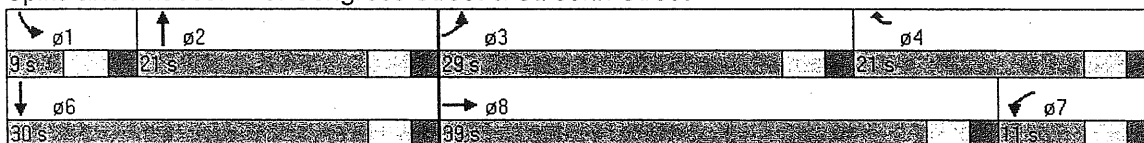
Intersection Capacity Utilization 76.7%

ICU Level of Service C

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Congress Street & St. John Street

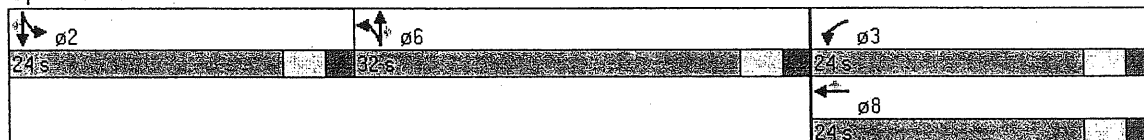


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕	↕			
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	0	0	0	3381	1599	1649	1723	1524	0	1840	1538
Flt Permitted					0.991		0.950	0.981			0.990	
Satd. Flow (perm)	0	0	0	0	3381	1599	1649	1723	1524	0	1840	1538
Satd. Flow (RTOR)						73			257			118
Volume (vph)	0	0	0	113	402	73	477	240	253	73	334	120
Peak Hour Factor	0.92	0.92	0.92	1.00	0.78	1.00	0.91	1.00	0.86	0.76	0.93	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	6%	1%	4%	2%	6%	3%	2%	5%
Lane Group Flow (vph)	0	0	0	0	628	73	368	396	294	0	455	138
Turn Type				Prot		Perm	Split		Perm	Split		Perm
Protected Phases				3	8		6	6		2	2	
Permitted Phases						8			6			2
Total Split (s)	0.0	0.0	0.0	24.0	24.0	24.0	32.0	32.0	32.0	24.0	24.0	24.0
Act Effct Green (s)					20.1	20.1	23.2	23.2	23.2		20.1	20.1
Actuated g/C Ratio					0.27	0.27	0.31	0.31	0.31		0.27	0.27
v/c Ratio					0.70	0.15	0.73	0.75	0.46		0.93	0.28
Uniform Delay, d1					24.9	0.0	23.2	23.4	2.3		26.9	3.0
Delay					26.3	6.6	23.3	23.5	4.2		56.2	7.1
LOS					C	A	C	C	A		E	A
Approach Delay					24.2			18.1			44.8	
Approach LOS					C			B			D	
Queue Length 50th (ft)					146	0	158	172	12		218	7
Queue Length 95th (ft)					176	30	256	274	56		#413	47
Internal Link Dist (ft)		1008			4892			1196			806	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						200			100			
50th Bay Block Time %								31%				
95th Bay Block Time %								43%				
Queuing Penalty (veh)								108				

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 75.5
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 26.6 Intersection LOS: C
 Intersection Capacity Utilization 72.6% ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Park Avenue & St. John Street



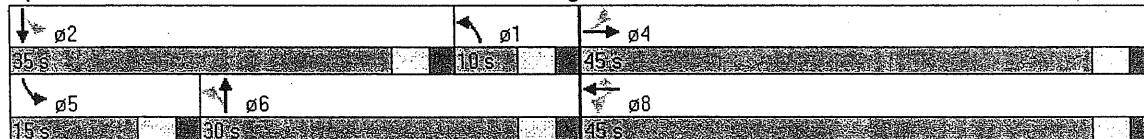


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↕			↕		↗	↖	↖	↗	↖	↗		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Satd. Flow (prot)	0	3049	0	0	3146	1384	1624	1655	0	1608	1641	0	
Flt Permitted	0.884			0.833			0.595			0.233			
Satd. Flow (perm)	0	2706	0	0	2639	1384	1017	1655	0	394	1641	0	
Satd. Flow (RTOR)	14			105			9			11			
Volume (vph)	34	288	32	62	352	101	86	200	38	114	213	34	
Peak Hour Factor	1.00	0.91	1.00	0.86	0.86	0.96	1.00	0.81	1.00	0.88	0.95	0.80	
Heavy Vehicles (%)	7%	4%	10%	0%	3%	5%	0%	1%	3%	1%	2%	0%	
Lane Group Flow (vph)	0	382	0	0	481	105	86	285	0	130	266	0	
Turn Type	Perm			Perm			Perm pm+pt			pm+pt			
Protected Phases	4			8			1	6		5	2		
Permitted Phases	4			8			6			2			
Total Split (s)	45.0	45.0	0.0	45.0	45.0	45.0	10.0	30.0	0.0	15.0	35.0	0.0	
Act Effct Green (s)	16.4			16.4		16.4	16.8	15.2		17.4	17.7		
Actuated g/C Ratio	0.32			0.32		0.32	0.30	0.30		0.33	0.35		
v/c Ratio	0.43			0.57		0.20	0.21	0.57		0.38	0.46		
Uniform Delay, d1	13.7			15.0		0.0	13.3	14.2		12.4	12.9		
Delay	15.0			16.3		4.2	17.7	17.3		16.4	16.4		
LOS	B			B		A	B	B		B	B		
Approach Delay	15.0			14.2				17.4			16.4		
Approach LOS	B			B				B			B		
Queue Length 50th (ft)	47			65		0	20	72		31	67		
Queue Length 95th (ft)	101			126		30	59	149		83	163		
Internal Link Dist (ft)	4892			1568				1184			904		
50th Up Block Time (%)													
95th Up Block Time (%)													
Turn Bay Length (ft)							150	125			75		
50th Bay Block Time %												4%	
95th Bay Block Time %									17%	14%		41%	
Queuing Penalty (veh)									7	18		26	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 51.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 65.2%	ICU Level of Service B

Splits and Phases: 17: Park Avenue & Deering Avenue

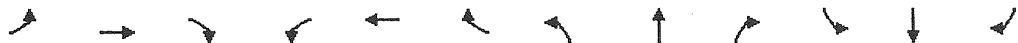




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	68	729	337	25	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (veh/h)	68	729	337	25	1	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	362				1214	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				1214	350
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				99	100
cM capacity (veh/h)	1208				191	698

Direction Lane #	EB 1	WB 1	SB 1
Volume Total	797	362	1
Volume Left	68	0	1
Volume Right	0	25	0
cSH	1208	1700	191
Volume to Capacity	0.06	0.21	0.01
Queue Length (ft)	4	0	0
Control Delay (s)	1.4	0.0	24.0
Lane LOS	A		C
Approach Delay (s)	1.4	0.0	24.0
Approach LOS			C

Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization	74.7%	ICU Level of Service	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	723	98	32	310	0	44	0	45	5	2	16
Peak Hour 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
Hourly flow rate (veh/h)	0	723	98	32	310	0	44	0	45	5	2	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)		1088										
pX, platoon unblocked				0.72			0.72	0.72	0.72	0.72	0.72	0.72
vC, conflicting volume	310			821			1163	1146	772	1191	1195	310
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	310			751			1227	1203	682	1266	1272	310
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			58	100	86	94	98	98
cM capacity (veh/h)	1262			620			104	127	324	87	115	735

Direction Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	821	342	44	45	23
Volume Left	0	32	44	0	5
Volume Right	98	0	0	45	16
cSH	1700	620	104	324	239
Volume to Capacity	0.48	0.05	0.42	0.14	0.10
Queue Length (ft)	0	4	45	12	8
Control Delay (s)	0.0	1.7	63.1	17.9	21.7
Lane LOS		A	F	C	C
Approach Delay (s)	0.0	1.7	40.2		21.7
Approach LOS			E		C

Intersection Summary	
Average Delay	3.7
Intersection Capacity Utilization	60.7%
ICU Level of Service	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↘	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	41	713	356	12	6	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (veh/h)	41	713	356	12	6	36
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	368				1157	362
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	368				1157	362
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				97	95
cM capacity (veh/h)	1174				207	676

Direction Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	41	713	368	42
Volume Left	41	0	0	6
Volume Right	0	0	12	36
cSH	1174	1700	1700	510
Volume to Capacity	0.03	0.42	0.22	0.08
Queue Length (ft)	3	0	0	7
Control Delay (s)	8.2	0.0	0.0	12.7
Lane LOS	A			B
Approach Delay (s)	0.4		0.0	12.7
Approach LOS				B

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	47.5%	ICU Level of Service	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗			↖	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1425	1551	0	1464	1549	0	1425	1564	0	0	1656	1411
Flt Permitted	0.512			0.284			0.390				0.000	
Satd. Flow (perm)	768	1551	0	438	1549	0	585	1564	0	0	0	1411
Satd. Flow (RTOR)		22			47			13				66
Volume (vph)	55	427	92	37	239	82	100	196	35	71	192	51
Peak Hour Factor	1.00	0.89	0.83	1.00	0.96	0.86	0.88	0.89	0.83	1.00	0.84	0.77
Heavy Vehicles (%)	14%	4%	21%	11%	7%	3%	14%	4%	21%	2%	2%	3%
Lane Group Flow (vph)	55	591	0	37	344	0	114	262	0	0	300	66
Turn Type	Perm			pm+pt			Perm			Perm		Perm
Protected Phases		4		3	8			6			2	
Permitted Phases	4			8			6			2	6	2
Total Split (s)	41.0	41.0	0.0	9.0	50.0	0.0	25.0	25.0	0.0	25.0	25.0	25.0
Act Effct Green (s)	26.3	26.3		33.1	30.5		16.6	16.6			16.6	16.6
Actuated g/C Ratio	0.46	0.46		0.55	0.54		0.29	0.29			0.29	0.29
v/c Ratio	0.15	0.81		0.11	0.40		0.66	0.56			0.62	0.14
Uniform Delay, d1	9.2	13.1		5.6	5.6		18.2	16.6			17.9	0.0
Delay	10.7	15.5		6.6	6.2		33.7	20.1			21.3	6.4
LOS	B	B		A	A		C	C			C	A
Approach Delay		15.1			6.3			24.2			18.6	
Approach LOS		B			A			C			B	
Queue Length 50th (ft)	13	203		6	59		43	90			111	0
Queue Length 95th (ft)	33	331		16	104		#124	171			186	19
Internal Link Dist (ft)		756			1600			1360			1184	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)	75			75								
50th Bay Block Time %		37%			1%							
95th Bay Block Time %		41%			16%							
Queuing Penalty (veh)		21			3							

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 56.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 15.9

Intersection LOS: B

Intersection Capacity Utilization 79.0%

ICU Level of Service C

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Congress Street & Deering Avenue

↓ ø2 25 s	↔ ø4 41 s	↖ ø3 9 s
↑ ø6 25 s	↗ ø8 50 s	

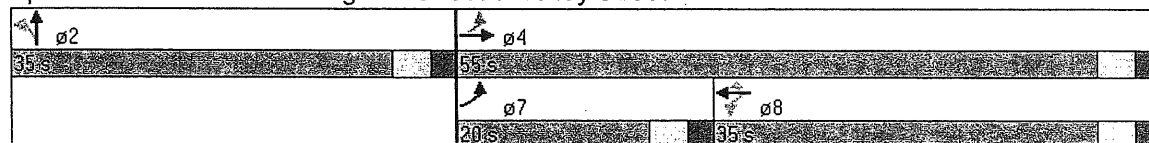


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T				4	T	T	T	T			
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	3408	0	0	1779	1553	1805	1638	0	0	0	0
Flt Permitted	0.928				0.856		0.950					
Satd. Flow (perm)	0	3169	0	0	1531	1553	1805	1638	0	0	0	0
Satd. Flow (RTOR)	5					14		116				
Volume (vph)	15	728	20	34	321	32	23	106	177	0	0	0
Peak Hour Factor	0.41	0.98	0.90	0.75	0.86	1.00	0.63	0.90	0.79	0.92	0.92	0.92
Heavy Vehicles (%)	8%	5%	11%	0%	7%	4%	0%	4%	5%	2%	2%	2%
Lane Group Flow (vph)	0	802	0	0	418	32	37	342	0	0	0	0
Turn Type	pm+pt			Perm		Perm	Perm					
Protected Phases	7	4			8			2				
Permitted Phases	4			8		8	2					
Total Split (s)	20.0	55.0	0.0	35.0	35.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0
Act Effct Green (s)		28.9			28.9	28.9	53.1	53.1				
Actuated g/C Ratio		0.32			0.32	0.32	0.59	0.59				
v/c Ratio		0.78			0.85	0.06	0.03	0.34				
Uniform Delay, d1		27.5			28.5	11.8	7.7	5.9				
Delay		27.0			28.1	12.7	9.4	7.0				
LOS		C			C	B	A	A				
Approach Delay		27.0			27.0			7.2				
Approach LOS		C			C			A				
Queue Length 50th (ft)		206			212	7	9	60				
Queue Length 95th (ft)		255			286	24	17	126				
Internal Link Dist (ft)		776			1008			870			1150	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						50	125					
50th Bay Block Time %					52%							
95th Bay Block Time %					52%			7%				
Queuing Penalty (veh)					16			1				

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 22.4
 Intersection Capacity Utilization 74.4%
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 9: Congress Street & Valley Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗			↖ ↗			↖ ↗			↖ ↗		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1703	3227	0	1492	0	1583	0	3332	0	0	3438	0
Flt Permitted	0.950			0.950						0.560		
Satd. Flow (perm)	1703	3227	0	1492	0	1583	0	3332	0	0	1957	0
Satd. Flow (RTOR)	301						210			11		
Volume (vph)	387	636	461	81	0	257	0	387	31	96	289	0
Peak Hour Factor	0.84	0.90	0.87	1.00	0.92	0.93	0.92	0.88	0.73	0.70	1.00	0.92
Heavy Vehicles (%)	6%	3%	7%	21%	2%	2%	2%	3%	48%	4%	3%	2%
Lane Group Flow (vph)	461	1237	0	81	0	276	0	482	0	0	426	0
Turn Type	Prot			Prot			custom			custom		
Protected Phases	3	8		7		4		2		1	6	
Permitted Phases							4			1		
Total Split (s)	29.0	39.0	0.0	11.0	0.0	21.0	0.0	21.0	0.0	9.0	30.0	0.0
Act Effct Green (s)	24.1	32.8		7.0		13.5		21.5			30.5	
Actuated g/C Ratio	0.30	0.41		0.09		0.17		0.27			0.38	
v/c Ratio	0.90	0.83		0.62		0.63		0.53			0.51	
Uniform Delay, d1	26.8	15.5		36.4		6.8		25.2			18.4	
Delay	36.3	15.7		44.9		8.4		26.2			19.6	
LOS	D	B		D		A		C			B	
Approach Delay	21.3			16.7			26.2			19.6		
Approach LOS	C			B			C			B		
Queue Length 50th (ft)	215	215		40		28		111			82	
Queue Length 95th (ft)	#338	291		#102		97		161			124	
Internal Link Dist (ft)	1004			776			849			1196		
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)												
50th Bay Block Time %												
95th Bay Block Time %												
Queuing Penalty (veh)												

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 79.8%

ICU Level of Service C

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: Congress Street & St. John Street

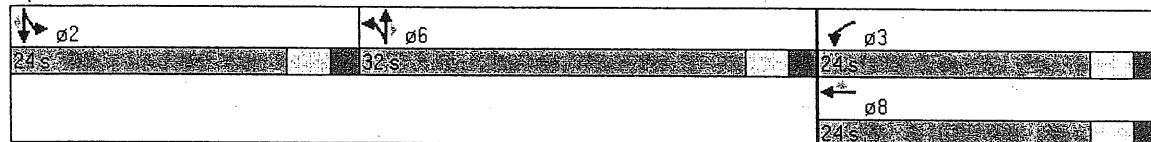
↙ φ1	↑ φ2	↘ φ3	↖ φ4
9 s	21 s	29 s	21 s
↓ φ6	→ φ8	↙ φ7	
30 s	39 s	11 s	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗	↖	↕	↗		↕	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	0	0	0	3381	1599	1649	1723	1524	0	1840	1538
Flt Permitted					0.991		0.950	0.981			0.990	
Satd. Flow (perm)	0	0	0	0	3381	1599	1649	1723	1524	0	1840	1538
Satd. Flow (RTOR)						73			252			114
Volume (vph)	0	0	0	113	404	73	488	244	253	73	354	120
Peak Hour Factor	0.92	0.92	0.92	1.00	0.78	1.00	0.91	1.00	0.86	0.76	0.93	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	6%	1%	4%	2%	6%	3%	2%	5%
Lane Group Flow (vph)	0	0	0	0	631	73	376	404	294	0	477	138
Turn Type				Prot		Perm	Split		Perm	Split		Perm
Protected Phases				3	8		6	6		2	2	
Permitted Phases						8			6			2
Total Split (s)	0.0	0.0	0.0	24.0	24.0	24.0	32.0	32.0	32.0	24.0	24.0	24.0
Act Effct Green (s)					20.1	20.1	23.4	23.4	23.4		20.1	20.1
Actuated g/C Ratio					0.27	0.27	0.31	0.31	0.31		0.27	0.27
v/c Ratio					0.70	0.15	0.74	0.76	0.46		0.98	0.28
Uniform Delay, d1					25.0	0.0	23.3	23.5	2.7		27.5	3.6
Delay					26.5	6.6	23.5	23.6	4.4		61.8	7.6
LOS					C	A	C	C	A		E	A
Approach Delay					24.4			18.3			49.6	
Approach LOS					C			B			D	
Queue Length 50th (ft)					148	0	164	177	14		~239	9
Queue Length 95th (ft)					176	30	263	281	58		#439	48
Internal Link Dist (ft)		1008			4892			1196			806	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						200			100			
50th Bay Block Time %								32%				
95th Bay Block Time %								43%				
Queuing Penalty (veh)								110				

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 75.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 28.2 Intersection LOS: C
 Intersection Capacity Utilization 74.2% ICU Level of Service: C
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Park Avenue & St. John Street



	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙	
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↕			↕		↗	↖	↕		↖	↕		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Satd. Flow (prot)	0	3049	0	0	3144	1384	1624	1649	0	1608	1641	0	
Flt Permitted	0.883			0.820			0.595			0.218			
Satd. Flow (perm)	0	2703	0	0	2599	1384	1017	1649	0	369	1641	0	
Satd. Flow (RTOR)	14			105			10			11			
Volume (vph)	34	288	32	69	352	101	86	201	46	114	213	34	
Peak Hour Factor	1.00	0.91	1.00	0.86	0.86	0.96	1.00	0.81	1.00	0.88	0.95	0.80	
Heavy Vehicles (%)	7%	4%	10%	0%	3%	5%	0%	1%	3%	1%	2%	0%	
Lane Group Flow (vph)	0	382	0	0	489	105	86	294	0	130	266	0	
Turn Type	Perm			Perm			Perm pm+pt			pm+pt			
Protected Phases	4			8			1	6		5	2		
Permitted Phases	4			8			6			2			
Total Split (s)	45.0	45.0	0.0	45.0	45.0	45.0	10.0	30.0	0.0	15.0	35.0	0.0	
Act Effct Green (s)	16.8			16.8		16.8	17.3	15.7		17.6	17.9		
Actuated g/C Ratio	0.32			0.32		0.32	0.31	0.30		0.33	0.34		
v/c Ratio	0.43			0.58		0.20	0.21	0.58		0.38	0.46		
Uniform Delay, d1	13.8			15.2		0.0	13.5	14.4		12.6	13.2		
Delay	15.2			16.6		4.2	17.8	17.5		16.9	16.9		
LOS	B			B		A	B	B		B	B		
Approach Delay	15.2			14.4				17.6			16.9		
Approach LOS	B			B				B			B		
Queue Length 50th (ft)	48			68		0	20	76		32	69		
Queue Length 95th (ft)	103			131		30	59	155		85	168		
Internal Link Dist (ft)	4892			1568				1184			904		
50th Up Block Time (%)													
95th Up Block Time (%)													
Turn Bay Length (ft)							150	125			75		
50th Bay Block Time %													
95th Bay Block Time %								19%		15%	42%		
Queuing Penalty (veh)								8		20	27		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 52

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

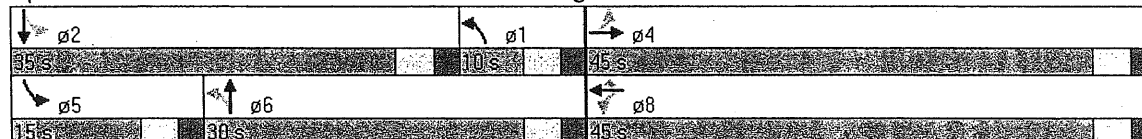
Intersection Signal Delay: 15.8

Intersection LOS: B

Intersection Capacity Utilization 66.0%

ICU Level of Service B

Splits and Phases: 17: Park Avenue & Deering Avenue





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	68	838	377	25	1	0
Peak Hour Factor	0.67	0.96	0.86	1.00	1.00	1.00
Hourly flow rate (veh/h)	101	873	438	25	1	0
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	463				1527	451
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	463				1527	451
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				99	100
cM capacity (veh/h)	1108				119	613

Direction Lane #	EB 1	WB 1	SB 1
Volume Total	974	463	1
Volume Left	101	0	1
Volume Right	0	25	0
cSH	1108	1700	119
Volume to Capacity	0.09	0.27	0.01
Queue Length (ft)	8	0	1
Control Delay (s)	2.3	0.0	35.6
Lane LOS	A		E
Approach Delay (s)	2.3	0.0	35.6
Approach LOS			E

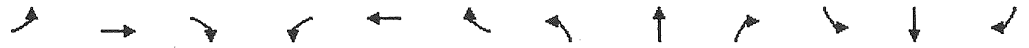
Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization	89.5%	ICU Level of Service	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖			↖			↖			↖				
Sign Control	Free			Free			Stop			Stop				
Grade	0%			0%			0%			0%				
Volume (veh/h)	0	832	98	32	350	0	44	0	45	5	2	16		
Peak Hour Factor	0.90	0.97	0.90	0.90	0.86	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (veh/h)	0	858	109	36	407	0	49	0	50	6	2	18		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type							None			None				
Median storage veh														
Upstream signal (ft)	1088													
pX, platoon unblocked				0.68			0.68			0.68				
vC, conflicting volume	407				967				1409	1390	912	1440	1445	407
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	407				951				1600	1572	871	1645	1652	407
tC, single (s)	4.1				4.1				7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)														
tF (s)	2.2				2.2				3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100				93				7	100	79	86	96	97
cM capacity (veh/h)	1163				496				53	71	240	41	63	648

Direction Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	967	443	49	50	26
Volume Left	0	36	49	0	6
Volume Right	109	0	0	50	18
cSH	1700	496	53	240	129
Volume to Capacity	0.57	0.07	0.93	0.21	0.20
Queue Length (ft)	0	6	102	19	18
Control Delay (s)	0.0	2.1	228.2	23.9	39.7
Lane LOS		A	F	C	E
Approach Delay (s)	0.0	2.1	124.9		39.7
Approach LOS			F		E

Intersection Summary	
Average Delay	9.3
Intersection Capacity Utilization	68.4%
ICU Level of Service	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	↶
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Volume (veh/h)	41	713	109	14	356	12	40	0	10	6	0	35
Peak Hour Factor	1.00	1.00	0.60	0.60	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00
Hourly flow rate (veh/h)	41	713	182	23	356	12	67	0	17	6	0	35
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	368			895			1324	1300	804	1220	1385	362
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	368			895			1324	1300	804	1220	1385	362
tC, single (s)	4.1			4.1			7.2	6.6	6.2	7.2	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			97			44	100	96	96	100	95
cM capacity (veh/h)	1174			746			118	149	378	140	132	676

Direction Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	41	895	23	368	67	17	41
Volume Left	41	0	23	0	67	0	6
Volume Right	0	182	0	12	0	17	35
cSH	1174	1700	746	1700	118	378	434
Volume to Capacity	0.03	0.53	0.03	0.22	0.56	0.04	0.09
Queue Length (ft)	3	0	2	0	68	3	8
Control Delay (s)	8.2	0.0	10.0	0.0	69.1	15.0	14.2
Lane LOS	A		A		F	B	B
Approach Delay (s)	0.4		0.6		58.3		14.2
Approach LOS					F		B

Intersection Summary

Average Delay	4.1
Intersection Capacity Utilization	65.6%
ICU Level of Service	B

30: Congress Street & EXISTING DRIVE Performance by movement

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR
Total Delay (hr)	0.0	1.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0	0.0
Delay / Veh (s)	3.9	5.3	7.3	14.8	1.3	5.2	28.1	9.2	14.2	4.4
Total Stops	12	0	1	9	0	0	31	10	5	28
Travel Dist (mi)	2.9	66.9	12.0	1.0	34.7	0.9	3.8	1.2	0.7	3.7
Travel Time (hr)	0.1	3.3	0.8	0.1	1.3	0.0	0.4	0.1	0.0	0.2
Avg Speed (mph)	20	20	16	13	26	18	10	16	16	20
Fuel Used (gal)	0.2	4.3	0.8	0.2	2.1	0.1	0.3	0.1	0.0	0.2
HC Emissions (g)	1	9	2	0	4	0	1	0	0	1
CO Emissions (g)	45	180	58	6	76	5	41	8	1	21
NOx Emissions (g)	2	19	7	1	8	1	3	1	0	1
Vehicles Entered	29	687	125	10	381	9	31	10	5	28
Vehicles Exited	30	690	126	10	381	8	31	10	5	28
Hourly Exit Rate	30	690	126	10	381	8	31	10	5	28
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

30: Congress Street & EXISTING DRIVE Intersection Performance

	Total
Total Delay (hr)	1.8
Delay / Veh (s)	5.0
Total Stops	96
Travel Dist (mi)	127.7
Travel Time (hr)	6.4
Avg Speed (mph)	20
Fuel Used (gal)	8.4
HC Emissions (g)	19
CO Emissions (g)	441
NOx Emissions (g)	42
Vehicles Entered	1315
Vehicles Exited	1319
Hourly Exit Rate	1319
Denied Entry Before	0
Denied Entry After	0

Intersection: 17: Park Avenue & Deering Avenue

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	T	R	L	TR	L	TR
Maximum Queue (ft)	161	163	128	113	75	148	189	100	160
Average Queue (ft)	57	66	79	67	35	43	95	55	83
95th Queue (ft)	106	119	114	106	63	94	156	98	145
Link Distance (ft)	4879	4879	1614	1614			1186		931
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)					150	125		75	
Storage Blk Time (%)						0.00	0.02	0.02	0.07
Queuing Penalty (veh)						0	2	4	8

Intersection: 27: Congress Street & Gilman Street

Movement	EB	WB	NB	NB	SB
Directions Served	TR	LT	L	R	LTR
Maximum Queue (ft)	94	205	161	54	52
Average Queue (ft)	8	51	57	25	18
95th Queue (ft)	43	144	122	51	46
Link Distance (ft)	1007	1068	916	916	1192
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 30: Congress Street & EXISTING DRIVE

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	L	L	R	LR
Maximum Queue (ft)	50	22	50	69	31	47
Average Queue (ft)	11	1	11	23	10	24
95th Queue (ft)	37	8	36	53	31	45
Link Distance (ft)	468	468	470	644	644	698
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 128

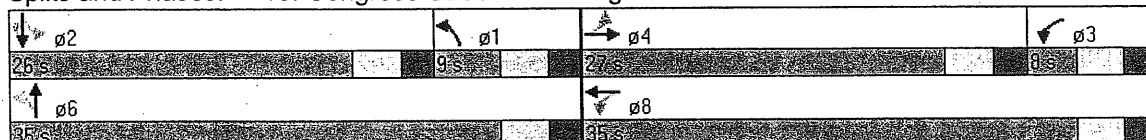


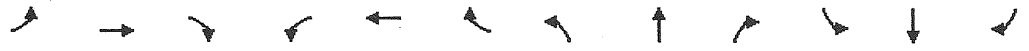
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1624	1622	0	1624	1590	0	1518	1651	0	0	1644	1454
Flt Permitted	0.274			0.162			0.485				0.533	
Satd. Flow (perm)	469	1622	0	277	1590	0	775	1651	0	0	895	1454
Satd. Flow (RTOR)		16			39			15				104
Volume (vph)	57	432	97	20	336	133	162	289	37	108	159	81
Peak Hour Factor	1.00	0.93	1.00	0.75	1.00	0.93	0.82	0.88	0.67	0.93	1.00	0.78
Heavy Vehicles (%)	0%	3%	1%	0%	3%	2%	7%	1%	3%	3%	1%	0%
Lane Group Flow (vph)	57	562	0	27	479	0	198	383	0	0	275	104
Turn Type	Perm			pm+pt			pm+pt			Perm		Perm
Protected Phases		4		3	8		1	6			2	
Permitted Phases	4			8			6			2		2
Total Split (s)	27.0	27.0	0.0	8.0	35.0	0.0	9.0	35.0	0.0	26.0	26.0	26.0
Act Effct Green (s)	23.2	23.2		28.7	26.1		31.1	31.1			22.1	22.1
Actuated g/C Ratio	0.36	0.36		0.41	0.40		0.48	0.48			0.34	0.34
v/c Ratio	0.34	0.96		0.14	0.73		0.46	0.48			0.91	0.19
Uniform Delay, d1	17.0	21.9		12.4	14.3		13.6	12.5			22.5	0.0
Delay	18.6	49.2		13.6	15.4		14.4	12.4			53.1	4.5
LOS	B	D		B	B		B	B			D	A
Approach Delay		46.3			15.3			13.1			39.8	
Approach LOS		D			B			B			D	
Queue Length 50th (ft)	15	191		5	142		40	83			95	0
Queue Length 95th (ft)	52	#447		16	243		85	178			#260	22
Internal Link Dist (ft)		860			1600			1344			1200	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)	75			75								
50th Bay Block Time %		41%			34%							
95th Bay Block Time %		62%			41%							
Queuing Penalty (veh)		29			10							

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 65.3
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 28.4
 Intersection LOS: C
 Intersection Capacity Utilization 83.1%
 ICU Level of Service D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 16: Congress Street & Deering Avenue



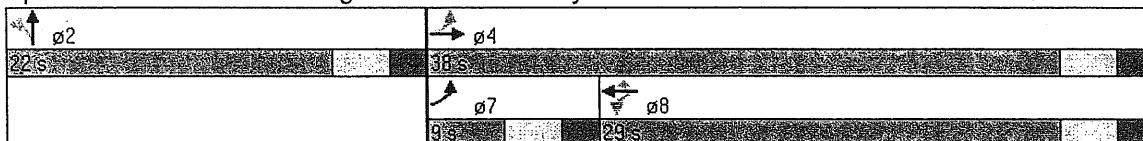


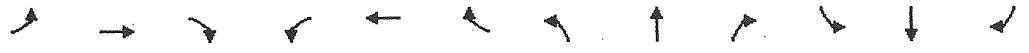
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕↕			↕		↕	↕	↕				
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	3475	0	0	1825	1553	1805	1695	0	0	0	0
Flt Permitted	0.928			0.878			0.950					
Satd. Flow (perm)	0	3231	0	0	1612	1553	1805	1695	0	0	0	0
Satd. Flow (RTOR)	17			31			74					
Volume (vph)	21	501	32	64	440	30	58	146	118	0	0	0
Peak Hour Factor	0.79	0.98	1.00	1.00	0.96	0.58	0.79	0.91	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	3%	0%	4%	4%	0%	1%	8%	2%	2%	2%
Lane Group Flow (vph)	0	570	0	0	522	52	73	299	0	0	0	0
Turn Type	pm+pt			Perm		Perm	Perm					
Protected Phases	7	4			8			2				
Permitted Phases	4			8		8	2					
Total Split (s)	9.0	38.0	0.0	29.0	29.0	29.0	22.0	22.0	0.0	0.0	0.0	0.0
Act Effct Green (s)		22.7			22.7	22.7	29.3	29.3				
Actuated g/C Ratio		0.38			0.38	0.38	0.49	0.49				
v/c Ratio		0.46			0.86	0.09	0.08	0.35				
Uniform Delay, d1		13.6			17.1	4.8	8.2	6.9				
Delay		13.3			20.6	6.3	9.5	8.0				
LOS		B			C	A	A	A				
Approach Delay		13.3			19.3			8.3				
Approach LOS		B			B			A				
Queue Length 50th (ft)		70			156	4	14	49				
Queue Length 95th (ft)		107			#308	11	29	97				
Internal Link Dist (ft)		776			968			870			1150	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						50	125					
50th Bay Block Time %						43%						
95th Bay Block Time %						51%						
Queuing Penalty (veh)						24						

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 14.3
 Intersection LOS: B
 Intersection Capacity Utilization 70.5%
 ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 9: Congress Street & Valley Street



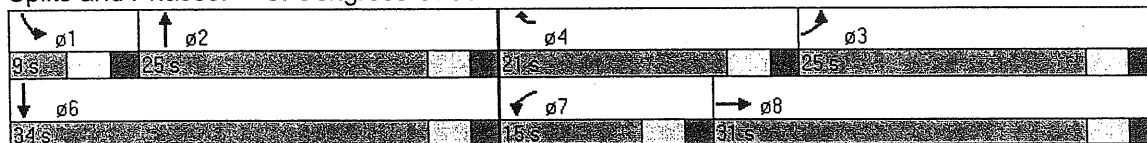


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕	↗	↖	↕	↗	↖	↕	↗	↖	↕	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1787	3295	0	1626	0	1615	0	3502	0	0	3527	0
Flt Permitted	0.950		0.950						0.623			
Satd. Flow (perm)	1787	3295	0	1626	0	1615	0	3502	0	0	2210	0
Satd. Flow (RTOR)	235						171		5			
Volume (vph)	389	451	391	125	0	378	0	678	33	70	454	0
Peak Hour Factor	0.94	0.89	1.00	0.87	0.25	0.95	0.92	0.89	1.00	1.00	0.95	0.92
Heavy Vehicles (%)	1%	2%	3%	11%	0%	0%	0%	2%	13%	0%	2%	0%
Lane Group Flow (vph)	414	898	0	144	0	398	0	795	0	0	548	0
Turn Type	Prot		Prot		custom				custom			
Protected Phases	3	8	7		4		2		1		6	
Permitted Phases					4				1			
Total Split (s)	25.0	31.0	0.0	15.0	0.0	21.0	0.0	25.0	0.0	9.0	34.0	0.0
Act Effct Green (s)	20.5	25.6		10.6		15.6		31.9			31.9	
Actuated g/C Ratio	0.26	0.32		0.13		0.20		0.40			0.40	
v/c Ratio	0.90	0.74		0.67		0.88		0.57			0.62	
Uniform Delay, d1	28.8	17.4		33.1		17.5		18.6			19.2	
Delay	42.0	17.5		37.5		25.2		19.5			20.5	
LOS	D	B		D		C		B			C	
Approach Delay	25.2				28.4				19.5		20.5	
Approach LOS	C				C				B		C	
Queue Length 50th (ft)	198	149		69		110		164			116	
Queue Length 95th (ft)	#360	213		#135		#262		218			173	
Internal Link Dist (ft)	1004				776				849		1196	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)												
50th Bay Block Time %												
95th Bay Block Time %												
Queuing Penalty (veh)												

Intersection Summary

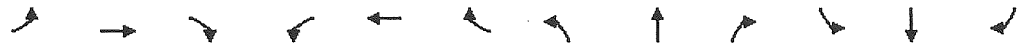
Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 23.5
 Intersection LOS: C
 Intersection Capacity Utilization: 85.2%
 ICU Level of Service: D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Congress Street & St. John Street



Lanes, Volumes, Timings
6: Park Avenue & St. John Street

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4/2/2004



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4↑	↑	↑	4↑	↑		4	↑
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	0	0	0	3504	1599	1681	1746	1568	0	1872	1583
Flt Permitted					0.989		0.950	0.981			0.994	
Satd. Flow (perm)	0	0	0	0	3504	1599	1681	1746	1568	0	1872	1583
Satd. Flow (RTOR)						199			115			45
Volume (vph)	0	0	0	174	678	141	846	382	168	35	289	102
Peak Hour Factor	0.92	0.92	0.92	0.88	1.00	0.71	1.00	1.00	0.83	0.83	1.00	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	1%	1%	2%	1%	3%	0%	1%	2%
Lane Group Flow (vph)	0	0	0	0	876	199	595	633	202	0	331	117
Turn Type				Prot		Perm	Split		Perm	Split		Perm
Protected Phases				3	8		6	6		2	2	
Permitted Phases						8			6			2
Total Split (s)	0.0	0.0	0.0	25.0	25.0	25.0	34.0	34.0	34.0	21.0	21.0	21.0
Act Effct Green (s)					21.0	21.0	30.0	30.0	30.0		16.5	16.5
Actuated g/C Ratio					0.26	0.26	0.38	0.38	0.38		0.21	0.21
v/c Ratio					0.95	0.35	0.94	0.96	0.30		0.85	0.32
Uniform Delay, d1					28.7	0.0	23.8	24.2	7.1		30.3	16.1
Delay					43.6	4.0	42.6	46.4	8.1		40.0	17.6
LOS					D	A	D	D	A		D	B
Approach Delay					36.2			39.4			34.1	
Approach LOS					D			D			C	
Queue Length 50th (ft)					226	0	296	320	28		159	30
Queue Length 95th (ft)					#346	20	#514	#547	63		#296	71
Internal Link Dist (ft)		1008			4636			1196			806	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						200			100			
50th Bay Block Time %						12%		44%				
95th Bay Block Time %						37%		55%				
Queuing Penalty (veh)						48		100				

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 79.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 37.5

Intersection LOS: D

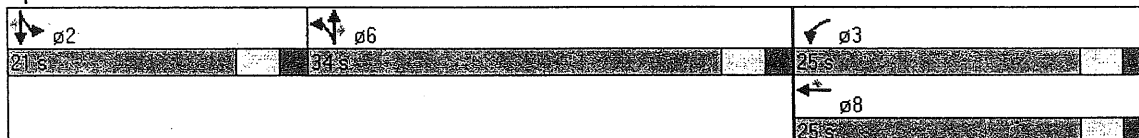
Intersection Capacity Utilization 85.5%

ICU Level of Service D

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Park Avenue & St. John Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↕			↔			↕		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	3168	0	0	3201	1425	1624	1617	0	1624	1617	0
Flt Permitted	0.791			0.862			0.613			0.200		
Satd. Flow (perm)	0	2523	0	0	2773	1425	1048	1617	0	342	1617	0
Satd. Flow (RTOR)	9			307			15			17		
Volume (vph)	46	274	21	67	540	270	90	263	67	97	174	49
Peak Hour Factor	0.89	0.89	1.00	0.88	0.80	0.88	0.88	1.00	0.95	1.00	0.95	0.98
Heavy Vehicles (%)	0%	1%	4%	1%	1%	2%	0%	3%	0%	0%	3%	0%
Lane Group Flow (vph)	0	381	0	0	751	307	102	334	0	97	233	0
Turn Type	Perm			Perm			Perm pm+pt			pm+pt		
Protected Phases	4			8			1			6		
Permitted Phases	4			8			8			6		
Total Split (s)	45.0	45.0	0.0	45.0	45.0	45.0	10.0	30.0	0.0	15.0	35.0	0.0
Act Effct Green (s)	25.4			25.4			25.4	20.2	18.5	15.5		
Actuated g/C Ratio	0.40			0.40			0.40	0.31	0.29	0.24		
v/c Ratio	0.38			0.68			0.41	0.24	0.69	0.36		
Uniform Delay, d1	12.9			15.4			0.0	17.4	18.8	18.6		
Delay	14.6			17.1			2.2	22.6	22.8	23.7		
LOS	B			B			A	C	C	C		
Approach Delay	14.6			12.7			22.8			23.5		
Approach LOS	B			B			C			C		
Queue Length 50th (ft)	56			132			0	32	117	33		
Queue Length 95th (ft)	101			186			41	82	255	81		
Internal Link Dist (ft)	4636			1568			1200			904		
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)	150						125			75		
50th Bay Block Time %	5%						13%			13%		
95th Bay Block Time %	14%						39%			12%		
Queuing Penalty (veh)	22						22			13		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 63.6
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 16.6
 Intersection Capacity Utilization 74.5%
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 17: Park Avenue & Deering Avenue

↓ ø2 25 s	↖ ø1 10 s	→ ø4 45 s
↙ ø5 15 s	↑ ø6 30 s	↔ ø8 45 s



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	79	669	587	53	5	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (veh/h)	79	669	587	53	5	27
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	640				1440	614
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	640				1440	614
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				96	95
cM capacity (veh/h)	954				135	496

Direction Lane #	EB 1	WB 1	SB 1
Volume Total	748	640	32
Volume Left	79	0	5
Volume Right	0	53	27
cSH	954	1700	350
Volume to Capacity	0.08	0.38	0.09
Queue Length (ft)	7	0	7
Control Delay (s)	2.1	0.0	16.3
Lane LOS	A		C
Approach Delay (s)	2.1	0.0	16.3
Approach LOS			C

Intersection Summary			
Average Delay		1.5	
Intersection Capacity Utilization	87.0%	ICU Level of Service	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T			4			T			4		
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Volume (veh/h)	0	686	19	32	542	0	30	0	60	2	4	16
Peak Hour 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
Hourly flow rate (veh/h)	0	686	19	32	542	0	30	0	60	2	4	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)	1048											
pX, platoon unblocked				0.80			0.80			0.80		
vC, conflicting volume	542			705			1320			1302		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	542			630			1400			1378		
tC, single (s)	4.1			4.1			7.1			6.5		
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5			4.0		
p0 queue free %	100			96			65			100		
cM capacity (veh/h)	1037			764			86			112		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	705	574	30	60	22
Volume Left	0	32	30	0	2
Volume Right	19	0	0	60	16
cSH	1700	764	86	392	235
Volume to Capacity	0.41	0.04	0.35	0.15	0.09
Queue Length (ft)	0	3	34	13	8
Control Delay (s)	0.0	1.1	67.5	15.8	21.9
Lane LOS		A	F	C	C
Approach Delay (s)	0.0	1.1	33.0		21.9
Approach LOS			D		C

Intersection Summary	
Average Delay	3.0
Intersection Capacity Utilization	71.1%
ICU Level of Service	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑		↓	↓
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	87	572	581	34	21	98
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (veh/h)	87	572	581	34	21	98
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	615				1344	598
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	615				1344	598
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				86	80
cM capacity (veh/h)	965				152	502
Direction Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	87	572	615	119		
Volume Left	87	0	0	21		
Volume Right	0	0	34	98		
cSH	965	1700	1700	357		
Volume to Capacity	0.09	0.34	0.36	0.33		
Queue Length (ft)	7	0	0	36		
Control Delay (s)	9.1	0.0	0.0	20.0		
Lane LOS	A			C		
Approach Delay (s)	1.2		0.0	20.0		
Approach LOS				C		
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			54.7%		ICU Level of Service	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗			↖	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1624	1622	0	1624	1590	0	1518	1651	0	0	1644	1454
Flt Permitted	0.270			0.156			0.485				0.533	
Satd. Flow (perm)	462	1622	0	267	1590	0	775	1651	0	0	895	1454
Satd. Flow (RTOR)		16			39			15				108
Volume (vph)	70	438	97	20	339	133	162	289	37	108	159	84
Peak Hour Factor	1.00	0.93	1.00	0.75	1.00	0.93	0.82	0.88	0.67	0.93	1.00	0.78
Heavy Vehicles (%)	0%	3%	1%	0%	3%	2%	7%	1%	3%	3%	1%	0%
Lane Group Flow (vph)	70	568	0	27	482	0	198	383	0	0	275	108
Turn Type	Perm			pm+pt			pm+pt			Perm		Perm
Protected Phases		4		3	8		1	6			2	
Permitted Phases	4			8			6			2		2
Total Split (s)	27.0	27.0	0.0	8.0	35.0	0.0	9.0	35.0	0.0	26.0	26.0	26.0
Act Effct Green (s)	23.2	23.2		28.7	26.2		31.1	31.1			22.1	22.1
Actuated g/C Ratio	0.36	0.36		0.41	0.40		0.48	0.48			0.34	0.34
v/c Ratio	0.43	0.97		0.14	0.73		0.46	0.48			0.91	0.19
Uniform Delay, d1	17.6	22.0		12.4	14.4		13.6	12.6			22.6	0.0
Delay	19.5	51.1		13.7	15.5		14.4	12.4			53.1	4.4
LOS	B	D		B	B		B	B			D	A
Approach Delay		47.7			15.4			13.1			39.4	
Approach LOS		D			B			B			D	
Queue Length 50th (ft)	19	194		5	143		40	84			95	0
Queue Length 95th (ft)	#65	#452		16	245		85	178			#260	22
Internal Link Dist (ft)		860			1600			1344			1200	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)	75			75								
50th Bay Block Time %		42%			34%							
95th Bay Block Time %		62%			41%							
Queuing Penalty (veh)		36			10							

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 65.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 28.9

Intersection LOS: C

Intersection Capacity Utilization: 90.1%

ICU Level of Service: E

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Congress Street & Deering Avenue

↓ ø2	↖ ø1	→ ø4	↗ ø3
26s	9s	27s	8s
↑ ø6		↖ ø8	
35.3s		35.3s	

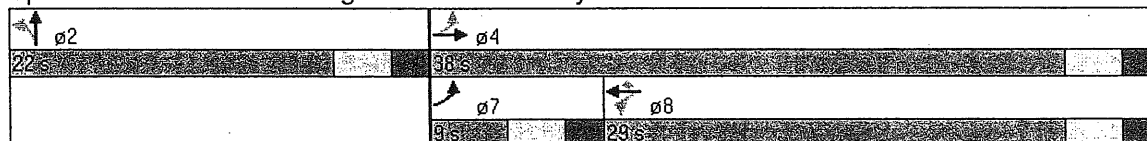


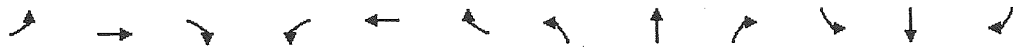
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕↕				↕	↕	↕	↕				
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	3503	0	0	1824	1553	1805	1682	0	0	0	0
Flt Permitted	0.893				0.845		0.950					
Satd. Flow (perm)	0	3134	0	0	1552	1553	1805	1682	0	0	0	0
Satd. Flow (RTOR)						37		85				
Volume (vph)	21	533	0	90	504	43	58	146	134	0	0	0
Peak Hour Factor	0.79	0.98	1.00	1.00	0.96	0.58	0.79	0.91	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	3%	0%	4%	4%	0%	1%	8%	2%	2%	2%
Lane Group Flow (vph)	0	571	0	0	615	74	73	318	0	0	0	0
Turn Type	pm+pt			Perm		Perm	Perm					
Protected Phases	7	4			8			2				
Permitted Phases	4			8		8	2					
Total Split (s)	9.0	38.0	0.0	29.0	29.0	29.0	22.0	22.0	0.0	0.0	0.0	0.0
Act Effct Green (s)		25.0			25.0	25.0	27.0	27.0				
Actuated g/C Ratio		0.42			0.42	0.42	0.45	0.45				
v/c Ratio		0.44			0.95	0.11	0.09	0.40				
Uniform Delay, d1		12.5			16.9	5.2	9.4	7.8				
Delay		12.8			36.4	6.6	9.7	8.2				
LOS		B			D	A	A	A				
Approach Delay		12.8			33.2			8.5				
Approach LOS		B			C			A				
Queue Length 50th (ft)		74			205	8	14	51				
Queue Length 95th (ft)		111			#401	15	29	103				
Internal Link Dist (ft)		776			968			870			1150	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						50	125					
50th Bay Block Time %					47%							
95th Bay Block Time %					54%			2%				
Queuing Penalty (veh)					37							

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 20.3
 Intersection LOS: C
 Intersection Capacity Utilization 76.5%
 ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 9: Congress Street & Valley Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1787	3299	0	1626	0	1615	0	3502	0	0	3524	0
Flt Permitted	0.950			0.950							0.594	
Satd. Flow (perm)	1787	3299	0	1626	0	1615	0	3502	0	0	2108	0
Satd. Flow (RTOR)		217				171		5				
Volume (vph)	389	472	391	150	0	417	0	678	33	81	454	0
Peak Hour Factor	0.94	0.89	1.00	0.87	0.25	0.95	0.92	0.89	1.00	1.00	0.95	0.92
Heavy Vehicles (%)	1%	2%	3%	11%	0%	0%	0%	2%	13%	0%	2%	0%
Lane Group Flow (vph)	414	921	0	172	0	439	0	795	0	0	559	0
Turn Type	Prot			Prot		custom			custom			
Protected Phases	3	8		7		4		2		1	6	
Permitted Phases						4				1		
Total Split (s)	25.0	31.0	0.0	15.0	0.0	21.0	0.0	25.0	0.0	9.0	34.0	0.0
Act Effct Green (s)	20.5	26.3		10.8		16.6		30.9			30.9	
Actuated g/C Ratio	0.26	0.33		0.14		0.21		0.39			0.39	
v/c Ratio	0.90	0.75		0.78		0.93		0.59			0.69	
Uniform Delay, d1	28.8	17.8		33.4		18.8		19.3			20.5	
Delay	42.0	18.1		45.5		37.1		19.9			21.5	
LOS	D	B		D		D		B			C	
Approach Delay		25.5				39.5		19.9			21.5	
Approach LOS		C				D		B			C	
Queue Length 50th (ft)	198	161		84		136		164			122	
Queue Length 95th (ft)	#360	226		#174		#313		218			182	
Internal Link Dist (ft)		1004				776		849			1196	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)												
50th Bay Block Time %												
95th Bay Block Time %												
Queuing Penalty (veh)												

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 26.1

Intersection LOS: C

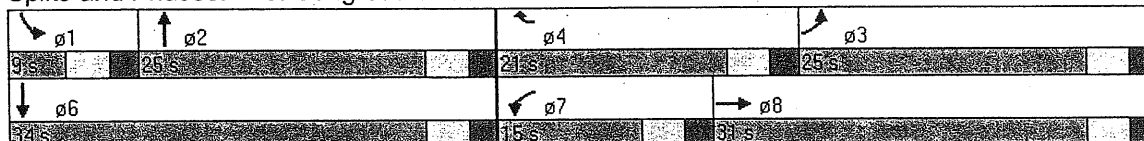
Intersection Capacity Utilization 87.8%

ICU Level of Service D

95th percentile volume exceeds capacity, queue may be longer

Queue shown is maximum after two cycles.

Splits and Phases: 5: Congress Street & St. John Street



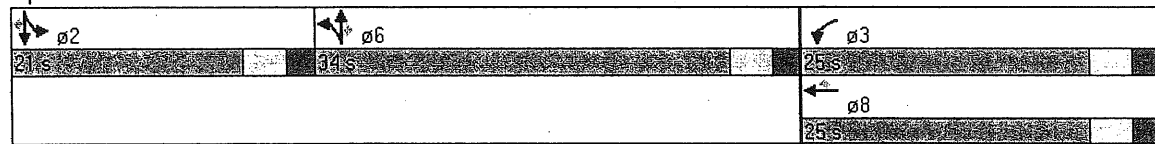


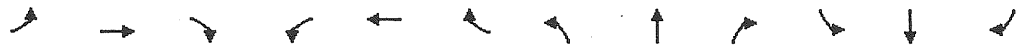
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↕	↗		↕	↗
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	0	0	0	3504	1599	1681	1744	1568	0	1872	1583
Flt Permitted					0.989		0.950	0.980			0.994	
Satd. Flow (perm)	0	0	0	0	3504	1599	1681	1744	1568	0	1872	1583
Satd. Flow (RTOR)						199			111			40
Volume (vph)	0	0	0	174	691	141	879	388	168	35	300	102
Peak Hour Factor	0.92	0.92	0.92	0.88	1.00	0.71	1.00	1.00	0.83	0.83	1.00	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	1%	1%	2%	1%	3%	0%	1%	2%
Lane Group Flow (vph)	0	0	0	0	889	199	614	653	202	0	342	117
Turn Type				Prot		Perm	Split		Perm	Split		Perm
Protected Phases				3	8		6	6		2	2	
Permitted Phases						8			6			2
Total Split (s)	0.0	0.0	0.0	25.0	25.0	25.0	34.0	34.0	34.0	21.0	21.0	21.0
Act Effct Green (s)					21.0	21.0	30.0	30.0	30.0		16.7	16.7
Actuated g/C Ratio					0.26	0.26	0.38	0.38	0.38		0.21	0.21
v/c Ratio					0.96	0.35	0.97	0.99	0.31		0.87	0.32
Uniform Delay, d1					28.9	0.0	24.4	24.8	7.4		30.4	17.2
Delay					46.4	4.0	49.0	54.1	8.4		43.1	18.5
LOS					D	A	D	D	A		D	B
Approach Delay					38.6			45.7			36.8	
Approach LOS					D			D			D	
Queue Length 50th (ft)					231	0	311	335	30		166	32
Queue Length 95th (ft)					#353	20	#536	#572	65		#309	73
Internal Link Dist (ft)		1008			4636			1196			806	
50th Up Block Time (%)												
95th Up Block Time (%)												
Turn Bay Length (ft)						200			100			
50th Bay Block Time %						13%		45%				
95th Bay Block Time %						38%		55%				
Queuing Penalty (veh)						50		101				

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 79.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 41.8 Intersection LOS: D
 Intersection Capacity Utilization 87.5% ICU Level of Service: D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: Park Avenue & St. John Street



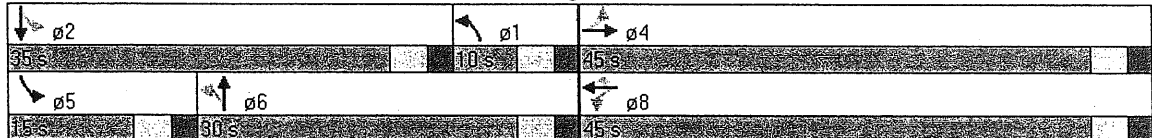


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↕			↕		↗	↖	↕		↖	↕	↗	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Satd. Flow (prot)	0	3168	0	0	3201	1425	1624	1612	0	1624	1617	0	
Flt Permitted		0.790			0.857		0.613			0.200			
Satd. Flow (perm)	0	2520	0	0	2757	1425	1048	1612	0	342	1617	0	
Satd. Flow (RTOR)		9				307		18			17		
Volume (vph)	46	274	21	70	540	270	90	263	80	97	174	49	
Peak Hour Factor	0.89	0.89	1.00	0.88	0.80	0.88	0.88	1.00	0.95	1.00	0.95	0.98	
Heavy Vehicles (%)	0%	1%	4%	1%	1%	2%	0%	3%	0%	0%	3%	0%	
Lane Group Flow (vph)	0	381	0	0	755	307	102	347	0	97	233	0	
Turn Type	Perm			Perm		Perm pm+pt				pm+pt			
Protected Phases		4			8		1	6		5	2		
Permitted Phases	4			8		8	6			2			
Total Split (s)	45.0	45.0	0.0	45.0	45.0	45.0	10.0	30.0	0.0	15.0	35.0	0.0	
Act Effct Green (s)		25.9			25.9	25.9	20.9	19.2		15.7	16.4		
Actuated g/C Ratio		0.40			0.40	0.40	0.31	0.30		0.24	0.25		
v/c Ratio		0.38			0.69	0.41	0.23	0.71		0.37	0.55		
Uniform Delay, d1		13.1			15.8	0.0	17.5	18.8		18.9	19.1		
Delay		14.8			17.4	2.2	22.7	24.0		24.2	23.8		
LOS		B			B	A	C	C		C	C		
Approach Delay		14.8			13.0			23.7			23.9		
Approach LOS		B			B			C			C		
Queue Length 50th (ft)		58			138	0	32	124		34	83		
Queue Length 95th (ft)		101			187	41	82	#272		82	173		
Internal Link Dist (ft)		4636			1568			1200			904		
50th Up Block Time (%)													
95th Up Block Time (%)													
Turn Bay Length (ft)						150	125				75		
50th Bay Block Time %						1%		8%				15%	
95th Bay Block Time %						14%		41%				12%	43%
Queuing Penalty (veh)						22		25				14	28

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 64.7
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 17.1
 Intersection LOS: B
 Intersection Capacity Utilization 75.5%
 ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 17: Park Avenue & Deering Avenue





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	79	717	690	53	5	27
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (veh/h)	79	717	690	53	5	27
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	743				1592	716
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	743				1592	716
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				95	94
cM capacity (veh/h)	873				109	433

Direction Lane #	EB 1	WB 1	SB 1
Volume Total	796	743	32
Volume Left	79	0	5
Volume Right	0	53	27
cSH	873	1700	295
Volume to Capacity	0.09	0.44	0.11
Queue Length (ft)	7	0	9
Control Delay (s)	2.3	0.0	18.7
Lane LOS	A		C
Approach Delay (s)	2.3	0.0	18.7
Approach LOS			C

Intersection Summary		
Average Delay		1.5
Intersection Capacity Utilization	95.0%	ICU Level of Service E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Volume (veh/h)	0	734	19	32	645	0	30	0	60	2	4	16
Peak Hour 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
Hourly flow rate (veh/h)	0	734	19	32	645	0	30	0	60	2	4	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)	1048											
pX, platoon unblocked				0.79			0.79			0.79		
vC, conflicting volume	645			753			1470			1452		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	645			688			1595			1572		
tC, single (s)	4.1			4.1			7.1			6.5		
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5			4.0		
p0 queue free %	100			96			51			100		
cM capacity (veh/h)	950			720			62			84		

Direction Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	753	677	30	60	22
Volume Left	0	32	30	0	2
Volume Right	19	0	0	60	16
cSH	1700	720	62	360	181
Volume to Capacity	0.44	0.04	0.49	0.17	0.12
Queue Length (ft)	0	3	48	15	10
Control Delay (s)	0.0	1.2	109.6	17.0	27.6
Lane LOS		A	F	C	D
Approach Delay (s)	0.0	1.2	47.9		27.6
Approach LOS			E		D

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	82.7%	ICU Level of Service	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↘	↙	↘	↙
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Volume (veh/h)	87	572	48	6	581	34	103	0	19	21	0	98
Peak Hour Factor	1.00	1.00	0.60	0.60	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00
Hourly flow rate (veh/h)	87	572	80	10	581	34	172	0	32	21	0	98
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	615			652			1485	1421	612	1396	1444	598
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	615			652			1485	1421	612	1396	1444	598
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			99			0	100	94	80	100	80
cM capacity (veh/h)	965			935			76	123	493	103	119	502

Direction Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	87	652	10	615	172	32	119
Volume Left	87	0	10	0	172	0	21
Volume Right	0	80	0	34	0	32	98
cSH	965	1700	935	1700	76	493	298
Volume to Capacity	0.09	0.38	0.01	0.36	2.25	0.06	0.40
Queue Length (ft)	7	0	1	0	399	5	46
Control Delay (s)	9.1	0.0	8.9	0.0	687.6	12.8	24.9
Lane LOS	A		A		F	B	C
Approach Delay (s)	1.1	0.1		582.5		24.9	
Approach LOS				F		C	

Intersection Summary			
Average Delay	72.5		
Intersection Capacity Utilization	64.5%	ICU Level of Service	B

30: Congress Street & EXISTING DRIVE Performance by movement

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR
Total Delay (hr)	0.2	0.5	0.1	0.0	0.4	0.1	1.1	0.0	0.2	0.7
Delay / Veh (s)	7.7	2.9	5.9	1.8	2.5	5.2	37.1	5.3	37.6	23.7
Total Stops	46	0	0	0	0	2	108	20	20	110
Travel Dist (mi)	6.2	46.0	4.0	0.3	47.7	3.4	14.6	2.7	2.2	12.1
Travel Time (hr)	0.4	2.1	0.3	0.0	2.0	0.2	1.7	0.1	0.3	1.3
Avg Speed (mph)	15	22	15	20	24	17	9	19	7	10
Fuel Used (gal)	0.6	4.3	0.4	0.0	2.7	0.2	1.5	0.4	0.3	1.4
HC Emissions (g)	2	8	1	0	6	1	5	1	1	5
CO Emissions (g)	71	281	36	1	107	22	207	33	26	174
NOx Emissions (g)	6	27	4	0	11	2	17	2	3	13
Vehicles Entered	79	594	51	3	575	40	107	20	20	112
Vehicles Exited	79	599	51	3	576	40	110	20	22	114
Hourly Exit Rate	79	599	51	3	576	40	110	20	22	114
Denied Entry Before	0	0	0	0	0	0	1	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0

30: Congress Street & EXISTING DRIVE Intersection Performance

	Total
Total Delay (hr)	3.3
Delay / Veh (s)	7.4
Total Stops	306
Travel Dist (mi)	139.2
Travel Time (hr)	8.4
Avg Speed (mph)	17
Fuel Used (gal)	11.7
HC Emissions (g)	29
CO Emissions (g)	958
NOx Emissions (g)	84
Vehicles Entered	1601
Vehicles Exited	1614
Hourly Exit Rate	1614
Denied Entry Before	1
Denied Entry After	0

Queuing and Blocking Report
Baseline

4/2/2004

Intersection: 17: Park Avenue & Deering Avenue

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	T	R	L	TR	L	TR
Maximum Queue (ft)	126	144	148	151	171	151	281	100	173
Average Queue (ft)	52	49	101	73	61	49	114	41	80
95th Queue (ft)	90	95	145	128	116	111	190	77	154
Link Distance (ft)	4623	4623	1614	1614			1202		931
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)					150	125		75	
Storage Blk Time (%)				0.00	0.00	0.00	0.05	0.00	0.09
Queuing Penalty (veh)				1	0	0	5	0	8

Intersection: 27: Congress Street & Gilman Street

Movement	WB	NB	NB	SB
Directions Served	LT	L	R	LTR
Maximum Queue (ft)	425	68	109	51
Average Queue (ft)	31	25	30	18
95th Queue (ft)	134	52	66	47
Link Distance (ft)	920	926	926	1222
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 30: Congress Street & EXISTING DRIVE

Movement	EB	WB	NB	NB	SB
Directions Served	L	TR	L	R	LR
Maximum Queue (ft)	92	21	108	51	165
Average Queue (ft)	28	1	59	14	62
95th Queue (ft)	61	10	100	43	120
Link Distance (ft)	362	404	716	716	576
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network-wide Queuing Penalty: 237

Appendix C
Collision Diagrams
Trip Generation Counts

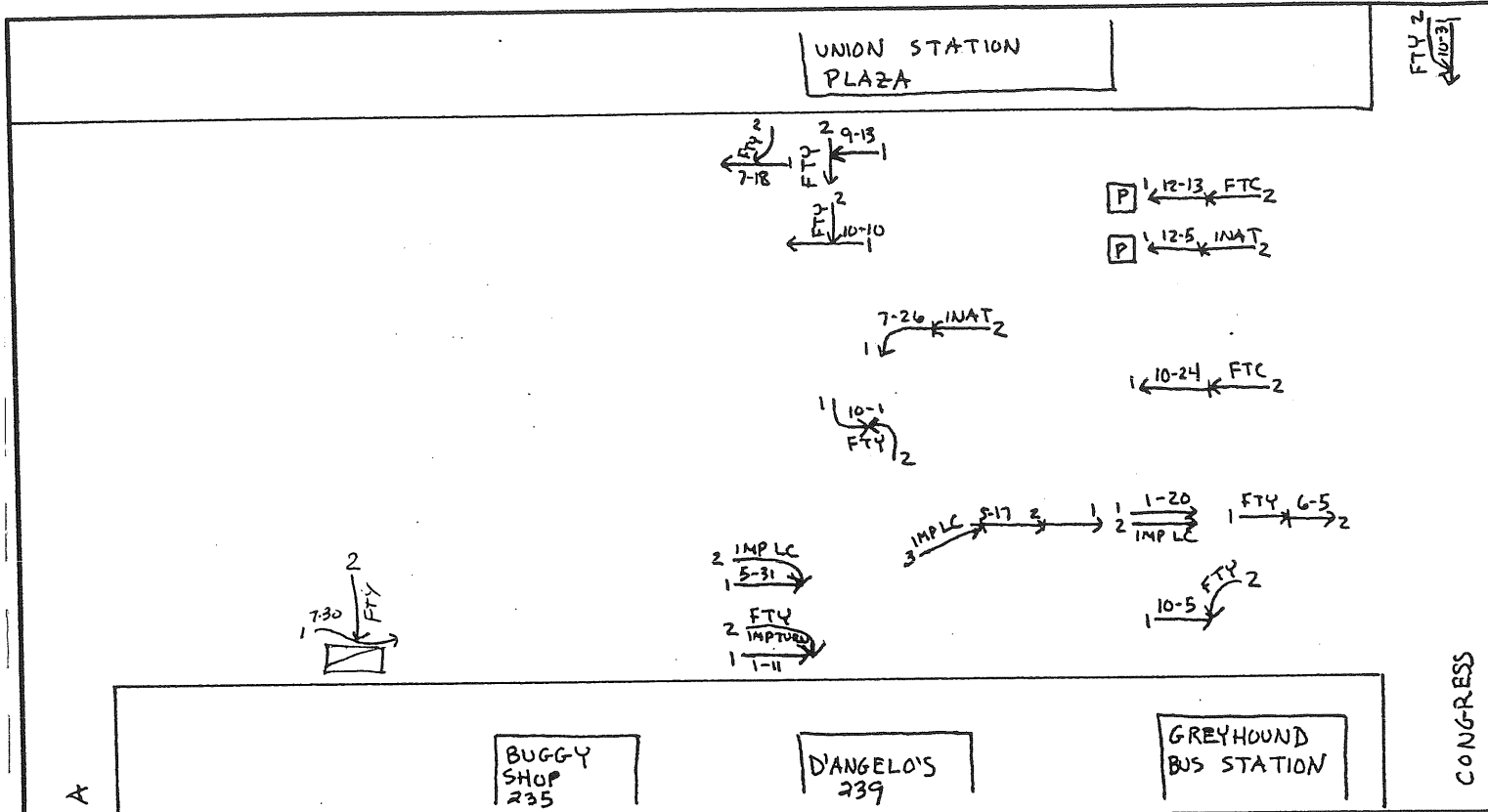
COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION ST. JOHN STREET FROM A STREET TO CONGRESS STREET

TOWN PORTLAND NODE NO(S) 07181-07182

YEARS REVIEWED 2000-2002 DATE PREPARED 8-4-03



CRITICAL RATE FACTOR 2.57 EQUIV. PROP. DAMAGE ACC/YEAR 16 ACCIDENTS 16 ACC/MEV

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

SYMBOLS

ANGLE: PEDESTRIAN: FATAL ACCIDENT:

BACKING: REAR END:

FIXED OBJECT: SIDE SWIPE: VEHICLE (MOVING):

HEAD ON: TURNING MOVE: BICYCLE:

OVERTURN: CHANGE LANE: ANIMAL:

PARKED VEHICLE: OUT OF CONTROL: SLED:

WEATHER

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

INJURIES

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

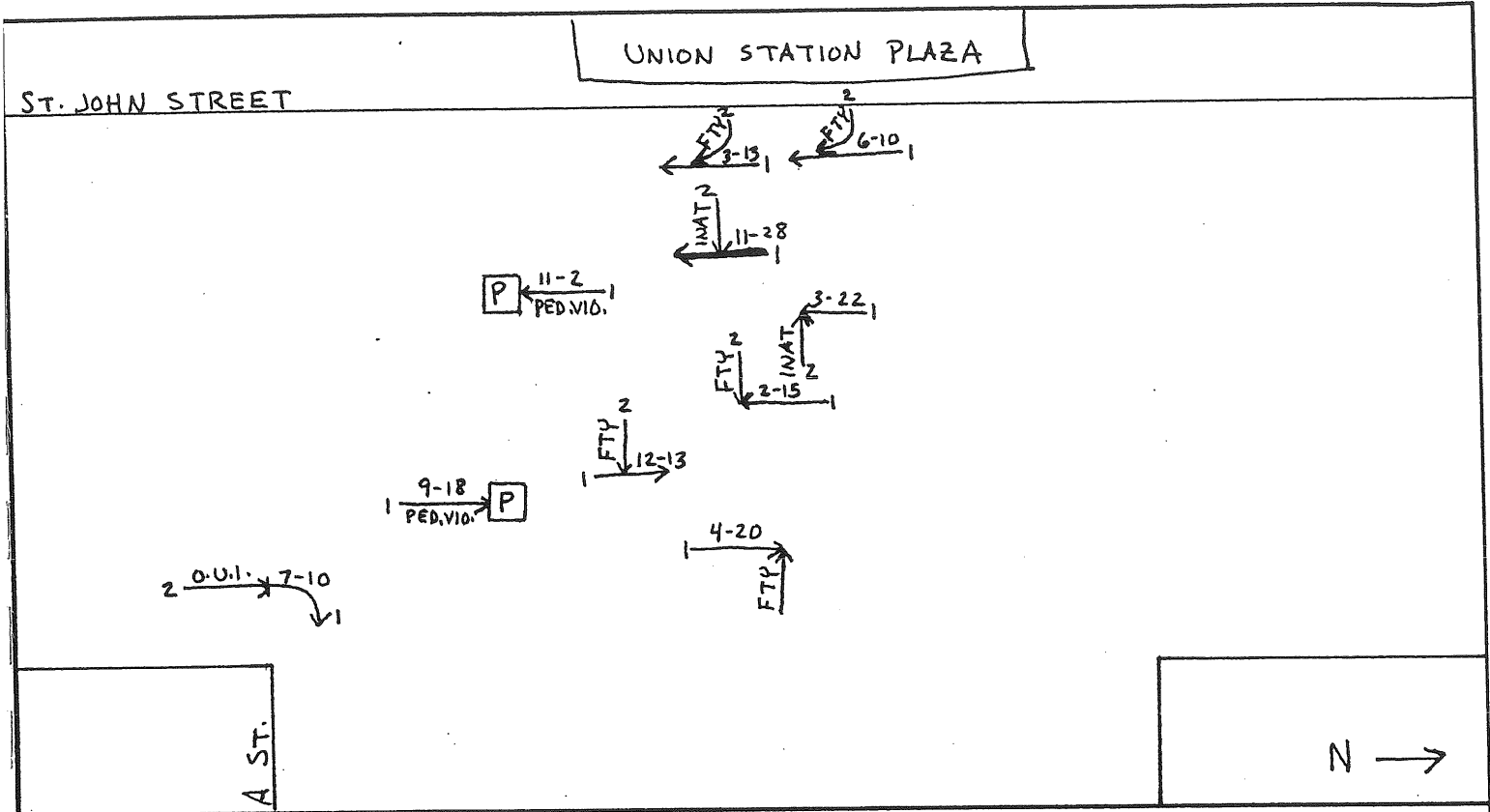
REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
025019	12-13-02	21:32					DARK-4	WET-2	4	
022494	10-24-02	16:13					DAY-2	DRY-1	4	
022823	10-31-02	15:15					DAY-2	DRY-1	2	
017788	7-26-02	13:00				2	DAY-2	DRY-1	14	
021457	10-01-02	13:15					DAY-2	DRY-1	2	
021678	10-5-02	20:13				2	DARK-4	DRY-1	30,2	
001316	1-11-02	19:00					DARK-4	WET-2	10	
024210	7-30-01	15:15					DAY-2	DRY-1	2	

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 1 OF 2

LOCATION ST. JOHN STREET AT A STREET
 TOWN PORTLAND NODE NO(S) 07181
 YEARS REVIEWED 2000-2002 DATE PREPARED 8/6/03



CRITICAL RATE FACTOR 1.28 EQUIV. PROP. DAMAGE ACC/YEAR 10 ACCIDENTS ACC/MEV _____

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

SYMBOLS

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

WEATHER

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

INJURIES

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

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
004003	3/22/02	16:50					DAY-2	DRY-1	14	
025012	12/13/02	9:30					DAY-2	WET-2	2,19	
006065	2/15/01	11:12				2	DAY-2	DRY-1	2	
00.09680	3/13/00	14:56					DAY-2	DRY-1	2	
00.12953	4/20/00	12:00					DAY-2	DRY-1	2	
00.17749	6/10/00	14:15					DAY-2	DRY-1	20,7	
00.21017	7/10/00	14:13					DAY-2	DRY-1	4,17	0.0.1 *
00.28999	9/18/00	21:08		1			DARK-4	DRY-1	16	

* UNDER INFLUENCE OF PRESCRIPTION DRUGS

S:\73000\73 COLLISION DIAGRAMS

COLLISION DIAGRAM

SHEET 1 OF 2

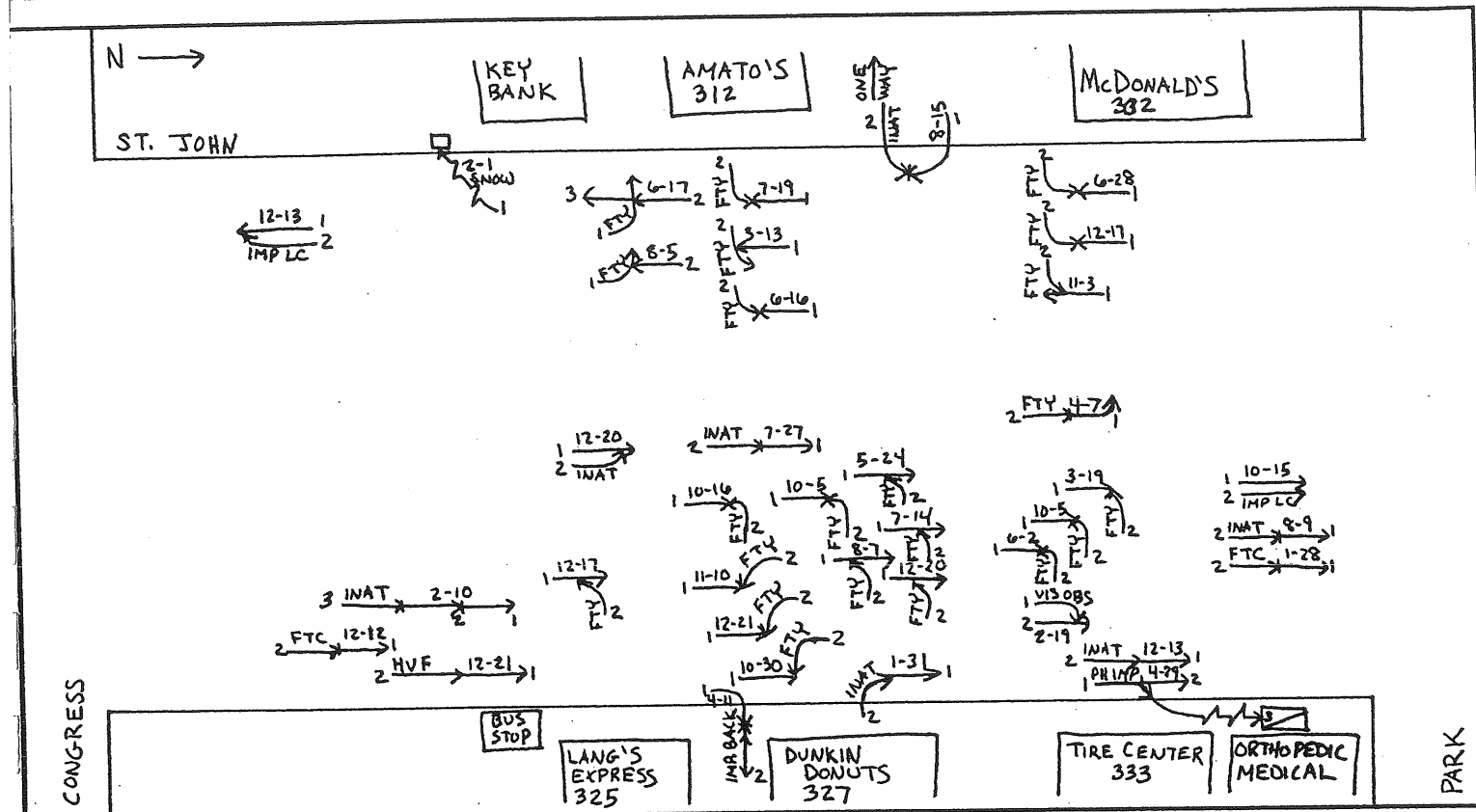
LOCATION ST. JOHN STREET FROM CONGRESS ST. TO PARK AVE

TOWN PORTLAND

NODE NO(S) 07182-07187

YEARS REVIEWED 2000-2002

DATE PREPARED 8/14/03



CRITICAL RATE FACTOR 3.03 EQUIV. PROP. DAMAGE ACC/YEAR 38 ACCIDENTS ACC/MEV _____

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

SYMBOLS

ANGLE		PEDESTRIAN		FATAL ACCIDENT	
BACKING		REAR END		VEHICLE (MOVING)	
FIXED OBJECT		SIDE SWIPE		BICYCLE	
HEAD ON		TURNING		ANIMAL	
OVERTURN		CHANGE LANE		SLED	
PARKED VEHICLE		OUT OF CONTROL			

WEATHER

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

INJURIES

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

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
014772	6-17-02	10:43					DAY-2	DRY-1	2	
018533	8-5-02	20:05				1	DARK-4	DRY-1	10	
025021	12-13-02	13:00					DAY-2	DRY-1	14	
015376	6-28-02	12:07				2	DAY-2	DRY-1	14, 2	
002886	3-19-02	8:06					DAY-2	WET-2	2	
011073	4-29-02	14:42				1	DAY-2	WET-2	17	(SEIZURE)
006056	1-31-02	8:30				1	DAY-2	DRY-1	14	
032146	10-15-01	8:27					DAY-2	WET-2	8	

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COLLISION DIAGRAM

SHEET 1 OF 2

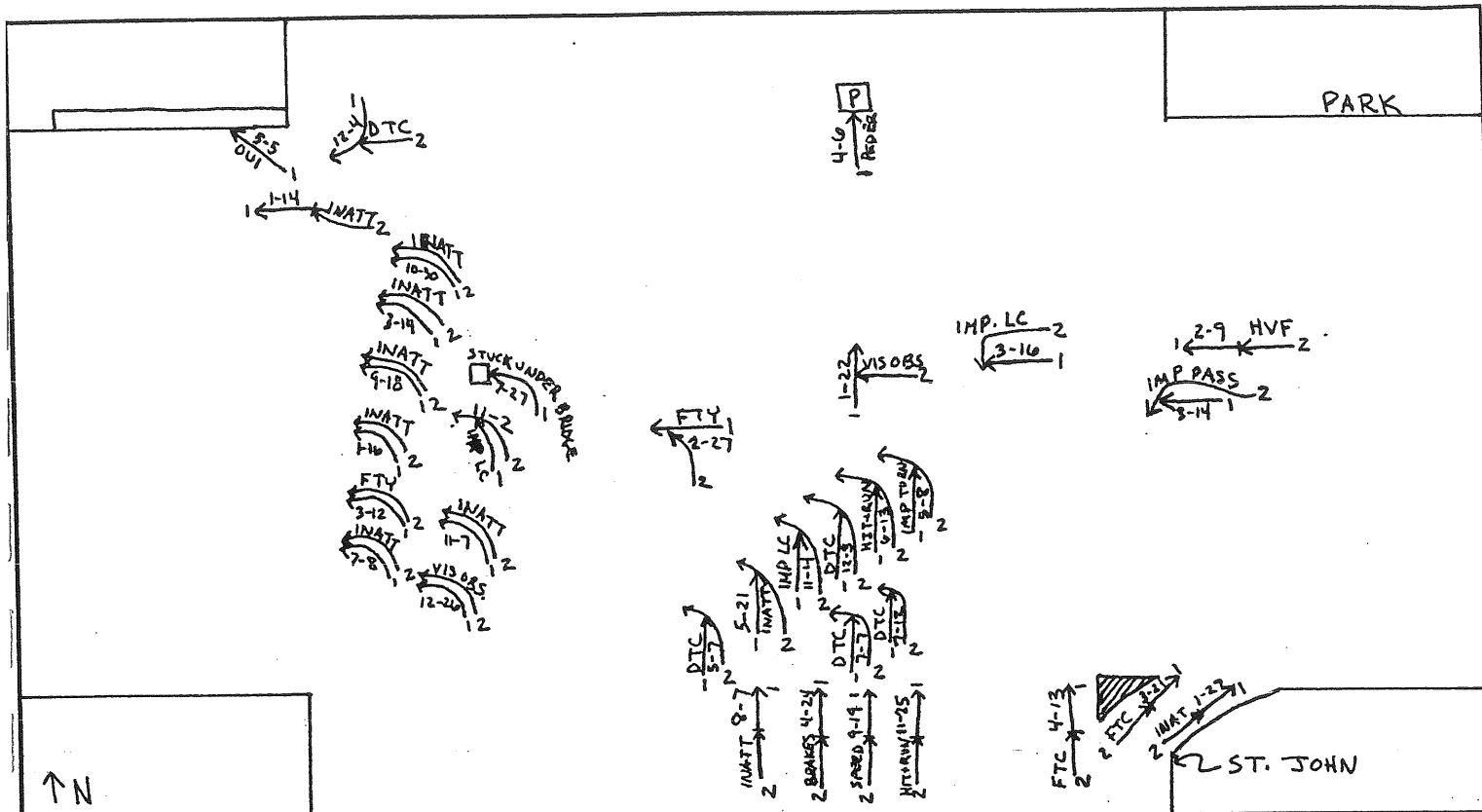
LOCATION ST. JOHN STREET AT PARK AVENUE

TOWN PORTLAND

NODE NO(S) 07187

YEARS REVIEWED 2000-2002

DATE PREPARED 8/4/03



CRITICAL RATE FACTOR 1.01 EQUIV. PROP. DAMAGE ACC/YEAR 34 ACCIDENTS ACC/MEV

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

SYMBOLS

ANGLE →
 BACKING ←→
 FIXED OBJECT →
 HEAD ON →
 OVERTURN →
 PARKED VEHICLE □

PEDESTRIAN → [P]
 REAR END →
 SIDE SWIPE →
 TURNING MOVE →
 CHANGE LANE →
 DUT OF CONTROL →

FATAL ACCIDENT ●
 VEHICLE (MOVING) →
 BICYCLE --- [B]
 ANIMAL --- [A]
 SLED --- [S]

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

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

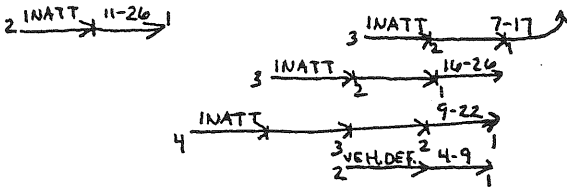
REPORT NO.	DATE	TIME	INJURIES					LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C					
020871	9-18-02	15:00						DAY-2	DRY-1	14	
013971	5-21-02	22:00						DARK-4	DRY-1	14	
009381	2-27-02	22:21						DARK-4	WET-2	2,5	
011415	5-5-02	00:58			1			DARK-4	DRY-1	17	O.U.I.
001809	1-14-02	12:28						DAY-2	WET-2	14	
002797	3-16-02	12:36						DAY-2	WET-2	8	
003115	1-16-02	19:35						DARK-4	DRY-1	14	
002444	3-14-02	16:40						DAY-2	DRY-1	14	

S:\SHEETS\COLLISION DIAGRAM.DWG

COLLISION DIAGRAM

SHEET 1 OF 1

LOCATION CONGRESS STREET AT WEYMOUTH STREET
 TOWN PORTLAND NODE NO(S) 07245
 YEARS REVIEWED 2000-2002 DATE PREPARED 8/4/03



CONGRESS



CRITICAL RATE FACTOR 1.00 EQUIV. PROP. DAMAGE ACC/YEAR 8 ACCIDENTS ACC/MEV _____

- LIGHT**
 1. DAWN (MORNING) 2. DAYLIGHT 3. DUSK (EVENING) 4. DARK (ST. LIGHTS ON) 5. DARK (NO ST. LIGHTS) 6. DARK (ST. LIGHTS OFF) 7. OTHER
- ROAD SURFACE**
 1. DRY 2. WET 3. SNOW/SLUSH-SANDED 4. ICE/PACKED SNOW-SANDED 5. MUDDY 6. DEBRIS 7. ORLY 8. SNOW/SLUSH-NOT SANDED 9. ICE/PYD. SNOW-NOT SANDED 10. OTHER
- APPARENT CONTRIBUTING FACTORS - HUMAN**
 1. NO IMPROPER ACTION 2. FAIL TO YLD. RIGHT OF WAY 3. ILLEGAL UNSAFE SPEED 4. FOLLOW TOO CLOSE 5. DISREGARD TRAFFIC CONTROL DEVICE 6. DRIVING LEFT OF CENTER - NO PASSING 7. IMPROPER PASS-OVERTAKING 8. IMP. UNSAFE LANE CHANGE 9. IMP. PARKING START/STOP 10. IMPROPER TURN 11. UNSAFE BACKING 12. NO SIGNAL OR IMP. SIGNAL 13. IMPEDING TRAFFIC 14. DRIVER INATTENTION - DISTRACTION 15. DRIVER INEXPERIENCE 16. PEDEST. VIOLATION ERROR 17. PHYSICAL IMPAIRMENT 18. VISION OBSCURED - WINDSHIELD GLASS 19. VISION OBSCURED - SUN/HEADLIGHTS 20. OTHER VISION OBSCUREMENT 30. OTHER HUMAN VIOLATION FACTOR 31. HIT AND RUN 51. UNKNOWN
- VEHICULAR**
 41. DEFECTIVE BRAKES 42. DEFECTIVE TIRE/FAILURE 43. DEFECTIVE LIGHTS 44. DEFECTIVE SUSPENSION OR FACTOR 45. DEFECTIVE STEERING 50. OTHER VEHICLE DEFECT 51. UNKNOWN

SYMBOLS

ANGLE		PEDESTRIAN		FATAL ACCIDENT	
BACKING		REAR END		VEHICLE (MOVING)	
FIXED OBJECT		SIDE SWIPE		BICYCLE	
HEAD ON		TURNING MOVE		ANIMAL	
OVERTURN		CHANGE LANE		SLED	
PARKED VEHICLE		OUT OF CONTROL			

WEATHER

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

INJURIES

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

S.S. COLLISION R.A.M.D.

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
017205	7-17-02	14:35				1	DAY-2	DRY-1	14	
016142	6-25-02	15:50					DAY-2	DRY-1	10	
037065	11-26-01	16:15				1	DUSK-3	DRY-1	14	
021029	7-4-01	18:43					DAY-2	DRY-1	31	
020215	16-26-01	16:49				1	DAY-2	DRY-1	14	
06.29319	9-22-00	15:30				3	DAY-2	DRY-1	14	
00.12087	4-9-00	16:32					DAY-2	DRY-1	50	
00.30839	10-7-00	9:35					DAY-2	DRY-1	10	

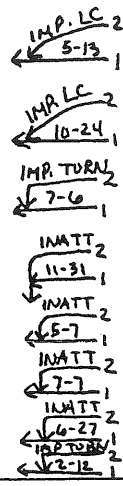
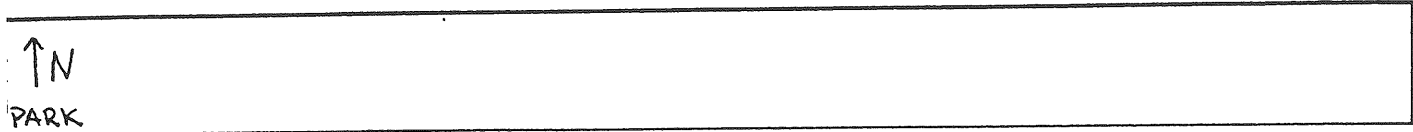
COLLISION DIAGRAM

SHEET 1 OF 1

LOCATION PARK AVENUE FROM ST. JOHN TO MARSTON STREET

TOWN PORTLAND NODE NO(S) 07187-07188

YEARS REVIEWED 2000-2002 DATE PREPARED 8/4/03



MARSTON

FAIRFIELD
INW

ST. JOHN

CRITICAL RATE FACTOR 1.13 EQUIV. PROP. DAMAGE ACC/YEAR 9 ACCIDENTS ACC/MEV _____

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

SYMBOLS

ANGLE → **PEDESTRIAN** → [P] **FATAL ACCIDENT** ●

BACKING ⇐⇐⇐ **REAR END** →→→

FIXED OBJECT → [] **SIDE SWIPE** →→→

HEAD ON →→→ [] ←←← **TURNING MOVE** →→→

OVERTURN → [] **CHANGE LANE** →→→

PARKED VEHICLE [] **OUT OF CONTROL** →→→

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

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

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
022493	10-24-02	17:28			1		DUSK-3	DRY-1	8	
016235	7-6-02	18:38			1		DUSK-3	DRY-1	10	
006066	11-31-02	15:40				1	DAY-2	ICE-9	14	
015693	5-13-01	11:20					DAY-2	DRY-1	8	
015162	5-7-01	13:17					DAY-2	DRY-1	14	
022139	7-7-01	20:54					DARK-4	DRY-1	14	
00.19309	6-27-00	14:19					DAY-2	DRY-1	14	
00.06303	2-12-00	22:30					DARK-4	WET-2	10,8	

S/SHAW COLLISION

COLLISION DIAGRAM

SHEET 1 OF 2

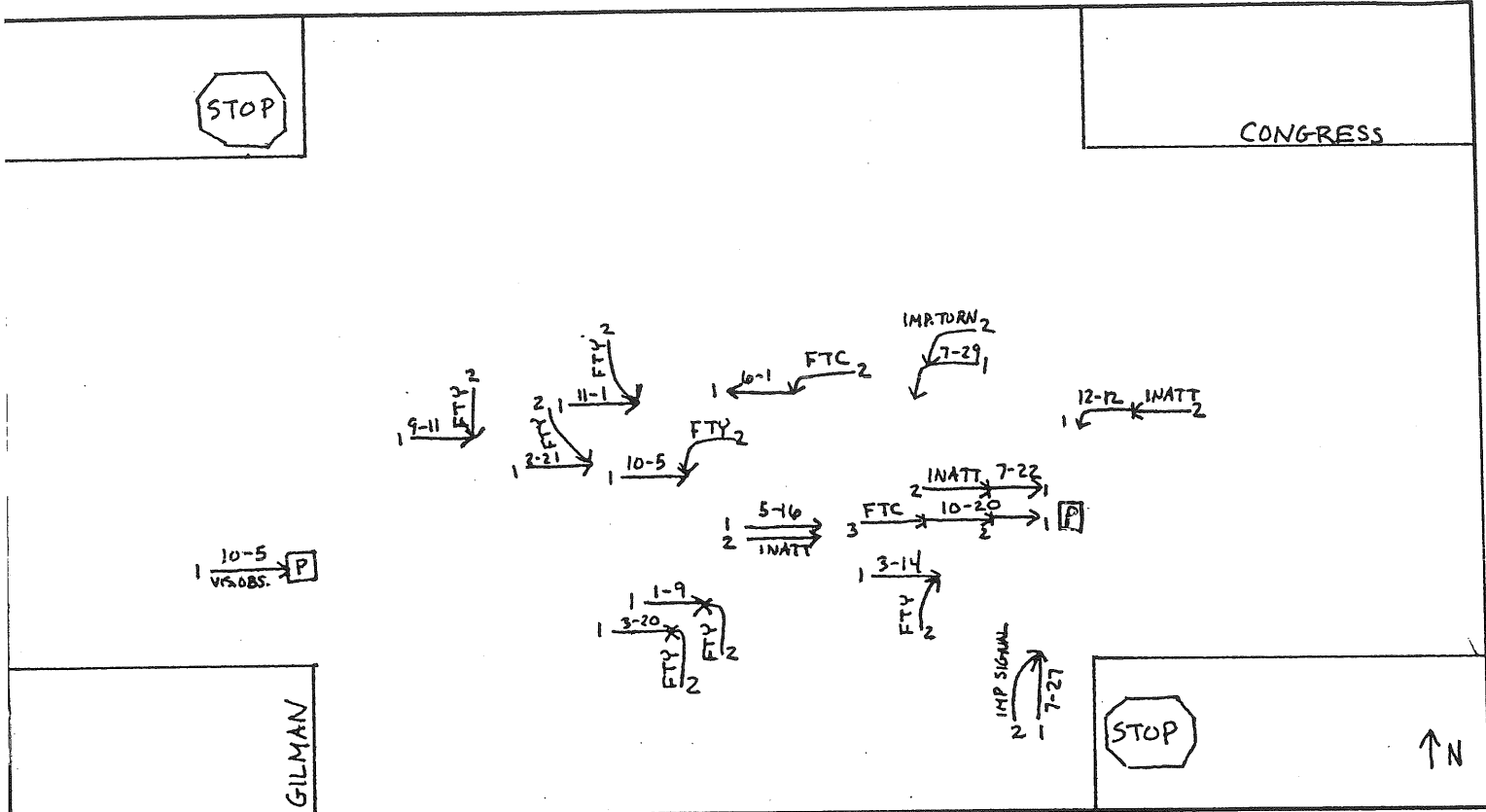
LOCATION CONGRESS STREET AT GILMAN STREET

TOWN PORTLAND

NODE NO(S) 08991

YEARS REVIEWED 2000-2008

DATE PREPARED 8/4/03



CRITICAL RATE FACTOR 1.49 EQUIV. PROP. DAMAGE ACC/YEAR 15 ACC ACC/MEV _____

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

SYMBOLS

ANGLE →

BACKING ←←←

FIXED OBJECT □

HEAD ON →←

OVERTURN ○

PARKED VEHICLE □

PEDESTRIAN → [P]

REAR END →←

SIDE SWIPE →→→

TURNING MOVE →↔

CHANGE LANE →↔↔

OUT OF CONTROL →↔↔

FATAL ACCIDENT ●

VEHICLE (MOVING) →

BICYCLE --- [B]

ANIMAL --- [A]

SLED --- [S]

WEATHER

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

INJURIES

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

REPORT NO.	DATE	TIME	INJURIES				LIGHT	ROAD SURFACE	ACF	OTHER
			K	A	B	C				
024667	12-12-02	7:38					DAY-2	SNOW-8	14	
017429	7-22-02	10:36					DAY-2	DRY-1	14	
022545	9-11-01	15:45					DAY-2	DRY-1	2	
015956	5-16-01	8:17					DAY-2	WET-2	14	
017468	6-1-01	17:30				1	DAY-2	DRY-1	4	
001104	1-9-01	17:35					DARK-4	WET-2	2,14	
030990	10-5-01	9:00		1			DAY-2	DRY-1	2	
034008	11-1-01	13:40				1	DAY-2	DRY-1	2	

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MAINE DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

TINACC30

ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
 STUDY PERIOD: FROM MONTH 01 YEAR 2000 TO MONTH 12 YEAR 2002

INPUT COMMENTS

RTE 1 / RTE 25 AREA
 TOWN: PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
60160	05	07184	0	0.00	03168	07241	0	0.00
0022X		07189	0	0.00	07188	07187	0	0.00
B001X		07187	1	0.00	07170	07170	0	0.00
0001X		07170	1	0.00	09499	07251	0	0.00
0025X		03065	0	0.00	03161	03043	1	0.00
61239		03043	1	0.00	09491	07243	1	0.00
60077		07243	1	0.00	08771	03037	0	0.00
60785		03037	1	0.00	03164	03164	0	0.00
60128		03036	0	0.00	03029	09532	0	0.00
60071		09532	1	0.00	09531	09531	1	0.00
		09531	1	0.00	09530	09530	0	0.00
B001X		07180	0	0.00	07181	07182	1	0.00
		07182	1	0.00	07187	07187	1	0.00
60637		07187	1	0.00	03040	03041	0	0.00

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

TINACC30

ACCIDENT SUMMARY I

COUNTY TOWN#	LOW NODE	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITI RATE	CRF
05	07184	POR, CONGRESS, WESTFIELD	2	2	1		0	0	0	0	1	0.0	6,670	0.05	0.00	0.42	0.00
05	03168	POR, HEMLOCK, CONGRESS ST	2	2	0		0	0	0	0	0	0.0	7,444	0.00	0.41	0.41	0.00
05	02726	POR, CONGRESS ST, COUNTY	2	2	3		0	0	1	2	2	33.3	7,403	0.14	0.41	0.41	0.00
05	07183	POR, CONGRESS ST, REING	8	2	0		0	0	0	0	0	0.0	6,970	0.00	0.41	0.00	0.00
05	07182	POR, CONGRESS, ST JOHN ST	9	9	26		0	1	5	15	15	42.3	13,509	0.64	1.00	0.00	0.00
05	07169	POR, VALLEY, CONGRESS ST.	9	24	24		0	0	6	18	18	25.0	7,850	1.02	1.10	0.00	0.00
05	08991	POR, GILMAN, CONGRESS ST.	2	2	15		0	1	2	10	10	33.3	8,681	0.58	0.39	1.49	0.00
05	07246	POR, CONGRESS, FOREST ST.	2	2	4		0	0	1	2	1	75.0	8,604	0.15	0.39	0.00	0.00
05	07245	POR, CONGRESS, WEYMOUTH S	2	2	8		0	0	0	4	4	50.0	6,305	0.42	0.42	1.00	0.00
05	07244	POR, CONGRESS, ELLSWORTH	2	2	1		0	0	0	1	1	0.0	7,476	0.04	0.40	0.00	0.00
05	07243	POR, CONGRESS, DEERING, BR	9	9	21		0	1	1	7	12	42.9	13,017	0.54	1.01	0.00	0.00
05	07242	POR, CONGRESS ST, MACMILL	2	2	2		0	0	0	0	0	0.0	8,839	0.04	0.39	0.00	0.00
05	07241	POR, CONGRESS, NEAL ST.	2	2	2		0	0	0	0	2	0.0	9,064	0.07	0.39	0.00	0.00
05	07189	POR, PARK AVE, ST. JAMES S	2	2	0		0	0	0	0	0	0.0	6,854	0.00	0.41	0.00	0.00
05	07188	POR, PARK AVE, MARSTON ST	2	2	10		0	0	2	2	6	40.0	6,586	0.51	0.42	1.21	0.00
05	07187	POR, RTE 22, PARK, ST JOHN	9	9	34		0	0	3	5	26	23.5	10,813	1.05	0.49	1.01	0.00
05	07170	POR, PARK AVE, VALLEY S	2	2	5		0	0	0	1	4	20.0	5,196	0.32	0.28	0.00	0.00
05	09499	POR, PARK AVE, GILMAN ST.	2	2	3		0	0	0	1	3	25.0	4,722	0.18	0.49	0.00	0.00
05	09498	POR, PARK AVE, FOREST ST.	2	2	3		0	0	0	1	2	33.3	5,576	0.13	0.50	0.00	0.00
05	09495	POR, PARK AVE, WEYMOUTH S	2	2	2		0	0	0	1	1	50.0	5,128	0.62	1.08	0.00	0.00
05	03043	POR, DEERING, PARK AVE.	9	9	16		0	0	0	2	14	12.5	8,635	0.37	1.14	0.00	0.00
05	09487	POR, PARK AVE, MELLEN ST.	9	9	7		0	0	0	1	6	14.3	6,350	0.77	1.04	0.00	0.00
05	07251	POR, STATE ST, PARK AVE.	9	9	24		0	1	5	7	11	54.2	10,428	0.54	0.48	1.13	0.00
05	03065	POR, DEERING, WASHBURN AV	2	2	6		0	0	2	1	3	50.0	3,707	0.00	0.48	0.00	0.00
05	03161	POR, DEERING AVE, D.O UNN	2	2	0		0	0	0	0	0	0.0	3,506	0.00	0.49	0.00	0.00
05	03045	POR, DEERING AVE, OAKES, U	2	2	0		0	0	0	0	0	0.0	4,660	0.29	0.42	0.00	0.00
05	09491	POR, GRANT ST, DEERING AV	2	2	4		1	0	1	0	2	50.0	5,251	0.06	0.41	0.00	0.00
05	09493	POR, DEERING AVE, SHERMAN	2	2	1		0	0	0	0	1	0.0	5,890	0.40	0.39	1.03	0.00
05	09446	POR, DEERING, CUMBERLAND	2	2	7		0	0	0	0	7	0.0	3,413	0.10	0.45	0.00	0.00
05	08771	POR, BRAMHALL, RD, BRAMHAL	2	2	1		0	0	0	1	0	100.0	4,444	0.08	0.42	0.00	0.00
05	03016	POR, BRAMHALL, VAUGHN ST.	2	2	1		0	0	0	1	0	100.0	3,111	0.00	0.46	0.00	0.00
05	03033	POR, BRAMHALL, HILL ST.	2	2	0		0	0	0	0	0	0.0	4,167	0.08	0.43	0.00	0.00
05	09531	POR, BRACKETT, BRAMHALL S	2	2	1		0	0	0	1	1	0.0	4,639	0.00	0.46	0.00	0.00
05	03015	POR, BRAMHALL, BRACKETT, C	2	2	0		0	0	0	0	0	0.0	2,639	0.00	0.52	0.00	0.00
05	03037	POR, WESTERN PROM, BRAMHA	2	2	0		0	0	0	0	0	0.0	1,667	0.37	0.51	0.00	0.00
05	03164	POR, WEST ST, WESTERN PRO	2	2	0		0	0	0	0	2	0.0	1,820	0.00	0.67	0.00	0.00
05	03036	POR, CHARLES, CRESCENT ST	2	2	1		0	0	0	0	0	0.0	0,473	0.46	0.63	0.00	0.00
05	03029	POR, ELLSWORTH, CHARLES S	2	2	1		0	0	0	0	1	0.0	0,723	0.54	0.65	0.00	0.00
05	09532	POR, CHARLES, BRACKETT ST	2	2	1		0	0	0	0	1	0.0	5,478	0.30	0.40	0.00	0.00
05	09530	POR, BRACKETT, VAUGHN ST.	2	2	5		0	0	0	2	3	40.0	5,255	0.19	0.44	0.00	0.00
05	07180	POR, ST JOHN ST, C ST	2	2	3		0	0	1	1	1	66.7	6,046	0.55	0.43	1.28	0.00
05	07181	POR, ST JOHN ST, A ST	2	2	10		0	0	2	1	7	30.0	4,107	0.24	0.43	0.00	0.00
05	03040	POR, ST JOHN ST, WASHBURN	2	2	3		0	0	0	2	1	66.7	4,598	0.00	0.42	0.00	0.00
05	03041	POR, ST JOHN, GRANITE ST	2	2	0		0	0	0	0	0	0.0	257,364	0.33	0.37	0.00	0.00

NODE SUBTOTALS-

257

34.2

257.364

0.37

0.00

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY I

COUNTY LOW TOWN#	HIGH NODE	STREET NAME OR ROUTE #	U/R	TOTAL ACCTS	LINK LENGTH	K	A	B	C	PD	PERCENT INJURY	ANNUAL HM VEH-MILES	ANNUAL M ENT-VEHS	ACCIDENT-RATES LINK	CRITI RATE	CRF
05170	03168	CONGRESS ST	2	0	0.01	0	0	0	0	0	0.0	0.00074	0.00	0.00	701.60	0.00
	02726		2	1	0.04	0	0	0	0	0	0.0	0.00296	112.61	499.30	0.00	0.00
	02726		2	1	0.01	0	0	0	0	1	0.0	0.00074	450.45	701.60	0.00	0.00
	07182		2	4	0.07	0	0	0	0	4	0.0	0.00459	290.49	446.19	0.00	0.00
	07169		2	5	0.06	0	0	1	0	4	20.0	0.00412	404.53	458.59	0.00	0.00
	07169		2	2	0.02	0	0	0	0	2	0.0	0.00138	483.09	607.29	0.00	0.00
	07246		2	3	0.06	0	0	2	0	1	66.7	0.00540	185.19	428.37	0.00	0.00
	07245		2	3	0.10	0	0	1	2	33.3	33.3	0.00654	152.91	408.65	0.00	0.00
	07244		2	5	0.09	0	0	1	3	40.0	40.0	0.00516	323.00	433.25	0.00	0.00
	07243		2	6	0.04	0	0	1	5	16.7	16.7	0.00354	312.70	429.76	0.00	0.00
	07242		2	3	0.05	0	0	0	2	60.0	60.0	0.00440	564.97	476.76	1.19	1.19
	07241		2	3	0.02	0	0	0	2	0	0.0	0.00440	151.52	450.99	0.00	0.00
	07188	PARK AVE	2	9	0.11	0	0	2	1	66.7	66.7	0.00140	714.29	605.11	1.18	1.18
	07187		2	1	0.04	0	0	0	1	33.3	33.3	0.00208	462.25	409.41	1.13	1.13
	07170		2	5	0.04	0	0	0	0	0	0.0	0.00090	160.26	547.10	0.00	0.00
	09498		2	4	0.09	0	0	0	0	0	0.0	0.00184	905.80	883.05	0.00	0.00
	09495		2	8	0.15	0	0	1	2	75.0	75.0	0.00415	321.29	735.74	1.23	1.23
	03043		2	6	0.14	0	0	1	5	37.5	37.5	0.00702	379.87	598.10	0.00	0.00
	03043		2	5	0.12	0	0	0	1	20.0	20.0	0.00673	269.91	396.52	0.00	0.00
	07251	DEERING AVE	2	2	0.12	0	0	0	0	2	0.0	0.00449	247.65	405.82	0.00	0.00
	03045		2	3	0.04	0	0	1	0	2	33.3	0.00136	148.48	442.35	0.00	0.00
	03043		2	2	0.06	0	0	0	1	50.0	50.0	0.00234	284.90	609.49	1.21	1.21
	09491		2	3	0.04	0	0	0	1	2	33.3	0.00199	502.51	554.16	0.00	0.00
	09446		2	1	0.05	0	0	0	0	0	0.0	0.00249	0.00	545.30	0.00	0.00
	07243	BRAMHALL ST	2	0	0.01	0	0	0	0	0	0.0	0.00149	223.71	622.37	0.00	0.00
	03016		2	0	0.02	0	0	0	0	0	0.0	0.00033	0.00	780.64	0.00	0.00
	03033		2	0	0.03	0	0	0	0	0	0.0	0.00067	0.00	707.76	0.00	0.00
	03015		2	2	0.05	0	0	0	0	0	0.0	0.00092	0.00	661.77	0.00	0.00
	03037	BRACKETT ST	2	2	0.02	0	0	0	0	0	0.0	0.00139	0.00	599.76	0.00	0.00
	03029	BRAMHALL ST	2	3	0.11	0	0	0	1	50.0	50.0	0.00039	1709.40	1410.73	1.21	1.21
	03029	WESTERN PROM	2	0	0.05	0	0	0	0	0	0.0	0.00183	546.45	960.21	0.00	0.00
	09531	CHARLES ST	2	1	0.06	0	0	0	0	0	0.0	0.00083	0.00	1177.61	0.00	0.00
	09531		2	0	0.03	0	0	0	0	0	100.0	0.00033	1010.10	1460.35	0.00	0.00
	09531	BRACKETT ST	2	0	0.04	0	0	0	0	0	0.0	0.00017	0.00	1564.90	0.00	0.00
	09530		2	6	0.10	0	0	0	0	0	0.0	0.00022	0.00	559.49	0.00	0.00
	07180	ST JOHN ST	2	16	0.07	0	0	1	14	12.5	12.5	0.00519	385.36	432.62	0.00	0.00
	07182		2	38	0.17	0	0	2	8	26.3	26.3	0.00468	1139.60	444.01	2.57	2.57
	03040		2	2	0.04	0	0	0	0	2	0.0	0.00144	1078.93	356.60	3.03	3.03
	03040		2	3	0.11	0	0	0	3	0.0	0.0	0.00504	198.41	455.35	0.00	0.00
		LINK SUBTOTALS-		161	2.79	0	3	15	23	120	25.5	0.13883	386.56	253.66	1.52	1.52

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

TINACC30

ACCIDENT SUMMARY I

GRAND TOTALS-	418	2.79	1	8	40	80	289	30.9	0.13883	257.364	1003.62	431.49	2.33
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MAINE DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION
 ACCIDENT SUMMARY II - CHARACTERISTICS

TINACC30

DAY OF WEEK	---A M---							---P M---							TOTAL											
	12	1	2	3	4	5	6	7	8	9	10	11	12	1		2	3	4	5	6	7	8	9	10	11	UNKNOWN
SUNDAY	4	1	0	1	0	0	0	3	1	1	2	4	4	5	2	2	3	2	1	3	1	0	0	1	0	41
MONDAY	0	0	0	0	0	0	2	4	1	3	3	1	5	5	8	10	9	6	0	2	0	3	1	1	0	66
TUESDAY	1	0	0	0	0	1	0	3	2	4	3	3	5	8	9	5	7	7	1	3	0	0	3	0	0	66
WEDNESDAY	1	0	1	0	0	0	0	2	4	1	5	3	5	2	9	6	9	8	2	3	1	1	1	0	0	64
THURSDAY	0	0	0	1	0	0	0	2	4	0	3	5	7	4	6	6	6	4	4	4	2	1	2	0	0	72
FRIDAY	1	1	0	0	0	0	0	2	3	5	2	5	7	7	1	12	5	8	5	3	2	1	2	0	0	45
SATURDAY	0	1	0	0	0	0	0	3	1	2	3	5	3	2	7	4	1	0	2	1	6	1	2	1	0	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	7	3	1	2	0	1	2	19	16	16	21	26	34	36	39	49	38	37	15	19	16	6	10	5	0	418

YEAR	TYPE OF UNIT												TOTAL												
	2000	2001	2002	01-2 DOOR	02-4 DOOR	03-CONVERTIBLE	04-STAT WGN	05-VAN/CAMPER	06-PICKUP TRK	12-SCHOOL BUS	13-MOTOR HOME	14-MOTORCYCLE		15-MOPED	16-MOTOR BIKE	17-BICYCLE	18-SNOWMOBILE	19-PEDESTRIAN	23-ATV	07-SUV	99-UNK/OTH				
JANUARY	17	15	16	134	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
FEBRUARY	12	14	9	389	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
MARCH	24	6	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
APRIL	11	8	8	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MAY	25	13	6	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JUNE	13	12	11	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JULY	15	12	12	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUGUST	7	9	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEPTEMBER	9	8	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCTOBER	18	16	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOVEMBER	15	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DECEMBER	13	12	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNKNOWN	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	160	138	120	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL 838

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

ACCIDENT SUMMARY II - CHARACTERISTICS

ACCIDENT TYPE	* ST ROAD	CURV ROAD	TYPE OF LOCATION					UN KNOWN	TOTAL	SEV CODE	INJURY DATA	
			**AT 3-LEG	4-LEG	DRIVE 5-LEG	BRIDGE	INTER WAYS				CHANGE	ACCIDENTS
OBJECT IN ROAD	0	0	0	0	0	0	0	0	1	K	1	1
REAR END/SIDESWIPE	84	2	38	83	0	18	0	1	226	A	8	10
HEAD-ON/SIDESWIPE	4	2	4	2	0	0	0	0	12	B	40	46
INTERSECTION MOVEMENT	0	0	21	77	0	46	0	0	144	C	80	112
PEDESTRIANS	4	0	5	8	0	1	0	0	18	PD	289	
TRAIN	0	0	0	0	0	0	0	0	0			
RAN OFF ROAD	4	0	3	2	0	0	0	1	10	TOTAL	418	169
ANIMAL	0	0	0	0	0	0	0	0	0			
DEER	0	0	0	0	0	0	0	0	0			
MOOSE	0	0	0	0	0	0	0	0	0			
BEAR	0	0	0	0	0	0	0	0	0			
SLED/BIKE	0	0	1	0	0	1	0	0	2			
OTHER	2	0	2	1	0	0	0	0	5			
NON COLLISION	0	0	0	0	0	0	0	0	0			
UNKNOWN	0	0	0	0	0	0	0	0	0			
TOTAL	98	4	74	173	0	66	1	0	2			

FIXED OBJECT STRUCK

CONSTRUCTION BARRICADES	TRAFFIC CONTROL DEVICES	ROAD CHARACTER
2	TRAFFIC SIG STOP/GO	LEVEL STRAIGHT
0	TRAFFIC SIG FLASHING	LEVEL CURVED
0	OVERHEAD FLASHERS	ON GRADE STRAIGHT
0	ALL WAY STOP	ON GRADE CURVED
2	STOP SIGN/OTHER	TOP OF HILL STRAIGHT
0	YIELD SIGN	TOP OF HILL CURVED
0	CURVE SIGN	BOTTOM OF HILL STRAIGHT
1	OFFICER /SCHOOL PAT	BOTTOM OF HILL CURVED
0	SCHOOL BUS STOP ARM	UNKNOWN
0	SCHOOL ZONE SIGN	TOTAL
2	R/R CROSSING DEVICE	418
0	NO PASSING ZONE	
0	NONE	
0	OTHER	
1	UNKNOWN	
0	TOTAL	
0		
0		
1		
0		
0		
0		
5		
0		
13		

MAINE DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION
 ACCIDENT SUMMARY II - CHARACTERISTICS

TINACC30

WEATHER	LIGHT CONDITION * *	DRY	WET	ROAD SURFACE										TOTAL	LIGHT			
				SNOW SAND	ICE SAND	MUD	DEBRIS	OIL	SNOW	ICE	OTHER	ICE	OTHER					
CLEAR (267)	DAWN	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAWN	6
	DAYLIGHT	183	13	0	0	0	0	0	0	0	0	0	0	0	0	0	DAYLIGHT	297
	DUSK	16	2	1	2	0	0	0	0	0	0	0	0	0	0	0	DUSK	28
	DARK-LIGHTS	35	4	1	1	0	0	0	0	0	0	0	0	0	0	0	DARK-LIGHTS	81
	DARK NO LIGHTS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK NO LIGHTS	3
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK LIGHTS OFF	1
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	2
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	0	
TOTAL																	TOTAL	418
RAIN (45)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAWN	0
	DAYLIGHT	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	DAYLIGHT	26
	DUSK	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DUSK	1
	DARK-LIGHTS	1	15	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK-LIGHTS	16
	DARK NO LIGHTS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK NO LIGHTS	1
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK LIGHTS OFF	0
	OTHER	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	1
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	0	
TOTAL																	TOTAL	41
SNOW (30)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAWN	0
	DAYLIGHT	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	DAYLIGHT	4
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DUSK	0
	DARK-LIGHTS	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	DARK-LIGHTS	1
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK NO LIGHTS	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK LIGHTS OFF	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	0	
TOTAL																	TOTAL	5
SLEET/HAIL (4)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAWN	0
	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAYLIGHT	0
	DUSK	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DUSK	1
	DARK-LIGHTS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK-LIGHTS	1
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK NO LIGHTS	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK LIGHTS OFF	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	0	
TOTAL																	TOTAL	2
FOG/SMOG (2)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DAWN	0
	DAYLIGHT	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DAYLIGHT	1
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DUSK	0
	DARK-LIGHTS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK-LIGHTS	1
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK NO LIGHTS	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	DARK LIGHTS OFF	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	0
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	0	
TOTAL																	TOTAL	2

TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION
 ACCIDENT SUMMARY II - CHARACTERISTICS

WEATHER	LIGHT * CONDITION * * *	R O A D S U R F A C E										TOTAL				
		DRY	WET	SNOW SAND	ICE SAND	ICE	MUD	DEBRIS	OIL	SNOW	ICE		OTHER			
CROSS WINDS (0)	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SAND/DUST (0)	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLOUDY (68)	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER (2)	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAWN	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
	DAYLIGHT	40	10	0	0	0	0	0	0	0	0	0	0	0	0	50
	DUSK	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	DARK-LIGHTS	6	5	0	0	0	0	0	0	0	0	0	0	0	0	11
ROAD SURFACE TOTALS	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROAD SURFACE TOTALS	DAYLIGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUSK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK-LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK NO LIGHTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	DARK LIGHTS OFF	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ROAD SURFACE TOTALS		291	88	13	5	0	0	0	0	14	6	1	1	418		

MAINE DEPARTMENT OF TRANSPORTATION
 TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION
 ACCIDENT SUMMARY INPUT

TYPE OF STUDY: NODES AND LINKS TYPE OF REQUEST: ACCIDENT I & II WITH LINK DETAIL
 STUDY PERIOD: FROM MONTH 01 YEAR 2000 TO MONTH 12 YEAR 2002

INPUT COMMENTS

RTE 1 / RTE 25 AREA
 TOWN: PORTLAND

INPUT DATA

ROUTE	COUNTY	FIRST NODE	EXCLUDE FIRST	DISTANCE	SECOND NODE	LAST NODE	EXCLUDE LAST	DISTANCE
60160	05	07184	0	0.00	03168	07241	0	0.00
0022X		07189	0	0.00	07188	07187	0	0.00
B001X		07187	1	0.00	07170	07170	0	0.00
0001X		07170	1	0.00	09499	07251	0	0.00
0025X		03065	0	0.00	03161	03043	1	0.00
61239		03043	1	0.00	09491	07243	1	0.00
60077		07243	1	0.00	08771	03037	0	0.00
60785		03037	1	0.00	03164	03164	0	0.00
60128		03036	0	0.00	03029	09532	0	0.00
60071		09532	1	0.00	09531	09531	1	0.00
		09531	1	0.00	09530	09530	0	0.00
B001X		07180	0	0.00	07181	07182	1	0.00
		07182	1	0.00	07187	07187	1	0.00
60637		07187	1	0.00	03040	03041	0	0.00

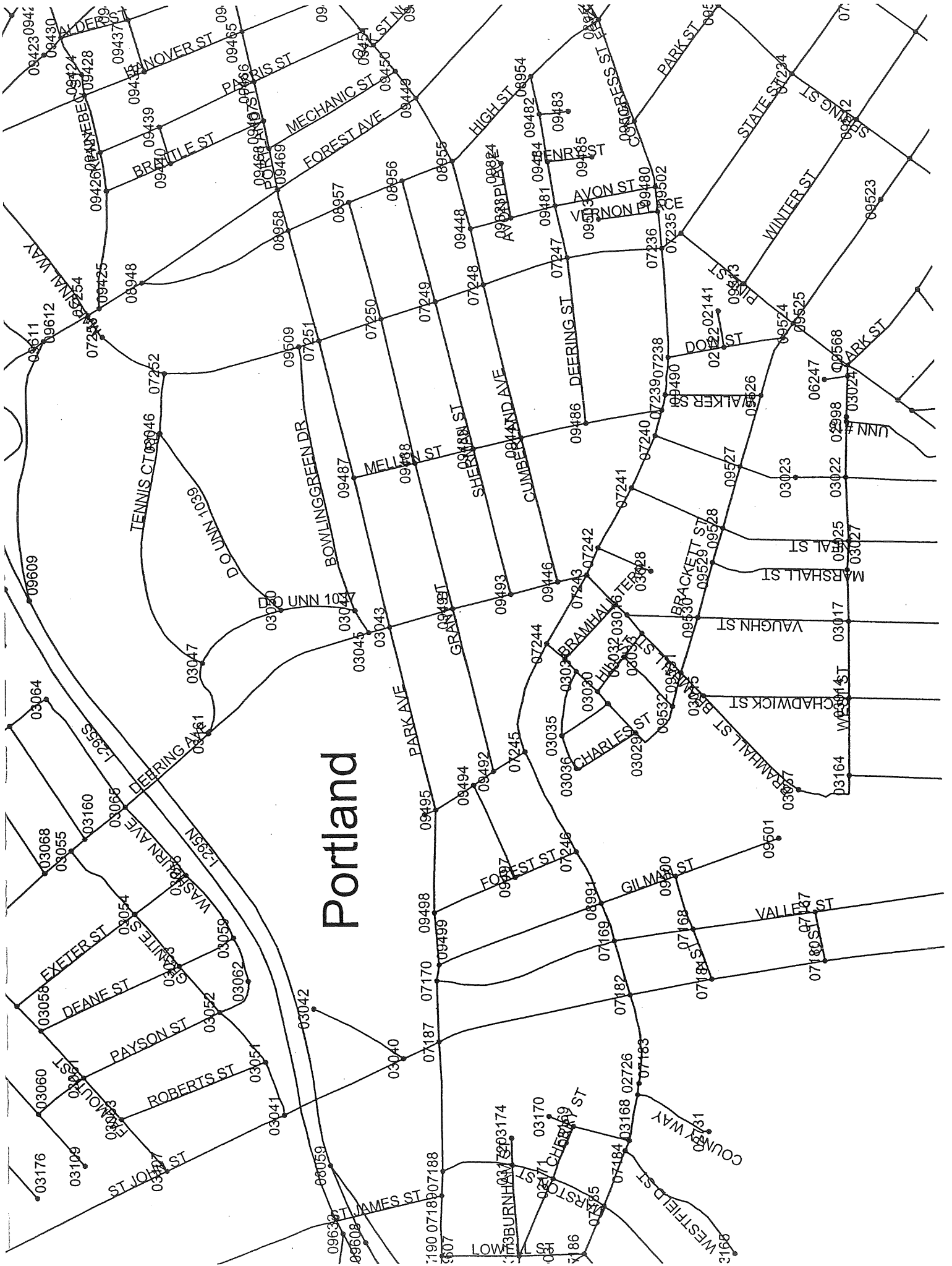
TINACC30

MAINE DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING, ACCIDENT RECORDS SECTION

LINK DETAIL

TOWN#	STREET NAME OR ROUTE #	LOW NODE	HIGH NODE	DISTANCE	TOTAL ACCIDENTS	INJURY ACCIDENTS			A	B	C	PD	A C C I D E N T	R E P O R T	N U M B E R S		
						K	A	B									
05170	CONGRESS ST	03168	07184	0.0	0	0	0	0	0	0	0	0	200139633	200030454	200122888		
		02726	03168	0.1	1	0	0	0	0	0	0	0	0	200130425	200209951	200217888	
		02726	07183	0.1	1	0	0	0	0	0	0	0	0	200012896	200018244	200122888	
		07182	07183	0.1	4	0	0	0	0	0	0	0	0	200013537	200209951	200217888	
		07169	07182	0.1	5	0	0	0	0	0	0	0	0	200006647	200030454	200122888	
		07169	08991	0.1	2	0	0	0	0	0	0	0	0	200006326	200209951	200217888	
		07246	08991	0.1	3	0	0	0	0	0	0	0	0	200121904	200209951	200217888	
		07245	07246	0.1	2	0	0	0	0	0	0	0	0	200022827	200209951	200217888	
		07244	07245	0.1	3	0	0	0	0	0	0	0	0	200004462	200209951	200217888	
		07243	07244	0.1	3	0	0	0	0	0	0	0	0	200001554	200209951	200217888	
		07243	07244	0.1	5	0	0	0	0	0	0	0	0	200040016	200209951	200217888	
		07242	07243	0.1	6	0	0	0	0	0	0	0	0	200033466	200209951	200217888	
														200219704			
							2	0	0	0	0	0	0	0	200218482	200201206	200115768
			PARK AVE	07241	07242	0.1	3	0	0	0	0	0	0	0	200130514	200115162	200115768
				07188	07189	0.1	9	0	0	0	0	0	0	0	200019309	200115162	200115768
		07187	07188	0.1	1	0	0	0	0	0	0	0	200122139	200216235	200222493		
		07170	07187	0.1	1	0	0	0	0	0	0	0	200218309	200105130	200211154		
		09498	09499	0.1	5	0	0	0	0	0	0	0	200030796	200130308	200223350		
		09495	09498	0.1	4	0	0	0	0	0	0	0	200038142	200039998	200211586		
		03043	09495	0.1	8	0	0	0	0	0	0	0	200030556	200039998	200211586		
		03043	09487	0.1	6	0	0	0	0	0	0	0	200214661	200225852	200217494		
		03043	09487	0.1	5	0	0	0	0	0	0	0	200011017	200029304	200217494		
		07251	09487	0.1	5	0	0	0	0	0	0	0	200225512	2000293240	200222631		
	DEBRING AVE	03065	03161	0.1	2	0	0	0	0	0	0	0	200019251	200034842	200217887		
		03045	03161	0.1	1	0	0	0	0	0	0	0	200024016	200137321	200222631		
		03043	03045	0.1	3	0	0	0	0	0	0	0	200009782	200111953	200211586		
		03043	09491	0.1	2	0	0	0	0	0	0	0	200029854	200111953	200211586		
		09491	09493	0.1	3	0	0	0	0	0	0	0	200209377	200225714	200222631		
	BRAMHALL ST	07243	09446	0.1	1	0	0	0	0	0	0	0	200008411	200124502	200222631		
	BRACKETT ST	03015	09531	0.1	2	0	0	0	0	0	0	0	200009013	200222074	200200892		
	WESTERN PROM	03015	03037	0.1	3	0	0	0	0	0	0	0	200129717	200222074	200200892		
	BRACKETT ST	03029	03036	0.1	1	0	0	0	0	0	0	0	200006769	2002221261	200200892		
	ST JOHN ST	07180	07181	0.1	6	0	0	0	0	0	0	0	200116426	200120419	200134556		
		07181	07182	0.1	16	0	0	0	0	0	0	0	200003033	200120419	200134556		
													200225546	200120419	200134556		
		07181	07182	0.1	16	0	0	0	0	0	0	0	200016848	200031179	200038362		
													200117882	200122637	200126210		
													200217788	200221678	200222494		
													200225019	200221678	200222494		
		07182	07187	0.1	38	0	0	0	0	0	0	0	200004561	200120419	200134556		
													200025019	200120419	200134556		
													200021544	200120419	200134556		
													200040021	200120419	200134556		
													200109174	200120419	200134556		
													200127444	200120419	200134556		
													200139534	200120419	200134556		
													200141182	200120419	200134556		

Portland



Gorrill-Palmer Consulting Engineers, Inc

15 Shaker Road

Gray, ME 04039

(207) 657-6910 FAX 657-6912

Location: Portland, Maine

Counted by: E. Bartlett

3-400

ear

File Name : ShuttleLotPM

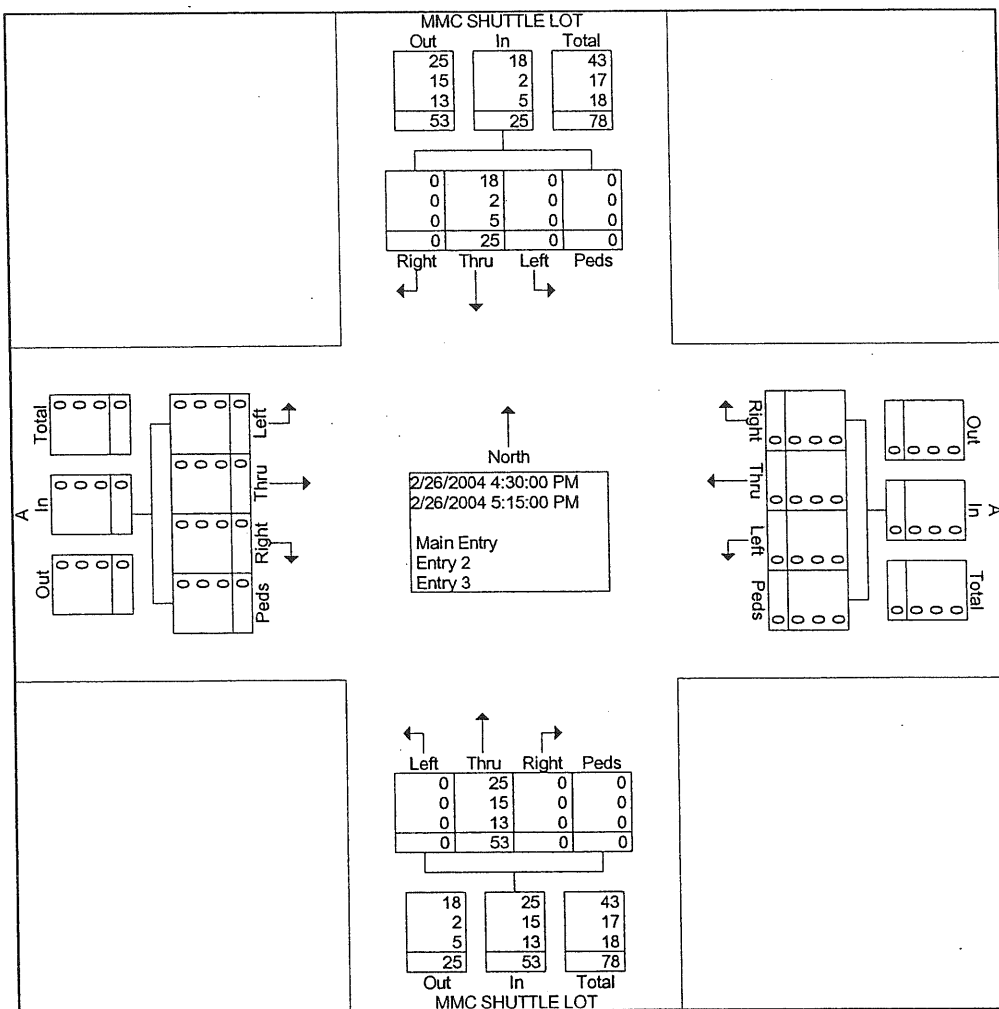
Site Code : 00000317

Start Date : 02/26/2004

Page No : 1

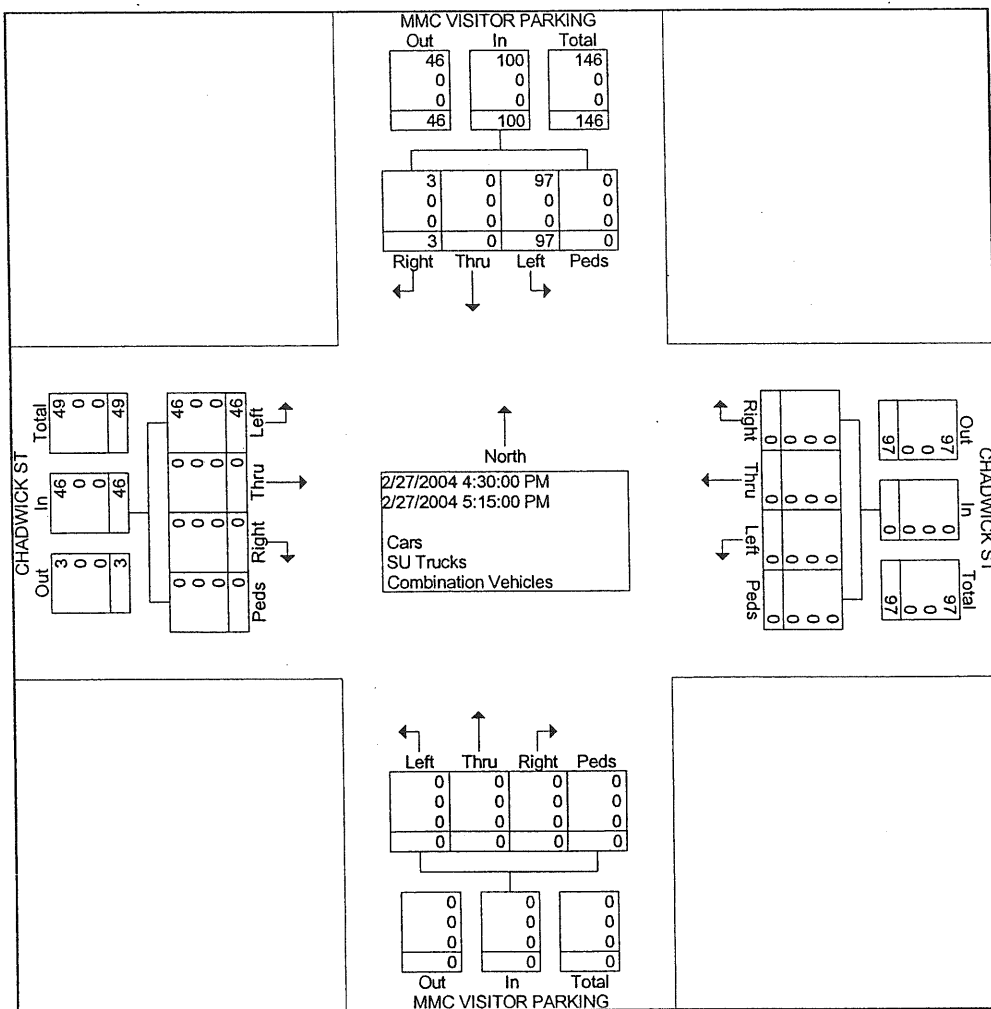
Groups Printed- Main Entry - Entry 2 - Entry 3

Start Time	MMC SHUTTLE LOT From North					A From East					MMC SHUTTLE LOT From South					A From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:30 PM	0	4	0	0	4	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	21
04:45 PM	0	6	0	0	6	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	14
Total	0	10	0	0	10	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	35
05:00 PM	0	7	0	0	7	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	27
05:15 PM	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
Grand Total	0	25	0	0	25	0	0	0	0	0	0	53	0	0	53	0	0	0	0	0	78
Apprch %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	32.1	0.0	0.0	32.1	0.0	0.0	0.0	0.0	0.0	0.0	67.9	0.0	0.0	67.9	0.0	0.0	0.0	0.0	0.0	



Groups Printed- Cars - SU Trucks - Combination Vehicles

Start Time	MMC VISITOR PARKING From North					CHADWICK ST From East					MMC VISITOR PARKING From South					CHADWICK ST From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:30 PM	27	0	0	0	27	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	37
04:45 PM	31	0	1	0	32	0	0	0	0	0	0	0	0	0	9	0	0	0	9	41	
Total	58	0	1	0	59	0	0	0	0	0	0	0	0	0	19	0	0	0	19	78	
05:00 PM	20	0	1	0	21	0	0	0	0	0	0	0	0	0	16	0	0	0	16	37	
05:15 PM	19	0	1	0	20	0	0	0	0	0	0	0	0	0	11	0	0	0	11	31	
Grand Total	97	0	3	0	100	0	0	0	0	0	0	0	0	0	46	0	0	0	46	146	
Apprch %	97.0	0.0	3.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0			
Total %	66.4	0.0	2.1	0.0	68.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.5	0.0	0.0	0.0	31.5		



Gorrill-Palmer Consulting Engineers, Inc

15 Shaker Road

Gray, ME 04039

(207) 657-6910 FAX 657-6912

Location: Portland, Maine

Counted by: E. Bartlett

B-400

Clear

File Name : ShuttleLotAM

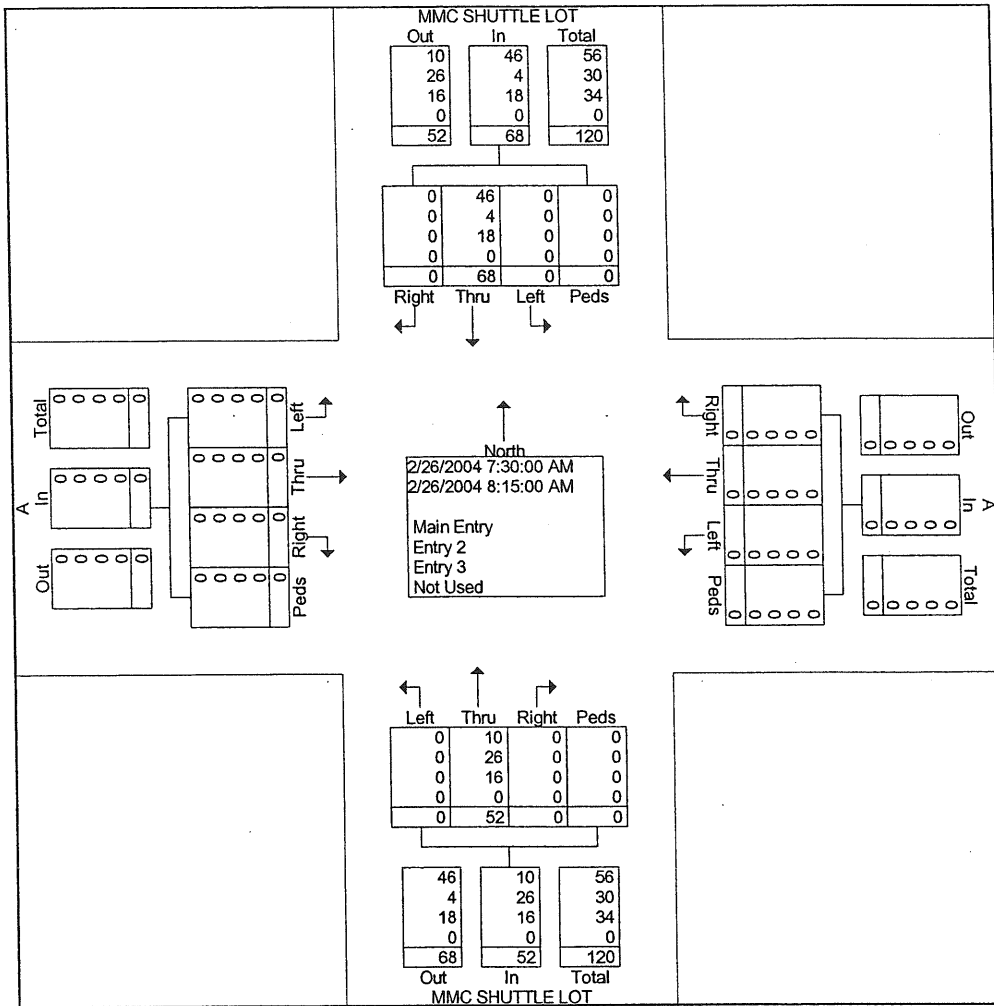
Site Code : 00000317

Start Date : 02/26/2004

Page No : 1

Groups Printed- Main Entry - Entry 2 - Entry 3 - Not Used

Start Time	MMC SHUTTLE LOT From North					A From East					MMC SHUTTLE LOT From South					A From West					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total		
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0			
07:30 AM	0	40	0	0	40	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0	65
07:45 AM	0	23	0	0	23	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	47
Total	0	63	0	0	63	0	0	0	0	0	0	49	0	0	49	0	0	0	0	0	0	112
08:00 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
Grand Total	0	68	0	0	68	0	0	0	0	0	0	52	0	0	52	0	0	0	0	0	0	120
Approch %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	56.7	0.0	0.0	56.7	0.0	0.0	0.0	0.0	0.0	0.0	43.3	0.0	0.0	43.3	0.0	0.0	0.0	0.0	0.0	0.0	



Gorrill-Palmer Consulting Engineers, Inc

15 Shaker Road

Gray, ME 04039

(207) 657-6910 FAX 657-6912

Location: Portland, Maine

Counted by

B-400

Leather

File Name : Visitor'sLotAM

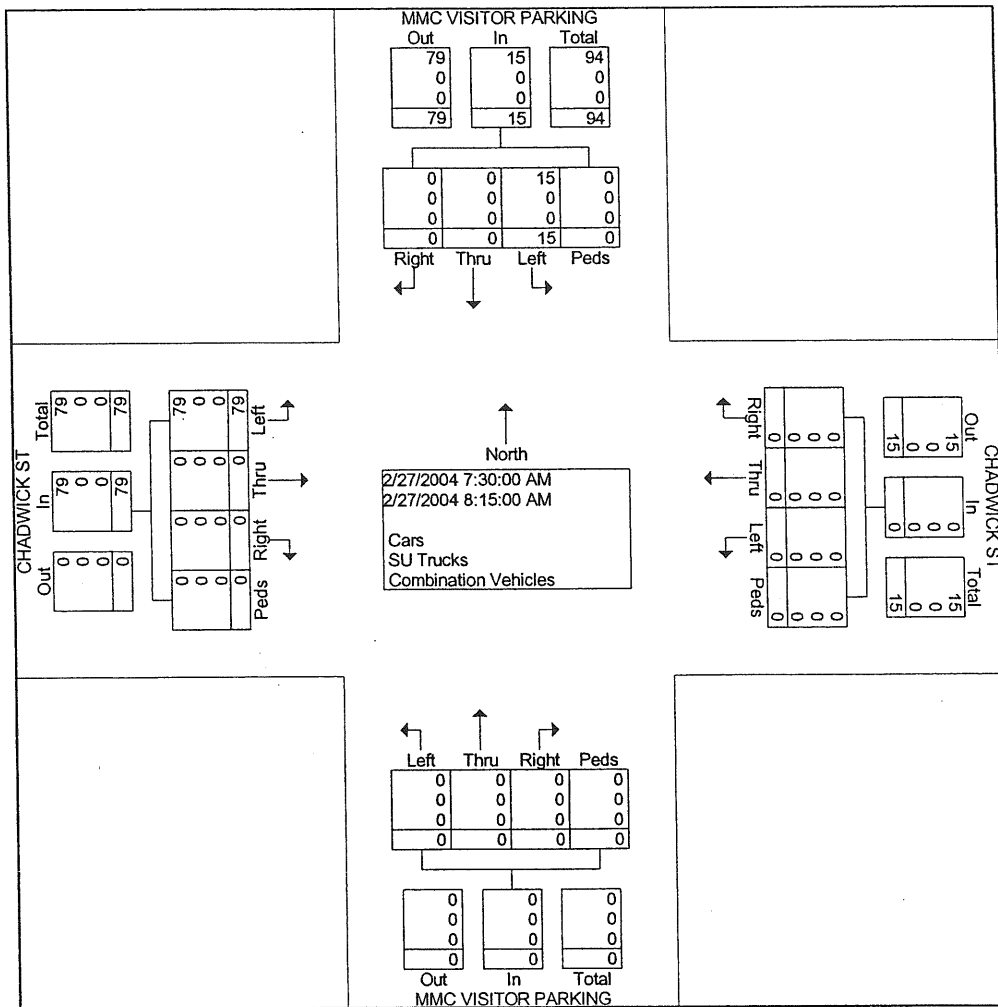
Site Code : 00000317

Start Date : 02/27/2004

Page No : 1

Groups Printed- Cars - SU Trucks - Combination Vehicles

Start Time	MMC VISITOR PARKING From North					CHADWICK ST From East					MMC VISITOR PARKING From South					CHADWICK ST From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	14
07:45 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	24	0	0	0	24	28	
Total	5	0	0	0	5	0	0	0	0	0	0	0	0	0	37	0	0	0	37	42	
08:00 AM	6	0	0	0	6	0	0	0	0	0	0	0	0	0	19	0	0	0	19	25	
08:15 AM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	23	0	0	0	23	27	
Grand Total	15	0	0	0	15	0	0	0	0	0	0	0	0	0	79	0	0	0	79	94	
Apprch %	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0			
Total %	16.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.0	0.0	0.0	0.0	84.0		



JN: 317
 Project Description: MMC
 Project Location: Portland, ME
 Date: Dec-03

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

**Hospital
 Land Use Code (LUC) 610**

Beds (X): 480

Range of Rates (Max):

Time Period	ITE Trip Rate	Trip Ends	Directional Split		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 32.83(X)	15758	50%	50%	7879	7879
AM Peak Hour of Generator	T = 1.88(X)	902	65%	35%	587	316
PM Peak Hour of Generator	T = 2.51(X)	1205	39%	61%	470	735
Saturday	T = 21.04(X)	10099	50%	50%	5050	5050

JN: 317
 Project Description: MMC
 Project Location: Portland, ME
 Date: Dec-03

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

**Hospital
 Land Use Code (LUC) 610**

Beds (X): 490

Range of Rates (Max):

Time Period	ITE Trip Rate	Trip Ends	Directional Split		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 32.83(X)	16087	50%	50%	8043	8043
AM Peak Hour of Generator	T = 1.88(X)	921	65%	35%	599	322
PM Peak Hour of Generator	T = 2.51(X)	1230	39%	61%	480	750
Saturday	T = 21.04(X)	10310	50%	50%	5155	5155

JN: 317
 Project Description: MMC
 Project Location: Portland, ME
 Date: Dec-03

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

**Hospital
 Land Use Code (LUC) 610**

Difference Between 490 Beds and 480 Beds

Range of Rates (Max):

Time Period	ITE Trip Rate	Trip Ends	Directional Split		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	T = 32.83(X)	328	50%	50%	164	164
AM Peak Hour of Generator	T = 1.88(X)	19	65%	35%	12	7
PM Peak Hour of Generator	T = 2.51(X)	25	39%	61%	10	15
Saturday	T = 21.04(X)	210	50%	50%	105	105

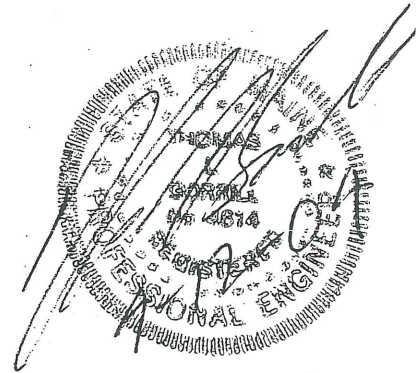
Att. 2

**Bramhall Campus
Parking Study
Maine Medical Center
Portland, Maine**

**Prepared for
Maine Medical Center
22 Bramhall Street
Portland, Maine, 04102**

**December 2003
Revised April 2004**

Prepared by



Gorrill-Palmer Consulting Engineers, Inc.

Traffic and Civil Engineering Services

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I. Executive Summary

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

Gorrill-Palmer Consulting Engineers, Inc. has been retained by Maine Medical Center to complete a parking inventory for the Bramhall campus of the Maine Medical Center to evaluate the adequacy of the parking supply upon completion of the proposed Charles Street Project planned at the Maine Medical Center in Portland. The proposed Obstetrics and Newborn Center will be bordered by Charles, Ellsworth, and Wescott Streets. The proposed building will consist of a total floor area of approximately 192,000 s.f. However, all of the functions proposed for the new center already exist within the campus but are crowded and do not meet current industry layout standards. Maine Medical Center is also planning to expand the existing parking garage at the corner of Gilman and Congress Streets by constructing a 512 space addition to the north. The location of the site is shown in Figure 1 of Appendix A.

A parking inventory was completed on Wednesday, June 17, 2000 from 6:00 AM to 4:00 PM in anticipation of this project. Although the study was completed in 2000, no material level of change has taken place at Maine Medical Center that would affect the findings of that study. Our findings are summarized below:

1. The current total off-street parking supply for Maine Medical Center was determined to be 2,146 parking spaces. The proposed expansion to the Gilman Street garage will be 512 spaces increasing the off street supply to 2,658 spaces.
2. The maximum off-street parking demand was 1,770 parking spaces, or 82 percent of the supply.
3. The total on-street parking supply in the vicinity of Maine Medical Center was determined to be 495 parking spaces.
4. The maximum demand for on-street parking was 318 parking spaces, or 64 percent of the supply. Approximately 57 of these parking spaces were filled by vehicles with MMC parking stickers. In addition, Gorrill-Palmer Consulting Engineers, Inc. estimates another 25 percent of the on-street parking is affiliated with MMC. Therefore, the current on-street parking demand associated with MMC is estimated to be 137 parking spaces or 28 percent of the current supply. This peak demand occurred from 8 to 9 AM. The overall peak demand for MMC occurred from 11 AM to noon at which time there on-street usage by MMC is estimated at 116 spaces.
5. The overall parking demand is anticipated to increase by 38 spaces due to the project. This will result in a total maximum demand of 1,924 spaces in the 11 AM to noon peak hour for MMC.
6. The total forecast MMC parking demand of 1,924 spaces represents 72% of the proposed 2,658 off-street supply proposed for MMC. This demand rate is

below the recommended industry standard that the demands not exceed 85 percent of the supply to allow for circulation and finding the remaining parking spaces.

7. Although Maine Medical Center's forecast parking supply falls within the recommended range, Gorrill-Palmer Consulting Engineers, Inc. recognized some areas where improvements could be made. Based on these observations, we recommend the following improvements:
 - The Visitor's Lot is overcrowded, causing visitors to park in walkways and driveways, and making it difficult to maneuver a vehicle through the lot. Gorrill-Palmer Consulting Engineers, Inc. recommends that visitors be allowed to park in the proposed parking lot expansion and signs should be posted at the entrance to the Visitor's Lot, directing traffic to this location when the Visitor's Lot is full. In addition, Gorrill-Palmer Consulting Engineers, Inc. recommends that patients be directed to park in the proposed garage in their pre-visit materials.
 - The majority of on-street parking is currently one-hour parking. In addition, many visitors are disregarding parking regulations and are parking in one-hour parking spaces for extended periods of time. Recently installed meters on Bramhall Street have helped alleviate this issue significantly. Gorrill-Palmer Consulting Engineers, Inc. recommends that strict enforcement of parking regulations be undertaken for all on-street locations and consideration be given to additional meters.

II. Introduction

Gorrill-Palmer Consulting Engineers, Inc. has been retained by Maine Medical Center to complete a parking inventory for the Bramhall campus of the Maine Medical Center to evaluate the adequacy of the parking supply upon completion of the proposed Charles Street Project planned at the Maine Medical Center in Portland. The proposed Obstetrics and Newborn Center will be bordered by Charles, Ellsworth, and Wescott Streets. The proposed building will consist of a total floor area of approximately 192,000 s.f. However, all of the functions proposed for the new center already exist within the campus but are crowded and do not meet current industry layout standards. Maine Medical Center is also planning to expand the existing parking garage at the corner of Gilman and Congress Streets by constructing a 512 space addition to the north. The location of the site is shown in Figure 1 of Appendix A.

The area studied by Gorrill-Palmer Consulting Engineers, Inc. includes the following off-street locations:

- Ramp Parking Garage off Gilman Street
- Medical Office Building (MOB) Lot
- St. John Street Lot (Union Station)
- Visitor's Lot
- Admitting Lot
- Emergency Lot
- Medical Students Lot
- Gilman Street Lot
- MMC Development Office Lot
- MRI Center Lot (Dana Center)

The study area also includes the following on-street locations:

- Chadwick Street (Bramhall to West)
- West Street (Vaughan to Western Promenade)
- Western Promenade (Bramhall to Carroll)
- Vaughan Street (West to Bramhall)
- Brackett Street (Vaughan to Bramhall)
- Bramhall Street (Vaughan to Western Promenade)
- Gilman Street (s/o Congress Street)
- Congress Street (Bramhall to Gilman)
- Crescent Street
- Ellsworth Street
- Hill Street
- Ramp (Gilman to Charles)

A map of the study area is included in Appendix B.

III. Data Collection

Gorrill-Palmer Consulting Engineers, Inc. surveyed the study area discussed above to determine the parking supply for each of the locations. Inventory sheets were then drawn up with each space marked separately on the inventory sheet. On Wednesday, June 17, 2000, Gorrill-Palmer Consulting Engineers, Inc. completed a parking inventory of the locations mentioned above. Although the study took place in 2000, no material level of change has taken place at Maine Medical Center that would affect the findings of the study. The inventory took place from 6:00 AM to 4:00 PM. Each lot and street was checked every hour to determine whether or not the parking spaces were occupied. When a space was occupied, the license plate was recorded in the corresponding space on the inventory sheet.

After completing the inventory, the data was compiled and analyzed. The supply and demand were calculated and compared for each location for each hour of the study. A discussion of the supply versus demand for each lot is included in the following sections.

IV. Parking Supply

Gorrill-Palmer Consulting Engineers, Inc. surveyed the lots and streets mentioned in the introduction of this report to determine the supply for each location. In areas where parking spaces were striped, the number of spaces was counted and recorded. In areas where metered parking was set-up, the number of meters and vehicles per meter were counted and recorded. In areas where there were no stripes or meters, the length of the space available for parking was measured. Assuming that an average vehicle requires 25 feet to parallel park, the number of feet of curb side parking was divided by 25 to determine the number of vehicles which could park in a given location. A discussion of the supply determined by Gorrill-Palmer Consulting Engineers, Inc. for each of the locations mentioned in the introduction is included below.

Off-street

Currently, based on data furnished by Maine Medical Center and data collected by Gorrill-Palmer Consulting Engineers, Inc., there are approximately 2,146 off-street parking spaces for the hospital. The locations of these spaces are shown in the table below and are discussed in more detail in the following paragraphs. After completion of the development, a total of 2,658 off-street parking spaces will be available for Maine Medical Center with the addition of a 512 car garage adjacent to the existing garage.

Off-street Parking Supply	
Location	Number of Available Spaces
Ramp Parking Garage	1225
MOB Lot	207
St. John Street Lot (Union Station)	283
Visitor's Parking Lot	329
Admitting	8
Emergency	16
Medical Students Lot	24
Gilman Street Lot	30
MMC Development Office Lot	10
MRI Lot (Dana Center)	14
Proposed Garage	512
Total Available Spaces	2,658

Ramp Parking Garage

The Ramp Parking Garage is located on the west side of Maine Medical Center and contains 1,225 parking spaces for Maine Medical Center medical staff and volunteers. Sixteen parking spaces on level G are used for valet parking only by the emergency room. Parking in this garage requires a permit. A permit for this garage also allows for parking in the Medical Office Building (MOB) Lot and St. John Street Lot when the Ramp Parking Garage is full.

Proposed Expansion to the Ramp Parking Garage

A 512 car expansion to the Ramp parking garage is proposed with access from Congress Street and Crescent Street.

MOB Lot

The MOB Lot is located at the corner of Congress Street and Forest Street, across from the Ramp Parking Garage. This garage contains a total of 434 parking spaces. It is divided by chains and posts into two parking areas, each with its own entrance. The lower levels contain 207 parking spaces for Maine Medical Center employees. A permit is required to park in this section of the lot. The two top levels contain 227 parking spaces and are used by private physicians at the Medical Office Building and their patients. These parking spaces are not currently available for use by Maine Medical Center employees.

St. John Street Lot (Union Station)

St. John Street Lot, listed as a source of parking in the table above, is located behind Goodwill, off Saint John Street. It is used by Goodwill, Margaritas Restaurant, and Hair It Is Salon. The rear section of this lot, containing 283

parking spaces, is used by Maine Medical Center to accommodate overflow in the Ramp Parking Garage. Employees are instructed to park in this lot when the Ramp Garage is filled. The Maine Medical Center runs a shuttle from the St. John Street Lot to the hospital.

Visitor's Lot

The Visitor's Lot is located on the east side of the hospital off of Chadwick Street. This lot contains 329 parking spaces with an hourly rate of \$0.35 and a maximum payment of \$3.50 per day. This lot is used by visitors to Maine Medical Center, who are parking for a short time to visit, drop-off, or pick-up patients. It is currently the most congested off-street parking location at Maine Medical Center.

Admitting Lot

The Admitting Lot contains 8 striped parking spaces with a 15-minute time limit. The employee shuttle pick-up is also located on the curb in this lot.

Emergency Lot

The Emergency Lot is used mainly for ambulance and EMT parking, and contains 16 parking spaces. There are 10 ambulance only parking spaces in this lot. In addition, there are 6 valet parking spaces located in this lot used by emergency room patients. When these six parking spaces have been filled, valets park vehicles on level G of the Ramp Parking Garage.

Medical Students Lot

The Medical Students lot is located on the west side of Chadwick Street between West Street and Pine Street. This lot contains 24 parking spaces used by medical students at Maine Medical Center.

Gilman Street Lot

The Gilman Street Lot is located in the rear of the hospital and can be accessed from Gilman Street or from a ramp off of Charles Street. This parking lot contains 30 parking spaces used by Maine Medical Center employees. In addition, this lot contains a large area used for truck access, delivery, and pick-up.

MMC Development Office Lot

The MMC Development Office Lot is located in back of the Development Office, off of Vaughan Street. This lot contains 10 parking spaces for employees of the MMC Development Office.

MRI Center Lot

The MRI Center Lot is located at the rear of the hospital and can be accessed from Bramhall Street and requires an access card to enter. This lot contains 14 striped parking spaces used by patients of the MRI Center. In addition, there is ample space for an additional 8 vehicles to park temporarily along the curb for drop-off and pick-up of patients.

On-street

Based on data furnished by Maine Medical Center and data collected by Gorrill-Palmer Consulting Engineers, Inc., there are approximately 495 on-street parking spaces located on the following streets surrounding the hospital:

On-street Parking Supply	
Location	Number of Available Spaces
Chadwick Street (Bramhall to West)	49
West Street (Vaughan to Western Promenade)	44
Western Promenade (Bramhall to Carroll)	69
Vaughan (West to Bramhall)	61
Brackett (Vaughan to Bramhall)	11
Bramhall (Congress to Western Promenade)	99
Gilman Street (s/o Congress)	51
Congress (Bramhall to Gilman)	64
Crescent Street	13
Ellsworth Street	8
Hill Street	18
Ramp (Gilman to Charles)	8
Total Available Spaces	495

Chadwick Street

There are a total of 49 parking spaces on Chadwick Street between Bramhall Street and West Street. 8 of the 49 spaces are metered spaces. These spaces are located on the east side of the street between Bramhall Street and the entrance to the Visitor's Lot. The remaining spaces are all one-hour parking spaces.

West Street

West Street has a total of 44 one-hour parking spaces between Vaughan Street and the Western Promenade.

Western Promenade

The Western Promenade has a total of 69 parking spaces between Bramhall Street and Carroll Street. All of these spaces are one-hour parking. Also, a small loop

exists off the west side of the Western Promenade, which also contains one-hour parking spaces.

Vaughan Street

Vaughan Street has a total of 55 one-hour parking spaces from West Street to Bramhall Street. In addition, there are two 5-minute, handicapped parking spaces located in front of the Portland Urological Associates Building. There are also four 15-minute parking spaces located near the corner of Vaughan Street and Brackett Street.

Brackett Street

Brackett Street has a total of 11 metered parking spaces from Vaughan Street to Bramhall Street.

Bramhall Street

On the date the parking survey took place, Bramhall Street had a total of 80 one-hour parking spaces between Congress Street and Western Promenade. In addition, there were 4 handicapped spaces located near the entrance to the hospital. These spaces do not have a posted time limit. Since the date of the data collection, the City has added 15 one-hour, metered parking spaces on Bramhall Street across from the MRI Center (Dana Center) lot. These meters have significantly improved access to these spaces.

Gilman Street

Gilman Street has 25 one-hour parking spaces located on the west side of the street. There are an additional 26 parking spaces on the east side of the street, which do not have a posted time limit. Many of these parking spaces are used by Maine Medical Center employees who enter through the rear of the hospital through the Gilman Street Lot.

Congress Street

Congress Street has a total of 64 parking spaces with varying time limits. There are seven 2-hour parking spaces located between Gilman Street and Forest Street. There are four 15-minute parking spaces located at the corner of Weymouth Street and Congress Street. There are 28 one-hour parking spaces located on the north side of the street, and four one-hour parking spaces on the south side of the street. The remaining 21 parking spaces on the south side of the street do not have a posted time limit.

Crescent Street

Crescent Street has 13 one-hour parking spaces located mainly on the west side of the street.

Ellsworth Street

At the time of the study, Ellsworth Street contained 16 one-hour parking spaces. The proposed development will involve the removal of 8 of these parking spaces, leaving 8 one-hour parking spaces on this street. The vehicles currently using this street to park and visit Maine Medical Center will be reassigned to the proposed garage.

Hill Street

Hill Street contains 18 one-hour parking spaces. These spaces are used by residents on this street and MMC visitors.

Ramp

The ramp, located between Gilman Street and Charles Street on the west side of the hospital, has 8 parking spaces on the east side of the ramp. These parking spaces are used by Maine Medical Center employees. No-parking signs are posted for two of these spaces. However, several vehicles parked in these spaces throughout the day and no tickets were noticed on the vehicles.

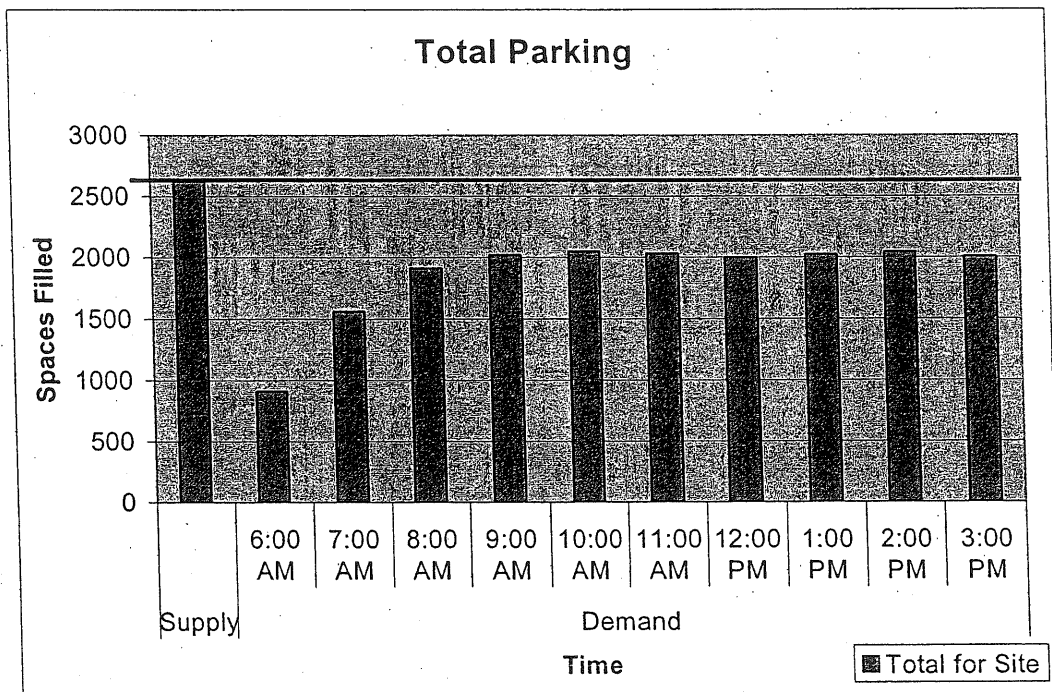
V. Parking Demand

On Wednesday, June 17, 2000, Gorrill-Palmer Consulting Engineers, Inc. completed the parking inventory of the lots mentioned in the table above, as well as the streets surrounding the hospital. Although this study was conducted in 2000, no material level of change has taken place at Maine Medical Center that would affect the findings of this study. The inventory took place from 6:00 AM to 4:00 PM. Each lot and street was checked every hour to determine whether or not each parking space was occupied. If a space was occupied, the license plate was recorded in the corresponding space on the inventory sheet.

After completing the inventory, the data was compiled and analyzed. The demand was then determined for each location for each hour. The demand for the off-street and on-street parking was also calculated for each hour. A summary of the parking supply versus demand is shown in the following table.

Location	Supply	Parking Demand Summary									
		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
MOB Lot	207	21	86	147	160	166	168	170	170	167	152
Ramp Garage	1225	528	944	1028	1033	1013	1019	983	982	983	1013
All Garages	1432	549	1030	1175	1193	1179	1187	1153	1152	1150	1165
St. John Street Lot	283	12	88	153	171	183	187	188	191	187	172
Visitor's Lot	329	73	112	184	266	307	312	325	331	331	301
Small Lots	102	33	52	82	81	73	84	70	79	74	78
Off-street	2146	667	1282	1594	1711	1742	1770	1736	1753	1742	1716
On-street	495	243	277	318	309	305	261	263	268	302	288
Total for Site	2641	910	1559	1912	2020	2047	2031	1999	2021	2044	2004

The following table summarizes the total supply and demand for each hour of the inventory for the entire site.

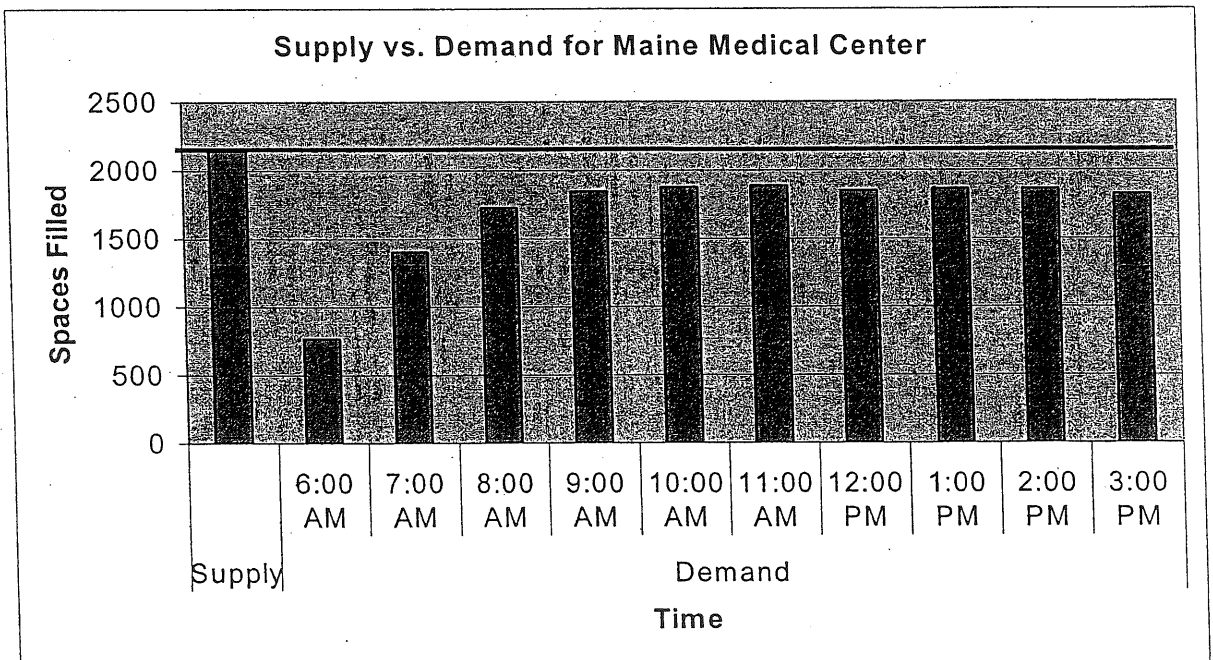


The highest demand for the hospital was determined to occur at 10:00 AM, when there is a demand of 2,047 spaces or 78 percent of the supply. However, this observed parking demand includes vehicles that are not associated with the Maine Medical Center. While conducting our survey, Gorrill-Palmer Consulting Engineers, Inc. also noted whenever a MMC sticker was placed on a vehicle parked on the street. The following table summarizes the number of parking spaces filled by vehicles with a MMC sticker.

Street	Supply	Number of Stickers									
		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
Chadwick	49	5	6	5	6	7	5	5	3	3	3
West	44	3	3	3	4	3	5	4	4	4	3
Vaughan	61	6	6	6	6	6	4	4	3	3	2
Brackett	11	0	0	0	0	0	0	0	0	0	0
Bramhall	99	10	14	15	12	13	10	10	10	10	10
Gilman	51	8	11	12	14	15	15	17	16	16	11
Congress	64	4	4	4	3	3	3	3	2	2	3
Crescent	13	2	2	2	3	2	1	0	1	1	1
Ellsworth	16	1	3	3	4	4	3	2	2	2	0
Hill	18	1	1	1	1	1	2	1	1	1	0
Western Promenade	69	1	2	3	3	3	3	2	2	2	1
Total	495	41	52	54	56	57	51	48	44	44	34

As shown in the table above, the current on-street parking demand for vehicles with MMC stickers is approximately 57 parking spaces or 18 percent of the on-street demand. MMC stickers are placed only on vehicles belonging to employees of the Maine Medical Center. Therefore, in order to determine the off-street demand for MMC, these vehicles should be added to the off-street demand calculated above. In addition, Gorrill-Palmer Consulting Engineers, Inc. estimates that an additional 80 parking spaces or 25 percent of the total on-street parking demand is due to MMC patients, visitors and staff. This number must also be added to the off-street parking to determine the actual off-street parking demand. The following table and chart summarize the current off-street parking demand with these numbers added.

Location	Supply	Demand									
		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM
Off-street	2146	667	1282	1594	1711	1742	1770	1736	1753	1742	1716
MMC Stickers On-street	N/A	41	52	54	56	57	51	48	44	44	34
Visitors On-street	N/A	61	70	80	77	76	65	66	67	76	72
Total	2146	769	1404	1728	1844	1875	1886	1850	1864	1862	1822



As shown in the previous table, the actual Maine Medical Center parking demand is currently 1,886 parking spaces or approximately 88 percent of the parking supply.

Future Demand

The current off-street parking demand was estimated to be 1,886 parking spaces, or 88 percent of the supply as discussed above. Maine Medical Center continues its efforts to decompress the Bramhall campus by redirecting outpatients from the Bramhall campus to its Brighton, Scarborough and Falmouth campuses. The relocation of patient activity from the Bramhall campus to the other campuses helps alleviate parking demand and congestion at Maine Medical Center's main campus, which are ongoing concerns. Routine outpatient activity is redirected toward satellite campuses to free up Maine Medical Center's clinical resources for inpatient demand due Maine Medical Center's role as Maine tertiary care center. Currently, Maine Medical Center plans to move its endoscopy and outpatient surgery facilities to the Scarborough and Brighton Campuses. This will result in a reduction of 7,500 to 8,000 patient visits per year. Although we can not take credit for this relocation, it is an illustration of the Maine Medical Center's continuing commitment to decompress the Bramhall campus.

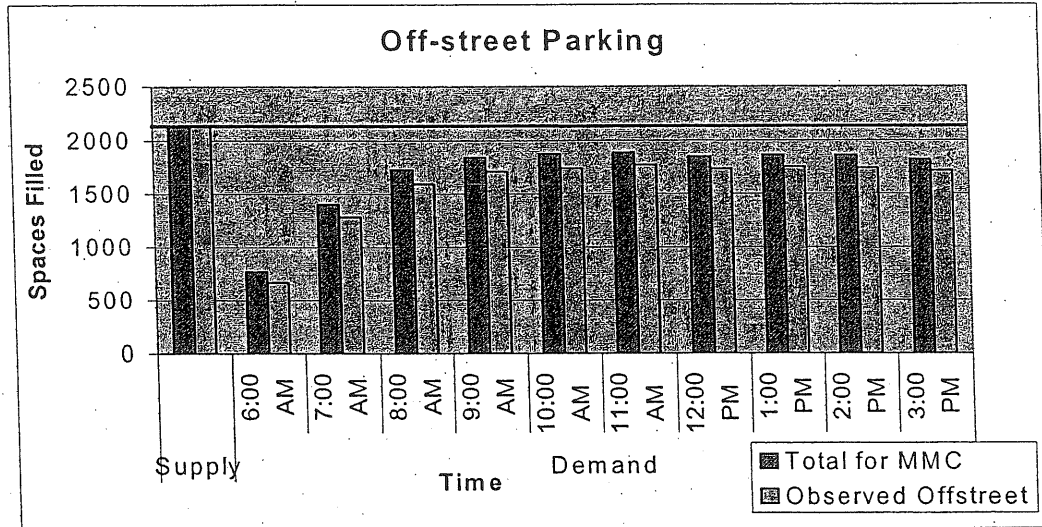
The proposed Obstetrics and Newborn Center will consist of a total floor area of approximately 192,000 s.f. However, all of the functions proposed for the new center already exist within the campus but are crowded and do not meet current industry layout standards. Based on information furnished by MMC, the inpatient population is expected to grow from 480 to 490 patients or 2% between 2003 and 2005 (1% per year). The outpatient activity has been proportional to the inpatient activity in the last decade. This does not necessarily reflect the national trend, which generally shows outpatient increasing more than inpatient, because a significant portion of the increase in outpatient activity has been shifted away from the Bramhall campus to the Brighton and Scarborough campuses as discussed above.

The staffing load is driven by the number of patients and is therefore not expected to increase, however we have assumed a 2% increase to be conservative.

The overall parking demand on campus will be forecast to increase by 2%, or 38 spaces. Thus, the total demand is forecast to be 1,924 spaces upon completion of the expansion.

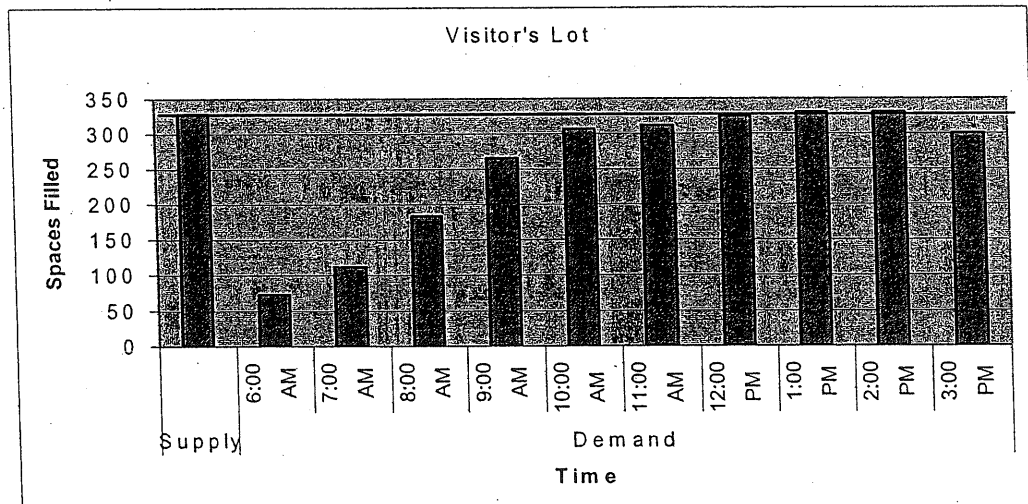
Off-Street

The following table summarizes the current supply and hourly parking demand for all off-street parking:



Visitor's Lot

The following graph summarizes the supply and hourly demand for the Visitor's Lot:

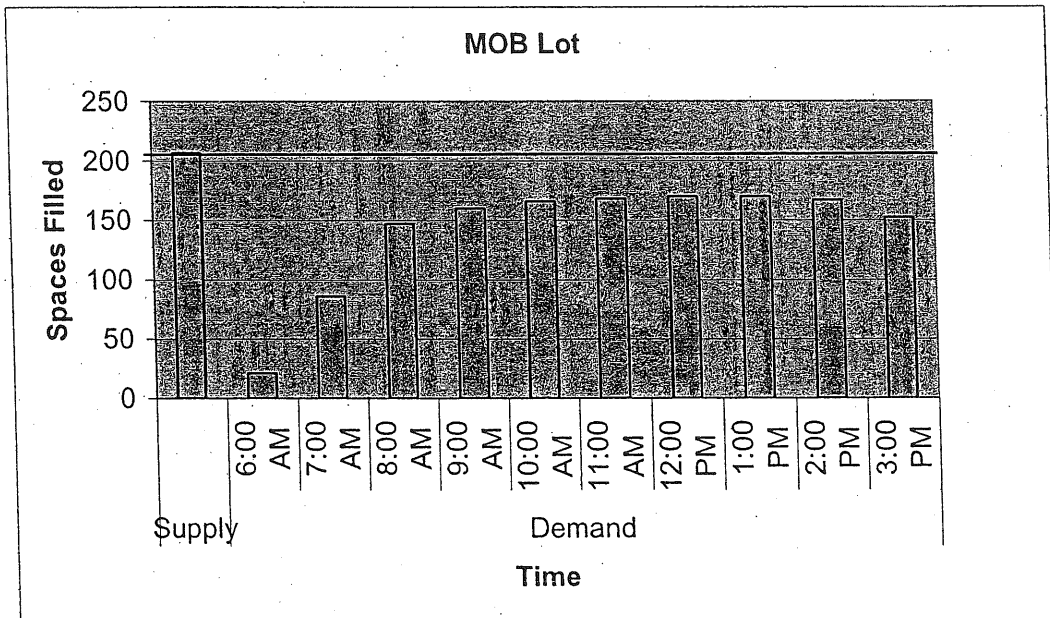


The supply for the Visitor's Lot was determined to be 329 parking spaces. However, the highest demand for the Visitor's Lot was found to be 331 parking spaces. This level of demand occurred between 1:00 PM and 3:00 PM. During this time, cars were parked illegally in the driveways and walkways. This made

maneuvering a vehicle through the lot difficult and forced pedestrians to walk around vehicles parked in crosswalks. Often times, cars would queue at the entrance to the Visitor's Lot, waiting for a car to leave so that they might enter. This queue of cars often backed up traffic attempting to drive down Chadwick Street. It is therefore, the opinion of Gorrill-Palmer Consulting Engineers, Inc. that Maine Medical Center is not meeting its parking demand for visitors. Gorrill-Palmer Consulting Engineers, Inc. recommends posting signs at the entrance to the visitor's lot directing traffic to the proposed addition to the parking garage. This may reduce the queuing of cars on Chadwick Street and prevent vehicles from parking in walkways and driveways. In addition, Gorrill-Palmer Consulting Engineers, Inc. recommends that patients be directed to park in the proposed garage on Congress Street in their pre-visit materials.

MOB Lot

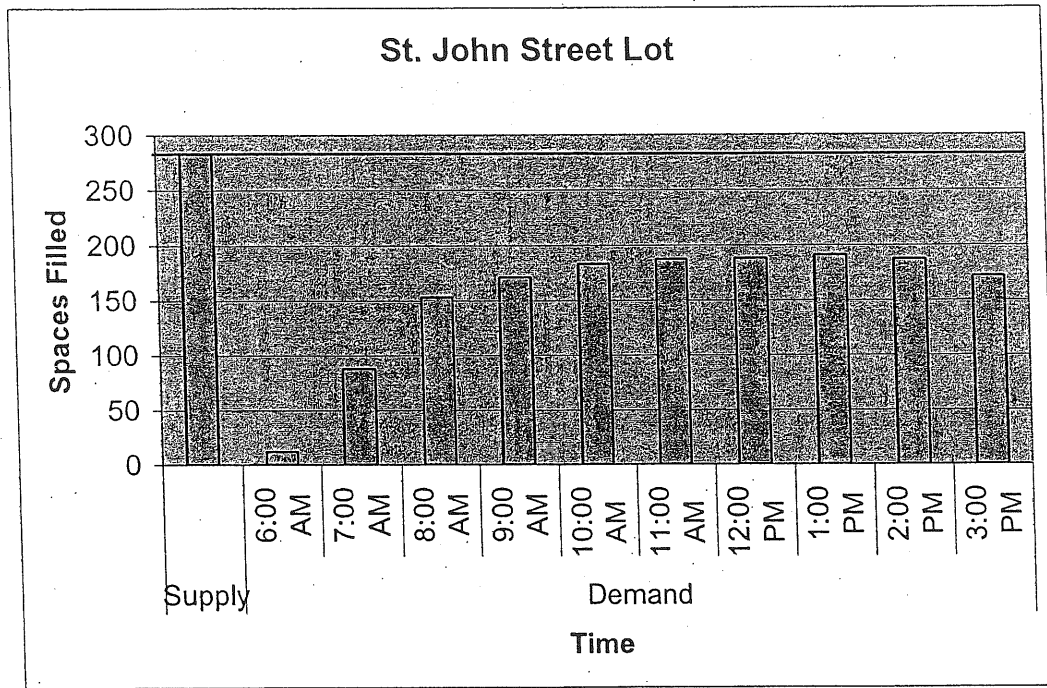
Gorrill-Palmer Consulting Engineers, Inc. also determined that the MOB lot is currently less than 82 percent full at its peak. Gorrill-Palmer Consulting Engineers, Inc. recommends Maine Medical Center take steps to encourage more employees to park in this lot. The following table summarizes the hourly parking supply and demand of the MOB Lot.



St. John Street Lot

The maximum demand for the St. John Street Lot was 191 parking spaces, or 67 percent of the supply. Currently, Maine Medical Center runs a shuttle from the St. John Street Lot to the hospital for its employees. It is the recommendation of Gorrill-Palmer Consulting Engineers, Inc. that Maine Medical Center encourage its employees to park in this lot and take advantage of this service. The following

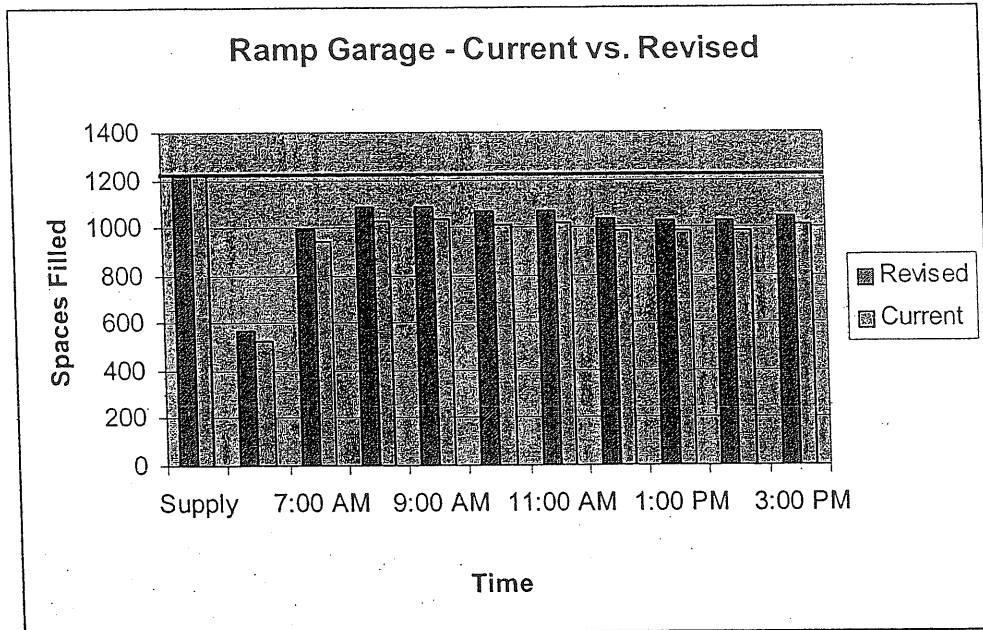
table summarizes the hourly parking supply and demand for the Saint John Street Lot.



Ramp Parking Garage

The maximum demand for the Ramp Parking Garage was 1,033 parking spaces, or 84 percent of the supply. Although this high demand would seem to preclude additional vehicles in this parking garage, the peak for this lot occurs early in the day, between 8:00 and 9:00 AM, while there is a turnover of staff at Maine Medical Center. Between the hours of 1:00 and 3:00 PM, this garage is only approximately 80 percent full, leaving 242 empty spaces. Adding the employee vehicles, which currently park on the street, would increase the parking demand for this lot to only 1,089 parking spaces or 88 percent of the supply. Gorrill-Palmer Consulting Engineers, Inc. therefore, feels that Maine Medical Center should encourage its employees to park in this garage rather than on the street.

The following table summarizes the hourly parking supply and demand for the Ramp Garage in its current condition and with the improvements recommended by Gorrill-Palmer Consulting Engineers, Inc.



MRI Center Lot

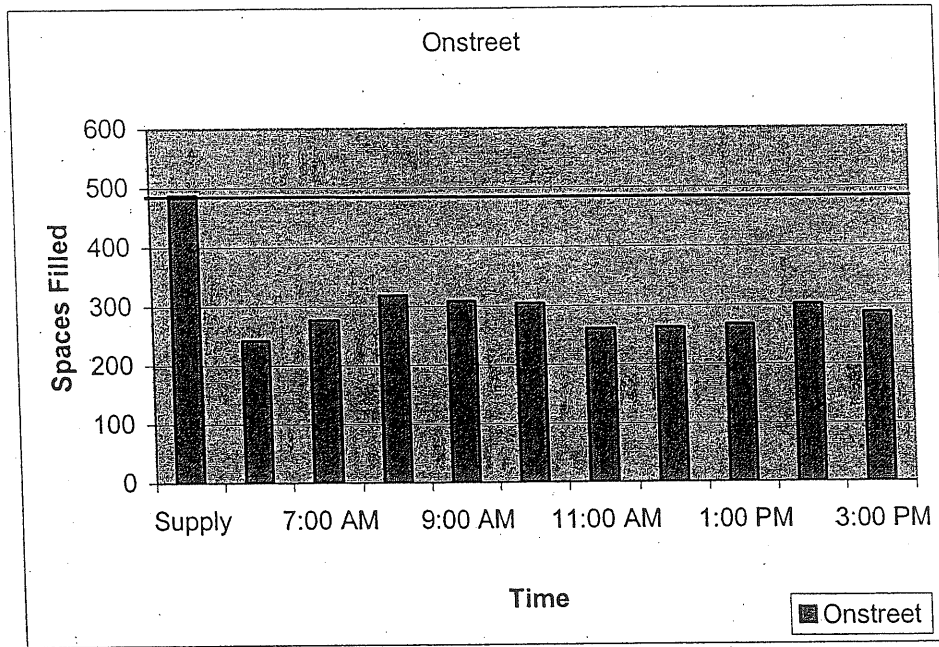
Currently, the rear lot off of Bramhall Street is striped for 14 spaces for patients. However, there is enough space along the curb for an additional 8 vehicles to park temporarily for drop-off.

Proposed Parking Garage

As mentioned above, Maine Medical Center is not currently meeting the parking demand for its visitors in the off-street lots. The surrounding neighborhood is concerned that a large number of visitors and patients are using on-street parking. The proposed garage on Congress Street, with 512 parking spaces, is anticipated to relieve overcrowding in the visitor's lot and provide an additional parking area for Maine Medical Center visitors. The addition of this garage will raise the total Maine Medical Center parking supply to 2,658 parking spaces. Currently, the total demand for Maine Medical Center is 1,886 spaces or 71 percent of the future supply after completion of the garage. Typically, no more than 85 percent occupancy is desired in order to allow for circulation and finding remaining parking spaces. With its proposed improvements, Maine Medical Center will meet this criterion.

On-Street

The following graph summarizes the supply and hourly parking demand for on-street parking:



Western Promenade

Currently, the Western Promenade contains enough space for 69 parking spaces. Throughout the day, no more than 30 percent of these spaces were filled.

Ellsworth Street

With its close proximity to the entrance to the hospital, Ellsworth Street is one of the most frequently used parking areas for visitors to Maine Medical Center. Ellsworth Street contains enough space for 16 vehicles to park legally in one-hour parking spaces. However, eight of these parking spaces will be lost due to construction. In addition, many vehicles remained parked in these spaces for well over the time limit without being ticketed. In addition, there are several curb-side locations which are marked as no-parking zones for bus stops, fire hydrants, etc. Throughout the day, particularly during peak parking times for the Visitor's Lot, visitors parked in these no-parking zones. It is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that strict enforcement of parking regulations combined with the increased supply proposed as part of this project should reduce this problem.

Chadwick Street

Chadwick Street contains enough curb-side space for 20 vehicles to park legally. However, between the hours of 12:00 and 3:00 PM, when the Visitor's Lot is full, several vehicles were seen parked illegally across driveways and fire hydrants along this street. It is therefore, the opinion of Gorrill-Palmer Consulting Engineers, Inc. that strict enforcement of parking regulations should be upheld for Chadwick Street. In addition, signs should be posted near the entrance of the Visitor's Lot, directing traffic toward the new parking garage. Patients should also be instructed to park in the new garage in their pre-visit materials.

Bramhall Street

Bramhall Street contains enough curb-side space for 84 vehicles to park legally in one hour parking spaces. However, many vehicles were observed parking for several hours at a time. In addition, this street seemed to be a favorite for vehicles with MMC parking stickers and visitors to the Maine Medical Center. It is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that strict enforcement of parking regulations combined with the increased supply proposed as part of this project, should reduce this problem.

Gilman Street

Currently, the majority of the west side of Gilman Street is used by Maine Medical Center employees with MMC parking stickers. These spaces do not have a time limit and are therefore often preferred over parking in the St. John Street Lot and riding the shuttle. This greatly reduces the number of on-street parking spaces available for residents and patrons to facilities on Gilman Street. MMC should strongly encourage its employees to avoid parking on this street and to park in the proposed expansion to the Ramp Garage or the St. John Street Lot.

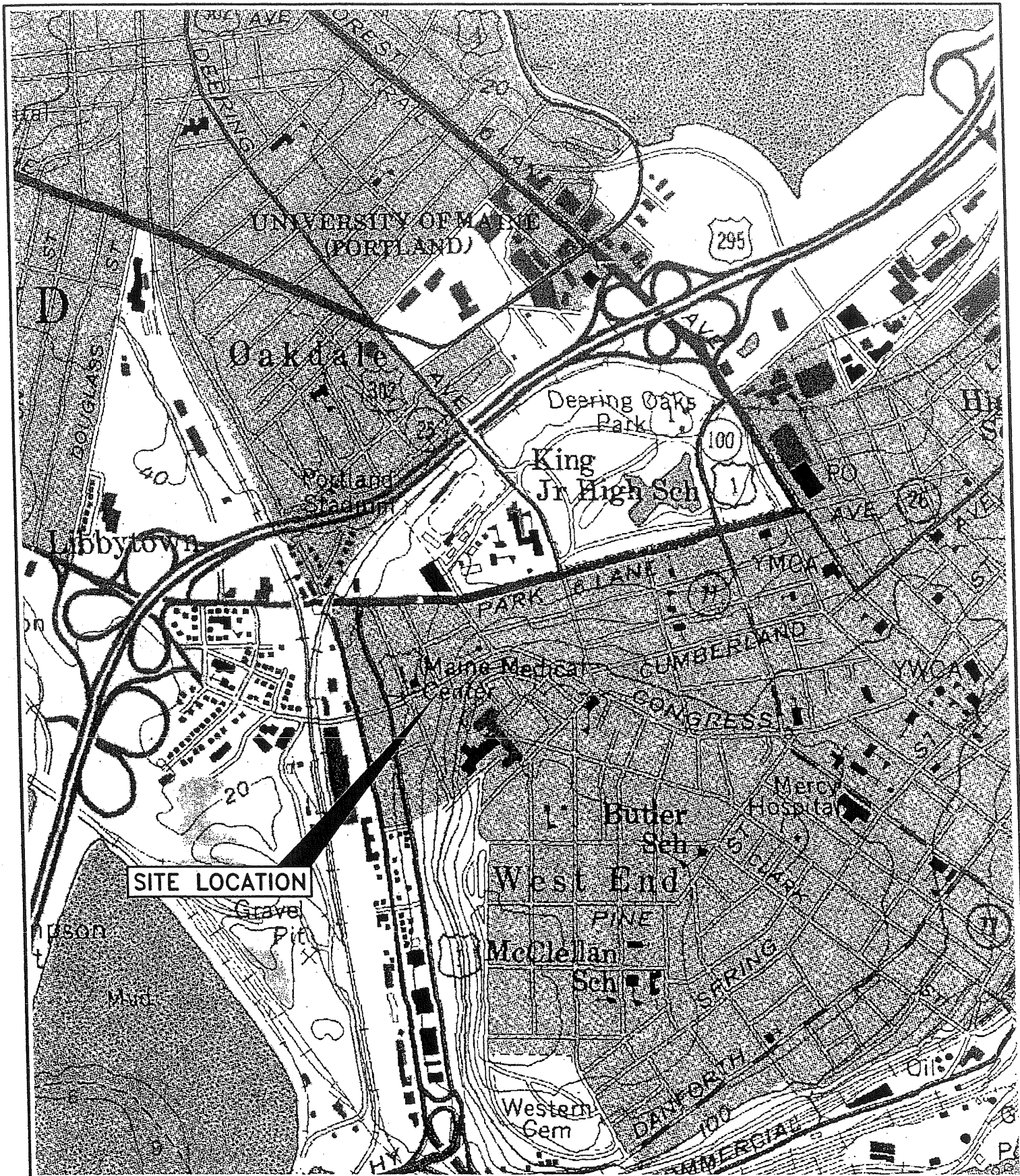
VI. Conclusions

The following is a summary of the findings of Gorrill-Palmer Consulting Engineers, Inc.

1. The current total off-street parking supply for Maine Medical Center was determined to be 2,146 parking spaces. The proposed expansion to the Gilman Street garage will be 512 spaces increasing the off street supply to 2,658 spaces.
2. The maximum off-street parking demand was 1,770 parking spaces, or 82 percent of the supply.
3. The total on-street parking supply in the vicinity of Maine Medical Center was determined to be 495 parking spaces.
4. The maximum demand for on-street parking was 318 parking spaces, or 64 percent of the supply. Approximately 57 of these parking spaces were filled by vehicles with MMC parking stickers. In addition, Gorrill-Palmer Consulting Engineers, Inc. estimates another 25 percent of the on-street parking is affiliated with MMC. Therefore, the current on-street parking demand associated with MMC is estimated to be 137 parking spaces or 28 percent of the current supply. This peak demand occurred from 8 to 9 AM. The overall peak demand for MMC occurred from 11 AM to noon at which time there on-street usage by MMC is estimated at 116 spaces.
5. The overall parking demand is anticipated to increase by 38 spaces due to the project. This will result in a total maximum demand of 1,924 spaces in the 11 AM to noon peak hour for MMC.
6. The total forecast MMC parking demand of 1,924 spaces represents 72% of the proposed 2,658 off-street supply proposed for MMC. This demand rate is below the recommended industry standard that the demands not exceed 85 percent of the supply to allow for circulation and finding the remaining parking spaces.
7. Although Maine Medical Center's forecast parking supply falls within the recommended range, Gorrill-Palmer Consulting Engineers, Inc. recognized some areas where improvements could be made. Based on these observations, we recommend the following improvements:
 - The Visitor's Lot is overcrowded, causing visitors to park in walkways and driveways, and making it difficult to maneuver a vehicle through the lot. Gorrill-Palmer Consulting Engineers, Inc. recommends that visitors be allowed to park in the proposed parking lot expansion and signs should be posted at the entrance to the Visitor's Lot, directing traffic to this location when the Visitor's Lot is full. In addition, Gorrill-Palmer


Consulting Engineers, Inc. recommends that patients be directed to park in the proposed garage in their pre-visit materials.

- The majority of on-street parking is currently one-hour parking. In addition, many visitors are disregarding parking regulations and are parking in one-hour parking spaces for extended periods of time. Recently installed meters on Bramhall Street have helped alleviate this issue significantly. Gorrill-Palmer Consulting Engineers, Inc. recommends that strict enforcement of parking regulations be undertaken for all on-street locations and consideration be given to additional meters.



U.S.G.S. Location Map
 Maine Medical Center - Portland, Maine
 U.S.G.S. Portland-West, Maine-7.5 Minute Series (Topographic)

Design: JJB	Date: AUG 2003
Draft: DB	Job No.: 317
Checked: JJB	Scale: None
File Name: 317-LOCMAP.DWG	


Gorrill-Palmer Consulting Engineers, Inc.
Traffic and Civil Engineering Services

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

MEMORANDUM

TO: Rick Seeley
FROM: Paul Gray, VP of Planning
DATE: April 14, 2004
RE: **Anticipated uses of Bramhall Lot and Existing and Proposed Garages**

We have been asked by Tom Errico about the uses of the various major parking lots/garages.

Existing Major Lots/Garages

Our Bramhall campus parking will focus on the Bramhall Visitor Lot and the existing and proposed garages. The Bramhall Visitor Lot has 329 spaces, the existing garage has 1,225 spaces and the proposed garage has 512 spaces. Currently only visitors to the campus can use the Bramhall Visitor Lot. The existing garage is used by employees, volunteers and medical staff.

Future Use

The new garage will be used primarily by visitors to the campus coming to see in-patients in the Richards, Bean and Charles Street Building since this garage is the closest facility to these three buildings. Visitors will be directed to use this garage as part of the pre-admission materials patients receive. The Bramhall Visitor Lot will be used primarily by outpatients who are coming for lab tests, x-rays or clinic visits since these programs are located on the same side of the campus as the Bramhall Visitor lot. These patients will also receive pre-visit materials directing them to park in the Bramhall Visitor Lot. The existing garage will continue to be used primarily by employees, volunteers and medical staff.

We also lease 200+ spaces off St. John Street in the surface lots behind the office buildings adjacent to the shopping plaza. As the demand for the new garage stabilizes, we intend on an incremental basis to move employees from the St. John lot to the new garage. However, we will not move employees if it has the potential to over subscribe the new garage.

Separation of Traffic

The effect of using the Bramhall Visitor Lot for outpatients and using the new garage for visitors to inpatient units will be to impact significantly the volumes of traffic which actually has to come up to the campus since the new garage users will enter the garage on Congress Street. We believe this will be a very positive development. New garage traffic will enter and exit on Congress Street rather than coming up to the campus and leaving via the Western Prom neighborhood street. The design of the new garage entrance and the distribution of visitors using the garage during the day should minimize the potential for stacking of cars on Congress Street.

MEMORANDUM

TO: Rick Seeley
FROM: Paul Gray, VP of Planning
DATE: April 14, 2004
RE: **Building Addition and Traffic Volume**

We have been asked by Tom Errico why a 192,000 sq. ft. building addition generates such a minimal increase in traffic volume.

The 192,000 sq. ft. addition breaks down as follows:

30,000	Sq. ft. mechanical penthouse
29,000	Sq. ft. unfinished basement
126,000	Sq. ft. 4 floor building
<u>7,000</u>	Sq. ft. sub-basement/circulation
192,000	Sq. ft. Total

The programs moving into the new addition (labor/delivery, high risk antepartum mothers, neonatal intensive care, normal newborn nursing and post-partum mothers) are currently located on the second floor of the Bean and Richards Building. MMC delivers approximately 2,300 babies annually and this number is projected to increase to 2,500 by 2010, i.e. less than one additional delivery per day. While we will be adding beds to these programs, (which require additional space) the primary driver of the increase in the space is the change in the space required to meet today's standard of care. For example:

Neonatal intensive care units like our existing unit (designed in 1982) has 60 sq. ft. per infant... today's standard is 100 sq. ft. per infant
 Today we have 18 private and 7 semi-private post delivery rooms for mothers... the new facility will have 36 private rooms.

These are only two examples.

The overall traffic study was based on an increase in our average daily census (number of patients in beds on any given day... not the total number of beds) from 480 to 490. As it turns out, those projections are high. Continued reductions in our length of stay and slower growth in admissions now suggest an average daily census of around 430 – 440. This lower census will decrease the average number of vehicle trips to the campus. Another factor (not directly considered in the traffic analysis) is MMC's continuing efforts to relocate programs and services to other MMC campuses that do not need to be on the Bramhall campus. Examples include the current urgent care center (First Care) on the Brighton Campus with 20,000 visits annually and radiation therapy for cancer on the Scarborough Campus with 16,000 visits. MMC is also planning (subject to

State approval) to relocate from Bramhall over 5,000 outpatient surgery patients to Scarborough and 5,000 outpatient endoscopy patients to Brighton.

It is this combination of a stable if not declining inpatient population and continued efforts to relocate programs to other campuses which leads us to the minimal increase in volume of Bramhall traffic even with the new addition. The space vacated for the new addition will not add materially to traffic volume either since it will be used for intensive care beds or relocation of existing beds in older portions of the hospital. Intensive care patients are already in the hospital, but we need more of those beds to serve them during a portion of their stay.

From: Peter Murray [<mailto:pmurray@law.harvard.edu>]
Sent: Monday, March 22, 2004 8:54 AM
To: Rick Seeley
Cc: ldu@portlandmaine.gov; IRedRaina@yahoo.com; SCSMedia@aol.com;
vandam@vandamdesign.com; oldmayor@aol.com; oresti@northcountryassociates.com;
pmurphy@maine.rr.com; 98pwm@att.net; debbym@attglobal.net; damory@dwmlaw.com;
balscr@mmc.org; mryan@mmc.org; pmurray@law.harvard.edu
Subject: Maine Medical Center Contract Zone Request

Dear Mr. Seeley -

This follows a meeting of the Western Prom Neighborhood Association on Thursday, March 18, at which we discussed Maine Medical Center's request for a Contract Zone in connection with the proposed addition to its West End facilities in Portland. What follows, however, are the thoughts and suggestions of the undersigned, and do not necessarily represent the official position of the WPNA.

Patrick Murphy mentioned an upcoming workshop meeting of the Planning Board to discuss the proposed contract zone. Unfortunately it will not be possible for me to be at this particular meeting. Please accept these written comments in lieu of my personal participation in the workshop.

Two of the aspects of the MMC proposal that would have the greatest potential negative impact on the neighborhood in which we live (at 89 West Street) are 1) the proposal to operate a heliport atop the existing parking garage and 2) the loss of housing resulting from their construction of a second large parking structure.

Based on the presentation made by MMC at the 3/18 meeting and other information shared with WPNA to date, we understand that MMC would like to operate the heliport for the incoming helicopter flights that are currently landing at the Portland Jetport. Currently there are about 200 helicopter flights per year. According to Mike Ryan, this number is likely to double if the heliport is approved. 400 flights per year would mean more than one flight per day landing in our neighborhood. Somewhat disturbingly the impression left by Mike's presentation is that all of the incoming flights with potential MMC patients would be routed to the heliport and the airport would be used only as a backup.

Needless to say, in some cases a patient's condition can be so serious that landing at the hospital rather than the airport can make a significant medical difference - perhaps even life or death. We and all the other residents of the Western Prom would welcome the helicopter in such an emergency situation, even in our own front yards, if it could mean saving a life. We are glad to endure the increased noise and danger in the place where we have our homes if it means that lives will be saved.

On the other hand, the Western Prom area is one of Portland's most well established residential neighborhoods. Ordinarily daily aircraft operations are inconsistent with residential areas. There is no question but that the attendant noise and danger will tend to degrade the quality of residential life in a large part of the neighborhood. The neighborhood residents should be expected to make this sacrifice, if it means that lives will be saved. However to the extent that helicopter transport is not a matter of life or death it seems reasonable to request that the contract zone be drawn to minimize unnecessary degradation of our neighborhood. To that end, it is requested that the contract zone be drawn to permit helicopter landings at MMC only when it is deemed medically necessary to land directly at the MMC helipad rather than the Portland Jetport.

MMC has suggested that the criteria for allowing helicopter transport in the first place will adequately protect the neighborhood from excessive helicopter usage when not medically necessary. This position, however, is not reassuring. First of all, there are some 200 flights a year currently landing at the Jetport. While it might make a life or death difference for some of these patients to come directly to the hospital, it seems likely that for most of them the Jetport is currently sufficing and would suffice

in the future. Currently the helicopter use authorization criteria are sufficient to allow transport via the airport, so we can only assume that they will continue to do so. It is easy to imagine cases where helicopter transport is authorized because the patient is located in some remote area where it would be difficult to operate an ambulance to pick up the patient, or on an island, and not because of extreme urgency at the Portland end of the movement. These latter flights should terminate at the Jetport so that the patient could be brought to MMC via MEDCU as is currently the case.

It is also requested that the contract zone require MMC to record certain key information about each helicopter landing at the heliport as they take place such as the location of origin of the transport, the diagnosis of the patient at time of transport, the diagnosis at MMC, the treatment, and a specific statement of the reason why landing at the heliport instead of the airport was deemed to be medically necessary. Of course such records should preserve patient confidentiality. However it should be possible to record and maintain the key items of information that would be necessary to determine whether MMC or its helicopter service is abiding by the terms of the contract zone. Apparently consideration is being given to establishing a joint community-MMC committee to monitor helicopter issues. If the information collected about the flights were made available to this committee, the committee could either reassure the area residents that the level of helicopter traffic is indeed medically necessary or raise any discrepancies with MMC. Without some kind of reporting, enforcement of any limitation on flights would be difficult, if not impossible.

Needless to say, helicopter landings to save lives are one thing, and helicopter traffic for other purposes is another. It is therefore requested that the contract zone specifically prohibit any helicopter operations for purposes other than bringing seriously sick or injured patients to the hospital under circumstances where transport to the heliport rather than the jetport is medically necessary. The heliport should not be available for VIP family members, corporate tycoons, hospital visitors, political personalities, or others.

Mike Ryan indicated at the meeting that the helicopter flight paths would approach MMC from the north and would not fly over the adjacent Western Prom neighborhood. By approaching from the northwest, the helicopter would be operating over commercial and mixed residential uses mainly at the foot of Bramhall Hill rather than the purely residential area at the top of the hill. It is requested that the Planning Board and its staff to investigate the extent to which specific flight path and minimum height restrictions can be a part of the zone and to include such requirements in the zone so as to minimize noise and danger to our neighborhood.

Because it is hard to anticipate all of the possible ramifications of regular helicopter operations in our neighborhood, and to foresee the ways in which reasonable controls might minimize those ramifications, it is requested that the contract zone specifically provide that the terms and conditions of the zone will be provisional for the first 12 months, subject to further consideration and additional zone provisions based on the experience of the first 12 months. At the end of the first 12 months the Planning Board can review the history of operations in the first year with the aid of the records (or summaries) suggested above. If everything has gone smoothly, then there should be no problem in making the zone permanent. However if there are problems, we would at least have a chance to deal with them before it is too late.

Provisions such as these should not interfere in any way with Maine Medical Center's operation of a heliport for those patients who really need to land at the hospital rather than the nearby Jetport. We reiterate our and our neighbors' willingness to share in the burden of helicopter operations when they are necessary to save lives and help seriously injured patients. However the neighborhood residents should not be asked to sacrifice the quality of life in one of Portland's most well established residential neighborhoods merely for convenience or to save the cost of a MEDCU trip from the airport.

While suggesting the foregoing as a good middle ground, there may be other solutions that the Planning Board or MMC might suggest to complement these proposals. Undoubtedly all of the neighborhood residents will be receptive to a real dialogue on this issue.

On the housing issue, it appears that MMC has, over the years, appropriated several buildings that once were houses for administrative purposes, and now proposes to tear down two more houses for its new garage. The necessity of losing this housing is understandable. On the other hand, MMC is under a legal duty to replace this housing. It appears to be considering fulfilling this duty by buying a couple of units in a housing development that some developer is constructing any way elsewhere in the city. Such a compliance is not in the spirit of this requirement. It is requested that MMC be required to replace the housing be either reconverting some space that is not currently being used for housing or by construction of additional new housing in the Western Prom-Parkside neighborhoods.

Can you please put me on the mailing list for future communications, notices, etc. concerning this project?

Written communications should be sent to:

89 West Street

Portland, ME 04102

pmurray@law.harvard.edu

Thank you very much for your consideration and that of the Planning Board,

Sincerely,

Peter L. Murray

To: Rick Seeley
Cc: Katherine Earley; Tom Gorrill
Subject: Maine Medical Center -- Bramhall Campus Expansion

Rick--

I have reviewed the April 12, 2004 Gorrill-Palmer Consulting Engineers, Inc. letter responding to my comments; the Revised April 2004 Traffic Impact Study; and the Revised April 2004 Parking study and offer the following comments.

1. I continue to be concerned about the level of traffic that will exist in the Congress Street/Valley Street area following expansion of the project and construction of the I-295 Connector. With the removal of the Danforth Street via-duct, it seems possible that traffic destined to the western promenade portion of the City will utilize Valley Street and Congress Street to access that area. I would agree that future travel pattern is difficult to predict. However, in an effort to ensure that reasonable traffic conditions will be provided in the future, I would suggest that the applicant conduct traffic counts and analysis at the Congress Street/Valley intersection following construction of both the Hospital Expansion and the I-295 Connector.
2. The evaluation of the Congress Street/Deering Avenue intersection should account for an exclusive pedestrian phase, the extreme grade on Deering Avenue, and the fact that the Deering Avenue approach does not operate in the field as a two-lane approach (during some cycles it does and others it does not). I would also note that the lag phase for Congress Street is not controlled with the appropriate signal head and should be accounted for in the evaluation. The applicant should also implement signal improvements to ensure MUTCD compliance.
3. The Congress Street/Valley Street intersection operates off the same controller as the Congress Street/St. John intersection and therefore should be evaluated as such. Additionally, the intersection should account for an exclusive pedestrian phase. The westbound Congress Street approach lanes assignment should be modified to represent existing conditions or a shared left/through lane and a shared through/right lane.
4. The Congress Street/St. John Street intersection should be evaluated assuming that it operates with the Congress Street/Valley Street intersection and has an exclusive pedestrian phase.
5. The intersection of Park Street and St. John Street has a movement that operates at an unacceptable level of service following project build-out and mitigation strategies should be recommended.
6. The intersection of Park Avenue/Deering Avenue should be evaluated with an exclusive pedestrian phase.
7. The applicant should identify specific recommendations that are to be implemented at the Garage entrance on Congress Street. This should include lanes, storage requirement, and on-street parking loss.
8. Final recommendations should include the development of revised traffic signal timing plans to be implemented by the applicants traffic signal contractor.

Please call me if you have any questions or comments.

Thomas A. Errico, P.E.
Senior Transportation Engineer
Wilbur Smith Associates
59 Middle Street
Portland, Maine 04101
(207) 871-1785
(207) 871-5825 fax

Att. 6

From: John Peverada [<mailto:JBP@portlandmaine.gov>]
Sent: Tuesday, April 20, 2004 4:08 PM
To: Rick Seeley
Cc: ldu@ci.portland.me.us; AQJ@portlandmaine.gov; GLT@portlandmaine.gov
Subject: MMC Revised Parking Plan

Rick, I have reviewed the revised parking plan you gave me last Wednesday. Some of my earlier questions have been resolved, but most of my comments remain the same.

Why does the report include on street parking spaces as part of the supply ?

Is the hospital going to be required to continue to run a shuttle from the St. John St. Lot ?

Has the hospital verified that every employee has an off street parking space ?

What is the hospital going to do to encourage their employees NOT to park on the street ? One suggestion may be to stagger the start and stop times of the shifts, so employees can exit the garage quicker.

I fully agree with Gorrill Palmers recommendation to have the hospital install better directional signage for visitor parking. I also agree with their recommendation that patients be directed to park in the proposed garage in their pre-visit materials. This was discussed during their approval 1998 , but as far as I know it was never implemented.

Finally, I am hopeful that the following will become conditions of approval for this project:

- 1.The hospital will allow snow ban parking in the new garage at reasonable rates from 7:00PM to 7:00AM
2. The garage will be available to residents nights and weekends
3. During construction, all subcontractors will be required to park off site.
4. The City will approve prototypes of newly proposed directional signage. Done
5. The hospital will show the City prototypes of newly proposed literature on parking to be sent to patients with their pre-visit materials.
- 6.The hospital shall verify that each employee has an off street parking space provided.
7. The hospital will provide off street parking for all of their vendors/sub contractors, alleviating the need for them to purchase on street occupancy permits and tying up valuable on street parking spaces needed by residents and for turnover parking.
- 8.The hospital shall be required to continue to run a shuttle from the St. John St. Lot, and verify that they have a long term lease for this lot and any other lot that they do not own.

Rick, please feel free to share my comments with the Planning Board or MMC staff. If you have any questions or concerns, I can be reached at 874-8444. Thanks

Any person being the owner or occupant of, having control of or the use of any building or premises or part thereof, who violates any of the provisions of this article, shall be guilty of an offense.

(Code 1968, § 602.26.D; Ord. No. 157-76, 4-21-76)

Sec. 14-58. Reserved.

Sec. 14-59. Reserved.

DIVISION 1.5. CONDITIONAL OR CONTRACT ZONING

Sec. 14-60. Authority and purpose.

Pursuant to 30-A M.R.S.A. Section 4503(9), conditional or contract zoning is hereby authorized for rezoning of property where, for reasons such as the unusual nature or unique location of the development proposed, the city council finds it necessary or appropriate to impose, by agreement with the property owner or otherwise, certain conditions or restrictions in order to ensure that the rezoning is consistent with the city's comprehensive plan. Conditional or contract zoning shall be limited to where a rezoning is requested by the owner of the property to be rezoned. Nothing in this division shall authorize either an agreement to change or retain a zone or a rezoning which is inconsistent with the city's comprehensive plan.

(Ord. No. 31-85, 7-15-85; Ord. No. 88-88, 7-19-88; Ord. No. 62-89, 7-17-89)

Sec. 14-61. Notice and hearing.

The planning board shall conduct a public hearing prior to any property being rezoned under this division. Notice of this hearing shall be posted in the city clerk's office at least fourteen (14) days prior to the public hearing and shall be published in a newspaper of general circulation within the city at least two (2) times, the date of the first publication to be at least seven (7) days prior to the hearing. Notice shall also be sent to the owners of all property abutting the property to be rezoned at their last known address. This notice shall contain a copy of the proposed conditions and restrictions, with a map indicating the property to be rezoned.

(Ord. No. 31-85, 7-15-85)

Sec. 14-62. Conditions and restrictions.

Conditions and restrictions imposed under the authority of this division shall relate only to the physical development and operation of the property and may include, by way of example:

- (a) Limitations on the number and types of uses permitted;
- (b) Restrictions on the scale and density of development;
- (c) Specifications for the design and layout of buildings and other improvements;
- (d) Schedules for commencement and completion of construction;
- (e) Performance guarantees securing completion and maintenance of improvements, and guarantees against defects;
- (f) Preservation of open space and buffers, and protection of natural areas and historic sites;
- (g) Contributions toward the provision of municipal services required by the development; and
- (h) Provisions for enforcement and remedies for breach of any condition or restriction.

(Ord. No. 31-85, 7-15-85)

Secs. 14-63. Reserved.

Secs. 14-64. Reserved.

Secs. 14-65. Reserved.

DIVISION 2. R-1 RESIDENTIAL ZONE*

*Editor's note--Ord. No. 532-84, adopted May 7, 1984, repealed Div. 2, s;§ 14-66--14-69, and enacted a new Div. 2, §§ 14-66--14-71. The division was formerly derived from Code 1968, § 602-2.2A--D; Ord. No. 499-74, § 2, adopted Aug. 19, 1974; Ord. No. 610-82, § 1, adopted July 7, 1982; and Ord. No. 88-83, §§ 1, 2, adopted Aug. 3, 1983.

Maine Medical Center and Neighborhoods Meeting
Tuesday, March 30, 2004
4:00 – 6:00 pm

Purpose: to review the progress on "next step" items due to be done by 3/30, to look at what people learned from the Planning Board workshop and identify anything that should go on a future Committee agenda, to hear the key issues and workshop agenda items identified by the Planning staff and to set the future work of the group

Desired Outcomes:

A check off of next steps which have been completed

A list of future work for the Committee based on what people learned from the Planning Board Workshop

A list of the issues identified by the Planning Board and the agendas for the next Planning Board workshops

An agreement on what the Committee should work on next

A list of next steps

Agenda:

4:00pm Meeting introduction: review purpose, outcomes, agenda and ground rules

4:10 What has been accomplished so far on the next steps designed to be done by 3/30?

4:30 Discussion of the 3/24 Planning Board workshop. What did you hear as the key issues or questions? What should this group be working on in the future as a result?

5:00 What did the Planning Board staff identify as the key issues and the Planning Board schedule in their meeting with MMC today (3/30)?

5:30 What should this committee work on at its next meeting?

5:45 Wrap up: check on any basket items, next steps and meeting evaluation

6:00 Adjourn

Next Steps from previous two meetings		
Recruit people from other neighborhoods		
Check with Parkside N. A. re representatives	Steve / Raina	3/11
Check with Western Prom	Patrick	3/18
Valley / Gilman area	Steve	3/15
Libbytown / Oakdale: Paul Oulette	Mike	3/15
Steve Perazone, Vinal Thompson	Paul	3/15
Set up meeting schedule (weeks between Planning Board meetings; then quarterly)	Paul	3/15
Talk with MMC Board	Paul	3/17
Report to Neighborhood Associations	Steve, Raina Sam, Patrick	3/11 3/17
Inform commercial corridor (Architectural Salvage, La Bodega)	Paul	3/15
More work on the pedestrian way in the front of existing garage	Hank/Mike	2 wks.
Re-examine the triangle; beefing up landscaping	Hank/Mike	2 wks.
Finish research and design on pedestrian connector between Crescent and Congress, the upper campus and Congress, a whole pedestrian plan provide an update	Hank/Mike	2 wks.
Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan	Paul	3/23
Bring housing developments to the Neighborhood Council	Paul	Spring 04 at an NC mtg.
Prepare an assessment of recently acquired Residential buildings that won't be torn down	Mike	3/23
Present revised housing replacement plan to the Neighborhood Council	Paul	3/30
See if life Flight can lease quieter helicopters	Mike	3/30
Need to come back to the suggestion which includes "compensate" and agree on	Paul	future mtg.

what it means; put on future agenda

Talk with METRO about the bus stops and bring ideas back to Council; coordinate with the sidewalk and connector plans	Mike/Hank	3/30
Link with the Fairfield Inn re revitalization efforts in the area	Paul	3/30

Maine Medical Center and Neighborhoods Meeting
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Meeting Notes:

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5:45 Wrap up: check on any basket items, next steps and meeting evaluation

6:00 Adjourn

Ground Rules:

Cell phones off or on vibrate

Listen and hear people out

Be succinct

Don't repeat

Be constructive

Check in to get everyone's opinion

Disagree with ideas not people

Stay on the topic

Present were: Patrick Murphy, John Orestis, Anne Pringle, Raina Rippel, Steven Scharf, George Silverman, Sam Van Dam, Paul Gray, Hank Dunn and Alex Jaegerman

Next steps from 3/8 and 3/15 updated and reorganized

Commercial corridor

Inform commercial corridor (Architectural Salvage, La Bodega) Paul 4/15

Link with the Fairfield Inn re revitalization efforts in the area Paul 4/15

These two haven't been done yet, but will be by 4/15

Pedestrian walkways along Congress and connecting to the campus

More work on the pedestrian way in the front of existing garage and new garage Hank/Mike 2 wks.

Hank reported that they are working on the suggestions made at the previous meetings and will bring the new plans back to the group

Re-examine the triangle; beefing up landscaping Hank/Mike 2 wks.

Hank reported that they are working on the suggestions made at the previous meetings and will bring the new plans back to the group

Finish research and design on pedestrian connector Hank/Mike

between Crescent and Congress, the upper campus

and Congress, a whole pedestrian plan

provide an update 2 wks.

Sam spoke to the importance of the connection between the campus and Congress Street. Hank said that they were working on "way finding elements" and looking for ideas on "public way common elements". Sam suggested lighting and an outside consultant such as Peter Monroe. Hank said that further design developments would come back to the group. Anne suggested that the hospital check on an ADA requirements relative to the walk way.

Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan Mike 3/23

This job was reassigned to Mike and Hank

Talk with METRO about the bus stops and bring ideas back to Council; coordinate with the sidewalk and connector plans Mike/Hank 3/30

Mike and Paul will talk with METRO after they have some suggestions to make to METRO about bus stop locations and amenities.

Housing

Bring housing developments to the Neighborhood Council(relative to reconverting offices to residential) Paul Spring 04 at an NC mtg.

Paul indicated that this item will come later after the more immediate issues are settled

Prepare an assessment of recently acquired Residential buildings that won't be torn down Mike 3/23
This refers to the buildings on Crescent Street and has not been done yet. The buildings are in pretty bad condition.

Present revised housing replacement plan to the Neighborhood Council Paul before 4/27
The Hospital is working on an opportunity to partner with another organization to do part of their housing replacement responsibility. He doesn't have a final agreement from the other organization yet, but it would be in the neighborhood. Either this will be ready by 4/27 or they will have a "plan B" ready.

Helicopters

See if life Flight can lease quieter helicopters Mike 3/30
Mike has spoken with Life Flight. When they replace the helicopters they have, they will upgrade to newer, quieter technology. But that won't be for more than a year.

Others next steps

Need to come back to the suggestion which includes "compensate" and agree on what it means; put on future agenda Paul future mtg.

Completed Next Steps:

Recruit people from other neighborhoods

Check with Parkside N. A. re representatives	Steve / Raina	done
Check with Western Prom Valley / Gilman area	Patrick	done
Libbytown / Oakdale: Paul Oulette	Steve	done
Steve Perazone, Vinal Thompson	Mike	done
	Paul	3/15

Scheduling

Set up meeting schedule (weeks between Planning Board meetings; then quarterly) Paul done
The group will email Pam with their available dates in April for another meeting. Then the next Planning Board meeting will be 4/27 and the group will meet again on May 3.

Reporting to other groups

Talk with MMC Board	Paul	done
Report to Neighborhood Associations	Steve, Raina	done
	Sam, Patrick	done

Report from the meeting of the City and MCC Planning Staffs

Schedule of Planning Board workshops:

4/27 Workshop to continue presentation of new information and gathering questions:

traffic

landscaping and external signage

contract for contract zone

consistence of the plans with the City's comprehensive plan

5/4 Planning Board walk through of the site and talk with Life Flight and pilot

5/11 Workshop to respond to questions and work on details

Bob Miller will do a peer review on the helicopter noise study; scope to be determined

The City staff has a number of questions to which MMC will respond on the construction schedule, storm water, traffic and the parking study.

There was discussion of some right of way issues associated with the street widenings both in front and on Gilman Street.

Key issues raised by the City Staff:

Clarification of the long term master plan for MMC including the Vaughan St. lot

Scope of the contract zone

Helipad – noise and safety

Garage and landscaping

Traffic, especially on Congress Street

Utility plant: what is it; will it need expansion; architecture

Consistency with the City's plan

Housing replacement

Need to start the process of defining the contract zone area and conditions

Comments from the Neighborhood representatives on the workshop and the issues:

The Planning Board's questions were very similar to the neighbor's

Need for a MMC master plan; concern that there isn't time for a thorough master plan

How does it fit with the City's comprehensive plan?

Need to see some "compensation" for the change in quality of life in changes in the parking lot.

Contract zoning needs to include parameters around the area and density

Need to agree on principles of development on the "campus" as well as the area

Next meeting

Date: everyone will send his/her availability to Pam, who will find the date with the best attendance

Agenda: What are the core principles that are important to the Council for the contract zone?

Send ideas: Because not everyone will be able to make the next meeting given the complicated travel and work plans for much of the group, people are invited to share via email their thoughts on the core principles for the contract zone. Pam will collate these and make sure that they are part of the discussion at the meeting.

Next Steps

<u>What</u>	<u>Who</u>	<u>When</u>
Send available dates in April to Pam	Everyone	immediately
Notes for 3/30	Pam	4/1
Send any ideas or suggestions on the core principles for the contract zone to everyone and Pam will collate them	everyone	before next mtg

Next Steps from previous two meetings

Recruit people from other neighborhoods		
Check with Parkside N. A. re representatives	Steve / Raina	3/11
Check with Western Prom Valley / Gilman area	Patrick Steve	3/18 3/15
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Link with the Fairfield Inn re revitalization efforts in the area	Paul	3/30

Maine Medical Center and Neighborhoods Meeting
Monday, March 8, 2004
4:00 – 6:00 pm

Present: Patrick Murphy, Raina Rippel, Steven Scharf, Sam Van Dam, Paul Gray, Mike Ryan and Hank Dunn.

Meeting Summary: MMC staff and neighborhood representatives met to look at the responses and next steps for the suggestions of the neighbors about the MMC plans.

Paul outlined the suggestion to create an ongoing MMC Neighborhood Association Council. The group agreed with the plan and suggested that there be a subcommittee to deal with helicopter issues that include other potentially affected neighborhoods. The neighborhood representatives agreed to check with their respective Associations and various committee members took assignments for recruiting members and setting a meeting schedule. (See next steps under the section on Neighborhood Council.) It was agreed that the current representatives would most likely be the people to continue representing their associations for the time being.

Paul presented the suggestions for a pedestrian walk way from Crescent to Congress. There is still research to be done on the right of way and the possibility of running it horizontally across another person's land part way down the hill. The group added suggestions on integrating the walk way with the hospital campus and with an overall pedestrian plan. Mike and Hank will continue to work on the project and update the group in two weeks.

Next, the group looked at the new designs for the façade of the new garage. The neighbors reacted positively to the new arrangement for stacking cars in the garage, the wider entrances with better pedestrian visibility, the new materials, lights and banners on the façade. They suggested, in addition, that the existing door in the tower "disappear", that there be trees on the street side of the lower sidewalk including the existing garage and that the landscaping in the triangle be beefed up. Next steps include work on those ideas and coordinating the sidewalk plans with the City. (See notes for complete list of next steps.)

On the Utility Building, the neighbors reacted positively to the new exterior patterns, but suggested that the street trees be good sized. There were also suggestions on working with the City on the revitalization of the Congress Street retail area and on advertising Congress Street businesses within the hospital to encourage use of the area.

The Committee agreed to meet again on March 15 from 4-6 to finish with the suggestions on housing and any others suggestions not yet discussed.

The meeting adjourned at 6:00pm.

Okay Drawings 2001

June

Can't appointed on March

Sunny Sept. October at Polls

August - Jim Briggs;
Stun

• California on July 28th

August 10th

• Looking at flight path, ^{not results + altitudes - key} and minor contacts

• send Contact Zone Agreement.

rmiller@hmmh.com

T81-229-7939
Set Contact Zone

5 descriptive areas
3 Notice of handling areas
Elevation view

To: Rick Seeley
Cc: Katherine Earley; Tom Gorrill
Subject: Maine Medical Center -- Bramhall Campus Expansion

Rick--

I have reviewed the April 12, 2004 Gorrill-Palmer Consulting Engineers, Inc. letter responding to my comments; the Revised April 2004 Traffic Impact Study; and the Revised April 2004 Parking study and offer the following comments.

1. I continue to be concerned about the level of traffic that will exist in the Congress Street/Valley Street area following expansion of the project and construction of the I-295 Connector. With the removal of the Danforth Street via-duct, it seems possible that traffic destined to the western promenade portion of the City will utilize Valley Street and Congress Street to access that area. I would agree that future travel pattern is difficult to predict. However, in an effort to ensure that reasonable traffic conditions will be provided in the future, I would suggest that the applicant conduct traffic counts and analysis at the Congress Street/Valley intersection following construction of both the Hospital Expansion and the I-295 Connector.
2. The evaluation of the Congress Street/Deering Avenue intersection should account for an exclusive pedestrian phase, the extreme grade on Deering Avenue, and the fact that the Deering Avenue approach does not operate in the field as a two-lane approach (during some cycles it does and others it does not). I would also note that the lag phase for Congress Street is not controlled with the appropriate signal head and should be accounted for in the evaluation. The applicant should also implement signal improvements to ensure MUTCD compliance.
3. The Congress Street/Valley Street intersection operates off the same controller as the Congress Street/St. John intersection and therefore should be evaluated as such. Additionally, the intersection should account for an exclusive pedestrian phase. The westbound Congress Street approach lanes assignment should be modified to represent existing conditions or a shared left/through lane and a shared through/right lane.
4. The Congress Street/St. John Street intersection should be evaluated assuming that it operates with the Congress Street/Valley Street intersection and has an exclusive pedestrian phase.
5. The intersection of Park Street and St. John Street has a movement that operates at an unacceptable level of service following project build-out and mitigation strategies should be recommended.
6. The intersection of Park Avenue/Deering Avenue should be evaluated with an exclusive pedestrian phase.
7. The applicant should identify specific recommendations that are to be implemented at the Garage entrance on Congress Street. This should include lanes, storage requirement, and on-street parking loss.
8. Final recommendations should include the development of revised traffic signal timing plans to be implemented by the applicants traffic signal contractor.

Please call me if you have any questions or comments.

Thomas A. Errico, P.E.
Senior Transportation Engineer
Wilbur Smith Associates
59 Middle Street
Portland, Maine 04101
(207) 871-1785
(207) 871-5825 fax

Att. 6

From: John Peverada [<mailto:JBP@portlandmaine.gov>]
Sent: Tuesday, April 20, 2004 4:08 PM
To: Rick Seeley
Cc: ldu@ci.portland.me.us; AQJ@portlandmaine.gov; GLT@portlandmaine.gov
Subject: MMC Revised Parking Plan

Rick, I have reviewed the revised parking plan you gave me last Wednesday. Some of my earlier questions have been resolved, but most of my comments remain the same.

Why does the report include on street parking spaces as part of the supply ?

Is the hospital going to be required to continue to run a shuttle from the St. John St. Lot ?

Has the hospital verified that every employee has an off street parking space ?

What is the hospital going to do to encourage their employees NOT to park on the street ? One suggestion may be to stagger the start and stop times of the shifts, so employees can exit the garage quicker.

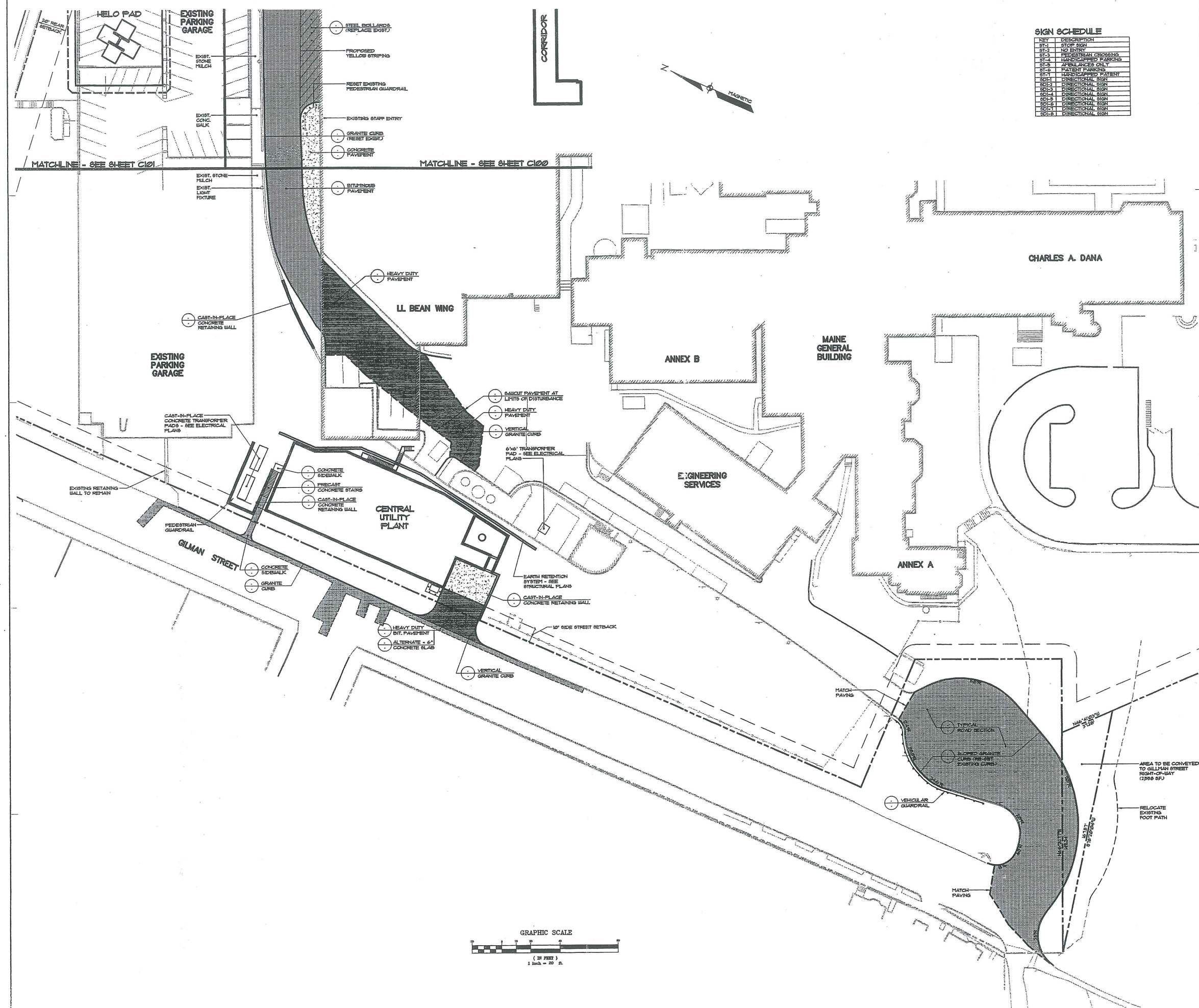
I fully agree with Gorrill Palmers recommendation to have the hospital install better directional signage for visitor parking. I also agree with their recommendation that patients be directed to park in the proposed garage in their pre-visit materials. This was discussed during their approval 1998 , but as far as I know it was never implemented.

Finally, I am hopeful that the following will become conditions of approval for this project:

- 1.The hospital will allow snow ban parking in the new garage at reasonable rates from 7:00PM to 7:00AM
2. The garage will be available to residents nights and weekends
3. During construction, all subcontractors will be required to park off site.
4. The City will approve prototypes of newly proposed directional signage. Done
5. The hospital will show the City prototypes of newly proposed literature on parking to be sent to patients with their pre-visit materials.
- 6.The hospital shall verify that each employee has an off street parking space provided.
7. The hospital will provide off street parking for all of their vendors/sub contractors, alleviating the need for them to purchase on street occupancy permits and tying up valuable on street parking spaces needed by residents and for turnover parking.
- 8.The hospital shall be required to continue to run a shuttle from the St. John St. Lot, and verify that they have a long term lease for this lot and any other lot that they do not own.

Rick, please feel free to share my comments with the Planning Board or MMC staff. If you have any questions or concerns, I can be reached at 874-8444. Thanks

Att. 7

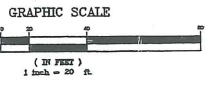


SIGN SCHEDULE

KEY	DESCRIPTION
ST-1	STOP SIGN
ST-2	NO ENTRY
ST-3	PEDESTRIAN CROSSING
ST-4	HANDICAPPED PARKING
ST-5	VEHICLES ONLY
ST-6	PATIENT PARKING
ST-7	HANDICAPPED PATIENT
SD-1	DIRECTIONAL SIGN
SD-2	DIRECTIONAL SIGN
SD-3	DIRECTIONAL SIGN
SD-4	DIRECTIONAL SIGN
SD-5	DIRECTIONAL SIGN
SD-6	DIRECTIONAL SIGN
SD-7	DIRECTIONAL SIGN
SD-8	DIRECTIONAL SIGN

MATCHLINE - SEE SHEET C100

MATCHLINE - SEE SHEET C100

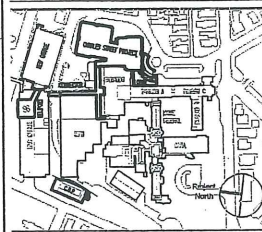


CITY REVIEW

WEEK	ISSUE DATE	DESCRIPTION

4-13-04 SUPPLEMENTAL SUBMISSION
 1-5-04 FINAL SUBMISSION

Issue Log



TRO
 ARCHITECTURE
 PLANNING
 ENGINEERING
 INTERIOR DESIGN

The Ritchie Organization
 80 Bridge Street
 Newton, MA 02459-1104
 617-553-9400

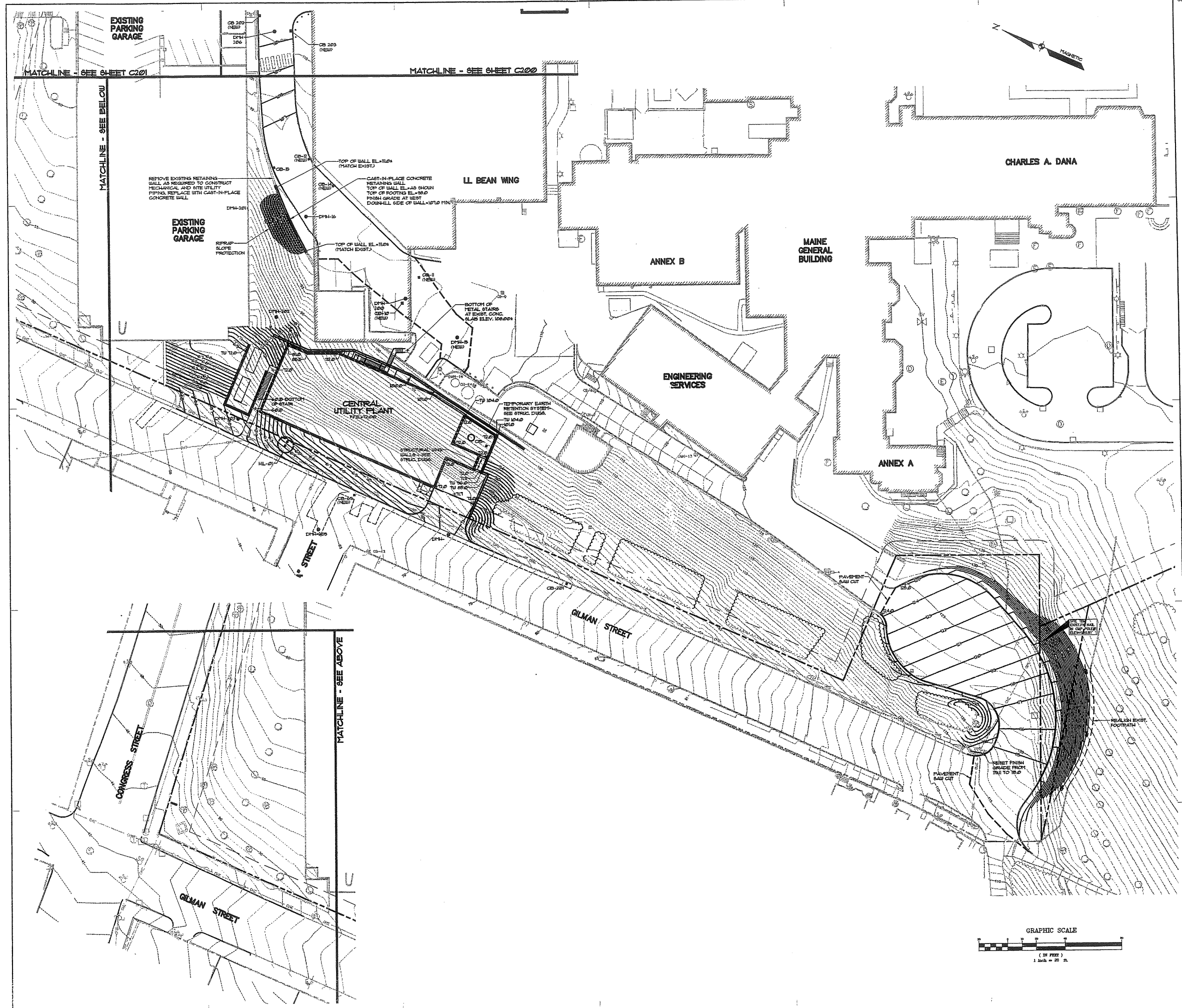
Maine Medical Center
 Bramhall Street Campus
 Portland, Maine

SITE PLAN

Commission No.	Date Issued	Sheet Number

Scale: 1"=20'
 Drawn By: JAL
 Approved By: BJR
 Plotted: 01/24/05
 Printed: 01/24/05

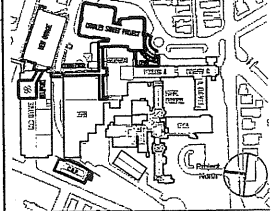
C102



CITY REVIEW

MARK	ISSUE DATE	DESCRIPTION

ISSUE LOG
4-13-04 SUPPLEMENTAL SUBMISSION
1-6-04 FINAL SUBMISSION



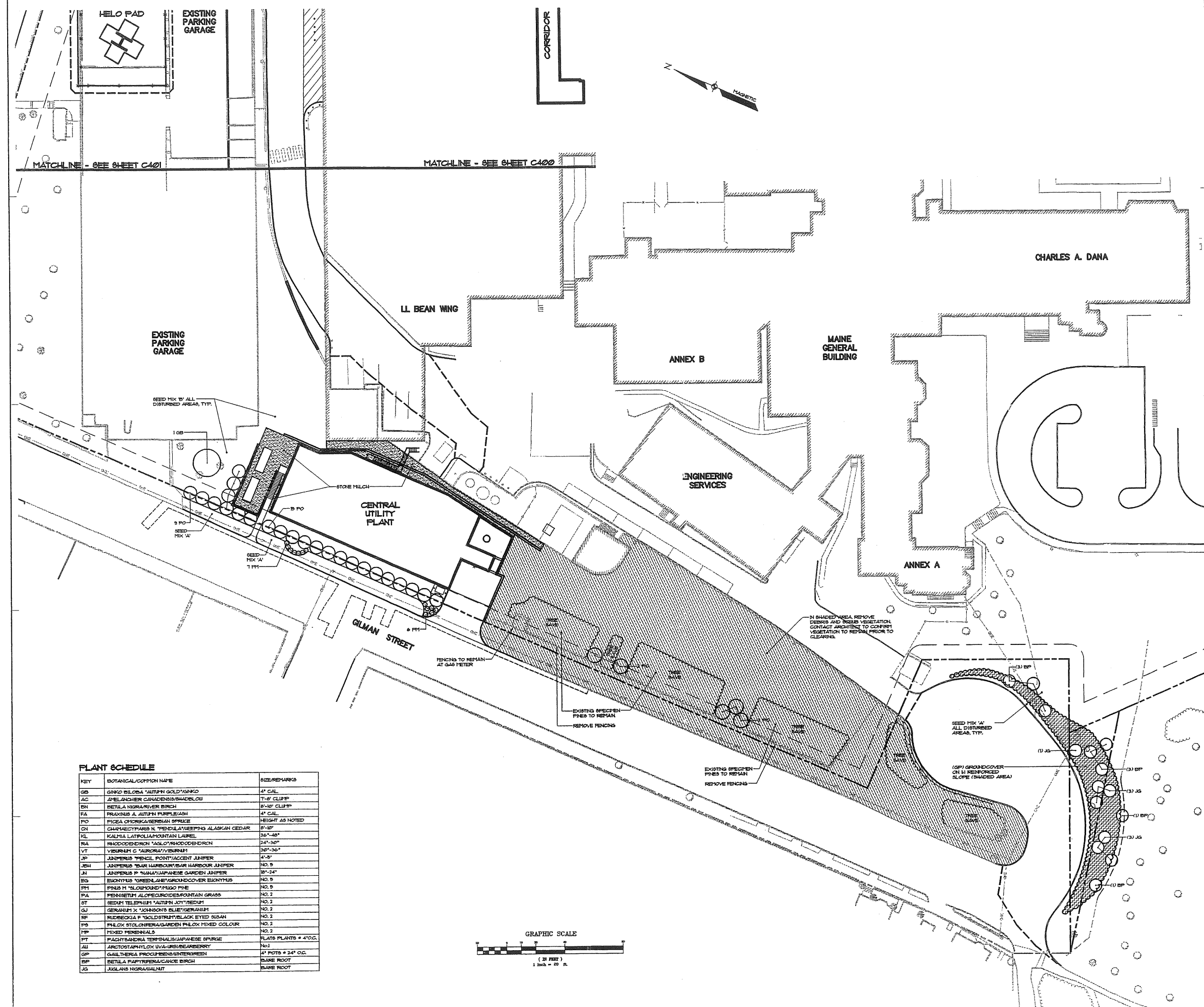
TRO
 ARCHITECTURE
 PLANNING
 ENGINEERING
 INTERIOR DESIGN
 The Ritchie Organization
 85 Bridge Street
 Newton, MA 02458-1134
 617-552-9400

Maine Medical Center
 Bramhall Street Campus
 Portland, Maine

Drawing Title:
GRADING PLAN

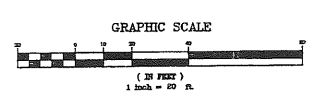
GRAPHIC SCALE
 1 inch = 20 feet

Commission No.		Date Issued	1-6-04
Scale	1"=20'	Sheet Number	
Drawn By	ML		
Approved By	DR		
Filename	010460.DWG		



PLANT SCHEDULE

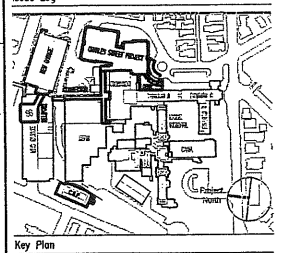
KEY	BOTANICAL/COMMON NAME	SIZE/REMARKS
GB	GINKGO BILOBA 'AUTUMN GOLD'/GINKGO	4" CAL
AC	AMELANCHIER CANADENSIS/SHADELOW	T-8' CLUMP
BN	BETULA NIGRA/RYE BIRCH	8-12' CLUMP
FA	FRAXINUS A. AUTUMN PURPLE/ASH	4" CAL
PO	PICEA CHOROKA/SERBIAN SPRUCE	HEIGHT AS NOTED
CH	QUERCUS PRINUS N. 'PRINCIPALIS'/PINE ALASKAN CEDAR	8"-10"
KL	KALHA LITROPOLIA/PONTAIN LAUREL	30"-40"
RA	RHODODENDRON 'MAGNOLIA'/RHODODENDRON	24"-36"
VT	VIBURNUM C. 'AURORA'/VIBURNUM	30"-36"
JP	JUNIPERUS 'MENCIL PONTIAC/ACCENT JUNIPER	4"-5"
JH	JUNIPERUS 'MAR HARBOUR/MAR HARBOUR JUNIPER	NO. 5
JN	JUNIPERUS P. 'NANA/JAPANESE GARDEN JUNIPER	8"-24"
EG	EUCHYLIUS 'GREENLAND/REINFORCED EUCHYLIUS	NO. 5
PT	PRUNUS P. 'SLOUPHOUND'/TANGO PRUNE	NO. 5
PA	PENSTEMON ALPESICUS/ALPINE MOUNTAIN GRASS	NO. 2
ST	SEDUM TELEPHIUM 'AUTUMN JOY'/SEDUM	NO. 2
GJ	GERANIUM X 'JOHNSON'S BLUE/GERANIUM	NO. 2
RF	RHECOKIA B. 'SOLDIER'/BLACK EYED SUSAN	NO. 2
FB	PHLOX STOLONIFERA/GARDEN PHLOX MIXED COLOUR	NO. 2
MP	MIXED PERENNIALS	NO. 2
PT	PRUNUS A. 'SLOUPHOUND'/JAPANESE SPRUCE	PLANT PLANTS = 4" O.C.
AR	ARCTOSTAPHYLOS UVA-URSINA/RED BERRY	NO. 1
GP	GALLIENIA PROCUERNA/INTERSECTED	4" POTS @ 24" O.C.
BP	BETULA PAPPYRIFERA/CANOE BIRCH	BLAKE ROOT
JG	JUGLANS NIGRA/WALNUT	BLAKE ROOT



CITY REVIEW

DATE	ISSUE DATE	DESCRIPTION
	4-13-04	SUPPLEMENTAL SUBMISSION
	1-4-04	FORMAL SUBMISSION

Issue Log

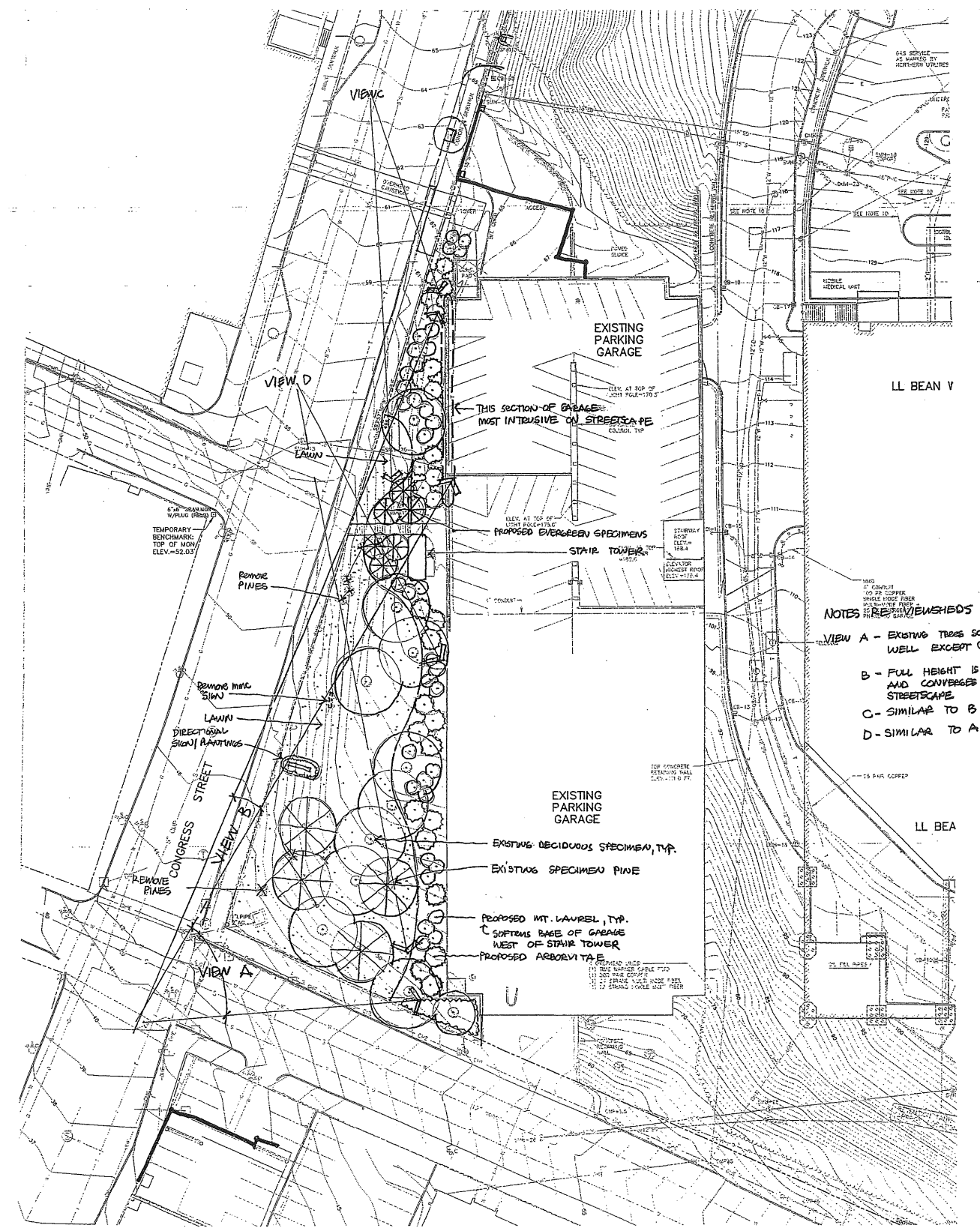


TRO
 ARCHITECTURE
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Maine Medical Center
 Bramhall Street Campus
 Portland, Maine

Drawing Title: **LANDSCAPE PLAN**

Companion No.	1-5-04	Date Issued	1-5-04
Scale	1"=20'	Sheet Number	C402
Drawn By	JML		
Approved By	DLR		
File Name	01048_LDR		



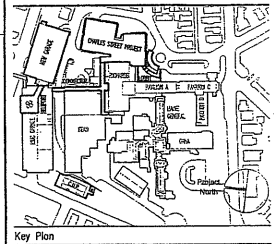
NOTES TO BE REVIEWED

- VIEW A - EXISTING TREES SCREEN GARAGE WELL EXCEPT @ BASE
- B - FULL HEIGHT IS VISIBLE AND CONVERGES UPON STREETSCAPE
- C - SIMILAR TO B
- D - SIMILAR TO A

CITY REVIEW

MARK	ISSUE DATE	DESCRIPTION

4-14-04 CITY REVIEW

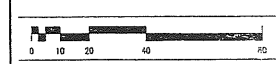


TRO
 ARCHITECTURE
 PLANNING
 ENGINEERING
 INTERIOR DESIGN

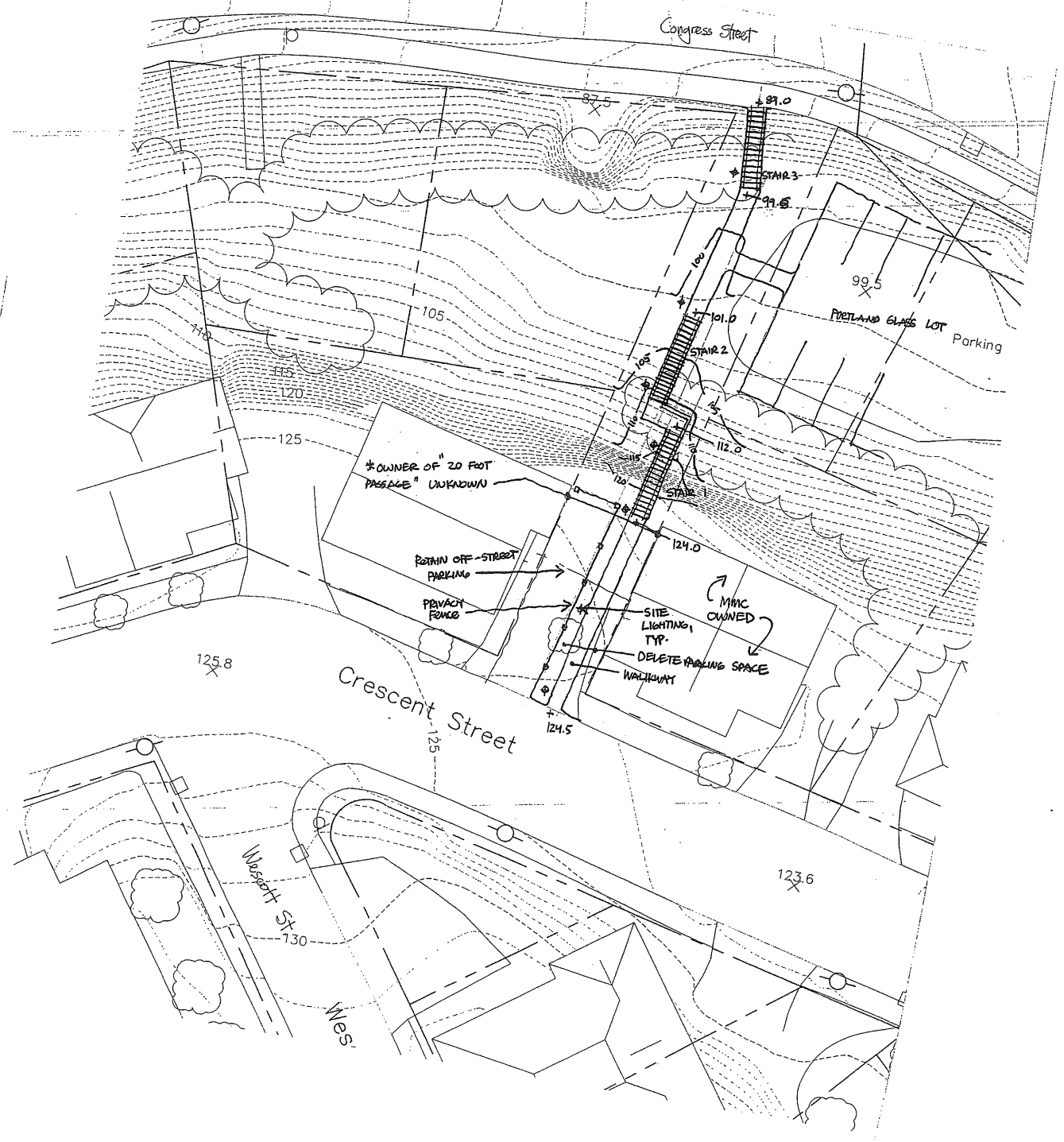
The Filchik Organization
 80 Bridge Street
 Newton, MA 02458-1154
 617-889-9400

Maine Medical Center
 Bramhall Street Campus
 Portland, Maine

LANDSCAPE PLAN AT EXISTING GARAGE

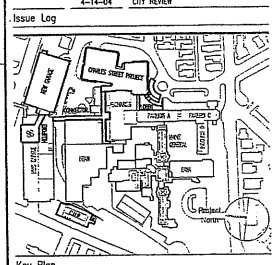


Commission No.		Date Issue	4-14-04
Scale	1"=20'	Sheet Number	
Drawn By	VJC		
Approved By	VJC		
Filename	0154RPEZ.DWG		



CITY REVIEW

MARK	ISSUE DATE	DESCRIPTION

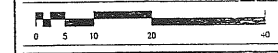


TRO
 ARCHITECTURE
 PLANNING
 ENGINEERING
 INTERIOR DESIGN

The Ritzke Organization
 85 Bridge Street
 Newton, MA 02459-1134
 617-555-8400


Maine Medical Center
 Bramhall Street Campus
 Portland, Maine

Drawing Title:
PEDESTRIAN CONNECTION TO CONGRESS STREET



Commission No.		Date Issued	4-14-08
Scale	1"=10'	Sheet Number	
Drawn By	WFC		
Approved By	WFC		
Filename	01046LZ.DWG		

Any person being the owner or occupant of, having control of or the use of any building or premises or part thereof, who violates any of the provisions of this article, shall be guilty of an offense.

(Code 1968, § 602.26.D; Ord. No. 157-76, 4-21-76)

Sec. 14-58. Reserved.

Sec. 14-59. Reserved.

DIVISION 1.5. CONDITIONAL OR CONTRACT ZONING

Sec. 14-60. Authority and purpose.

Pursuant to 30-A M.R.S.A. Section 4503(9), conditional or contract zoning is hereby authorized for rezoning of property where, for reasons such as the unusual nature or unique location of the development proposed, the city council finds it necessary or appropriate to impose, by agreement with the property owner or otherwise, certain conditions or restrictions in order to ensure that the rezoning is consistent with the city's comprehensive plan. Conditional or contract zoning shall be limited to where a rezoning is requested by the owner of the property to be rezoned. Nothing in this division shall authorize either an agreement to change or retain a zone or a rezoning which is inconsistent with the city's comprehensive plan.

(Ord. No. 31-85, 7-15-85; Ord. No. 88-88, 7-19-88; Ord. No. 62-89, 7-17-89)

Sec. 14-61. Notice and hearing.

The planning board shall conduct a public hearing prior to any property being rezoned under this division. Notice of this hearing shall be posted in the city clerk's office at least fourteen (14) days prior to the public hearing and shall be published in a newspaper of general circulation within the city at least two (2) times, the date of the first publication to be at least seven (7) days prior to the hearing. Notice shall also be sent to the owners of all property abutting the property to be rezoned at their last known address. This notice shall contain a copy of the proposed conditions and restrictions, with a map indicating the property to be rezoned.

(Ord. No. 31-85, 7-15-85)

Sec. 14-62. Conditions and restrictions.

Conditions and restrictions imposed under the authority of this division shall relate only to the physical development and operation of the property and may include, by way of example:

- (a) Limitations on the number and types of uses permitted;
- (b) Restrictions on the scale and density of development;
- (c) Specifications for the design and layout of buildings and other improvements;
- (d) Schedules for commencement and completion of construction;
- (e) Performance guarantees securing completion and maintenance of improvements, and guarantees against defects;
- (f) Preservation of open space and buffers, and protection of natural areas and historic sites;
- (g) Contributions toward the provision of municipal services required by the development; and
- (h) Provisions for enforcement and remedies for breach of any condition or restriction.

(Ord. No. 31-85, 7-15-85)

Secs. 14-63. Reserved.

Secs. 14-64. Reserved.

Secs. 14-65. Reserved.

DIVISION 2. R-1 RESIDENTIAL ZONE*

***Editor's note**--Ord. No. 532-84, adopted May 7, 1984, repealed Div. 2, s;§ 14-66--14-69, and enacted a new Div. 2, §§ 14-66--14-71. The division was formerly derived from Code 1968, § 602-2.2A--D; Ord. No. 499-74, § 2, adopted Aug. 19, 1974; Ord. No. 610-82, § 1, adopted July 7, 1982; and Ord. No. 88-83, §§ 1, 2, adopted Aug. 3, 1983.

Maine Medical Center and Neighborhoods Meeting
Tuesday, March 30, 2004
4:00 – 6:00 pm

Purpose: to review the progress on "next step" items due to be done by 3/30, to look at what people learned from the Planning Board workshop and identify anything that should go on a future Committee agenda, to hear the key issues and workshop agenda items identified by the Planning staff and to set the future work of the group

Desired Outcomes:

A check off of next steps which have been completed

A list of future work for the Committee based on what people learned from the Planning Board Workshop

A list of the issues identified by the Planning Board and the agendas for the next Planning Board workshops

An agreement on what the Committee should work on next

A list of next steps

Agenda:

4:00pm Meeting introduction: review purpose, outcomes, agenda and ground rules

4:10 What has been accomplished so far on the next steps designed to be done by 3/30?

4:30 Discussion of the 3/24 Planning Board workshop. What did you hear as the key issues or questions? What should this group be working on in the future as a result?

5:00 What did the Planning Board staff identify as the key issues and the Planning Board schedule in their meeting with MMC today (3/30)?

5:30 What should this committee work on at its next meeting?

5:45 Wrap up: check on any basket items, next steps and meeting evaluation

6:00 Adjourn

Next Steps from previous two meetings		
Recruit people from other neighborhoods		
Check with Parkside N. A. re representatives	Steve / Raina	3/11
Check with Western Prom	Patrick	3/18
Valley / Gilman area	Steve	3/15
Libbytown / Oakdale: Paul Oulette	Mike	3/15
Steve Perazone, Vinal Thompson	Paul	3/15
Set up meeting schedule (weeks between Planning Board meetings; then quarterly)	Paul	3/15
Talk with MMC Board	Paul	3/17
Report to Neighborhood Associations	Steve, Raina	3/11
	Sam, Patrick	3/17
Inform commercial corridor (Architectural Salvage, La Bodega)	Paul	3/15
More work on the pedestrian way in the front of existing garage	Hank/Mike	2 wks.
Re-examine the triangle; beefing up landscaping	Hank/Mike	2 wks.
Finish research and design on pedestrian connector between Crescent and Congress, the upper campus and Congress, a whole pedestrian plan	Hank/Mike	
provide an update		2 wks.
Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan	Paul	3/23
Bring housing developments to the Neighborhood Council	Paul	Spring 04 at an NC mtg.
Prepare an assessment of recently acquired Residential buildings that won't be torn down	Mike	3/23
Present revised housing replacement plan to the Neighborhood Council	Paul	3/30
See if life Flight can lease quieter helicopters	Mike	3/30
Need to come back to the suggestion which includes "compensate" and agree on	Paul	future mtg.

what it means; put on future agenda

Talk with METRO about the bus stops and bring ideas back to Council; coordinate with the sidewalk and connector plans	Mike/Hank	3/30
Link with the Fairfield Inn re revitalization efforts in the area	Paul	3/30

Maine Medical Center and Neighborhoods Meeting
Tuesday, March 30, 2004
4:00 – 6:00 pm

Meeting Notes:

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5:45 Wrap up: check on any basket items, next steps and meeting evaluation
6:00 Adjourn

Ground Rules:

Cell phones off or on vibrate
Listen and hear people out
Be succinct
Don't repeat
Be constructive
Check in to get everyone's opinion
Disagree with ideas not people
Stay on the topic

Present were: Patrick Murphy, John Orestis, Anne Pringle, Raina Rippel, Steven Scharf, George Silverman, Sam Van Dam, Paul Gray, Hank Dunn and Alex Jaegerman

Next steps from 3/8 and 3/15 updated and reorganized

Commercial corridor

Inform commercial corridor (Architectural Salvage, La Bodega) Paul 4/15

Link with the Fairfield Inn re revitalization efforts in the area Paul 4/15

These two haven't been done yet, but will be by 4/15

Pedestrian walkways along Congress and connecting to the campus

More work on the pedestrian way in the front of existing garage and new garage Hank/Mike 2 wks.

Hank reported that they are working on the suggestions made at the previous meetings and will bring the new plans back to the group

Re-examine the triangle; beefing up landscaping Hank/Mike 2 wks.

Hank reported that they are working on the suggestions made at the previous meetings and will bring the new plans back to the group

Finish research and design on pedestrian connector Hank/Mike

between Crescent and Congress, the upper campus and Congress, a whole pedestrian plan provide an update 2 wks.

Sam spoke to the importance of the connection between the campus and Congress Street. Hank said that they were working on "way finding elements" and looking for ideas on "public way common elements". Sam suggested lighting and an outside consultant such as Peter Monroe. Hank said that further design developments would come back to the group. Anne suggested that the hospital check on an ADA requirements relative to the walk way.

Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan Mike 3/23

This job was reassigned to Mike and Hank

Talk with METRO about the bus stops and bring ideas back to Council; coordinate with the sidewalk and connector plans Mike/Hank 3/30

Mike and Paul will talk with METRO after they have some suggestions to make to METRO about bus stop locations and amenities.

Housing

Bring housing developments to the Neighborhood Council(relative to reconverting offices to residential) Paul Spring 04 at an NC mtg.

Paul indicated that this item will come later after the more immediate issues are settled

Prepare an assessment of recently acquired Residential buildings that won't be torn down Mike 3/23
This refers to the buildings on Crescent Street and has not been done yet. The buildings are in pretty bad condition.

Present revised housing replacement plan to the Neighborhood Council Paul before 4/27
The Hospital is working on an opportunity to partner with another organization to do part of their housing replacement responsibility. He doesn't have a final agreement from the other organization yet, but it would be in the neighborhood. Either this will be ready by 4/27 or they will have a "plan B" ready.

Helicopters

See if Life Flight can lease quieter helicopters Mike 3/30
Mike has spoken with Life Flight. When they replace the helicopters they have, they will upgrade to newer, quieter technology. But that won't be for more than a year.

Others next steps

Need to come back to the suggestion which includes "compensate" and agree on what it means; put on future agenda Paul future mtg.

Completed Next Steps:

Recruit people from other neighborhoods

Check with Parkside N. A. re representatives	Steve / Raina	done
Check with Western Prom Valley / Gilman area	Patrick	done
Libbytown / Oakdale: Paul Oulette	Steve	done
Steve Perazone, Vinal Thompson	Mike	done
	Paul	3/15

Scheduling

Set up meeting schedule (weeks between Planning Board meetings; then quarterly) Paul done

The group will email Pam with their available dates in April for another meeting. Then the next Planning Board meeting will be 4/27 and the group will meet again on May 3.

Reporting to other groups

Talk with MMC Board	Paul	done
Report to Neighborhood Associations	Steve, Raina	done
	Sam, Patrick	done

Report from the meeting of the City and MCC Planning Staffs

Schedule of Planning Board workshops:

4/27 Workshop to continue presentation of new information and gathering questions:

traffic

landscaping and external signage

contract for contract zone

consistence of the plans with the City's comprehensive plan

5/4 Planning Board walk through of the site and talk with Life Flight and pilot

5/11 Workshop to respond to questions and work on details

Bob Miller will do a peer review on the helicopter noise study; scope to be determined

The City staff has a number of questions to which MMC will respond on the construction schedule, storm water, traffic and the parking study.

There was discussion of some right of way issues associated with the street widenings both in front and on Gilman Street.

Key issues raised by the City Staff:

Clarification of the long term master plan for MMC including the Vaughan St. lot

Scope of the contract zone

Helipad – noise and safety

Garage and landscaping

Traffic, especially on Congress Street

Utility plant: what is it; will it need expansion; architecture

Consistency with the City's plan

Housing replacement

Need to start the process of defining the contract zone area and conditions

Comments from the Neighborhood representatives on the workshop and the issues:

The Planning Board's questions were very similar to the neighbor's

Need for a MMC master plan; concern that there isn't time for a thorough master plan

How does it fit with the City's comprehensive plan?

Need to see some "compensation" for the change in quality of life in changes in the parking lot.

Contract zoning needs to include parameters around the area and density

Need to agree on principles of development on the "campus" as well as the area

Next meeting

Date: everyone will send his/her availability to Pam, who will find the date with the best attendance

Agenda: What are the core principles that are important to the Council for the contract zone?

Send ideas: Because not everyone will be able to make the next meeting given the complicated travel and work plans for much of the group, people are invited to share via email their thoughts on the core principles for the contract zone. Pam will collate these and make sure that they are part of the discussion at the meeting.

Next Steps

<u>What</u>	<u>Who</u>	<u>When</u>
Send available dates in April to Pam	Everyone	immediately
Notes for 3/30	Pam	4/1
Send any ideas or suggestions on the core principles for the contract zone to everyone and Pam will collate them	everyone	before next mtg

Next Steps from previous two meetings

Recruit people from other neighborhoods		
Check with Parkside N. A. re representatives	Steve / Raina	3/11
Check with Western Prom	Patrick	3/18
Valley / Gilman area	Steve	3/15
Libbytown / Oakdale: Paul Oulette	Mike	3/15
Steve Perazone, Vinal Thompson	Paul	3/15
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	Sam, Patrick	3/17
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provide an update		2 wks.
Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan	Paul	3/23
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See if life Flight can lease quieter helicopters	Mike	3/30

Need to come back to the suggestion which includes "compensate" and agree on what it means; put on future agenda	Paul	future mtg.
Talk with METRO about the bus stops and bring ideas back to Council; coordinate with the sidewalk and connector plans	Mike/Hank	3/30
Link with the Fairfield Inn re revitalization efforts in the area	Paul	3/30

Maine Medical Center and Neighborhoods Meeting
Monday, March 8, 2004
4:00 – 6:00 pm

Present: Patrick Murphy, Raina Rippel, Steven Scharf, Sam Van Dam, Paul Gray, Mike Ryan and Hank Dunn.

Meeting Summary: MMC staff and neighborhood representatives met to look at the responses and next steps for the suggestions of the neighbors about the MMC plans.

Paul outlined the suggestion to create an ongoing MMC Neighborhood Association Council. The group agreed with the plan and suggested that there be a subcommittee to deal with helicopter issues that include other potentially affected neighborhoods. The neighborhood representatives agreed to check with their respective Associations and various committee members took assignments for recruiting members and setting a meeting schedule. (See next steps under the section on Neighborhood Council.) It was agreed that the current representatives would most likely be the people to continue representing their associations for the time being.

Paul presented the suggestions for a pedestrian walk way from Crescent to Congress. There is still research to be done on the right of way and the possibility of running it horizontally across another person's land part way down the hill. The group added suggestions on integrating the walk way with the hospital campus and with an overall pedestrian plan. Mike and Hank will continue to work on the project and update the group in two weeks.

Next, the group looked at the new designs for the façade of the new garage. The neighbors reacted positively to the new arrangement for stacking cars in the garage, the wider entrances with better pedestrian visibility, the new materials, lights and banners on the façade. They suggested, in addition, that the existing door in the tower "disappear", that there be trees on the street side of the lower sidewalk including the existing garage and that the landscaping in the triangle be beefed up. Next steps include work on those ideas and coordinating the sidewalk plans with the City. (See notes for complete list of next steps.)

On the Utility Building, the neighbors reacted positively to the new exterior patterns, but suggested that the street trees be good sized. There were also suggestions on working with the City on the revitalization of the Congress Street retail area and on advertising Congress Street businesses within the hospital to encourage use of the area.

The Committee agreed to meet again on March 15 from 4-6 to finish with the suggestions on housing and any others suggestions not yet discussed.

The meeting adjourned at 6:00pm.

Detailed notes:

Present: Patrick Murphy, Raina Rippel, Steven Scharf, Sam Van Dam, Paul Gray, Mike Ryan and Hank Dunn.

Purpose: to look at the responses and next steps for the suggestions of the neighbors about the MMC plans

Desired Outcomes:

A list of next steps for the suggestions outlined at the last meeting

A list of next steps

Agenda:

- 4:00pm Meeting introduction: review purpose, outcomes, agenda and ground rules
- 4:10 What are the appropriate next steps for resolving the suggestions? (See Paul's memo circulated in advance)
- 5:45 Wrap up: check on any basket items, next steps and meeting evaluation
- 6:00 Adjourn

Ground Rules:

- Cell phones off or on vibrate
- Listen and hear people out
- Be succinct
- Don't repeat
- Be constructive
- Check in to get everyone's opinion
- Disagree with ideas not people
- Stay on the topic

Comments and next steps for suggestions in Paul's memo:

Neighborhood Association Proposal

Comments

Have a sub-committee on helicopter issues which includes other potentially impacted neighborhoods such as Libbytown and Woodfords/Oakdale

Paul anticipates sending regular updates on construction events (consider email notification mechanism)

Next Steps

- Recruit people from other neighborhoods
- Check with Parkside N. A. re representatives Steve / Raina 3/11
- Check with Western Prom Patrick 3/18
- Valley / Gilman area Steve 3/15
- Libbytown / Oakdale: Paul Oulette Mike 3/15
- Steve Perazone, Vinal Thompson Paul 3/15

Set up meeting schedule (weeks between Planning Board meetings; then quarterly)	Paul	3/15
Talk with MMC Board	Paul	3/17
Report to Neighborhood Associations	Steve, Raina Sam, Patrick	3/11 3/17
Inform commercial corridor (Architectural Salvage, La Bodega)	Paul	3/15

Congress Street Garage, Traffic and Utility Building
Comments

Make the existing door in the tower "disappear"
Put street side trees in the lower sidewalk area to create an esplanade, including existing garage area
At the utility building, use sizable street trees
Work with the City on revitalization of the retail corridor
Have advertising in MMC for the Congress Street businesses

Next Steps

More work on the pedestrian way in the front of existing garage	Hank/Mike	2 wks.
Re-examine the triangle; beefing up landscaping	Hank/Mike	2 wks.
Finish research and design on pedestrian connector between Crescent and Congress, the upper campus and Congress, a whole pedestrian plan provide an update	Hank/Mike	2 wks.
Talk with the City re plan for the pedestrian way; coordinate with the City's sidewalk plan	Paul	3/23

Next steps:

Meet on 3/15 from 4-6 to complete today's agenda and possibly talk about the Planning Board meeting on 3/23

Send out agenda for 3/15	Pam	3/11
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Notes from 3/8 meeting

Basket:

Feel strongly about not starting construction work before 7:00am