

Providence City Plan Commission

October 20, 2020



AGENDA ITEM 7 ■ MIRIAM HOSPITAL—INSTITUTIONAL MASTER PLAN



An aerial view of the Summit Avenue Campus



A view of the Baxt Building from Seventh Street

OVERVIEW

OWNER/APPLICANT:	Miriam Hospital	PROJECT DESCRIPTION:	Five year Institutional Master Plan (IMP) updating plan presented in 2015. The plan’s contents include details of progress in implementing the 2015 plan, ten year goals and five year objectives, capital improvements, parking and mobility, demolition and new construction.
CASE NO./PROJECT TYPE:	Miriam Hospital Institutional Master Plan	RECOMMENDATION:	Approval of the Institutional Master Plan
PROJECT LOCATION:	Multiple blocks including the main campus on Summit Avenue, satellite facilities on North Main Street and other facilities around the City.	PROJECT PLANNER:	Choyon Manjrekar
NEIGHBORHOODS:	Main campus located in Hope, with facilities in other neighborhoods.		

IMP Purpose and Overview

Section 1202 M of the Zoning Ordinance requires institutions to file an Institutional Master Plan (IMP) with the City Plan Commission that describes the institution's proposed development over the next five years or more. The IMP must be updated at least every five years. The Commission reviews master plans and amendments for compliance with the City's Comprehensive Plan and Zoning Ordinance.

The Commission approved the IMP for The Miriam Hospital (TMH) in October 2015. The applicant has submitted a revised IMP detailing implementation of the previous plan and submitted plans showing site proposals and improvements.

The IMP includes a description of the hospital's relationship with the surrounding community, inventory on facilities, five year goals, ten year objectives and capital improvements including landscaping. Primary focus is paid to replacement of building A, which was proposed in the 2015 plan but has not commenced. The plan also addresses traffic and parking issues.

Existing Conditions

TMH's holdings are located in three main clusters on its Summit Avenue Campus, along North Main Street, and at various locations around the City. The Summit Campus consists of five buildings referred to as buildings A through D and the Baxt building. TMH also owns parking lots and facilities on North Main Street used for medical offices, an immunology center and other purposes. Other facilities are located in leased spaces on West River Street and in the Jewelry District. An inventory of hospital owned property is included with the plan.

Building A

Building A at the corner of Summit Avenue and Fifth Street was originally slated for demolition and reconstruction in the 2015 plan. A new two story building with 36 rooms per floor is proposed to replace the building. The new rooms will allow conversion of existing double occupancy rooms to single occupancy rooms, but the total number of available hospital beds will not exceed the licensed bed capacity of 247. According to the IMP, there is no anticipated start date and there have been no plans other than determination of a likely building footprint and envelope. There have been no architectural determinations, but it is expected that the scale and massing will be similar to the Baxt building and have a screened mechanical area on its roof. A need for zoning relief is not expected.

TMH has not applied for a certificate of need or applied for financing. The plan outlines how neighbors will be involved in determining the building and site design and be involved during the construction process. Construction is expected to last between 18-24 months.

2020 IMP Goals and Objectives

In addition to redeveloping building A, TMH intends to direct growth off the Summit Ave campus to other areas of the City.

Ten year goals: The 10 year objectives focus on converting rooms from double to single occupancy units to operate at the hospital's 247 bed capacity, while improving patient care and modernizing facilities. The procedure could result in shifting services off the Summit Ave campus or replacing buildings B and C. TMH does not expect new major construction, does not propose any demolition or actions that would require zoning variances.

Transportation

A parking and transportation plan detailing movement around the Summit hospital campus site is included with the submission. The plan studies vehicular and pedestrian movement around the campus and also notes the accessibility of public transport to the site. The study was conducted prior to the onset of current events, which according to the applicant, have significantly decreased traffic movement and parking demand. The applicant will provide an update to the traffic study based on current conditions.

For current conditions, the study examined vehicle movement and traffic volume at Summit Ave, Highland Ave, Fifth Street and Seventh Street. Morning peak hours occur between 7:45 am and 8:45 am with the evening peak hours for intersections around the hospital occurring between 3 and 4 pm. Counts for signalized intersections of North Main Street with Third Street, Tenth Street and

Smithfield Avenue were conducted, which found that each intersection provided between a B and C level of service which would not exceed delays of 21 seconds. The study found that the levels of service would remain the same in future conditions, when current traffic growth rates were applied through 2025.

The study also analyzed parking around the campus. TMH provides a total of 1,354 offstreet parking spaces for staff and visitors, the majority of which are in off site shuttle parking lots. A breakdown of the parking spaces is provided. Per the provided count, the 179 visitor parking spaces exceeded capacity between 10:30 am and 3:30 pm with valet parking used for overflow parking. The parking peak of 1,130 spaces for employees was observed at 2:30 pm during a shift change. This represents an increase of approximately 40 spaces from the 1,090 space peak observed in 2015. The study notes that while certain lots fill to capacity, the total number of hospital parking spaces is not exhausted.



A view of building A from Summit Avenue

Ample onstreet parking is also available with 310 spaces provided around the main hospital building. The study found that a maximum of 134 spaces were occupied at the peak, which is similar to what was observed in 2015. However, the study notes that 100 spaces were occupied earlier (10 am vs 10:30 am) and stayed occupied later (4:30 pm to 3:30 pm) versus what was observed in 2015.

As Miriam is not planning to expand its total bed capacity, the study does not foresee a significant change in the level of service or an increase in traffic delays by 2025. Similarly, parking demand is expected to remain close to current levels. As a decrease in site traffic has been observed, the parking and traffic impacts may be less significant than what is included in the study.

Public Participation

The plan lists public participation actions taken by TMH. TMH has been in contact with the Summit Neighborhood Association (SNA), informing them of the implementation and formulation of the plan. Neighbors have been informed of changes through physical and social media and email lists. A virtual meeting was also held in September 2020 to discuss the plan.

Landscaping

Based on plans provided, the site is in close conformance with Section 1503 C of the ordinance, which requires 30 percent of canopy coverage. The periphery of the Summit Avenue campus and adjacent parking lots are lined with a mix of small, large and medium deciduous trees.

The plan notes that some trees along Summit Ave have died as a result of chemicals used to treat the street. Dead trees will be replaced with plantings on the interior of the sidewalk and may necessitate removal of some hedges. The applicant should work with the City Forester to implement the landscaping plan as required.

Public Access

The hospital campus is open to the public for visiting patients, using the cafeteria, pharmacy, gift shop and to provide meeting space for community groups.

FINDINGS

Providence Tomorrow

Strategy F of Objective LU-7 of *Providence Tomorrow: The Comprehensive Plan* requires health care institutions to provide five year IMPs to ensure that there is limited growth and negative impacts on neighborhoods. TMH has satisfactorily described proposed growth, improvements, and its neighborhood impact over the next five years. By addressing development to be in character with

the neighborhood and redeveloping existing land instead of expanding the campus, the plan is consistent with Strategies A and B of Objective LU-7.

The provision of a traffic management and parking plan is consistent with Objectives M-1 and M-6, which promote provision of varied transportation options and parking.

Zoning Ordinance

The IMP follows the format prescribed by the Zoning Ordinance, including all required elements outlined in Section 1910. Proposed changes like landscaping, renovation of building A and the parking configuration are in conformance with the Zoning Ordinance and no need for relief is foreseen.

RECOMMENDATION

The DPD recommends that the CPC should approve the IMP subject to the following condition:

The applicant shall work with the City Forester to replace trees and bring the amount of canopy coverage to 30 percent.



The Miriam Hospital

Lifespan. Delivering health with care.™

Institutional Master Plan

2020

Submitted To
Providence City Plan Commission

September 2020



The Miriam Hospital
Lifespan. Delivering health with care.

September 22, 2020

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Office of the President

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Arthur J. Sampson
President

Dear Ms. West,

Pursuant to Article 19, Section 1920 of the City of Providence Zoning Ordinance, enclosed for the Commission's consideration is The Miriam Hospital's Institutional Master Plan (IMP) for the next five years.

As a founding hospital in the Lifespan health system, The Miriam Hospital is committed to its mission: Delivering health with care. That care is reflected in how we treat our patients and how we interact with our community- especially our neighbors in the Hope and Mount Hope neighborhoods. We are proud to have worked with those neighbors in the development of this IMP.

Over the past five years, our services that are best hospital-based have continued to prosper at our Summit Avenue campus while our growth has taken place largely elsewhere. In Providence, we have focused our growth in facilities on West River, Collyer, Corliss and Richmond Streets, but we also offer series at facilities across the State. We anticipate both-success at our hospital and growth away from the hospital will continue. Consequently, this IMP does not propose increasing our licensed bed capacity.

The traffic study we conducted for this IMP (pre-COVID-19) does not project noticeable changes in traffic around our hospital because of our activities. The occurrence of COVID-19 has resulted in what seems to be a drastic reduction of traffic and congestion around the hospital. As such, we have asked VHB to come back to perform an addendum to the study we are submitting today. We anticipate that the addendum to the study will be complete by our presentation on October 21.

This IMP reiterates what we said in our 2005, 2010, and 2015 IMP's, we need to remove our oldest building on Summit Avenue, which cannot be used for patient care and replace it with a new 3-story building. That would allow us to covert more of our double-occupancy rooms to more medically appropriate singe-bed rooms. Unfortunately, we continue to face economic circumstances that impede us from completing the project, yet it remains our goal.

Aside from the updating of our traffic and transportation study and an addition to our leased facilities off our Summit Avenue campus, this IMP is very similar to our approved 2015 IMP.

Thank you for considering our submission and we are available to answer any questions you or your staff may have.

Sincerely,


Arthur J. Sampson
President



SECTION 1 MISSION STATEMENT

Zoning Ordinance Section 1910(3)(a)

1.1 Mission Statement

In 2020, The Miriam Hospital's Mission Statement and Mission Principals are:

The Miriam Hospital: Delivering Health with Care

As a founding hospital in the Lifespan health system, The Miriam Hospital is committed to its mission: Delivering health with care.

Mission Principles

We are big.

We have the resources and partnerships to handle the nearly infinite range of health challenges that can occur in our community of more than one million people.

We are personal.

We are focused...on you. We provide highly personalized care to each patient, who benefits from the extensive knowledge and expertise of our collaborative teams of experts.

We are analytical.

We are evidence-based — assuring delivery of the most effective clinical care to our patients, supported by rigorous analysis of processes and outcomes.

We are caring.

We never forget that our patients may feel vulnerable, so we consistently provide care with kindness and empathy.

We are experts.

As an academically based health care system, our collective expertise is second to none, and we bring that expertise to our patients and into our communities in myriad ways.

We are seekers.

To remain at the forefront of medical care, we continually engage in research that will lead to the breakthroughs that will become tomorrow's cures.

1.2 Our Mission in Relation to the Hope and Mount Hope Neighborhoods

The Miriam Hospital is best known for our hospital on Summit Avenue in the 3rd Ward of Providence. (X on Fig.1) While the hospital building is in the Hope neighborhood, we also have facilities in the adjoining Mount Hope neighborhood. The care with which we deliver healthcare extends to the care with which we interact with both neighborhoods.

Our Director of Community Relations continues to lead our efforts to be a responsible member of our community. Her approach is called the “Three-B’s”: **B**uilding Relationships with Neighbors; **B**ettering the Community; and Applying a **B**alancing Approach to Resolving Conflicts.

To build our relationship with neighbors, we

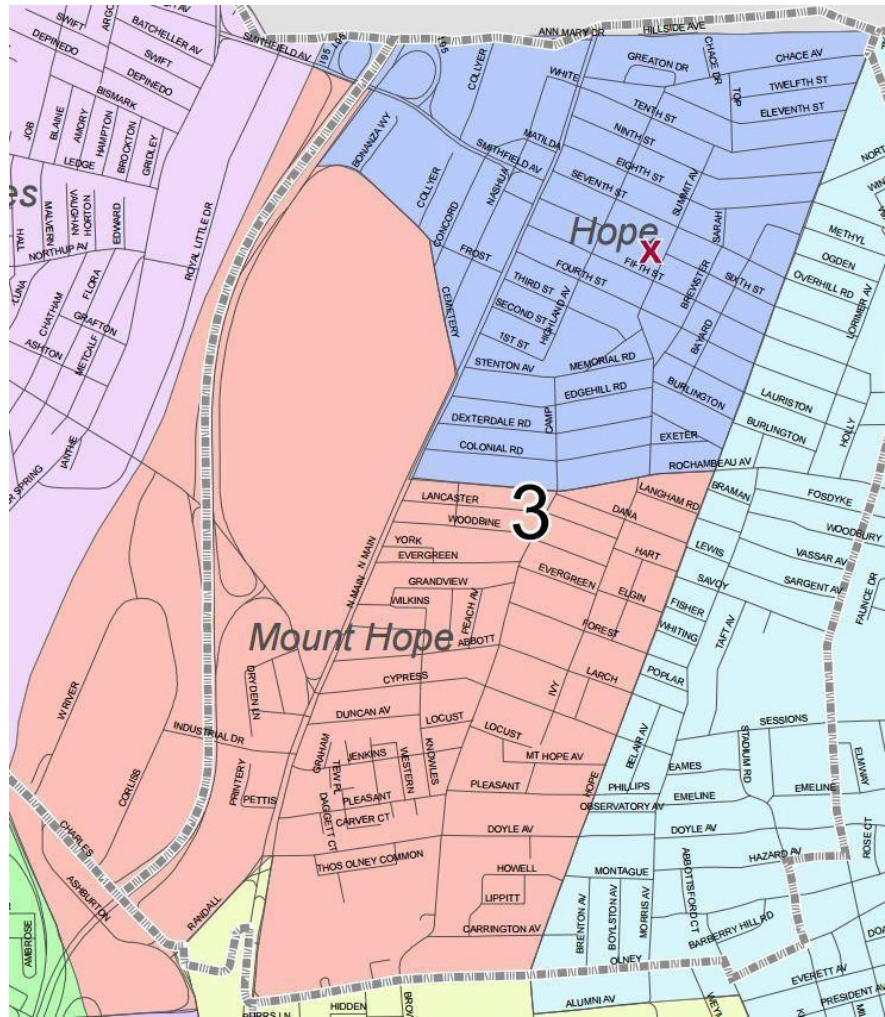


Figure 1 Neighborhood Boundaries

maintain communications with them in a number of ways including by organizing community meetings regarding our landscaping and transportation issues, attending neighborhood meetings organized by other groups, publishing a neighborhood newsletter, hand-delivering notifications to neighbors potentially impacted by unusual activities on our campus, and posting to the Summit Neighborhood Association e-mail list serve and Facebook page. We regularly conduct a survey of neighborhood concerns. We also operate a Neighborhood Hotline (and email) for neighbors to call if they have concerns, complaints or comments about how the hospital is affecting the quality of life in the neighborhood. Our Director of Community Relations checks the hotline every 48 hours and neighbors generally receive a response within 72 hours of their call or email.

Beyond just communicating with our neighbors, The Miriam devotes significant time and resources to bettering the community. Since 2006, we have awarded \$900,000 in Community Investment Grants to non-profit organizations working in Hope and Mount Hope. In addition to that direct financial support, we encourage our employees to volunteer their time in the community and they have responded by organizing successful toy drives, coat drives, food drives and fundraisers like the annual Heart Walk. Their efforts have also led to collaborations between The Miriam and the Mount Hope Community Center, the Hope Street Merchants Association, the Mayor's Annual Spring Clean Up Event, Rhode Island Resource Recovery Corporation and other local groups.

We recognize conflicts can arise between our need to deliver excellent care to our patients and how those efforts can disturb our neighbors. We therefore strive to balance our needs with our neighbors' and aim to reduce whatever conflicts we reasonably can. To do that:

- Our Director of Community Relations attends hospital management meetings to make sure all of our various departments are responsive to neighborhood concerns and we do not undertake new activities without considering how they will affect our neighbors.
- Our "Miriam Citizenship" program educates all of our employees about the need to respect our neighbors and our employment policies hold them accountable if they do not.
- We have standing committees to improve the hospital's environmental impact on the neighborhood, to manage patient and visitor parking, to police parking in the neighborhood by employees (we prohibit employees from parking on the streets in the neighborhood and ticket and discipline those that do), and to discourage employees from smoking in front of residents' homes.

Our commitment to be a good neighbor will continue as we strive to fulfill our fundamental mission of delivering health with care.

SECTION 2 FACILITIES INVENTORY & CONDITION

Zoning Ordinance Section 1910(3)(b)

2.1 Overview

The Miriam Hospital has not purchased any new land or buildings in the Hope neighborhood since our 2015 Institutional Master Plan nor has the condition of our facilities changed substantially since then. In addition to our facilities on Summit Avenue, we continue to own and lease parking and clinical facilities along the North Main Street corridor; we continue to lease lesser research, clinical and administrative facilities on Collyer Street (a/k/a the current Ocean State Job Lot plaza) we have expanded our activities on West River Street (by the Corliss Street Main U.S. Post Office). We continue to decant the main campus and recently moved the Men's Health Clinic and the Infectious Disease and Immunology Center to the new Lifespan Ambulatory Center at 180 Corliss. Additionally, we have clinical locations across Rhode Island including in East Providence and East Greenwich.

The complete list of our current facilities is attached as *Exhibit A*. The Miriam's facilities on our Summit Campus and along the North Main Street Corridor are shown on *Exhibit B*. The parking lots in both areas are shown on *Exhibit C and D*.

Overall, most of The Miriam's patient care facilities are in good or better condition but, especially the "Building A" portion of our main hospital, some are not ideal for delivering patient care.

2.2 Summit Avenue Campus

I Zone

As shown on *Exhibit E*, The Miriam's main hospital and its Fain Building are in a City-designated Institutional Zone.

Hospital

The Miriam's hospital is located on Summit Avenue between Fifth and Seventh Streets. Its licensed bed capacity is 247. The hospital's main entrance is on Summit Avenue and its Emergency Room entrance is on Fifth Street. Deliveries are accepted through a receiving dock on Highland Avenue. The hospital consists of five interconnected buildings, of varying age, which are referred to internally as buildings "A" through "D" plus the "Baxt Building." Each is described below and shown on *Exhibit F*.

Building A Purchased in 1926, it is the oldest structure and was previously used as an orphanage. It is a 3-story wood framed building, which houses a mix of administrative and diagnostic/treatment services. The wood frame, floor-to-ceiling heights and footprint of the building all make it unsuitable for conversion to patient rooms. It is the building this IMP proposes demolishing and replacing.



Figure 2 "Building A" Slated for Replacement

Building B Built in 1952 with an addition to a portion of it in 1995, this 4-story structure was originally designed to accommodate nursing units and it still does. Our Emergency Department is located on a portion of the 1st Floor. The remainder of the building is used for administrative and diagnostic/treatment services. Building B is currently undergoing renovations as noted in the 2015 IMP.

Building C Completed in the mid-1960's, this is the major component of the main hospital. It houses a portion of the hospital's Emergency Department and the majority of its nursing units on the upper floors. This building is included in our 2020 IMP plans for renovation. The plan includes creating a 3-story patient care building housing single patient rooms on floors 2 and 3, all while maintaining the allowable building envelope size as outlined by the City of Providence's comprehensive plan for an Institutional Zone. These floors will be contiguous with the new "A" building. Within this plan, the current double patient rooms will be converted to single patient rooms.

Building D Completed in 1965, this is a 2-story building housing utilities and building systems.

Baxt Building Completed in 2007, this 3-story building houses the hospital's surgical suite, Radiology Department, cafeteria, conference space and a floor of single-bed patient rooms.

Fifth Street Houses

TMH owns three of the houses across the street from its Emergency Department at 61, 65 and 69 Fifth Street. The houses are used as offices, for storage, and to house visiting staff. The houses have recently been renovated.

Fain Building

The Fain Building, across Fifth Street from the hospital, houses ambulatory surgical services, outpatient clinics, a cancer center and some administrative offices.

Parking Shown on *Exhibit C & D*

Parking for patients and visitors to the Summit Avenue Campus is located mainly in Lots B and C across Summit Avenue from the main hospital entrance. Much smaller patient parking areas are adjacent to the Emergency Department (Lot A), the Fain Building (Lot J), and the MRI area at the back of the hospital (Lot K). Parking for doctors, transient employees (who are required to come and go from the campus), and some employees with extremely high seniority, is provided in the area across Seventh Street from the hospital (Lot E). The parking areas are outside the applicable Institutional Zone; only the main hospital and the Fain Building are in it.

2.2 North Main Street Corridor Shown on *Exhibit B*

North Main Street

On North Main Street, between Second and Third Streets, The Miriam maintains our "Arena Parking" (Lots G & F) on the site of the former Rhode Island Arena for day-shift employees.

Along Third Street between North Main Street and Highland Avenue, we own a 3-story house, used for storage and offices, and the RISE Building, which is used for research and clinical purposes. Just north of the Arena Lot, we own the building now used for medical offices.

Collyer Street

Since 2004, The Miriam has been a major tenant in two medical office buildings in the current Ocean State Job Lot Plaza. Each has its own parking areas.

Between North Main Street and Collyer Street

The Miriam leases one parking lot, and owns two employee parking lots, off Ann Mary Street for our day-shift employees. (Ann Mary Street runs from North Main Street down to the Ocean State Job Lot Plaza (f/k/a the Ocean State Job Lot Plaza.) The “Nashua Street Lot” is located north of Ann Mary Street in Pawtucket. The much larger “Sears Lot” is located south of Ann Mary Street behind where the former Sears and Anderson Little buildings stood. In the “Sears Lot”, we own a garage, which our Facilities Management Department uses. (A portion of the “Sears Lot” is in Pawtucket.) A shuttle brings employees from the lots to the Summit Avenue Campus. Between the “Sears Lot” and Collyer Street, we lease the “Walker’s Lot”, (f/k/a the “Botvin Lot,”) set aside for employees who want to walk instead of using the shuttle service.

2.3 Other Facilities

As identified in Exhibit A, our other facilities are located in leased spaces on West River Street (near the Corliss Street Main U.S. Post Office), 180 Corliss Street and in buildings in the Jewelry District, and in leased spaces across Rhode Island and in Attleboro.

SECTION 3 HISTORIC PROPERTIES

Zoning Ordinance Section 1910(3)(c)

None. No facilities The Miriam owns or leases have been designated as Historic Places and none are located within any Historic Districts.

SECTION 4 5-YEAR OBJECTIVES

Zoning Ordinance Section 1910(3)(d)

4.1 Replace Building A

To accommodate our strategic and programmatic goals, over the next 5-years The Miriam Hospital plans to demolish its existing Building A and create a new, connected building which will align contiguously with buildings B and C. As such, Building A would be replaced with a new building that will accommodate two floors with approximately 36 single-bed patient rooms per floor. E4h, our architectural design team has identified the likely footprint and building envelope, which maintains our allowable building envelope. We envision a building that keeps within the allowable zoning envelope while maintaining the desired symmetry to the Baxt building. We do not anticipate requiring any zoning variances to construct it.

The new rooms will allow us to convert existing double-occupancy rooms to single-bed rooms, which are more medically appropriate and comfortable for patients. The rooms will not increase our licensed bed capacity; it will remain at 247. The construction will require a Certificate of Need, but we have not applied for one yet. Financing has not been arranged and no start date has been set.

Aesthetically, we want the new building to compliment the 3-story Baxt Building so our hospital has a pleasing symmetrical appearance. To achieve that goal, we will involve our neighbors in the design process as we did successfully for the Baxt Building.

Once construction begins, we anticipate it will take 18 to 24 months to complete although this is a rough estimate because we do not have architectural or construction plans. We will construct the new building in a community sensitive way paying attention to such things as site control, communications with neighbors, contractor parking, dust and noise control, and traffic control.

4.2 Continue To Grow Off Our Summit Avenue Campus

The mix of programs and services we offer will continue to evolve over the next five years as The Miriam's strengthens its position as a premier healthcare provider and member of the Lifespan health system. We anticipate that changing mix may require renovations of our facilities but we recognize the limits of our campus on Summit Avenue and plan for future physical growth to take place elsewhere over the next five years.

SECTION 5 10-YEAR GOALS

Zoning Ordinance Section 1910(3)(d)

Our 10-year goals remain unchanged since 2015: “Single-bed rooms permit compliance with HIPAA privacy requirements, raise the quality of patient care, improve patient outcomes, improve infection control, permit more efficient use of TMH’s licensed bed capacity, and make patients and their families and visitors more comfortable. As such, TMH remains committed to converting as many of its double-occupancy rooms to single-bed rooms as possible over the next 10 years. That may require shifting more services off the Summit Avenue Campus and renovating, or replacing, Buildings B and C.”

SECTION 6 PROPOSED CHANGES IN LAND HOLDINGS

Zoning Ordinance Section 1910(3)(e)

None. The Miriam Hospital does not anticipate buying or selling any land in the next five years. Nor are we planning major changes in our leased spaces in the next five years.

SECTION 7 PROPOSED STREET CHANGES

Zoning Ordinance Section 1910(3)(f)

None. The Miriam Hospital does not anticipate abandoning or creating any streets or private right-of-ways in the next five years.

SECTION 8 PROPOSED MAJOR REPAIRS/RENOVATIONS

Zoning Ordinance Section 1910(3)(g)

None. The Miriam Hospital does not anticipate major renovations or repairs to any buildings involving more than 10,000 sq. ft. of gross floor area that would result in a change of the general land use category of such buildings.

SECTION 9 NEW STRUCTURES/EXPANSIONS/PARKING CHANGES

Zoning Ordinance Section 1910(3)(h)

None. Except for the possible replacement of Building A, in the next five years The Miriam Hospital does not anticipate: 1) any new structures or additions to existing structures of more than 25% of gross floor area or 10,000 sq. ft. of gross floor area, whichever is less; 2) any new or reconfigured parking beyond that which may be associated with our future rental of space in buildings we do not own; 3) any new outdoor facilities; nor 4) any action that would result in rerouting traffic in a public right-of-way for two weeks or longer.

SECTION 10 PROPOSED DEMOLITIONS

Zoning Ordinance Section 1910(3)(i)

None. Except for the possible replacement of “Building A and the internal renovations that may be associated with it, The Miriam Hospital does not anticipate demolishing any structures, parking garages, parking lots, parks or other campus facilities in the next five years.

SECTION 11 PARKING PLAN

Zoning Ordinance Section 1910(3)(j)

The Miriam Hospital’s Parking Plan is incorporated in the Transportation Study accompanying this submission. It anticipates the continued use of free valet parking for patients and visitors, continued use of satellite parking lots and shuttles for employees, and no significant changes in the number or location of parking spaces in the next five years.

SECTION 12 ZONING OR COUNCIL ACTIONS

Zoning Ordinance Section 1910(3)(k)

None. The Miriam Hospital does not anticipate undertaking any activities in the next five years that would require action by the Zoning Board of Review or the City Council to implement.

SECTION 13 CERTIFICATES OF NEED

Zoning Ordinance Section 1910(3)(l)

None. The Miriam Hospital does not hold any Certificates of Need from the State of Rhode Island for any new or additional premises contemplated by this submission.

SECTION 14 TRAFFIC STUDY

Zoning Ordinance Section 1910(3)(m)

Accompanying this submission is a study of traffic conditions that analyzes existing traffic generation, and the impacts of traffic generation predicted from projects proposed in this Institutional Master Plan. The study includes actions that The Miriam Hospital will take to reduce the negative impacts of increased traffic. We established the scope of the traffic study through consultation with the Director of the Department of Planning and Development and the Traffic Engineer.

The Traffic/Transportation Study does not anticipate significant changes to parking or traffic in the Hope or Mount Hope neighborhoods attributable to our activities.

SECTION 15 IMPLEMENTATION ELEMENTS

Zoning Ordinance Section 1910(3)(n)

If The Miriam Hospital undertakes the replacement of Building A as hoped for in this Institutional Master Plan, we will use community sensitive construction techniques as we did when we constructed the Baxt Building. That means we will:

- Convene a Neighborhood Exterior Architectural Forum to work with our architects designing the exterior of the building.
- Address Construction Worker Parking in our agreements with builders.
- Develop Site Controls that make sense for our residential campus (i.e. fencing, site access, pedestrian covered walkways, and limited storage on site).
- Set Up A Dedicated Means of Communicating With Neighbors – Especially immediate abutters impacted by construction activity.
- Require Builders to Limit Dust and Minimize Noise
- Keep Traffic Disruptions and Street Closings to a Minimum

SECTION 16 PUBLIC PROCESS

Zoning Ordinance Section 1910(3)(o)

To foster the public's participation in the development of this Institutional Master Plan (IMP), The Miriam Hospital did the following:

November 2019

We publicized a meeting to discuss the Traffic/Transportation Study we commissioned as part of the IMP planning process. We shared the results of the preliminary study with the people who attended. The authors of the study, as well as the leaders of our planning team, answered all of the questions anyone asked. Additionally, we informed the leadership of the neighborhood association serving our area, the Summit Neighborhood Association, of our plans to submit an IMP similar to our 2015 IMP.

We held our Annual Neighborhood Meeting and informed our neighbors of our intent to submit in 2020, we also reviewed the parking and transportation study findings again.

Winter 2020

We informed neighbors who attended our regular community meetings, and those we encountered through our involvement with organizations like the Hope Street Merchants Association, that we planned to submit an IMP similar to our 2015 IMP in the fall. We encouraged them to ask us questions and to attend the meetings we would be scheduling to discuss it.

In February, we held a meeting with our local city council women to discuss our intentions to submit our 2020 IMP.

August 2020

Our Director of Community Relations presented at a monthly SNA Board Meeting our plans to submit our IMP in October and informed the group of our upcoming IMP Informational Meeting on September 1, 2020.

We notified neighbors of our public mee through the SNA Facebook page, and several distribution lists.

September 2020

The Miriam's President and Director of Community Relations outlined the contents of this IMP at a meeting at the hospital, which was held on Skyline. We gave prior notice of the meeting to the Department of Planning and Development as well as our local elected officials. We publicized the meeting in our widely distributed Door-To-Door newsletter as well as through emailing neighbors on our distribution lists. In addition to the presenters, leaders from VHB, our parking study vendor, attended the meeting and answered all the questions anyone asked. Additionally, our Director of Community Relations presented at the Ward 3 ZOOM meeting with Councilwoman LaFortune regarding the IMP submission. Portions of the parking study and the plans for the IMP were presented. Residents were invited to call the Neighborhood Hotline with any questions.

The Miriam Hospital
Libans. Delivering health with care.

Door-to-Door

THE MIRIAM HOSPITAL NEIGHBORHOOD CONNECTION • Summer 2020

Dear Neighbors,

I want to take this opportunity to thank our community members who supported our hospital during the COVID 19 surge earlier this year. Our spirits were lifted and our bodies were well fed as the outpouring of support from the community surrounded our frontline workers. From parades and meals to flowers and banners, we feel deep gratitude for the community who cheered us on day and night.

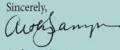
The pandemic has affected our lives in many ways and we want our neighbors to know that despite the crisis, we are still committed to being a good neighbor. The Neighborhood Hotline has been and continues to be a resource for neighbors to use for questions, complaints or concerns regarding the hospital. The hotline number is (401) 793-4040 and the email is TMHneighbors@lifespan.org. We generally respond to our calls or emails within 36-48 hours.

I want you to know about two important happenings at the hospital this summer. The first is our plan to renovate a section of our emergency department starting in August, and the second is to hold a socially safe neighborhood meeting regarding our plan to submit our Institutional Master Plan to the City Planning Commission in October, 2020. You can read more about both in detail inside the newsletter.

Please note two important dates coming up. The first is the date when the ED construction begins. We have hired Pariseault Builders to start working on **August 24, 2020**. I want you to know that Pariseault Builders will work hand in hand with us to ensure that we employ community-sensitive construction processes during the project.

The second date to save is for the Neighborhood Informational Meeting regarding our IMP. Due to COVID restrictions, the meeting will be held online **September 1, 2020 at 5:30 p.m.** If necessary, we will consider holding a second meeting, either in person or online, depending on the community spread of COVID 19 and the DOH restrictions.

Please read on for further details about our plans. Should you have any questions, please contact Monica Anderson using the Neighborhood Hotline.

Sincerely,

Arthur J. Sampson
President
The Miriam Hospital
Delivering health with care.

- Community Relations Corner
- Emergency Department Renovations
- Institutional Master Plan
- Fall Food Drive

SECTION 17 TREE/LANDSCAPING INVENTORY

Zoning Ordinance Section 1910(3)(p)

Subject to the triggering events in Section 1500, Section 1503 C(1)(b) of the Zoning Ordinance specifies a tree canopy in Institutional - Healthcare Zones (I-1 Zones) equal to 30% of the square footage of the lots involved. As shown on Exhibit G, in 2010 The Miriam had achieved 29% coverage at our property on Summit Avenue.

Since 2015, a few trees have died and one became so diseased we needed to remove it. (See 2015 report attached as Exhibit H)

We reviewed our landscaping and tree inventory with the City Forester earlier this year and, based on that, we have determined that the trees planted along Summit Avenue are not surviving the harsh salts and chemicals used on Summit Avenue in the winter for snow removal and ice mitigation. As such, we are considering removing the dead trees currently in place and inserting them on the inside of the sidewalk area. This will require us to remove the hedges currently in place either entirely or in part. We intend to bring two proposals to our neighborhood landscaping committee later this year for review and recommendation.

SECTION 18 PUBLIC ACCESS

Zoning Ordinance Section 1910(3)(q)

Pre Covid-19, The Miriam Hospital welcomed the public to our campus to visit patients or to patronize our cafeteria, gift shop and pharmacy. We also regularly made our meeting rooms and conference facilities available to health care and community groups. With the onset of COVID-19, we have followed the directives of the Rhode Island Department of Health. For the safety of our patients and community, we have temporarily restricted visitors and have closed the use of our cafeteria, gift shop and pharmacy to the public. When the pandemic ends, we will revisit our policies as is necessary to deliver health with care.

Facilities Inventory

For facilities The Miriam Hospital owns, the Square Feet listed is the lot size per the city Tax Assessor records rounded to the nearest 5.

For facilities, TMH leases, the Square Feet listed is the amount of space TMH leases.

Present Uses are as defined in Section 1204 of the 2014 Providence Zoning Ordinance. The uses are the same on the street level and upper stories of the multi-story building The Miriam owns or leases space in.

Properties identified with an * are in Pawtucket; all others are in Providence.



Summit Avenue Campus

#	Name/Description	Street Address	Own/Lease	Sq. Ft.	Present Use	Condition	Plat	Lot	Notes
1	Main Hospital	164 Summit Avenue	Own	220,000	Healthcare Institution	Varied	73	562	TMH's hospital. It consists of several connected buildings. The condition of the new Baxt Building is Excellent; Building "A" is Fair; Buildings "B", "C" and "D" are Good.
2	Visitor Parking (Lot B)	Summit Avenue	Own	29,811	Parking Lot	Good	73	Multiple	Lots 14, 65, 89, 280, 282, 304
3	Visitor Parking (Lot C)	Summit Avenue	Own	20,000		Good	91	Multiple	Lots 222, 223, 227, 228
4	7th Street Employee Parking (Lot E)	Seventh Street	Own	90,000	Parking Lot	Good	91	Multiple	Lots 181, 182, 183, 184, 185, 186, 187, 188, 205, 207, 208, 209, 210, 211, 212, 213, 214
5	Fain Building	140 Summit Avenue	Own	50,045	Medical Office	Good	73	374	
6	61 Fifth Street House	61 Fifth Street	Own	4,975	Dwellings	Good	73	301	Single family homes across the street from TMH's Emergency Department and used for storage and hospital-related housing.
7	65 Fifth Street House	65 Fifth Street	Own	4,975		Good	73	555	
8	69 Fifth Street House	69 Fifth Street	Own	4,975		Good	73	547	

North Main Street Corridor

#	Name/Description	Street Address	Own/Lease	Sq. Ft.	Main Use	Condition	Plat	Lot	Notes
9	Arena Parking (Lots F & G)	1111 North Main Street	Own	101,515	Parking Lot	Good	73	177	
10	Third Street House	8 Third Street	Own	2,835	Office	Good	73	493	
11	RISE Building	14 Third Street	Own	40,030	Medical Office	Good	73	573	
12	Ambulatory Center	1125 North Main Street	Own	16,070	Medical Office	Good	73	572 A & B	This is the former 'Tiny Tot's Daycare Building.' It is sometimes referenced as 1145 North Main Street.
13	Sears Lot Employee Parking (Lot I)	Ann Mary Street	Own	157,895	Parking Lot	Good	75	293	The lot includes a garage used by TMH's Facilities Management department. Providence tax records list the lot at 1300 North Main Street but it is bordered by Nashua Street in Providence and Ann Mary Street in Pawtucket.
				56,340			62*	67,68,341, 343,353	
14	Nashua St Lot Employee Parking (Lot H) (a/k/a Ann Mary Street Lot)	Nashua Street	Own	54,450	Parking Lot	Good	62*	346	This lot is located across Ann Mary St. from the Sears Lot.

15	Walker's Lot (Lot L) <i>Toyota or Botvin Lot</i>	<i>f/k/a</i> 22 Powell Street	Leased	34,993	Employee Parking	Good			Approximately 1/6 of the lot is not paved and not used for parking.
16	Cardiac Center	208 Collyer Street	Leased	36,000	Medical Office	Excellent	75	289	These two buildings are in the Ocean State Job Lot Plaza (f/k/a Shaw's Plaza)
17	University Medical Center	195 Collyer Street	Leased	20,726	Medical Office	Excellent	75	279	

Other Areas of Providence

#	Name/Description	Street Address	Own/Lease	Sq. Ft.	Main Use	Condition	Plat	Lot	Notes
18	Behavioral and Preventive Medicine	1 Hoppin Street	Leased	21,527	Medical Office/Office	Good	21	244	Jewelry/Knowledge District. Coro Building owned by Lifespan. (Note: The amount of space TMH uses was underestimated in the 2010 IMP.)
19	Weight Research	196 Richmond Street	Leased	16,375	Medical Office/Office	Good	20	353	Jewelry/Knowledge District. a/k/a 194 Richmond Street
20	Clinics & Offices Spaces	148 West River Street	Leased	60,747	Medical Office & Office	Good	100	52, 13, 15, 49	The main building is on Lot 52; part of the building and some of the parking are on the other lots by the (Main) Corliss Street Post Office. Various spaces there house TMH offices and clinical programs including the Women's Medicine Collaborative, the Weight Management Program, Behavioral Medicine Programs, Medical Imaging and Neuropsychological Evaluations.
		180 Corliss Street	Leased	27,617	Medical Office & Office	Excellent	74	379	The services at 180 Corliss include The Men's Health Center and The Infectious Diseases and Immunology Center – both relocated from The Miriam – as well as a Lifespan Pharmacy and a Lifespan Laboratory. Another key tenant is Lifespan-affiliated Anchor Medical Associates.

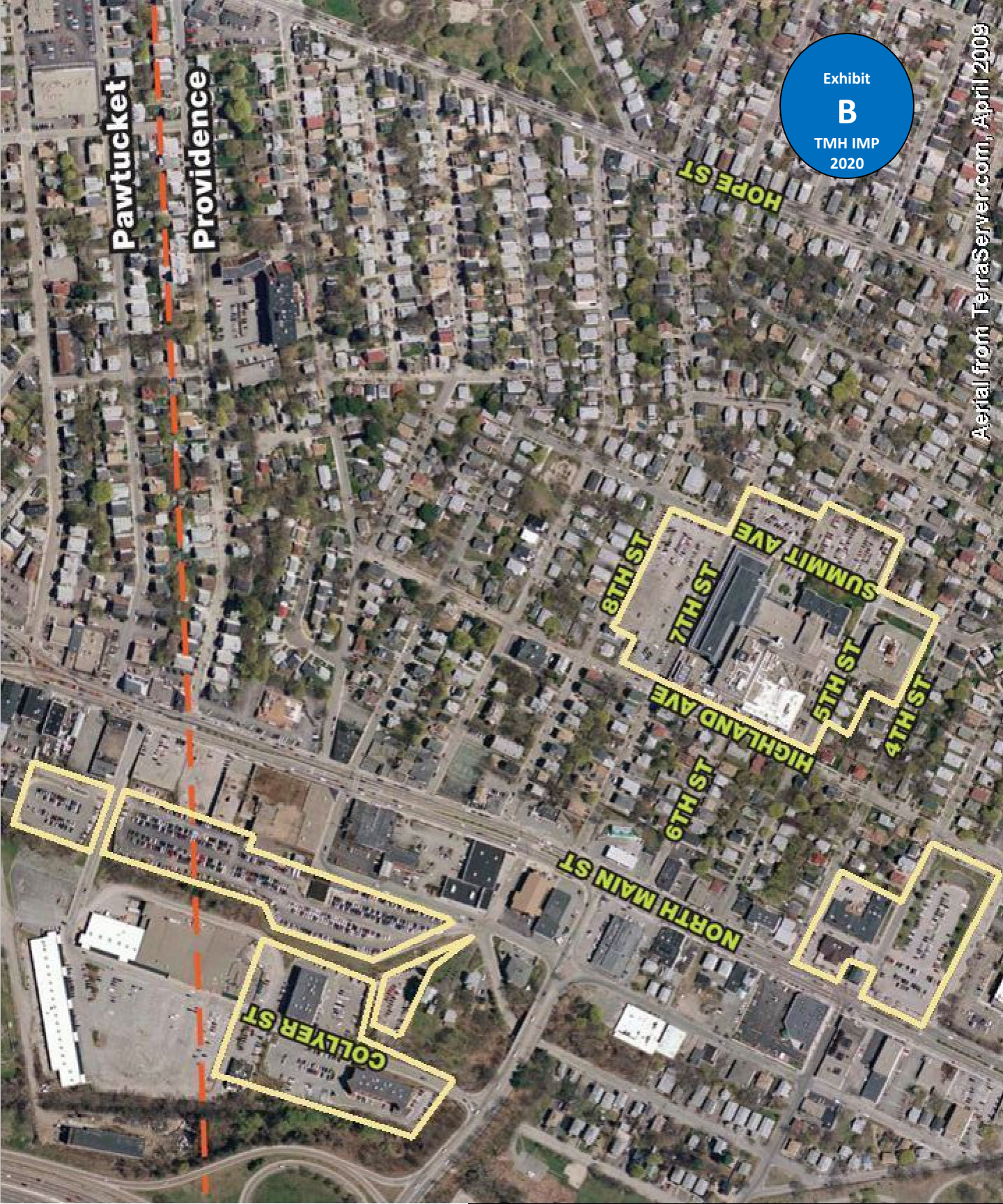
The

Outside of Providence

The Cardiovascular Institute, operated by The Miriam Hospital, Rhode Island Hospital and Newport Hospital, has offices in Attleboro, MA, East Greenwich, East Providence, Newport, Pawtucket and Providence.

The Miriam also has a handful of predominantly administrative employees working in offices controlled by other parts of the Lifespan healthcare system.

Exhibit
B
TMH IMP
2020

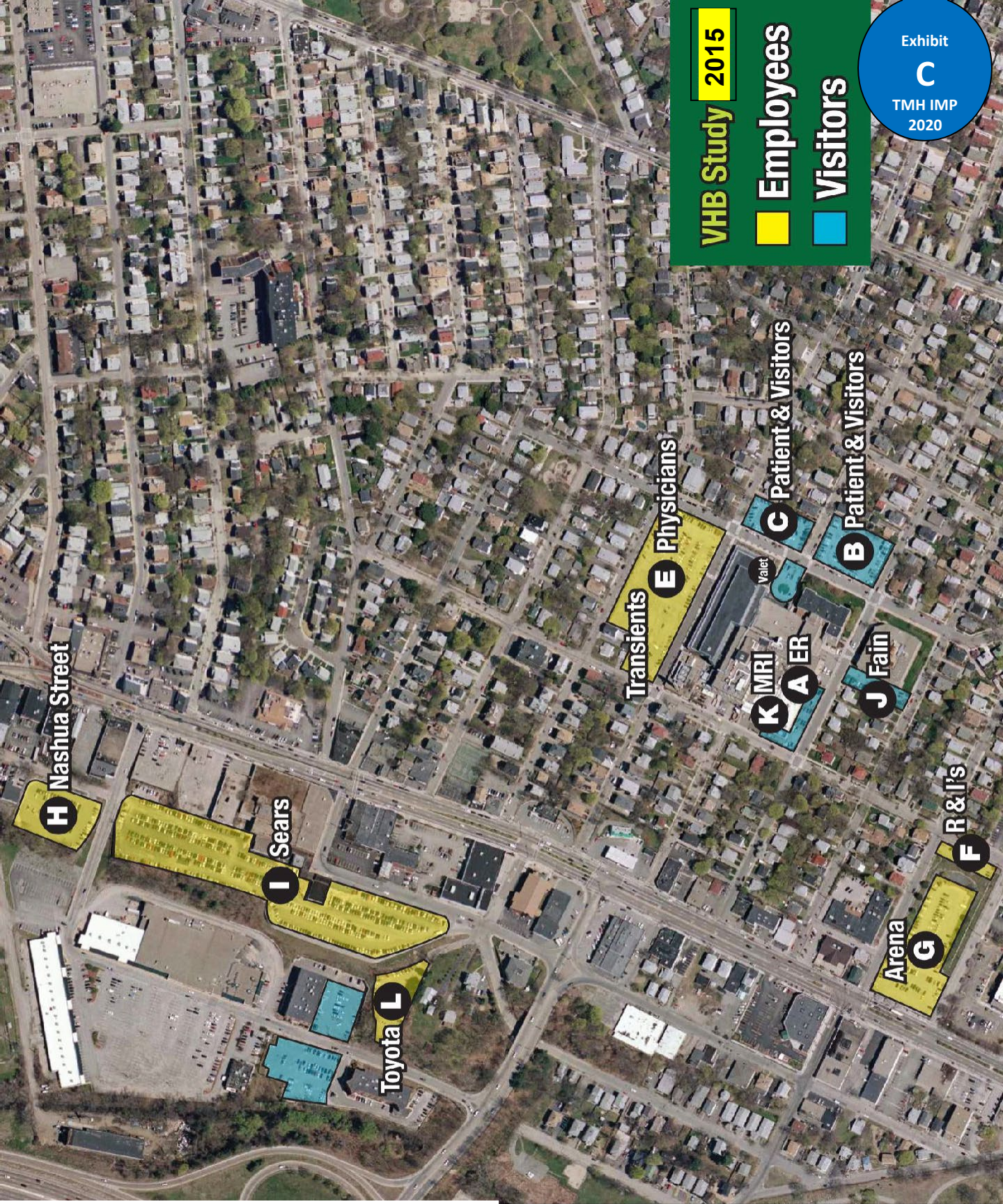


Aerial from TerraServer.com, April 2009



The Miriam Hospital
Lifespan. Delivering health with care.™

Summit Campus & North Main Street Corridor



VHB Study 2015

Employees

Visitors

Exhibit
C
TMH IMP
2020

Nashua Street

H

Sears

I

Toyota

L

Transients

E

Physicians

MRI

A

ER

Fain

J

Arena

G

R&I's

F

C

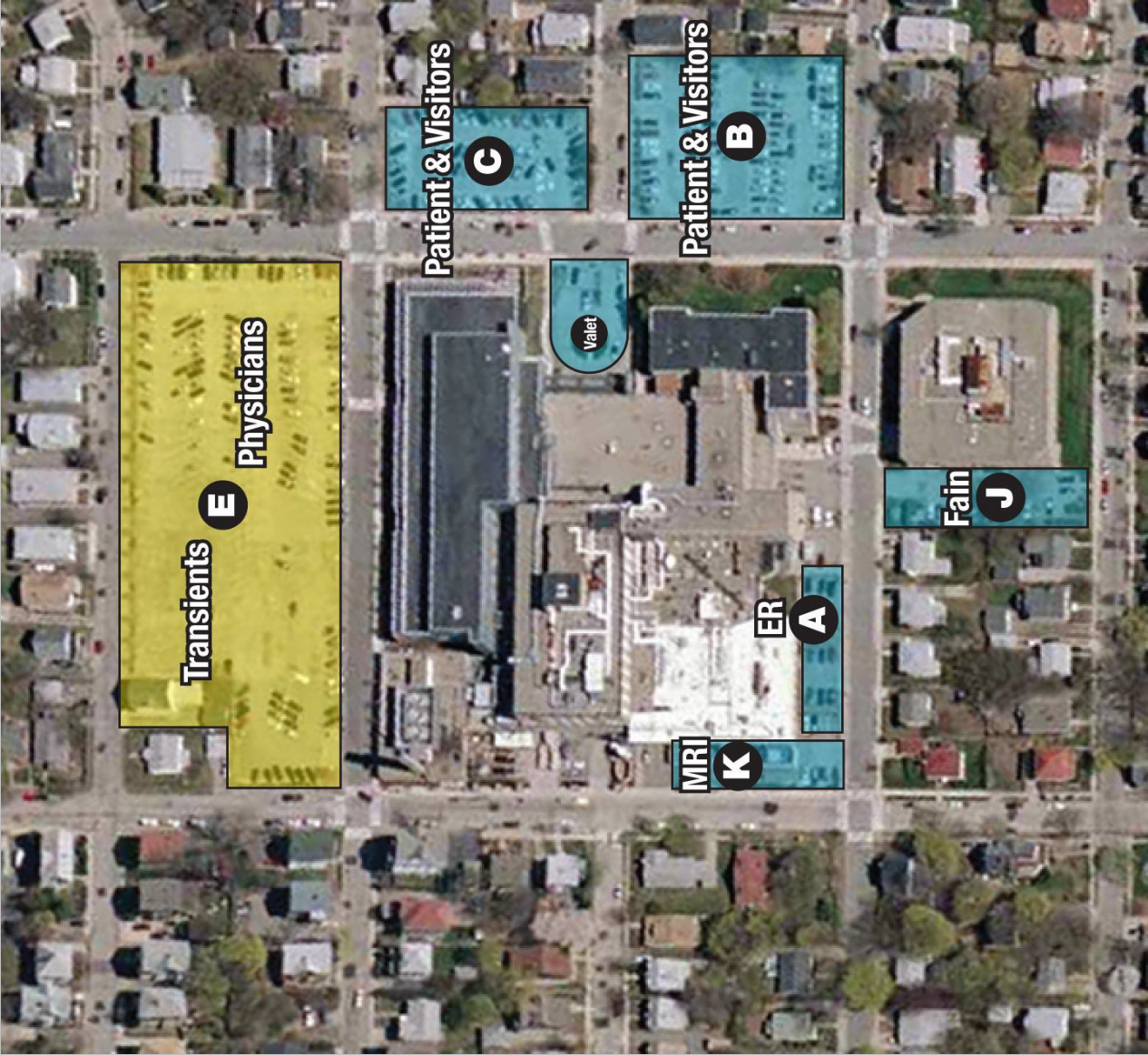
Patient & Visitors

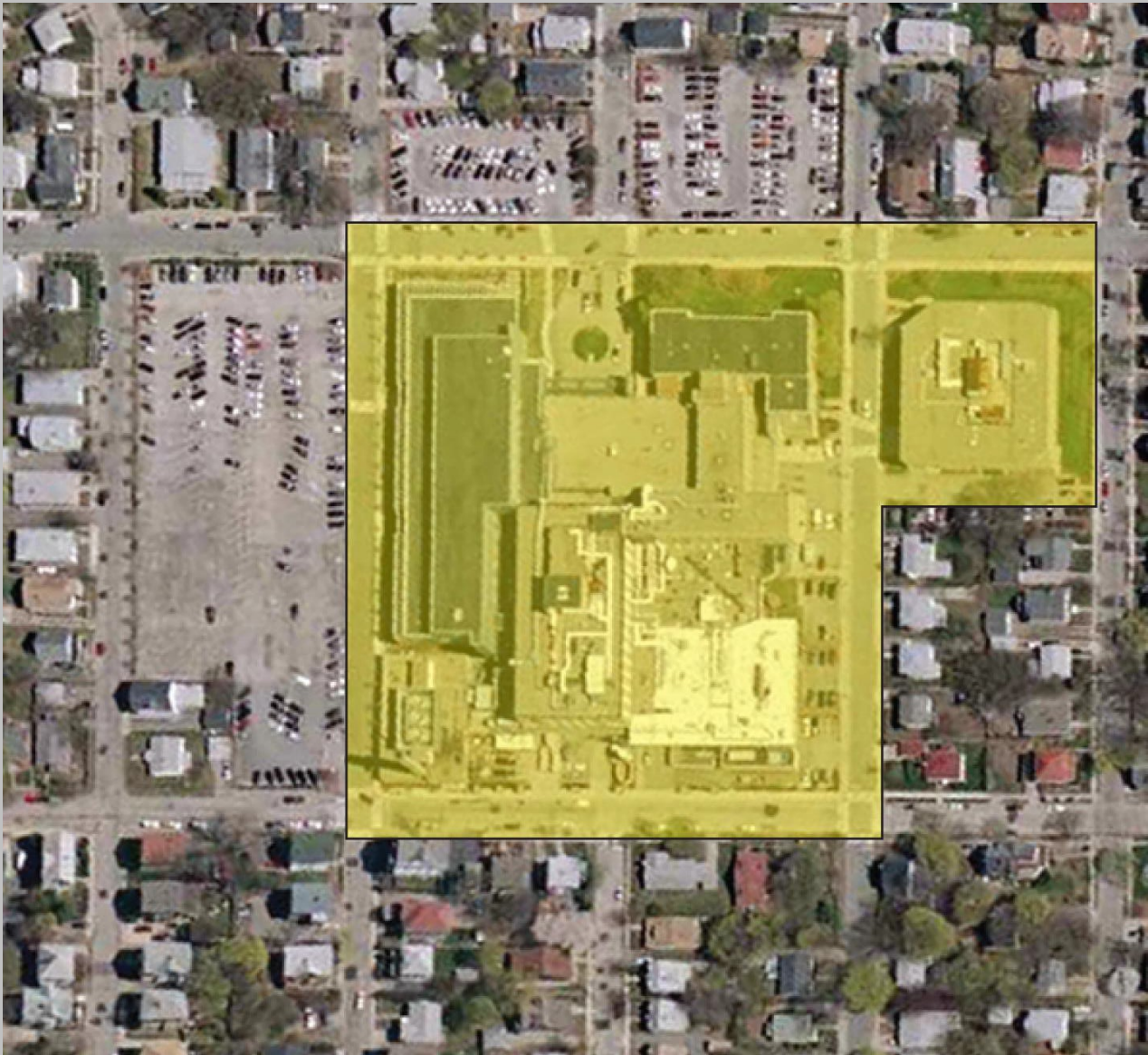
B

Patient & Visitors

K

Valet







The Miriam Hospital
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Summit Campus Buildings



2015

After meeting with Doug the City forester it was determined based on his advice that 28 tree's shown on our sight map should be replaced in the Spring of 2016.

Large tree has been diagnosed with dutch elm disease

2'-28" Honey Locust 7' 6" in dia.

MIRIAM HOSPITAL INVENTORY OF TREE CANOPY, PROVIDENCE TREE CANOPY REQUIREMENT AND CALCULATION

NO.	TITLE	DATE	BY

REFERENCES:

2010 EXISTING TREE CANOPY INVENTORY

2015 REVIEW

TOTAL PLANTING AREA: 28.00 AC

TOTAL PLANTING QUANTITY: 1000

TOTAL PLANTING VOLUME: 1000

TOTAL PLANTING COST: \$1,000,000

TOTAL PLANTING DATE: 2015

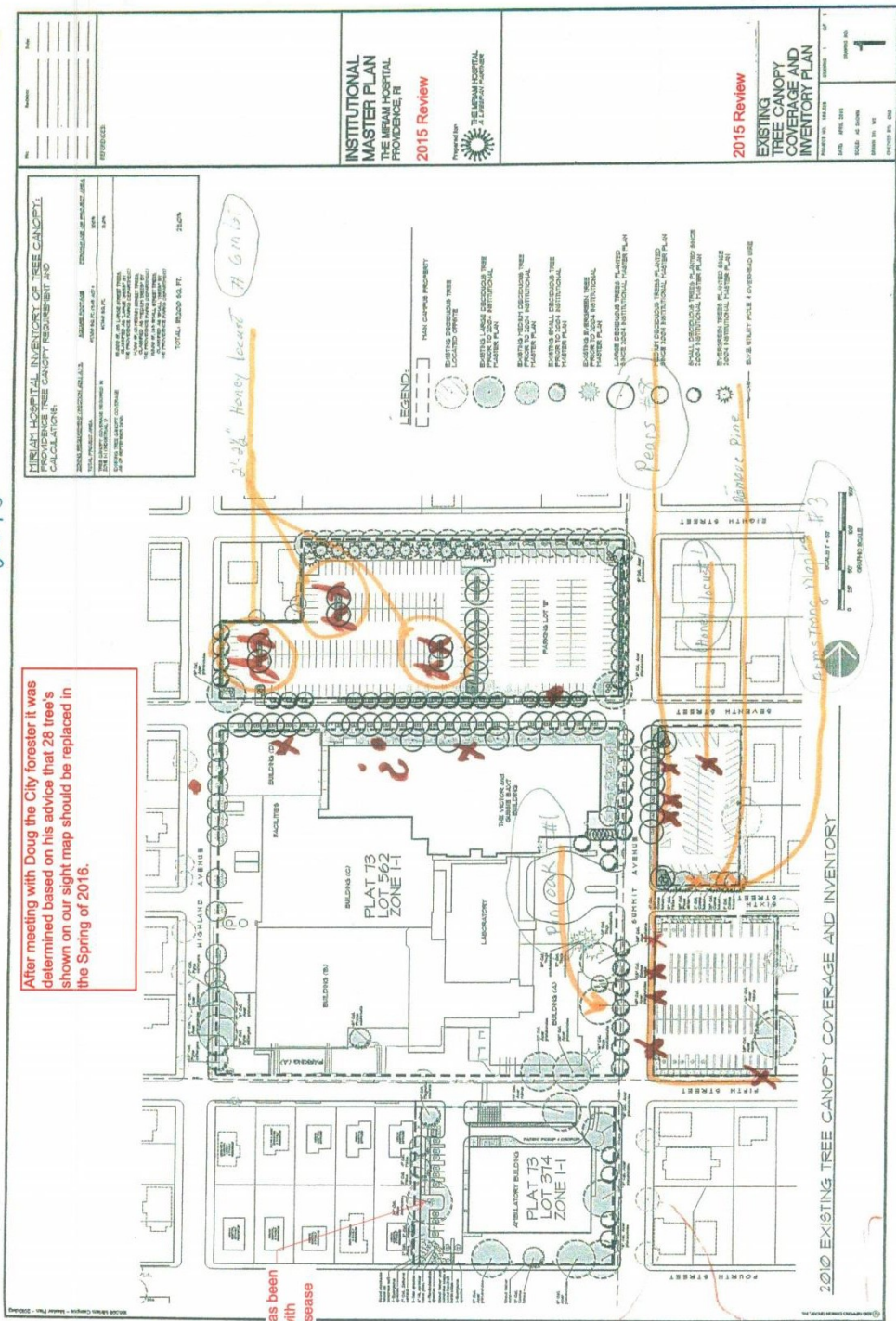
INSTITUTIONAL MASTER PLAN
THE MIRIAM HOSPITAL
PROVIDENCE, RI
2015 Review

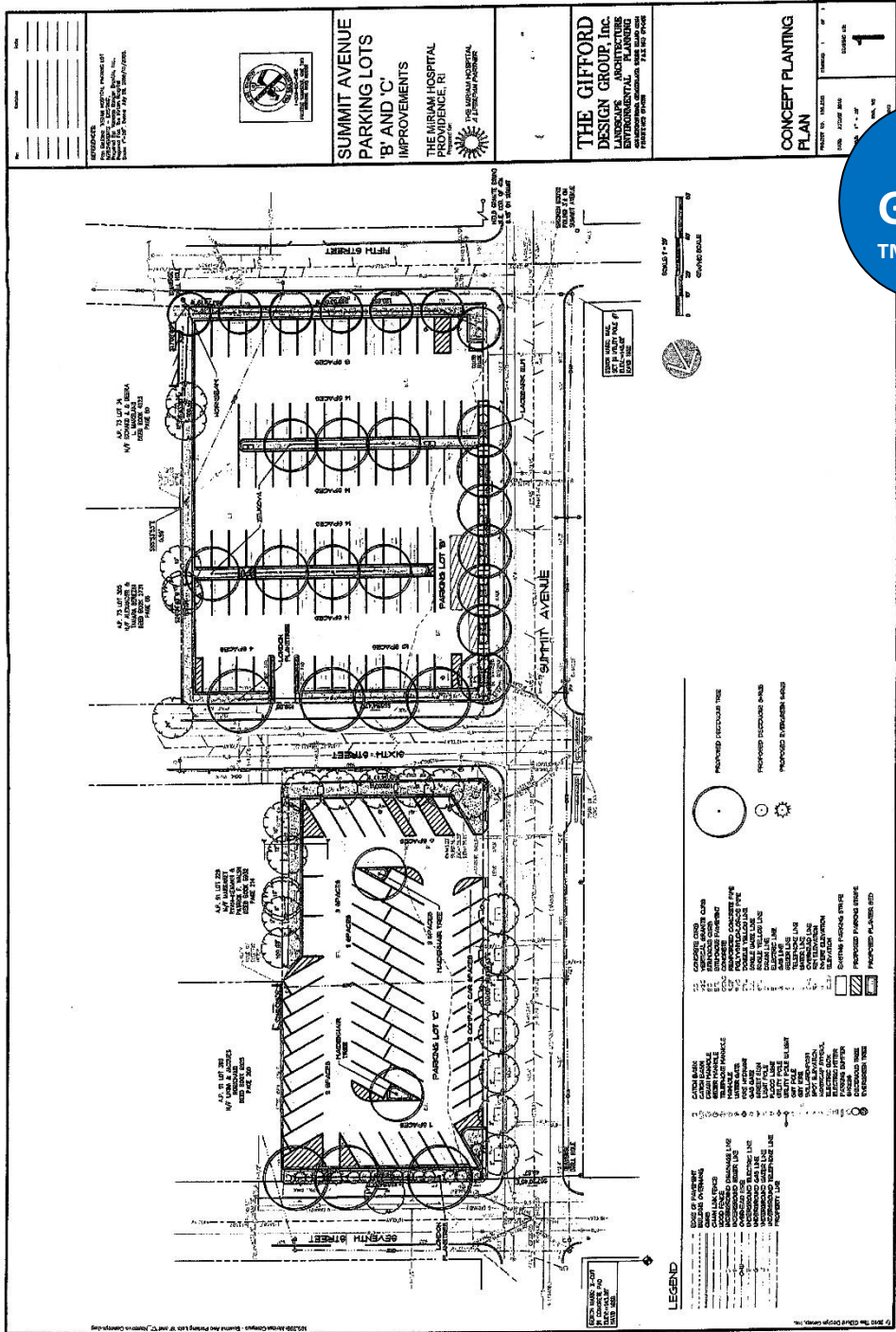


2015 Review
EXISTING TREE CANOPY
COVERAGE AND
INVENTORY PLAN

DATE: 01/14/15
SCALE: AS SHOWN
SHEET NO. 141
PROJECT NO. 141

Exhibit
G 1 of 2
TMH IMP
2020



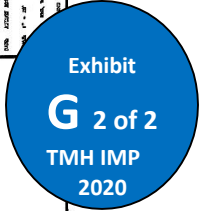


**SUMMIT AVENUE
PARKING LOTS
'B' AND 'C'
IMPROVEMENTS**
THE MIRIAM HOSPITAL
PROVIDENCE, RI
THE MIRIAM HOSPITAL
133 SUMMIT AVENUE
PROVIDENCE, RI 02903

**THE GIFFORD
DESIGN GROUP, Inc.**
LANDSCAPE ARCHITECTURE
PLANNING AND DESIGN
1000 WEST MAIN STREET
PROVIDENCE, RI 02903

**CONCEPT PLANTING
PLAN**

DATE: 05/14/2020
SCALE: AS SHOWN
SHEET NO: 1
PROJECT NO: 20190301
DRAWN BY: [Name]
CHECKED BY: [Name]





DIAGNOSTIC REPORT

Submitter:

Clem Desjardins
Stanley Tree Service
662 Great Road
North Smithfield RI 02896

Phone

Fax

401-765-0720

Email

clem@stanleytree.com

Sample#	201402010
Field ID	2015-0810
Host	American Elm
Received Date	9/18/2015
County	Providence
State	RI

Exhibit

H

TMH IMP
2020

Diagnosis and Recommendations

Host/Habitat	American Elm (<i>Ulmus americana</i>); Cultivar: Miriam Hospital
---------------------	--------------------------------------------------------------------

Final Report

Diagnosis: Dutch elm disease caused by *Ophiostoma novo-ulmi*.

Disease Description: The submitted branch segments had evidence of vascular staining and after incubation and culturing of the symptomatic material, the Dutch elm disease (DED) pathogen (*Ophiostoma*) was clearly visible. DED is transmitted by elm bark beetles and physical root connections (grafts) between nearby trees. The overland spread of DED depends on the activity of its insect vectors, the native elm bark beetle (*Hylurgopinus rufipes*) and the less abundant European elm bark beetle (*Scolytus multistriatus*). Elm bark beetles breed under the bark of dead or dying elms. When their eggs hatch, the larvae feed on the inner bark and sapwood, forming a network of galleries. When the pathogen is present, it develops sticky spore masses that grow within the beetle galleries. The spores coat the bodies of adult beetles and when they emerge from standing trees or cut logs they carry the fungus to a new host. As active adults, the native elm bark beetles chew through the bark of healthy elm branches to feed in the inner bark or to create nesting sites where they will spend the winter. The adults of the lesser abundant European elm bark beetle feed in twig crotches of healthy elms. Both beetles carry DED spores into or near severed wood vessels as they feed, where the spores germinate and infect the tree. The second mode of disease transmission occurs when the fungus spreads from an infected tree to an adjacent healthy tree via root grafts, which are very common in forest and landscape settings. Once established in the tree, *Ophiostoma* slowly moves within the vascular system. Blockage of water transport through the vessels leads to leaf discoloration, wilt, and the eventual death of the branch or stem beyond the vascular blockage. DED may progress rapidly, killing the infected elm that season or it may gradually cause branch dieback for several years in trees with some level of resistance.

Management: Scouting for the characteristic flagging symptoms should take place from mid-June to mid-August. At times, branch cankering and elm anthracnose can create symptoms that mimic DED. Remove branches showing very early wilt symptoms (<5% of the crown). Confirm that leaf yellowing is not the result of elm anthracnose (black spot). To eliminate DED from these trees prune the flagging branch so that 8-10 feet of symptomless sapwood exists between the portion of the branch with wilt symptoms and the cut that removed the branch. Protect specimen trees from infection with prophylactic injections of fungicides at 1-2 year intervals. Fungicides labeled for use against *Ophiostoma* include: carbendazim, tebuconazole, propiconazole and thiabendazole hypophosphite. Chlorpyrifos is an insecticide labeled for use to control elm bark beetles before they can introduce the fungus into healthy trees.

Sample#
201402010

UMass Extension Plant Diagnostic Clinic
 101 University Drive
 Slobody Building Suite A7
 Amherst MA 01002
 Telephone : (413)545-2826 Fax : (413)545-4385

Diagnosed By :
 Nicholas Brazee (nbrazee@umass.edu)
 Completed Date: 9/25/2015

No product endorsement is implied by recommendations. Always follow the label if there is disagreement with these recommendations.



The Miriam Hospital
Lifespan. Delivering health with care.™

Summit Tree/Landscape Inventory

FINAL REPORT

The Miriam Hospital

Transportation Study

PREPARED FOR

The Miriam Hospital
164 Summit Avenue
Providence, Rhode Island

PREPARED BY



1 Cedar Street, Suite 400
Providence, Rhode Island

SEPTEMBER 21, 2020



1

Introduction

The Miriam Hospital retained VHB, Inc. to conduct a transportation study to support updates to the hospital's Institutional Master Plan. This document presents the evaluation of existing and future traffic operations on the roadway network surrounding the hospital and findings regarding the impact of hospital-related traffic and parking on the adjacent neighborhood roadways.

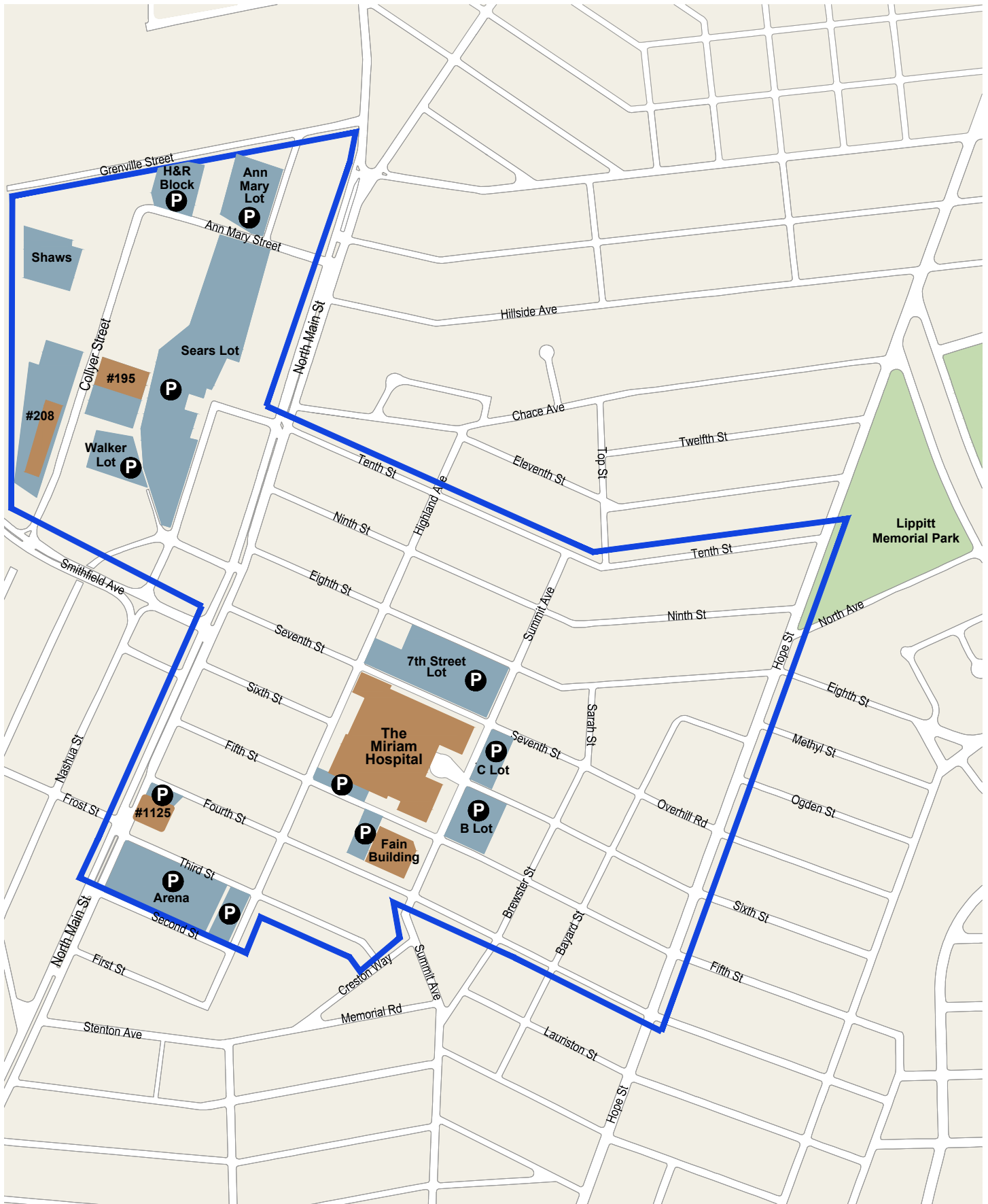
This report covers traffic and parking conditions in 2019. The traffic and parking data referenced in this report were collected in March 2019, during a period of high activity at the hospital. The COVID-19 pandemic substantially impacted activity and policies at the hospital. Supplemental counts of parking activity are to be conducted in September 2020 and presented in a separate memorandum.

Study Area

The Miriam Hospital campus is located in northeast Providence within the Summit Avenue neighborhood and is bordered by the Mount Hope neighborhood to the south, the Charles neighborhood to the west, and the Blackstone neighborhood to the east. Downtown Providence is located approximately three miles south of the hospital, while Downtown Pawtucket is located approximately three miles to the north.

As illustrated in **Figure 1-1**, the main hospital buildings are bounded by Highland Avenue, Seventh Street, Summit Avenue, and Fourth Street. The Fain Building, a medical office building, is located on Fifth Street, adjacent to the main hospital buildings. There are also two off-site clinical/office buildings on Collyer Street and a clinical building on North Main Street. Much of the hospital parking is located off-site, most of it west of North Main Street.

For the purpose of this report, the study area is generally bounded by Tenth Street to the north, Hope Street to the east, Third Street to the south, and North Main Street to the west. The study area also encompasses the hospital's off-site facilities and parking areas to the west of North Main Street.



Study Area
The Miriam Hospital
Providence, Rhode Island

Figure 1-1



0 250 500 Feet

2

Existing Conditions

Vehicular Access and Roadway Conditions

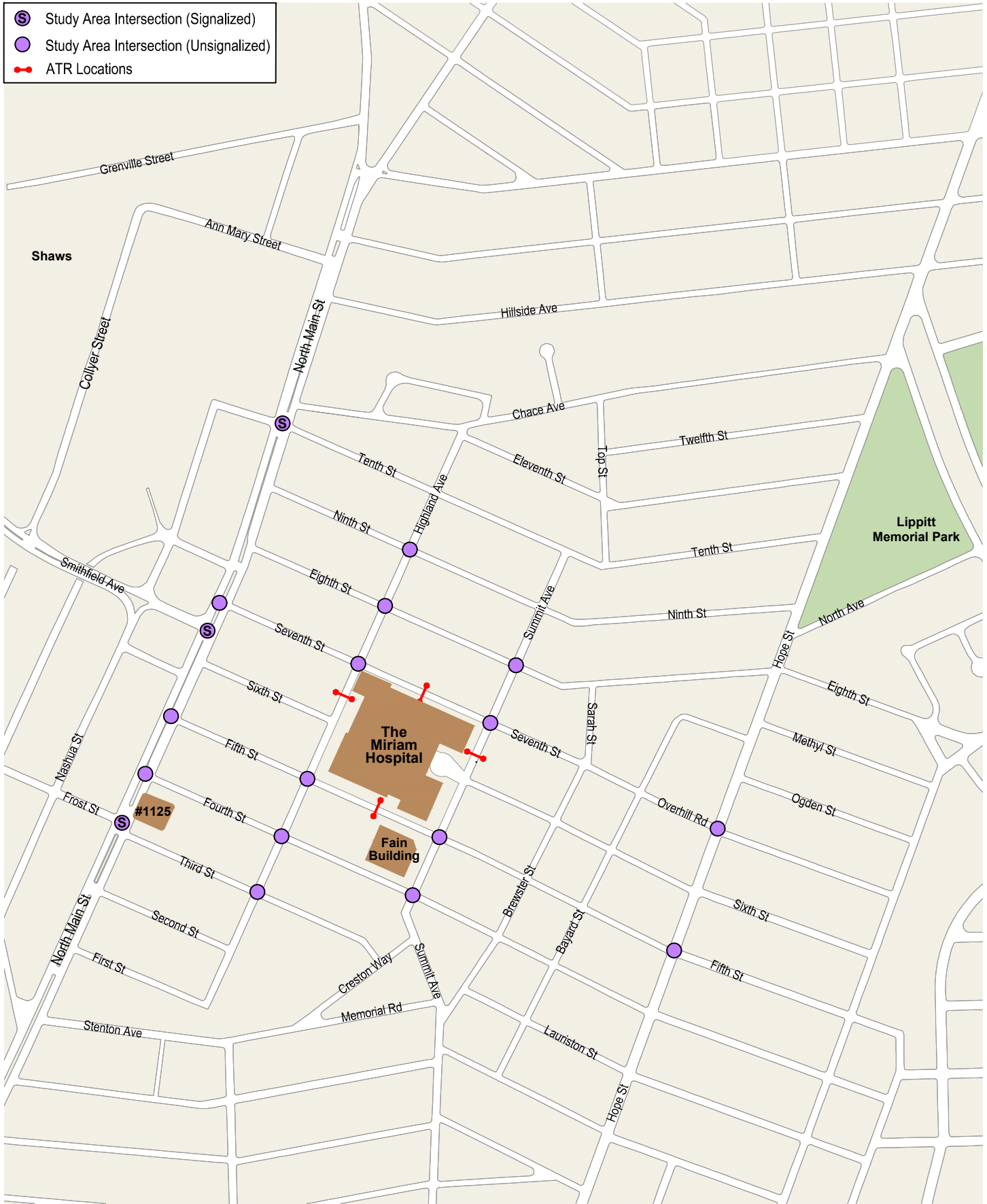
The following section describes vehicular access into the hospital campus, roadway circulation within the study area and observed traffic conditions, including traffic volumes and operations.

This study includes 18 intersections around the hospital campus where traffic count data were collected and analyzed. The intersections are listed below and illustrated on **Figure 2-1**.

1. North Main Street at Frost Street and Third Street
2. North Main Street at Fourth Street
3. North Main Street at Fifth Street
4. North Main Street at Smithfield Avenue
5. North Main Street at Seventh Street
6. North Main Street at Tenth Street and White Street
7. Highland Avenue at Third Street
8. Highland Avenue at Fourth Street
9. Highland Avenue at Fifth Street
10. Highland Avenue at Seventh Street
11. Highland Avenue at Eighth Street
12. Highland Avenue at Ninth Street
13. Summit Avenue at Fourth Street
14. Summit Avenue at Fifth Street
15. Summit Avenue at Seventh Street
16. Summit Avenue at Eighth Street
17. Hope Street at Fifth Street
18. Hope Street at Overhill Road

The existing operation of each intersection was evaluated in detail using standard traffic engineering analysis techniques. The resulting baseline scenario was then used to quantify incremental impacts of potential future traffic growth and site-generated traffic.

- Ⓢ Study Area Intersection (Signalized)
- Study Area Intersection (Unsignalized)
- ATR Locations



Study Area Intersection
The Miriam Hospital
Providence, Rhode Island

Figure 2-1



0 250 500 Feet

Vehicular Access

The main entrance to the hospital is on Summit Avenue and this is the destination for most patients and visitors. Valet parking for visitors is provided at the entrance and two patient/visitor parking lots are located across the street from the entrance. The Fain Health Center, at the corner of Summit Avenue and Fifth Street, is another important patient destination. The Emergency Department is also located on Fifth Street.

The primary employee entrance is on Seventh Street. There is an employee parking lot on Seventh Street, although the majority of employees park off-site and are shuttled to the hospital. The shuttle stop is at the Seventh Street entrance.

The majority of vehicle accessing the hospital arrive via North Main Street or Smithfield Avenue. North Main Street is an urban major arterial running generally north/south. Smithfield Avenue connects with Interstate 95. North Main Street has a median and it restricts access to some of the side streets that lead to the hospital from North Main Street. Third Street, Fifth Street, Seventh Street and Tenth Street are the routes to the hospital via North Main Street typically used in commercial mapping software. There is an old hospital directional sign at Fifth Avenue for traffic northbound on North Main Street. The route to the hospital via Smithfield Avenue used in mapping software is via Third Street or Seventh Street. The route back to Smithfield Avenue from the hospital is via Fourth Street or Fifth Street.

Other hospital traffic arrives from the east via Hope Street. Hope Street is urban minor arterial running generally north/south. The most common access routes to the hospital from northbound Hope Street are via Fifth Street and Sixth Street. Mapping software usually directs those arriving from southbound Hope Street via Tenth Street. Overhill Road/Seventh Street is also used. There is an old hospital directional sign at Overhill Road.

Roadways

The principal roadways providing access to hospital campus are described below.

North Main Street

North Main Street (US Route 1) is a north-south urban principal arterial which runs from College Street to the south to Hillside Avenue to the north where it becomes Pawtucket Avenue. The adjacent land uses are primarily commercial with some residential. Within the study area, North Main Street is approximately 72 feet wide, with parking on both sides of the road and a 12-foot wide grass median in the center of the roadway. The Third Street, Smithfield Avenue, and Tenth Street intersections at North Main Street are signalized. The Third Street intersection is controlled by a two-phase fully actuated traffic signal. The Smithfield Avenue intersection is controlled by a fully actuated traffic signal with a protective advance left turn phase in the northbound direction. The Tenth Street intersection is controlled by a fully actuated traffic signal with protected advance left turn phases in

both the northbound and southbound directions. Pedestrian signal heads provide pedestrian access across each roadway at the signalized intersections.

Hope Street

Hope Street is a north-south urban minor arterial which runs from Interstate Route 195 to the south to Hillside Avenue north of the hospital, where it continues as East Avenue. Within the study area, Hope Street is approximately 40 feet wide with parking permitted on both sides of the street. The Fifth Street and Overhill Road intersections along Hope Street are unsignalized with two-way stop control along the east-west "minor street" approaches. The adjacent land uses are commercial and residential.

Highland Avenue

Highland Avenue is a north-south local roadway that runs parallel to North Main Street, from First Street to Chace Avenue. Within the study area the adjacent land uses include the hospital, the Oceantides school, and residential properties. Highland Avenue is approximately 30 feet wide. The intersections along Highland Avenue are all unsignalized and most all-way stop controlled. The exceptions are at Sixth Street, Seventh Street, and Eighth Street. The intersection at Sixth Street has stop control for Sixth Street traffic. The Seventh Street intersection has stop control for Highland Avenue traffic and the intersection at Eighth Street has stop control for Eighth Street Traffic.

Summit Avenue

Summit Avenue is a north-south local roadway which runs from Rochambeau Avenue to Tenth Street. The main hospital entrance and visitor parking lots are located on Summit Avenue at Sixth Street. Adjacent land uses include the hospital, a religious center, and, at Ninth Street, the Summit Avenue Playground. Within the study area, Summit Avenue is approximately 30 feet wide. The Fourth, Fifth, Ninth and Tenth Street intersections are controlled by all-way stop signs, while the Sixth, Seventh and Eighth Street intersections are controlled by stop signs on the east-west approaches.

Third Street

Third Street is a local east-west roadway that runs from North Main Street to Creston Way. Within the study area, Third Street is approximately 24 feet wide. Third Street intersects Main Street from the east to form a signalized offset intersection with Frost Street. The intersection with Highland Avenue is an unsignalized all-way stop. The adjacent land uses on the block east of Highland Avenue is entirely residential. Adjacent land uses on the block between North Main Street and Highland Avenue are a mix of residential and commercial along the north side and a hospital parking lot (Arena Lot) on the south side.

Fourth Street

Fourth Street is a local east-west roadway that runs from North Main Street to Holly Street. Within the study area, Fourth Street is approximately 24 feet wide. The intersections at Highland Avenue, Summit Avenue, and Brewster Street are all-way stop controlled. The adjacent land uses are primarily residential with some commercial properties at the North Main Street and Hope Street intersections.

Fifth Street

Fifth Street is a local east-west roadway that runs from North Main Street to Holly Street. The hospital Emergency Department and the Fain Building are located on Fifth Street. The remainder of Fifth Street is residential with some commercial uses at the intersections with North Main Street and Hope Street. Fifth Street is approximately 24 feet wide. The intersections with Highland Avenue and Summit Avenue are all-way stop controlled.

Sixth Street

Sixth Street is a local east-west roadway that runs from North Main Street to Lorimar Avenue. Sixth Street is split by the main hospital campus, with one block to the west and three blocks to the east between the hospital and Hope Street. Adjacent land uses are residential, except for the hospital and some commercial uses at the intersection with North Main Street. Sixth Street is approximately 24 feet wide. There is stop control for all east-west intersection movements except at Bayard Street.

Seventh Street / Overhill Road

Seventh Street is a local east-west roadway that runs from North Main Street to Brewster Street before becoming Overhill Road. There are some commercial uses at the North Main Street intersection, the hospital and an employee parking lot are adjacent to the block between Highland Avenue and Summit Avenue, and the remaining adjacent land uses are residential. Within the study area, Seventh Street/Overhill Road is approximately 24 feet wide. The Highland Avenue/Seventh Street intersection has stop control for Highland Avenue traffic. The Summit Avenue/Seventh Street intersection has stop control for Seventh Street traffic. There is all-way stop control at Brewster Street and stop control for Brayard Street at the Overhill Road intersection.

Tenth Street

Tenth Street is a local east-west roadway that runs from North Main Street to Hope Street. The adjacent land uses are residential, with some commercial uses at the North Main Street and Hope Street intersections. Tenth Street is approximately 24 feet wide. The intersections at Highland Avenue, Summit Avenue and Top Street are all-way stop controlled.

Observed Conditions

VHB observed traffic conditions along the study area roadways and intersections. These are summarized below.

Traffic Signal Operations

As shown previously in **Figure 2-1**, three of the study area intersections are signalized. The traffic signal control equipment at both locations is generally in good operating condition. The signals are fully actuated and coordinated along North Main Street. Pedestrian movements are served concurrently with vehicular movements.

The traffic operations at the signalized intersections of North Main Street at Third Street/Frost Street, Smithfield Avenue, and Tenth Street/White Street were observed during the morning and evening peak periods. The intersections were observed to be operating efficiently with some queuing on the major approaches.

Traffic Volumes

A transportation data collection program was conducted in March 2019 to establish baseline traffic conditions within the study area. Traffic volumes for the study area roadways and intersections were collected by Precision Data Industries, Inc. This effort included weekday morning and evening peak hour manual turning movement counts (TMCs) between 6:30 AM and 9:30 AM and between 2:30 PM and 5:30 PM at each study area intersection.

Automatic Traffic Recorder (ATR) counts were conducted for a one-week period (February 28, 2019 to March 6, 2019) at the following locations:

1. Highland Avenue, between Sixth Street and Seventh Street;
2. Summit Avenue, between Sixth Street and Seventh Street;
3. Fifth Street, between Highland Avenue and Summit Avenue; and
4. Seventh Street, between Highland Avenue and Summit Avenue.

Table 2-1 presents a summary of the observed daily and peak hour traffic from the ATR data. The complete traffic data can be found in the Appendix.

**Table 2-1
Existing Traffic Volume Summary**

Location	Vehicles per Day	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		Vehicles per Hour	% of Daily Traffic	Directional Distribution	Vehicles per Hour	% of Daily Traffic	Directional Distribution
Summit Ave., between 6th and 7th St	2,570	160	6.2%	56% NB	185	7.2%	56% SB
Highland Ave., between 6th and 7th St	1,640	100	6.1%	66% SB	125	7.6%	65% SB
Fifth Street, between Highland Ave. and Summit Ave.	3,200	190	5.9%	62% WB	240	7.5%	58% WB
Seventh Street, between Highland Ave. and Summit Ave.	2,600	160	6.1%	53% EB	185	7.1%	68% EB

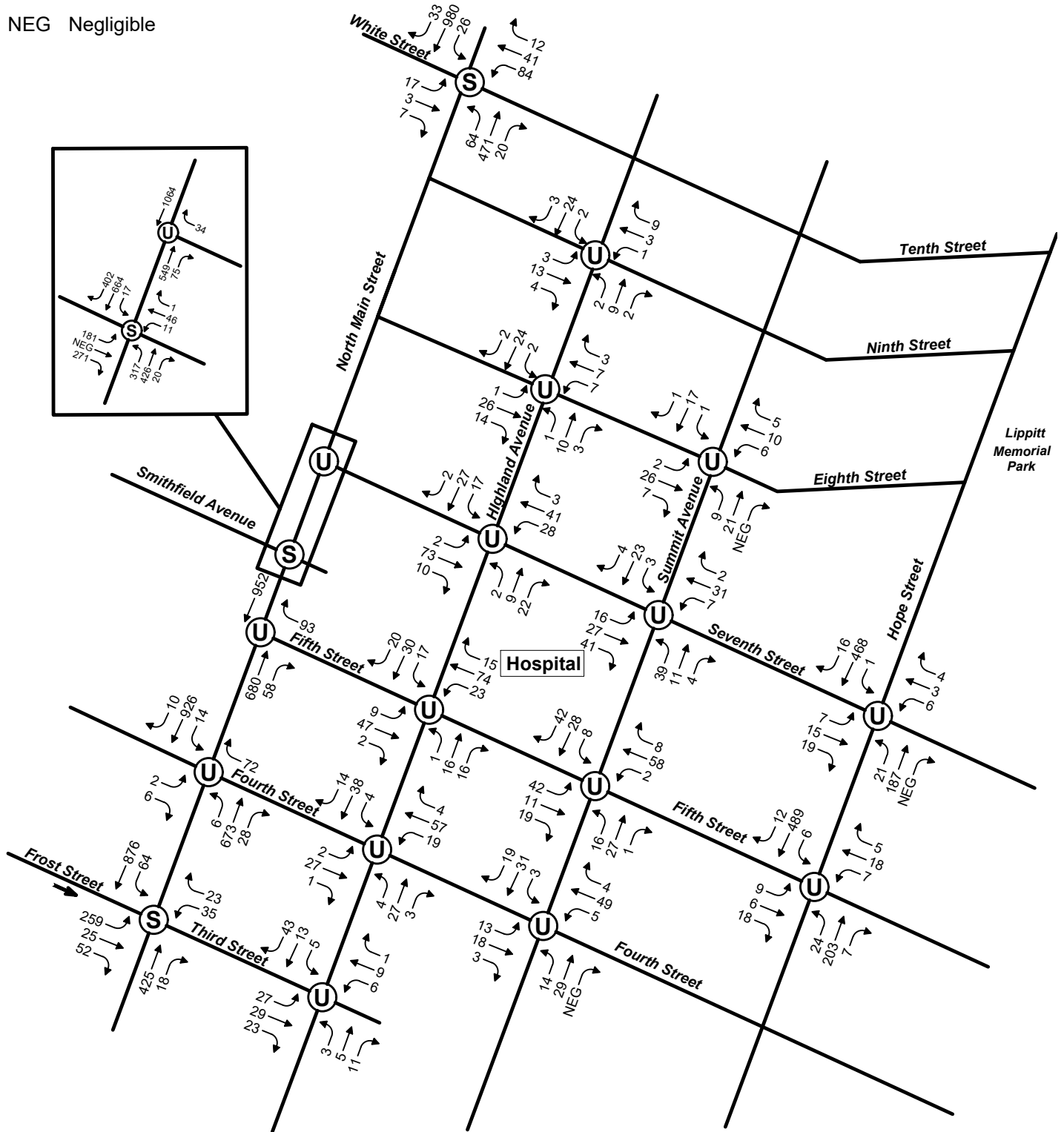
Source: Compiled by VHB from automatic traffic recorder (ATR) counts conducted by PDI February 28, 2019 to March 6, 2019.

Based on the turning movement counts performed in the study area, the weekday morning peak hour occurred between 7:45 AM and 8:45 AM at the intersections immediately surrounding the hospital main campus and intersections farther from the hospital. The weekday evening peak hour at the intersections immediately surrounding the hospital generally occurred between 3:00 PM and 4:00 PM, while peak hour traffic at other intersections occurring between 4:30 PM and 5:30 PM.

Seasonal Traffic Variation

To account for seasonal fluctuation of traffic volumes on study area roadways, monthly Rhode Island Department of Transportation (RIDOT) seasonal adjustment factors were reviewed. According to the RIDOT statistics for urban facilities, traffic volumes on urban facilities in the month of March are higher than during an average month. March also has above average patient activity at the hospital. Additionally, experience on other studies in Providence has shown that traffic volumes collected in March when schools are in session are higher than average month conditions. To provide for a conservatively high estimate of traffic volumes, RIDOT seasonal adjustment factors were not applied to reduce the traffic volumes to the average condition. Resulting weekday peak hour traffic volumes are presented in **Figure 2-2** and **Figure 2-3** for the morning and evening, respectively.

- (S)** Signalized Intersection
- (U)** Unsignalized Intersection
- NEG Negligible



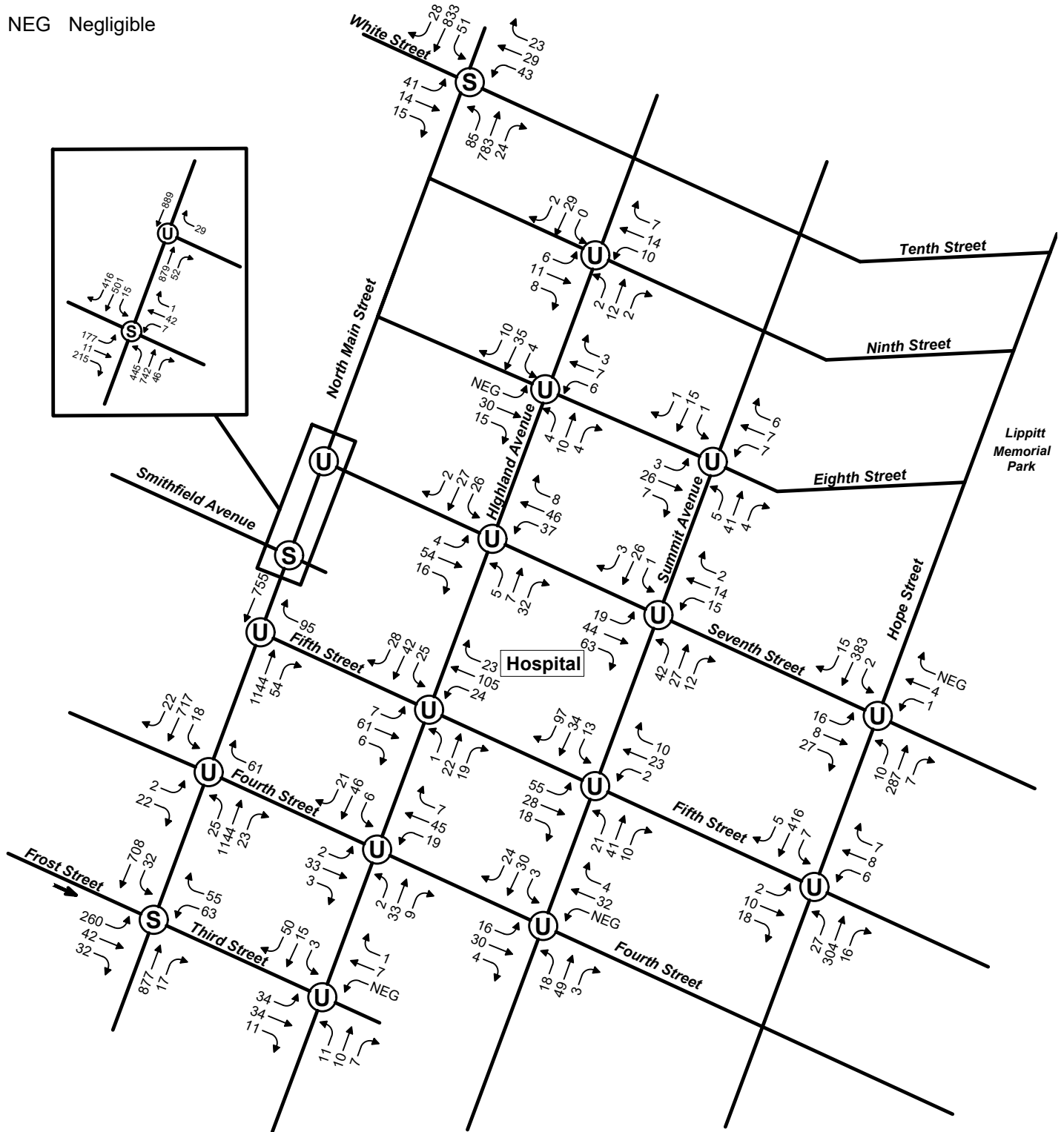
2019 Existing Weekday Morning Peak Hour Traffic Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 2-2



Not to Scale

- (S)** Signalized Intersection
- (U)** Unsignalized Intersection
- NEG Negligible



2019 Existing Weekday Evening Peak Hour Traffic Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 2-3



Not to Scale

Traffic Operations Analysis

Intersection capacity analyses were conducted at study area intersections using existing traffic volumes, intersection geometry, and traffic controls. The results provide an indication of how well each intersection operates during the peak traffic periods. Roadway operating conditions are categorized using a level of service classification, which is directly related to average intersection delay.

Level-of-Service Criteria

Level-of-service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure of the effect of several factors including roadway geometrics, speed, travel delay, freedom to maneuver, and safety. Level-of-service provides an index to the operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions with little or no delay and LOS F representing the worst operating conditions with highly congested operations and long delays. In an urbanized area, LOS D or better is generally considered an acceptable operating condition. The evaluation criteria used to analyze study area intersections are based on the *Highway Capacity Manual*.

The level-of-service designation is reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of each lane or lane group entering the intersection and the LOS designation is for the overall conditions at the intersection. For unsignalized intersections, however, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. The LOS is only determined for left turns from the main street and all movements from the minor street. The overall LOS designation is for the most critical movement, which is most often the left turn out of the side street.

Signalized Intersections

Capacity analyses were conducted at the three signalized intersections within the study area. Signal timing and phasing information was extracted from design plans.

The results of the capacity analyses indicate that the signalized intersections within the study area operate at acceptable levels of service (LOS C or above) during the weekday morning and weekday evening peak hour. The results are summarized in **Table 2-2**.

**Table 2-2
Existing Conditions Signalized Intersection Capacity Analysis Summary**

Location	Peak Hour	V/C ¹	Existing Delay ²	LOS ³
North Main Street at Third Street/Frost Street	Weekday Morning	0.59	11	B
	Weekday Evening	0.57	11	B
North Main Street at Smithfield Avenue	Weekday Morning	0.70	20	C
	Weekday Evening	0.82	21	C
North Main Street at White Street/Tenth Street	Weekday Morning	0.63	14	B
	Weekday Evening	0.49	11	B

Source: Synchro software using the procedures in the *Highway Capacity Manual 6th Edition*. Compiled by VHB.

1 V/C = volume to capacity ratio

2 Delay = Vehicle delay expressed in seconds per vehicle

3 LOS = Level of service

Unsignalized Intersections

Capacity analyses were also conducted at the fifteen unsignalized study area intersections. A summary of the existing conditions results is presented in **Table 2-3**. All the unsignalized intersections along Highland Avenue, Summit Avenue, Hope Street and North Main Street operated at an acceptable level of service (LOS C or better) during both peak periods.

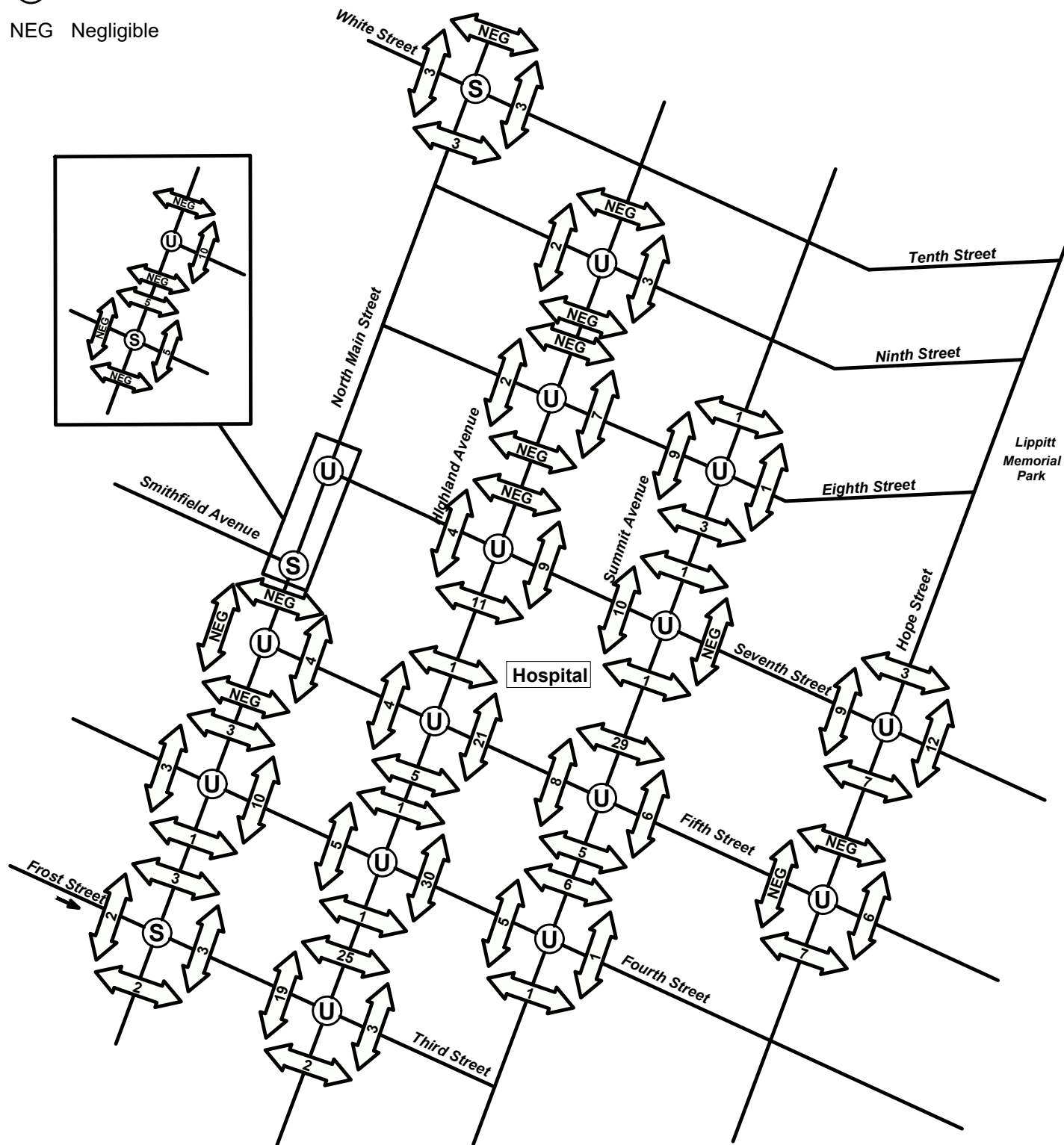
Pedestrian Activity

Pedestrian volumes were counted in the study area in conjunction with the turning movement counts at study area intersections. These were performed during a typical weekday in March 2019 during the weekday morning and weekday evening peak periods. **Figure 2-4** and **Figure 2-5** illustrate the peak-hour pedestrian volumes at the 18 study area intersections.

The intersection of Fifth Street at Summit Avenue, located between the main hospital building and the Fain Building, had the highest pedestrian activity. Some 29 to 32 pedestrians crossed Summit Avenue at Fifth Street. It was observed that many of the pedestrian movements were by the parking valets moving between the Fain Building and the Summit Avenue parking lots.

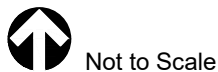
There were 27 to 30 pedestrian per hour crossing Fourth Street and 15 to 21 pedestrian per hour crossing Fifth Street along Highland Avenue. Many of these pedestrians were hospital employees who parked in the lots along Third Street. The other locations with relatively high volumes of pedestrians were the two Hope Street intersections. The pedestrian activity at those two intersections was related to the commercial activity along Hope Street.

- S** Signalized Intersection
- U** Unsignalized Intersection
- NEG Negligible

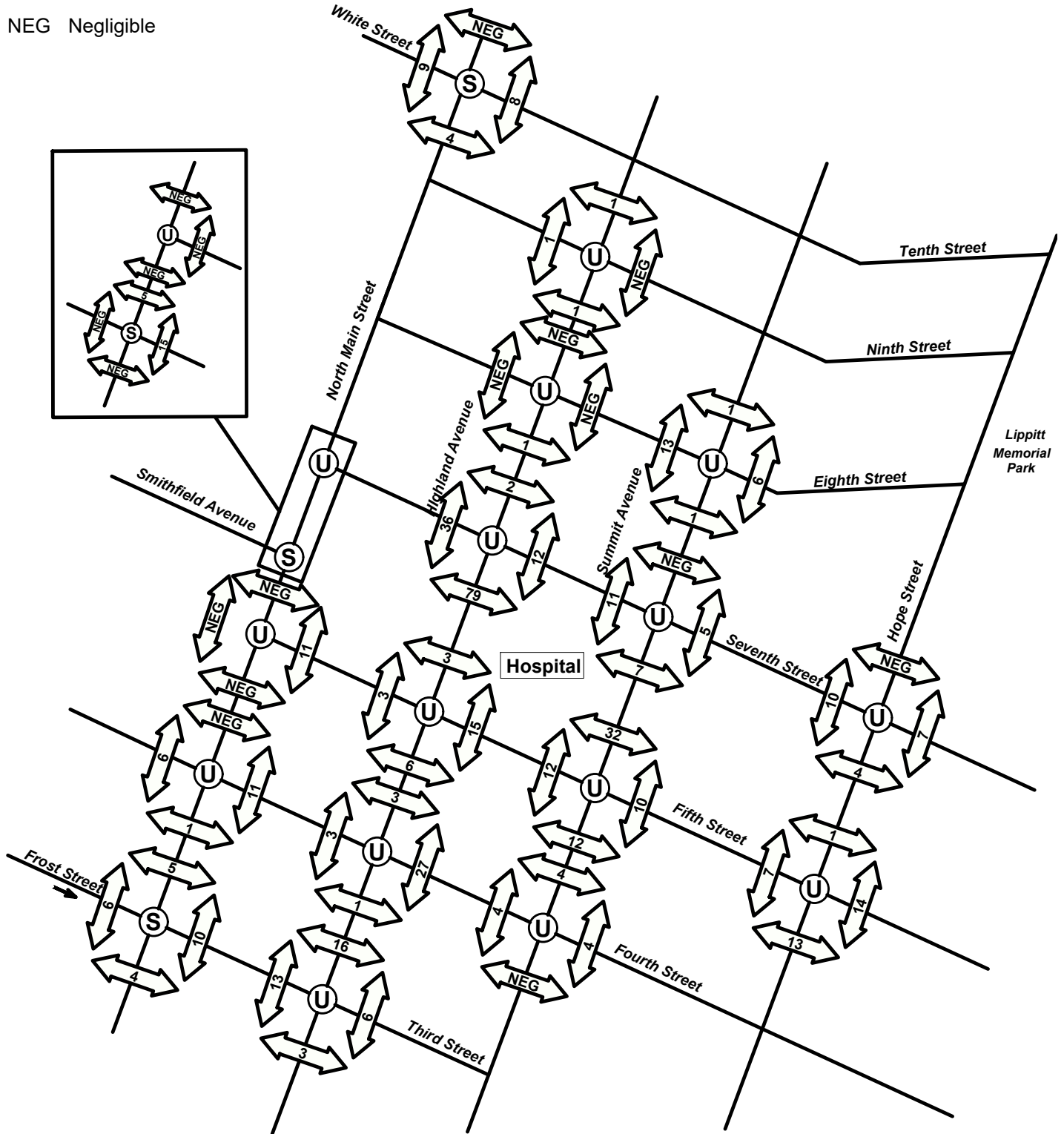


2019 Existing Weekday Morning Peak Hour Pedestrian Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 2-4



- S** Signalized Intersection
- U** Unsignalized Intersection
- NEG Negligible



2019 Existing Weekday Evening Peak Hour Pedestrian Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 2-5



Not to Scale

**Table 2-3
Existing Unsignalized Intersection Capacity Analysis Summary**

Location	Peak Hour	Critical Movement ¹	Demand ²	Existing Delay ³	LOS ⁴
North Main Street at Fourth Street	Weekday Morning	WB R	72	12	B
	Weekday Evening	WB R	61	12	B
North Main Street at Fifth Street	Weekday Morning	WB R	93	11	B
	Weekday Evening	WB R	95	13	B
North Main Street at Seventh Street	Weekday Morning	WB R	34	10	B
	Weekday Evening	WB R	29	11	B
Highland Avenue at Third Street	Weekday Morning	All-Way	NA	8	A
	Weekday Evening	All-Way	NA	8	A
Highland Avenue at Fourth Street	Weekday Morning	All-Way	NA	8	A
	Weekday Evening	All-Way	NA	8	A
Highland Avenue at Fifth Street	Weekday Morning	All-Way	NA	8	A
	Weekday Evening	All-Way	NA	8	A
Highland Avenue at Seventh Street	Weekday Morning	SB LTR	46	11	B
	Weekday Evening	SB LTR	55	13	B
Highland Avenue at Eighth Street	Weekday Morning	EB LTR	41	9	A
	Weekday Evening	EB LTR	45	10	A
Highland Avenue at Ninth Street	Weekday Morning	All-Way	NA	7	A
	Weekday Evening	All-Way	NA	9	A
Summit Avenue at Fourth Street	Weekday Morning	All-Way	NA	8	A
	Weekday Evening	All-Way	NA	8	A
Summit Avenue at Fifth Street	Weekday Morning	All-Way	NA	8	A
	Weekday Evening	All-Way	NA	8	A
Summit Avenue at Seventh Street	Weekday Morning	EB LTR	84	10	B
	Weekday Evening	EB LTR	126	11	B
Summit Avenue at Eighth Street	Weekday Morning	EB LTR	35	10	A
	Weekday Evening	EB LTR	36	10	A
Hope Street at Fifth Street	Weekday Morning	WB LTR	30	22	C
	Weekday Evening	WB LTR	21	19	C
Hope Street at Overhill Road	Weekday Morning	WB LTR	13	16	C
	Weekday Evening	WB LTR	5	17	C

Source: Synchro software using the procedures in the *Highway Capacity Manual 6th Edition*. Compiled by VHB.

- 1 L= Left-turn movement, T= Through movement, R= Right-turn movement
- 2 Demand = Demand of critical movement, expressed in vehicles per hour
- 3 Delay = Vehicle delay expressed in seconds per vehicle
- 4 LOS = Level of service

Parking

The Miriam Hospital provides patient/visitor parking through valet parking at the hospital entrances and self-parking in two parking lots. Public on-street parking is also used by some patients and visitors. Parking for physicians and high-seniority employees is provided in a lot adjacent to the hospital. Parking for other employees is provided off-site in lots served by shuttle buses. Hospital rules prohibit employees from using on-street parking.

On-Street Parking

The on-street parking in the vicinity of the hospital is illustrated in **Figure 2-6**. There are approximately 310 on-street parking spaces located within one block of the hospital. None of this parking is metered and most is subject to two-hour time limits. Handicap parking is designated for the on-street parking near the hospital's main entrance. A loading zone is designated on Fifth Street opposite the Fain Building.

Overnight on-street parking is allowed on most streets where daytime parking is allowed. Within the study area, only Overhill Road and Creston Way participate in Providence's overnight parking program where overnight parking (generally 2:00 am to 5:00 am) is allowed only for residents with overnight parking permits. Resident parking permits are valid only for the district where the resident lives.

The hospital actively works to encourage the City of Providence to enforce the posted on-street time limits. Violators are subject to a \$25.00 fine for overtime parking.

The Miriam Hospital requires that all employees park in assigned off-street parking lots. Any employee parked in an on-street space is subject to administrative penalties, including suspension or termination of employment for repeat offenses. When hired, employees must submit a copy of their vehicle registration. Violations are linked directly to the Human Resource Department and annual employee reviews. If found parking on street, the employee's manager is contacted and the employee is reminded of the hospital's commitment to the neighborhood. Subsequent violations require that the employee and the employee's manager appear before an employee Tribunal Board to adjudicate the matter.

The hospital maintains a log of all calls from neighbors regarding hospital issues, including parking. All such reports are investigated by hospital security and, if hospital employees are involved, referred to the appropriate department.

- 1 Hour Parking (8 AM-6 PM)
- 2 Hour Parking (8 AM-6 PM)
- 2 Hour Parking (8 AM-6 PM) Weekdays
- 2 Hour Parking (8-3 PM)
- Parking Allowed/Observed with no Signage
- Handicapped Reserved
- No Parking
- No Parking (8 AM-6 PM) Weekdays
- No Parking (7 AM-4 PM)



On-Street Parking Regulations
The Miriam Hospital
Providence, Rhode Island

Figure 2-6



Utilization of On-Street Parking

VHB conducted counts of on-street parking on Wednesday March 27, 2019, from 9:00 AM to 5:00 PM. Counts of vehicles parked on each block were recorded every half hour. The location and posted time restrictions for the 310 spaces within a block of the hospital are shown in **Table 2-4**. The area covered by the Table 2-4 counts consist of the following.

- Summit Avenue and Highland Avenue, from Fourth Street to Eighth Street;
- Fourth, Fifth, Sixth and Seventh streets, from North Main Street to Brewster Street;
- Eighth Street, from North Main Street to Sarah Street;
- Brewster Street, from Fourth Street to Sarah Street; and
- Sarah Street.

Over the course of the day, there was a maximum of 131 cars parked on the streets. This occurred at 12:30 PM. The starting occupancy of the on-street parking was 35 cars at 6:30 AM. There were more than 100 cars on the streets from 10:00 AM on. Except for Summit Avenue, no street had more than half the parking occupied

The on-street parking occupancy is consistent with that observed during similar counts done in 2015. At that time there was a maximum of 135 cars, at noon. The most notable difference between the two counts was that the 2019 counts reached 100 cars earlier than the 2015 counts (10:00 AM versus 10:30 AM and stayed at that level longer (until 4:30 PM versus 3:30 PM).

**Table 2-4
On-Street Parking Occupancy**

	Supply	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00
Sarah Street	10	10	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1
Brewster Street	20	20	1	1	0	1	0	0	0	0	0	2	2	2	3	4	2	3	3	5	3	3	4
Summit Avenue	25	25	10	13	15	15	17	17	18	22	23	20	22	23	25	18	22	20	22	18	17	18	17
Highland Avenue	45	45	3	3	4	4	4	2	4	3	6	7	10	12	12	12	14	14	16	17	15	15	14
Eighth Street	65	65	9	10	11	10	10	10	13	16	17	20	17	21	23	21	20	19	15	16	14	15	15
Seventh Street	35	35	5	4	5	7	10	9	10	12	13	11	12	14	13	13	10	10	12	14	8	10	11
Sixth Street	30	30	0	2	2	3	4	8	8	17	15	11	18	16	14	15	17	14	17	15	12	13	12
Fifth Street	30	30	4	4	3	6	3	7	10	16	14	8	15	16	16	17	18	17	15	13	12	11	12
Fourth Street	50	50	3	4	4	5	7	14	16	16	18	15	19	22	24	21	17	16	17	15	15	15	14
TOTAL	310	35	42	45	52	56	69	80	103	107	95	116	127	131	122	121	114	118	116	97	101	100	96

Off-Street Hospital Parking

The hospital's off-street parking in the study area includes on-site and off-site parking lots supporting the main hospital facilities on the Summit Avenue Campus, as well as some parking at off-site medical office buildings on Collyer Street and at 1125 North Main Street.

Off-Street Parking Supply

Summit Avenue Campus

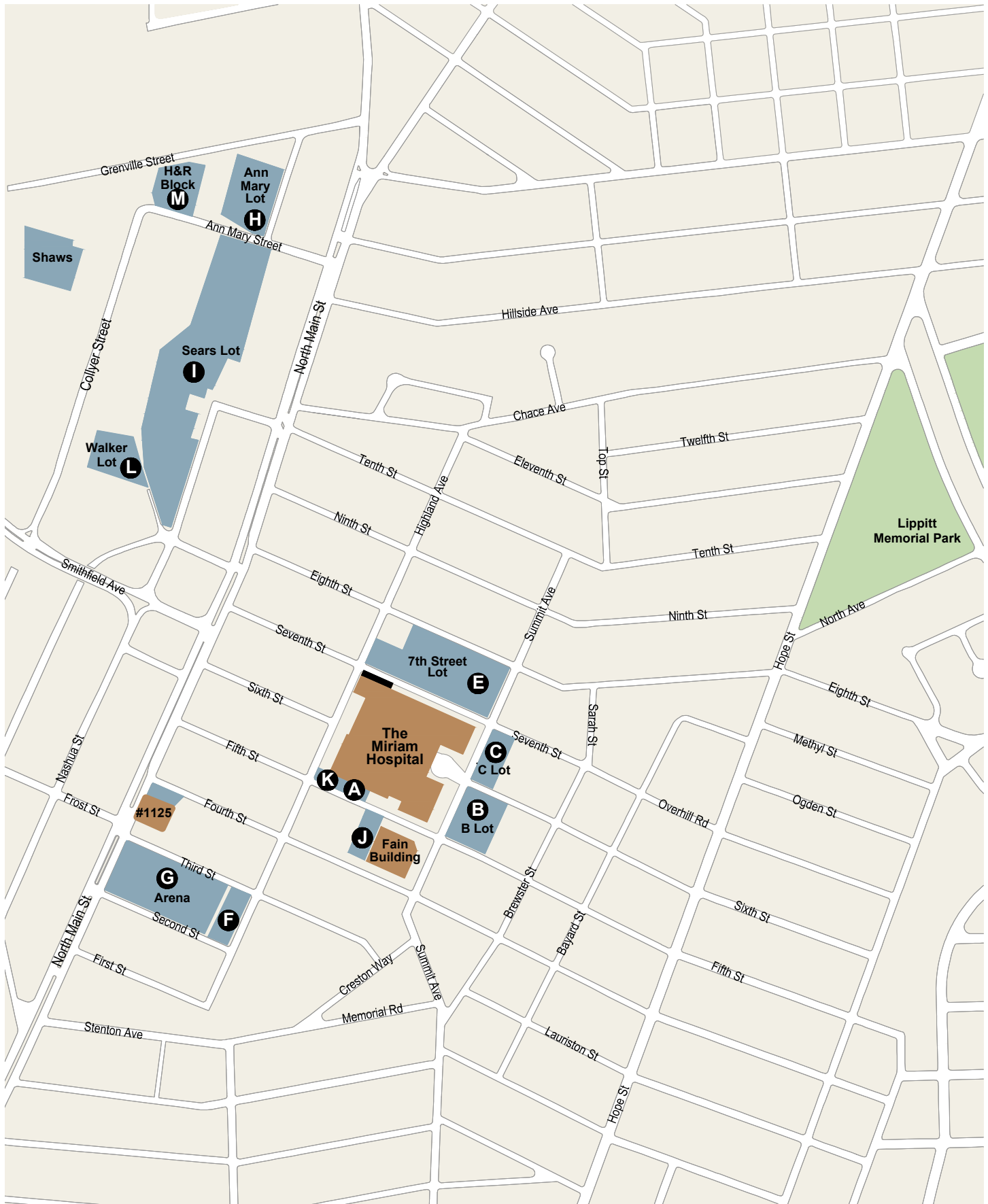
There are 1,354 off-street parking spaces owned or leased by The Miriam Hospital that serve the Summit Avenue campus. Of these, 1,175 are designated for employees and 179 are designated for patients and visitors. The locations are shown in **Figure 2-7**. The only change in the parking inventory during the past five years was the lease of 49 spaces at the H&R Block lot on Collyer Street.

Table 2-5
Off-Street Parking Inventory – Summit Avenue Campus

Location	User	Standard Spaces	Accessible Spaces	Total Spaces
Patient/Visitor Parking				
MRI Lot (Lot K)		3	0	3
ED Lots (Lot A)	Patients	16	3	19
Summit Avenue (Lot B)	Patients/Visitors	81	4	85
Summit Avenue (Lot C)	Patients/Visitors	55	3	58
Fain Health Center (Lot J)	Patients	<u>10</u>	<u>4</u>	<u>14</u>
		165	14	179
Staff Parking				
7th Street Lot E (upper)	Physicians	109	4	113
7th Street Lot E (lower)	High-seniority employees	158	2	160
Lot F	Residents & Interns	20	0	20
Arena Lot (Lot G)	Employees	190	0	190
Sears Lot (Lot I)	Employees	476	0	476
Ann Mary Lot (Lot H)	Employees	103	0	103
Walker Lot (Lot L)	Employees	64	0	64
H&R Block (Lot M)	Employees	<u>49</u>	<u>0</u>	<u>49</u>
		1,169	6	1,175

NOTES: Lot B is operated as valet-assisted parking which, at peak times, allows about 20 extra cars to be parked. Arena Lot is also used by staff and patients at the RISE building on Third Street.

Patient and visitor parking capacity is often increased using valet and assisted parking. Free valet parking drop-off and pick-up is provided at the hospital's main entrance loop and at the Fain Health Center. Summit Avenue Lot B is used for assisted parking and storage of valet-parked cars.



Off-Street Parking Facilities
The Miriam Hospital
Providence, Rhode Island

Figure 2-7



0 250 500 Feet

There is a single staff parking lot adjacent to the main campus, on Seventh Street. It has 113 spaces reserved for physicians and 160 spaces for high-seniority (more than 30 year) employees and some second-shift parkers. The remaining employee spaces are in off-site lots. One of these, the Arena Lot, is the primary location for second-shift parkers.

The off-site lots are served by a shuttle service small 18-20 passenger cutaway buses. Shuttle operate from 5:00 AM to midnight. A single shuttle operates early morning and late night. During most of the day three shuttles are used. A fourth shuttle is often used during peak periods such as shift change. The shuttles provide direct service between the hospital and off-site parking lots, with no stops in between. The routes vary during the day. Some shuttles travel just from the hospital to off-site parking lots west of North Main Street (Sears and nearby lots). Other shuttles service the lots west of North Main Street and the Arena Lot on Third Street. During shift change there is a dedicated route between the hospital and the Arena Lot. The hospital provides an app (Ride Systems) for employees to use to track the location of the shuttles.

Other Hospital Facilities

Within the study area there are medical office buildings on Collyer Street used by the hospital for administrative and patient programs, as well as program space at 1125 Main Street. The entire building at #208 Collyer Street is occupied by the hospital. Approximately half of #195 Collyer Street is used by the hospital and remainder is leased to private medical practices.

The parking inventory for these facilities are shown in **Table 2-6**. Each of the buildings has on-site parking. Another 97 spaces are leased from the Collyer Street Job Lot. These spaces are used by some staff in the Collyer Street medical office buildings. The parking is also available as overflow/event parking for the main hospital but is rarely used as such.

**Table 2-6
Off-Street Parking Inventory – Other Facilities**

Location	Standard Spaces	Accessible Spaces	Total Spaces
208 Collyer Street	114	8	122
195 Collyer Street	67	18	85
Job Lot (old Shaws)	97	0	97
1125 Main Street	15	2	17

NOTES: The leased parking at the Collyer Street Job Lot is also available as overflow parking for the main hospital.

Utilization of Off-Street Parking

Parking occupancy counts were conducted at the off-street parking lots on Wednesday March 27, 2019. Counts were made every half hour from 9:00 AM through 5:00 PM. The results are listed in **Table 2-7**.

The patient/visitor parking lots adjacent to the main campus exceeded their self-park capacity (179 spaces) from 10:30 AM through 3:30 PM. Additional cars were accommodated by the valet parking at

the main entrance and the attendant-assisted parking in Lot B. A maximum of 199 cars were parked in the patient/visitor lots. This occurred at 1:30 PM and is slightly more than the maximum of 192 cars observed during the 2015 IMP transportation study.

The maximum occupancy of the employee parking was observed at 2:30 PM, coinciding with a shift change. There were 1,130 cars parked, 45 less than the capacity. At that time there were another 58 spaces available in the Job Lot overflow parking. The 1,130 cars is an increase of 40 over the maximum 1,090 cars observed during the 2015 IMP transportation study. This is an increase of less than one percent annually.

Of note is that the parking occupancy of the only on-site employee parking, the Seventh Street Lot, ranged widely during the day. Neither the physician parking area nor the staff parking areas were near capacity in the morning. The physician area was nearly at capacity (110 of 113 spaces) at 3:00 PM, while the staff parking area was overcapacity at 2:30 PM and 3:00 PM because of the shift change. The hospital carefully manages the parking assignments for the Seventh Street Lot to accommodate high-seniority day shift employees, second shift employees, and night shift employees.

**Table 2-7
Off-Street Hospital Parking Occupancy**

Capacity	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	
SUMMIT AVENUE CAMPUS																		
Patient/Visitor Parking																		
MRI Lot (Lot K)	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	
ED Lot (Lot A)	19	8	12	14	16	16	15	15	14	17	17	15	17	15	11	11	12	13
Summit Street (Lot B)	85	13	85	88	92	97	100	103	101	100	104	105	98	95	90	87	80	77
Summit Street (Lot C)	58	54	57	55	56	56	56	57	57	57	56	57	57	56	57	56	57	57
Fain Health Center (Lot J)	14	11	13	13	17	19	19	17	20	19	20	18	13	14	11	10	7	6
Subtotal	179	88	169	172	183	190	192	194	194	195	199	197	187	182	172	167	159	156
Employee Parking																		
7 th St (Physicians)	113	92	93	92	94	98	97	96	99	94	96	98	111	112	110	106	100	94
7 th St (Employees)	160	135	141	142	138	139	137	141	138	138	139	143	184	188	169	146	134	124
Lot F	20	20	18	19	20	20	20	20	20	19	19	19	20	20	20	20	18	16
Arena Lot (Lot G)	190	173	189	193	198	205	207	206	208	208	204	203	207	202	195	181	170	141
Sears Lot (Lot I)	476	446	445	448	451	449	449	449	450	449	445	440	441	424	325	286	205	161
Ann Mary Lot (Lot H)	103	96	92	92	91	93	93	92	93	93	92	92	90	87	92	68	28	17
Walker Lot (Lot L)	64	60	60	60	60	59	59	59	60	60	60	61	59	56	42	34	21	19
H&R Block (Lot M)	49	-	-	-	-	-	-	25	24	21	18	17	18	15	14	4	2	0
Subtotal	1,175	1,047	1,063	1,071	1,077	1,088	1,087	1,088	1,092	1,082	1,073	1,073	1,130	1,104	967	845	678	572
TOTAL	1,354	1,135	1,232	1,243	1,260	1,278	1,279	1,282	1,286	1,277	1,272	1,270	1,317	1,286	1,139	1,012	837	728
OTHER FACILITIES																		
#208 Collyer Street	122	74	78	84	89	90	85	75	71	67	66	78	76	79	100	53	46	38
#195 Collyer Street	85	72	76	77	83	78	66	64	54	48	51	61	62	69	71	48	52	10
#1125 N Main Street	17	8	12	13	10	8	10	10	9	9	6	5	5	6	5	4	1	2
Job Lot (old Shaws)	97	50	52	50	50	44	45	41	23	39	37	40	39	39	39	37	36	33

Public Transportation

The Miriam Hospital campus area is served by four Rhode Island Public Transit Authority (RIPTA) fixed bus routes, including RIPTA's only rapid service route.

- R Line (Providence/Pawtucket),
- Route 1 (Eddy/Hope/Benefit),
- Route 49 (Camp Street/Miriam Hospital), and
- Route 71 (Broad Street/Pawtucket Avenue)

The routes are depicted on **Figure 2-8**. Current schedules and complete route maps are provided in the Appendix.

R-Line (Providence/Pawtucket)

The R-Line is RIPTA's only rapid service line route. Annual ridership is approximately two million¹ and is the highest of all RIPTA routes. The R-Line route starts at the Pawtucket Transit Center, connects with Kennedy Plaza, and terminates at the Providence/Cranston town line. It travels along the major arterials of North Main Street and Broad Street using transit signal prioritization to ensure timely and reliable service.

R-Line buses operate on approximately 10-minute headways during the weekday morning and evening peak hour periods, and 20-minute headways during late evenings and nights. During the weekends and holidays the R-Line operates on 15-minute headways during peak demand and 20-minute headways otherwise.

Bus stops closest to The Miriam Hospital are located along North Main Street at Third Street and Ninth Street.

Route 1 (Hope/Eddy)

Route 1 is one of RIPTA's "Key Corridor" routes. Key Corridor routes are the core routes of the RIPTA system and have the highest ridership. Annual ridership on Route 1 is approximately one million.

Route 1 begins as far south as T.F. Greene Airport and runs along Post Road and Eddy Street to Rhode Island Hospital. The route then continues north to Kennedy Plaza in downtown Providence. After Kennedy Plaza, the route continues north along Thayer Street, Hope Street, East Avenue, and George



¹ All RIPTA ridership figures cited in this report are for FY18.

Street into downtown Pawtucket. Some buses then continue as far north as the Attleboro MBTA Station via Broadway, Benefit Street, and Newport Avenue.

Route 1 operates weekdays on a 20-minute frequency during the day and 40-minute at night. Saturdays Route 1 operates on 40-minute headways, and Sunday/Holiday service is provided every 35 minutes.

Bus stops servicing The Miriam Hospital are located at the intersection of Hope Street at Chace Avenue, Ninth Street, Sixth Street, and Rochambeau Avenue.

Route 71 (Broad Street/Pawtucket Avenue)

Route 71 is one of RIPTA's local routes and one of the few that do not operate to downtown Providence. The route runs from the Pawtucket Transit Center, via Pawtucket Avenue, to the shopping plaza on Collyer Street. Annual ridership is approximately 100,000.

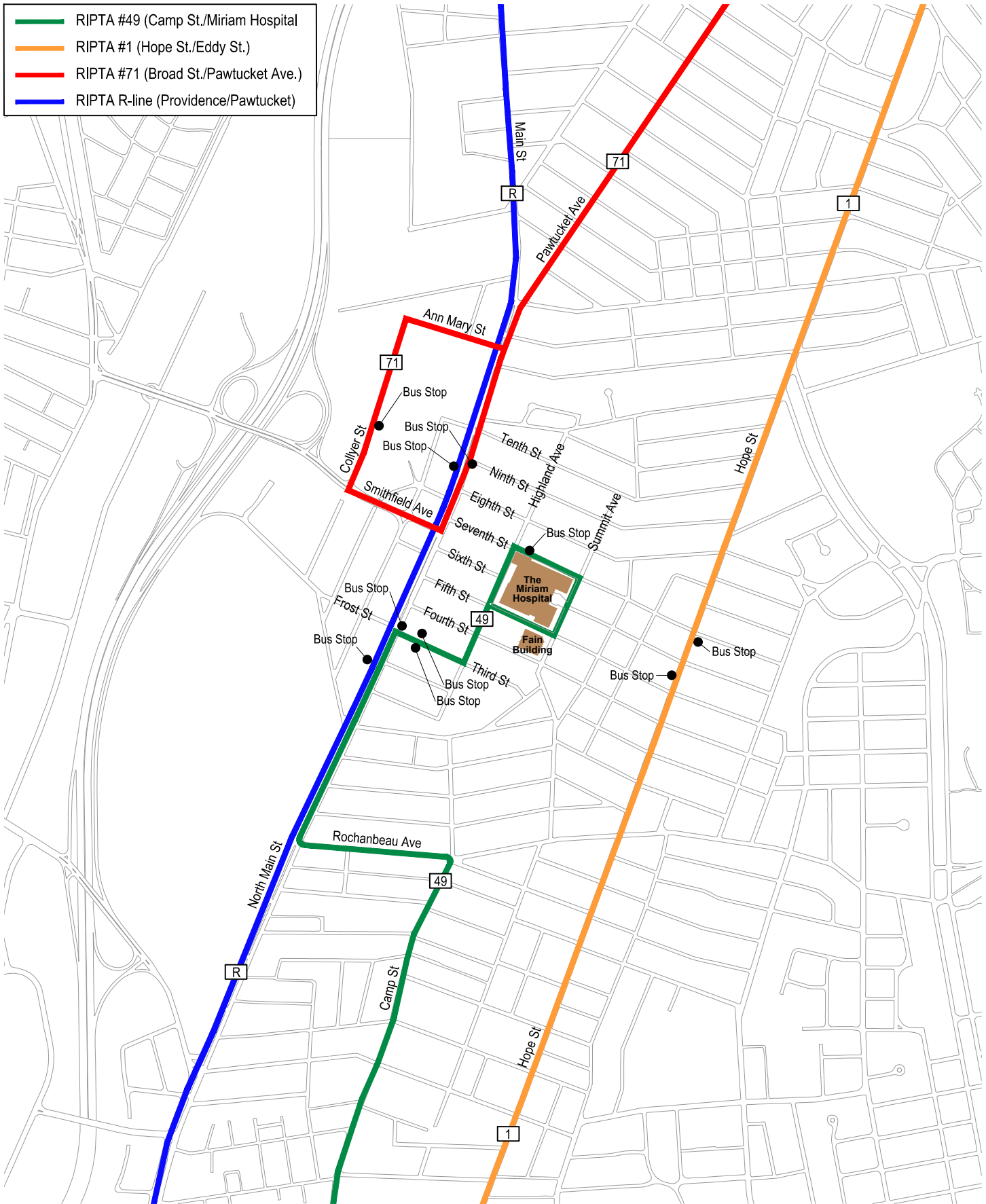
Route 71 operates at a 40-minute frequency on weekdays and a 45-minute frequency on Saturdays and Sundays. The stop at Collyer Street provides a connection to the hospital's private shuttles from its off-site parking lots.

Route 49 (Camp Street/Miriam Hospital)

RIPTA Route 49 is a local route. The route runs from Kennedy Plaza to The Miriam Hospital. There is one trip outbound to the hospital in the morning (8:45 AM) and two trips inbound from the hospital to Kennedy Plaza in the afternoon (3:10 PM and 3:56 PM). There is no service provided on weekends and holidays. Annual ridership is less than 10,000.

The route connects directly with the hospital, with a bus stop of 7th Street. It also stops on Third Street, near off-site hospital facilities at 1125 Main Street.

- RIPTA #49 (Camp St./Miriam Hospital)
- RIPTA #1 (Hope St./Eddy St.)
- RIPTA #71 (Broad St./Pawtucket Ave.)
- RIPTA R-line (Providence/Pawtucket)



Public Transportation Routes
The Miriam Hospital
Providence, Rhode Island

Figure 2-8



0 500 1000 Feet

3

Future Conditions

Projected Traffic Conditions

Projections of 2025 Future traffic volumes are shown in **Figures 3-1** and **3-2** for the weekday morning and evening peak hour conditions, respectively. The future volumes are based on existing traffic volumes with general background growth added, and consideration of project specific growth, future infrastructure improvements, and projected shifts in traffic flow due to The Miriam Hospital Institutional Master Plan. The anticipated future traffic volumes are generally very similar to existing traffic volumes, due to the minimal changes in traffic flow expected to occur.

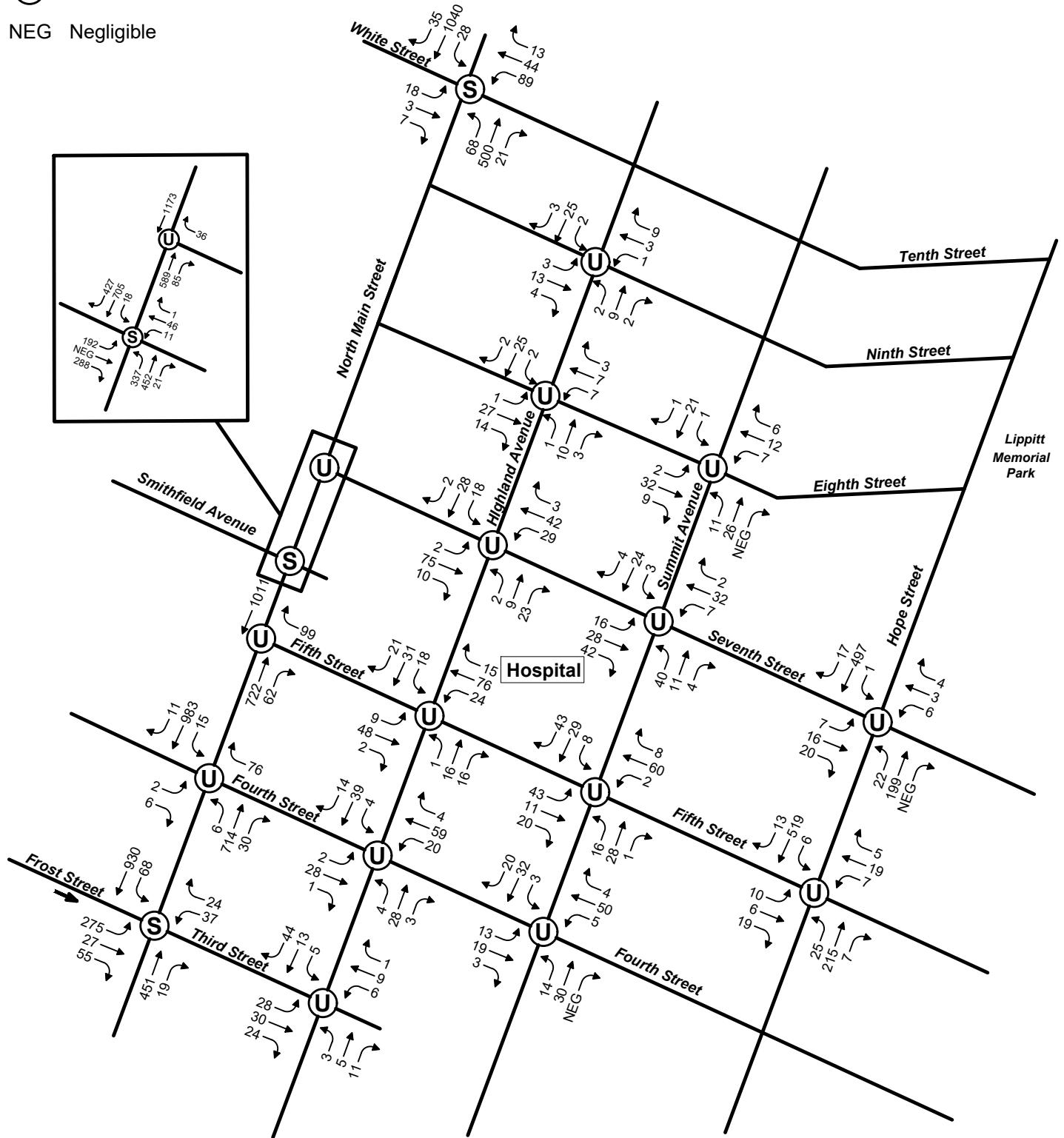
Transportation Infrastructure Improvements and Changes

Discussions with the City of Providence Department of Public Works indicated that no major transportation infrastructure improvement projects are planned within the vicinity of The Miriam Hospital campus that will have a significant impact on the study area roadways.

Regional Traffic Growth

Projected traffic volumes for 2025 were estimated by applying a general growth rate to existing volumes to reflect annual background traffic volume growth as a result of regional economic activity and development. Based on available historical traffic data, traffic volumes around the hospital premises have experienced a minimal increase. To provide for an estimate of background growth, a one-half percent per year annual growth rate was applied to develop the 2025 baseline traffic volumes around the hospital. Based on historic traffic data, traffic volumes along North Main Street and Hope Street have increased slightly greater than traffic volumes immediately surrounding the hospital. The volumes along North Main Street and Hope Street were therefore increased by an annual growth rate of one percent per year. These growth rates were applied over the six-year planning horizon to existing study-area traffic volumes.

- (S)** Signalized Intersection
- (U)** Unsignalized Intersection
- NEG Negligible



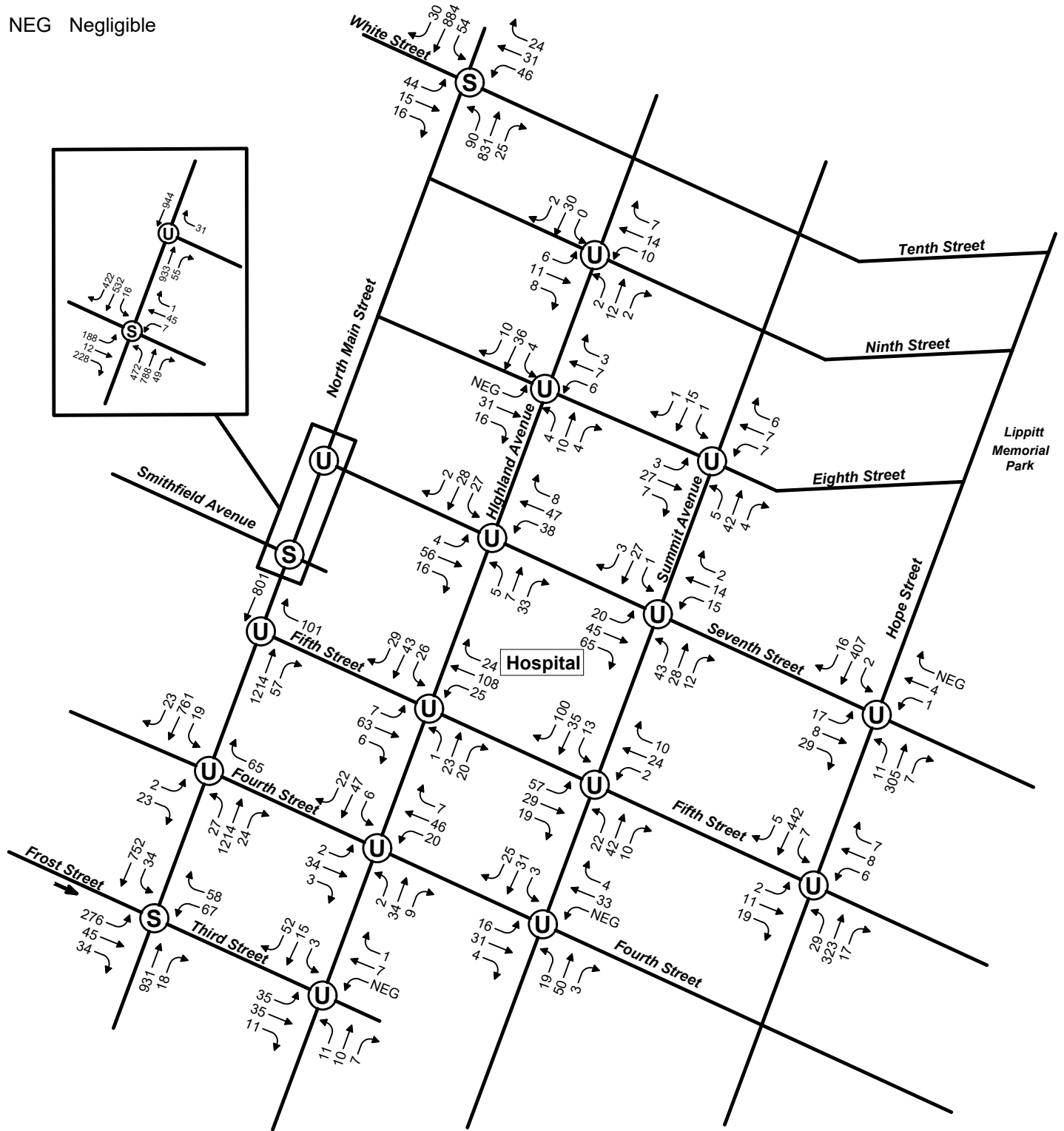
2025 Future Weekday Morning
Peak Hour Traffic Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 3-1



Not to Scale

- S** Signalized Intersection
- U** Unsignalized Intersection
- NEG Negligible



2025 Future Weekday Evening
Peak Hour Traffic Volumes
The Miriam Hospital
Providence, Rhode Island

Figure 3-2



Not to Scale

Traffic Growth Associated with Institutional Master Plan

There are no changes in the Institutional Master Plan that will affect traffic noticeably. Work currently being done on the Emergency Department is to better accommodate existing activity and any redevelopment of Building A would be to provide more single-bed rooms and reduce the number of double-rooms. The patient bed count will be maintained at 247.

Other patient activity increased sharply in past years, particularly due to the closure Memorial Hospital, but that growth has leveled off. The hospital continues efforts to decamp some administrative and outpatient activities to off-site locations. Due to the lack of changes in the IMP that will affect traffic, no specific adjustments to peak-hour future traffic volumes were made. Any minor increase in hospital traffic would be included in the assumptions of overall growth in background traffic.

2025 Future Traffic Analysis

The 2025 Future traffic volumes were analyzed at each study area intersection and the results for the signalized intersections are presented in **Table 3-1**. Existing level of service results are shown for comparison. The results generally indicate there will be a negligible difference in operations between Existing conditions and 2025 Future conditions.

Table 3-1
2025 Projected Conditions Signalized Intersection Capacity Analysis Summary

Location	Peak Hour	2019 Existing Condition			2025 Future Condition		
		V/C ¹	Delay ²	LOS ³	V/C	Delay	LOS
North Main Street at Third Street/Frost Street	Weekday Morning	0.59	11	B	0.63	11	B
	Weekday Evening	0.57	11	B	0.63	13	B
North Main Street at Smithfield Avenue	Weekday Morning	0.70	20	C	0.75	22	C
	Weekday Evening	0.82	21	C	0.88	23	C
North Main Street at Tenth Street	Weekday Morning	0.63	14	B	0.67	15	B
	Weekday Evening	0.49	11	B	0.52	12	B

Source: Synchro software using the procedures in the *Highway Capacity Manual 6th Edition*. Compiled by VHB.

1 V/C = volume to capacity ratio

2 Delay = Vehicle delay expressed in seconds per vehicle

3 LOS = Level of service

The results of the 2025 Future conditions for unsignalized intersections are presented in **Table 3-2**. As shown, there is a negligible difference in calculated delay between existing and future conditions analyzed for each intersection. All minor street approaches for the unsignalized intersections operate at a calculated LOS C or better under all analyzed conditions.

**Table 3-2
2025 Projected Conditions Unsignalized Intersection Capacity Analysis Summary**

Location	Peak Hour	Critical Movement ¹	2019 Existing			2025 Future		
			Demand ²	Delay ³	LOS ⁴	Demand ²	Delay ³	LOS ⁴
North Main Street at Fourth Street	Weekday Morning	WB R	72	12	B	76	12	B
	Weekday Evening	WB R	61	12	B	65	12	B
North Main Street at Fifth Street	Weekday Morning	WB R	93	11	B	99	11	B
	Weekday Evening	WB R	95	13	B	101	14	B
North Main Street at Seventh Street	Weekday Morning	WB R	34	10	B	36	10	B
	Weekday Evening	WB R	29	11	B	31	11	B
Highland Avenue at Third Street	Weekday Morning	All-Way	NA	8	A	NA	8	A
	Weekday Evening	All-Way	NA	8	A	NA	8	A
Highland Avenue at Fourth Street	Weekday Morning	All-Way	NA	8	A	NA	8	A
	Weekday Evening	All-Way	NA	8	A	NA	8	A
Highland Avenue at Fifth Street	Weekday Morning	All-Way	NA	8	A	NA	8	A
	Weekday Evening	All-Way	NA	8	A	NA	9	A
Highland Avenue at Seventh Street	Weekday Morning	SB LTR	46	11	B	47	11	B
	Weekday Evening	SB LTR	55	13	B	57	13	B
Highland Avenue at Eighth Street	Weekday Morning	EB LTR	41	9	A	42	9	A
	Weekday Evening	EB LTR	45	10	A	46	10	A
Highland Avenue at Ninth Street	Weekday Morning	All-Way	NA	7	A	NA	8	A
	Weekday Evening	All-Way	NA	9	A	NA	8	A
Summit Avenue at Fourth Street	Weekday Morning	All-Way	NA	8	A	NA	8	A
	Weekday Evening	All-Way	NA	8	A	NA	8	A
Summit Avenue at Fifth Street	Weekday Morning	All-Way	NA	8	A	NA	8	A
	Weekday Evening	All-Way	NA	8	A	NA	9	A
Summit Avenue at Seventh Street	Weekday Morning	EB LTR	84	10	B	87	10	B
	Weekday Evening	EB LTR	126	11	B	130	11	B
Summit Avenue at Eighth Street	Weekday Morning	EB LTR	35	10	A	36	10	A
	Weekday Evening	EB LTR	36	10	A	37	10	A
Hope Street at Fifth Street	Weekday Morning	WB LTR	30	22	C	32	25	C
	Weekday Evening	WB LTR	21	19	C	22	21	C
Hope Street at Overhill Road	Weekday Morning	WB LTR	13	16	C	14	18	C
	Weekday Evening	WB LTR	5	17	C	5	18	C

Source: Synchro software using the procedures in the *Highway Capacity Manual 6th Edition*. Compiled by VHB.

- 1 L= Left-turn movement, T= Through movement, R= Right-turn movement
- 2 Demand = Demand of critical movement, expressed in vehicles per hour
- 3 Delay = Vehicle delay expressed in seconds per vehicle
- 4 LOS = Level of service

Projected Parking Conditions

With no anticipated increases in patient activity or staffing, the patient/visitor parking demand at The Miriam Hospital is expected to remain essentially unchanged. Free valet parking will remain in effect to ensure that off-street parking continues to be a convenient choice for patients and visitors. If patient/visitor parking demand were to increase, then an option for the valet operation could be to store some cars in the Seventh Street Lot during the morning. The Seventh Street Lot is not fully parked until about 2:30 PM and patient/visitor parking tends to peak earlier in the day.

Prohibitions against on-street parking by employees will remain in effect and most employees will continue to park in off-site lots. The hospital's off-site parking lots have about 100 spaces available. No increases in the number of employees is anticipated. Nevertheless, the increase in employee parking from 2015 to 2019 was only 40 spaces so a similar increase can be accommodated with the existing parking supply.

Findings and Recommendations

Traffic and On-Street Parking

The analysis of existing and future traffic conditions found that all the intersections in the study area do and will operate at a good level of service (LOS C or better) and there are no recommendations needed in that regard. However, based on observations made during the course of the study there are several recommendations focused on safety and clarity of regulatory information.

- Provide for all-way stop control at Summit Avenue and Seventh Street. It is a gateway intersection for the hospital where pedestrian and vehicles converge and has several decision points for those driving to the hospital (e.g., where's the building entrance? where's parking?). The intersection currently has stop signs only on the Seventh Street approach although most intersections in the study area are all-way stop control. In fact, many drivers on Highland Avenue are unsure and stop at the intersection anyway. Installing stop signs on all approaches would reduce unexpected vehicle-vehicle and vehicle-pedestrian conflicts.
- Update on-street parking regulatory signage. Some of the parking regulation signs are faded or missing and it can be difficult for visitors to correctly discern the parking regulations. It is recommended that the hospital work with the neighbors and the City of Providence to review the condition and location existing signs and replace those that are missing or illegible.
- Enforcement of parking near intersections. It was observed during the study that vehicles are often standing or parked too close to intersections. It is recommended that the hospital work with the City to have better signage and markings installed near the intersections so that drivers are more aware of the prohibition and enforcement can be done more effectively.



Hospital Parking

The hospital has only one employee parking lot on site and all other employee parking is among off-site lots served by shuttle buses. Over the years the hospital has met any increase in employee parking demand by purchasing/leasing additional off-site parking and this would continue if needed. However, there are currently more than 100 employee parking spaces available in the hospital parking lots west of North Main Street and this surplus is expected to be sufficient for the foreseeable future. Employee parking demand increased by only 40 cars during the past four years.

The only recommendation regarding employee parking is to establish a formal process to monitor the reliability of the shuttle service and periodically assess the effectiveness of the schedule and routing. There were some concerns voiced during the study regarding long trip times from the parking lot to the hospital, particularly when routes include stops at both the Arena Lot and the lots west of North Main Street.

The hospital provides valet parking for patients and visitors as a convenience for those parkers as well to supplement the capacity of the hospital's two patient/visitor parking lots at the hospital main entrance on Highland Avenue. Recommendations regarding the patient/visitor parking focus on making the parking options more apparent to drivers and on providing more self-parking capacity for patients and visitors.

- Improved signage for Lots B and C. Visitors can self-park in these two Highland Avenue lots but they are not readily identified as such and it appears that some visitors instead park on street. It is also recommended that there be signage to inform drivers if the lot is full and where they might instead park.
- Relocate the valet attendant station in Lot B. The valet station in Lot B is located at the Highland Avenue entrance to the lot. This makes it appear to some that the parking lot is for valet use only, rather than a mix of self-parking and valet use. The valet station should be located closer to the parking lot exit on Sixth Street. Doing so improves visibility of the self-parking option and allows the valet attendants to direct parkers to other options should those drivers find the parking lot to be full.
- Maximize the amount of self-parking in Lot B. One-third to one-half of Lot B is used for storage of valet-parked vehicles. Converting some of the valet parking area to self-parking would reduce the need for visitors to park on street. A longer-term recommendation is that the hospital study options for moving some of the valet-parked cars to the Seventh Street Lot. There may be options to park some cars in the aisles or dedicate some spaces for the valet-parked cars, particularly in the morning and early afternoon prior to shift change.